

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW090418\  
 Data File : VW005120.D  
 Acq On : 05 Sep 2018 10:13  
 Operator : SY/AP  
 Sample : J4712-12  
 Misc : 6.25G/5ML/MSVOA W/SOIL  
 ALS Vial : 49 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Sep 05 10:44:28 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W090118S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Sep 01 03:35:05 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.96  | 168  | 88088    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 133213   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 104471   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 31613    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |        |      |
|---------------------------|--------|-----|----------|-------|--------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 29677    | 40.64 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 81.28% |      |
| 35) Dibromofluoromethane  | 7.89   | 113 | 27716    | 36.00 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 72.00% |      |
| 50) Toluene-d8            | 10.33  | 98  | 89957    | 25.36 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 50.72% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 25523    | 20.41 | ug/l   | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 40.82% |      |

## Target Compounds

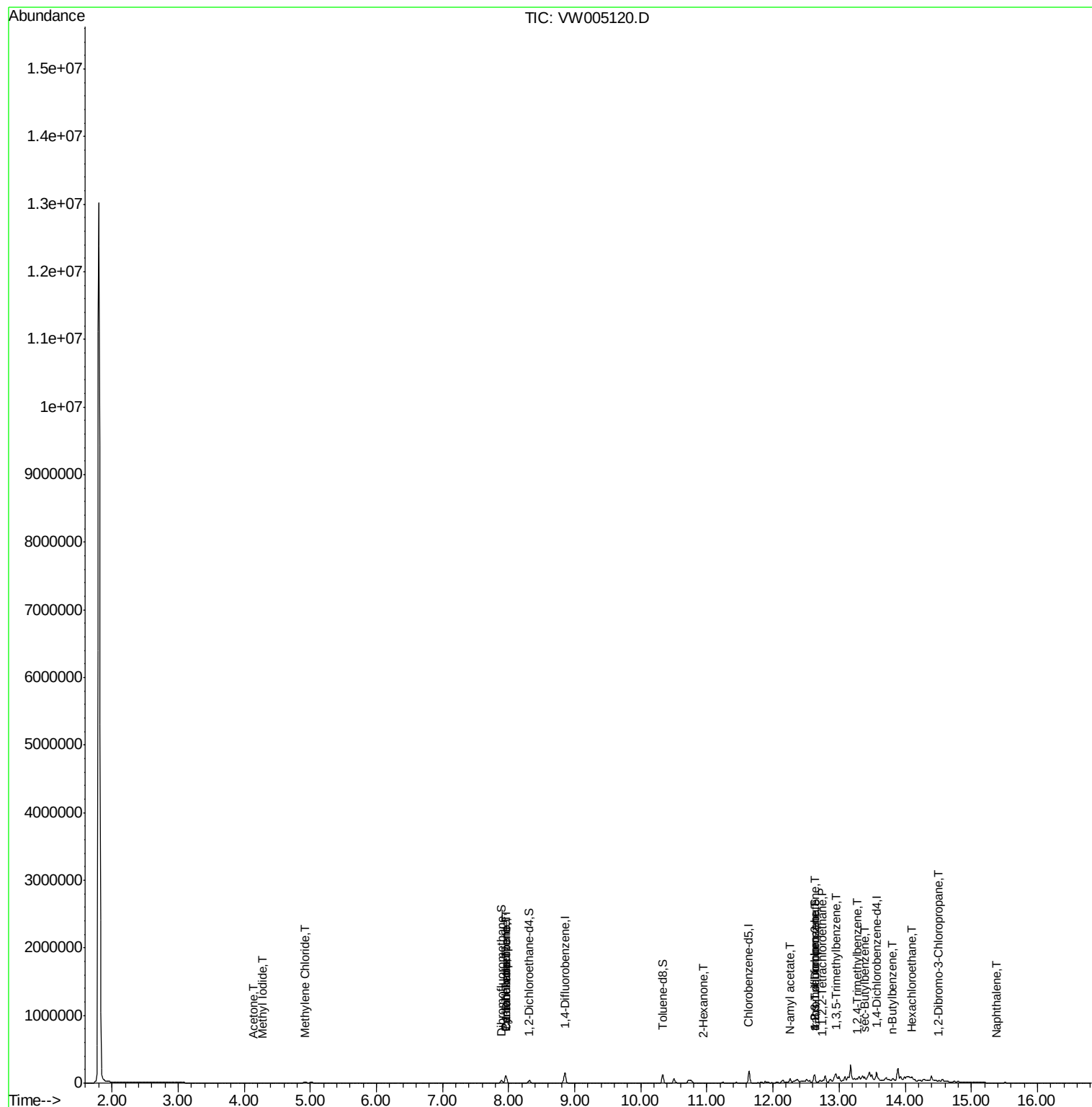
|                                |       |     |       |           | Qvalue |     |
|--------------------------------|-------|-----|-------|-----------|--------|-----|
| 5) Bromomethane                | 2.78  | 94  | 705   | Below Cal | #      | 51  |
