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Electronic Comprehensive Validation Package (eCVP)

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COMPREHENSIVE VALIDATION PACKAGE

Modified TO-15

INVENTORY SHEET

Work Order #: 1606298A

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Comments:

Completed by:

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

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WORK ORDER #: 1606298A

Work Order Summary

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

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	B7IA-1(061016)	Modified TO-15	5.3 "Hg	4.8 psi
01AA	B7IA-1(061016) Lab Duplicate	Modified TO-15	5.3 "Hg	4.8 psi
02A	B7IA-1D(061016)	Modified TO-15	5.7 "Hg	5.2 psi
03A	B7IA-2(061016)	Modified TO-15	5.1 "Hg	4.8 psi
04A	B7IA-3(061016)	Modified TO-15	8.4 "Hg	5.1 psi
05A	B7IA-4(061016)	Modified TO-15	4.9 "Hg	4.9 psi
06A	B7IA-5(061016)	Modified TO-15	6.1 "Hg	5.1 psi
07A	B7IA-6(061016)	Modified TO-15	3.7 "Hg	5 psi
08A	B7AA(061016)	Modified TO-15	8.8 "Hg	4.8 psi
09A	Lab Blank	Modified TO-15	NA	NA
10A	CCV	Modified TO-15	NA	NA
11A	LCS	Modified TO-15	NA	NA
11AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Mayo

Technical Director

DATE: 06/24/16

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-15-9, UT NELAP CA0093332015-6, VA NELAP - 8113, WA NELAP - C935
Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
Accreditation number: CA300005, Effective date: 10/18/2015, Expiration date: 10/17/2016.
Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
Modified TO-15
Anderson Mulholland & Associates, Inc.
Workorder# 1606298A

Eight 6 Liter Summa Canister (100% Certified) samples were received on June 14, 2016. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

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

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

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

Analytical Notes

As per project specific client request the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. All the canisters used for this project have been certified to the Reporting Limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Table 1

Client Sample ID	Lab Sample ID	Date Collected	Date Received	Date Extracted	Sample Holding Time (Days)	Sample Extract Date Analyzed	Sample Extract Holding Time (Days)	Sample Condition
B7IA-1(061016)	1606298A-01A	6/11/2016	6/14/2016	NA	4	6/15/2016	NA	Good
B7IA-1(061016) Lab Dup	1606298A-01AA	6/11/2016	6/14/2016	NA	5	6/16/2016	NA	Good
B7IA-1D(061016)	1606298A-02A	6/11/2016	6/14/2016	NA	4	6/15/2016	NA	Good
B7IA-2(061016)	1606298A-03A	6/11/2016	6/14/2016	NA	4	6/15/2016	NA	Good
B7IA-3(061016)	1606298A-04A	6/11/2016	6/14/2016	NA	4	6/15/2016	NA	Good
B7IA-4(061016)	1606298A-05A	6/11/2016	6/14/2016	NA	4	6/15/2016	NA	Good
B7IA-5(061016)	1606298A-06A	6/11/2016	6/14/2016	NA	5	6/16/2016	NA	Good
B7IA-6(061016)	1606298A-07A	6/11/2016	6/14/2016	NA	5	6/16/2016	NA	Good
B7AA(061016)	1606298A-08A	6/11/2016	6/14/2016	NA	5	6/16/2016	NA	Good
Lab Blank	1606298A-09A	NA	NA	NA	NA	6/15/2016	NA	Good
CCV	1606298A-10A	NA	NA	NA	NA	6/15/2016	NA	Good
LCS	1606298A-11A	NA	NA	NA	NA	6/15/2016	NA	Good
LCSD	1606298A-11AA	NA	NA	NA	NA	6/15/2016	NA	Good

Sample Results and Raw Data

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

Client Sample ID: B7IA-1(061016)

Lab ID#: 1606298A-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.80	2.4
Chloromethane	0.80	1.0	1.7	2.2
Freon 11	0.16	7.8	0.90	44
Ethanol	0.80	8.0	1.5	15
Freon 113	0.16	0.064 J	1.2	0.49 J
Acetone	0.80	14	1.9	34
2-Propanol	0.80	2.6	2.0	6.3
Methylene Chloride	0.32	0.19 J	1.1	0.66 J
Hexane	0.16	0.10 J	0.57	0.36 J
2-Butanone (Methyl Ethyl Ketone)	0.80	2.7	2.4	7.9
Carbon Tetrachloride	0.16	0.070 J	1.0	0.44 J
Benzene	0.16	0.091 J	0.51	0.29 J
Heptane	0.16	0.17	0.66	0.70
4-Methyl-2-pentanone	0.16	0.12 J	0.66	0.50 J
Toluene	0.16	2.2	0.61	8.4
2-Hexanone	0.80	0.38 J	3.3	1.5 J
Ethyl Benzene	0.16	0.051 J	0.70	0.22 J
m,p-Xylene	0.16	0.12 J	0.70	0.52 J
o-Xylene	0.16	0.050 J	0.70	0.22 J
Styrene	0.16	0.034 J	0.68	0.14 J
4-Ethyltoluene	0.16	0.036 J	0.79	0.18 J
1,2,4-Trimethylbenzene	0.16	0.051 J	0.79	0.25 J
Naphthalene	0.80	0.028 J	4.2	0.15 J

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Client Sample ID: B7IA-1(061016)

Lab ID#: 1606298A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061514**	**Date of Collection:**	**6/11/16 6:50:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**6/15/16 08:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.48	0.80	2.4
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	1.0	1.7	2.2
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	7.8	0.90	44
Ethanol	0.80	8.0	1.5	15
Freon 113	0.16	0.064 J	1.2	0.49 J
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	14	1.9	34
2-Propanol	0.80	2.6	2.0	6.3
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.19 J	1.1	0.66 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.10 J	0.57	0.36 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	2.7	2.4	7.9
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	0.070 J	1.0	0.44 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.091 J	0.51	0.29 J
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	0.17	0.66	0.70
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	0.12 J	0.66	0.50 J
Toluene	0.16	2.2	0.61	8.4
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	0.38 J	3.3	1.5 J

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Client Sample ID: B7IA-1(061016)

Lab ID#: 1606298A-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061514**	**Date of Collection:**	**6/11/16 6:50:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**6/15/16 08:15 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	0.051 J	0.70	0.22 J
m,p-Xylene	0.16	0.12 J	0.70	0.52 J
o-Xylene	0.16	0.050 J	0.70	0.22 J
Styrene	0.16	0.034 J	0.68	0.14 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	0.036 J	0.79	0.18 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.051 J	0.79	0.25 J
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Naphthalene	0.80	0.028 J	4.2	0.15 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130

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EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061514.d
Lab Smp Id: 1606298A-01A
Inj Date : 15-JUN-2016 20:15
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL #6L1283
Misc Info : 5.3"Hg -> 4.8psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	107202	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	82961			47.16- 107.16	77.39
16.726	16.726 (1.000)	49	130717			84.74- 144.74	121.94
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	475605	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	75192			0.00- 45.65	15.81
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	398396	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	222236			24.05- 84.05	55.78
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	160696	5.63460	5.634	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	82384			28.75- 88.75	51.27
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.821	20.821 (1.142)	98	455993	5.05964	5.060	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	52527			0.00- 41.22	11.52