| 10) Methyl Iodide              | 4.28  | 142 | 34    | 3.846     | ug/l # | 44  |
| 11) Tert butyl alcohol         | 5.18  | 59  | 224   | Below Cal | #      | 72  |
| 16) Acetone                    | 4.14  | 43  | 1016  | 6.938     | ug/l # | 80  |
| 20) Methylene Chloride         | 4.92  | 84  | 12167 | 9.116     | ug/l   | 96  |
| 31) Cyclohexane                | 7.96  | 56  | 1661  | 1.158     | ug/l # | 23  |
| 36) 1,1-Dichloropropene        | 7.95  | 75  | 6300  | 4.966     | ug/l # | 47  |
| 38) Carbon Tetrachloride       | 7.96  | 117 | 7906  | 6.554     | ug/l # | 16  |
| 59) 2-Hexanone                 | 10.94 | 43  | 1413  | 3.610     | ug/l # | 24  |
| 74) N-amyl acetate             | 12.26 | 43  | 11538 | 30.061    | ug/l # | 69  |
| 75) 1,1,2,2-Tetrachloroethane  | 12.74 | 83  | 558   | 1.644     | ug/l # | 86  |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 12214 | 51.472    | ug/l # | 100 |
| 80) 1,3,5-Trimethylbenzene     | 12.95 | 105 | 2307  | 1.197     | ug/l   | 67  |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 12214 | 123.887   | ug/l # | 19  |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105 | 6034  | 3.074     | ug/l   | 91  |
| 85) sec-Butylbenzene           | 13.39 | 105 | 8628  | 3.647     | ug/l # | 58  |
| 89) n-Butylbenzene             | 13.80 | 91  | 2536  | 1.307     | ug/l # | 1   |
| 90) Hexachloroethane           | 14.11 | 117 | 2069  | 5.948     | ug/l # | 5   |
| 92) 1,2-Dibromo-3-Chloropropan | 14.50 | 75  | 91    | 1.716     | ug/l # | 1   |
| 95) Naphthalene                | 15.37 | 128 | 244   | 4.176     | ug/l # | 69  |