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    307425                    37.90-  97.90    67.42
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    208340 4.75648    4.756  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    253098                   88.33- 148.33   121.48
 25.485  25.485 (1.073)   176    202354                   68.77- 128.77    97.13
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.696   4.672 (0.281)    85     25001 0.29692   0.4780  80.00- 120.00   100.00
  4.672   4.648 (0.279)    87      4304                     2.50-  62.50    17.22
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.625   6.552 (0.396)    50     17913 0.65427    1.053  80.00- 120.00   100.00
  6.601   6.552 (0.395)    52      6613                     3.09-  63.09    36.92
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101    403000 4.87126    7.843  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    260350                   34.69-  94.69    64.60
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45     54568 4.99998    8.050  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46     22574                   11.01-  71.01    41.37
 12.296  12.269 (0.735)    43     11821                    0.00-  50.63    21.66
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.763)   151      2419 0.03989  0.06422  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      1593                   34.65-  94.65    65.87
 12.763  12.763 (0.763)   101      2879                   90.37- 150.37   119.01
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58    144531 9.02602   14.532  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    441967                  275.09- 335.09   305.79
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.532 (0.811)    45     81574 1.58361    2.550  80.00- 120.00   100.00
 13.560  13.532 (0.811)    43     17756                    0.00-  49.91    21.77
 13.560  13.532 (0.811)    59      3446                    0.00-  34.18     4.22
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.054  14.027 (0.840)    84      4098 0.11757   0.1893  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      5169                   88.46- 148.46   126.13
 14.054  14.027 (0.840)    51      1578                    6.78-  66.78    38.50
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57      3325 0.06392   0.1029  80.00- 120.00   100.00(a)
```

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

   78 Hexane (continued)
 14.933  14.878 (0.893)    43     11709                    31.00-  91.00   352.06
 14.878  14.878 (0.889)    86       382                     0.00-  49.39    11.49
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72     28491 1.66930    2.688  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    112046                   324.50- 384.50   393.26
 16.344  16.344 (0.977)    57      8942                     0.00-  59.24    31.38
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      2544 0.04370  0.07036  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      2196                    73.36- 133.36    86.34
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.620  17.620 (0.966)    78      6223 0.05650  0.09096  80.00- 120.00   100.00(a)
 17.620  17.620 (0.966)    77      1526                     0.00-  53.54    24.54
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.867  17.847 (0.980)    57      3314 0.10667   0.1717  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100       371                    10.87-  70.87    11.21
 17.867  17.847 (0.980)    43     10171                   148.15- 208.15   306.85
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.556 (1.128)    43      5887 0.07520   0.1211  80.00- 120.00   100.00(a)
 20.572  20.556 (1.128)    58      2516                    11.51-  71.51    42.75
 20.588  20.556 (1.129)    85       877                     0.00-  48.80    14.91
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91    175200 1.38969    2.237  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92    103461                    30.55-  90.55    59.05
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.406  22.406 (0.943)    58      9669 0.23473   0.3779  80.00- 120.00   100.00(a)
 22.406  22.406 (0.943)    43     15387                   146.44- 206.44   159.14
 22.406  22.406 (0.943)   100      1981                     0.00-  54.43    20.49
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.905 (1.006)   106      1554 0.03148  0.05069  80.00- 120.00   100.00(a)
 23.905  23.905 (1.006)    91      4148                   278.69- 338.69   266.86
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106      4008 0.07443   0.1198  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91      8335                   164.82- 224.82   207.95
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106      1641 0.03113  0.05012  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
171 o-Xylene (continued)							
24.710	24.710 (1.040)	91	3105			174.08- 234.08	189.20
172 Styrene					CAS #: 100-42-5		
24.730	24.730 (1.041)	104	1701	0.02096	0.03375	80.00- 120.00	100.00(a)
24.751	24.730 (1.042)	78	1180			19.76- 79.76	69.39
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	3003	0.02212	0.03561	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	1117			0.68- 60.68	37.19
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	3757	0.03167	0.05099	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1702			18.29- 78.29	45.30
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	2260	0.01765	0.02841	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	505			0.00- 43.33	22.34

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: msd20.i
Lab File ID: 20061514.d
Lab Smp Id: 1606298A-01A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.3"Hg -> 4.8psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	107202	-8.83
123 1,4-Difluorobenze	491034	294620	687448	475605	-3.14
163 Chlorobenzene-d5	413171	247903	578439	398396	-3.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:14

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-01A
Level: LOW Operator: mjs
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.3"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.634	112.69	70-130
$ 146 Toluene-d8	5.000	5.060	101.19	70-130
$ 177 4-Bromofluorobenze	5.000	4.756	95.13	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

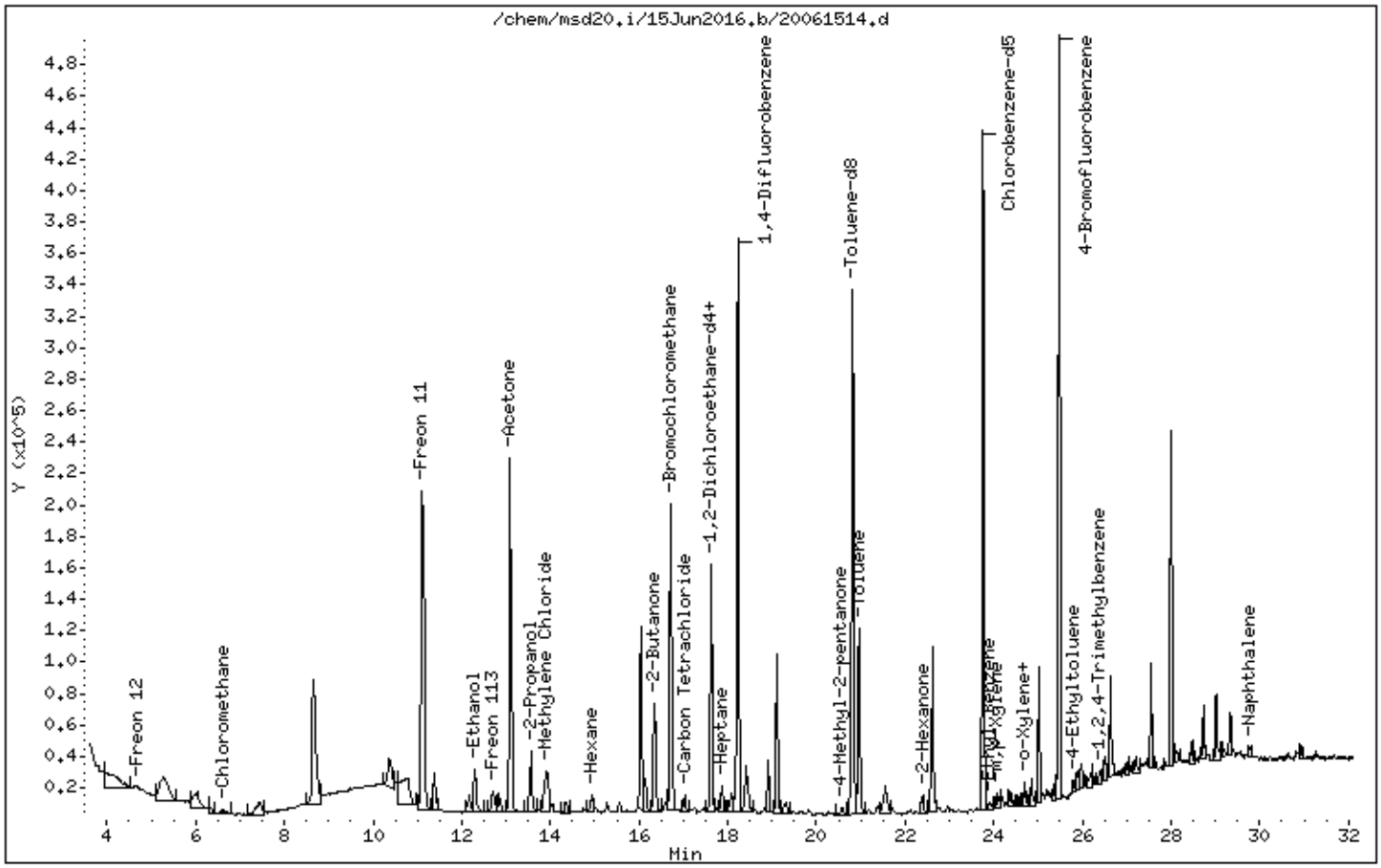
Instrument: msd20.i

Sample Info: 250mL #6L1283

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

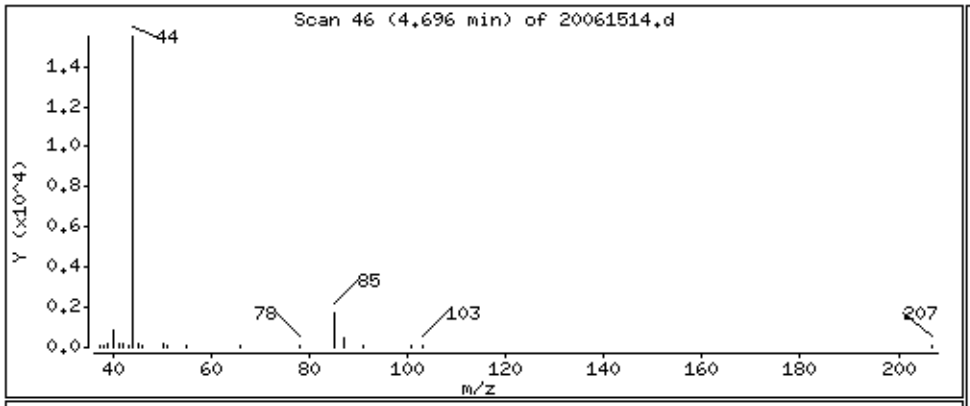
Operator: mjs

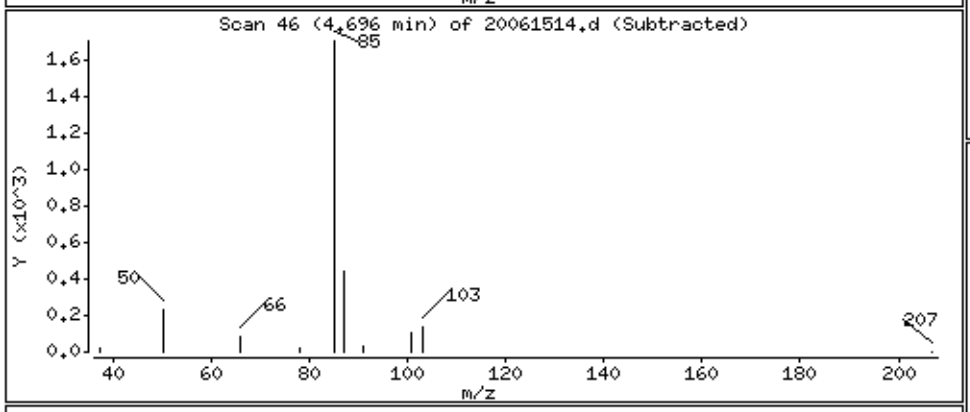
Column phase: RTX-624

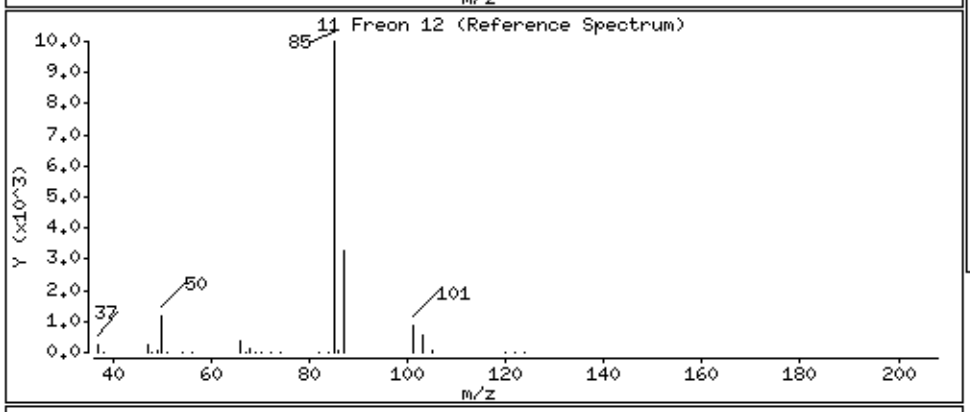
Column diameter: 0.32

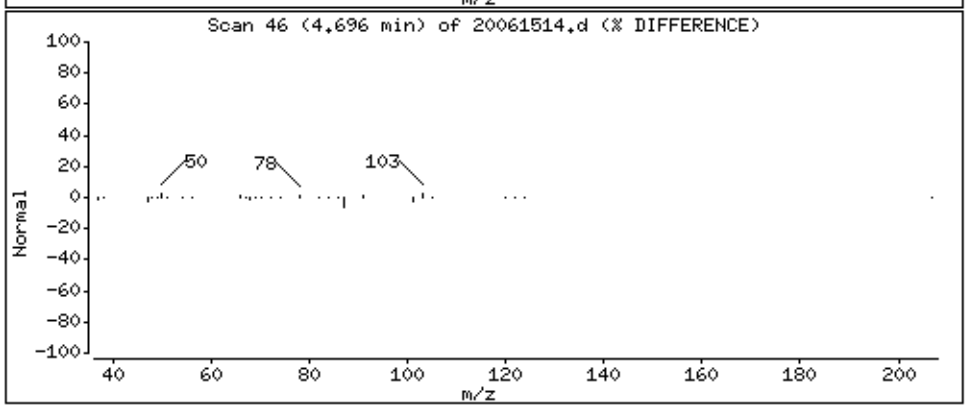
11 Freon 12

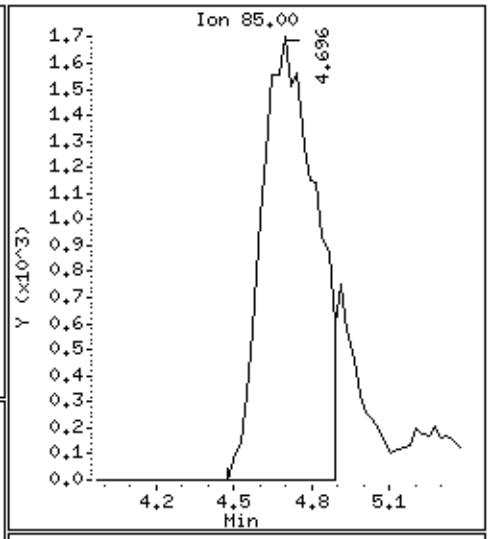
Concentration: 0.4780 PPBV

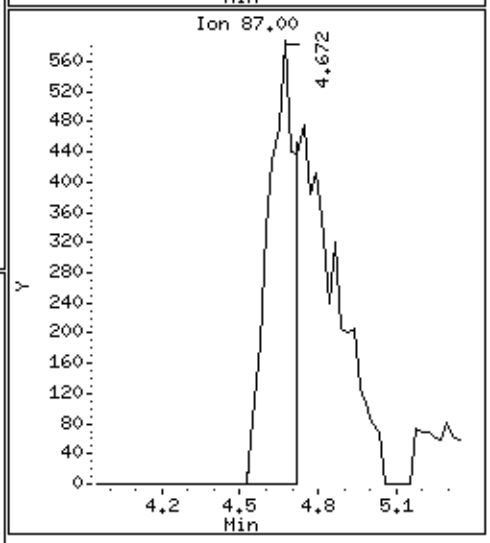












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

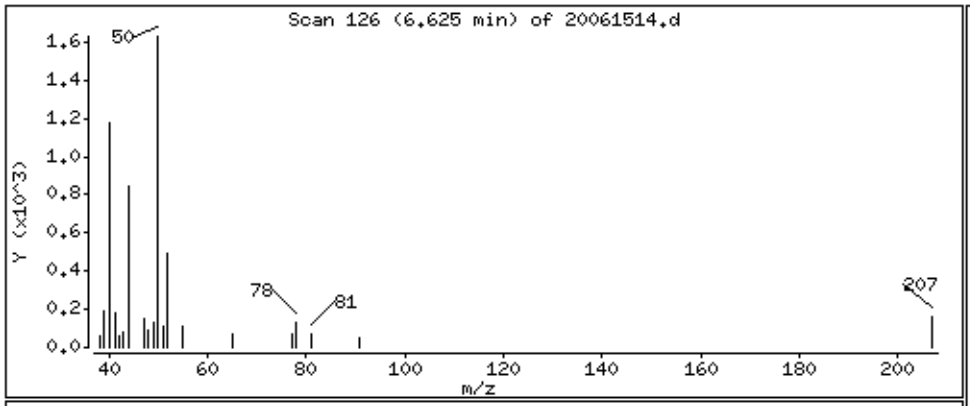
Operator: mjs

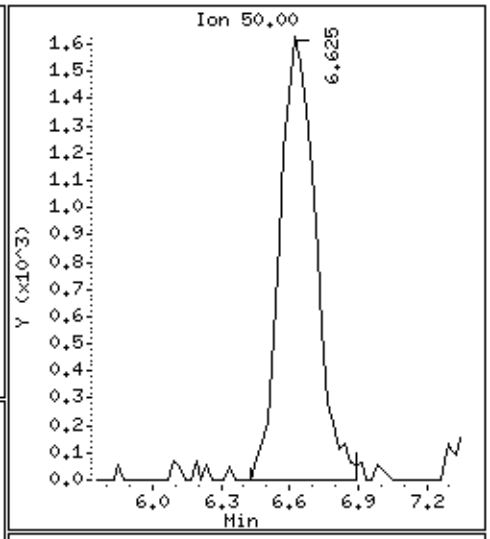
Column phase: RTX-624

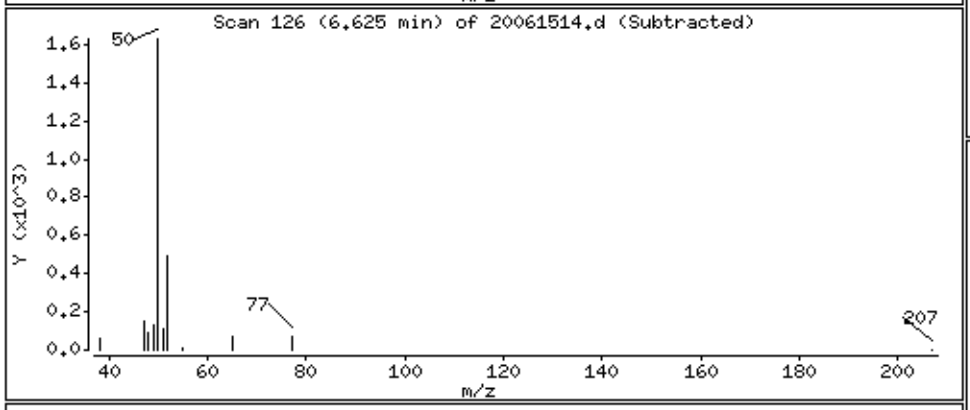
Column diameter: 0.32

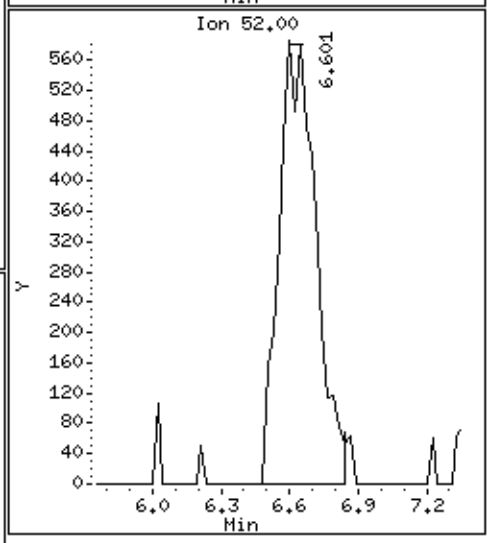
17 Chloromethane

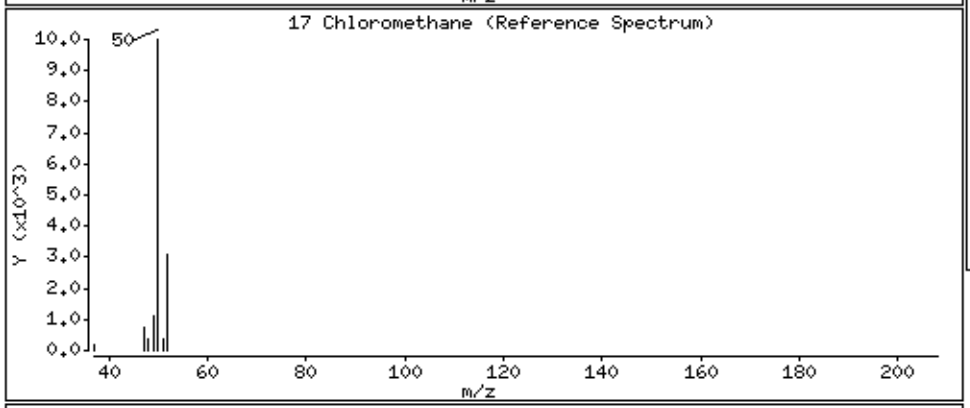
Concentration: 1.053 PPBV

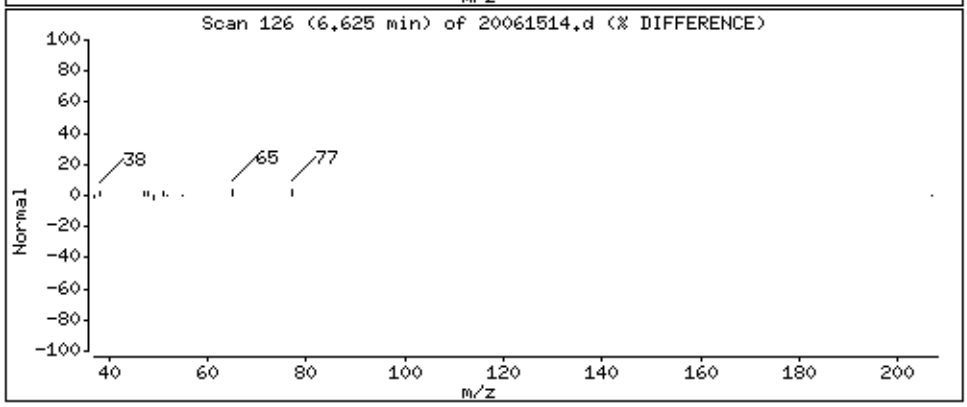












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

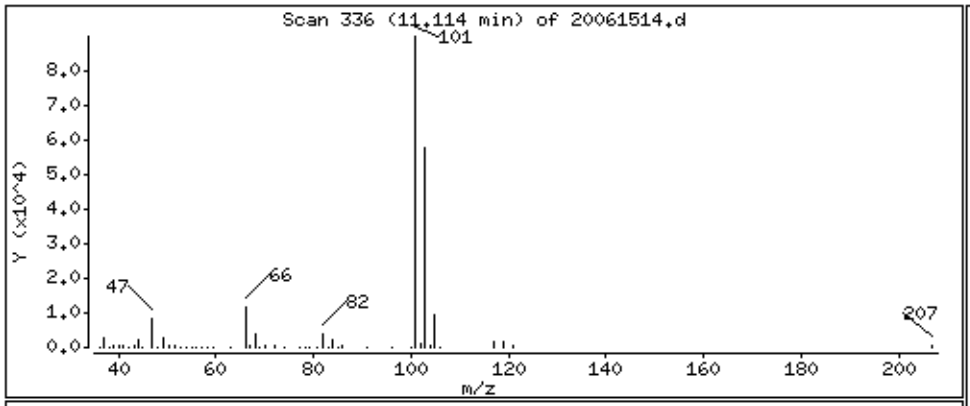
Operator: mjs

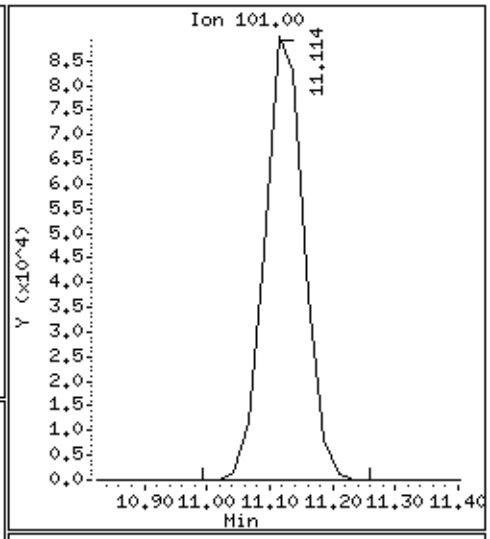
Column phase: RTX-624

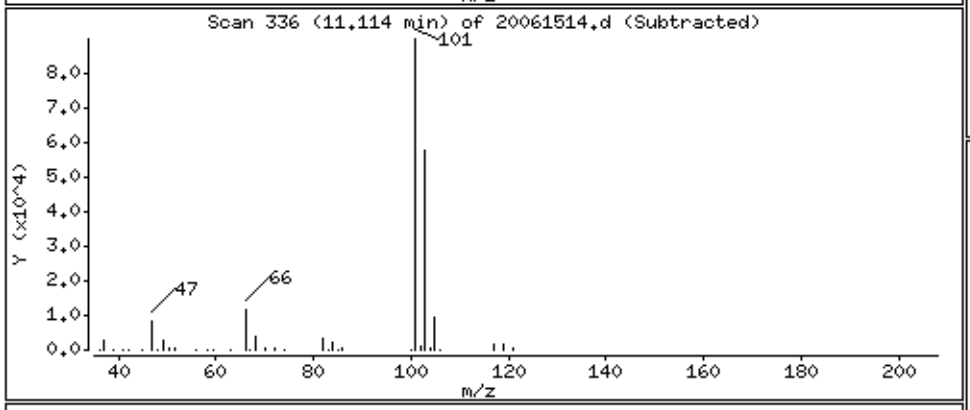
Column diameter: 0.32

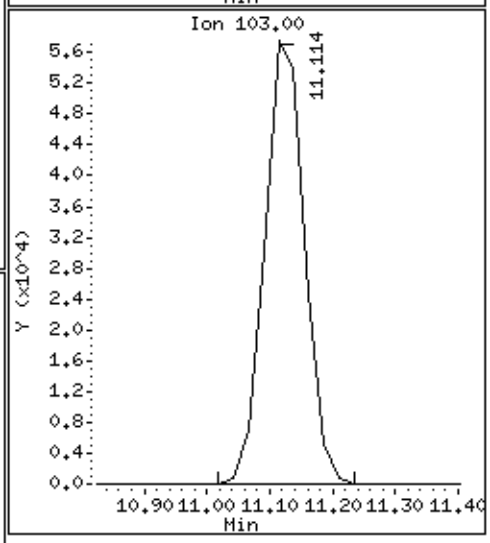
35 Freon 11

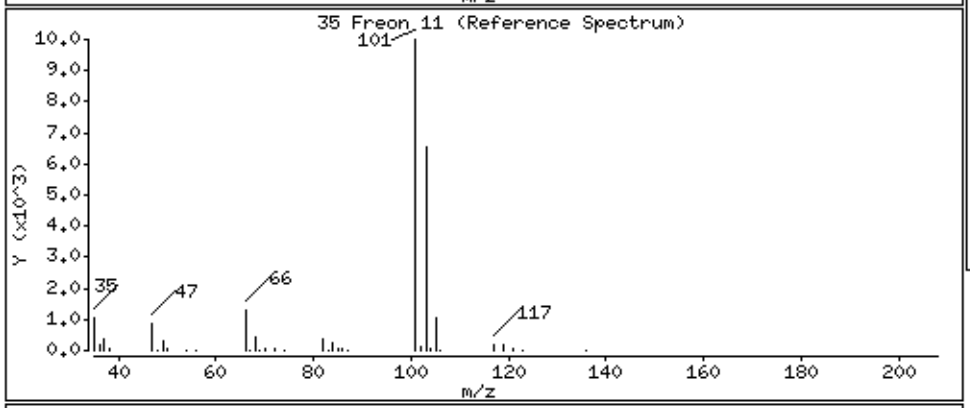
Concentration: 7.843 PPBV

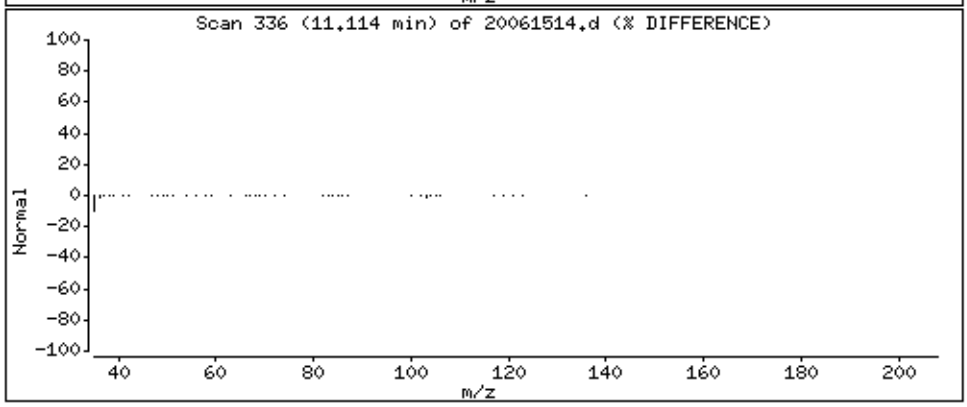












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

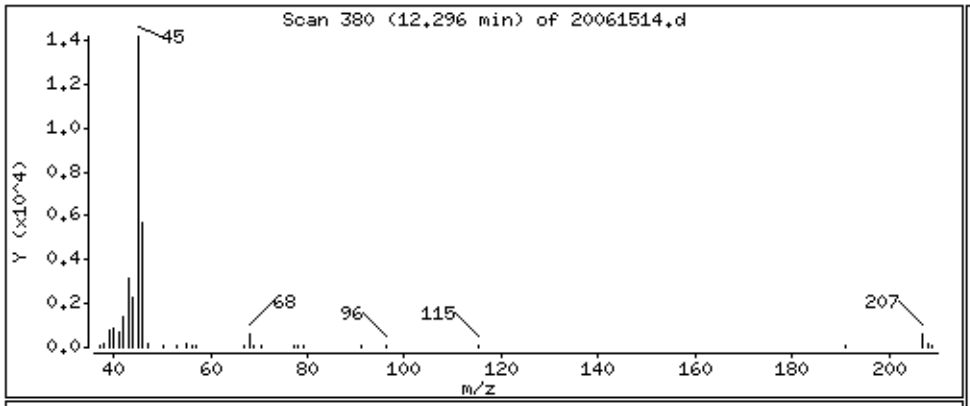
Operator: mjs

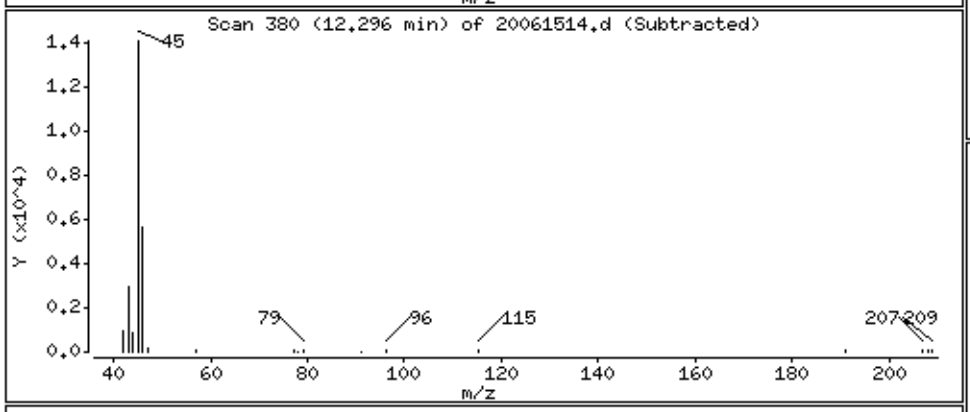
Column phase: RTX-624

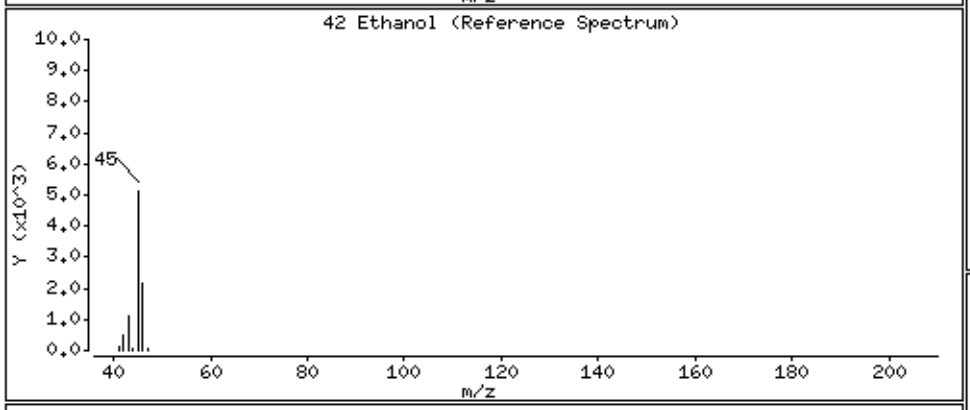
Column diameter: 0.32

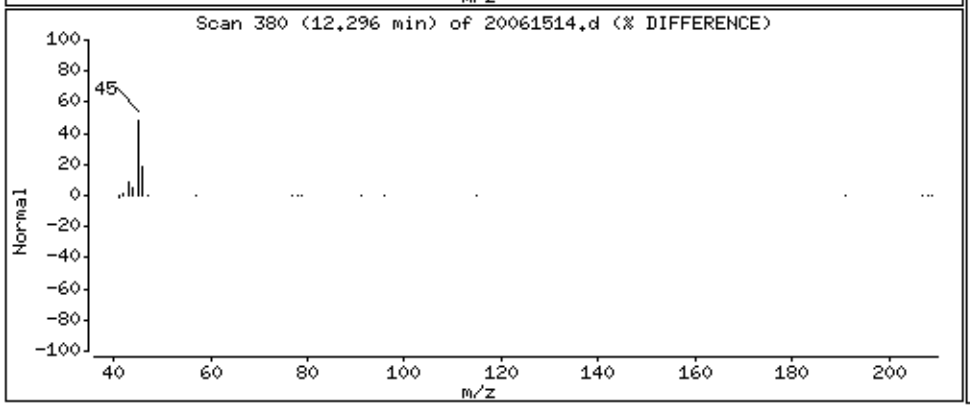
42 Ethanol

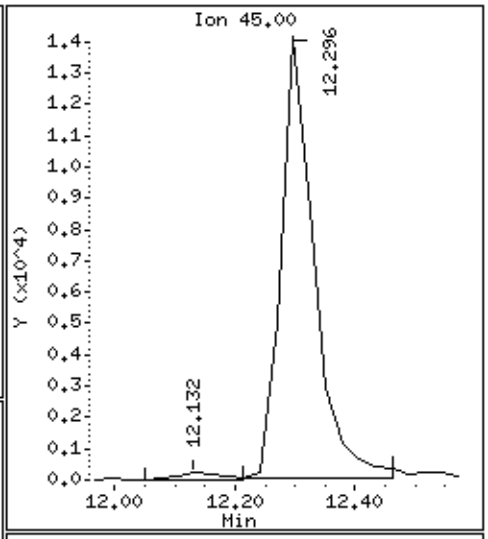
Concentration: 8.050 PPBV

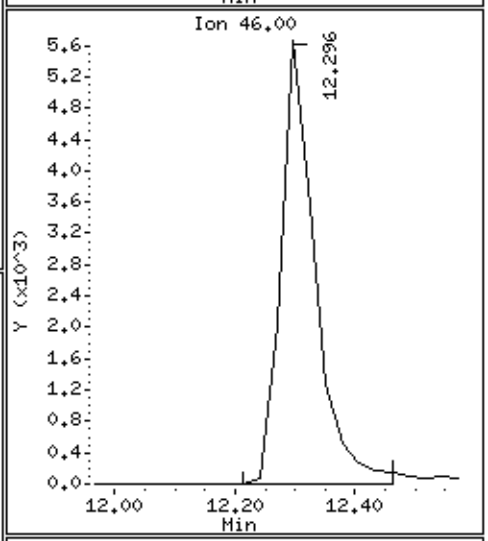


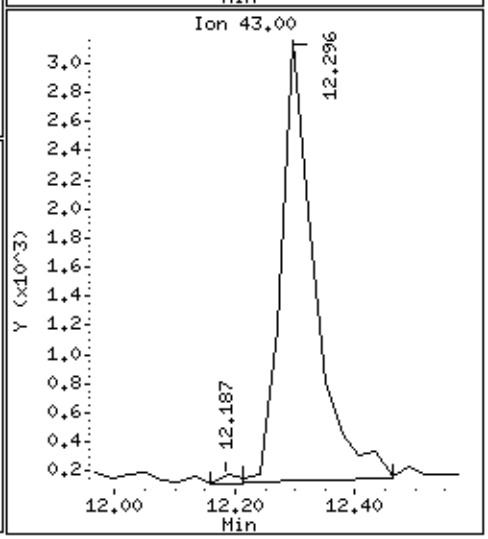












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

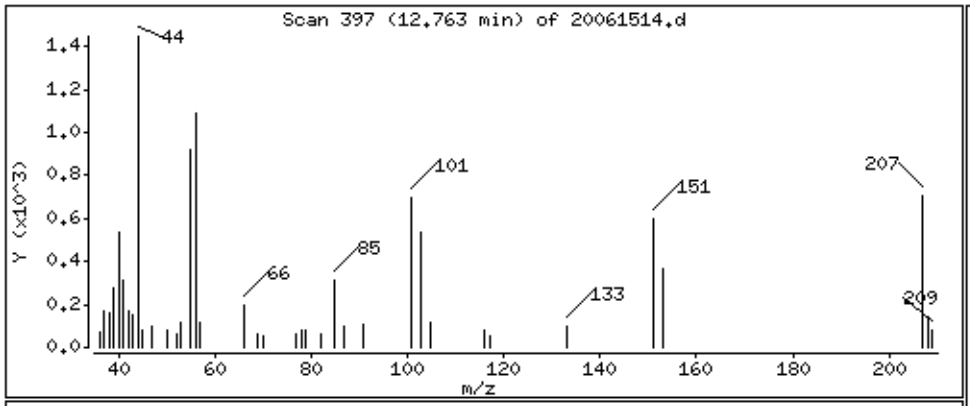
Operator: mjs

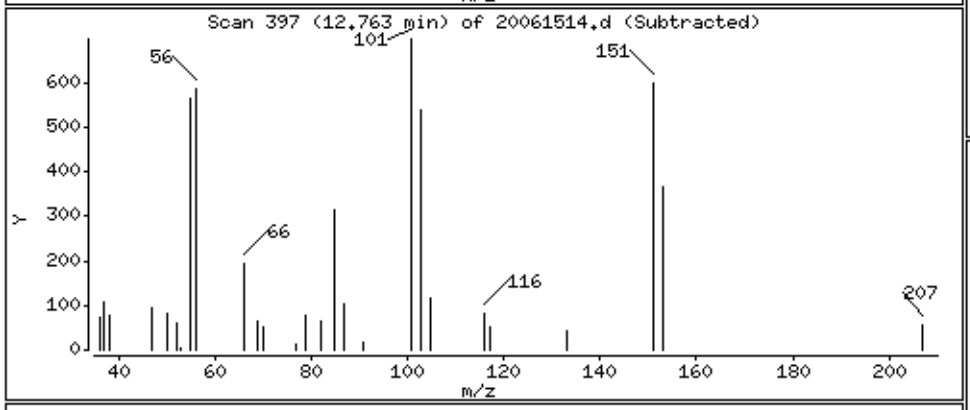
Column phase: RTX-624

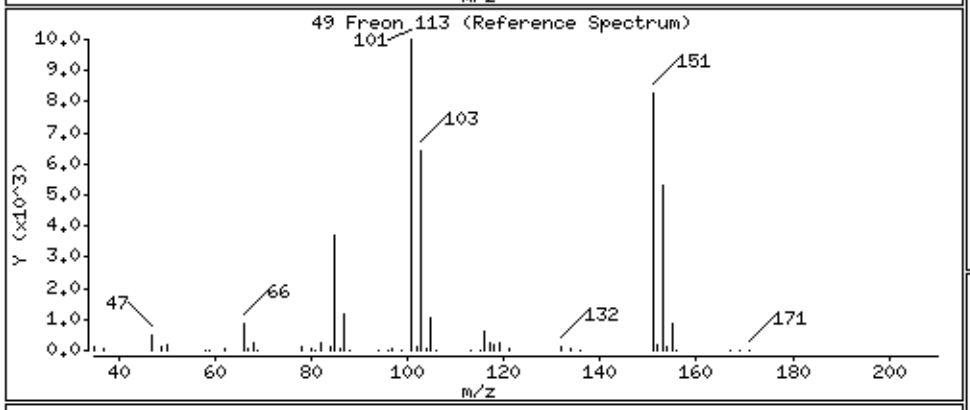
Column diameter: 0.32

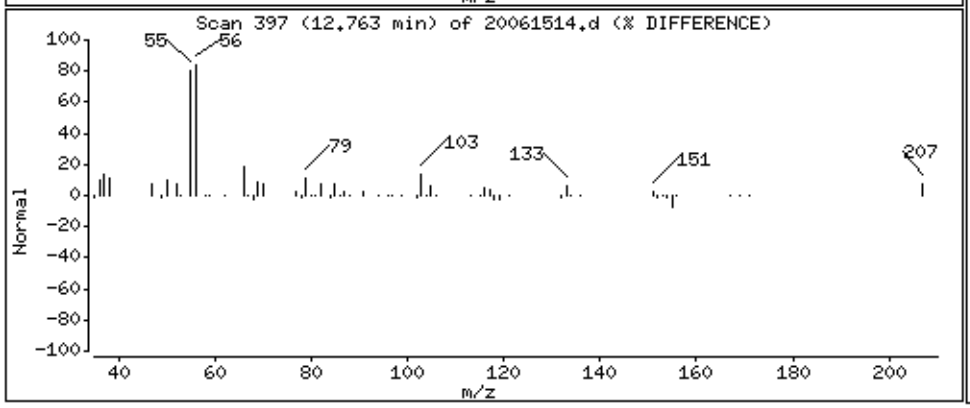
49 Freon 113

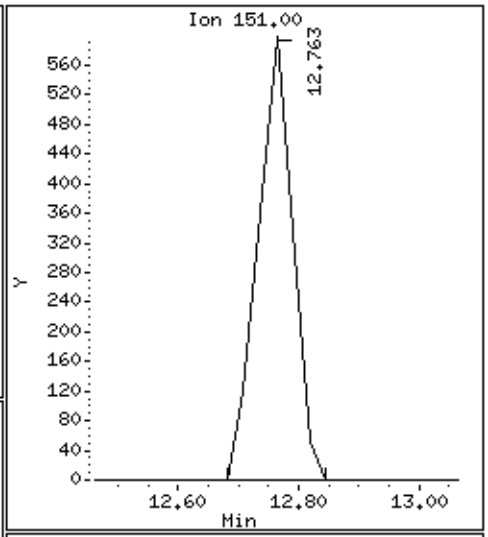
Concentration: 0.06422 PPBV

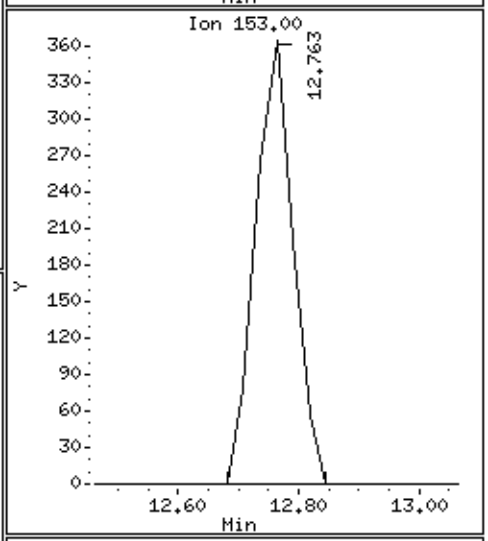


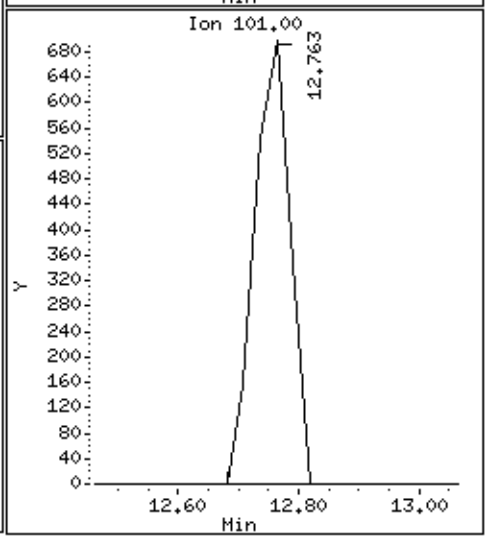












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

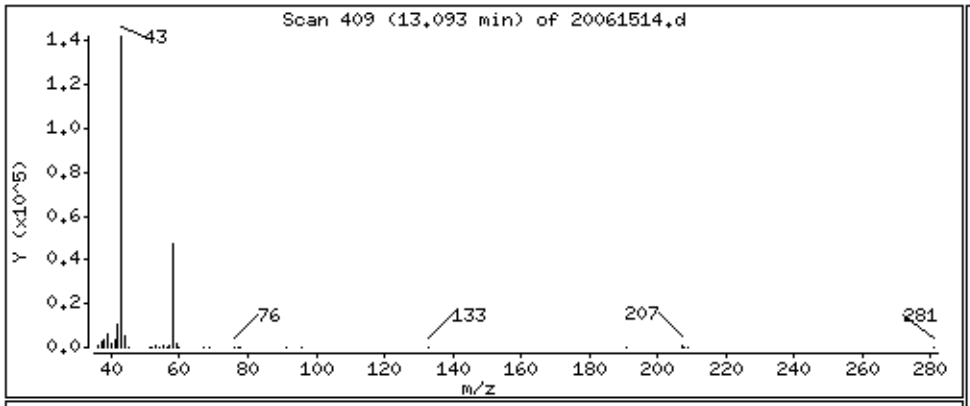
Operator: mjs

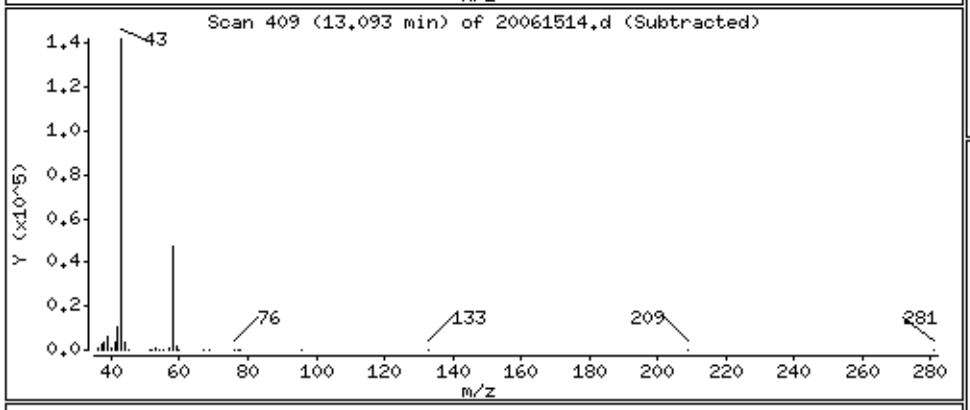
Column phase: RTX-624

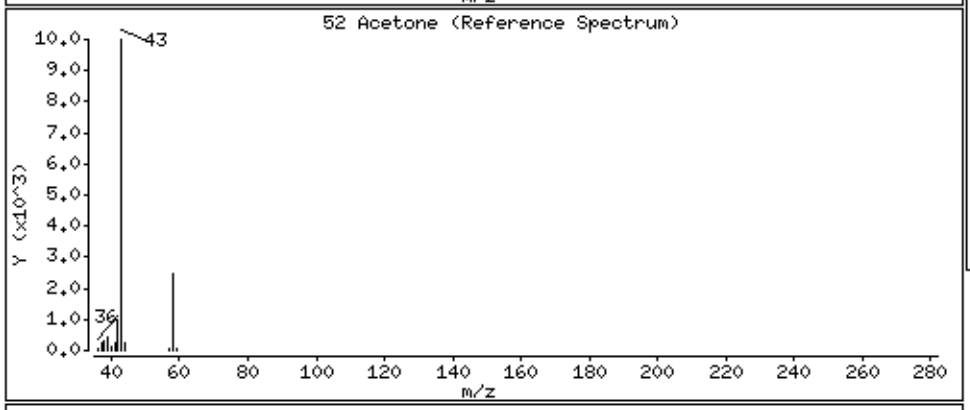
Column diameter: 0.32

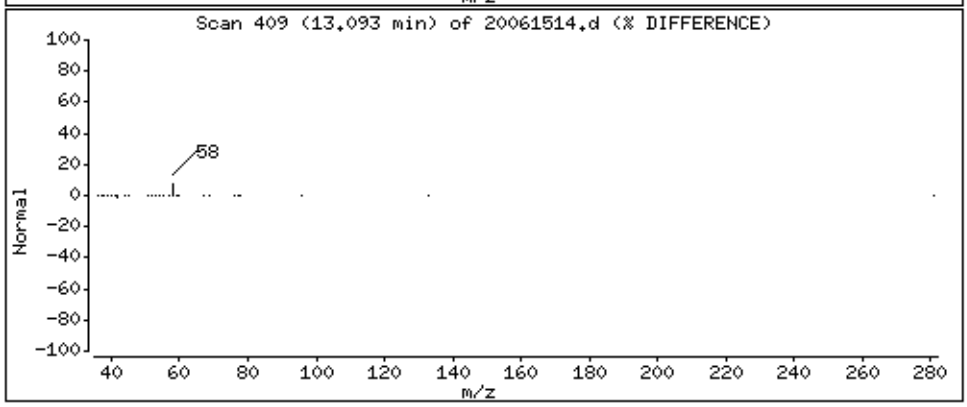
52 Acetone

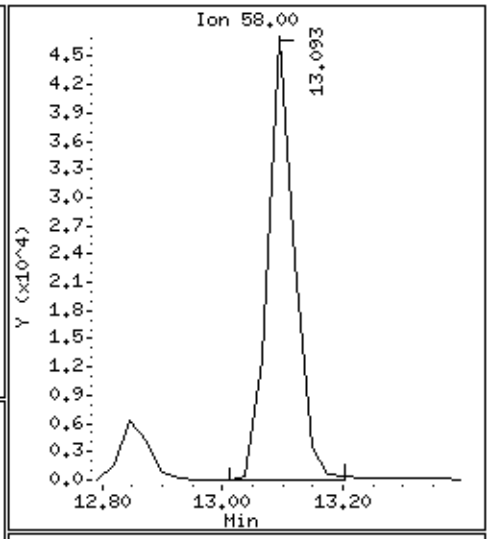
Concentration: 14.532 PPBV

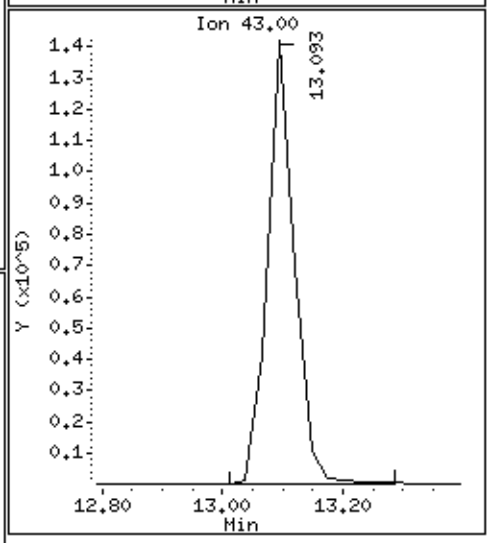












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

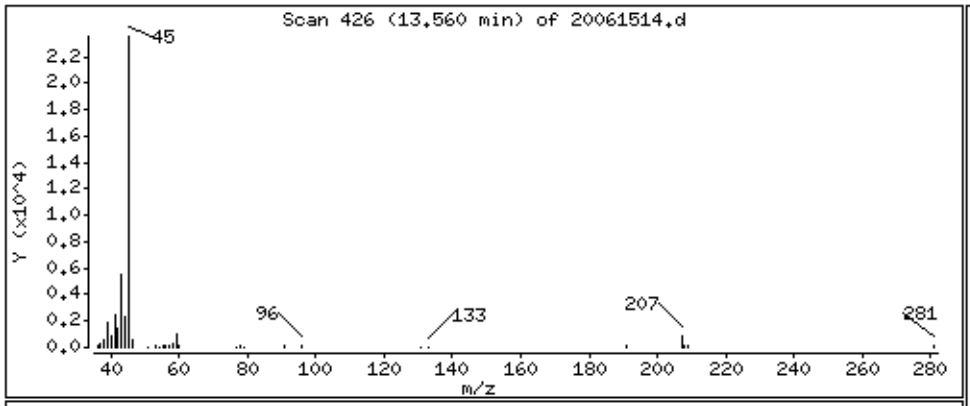
Operator: mjs

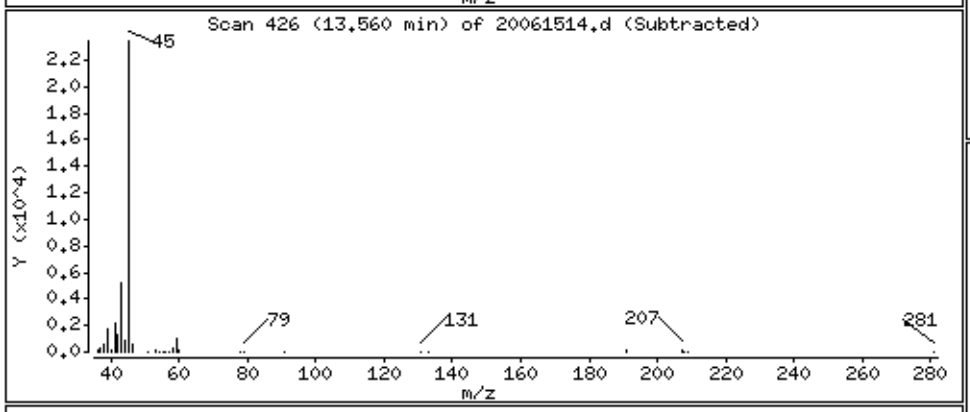
Column phase: RTX-624

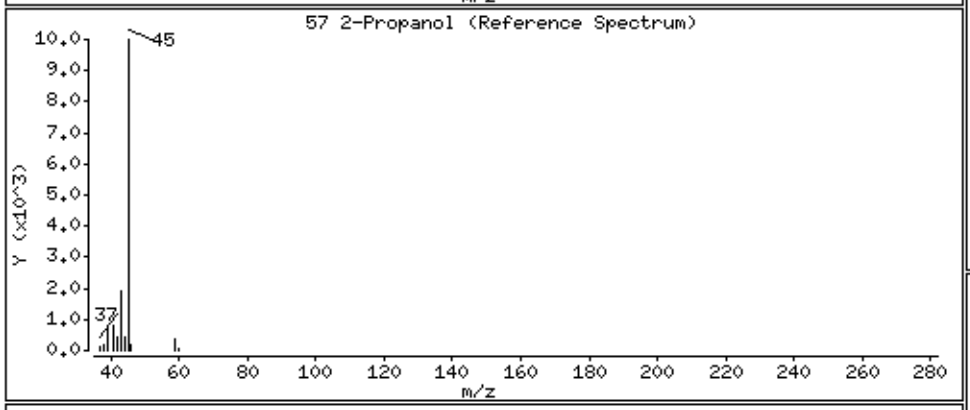
Column diameter: 0.32

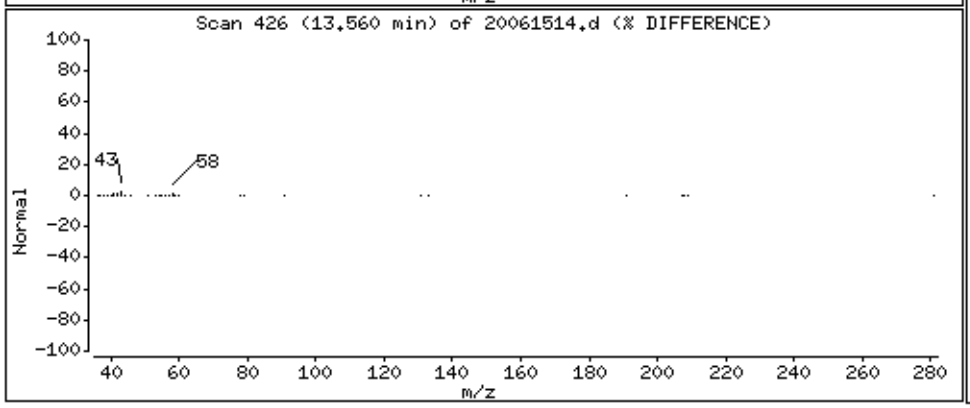
57 2-Propanol

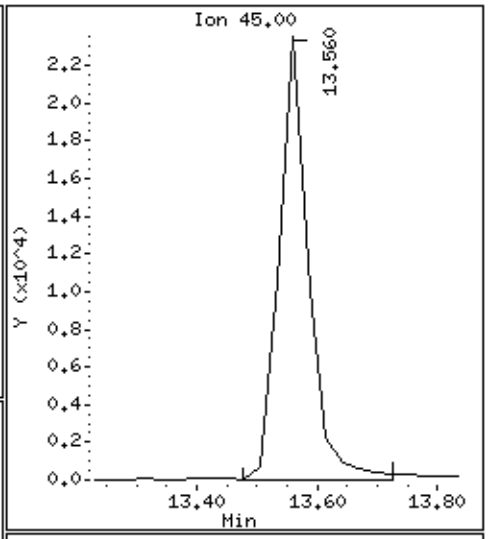
Concentration: 2.550 PPBV

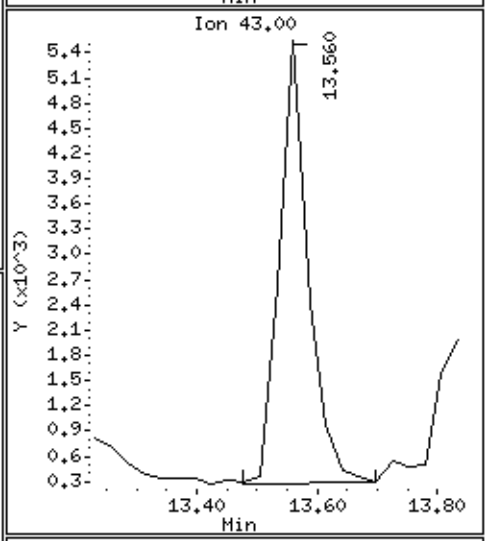


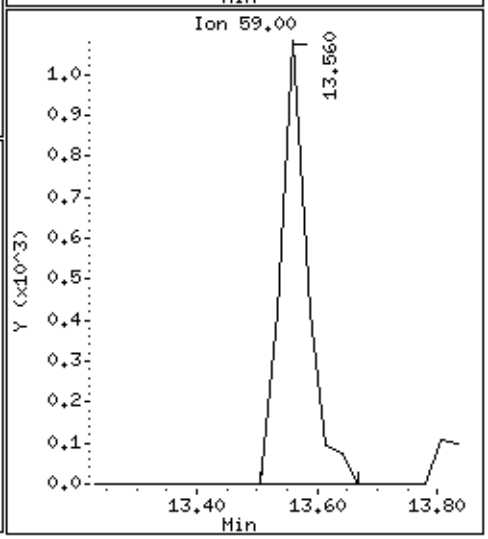












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

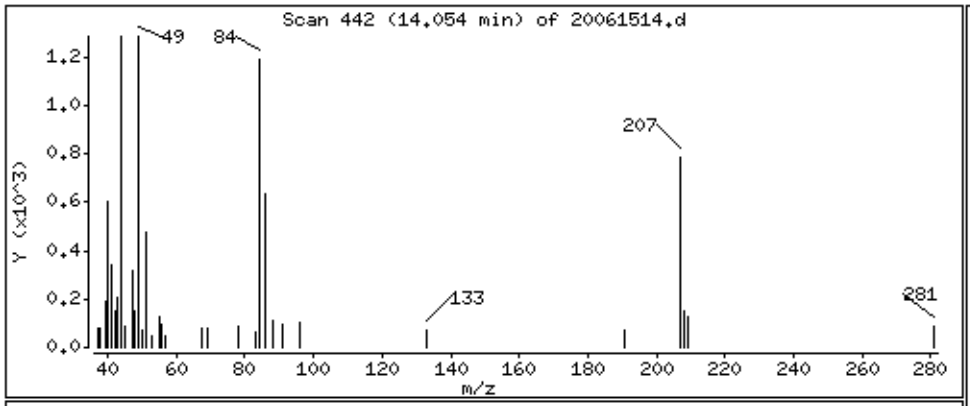
Operator: mjs

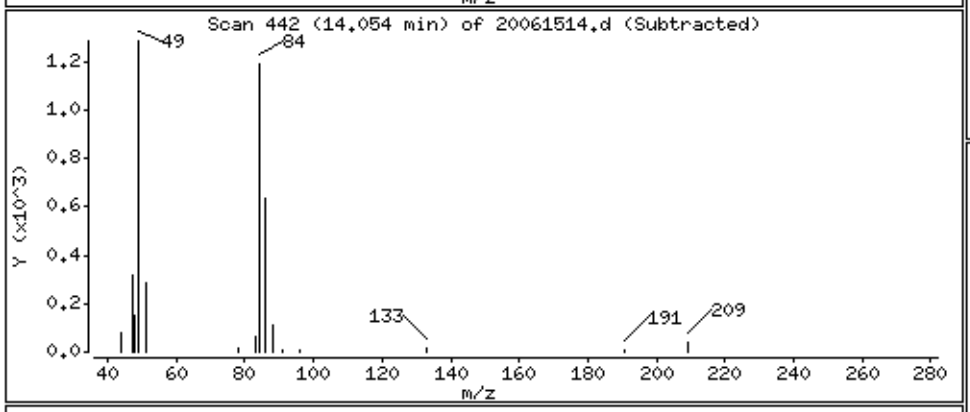
Column phase: RTX-624

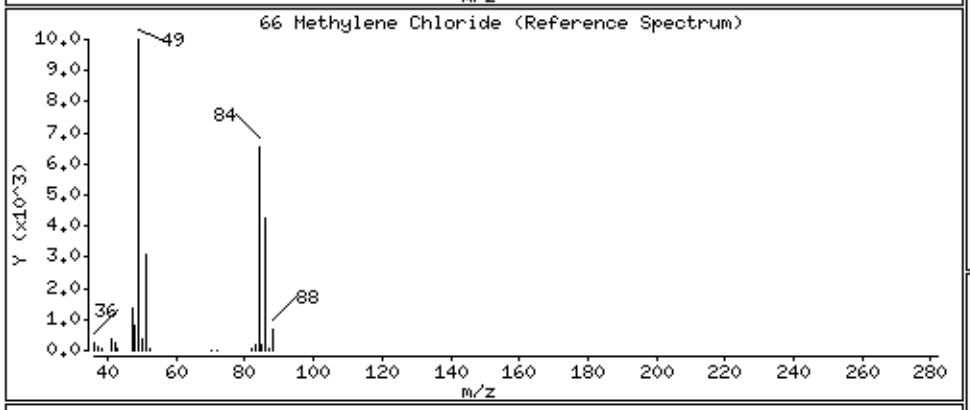
Column diameter: 0.32

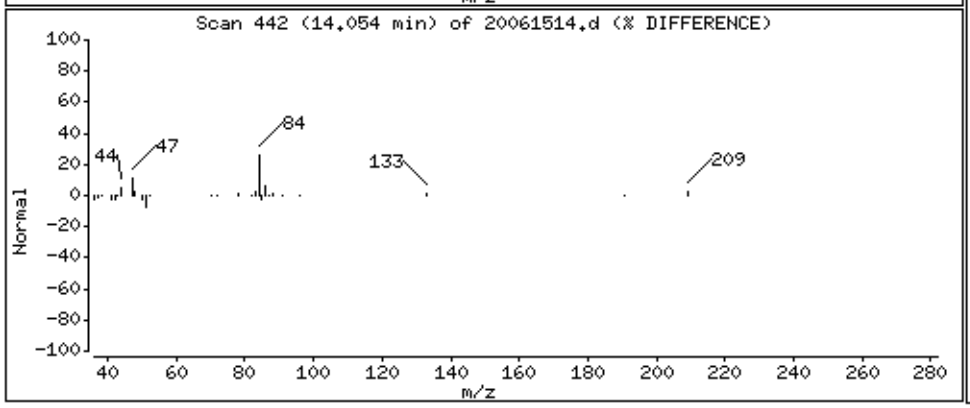
66 Methylene Chloride

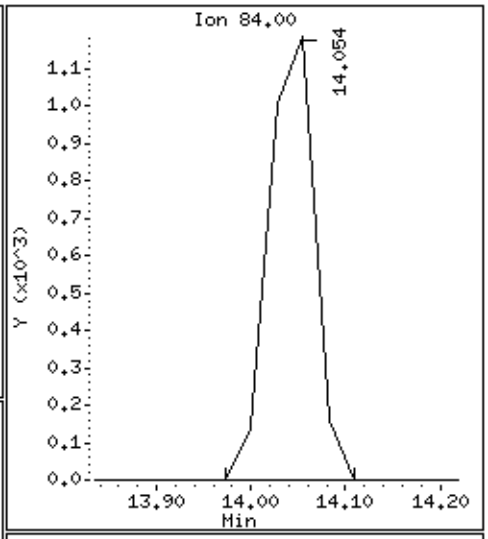
Concentration: 0.1893 PPBV

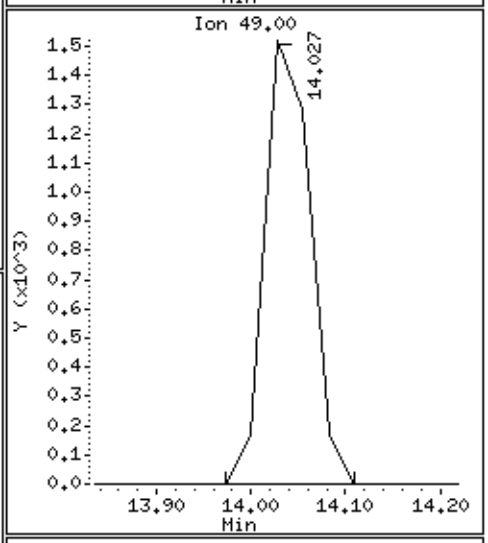


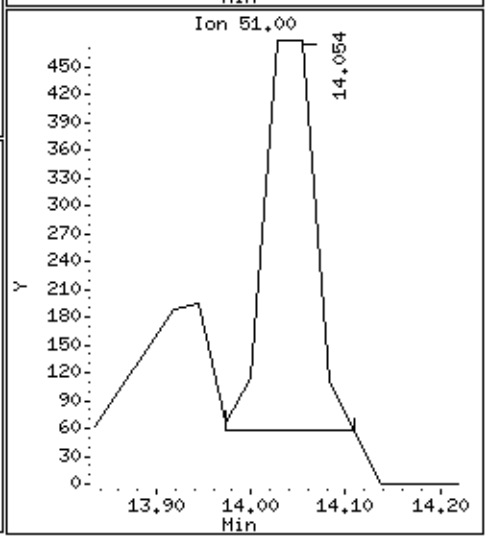












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

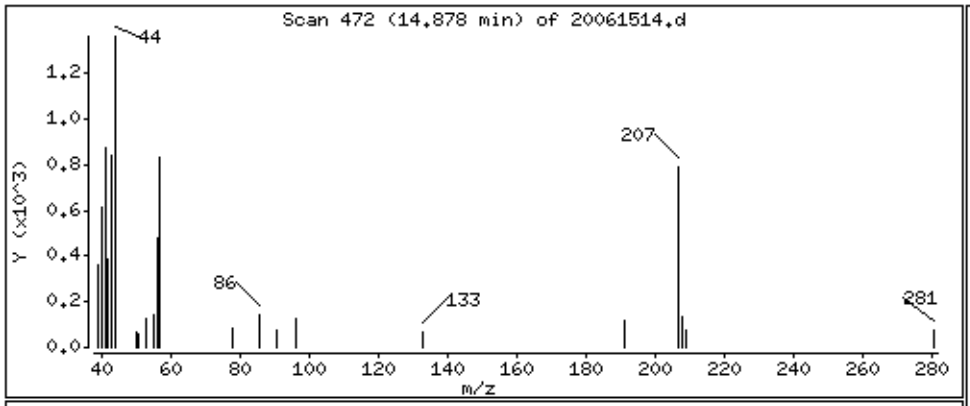
Operator: mjs

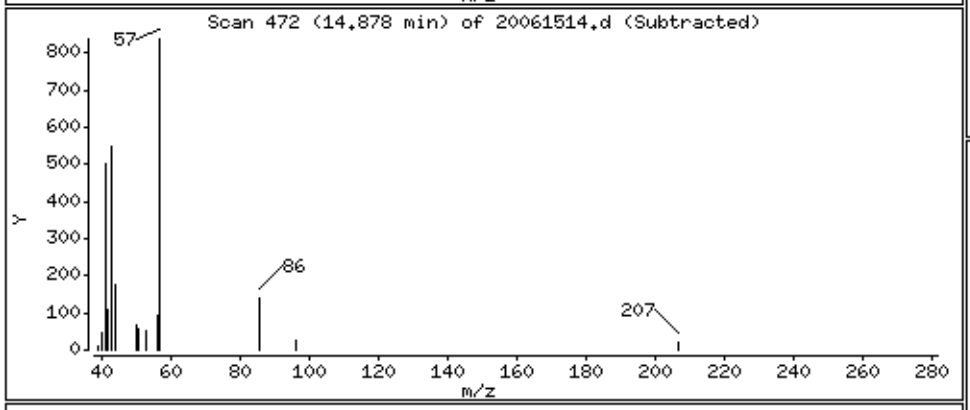
Column phase: RTX-624

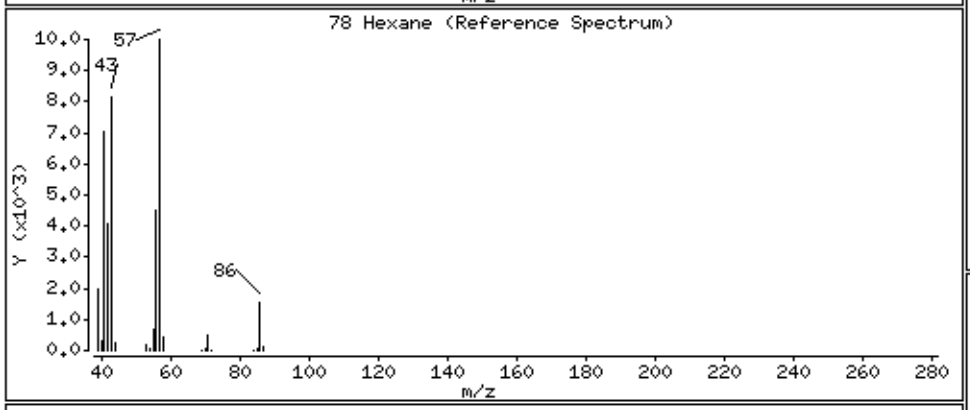
Column diameter: 0.32

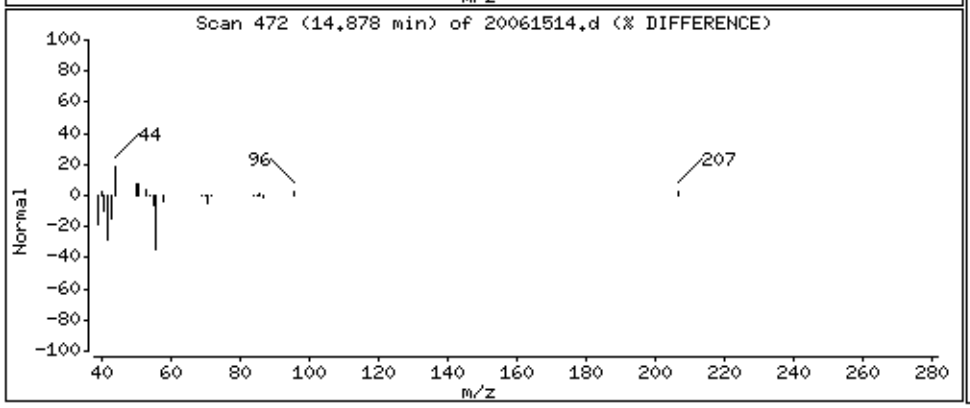
78 Hexane

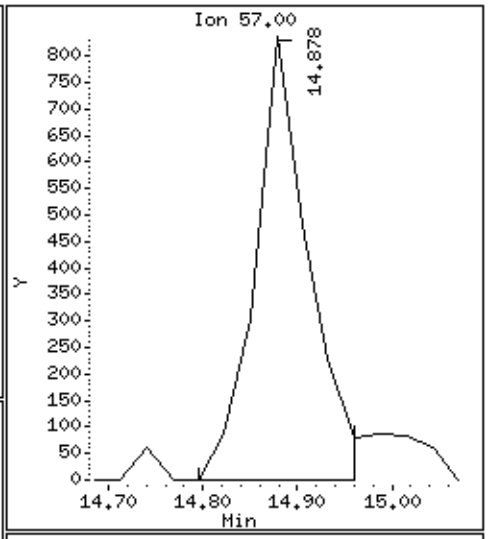
Concentration: 0.1029 PPBV

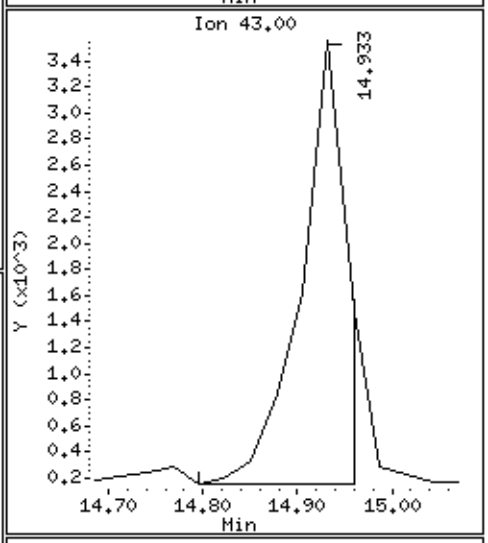


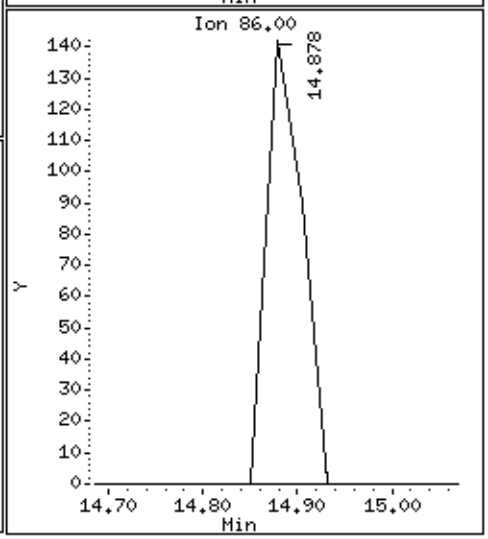












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

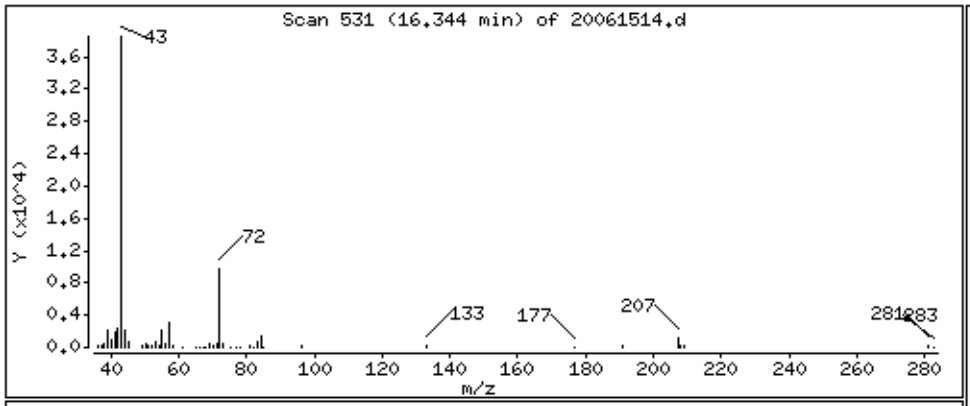
Operator: mjs

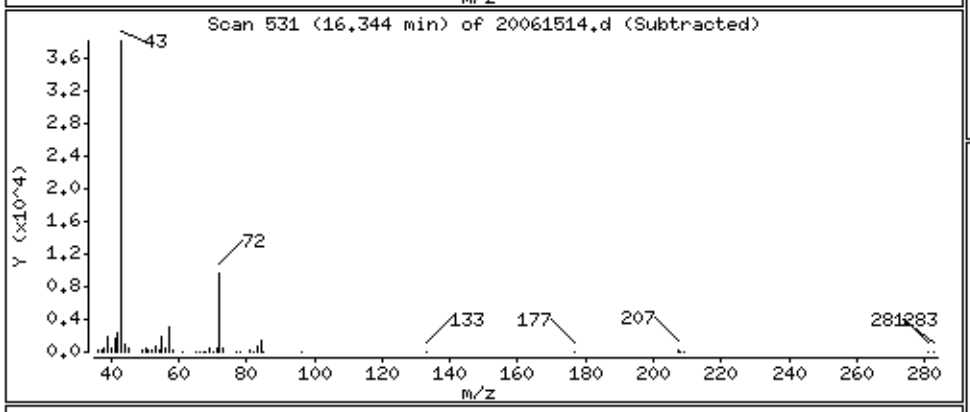
Column phase: RTX-624

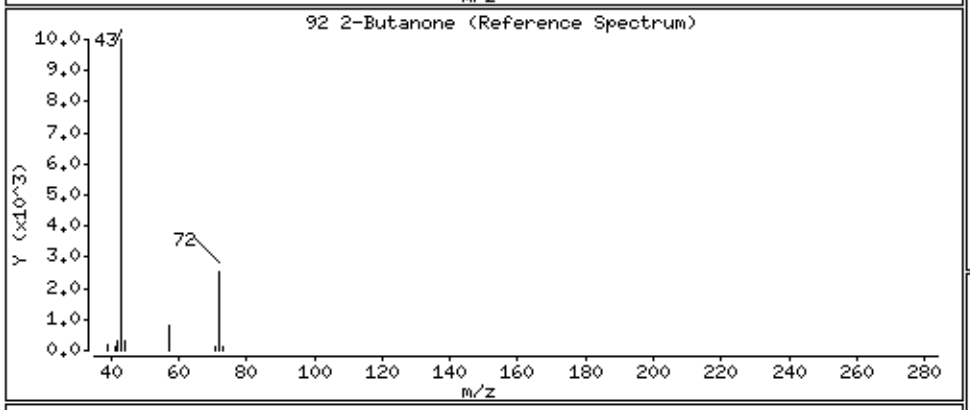
Column diameter: 0.32

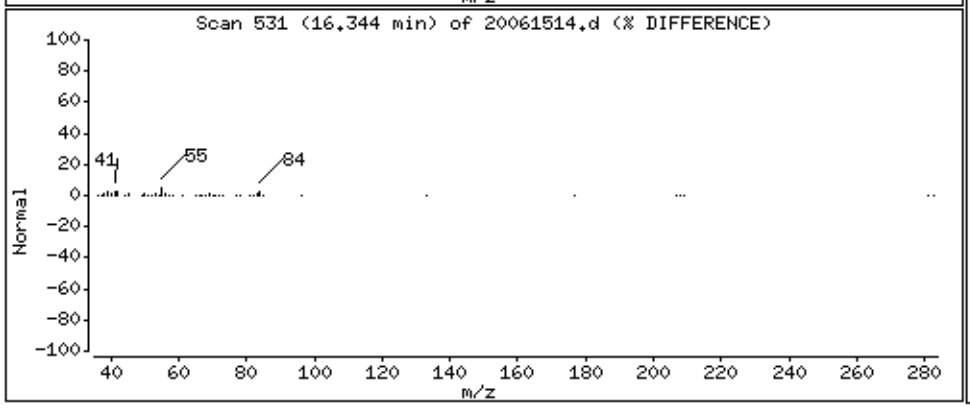
92 2-Butanone

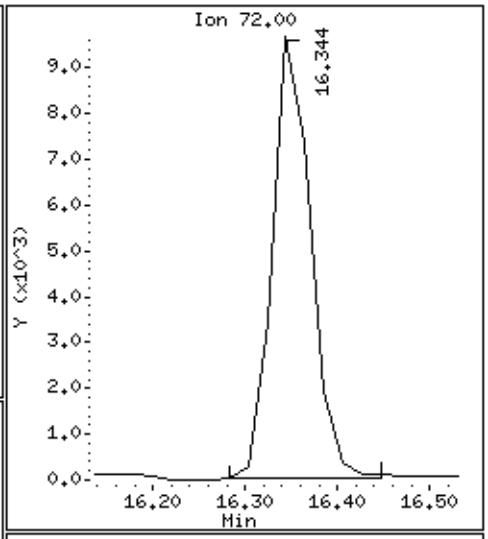
Concentration: 2.688 PPBV

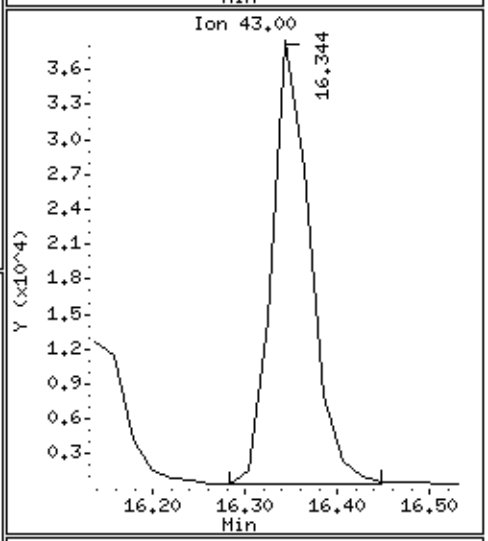


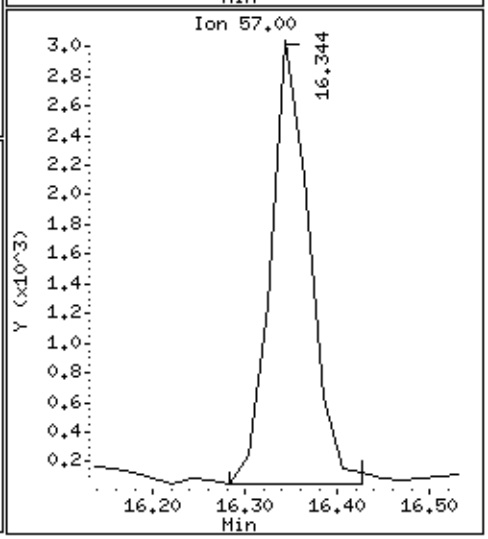












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

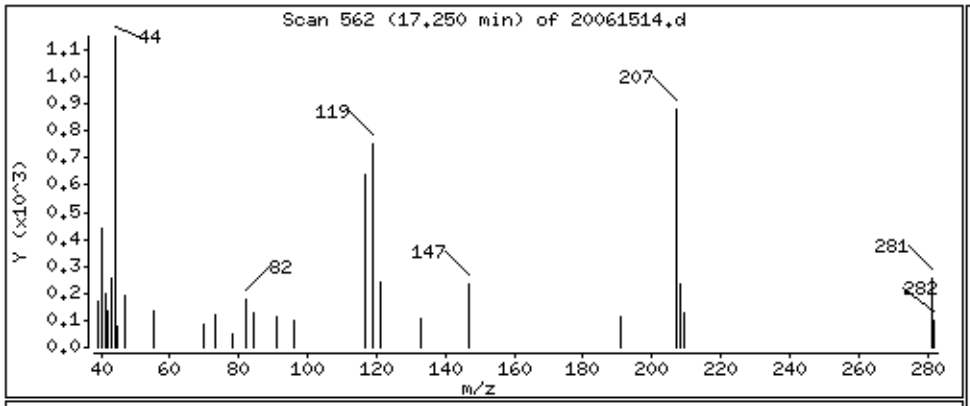
Operator: mjs

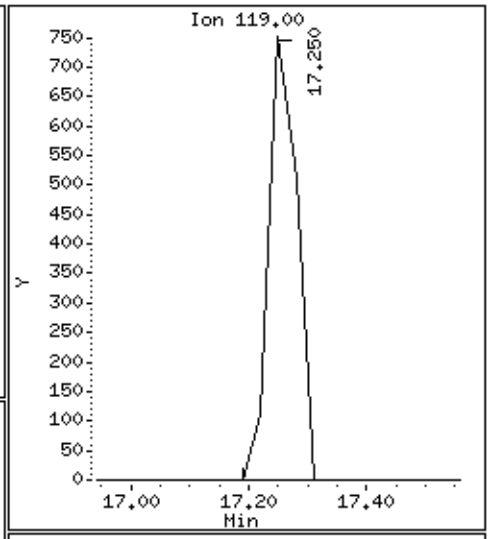
Column phase: RTX-624

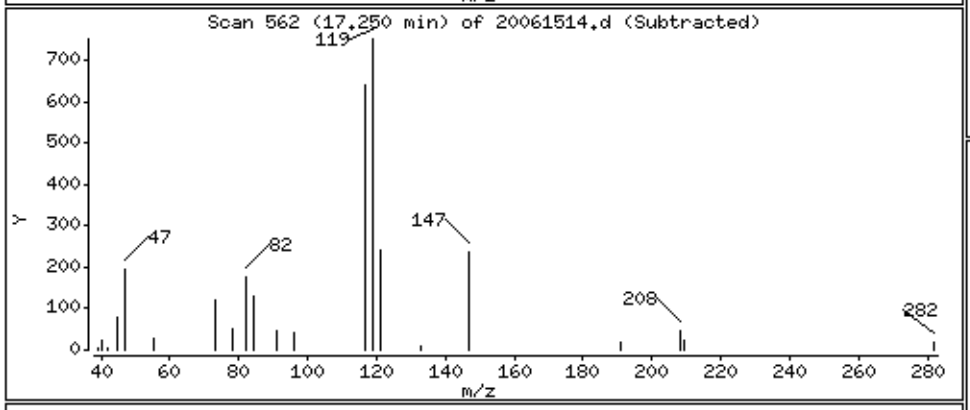
Column diameter: 0.32

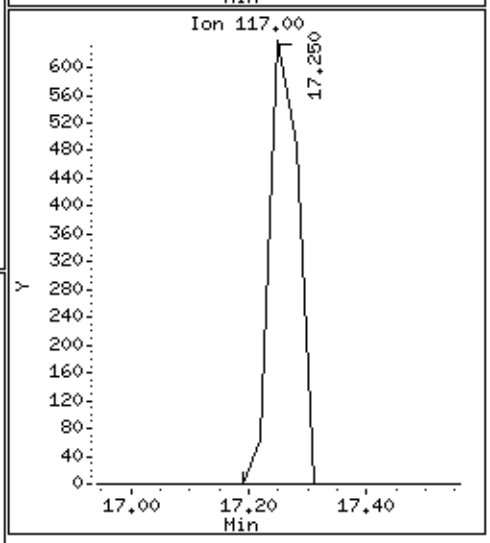
106 Carbon Tetrachloride

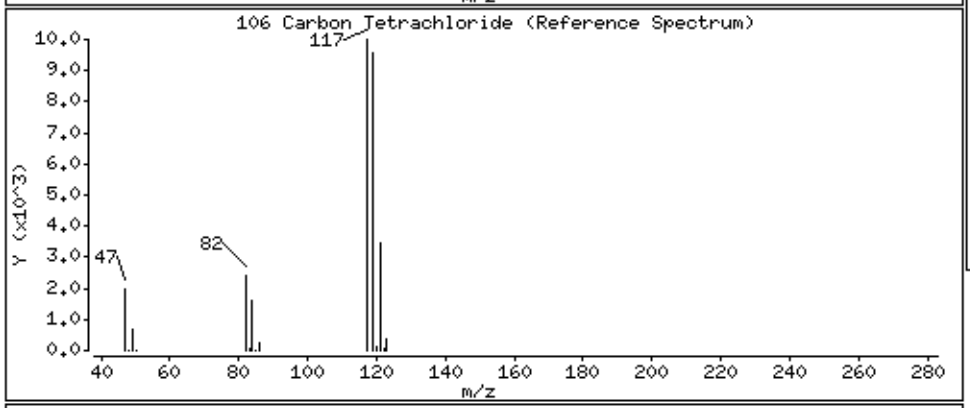
Concentration: 0.07036 PPBV

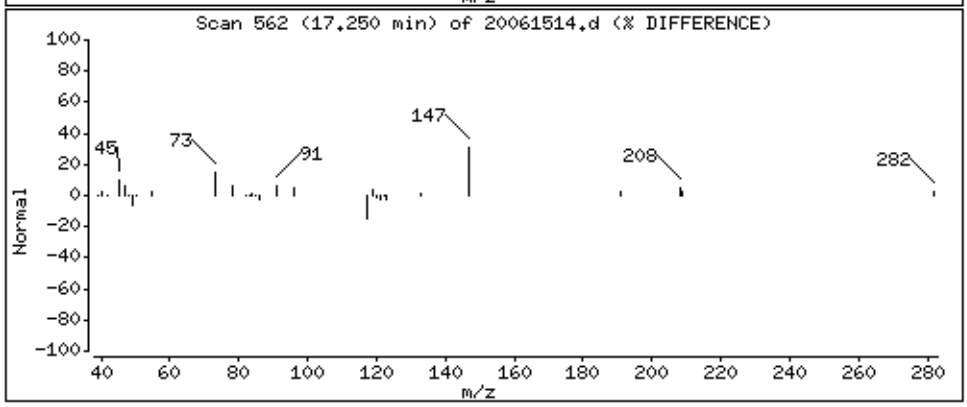












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

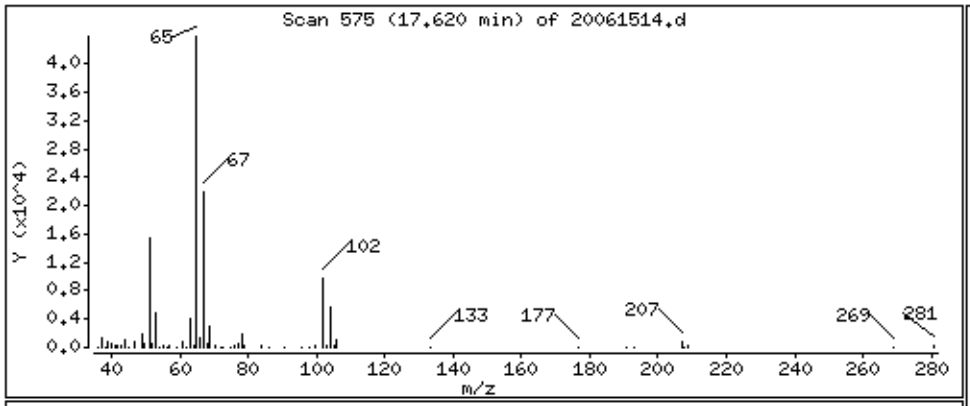
Operator: mjs

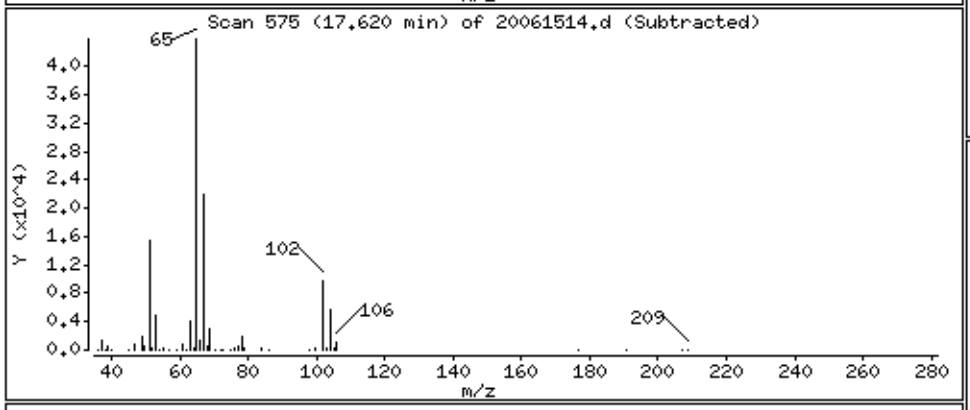
Column phase: RTX-624

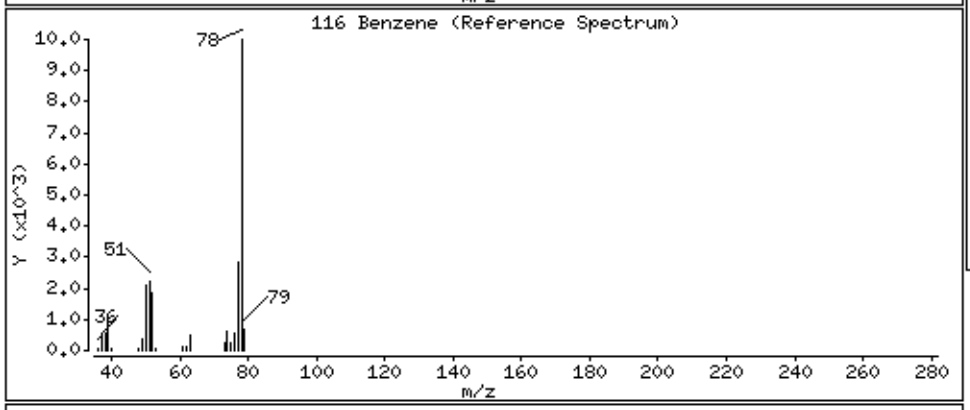
Column diameter: 0.32

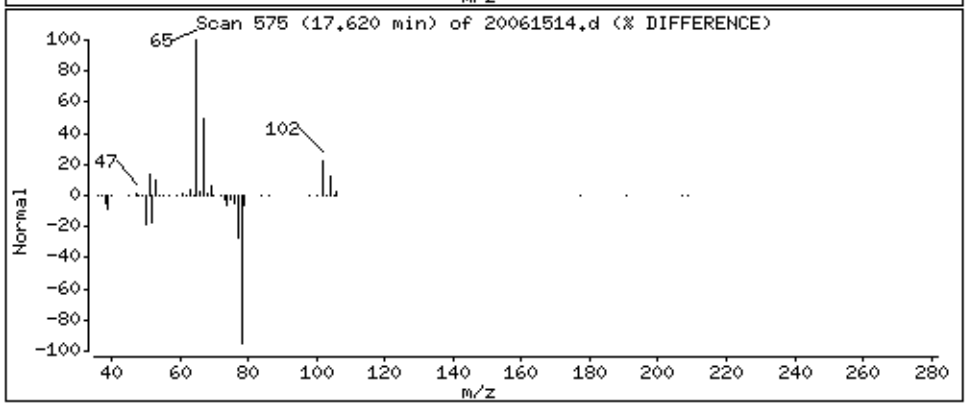
116 Benzene

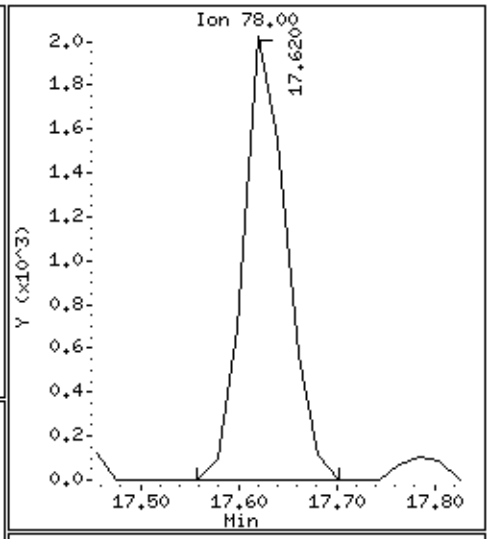
Concentration: 0.09096 PPBV

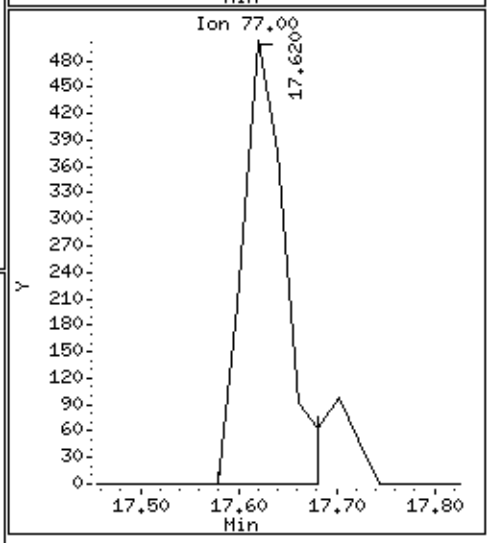












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

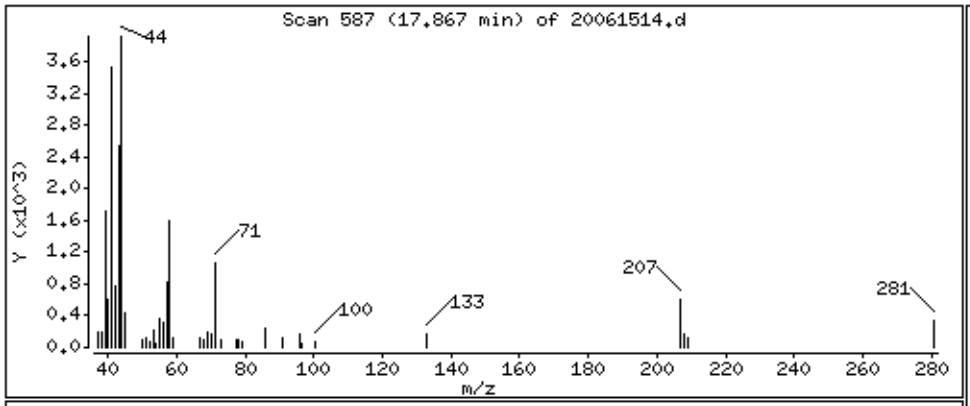
Operator: mjs

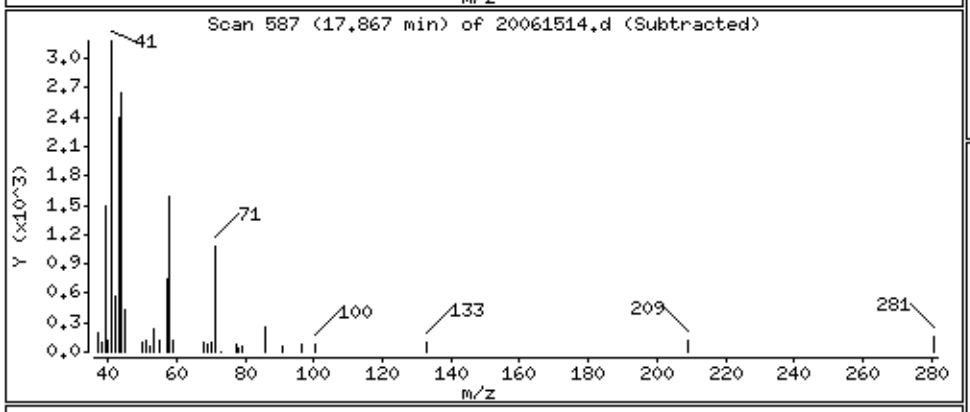
Column phase: RTX-624

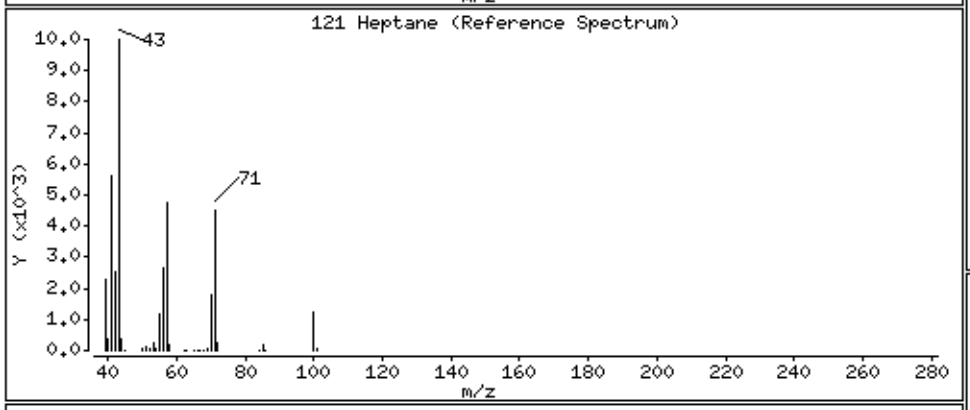
Column diameter: 0.32

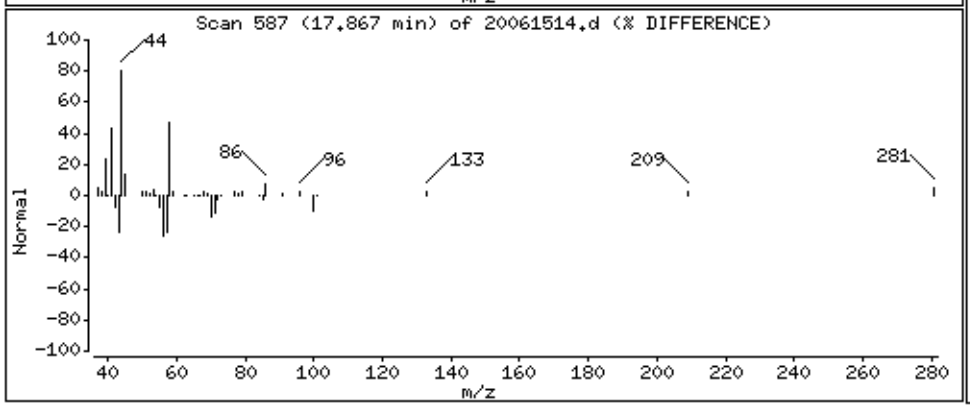
121 Heptane

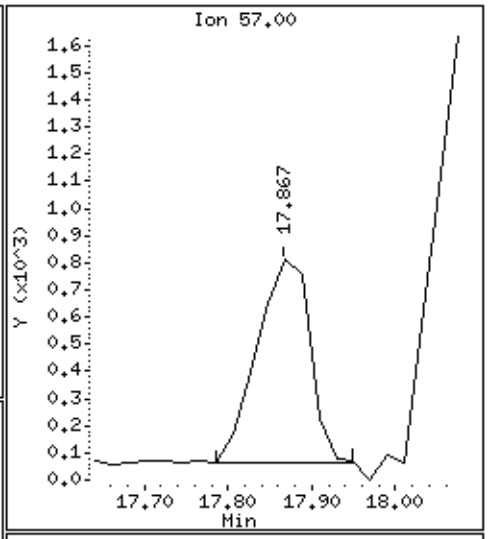
Concentration: 0.1717 PPBV

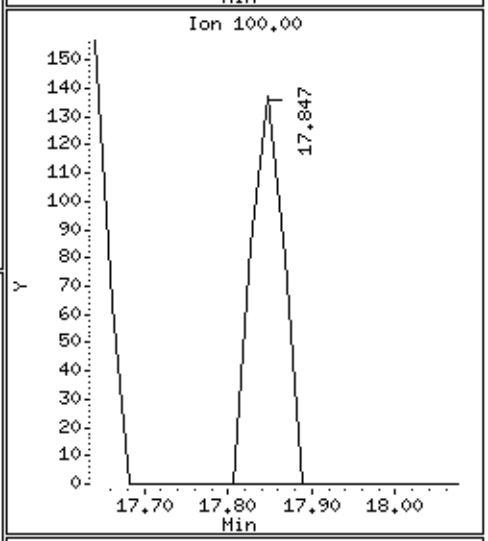


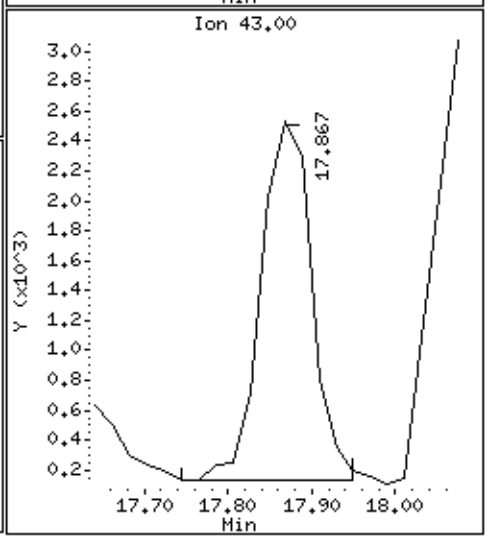












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

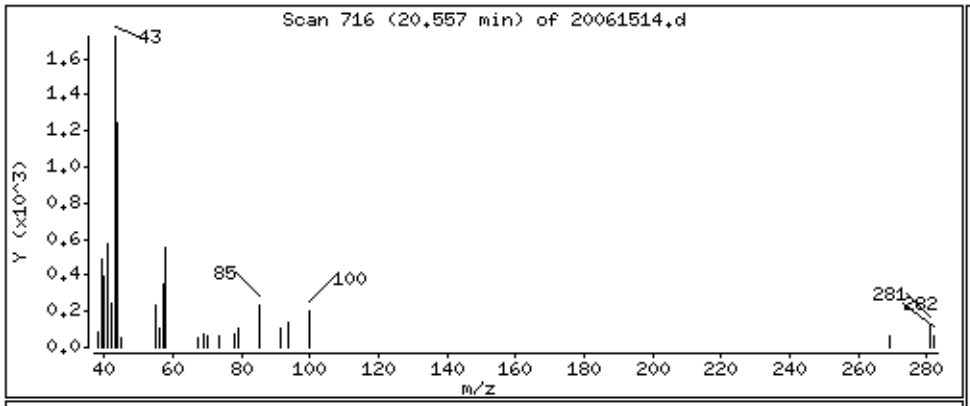
Operator: mjs

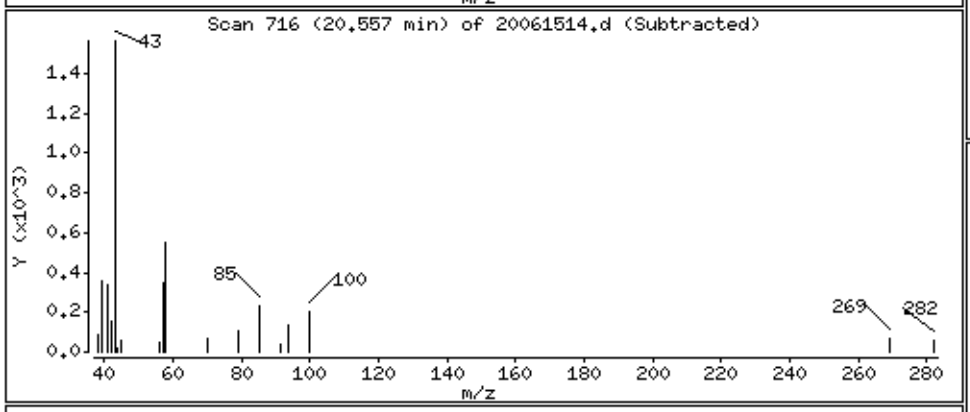
Column phase: RTX-624

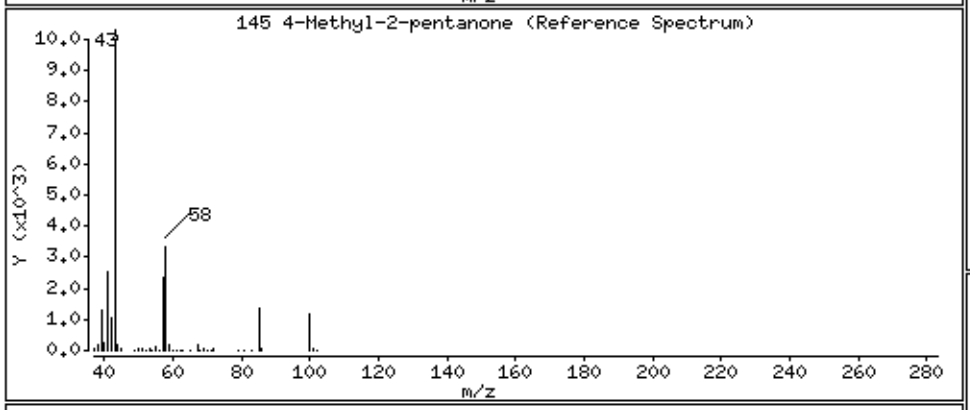
Column diameter: 0.32

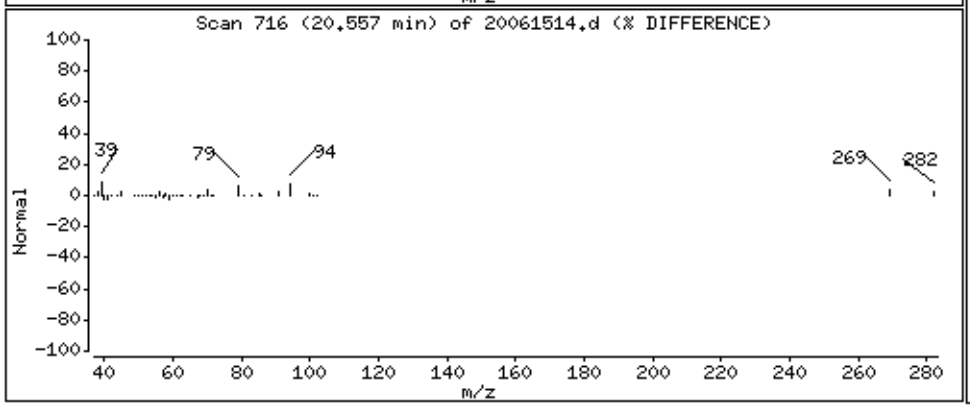
145 4-Methyl-2-pentanone

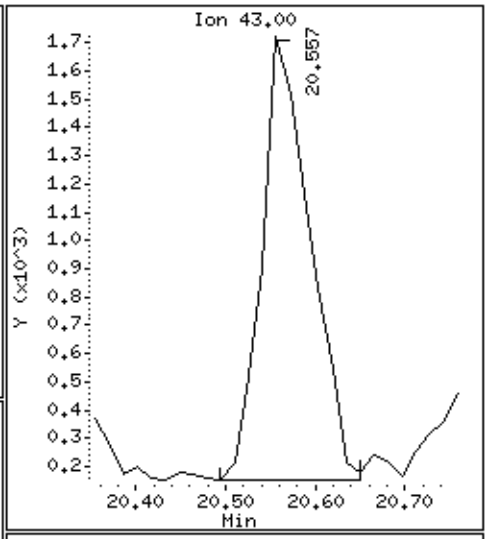
Concentration: 0.1211 PPBV

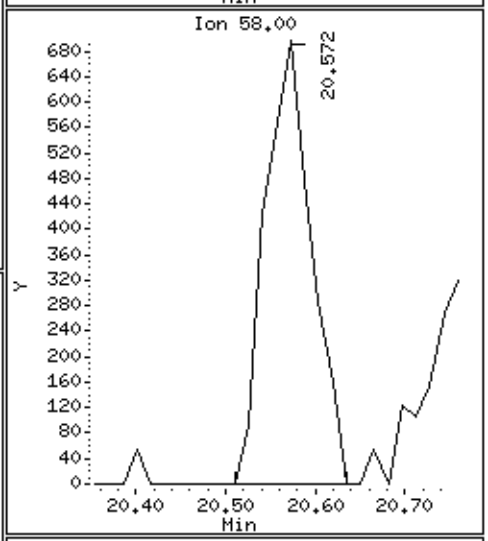


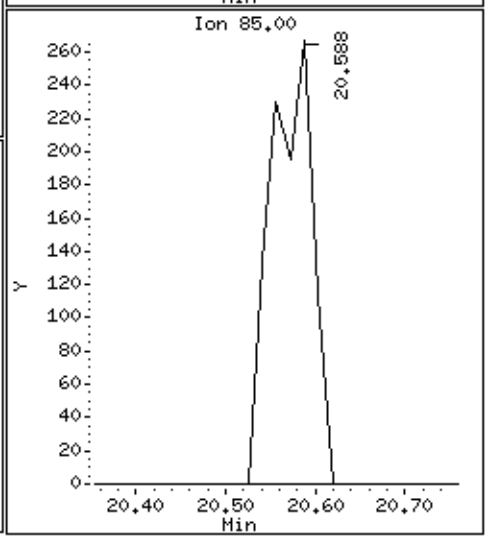












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

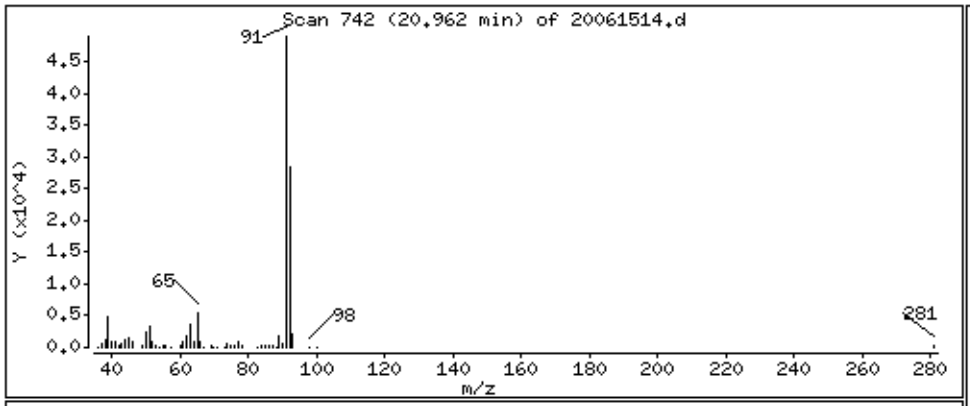
Operator: mjs

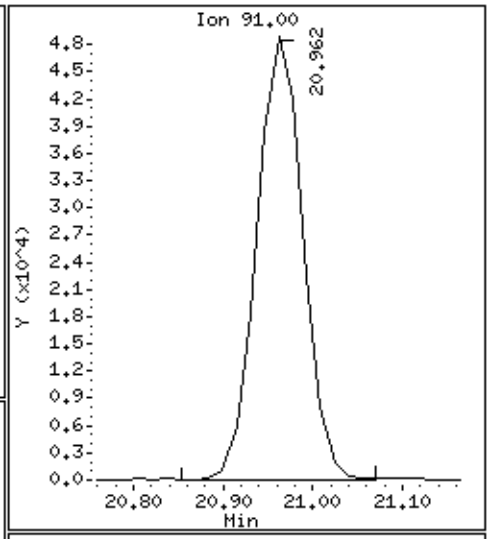
Column phase: RTX-624

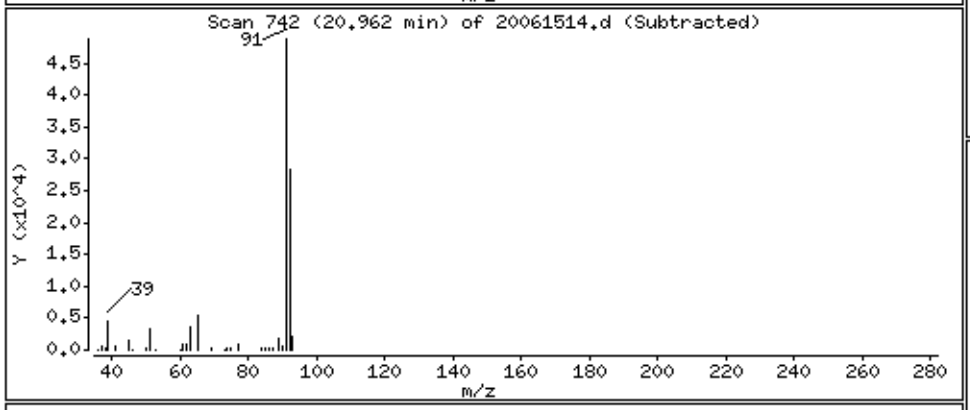
Column diameter: 0.32

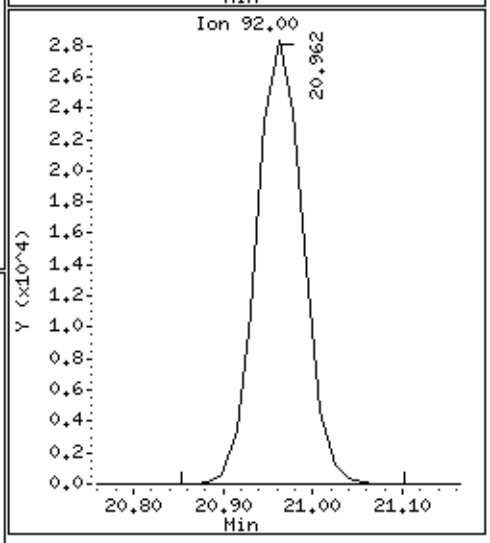
147 Toluene

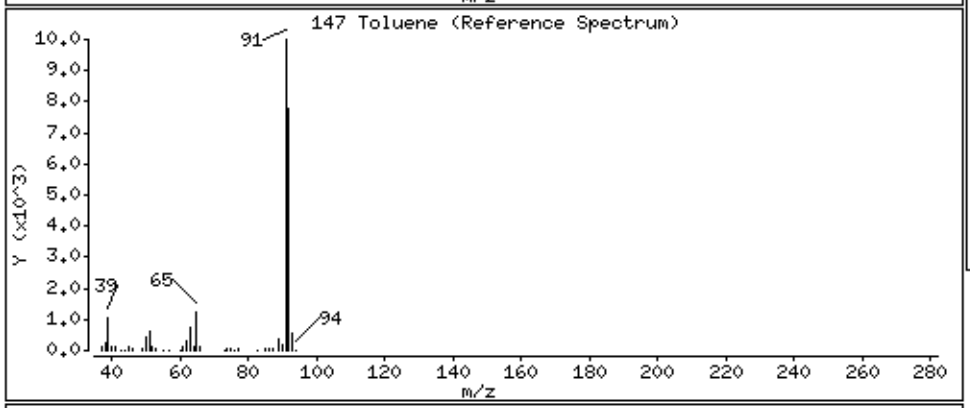
Concentration: 2.237 PPBV

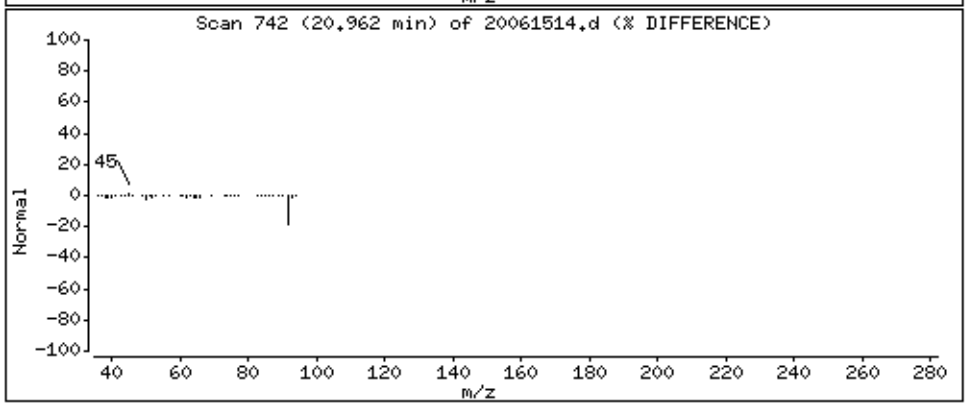












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

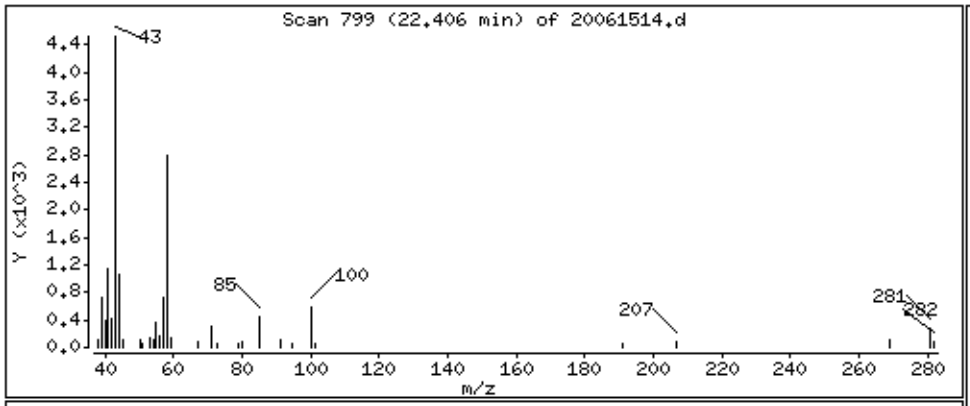
Operator: mjs

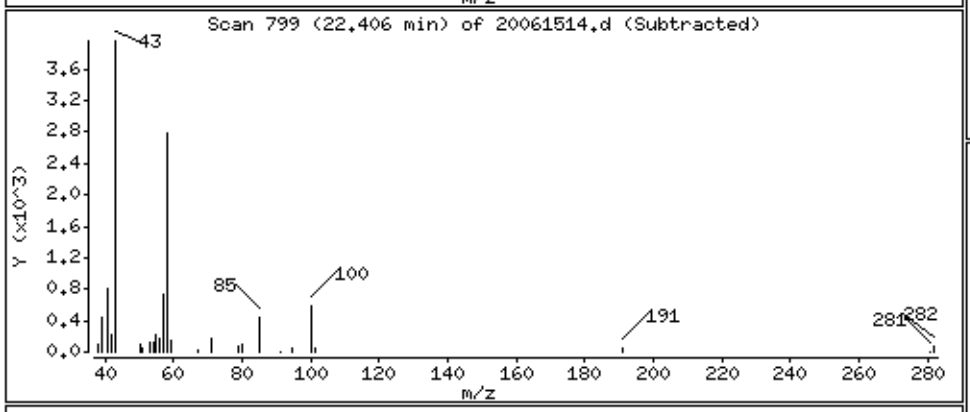
Column phase: RTX-624

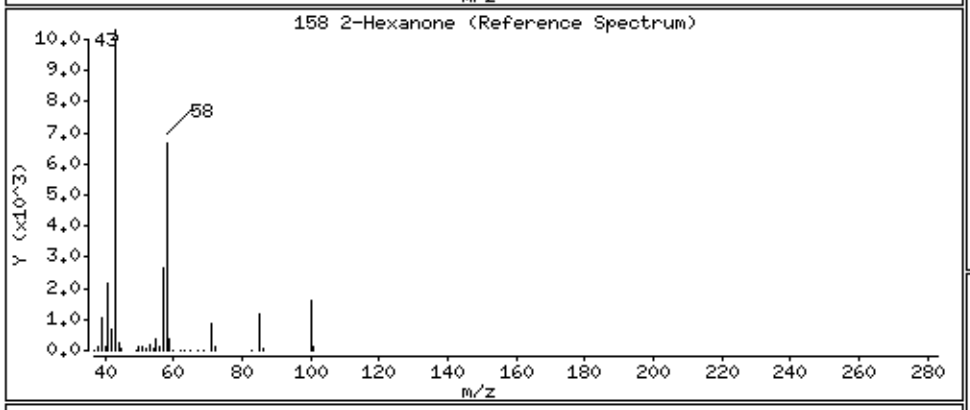
Column diameter: 0.32

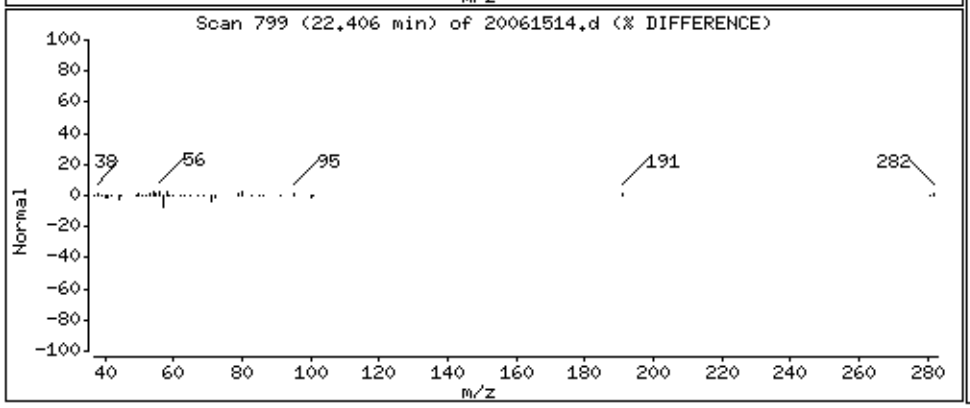
158 2-Hexanone

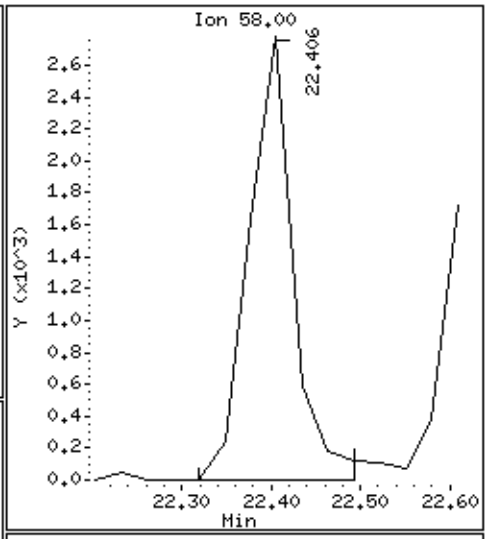
Concentration: 0.3779 PPBV

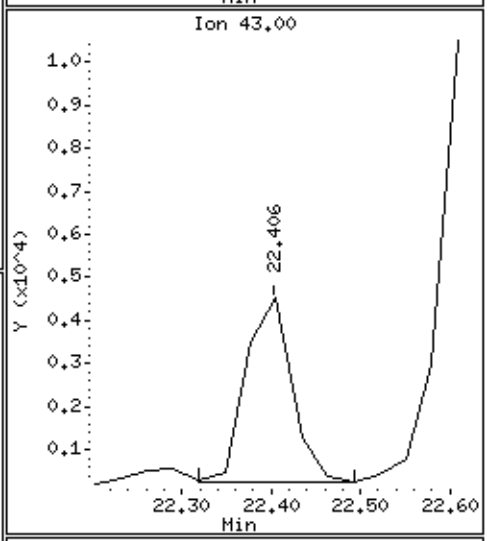


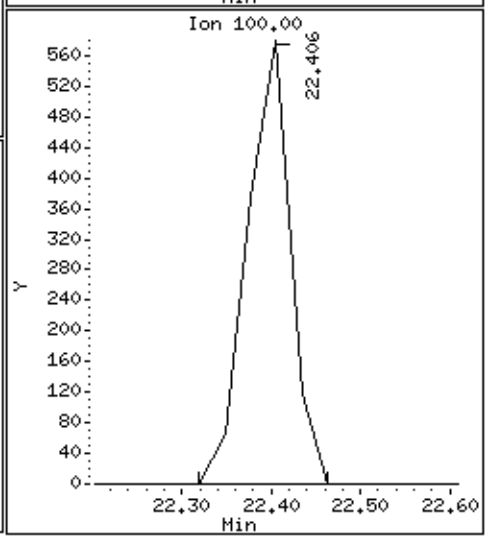












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

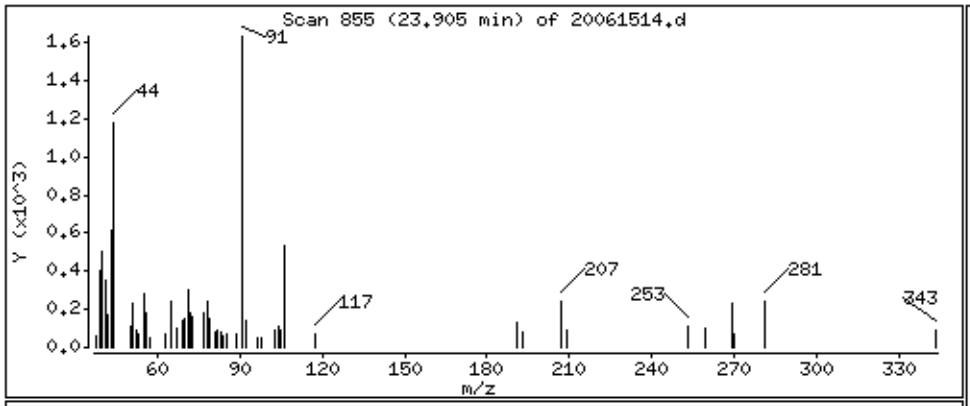
Operator: mjs

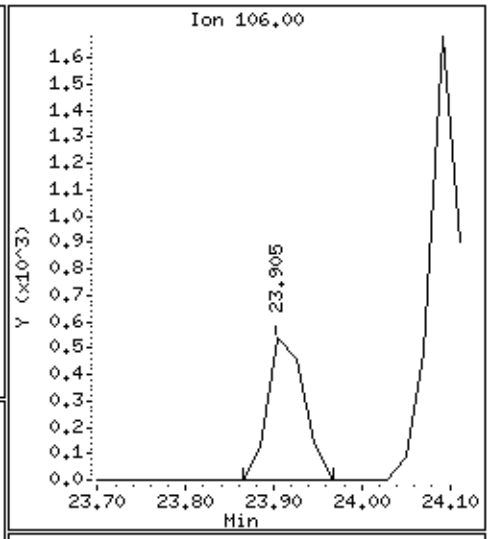
Column phase: RTX-624

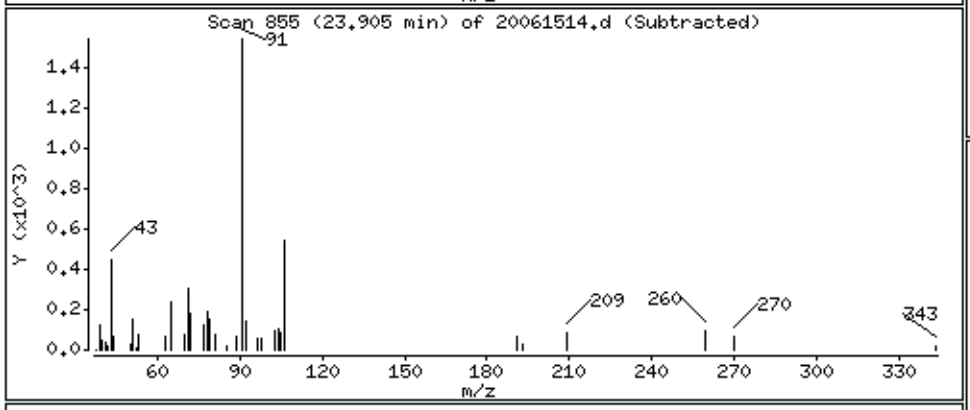
Column diameter: 0.32

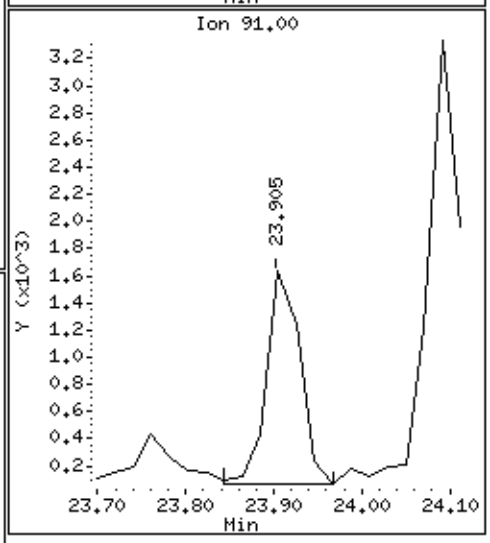
167 Ethyl Benzene

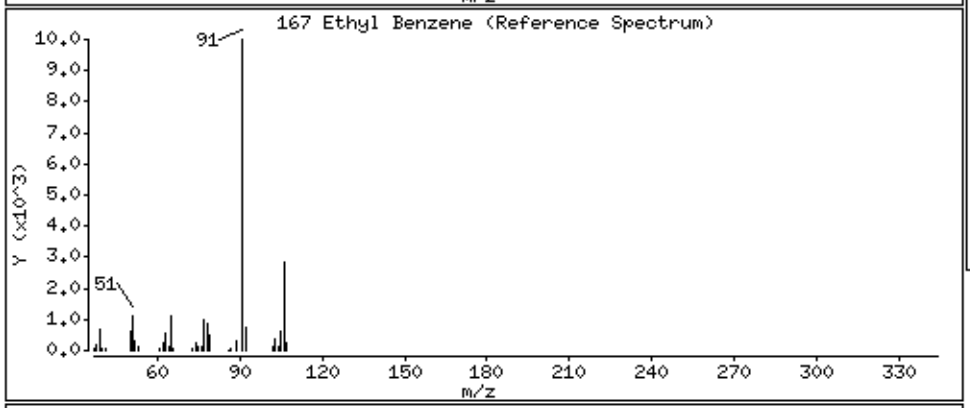
Concentration: 0.05069 PPBV

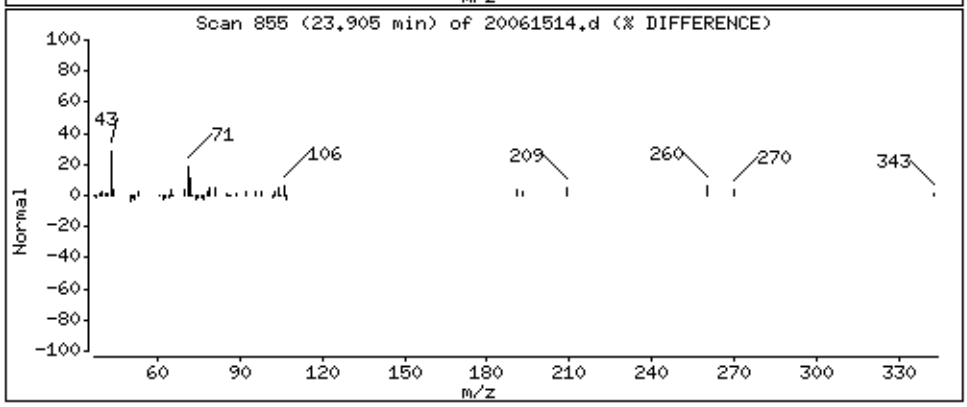












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

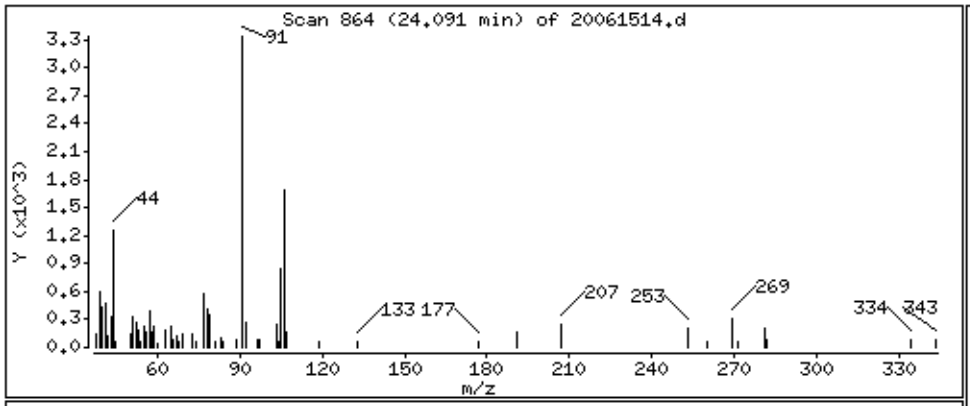
Operator: mjs

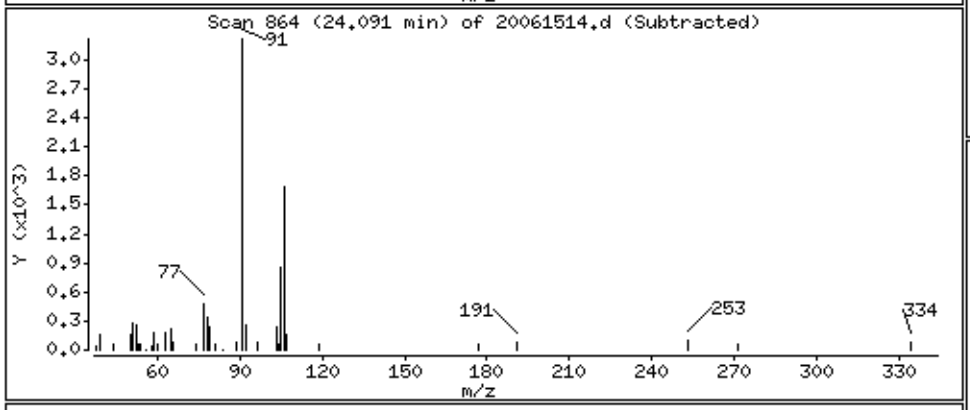
Column phase: RTX-624

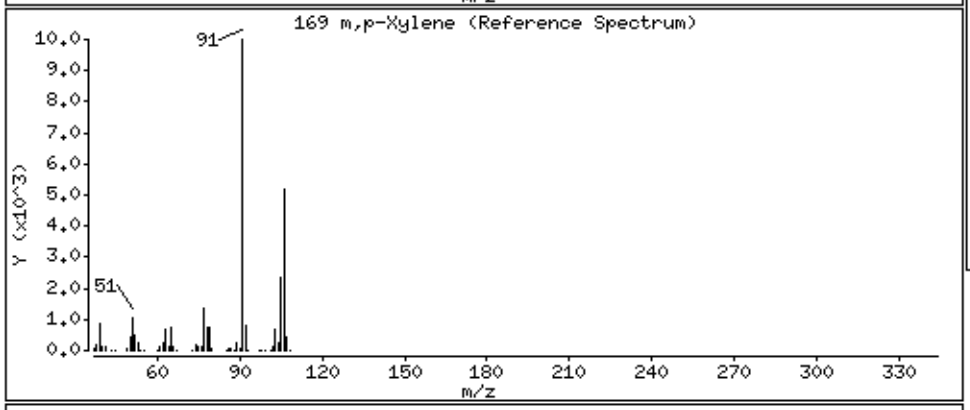
Column diameter: 0.32

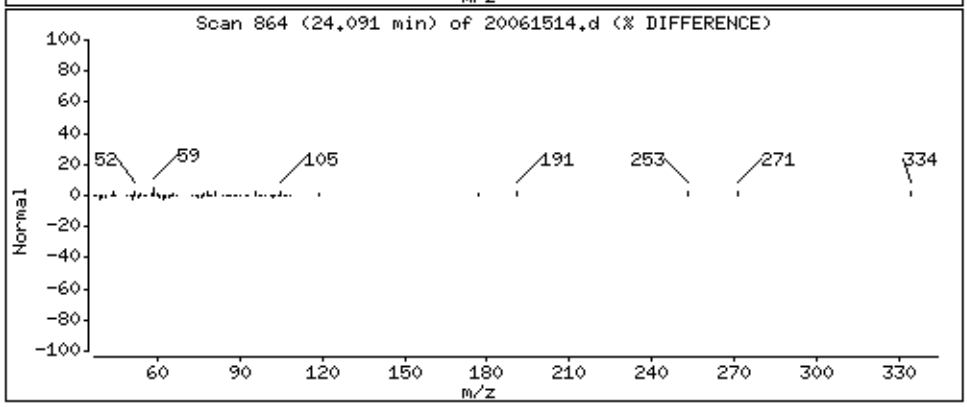
169 m,p-Xylene

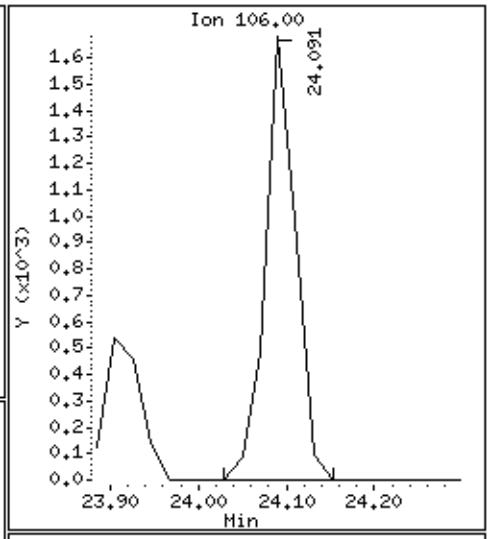
Concentration: 0.1198 PPBV

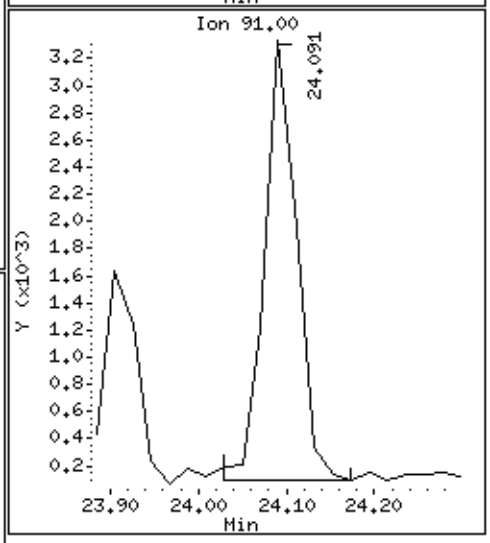












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

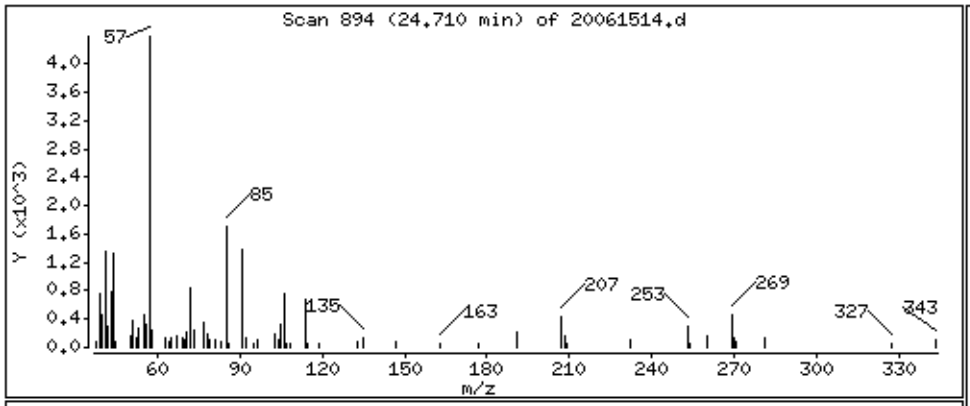
Operator: mjs

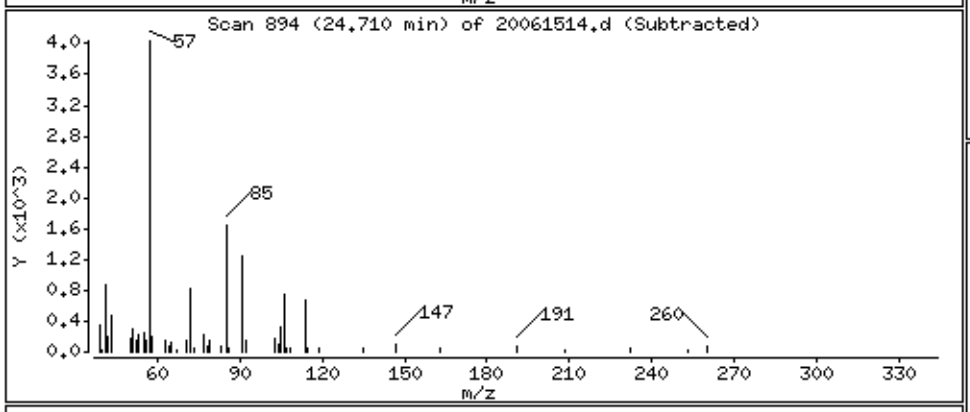
Column phase: RTX-624

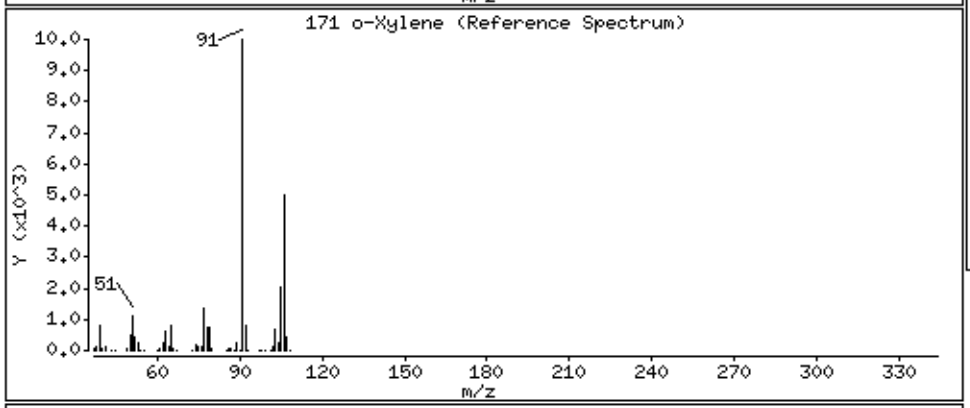
Column diameter: 0.32

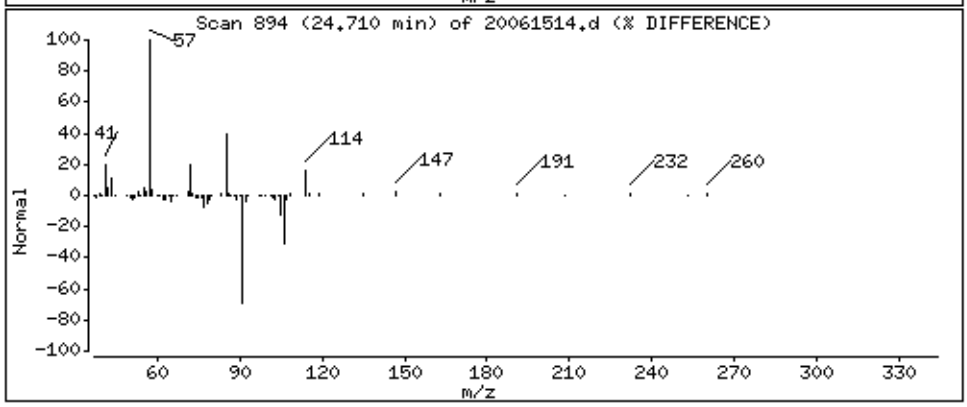
171 o-Xylene

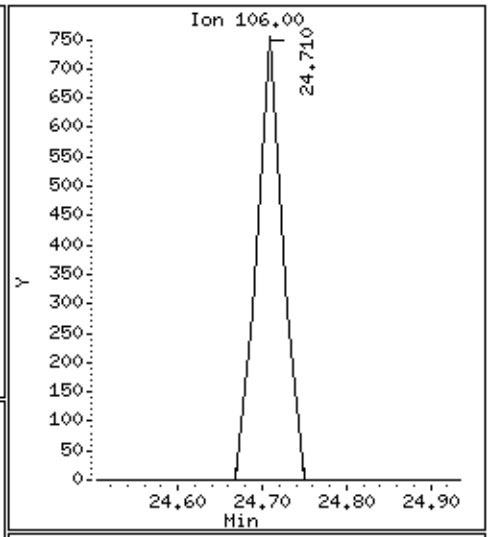
Concentration: 0.05012 PPBV

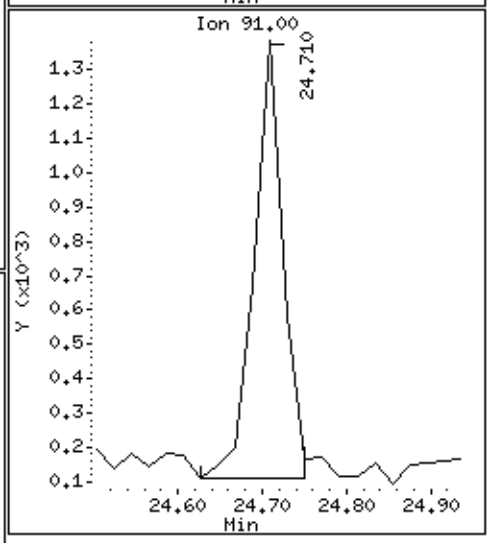












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

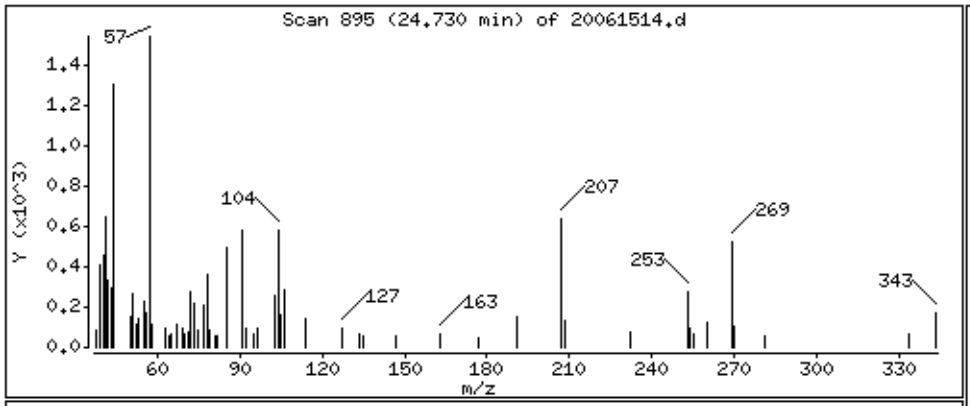
Operator: mjs

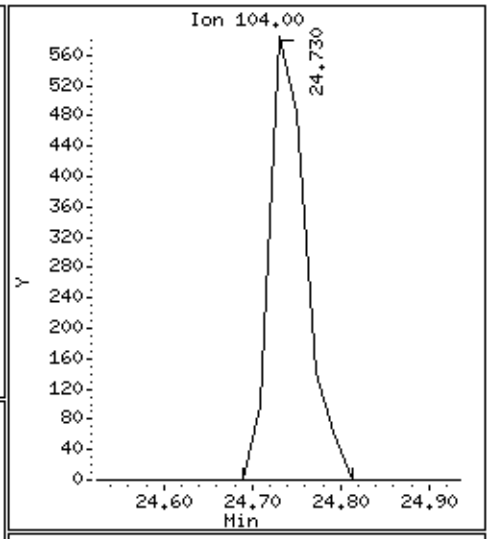
Column phase: RTX-624

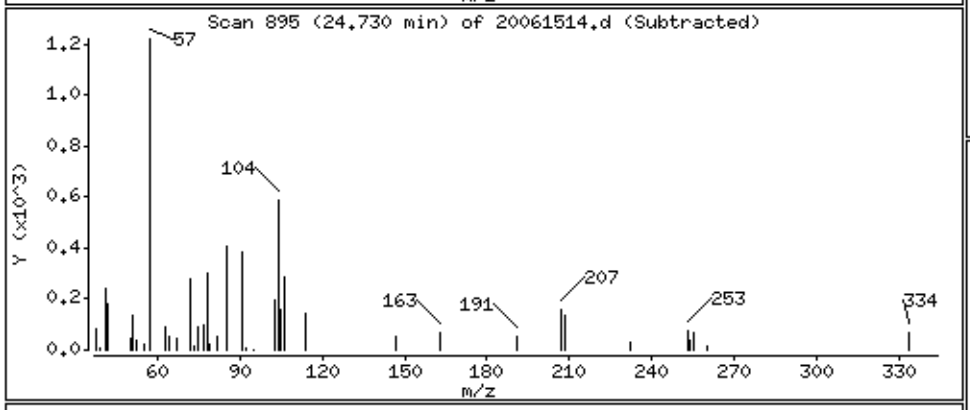
Column diameter: 0.32

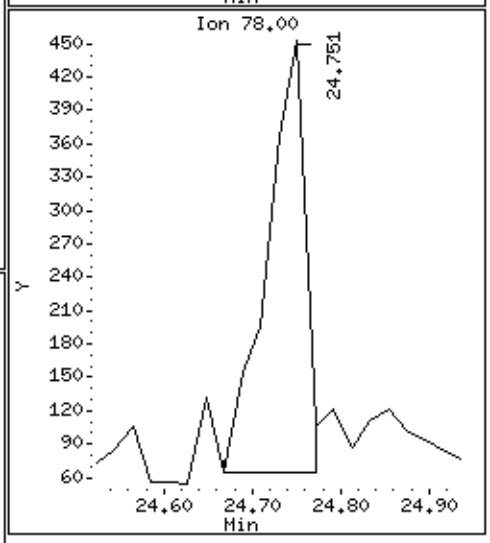
172 Styrene

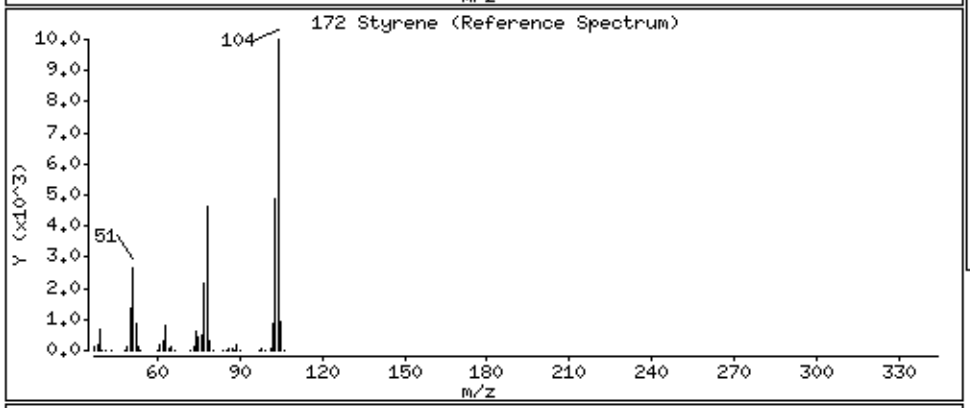
Concentration: 0.03375 PPBV

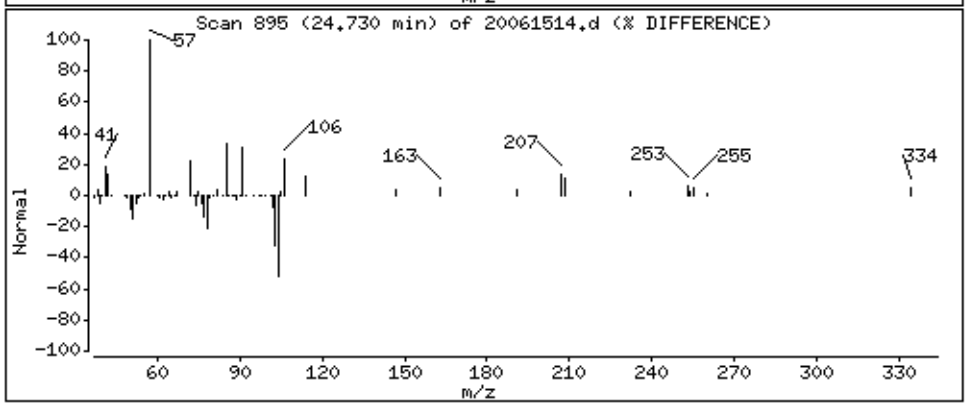












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

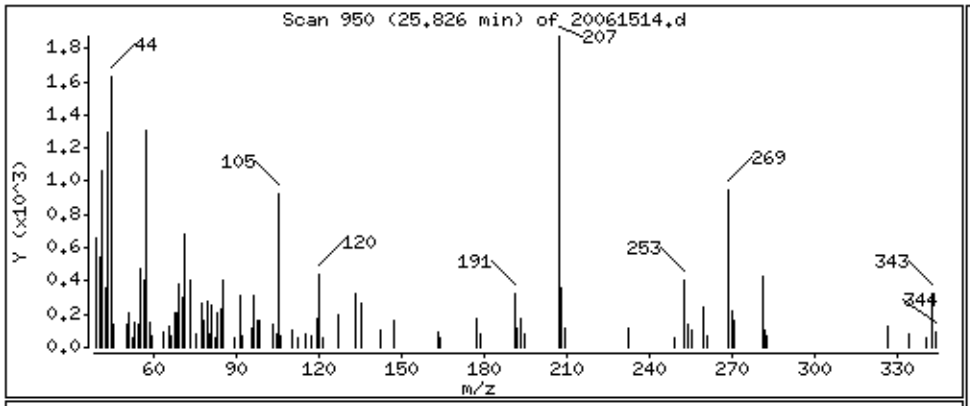
Operator: mjs

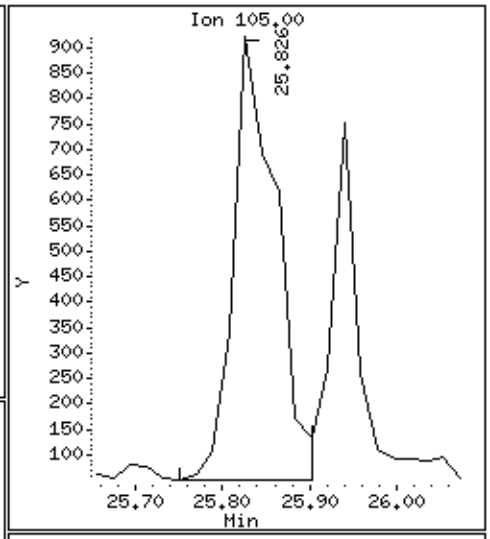
Column phase: RTX-624

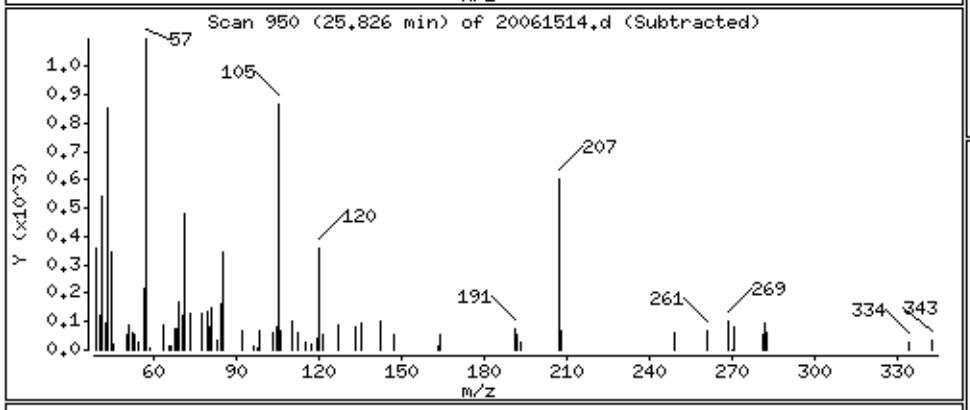
Column diameter: 0.32

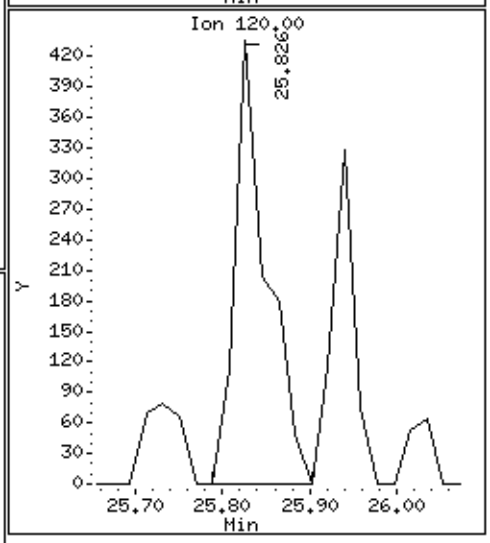
188 4-Ethyltoluene

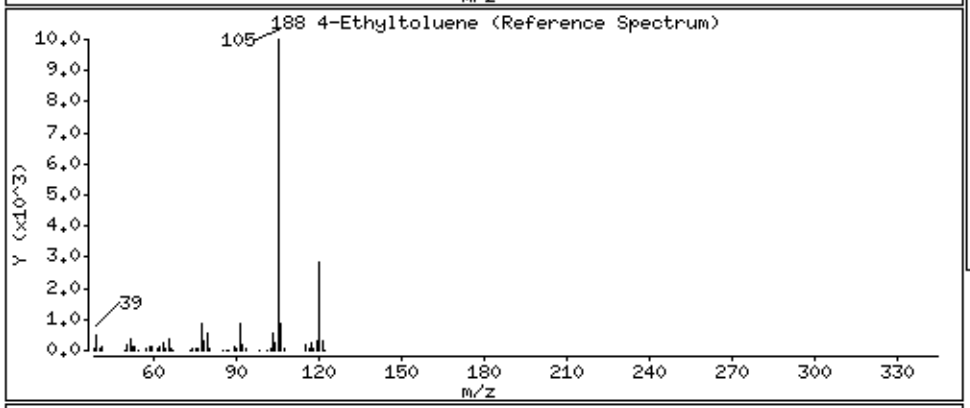
Concentration: 0.03561 PPBV

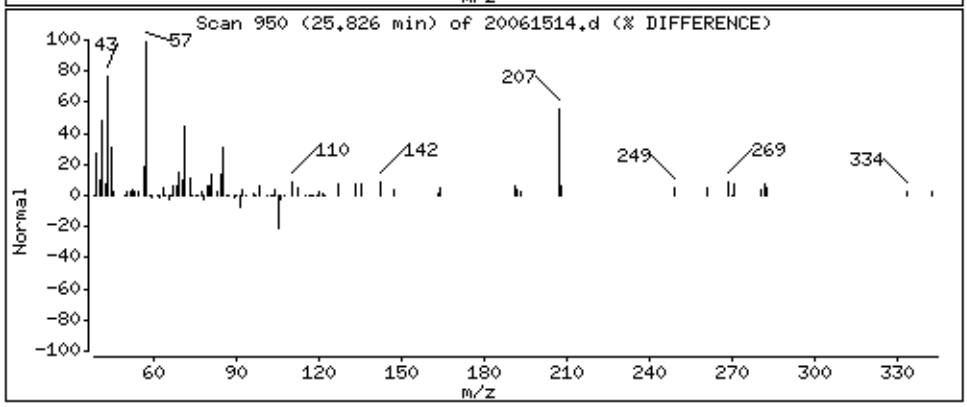












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

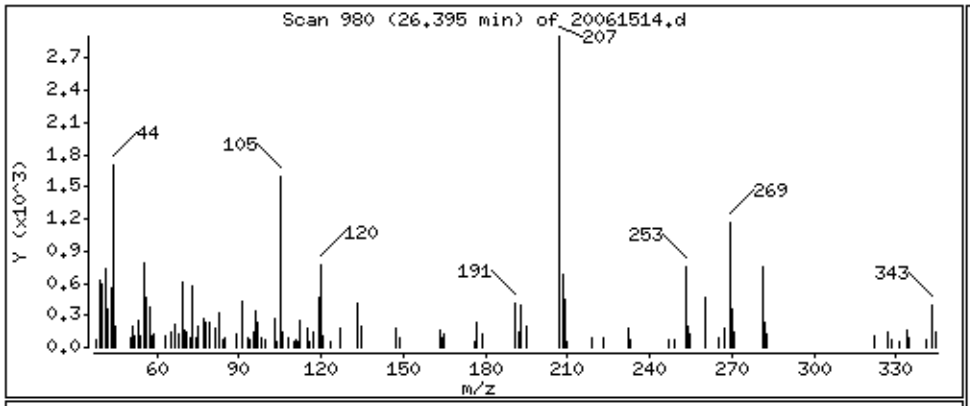
Operator: mjs

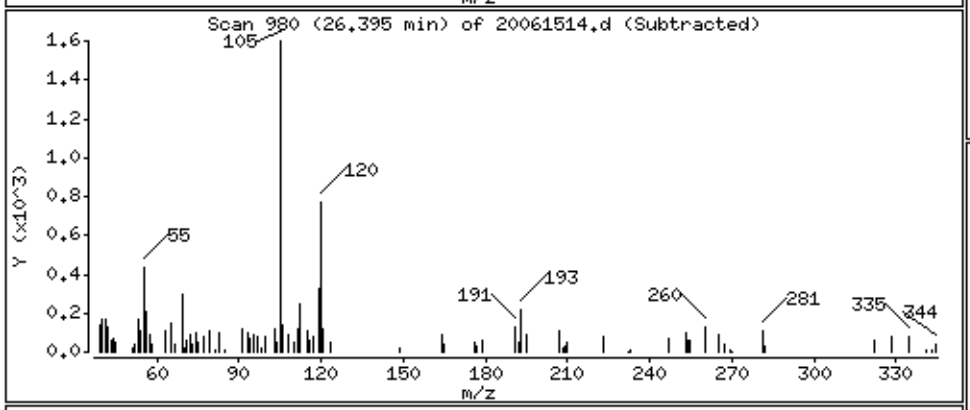
Column phase: RTX-624

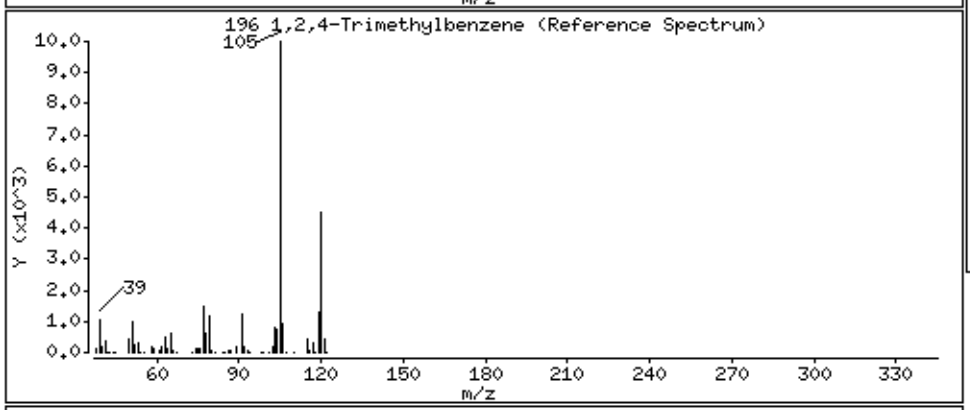
Column diameter: 0.32

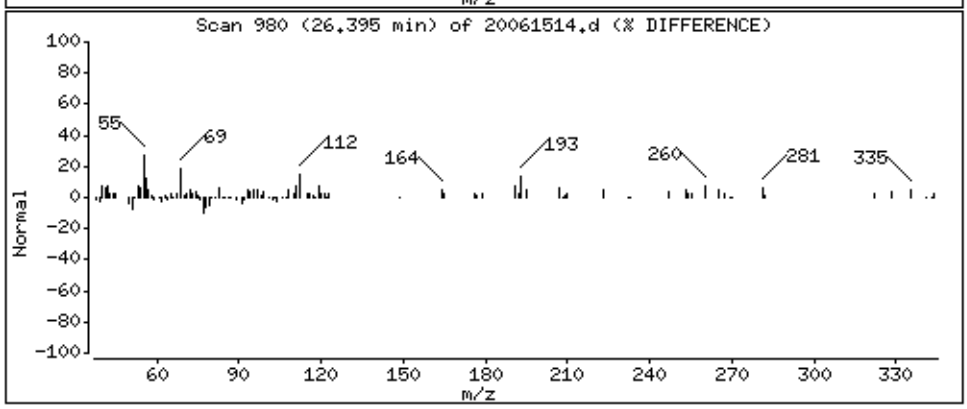
196 1,2,4-Trimethylbenzene

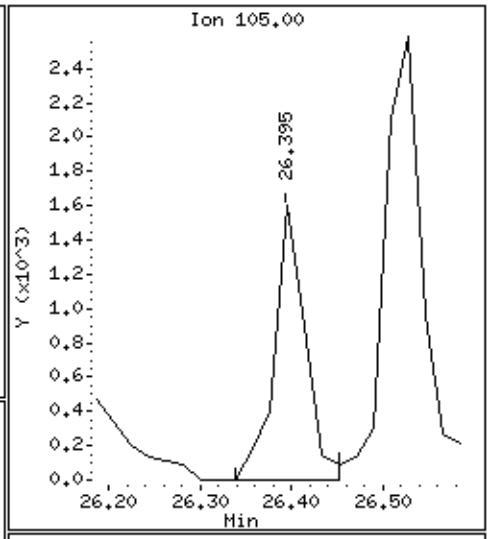
Concentration: 0.05099 PPBV

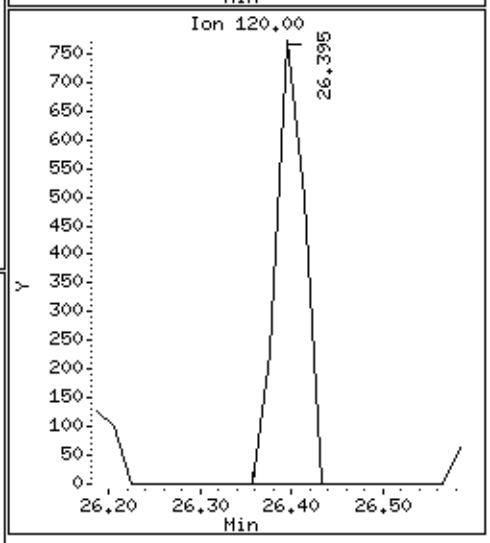












Data File: /chem/msd20.i/15Jun2016.b/20061514.d

Date : 15-JUN-2016 20:15

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L1283

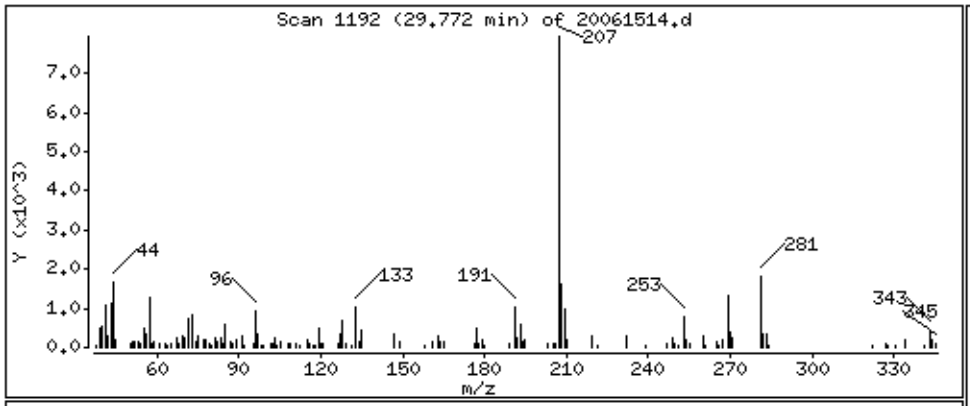
Operator: mjs

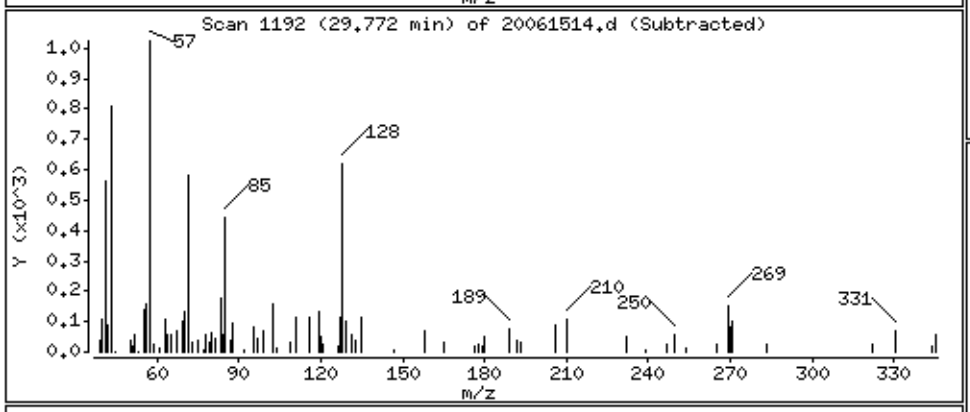
Column phase: RTX-624

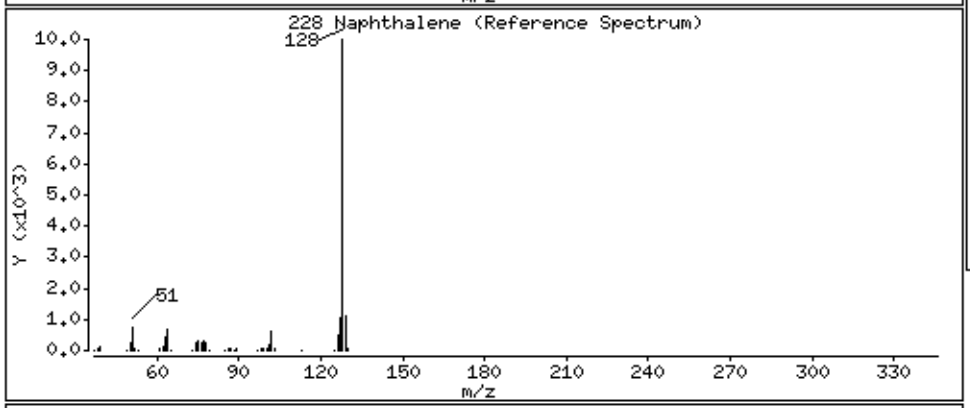
Column diameter: 0.32

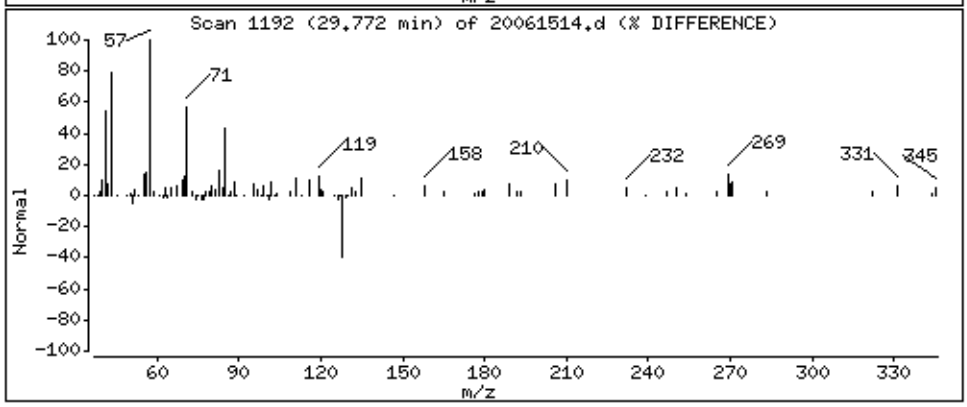
228 Naphthalene

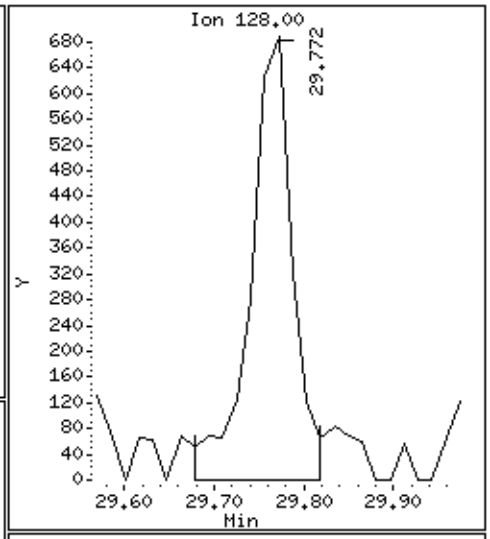
Concentration: 0.02841 PPBV

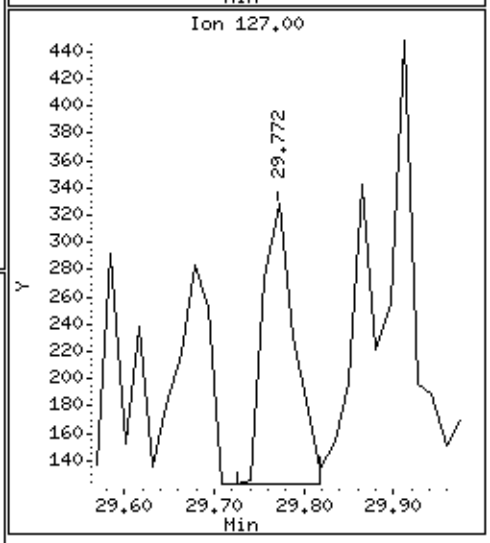












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7IA-1(061016) Lab Duplicate

Lab ID#: 1606298A-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
Chloromethane	0.80	1.0	1.7	2.2
Freon 11	0.16	7.8	0.90	44
Ethanol	0.80	7.6	1.5	14
Freon 113	0.16	0.064 J	1.2	0.49 J
Acetone	0.80	14	1.9	35
2-Propanol	0.80	2.4	2.0	5.9
Methylene Chloride	0.32	0.18 J	1.1	0.62 J
Hexane	0.16	0.090 J	0.57	0.32 J
2-Butanone (Methyl Ethyl Ketone)	0.80	2.8	2.4	8.1
Carbon Tetrachloride	0.16	0.069 J	1.0	0.43 J
Benzene	0.16	0.086 J	0.51	0.28 J
Heptane	0.16	0.20	0.66	0.82
4-Methyl-2-pentanone	0.16	0.12 J	0.66	0.51 J
Toluene	0.16	2.2	0.61	8.2
2-Hexanone	0.80	0.35 J	3.3	1.4 J
m,p-Xylene	0.16	0.12 J	0.70	0.52 J
o-Xylene	0.16	0.048 J	0.70	0.21 J
Styrene	0.16	0.027 J	0.68	0.12 J
4-Ethyltoluene	0.16	0.037 J	0.79	0.18 J
1,2,4-Trimethylbenzene	0.16	0.040 J	0.79	0.20 J
Naphthalene	0.80	0.019 J	4.2	0.10 J

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Client Sample ID: B7IA-1(061016) Lab Duplicate

Lab ID#: 1606298A-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061522**	**Date of Collection:**	**6/11/16 6:50:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**6/16/16 10:24 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.55	0.80	2.7
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	1.0	1.7	2.2
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	7.8	0.90	44
Ethanol	0.80	7.6	1.5	14
Freon 113	0.16	0.064 J	1.2	0.49 J
1,1-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Acetone	0.80	14	1.9	35
2-Propanol	0.80	2.4	2.0	5.9
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.18 J	1.1	0.62 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Hexane	0.16	0.090 J	0.57	0.32 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	2.8	2.4	8.1
cis-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	0.069 J	1.0	0.43 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
Benzene	0.16	0.086 J	0.51	0.28 J
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	0.20	0.66	0.82
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	Not Detected	0.58	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	0.12 J	0.66	0.51 J
Toluene	0.16	2.2	0.61	8.2
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.88	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	0.35 J	3.3	1.4 J

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Client Sample ID: B7IA-1(061016) Lab Duplicate

Lab ID#: 1606298A-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061522**	**Date of Collection:**	**6/11/16 6:50:00 PM**
Dil. Factor:	**1.61**	**Date of Analysis:**	**6/16/16 10:24 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.70	Not Detected
m,p-Xylene	0.16	0.12 J	0.70	0.52 J
o-Xylene	0.16	0.048 J	0.70	0.21 J
Styrene	0.16	0.027 J	0.68	0.12 J
Bromoform	0.16	Not Detected	1.7	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	0.037 J	0.79	0.18 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.040 J	0.79	0.20 J
1,3-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6.0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.6	Not Detected
Naphthalene	0.80	0.019 J	4.2	0.10 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061522.d
Lab Smp Id: 1606298A-01AA
Inj Date : 16-JUN-2016 10:24
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 6L1283
Misc Info : 5.3"Hg -> 4.8psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.61000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	101650	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	78315			47.16- 107.16	77.04
16.726	16.726 (1.000)	49	128283			84.74- 144.74	126.20
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	445155	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	71602			0.00- 45.65	16.08
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	364004	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	202019			24.05- 84.05	55.50
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	150312	5.55836	5.558	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	80245			28.75- 88.75	53.39
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.822	20.821 (1.142)	98	422335	5.00672	5.007	80.00- 120.00	100.00
20.806	20.806 (1.141)	70	48340			0.00- 41.22	11.45

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

$ 146 Toluene-d8 (continued)
 20.822  20.821 (1.142)   100    284202                    37.90-  97.90    67.29
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    185454 4.63402    4.634  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    227491                   88.33- 148.33   122.67
 25.485  25.485 (1.073)   176    178515                   68.77- 128.77    96.26
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.721   4.672 (0.282)    85     27145 0.33999   0.5474  80.00- 120.00   100.00
  4.721   4.648 (0.282)    87      5238                     2.50-  62.50    19.30
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.625   6.552 (0.396)    50     16870 0.64983    1.046  80.00- 120.00   100.00
  6.625   6.552 (0.396)    52      5964                     3.09-  63.09    35.35
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101    379971 4.84375    7.798  80.00- 120.00   100.00
 11.138  11.114 (0.666)   103    243235                   34.69-  94.69    64.01
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45     48559 4.69240    7.555  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46     20077                   11.01-  71.01    41.35
 12.296  12.269 (0.735)    43     11066                    0.00-  50.63    22.79
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.763)   151      2271 0.03950  0.06359  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      1687                   34.65-  94.65    74.31
 12.763  12.763 (0.763)   101      2910                   90.37- 150.37   128.16
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58    137521 9.05732   14.582  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    427559                  275.09- 335.09   310.90
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.532 (0.811)    45     72825 1.49098    2.400  80.00- 120.00   100.00
 13.560  13.532 (0.811)    43     17302                    0.00-  49.91    23.76
 13.560  13.532 (0.811)    59      3154                    0.00-  34.18     4.33
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.054  14.027 (0.840)    84      3683 0.11143   0.1794  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      4506                   88.46- 148.46   122.36
 14.027  14.027 (0.839)    51      2034                    6.78-  66.78    55.23
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57      2760 0.05595  0.09008  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane (continued)							
14.933	14.878 (0.893)	43	10329			31.00- 91.00	374.13
0.000	14.878 (0.000)	86	0			0.00- 49.39	0.00
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	27654	1.70875	2.751	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	106947			324.50- 384.50	386.72
16.344	16.344 (0.977)	57	8472			0.00- 59.24	30.64
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2367	0.04288	0.06904	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	2086			73.36- 133.36	88.13
116 Benzene					CAS #: 71-43-2		
17.621	17.620 (0.966)	78	5541	0.05375	0.08653	80.00- 120.00	100.00(a)
17.621	17.620 (0.966)	77	1137			0.00- 53.54	20.52
121 Heptane					CAS #: 142-82-5		
17.867	17.847 (0.980)	57	3635	0.12500	0.2012	80.00- 120.00	100.00
17.867	17.847 (0.980)	100	413			10.87- 70.87	11.37
17.867	17.847 (0.980)	43	8888			148.15- 208.15	244.47
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.556 (1.128)	43	5653	0.07715	0.1242	80.00- 120.00	100.00(a)
20.572	20.556 (1.128)	58	2118			11.51- 71.51	37.47
20.557	20.556 (1.128)	85	938			0.00- 48.80	16.60
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	159823	1.35444	2.181	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	95698			30.55- 90.55	59.88
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	8211	0.21817	0.3512	80.00- 120.00	100.00(a)
22.406	22.406 (0.943)	43	13862			146.44- 206.44	168.82
22.406	22.406 (0.943)	100	1659			0.00- 54.43	20.20
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	3629	0.07376	0.1187	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	6762			164.82- 224.82	186.34
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	1441	0.02992	0.04818	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	3274			174.08- 234.08	227.12
172 Styrene					CAS #: 100-42-5		
24.731	24.730 (1.041)	104	1246	0.01681	0.02706	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
172 Styrene (continued)							
24.731	24.730 (1.041)	78	1044			19.76- 79.76	83.81
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	2854	0.02301	0.03704	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	938			0.68- 60.68	32.88
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	2690	0.02482	0.03996	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1328			18.29- 78.29	49.39
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	1413	0.01208	0.01944	80.00- 120.00	100.00(a)
29.756	29.772 (1.252)	127	309			0.00- 43.33	21.90

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: msd20.i
Lab File ID: 20061522.d
Lab Smp Id: 1606298A-01AA
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.3"Hg -> 4.8psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	101650	-13.55
123 1,4-Difluorobenze	491034	294620	687448	445155	-9.34
163 Chlorobenzene-d5	413171	247903	578439	364004	-11.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:16

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-01AA
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.3"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.558	111.17	70-130
$ 146 Toluene-d8	5.000	5.007	100.13	70-130
$ 177 4-Bromofluorobenze	5.000	4.634	92.68	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

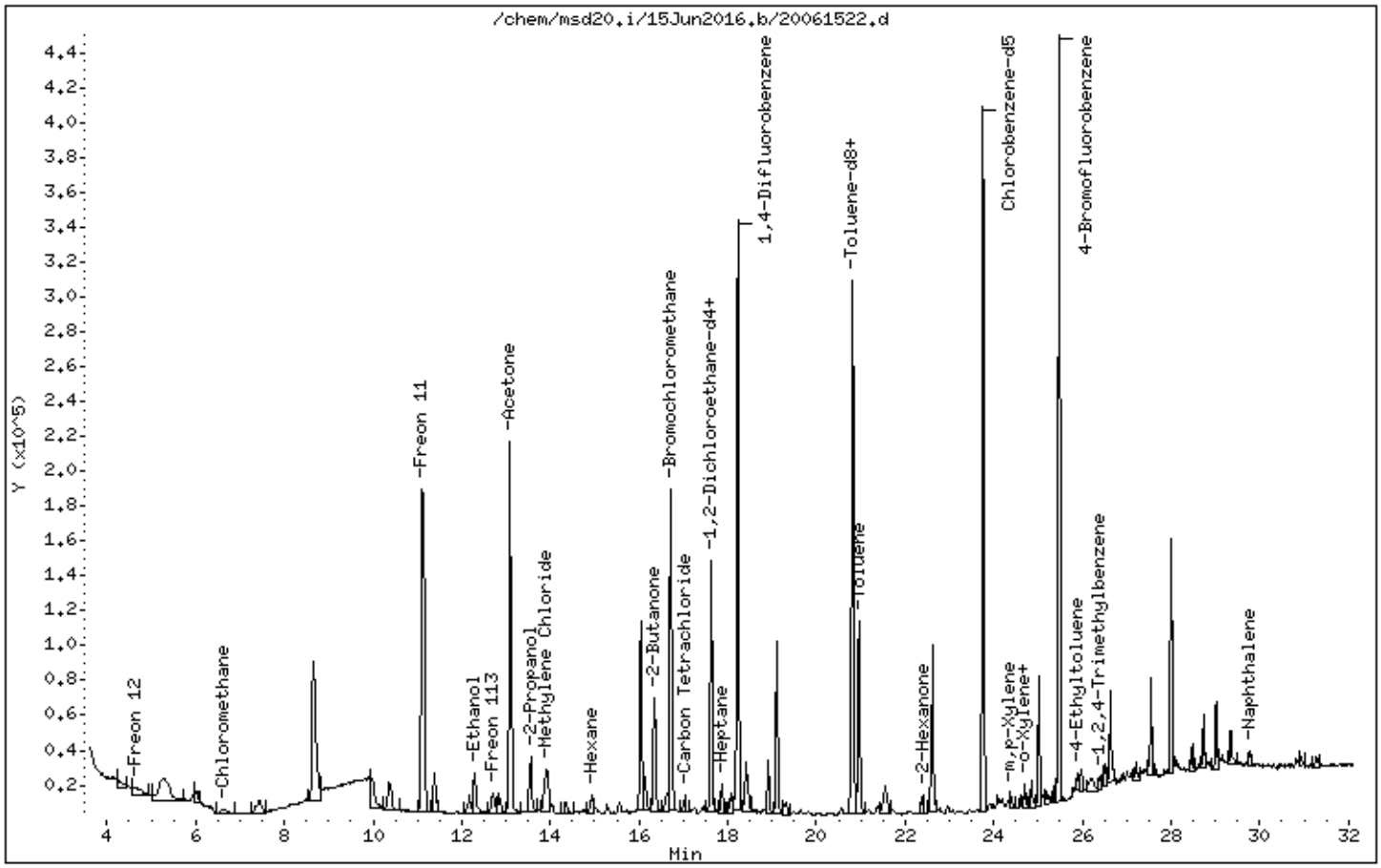
Instrument: msd20.i

Sample Info: 250mL# 6L1283

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

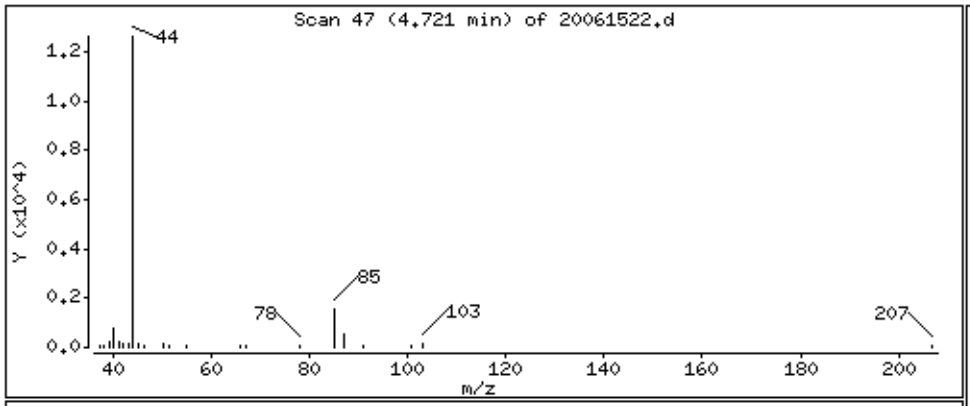
Operator: ef

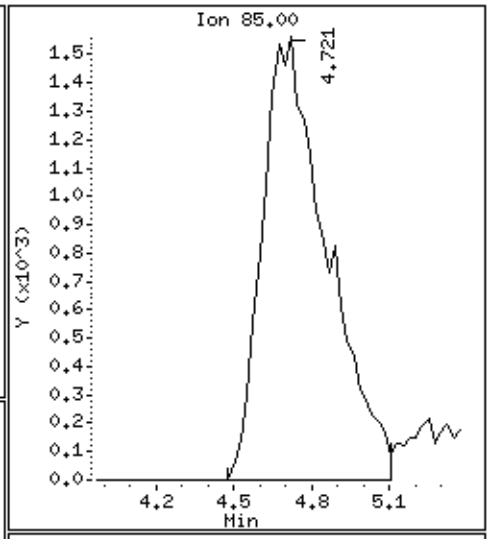
Column phase: RTX-624

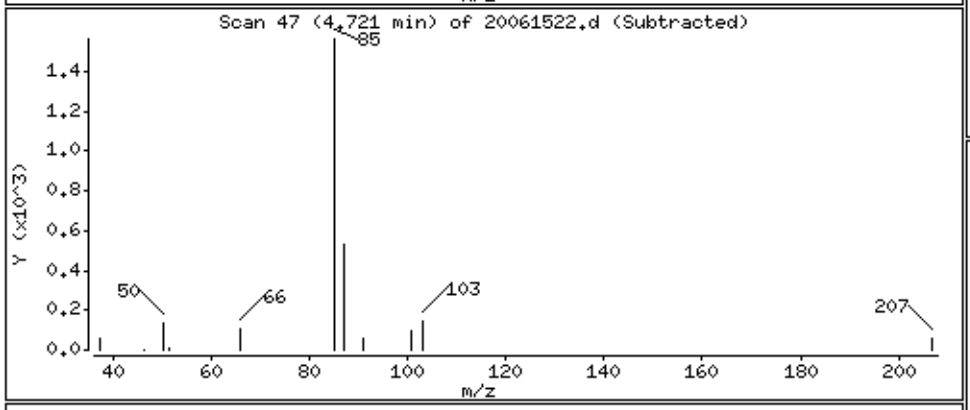
Column diameter: 0.32

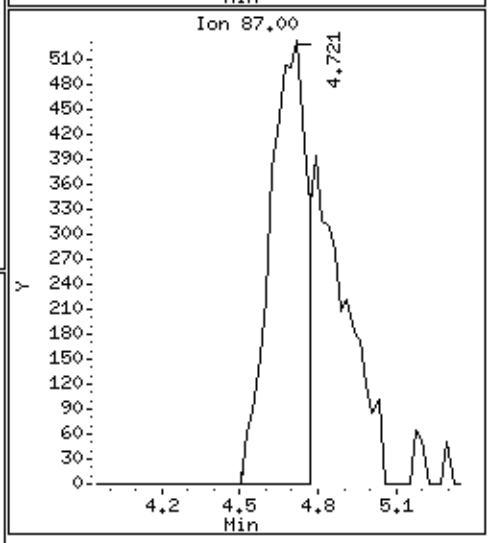
11 Freon 12

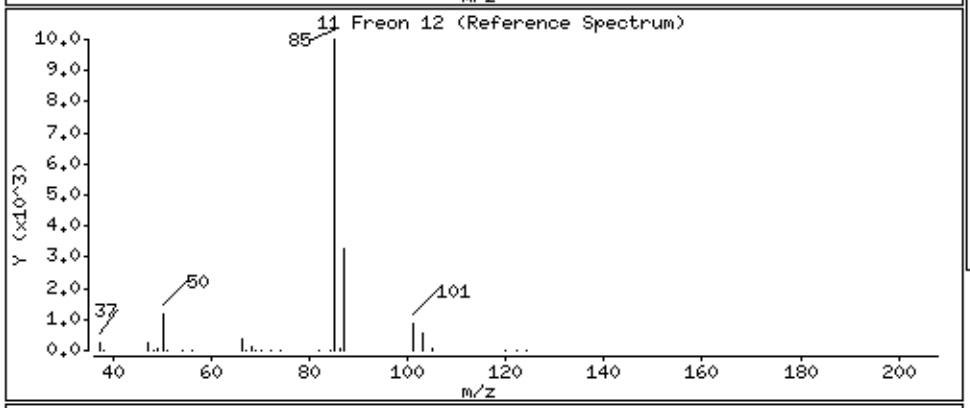
Concentration: 0.5474 PPBV

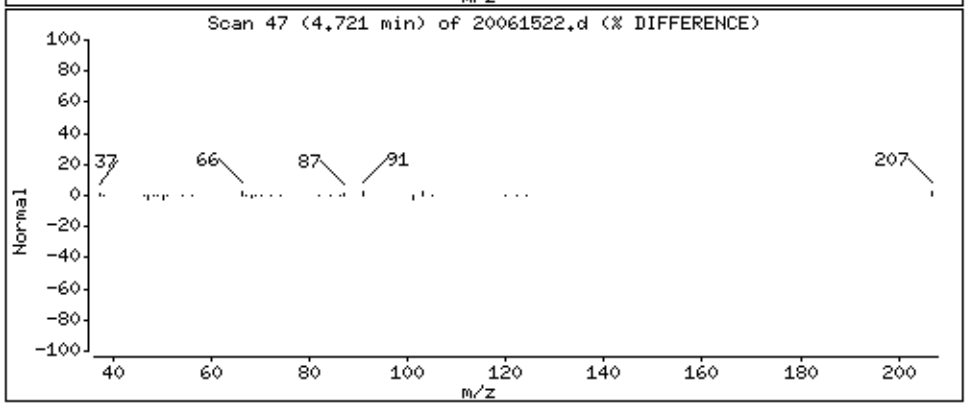












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

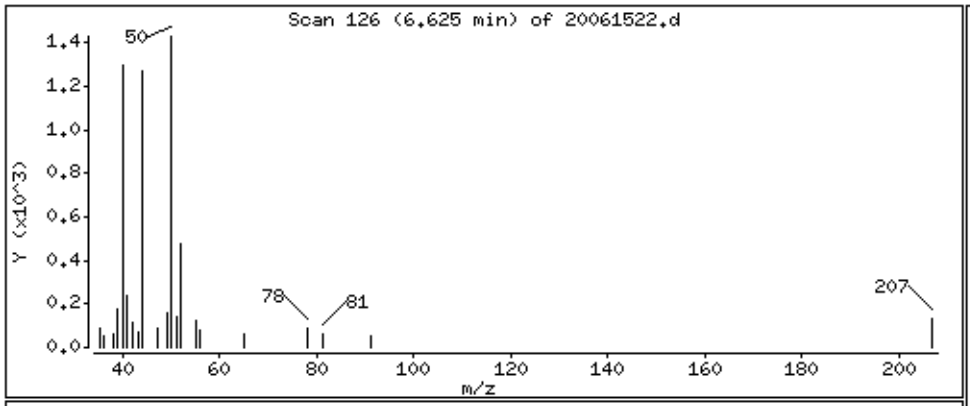
Operator: ef

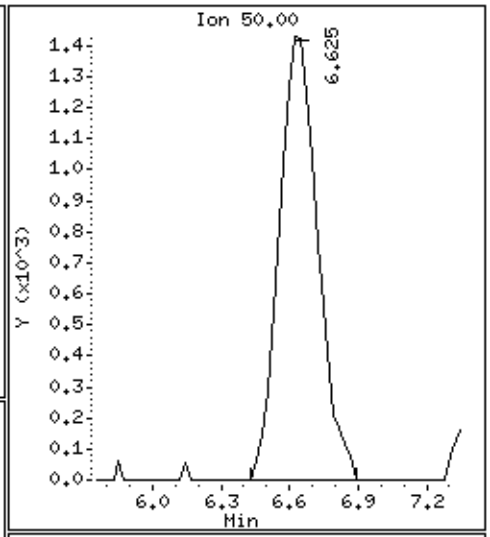
Column phase: RTX-624

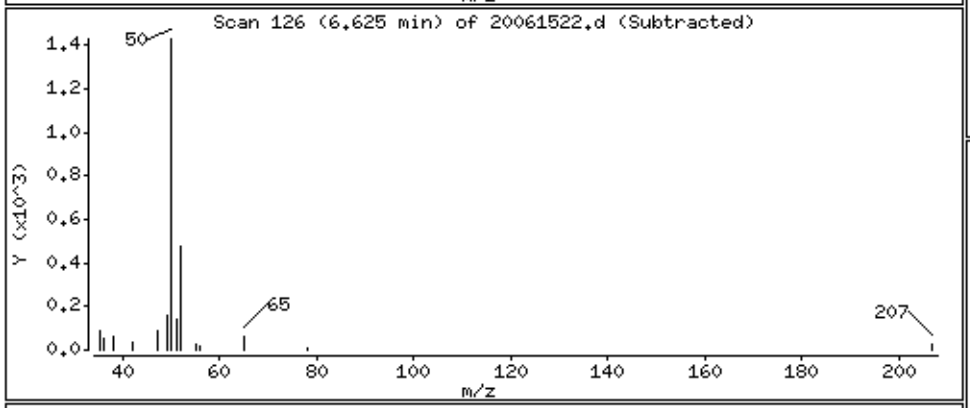
Column diameter: 0.32

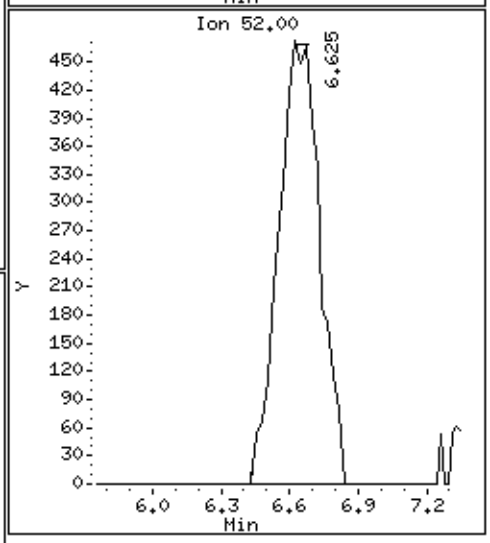
17 Chloromethane

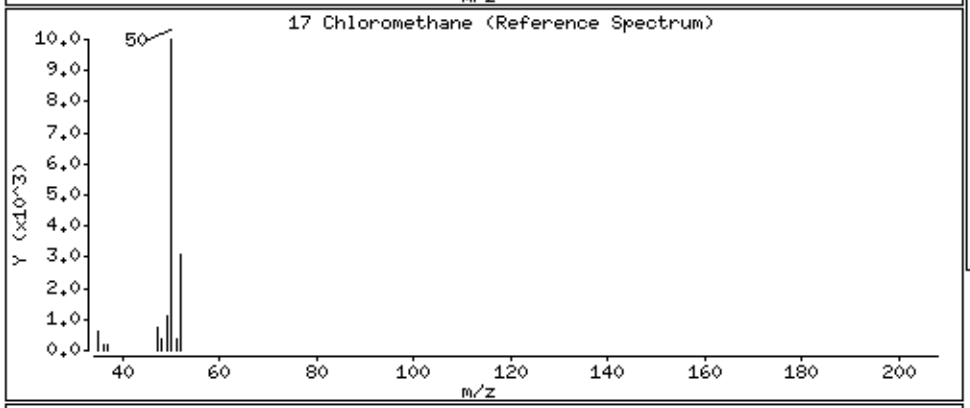
Concentration: 1.046 PPBV

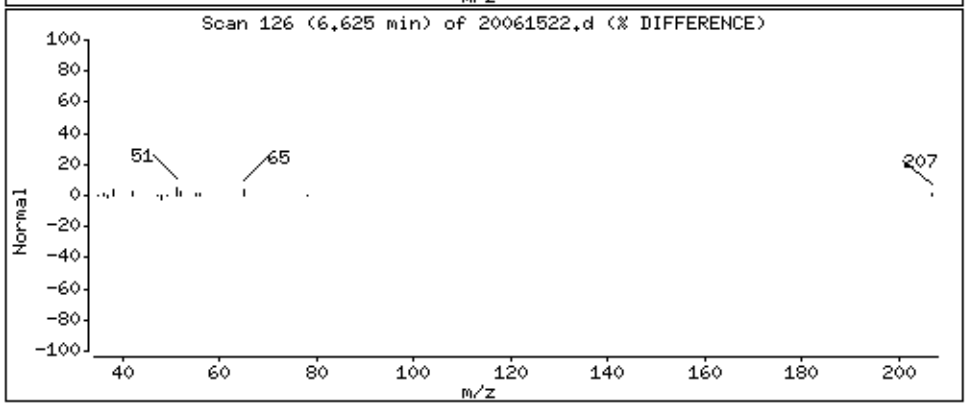












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

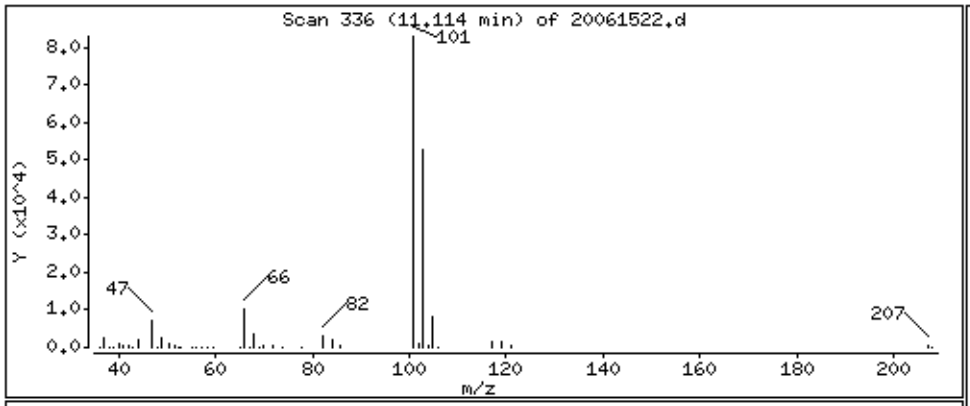
Operator: ef

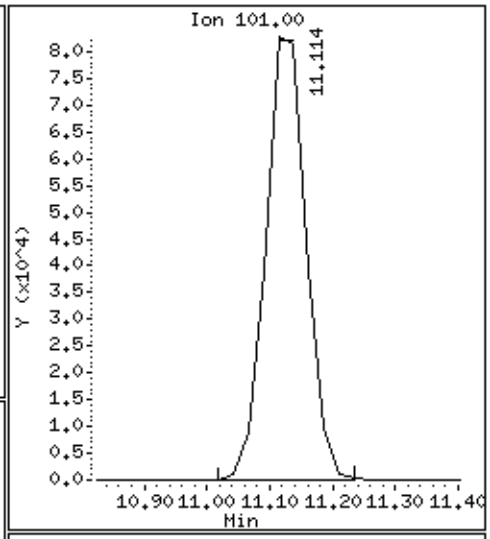
Column phase: RTX-624

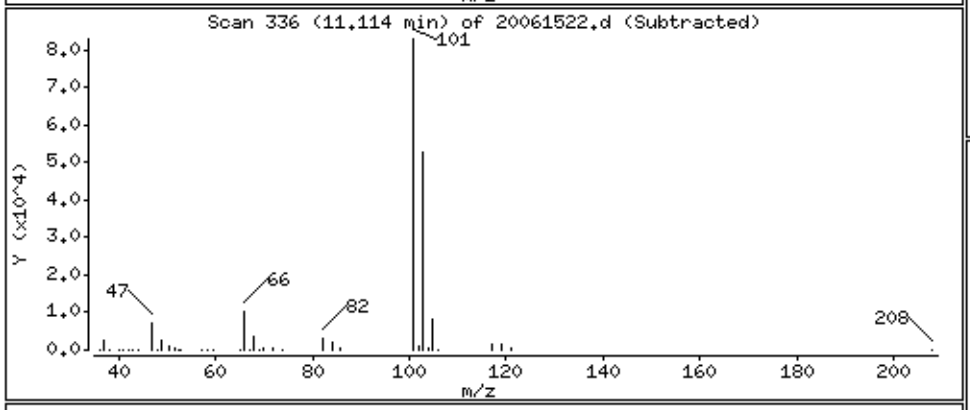
Column diameter: 0.32

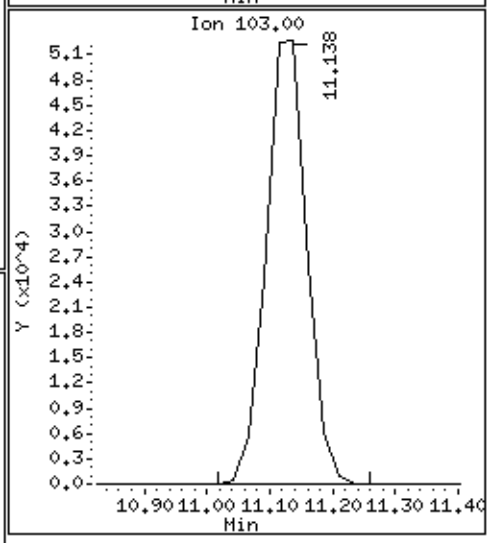
35 Freon 11

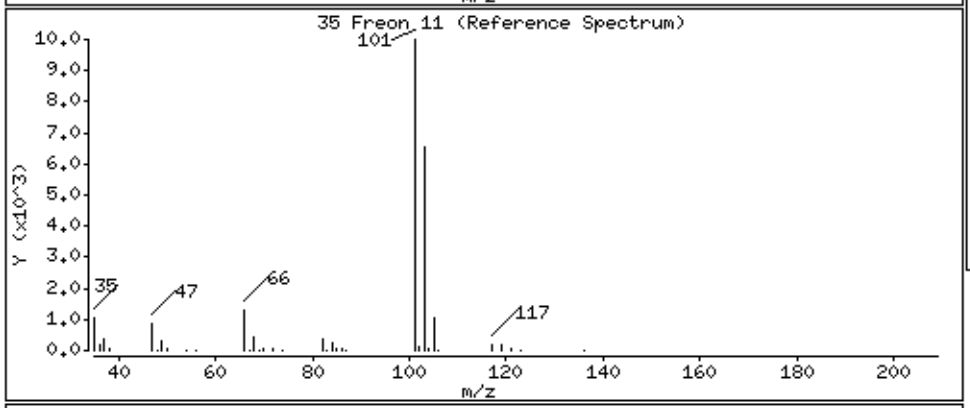
Concentration: 7.798 PPBV

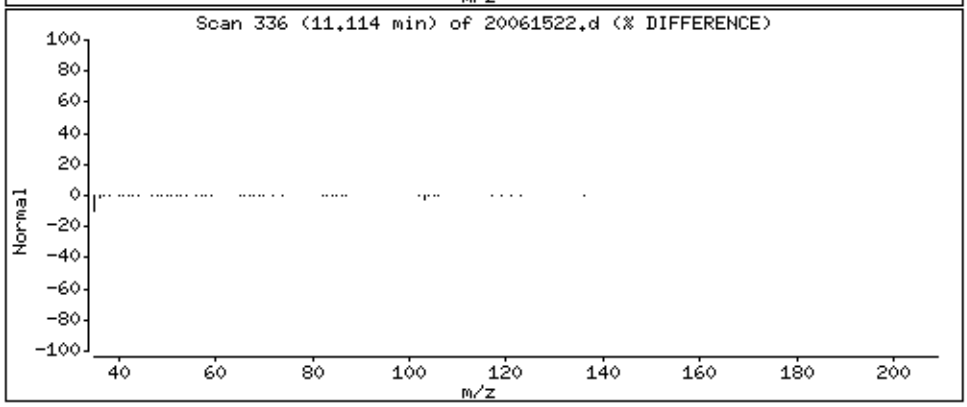












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

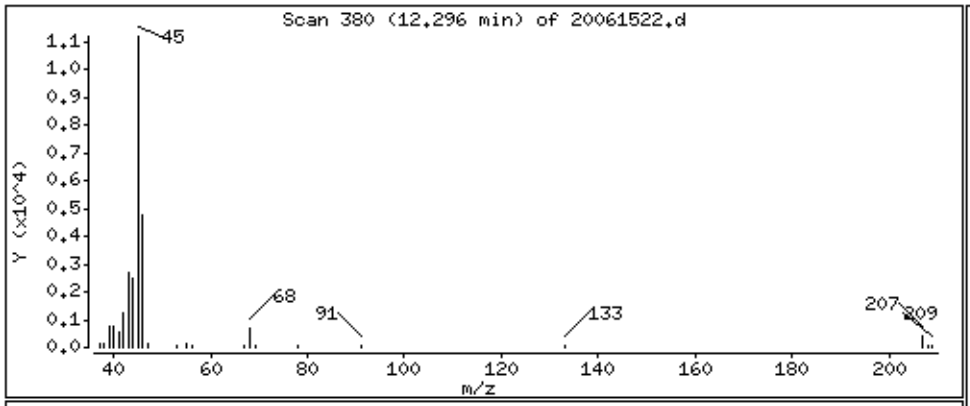
Operator: ef

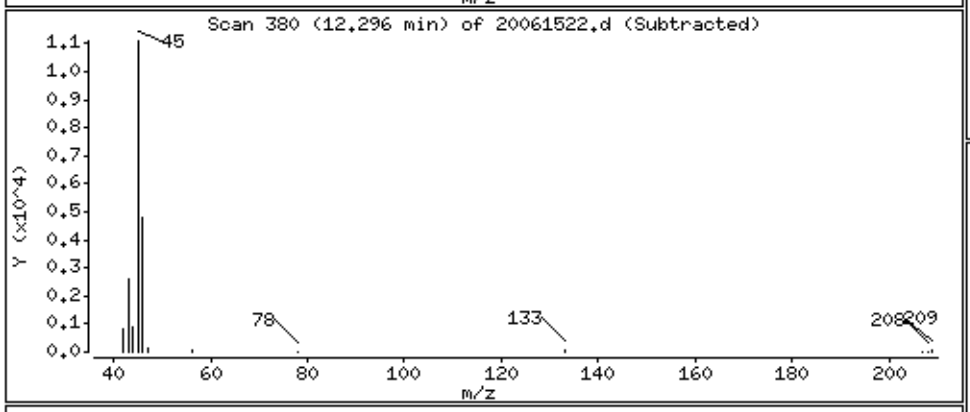
Column phase: RTX-624

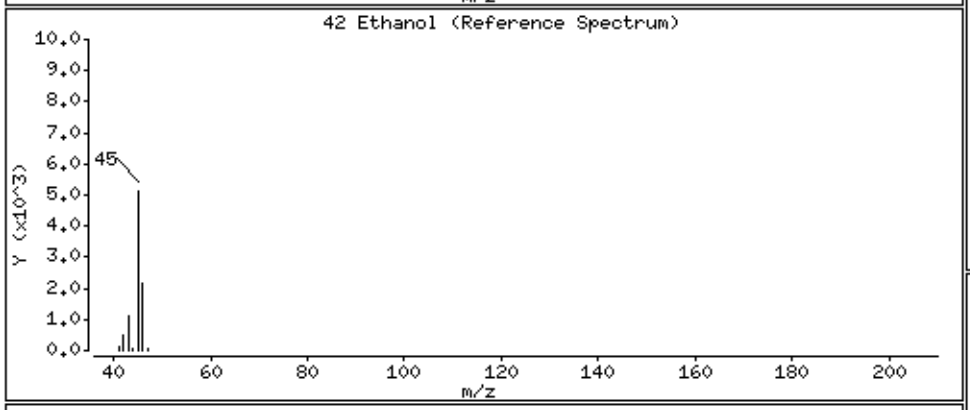
Column diameter: 0.32

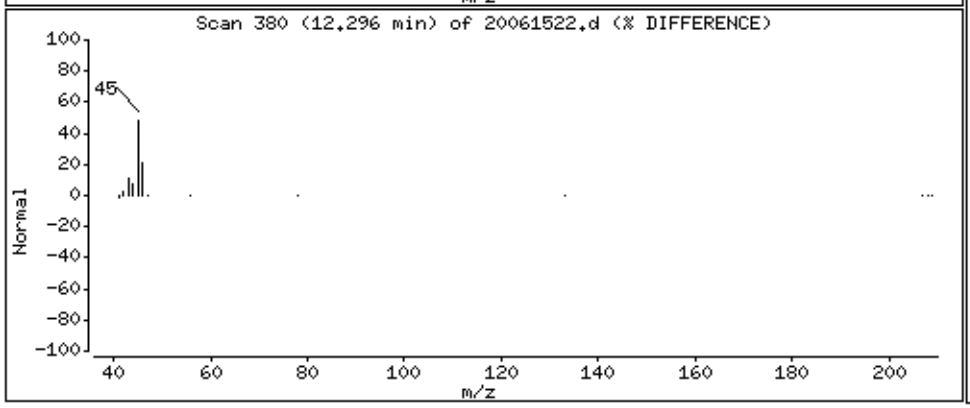
42 Ethanol

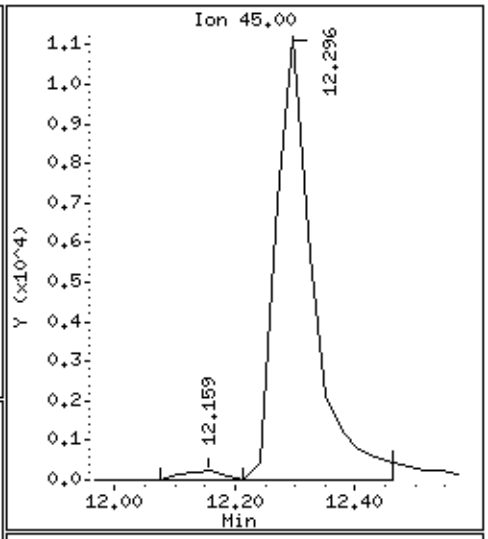
Concentration: 7.555 PPBV

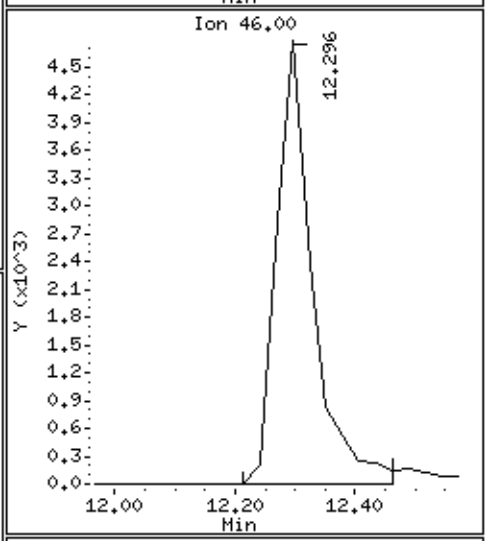


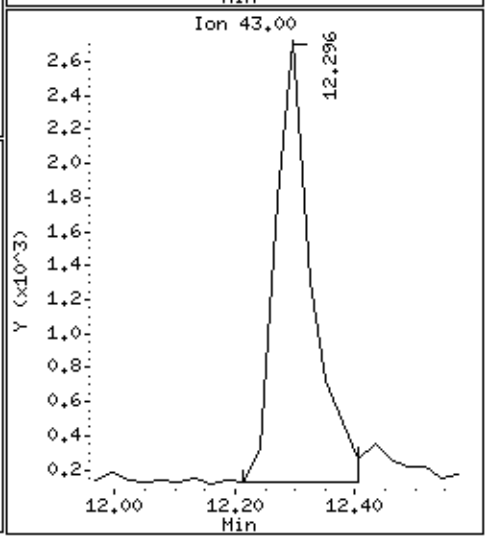












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

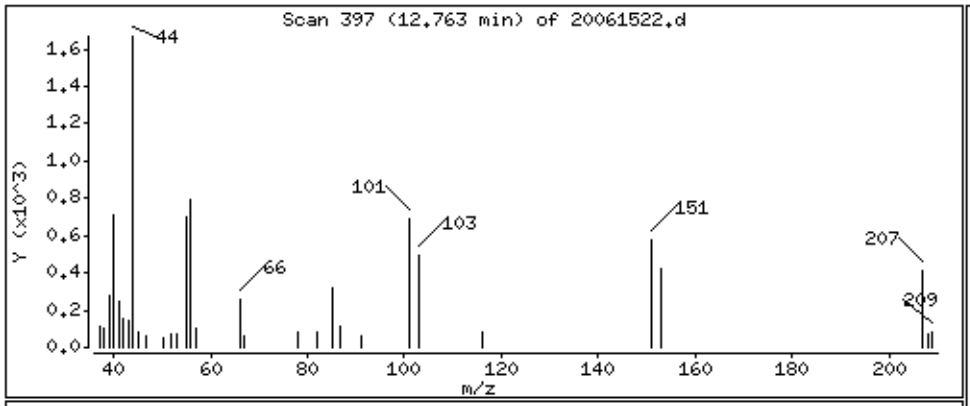
Operator: ef

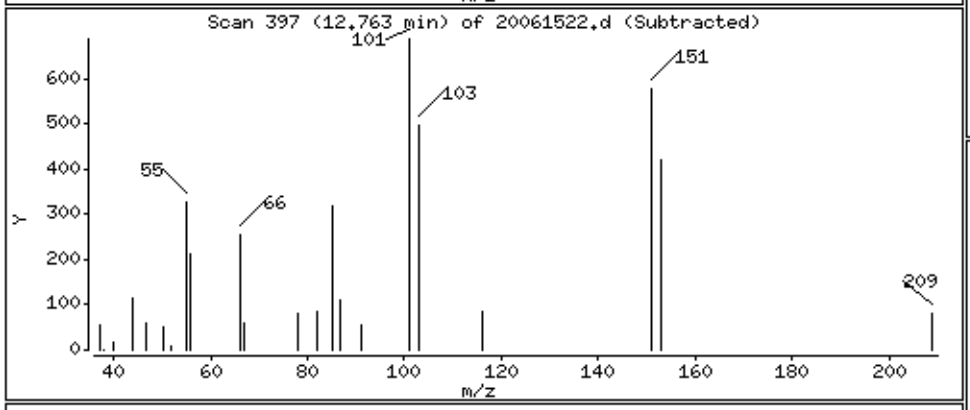
Column phase: RTX-624

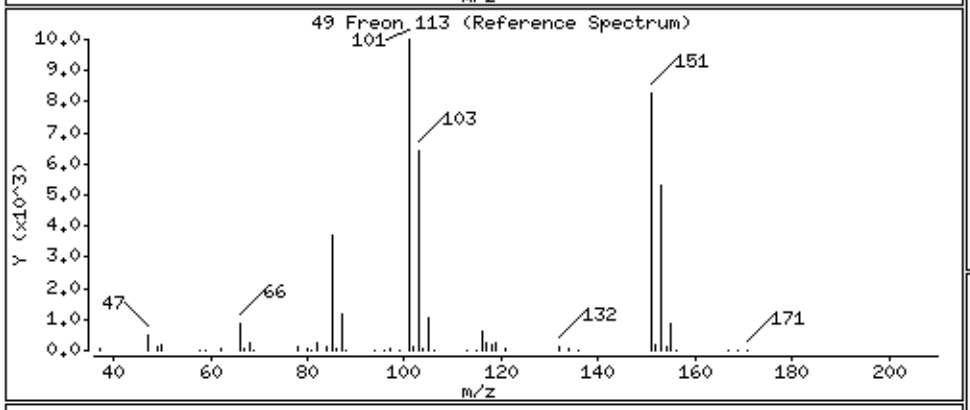
Column diameter: 0.32

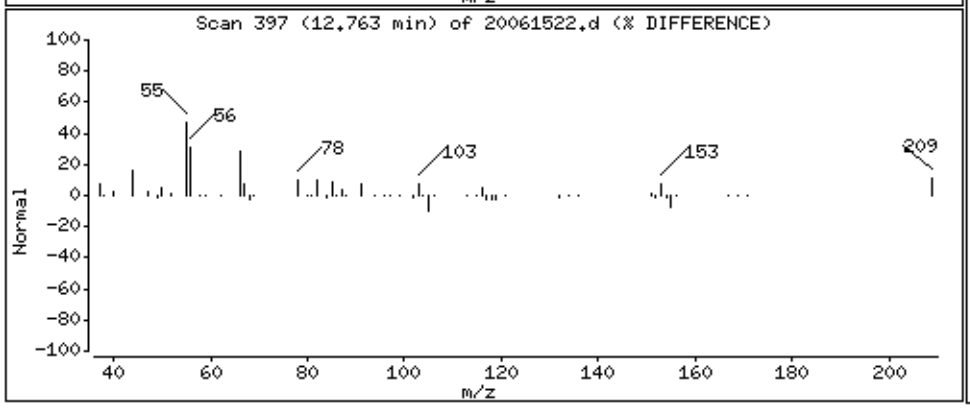
49 Freon 113

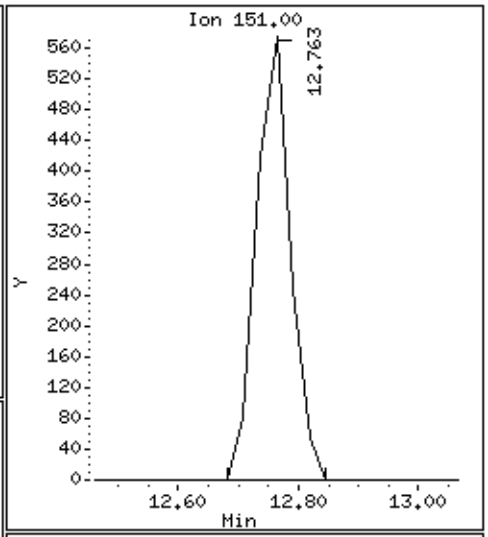
Concentration: 0.06359 PPBV

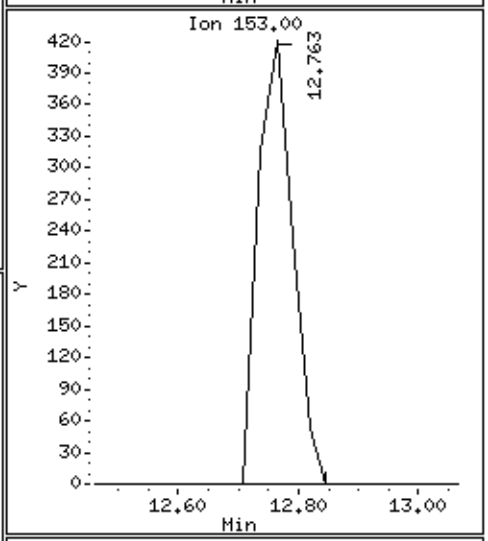


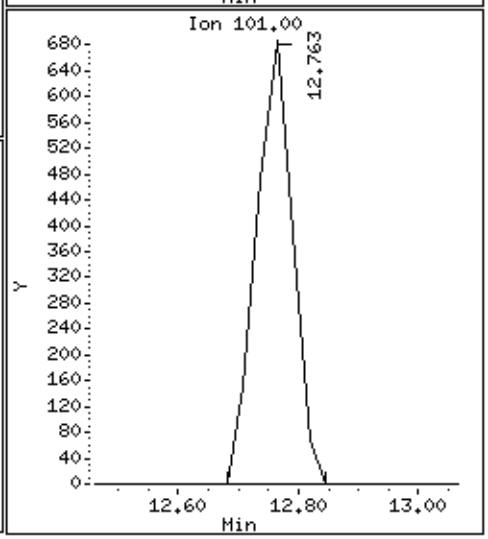












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

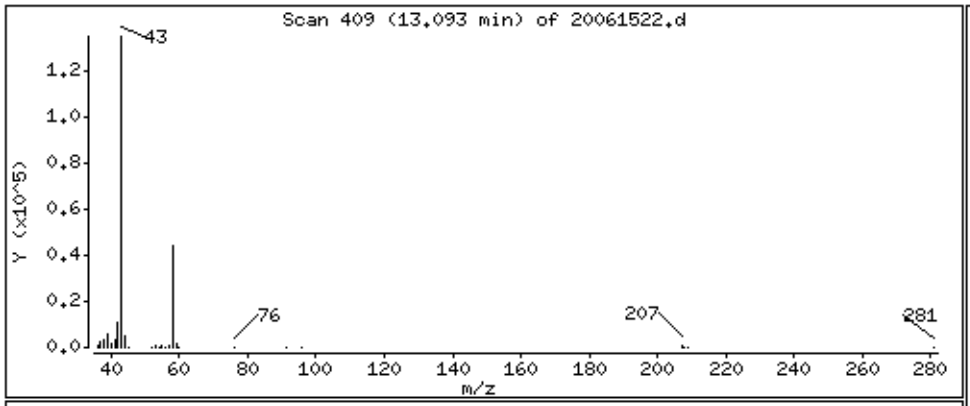
Operator: ef

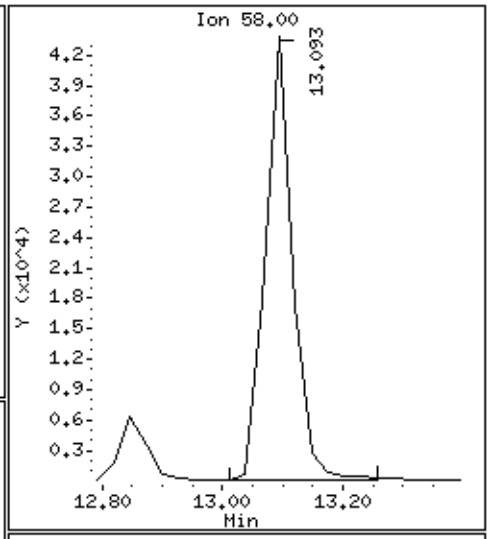
Column phase: RTX-624

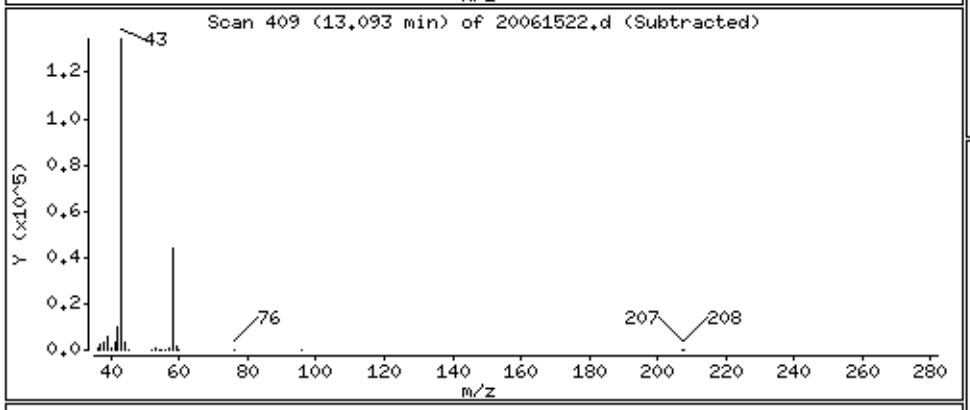
Column diameter: 0.32

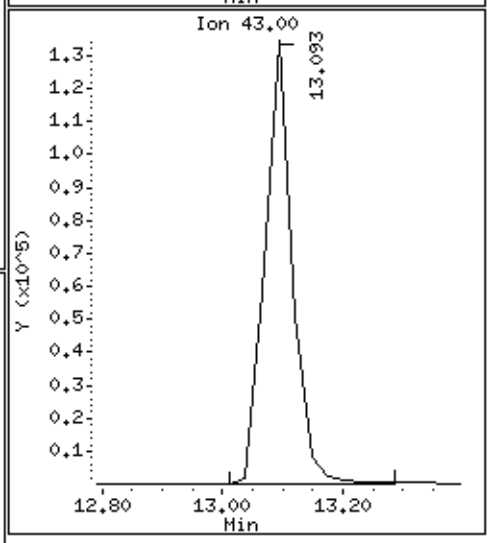
52 Acetone

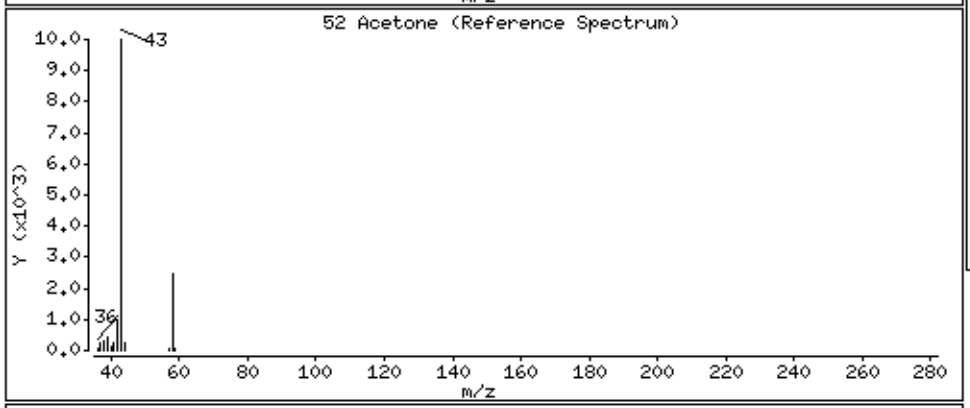
Concentration: 14.582 PPBV

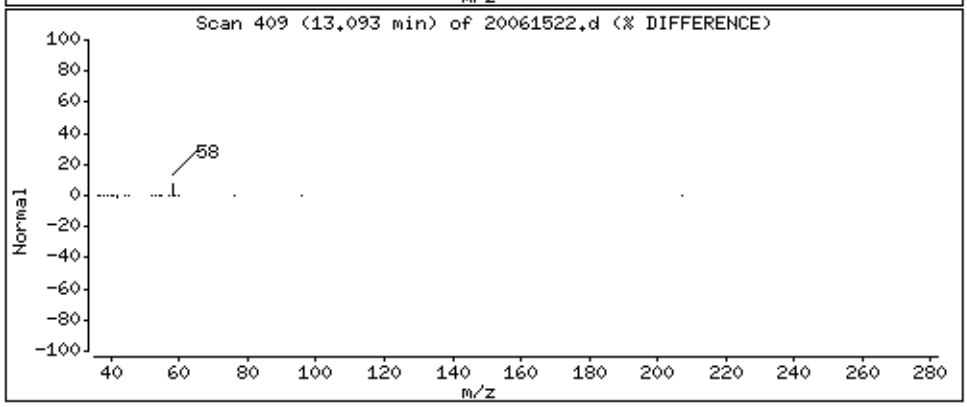












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

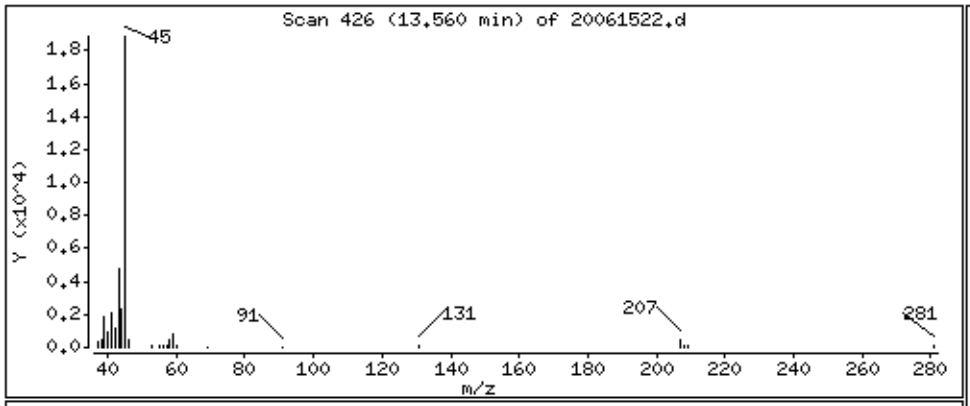
Operator: ef

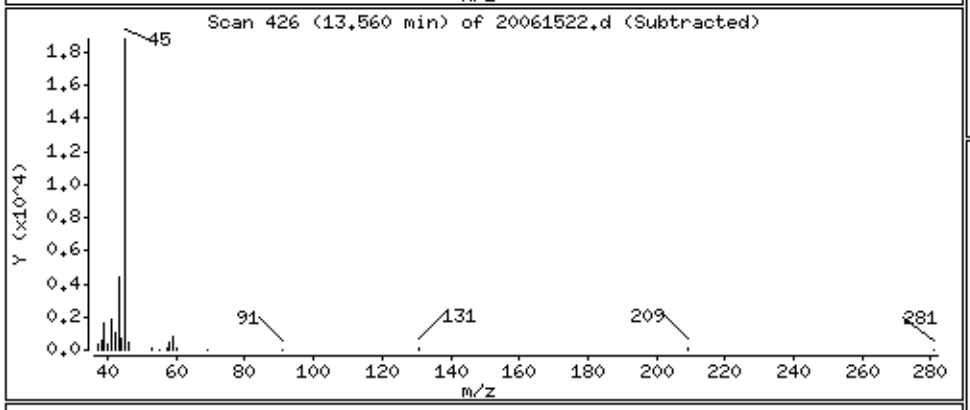
Column phase: RTX-624

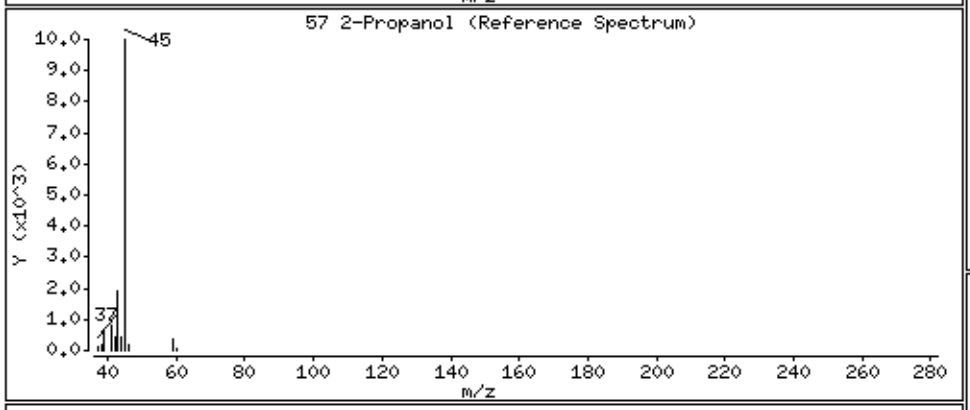
Column diameter: 0.32

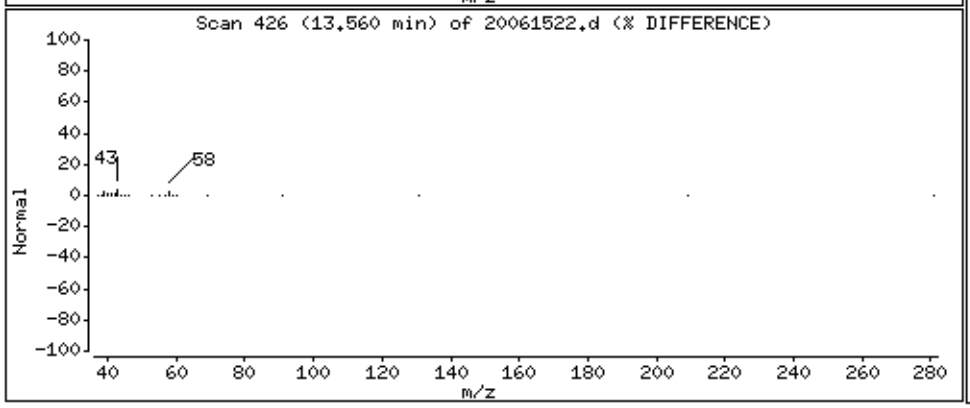
57 2-Propanol

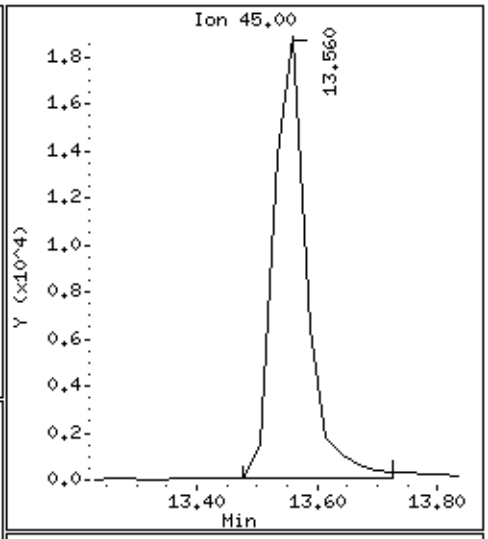
Concentration: 2.400 PPBV

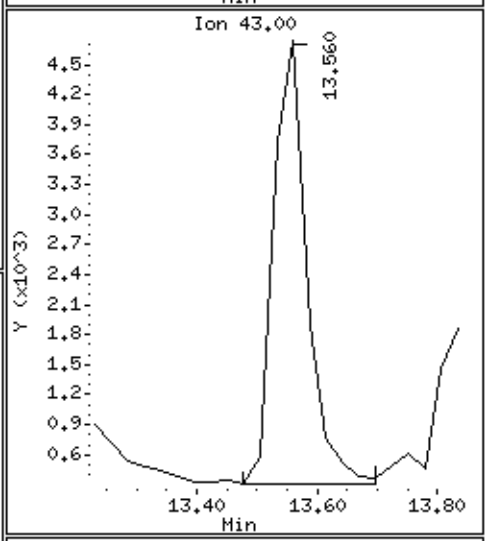


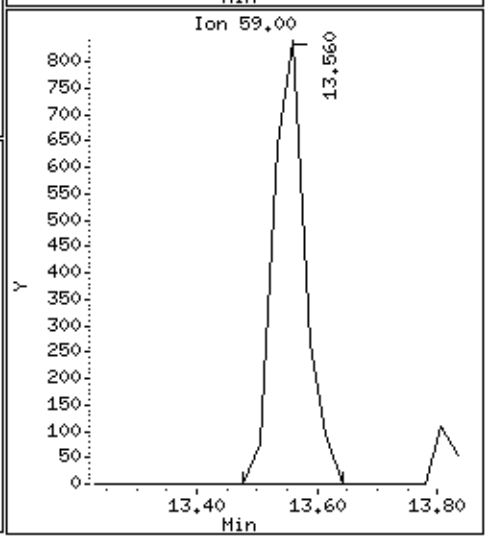












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

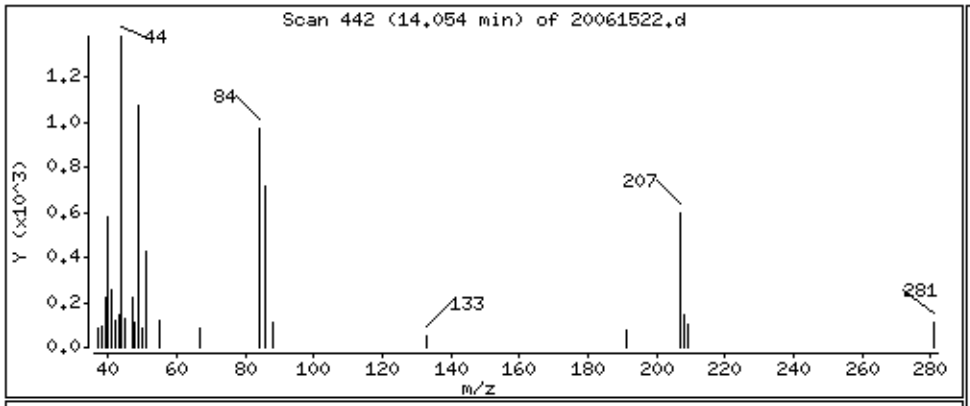
Operator: ef

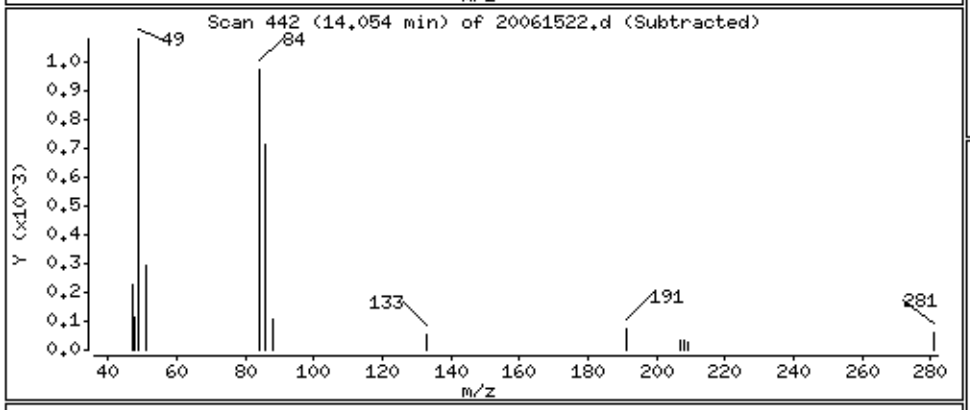
Column phase: RTX-624

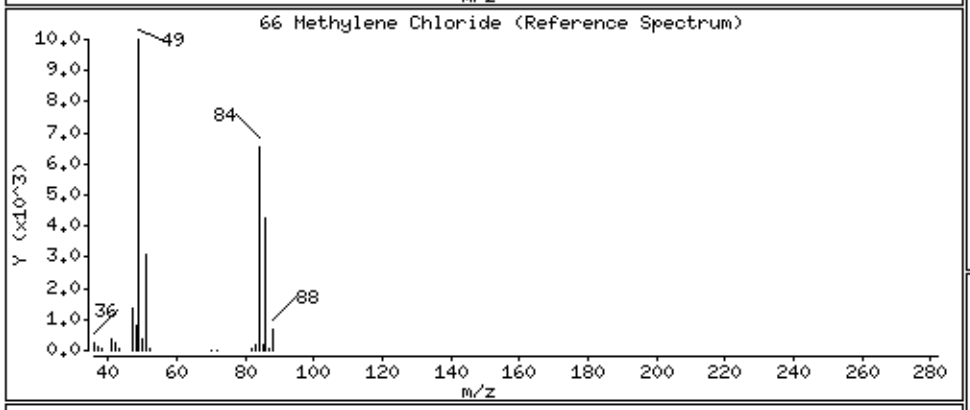
Column diameter: 0.32

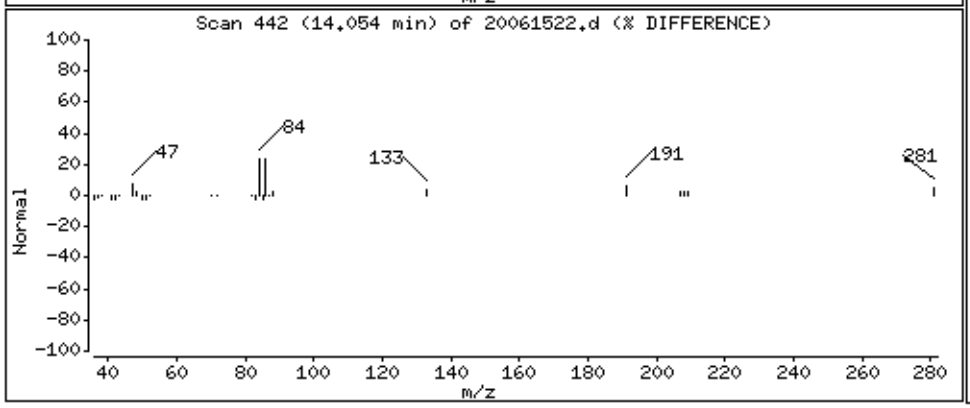
66 Methylene Chloride

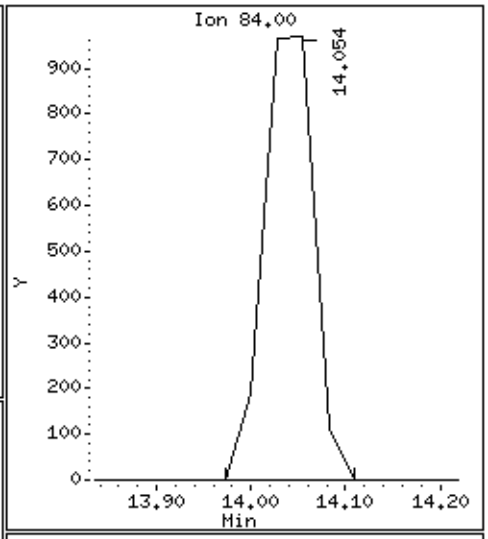
Concentration: 0.1794 PPBV

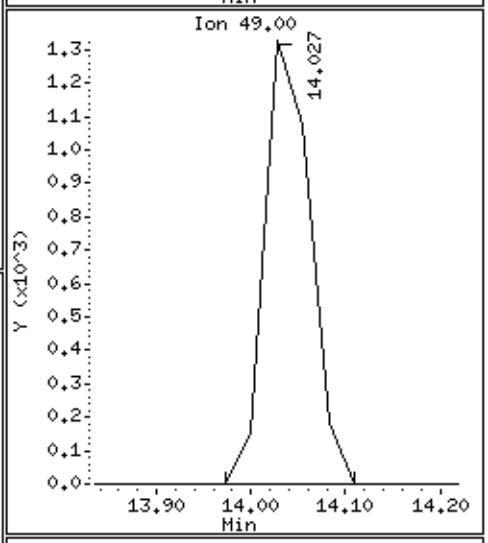


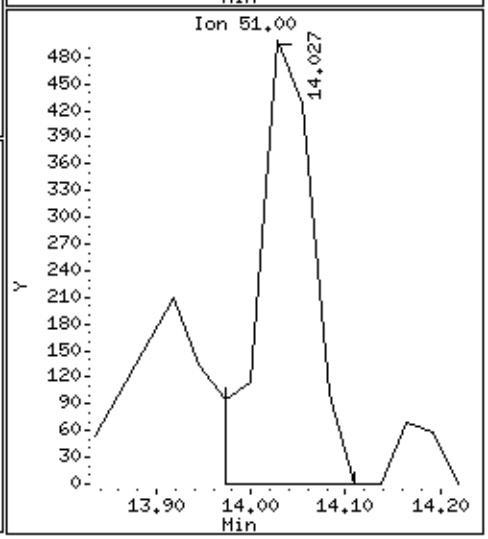












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

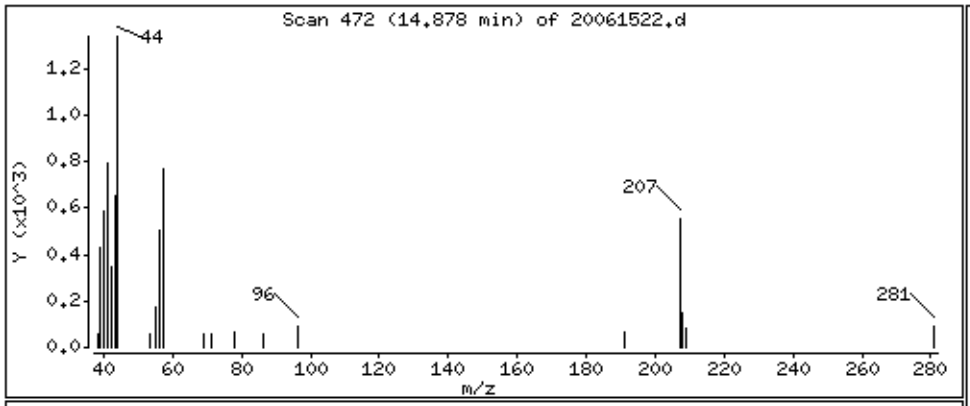
Operator: ef

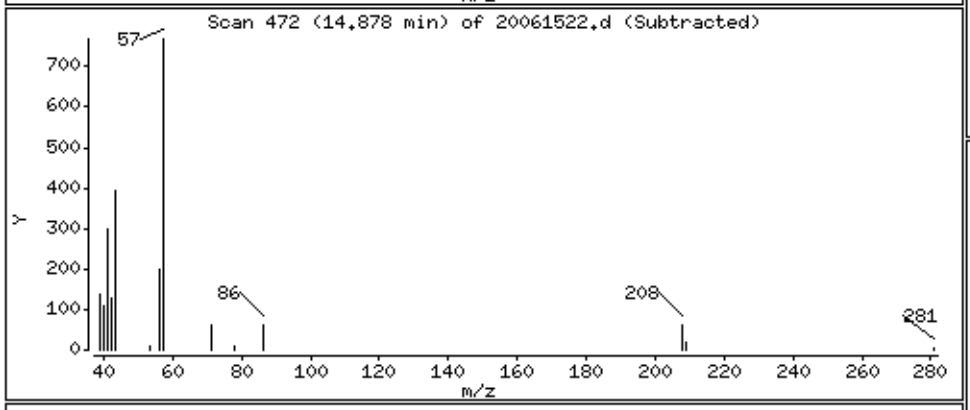
Column phase: RTX-624

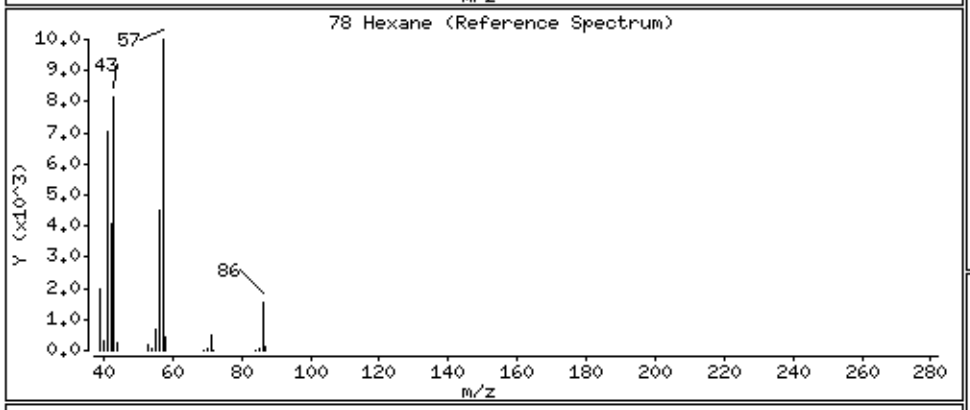
Column diameter: 0.32

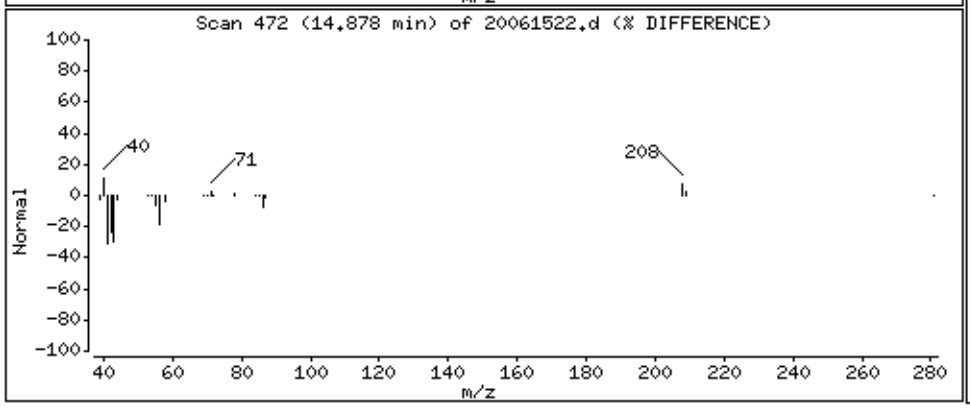
78 Hexane

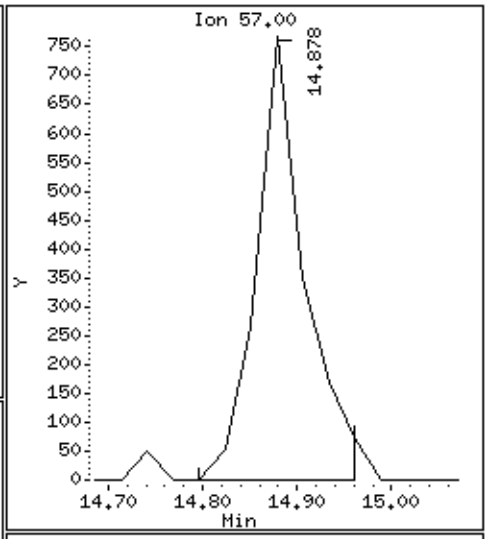
Concentration: 0.09008 PPBV

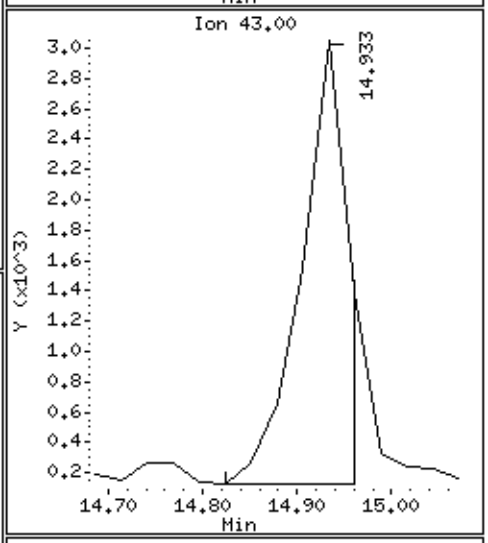


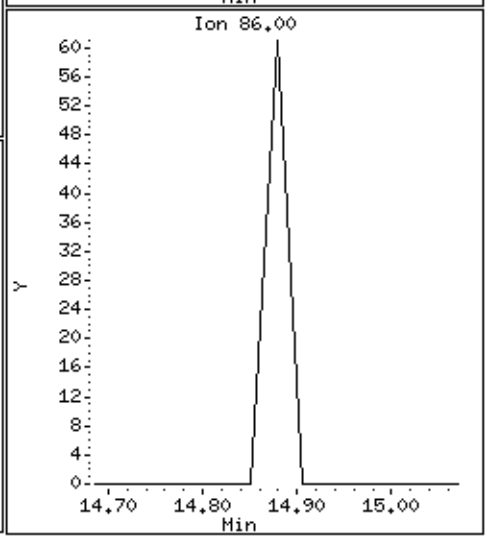












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

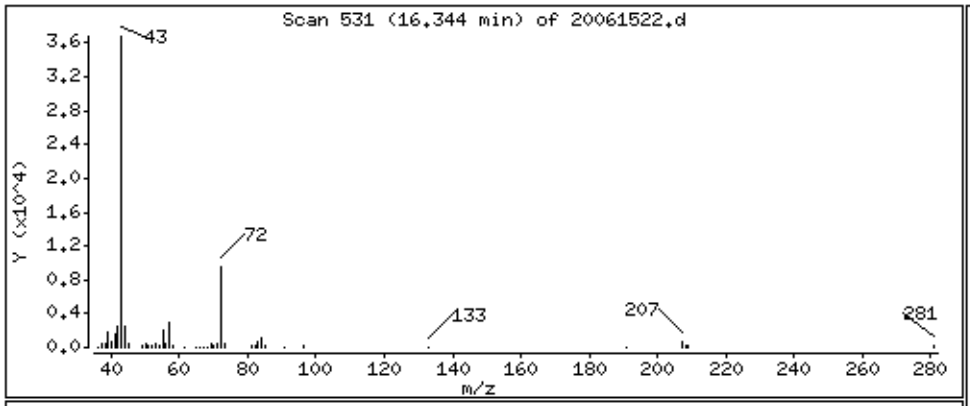
Operator: ef

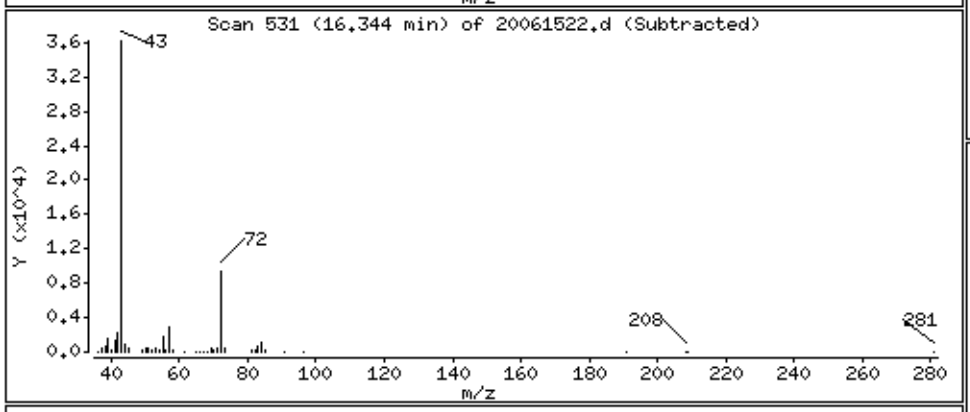
Column phase: RTX-624

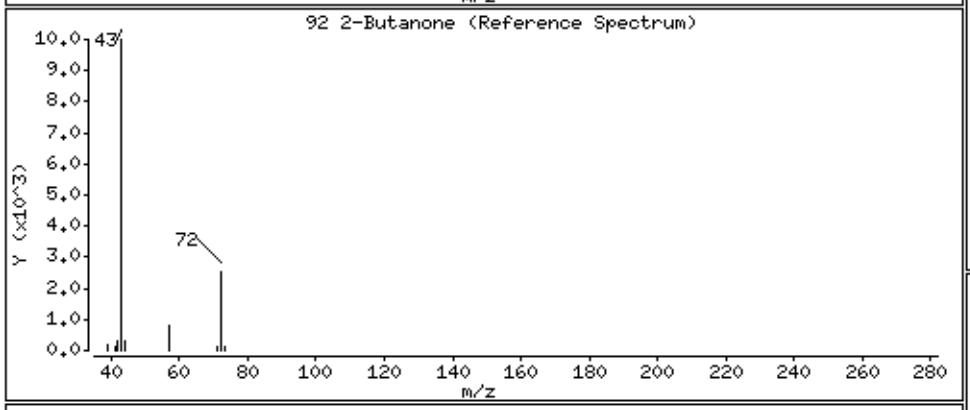
Column diameter: 0.32

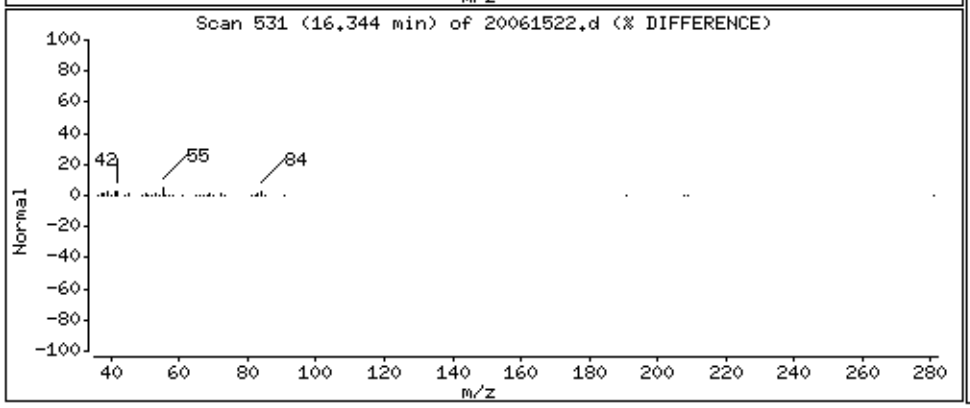
92 2-Butanone

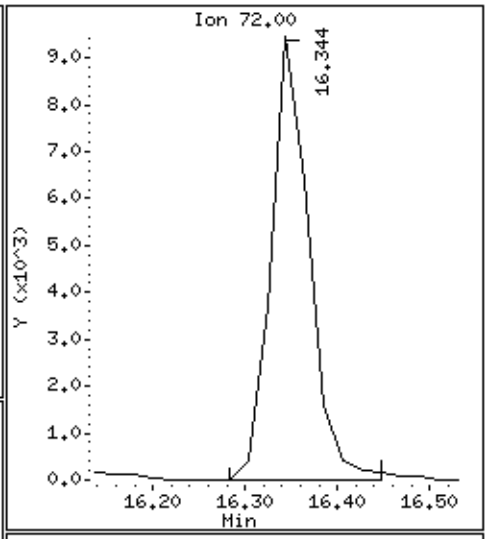
Concentration: 2.751 PPBV

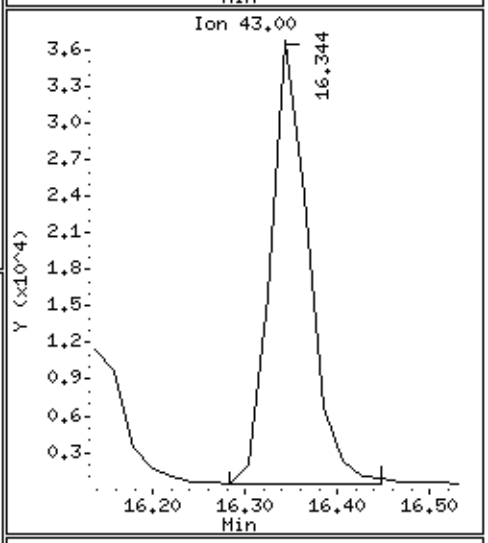


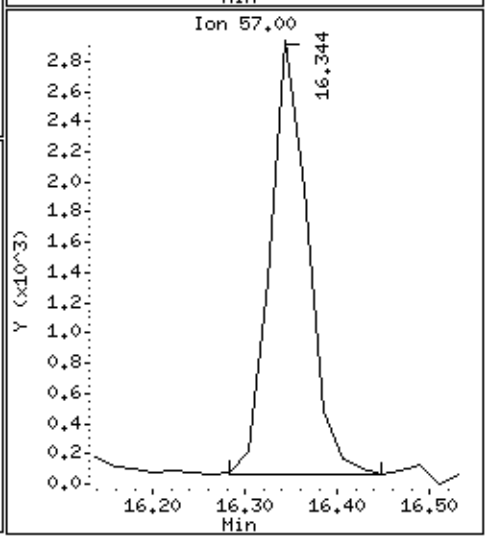












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

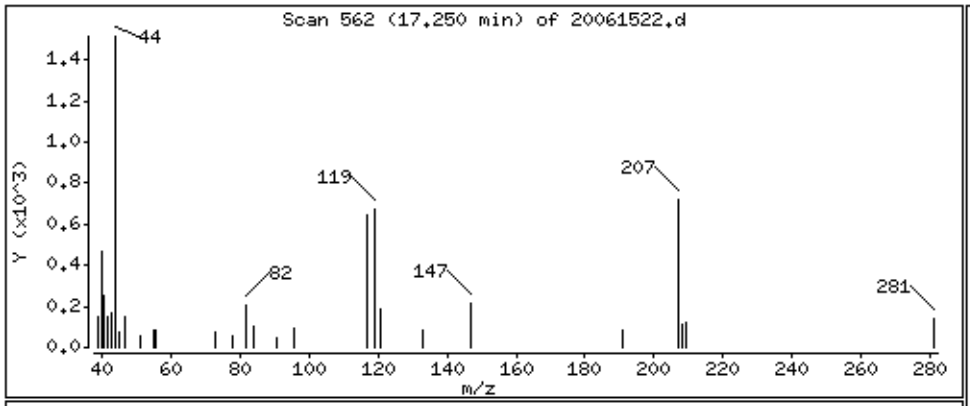
Operator: ef

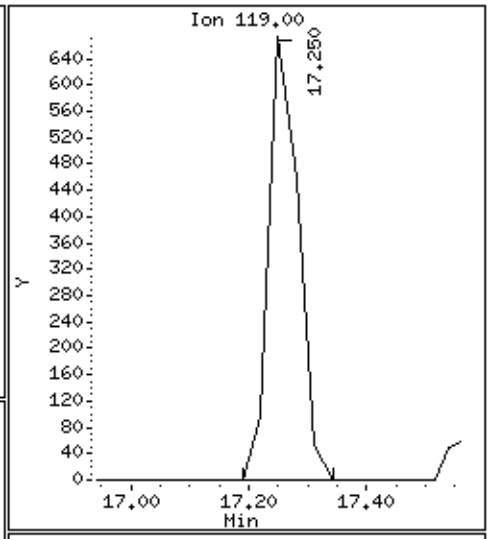
Column phase: RTX-624

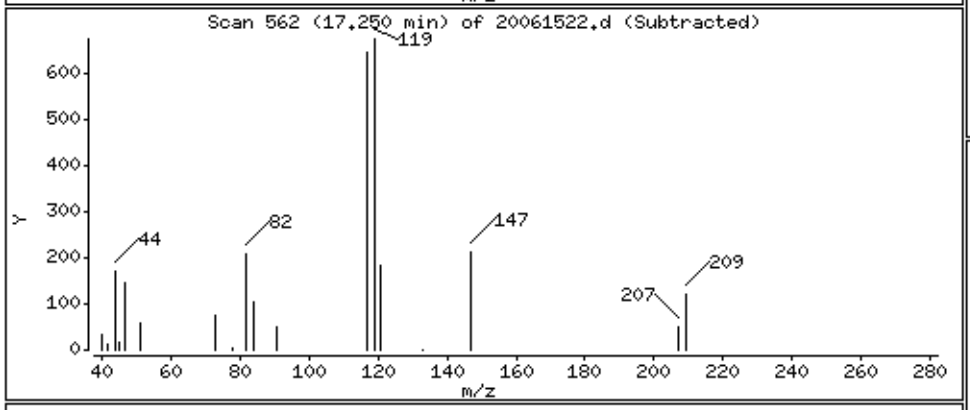
Column diameter: 0.32

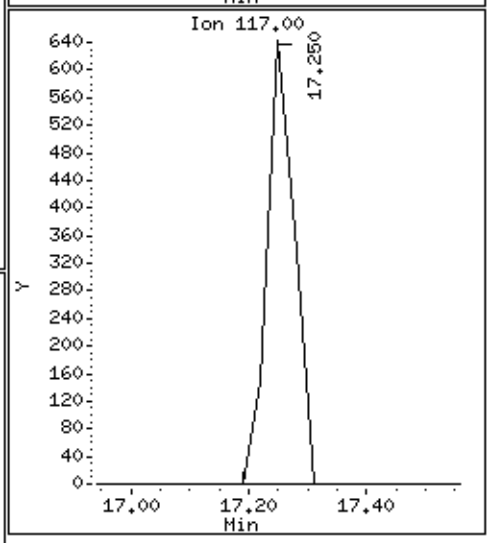
106 Carbon Tetrachloride

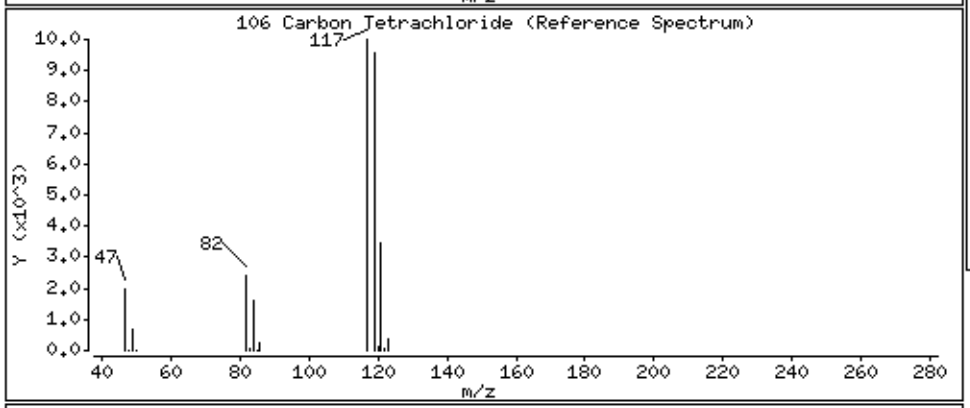
Concentration: 0.06904 PPBV

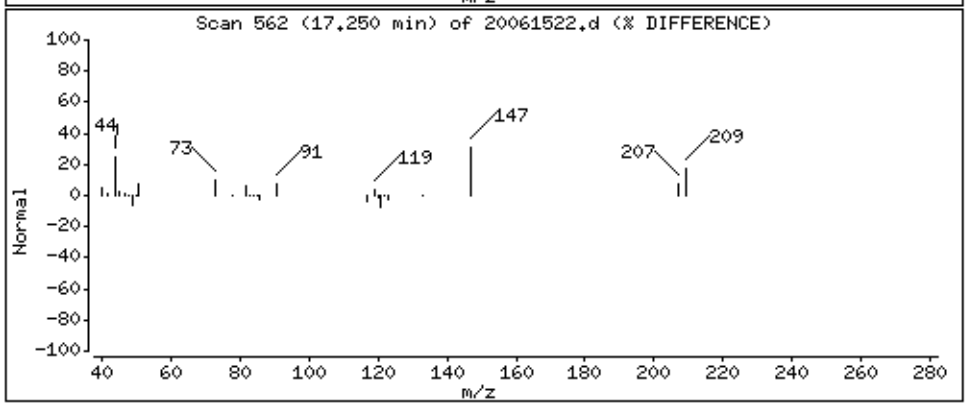












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

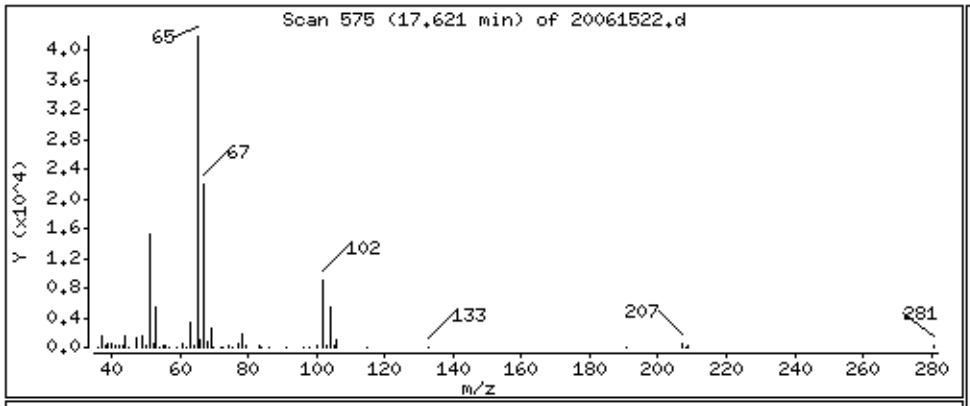
Operator: ef

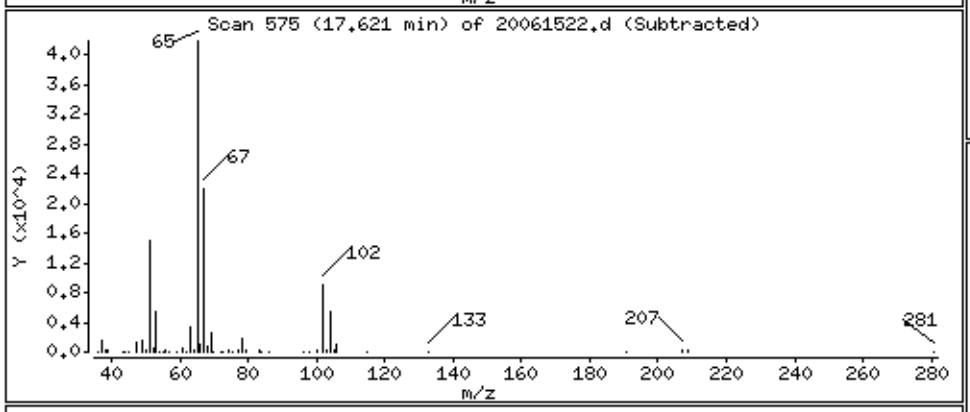
Column phase: RTX-624

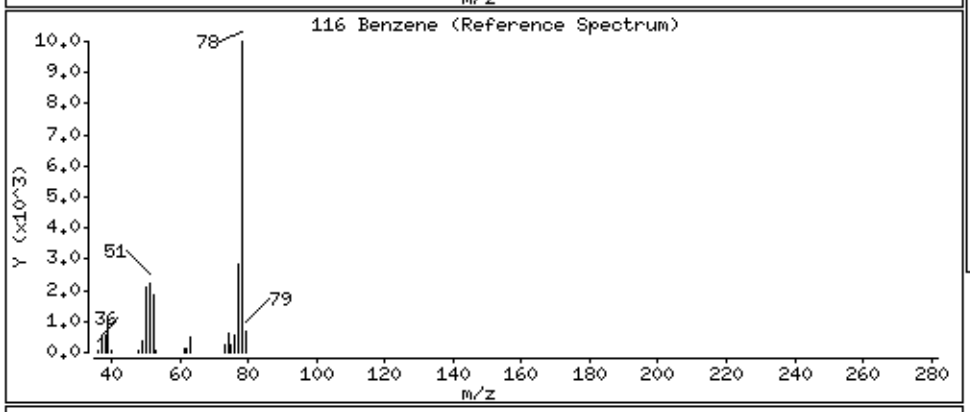
Column diameter: 0.32

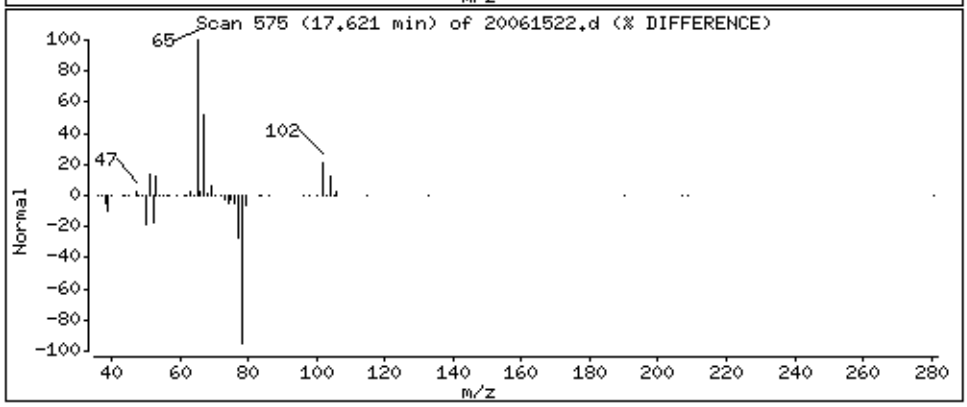
116 Benzene

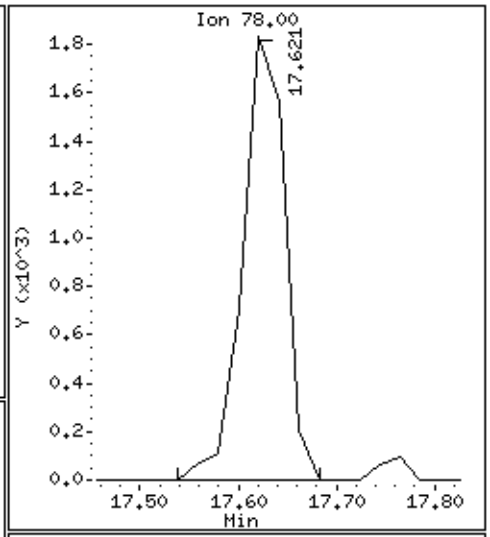
Concentration: 0.08653 PPBV

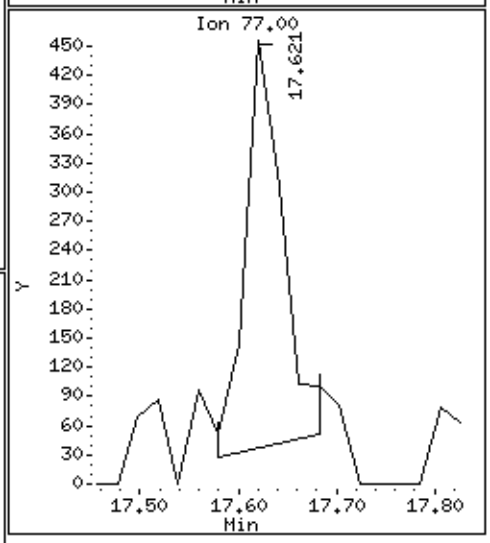












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

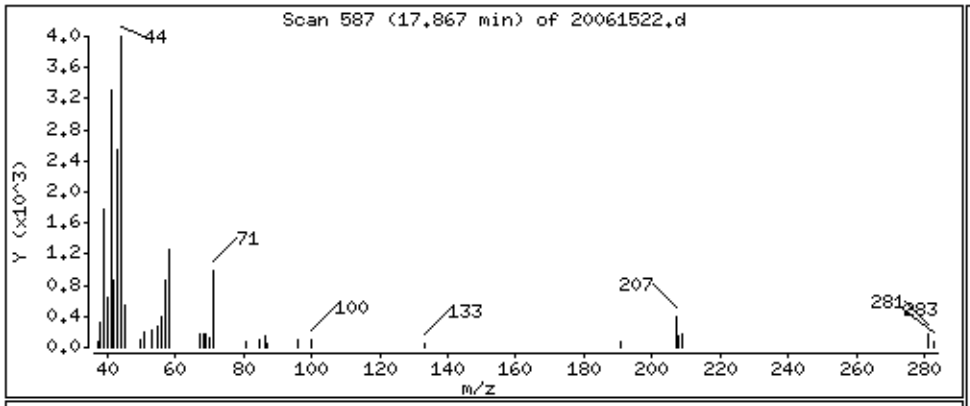
Operator: ef

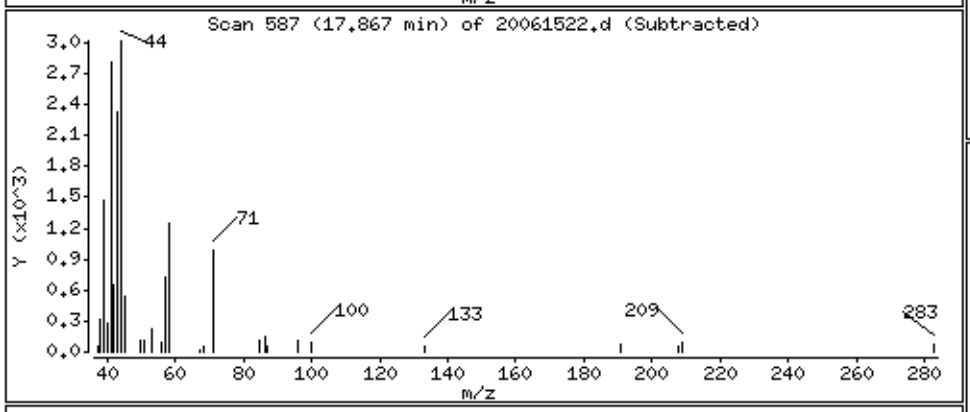
Column phase: RTX-624

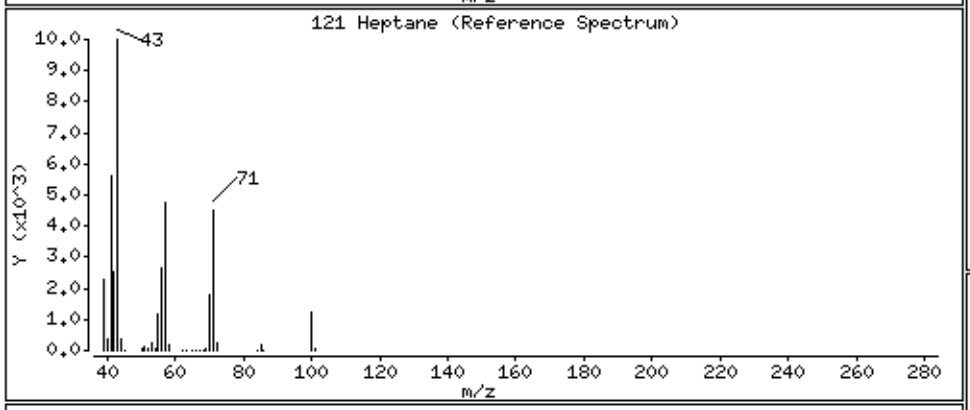
Column diameter: 0.32

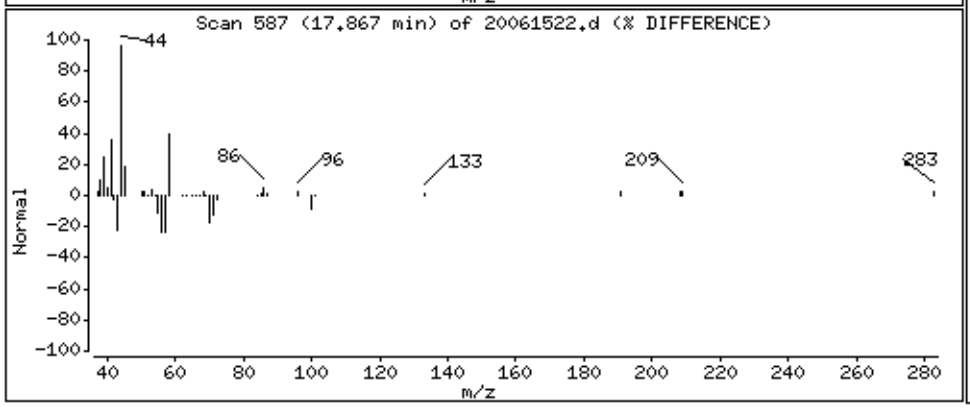
121 Heptane

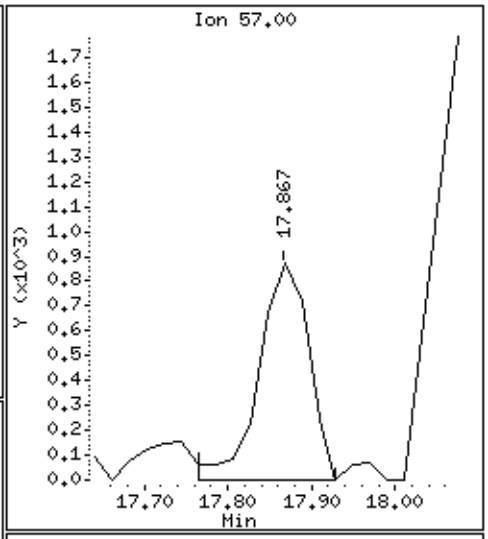
Concentration: 0.2012 PPBV

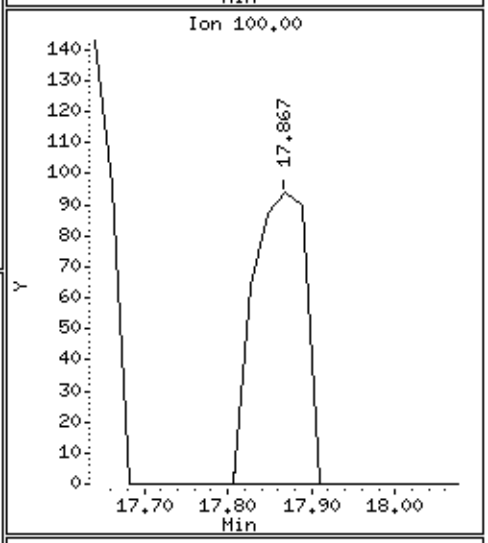


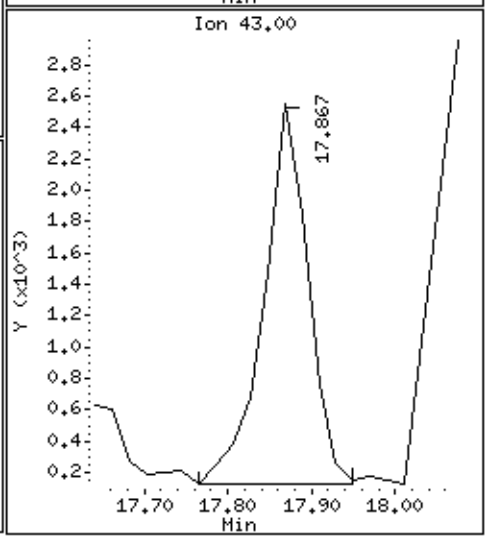












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

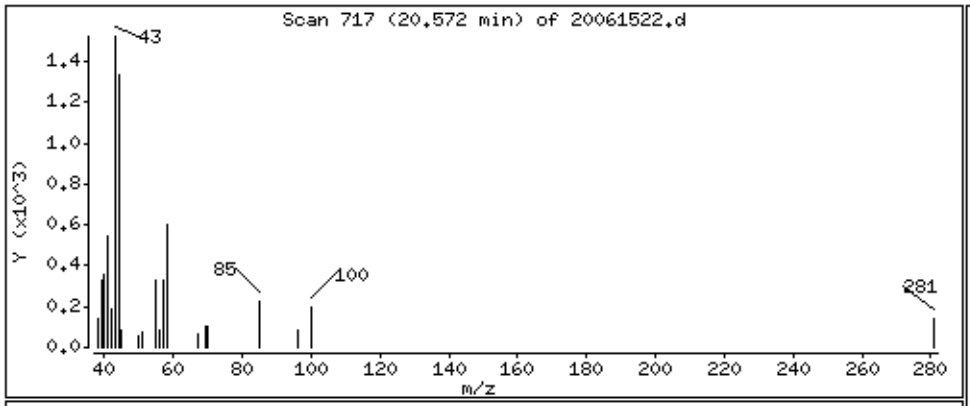
Operator: ef

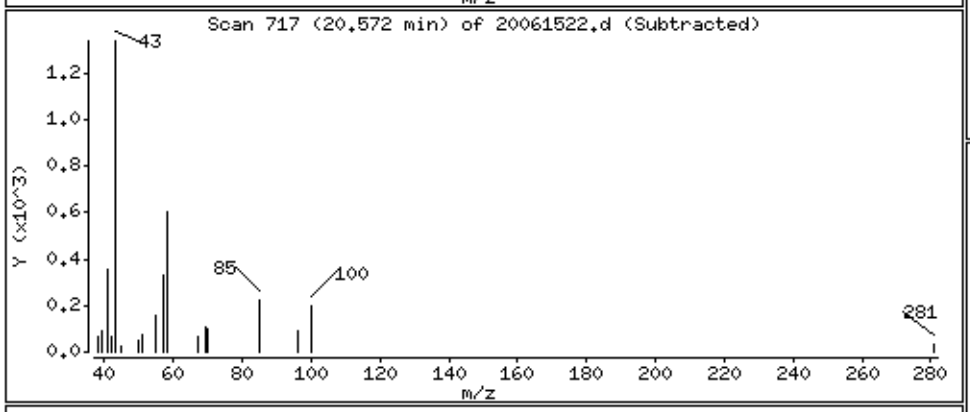
Column phase: RTX-624

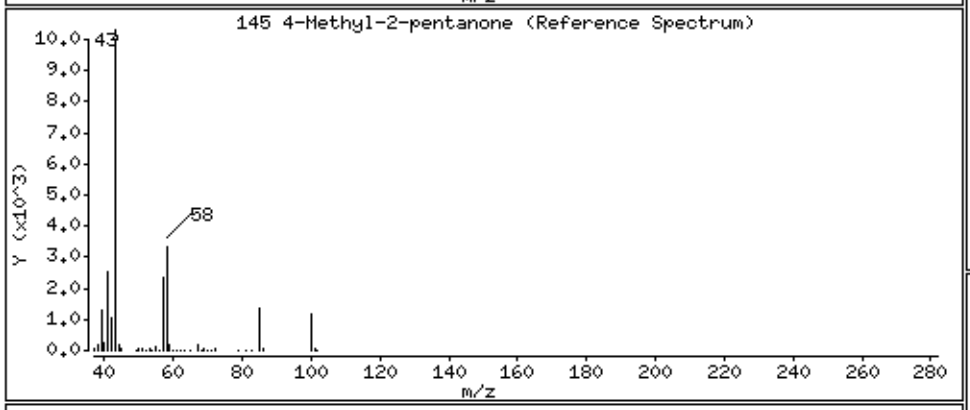
Column diameter: 0.32

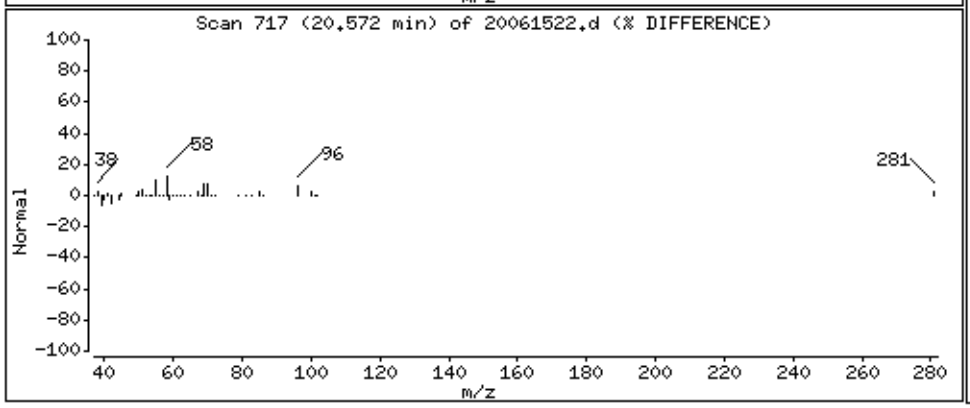
145 4-Methyl-2-pentanone

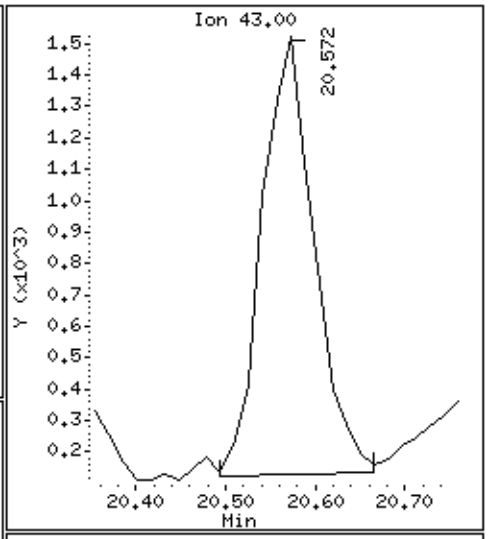
Concentration: 0.1242 PPBV

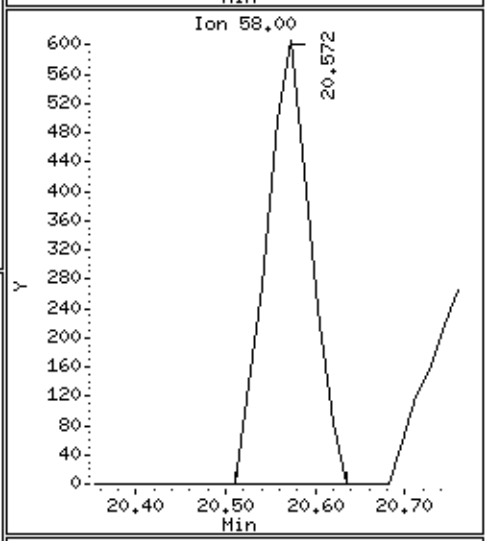


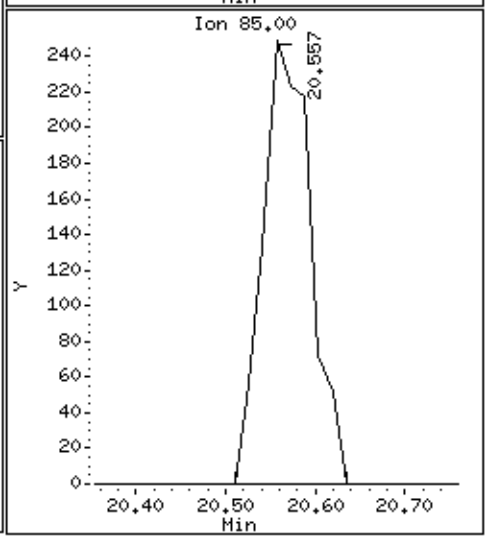












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

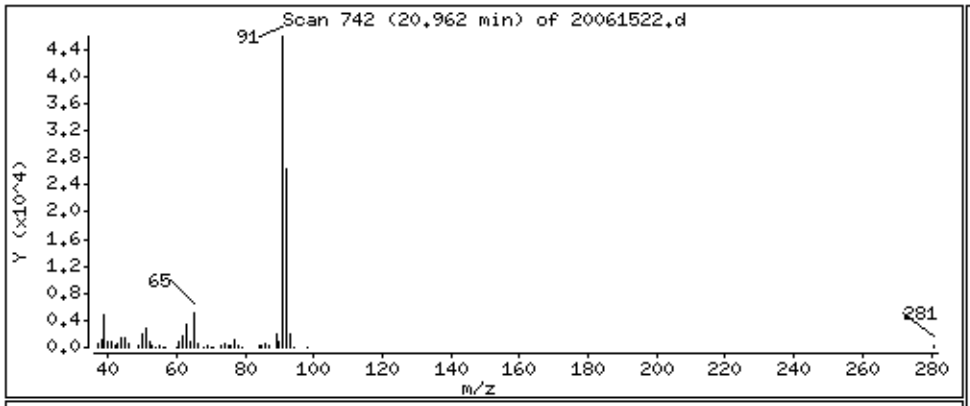
Operator: ef

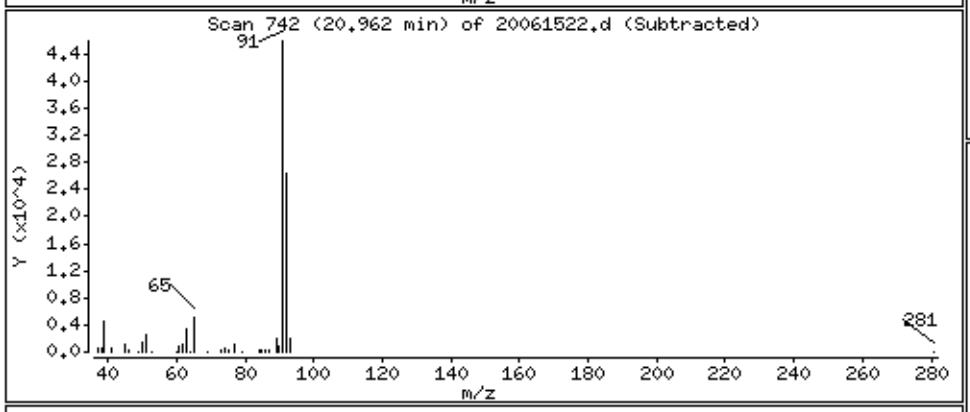
Column phase: RTX-624

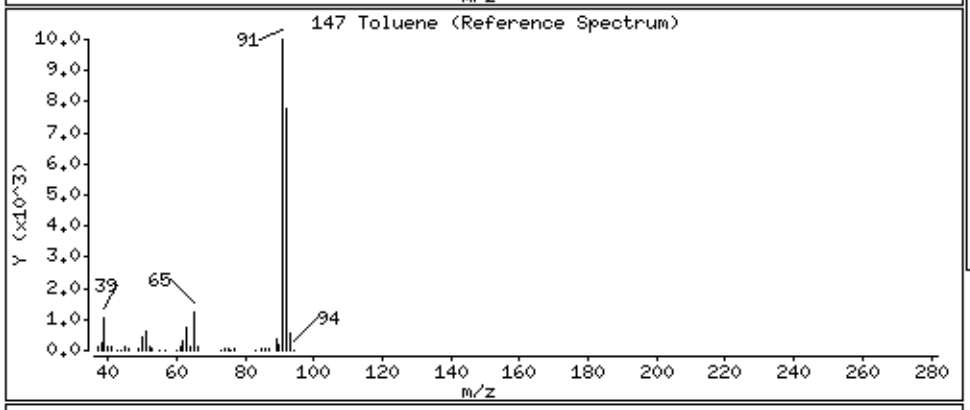
Column diameter: 0.32

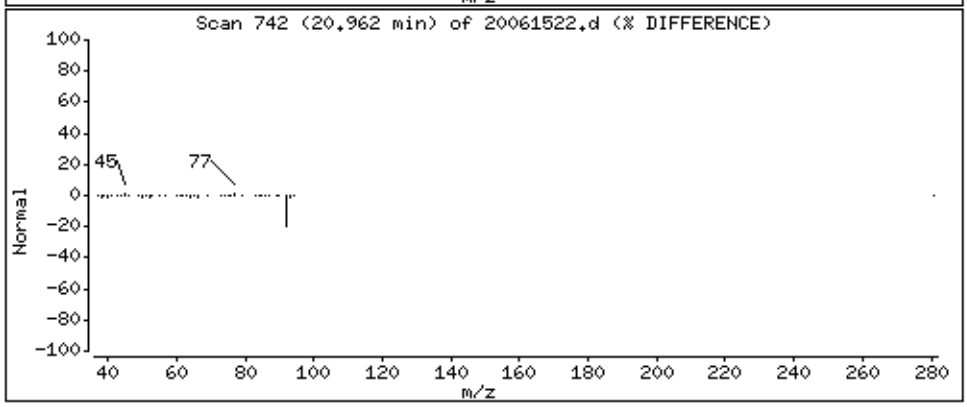
147 Toluene

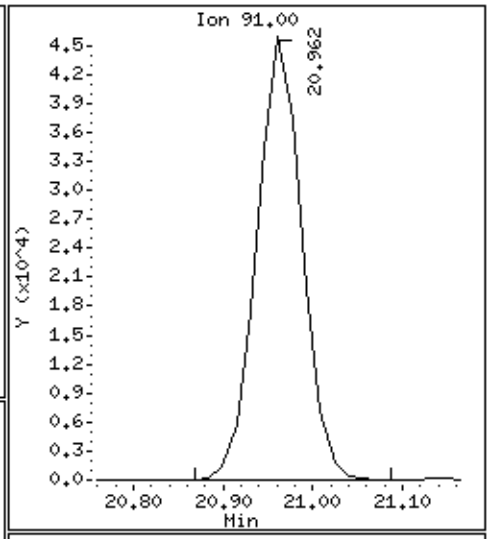
Concentration: 2.181 PPBV

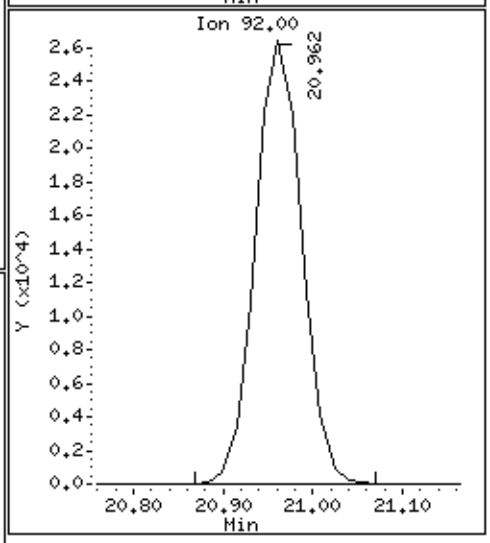












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

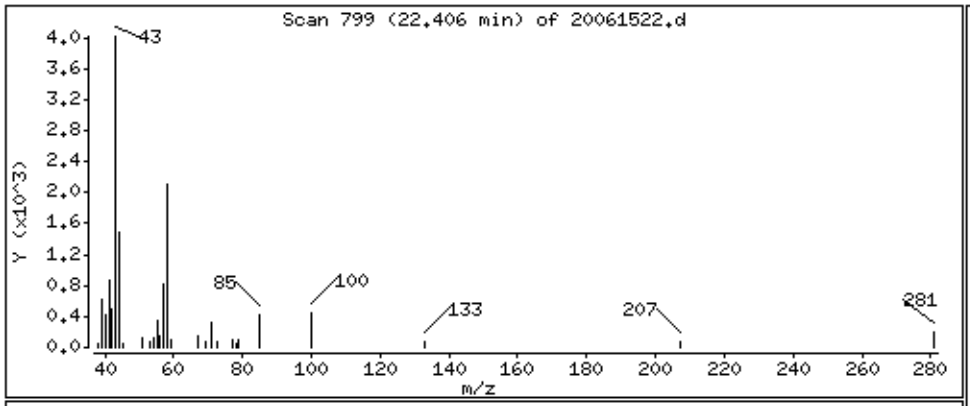
Operator: ef

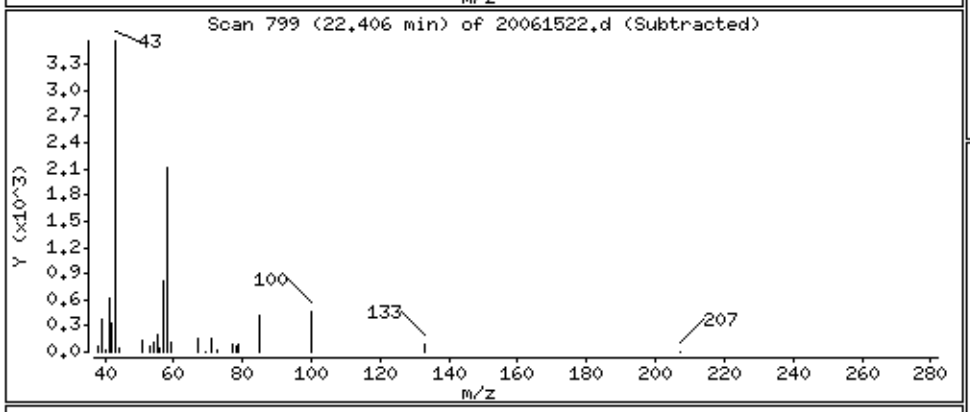
Column phase: RTX-624

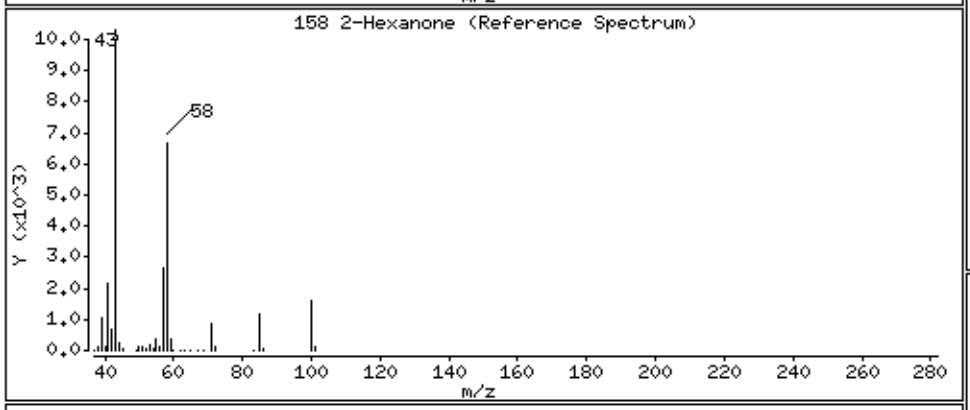
Column diameter: 0.32

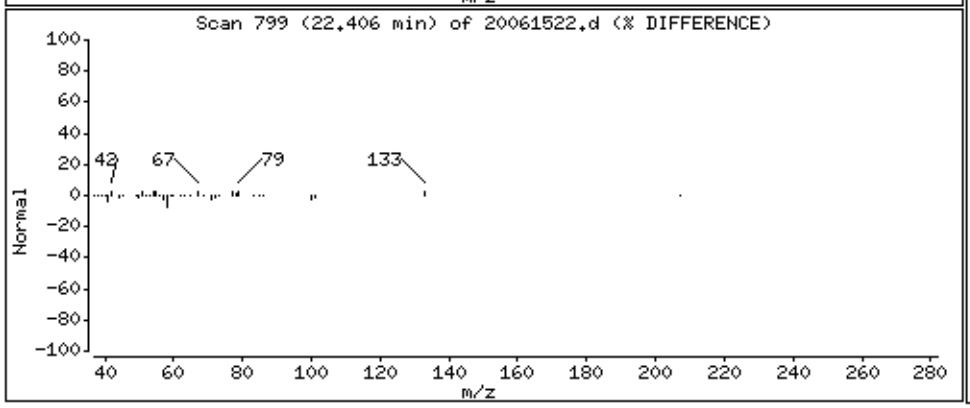
158 2-Hexanone

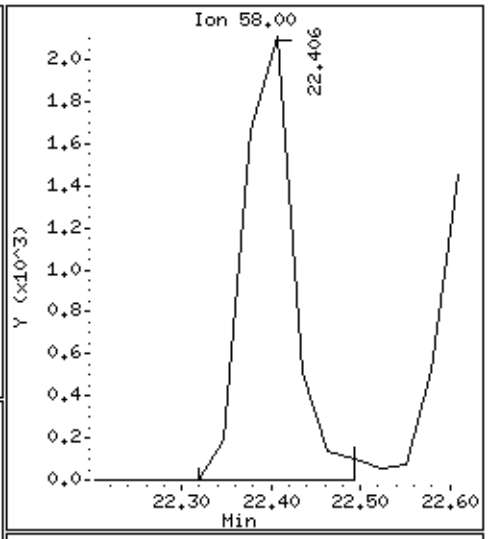
Concentration: 0.3512 PPBV

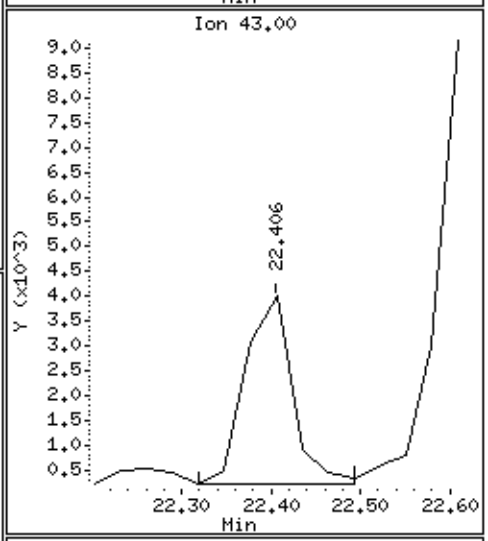


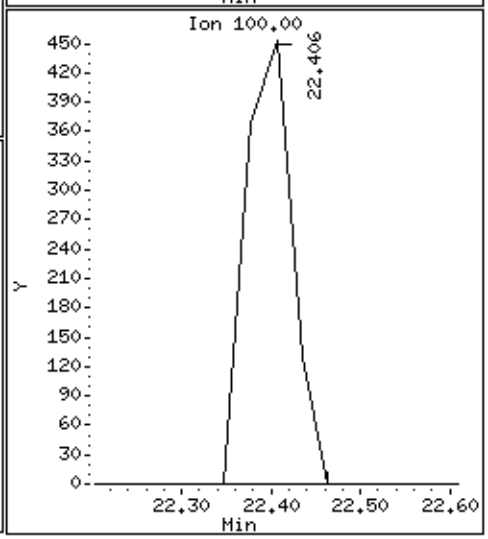












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

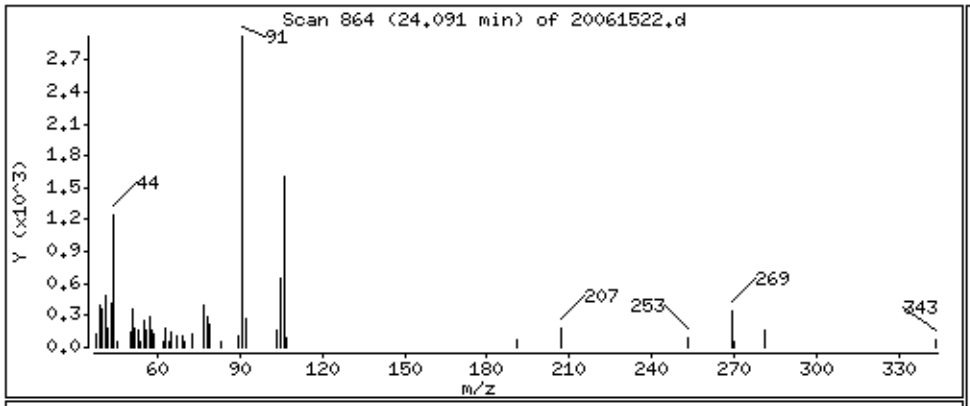
Operator: ef

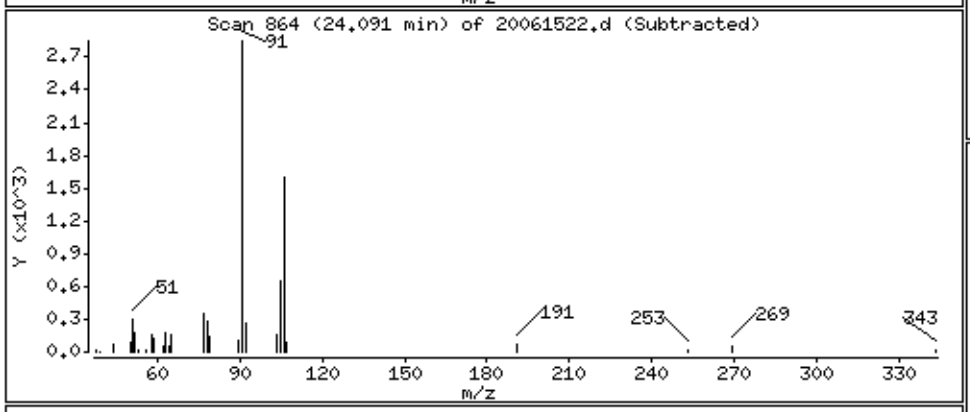
Column phase: RTX-624

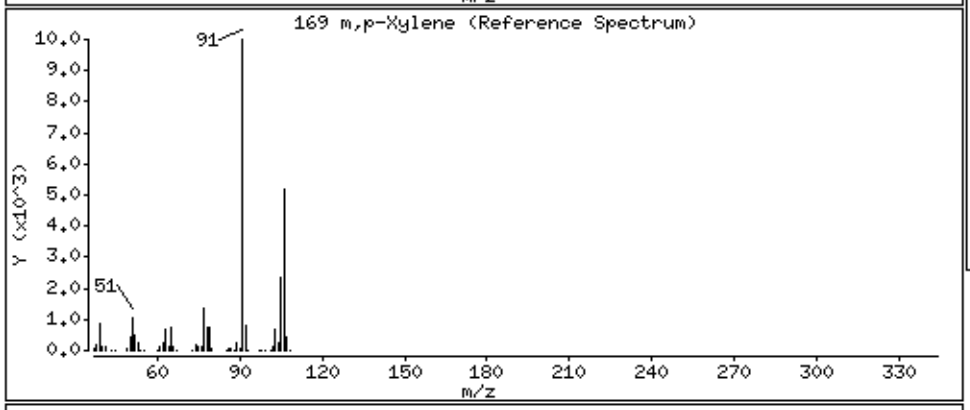
Column diameter: 0.32

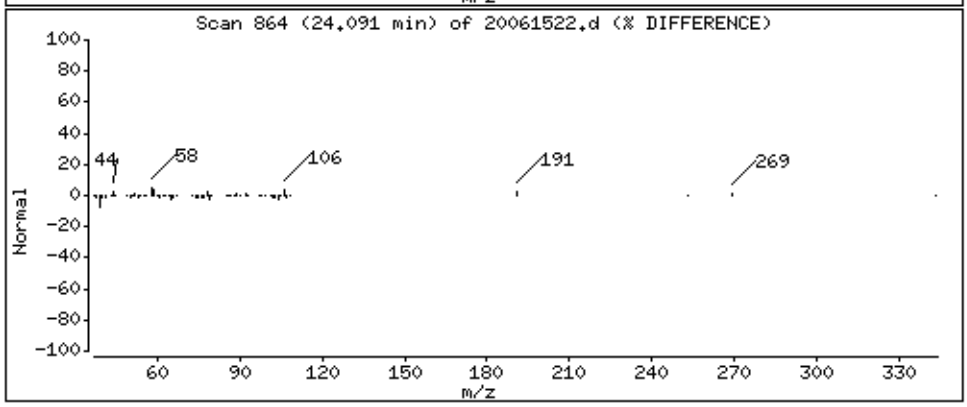
169 m,p-Xylene

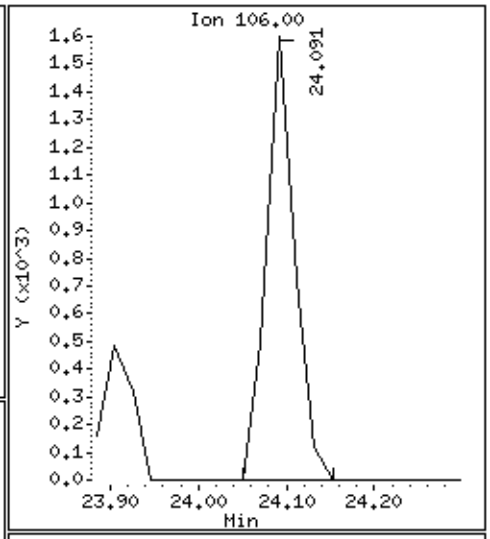
Concentration: 0.1187 PPBV

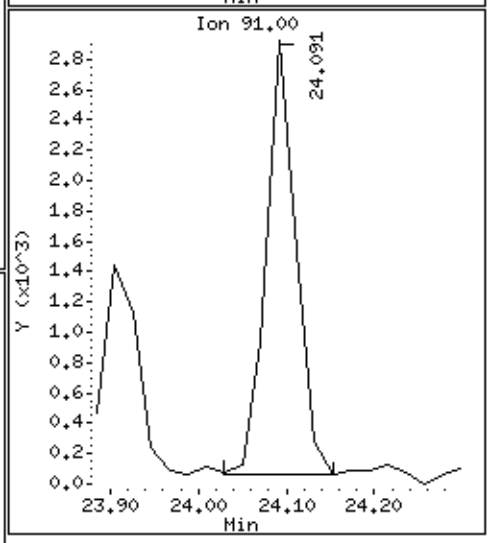












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

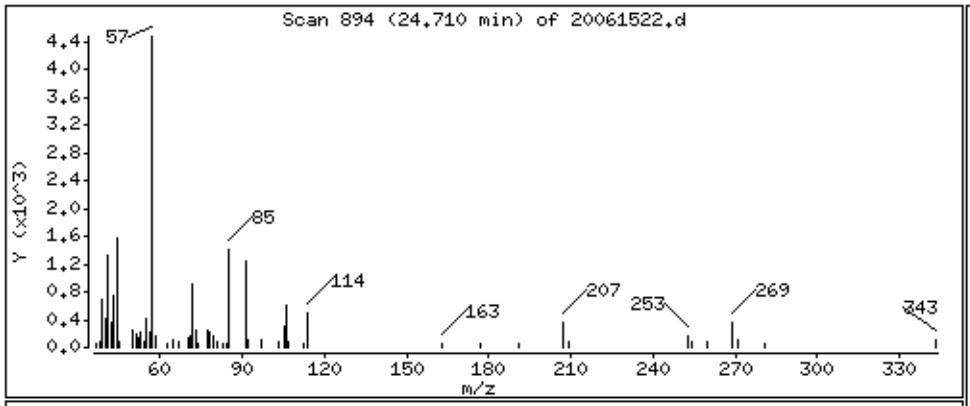
Operator: ef

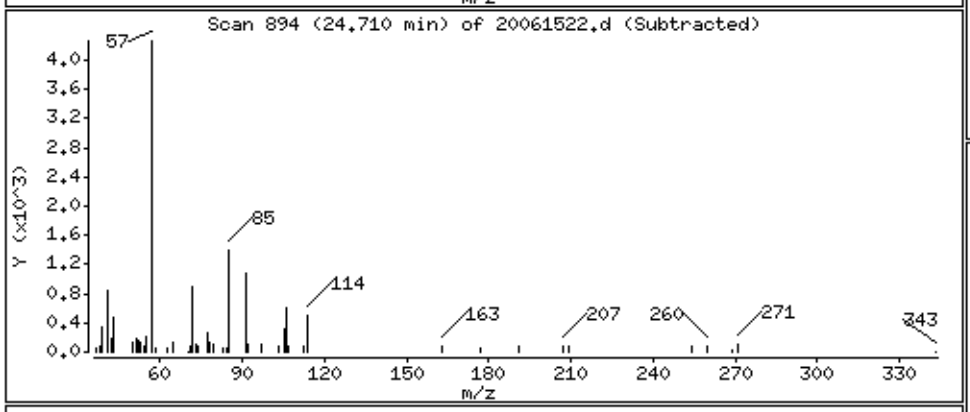
Column phase: RTX-624

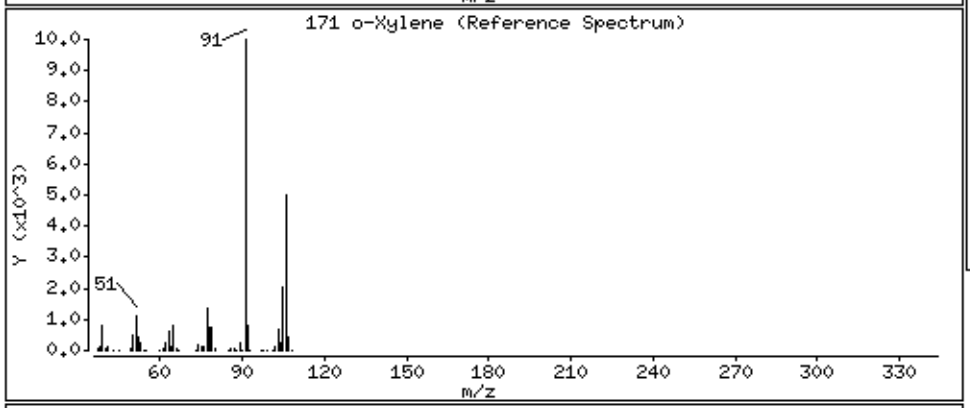
Column diameter: 0.32

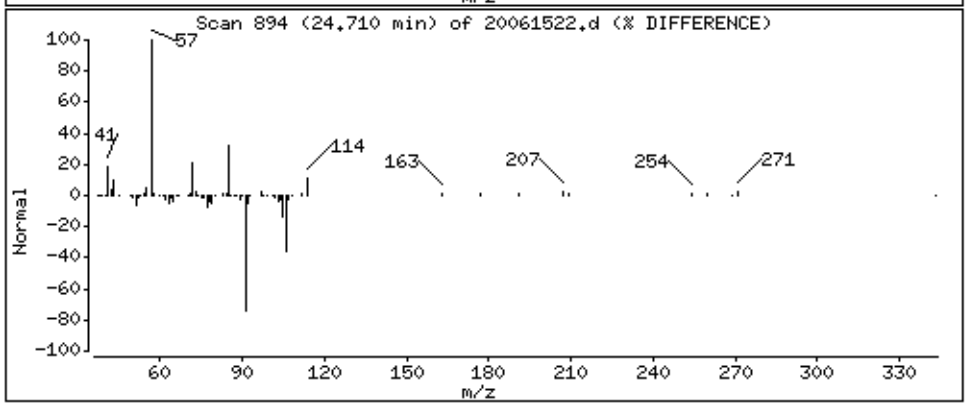
171 o-Xylene

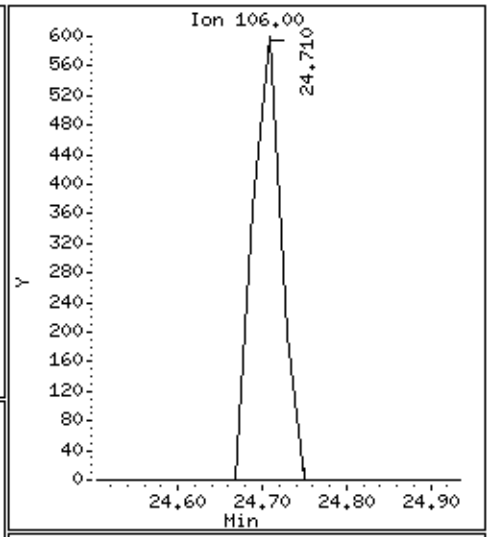
Concentration: 0.04818 PPBV

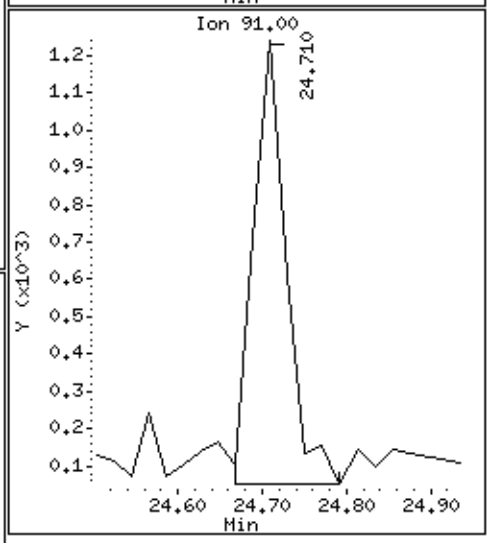












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

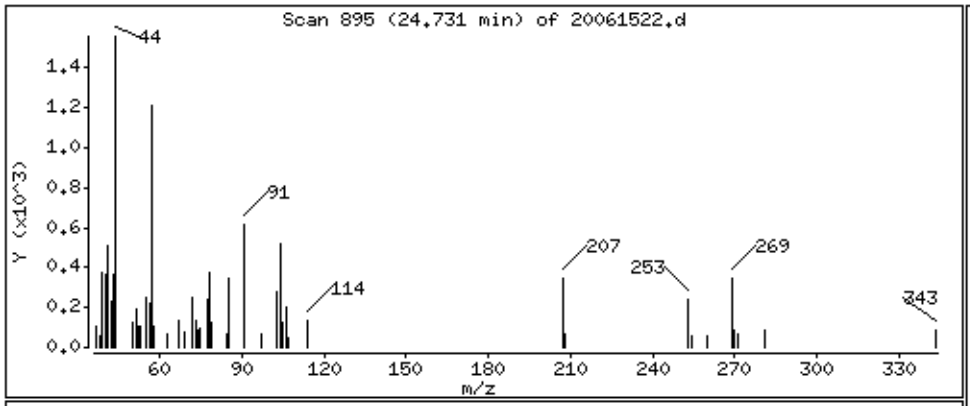
Operator: ef

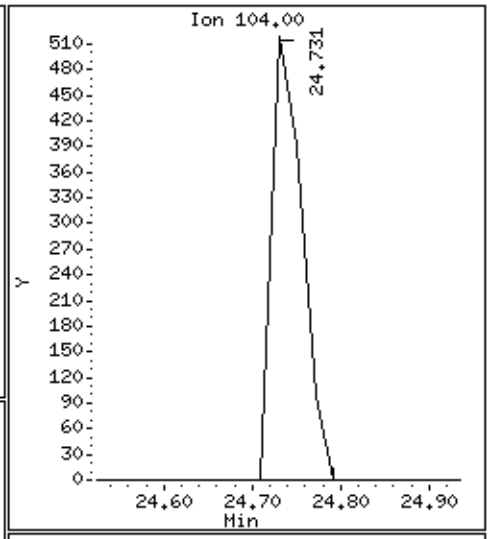
Column phase: RTX-624

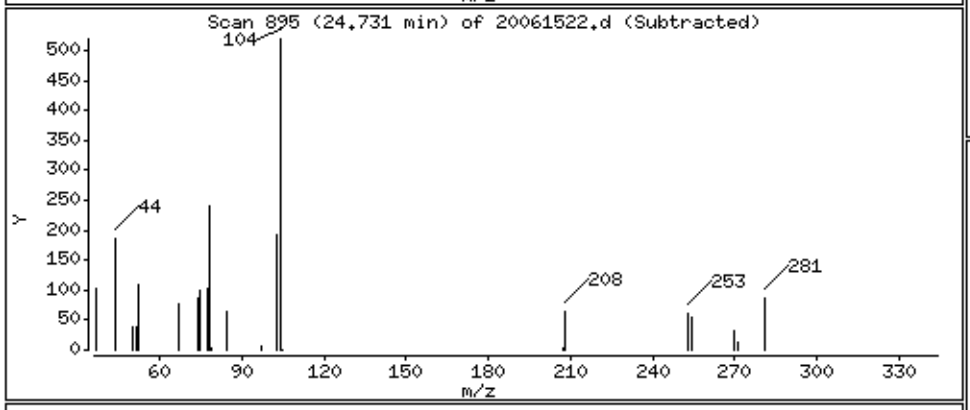
Column diameter: 0.32

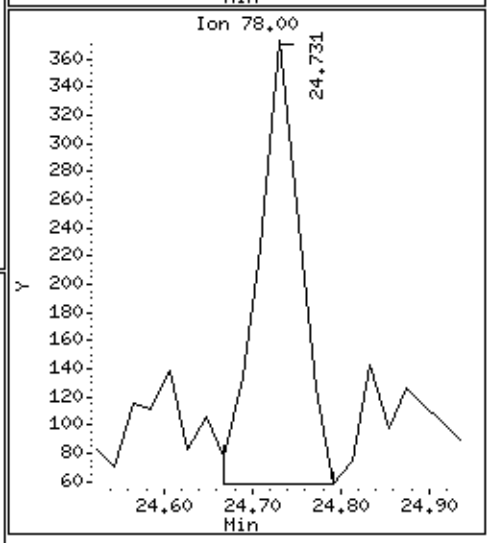
172 Styrene

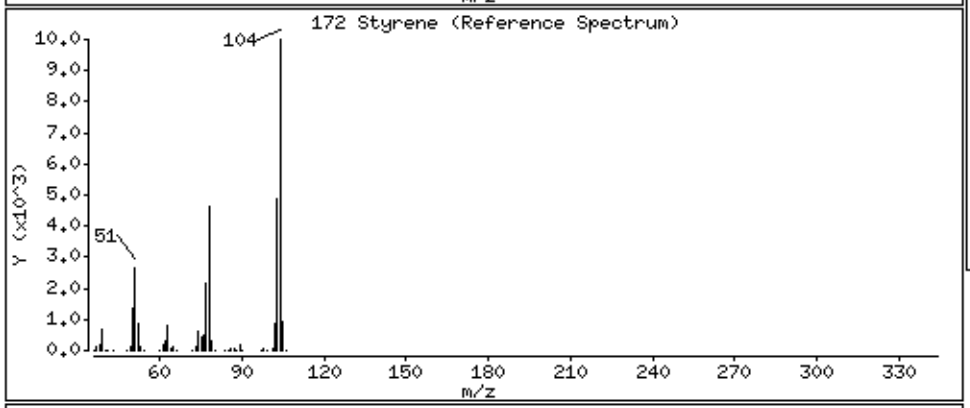
Concentration: 0.02706 PPBV

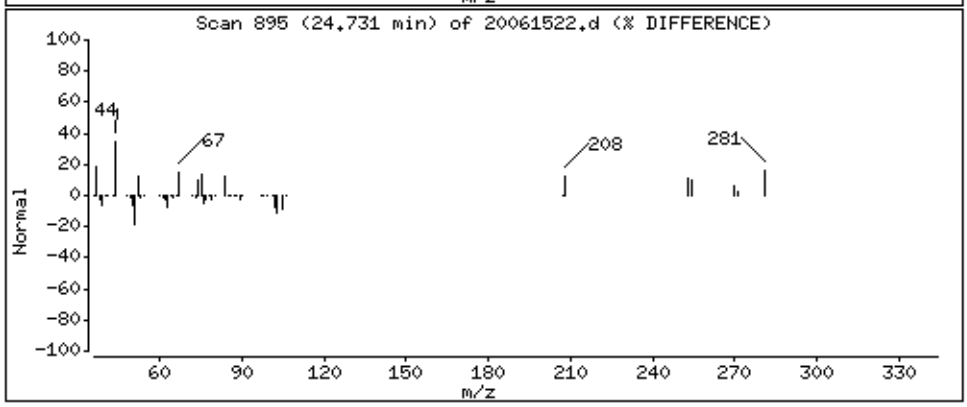












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

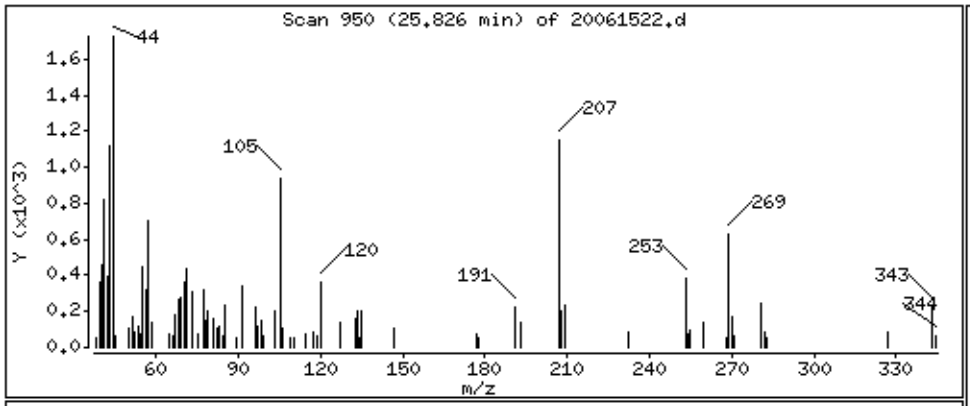
Operator: ef

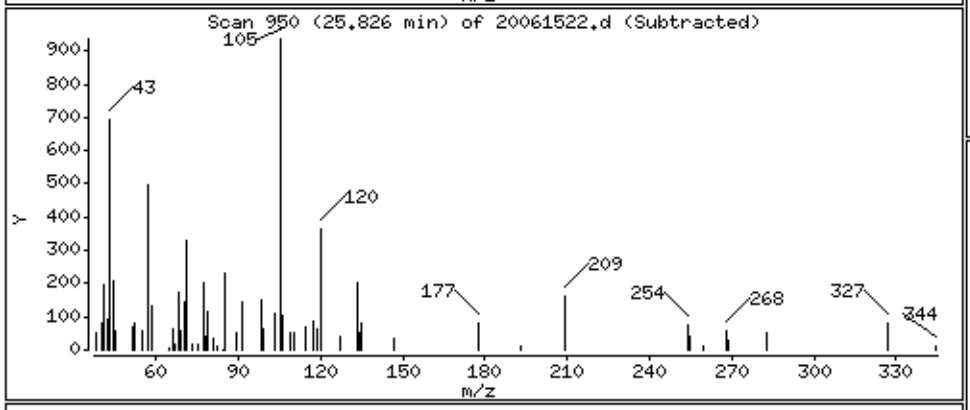
Column phase: RTX-624

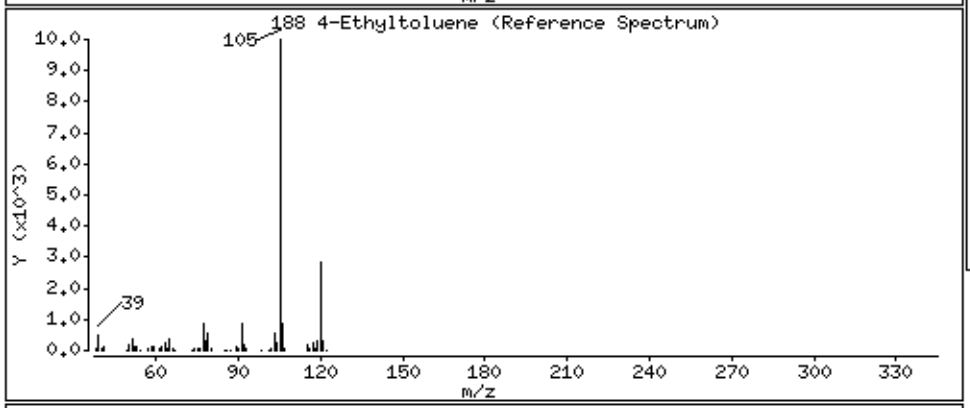
Column diameter: 0.32

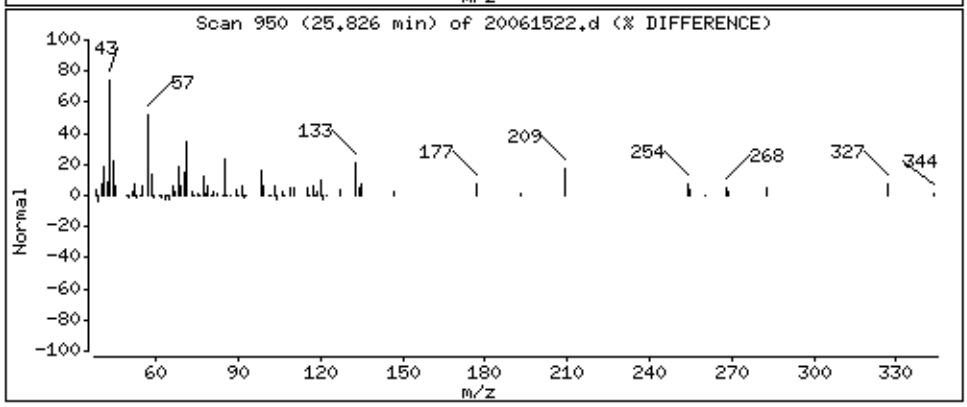
188 4-Ethyltoluene

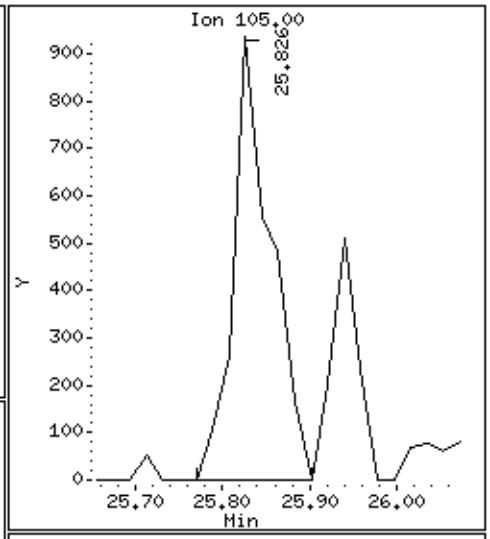
Concentration: 0.03704 PPBV

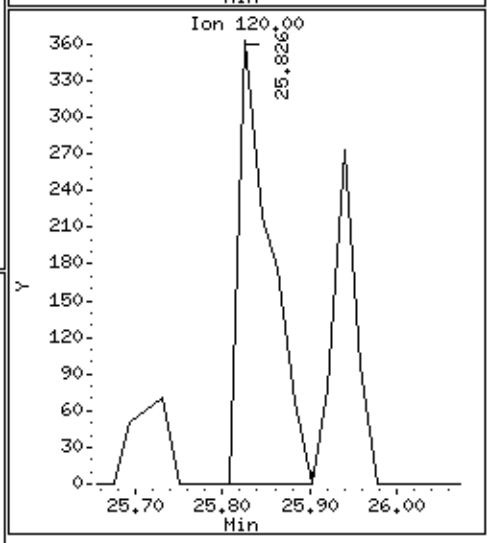












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

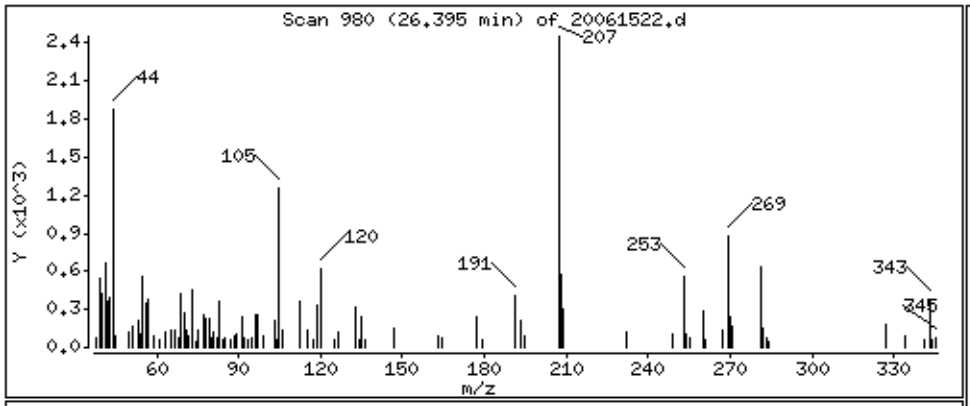
Operator: ef

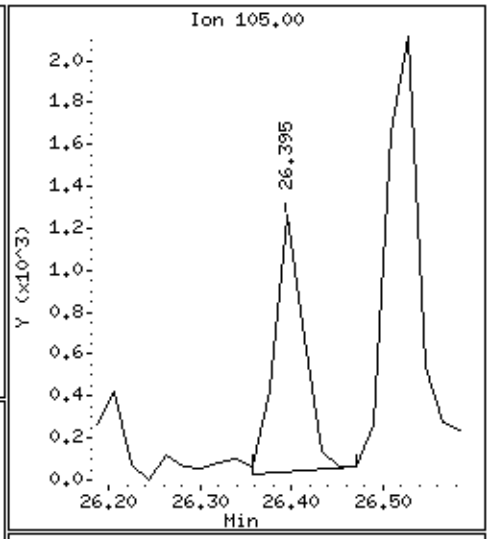
Column phase: RTX-624

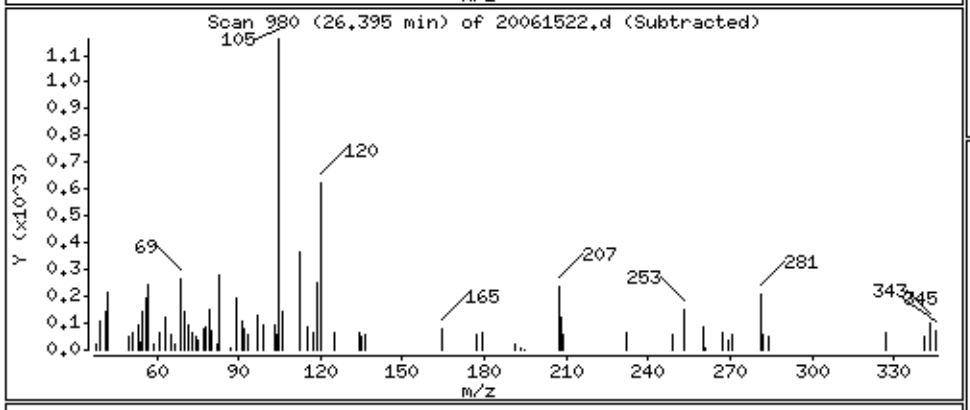
Column diameter: 0.32

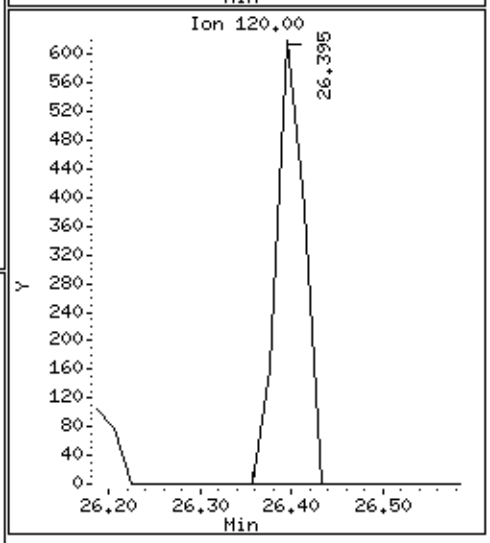
196 1,2,4-Trimethylbenzene

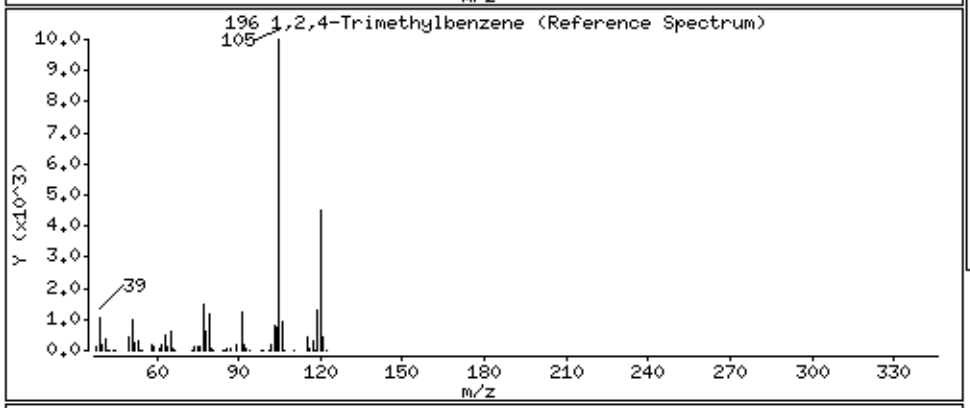
Concentration: 0.03996 PPBV

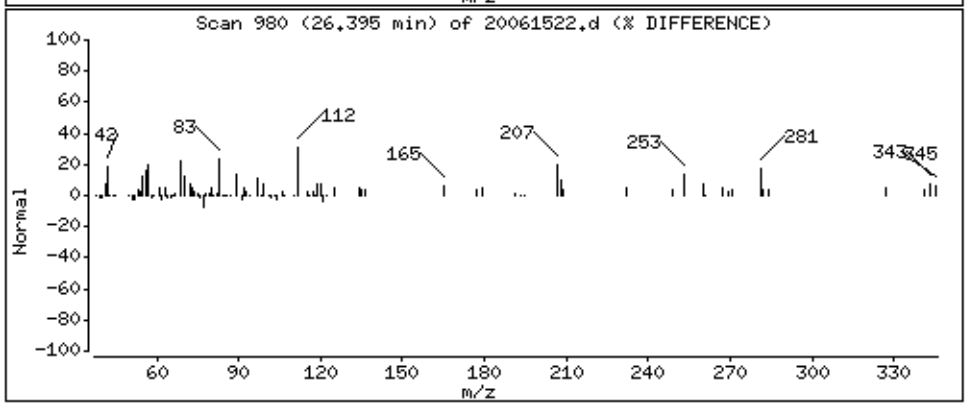












Data File: /chem/msd20.i/15Jun2016.b/20061522.d

Date : 16-JUN-2016 10:24

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 6L1283

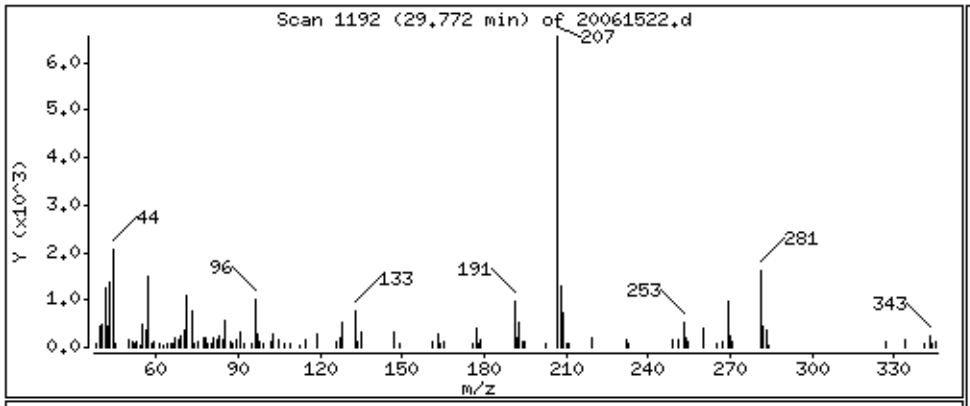
Operator: ef

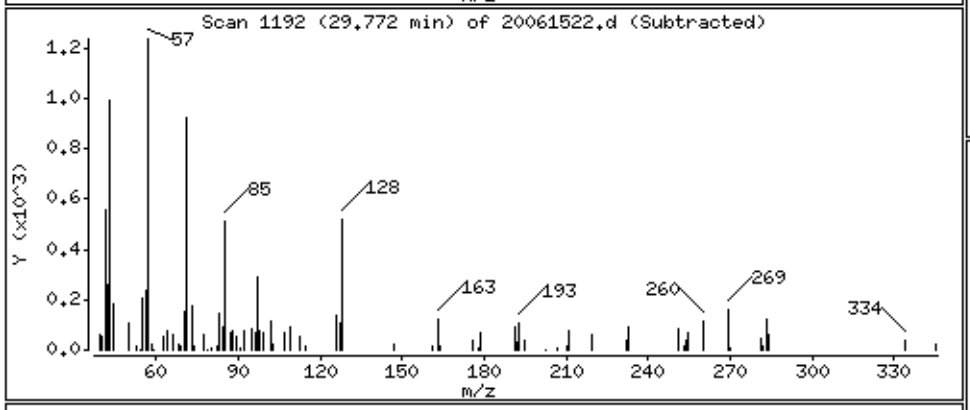
Column phase: RTX-624

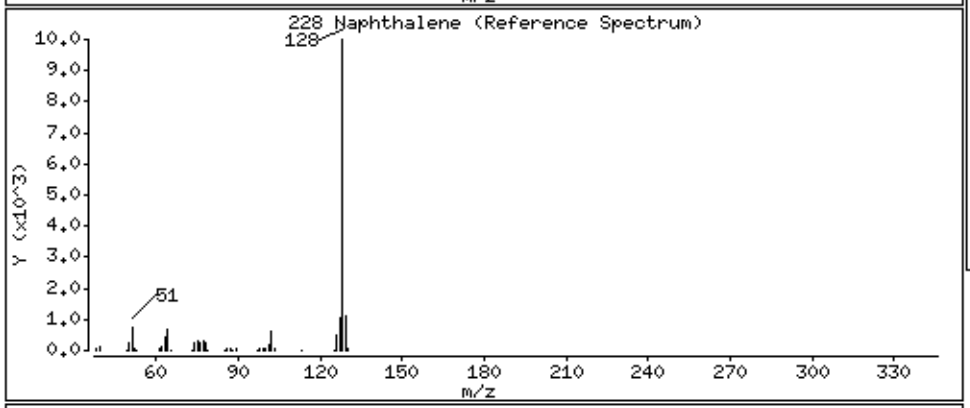
Column diameter: 0.32

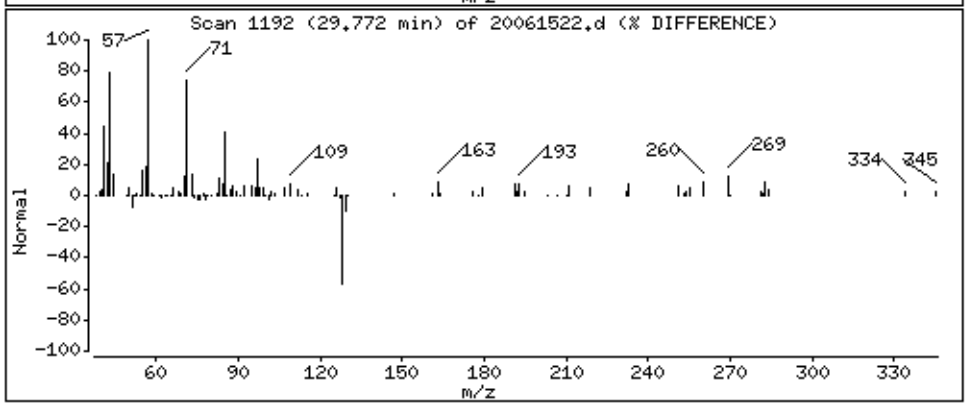
228 Naphthalene

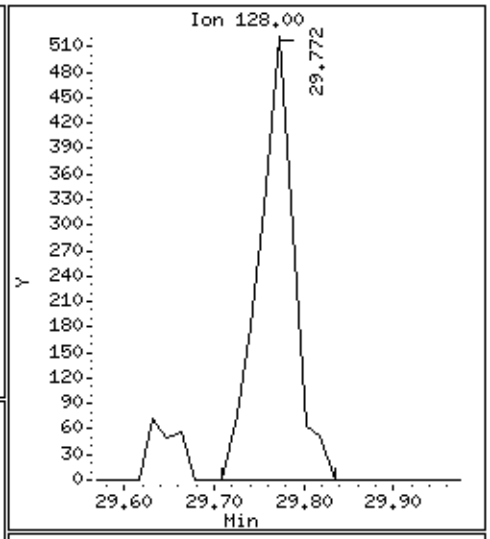
Concentration: 0.01944 PPBV

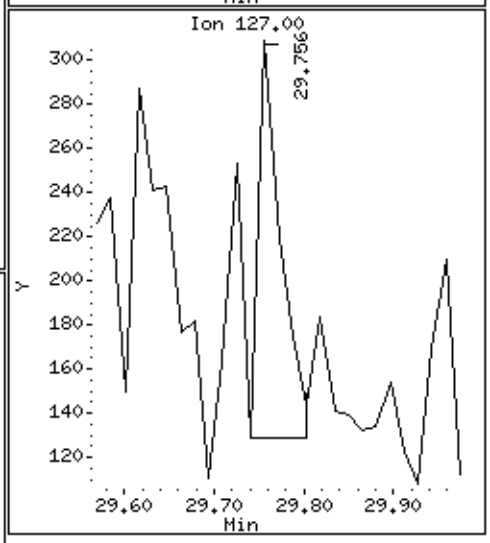












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7IA-1D(061016)

Lab ID#: 1606298A-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.58	0.82	2.8
Chloromethane	0.84	1.1	1.7	2.3
Freon 11	0.17	7.5	0.94	42
Ethanol	0.84	5.8	1.6	11
Freon 113	0.17	0.072 J	1.3	0.55 J
Acetone	0.84	6.2	2.0	15
2-Propanol	0.84	2.5	2.0	6.1
Carbon Disulfide	0.84	0.069 J	2.6	0.22 J
Methylene Chloride	0.33	0.46	1.2	1.6
Hexane	0.17	0.11 J	0.59	0.40 J
2-Butanone (Methyl Ethyl Ketone)	0.84	0.84	2.5	2.5
Cyclohexane	0.17	0.051 J	0.57	0.18 J
Carbon Tetrachloride	0.17	0.059 J	1.0	0.37 J
Benzene	0.17	0.096 J	0.53	0.31 J
Heptane	0.17	0.10 J	0.68	0.41 J
4-Methyl-2-pentanone	0.17	0.040 J	0.68	0.16 J
Toluene	0.17	2.2	0.63	8.5
2-Hexanone	0.84	0.097 J	3.4	0.40 J
Ethyl Benzene	0.17	0.053 J	0.72	0.23 J
m,p-Xylene	0.17	0.15 J	0.72	0.65 J
o-Xylene	0.17	0.065 J	0.72	0.28 J
Styrene	0.17	0.066 J	0.71	0.28 J
4-Ethyltoluene	0.17	0.051 J	0.82	0.25 J
1,2,4-Trimethylbenzene	0.17	0.050 J	0.82	0.25 J
Naphthalene	0.84	0.019 J	4.4	0.10 J

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Client Sample ID: B7IA-1D(061016)

Lab ID#: 1606298A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061515**	**Date of Collection:**	**6/11/16 6:50:00 PM**
Dil. Factor:	**1.67**	**Date of Analysis:**	**6/15/16 09:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.58	0.82	2.8
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	1.1	1.7	2.3
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.2	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	7.5	0.94	42
Ethanol	0.84	5.8	1.6	11
Freon 113	0.17	0.072 J	1.3	0.55 J
1,1-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Acetone	0.84	6.2	2.0	15
2-Propanol	0.84	2.5	2.0	6.1
Carbon Disulfide	0.84	0.069 J	2.6	0.22 J
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.33	0.46	1.2	1.6
Methyl tert-butyl ether	0.17	Not Detected	0.60	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Hexane	0.17	0.11 J	0.59	0.40 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	0.84	2.5	2.5
cis-1,2-Dichloroethene	0.17	Not Detected	0.66	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected
1,1,1-Trichloroethane	0.17	Not Detected	0.91	Not Detected
Cyclohexane	0.17	0.051 J	0.57	0.18 J
Carbon Tetrachloride	0.17	0.059 J	1.0	0.37 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.096 J	0.53	0.31 J
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	0.10 J	0.68	0.41 J
Trichloroethene	0.17	Not Detected	0.90	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.77	Not Detected
1,4-Dioxane	0.17	Not Detected	0.60	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
4-Methyl-2-pentanone	0.17	0.040 J	0.68	0.16 J
Toluene	0.17	2.2	0.63	8.5
trans-1,3-Dichloropropene	0.17	Not Detected	0.76	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.91	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	0.097 J	3.4	0.40 J

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Client Sample ID: B7IA-1D(061016)

Lab ID#: 1606298A-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061515**	**Date of Collection:**	**6/11/16 6:50:00 PM**
Dil. Factor:	**1.67**	**Date of Analysis:**	**6/15/16 09:02 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.77	Not Detected
Ethyl Benzene	0.17	0.053 J	0.72	0.23 J
m,p-Xylene	0.17	0.15 J	0.72	0.65 J
o-Xylene	0.17	0.065 J	0.72	0.28 J
Styrene	0.17	0.066 J	0.71	0.28 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.82	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.1	Not Detected
Propylbenzene	0.17	Not Detected	0.82	Not Detected
4-Ethyltoluene	0.17	0.051 J	0.82	0.25 J
1,3,5-Trimethylbenzene	0.17	Not Detected	0.82	Not Detected
1,2,4-Trimethylbenzene	0.17	0.050 J	0.82	0.25 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.86	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.2	Not Detected
Hexachlorobutadiene	0.84	Not Detected	8.9	Not Detected
Naphthalene	0.84	0.019 J	4.4	0.10 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061515.d
Lab Smp Id: 1606298A-02A
Inj Date : 15-JUN-2016 21:02
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL #03536
Misc Info : 5.7"Hg -> 5.2psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.67000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	103903	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	79563			47.16- 107.16	76.57
16.726	16.726 (1.000)	49	126482			84.74- 144.74	121.73
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	476315	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	74640			0.00- 45.65	15.67
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	388591	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	213380			24.05- 84.05	54.91
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	160783	5.81665	5.817	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	80602			28.75- 88.75	50.13
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	449724	4.98264	4.983	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	52271			0.00- 41.22	11.62

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    304497                    37.90-  97.90    67.71
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    202221 4.73327    4.733  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    242706                   88.33- 148.33   120.02
 25.485  25.485 (1.073)   176    195252                   68.77- 128.77    96.55
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.696   4.672 (0.281)    85     28100 0.34432   0.5750  80.00- 120.00   100.00
  4.720   4.648 (0.282)    87      8039                     2.50-  62.50    28.61
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.625   6.552 (0.396)    50     17487 0.65899    1.100  80.00- 120.00   100.00
  6.649   6.552 (0.398)    52      6412                     3.09-  63.09    36.67
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101    359026 4.47751    7.477  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    234035                   34.69-  94.69    65.19
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45     36925 3.49080    5.830  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46     15630                   11.01-  71.01    42.33
 12.296  12.269 (0.735)    43      7760                    0.00-  50.63    21.02
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.763)   151      2518 0.04284  0.07155  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      1573                   34.65-  94.65    62.50
 12.763  12.763 (0.763)   101      3350                   90.37- 150.37   133.05
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58     57902 3.73081    6.230  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    176524                  275.09- 335.09   304.86
-------------------------------------------------------------------------------
   56 Carbon Disulfide                              CAS #: 75-15-0
 13.120  13.120 (0.784)    76      3640 0.04159  0.06946  80.00- 120.00   100.00(a)
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.560  13.532 (0.811)    45     73820 1.47858    2.469  80.00- 120.00   100.00
 13.560  13.532 (0.811)    43     15072                    0.00-  49.91    20.42
 13.560  13.532 (0.811)    59      3126                    0.00-  34.18     4.24
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      9213 0.27270   0.4554  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49     11263                   88.46- 148.46   122.24
 14.027  14.027 (0.839)    51      4154                    6.78-  66.78    45.09
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	3428	0.06799	0.1135	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	3438			31.00- 91.00	100.29
14.878	14.878 (0.889)	86	571			0.00- 49.39	16.68
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	8341	0.50422	0.8420	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	39755			324.50- 384.50	476.58
16.344	16.344 (0.977)	57	2650			0.00- 59.24	31.77
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.034 (1.018)	84	1544	0.03072	0.05129	80.00- 120.00	100.00(a)
17.035	17.034 (1.018)	56	2507			77.49- 137.49	162.41
17.035	17.034 (1.018)	41	1692			25.74- 85.74	109.58
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2001	0.03546	0.05922	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	1818			73.36- 133.36	90.86
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.966)	78	6349	0.05756	0.09612	80.00- 120.00	100.00(a)
17.620	17.620 (0.966)	77	1613			0.00- 53.54	25.41
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	1867	0.06000	0.1002	80.00- 120.00	100.00(a)
17.847	17.847 (0.979)	100	404			10.87- 70.87	21.68
17.847	17.847 (0.979)	43	3291			148.15- 208.15	176.21
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.556 (1.128)	43	1855	0.02366	0.03951	80.00- 120.00	100.00(a)
20.557	20.556 (1.128)	58	717			11.51- 71.51	38.68
20.557	20.556 (1.128)	85	342			0.00- 48.80	18.43
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	170164	1.34774	2.251	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	101871			30.55- 90.55	59.87
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	2345	0.05837	0.09747	80.00- 120.00	100.00(a)
22.406	22.406 (0.943)	43	3415			146.44- 206.44	145.61
22.377	22.406 (0.942)	100	306			0.00- 54.43	13.07
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.905 (1.006)	106	1542	0.03203	0.05349	80.00- 120.00	100.00(a)
23.905	23.905 (1.006)	91	5358			278.69- 338.69	347.52

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
169 m,p-Xylene						CAS #: 108-38-3	
24.091	24.091 (1.014)	106	4683	0.08916	0.1489	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	9321			164.82- 224.82	199.05
171 o-Xylene						CAS #: 95-47-6	
24.710	24.710 (1.040)	106	2012	0.03914	0.06536	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	4420			174.08- 234.08	219.68
172 Styrene						CAS #: 100-42-5	
24.751	24.730 (1.042)	104	3127	0.03951	0.06598	80.00- 120.00	100.00(a)
24.751	24.730 (1.042)	78	2012			19.76- 79.76	64.34
188 4-Ethyltoluene						CAS #: 622-96-8	
25.826	25.864 (1.087)	105	4057	0.03063	0.05116	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	1108			0.68- 60.68	27.31
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6	
26.395	26.395 (1.111)	105	3473	0.03002	0.05012	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1521			18.29- 78.29	43.80
228 Naphthalene						CAS #: 91-20-3	
29.772	29.772 (1.253)	128	1458	0.01167	0.01949	80.00- 120.00	100.00(a)
29.787	29.772 (1.254)	127	573			0.00- 43.33	39.32

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061515.d
Lab Smp Id: 1606298A-02A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.7"Hg -> 5.2psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	103903	-11.63
123 1,4-Difluorobenze	491034	294620	687448	476315	-3.00
163 Chlorobenzene-d5	413171	247903	578439	388591	-5.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 11:55

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-02A
Level: LOW Operator: mjs
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.7"Hg -> 5.2psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.817	116.33	70-130
$ 146 Toluene-d8	5.000	4.983	99.65	70-130
$ 177 4-Bromofluorobenze	5.000	4.733	94.67	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

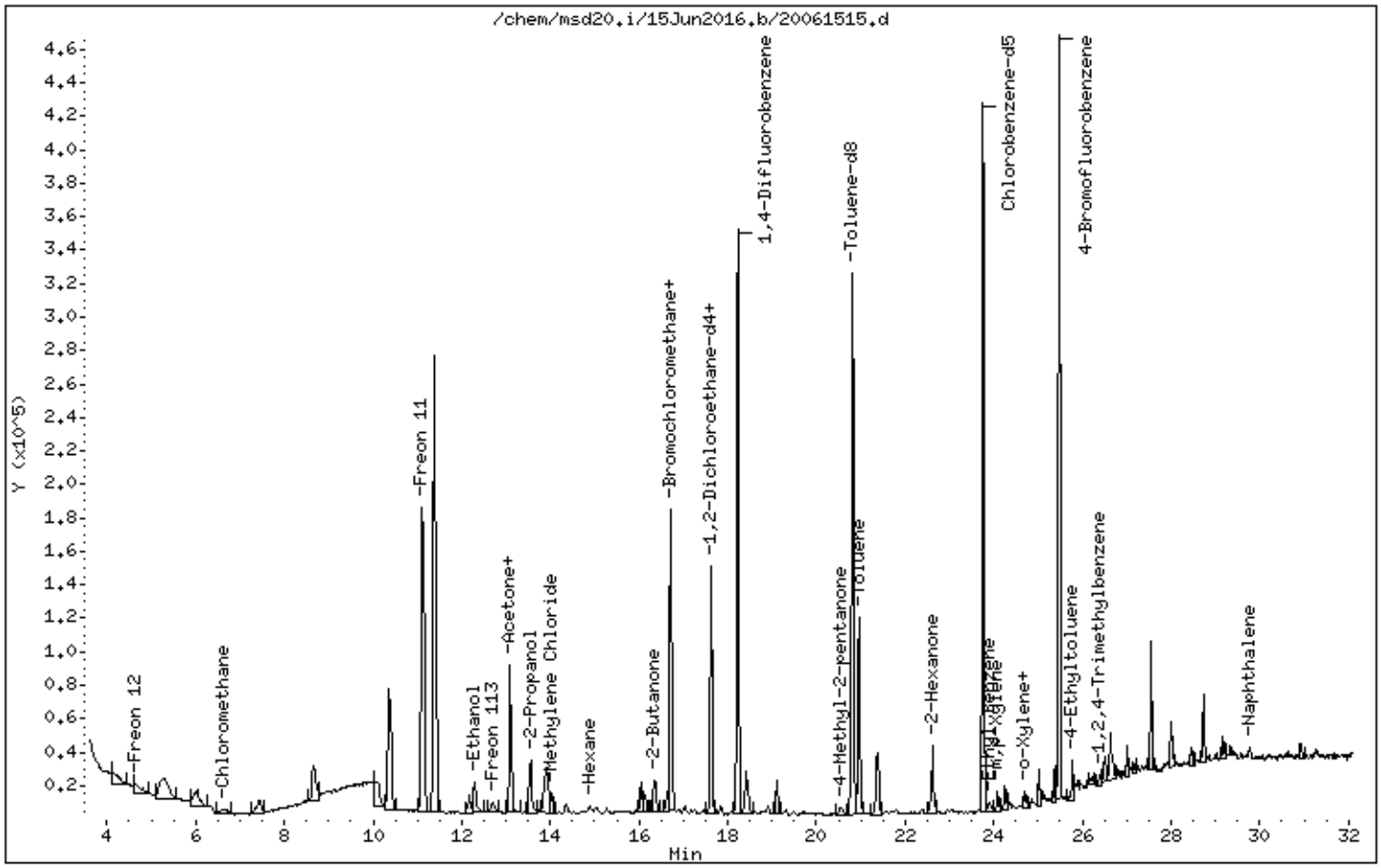
Instrument: msd20.i

Sample Info: 250mL #03536

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

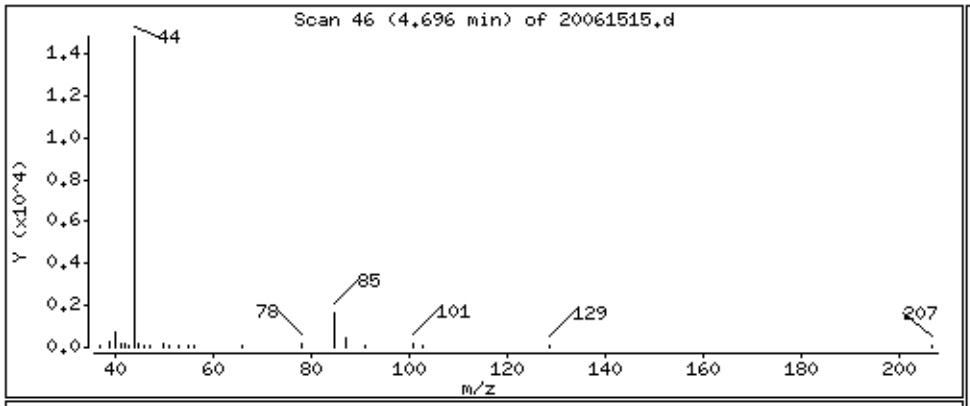
Operator: mjs

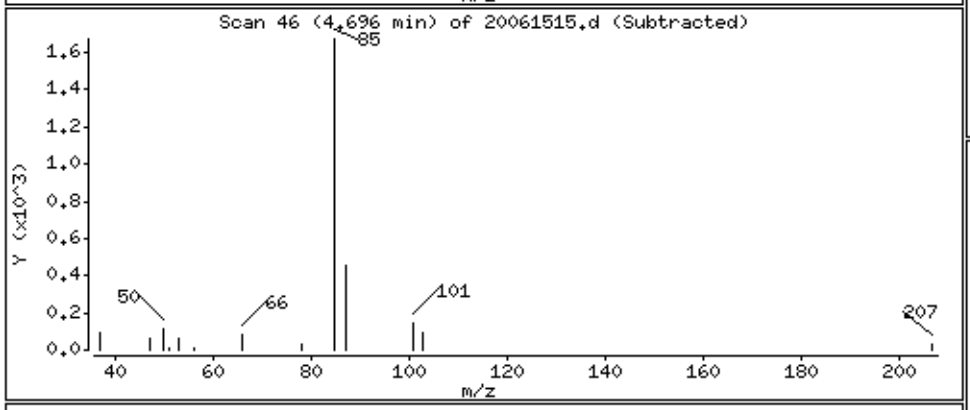
Column phase: RTX-624

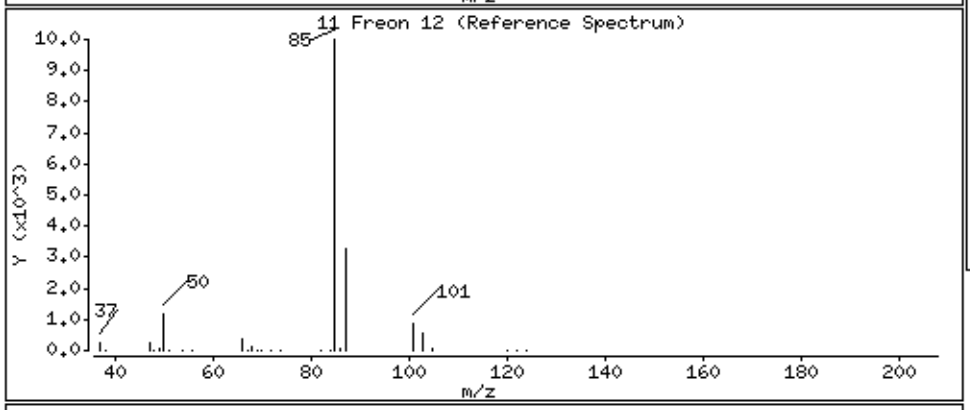
Column diameter: 0.32

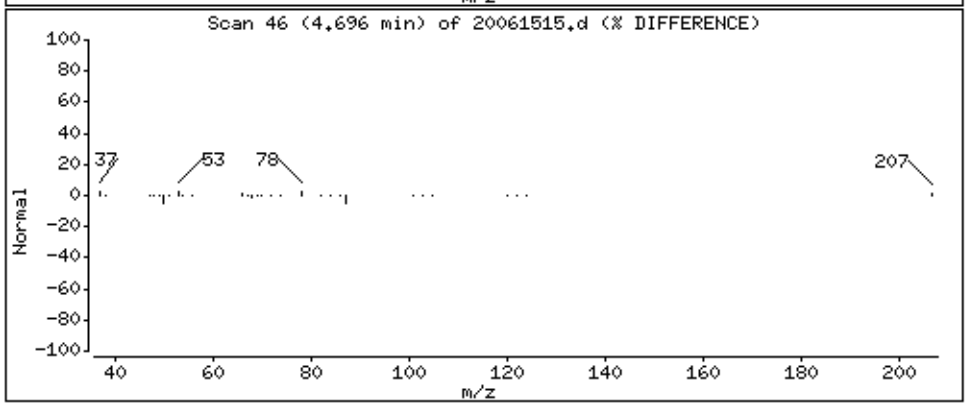
11 Freon 12

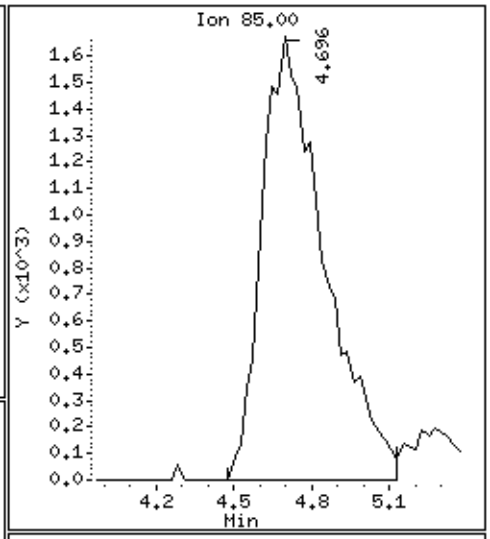
Concentration: 0.5750 PPBV

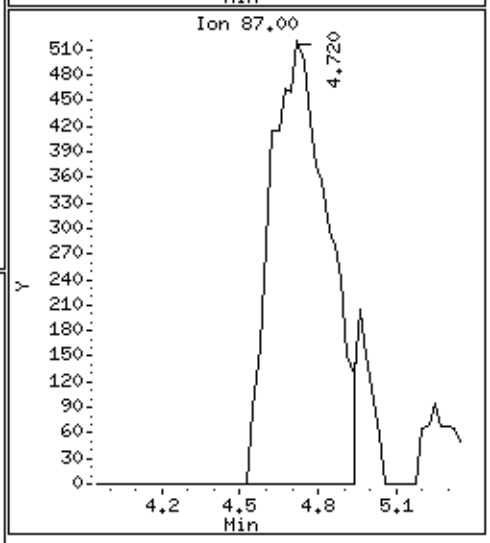












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

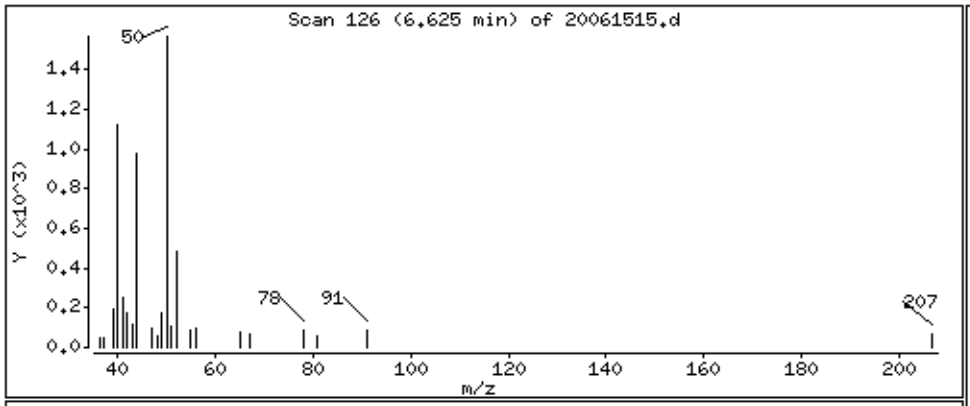
Operator: mjs

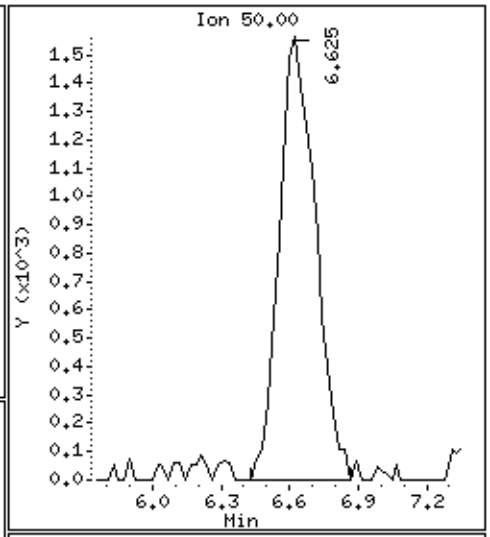
Column phase: RTX-624

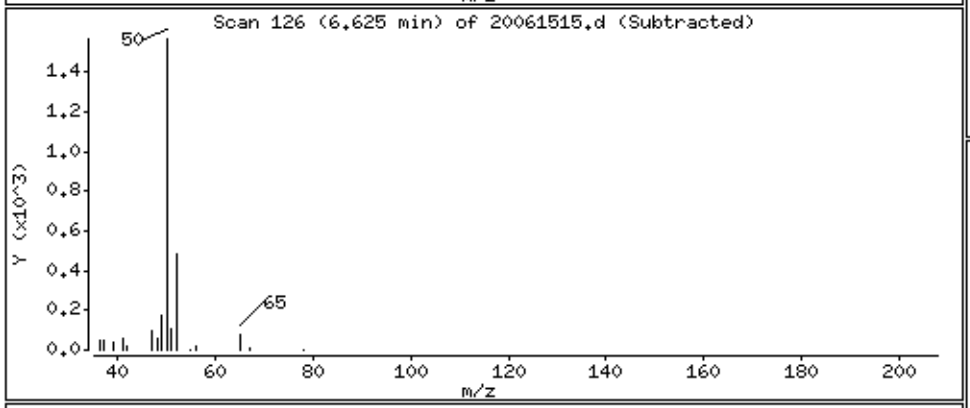
Column diameter: 0.32

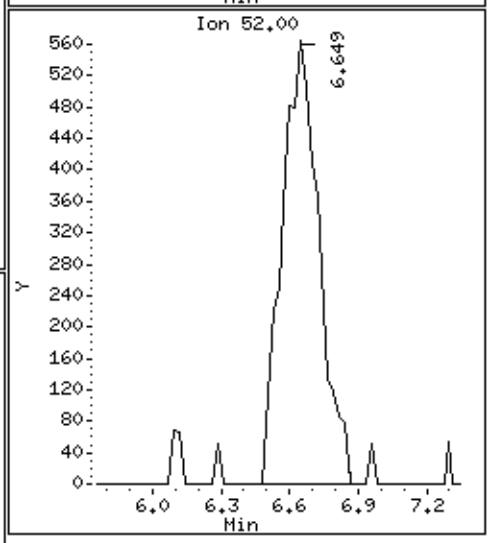
17 Chloromethane

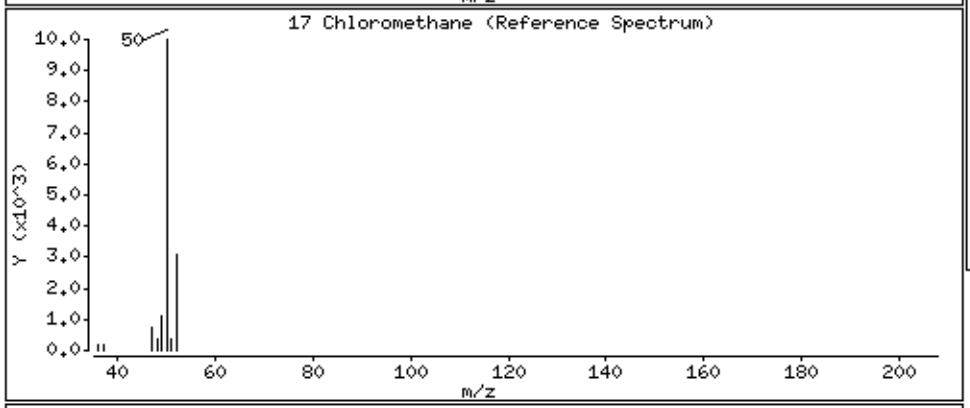
Concentration: 1.100 PPBV

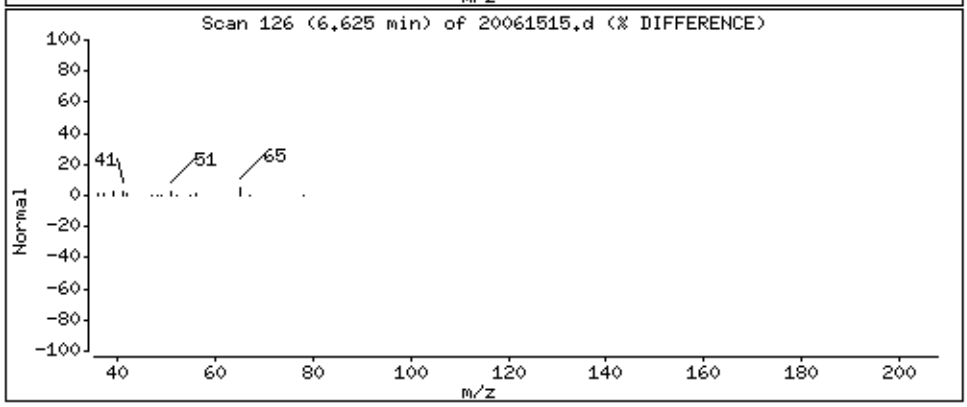












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

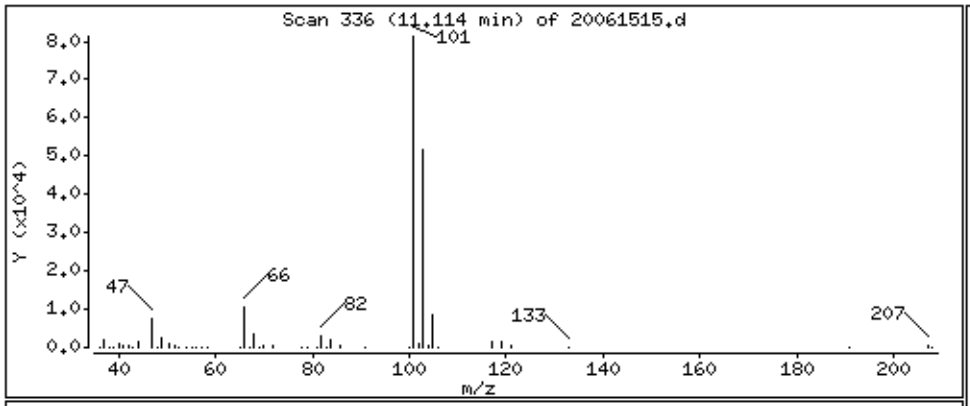
Operator: mjs

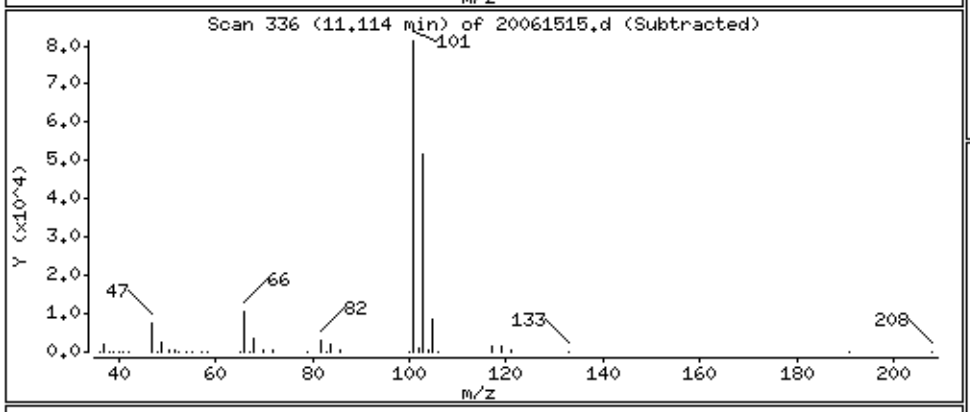
Column phase: RTX-624

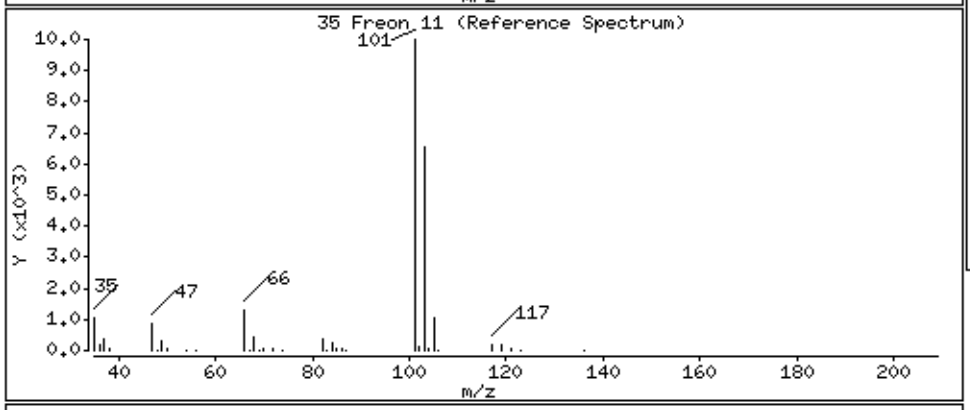
Column diameter: 0.32

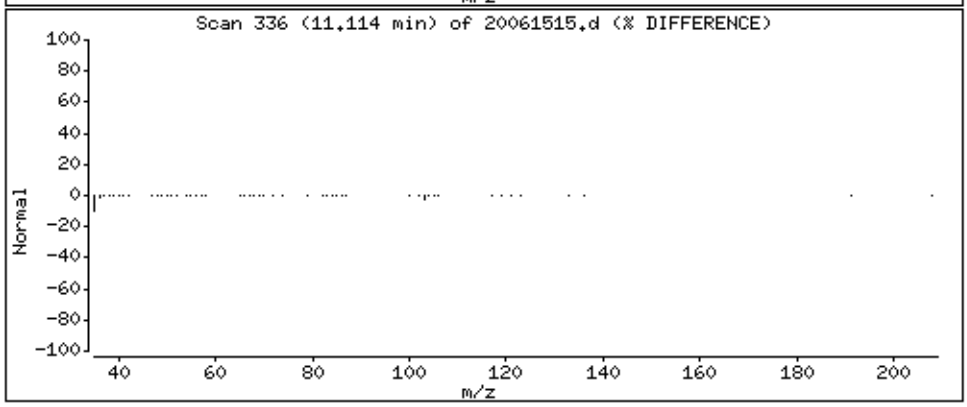
35 Freon 11

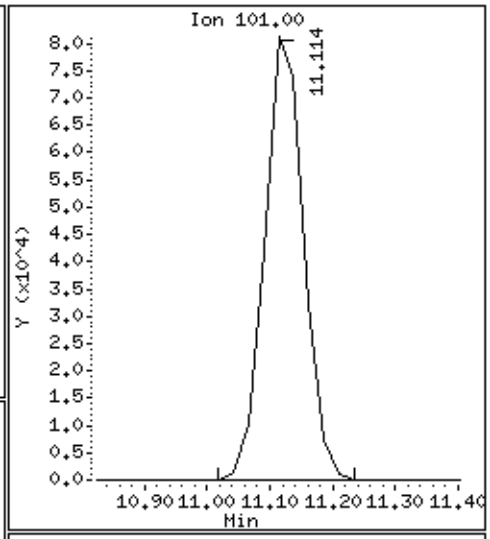
Concentration: 7.477 PPBV

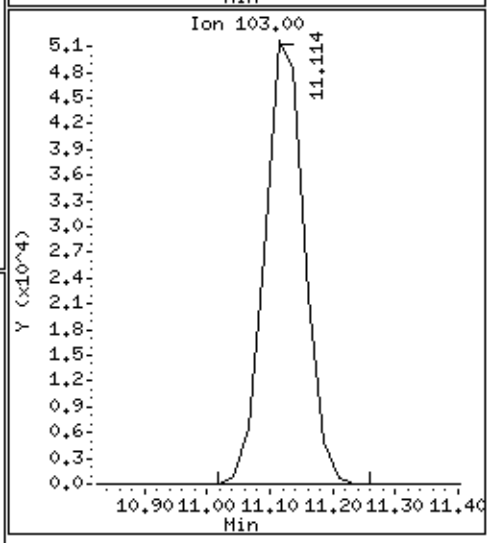












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

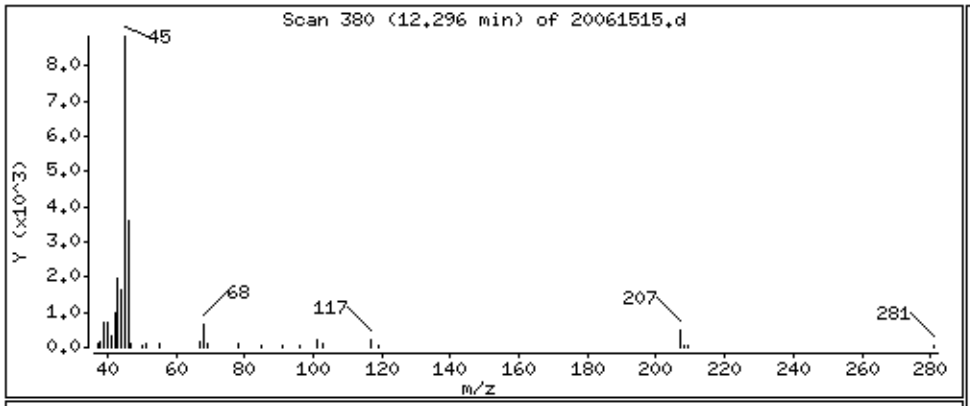
Operator: mjs

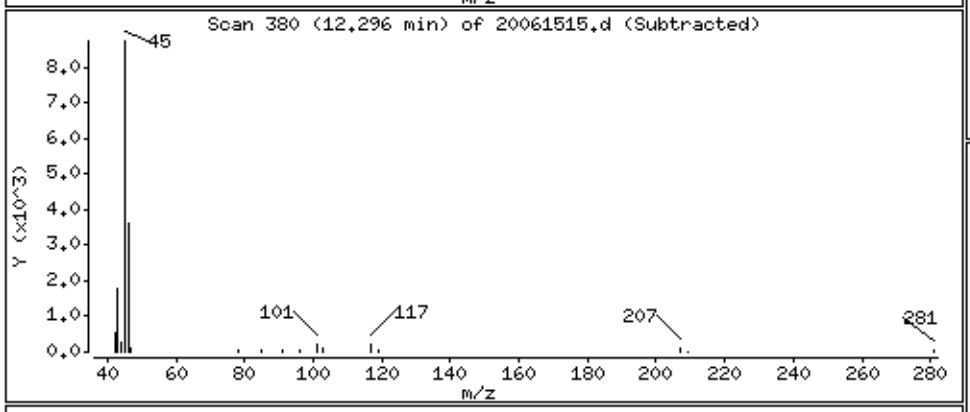
Column phase: RTX-624

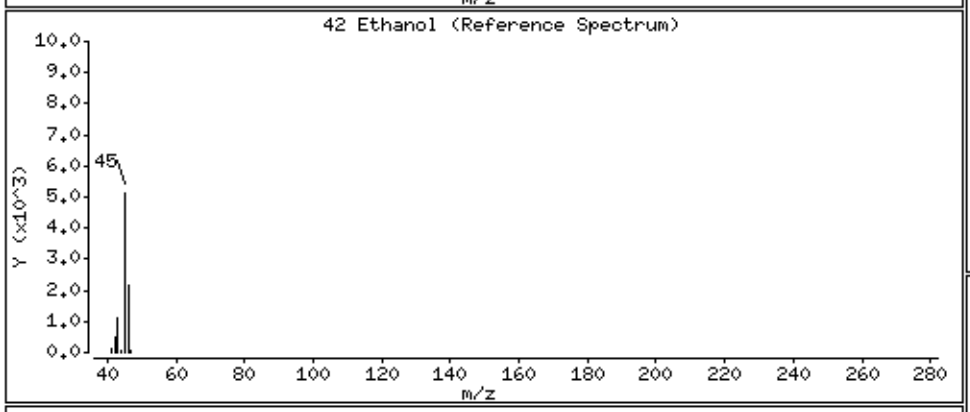
Column diameter: 0.32

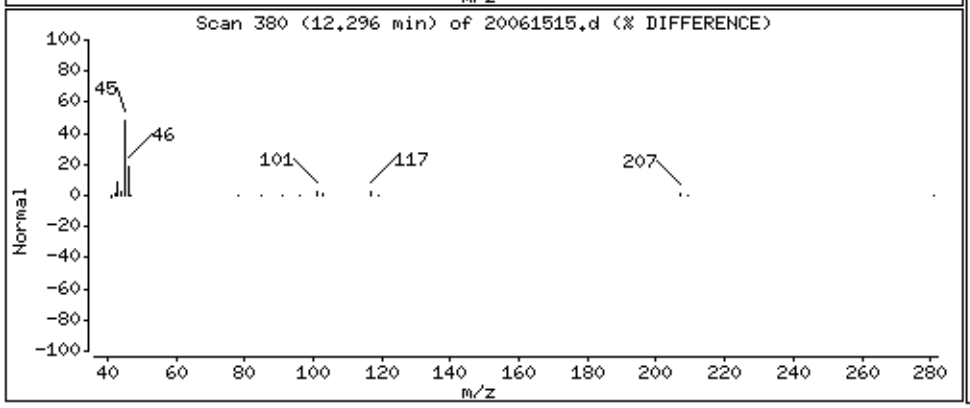
42 Ethanol

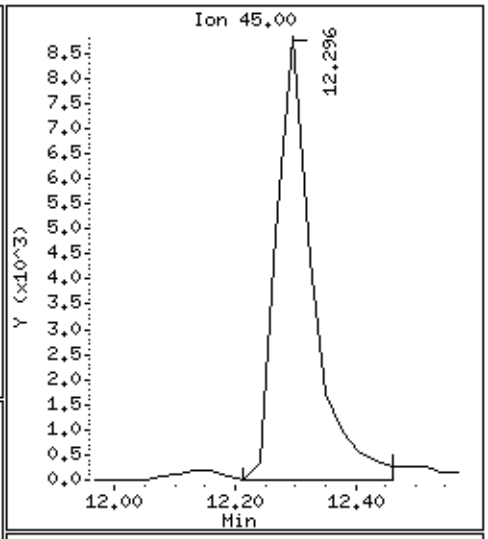
Concentration: 5.830 PPBV

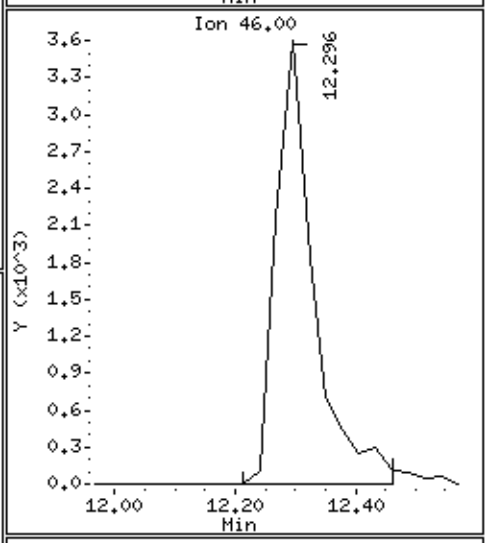


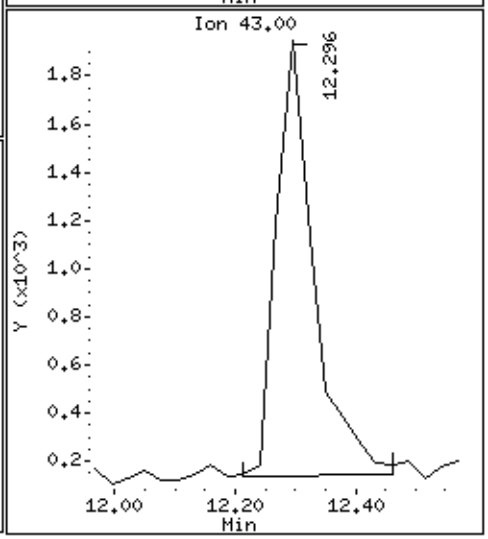












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

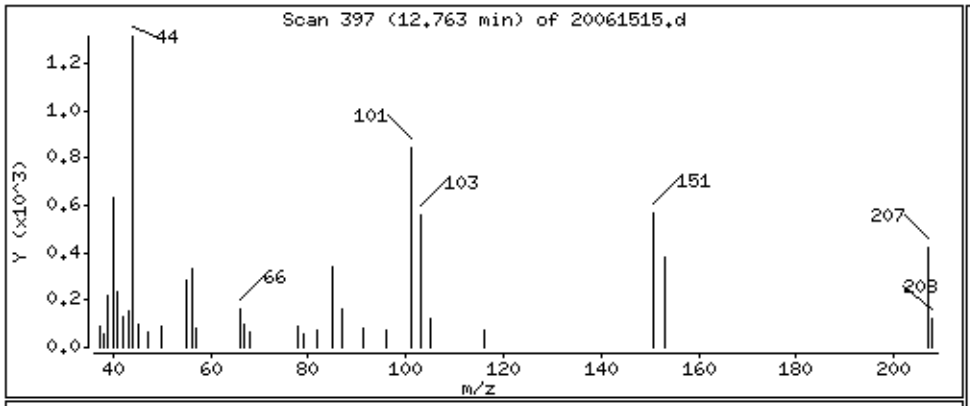
Operator: mjs

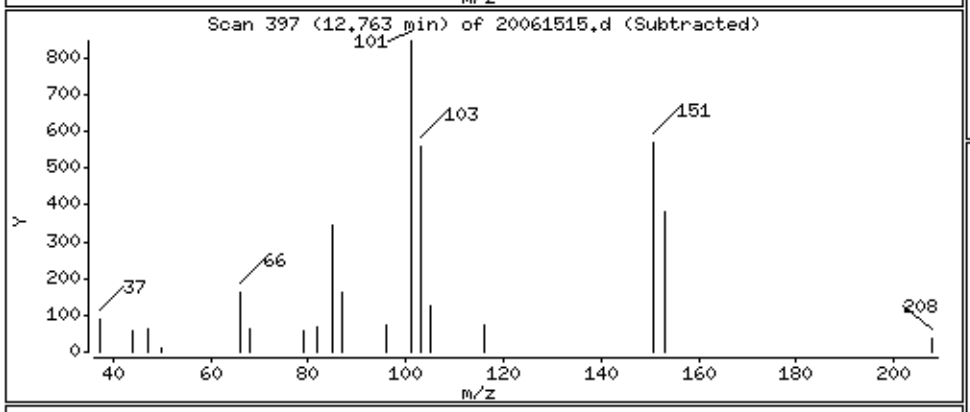
Column phase: RTX-624

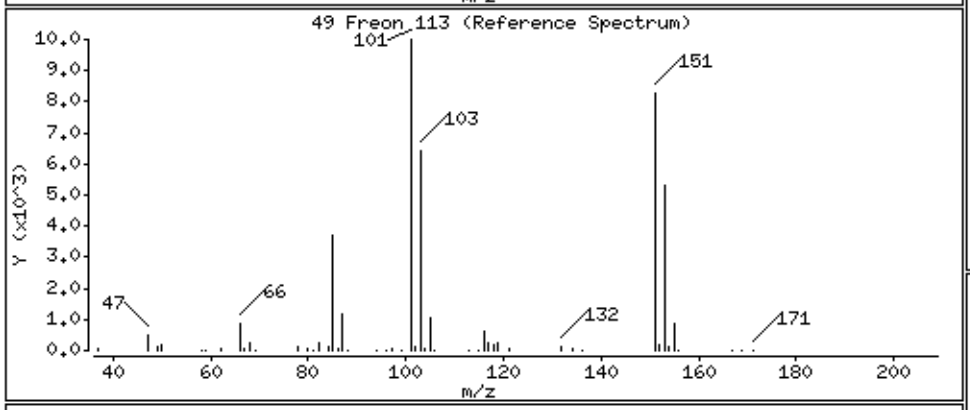
Column diameter: 0.32

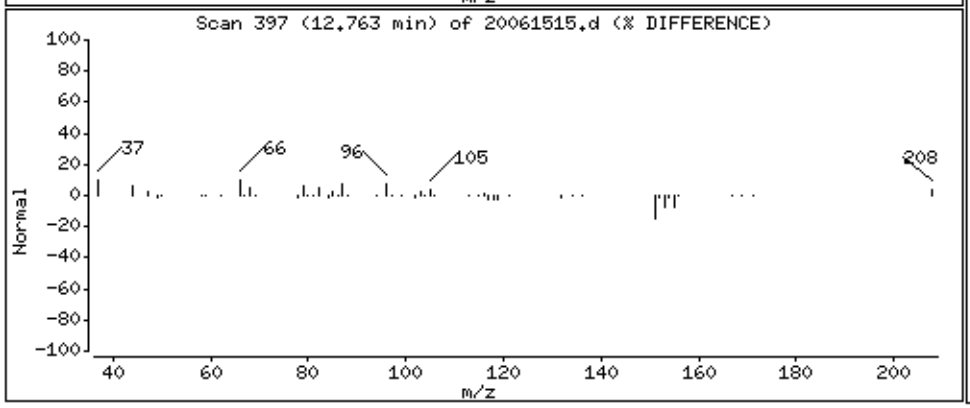
49 Freon 113

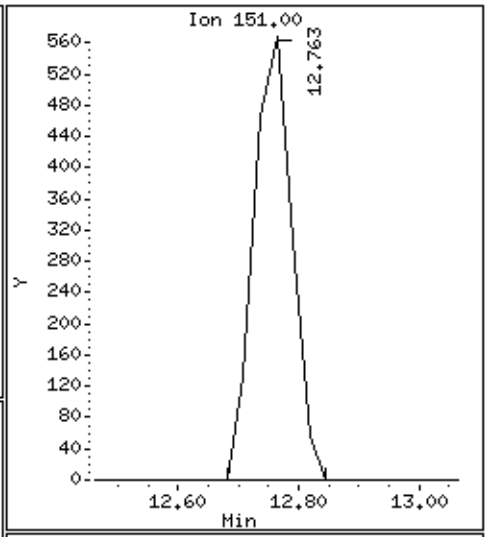
Concentration: 0.07155 PPBV

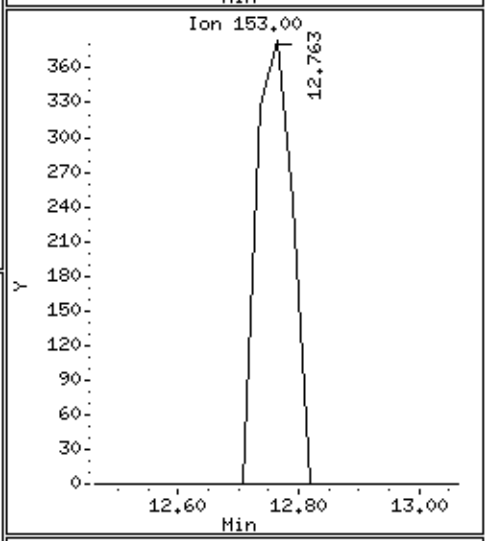


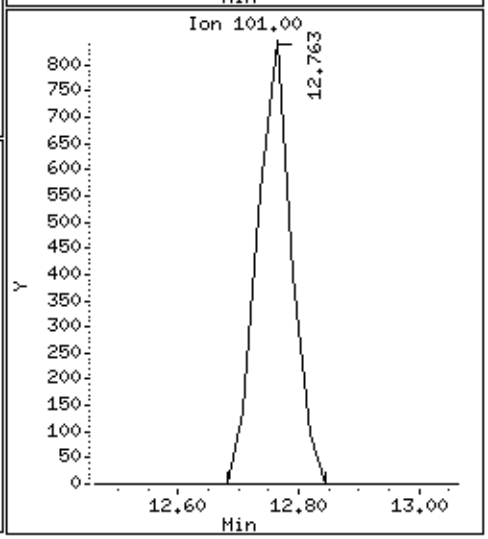












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

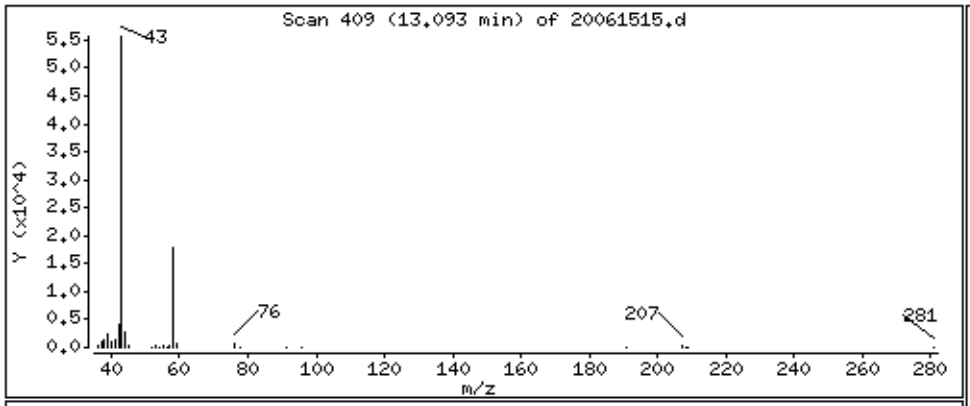
Operator: mjs

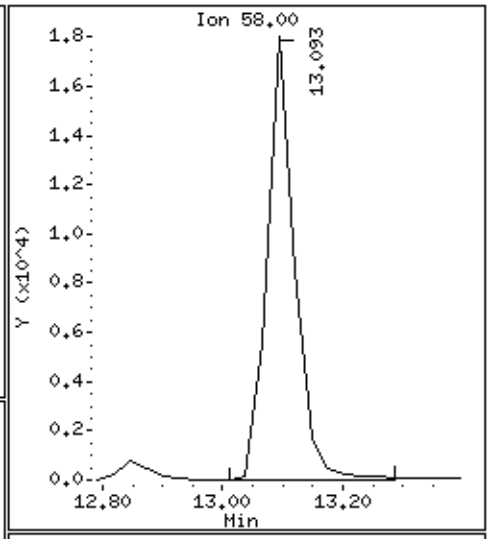
Column phase: RTX-624

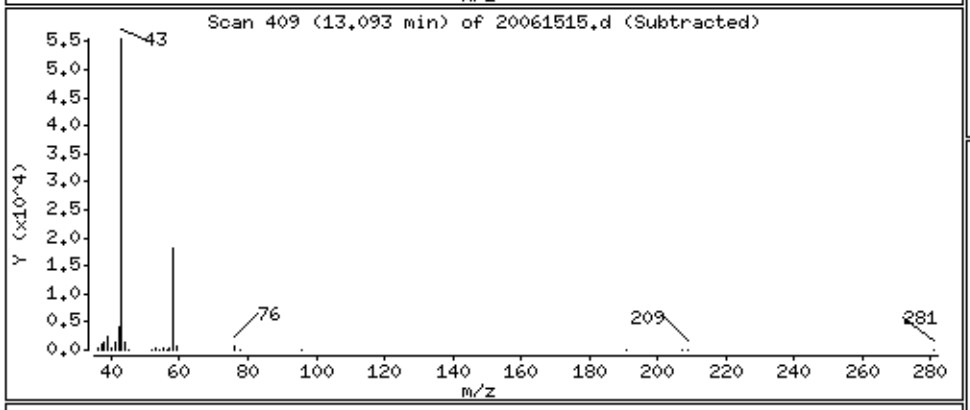
Column diameter: 0.32

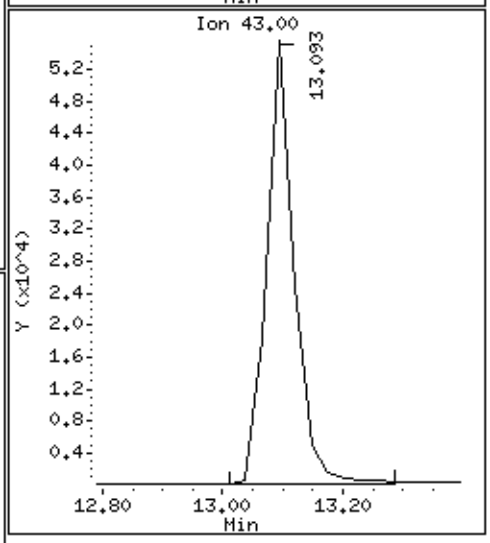
52 Acetone

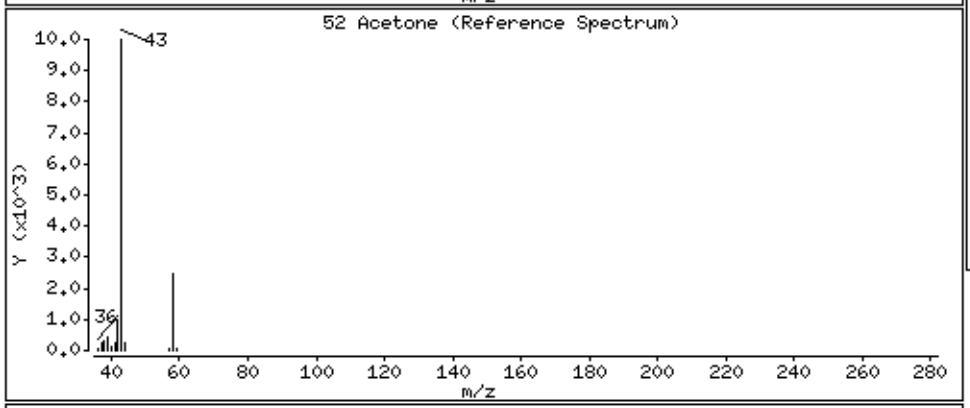
Concentration: 6.230 PPBV

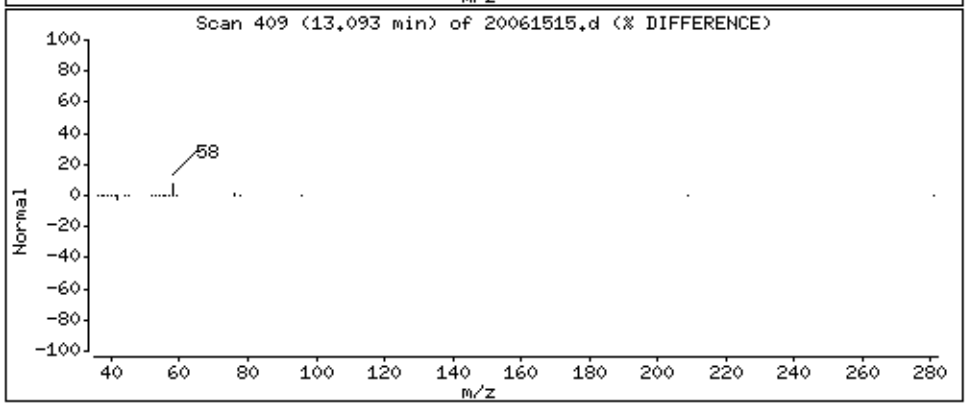












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

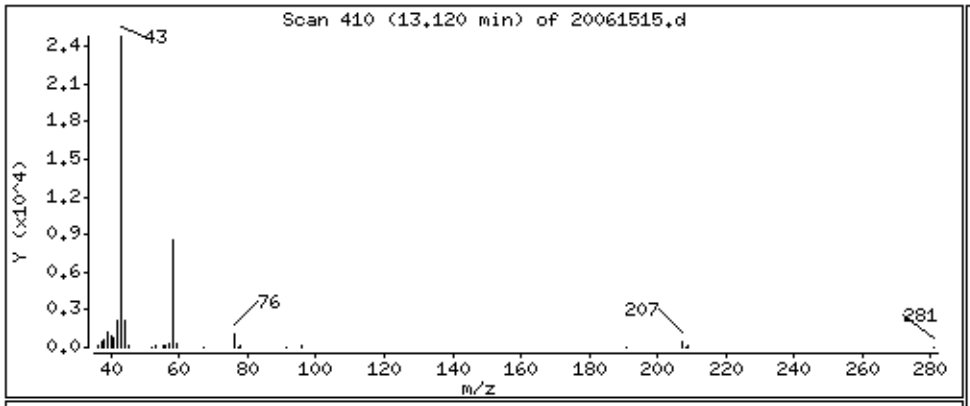
Operator: mjs

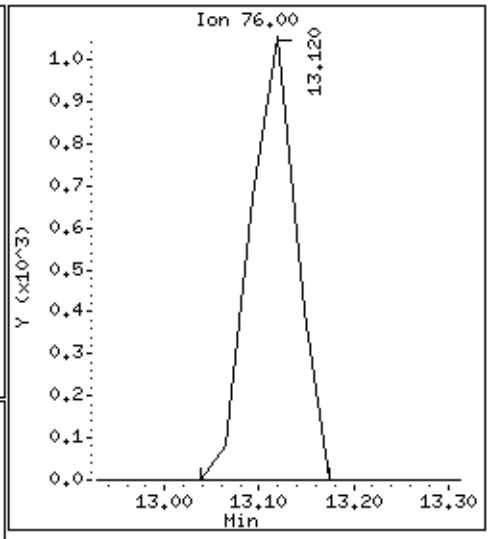
Column phase: RTX-624

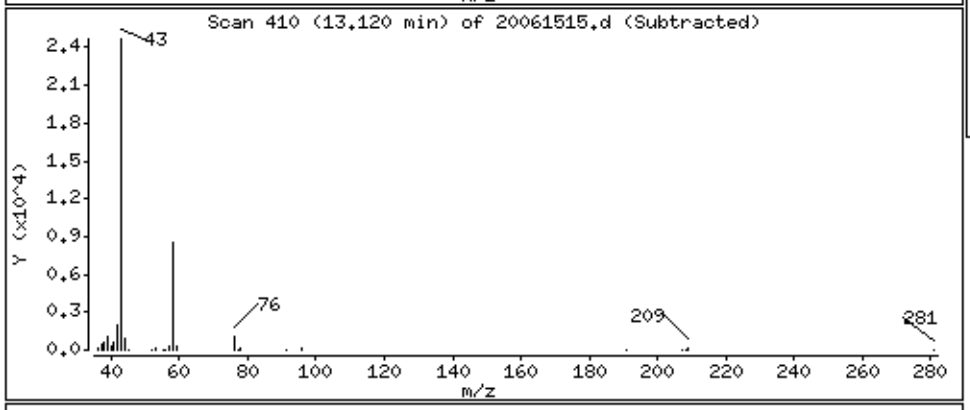
Column diameter: 0.32

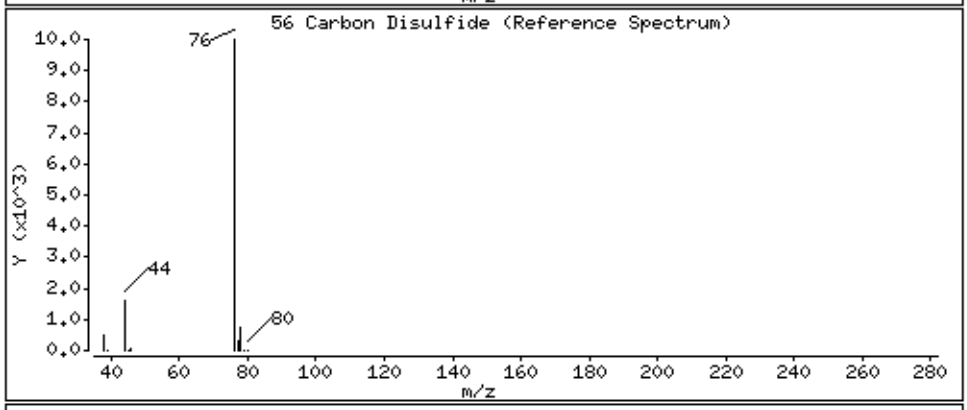
56 Carbon Disulfide

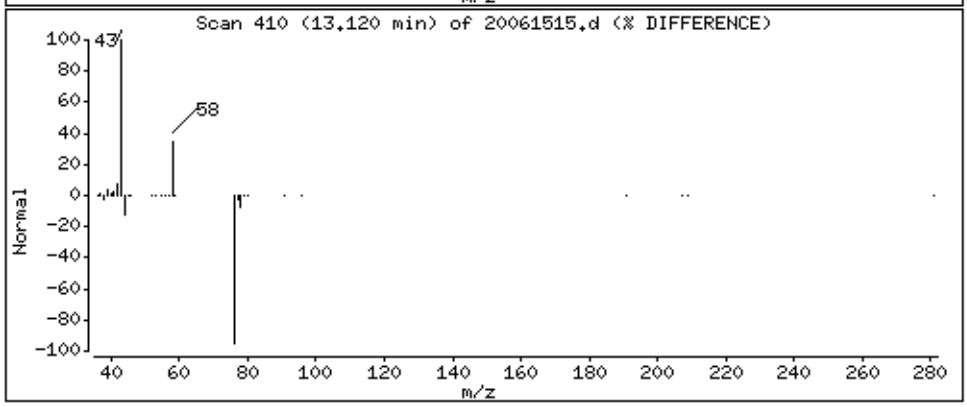
Concentration: 0.06946 PPBV











Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

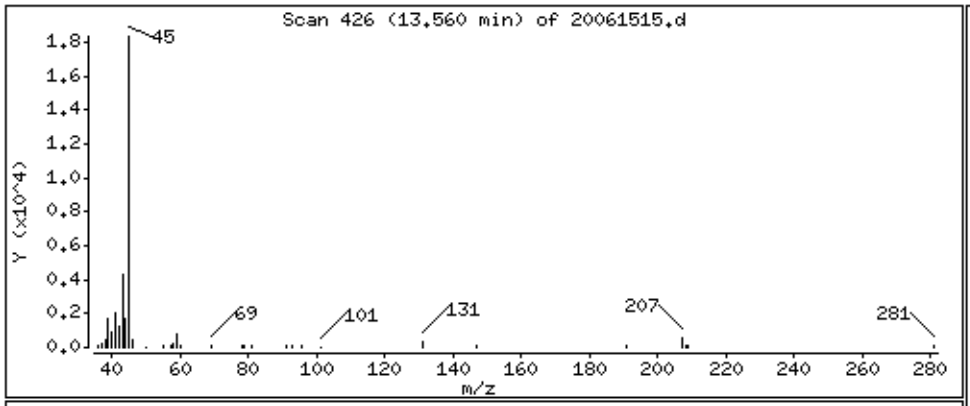
Operator: mjs

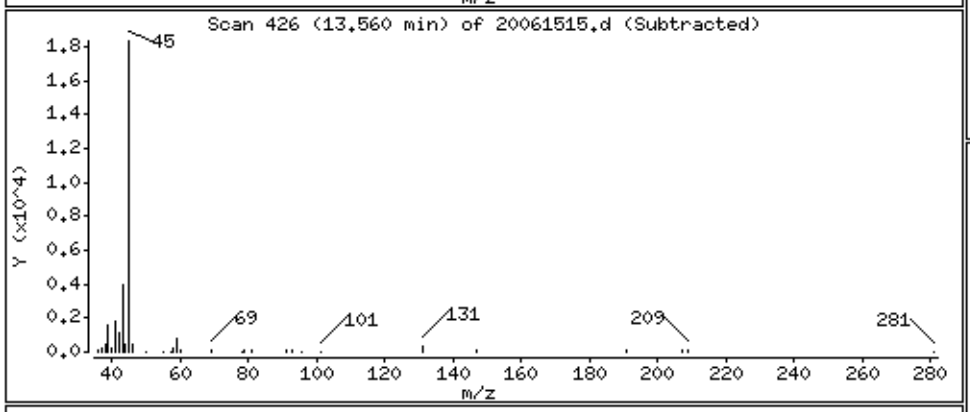
Column phase: RTX-624

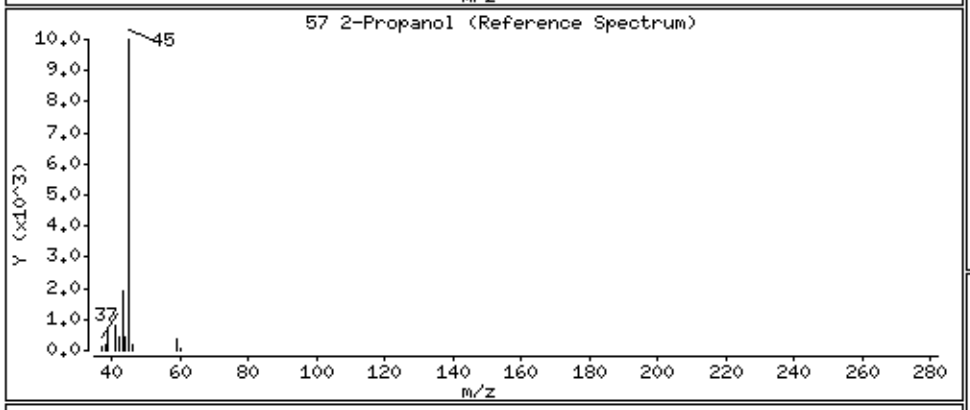
Column diameter: 0.32

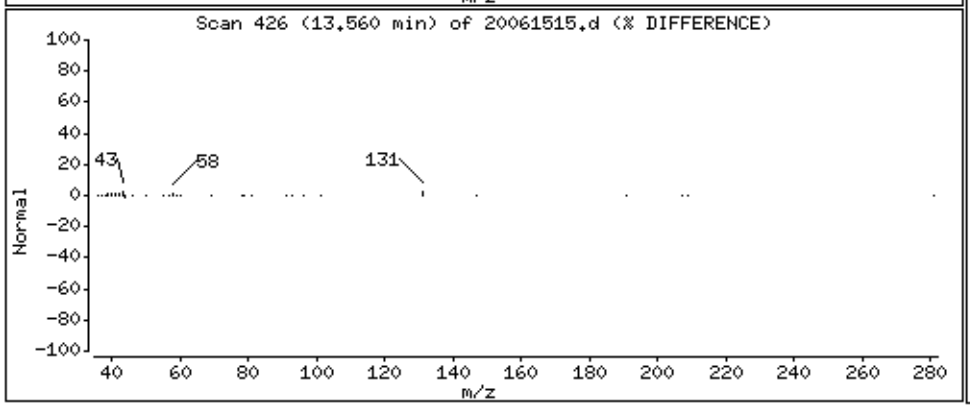
57 2-Propanol

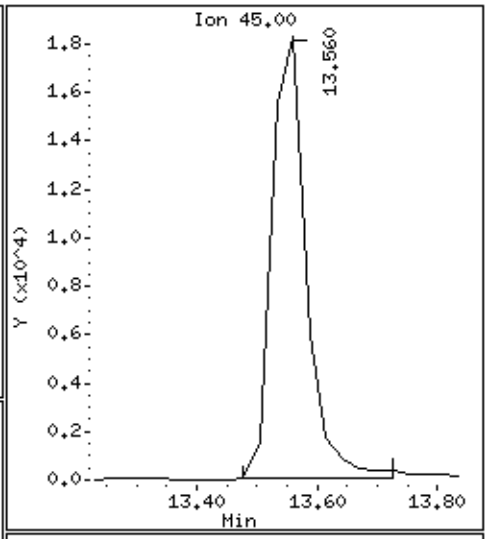
Concentration: 2.469 PPBV

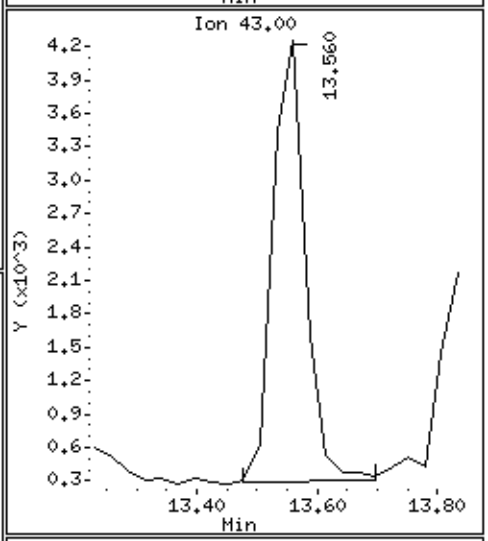


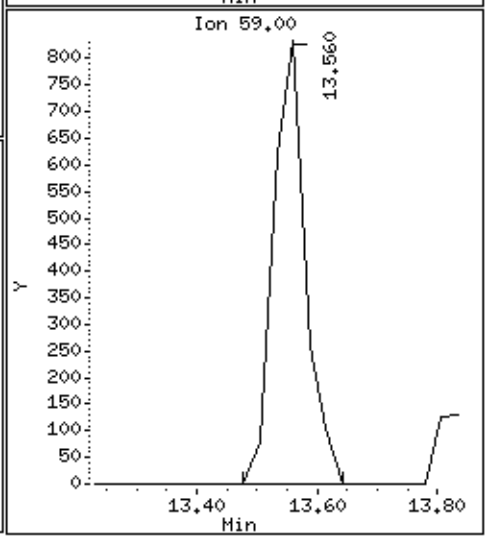












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

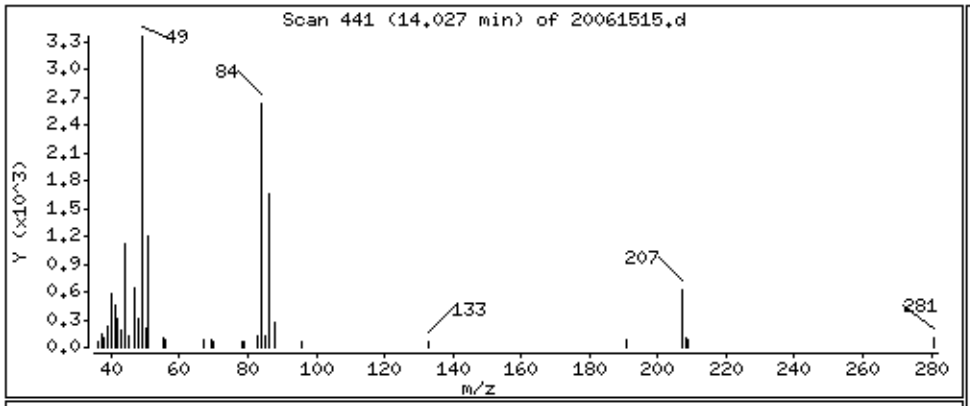
Operator: mjs

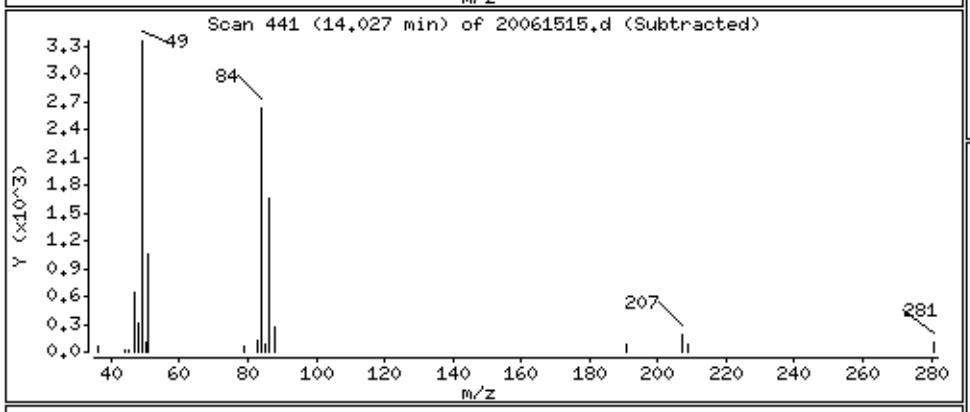
Column phase: RTX-624

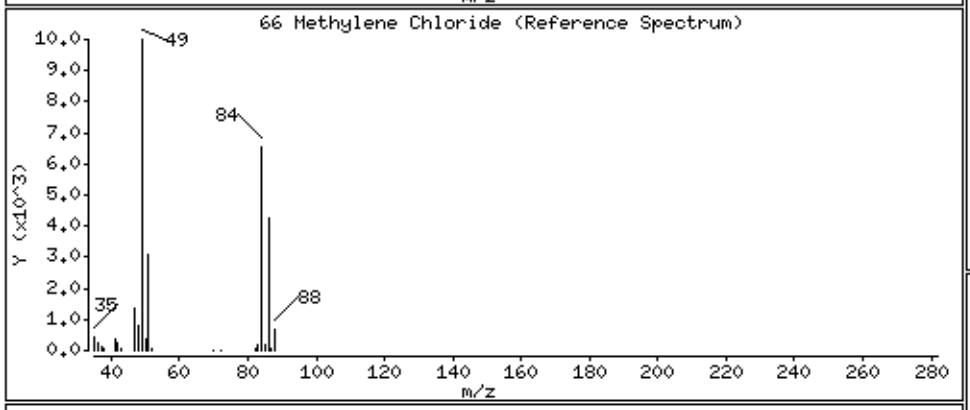
Column diameter: 0.32

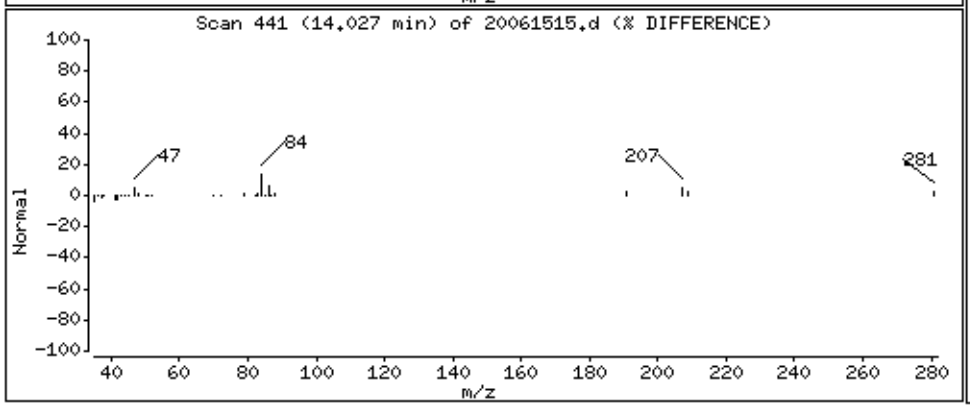
66 Methylene Chloride

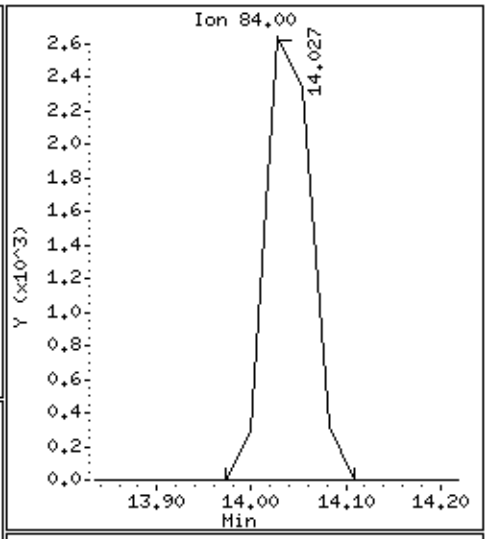
Concentration: 0.4554 PPBV

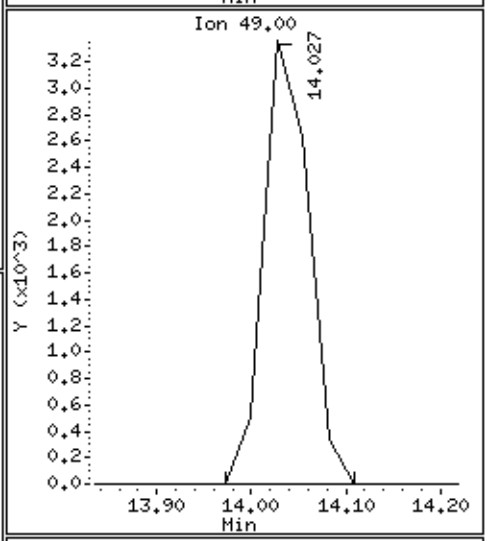


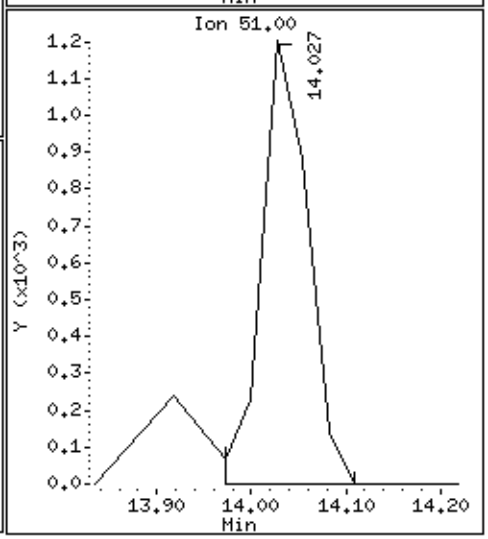












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

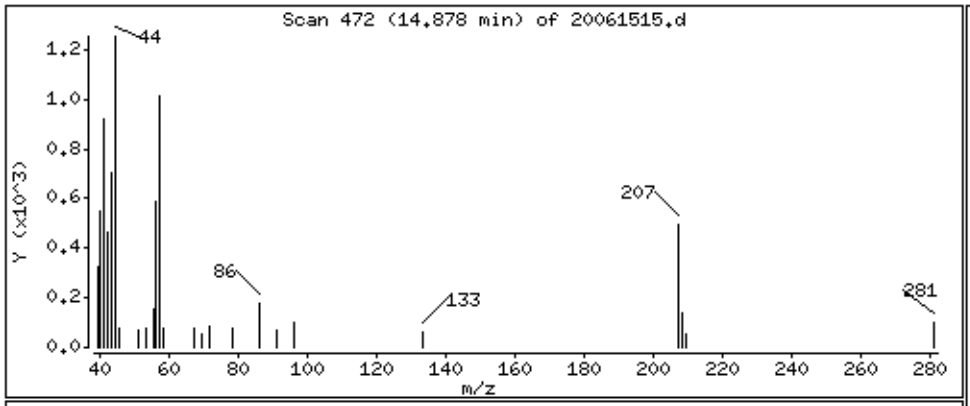
Operator: mjs

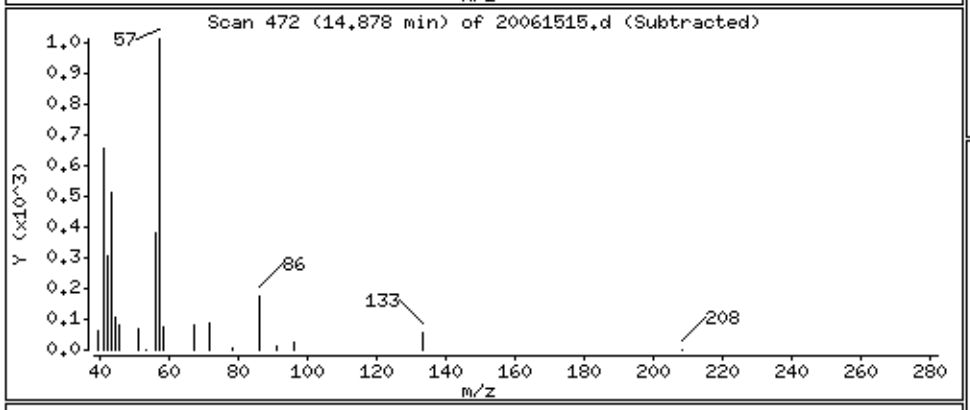
Column phase: RTX-624

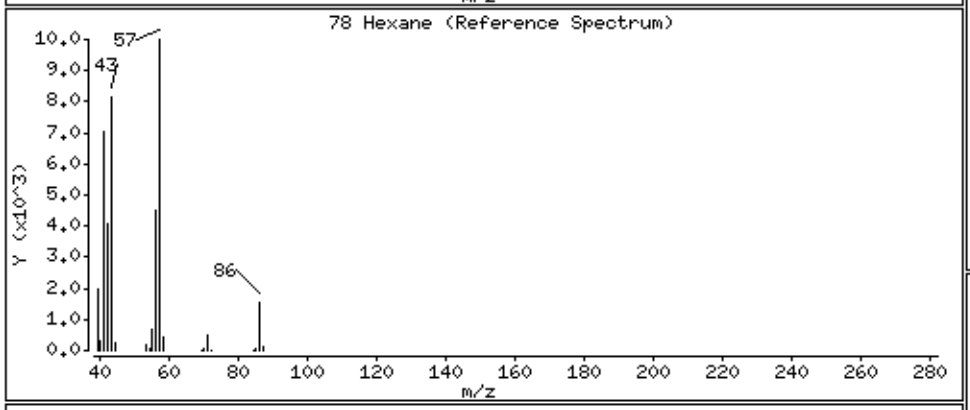
Column diameter: 0.32

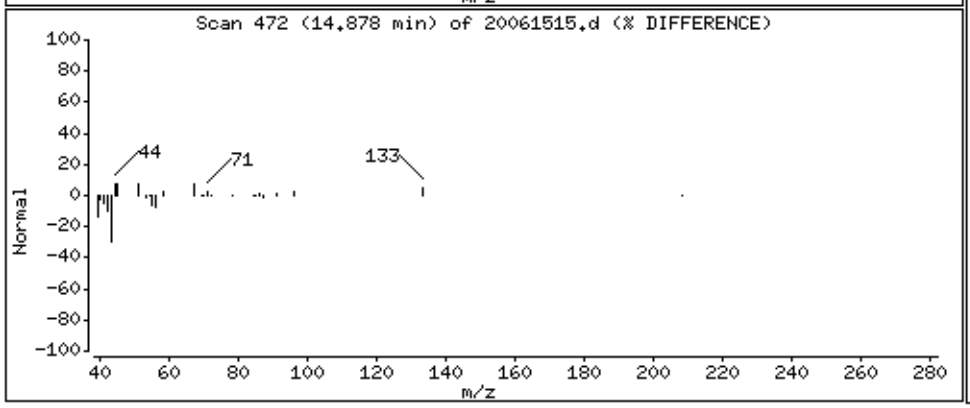
78 Hexane

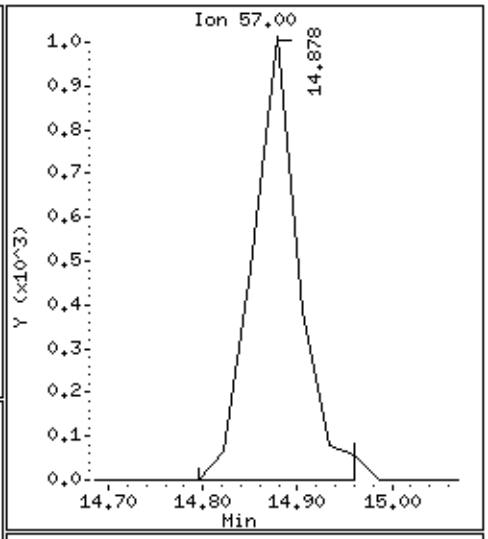
Concentration: 0.1135 PPBV

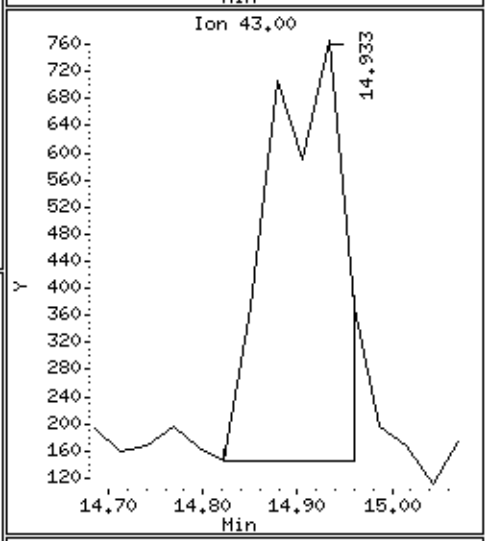


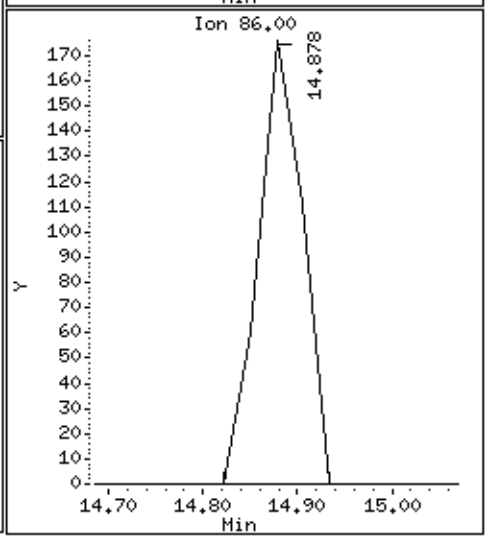












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

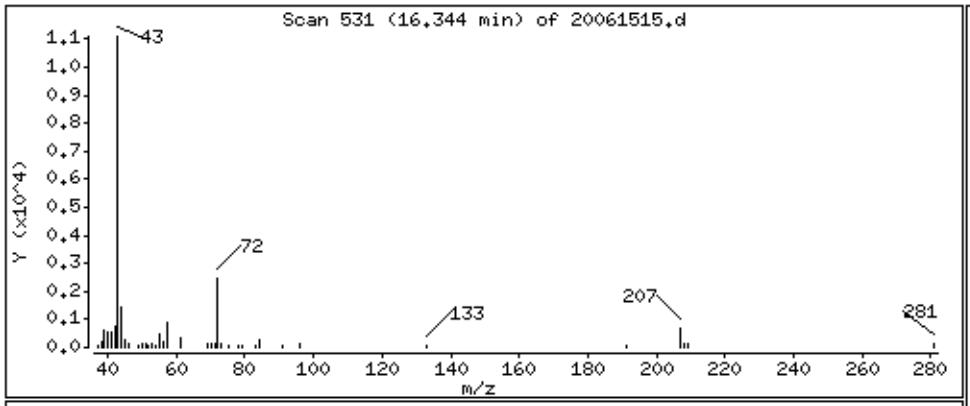
Operator: mjs

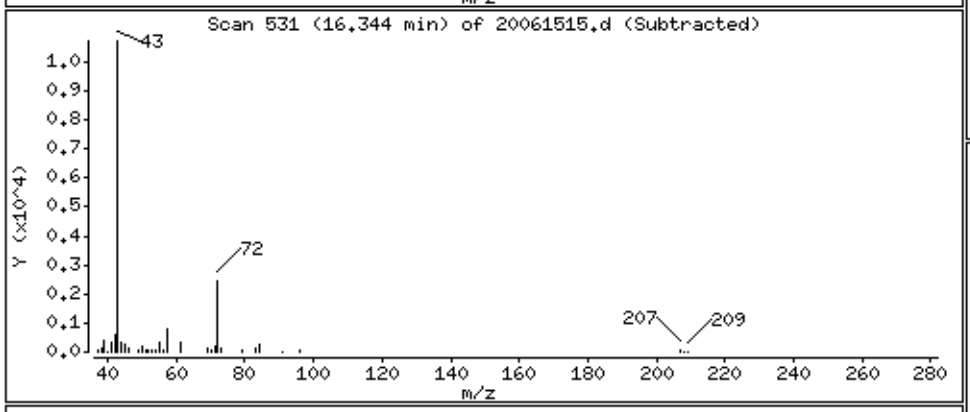
Column phase: RTX-624

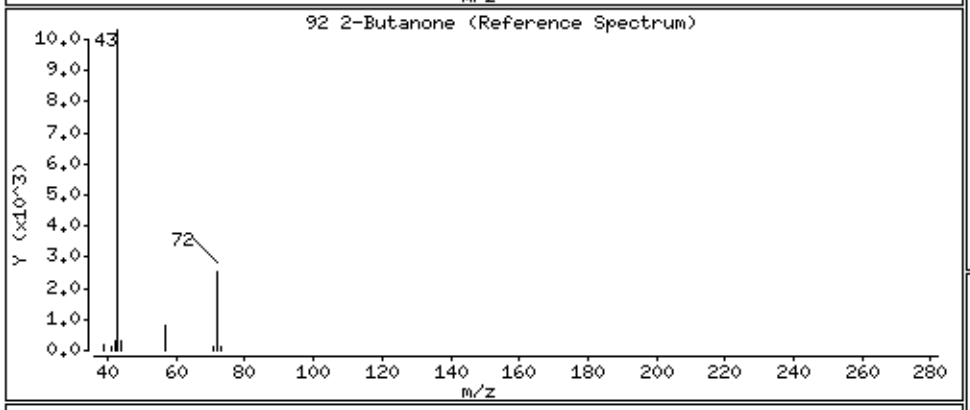
Column diameter: 0.32

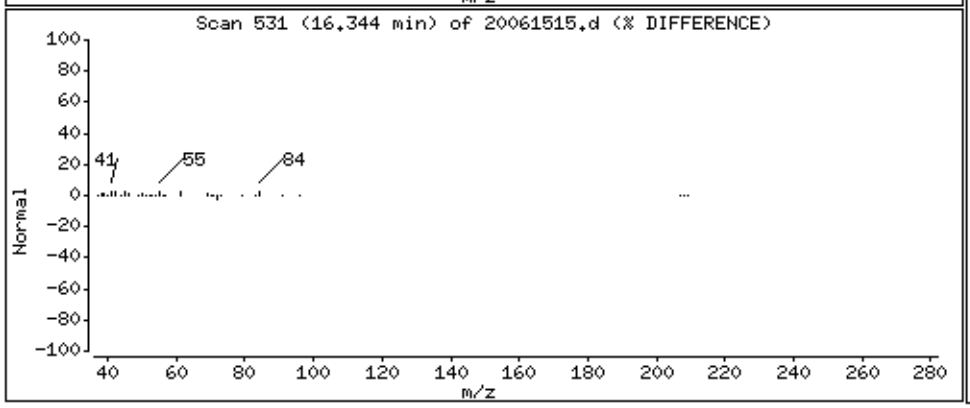
92 2-Butanone

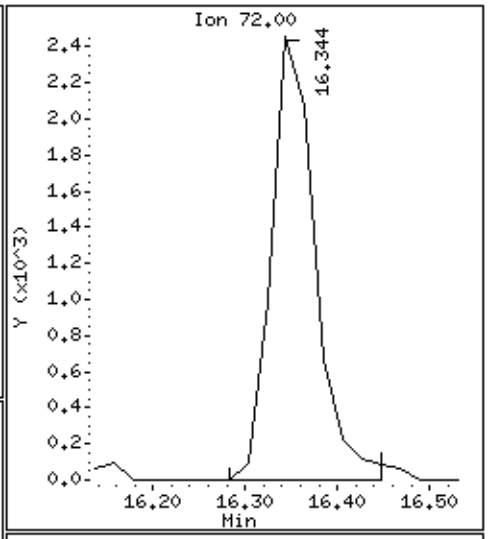
Concentration: 0.8420 PPBV

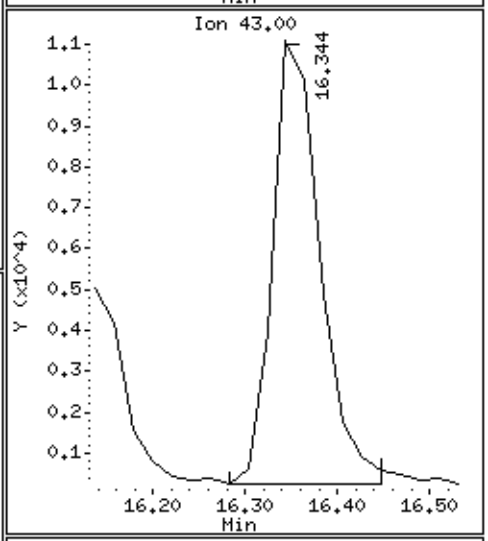


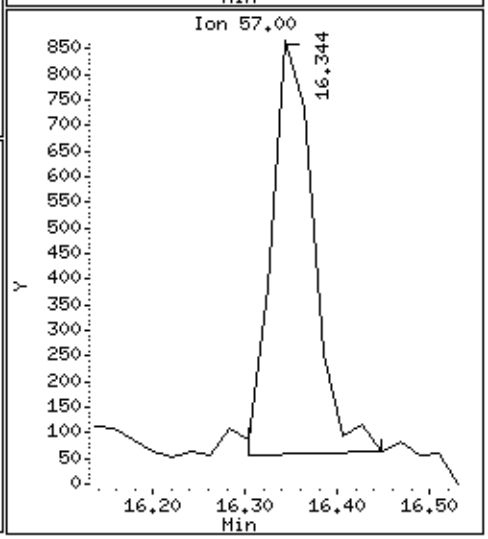












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

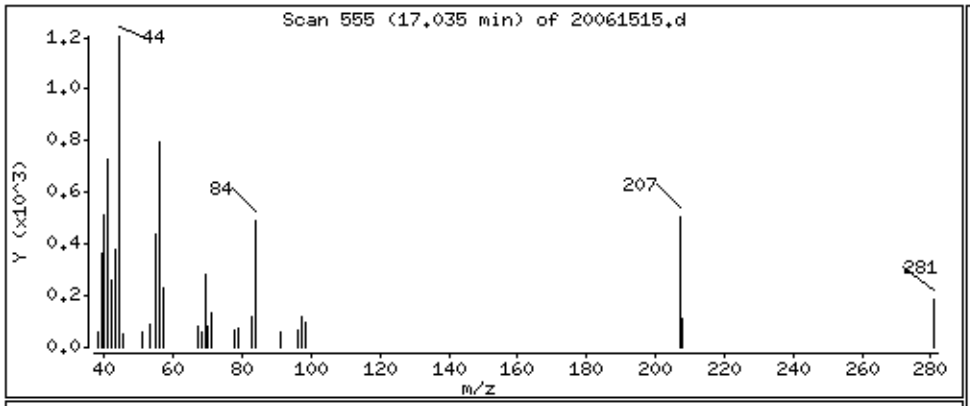
Operator: mjs

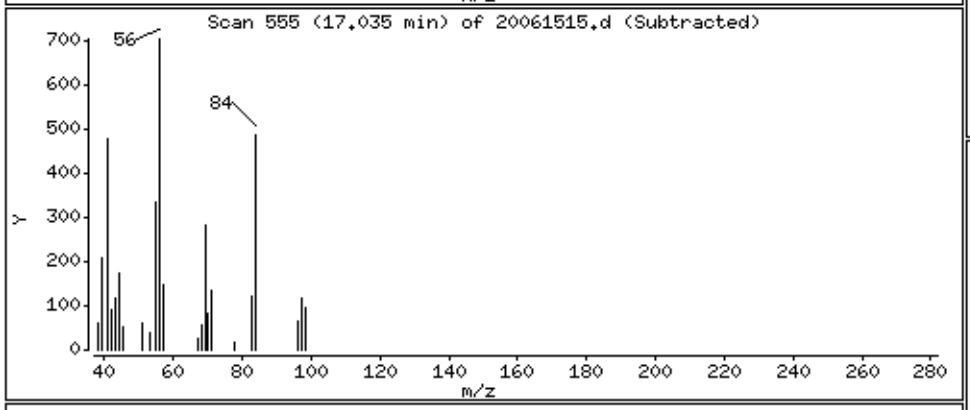
Column phase: RTX-624

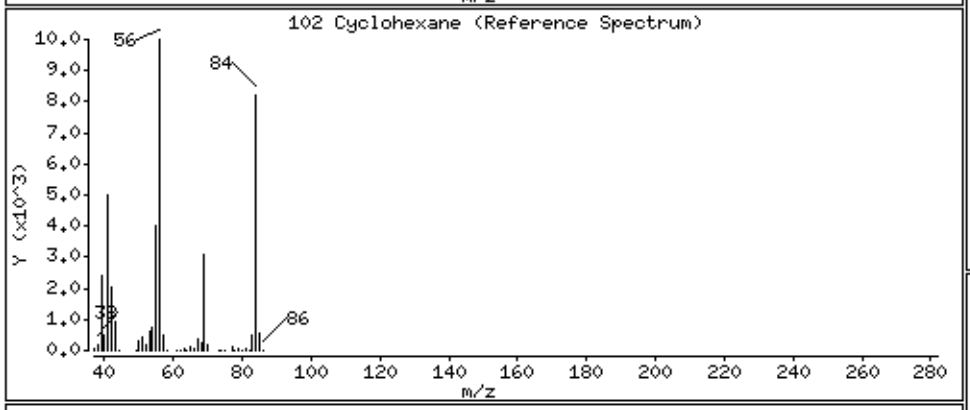
Column diameter: 0.32

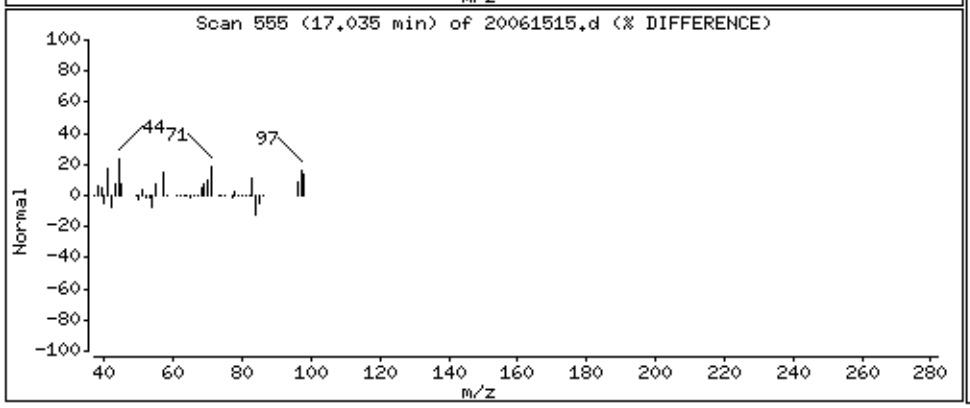
102 Cyclohexane

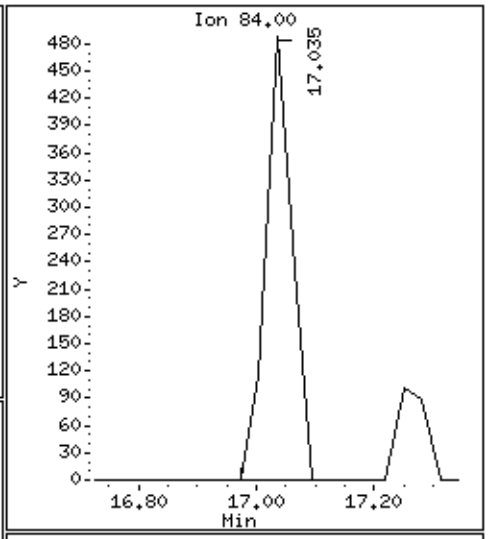
Concentration: 0.05129 PPBV

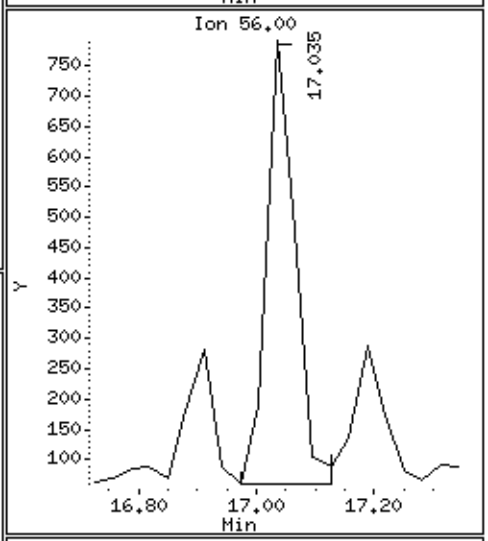


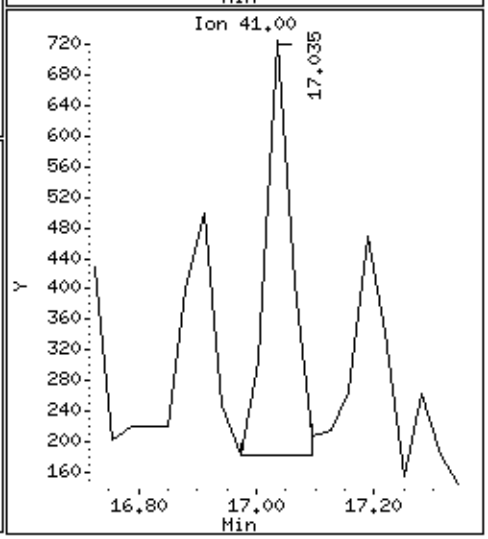












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

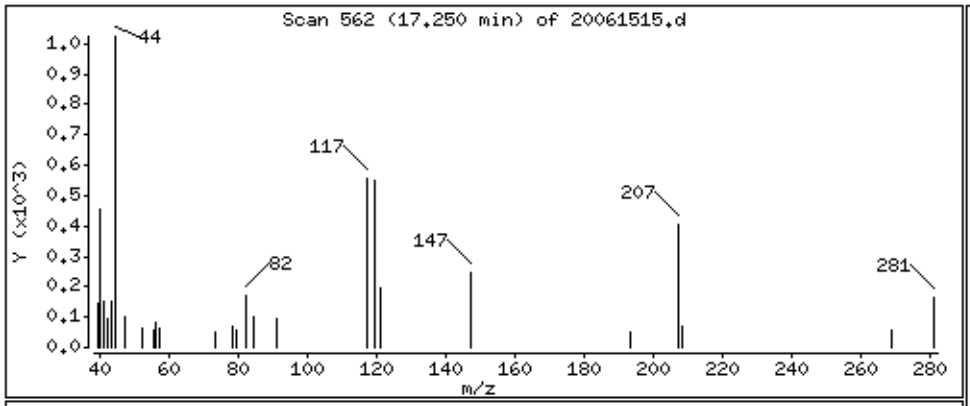
Operator: mjs

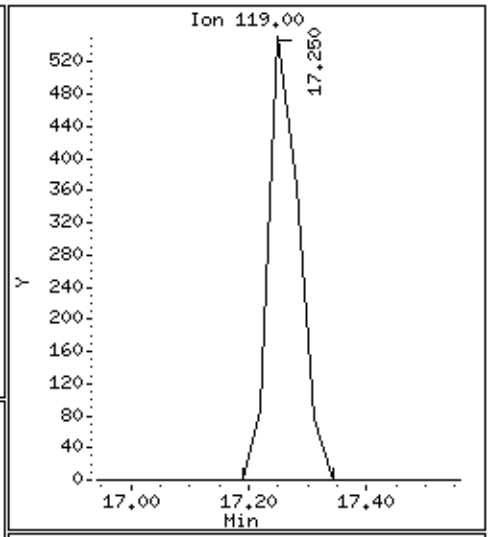
Column phase: RTX-624

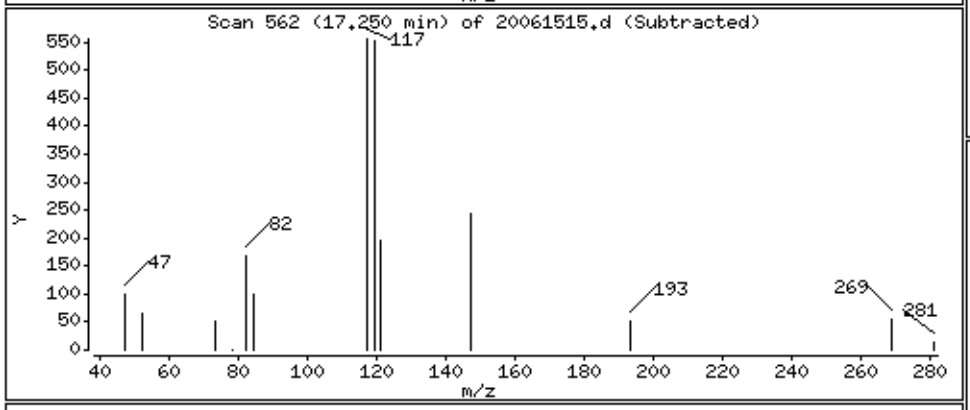
Column diameter: 0.32

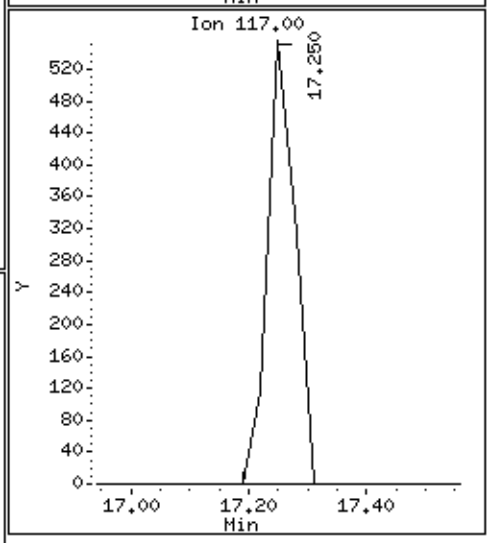
106 Carbon Tetrachloride

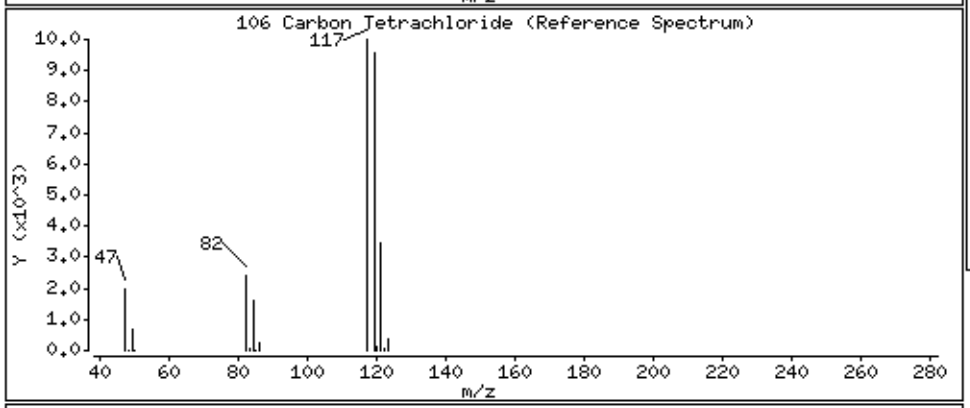
Concentration: 0.05922 PPBV

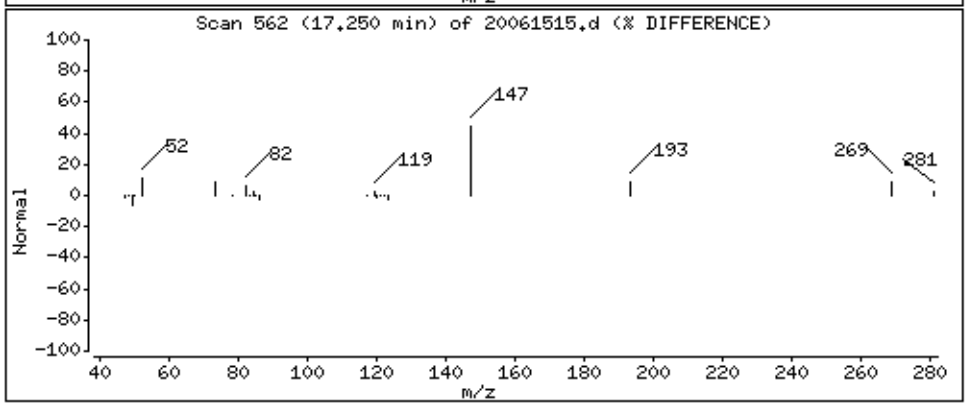












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

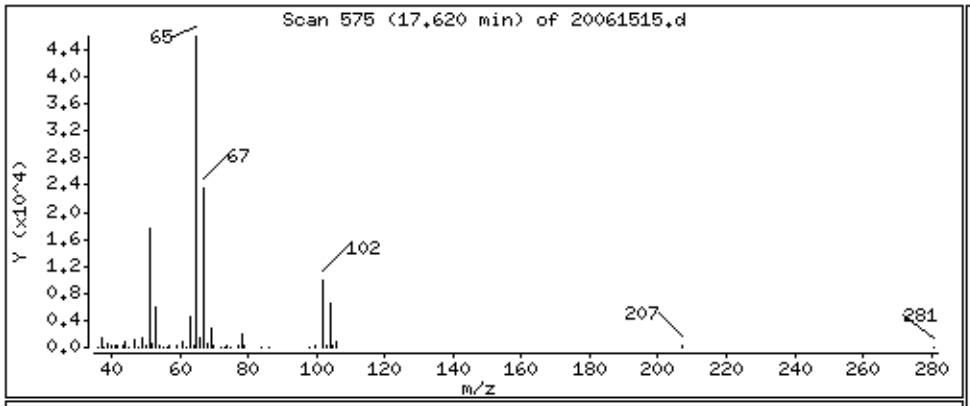
Operator: mjs

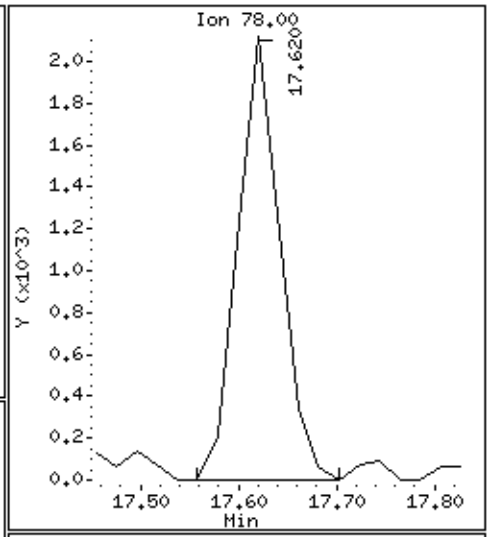
Column phase: RTX-624

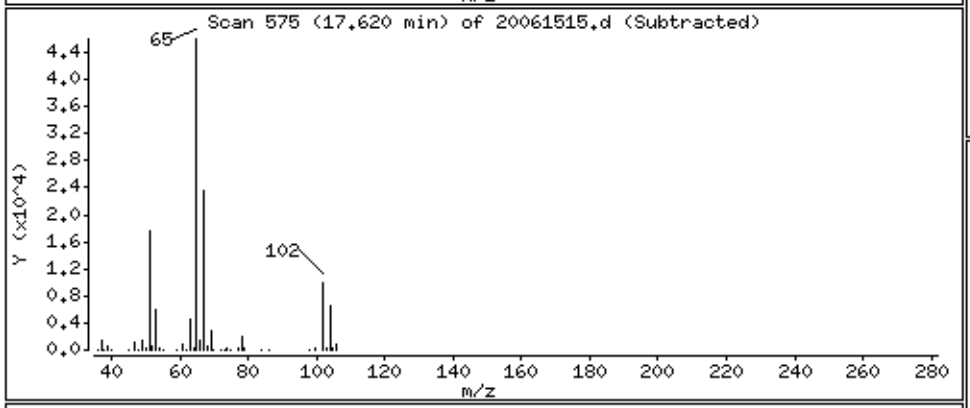
Column diameter: 0.32

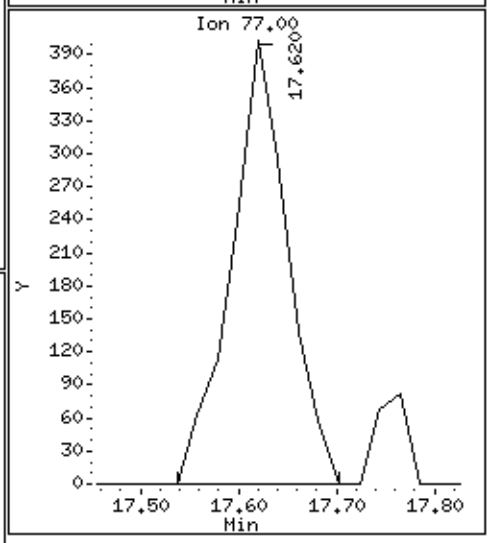
116 Benzene

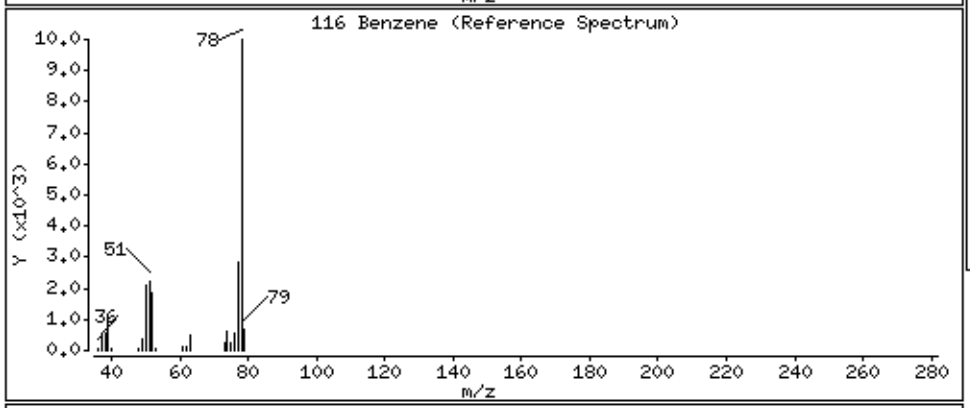
Concentration: 0.09612 PPBV

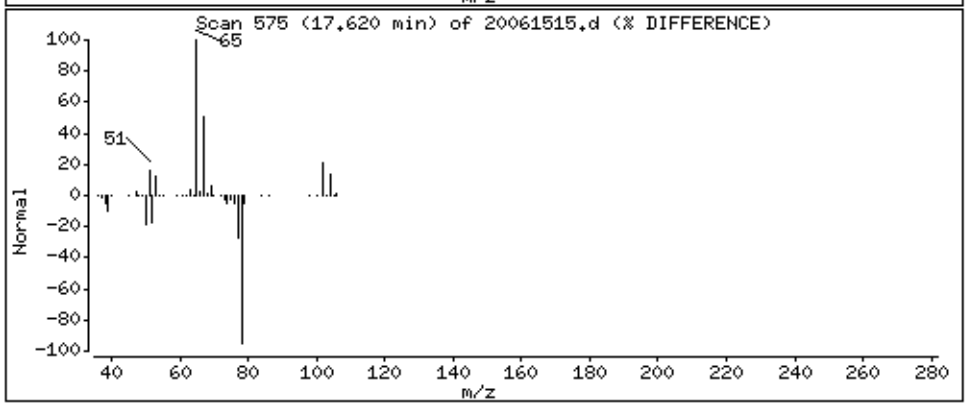












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

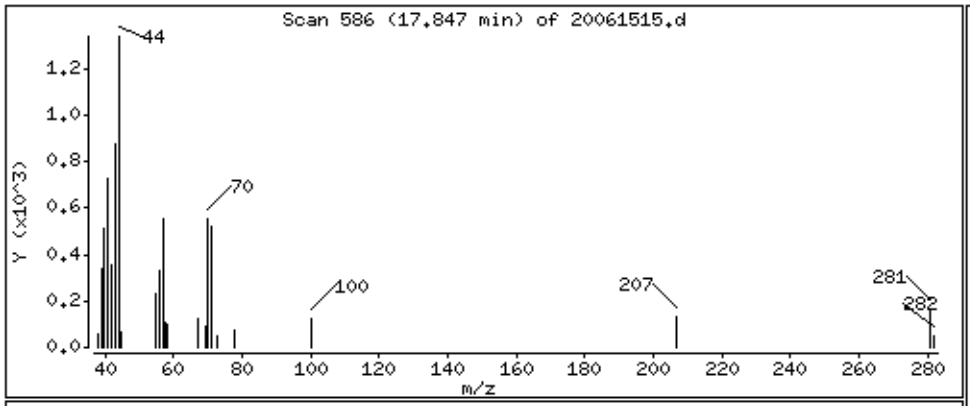
Operator: mjs

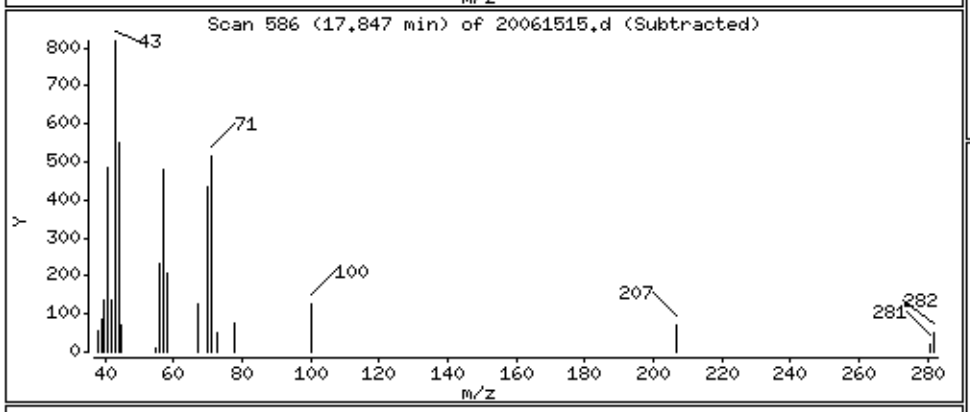
Column phase: RTX-624

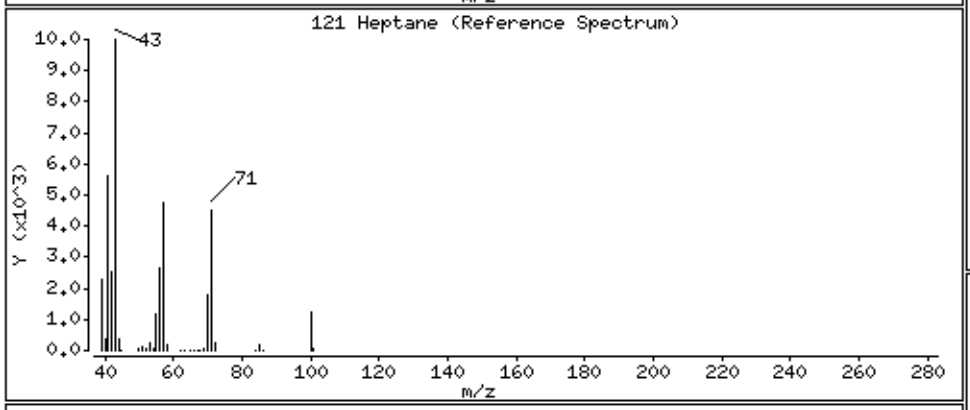
Column diameter: 0.32

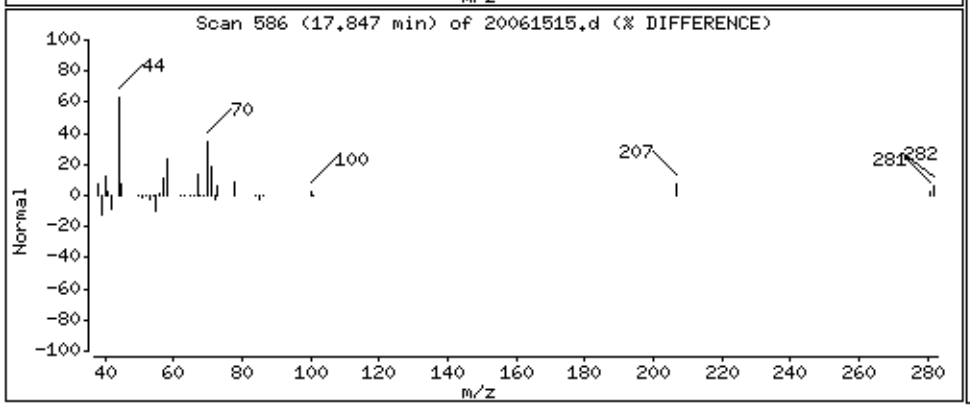
121 Heptane

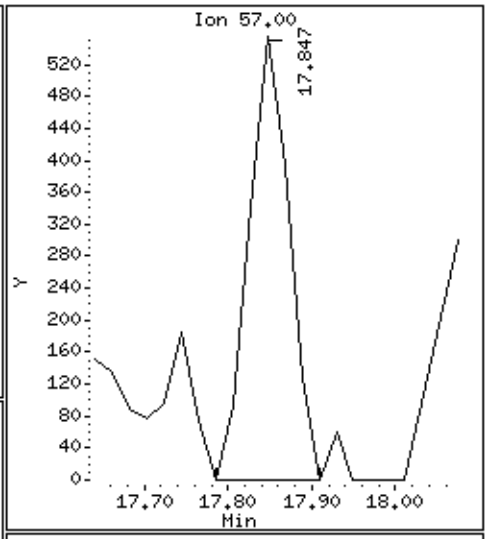
Concentration: 0.1002 PPBV

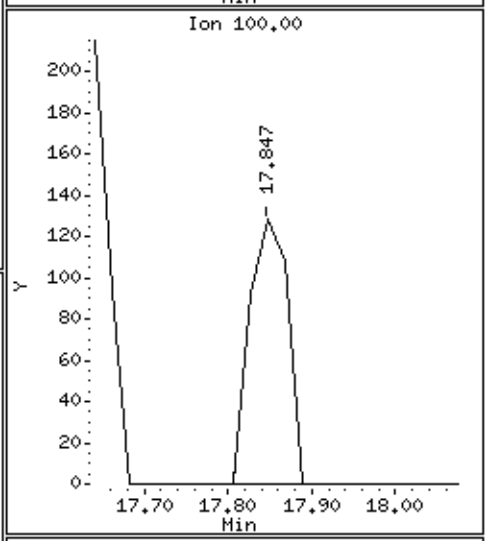


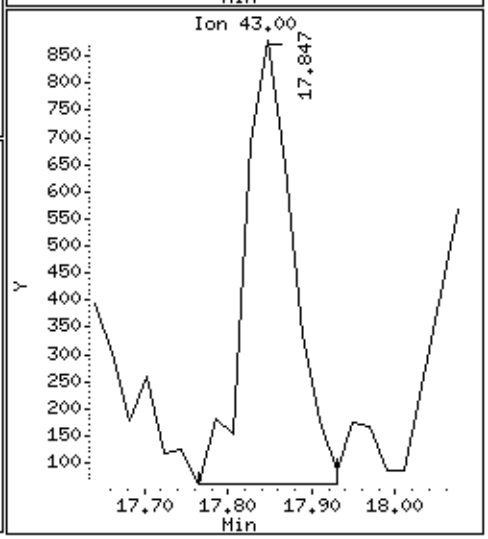












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

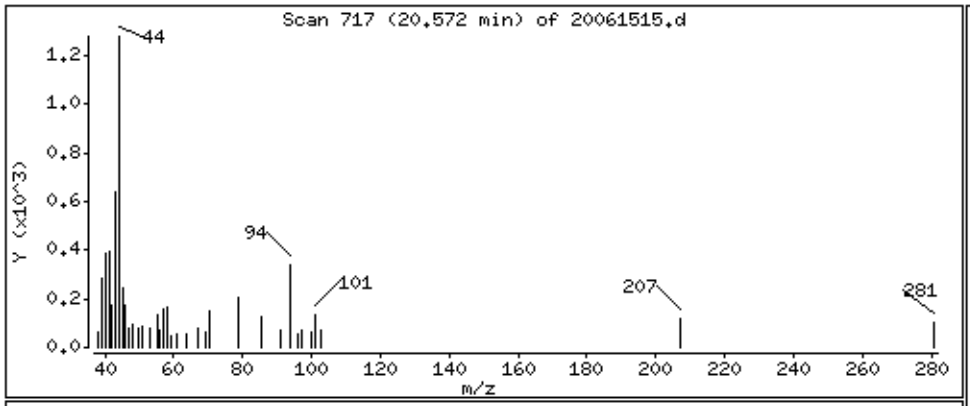
Operator: mjs

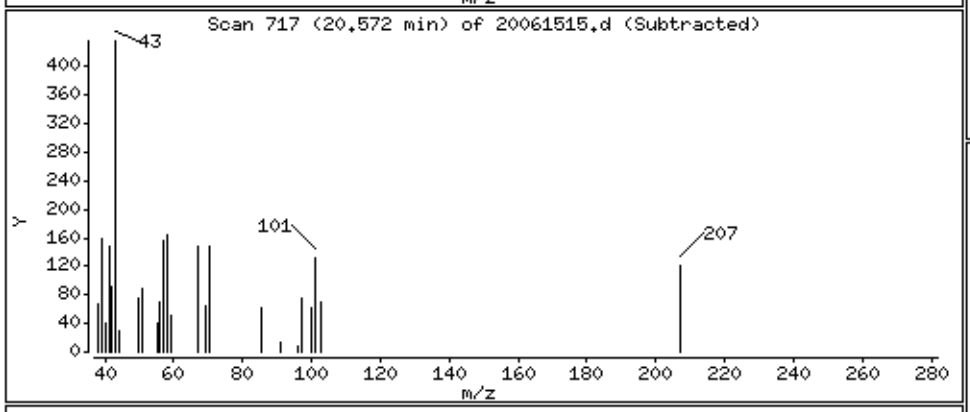
Column phase: RTX-624

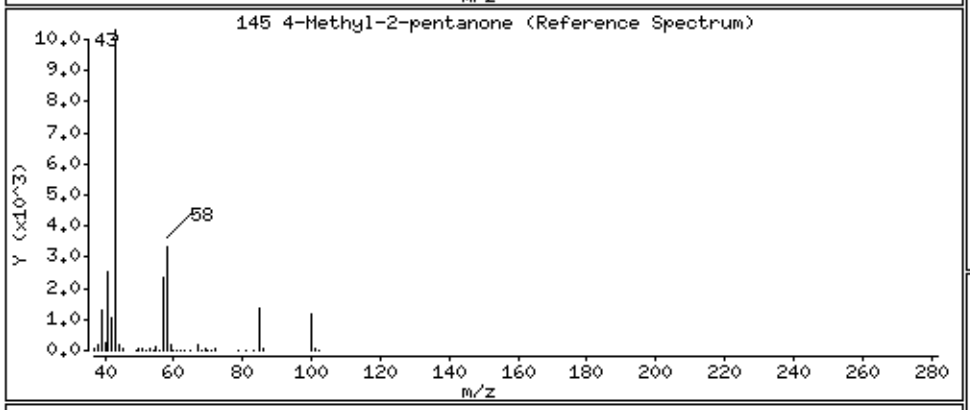
Column diameter: 0.32

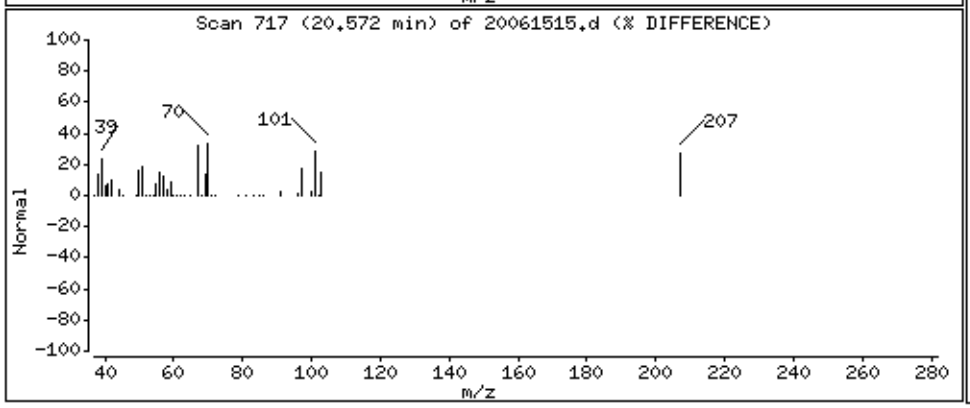
145 4-Methyl-2-pentanone

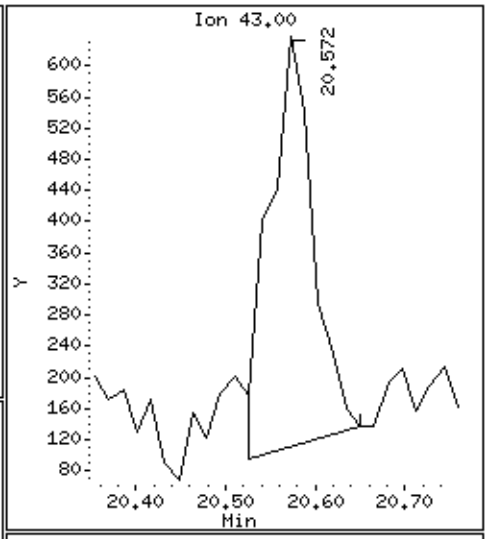