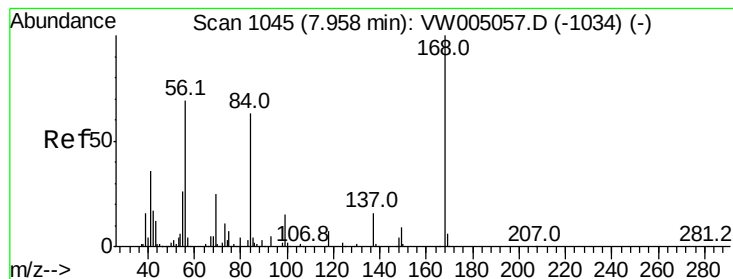
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Sat Sep 01 03:35:05 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.96 min Scan# 1045

Delta R.T. -0.00 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

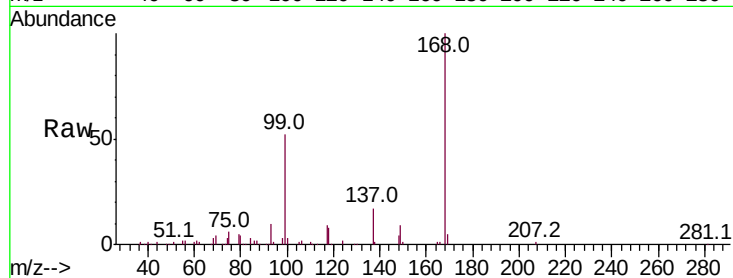
ClientSampled :

Tot Ion:168 Resp: 88088

Ion Ratio Lower Upper

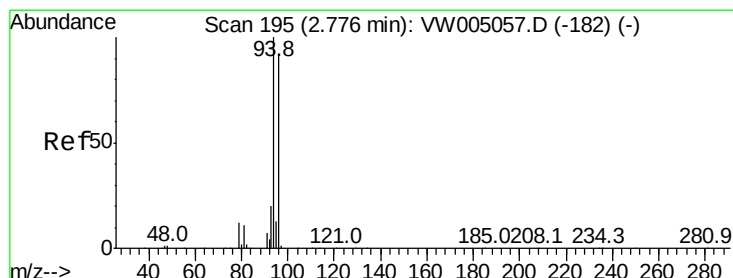
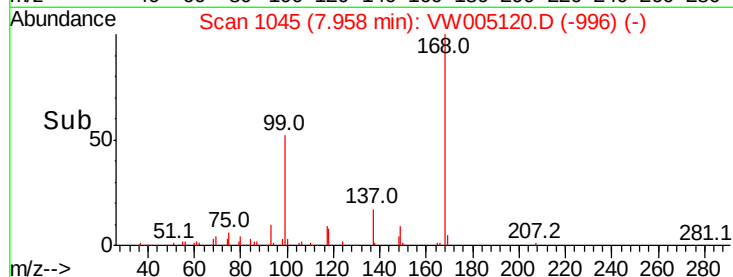
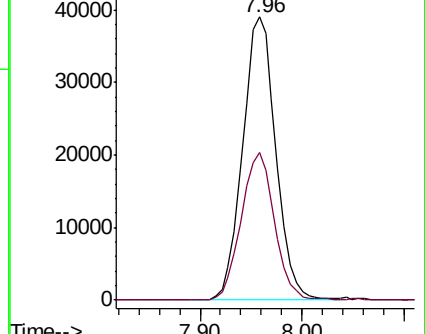
168 100

99 52.0 39.4 59.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#5

Bromomethane

Concen: Below Cal

RT: 2.78 min Scan# 196

Delta R.T. 0.01 min

Lab File: VW005120.D

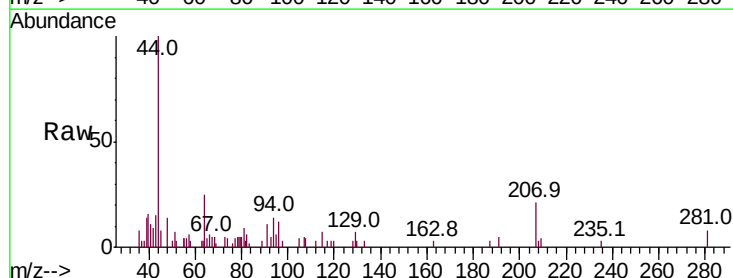
Acq: 05 Sep 2018 10:13

Tgt Ion: 94 Resp: 705

Ion Ratio Lower Upper

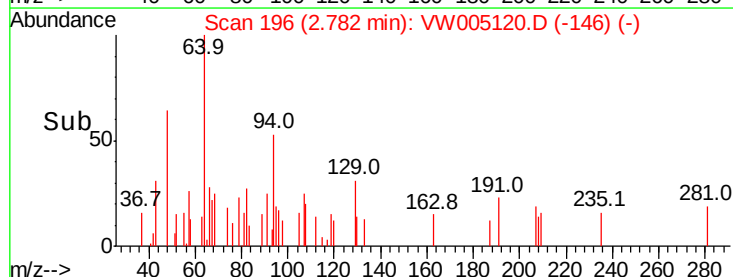
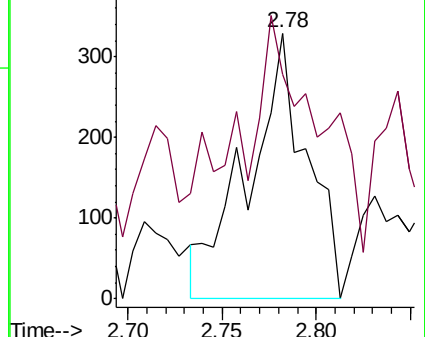
94 100