Concentration: 0.03951 PPBV

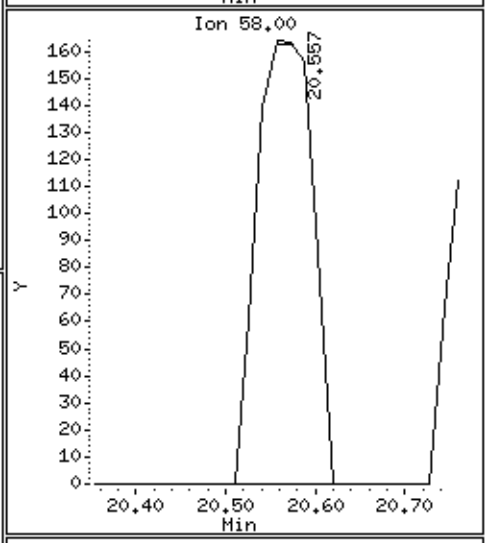


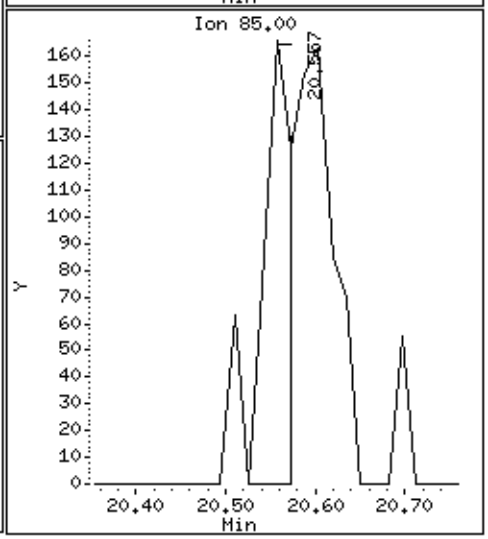












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

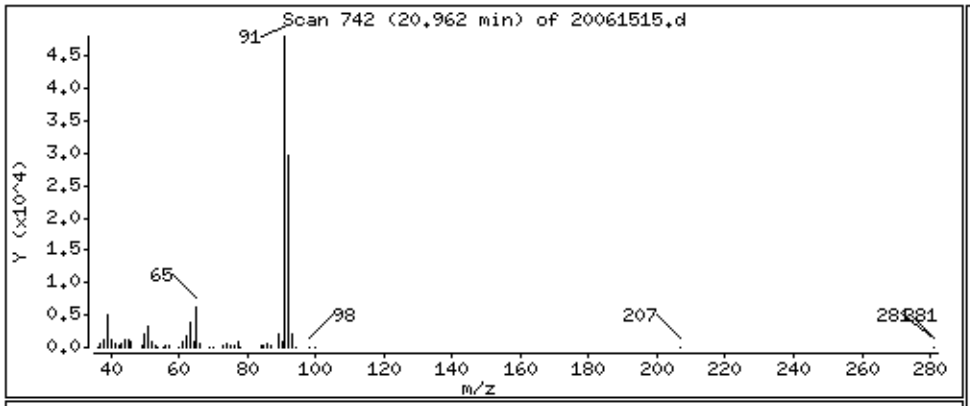
Operator: mjs

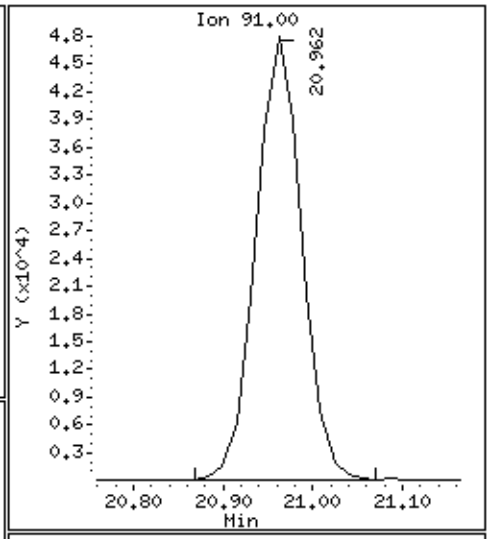
Column phase: RTX-624

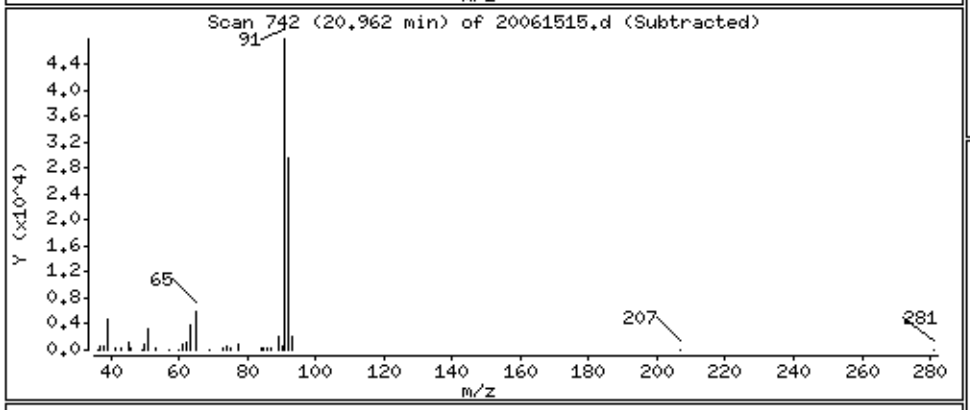
Column diameter: 0.32

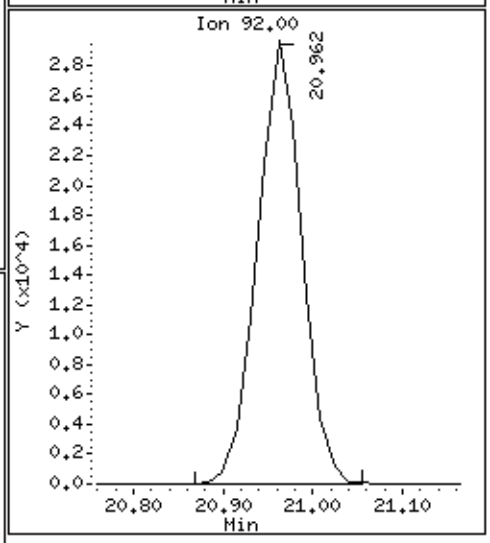
147 Toluene

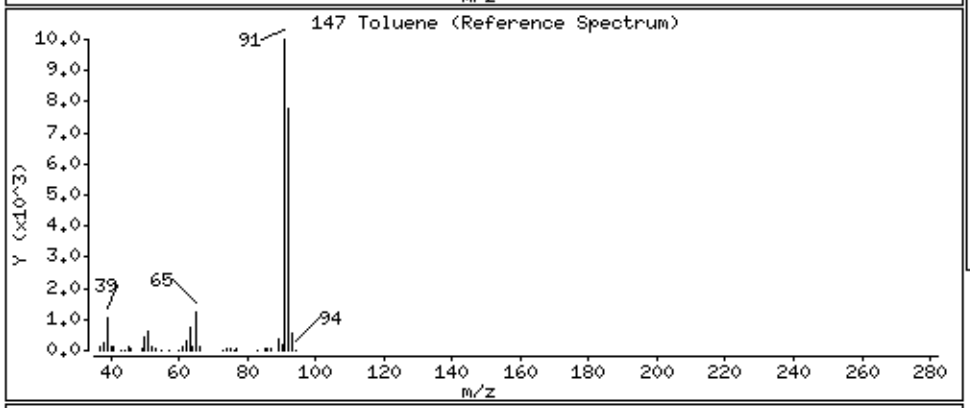
Concentration: 2.251 PPBV

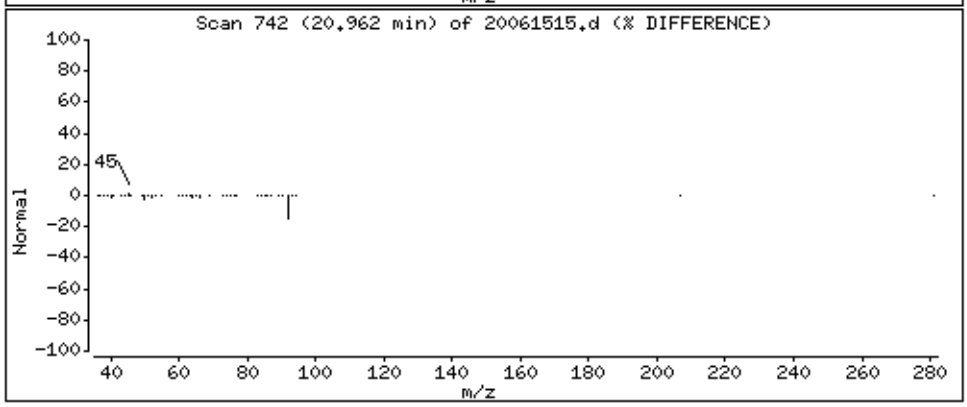












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

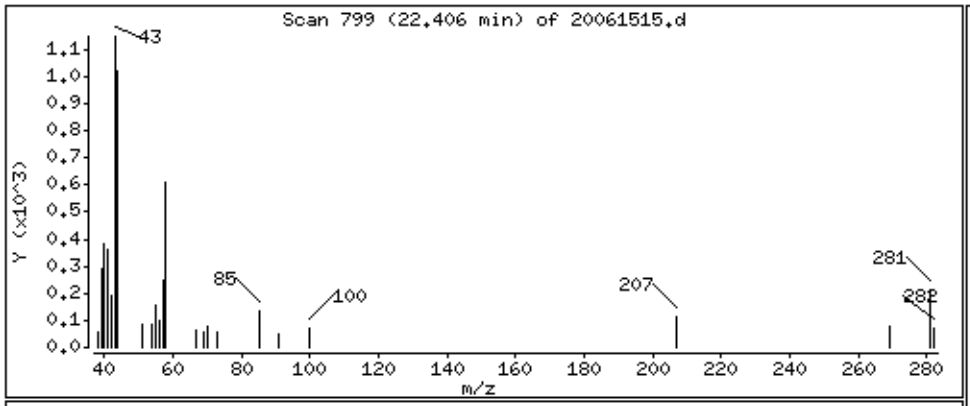
Operator: mjs

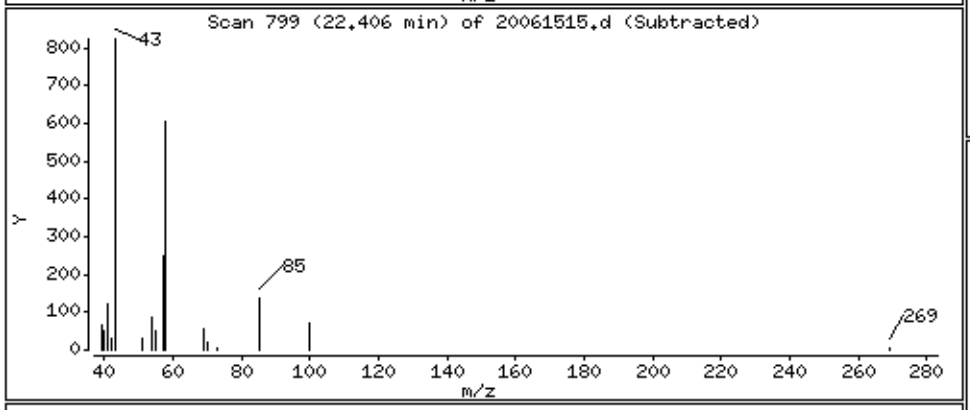
Column phase: RTX-624

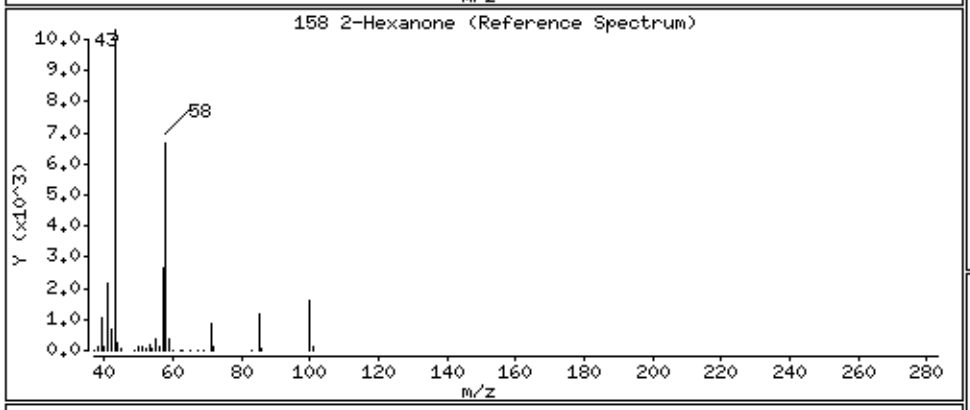
Column diameter: 0.32

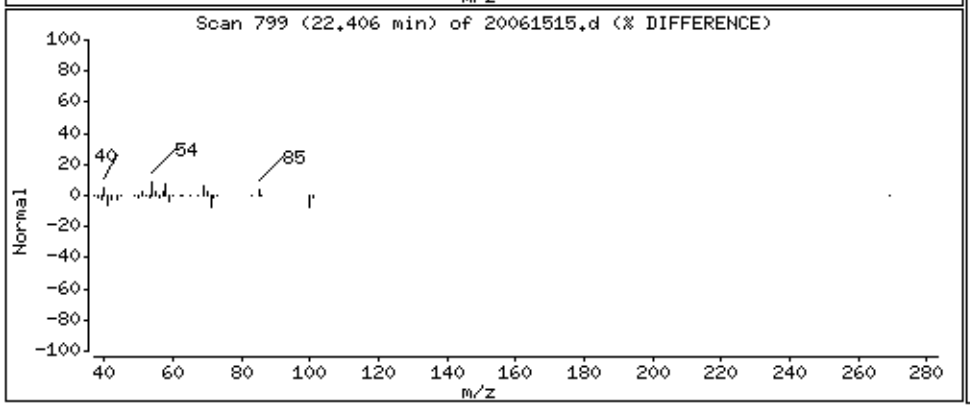
158 2-Hexanone

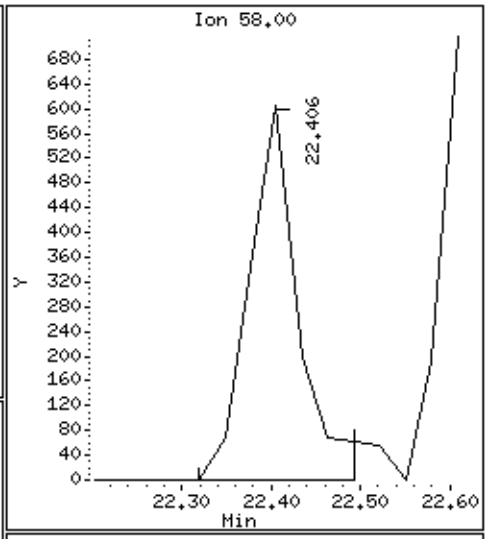
Concentration: 0.09747 PPBV

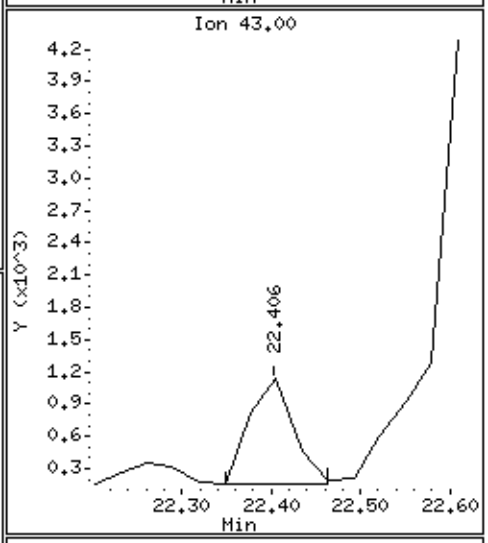


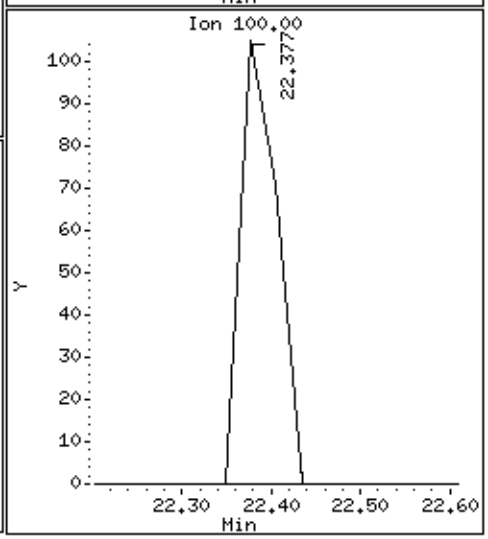












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

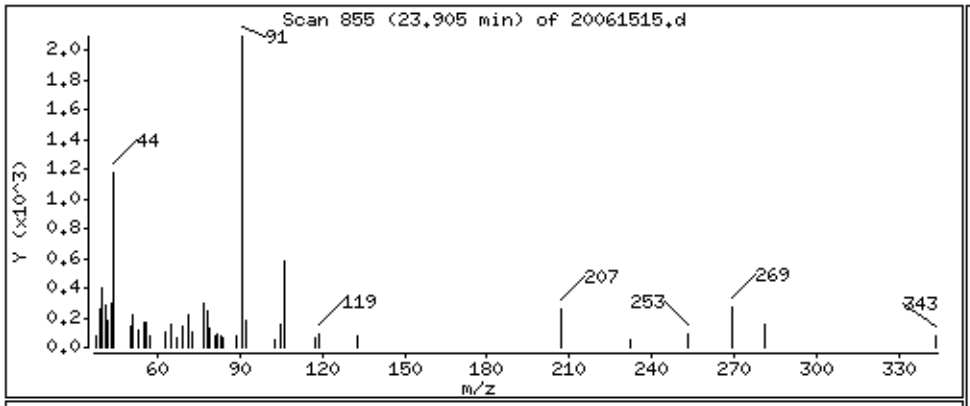
Operator: mjs

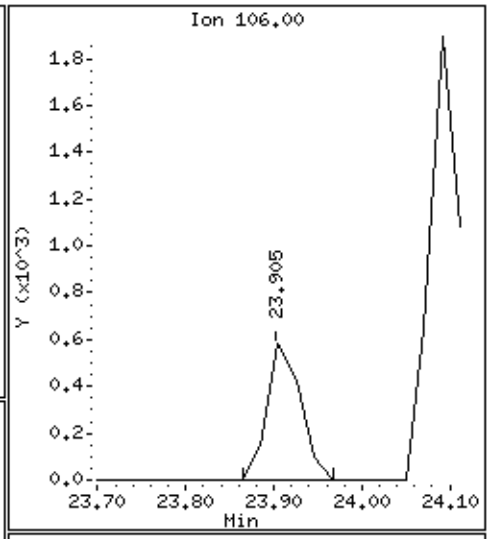
Column phase: RTX-624

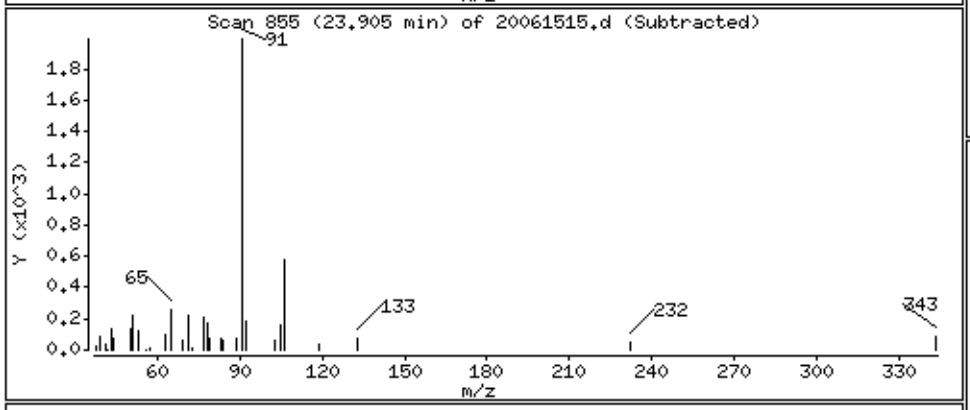
Column diameter: 0.32

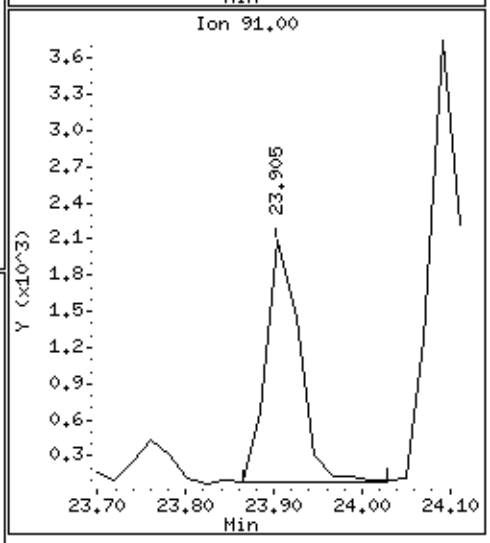
167 Ethyl Benzene

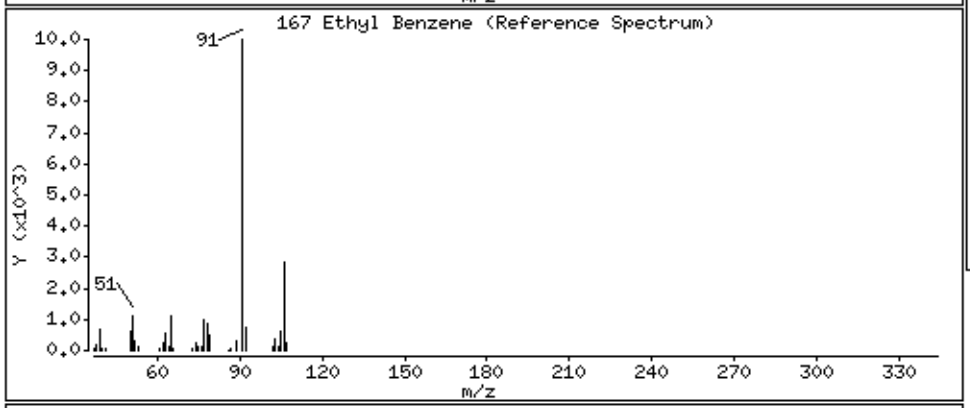
Concentration: 0.05349 PPBV

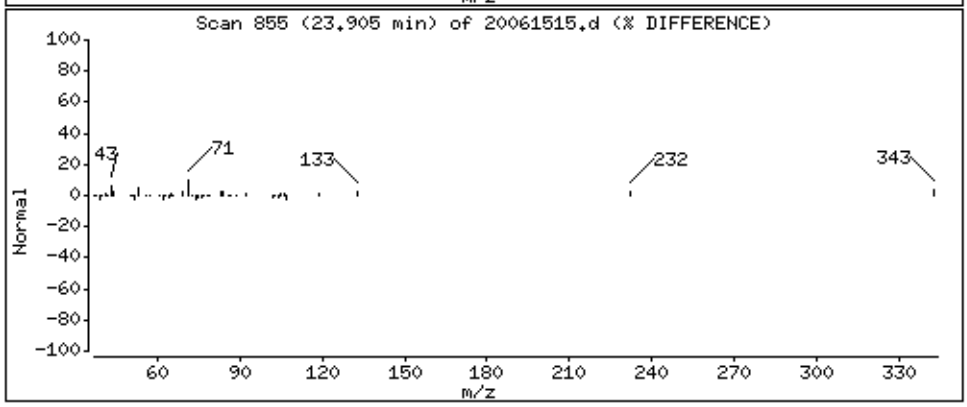












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

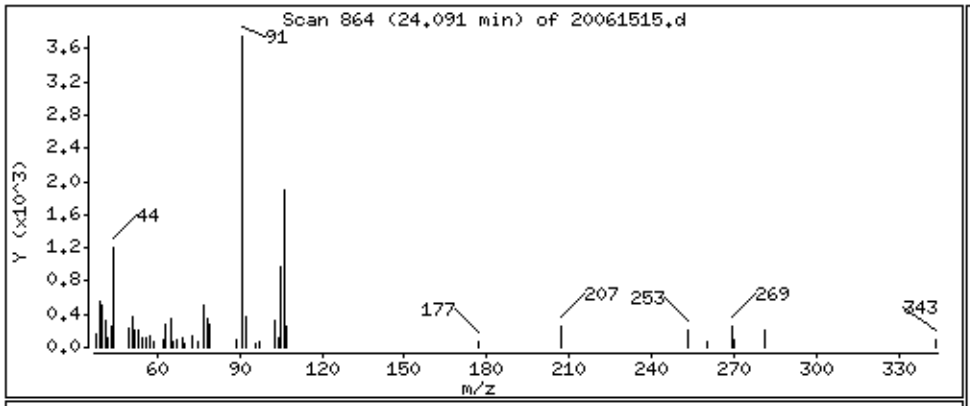
Operator: mjs

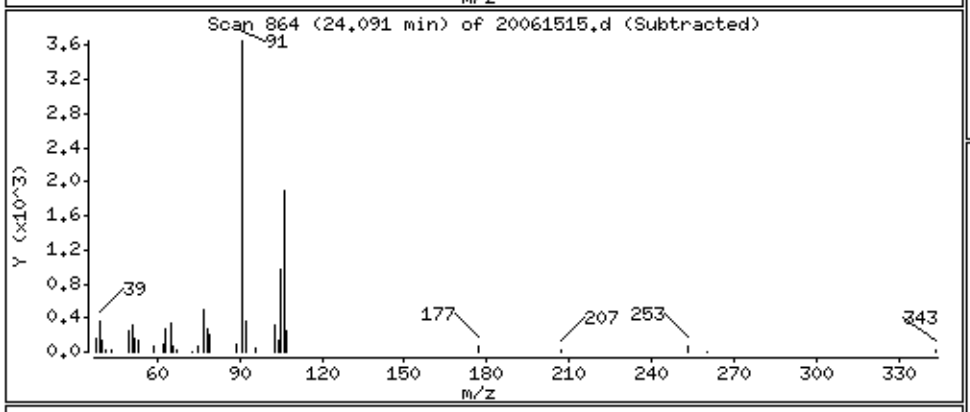
Column phase: RTX-624

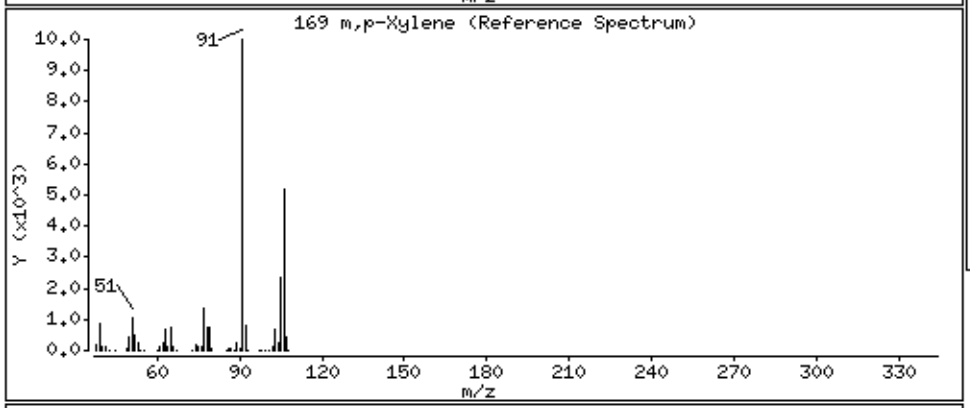
Column diameter: 0.32

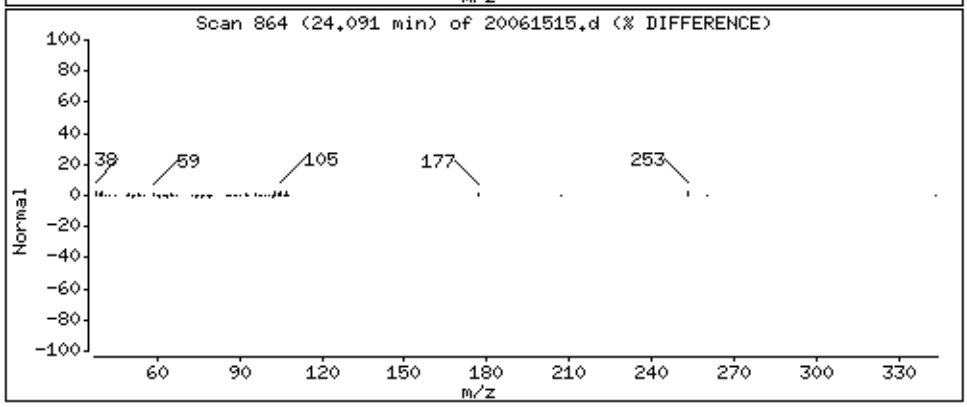
169 m,p-Xylene

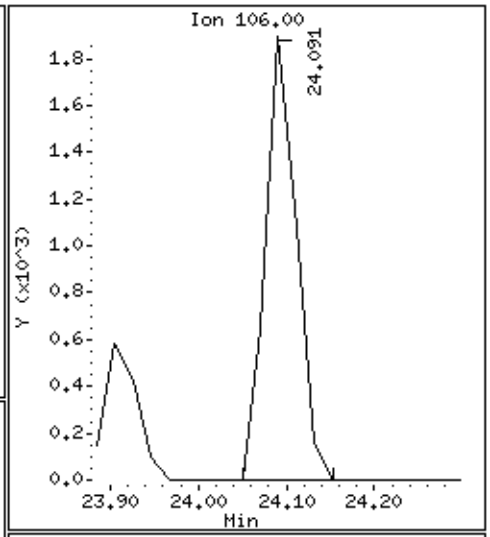
Concentration: 0.1489 PPBV

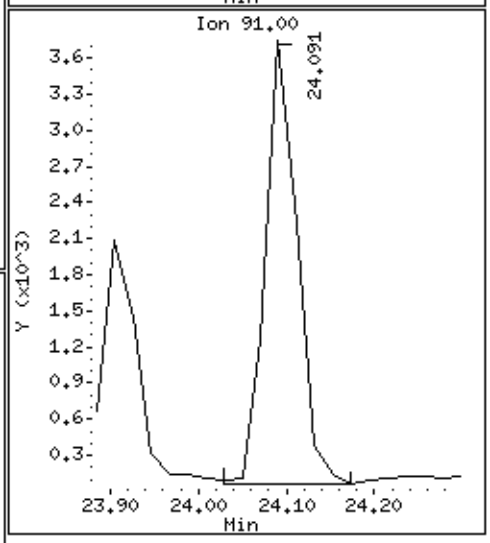












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

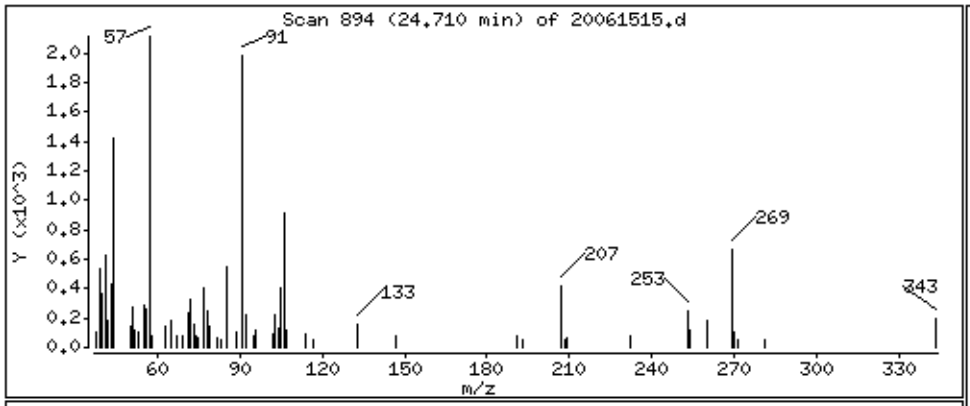
Operator: mjs

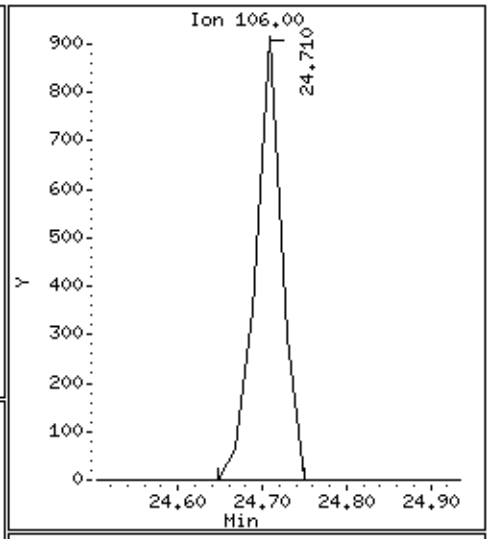
Column phase: RTX-624

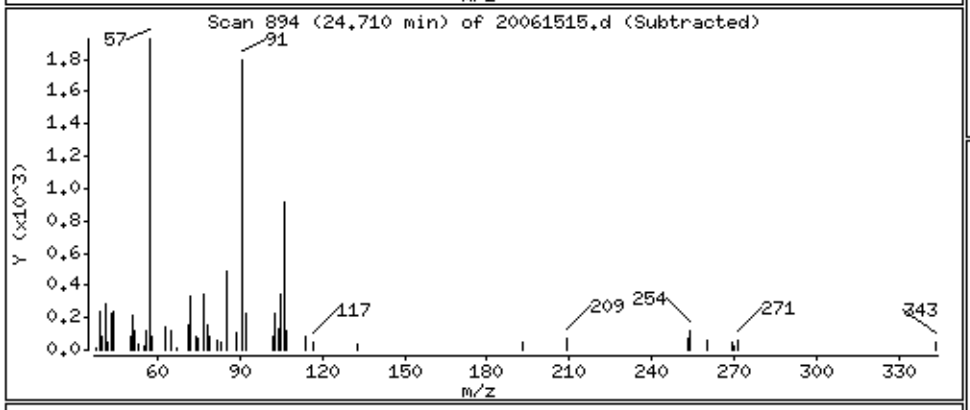
Column diameter: 0.32

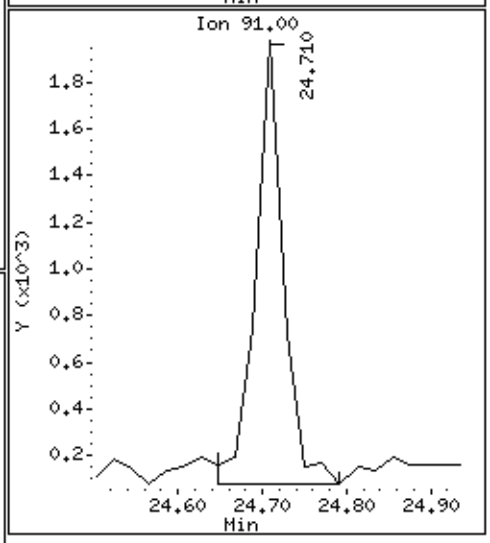
171 o-Xylene

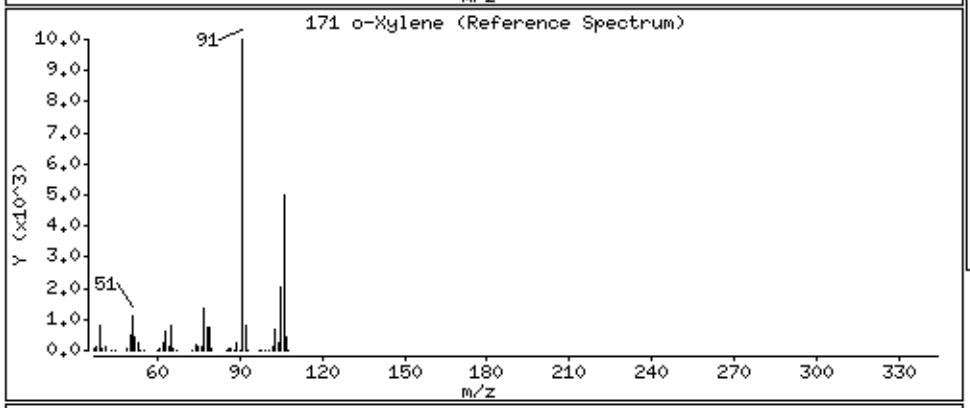
Concentration: 0.06536 PPBV

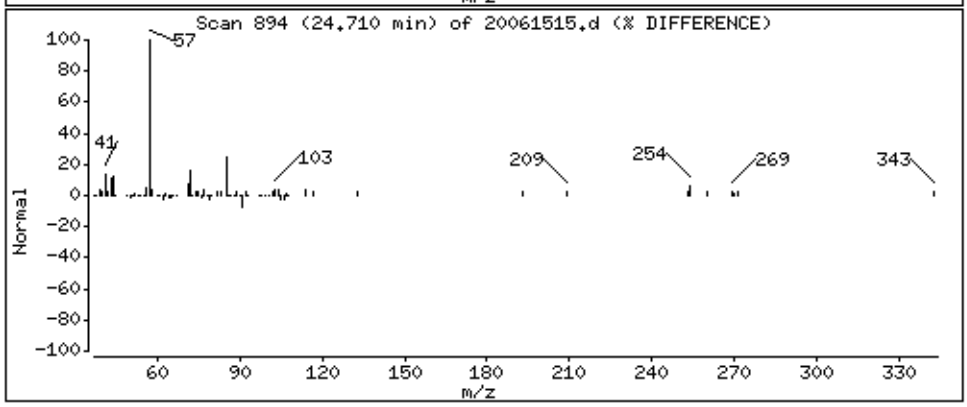












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

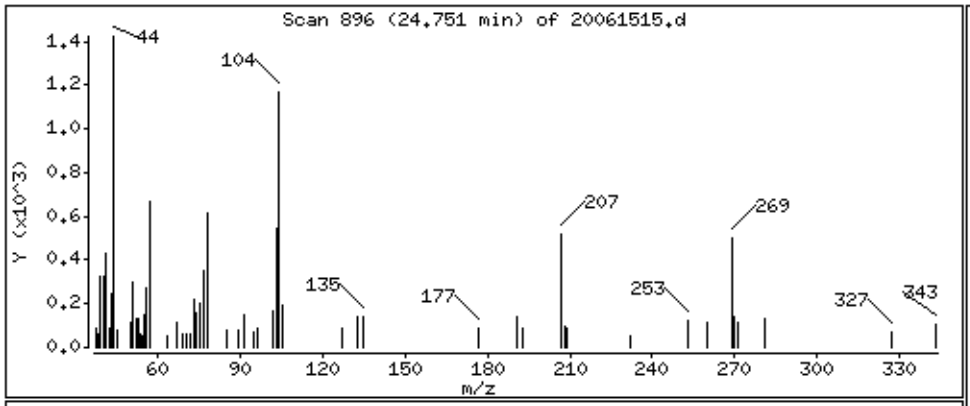
Operator: mjs

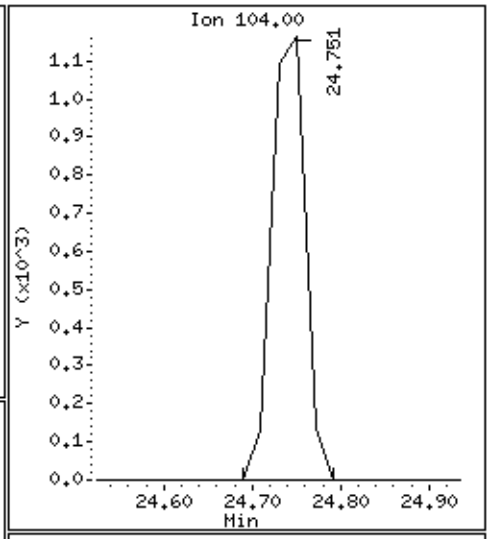
Column phase: RTX-624

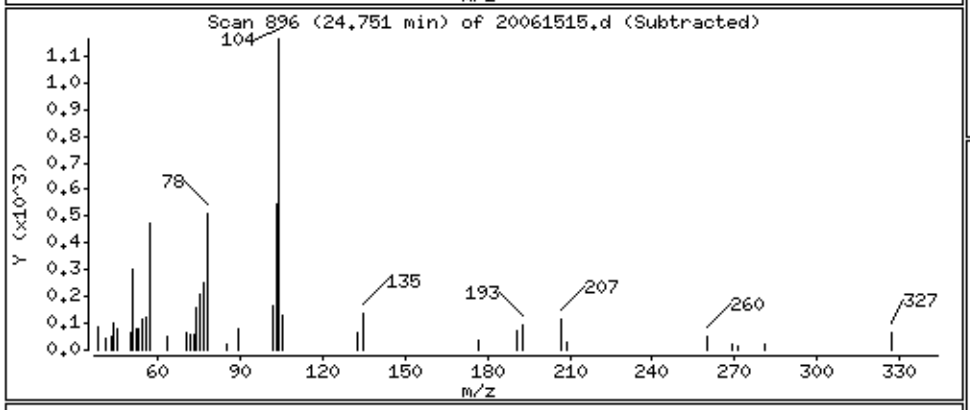
Column diameter: 0.32

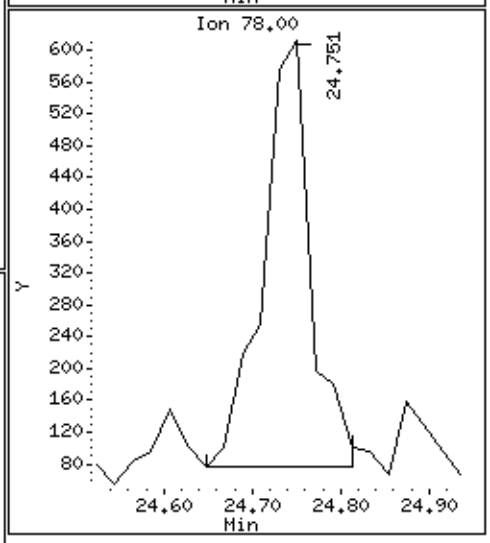
172 Styrene

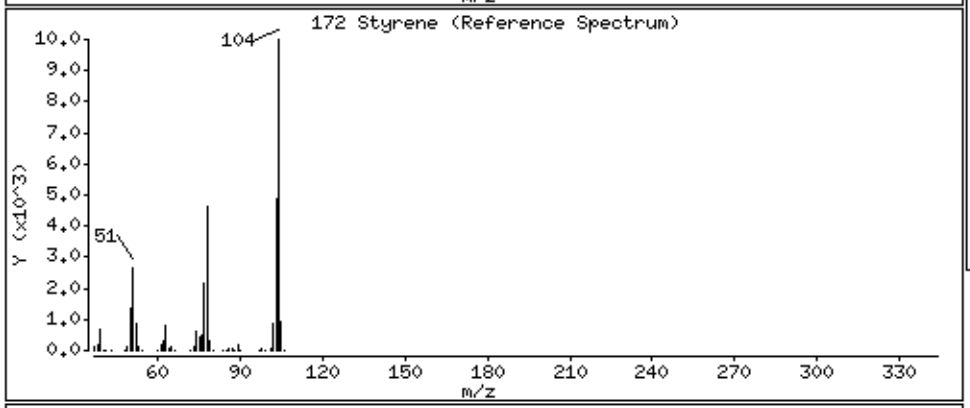
Concentration: 0.06598 PPBV

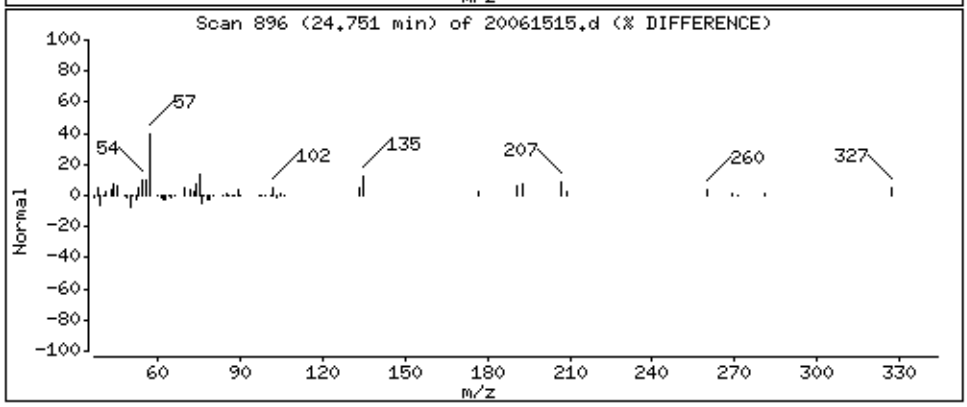












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

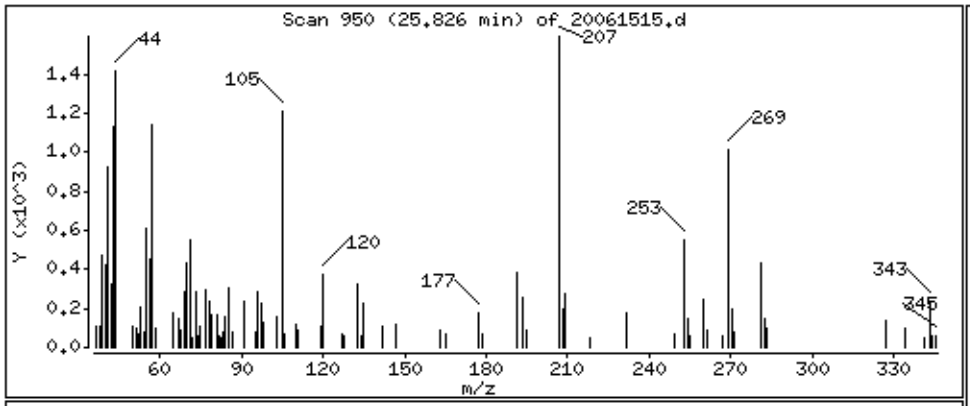
Operator: mjs

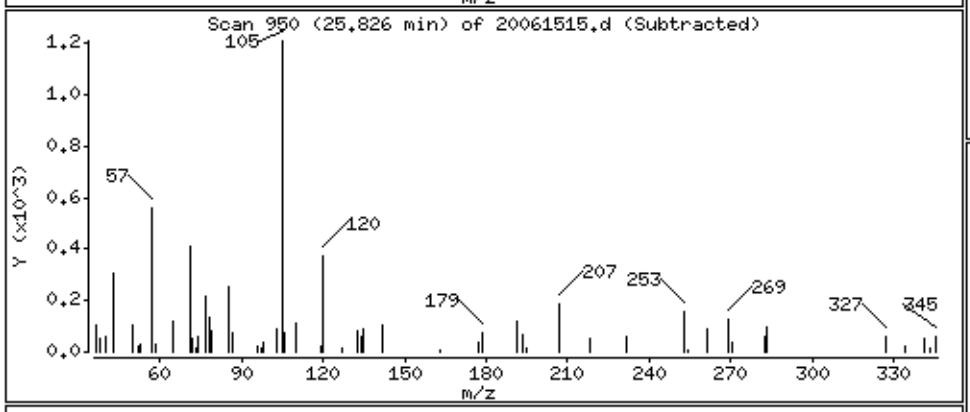
Column phase: RTX-624

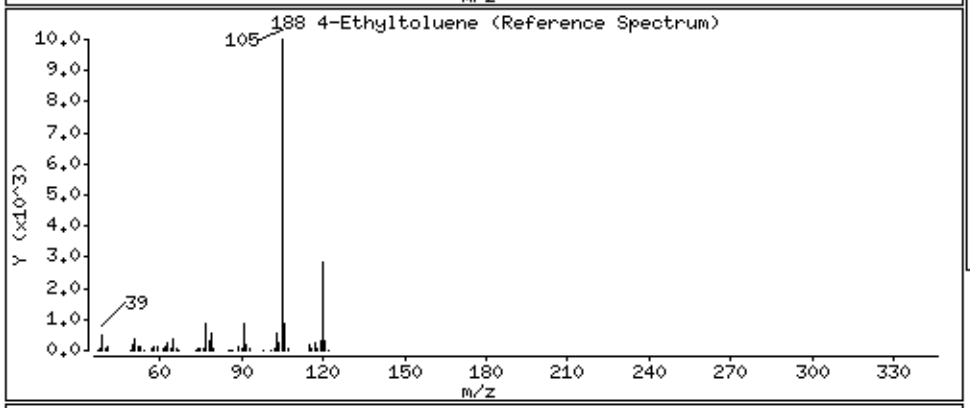
Column diameter: 0.32

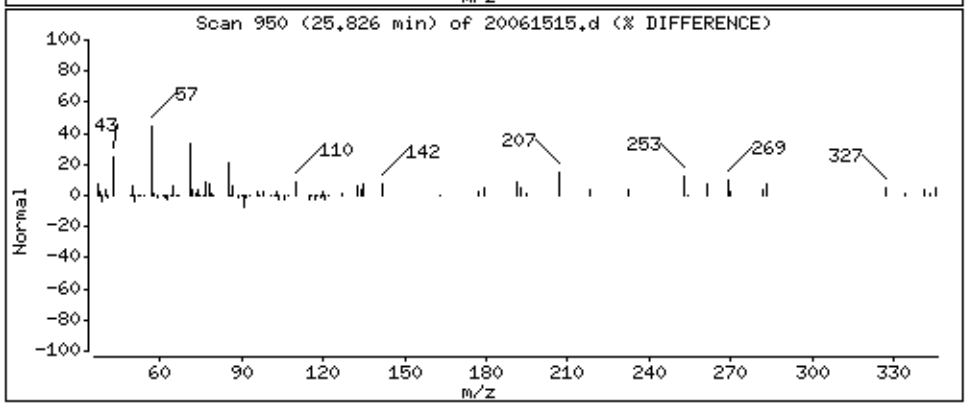
188 4-Ethyltoluene

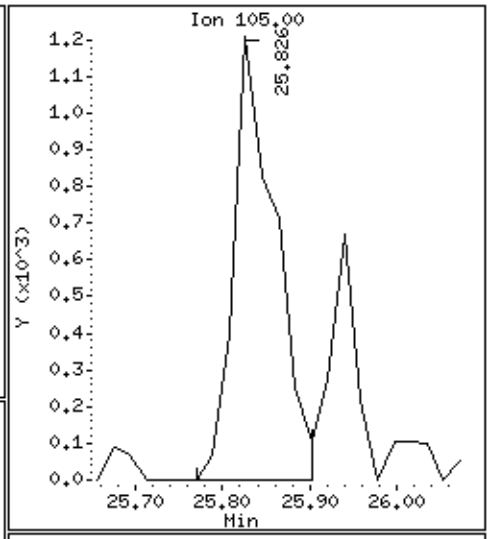
Concentration: 0.05116 PPBV

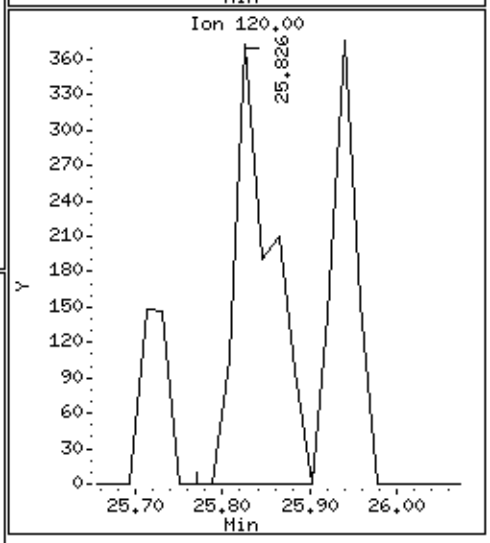












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

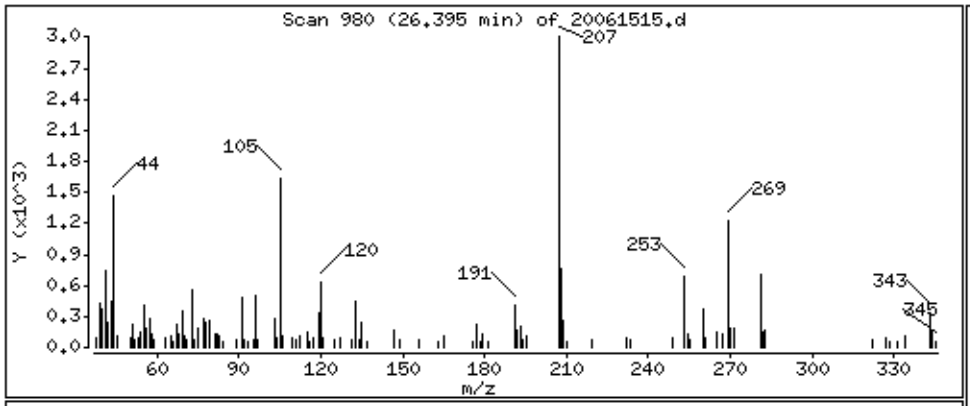
Operator: mjs

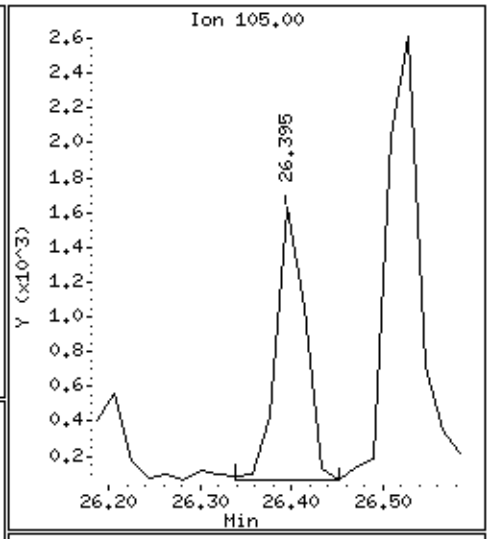
Column phase: RTX-624

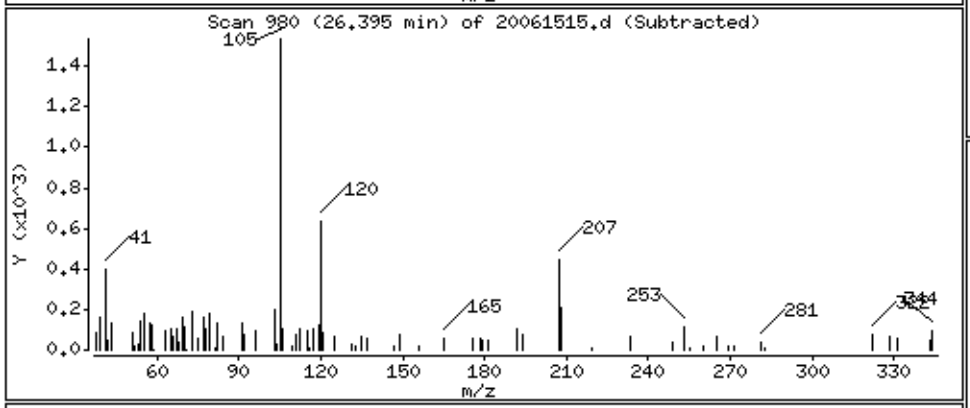
Column diameter: 0.32

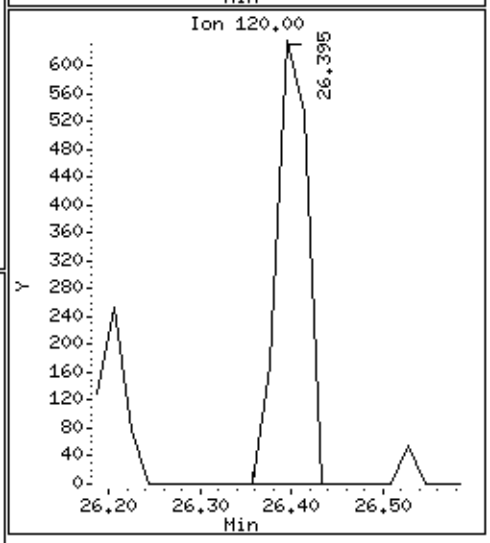
196 1,2,4-Trimethylbenzene

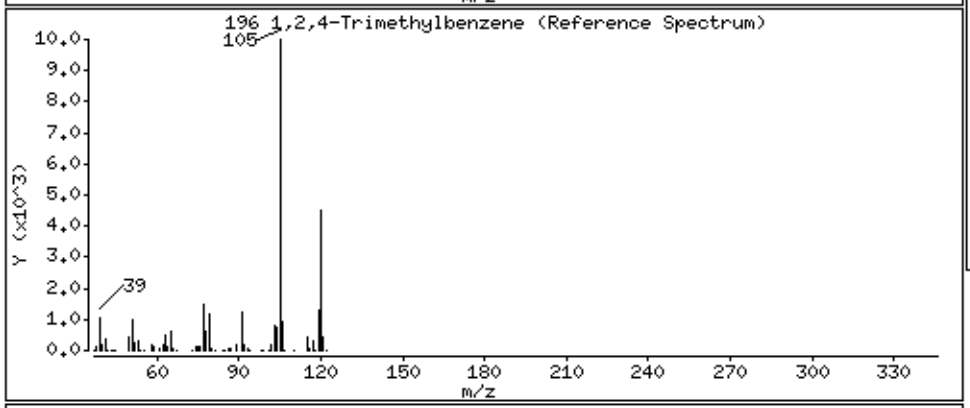
Concentration: 0.05012 PPBV

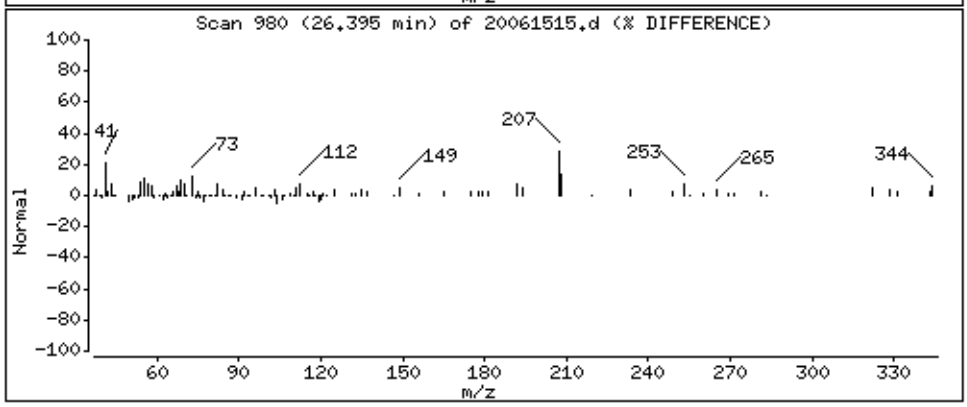












Data File: /chem/msd20.i/15Jun2016.b/20061515.d

Date : 15-JUN-2016 21:02

Client ID:

Instrument: msd20.i

Sample Info: 250mL #03536

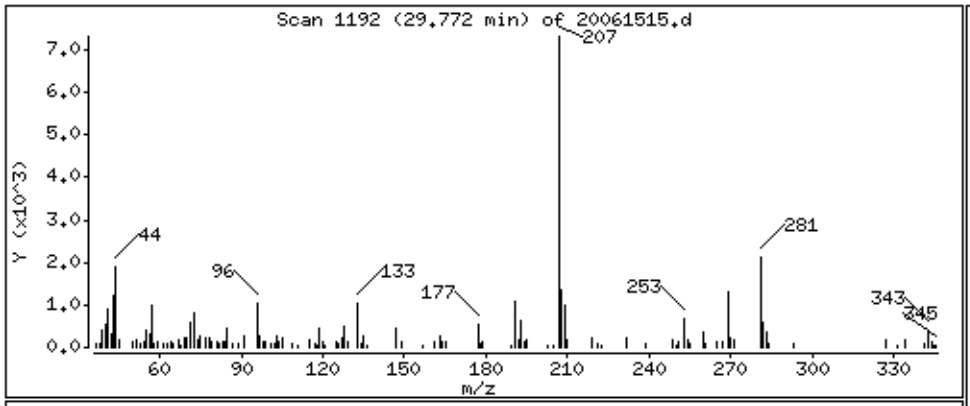
Operator: mjs

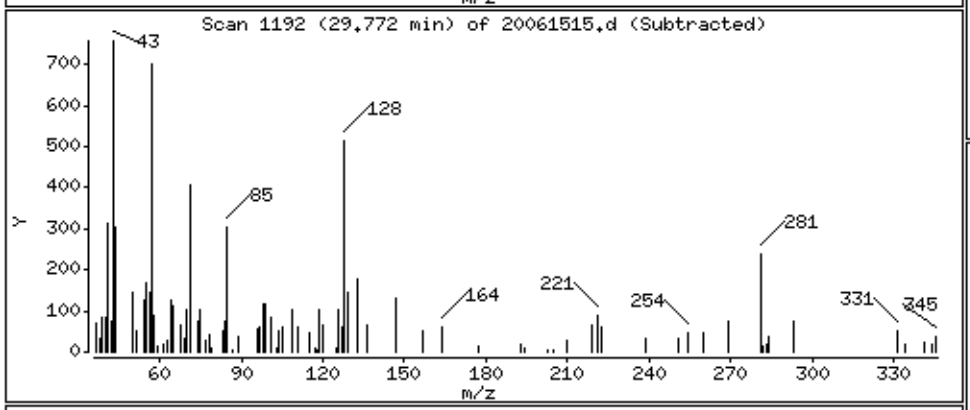
Column phase: RTX-624

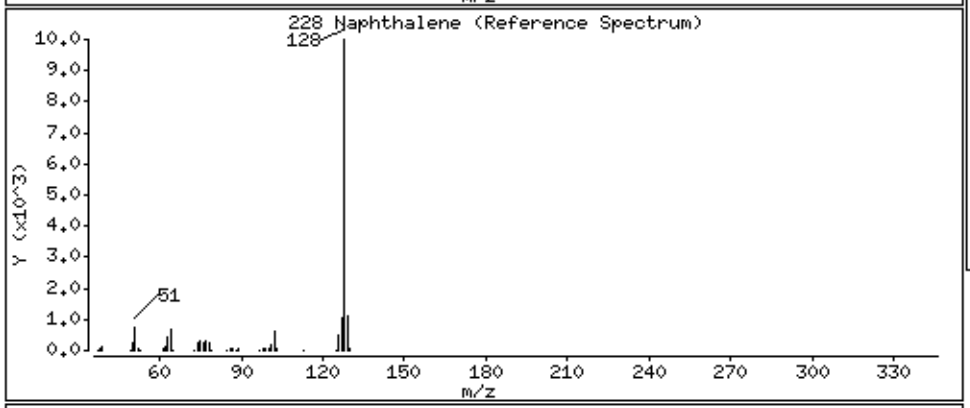
Column diameter: 0.32

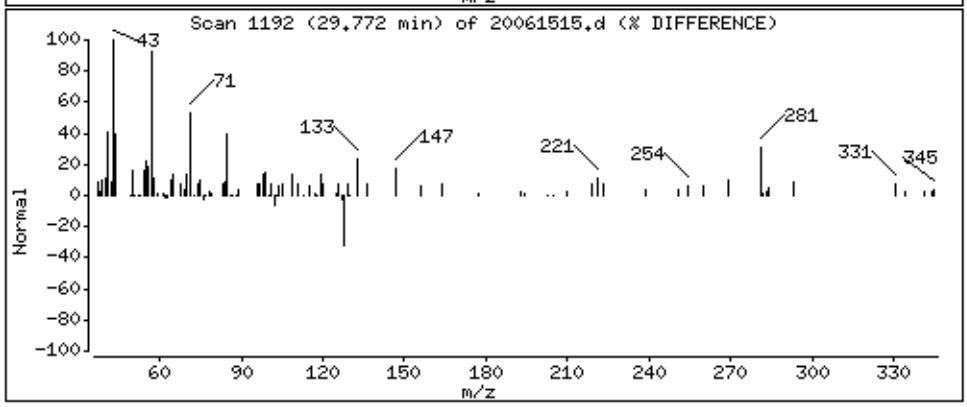
228 Naphthalene

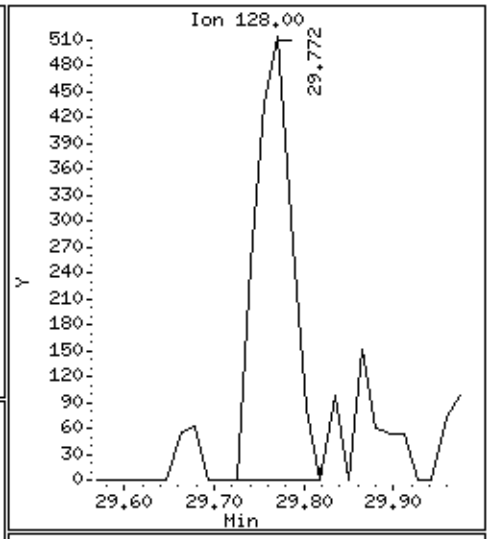
Concentration: 0.01949 PPBV

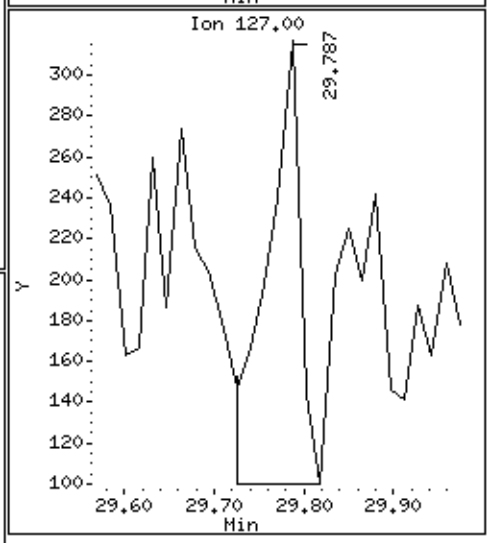












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7IA-2(061016)

Lab ID#: 1606298A-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.79	3.0
Chloromethane	0.80	0.88	1.6	1.8
1,3-Butadiene	0.16	0.070 J	0.35	0.15 J
Freon 11	0.16	1.0	0.90	5.8
Ethanol	0.80	12	1.5	24
Freon 113	0.16	0.074 J	1.2	0.57 J
Acetone	0.80	12	1.9	28
2-Propanol	0.80	5.5	2.0	14
Carbon Disulfide	0.80	0.072 J	2.5	0.22 J
Methylene Chloride	0.32	0.21 J	1.1	0.74 J
Hexane	0.16	0.078 J	0.56	0.28 J
2-Butanone (Methyl Ethyl Ketone)	0.80	2.4	2.4	7.1
Chloroform	0.16	0.039 J	0.78	0.19 J
Carbon Tetrachloride	0.16	0.082 J	1.0	0.52 J
Benzene	0.16	0.085 J	0.51	0.27 J
1,4-Dioxane	0.16	0.20	0.58	0.71
4-Methyl-2-pentanone	0.16	0.10 J	0.66	0.43 J
Toluene	0.16	0.22	0.60	0.82
2-Hexanone	0.80	0.34 J	3.3	1.4 J
m,p-Xylene	0.16	0.098 J	0.69	0.42 J
Styrene	0.16	0.045 J	0.68	0.19 J
4-Ethyltoluene	0.16	0.034 J	0.79	0.17 J
1,2,4-Trimethylbenzene	0.16	0.054 J	0.79	0.27 J
Naphthalene	0.80	0.033 J	4.2	0.17 J

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Client Sample ID: B7IA-2(061016)

Lab ID#: 1606298A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061516**	**Date of Collection:**	**6/11/16 7:50:00 PM**
Dil. Factor:	**1.60**	**Date of Analysis:**	**6/15/16 09:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.79	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	0.88	1.6	1.8
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	0.070 J	0.35	0.15 J
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	1.0	0.90	5.8
Ethanol	0.80	12	1.5	24
Freon 113	0.16	0.074 J	1.2	0.57 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	12	1.9	28
2-Propanol	0.80	5.5	2.0	14
Carbon Disulfide	0.80	0.072 J	2.5	0.22 J
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.21 J	1.1	0.74 J
Methyl tert-butyl ether	0.16	Not Detected	0.58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.078 J	0.56	0.28 J
1,1-Dichloroethane	0.16	Not Detected	0.65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	2.4	2.4	7.1
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.4	Not Detected
Chloroform	0.16	0.039 J	0.78	0.19 J
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	Not Detected	0.55	Not Detected
Carbon Tetrachloride	0.16	0.082 J	1.0	0.52 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	0.085 J	0.51	0.27 J
1,2-Dichloroethane	0.16	Not Detected	0.65	Not Detected
Heptane	0.16	Not Detected	0.66	Not Detected
Trichloroethene	0.16	Not Detected	0.86	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.74	Not Detected
1,4-Dioxane	0.16	0.20	0.58	0.71
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
4-Methyl-2-pentanone	0.16	0.10 J	0.66	0.43 J
Toluene	0.16	0.22	0.60	0.82
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	0.34 J	3.3	1.4 J

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Client Sample ID: B7IA-2(061016)

Lab ID#: 1606298A-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061516**	**Date of Collection:**	**6/11/16 7:50:00 PM**
Dil. Factor:	**1.60**	**Date of Analysis:**	**6/15/16 09:41 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.74	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	0.098 J	0.69	0.42 J
o-Xylene	0.16	Not Detected	0.69	Not Detected
Styrene	0.16	0.045 J	0.68	0.19 J
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.79	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.79	Not Detected
4-Ethyltoluene	0.16	0.034 J	0.79	0.17 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.79	Not Detected
1,2,4-Trimethylbenzene	0.16	0.054 J	0.79	0.27 J
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected
Naphthalene	0.80	0.033 J	4.2	0.17 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	95	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061516.d
Lab Smp Id: 1606298A-03A
Inj Date : 15-JUN-2016 21:41
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL #6L0745
Misc Info : 5.1"Hg -> 4.8psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.60000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	101426	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	80682			47.16- 107.16	79.55
16.726	16.726 (1.000)	49	130961			84.74- 144.74	129.12
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	466185	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	72569			0.00- 45.65	15.57
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	383431	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	210376			24.05- 84.05	54.87
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	159324	5.90463	5.905	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	81427			28.75- 88.75	51.11
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.821	20.821 (1.142)	98	440488	4.98636	4.986	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	50673			0.00- 41.22	11.50

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.821	20.821 (1.142)	100	302386			37.90- 97.90	68.65
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	201016	4.76839	4.768	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	248749			88.33- 148.33	123.75
25.485	25.485 (1.073)	176	197614			68.77- 128.77	98.31
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	30334	0.38077	0.6092	80.00- 120.00	100.00(M)
4.721	4.648 (0.282)	87	8787			2.50- 62.50	28.97
17 Chloromethane					CAS #: 74-87-3		
6.625	6.552 (0.396)	50	14222	0.54904	0.8785	80.00- 120.00	100.00
6.625	6.552 (0.396)	52	5148			3.09- 63.09	36.20
26 1,3-Butadiene					CAS #: 106-99-0		
7.902	7.868 (0.472)	54	1049	0.04377	0.07003	80.00- 120.00	100.00(a)
7.868	7.868 (0.470)	39	695			65.35- 125.35	66.27
35 Freon 11					CAS #: 75-69-4		
11.138	11.114 (0.666)	101	50879	0.65002	1.040	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	33204			34.69- 94.69	65.26
42 Ethanol					CAS #: 64-17-5		
12.296	12.269 (0.735)	45	81157	7.85977	12.576	80.00- 120.00	100.00
12.296	12.269 (0.735)	46	33524			11.01- 71.01	41.31
12.296	12.269 (0.735)	43	17686			0.00- 50.63	21.79
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	2674	0.04661	0.07457	80.00- 120.00	100.00(a)
12.763	12.763 (0.763)	153	1671			34.65- 94.65	62.48
12.763	12.763 (0.763)	101	3375			90.37- 150.37	126.19
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	113034	7.46102	11.938	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	343845			275.09- 335.09	304.19
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	3823	0.04475	0.07160	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
13.560	13.532 (0.811)	45	168080	3.44879	5.518	80.00- 120.00	100.00
13.560	13.532 (0.811)	43	37379			0.00- 49.91	22.24
13.560	13.532 (0.811)	59	7246			0.00- 34.18	4.31

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
66 Methylene Chloride					CAS #: 75-09-2		
14.054	14.027 (0.840)	84	4424	0.13415	0.2146	80.00- 120.00	100.00(a)
14.054	14.027 (0.840)	49	5586			88.46- 148.46	126.25
14.054	14.027 (0.840)	51	2352			6.78- 66.78	53.16
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	2416	0.04909	0.07854	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	8464			31.00- 91.00	350.25
14.878	14.878 (0.889)	86	279			0.00- 49.39	11.59
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	24396	1.51077	2.417	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	97158			324.50- 384.50	398.25
16.344	16.344 (0.977)	57	8131			0.00- 59.24	33.33
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	1616	0.02452	0.03923	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	1300			34.55- 94.55	80.43
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2840	0.05156	0.08250	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	2633			73.36- 133.36	92.71
116 Benzene					CAS #: 71-43-2		
17.641	17.620 (0.968)	78	5768	0.05342	0.08548	80.00- 120.00	100.00(a)
17.620	17.620 (0.966)	77	1671			0.00- 53.54	28.98
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	3556	0.12402	0.1984	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	2675			34.13- 94.13	75.24
19.302	19.213 (1.059)	57	665			0.00- 50.75	18.71
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.556 (1.128)	43	5001	0.06517	0.1043	80.00- 120.00	100.00(a)
20.572	20.556 (1.128)	58	1805			11.51- 71.51	36.11
20.588	20.556 (1.129)	85	972			0.00- 48.80	19.44
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	16848	0.13634	0.2181	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	9273			30.55- 90.55	55.04
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	8478	0.21385	0.3422	80.00- 120.00	100.00(a)
22.406	22.406 (0.943)	43	14155			146.44- 206.44	166.95
22.406	22.406 (0.943)	100	2061			0.00- 54.43	24.32

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	3164	0.06105	0.09768	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	6089			164.82- 224.82	192.44
172 Styrene					CAS #: 100-42-5		
24.751	24.730 (1.042)	104	2215	0.02836	0.04538	80.00- 120.00	100.00(a)
24.751	24.730 (1.042)	78	2018			19.76- 79.76	91.12
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	2811	0.02151	0.03442	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	984			0.68- 60.68	35.01
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	3894	0.03411	0.05457	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1836			18.29- 78.29	47.16
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	2526	0.02050	0.03279	80.00- 120.00	100.00(a)
29.787	29.772 (1.254)	127	822			0.00- 43.33	32.54

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Report Date: 24-Jun-2016 12:01

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061516.d
Lab Smp Id: 1606298A-03A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.1"Hg -> 4.8psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	101426	-13.74
123 1,4-Difluorobenze	491034	294620	687448	466185	-5.06
163 Chlorobenzene-d5	413171	247903	578439	383431	-7.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:01

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-03A
Level: LOW Operator: mjs
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.1"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.905	118.09	70-130
$ 146 Toluene-d8	5.000	4.986	99.73	70-130
$ 177 4-Bromofluorobenze	5.000	4.768	95.37	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

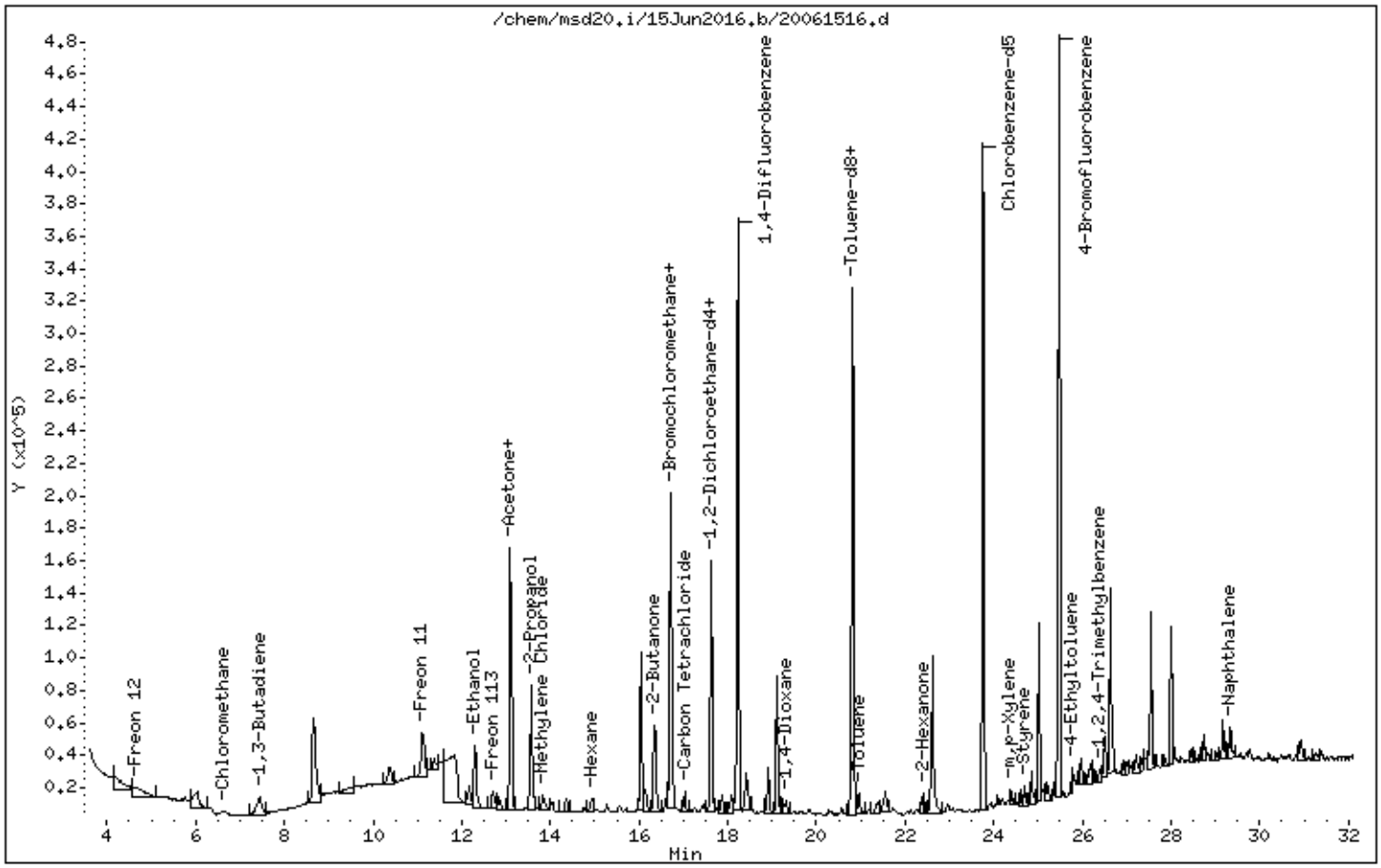
Instrument: msd20.i

Sample Info: 250mL #6L0745

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

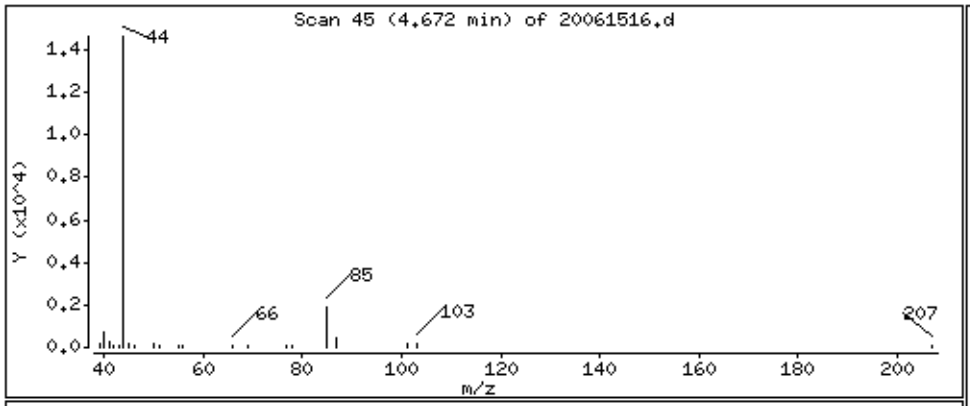
Operator: mjs

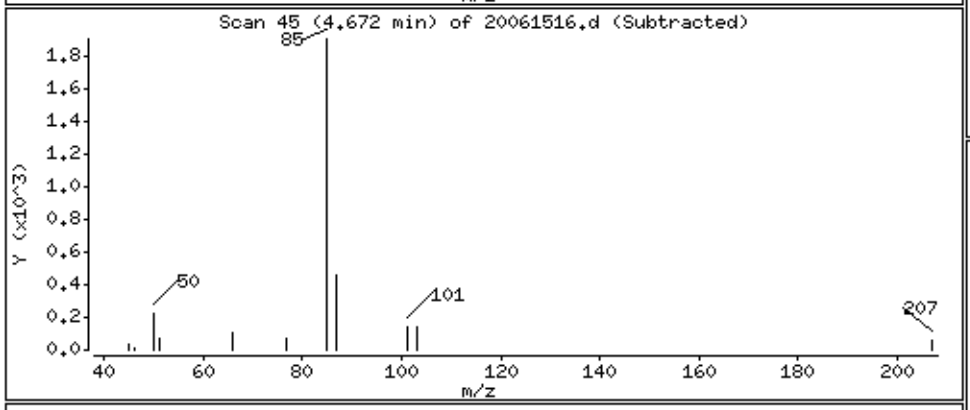
Column phase: RTX-624

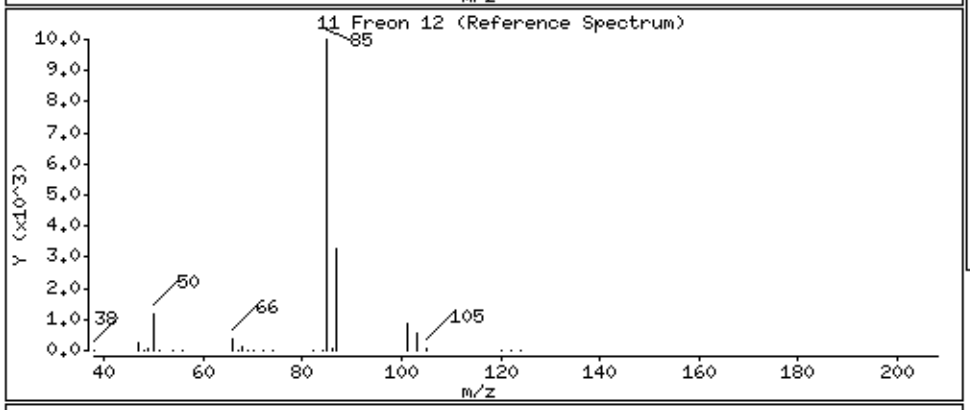
Column diameter: 0.32

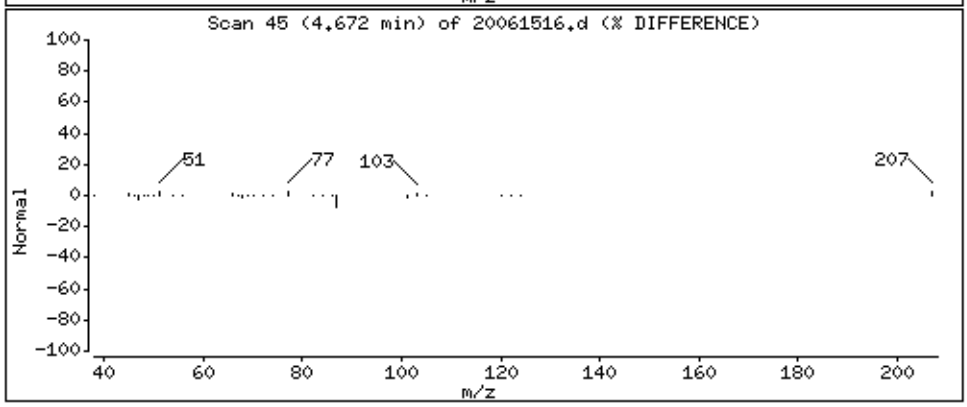
11 Freon 12

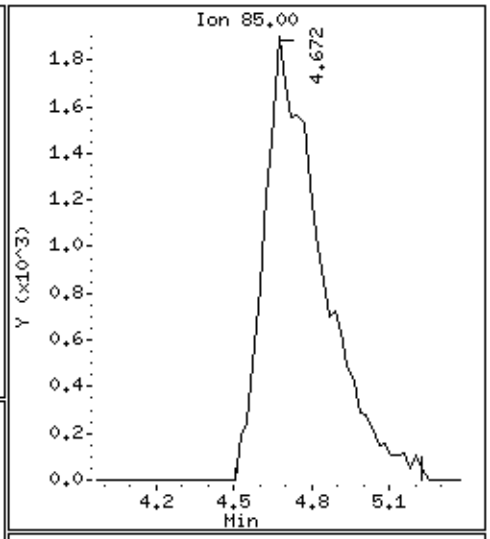
Concentration: 0.6092 PPBV

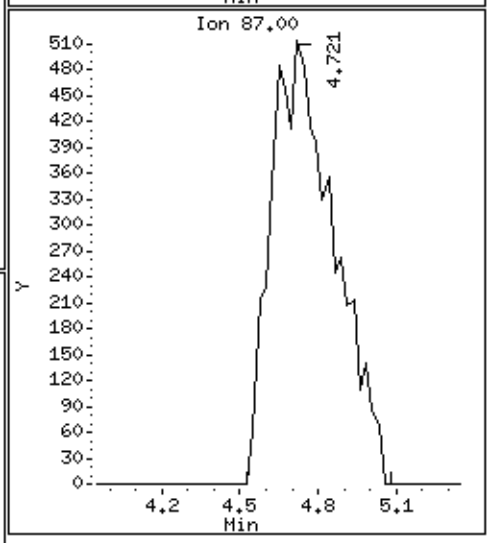












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

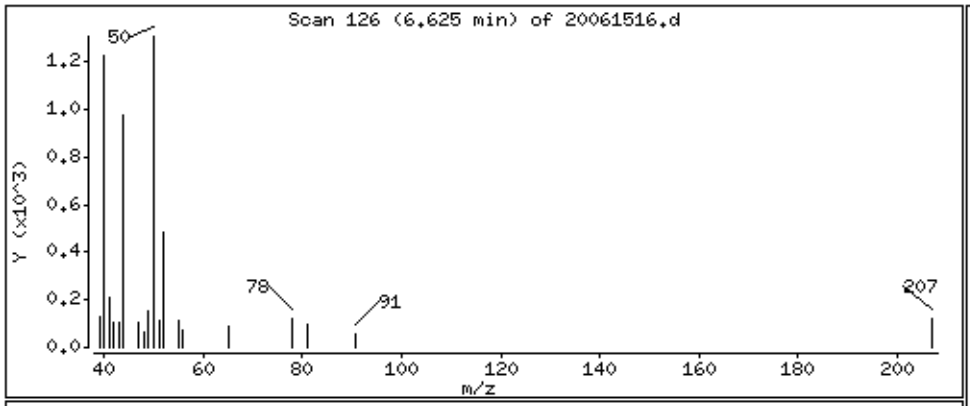
Operator: mjs

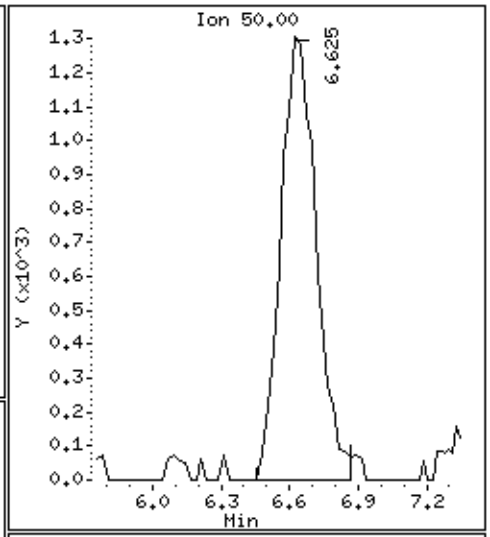
Column phase: RTX-624

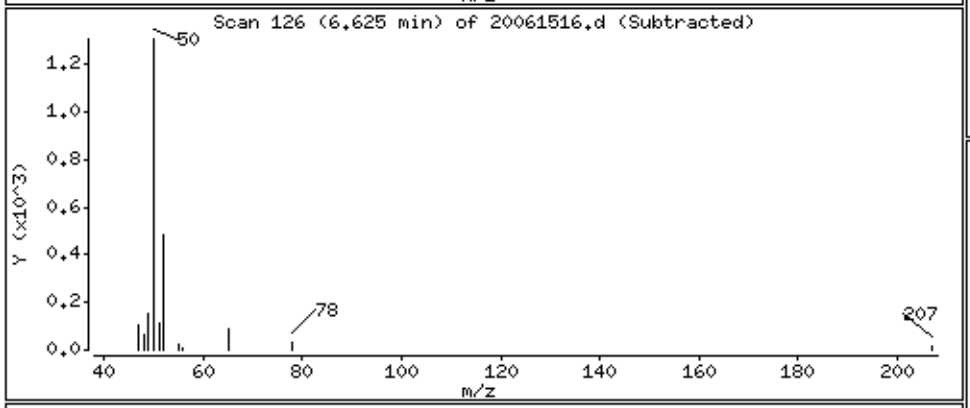
Column diameter: 0.32

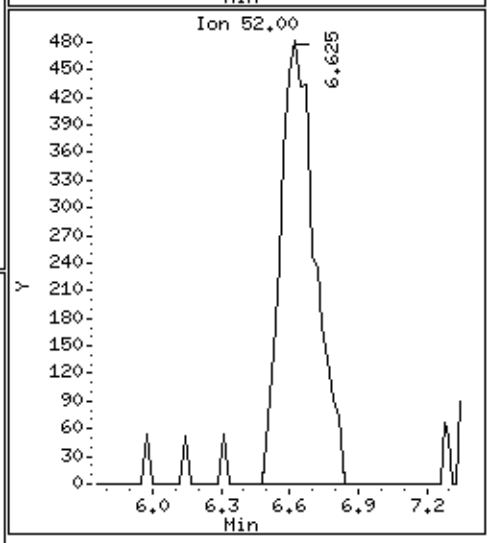
17 Chloromethane

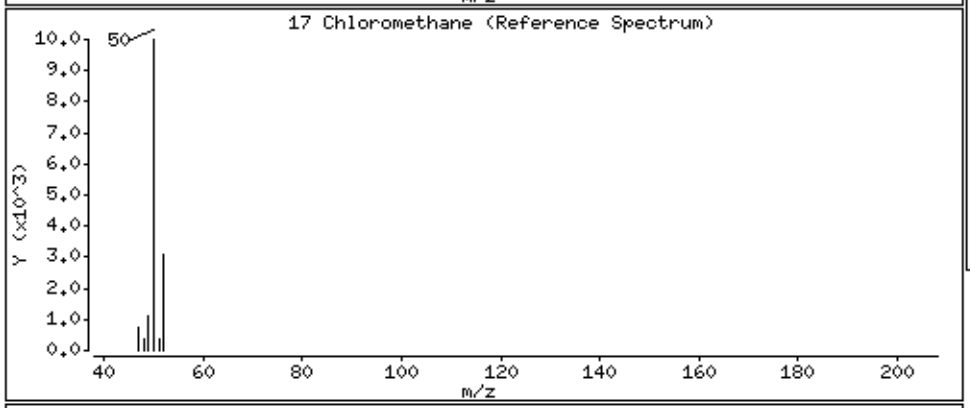
Concentration: 0.8785 PPBV

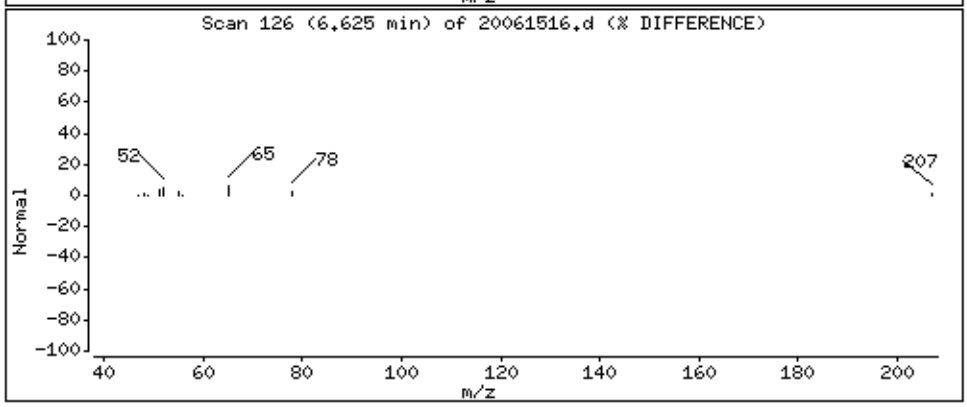












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

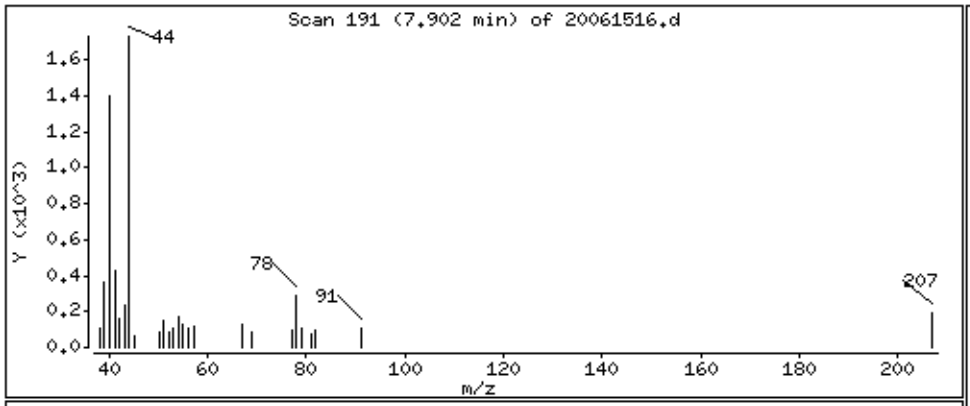
Operator: mjs

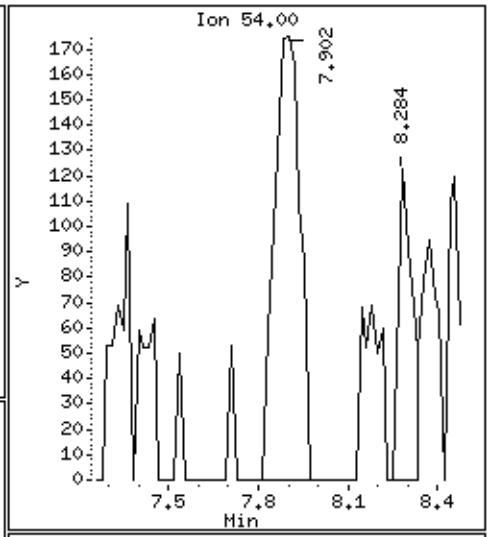
Column phase: RTX-624

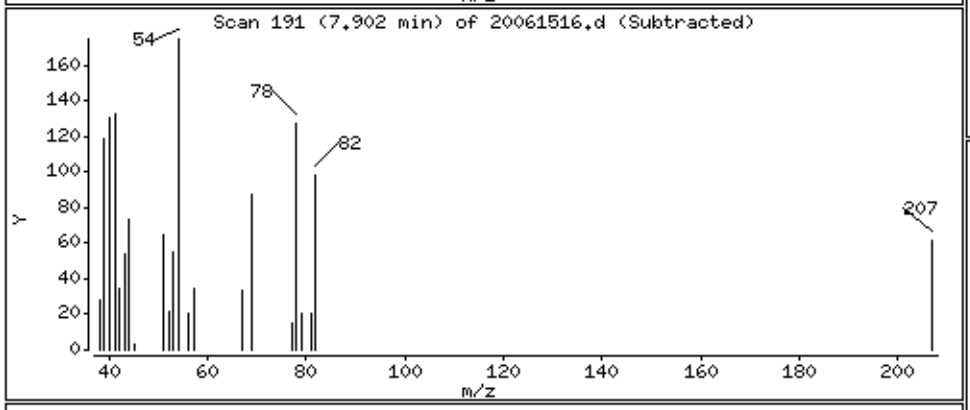
Column diameter: 0.32

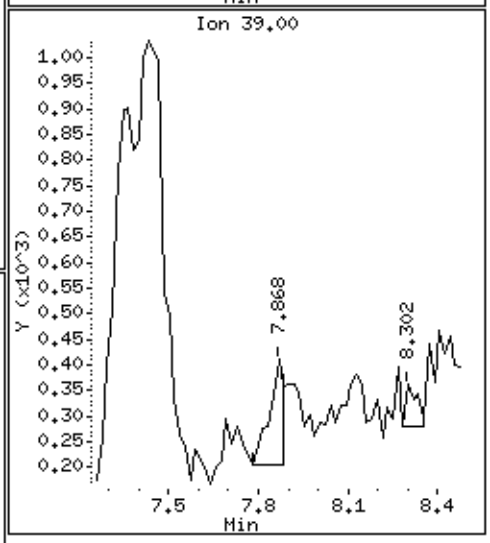
26 1,3-Butadiene

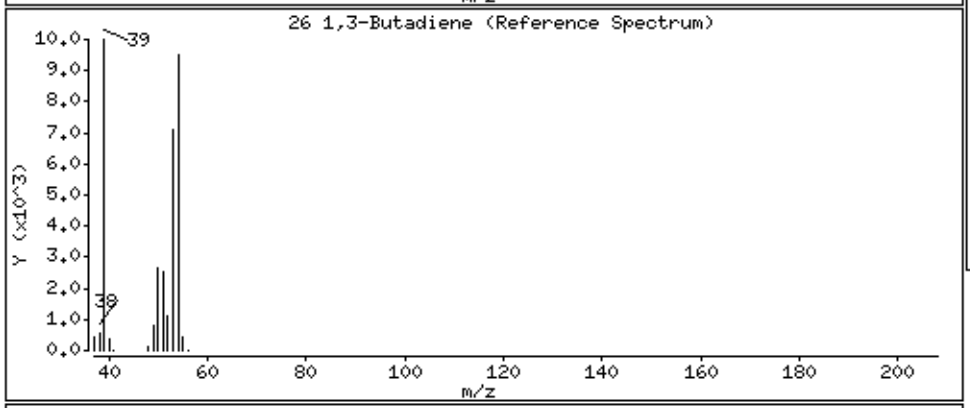
Concentration: 0.07003 PPBV

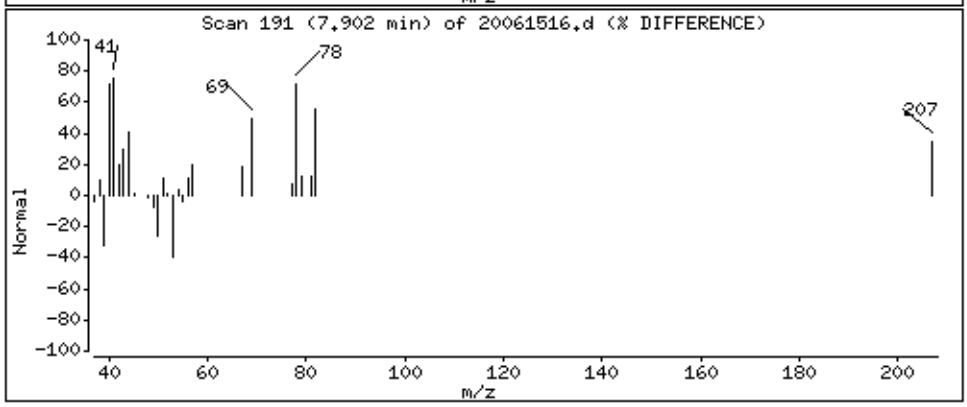












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

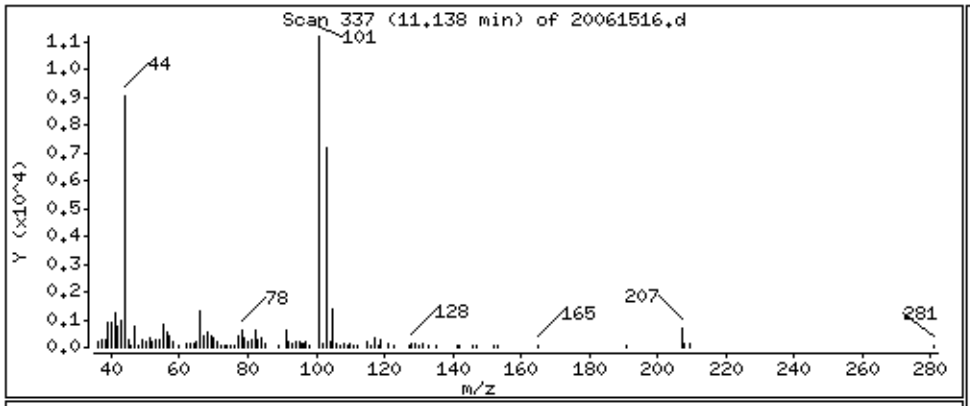
Operator: mjs

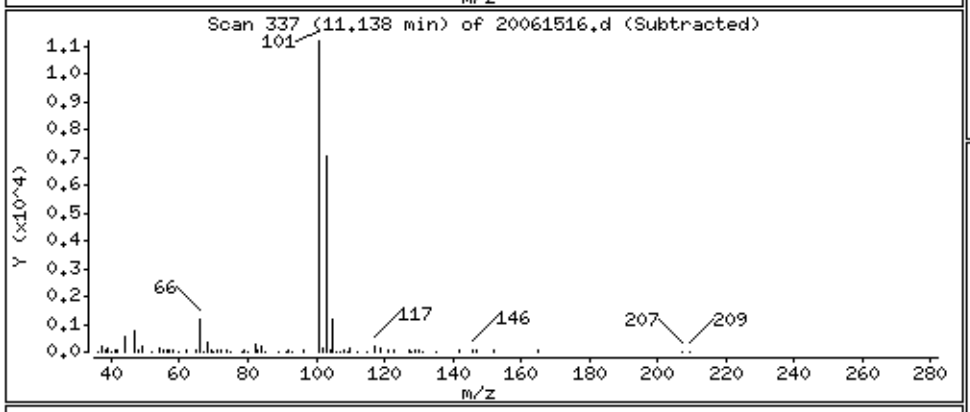
Column phase: RTX-624

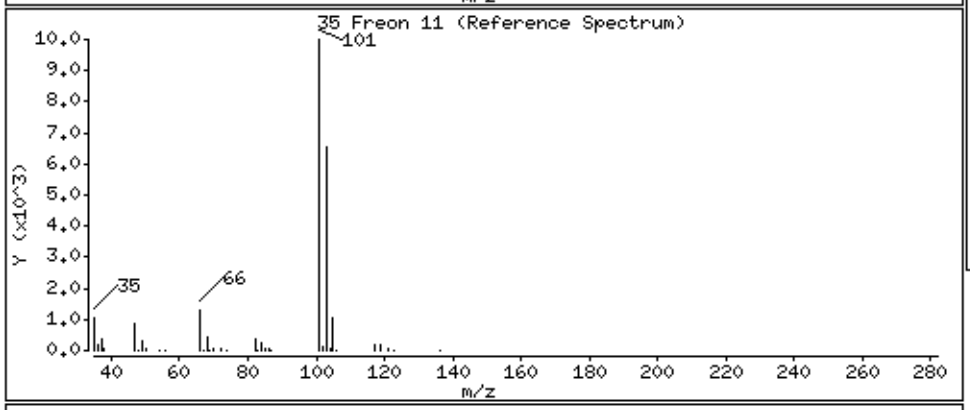
Column diameter: 0.32

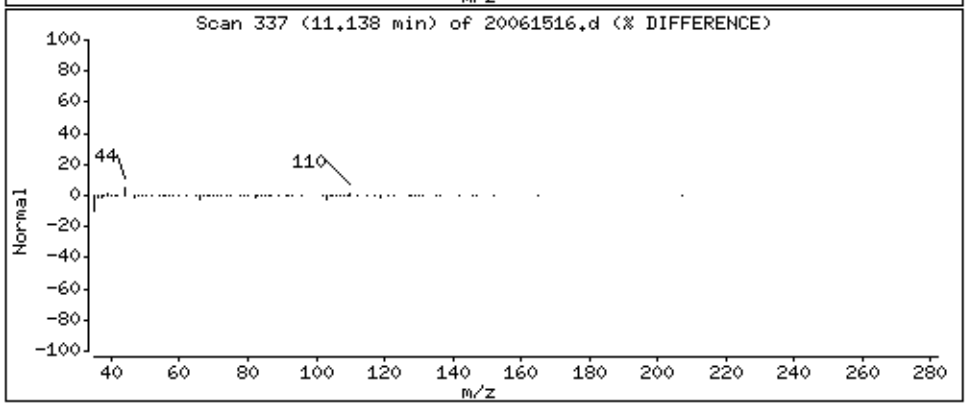
35 Freon 11

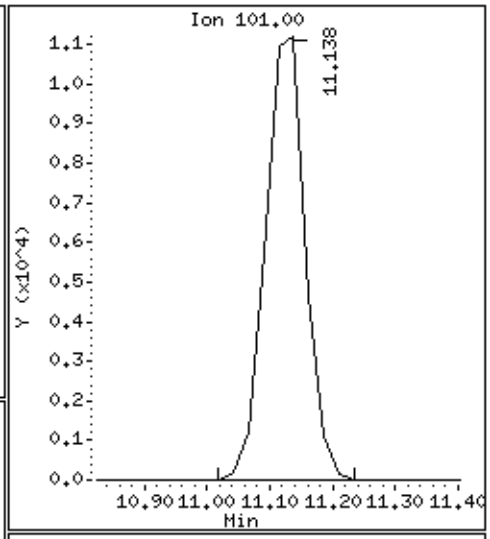
Concentration: 1.040 PPBV

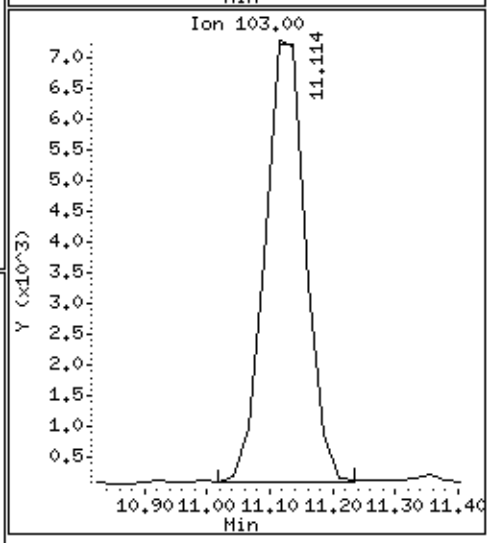












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

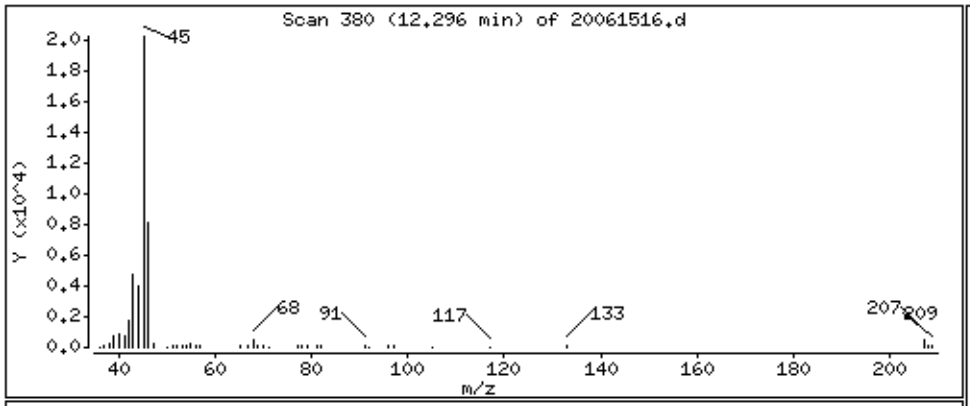
Operator: mjs

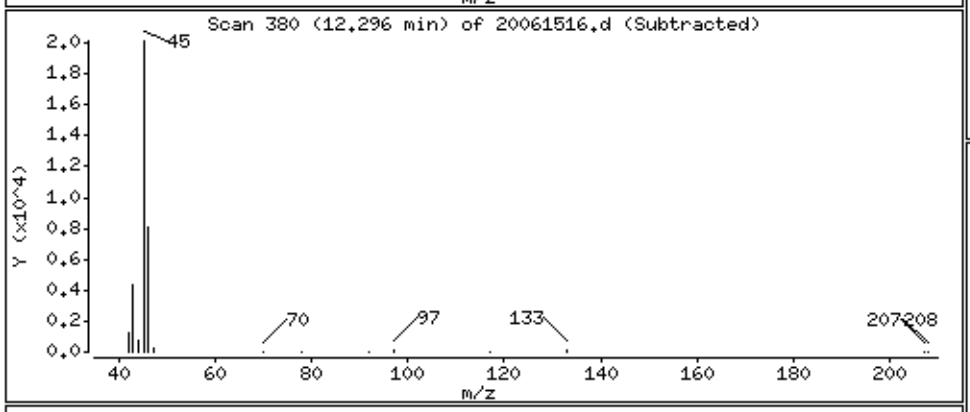
Column phase: RTX-624

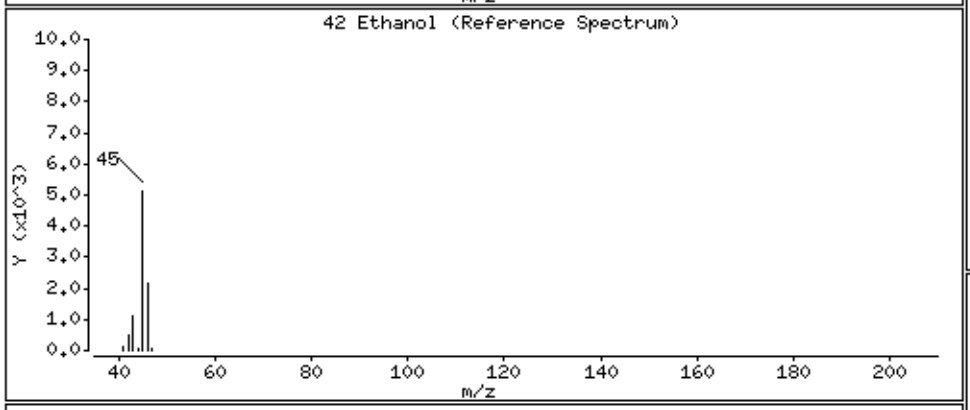
Column diameter: 0.32

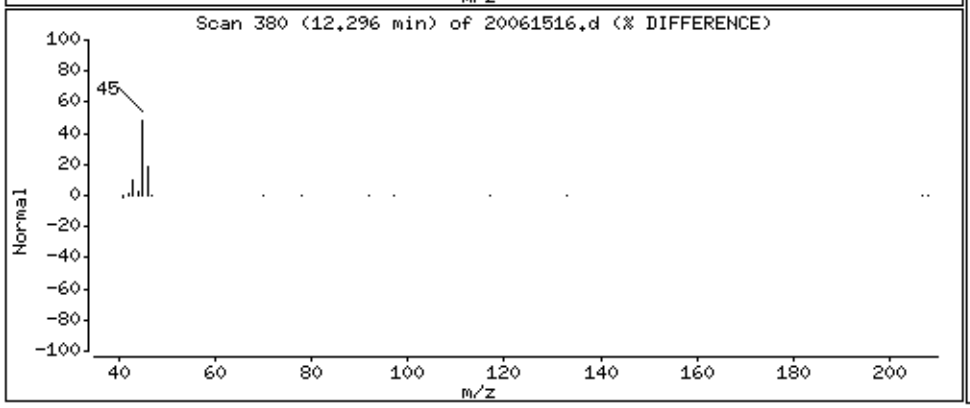
42 Ethanol

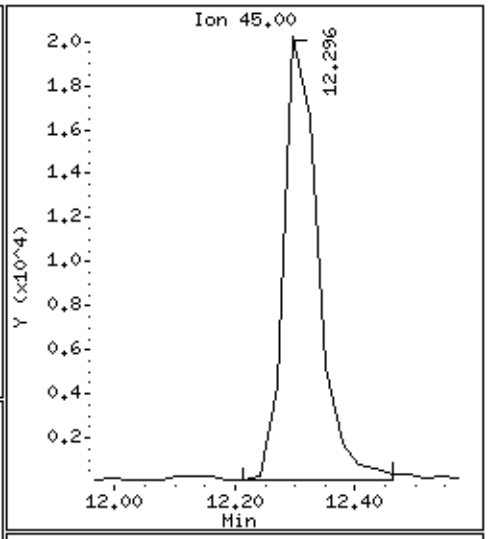
Concentration: 12.576 PPBV

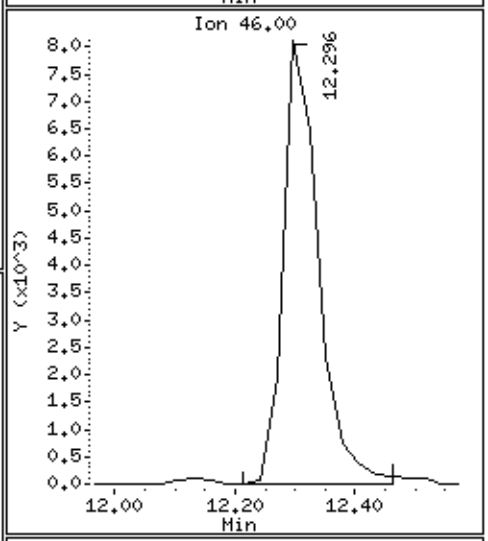


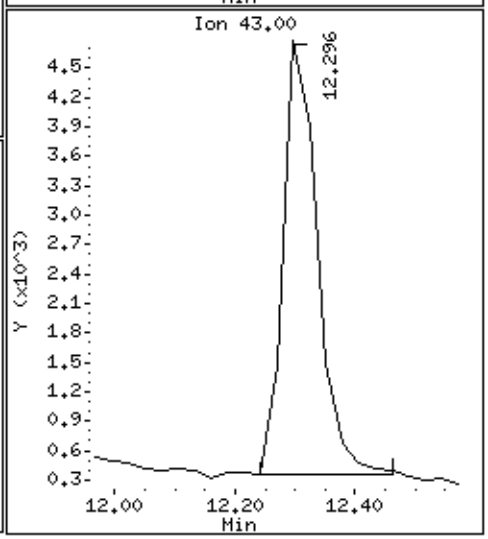












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

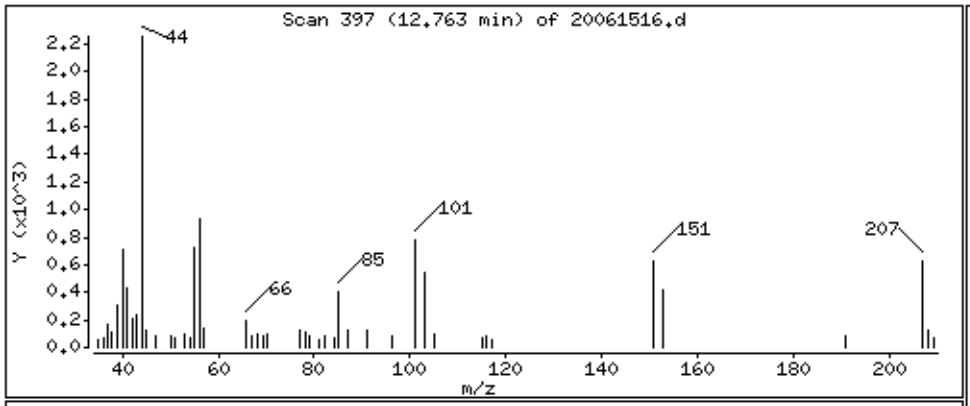
Operator: mjs

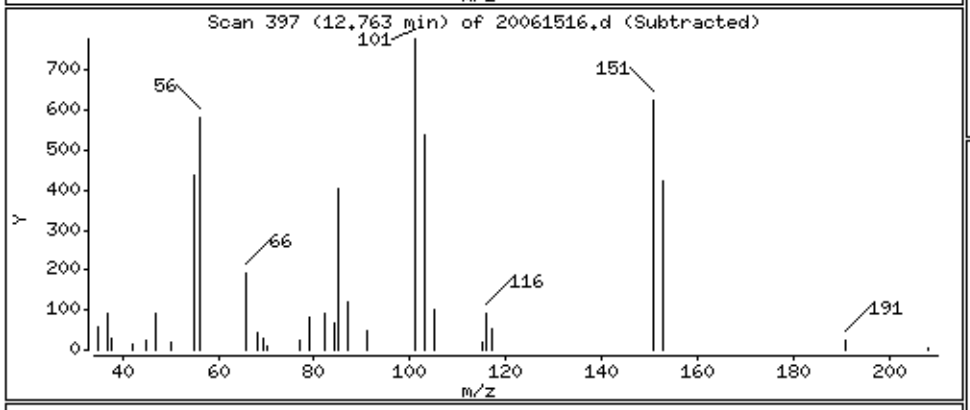
Column phase: RTX-624

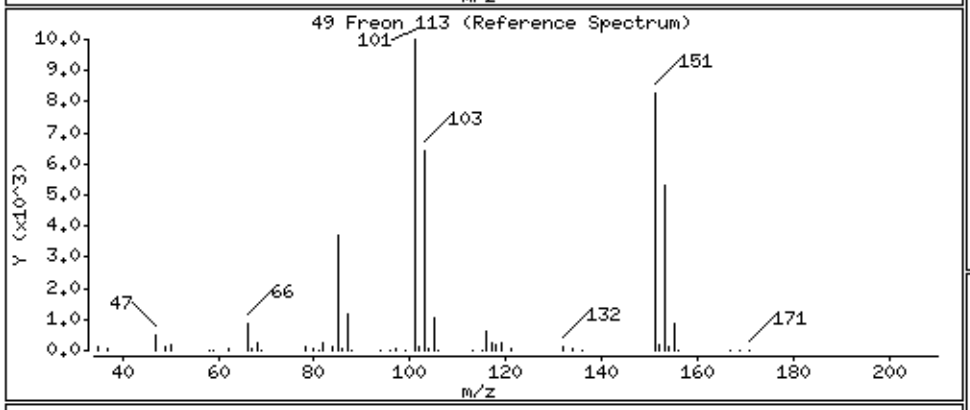
Column diameter: 0.32

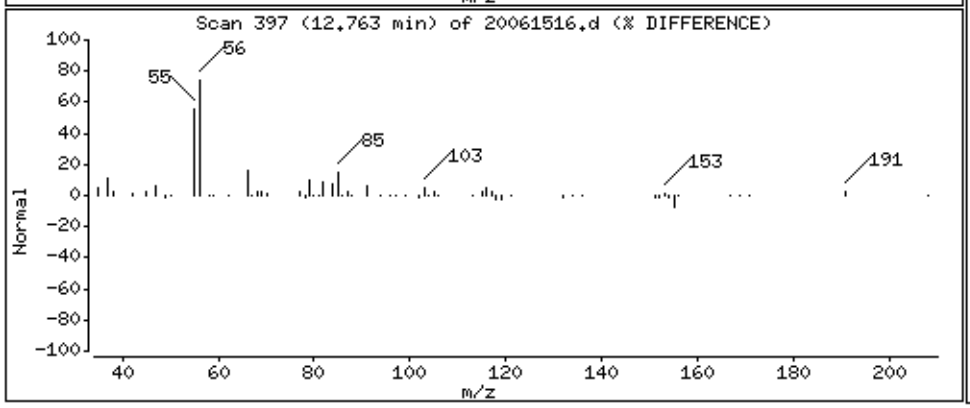
49 Freon 113

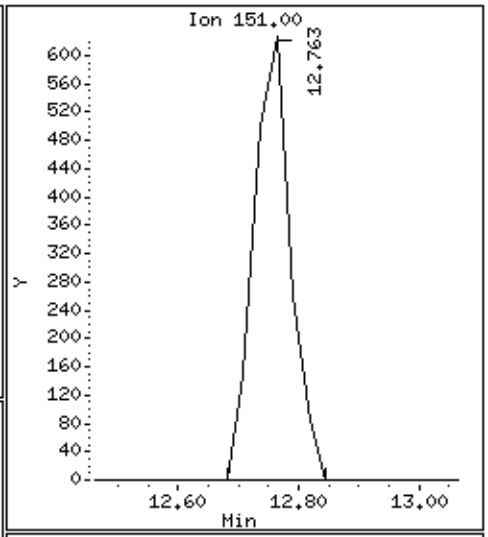
Concentration: 0.07457 PPBV

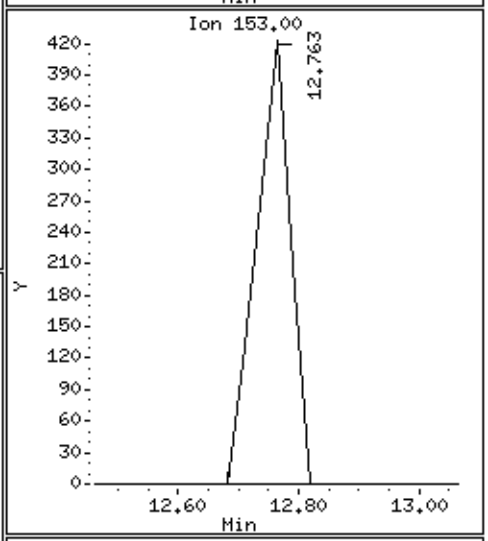


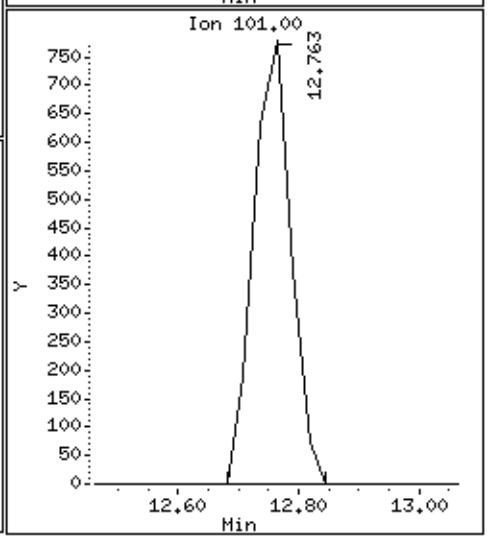












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

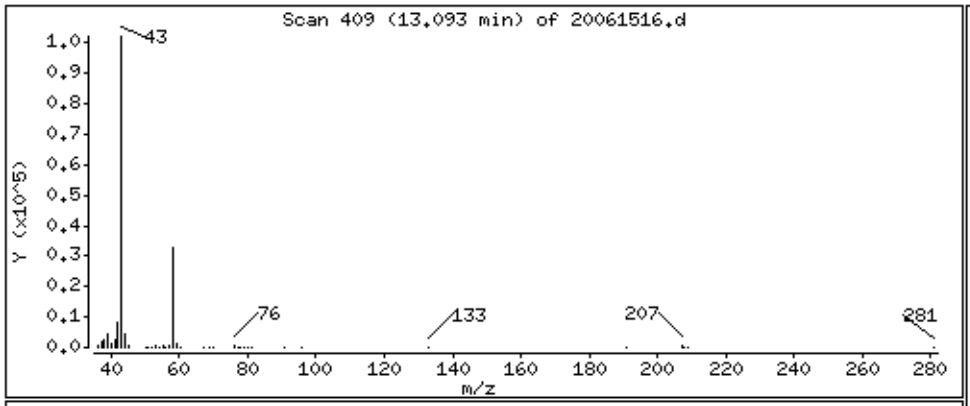
Operator: mjs

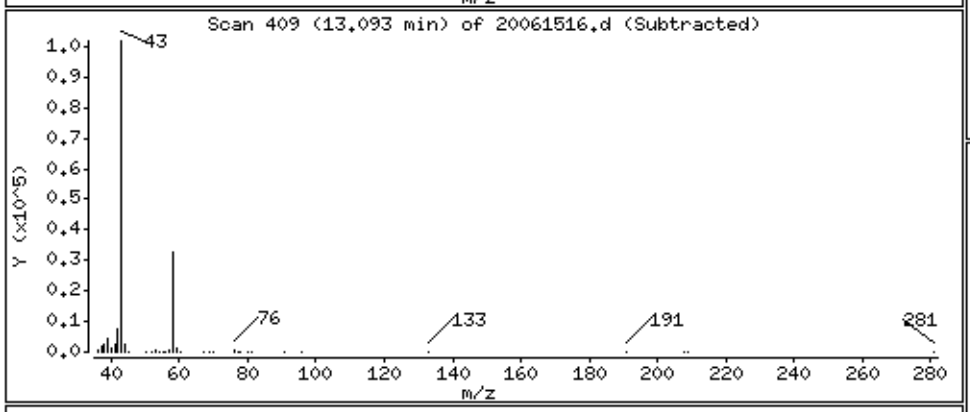
Column phase: RTX-624

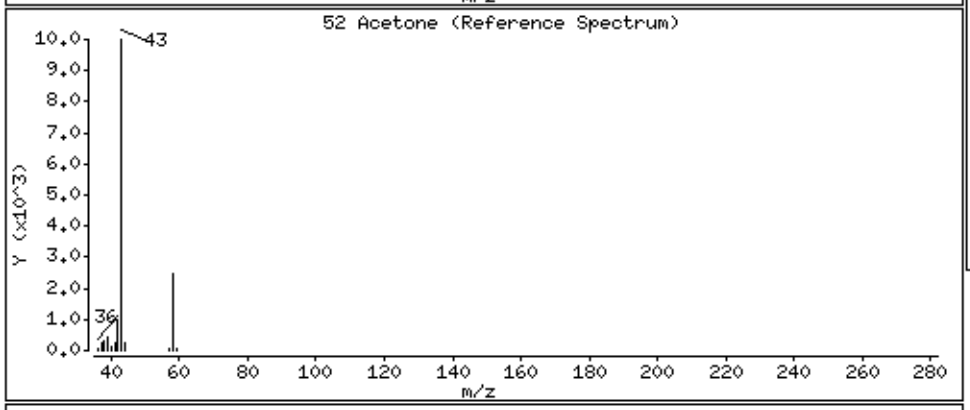
Column diameter: 0.32

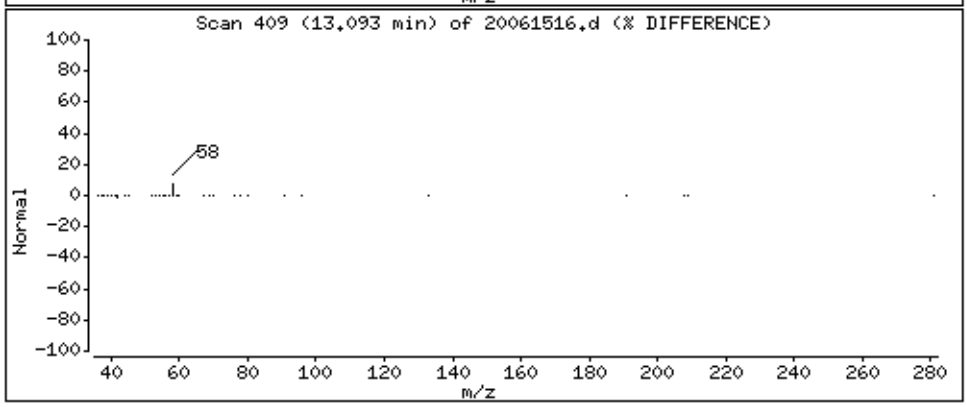
52 Acetone

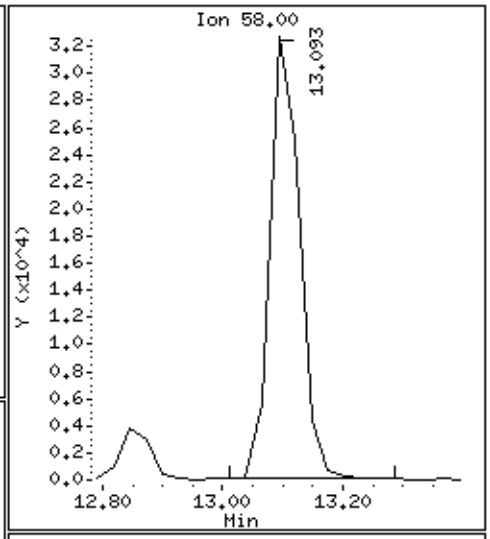
Concentration: 11.938 PPBV

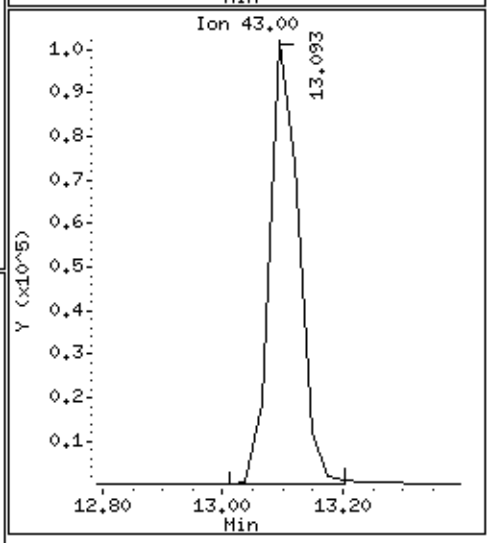












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

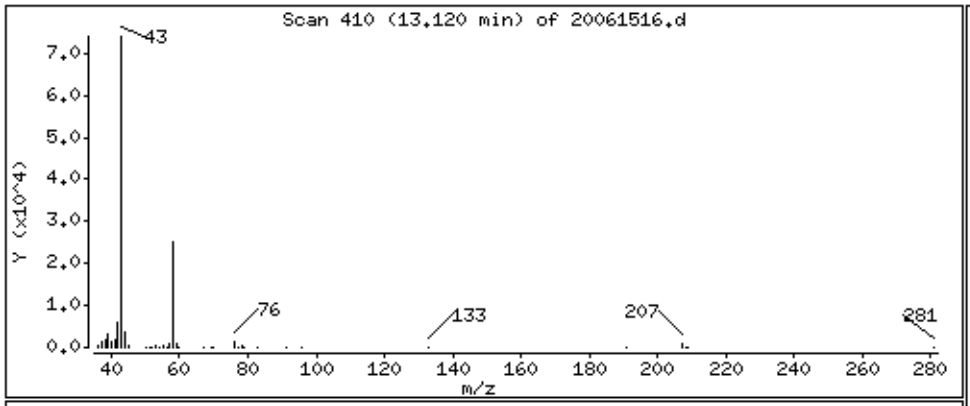
Operator: mjs

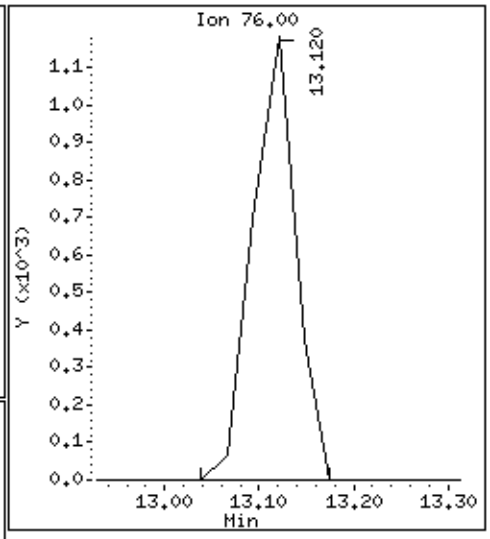
Column phase: RTX-624

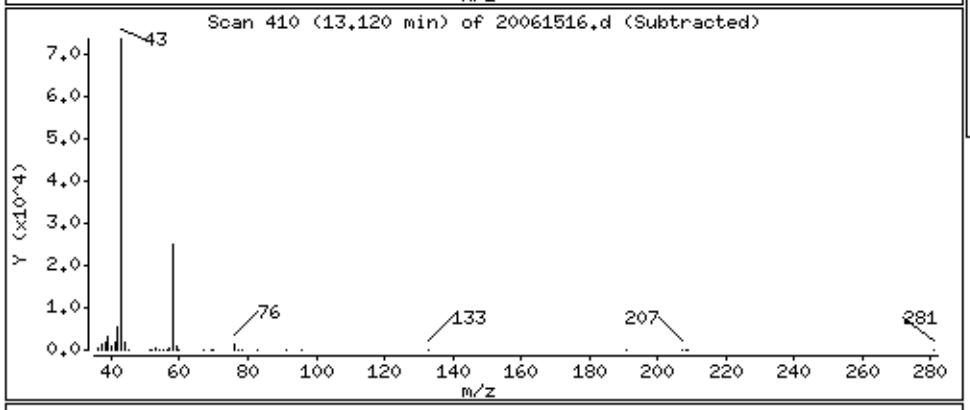
Column diameter: 0.32

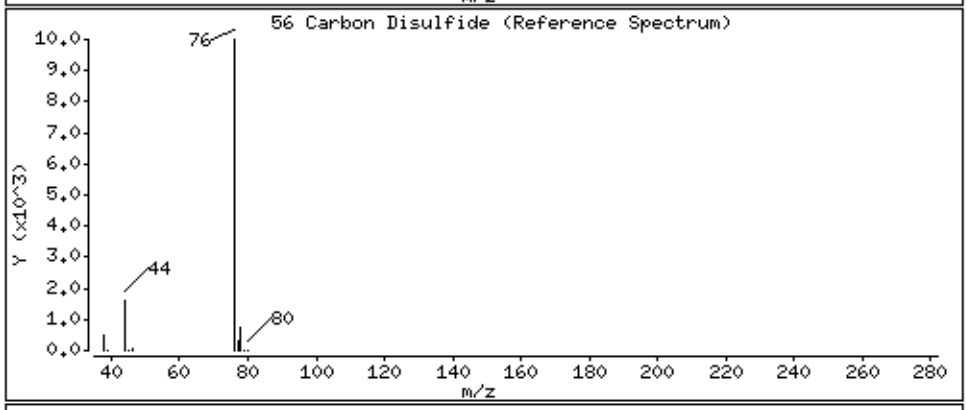
56 Carbon Disulfide

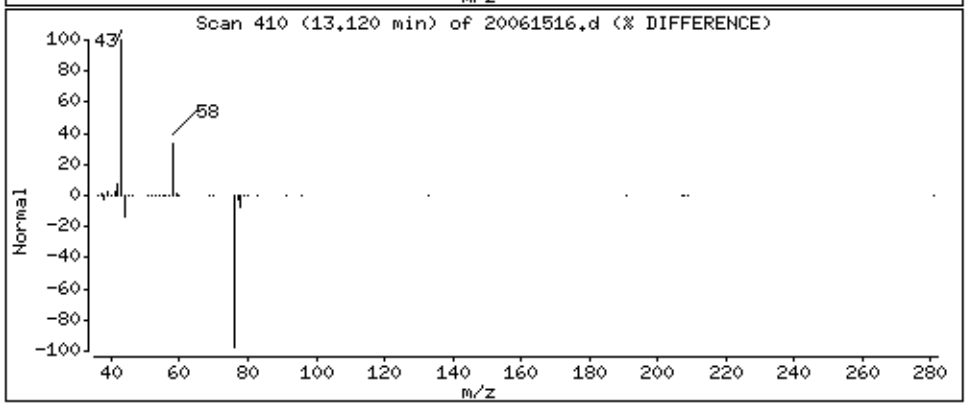
Concentration: 0.07160 PPBV











Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

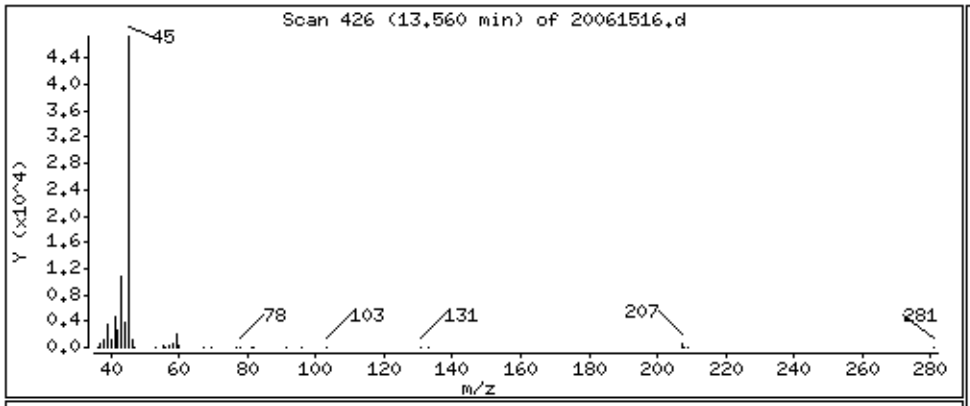
Operator: mjs

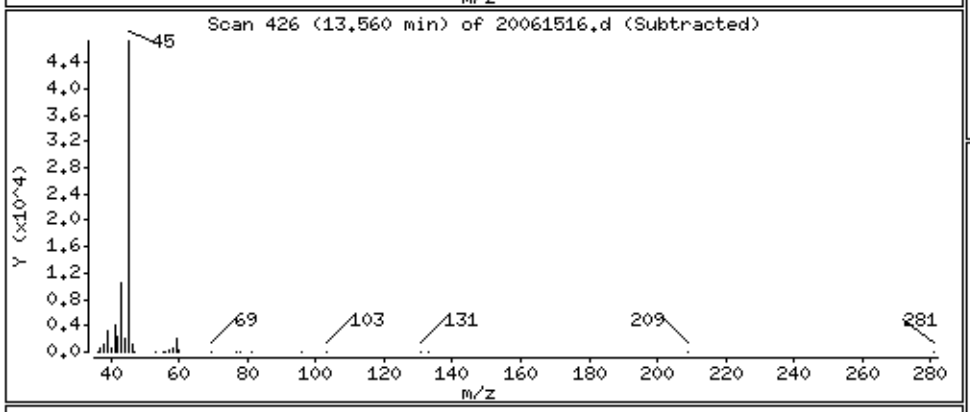
Column phase: RTX-624

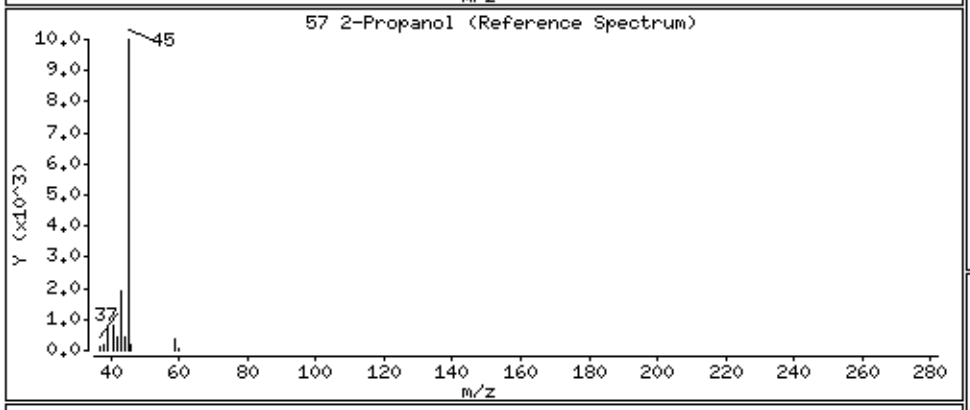
Column diameter: 0.32

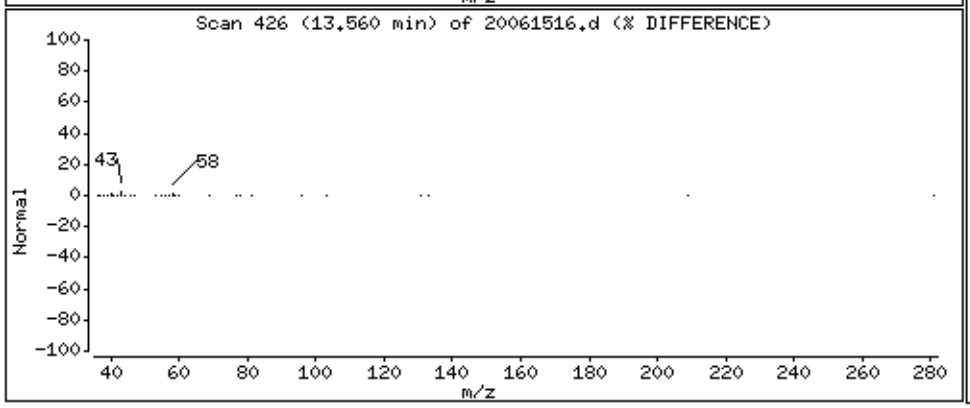
57 2-Propanol

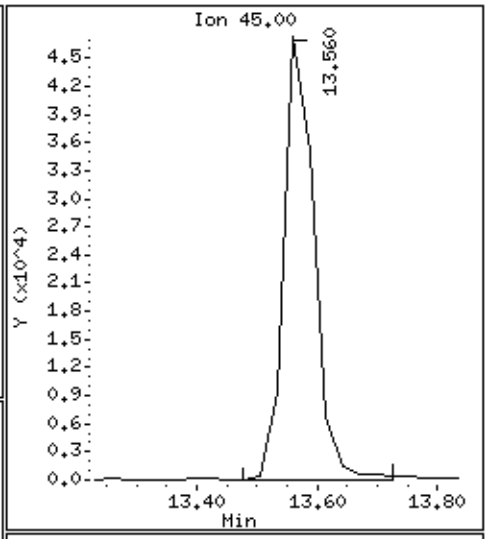
Concentration: 5.518 PPBV

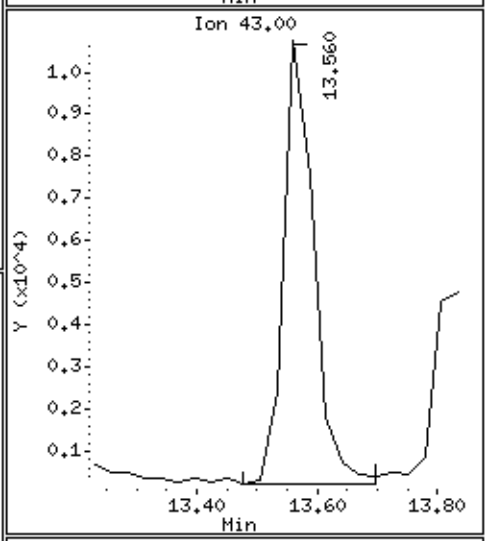


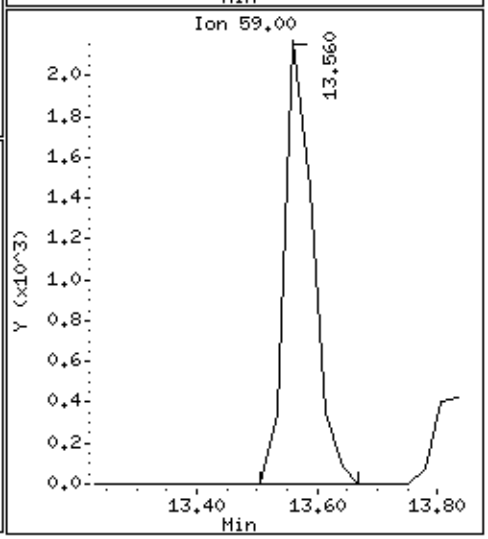












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

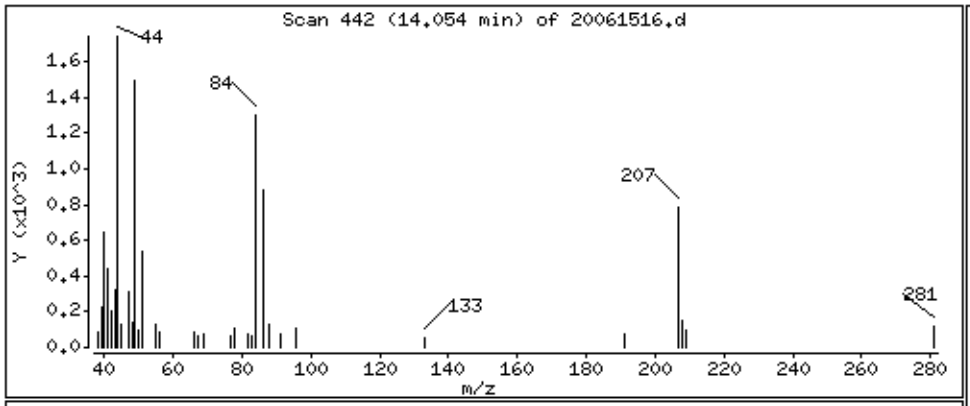
Operator: mjs

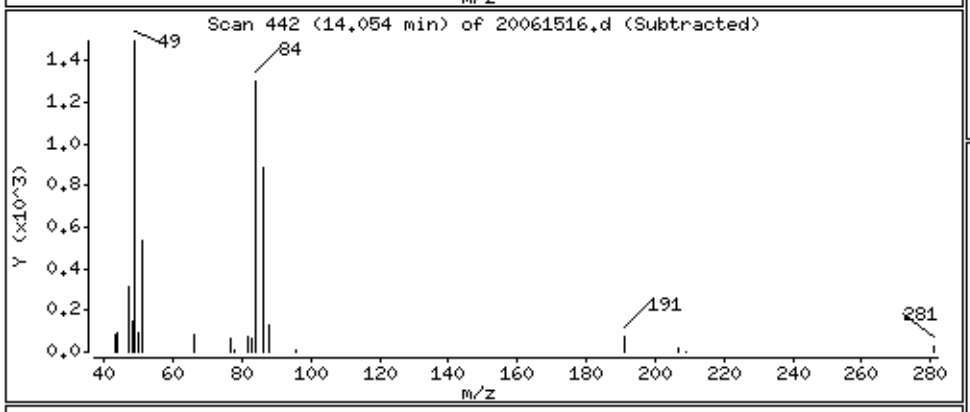
Column phase: RTX-624

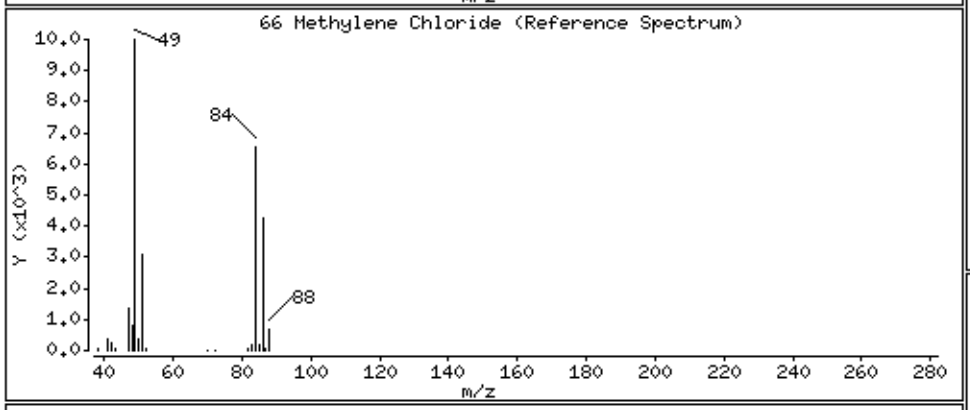
Column diameter: 0.32

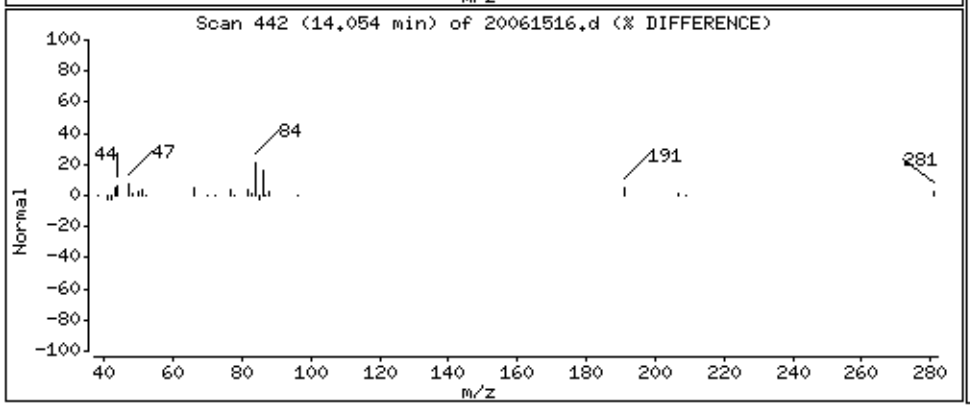
66 Methylene Chloride

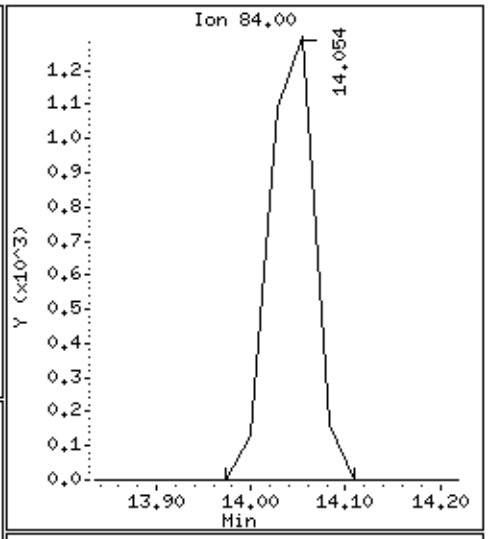
Concentration: 0.2146 PPBV

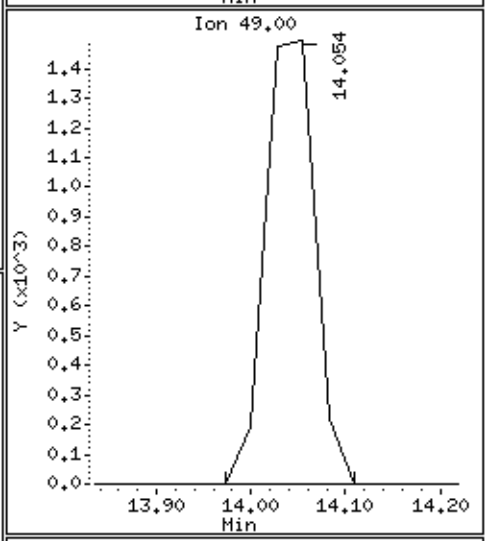


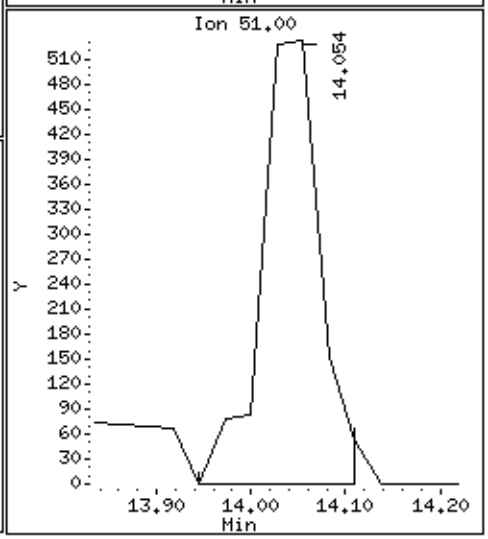












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

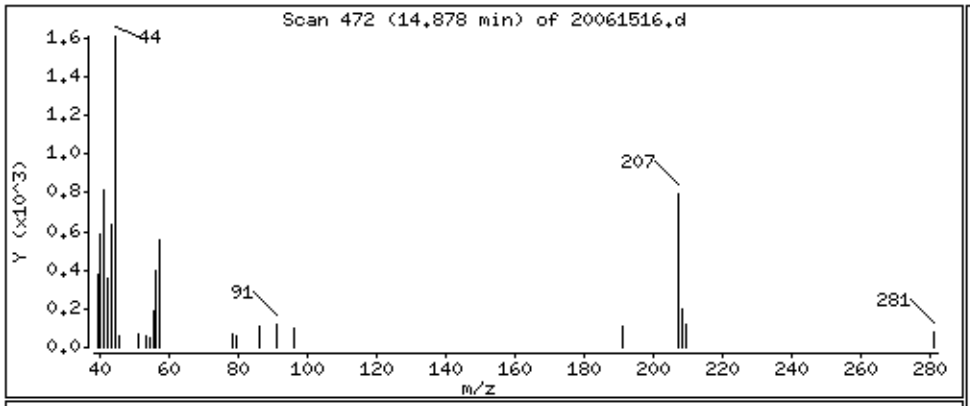
Operator: mjs

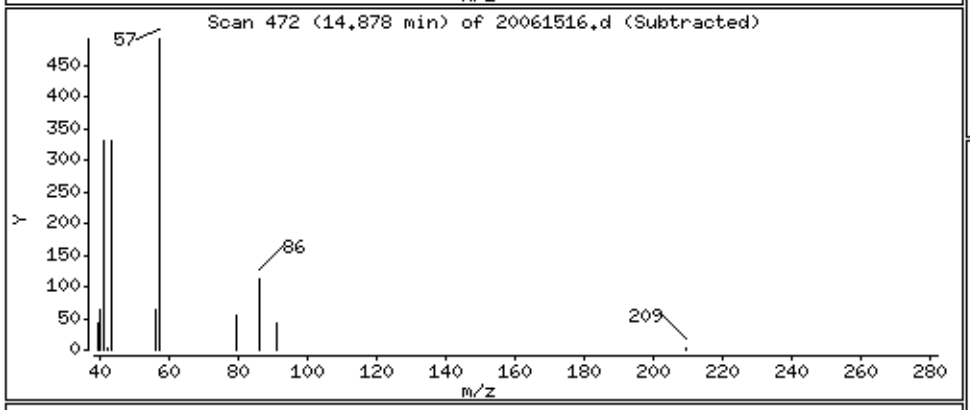
Column phase: RTX-624

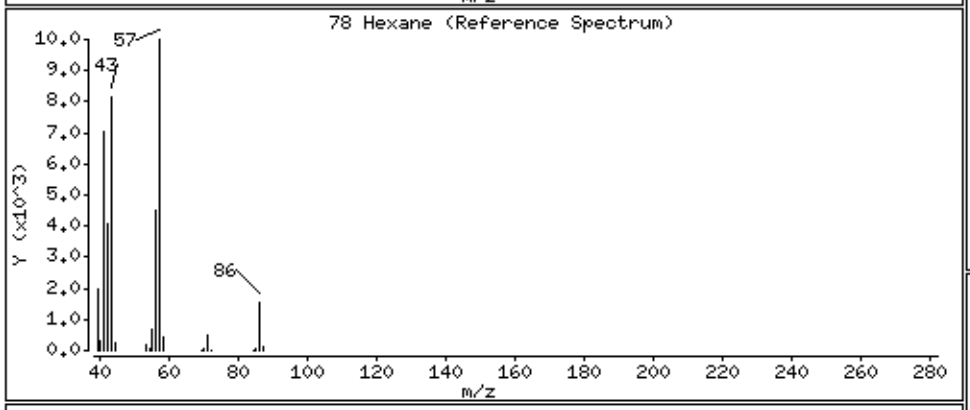
Column diameter: 0.32

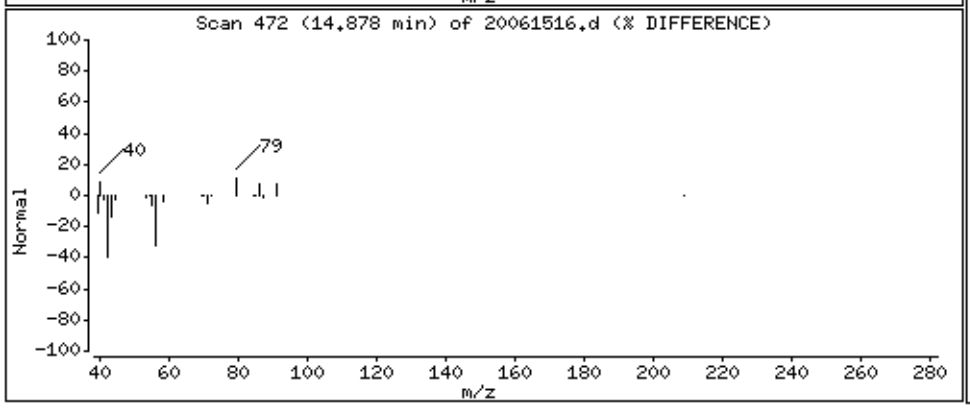
78 Hexane

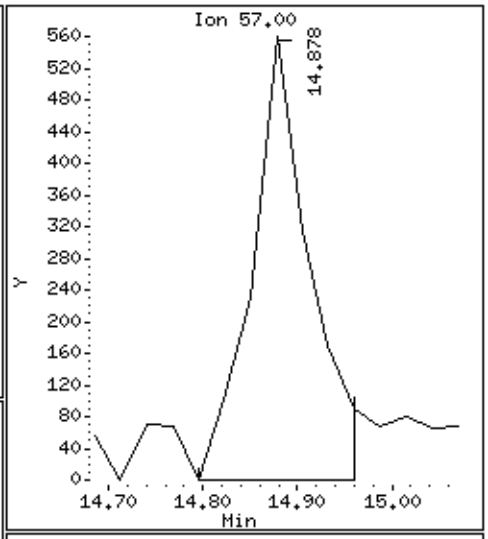
Concentration: 0.07854 PPBV

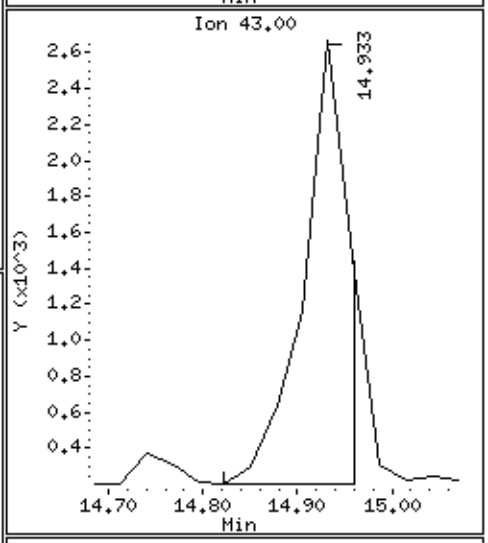


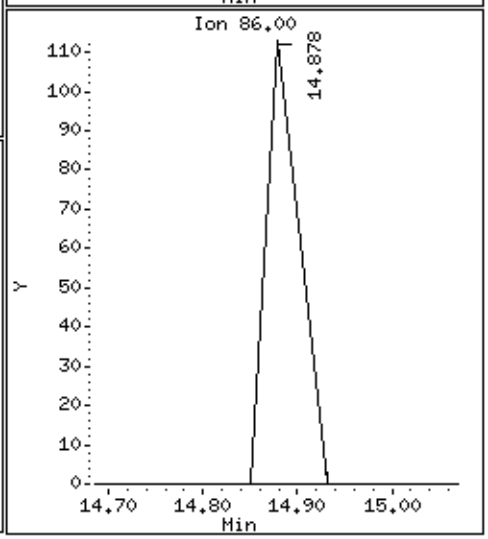












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

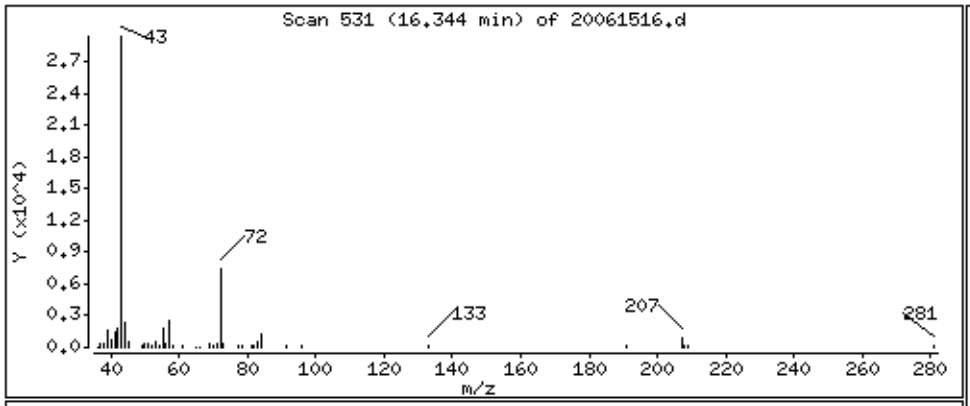
Operator: mjs

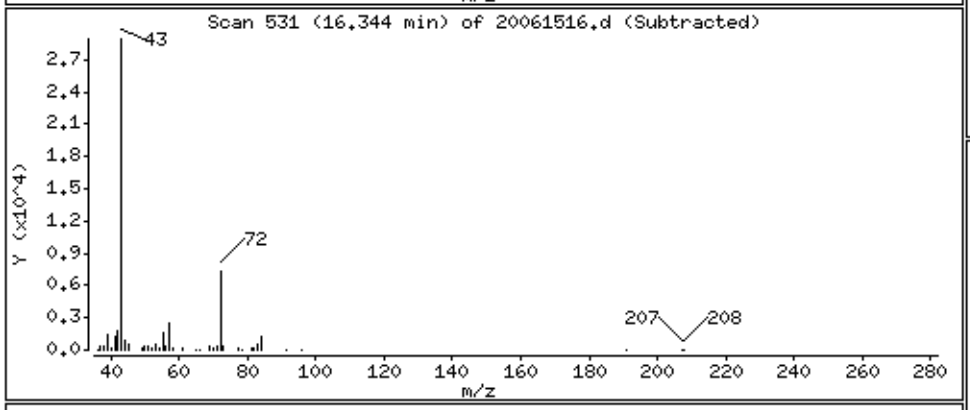
Column phase: RTX-624

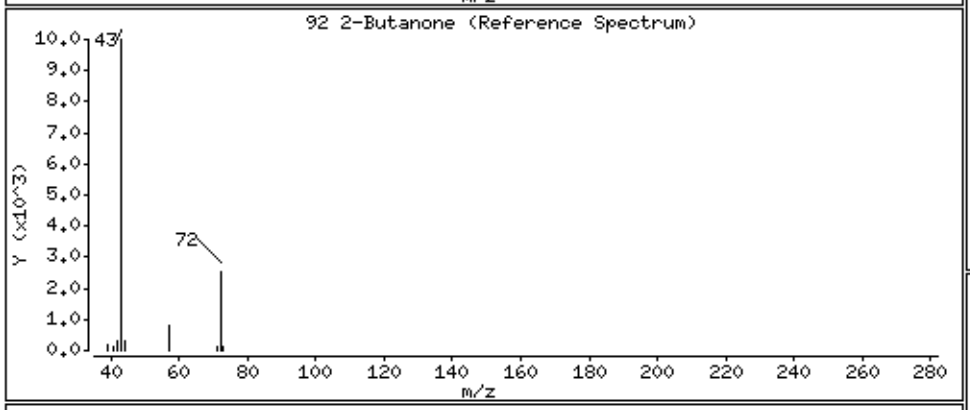
Column diameter: 0.32

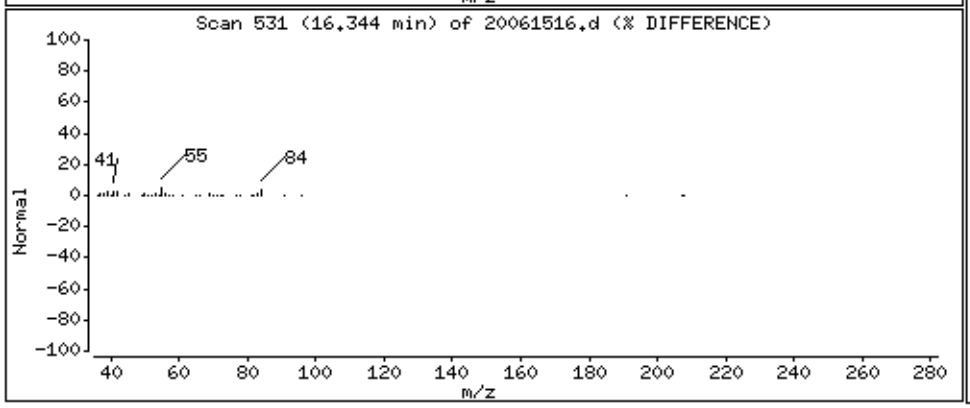
92 2-Butanone

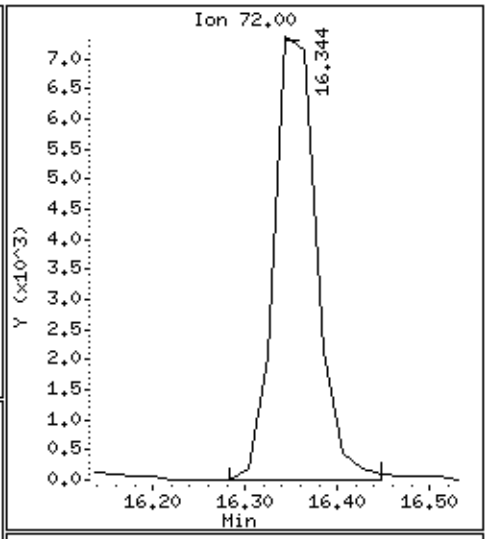
Concentration: 2.417 PPBV

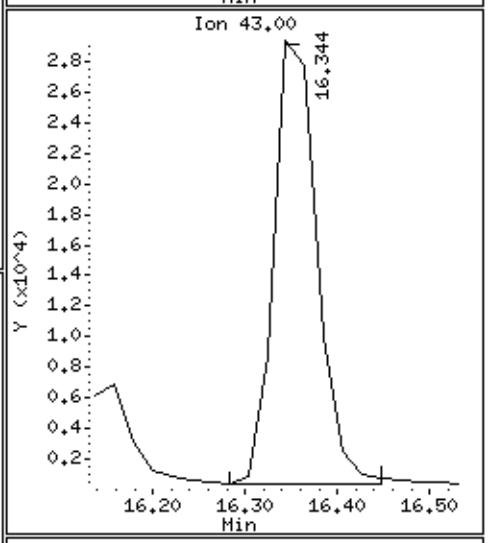


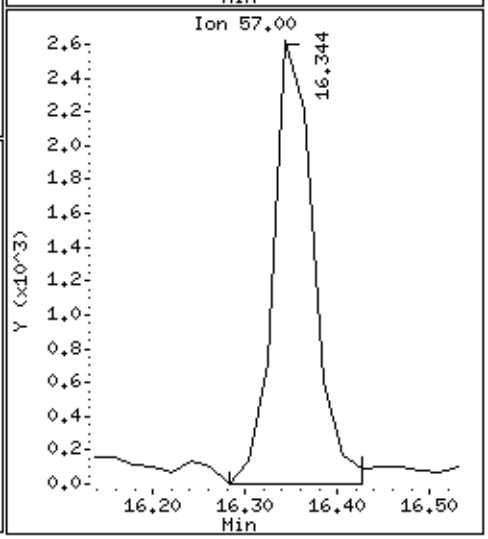












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

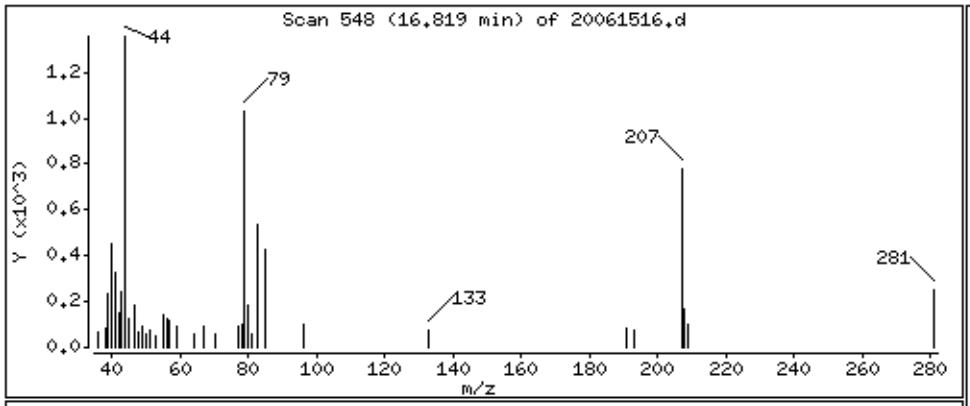
Operator: mjs

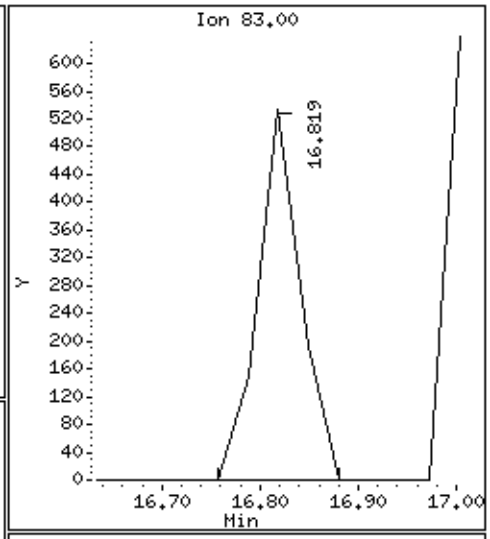
Column phase: RTX-624

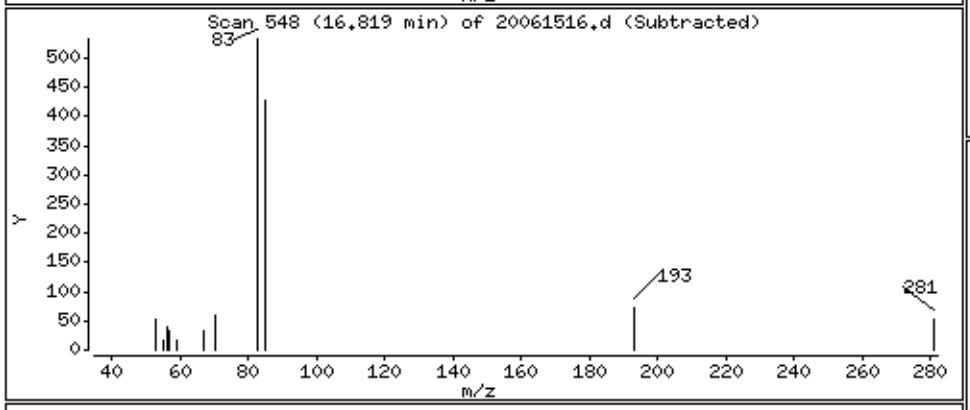
Column diameter: 0.32

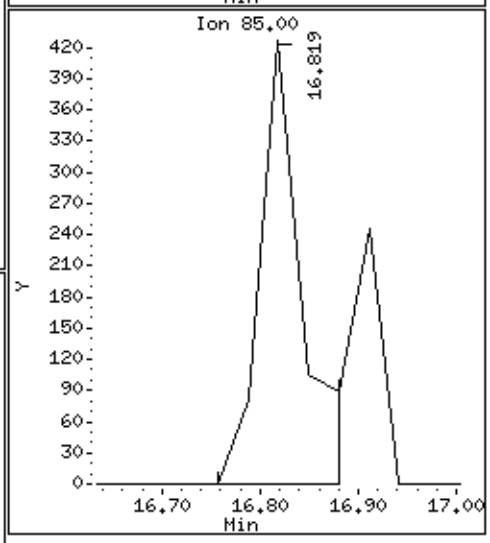
100 Chloroform

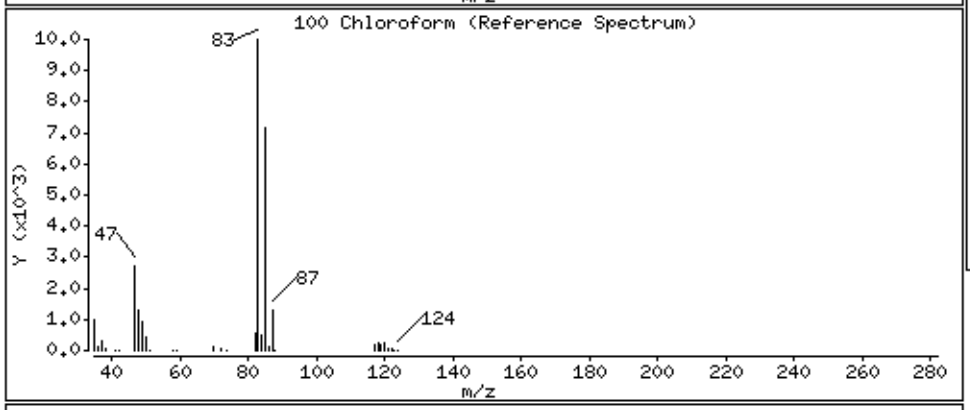
Concentration: 0.03923 PPBV

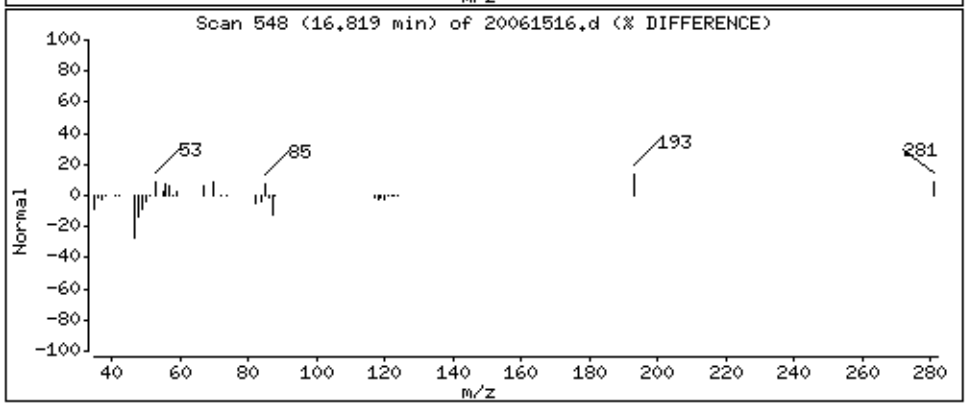












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

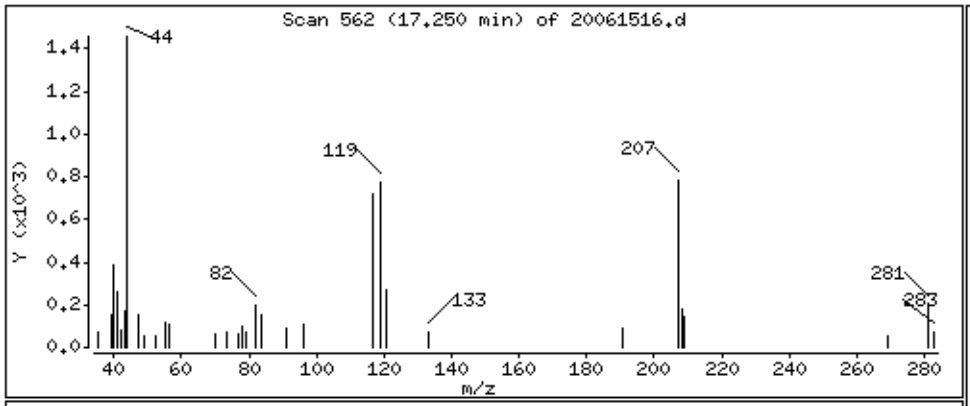
Operator: mjs

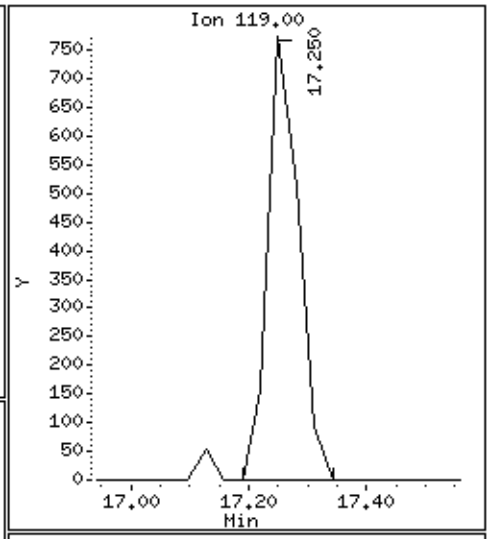
Column phase: RTX-624

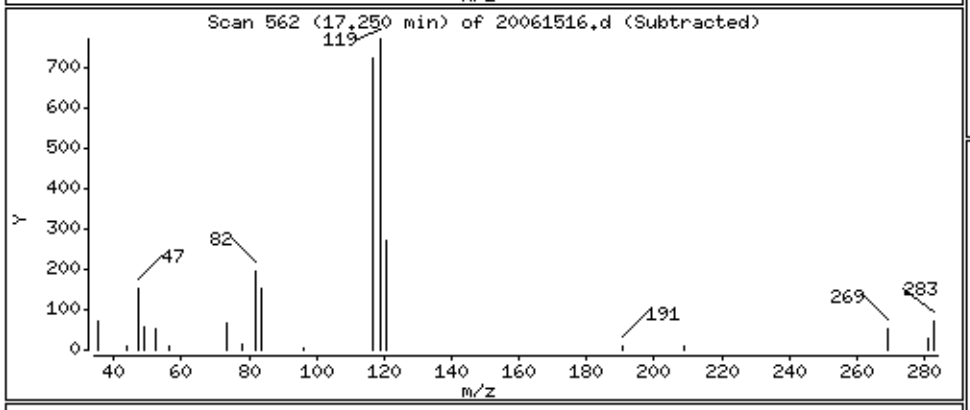
Column diameter: 0.32

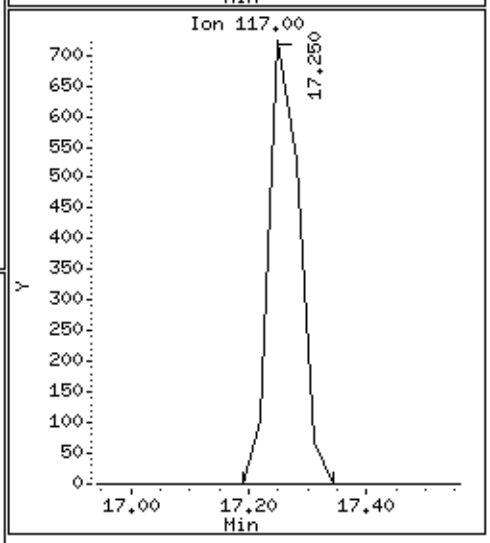
106 Carbon Tetrachloride

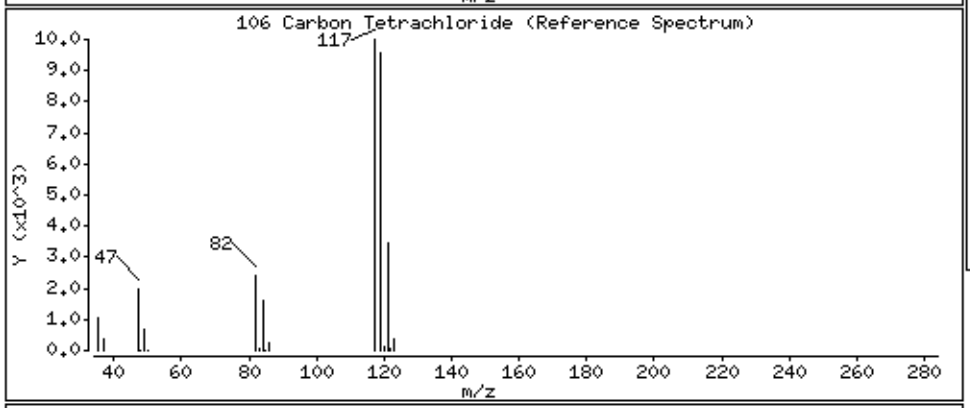
Concentration: 0.08250 PPBV

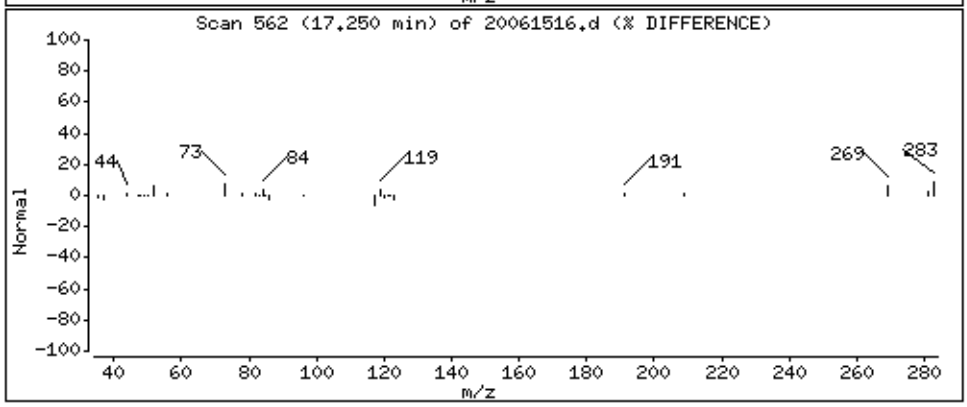












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

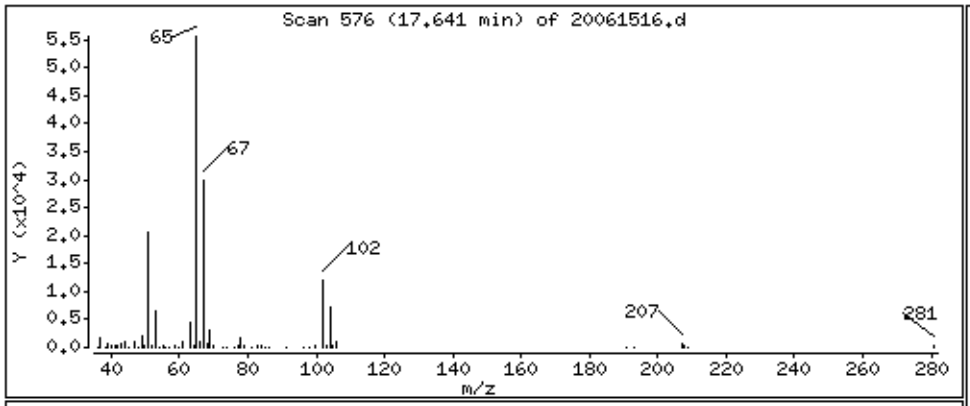
Operator: mjs

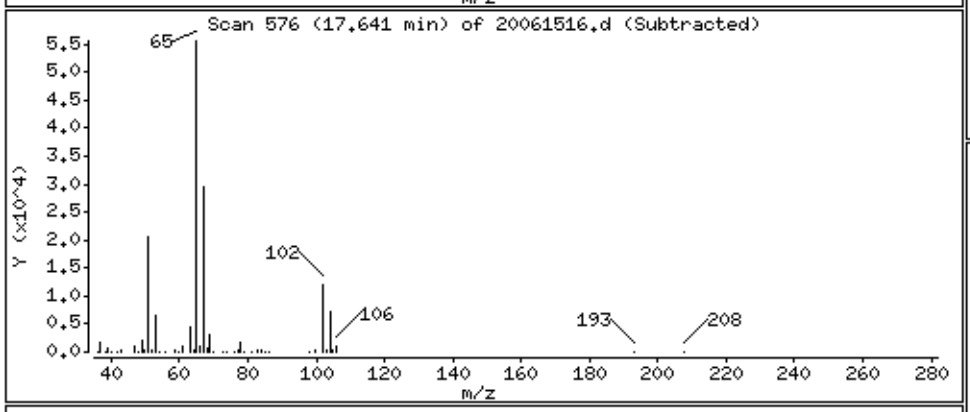
Column phase: RTX-624

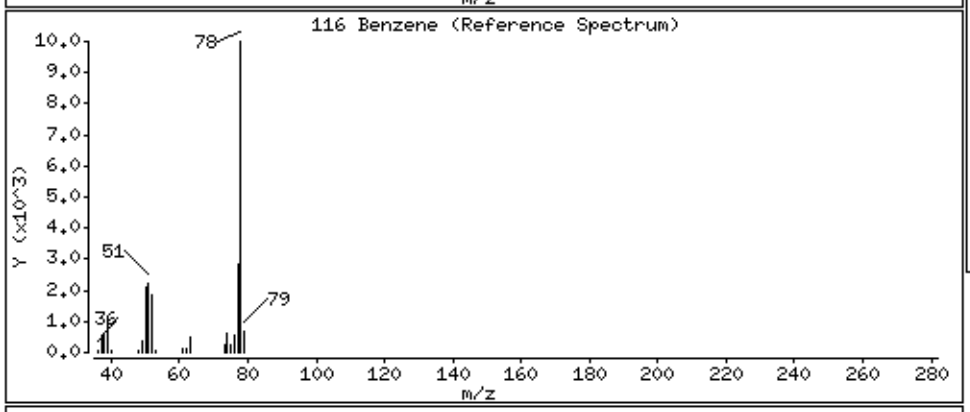
Column diameter: 0.32

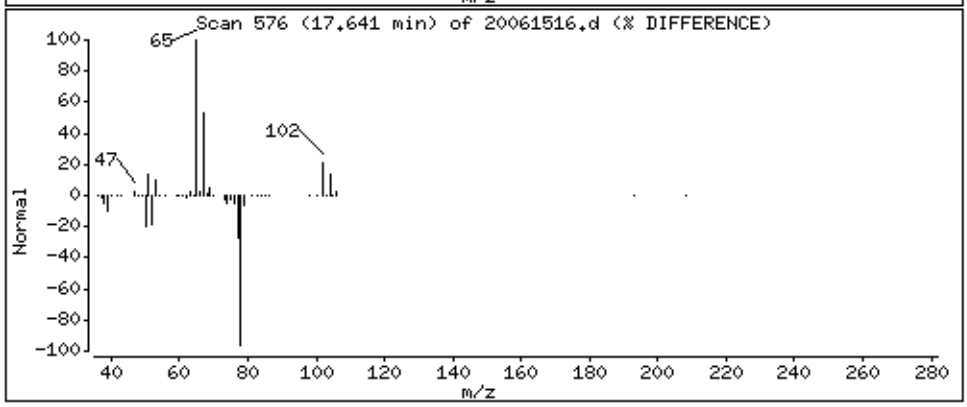
116 Benzene

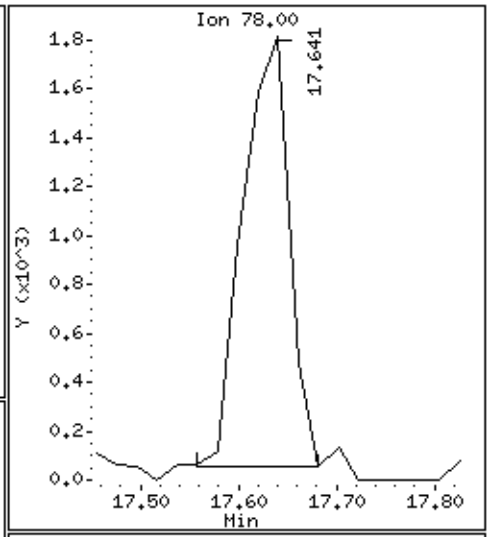
Concentration: 0.08548 PPBV

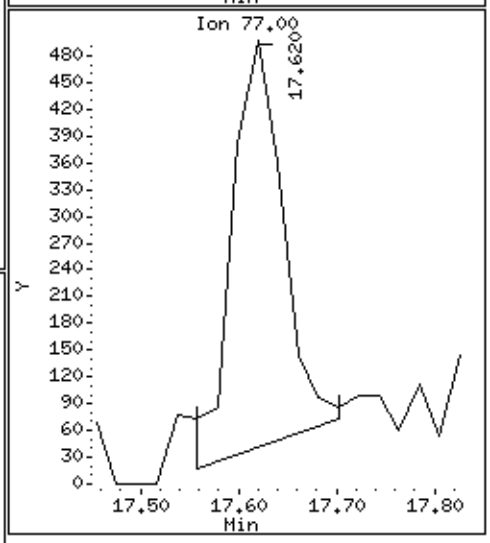












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

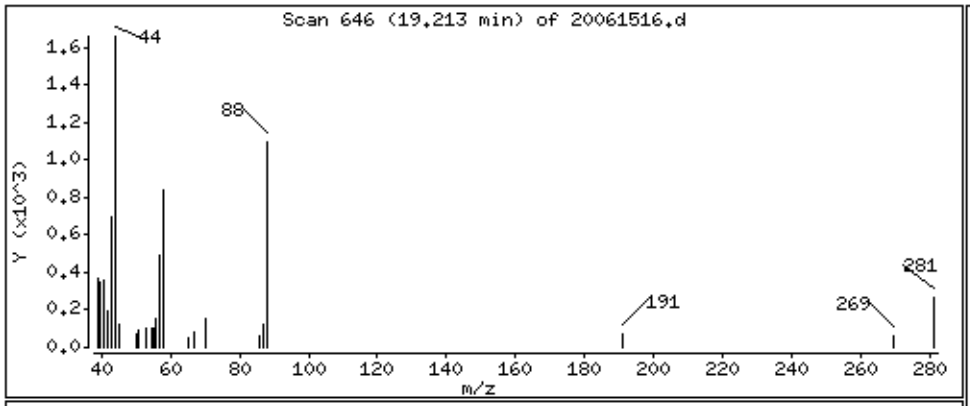
Operator: mjs

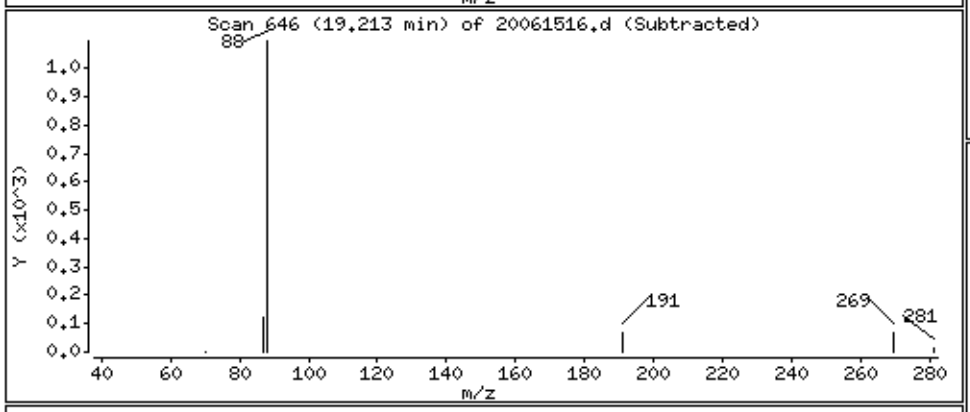
Column phase: RTX-624

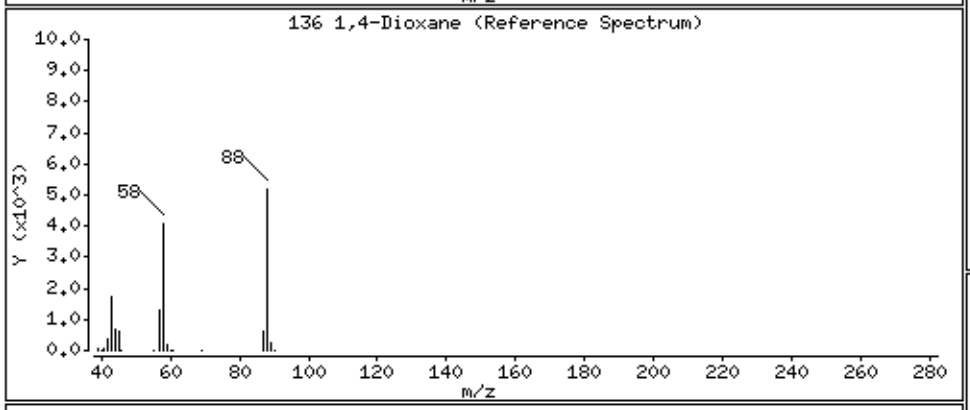
Column diameter: 0.32

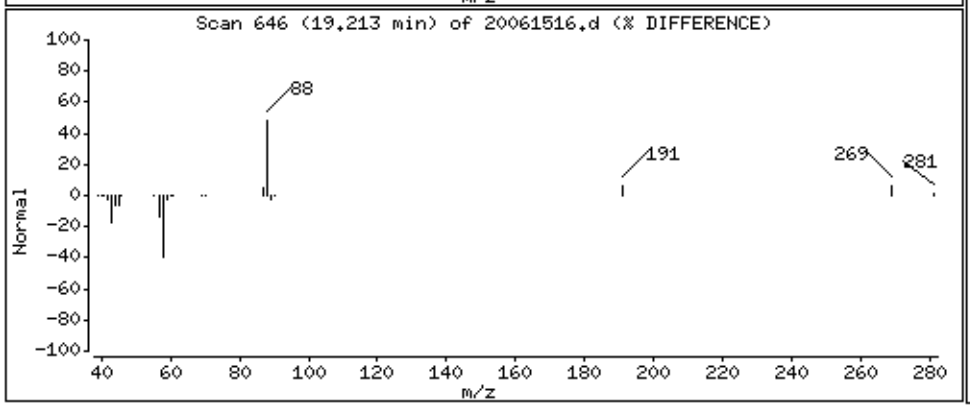
136 1,4-Dioxane

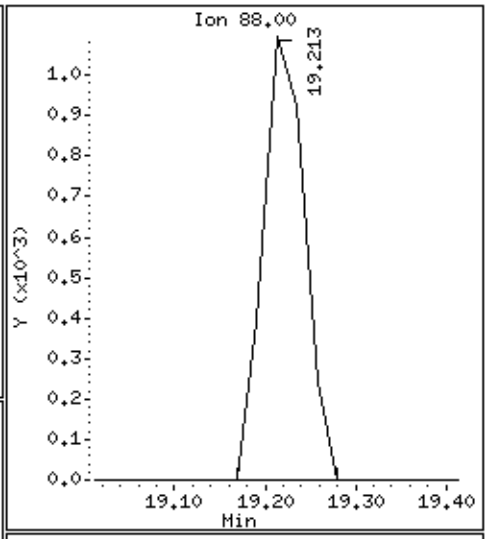
Concentration: 0.1984 PPBV

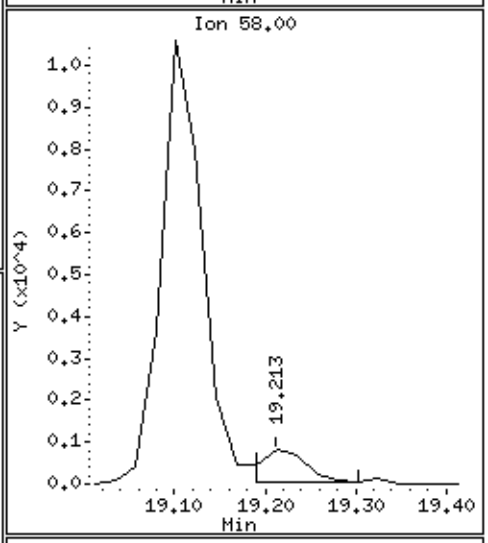


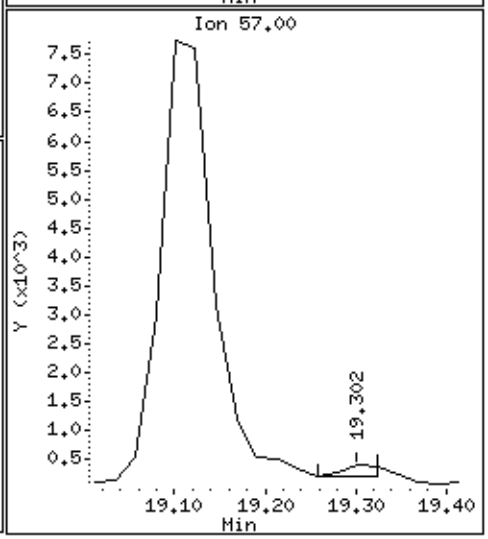












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

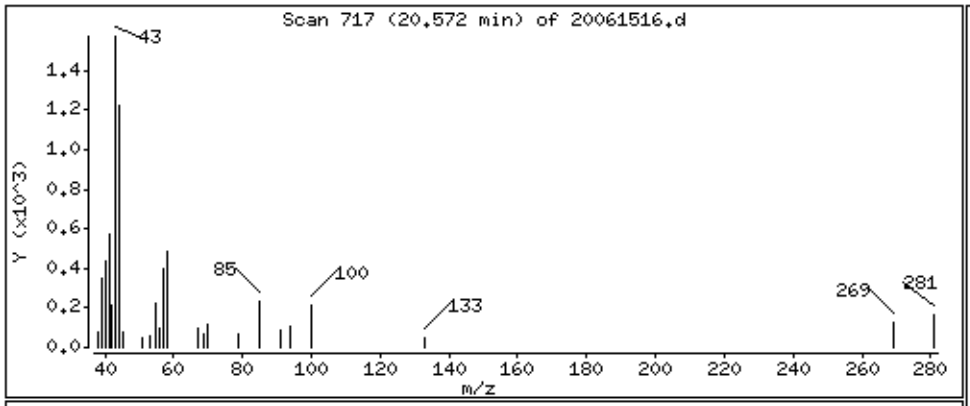
Operator: mjs

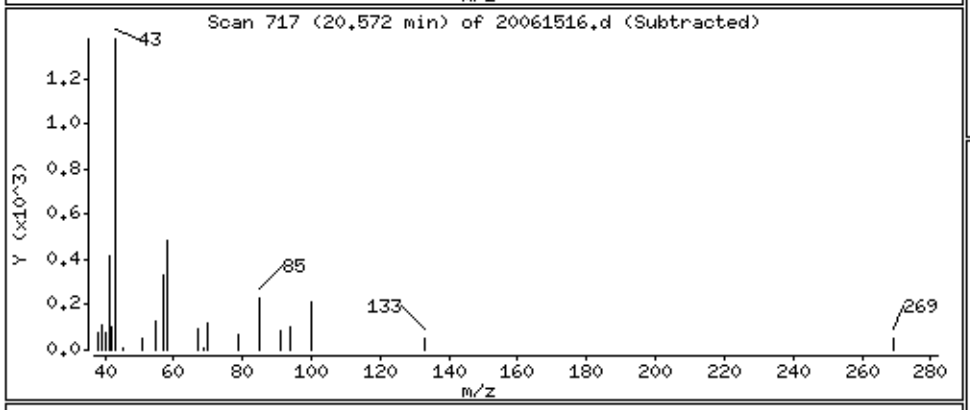
Column phase: RTX-624

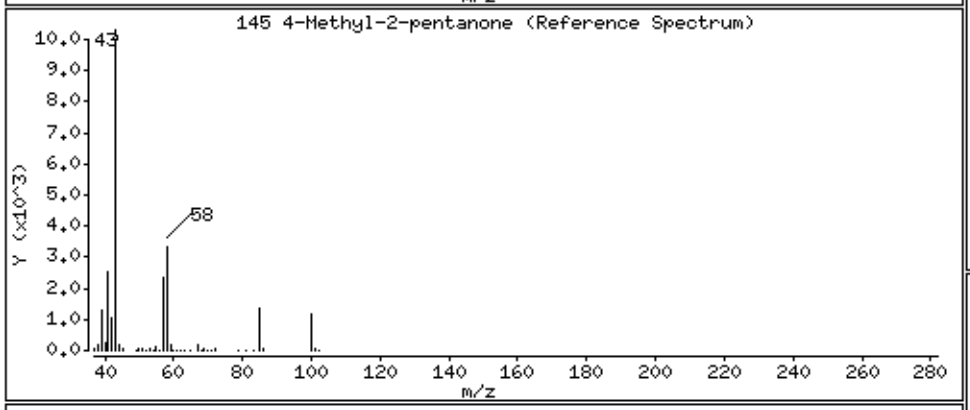
Column diameter: 0.32

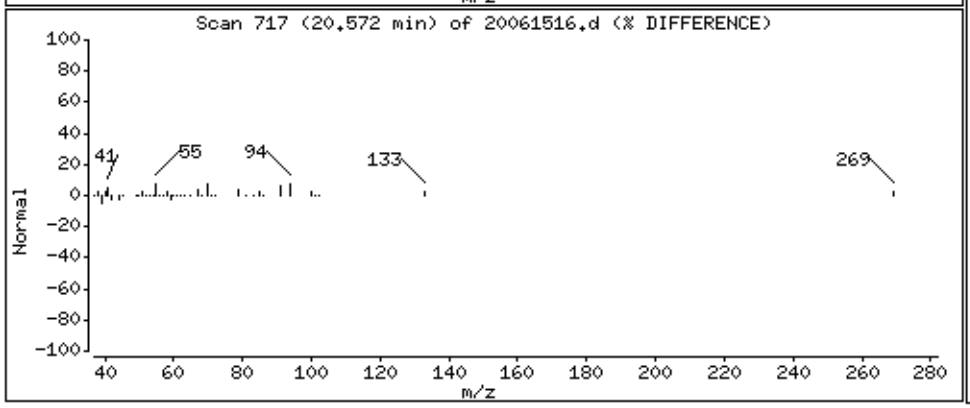
145 4-Methyl-2-pentanone

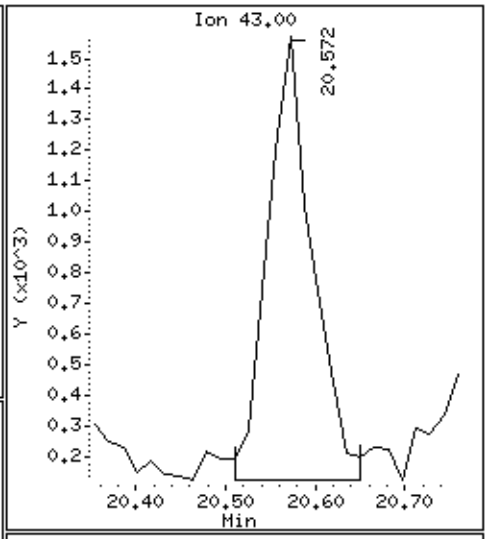
Concentration: 0.1043 PPBV

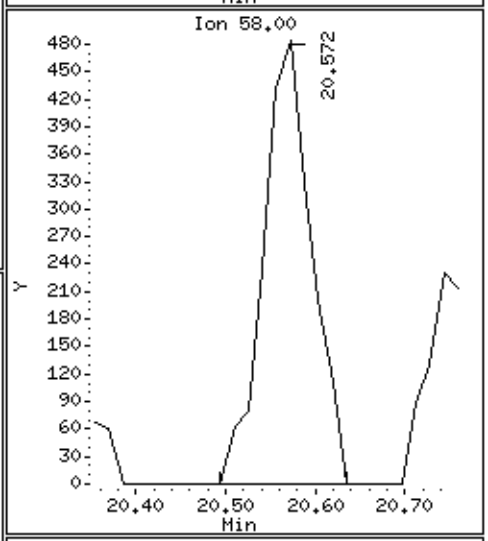


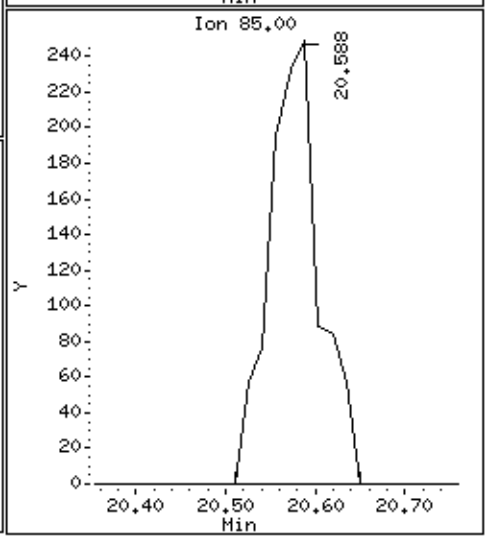












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

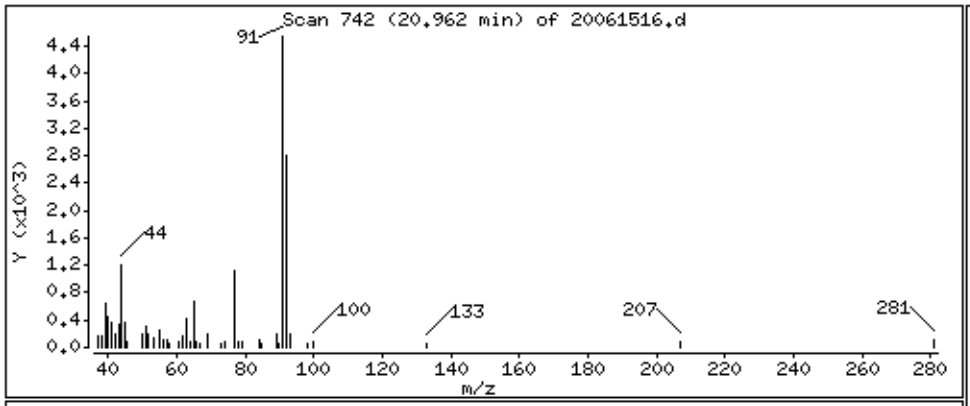
Operator: mjs

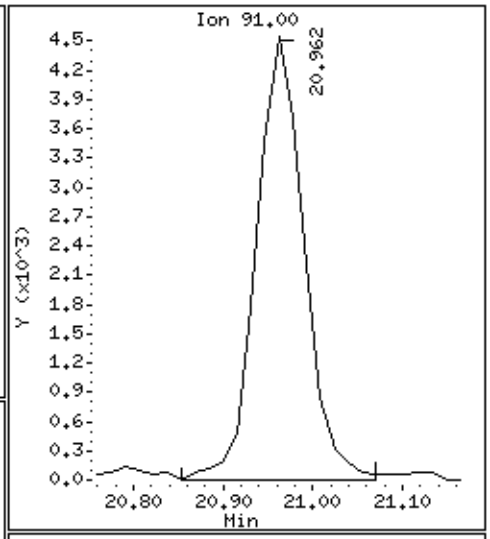
Column phase: RTX-624

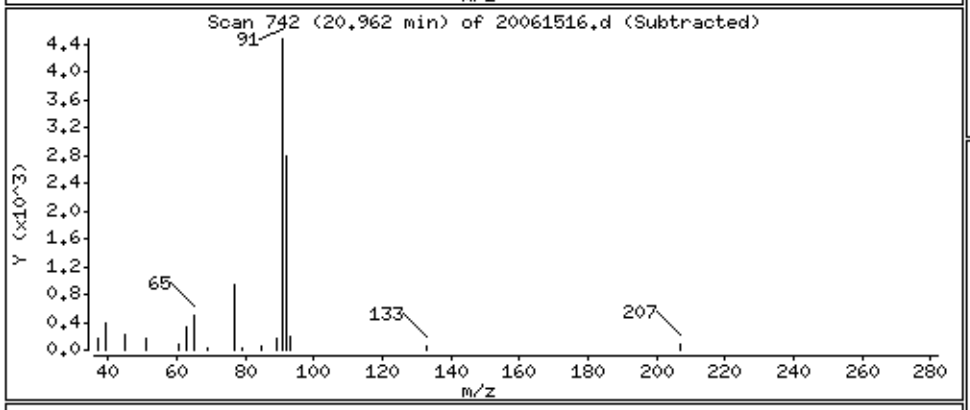
Column diameter: 0.32

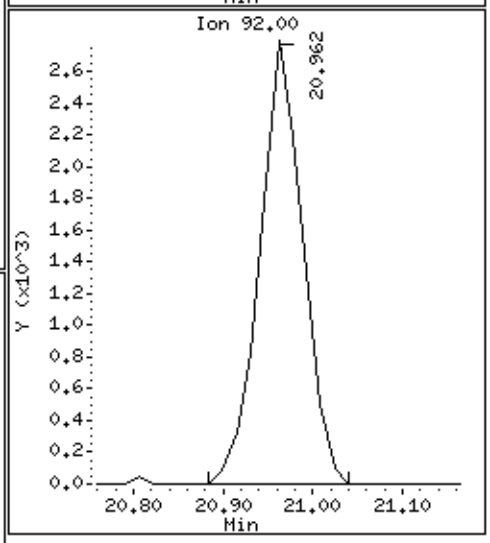
147 Toluene

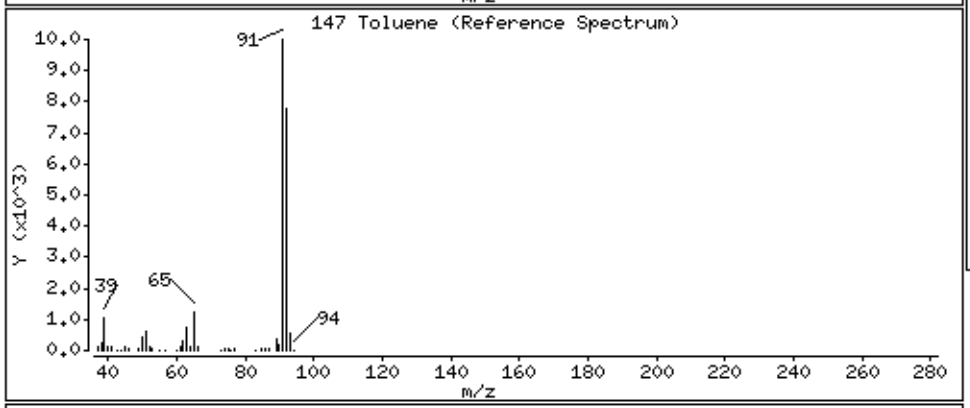
Concentration: 0.2181 PPBV

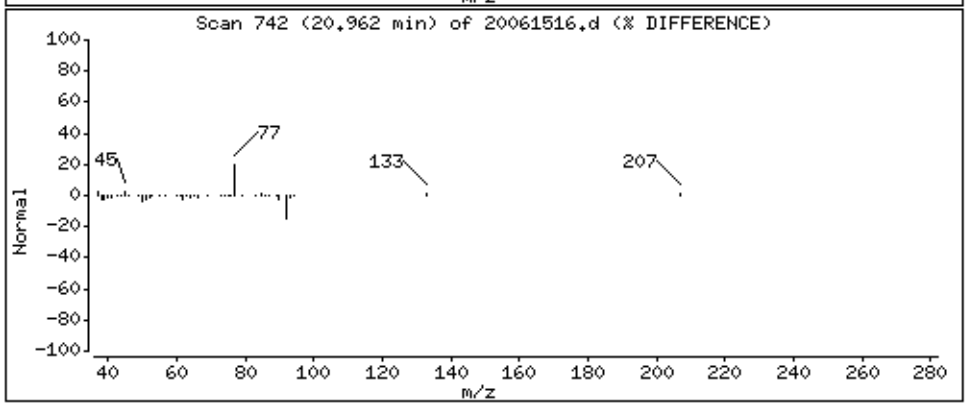












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

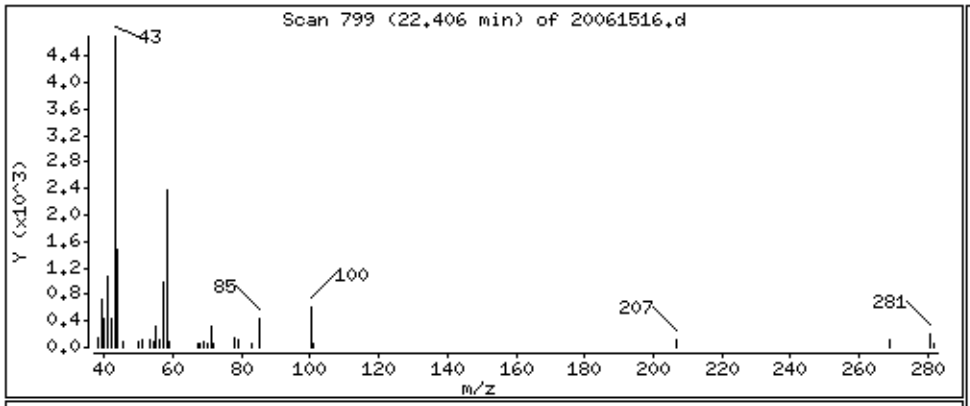
Operator: mjs

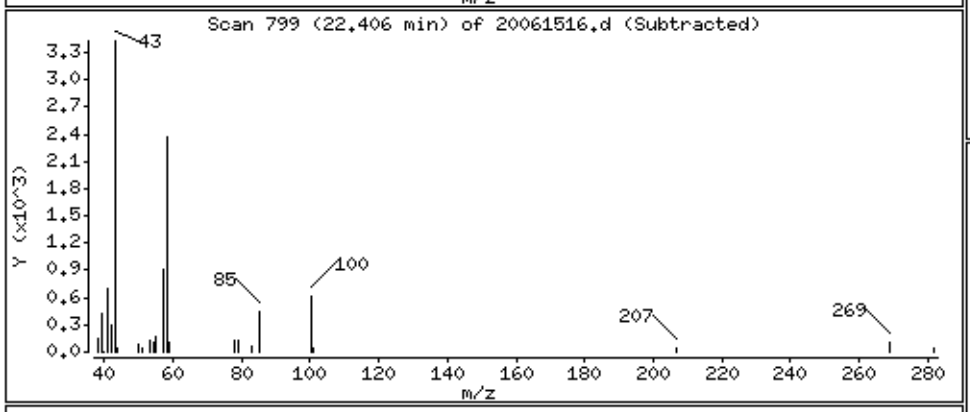
Column phase: RTX-624

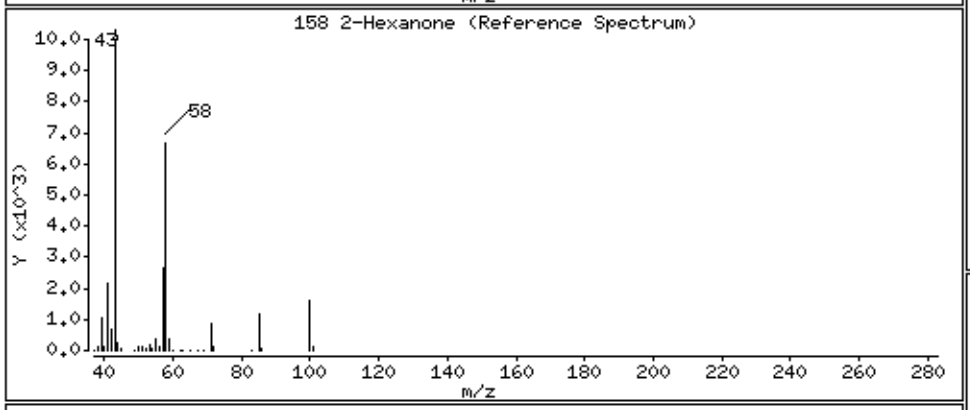
Column diameter: 0.32

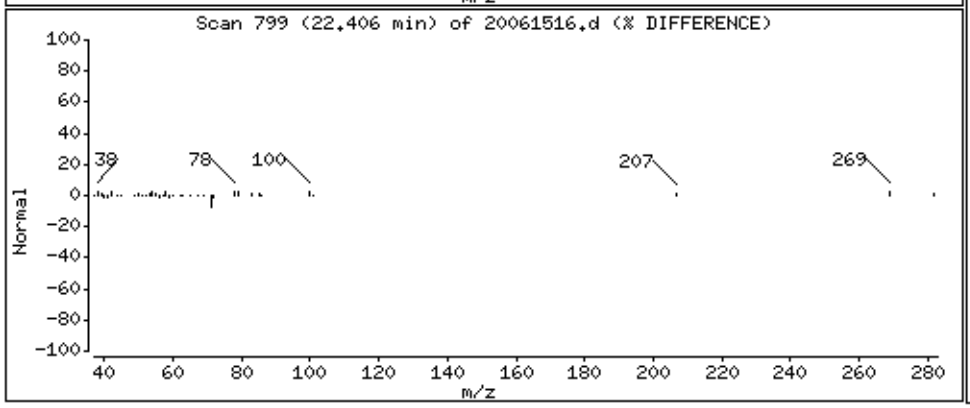
158 2-Hexanone

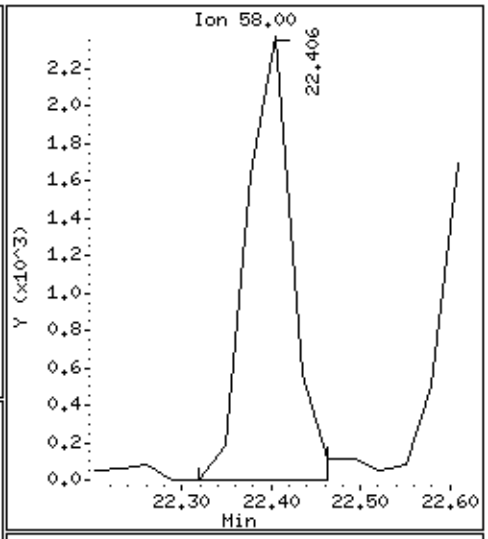
Concentration: 0.3422 PPBV

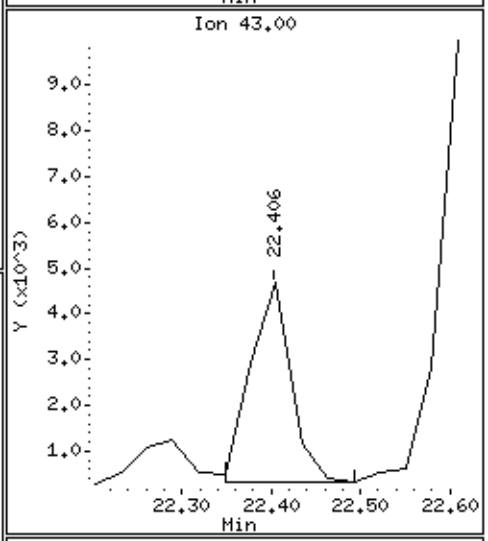


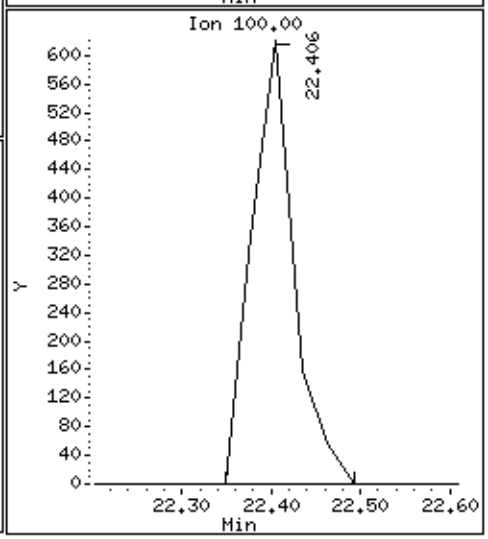












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

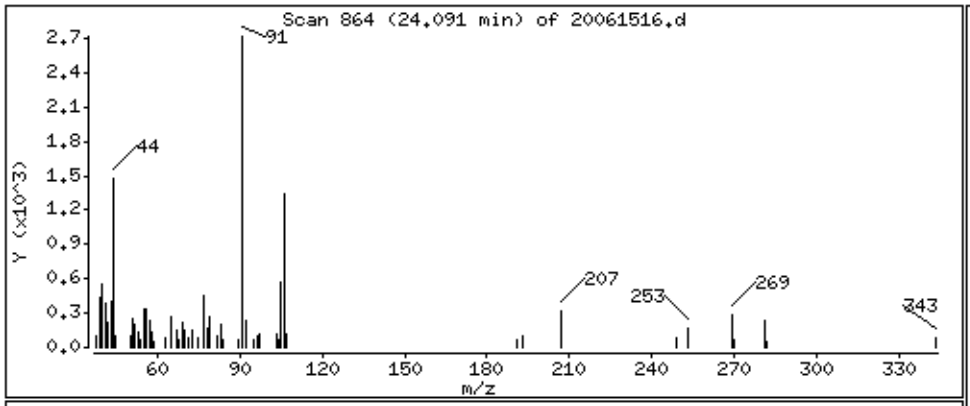
Operator: mjs

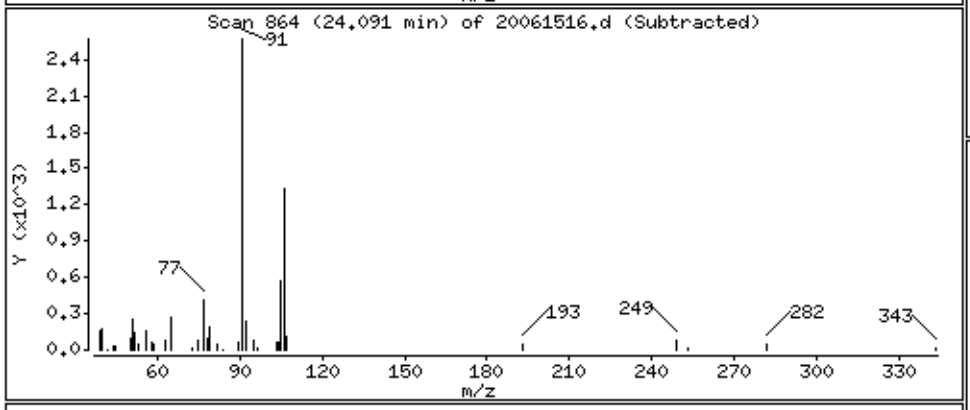
Column phase: RTX-624

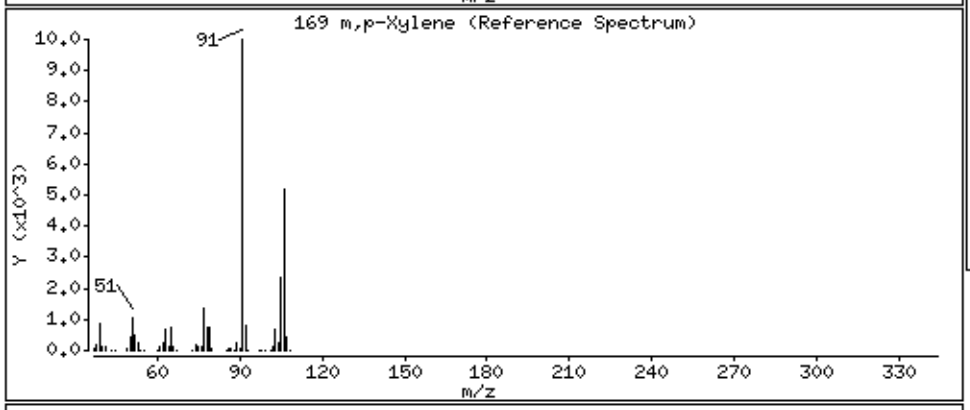
Column diameter: 0.32

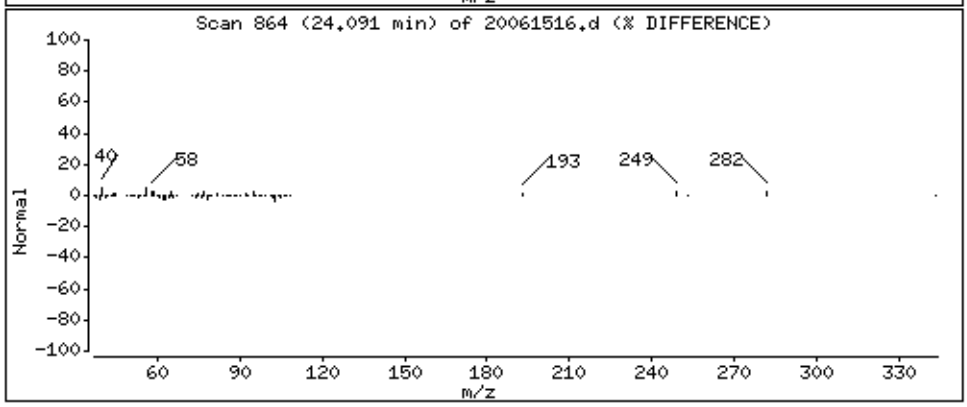
169 m,p-Xylene

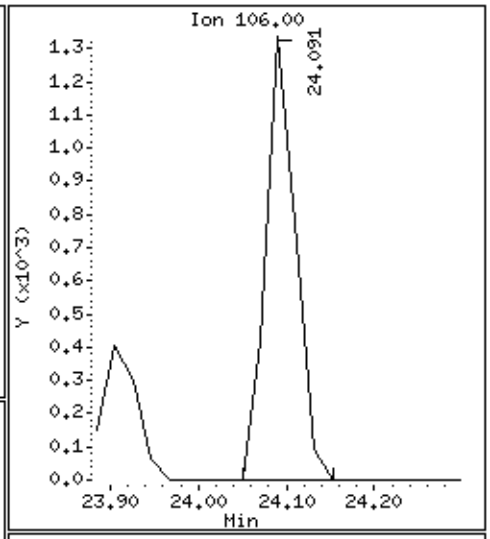
Concentration: 0.09768 PPBV

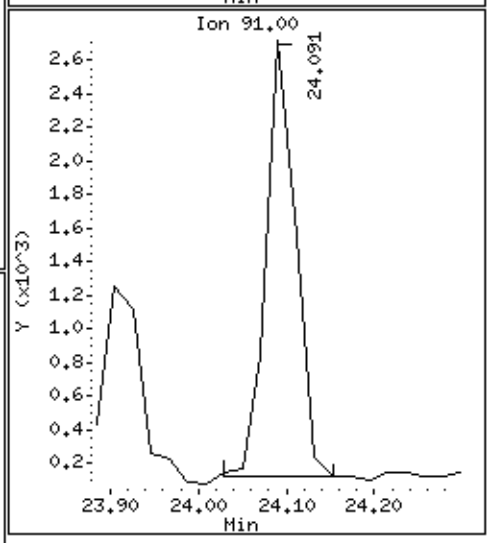












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

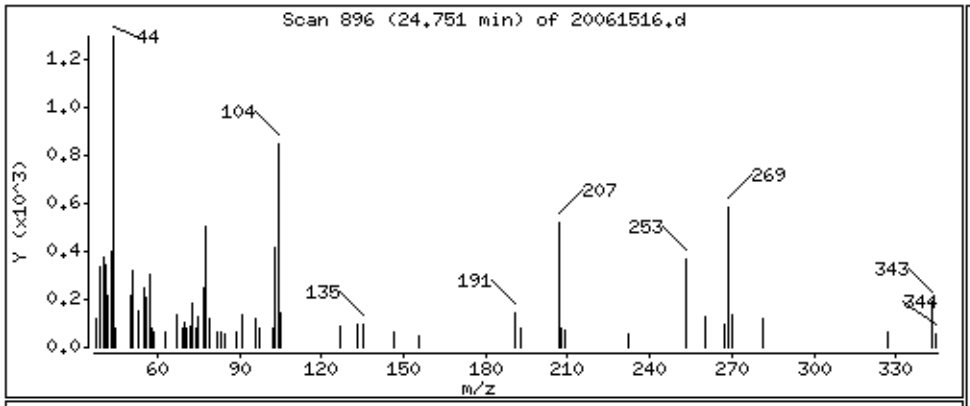
Operator: mjs

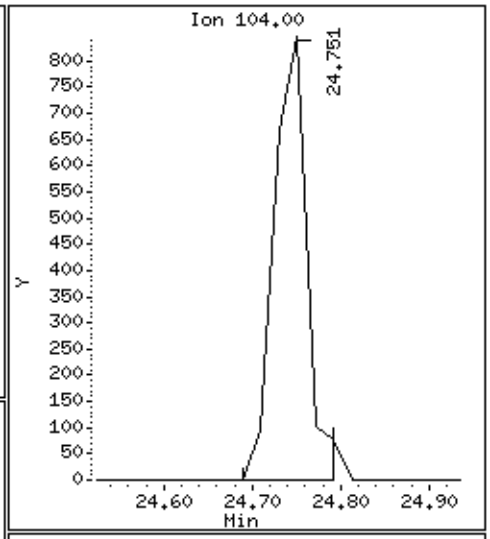
Column phase: RTX-624

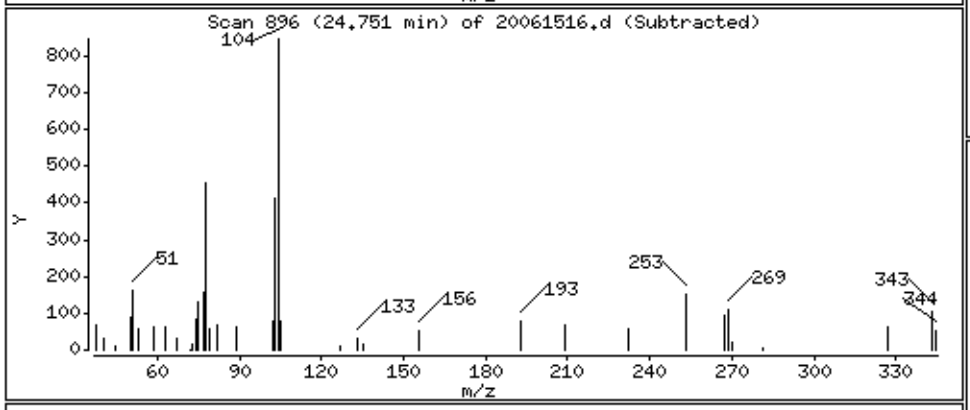
Column diameter: 0.32

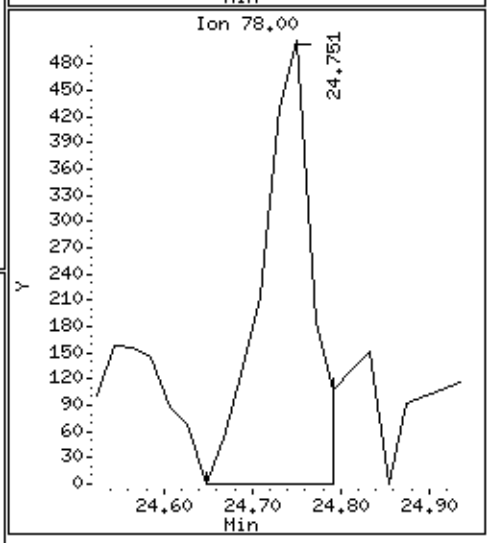
172 Styrene

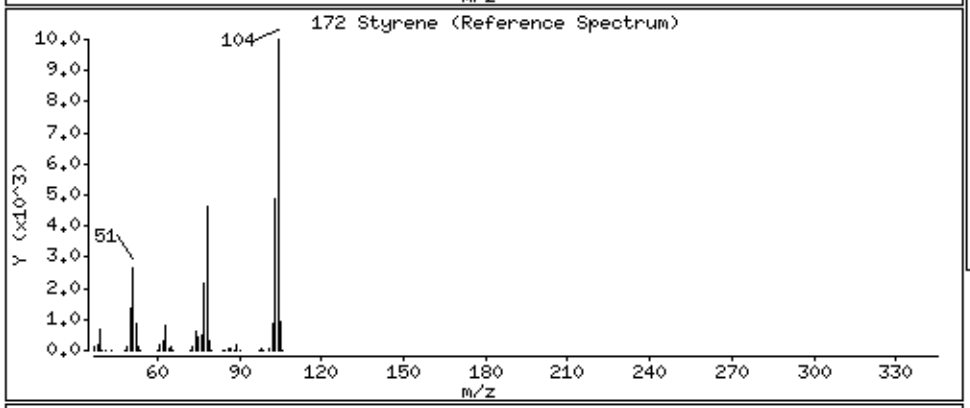
Concentration: 0.04538 PPBV

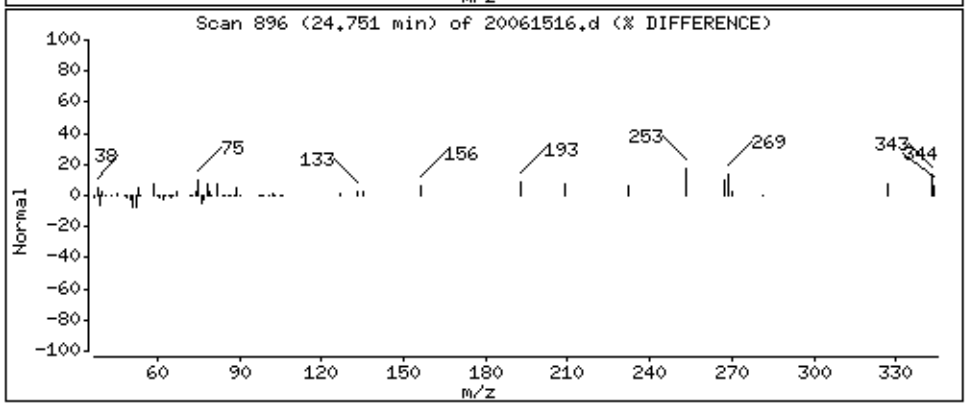












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

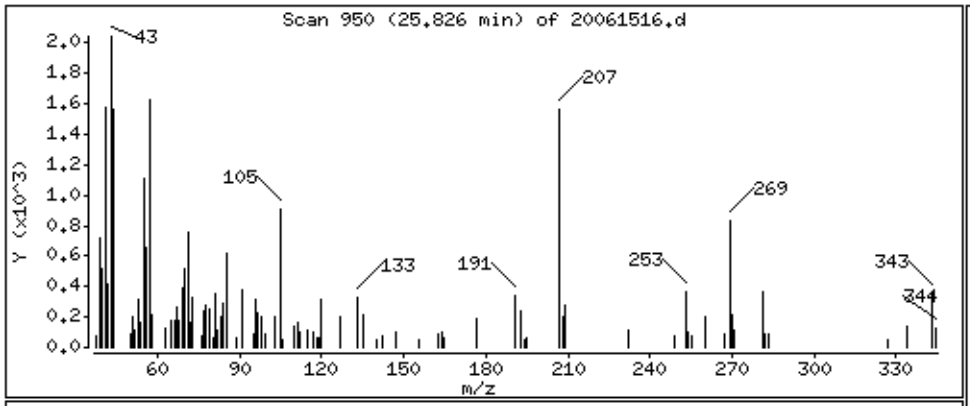
Operator: mjs

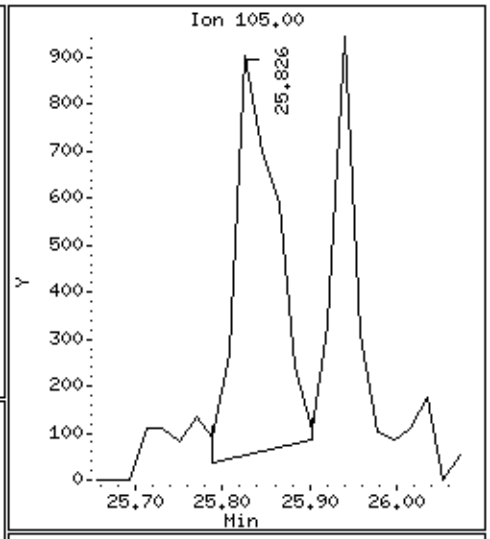
Column phase: RTX-624

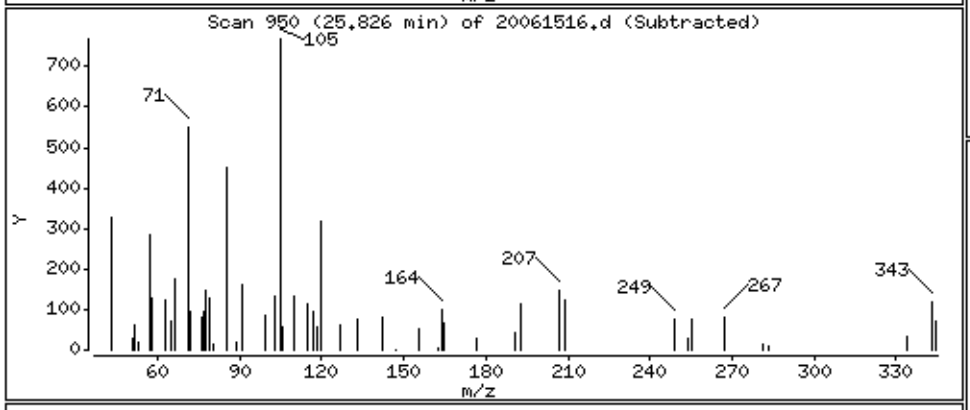
Column diameter: 0.32

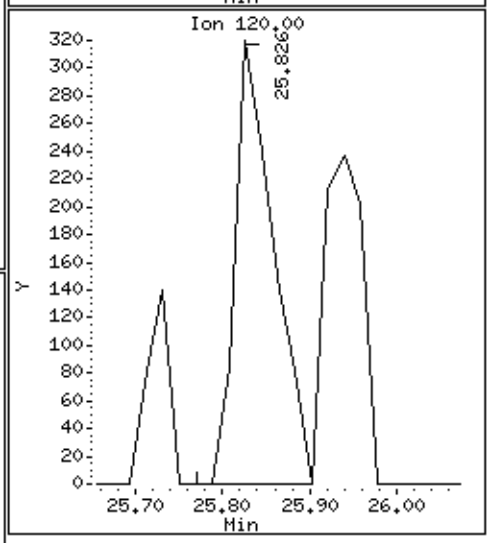
188 4-Ethyltoluene

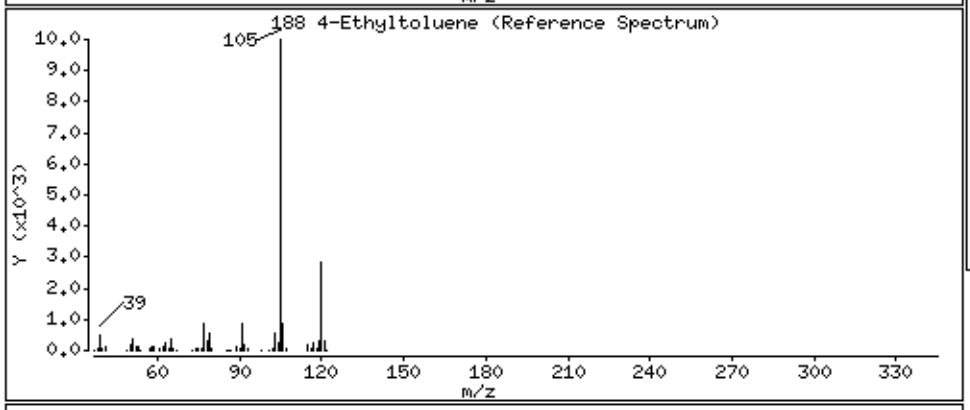
Concentration: 0.03442 PPBV

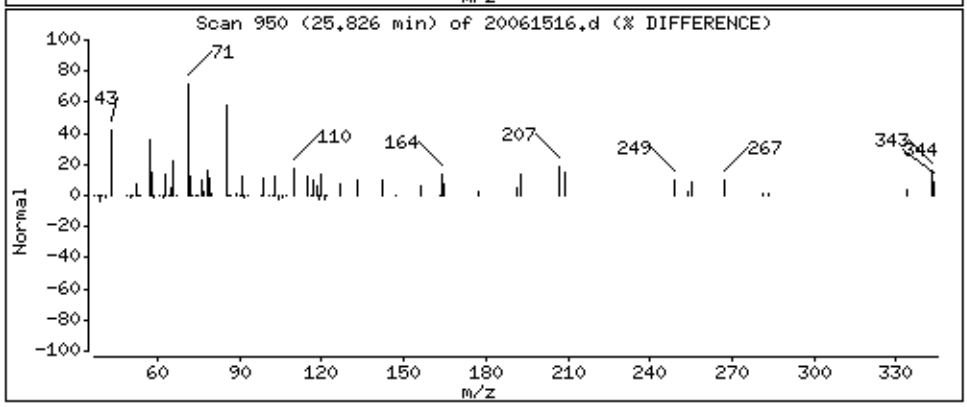












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

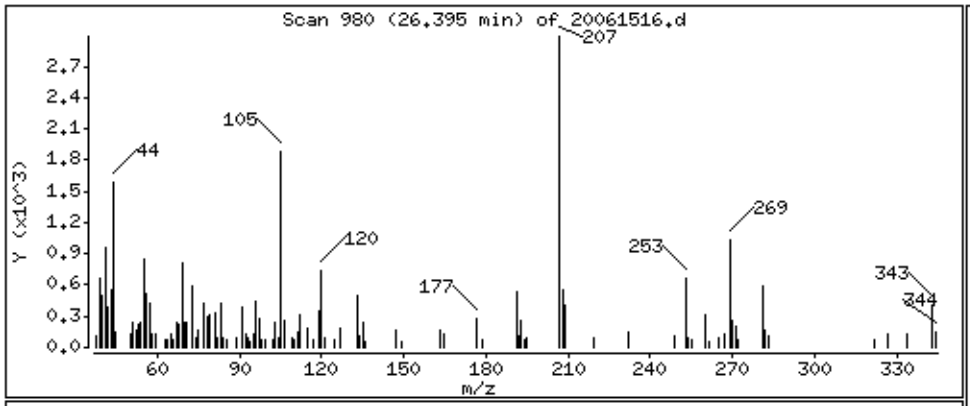
Operator: mjs

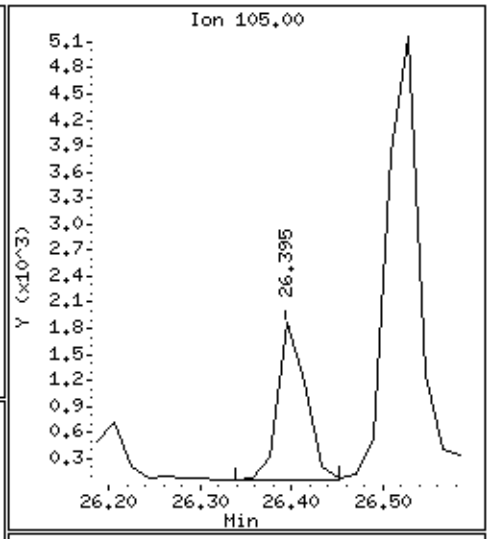
Column phase: RTX-624

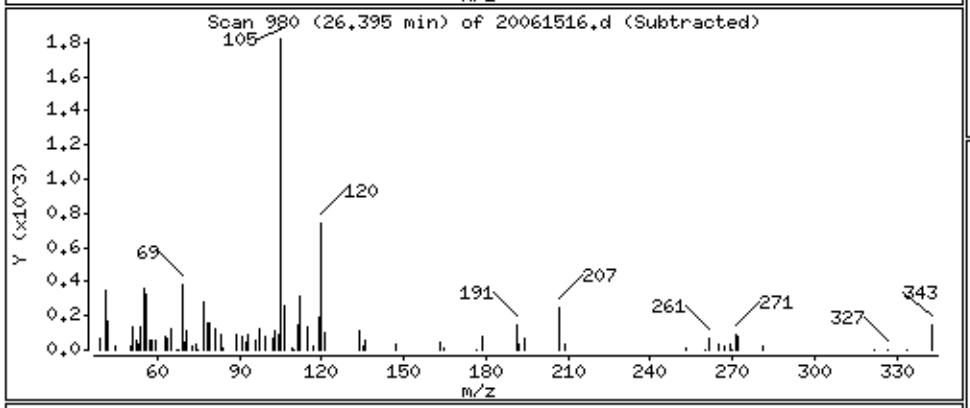
Column diameter: 0.32

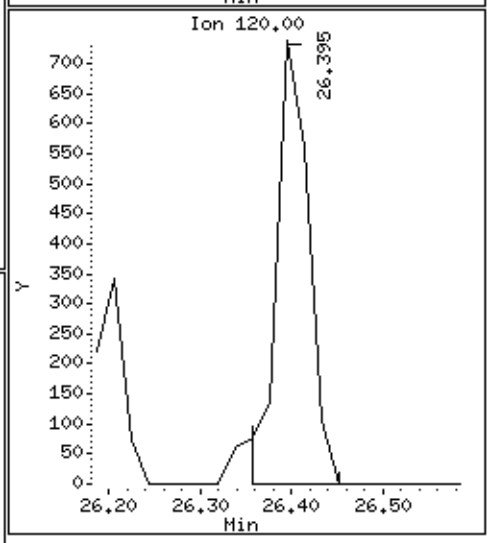
196 1,2,4-Trimethylbenzene

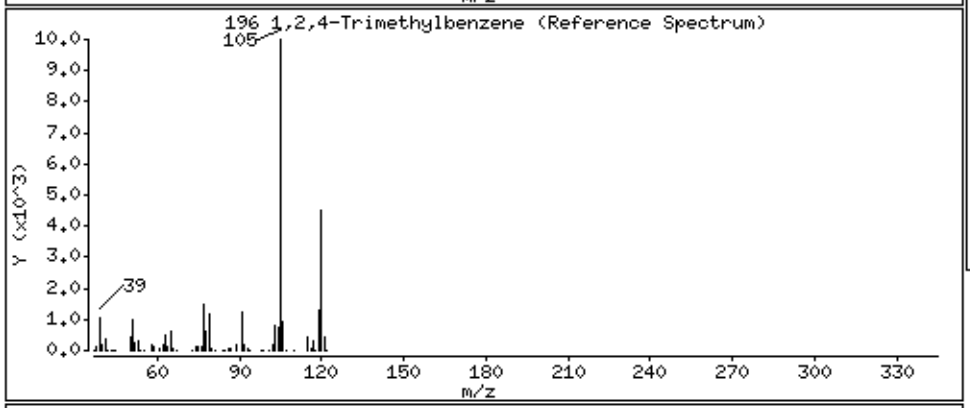
Concentration: 0.05457 PPBV

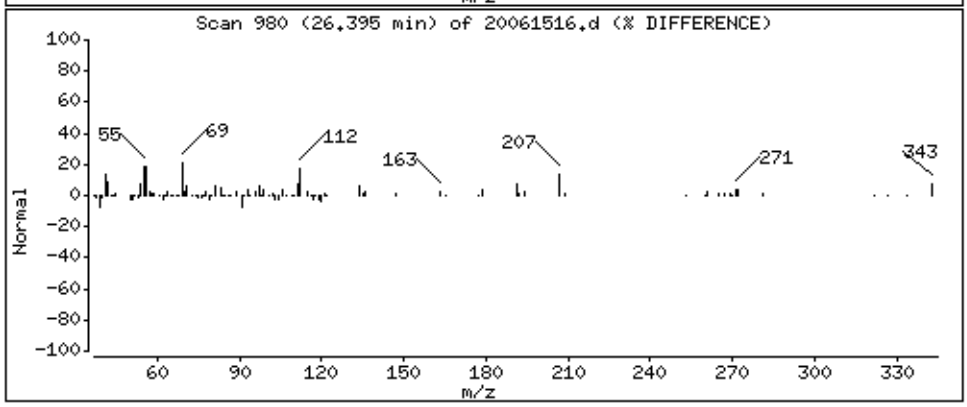












Data File: /chem/msd20.i/15Jun2016.b/20061516.d

Date : 15-JUN-2016 21:41

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0745

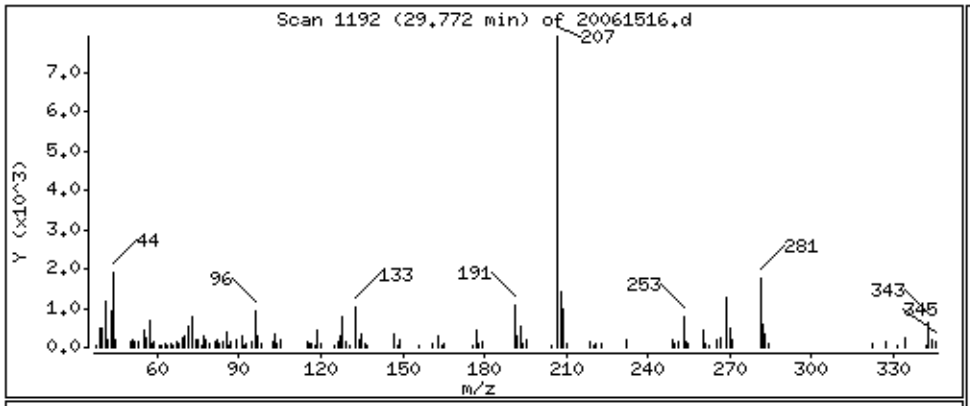
Operator: mjs

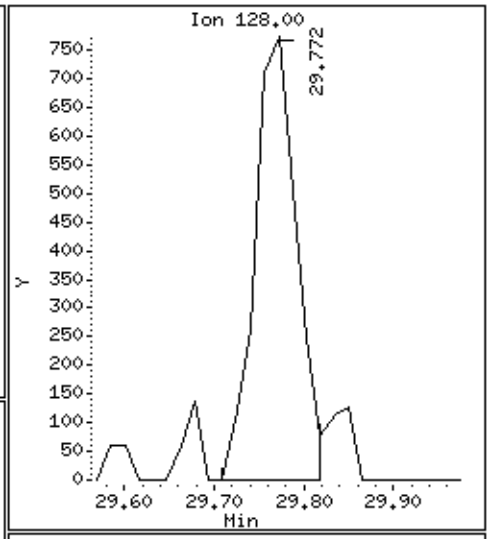
Column phase: RTX-624

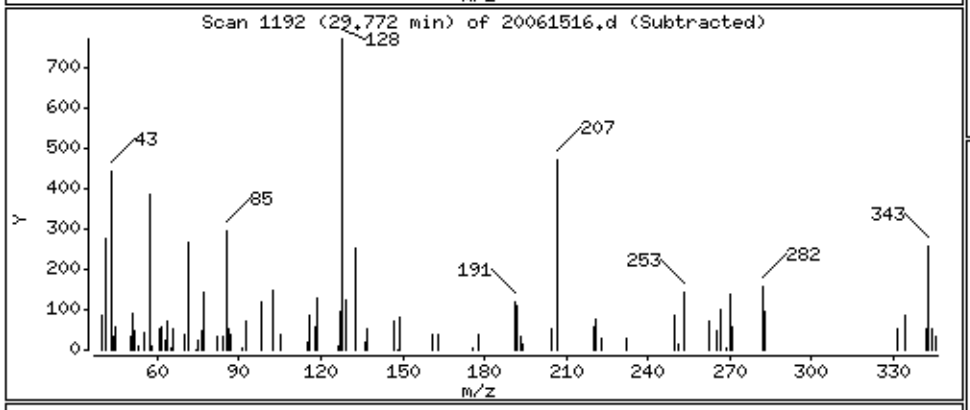
Column diameter: 0.32

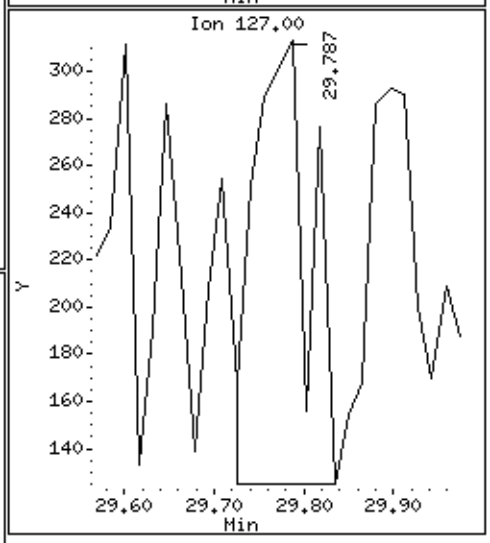
228 Naphthalene

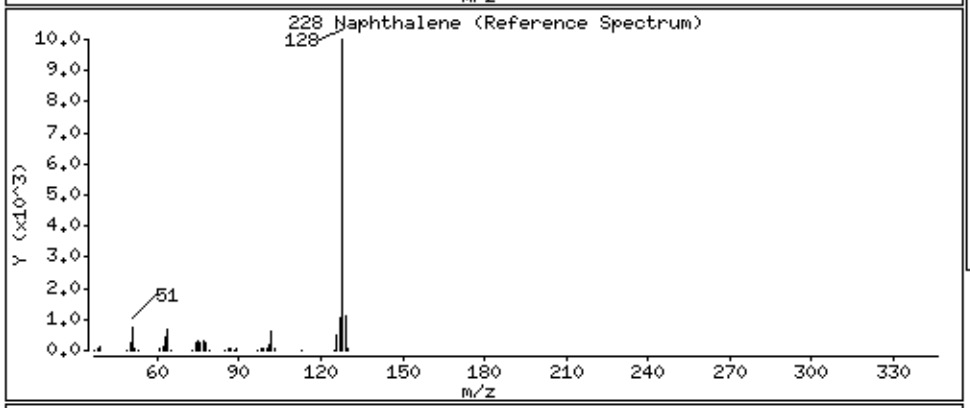
Concentration: 0.03279 PPBV

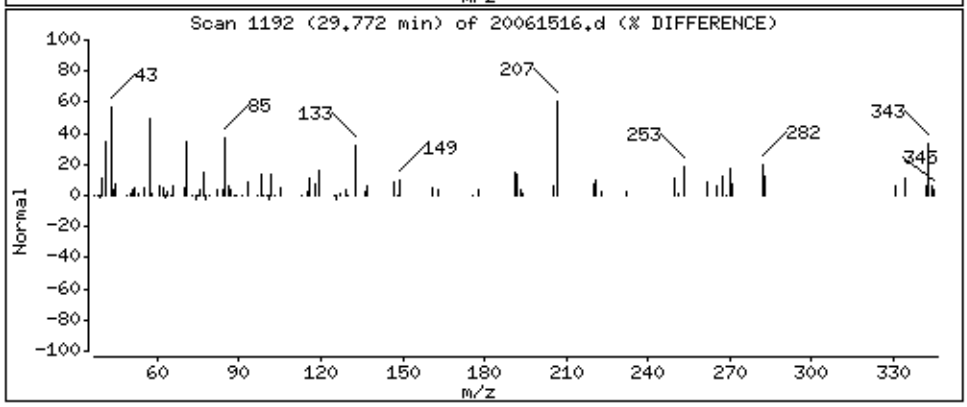












eurofins | Air Toxics

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

Client Sample ID: B7IA-3(061016)

Lab ID#: 1606298A-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.49	0.92	2.4
Chloromethane	0.94	1.0	1.9	2.2
Freon 11	0.19	1.1	1.0	6.1
Ethanol	0.94	26	1.8	48
Freon 113	0.19	0.078 J	1.4	0.59 J
Acetone	0.94	12	2.2	27
2-Propanol	0.94	33	2.3	82
Carbon Disulfide	0.94	0.12 J	2.9	0.39 J
Methylene Chloride	0.37	0.27 J	1.3	0.92 J
Hexane	0.19	0.13 J	0.66	0.46 J
2-Butanone (Methyl Ethyl Ketone)	0.94	1.0	2.8	3.0
Cyclohexane	0.19	0.14 J	0.64	0.48 J
Carbon Tetrachloride	0.19	0.085 J	1.2	0.53 J
Benzene	0.19	0.093 J	0.60	0.30 J
1,2-Dichloroethane	0.19	0.12 J	0.76	0.49 J
Heptane	0.19	0.19 J	0.77	0.76 J
4-Methyl-2-pentanone	0.19	0.074 J	0.77	0.30 J
Toluene	0.19	0.37	0.70	1.4
Ethyl Benzene	0.19	0.073 J	0.81	0.32 J
m,p-Xylene	0.19	0.16 J	0.81	0.69 J
o-Xylene	0.19	0.080 J	0.81	0.34 J
Styrene	0.19	0.11 J	0.80	0.46 J
4-Ethyltoluene	0.19	0.10 J	0.92	0.50 J
1,3,5-Trimethylbenzene	0.19	0.055 J	0.92	0.27 J
1,2,4-Trimethylbenzene	0.19	0.12 J	0.92	0.62 J
Naphthalene	0.94	0.060 J	4.9	0.31 J

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Client Sample ID: B7IA-3(061016)

Lab ID#: 1606298A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061517**	**Date of Collection:**	**6/11/16 7:47:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**6/15/16 10:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.49	0.92	2.4
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.94	1.0	1.9	2.2
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected
1,3-Butadiene	0.19	Not Detected	0.41	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
Freon 11	0.19	1.1	1.0	6.1
Ethanol	0.94	26	1.8	48
Freon 113	0.19	0.078 J	1.4	0.59 J
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	12	2.2	27
2-Propanol	0.94	33	2.3	82
Carbon Disulfide	0.94	0.12 J	2.9	0.39 J
3-Chloropropene	0.94	Not Detected	2.9	Not Detected
Methylene Chloride	0.37	0.27 J	1.3	0.92 J
Methyl tert-butyl ether	0.19	Not Detected	0.67	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Hexane	0.19	0.13 J	0.66	0.46 J
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	1.0	2.8	3.0
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Tetrahydrofuran	0.94	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.91	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	0.14 J	0.64	0.48 J
Carbon Tetrachloride	0.19	0.085 J	1.2	0.53 J
2,2,4-Trimethylpentane	0.94	Not Detected	4.4	Not Detected
Benzene	0.19	0.093 J	0.60	0.30 J
1,2-Dichloroethane	0.19	0.12 J	0.76	0.49 J
Heptane	0.19	0.19 J	0.77	0.76 J
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.86	Not Detected
1,4-Dioxane	0.19	Not Detected	0.67	Not Detected
Bromodichloromethane	0.19	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
4-Methyl-2-pentanone	0.19	0.074 J	0.77	0.30 J
Toluene	0.19	0.37	0.70	1.4
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.94	Not Detected	3.8	Not Detected

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Client Sample ID: B7IA-3(061016)

Lab ID#: 1606298A-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061517**	**Date of Collection:**	**6/11/16 7:47:00 PM**
Dil. Factor:	**1.87**	**Date of Analysis:**	**6/15/16 10:20 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	0.073 J	0.81	0.32 J
m,p-Xylene	0.19	0.16 J	0.81	0.69 J
o-Xylene	0.19	0.080 J	0.81	0.34 J
Styrene	0.19	0.11 J	0.80	0.46 J
Bromoform	0.19	Not Detected	1.9	Not Detected
Cumene	0.19	Not Detected	0.92	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	Not Detected	0.92	Not Detected
4-Ethyltoluene	0.19	0.10 J	0.92	0.50 J
1,3,5-Trimethylbenzene	0.19	0.055 J	0.92	0.27 J
1,2,4-Trimethylbenzene	0.19	0.12 J	0.92	0.62 J
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	6.9	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected
Naphthalene	0.94	0.060 J	4.9	0.31 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061517.d
Lab Smp Id: 1606298A-04A
Inj Date : 15-JUN-2016 22:20
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL #6L0678
Misc Info : 8.4"Hg -> 5.1psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.87000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	103227	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	81686			47.16- 107.16	79.13
16.726	16.726 (1.000)	49	130120			84.74- 144.74	126.05
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	469340	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	74887			0.00- 45.65	15.96
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	384928	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	211316			24.05- 84.05	54.90
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	162260	5.90852	5.908	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	83123			28.75- 88.75	51.23
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.822	20.821 (1.142)	98	446832	5.02417	5.024	80.00- 120.00	100.00
20.822	20.806 (1.142)	70	51771			0.00- 41.22	11.59

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.822	20.821 (1.142)	100	301655			37.90- 97.90	67.51
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	202929	4.79504	4.795	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	251992			88.33- 148.33	124.18
25.485	25.485 (1.073)	176	193293			68.77- 128.77	95.25
11 Freon 12					CAS #: 75-71-8		
4.697	4.672 (0.281)	85	21367	0.26353	0.4928	80.00- 120.00	100.00
4.721	4.648 (0.282)	87	6366			2.50- 62.50	29.79
17 Chloromethane					CAS #: 74-87-3		
6.625	6.552 (0.396)	50	14859	0.56363	1.054	80.00- 120.00	100.00
6.649	6.552 (0.398)	52	5125			3.09- 63.09	34.49
35 Freon 11					CAS #: 75-69-4		
11.138	11.114 (0.666)	101	46188	0.57980	1.084	80.00- 120.00	100.00
11.138	11.114 (0.666)	103	29798			34.69- 94.69	64.52
42 Ethanol					CAS #: 64-17-5		
12.297	12.269 (0.735)	45	144658	13.7652	25.741	80.00- 120.00	100.00
12.297	12.269 (0.735)	46	60645			11.01- 71.01	41.92
12.269	12.269 (0.734)	43	32462			0.00- 50.63	22.44
49 Freon 113					CAS #: 76-13-1		
12.764	12.763 (0.763)	151	2421	0.04146	0.07753	80.00- 120.00	100.00(a)
12.764	12.763 (0.763)	153	1442			34.65- 94.65	59.57
12.764	12.763 (0.763)	101	2953			90.37- 150.37	121.99
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	95214	6.17512	11.547	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	293607			275.09- 335.09	308.36
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.120 (0.784)	76	5811	0.06683	0.1250	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
13.533	13.532 (0.809)	45	880016	17.7418	33.177	80.00- 120.00	100.00
13.533	13.532 (0.809)	43	182389			0.00- 49.91	20.73
13.533	13.532 (0.809)	59	37508			0.00- 34.18	4.26
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	4784	0.14253	0.2665	80.00- 120.00	100.00(a)
14.027	14.027 (0.839)	49	6044			88.46- 148.46	126.34
14.027	14.027 (0.839)	51	2207			6.78- 66.78	46.14

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	3528	0.07043	0.1317	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	4490			31.00- 91.00	127.27
14.878	14.878 (0.889)	86	530			0.00- 49.39	15.03
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	8964	0.54543	1.020	80.00- 120.00	100.00
16.365	16.344 (0.978)	43	50526			324.50- 384.50	563.60
16.344	16.344 (0.977)	57	2544			0.00- 59.24	28.39
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.034 (1.018)	84	3693	0.07395	0.1383	80.00- 120.00	100.00(a)
17.035	17.034 (1.018)	56	5140			77.49- 137.49	139.17
17.035	17.034 (1.018)	41	3802			25.74- 85.74	102.96
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2548	0.04545	0.08500	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	2322			73.36- 133.36	91.14
116 Benzene					CAS #: 71-43-2		
17.621	17.620 (0.966)	78	5419	0.04985	0.09323	80.00- 120.00	100.00(a)
17.621	17.620 (0.966)	77	1617			0.00- 53.54	29.84
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	2966	0.06435	0.1203	80.00- 120.00	100.00(a)
17.744	17.744 (0.973)	64	1338			1.40- 61.40	45.11
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	3057	0.09971	0.1864	80.00- 120.00	100.00(a)
17.847	17.847 (0.979)	100	922			10.87- 70.87	30.16
17.847	17.847 (0.979)	43	5978			148.15- 208.15	195.51
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.556 (1.128)	43	3071	0.03975	0.07434	80.00- 120.00	100.00(a)
20.572	20.556 (1.128)	58	1096			11.51- 71.51	35.69
20.572	20.556 (1.128)	85	657			0.00- 48.80	21.39
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	24426	0.19633	0.3671	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	15273			30.55- 90.55	62.53
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.905 (1.006)	106	1852	0.03884	0.07262	80.00- 120.00	100.00(a)
23.906	23.905 (1.006)	91	4765			278.69- 338.69	257.25
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	4423	0.08501	0.1590	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
169 m,p-Xylene (continued)							
24.091	24.091 (1.014)	91	8350			164.82- 224.82	188.78
171 o-Xylene						CAS #: 95-47-6	
24.710	24.710 (1.040)	106	2168	0.04257	0.07961	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	4594			174.08- 234.08	211.89
172 Styrene						CAS #: 100-42-5	
24.751	24.730 (1.042)	104	4484	0.05720	0.1070	80.00- 120.00	100.00(a)
24.731	24.730 (1.041)	78	2333			19.76- 79.76	52.05
188 4-Ethyltoluene						CAS #: 622-96-8	
25.826	25.864 (1.087)	105	7206	0.05493	0.1027	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	2284			0.68- 60.68	31.71
190 1,3,5-Trimethylbenzene						CAS #: 108-67-8	
25.940	25.940 (1.092)	105	3403	0.02930	0.05480	80.00- 120.00	100.00(a)
25.940	25.940 (1.092)	120	1873			21.16- 81.16	55.07
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6	
26.395	26.395 (1.111)	105	7699	0.06717	0.1256	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	3879			18.29- 78.29	50.39
228 Naphthalene						CAS #: 91-20-3	
29.772	29.772 (1.253)	128	3942	0.03186	0.05958	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	1108			0.00- 43.33	28.11

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: msd20.i
Lab File ID: 20061517.d
Lab Smp Id: 1606298A-04A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 8.4"Hg -> 5.1psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	103227	-12.21
123 1,4-Difluorobenze	491034	294620	687448	469340	-4.42
163 Chlorobenzene-d5	413171	247903	578439	384928	-6.84

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:01

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-04A
Level: LOW Operator: mjs
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 8.4"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.908	118.17	70-130
$ 146 Toluene-d8	5.000	5.024	100.48	70-130
$ 177 4-Bromofluorobenze	5.000	4.795	95.90	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

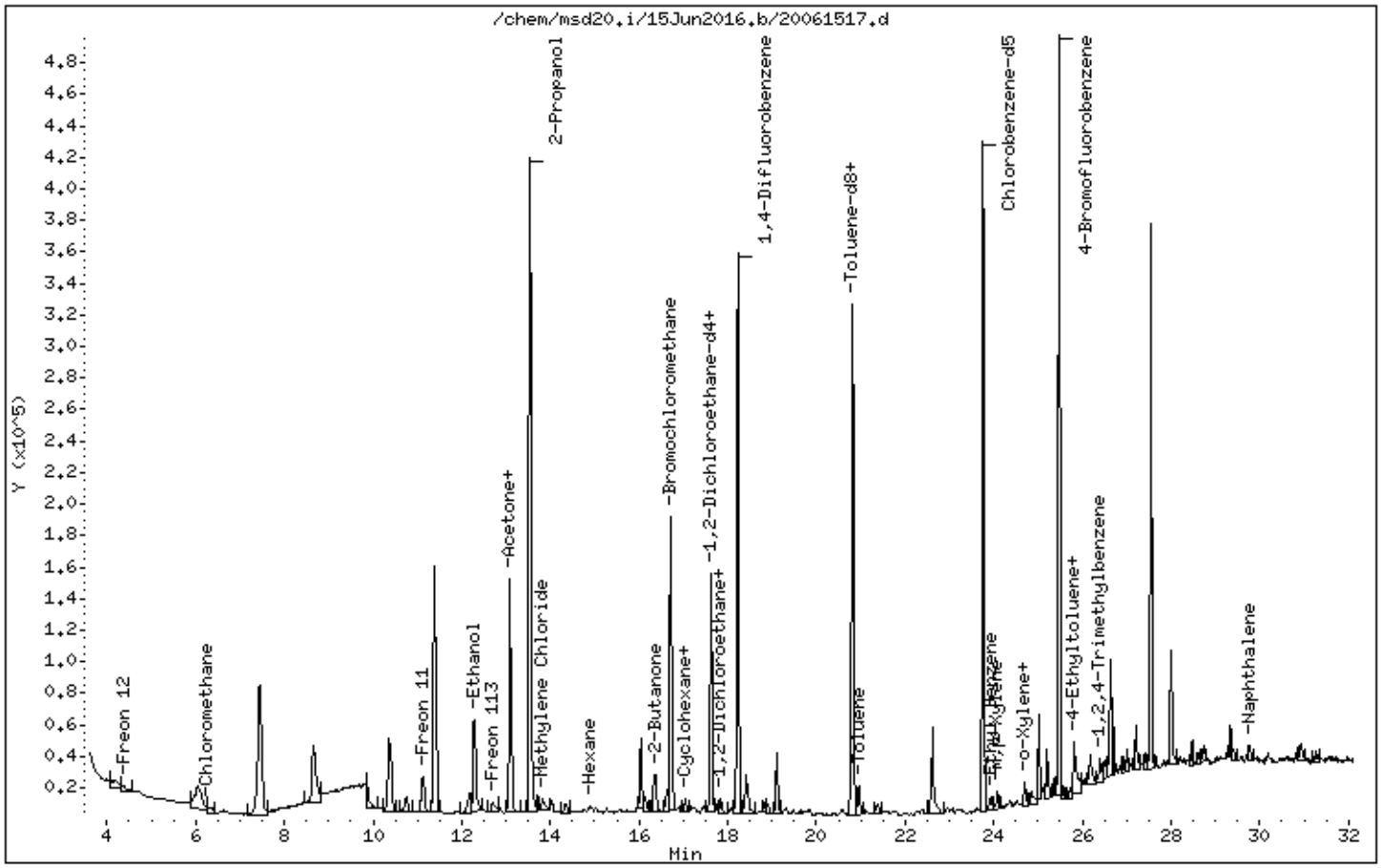
Instrument: msd20.i

Sample Info: 250mL #6L0678

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

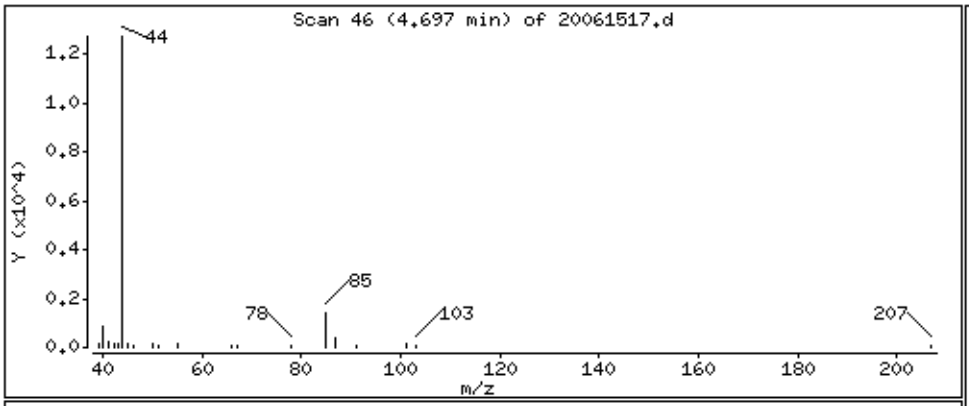
Operator: mjs

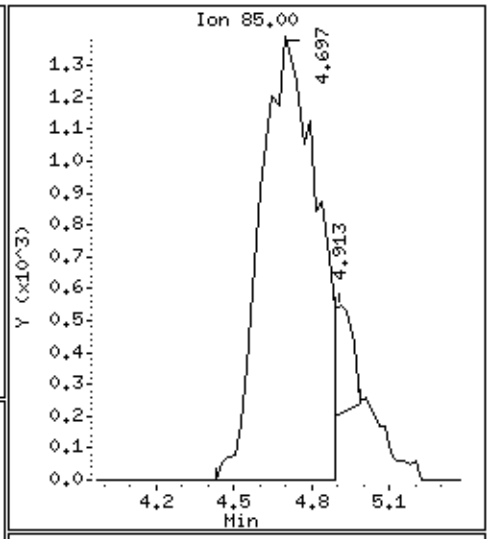
Column phase: RTX-624

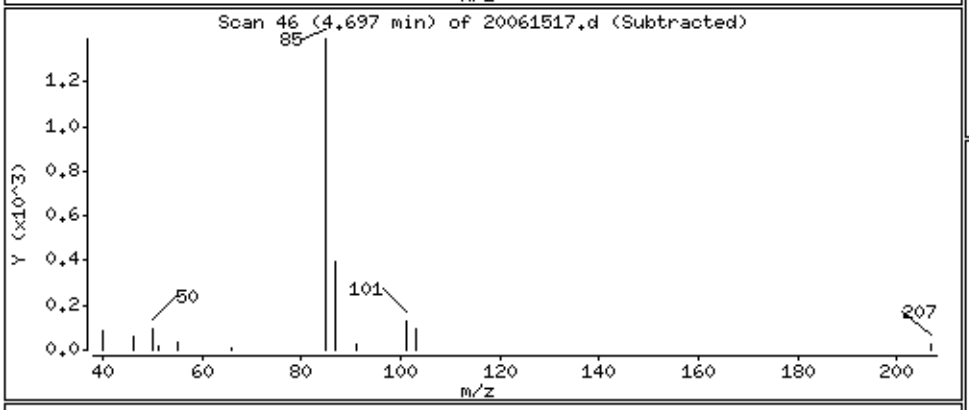
Column diameter: 0.32

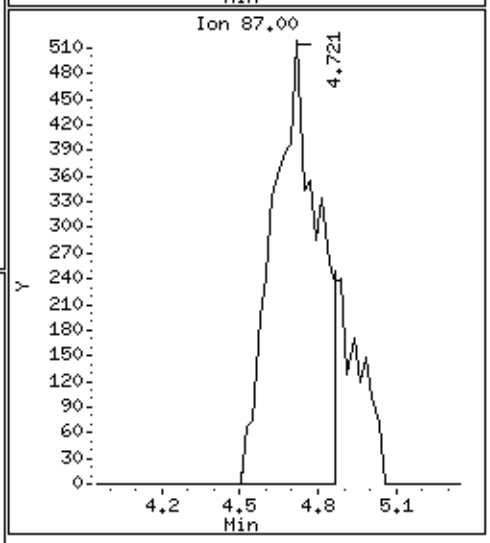
11 Freon 12

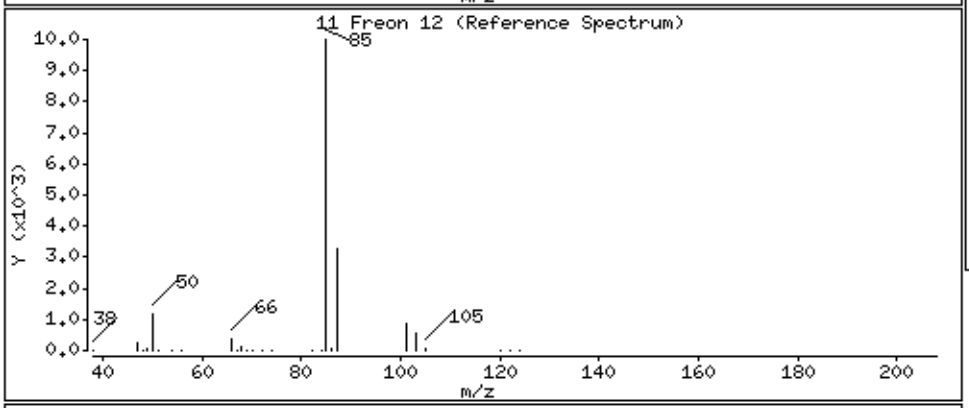
Concentration: 0.4928 PPBV

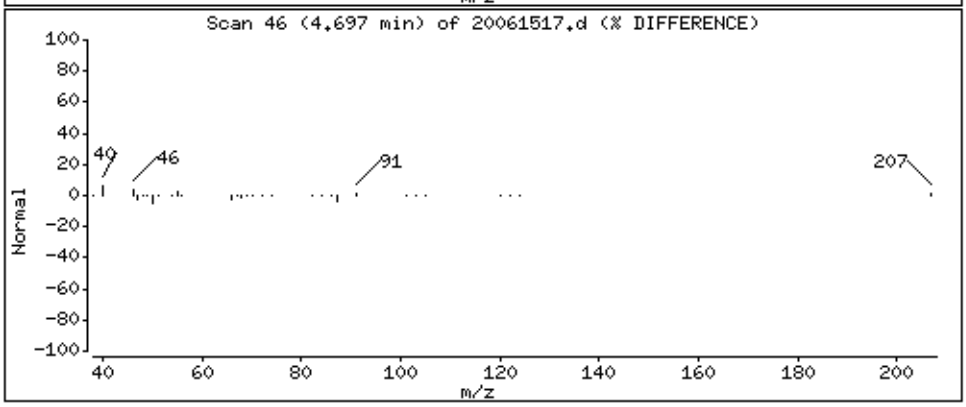












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

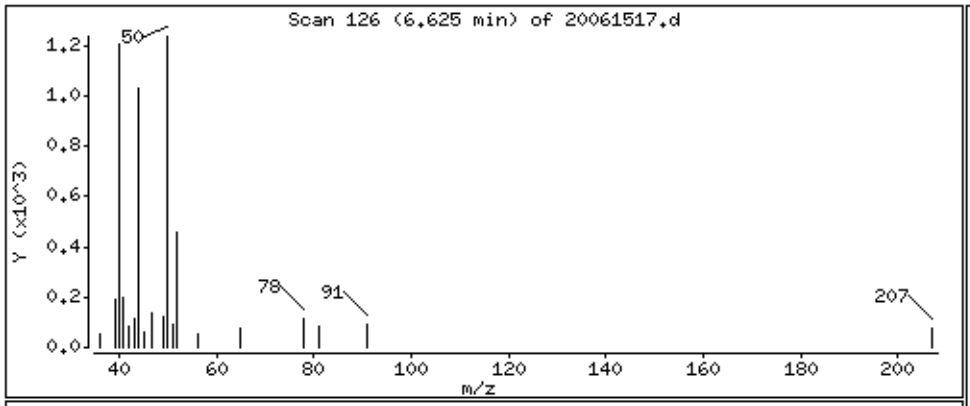
Operator: mjs

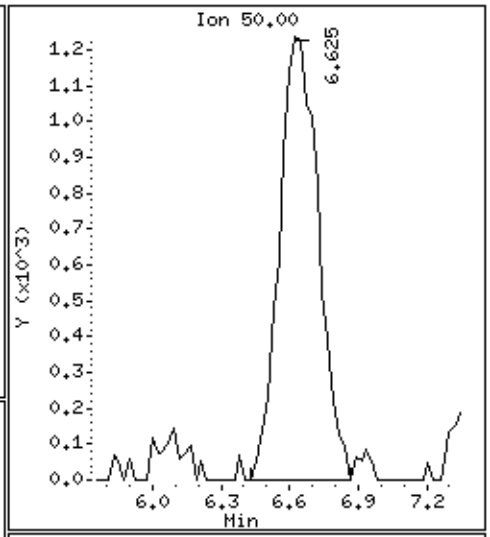
Column phase: RTX-624

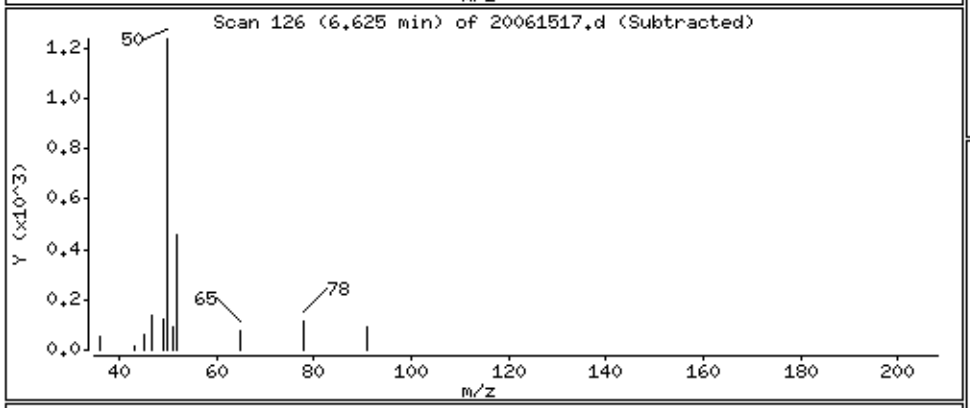
Column diameter: 0.32

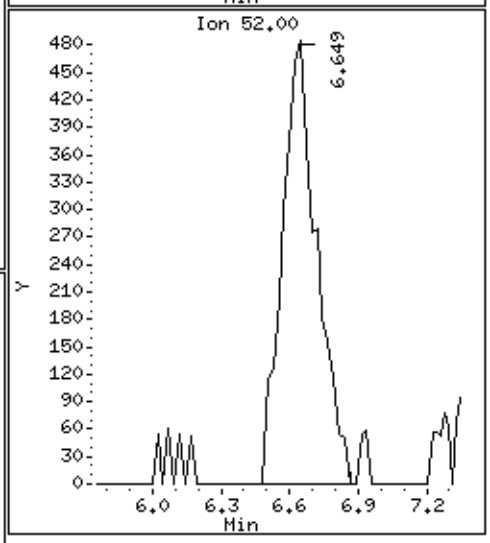
17 Chloromethane

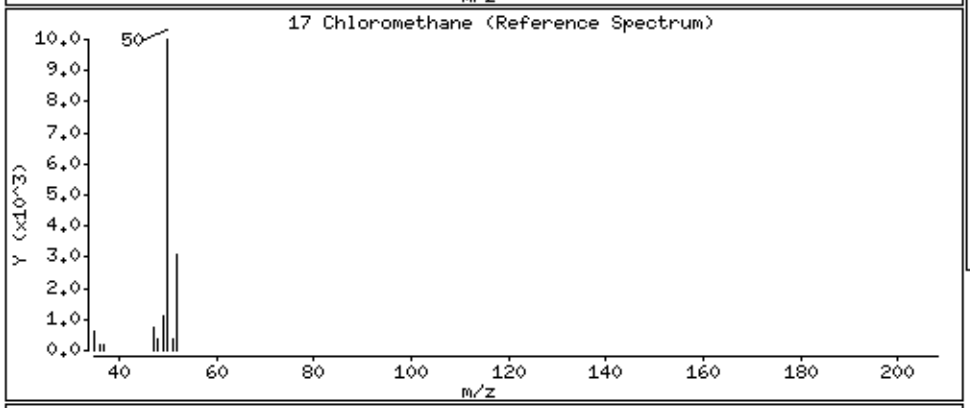
Concentration: 1.054 PPBV

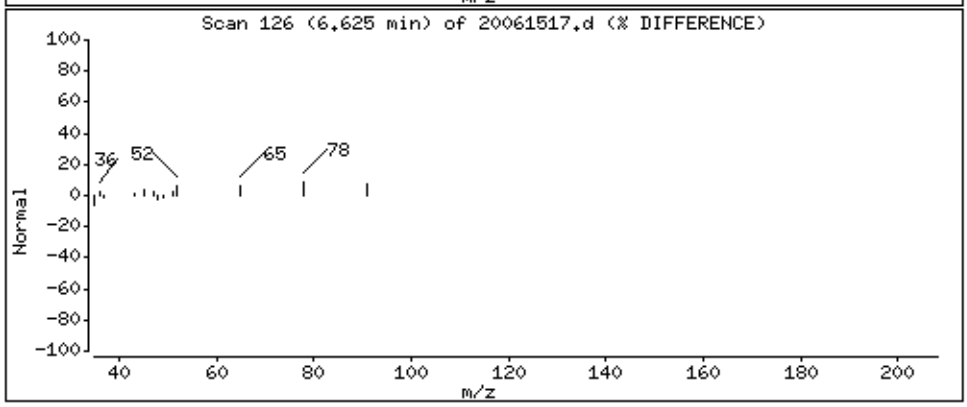












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

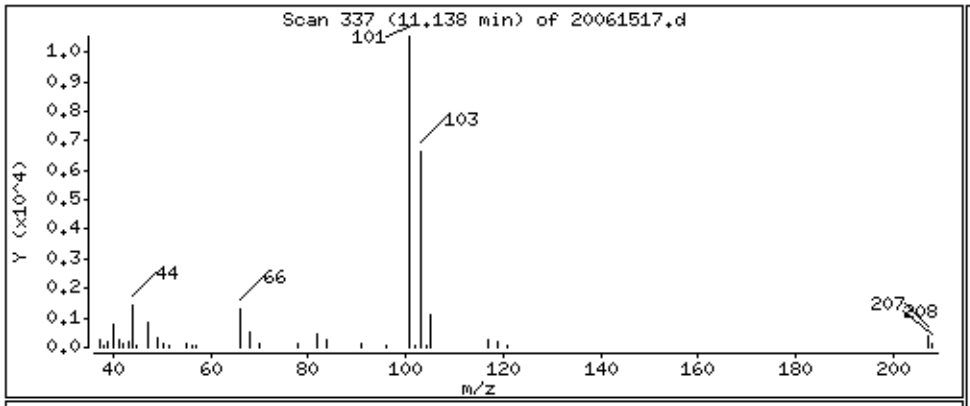
Operator: mjs

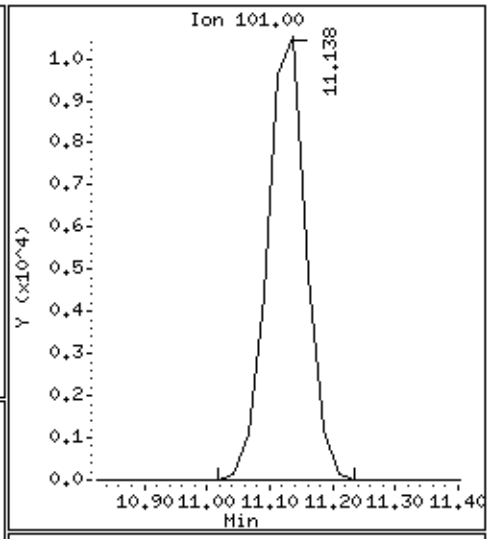
Column phase: RTX-624

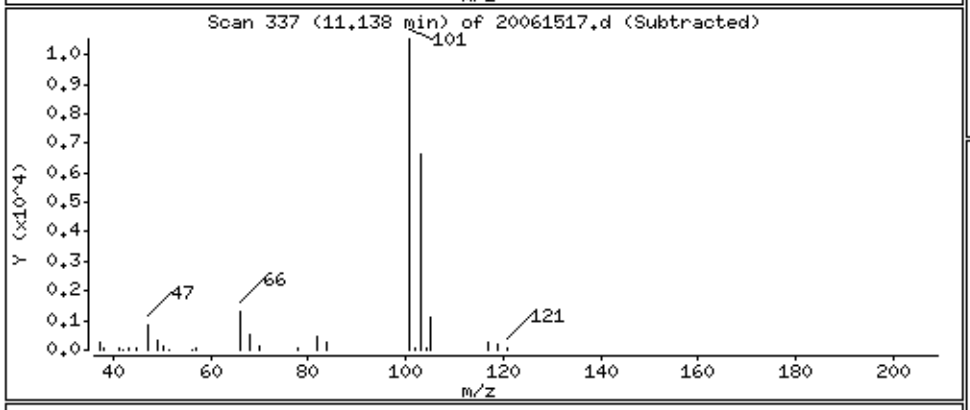
Column diameter: 0.32

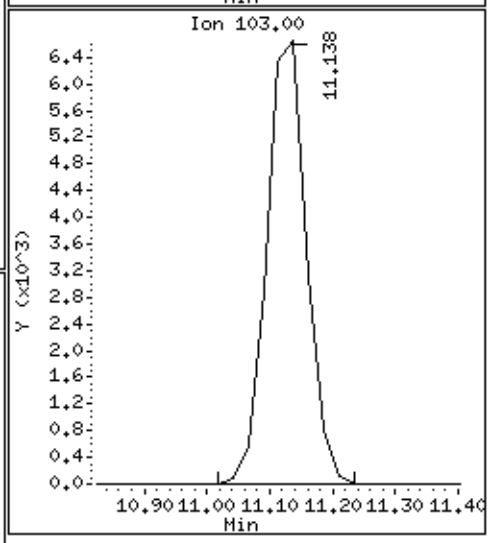
35 Freon 11

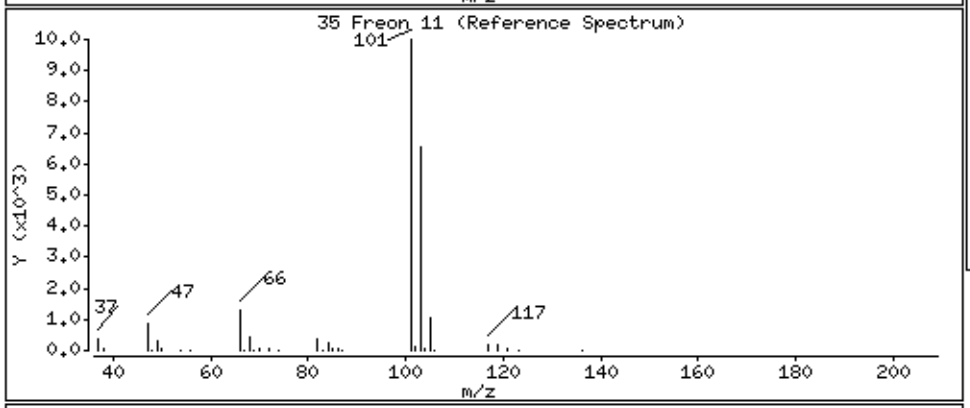
Concentration: 1.084 PPBV

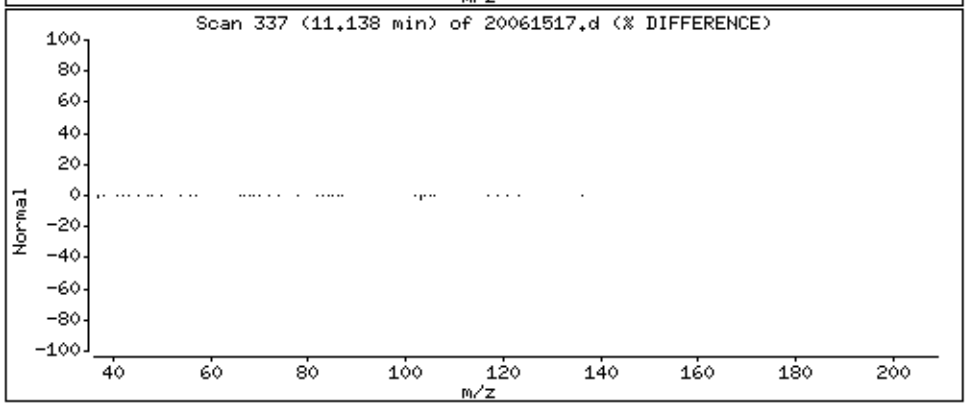












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

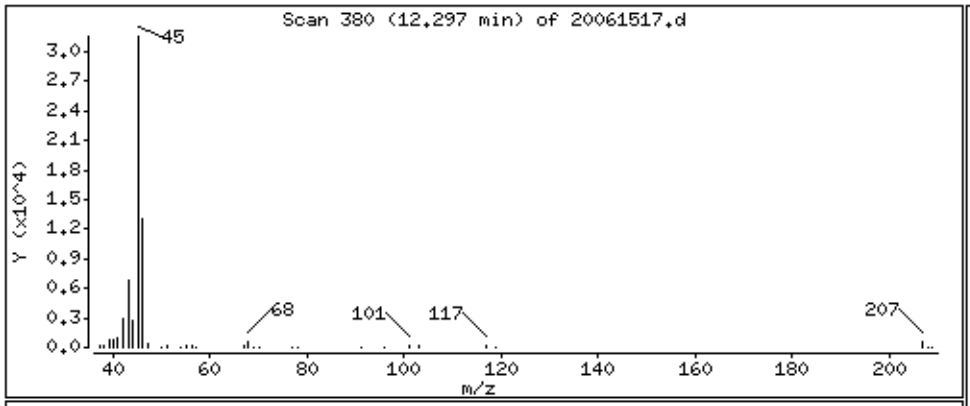
Operator: mjs

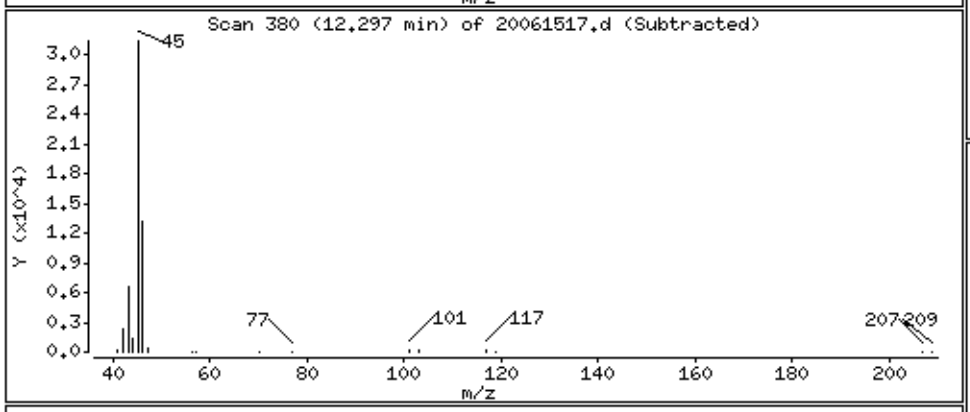
Column phase: RTX-624

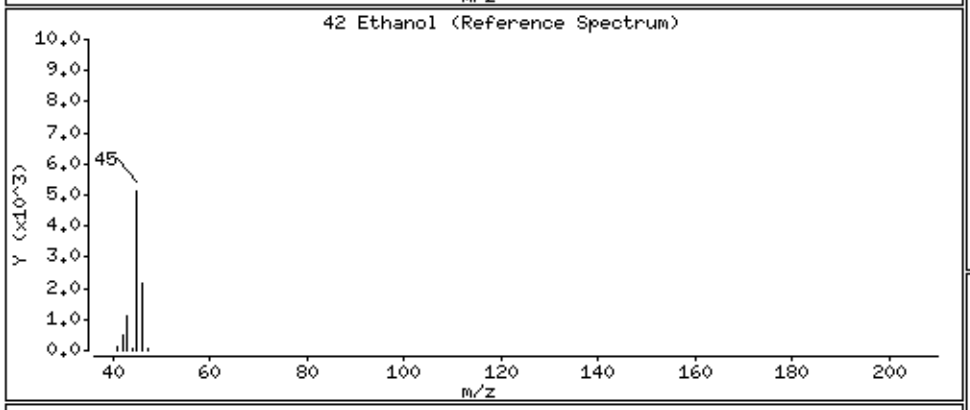
Column diameter: 0.32

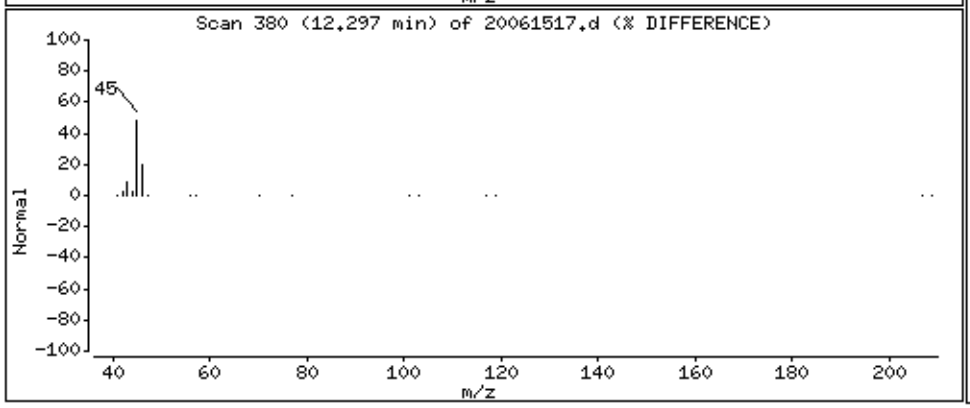
42 Ethanol

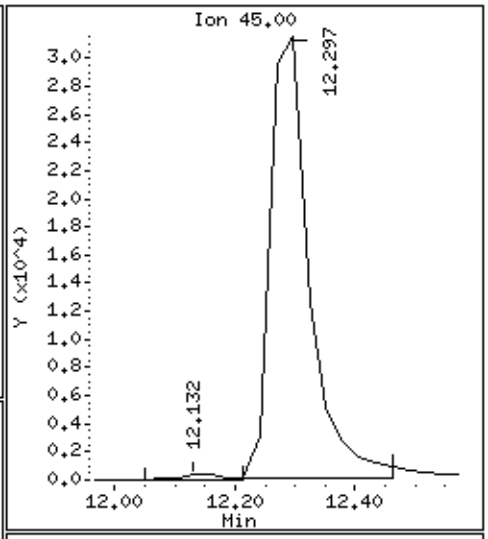
Concentration: 25.741 PPBV

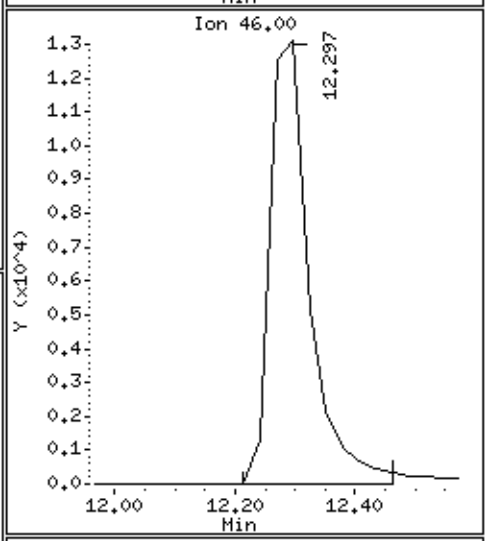


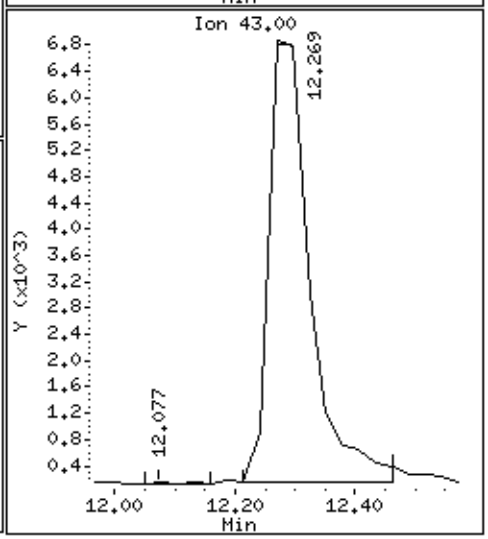












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

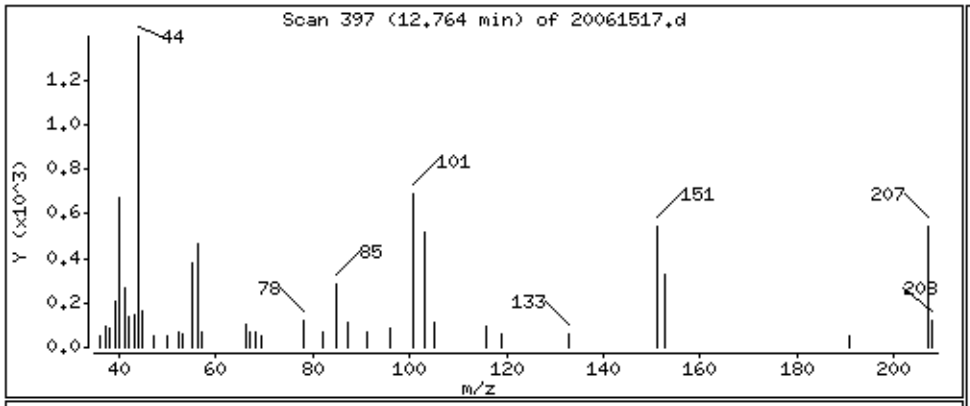
Operator: mjs

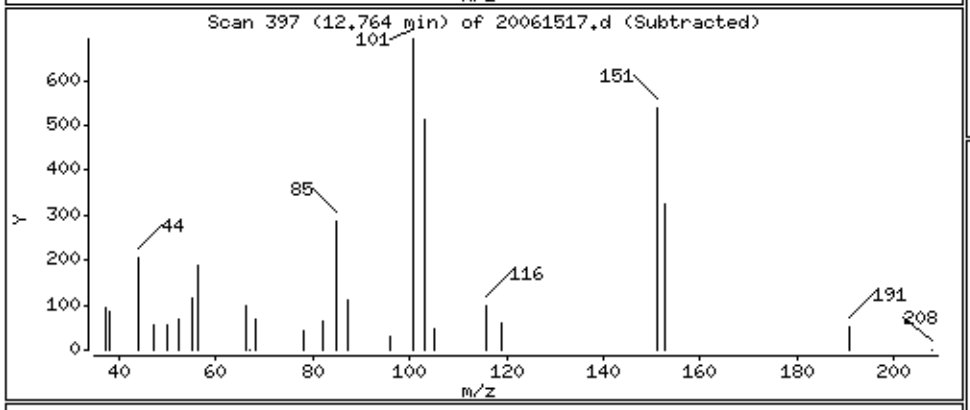
Column phase: RTX-624

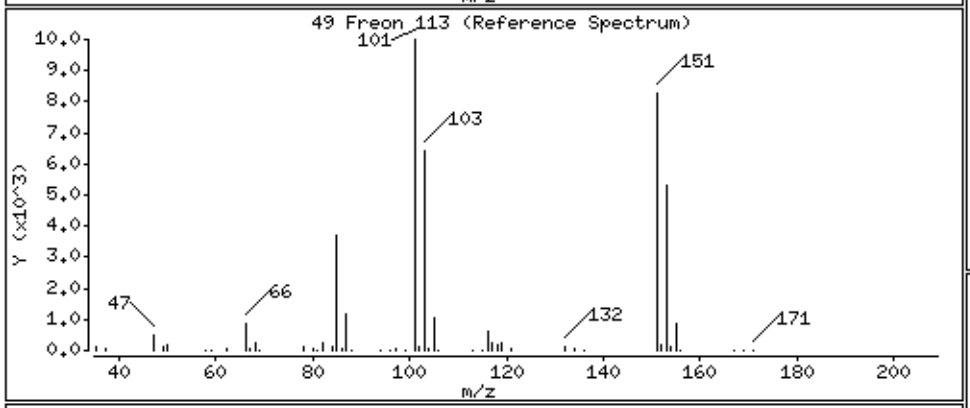
Column diameter: 0.32

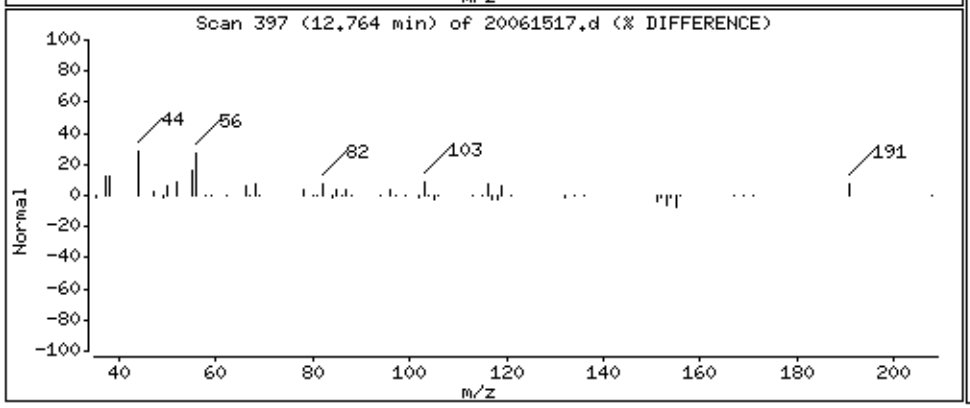
49 Freon 113

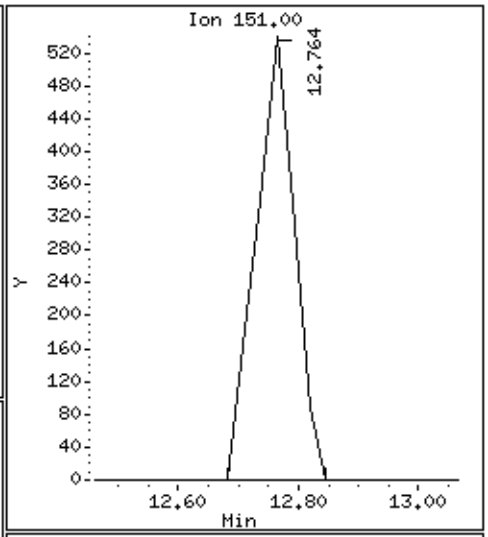
Concentration: 0.07753 PPBV

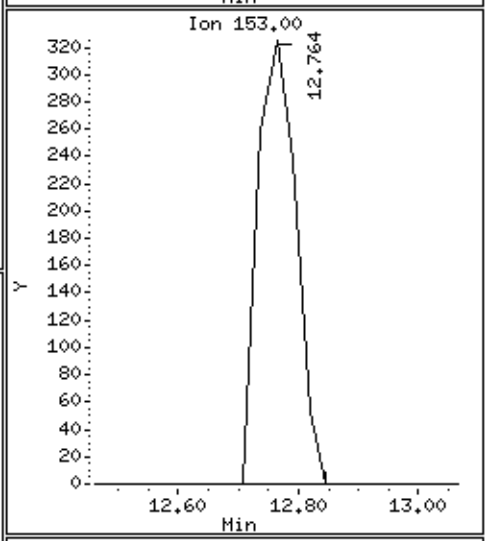


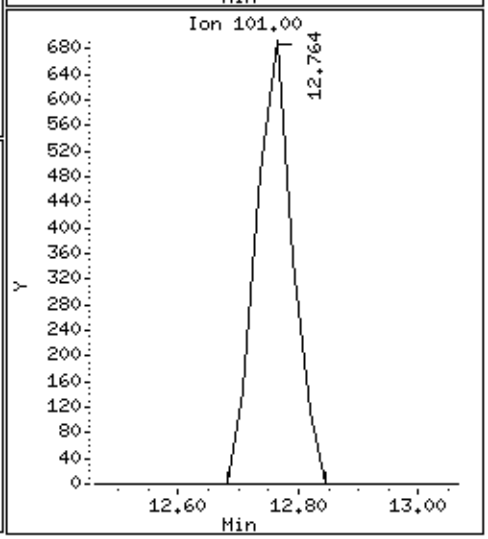












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

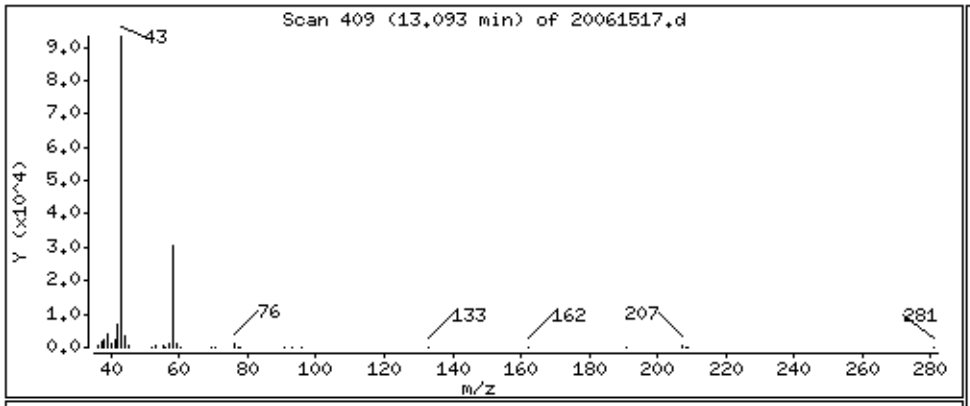
Operator: mjs

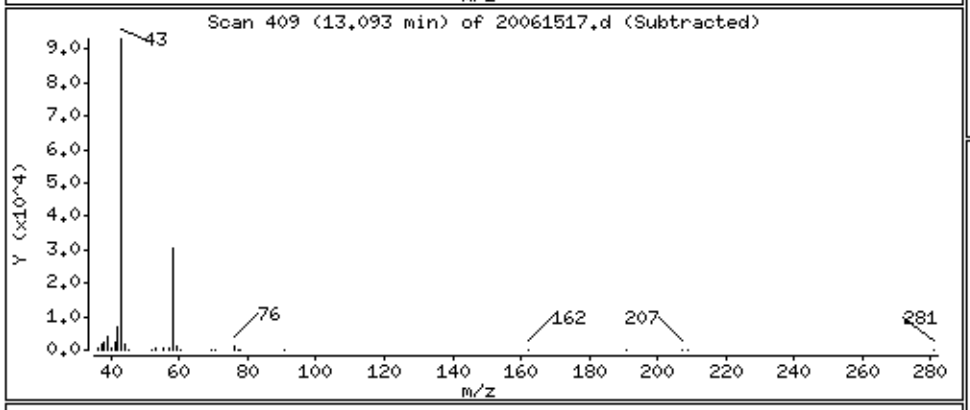
Column phase: RTX-624

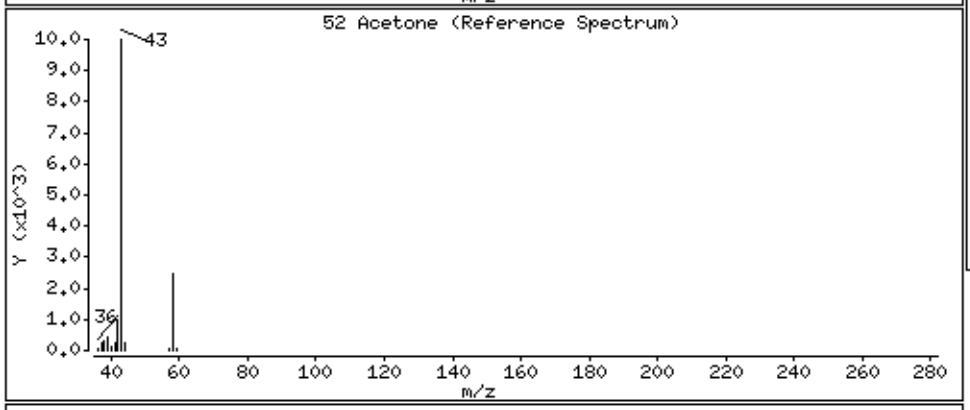
Column diameter: 0.32

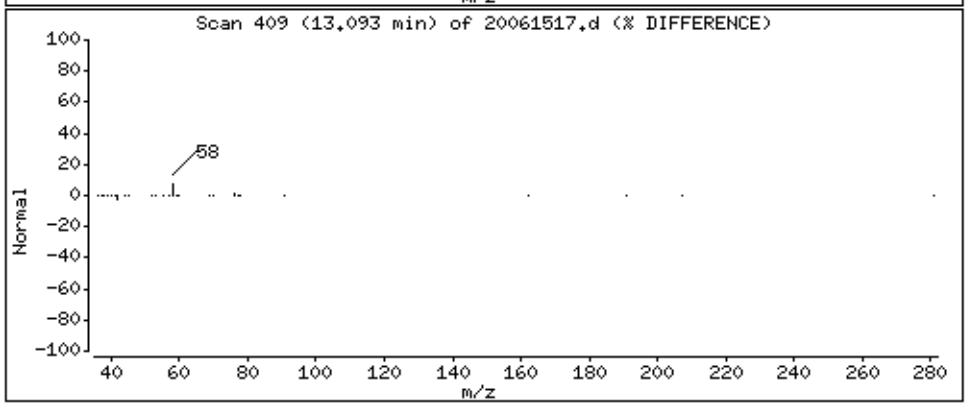
52 Acetone

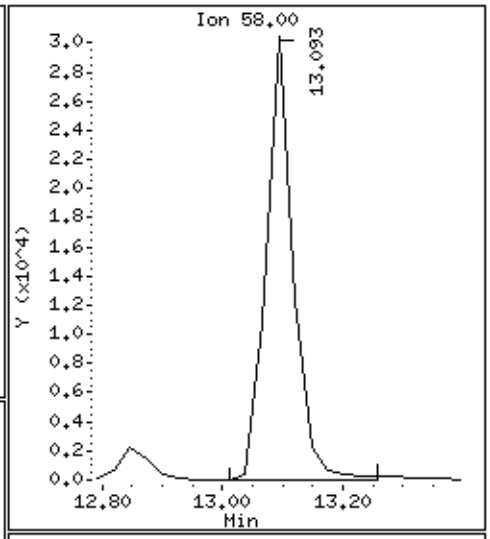
Concentration: 11.547 PPBV

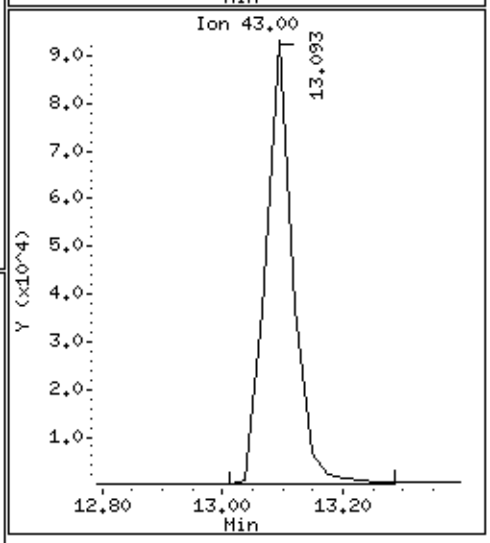












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

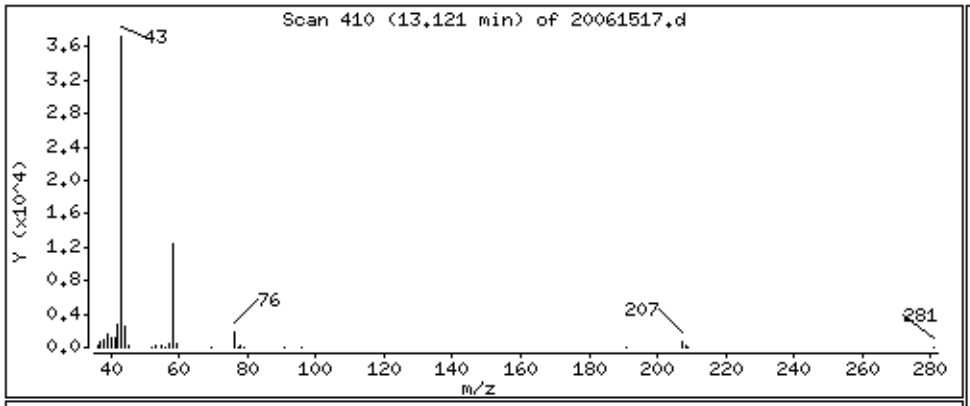
Operator: mjs

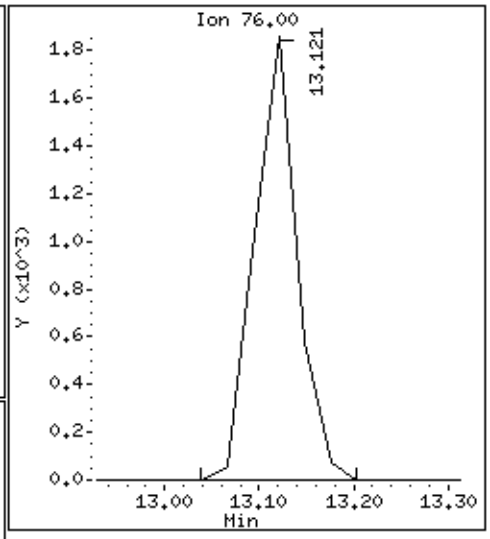
Column phase: RTX-624

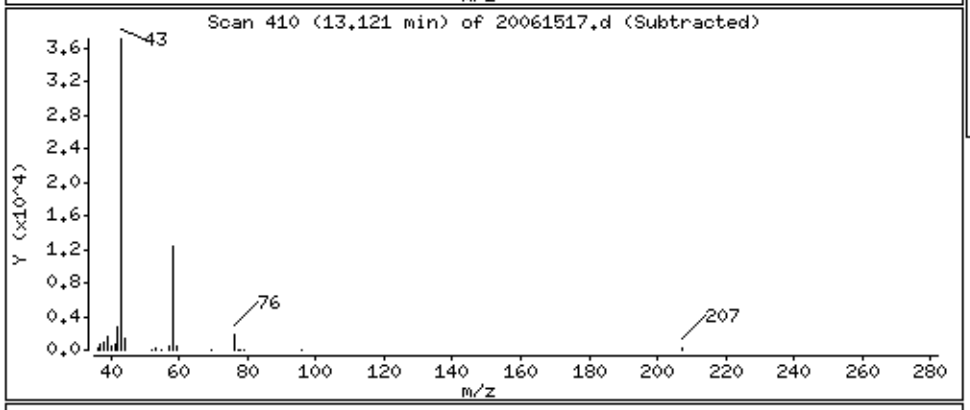
Column diameter: 0.32

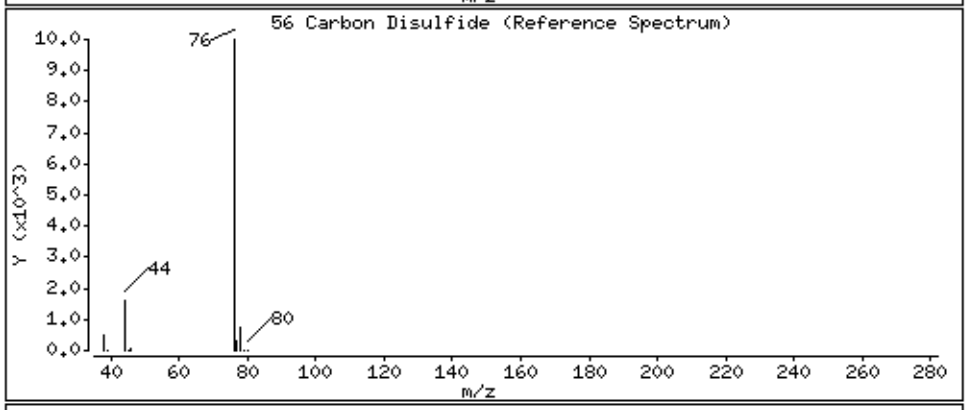
56 Carbon Disulfide

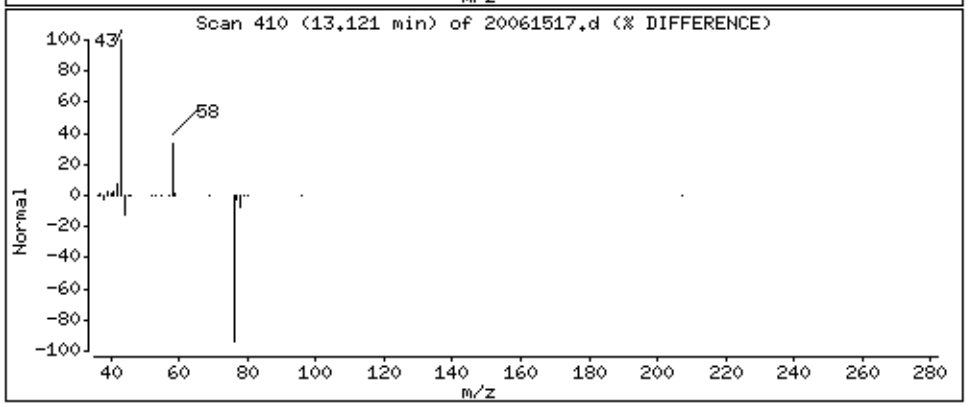
Concentration: 0.1250 PPBV











Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

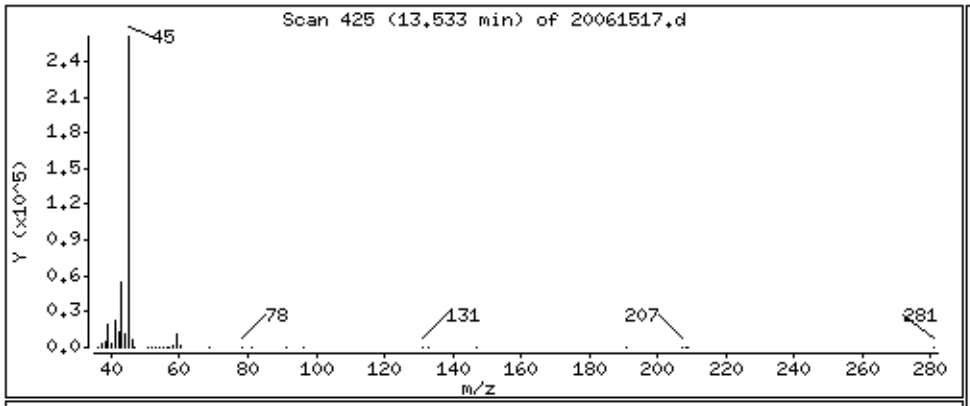
Operator: mjs

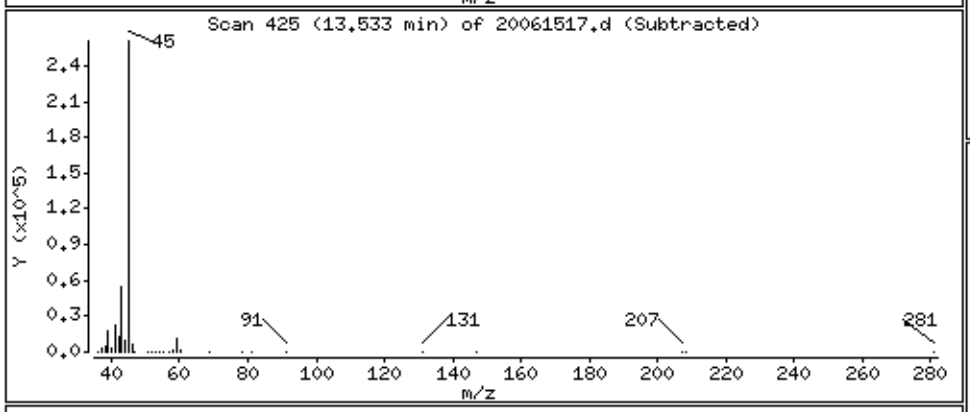
Column phase: RTX-624

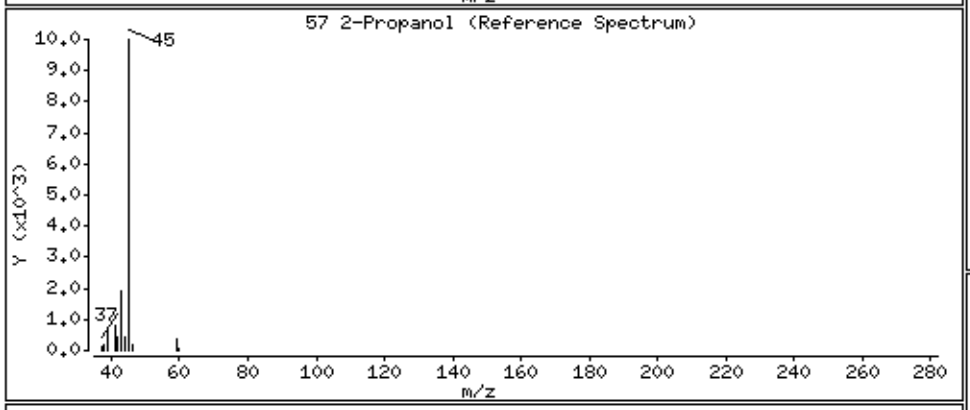
Column diameter: 0.32

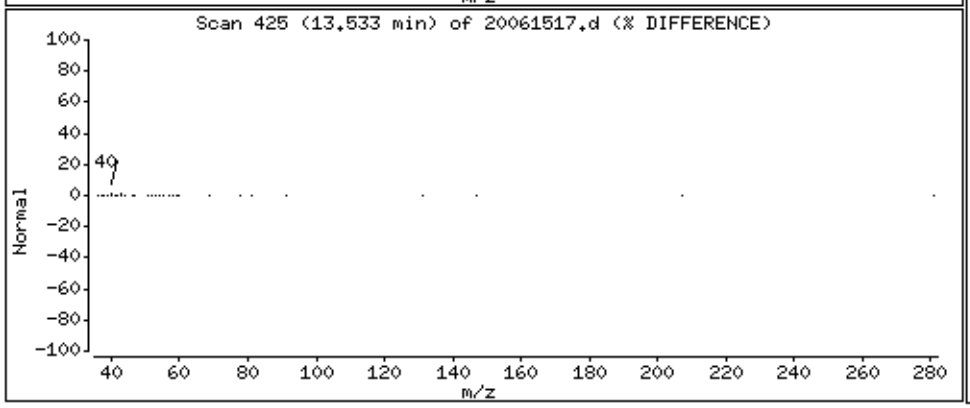
57 2-Propanol

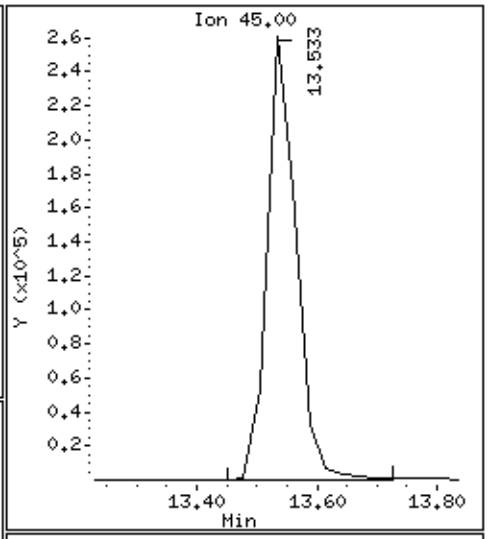
Concentration: 33.177 PPBV

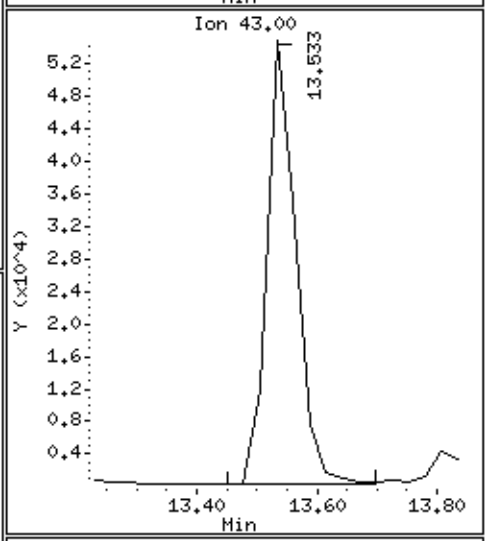


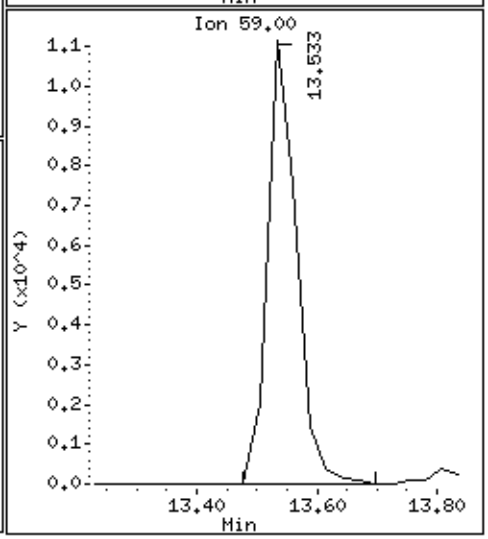












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

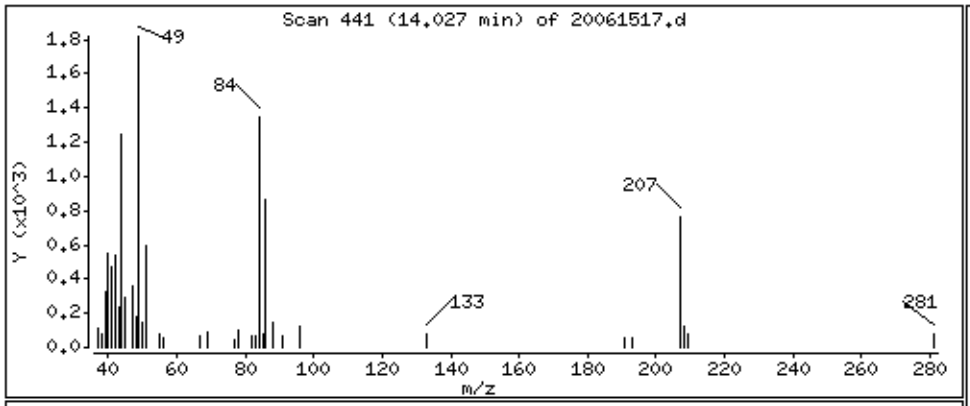
Operator: mjs

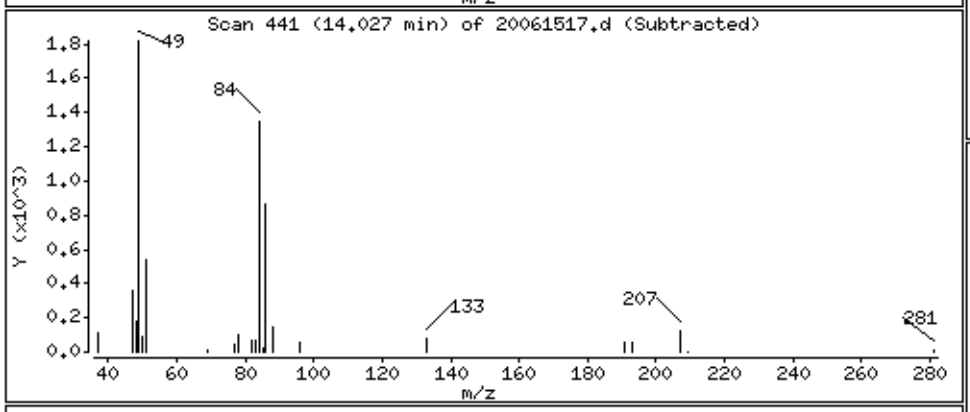
Column phase: RTX-624

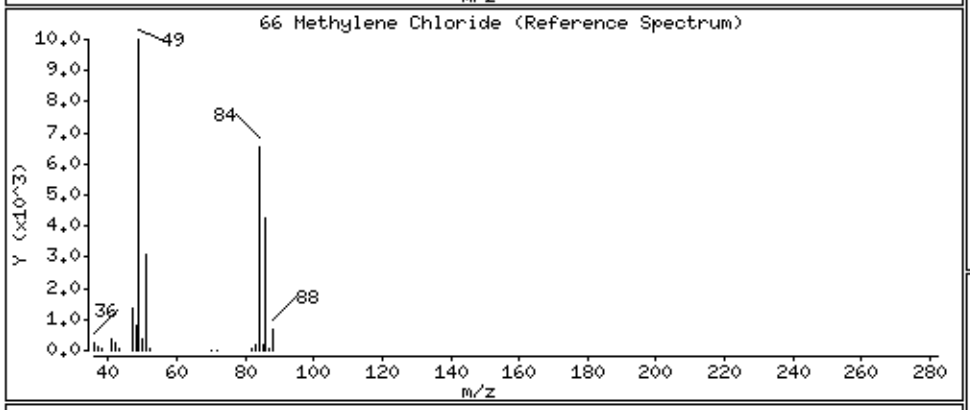
Column diameter: 0.32

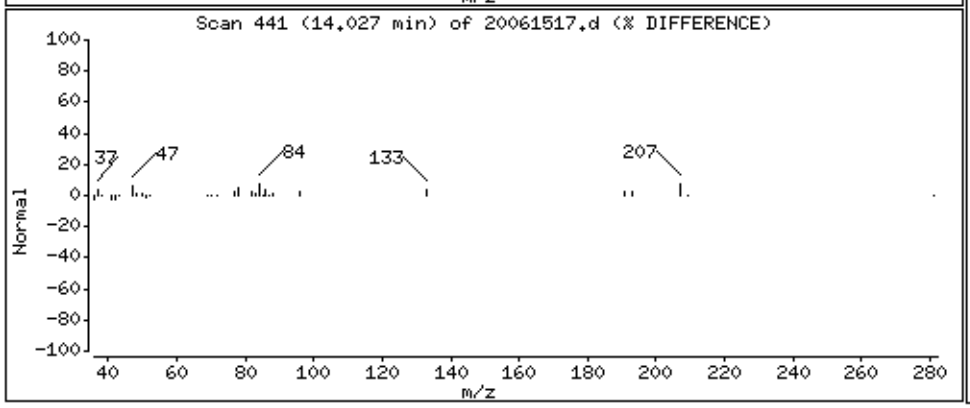
66 Methylene Chloride

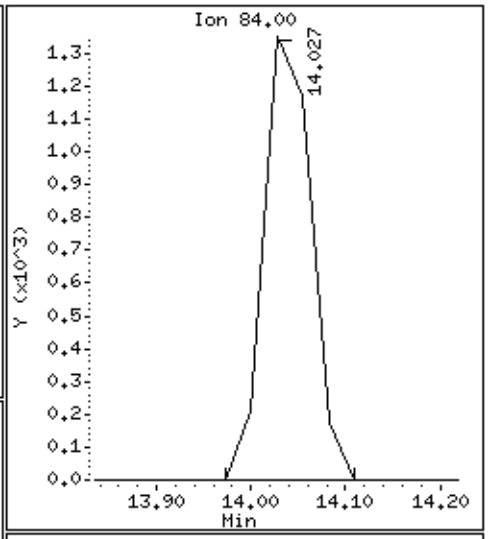
Concentration: 0.2665 PPBV

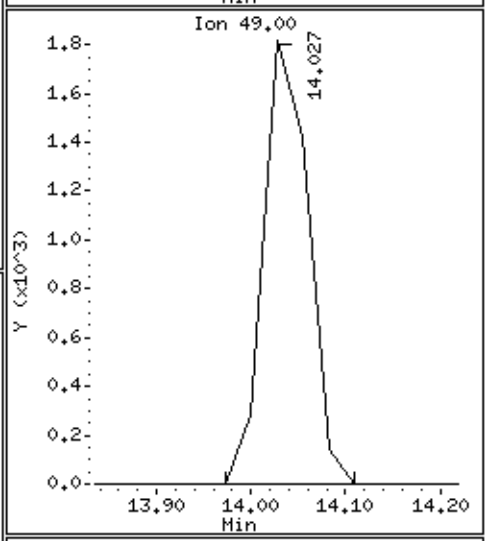


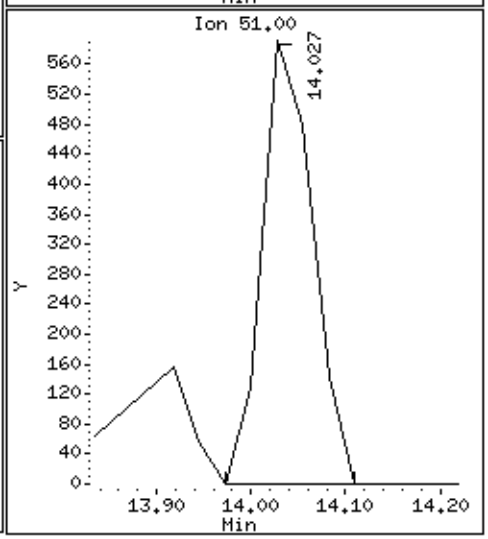












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

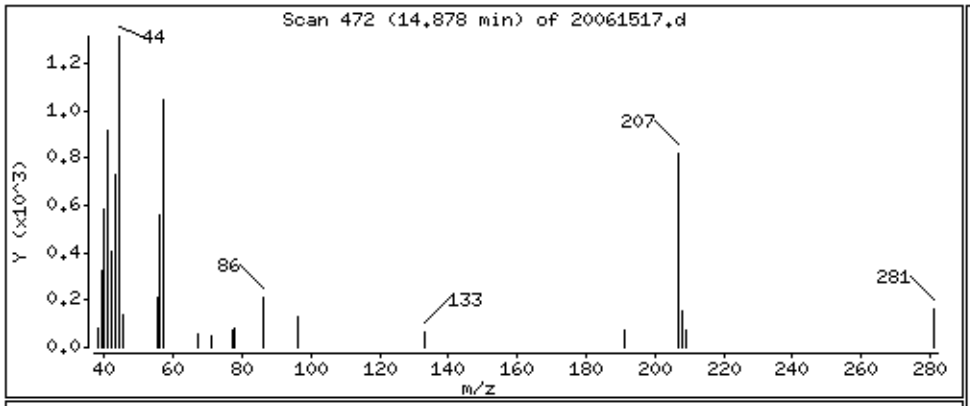
Operator: mjs

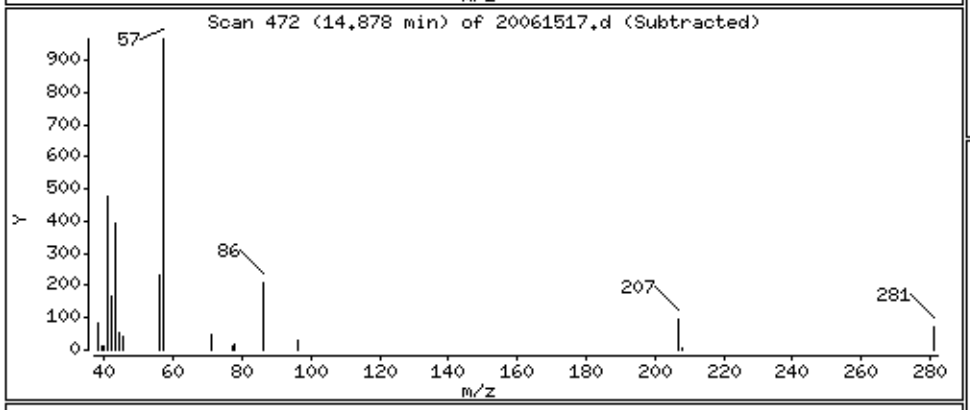
Column phase: RTX-624

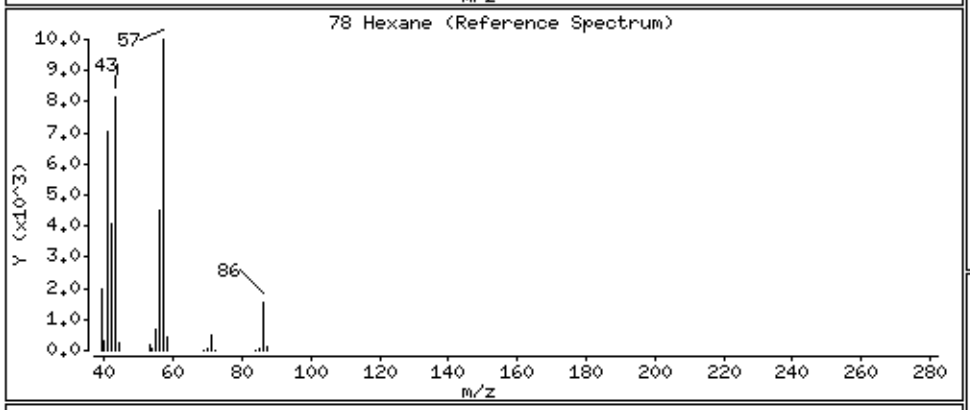
Column diameter: 0.32

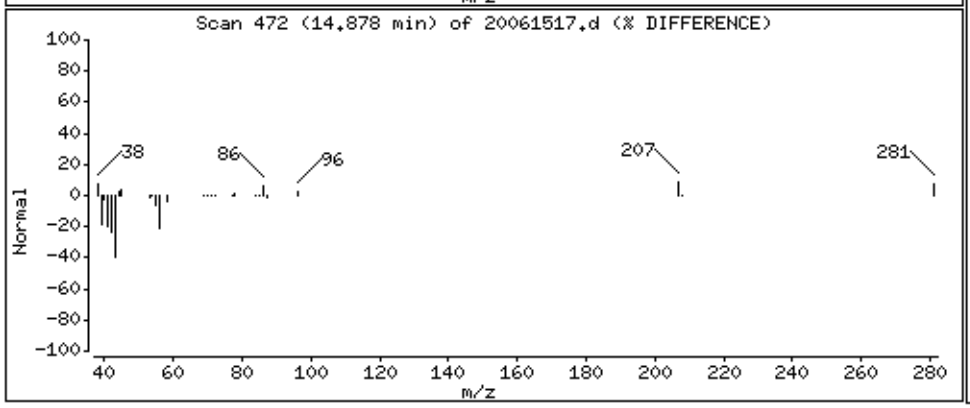
78 Hexane

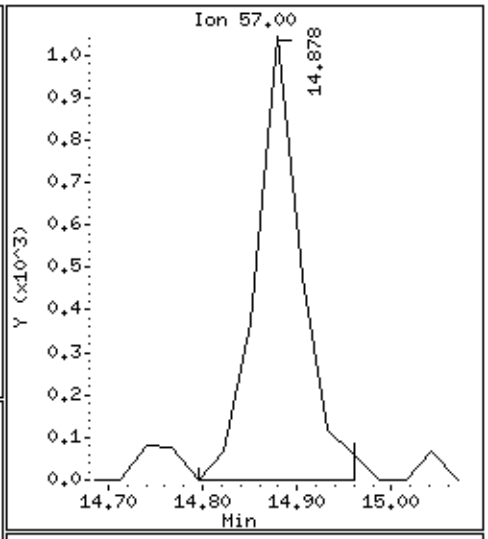
Concentration: 0.1317 PPBV

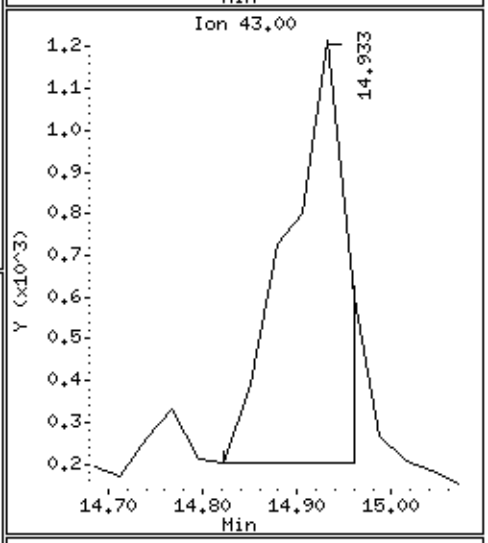


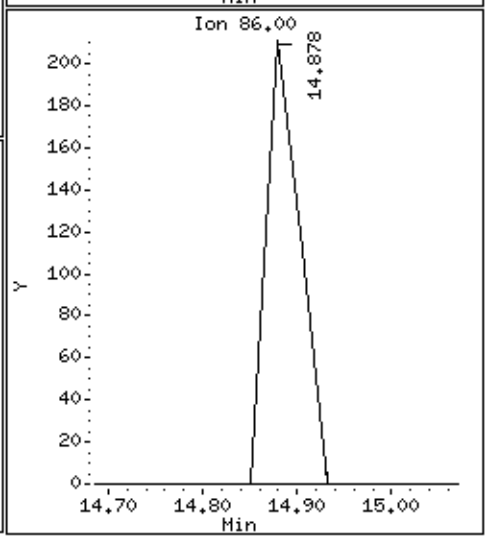












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

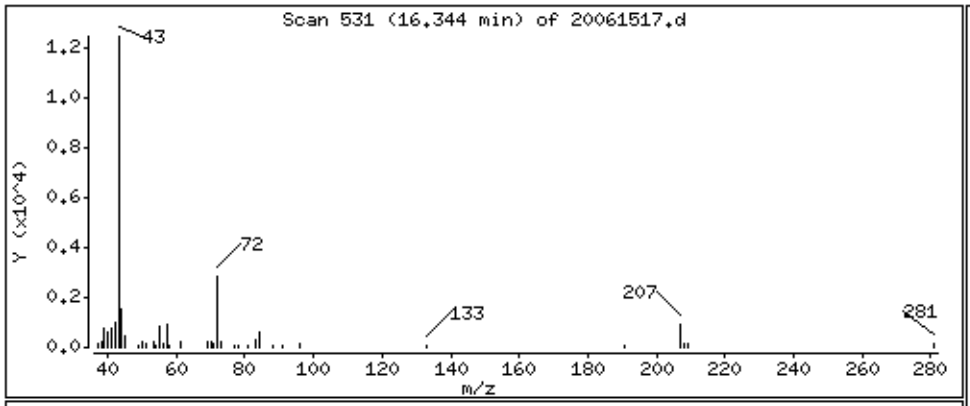
Operator: mjs

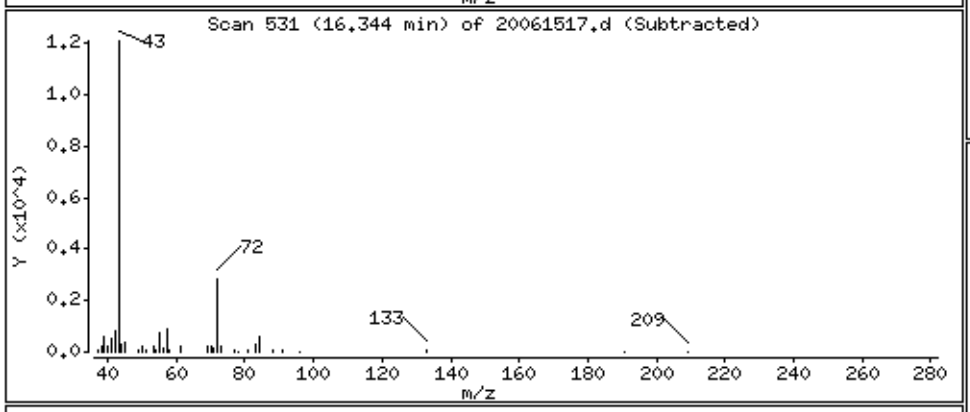
Column phase: RTX-624

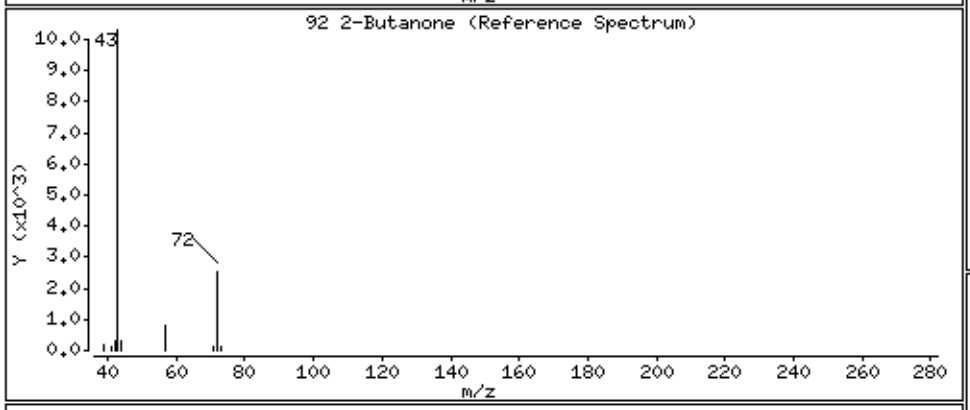
Column diameter: 0.32

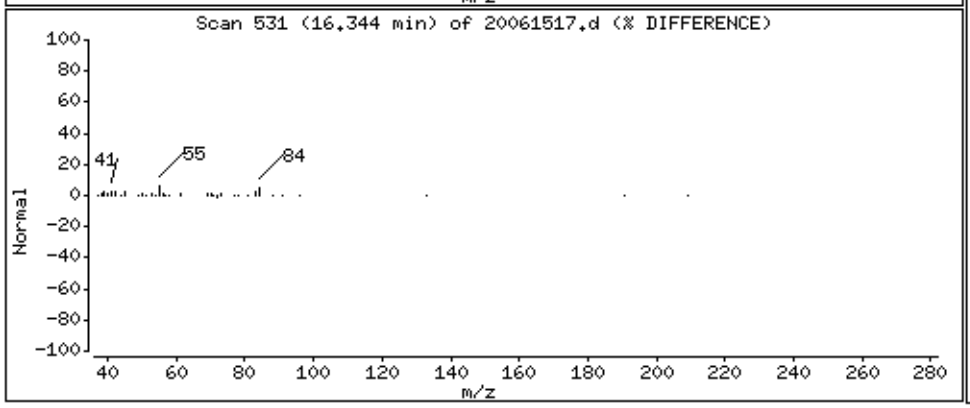
92 2-Butanone

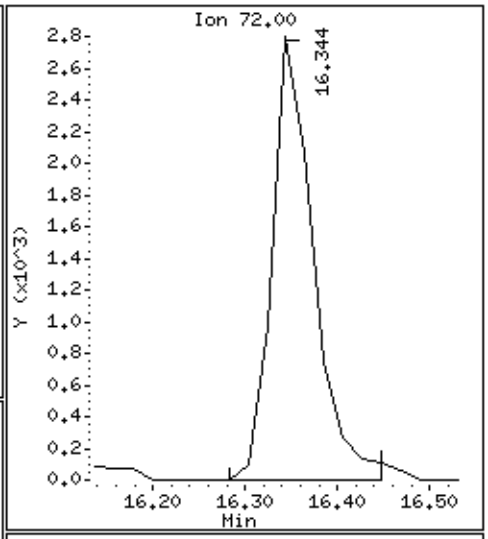
Concentration: 1.020 PPBV

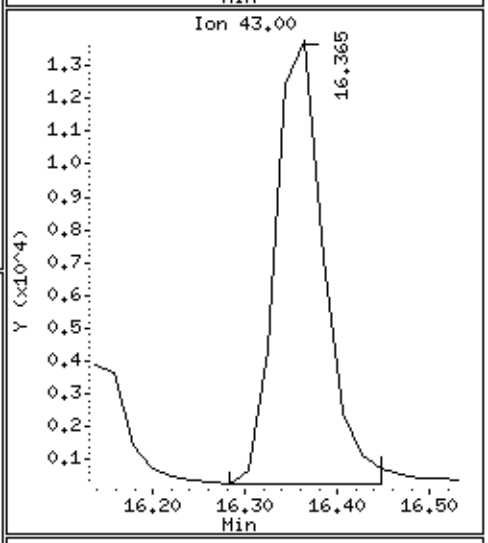


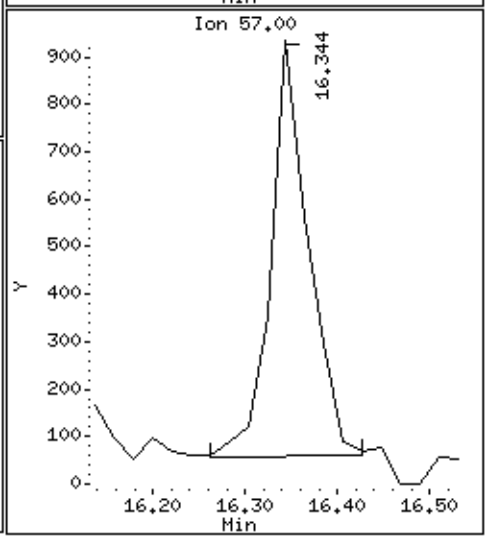












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

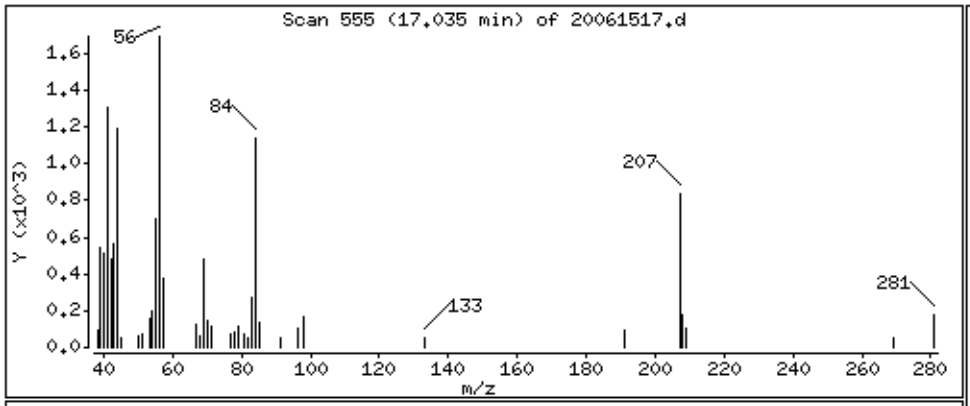
Operator: mjs

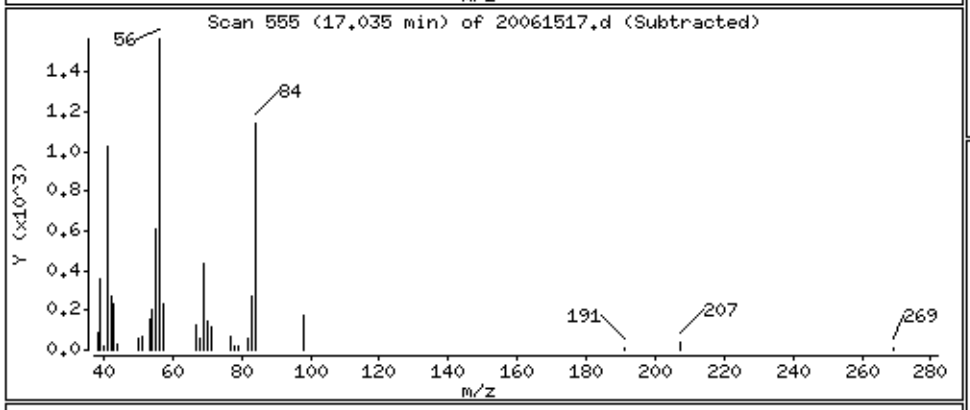
Column phase: RTX-624

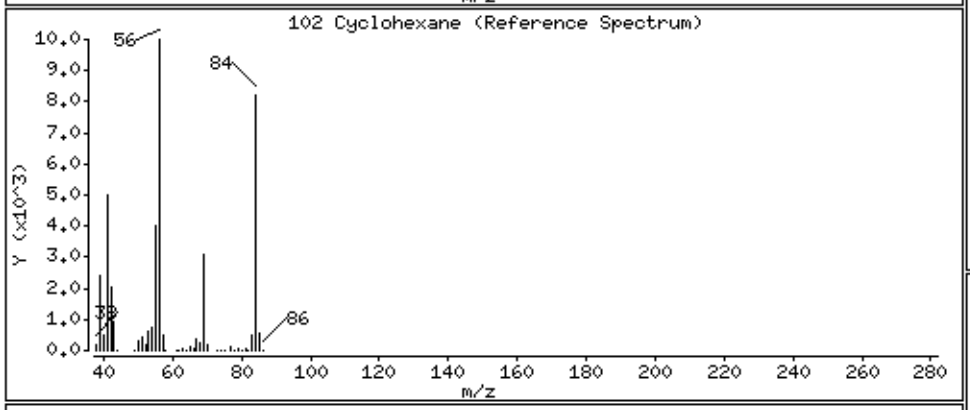
Column diameter: 0.32

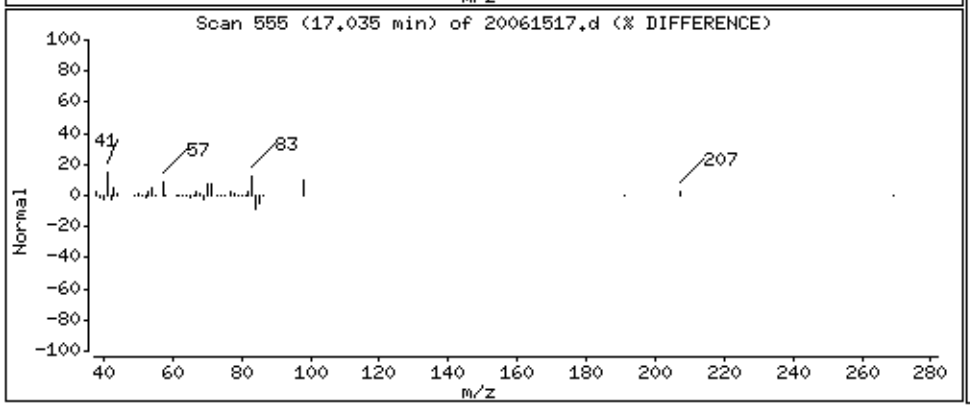
102 Cyclohexane

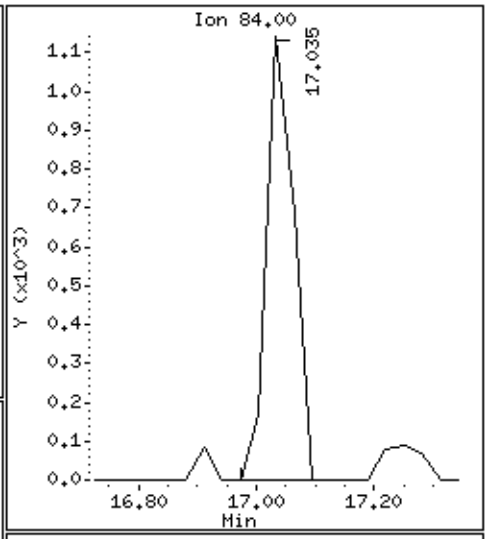
Concentration: 0.1383 PPBV

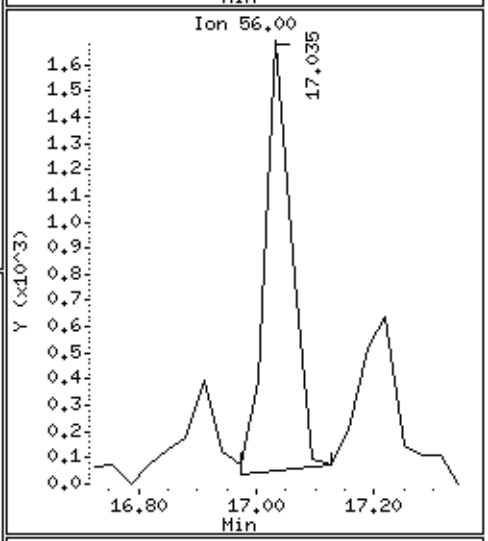


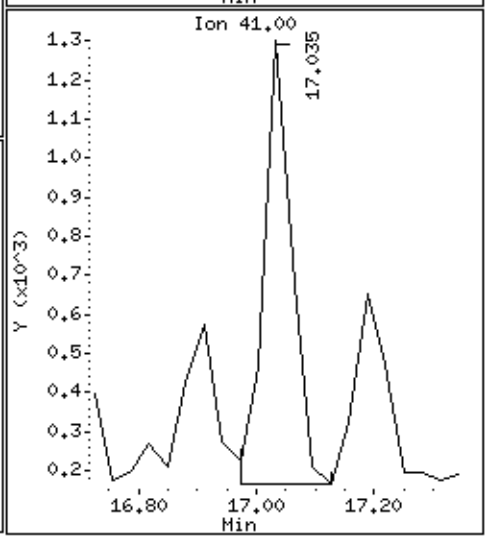












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

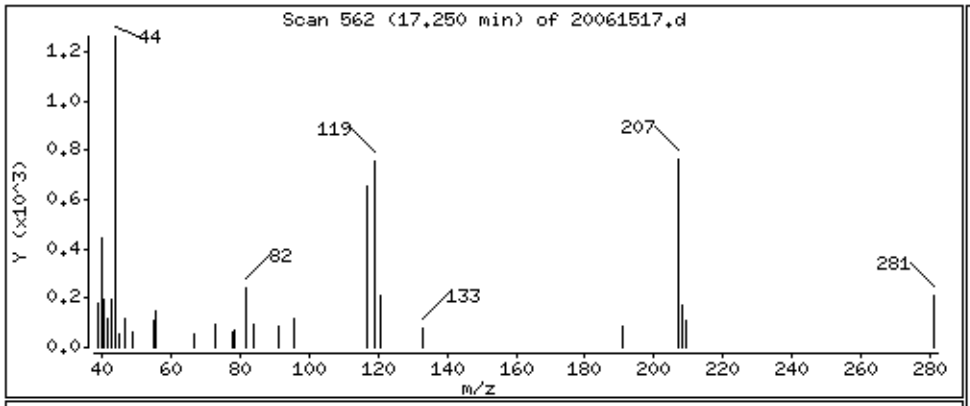
Operator: mjs

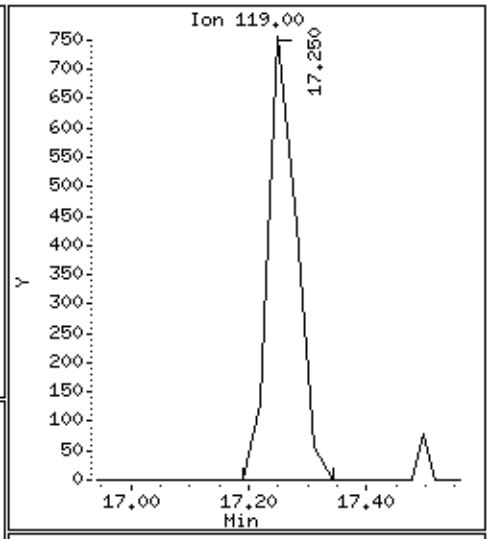
Column phase: RTX-624

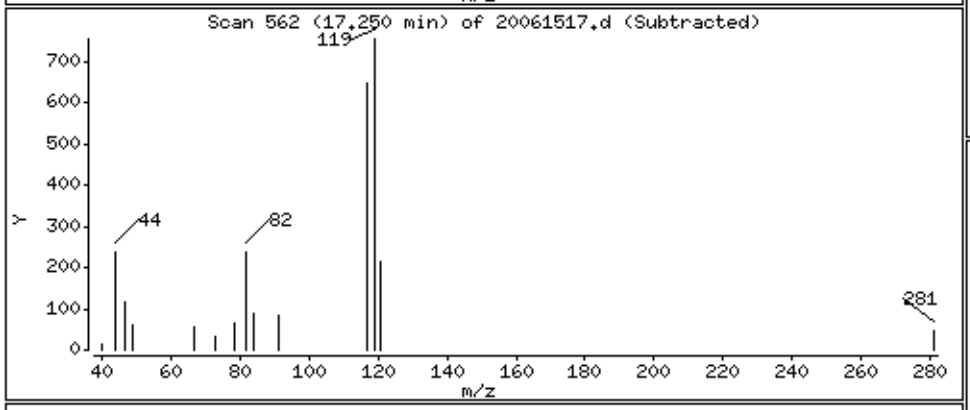
Column diameter: 0.32

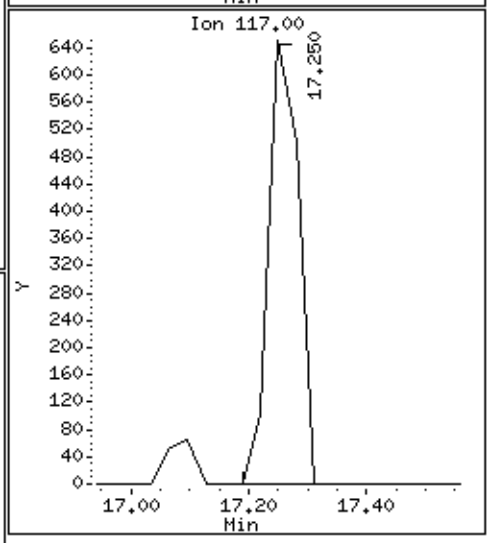
106 Carbon Tetrachloride

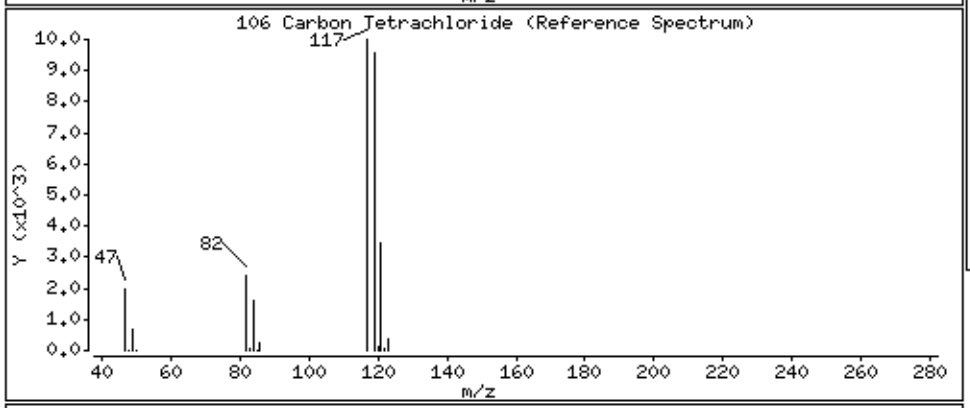
Concentration: 0.08500 PPBV

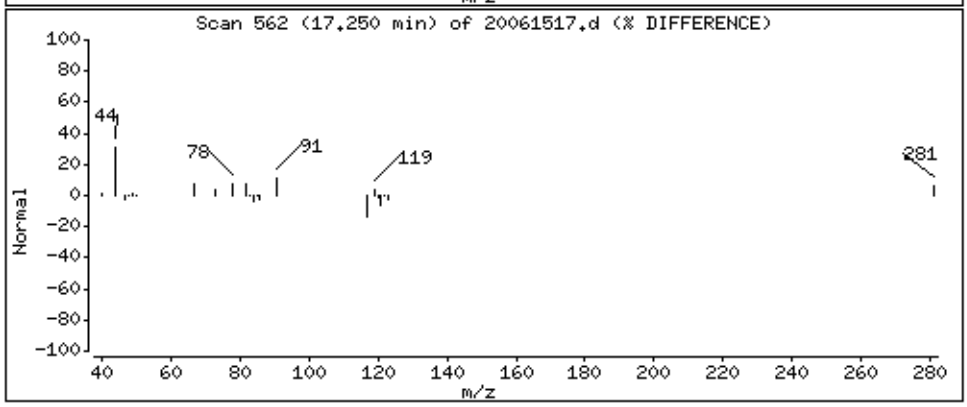












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

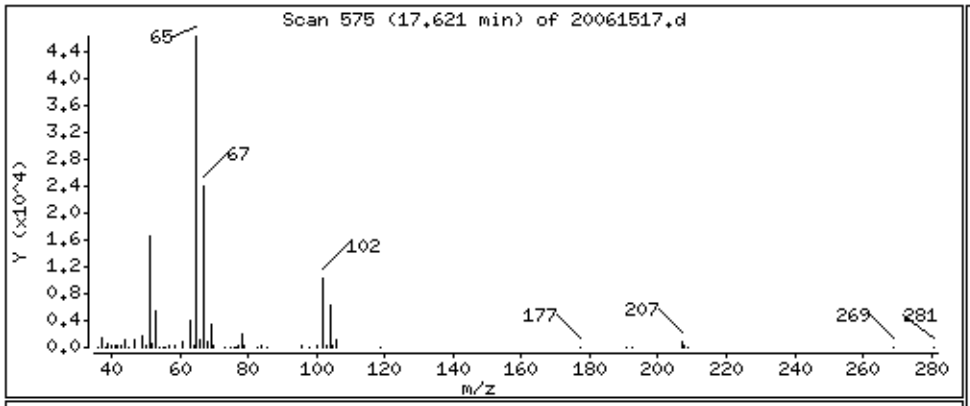
Operator: mjs

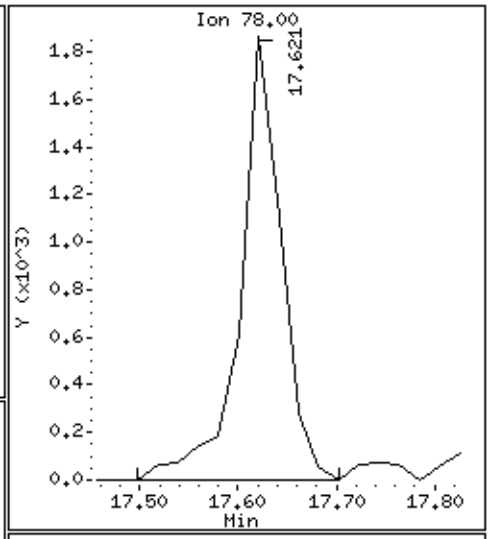
Column phase: RTX-624

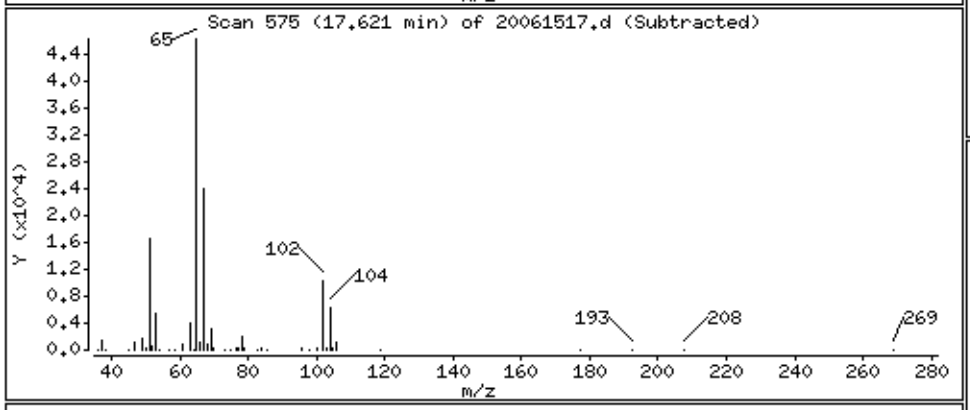
Column diameter: 0.32

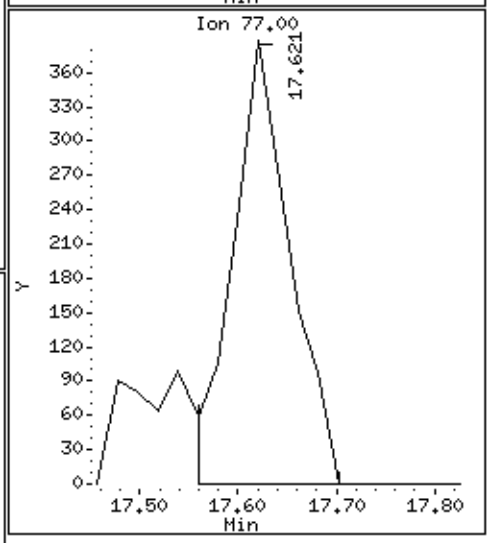
116 Benzene

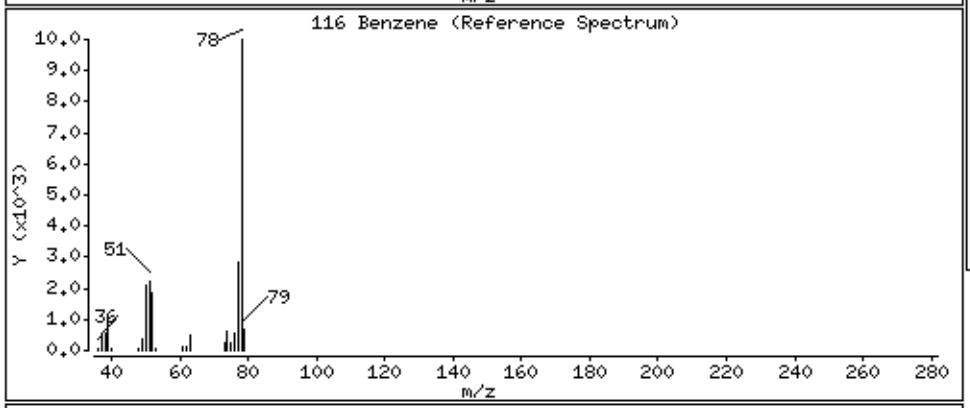
Concentration: 0.09323 PPBV

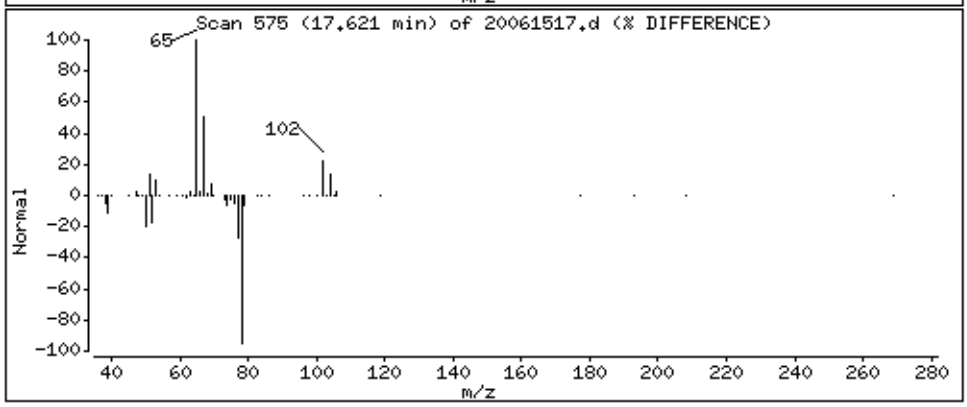












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

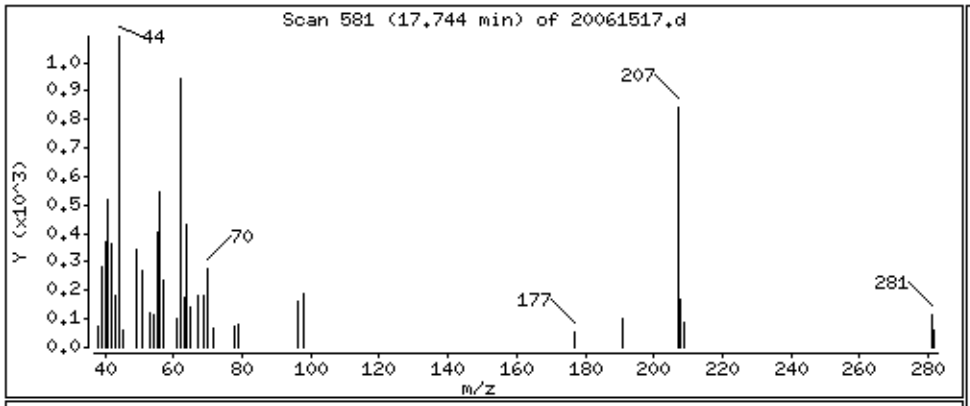
Operator: mjs

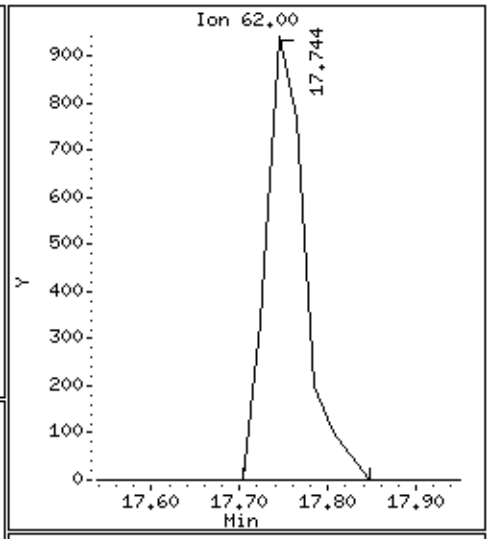
Column phase: RTX-624

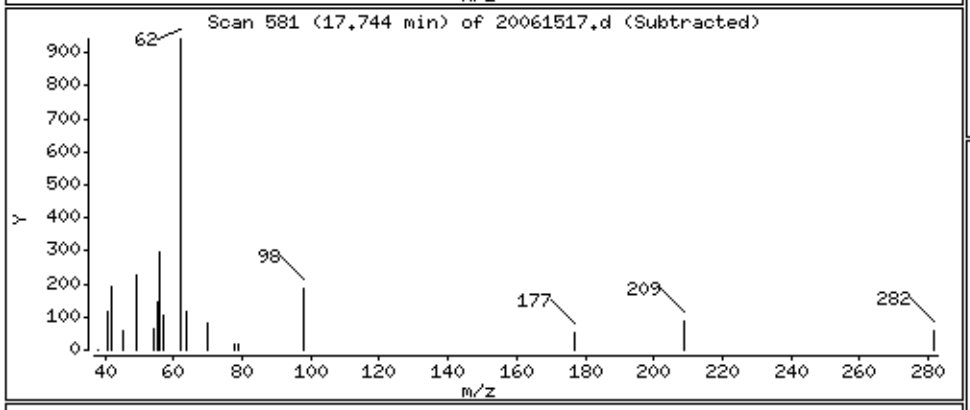
Column diameter: 0.32

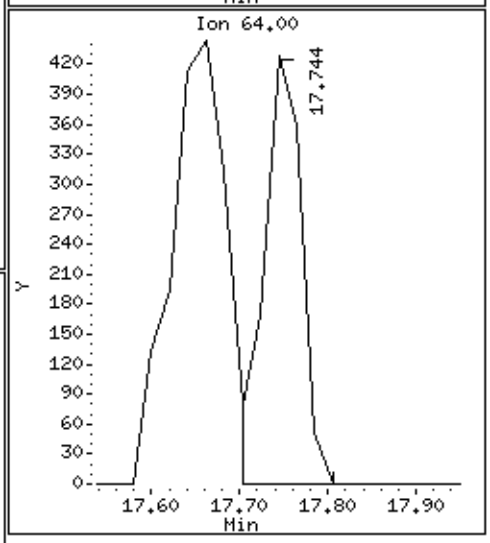
120 1,2-Dichloroethane

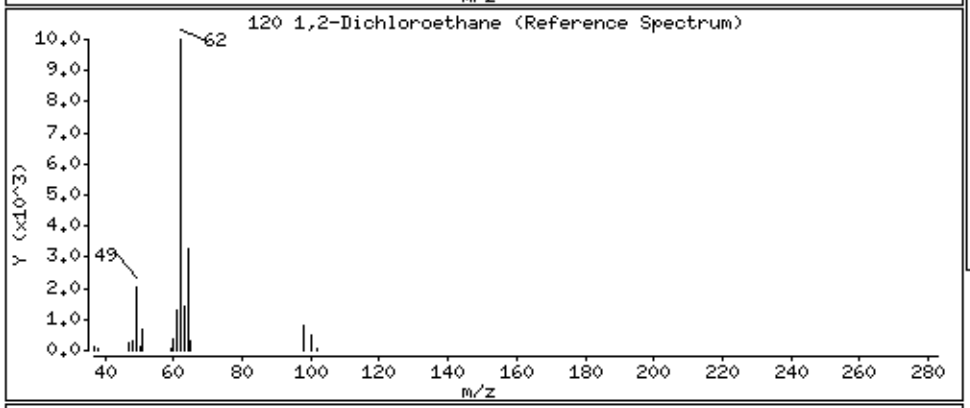
Concentration: 0.1203 PPBV

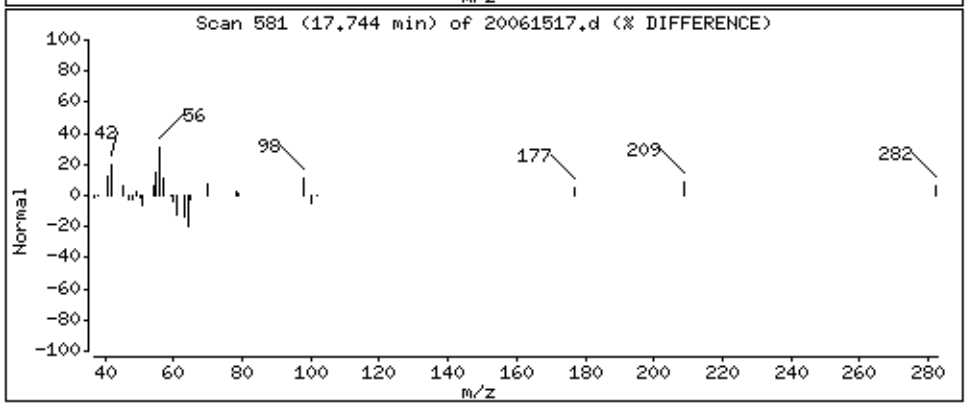












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

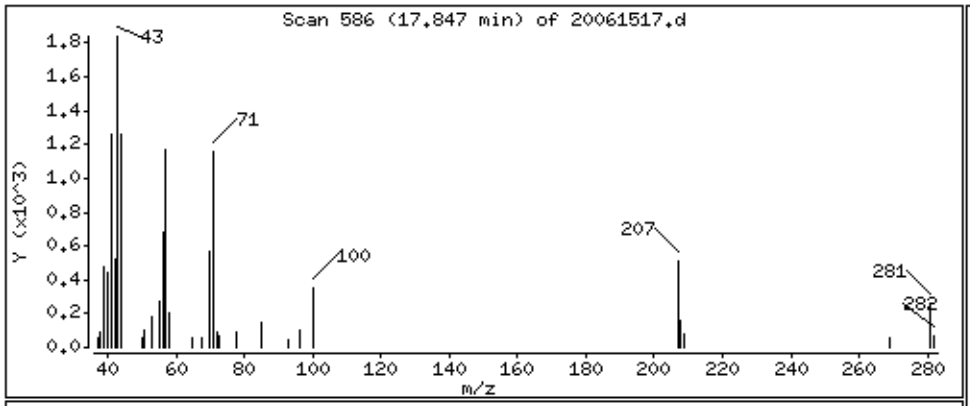
Operator: mjs

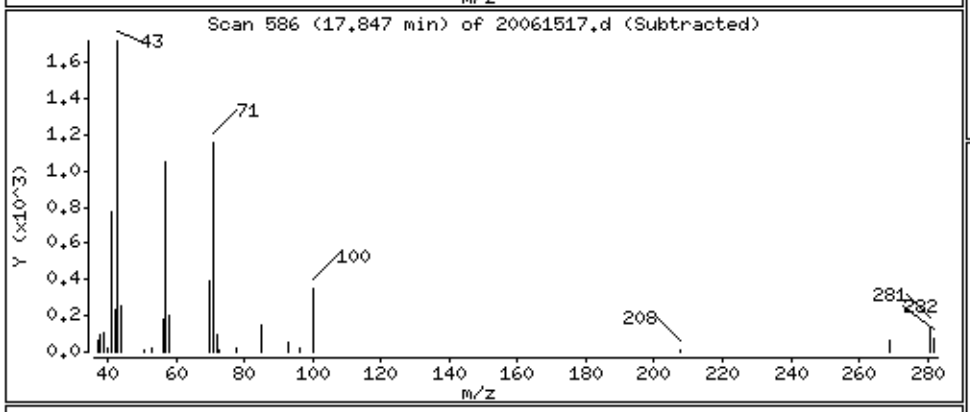
Column phase: RTX-624

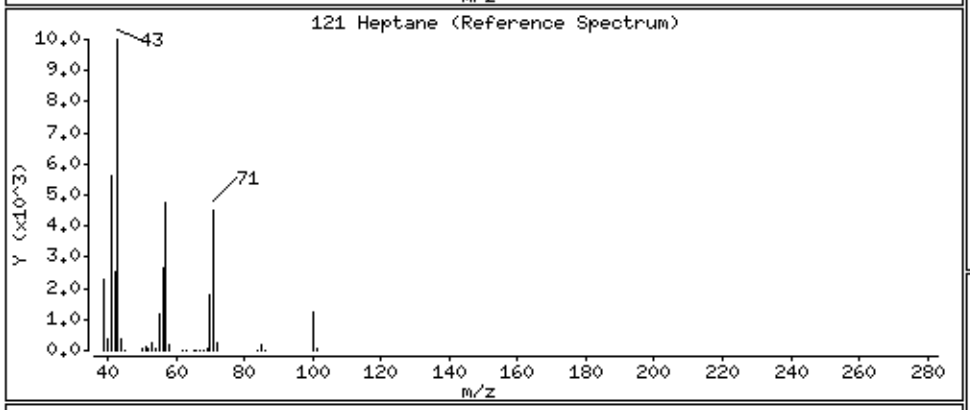
Column diameter: 0.32

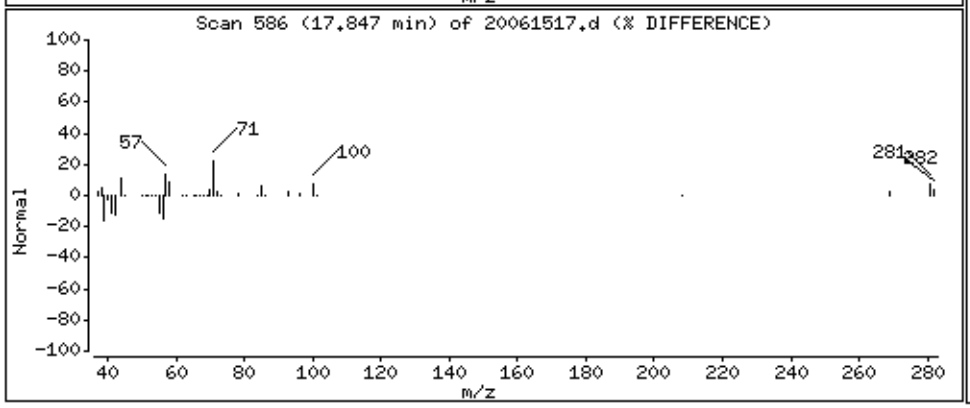
121 Heptane

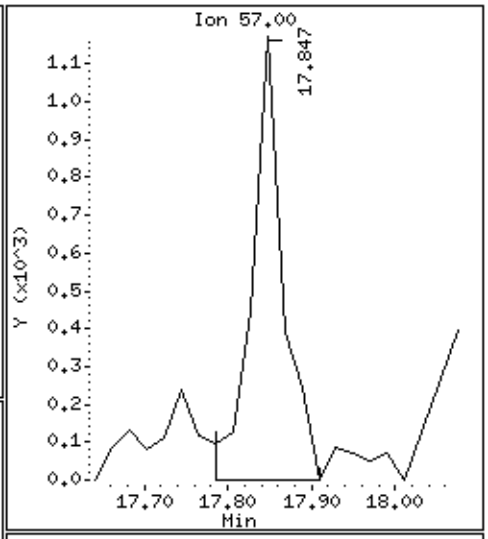
Concentration: 0.1864 PPBV

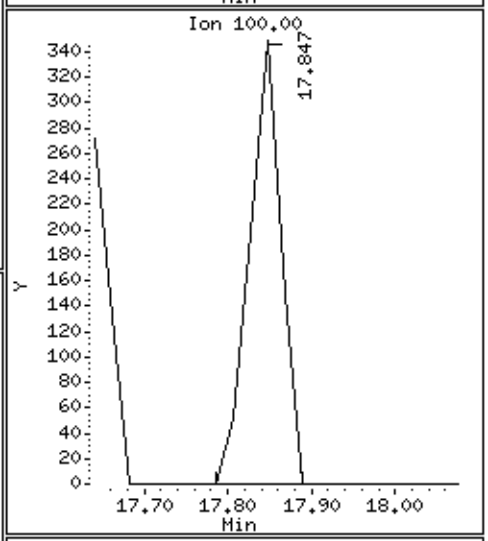


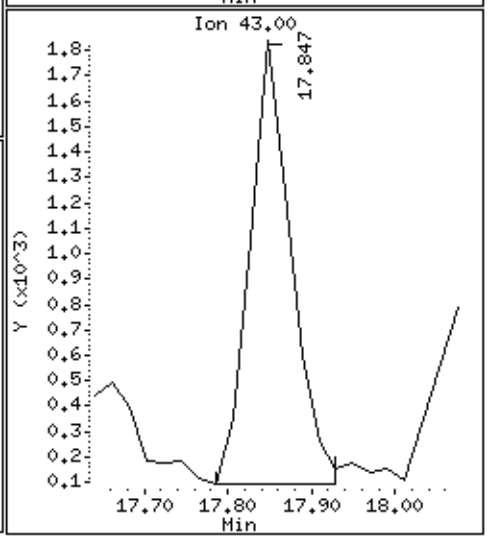












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

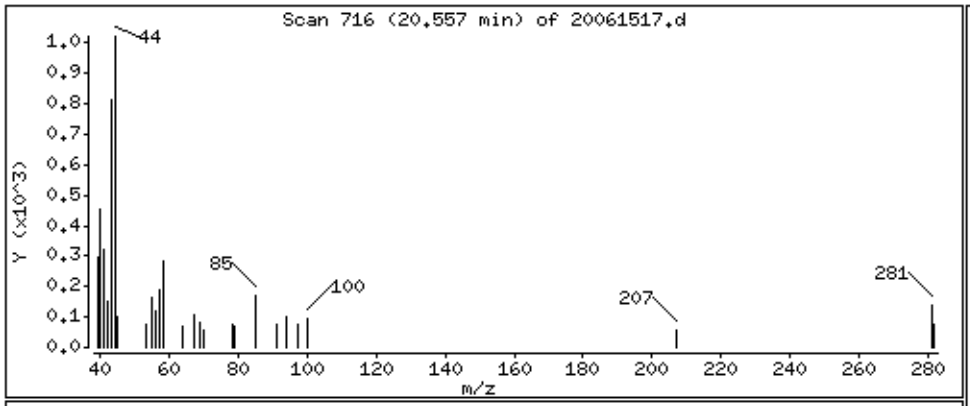
Operator: mjs

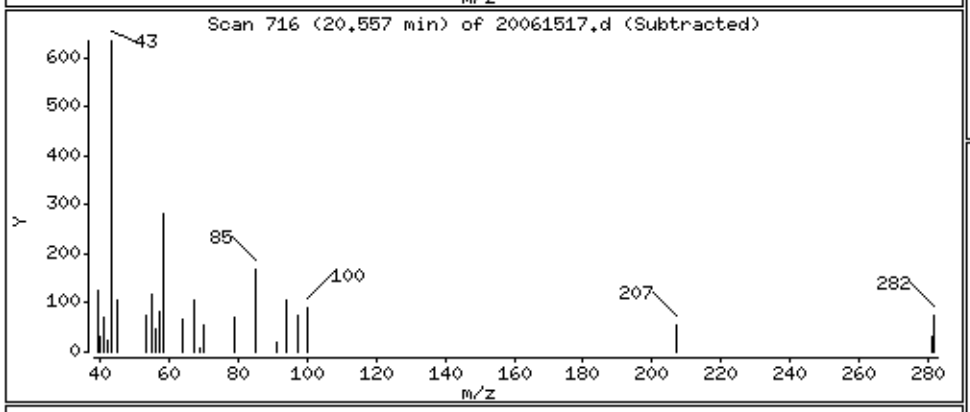
Column phase: RTX-624

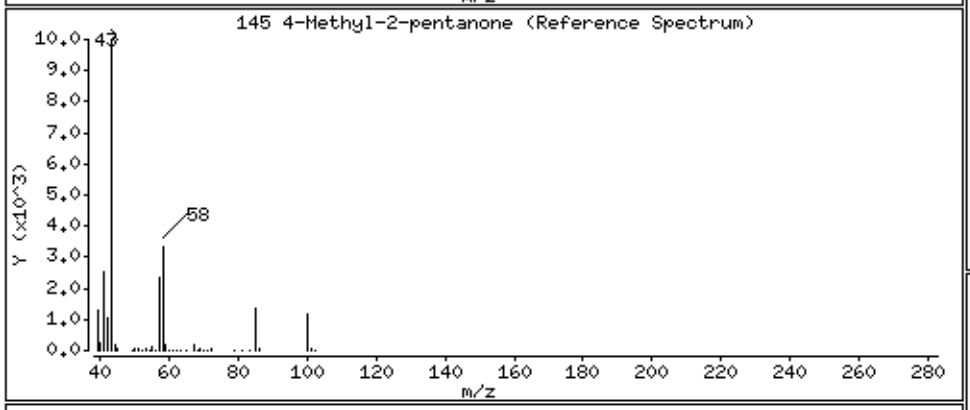
Column diameter: 0.32

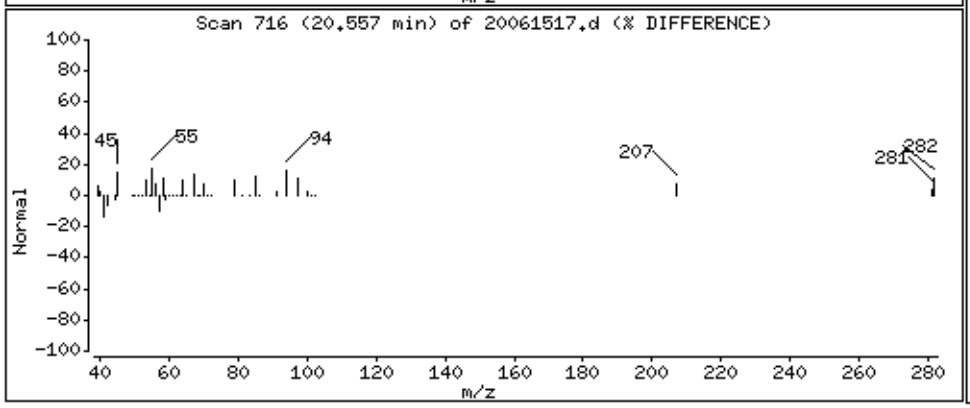
145 4-Methyl-2-pentanone

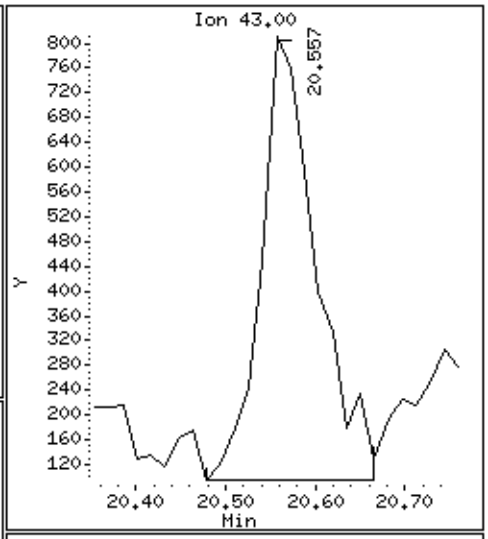
Concentration: 0.07434 PPBV

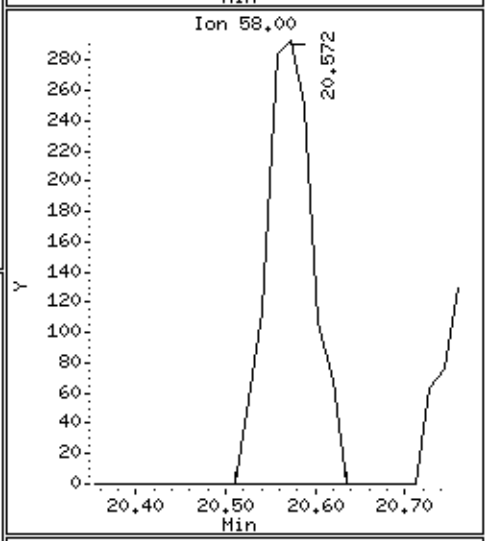


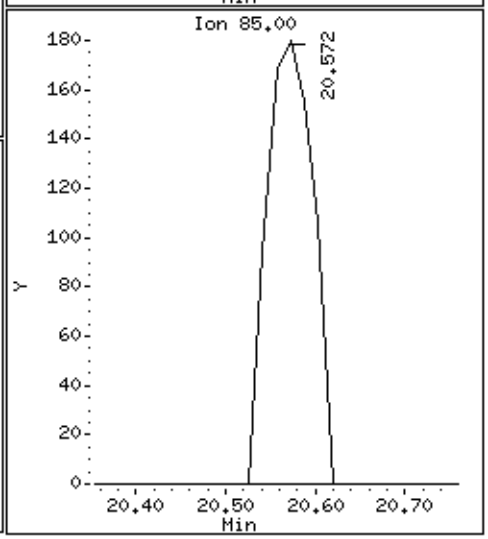












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

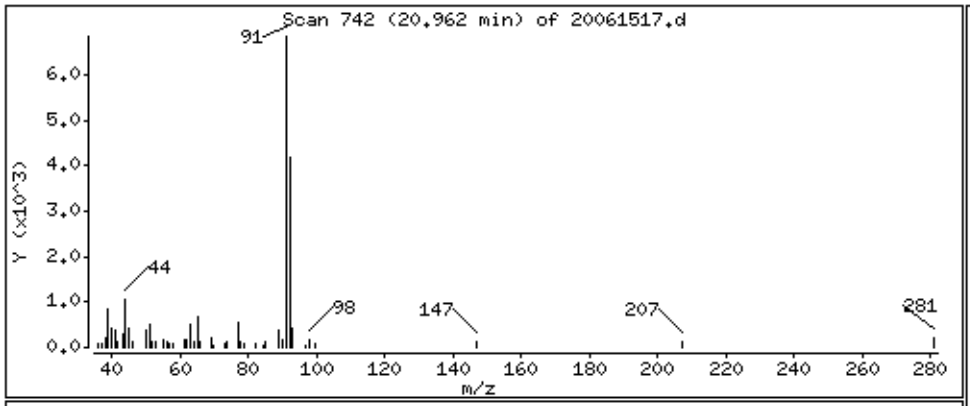
Operator: mjs

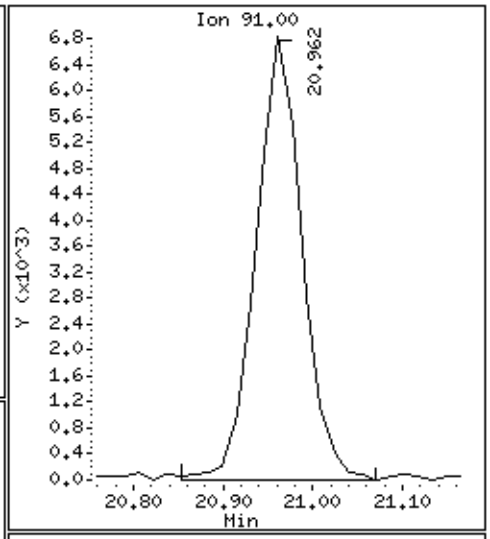
Column phase: RTX-624

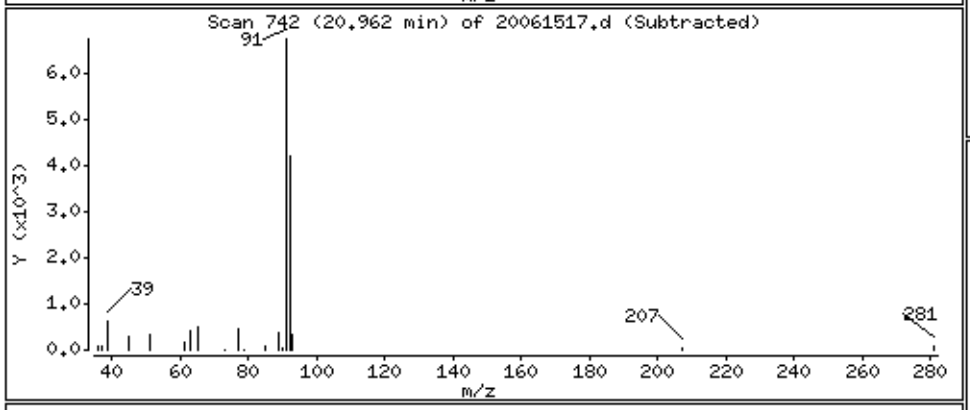
Column diameter: 0.32

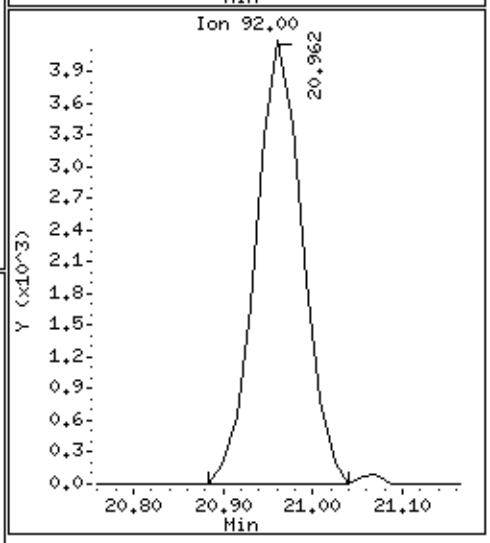
147 Toluene

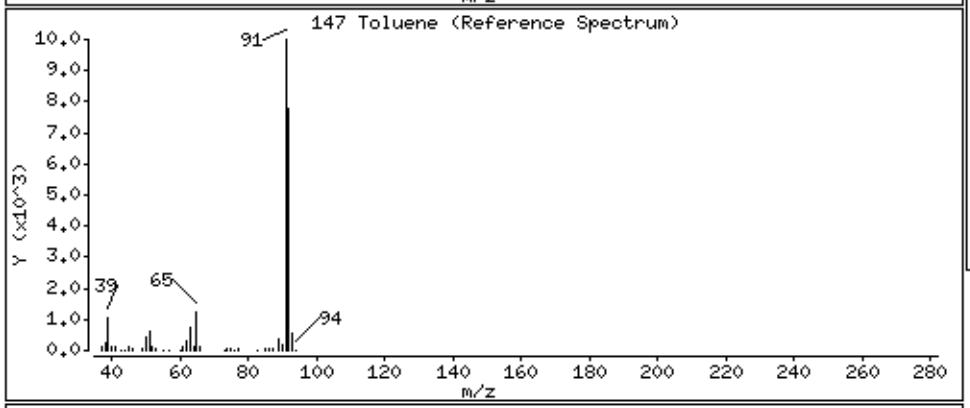
Concentration: 0.3671 PPBV

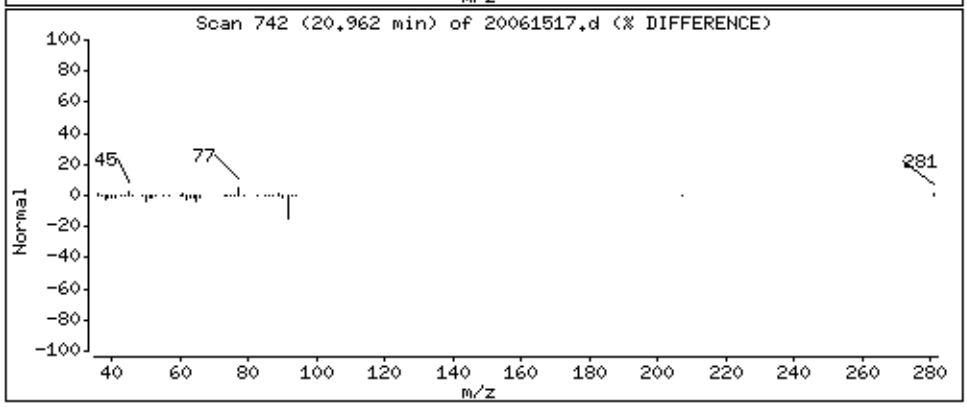












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

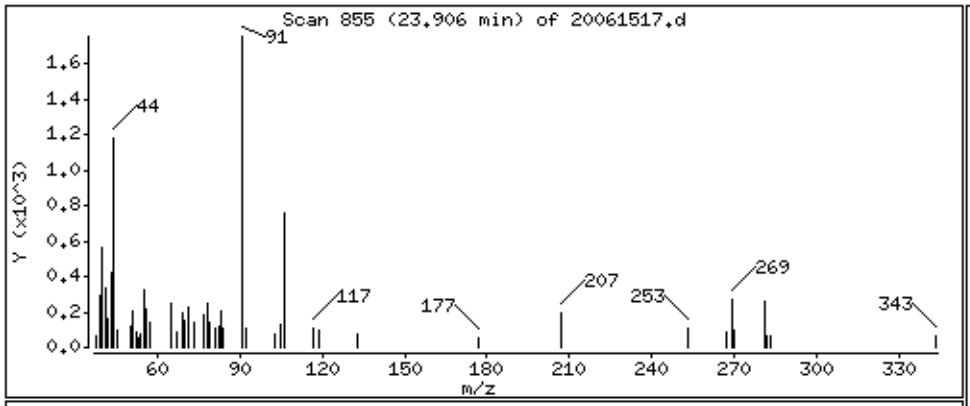
Operator: mjs

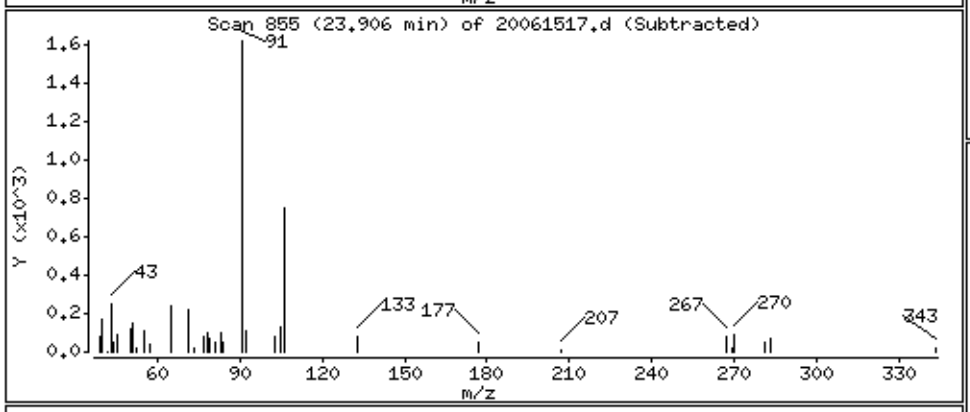
Column phase: RTX-624

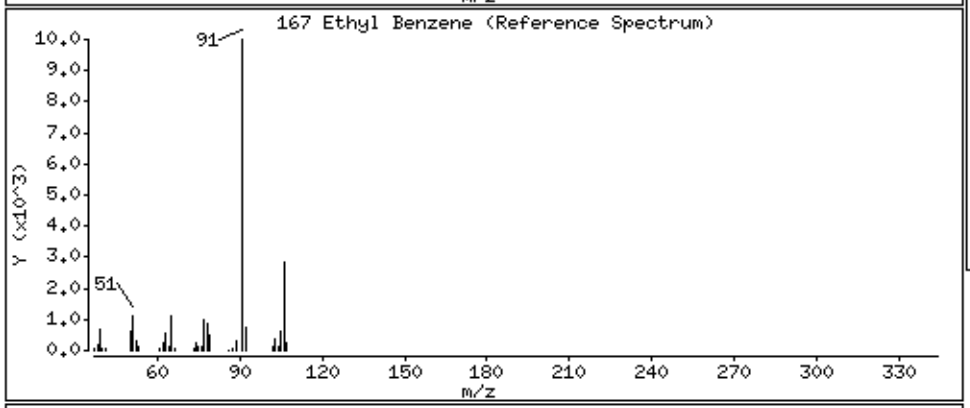
Column diameter: 0.32

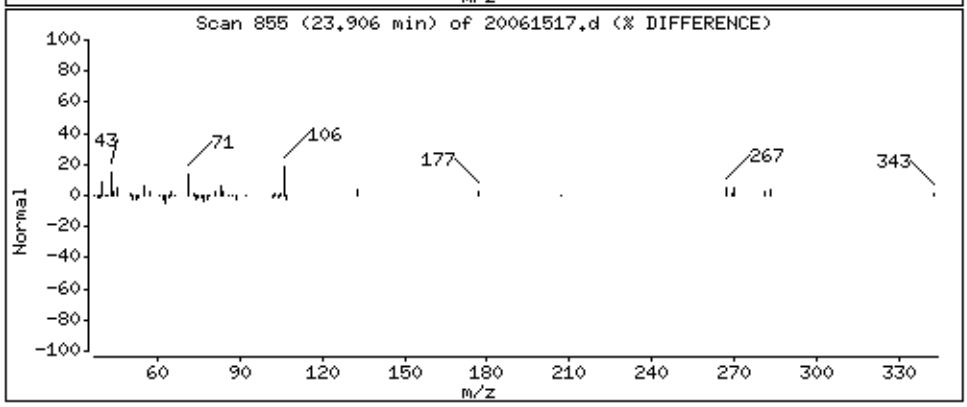
167 Ethyl Benzene

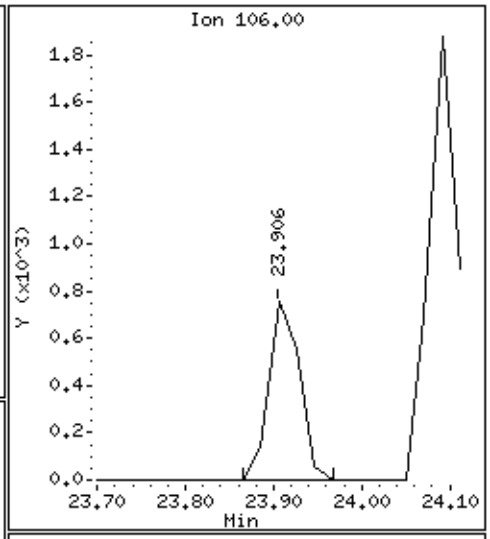
Concentration: 0.07262 PPBV

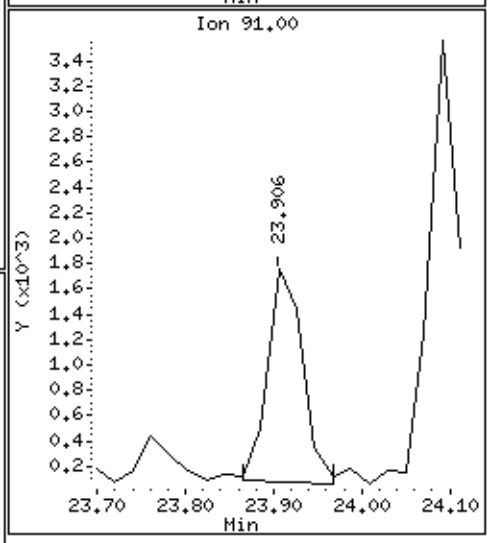












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

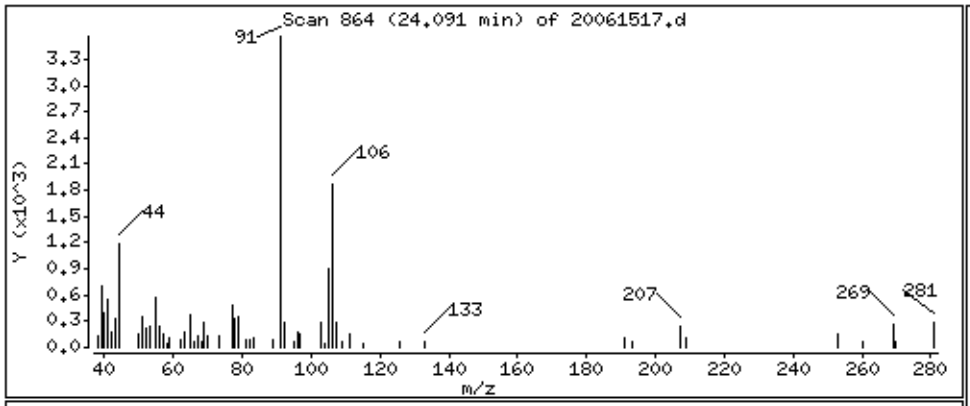
Operator: mjs

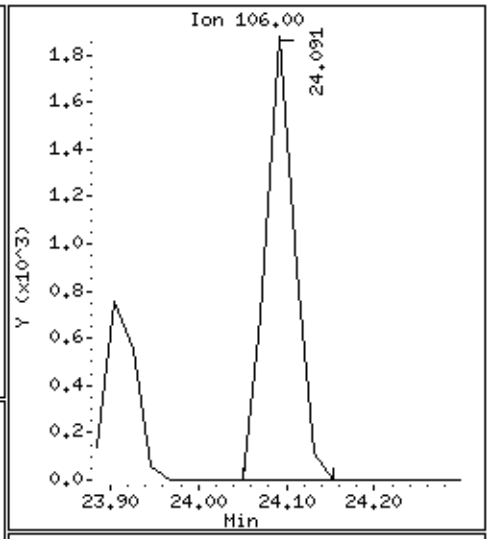
Column phase: RTX-624

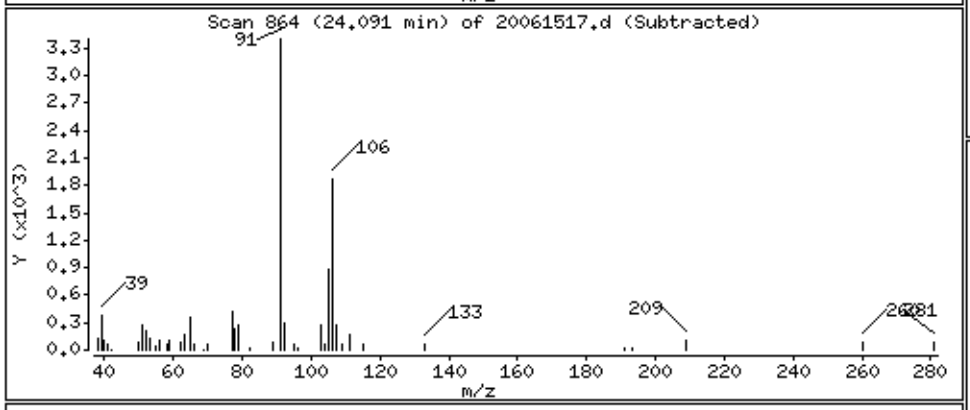
Column diameter: 0.32

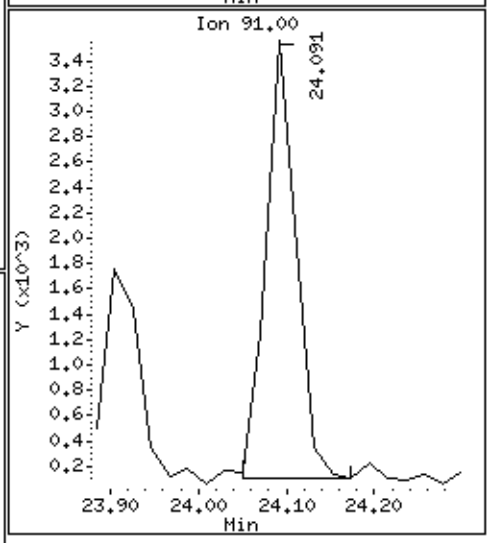
169 m,p-Xylene

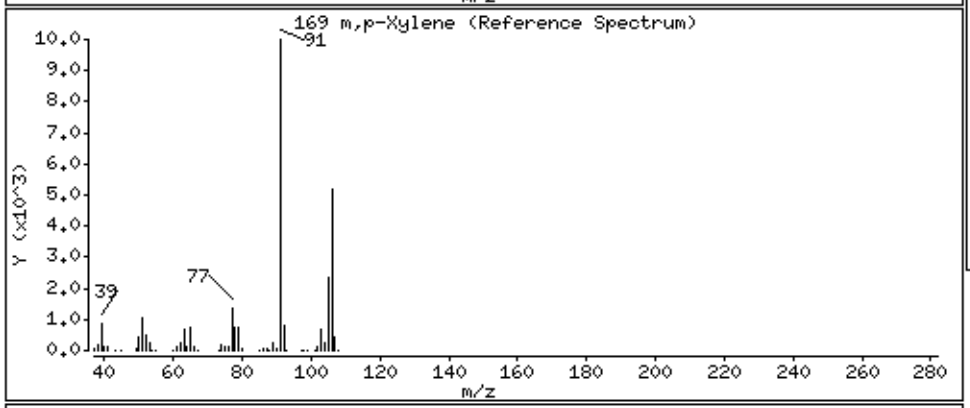
Concentration: 0.1590 PPBV

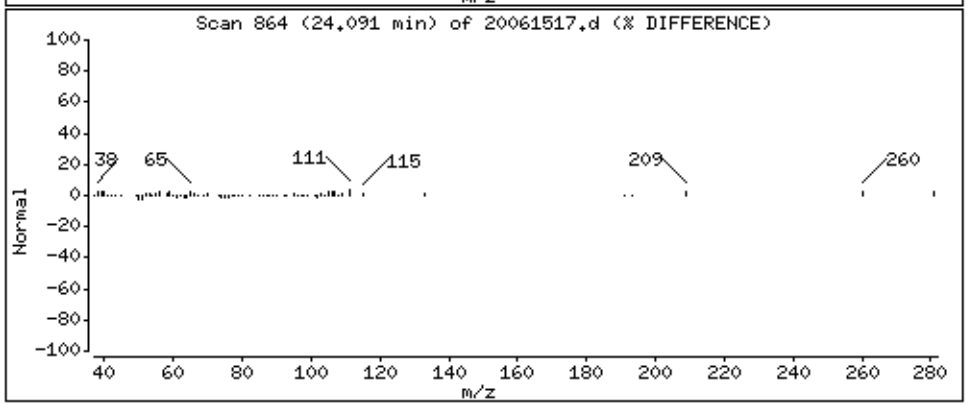












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

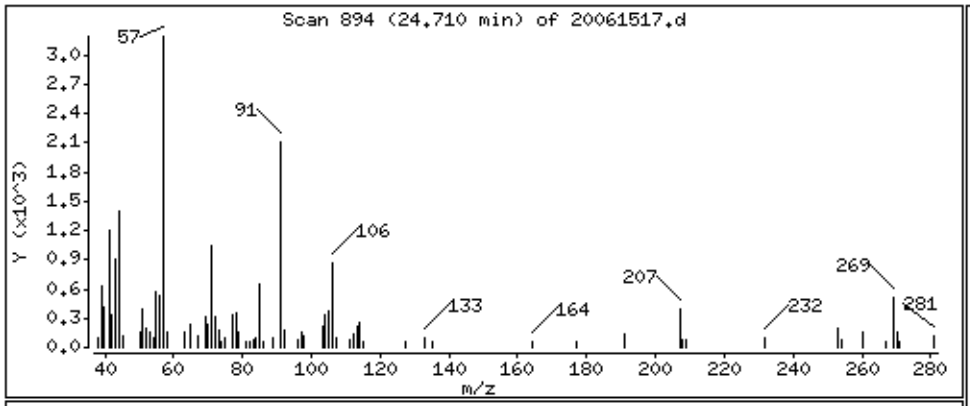
Operator: mjs

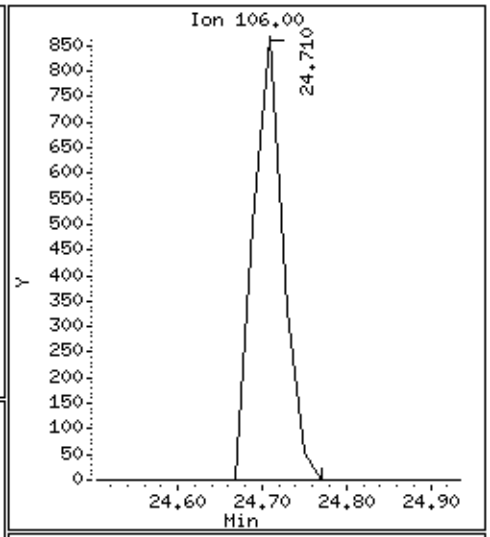
Column phase: RTX-624

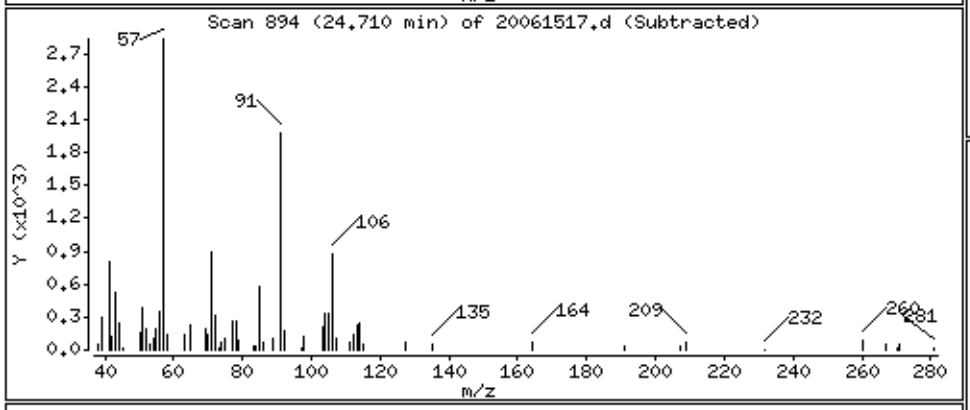
Column diameter: 0.32

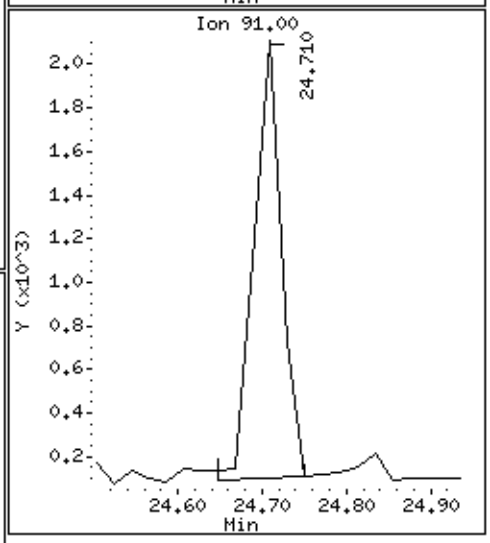
171 o-Xylene

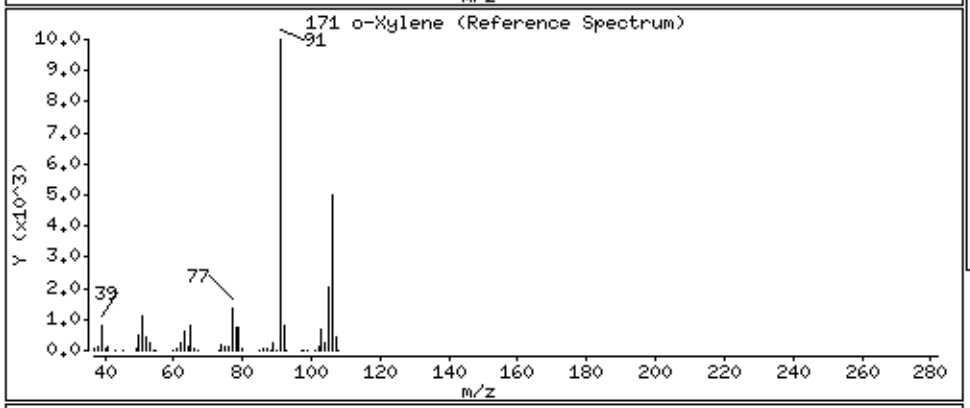
Concentration: 0.07961 PPBV

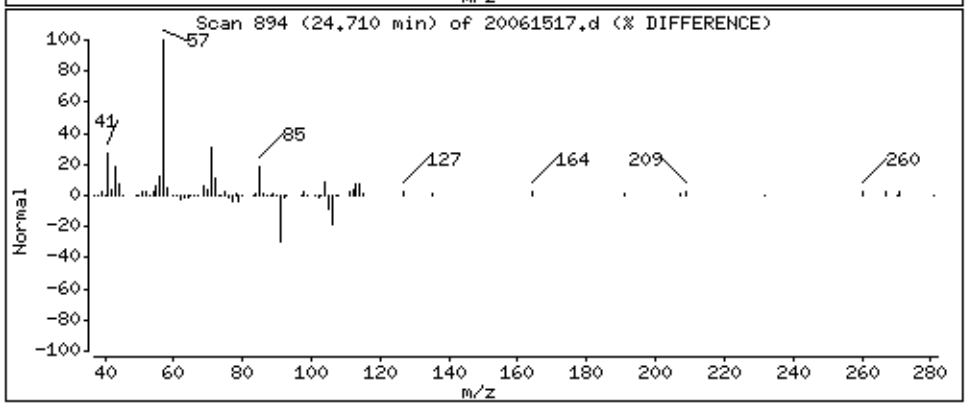












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

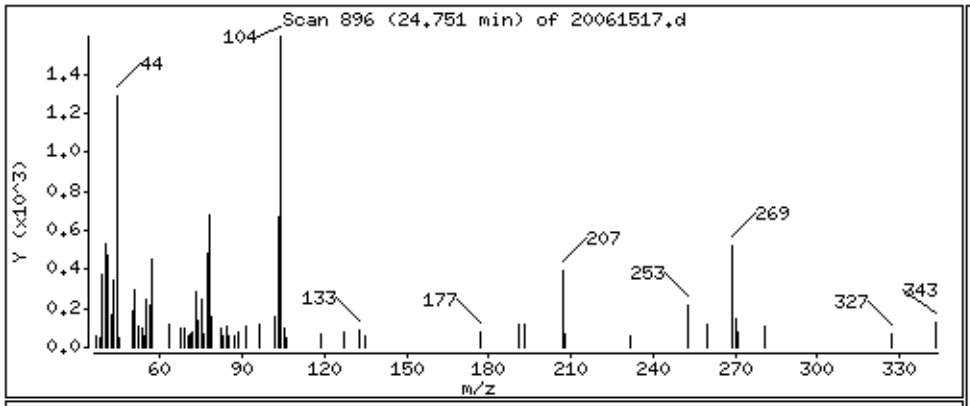
Operator: mjs

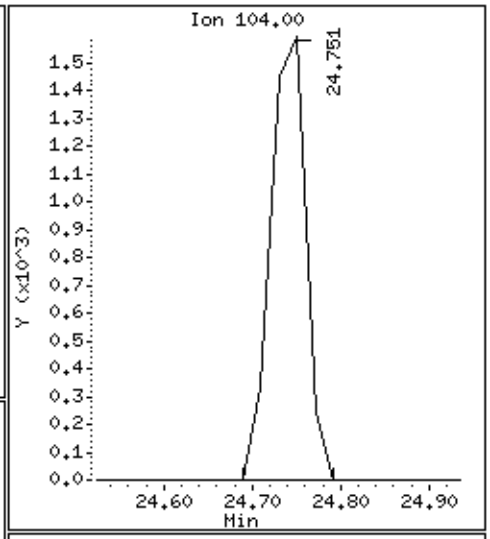
Column phase: RTX-624

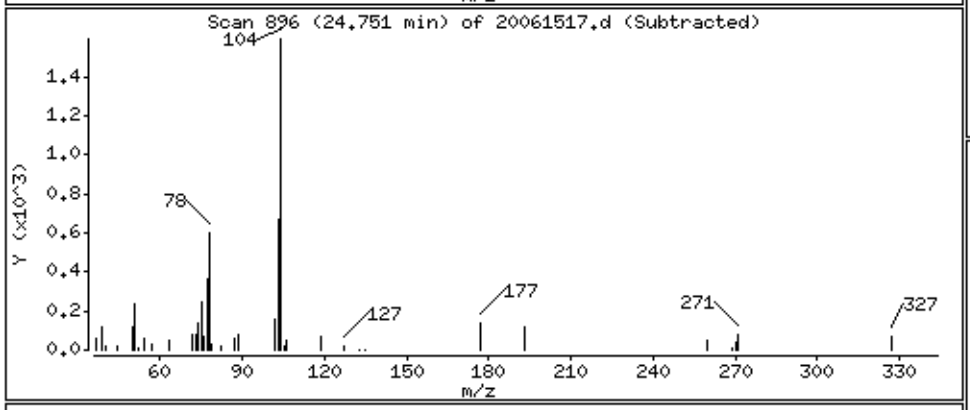
Column diameter: 0.32

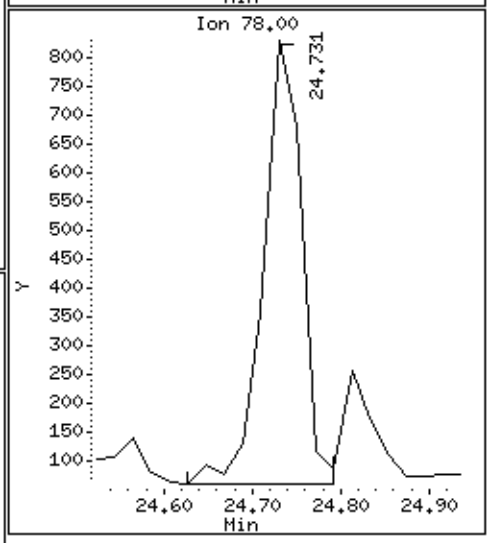
172 Styrene

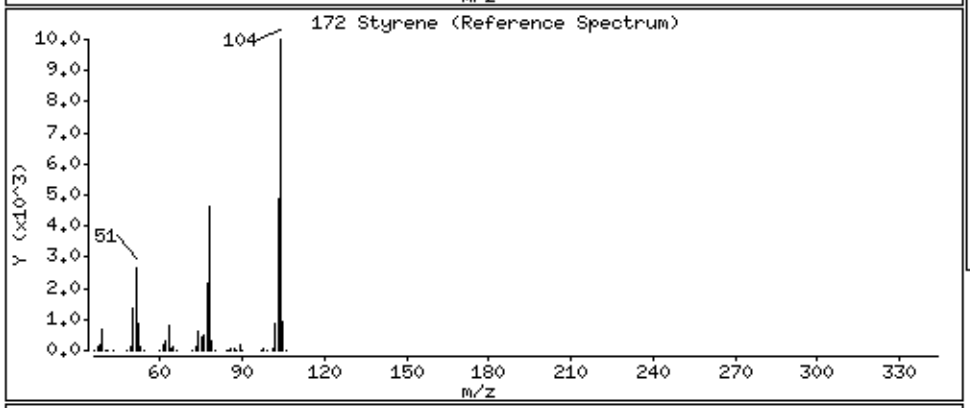
Concentration: 0.1070 PPBV

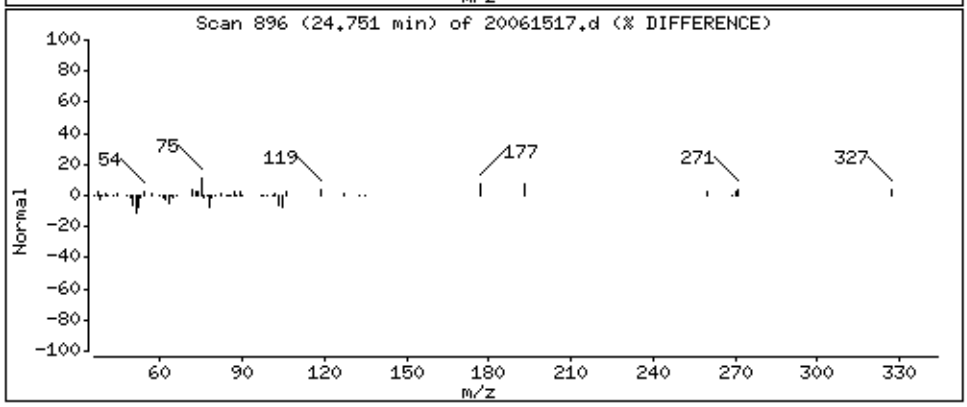












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

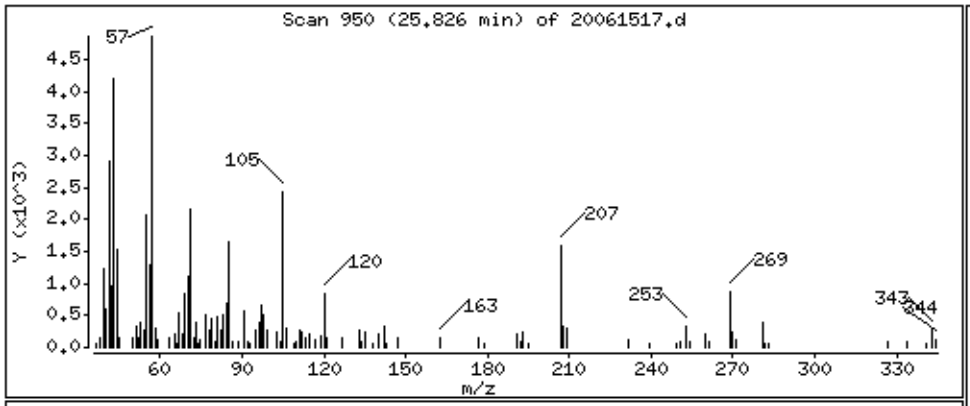
Operator: mjs

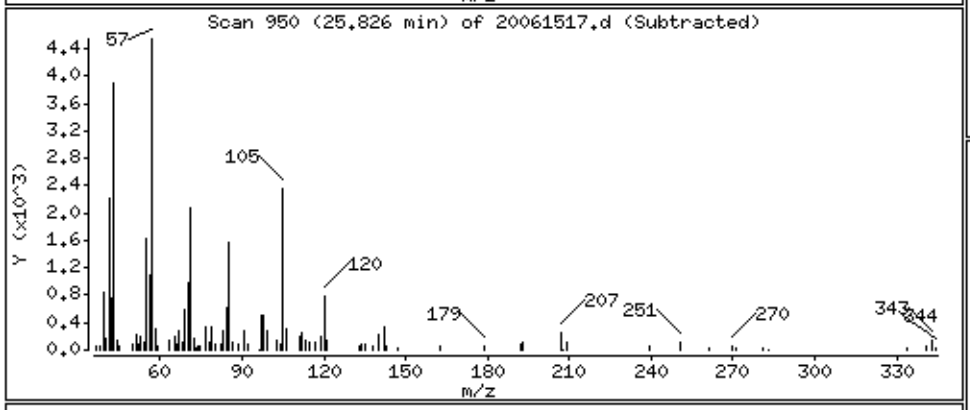
Column phase: RTX-624

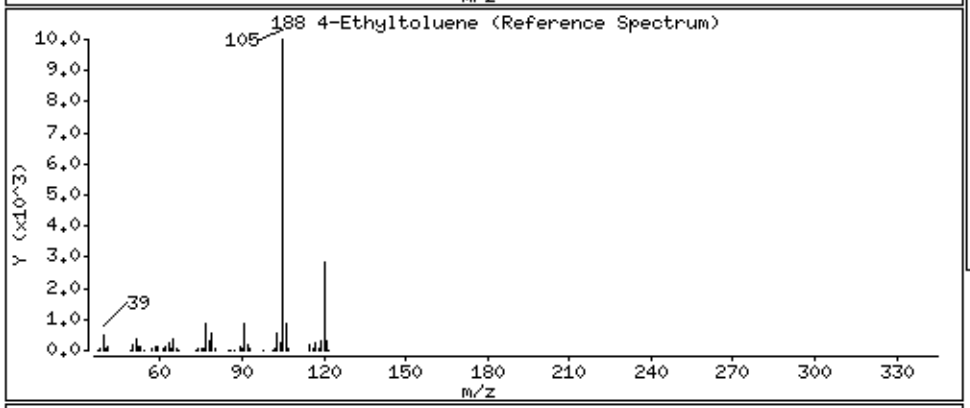
Column diameter: 0.32

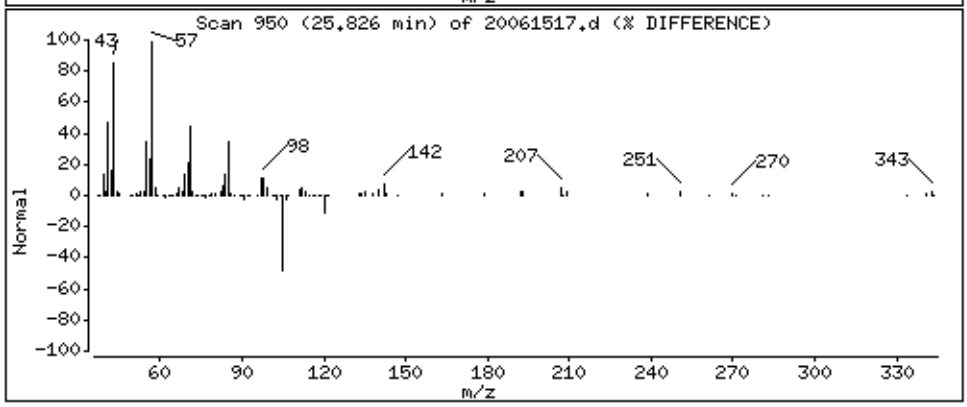
188 4-Ethyltoluene

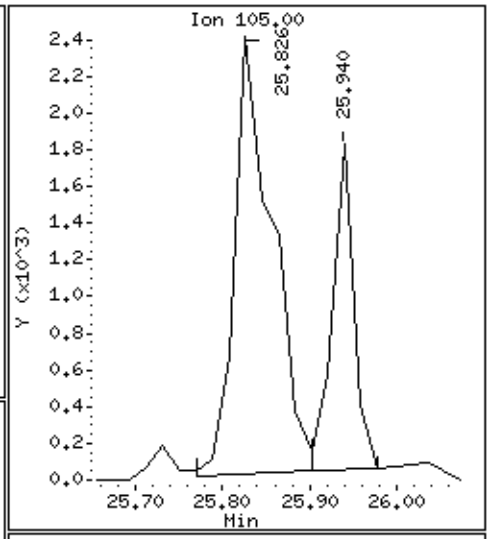
Concentration: 0.1027 PPBV

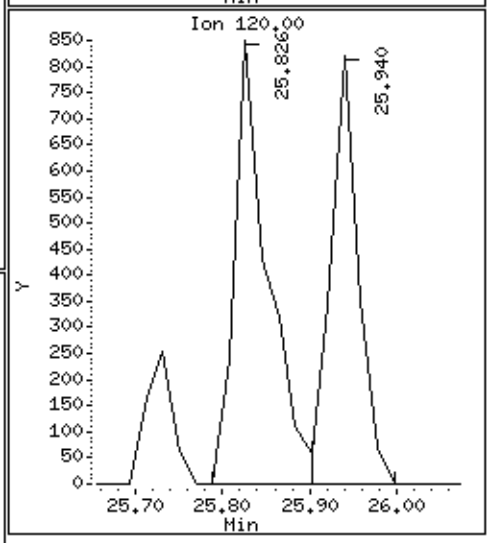












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

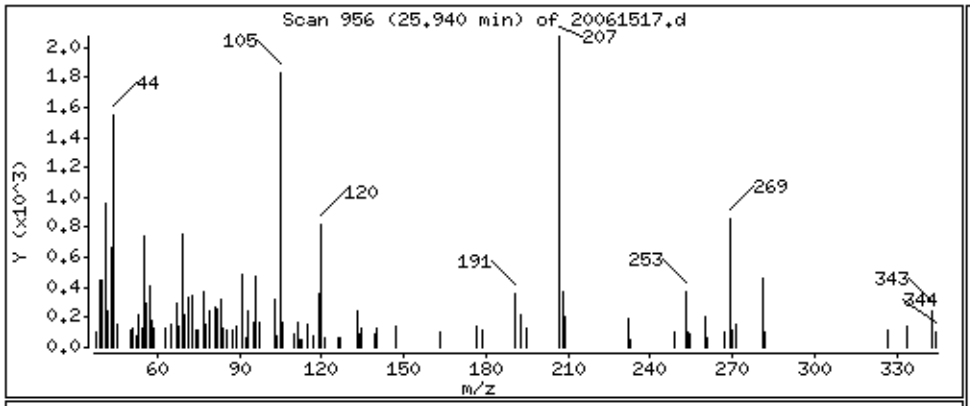
Operator: mjs

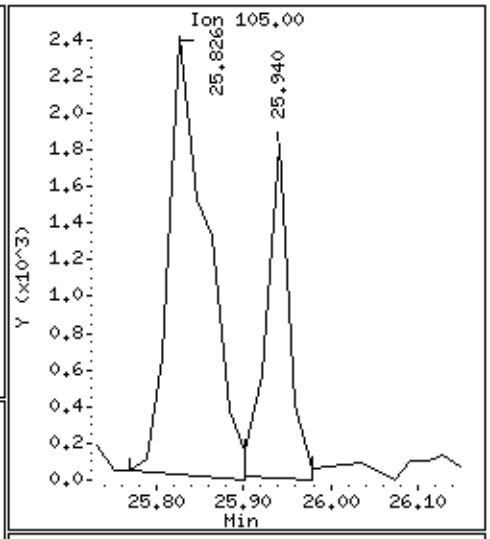
Column phase: RTX-624

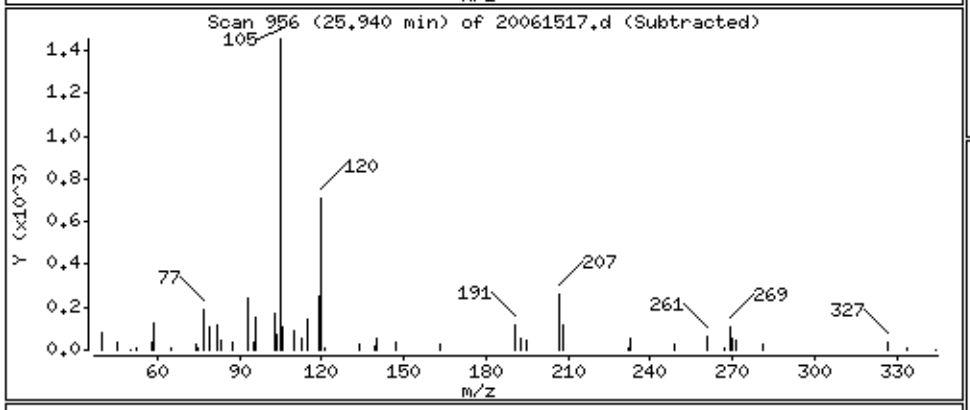
Column diameter: 0.32

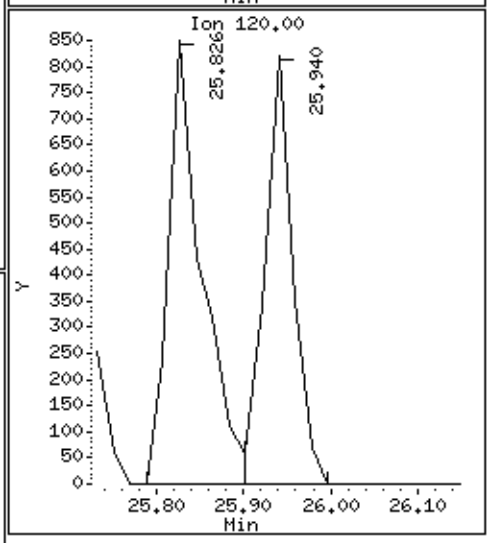
190 1,3,5-Trimethylbenzene

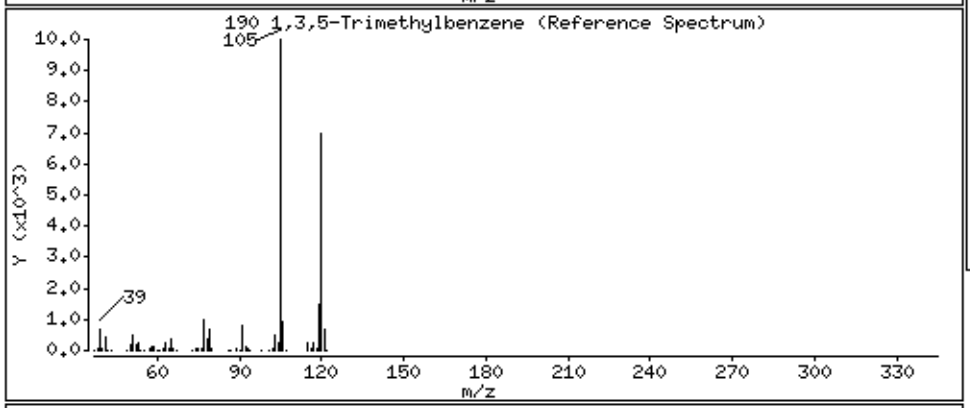
Concentration: 0.05480 PPBV

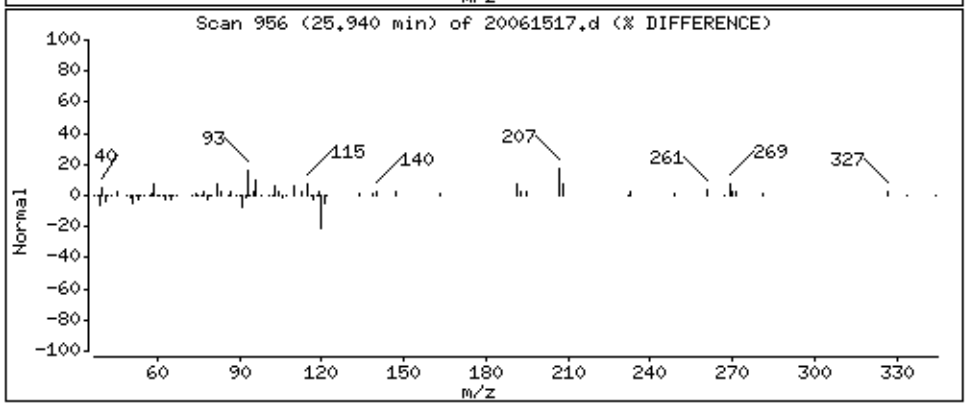












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

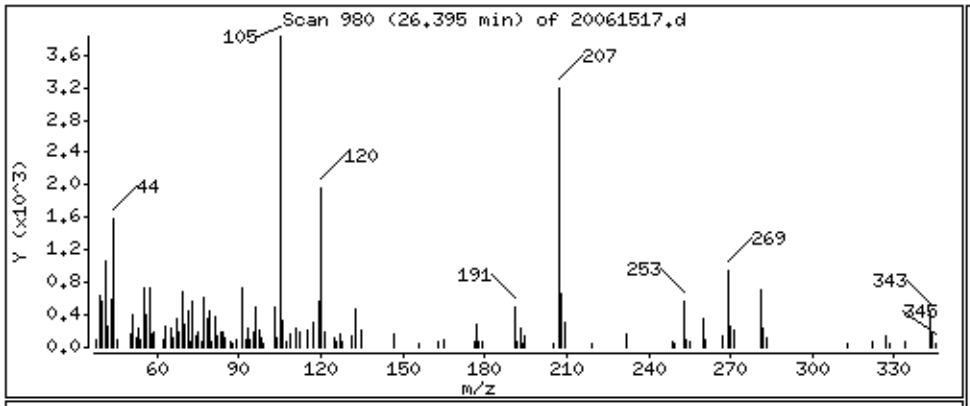
Operator: mjs

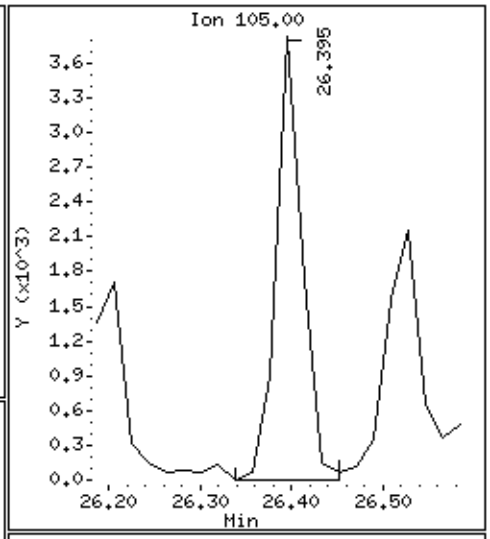
Column phase: RTX-624

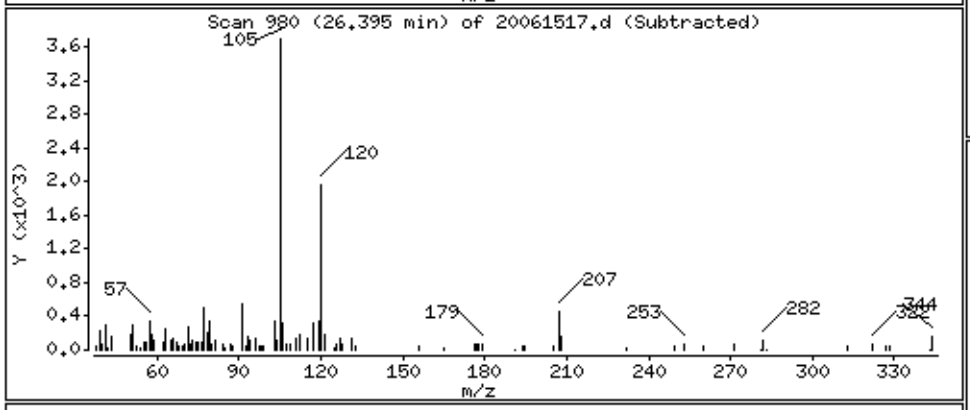
Column diameter: 0.32

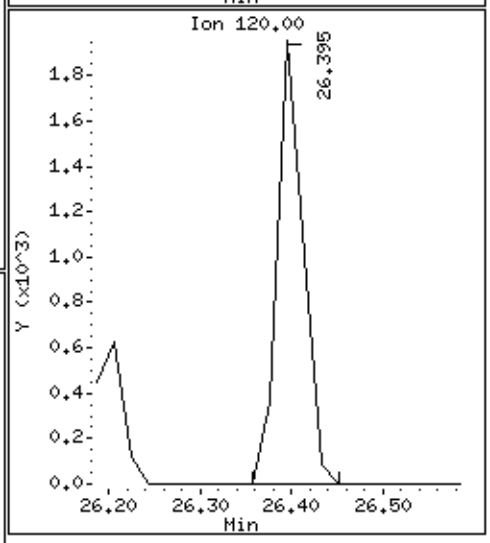
196 1,2,4-Trimethylbenzene

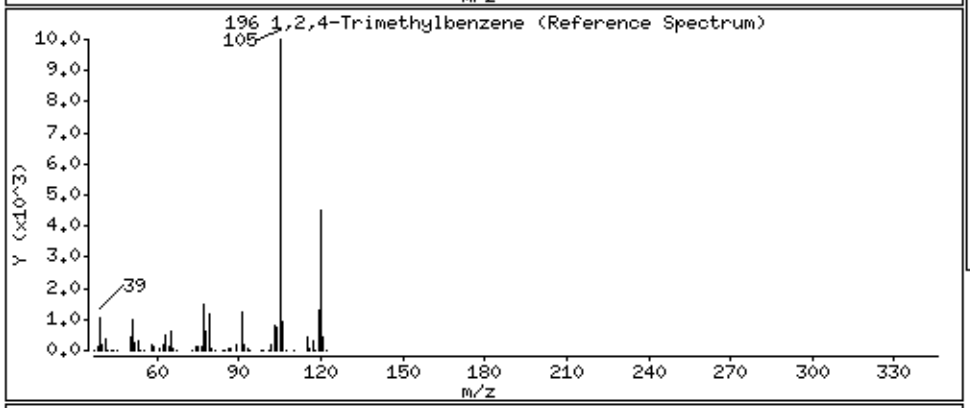
Concentration: 0.1256 PPBV

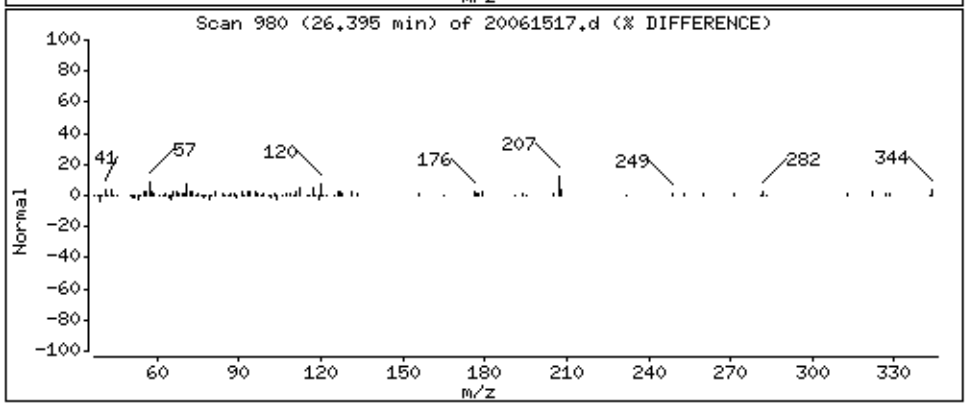












Data File: /chem/msd20.i/15Jun2016.b/20061517.d

Date : 15-JUN-2016 22:20

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0678

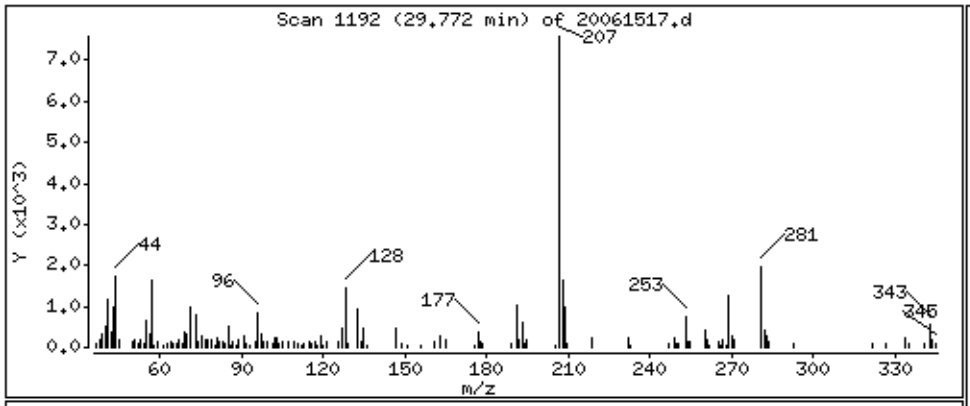
Operator: mjs

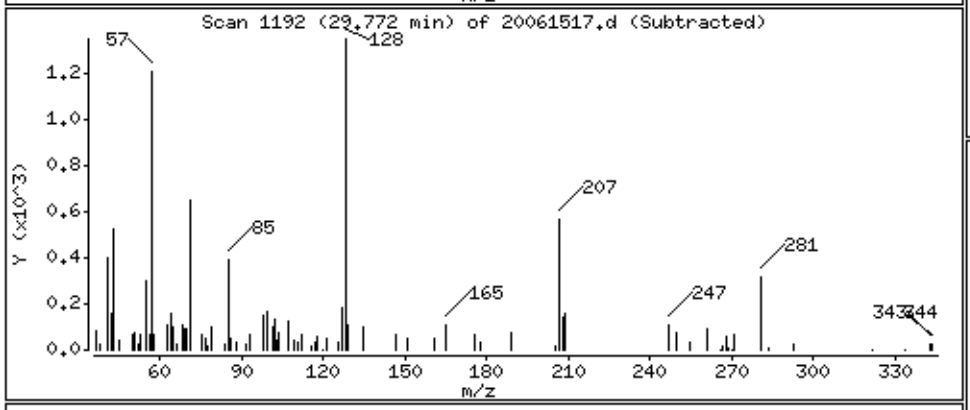
Column phase: RTX-624

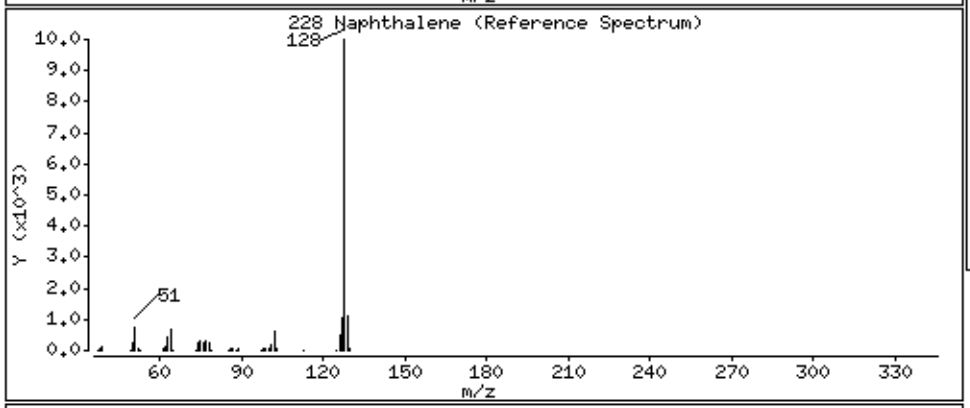
Column diameter: 0.32

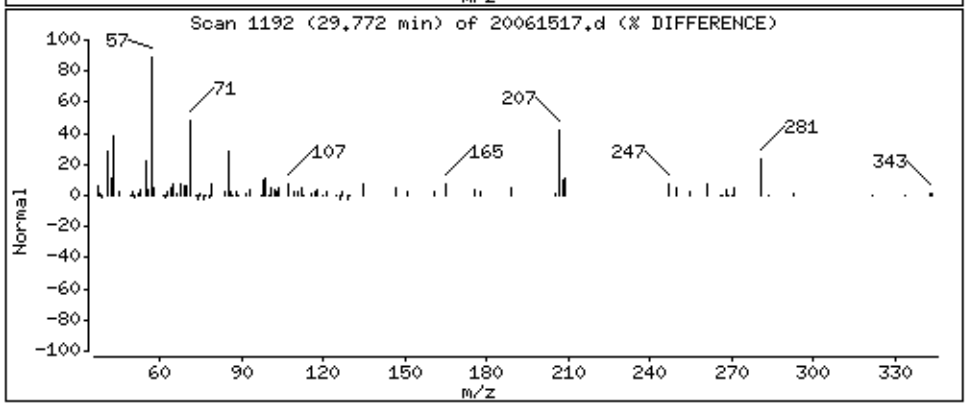
228 Naphthalene

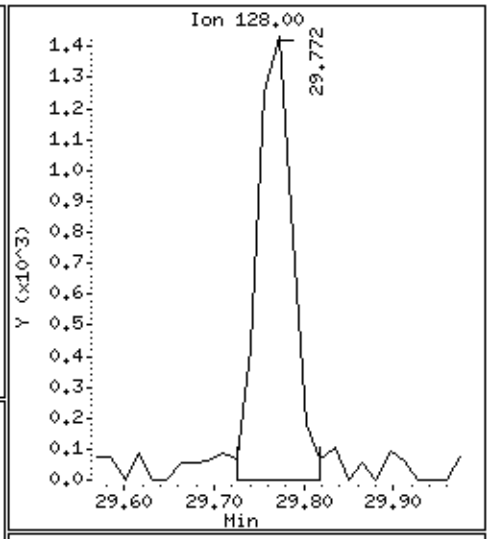
Concentration: 0.05958 PPBV

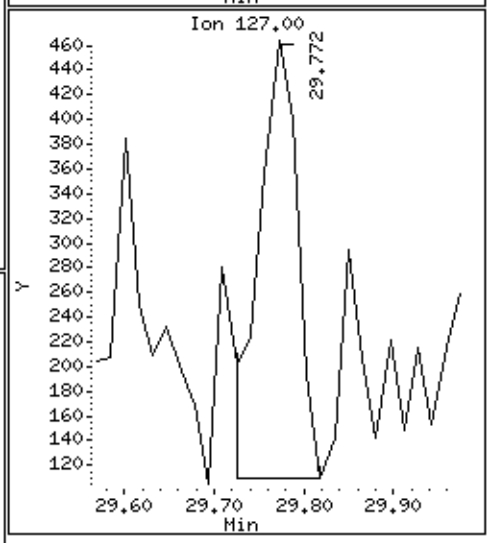












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7IA-4(061016)

Lab ID#: 1606298A-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.79	3.0
Chloromethane	0.80	1.1	1.6	2.2
Freon 11	0.16	10	0.89	57
Ethanol	0.80	3.1	1.5	5.8
Freon 113	0.16	0.10 J	1.2	0.77 J
Acetone	0.80	9.1	1.9	22
2-Propanol	0.80	2.2	2.0	5.4
Methylene Chloride	0.32	0.25 J	1.1	0.86 J
Hexane	0.16	0.11 J	0.56	0.40 J
2-Butanone (Methyl Ethyl Ketone)	0.80	1.7	2.3	5.0
Cyclohexane	0.16	0.039 J	0.55	0.13 J
Carbon Tetrachloride	0.16	0.080 J	1.0	0.50 J
Benzene	0.16	0.080 J	0.51	0.26 J
Heptane	0.16	0.14 J	0.65	0.59 J
4-Methyl-2-pentanone	0.16	0.070 J	0.65	0.29 J
Toluene	0.16	0.55	0.60	2.1
2-Hexanone	0.80	0.16 J	3.2	0.66 J
m,p-Xylene	0.16	0.11 J	0.69	0.48 J
o-Xylene	0.16	0.047 J	0.69	0.20 J
Styrene	0.16	0.043 J	0.68	0.18 J
4-Ethyltoluene	0.16	0.036 J	0.78	0.18 J
1,2,4-Trimethylbenzene	0.16	0.046 J	0.78	0.22 J
Naphthalene	0.80	0.024 J	4.2	0.12 J

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Client Sample ID: B7IA-4(061016)

Lab ID#: 1606298A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061518**	**Date of Collection:**	**6/11/16 7:19:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**6/15/16 10:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.16	0.61	0.79	3.0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.80	1.1	1.6	2.2
Vinyl Chloride	0.16	Not Detected	0.41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0.80	Not Detected	3.1	Not Detected
Chloroethane	0.80	Not Detected	2.1	Not Detected
Freon 11	0.16	10	0.89	57
Ethanol	0.80	3.1	1.5	5.8
Freon 113	0.16	0.10 J	1.2	0.77 J
1,1-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Acetone	0.80	9.1	1.9	22
2-Propanol	0.80	2.2	2.0	5.4
Carbon Disulfide	0.80	Not Detected	2.5	Not Detected
3-Chloropropene	0.80	Not Detected	2.5	Not Detected
Methylene Chloride	0.32	0.25 J	1.1	0.86 J
Methyl tert-butyl ether	0.16	Not Detected	0.57	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Hexane	0.16	0.11 J	0.56	0.40 J
1,1-Dichloroethane	0.16	Not Detected	0.64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.80	1.7	2.3	5.0
cis-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected
Tetrahydrofuran	0.80	Not Detected	2.3	Not Detected
Chloroform	0.16	Not Detected	0.78	Not Detected
1,1,1-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Cyclohexane	0.16	0.039 J	0.55	0.13 J
Carbon Tetrachloride	0.16	0.080 J	1.0	0.50 J
2,2,4-Trimethylpentane	0.80	Not Detected	3.7	Not Detected
Benzene	0.16	0.080 J	0.51	0.26 J
1,2-Dichloroethane	0.16	Not Detected	0.64	Not Detected
Heptane	0.16	0.14 J	0.65	0.59 J
Trichloroethene	0.16	Not Detected	0.85	Not Detected
1,2-Dichloropropane	0.16	Not Detected	0.73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0.16	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
4-Methyl-2-pentanone	0.16	0.070 J	0.65	0.29 J
Toluene	0.16	0.55	0.60	2.1
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.87	Not Detected
Tetrachloroethene	0.16	Not Detected	1.1	Not Detected
2-Hexanone	0.80	0.16 J	3.2	0.66 J

eurofins | Air Toxics

Client Sample ID: B7IA-4(061016)

Lab ID#: 1606298A-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061518**	**Date of Collection:**	**6/11/16 7:19:00 PM**
Dil. Factor:	**1.59**	**Date of Analysis:**	**6/15/16 10:59 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.16	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.16	Not Detected	1.2	Not Detected
Chlorobenzene	0.16	Not Detected	0.73	Not Detected
Ethyl Benzene	0.16	Not Detected	0.69	Not Detected
m,p-Xylene	0.16	0.11 J	0.69	0.48 J
o-Xylene	0.16	0.047 J	0.69	0.20 J
Styrene	0.16	0.043 J	0.68	0.18 J
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.78	Not Detected
1,1,2,2-Tetrachloroethane	0.16	Not Detected	1.1	Not Detected
Propylbenzene	0.16	Not Detected	0.78	Not Detected
4-Ethyltoluene	0.16	0.036 J	0.78	0.18 J
1,3,5-Trimethylbenzene	0.16	Not Detected	0.78	Not Detected
1,2,4-Trimethylbenzene	0.16	0.046 J	0.78	0.22 J
1,3-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.96	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8.5	Not Detected
Naphthalene	0.80	0.024 J	4.2	0.12 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	96	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061518.d
Lab Smp Id: 1606298A-05A
Inj Date : 15-JUN-2016 22:59
Operator : mjs Inst ID: msd20.i
Smp Info : 250mL #6L0407
Misc Info : 4.9"Hg -> 4.9psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.59000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	96213	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	75284			47.16- 107.16	78.25
16.726	16.726 (1.000)	49	123640			84.74- 144.74	128.51
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	454087	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	73923			0.00- 45.65	16.28
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	374835	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	210259			24.05- 84.05	56.09
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	153601	6.00096	6.001	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	81818			28.75- 88.75	53.27
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.821	20.821 (1.142)	98	433286	5.03551	5.036	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	50034			0.00- 41.22	11.55

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    292920                    37.90-  97.90    67.60
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    197583 4.79444    4.794  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    247141                   88.33- 148.33   125.08
 25.485  25.485 (1.073)   176    193565                   68.77- 128.77    97.97
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.672 (0.279)    85     29043 0.38431   0.6110  80.00- 120.00   100.00
  4.672   4.648 (0.279)    87      7080                     2.50-  62.50    24.38
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.601   6.552 (0.395)    50     16601 0.67561    1.074  80.00- 120.00   100.00
  6.576   6.552 (0.393)    52      5503                     3.09-  63.09    33.15
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101    471095 6.34473   10.088  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103    304222                   34.69-  94.69    64.58
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45     18852 1.92467    3.060  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46      7164                   11.01-  71.01    38.00
 12.296  12.269 (0.735)    43      5557                    0.00-  50.63    29.48
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.763)   151      3422 0.06288  0.09997  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      2368                   34.65-  94.65    69.19
 12.763  12.763 (0.763)   101      3731                   90.37- 150.37   109.01
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58     82146 5.71598    9.088  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    253951                  275.09- 335.09   309.15
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.587  13.532 (0.812)    45     63849 1.38108    2.196  80.00- 120.00   100.00
 13.587  13.532 (0.812)    43     14708                    0.00-  49.91    23.04
 13.587  13.532 (0.812)    59      2650                    0.00-  34.18     4.15
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.054  14.027 (0.840)    84      4879 0.15596   0.2480  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      6260                   88.46- 148.46   128.29
 14.027  14.027 (0.839)    51      1986                    6.78-  66.78    40.72
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57      3374 0.07227   0.1149  80.00- 120.00   100.00(a)
```