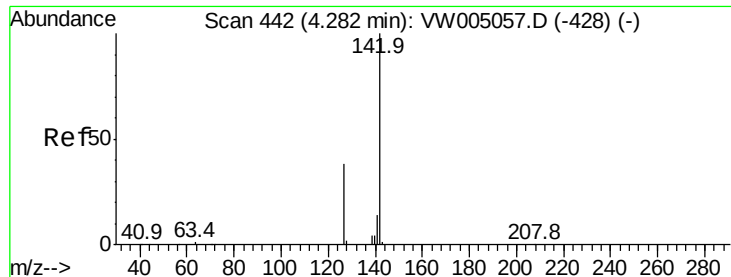
96 44.7 73.2 109.8#



Abundance Ion 93.90 (93.60 to 94.60): VW

Ion 95.90 (95.60 to 96.60): VW





#10

Methyl Iodide

Concen: 3.846 ug/l

RT: 4.28 min Scan# 441

Delta R.T. -0.01 min

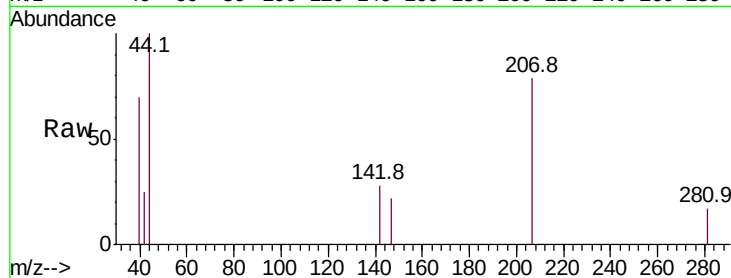
Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion:142 Resp: 34

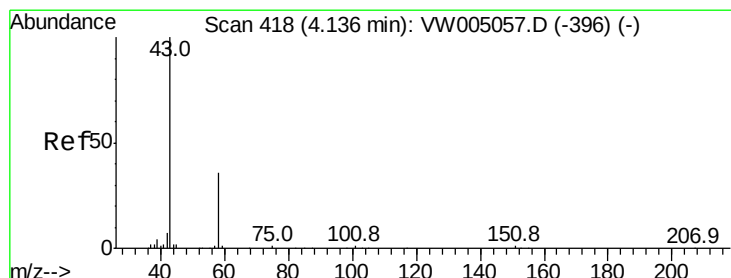
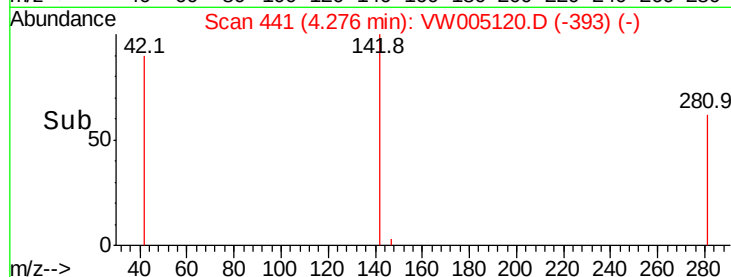
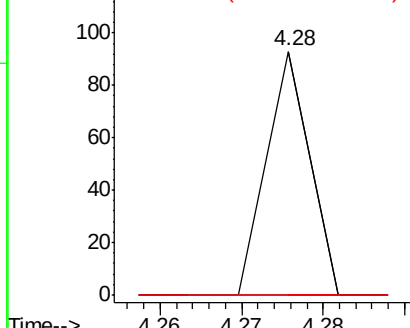
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 142 | 100   |       |       |
| 127 | 0.0   | 30.8  | 46.2# |
| 141 | 0.0   | 11.6  | 17.4# |



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



#16

Acetone

Concen: 6.938 ug/l

RT: 4.14 min Scan# 419

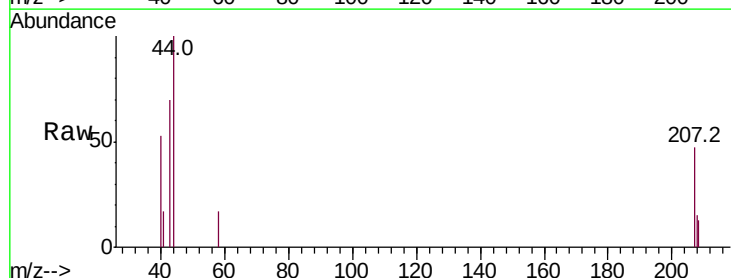
Delta R.T. 0.01 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

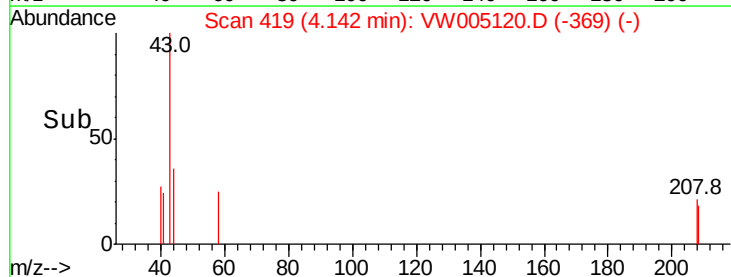
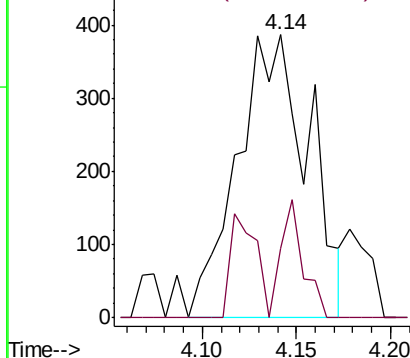
Tgt Ion: 43 Resp: 1016

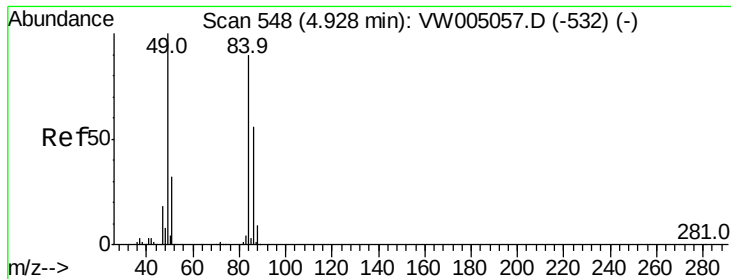
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 58  | 24.5  | 29.0  | 43.6# |



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW





#20

Methylene Chloride

Concen: 9.116 ug/l

RT: 4.92 min Scan# 547

Delta R.T. -0.01 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

ClientSampleId :