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

   78 Hexane (continued)
 14.933  14.878 (0.893)    43      5988                    31.00-  91.00   177.45
 14.878  14.878 (0.889)    86       525                     0.00-  49.39    15.57
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.365  16.344 (0.978)    72     16355 1.06769    1.698  80.00- 120.00   100.00
 16.365  16.344 (0.978)    43     67105                  324.50- 384.50   410.30
 16.365  16.344 (0.978)    57      5386                     0.00-  59.24    32.93
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.034 (1.018)    84      1140 0.02449  0.03894  80.00- 120.00   100.00(a)
 17.035  17.034 (1.018)    56      2256                    77.49- 137.49   197.75
 17.035  17.034 (1.018)    41      3225                    25.74-  85.74   282.68
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      2622 0.05018  0.07979  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      2568                    73.36- 133.36    97.95
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.620  17.620 (0.966)    78      5292 0.05032  0.08001  80.00- 120.00   100.00(a)
 17.620  17.620 (0.966)    77      1738                     0.00-  53.54    32.84
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.847  17.847 (0.979)    57      2670 0.09001   0.1431  80.00- 120.00   100.00(a)
 17.847  17.847 (0.979)   100       399                    10.87-  70.87    14.98
 17.867  17.847 (0.980)    43      5448                   148.15- 208.15   204.03
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.572  20.556 (1.128)    43      3307 0.04425  0.07035  80.00- 120.00   100.00(a)
 20.572  20.556 (1.128)    58      1166                    11.51-  71.51    35.27
 20.572  20.556 (1.128)    85       912                     0.00-  48.80    27.59
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91     42011 0.34902   0.5549  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92     24905                    30.55-  90.55    59.28
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.406  22.406 (0.943)    58      3902 0.10068   0.1601  80.00- 120.00   100.00(a)
 22.406  22.406 (0.943)    43      6813                   146.44- 206.44   174.61
 22.406  22.406 (0.943)   100       836                     0.00-  54.43    21.44
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106      3512 0.06932   0.1102  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91      7425                   164.82- 224.82   211.43
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106      1462 0.02948  0.04688  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
171 o-Xylene (continued)							
24.710	24.710 (1.040)	91	2767			174.08- 234.08	189.17
172 Styrene					CAS #: 100-42-5		
24.730	24.730 (1.041)	104	2066	0.02706	0.04303	80.00- 120.00	100.00(a)
24.751	24.730 (1.042)	78	1485			19.76- 79.76	71.85
188 4-Ethyltoluene					CAS #: 622-96-8		
25.826	25.864 (1.087)	105	2926	0.02290	0.03642	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	676			0.68- 60.68	23.13
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	3199	0.02866	0.04557	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1486			18.29- 78.29	46.47
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	1805	0.01498	0.02382	80.00- 120.00	100.00(a)
29.756	29.772 (1.252)	127	569			0.00- 43.33	31.56

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: msd20.i
Lab File ID: 20061518.d
Lab Smp Id: 1606298A-05A
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 4.9"Hg -> 4.9psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	96213	-18.17
123 1,4-Difluorobenze	491034	294620	687448	454087	-7.52
163 Chlorobenzene-d5	413171	247903	578439	374835	-9.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:08

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 15Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: 1606298A-05A
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 4.9"Hg -> 4.9psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	6.001	120.02	70-130
$ 146 Toluene-d8	5.000	5.036	100.71	70-130
$ 177 4-Bromofluorobenze	5.000	4.794	95.89	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

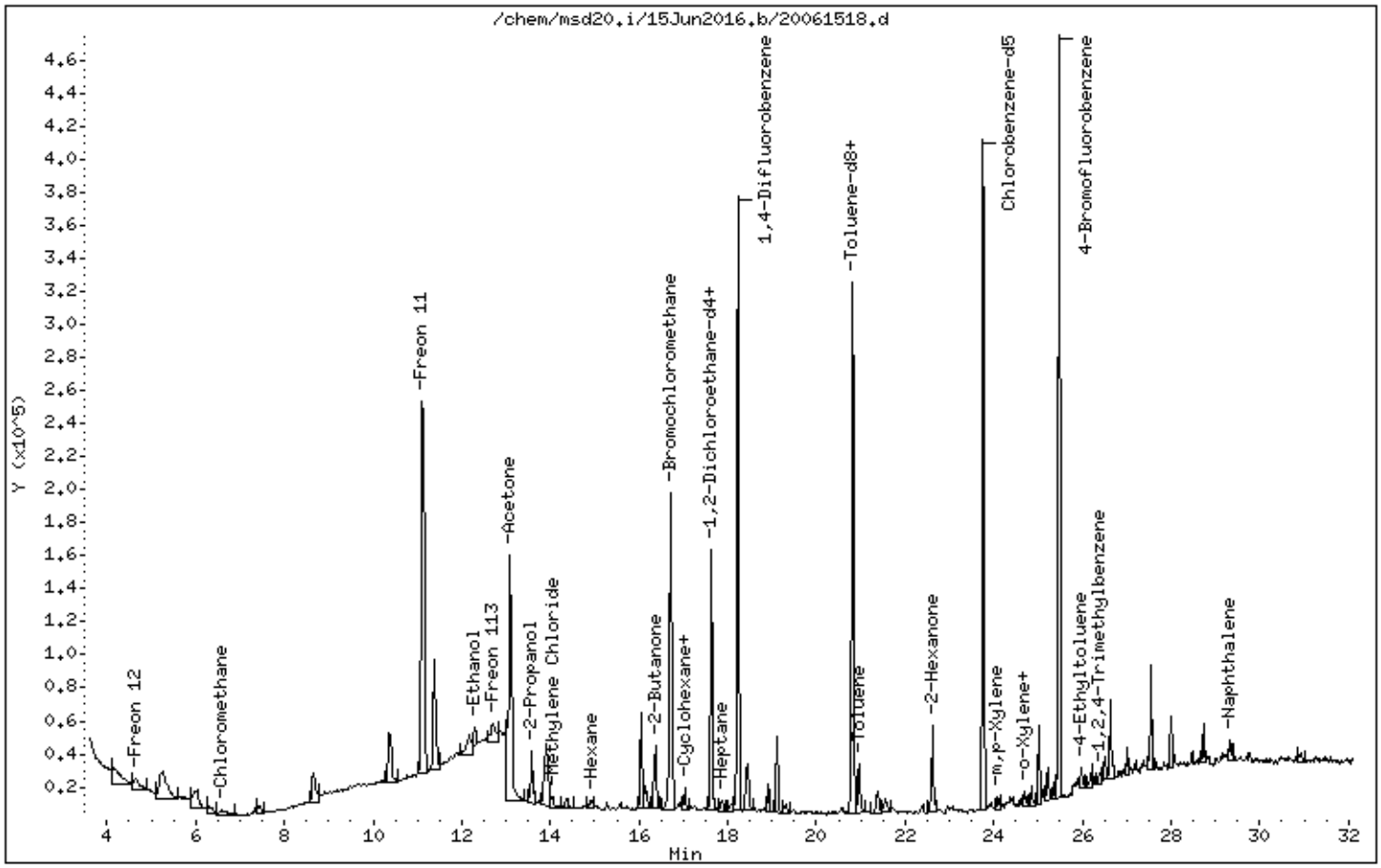
Instrument: msd20.i

Sample Info: 250mL #6L0407

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

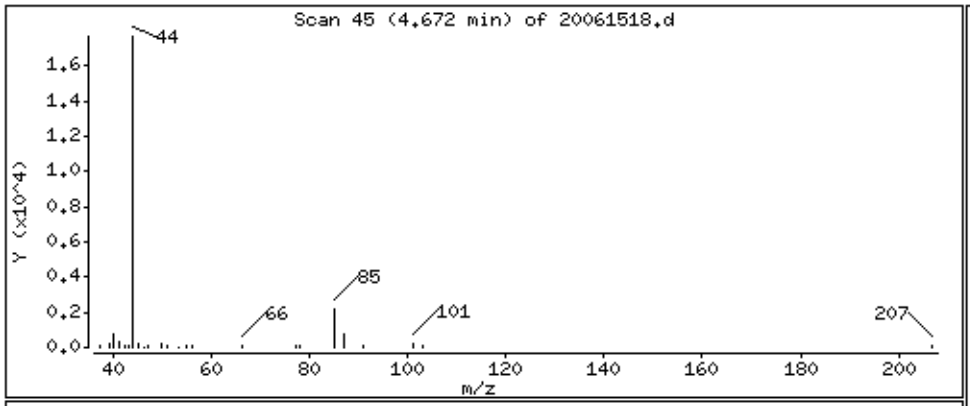
Operator: mjs

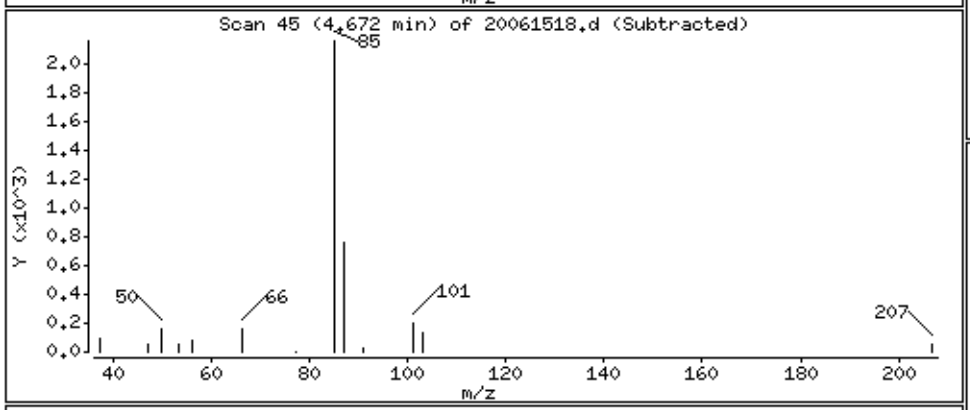
Column phase: RTX-624

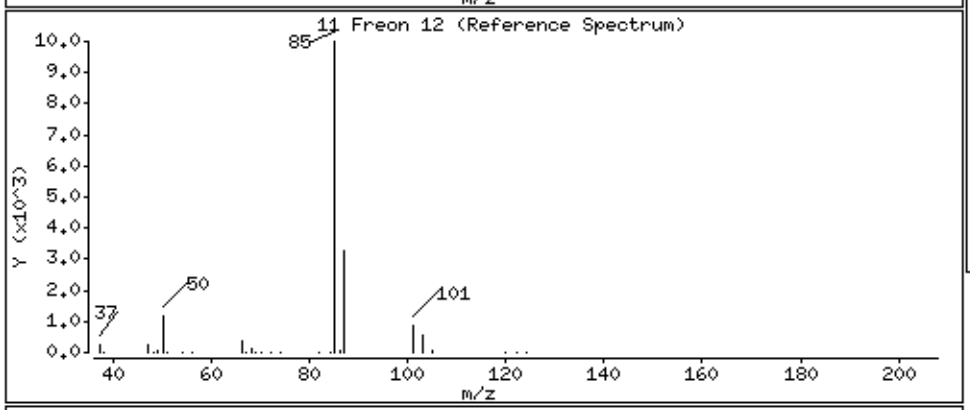
Column diameter: 0.32

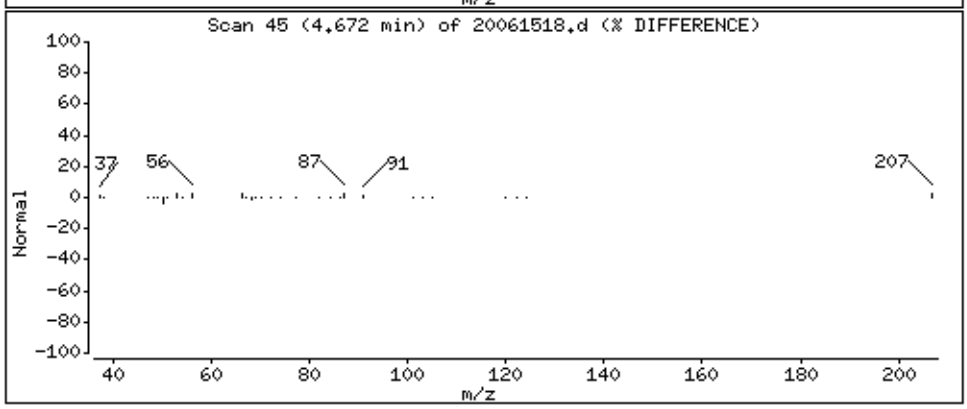
11 Freon 12

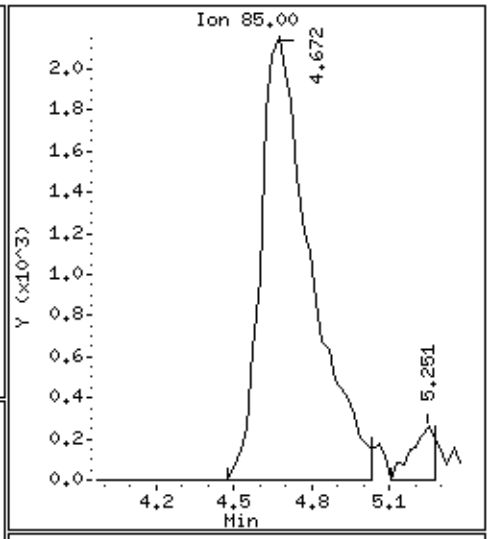
Concentration: 0.6110 PPBV

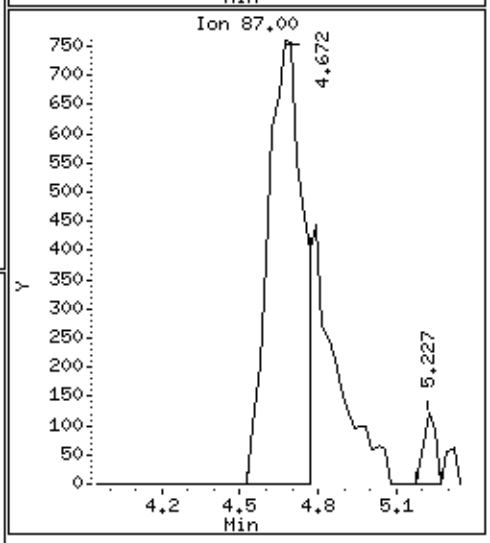












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

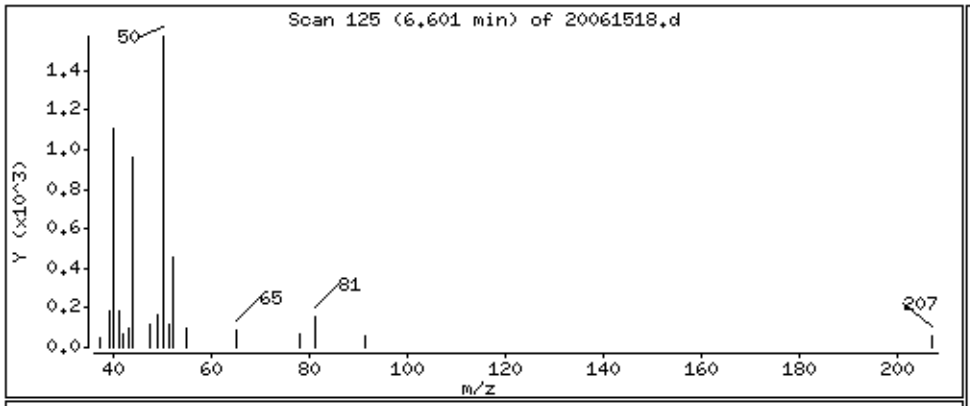
Operator: mjs

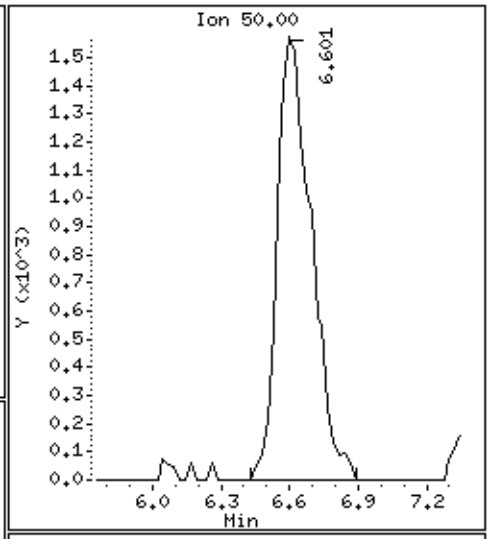
Column phase: RTX-624

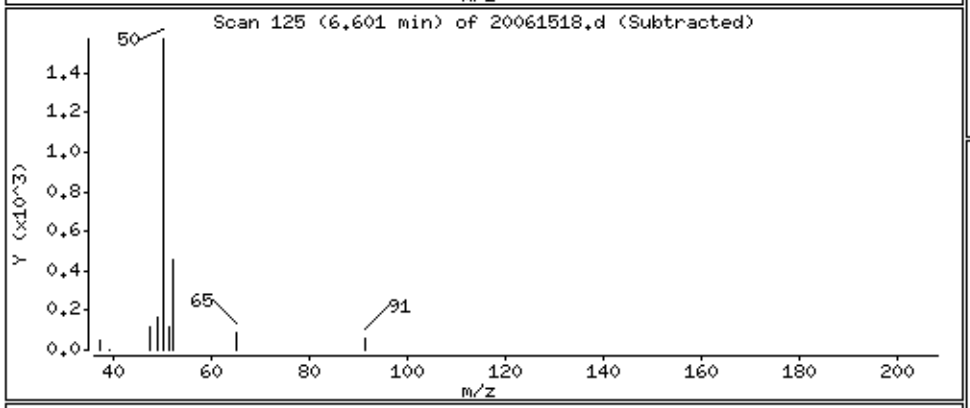
Column diameter: 0.32

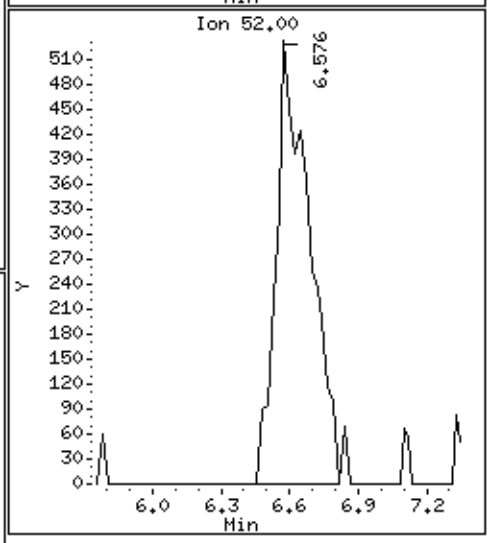
17 Chloromethane

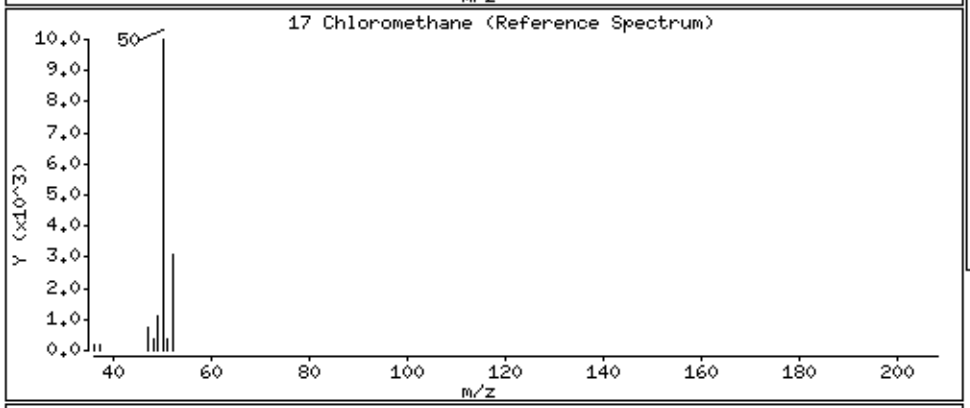
Concentration: 1.074 PPBV

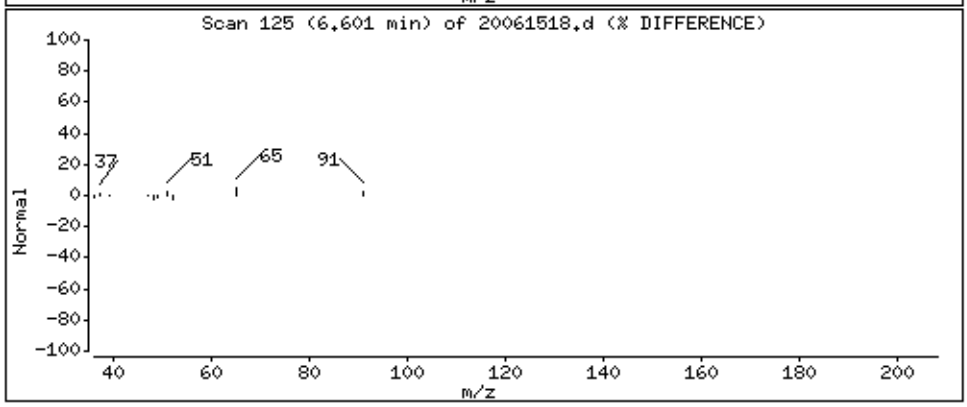












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

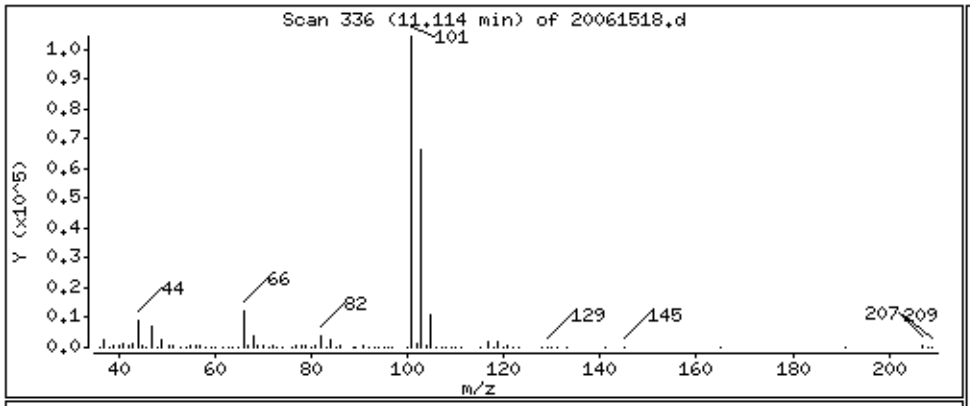
Operator: mjs

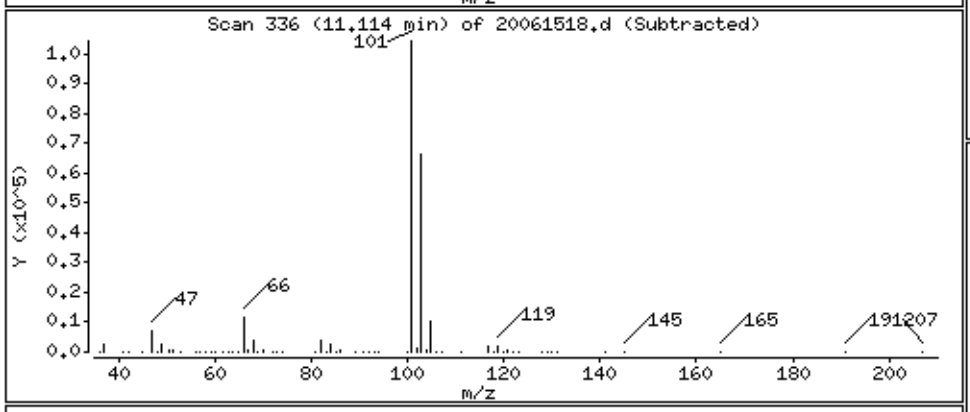
Column phase: RTX-624

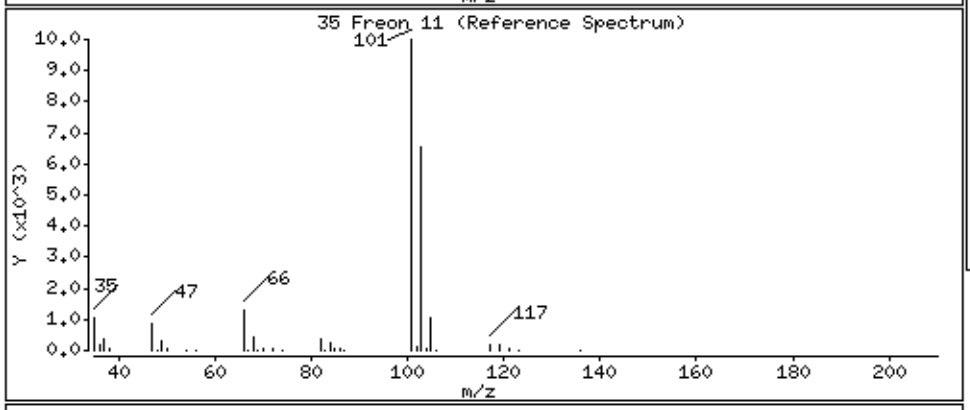
Column diameter: 0.32

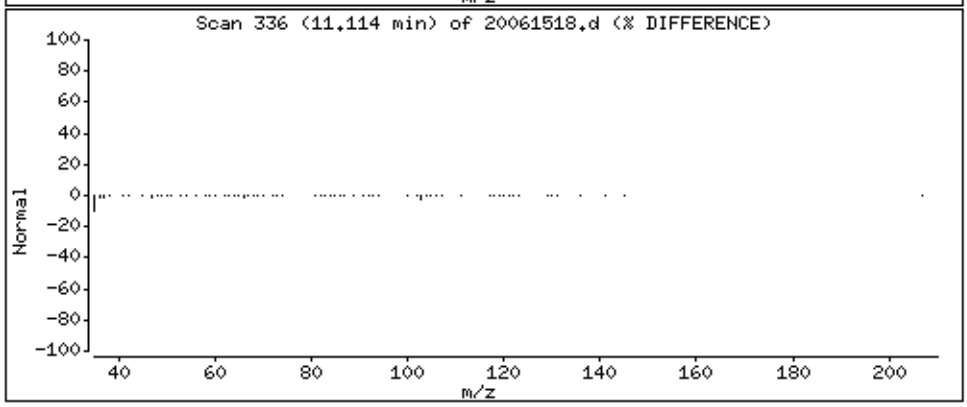
35 Freon 11

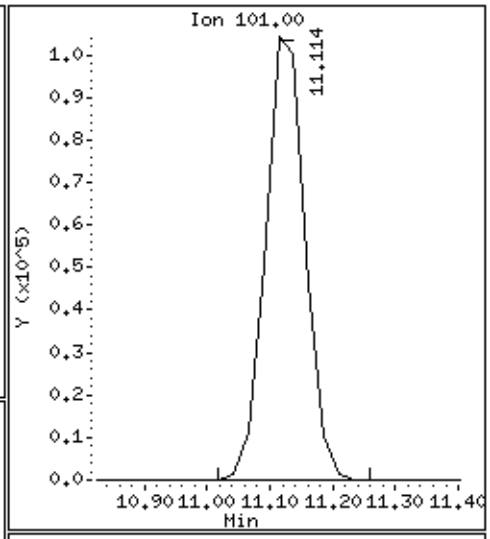
Concentration: 10.088 PPBV

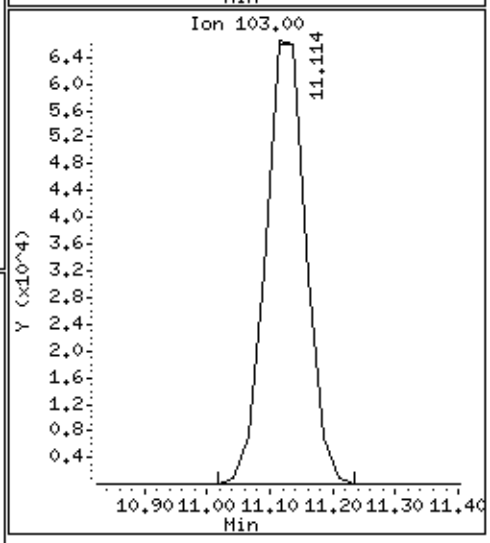












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

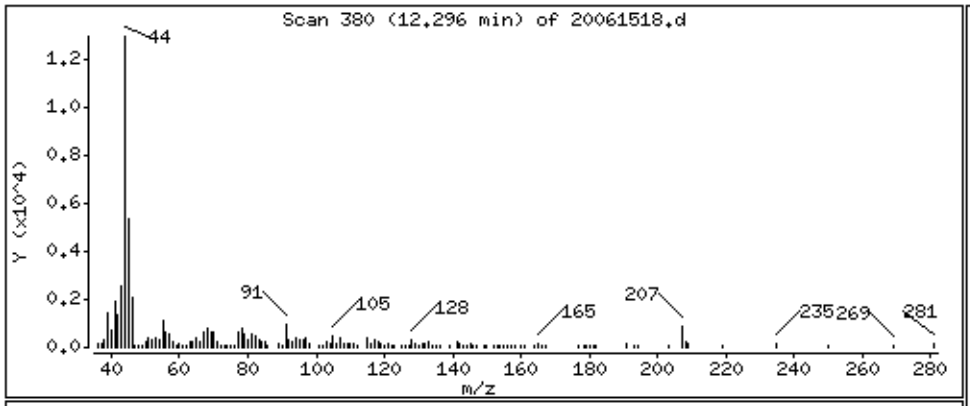
Operator: mjs

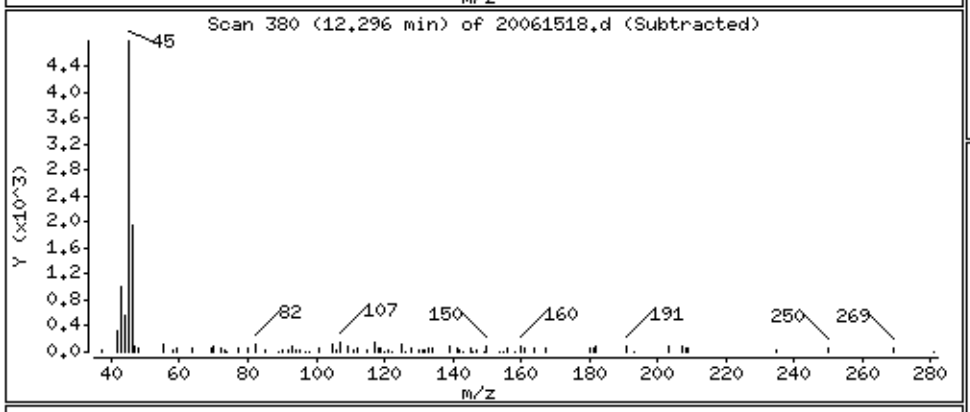
Column phase: RTX-624

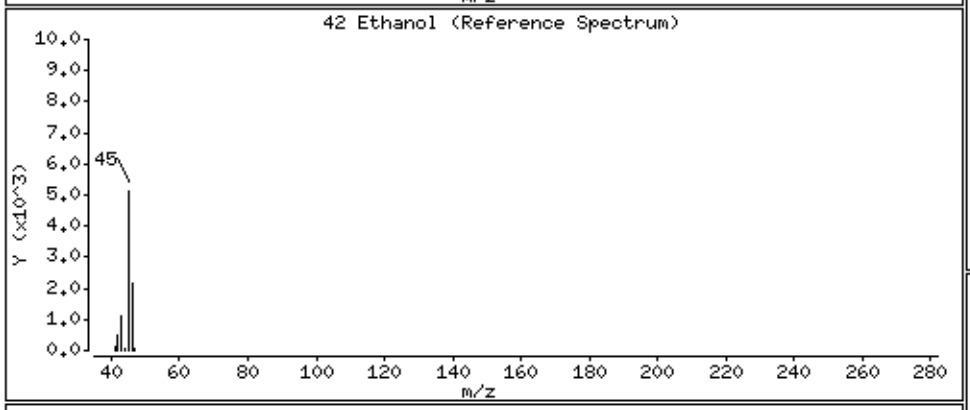
Column diameter: 0.32

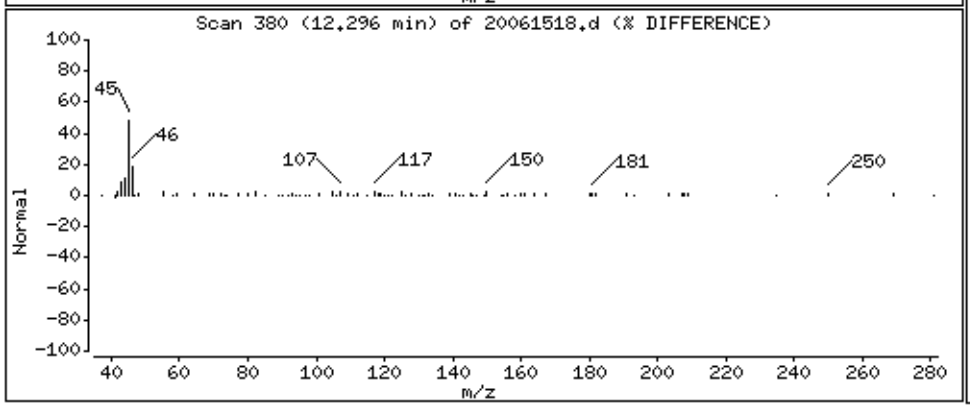
42 Ethanol

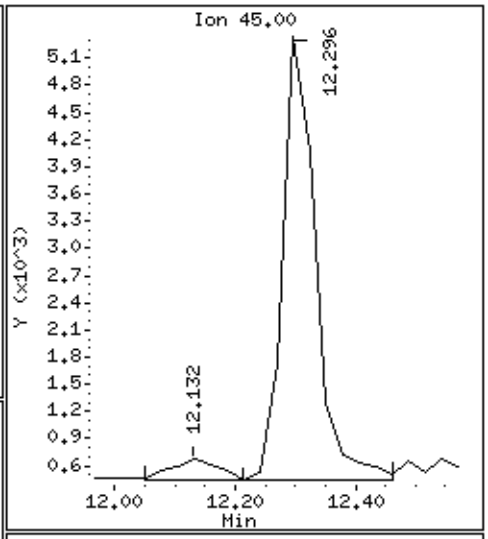
Concentration: 3.060 PPBV

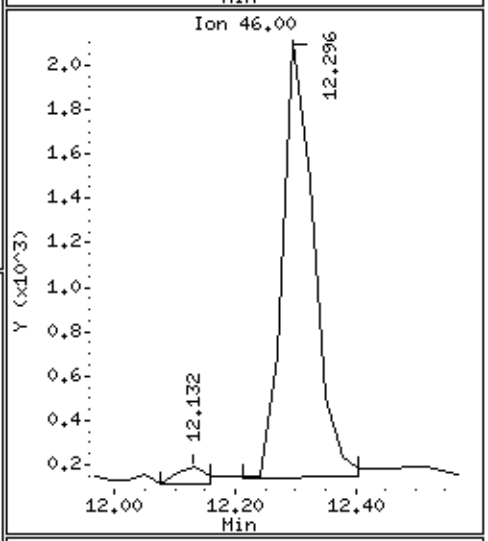


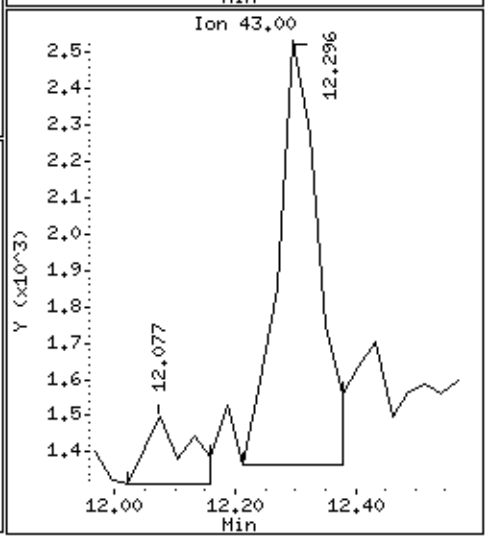












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

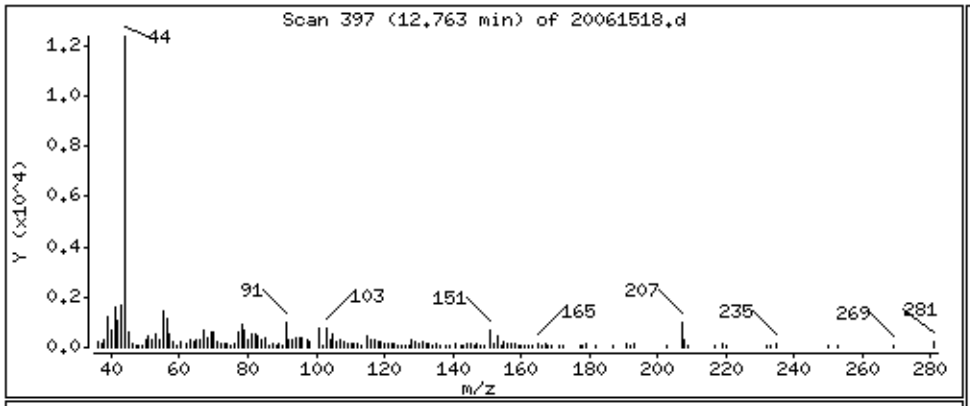
Operator: mjs

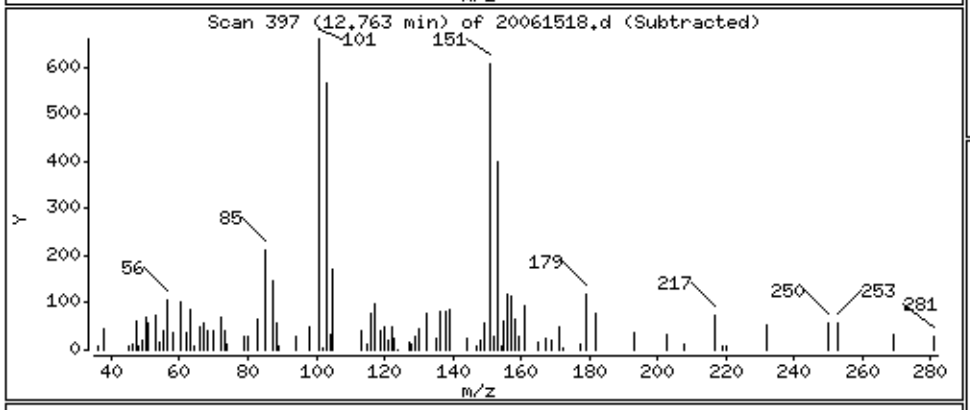
Column phase: RTX-624

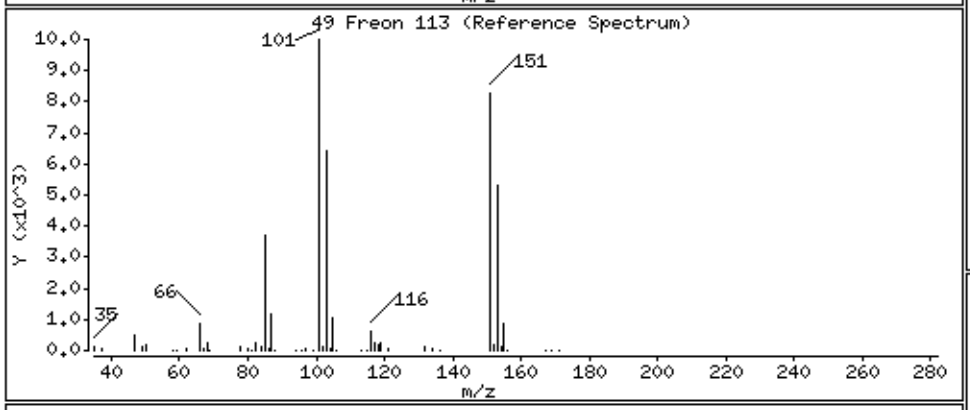
Column diameter: 0.32

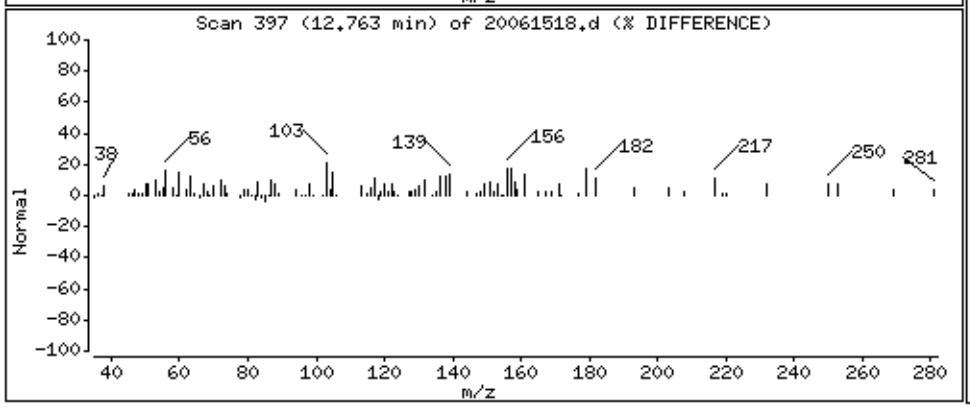
49 Freon 113

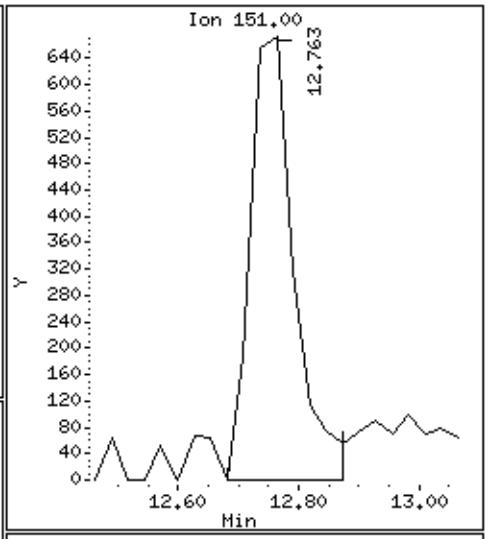
Concentration: 0.09997 PPBV

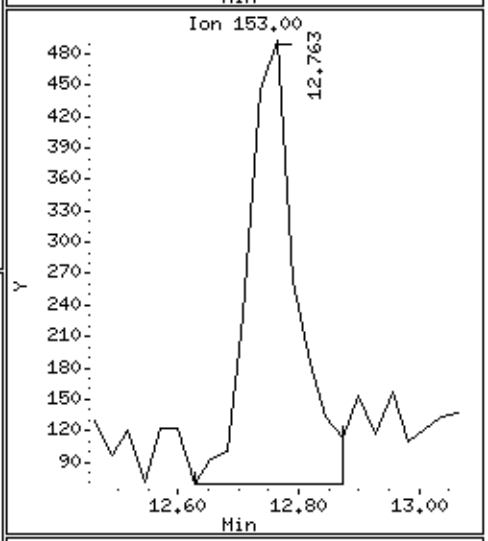


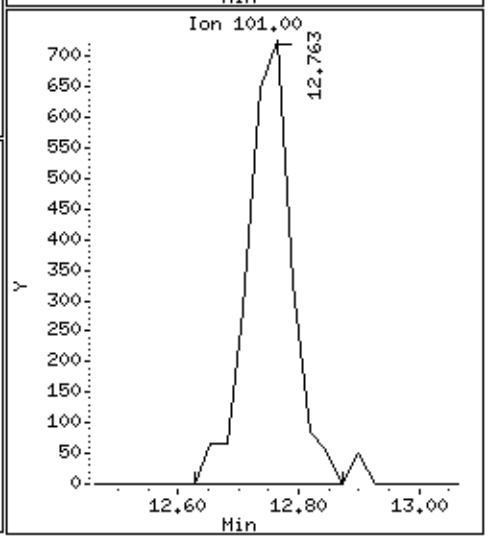












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

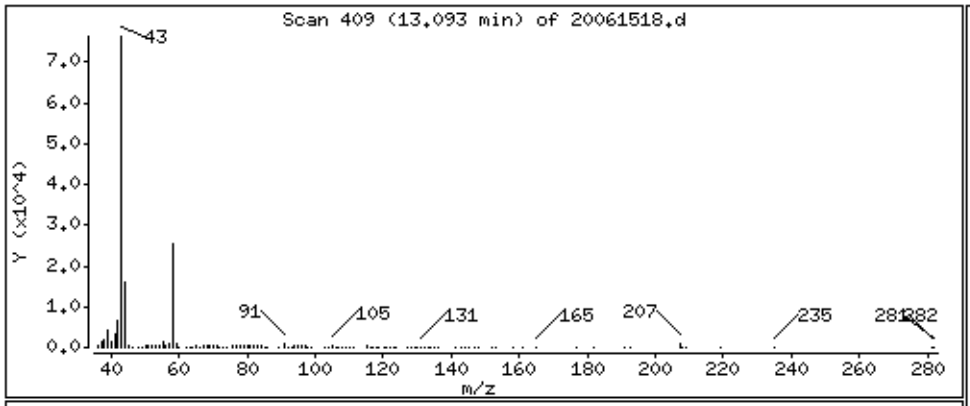
Operator: mjs

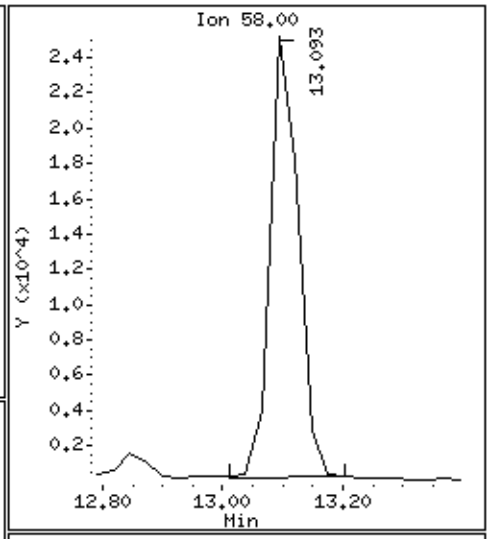
Column phase: RTX-624

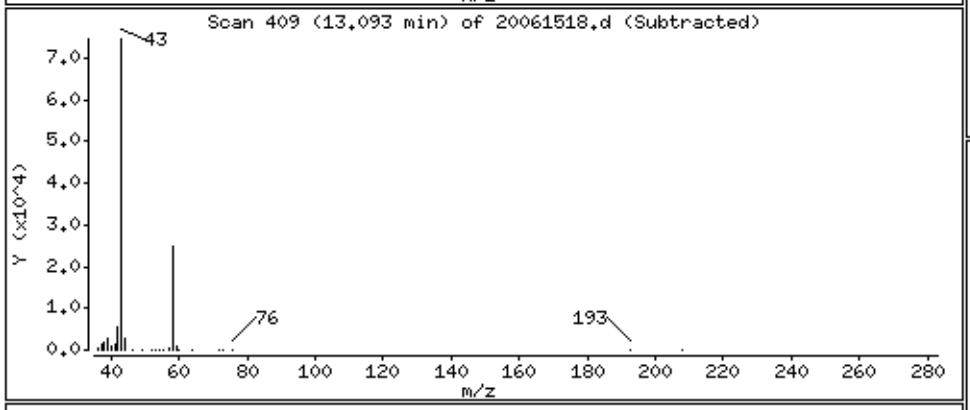
Column diameter: 0.32

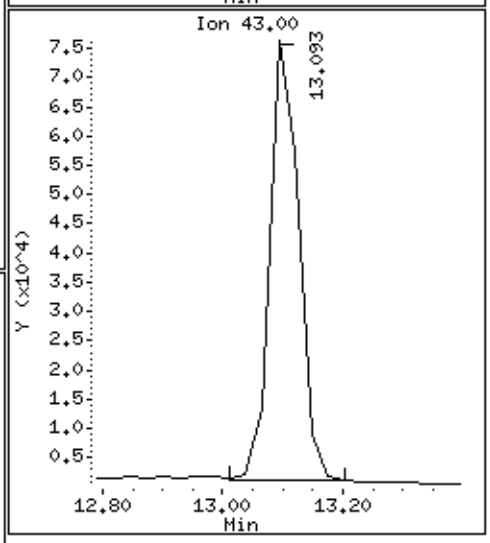
52 Acetone

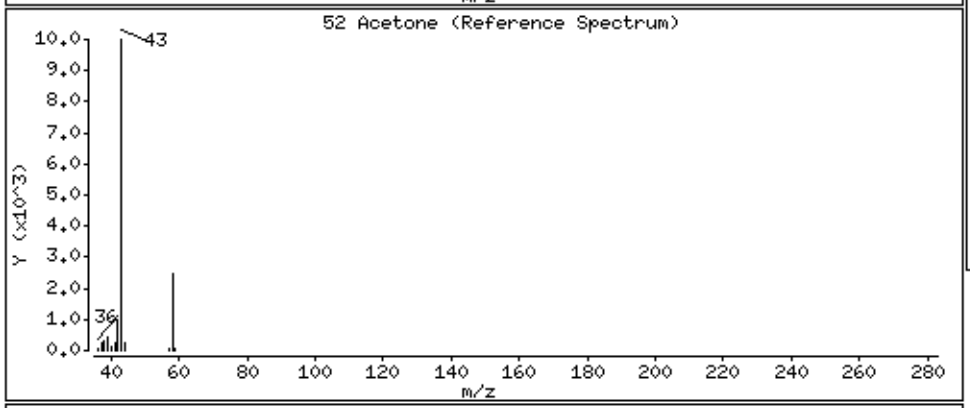
Concentration: 9.088 PPBV

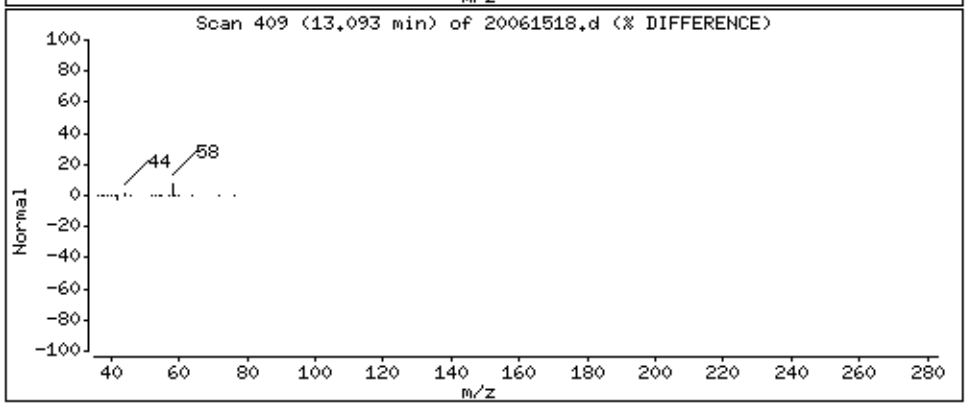












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

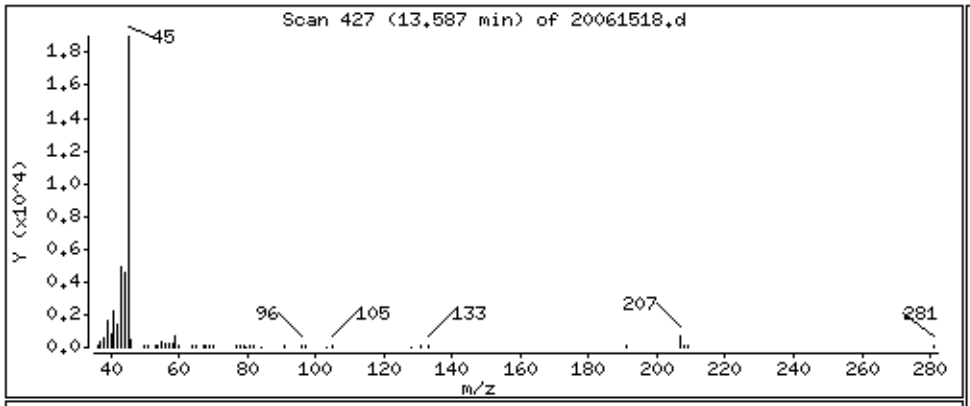
Operator: mjs

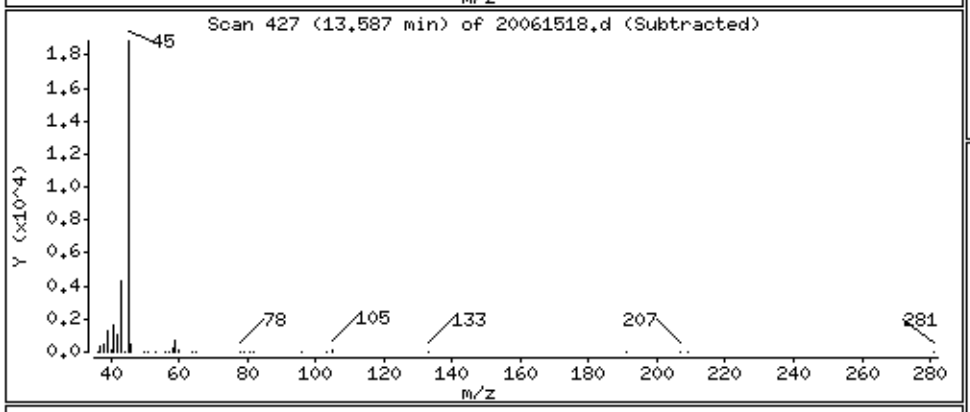
Column phase: RTX-624

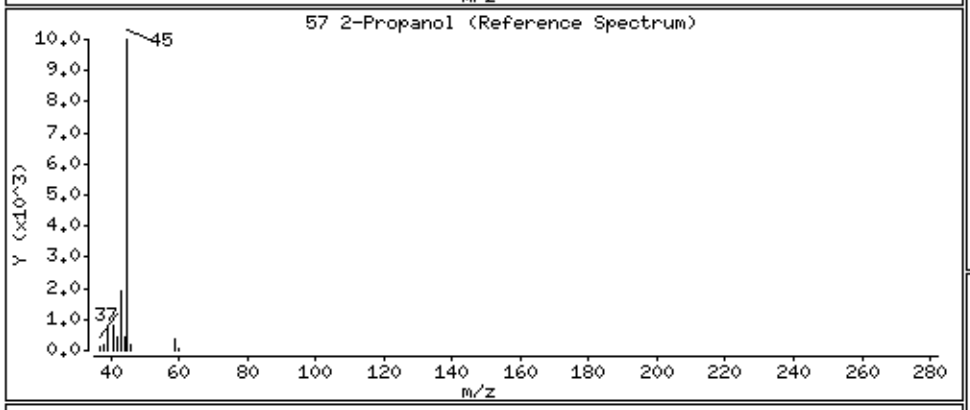
Column diameter: 0.32

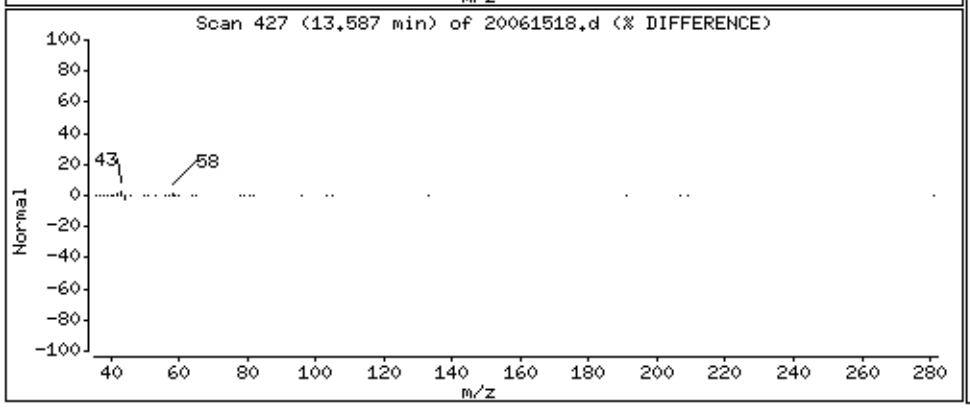
57 2-Propanol

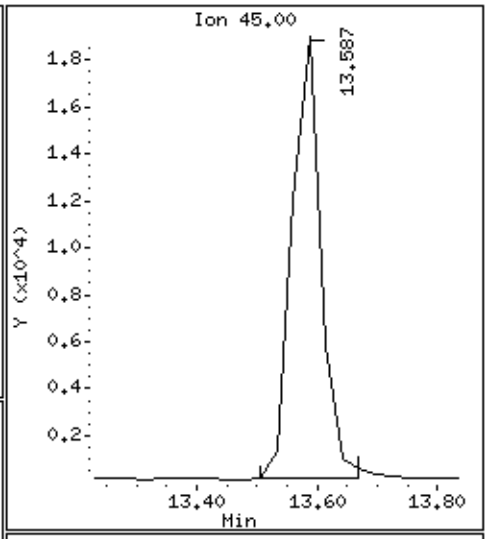
Concentration: 2.196 PPBV

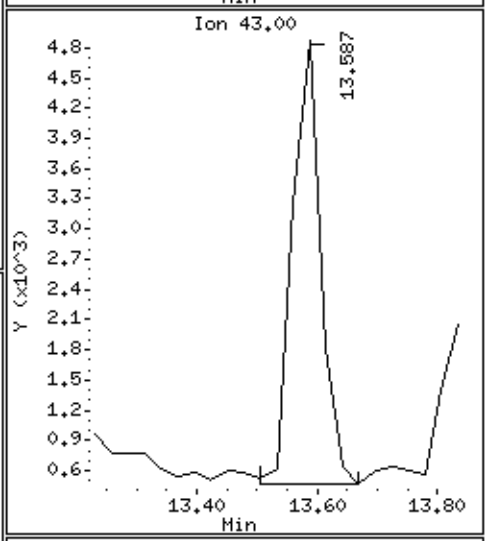


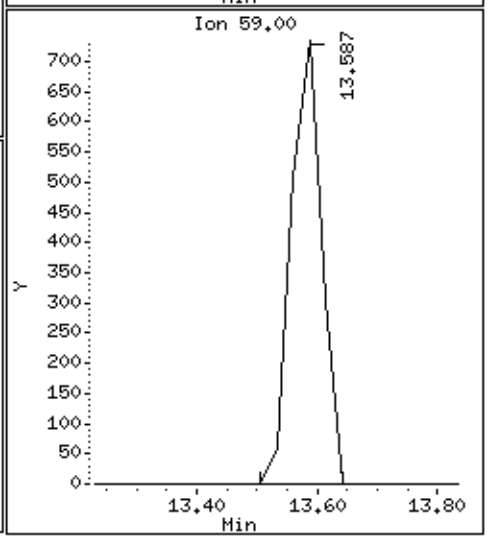












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

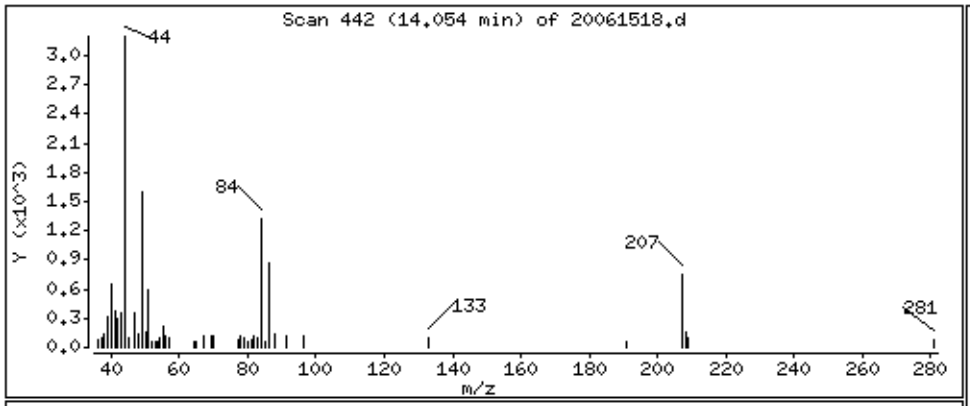
Operator: mjs

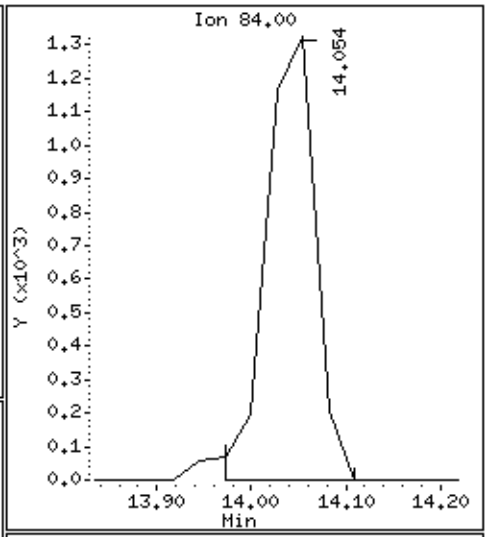
Column phase: RTX-624

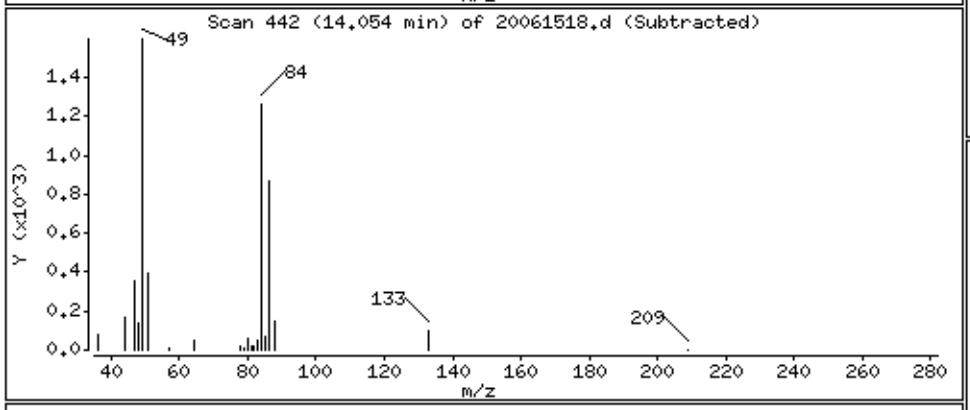
Column diameter: 0.32

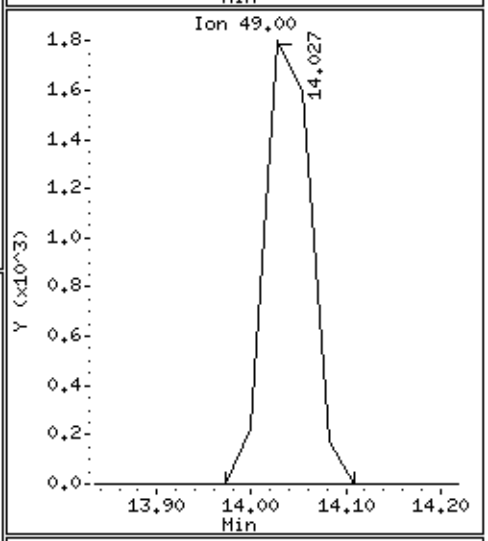
66 Methylene Chloride

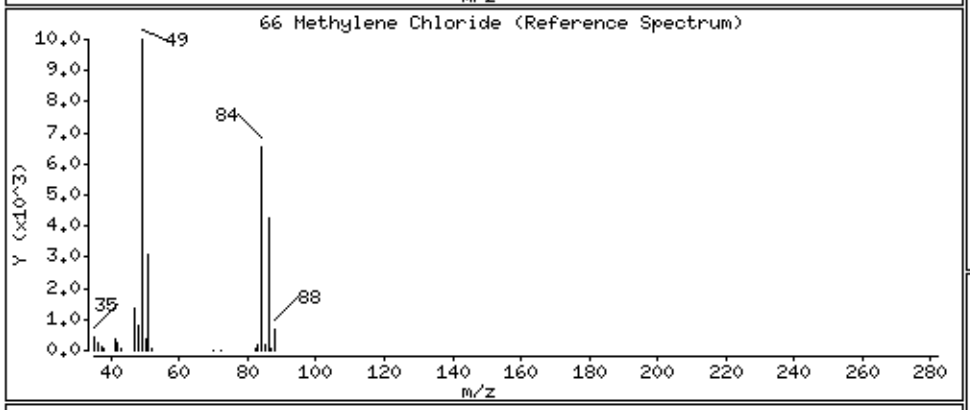
Concentration: 0.2480 PPBV

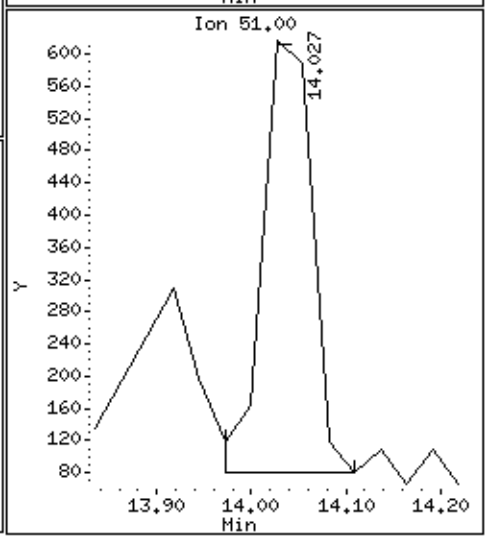


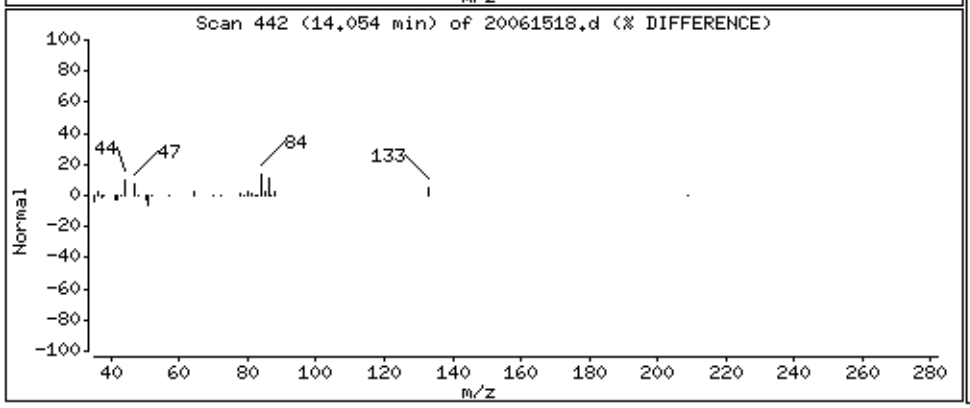












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

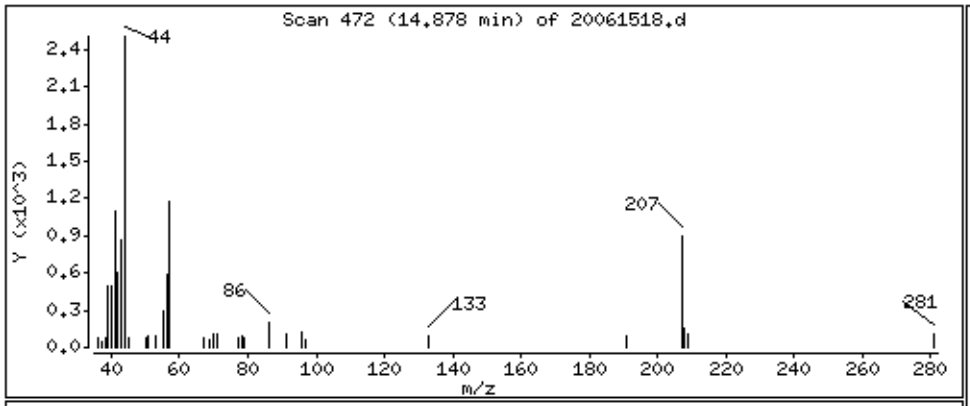
Operator: mjs

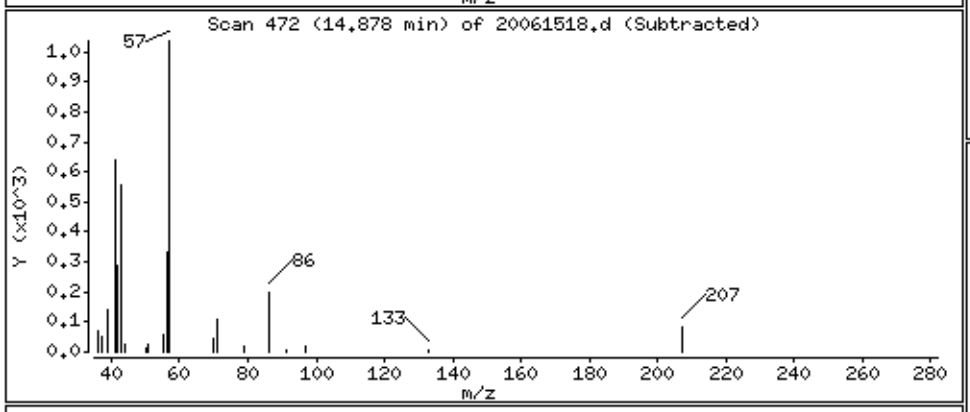
Column phase: RTX-624

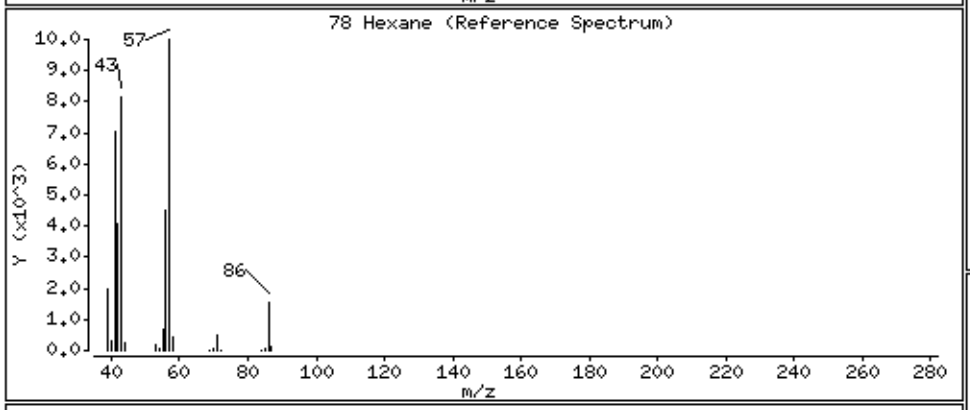
Column diameter: 0.32

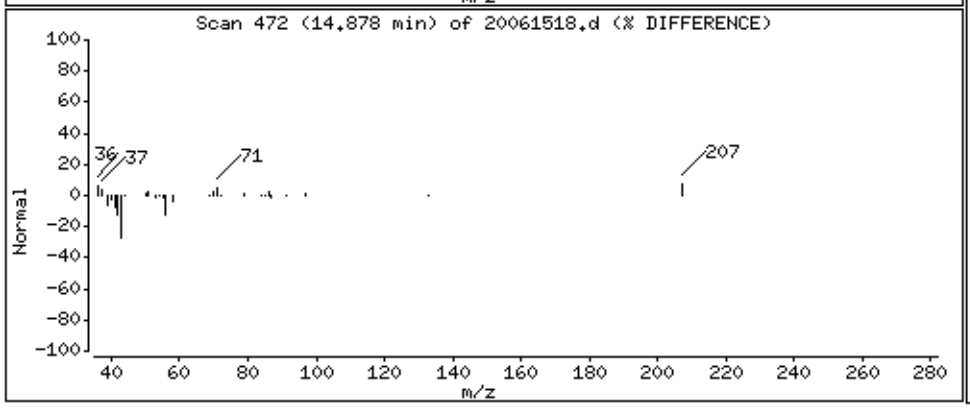
78 Hexane

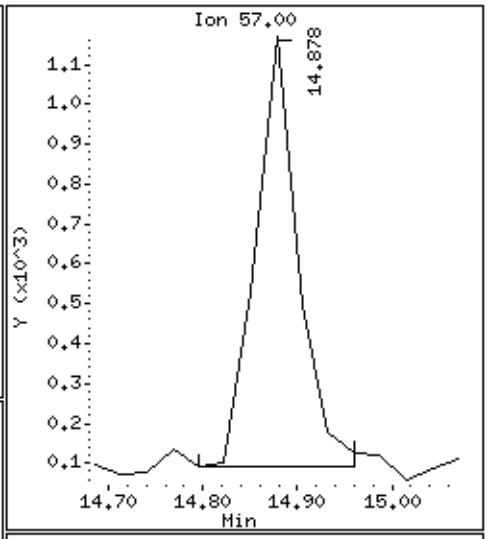
Concentration: 0.1149 PPBV

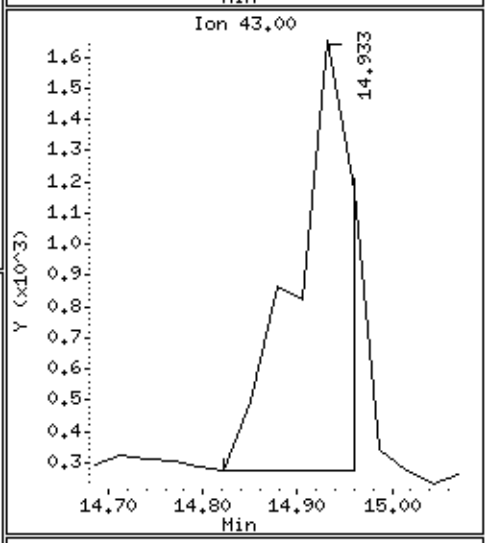


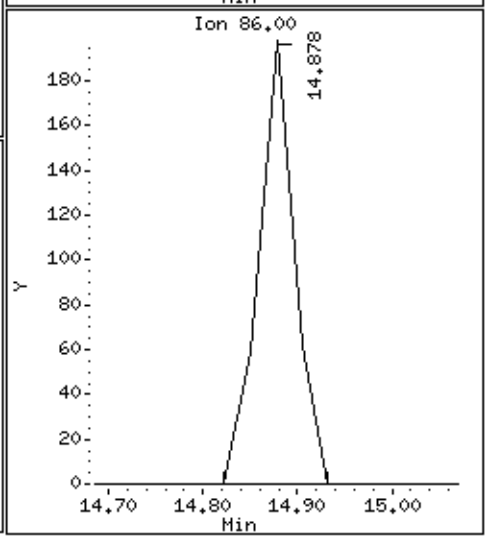












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

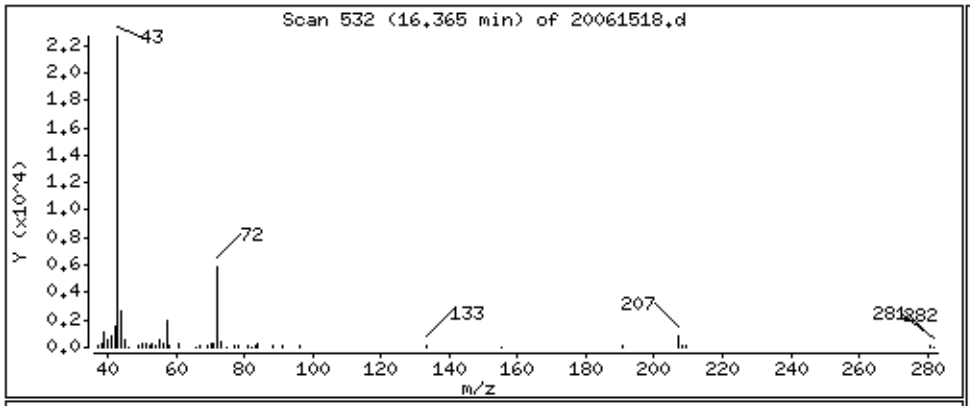
Operator: mjs

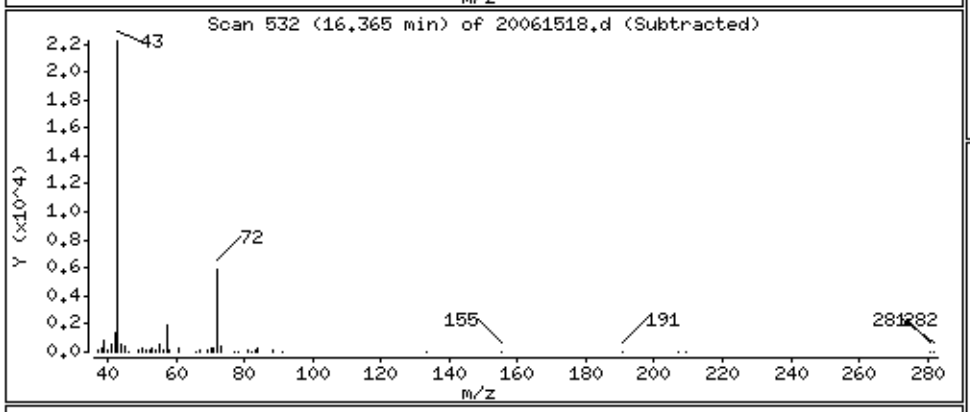
Column phase: RTX-624

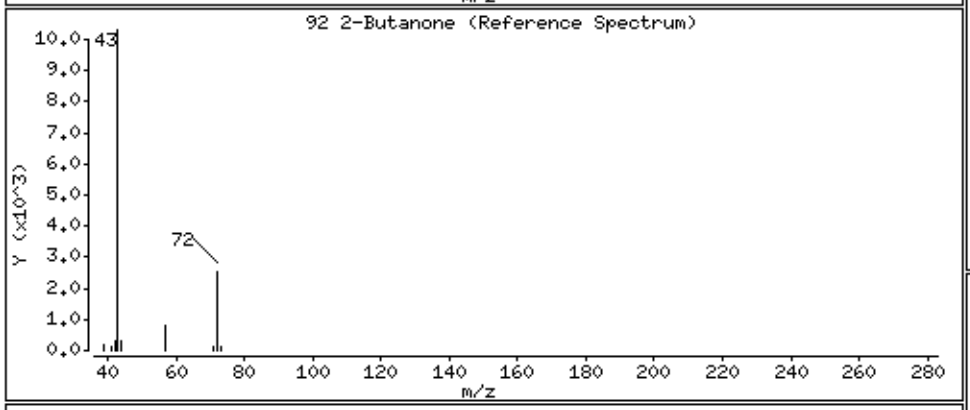
Column diameter: 0.32

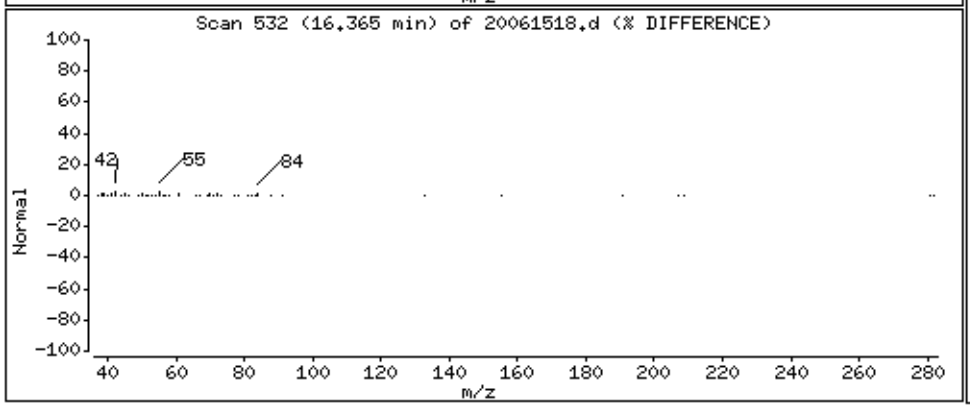
92 2-Butanone

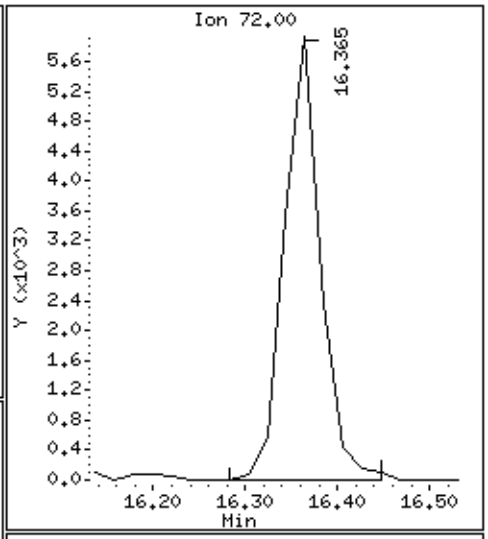
Concentration: 1.698 PPBV

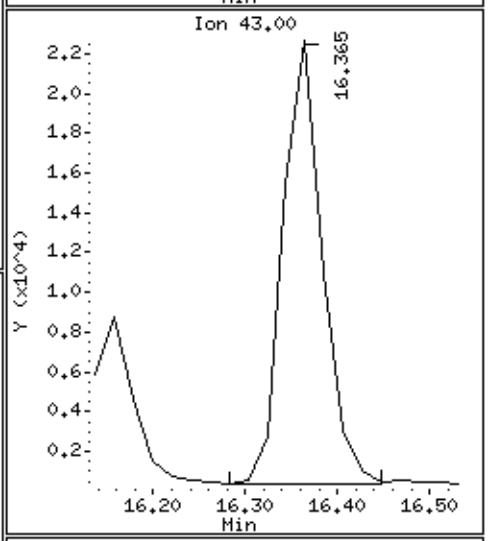


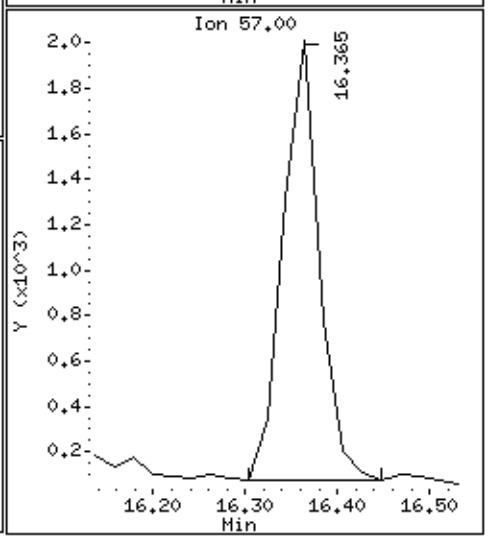












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

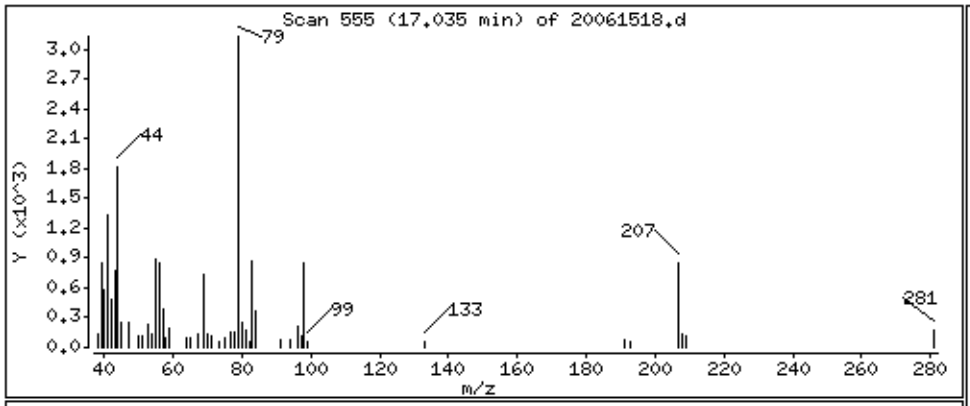
Operator: mjs

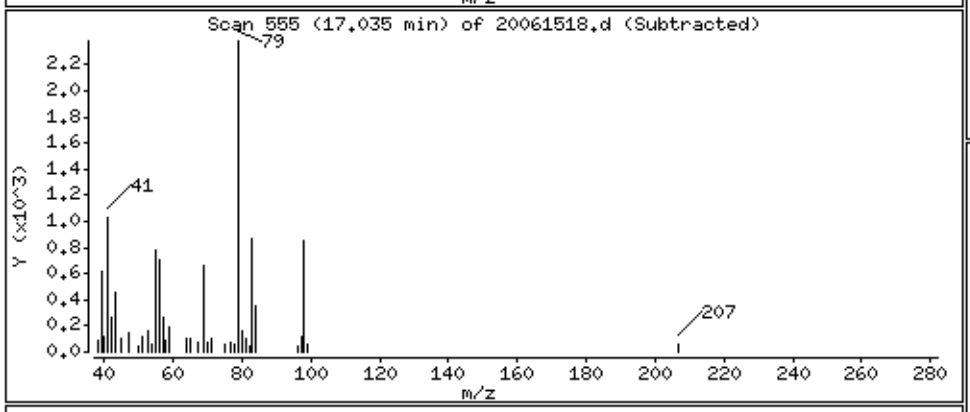
Column phase: RTX-624

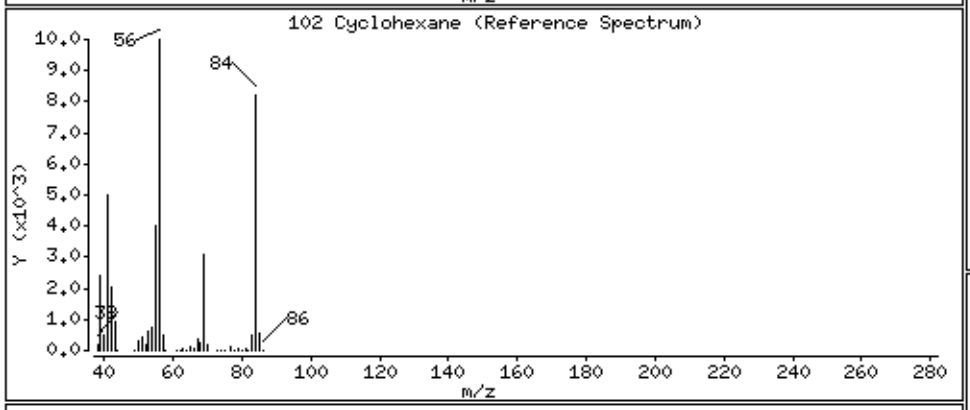
Column diameter: 0.32

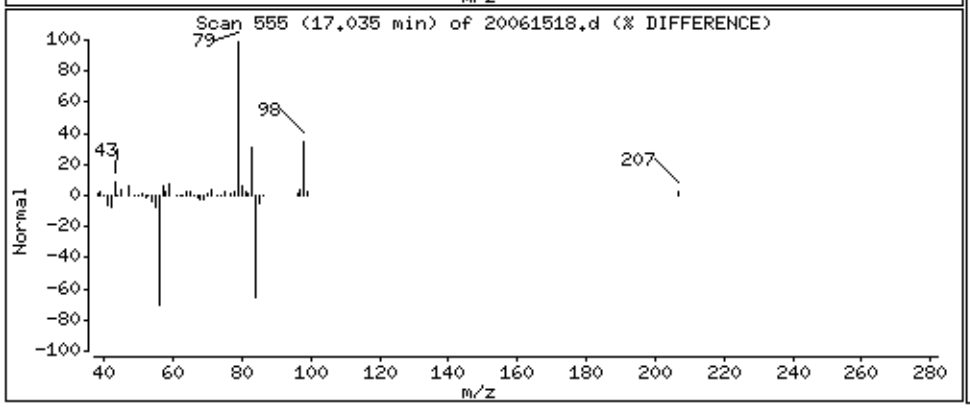
102 Cyclohexane

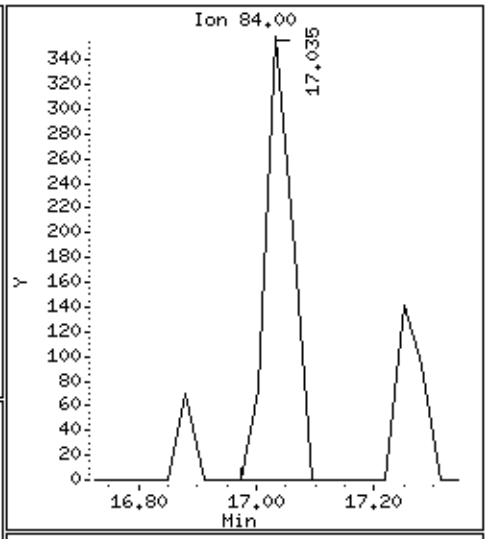
Concentration: 0.03894 PPBV

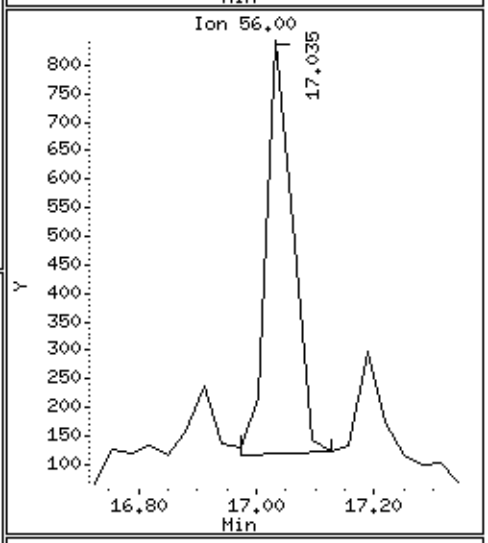


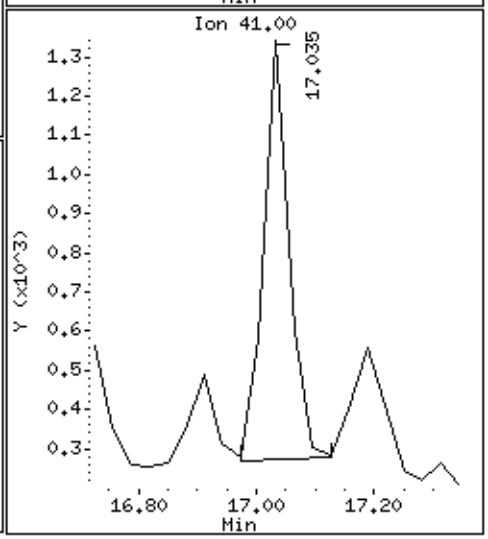












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

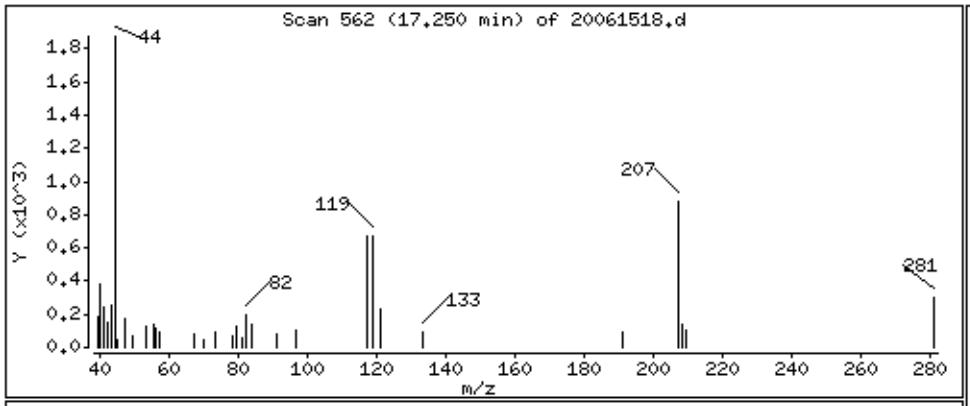
Operator: mjs

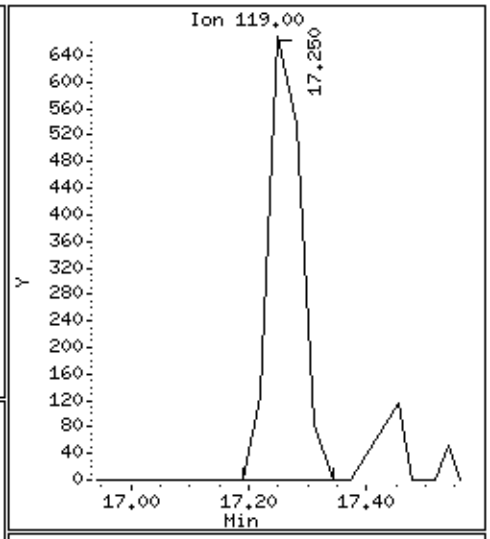
Column phase: RTX-624

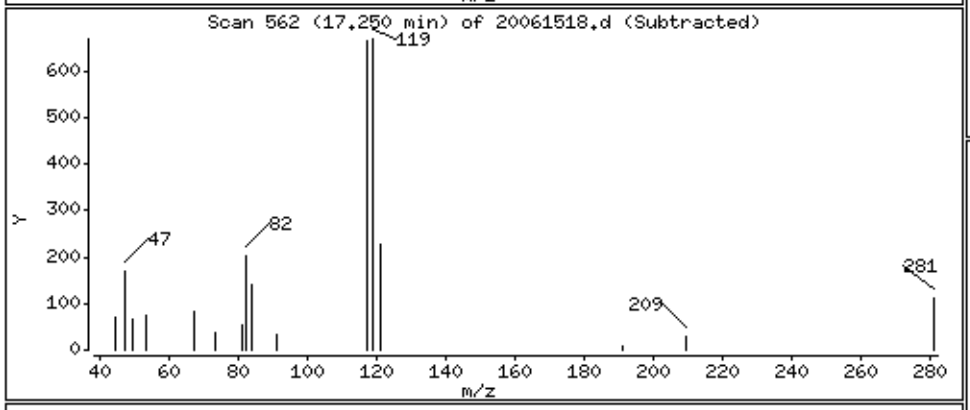
Column diameter: 0.32

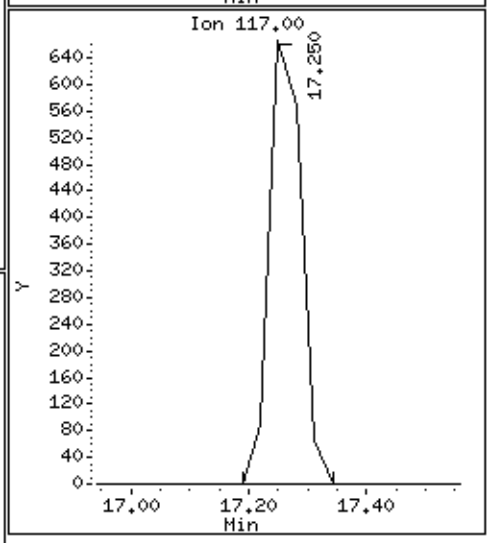
106 Carbon Tetrachloride

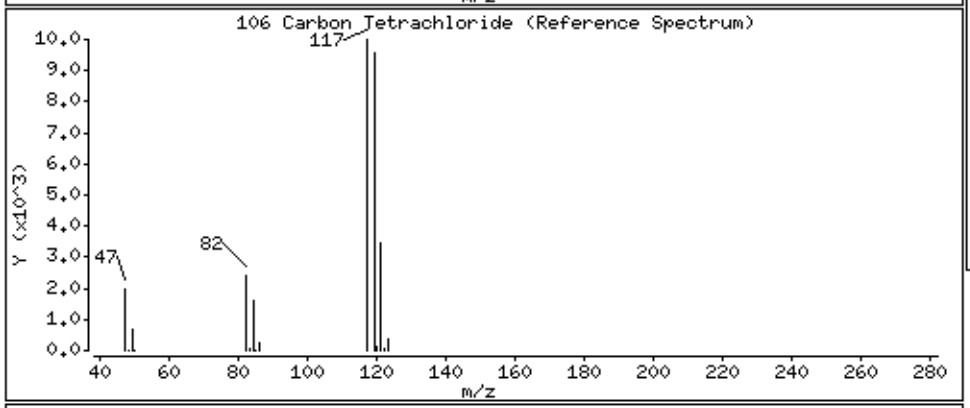
Concentration: 0.07979 PPBV

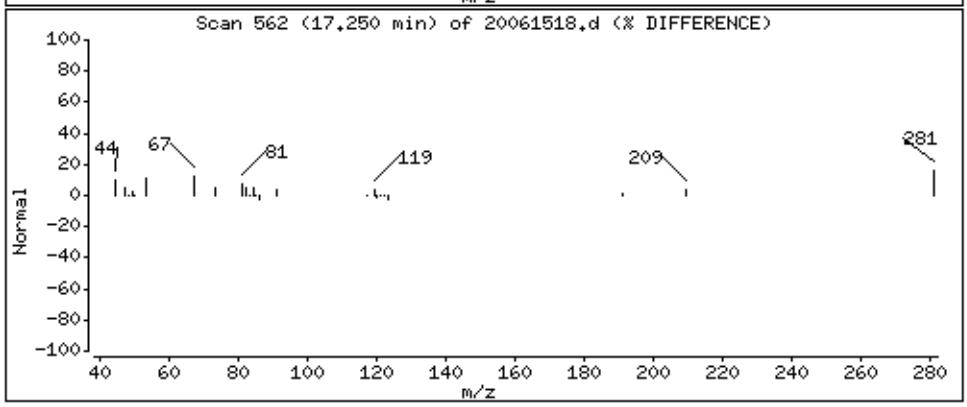












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

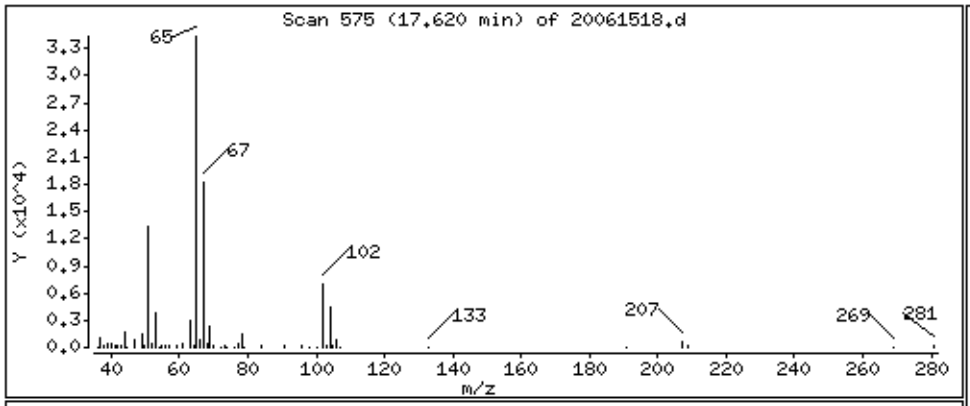
Operator: mjs

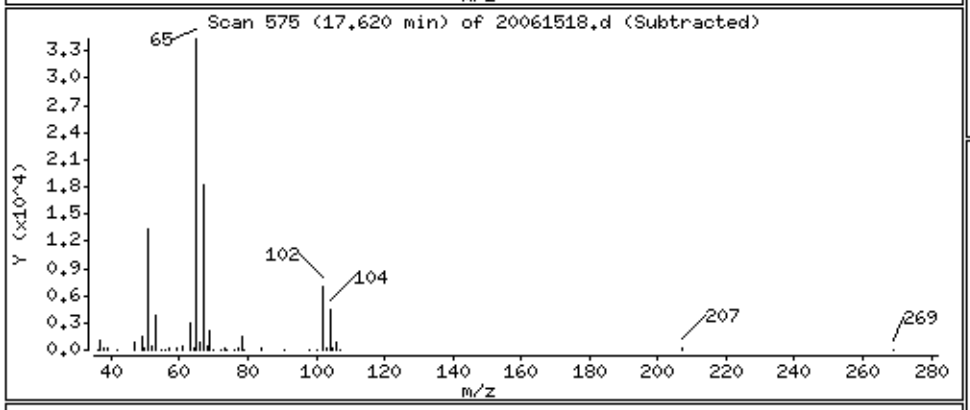
Column phase: RTX-624

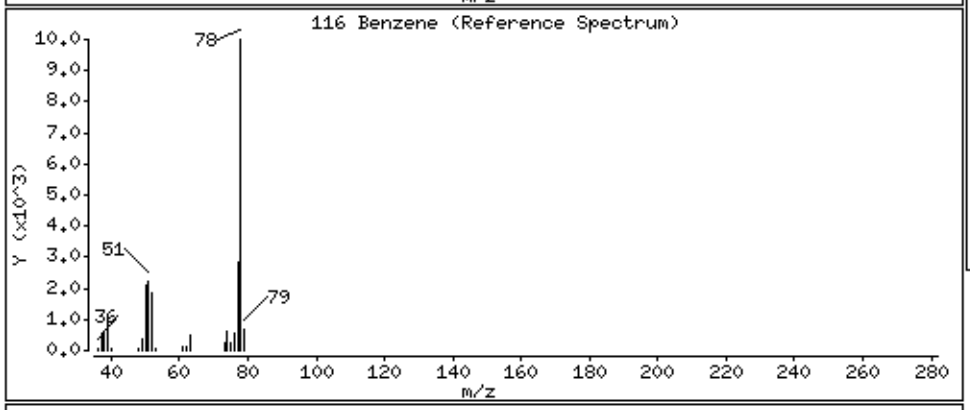
Column diameter: 0.32

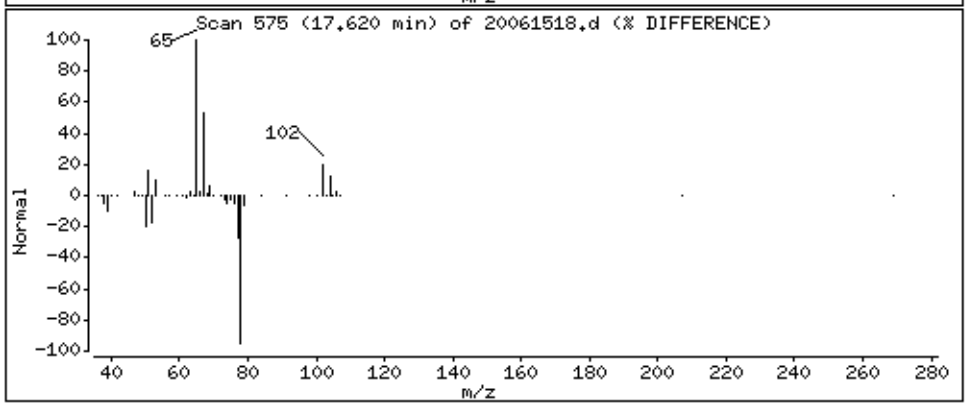
116 Benzene

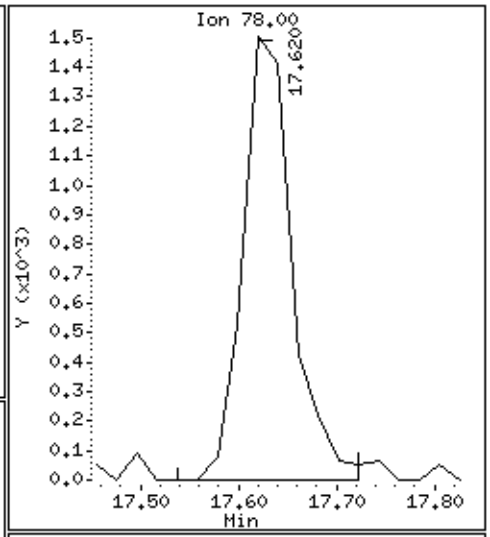
Concentration: 0.08001 PPBV

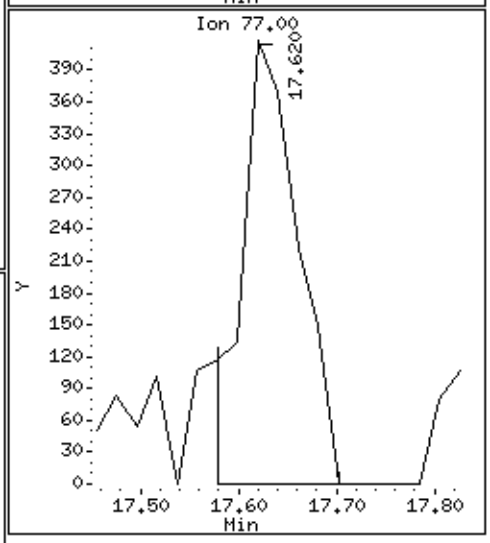












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

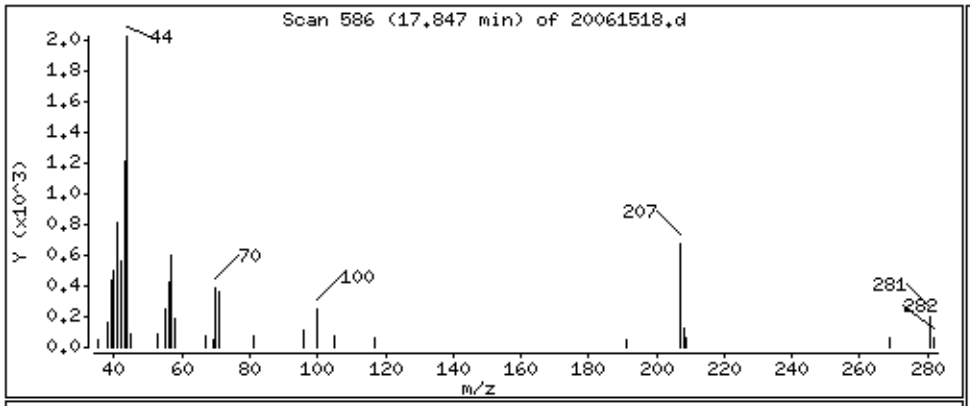
Operator: mjs

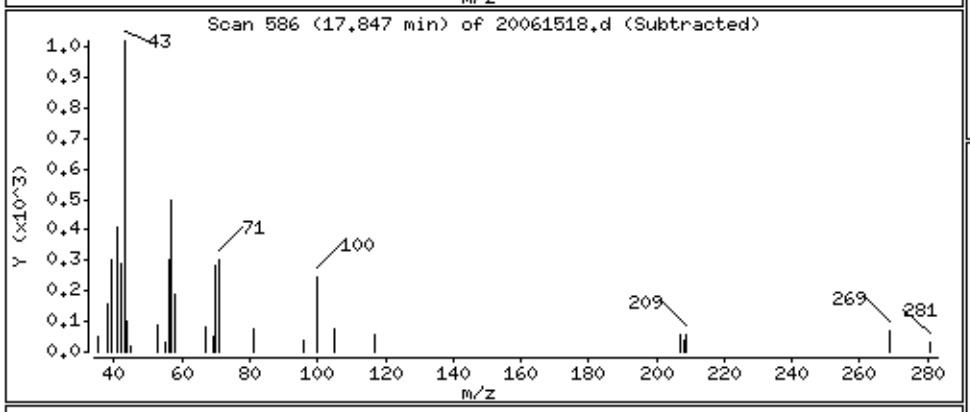
Column phase: RTX-624

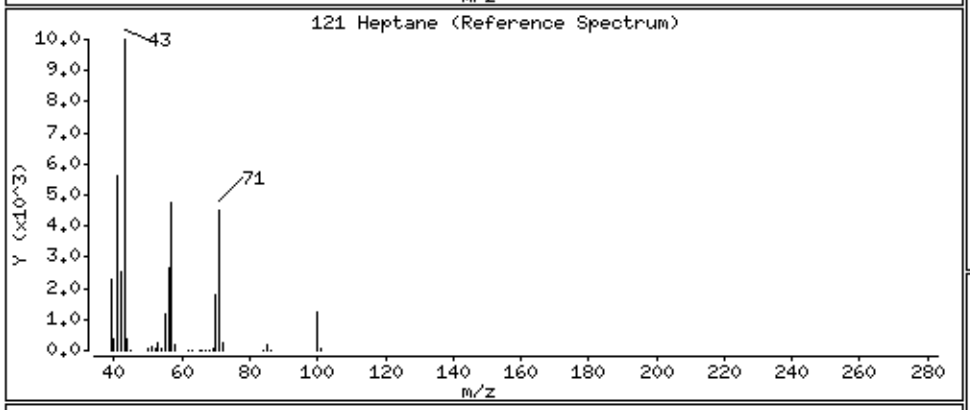
Column diameter: 0.32

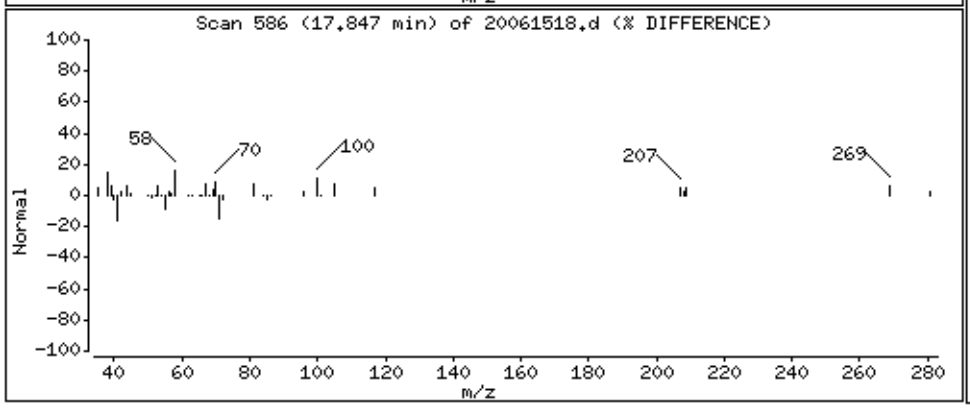
121 Heptane

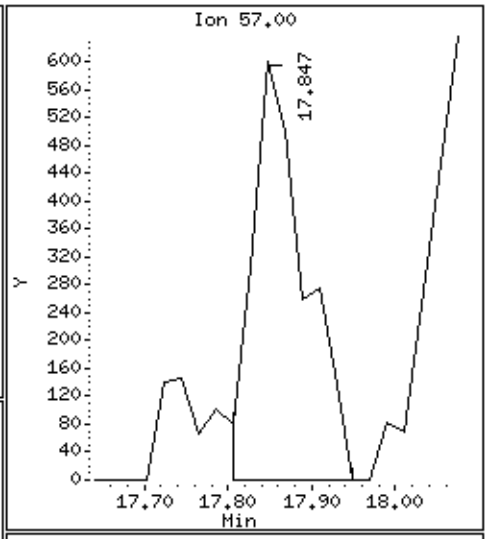
Concentration: 0.1431 PPBV

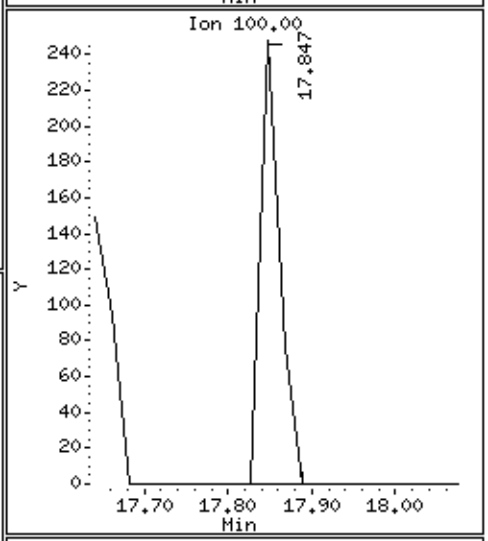


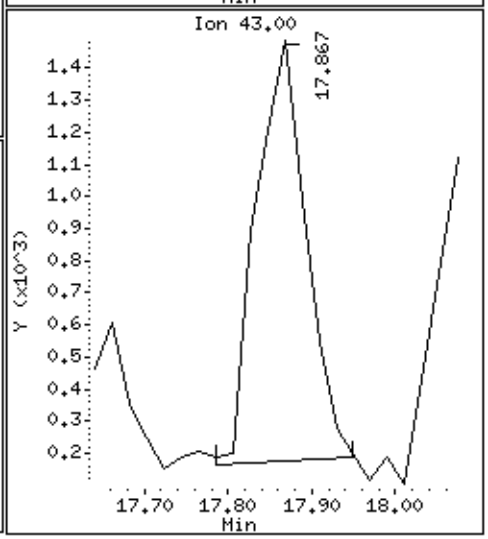












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

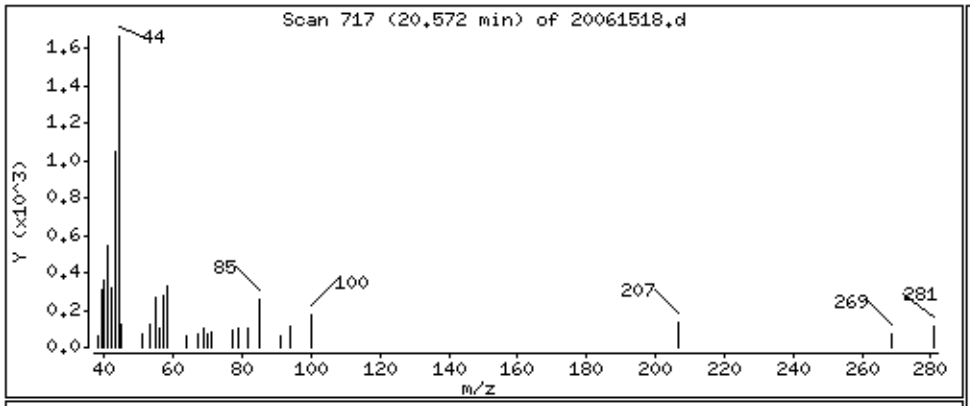
Operator: mjs

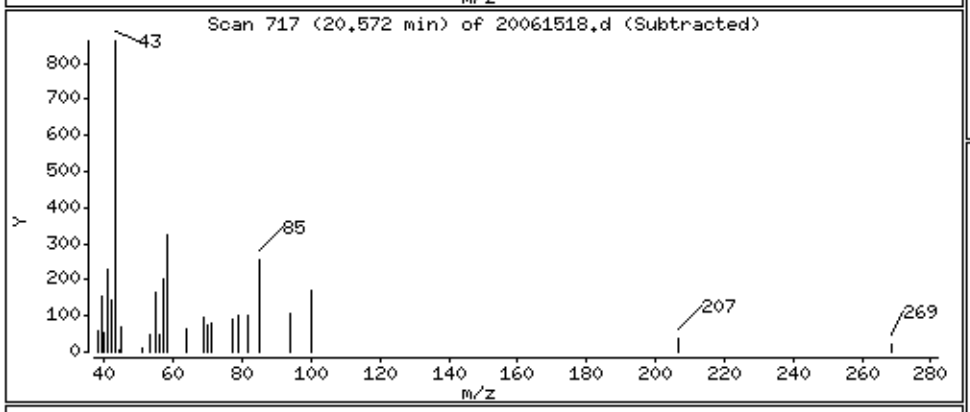
Column phase: RTX-624

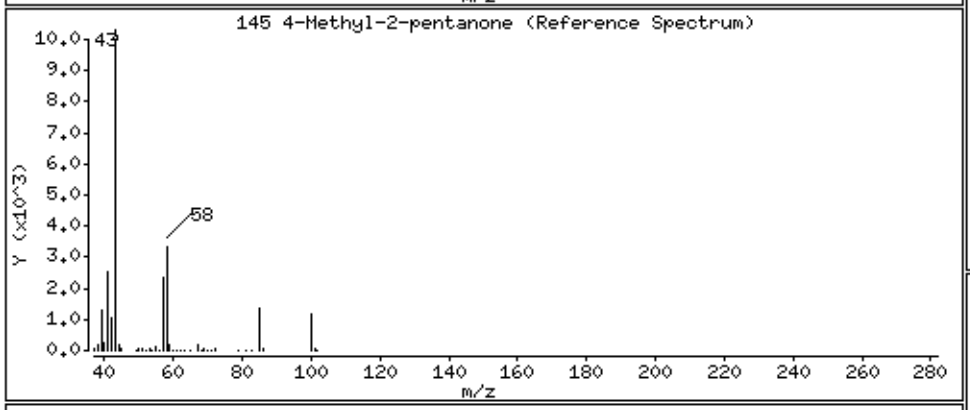
Column diameter: 0.32

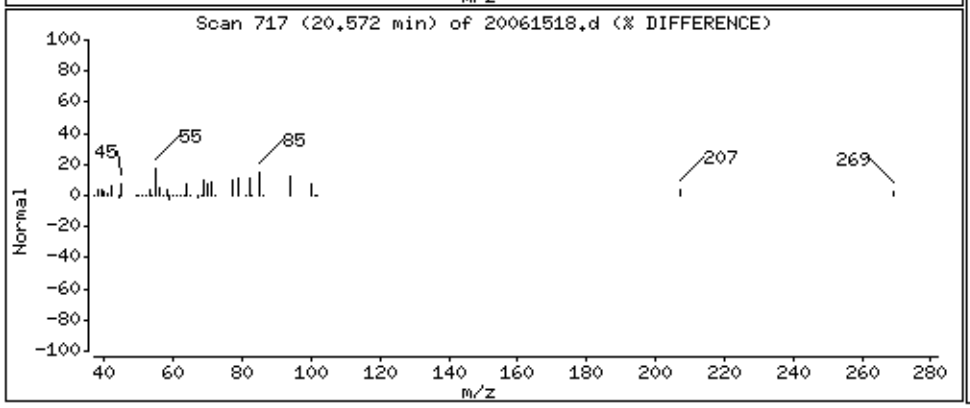
145 4-Methyl-2-pentanone

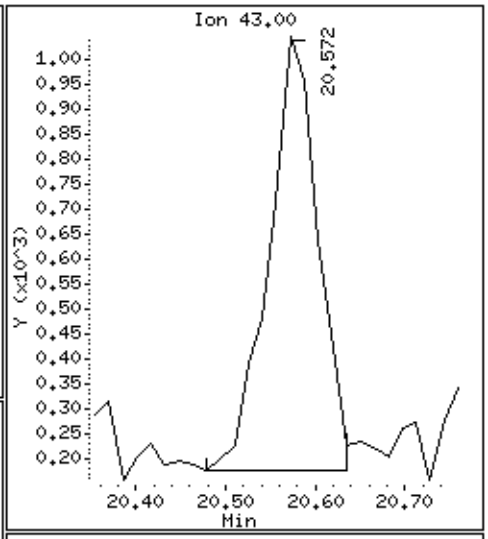
Concentration: 0.07035 PPBV

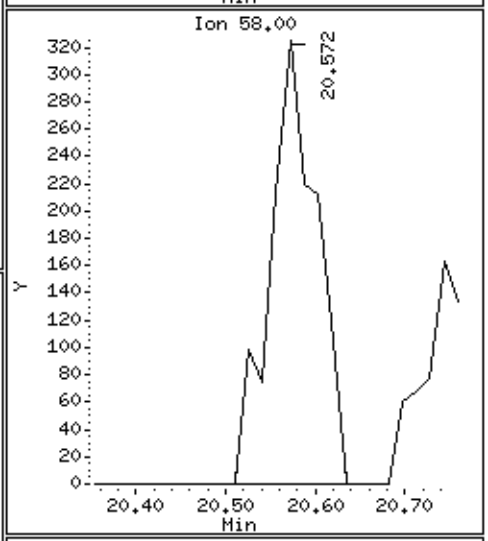


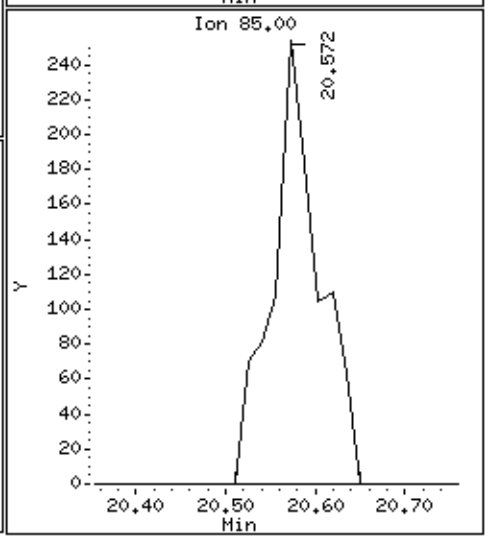












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

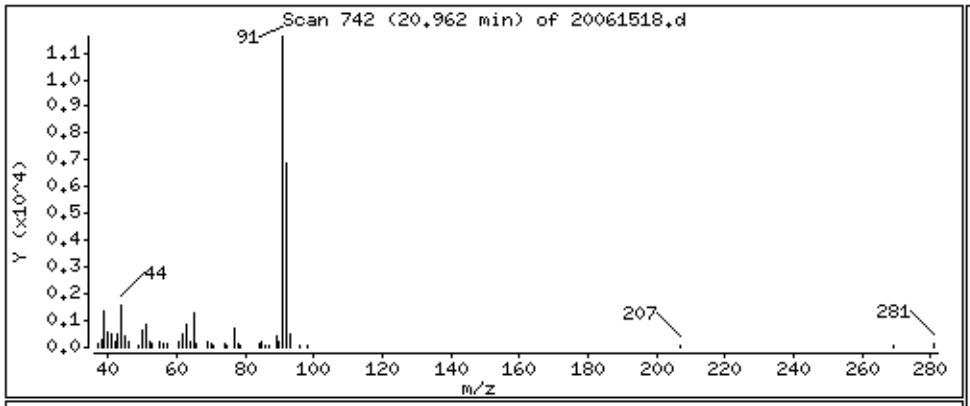
Operator: mjs

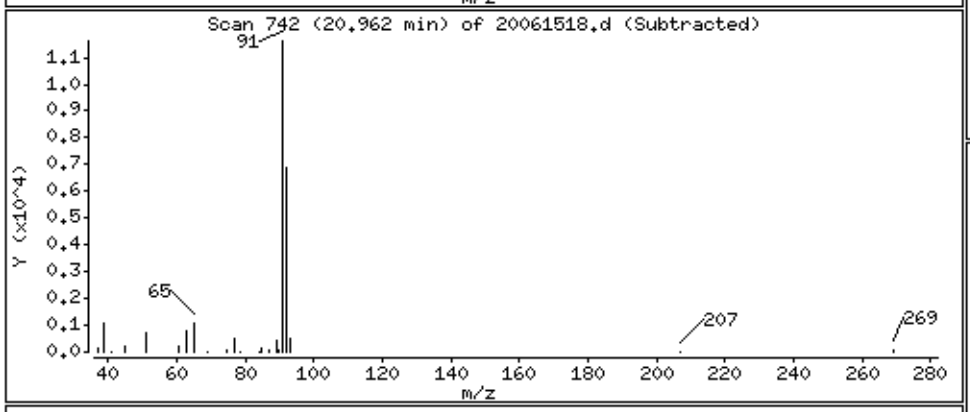
Column phase: RTX-624

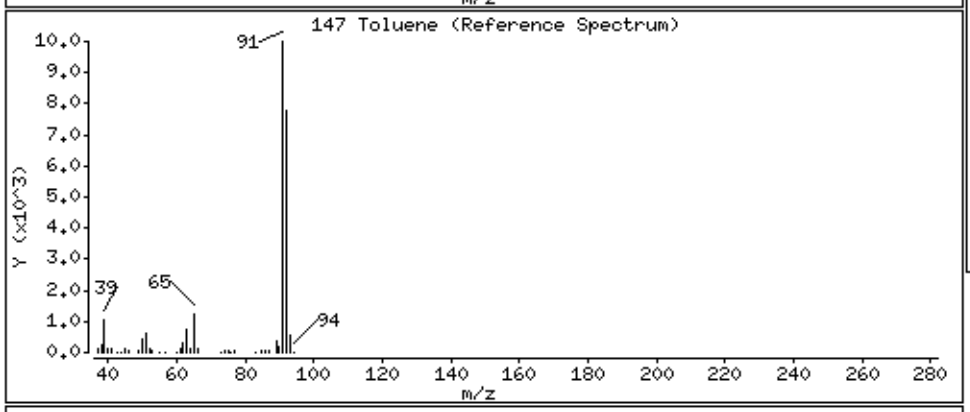
Column diameter: 0.32

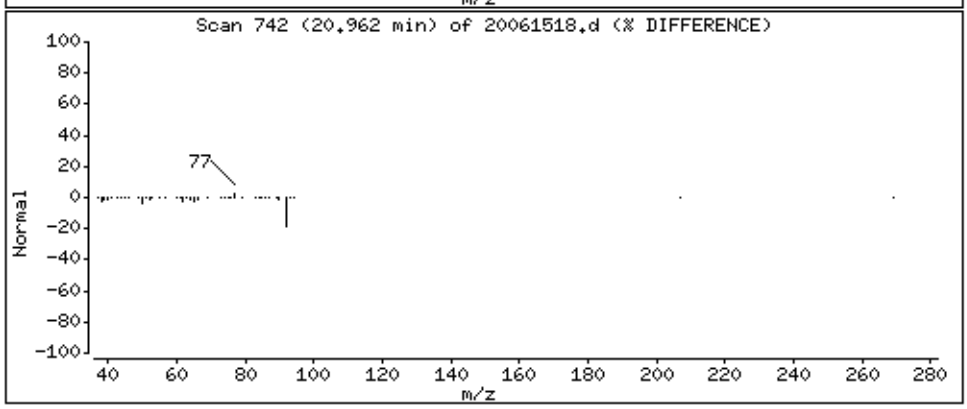
147 Toluene

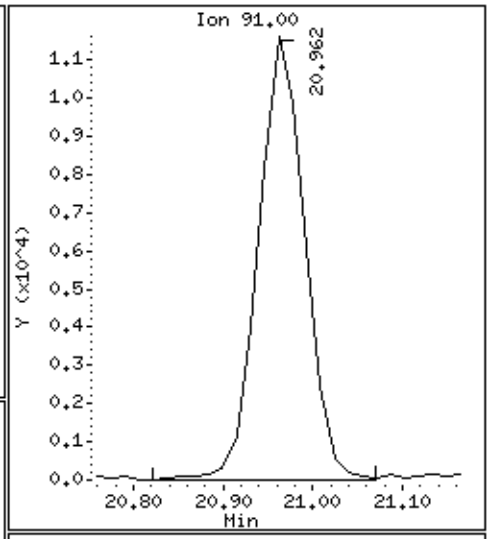
Concentration: 0.5549 PPBV

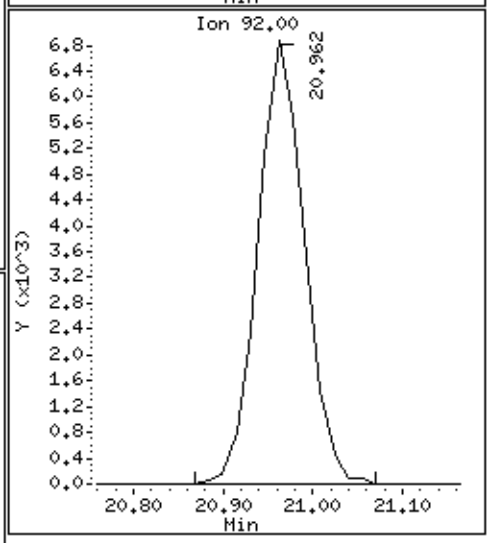












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

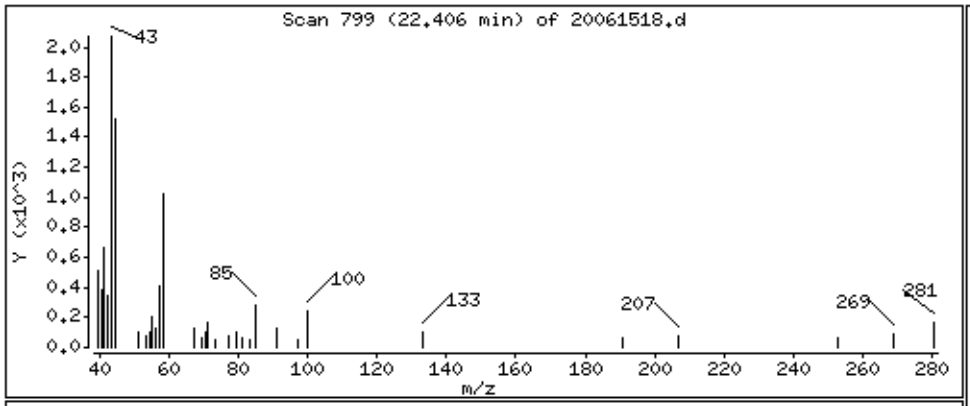
Operator: mjs

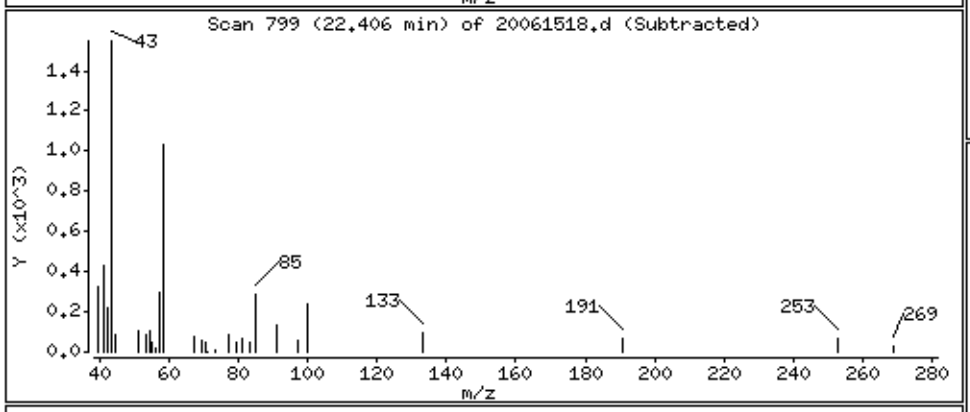
Column phase: RTX-624

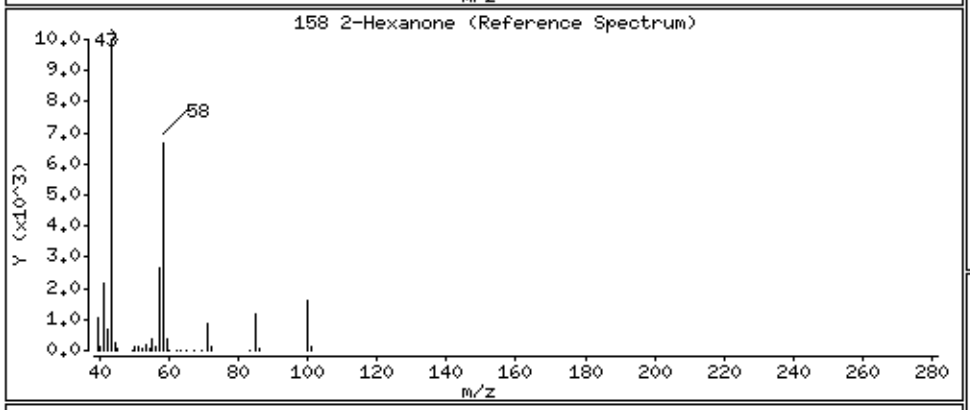
Column diameter: 0.32

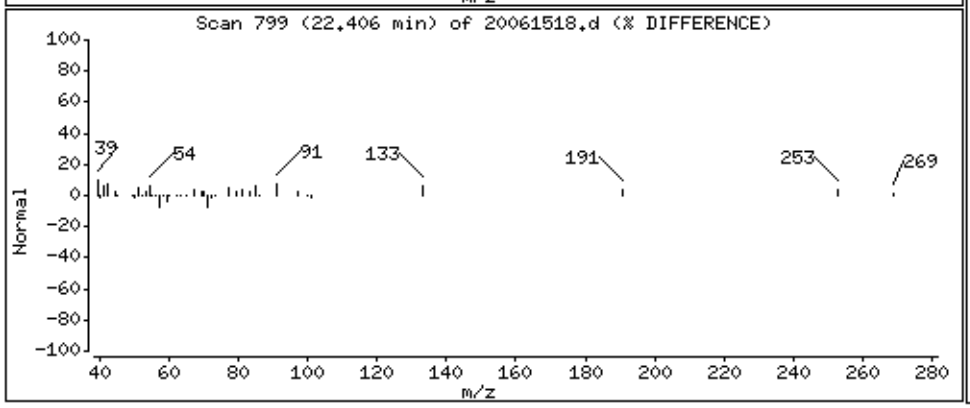
158 2-Hexanone

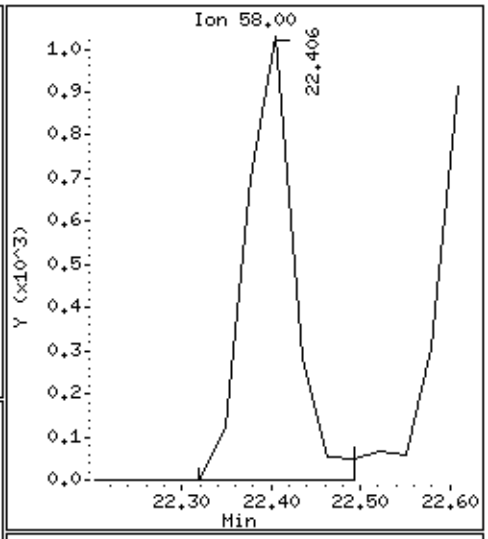
Concentration: 0.1601 PPBV

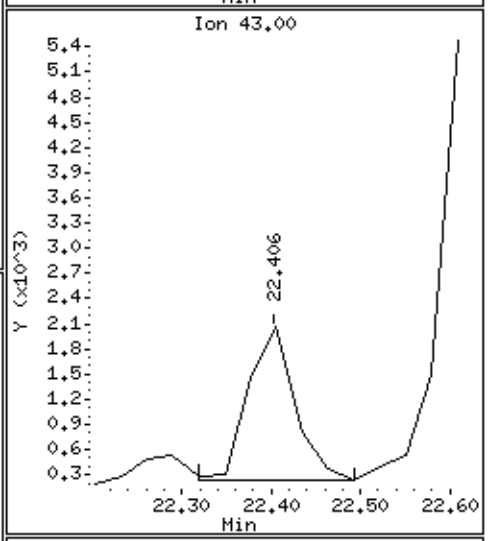


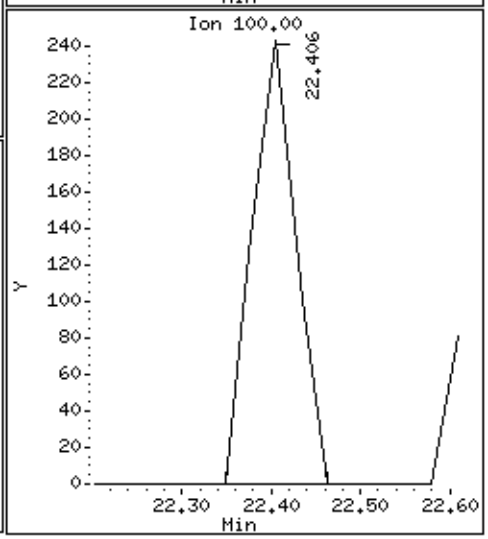












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

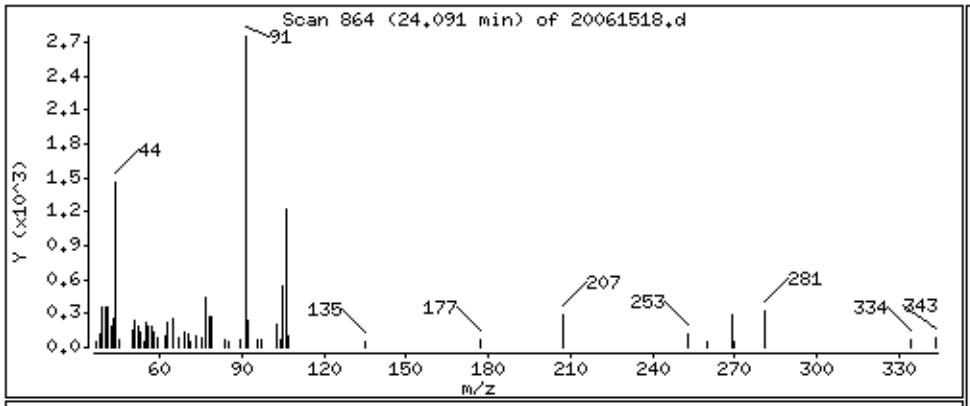
Operator: mjs

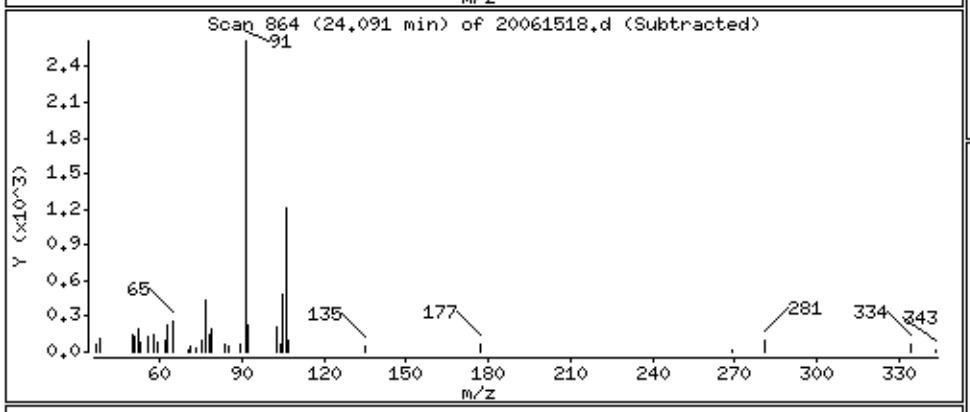
Column phase: RTX-624

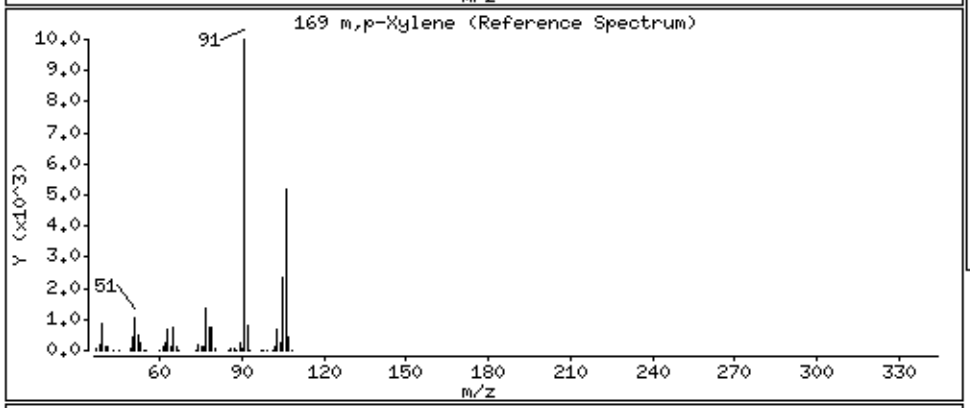
Column diameter: 0.32

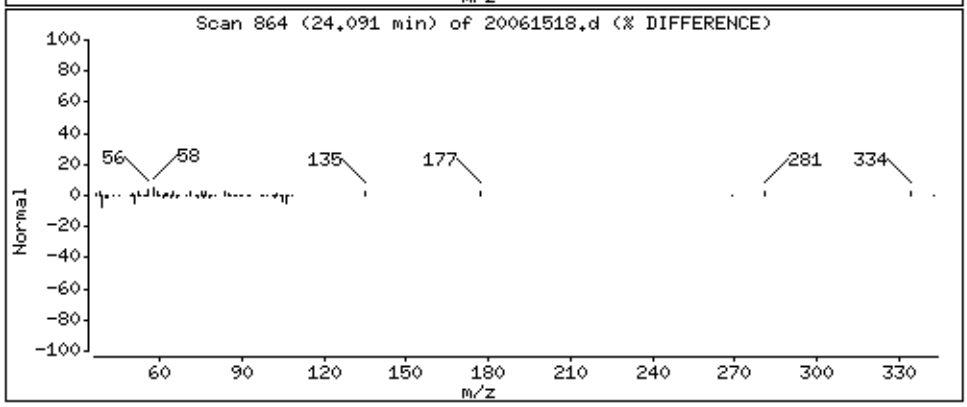
169 m,p-Xylene

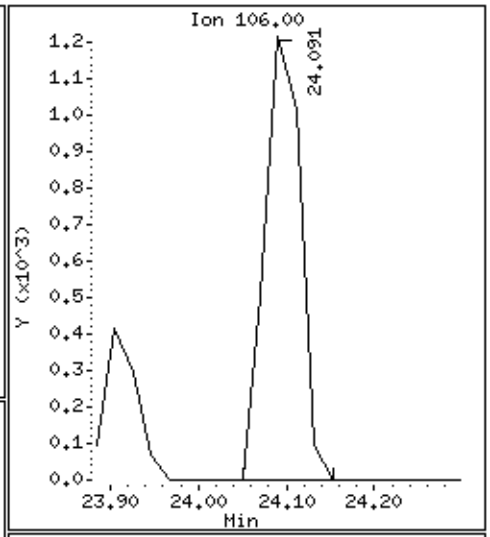
Concentration: 0.1102 PPBV

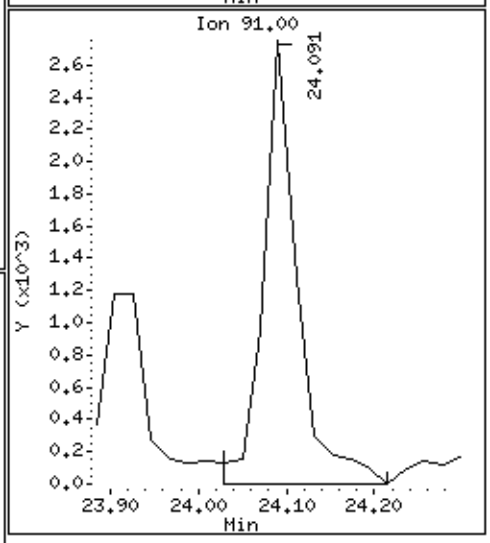












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

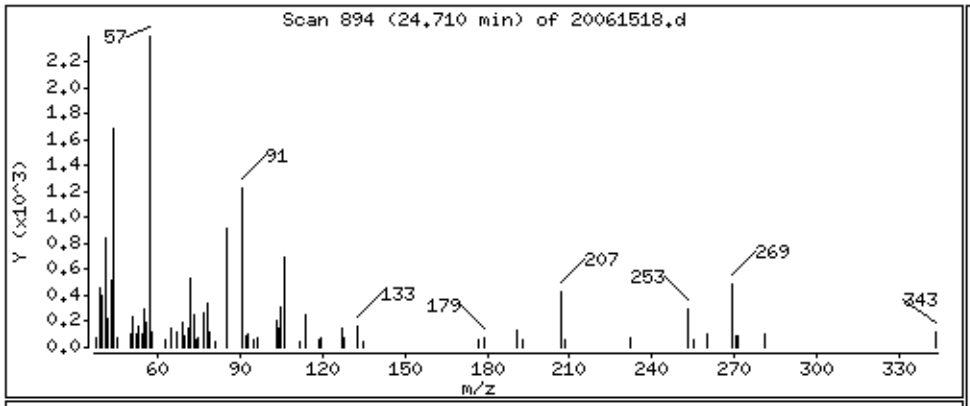
Operator: mjs

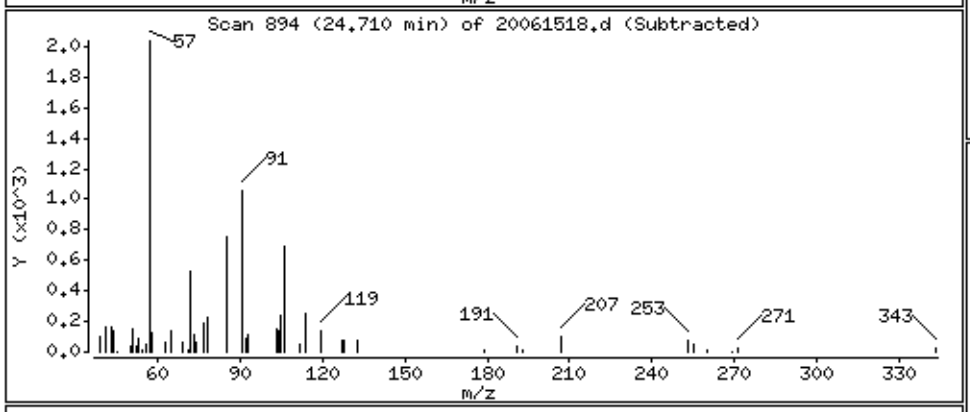
Column phase: RTX-624

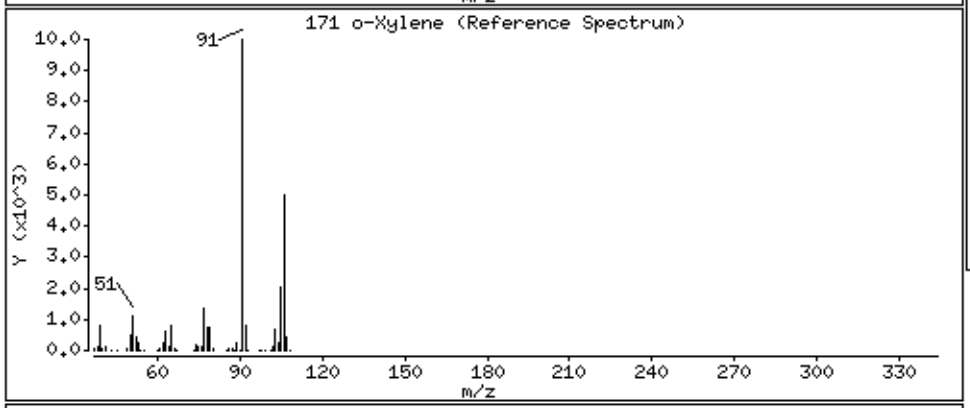
Column diameter: 0.32

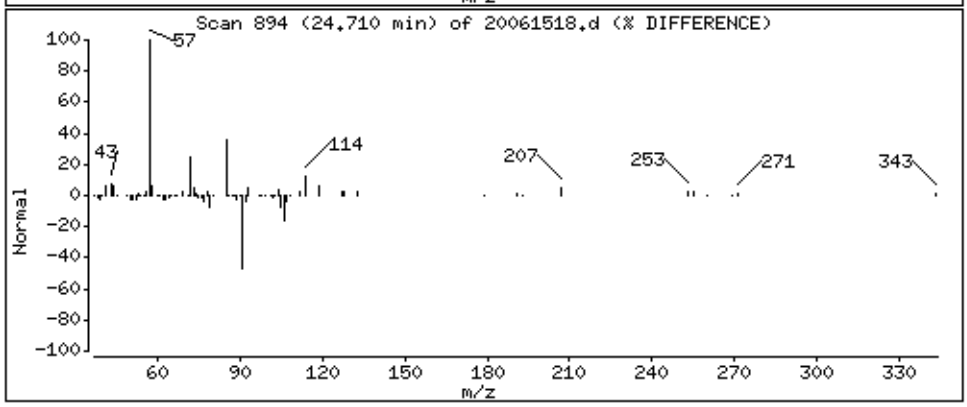
171 o-Xylene

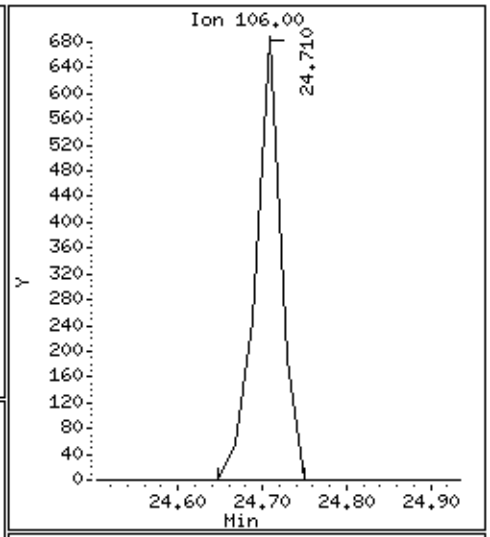
Concentration: 0.04688 PPBV

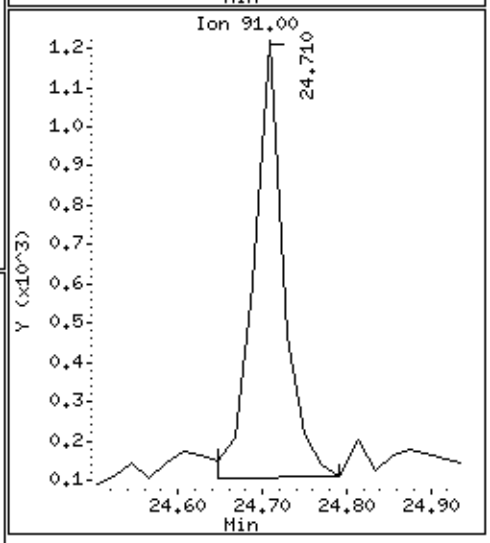












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

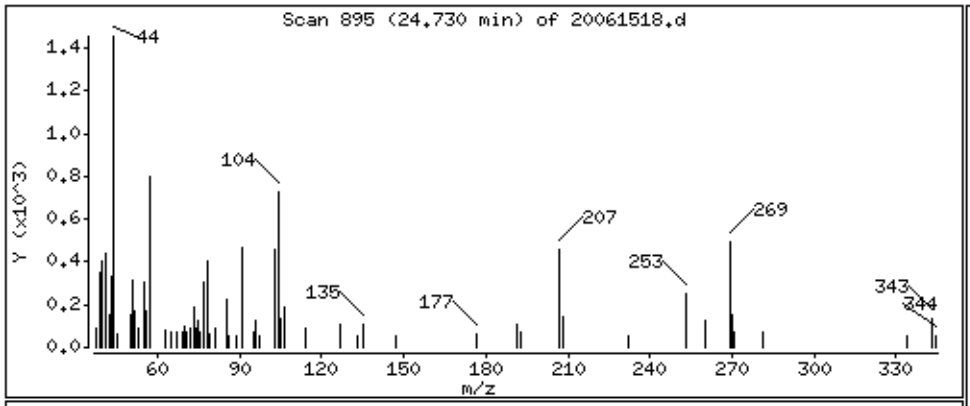
Operator: mjs

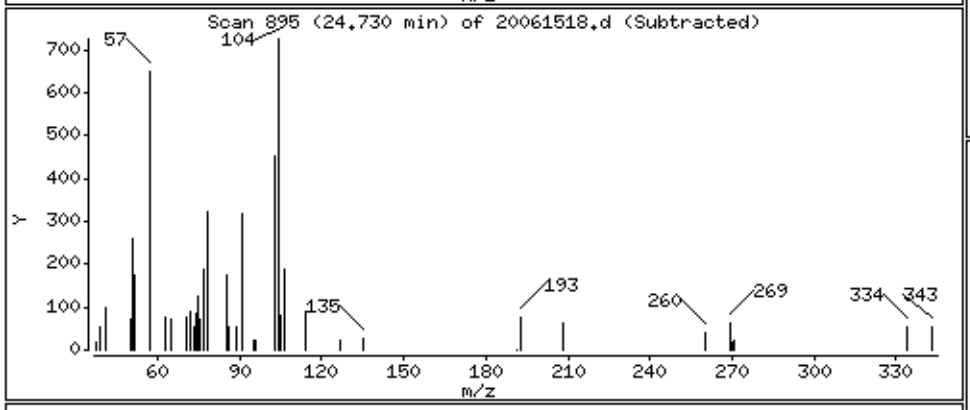
Column phase: RTX-624

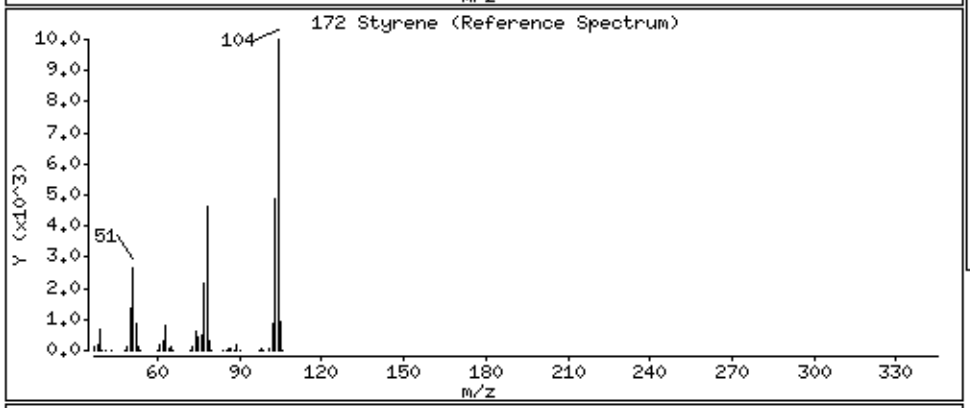
Column diameter: 0.32

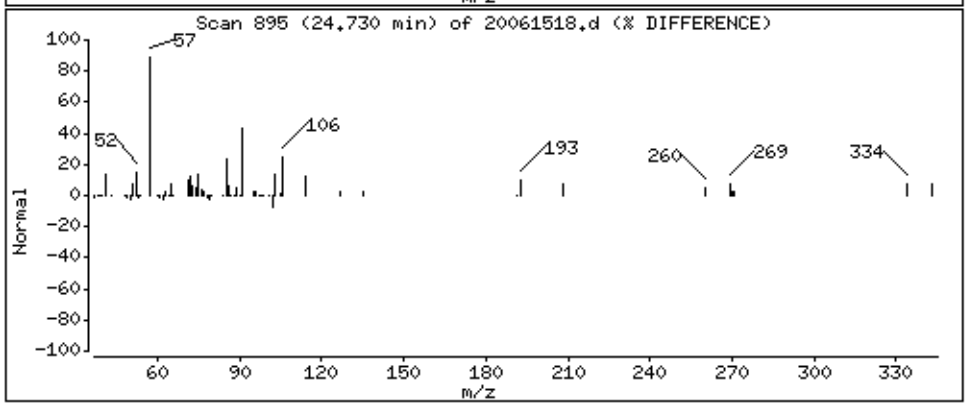
172 Styrene

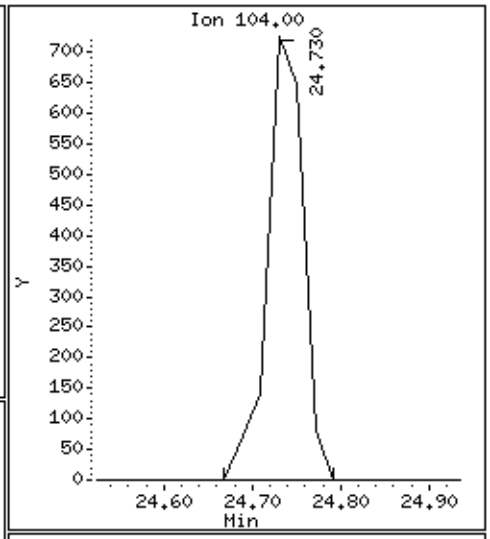
Concentration: 0.04303 PPBV

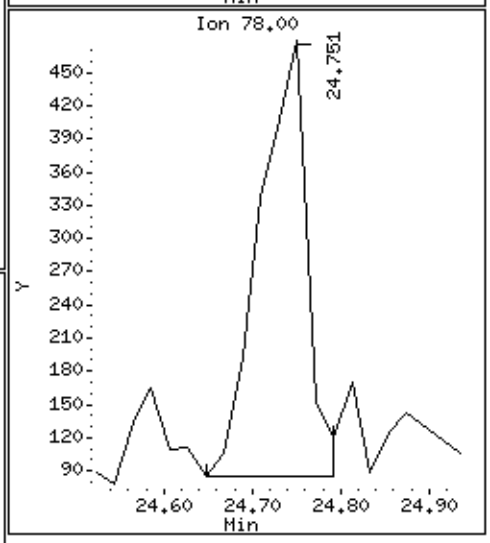












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

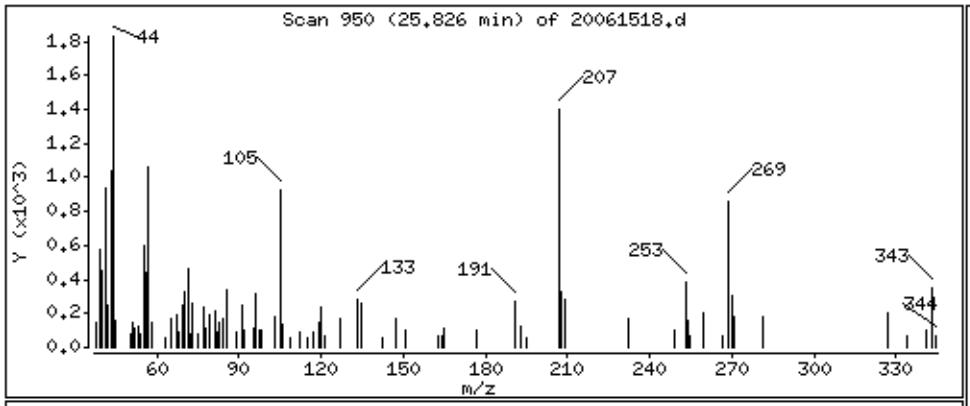
Operator: mjs

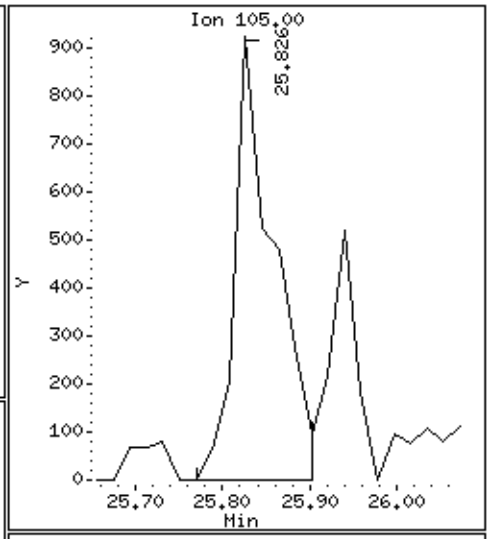
Column phase: RTX-624

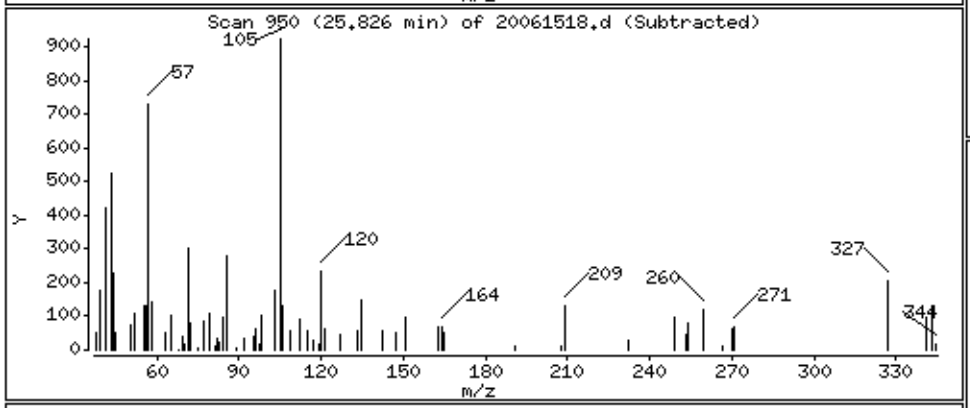
Column diameter: 0.32

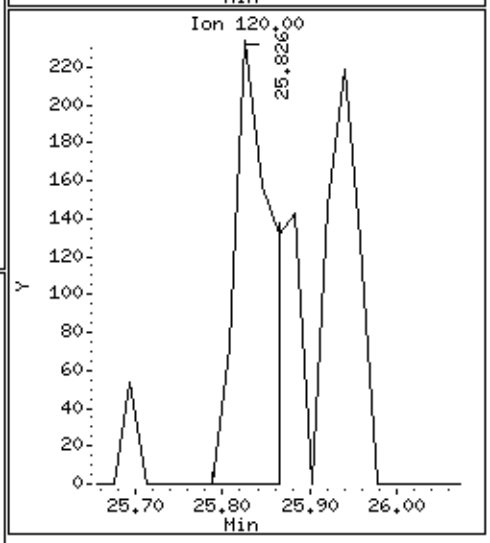
188 4-Ethyltoluene

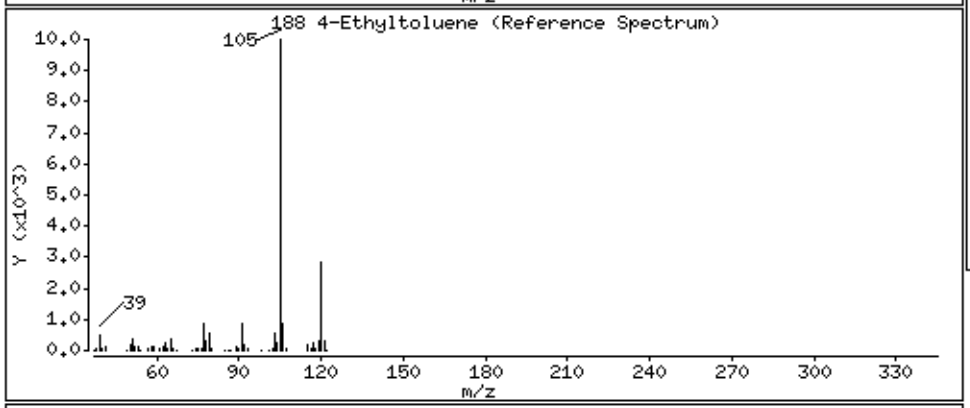
Concentration: 0.03642 PPBV

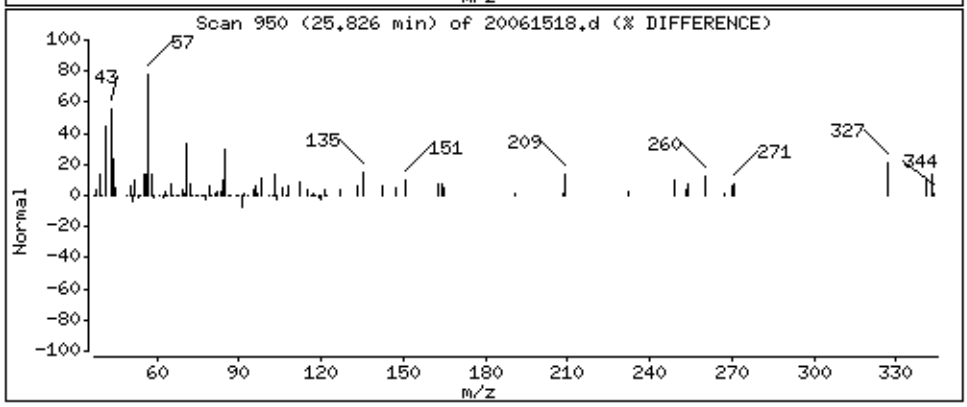












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

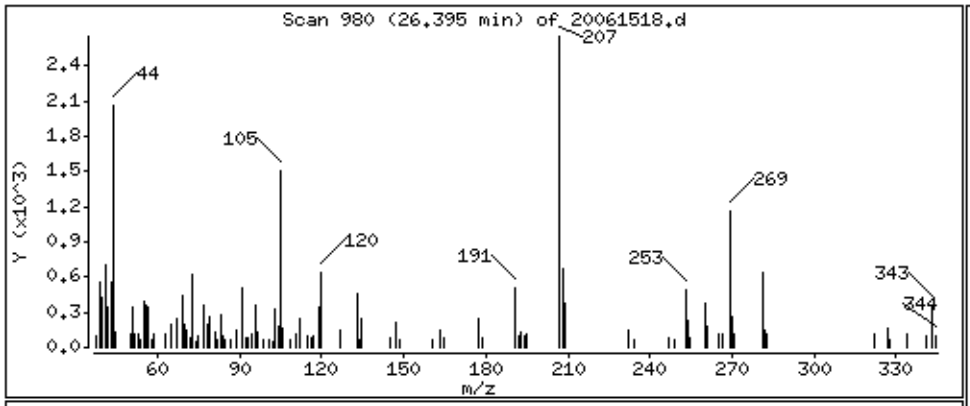
Operator: mjs

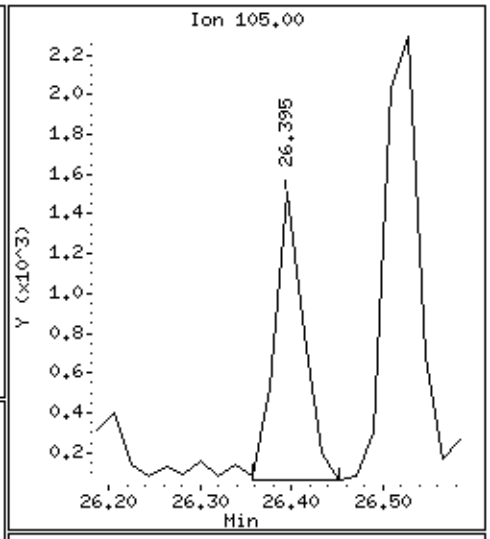
Column phase: RTX-624

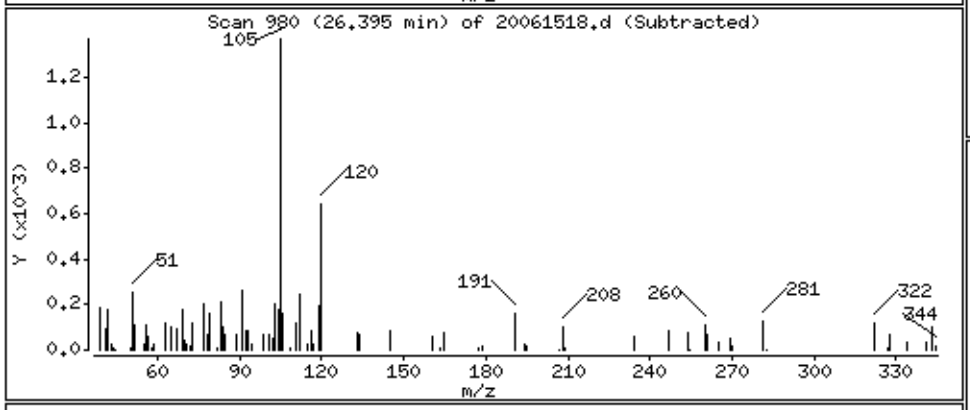
Column diameter: 0.32

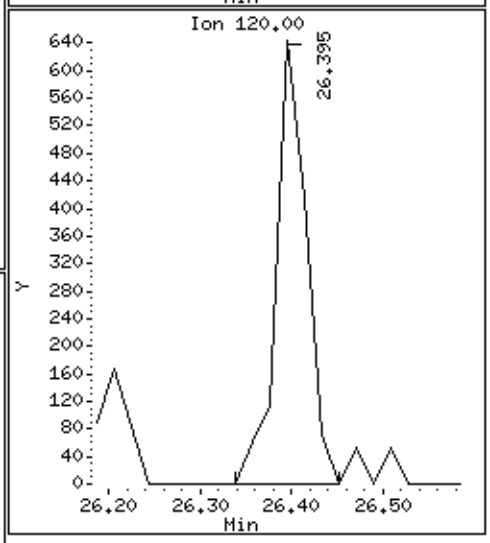
196 1,2,4-Trimethylbenzene

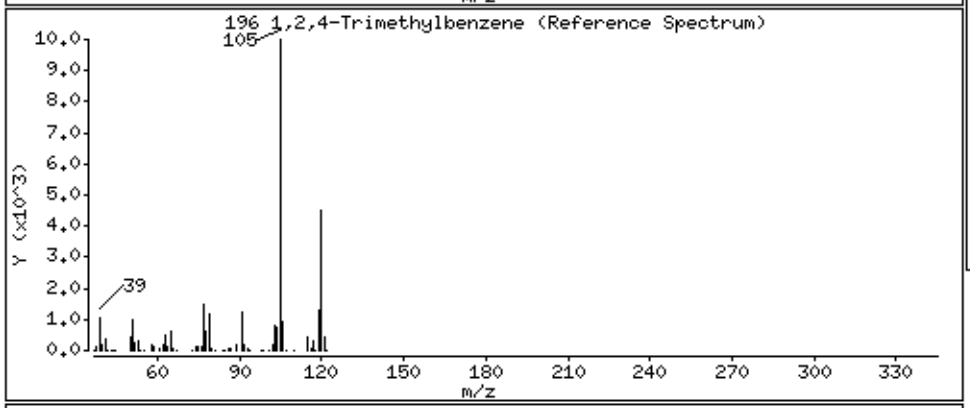
Concentration: 0.04557 PPBV

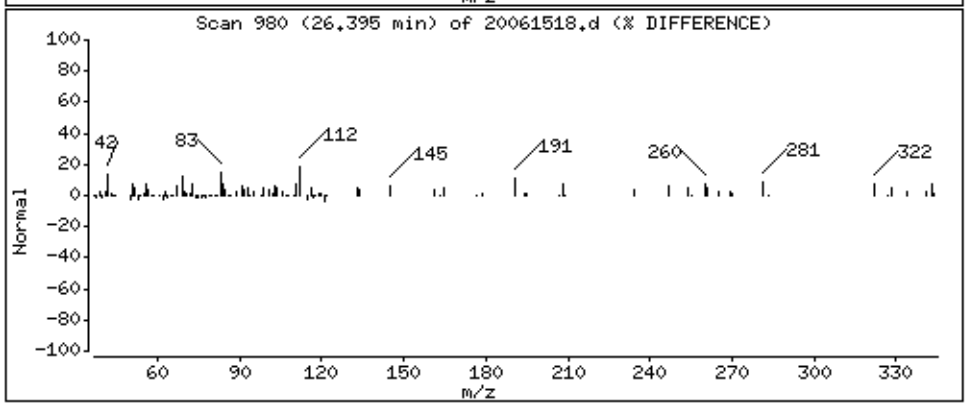












Data File: /chem/msd20.i/15Jun2016.b/20061518.d

Date : 15-JUN-2016 22:59

Client ID:

Instrument: msd20.i

Sample Info: 250mL #6L0407

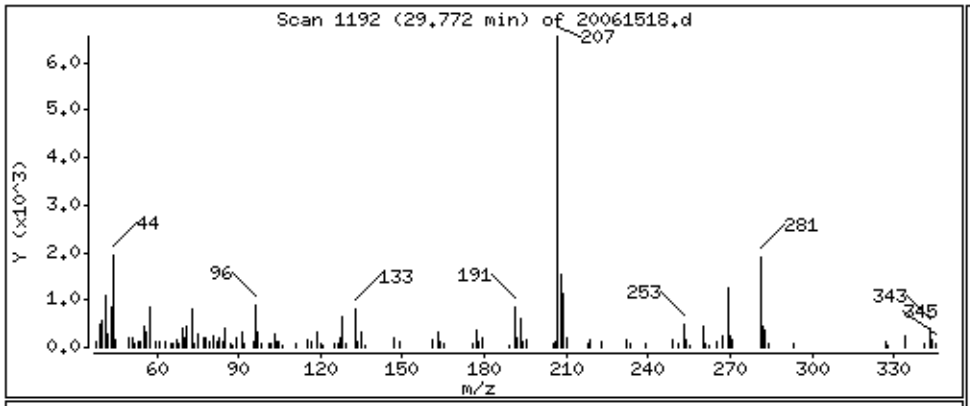
Operator: mjs

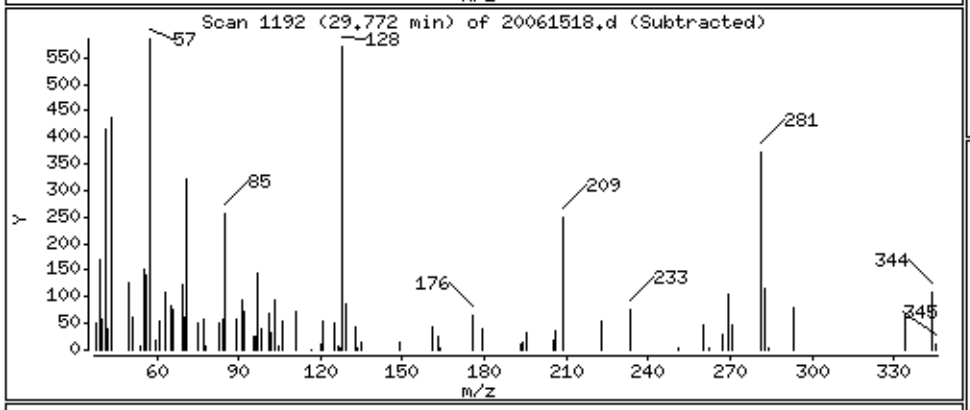
Column phase: RTX-624

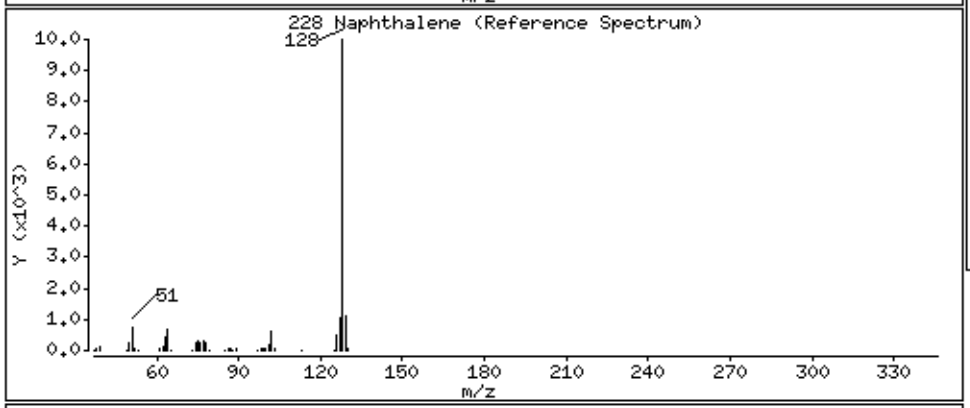
Column diameter: 0.32

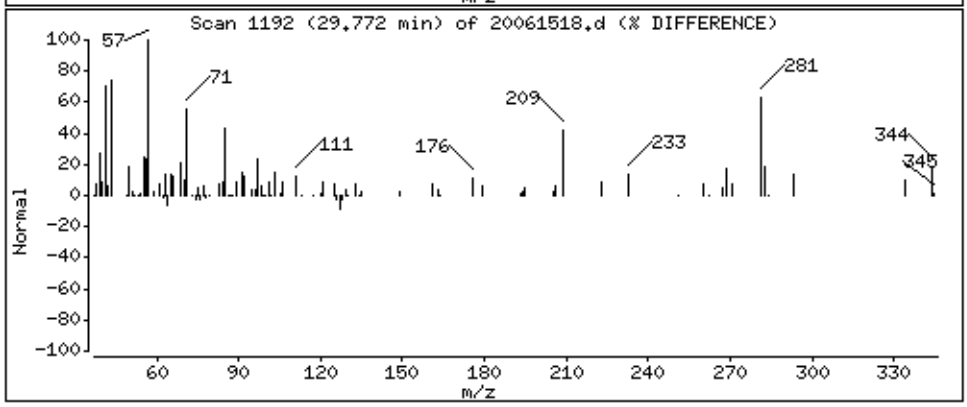
228 Naphthalene

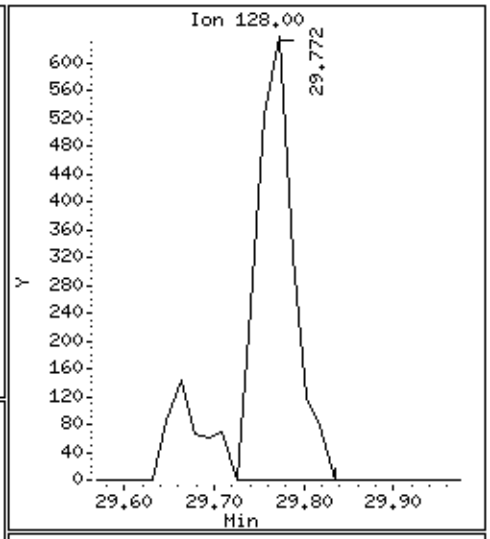
Concentration: 0.02382 PPBV

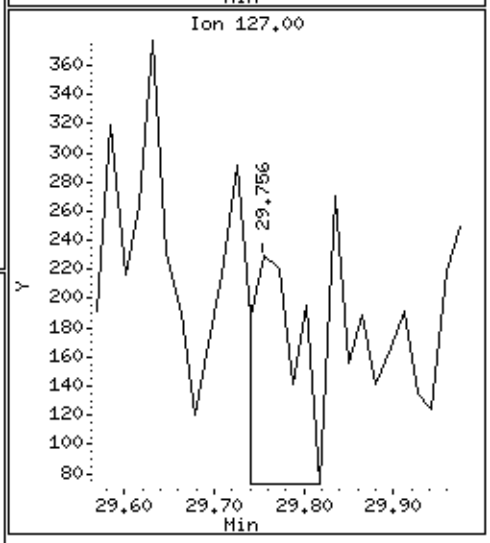












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7IA-5(061016)

Lab ID#: 1606298A-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.84	3.0
Chloromethane	0.84	1.0	1.7	2.1
Freon 11	0.17	3.1	0.95	18
Ethanol	0.84	5.0	1.6	9.5
Freon 113	0.17	0.13 J	1.3	1.0 J
Acetone	0.84	8.9	2.0	21
2-Propanol	0.84	3.2	2.1	7.8
Carbon Disulfide	0.84	0.097 J	2.6	0.30 J
Methylene Chloride	0.34	0.27 J	1.2	0.94 J
Hexane	0.17	0.078 J	0.60	0.28 J
2-Butanone (Methyl Ethyl Ketone)	0.84	1.7	2.5	5.1
Chloroform	0.17	0.066 J	0.82	0.32 J
Carbon Tetrachloride	0.17	0.073 J	1.1	0.46 J
Benzene	0.17	0.091 J	0.54	0.29 J
Heptane	0.17	0.11 J	0.69	0.45 J
4-Methyl-2-pentanone	0.17	0.083 J	0.69	0.34 J
Toluene	0.17	0.25	0.64	0.95
2-Hexanone	0.84	0.26 J	3.5	1.0 J
m,p-Xylene	0.17	0.076 J	0.73	0.33 J
Styrene	0.17	0.035 J	0.72	0.15 J
1,2,4-Trimethylbenzene	0.17	0.041 J	0.83	0.20 J
Naphthalene	0.84	0.085 J	4.4	0.45 J

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Client Sample ID: B7IA-5(061016)

Lab ID#: 1606298A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061519**	**Date of Collection:**	**6/11/16 7:09:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**6/16/16 08:28 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.17	0.61	0.84	3.0
Freon 114	0.17	Not Detected	1.2	Not Detected
Chloromethane	0.84	1.0	1.7	2.1
Vinyl Chloride	0.17	Not Detected	0.43	Not Detected
1,3-Butadiene	0.17	Not Detected	0.37	Not Detected
Bromomethane	0.84	Not Detected	3.3	Not Detected
Chloroethane	0.84	Not Detected	2.2	Not Detected
Freon 11	0.17	3.1	0.95	18
Ethanol	0.84	5.0	1.6	9.5
Freon 113	0.17	0.13 J	1.3	1.0 J
1,1-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Acetone	0.84	8.9	2.0	21
2-Propanol	0.84	3.2	2.1	7.8
Carbon Disulfide	0.84	0.097 J	2.6	0.30 J
3-Chloropropene	0.84	Not Detected	2.6	Not Detected
Methylene Chloride	0.34	0.27 J	1.2	0.94 J
Methyl tert-butyl ether	0.17	Not Detected	0.61	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Hexane	0.17	0.078 J	0.60	0.28 J
1,1-Dichloroethane	0.17	Not Detected	0.68	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.84	1.7	2.5	5.1
cis-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected
Tetrahydrofuran	0.84	Not Detected	2.5	Not Detected
Chloroform	0.17	0.066 J	0.82	0.32 J
1,1,1-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Cyclohexane	0.17	Not Detected	0.58	Not Detected
Carbon Tetrachloride	0.17	0.073 J	1.1	0.46 J
2,2,4-Trimethylpentane	0.84	Not Detected	3.9	Not Detected
Benzene	0.17	0.091 J	0.54	0.29 J
1,2-Dichloroethane	0.17	Not Detected	0.68	Not Detected
Heptane	0.17	0.11 J	0.69	0.45 J
Trichloroethene	0.17	Not Detected	0.91	Not Detected
1,2-Dichloropropane	0.17	Not Detected	0.78	Not Detected
1,4-Dioxane	0.17	Not Detected	0.61	Not Detected
Bromodichloromethane	0.17	Not Detected	1.1	Not Detected
cis-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
4-Methyl-2-pentanone	0.17	0.083 J	0.69	0.34 J
Toluene	0.17	0.25	0.64	0.95
trans-1,3-Dichloropropene	0.17	Not Detected	0.77	Not Detected
1,1,2-Trichloroethane	0.17	Not Detected	0.92	Not Detected
Tetrachloroethene	0.17	Not Detected	1.1	Not Detected
2-Hexanone	0.84	0.26 J	3.5	1.0 J

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Client Sample ID: B7IA-5(061016)

Lab ID#: 1606298A-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061519**	**Date of Collection:**	**6/11/16 7:09:00 PM**
Dil. Factor:	**1.69**	**Date of Analysis:**	**6/16/16 08:28 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.17	Not Detected	1.4	Not Detected
1,2-Dibromoethane (EDB)	0.17	Not Detected	1.3	Not Detected
Chlorobenzene	0.17	Not Detected	0.78	Not Detected
Ethyl Benzene	0.17	Not Detected	0.73	Not Detected
m,p-Xylene	0.17	0.076 J	0.73	0.33 J
o-Xylene	0.17	Not Detected	0.73	Not Detected
Styrene	0.17	0.035 J	0.72	0.15 J
Bromoform	0.17	Not Detected	1.7	Not Detected
Cumene	0.17	Not Detected	0.83	Not Detected
1,1,2,2-Tetrachloroethane	0.17	Not Detected	1.2	Not Detected
Propylbenzene	0.17	Not Detected	0.83	Not Detected
4-Ethyltoluene	0.17	Not Detected	0.83	Not Detected
1,3,5-Trimethylbenzene	0.17	Not Detected	0.83	Not Detected
1,2,4-Trimethylbenzene	0.17	0.041 J	0.83	0.20 J
1,3-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,4-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
alpha-Chlorotoluene	0.17	Not Detected	0.87	Not Detected
1,2-Dichlorobenzene	0.17	Not Detected	1.0	Not Detected
1,2,4-Trichlorobenzene	0.84	Not Detected	6.3	Not Detected
Hexachlorobutadiene	0.84	Not Detected	9.0	Not Detected
Naphthalene	0.84	0.085 J	4.4	0.45 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061519.d
Lab Smp Id: 1606298A-06A
Inj Date : 16-JUN-2016 08:28
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 34423
Misc Info : 6.1"Hg -> 5.1psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.69000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	98147	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	75561			47.16- 107.16	76.99
16.726	16.726 (1.000)	49	124837			84.74- 144.74	127.19
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	445257	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	72535			0.00- 45.65	16.29
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	367358	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	202367			24.05- 84.05	55.09
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	154059	5.90025	5.900	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	79844			28.75- 88.75	51.83
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.821	20.821 (1.142)	98	423090	5.01452	5.014	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	50624			0.00- 41.22	11.97

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.821	20.821 (1.142)	100	288127			37.90- 97.90	68.10
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	189493	4.69172	4.692	80.00- 120.00	100.00
25.485	25.466 (1.073)	95	233795			88.33- 148.33	123.38
25.485	25.485 (1.073)	176	183994			68.77- 128.77	97.10
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	27803	0.36066	0.6095	80.00- 120.00	100.00
4.672	4.648 (0.279)	87	9390			2.50- 62.50	33.77
17 Chloromethane					CAS #: 74-87-3		
6.576	6.552 (0.393)	50	15178	0.60552	1.023	80.00- 120.00	100.00
6.576	6.552 (0.393)	52	5181			3.09- 63.09	34.14
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	140072	1.84932	3.125	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	92391			34.69- 94.69	65.96
42 Ethanol					CAS #: 64-17-5		
12.296	12.269 (0.735)	45	29888	2.99125	5.055	80.00- 120.00	100.00
12.296	12.269 (0.735)	46	12120			11.01- 71.01	40.55
12.296	12.269 (0.735)	43	6656			0.00- 50.63	22.27
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	4294	0.07734	0.1307	80.00- 120.00	100.00(a)
12.736	12.763 (0.761)	153	2050			34.65- 94.65	47.73
12.763	12.763 (0.763)	101	3361			90.37- 150.37	78.28
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	77203	5.26617	8.900	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	233306			275.09- 335.09	302.19
56 Carbon Disulfide					CAS #: 75-15-0		
13.093	13.120 (0.783)	76	4753	0.05750	0.09717	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
13.587	13.532 (0.812)	45	89173	1.89085	3.196	80.00- 120.00	100.00
13.587	13.532 (0.812)	43	20211			0.00- 49.91	22.66
13.587	13.532 (0.812)	59	4101			0.00- 34.18	4.60
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	5126	0.16063	0.2714	80.00- 120.00	100.00(a)
14.027	14.027 (0.839)	49	5371			88.46- 148.46	104.78
14.027	14.027 (0.839)	51	1759			6.78- 66.78	34.32

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	2212	0.04644	0.07849	80.00- 120.00	100.00(a)
14.933	14.878 (0.893)	43	6801			31.00- 91.00	307.42
14.878	14.878 (0.889)	86	418			0.00- 49.39	18.91
92 2-Butanone					CAS #: 78-93-3		
16.365	16.344 (0.978)	72	15935	1.01977	1.723	80.00- 120.00	100.00
16.365	16.344 (0.978)	43	58075			324.50- 384.50	364.45
16.365	16.344 (0.978)	57	4710			0.00- 59.24	29.56
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	2502	0.03923	0.06629	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	1705			34.55- 94.55	68.14
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2310	0.04334	0.07325	80.00- 120.00	100.00(a)
17.250	17.250 (1.031)	117	2661			73.36- 133.36	115.21
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.966)	78	5534	0.05367	0.09070	80.00- 120.00	100.00(a)
17.620	17.620 (0.966)	77	1354			0.00- 53.54	24.47
121 Heptane					CAS #: 142-82-5		
17.867	17.847 (0.980)	57	1906	0.06553	0.1107	80.00- 120.00	100.00(a)
0.000	17.847 (0.000)	100	0			10.87- 70.87	0.00
17.888	17.847 (0.981)	43	5817			148.15- 208.15	305.23
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.556 (1.128)	43	3618	0.04937	0.08343	80.00- 120.00	100.00(a)
20.572	20.556 (1.128)	58	965			11.51- 71.51	26.69
20.572	20.556 (1.128)	85	629			0.00- 48.80	17.39
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	17665	0.14967	0.2529	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	10314			30.55- 90.55	58.39
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	5737	0.15104	0.2553	80.00- 120.00	100.00(a)
22.406	22.406 (0.943)	43	12828			146.44- 206.44	223.60
22.406	22.406 (0.943)	100	1205			0.00- 54.43	21.02
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	2236	0.04503	0.07610	80.00- 120.00	100.00(a)
24.091	24.091 (1.014)	91	4658			164.82- 224.82	208.30
172 Styrene					CAS #: 100-42-5		
24.751	24.730 (1.042)	104	1549	0.02070	0.03499	80.00- 120.00	100.00(a)

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
172 Styrene (continued)							
24.751	24.730 (1.042)	78	925			19.76- 79.76	59.70
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	2666	0.02437	0.04119	80.00- 120.00	100.00(a)
26.395	26.395 (1.111)	120	1173			18.29- 78.29	43.99
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	5961	0.05048	0.08532	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	929			0.00- 43.33	15.60

QC Flag Legend

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

Report Date: 24-Jun-2016 12:10

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061519.d
Lab Smp Id: 1606298A-06A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 6.1"Hg -> 5.1psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	98147	-16.53
123 1,4-Difluorobenze	491034	294620	687448	445257	-9.32
163 Chlorobenzene-d5	413171	247903	578439	367358	-11.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:10

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-06A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 6.1"Hg -> 5.1psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.900	118.01	70-130
$ 146 Toluene-d8	5.000	5.014	100.29	70-130
$ 177 4-Bromofluorobenze	5.000	4.692	93.83	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

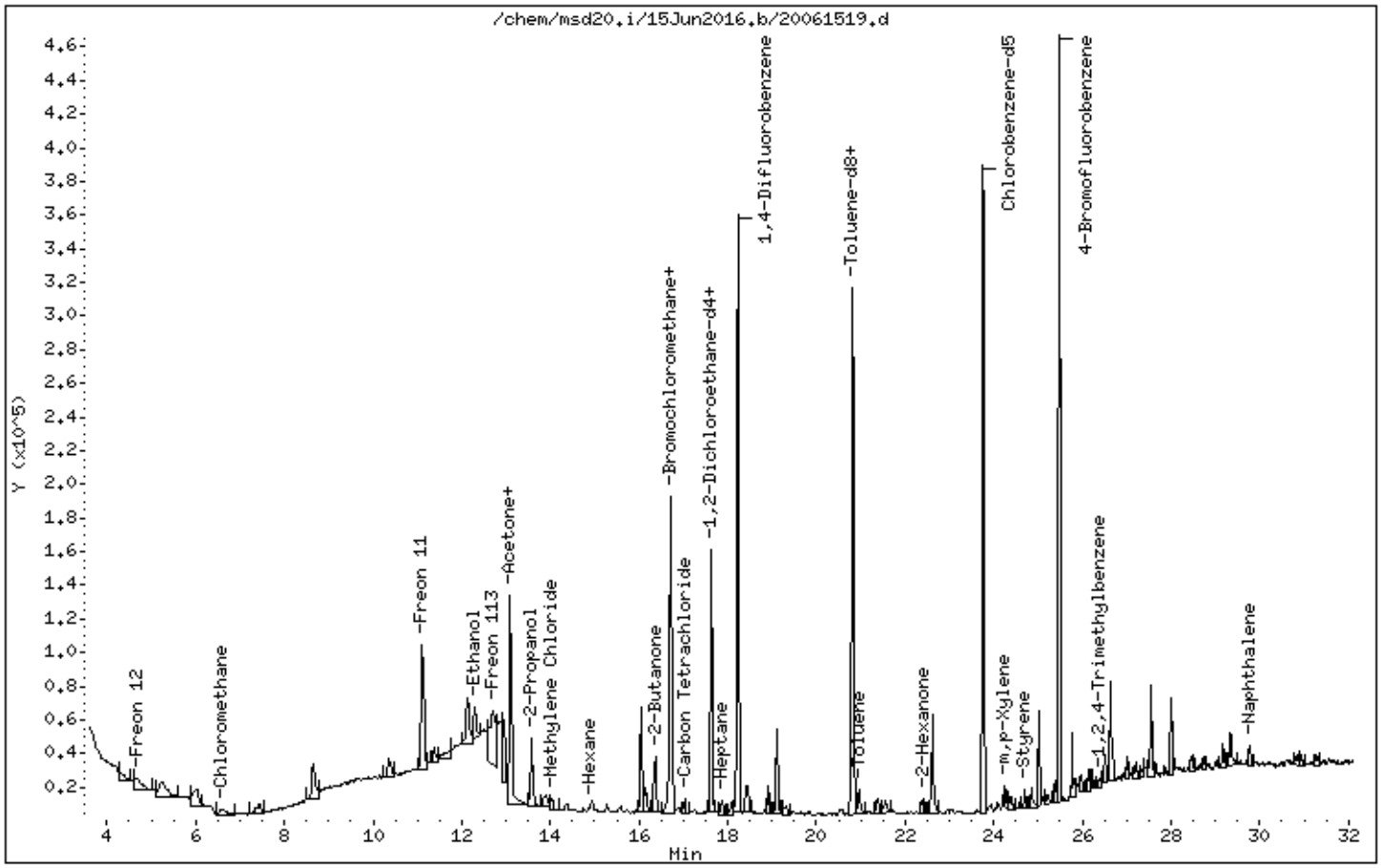
Instrument: msd20.i

Sample Info: 250mL# 34423

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

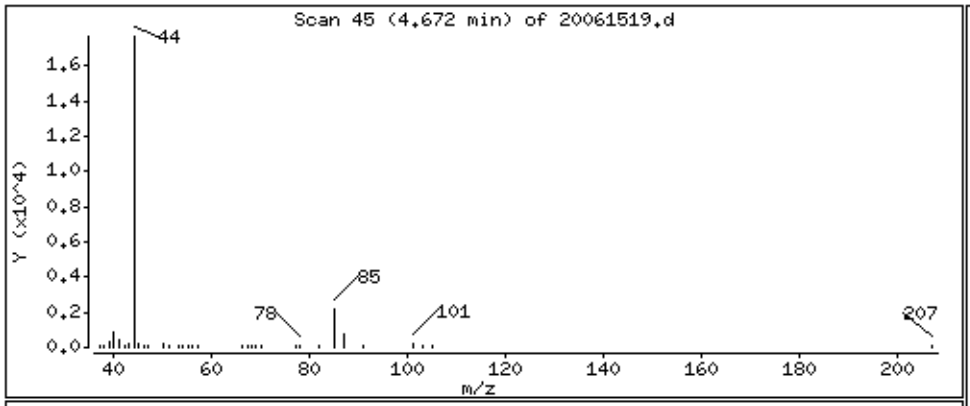
Operator: ef

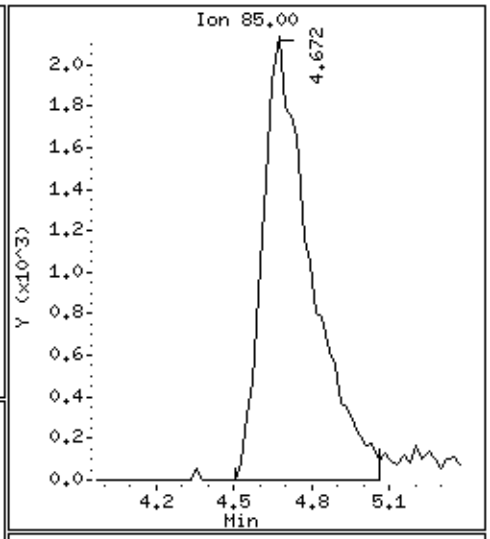
Column phase: RTX-624

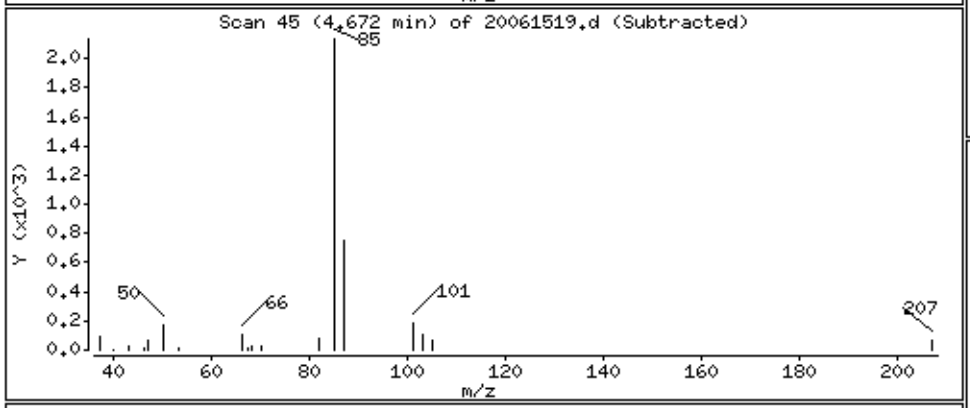
Column diameter: 0.32

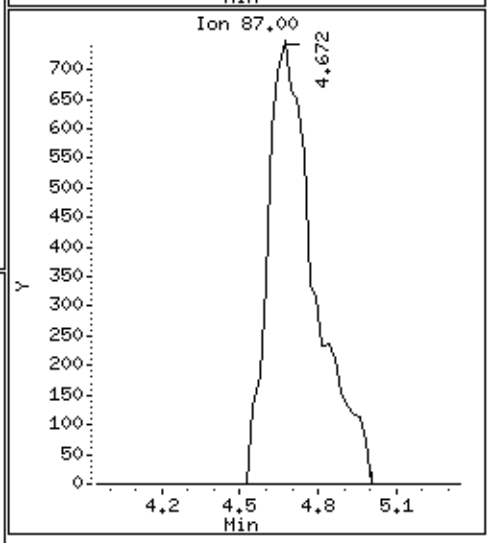
11 Freon 12

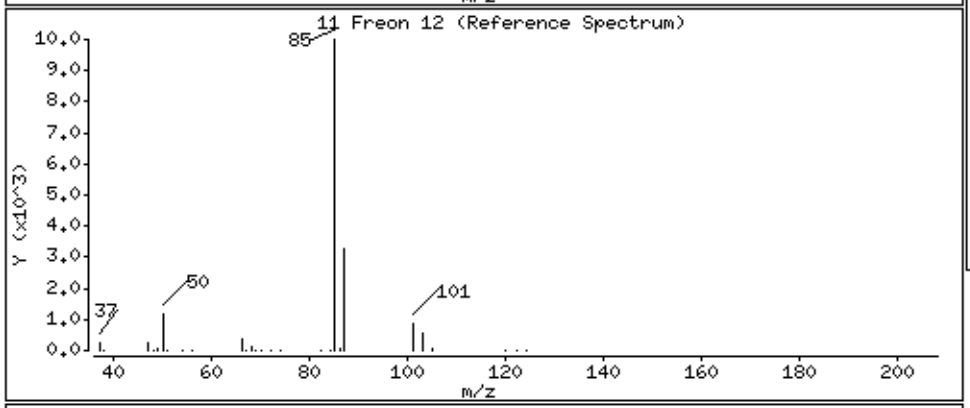
Concentration: 0.6095 PPBV

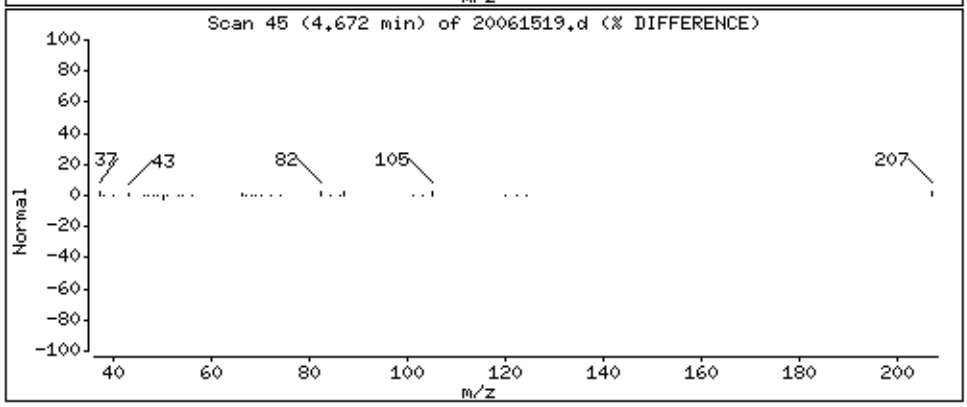












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

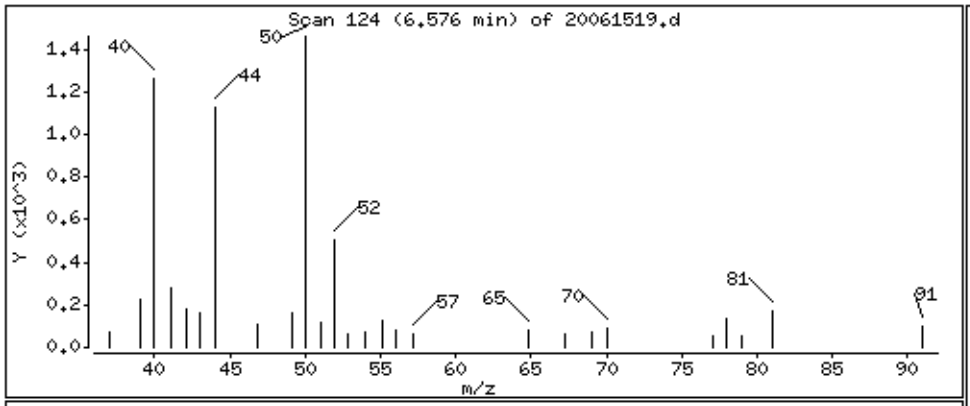
Operator: ef

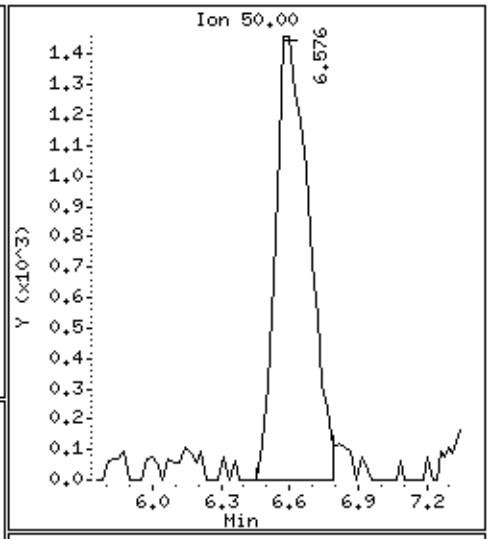
Column phase: RTX-624

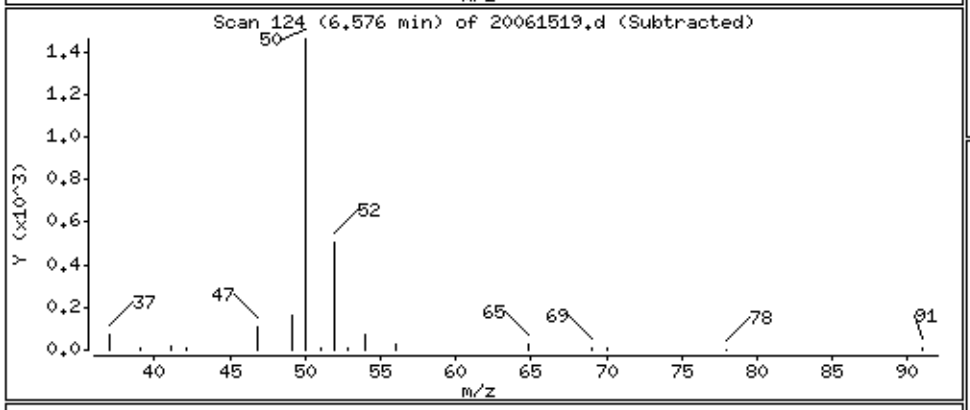
Column diameter: 0.32

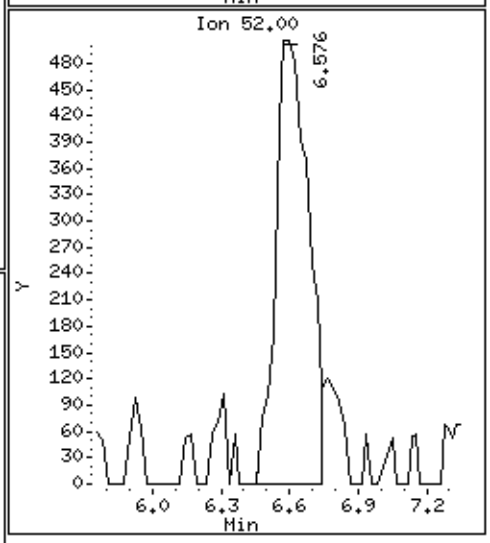
17 Chloromethane

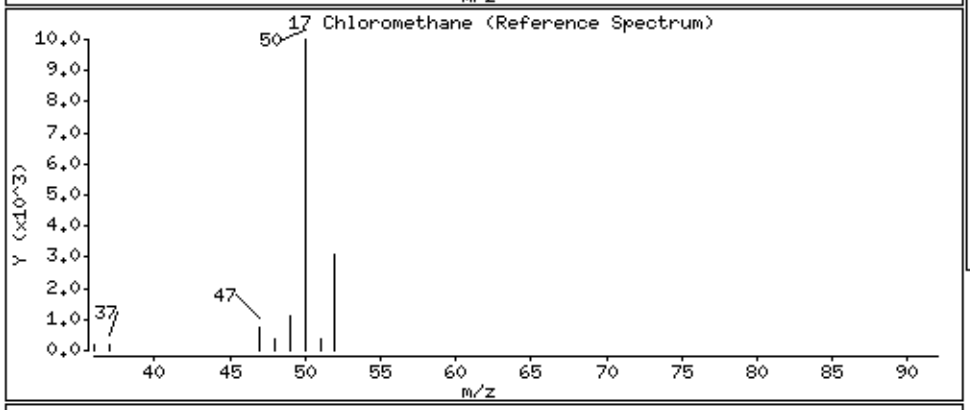
Concentration: 1.023 PPBV

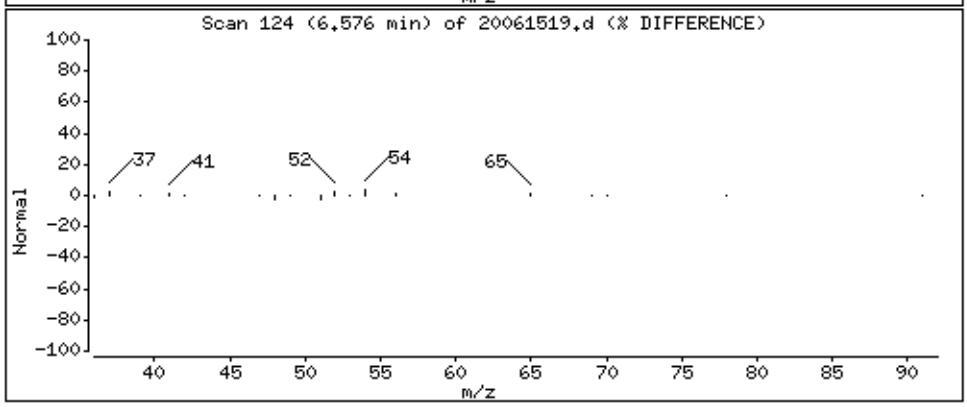












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

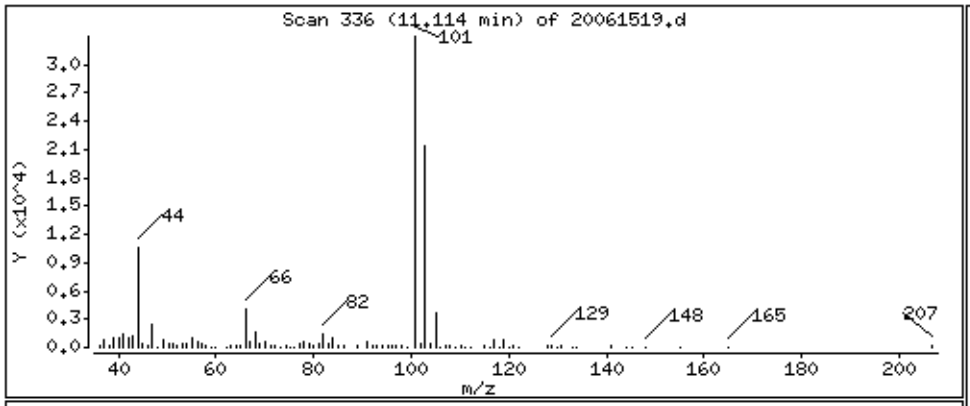
Operator: ef

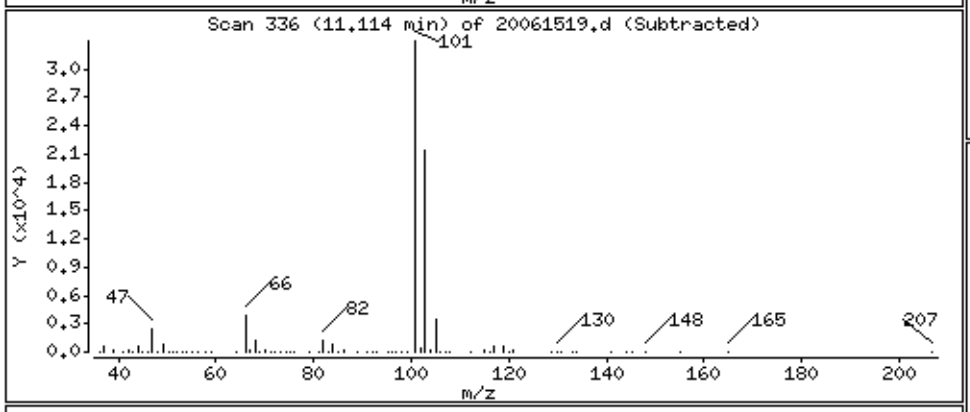
Column phase: RTX-624

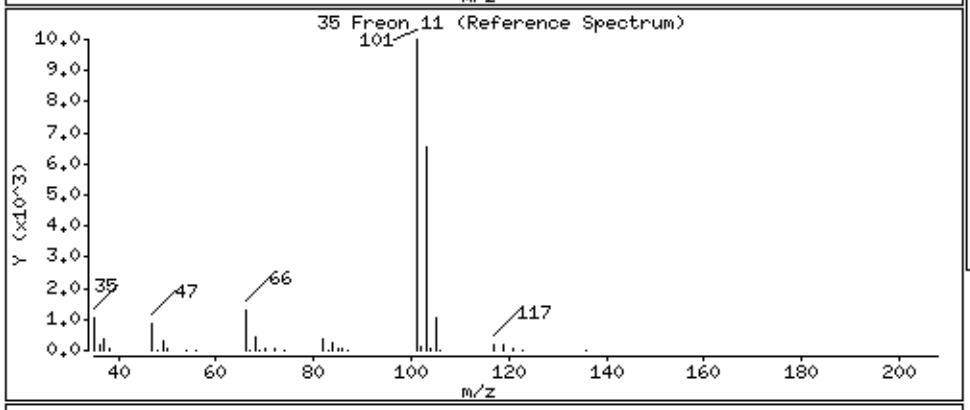
Column diameter: 0.32

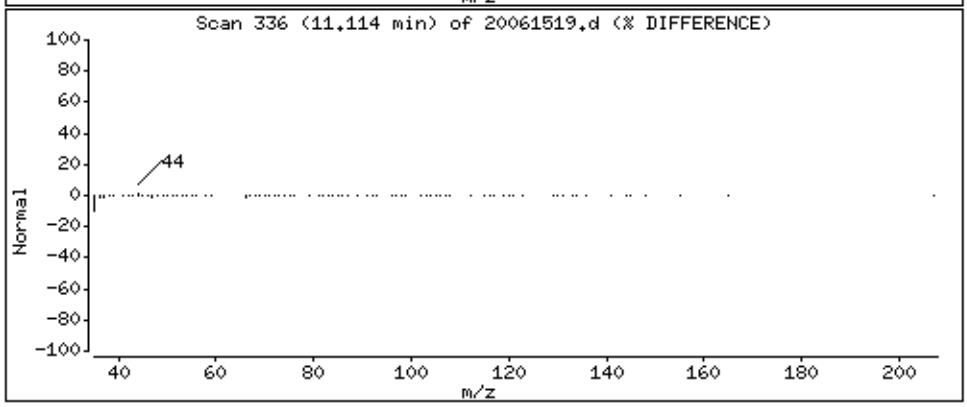
35 Freon 11

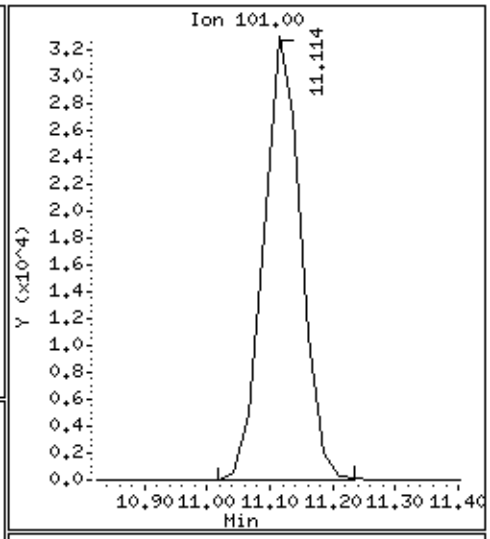
Concentration: 3.125 PPBV

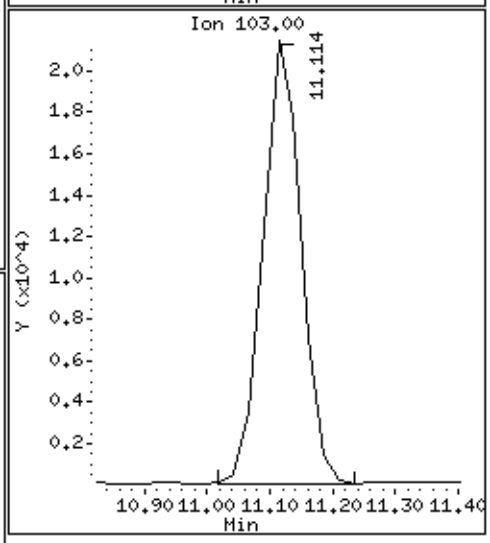












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

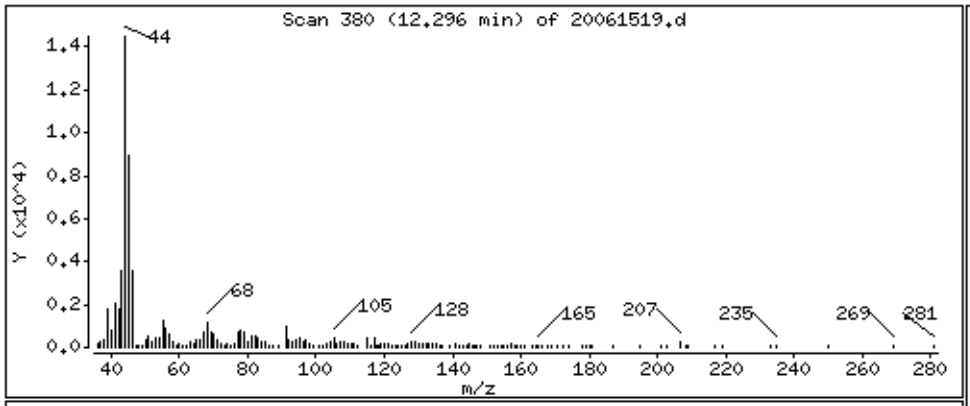
Operator: ef

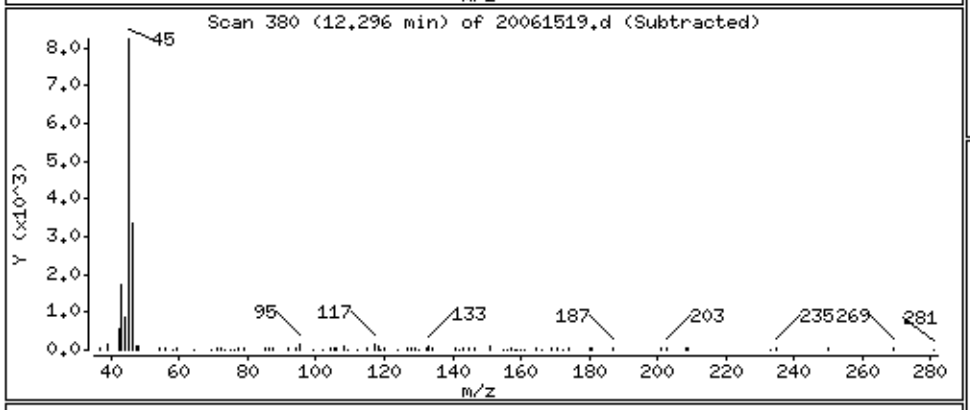
Column phase: RTX-624

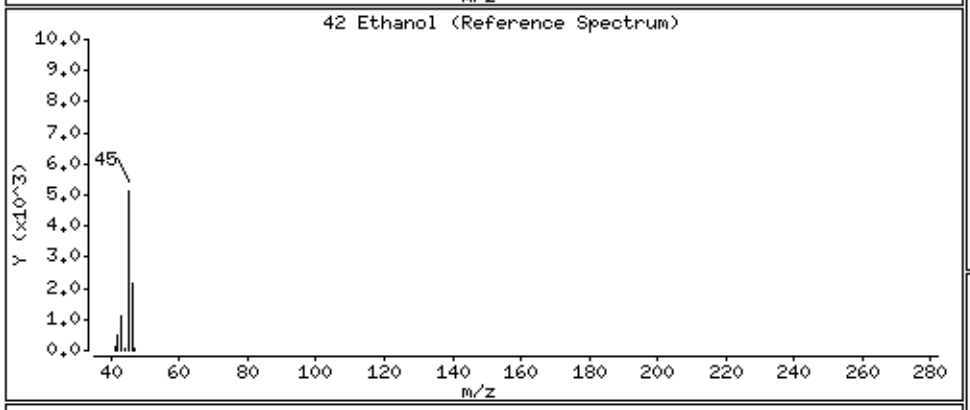
Column diameter: 0.32

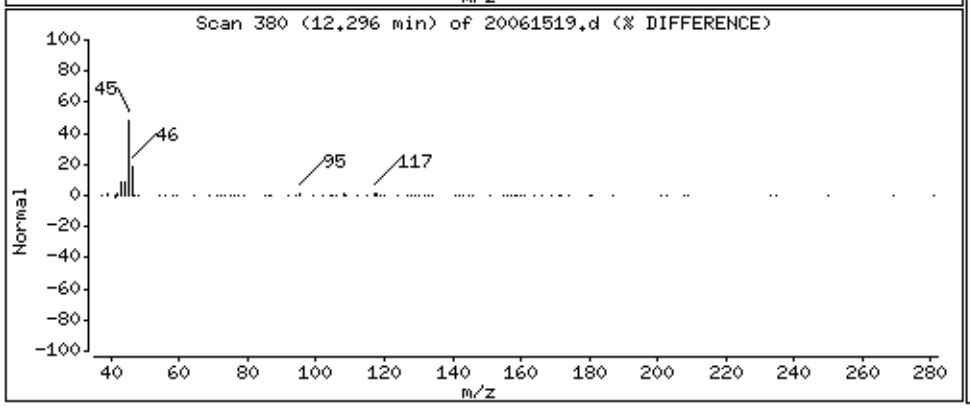
42 Ethanol

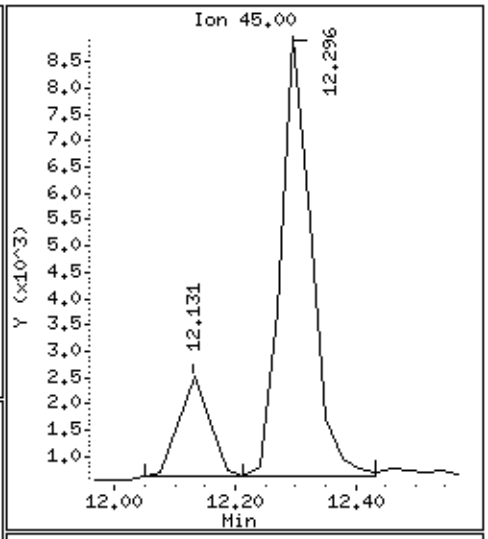
Concentration: 5.055 PPBV

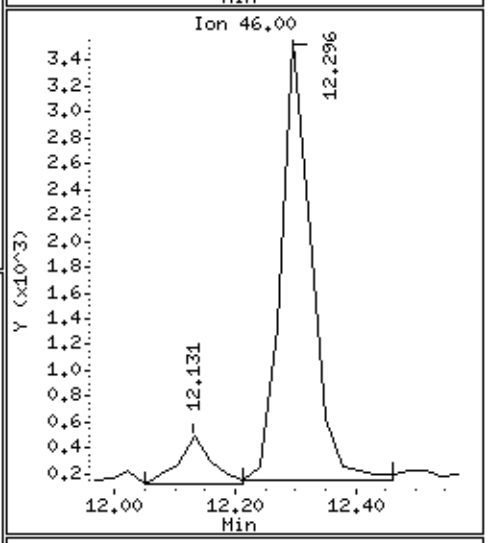


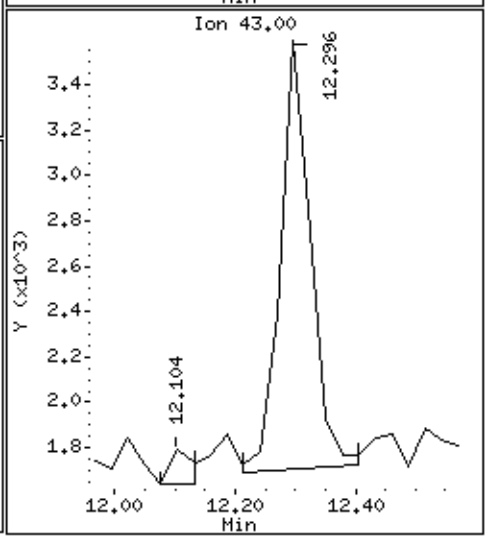












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

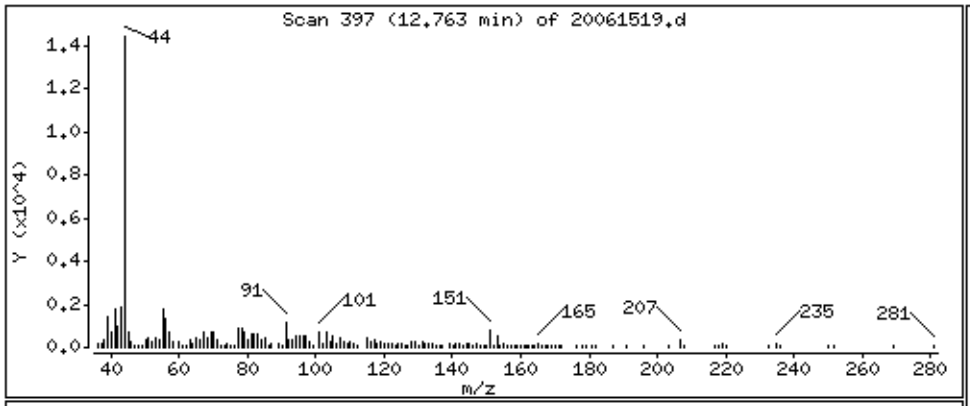
Operator: ef

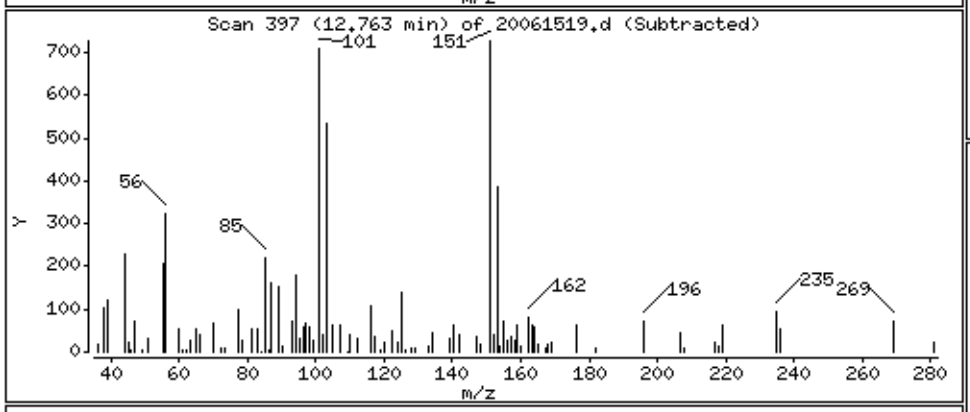
Column phase: RTX-624

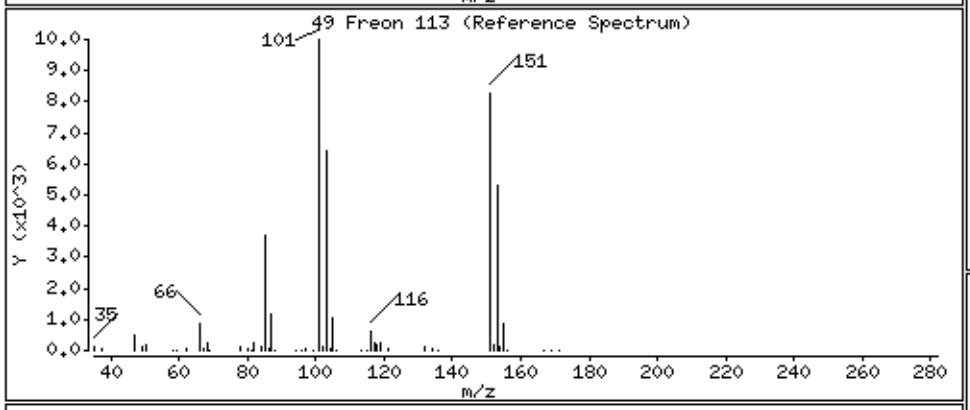
Column diameter: 0.32

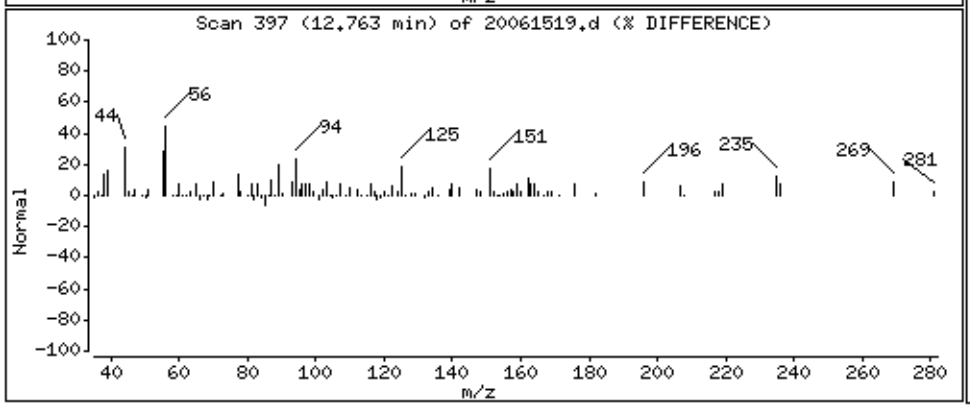
49 Freon 113

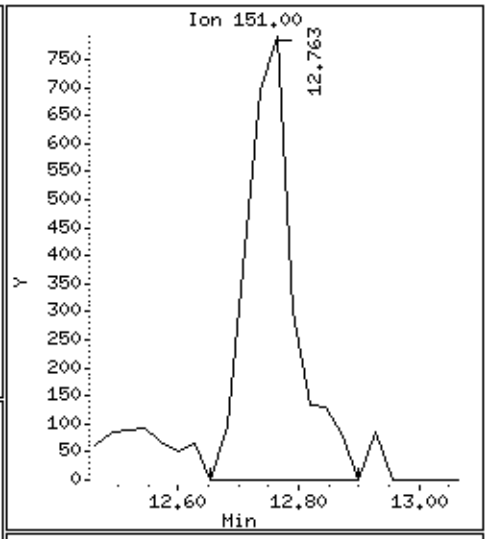
Concentration: 0.1307 PPBV

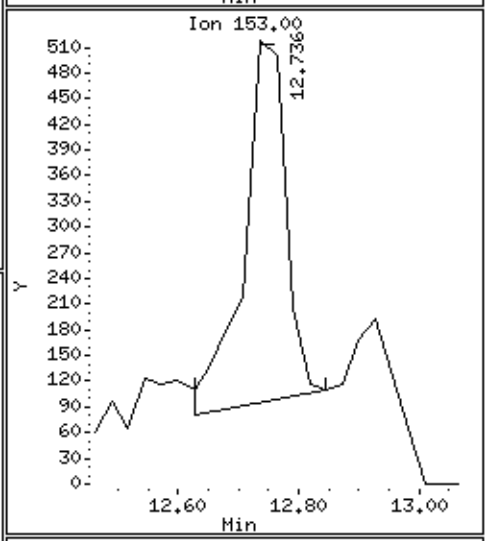


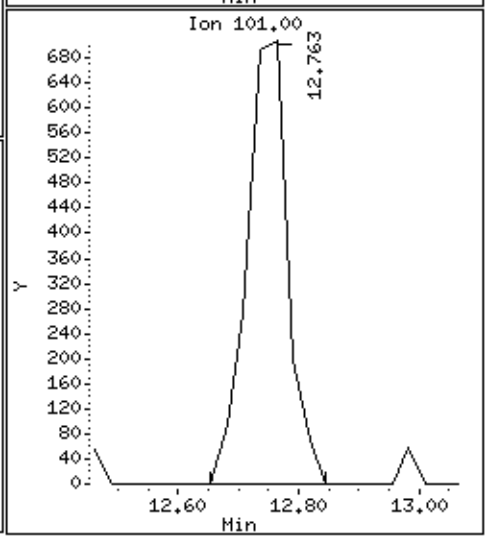












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

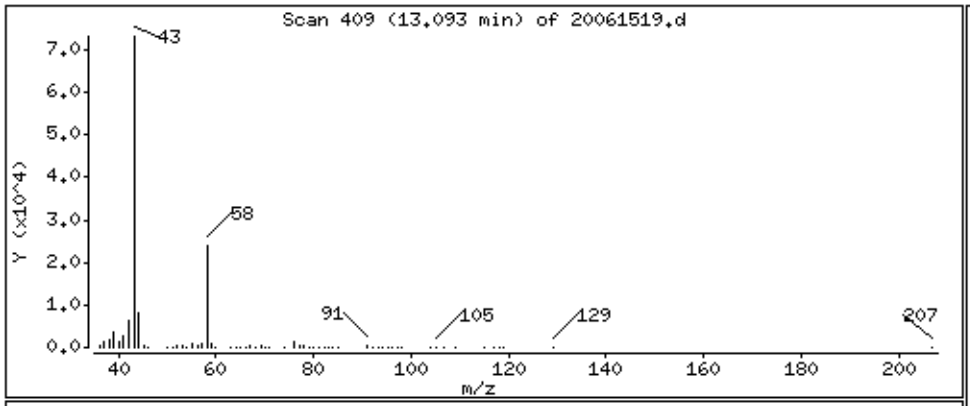
Operator: ef

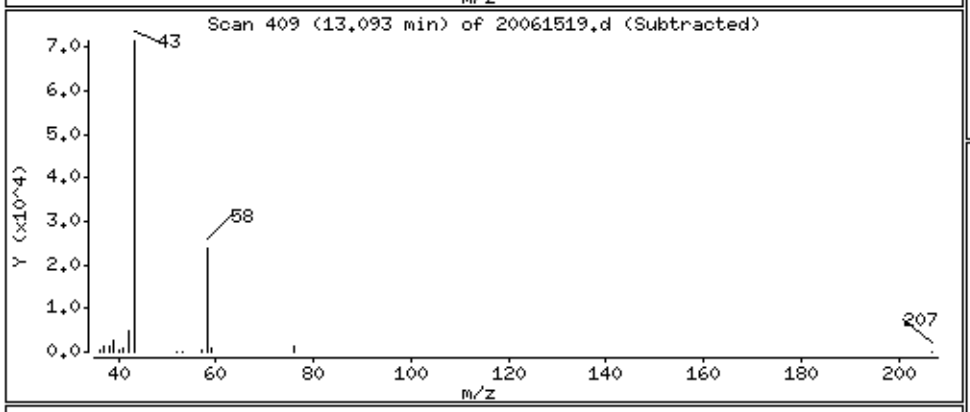
Column phase: RTX-624

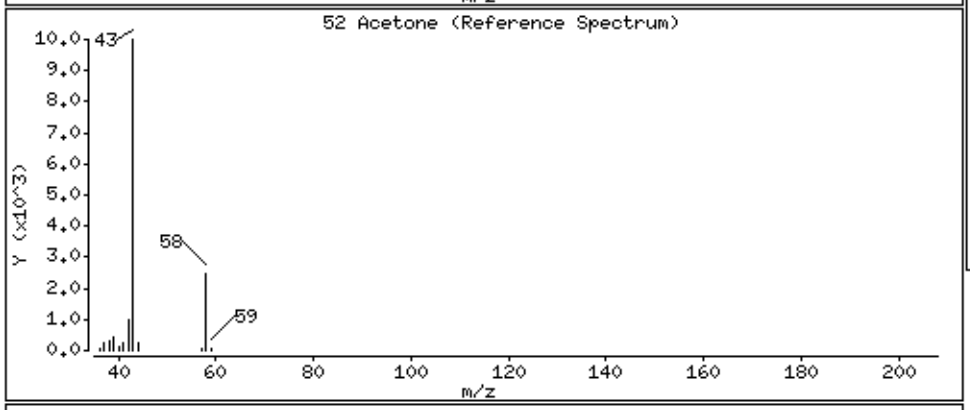
Column diameter: 0.32

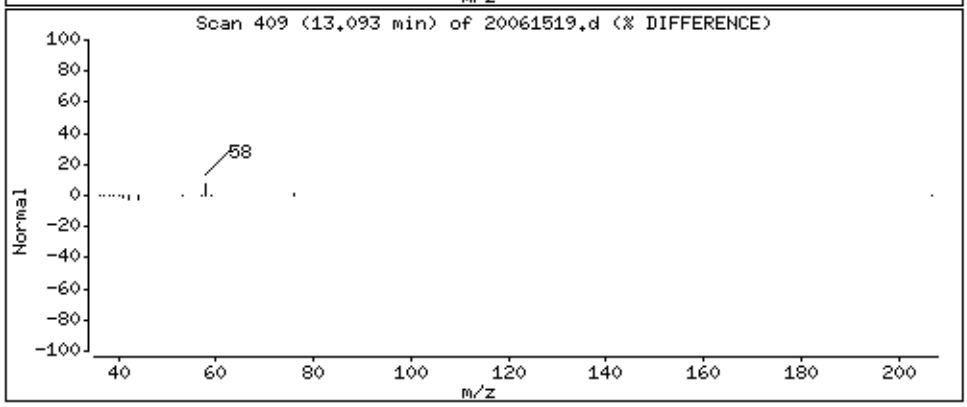
52 Acetone

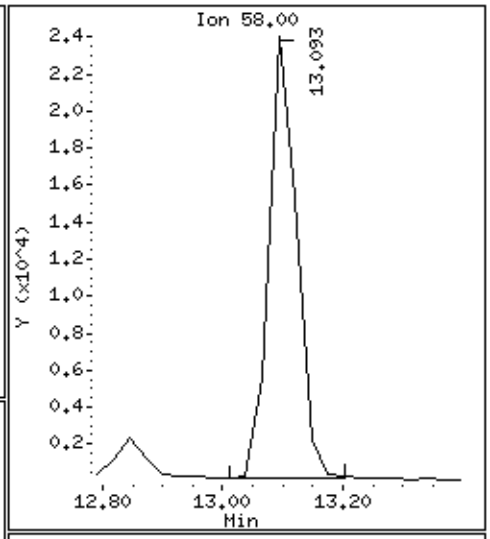
Concentration: 8.900 PPBV

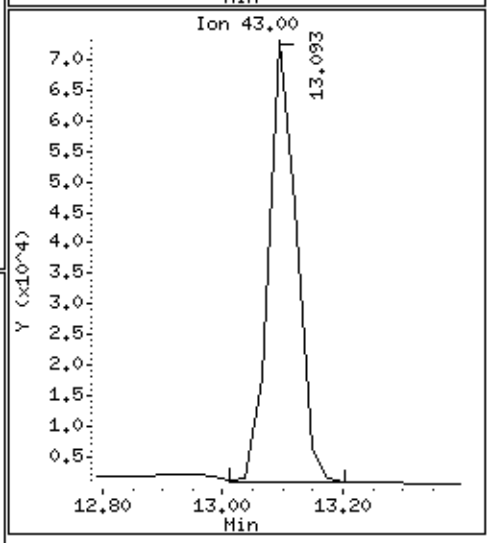












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

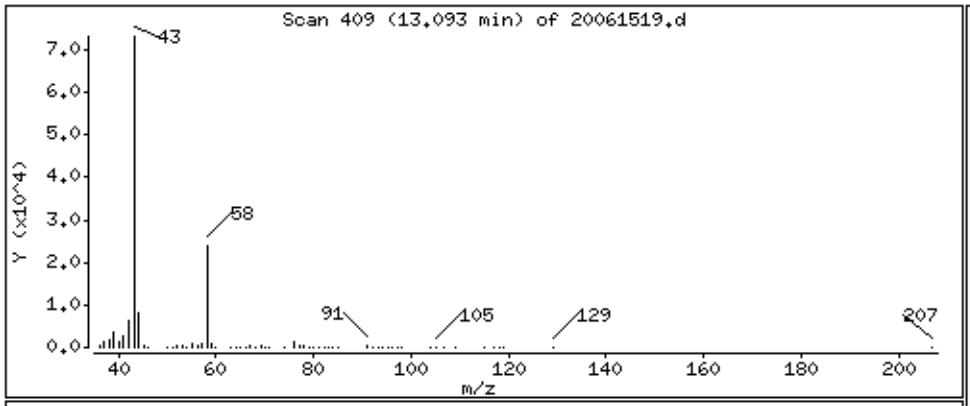
Operator: ef

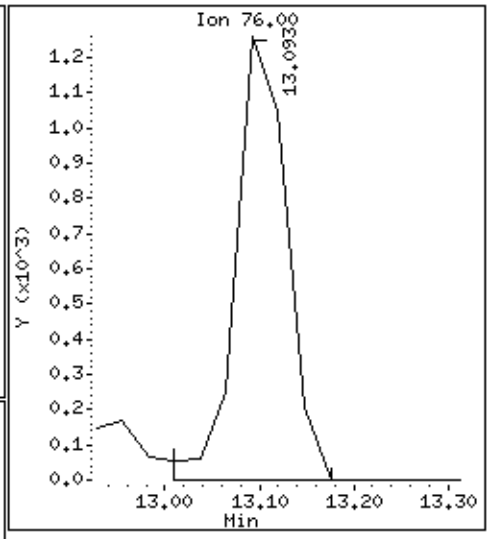
Column phase: RTX-624

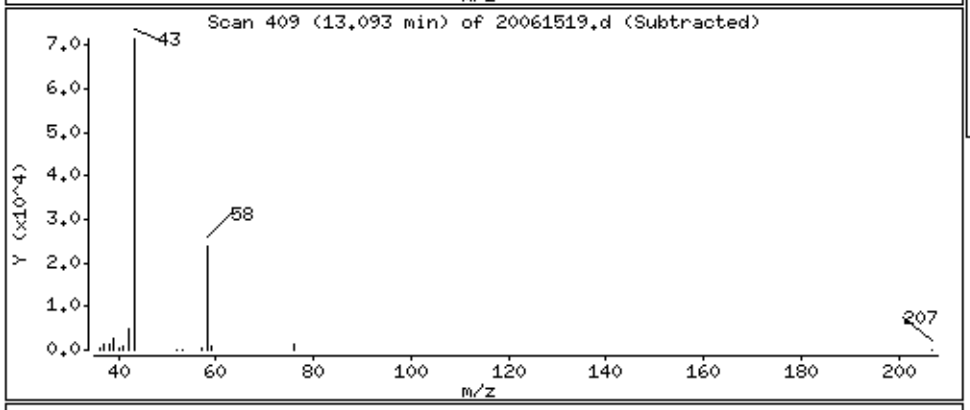
Column diameter: 0.32

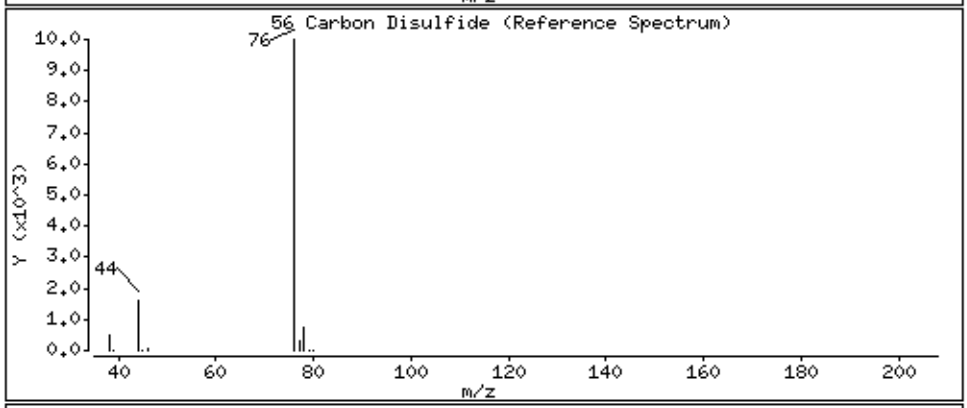
56 Carbon Disulfide

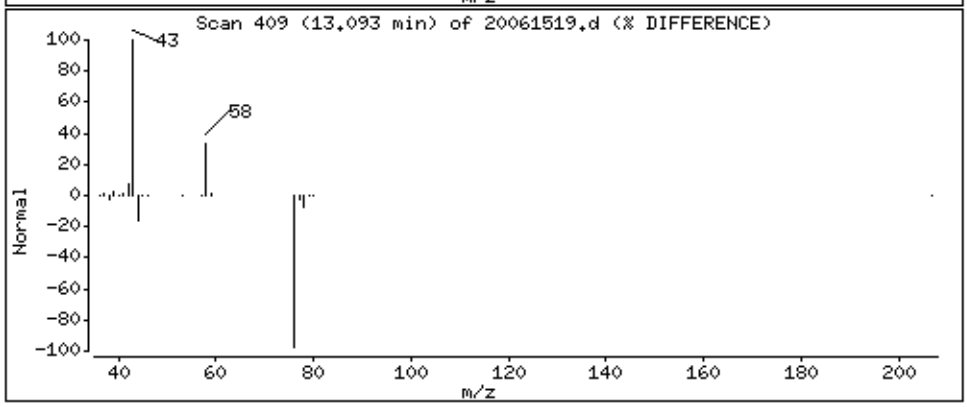
Concentration: 0.09717 PPBV











Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

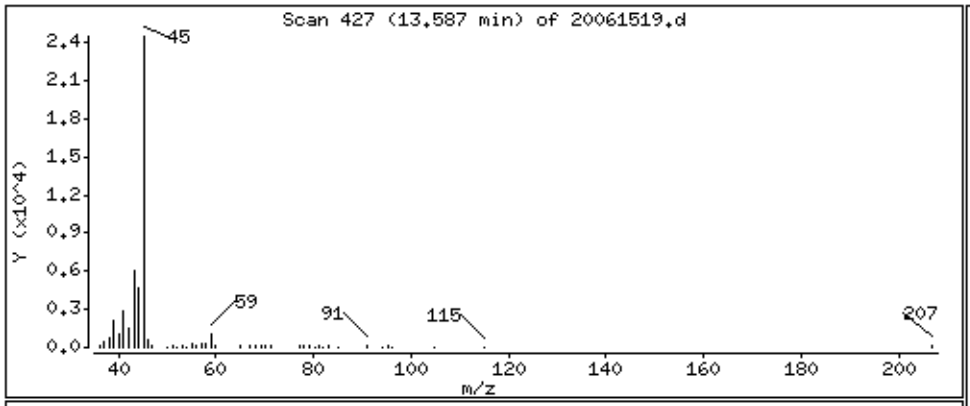
Operator: ef

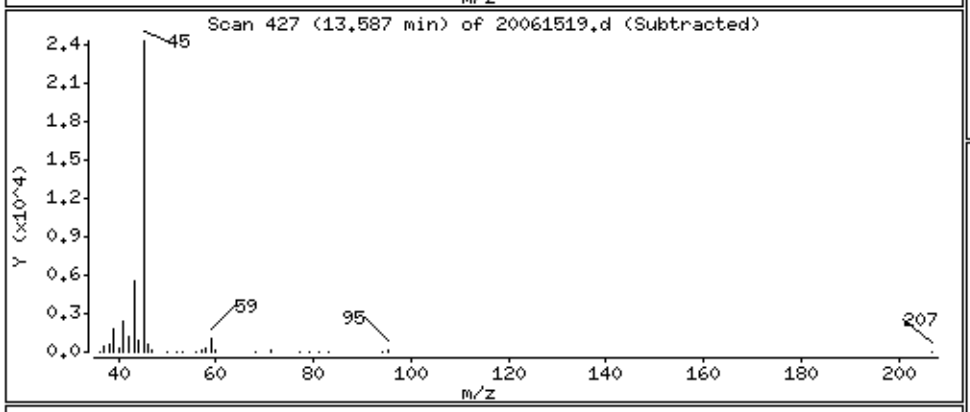
Column phase: RTX-624

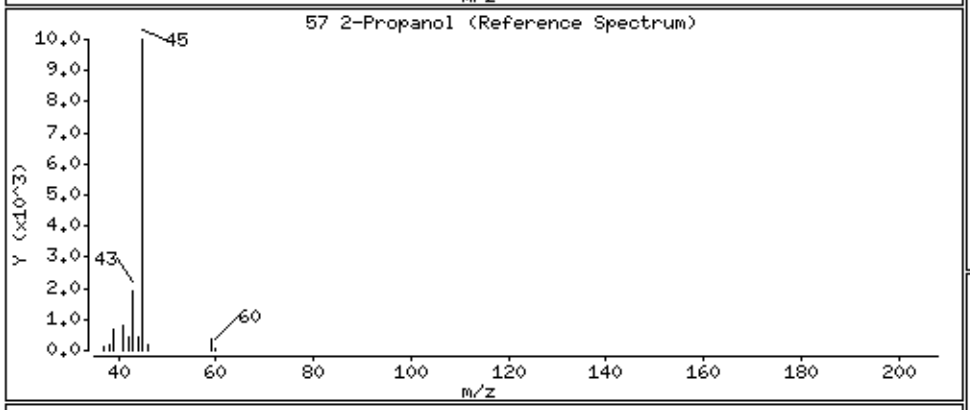
Column diameter: 0.32

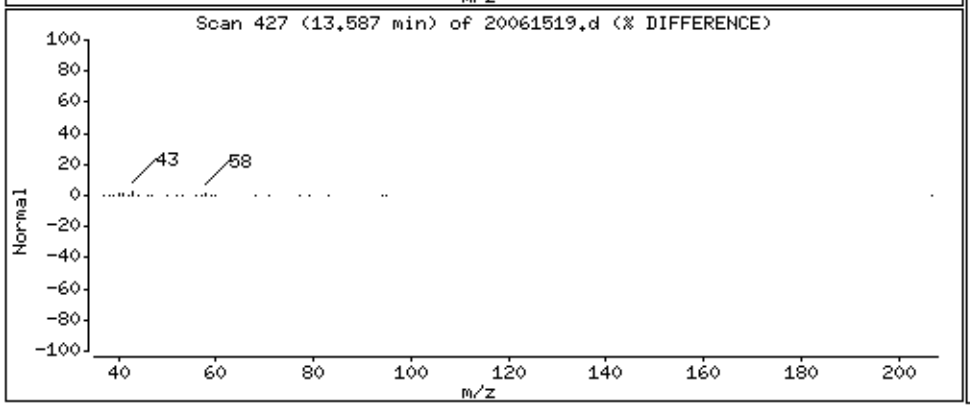
57 2-Propanol

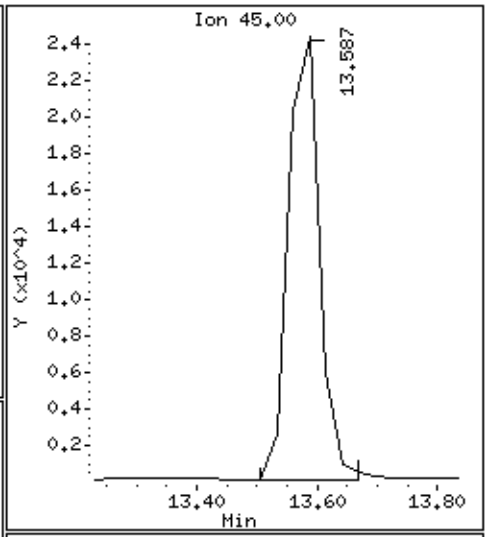
Concentration: 3.196 PPBV

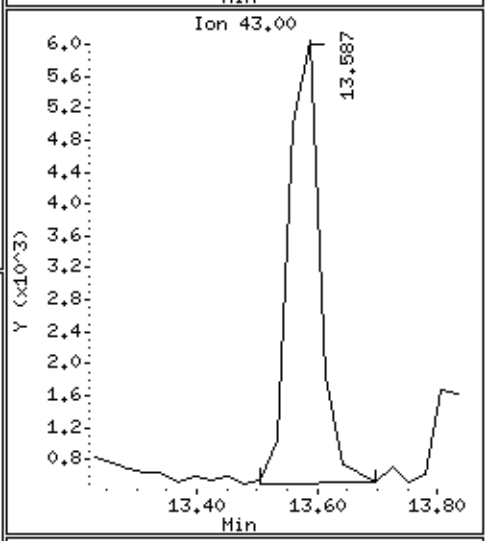


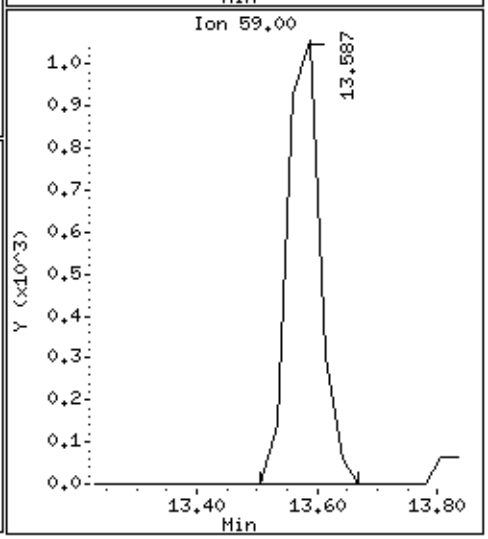












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

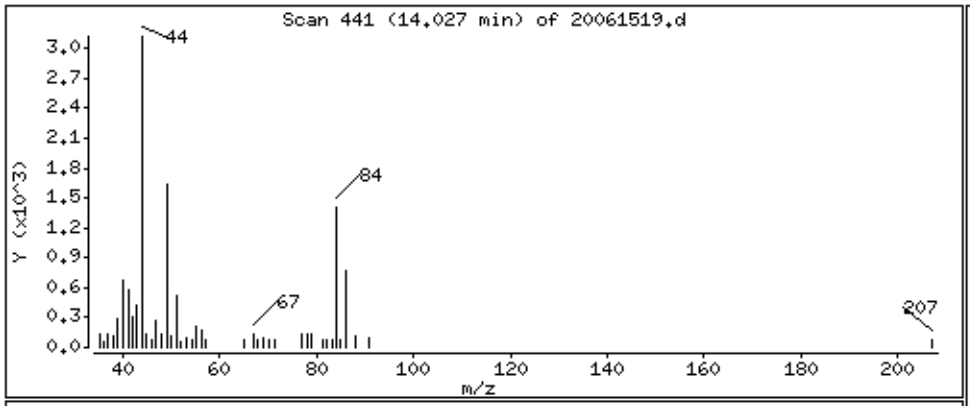
Operator: ef

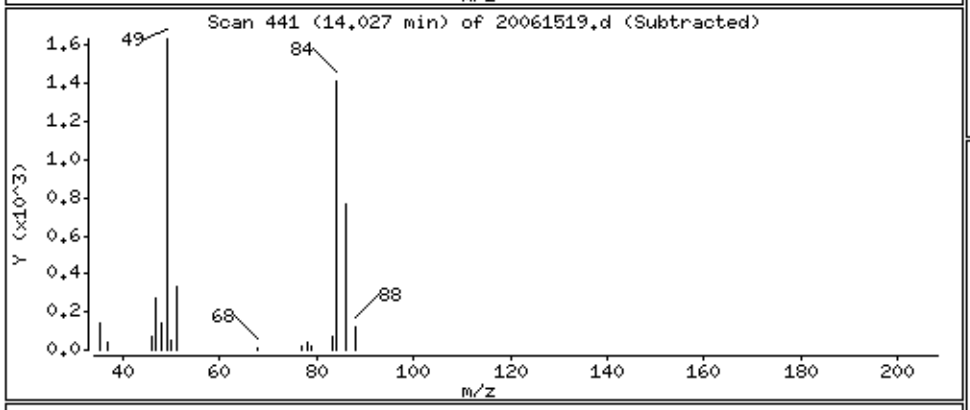
Column phase: RTX-624

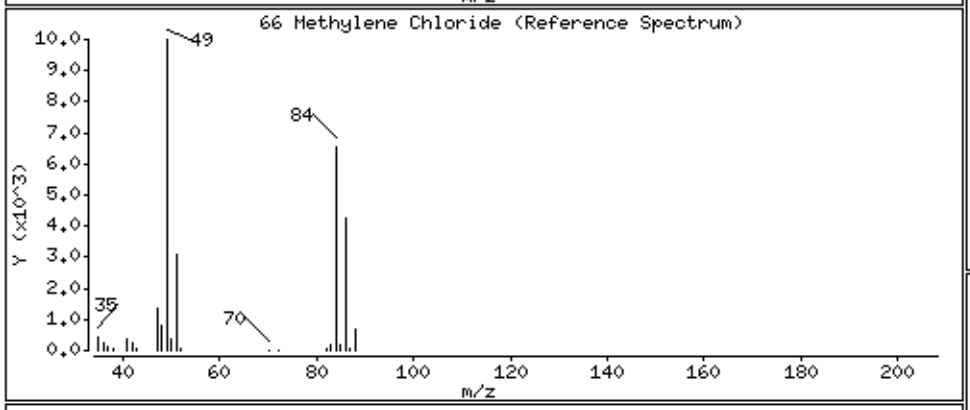
Column diameter: 0.32

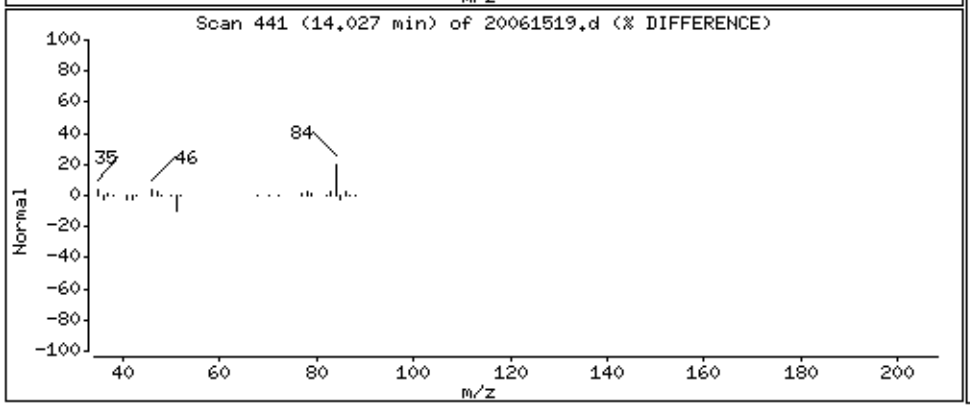
66 Methylene Chloride

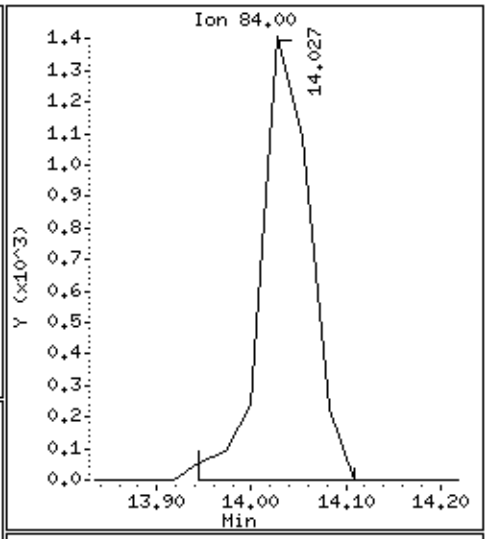
Concentration: 0.2714 PPBV

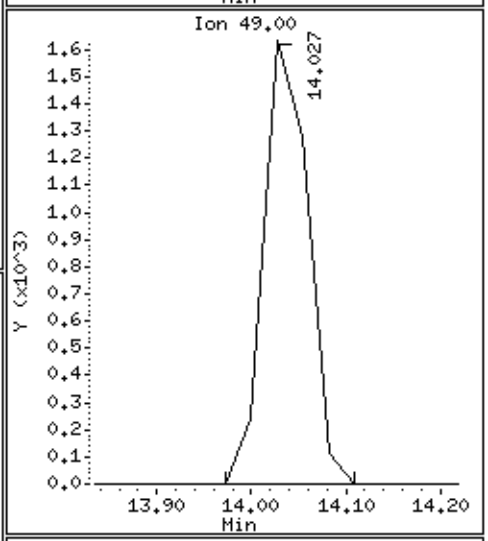


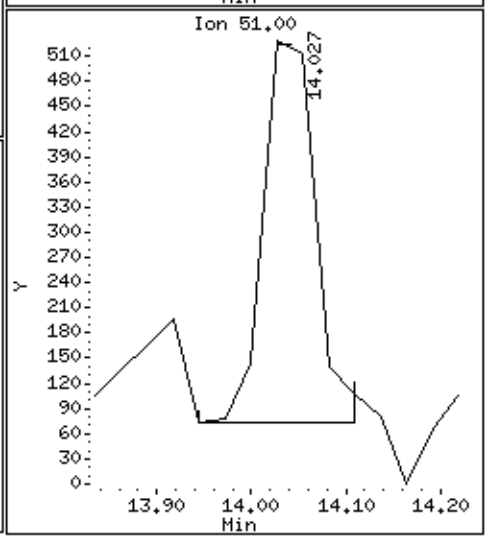












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

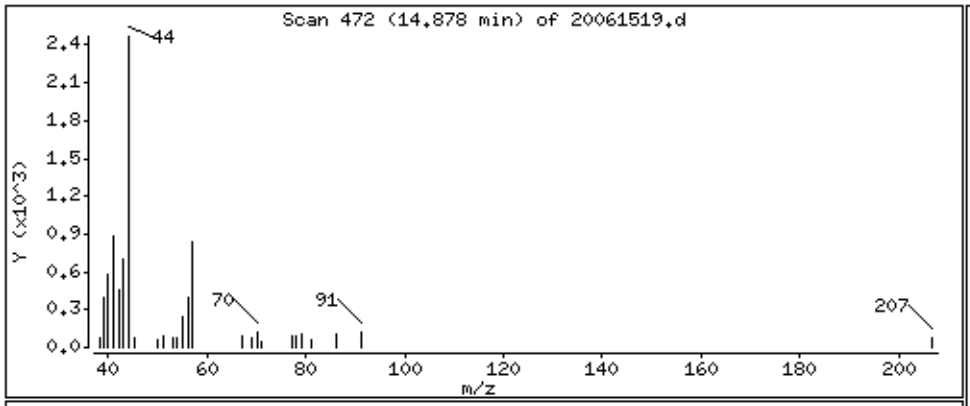
Operator: ef

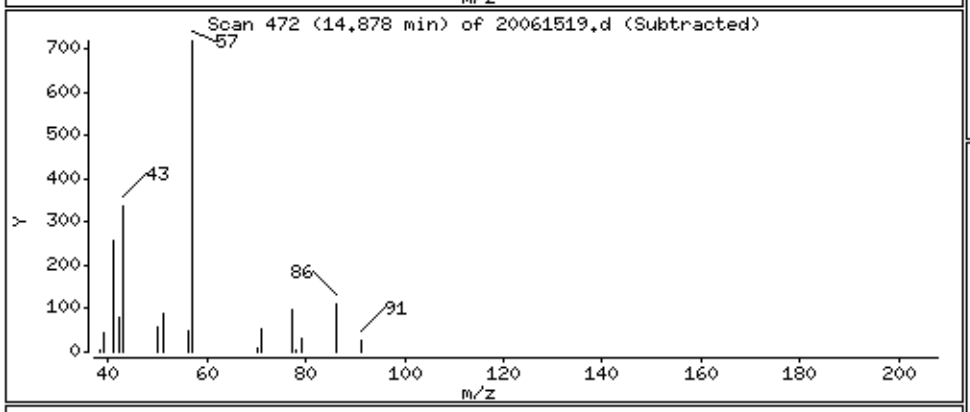
Column phase: RTX-624

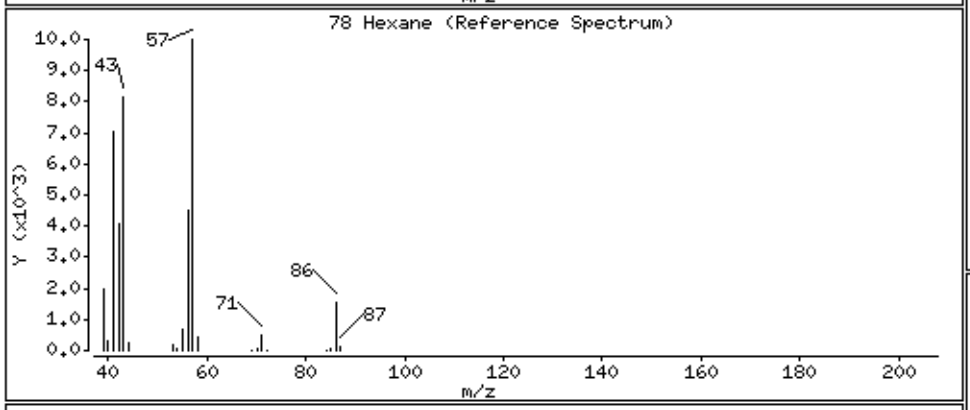
Column diameter: 0.32

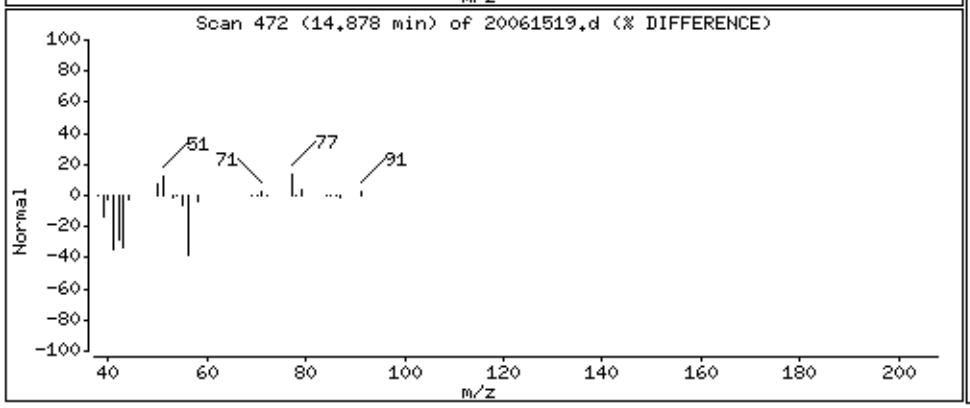
78 Hexane

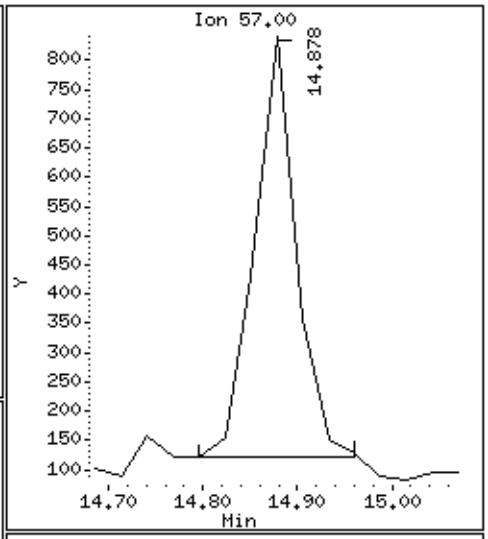
Concentration: 0.07849 PPBV

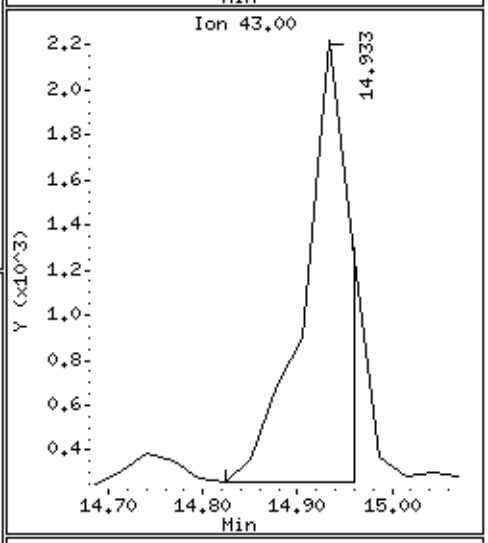


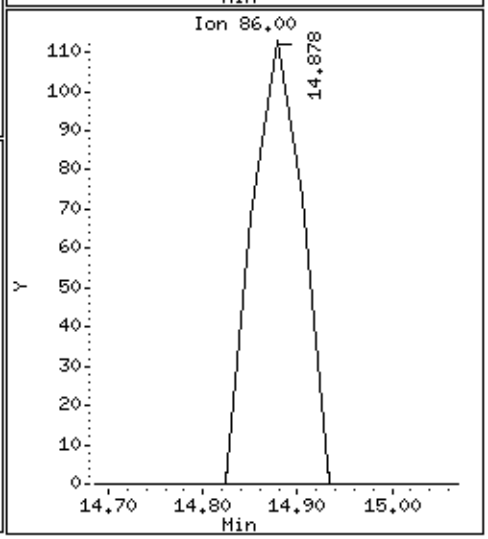












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

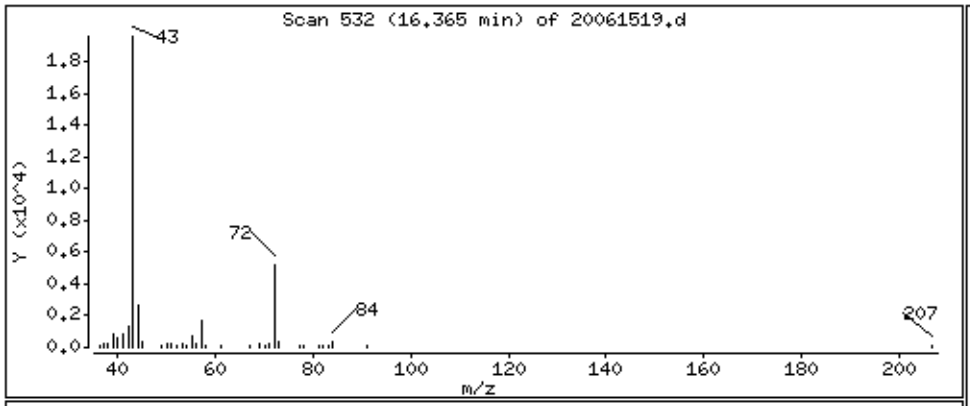
Operator: ef

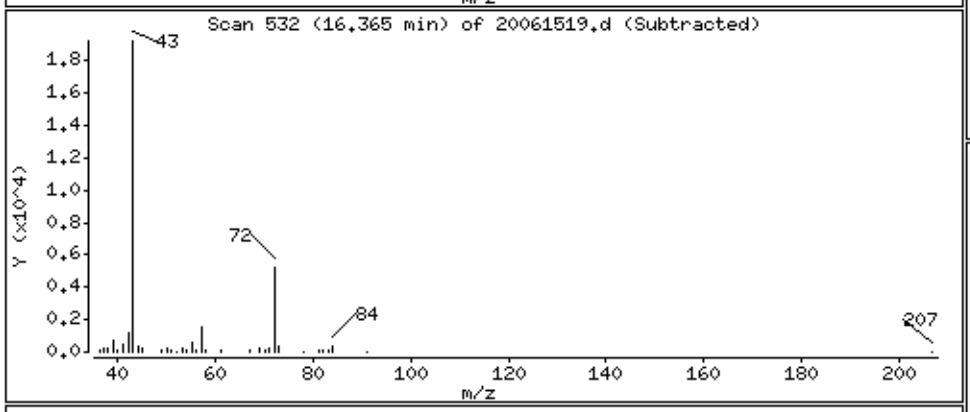
Column phase: RTX-624

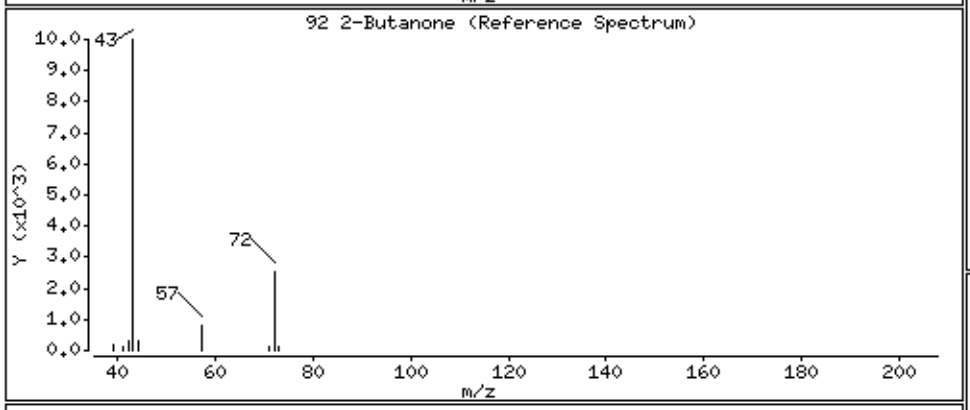
Column diameter: 0.32

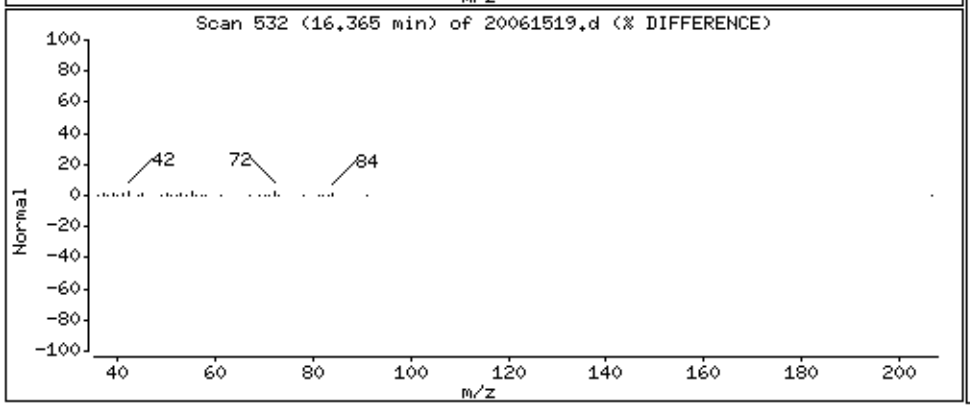
92 2-Butanone

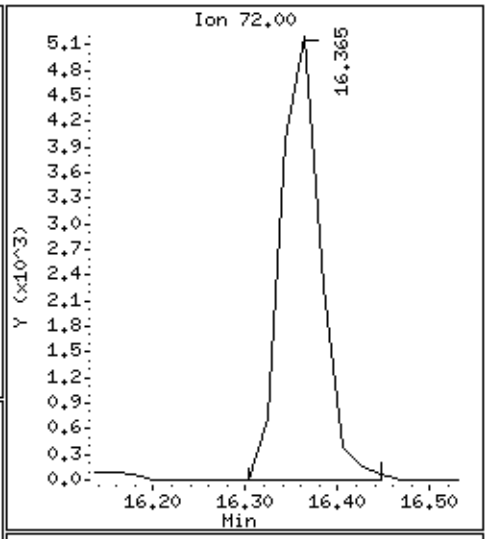
Concentration: 1.723 PPBV

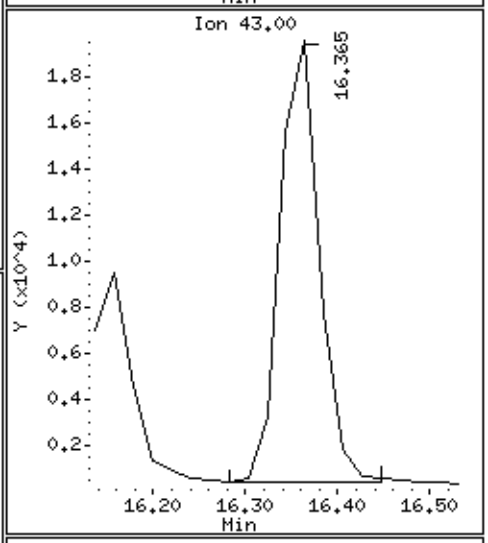


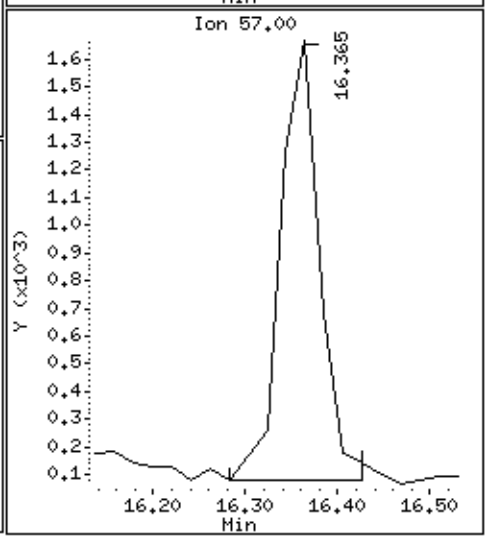












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

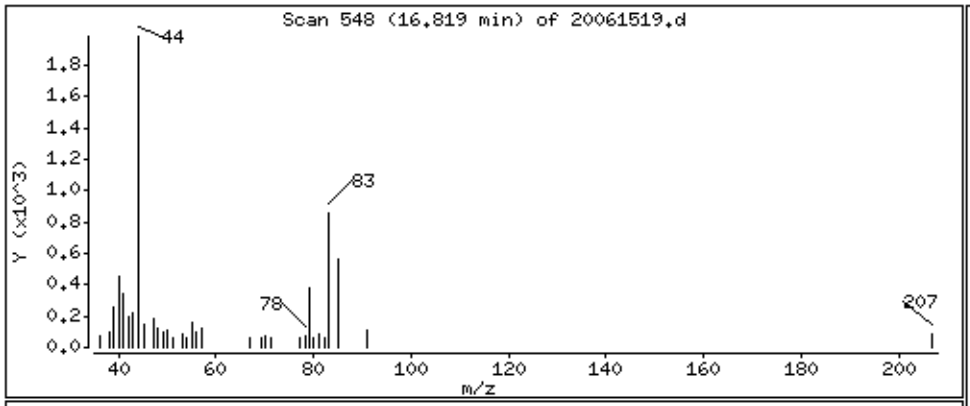
Operator: ef

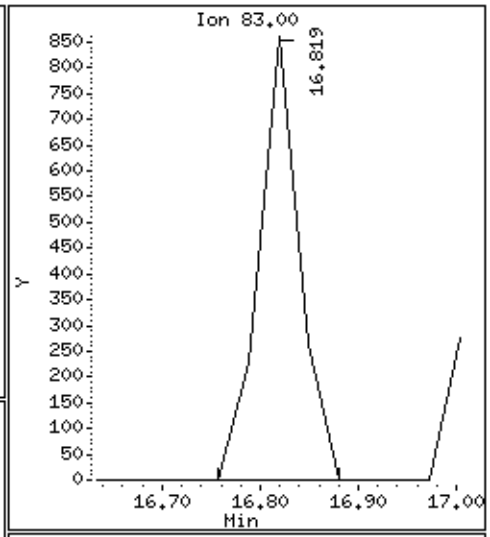
Column phase: RTX-624

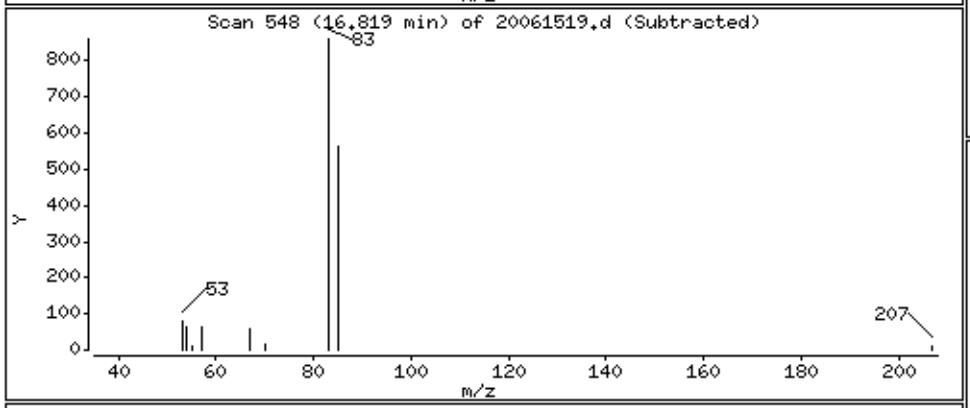
Column diameter: 0.32

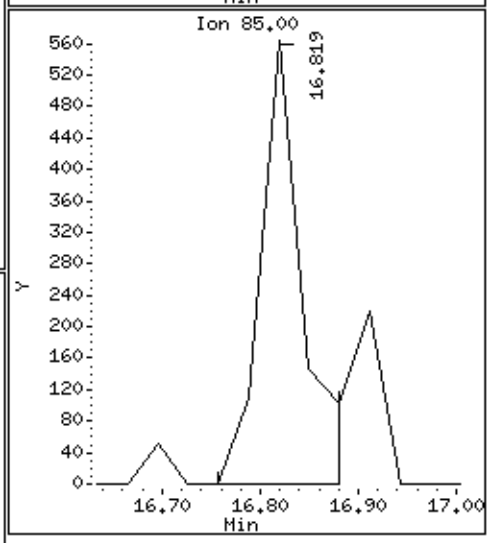
100 Chloroform

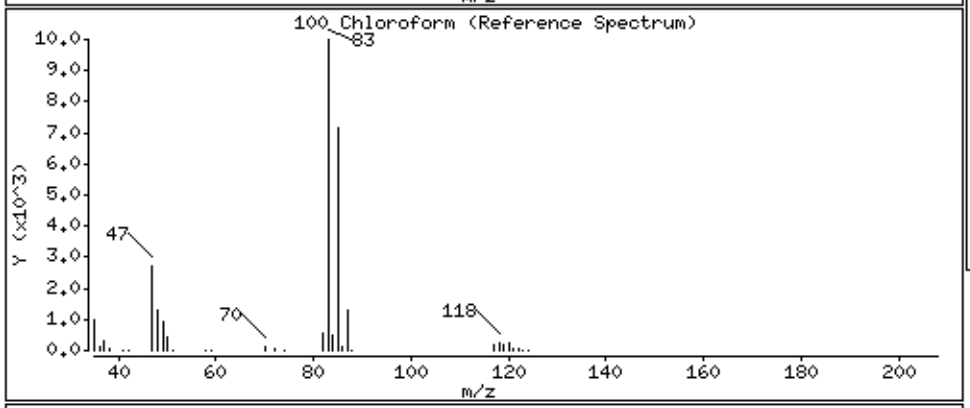
Concentration: 0.06629 PPBV

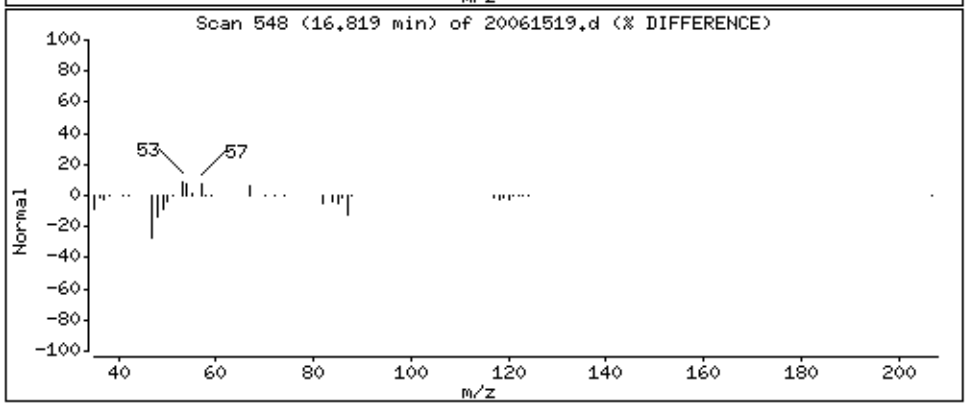












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

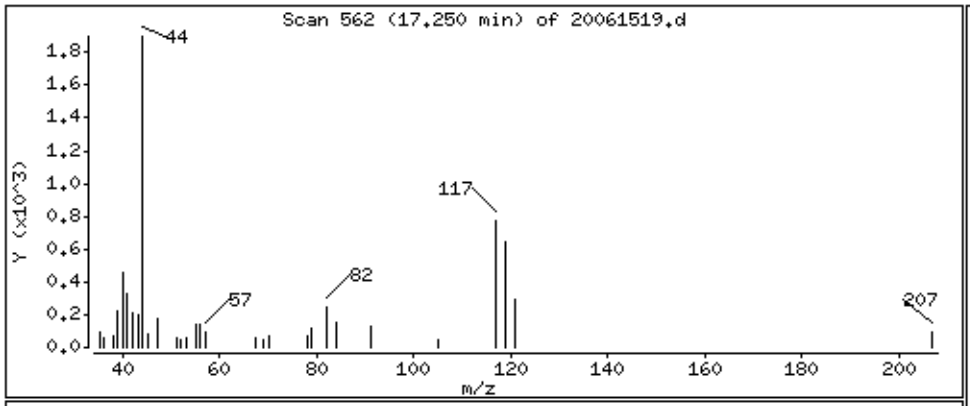
Operator: ef

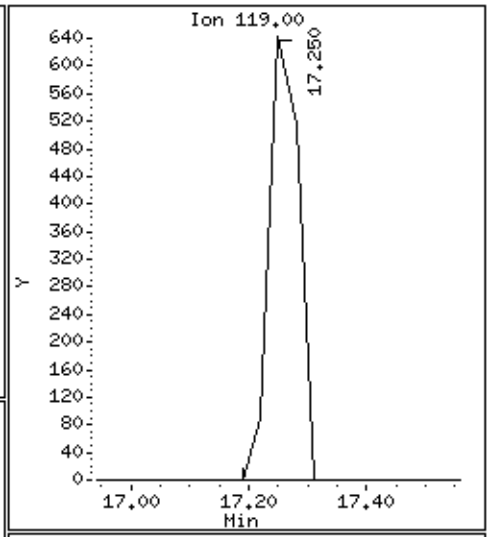
Column phase: RTX-624

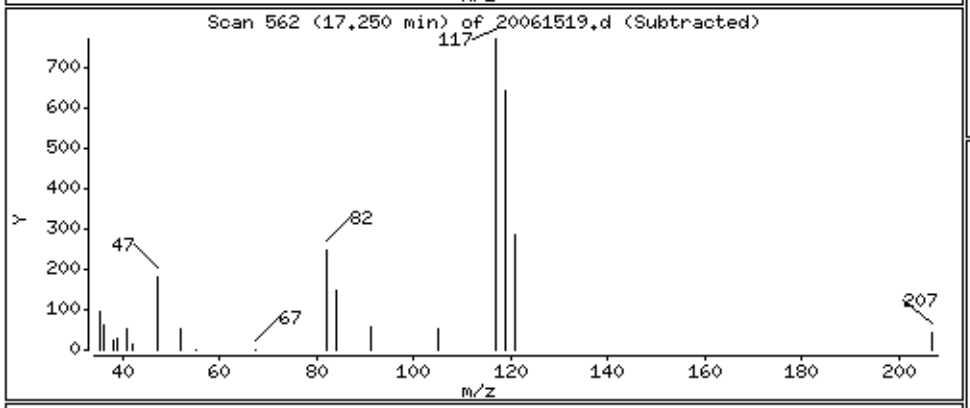
Column diameter: 0.32

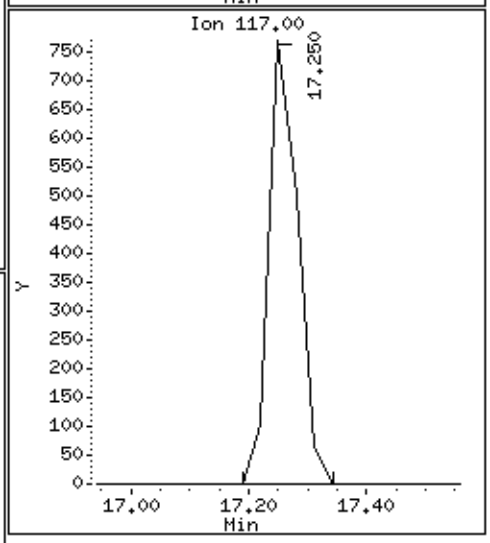
106 Carbon Tetrachloride

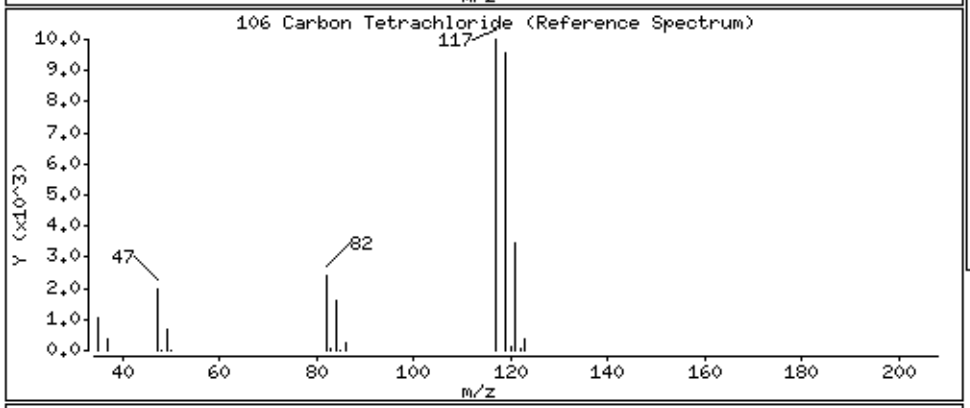
Concentration: 0.07325 PPBV

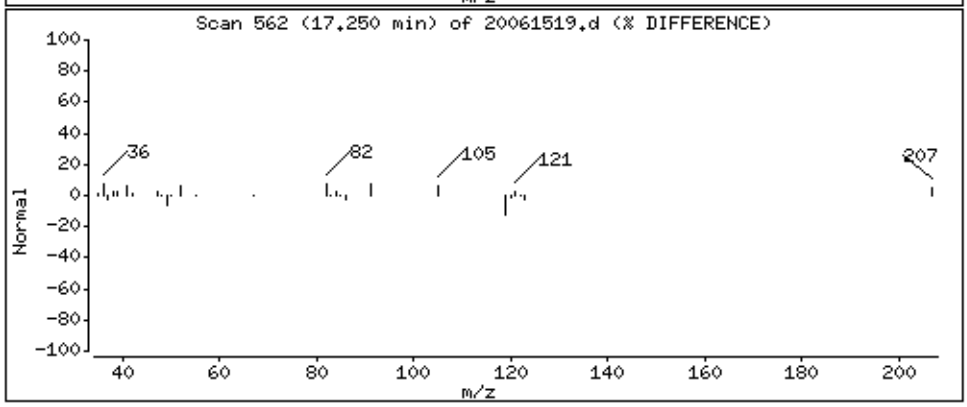












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

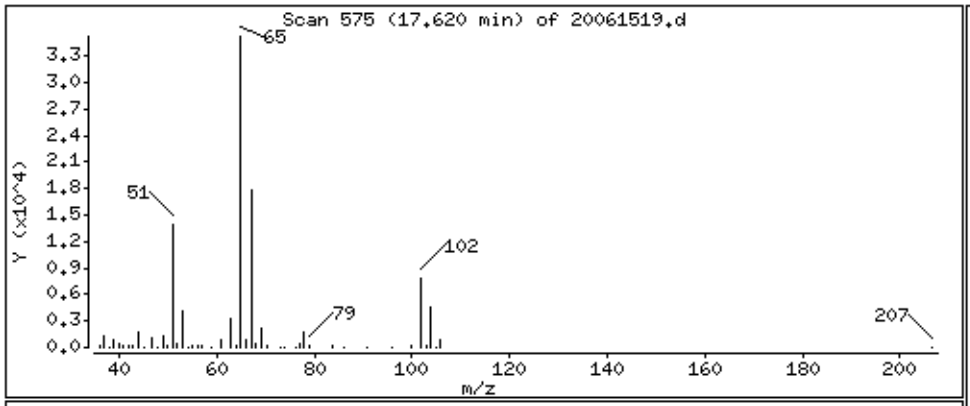
Operator: ef

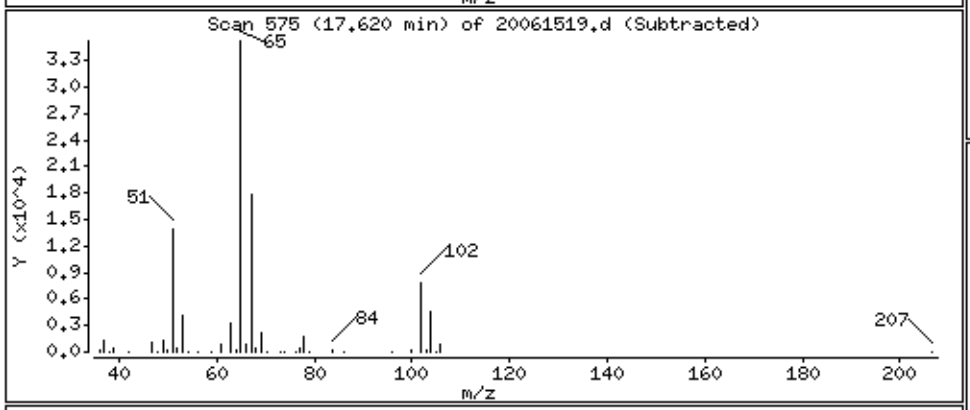
Column phase: RTX-624

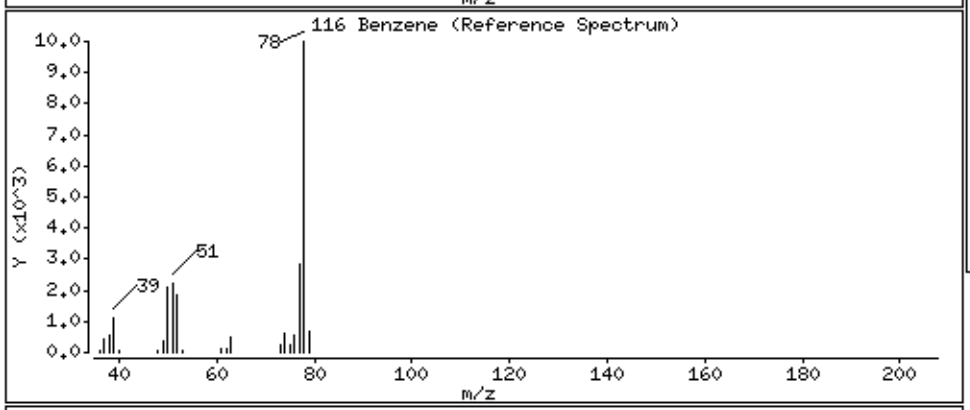
Column diameter: 0.32

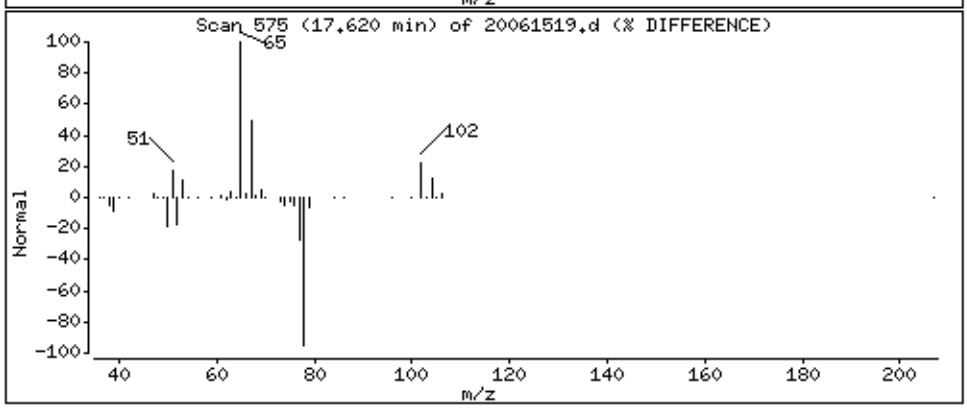
116 Benzene

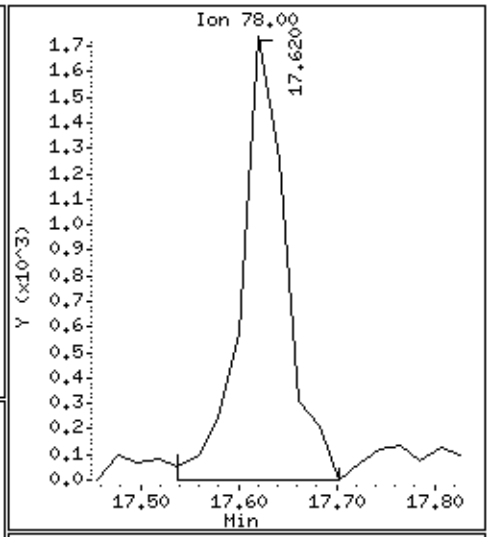
Concentration: 0.09070 PPBV

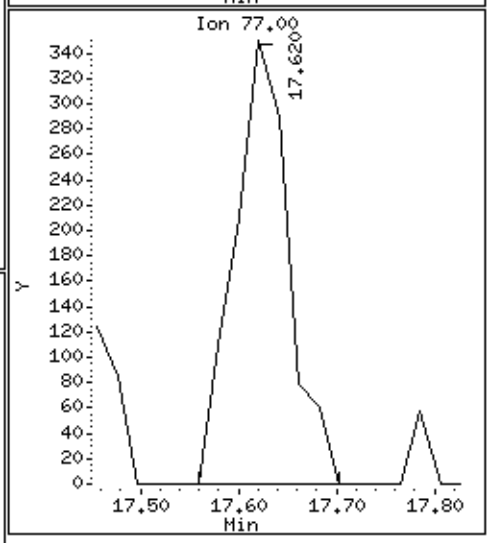












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

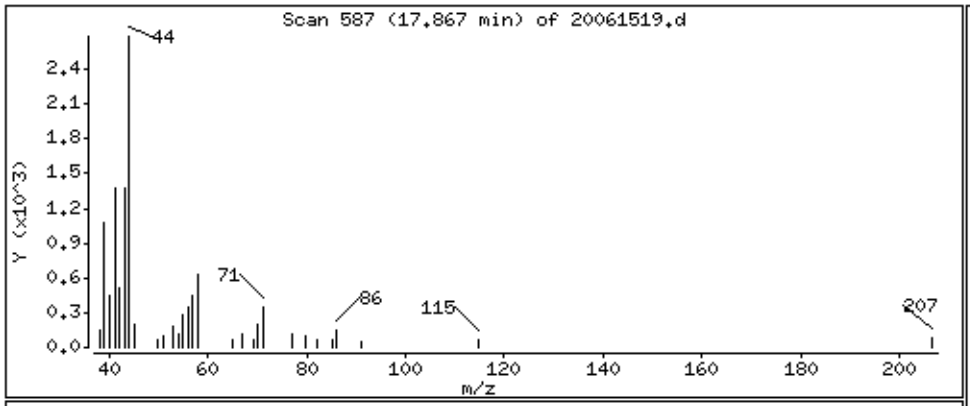
Operator: ef

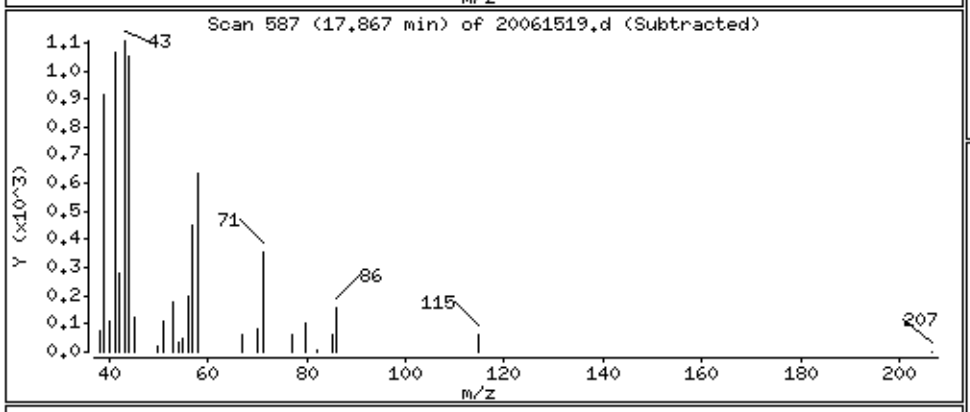
Column phase: RTX-624

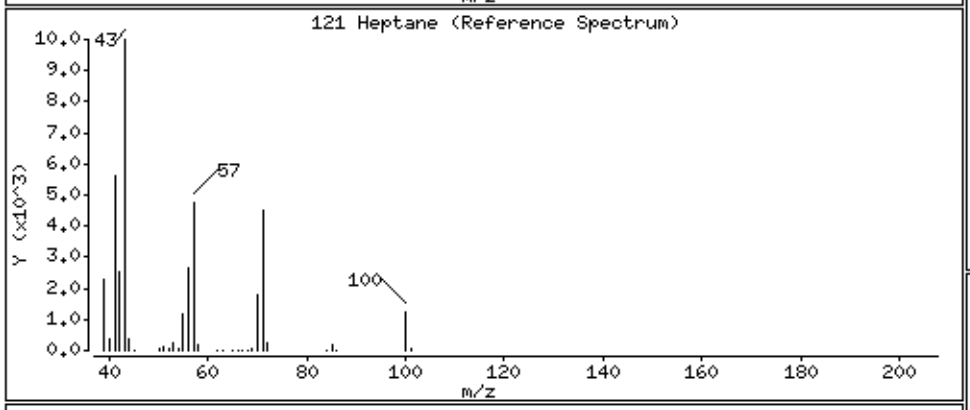
Column diameter: 0.32

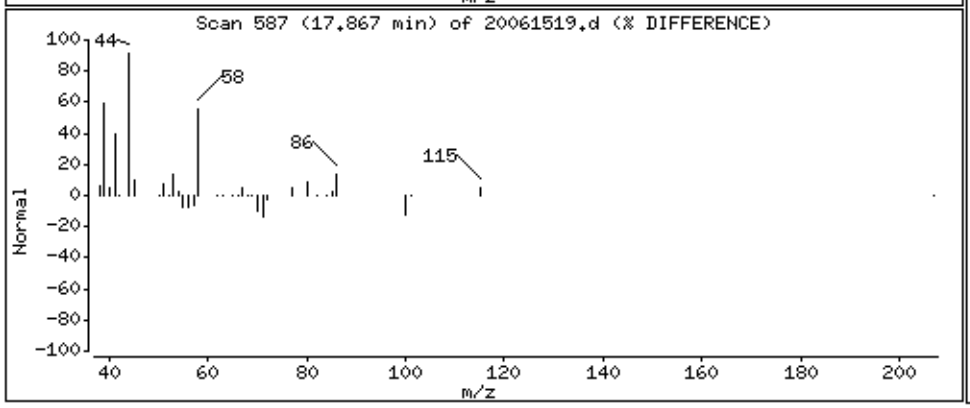
121 Heptane

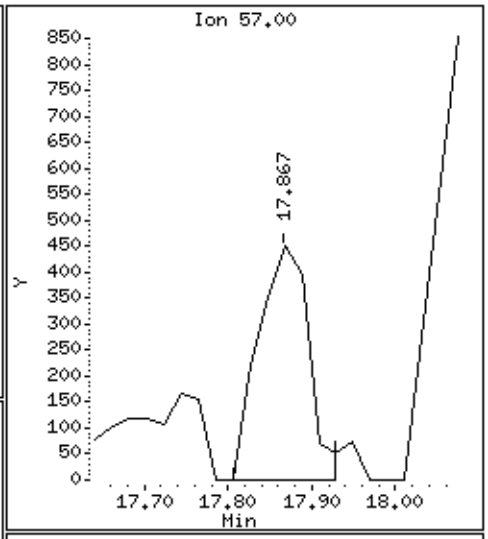
Concentration: 0.1107 PPBV

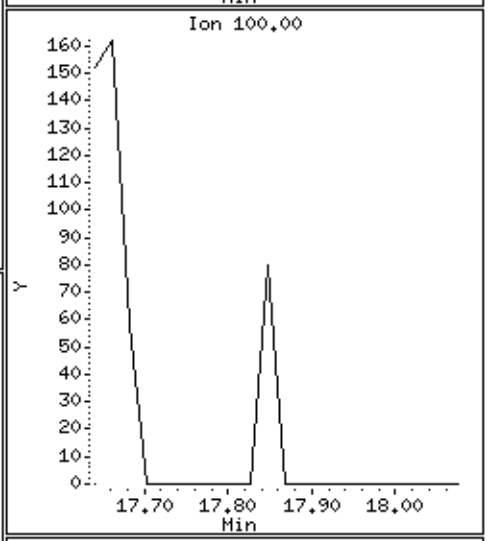


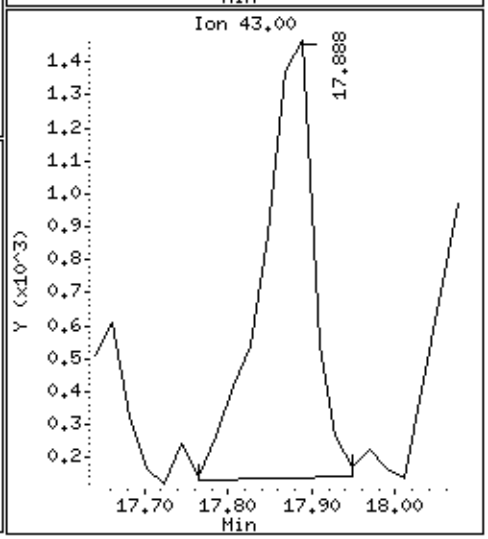












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

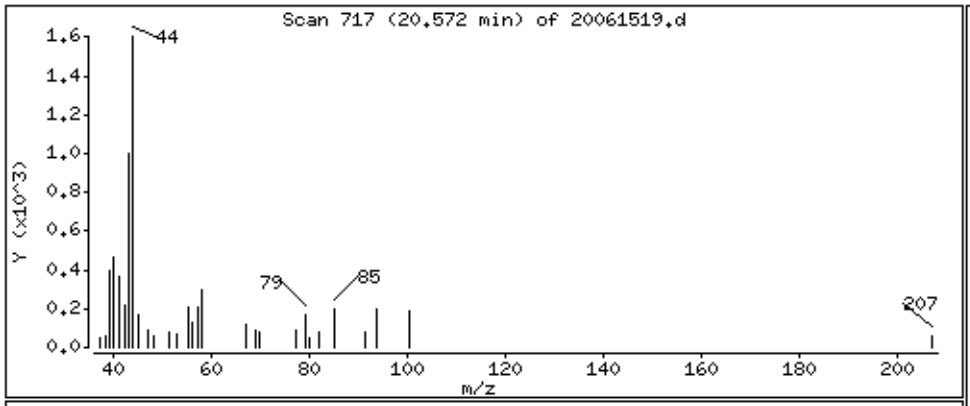
Operator: ef

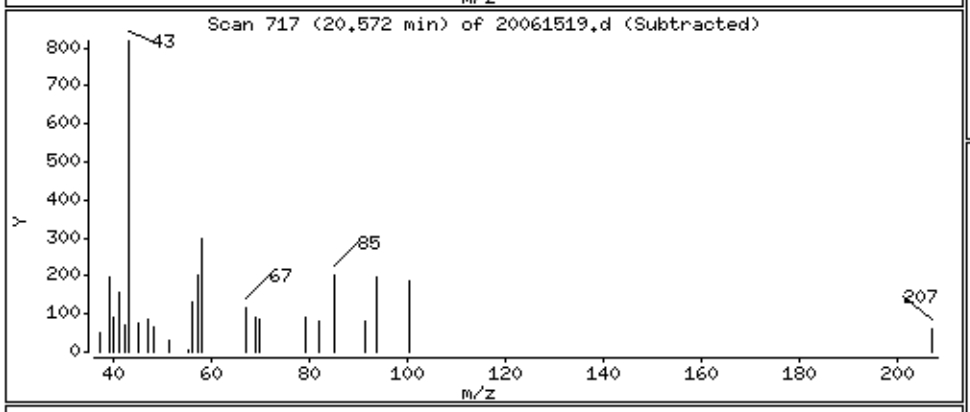
Column phase: RTX-624

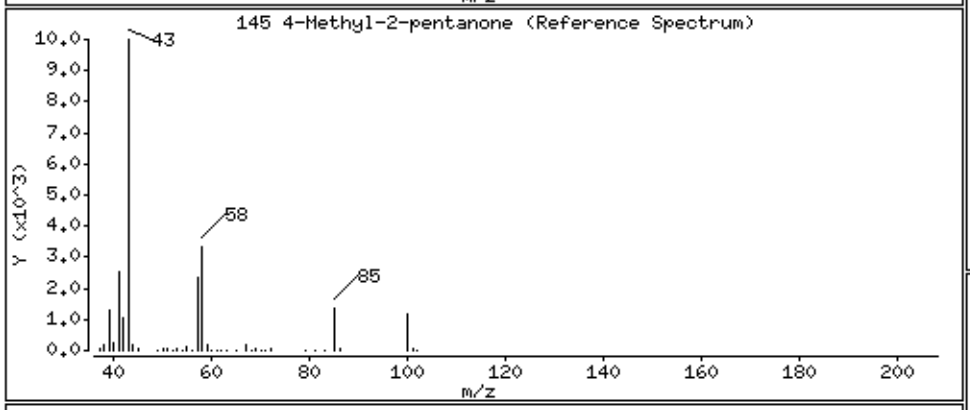
Column diameter: 0.32

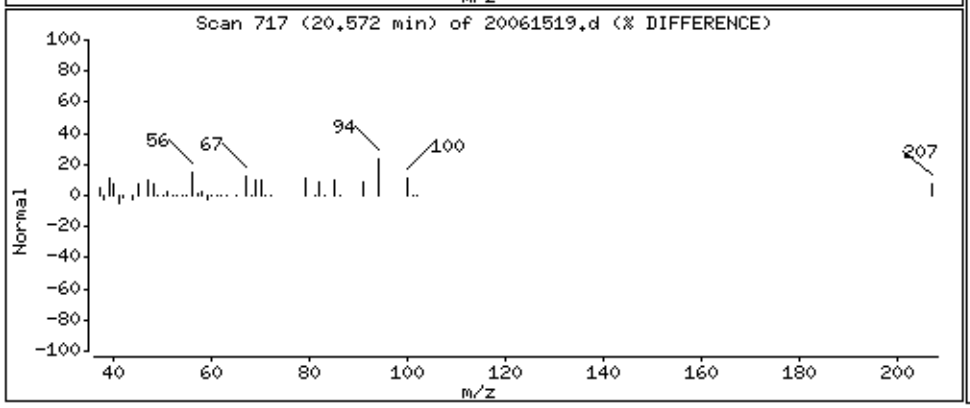
145 4-Methyl-2-pentanone

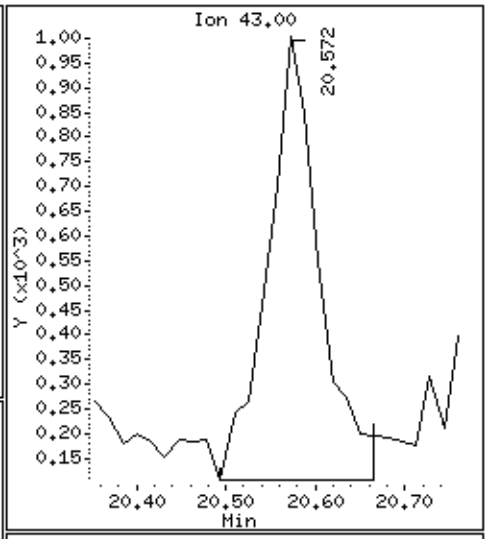
Concentration: 0.08343 PPBV

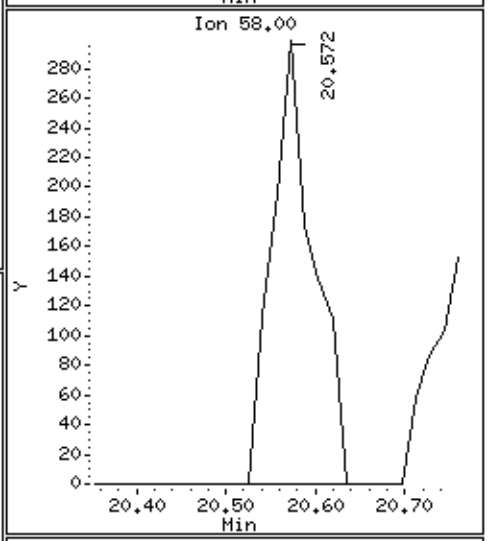


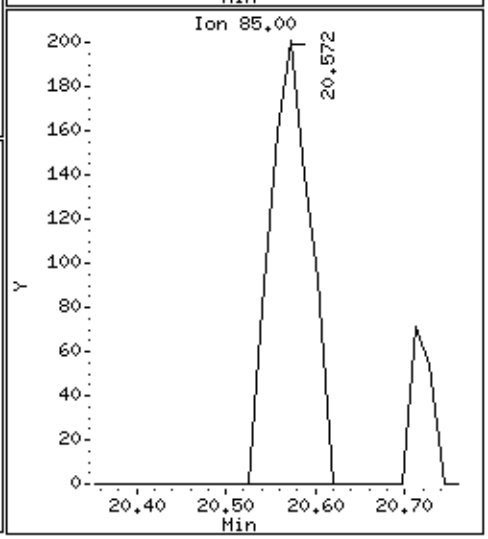












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

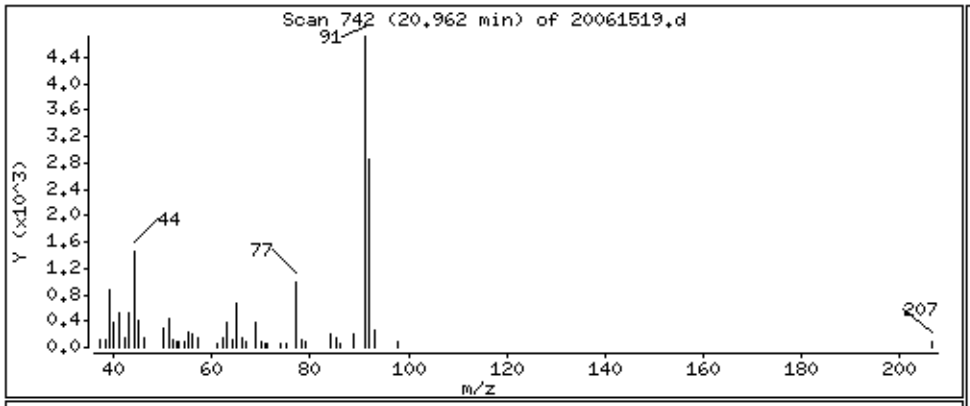
Operator: ef

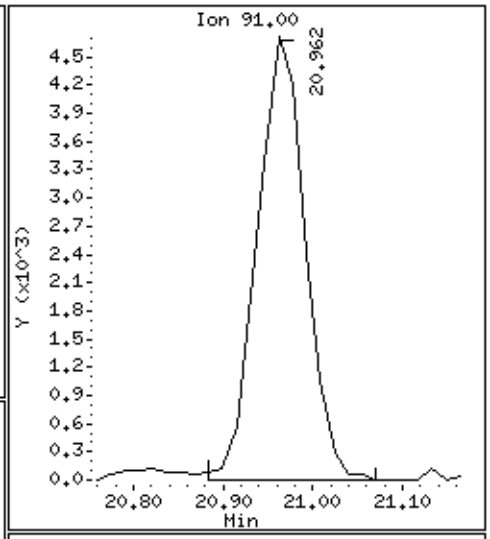
Column phase: RTX-624

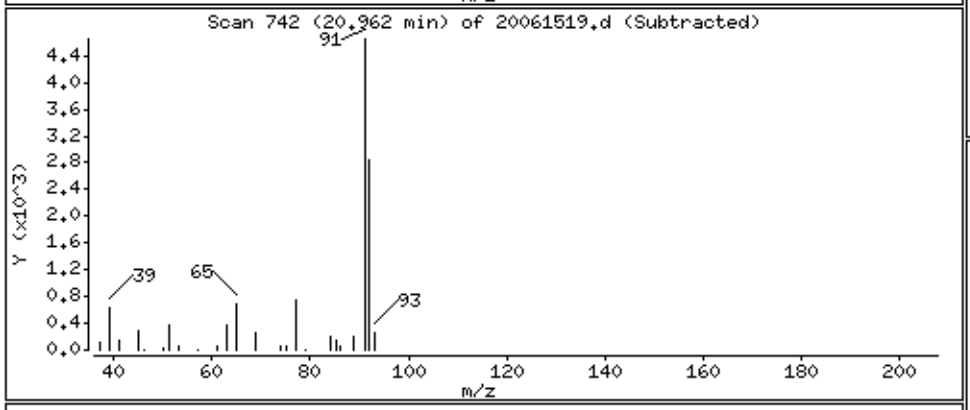
Column diameter: 0.32

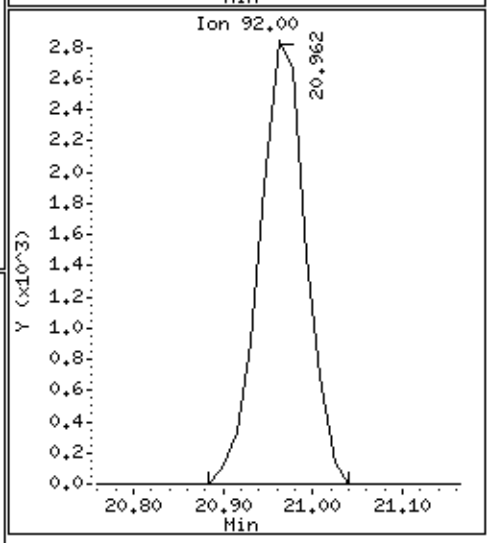
147 Toluene

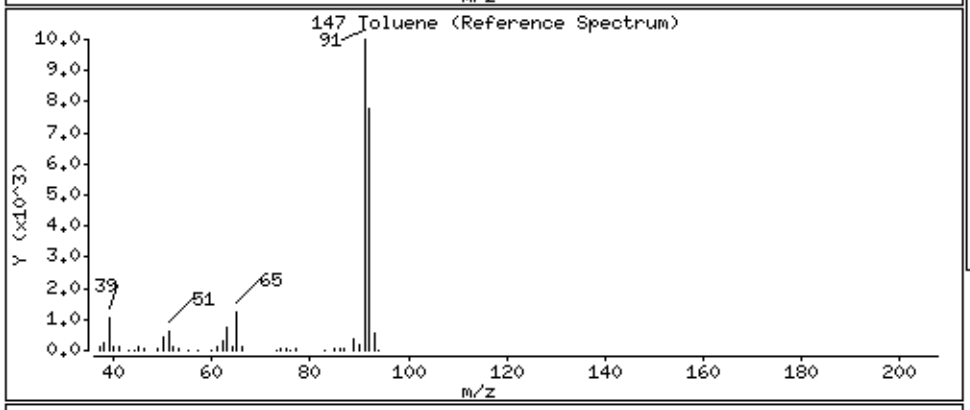
Concentration: 0.2529 PPBV

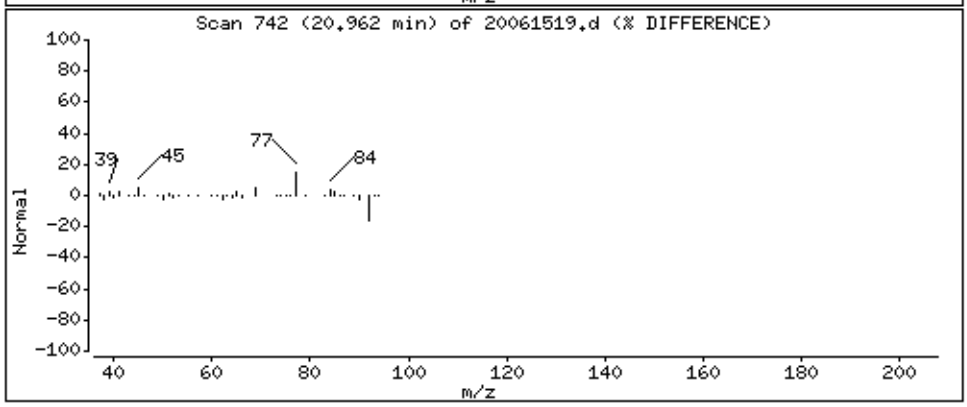












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

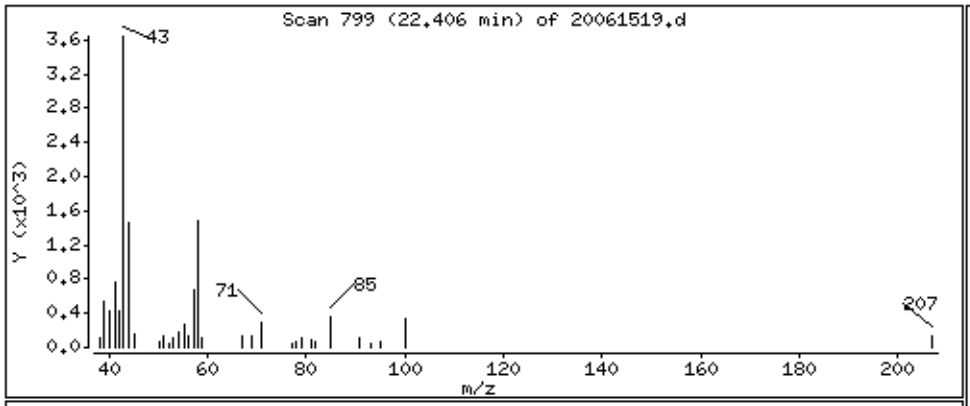
Operator: ef

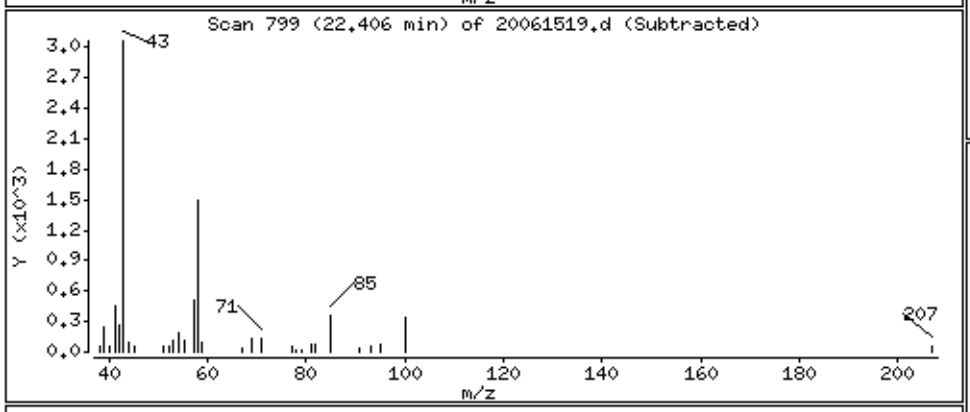
Column phase: RTX-624

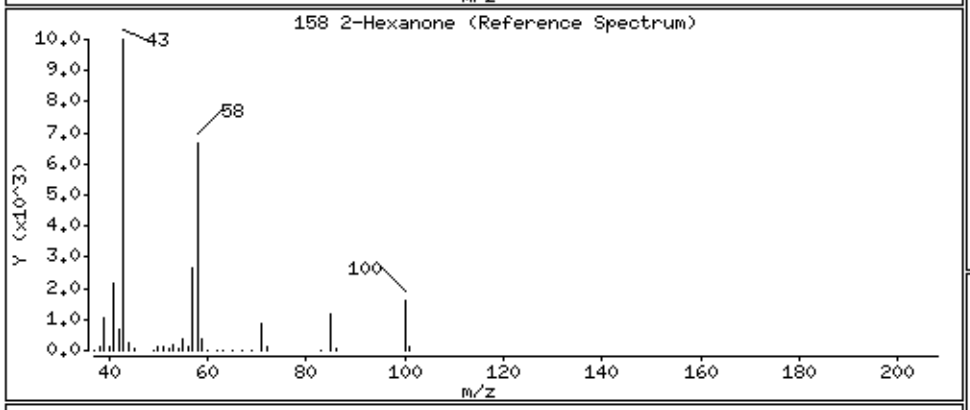
Column diameter: 0.32

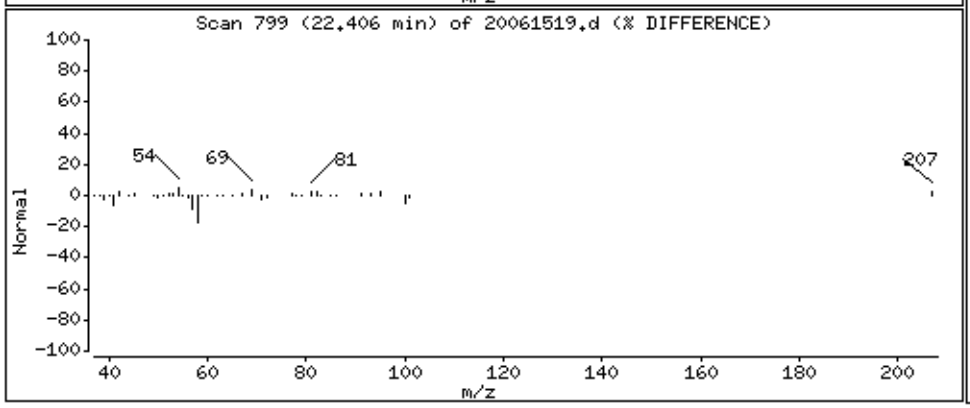
158 2-Hexanone

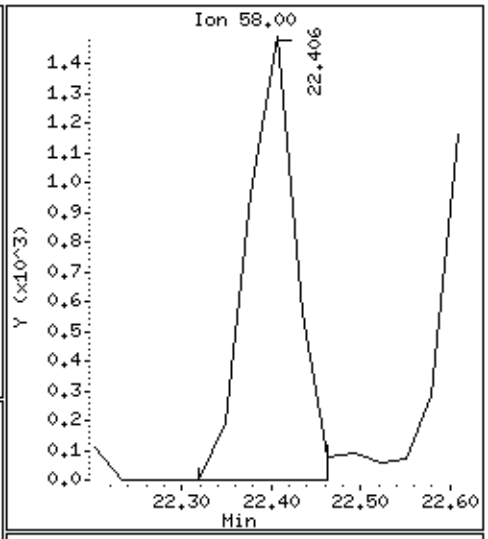
Concentration: 0.2553 PPBV

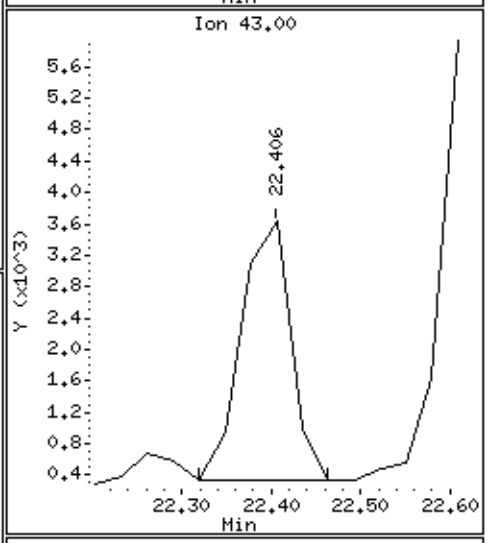


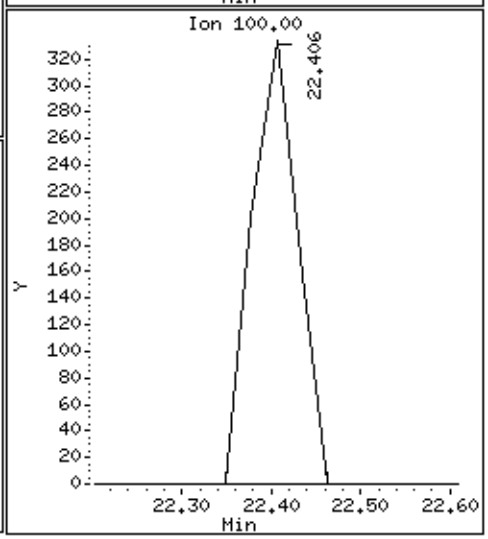












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

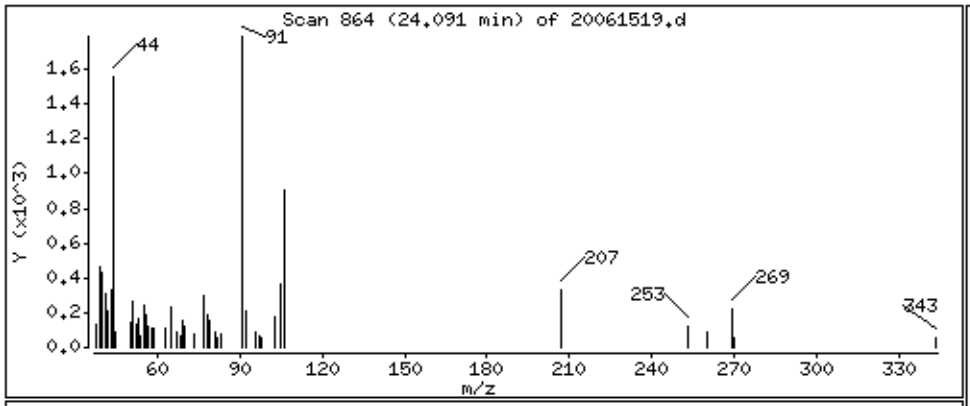
Operator: ef

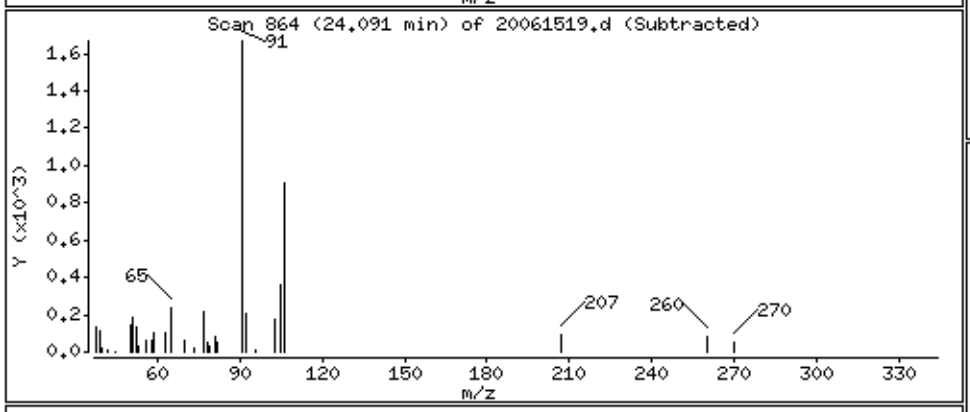
Column phase: RTX-624

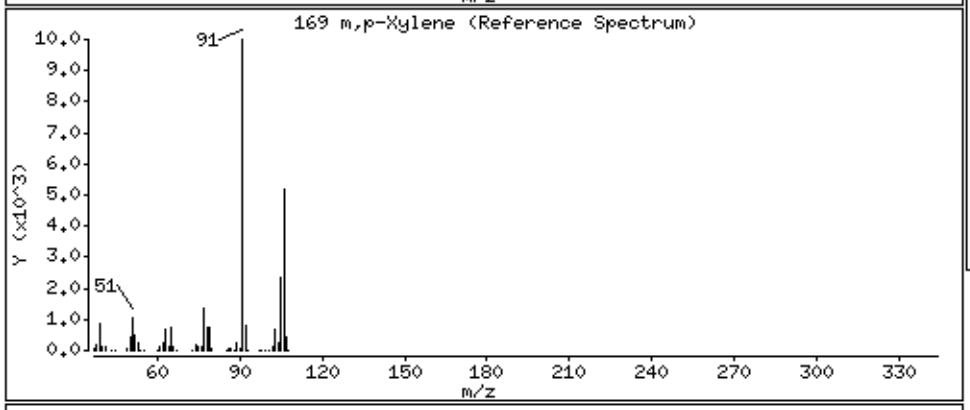
Column diameter: 0.32

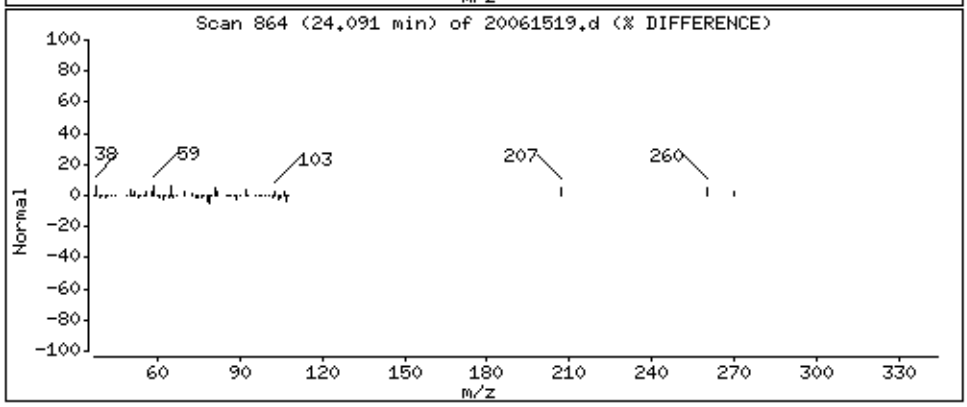
169 m,p-Xylene

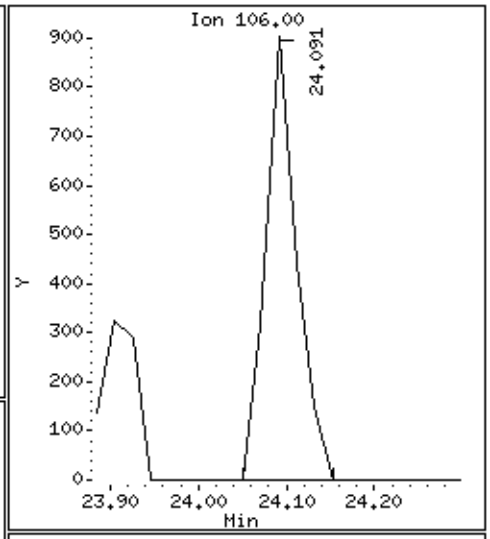
Concentration: 0.07610 PPBV

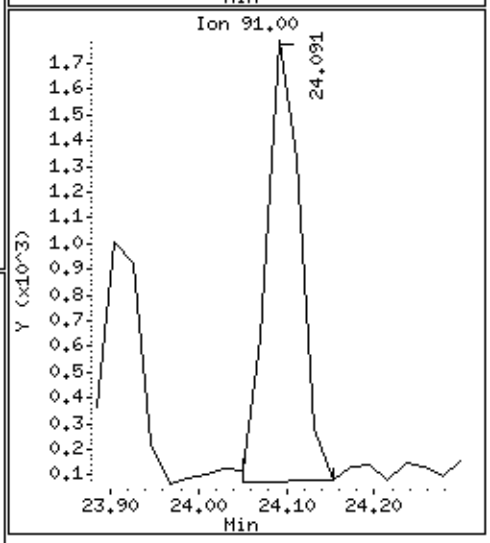












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

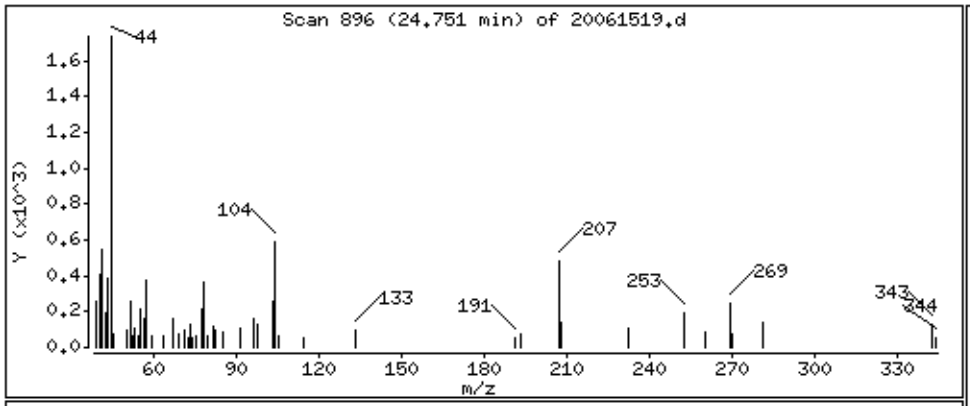
Operator: ef

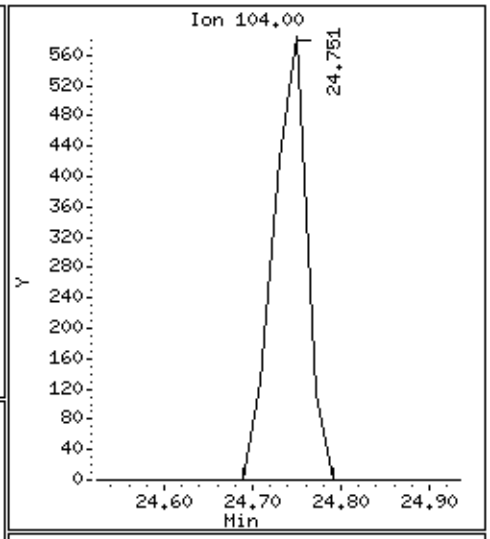
Column phase: RTX-624

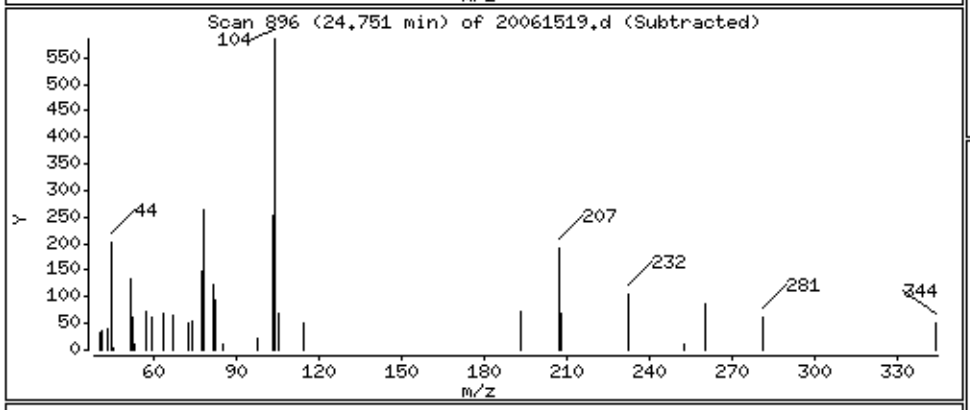
Column diameter: 0.32

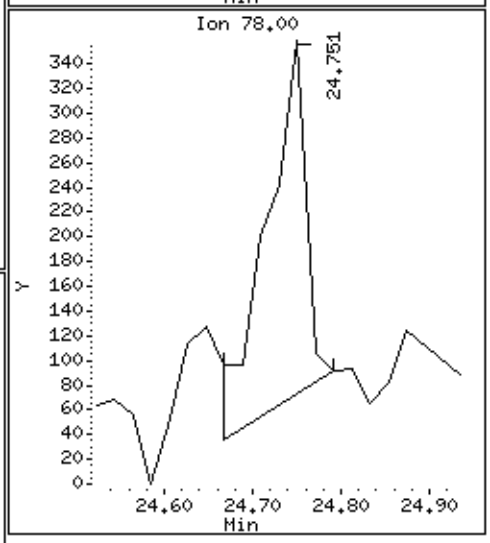
172 Styrene

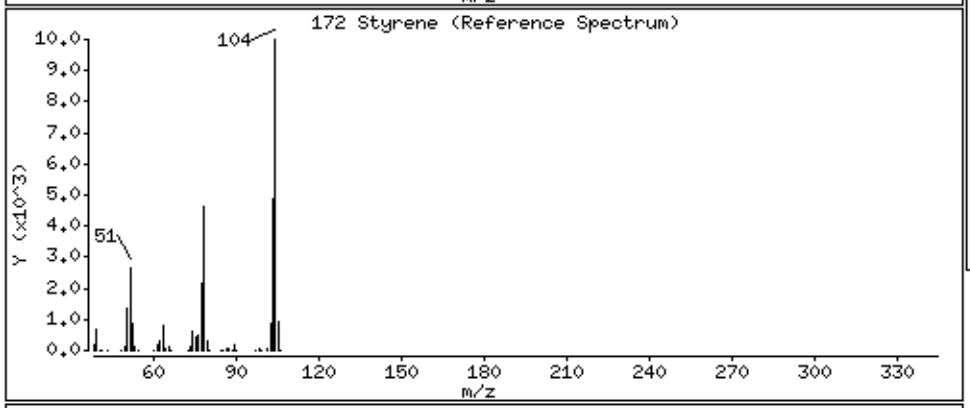
Concentration: 0.03499 PPBV

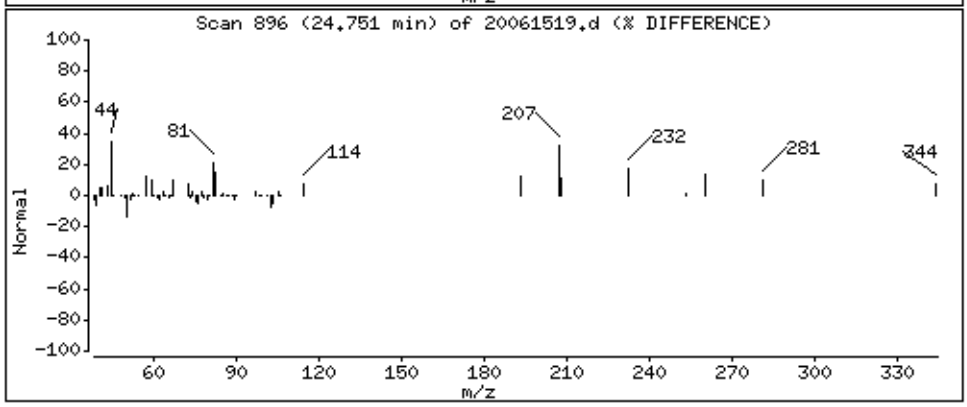












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

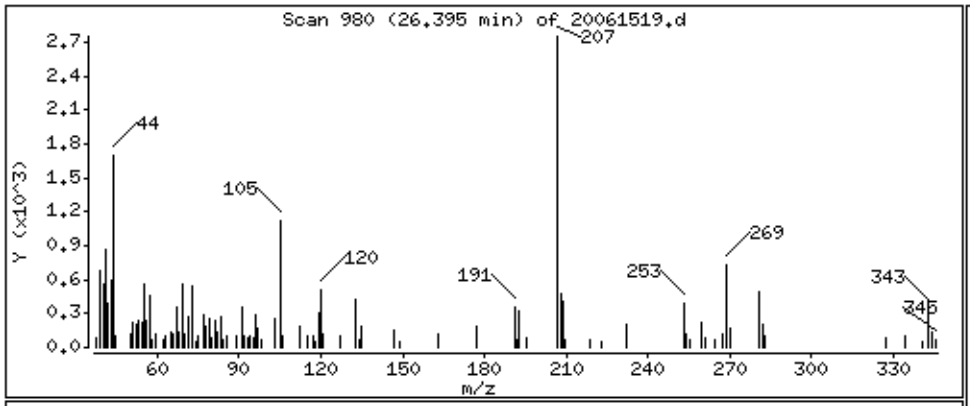
Operator: ef

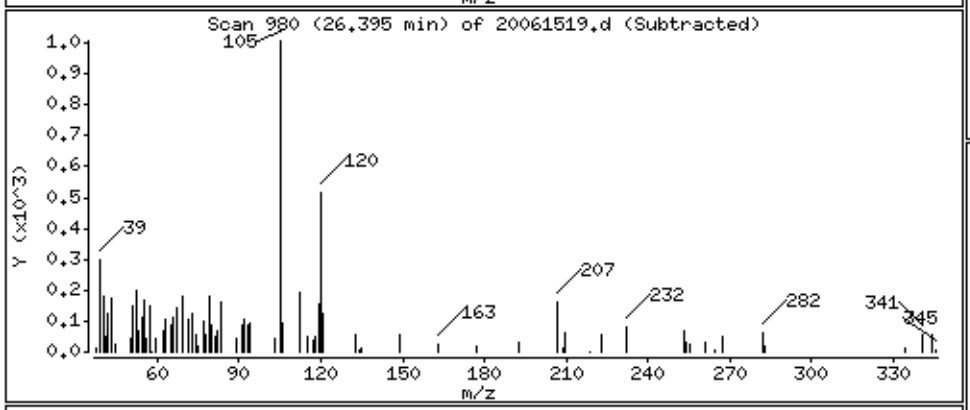
Column phase: RTX-624

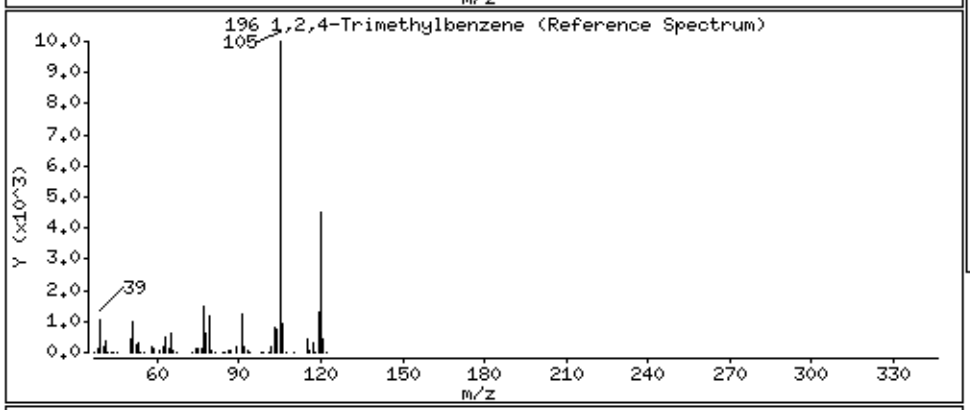
Column diameter: 0.32

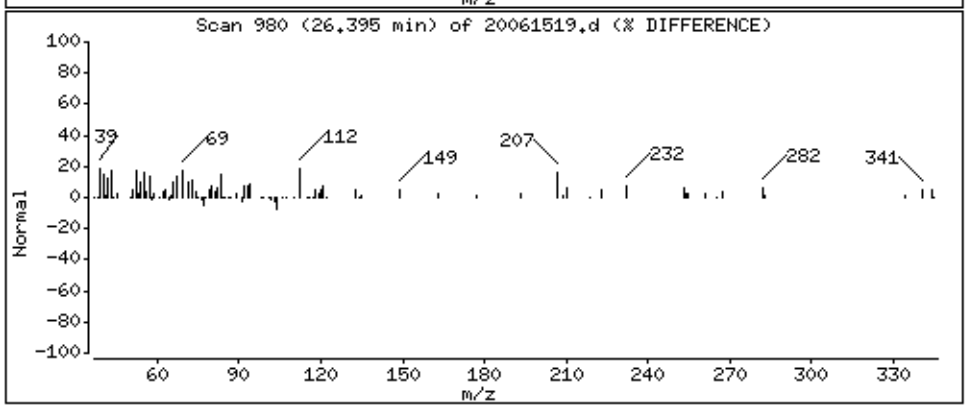
196 1,2,4-Trimethylbenzene

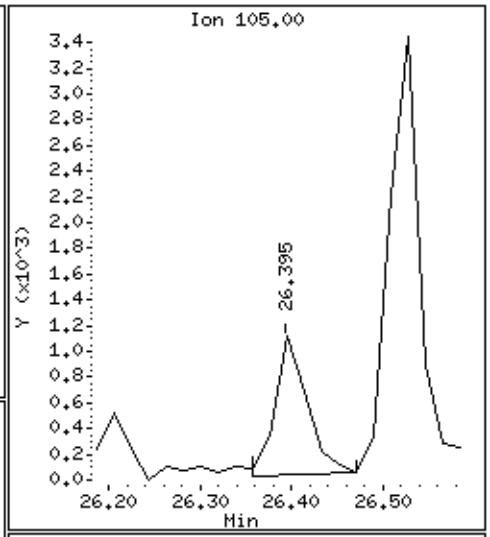
Concentration: 0.04119 PPBV

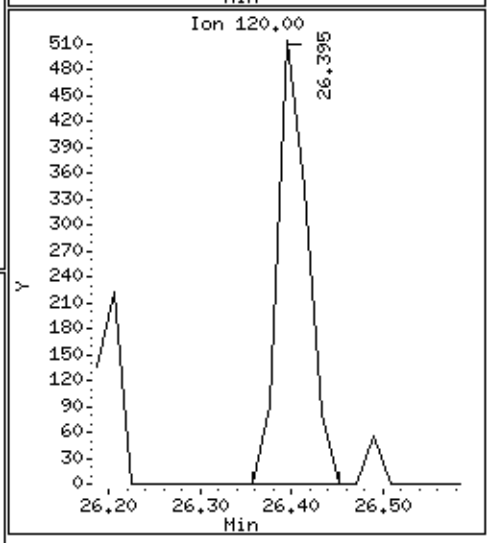












Data File: /chem/msd20.i/15Jun2016.b/20061519.d

Date : 16-JUN-2016 08:28

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 34423

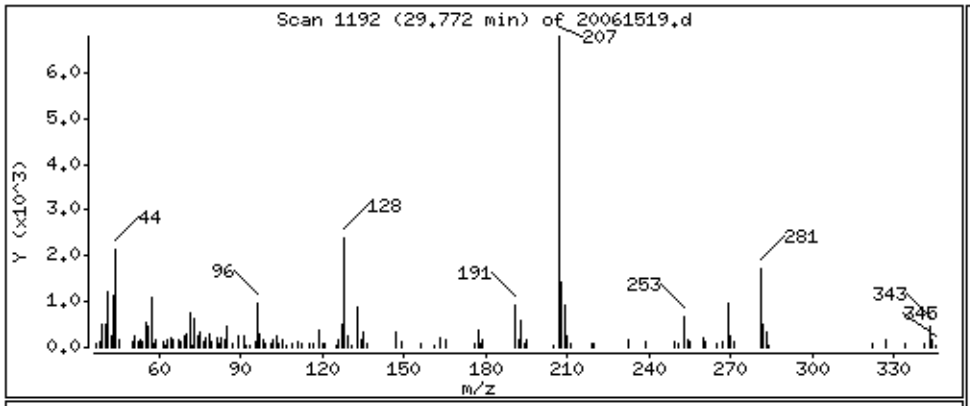
Operator: ef

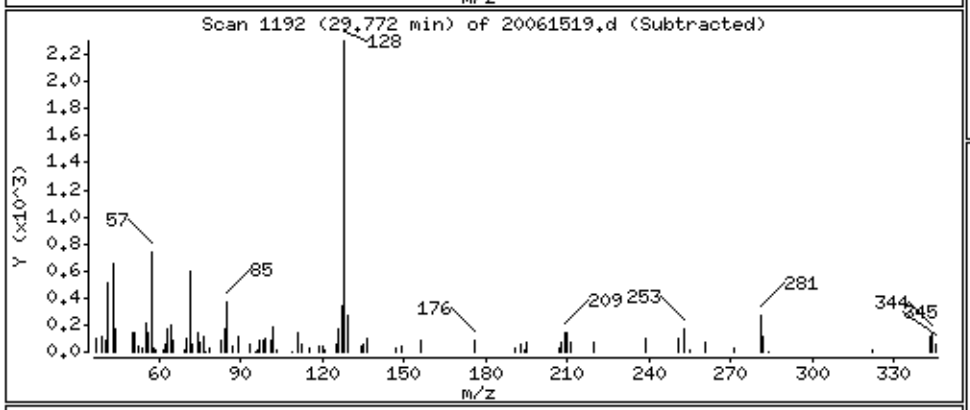
Column phase: RTX-624

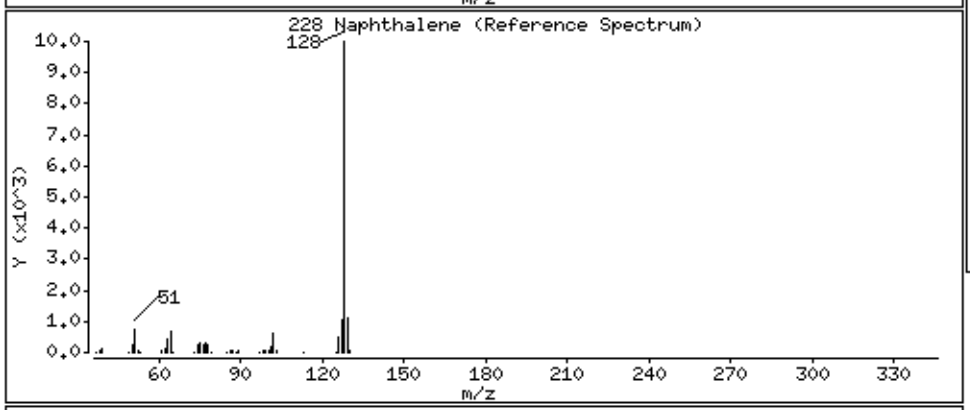
Column diameter: 0.32

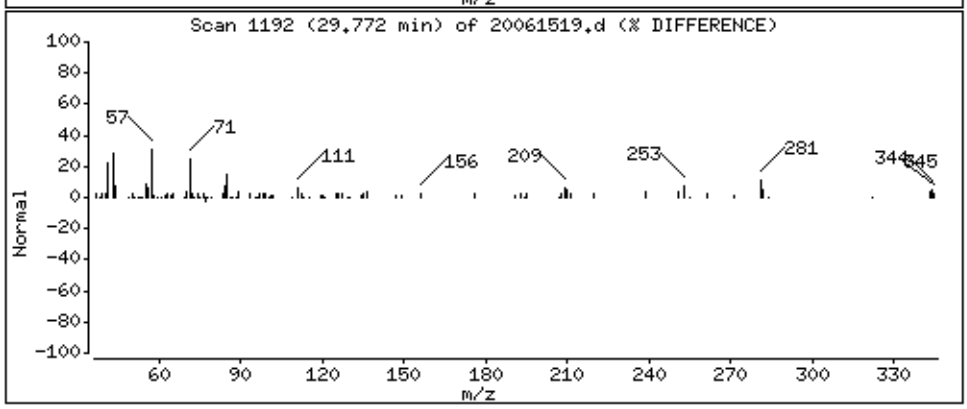
228 Naphthalene

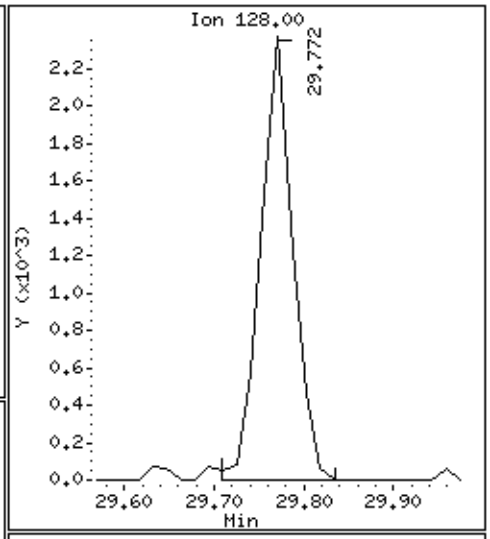
Concentration: 0.08532 PPBV

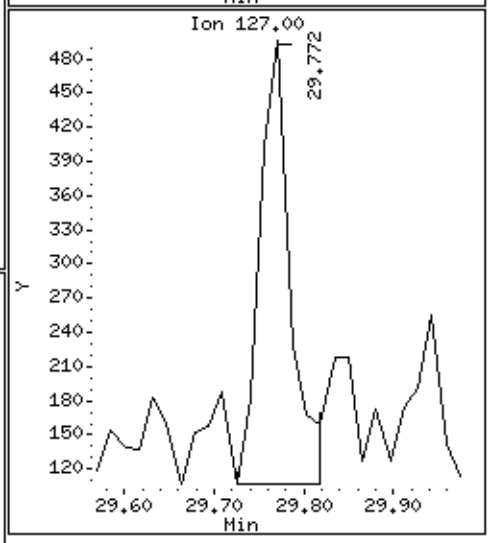












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Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: B7IA-6(061016)

Lab ID#: 1606298A-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.60	0.76	3.0
Chloromethane	0.76	0.99	1.6	2.0
Freon 11	0.15	1.7	0.86	9.8
Ethanol	0.76	17	1.4	32
Freon 113	0.15	0.11 J	1.2	0.84 J
Acetone	0.76	5.8	1.8	14
2-Propanol	0.76	5.1	1.9	12
Carbon Disulfide	0.76	0.086 J	2.4	0.27 J
Methylene Chloride	0.31	0.54	1.1	1.9
Hexane	0.15	0.17	0.54	0.59
2-Butanone (Methyl Ethyl Ketone)	0.76	2.0	2.2	6.0
Chloroform	0.15	0.057 J	0.75	0.28 J
Cyclohexane	0.15	0.13 J	0.53	0.43 J
Carbon Tetrachloride	0.15	0.079 J	0.96	0.50 J
Benzene	0.15	0.11 J	0.49	0.35 J
Heptane	0.15	0.19	0.63	0.77
4-Methyl-2-pentanone	0.15	0.077 J	0.63	0.31 J
Toluene	0.15	0.98	0.58	3.7
2-Hexanone	0.76	0.15 J	3.1	0.62 J
Ethyl Benzene	0.15	0.11 J	0.66	0.48 J
m,p-Xylene	0.15	0.29	0.66	1.2
o-Xylene	0.15	0.14 J	0.66	0.62 J
Styrene	0.15	0.18	0.65	0.78
Propylbenzene	0.15	0.029 J	0.75	0.14 J
4-Ethyltoluene	0.15	0.13 J	0.75	0.66 J
1,3,5-Trimethylbenzene	0.15	0.066 J	0.75	0.32 J
1,2,4-Trimethylbenzene	0.15	0.24	0.75	1.2
Naphthalene	0.76	0.16 J	4.0	0.83 J

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Client Sample ID: B7IA-6(061016)

Lab ID#: 1606298A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061520**	**Date of Collection:**	**6/11/16 7:37:00 PM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**6/16/16 09:07 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.15	0.60	0.76	3.0
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.76	0.99	1.6	2.0
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.76	Not Detected	3.0	Not Detected
Chloroethane	0.76	Not Detected	2.0	Not Detected
Freon 11	0.15	1.7	0.86	9.8
Ethanol	0.76	17	1.4	32
Freon 113	0.15	0.11 J	1.2	0.84 J
1,1-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Acetone	0.76	5.8	1.8	14
2-Propanol	0.76	5.1	1.9	12
Carbon Disulfide	0.76	0.086 J	2.4	0.27 J
3-Chloropropene	0.76	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	0.54	1.1	1.9
Methyl tert-butyl ether	0.15	Not Detected	0.55	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Hexane	0.15	0.17	0.54	0.59
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.76	2.0	2.2	6.0
cis-1,2-Dichloroethene	0.15	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	0.057 J	0.75	0.28 J
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	0.13 J	0.53	0.43 J
Carbon Tetrachloride	0.15	0.079 J	0.96	0.50 J
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Benzene	0.15	0.11 J	0.49	0.35 J
1,2-Dichloroethane	0.15	Not Detected	0.62	Not Detected
Heptane	0.15	0.19	0.63	0.77
Trichloroethene	0.15	Not Detected	0.82	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.71	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	0.077 J	0.63	0.31 J
Toluene	0.15	0.98	0.58	3.7
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	0.15 J	3.1	0.62 J

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Client Sample ID: B7IA-6(061016)

Lab ID#: 1606298A-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061520**	**Date of Collection:**	**6/11/16 7:37:00 PM**
Dil. Factor:	**1.53**	**Date of Analysis:**	**6/16/16 09:07 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.15	Not Detected	1.2	Not Detected
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.11 J	0.66	0.48 J
m,p-Xylene	0.15	0.29	0.66	1.2
o-Xylene	0.15	0.14 J	0.66	0.62 J
Styrene	0.15	0.18	0.65	0.78
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
1,1,2,2-Tetrachloroethane	0.15	Not Detected	1.0	Not Detected
Propylbenzene	0.15	0.029 J	0.75	0.14 J
4-Ethyltoluene	0.15	0.13 J	0.75	0.66 J
1,3,5-Trimethylbenzene	0.15	0.066 J	0.75	0.32 J
1,2,4-Trimethylbenzene	0.15	0.24	0.75	1.2
1,3-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.92	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.7	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.2	Not Detected
Naphthalene	0.76	0.16 J	4.0	0.83 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061520.d
Lab Smp Id: 1606298A-07A
Inj Date : 16-JUN-2016 09:07
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 440
Misc Info : 3.7"Hg -> 5.0psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.53000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	95191	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	71681			47.16- 107.16	75.30
16.726	16.726 (1.000)	49	120382			84.74- 144.74	126.46
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	443439	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	68597			0.00- 45.65	15.47
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	370872	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	201455			24.05- 84.05	54.32
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	151820	5.99506	5.995	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	78222			28.75- 88.75	51.52
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.822	20.821 (1.142)	98	424142	5.04760	5.048	80.00- 120.00	100.00
20.822	20.806 (1.142)	70	49691			0.00- 41.22	11.72

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.822	20.821 (1.142)	100	286549			37.90- 97.90	67.56
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	189187	4.63976	4.640	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	233046			88.33- 148.33	123.18
25.485	25.485 (1.073)	176	186465			68.77- 128.77	98.56
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	29504	0.39461	0.6037	80.00- 120.00	100.00
4.672	4.648 (0.279)	87	4114			2.50- 62.50	13.95
17 Chloromethane					CAS #: 74-87-3		
6.625	6.552 (0.396)	50	15749	0.64782	0.9912	80.00- 120.00	100.00
6.625	6.552 (0.396)	52	5482			3.09- 63.09	34.81
35 Freon 11					CAS #: 75-69-4		
11.138	11.114 (0.666)	101	83453	1.13602	1.738	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	54508			34.69- 94.69	65.32
42 Ethanol					CAS #: 64-17-5		
12.297	12.269 (0.735)	45	106268	10.9658	16.778	80.00- 120.00	100.00
12.297	12.269 (0.735)	46	43629			11.01- 71.01	41.06
12.297	12.269 (0.735)	43	25129			0.00- 50.63	23.65
49 Freon 113					CAS #: 76-13-1		
12.736	12.763 (0.761)	151	3850	0.07150	0.1094	80.00- 120.00	100.00(a)
12.763	12.763 (0.763)	153	1938			34.65- 94.65	50.34
12.736	12.763 (0.761)	101	3355			90.37- 150.37	87.16
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	53522	3.76422	5.759	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	163784			275.09- 335.09	306.01
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.120 (0.784)	76	4522	0.05640	0.08629	80.00- 120.00	100.00(a)
57 2-Propanol					CAS #: 67-63-0		
13.588	13.532 (0.812)	45	152646	3.33725	5.106	80.00- 120.00	100.00
13.588	13.532 (0.812)	43	33358			0.00- 49.91	21.85
13.588	13.532 (0.812)	59	6723			0.00- 34.18	4.40
66 Methylene Chloride					CAS #: 75-09-2		
14.054	14.027 (0.840)	84	10838	0.35016	0.5357	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	14551			88.46- 148.46	134.26
14.027	14.027 (0.839)	51	4480			6.78- 66.78	41.34

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	5025	0.10878	0.1664	80.00- 120.00	100.00
14.933	14.878 (0.893)	43	6964			31.00- 91.00	138.57
14.878	14.878 (0.889)	86	718			0.00- 49.39	14.29
92 2-Butanone					CAS #: 78-93-3		
16.365	16.344 (0.978)	72	20248	1.33603	2.044	80.00- 120.00	100.00
16.365	16.344 (0.978)	43	101171			324.50- 384.50	499.64
16.365	16.344 (0.978)	57	6599			0.00- 59.24	32.59
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	2324	0.03757	0.05748	80.00- 120.00	100.00(a)
16.819	16.819 (1.006)	85	1794			34.55- 94.55	77.17
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.034 (1.018)	84	3794	0.08238	0.1260	80.00- 120.00	100.00(a)
17.035	17.034 (1.018)	56	5657			77.49- 137.49	149.07
17.035	17.034 (1.018)	41	3778			25.74- 85.74	99.56
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	2676	0.05177	0.07920	80.00- 120.00	100.00(a)
17.281	17.250 (1.033)	117	1949			73.36- 133.36	72.84
116 Benzene					CAS #: 71-43-2		
17.621	17.620 (0.966)	78	7278	0.07087	0.1084	80.00- 120.00	100.00(a)
17.621	17.620 (0.966)	77	2241			0.00- 53.54	30.80
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	3572	0.12331	0.1887	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	746			10.87- 70.87	20.91
17.847	17.847 (0.979)	43	5835			148.15- 208.15	163.35
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.556 (1.128)	43	3661	0.05016	0.07674	80.00- 120.00	100.00(a)
20.572	20.556 (1.128)	58	1438			11.51- 71.51	39.30
20.603	20.556 (1.130)	85	830			0.00- 48.80	22.67
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	75476	0.64211	0.9824	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	44551			30.55- 90.55	59.03
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	3828	0.09983	0.1527	80.00- 120.00	100.00(a)
22.406	22.406 (0.943)	43	6061			146.44- 206.44	158.31
22.406	22.406 (0.943)	100	693			0.00- 54.43	18.12

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
167 Ethyl Benzene						CAS #: 100-41-4	
23.906	23.905 (1.006)	106	3346	0.07282	0.1114	80.00- 120.00	100.00(a)
23.906	23.905 (1.006)	91	9688			278.69- 338.69	289.53
169 m,p-Xylene						CAS #: 108-38-3	
24.091	24.091 (1.014)	106	9434	0.18819	0.2879	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	19248			164.82- 224.82	204.02
171 o-Xylene						CAS #: 95-47-6	
24.710	24.710 (1.040)	106	4617	0.09410	0.1440	80.00- 120.00	100.00(a)
24.710	24.710 (1.040)	91	9351			174.08- 234.08	202.53
172 Styrene						CAS #: 100-42-5	
24.751	24.730 (1.042)	104	9058	0.11992	0.1835	80.00- 120.00	100.00
24.731	24.730 (1.041)	78	4970			19.76- 79.76	54.87
182 Propylbenzene						CAS #: 103-65-1	
25.732	25.731 (1.083)	91	2768	0.01885	0.02884	80.00- 120.00	100.00(a)
25.732	25.731 (1.083)	120	740			0.00- 54.46	26.76
188 4-Ethyltoluene						CAS #: 622-96-8	
25.826	25.864 (1.087)	105	11140	0.08813	0.1348	80.00- 120.00	100.00(a)
25.826	25.864 (1.087)	120	3525			0.68- 60.68	31.64
190 1,3,5-Trimethylbenzene						CAS #: 108-67-8	
25.940	25.940 (1.092)	105	4829	0.04316	0.06603	80.00- 120.00	100.00(a)
25.940	25.940 (1.092)	120	2344			21.16- 81.16	48.55
196 1,2,4-Trimethylbenzene						CAS #: 95-63-6	
26.395	26.395 (1.111)	105	17205	0.15580	0.2384	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	8324			18.29- 78.29	48.38
228 Naphthalene						CAS #: 91-20-3	
29.772	29.772 (1.253)	128	12281	0.10302	0.1576	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	1928			0.00- 43.33	15.70

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: msd20.i
Lab File ID: 20061520.d
Lab Smp Id: 1606298A-07A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 3.7"Hg -> 5.0psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	95191	-19.04
123 1,4-Difluorobenze	491034	294620	687448	443439	-9.69
163 Chlorobenzene-d5	413171	247903	578439	370872	-10.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:11

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-07A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 3.7"Hg -> 5.0psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.995	119.90	70-130
$ 146 Toluene-d8	5.000	5.048	100.95	70-130
$ 177 4-Bromofluorobenze	5.000	4.640	92.80	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

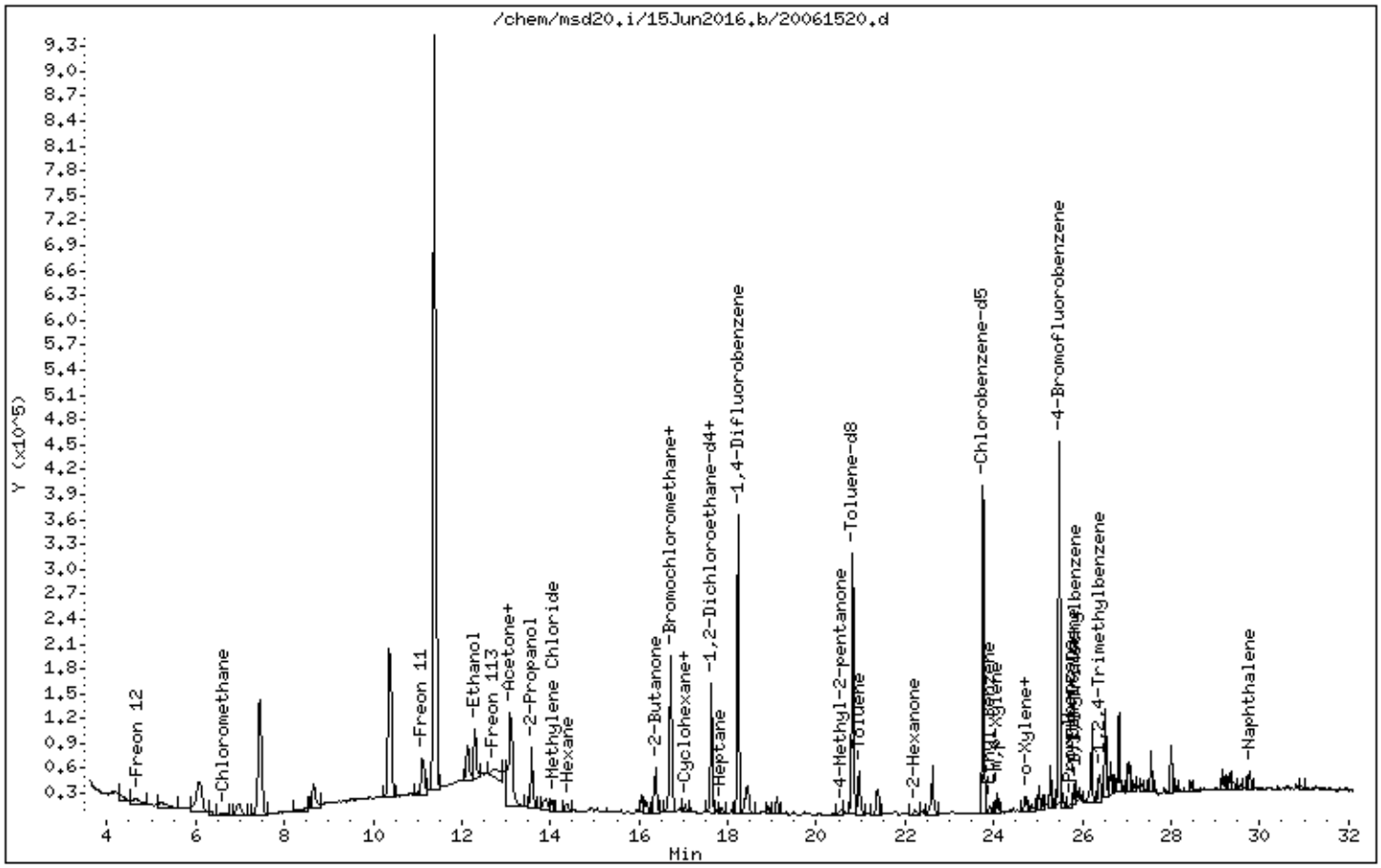
Instrument: msd20.i

Sample Info: 250mL# 440

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

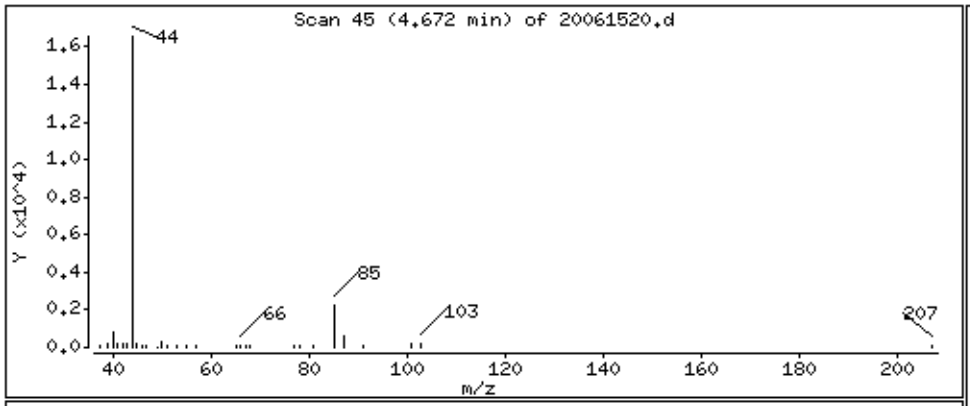
Operator: ef

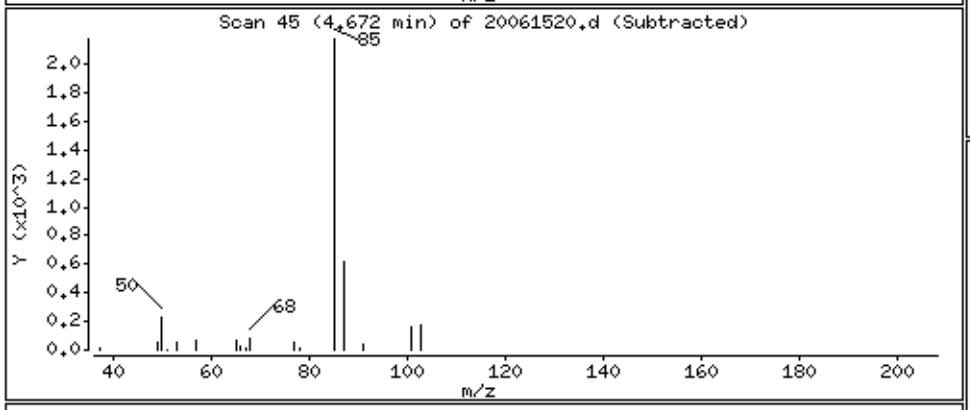
Column phase: RTX-624

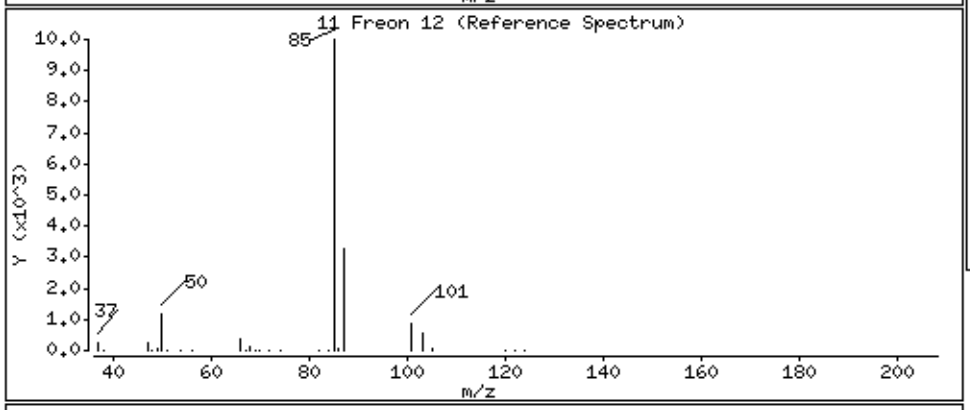
Column diameter: 0.32

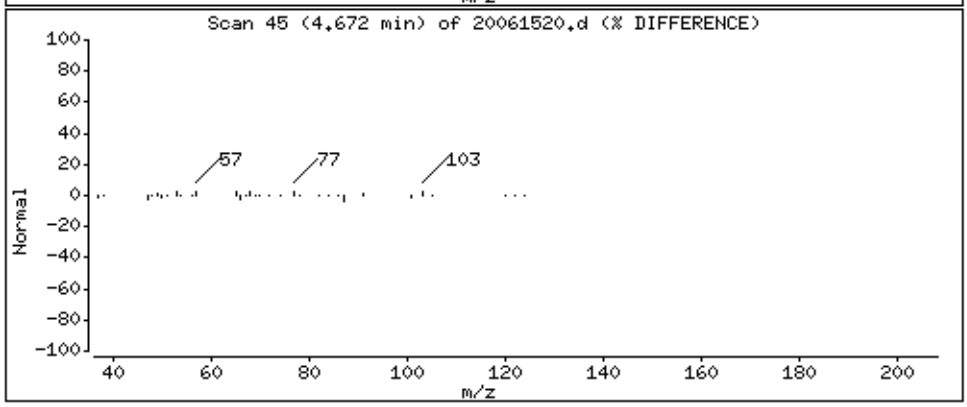
11 Freon 12

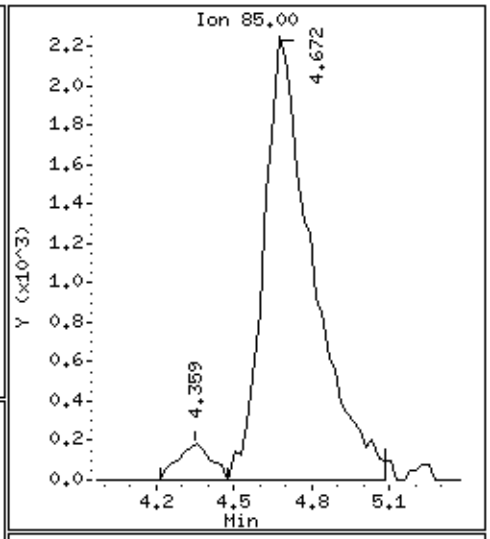
Concentration: 0.6037 PPBV

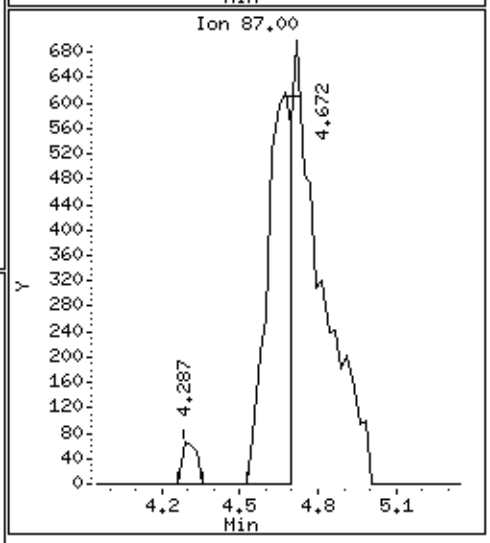












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

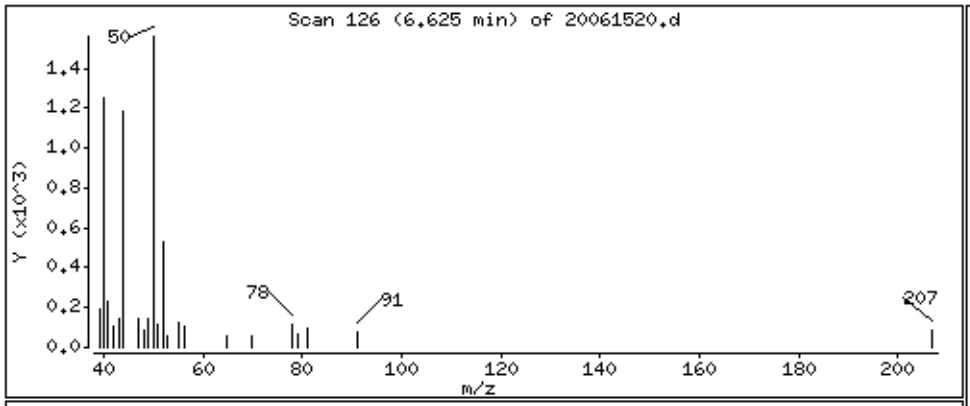
Operator: ef

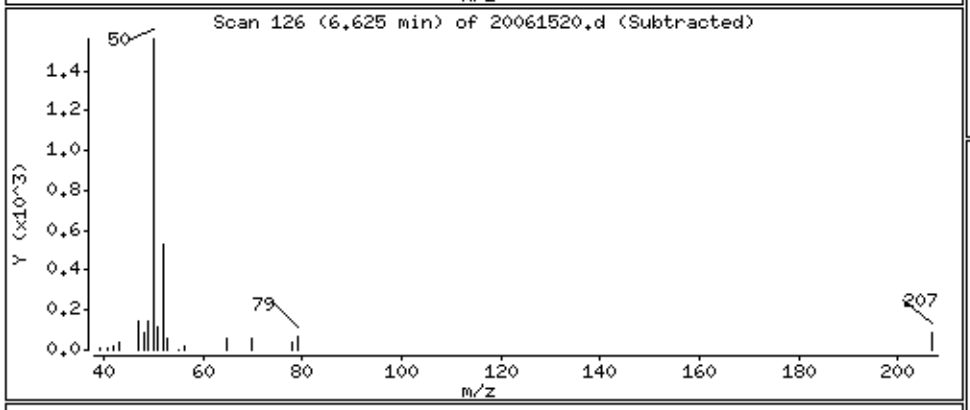
Column phase: RTX-624

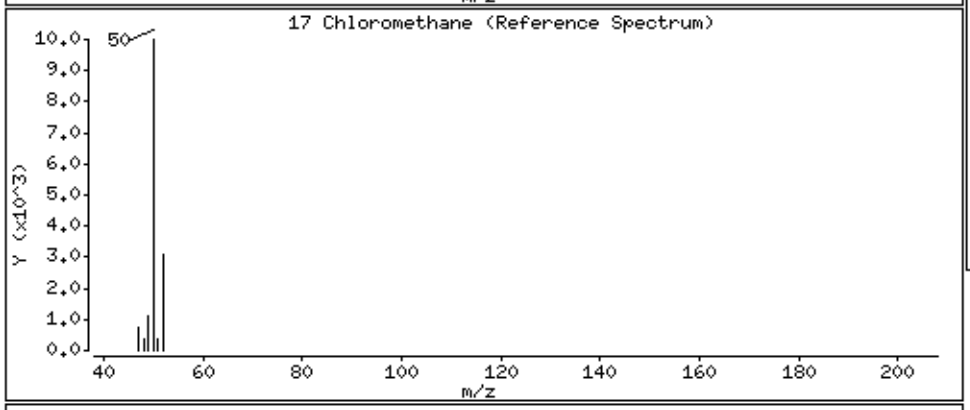
Column diameter: 0.32

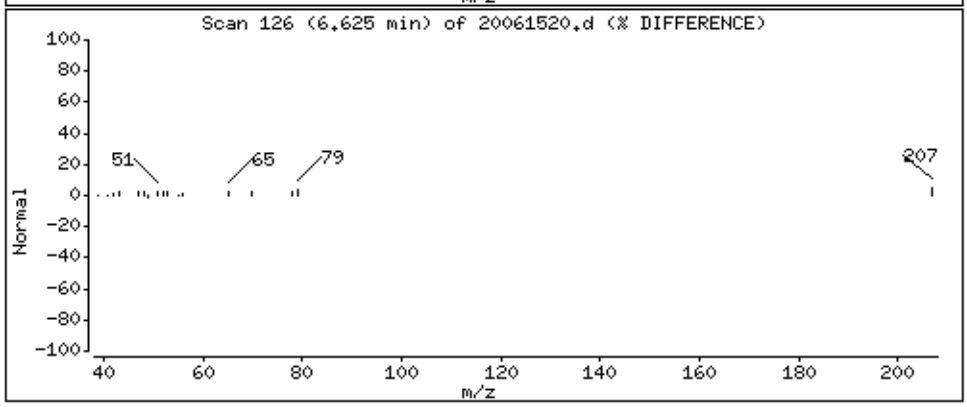
17 Chloromethane

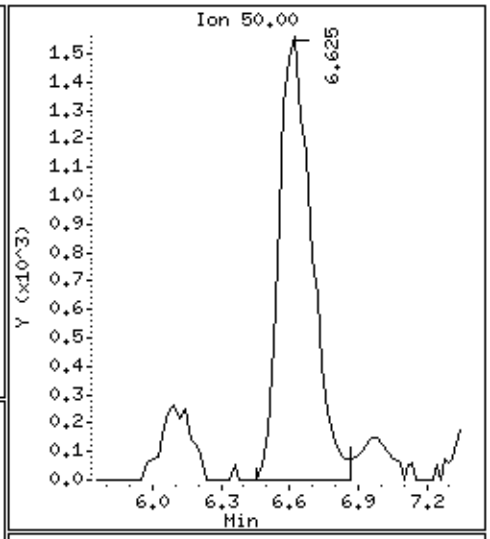
Concentration: 0.9912 PPBV

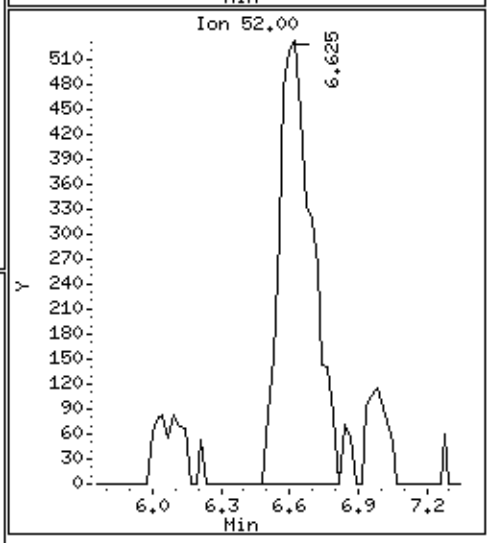












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

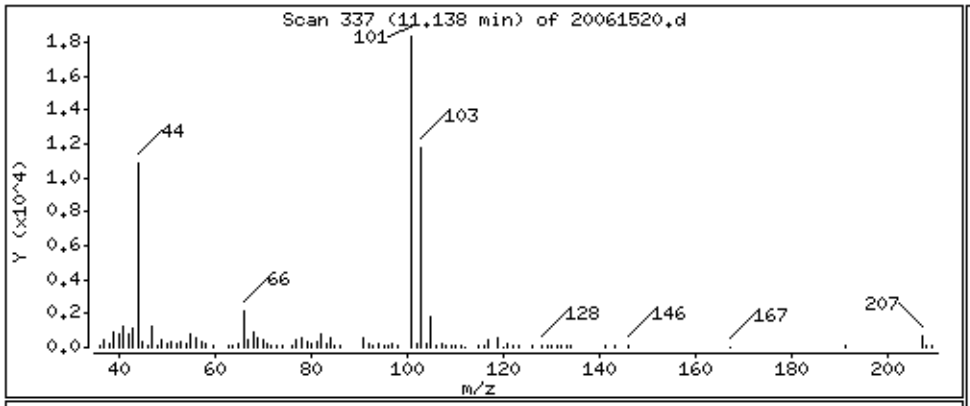
Operator: ef

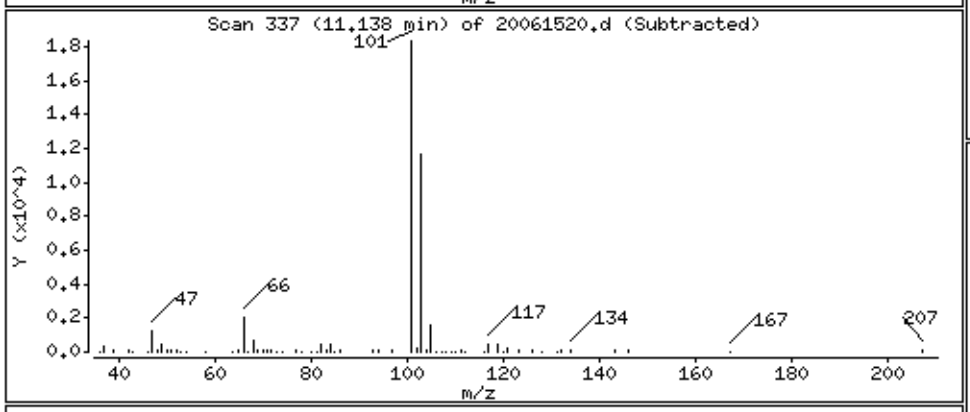
Column phase: RTX-624

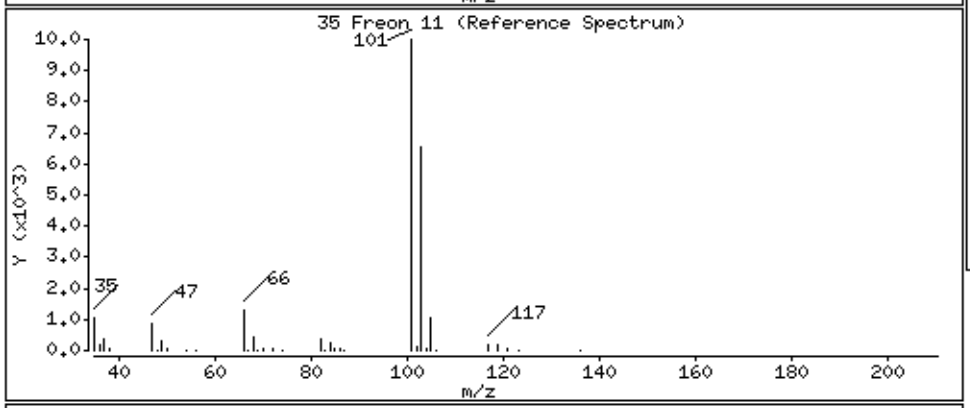
Column diameter: 0.32

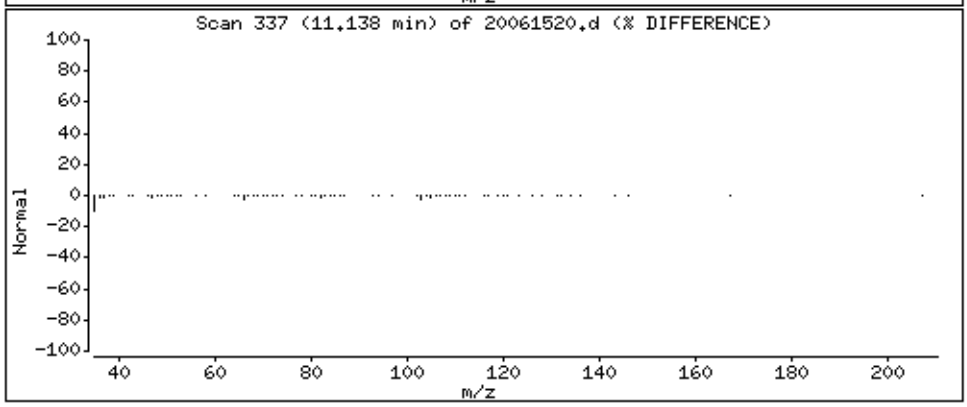
35 Freon 11

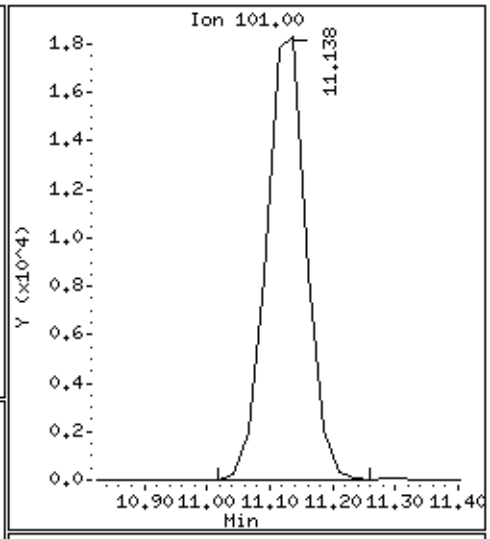
Concentration: 1.738 PPBV

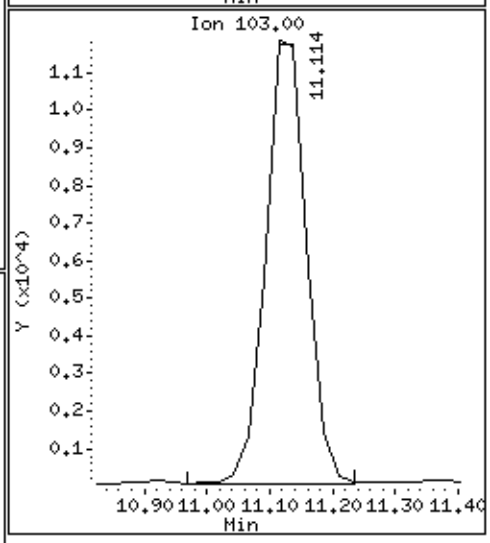












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

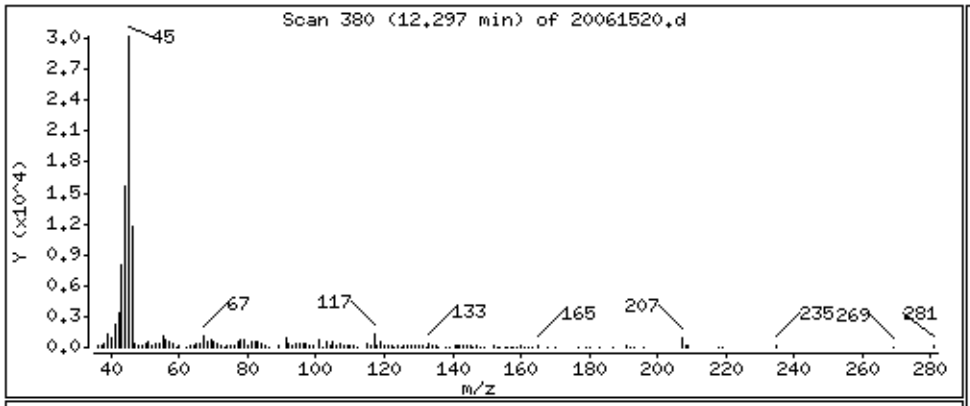
Operator: ef

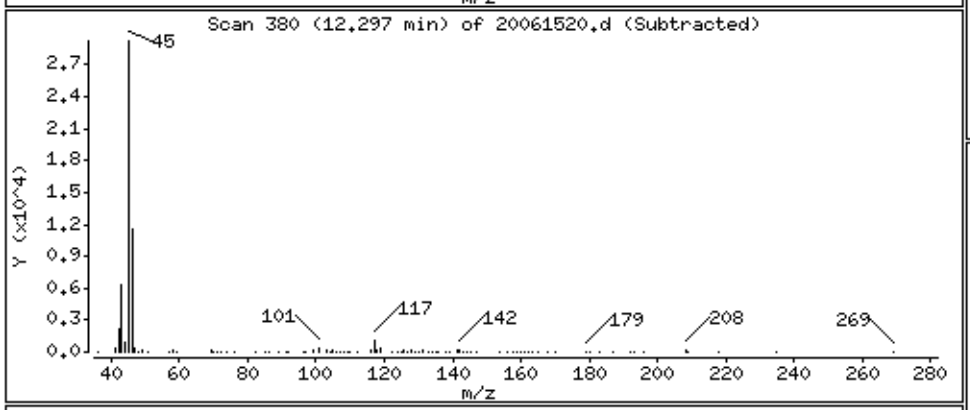
Column phase: RTX-624

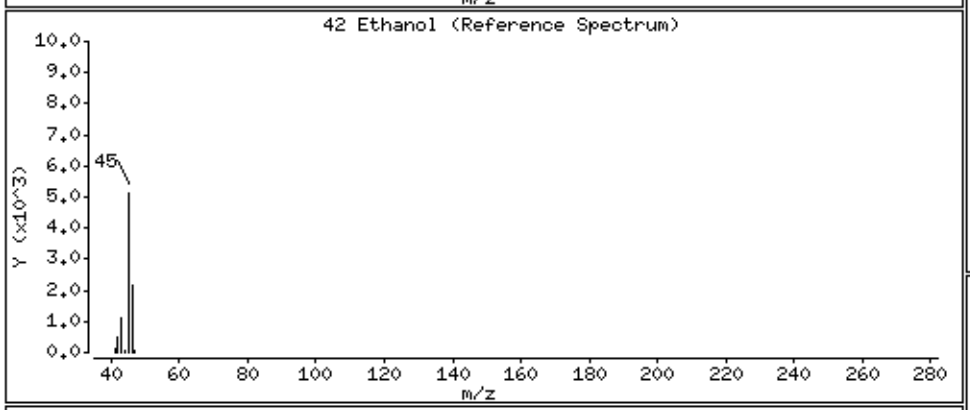
Column diameter: 0.32

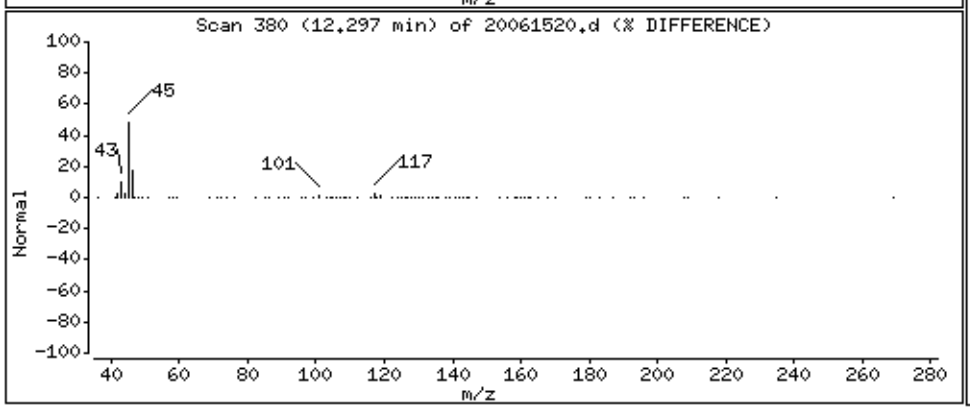
42 Ethanol

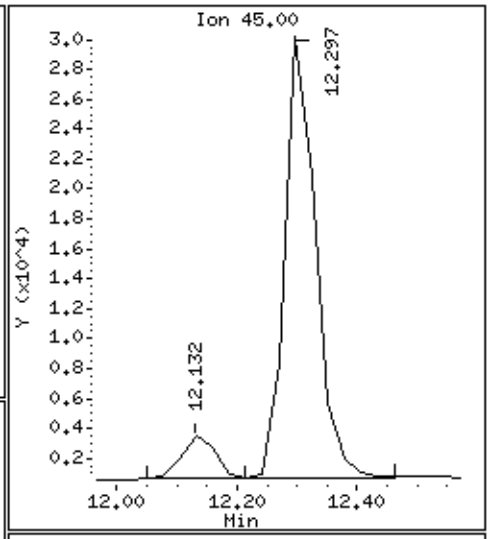
Concentration: 16.778 PPBV

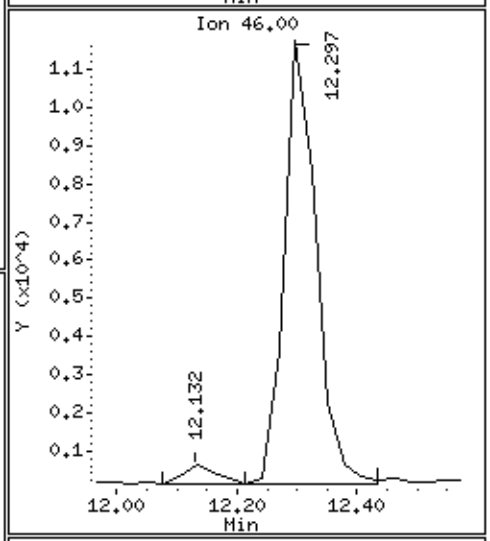


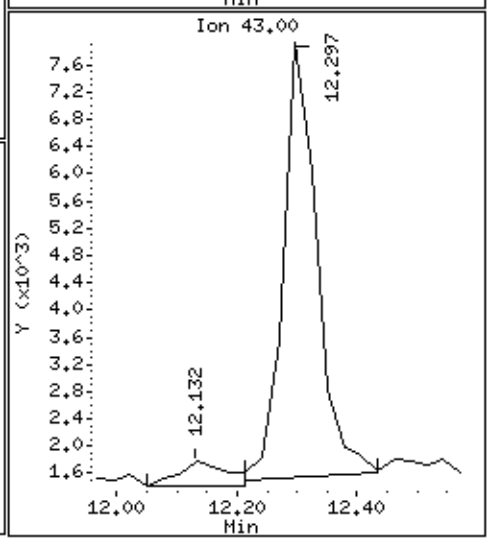












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

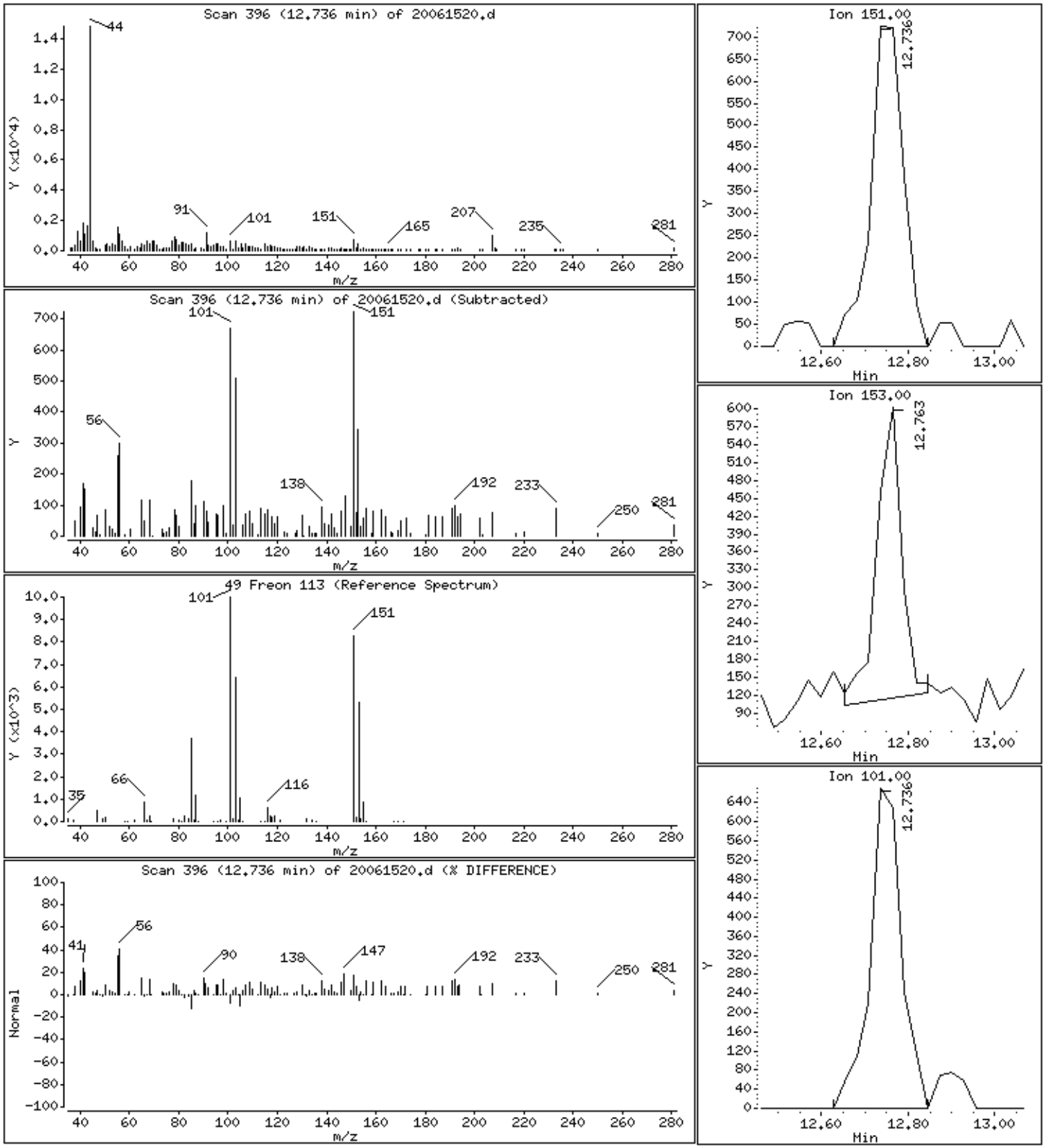
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