Tot Ion: 84 Resp: 12167

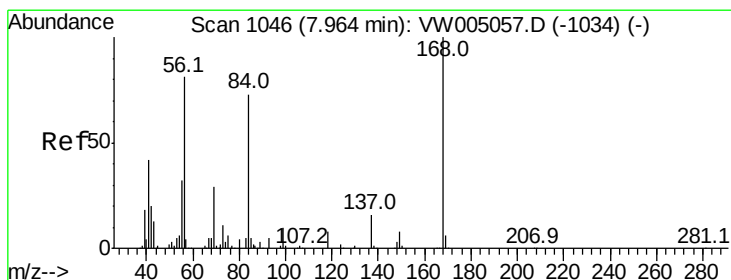
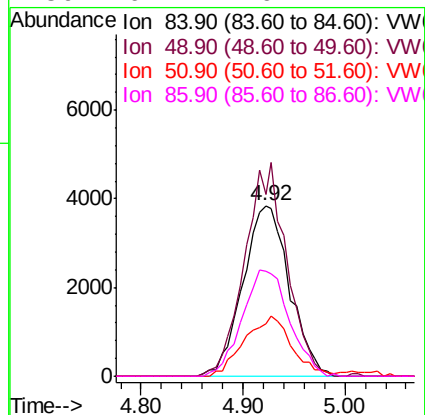
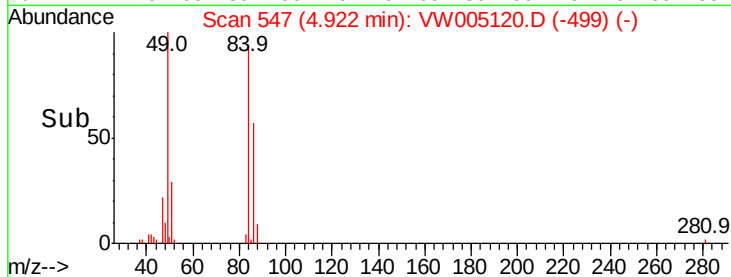
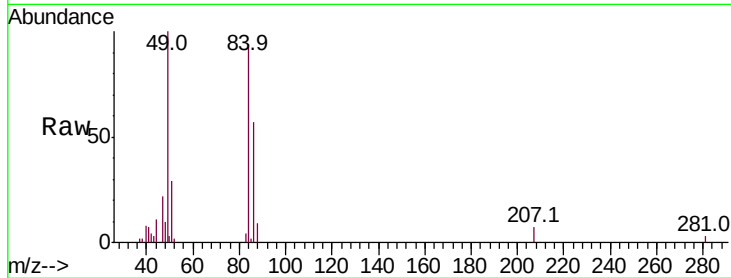
Ion Ratio Lower Upper

84 100

49 106.8 88.7 133.1

51 30.6 28.6 42.8

86 61.1 49.4 74.2



#31

Cyclohexane

Concen: 1.158 ug/l

RT: 7.96 min Scan# 1046

Delta R.T. -0.00 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

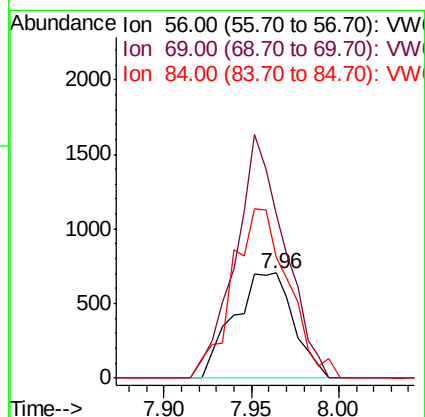
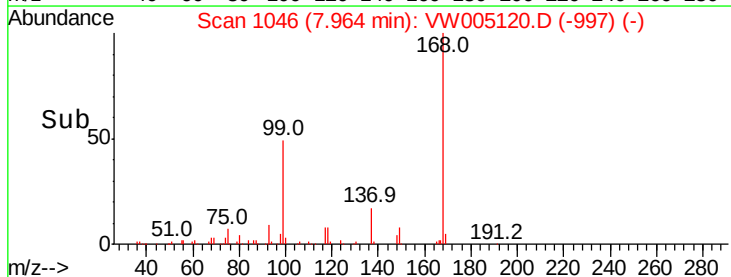
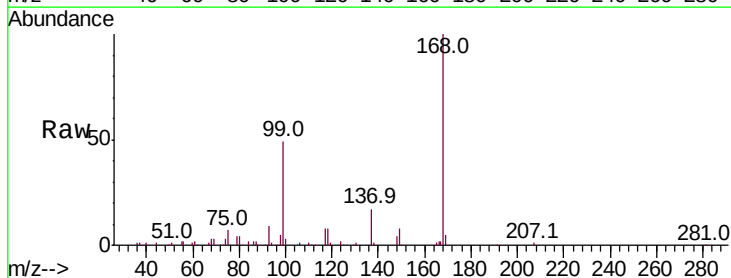
Tgt Ion: 56 Resp: 1661