49 Freon 113

Concentration: 0.1094 PPBV



Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

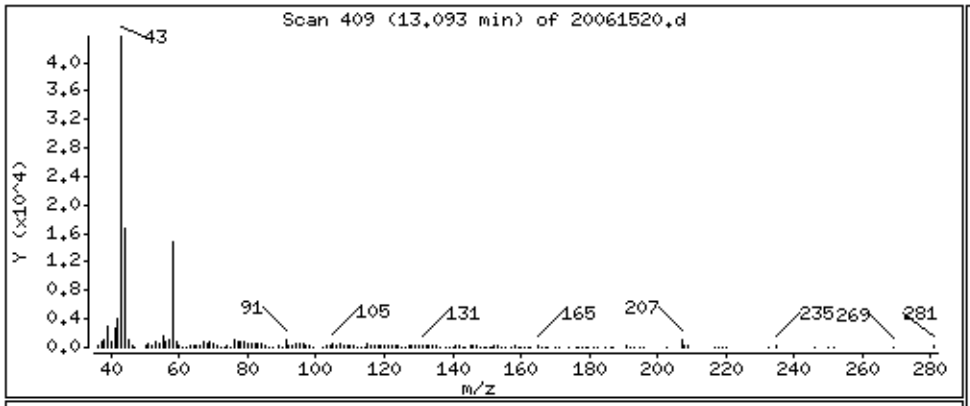
Operator: ef

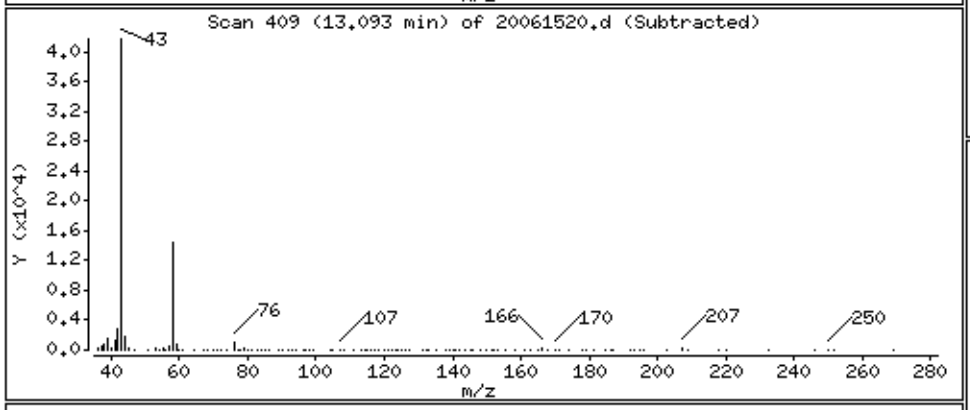
Column phase: RTX-624

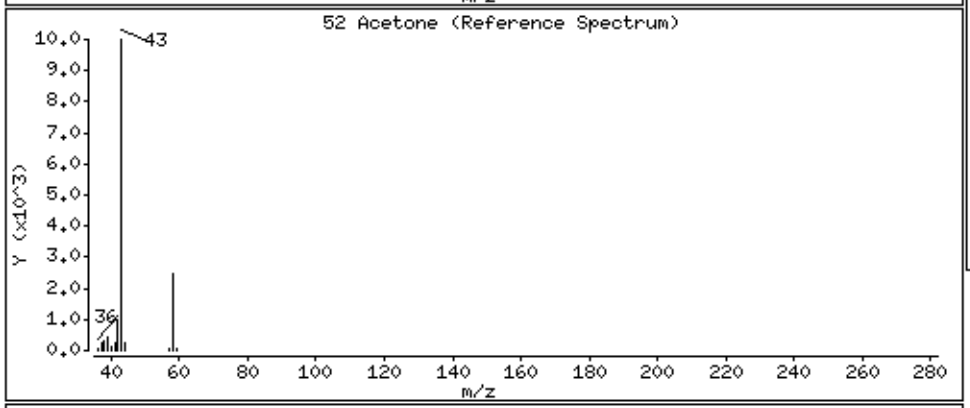
Column diameter: 0.32

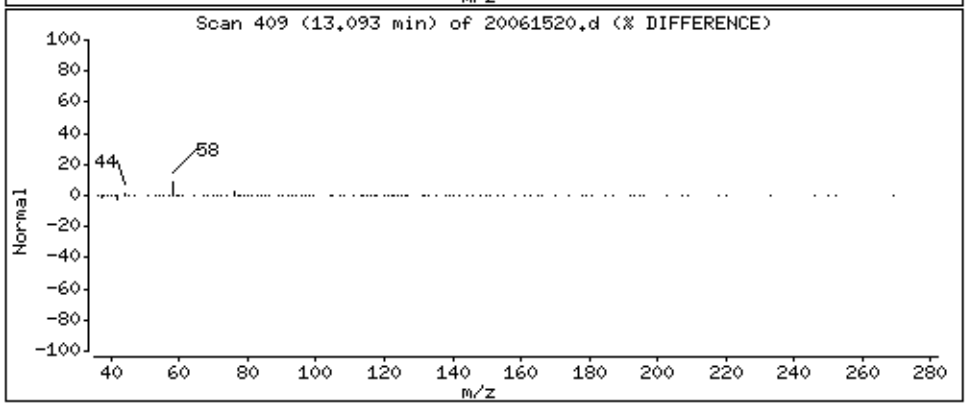
52 Acetone

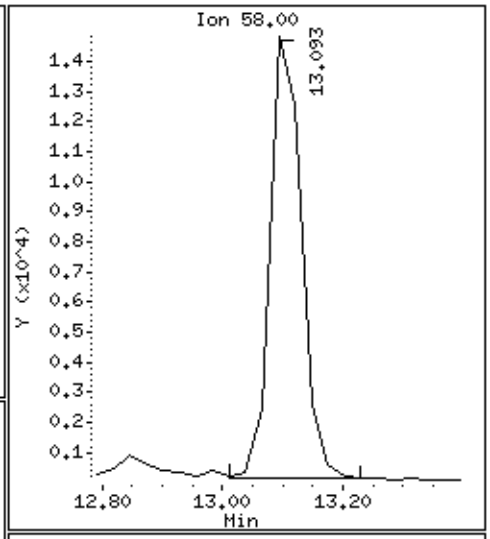
Concentration: 5.759 PPBV

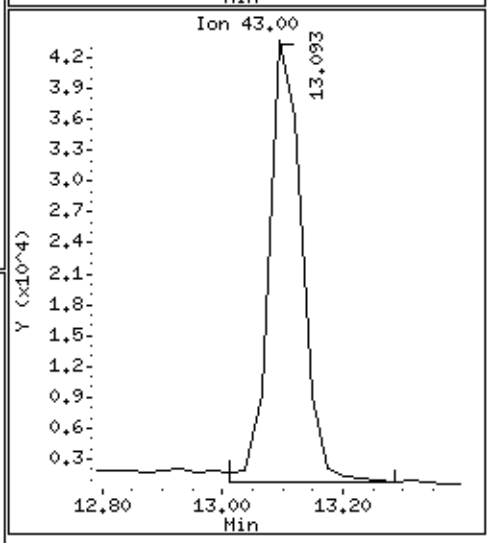












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

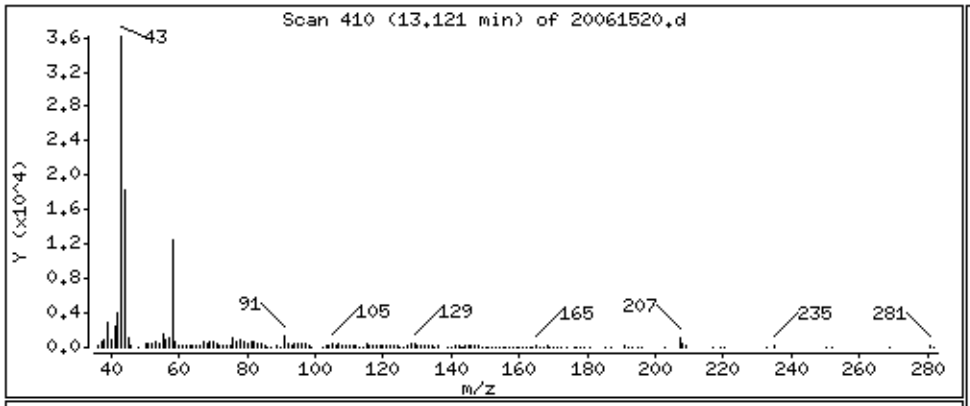
Operator: ef

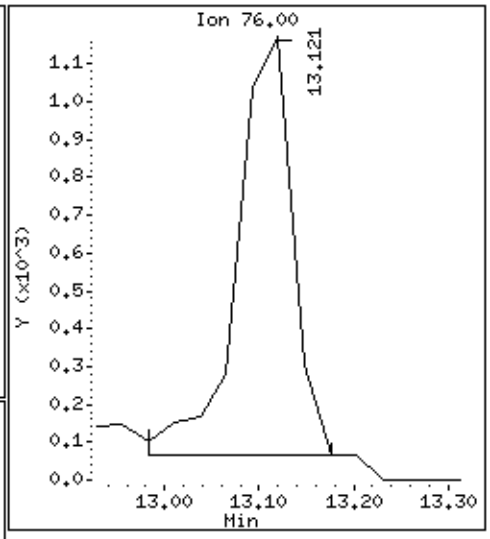
Column phase: RTX-624

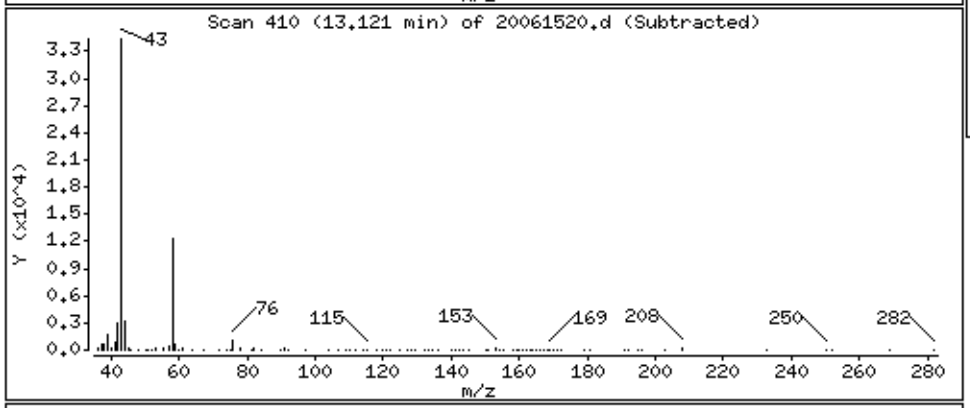
Column diameter: 0.32

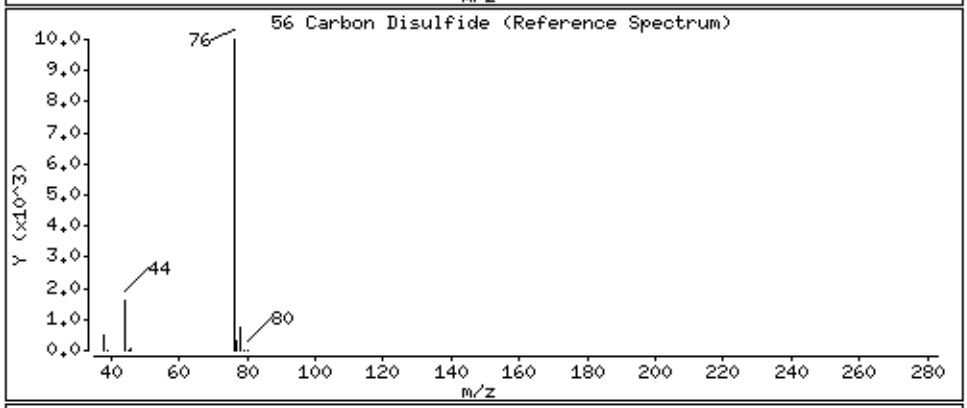
56 Carbon Disulfide

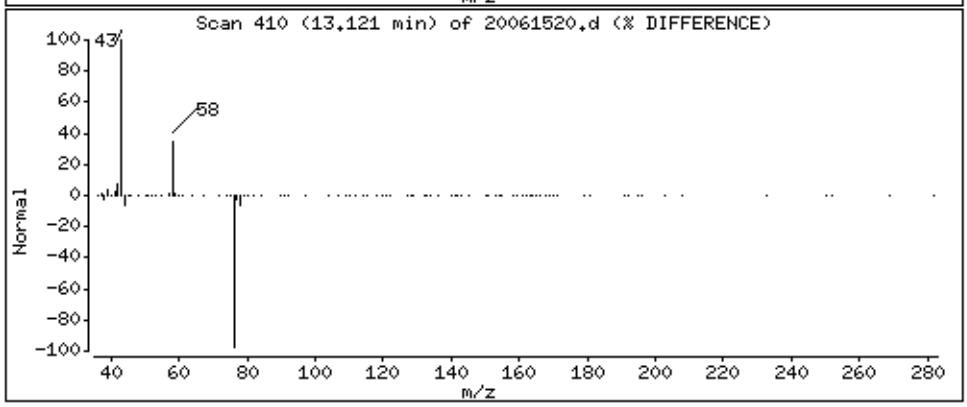
Concentration: 0.08629 PPBV











Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

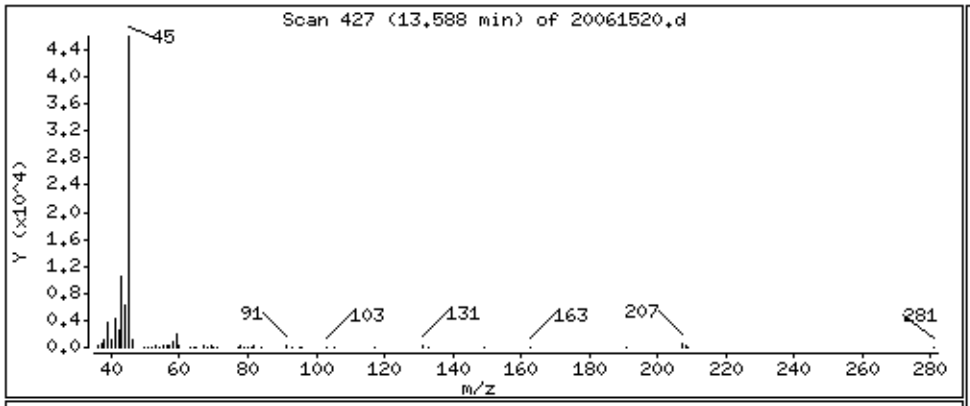
Operator: ef

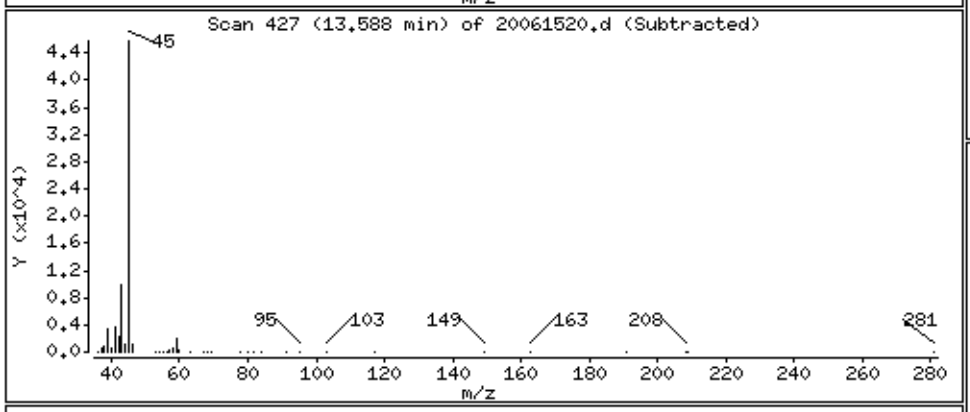
Column phase: RTX-624

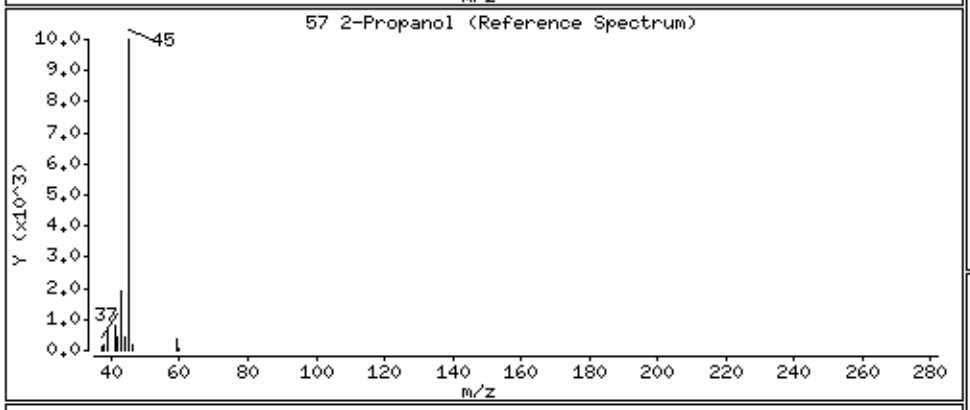
Column diameter: 0.32

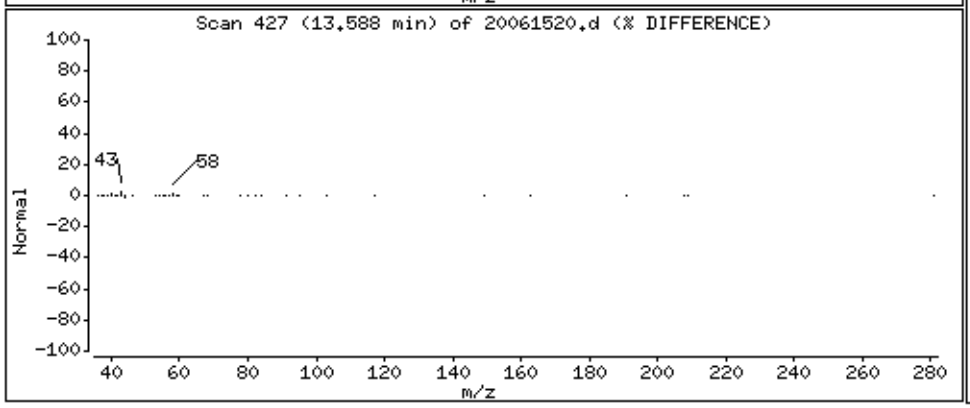
57 2-Propanol

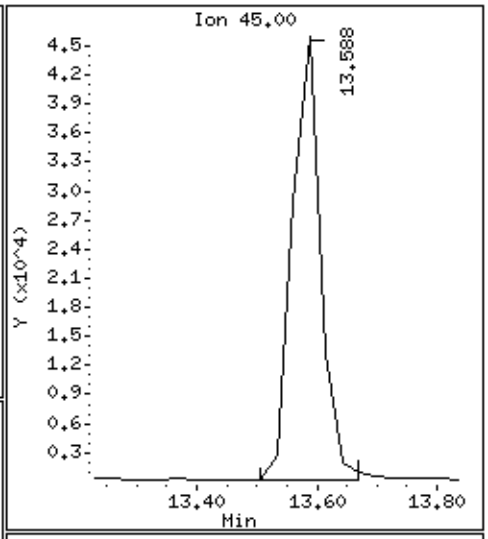
Concentration: 5.106 PPBV

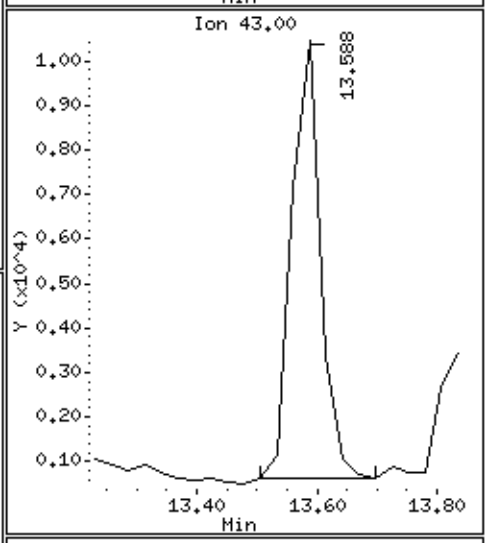


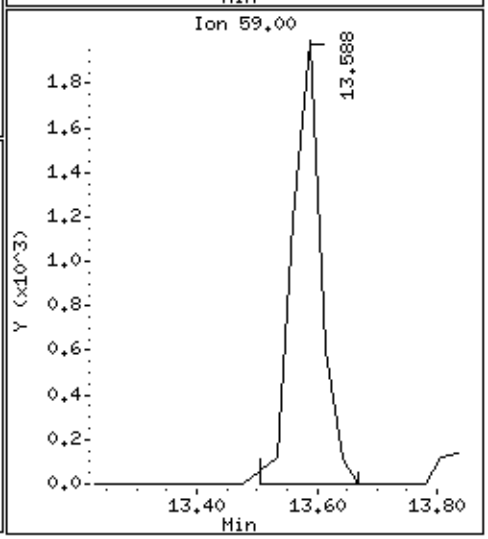












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

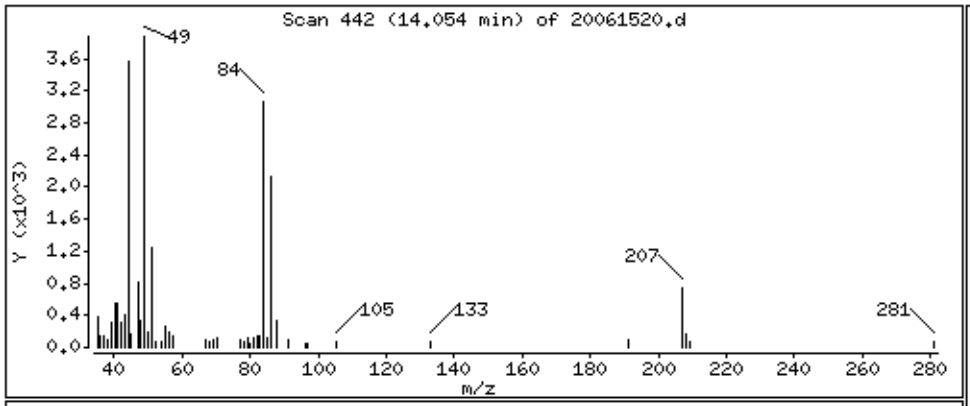
Operator: ef

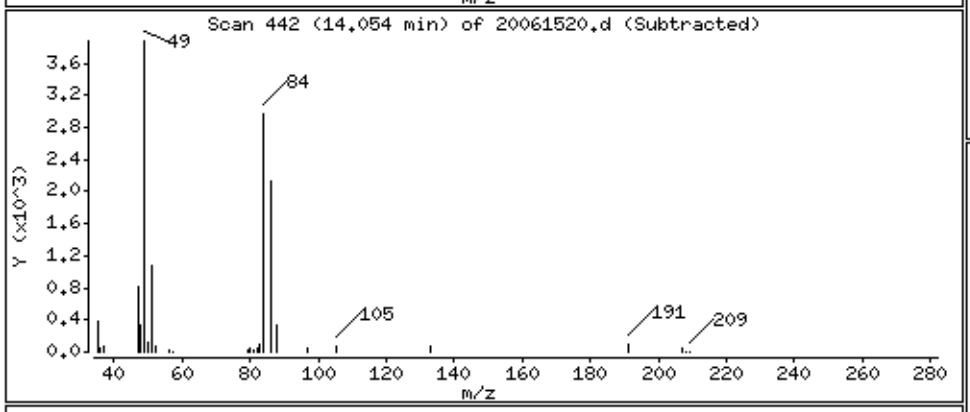
Column phase: RTX-624

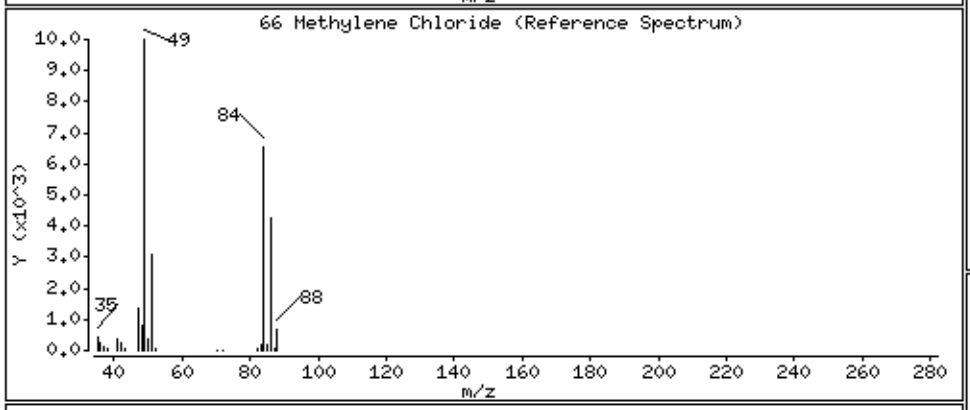
Column diameter: 0.32

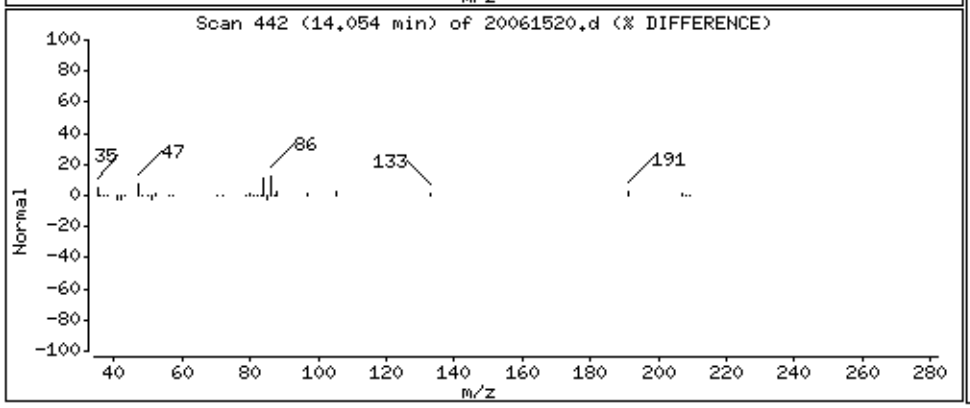
66 Methylene Chloride

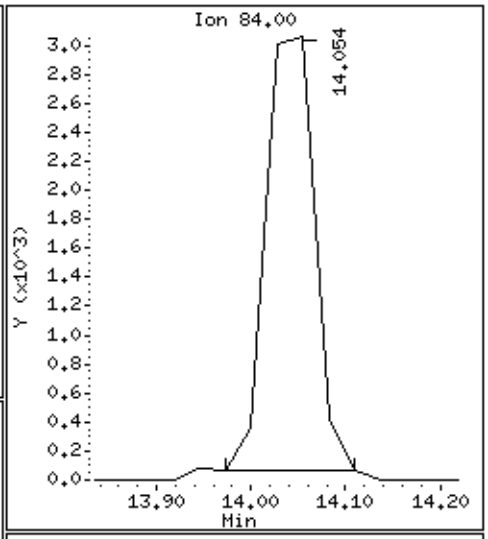
Concentration: 0.5357 PPBV

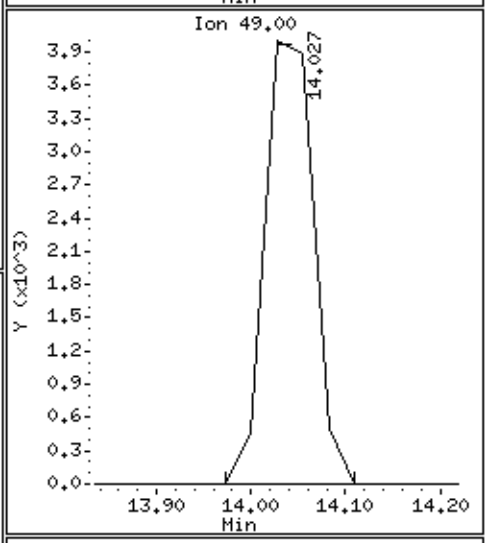


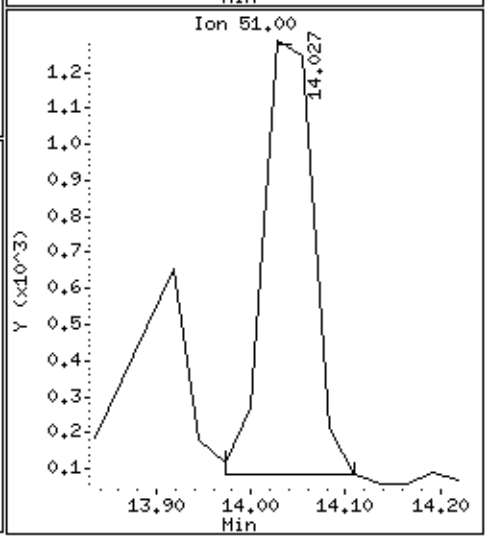












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

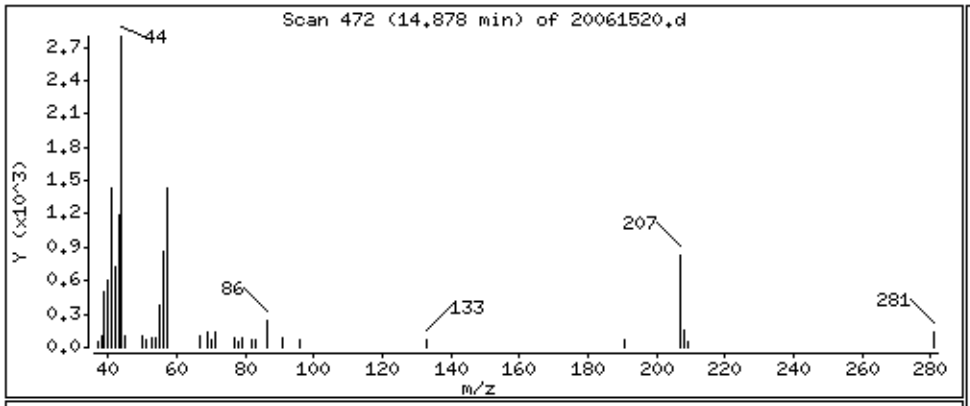
Operator: ef

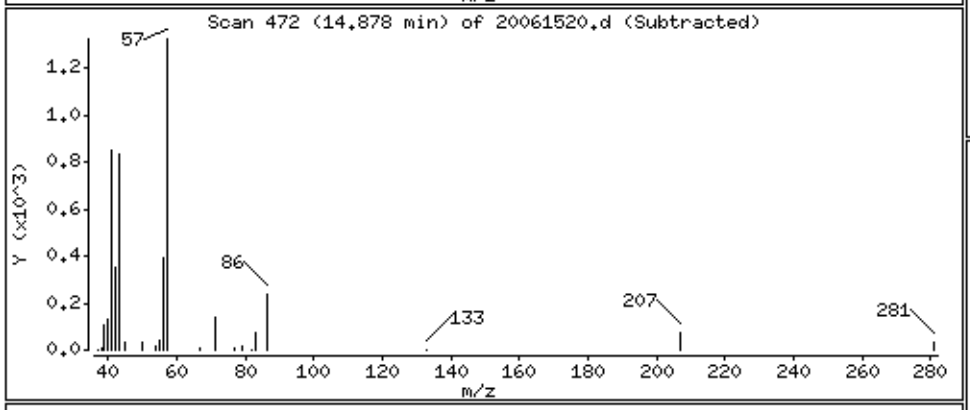
Column phase: RTX-624

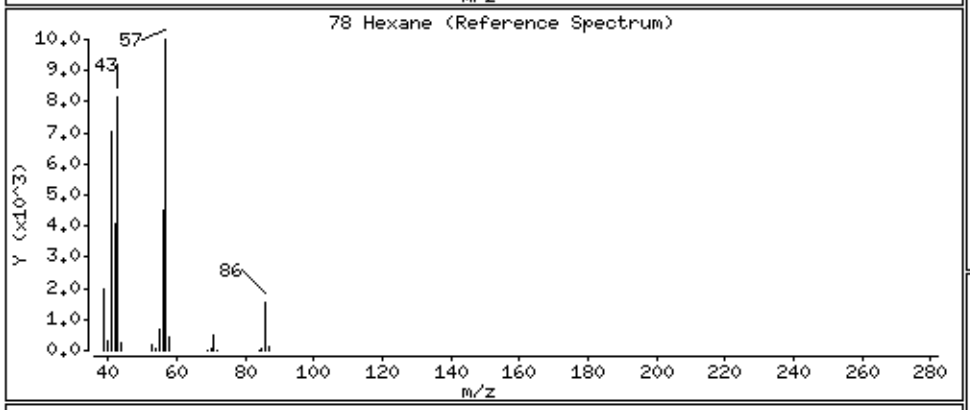
Column diameter: 0.32

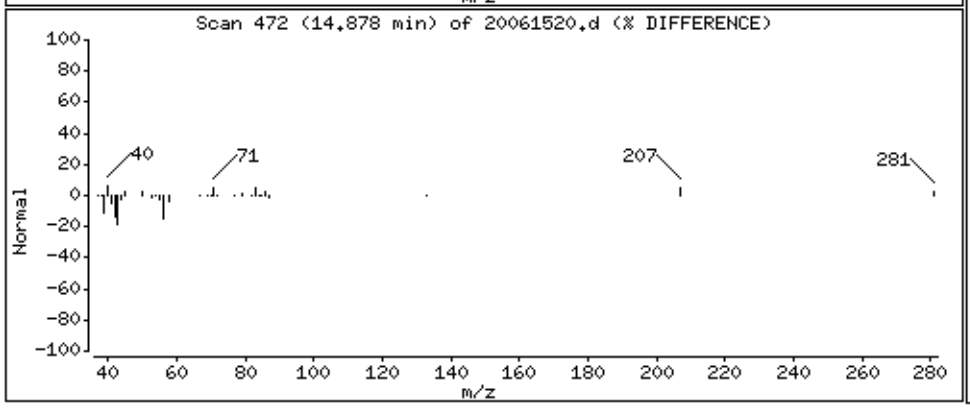
78 Hexane

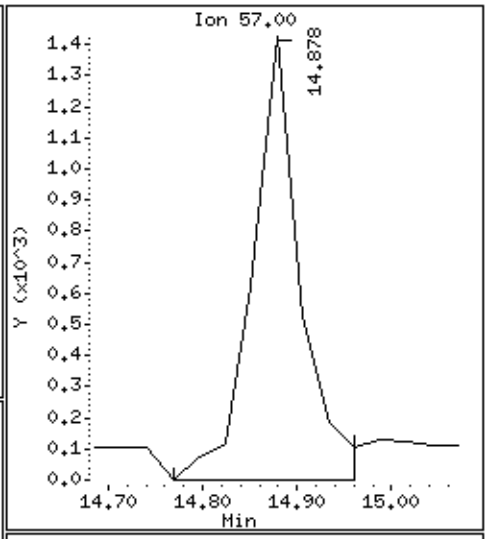
Concentration: 0.1664 PPBV

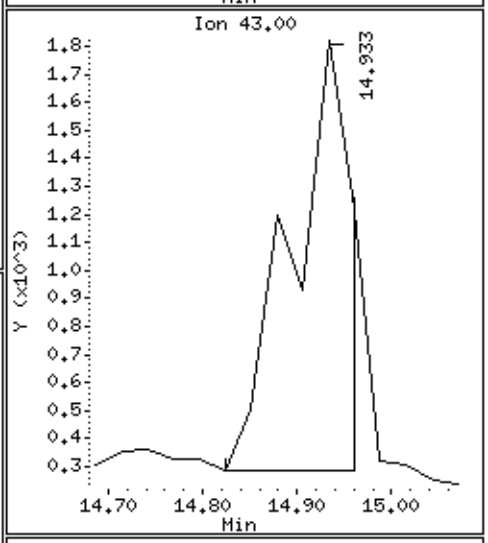


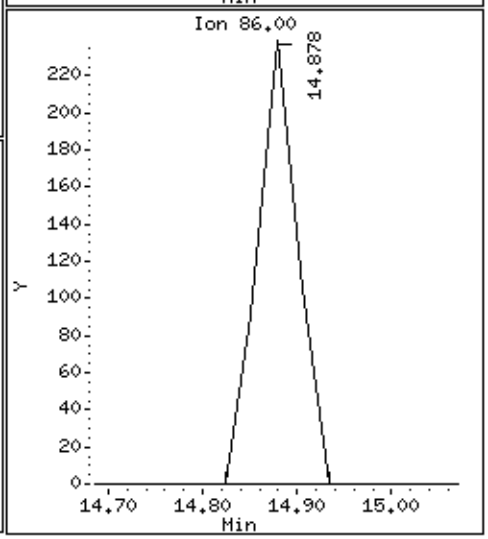












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

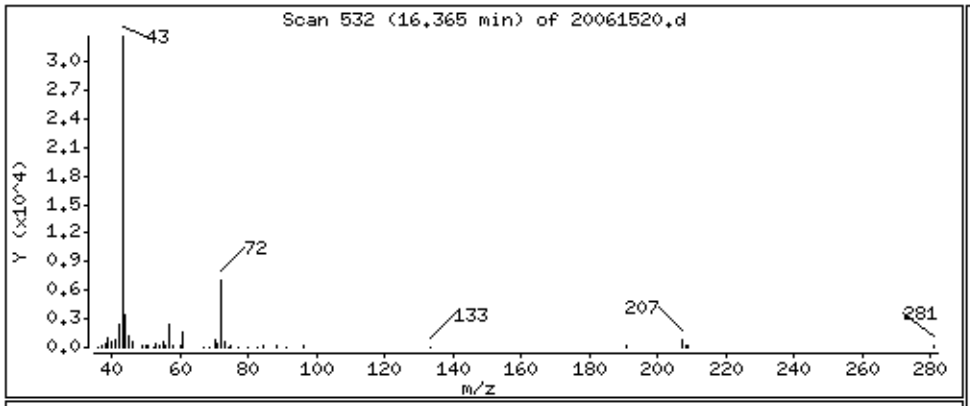
Operator: ef

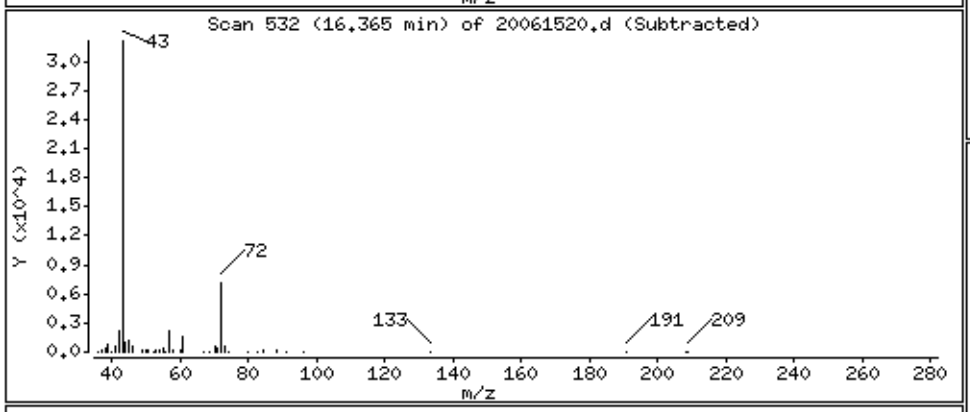
Column phase: RTX-624

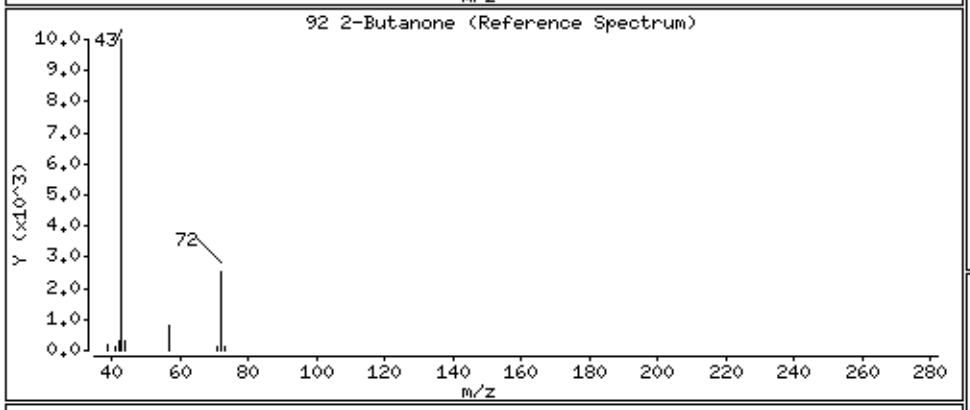
Column diameter: 0.32

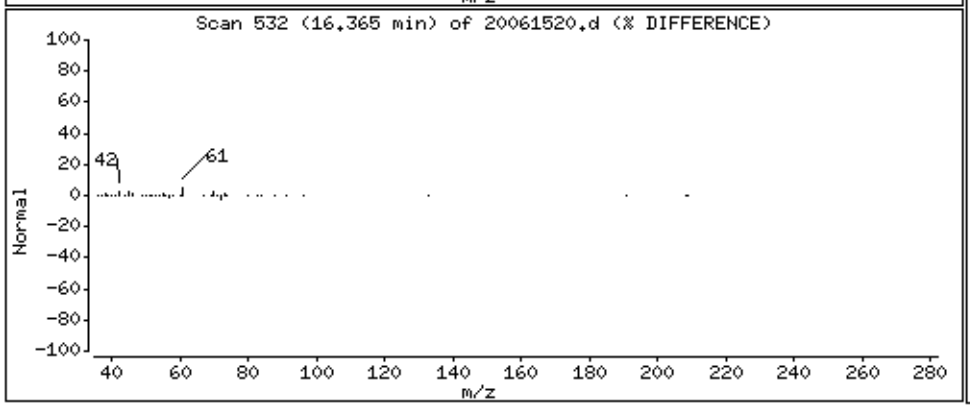
92 2-Butanone

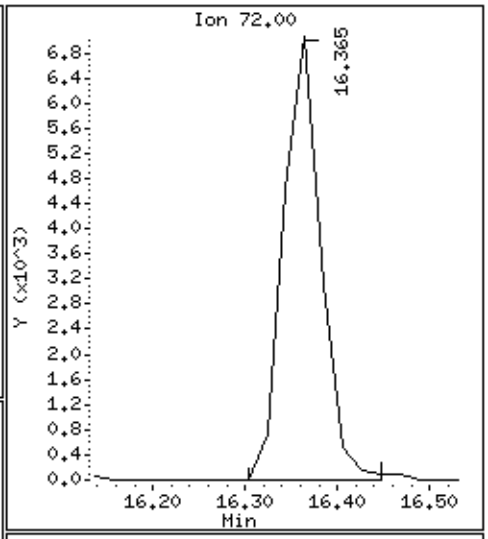
Concentration: 2.044 PPBV

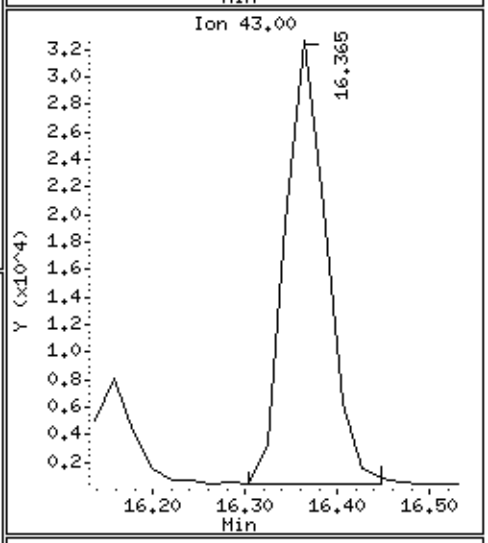


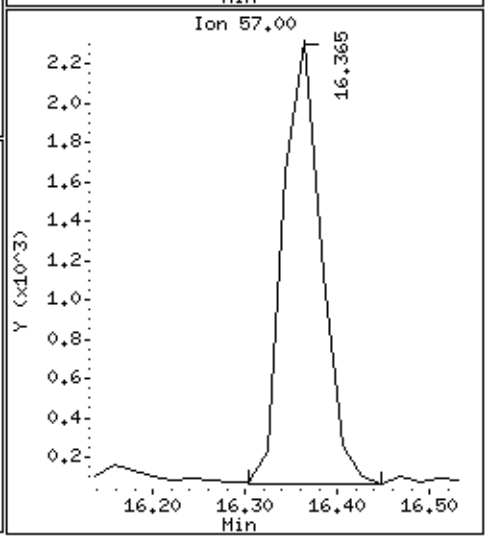












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

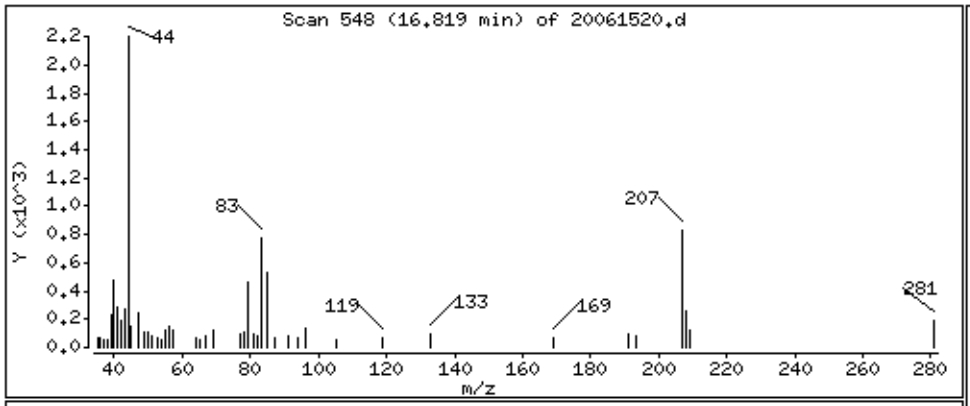
Operator: ef

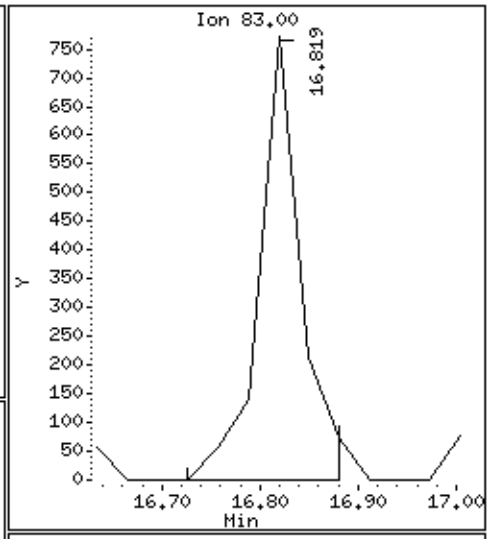
Column phase: RTX-624

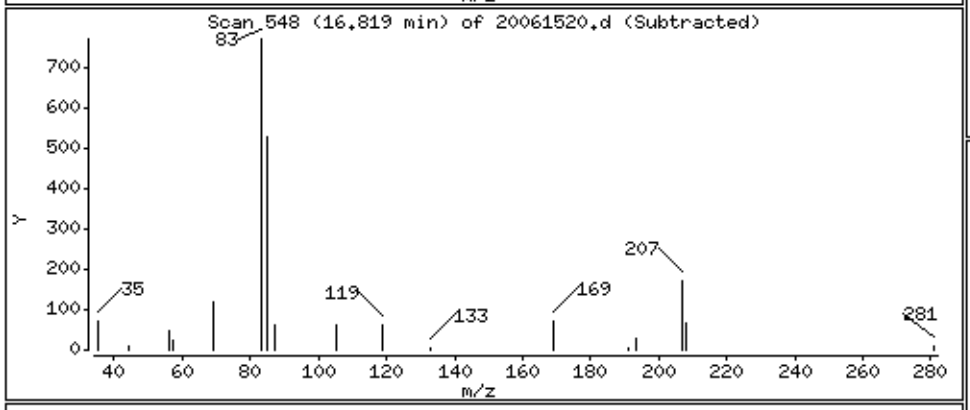
Column diameter: 0.32

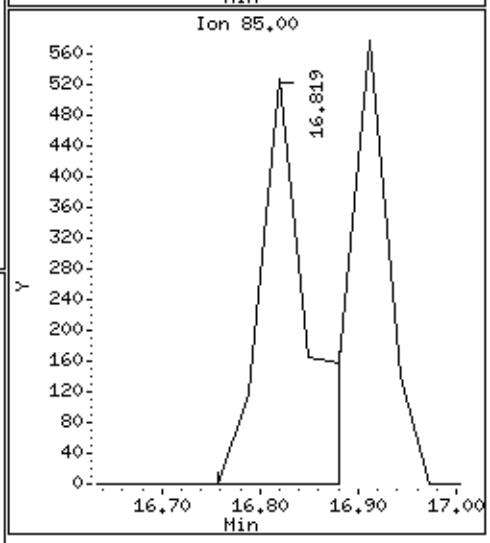
100 Chloroform

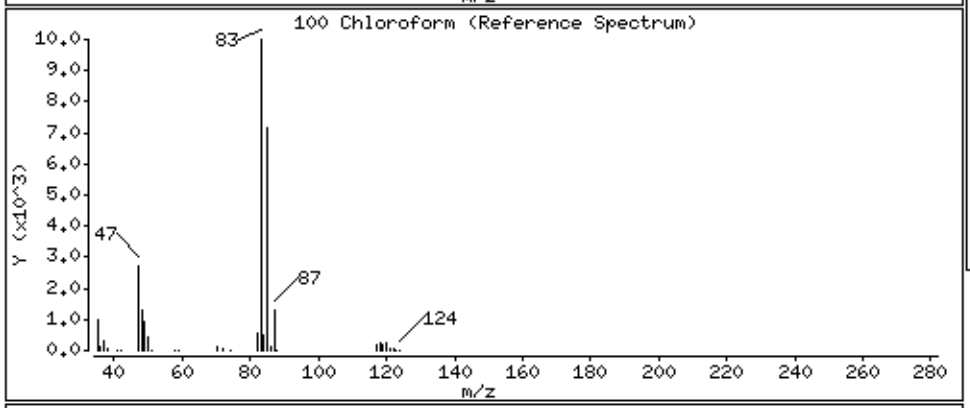
Concentration: 0.05748 PPBV

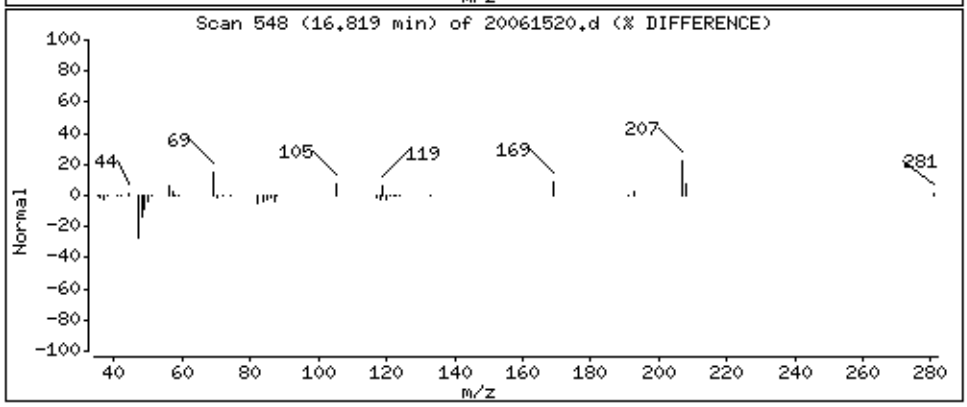












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

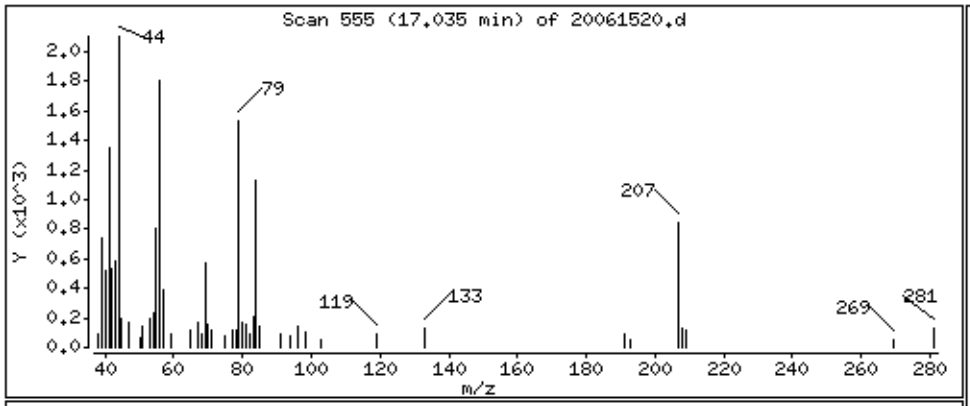
Operator: ef

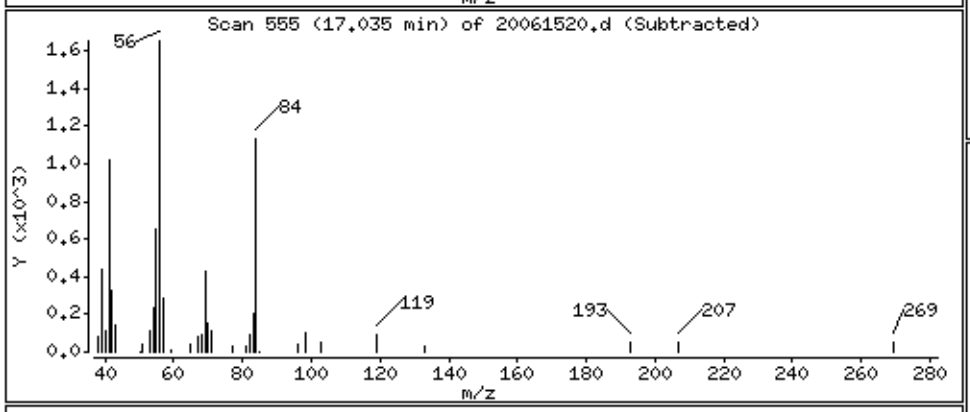
Column phase: RTX-624

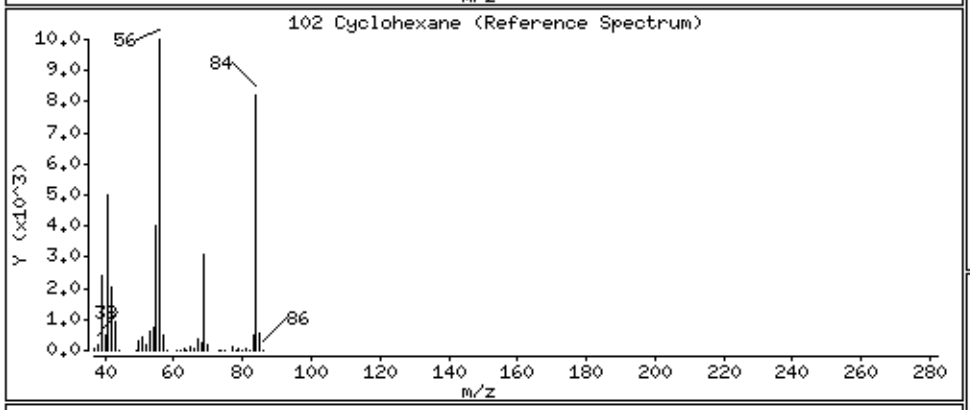
Column diameter: 0.32

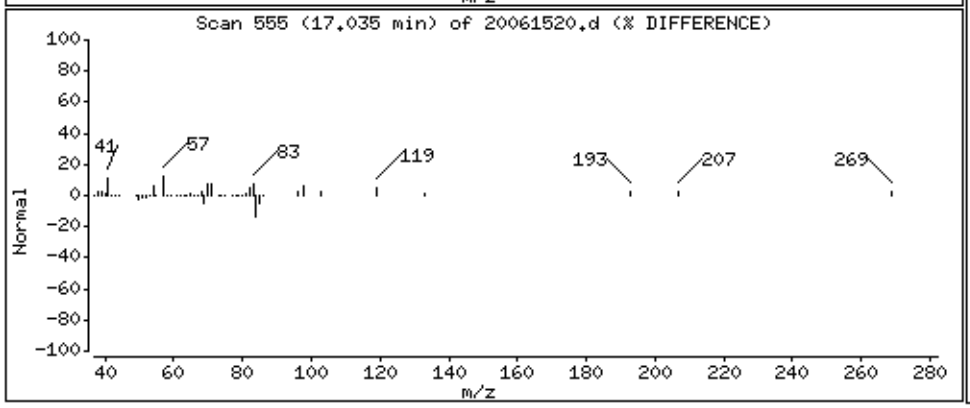
102 Cyclohexane

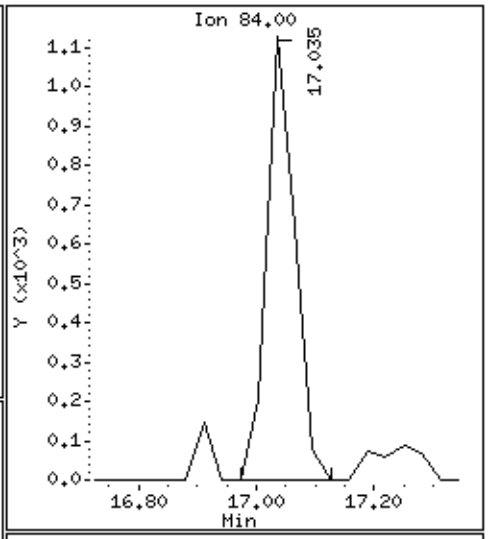
Concentration: 0.1260 PPBV

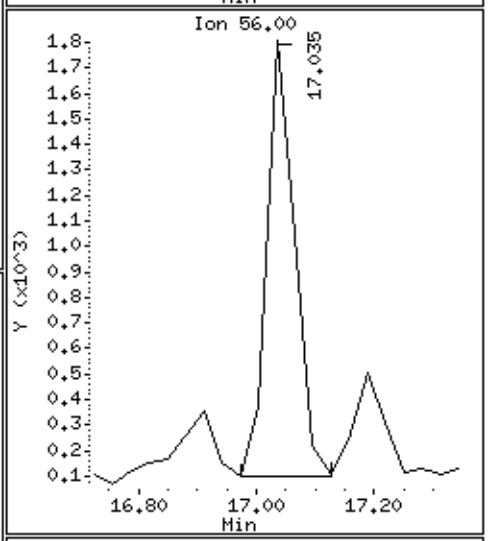


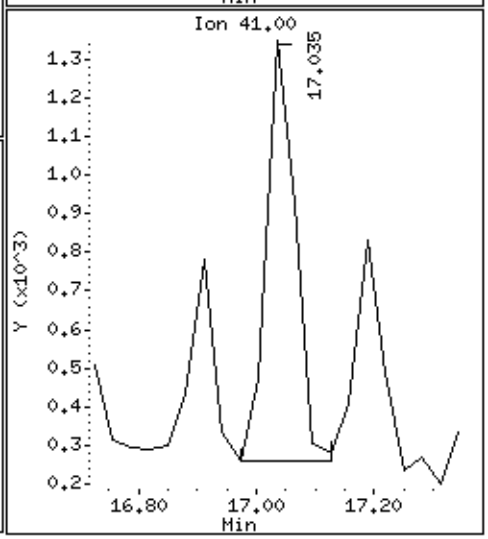












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

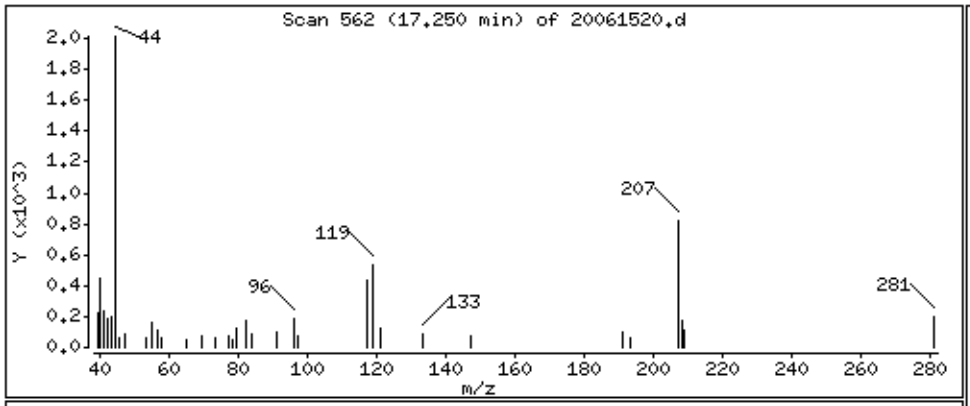
Operator: ef

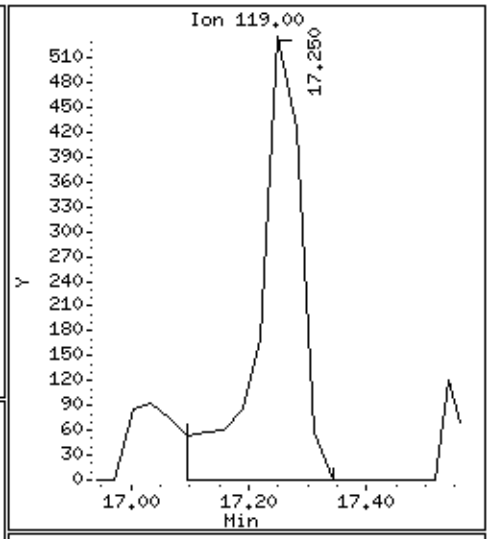
Column phase: RTX-624

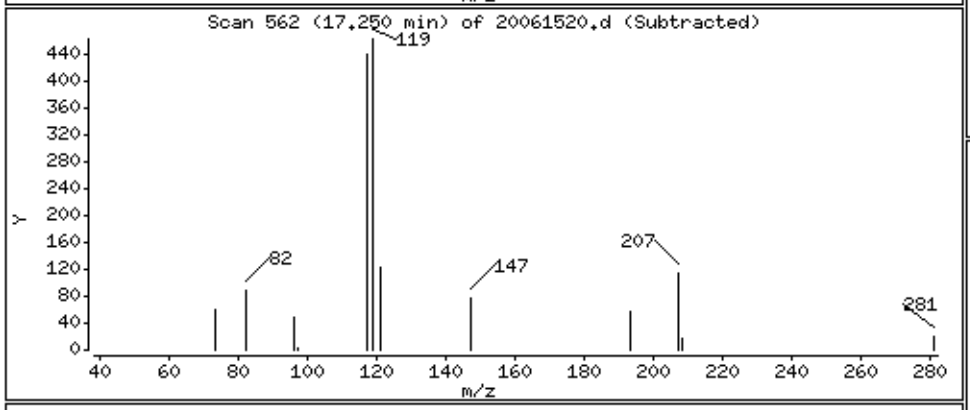
Column diameter: 0.32

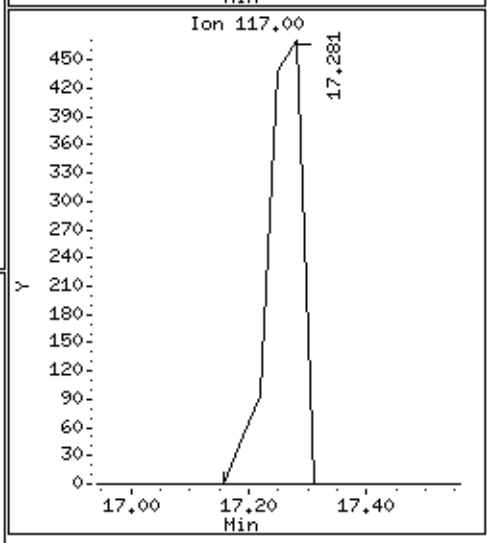
106 Carbon Tetrachloride

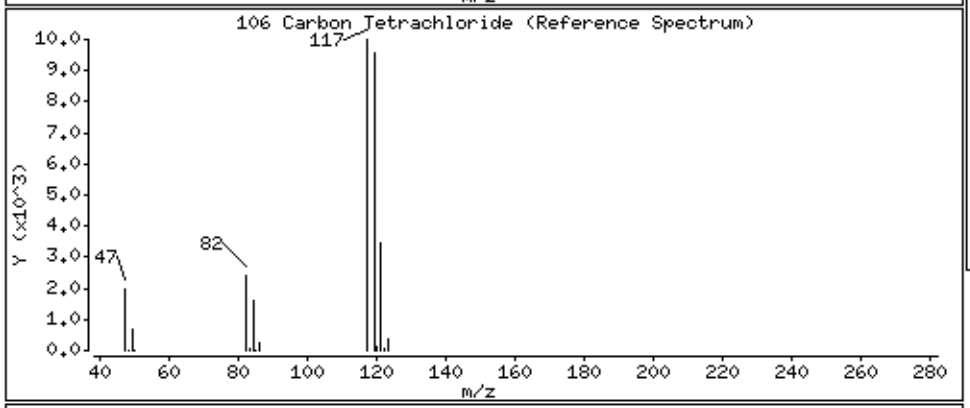
Concentration: 0.07920 PPBV

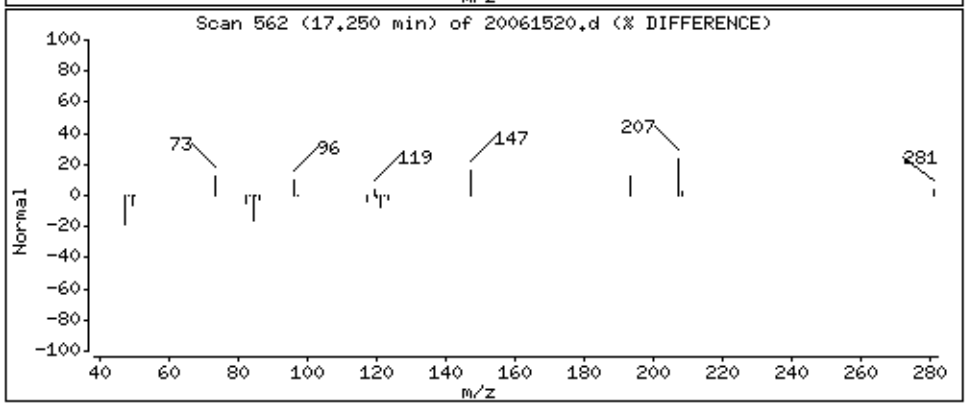












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

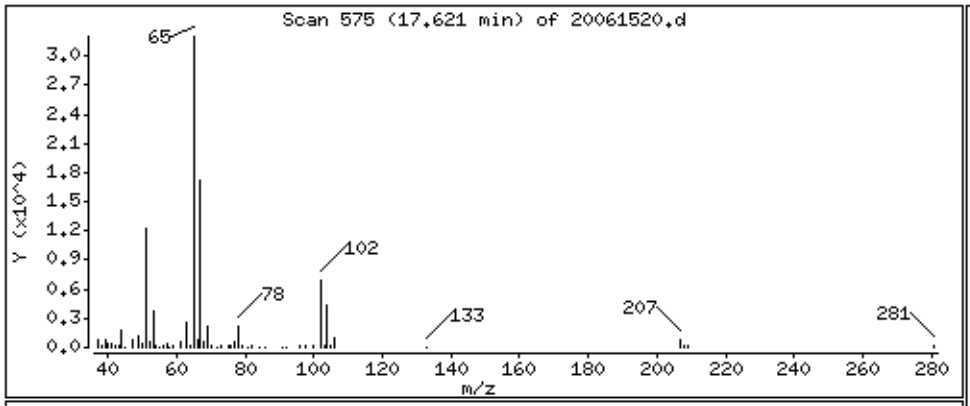
Operator: ef

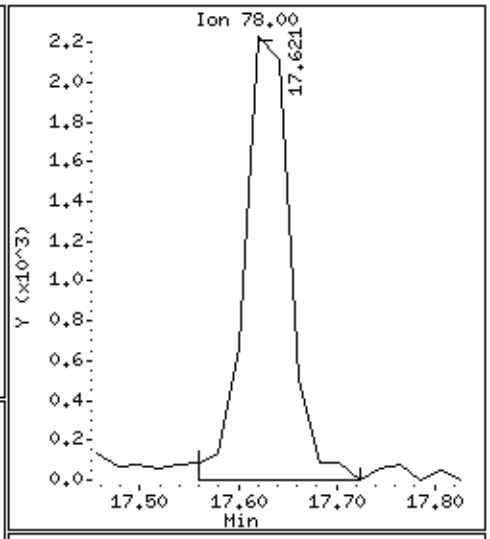
Column phase: RTX-624

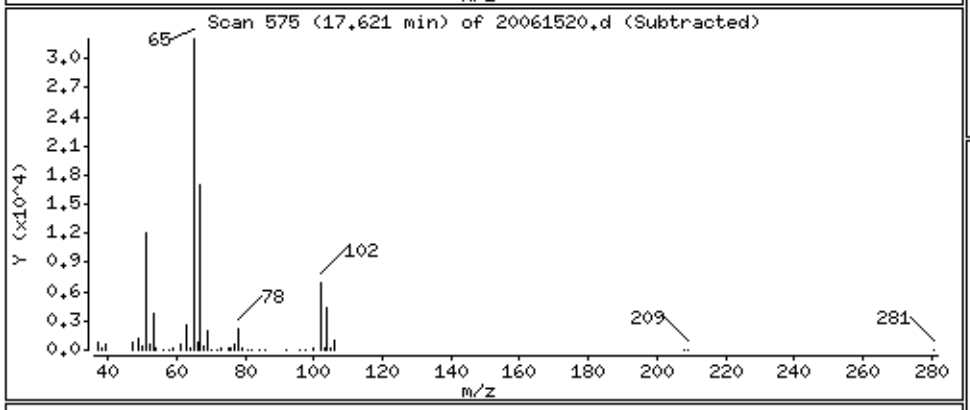
Column diameter: 0.32

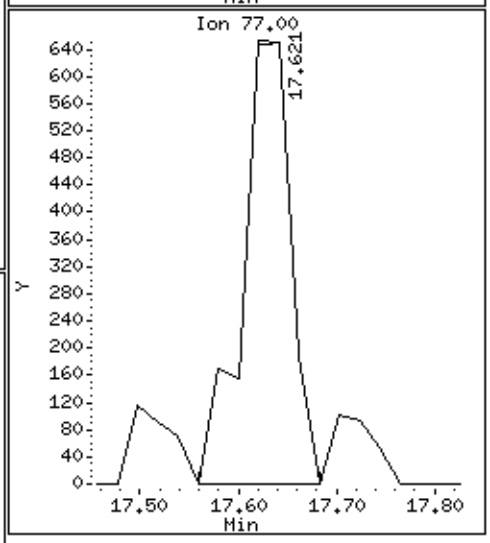
116 Benzene

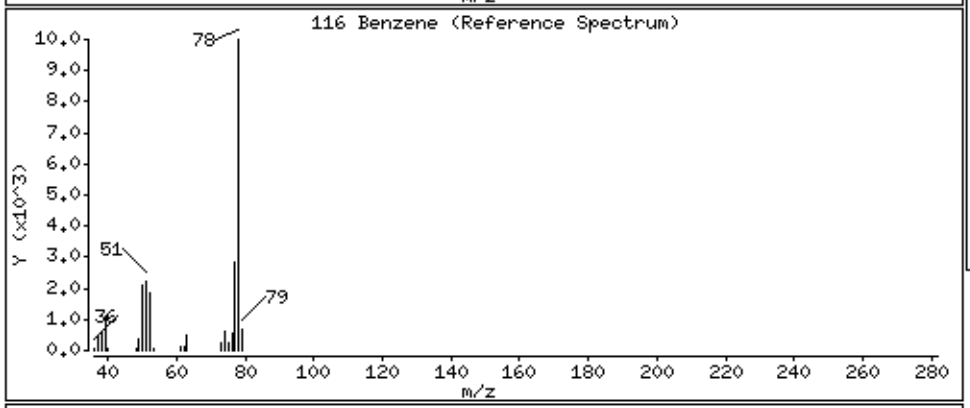
Concentration: 0.1084 PPBV

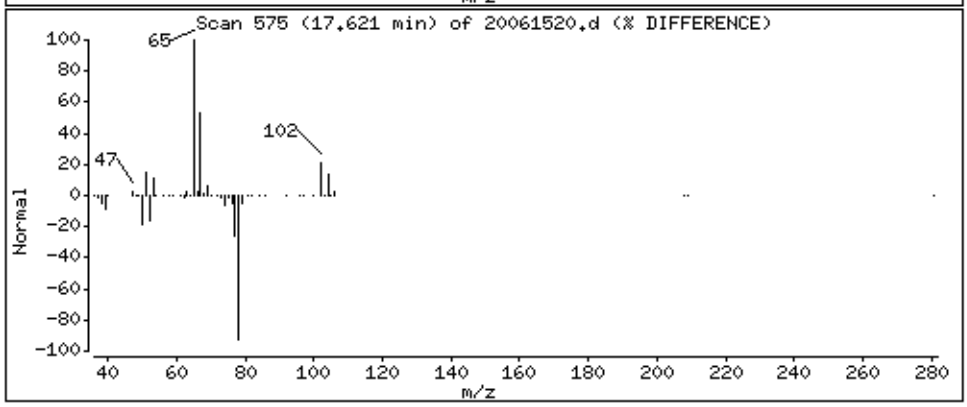












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

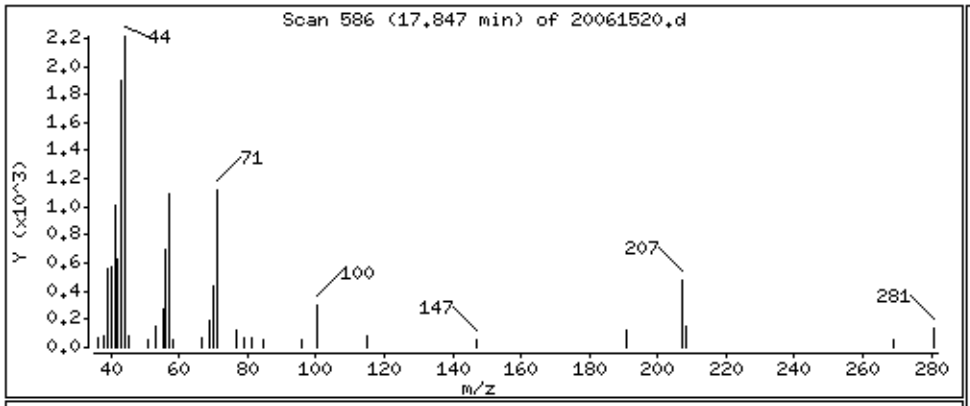
Operator: ef

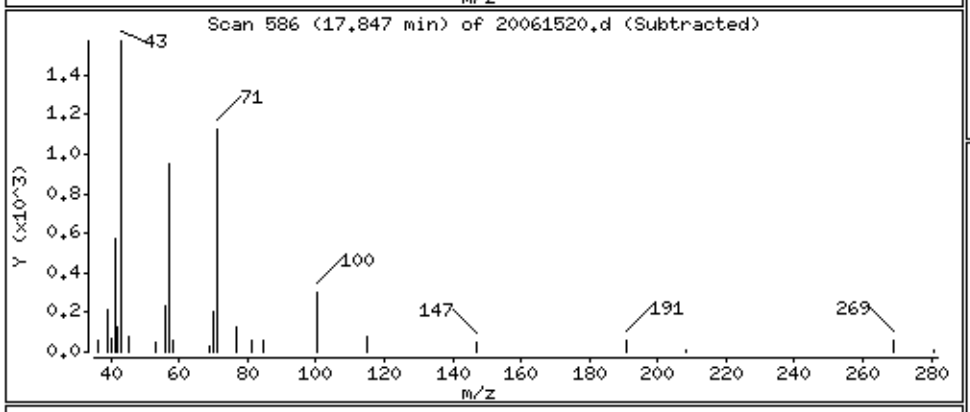
Column phase: RTX-624

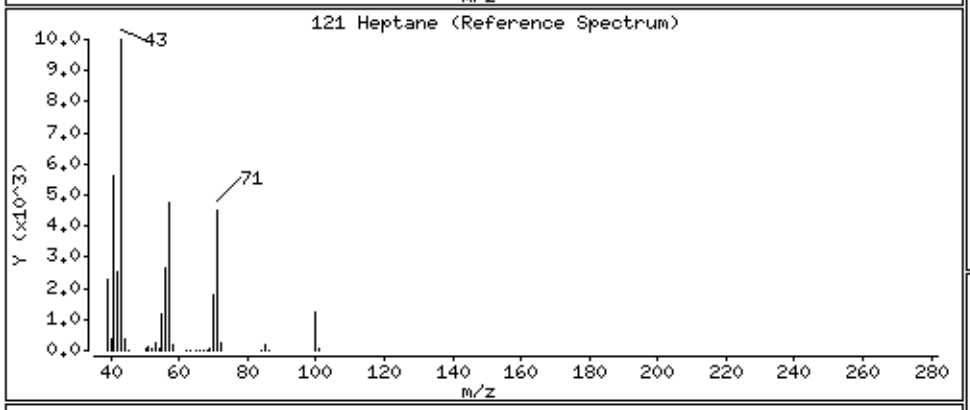
Column diameter: 0.32

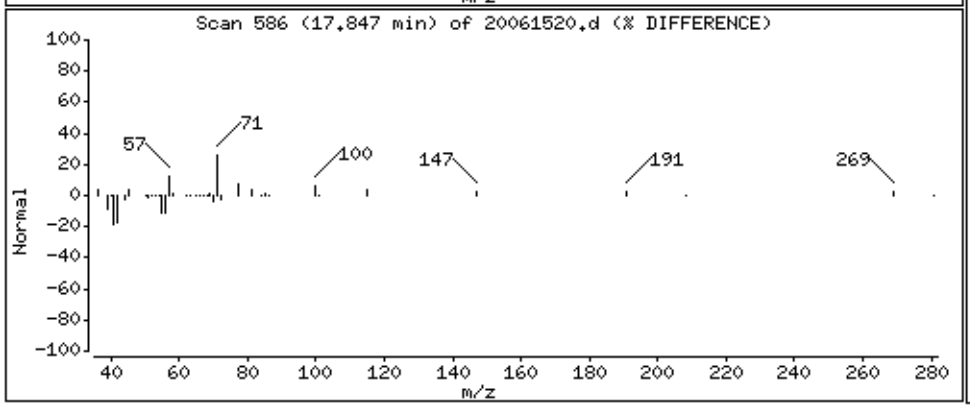
121 Heptane

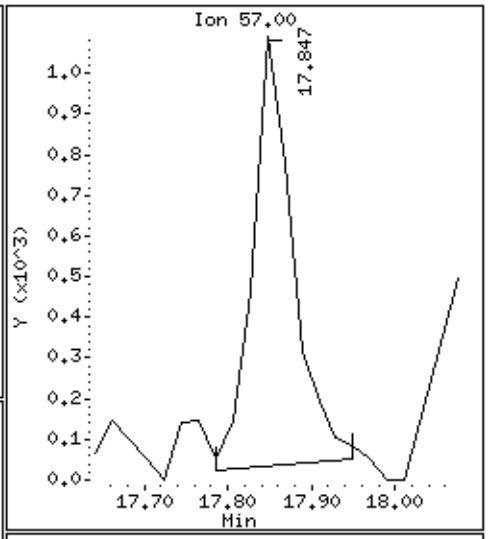
Concentration: 0.1887 PPBV

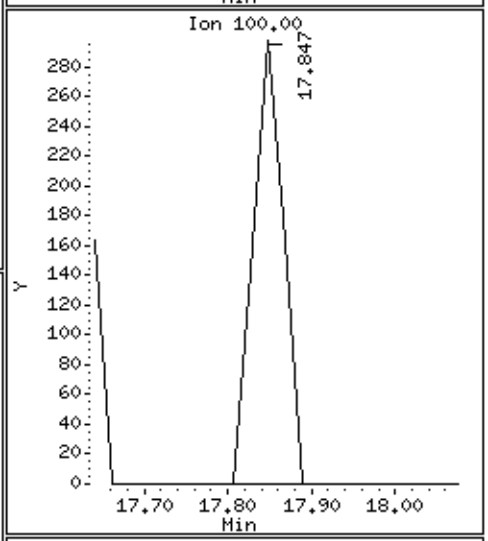


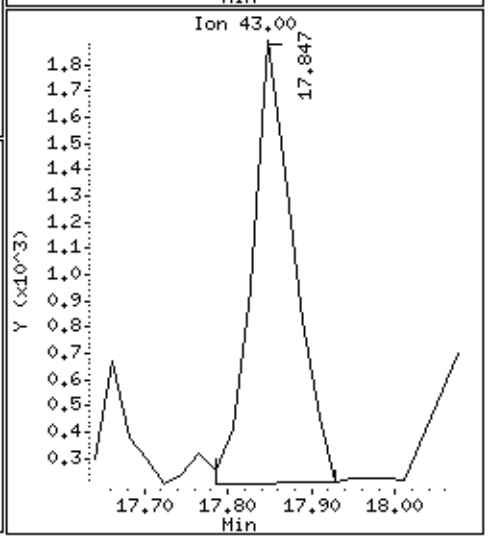












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

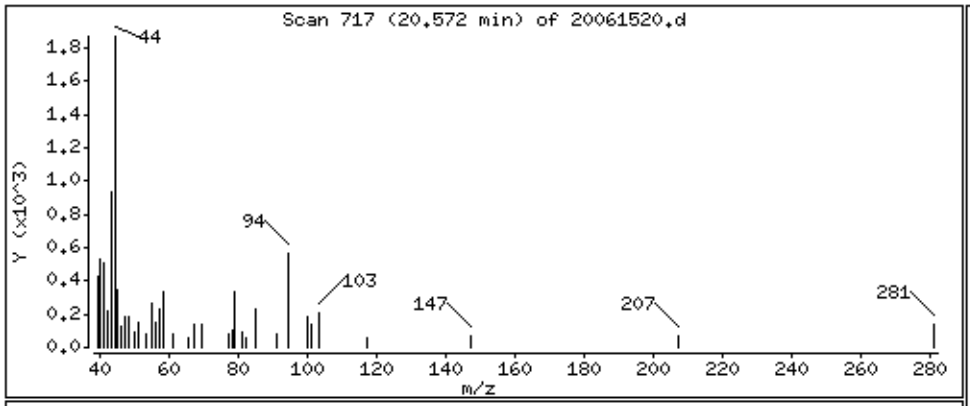
Operator: ef

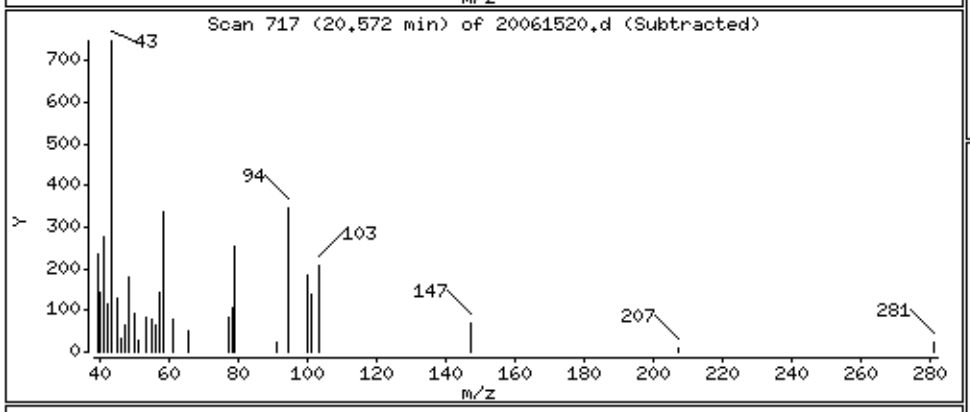
Column phase: RTX-624

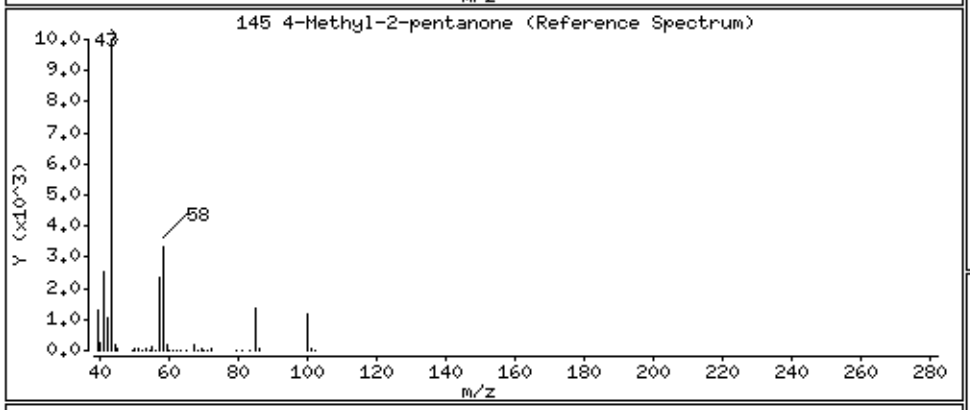
Column diameter: 0.32

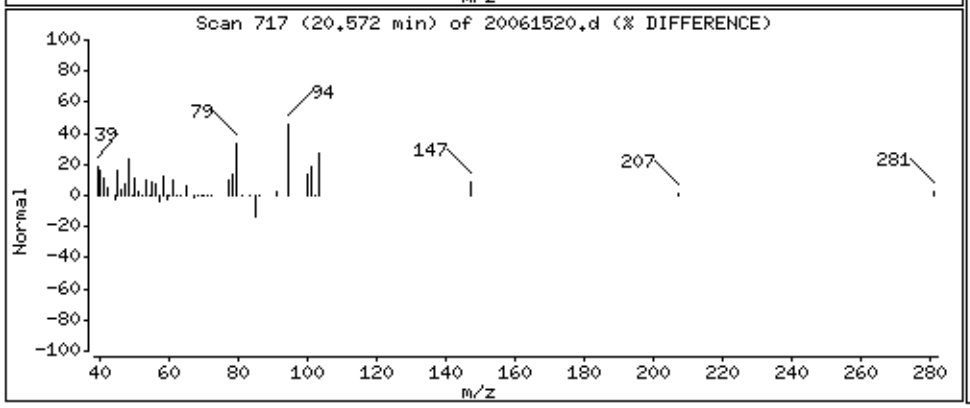
145 4-Methyl-2-pentanone

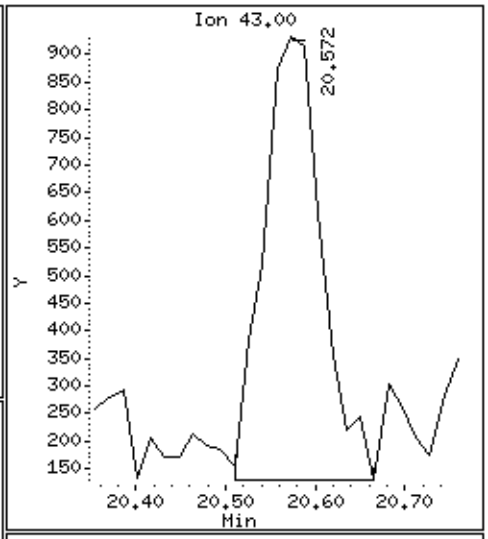
Concentration: 0.07674 PPBV

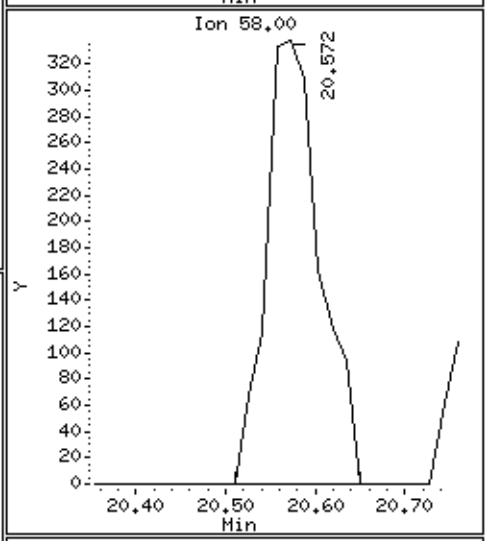


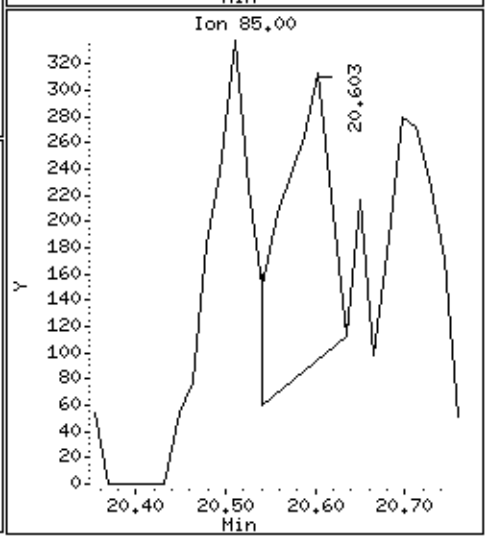












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

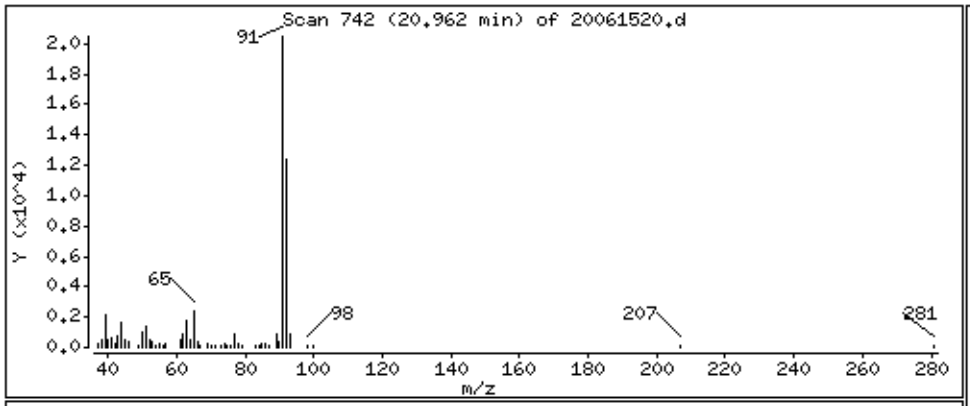
Operator: ef

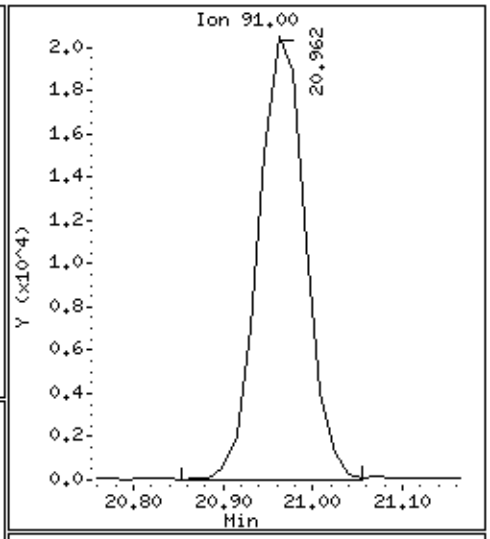
Column phase: RTX-624

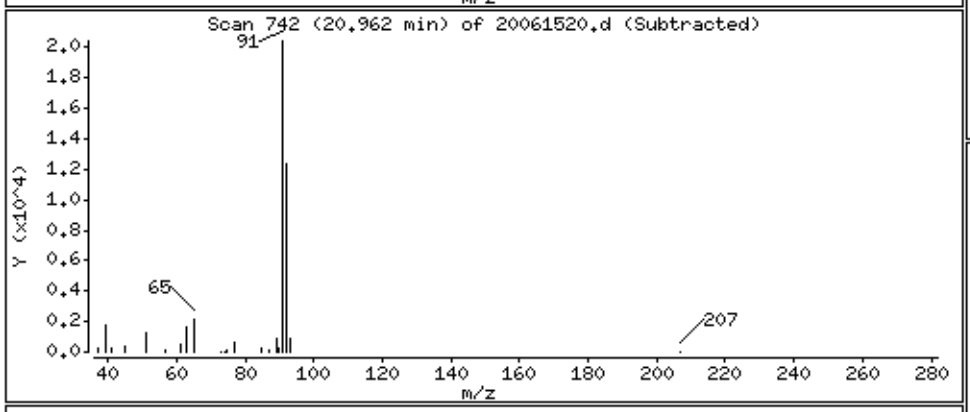
Column diameter: 0.32

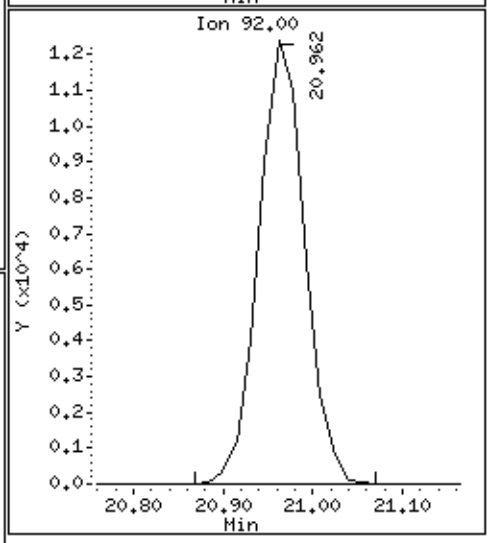
147 Toluene

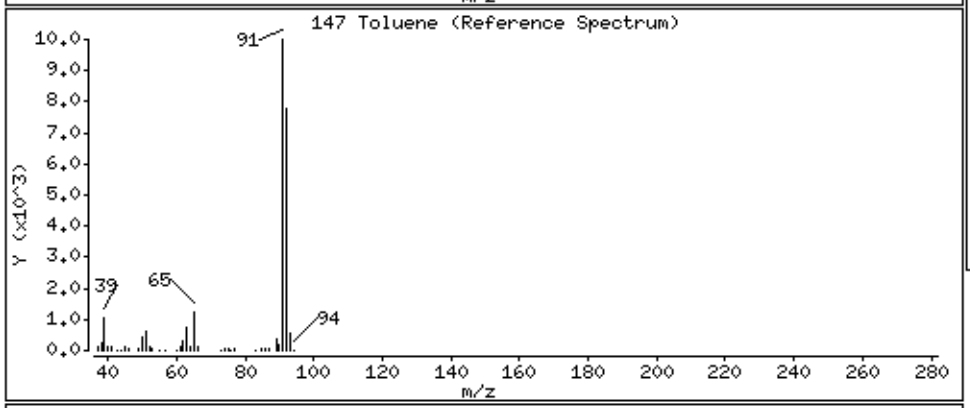
Concentration: 0.9824 PPBV

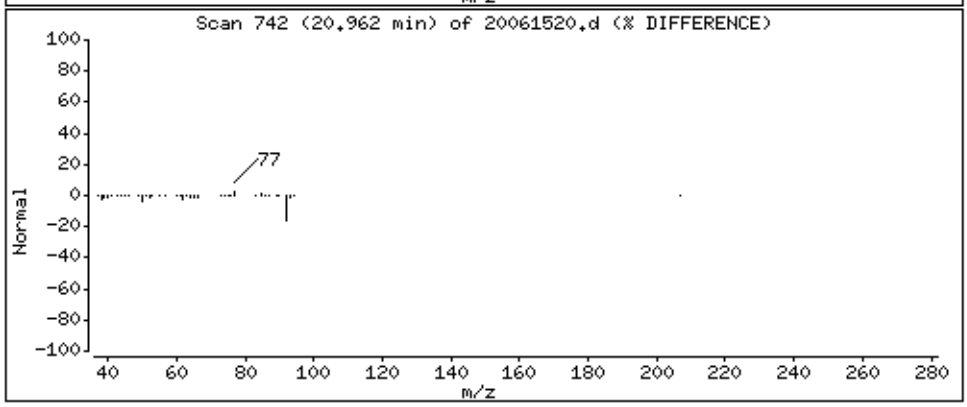












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

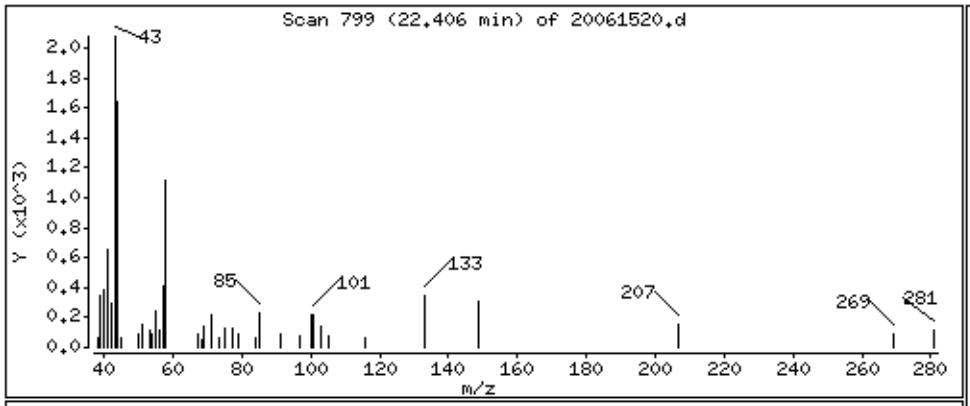
Operator: ef

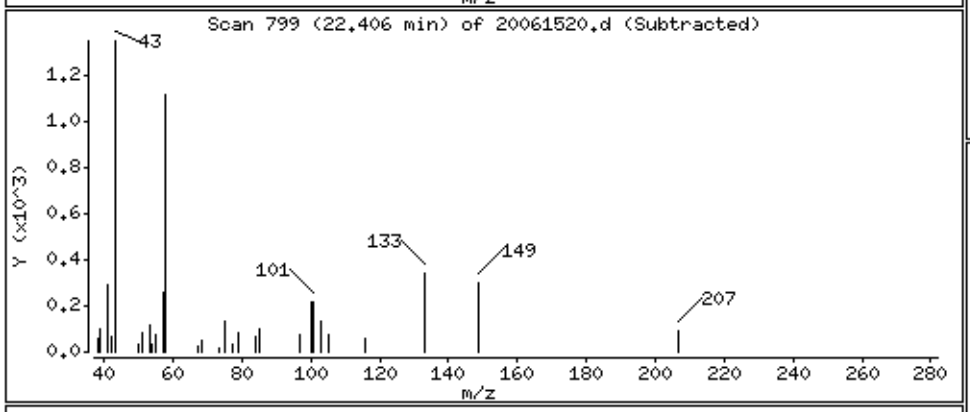
Column phase: RTX-624

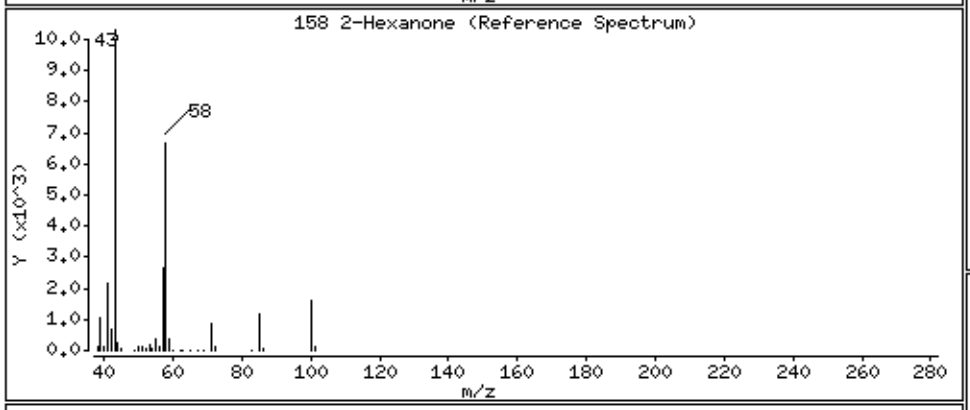
Column diameter: 0.32

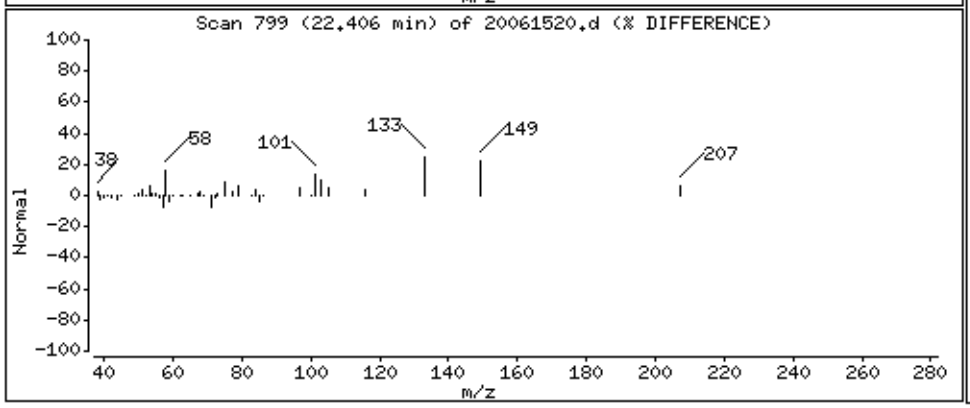
158 2-Hexanone

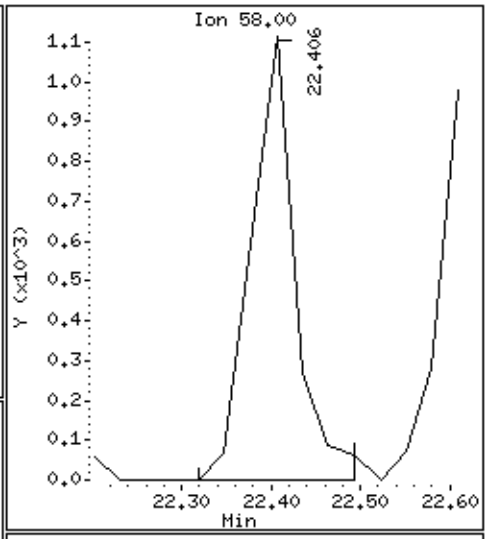
Concentration: 0.1527 PPBV

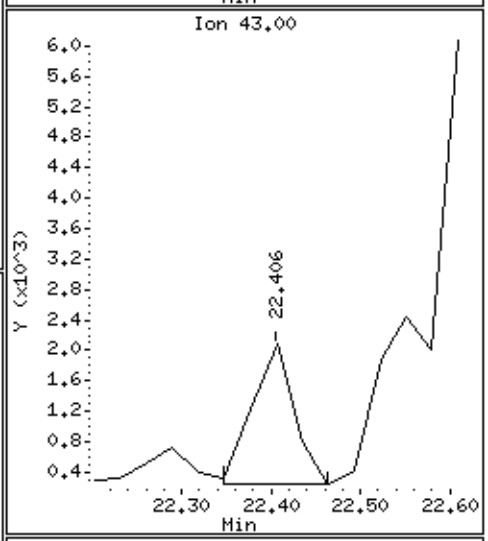


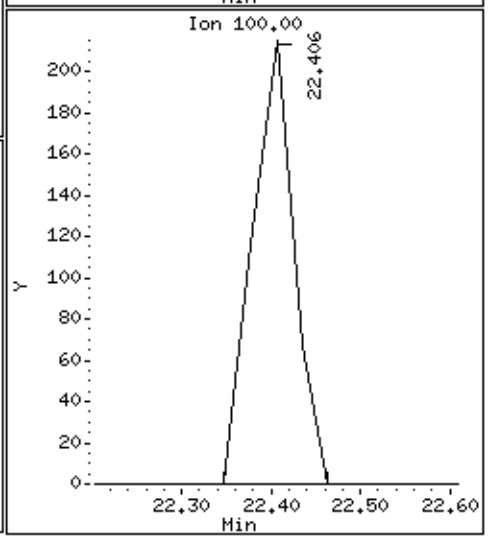












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

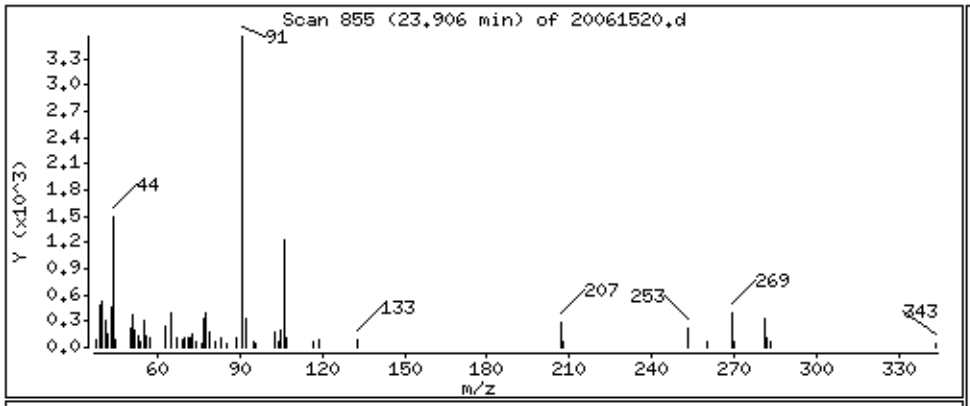
Operator: ef

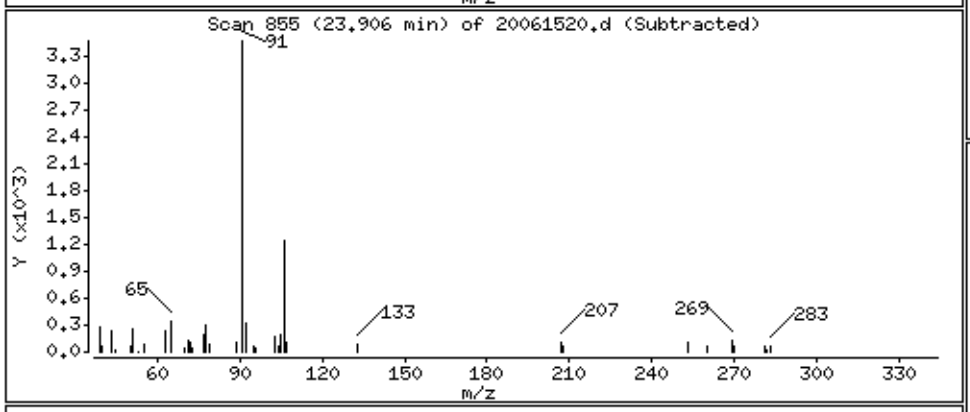
Column phase: RTX-624

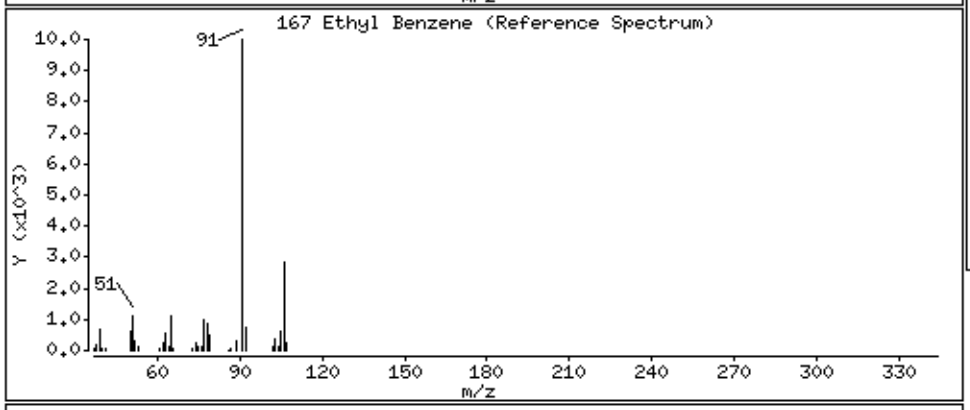
Column diameter: 0.32

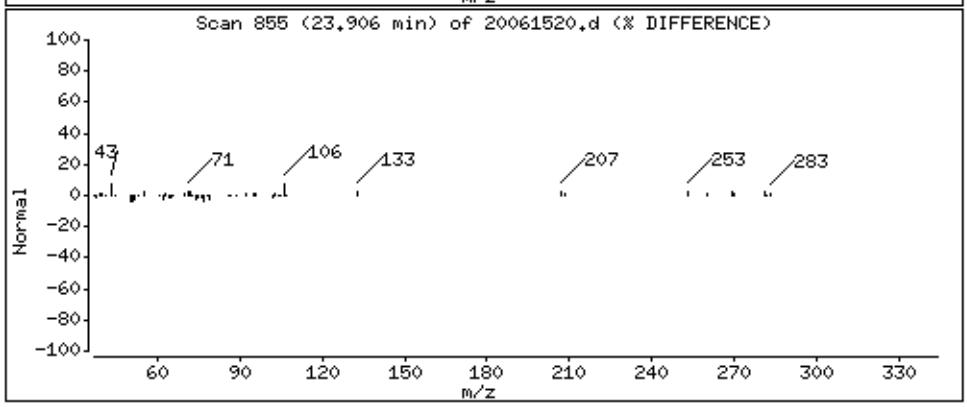
167 Ethyl Benzene

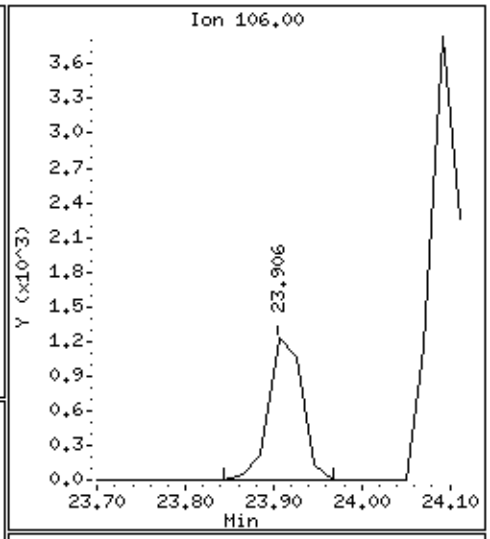
Concentration: 0.1114 PPBV

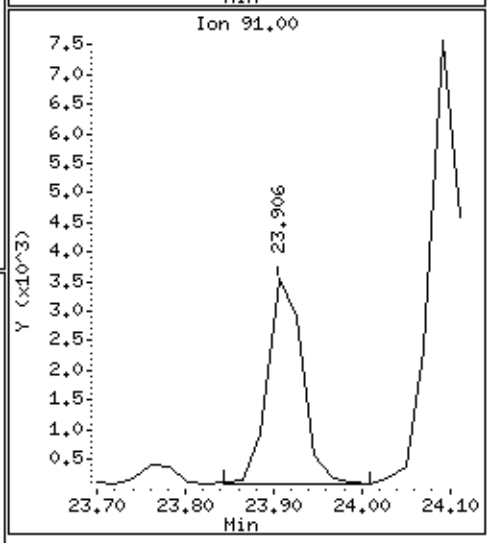












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

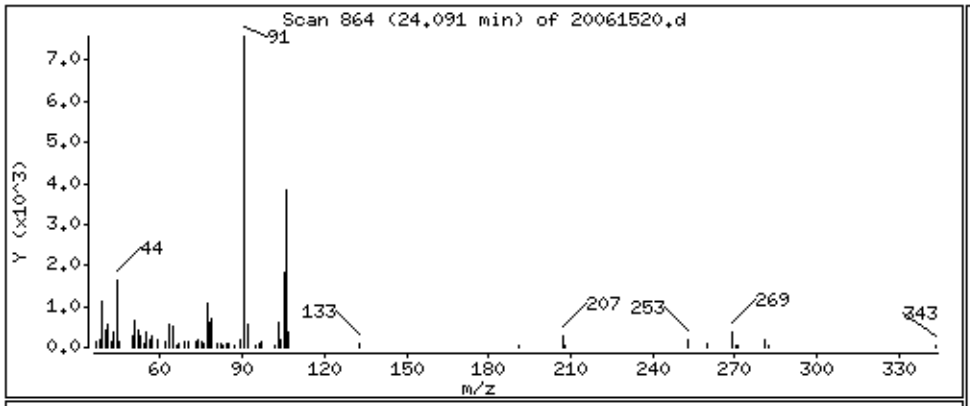
Operator: ef

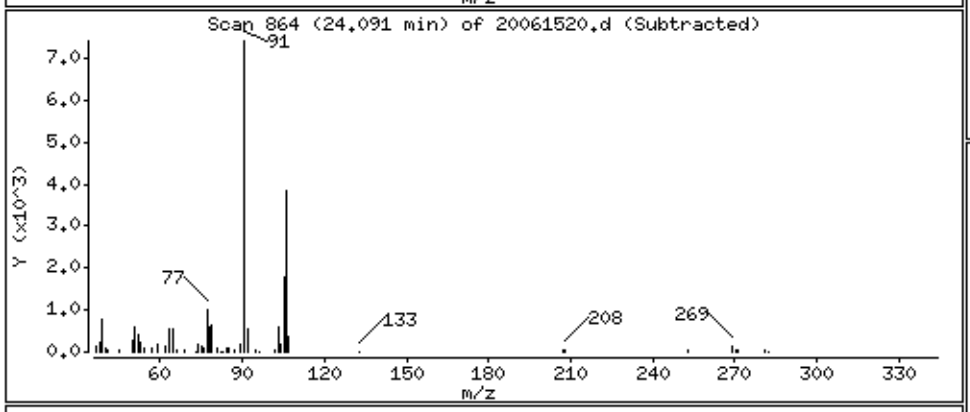
Column phase: RTX-624

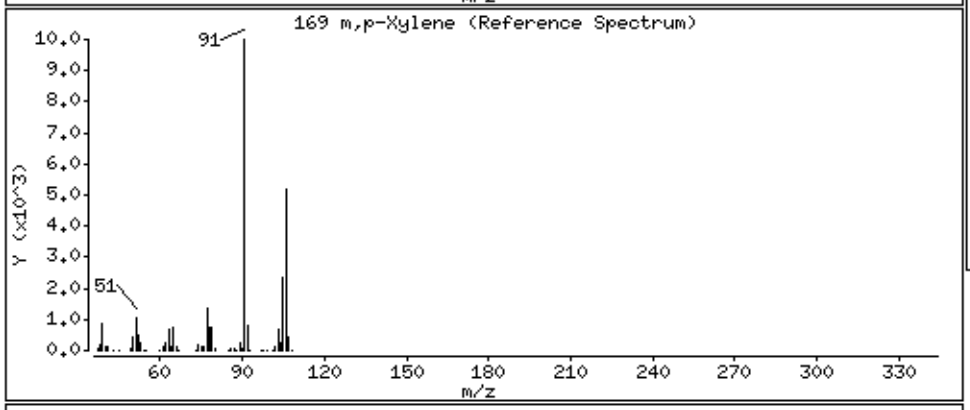
Column diameter: 0.32

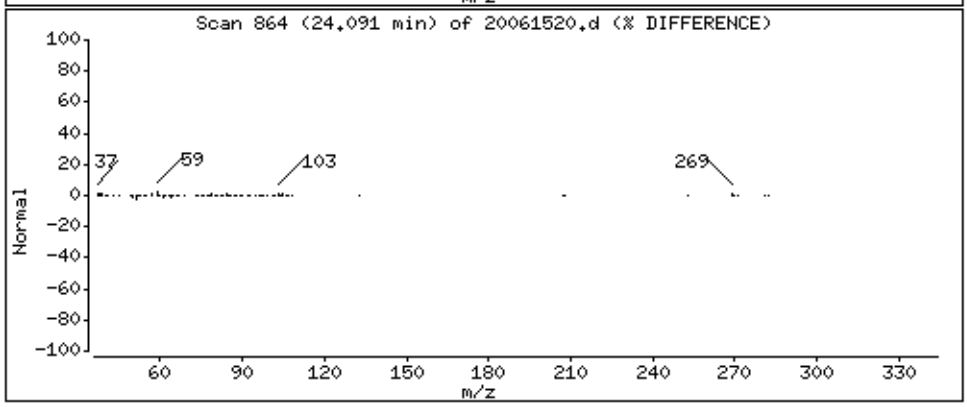
169 m,p-Xylene

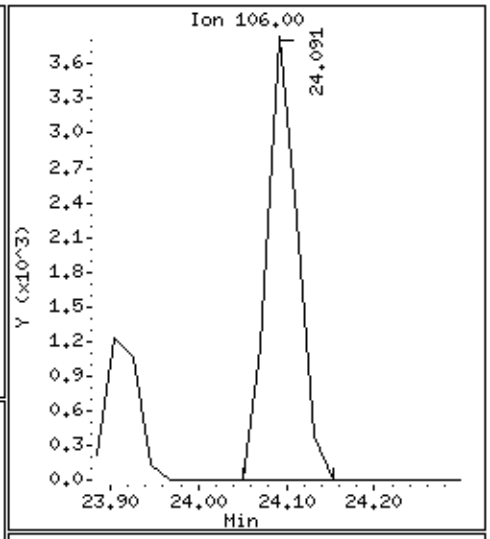
Concentration: 0.2879 PPBV

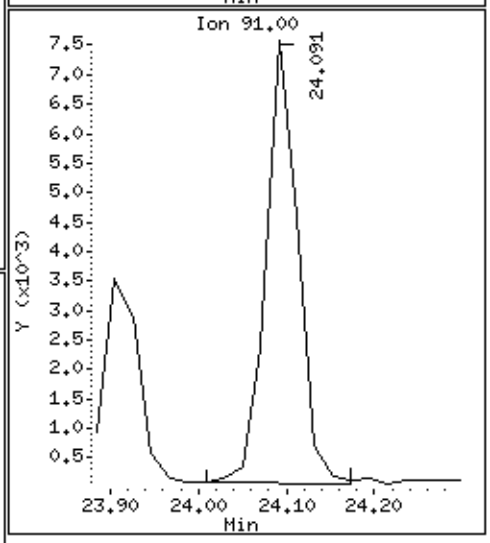












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

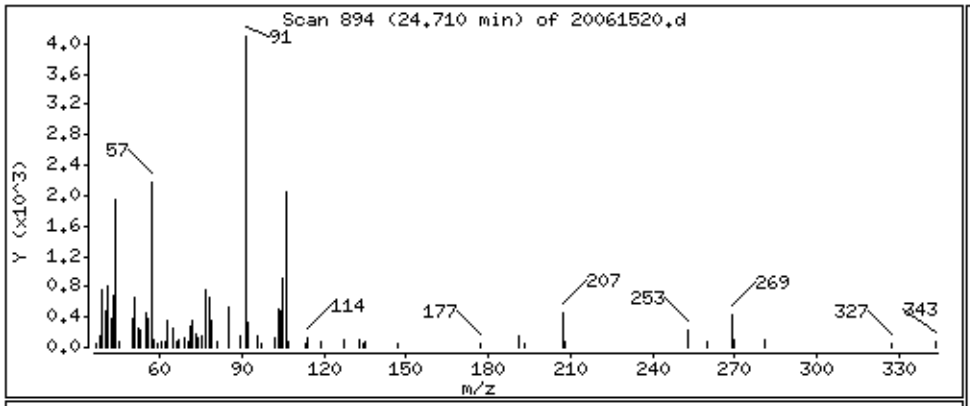
Operator: ef

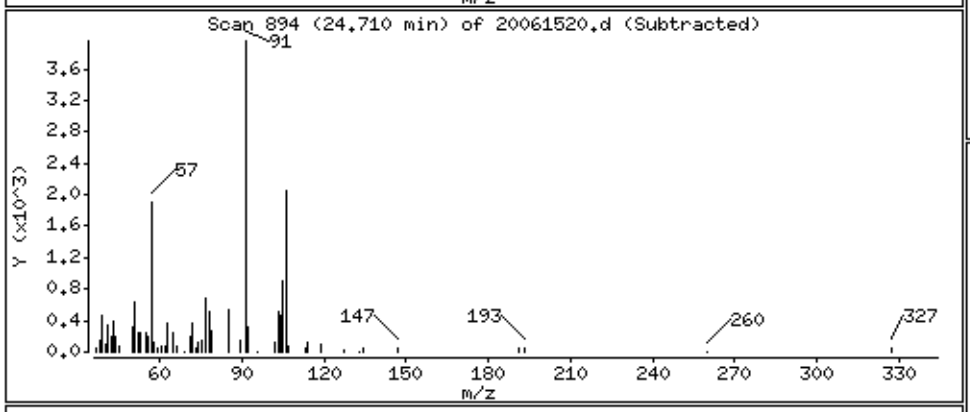
Column phase: RTX-624

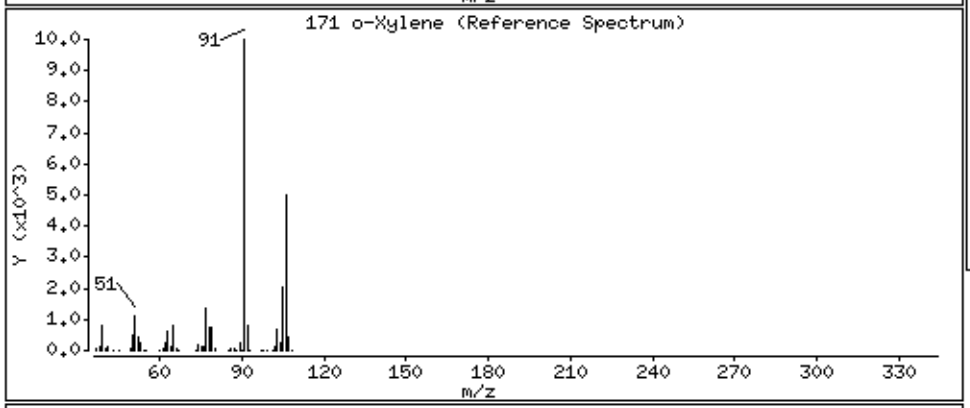
Column diameter: 0.32

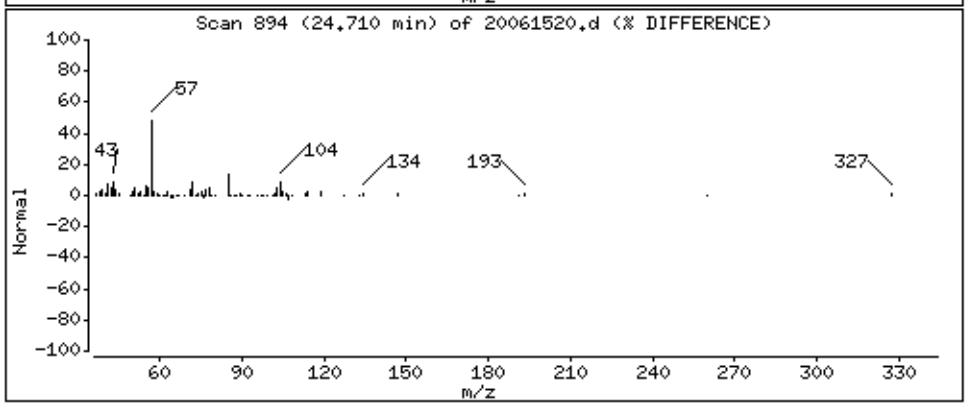
171 o-Xylene

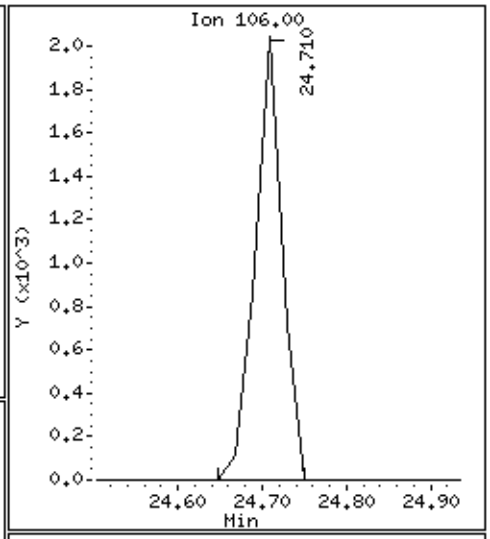
Concentration: 0.1440 PPBV

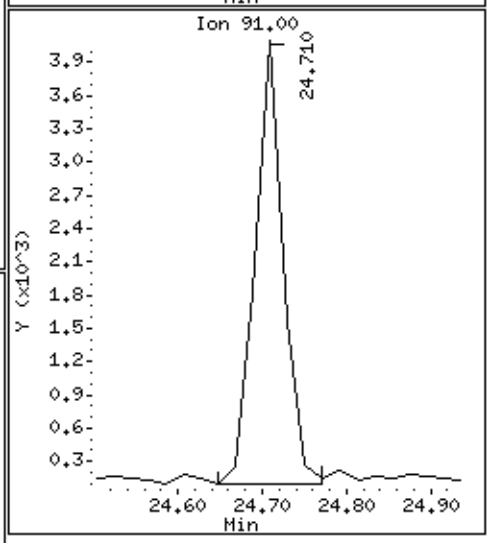












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

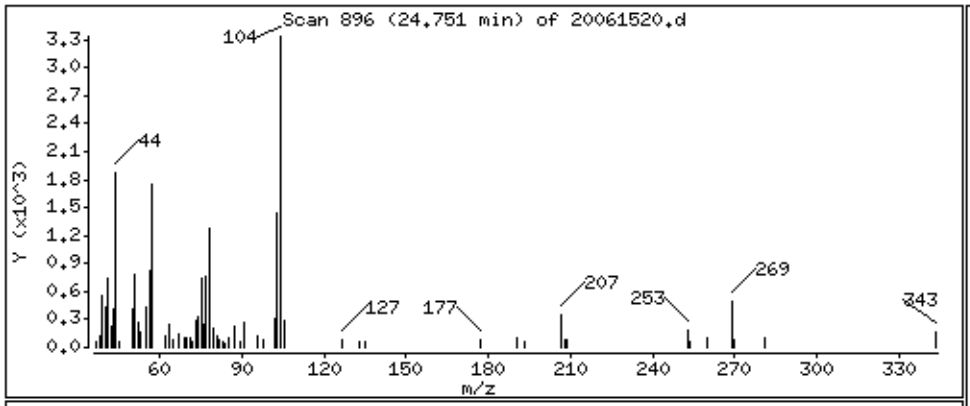
Operator: ef

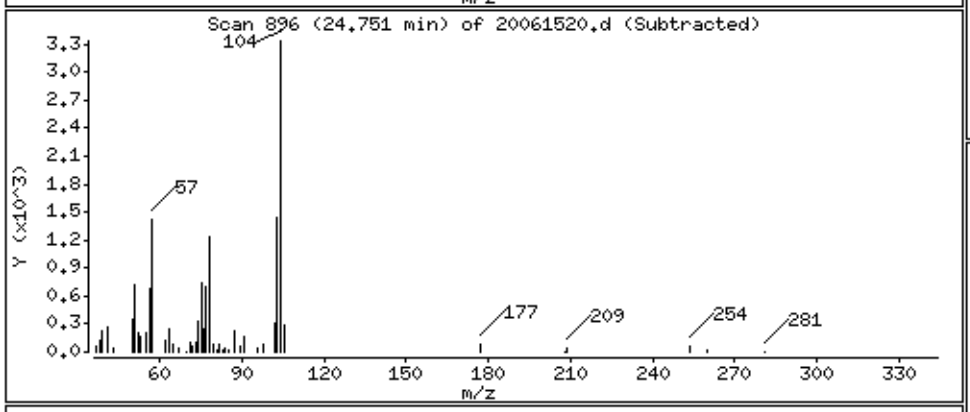
Column phase: RTX-624

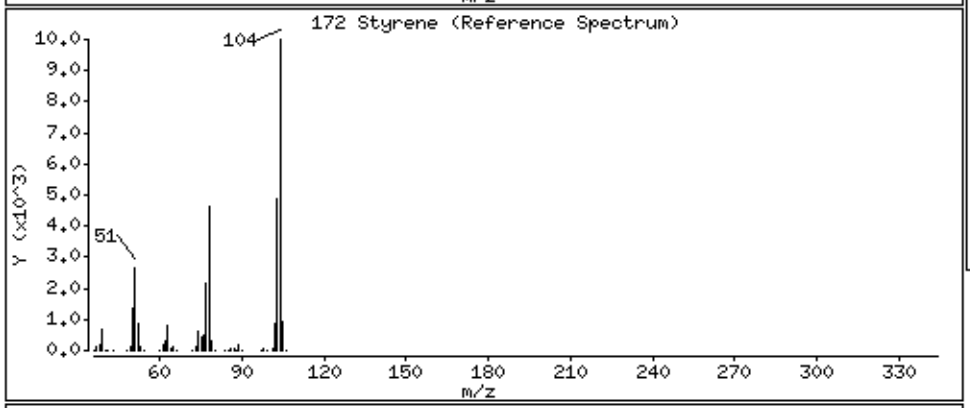
Column diameter: 0.32

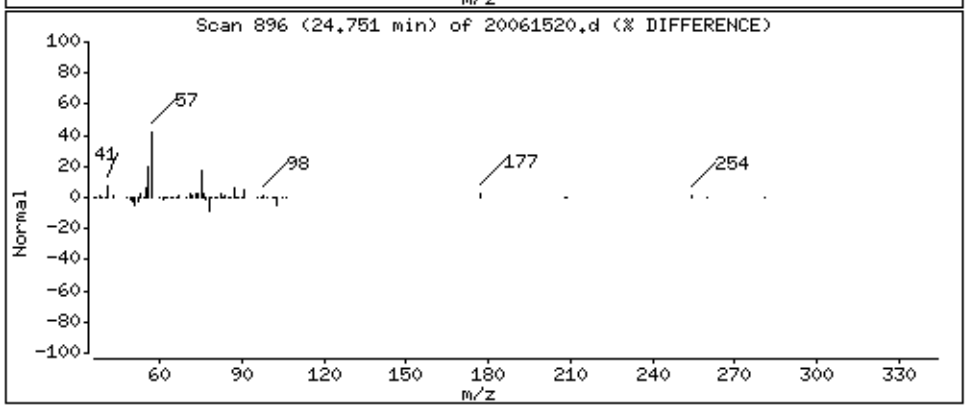
172 Styrene

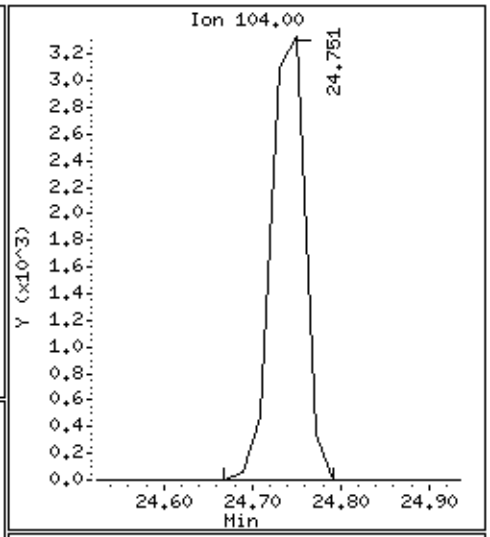
Concentration: 0.1835 PPBV

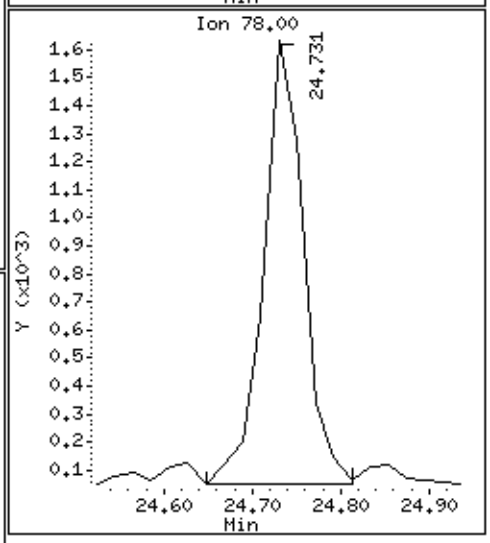












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

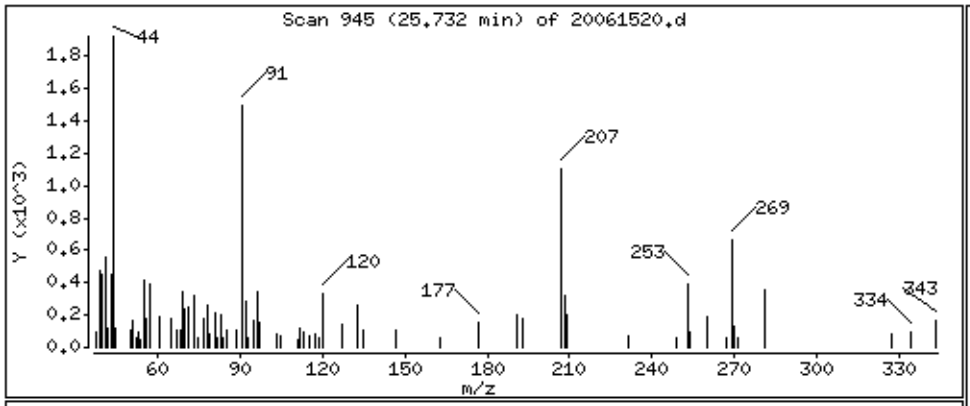
Operator: ef

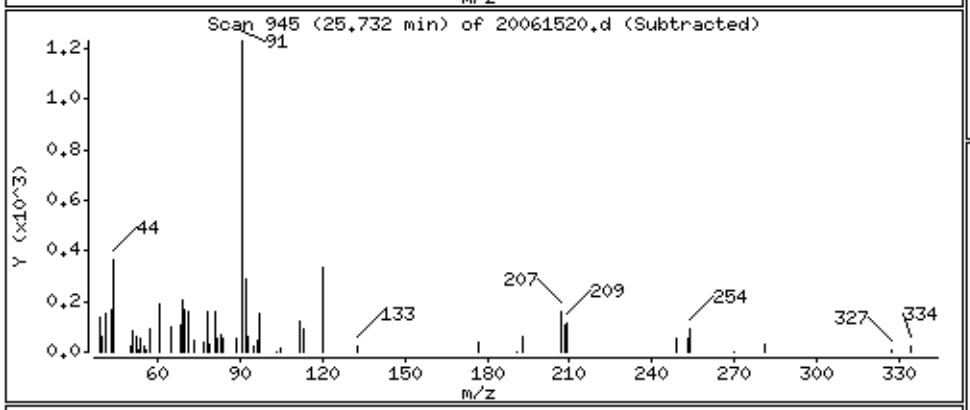
Column phase: RTX-624

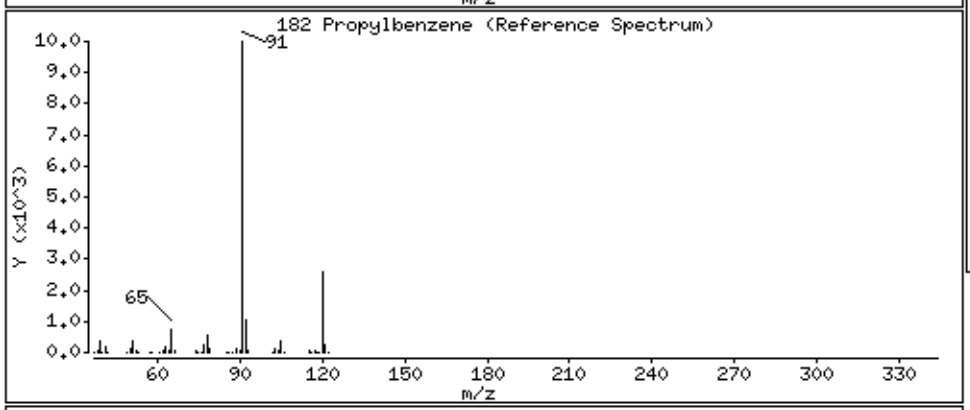
Column diameter: 0.32

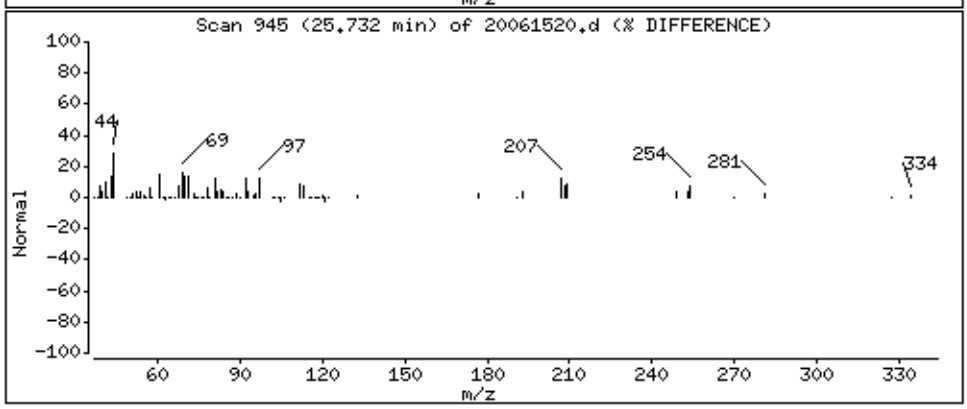
182 Propylbenzene

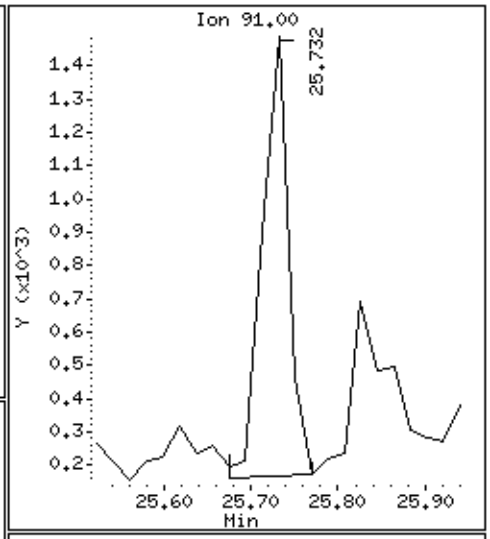
Concentration: 0.02884 PPBV

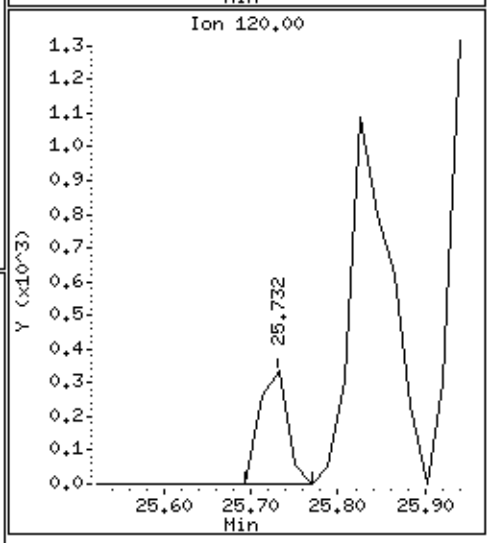












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

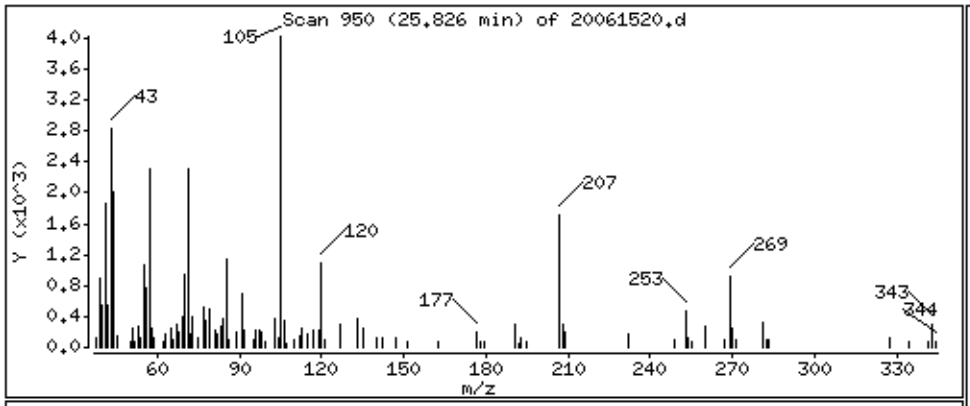
Operator: ef

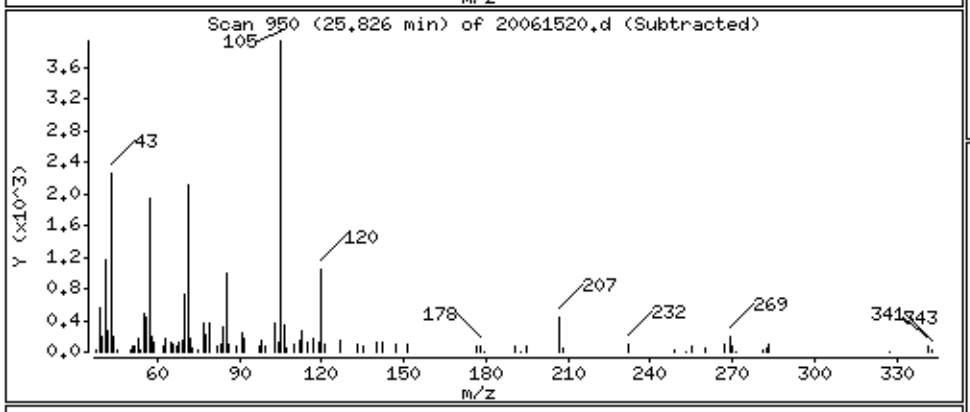
Column phase: RTX-624

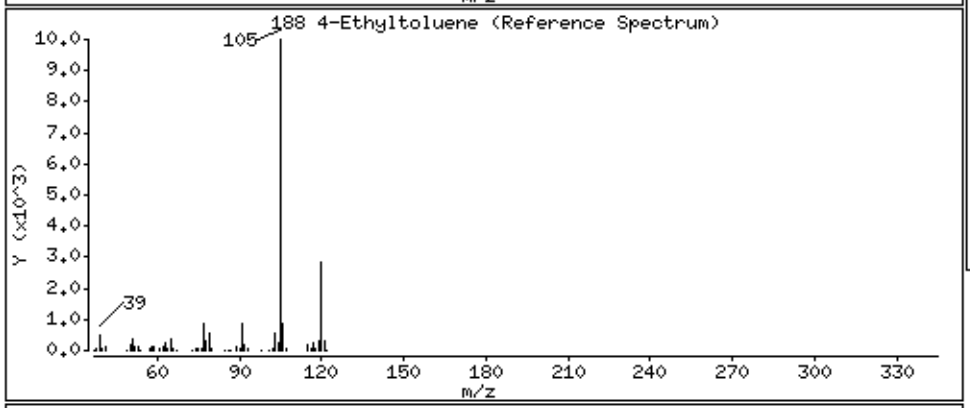
Column diameter: 0.32

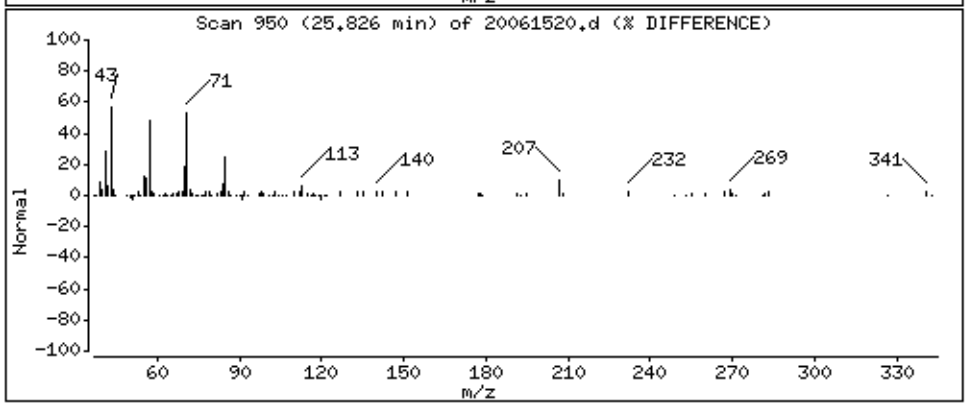
188 4-Ethyltoluene

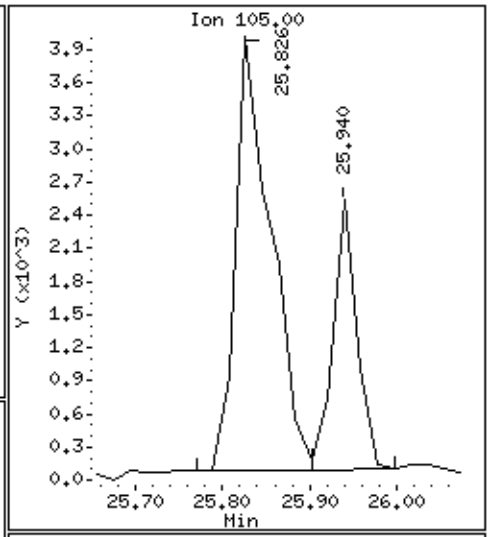
Concentration: 0.1348 PPBV

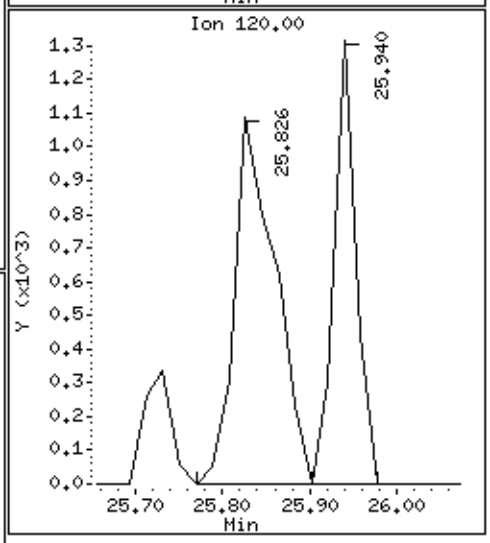












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

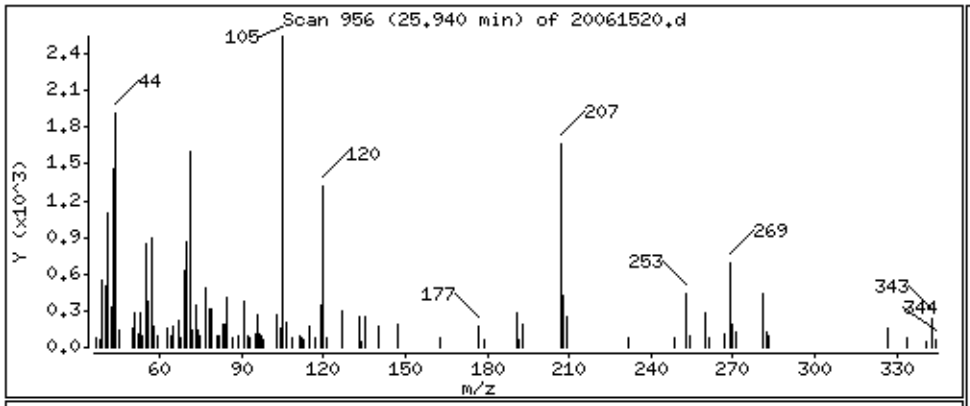
Operator: ef

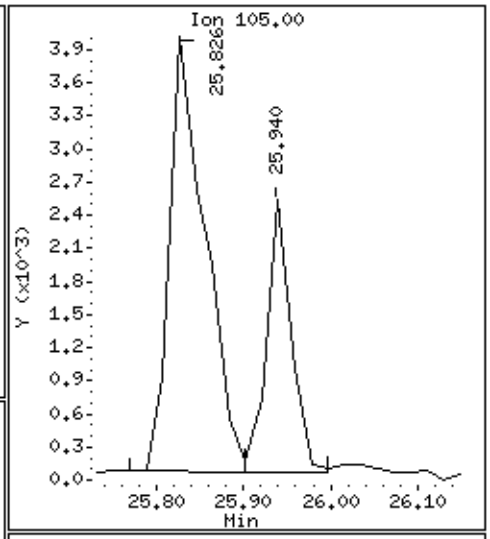
Column phase: RTX-624

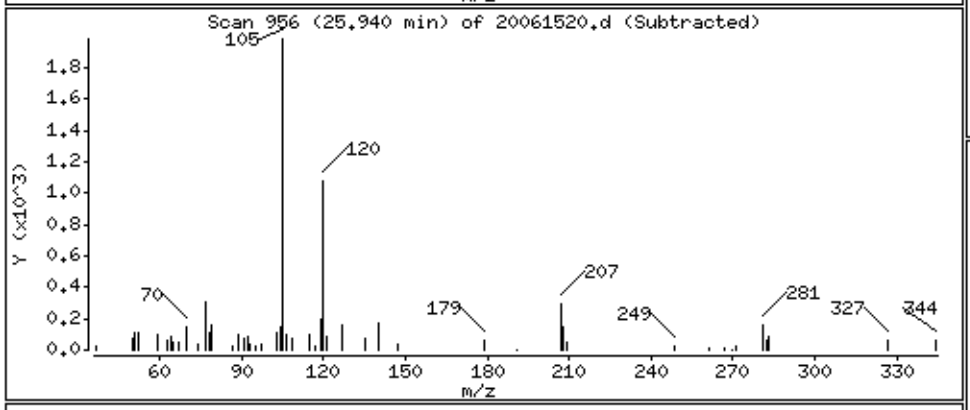
Column diameter: 0.32

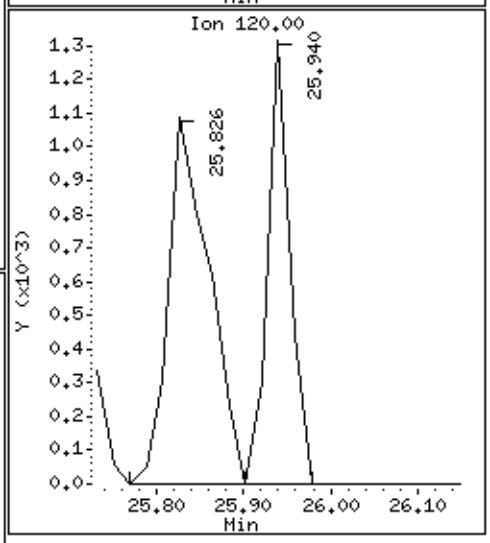
190 1,3,5-Trimethylbenzene

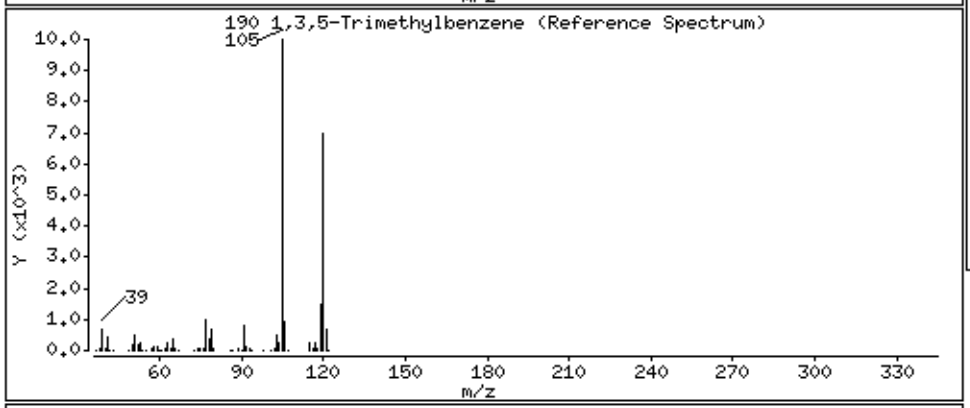
Concentration: 0.06603 PPBV

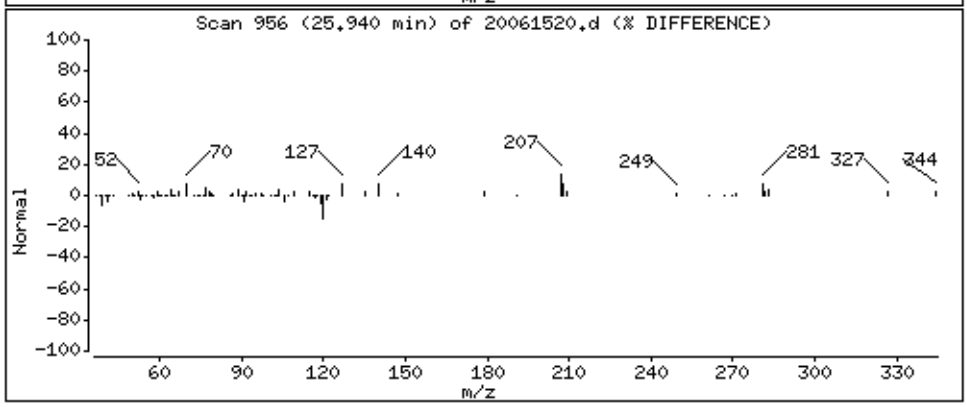












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

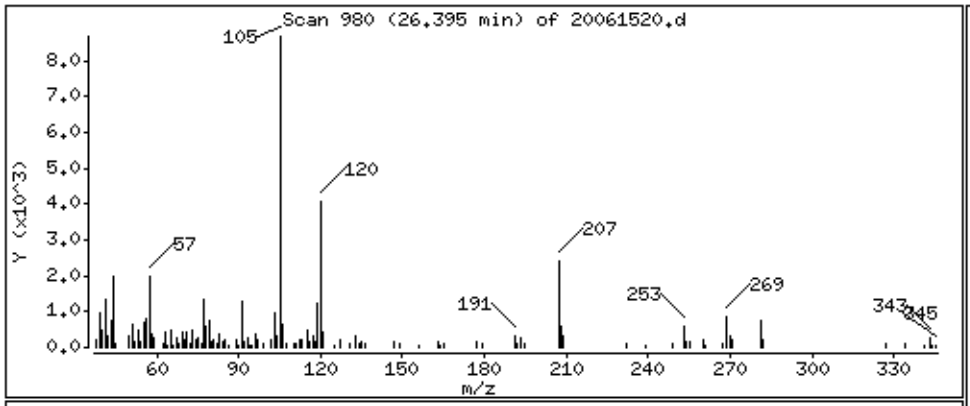
Operator: ef

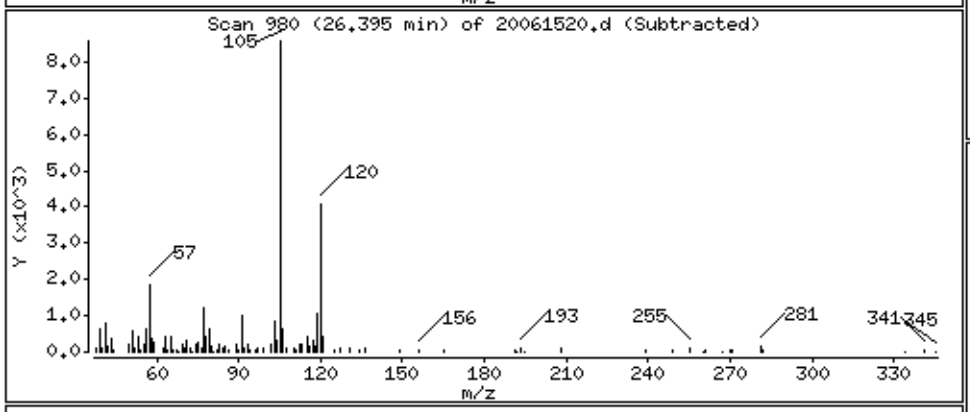
Column phase: RTX-624

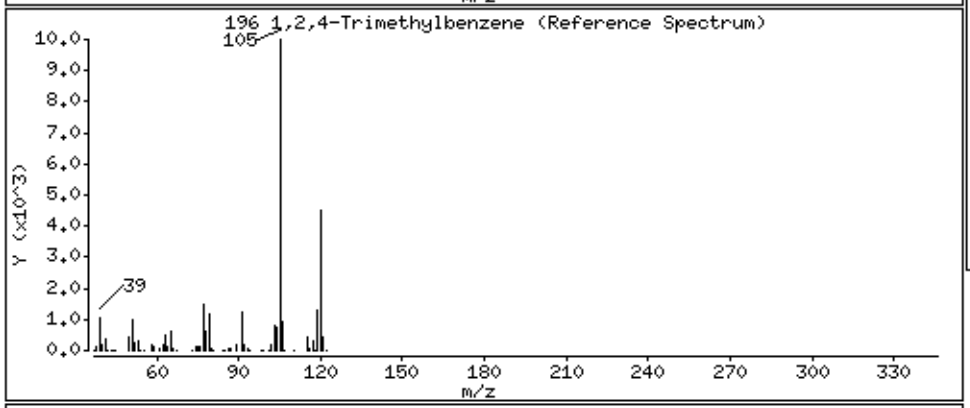
Column diameter: 0.32

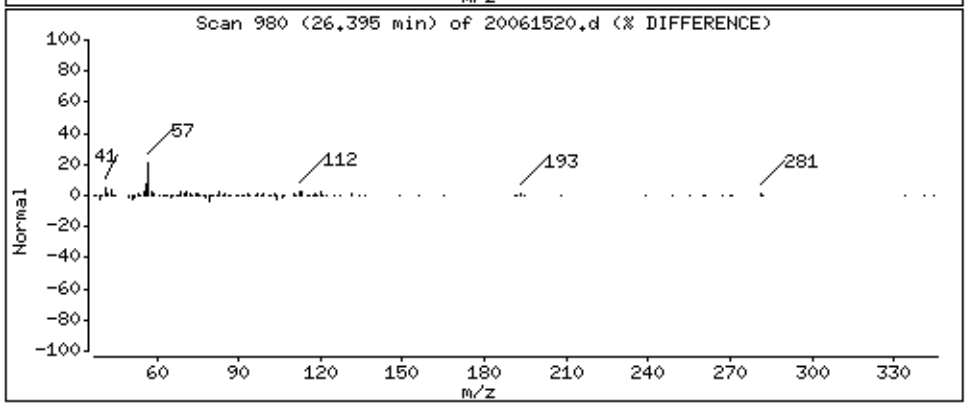
196 1,2,4-Trimethylbenzene

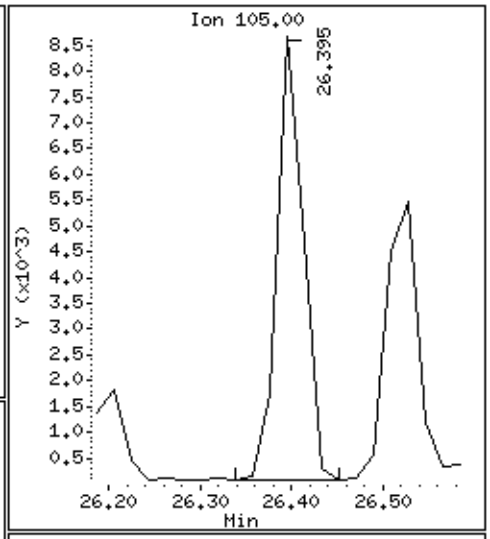
Concentration: 0.2384 PPBV

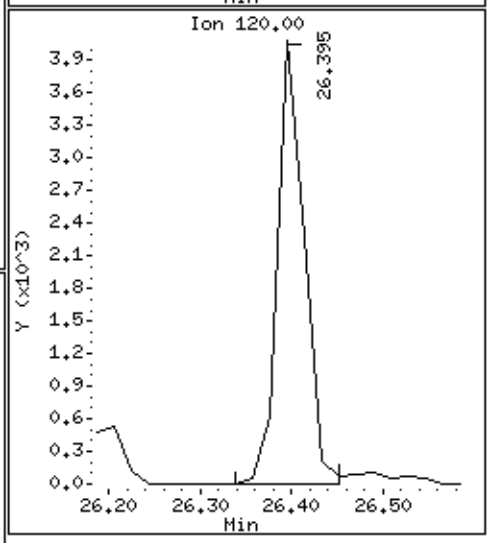












Data File: /chem/msd20.i/15Jun2016.b/20061520.d

Date : 16-JUN-2016 09:07

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 440

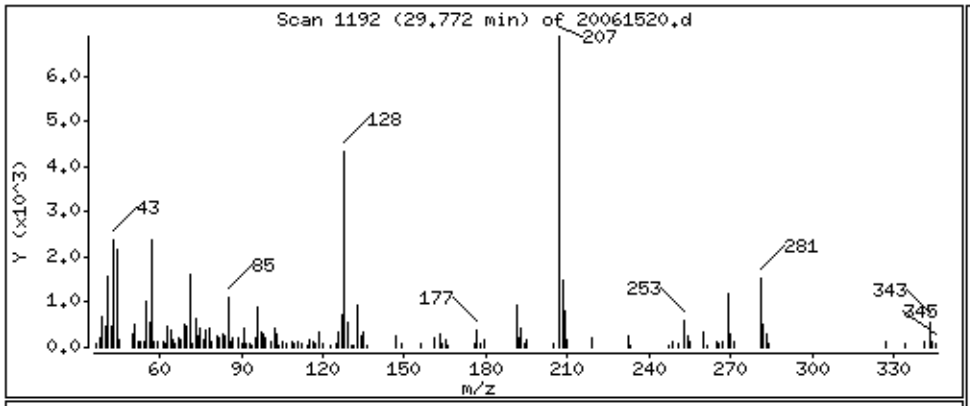
Operator: ef

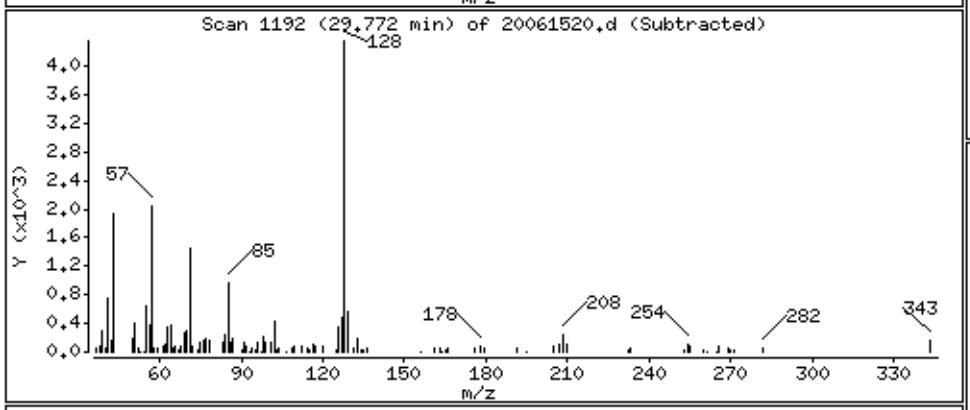
Column phase: RTX-624

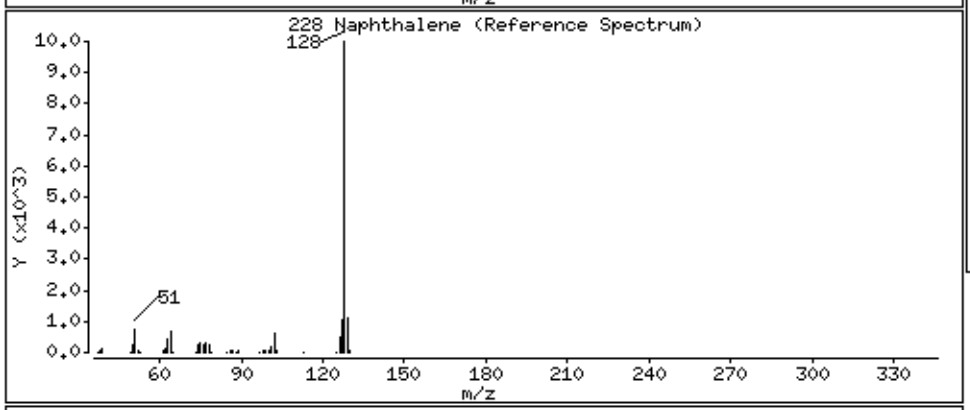
Column diameter: 0.32

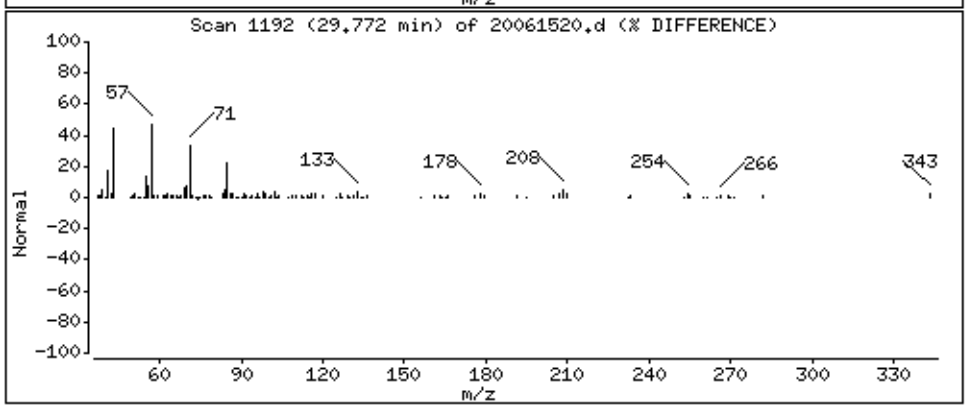
228 Naphthalene

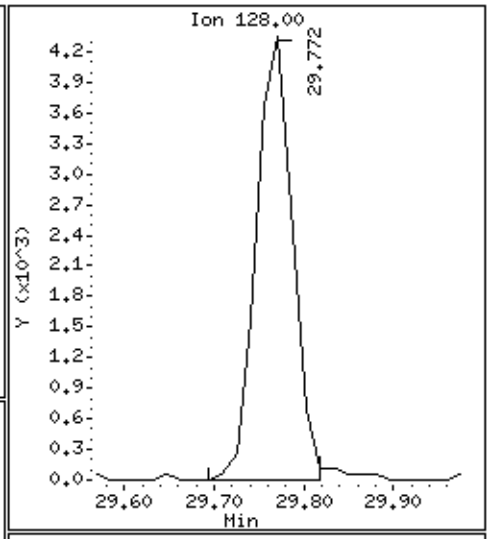
Concentration: 0.1576 PPBV

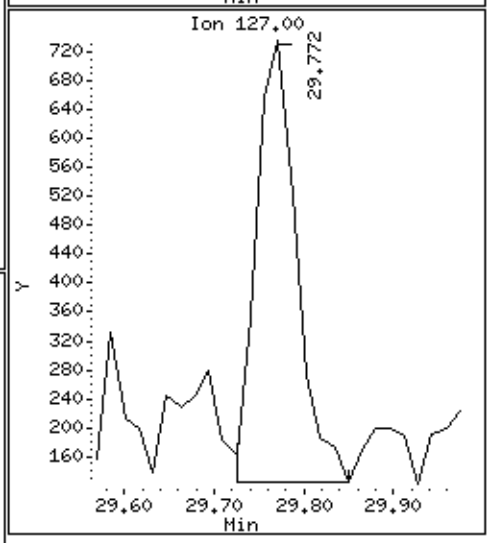












eurofins | Air Toxics

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

Client Sample ID: B7AA(061016)

Lab ID#: 1606298A-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.58	0.93	2.9
Chloromethane	0.94	0.91 J	1.9	1.9 J
Freon 11	0.19	0.28	1.0	1.6
Ethanol	0.94	0.94	1.8	1.8
Freon 113	0.19	0.12 J	1.4	0.93 J
Acetone	0.94	5.8	2.2	14
2-Propanol	0.94	0.63 J	2.3	1.6 J
Methylene Chloride	0.38	0.24 J	1.3	0.83 J
Hexane	0.19	0.072 J	0.66	0.25 J
2-Butanone (Methyl Ethyl Ketone)	0.94	0.91 J	2.8	2.7 J
Carbon Tetrachloride	0.19	0.073 J	1.2	0.46 J
Benzene	0.19	0.079 J	0.60	0.25 J
1,4-Dioxane	0.19	0.14 J	0.68	0.52 J
4-Methyl-2-pentanone	0.19	0.054 J	0.77	0.22 J
Toluene	0.19	0.15 J	0.71	0.56 J
2-Hexanone	0.94	0.13 J	3.8	0.53 J
m,p-Xylene	0.19	0.063 J	0.82	0.28 J
Naphthalene	0.94	0.063 J	4.9	0.33 J

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Client Sample ID: B7AA(061016)

Lab ID#: 1606298A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061521**	**Date of Collection:**	**6/11/16 6:25:00 PM**
Dil. Factor:	**1.88**	**Date of Analysis:**	**6/16/16 09:45 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.19	0.58	0.93	2.9
Freon 114	0.19	Not Detected	1.3	Not Detected
Chloromethane	0.94	0.91 J	1.9	1.9 J
Vinyl Chloride	0.19	Not Detected	0.48	Not Detected
1,3-Butadiene	0.19	Not Detected	0.42	Not Detected
Bromomethane	0.94	Not Detected	3.6	Not Detected
Chloroethane	0.94	Not Detected	2.5	Not Detected
Freon 11	0.19	0.28	1.0	1.6
Ethanol	0.94	0.94	1.8	1.8
Freon 113	0.19	0.12 J	1.4	0.93 J
1,1-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Acetone	0.94	5.8	2.2	14
2-Propanol	0.94	0.63 J	2.3	1.6 J
Carbon Disulfide	0.94	Not Detected	2.9	Not Detected
3-Chloropropene	0.94	Not Detected	2.9	Not Detected
Methylene Chloride	0.38	0.24 J	1.3	0.83 J
Methyl tert-butyl ether	0.19	Not Detected	0.68	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Hexane	0.19	0.072 J	0.66	0.25 J
1,1-Dichloroethane	0.19	Not Detected	0.76	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.94	0.91 J	2.8	2.7 J
cis-1,2-Dichloroethene	0.19	Not Detected	0.74	Not Detected
Tetrahydrofuran	0.94	Not Detected	2.8	Not Detected
Chloroform	0.19	Not Detected	0.92	Not Detected
1,1,1-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Cyclohexane	0.19	Not Detected	0.65	Not Detected
Carbon Tetrachloride	0.19	0.073 J	1.2	0.46 J
2,2,4-Trimethylpentane	0.94	Not Detected	4.4	Not Detected
Benzene	0.19	0.079 J	0.60	0.25 J
1,2-Dichloroethane	0.19	Not Detected	0.76	Not Detected
Heptane	0.19	Not Detected	0.77	Not Detected
Trichloroethene	0.19	Not Detected	1.0	Not Detected
1,2-Dichloropropane	0.19	Not Detected	0.87	Not Detected
1,4-Dioxane	0.19	0.14 J	0.68	0.52 J
Bromodichloromethane	0.19	Not Detected	1.2	Not Detected
cis-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
4-Methyl-2-pentanone	0.19	0.054 J	0.77	0.22 J
Toluene	0.19	0.15 J	0.71	0.56 J
trans-1,3-Dichloropropene	0.19	Not Detected	0.85	Not Detected
1,1,2-Trichloroethane	0.19	Not Detected	1.0	Not Detected
Tetrachloroethene	0.19	Not Detected	1.3	Not Detected
2-Hexanone	0.94	0.13 J	3.8	0.53 J

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Client Sample ID: B7AA(061016)

Lab ID#: 1606298A-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061521**	**Date of Collection:**	**6/11/16 6:25:00 PM**
Dil. Factor:	**1.88**	**Date of Analysis:**	**6/16/16 09:45 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.19	Not Detected	1.6	Not Detected
1,2-Dibromoethane (EDB)	0.19	Not Detected	1.4	Not Detected
Chlorobenzene	0.19	Not Detected	0.86	Not Detected
Ethyl Benzene	0.19	Not Detected	0.82	Not Detected
m,p-Xylene	0.19	0.063 J	0.82	0.28 J
o-Xylene	0.19	Not Detected	0.82	Not Detected
Styrene	0.19	Not Detected	0.80	Not Detected
Bromoform	0.19	Not Detected	1.9	Not Detected
Cumene	0.19	Not Detected	0.92	Not Detected
1,1,2,2-Tetrachloroethane	0.19	Not Detected	1.3	Not Detected
Propylbenzene	0.19	Not Detected	0.92	Not Detected
4-Ethyltoluene	0.19	Not Detected	0.92	Not Detected
1,3,5-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,2,4-Trimethylbenzene	0.19	Not Detected	0.92	Not Detected
1,3-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,4-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
alpha-Chlorotoluene	0.19	Not Detected	0.97	Not Detected
1,2-Dichlorobenzene	0.19	Not Detected	1.1	Not Detected
1,2,4-Trichlorobenzene	0.94	Not Detected	7.0	Not Detected
Hexachlorobutadiene	0.94	Not Detected	10	Not Detected
Naphthalene	0.94	0.063 J	4.9	0.33 J

J = Estimated value.

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	118	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	93	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061521.d
Lab Smp Id: 1606298A-08A
Inj Date : 16-JUN-2016 09:45
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 25249
Misc Info : 8.8"Hg -> 4.8psi
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1
Dil Factor: 1.88000
Integrator: HP RTE Compound Sublist: TO15NMDL.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 (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane						CAS #: 74-97-5	
16.726	16.726 (1.000)	130	95873	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	73579			47.16- 107.16	76.75
16.726	16.726 (1.000)	49	124103			84.74- 144.74	129.45
* 123 1,4-Difluorobenzene						CAS #: 540-36-3	
18.231	18.231 (1.000)	114	435232	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	69287			0.00- 45.65	15.92
* 163 Chlorobenzene-d5						CAS #: 3114-55-4	
23.761	23.761 (1.000)	117	354727	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	197804			24.05- 84.05	55.76
$ 117 1,2-Dichloroethane-d4						CAS #: 17060-07-0	
17.641	17.641 (1.055)	65	150880	5.91556	5.916	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	76783			28.75- 88.75	50.89
$ 146 Toluene-d8						CAS #: 2037-26-5	
20.821	20.821 (1.142)	98	411513	4.98966	4.990	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	47072			0.00- 41.22	11.44

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    278973                    37.90-  97.90    67.79
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    181262 4.64773    4.648  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    224319                   88.33- 148.33   123.75
 25.485  25.485 (1.073)   176    174844                   68.77- 128.77    96.46
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.696   4.672 (0.281)    85     23269 0.30900   0.5809  80.00- 120.00   100.00
  4.672   4.648 (0.279)    87      7070                    2.50-  62.50    30.39
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.625   6.552 (0.396)    50     11859 0.48434   0.9105  80.00- 120.00   100.00(a)
  6.625   6.552 (0.396)    52      4580                    3.09-  63.09    38.62
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.138  11.114 (0.666)   101     10916 0.14754   0.2774  80.00- 120.00   100.00
 11.138  11.114 (0.666)   103      7789                   34.69-  94.69    71.36
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.269 (0.735)    45      4889 0.50091   0.9417  80.00- 120.00   100.00
 12.296  12.269 (0.735)    46      2422                   11.01-  71.01    49.55
 12.324  12.269 (0.737)    43      3274                    0.00-  50.63    66.98
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.736  12.763 (0.761)   151      3503 0.06459   0.1214  80.00- 120.00   100.00(a)
 12.736  12.763 (0.761)   153      2549                   34.65-  94.65    72.77
 12.763  12.763 (0.763)   101      3044                   90.37- 150.37    86.88
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58     44380 3.09905    5.826  80.00- 120.00   100.00
 13.093  13.093 (0.783)    43    136762                  275.09- 335.09   308.16
-------------------------------------------------------------------------------
   57 2-Propanol                                    CAS #: 67-63-0
 13.587  13.532 (0.812)    45     15485 0.33614   0.6319  80.00- 120.00   100.00(a)
 13.587  13.532 (0.812)    43      4128                    0.00-  49.91    26.66
 13.587  13.532 (0.812)    59       697                    0.00-  34.18     4.50
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.054  14.027 (0.840)    84      3981 0.12770   0.2401  80.00- 120.00   100.00(a)
 14.054  14.027 (0.840)    49      4968                   88.46- 148.46   124.78
 14.054  14.027 (0.840)    51      2092                    6.78-  66.78    52.54
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57      1785 0.03837  0.07213  80.00- 120.00   100.00(a)
```

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

   78 Hexane (continued)
 14.933  14.878 (0.893)    43      2775                    31.00-  91.00   155.44
  0.000  14.878 (0.000)    86         0                     0.00-  49.39     0.00
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.365  16.344 (0.978)    72      7397 0.48460   0.9110  80.00- 120.00   100.00(a)
 16.365  16.344 (0.978)    43     30728                   324.50- 384.50   415.38
 16.365  16.344 (0.978)    57      2453                     0.00-  59.24    33.17
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      2034 0.03907  0.07345  80.00- 120.00   100.00(a)
 17.281  17.250 (1.033)   117      2034                    73.36- 133.36    99.99
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.620  17.620 (0.966)    78      4236 0.04203  0.07901  80.00- 120.00   100.00(a)
 17.641  17.620 (0.968)    77      1153                     0.00-  53.54    27.22
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88      2050 0.07658   0.1440  80.00- 120.00   100.00(a)
 19.213  19.213 (1.054)    58      1569                    34.13-  94.13    76.51
 19.213  19.213 (1.054)    57       746                     0.00-  50.75    36.42
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.556  20.556 (1.128)    43      2039 0.02846  0.05351  80.00- 120.00   100.00(a)
 20.572  20.556 (1.128)    58       841                    11.51-  71.51    41.25
 20.556  20.556 (1.128)    85       201                     0.00-  48.80     9.90
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91      9206 0.07980   0.1500  80.00- 120.00   100.00(a)
 20.962  20.962 (1.150)    92      5270                    30.55-  90.55    57.25
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.406  22.406 (0.943)    58      2530 0.06898   0.1297  80.00- 120.00   100.00(a)
 22.406  22.406 (0.943)    43      4133                   146.44- 206.44   163.37
 22.406  22.406 (0.943)   100       458                     0.00-  54.43    18.11
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106      1618 0.03374  0.06344  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91      3908                   164.82- 224.82   241.45
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.772  29.772 (1.253)   128      3806 0.03338  0.06276  80.00- 120.00   100.00(a)
 29.772  29.772 (1.253)   127       596                     0.00-  43.33    15.68
-------------------------------------------------------------------------------
```

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: msd20.i
Lab File ID: 20061521.d
Lab Smp Id: 1606298A-08A
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 8.8"Hg -> 4.8psi

Calibration Date: 15-JUN-2016
Calibration Time: 11:00

Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	95873	-18.46
123 1,4-Difluorobenze	491034	294620	687448	435232	-11.36
163 Chlorobenzene-d5	413171	247903	578439	354727	-14.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	0.00

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

Report Date: 24-Jun-2016 12:12

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name: Client SDG: 15Jun2016
Sample Matrix: GAS Fraction: VOA
Lab Smp Id: 1606298A-08A
Level: LOW Operator: ef
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AT12Bromoform.spk Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 8.8"Hg -> 4.8psi

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.916	118.31	70-130
$ 146 Toluene-d8	5.000	4.990	99.79	70-130
$ 177 4-Bromofluorobenze	5.000	4.648	92.95	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

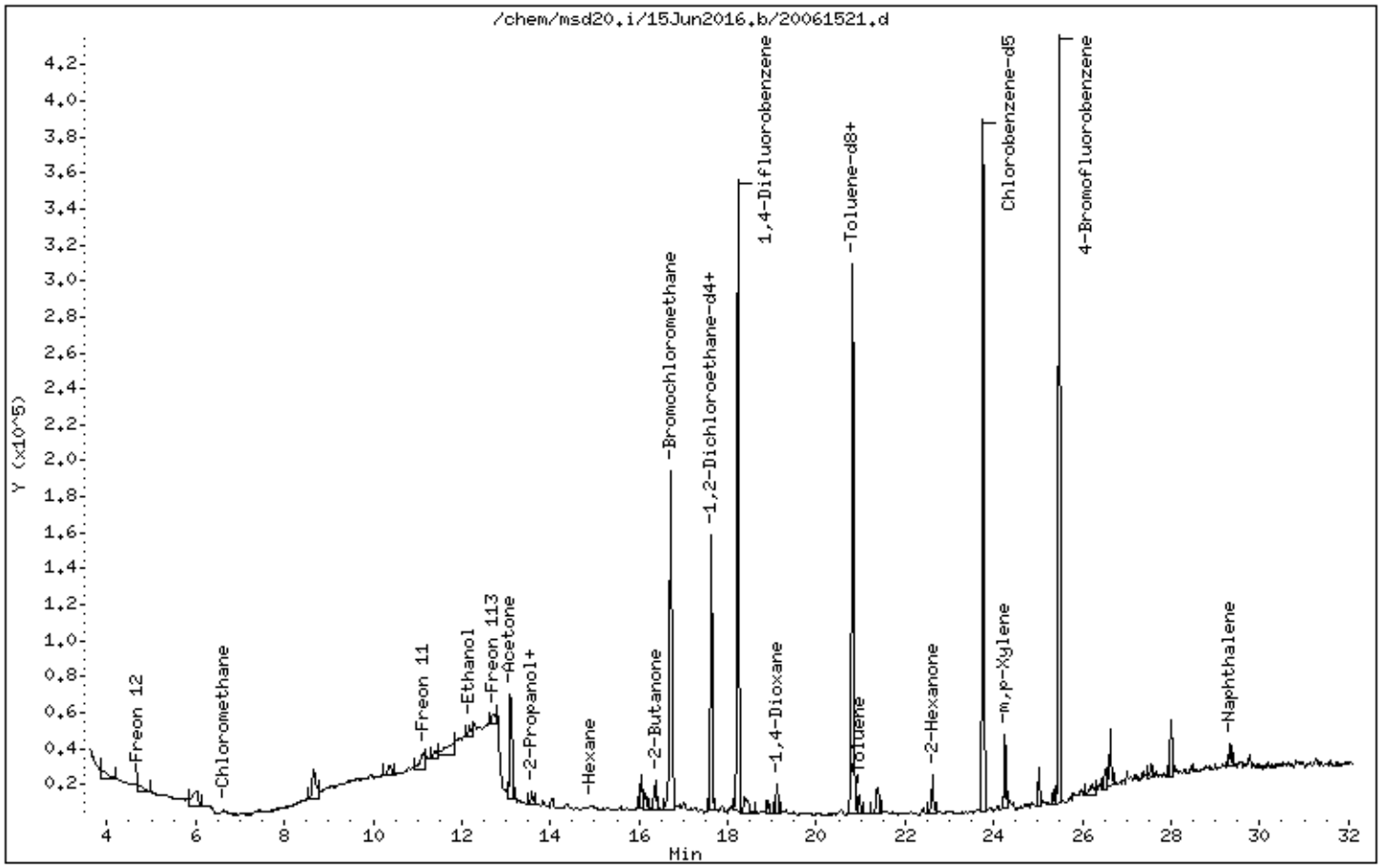
Instrument: msd20.i

Sample Info: 250mL# 25249

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

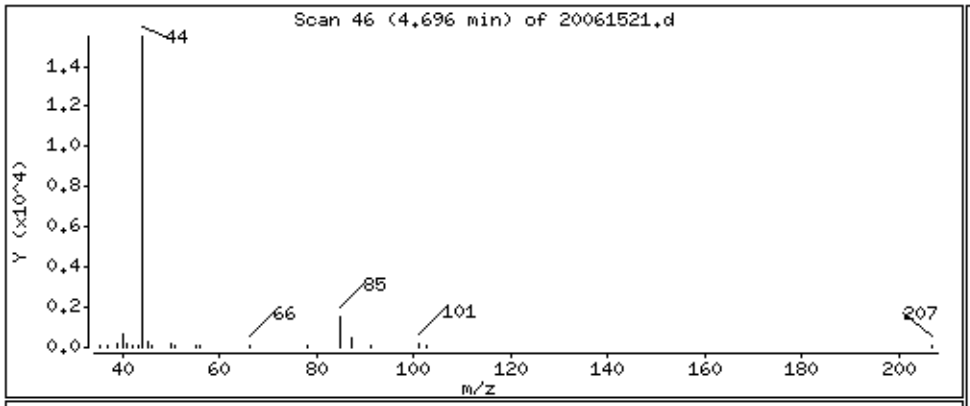
Operator: ef

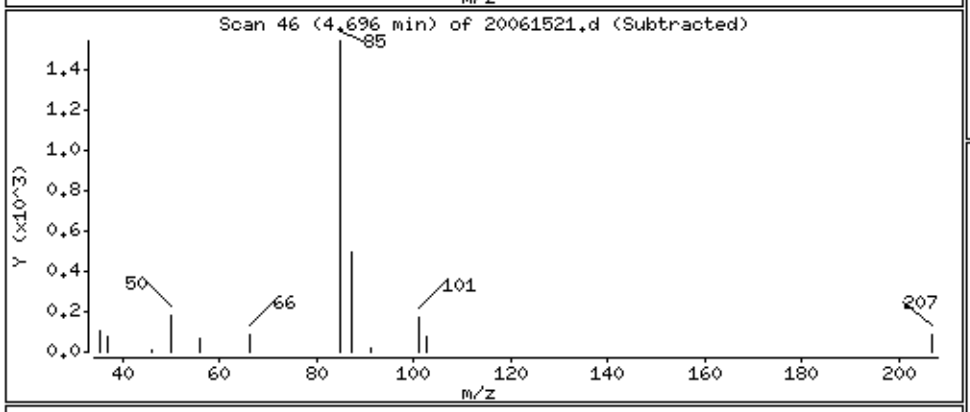
Column phase: RTX-624

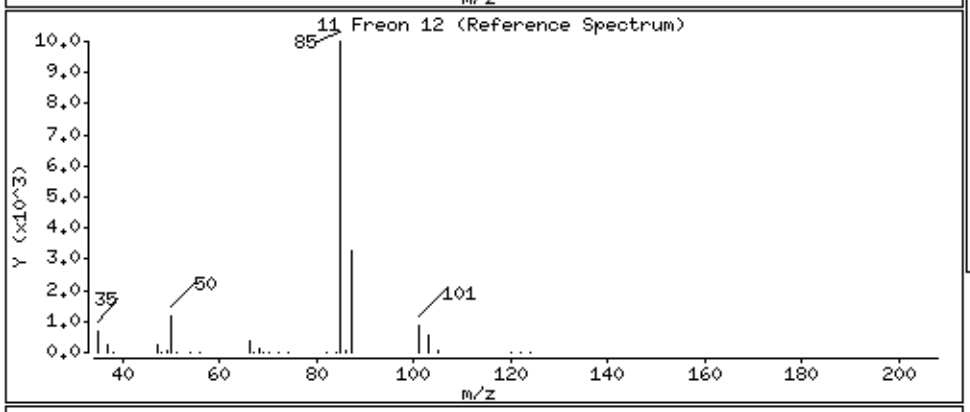
Column diameter: 0.32

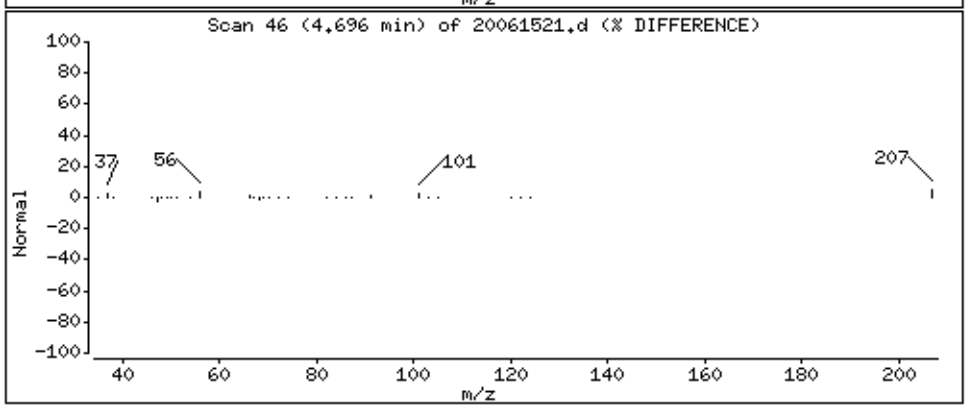
11 Freon 12

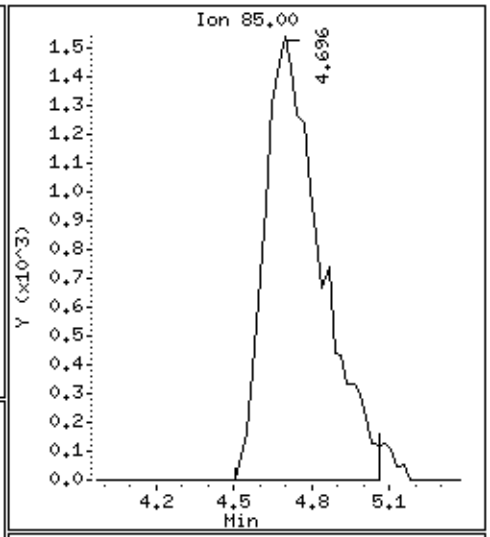
Concentration: 0.5809 PPBV

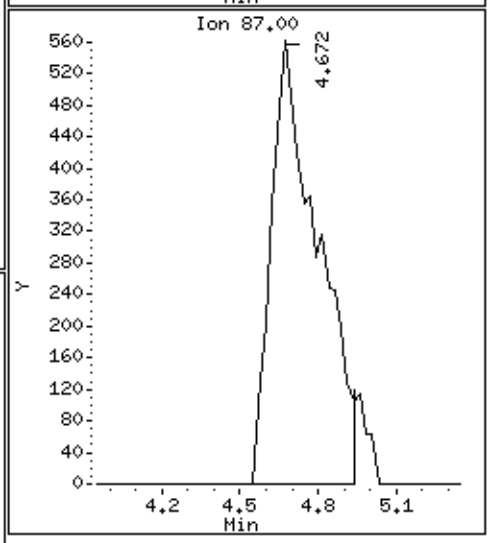












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

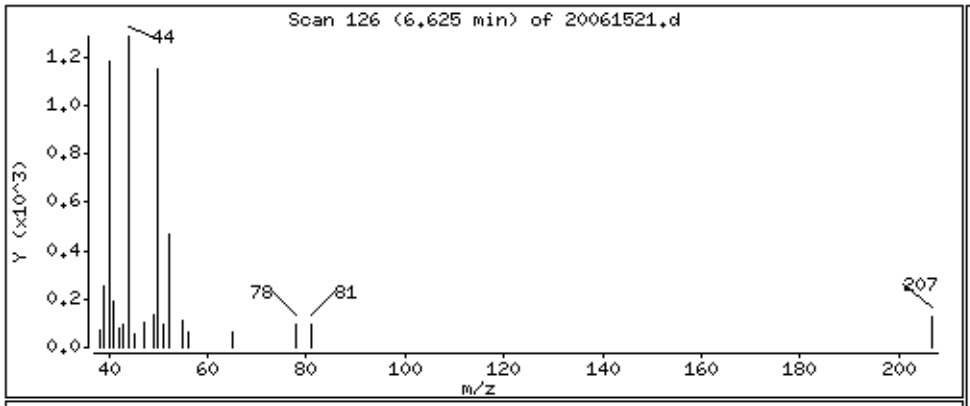
Operator: ef

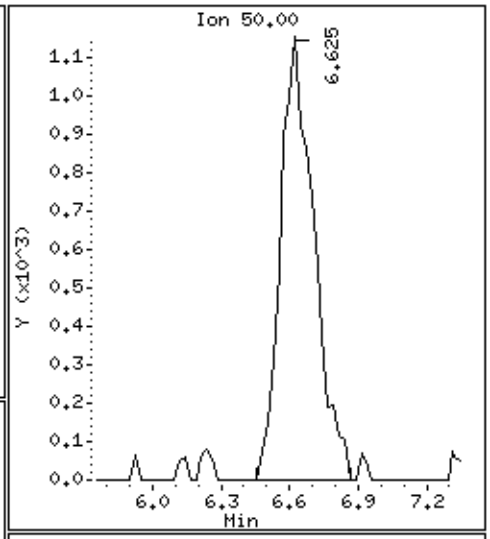
Column phase: RTX-624

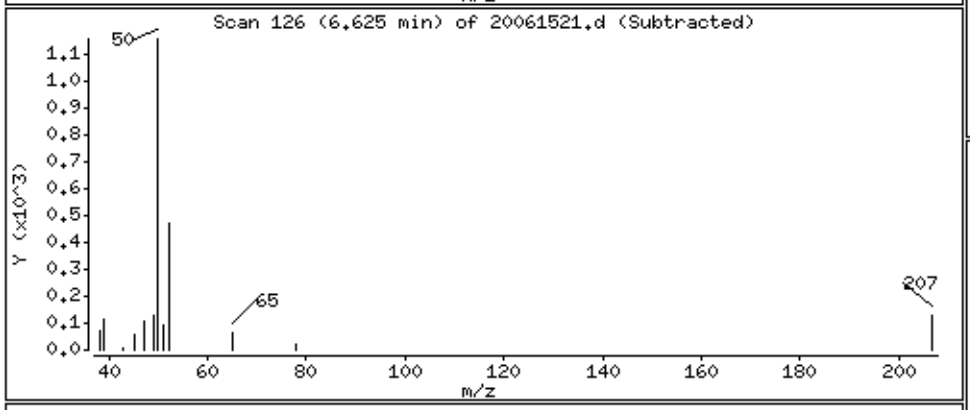
Column diameter: 0.32

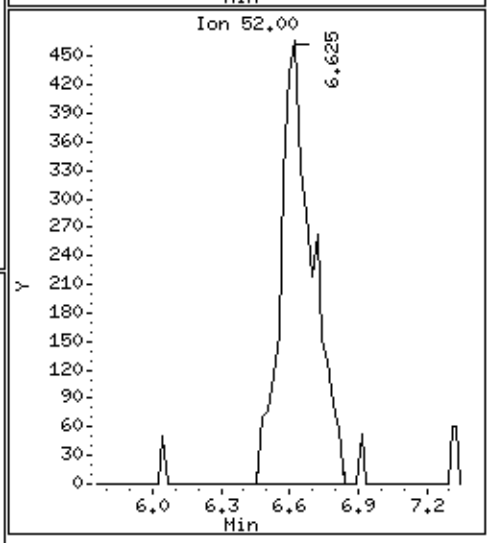
17 Chloromethane

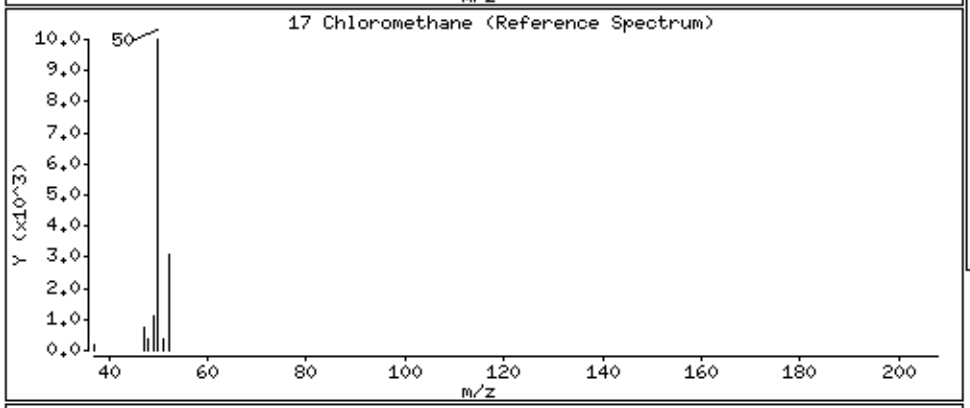
Concentration: 0.9105 PPBV

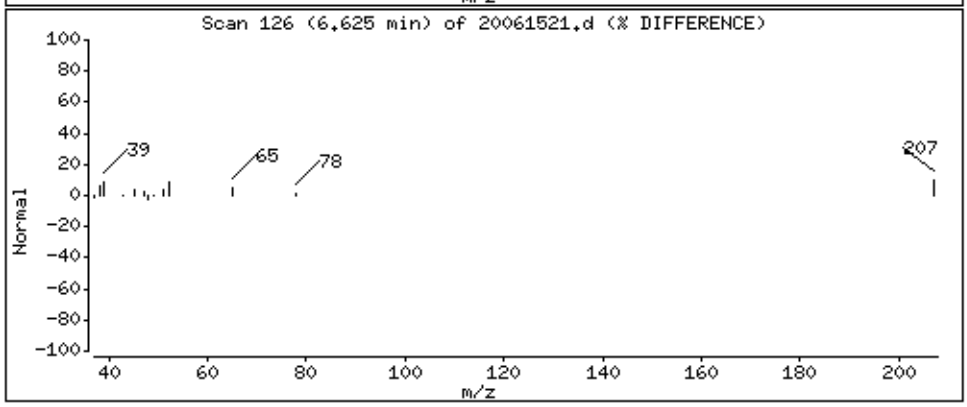












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

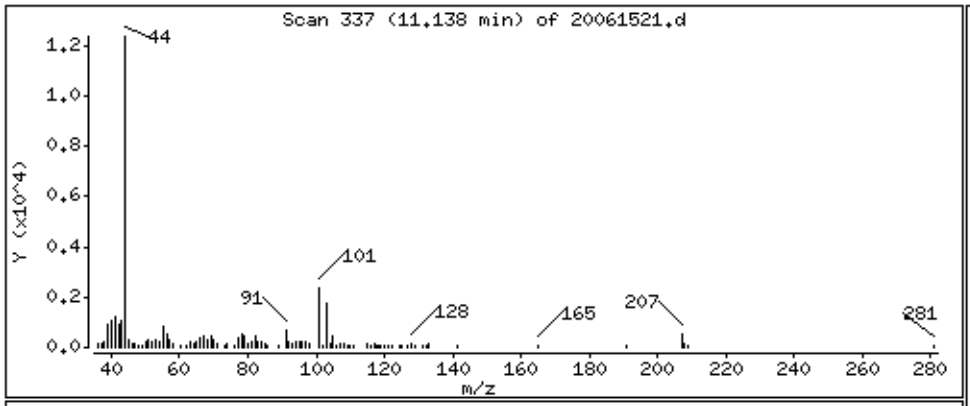
Operator: ef

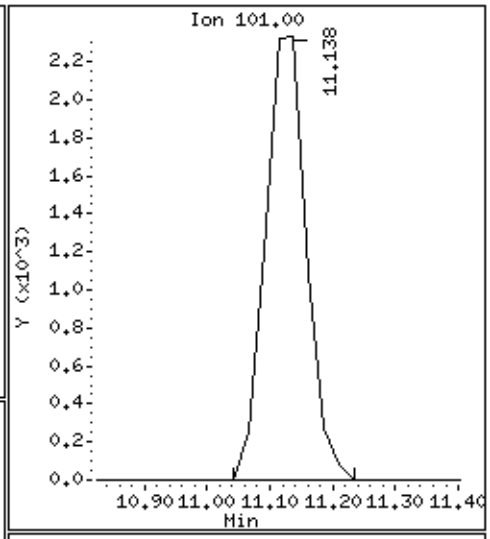
Column phase: RTX-624

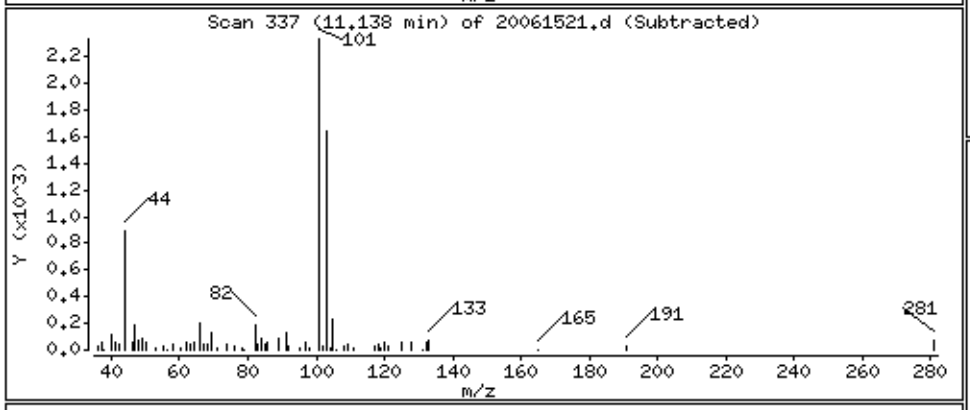
Column diameter: 0.32

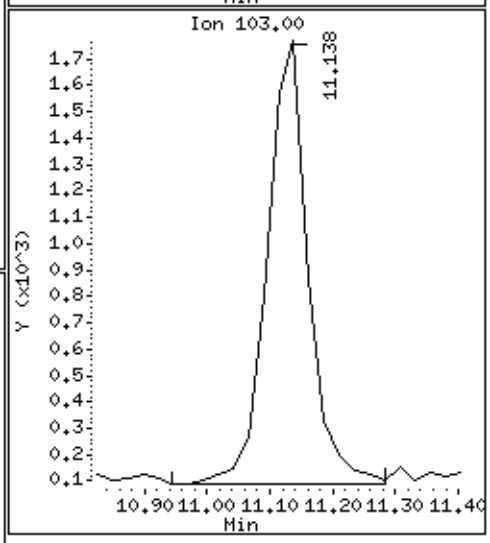
35 Freon 11

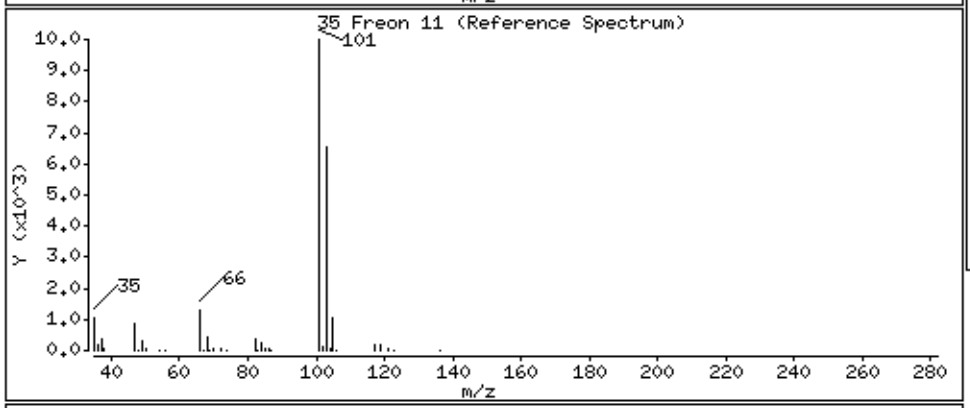
Concentration: 0.2774 PPBV

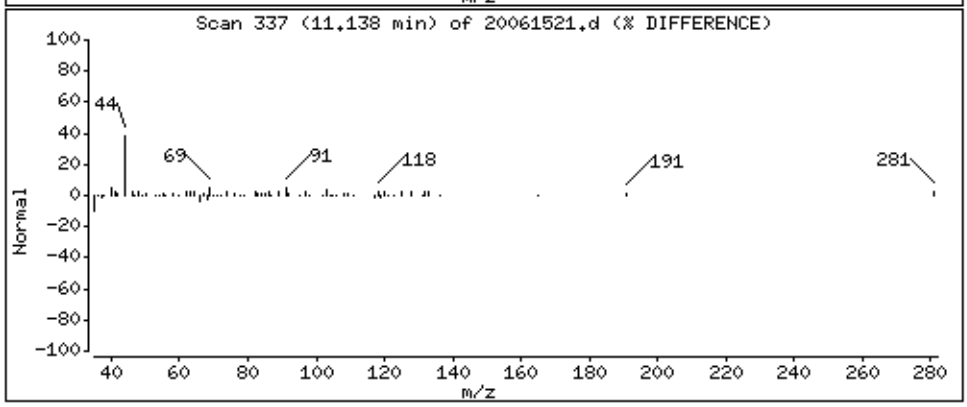












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

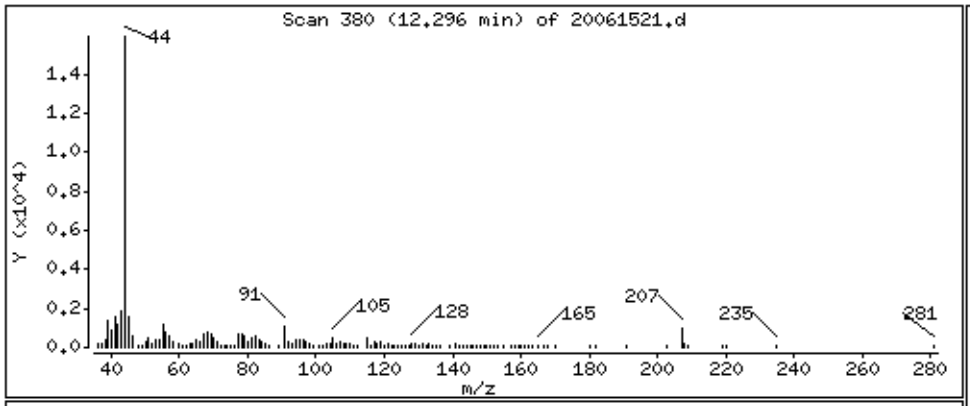
Operator: ef

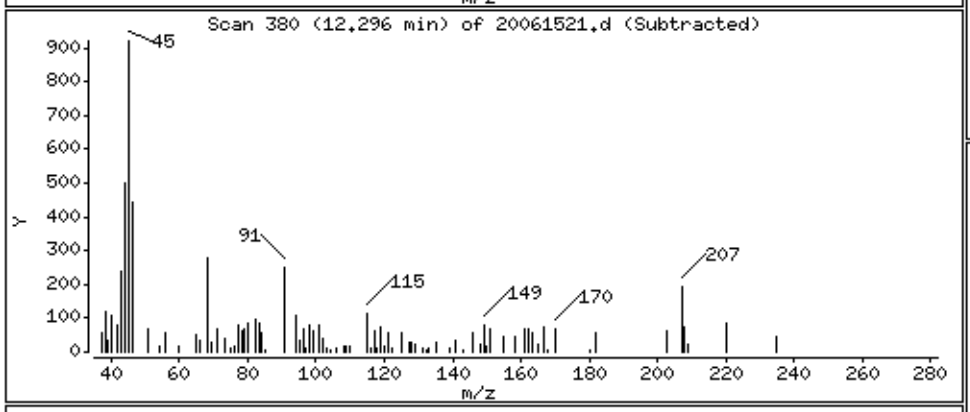
Column phase: RTX-624

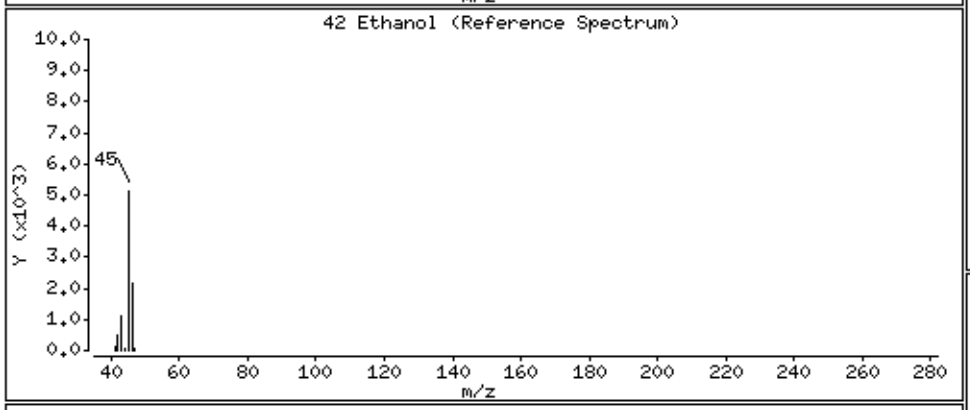
Column diameter: 0.32

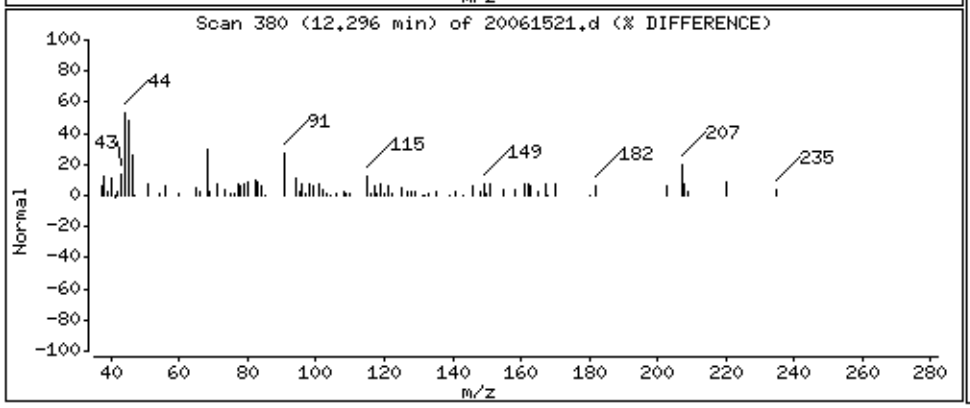
42 Ethanol

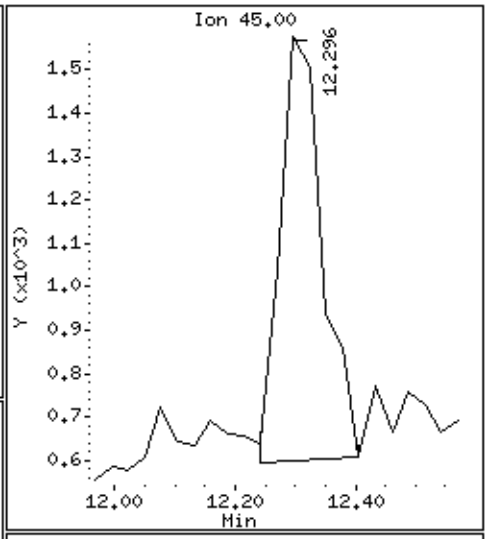
Concentration: 0.9417 PPBV

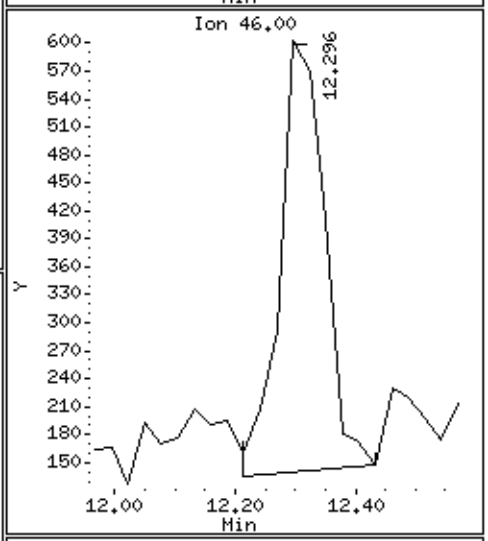


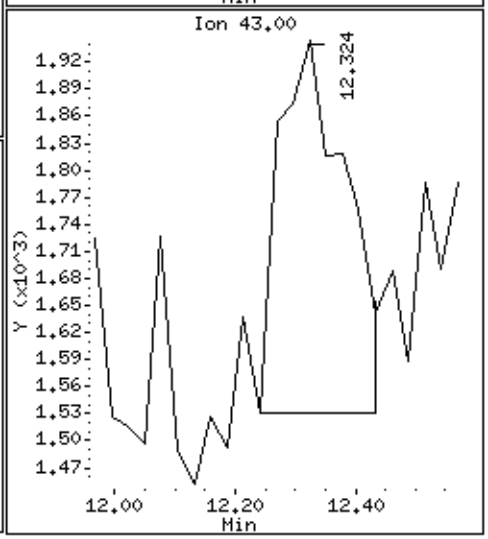












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

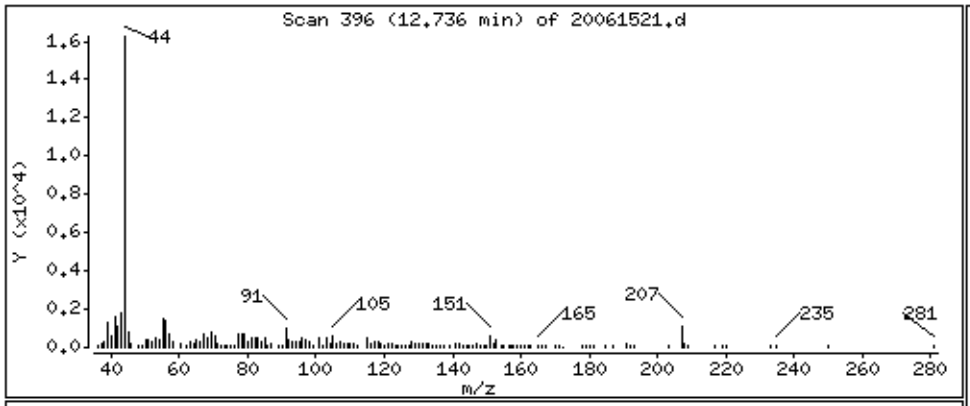
Operator: ef

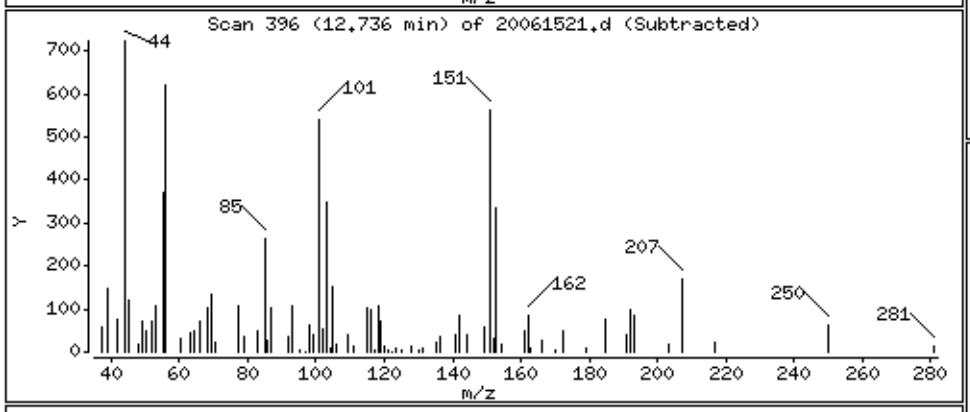
Column phase: RTX-624

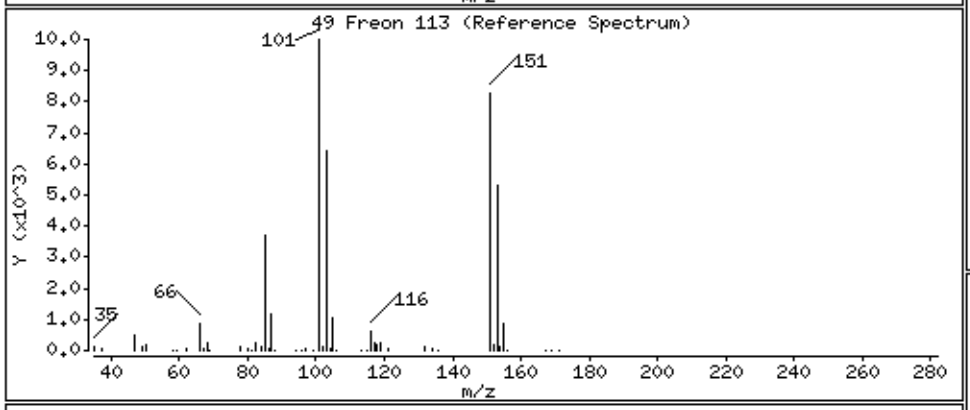
Column diameter: 0.32

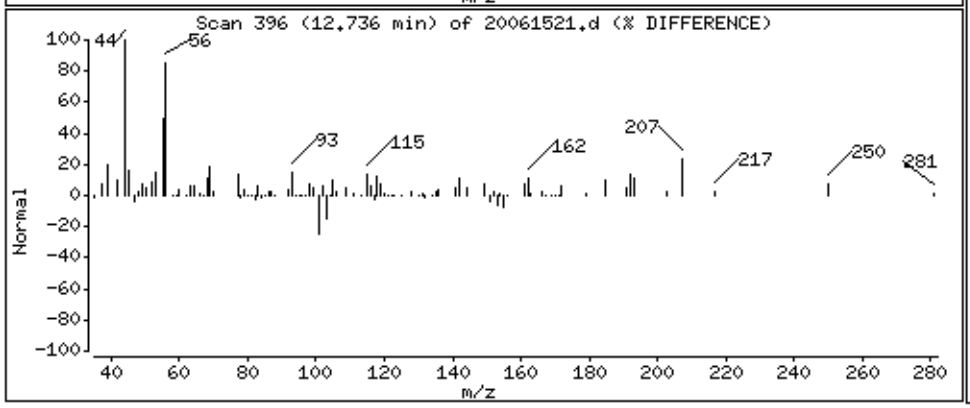
49 Freon 113

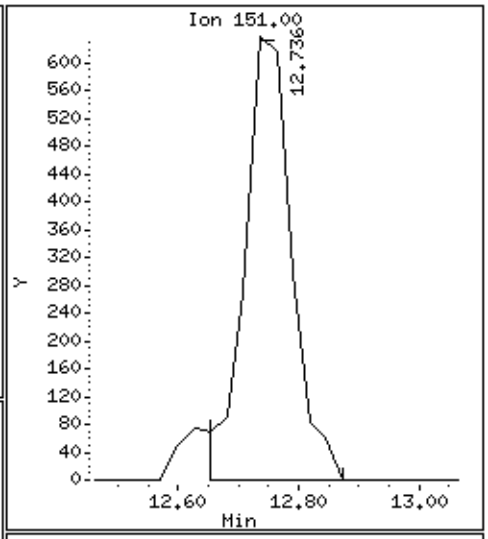
Concentration: 0.1214 PPBV

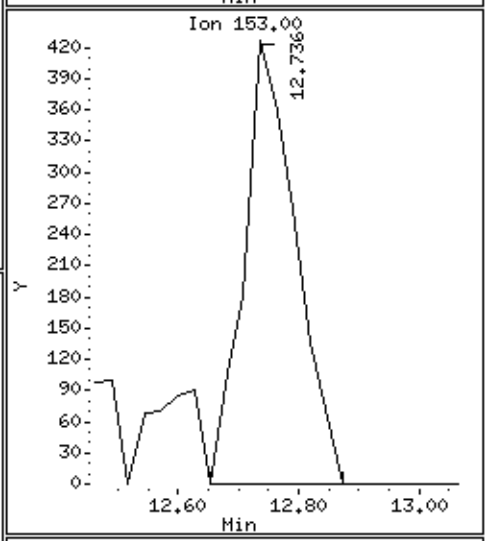


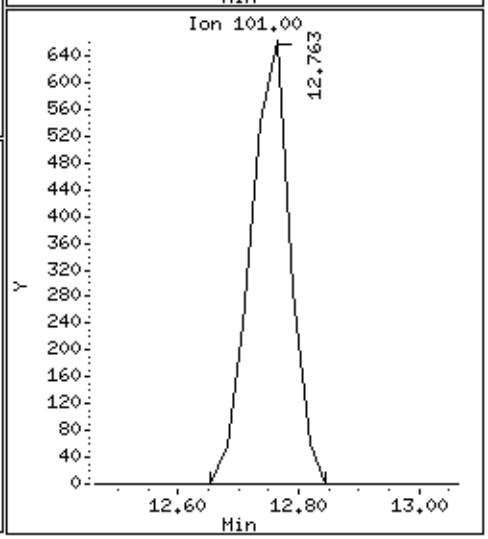












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

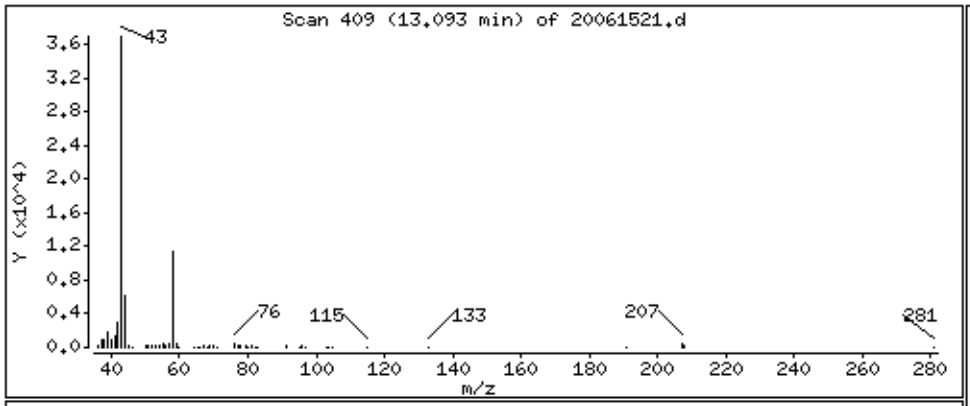
Operator: ef

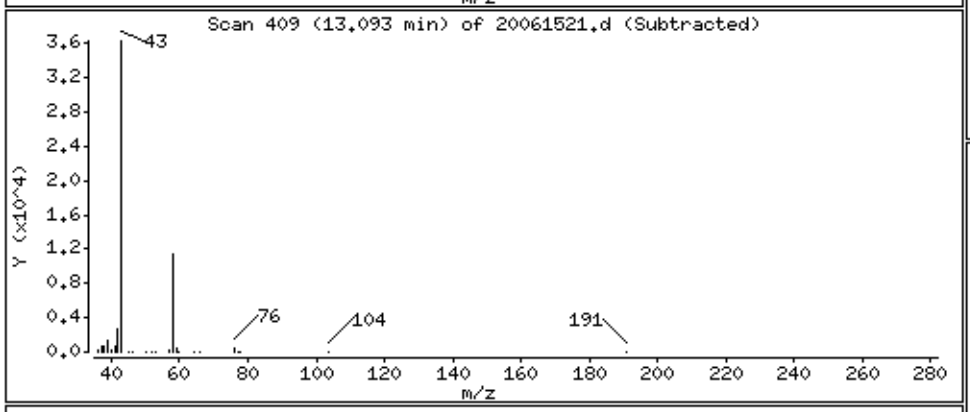
Column phase: RTX-624

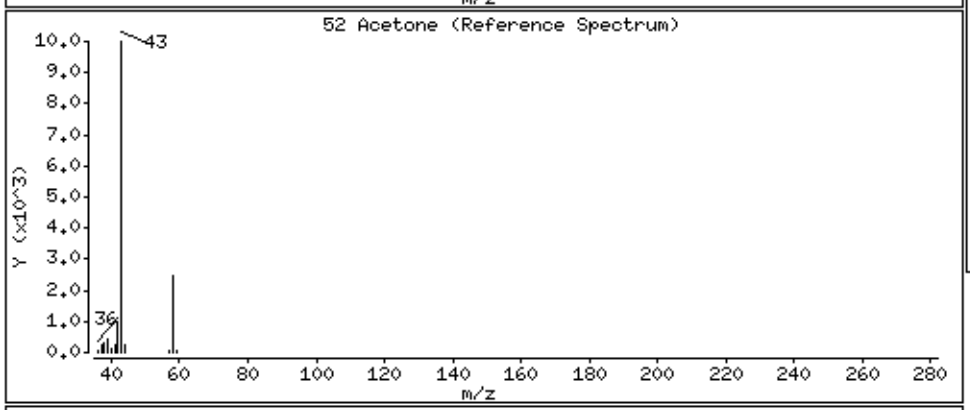
Column diameter: 0.32

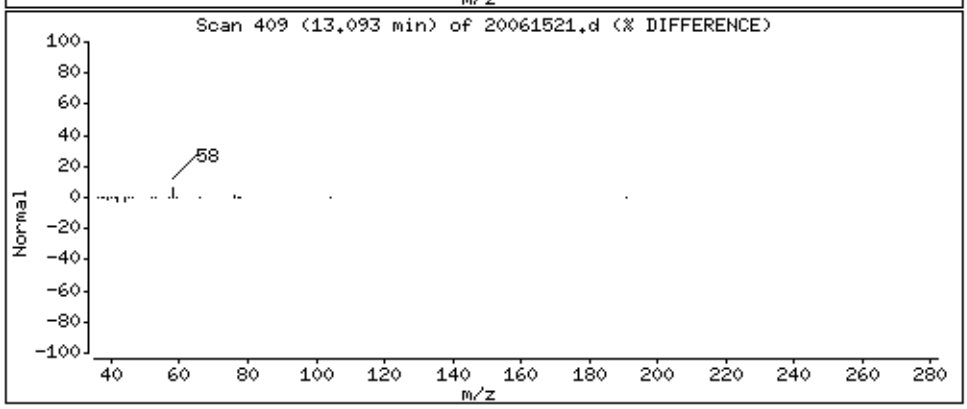
52 Acetone

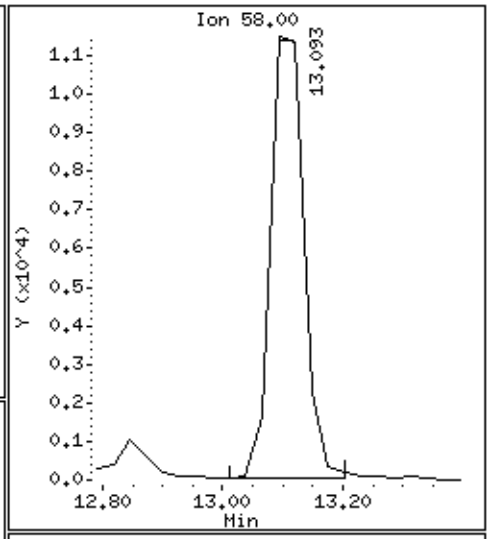
Concentration: 5.826 PPBV

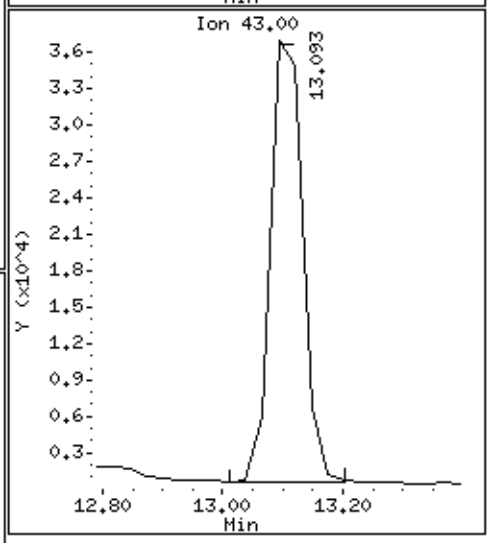












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

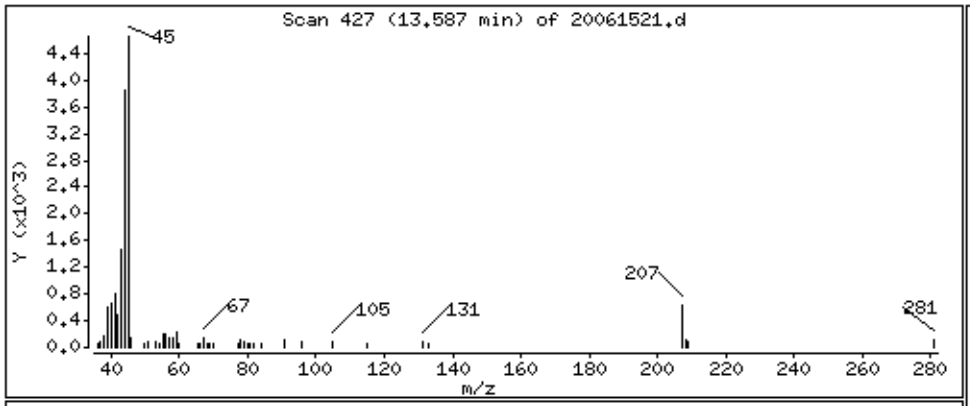
Operator: ef

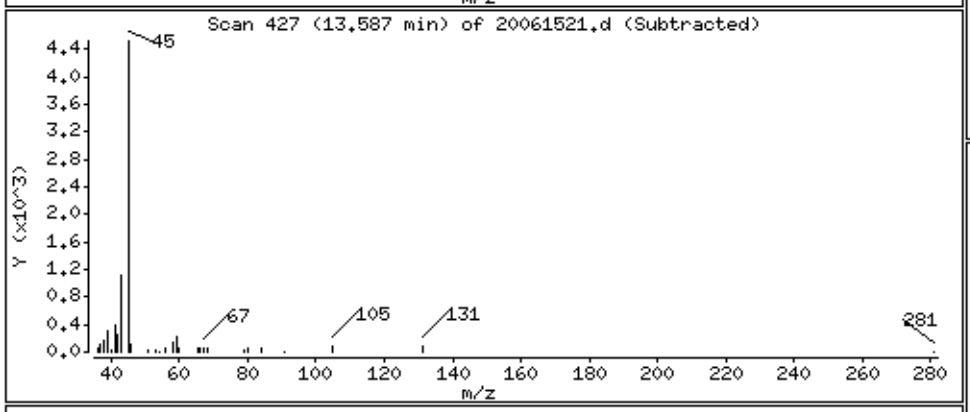
Column phase: RTX-624

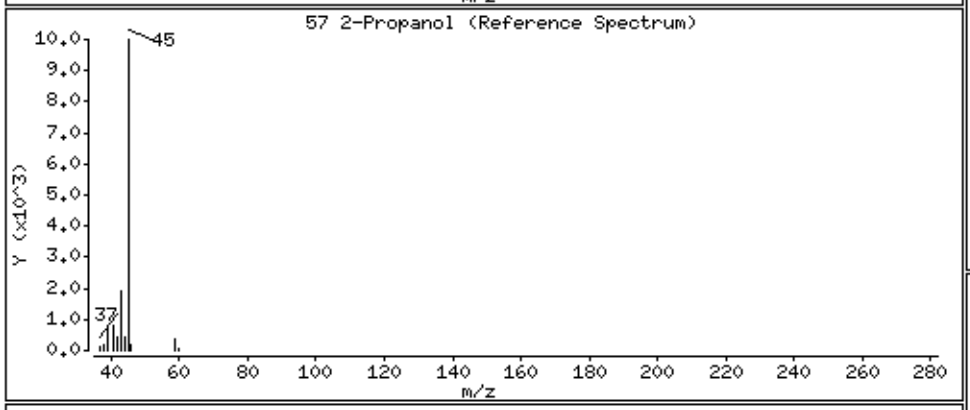
Column diameter: 0.32

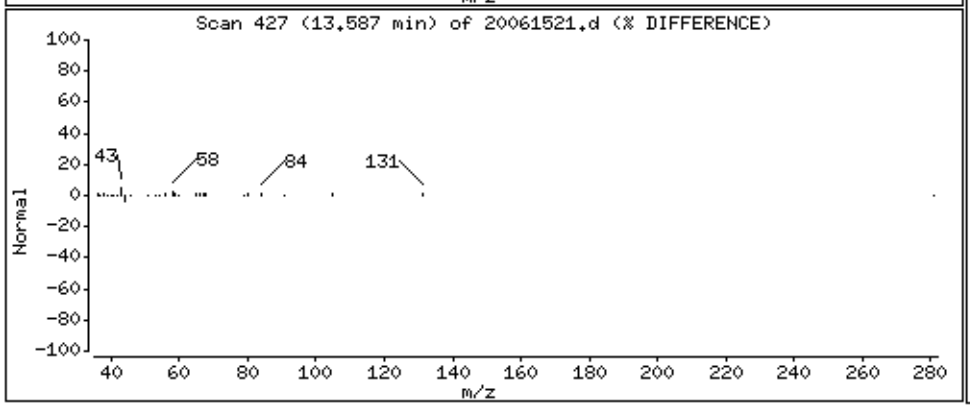
57 2-Propanol

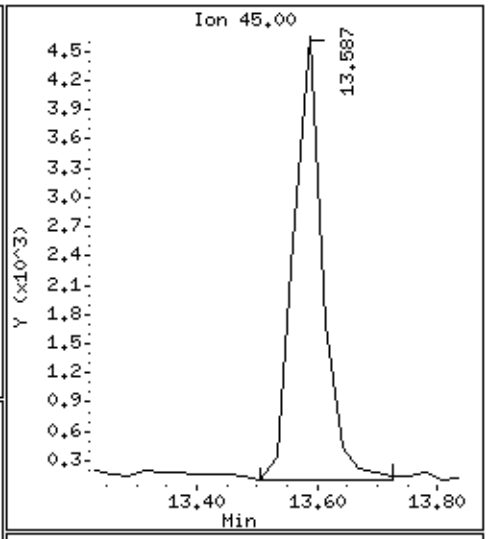
Concentration: 0.6319 PPBV

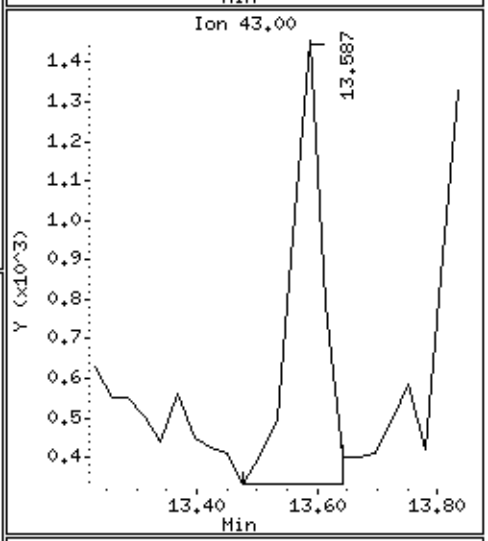


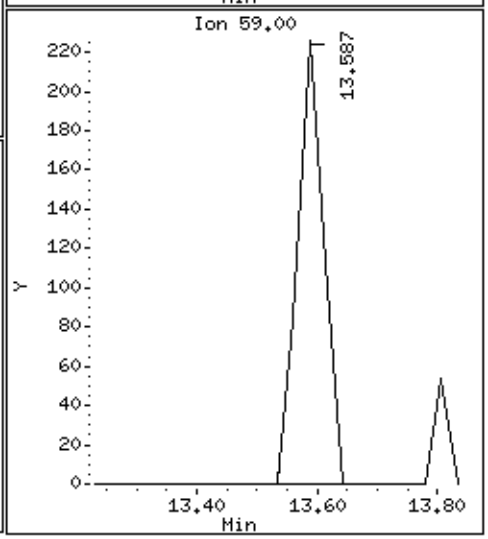












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

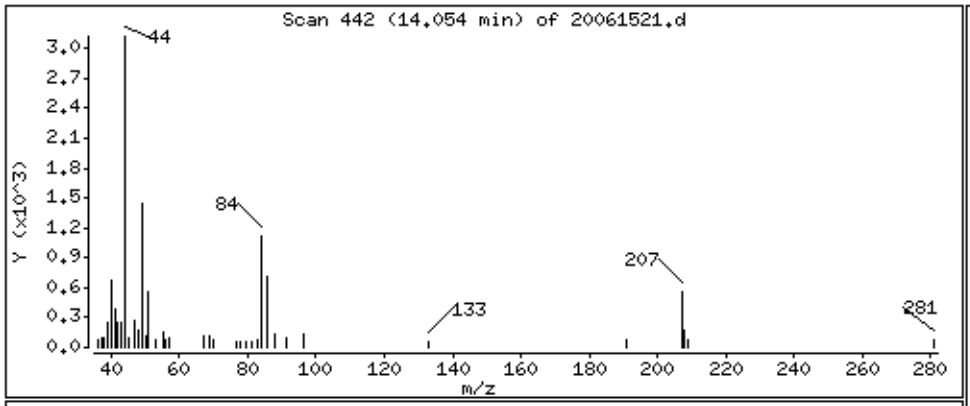
Operator: ef

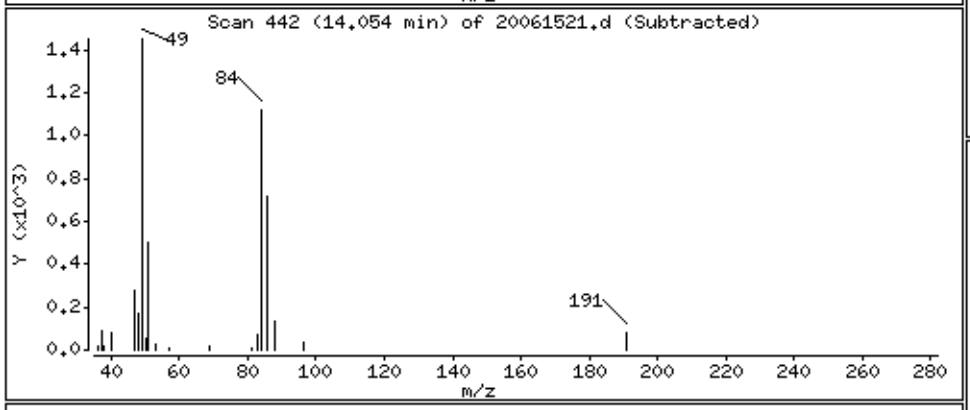
Column phase: RTX-624

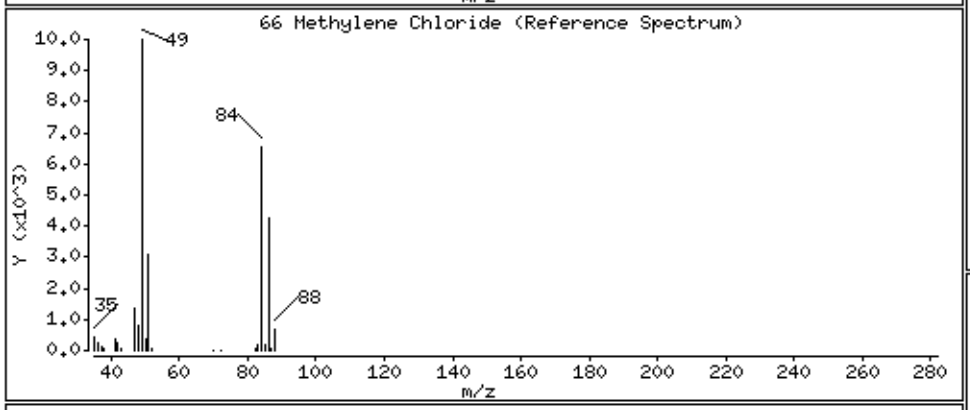
Column diameter: 0.32

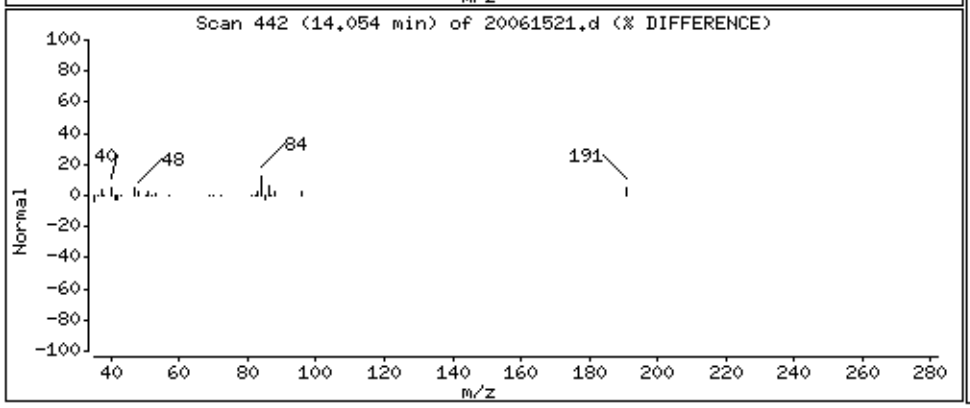
66 Methylene Chloride

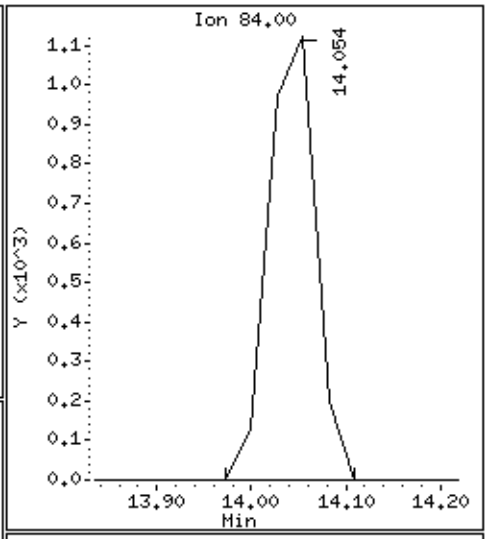
Concentration: 0.2401 PPBV

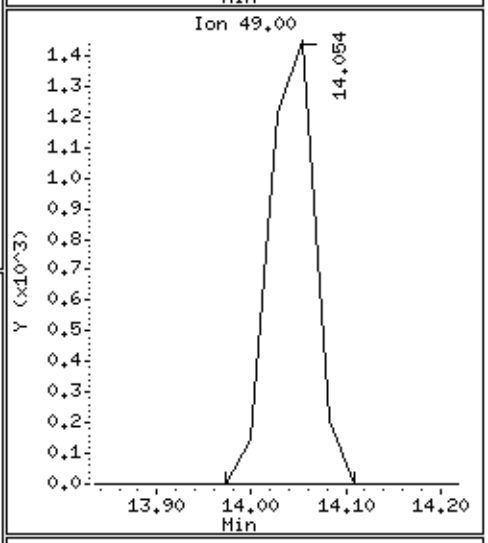


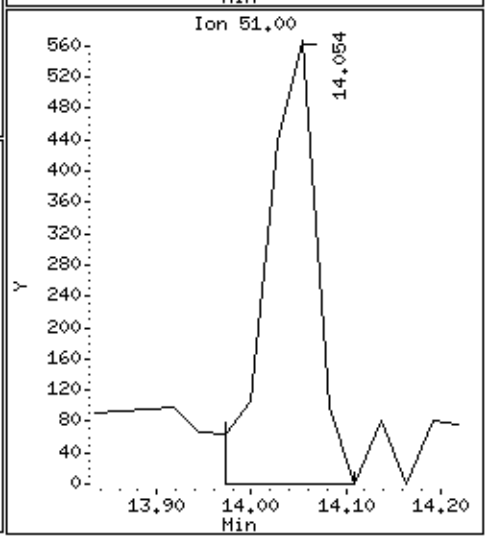












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

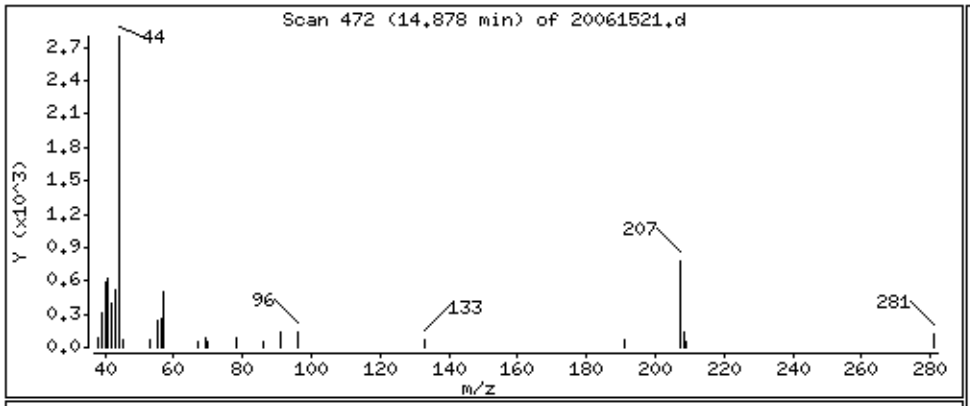
Operator: ef

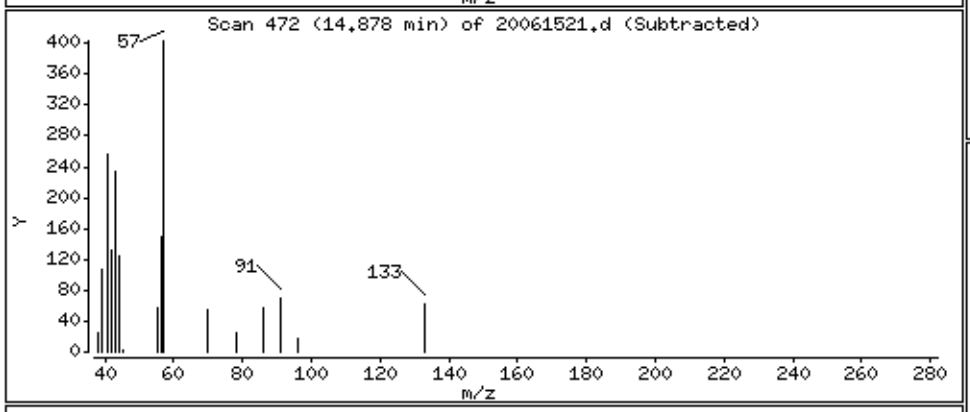
Column phase: RTX-624

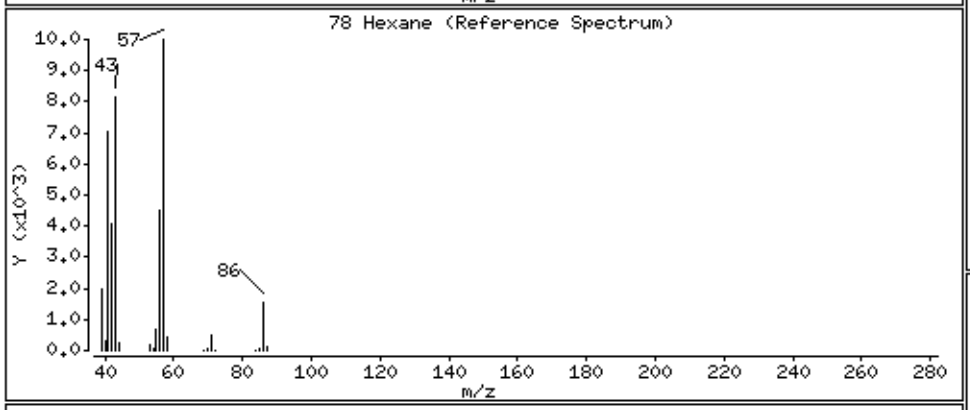
Column diameter: 0.32

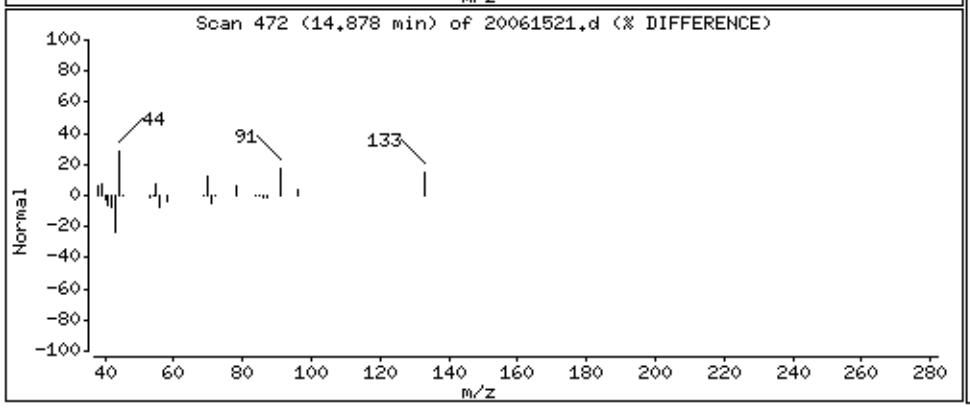
78 Hexane

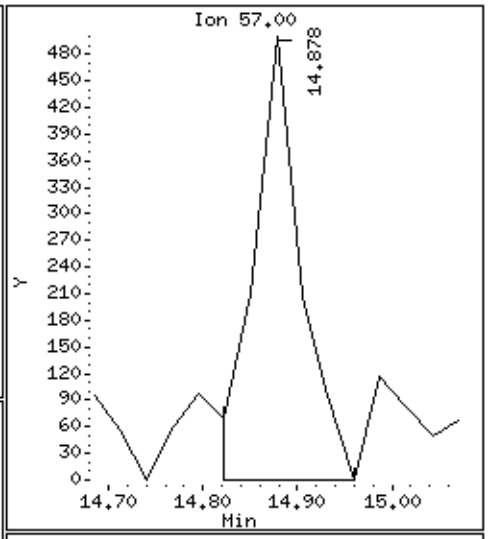
Concentration: 0.07213 PPBV

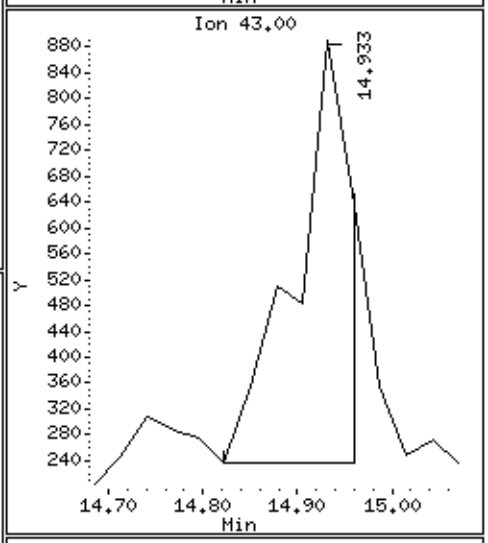


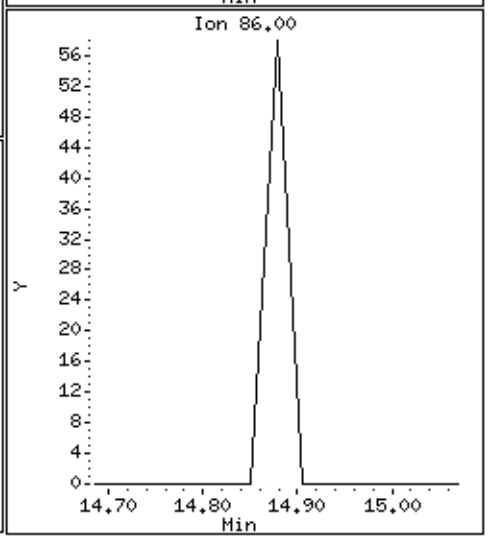












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

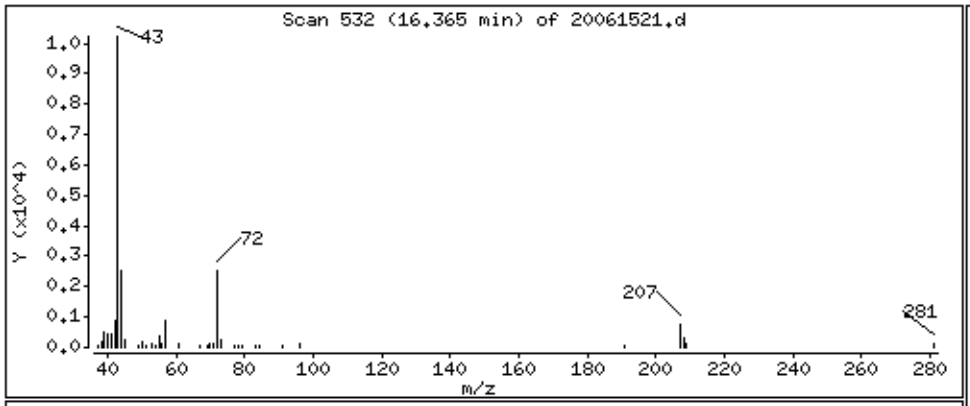
Operator: ef

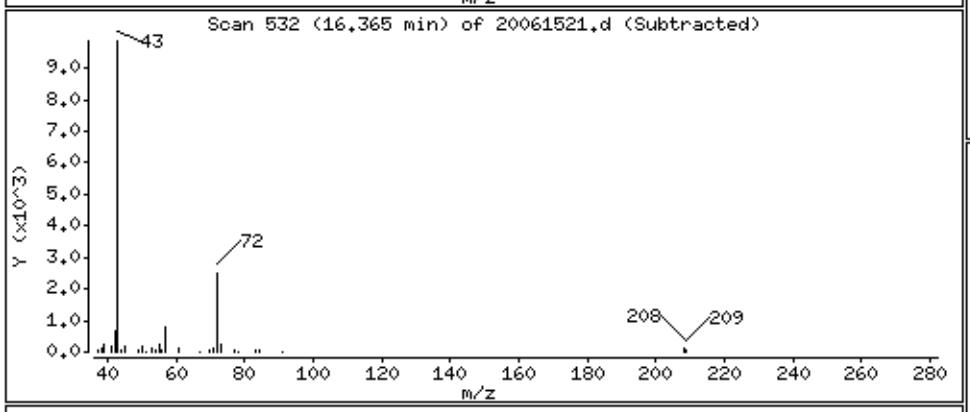
Column phase: RTX-624

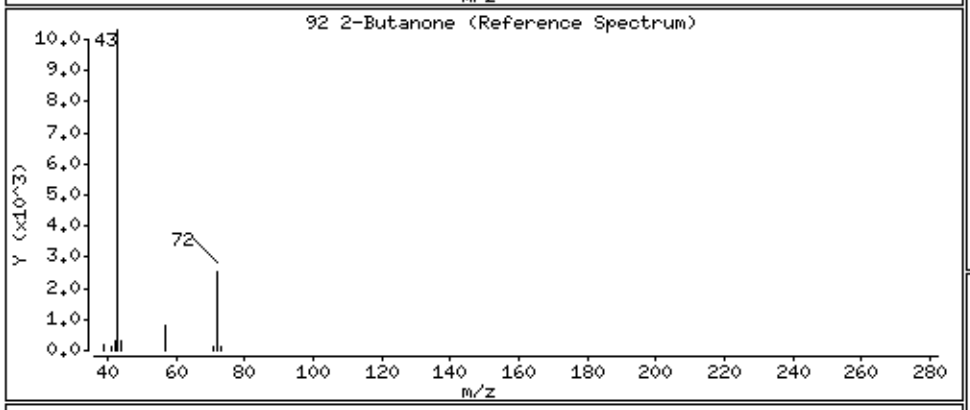
Column diameter: 0.32

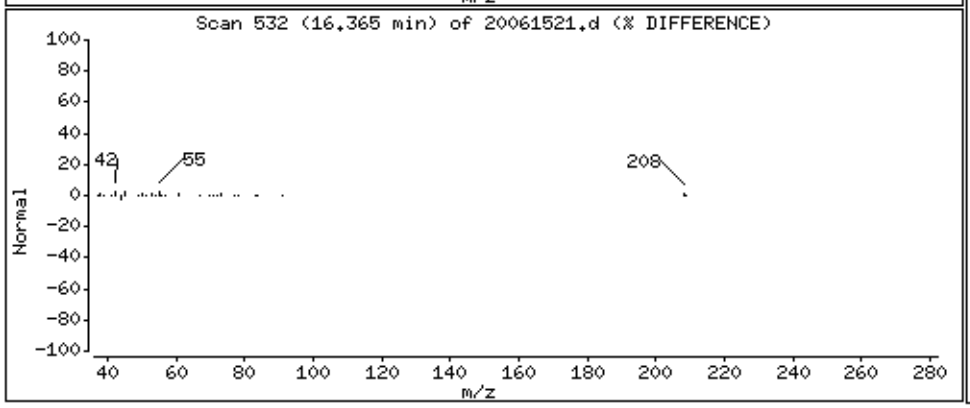
92 2-Butanone

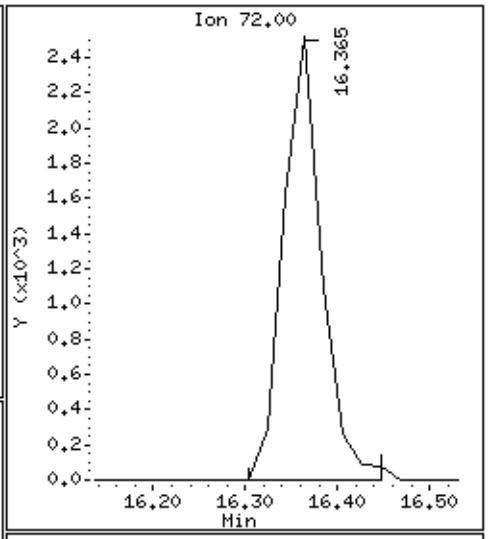
Concentration: 0.9110 PPBV

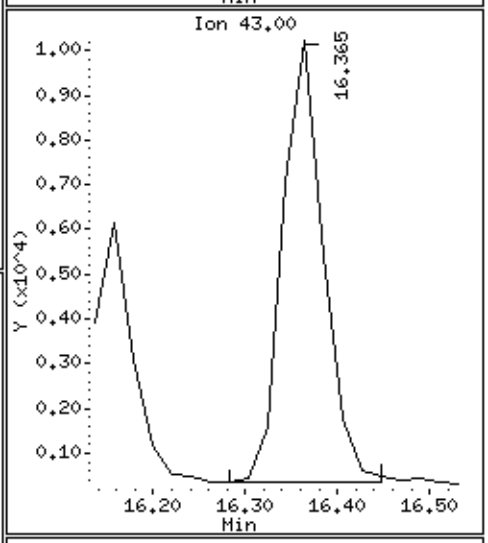


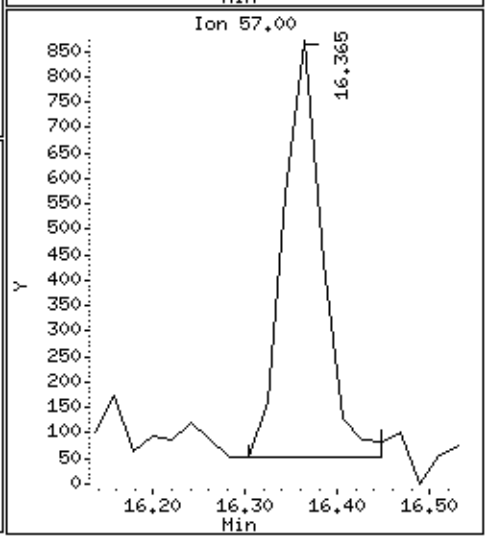












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

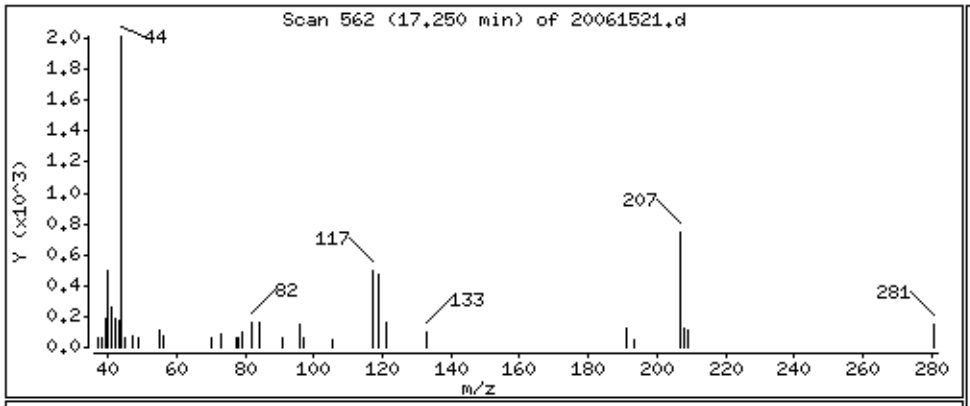
Operator: ef

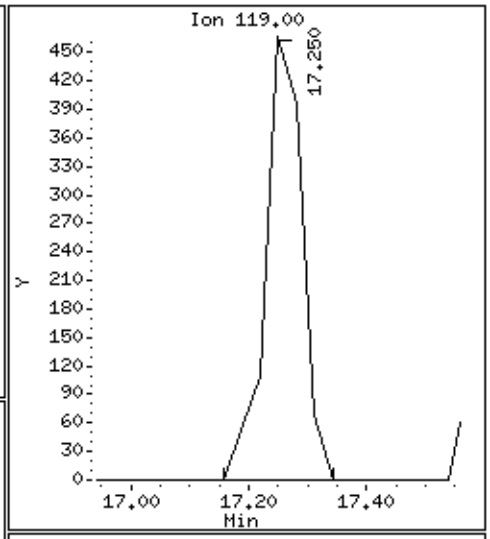
Column phase: RTX-624

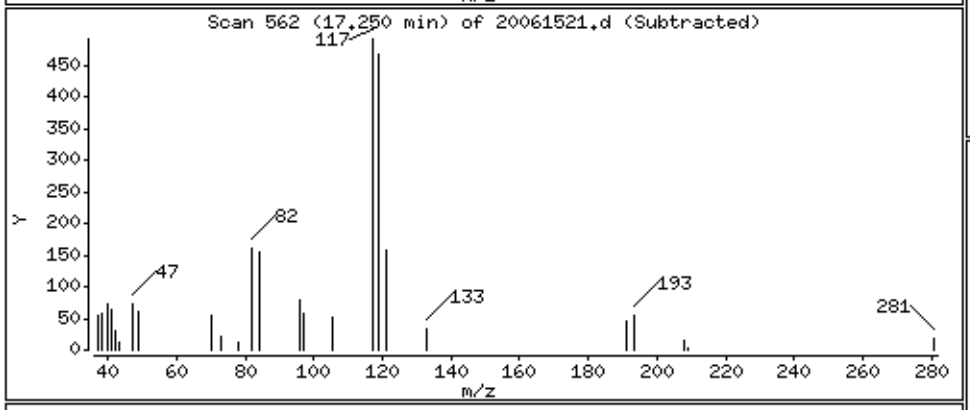
Column diameter: 0.32

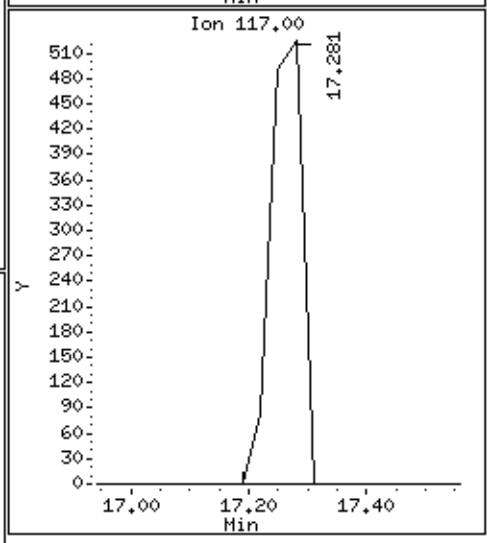
106 Carbon Tetrachloride

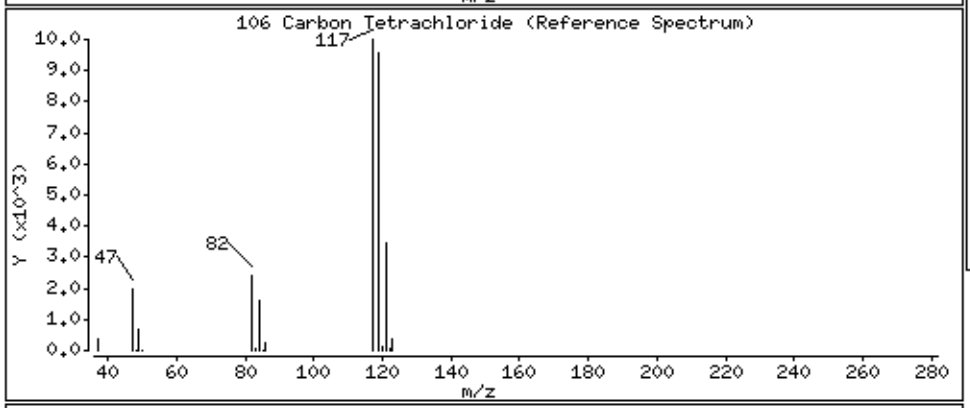
Concentration: 0.07345 PPBV

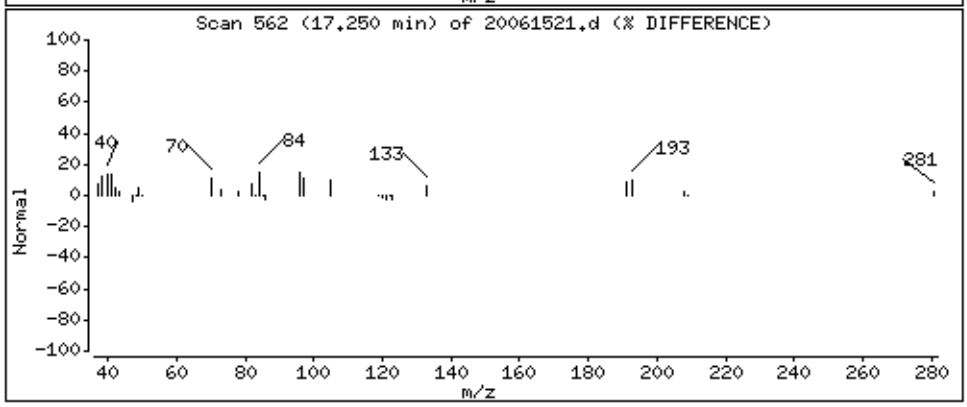












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

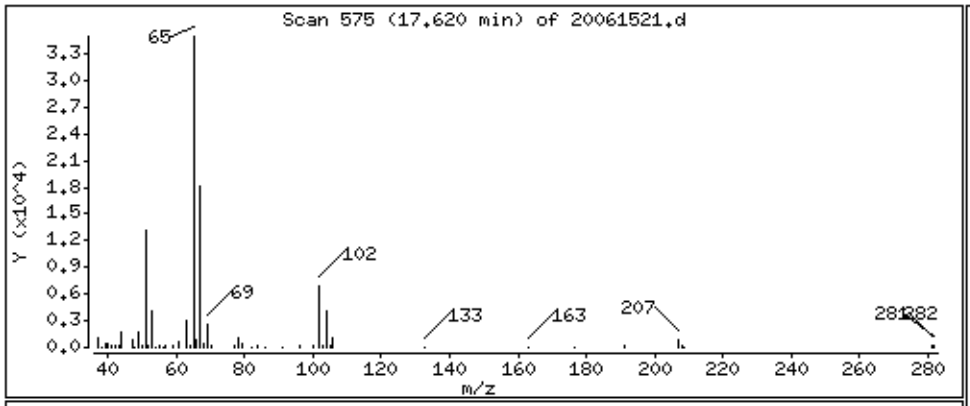
Operator: ef

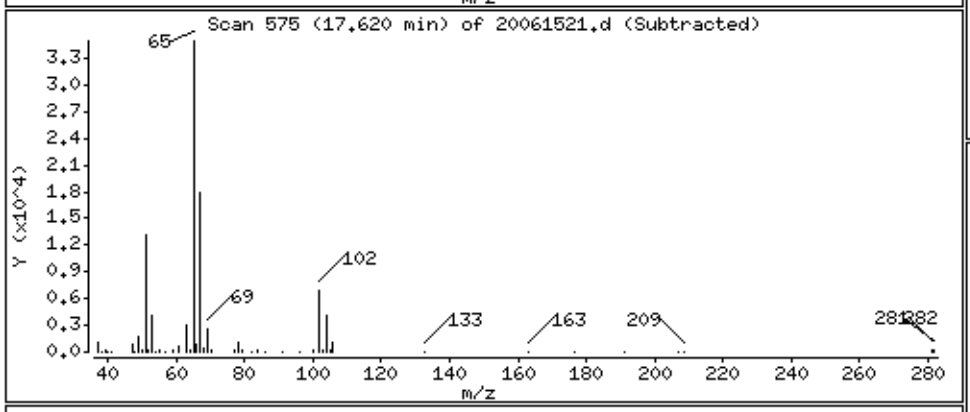
Column phase: RTX-624

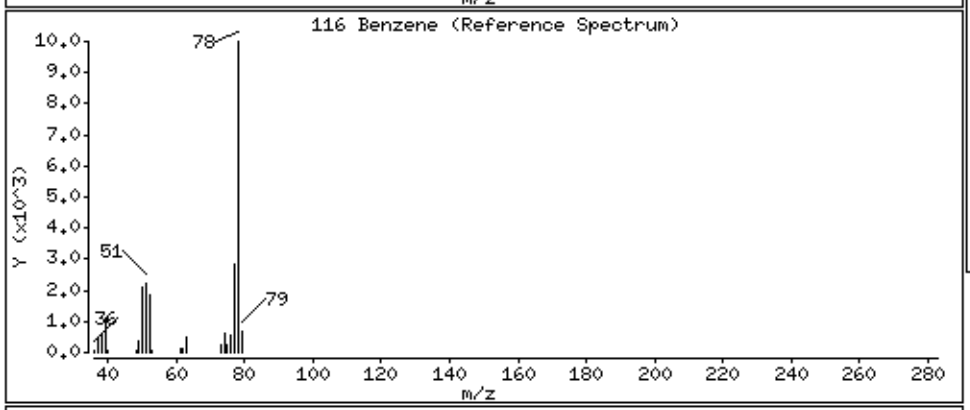
Column diameter: 0.32

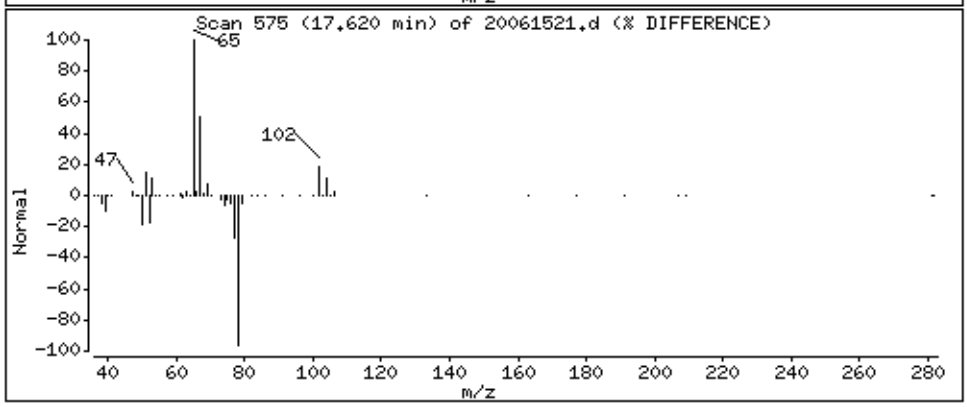
116 Benzene

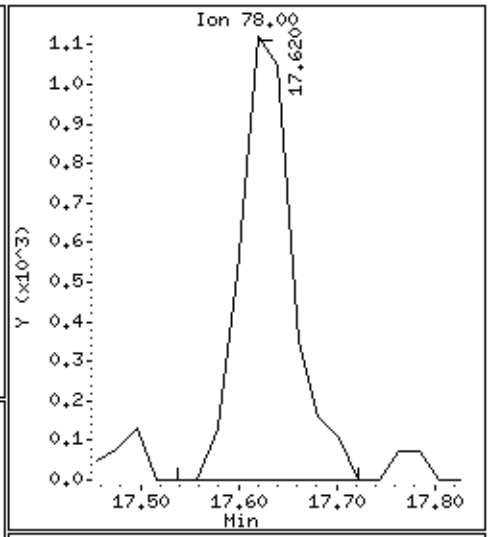
Concentration: 0.07901 PPBV

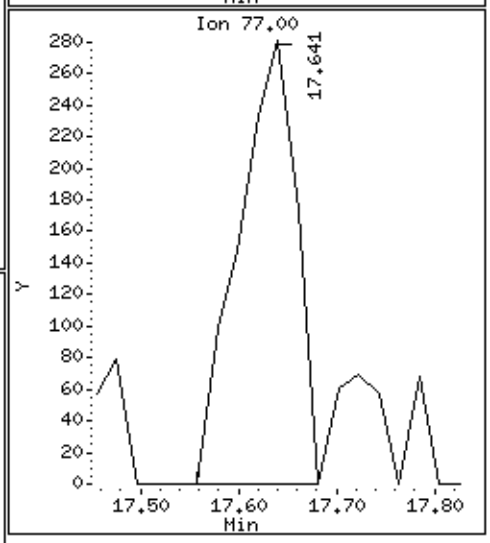












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

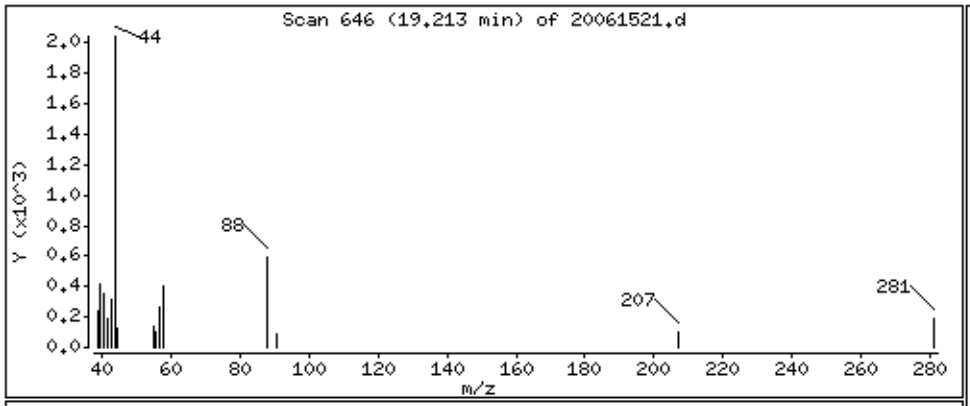
Operator: ef

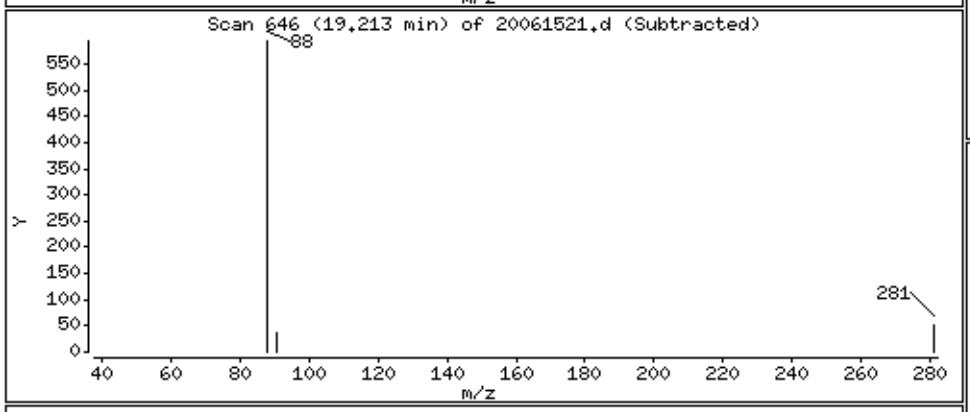
Column phase: RTX-624

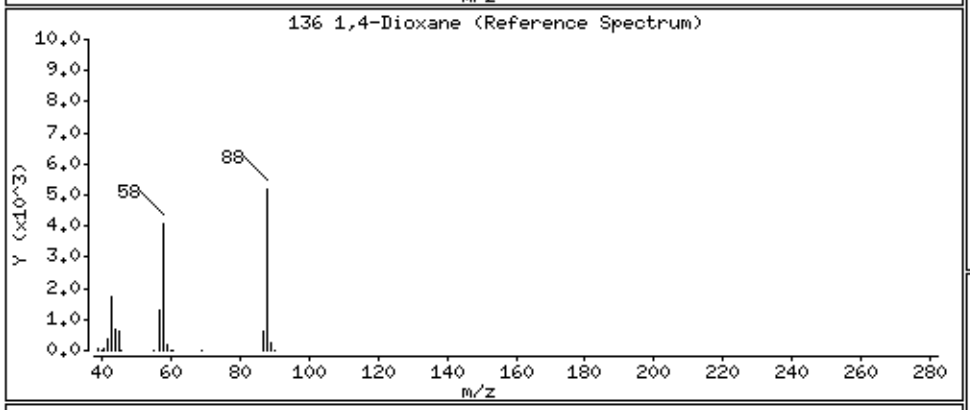
Column diameter: 0.32

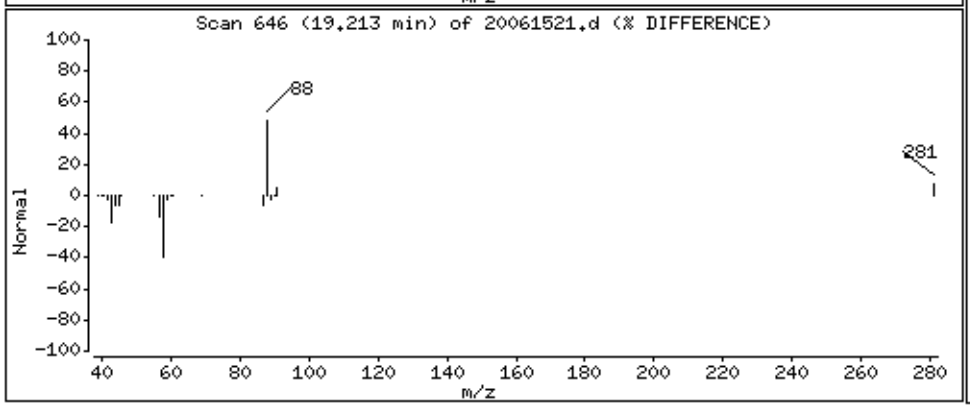
136 1,4-Dioxane

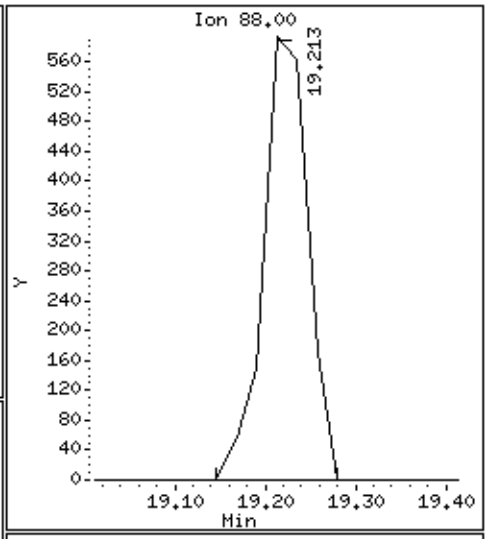
Concentration: 0.1440 PPBV

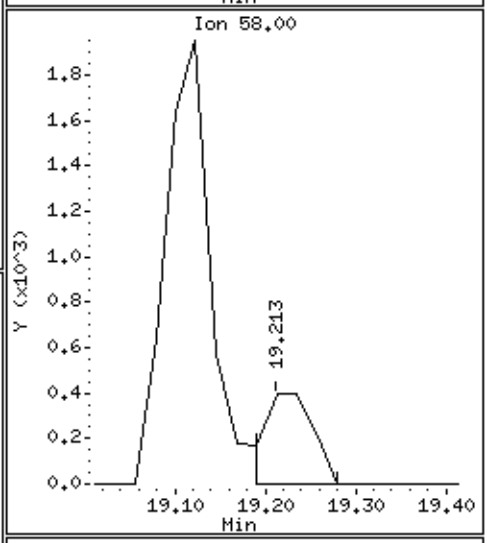


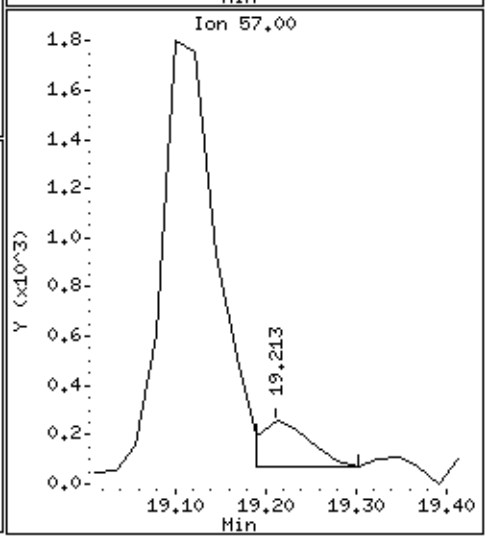












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

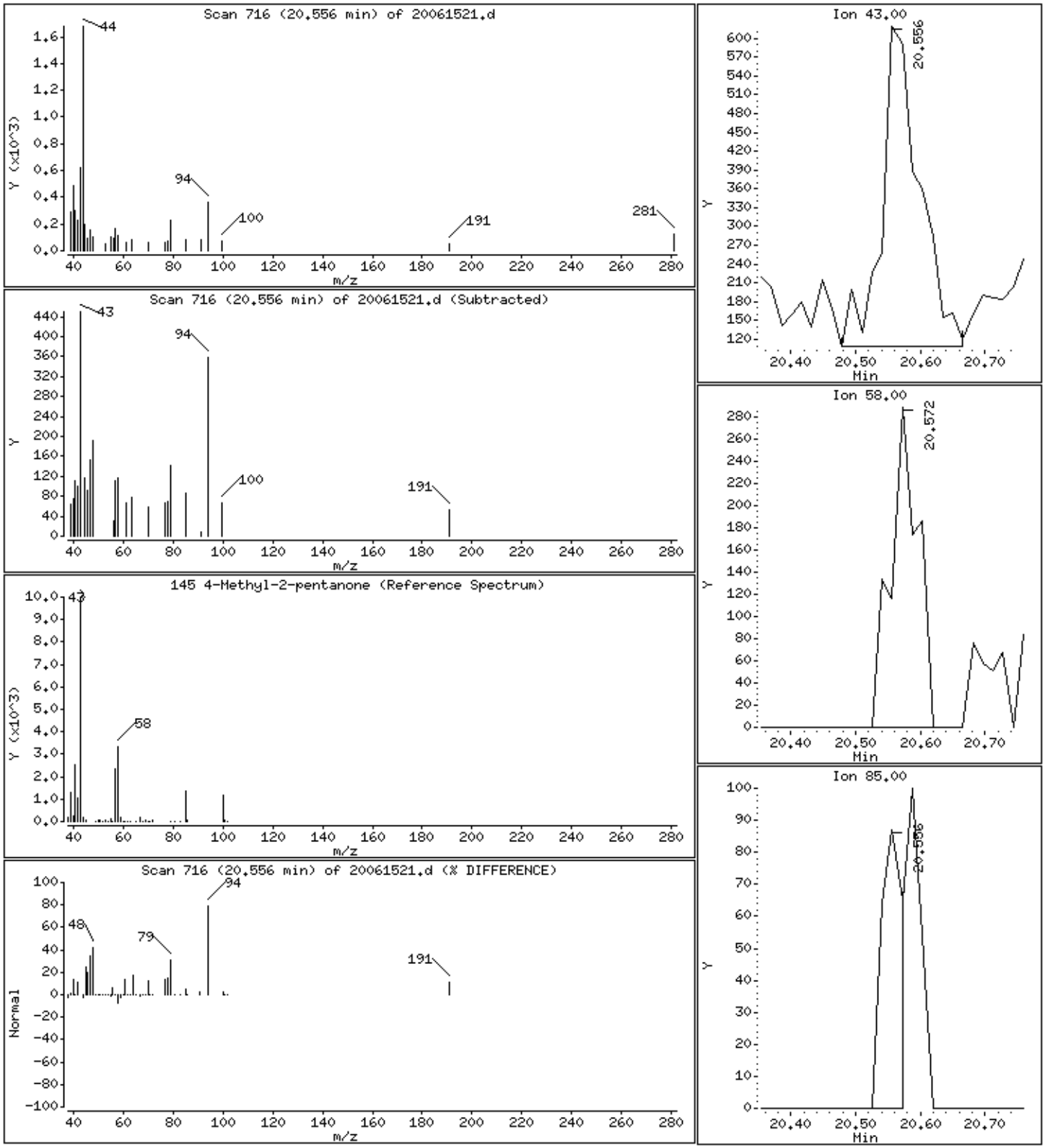
Operator: ef

Column phase: RTX-624

Column diameter: 0.32

145 4-Methyl-2-pentanone

Concentration: 0.05351 PPBV



Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

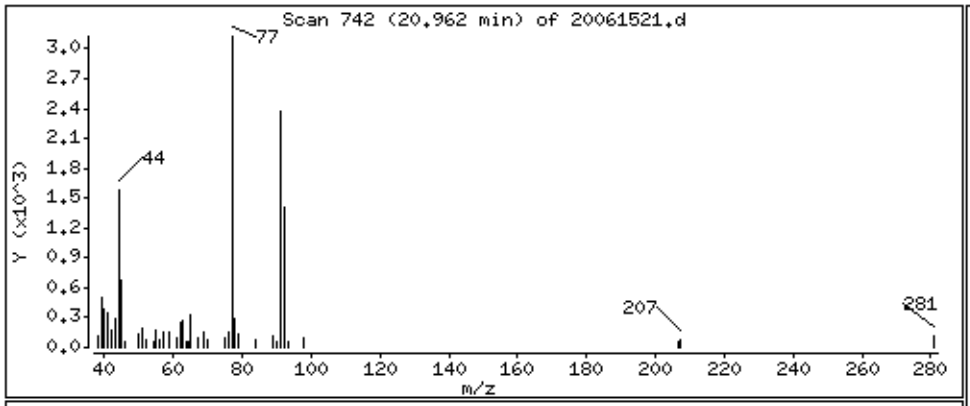
Operator: ef

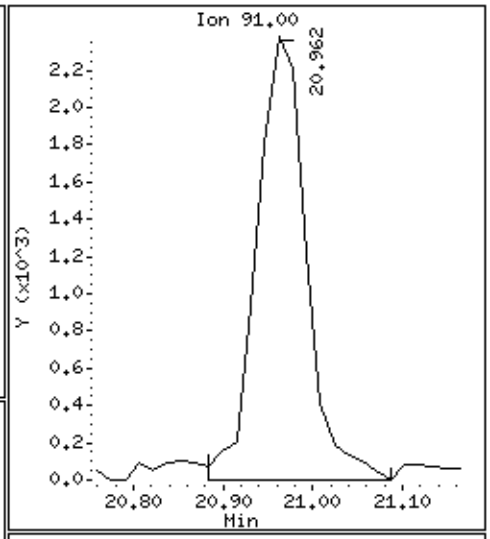
Column phase: RTX-624

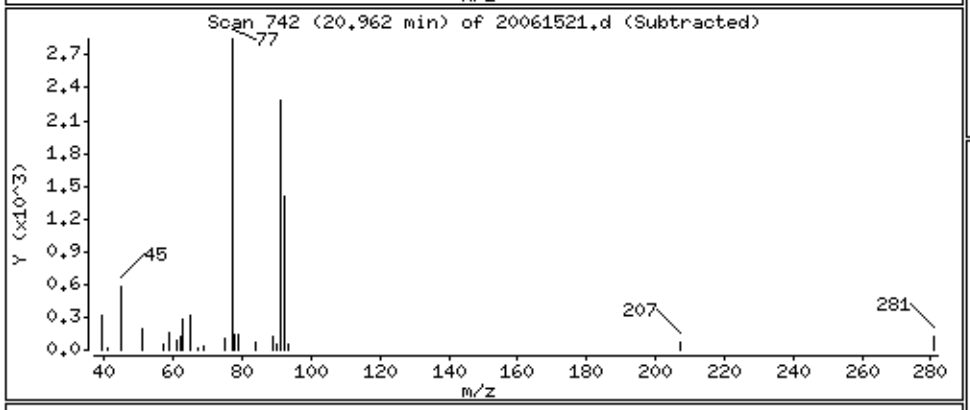
Column diameter: 0.32

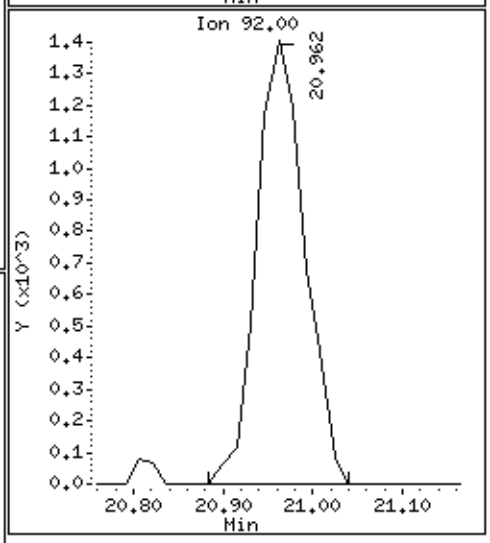
147 Toluene

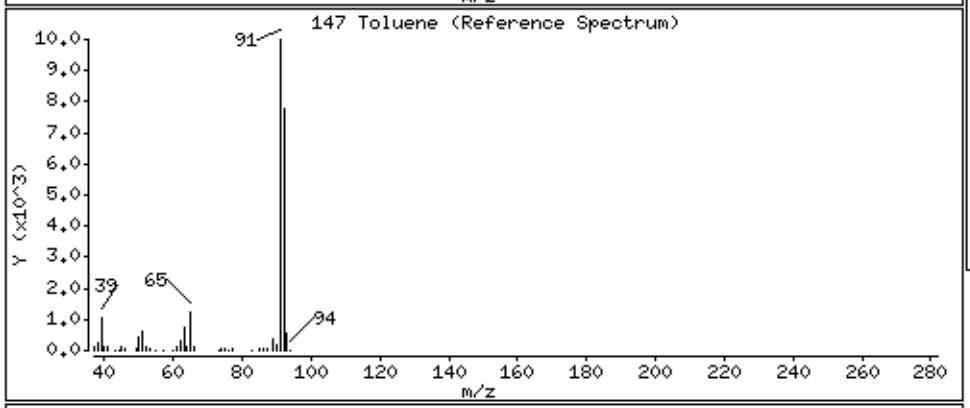
Concentration: 0.1500 PPBV

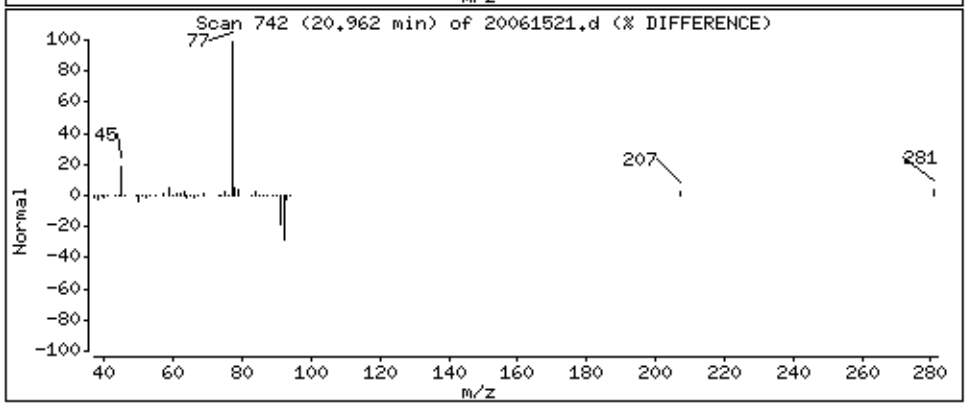












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

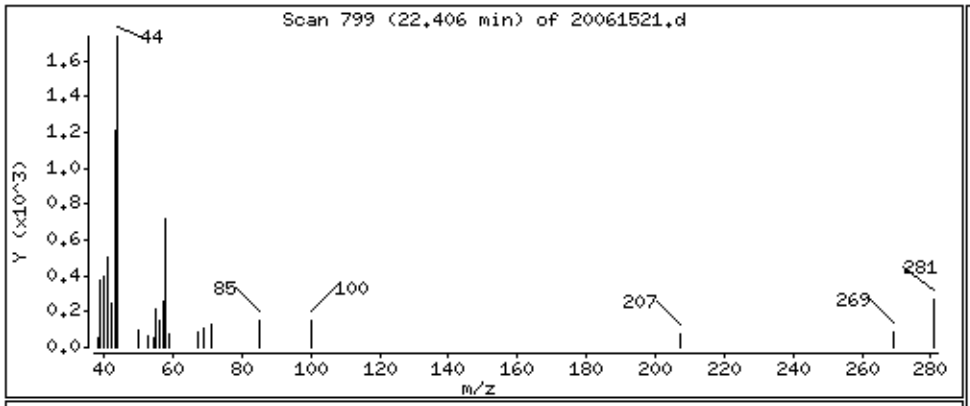
Operator: ef

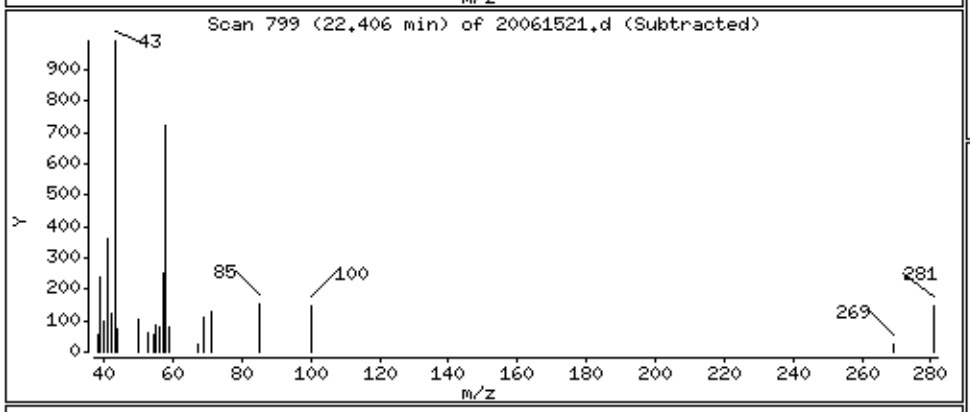
Column phase: RTX-624

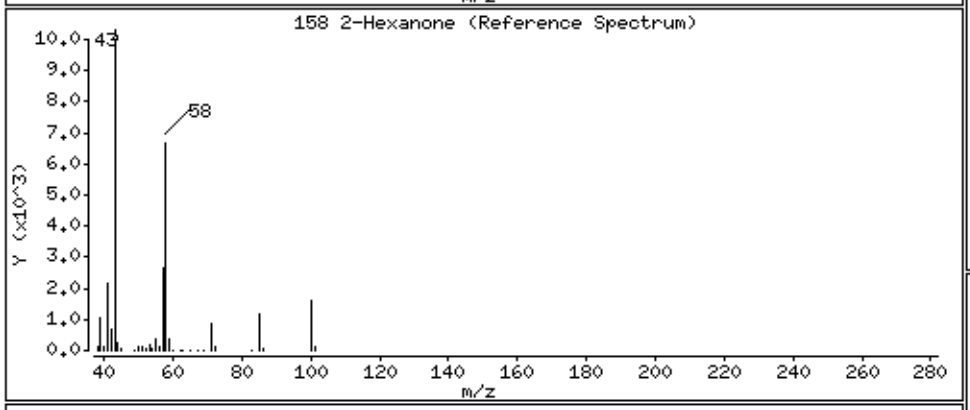
Column diameter: 0.32

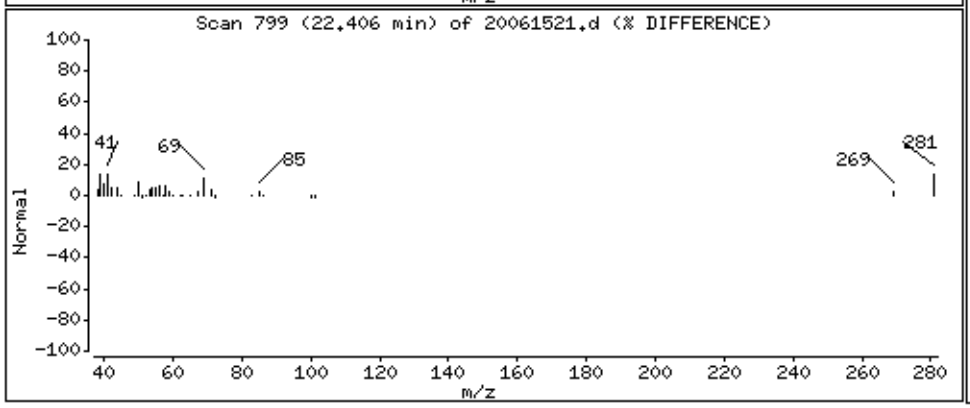
158 2-Hexanone

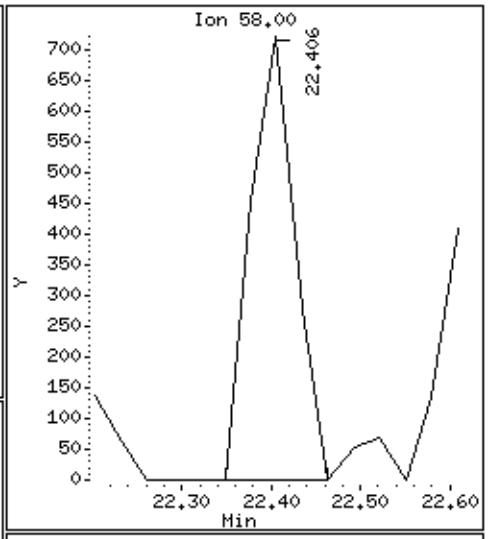
Concentration: 0.1297 PPBV

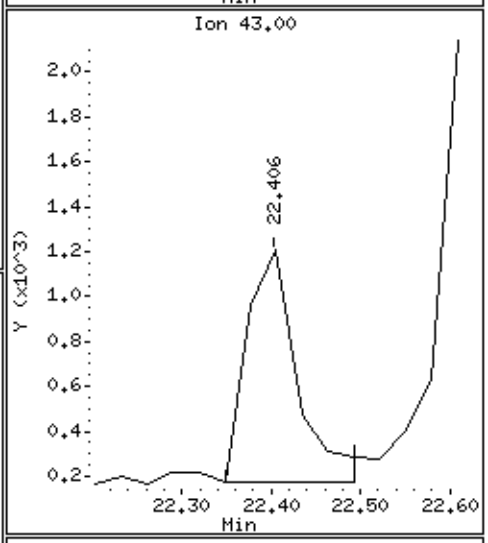


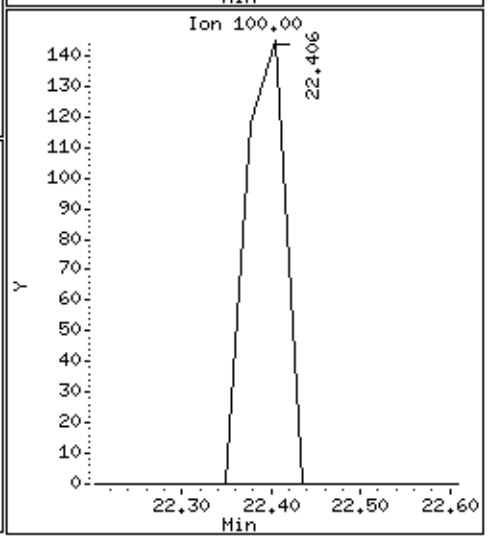












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

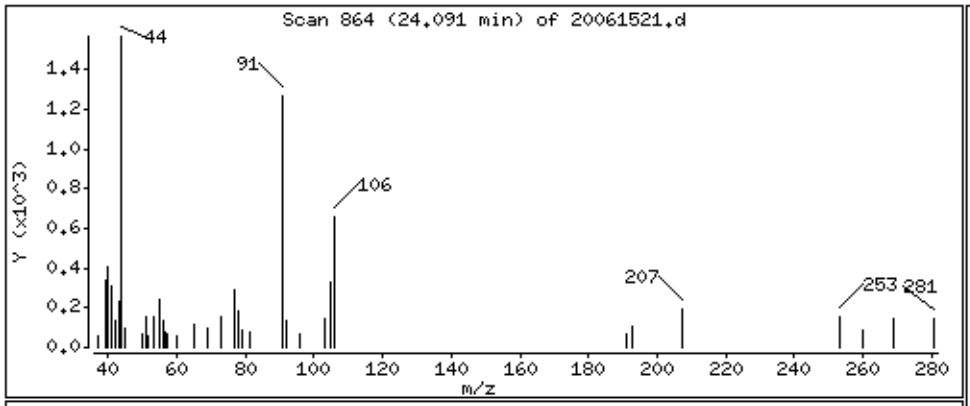
Operator: ef

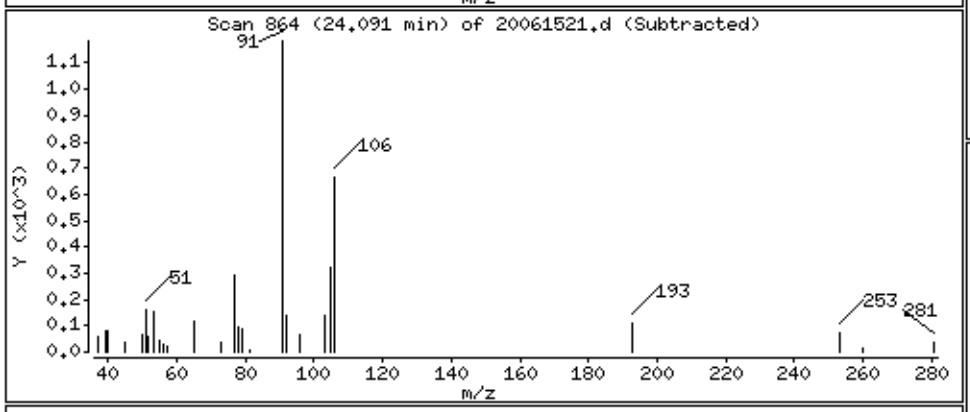
Column phase: RTX-624

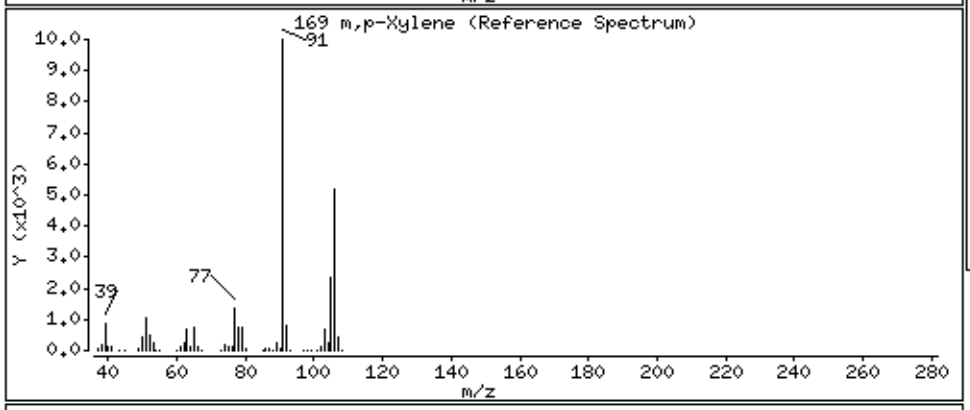
Column diameter: 0.32

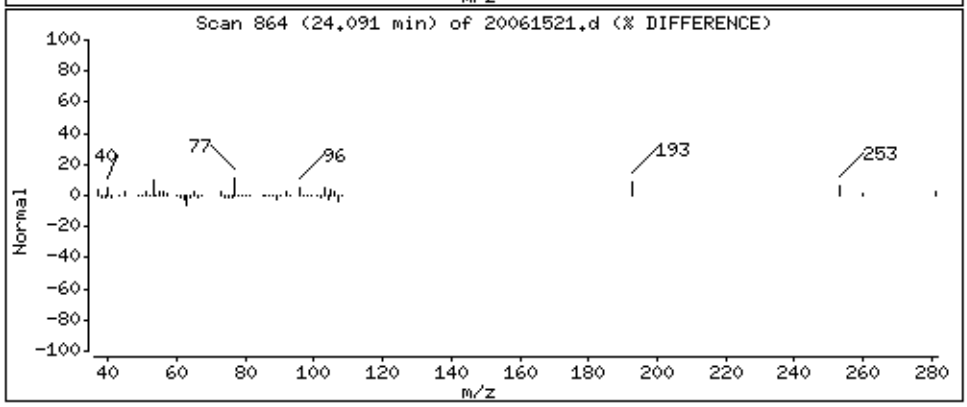
169 m,p-Xylene

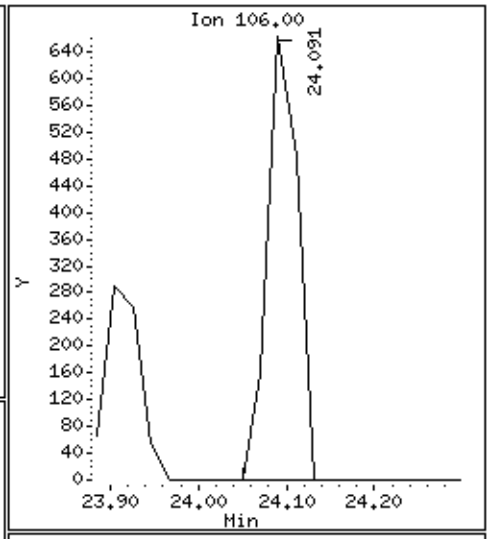
Concentration: 0.06344 PPBV

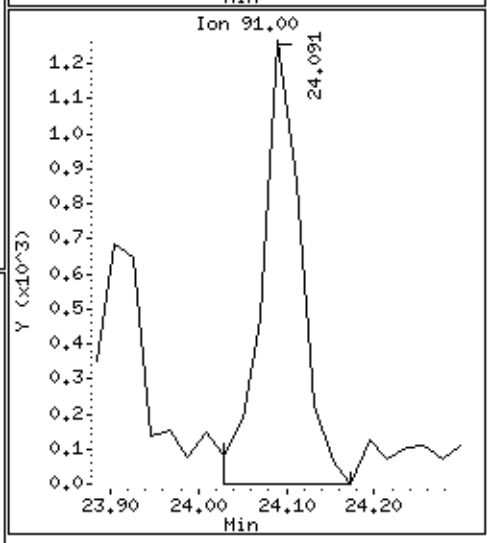












Data File: /chem/msd20.i/15Jun2016.b/20061521.d

Date : 16-JUN-2016 09:45

Client ID:

Instrument: msd20.i

Sample Info: 250mL# 25249

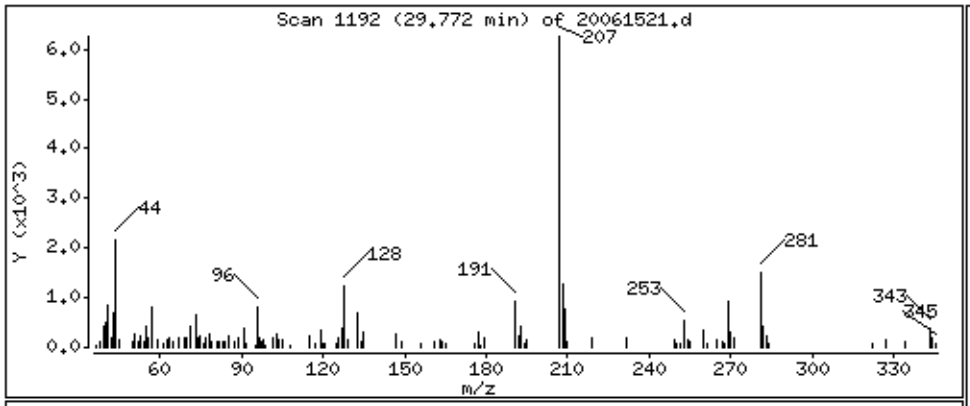
Operator: ef

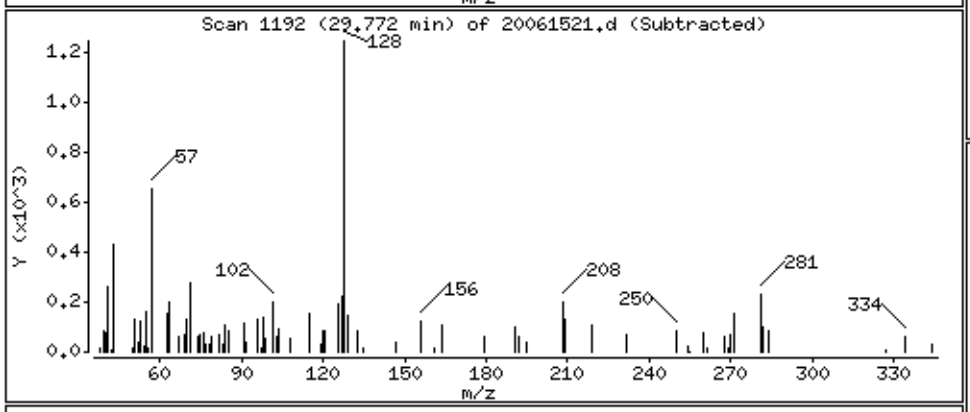
Column phase: RTX-624

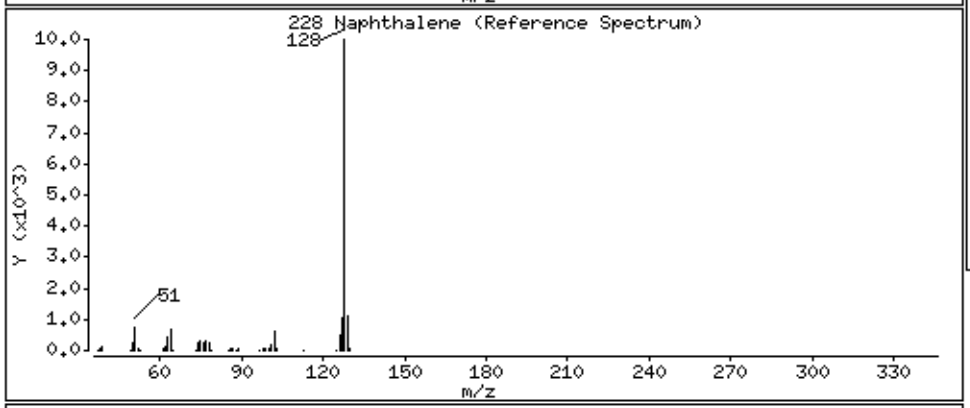
Column diameter: 0.32

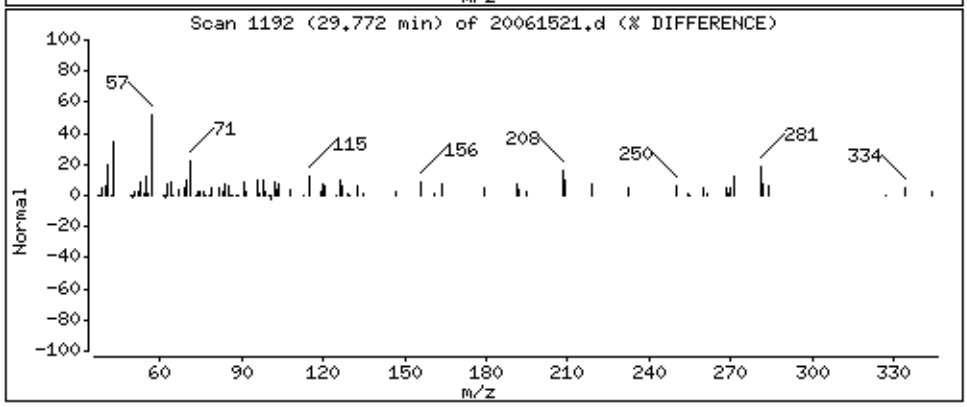
228 Naphthalene

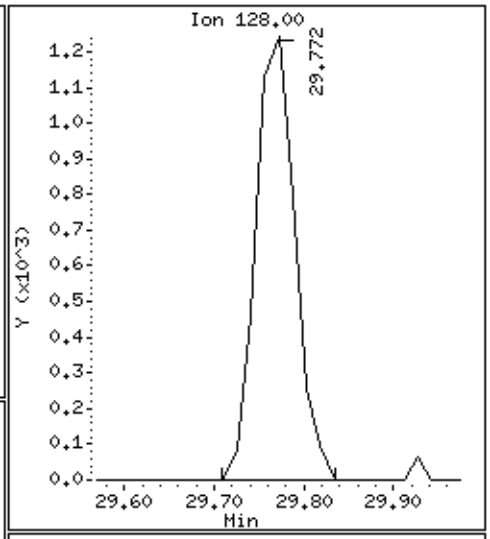
Concentration: 0.06276 PPBV

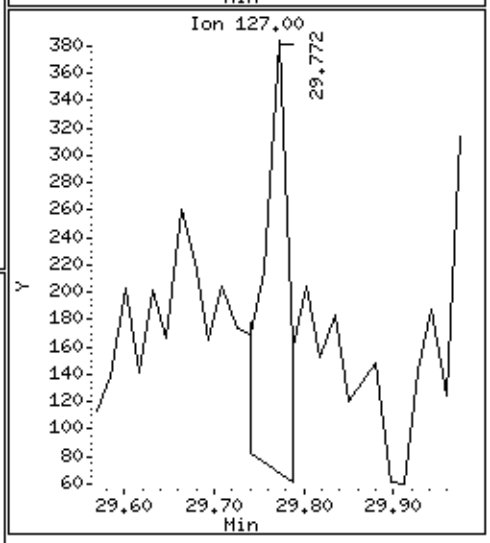












QC Results and Raw Data

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1606298A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061505a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 01:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.50	Not Detected	1.0	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	0.14 J	0.94	0.26 J
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	0.32 J	1.2	0.75 J
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	0.035 J	0.69	0.12 J
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	0.044 J	1.5	0.13 J
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
1,2-Dichloroethane	0.10	Not Detected	0.40	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
Trichloroethene	0.10	Not Detected	0.54	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected

eurofins | Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1606298A-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061505a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 01:16 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected
1,2-Dibromoethane (EDB)	0.10	Not Detected	0.77	Not Detected
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	0.031 J	0.42	0.13 J
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
1,1,2,2-Tetrachloroethane	0.10	0.025 J	0.69	0.17 J
Propylbenzene	0.10	0.021 J	0.49	0.10 J
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	0.044 J	0.60	0.27 J
1,4-Dichlorobenzene	0.10	0.050 J	0.60	0.30 J
alpha-Chlorotoluene	0.10	0.083 J	0.52	0.43 J
1,2-Dichlorobenzene	0.10	0.052 J	0.60	0.31 J
1,2,4-Trichlorobenzene	0.50	0.085 J	3.7	0.63 J
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	0.020 J	2.6	0.11 J

J = Estimated value.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	94	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061505a.d
Lab Smp Id: Lab Blank Client Smp ID: Lab Blank
Inj Date : 15-JUN-2016 13:16
Operator : ef Inst ID: msd20.i
Smp Info : 250mL # 35248
Misc Info : Humid
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TO15NMDL.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	112144	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	87718			47.16- 107.16	78.22
16.726	16.726 (1.000)	49	140092			84.74- 144.74	124.92
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	507274	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	81084			0.00- 45.65	15.98
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	403677	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	223093			24.05- 84.05	55.27
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	167241	5.60567	5.606	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	87653			28.75- 88.75	52.41
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.822	20.821 (1.142)	98	473346	4.92428	4.924	80.00- 120.00	100.00
20.822	20.806 (1.142)	70	55121			0.00- 41.22	11.65

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

$ 146 Toluene-d8 (continued)
 20.822  20.821 (1.142)   100    321342                    37.90-  97.90    67.89
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    209261 4.71500    4.715  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    255063                    88.33- 148.33   121.89
 25.485  25.485 (1.073)   176    203385                    68.77- 128.77    97.19
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.324  12.269 (0.737)    45      1597 0.13988   0.1399  80.00- 120.00   100.00(a)
 12.324  12.269 (0.737)    46       469                    11.01-  71.01    29.41
 12.351  12.269 (0.738)    43       888                     0.00-  50.63    55.62
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58      5279 0.31515   0.3151  80.00- 120.00   100.00(a)
 13.093  13.093 (0.783)    43     16044                   275.09- 335.09   303.93
-------------------------------------------------------------------------------
   66 Methylene Chloride                            CAS #: 75-09-2
 14.027  14.027 (0.839)    84      1261 0.03460  0.03460  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      1395                    88.46- 148.46   110.58
 14.027  14.027 (0.839)    51       882                     6.78-  66.78    69.97
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.365  16.344 (0.978)    72       786 0.04403  0.04403  80.00- 120.00   100.00(a)
 16.365  16.344 (0.978)    43      2689                   324.50- 384.50   342.10
 16.344  16.344 (0.977)    57       420                     0.00-  59.24    53.48
-------------------------------------------------------------------------------
  172 Styrene                                       CAS #: 100-42-5
 24.731  24.730 (1.041)   104      2554 0.03107  0.03107  80.00- 120.00   100.00(a)
 24.731  24.730 (1.041)    78      1539                    19.76-  79.76    60.27
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83      2383 0.02478  0.02478  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      1583                    34.06-  94.06    66.44
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.732  25.731 (1.083)    91      3357 0.02100  0.02100  80.00- 120.00   100.00(a)
 25.732  25.731 (1.083)   120       697                     0.00-  54.46    20.77
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.810  26.810 (1.128)   146      3716 0.04444  0.04444  80.00- 120.00   100.00(a)
 26.810  26.810 (1.128)   148      2845                    33.99-  93.99    76.56
 26.810  26.794 (1.128)   111      1502                     9.12-  69.12    40.42
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.919  26.919 (1.133)   146      3983 0.05016  0.05016  80.00- 120.00   100.00(a)
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
209 1,4-Dichlorobenzene (continued)							
26.919	26.919 (1.133)	148	2945			33.88- 93.88	73.94
26.919	26.919 (1.133)	111	1843			7.98- 67.98	46.28
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	6787	0.08321	0.08321	80.00- 120.00	100.00(a)
27.075	27.075 (1.139)	126	1484			0.00- 51.77	21.87
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	4016	0.05205	0.05205	80.00- 120.00	100.00(a)
27.371	27.371 (1.152)	148	2969			33.08- 93.08	73.94
27.371	27.371 (1.152)	111	1598			11.01- 71.01	39.80
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	7081	0.08525	0.08525	80.00- 120.00	100.00(a)
29.382	29.382 (1.237)	182	5952			64.78- 124.78	84.05
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	2649	0.02042	0.02042	80.00- 120.00	100.00(a)
29.756	29.772 (1.252)	127	202			0.00- 43.33	7.64

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: msd20.i
Lab File ID: 20061505a.d
Lab Smp Id: Lab Blank
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: Humid

Calibration Date: 15-JUN-2016
Calibration Time: 11:00
Client Smp ID: Lab Blank
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	112144	-4.62
123 1,4-Difluorobenze	491034	294620	687448	507274	3.31
163 Chlorobenzene-d5	413171	247903	578439	403677	-2.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 15-Jun-2016 13:58

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 15Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: Lab Blank
Client Smp ID: Lab Blank
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: BLANK
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: TO15NMDL.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: Humid

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.606	112.11	70-130
$ 146 Toluene-d8	5.000	4.924	98.49	70-130
$ 177 4-Bromofluorobenze	5.000	4.715	94.30	70-130

Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

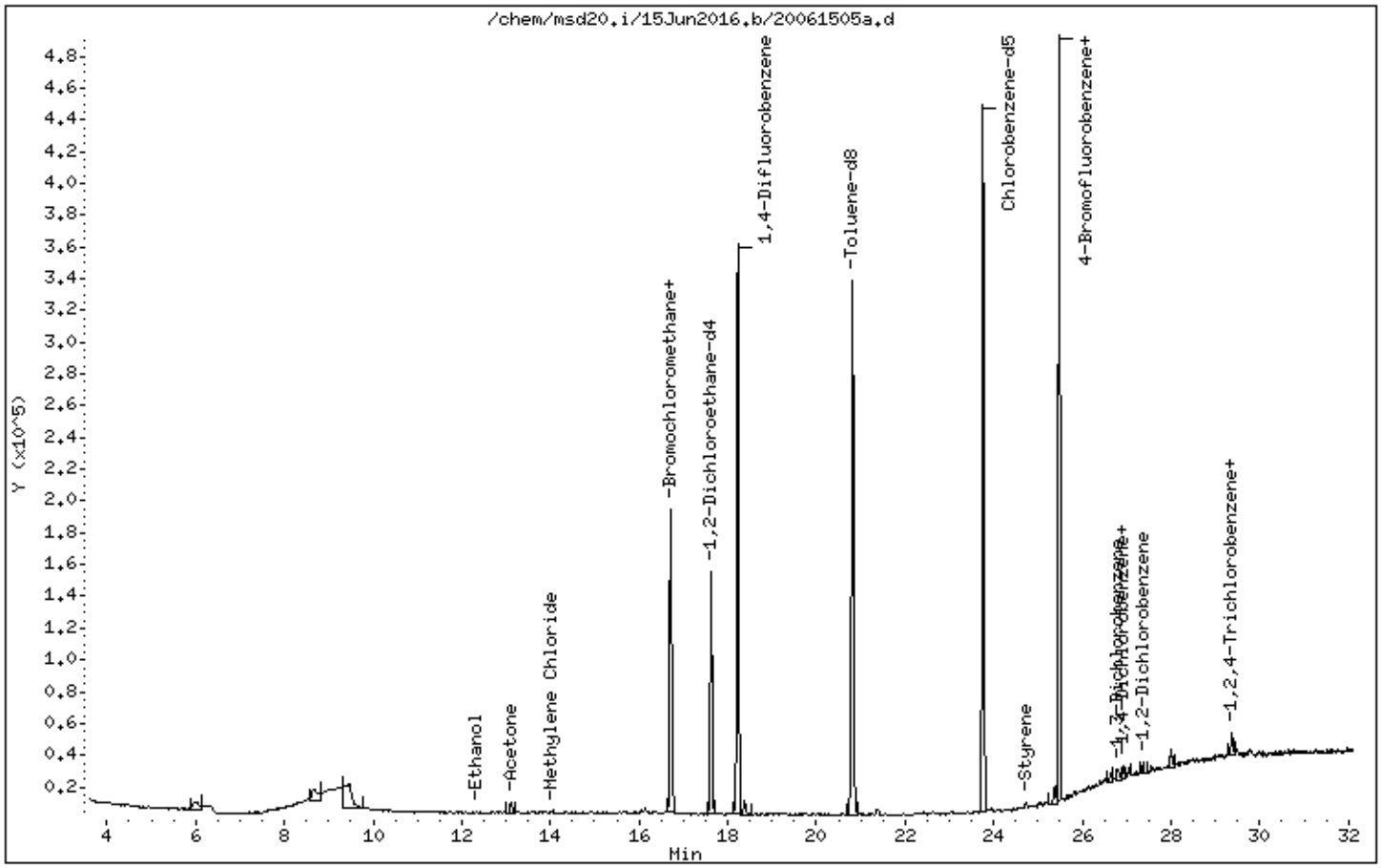
Instrument: msd20.i

Sample Info: 250mL # 35248

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

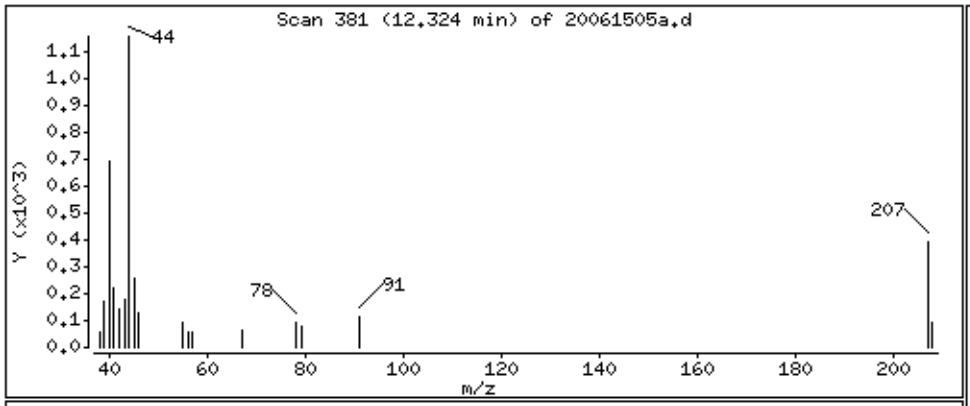
Operator: ef

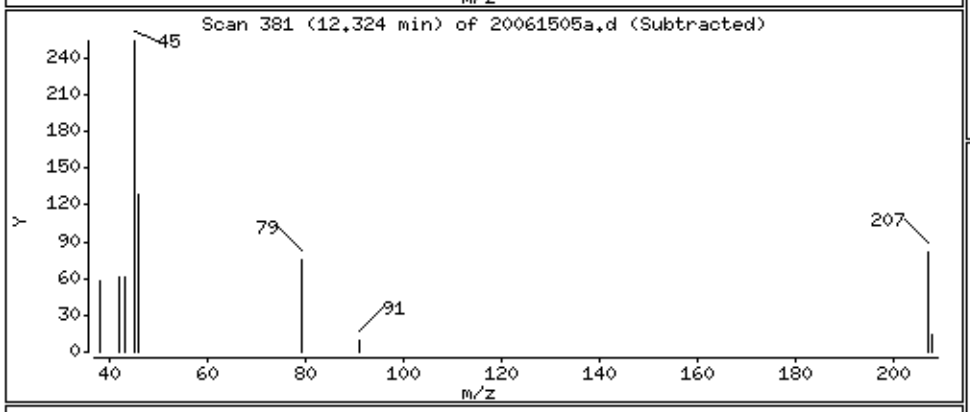
Column phase: RTX-624

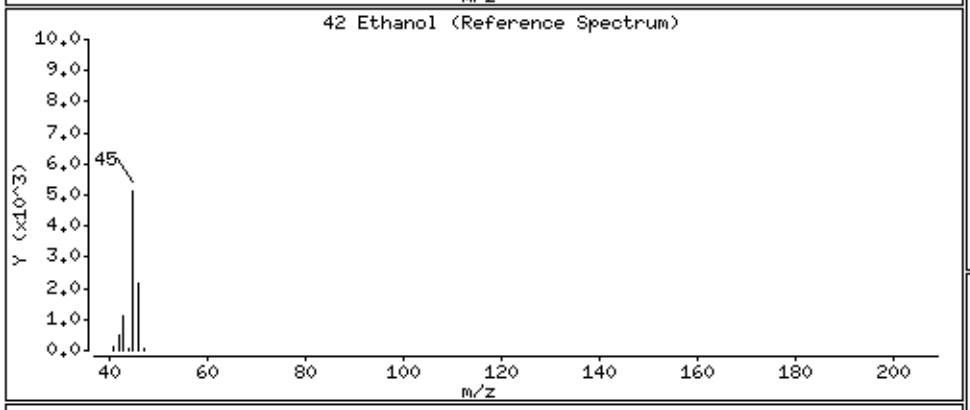
Column diameter: 0.32

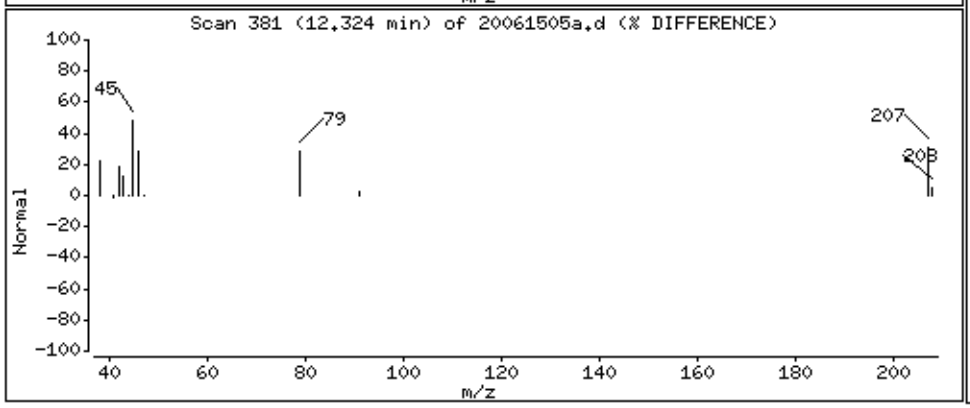
42 Ethanol

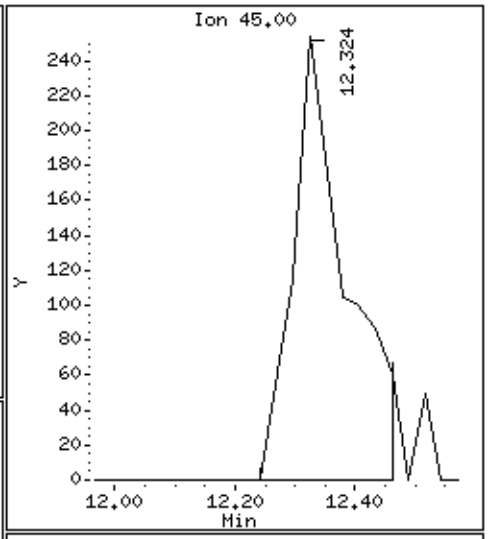
Concentration: 0.1399 PPBV

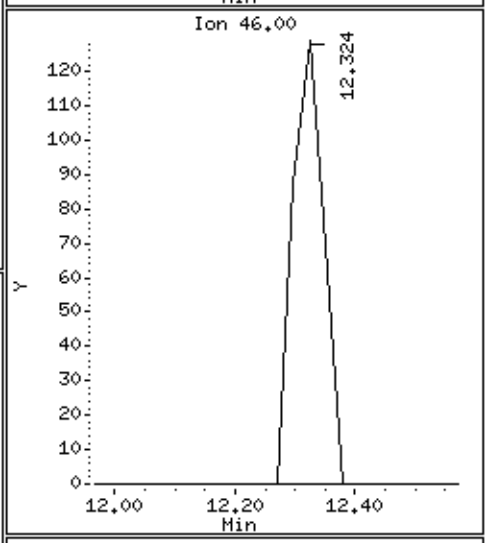


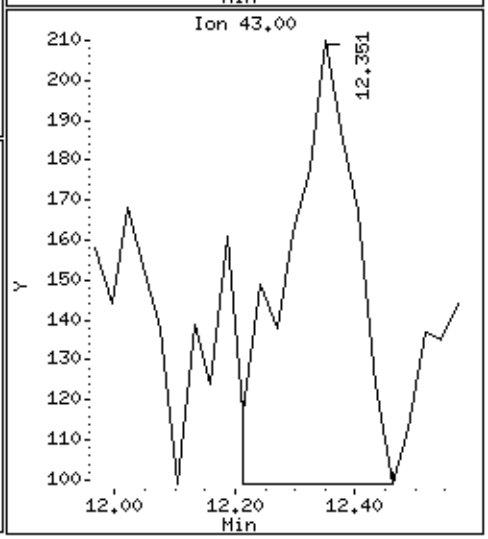












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

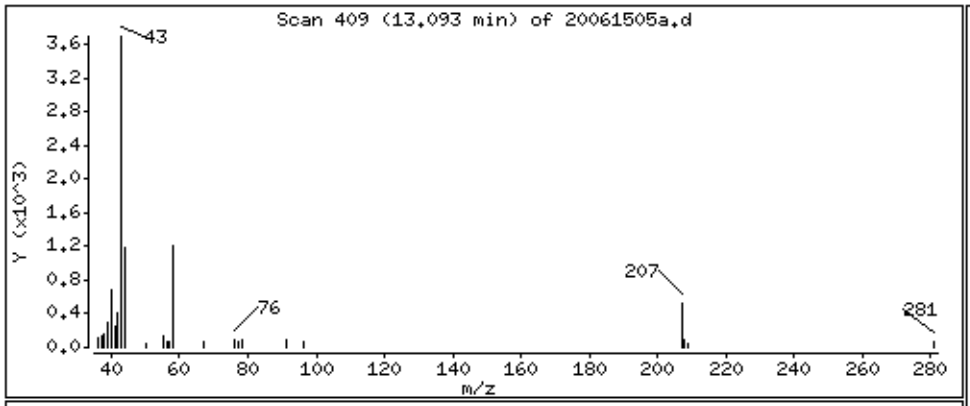
Operator: ef

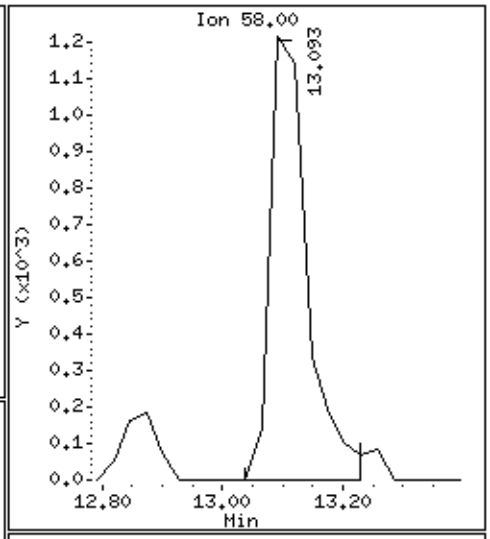
Column phase: RTX-624

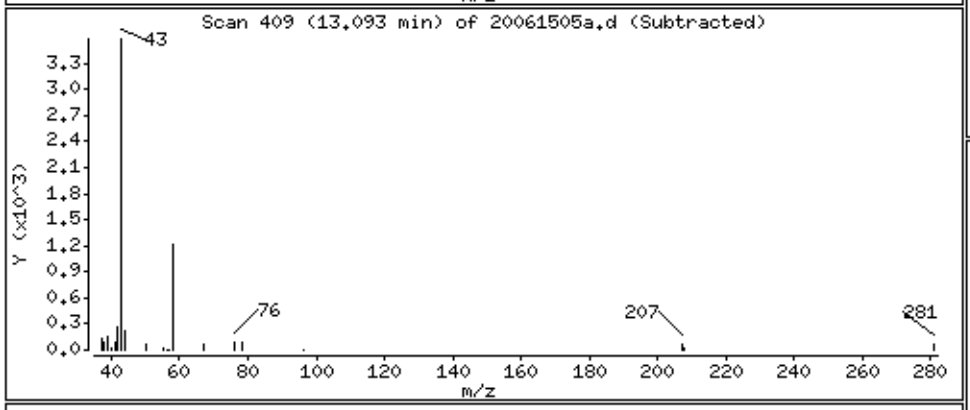
Column diameter: 0.32

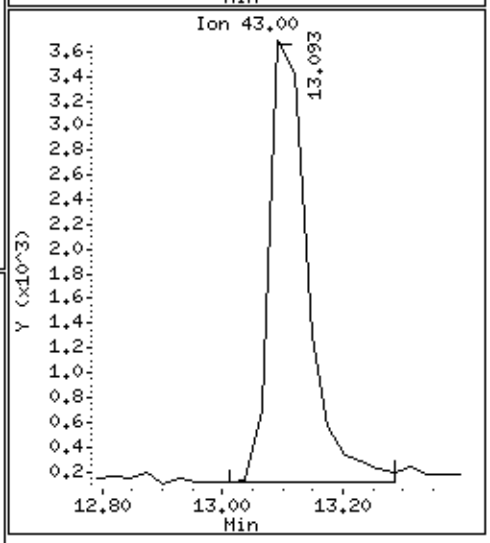
52 Acetone

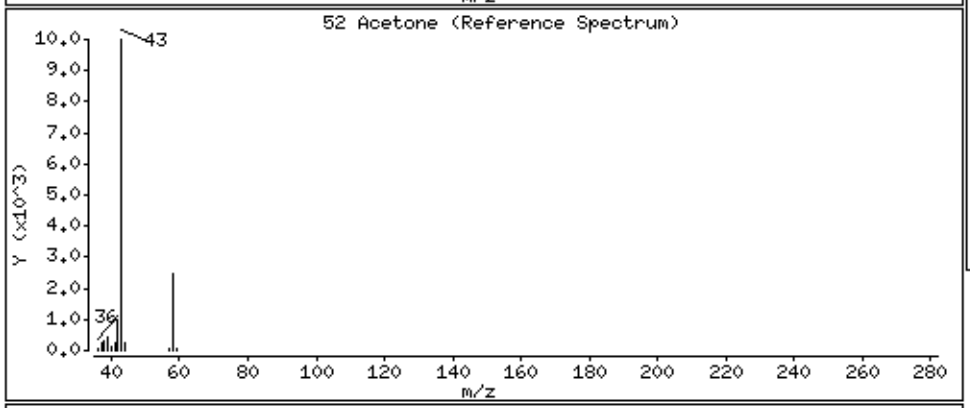
Concentration: 0.3151 PPBV

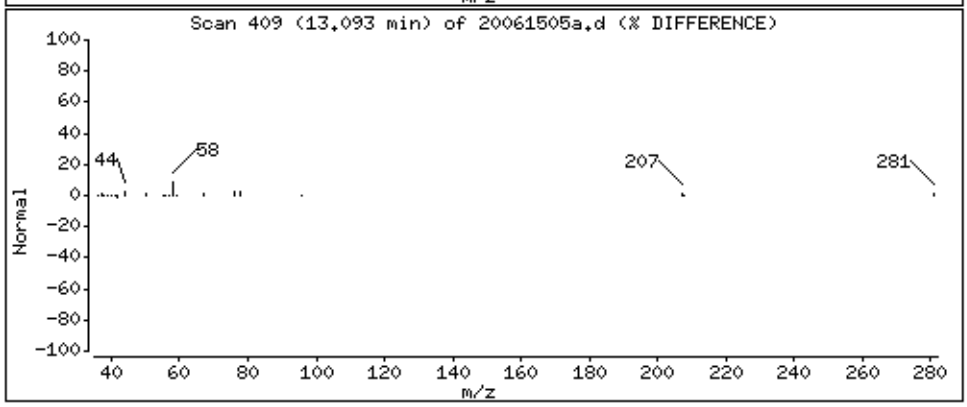












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

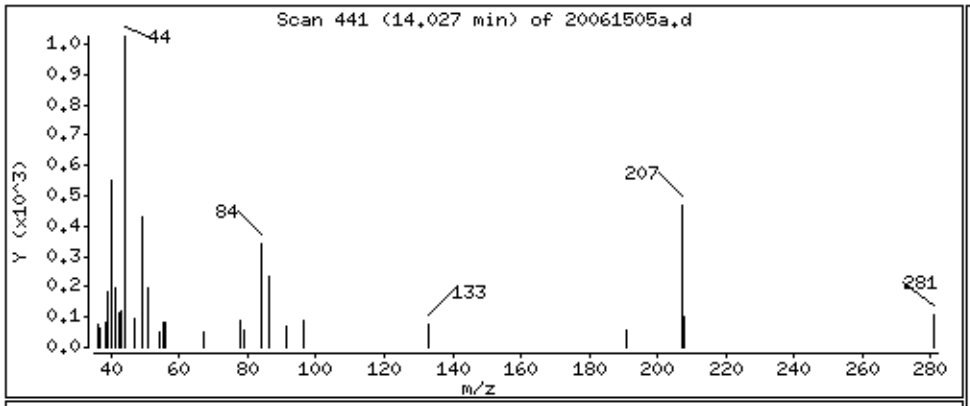
Operator: ef

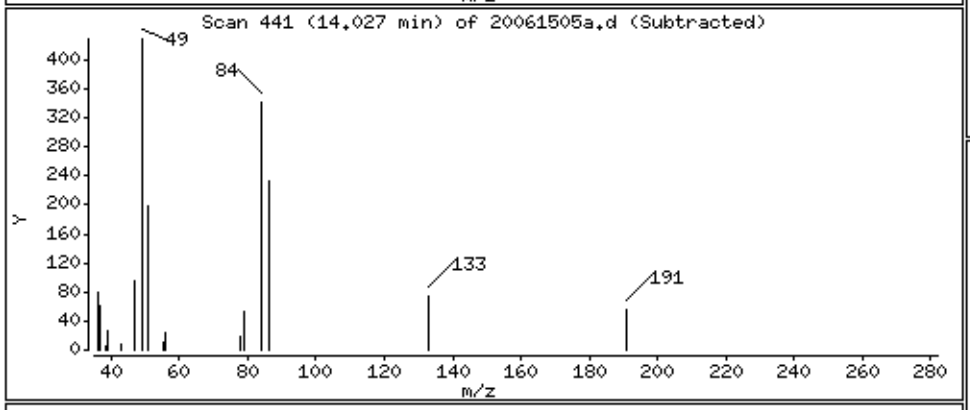
Column phase: RTX-624

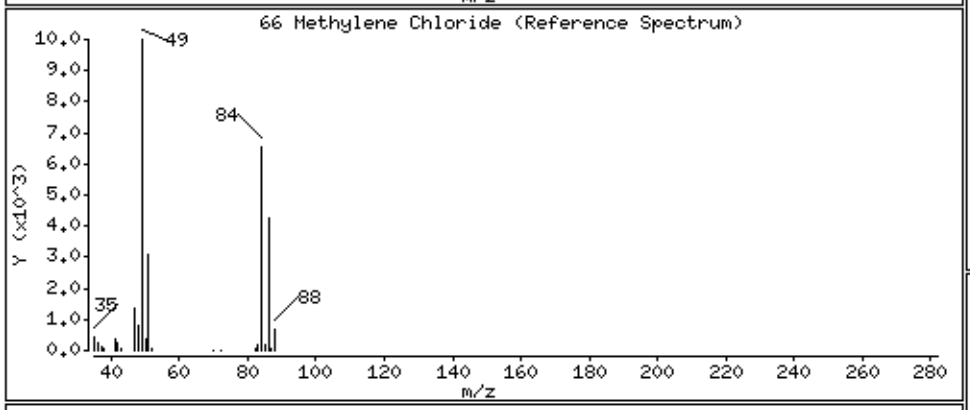
Column diameter: 0.32

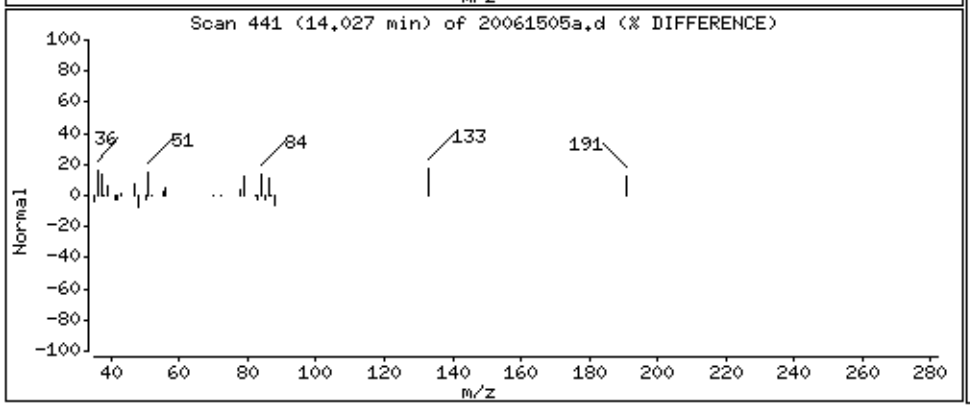
66 Methylene Chloride

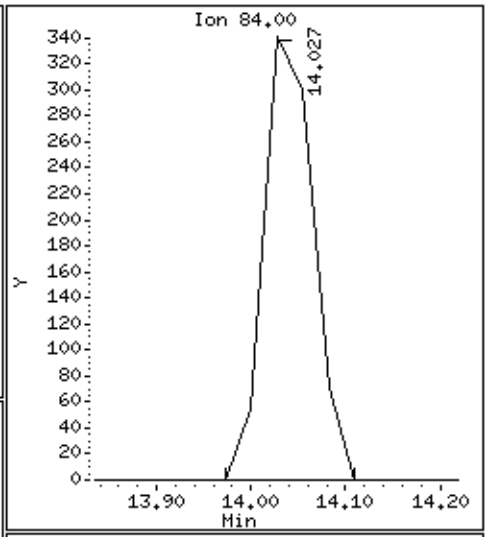
Concentration: 0.03460 PPBV

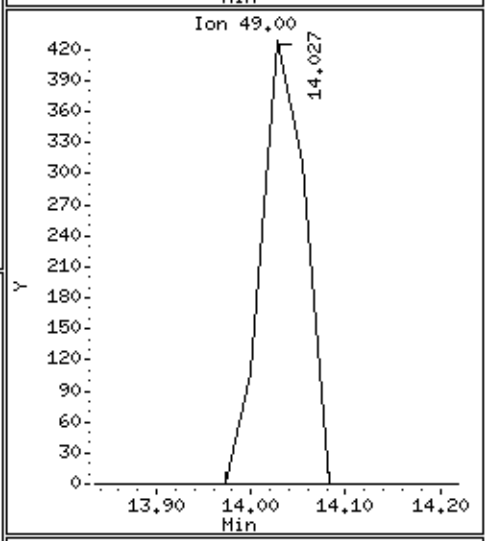


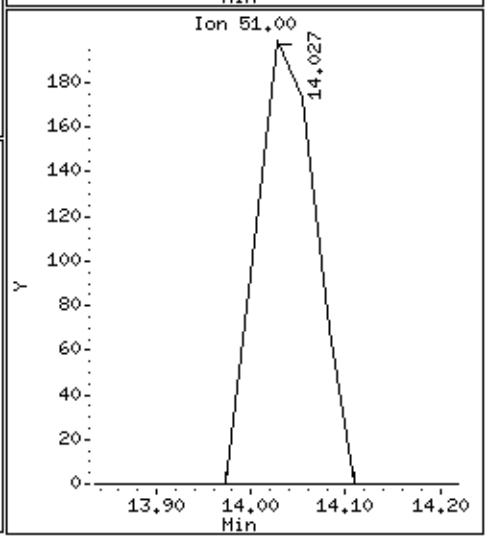












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

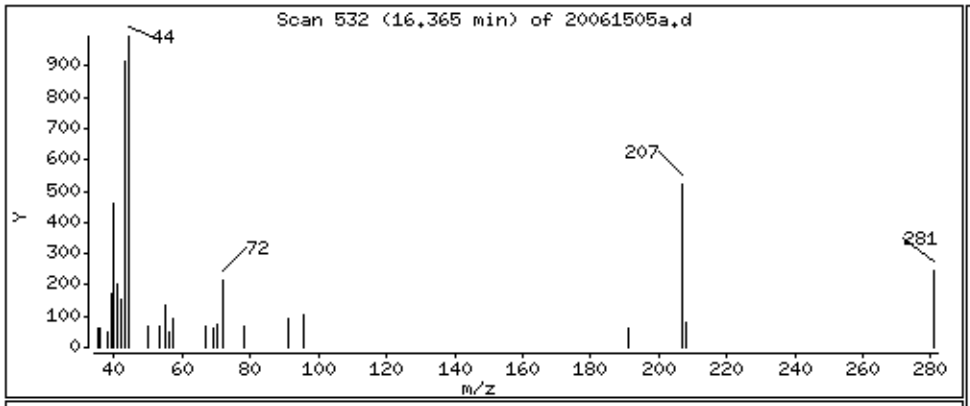
Operator: ef

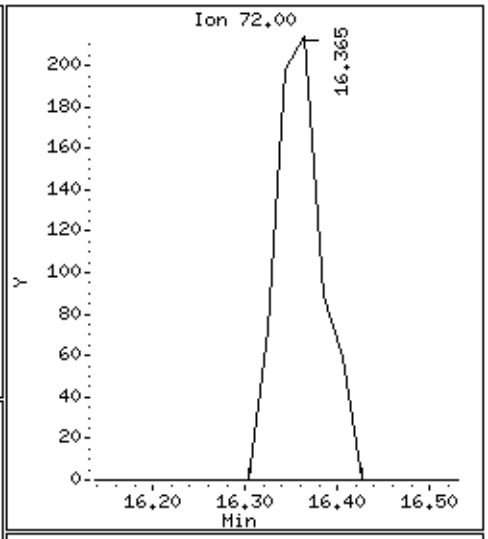
Column phase: RTX-624

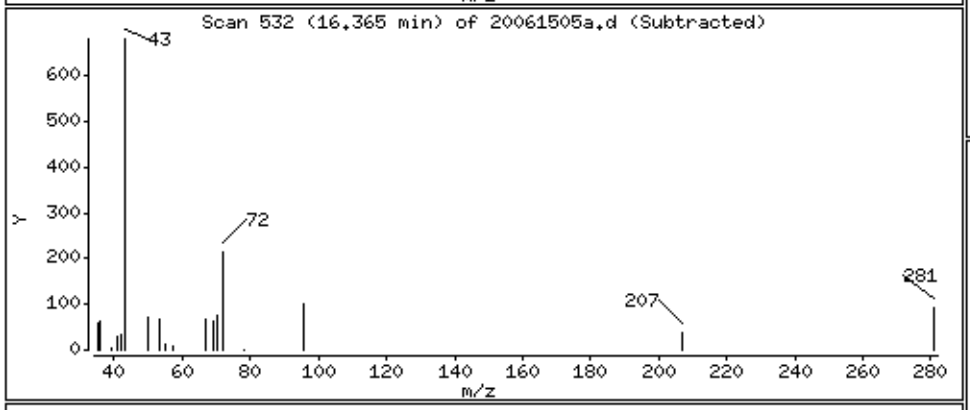
Column diameter: 0.32

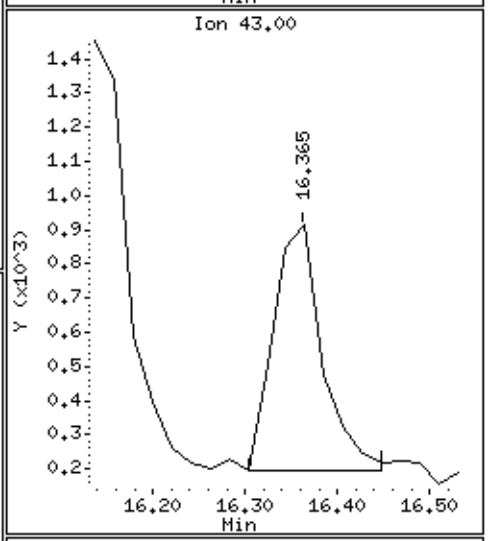
92 2-Butanone

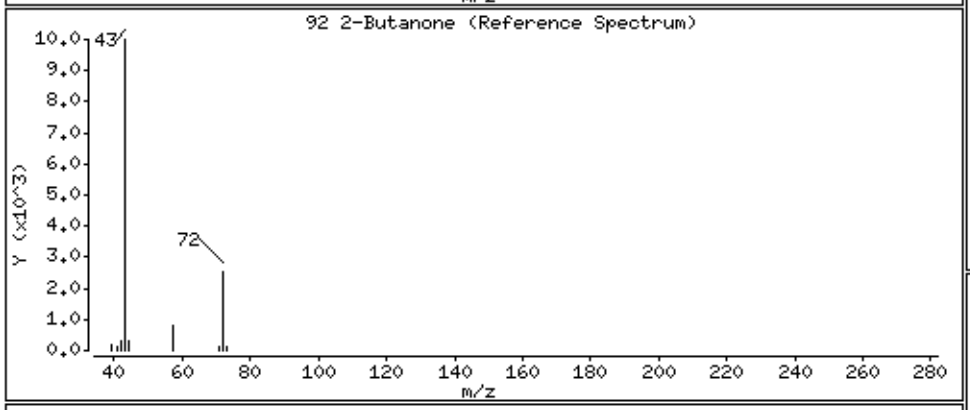
Concentration: 0.04403 PPBV

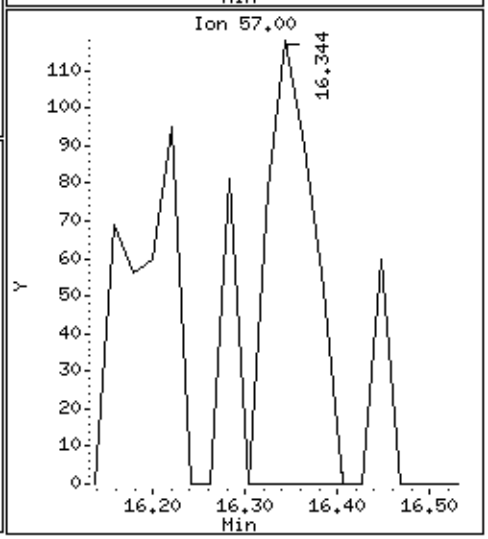


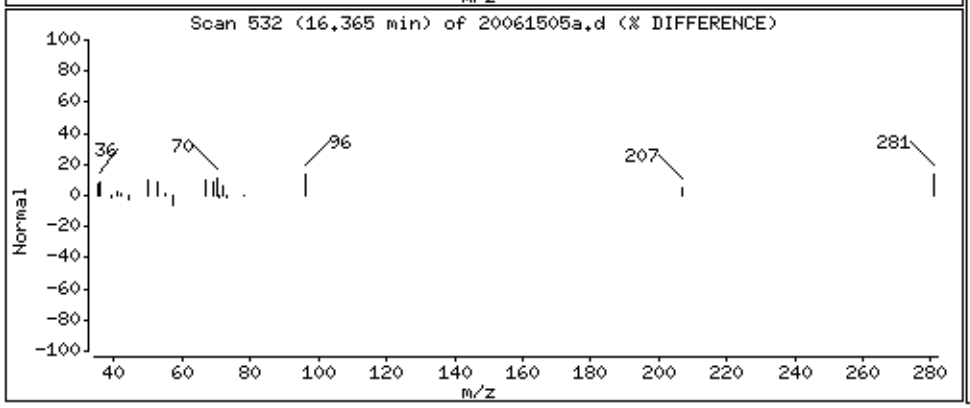












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

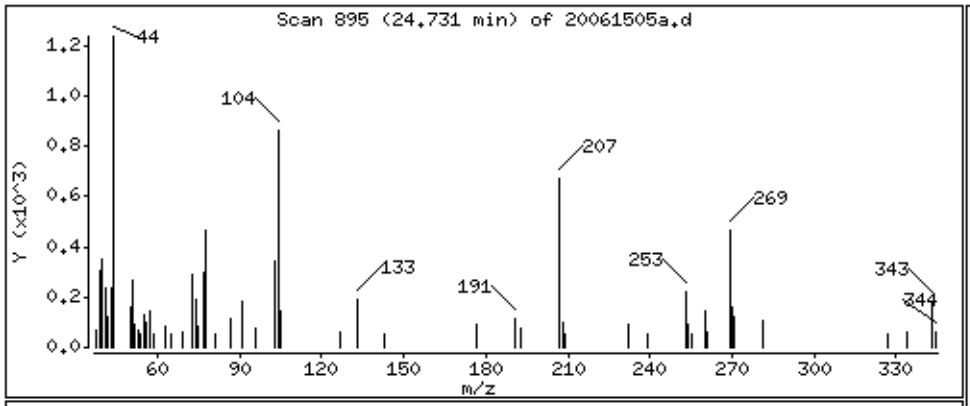
Operator: ef

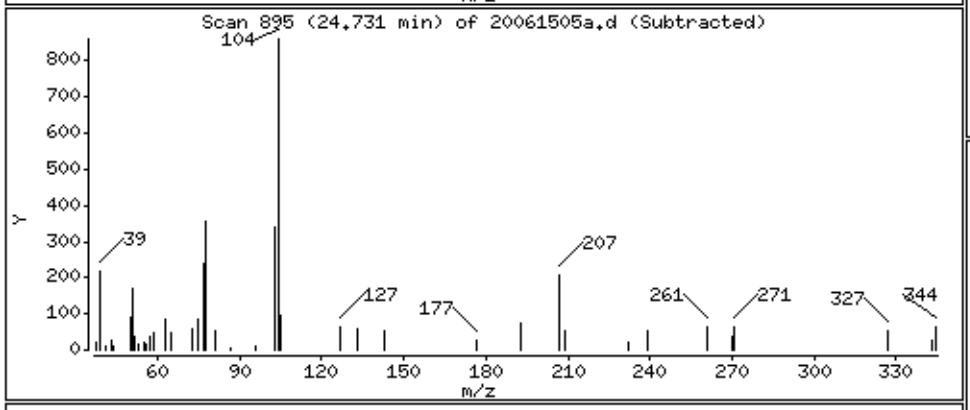
Column phase: RTX-624

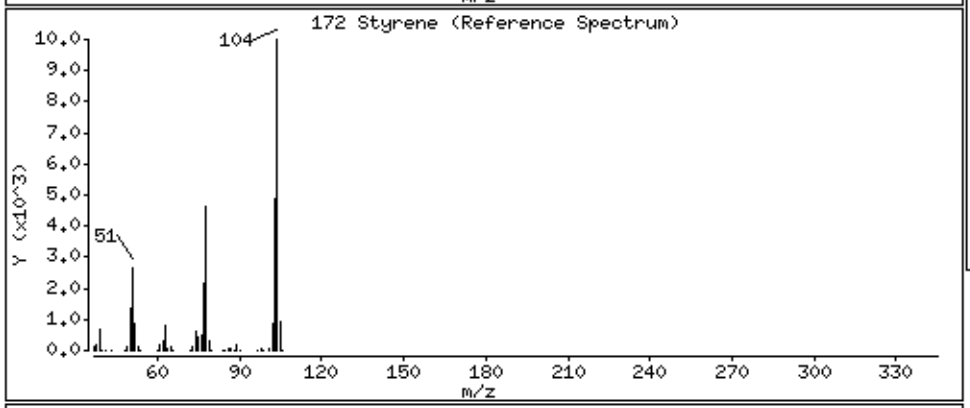
Column diameter: 0.32

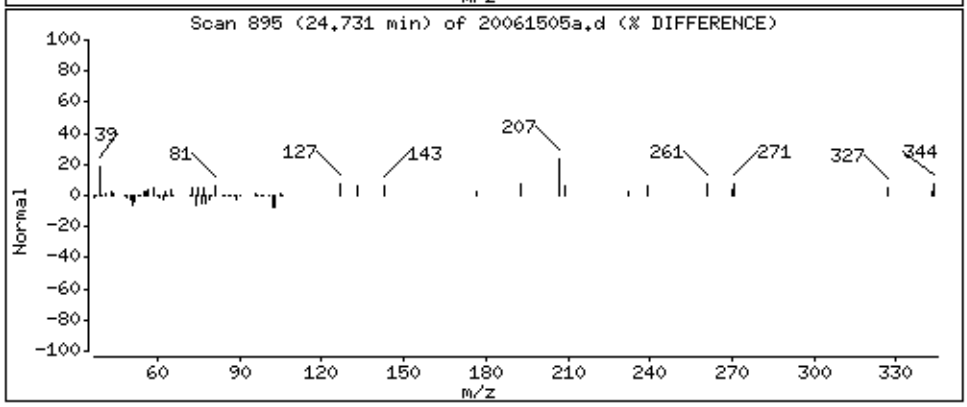
172 Styrene

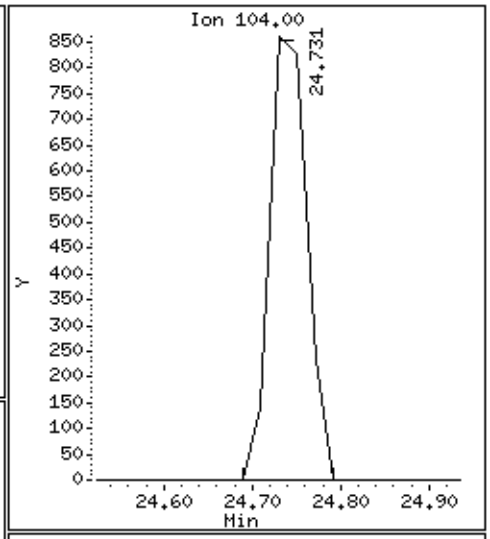
Concentration: 0.03107 PPBV

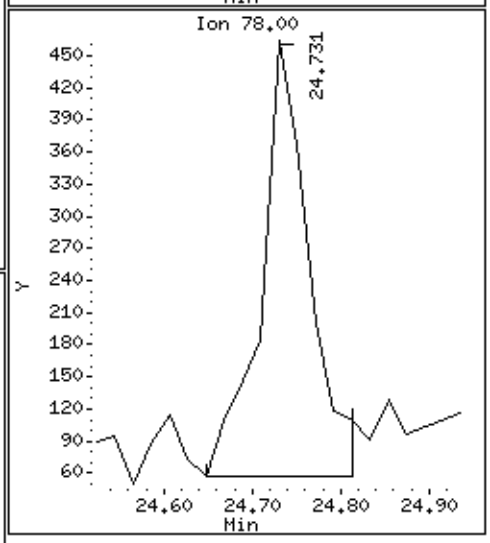












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

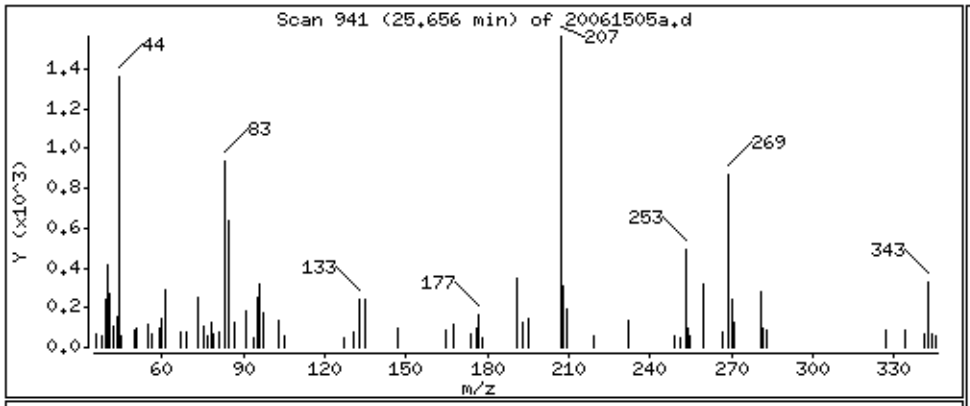
Operator: ef

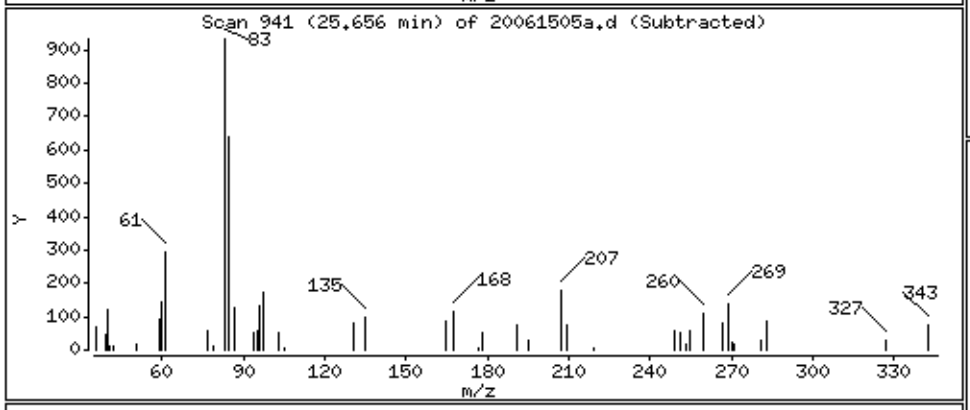
Column phase: RTX-624

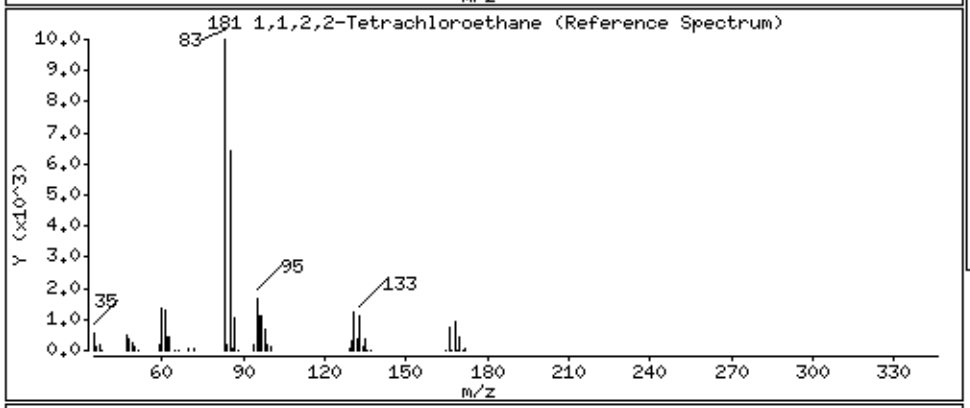
Column diameter: 0.32

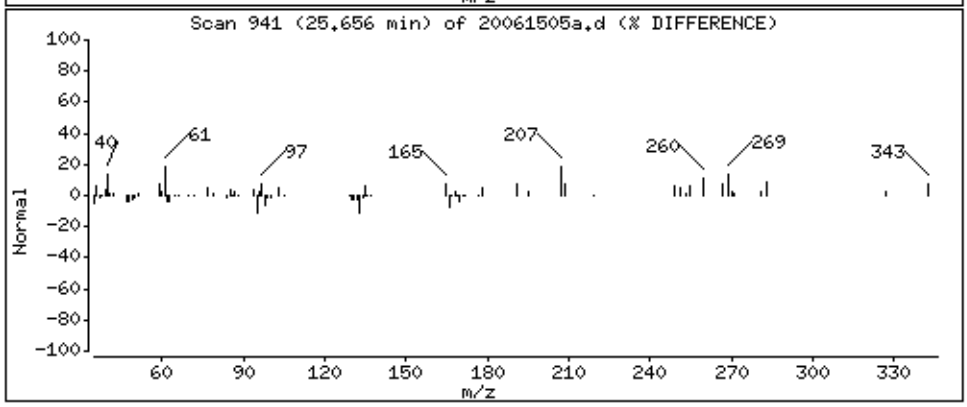
181 1,1,2,2-Tetrachloroethane

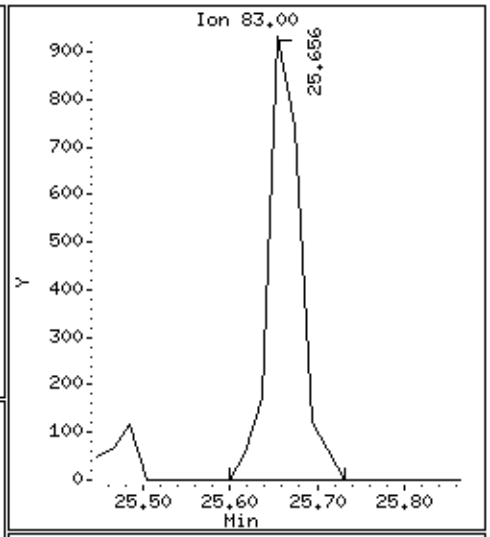
Concentration: 0.02478 PPBV

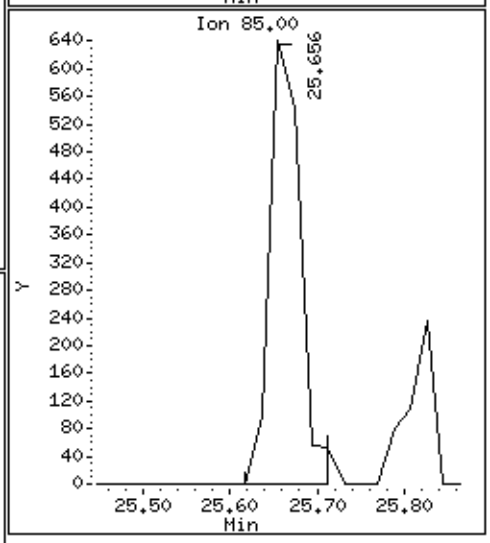












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

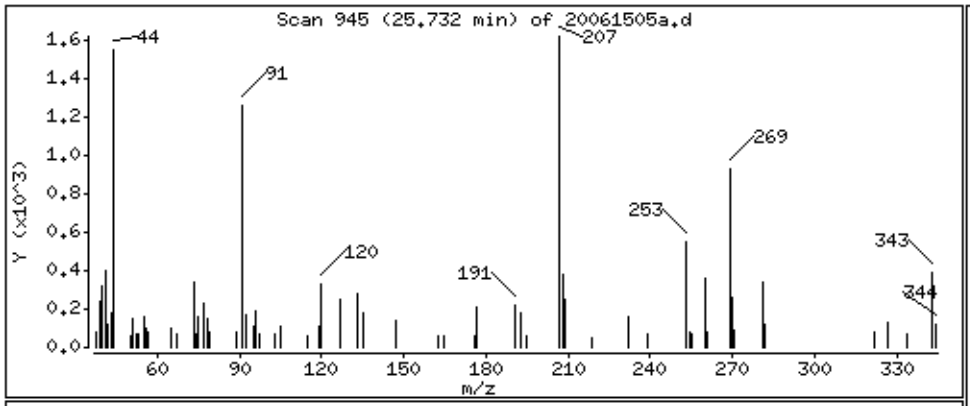
Operator: ef

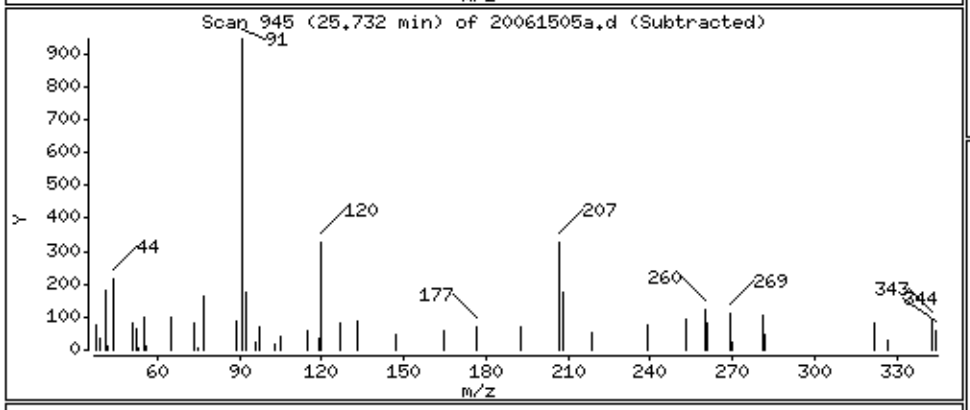
Column phase: RTX-624

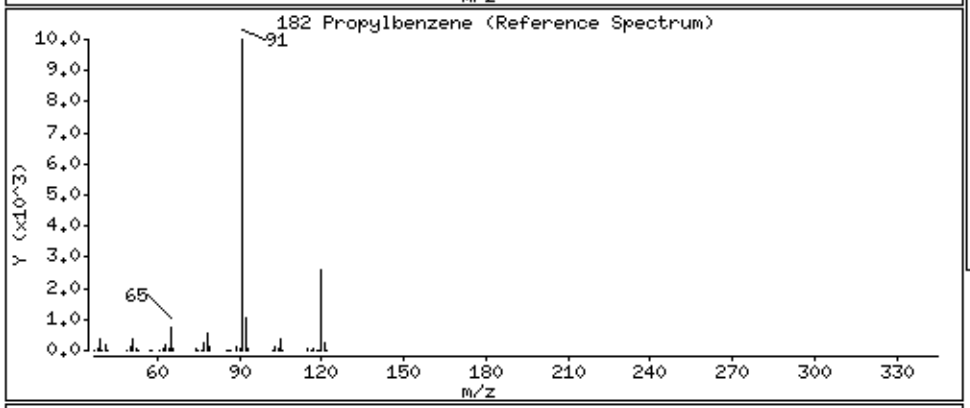
Column diameter: 0.32

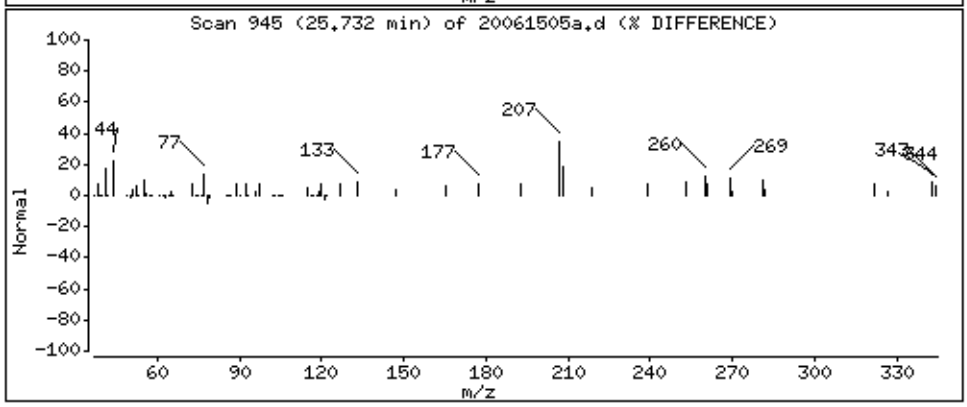
182 Propylbenzene

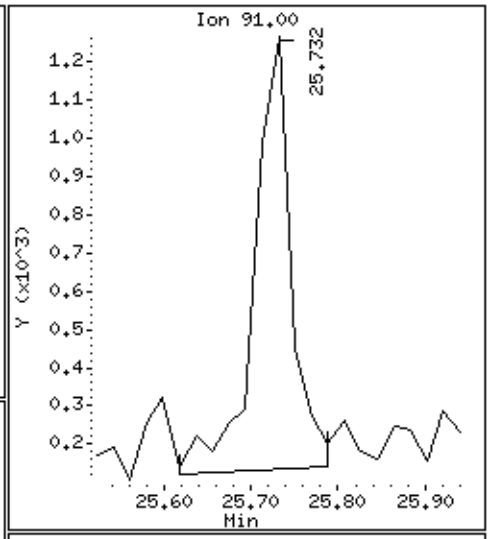
Concentration: 0.02100 PPBV

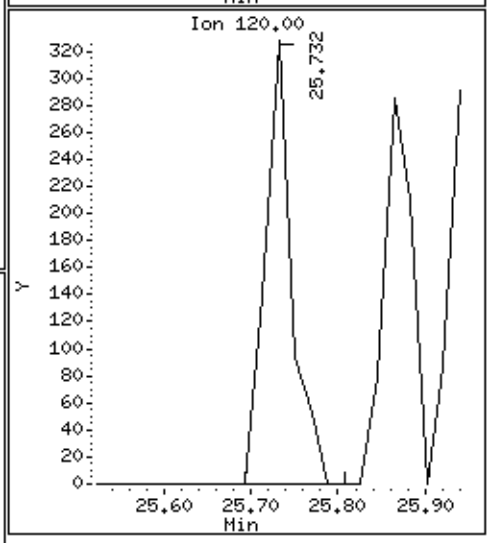












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

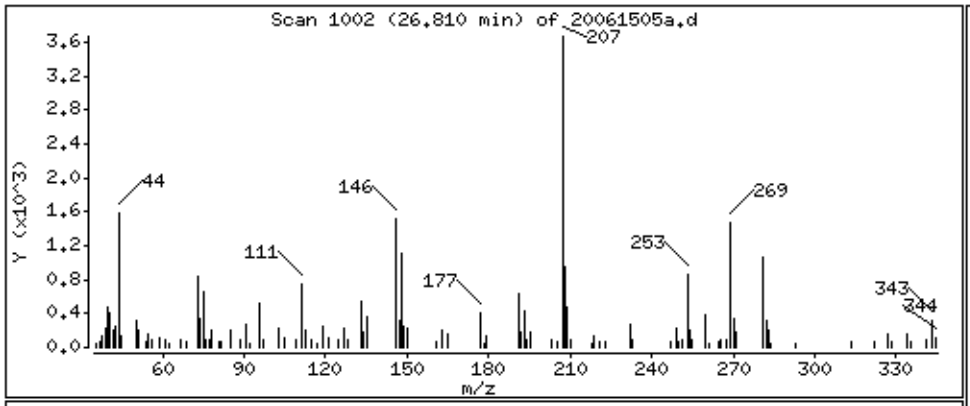
Operator: ef

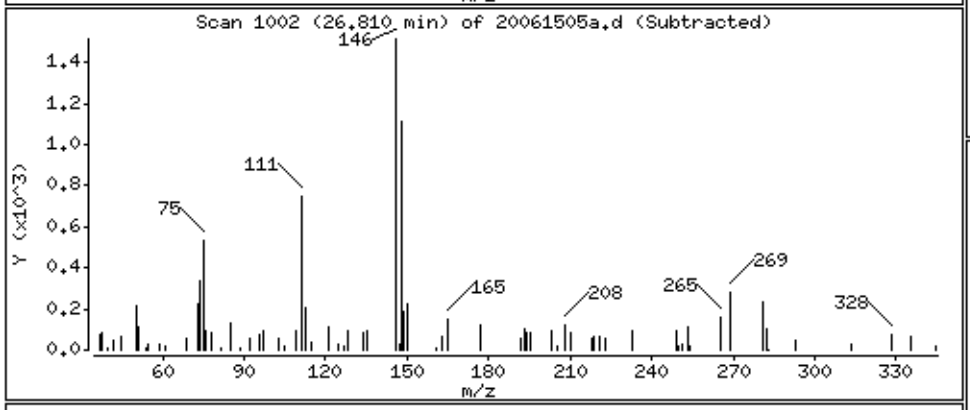
Column phase: RTX-624

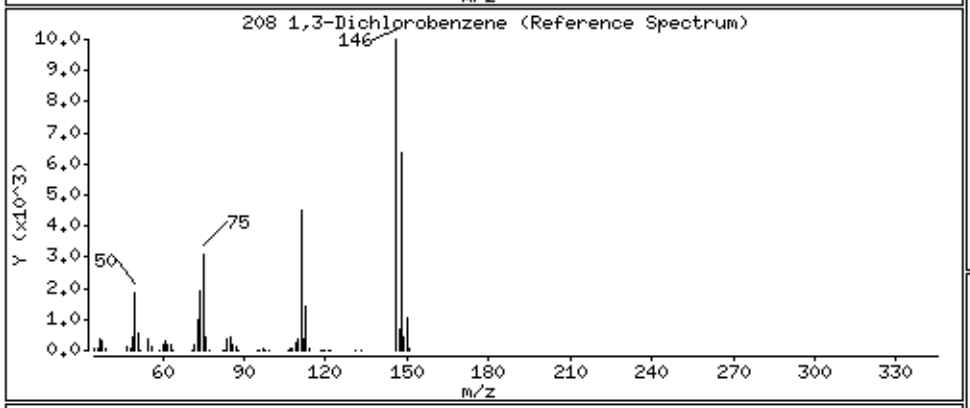
Column diameter: 0.32

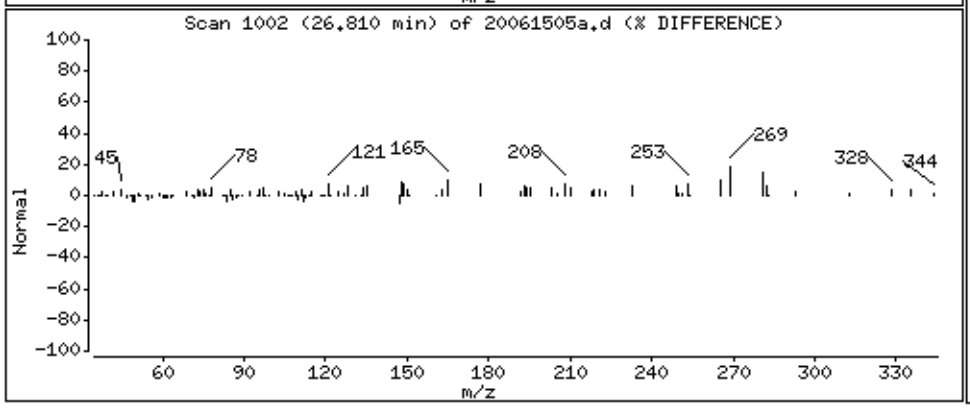
208 1,3-Dichlorobenzene

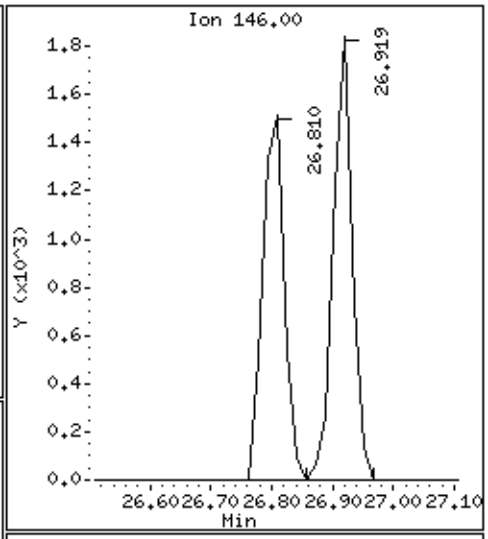
Concentration: 0.04444 PPBV

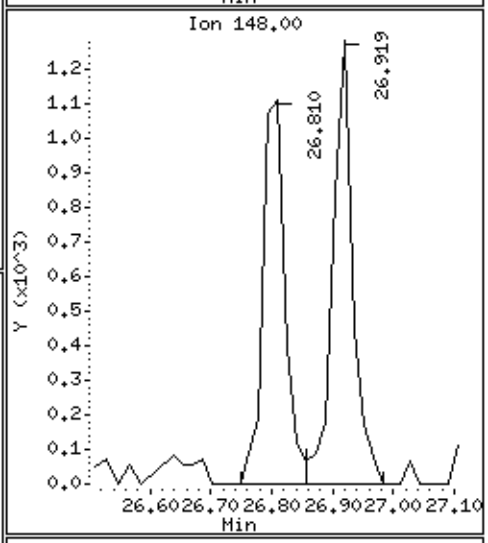


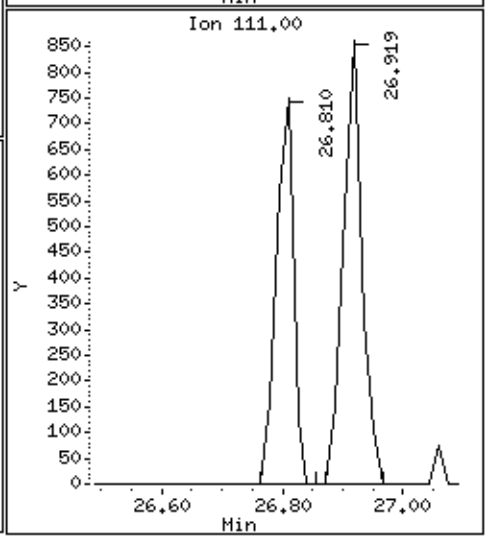












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

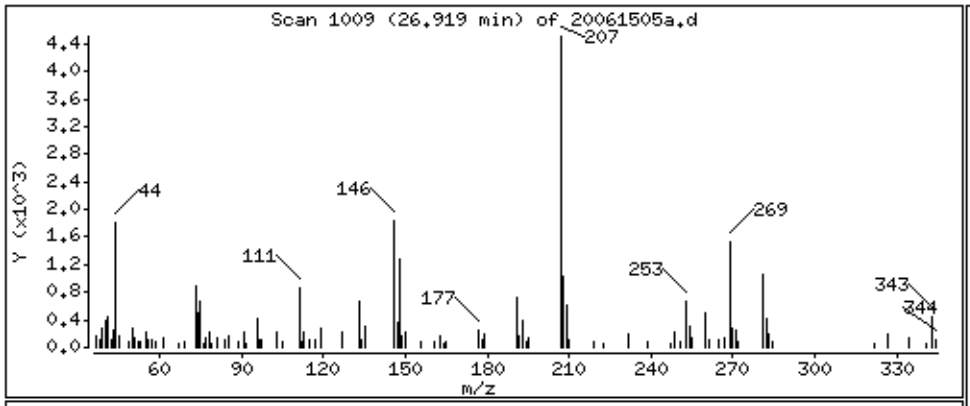
Operator: ef

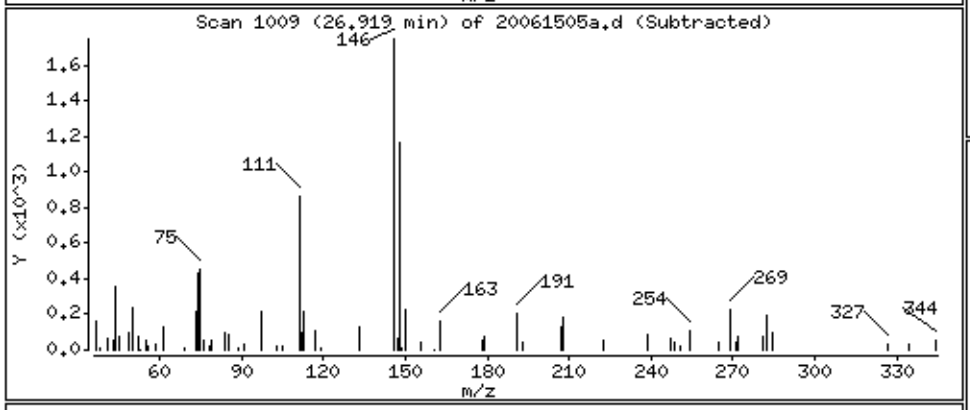
Column phase: RTX-624

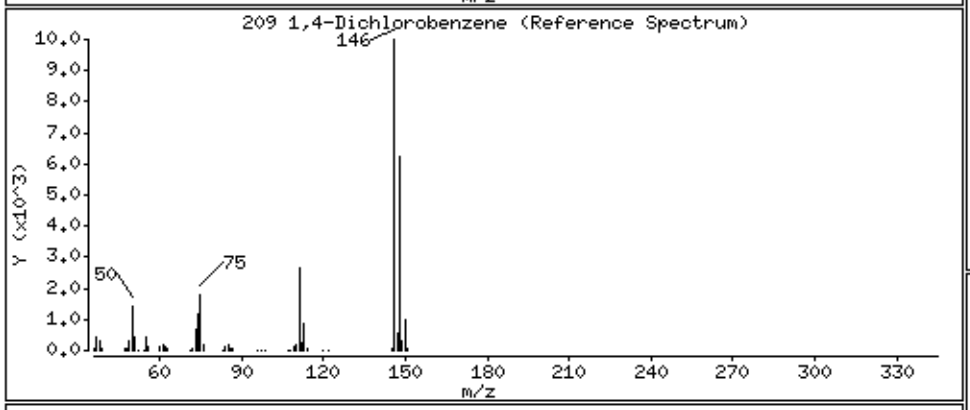
Column diameter: 0.32

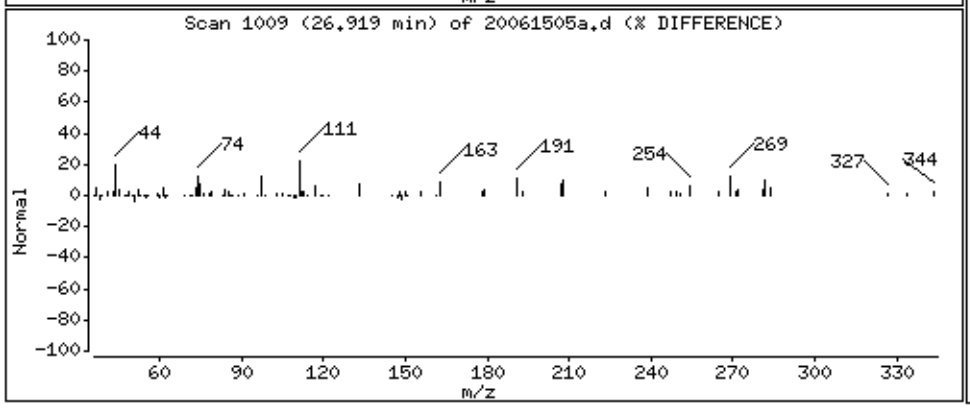
209 1,4-Dichlorobenzene

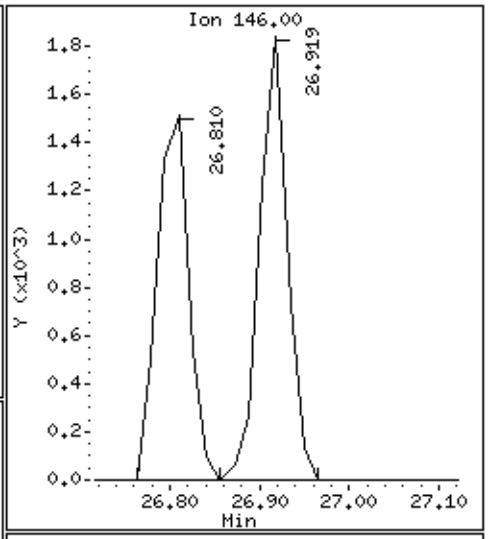
Concentration: 0.05016 PPBV

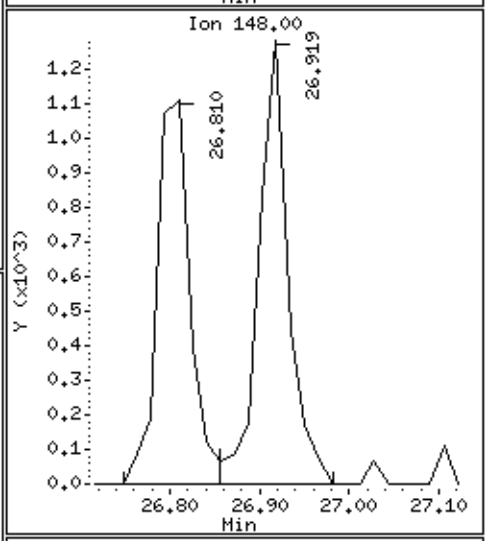


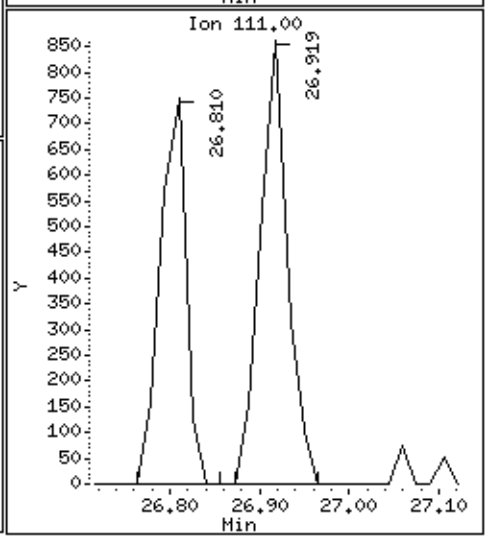












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

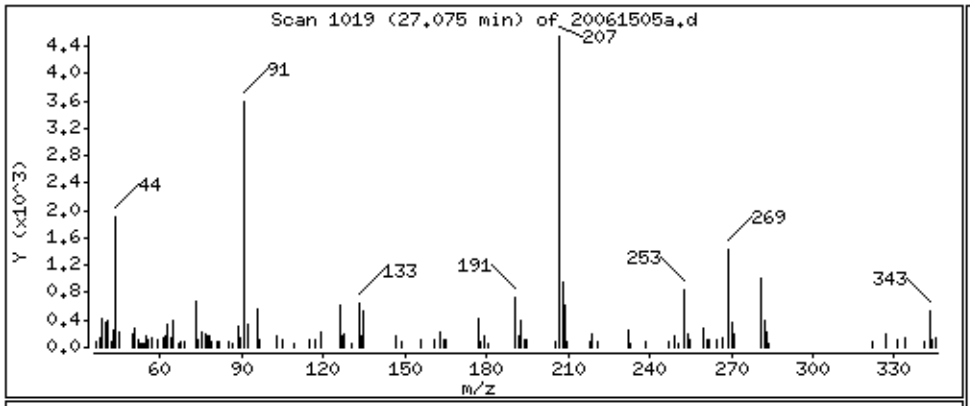
Operator: ef

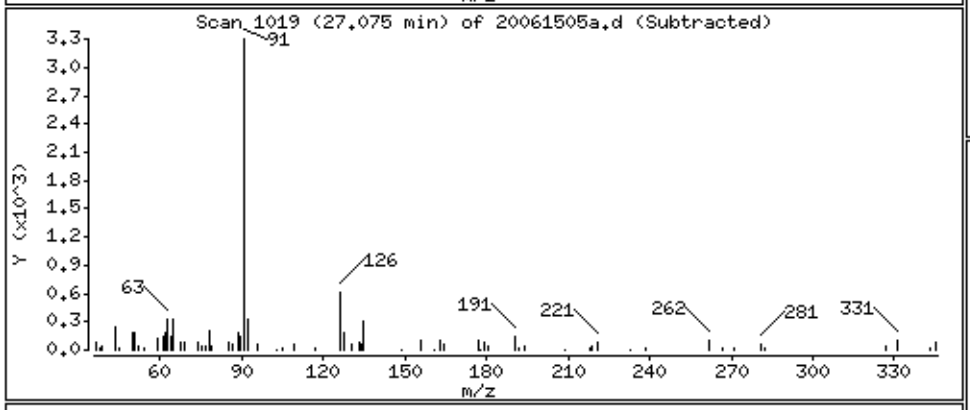
Column phase: RTX-624

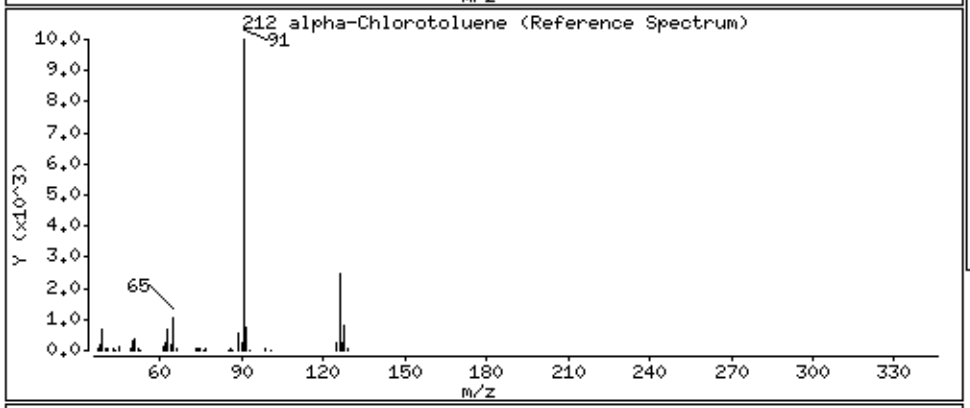
Column diameter: 0.32

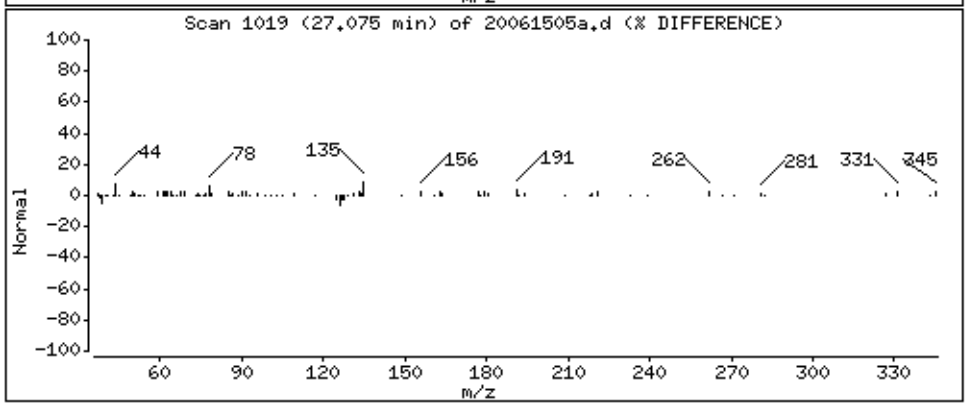
212 alpha-Chlorotoluene

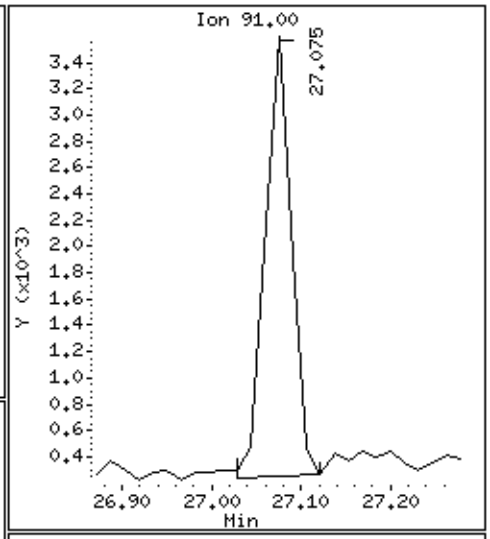
Concentration: 0.08321 PPBV

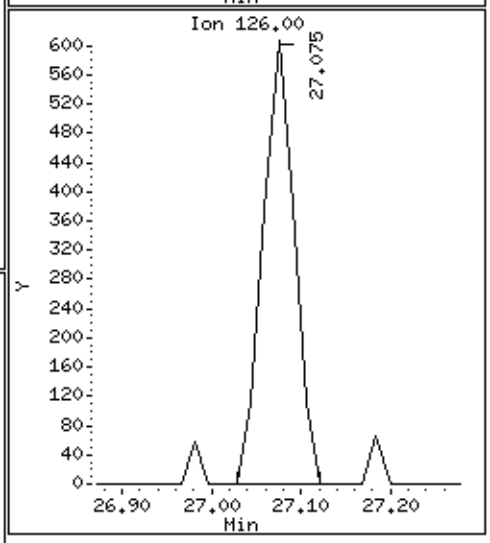












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

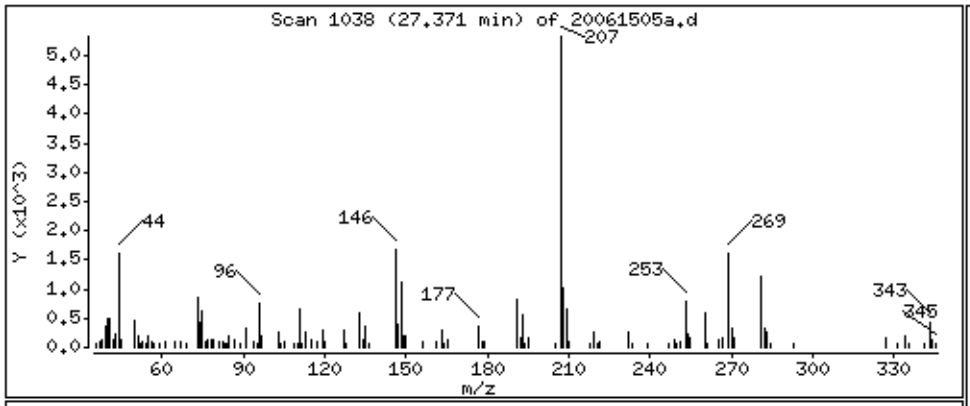
Operator: ef

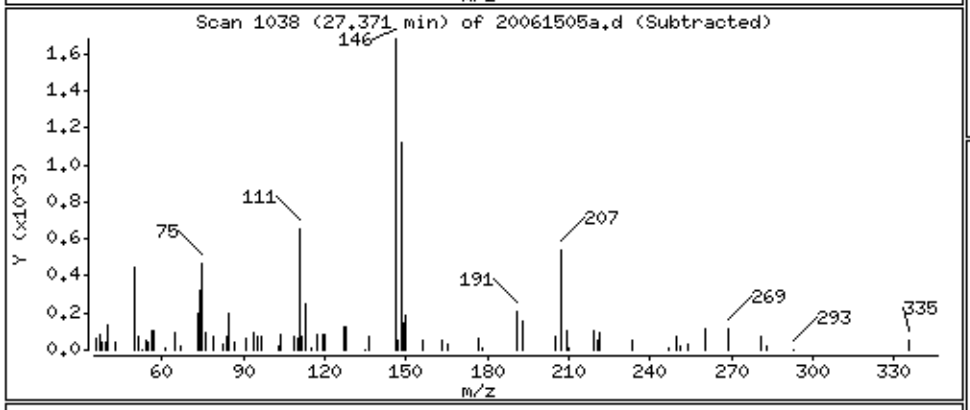
Column phase: RTX-624

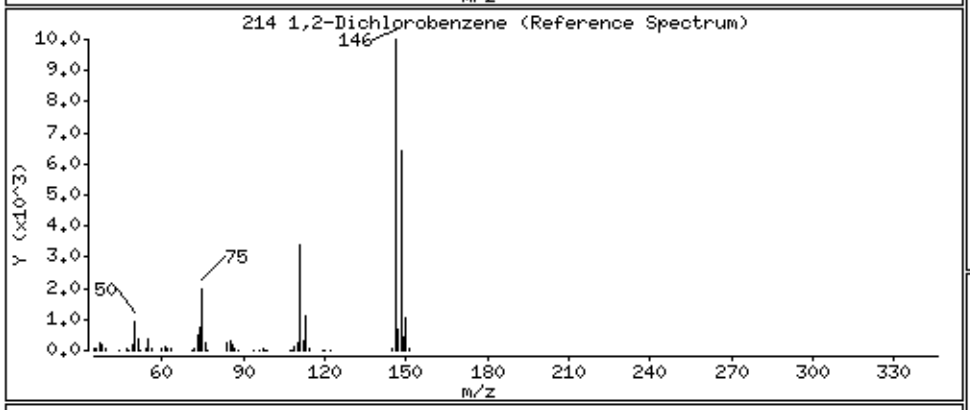
Column diameter: 0.32

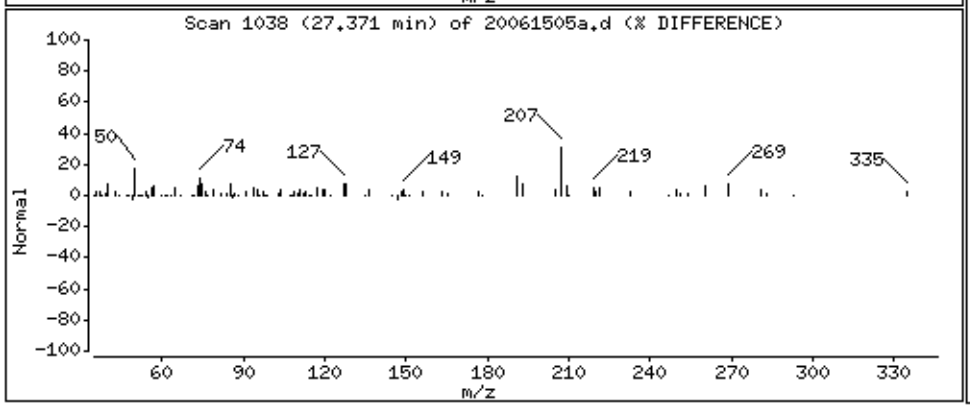
214 1,2-Dichlorobenzene

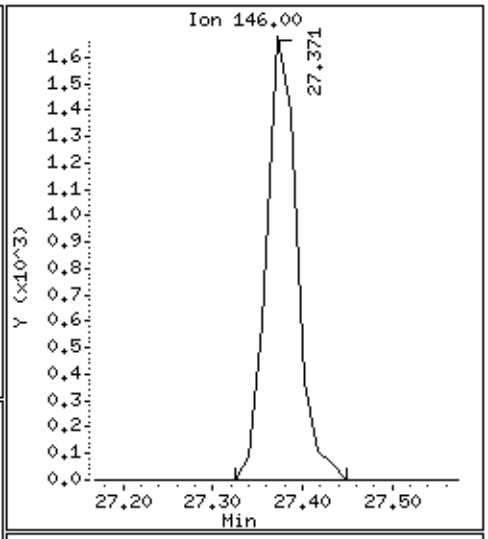
Concentration: 0.05205 PPBV

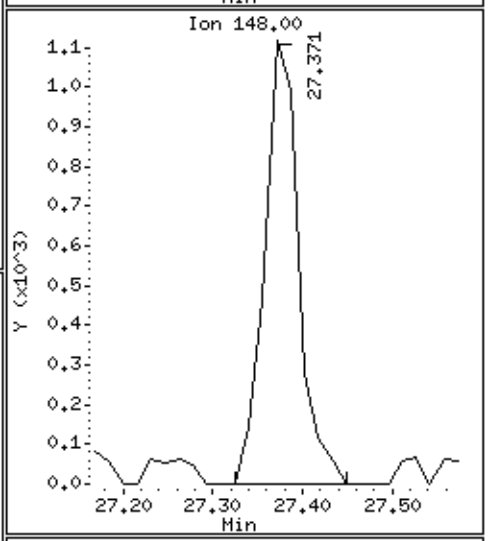


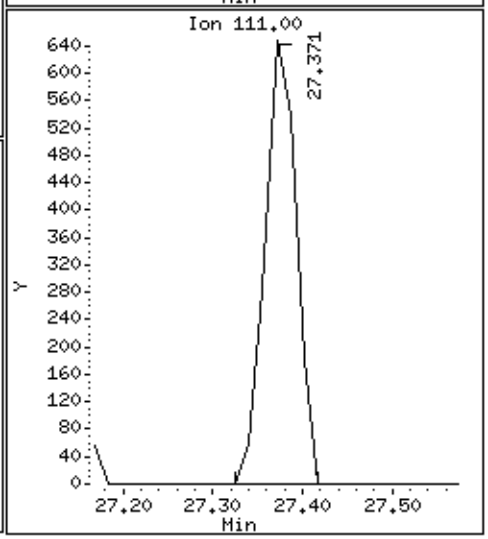












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

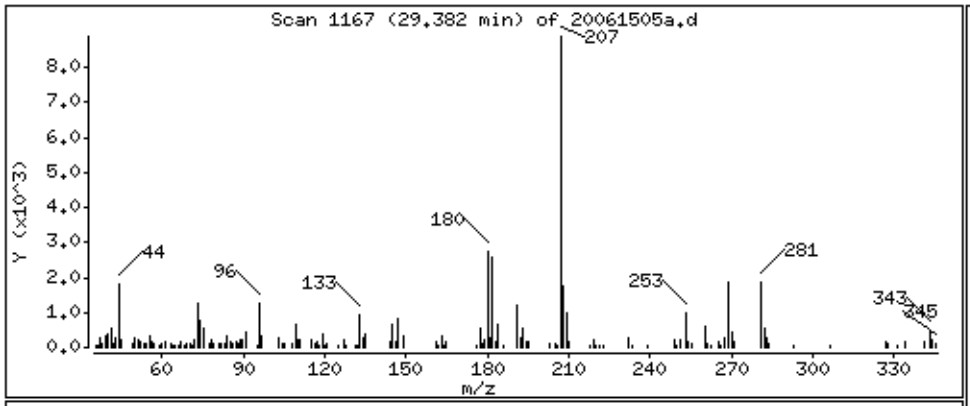
Operator: ef

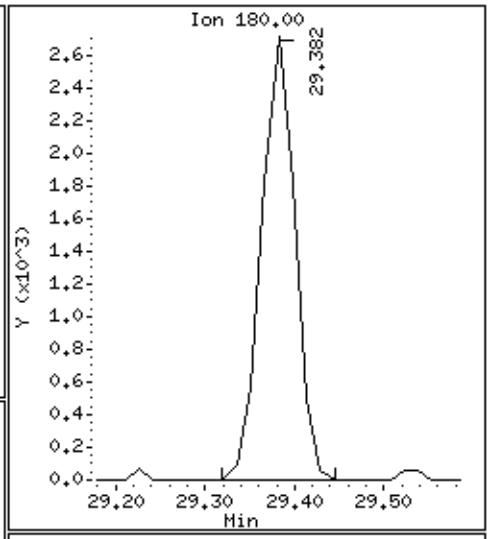
Column phase: RTX-624

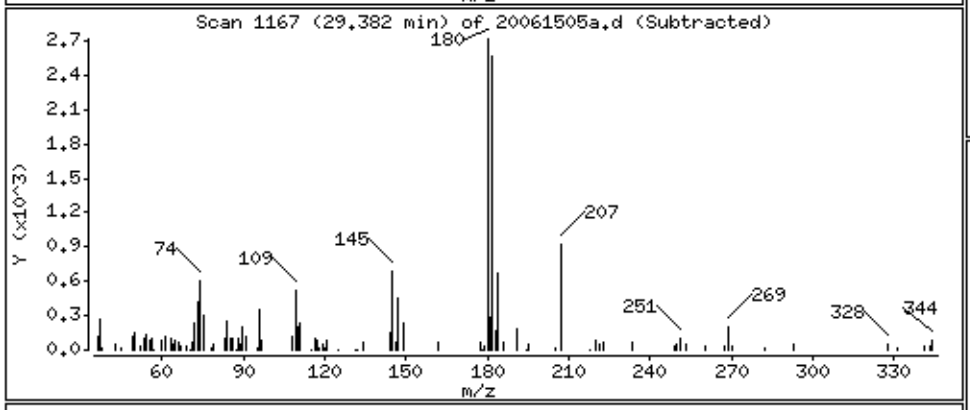
Column diameter: 0.32

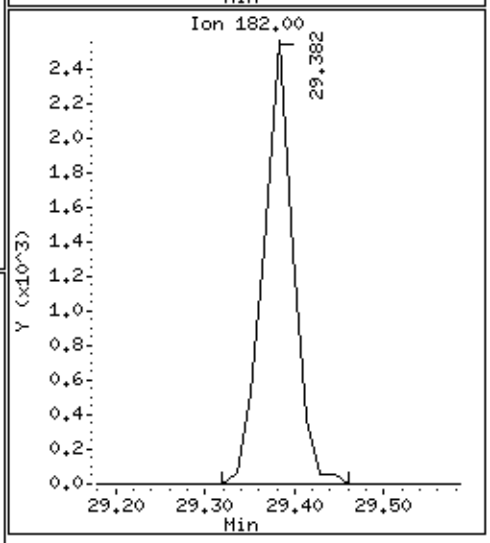
226 1,2,4-Trichlorobenzene

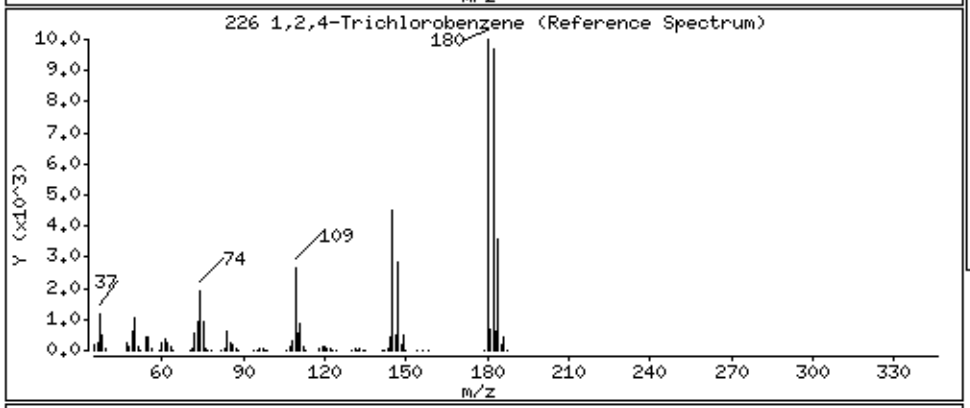
Concentration: 0.08525 PPBV

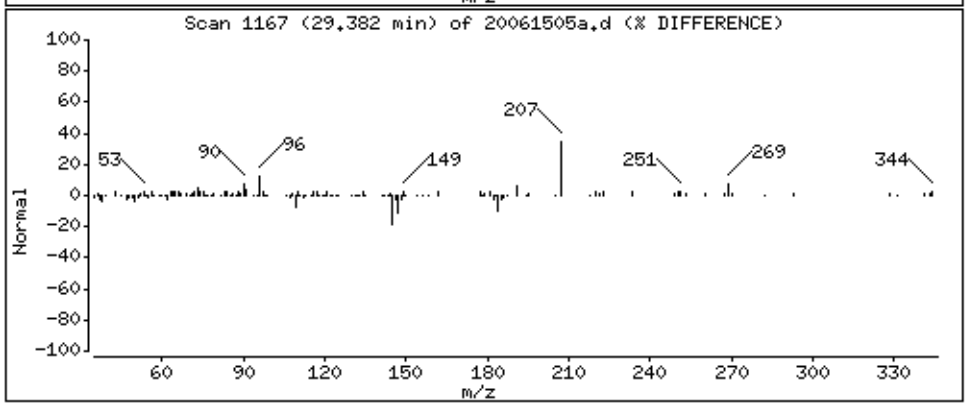












Data File: /chem/msd20.i/15Jun2016.b/20061505a.d

Date : 15-JUN-2016 13:16

Client ID: Lab Blank

Instrument: msd20.i

Sample Info: 250mL # 35248

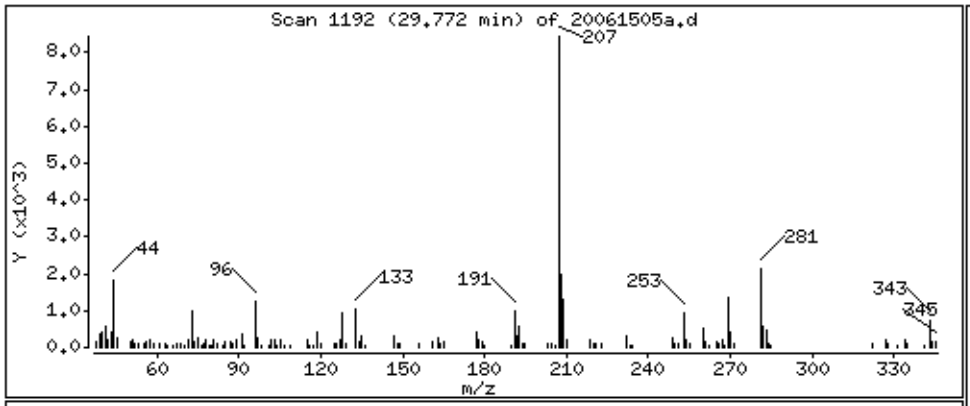
Operator: ef

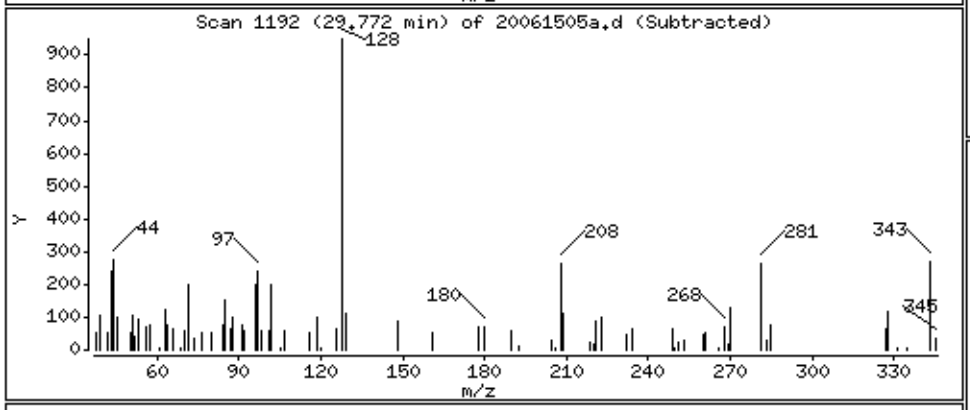
Column phase: RTX-624

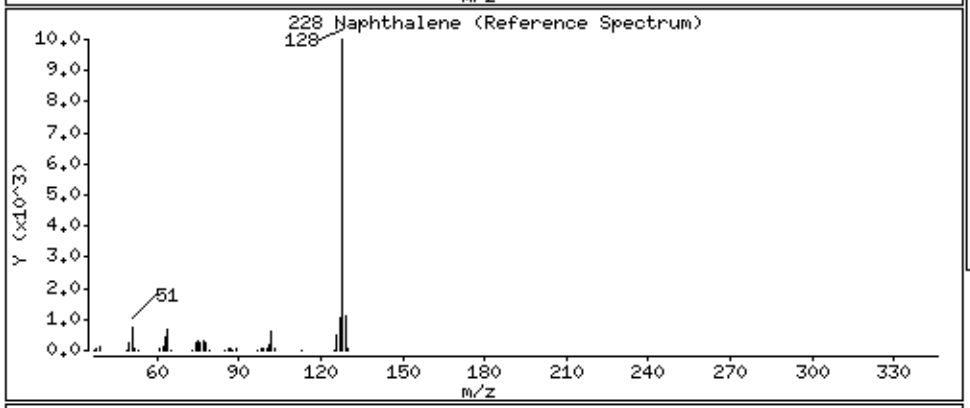
Column diameter: 0.32

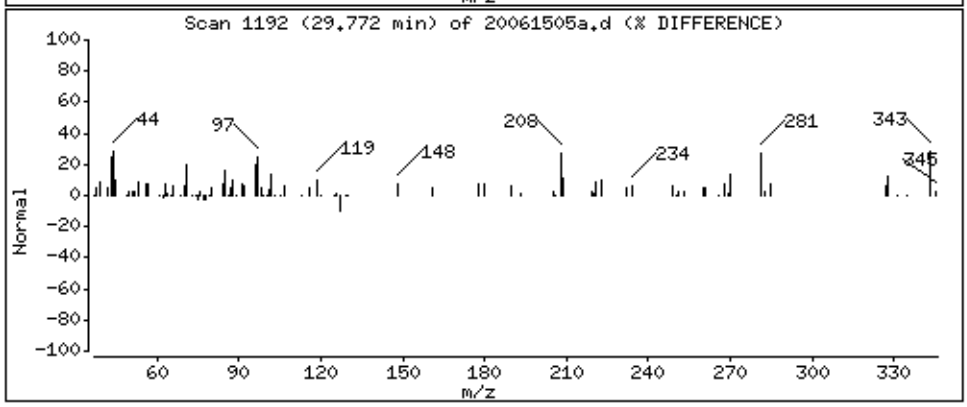
228 Naphthalene

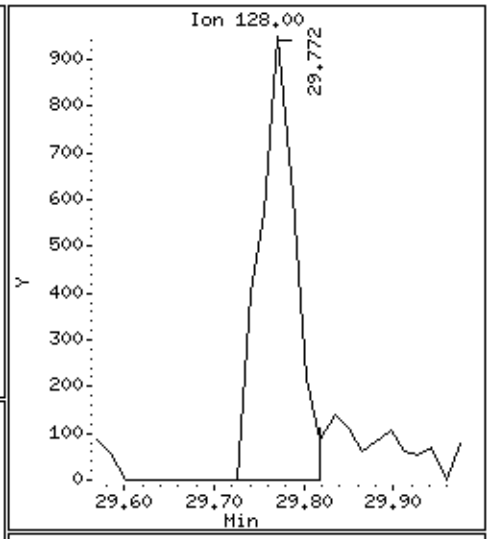
Concentration: 0.02042 PPBV

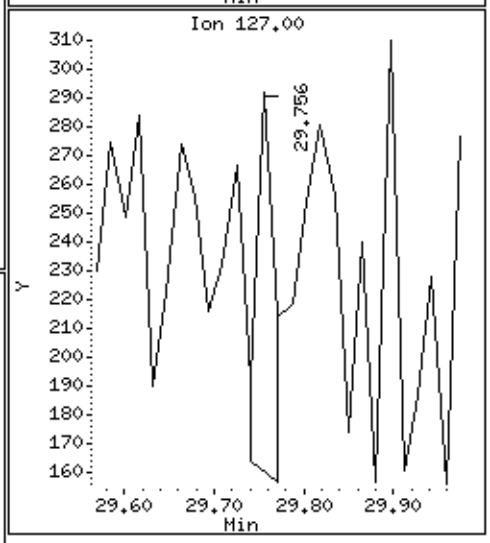












LEVEL-IV VALIDATABLE

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

SURROGATE RECOVERY FORM

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

	CLIENT SAMPLE NO.	SURROGATE % RECOVERY								
		1,2-Dichloroethane-d4	#	Toluene-d8	#	4-Bromofluorobenzene	#		#	TOTAL OUT
01	B7IA-1(061016)	113		101		95				0
02	B7IA-1(061016) Lab Duplicate	111		100		93				0
03	B7IA-1D(061016)	116		100		95				0
04	B7IA-2(061016)	118		100		95				0
05	B7IA-3(061016)	118		100		96				0
06	B7IA-4(061016)	120		101		96				0
07	B7IA-5(061016)	118		100		94				0
08	B7IA-6(061016)	120		101		93				0
09	B7AA(061016)	118		100		93				0
10	Lab Blank	112		98		94				0
11	CCV	96		103		98				0
12	LCS	100		101		101				0
13	LCSD	98		102		100				0
14										0
15										0
16										0
17										0
18										0
19										0
20										0
21										0
22										0
23										0
24										0

Surrogate Recovery Limits

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

* Designates values outside of QC limits

LEVEL-IV VALIDATABLE

Modified EPA Method TO-15 GC/MS Full Scan

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name:	AIR TOXICS, LTD	SDG No:	1606298A
Lab File ID:	20061502.d	Date Analyzed:	06/15/2016
Instrument ID:	msd20.i	Time Analyzed:	11:00 AM

		Chlorobenzene-d5 Area	#	RT	#	1,4-Difluorobenzene Area	#	RT	#	Bromochloromethane Area	#	RT	#
	24-HOUR STD	413171		23.76		491034		18.23		117579		16.73	
	UPPER LIMIT	578439		24.09		687448		18.56		164611		17.06	
	LOWER LIMIT	247903		23.43		294620		17.90		70547		16.40	
	CLIENT SAMPLE NO												
01	B7IA-1(061016)	398396		23.76		475605		18.23		107202		16.73	
02	B7IA-1(061016) Lab Duplicate	364004		23.76		445155		18.23		101650		16.73	
03	B7IA-1D(061016)	388591		23.76		476315		18.23		103903		16.73	
04	B7IA-2(061016)	383431		23.76		466185		18.23		101426		16.73	
05	B7IA-3(061016)	384928		23.76		469340		18.23		103227		16.73	
06	B7IA-4(061016)	374835		23.76		454087		18.23		96213		16.73	
07	B7IA-5(061016)	367358		23.76		445257		18.23		98147		16.73	
08	B7IA-6(061016)	370872		23.76		443439		18.23		95191		16.73	
09	B7AA(061016)	354727		23.76		435232		18.23		95873		16.73	
10	Lab Blank	403677		23.76		507274		18.23		112144		16.73	
11	CCV	413171		23.76		491034		18.23		117579		16.73	
12	LCS	406203		23.76		491083		18.23		117701		16.73	
13	LCSD	400178		23.76		488213		18.23		117316		16.73	
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: 20061522.d & 20061514.d

Lab Sample ID: 01A & 01AA

Dilution: 1.61 & 1.61

Client Sample ID: &

Date Analyzed: 6/15/16 & 6/16/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	ND	U	ND	U	0	
79-34-5	1,1,2,2-Tetrachloroethane	ND	U	ND	U	0	
79-00-5	1,1,2-Trichloroethane	ND	U	ND	U	0	
75-34-3	1,1-Dichloroethane	ND	U	ND	U	0	
75-35-4	1,1-Dichloroethene	ND	U	ND	U	0	
120-82-1	1,2,4-Trichlorobenzene	ND	U	ND	U	0	
95-63-6	1,2,4-Trimethylbenzene	0.05099		0.03996		24	Y
106-93-4	1,2-Dibromoethane (EDB)	ND	U	ND	U	0	
95-50-1	1,2-Dichlorobenzene	ND	U	ND	U	0	
107-06-2	1,2-Dichloroethane	ND	U	ND	U	0	
78-87-5	1,2-Dichloropropane	ND	U	ND	U	0	
108-67-8	1,3,5-Trimethylbenzene	ND	U	ND	U	0	
106-99-0	1,3-Butadiene	ND	U	ND	U	0	
541-73-1	1,3-Dichlorobenzene	ND	U	ND	U	0	
106-46-7	1,4-Dichlorobenzene	ND	U	ND	U	0	
123-91-1	1,4-Dioxane	ND	U	ND	U	0	
540-84-1	2,2,4-Trimethylpentane	ND	U	ND	U	0	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	2.688		2.751		2.3	Y
591-78-6	2-Hexanone	0.3779		0.3512		7.3	Y
67-63-0	2-Propanol	2.55		2.4		6.1	Y
107-05-1	3-Chloropropene	ND	U	ND	U	0	
622-96-8	4-Ethyltoluene	0.03561		0.03704		3.9	Y
108-10-1	4-Methyl-2-pentanone	0.1211		0.1242		2.5	Y
67-64-1	Acetone	14.532		14.582		0.34	
100-44-7	alpha-Chlorotoluene	ND	U	ND	U	0	
71-43-2	Benzene	0.09096		0.08653		5.0	Y
75-27-4	Bromodichloromethane	ND	U	ND	U	0	
75-25-2	Bromoform	ND	U	ND	U	0	
74-83-9	Bromomethane	ND	U	ND	U	0	
75-15-0	Carbon Disulfide	ND	U	ND	U	0	
56-23-5	Carbon Tetrachloride	0.07036		0.06904		1.9	Y
108-90-7	Chlorobenzene	ND	U	ND	U	0	
75-00-3	Chloroethane	ND	U	ND	U	0	
67-66-3	Chloroform	ND	U	ND	U	0	
74-87-3	Chloromethane	1.053		1.046		0.67	Y
156-59-2	cis-1,2-Dichloroethene	ND	U	ND	U	0	
10061-01-5	cis-1,3-Dichloropropene	ND	U	ND	U	0	
98-82-8	Cumene	ND	U	ND	U	0	
110-82-7	Cyclohexane	ND	U	ND	U	0	
124-48-1	Dibromochloromethane	ND	U	ND	U	0	
64-17-5	Ethanol	8.05		7.555		6.3	
100-41-4	Ethyl Benzene	0.05069		ND	U	-->200<--	Y
75-69-4	Freon 11	7.843		7.798		0.58	
76-13-1	Freon 113	0.06422		0.06359		0.98	Y
76-14-2	Freon 114	ND	U	ND	U	0	

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

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20061522.d & 20061514.d

Lab Sample ID: 01A & 01AA

Dilution: 1.61 & 1.61

Client Sample ID: &

Date Analyzed: 6/15/16 & 6/16/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	0.478		0.5474		14	Y
142-82-5	Heptane	0.1717		0.2012		16	Y
87-68-3	Hexachlorobutadiene	ND	U	ND	U	0	
110-54-3	Hexane	0.1029		0.09008		13	Y
108-38-3	m,p-Xylene	0.1198		0.1187		0.92	Y
1634-04-4	Methyl tert-butyl ether	ND	U	ND	U	0	
75-09-2	Methylene Chloride	0.1893		0.1794		5.4	Y
91-20-3	Naphthalene	0.02841		0.01944		-->37<--	Y
95-47-6	o-Xylene	0.05012		0.04818		3.9	Y
103-65-1	Propylbenzene	ND	U	ND	U	0	
100-42-5	Styrene	0.03375		0.02706		22	Y
127-18-4	Tetrachloroethene	ND	U	ND	U	0	
109-99-9	Tetrahydrofuran	ND	U	ND	U	0	
108-88-3	Toluene	2.237		2.181		2.5	
156-60-5	trans-1,2-Dichloroethene	ND	U	ND	U	0	
10061-02-6	trans-1,3-Dichloropropene	ND	U	ND	U	0	
79-01-6	Trichloroethene	ND	U	ND	U	0	
75-01-4	Vinyl Chloride	ND	U	ND	U	0	

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

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20061504.d & 20061503.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/15/16 & 6/15/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
71-55-6	1,1,1-Trichloroethane	107		106		0.94	
79-34-5	1,1,2,2-Tetrachloroethane	111		112		0.90	
79-00-5	1,1,2-Trichloroethane	101		102		0.98	
75-34-3	1,1-Dichloroethane	111		110		0.90	
75-35-4	1,1-Dichloroethene	104		104		0	
120-82-1	1,2,4-Trichlorobenzene	103		106		2.9	
95-63-6	1,2,4-Trimethylbenzene	103		102		0.98	
106-93-4	1,2-Dibromoethane (EDB)	110		110		0	
95-50-1	1,2-Dichlorobenzene	98		99		1.0	
107-06-2	1,2-Dichloroethane	108		107		0.93	
78-87-5	1,2-Dichloropropane	106		107		0.94	
108-67-8	1,3,5-Trimethylbenzene	101		101		0	
106-99-0	1,3-Butadiene	106		106		0	
541-73-1	1,3-Dichlorobenzene	101		102		0.98	
106-46-7	1,4-Dichlorobenzene	93		93		0	
123-91-1	1,4-Dioxane	104		105		0.96	
540-84-1	2,2,4-Trimethylpentane	108		108		0	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	106		107		0.94	
591-78-6	2-Hexanone	111		111		0	
67-63-0	2-Propanol	112		110		1.8	
107-05-1	3-Chloropropene	98		99		1.0	
622-96-8	4-Ethyltoluene	94		92		2.2	
108-10-1	4-Methyl-2-pentanone	114		113		0.88	
67-64-1	Acetone	104		104		0	
100-44-7	alpha-Chlorotoluene	116		116		0	
71-43-2	Benzene	107		105		1.9	
75-27-4	Bromodichloromethane	113		114		0.88	
75-25-2	Bromoform	117		118		0.85	
74-83-9	Bromomethane	133		132		0.75	
75-15-0	Carbon Disulfide	99		98		1.0	
56-23-5	Carbon Tetrachloride	128		129		0.78	
108-90-7	Chlorobenzene	107		109		1.8	
75-00-3	Chloroethane	114		114		0	
67-66-3	Chloroform	110		109		0.91	
74-87-3	Chloromethane	110		110		0	
156-59-2	cis-1,2-Dichloroethene	104		103		0.97	
10061-01-5	cis-1,3-Dichloropropene	104		103		0.97	
98-82-8	Cumene	106		105		0.95	
110-82-7	Cyclohexane	105		104		0.96	
124-48-1	Dibromochloromethane	111		111		0	
64-17-5	Ethanol	120		117		2.5	
100-41-4	Ethyl Benzene	105		107		1.9	
75-69-4	Freon 11	115		114		0.87	
76-13-1	Freon 113	100		101		1.0	
76-14-2	Freon 114	112		111		0.90	

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

SAMPLE RESULTS/SAMPLE RESULTS DUPLICATE

Lab Name: Air Toxics Ltd.

Lab File ID: 20061504.d & 20061503.d

Lab Sample ID: &

Dilution: 1.00 & 1.00

Client Sample ID: LCS & LCSD

Date Analyzed: 6/15/16 & 6/15/16

CAS Number	Compound	Original Amount	Original Flags	Duplicate Amount	Duplicate Flags	RPD	Result Less Than 5X RL
75-71-8	Freon 12	118		117		0.85	
142-82-5	Heptane	107		108		0.93	
87-68-3	Hexachlorobutadiene	92		94		2.2	
110-54-3	Hexane	107		107		0	
108-38-3	m,p-Xylene	108		107		0.93	
1634-04-4	Methyl tert-butyl ether	106		105		0.95	
75-09-2	Methylene Chloride	98		96		2.1	
91-20-3	Naphthalene	108		112		3.6	
95-47-6	o-Xylene	105		107		1.9	
103-65-1	Propylbenzene	100		100		0	
100-42-5	Styrene	100		101		1.0	
127-18-4	Tetrachloroethene	102		107		4.8	
109-99-9	Tetrahydrofuran	111		112		0.90	
108-88-3	Toluene	106		105		0.95	
156-60-5	trans-1,2-Dichloroethene	107		105		1.9	
10061-02-6	trans-1,3-Dichloropropene	115		114		0.87	
79-01-6	Trichloroethene	105		105		0	
75-01-4	Vinyl Chloride	114		112		1.8	

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 : 13-JUN-2016 13:15
End Cal Date : 13-JUN-2016 19:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Calibration File Names:
Level 5: /chem/msd20.i/13Jun2016.b/20061306.d
Level 6: /chem/msd20.i/13Jun2016.b/20061307.d
Level 7: /chem/msd20.i/13Jun2016.b/20061308.d
Level 8: /chem/msd20.i/13Jun2016.b/20061309.d
Level 12: /chem/msd20.i/13Jun2016.b/20061310.d
Level 13: /chem/msd20.i/13Jun2016.b/20061311.d
Level 15: /chem/msd20.i/13Jun2016.b/20061312.d
Level 16: /chem/msd20.i/13Jun2016.b/20061313.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
9 Propylene	+++++	+++++	+++++	1.26235	1.22374	1.16963		
	1.18436	1.08001					1.18402	5.781
11 Freon 12	+++++	3.67517	4.32296	4.28996	4.18692	3.90596		
	3.74567	3.36432					3.92728	9.118
15 Freon 114	3.28529	3.25854	3.09012	3.01824	2.92357	2.70000		
	2.61221	2.43510					2.91538	10.570
17 Chloromethane	+++++	+++++	1.42048	1.39774	1.29598	1.19439		
	1.22971	1.12342					1.27696	9.144
23 Butane	+++++	+++++	0.40343	0.34877	0.34108	0.32571		
	0.31922	0.29867					0.33948	10.574
25 Vinyl Chloride	+++++	1.70081	1.57596	1.53860	1.55073	1.43936		
	1.40369	1.27777					1.49813	9.139
26 1,3-Butadiene	+++++	1.45769	1.20956	1.19094	1.18462	1.11109		
	1.10039	1.01626					1.18151	11.769

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-JUN-2016 13:15
End Cal Date : 13-JUN-2016 19:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
29 Bromomethane	+++++	+++++	0.73796	0.67887	0.97433	0.97833		
	1.01303	0.95138					0.88898	16.028
30 Chloroethane	+++++	+++++	0.66798	0.69666	0.71352	0.68638		
	0.68473	0.63434					0.68060	3.992
31 Isopentane	+++++	+++++	1.29393	1.30931	1.23915	1.16548		
	1.13581	1.03696					1.19677	8.695
35 Freon 11	4.04277	3.90360	4.04450	4.07351	4.05148	3.76487		
	3.63913	3.34904					3.85861	6.719
42 Ethanol	+++++	+++++	0.43200	0.48398	0.55697	0.53184		
	0.54345	0.50590					0.50902	9.034
49 Freon 113	3.02918	3.27533	2.94989	2.92097	2.80517	2.60400		
	2.57323	2.46861					2.82830	9.533
50 1,1-Dichloroethene	+++++	1.30272	0.98740	1.05773	1.01900	0.96309		
	0.93030	0.87436					1.01923	13.578
52 Acetone	+++++	+++++	0.84216	0.86895	0.72862	0.69576		
	0.69051	0.65507					0.74685	11.754
56 Carbon Disulfide	+++++	+++++	4.09700	4.09738	4.46068	4.26492		
	4.28082	4.06750					4.21138	3.626
57 2-Propanol	+++++	+++++	2.21358	2.33887	2.53289	2.44736		
	2.48900	2.39353					2.40254	4.794

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-JUN-2016 13:15
End Cal Date : 13-JUN-2016 19:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
58 3-Chloropropene	+++++	0.79094	0.63468	0.58010	0.68941	0.67007		
	0.67855	0.63682					0.66865	9.749
66 Methylene Chloride	+++++	2.15102	1.74971	1.80386	1.52302	1.43836		
	1.40478	1.30963					1.62577	18.063
71 tert-Butyl alcohol	+++++	+++++	2.81109	3.04337	3.19696	3.10513		
	3.12422	2.94354					3.03739	4.601
72 Methyl tert-butyl ether	+++++	5.13461	4.50257	4.56860	4.60354	4.32106		
	4.23663	3.97739					4.47777	8.100
73 trans-1,2-Dichloroethene	+++++	1.24395	1.12326	1.10205	1.05694	0.98391		
	0.96541	0.92011					1.05652	10.500
78 Hexane	+++++	2.73732	2.48824	2.48492	2.57155	2.34468		
	2.26089	2.09645					2.42629	8.709
83 Isopropyl ether	+++++	+++++	5.10739	5.12083	5.40484	4.99253		
	4.84084	4.43852					4.98416	6.527
82 1,1-Dichloroethane	+++++	2.90033	2.88880	2.92781	2.95640	2.74768		
	2.68454	2.47022					2.79654	6.253
86 Vinyl Acetate	+++++	+++++	0.30846	0.37456	0.40465	0.41295		
	0.42078	0.41009					0.38858	10.899
88 Ethyl-tert-butyl ether	+++++	+++++	5.13167	5.10208	5.58697	5.23345		
	5.16765	4.84852					5.17839	4.626

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
91 cis-1,2-Dichloroethene	+++++	1.33035	1.18041	1.20823	1.14635	1.08050		
	1.05880	0.98905					1.14196	9.820
92 2-Butanone	+++++	+++++	0.78744	0.82260	0.84091	0.79494		
	0.78860	0.74181					0.79605	4.275
99 Tetrahydrofuran	+++++	+++++	1.63505	1.65874	1.79685	1.70164		
	1.68510	1.58376					1.67685	4.286
100 Chloroform	+++++	3.59647	3.24274	3.29234	3.39313	3.17455		
	3.11828	2.92784					3.24933	6.519
102 Cyclohexane	+++++	2.90943	2.45193	2.40621	2.47609	2.29461		
	2.25592	2.13865					2.41898	10.206
103 1,1,1-Trichloroethane	3.66439	3.70876	3.32001	3.41763	3.52075	3.30201		
	3.28162	3.10005					3.41440	6.047
106 Carbon Tetrachloride	1.92733	1.85928	2.38940	2.50448	3.45067	3.24761		
	3.24831	3.09478					2.71523	23.111
113 2,2,4-Trimethylpentane	+++++	2.70478	2.24158	2.23595	2.44536	2.31320		
	2.26976	2.11056					2.33160	8.259
116 Benzene	+++++	1.34250	1.15221	1.12446	1.21752	1.12339		
	1.08689	1.05877					1.15796	8.256
119 tert-Amyl methyl ether	+++++	+++++	0.26914	0.26319	0.29056	0.27517		
	0.26719	0.26884					0.27235	3.570

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
120 1,2-Dichloroethane	0.50237	0.57531	0.47750	0.47297	0.51913	0.47961		
	0.45679	0.44482					0.49106	8.421
121 Heptane	+++++	0.33984	0.33140	0.31421	0.34717	0.32643		
	0.31832	0.30900					0.32663	4.245
125 Trichloroethene	0.54183	0.61491	0.56080	0.54045	0.60897	0.55836		
	0.54011	0.53527					0.56259	5.654
127 Methylcyclohexane	+++++	+++++	0.67725	0.69231	0.78891	0.72231		
	0.69397	0.67543					0.70836	6.056
132 1,2-Dichloropropane	+++++	0.52104	0.43408	0.40596	0.46192	0.43411		
	0.42165	0.41964					0.44263	8.740
136 1,4-Dioxane	+++++	0.36087	0.29408	0.29840	0.32473	0.29915		
	0.29242	0.28310					0.30754	8.705
138 Bromodichloromethane	1.01115	0.87235	0.94739	0.88905	1.02221	0.95838		
	0.94156	0.93038					0.94656	5.524
144 cis-1,3-Dichloropropene	+++++	0.67672	0.66733	0.65117	0.80917	0.77281		
	0.77425	0.77407					0.73222	8.806
145 4-Methyl-2-pentanone	+++++	0.74413	0.77432	0.78437	0.91685	0.86802		
	0.84701	0.82624					0.82299	7.274
147 Toluene	+++++	1.51395	1.28182	1.25763	1.40362	1.31325		
	1.26142	1.24593					1.32537	7.464

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 13-JUN-2016 19:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
150 trans-1,3-Dichloropropene	+++++	0.63515	0.61429	0.61990	0.80893	0.75213		
	0.74570	0.73824					0.70205	11.044
155 1,1,2-Trichloroethane	0.86128	0.68236	0.64665	0.56944	0.65679	0.58988		
	0.56841	0.55433					0.64114	15.711
156 Tetrachloroethene	0.89296	0.96306	0.88475	0.87454	0.94622	0.86763		
	0.83306	0.83793					0.88752	5.247
158 2-Hexanone	+++++	+++++	0.43905	0.47082	0.55458	0.54254		
	0.54082	0.55398					0.51696	9.559
160 Dibromochloromethane	0.85214	0.99013	0.89037	0.88697	1.13476	1.08162		
	1.07765	1.08167					0.99941	10.979
161 1,2-Dibromoethane (EDB)	0.86778	0.95397	0.90843	0.88196	1.03147	0.93351		
	0.90016	0.89257					0.92123	5.685
165 Chlorobenzene	+++++	1.34510	1.25855	1.25465	1.38394	1.27205		
	1.24199	1.22737					1.28338	4.537
167 Ethyl Benzene	+++++	0.69745	0.58425	0.57606	0.64922	0.61252		
	0.60699	0.60963					0.61945	6.718
169 m,p-Xylene	+++++	0.77824	0.65083	0.62450	0.70901	0.65244		
	0.65054	0.66542					0.67585	7.675
171 o-Xylene	+++++	0.81698	0.62870	0.61069	0.68642	0.62509		
	0.62256	0.64006					0.66150	10.997

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
172 Styrene	+++++	1.19447	0.94644	0.90110	1.05004	0.98464		
	1.00206	1.04967					1.01835	9.258
174 Bromoform	0.71973	0.78722	0.79805	0.80139	1.12366	1.09573		
	1.14541	1.19951					0.95884	20.706
175 Cumene	+++++	2.28233	1.85563	1.85433	2.16349	2.02341		
	2.04124	2.07382					2.04204	7.582
181 1,1,2,2-Tetrachloroethane	1.27151	1.18363	1.11145	1.13144	1.30186	1.18122		
	1.17545	1.17512					1.19146	5.429
182 Propylbenzene	+++++	2.72336	1.89972	1.74488	1.96534	1.80379		
	1.82807	1.89534					1.98007	16.950
188 4-Ethyltoluene	2.09684	2.28150	1.69051	1.52747	1.61764	1.44878		
	1.46261	1.50726					1.70408	18.407
190 1,3,5-Trimethylbenzene	1.74144	1.97116	1.53391	1.38640	1.56710	1.34896		
	1.26883	1.25021					1.50850	16.562
196 1,2,4-Trimethylbenzene	1.71240	1.93097	1.58810	1.45037	1.57712	1.32554		
	1.18081	1.14518					1.48881	18.027
208 1,3-Dichlorobenzene	1.21383	1.29675	0.95640	0.92092	1.03847	0.93819		
	0.93894	0.98139					1.03561	13.713
209 1,4-Dichlorobenzene	1.31618	1.27361	0.91431	0.85503	0.92504	0.83805		
	0.84939	0.89710					0.98359	19.825

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

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End Cal Date : 13-JUN-2016 19:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	___ RRF	% RSD
	20.000 Level 15	40.000 Level 16						
212 alpha-Chlorotoluene	+++++	0.70571	0.68784	0.75050	1.09978	1.14339		
	1.28256	1.40261					1.01034	29.082
214 1,2-Dichlorobenzene	1.12265	1.28260	0.88174	0.82654	0.93683	0.83923		
	0.86134	0.89531					0.95578	16.933
226 1,2,4-Trichlorobenzene	1.15819	1.22908	1.06560	1.02023	1.15119	0.89286		
	0.88052	0.83342					1.02889	14.317
227 Hexachlorobutadiene	+++++	1.02164	0.86467	0.80588	0.80399	0.64948		
	0.70110	0.74268					0.79849	15.258
228 Naphthalene	+++++	+++++	1.90838	1.70908	1.80896	1.42996		
	1.44964	1.33677					1.60713	14.490
$ 117 1,2-Dichloroethane-d4	1.39277	1.30481	1.32204	1.39635	1.24948	1.29426		
	1.35125	1.33045					1.33018	3.732
$ 146 Toluene-d8	0.91843	0.94508	0.94010	0.94782	0.96108	0.96890		
	0.95084	0.94744					0.94746	1.575
$ 177 4-Bromofluorobenzene	0.52000	0.53989	0.53283	0.53842	0.55332	0.55581		
	0.57168	0.58581					0.54972	3.906

Calibration History

Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Start Cal Date: 13-JUN-2016 13:15
End Cal Date : 13-JUN-2016 19:59

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 5 , Cal Amount: 0.05000		
13-JUN-2016 13:15	Level5	/chem/msd20.i/13Jun2016.b/20061306.d
Cal Level: 6 , Cal Amount: 0.10000		
13-JUN-2016 13:56	Level6	/chem/msd20.i/13Jun2016.b/20061307.d
Cal Level: 7 , Cal Amount: 0.50000		
13-JUN-2016 14:47	HILOcrvFULL	/chem/msd20.i/13Jun2016.b/20061308.d
Cal Level: 8 , Cal Amount: 1.00000		
13-JUN-2016 15:26	HILOcrvFULL	/chem/msd20.i/13Jun2016.b/20061309.d
Cal Level: 12, Cal Amount: 5.00000		
13-JUN-2016 16:08	HILOcrvFULL	/chem/msd20.i/13Jun2016.b/20061310.d
Cal Level: 13, Cal Amount: 10.00000		
13-JUN-2016 16:56	HILOcrvFULL	/chem/msd20.i/13Jun2016.b/20061311.d
Cal Level: 15, Cal Amount: 20.00000		
13-JUN-2016 19:03	HILOcrvFULL	/chem/msd20.i/13Jun2016.b/20061312.d
Cal Level: 16, Cal Amount: 40.00000		

```
|13-JUN-2016 19:59 |HILOcrvFULL      |/chem/msd20.i/13Jun2016.b/20061313.d    |
+------------------+-----------------+----------------------------------------+


Continuing Calibration
Ccal Level Mode: GLOBAL LEVEL 12
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                            |
+===============================================================================+
|13-JUN-2016 16:08 |HILOcrvFULL      |/chem/msd20.i/13Jun2016.b/20061310.d    |
+------------------+-----------------+----------------------------------------+
| Ccal Level: 12, Ccal Amount: 5.000                                            |
+===============================================================================+
|13-JUN-2016 16:08 |AT12             |/chem/msd20.i/13Jun2016.b/20061310a.d   |
+------------------+-----------------+----------------------------------------+
```

Curve Name: 2016L0613A

Initial Calibration Narrative

An initial calibration curve was analyzed on 6/13/16 on MSD-20.

The instrument was set up to do Full Scan and Selective Ion Monitoring (SIM) simultaneously.

Tune File: 20061301.
ICAL: Zero (0) out.
ICV: Zero (0) out.
In House control limits: Zero (0) out.
DOD control limits: Zero (0) out.
File 20061316.

BTEX R.L. Verification Spike: 20061307x.
Naphthalene was calibrated from 0.05ppbv to 4.0ppbv.

The following compounds were calibrated down to a special RL of 0.05ppbv:

Freon 114	Bromodichloromethane	4-Ethyltoluene
Freon 11	1,1,2-Trichloroethane	1,3,5-Trimethylbenzene
Freon 113	Tetrachloroethene	1,2,4-Trimethylbenzene
1,1,1-Trichloroethane	Dibromochloromethane	1,3-Dichlorobenzene
Carbon Tetrachloride	1,2-Dibromomethane (EDB)	1,4-Dichlorobenzene
1,2-Dichloroethane	Bromoform	1,2-Dichlorobenzene
Trichloroethene	1,1,2,2-Tetrachloroethane	1,2,4-Trichlorobenzene

MDL was run on 2/11/16.

Eurofins Air Toxics Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 13-JUN-2016 13:15
End Cal Date : 13-JUN-2016 19:59
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/msd20.i/13Jun2016.b/201610613a.m
Cal Date : 14-Jun-2016 11:45 efinn
Curve Type : Average

55 6/14/16

Calibration File Names:
Level 5: /chem/msd20.i/13Jun2016.b/20061306.d
Level 6: /chem/msd20.i/13Jun2016.b/20061307.d
Level 7: /chem/msd20.i/13Jun2016.b/20061308.d
Level 8: /chem/msd20.i/13Jun2016.b/20061309.d
Level 12: /chem/msd20.i/13Jun2016.b/20061310.d
Level 13: /chem/msd20.i/13Jun2016.b/20061311.d
Level 15: /chem/msd20.i/13Jun2016.b/20061312.d
Level 16: /chem/msd20.i/13Jun2016.b/20061313.d

Compound	0.05000 Level 5	0.10000 Level 6	0.50000 Level 7	1.000 Level 8	5.000 Level 12	10.000 Level 13	RRF	% RSD
	20.000 Level 15	40.000 Level 16						
9 Propylene	+++++	+++++	+++++	1.26235	1.22374	1.16963		
	1.18436	1.08001					1.18402	5.781
11 Freon 12	+++++	3.67517	4.32296	4.28996	4.18692	3.90596		
	3.74567	3.36432					3.92728	9.118
15 Freon 114	3.28529	3.25854	3.09012	3.01824	2.92357	2.70000		
	2.61221	2.43510					2.91538	10.570
17 Chloromethane	+++++	+++++	1.42048	1.39774	1.29598	1.19439		
	1.22971	1.12342					1.27696	9.144
23 Butane	+++++	+++++	0.40343	0.34877	0.34108	0.32571		
	0.31922	0.29867					0.33948	10.574
25 Vinyl Chloride	+++++	1.70081	1.57596	1.53860	1.55073	1.43936		
	1.40369	1.27777					1.49813	9.139
26 1,3-Butadiene	+++++	1.45769	1.20956	1.19094	1.18462	1.11109		
	1.10039	1.01626					1.18151	11.769

Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2796**

BFB Verification of 176/174 m/z Ratio: (364728/377472) x100 = 96.68	
Method Name:	20160606 13A / 20160606 13A

IS/S Std. #:	2789-89	Exp. Date:	7/21/16
BCM	LL: 137197	SIM:	136291
1,4-DFB	563559		581334
CB-d5	463244		480941

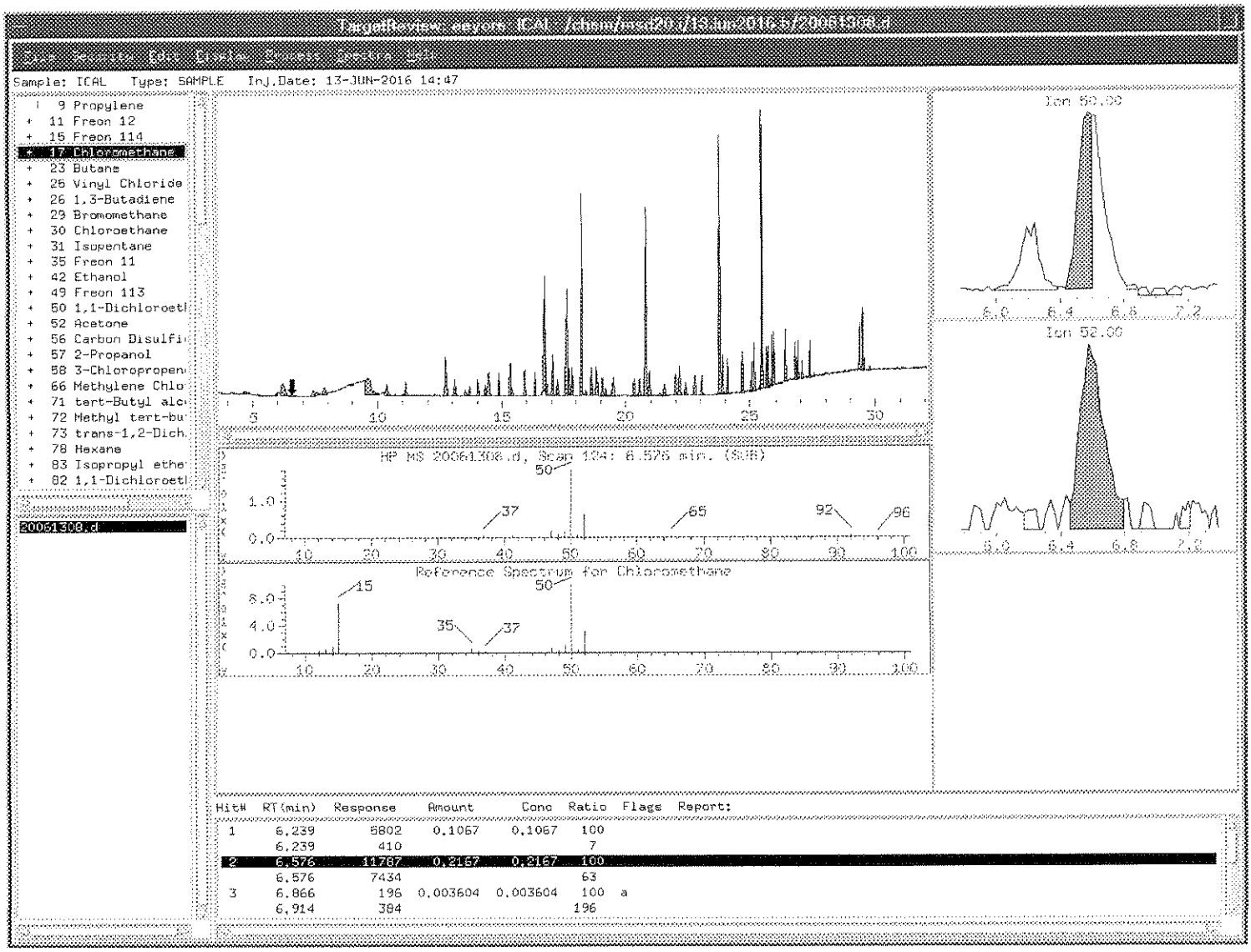
Verified CCV IS vs ICAL mid-point (-40%D): ___

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

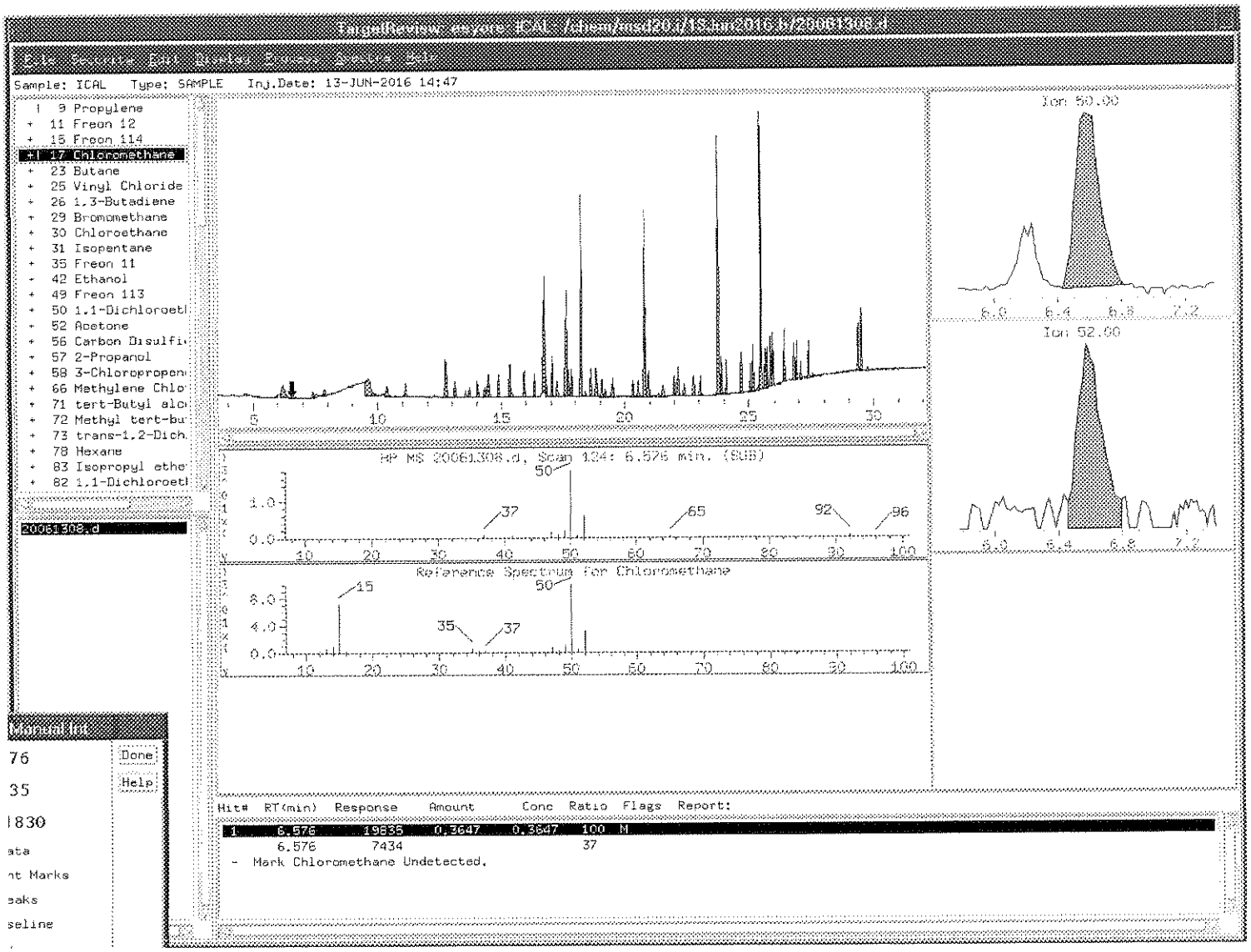
	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20061301	BFB Tune check	2299-1276	50 ng	2.0 mL	1.00	[illegible]	6/13/16	1007	[illegible]	
2	✓	02	ICAL Lvl 1	2789-181	0.003 ppbv	15 mL	1.00	[illegible]		1033	[illegible]	Exp. 9/9/16
3	✓	03	2		0.005 ppbv	25 mL	1.00	[illegible]		1118	[illegible]	
4	✓	04	3		0.01 ppbv	50 mL	1.00	[illegible]		1157	[illegible]	
5	✓	05	4		0.02 ppbv	100 mL	1.00	[illegible]		1236	[illegible]	
6	✓	06	5		0.05 ppbv	250 mL	1.00	[illegible]		1315	[illegible]	
7	✓	07	6	2789-182	0.1 ppbv	25 mL	1.00	[illegible]		1356	[illegible]	Exp. 9/9/16
8	✓	08	7		0.5 ppbv	125 mL	1.00	[illegible]		1447	[illegible]	
9	✓	09	8		1.0 ppbv	250 mL	1.00	[illegible]		1526	[illegible]	
10	✓	10	12	2789-176	5.0 ppbv	25 mL	1.00	[illegible]		1608	MB	Exp. 9/9/16
11	✓	11	13		10 ppbv	50 mL	1.00	MB		1656	MB	
12	✓	12	15		20 ppbv	100 mL	1.00	MB		1903	MB	
13	✓	13	16		40 ppbv	200 mL	1.00	MB		1959	MB	
14	X	14	System Blank	34764	Humid	250 mL	1.00	MB		2056	MB	
15	✓	15								2149	MB	OK for ICV
16	✓	16	ICV (~~5.0 ppbv~~ 50 ppbv)	2789-169	5.0 ppbv	25 mL	1.00	MB		2241	[illegible]	Exp. 9/6/16
17	Test	17	System Blank	35248	Humid	250 mL	1.00	[illegible]	6/14/16			SAME TEST 6/14/16

[illegible]
Reviewed

6/14/16
Date


TargetReview: ceyore ICAL /chem/msd20.i/13.jun.2016/20061308.d
Sample: ICAL Type: SAMPLE Inj.Date: 13-JUN-2016 14:47
9 Propylene
11 Freon 12
15 Freon 114
17 Chloromethane
23 Butane
26 Vinyl Chloride
26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
31 Isopentane
35 Freon 11
42 Ethanol
49 Freon 113
50 1,1-Dichloroetl
52 Acetone
56 Carbon Disulfi
57 2-Propanol
58 3-Chloropropen
66 Methylene Chlo
71 tert-Butyl alc
72 Methyl tert-bu
73 trans-1,2-Dich
78 Hexane
83 Isopropyl ethe
82 1,1-Dichloroetl
20061308.d
Ion 50.00
Ion 52.00
HP MS 20061308.d, Scan 134: 6.576 min. (SUB)
Reference Spectrum for Chloromethane
Hit# RT(min) Response Amount Conc Ratio Flags Report:
1 6.239 5802 0.1067 0.1067 100
6.239 410 7
2 6.576 11787 0.2167 0.2167 100
6.576 7434 63
3 6.866 196 0.003604 0.003604 100 a
6.914 384 196

Editor



GB 6/14/16

35 6/14/16

After

Correct Baseline	
Split Peak	✓
Merge Peak	
Zoom In	
Change Parameter	
System Peak Subtraction	
Peak Misidentified	
Corrected Peak Integration	

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

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

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

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

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061316.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 13-JUN-2016 22:41
Operator : mjs Inst ID: msd20.i
Smp Info : 25mL 2789-169
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 19:59 Cal File: 20061313.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	130125	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	98556			47.16- 107.16	75.74
16.726	16.726 (1.000)	49	152725			84.74- 144.74	117.37
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	543125	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	83757			0.00- 45.65	15.42
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	448168	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	238980			24.05- 84.05	53.32
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	166684	4.81497	4.815	80.00- 120.00	100.00
17.641	17.641 (1.055)	67	95973			28.75- 88.75	57.58
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.822	20.821 (1.142)	98	516758	5.02106	5.021	80.00- 120.00	100.00
20.822	20.821 (1.142)	70	57164			0.00- 41.22	11.06

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

$ 146 Toluene-d8 (continued)
 20.822  20.821 (1.142)   100    353159                    37.90-  97.90    68.34
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    242373 4.91894    4.919  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    286828                   88.33- 148.33   118.34
 25.485  25.485 (1.073)   176    237925                   68.77- 128.77    98.16
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.142   4.190 (0.248)    41    160100 5.19568    5.196  80.00- 120.00   100.00
  4.166   4.190 (0.249)    42    109795                   37.74-  97.74    68.58
  4.142   4.190 (0.248)    39    115175                   43.28- 103.28    71.94
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.648   4.672 (0.278)    85    579716 5.67195    5.672  80.00- 120.00   100.00
  4.648   4.672 (0.278)    87    188304                    2.50-  62.50    32.48
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.239 (0.372)   135    409461 5.39667    5.397  80.00- 120.00   100.00
  6.215   6.239 (0.372)   137    130902                    2.53-  62.53    31.97
  6.191   6.239 (0.370)    85    539057                  112.58- 172.58   131.65
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.553   6.601 (0.392)    50    173966 5.23477    5.235  80.00- 120.00   100.00
  6.553   6.601 (0.392)    52     59055                    3.09-  63.09    33.95
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.416   7.434 (0.443)    58     47626 5.39062    5.391  80.00- 120.00   100.00
  7.416   7.434 (0.443)    43    313307                  641.20- 701.20   657.85
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.573   7.590 (0.453)    62    212767 5.45712    5.457  80.00- 120.00   100.00
  7.573   7.590 (0.453)    64     66622                    2.84-  62.84    31.31
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.885 (0.470)    54    154174 5.01400    5.014  80.00- 120.00   100.00
  7.868   7.885 (0.470)    39    147942                   65.35- 125.35    95.96
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    141436 6.11331    6.113  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96    132176                   64.03- 124.03    93.45
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.174  10.198 (0.608)    64     98999 5.58916    5.589  80.00- 120.00   100.00
 10.174  10.198 (0.608)    49     23693                    0.00-  54.43    23.93
 10.174  10.198 (0.608)    66     31737                    2.17-  62.17    32.06
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	166632	5.35003	5.350	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	235044			110.67- 170.67	141.06
10.367	10.367 (0.620)	42	205977			93.85- 153.85	123.61
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	554876	5.52553	5.526	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	363632			34.69- 94.69	65.53
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	76333	5.76215	5.762	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	32287			11.01- 71.01	42.30
12.269	12.269 (0.734)	43	16395			0.00- 50.63	21.48
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	367250	4.98937	4.989	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	234900			34.65- 94.65	63.96
12.763	12.763 (0.763)	101	440597			90.37- 150.37	119.97
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	135950	5.12526	5.125	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	331510			216.58- 276.58	243.85
12.736	12.736 (0.761)	96	212890			128.21- 188.21	156.59
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	97491	5.01582	5.016	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	297841			275.09- 335.09	305.51
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.120 (0.784)	76	515000	4.69885	4.699	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.532 (0.809)	45	344599	5.51129	5.511	80.00- 120.00	100.00
13.533	13.532 (0.809)	43	68218			0.00- 49.91	19.80
13.533	13.532 (0.809)	59	15233			0.00- 34.18	4.42
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	84552	4.85885	4.859	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	214534			218.66- 278.66	253.73
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	200174	4.73106	4.731	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	239782			88.46- 148.46	119.79
14.027	14.027 (0.839)	51	73492			6.78- 66.78	36.71
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	595655	5.11143	5.111	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.863)	57	130209			0.00- 52.12	21.86
14.439	14.439 (0.863)	41	128328			0.00- 51.31	21.54
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	120024	4.36516	4.365	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	257558			179.74- 239.74	214.59
14.494	14.494 (0.866)	96	188725			125.55- 185.55	157.24
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	323290	5.11987	5.120	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	199388			31.00- 91.00	61.67
14.878	14.878 (0.889)	86	63384			0.00- 49.39	19.61
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	387118	5.31902	5.319	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	123244			1.67- 61.67	31.84
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	54617	5.40075	5.401	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	43059			50.79- 110.79	78.84
15.400	15.400 (0.921)	43	494816			896.60- 956.60	905.97
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.324	16.323 (0.976)	98	166353	5.59744	5.597	80.00- 120.00	100.00
16.324	16.323 (0.976)	61	325587			166.16- 226.16	195.72
16.324	16.323 (0.976)	96	263195			127.31- 187.31	158.21
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	108197	5.22255	5.222	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	384823			324.50- 384.50	355.67
16.344	16.344 (0.977)	57	31939			0.00- 59.24	29.52
99 Tetrahydrofuran					CAS #: 109-99-9		
16.696	16.695 (0.998)	42	235567	5.39794	5.398	80.00- 120.00	100.00
16.696	16.695 (0.998)	71	101565			12.99- 72.99	43.12
16.696	16.695 (0.998)	72	107882			16.36- 76.36	45.80
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	446249	5.27706	5.277	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	283958			34.55- 94.55	63.63
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	318533	5.05979	5.060	80.00- 120.00	100.00
17.035	17.035 (1.018)	56	349832			77.49- 137.49	109.83
17.035	17.035 (1.018)	41	181559			25.74- 85.74	57.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.066	17.065 (1.020)	97	461260	5.19087	5.191	80.00- 120.00	100.00
17.066	17.065 (1.020)	99	295203			34.47- 94.47	64.00
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	443502	6.27621	6.276	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	461098			73.36- 133.36	103.97
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.579	17.579 (1.051)	56	323026	5.32345	5.323	80.00- 120.00	100.00
17.579	17.579 (1.051)	57	972417			274.31- 334.31	301.03
17.579	17.579 (1.051)	41	245904			47.10- 107.10	76.13
116 Benzene					CAS #: 71-43-2		
17.621	17.620 (0.966)	78	644823	5.12644	5.126	80.00- 120.00	100.00
17.621	17.620 (0.966)	77	151270			0.00- 53.54	23.46
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	280097	5.25101	5.251	80.00- 120.00	100.00
17.744	17.744 (0.973)	64	89152			1.40- 61.40	31.83
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	183375	5.16844	5.168	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	74610			10.87- 70.87	40.69
17.847	17.847 (0.979)	43	332177			148.15- 208.15	181.15
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	319504	5.22824	5.228	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	300153			61.17- 121.17	93.94
18.610	18.610 (1.021)	97	191633			29.33- 89.33	59.98
127 Methylcyclohexane					CAS #: 108-87-2		
18.834	18.833 (1.033)	83	407019	5.28967	5.290	80.00- 120.00	100.00
18.834	18.833 (1.033)	55	302131			43.54- 103.54	74.23
18.834	18.833 (1.033)	56	99626			0.00- 53.97	24.48
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.079	19.079 (1.046)	63	249638	5.19208	5.192	80.00- 120.00	100.00
19.079	19.079 (1.046)	62	177004			41.36- 101.36	70.90
19.057	19.056 (1.045)	41	136459			24.32- 84.32	54.66
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	169852	5.08444	5.084	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	113350			34.13- 94.13	66.73
19.213	19.213 (1.054)	57	36296			0.00- 50.75	21.37

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	469641	5.53538	5.535	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	302190			34.23- 94.23	64.34
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.339	20.338 (1.116)	75	399108	5.01789	5.018	80.00- 120.00	100.00
20.339	20.338 (1.116)	77	127806			1.78- 61.78	32.02
20.339	20.338 (1.116)	39	190776			16.15- 76.15	47.80
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.572	20.557 (1.128)	43	488734	5.46698	5.467	80.00- 120.00	100.00
20.572	20.557 (1.128)	58	206796			11.51- 71.51	42.31
20.572	20.557 (1.128)	85	94374			0.00- 48.80	19.31
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	738963	5.13280	5.133	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	444961			30.55- 90.55	60.21
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	348186	5.53316	5.533	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	108857			1.21- 61.21	31.26
21.564	21.535 (0.908)	39	160869			14.72- 74.72	46.20
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
22.000	21.999 (0.926)	97	285528	4.96847	4.968	80.00- 120.00	100.00
22.000	21.999 (0.926)	99	177908			32.55- 92.55	62.31
22.000	21.999 (0.926)	83	239489			53.25- 113.25	83.88
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	411360	5.17099	5.171	80.00- 120.00	100.00
22.174	22.174 (0.933)	129	288495			39.98- 99.98	70.13
22.174	22.174 (0.933)	131	281380			38.96- 98.96	68.40
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.377 (0.943)	58	248549	5.36390	5.364	80.00- 120.00	100.00
22.406	22.377 (0.943)	43	432789			146.44- 206.44	174.13
22.406	22.406 (0.943)	100	57842			0.00- 54.43	23.27
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	494258	5.51744	5.517	80.00- 120.00	100.00
22.784	22.784 (0.959)	127	379922			47.16- 107.16	76.87
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	440434	5.33386	5.334	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	416817			63.61- 123.61	94.64

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.823	23.823 (1.003)	112	600427	5.21957	5.220	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	189730			2.46- 62.46	31.60
23.823	23.823 (1.003)	77	335384			27.29- 87.29	55.86
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.905 (1.006)	106	283087	5.09854	5.098	80.00- 120.00	100.00
23.906	23.905 (1.006)	91	870522			278.69- 338.69	307.51
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	310167	5.12002	5.120	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	600029			164.82- 224.82	193.45
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	302125	5.09548	5.095	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	619079			174.08- 234.08	204.91
172 Styrene					CAS #: 100-42-5		
24.731	24.730 (1.041)	104	456684	5.00321	5.003	80.00- 120.00	100.00
24.731	24.730 (1.041)	78	227142			19.76- 79.76	49.74
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	646097	7.51764	7.518	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	334238			21.57- 81.57	51.73
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	935190	5.10935	5.109	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	259544			0.00- 57.92	27.75
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	569182	5.32968	5.330	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	365145			34.06- 94.06	64.15
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.732 (1.083)	91	845645	4.76471	4.765	80.00- 120.00	100.00
25.732	25.732 (1.083)	120	205794			0.00- 54.46	24.34
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	678842	4.44435	4.444	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	210882			0.68- 60.68	31.06
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	650672	4.81222	4.812	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	334929			21.16- 81.16	51.47
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	648751	4.86147	4.861	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	315757			18.29- 78.29	48.67
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.810	26.810 (1.128)	146	447484	4.82068	4.821	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	287133			33.99- 93.99	64.17
26.810	26.810 (1.128)	111	175597			9.12- 69.12	39.24
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	393285	4.46090	4.461	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	251209			33.88- 93.88	63.87
26.919	26.919 (1.133)	111	147431			7.98- 67.98	37.49
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	483195	5.33560	5.336	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	107621			0.00- 51.77	22.27
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	398794	4.65501	4.655	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	252892			33.08- 93.08	63.41
27.371	27.371 (1.152)	111	161986			11.01- 71.01	40.62
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	440967	4.78155	4.782	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	421644			64.78- 124.78	95.62
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.507	29.491 (1.242)	225	316864	4.42723	4.427	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	195242			32.96- 92.96	61.62
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	71677	0.49757	0.4976	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	9113			0.00- 43.33	12.71

QC Flag Legend

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

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061316.d
Lab Smp Id: ICV
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: ICV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	130125	-5.15
123 1,4-Difluorobenze	563551	338131	788971	543125	-3.62
163 Chlorobenzene-d5	463244	277946	648542	448168	-3.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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: 14-Jun-2016 11:40

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 13Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: mjs
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.196	103.91	60-140
11 Freon 12	5.000	5.672	113.44	70-130
15 Freon 114	5.000	5.397	107.93	70-130
17 Chloromethane	5.000	5.235	104.70	70-130
23 Butane	5.000	5.391	107.81	60-140
25 Vinyl Chloride	5.000	5.457	109.14	70-130
26 1,3-Butadiene	5.000	5.014	100.28	70-130
29 Bromomethane	5.000	6.113	122.27	70-130
30 Chloroethane	5.000	5.589	111.78	70-130
31 Isopentane	5.000	5.350	107.00	60-140
35 Freon 11	5.000	5.526	110.51	70-130
42 Ethanol	5.000	5.762	115.24	70-130
49 Freon 113	5.000	4.989	99.79	70-130
50 1,1-Dichloroethene	5.000	5.125	102.51	70-130
52 Acetone	5.000	5.016	100.32	70-130
56 Carbon Disulfide	5.000	4.699	93.98	70-130
57 2-Propanol	5.000	5.511	110.23	70-130
58 3-Chloropropene	5.000	4.859	97.18	70-130
66 Methylene Chloride	5.000	4.731	94.62	70-130
72 Methyl tert-butyl	5.000	5.111	102.23	70-130
73 trans-1,2-Dichloro	4.250	4.365	102.71	70-130
78 Hexane	5.000	5.120	102.40	70-130
82 1,1-Dichloroethane	5.000	5.319	106.38	70-130
86 Vinyl Acetate	5.000	5.401	108.01	60-140
91 cis-1,2-Dichloroet	5.650	5.597	99.07	70-130
92 2-Butanone	5.000	5.222	104.45	70-130
99 Tetrahydrofuran	5.000	5.398	107.96	70-130
100 Chloroform	5.000	5.277	105.54	70-130
103 1,1,1-Trichloroeth	5.000	5.191	103.82	70-130
106 Carbon Tetrachlori	5.000	6.276	125.52	70-130
102 Cyclohexane	5.000	5.060	101.20	70-130
113 2,2,4-Trimethylpen	5.000	5.323	106.47	70-130
116 Benzene	5.000	5.126	102.53	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.251	105.02	70-130
121 Heptane	5.000	5.168	103.37	70-130
125 Trichloroethene	5.000	5.228	104.56	70-130
127 Methylcyclohexane	5.000	5.290	105.79	60-140
132 1,2-Dichloropropan	5.000	5.192	103.84	70-130
136 1,4-Dioxane	5.000	5.084	101.69	70-130
138 Bromodichlorometha	5.000	5.535	110.71	70-130
144 cis-1,3-Dichloropr	5.000	5.018	100.36	70-130
145 4-Methyl-2-pentano	5.000	5.467	109.34	70-130
147 Toluene	5.000	5.133	102.66	70-130
150 trans-1,3-Dichloro	5.000	5.533	110.66	70-130
155 1,1,2-Trichloroeth	5.000	4.968	99.37	70-130
156 Tetrachloroethene	5.000	5.171	103.42	70-130
158 2-Hexanone	5.000	5.364	107.28	70-130
160 Dibromochlorometha	5.000	5.517	110.35	70-130
161 1,2-Dibromoethane	5.000	5.334	106.68	70-130
165 Chlorobenzene	5.000	5.220	104.39	70-130
167 Ethyl Benzene	5.000	5.098	101.97	70-130
169 m,p-Xylene	5.000	5.120	102.40	70-130
171 o-Xylene	5.000	5.095	101.91	70-130
172 Styrene	5.000	5.003	100.06	70-130
174 Bromoform	6.500	7.518	115.66	70-130
175 Cumene	5.000	5.109	102.19	70-130
181 1,1,2,2-Tetrachlor	5.000	5.330	106.59	70-130
182 Propylbenzene	5.000	4.765	95.29	70-130
188 4-Ethyltoluene	5.000	4.444	88.89	70-130
190 1,3,5-Trimethylben	5.000	4.812	96.24	70-130
196 1,2,4-Trimethylben	5.000	4.861	97.23	70-130
208 1,3-Dichlorobenzen	5.000	4.821	96.41	70-130
209 1,4-Dichlorobenzen	5.000	4.461	89.22	70-130
212 alpha-Chlorotoluen	5.000	5.336	106.71	70-130
214 1,2-Dichlorobenzen	5.000	4.655	93.10	70-130
226 1,2,4-Trichloroben	5.000	4.782	95.63	70-130
227 Hexachlorobutadien	5.000	4.427	88.54	70-130
228 Naphthalene	0.5000	0.4976	99.51	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.815	96.30	70-130
$ 146 Toluene-d8	5.000	5.021	100.42	70-130
$ 177 4-Bromofluorobenze	5.000	4.919	98.38	70-130

Data File: /chem/msd20.i/13Jun2016.b/20061316.d

Date : 13-JUN-2016 22:41

Client ID: ICV

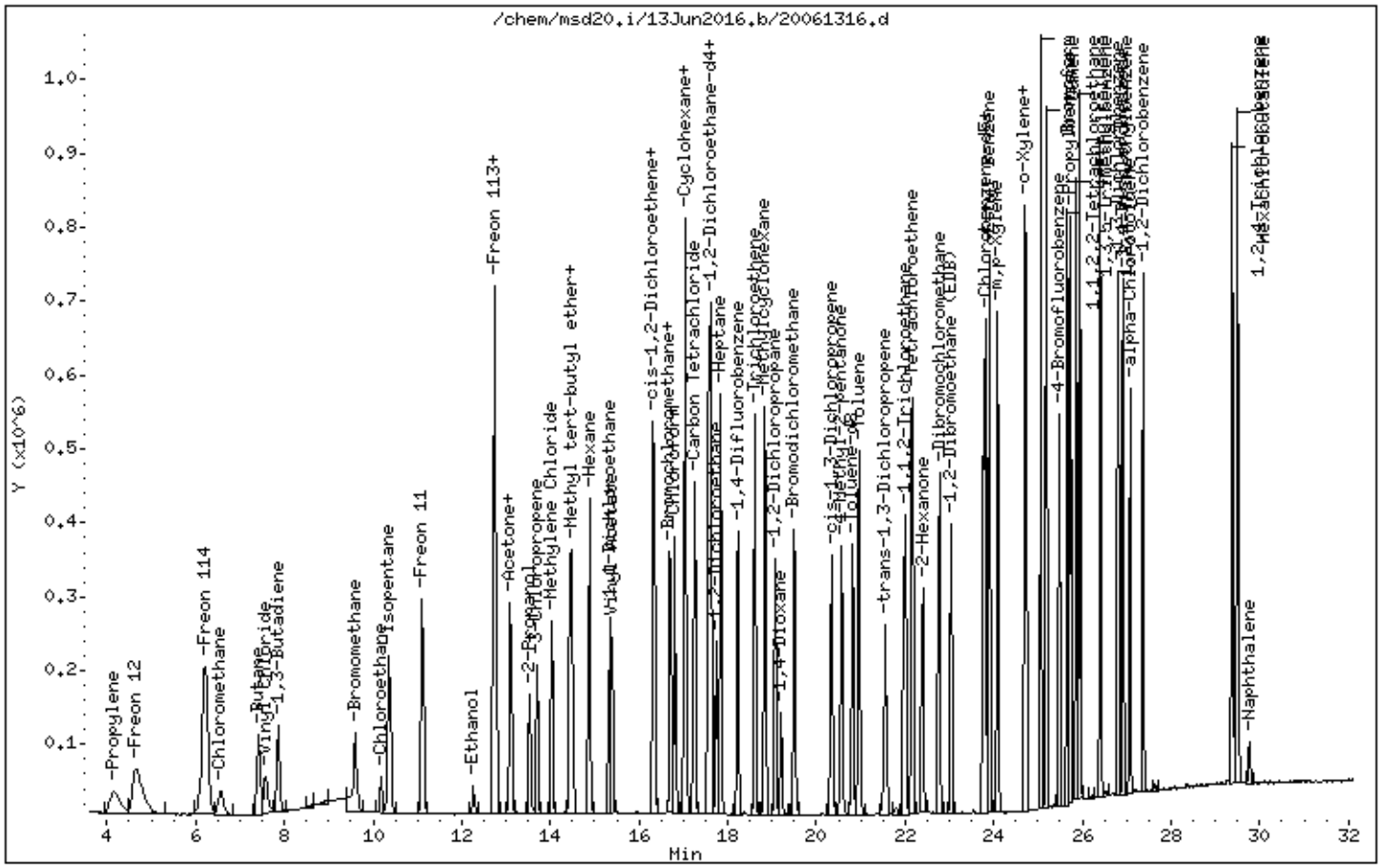
Instrument: msd20.i

Sample Info: 25mL 2789-169

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061306.d
Lab Smp Id: ICAL Client Smp ID: Level 5
Inj Date : 13-JUN-2016 13:15
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 2789-181
Misc Info : 0.05ppbv (0.05ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 13:15 Cal File: 20061306.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level5.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
15 Freon 114					CAS #: 76-14-2		
6.239	6.239 (0.373)	135	4541	0.05000	0.05634	80.00- 120.00	100.00(a)
6.191	6.191 (0.370)	137	1316			2.53- 62.53	28.98
6.215	6.215 (0.372)	85	7429			112.58- 172.58	163.60
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	5588	0.05000	0.05239	80.00- 120.00	100.00(a)
11.114	11.114 (0.664)	103	4625			34.69- 94.69	82.77
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	4187	0.05000	0.05355	80.00- 120.00	100.00(a)
12.763	12.763 (0.763)	153	2892			34.65- 94.65	69.07
12.763	12.763 (0.763)	101	4792			90.37- 150.37	114.45
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	138222	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	108428			47.16- 107.16	78.44
16.726	16.726 (1.000)	49	159775			84.74- 144.74	115.59
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.065 (1.020)	97	5065	0.05000	0.05366	80.00- 120.00	100.00(a)

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

  103 1,1,1-Trichloroethane (continued)
 17.065  17.065 (1.020)    99      3264                    34.47-  94.47    64.44
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119      2664 0.05000  0.03549  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      3502                    73.36- 133.36   131.46
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    192512 5.00000    5.235  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    101671                    28.75-  88.75    52.81
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62      3081 0.05000  0.05115  80.00- 120.00   100.00(a)
 17.744  17.744 (0.973)    64      1644                     1.40-  61.40    53.36
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    613291 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     95888                     0.00-  45.65    15.63
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130      3323 0.05000  0.04816  80.00- 120.00   100.00(a)
 18.610  18.610 (1.021)    95      3728                    61.17- 121.17   112.19
 18.633  18.633 (1.022)    97      2184                    29.33-  89.33    65.72
-------------------------------------------------------------------------------
  138 Bromodichloromethane                          CAS #: 75-27-4
 19.503  19.503 (0.821)    83      4979 0.05000  0.05341  80.00- 120.00   100.00(a)
 19.525  19.525 (0.822)    85      3228                    34.23-  94.23    64.83
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    563264 5.00000    4.847  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     62687                     0.00-  41.22    11.13
 20.821  20.821 (1.142)   100    386373                    37.90-  97.90    68.60
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 21.999  21.999 (0.926)    97      4241 0.05000  0.06717  80.00- 120.00   100.00(a)
 21.999  21.999 (0.926)    99      1990                    32.55-  92.55    46.92
 21.999  21.999 (0.926)    83      2887                    53.25- 113.25    68.07
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 22.174  22.174 (0.933)   166      4397 0.05000  0.05031  80.00- 120.00   100.00(a)
 22.174  22.174 (0.933)   129      3196                    39.98-  99.98    72.69
 22.174  22.174 (0.933)   131      3501                    38.96-  98.96    79.62
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.784  22.784 (0.959)   129      4196 0.05000  0.04263  80.00- 120.00   100.00(a)
 22.784  22.784 (0.959)   127      3190                    47.16- 107.16    76.02
-------------------------------------------------------------------------------
```

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

  161 1,2-Dibromoethane (EDB)                          CAS #: 106-93-4
 23.045  23.045 (0.970)   107      4273 0.05000  0.04710  80.00- 120.00   100.00(a)
 23.045  23.045 (0.970)   109      4125                   63.61- 123.61    96.54
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                 CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    492408 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    264384                   24.05-  84.05    53.69
-------------------------------------------------------------------------------
  174 Bromoform                                        CAS #: 75-25-2
 25.068  25.068 (1.055)   173      3544 0.05000  0.03753  80.00- 120.00   100.00(a)
 25.068  25.068 (1.055)   171      1813                   21.57-  81.57    51.16
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                             CAS #: 460-00-4
 25.485  25.485 (1.073)   174    256052 5.00000    4.730  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    305513                   88.33- 148.33   119.32
 25.485  25.485 (1.073)   176    253141                   68.77- 128.77    98.86
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                        CAS #: 79-34-5
 25.656  25.656 (1.080)    83      6261 0.05000  0.05336  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      3198                   34.06-  94.06    51.08
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                   CAS #: 622-96-8
 25.864  25.864 (1.089)   105     10325 0.05000  0.06152  80.00- 120.00   100.00(a)
 25.864  25.864 (1.089)   120      3453                    0.68-  60.68    33.44
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                           CAS #: 108-67-8
 25.940  25.940 (1.092)   105      8575 0.05000  0.05772  80.00- 120.00   100.00(a)
 25.940  25.940 (1.092)   120      4685                   21.16-  81.16    54.64
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                           CAS #: 95-63-6
 26.395  26.395 (1.111)   105      8432 0.05000  0.05751  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120      4585                   18.29-  78.29    54.38
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                              CAS #: 541-73-1
 26.794  26.794 (1.128)   146      5977 0.05000  0.05860  80.00- 120.00   100.00(a)
 26.810  26.810 (1.128)   148      4285                   33.99-  93.99    71.69
 26.810  26.810 (1.128)   111      2673                    9.12-  69.12    44.72
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                              CAS #: 106-46-7
 26.919  26.919 (1.133)   146      6481 0.05000  0.06691  80.00- 120.00   100.00(a)
 26.919  26.919 (1.133)   148      4195                   33.88-  93.88    64.73
 26.903  26.903 (1.132)   111      2510                    7.98-  67.98    38.73
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                              CAS #: 95-50-1
 27.371  27.371 (1.152)   146      5528 0.05000  0.05873  80.00- 120.00   100.00(a)
 27.371  27.371 (1.152)   148      3827                   33.08-  93.08    69.23
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
214 1,2-Dichlorobenzene (continued)							
27.371	27.371 (1.152)	111	2665			11.01- 71.01	48.21
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	5703	0.05000	0.05628	80.00- 120.00	100.00(a)
29.382	29.382 (1.237)	182	5604			64.78- 124.78	98.26

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: msd20.i
Lab File ID: 20061306.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 0.05ppbv (0.05ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 5
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	138222	0.75
123 1,4-Difluorobenze	563551	338131	788971	613291	8.83
163 Chlorobenzene-d5	463244	277946	648542	492408	6.30

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061306.d

Date : 13-JUN-2016 13:15

Client ID: Level 5

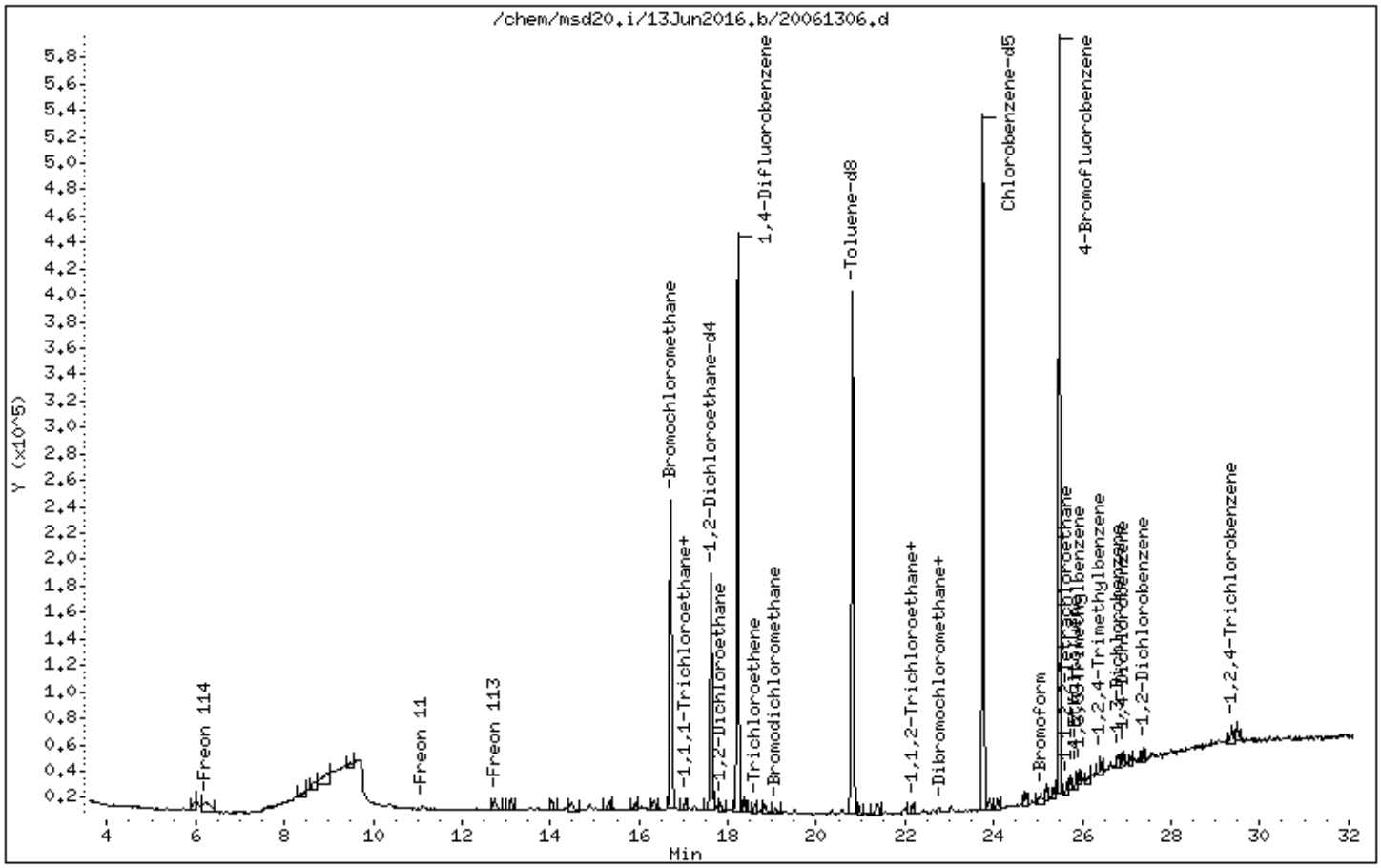
Instrument: msd20.i

Sample Info: 250mL# 2789-181

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061307.d
Lab Smp Id: ICAL Client Smp ID: Level 6
Inj Date : 13-JUN-2016 13:56
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-182
Misc Info : 0.1ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 13:56 Cal File: 20061307.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: Level6.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	10506	0.10000	0.09358	80.00- 120.00	100.00(a)
4.672	4.672 (0.279)	87	3343			2.50- 62.50	31.82
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	9315	0.10000	0.1118	80.00- 120.00	100.00(a)
6.215	6.215 (0.372)	137	3207			2.53- 62.53	34.43
6.191	6.191 (0.370)	85	14672			112.58- 172.58	157.51
25 Vinyl Chloride					CAS #: 75-01-4		
7.555	7.555 (0.452)	62	4862	0.10000	0.1135	80.00- 120.00	100.00(a)
7.555	7.555 (0.452)	64	2219			2.84- 62.84	45.64
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	4167	0.10000	0.1234	80.00- 120.00	100.00(a)
7.850	7.850 (0.469)	39	4758			65.35- 125.35	114.18
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	11159	0.10000	0.1012	80.00- 120.00	100.00(a)
11.114	11.114 (0.664)	103	7913			34.69- 94.69	70.91

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

   49 Freon 113                                      CAS #: 76-13-1
 12.763  12.763 (0.763)   151      9363 0.10000   0.1158  80.00- 120.00   100.00(a)
 12.763  12.763 (0.763)   153      5947                   34.65-  94.65    63.52
 12.763  12.763 (0.763)   101     10535                   90.37- 150.37   112.52
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                             CAS #: 75-35-4
 12.736  12.736 (0.761)    98      3724 0.10000   0.1278  80.00- 120.00   100.00(a)
 12.736  12.736 (0.761)    61      8332                  216.58- 276.58   223.74
 12.736  12.736 (0.761)    96      5420                  128.21- 188.21   145.54
-------------------------------------------------------------------------------
   58 3-Chloropropene                                CAS #: 107-05-1
 13.697  13.697 (0.819)    76      2261 0.10000   0.1183  80.00- 120.00   100.00(a)
 13.697  13.697 (0.819)    41      4907                  218.66- 278.66   217.03
-------------------------------------------------------------------------------
   66 Methylene Chloride                             CAS #: 75-09-2
 14.027  14.027 (0.839)    84      6149 0.10000   0.1323  80.00- 120.00   100.00(a)
 14.027  14.027 (0.839)    49      6891                   88.46- 148.46   112.07
 14.027  14.027 (0.839)    51      2499                    6.78-  66.78    40.64
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                        CAS #: 1634-04-4
 14.466  14.466 (0.865)    73     14678 0.10000   0.1147  80.00- 120.00   100.00(a)
 14.439  14.439 (0.863)    57      2979                    0.00-  52.12    20.30
 14.439  14.439 (0.863)    41      4007                    0.00-  51.31    27.30
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                       CAS #: 156-60-5
 14.494  14.494 (0.866)    98      3556 0.10000   0.1177  80.00- 120.00   100.00(a)
 14.494  14.494 (0.866)    61      6933                  179.74- 239.74   194.97
 14.494  14.494 (0.866)    96      5114                  125.55- 185.55   143.81
-------------------------------------------------------------------------------
   78 Hexane                                         CAS #: 110-54-3
 14.878  14.878 (0.889)    57      7825 0.10000   0.1128  80.00- 120.00   100.00(a)
 14.878  14.878 (0.889)    43      5250                   31.00-  91.00    67.09
 14.878  14.878 (0.889)    86      1741                    0.00-  49.39    22.25
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                             CAS #: 75-34-3
 15.345  15.345 (0.917)    63      8291 0.10000   0.1037  80.00- 120.00   100.00(a)
 15.345  15.345 (0.917)    65      3630                    1.67-  61.67    43.78
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                         CAS #: 156-59-2
 16.324  16.324 (0.976)    98      3803 0.10000   0.1165  80.00- 120.00   100.00(a)
 16.324  16.324 (0.976)    61      6841                  166.16- 226.16   179.88
 16.324  16.324 (0.976)    96      5768                  127.31- 187.31   151.67
-------------------------------------------------------------------------------
*  98 Bromochloromethane                            CAS #: 74-97-5
 16.726  16.726 (1.000)   130    142932 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    111108                   47.16- 107.16    77.73
```

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

*  98 Bromochloromethane (continued)
 16.726  16.726 (1.000)    49    165434                    84.74- 144.74   115.74
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83     10281 0.10000   0.1107  80.00- 120.00   100.00(a)
 16.819  16.819 (1.006)    85      6542                    34.55-  94.55    63.63
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84      8317 0.10000   0.1203  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56      8060                    77.49- 137.49    96.91
 17.035  17.035 (1.018)    41      5008                    25.74-  85.74    60.21
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.065  17.065 (1.020)    97     10602 0.10000   0.1086  80.00- 120.00   100.00(a)
 17.065  17.065 (1.020)    99      6905                    34.47-  94.47    65.13
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119      5315 0.10000  0.06848  80.00- 120.00   100.00(a)
 17.250  17.250 (1.031)   117      7033                   73.36- 133.36   132.32
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 17.579  17.579 (1.051)    56      7732 0.10000   0.1160  80.00- 120.00   100.00(a)
 17.579  17.579 (1.051)    57     21228                  274.31- 334.31   274.55
 17.579  17.579 (1.051)    41      5599                    47.10- 107.10    72.41
-------------------------------------------------------------------------------
  116 Benzene                                      CAS #: 71-43-2
 17.621  17.621 (0.966)    78     15833 0.10000   0.1159  80.00- 120.00   100.00(a)
 17.621  17.621 (0.966)    77      4455                     0.00-  53.54    28.14
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                        CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    186499 5.00000    4.905  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67     96380                    28.75-  88.75    51.68
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                           CAS #: 107-06-2
 17.744  17.744 (0.973)    62      6785 0.10000   0.1172  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64      2575                     1.40-  61.40    37.95
-------------------------------------------------------------------------------
  121 Heptane                                      CAS #: 142-82-5
 17.847  17.847 (0.979)    57      4008 0.10000   0.1040  80.00- 120.00   100.00(a)
 17.847  17.847 (0.979)   100      1372                    10.87-  70.87    34.23
 17.847  17.847 (0.979)    43      9127                   148.15- 208.15   227.72
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                          CAS #: 540-36-3
 18.231  18.231 (1.000)   114    589683 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     92787                     0.00-  45.65    15.74
-------------------------------------------------------------------------------
```

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

  125 Trichloroethene                                CAS #: 79-01-6
 18.610  18.610 (1.021)   130      7252 0.10000   0.1093  80.00- 120.00   100.00(a)
 18.610  18.610 (1.021)    95      7247                   61.17- 121.17    99.93
 18.610  18.610 (1.021)    97      4678                   29.33-  89.33    64.51
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 19.057  19.057 (1.045)    63      6145 0.10000   0.1177  80.00- 120.00   100.00(a)
 19.079  19.079 (1.046)    62      4064                   41.36- 101.36    66.14
 19.079  19.079 (1.046)    41      3516                   24.32-  84.32    57.22
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 19.213  19.213 (1.054)    88      4256 0.10000   0.1173  80.00- 120.00   100.00(a)
 19.213  19.213 (1.054)    58      2957                   34.13-  94.13    69.48
 19.213  19.213 (1.054)    57       998                    0.00-  50.75    23.45
-------------------------------------------------------------------------------
  138 Bromodichloromethane                           CAS #: 75-27-4
 19.503  19.503 (0.821)    83      8444 0.10000  0.09216  80.00- 120.00   100.00(a)
 19.503  19.503 (0.821)    85      5945                   34.23-  94.23    70.41
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                        CAS #: 10061-01-5
 20.338  20.338 (1.116)    75      7981 0.10000  0.09242  80.00- 120.00   100.00(a)
 20.338  20.338 (1.116)    77      3815                    1.78-  61.78    47.80
 20.338  20.338 (1.116)    39      4257                   16.15-  76.15    53.34
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                           CAS #: 108-10-1
 20.572  20.572 (1.128)    43      8776 0.10000  0.09042  80.00- 120.00   100.00(a)
 20.572  20.572 (1.128)    58      3947                   11.51-  71.51    44.97
 20.572  20.572 (1.128)    85      2469                    0.00-  48.80    28.13
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                     CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    557300 5.00000    4.987  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     61489                    0.00-  41.22    11.03
 20.821  20.821 (1.142)   100    378830                   37.90-  97.90    67.98
-------------------------------------------------------------------------------
  147 Toluene                                        CAS #: 108-88-3
 20.962  20.962 (1.150)    91     17855 0.10000   0.1142  80.00- 120.00   100.00(a)
 20.962  20.962 (1.150)    92     10717                   30.55-  90.55    60.02
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                      CAS #: 10061-02-6
 21.564  21.564 (0.908)    75      6148 0.10000  0.09047  80.00- 120.00   100.00(a)
 21.564  21.564 (0.908)    77      2784                    1.21-  61.21    45.28
 21.564  21.564 (0.908)    39      3443                   14.72-  74.72    56.00
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                          CAS #: 79-00-5
 21.999  21.999 (0.926)    97      6605 0.10000   0.1064  80.00- 120.00   100.00(a)
 21.999  21.999 (0.926)    99      4250                   32.55-  92.55    64.35
```

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

  155 1,1,2-Trichloroethane (continued)
 21.999  21.999 (0.926)    83      5876                    53.25- 113.25    88.96
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166      9322 0.10000   0.1085  80.00- 120.00   100.00(a)
 22.174  22.174 (0.933)   129      6595                   39.98-  99.98    70.75
 22.174  22.174 (0.933)   131      6852                   38.96-  98.96    73.50
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.784  22.784 (0.959)   129      9584 0.10000  0.09907  80.00- 120.00   100.00(a)
 22.784  22.784 (0.959)   127      7417                   47.16- 107.16    77.39
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.045  23.045 (0.970)   107      9234 0.10000   0.1036  80.00- 120.00   100.00(a)
 23.045  23.045 (0.970)   109      9406                   63.61- 123.61   101.86
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    483979 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    260132                   24.05-  84.05    53.75
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 23.823  23.823 (1.003)   112     13020 0.10000   0.1048  80.00- 120.00   100.00(a)
 23.823  23.823 (1.003)   114      4254                    2.46-  62.46    32.67
 23.823  23.823 (1.003)    77     12980                   27.29-  87.29    99.69
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.906  23.906 (1.006)   106      6751 0.10000   0.1126  80.00- 120.00   100.00(a)
 23.906  23.906 (1.006)    91     19075                  278.69- 338.69   282.55
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106      7533 0.10000   0.1151  80.00- 120.00   100.00(a)
 24.091  24.091 (1.014)    91     15172                  164.82- 224.82   201.41
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106      7908 0.10000   0.1235  80.00- 120.00   100.00(a)
 24.710  24.710 (1.040)    91     15077                  174.08- 234.08   190.66
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.731  24.731 (1.041)   104     11562 0.10000   0.1173  80.00- 120.00   100.00(a)
 24.731  24.731 (1.041)    78      5947                   19.76-  79.76    51.44
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173      7620 0.10000  0.08210  80.00- 120.00   100.00(a)
 25.068  25.068 (1.055)   171      4021                   21.57-  81.57    52.77
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105     22092 0.10000   0.1118  80.00- 120.00   100.00(a)
```

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

  175 Cumene (continued)
 25.182  25.182 (1.060)   120      6824                     0.00-  57.92    30.89
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    261297 5.00000    4.911  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    304344                   88.33- 148.33   116.47
 25.466  25.466 (1.072)   176    252349                   68.77- 128.77    96.58
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83     11457 0.10000  0.09934  80.00- 120.00   100.00(a)
 25.656  25.656 (1.080)    85      8293                   34.06-  94.06    72.38
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.732  25.732 (1.083)    91     26361 0.10000   0.1375  80.00- 120.00   100.00(a)
 25.732  25.732 (1.083)   120      6312                     0.00-  54.46    23.94
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105     22084 0.10000   0.1339  80.00- 120.00   100.00(a)
 25.864  25.864 (1.089)   120      7529                     0.68-  60.68    34.09
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105     19080 0.10000   0.1307  80.00- 120.00   100.00(a)
 25.940  25.940 (1.092)   120     10770                   21.16-  81.16    56.45
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105     18691 0.10000   0.1297  80.00- 120.00   100.00(a)
 26.395  26.395 (1.111)   120      9424                   18.29-  78.29    50.42
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.810  26.810 (1.128)   146     12552 0.10000   0.1252  80.00- 120.00   100.00(a)
 26.810  26.810 (1.128)   148      8473                   33.99-  93.99    67.50
 26.794  26.794 (1.128)   111      5437                    9.12-  69.12    43.32
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.919  26.919 (1.133)   146     12328 0.10000   0.1295  80.00- 120.00   100.00(a)
 26.919  26.919 (1.133)   148      8481                   33.88-  93.88    68.79
 26.919  26.919 (1.133)   111      4575                    7.98-  67.98    37.11
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.075  27.075 (1.139)    91      6831 0.10000  0.06985  80.00- 120.00   100.00(a)
 27.075  27.075 (1.139)   126      1714                     0.00-  51.77    25.09
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.371  27.371 (1.152)   146     12415 0.10000   0.1342  80.00- 120.00   100.00(a)
 27.371  27.371 (1.152)   148      7474                   33.08-  93.08    60.20
 27.371  27.371 (1.152)   111      5000                   11.01-  71.01    40.27
-------------------------------------------------------------------------------
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene						CAS #: 120-82-1		
29.382	29.382	(1.237)	180	11897	0.10000	0.1194	80.00- 120.00	100.00(a)
29.382	29.382	(1.237)	182	10777			64.78- 124.78	90.59
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	9889	0.10000	0.1279	80.00- 120.00	100.00(a)
29.507	29.507	(1.242)	223	6688			32.96- 92.96	67.63

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: msd20.i
Lab File ID: 20061307.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 0.1ppbv (1.0ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 6
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	142932	4.18
123 1,4-Difluorobenze	563551	338131	788971	589683	4.64
163 Chlorobenzene-d5	463244	277946	648542	483979	4.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061307.d

Date : 13-JUN-2016 13:56

Client ID: Level 6

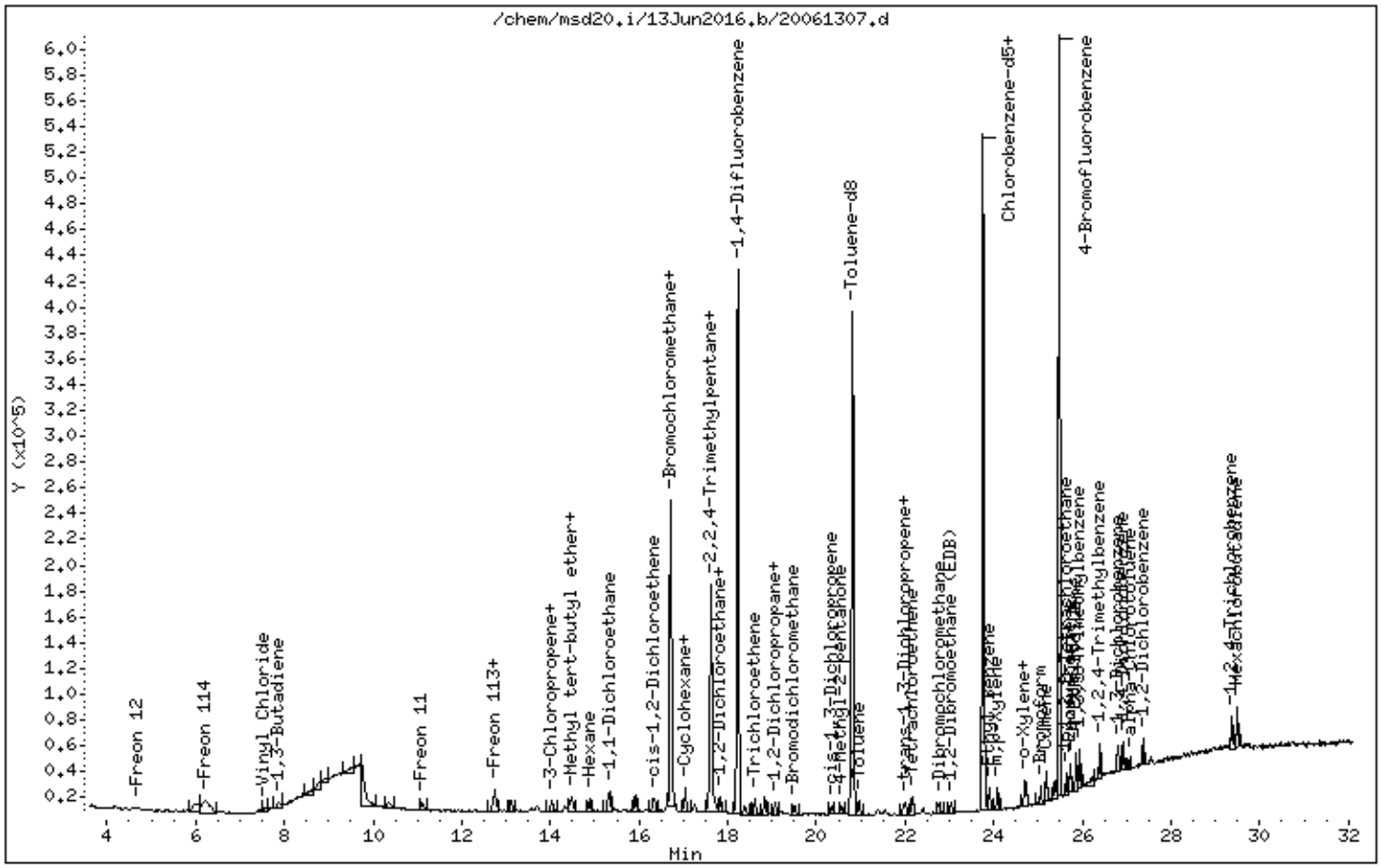
Instrument: msd20.i

Sample Info: 25mL# 2789-182

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061308.d
Lab Smp Id: ICAL Client Smp ID: Level 7
Inj Date : 13-JUN-2016 14:47
Operator : ef Inst ID: msd20.i
Smp Info : 125mL# 2789-182
Misc Info : 0.5ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 14:47 Cal File: 20061308.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	60361	0.50000	0.5504	80.00- 120.00	100.00
4.696	4.696 (0.281)	87	16168			2.50- 62.50	26.79
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	43147	0.50000	0.5300	80.00- 120.00	100.00
6.239	6.239 (0.373)	137	13236			2.53- 62.53	30.68
6.215	6.215 (0.372)	85	60460			112.58- 172.58	140.13
17 Chloromethane					CAS #: 74-87-3		
6.576	6.576 (0.393)	50	19834	0.50000	0.5562	80.00- 120.00	100.00(M)
6.576	6.576 (0.393)	52	7434			3.09- 63.09	37.48
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	5633	0.50000	0.5942	80.00- 120.00	100.00
7.416	7.416 (0.443)	43	34141			641.20- 701.20	606.09
25 Vinyl Chloride					CAS #: 75-01-4		
7.573	7.573 (0.453)	62	22005	0.50000	0.5260	80.00- 120.00	100.00
7.573	7.573 (0.453)	64	7666			2.84- 62.84	34.84

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	16889	0.50000	0.5119	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	16842			65.35- 125.35	99.72
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	10304	0.50000	0.4150	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	8174			64.03- 124.03	79.33
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	9327	0.50000	0.4907	80.00- 120.00	100.00
10.198	10.198 (0.610)	49	2217			0.00- 54.43	23.77
10.198	10.198 (0.610)	66	3555			2.17- 62.17	38.12
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	18067	0.50000	0.5406	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	24856			110.67- 170.67	137.58
10.367	10.367 (0.620)	42	21942			93.85- 153.85	121.45
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	56473	0.50000	0.5241	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	36810			34.69- 94.69	65.18
42 Ethanol					CAS #: 64-17-5		
12.296	12.296 (0.735)	45	6032	0.50000	0.4243	80.00- 120.00	100.00
12.296	12.296 (0.735)	46	2694			11.01- 71.01	44.66
12.296	12.296 (0.735)	43	1292			0.00- 50.63	21.42
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	41189	0.50000	0.5215	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	26113			34.65- 94.65	63.40
12.763	12.763 (0.763)	101	48962			90.37- 150.37	118.87
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	13787	0.50000	0.4844	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	35600			216.58- 276.58	258.21
12.736	12.736 (0.761)	96	22010			128.21- 188.21	159.64
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	11759	0.50000	0.5638	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	34565			275.09- 335.09	293.95
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	57206	0.50000	0.4864	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.560	13.560 (0.811)	45	30908	0.50000	0.4607	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
57 2-Propanol (continued)							
13.560	13.560 (0.811)	43	5966			0.00- 49.91	19.30
13.532	13.532 (0.809)	59	1463			0.00- 34.18	4.73
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	8862	0.50000	0.4746	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	20583			218.66- 278.66	232.26
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	24431	0.50000	0.5381	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	29635			88.46- 148.46	121.30
14.027	14.027 (0.839)	51	9968			6.78- 66.78	40.80
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.329	14.329 (0.857)	59	39251	0.50000	0.4627	80.00- 120.00	100.00
14.329	14.329 (0.857)	41	9734			0.00- 53.87	24.80
14.329	14.329 (0.857)	57	3922			0.00- 40.80	9.99
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	62869	0.50000	0.5028	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	14057			0.00- 52.12	22.36
14.439	14.439 (0.863)	41	13955			0.00- 51.31	22.20
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.493	14.493 (0.866)	98	15684	0.50000	0.5316	80.00- 120.00	100.00
14.493	14.493 (0.866)	61	32559			179.74- 239.74	207.59
14.493	14.493 (0.866)	96	23146			125.55- 185.55	147.58
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	34743	0.50000	0.5128	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	21003			31.00- 91.00	60.45
14.878	14.878 (0.889)	86	6795			0.00- 49.39	19.56
83 Isopropyl ether					CAS #: 108-20-3		
15.317	15.317 (0.916)	45	71314	0.50000	0.5124	80.00- 120.00	100.00
15.317	15.317 (0.916)	87	21683			0.19- 60.19	30.40
15.317	15.317 (0.916)	59	8880			0.00- 41.90	12.45
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	40336	0.50000	0.5165	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	13984			1.67- 61.67	34.67
86 Vinyl Acetate					CAS #: 108-05-4		
15.399	15.399 (0.921)	86	4307	0.50000	0.3969	80.00- 120.00	100.00
15.399	15.399 (0.921)	42	4125			50.79- 110.79	95.77
15.399	15.399 (0.921)	43	40705			896.60- 956.60	945.09

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

   88 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.930  15.930 (0.952)    59     71653 0.50000   0.4955  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87     30696                   14.09-  74.09    42.84
 15.930  15.930 (0.952)    41     13988                    0.00-  47.92    19.52
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.323  16.323 (0.976)    98     16482 0.50000   0.5168  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61     30785                  166.16- 226.16   186.78
 16.323  16.323 (0.976)    96     24863                  127.31- 187.31   150.85
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.344  16.344 (0.977)    72     10995 0.50000   0.4946  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43     38373                  324.50- 384.50   349.00
 16.344  16.344 (0.977)    57      3033                    0.00-  59.24    27.59
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                               CAS #: 109-99-9
 16.695  16.695 (0.998)    42     22830 0.50000   0.4875  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71     10715                   12.99-  72.99    46.93
 16.695  16.695 (0.998)    72     10536                   16.36-  76.36    46.15
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    139629 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    107919                   47.16- 107.16    77.29
 16.726  16.726 (1.000)    49    163620                   84.74- 144.74   117.18
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83     45278 0.50000   0.4990  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85     30457                   34.55-  94.55    67.27
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84     34236 0.50000   0.5068  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56     35825                   77.49- 137.49   104.64
 17.035  17.035 (1.018)    41     20057                   25.74-  85.74    58.58
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.065  17.065 (1.020)    97     46357 0.50000   0.4862  80.00- 120.00   100.00
 17.065  17.065 (1.020)    99     30073                   34.47-  94.47    64.87
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                         CAS #: 56-23-5
 17.250  17.250 (1.031)   119     33363 0.50000   0.4400  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117     34482                   73.36- 133.36   103.35
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                       CAS #: 540-84-1
 17.579  17.579 (1.051)    56     31299 0.50000   0.4807  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57     97108                  274.31- 334.31   310.26
 17.579  17.579 (1.051)    41     25180                   47.10- 107.10    80.45
-------------------------------------------------------------------------------
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  116 Benzene                                        CAS #: 71-43-2
 17.620  17.620 (0.966)    78     67244 0.50000   0.4975  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77     18250                    0.00-  53.54    27.14
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                          CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    184595 5.00000    4.969  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67     98829                   28.75-  88.75    53.54
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
 17.703  17.703 (0.971)    87     15707 0.50000   0.4941  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73     63515                  382.25- 442.25   404.37
 17.703  17.703 (0.971)    55     17339                   79.11- 139.11   110.39
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
 17.744  17.744 (0.973)    62     27867 0.50000   0.4862  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64      8659                    1.40-  61.40    31.07
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
 17.847  17.847 (0.979)    57     19341 0.50000   0.5073  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100      7627                   10.87-  70.87    39.43
 17.847  17.847 (0.979)    43     33716                  148.15- 208.15   174.32
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                            CAS #: 540-36-3
 18.231  18.231 (1.000)   114    583608 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     91726                    0.00-  45.65    15.72
-------------------------------------------------------------------------------
  125 Trichloroethene                                CAS #: 79-01-6
 18.610  18.610 (1.021)   130     32729 0.50000   0.4984  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95     30629                   61.17- 121.17    93.58
 18.610  18.610 (1.021)    97     19929                   29.33-  89.33    60.89
-------------------------------------------------------------------------------
  127 Methylcyclohexane                              CAS #: 108-87-2
 18.833  18.833 (1.033)    83     39525 0.50000   0.4780  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55     31612                   43.54- 103.54    79.98
 18.833  18.833 (1.033)    56     10163                    0.00-  53.97    25.71
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                            CAS #: 78-87-5
 19.056  19.056 (1.045)    63     25333 0.50000   0.4903  80.00- 120.00   100.00
 19.056  19.056 (1.045)    62     17947                   41.36- 101.36    70.84
 19.056  19.056 (1.045)    41     14255                   24.32-  84.32    56.27
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                    CAS #: 123-91-1
 19.213  19.213 (1.054)    88     17163 0.50000   0.4781  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58     11690                   34.13-  94.13    68.11
 19.213  19.213 (1.054)    57      3480                    0.00-  50.75    20.28
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  138 Bromodichloromethane                          CAS #: 75-27-4
 19.503  19.503 (0.821)    83     44967 0.50000   0.5004  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85     27803                   34.23-  94.23    61.83
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                       CAS #: 10061-01-5
 20.354  20.354 (1.116)    75     38946 0.50000   0.4557  80.00- 120.00   100.00
 20.354  20.354 (1.116)    77     12275                    1.78-  61.78    31.52
 20.338  20.338 (1.116)    39     18731                   16.15-  76.15    48.09
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                          CAS #: 108-10-1
 20.572  20.572 (1.128)    43     45190 0.50000   0.4704  80.00- 120.00   100.00
 20.572  20.572 (1.128)    58     19512                   11.51-  71.51    43.18
 20.572  20.572 (1.128)    85      8708                    0.00-  48.80    19.27
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                    CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    548651 5.00000    4.961  80.00- 120.00   100.00
 20.806  20.806 (1.141)    70     60774                    0.00-  41.22    11.08
 20.821  20.821 (1.142)   100    374175                   37.90-  97.90    68.20
-------------------------------------------------------------------------------
  147 Toluene                                       CAS #: 108-88-3
 20.962  20.962 (1.150)    91     74808 0.50000   0.4836  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92     45928                   30.55-  90.55    61.39
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                     CAS #: 10061-02-6
 21.564  21.564 (0.908)    75     29157 0.50000   0.4375  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77     10047                    1.21-  61.21    34.46
 21.564  21.564 (0.908)    39     14196                   14.72-  74.72    48.69
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                         CAS #: 79-00-5
 21.999  21.999 (0.926)    97     30693 0.50000   0.5043  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99     17769                   32.55-  92.55    57.89
 21.999  21.999 (0.926)    83     24525                   53.25- 113.25    79.90
-------------------------------------------------------------------------------
  156 Tetrachloroethene                             CAS #: 127-18-4
 22.174  22.174 (0.933)   166     41994 0.50000   0.4984  80.00- 120.00   100.00
 22.174  22.174 (0.933)   129     30701                   39.98-  99.98    73.11
 22.145  22.145 (0.932)   131     29122                   38.96-  98.96    69.35
-------------------------------------------------------------------------------
  158 2-Hexanone                                    CAS #: 591-78-6
 22.406  22.406 (0.943)    58     20839 0.50000   0.4246  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43     36921                  146.44- 206.44   177.17
 22.406  22.406 (0.943)   100      5191                    0.00-  54.43    24.91
-------------------------------------------------------------------------------
  160 Dibromochloromethane                          CAS #: 124-48-1
 22.784  22.784 (0.959)   129     42261 0.50000   0.4454  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127     32500                   47.16- 107.16    76.90
-------------------------------------------------------------------------------
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```
                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  161 1,2-Dibromoethane (EDB)                          CAS #: 106-93-4
 23.045  23.045 (0.970)   107     43118 0.50000   0.4930  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109     42015                   63.61- 123.61    97.44
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                 CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    474643 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    257878                   24.05-  84.05    54.33
-------------------------------------------------------------------------------
  165 Chlorobenzene                                    CAS #: 108-90-7
 23.823  23.823 (1.003)   112     59736 0.50000   0.4903  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114     19126                    2.46-  62.46    32.02
 23.823  23.823 (1.003)    77     38467                   27.29-  87.29    64.40
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                    CAS #: 100-41-4
 23.905  23.905 (1.006)   106     27731 0.50000   0.4716  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91     85031                  278.69- 338.69   306.63
-------------------------------------------------------------------------------
  169 m,p-Xylene                                       CAS #: 108-38-3
 24.091  24.091 (1.014)   106     30891 0.50000   0.4815  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91     59395                  164.82- 224.82   192.27
-------------------------------------------------------------------------------
  171 o-Xylene                                         CAS #: 95-47-6
 24.710  24.710 (1.040)   106     29841 0.50000   0.4752  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91     60691                  174.08- 234.08   203.38
-------------------------------------------------------------------------------
  172 Styrene                                          CAS #: 100-42-5
 24.730  24.730 (1.041)   104     44922 0.50000   0.4647  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78     20919                   19.76-  79.76    46.57
-------------------------------------------------------------------------------
  174 Bromoform                                        CAS #: 75-25-2
 25.068  25.068 (1.055)   173     37879 0.50000   0.4162  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171     18923                   21.57-  81.57    49.96
-------------------------------------------------------------------------------
  175 Cumene                                           CAS #: 98-82-8
 25.182  25.182 (1.060)   105     88076 0.50000   0.4544  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120     25765                    0.00-  57.92    29.25
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                             CAS #: 460-00-4
 25.485  25.485 (1.073)   174    252904 5.00000    4.846  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    293420                   88.33- 148.33   116.02
 25.485  25.485 (1.073)   176    245729                   68.77- 128.77    97.16
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                        CAS #: 79-34-5
 25.656  25.656 (1.080)    83     52754 0.50000   0.4664  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85     35551                   34.06-  94.06    67.39
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
182 Propylbenzene					CAS #: 103-65-1		
25.731	25.731 (1.083)	91	90169	0.50000	0.4797	80.00- 120.00	100.00
25.731	25.731 (1.083)	120	22649			0.00- 54.46	25.12
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	80239	0.50000	0.4960	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	25331			0.68- 60.68	31.57
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	72806	0.50000	0.5084	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	35985			21.16- 81.16	49.43
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	75378	0.50000	0.5333	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	35074			18.29- 78.29	46.53
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.810	26.810 (1.128)	146	45395	0.50000	0.4618	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	29562			33.99- 93.99	65.12
26.810	26.810 (1.128)	111	18341			9.12- 69.12	40.40
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	43397	0.50000	0.4648	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	28326			33.88- 93.88	65.27
26.919	26.919 (1.133)	111	17101			7.98- 67.98	39.41
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	32648	0.50000	0.3404	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	7511			0.00- 51.77	23.01
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	41851	0.50000	0.4613	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	27259			33.08- 93.08	65.13
27.371	27.371 (1.152)	111	17680			11.01- 71.01	42.25
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	50578	0.50000	0.5178	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	47912			64.78- 124.78	94.73
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.491	29.491 (1.241)	225	41041	0.50000	0.5414	80.00- 120.00	100.00
29.491	29.491 (1.241)	223	25987			32.96- 92.96	63.32
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	9058	0.05000	0.05937	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	1381			0.00- 43.33	15.25

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
M - Compound response manually integrated.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061308.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 0.5ppbv (1.0ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 7
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	139629	1.77
123 1,4-Difluorobenze	563551	338131	788971	583608	3.56
163 Chlorobenzene-d5	463244	277946	648542	474643	2.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061308.d

Date : 13-JUN-2016 14:47

Client ID: Level 7

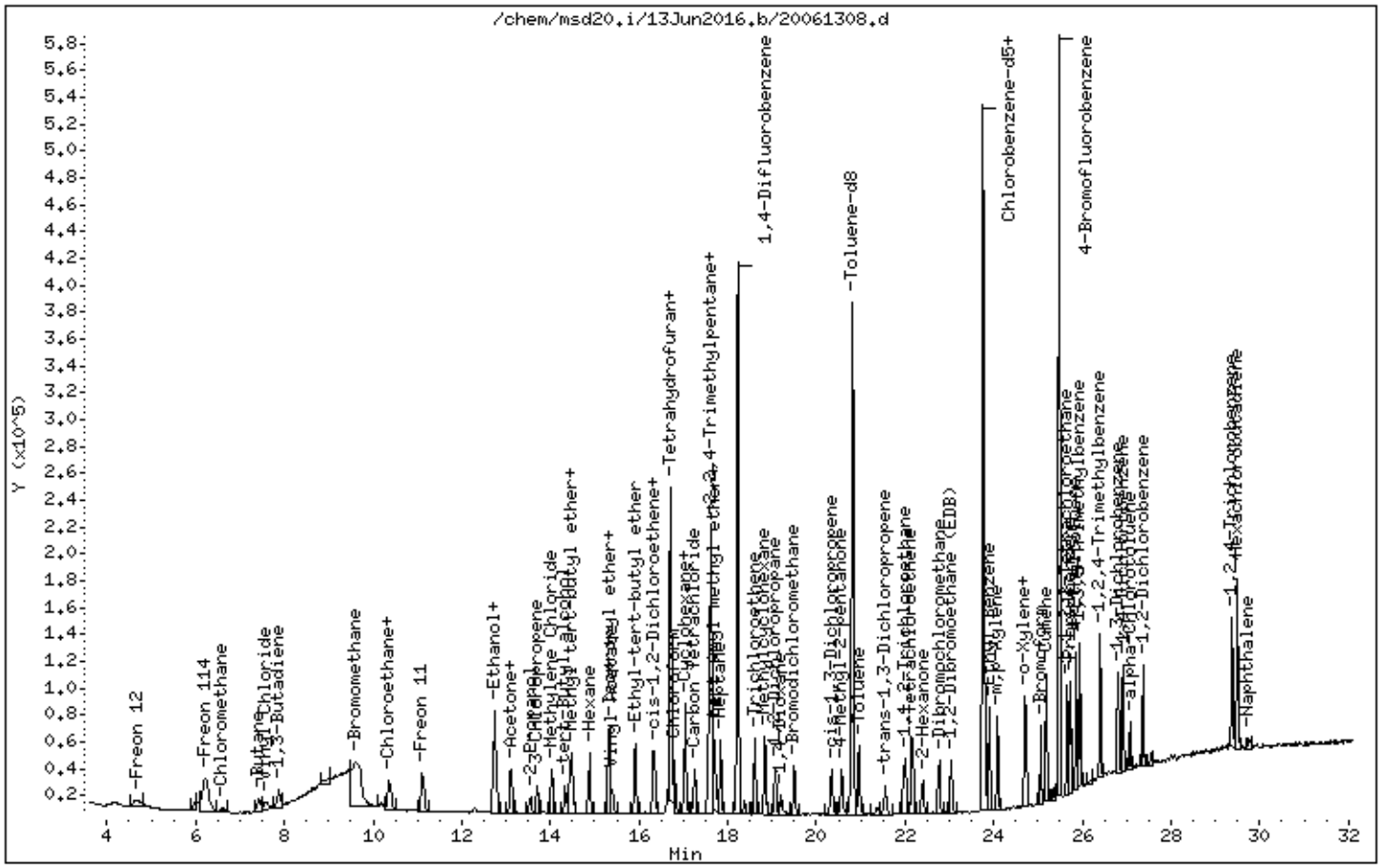
Instrument: msd20.i

Sample Info: 125mL# 2789-182

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061309.d
Lab Smp Id: ICAL Client Smp ID: Level 8
Inj Date : 13-JUN-2016 15:26
Operator : ef Inst ID: msd20.i
Smp Info : 250mL# 2789-182
Misc Info : 1.0ppbv (1.0ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 15:26 Cal File: 20061309.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.190	4.190 (0.251)	41	32846	1.00000	1.066	80.00- 120.00	100.00
4.166	4.166 (0.249)	42	14757			37.74- 97.74	44.93
4.214	4.214 (0.252)	39	12545			43.28- 103.28	38.19
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	111624	1.00000	1.092	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	35301			2.50- 62.50	31.62
15 Freon 114					CAS #: 76-14-2		
6.239	6.239 (0.373)	135	78534	1.00000	1.035	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	25856			2.53- 62.53	32.92
6.215	6.215 (0.372)	85	112053			112.58- 172.58	142.68
17 Chloromethane					CAS #: 74-87-3		
6.625	6.625 (0.396)	50	36369	1.00000	1.094	80.00- 120.00	100.00
6.601	6.601 (0.395)	52	13912			3.09- 63.09	38.25
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	9075	1.00000	1.027	80.00- 120.00	100.00

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

   23 Butane (continued)
  7.434   7.434 (0.444)    43     60597                  641.20- 701.20   667.74
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.590   7.590 (0.454)    62     40034 1.00000    1.027  80.00- 120.00   100.00
  7.573   7.573 (0.453)    64     15156                    2.84-  62.84    37.86
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.885   7.885 (0.471)    54     30988 1.00000    1.008  80.00- 120.00   100.00
  7.885   7.885 (0.471)    39     30290                   65.35- 125.35    97.75
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.620   9.620 (0.575)    94     17664 1.00000   0.7636  80.00- 120.00   100.00
  9.596   9.596 (0.574)    96     17338                   64.03- 124.03    98.15
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.199  10.199 (0.610)    64     18127 1.00000    1.024  80.00- 120.00   100.00
 10.199  10.199 (0.610)    49      4367                    0.00-  54.43    24.09
 10.199  10.199 (0.610)    66      5767                    2.17-  62.17    31.81
-------------------------------------------------------------------------------
   31 Isopentane                                    CAS #: 78-78-4
 10.367  10.367 (0.620)    57     34068 1.00000    1.094  80.00- 120.00   100.00
 10.367  10.367 (0.620)    43     45968                  110.67- 170.67   134.93
 10.367  10.367 (0.620)    42     40449                   93.85- 153.85   118.73
-------------------------------------------------------------------------------
   35 Freon 11                                      CAS #: 75-69-4
 11.114  11.114 (0.664)   101    105992 1.00000    1.056  80.00- 120.00   100.00
 11.114  11.114 (0.664)   103     69197                   34.69-  94.69    65.29
-------------------------------------------------------------------------------
   42 Ethanol                                       CAS #: 64-17-5
 12.296  12.296 (0.735)    45     12593 1.00000   0.9508  80.00- 120.00   100.00
 12.296  12.296 (0.735)    46      4513                   11.01-  71.01    35.84
 12.296  12.296 (0.735)    43      2660                    0.00-  50.63    21.12
-------------------------------------------------------------------------------
   49 Freon 113                                     CAS #: 76-13-1
 12.763  12.763 (0.763)   151     76003 1.00000    1.033  80.00- 120.00   100.00
 12.763  12.763 (0.763)   153     49133                   34.65-  94.65    64.65
 12.763  12.763 (0.763)   101     90857                   90.37- 150.37   119.54
-------------------------------------------------------------------------------
   50 1,1-Dichloroethene                            CAS #: 75-35-4
 12.736  12.736 (0.761)    98     27522 1.00000    1.038  80.00- 120.00   100.00
 12.736  12.736 (0.761)    61     66965                  216.58- 276.58   243.31
 12.736  12.736 (0.761)    96     42755                  128.21- 188.21   155.35
-------------------------------------------------------------------------------
   52 Acetone                                       CAS #: 67-64-1
 13.093  13.093 (0.783)    58     22610 1.00000    1.163  80.00- 120.00   100.00
```