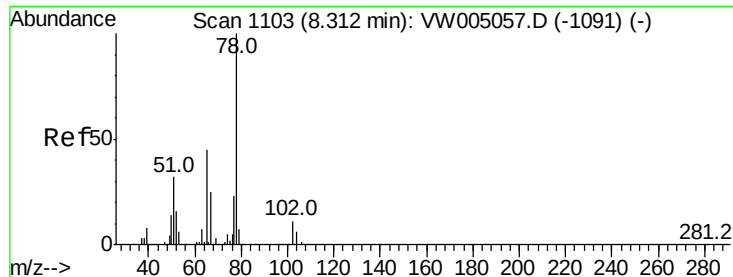
Ion Ratio Lower Upper

56 100

69 156.3 28.2 42.2#

84 114.3 71.8 107.8#

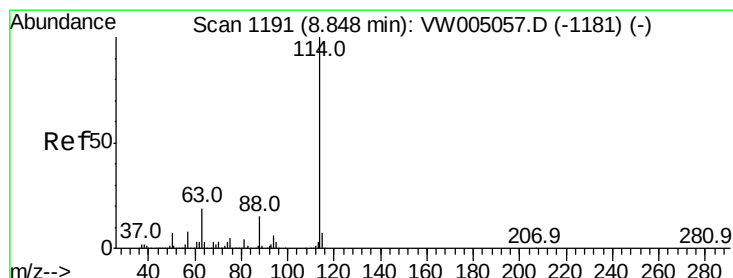
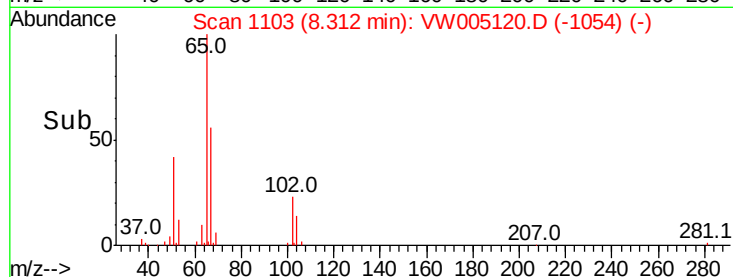
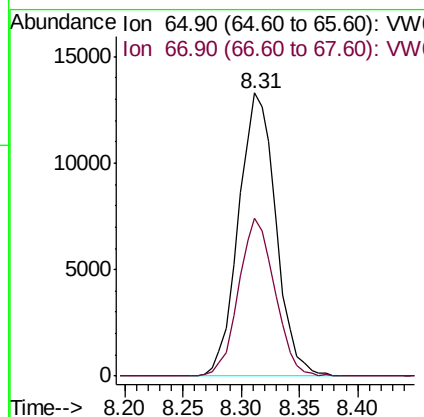
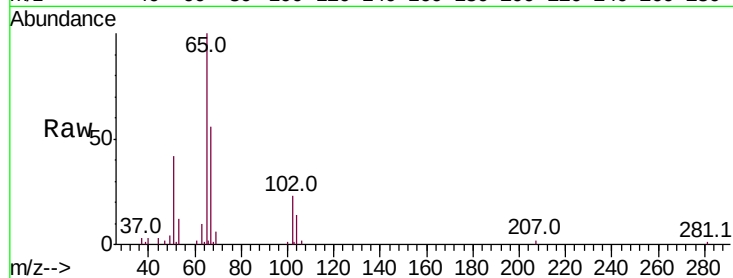




#33  
 1,2-Dichloroethane-d4  
 Concen: 40.642 ug/l  
 RT: 8.31 min Scan# 1103  
 Delta R.T. -0.00 min  
 Lab File: VW005120.D  
 Acq: 05 Sep 2018 10:13