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43     66130                   275.09- 335.09   292.48
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.121  13.121 (0.784)    76    106613 1.00000   0.9729  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.560  13.560 (0.811)    45     60857 1.00000   0.9735  80.00- 120.00   100.00
 13.560  13.560 (0.811)    43     11885                    0.00-  49.91    19.53
 13.560  13.560 (0.811)    59      2602                    0.00-  34.18     4.28
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76     15094 1.00000   0.8676  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41     36976                  218.66- 278.66   244.97
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84     46936 1.00000    1.110  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49     54516                   88.46- 148.46   116.15
 14.027  14.027 (0.839)    51     16359                    6.78-  66.78    34.85
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59     79188 1.00000    1.002  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41     19438                    0.00-  53.87    24.55
 14.329  14.329 (0.857)    57      9222                    0.00-  40.80    11.65
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73    118874 1.00000    1.020  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57     26466                    0.00-  52.12    22.26
 14.439  14.439 (0.863)    41     26442                    0.00-  51.31    22.24
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98     28675 1.00000    1.043  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61     60477                  179.74- 239.74   210.90
 14.494  14.494 (0.866)    96     44885                  125.55- 185.55   156.53
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57     64657 1.00000    1.024  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43     38752                   31.00-  91.00    59.93
 14.878  14.878 (0.889)    86     12529                    0.00-  49.39    19.38
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45    133243 1.00000    1.027  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87     40359                    0.19-  60.19    30.29
 15.317  15.317 (0.916)    59     15987                    0.00-  41.90    12.00
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63     76181 1.00000    1.047  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65     23763                     1.67-  61.67    31.19
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86      9746 1.00000   0.9639  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42      8017                   50.79- 110.79    82.26
 15.400  15.400 (0.921)    43     82799                  896.60- 956.60   849.57
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59    132755 1.00000   0.9853  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87     60604                   14.09-  74.09    45.65
 15.930  15.930 (0.952)    41     26141                    0.00-  47.92    19.69
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.324  16.324 (0.976)    98     31438 1.00000    1.058  80.00- 120.00   100.00
 16.324  16.324 (0.976)    61     57535                  166.16- 226.16   183.01
 16.324  16.324 (0.976)    96     47552                  127.31- 187.31   151.26
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72     21404 1.00000    1.033  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43     74715                  324.50- 384.50   349.07
 16.344  16.344 (0.977)    57      5971                    0.00-  59.24    27.90
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.696  16.696 (0.998)    42     43160 1.00000   0.9892  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71     19420                   12.99-  72.99    45.00
 16.696  16.696 (0.998)    72     21137                   16.36-  76.36    48.97
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    130099 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128     99780                   47.16- 107.16    76.70
 16.726  16.726 (1.000)    49    152973                   84.74- 144.74   117.58
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83     85666 1.00000    1.013  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85     56081                   34.55-  94.55    65.46
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84     62609 1.00000   0.9947  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56     68608                   77.49- 137.49   109.58
 17.035  17.035 (1.018)    41     35618                   25.74-  85.74    56.89
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.065  17.065 (1.020)    97     88926 1.00000    1.001  80.00- 120.00   100.00
 17.065  17.065 (1.020)    99     56894                   34.47-  94.47    63.98
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119     65166 1.00000   0.9224  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117     66820                   73.36- 133.36   102.54
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56     58179 1.00000   0.9590  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57    184875                  274.31- 334.31   317.77
 17.579  17.579 (1.051)    41     46888                   47.10- 107.10    80.59
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.966)    78    128219 1.00000   0.9711  80.00- 120.00   100.00
 17.621  17.621 (0.966)    77     29850                    0.00-  53.54    23.28
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    181664 5.00000    5.249  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67     96457                   28.75-  88.75    53.10
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87     30011 1.00000   0.9664  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73    118992                  382.25- 442.25   396.49
 17.703  17.703 (0.971)    55     33404                   79.11- 139.11   111.31
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62     53931 1.00000   0.9632  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64     18404                    1.40-  61.40    34.13
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57     35829 1.00000   0.9620  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100     14957                   10.87-  70.87    41.75
 17.847  17.847 (0.979)    43     61744                  148.15- 208.15   172.33
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    570136 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     91543                    0.00-  45.65    16.06
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130     61626 1.00000   0.9606  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95     58573                   61.17- 121.17    95.05
 18.610  18.610 (1.021)    97     37372                   29.33-  89.33    60.64
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83     78942 1.00000   0.9773  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55     61850                   43.54- 103.54    78.35
 18.833  18.833 (1.033)    56     19865                    0.00-  53.97    25.16
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.079  19.079 (1.046)    63     46290 1.00000   0.9171  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.079  19.079 (1.046)    62     34443                    41.36- 101.36    74.41
 19.079  19.079 (1.046)    41     26572                    24.32-  84.32    57.40
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88     34026 1.00000   0.9703  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58     22449                    34.13-  94.13    65.98
 19.213  19.213 (1.054)    57      7023                     0.00-  50.75    20.64
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83     82846 1.00000   0.9392  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85     53265                    34.23-  94.23    64.29
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.354  20.354 (1.116)    75     74251 1.00000   0.8893  80.00- 120.00   100.00
 20.354  20.354 (1.116)    77     24722                     1.78-  61.78    33.30
 20.354  20.354 (1.116)    39     36131                    16.15-  76.15    48.66
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.572  20.572 (1.128)    43     89440 1.00000   0.9531  80.00- 120.00   100.00
 20.572  20.572 (1.128)    58     36522                    11.51-  71.51    40.83
 20.572  20.572 (1.128)    85     17850                     0.00-  48.80    19.96
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.822  20.822 (1.142)    98    540389 5.00000    5.002  80.00- 120.00   100.00
 20.822  20.822 (1.142)    70     59901                     0.00-  41.22    11.08
 20.822  20.822 (1.142)   100    368746                    37.90-  97.90    68.24
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91    143404 1.00000   0.9489  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92     85961                    30.55-  90.55    59.94
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75     57765 1.00000   0.8830  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77     19397                     1.21-  61.21    33.58
 21.564  21.564 (0.908)    39     27636                    14.72-  74.72    47.84
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97     53063 1.00000   0.8882  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99     34827                    32.55-  92.55    65.63
 21.999  21.999 (0.926)    83     46262                    53.25- 113.25    87.18
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166     81494 1.00000   0.9854  80.00- 120.00   100.00
 22.174  22.174 (0.933)   129     57181                    39.98-  99.98    70.17
 22.174  22.174 (0.933)   131     56293                    38.96-  98.96    69.08
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	43873	1.00000	0.9107	80.00- 120.00	100.00
22.406	22.406 (0.943)	43	77512			146.44- 206.44	176.67
22.406	22.406 (0.943)	100	10794			0.00- 54.43	24.60
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	82652	1.00000	0.8875	80.00- 120.00	100.00
22.784	22.784 (0.959)	127	64711			47.16- 107.16	78.29
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	82185	1.00000	0.9574	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	79523			63.61- 123.61	96.76
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	465924	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	251692			24.05- 84.05	54.02
165 Chlorobenzene					CAS #: 108-90-7		
23.823	23.823 (1.003)	112	116914	1.00000	0.9776	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	37885			2.46- 62.46	32.40
23.823	23.823 (1.003)	77	71044			27.29- 87.29	60.77
167 Ethyl Benzene					CAS #: 100-41-4		
23.906	23.906 (1.006)	106	53680	1.00000	0.9300	80.00- 120.00	100.00
23.906	23.906 (1.006)	91	165221			278.69- 338.69	307.79
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	58194	1.00000	0.9240	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	112548			164.82- 224.82	193.40
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	56907	1.00000	0.9232	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	115964			174.08- 234.08	203.78
172 Styrene					CAS #: 100-42-5		
24.731	24.731 (1.041)	104	83969	1.00000	0.8849	80.00- 120.00	100.00
24.731	24.731 (1.041)	78	42190			19.76- 79.76	50.24
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	74677	1.00000	0.8358	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	38157			21.57- 81.57	51.10
175 Cumene					CAS #: 98-82-8		
25.182	25.182 (1.060)	105	172795	1.00000	0.9081	80.00- 120.00	100.00
25.182	25.182 (1.060)	120	48861			0.00- 57.92	28.28

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	250863	5.00000	4.897	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	297150			88.33- 148.33	118.45
25.485	25.485 (1.073)	176	242144			68.77- 128.77	96.52
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	105433	1.00000	0.9496	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	68557			34.06- 94.06	65.02
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.732 (1.083)	91	162596	1.00000	0.8812	80.00- 120.00	100.00
25.732	25.732 (1.083)	120	38962			0.00- 54.46	23.96
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	142337	1.00000	0.8964	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	44244			0.68- 60.68	31.08
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	129191	1.00000	0.9190	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	66222			21.16- 81.16	51.26
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	135152	1.00000	0.9742	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	65569			18.29- 78.29	48.52
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.810	26.810 (1.128)	146	85816	1.00000	0.8892	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	55753			33.99- 93.99	64.97
26.794	26.794 (1.128)	111	33874			9.12- 69.12	39.47
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	79676	1.00000	0.8693	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	51277			33.88- 93.88	64.36
26.919	26.919 (1.133)	111	29319			7.98- 67.98	36.80
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	69935	1.00000	0.7428	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	15058			0.00- 51.77	21.53
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	77021	1.00000	0.8648	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	49680			33.08- 93.08	64.50
27.371	27.371 (1.152)	111	32969			11.01- 71.01	42.81
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	95070	1.00000	0.9916	80.00- 120.00	100.00

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

  226 1,2,4-Trichlorobenzene (continued)
 29.382  29.382 (1.237)   182     88984                    64.78- 124.78    93.60
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225     75096 1.00000    1.009  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223     45778                    32.96-  92.96    60.96
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.772  29.772 (1.253)   128     15926 0.10000   0.1063  80.00- 120.00   100.00
 29.756  29.756 (1.252)   127      2574                     0.00-  43.33    16.16
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061309.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 1.0ppbv (1.0ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 8
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	130099	-5.17
123 1,4-Difluorobenze	563551	338131	788971	570136	1.17
163 Chlorobenzene-d5	463244	277946	648542	465924	0.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061309.d

Date : 13-JUN-2016 15:26

Client ID: Level 8

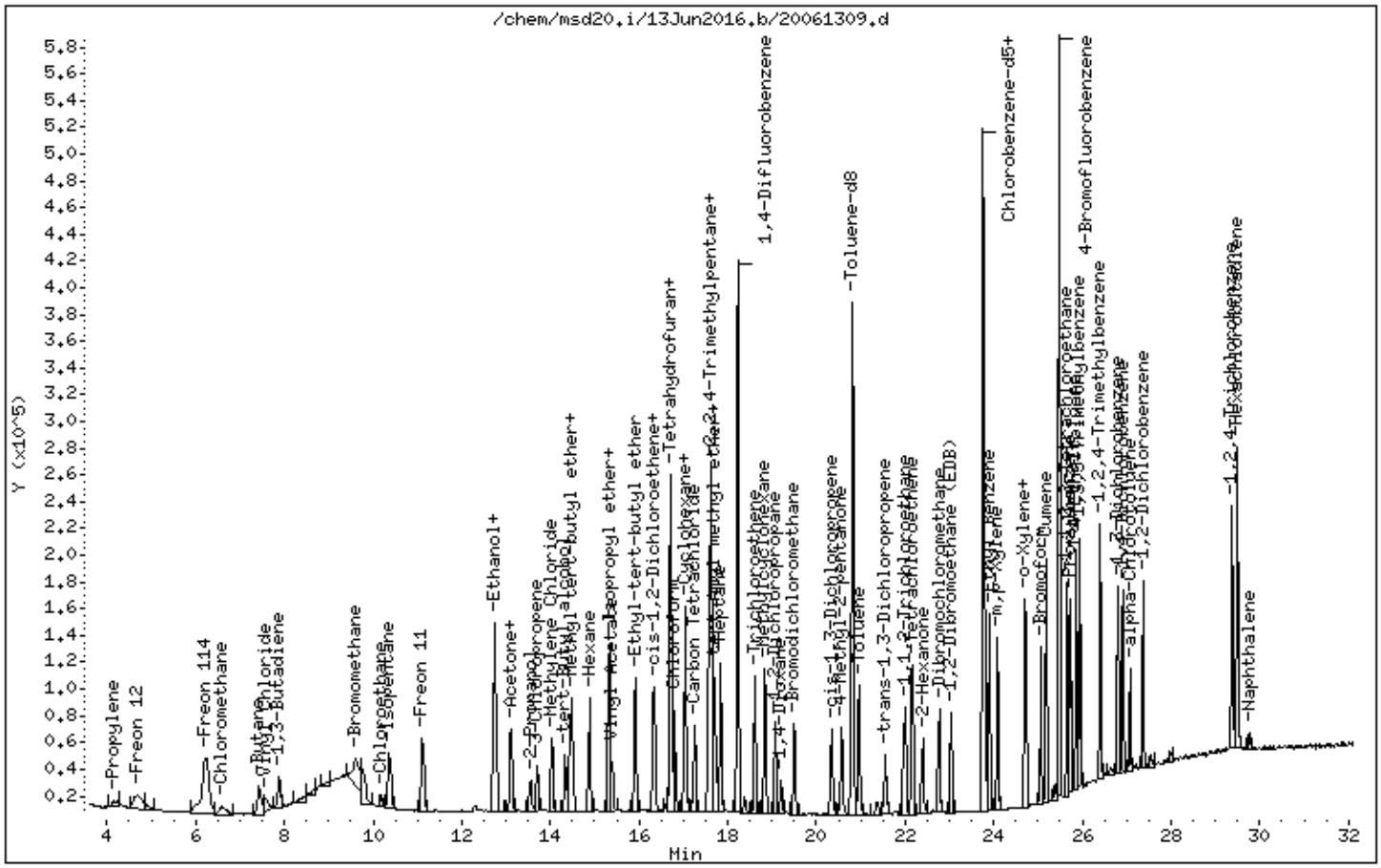
Instrument: msd20.i

Sample Info: 250mL# 2789-182

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061310.d
Lab Smp Id: ICAL Client Smp ID: Level 12
Inj Date : 13-JUN-2016 16:08
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-176
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:45 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1 Calibration Sample, Level: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.142	4.142 (0.248)	41	167894	5.00000	5.168	80.00- 120.00	100.00
4.190	4.190 (0.251)	42	113729			37.74- 97.74	67.74
4.166	4.166 (0.249)	39	123040			43.28- 103.28	73.28
11 Freon 12					CAS #: 75-71-8		
4.648	4.648 (0.278)	85	574433	5.00000	5.330	80.00- 120.00	100.00
4.648	4.648 (0.278)	87	186719			2.50- 62.50	32.50
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	401105	5.00000	5.014	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	130474			2.53- 62.53	32.53
6.215	6.215 (0.372)	85	571886			112.58- 172.58	142.58
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	177805	5.00000	5.074	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	58835			3.09- 63.09	33.09
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	46795	5.00000	5.024	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	314088			641.20- 701.20	671.20
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	212755	5.00000	5.176	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	69867			2.84- 62.84	32.84
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	162526	5.00000	5.013	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	154969			65.35- 125.35	95.35
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	133675	5.00000	5.480	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	125697			64.03- 124.03	94.03
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	97893	5.00000	5.242	80.00- 120.00	100.00
10.174	10.174 (0.608)	49	23915			0.00- 54.43	24.43
10.174	10.174 (0.608)	66	31493			2.17- 62.17	32.17
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	170008	5.00000	5.177	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	239149			110.67- 170.67	140.67
10.367	10.367 (0.620)	42	210556			93.85- 153.85	123.85
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	555851	5.00000	5.250	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	359602			34.69- 94.69	64.69
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	76414	5.00000	5.471	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	31335			11.01- 71.01	41.01
12.269	12.269 (0.734)	43	15762			0.00- 50.63	20.63
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	384861	5.00000	4.959	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	248815			34.65- 94.65	64.65
12.763	12.763 (0.763)	101	463264			90.37- 150.37	120.37
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	139804	5.00000	4.999	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	344723			216.58- 276.58	246.58
12.736	12.736 (0.761)	96	221190			128.21- 188.21	158.21
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	99965	5.00000	4.878	80.00- 120.00	100.00

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43    304982                  275.09- 335.09   305.09
-------------------------------------------------------------------------------
   56 Carbon Disulfide                               CAS #: 75-15-0
 13.120  13.120 (0.784)    76    611992 5.00000    5.296  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                     CAS #: 67-63-0
 13.532  13.532 (0.809)    45    347505 5.00000    5.271  80.00- 120.00   100.00
 13.532  13.532 (0.809)    43     69203                    0.00-  49.91    19.91
 13.532  13.532 (0.809)    59     14518                    0.00-  34.18     4.18
-------------------------------------------------------------------------------
   58 3-Chloropropene                                CAS #: 107-05-1
 13.697  13.697 (0.819)    76     94585 5.00000    5.155  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41    235193                  218.66- 278.66   248.66
-------------------------------------------------------------------------------
   66 Methylene Chloride                             CAS #: 75-09-2
 14.027  14.027 (0.839)    84    208954 5.00000    4.684  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49    247534                   88.46- 148.46   118.46
 14.027  14.027 (0.839)    51     76846                    6.78-  66.78    36.78
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                             CAS #: 75-65-0
 14.329  14.329 (0.857)    59    438614 5.00000    5.263  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41    104712                    0.00-  53.87    23.87
 14.329  14.329 (0.857)    57     47369                    0.00-  40.80    10.80
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                        CAS #: 1634-04-4
 14.439  14.439 (0.863)    73    631592 5.00000    5.140  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    139697                    0.00-  52.12    22.12
 14.439  14.439 (0.863)    41    134597                    0.00-  51.31    21.31
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                       CAS #: 156-60-5
 14.494  14.494 (0.866)    98    145009 5.00000    5.002  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61    304147                  179.74- 239.74   209.74
 14.494  14.494 (0.866)    96    225567                  125.55- 185.55   155.55
-------------------------------------------------------------------------------
   78 Hexane                                         CAS #: 110-54-3
 14.878  14.878 (0.889)    57    352809 5.00000    5.299  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    215199                   31.00-  91.00    61.00
 14.878  14.878 (0.889)    86     68401                    0.00-  49.39    19.39
-------------------------------------------------------------------------------
   83 Isopropyl ether                                CAS #: 108-20-3
 15.317  15.317 (0.916)    45    741528 5.00000    5.422  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87    223846                    0.19-  60.19    30.19
 15.317  15.317 (0.916)    59     88274                    0.00-  41.90    11.90
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                             CAS #: 75-34-3
 15.345  15.345 (0.917)    63    405609 5.00000    5.286  80.00- 120.00   100.00
```

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65    128459                     1.67-  61.67    31.67
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86     55517 5.00000    5.207  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42     44852                   50.79- 110.79    80.79
 15.400  15.400 (0.921)    43    514418                  896.60- 956.60   926.60
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59    766515 5.00000    5.394  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87    337972                   14.09-  74.09    44.09
 15.930  15.930 (0.952)    41    137353                    0.00-  47.92    17.92
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.323  16.323 (0.976)    98    157276 5.00000    5.019  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61    308515                  166.16- 226.16   196.16
 16.323  16.323 (0.976)    96    247415                  127.31- 187.31   157.31
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72    115370 5.00000    5.282  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    408985                  324.50- 384.50   354.50
 16.344  16.344 (0.977)    57     33732                    0.00-  59.24    29.24
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.696  16.696 (0.998)    42    246522 5.00000    5.358  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71    105980                   12.99-  72.99    42.99
 16.696  16.696 (0.998)    72    114283                   16.36-  76.36    46.36
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    137197 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    105863                   47.16- 107.16    77.16
 16.726  16.726 (1.000)    49    157423                   84.74- 144.74   114.74
-------------------------------------------------------------------------------
  100 Chloroform                                  CAS #: 67-66-3
 16.819  16.819 (1.006)    83    465527 5.00000    5.221  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    300488                   34.55-  94.55    64.55
-------------------------------------------------------------------------------
  102 Cyclohexane                                 CAS #: 110-82-7
 17.035  17.035 (1.018)    84    339712 5.00000    5.118  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    365159                   77.49- 137.49   107.49
 17.035  17.035 (1.018)    41    189364                   25.74-  85.74    55.74
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                       CAS #: 71-55-6
 17.065  17.065 (1.020)    97    483037 5.00000    5.156  80.00- 120.00   100.00
 17.065  17.065 (1.020)    99    311393                   34.47-  94.47    64.47
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119    473422 5.00000    6.354  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117    489312                   73.36- 133.36   103.36
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56    335496 5.00000    5.244  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   1020938                  274.31- 334.31   304.31
 17.579  17.579 (1.051)    41    258683                   47.10- 107.10    77.10
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.966)    78    686137 5.00000    5.257  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77    161521                    0.00-  53.54    23.54
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    171425 5.00000    4.697  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    100717                   28.75-  88.75    58.75
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87    163745 5.00000    5.334  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73    675044                  382.25- 442.25   412.25
 17.703  17.703 (0.971)    55    178661                   79.11- 139.11   109.11
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62    292557 5.00000    5.286  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64     91855                    1.40-  61.40    31.40
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57    195649 5.00000    5.314  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100     79968                   10.87-  70.87    40.87
 17.847  17.847 (0.979)    43    348549                  148.15- 208.15   178.15
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    563551 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     88177                    0.00-  45.65    15.65
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130    343188 5.00000    5.412  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95    312893                   61.17- 121.17    91.17
 18.610  18.610 (1.021)    97    203627                   29.33-  89.33    59.33
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83    444592 5.00000    5.568  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55    326940                   43.54- 103.54    73.54
 18.833  18.833 (1.033)    56    106559                    0.00-  53.97    23.97
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.057  19.057 (1.045)    63    260317 5.00000    5.218  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.079  19.079 (1.046)    62    185765                    41.36- 101.36    71.36
 19.057  19.057 (1.045)    41    141396                    24.32-  84.32    54.32
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88    183000 5.00000    5.279  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    117355                    34.13-  94.13    64.13
 19.213  19.213 (1.054)    57     37976                     0.00-  50.75    20.75
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83    473534 5.00000    5.400  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    304160                    34.23-  94.23    64.23
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.116)    75    456008 5.00000    5.525  80.00- 120.00   100.00
 20.338  20.338 (1.116)    77    144908                     1.78-  61.78    31.78
 20.338  20.338 (1.116)    39    210456                    16.15-  76.15    46.15
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.128)    43    516693 5.00000    5.570  80.00- 120.00   100.00
 20.572  20.572 (1.128)    58    214485                    11.51-  71.51    41.51
 20.557  20.557 (1.128)    85     97150                     0.00-  48.80    18.80
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    541616 5.00000    5.072  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     60778                     0.00-  41.22    11.22
 20.821  20.821 (1.142)   100    367733                    37.90-  97.90    67.90
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91    791014 5.00000    5.295  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92    478991                    30.55-  90.55    60.55
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75    374731 5.00000    5.761  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77    116938                     1.21-  61.21    31.21
 21.564  21.564 (0.908)    39    167582                    14.72-  74.72    44.72
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97    304253 5.00000    5.122  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99    190321                    32.55-  92.55    62.55
 21.999  21.999 (0.926)    83    253303                    53.25- 113.25    83.25
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166    438332 5.00000    5.331  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    306745                    39.98-  99.98    69.98
 22.145  22.145 (0.932)   131    302287                    38.96-  98.96    68.96
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                     CAS #: 591-78-6
 22.406  22.406 (0.943)    58    256905 5.00000    5.364  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43    453293                  146.44- 206.44   176.44
 22.406  22.406 (0.943)   100     62769                    0.00-  54.43    24.43
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129    525670 5.00000    5.677  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127    405586                   47.16- 107.16    77.16
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107    477820 5.00000    5.598  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    447308                   63.61- 123.61    93.61
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    463244 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    250383                   24.05-  84.05    54.05
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112    641104 5.00000    5.392  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    208079                    2.46-  62.46    32.46
 23.823  23.823 (1.003)    77    367293                   27.29-  87.29    57.29
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.905  23.905 (1.006)   106    300748 5.00000    5.240  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91    928393                  278.69- 338.69   308.69
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106    328445 5.00000    5.245  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    639877                  164.82- 224.82   194.82
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106    317981 5.00000    5.188  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    648921                  174.08- 234.08   204.08
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.730  24.730 (1.041)   104    486427 5.00000    5.156  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78    242024                   19.76-  79.76    49.76
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173    520530 5.00000    5.860  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    268460                   21.57-  81.57    51.57
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105   1002222 5.00000    5.297  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    279779                    0.00-  57.92    27.92
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	256322	5.00000	5.033	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	303318			88.33- 148.33	118.33
25.485	25.485 (1.073)	176	253165			68.77- 128.77	98.77
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	603078	5.00000	5.463	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	386314			34.06- 94.06	64.06
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.732 (1.083)	91	910430	5.00000	4.963	80.00- 120.00	100.00
25.732	25.732 (1.083)	120	222710			0.00- 54.46	24.46
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	749361	5.00000	4.746	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	229925			0.68- 60.68	30.68
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	725949	5.00000	5.194	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	371364			21.16- 81.16	51.16
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	730590	5.00000	5.296	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	352789			18.29- 78.29	48.29
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	481067	5.00000	5.014	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	307838			33.99- 93.99	63.99
26.794	26.794 (1.128)	111	188212			9.12- 69.12	39.12
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	428521	5.00000	4.702	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	273725			33.88- 93.88	63.88
26.919	26.919 (1.133)	111	162771			7.98- 67.98	37.98
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	509468	5.00000	5.443	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	110913			0.00- 51.77	21.77
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	433979	5.00000	4.901	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	273758			33.08- 93.08	63.08
27.371	27.371 (1.152)	111	177962			11.01- 71.01	41.01
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	533280	5.00000	5.594	80.00- 120.00	100.00

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

  226 1,2,4-Trichlorobenzene (continued)
 29.382  29.382 (1.237)   182    505425                    64.78- 124.78    94.78
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225    372444 5.00000    5.034  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    234509                    32.96-  92.96    62.96
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.772  29.772 (1.253)   128     83799 0.50000   0.5628  80.00- 120.00   100.00
 29.772  29.772 (1.253)   127     11173                     0.00-  43.33    13.33
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061310.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 12
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	137197	0.00
123 1,4-Difluorobenze	563551	338131	788971	563551	0.00
163 Chlorobenzene-d5	463244	277946	648542	463244	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061310.d

Date : 13-JUN-2016 16:08

Client ID: Level 12

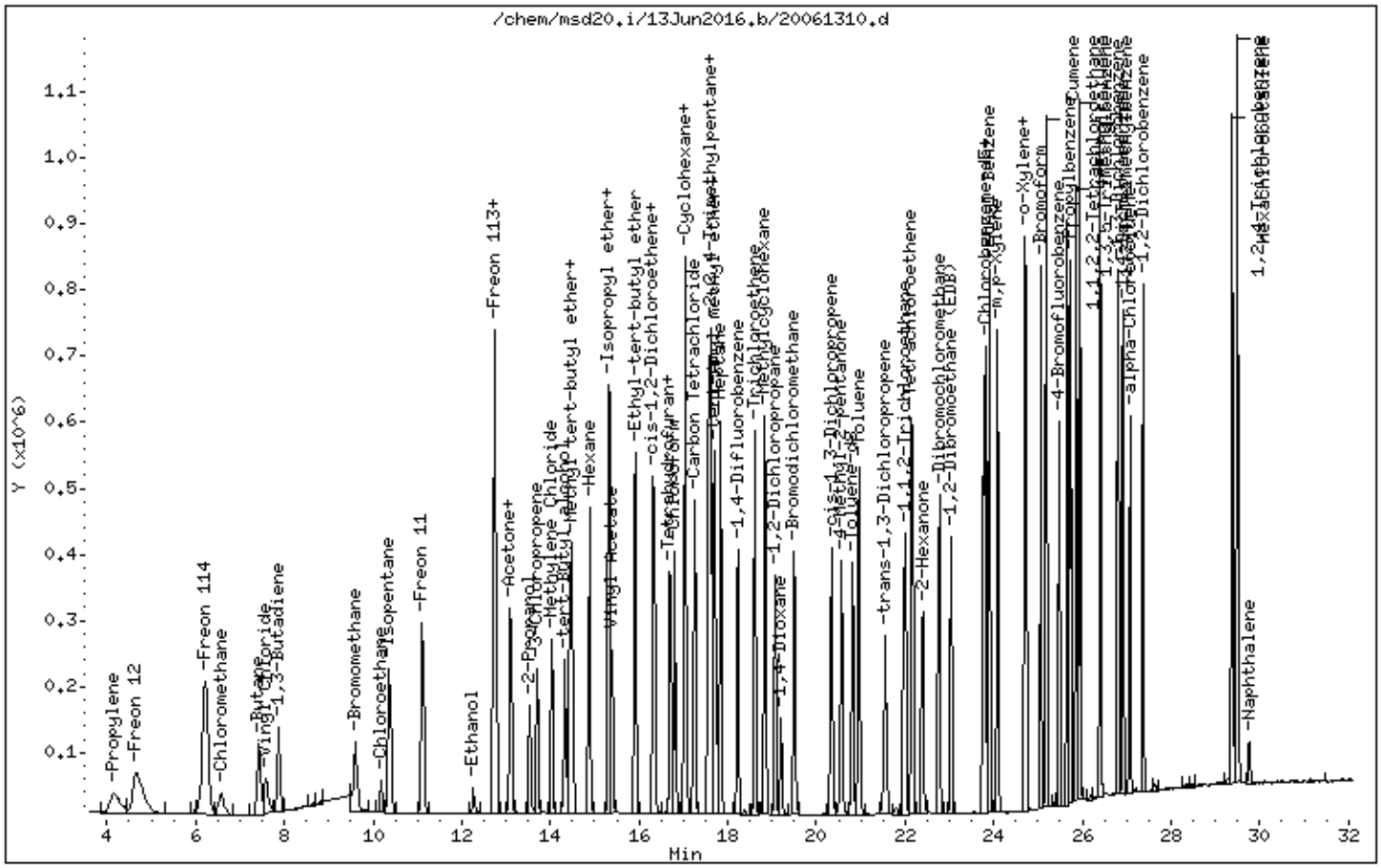
Instrument: msd20.i

Sample Info: 25mL# 2789-176

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061311.d
Lab Smp Id: ICAL Client Smp ID: Level 13
Inj Date : 13-JUN-2016 16:56
Operator : mjs Inst ID: msd20.i
Smp Info : 50mL# 2789-176
Misc Info : 10ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:56 Cal File: 20061311.d
Als bottle: 1 Calibration Sample, Level: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	318998	10.0000	9.878	80.00- 120.00	100.00
4.166	4.166 (0.249)	42	212764			37.74- 97.74	66.70
4.142	4.142 (0.248)	39	231905			43.28- 103.28	72.70
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	1065287	10.0000	9.946	80.00- 120.00	100.00
4.648	4.648 (0.278)	87	342791			2.50- 62.50	32.18
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	736382	10.0000	9.261	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	235415			2.53- 62.53	31.97
6.215	6.215 (0.372)	85	1047826			112.58- 172.58	142.29
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	325752	10.0000	9.353	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	108299			3.09- 63.09	33.25
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	88831	10.0000	9.594	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	590763			641.20- 701.20	665.04
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	392563	10.0000	9.608	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	125590			2.84- 62.84	31.99
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	303031	10.0000	9.404	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	291976			65.35- 125.35	96.35
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	266824	10.0000	11.005	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	250794			64.03- 124.03	93.99
30 Chloroethane					CAS #: 75-00-3		
10.199	10.199 (0.610)	64	187200	10.0000	10.085	80.00- 120.00	100.00
10.199	10.199 (0.610)	49	45188			0.00- 54.43	24.14
10.199	10.199 (0.610)	66	59726			2.17- 62.17	31.90
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	317865	10.0000	9.738	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	444841			110.67- 170.67	139.95
10.367	10.367 (0.620)	42	387649			93.85- 153.85	121.95
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1026809	10.0000	9.757	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	665816			34.69- 94.69	64.84
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	145050	10.0000	10.448	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	61482			11.01- 71.01	42.39
12.269	12.269 (0.734)	43	30901			0.00- 50.63	21.30
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	710200	10.0000	9.207	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	453513			34.65- 94.65	63.86
12.763	12.763 (0.763)	101	862044			90.37- 150.37	121.38
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	262668	10.0000	9.449	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	633214			216.58- 276.58	241.07
12.736	12.736 (0.761)	96	410432			128.21- 188.21	156.26
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	189757	10.0000	9.316	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
52 Acetone (continued)							
13.093	13.093 (0.783)	43	574853			275.09- 335.09	302.94
56 Carbon Disulfide					CAS #: 75-15-0		
13.121	13.121 (0.784)	76	1163190	10.0000	10.127	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.533	13.533 (0.809)	45	667477	10.0000	10.186	80.00- 120.00	100.00
13.533	13.533 (0.809)	43	128905			0.00- 49.91	19.31
13.533	13.533 (0.809)	59	27819			0.00- 34.18	4.17
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	182750	10.0000	10.021	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	456664			218.66- 278.66	249.88
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	392289	10.0000	8.847	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	463360			88.46- 148.46	118.12
14.027	14.027 (0.839)	51	143484			6.78- 66.78	36.58
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.329	14.329 (0.857)	59	846874	10.0000	10.223	80.00- 120.00	100.00
14.329	14.329 (0.857)	41	197944			0.00- 53.87	23.37
14.329	14.329 (0.857)	57	91303			0.00- 40.80	10.78
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	1178501	10.0000	9.650	80.00- 120.00	100.00
14.439	14.439 (0.863)	57	255008			0.00- 52.12	21.64
14.439	14.439 (0.863)	41	245315			0.00- 51.31	20.82
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.494 (0.866)	98	268347	10.0000	9.313	80.00- 120.00	100.00
14.494	14.494 (0.866)	61	567107			179.74- 239.74	211.33
14.494	14.494 (0.866)	96	421977			125.55- 185.55	157.25
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	639475	10.0000	9.664	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	388045			31.00- 91.00	60.68
14.878	14.878 (0.889)	86	122891			0.00- 49.39	19.22
83 Isopropyl ether					CAS #: 108-20-3		
15.317	15.317 (0.916)	45	1361633	10.0000	10.017	80.00- 120.00	100.00
15.317	15.317 (0.916)	87	412752			0.19- 60.19	30.31
15.317	15.317 (0.916)	59	162148			0.00- 41.90	11.91
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	749385	10.0000	9.825	80.00- 120.00	100.00

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

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65    235870                     1.67-  61.67    31.48
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86    112626 10.0000   10.627  80.00- 120.00   100.00
 15.400  15.400 (0.921)    42     84452                    50.79- 110.79    74.98
 15.400  15.400 (0.921)    43   1000342                   896.60- 956.60   888.20
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59   1427341 10.0000   10.106  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87    627296                    14.09-  74.09    43.95
 15.930  15.930 (0.952)    41    252122                     0.00-  47.92    17.66
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.324  16.324 (0.976)    98    294690 10.0000    9.462  80.00- 120.00   100.00
 16.324  16.324 (0.976)    61    568085                   166.16- 226.16   192.77
 16.324  16.324 (0.976)    96    459444                   127.31- 187.31   155.91
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72    216808 10.0000    9.986  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    768392                   324.50- 384.50   354.41
 16.344  16.344 (0.977)    57     63065                     0.00-  59.24    29.09
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.696  16.696 (0.998)    42    464095 10.0000   10.148  80.00- 120.00   100.00
 16.696  16.696 (0.998)    71    202315                    12.99-  72.99    43.59
 16.696  16.696 (0.998)    72    219778                    16.36-  76.36    47.36
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    136367 5.00000            80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    105382                    47.16- 107.16    77.28
 16.726  16.726 (1.000)    49    160847                    84.74- 144.74   117.95
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83    865808 10.0000    9.770  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    562885                    34.55-  94.55    65.01
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84    625817 10.0000    9.486  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56    676090                    77.49- 137.49   108.03
 17.035  17.035 (1.018)    41    353145                    25.74-  85.74    56.43
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.066  17.066 (1.020)    97    900570 10.0000    9.671  80.00- 120.00   100.00
 17.066  17.066 (1.020)    99    582389                    34.47-  94.47    64.67
-------------------------------------------------------------------------------
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119    885734 10.0000   11.961  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117    922865                   73.36- 133.36   104.19
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56    630889 10.0000    9.921  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   1900839                  274.31- 334.31   301.30
 17.579  17.579 (1.051)    41    476233                   47.10- 107.10    75.49
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.966)    78   1258140 10.0000    9.701  80.00- 120.00   100.00
 17.621  17.621 (0.966)    77    290066                    0.00-  53.54    23.06
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.621  17.621 (1.053)    65    176495 5.00000    4.865  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    109555                   28.75-  88.75    62.07
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87    308178 10.0000   10.104  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73   1264176                  382.25- 442.25   410.21
 17.703  17.703 (0.971)    55    320119                   79.11- 139.11   103.87
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62    537138 10.0000    9.767  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    169535                    1.40-  61.40    31.56
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57    365587 10.0000    9.994  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100    145912                   10.87-  70.87    39.91
 17.847  17.847 (0.979)    43    646873                  148.15- 208.15   176.94
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    559973 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     89226                    0.00-  45.65    15.93
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130    625333 10.0000    9.925  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95    581085                   61.17- 121.17    92.92
 18.610  18.610 (1.021)    97    376781                   29.33-  89.33    60.25
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.834  18.834 (1.033)    83    808949 10.0000   10.197  80.00- 120.00   100.00
 18.834  18.834 (1.033)    55    603001                   43.54- 103.54    74.54
 18.834  18.834 (1.033)    56    195130                    0.00-  53.97    24.12
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.057  19.057 (1.045)    63    486181 10.0000    9.808  80.00- 120.00   100.00
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  132 1,2-Dichloropropane (continued)
 19.057  19.057 (1.045)    62    351360                    41.36- 101.36    72.27
 19.057  19.057 (1.045)    41    261816                    24.32-  84.32    53.85
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88    335033 10.0000    9.727  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    223028                    34.13-  94.13    66.57
 19.213  19.213 (1.054)    57     70307                     0.00-  50.75    20.99
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83    899656 10.0000   10.125  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85    580339                    34.23-  94.23    64.51
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.339  20.339 (1.116)    75    865507 10.0000   10.554  80.00- 120.00   100.00
 20.339  20.339 (1.116)    77    275978                     1.78-  61.78    31.89
 20.339  20.339 (1.116)    39    404131                    16.15-  76.15    46.69
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.128)    43    972141 10.0000   10.547  80.00- 120.00   100.00
 20.557  20.557 (1.128)    58    402706                    11.51-  71.51    41.42
 20.557  20.557 (1.128)    85    191568                     0.00-  48.80    19.71
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.822  20.822 (1.142)    98    542558 5.00000    5.113  80.00- 120.00   100.00
 20.822  20.822 (1.142)    70     60238                     0.00-  41.22    11.10
 20.806  20.806 (1.141)   100    368478                    37.90-  97.90    67.91
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91   1470769 10.0000    9.908  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92    888301                    30.55-  90.55    60.40
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75    706039 10.0000   10.713  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77    221077                     1.21-  61.21    31.31
 21.535  21.535 (0.906)    39    310572                    14.72-  74.72    43.99
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 22.000  22.000 (0.926)    97    553731 10.0000    9.200  80.00- 120.00   100.00
 22.000  22.000 (0.926)    99    345216                    32.55-  92.55    62.34
 22.000  22.000 (0.926)    83    462561                    53.25- 113.25    83.54
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.145  22.145 (0.932)   166    814462 10.0000    9.776  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    572861                    39.98-  99.98    70.34
 22.145  22.145 (0.932)   131    551258                    38.96-  98.96    67.68
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                                          AMOUNTS
                                       CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

  158 2-Hexanone                                     CAS #: 591-78-6
 22.377  22.377 (0.942)    58    509294 10.0000   10.495  80.00- 120.00   100.00
 22.377  22.377 (0.942)    43    873989                  146.44- 206.44   171.61
 22.406  22.406 (0.943)   100    123627                    0.00-  54.43    24.27
-------------------------------------------------------------------------------
  160 Dibromochloromethane                           CAS #: 124-48-1
 22.784  22.784 (0.959)   129   1015341 10.0000   10.822  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127    781754                   47.16- 107.16    76.99
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                        CAS #: 106-93-4
 23.045  23.045 (0.970)   107    876308 10.0000   10.133  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    822901                   63.61- 123.61    93.91
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                               CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    469362 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    252832                   24.05-  84.05    53.87
-------------------------------------------------------------------------------
  165 Chlorobenzene                                  CAS #: 108-90-7
 23.823  23.823 (1.003)   112   1194100 10.0000    9.912  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    382897                    2.46-  62.46    32.07
 23.823  23.823 (1.003)    77    671453                   27.29-  87.29    56.23
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                  CAS #: 100-41-4
 23.906  23.906 (1.006)   106    574988 10.0000    9.888  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91   1743271                  278.69- 338.69   303.18
-------------------------------------------------------------------------------
  169 m,p-Xylene                                     CAS #: 108-38-3
 24.091  24.091 (1.014)   106    612463 10.0000    9.654  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   1181003                  164.82- 224.82   192.83
-------------------------------------------------------------------------------
  171 o-Xylene                                       CAS #: 95-47-6
 24.710  24.710 (1.040)   106    586785 10.0000    9.450  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   1202054                  174.08- 234.08   204.85
-------------------------------------------------------------------------------
  172 Styrene                                        CAS #: 100-42-5
 24.731  24.731 (1.041)   104    924306 10.0000    9.669  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78    457250                   19.76-  79.76    49.47
-------------------------------------------------------------------------------
  174 Bromoform                                      CAS #: 75-25-2
 25.068  25.068 (1.055)   173   1028588 10.0000   11.428  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171    527291                   21.57-  81.57    51.26
-------------------------------------------------------------------------------
  175 Cumene                                         CAS #: 98-82-8
 25.182  25.182 (1.060)   105   1899428 10.0000    9.909  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120    530980                    0.00-  57.92    27.95
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.466	25.466 (1.072)	174	260875	5.00000	5.055	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	304197			88.33- 148.33	116.61
25.466	25.466 (1.072)	176	254759			68.77- 128.77	97.66
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	1108844	10.0000	9.914	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	717917			34.06- 94.06	64.74
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.732 (1.083)	91	1693261	10.0000	9.110	80.00- 120.00	100.00
25.732	25.732 (1.083)	120	409376			0.00- 54.46	24.18
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	1360006	10.0000	8.502	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	427425			0.68- 60.68	31.43
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	1266304	10.0000	8.942	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	655889			21.16- 81.16	51.80
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	1244314	10.0000	8.903	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	592912			18.29- 78.29	47.65
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.794	26.794 (1.128)	146	880704	10.0000	9.059	80.00- 120.00	100.00
26.794	26.794 (1.128)	148	568090			33.99- 93.99	64.50
26.794	26.794 (1.128)	111	343359			9.12- 69.12	38.99
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	786696	10.0000	8.520	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	500877			33.88- 93.88	63.67
26.919	26.919 (1.133)	111	294111			7.98- 67.98	37.39
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	1073324	10.0000	11.317	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	233915			0.00- 51.77	21.79
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	787803	10.0000	8.780	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	509486			33.08- 93.08	64.67
27.371	27.371 (1.152)	111	323238			11.01- 71.01	41.03
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	838152	10.0000	8.678	80.00- 120.00	100.00

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

  226 1,2,4-Trichlorobenzene (continued)
 29.382  29.382 (1.237)   182    807591                    64.78- 124.78    96.35
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.491  29.491 (1.241)   225    609683 10.0000    8.134  80.00- 120.00   100.00
 29.491  29.491 (1.241)   223    376981                    32.96-  92.96    61.83
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.772  29.772 (1.253)   128    134234 1.00000   0.8898  80.00- 120.00   100.00
 29.772  29.772 (1.253)   127     18611                     0.00-  43.33    13.86
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061311.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 10ppbv (50ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 13
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	136367	-0.60
123 1,4-Difluorobenze	563551	338131	788971	559973	-0.63
163 Chlorobenzene-d5	463244	277946	648542	469362	1.32

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061311.d

Date : 13-JUN-2016 16:56

Client ID: Level 13

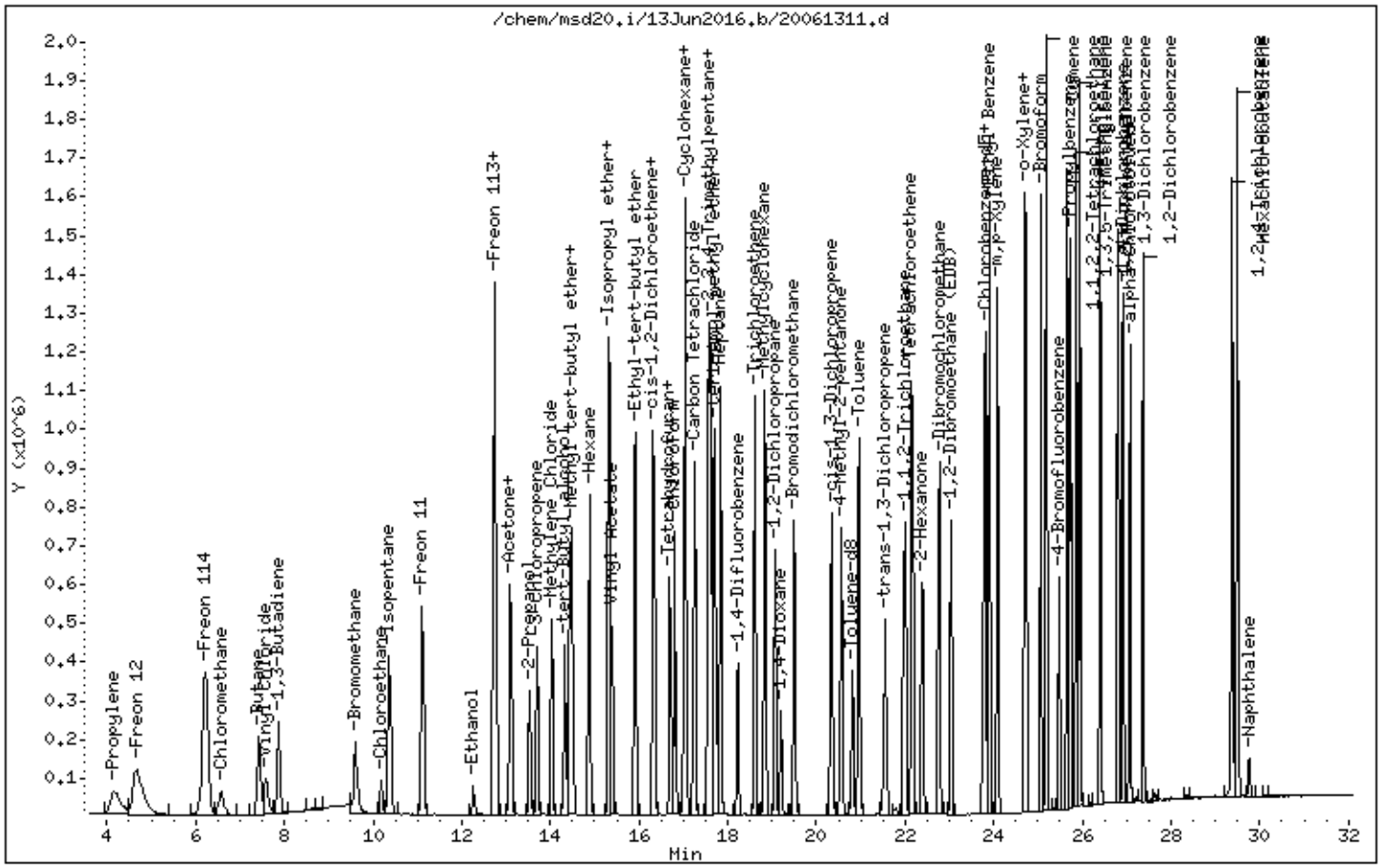
Instrument: msd20.i

Sample Info: 50mL# 2789-176

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061312.d
Lab Smp Id: ICAL Client Smp ID: Level 15
Inj Date : 13-JUN-2016 19:03
Operator : mjs Inst ID: msd20.i
Smp Info : 100mL# 2789-176
Misc Info : 20ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 19:03 Cal File: 20061312.d
Als bottle: 1 Calibration Sample, Level: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	638266	20.0000	20.006	80.00- 120.00	100.00
4.142	4.142 (0.248)	42	429269			37.74- 97.74	67.26
4.166	4.166 (0.249)	39	462157			43.28- 103.28	72.41
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	2018586	20.0000	19.075	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	655193			2.50- 62.50	32.46
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	1407749	20.0000	17.920	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	450441			2.53- 62.53	32.00
6.215	6.215 (0.372)	85	1991957			112.58- 172.58	141.50
17 Chloromethane					CAS #: 74-87-3		
6.577	6.577 (0.393)	50	662708	20.0000	19.260	80.00- 120.00	100.00
6.577	6.577 (0.393)	52	205480			3.09- 63.09	31.01
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	172034	20.0000	18.807	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	1138055			641.20- 701.20	661.53
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	756464	20.0000	18.739	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	241627			2.84- 62.84	31.94
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	593013	20.0000	18.627	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	556024			65.35- 125.35	93.76
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	545933	20.0000	22.791	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	516401			64.03- 124.03	94.59
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	369007	20.0000	20.121	80.00- 120.00	100.00
10.198	10.198 (0.610)	49	88132			0.00- 54.43	23.88
10.198	10.198 (0.610)	66	117511			2.17- 62.17	31.85
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	612103	20.0000	18.981	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	850312			110.67- 170.67	138.92
10.367	10.367 (0.620)	42	744896			93.85- 153.85	121.69
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	1961169	20.0000	18.862	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	1270358			34.69- 94.69	64.78
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	292872	20.0000	21.353	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	119457			11.01- 71.01	40.79
12.269	12.269 (0.734)	43	59025			0.00- 50.63	20.15
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	1386745	20.0000	18.196	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	893853			34.65- 94.65	64.46
12.763	12.763 (0.763)	101	1664690			90.37- 150.37	120.04
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	501351	20.0000	18.255	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	1230647			216.58- 276.58	245.47
12.736	12.736 (0.761)	96	793558			128.21- 188.21	158.28
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	372126	20.0000	18.491	80.00- 120.00	100.00

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43   1118191                  275.09- 335.09   300.49
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.120  13.120 (0.784)    76   2306984 20.0000   20.330  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.533  13.533 (0.809)    45   1341353 20.0000   20.720  80.00- 120.00   100.00
 13.533  13.533 (0.809)    43    256547                    0.00-  49.91    19.13
 13.533  13.533 (0.809)    59     56102                    0.00-  34.18     4.18
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76    365679 20.0000   20.296  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41    909476                  218.66- 278.66   248.71
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84    757051 20.0000   17.281  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49    902354                   88.46- 148.46   119.19
 14.027  14.027 (0.839)    51    278565                    6.78-  66.78    36.80
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59   1683678 20.0000   20.572  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41    372984                    0.00-  53.87    22.15
 14.329  14.329 (0.857)    57    181591                    0.00-  40.80    10.79
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73   2283170 20.0000   18.923  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    499137                    0.00-  52.12    21.86
 14.439  14.439 (0.863)    41    457438                    0.00-  51.31    20.04
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98    520269 20.0000   18.275  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61   1098003                  179.74- 239.74   211.05
 14.494  14.494 (0.866)    96    816108                  125.55- 185.55   156.86
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57   1218420 20.0000   18.636  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    733513                   31.00-  91.00    60.20
 14.878  14.878 (0.889)    86    237209                    0.00-  49.39    19.47
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45   2608789 20.0000   19.425  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87    798665                    0.19-  60.19    30.61
 15.317  15.317 (0.916)    59    313052                    0.00-  41.90    12.00
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63   1446732 20.0000   19.199  80.00- 120.00   100.00
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
82 1,1-Dichloroethane (continued)							
15.345	15.345 (0.917)	65	458650			1.67- 61.67	31.70
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.400 (0.921)	86	226765	20.0000	21.657	80.00- 120.00	100.00
15.400	15.400 (0.921)	42	166096			50.79- 110.79	73.25
15.400	15.400 (0.921)	43	2009943			896.60- 956.60	886.36
88 Ethyl-tert-butyl ether					CAS #: 637-92-3		
15.930	15.930 (0.952)	59	2784910	20.0000	19.958	80.00- 120.00	100.00
15.930	15.930 (0.952)	87	1237459			14.09- 74.09	44.43
15.930	15.930 (0.952)	41	476680			0.00- 47.92	17.12
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.324	16.324 (0.976)	98	570600	20.0000	18.544	80.00- 120.00	100.00
16.324	16.324 (0.976)	61	1095753			166.16- 226.16	192.04
16.324	16.324 (0.976)	96	891891			127.31- 187.31	156.31
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	424987	20.0000	19.813	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	1487949			324.50- 384.50	350.12
16.344	16.344 (0.977)	57	123952			0.00- 59.24	29.17
99 Tetrahydrofuran					CAS #: 109-99-9		
16.696	16.696 (0.998)	42	908121	20.0000	20.098	80.00- 120.00	100.00
16.696	16.696 (0.998)	71	402930			12.99- 72.99	44.37
16.696	16.696 (0.998)	72	431071			16.36- 76.36	47.47
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	134728	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	106105			47.16- 107.16	78.75
16.726	16.726 (1.000)	49	160697			84.74- 144.74	119.28
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	1680477	20.0000	19.193	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	1091184			34.55- 94.55	64.93
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.035 (1.018)	84	1215744	20.0000	18.652	80.00- 120.00	100.00
17.035	17.035 (1.018)	56	1299911			77.49- 137.49	106.92
17.035	17.035 (1.018)	41	678097			25.74- 85.74	55.78
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.065 (1.020)	97	1768507	20.0000	19.222	80.00- 120.00	100.00
17.065	17.065 (1.020)	99	1140746			34.47- 94.47	64.50

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   1750553 20.0000   23.926  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117   1821751                   73.36- 133.36   104.07
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56   1223202 20.0000   19.470  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   3663844                  274.31- 334.31   299.53
 17.579  17.579 (1.051)    41    915102                   47.10- 107.10    74.81
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.621  17.621 (0.966)    78   2442067 20.0000   18.772  80.00- 120.00   100.00
 17.621  17.621 (0.966)    77    564115                    0.00-  53.54    23.10
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    182051 5.00000    5.079  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    127968                   28.75-  88.75    70.29
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87    600336 20.0000   19.621  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73   2495629                  382.25- 442.25   415.71
 17.703  17.703 (0.971)    55    604411                   79.11- 139.11   100.68
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62   1026322 20.0000   18.604  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    331983                    1.40-  61.40    32.35
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57    715213 20.0000   19.491  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100    300142                   10.87-  70.87    41.97
 17.847  17.847 (0.979)    43   1259281                  148.15- 208.15   176.07
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    561708 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     85907                    0.00-  45.65    15.29
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130   1213533 20.0000   19.201  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95   1119851                   61.17- 121.17    92.28
 18.610  18.610 (1.021)    97    726098                   29.33-  89.33    59.83
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83   1559226 20.0000   19.594  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55   1146425                   43.54- 103.54    73.53
 18.833  18.833 (1.033)    56    373900                    0.00-  53.97    23.98
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.079  19.079 (1.046)    63    947379 20.0000   19.052  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.079  19.079 (1.046)    62    679276                    41.36- 101.36    71.70
 19.057  19.057 (1.045)    41    507393                    24.32-  84.32    53.56
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88    657024 20.0000   19.017  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    427542                    34.13-  94.13    65.07
 19.213  19.213 (1.054)    57    135946                     0.00-  50.75    20.69
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83   1777849 20.0000   19.894  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85   1136528                    34.23-  94.23    63.93
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.116)    75   1739603 20.0000   21.148  80.00- 120.00   100.00
 20.338  20.338 (1.116)    77    554127                     1.78-  61.78    31.85
 20.338  20.338 (1.116)    39    795080                    16.15-  76.15    45.70
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.128)    43   1903079 20.0000   20.584  80.00- 120.00   100.00
 20.557  20.557 (1.128)    58    791343                    11.51-  71.51    41.58
 20.557  20.557 (1.128)    85    373135                     0.00-  48.80    19.61
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    534096 5.00000    5.018  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     59177                     0.00-  41.22    11.08
 20.821  20.821 (1.142)   100    361748                    37.90-  97.90    67.73
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91   2834199 20.0000   19.035  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92   1709979                    30.55-  90.55    60.33
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75   1408041 20.0000   21.244  80.00- 120.00   100.00
 21.564  21.564 (0.908)    77    444625                     1.21-  61.21    31.58
 21.535  21.535 (0.906)    39    621770                    14.72-  74.72    44.16
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97   1073280 20.0000   17.731  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99    671012                    32.55-  92.55    62.52
 21.999  21.999 (0.926)    83    900124                    53.25- 113.25    83.87
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166   1572989 20.0000   18.773  80.00- 120.00   100.00
 22.174  22.174 (0.933)   129   1101602                    39.98-  99.98    70.03
 22.174  22.174 (0.933)   131   1058854                    38.96-  98.96    67.31
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                      CAS #: 591-78-6
 22.406  22.406 (0.943)    58   1021187 20.0000   20.923  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43   1776525                  146.44- 206.44   173.97
 22.406  22.406 (0.943)   100    247735                    0.00-  54.43    24.26
-------------------------------------------------------------------------------
  160 Dibromochloromethane                            CAS #: 124-48-1
 22.784  22.784 (0.959)   129   2034821 20.0000   21.566  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127   1576705                   47.16- 107.16    77.49
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                         CAS #: 106-93-4
 23.045  23.045 (0.970)   107   1699695 20.0000   19.543  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109   1621364                   63.61- 123.61    95.39
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                                CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    472051 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    251814                   24.05-  84.05    53.34
-------------------------------------------------------------------------------
  165 Chlorobenzene                                   CAS #: 108-90-7
 23.823  23.823 (1.003)   112   2345129 20.0000   19.355  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    757658                    2.46-  62.46    32.31
 23.823  23.823 (1.003)    77   1304291                   27.29-  87.29    55.62
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                   CAS #: 100-41-4
 23.906  23.906 (1.006)   106   1146122 20.0000   19.598  80.00- 120.00   100.00
 23.906  23.906 (1.006)    91   3479222                  278.69- 338.69   303.56
-------------------------------------------------------------------------------
  169 m,p-Xylene                                      CAS #: 108-38-3
 24.091  24.091 (1.014)   106   1228358 20.0000   19.251  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   2358625                  164.82- 224.82   192.01
-------------------------------------------------------------------------------
  171 o-Xylene                                        CAS #: 95-47-6
 24.710  24.710 (1.040)   106   1175529 20.0000   18.823  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   2387591                  174.08- 234.08   203.11
-------------------------------------------------------------------------------
  172 Styrene                                         CAS #: 100-42-5
 24.731  24.731 (1.041)   104   1892091 20.0000   19.680  80.00- 120.00   100.00
 24.731  24.731 (1.041)    78    918227                   19.76-  79.76    48.53
-------------------------------------------------------------------------------
  174 Bromoform                                       CAS #: 75-25-2
 25.068  25.068 (1.055)   173   2162775 20.0000   23.892  80.00- 120.00   100.00
 25.068  25.068 (1.055)   171   1113751                   21.57-  81.57    51.50
-------------------------------------------------------------------------------
  175 Cumene                                          CAS #: 98-82-8
 25.182  25.182 (1.060)   105   3854272 20.0000   19.992  80.00- 120.00   100.00
 25.182  25.182 (1.060)   120   1076917                    0.00-  57.92    27.94
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	269863	5.00000	5.200	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	310022			88.33- 148.33	114.88
25.485	25.485 (1.073)	176	265399			68.77- 128.77	98.35
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	2219482	20.0000	19.731	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	1425425			34.06- 94.06	64.22
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.732 (1.083)	91	3451775	20.0000	18.465	80.00- 120.00	100.00
25.732	25.732 (1.083)	120	845285			0.00- 54.46	24.49
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	2761700	20.0000	17.166	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	858246			0.68- 60.68	31.08
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	2395805	20.0000	16.822	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	1234604			21.16- 81.16	51.53
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	2229614	20.0000	15.862	80.00- 120.00	100.00
26.395	26.395 (1.111)	120	1076264			18.29- 78.29	48.27
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.810	26.810 (1.128)	146	1772918	20.0000	18.133	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	1142915			33.99- 93.99	64.47
26.794	26.794 (1.128)	111	694983			9.12- 69.12	39.20
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	1603827	20.0000	17.271	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	1037277			33.88- 93.88	64.68
26.919	26.919 (1.133)	111	600644			7.98- 67.98	37.45
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	2421731	20.0000	25.388	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	541329			0.00- 51.77	22.35
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	1626392	20.0000	18.024	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	1038039			33.08- 93.08	63.82
27.371	27.371 (1.152)	111	656401			11.01- 71.01	40.36
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	1662594	20.0000	17.116	80.00- 120.00	100.00

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

  226 1,2,4-Trichlorobenzene (continued)
 29.382  29.382 (1.237)   182   1588936                    64.78- 124.78    95.57
-------------------------------------------------------------------------------
  227 Hexachlorobutadiene                          CAS #: 87-68-3
 29.507  29.507 (1.242)   225   1323816 20.0000   17.560  80.00- 120.00   100.00
 29.507  29.507 (1.242)   223    827820                    32.96-  92.96    62.53
-------------------------------------------------------------------------------
  228 Naphthalene                                  CAS #: 91-20-3
 29.772  29.772 (1.253)   128    273721 2.00000    1.804  80.00- 120.00   100.00
 29.772  29.772 (1.253)   127     35767                     0.00-  43.33    13.07
-------------------------------------------------------------------------------
```

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061312.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 20ppbv (50ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 15
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	134728	-1.80
123 1,4-Difluorobenze	563551	338131	788971	561708	-0.33
163 Chlorobenzene-d5	463244	277946	648542	472051	1.90

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061312.d

Date : 13-JUN-2016 19:03

Client ID: Level 15

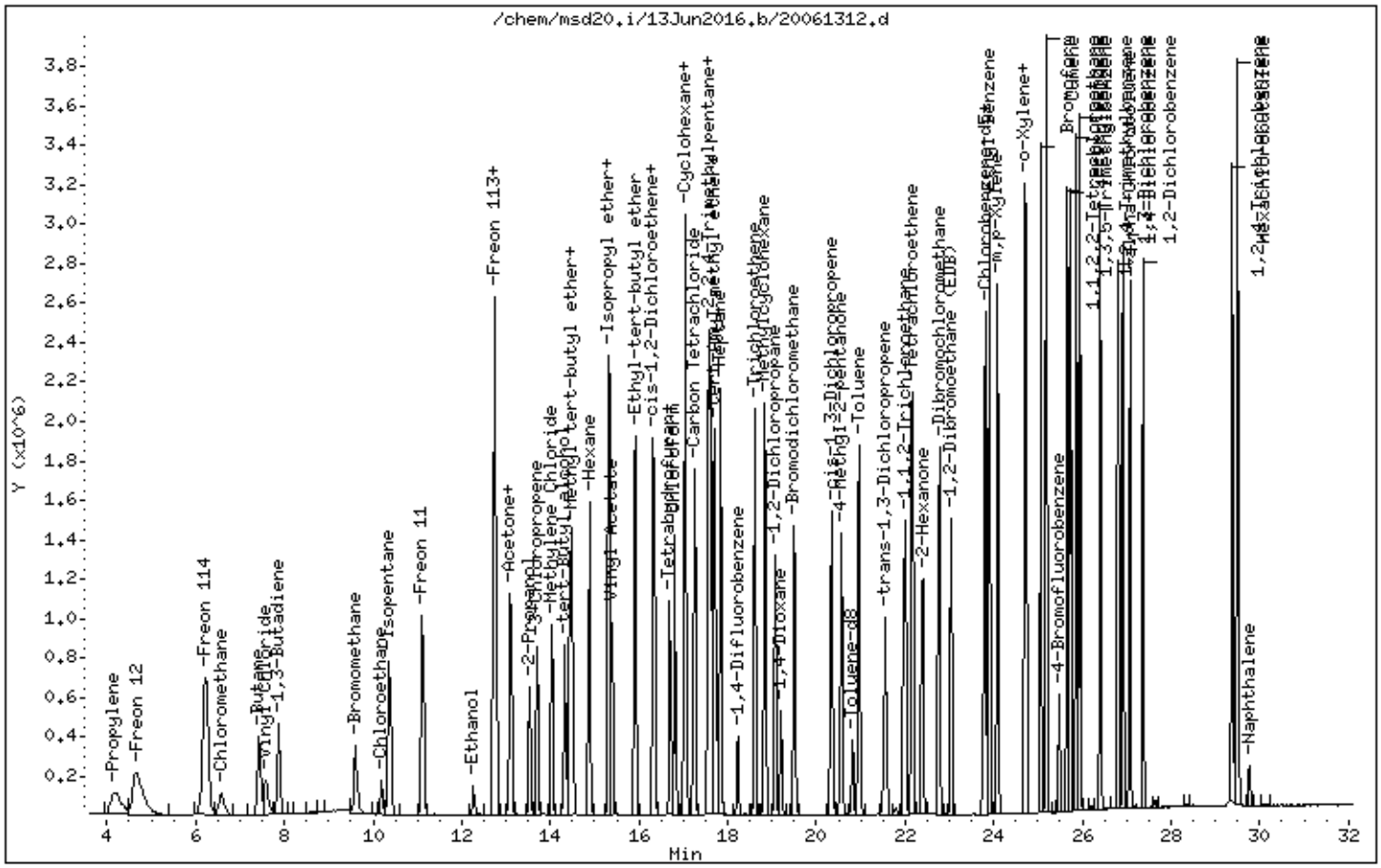
Instrument: msd20.i

Sample Info: 100mL# 2789-176

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/13Jun2016.b/20061313.d
Lab Smp Id: ICAL Client Smp ID: Level 16
Inj Date : 13-JUN-2016 19:59
Operator : mjs Inst ID: msd20.i
Smp Info : 200mL# 2789-176
Misc Info : 40ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/13Jun2016.b/2016l0613a.m
Meth Date : 14-Jun-2016 11:40 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 19:59 Cal File: 20061313.d
Als bottle: 1 Calibration Sample, Level: 16
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: HILOcrvFULL.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 (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
9 Propylene					CAS #: 115-07-1		
4.190	4.190 (0.250)	41	1246360	40.0000	36.486	80.00- 120.00	100.00
4.190	4.190 (0.250)	42	836200			37.74- 97.74	67.09
4.190	4.190 (0.250)	39	894283			43.28- 103.28	71.75
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	3882510	40.0000	34.266	80.00- 120.00	100.00
4.672	4.672 (0.279)	87	1256422			2.50- 62.50	32.36
15 Freon 114					CAS #: 76-14-2		
6.239	6.239 (0.373)	135	2810167	40.0000	33.410	80.00- 120.00	100.00
6.239	6.239 (0.373)	137	895342			2.53- 62.53	31.86
6.239	6.239 (0.373)	85	3935310			112.58- 172.58	140.04
17 Chloromethane					CAS #: 74-87-3		
6.601	6.601 (0.395)	50	1296455	40.0000	35.191	80.00- 120.00	100.00
6.601	6.601 (0.395)	52	402760			3.09- 63.09	31.07
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	344676	40.0000	35.192	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
23 Butane (continued)							
7.434	7.434 (0.444)	43	2265027			641.20- 701.20	657.15
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	1474582	40.0000	34.116	80.00- 120.00	100.00
7.590	7.590 (0.454)	64	472270			2.84- 62.84	32.03
26 1,3-Butadiene					CAS #: 106-99-0		
7.885	7.885 (0.471)	54	1172789	40.0000	34.406	80.00- 120.00	100.00
7.885	7.885 (0.471)	39	1094659			65.35- 125.35	93.34
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	1097915	40.0000	42.808	80.00- 120.00	100.00(A)
9.596	9.596 (0.574)	96	1041104			64.03- 124.03	94.83
30 Chloroethane					CAS #: 75-00-3		
10.198	10.198 (0.610)	64	732038	40.0000	37.281	80.00- 120.00	100.00
10.198	10.198 (0.610)	49	174976			0.00- 54.43	23.90
10.198	10.198 (0.610)	66	231635			2.17- 62.17	31.64
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	1196673	40.0000	34.658	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	1661302			110.67- 170.67	138.83
10.367	10.367 (0.620)	42	1464527			93.85- 153.85	122.38
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	3864867	40.0000	34.717	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	2514040			34.69- 94.69	65.05
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	583824	40.0000	39.755	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	238465			11.01- 71.01	40.85
12.269	12.269 (0.734)	43	120667			0.00- 50.63	20.67
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	2848840	40.0000	34.913	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	1821758			34.65- 94.65	63.95
12.763	12.763 (0.763)	101	3363013			90.37- 150.37	118.05
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	1009035	40.0000	34.315	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	2434014			216.58- 276.58	241.22
12.736	12.736 (0.761)	96	1591581			128.21- 188.21	157.73
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	755972	40.0000	35.085	80.00- 120.00	100.00

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

   52 Acetone (continued)
 13.093  13.093 (0.783)    43   2257970                  275.09- 335.09   298.68
-------------------------------------------------------------------------------
   56 Carbon Disulfide                                CAS #: 75-15-0
 13.120  13.120 (0.784)    76   4693990 40.0000   38.633  80.00- 120.00   100.00
-------------------------------------------------------------------------------
   57 2-Propanol                                      CAS #: 67-63-0
 13.532  13.532 (0.809)    45   2762187 40.0000   39.850  80.00- 120.00   100.00
 13.532  13.532 (0.809)    43    522075                    0.00-  49.91    18.90
 13.532  13.532 (0.809)    59    114740                    0.00-  34.18     4.15
-------------------------------------------------------------------------------
   58 3-Chloropropene                                 CAS #: 107-05-1
 13.697  13.697 (0.819)    76    734901 40.0000   38.096  80.00- 120.00   100.00
 13.697  13.697 (0.819)    41   1813117                  218.66- 278.66   246.72
-------------------------------------------------------------------------------
   66 Methylene Chloride                              CAS #: 75-09-2
 14.027  14.027 (0.839)    84   1511341 40.0000   32.222  80.00- 120.00   100.00
 14.027  14.027 (0.839)    49   1776477                   88.46- 148.46   117.54
 14.027  14.027 (0.839)    51    551616                    6.78-  66.78    36.50
-------------------------------------------------------------------------------
   71 tert-Butyl alcohol                              CAS #: 75-65-0
 14.329  14.329 (0.857)    59   3396916 40.0000   38.764  80.00- 120.00   100.00
 14.329  14.329 (0.857)    41    716170                    0.00-  53.87    21.08
 14.329  14.329 (0.857)    57    361793                    0.00-  40.80    10.65
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                         CAS #: 1634-04-4
 14.439  14.439 (0.863)    73   4590000 40.0000   35.530  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    994789                    0.00-  52.12    21.67
 14.439  14.439 (0.863)    41    891367                    0.00-  51.31    19.42
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                        CAS #: 156-60-5
 14.494  14.494 (0.866)    98   1061828 40.0000   34.836  80.00- 120.00   100.00
 14.494  14.494 (0.866)    61   2205772                  179.74- 239.74   207.73
 14.494  14.494 (0.866)    96   1655947                  125.55- 185.55   155.95
-------------------------------------------------------------------------------
   78 Hexane                                          CAS #: 110-54-3
 14.878  14.878 (0.889)    57   2419351 40.0000   34.562  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43   1452562                   31.00-  91.00    60.04
 14.878  14.878 (0.889)    86    473171                    0.00-  49.39    19.56
-------------------------------------------------------------------------------
   83 Isopropyl ether                                 CAS #: 108-20-3
 15.317  15.317 (0.916)    45   5122160 40.0000   35.621  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87   1606687                    0.19-  60.19    31.37
 15.317  15.317 (0.916)    59    621998                    0.00-  41.90    12.14
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                              CAS #: 75-34-3
 15.345  15.345 (0.917)    63   2850695 40.0000   35.332  80.00- 120.00   100.00
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                                        AMOUNTS
                                     CAL-AMT   ON-COL
   RT   EXP RT (REL RT)  MASS  RESPONSE ( PPBV)  ( PPBV)   TARGET RANGE    RATIO
   ==   ====== ========  ====  ======== =======  =======   ============    =====

   82 1,1-Dichloroethane (continued)
 15.345  15.345 (0.917)    65    912186                     1.67-  61.67    32.00
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                CAS #: 108-05-4
 15.400  15.400 (0.921)    86    473250 40.0000   42.214  80.00- 120.00   100.00(A)
 15.400  15.400 (0.921)    42    336552                   50.79- 110.79    71.12
 15.400  15.400 (0.921)    43   4121716                  896.60- 956.60   870.94
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                       CAS #: 637-92-3
 15.930  15.930 (0.952)    59   5595314 40.0000   37.452  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87   2498075                   14.09-  74.09    44.65
 15.930  15.930 (0.952)    41    930453                    0.00-  47.92    16.63
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                       CAS #: 156-59-2
 16.323  16.323 (0.976)    98   1141388 40.0000   34.644  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61   2155259                  166.16- 226.16   188.83
 16.323  16.323 (0.976)    96   1785213                  127.31- 187.31   156.41
-------------------------------------------------------------------------------
   92 2-Butanone                                   CAS #: 78-93-3
 16.344  16.344 (0.977)    72    856069 40.0000   37.274  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43   2959412                  324.50- 384.50   345.70
 16.344  16.344 (0.977)    57    246465                    0.00-  59.24    28.79
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                              CAS #: 109-99-9
 16.695  16.695 (0.998)    42   1827692 40.0000   37.779  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71    814181                   12.99-  72.99    44.55
 16.695  16.695 (0.998)    72    872889                   16.36-  76.36    47.76
-------------------------------------------------------------------------------
*  98 Bromochloromethane                           CAS #: 74-97-5
 16.726  16.726 (1.000)   130    144253 5.00000           80.00- 120.00   100.00
 16.726  16.726 (1.000)   128    110351                   47.16- 107.16    76.50
 16.726  16.726 (1.000)    49    169671                   84.74- 144.74   117.62
-------------------------------------------------------------------------------
  100 Chloroform                                   CAS #: 67-66-3
 16.819  16.819 (1.006)    83   3378798 40.0000   36.042  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85   2191801                   34.55-  94.55    64.87
-------------------------------------------------------------------------------
  102 Cyclohexane                                  CAS #: 110-82-7
 17.035  17.035 (1.018)    84   2468057 40.0000   35.365  80.00- 120.00   100.00
 17.035  17.035 (1.018)    56   2603922                   77.49- 137.49   105.50
 17.035  17.035 (1.018)    41   1317165                   25.74-  85.74    53.37
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                        CAS #: 71-55-6
 17.065  17.065 (1.020)    97   3577537 40.0000   36.317  80.00- 120.00   100.00
 17.065  17.065 (1.020)    99   2319052                   34.47-  94.47    64.82
-------------------------------------------------------------------------------
```

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

  106 Carbon Tetrachloride                          CAS #: 56-23-5
 17.250  17.250 (1.031)   119   3571449 40.0000   45.591  80.00- 120.00   100.00(A)
 17.250  17.250 (1.031)   117   3715845                   73.36- 133.36   104.04
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                        CAS #: 540-84-1
 17.579  17.579 (1.051)    56   2435632 40.0000   36.208  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57   7361445                  274.31- 334.31   302.24
 17.579  17.579 (1.051)    41   1813511                   47.10- 107.10    74.46
-------------------------------------------------------------------------------
  116 Benzene                                       CAS #: 71-43-2
 17.620  17.620 (0.966)    78   4848599 40.0000   36.573  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77   1135660                    0.00-  53.54    23.42
-------------------------------------------------------------------------------
$ 117 1,2-Dichloroethane-d4                         CAS #: 17060-07-0
 17.641  17.641 (1.055)    65    191921 5.00000    5.001  80.00- 120.00   100.00
 17.641  17.641 (1.055)    67    114885                   28.75-  88.75    59.86
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                        CAS #: 994-05-8
 17.703  17.703 (0.971)    87   1231155 40.0000   39.485  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73   5093508                  382.25- 442.25   413.72
 17.703  17.703 (0.971)    55   1196063                   79.11- 139.11    97.15
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                            CAS #: 107-06-2
 17.744  17.744 (0.973)    62   2037030 40.0000   36.233  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64    655148                    1.40-  61.40    32.16
-------------------------------------------------------------------------------
  121 Heptane                                       CAS #: 142-82-5
 17.847  17.847 (0.979)    57   1415039 40.0000   37.841  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100    591201                   10.87-  70.87    41.78
 17.847  17.847 (0.979)    43   2485870                  148.15- 208.15   175.68
-------------------------------------------------------------------------------
* 123 1,4-Difluorobenzene                           CAS #: 540-36-3
 18.231  18.231 (1.000)   114    572434 5.00000           80.00- 120.00   100.00
 18.231  18.231 (1.000)    88     88839                    0.00-  45.65    15.52
-------------------------------------------------------------------------------
  125 Trichloroethene                               CAS #: 79-01-6
 18.610  18.610 (1.021)   130   2451268 40.0000   38.058  80.00- 120.00   100.00
 18.610  18.610 (1.021)    95   2256915                   61.17- 121.17    92.07
 18.610  18.610 (1.021)    97   1457413                   29.33-  89.33    59.46
-------------------------------------------------------------------------------
  127 Methylcyclohexane                             CAS #: 108-87-2
 18.833  18.833 (1.033)    83   3093108 40.0000   38.140  80.00- 120.00   100.00
 18.833  18.833 (1.033)    55   2263541                   43.54- 103.54    73.18
 18.833  18.833 (1.033)    56    729863                    0.00-  53.97    23.60
-------------------------------------------------------------------------------
  132 1,2-Dichloropropane                           CAS #: 78-87-5
 19.079  19.079 (1.046)    63   1921749 40.0000   37.923  80.00- 120.00   100.00
```

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

  132 1,2-Dichloropropane (continued)
 19.079  19.079 (1.046)    62   1360341                    41.36- 101.36    70.79
 19.056  19.056 (1.045)    41    992352                    24.32-  84.32    51.64
-------------------------------------------------------------------------------
  136 1,4-Dioxane                                  CAS #: 123-91-1
 19.213  19.213 (1.054)    88   1296454 40.0000   36.822  80.00- 120.00   100.00
 19.213  19.213 (1.054)    58    845233                    34.13-  94.13    65.20
 19.213  19.213 (1.054)    57    266585                     0.00-  50.75    20.56
-------------------------------------------------------------------------------
  138 Bromodichloromethane                         CAS #: 75-27-4
 19.503  19.503 (0.821)    83   3575709 40.0000   39.316  80.00- 120.00   100.00
 19.503  19.503 (0.821)    85   2284824                    34.23-  94.23    63.90
-------------------------------------------------------------------------------
  144 cis-1,3-Dichloropropene                      CAS #: 10061-01-5
 20.338  20.338 (1.116)    75   3544810 40.0000   42.286  80.00- 120.00   100.00(A)
 20.338  20.338 (1.116)    77   1124915                     1.78-  61.78    31.73
 20.338  20.338 (1.116)    39   1588877                    16.15-  76.15    44.82
-------------------------------------------------------------------------------
  145 4-Methyl-2-pentanone                         CAS #: 108-10-1
 20.557  20.557 (1.128)    43   3783730 40.0000   40.158  80.00- 120.00   100.00(A)
 20.557  20.557 (1.128)    58   1585270                    11.51-  71.51    41.90
 20.557  20.557 (1.128)    85    748409                     0.00-  48.80    19.78
-------------------------------------------------------------------------------
$ 146 Toluene-d8                                   CAS #: 2037-26-5
 20.821  20.821 (1.142)    98    542349 5.00000    5.000  80.00- 120.00   100.00
 20.821  20.821 (1.142)    70     59678                     0.00-  41.22    11.00
 20.821  20.821 (1.142)   100    367425                    37.90-  97.90    67.75
-------------------------------------------------------------------------------
  147 Toluene                                      CAS #: 108-88-3
 20.962  20.962 (1.150)    91   5705707 40.0000   37.602  80.00- 120.00   100.00
 20.962  20.962 (1.150)    92   3459609                    30.55-  90.55    60.63
-------------------------------------------------------------------------------
  150 trans-1,3-Dichloropropene                    CAS #: 10061-02-6
 21.564  21.564 (0.908)    75   2837259 40.0000   42.062  80.00- 120.00   100.00(A)
 21.564  21.564 (0.908)    77    906911                     1.21-  61.21    31.96
 21.535  21.535 (0.906)    39   1237933                    14.72-  74.72    43.63
-------------------------------------------------------------------------------
  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97   2130447 40.0000   34.584  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99   1333946                    32.55-  92.55    62.61
 21.999  21.999 (0.926)    83   1790659                    53.25- 113.25    84.05
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166   3220415 40.0000   37.765  80.00- 120.00   100.00
 22.174  22.174 (0.933)   129   2219130                    39.98-  99.98    68.91
 22.174  22.174 (0.933)   131   2153663                    38.96-  98.96    66.88
-------------------------------------------------------------------------------
```

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

  158 2-Hexanone                                   CAS #: 591-78-6
 22.377  22.377 (0.942)    58   2129096 40.0000   42.864  80.00- 120.00   100.00(A)
 22.377  22.377 (0.942)    43   3630499                  146.44- 206.44   170.52
 22.406  22.406 (0.943)   100    509703                    0.00-  54.43    23.94
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.784  22.784 (0.959)   129   4157169 40.0000   43.292  80.00- 120.00   100.00(A)
 22.784  22.784 (0.959)   127   3230182                   47.16- 107.16    77.70
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.045  23.045 (0.970)   107   3430399 40.0000   38.756  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109   3252705                   63.61- 123.61    94.82
-------------------------------------------------------------------------------
* 163 Chlorobenzene-d5                             CAS #: 3114-55-4
 23.761  23.761 (1.000)   117    480410 5.00000           80.00- 120.00   100.00
 23.761  23.761 (1.000)    82    258686                   24.05-  84.05    53.85
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 23.823  23.823 (1.003)   112   4717122 40.0000   38.254  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114   1531633                    2.46-  62.46    32.47
 23.823  23.823 (1.003)    77   2614861                   27.29-  87.29    55.43
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.905 (1.006)   106   2342964 40.0000   39.366  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91   7131658                  278.69- 338.69   304.39
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106   2557385 40.0000   39.382  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91   4895580                  164.82- 224.82   191.43
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106   2459926 40.0000   38.703  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91   4951570                  174.08- 234.08   201.29
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.730  24.730 (1.041)   104   4034184 40.0000   41.230  80.00- 120.00   100.00(A)
 24.730  24.730 (1.041)    78   1926953                   19.76-  79.76    47.77
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173   4610044 40.0000   50.040  80.00- 120.00   100.00(A)
 25.068  25.068 (1.055)   171   2378341                   21.57-  81.57    51.59
-------------------------------------------------------------------------------
  175 Cumene                                       CAS #: 98-82-8
 25.182  25.182 (1.060)   105   7970290 40.0000   40.623  80.00- 120.00   100.00(A)
 25.182  25.182 (1.060)   120   2246620                    0.00-  57.92    28.19
-------------------------------------------------------------------------------
```

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

$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    281430 5.00000    5.328  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    318733                   88.33- 148.33   113.25
 25.485  25.485 (1.073)   176    271227                   68.77- 128.77    96.37
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83   4516323 40.0000   39.452  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85   2917272                   34.06-  94.06    64.59
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.732  25.732 (1.083)    91   7284319 40.0000   38.288  80.00- 120.00   100.00
 25.732  25.732 (1.083)   120   1825980                    0.00-  54.46    25.07
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105   5792831 40.0000   35.380  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120   1826042                    0.68-  60.68    31.52
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105   4804904 40.0000   33.151  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120   2499978                   21.16-  81.16    52.03
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105   4401266 40.0000   30.768  80.00- 120.00   100.00
 26.395  26.395 (1.111)   120   2138317                   18.29-  78.29    48.58
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.810  26.810 (1.128)   146   3771773 40.0000   37.906  80.00- 120.00   100.00
 26.810  26.810 (1.128)   148   2426712                   33.99-  93.99    64.34
 26.810  26.810 (1.128)   111   1457495                    9.12-  69.12    38.64
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.919  26.919 (1.133)   146   3447805 40.0000   36.483  80.00- 120.00   100.00
 26.919  26.919 (1.133)   148   2200034                   33.88-  93.88    63.81
 26.919  26.919 (1.133)   111   1282048                    7.98-  67.98    37.18
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.075  27.075 (1.139)    91   5390637 40.0000   55.530  80.00- 120.00   100.00(A)
 27.075  27.075 (1.139)   126   1225258                    0.00-  51.77    22.73
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.371  27.371 (1.152)   146   3440941 40.0000   37.469  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148   2202546                   33.08-  93.08    64.01
 27.371  27.371 (1.152)   111   1382859                   11.01-  71.01    40.19
-------------------------------------------------------------------------------
  226 1,2,4-Trichlorobenzene                        CAS #: 120-82-1
 29.382  29.382 (1.237)   180   3203050 40.0000   32.401  80.00- 120.00   100.00
```

RT	EXP RT	(REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene (continued)								
29.382	29.382	(1.237)	182	3062069			64.78- 124.78	95.60
227 Hexachlorobutadiene						CAS #: 87-68-3		
29.491	29.491	(1.241)	225	2854308	40.0000	37.204	80.00- 120.00	100.00
29.491	29.491	(1.241)	223	1793062			32.96- 92.96	62.82
228 Naphthalene						CAS #: 91-20-3		
29.772	29.772	(1.253)	128	513760	4.00000	3.327	80.00- 120.00	100.00
29.772	29.772	(1.253)	127	63410			0.00- 43.33	12.34

QC Flag Legend

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

Report Date: 14-Jun-2016 11:40

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061313.d
Lab Smp Id: ICAL
Analysis Type: VOA
Quant Type: ISTD
Operator: mjs
Method File: /chem/msd20.i/13Jun2016.b/2016l0613a.m
Misc Info: 40ppbv (50ppbv)

Calibration Date: 13-JUN-2016
Calibration Time: 16:08
Client Smp ID: Level 16
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	137197	82318	192076	144253	5.14
123 1,4-Difluorobenze	563551	338131	788971	572434	1.58
163 Chlorobenzene-d5	463244	277946	648542	480410	3.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/13Jun2016.b/20061313.d

Date : 13-JUN-2016 19:59

Client ID: Level 16

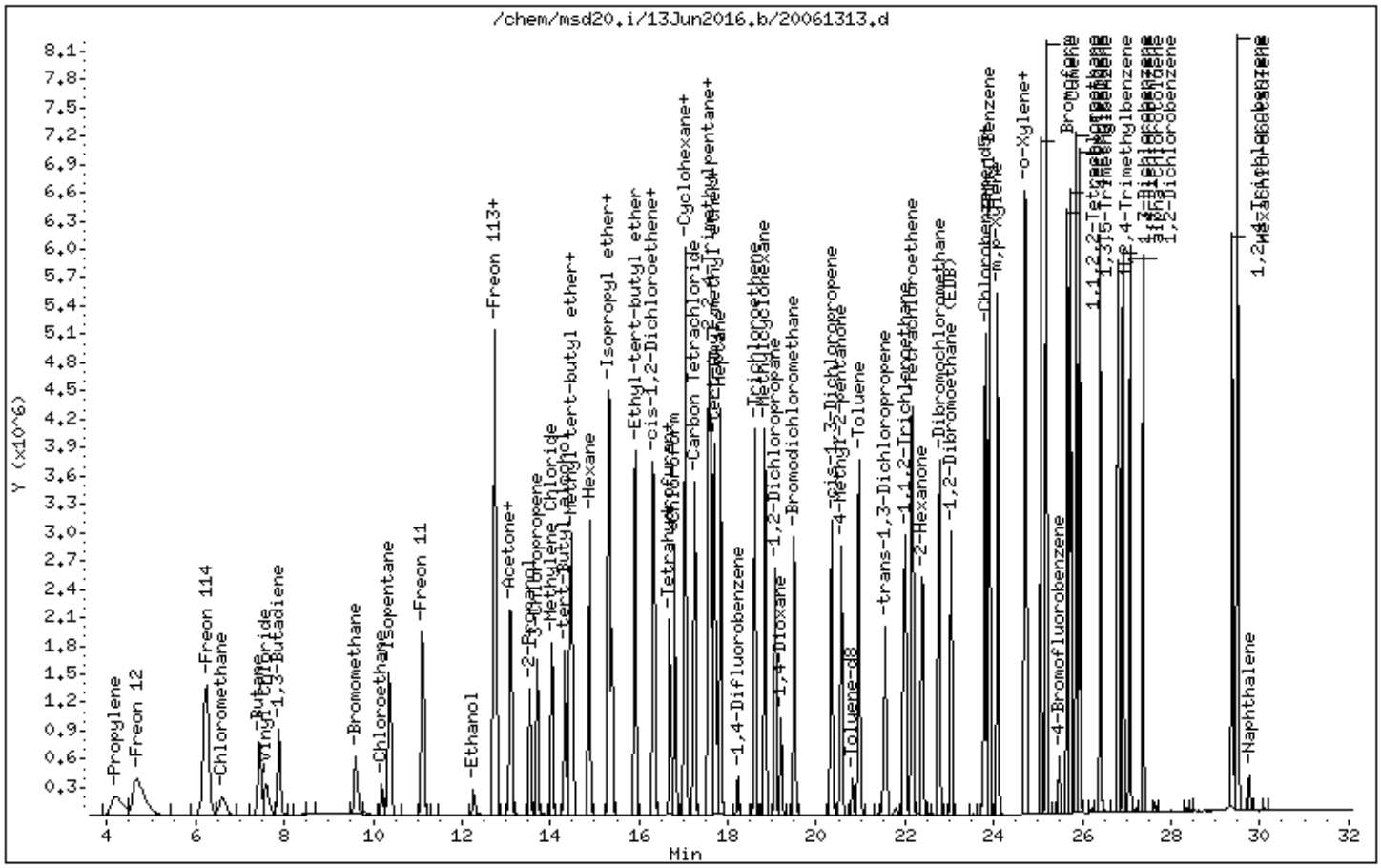
Instrument: msd20.i

Sample Info: 200mL# 2789-176

Operator: mjs

Column phase: RTX-624

Column diameter: 0.32



Report Date : 12-Feb-2016 08:50

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT 0.1 ppbv LL MDL

Spec for 1,2,4-TCB, Hexachlorobutadiene
* 2759-243 (1.0 ppbv) = 25 mL LOAD.

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021106	20021107	20021108	20021109	20021110	20021111	20021112	20021113
INJ.DATE:	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016
INJ.TIME:	14:19	15:03	15:42	16:22	17:07	17:54	18:34	19:18

ppbv (ug/m3)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	111.01	107.23	106.24	101.96	98.83	112.28	106.19	113.44	107.15	5.05	15.14	100
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	108.58	121.58	107.97	104.59	105.84	116.86	116.24	115.37	112.13	6.16	18.47	100
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

MDL VERIFICATION:
2759-243 (0.08 ppbv)
20 mL LOAD, File 20021124

Reviewer 1 [signature] Date: 2/15/16
Reviewer 2 [signature] Date: 2/16/16

~~0.~~ 0.021 (2/11/16)
$\bar{X}$ = ~~0.~~ 0.021
$2\bar{x}$ = 0.042
$3\bar{x}$ = 0.063
$4\bar{x}$ = 0.084

All 0.1 ppbv compounds:
The ratio of the mean recovered concentration and the MDL is between 1 and 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	103.90	109.95	111.90	110.22	113.99	127.37	110.41	103.52	111.41	7.41	22.23	100
26 1,3-Butadiene	114.10	110.22	119.21	110.53	122.77	108.93	112.94	117.14	114.48	4.86	14.56	100
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
30 Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
31 Isopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	109.50	105.03	104.01	109.11	107.49	112.61	117.22	111.56	109.57	4.27	12.81	100
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
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Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	138.84	124.16	110.13	104.31	113.03	109.97	128.47	121.48	117.55	9.37	28.08	100
50 1,1-Dichloroethene	102.88	96.62	107.84	118.61	109.35	113.37	111.55	106.83	108.38	6.68	20.02	100
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
57 2-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
58 3-Chloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	116.19	125.61	120.64	109.85	111.95	120.60	117.89	118.53	117.66	5.03	15.09	200
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
72 Methyl tert-butyl ethe	107.99	103.76	95.41	99.20	96.16	105.54	101.83	99.83	101.21	4.42	13.26	100
73 trans-1,2-Dichloroethe	106.44	104.20	86.74	98.47	114.90	118.39	104.84	98.74	104.09	9.92	29.74	100
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	109.38	91.58	112.33	101.46	96.92	106.90	104.95	99.35	102.83	6.82	20.46	100
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	109.17	108.82	104.47	107.02	114.78	109.10	117.84	109.88	110.14	4.25	12.75	100
83 Isopropyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	105.39	97.62	96.68	102.22	115.26	121.52	115.14	98.17	106.50	9.57	28.70	100
92 2-Butanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
100 Chloroform	103.34	102.64	94.51	99.27	105.94	115.22	112.50	103.48	104.51	6.70	20.08	100
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	105.26	91.17	93.47	92.54	87.30	100.23	92.36	95.80	94.77	5.63	16.89	100
103 1,1,1-Trichloroethane	105.93	93.98	99.04	95.06	103.28	119.04	99.38	101.17	102.11	7.89	23.67	100
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	97.59	95.93	96.04	95.89	93.50	98.50	103.90	95.78	97.14	3.10	9.29	100
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	112.76	109.42	119.18	126.14	138.97	115.60	128.97	108.48	119.94	10.66	31.96	100
$ 117 1,2-Dichloroethane-d4	4728.49	4675.54	4814.38	4679.41	4638.74	4844.78	4834.94	4759.16	4746.93	79.03	236.94	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
120 1,2-Dichloroethane	127.97	118.06	111.61	114.51	104.90	123.96	130.55	138.79	121.29	11.10	33.28	100
121 Heptane	106.06	97.82	111.00	114.26	95.21	96.16	97.32	96.30	101.77	7.55	22.65	100
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	123.68	105.13	120.84	107.89	108.57	100.50	118.55	96.11	110.16	9.93	29.78	100
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	99.24	109.17	114.44	116.84	113.84	111.82	106.18	123.37	111.74	7.30	21.88	100
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
136 1,4-Dioxane	93.45	75.95	95.17	83.10	82.87	106.83	97.63	95.87	91.36	9.97	29.89	100
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
138 Bromodichloromethane	103.06	105.04	100.90	101.79	94.78	111.84	104.75	97.83	102.50	5.12	15.35	100
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
144 cis-1,3-Dichloropropen	97.73	97.19	95.50	98.16	60.85	84.77	99.49	97.80	93.94	7.03	21.09	100
145 4-Methyl-2-pentanone	80.17	79.46	84.98	80.40	69.40	68.24	71.29	73.94	75.98	6.09	18.26	100
$ 146 Toluene-d8	4859.37	4871.03	4922.01	4805.76	4896.52	4721.80	4926.35	4964.93	4870.97	77.27	231.64	
147 Toluene	106.64	108.90	113.27	109.30	109.50	114.78	115.71	103.98	110.26	4.05	12.16	100
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
150 trans-1,3-Dichloroprop	107.54	89.01	83.33	94.38	88.18	92.37	92.36	96.16	92.91	7.14	21.42	100
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
155 1,1,2-Trichloroethane	96.16	74.38	112.51	105.70	126.14	121.35	113.90	118.47	108.58	16.67	49.97	100
156 Tetrachloroethene	109.23	104.05	112.34	101.41	112.00	127.65	124.36	109.90	112.62	9.12	27.34	100
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
158 2-Hexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
160 Dibromochloromethane	98.26	87.06	93.56	94.23	81.79	94.02	97.01	89.34	91.92	5.50	16.49	100
161 1,2-Dibromoethane (EDB	101.26	91.94	97.00	97.97	103.19	100.76	95.11	110.69	99.75	5.71	17.13	100
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
165 Chlorobenzene	113.62	100.67	108.76	99.89	99.57	123.38	106.20	113.31	108.18	8.37	25.09	100
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
167 Ethyl Benzene	121.85	98.56	91.01	93.09	103.78	100.91	104.16	98.55	101.49	9.45	28.33	100
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
169 m,p-Xylene	93.44	95.21	83.15	96.86	93.71	100.60	101.21	99.45	95.45	5.81	17.41	100
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
171 o-Xylene	104.77	108.45	99.61	97.43	81.93	103.92	103.24	103.25	100.32	8.13	24.38	100
172 Styrene	91.67	98.83	90.89	93.62	89.29	94.81	90.53	88.38	92.25	3.39	10.17	100
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
174 Bromoform	86.70	85.62	75.97	76.26	71.14	79.46	86.90	78.03	80.26	6.18	18.53	100
175 Cumene	99.13	97.33	92.79	92.12	92.86	100.17	90.09	83.91	93.55	5.31	15.91	100
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 177 4-Bromofluorobenzene	4636.83	4760.03	4887.01	4937.95	4720.67	4706.05	4723.13	4825.24	4774.61	100.95	302.64	
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
181 1,1,2,2-Tetrachloroeth	101.69	99.11	93.02	95.55	101.07	93.70	94.35	98.33	97.10	3.39	10.17	100
182 Propylbenzene	122.57	128.88	112.85	125.64	114.04	122.41	122.63	113.51	120.32	6.07	18.20	100

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
183 1,4-Dichloro-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
184 trans-1,4-Dichloro-2-b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
185 1,2,3-Trichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
186 3-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
187 Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
188 4-Ethyltoluene	114.67	118.55	110.37	108.15	107.18	127.28	122.10	118.08	115.80	7.05	21.13	100
189 2-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
190 1,3,5-Trimethylbenzene	123.80	127.61	117.24	115.64	117.20	114.39	108.64	119.99	118.06	5.82	17.46	100
191 4-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
192 beta-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
193 Diisobutyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
194 alpha Methyl Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
195 tert-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
196 1,2,4-Trimethylbenzene	129.73	132.28	120.12	116.55	113.01	122.84	119.94	117.77	121.53	6.55	19.64	100
197 Pentachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
198 Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
199 D-Limonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
200 Benzaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
201 Indan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
202 Indene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
203 sec-Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
204 Isobutylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
205 2-Ethyltoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
208 1,3-Dichlorobenzene	115.36	120.46	109.73	105.54	113.00	113.53	112.22	110.78	112.58	4.34	13.02	100
209 1,4-Dichlorobenzene	136.32	132.41	126.01	131.10	137.41	124.67	131.84	127.11	130.86	4.66	13.97	100
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
212 alpha-Chlorotoluene	82.56	93.39	82.28	84.05	85.63	85.28	101.54	80.90	86.95	7.02	21.05	100
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
214 1,2-Dichlorobenzene	119.38	136.88	114.68	104.17	121.56	120.98	133.03	116.16	120.85	10.33	30.95	100
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
226 1,2,4-Trichlorobenzene	118.79	106.23	120.38	105.67	103.37	103.39	107.28	112.30	109.70	6.72	20.14	500
227 Hexachlorobutadiene	128.18	132.89	136.75	119.47	124.32	113.68	131.44	137.42	128.02	8.39	25.15	500
228 Naphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
230 Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
231 Quinoline	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
232 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
233 1,3,5-Triethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
234 Acenaphthylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
235 Phenanthrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
236 Anthracene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 237 1,2 Dichloroethene (To	211.83	201.82	183.42	200.69	230.17	239.91	219.98	196.92	210.59	18.64	55.89	N/A
M 238 Chlorobutane (Total)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
M 239 Total Xylene	198.22	203.66	182.76	194.29	175.64	204.51	204.45	202.70	195.78	10.98	32.93	N/A
M 240 3 and 4 Ethyltoluene	114.67	118.55	110.37	108.15	107.18	127.28	122.10	118.08	115.80	7.05	21.13	
241 Total Volatile Hydroca	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
242 TPH reference to Hexan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
243 TPH reference to Hepta	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
244 TPH reference to Gasol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
245 TPH reference MineralS	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
246 TPH reference to Stodd	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
247 TVOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
248 TVOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
249 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
250 TVOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
251 NMOC reference to Hexa	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
252 NMOC reference to Hept	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
253 NMOC reference to Tolu	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

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

Report Date : 12-Feb-2016 16:06

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

0.5 ppbv LL MDL

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

* 2757-243 (1.0 ppbv) = 125 mL LOAD

ID:	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08
FILENAME:	20021114	20021115	20021116	20021117	20021118	20021119	20021120	20021121
INJ.DATE:	11-FEB-2016	11-FEB-2016	11-FEB-2016	11-FEB-2016	12-FEB-2016	12-FEB-2016	12-FEB-2016	12-FEB-2016
INJ.TIME:	19:58	21:31	22:11	22:50	05:50	06:30	07:10	07:49

RL (ppbv)

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
1 Dimethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
2 Freon 14	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
3 Acetaldehyde	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
4 Hexafluoropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
5 Freon 13	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
6 Freon 143a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
7 Freon 134a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
8 Propane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
9 Propylene	444.09	435.06	343.89	420.81	440.66	368.73	485.61	392.20	417.13	44.39	133.07	500
10 1,1-Difluoroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
11 Freon 12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
12 Vinyl Fluoride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
13 Chlorodifluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
14 Ethylene Oxide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
15 Freon 114	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
16 Freon 142b	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
17 Chloromethane	595.27	650.20	612.19	561.59	618.02	565.36	564.73	520.68	586.13	40.74	122.14	500

MDL VERIFICATION:
2757-243 (0.3 ppbv)
75 mL LOAD, FILE 20021206

Reviewer 1 [signature] Date: 2/12/16
Reviewer 2 [signature] Date: 2/16/16

$\bar{x}$ = 0.076
$2\bar{x}$ = 0.15
$3\bar{x}$ = 0.23
$4\bar{x}$ = 0.30

EXAMPLE TEST BUTYL ETHER: THE RATIO OF THE MEAN RECORDED CONCENTRATION AND THE MDL IS GREATER THAN 20. ALL OTHER COMPOUNDS — THE RATIOS BETWEEN 1 AND 20.

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
18 Isobutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
19 Isobutylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
20 2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
21 trans-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
22 1-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
23 Butane	520.92	536.05	303.94	489.96	551.65	475.09	538.89	515.83	491.54	79.96	239.72	500
24 cis-2-Butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
25 Vinyl Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
26 1,3-Butadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
27 3-Methyl-1-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
28 Methanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
29 Bromomethane	436.36	503.99	497.46	587.69	514.13	561.89	588.81	527.98	527.29	51.42	154.14	500
30 Chloroethane	450.31	514.10	471.14	482.20	437.12	473.98	437.40	447.61	464.23	26.40	79.14	500
31 Isopentane	487.57	500.04	462.29	487.56	530.32	486.12	504.22	482.75	492.61	19.72	59.11	500
32 Vinyl Bromide	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
33 2-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
34 Pentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
35 Freon 11	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
36 1-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
37 Dichlorofluoromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
38 2,3-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
39 Isoprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
40 2-Methyl-2-butene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
41 trans-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
42 Ethanol	487.00	488.50	589.46	545.04	561.45	507.58	541.70	537.30	532.25	35.81	107.35	500
43 1,2-Dichloro-1-fluoroe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
44 Ethyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
45 cis-2-Pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
46 Acrolein	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
47 Freon 123a	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
48 Freon 123	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
49 Freon 113	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
50 1,1-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
51 2,2-Dimethylbutane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
52 Acetone	498.60	514.82	499.84	499.34	525.38	462.08	524.07	473.00	499.64	22.71	68.09	500
53 Iodomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
54 Bromoethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
55 4-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
56 Carbon Disulfide	474.24	490.22	493.49	500.93	508.62	515.62	482.40	496.39	495.24	13.43	40.26	500
57 2-Propanol	428.31	424.69	422.25	422.47	441.27	428.25	446.26	456.50	433.75	12.72	38.13	500
58 3-Chloropropene	419.36	425.22	418.43	431.76	437.81	411.14	401.14	427.69	421.57	11.70	35.09	500
59 Cyclopentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
60 2-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
61 Methyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
62 3-Methylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
63 Acetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
64 Cyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
65 1-Chloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
66 Methylene Chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
67 2-Methyl-1-pentene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
68 2,4-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
69 2,3-Dimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
70 tert-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
71 tert-Butyl alcohol	404.45	419.08	404.34	416.44	410.26	437.99	430.63	417.34	417.57	11.90	35.69	600
72 Methyl tert-butyl ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
73 trans-1,2-Dichloroethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
74 Acrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
75 trans-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
76 1-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
77 cis-2-Hexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
78 Hexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
79 Methylcyclopentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
80 sec-Butyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
81 2,3,4-Trimethylpentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
82 1,1-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
83 Isopropyl ether	448.49	449.87	455.87	454.31	431.63	445.98	437.22	433.20	444.57	9.40	28.19	500
84 1-Propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
85 Chloroprene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
86 Vinyl Acetate	326.12	330.98	361.56	267.09	337.68	314.86	333.68	323.84	324.48	26.90	80.65	500

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
87 Butanal	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
88 Ethyl-tert-butyl ether	426.90	420.08	421.49	432.49	423.78	427.55	427.58	414.50	424.29	5.57	16.70	500
89 Isobutyl chloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
90 2,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
91 cis-1,2-Dichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
92 2-Butanone	453.26	435.68	439.80	430.51	423.37	455.50	426.29	439.22	436.83	11.92	35.73	500
93 Methyl Acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
94 Ethyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
95 Methacrylonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
96 2-Chloropentane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
97 2-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 98 Bromochloromethane	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
99 Tetrahydrofuran	471.09	464.84	480.63	435.99	416.22	449.73	417.17	402.95	442.31	28.67	85.96	500
100 Chloroform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
101 1-Bromopropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
102 Cyclohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
103 1,1,1-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
104 Chloroacetonitrile	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
105 n-Butylchloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
106 Carbon Tetrachloride	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
107 1,1-Dichloropropene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
108 Thiophene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
109 2-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
110 3-Methylhexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL	
111 Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 112 Benzene-d6	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
113 2,2,4-Trimethylpentane	457.74	466.60	488.45	444.05	440.76	419.00	434.83	444.38	449.47	21.23	63.65	500
114 1-Methoxy-2-propanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
115 Isobutanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
116 Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
$ 117 1,2-Dichloroethane-d4	4977.05	4973.12	4813.91	4938.89	5001.68	5118.96	4990.34	5001.47	4976.93	84.18	252.37	
118 1-Heptene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
119 tert-Amyl methyl ether	423.29	420.44	426.35	540.00	470.20	439.50	432.44	449.39	450.20	39.77	119.24	500
120 1,2-Dichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
121 Heptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
122 2,3-Dichloro-1-propene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
* 123 1,4-Difluorobenzene	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00	
124 n-Butanol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
125 Trichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
126 Bromodichloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
127 Methylcyclohexane	415.46	463.53	468.95	451.43	442.73	457.33	467.94	440.78	451.02	17.90	53.65	500
128 Ethyl acrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
129 2-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
130 3-Methylheptane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
131 2-Pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
132 1,2-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
133 1-Bromo-2-Chloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	
134 Methyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
135 Diethyl Ketone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
136 1,4-Dioxane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
137 Dibromomethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
138 Bromodichloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
139 2-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
140 bis(chloromethyl) Ethe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
141 1-Octene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
142 Epichlorohydrin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
143 2-Chloroethyl Vinyl Et	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
144 cis-1,3-Dichloropropen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
145 4-Methyl-2-pentanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 146 Toluene-d8	4854.55	4956.89	4838.33	4970.56	5009.99	5037.26	4980.08	4931.05	4947.34	70.18	218.39
147 Toluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
148 Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
149 Vinyl Cyclohexene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
150 trans-1,3-Dichloroprop	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
151 Ethyl Methacrylate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
152 1-Chloro-2-Bromopropan	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
153 1-Nitropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
154 Bromodichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
155 1,1,2-Trichloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
156 Tetrachloroethene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
157 1,3-Dichloropropane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
158 2-Hexanone	329.07	309.29	314.15	324.98	307.23	285.49	291.30	335.05	312.07	17.55	52.63

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
159 Butyl Acetate	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
160 Dibromochloromethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
161 1,2-Dibromoethane (EDB	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
162 1-Nonene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
* 163 Chlorobenzene-d5	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	5000.00	0.00	0.00
164 1-Chlorohexane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
165 Chlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
166 Butyl Ether	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
167 Ethyl Benzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
168 1,1,1,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
169 m,p-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
170 Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
171 o-Xylene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
172 Styrene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
173 2-Heptanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
174 Bromoform	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
175 Cumene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
176 Cyclohexanone	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
$ 177 4 Bromofluorobenzene	4738.57	4505.93	4660.80	4603.63	4668.90	4505.76	4599.59	4709.37	4624.07	86.78	260.17
178 1-Decene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
179 alpha-Pinene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
180 Bromobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
181 1,1,2,2-Tetrachloroeth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
182 Propylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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

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Compound	MDL01	MDL02	MDL03	MDL04	MDL05	MDL06	MDL07	MDL08	AVG CONC	STD DEV	MDL
206 bis(2-Chloroethyl) Eth	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
207 p-Cymene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
208 1,3-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
209 1,4-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
210 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
211 1-Undecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
212 alpha-Chlorotoluene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
213 Butylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
214 1,2-Dichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
215 Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
216 4-Ethyl-1,2-dimethylbe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
217 Hexachloroethane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
218 1,3-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
219 1,4-Diethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
220 1,2,4,5-tetramethylben	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
221 1,2-Dibromo-3-chloropr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
222 1-Dodecene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
223 Nitrobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
224 1,3,5-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
225 Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
226 1,2,4-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
227 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
228 Naphthalene	54.46	49.85	47.97	57.59	51.24	52.99	58.34	50.51	52.87	3.70	11.10
229 1,2,3-Trichlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++

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

Eurofins Air Toxics Inc.
METHOD DETECTION LIMIT SUMMARY REPORT

Method File: /chem/msd20.i/11Feb2016.b/201610210a.m
Batch File: /chem/msd20.i/11Feb2016.b
Inst ID: msd20.i

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

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Client Sample ID: CCV

Lab ID#: 1606298A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 11:00 AM**

Compound	%Recovery
Freon 12	114
Freon 114	105
Chloromethane	108
Vinyl Chloride	109
1,3-Butadiene	105
Bromomethane	124
Chloroethane	109
Freon 11	109
Ethanol	112
Freon 113	100
1,1-Dichloroethene	103
Acetone	100
2-Propanol	104
Carbon Disulfide	108
3-Chloropropene	103
Methylene Chloride	97
Methyl tert-butyl ether	105
trans-1,2-Dichloroethene	102
Hexane	108
1,1-Dichloroethane	109
2-Butanone (Methyl Ethyl Ketone)	109
cis-1,2-Dichloroethene	103
Tetrahydrofuran	109
Chloroform	108
1,1,1-Trichloroethane	106
Cyclohexane	104
Carbon Tetrachloride	129
2,2,4-Trimethylpentane	109
Benzene	107
1,2-Dichloroethane	105
Heptane	108
Trichloroethene	106
1,2-Dichloropropane	106
1,4-Dioxane	105
Bromodichloromethane	109
cis-1,3-Dichloropropene	110
4-Methyl-2-pentanone	111
Toluene	106
trans-1,3-Dichloropropene	113
1,1,2-Trichloroethane	100
Tetrachloroethene	103
2-Hexanone	103

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Client Sample ID: CCV

Lab ID#: 1606298A-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061502**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 11:00 AM**

Compound	%Recovery
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	107
Chlorobenzene	106
Ethyl Benzene	102
m,p-Xylene	103
o-Xylene	101
Styrene	99
Bromoform	111
Cumene	103
1,1,2,2-Tetrachloroethane	107
Propylbenzene	95
4-Ethyltoluene	90
1,3,5-Trimethylbenzene	99
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	90
alpha-Chlorotoluene	111
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	87
Naphthalene	99

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 15-JUN-2016 11:00
Lab File ID: 20061502.d Init. Cal. Date(s): 13-JUN-2016 13-JUN-2016
Analysis Type: AIR Init. Cal. Times: 13:15 19:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/15Jun2016.b/2016l0613a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 117 1,2-Dichloroethane-d4	1.33018	1.27347	0.010	4.26332	30.00000	Averaged
$ 146 Toluene-d8	0.94746	0.97333	0.010	-2.72990	30.00000	Averaged
$ 177 4-Bromofluorobenzene	0.54972	0.53814	0.010	2.10744	30.00000	Averaged
9 Propylene	1.18402	1.33258	0.010	-12.54763	40.00000	Averaged
11 Freon 12	3.92728	4.49348	0.010	-14.41711	30.00000	Averaged
15 Freon 114	2.91538	3.06722	0.010	-5.20819	30.00000	Averaged
17 Chloromethane	1.27696	1.38271	0.010	-8.28196	30.00000	Averaged
23 Butane	0.33948	0.36790	0.010	-8.37076	40.00000	Averaged
25 Vinyl Chloride	1.49813	1.63905	0.010	-9.40639	30.00000	Averaged
26 1,3-Butadiene	1.18151	1.24505	0.010	-5.37842	30.00000	Averaged
29 Bromomethane	0.88898	1.10017	0.010	-23.75630	30.00000	Averaged
30 Chloroethane	0.68060	0.74277	0.010	-9.13408	30.00000	Averaged
31 Isopentane	1.19677	1.32081	0.010	-10.36464	40.00000	Averaged
35 Freon 11	3.85861	4.19378	0.010	-8.68631	30.00000	Averaged
42 Ethanol	0.50902	0.57286	0.010	-12.54067	30.00000	Averaged
49 Freon 113	2.82830	2.84410	0.010	-0.55884	30.00000	Averaged
50 1,1-Dichloroethene	1.01923	1.04683	0.010	-2.70772	30.00000	Averaged
52 Acetone	0.74685	0.74914	0.010	-0.30682	30.00000	Averaged
56 Carbon Disulfide	4.21138	4.56902	0.010	-8.49218	30.00000	Averaged
57 2-Propanol	2.40254	2.50725	0.010	-4.35841	30.00000	Averaged
58 3-Chloropropene	0.66865	0.68818	0.010	-2.92126	30.00000	Averaged
66 Methylene Chloride	1.62577	1.57196	0.010	3.30938	30.00000	Averaged
71 tert-Butyl alcohol	3.03739	3.19387	0.010	-5.15191	40.00000	Averaged
72 Methyl tert-butyl ether	4.47777	4.72258	0.010	-5.46715	30.00000	Averaged
73 trans-1,2-Dichloroethene	1.05652	1.08308	0.010	-2.51454	30.00000	Averaged
78 Hexane	2.42629	2.61575	0.010	-7.80848	30.00000	Averaged
83 Isopropyl ether	4.98416	5.52431	0.010	-10.83736	40.00000	Averaged
82 1,1-Dichloroethane	2.79654	3.03750	0.010	-8.61632	30.00000	Averaged
86 Vinyl Acetate	0.38858	0.43441	0.010	-11.79245	40.00000	Averaged
88 Ethyl-tert-butyl ether	5.17839	5.64278	0.010	-8.96776	40.00000	Averaged
91 cis-1,2-Dichloroethene	1.14196	1.17991	0.010	-3.32369	30.00000	Averaged
92 2-Butanone	0.79605	0.86658	0.010	-8.86012	30.00000	Averaged
99 Tetrahydrofuran	1.67685	1.83318	0.010	-9.32231	30.00000	Averaged
100 Chloroform	3.24933	3.51727	0.010	-8.24586	30.00000	Averaged
102 Cyclohexane	2.41898	2.51759	0.010	-4.07680	30.00000	Averaged
103 1,1,1-Trichloroethane	3.41440	3.63530	0.010	-6.46954	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 15-JUN-2016 11:00
Lab File ID: 20061502.d Init. Cal. Date(s): 13-JUN-2016 13-JUN-2016
Analysis Type: AIR Init. Cal. Times: 13:15 19:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/15Jun2016.b/2016l0613a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
106 Carbon Tetrachloride	2.71523	3.51533	0.010	-29.46698	30.00000	Averaged
113 2,2,4-Trimethylpentane	2.33160	2.54282	0.010	-9.05895	30.00000	Averaged
116 Benzene	1.15796	1.23646	0.010	-6.77876	30.00000	Averaged
119 tert-Amyl methyl ether	0.27235	0.27568	0.010	-1.22140	40.00000	Averaged
120 1,2-Dichloroethane	0.49106	0.51770	0.010	-5.42549	30.00000	Averaged
121 Heptane	0.32663	0.35302	0.010	-8.08148	30.00000	Averaged
125 Trichloroethene	0.56259	0.59632	0.010	-5.99491	30.00000	Averaged
127 Methylcyclohexane	0.70836	0.78102	0.010	-10.25747	40.00000	Averaged
132 1,2-Dichloropropane	0.44263	0.46703	0.010	-5.51338	30.00000	Averaged
136 1,4-Dioxane	0.30754	0.32406	0.010	-5.37232	30.00000	Averaged
138 Bromodichloromethane	0.94656	1.03152	0.010	-8.97626	30.00000	Averaged
144 cis-1,3-Dichloropropene	0.73222	0.80861	0.010	-10.43324	30.00000	Averaged
145 4-Methyl-2-pentanone	0.82299	0.91107	0.010	-10.70184	30.00000	Averaged
147 Toluene	1.32537	1.41085	0.010	-6.44908	30.00000	Averaged
150 trans-1,3-Dichloropropene	0.70205	0.79142	0.010	-12.72984	30.00000	Averaged
155 1,1,2-Trichloroethane	0.64114	0.64465	0.010	-0.54752	30.00000	Averaged
156 Tetrachloroethene	0.88752	0.91150	0.010	-2.70165	30.00000	Averaged
158 2-Hexanone	0.51696	0.53423	0.010	-3.34022	30.00000	Averaged
160 Dibromochloromethane	0.99941	1.08897	0.010	-8.96123	30.00000	Averaged
161 1,2-Dibromoethane (EDB)	0.92123	0.98346	0.010	-6.75478	30.00000	Averaged
165 Chlorobenzene	1.28338	1.35636	0.010	-5.68703	30.00000	Averaged
167 Ethyl Benzene	0.61945	0.63494	0.010	-2.50188	30.00000	Averaged
169 m,p-Xylene	0.67585	0.69609	0.010	-2.99410	30.00000	Averaged
171 o-Xylene	0.66150	0.66556	0.010	-0.61324	30.00000	Averaged
172 Styrene	1.01835	1.00715	0.010	1.09933	30.00000	Averaged
174 Bromoform	0.95884	1.06877	0.010	-11.46542	30.00000	Averaged
175 Cumene	2.04204	2.10174	0.010	-2.92391	30.00000	Averaged
181 1,1,2,2-Tetrachloroethane	1.19146	1.27760	0.010	-7.22985	30.00000	Averaged
182 Propylbenzene	1.98007	1.88541	0.010	4.78092	30.00000	Averaged
188 4-Ethyltoluene	1.70408	1.53131	0.010	10.13842	30.00000	Averaged
190 1,3,5-Trimethylbenzene	1.50850	1.49766	0.010	0.71860	30.00000	Averaged
196 1,2,4-Trimethylbenzene	1.48881	1.51677	0.010	-1.87771	30.00000	Averaged
208 1,3-Dichlorobenzene	1.03561	0.99619	0.010	3.80655	30.00000	Averaged
209 1,4-Dichlorobenzene	0.98359	0.88461	0.010	10.06293	30.00000	Averaged
212 alpha-Chlorotoluene	1.01034	1.12520	0.010	-11.36774	30.00000	Averaged

Eurofins Air Toxics Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msd20.i Injection Date: 15-JUN-2016 11:00
Lab File ID: 20061502.d Init. Cal. Date(s): 13-JUN-2016 13-JUN-2016
Analysis Type: AIR Init. Cal. Times: 13:15 19:59
Lab Sample ID: CCV Quant Type: ISTD
Method: /chem/msd20.i/15Jun2016.b/2016l0613a.m

COMPOUND	RRF / AMOUNT	RF5	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
214 1,2-Dichlorobenzene	0.95578	0.89429	0.010	6.43304	30.00000	Averaged
226 1,2,4-Trichlorobenzene	1.02889	1.00613	0.010	2.21156	30.00000	Averaged
227 Hexachlorobutadiene	0.79849	0.69649	0.010	12.77430	30.00000	Averaged
228 Naphthalene	1.60713	1.58646	0.010	1.28617	40.00000	Averaged

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061502.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 15-JUN-2016 11:00
Operator : ef Inst ID: msd20.i
Smp Info : 25mL# 2789-176
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	117579	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	89977			47.16- 107.16	76.52
16.726	16.726 (1.000)	49	141558			84.74- 144.74	120.39
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	491034	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	77108			0.00- 45.65	15.70
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	413171	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	225959			24.05- 84.05	54.69
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	149733	5.00000	4.787	80.00- 120.00	100.00
17.620	17.620 (1.053)	67	89918			28.75- 88.75	60.05
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	477937	5.00000	5.136	80.00- 120.00	100.00
20.806	20.806 (1.141)	70	54344			0.00- 41.22	11.37

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
$ 146 Toluene-d8 (continued)							
20.821	20.821 (1.142)	100	322638			37.90- 97.90	67.51
$ 177 4-Bromofluorobenzene					CAS #: 460-00-4		
25.485	25.485 (1.073)	174	222342	5.00000	4.895	80.00- 120.00	100.00
25.466	25.466 (1.072)	95	268652			88.33- 148.33	120.83
25.485	25.485 (1.073)	176	217528			68.77- 128.77	97.83
9 Propylene					CAS #: 115-07-1		
4.166	4.166 (0.249)	41	156684	5.00000	5.627	80.00- 120.00	100.00
4.166	4.166 (0.249)	42	106583			37.74- 97.74	68.02
4.142	4.142 (0.248)	39	113584			43.28- 103.28	72.49
11 Freon 12					CAS #: 75-71-8		
4.672	4.672 (0.279)	85	528339	5.00000	5.721	80.00- 120.00	100.00
4.648	4.648 (0.278)	87	170426			2.50- 62.50	32.26
15 Freon 114					CAS #: 76-14-2		
6.215	6.215 (0.372)	135	360641	5.00000	5.260	80.00- 120.00	100.00
6.215	6.215 (0.372)	137	115632			2.53- 62.53	32.06
6.191	6.191 (0.370)	85	516596			112.58- 172.58	143.24
17 Chloromethane					CAS #: 74-87-3		
6.552	6.552 (0.392)	50	162578	5.00000	5.414	80.00- 120.00	100.00
6.552	6.552 (0.392)	52	53630			3.09- 63.09	32.99
23 Butane					CAS #: 106-97-8		
7.434	7.434 (0.444)	58	43257	5.00000	5.418	80.00- 120.00	100.00
7.416	7.416 (0.443)	43	286235			641.20- 701.20	661.71
25 Vinyl Chloride					CAS #: 75-01-4		
7.590	7.590 (0.454)	62	192718	5.00000	5.470	80.00- 120.00	100.00
7.572	7.572 (0.453)	64	62512			2.84- 62.84	32.44
26 1,3-Butadiene					CAS #: 106-99-0		
7.868	7.868 (0.470)	54	146392	5.00000	5.269	80.00- 120.00	100.00
7.868	7.868 (0.470)	39	140492			65.35- 125.35	95.97
29 Bromomethane					CAS #: 74-83-9		
9.596	9.596 (0.574)	94	129357	5.00000	6.188	80.00- 120.00	100.00
9.596	9.596 (0.574)	96	121819			64.03- 124.03	94.17
30 Chloroethane					CAS #: 75-00-3		
10.174	10.174 (0.608)	64	87334	5.00000	5.457	80.00- 120.00	100.00
10.174	10.174 (0.608)	49	21012			0.00- 54.43	24.06
10.174	10.174 (0.608)	66	28479			2.17- 62.17	32.61

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	155300	5.00000	5.518	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	214100			110.67- 170.67	137.86
10.367	10.367 (0.620)	42	190068			93.85- 153.85	122.39
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	493101	5.00000	5.434	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	320822			34.69- 94.69	65.06
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	67356	5.00000	5.627	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	28059			11.01- 71.01	41.66
12.269	12.269 (0.734)	43	15432			0.00- 50.63	22.91
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	334407	5.00000	5.028	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	216715			34.65- 94.65	64.81
12.763	12.763 (0.763)	101	412800			90.37- 150.37	123.44
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	123085	5.00000	5.135	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	303216			216.58- 276.58	246.35
12.736	12.736 (0.761)	96	190163			128.21- 188.21	154.50
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	88083	5.00000	5.015	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	267903			275.09- 335.09	304.15
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	537221	5.00000	5.425	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	294800	5.00000	5.218	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	59833			0.00- 49.91	20.30
13.532	13.532 (0.809)	59	13061			0.00- 34.18	4.43
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	80916	5.00000	5.146	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	203092			218.66- 278.66	250.99
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	184830	5.00000	4.834	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	225760			88.46- 148.46	122.14
14.027	14.027 (0.839)	51	69188			6.78- 66.78	37.43
71 tert-Butyl alcohol					CAS #: 75-65-0		
14.329	14.329 (0.857)	59	375532	5.00000	5.258	80.00- 120.00	100.00

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

   71 tert-Butyl alcohol (continued)
 14.329  14.329 (0.857)    41     96156                     0.00-  53.87    25.61
 14.329  14.329 (0.857)    57     42697                     0.00-  40.80    11.37
-------------------------------------------------------------------------------
   72 Methyl tert-butyl ether                       CAS #: 1634-04-4
 14.439  14.439 (0.863)    73    555276 5.00000    5.273  80.00- 120.00   100.00
 14.439  14.439 (0.863)    57    124800                     0.00-  52.12    22.48
 14.439  14.439 (0.863)    41    121088                     0.00-  51.31    21.81
-------------------------------------------------------------------------------
   73 trans-1,2-Dichloroethene                      CAS #: 156-60-5
 14.493  14.493 (0.866)    98    127348 5.00000    5.126  80.00- 120.00   100.00
 14.493  14.493 (0.866)    61    276098                   179.74- 239.74   216.81
 14.493  14.493 (0.866)    96    199408                   125.55- 185.55   156.59
-------------------------------------------------------------------------------
   78 Hexane                                        CAS #: 110-54-3
 14.878  14.878 (0.889)    57    307557 5.00000    5.390  80.00- 120.00   100.00
 14.878  14.878 (0.889)    43    187183                    31.00-  91.00    60.86
 14.878  14.878 (0.889)    86     58625                     0.00-  49.39    19.06
-------------------------------------------------------------------------------
   83 Isopropyl ether                               CAS #: 108-20-3
 15.317  15.317 (0.916)    45    649543 5.00000    5.542  80.00- 120.00   100.00
 15.317  15.317 (0.916)    87    191999                     0.19-  60.19    29.56
 15.317  15.317 (0.916)    59     78319                     0.00-  41.90    12.06
-------------------------------------------------------------------------------
   82 1,1-Dichloroethane                            CAS #: 75-34-3
 15.345  15.345 (0.917)    63    357146 5.00000    5.431  80.00- 120.00   100.00
 15.345  15.345 (0.917)    65    115099                     1.67-  61.67    32.23
-------------------------------------------------------------------------------
   86 Vinyl Acetate                                 CAS #: 108-05-4
 15.399  15.399 (0.921)    86     51077 5.00000    5.590  80.00- 120.00   100.00
 15.399  15.399 (0.921)    42     39356                    50.79- 110.79    77.05
 15.399  15.399 (0.921)    43    469421                   896.60- 956.60   919.05
-------------------------------------------------------------------------------
   88 Ethyl-tert-butyl ether                        CAS #: 637-92-3
 15.930  15.930 (0.952)    59    663472 5.00000    5.448  80.00- 120.00   100.00
 15.930  15.930 (0.952)    87    289458                    14.09-  74.09    43.63
 15.930  15.930 (0.952)    41    123003                     0.00-  47.92    18.54
-------------------------------------------------------------------------------
   91 cis-1,2-Dichloroethene                        CAS #: 156-59-2
 16.323  16.323 (0.976)    98    138733 5.00000    5.166  80.00- 120.00   100.00
 16.323  16.323 (0.976)    61    275571                   166.16- 226.16   198.63
 16.323  16.323 (0.976)    96    218871                   127.31- 187.31   157.76
-------------------------------------------------------------------------------
   92 2-Butanone                                    CAS #: 78-93-3
 16.344  16.344 (0.977)    72    101892 5.00000    5.443  80.00- 120.00   100.00
 16.344  16.344 (0.977)    43    361400                   324.50- 384.50   354.69
```

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

   92 2-Butanone (continued)
 16.344  16.344 (0.977)    57     28802                     0.00-  59.24    28.27
-------------------------------------------------------------------------------
   99 Tetrahydrofuran                                CAS #: 109-99-9
 16.695  16.695 (0.998)    42    215543 5.00000    5.466  80.00- 120.00   100.00
 16.695  16.695 (0.998)    71     94223                    12.99-  72.99    43.71
 16.695  16.695 (0.998)    72     98214                    16.36-  76.36    45.57
-------------------------------------------------------------------------------
  100 Chloroform                                     CAS #: 67-66-3
 16.819  16.819 (1.006)    83    413557 5.00000    5.412  80.00- 120.00   100.00
 16.819  16.819 (1.006)    85    269189                    34.55-  94.55    65.09
-------------------------------------------------------------------------------
  102 Cyclohexane                                    CAS #: 110-82-7
 17.034  17.034 (1.018)    84    296016 5.00000    5.204  80.00- 120.00   100.00
 17.034  17.034 (1.018)    56    323364                    77.49- 137.49   109.24
 17.034  17.034 (1.018)    41    170549                    25.74-  85.74    57.61
-------------------------------------------------------------------------------
  103 1,1,1-Trichloroethane                          CAS #: 71-55-6
 17.065  17.065 (1.020)    97    427435 5.00000    5.323  80.00- 120.00   100.00
 17.065  17.065 (1.020)    99    272858                    34.47-  94.47    63.84
-------------------------------------------------------------------------------
  106 Carbon Tetrachloride                           CAS #: 56-23-5
 17.250  17.250 (1.031)   119    413329 5.00000    6.473  80.00- 120.00   100.00
 17.250  17.250 (1.031)   117    427615                    73.36- 133.36   103.46
-------------------------------------------------------------------------------
  113 2,2,4-Trimethylpentane                         CAS #: 540-84-1
 17.579  17.579 (1.051)    56    298982 5.00000    5.453  80.00- 120.00   100.00
 17.579  17.579 (1.051)    57    892559                   274.31- 334.31   298.53
 17.579  17.579 (1.051)    41    229484                    47.10- 107.10    76.76
-------------------------------------------------------------------------------
  116 Benzene                                        CAS #: 71-43-2
 17.620  17.620 (0.966)    78    607144 5.00000    5.339  80.00- 120.00   100.00
 17.620  17.620 (0.966)    77    140908                     0.00-  53.54    23.21
-------------------------------------------------------------------------------
  119 tert-Amyl methyl ether                         CAS #: 994-05-8
 17.703  17.703 (0.971)    87    135366 5.00000    5.061  80.00- 120.00   100.00
 17.703  17.703 (0.971)    73    583130                   382.25- 442.25   430.78
 17.703  17.703 (0.971)    55    157914                    79.11- 139.11   116.66
-------------------------------------------------------------------------------
  120 1,2-Dichloroethane                             CAS #: 107-06-2
 17.744  17.744 (0.973)    62    254210 5.00000    5.271  80.00- 120.00   100.00
 17.744  17.744 (0.973)    64     82227                     1.40-  61.40    32.35
-------------------------------------------------------------------------------
  121 Heptane                                        CAS #: 142-82-5
 17.847  17.847 (0.979)    57    173346 5.00000    5.404  80.00- 120.00   100.00
 17.847  17.847 (0.979)   100     68035                    10.87-  70.87    39.25
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
121 Heptane (continued)							
17.847	17.847 (0.979)	43	306014			148.15- 208.15	176.53
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	292811	5.00000	5.300	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	274781			61.17- 121.17	93.84
18.610	18.610 (1.021)	97	176252			29.33- 89.33	60.19
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.033)	83	383509	5.00000	5.513	80.00- 120.00	100.00
18.833	18.833 (1.033)	55	289280			43.54- 103.54	75.43
18.833	18.833 (1.033)	56	94215			0.00- 53.97	24.57
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.056	19.056 (1.045)	63	229329	5.00000	5.276	80.00- 120.00	100.00
19.079	19.079 (1.046)	62	167442			41.36- 101.36	73.01
19.056	19.056 (1.045)	41	126177			24.32- 84.32	55.02
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	159124	5.00000	5.269	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	104772			34.13- 94.13	65.84
19.213	19.213 (1.054)	57	32820			0.00- 50.75	20.63
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	426196	5.00000	5.449	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	270347			34.23- 94.23	63.43
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	397055	5.00000	5.522	80.00- 120.00	100.00
20.338	20.338 (1.116)	77	126838			1.78- 61.78	31.94
20.338	20.338 (1.116)	39	188431			16.15- 76.15	47.46
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.556	20.556 (1.128)	43	447365	5.00000	5.535	80.00- 120.00	100.00
20.556	20.556 (1.128)	58	183475			11.51- 71.51	41.01
20.556	20.556 (1.128)	85	85745			0.00- 48.80	19.17
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	692775	5.00000	5.322	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	417828			30.55- 90.55	60.31
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	326991	5.00000	5.636	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	103612			1.21- 61.21	31.69
21.535	21.535 (0.906)	39	148479			14.72- 74.72	45.41

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

  155 1,1,2-Trichloroethane                        CAS #: 79-00-5
 21.999  21.999 (0.926)    97    266352 5.00000    5.027  80.00- 120.00   100.00
 21.999  21.999 (0.926)    99    168044                   32.55-  92.55    63.09
 21.999  21.999 (0.926)    83    225380                   53.25- 113.25    84.62
-------------------------------------------------------------------------------
  156 Tetrachloroethene                            CAS #: 127-18-4
 22.174  22.174 (0.933)   166    376604 5.00000    5.135  80.00- 120.00   100.00
 22.145  22.145 (0.932)   129    267752                   39.98-  99.98    71.10
 22.145  22.145 (0.932)   131    258291                   38.96-  98.96    68.58
-------------------------------------------------------------------------------
  158 2-Hexanone                                   CAS #: 591-78-6
 22.406  22.406 (0.943)    58    220729 5.00000    5.167  80.00- 120.00   100.00
 22.406  22.406 (0.943)    43    393032                  146.44- 206.44   178.06
 22.406  22.406 (0.943)   100     53485                    0.00-  54.43    24.23
-------------------------------------------------------------------------------
  160 Dibromochloromethane                         CAS #: 124-48-1
 22.784  22.784 (0.959)   129    449932 5.00000    5.448  80.00- 120.00   100.00
 22.784  22.784 (0.959)   127    350211                   47.16- 107.16    77.84
-------------------------------------------------------------------------------
  161 1,2-Dibromoethane (EDB)                      CAS #: 106-93-4
 23.045  23.045 (0.970)   107    406336 5.00000    5.338  80.00- 120.00   100.00
 23.045  23.045 (0.970)   109    386117                   63.61- 123.61    95.02
-------------------------------------------------------------------------------
  165 Chlorobenzene                                CAS #: 108-90-7
 23.823  23.823 (1.003)   112    560410 5.00000    5.284  80.00- 120.00   100.00
 23.823  23.823 (1.003)   114    181030                    2.46-  62.46    32.30
 23.823  23.823 (1.003)    77    321133                   27.29-  87.29    57.30
-------------------------------------------------------------------------------
  167 Ethyl Benzene                                CAS #: 100-41-4
 23.905  23.905 (1.006)   106    262340 5.00000    5.125  80.00- 120.00   100.00
 23.905  23.905 (1.006)    91    816278                  278.69- 338.69   311.15
-------------------------------------------------------------------------------
  169 m,p-Xylene                                   CAS #: 108-38-3
 24.091  24.091 (1.014)   106    287604 5.00000    5.150  80.00- 120.00   100.00
 24.091  24.091 (1.014)    91    556896                  164.82- 224.82   193.63
-------------------------------------------------------------------------------
  171 o-Xylene                                     CAS #: 95-47-6
 24.710  24.710 (1.040)   106    274989 5.00000    5.031  80.00- 120.00   100.00
 24.710  24.710 (1.040)    91    565866                  174.08- 234.08   205.78
-------------------------------------------------------------------------------
  172 Styrene                                      CAS #: 100-42-5
 24.730  24.730 (1.041)   104    416126 5.00000    4.945  80.00- 120.00   100.00
 24.730  24.730 (1.041)    78    210513                   19.76-  79.76    50.59
-------------------------------------------------------------------------------
  174 Bromoform                                    CAS #: 75-25-2
 25.068  25.068 (1.055)   173    441586 5.00000    5.573  80.00- 120.00   100.00
```

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

  174 Bromoform (continued)
 25.068  25.068 (1.055)   171    229053                   21.57-  81.57    51.87
-------------------------------------------------------------------------------
  175 Cumene                                        CAS #: 98-82-8
 25.181  25.181 (1.060)   105    868379 5.00000    5.146  80.00- 120.00   100.00
 25.181  25.181 (1.060)   120    240755                    0.00-  57.92    27.72
-------------------------------------------------------------------------------
  181 1,1,2,2-Tetrachloroethane                     CAS #: 79-34-5
 25.656  25.656 (1.080)    83    527867 5.00000    5.361  80.00- 120.00   100.00
 25.656  25.656 (1.080)    85    342874                   34.06-  94.06    64.95
-------------------------------------------------------------------------------
  182 Propylbenzene                                 CAS #: 103-65-1
 25.731  25.731 (1.083)    91    778995 5.00000    4.761  80.00- 120.00   100.00
 25.731  25.731 (1.083)   120    187440                    0.00-  54.46    24.06
-------------------------------------------------------------------------------
  188 4-Ethyltoluene                                CAS #: 622-96-8
 25.864  25.864 (1.089)   105    632693 5.00000    4.493  80.00- 120.00   100.00
 25.864  25.864 (1.089)   120    194320                    0.68-  60.68    30.71
-------------------------------------------------------------------------------
  190 1,3,5-Trimethylbenzene                        CAS #: 108-67-8
 25.940  25.940 (1.092)   105    618790 5.00000    4.964  80.00- 120.00   100.00
 25.940  25.940 (1.092)   120    318155                   21.16-  81.16    51.42
-------------------------------------------------------------------------------
  196 1,2,4-Trimethylbenzene                        CAS #: 95-63-6
 26.395  26.395 (1.111)   105    626684 5.00000    5.094  80.00- 120.00   100.00
 26.395  26.395 (1.111)   120    297142                   18.29-  78.29    47.41
-------------------------------------------------------------------------------
  208 1,3-Dichlorobenzene                           CAS #: 541-73-1
 26.810  26.810 (1.128)   146    411598 5.00000    4.810  80.00- 120.00   100.00
 26.810  26.810 (1.128)   148    263216                   33.99-  93.99    63.95
 26.794  26.794 (1.128)   111    162274                    9.12-  69.12    39.43
-------------------------------------------------------------------------------
  209 1,4-Dichlorobenzene                           CAS #: 106-46-7
 26.919  26.919 (1.133)   146    365496 5.00000    4.497  80.00- 120.00   100.00
 26.919  26.919 (1.133)   148    233698                   33.88-  93.88    63.94
 26.919  26.919 (1.133)   111    137489                    7.98-  67.98    37.62
-------------------------------------------------------------------------------
  212 alpha-Chlorotoluene                           CAS #: 100-44-7
 27.075  27.075 (1.139)    91    464898 5.00000    5.568  80.00- 120.00   100.00
 27.075  27.075 (1.139)   126    101255                    0.00-  51.77    21.78
-------------------------------------------------------------------------------
  214 1,2-Dichlorobenzene                           CAS #: 95-50-1
 27.371  27.371 (1.152)   146    369496 5.00000    4.678  80.00- 120.00   100.00
 27.371  27.371 (1.152)   148    234554                   33.08-  93.08    63.48
 27.371  27.371 (1.152)   111    153749                   11.01-  71.01    41.61
-------------------------------------------------------------------------------
```

RT	EXP RT (REL RT)	MASS	RESPONSE	AMOUNTS CAL-AMT (PPBV)	AMOUNTS ON-COL (PPBV)	TARGET RANGE	RATIO
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	415704	5.00000	4.889	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	395880			64.78- 124.78	95.23
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.507	29.507 (1.242)	225	287769	5.00000	4.361	80.00- 120.00	100.00
29.507	29.507 (1.242)	223	180931			32.96- 92.96	62.87
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	65548	0.50000	0.4936	80.00- 120.00	100.00(a)
29.772	29.772 (1.253)	127	8991			0.00- 43.33	13.72

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: msd20.i
Lab File ID: 20061502.d
Lab Smp Id: CCV
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 15-JUN-2016
Calibration Time: 11:00
Client Smp ID: CCV
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	117579	0.00
123 1,4-Difluorobenze	491034	294620	687448	491034	0.00
163 Chlorobenzene-d5	413171	247903	578439	413171	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/15Jun2016.b/20061502.d

Date : 15-JUN-2016 11:00

Client ID: CCV

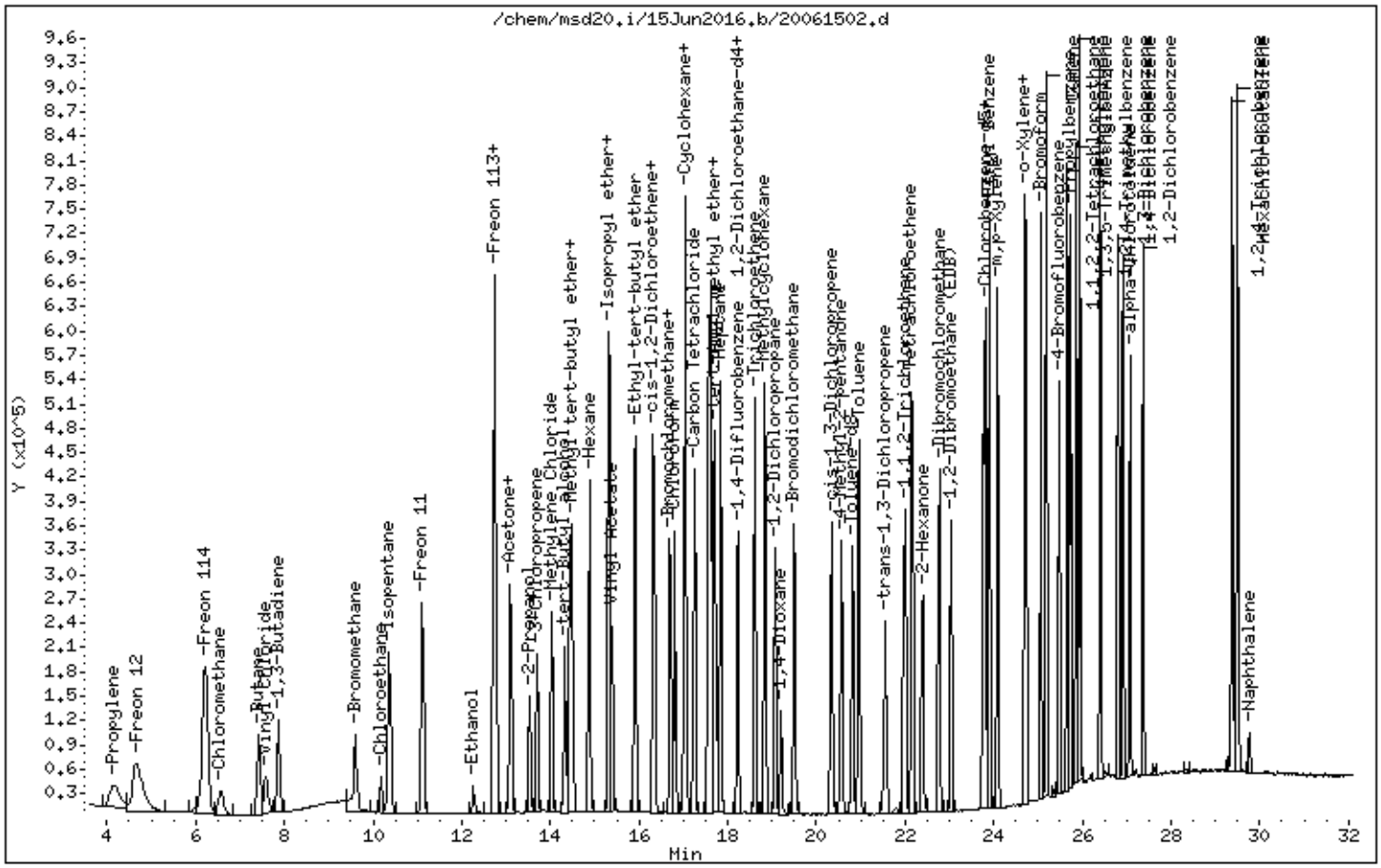
Instrument: msd20.i

Sample Info: 25mL# 2789-176

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1606298A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 11:45 AM**	

Compound	%Recovery	Method Limits
Freon 12	118	70-130
Freon 114	112	70-130
Chloromethane	110	70-130
Vinyl Chloride	114	70-130
1,3-Butadiene	106	70-130
Bromomethane	133 Q	70-130
Chloroethane	114	70-130
Freon 11	115	70-130
Ethanol	120	70-130
Freon 113	100	70-130
1,1-Dichloroethene	104	70-130
Acetone	104	70-130
2-Propanol	112	70-130
Carbon Disulfide	99	70-130
3-Chloropropene	98	70-130
Methylene Chloride	98	70-130
Methyl tert-butyl ether	106	70-130
trans-1,2-Dichloroethene	107	70-130
Hexane	107	70-130
1,1-Dichloroethane	111	70-130
2-Butanone (Methyl Ethyl Ketone)	106	70-130
cis-1,2-Dichloroethene	104	70-130
Tetrahydrofuran	111	70-130
Chloroform	110	70-130
1,1,1-Trichloroethane	107	70-130
Cyclohexane	105	70-130
Carbon Tetrachloride	128	70-130
2,2,4-Trimethylpentane	108	70-130
Benzene	107	70-130
1,2-Dichloroethane	108	70-130
Heptane	107	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	106	70-130
1,4-Dioxane	104	70-130
Bromodichloromethane	113	70-130
cis-1,3-Dichloropropene	104	70-130
4-Methyl-2-pentanone	114	70-130
Toluene	106	70-130
trans-1,3-Dichloropropene	115	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	102	70-130
2-Hexanone	111	70-130

eurofins | Air Toxics

Client Sample ID: LCS

Lab ID#: 1606298A-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 11:45 AM**	

Compound	**%Recovery**	**Method Limits**
Dibromochloromethane	111	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	107	70-130
Ethyl Benzene	105	70-130
m,p-Xylene	108	70-130
o-Xylene	105	70-130
Styrene	100	70-130
Bromoform	117	70-130
Cumene	106	70-130
1,1,2,2-Tetrachloroethane	111	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	94	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	103	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	103	70-130
Hexachlorobutadiene	92	70-130
Naphthalene	108	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

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

Report Date: 15-Jun-2016 12:26

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 15Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCS
Client Smp ID: LCS
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCS
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.618	112.37	60-140
11 Freon 12	5.000	5.914	118.29	70-130
15 Freon 114	5.000	5.629	112.58	70-130
17 Chloromethane	5.000	5.520	110.40	70-130
23 Butane	5.000	5.521	110.42	60-140
25 Vinyl Chloride	5.000	5.729	114.59	70-130
26 1,3-Butadiene	5.000	5.322	106.43	70-130
29 Bromomethane	5.000	6.632	132.63*	70-130
30 Chloroethane	5.000	5.696	113.93	70-130
31 Isopentane	5.000	5.500	110.00	60-140
35 Freon 11	5.000	5.733	114.67	70-130
42 Ethanol	5.000	5.978	119.57	70-130
49 Freon 113	5.000	5.023	100.47	70-130
50 1,1-Dichloroethene	5.000	5.223	104.47	70-130
52 Acetone	5.000	5.186	103.72	70-130
56 Carbon Disulfide	5.000	4.934	98.68	70-130
57 2-Propanol	5.000	5.606	112.12	70-130
58 3-Chloropropene	5.000	4.914	98.29	70-130
66 Methylene Chloride	5.000	4.910	98.21	70-130
72 Methyl tert-butyl	5.000	5.309	106.18	70-130
73 trans-1,2-Dichloro	4.250	4.562	107.35	70-130
78 Hexane	5.000	5.346	106.91	70-130
82 1,1-Dichloroethane	5.000	5.546	110.92	70-130
86 Vinyl Acetate	5.000	5.481	109.62	60-140
91 cis-1,2-Dichloroet	5.650	5.866	103.81	70-130
92 2-Butanone	5.000	5.300	106.01	70-130
99 Tetrahydrofuran	5.000	5.544	110.89	70-130
100 Chloroform	5.000	5.491	109.82	70-130
103 1,1,1-Trichloroeth	5.000	5.337	106.74	70-130
106 Carbon Tetrachlori	5.000	6.413	128.25	70-130
102 Cyclohexane	5.000	5.252	105.04	70-130
113 2,2,4-Trimethylpen	5.000	5.390	107.80	70-130
116 Benzene	5.000	5.348	106.96	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.419	108.39	70-130
121 Heptane	5.000	5.334	106.68	70-130
125 Trichloroethene	5.000	5.254	105.08	70-130
127 Methylcyclohexane	5.000	5.491	109.81	60-140
132 1,2-Dichloropropan	5.000	5.302	106.05	70-130
136 1,4-Dioxane	5.000	5.212	104.25	70-130
138 Bromodichlorometha	5.000	5.648	112.95	70-130
144 cis-1,3-Dichloropr	5.000	5.180	103.61	70-130
145 4-Methyl-2-pentano	5.000	5.688	113.76	70-130
147 Toluene	5.000	5.282	105.64	70-130
150 trans-1,3-Dichloro	5.000	5.741	114.82	70-130
155 1,1,2-Trichloroeth	5.000	5.042	100.84	70-130
156 Tetrachloroethene	5.000	5.118	102.36	70-130
158 2-Hexanone	5.000	5.554	111.07	70-130
160 Dibromochlorometha	5.000	5.574	111.48	70-130
161 1,2-Dibromoethane	5.000	5.497	109.93	70-130
165 Chlorobenzene	5.000	5.346	106.92	70-130
167 Ethyl Benzene	5.000	5.267	105.34	70-130
169 m,p-Xylene	5.000	5.392	107.84	70-130
171 o-Xylene	5.000	5.253	105.06	70-130
172 Styrene	5.000	4.975	99.51	70-130
174 Bromoform	6.500	7.607	117.04	70-130
175 Cumene	5.000	5.327	106.55	70-130
181 1,1,2,2-Tetrachlor	5.000	5.552	111.05	70-130
182 Propylbenzene	5.000	5.023	100.45	70-130
188 4-Ethyltoluene	5.000	4.688	93.75	70-130
190 1,3,5-Trimethylben	5.000	5.047	100.95	70-130
196 1,2,4-Trimethylben	5.000	5.146	102.92	70-130
208 1,3-Dichlorobenzen	5.000	5.070	101.39	70-130
209 1,4-Dichlorobenzen	5.000	4.669	93.38	70-130
212 alpha-Chlorotoluen	5.000	5.790	115.80	70-130
214 1,2-Dichlorobenzen	5.000	4.918	98.36	70-130
226 1,2,4-Trichloroben	5.000	5.142	102.83	70-130
227 Hexachlorobutadien	5.000	4.612	92.23	70-130
228 Naphthalene	0.5000	0.5414	108.28	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	5.001	100.03	70-130
$ 146 Toluene-d8	5.000	5.070	101.40	70-130
$ 177 4-Bromofluorobenze	5.000	5.063	101.26	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061503.d
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 15-JUN-2016 11:45
Operator : ef Inst ID: msd20.i
Smp Info : 25mL#2789-169
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	117701	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	90772			47.16- 107.16	77.12
16.726	16.726 (1.000)	49	140767			84.74- 144.74	119.60
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	491083	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	77397			0.00- 45.65	15.76
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	406203	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	224449			24.05- 84.05	55.26
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	156602	5.00126	5.001	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	87644			28.75- 88.75	55.97
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	471788	5.06991	5.070	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	54124			0.00- 41.22	11.47

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    324366                    37.90-  97.90    68.75
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    226110 5.06297    5.063  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    269840                   88.33- 148.33   119.34
 25.485  25.485 (1.073)   176    215539                   68.77- 128.77    95.33
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.142   4.166 (0.248)    41    156597 5.61845    5.618  80.00- 120.00   100.00
  4.166   4.166 (0.249)    42    104011                   37.74-  97.74    66.42
  4.166   4.142 (0.249)    39    112304                   43.28- 103.28    71.72
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.672   4.672 (0.279)    85    546769 5.91427    5.914  80.00- 120.00   100.00
  4.648   4.648 (0.278)    87    176972                    2.50-  62.50    32.37
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135    386305 5.62891    5.629  80.00- 120.00   100.00
  6.215   6.215 (0.372)   137    121757                    2.53-  62.53    31.52
  6.215   6.191 (0.372)    85    508868                  112.58- 172.58   131.73
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.577   6.552 (0.393)    50    165932 5.52007    5.520  80.00- 120.00   100.00
  6.577   6.552 (0.393)    52     54430                    3.09-  63.09    32.80
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.434   7.434 (0.444)    58     44120 5.52091    5.521  80.00- 120.00   100.00
  7.434   7.416 (0.444)    43    302641                  641.20- 701.20   685.95
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.590   7.590 (0.454)    62    202055 5.72942    5.729  80.00- 120.00   100.00
  7.590   7.572 (0.454)    64     64943                    2.84-  62.84    32.14
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    148010 5.32163    5.322  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    143079                   65.35- 125.35    96.67
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    138780 6.63169    6.632  80.00- 120.00   100.00(R)
  9.596   9.596 (0.574)    96    129323                   64.03- 124.03    93.19
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.198  10.174 (0.610)    64     91266 5.69651    5.696  80.00- 120.00   100.00
 10.198  10.174 (0.610)    49     22084                    0.00-  54.43    24.20
 10.198  10.174 (0.610)    66     30580                    2.17-  62.17    33.51
-------------------------------------------------------------------------------
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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	154945	5.49992	5.500	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	221160			110.67- 170.67	142.73
10.367	10.367 (0.620)	42	195224			93.85- 153.85	126.00
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	520778	5.73339	5.733	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	336132			34.69- 94.69	64.54
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	71637	5.97855	5.978	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	29883			11.01- 71.01	41.71
12.269	12.269 (0.734)	43	14825			0.00- 50.63	20.69
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	334452	5.02341	5.023	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	216080			34.65- 94.65	64.61
12.763	12.763 (0.763)	101	415137			90.37- 150.37	124.12
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	125326	5.22348	5.223	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	311791			216.58- 276.58	248.78
12.736	12.736 (0.761)	96	196889			128.21- 188.21	157.10
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	91176	5.18608	5.186	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	275235			275.09- 335.09	301.87
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	489133	4.93391	4.934	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	317041	5.60577	5.606	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	64910			0.00- 49.91	20.47
13.532	13.532 (0.809)	59	13187			0.00- 34.18	4.16
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	77353	4.91438	4.914	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	197642			218.66- 278.66	255.51
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	187921	4.91030	4.910	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	228559			88.46- 148.46	121.62
14.027	14.027 (0.839)	51	69861			6.78- 66.78	37.18
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	559622	5.30912	5.309	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.863)	57	123345			0.00- 52.12	22.04
14.439	14.439 (0.863)	41	121042			0.00- 51.31	21.63
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.493 (0.866)	98	113468	4.56234	4.562	80.00- 120.00	100.00
14.494	14.493 (0.866)	61	242688			179.74- 239.74	213.88
14.494	14.493 (0.866)	96	177307			125.55- 185.55	156.26
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	305317	5.34561	5.346	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	189516			31.00- 91.00	62.07
14.878	14.878 (0.889)	86	58474			0.00- 49.39	19.15
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	365089	5.54585	5.546	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	117813			1.67- 61.67	32.27
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.399 (0.921)	86	50134	5.48083	5.481	80.00- 120.00	100.00
15.400	15.399 (0.921)	42	40074			50.79- 110.79	79.93
15.400	15.399 (0.921)	43	470013			896.60- 956.60	937.50
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.323 (0.976)	98	157676	5.86553	5.866	80.00- 120.00	100.00
16.323	16.323 (0.976)	61	306949			166.16- 226.16	194.67
16.323	16.323 (0.976)	96	246582			127.31- 187.31	156.38
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	99328	5.30055	5.300	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	365588			324.50- 384.50	368.06
16.344	16.344 (0.977)	57	28579			0.00- 59.24	28.77
99 Tetrahydrofuran					CAS #: 109-99-9		
16.696	16.695 (0.998)	42	218857	5.54441	5.544	80.00- 120.00	100.00
16.696	16.695 (0.998)	71	95150			12.99- 72.99	43.48
16.696	16.695 (0.998)	72	100331			16.36- 76.36	45.84
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	419989	5.49077	5.491	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	271612			34.55- 94.55	64.67
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.034 (1.018)	84	299051	5.25176	5.252	80.00- 120.00	100.00
17.035	17.034 (1.018)	56	330881			77.49- 137.49	110.64
17.035	17.034 (1.018)	41	172081			25.74- 85.74	57.54

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.065 (1.020)	97	428949	5.33680	5.337	80.00- 120.00	100.00
17.065	17.065 (1.020)	99	277004			34.47- 94.47	64.58
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	409878	6.41265	6.413	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	429348			73.36- 133.36	104.75
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.579	17.579 (1.051)	56	295833	5.38992	5.390	80.00- 120.00	100.00
17.579	17.579 (1.051)	57	906682			274.31- 334.31	306.48
17.579	17.579 (1.051)	41	227948			47.10- 107.10	77.05
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.966)	78	608223	5.34790	5.348	80.00- 120.00	100.00
17.620	17.620 (0.966)	77	142429			0.00- 53.54	23.42
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	261376	5.41933	5.419	80.00- 120.00	100.00
17.744	17.744 (0.973)	64	82652			1.40- 61.40	31.62
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	171112	5.33392	5.334	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	70416			10.87- 70.87	41.15
17.847	17.847 (0.979)	43	308655			148.15- 208.15	180.38
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	290322	5.25418	5.254	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	276461			61.17- 121.17	95.23
18.610	18.610 (1.021)	97	177099			29.33- 89.33	61.00
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.033)	83	381999	5.49063	5.491	80.00- 120.00	100.00
18.833	18.833 (1.033)	55	287754			43.54- 103.54	75.33
18.833	18.833 (1.033)	56	91065			0.00- 53.97	23.84
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.079	19.056 (1.046)	63	230515	5.30244	5.302	80.00- 120.00	100.00
19.079	19.079 (1.046)	62	167131			41.36- 101.36	72.50
19.079	19.056 (1.046)	41	128167			24.32- 84.32	55.60
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	157447	5.21259	5.212	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	106629			34.13- 94.13	67.72
19.213	19.213 (1.054)	57	32682			0.00- 50.75	20.76

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	434300	5.64768	5.648	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	276291			34.23- 94.23	63.62
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	372559	5.18050	5.180	80.00- 120.00	100.00
20.338	20.338 (1.116)	77	116466			1.78- 61.78	31.26
20.338	20.338 (1.116)	39	179320			16.15- 76.15	48.13
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.556 (1.128)	43	459750	5.68777	5.688	80.00- 120.00	100.00
20.557	20.556 (1.128)	58	186583			11.51- 71.51	40.58
20.572	20.556 (1.128)	85	85688			0.00- 48.80	18.64
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	687584	5.28205	5.282	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	416016			30.55- 90.55	60.50
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	327444	5.74113	5.741	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	105172			1.21- 61.21	32.12
21.564	21.535 (0.908)	39	149474			14.72- 74.72	45.65
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	262611	5.04180	5.042	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	165470			32.55- 92.55	63.01
21.999	21.999 (0.926)	83	227903			53.25- 113.25	86.78
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	369019	5.11798	5.118	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	267578			39.98- 99.98	72.51
22.174	22.145 (0.933)	131	258010			38.96- 98.96	69.92
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	233238	5.55350	5.554	80.00- 120.00	100.00
22.406	22.406 (0.943)	43	406930			146.44- 206.44	174.47
22.406	22.406 (0.943)	100	51621			0.00- 54.43	22.13
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	452550	5.57376	5.574	80.00- 120.00	100.00
22.784	22.784 (0.959)	127	352349			47.16- 107.16	77.86
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	411380	5.49670	5.497	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	385826			63.61- 123.61	93.79

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.823	23.823 (1.003)	112	557368	5.34583	5.346	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	179531			2.46- 62.46	32.21
23.823	23.823 (1.003)	77	318254			27.29- 87.29	57.10
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.905 (1.006)	106	265046	5.26680	5.267	80.00- 120.00	100.00
23.905	23.905 (1.006)	91	822533			278.69- 338.69	310.33
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	296061	5.39208	5.392	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	568485			164.82- 224.82	192.02
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	282296	5.25292	5.253	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	584236			174.08- 234.08	206.96
172 Styrene					CAS #: 100-42-5		
24.730	24.730 (1.041)	104	411627	4.97548	4.975	80.00- 120.00	100.00
24.730	24.730 (1.041)	78	208578			19.76- 79.76	50.67
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	592580	7.60728	7.607	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	303142			21.57- 81.57	51.16
175 Cumene					CAS #: 98-82-8		
25.182	25.181 (1.060)	105	883788	5.32736	5.327	80.00- 120.00	100.00
25.182	25.181 (1.060)	120	242175			0.00- 57.92	27.40
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	537437	5.55233	5.552	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	347627			34.06- 94.06	64.68
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.731 (1.083)	91	807968	5.02274	5.023	80.00- 120.00	100.00
25.732	25.731 (1.083)	120	194009			0.00- 54.46	24.01
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	648968	4.68771	4.688	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	200494			0.68- 60.68	30.89
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	618576	5.04748	5.047	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	319716			21.16- 81.16	51.69
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	622446	5.14623	5.146	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	297087			18.29- 78.29	47.73
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.810	26.810 (1.128)	146	426530	5.06966	5.070	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	274674			33.99- 93.99	64.40
26.794	26.794 (1.128)	111	166854			9.12- 69.12	39.12
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	373078	4.66889	4.669	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	241636			33.88- 93.88	64.77
26.919	26.919 (1.133)	111	142839			7.98- 67.98	38.29
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	475228	5.78977	5.790	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	101708			0.00- 51.77	21.40
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	381883	4.91813	4.918	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	245007			33.08- 93.08	64.16
27.371	27.371 (1.152)	111	157798			11.01- 71.01	41.32
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	429783	5.14173	5.142	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	408256			64.78- 124.78	94.99
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.507	29.507 (1.242)	225	299163	4.61175	4.612	80.00- 120.00	100.00
29.507	29.507 (1.242)	223	185081			32.96- 92.96	61.87
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	70687	0.54140	0.5414	80.00- 120.00	100.00
29.772	29.772 (1.253)	127	8876			0.00- 43.33	12.56

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061503.d
Lab Smp Id: LCS
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 15-JUN-2016
Calibration Time: 11:00
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	117701	0.10
123 1,4-Difluorobenze	491034	294620	687448	491083	0.01
163 Chlorobenzene-d5	413171	247903	578439	406203	-1.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/15Jun2016.b/20061503.d

Date : 15-JUN-2016 11:45

Client ID: LCS

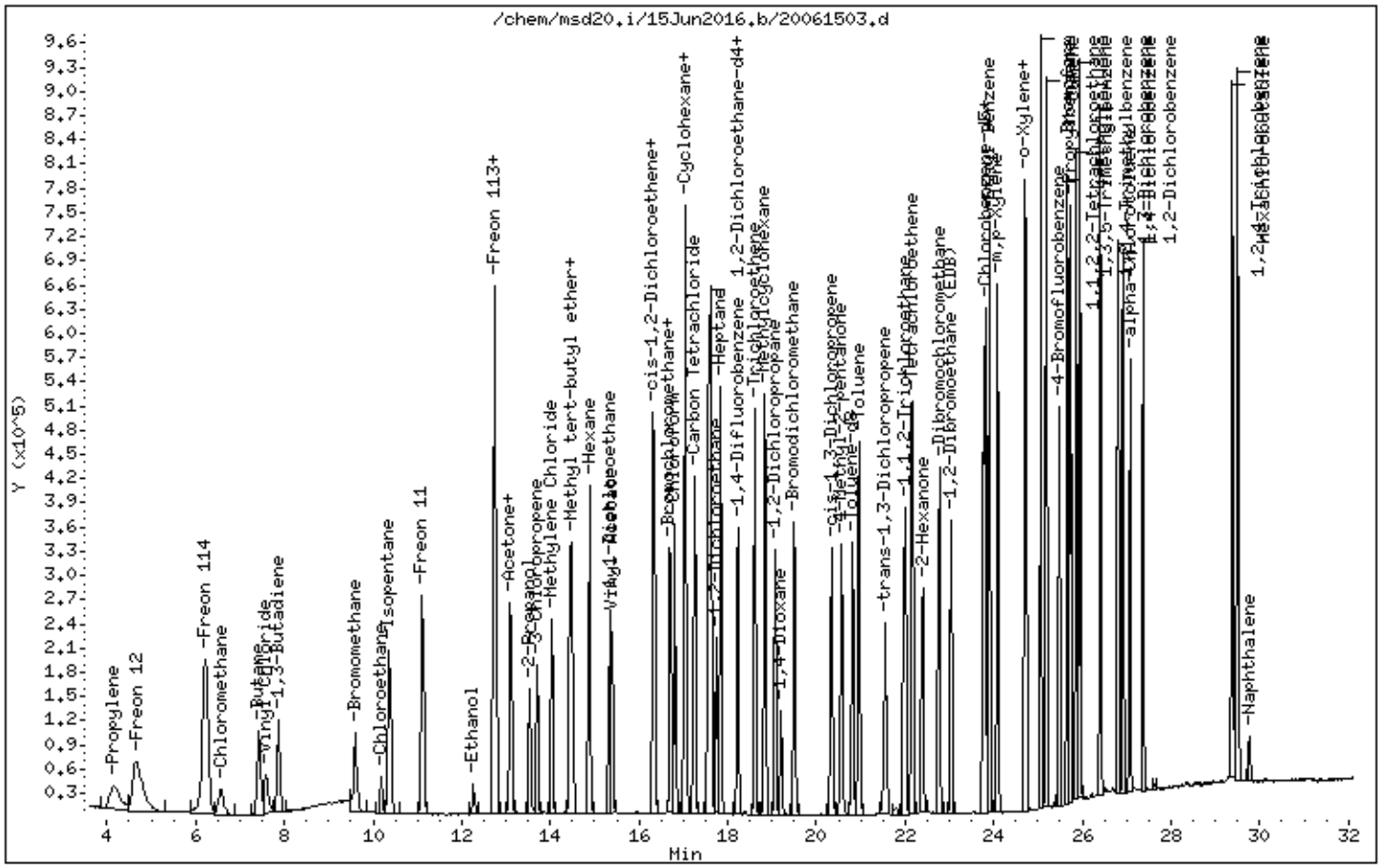
Instrument: msd20.i

Sample Info: 25mL#2789-169

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



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Client Sample ID: LCSD

Lab ID#: 1606298A-11AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 12:29 PM**	

Compound	%Recovery	Method Limits
Freon 12	117	70-130
Freon 114	111	70-130
Chloromethane	110	70-130
Vinyl Chloride	112	70-130
1,3-Butadiene	106	70-130
Bromomethane	132 Q	70-130
Chloroethane	114	70-130
Freon 11	114	70-130
Ethanol	117	70-130
Freon 113	101	70-130
1,1-Dichloroethene	104	70-130
Acetone	104	70-130
2-Propanol	110	70-130
Carbon Disulfide	98	70-130
3-Chloropropene	99	70-130
Methylene Chloride	96	70-130
Methyl tert-butyl ether	105	70-130
trans-1,2-Dichloroethene	105	70-130
Hexane	107	70-130
1,1-Dichloroethane	110	70-130
2-Butanone (Methyl Ethyl Ketone)	107	70-130
cis-1,2-Dichloroethene	103	70-130
Tetrahydrofuran	112	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	106	70-130
Cyclohexane	104	70-130
Carbon Tetrachloride	129	70-130
2,2,4-Trimethylpentane	108	70-130
Benzene	105	70-130
1,2-Dichloroethane	107	70-130
Heptane	108	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	107	70-130
1,4-Dioxane	105	70-130
Bromodichloromethane	114	70-130
cis-1,3-Dichloropropene	103	70-130
4-Methyl-2-pentanone	113	70-130
Toluene	105	70-130
trans-1,3-Dichloropropene	114	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	107	70-130
2-Hexanone	111	70-130

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Client Sample ID: LCSD

Lab ID#: 1606298A-11AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**20061504**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 6/15/16 12:29 PM**	

Compound	%Recovery	Method Limits
Dibromochloromethane	111	70-130
1,2-Dibromoethane (EDB)	110	70-130
Chlorobenzene	109	70-130
Ethyl Benzene	107	70-130
m,p-Xylene	107	70-130
o-Xylene	107	70-130
Styrene	101	70-130
Bromoform	118	70-130
Cumene	105	70-130
1,1,2,2-Tetrachloroethane	112	70-130
Propylbenzene	100	70-130
4-Ethyltoluene	92	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	93	70-130
alpha-Chlorotoluene	116	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	106	70-130
Hexachlorobutadiene	94	70-130
Naphthalene	112	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130

Report Date: 15-Jun-2016 13:10

Eurofins Air Toxics Inc.

RECOVERY REPORT

Client Name:
Client SDG: 15Jun2016
Sample Matrix: GAS
Fraction: VOA
Lab Smp Id: LCSD
Client Smp ID: LCSD
Level: LOW
Operator: ef
Data Type: MS DATA
SampleType: LCSD
SpikeList File: AT12Bromoform.spk
Quant Type: ISTD
Sublist File: AT12.sub
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
9 Propylene	5.000	5.504	110.08	60-140
11 Freon 12	5.000	5.855	117.11	70-130
15 Freon 114	5.000	5.573	111.46	70-130
17 Chloromethane	5.000	5.479	109.57	70-130
23 Butane	5.000	5.577	111.54	60-140
25 Vinyl Chloride	5.000	5.619	112.38	70-130
26 1,3-Butadiene	5.000	5.289	105.78	70-130
29 Bromomethane	5.000	6.580	131.61*	70-130
30 Chloroethane	5.000	5.709	114.17	70-130
31 Isopentane	5.000	5.484	109.68	60-140
35 Freon 11	5.000	5.703	114.06	70-130
42 Ethanol	5.000	5.850	117.01	70-130
49 Freon 113	5.000	5.043	100.86	70-130
50 1,1-Dichloroethene	5.000	5.215	104.29	70-130
52 Acetone	5.000	5.176	103.52	70-130
56 Carbon Disulfide	5.000	4.893	97.87	70-130
57 2-Propanol	5.000	5.510	110.21	70-130
58 3-Chloropropene	5.000	4.967	99.33	70-130
66 Methylene Chloride	5.000	4.821	96.42	70-130
72 Methyl tert-butyl	5.000	5.242	104.83	70-130
73 trans-1,2-Dichloro	4.250	4.476	105.32	70-130
78 Hexane	5.000	5.372	107.45	70-130
82 1,1-Dichloroethane	5.000	5.524	110.47	70-130
86 Vinyl Acetate	5.000	5.459	109.18	60-140
91 cis-1,2-Dichloroet	5.650	5.815	102.91	70-130
92 2-Butanone	5.000	5.358	107.16	70-130
99 Tetrahydrofuran	5.000	5.586	111.72	70-130
100 Chloroform	5.000	5.468	109.36	70-130
103 1,1,1-Trichloroeth	5.000	5.324	106.48	70-130
106 Carbon Tetrachlori	5.000	6.438	128.76	70-130
102 Cyclohexane	5.000	5.215	104.30	70-130
113 2,2,4-Trimethylpen	5.000	5.424	108.48	70-130
116 Benzene	5.000	5.263	105.26	70-130

SPIKE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
120 1,2-Dichloroethane	5.000	5.342	106.84	70-130
121 Heptane	5.000	5.389	107.78	70-130
125 Trichloroethene	5.000	5.259	105.18	70-130
127 Methylcyclohexane	5.000	5.424	108.49	60-140
132 1,2-Dichloropropan	5.000	5.349	106.98	70-130
136 1,4-Dioxane	5.000	5.235	104.70	70-130
138 Bromodichlorometha	5.000	5.685	113.71	70-130
144 cis-1,3-Dichloropr	5.000	5.171	103.43	70-130
145 4-Methyl-2-pentano	5.000	5.659	113.18	70-130
147 Toluene	5.000	5.261	105.22	70-130
150 trans-1,3-Dichloro	5.000	5.718	114.36	70-130
155 1,1,2-Trichloroeth	5.000	5.099	101.98	70-130
156 Tetrachloroethene	5.000	5.330	106.60	70-130
158 2-Hexanone	5.000	5.531	110.62	70-130
160 Dibromochlorometha	5.000	5.559	111.18	70-130
161 1,2-Dibromoethane	5.000	5.520	110.40	70-130
165 Chlorobenzene	5.000	5.440	108.80	70-130
167 Ethyl Benzene	5.000	5.365	107.31	70-130
169 m,p-Xylene	5.000	5.331	106.62	70-130
171 o-Xylene	5.000	5.336	106.71	70-130
172 Styrene	5.000	5.062	101.23	70-130
174 Bromoform	6.500	7.661	117.87	70-130
175 Cumene	5.000	5.244	104.88	70-130
181 1,1,2,2-Tetrachlor	5.000	5.580	111.60	70-130
182 Propylbenzene	5.000	5.000	99.99	70-130
188 4-Ethyltoluene	5.000	4.588	91.76	70-130
190 1,3,5-Trimethylben	5.000	5.057	101.13	70-130
196 1,2,4-Trimethylben	5.000	5.105	102.09	70-130
208 1,3-Dichlorobenzen	5.000	5.094	101.88	70-130
209 1,4-Dichlorobenzen	5.000	4.661	93.22	70-130
212 alpha-Chlorotoluen	5.000	5.815	116.29	70-130
214 1,2-Dichlorobenzen	5.000	4.939	98.77	70-130
226 1,2,4-Trichloroben	5.000	5.309	106.18	70-130
227 Hexachlorobutadien	5.000	4.678	93.57	70-130
228 Naphthalene	0.5000	0.5596	111.92	60-140

SURROGATE COMPOUND	CONC ADDED PPBV	CONC RECOVERED PPBV	% RECOVERED	LIMITS
$ 117 1,2-Dichloroethane	5.000	4.907	98.14	70-130
$ 146 Toluene-d8	5.000	5.129	102.58	70-130
$ 177 4-Bromofluorobenze	5.000	4.990	99.81	70-130

Eurofins Air Toxics Inc.

EPA TO-15/MODIFIED TO14A

Data file : /chem/msd20.i/15Jun2016.b/20061504.d
Lab Smp Id: LCSD Client Smp ID: LCSD
Inj Date : 15-JUN-2016 12:29
Operator : ef Inst ID: msd20.i
Smp Info : 25mL#2789-169
Misc Info : 5.0ppbv (50ppbv)
Comment : LOW LEVEL - GC/MS
Method : /chem/msd20.i/15Jun2016.b/2016l0613a.m
Meth Date : 15-Jun-2016 11:43 efinn Quant Type: ISTD
Cal Date : 13-JUN-2016 16:08 Cal File: 20061310.d
Als bottle: 1 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: AT12.sub
Target Version: 3.50 Sample Matrix: AIR
Processing Host: eeyore

Concentration Formula: Amt * DF * CpndVariable

Cpnd Variable Local Compound Variable

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
* 98 Bromochloromethane					CAS #: 74-97-5		
16.726	16.726 (1.000)	130	117316	5.00000		80.00- 120.00	100.00
16.726	16.726 (1.000)	128	90245			47.16- 107.16	76.93
16.726	16.726 (1.000)	49	142345			84.74- 144.74	121.33
* 123 1,4-Difluorobenzene					CAS #: 540-36-3		
18.231	18.231 (1.000)	114	488213	5.00000		80.00- 120.00	100.00
18.231	18.231 (1.000)	88	77338			0.00- 45.65	15.84
* 163 Chlorobenzene-d5					CAS #: 3114-55-4		
23.761	23.761 (1.000)	117	400178	5.00000		80.00- 120.00	100.00
23.761	23.761 (1.000)	82	223302			24.05- 84.05	55.80
$ 117 1,2-Dichloroethane-d4					CAS #: 17060-07-0		
17.641	17.641 (1.055)	65	153148	4.90699	4.907	80.00- 120.00	100.00
17.641	17.620 (1.055)	67	88466			28.75- 88.75	57.77
$ 146 Toluene-d8					CAS #: 2037-26-5		
20.821	20.821 (1.142)	98	474507	5.12910	5.129	80.00- 120.00	100.00
20.821	20.806 (1.142)	70	54159			0.00- 41.22	11.41

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

$ 146 Toluene-d8 (continued)
 20.821  20.821 (1.142)   100    321169                    37.90-  97.90    67.68
-------------------------------------------------------------------------------
$ 177 4-Bromofluorobenzene                          CAS #: 460-00-4
 25.485  25.485 (1.073)   174    219563 4.99038    4.990  80.00- 120.00   100.00
 25.466  25.466 (1.072)    95    265237                   88.33- 148.33   120.80
 25.485  25.485 (1.073)   176    217048                   68.77- 128.77    98.85
-------------------------------------------------------------------------------
    9 Propylene                                     CAS #: 115-07-1
  4.166   4.166 (0.249)    41    152904 5.50394    5.504  80.00- 120.00   100.00
  4.142   4.166 (0.248)    42    102255                   37.74-  97.74    66.88
  4.142   4.142 (0.248)    39    113551                   43.28- 103.28    74.26
-------------------------------------------------------------------------------
   11 Freon 12                                      CAS #: 75-71-8
  4.648   4.672 (0.278)    85    539565 5.85549    5.855  80.00- 120.00   100.00
  4.672   4.648 (0.279)    87    175885                    2.50-  62.50    32.60
-------------------------------------------------------------------------------
   15 Freon 114                                     CAS #: 76-14-2
  6.215   6.215 (0.372)   135    381206 5.57283    5.573  80.00- 120.00   100.00
  6.215   6.215 (0.372)   137    120462                    2.53-  62.53    31.60
  6.215   6.191 (0.372)    85    509080                  112.58- 172.58   133.54
-------------------------------------------------------------------------------
   17 Chloromethane                                 CAS #: 74-87-3
  6.577   6.552 (0.393)    50    164150 5.47871    5.479  80.00- 120.00   100.00
  6.577   6.552 (0.393)    52     54430                    3.09-  63.09    33.16
-------------------------------------------------------------------------------
   23 Butane                                        CAS #: 106-97-8
  7.434   7.434 (0.444)    58     44423 5.57705    5.577  80.00- 120.00   100.00
  7.434   7.416 (0.444)    43    299160                  641.20- 701.20   673.44
-------------------------------------------------------------------------------
   25 Vinyl Chloride                                CAS #: 75-01-4
  7.590   7.590 (0.454)    62    197512 5.61895    5.619  80.00- 120.00   100.00
  7.590   7.572 (0.454)    64     64873                    2.84-  62.84    32.85
-------------------------------------------------------------------------------
   26 1,3-Butadiene                                 CAS #: 106-99-0
  7.868   7.868 (0.470)    54    146619 5.28893    5.289  80.00- 120.00   100.00
  7.868   7.868 (0.470)    39    138141                   65.35- 125.35    94.22
-------------------------------------------------------------------------------
   29 Bromomethane                                  CAS #: 74-83-9
  9.596   9.596 (0.574)    94    137256 6.58036    6.580  80.00- 120.00   100.00(R)
  9.596   9.596 (0.574)    96    127101                   64.03- 124.03    92.60
-------------------------------------------------------------------------------
   30 Chloroethane                                  CAS #: 75-00-3
 10.198  10.174 (0.610)    64     91162 5.70867    5.709  80.00- 120.00   100.00
 10.198  10.174 (0.610)    49     23153                    0.00-  54.43    25.40
 10.198  10.174 (0.610)    66     29591                    2.17-  62.17    32.46
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RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
31 Isopentane					CAS #: 78-78-4		
10.367	10.367 (0.620)	57	153995	5.48414	5.484	80.00- 120.00	100.00
10.367	10.367 (0.620)	43	218386			110.67- 170.67	141.81
10.367	10.367 (0.620)	42	193036			93.85- 153.85	125.35
35 Freon 11					CAS #: 75-69-4		
11.114	11.114 (0.664)	101	516331	5.70306	5.703	80.00- 120.00	100.00
11.114	11.114 (0.664)	103	331711			34.69- 94.69	64.24
42 Ethanol					CAS #: 64-17-5		
12.269	12.269 (0.734)	45	69872	5.85036	5.850	80.00- 120.00	100.00
12.269	12.269 (0.734)	46	30105			11.01- 71.01	43.09
12.269	12.269 (0.734)	43	15159			0.00- 50.63	21.70
49 Freon 113					CAS #: 76-13-1		
12.763	12.763 (0.763)	151	334663	5.04306	5.043	80.00- 120.00	100.00
12.763	12.763 (0.763)	153	213656			34.65- 94.65	63.84
12.763	12.763 (0.763)	101	409842			90.37- 150.37	122.46
50 1,1-Dichloroethene					CAS #: 75-35-4		
12.736	12.736 (0.761)	98	124706	5.21470	5.215	80.00- 120.00	100.00
12.736	12.736 (0.761)	61	311393			216.58- 276.58	249.70
12.736	12.736 (0.761)	96	194673			128.21- 188.21	156.10
52 Acetone					CAS #: 67-64-1		
13.093	13.093 (0.783)	58	90701	5.17600	5.176	80.00- 120.00	100.00
13.093	13.093 (0.783)	43	272702			275.09- 335.09	300.66
56 Carbon Disulfide					CAS #: 75-15-0		
13.120	13.120 (0.784)	76	483532	4.89342	4.893	80.00- 120.00	100.00
57 2-Propanol					CAS #: 67-63-0		
13.532	13.532 (0.809)	45	310627	5.51037	5.510	80.00- 120.00	100.00
13.532	13.532 (0.809)	43	64312			0.00- 49.91	20.70
13.532	13.532 (0.809)	59	12851			0.00- 34.18	4.14
58 3-Chloropropene					CAS #: 107-05-1		
13.697	13.697 (0.819)	76	77921	4.96674	4.967	80.00- 120.00	100.00
13.697	13.697 (0.819)	41	196295			218.66- 278.66	251.91
66 Methylene Chloride					CAS #: 75-09-2		
14.027	14.027 (0.839)	84	183892	4.82079	4.821	80.00- 120.00	100.00
14.027	14.027 (0.839)	49	223965			88.46- 148.46	121.79
14.027	14.027 (0.839)	51	69470			6.78- 66.78	37.78
72 Methyl tert-butyl ether					CAS #: 1634-04-4		
14.439	14.439 (0.863)	73	550692	5.24153	5.242	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
72 Methyl tert-butyl ether (continued)							
14.439	14.439 (0.863)	57	120696			0.00- 52.12	21.92
14.439	14.439 (0.863)	41	118802			0.00- 51.31	21.57
73 trans-1,2-Dichloroethene					CAS #: 156-60-5		
14.494	14.493 (0.866)	98	110954	4.47590	4.476	80.00- 120.00	100.00
14.494	14.493 (0.866)	61	243121			179.74- 239.74	219.12
14.494	14.493 (0.866)	96	174649			125.55- 185.55	157.41
78 Hexane					CAS #: 110-54-3		
14.878	14.878 (0.889)	57	305836	5.37226	5.372	80.00- 120.00	100.00
14.878	14.878 (0.889)	43	184454			31.00- 91.00	60.31
14.878	14.878 (0.889)	86	57364			0.00- 49.39	18.76
82 1,1-Dichloroethane					CAS #: 75-34-3		
15.345	15.345 (0.917)	63	362445	5.52374	5.524	80.00- 120.00	100.00
15.345	15.345 (0.917)	65	116907			1.67- 61.67	32.26
86 Vinyl Acetate					CAS #: 108-05-4		
15.400	15.399 (0.921)	86	49770	5.45888	5.459	80.00- 120.00	100.00
15.400	15.399 (0.921)	42	40038			50.79- 110.79	80.45
15.400	15.399 (0.921)	43	465554			896.60- 956.60	935.40
91 cis-1,2-Dichloroethene					CAS #: 156-59-2		
16.323	16.323 (0.976)	98	155797	5.81463	5.815	80.00- 120.00	100.00
16.323	16.323 (0.976)	61	307303			166.16- 226.16	197.25
16.323	16.323 (0.976)	96	242684			127.31- 187.31	155.77
92 2-Butanone					CAS #: 78-93-3		
16.344	16.344 (0.977)	72	100079	5.35814	5.358	80.00- 120.00	100.00
16.344	16.344 (0.977)	43	356520			324.50- 384.50	356.24
16.344	16.344 (0.977)	57	28746			0.00- 59.24	28.72
99 Tetrahydrofuran					CAS #: 109-99-9		
16.695	16.695 (0.998)	42	219780	5.58605	5.586	80.00- 120.00	100.00
16.695	16.695 (0.998)	71	94435			12.99- 72.99	42.97
16.695	16.695 (0.998)	72	100555			16.36- 76.36	45.75
100 Chloroform					CAS #: 67-66-3		
16.819	16.819 (1.006)	83	416895	5.46819	5.468	80.00- 120.00	100.00
16.819	16.819 (1.006)	85	269932			34.55- 94.55	64.75
102 Cyclohexane					CAS #: 110-82-7		
17.035	17.034 (1.018)	84	296000	5.21522	5.215	80.00- 120.00	100.00
17.035	17.034 (1.018)	56	327361			77.49- 137.49	110.59
17.035	17.034 (1.018)	41	172820			25.74- 85.74	58.39

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
103 1,1,1-Trichloroethane					CAS #: 71-55-6		
17.065	17.065 (1.020)	97	426527	5.32406	5.324	80.00- 120.00	100.00
17.065	17.065 (1.020)	99	273674			34.47- 94.47	64.16
106 Carbon Tetrachloride					CAS #: 56-23-5		
17.250	17.250 (1.031)	119	410154	6.43801	6.438	80.00- 120.00	100.00
17.250	17.250 (1.031)	117	424389			73.36- 133.36	103.47
113 2,2,4-Trimethylpentane					CAS #: 540-84-1		
17.579	17.579 (1.051)	56	296734	5.42407	5.424	80.00- 120.00	100.00
17.579	17.579 (1.051)	57	892972			274.31- 334.31	300.93
17.579	17.579 (1.051)	41	232158			47.10- 107.10	78.24
116 Benzene					CAS #: 71-43-2		
17.620	17.620 (0.966)	78	595096	5.26324	5.263	80.00- 120.00	100.00
17.620	17.620 (0.966)	77	140985			0.00- 53.54	23.69
120 1,2-Dichloroethane					CAS #: 107-06-2		
17.744	17.744 (0.973)	62	256150	5.34219	5.342	80.00- 120.00	100.00
17.744	17.744 (0.973)	64	80337			1.40- 61.40	31.36
121 Heptane					CAS #: 142-82-5		
17.847	17.847 (0.979)	57	171873	5.38912	5.389	80.00- 120.00	100.00
17.847	17.847 (0.979)	100	68280			10.87- 70.87	39.73
17.847	17.847 (0.979)	43	311810			148.15- 208.15	181.42
125 Trichloroethene					CAS #: 79-01-6		
18.610	18.610 (1.021)	130	288895	5.25909	5.259	80.00- 120.00	100.00
18.610	18.610 (1.021)	95	269263			61.17- 121.17	93.20
18.610	18.610 (1.021)	97	178850			29.33- 89.33	61.91
127 Methylcyclohexane					CAS #: 108-87-2		
18.833	18.833 (1.033)	83	375188	5.42443	5.424	80.00- 120.00	100.00
18.833	18.833 (1.033)	55	288786			43.54- 103.54	76.97
18.833	18.833 (1.033)	56	90958			0.00- 53.97	24.24
132 1,2-Dichloropropane					CAS #: 78-87-5		
19.079	19.056 (1.046)	63	231173	5.34882	5.349	80.00- 120.00	100.00
19.056	19.079 (1.045)	62	166774			41.36- 101.36	72.14
19.056	19.056 (1.045)	41	130583			24.32- 84.32	56.49
136 1,4-Dioxane					CAS #: 123-91-1		
19.213	19.213 (1.054)	88	157201	5.23503	5.235	80.00- 120.00	100.00
19.213	19.213 (1.054)	58	104205			34.13- 94.13	66.29
19.213	19.213 (1.054)	57	33934			0.00- 50.75	21.59

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
138 Bromodichloromethane					CAS #: 75-27-4		
19.503	19.503 (0.821)	83	430707	5.68527	5.685	80.00- 120.00	100.00
19.503	19.503 (0.821)	85	278530			34.23- 94.23	64.67
144 cis-1,3-Dichloropropene					CAS #: 10061-01-5		
20.338	20.338 (1.116)	75	369738	5.17149	5.171	80.00- 120.00	100.00
20.338	20.338 (1.116)	77	115837			1.78- 61.78	31.33
20.338	20.338 (1.116)	39	174555			16.15- 76.15	47.21
145 4-Methyl-2-pentanone					CAS #: 108-10-1		
20.557	20.556 (1.128)	43	454763	5.65915	5.659	80.00- 120.00	100.00
20.557	20.556 (1.128)	58	186357			11.51- 71.51	40.98
20.572	20.556 (1.128)	85	83515			0.00- 48.80	18.36
147 Toluene					CAS #: 108-88-3		
20.962	20.962 (1.150)	91	680835	5.26095	5.261	80.00- 120.00	100.00
20.962	20.962 (1.150)	92	412253			30.55- 90.55	60.55
150 trans-1,3-Dichloropropene					CAS #: 10061-02-6		
21.564	21.564 (0.908)	75	321290	5.71804	5.718	80.00- 120.00	100.00
21.564	21.564 (0.908)	77	101934			1.21- 61.21	31.73
21.564	21.535 (0.908)	39	148003			14.72- 74.72	46.07
155 1,1,2-Trichloroethane					CAS #: 79-00-5		
21.999	21.999 (0.926)	97	261642	5.09882	5.099	80.00- 120.00	100.00
21.999	21.999 (0.926)	99	163673			32.55- 92.55	62.56
21.999	21.999 (0.926)	83	221668			53.25- 113.25	84.72
156 Tetrachloroethene					CAS #: 127-18-4		
22.174	22.174 (0.933)	166	378602	5.32994	5.330	80.00- 120.00	100.00
22.145	22.145 (0.932)	129	265953			39.98- 99.98	70.25
22.174	22.145 (0.933)	131	255462			38.96- 98.96	67.48
158 2-Hexanone					CAS #: 591-78-6		
22.406	22.406 (0.943)	58	228841	5.53084	5.531	80.00- 120.00	100.00
22.406	22.406 (0.943)	43	402191			146.44- 206.44	175.75
22.406	22.406 (0.943)	100	52900			0.00- 54.43	23.12
160 Dibromochloromethane					CAS #: 124-48-1		
22.784	22.784 (0.959)	129	444654	5.55896	5.559	80.00- 120.00	100.00
22.784	22.784 (0.959)	127	348882			47.16- 107.16	78.46
161 1,2-Dibromoethane (EDB)					CAS #: 106-93-4		
23.045	23.045 (0.970)	107	406989	5.51991	5.520	80.00- 120.00	100.00
23.045	23.045 (0.970)	109	383303			63.61- 123.61	94.18

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
165 Chlorobenzene					CAS #: 108-90-7		
23.823	23.823 (1.003)	112	558790	5.44015	5.440	80.00- 120.00	100.00
23.823	23.823 (1.003)	114	178358			2.46- 62.46	31.92
23.823	23.823 (1.003)	77	316436			27.29- 87.29	56.63
167 Ethyl Benzene					CAS #: 100-41-4		
23.905	23.905 (1.006)	106	266002	5.36536	5.365	80.00- 120.00	100.00
23.905	23.905 (1.006)	91	815313			278.69- 338.69	306.51
169 m,p-Xylene					CAS #: 108-38-3		
24.091	24.091 (1.014)	106	288370	5.33108	5.331	80.00- 120.00	100.00
24.091	24.091 (1.014)	91	556035			164.82- 224.82	192.82
171 o-Xylene					CAS #: 95-47-6		
24.710	24.710 (1.040)	106	282486	5.33560	5.336	80.00- 120.00	100.00
24.710	24.710 (1.040)	91	582556			174.08- 234.08	206.22
172 Styrene					CAS #: 100-42-5		
24.730	24.730 (1.041)	104	412540	5.06159	5.062	80.00- 120.00	100.00
24.730	24.730 (1.041)	78	206875			19.76- 79.76	50.15
174 Bromoform					CAS #: 75-25-2		
25.068	25.068 (1.055)	173	587938	7.66130	7.661	80.00- 120.00	100.00
25.068	25.068 (1.055)	171	298642			21.57- 81.57	50.79
175 Cumene					CAS #: 98-82-8		
25.182	25.181 (1.060)	105	857084	5.24417	5.244	80.00- 120.00	100.00
25.182	25.181 (1.060)	120	237555			0.00- 57.92	27.72
181 1,1,2,2-Tetrachloroethane					CAS #: 79-34-5		
25.656	25.656 (1.080)	83	532086	5.57981	5.580	80.00- 120.00	100.00
25.656	25.656 (1.080)	85	341724			34.06- 94.06	64.22
182 Propylbenzene					CAS #: 103-65-1		
25.732	25.731 (1.083)	91	792307	4.99953	5.000	80.00- 120.00	100.00
25.732	25.731 (1.083)	120	185809			0.00- 54.46	23.45
188 4-Ethyltoluene					CAS #: 622-96-8		
25.864	25.864 (1.089)	105	625730	4.58791	4.588	80.00- 120.00	100.00
25.864	25.864 (1.089)	120	191879			0.68- 60.68	30.66
190 1,3,5-Trimethylbenzene					CAS #: 108-67-8		
25.940	25.940 (1.092)	105	610504	5.05661	5.057	80.00- 120.00	100.00
25.940	25.940 (1.092)	120	312381			21.16- 81.16	51.17
196 1,2,4-Trimethylbenzene					CAS #: 95-63-6		
26.395	26.395 (1.111)	105	608258	5.10463	5.105	80.00- 120.00	100.00

RT	EXP RT (REL RT)	MASS	RESPONSE	CONCENTRATIONS ON-COL (PPBV)	FINAL (PPBV)	TARGET RANGE	RATIO
196 1,2,4-Trimethylbenzene (continued)							
26.395	26.395 (1.111)	120	287643			18.29- 78.29	47.29
208 1,3-Dichlorobenzene					CAS #: 541-73-1		
26.810	26.810 (1.128)	146	422235	5.09417	5.094	80.00- 120.00	100.00
26.810	26.810 (1.128)	148	267791			33.99- 93.99	63.42
26.794	26.794 (1.128)	111	166621			9.12- 69.12	39.46
209 1,4-Dichlorobenzene					CAS #: 106-46-7		
26.919	26.919 (1.133)	146	366929	4.66106	4.661	80.00- 120.00	100.00
26.919	26.919 (1.133)	148	235123			33.88- 93.88	64.08
26.919	26.919 (1.133)	111	140217			7.98- 67.98	38.21
212 alpha-Chlorotoluene					CAS #: 100-44-7		
27.075	27.075 (1.139)	91	470198	5.81472	5.815	80.00- 120.00	100.00
27.075	27.075 (1.139)	126	100452			0.00- 51.77	21.36
214 1,2-Dichlorobenzene					CAS #: 95-50-1		
27.371	27.371 (1.152)	146	377790	4.93867	4.939	80.00- 120.00	100.00
27.371	27.371 (1.152)	148	239899			33.08- 93.08	63.50
27.371	27.371 (1.152)	111	155901			11.01- 71.01	41.27
226 1,2,4-Trichlorobenzene					CAS #: 120-82-1		
29.382	29.382 (1.237)	180	437190	5.30909	5.309	80.00- 120.00	100.00
29.382	29.382 (1.237)	182	420436			64.78- 124.78	96.17
227 Hexachlorobutadiene					CAS #: 87-68-3		
29.507	29.507 (1.242)	225	298979	4.67829	4.678	80.00- 120.00	100.00
29.507	29.507 (1.242)	223	184884			32.96- 92.96	61.84
228 Naphthalene					CAS #: 91-20-3		
29.772	29.772 (1.253)	128	71978	0.55959	0.5596	80.00- 120.00	100.00
29.772	29.772 (1.253)	127	9856			0.00- 43.33	13.69

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Eurofins Air Toxics Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: msd20.i
Lab File ID: 20061504.d
Lab Smp Id: LCSD
Analysis Type: VOA
Quant Type: ISTD
Operator: ef
Method File: /chem/msd20.i/15Jun2016.b/2016l0613a.m
Misc Info: 5.0ppbv (50ppbv)

Calibration Date: 15-JUN-2016
Calibration Time: 11:00
Client Smp ID: LCSD
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	117579	70547	164611	117316	-0.22
123 1,4-Difluorobenze	491034	294620	687448	488213	-0.57
163 Chlorobenzene-d5	413171	247903	578439	400178	-3.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
98 Bromochloromethan	16.73	16.40	17.06	16.73	0.00
123 1,4-Difluorobenze	18.23	17.90	18.56	18.23	0.00
163 Chlorobenzene-d5	23.76	23.43	24.09	23.76	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/msd20.i/15Jun2016.b/20061504.d

Date : 15-JUN-2016 12:29

Client ID: LCSD

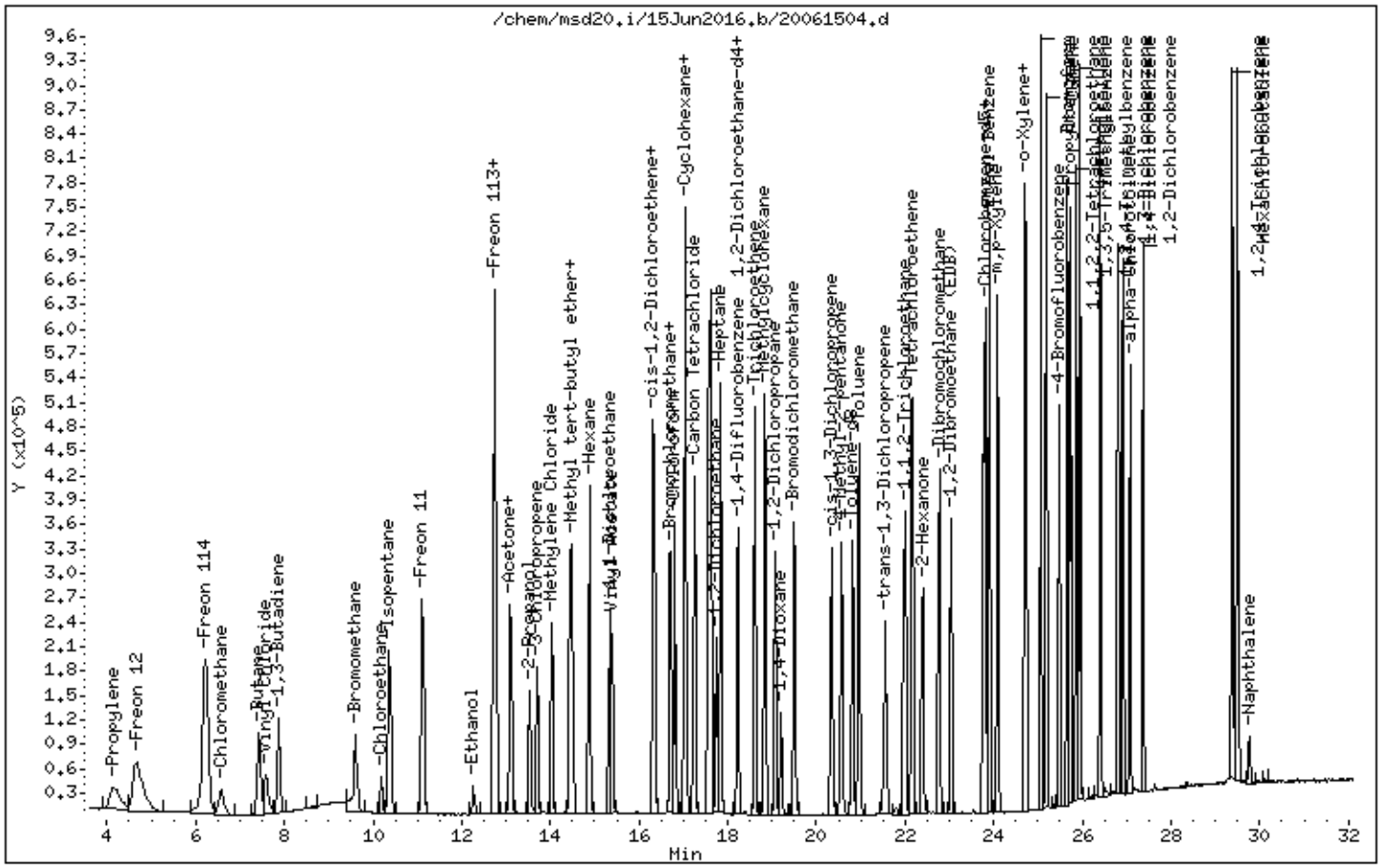
Instrument: msd20.i

Sample Info: 25mL#2789-169

Operator: ef

Column phase: RTX-624

Column diameter: 0.32



Eurofins Air Toxics, Inc. **MSD-20** **Logbook #2796**

BFB Verification of 176/174 m/z Ratio: (584896 / 605184) x 100 = 96.65	
Method Name: 2016L0613A / 2016S0613A	

IS/S Std. #:	2789-89	Exp. Date:	7/21/16
BCM	LL: 117589	SIM:	1183846
1,4-DFB	49,034		510834
CB-d5	41,371		426563

Verified CCV IS vs ICAL mid-point (-40%D): ___

SOP# (Circle one): 6 / 83 / 38 / 91 / 109 / 132 Method (Circle one): TO-14A/TO-15/TO-17

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
1	✓	20061501	BFB tune check	2299-1276 ~~1276~~ 6/14/16	50ng	2.0mL	1.00		6/15/16	1028		
2	✓	02	CCV (50ppbv)	2789-176	5.0ppbv	25mL	1.00			1100		Exp. 9/6/16 ✓ out LL: 1 out
3	✓	03	LCS (50ppbv)	2789-169	5.0ppbv	25mL	1.00			1145		Exp. 9/6/16 SIM: ✓ out
4	✓	04	LCSD (50ppbv)	2789-169	5.0ppbv	25mL	1.00			1229		Exp. 9/6/16
5	✓	05	LAB BLANK	35248	4 mmHg	250mL	1.00			1316		LL OK, multiple SIM "a"
6	✓	06	1606234-04A	26247	6.1" Hg - 4.9psi	250mL	1.61			1412		
7	✓	07	-05A	6L0093	5.9" Hg - 5.1psi	250mL	1.68			1503		
8	✓	08	-06A	30838	5.5" Hg - 5.1psi	200mL	~~1.65~~ 2.06 6/14/16			1548	MB	Dil. ~~dfc~~ matrix MB 6/15/16
9	✓	09	-07A	25314	5.3" Hg → 5.2psi	250mL	1.64	MB		1652	MB	
10	✓	10	-08A	6L0010	4.5" Hg → 5.0psi	250mL	1.58	MB		1731	MB	
11	X	11	-10A	6L0700	5.1" Hg → 5.0psi	25mL	16.1	MB		1809	MB	overdilute
12	✓	12	-10A	↓	↓	40mL	10.1	MB		1857	MB	Dil. matrix
13	✓	13	-11A	36032	5.9" Hg → 5.0psi	250mL	1.67	MB		1936	MB	
14	✓	14	1606298A-01A	6L1283	5.3" Hg → 4.8psi	250mL	1.61	MB		2015	MB	
15	✓	15	-02A	03536	5.7" Hg → 5.2psi	250mL	1.67	MB		2102	MB	
16	✓	16	-03A	6L0748	5.1" Hg → 4.8psi	250mL	1.60	MB		2141	MB	
17	✓	17	-04A	6L0678	8.4" Hg → 5.1psi	250mL	1.87	MB		2220		

MB
Reviewed

6/15/16
Date

	Use	File	Lab ID#	Can#/ Standard ID#	Pressure	Amt. Loaded	DF	Loaded By Initials	Date Analyzed	Time Analyzed	Reviewed By Initials	Comments/Standard Expiration Date
18	/	20061518	1606298A-05A	CL0407	4.9"Hg-4.9psi	250mL	1.59	MD	6/15/16	2259	[illegible]	
19	/	19	-06A	34423	6.1"Hg · 5.1psi	250mL	1.69	[illegible]	6/16/16	0828	[illegible]	
20	/	20	-07A	440	5.7"Hg · 5.0psi	250mL	1.53	[illegible]		0907	[illegible]	
21	/	21	-08A	25249	8.8"Hg · 4.8psi	250mL	1.83	[illegible]		0945	[illegible]	
22	C	22	-01A	64233	5.3"Hg · 4.8psi	250mL	1.61	[illegible]		1024	[illegible]	
23												
24												
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38											[illegible]	6/16/16
39												

[illegible] Reviewed

6/16/16 Date

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/13Jun2016.b/20061301.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 13-JUN-2016 10:07
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL# 2299-1276 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/13Jun2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.376	6.640	-0.264	95	448436			100.00- 100.00	100.00
6.376	6.640	-0.264	50	79392			8.00- 40.00	17.70
6.376	6.640	-0.264	75	219997			30.00- 66.00	49.06
6.376	6.640	-0.264	96	30598			5.00- 9.00	6.82
6.376	6.640	-0.264	173	2196			0.00- 1.99	0.58
6.376	6.640	-0.264	174	377472			50.00- 120.00	84.18
6.376	6.640	-0.264	175	26490			4.00- 9.00	7.02
6.376	6.640	-0.264	176	364971			93.00- 101.00	96.69
6.376	6.640	-0.264	177	24122			5.00- 9.00	6.61

Data File: /chem/msd20.i/13Jun2016.b/20061301.d

Date : 13-JUN-2016 10:07

Client ID: BFB

Instrument: msd20.i

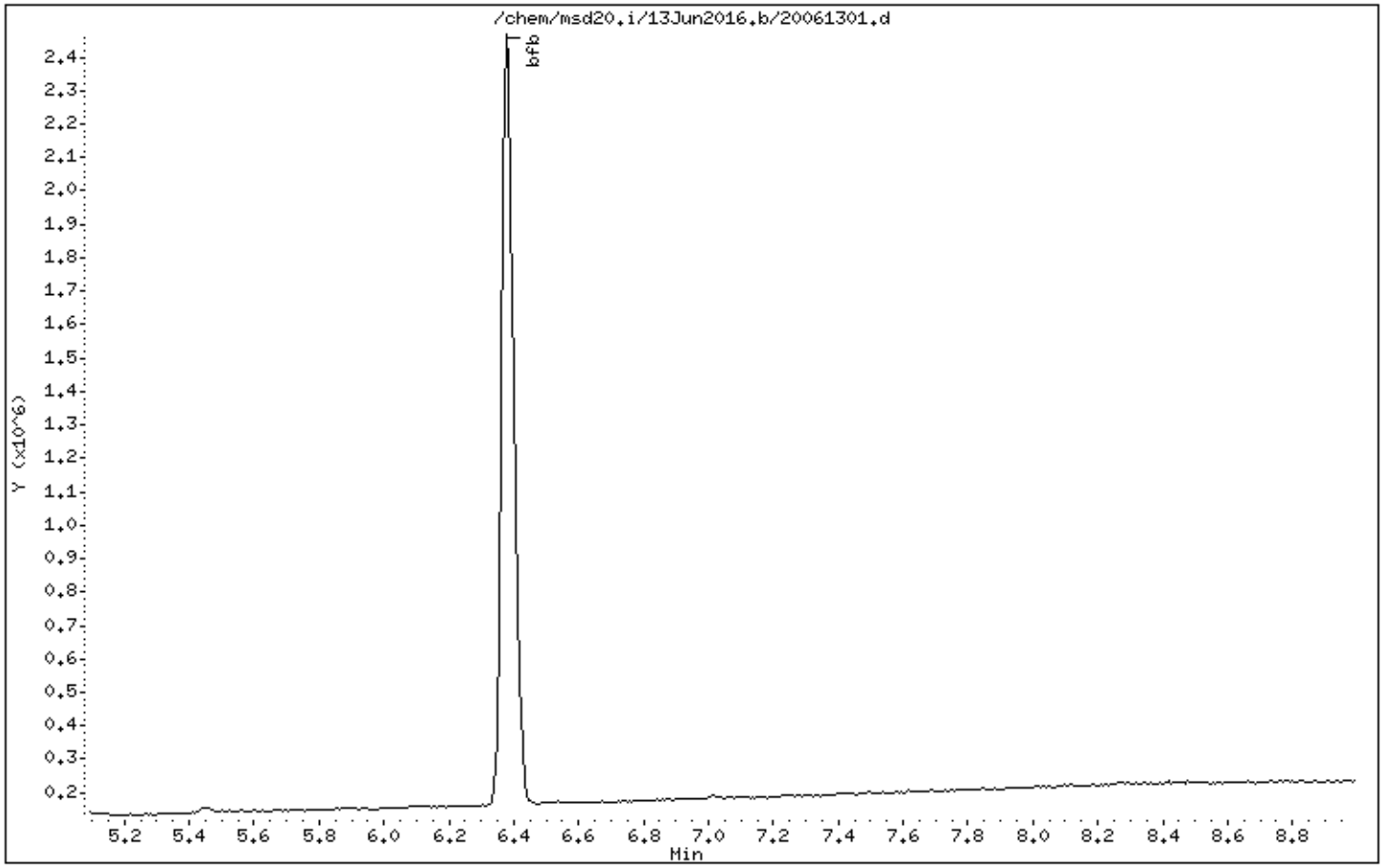
Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/13Jun2016.b/20061301.d

Date : 13-JUN-2016 10:07

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

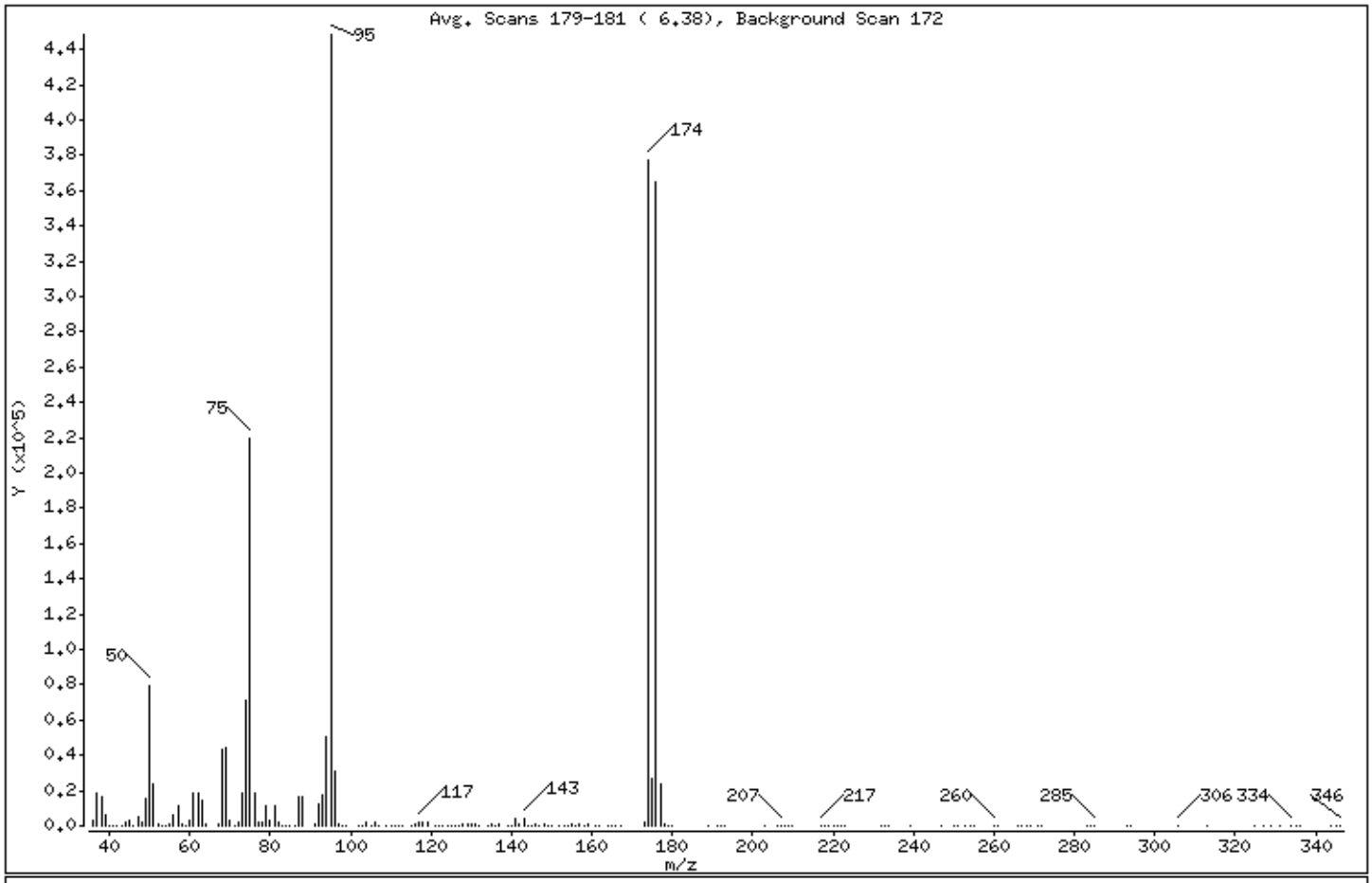
Volume Injected (uL): 1.0

Operator: ef

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	17.70
75	30.00 - 66.00% of mass 95	49.06
96	5.00 - 9.00% of mass 95	6.82
173	Less than 1.99% of mass 174	0.49 (0.58)
174	50.00 - 120.00% of mass 95	84.18
175	4.00 - 9.00% of mass 174	5.91 (7.02)
176	93.00 - 101.00% of mass 174	81.39 (96.69)
177	5.00 - 9.00% of mass 176	5.38 (6.61)

Data File: /chem/msd20.i/13Jun2016.b/20061301.d

Date : 13-JUN-2016 10:07

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20061301.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 172
Location of Maximum: 95.00
Number of points: 178

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3229	83.00	146	136.00	159	210.00	4
37.00	18496	84.00	25	137.00	629	217.00	111
38.00	16448	85.00	144	139.00	139	218.00	104
39.00	5936	86.00	495	140.00	377	219.00	87
40.00	128	87.00	16800	141.00	4234	220.00	74
41.00	64	88.00	16760	142.00	538	221.00	47
42.00	12	91.00	1437	143.00	4517	222.00	50
43.00	192	92.00	12033	144.00	309	223.00	38
44.00	2048	93.00	17976	145.00	348	232.00	93
45.00	3216	94.00	50496	146.00	600	233.00	23
46.00	297	95.00	448384	147.00	196	234.00	43
47.00	4828	96.00	30592	148.00	1074	239.00	100
48.00	2327	97.00	847	149.00	278	247.00	46
49.00	15873	98.00	136	150.00	455	250.00	63
50.00	79392	99.00	50	152.00	287	251.00	50
51.00	24040	102.00	50	153.00	432	253.00	382
52.00	1061	103.00	200	154.00	385	254.00	2
53.00	40	104.00	1746	155.00	1111	255.00	219
54.00	11	105.00	410	156.00	164	260.00	445
55.00	1022	106.00	1824	157.00	920	261.00	3
56.00	5925	107.00	444	158.00	37	266.00	29
57.00	10868	109.00	159	159.00	608	267.00	16
58.00	517	110.00	232	161.00	476	268.00	35
59.00	199	111.00	473	162.00	12	269.00	131
60.00	3410	112.00	200	164.00	2	271.00	21
61.00	18272	113.00	465	165.00	63	272.00	3
62.00	18488	115.00	405	166.00	122	283.00	194
63.00	14599	116.00	1389	167.00	56	284.00	136
64.00	1338	117.00	2535	173.00	2196	285.00	206
67.00	893	118.00	1564	174.00	377472	293.00	39
68.00	43456	119.00	2266	175.00	26488	294.00	136
69.00	43832	121.00	74	176.00	364928	306.00	43
70.00	3275	122.00	52	177.00	24120	313.00	2
71.00	202	123.00	209	178.00	686	325.00	28
72.00	2158	124.00	330	179.00	24	327.00	86

Data File: /chem/msd20.i/13Jun2016.b/20061301.d

Date : 13-JUN-2016 10:07

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20061301.d
Spectrum: Avg. Scans 179-181 (6.38), Background Scan 172
Location of Maximum: 95.00
Number of points: 178

m/z	Y	m/z	Y	m/z	Y	m/z	Y
73.00	18400	125.00	143	180.00	58	329.00	237
74.00	70888	126.00	139	189.00	78	331.00	37
75.00	219968	127.00	200	191.00	233	334.00	249
76.00	18552	128.00	1450	192.00	39	335.00	15
77.00	2069	129.00	670	193.00	244	336.00	22
78.00	1610	130.00	1516	203.00	13	344.00	10
79.00	10900	131.00	635	206.00	6	345.00	38
80.00	3378	132.00	145	207.00	496	346.00	30
81.00	11522	134.00	115	208.00	219		
82.00	2332	135.00	689	209.00	335		

Eurofins Air Toxics Inc.

Data file : /chem/msd20.i/15Jun2016.b/20061501.d
Lab Smp Id: Client Smp ID: BFB
Inj Date : 15-JUN-2016 10:28
Operator : ef Inst ID: msd20.i
Smp Info : 2.0uL# 2299-1276 ; BFB Tune Check
Misc Info : 50ng
Comment :
Method : /chem/msd20.i/15Jun2016.b/bfb60.m
Meth Date : 23-Feb-2015 08:54 efinn Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.50 Sample Matrix: WATER
Processing Host: eeyore

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Uf	1.00000	ng unit correction factor
Vf	1.00000	Volumetric correction factor
Vi	1.00000	Injection Volume

Cpnd Variable Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ug/L)	FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
6.369	6.640	-0.271	95	732416			100.00- 100.00	100.00
6.369	6.640	-0.271	50	137592			8.00- 40.00	18.79
6.369	6.640	-0.271	75	368626			30.00- 66.00	50.33
6.369	6.640	-0.271	96	49863			5.00- 9.00	6.81
6.369	6.640	-0.271	173	3373			0.00- 1.99	0.56
6.369	6.640	-0.271	174	605184			50.00- 120.00	82.63
6.369	6.640	-0.271	175	43192			4.00- 9.00	7.14
6.369	6.640	-0.271	176	584921			93.00- 101.00	96.65
6.369	6.640	-0.271	177	38417			5.00- 9.00	6.57

Data File: /chem/msd20.i/15Jun2016.b/20061501.d

Date : 15-JUN-2016 10:28

Client ID: BFB

Instrument: msd20.i

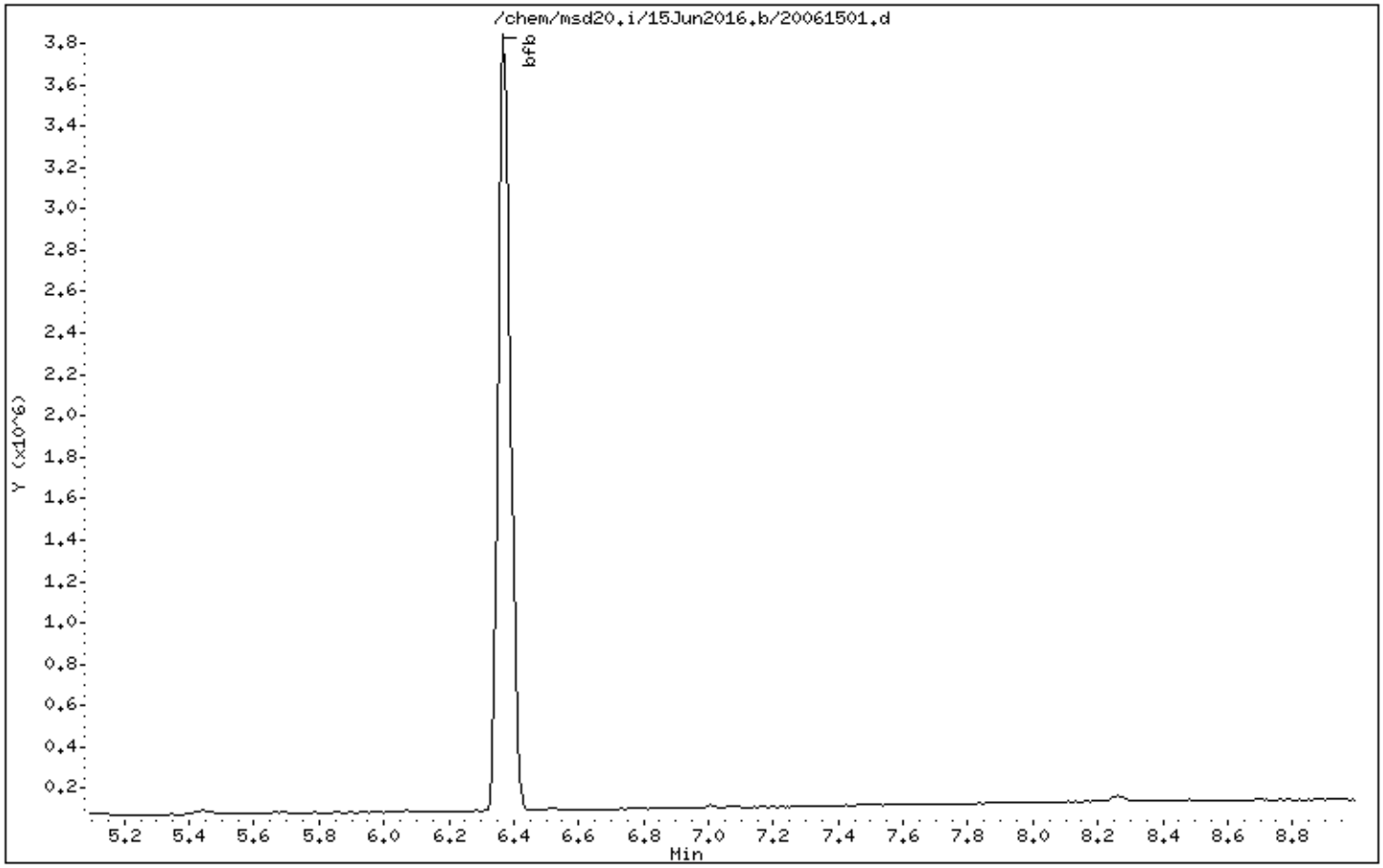
Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00



Data File: /chem/msd20.i/15Jun2016.b/20061501.d

Date : 15-JUN-2016 10:28

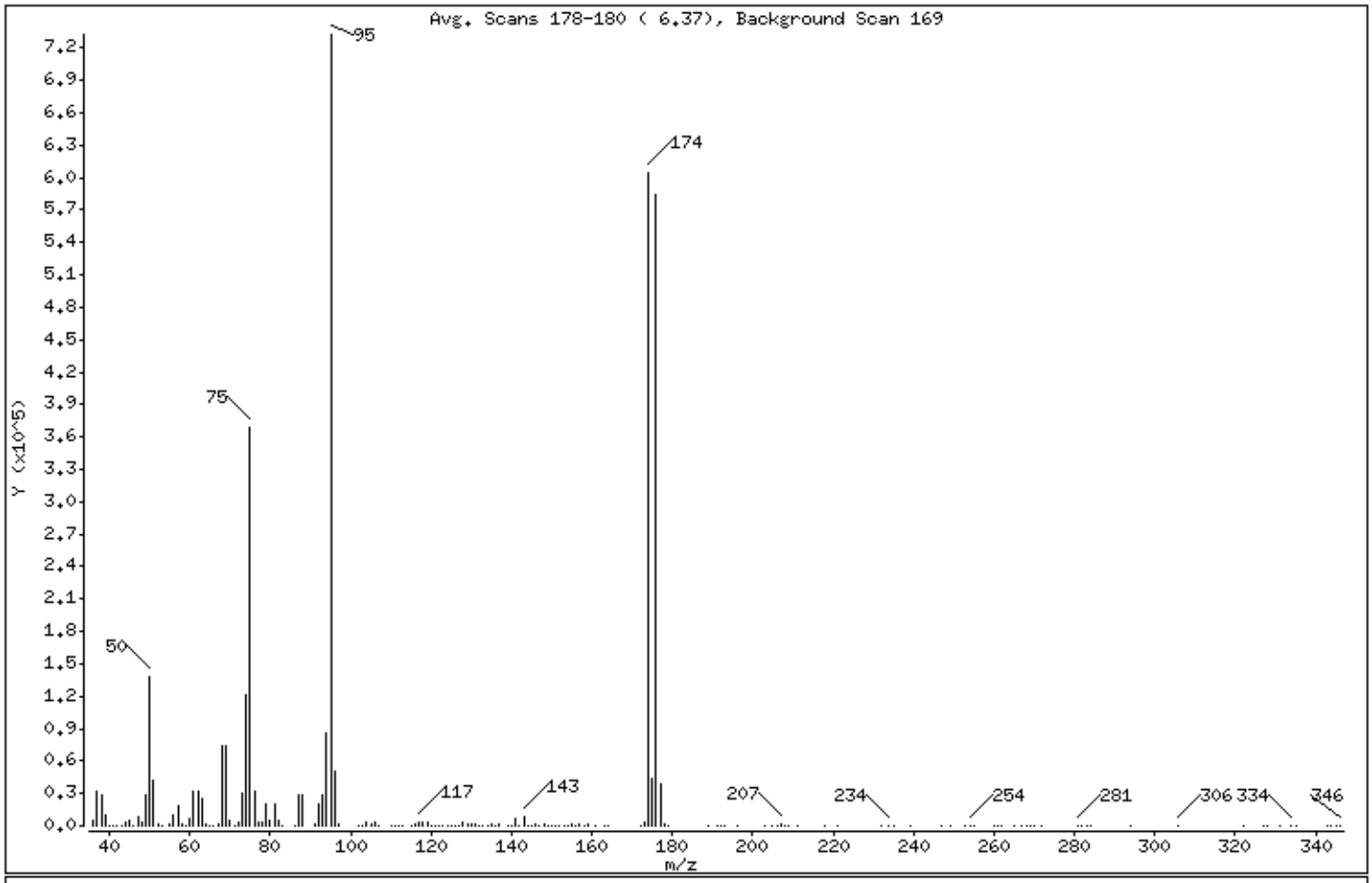
Client ID: BFB Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0 Operator: ef

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	18.79
75	30.00 - 66.00% of mass 95	50.33
96	5.00 - 9.00% of mass 95	6.81
173	Less than 1.99% of mass 174	0.46 (0.56)
174	50.00 - 120.00% of mass 95	82.63
175	4.00 - 9.00% of mass 174	5.90 (7.14)
176	93.00 - 101.00% of mass 174	79.86 (96.65)
177	5.00 - 9.00% of mass 176	5.25 (6.57)

Data File: /chem/msd20.i/15Jun2016.b/20061501.d

Date : 15-JUN-2016 10:28

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20061501.d
Spectrum: Avg. Scans 178-180 (6.37), Background Scan 169
Location of Maximum: 95.00
Number of points: 170

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5375	80.00	5638	134.00	270	206.00	14
37.00	31312	81.00	21040	135.00	1282	207.00	2346
38.00	28600	82.00	4578	136.00	202	208.00	780
39.00	10936	83.00	567	137.00	1301	209.00	296
40.00	323	86.00	697	139.00	267	211.00	117
41.00	122	87.00	28488	140.00	489	218.00	61
42.00	29	88.00	28032	141.00	7359	221.00	7
43.00	274	91.00	2283	142.00	750	232.00	94
44.00	3418	92.00	20328	143.00	7734	234.00	114
45.00	5803	93.00	29352	144.00	445	235.00	60
46.00	407	94.00	85184	145.00	498	239.00	41
47.00	8046	95.00	732416	146.00	1090	247.00	16
48.00	3907	96.00	49856	147.00	512	249.00	18
49.00	28360	97.00	1788	148.00	1931	253.00	94
50.00	137536	102.00	6	149.00	487	254.00	196
51.00	42120	103.00	366	150.00	720	255.00	63
52.00	1862	104.00	3042	151.00	60	260.00	111
53.00	192	105.00	897	152.00	355	261.00	132
55.00	1675	106.00	3100	153.00	588	262.00	19
56.00	9993	107.00	711	154.00	480	265.00	115
57.00	18920	110.00	550	155.00	1728	267.00	112
58.00	896	111.00	716	156.00	506	268.00	45
59.00	19	112.00	475	157.00	1275	269.00	219
60.00	6127	113.00	642	158.00	305	270.00	241
61.00	32296	115.00	733	159.00	910	272.00	53
62.00	31936	116.00	2464	161.00	795	281.00	407
63.00	24896	117.00	4205	163.00	56	282.00	287
64.00	2161	118.00	2651	164.00	95	283.00	49
65.00	161	119.00	3445	172.00	247	284.00	30
66.00	52	120.00	291	173.00	3373	294.00	65
67.00	1679	121.00	250	174.00	605184	306.00	40
68.00	73976	122.00	115	175.00	43192	322.00	1
69.00	74848	123.00	264	176.00	584896	327.00	144
70.00	5791	124.00	450	177.00	38416	328.00	125
71.00	336	125.00	53	178.00	1273	331.00	4

Data File: /chem/msd20.i/15Jun2016.b/20061501.d

Date : 15-JUN-2016 10:28

Client ID: BFB

Instrument: msd20.i

Sample Info: 2.0uL# 2299-1276 ; BFB Tune Check

Volume Injected (uL): 1.0

Operator: ef

Column phase:

Column diameter: 2.00

Data File: 20061501.d
Spectrum: Avg. Scans 178-180 (6.37), Background Scan 169
Location of Maximum: 95.00
Number of points: 170

m/z	Y	m/z	Y	m/z	Y	m/z	Y
72.00	3543	126.00	207	179.00	18	334.00	160
73.00	30104	127.00	388	189.00	205	335.00	149
74.00	121280	128.00	2786	191.00	349	343.00	125
75.00	368576	129.00	1348	192.00	52	344.00	106
76.00	31736	130.00	2517	193.00	170	345.00	117
77.00	3992	131.00	1191	196.00	112	346.00	57
78.00	2532	132.00	153	203.00	60		
79.00	20640	133.00	311	205.00	45		

Shipping/ Receiving Documents

Eurofins Air Toxics, Inc. Sample Receipt Confirmation Cover Page

Thank you for choosing Eurofins Air Toxics, Inc. (EATL). We have received your samples and have listed any Sample Receipt Descrepancies below.

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

For corrections call: **Brian Whittaker at 916-985-1000**

EATL will proceed with the analysis as specified on the Chain of Custody (COC) and Sample Receipt Summary page.

Please note : The Sample Receipt Confirmation, including the total workorder charge, is subject to change upon secondary review. Our aim is to provide a confirmation to you in a timely manner. Sample Receipt Discrepancies, if any, may not include discrepancies regarding sample receipt pressure(s). Additionally, the COC will be provided with the final report.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630

(916) 985-1000 .FAX (916) 985-1020
Hours 6:30 A.M to 5:30 P.M. PST

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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

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

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

Turn Around Time:
☒ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	B7IA-1(061016)	61283	6/11/16	1850	TO-15	30	7		
02A	B7IA-1D(061016)	Ø3536	6/11/16	1850	TO-15	30	6.5		
03A	B7IA-2(061016)	0Ø389	6/11/16	1950	TO-15	30	7		
04A	B7IA-3(061016)	0Ø354	6/11/16	1947	TO-15	30	9		
05A	B7IA-4(061016)	NØ584	6/11/16	1919	TO-15	30	8		
06A	B7IA-5(061016)	34423	6/11/16	1909	TO-15	30	5		
07A	B7IA-6(061016)	44Ø	6/11/16	1937	TO-15	28	6		
08A	B7AA(061016)	25249	6/11/16	1825	TO-15	30	9		
	B7SS-1(061216)	37677	6/12/16	1252	TO-15	30	5		
	B7SS-1D(061216)	34581	6/12/16	1251	TO-15	30	5		

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

Notes:

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

Form 1293 rev.11

eurofins | Air Toxics

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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

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

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

Turn Around Time:
☒ Normal
☐ Rush
specify

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

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
	B7SS-2(061216)	36539	6/12/16	1347	TO-15	30	5		
	B7SS-3(061216)	N2040	6/12/16	1705	TO-15	21	3		
	B7SS-4(061216)	35658	6/12/16	1620	TO-15	30	5		
	B7SS-5(061216)	1L2744	6/12/16	1116	TO-15	30	5		
	B7SS-6(061216)	1L1606	6/12/16	1748	TO-15	29	5		
	B15SS-1(061216)	35677	6/12/16	2012	TO-15	30	5		

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

Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	FedEx		N2	Good	Yes No None	1606298

Form 1293 rev.11

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SAMPLE RECEIPT SUMMARY

WORKORDER 1606298A

Client

Mr. Terry Taylor
Anderson Mulholland &
Associates, Inc.
2700 Westchester Avenue
Suite 417
Purchase, NY 10577

Sales Rep: N/A

Phone

(914) 251-0400

Fax

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

Total $: $ 2,591.21
Logged By: MH

Fraction	Sample #	Analysis	Collected	Receipt Vac./Pres.	Amount$
01A	B7IA-1(061016)	Modified TO-15	6/11/2016	5.3 "Hg	$135.00
01AA	B7IA-1(061016) Lab Duplicate	Modified TO-15	6/11/2016	5.3 "Hg	$0.00
02A	B7IA-1D(061016)	Modified TO-15	6/11/2016	5.7 "Hg	$135.00
03A	B7IA-2(061016)	Modified TO-15	6/11/2016	5.1 "Hg	$135.00
04A	B7IA-3(061016)	Modified TO-15	6/11/2016	8.4 "Hg	$135.00
05A	B7IA-4(061016)	Modified TO-15	6/11/2016	4.9 "Hg	$135.00
06A	B7IA-5(061016)	Modified TO-15	6/11/2016	6.1 "Hg	$135.00
07A	B7IA-6(061016)	Modified TO-15	6/11/2016	3.7 "Hg	$135.00
08A	B7AA(061016)	Modified TO-15	6/11/2016	8.8 "Hg	$135.00
09A	Lab Blank	Modified TO-15	NA	NA	$0.00
10A	CCV	Modified TO-15	NA	NA	$0.00
11A	LCS	Modified TO-15	NA	NA	$0.00
11AA	LCSD	Modified TO-15	NA	NA	$0.00

Misc. Charges	1 Liter Summa Canister (100% Certified) (8) @ $40.00 each., Shipme	$320.00
	6 Liter Summa Canister (100% Certified) (8) @ $55.00 each., Shipme	$440.00
	Blue Body Flow Controller (100% Certified) (8) @ $10.00 each., Ship	$80.00
	Flow Controller-24 hr (100% Certified) (8) @ $25.00 each., Shipment	$200.00
	eCVP (8) @ $5.00 each.	$40.00
	Shipping Charges (Shipped Via DHL DHL EXPRESS WORLDWIDE	$431.21

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: pptv

TERMS:

Reporting Method: Modified TO-15-LL + Naph

Sample Discrepancy Report

Identification

Initiated By: MH **Project ID:**19256 **PM**: BSW **Date:** 6/15/2016 **Discrepancy Type:** ☒ **1.** ☐ **2.** ☐ **3.**

Workorder(s) affected:1606298A **Sample(s) affected:** 02A

1. Sample Receipt Discrepancies

Narration Not Required:

1.1. ☐ Sample container (cartridge/tube/VOA vial) was received broken, however sample was intact.

1.2. ☐ No brass cap on canister.

1.3. ☐ Date of Collection noted on first sample, but no arrow down to indicate all samples.

Notify Lab for further determination:

1.4. ☐ Tedlar bag received with minimal volume.

Initials: MH Date: 6/15/2016

Narration Required in Lab Narrative and Sample Confirmation:

1.5. ☐ COC was not filled out in ink.

1.6. ☐ COC improperly relinquished / received.

1.7. ☒ Sample tags / can numbers do not match the COC.

1.8. ☐ Sample date ☐ error / ☐ missing on COC but noted on sample tag (check one).

1.9. ☐ Custody Seal on the outside of the container was ☐ broken / ☐ improperly placed (check one).

1.10. ☐ ID-none on the sample Tag/Blank

1.11. ☐ Other (describe below).

Describe the Discrepancy: 1.7 02A sample tag do not match the COC

2. Sample Receipt/Screening Discrepancies requiring PM notification

Document on Cover Page of Sample Receipt Confirmation and in Receiving Notes of Lab Narrative

If Section II. is filled out PM must be notified within 24 hrs of initiation

2.1. ☐ COC was not received with samples.

2.2. ☐ Analysis method(s) is ☐ not specified / ☐ incorrectly specified (check one) on the COC.

2.3. ☐ Incorrect sampling media / container for analysis requested.

2.4. ☐ Number of samples on the COC does not match the number of samples that were received.

2.5. ☐ Samples were received expired.

2.6. ☐ Sampling date (time for sulfur) is not documented for ☐ *some* / ☐ *any* samples (check one).

2.7. ☐ Sample received with amount of H_2O in the Tedlar Bag.

2.8. ☐ Sample cannot be analyzed. Container was ☐ received broken / ☐ leaking / ☐ flat / ☐ defective.

2.9. ☐ Tedlar bag / canister received emitting a strong odor; Sample ☐ can / ☐ cannot (check one) be analyzed.

2.10. ☐ Tedlar Bag for Sulfur analysis has metal fitting.

2.11. ☐ Environmental Supply Company valves

2.12. ☐ Sorbent samples-sampling volume was not provided

2.13. ☐ Flow controller used – canister samples received at ambient or under pressure.

2.14. ☐ Canister was at ambient pressure at time of pressurization and (check all that apply):

- ☐ Canister failed leak check on two manifolds,
- ☐ Canister valve was open,
- ☐ Brass nut was loose/not present.
- ☐ Sample can be analyzed
- ☐ Cannot be analyzed

2.15. ☐ Canister sample received with a vacuum difference >5.0"Hg between the receipt vac. And the final vac. reported on the COC, indicating loss of vacuum.

2.16. ☐ Canister sample received at >15"Hg (*not* identified as a Trip/Field Blank).

2.17. ☐ Canister Trip Blank received at low vacuum (<25"Hg).

2.18. ☐ Sorbent Sample received outside method required temperature of 2°C to 6°C; ☐ ice / ☐ blue ice (check one) was present. A temp. Blank ☐ was / ☐ was not present (check one).

2.19. ☐ Flow Controller RPD of = 20% was not met.

2.20. ☐ Other (describe below)

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐

Describe the Discrepancy:

3. Lab Discrepancies requiring Team Leader/PM notification

Document in Analytical Notes of Lab Narrative

If Section III. is filled out PM must be notified within 24 hrs of initiation

3.1. ☐ Tedlar Bag found to be leaking at the time of analysis; sample ☐ can / ☐ cannot (check one) be analyzed.

3.2. ☐ Tedlar Bag found to be flat/low volume; sample cannot be analyzed.

3.3. ☐ Sulfur samples received with insufficient time to analyze prior to expiration.

3.4. ☐ Canister found to be leaking at the time of analysis.

3.5. ☐ VOST tube saturated; bag dilution necessary.

3.6. ☐ Sample loss due to instrument malfunction / broken glassware.

3.7. ☐ Low/high surrogate recoveries noted in QC/sample(s) for extractable samples.

3.8. ☐ Reporting Limit was raised.

3.9. ☐ Post weight > Pre weight in field/lab Blank for PM10/TSP samples.

3.10. ☐ Other (describe below).

Initials: _____ **Date:** _____ **Notify Receiving:** ☐ **Notify PM:** ☐ _____

Team Lead Initials: _____ **Date:** _____

Describe the Discrepancy: _____

_____

_____

How Does this Affect Client: _____

_____

_____

Project Manager Use Only

Project Manager Notification ☐ **Section 2 Complete** ☐ **Section 3 Complete**

Action:

☐ It is not necessary to notify the client. Narrate the discrepancy in Receiving Notes/Analytical Notes of Lab Narrative.

PM Initials:_____ Date: _____

☐ Client notification required. See attached client contact / email, or comments below:

Client Notification:

PM Initials:_____ Person notified: _____ Date: _____

☐ Waiting for Client Reply

Comments: _____

_____

☐ Notify Lab Name: _____ Date: _____ **Notify Receiving:** ☐ _____

☐ **Additional notifications attached.**

Additional Comments:

_____

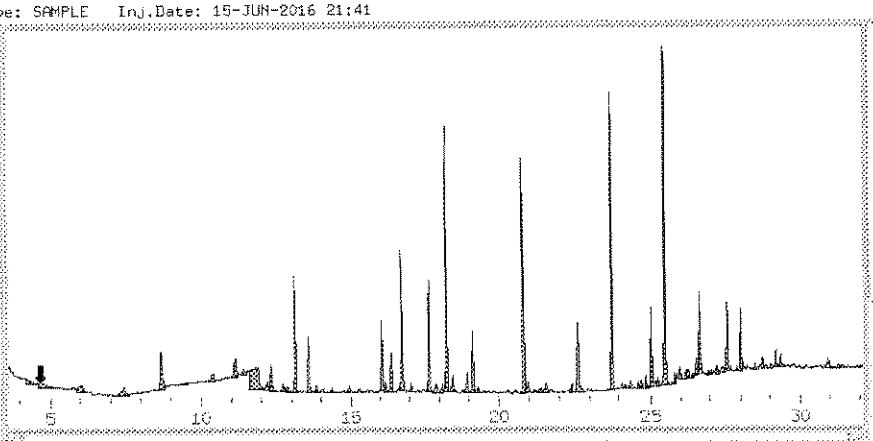
Other Records

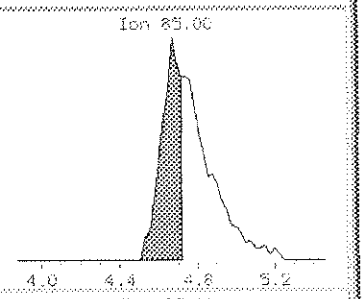
Target Review Report: 1606298A-03A /chem/ms420.p/15jun2016.b/20061516.d

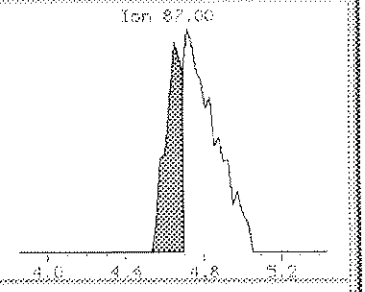
Sample: 1606298A-03A Type: SAMPLE Inj.Date: 15-JUN-2016 21:41

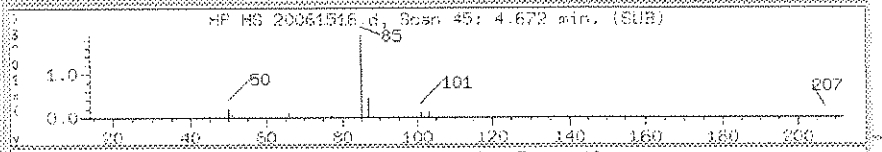
*+ 98 Bromochloromethe
*+ 123 1,4-Difluorobe
*+ 163 Chlorobenzene-
$+ 117 1,2-Dichloroeth
$+ 146 Toluene-d8
$+ 177 4-Bromofluorob
+ 11 Freon 12
15 Freon 114
+ 17 Chloromethane
25 Vinyl Chloride
+ 26 1,3-Butadiene
29 Bromomethane
30 Chloroethane
+ 35 Freon 11
+ 42 Ethanol
+ 49 Freon 113
50 1,1-Dichloroeth
+ 52 Acetone
+ 56 Carbon Disulfi
+ 57 2-Propanol
58 3-Chloropropen
+ 66 Methylene Chlo
72 Methyl tert-bu
73 trans-1,2-Dich
+ 78 Hexane

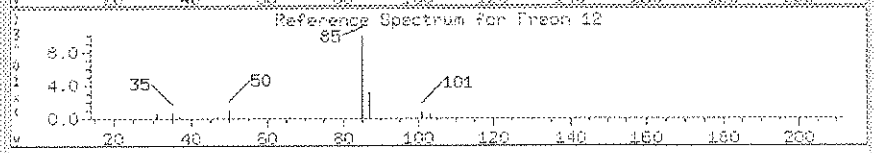
20061516.d







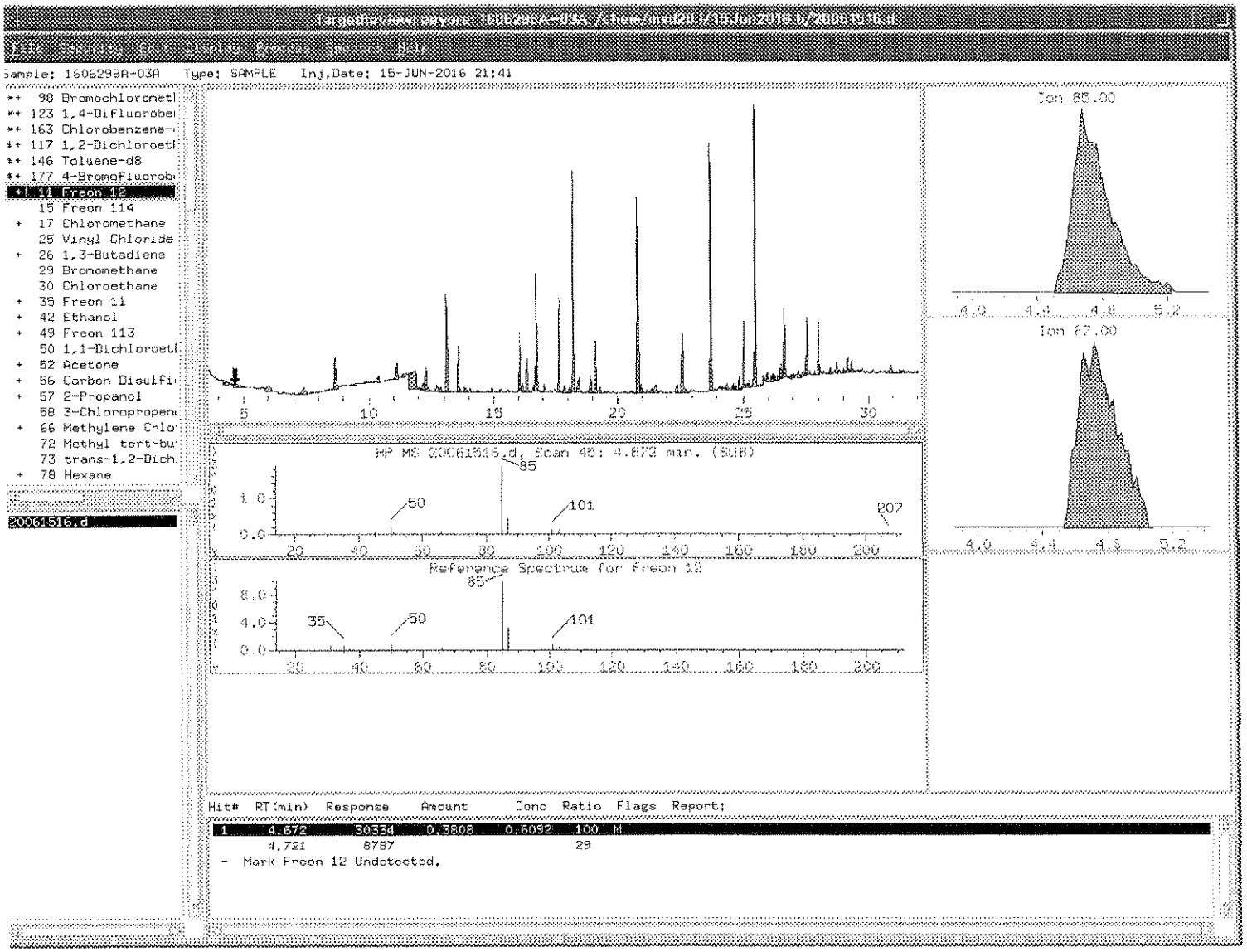




Hit#	RT(min)	Response	Amount	Conc	Ratio	Flags	Report:
1	4.672	13858	0.1739	0.2783	100		
	4.648	3189			23		

- Mark Freon 12 Undetected.

before HOB 6/24/16



after HCB 6/24/16
corrected peak integration

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

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

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

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

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

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

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
75-71-8	Freon 12	0.10	
76-14-2	Freon 114	0.10	
75-35-4	1,1-Dichloroethene	0.10	
67-64-1	Acetone	0.50	
67-63-0	2-Propanol	0.50	
75-15-0	Carbon Disulfide	0.50	
75-09-2	Methylene Chloride	0.20	
1634-04-4	Methyl tert-butyl ether	0.10	
156-60-5	trans-1,2-Dichloroethene	0.10	
110-54-3	Hexane	0.10	
75-34-3	1,1-Dichloroethane	0.10	
78-93-3	2-Butanone (Methyl Ethyl Ketone)	0.50	
156-59-2	cis-1,2-Dichloroethene	0.10	
109-99-9	Tetrahydrofuran	0.50	
67-66-3	Chloroform	0.10	
71-55-6	1,1,1-Trichloroethane	0.10	
110-82-7	Cyclohexane	0.10	
56-23-5	Carbon Tetrachloride	0.10	
71-43-2	Benzene	0.10	
107-06-2	1,2-Dichloroethane	0.10	
142-82-5	Heptane	0.10	
79-01-6	Trichloroethene	0.10	
78-87-5	1,2-Dichloropropane	0.10	
123-91-1	1,4-Dioxane	0.10	
75-27-4	Bromodichloromethane	0.10	
10061-01-5	cis-1,3-Dichloropropene	0.10	
108-10-1	4-Methyl-2-pentanone	0.10	
108-88-3	Toluene	0.10	
10061-02-6	trans-1,3-Dichloropropene	0.10	
79-00-5	1,1,2-Trichloroethane	0.10	
127-18-4	Tetrachloroethene	0.10	
591-78-6	2-Hexanone	0.50	
124-48-1	Dibromochloromethane	0.10	
106-93-4	1,2-Dibromoethane (EDB)	0.10	
108-90-7	Chlorobenzene	0.10	
100-41-4	Ethyl Benzene	0.10	
108-38-3	m,p-Xylene	0.10	
95-47-6	o-Xylene	0.10	
100-42-5	Styrene	0.10	
75-25-2	Bromoform	0.10	
98-82-8	Cumene	0.10	
79-34-5	1,1,2,2-Tetrachloroethane	0.10	
103-65-1	Propylbenzene	0.10	
622-96-8	4-Ethyltoluene	0.10	
108-67-8	1,3,5-Trimethylbenzene	0.10	
95-63-6	1,2,4-Trimethylbenzene	0.10	

Compound List

Modified TO-15-LL + Naph

CAS Number	Compound	Detection Limit ppbv	Type
541-73-1	1,3-Dichlorobenzene	0.10	
106-46-7	1,4-Dichlorobenzene	0.10	
100-44-7	alpha-Chlorotoluene	0.10	
95-50-1	1,2-Dichlorobenzene	0.10	
120-82-1	1,2,4-Trichlorobenzene	0.50	
87-68-3	Hexachlorobutadiene	0.50	
91-20-3	Naphthalene	0.50	
17060-07-0	1,2-Dichloroethane-d4		
2037-26-5	Toluene-d8		
460-00-4	4-Bromofluorobenzene		
107-05-1	3-Chloropropene	0.50	
540-84-1	2,2,4-Trimethylpentane	0.50	
74-87-3	Chloromethane	0.50	
75-01-4	Vinyl Chloride	0.10	
106-99-0	1,3-Butadiene	0.10	
74-83-9	Bromomethane	0.50	
75-00-3	Chloroethane	0.50	
75-69-4	Freon 11	0.10	
64-17-5	Ethanol	0.50	
76-13-1	Freon 113	0.10	

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Media Certification Report

Canister Number: 6L# 6L1283
Can#: 107715-6L1283
Date : 06/04/16 1:09
Data File: d060326.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		87.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	87.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	93.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	93.00	% Recovery
Toluene-d8	2037-26-5	0.050	102.00	% Recovery
Toluene-d8	2037-26-5	0.250	102.00	% Recovery

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Media Certification Report

Canister Number: 6L# 03536
Can#: 107715-03536
Date : 06/03/16 20:51
Data File: d060319.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		84.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	84.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	93.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	93.00	% Recovery
Toluene-d8	2037-26-5	0.050	98.00	% Recovery
Toluene-d8	2037-26-5	0.250	98.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0389
Can#: 107715-0389
Date : 06/03/16 23:55
Data File: d060324.d

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Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		86.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	86.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	96.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	96.00	% Recovery
Toluene-d8	2037-26-5	0.050	102.00	% Recovery
Toluene-d8	2037-26-5	0.250	102.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0354
Can#: 107715-0354
Date : 06/04/16 9:09
Data File: d060339.d

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Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		97.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	97.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	98.00	% Recovery
Toluene-d8	2037-26-5	0.050	100.00	% Recovery
Toluene-d8	2037-26-5	0.250	100.00	% Recovery

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Media Certification Report

Canister Number: 6L# 0584
Can#: 107715-0584
Date : 06/03/16 15:19
Data File: d060310.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		84.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	84.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	95.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	95.00	% Recovery
Toluene-d8	2037-26-5	0.050	104.00	% Recovery
Toluene-d8	2037-26-5	0.250	104.00	% Recovery

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Media Certification Report

Canister Number: 6L# 34423
Can#: 107715-34423
Date : 06/04/16 1:46
Data File: d060327.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		90.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	90.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	89.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	89.00	% Recovery
Toluene-d8	2037-26-5	0.050	102.00	% Recovery
Toluene-d8	2037-26-5	0.250	102.00	% Recovery

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Media Certification Report

Canister Number: 6L# 440
Can#: 107715-440
Date : 06/03/16 23:18
Data File: d060323.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		87.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	87.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	98.00	% Recovery
Toluene-d8	2037-26-5	0.050	104.00	% Recovery
Toluene-d8	2037-26-5	0.250	104.00	% Recovery

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Media Certification Report

Canister Number: 6L#25249 w/Batch
Can#: 107715-25249
Date : 06/03/16 14:42
Data File: d060309.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		86.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	86.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	93.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	93.00	% Recovery
Toluene-d8	2037-26-5	0.050	103.00	% Recovery
Toluene-d8	2037-26-5	0.250	103.00	% Recovery

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Media Certification Report

Canister Number: 1L# 37677
Can#: 107715-37677
Date : 06/02/16 14:14
Data File: o060208.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		98.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	101.00	% Recovery
Toluene-d8	2037-26-5	0.250	101.00	% Recovery

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Media Certification Report

Canister Number: 1L#34581 w/Batch
Can#: 107715-34581
Date : 06/01/16 14:47
Data File: o060109.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		102.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	98.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	98.00	% Recovery
Toluene-d8	2037-26-5	0.050	99.00	% Recovery
Toluene-d8	2037-26-5	0.250	99.00	% Recovery

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Media Certification Report

Canister Number: 1L# 36539
Can#: 107715-36539
Date : 06/02/16 3:47
Data File: o060131.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		103.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	103.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	ND	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	ND	% Recovery
Toluene-d8	2037-26-5	0.050	101.00	% Recovery
Toluene-d8	2037-26-5	0.250	101.00	% Recovery

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Media Certification Report

Canister Number: 1L# 2040
Can#: 107715-2040
Date : 06/02/16 18:06
Data File: o060215.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	102.00	% Recovery
Toluene-d8	2037-26-5	0.250	102.00	% Recovery

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Media Certification Report

Canister Number: 1L# 35658
Can#: 107715-35658
Date : 06/02/16 17:00
Data File: o060213.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		100.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	103.00	% Recovery
Toluene-d8	2037-26-5	0.250	103.00	% Recovery

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www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 1L#1L2744 w/Batch
Can#: 107715-1L2744
Date : 06/01/16 17:25
Data File: o060113.d

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		102.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	101.00	% Recovery
Toluene-d8	2037-26-5	0.250	101.00	% Recovery

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Media Certification Report

Canister Number: 1L# 1L1606
Can#: 107715-1L1606
Date : 06/02/16 15:21
Data File: o060210.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		97.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	97.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	103.00	% Recovery
Toluene-d8	2037-26-5	0.250	103.00	% Recovery

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Media Certification Report

Canister Number: 1L# 35677
Can#: 107715-35677
Date : 06/02/16 14:48
Data File: o060209.d

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1-800-985-5955

Name	CAS	Cert RL	Conc.	Units
1,1,1-Trichloroethane	71-55-6	0.050	ND	ppbv
1,1,2,2-Tetrachloroethane	79-34-5	0.050	ND	ppbv
1,1,2-Trichloroethane	79-00-5	0.050	ND	ppbv
1,1-Dichloroethane	75-34-3	0.050	ND	ppbv
1,1-Dichloroethene	75-35-4	0.050	ND	ppbv
1,2,4-Trichlorobenzene	120-82-1	0.250	ND	ppbv
1,2,4-Trimethylbenzene	95-63-6	0.050	ND	ppbv
1,2-Dibromoethane (EDB)	106-93-4	0.050	ND	ppbv
1,2-Dichlorobenzene	95-50-1	0.050	ND	ppbv
1,2-Dichloroethane	107-06-2	0.050	ND	ppbv
1,2-Dichloropropane	78-87-5	0.050	ND	ppbv
1,3,5-Trimethylbenzene	108-67-8	0.050	ND	ppbv
1,3-Butadiene	106-99-0	0.050	ND	ppbv
1,3-Dichlorobenzene	541-73-1	0.050	ND	ppbv
1,4-Dichlorobenzene	106-46-7	0.050	ND	ppbv
1,4-Dioxane	123-91-1	0.050	ND	ppbv
2,2,4-Trimethylpentane	540-84-1	0.250	ND	ppbv
2-Butanone (Methyl Ethyl Ketone)	78-93-3	0.250	ND	ppbv
2-Hexanone	591-78-6	0.250	ND	ppbv
2-Propanol	67-63-0	0.250	ND	ppbv
3-Chloropropene	107-05-1	0.250	ND	ppbv
4-Ethyltoluene	622-96-8	0.050	ND	ppbv
4-Methyl-2-pentanone	108-10-1	0.050	ND	ppbv
Acetone	67-64-1	0.250	ND	ppbv
alpha-Chlorotoluene	100-44-7	0.050	ND	ppbv
Benzene	71-43-2	0.050	ND	ppbv
Bromodichloromethane	75-27-4	0.050	ND	ppbv
Bromoform	75-25-2	0.050	ND	ppbv
Bromomethane	74-83-9	0.250	ND	ppbv
Carbon Disulfide	75-15-0	0.250	ND	ppbv
Carbon Tetrachloride	56-23-5	0.050	ND	ppbv
Chlorobenzene	108-90-7	0.050	ND	ppbv
Chloroethane	75-00-3	0.250	ND	ppbv
Chloroform	67-66-3	0.050	ND	ppbv
Chloromethane	74-87-3	0.250	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	0.050	ND	ppbv
cis-1,3-Dichloropropene	10061-01-5	0.050	ND	ppbv
Cumene	98-82-8	0.050	ND	ppbv
Cyclohexane	110-82-7	0.050	ND	ppbv
Dibromochloromethane	124-48-1	0.050	ND	ppbv
Ethanol	64-17-5	0.250	ND	ppbv
Ethyl Benzene	100-41-4	0.050	ND	ppbv
Freon 11	75-69-4	0.050	ND	ppbv

Name	CAS	Cert RL	Conc.	Units
Freon 113	76-13-1	0.050	ND	ppbv
Freon 114	76-14-2	0.050	ND	ppbv
Freon 12	75-71-8	0.050	ND	ppbv
Heptane	142-82-5	0.050	ND	ppbv
Hexachlorobutadiene	87-68-3	0.250	ND	ppbv
Hexane	110-54-3	0.050	ND	ppbv
m,p-Xylene	108-38-3	0.050	ND	ppbv
Methyl tert-butyl ether	1634-04-4	0.050	ND	ppbv
Methylene Chloride	75-09-2	0.100	ND	ppbv
Naphthalene	91-20-3	0.250	ND	ppbv
o-Xylene	95-47-6	0.050	ND	ppbv
Propylbenzene	103-65-1	0.050	ND	ppbv
Styrene	100-42-5	0.050	ND	ppbv
Tetrachloroethene	127-18-4	0.050	ND	ppbv
Tetrahydrofuran	109-99-9	0.250	ND	ppbv
Toluene	108-88-3	0.050	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	0.050	ND	ppbv
trans-1,3-Dichloropropene	10061-02-6	0.050	ND	ppbv
Trichloroethene	79-01-6	0.050	ND	ppbv
Vinyl Chloride	75-01-4	0.050	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0		96.00	% Recovery
1,2-Dichloroethane-d4	17060-07-0	0.250	96.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.050	100.00	% Recovery
4-Bromofluorobenzene	460-00-4	0.250	100.00	% Recovery
Toluene-d8	2037-26-5	0.050	103.00	% Recovery
Toluene-d8	2037-26-5	0.250	103.00	% Recovery

Eurofins Air Toxics, Inc.	Data Review Checklist			Release Date: 02/23/16
Workorder # 1606293A	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: ET NSD20 6/15/16	S2:	S3:	S4:
✓					Project Identification (PID), Project Requirements Table (PRT), Daily QC and ICAL met Criteria				
✓					Lumen QC and ICAL evaluation (ref. SOP/Method) report initialed and in folder				
N/A					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:

Profile 1 OUT IN LOD J. Fwd to MDL.

A1	A2	A3	A4	D	Section 2 – Sample Analysis				
					Initials/Date	A1: MD 6/15/16	A2: ET 6/16/16	A3:	A4:
✓	✓				IS/Surr Recoveries, Dilution Factors, Load Volumes, leg(s) of instrument, Initial/Final Pressures, and Canister #s Verified				
N/A				NA	a) Tedlar Bag IDs verified against COC b) Tedlar Bag ID confirmed with loading sequence/leg(s) of instrument				
N/A					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: A1: 01A-03A = full loads, 01A, 02A field dups.
A2: 01A-03A = Full loads field dup assume consistent.

D1	D2	D3	D4	T	3T	Section 3 – Target Data Reduction	Technical Review Needed? Circle one: Yes/No		T:	
						Initials/Instrument/Date MSD-20	D1: HAB 6/24/16	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:
FR12 → manual integrations in all full loads 03A
lab dup -01A/-01AA → RPD ok
FD -01A/-02A → EtOH, Acet out

A	3T	Section 4- Atlas Data Entry	Lumen verified and included in folder	Circle one: Yes/No
		Initials/Date: HAB 6/24/16	3rd Tier: (needed only for DOD or per client request)	
		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:

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