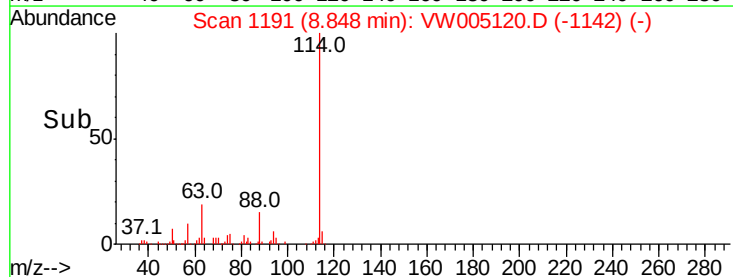
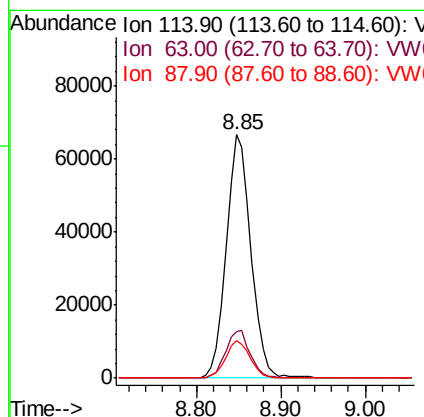
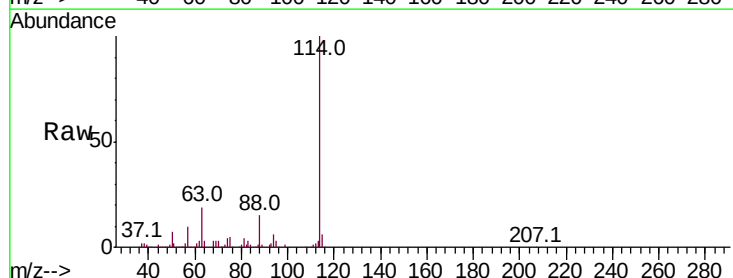
Instrument :  
 MSVOA\_W  
 ClientSampled :

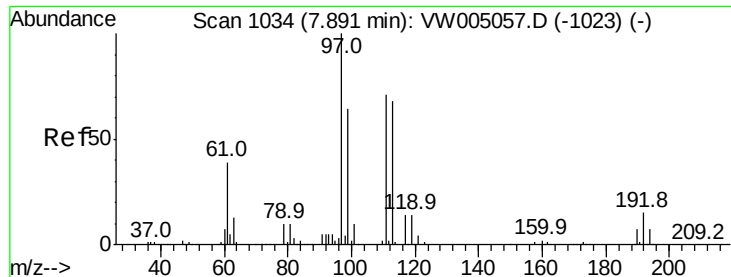
Tot Ion: 65 Resp: 29677  
 Ion Ratio Lower Upper  
 65 100  
 67 54.2 0.0 109.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.85 min Scan# 1191  
 Delta R.T. -0.00 min  
 Lab File: VW005120.D  
 Acq: 05 Sep 2018 10:13

Tgt Ion: 114 Resp: 133213  
 Ion Ratio Lower Upper  
 114 100  
 63 19.3 0.0 38.0  
 88 15.3 0.0 30.2

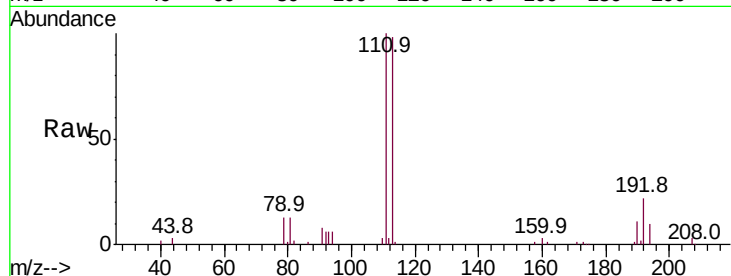




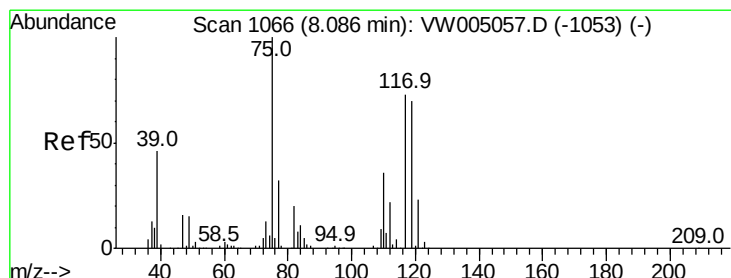
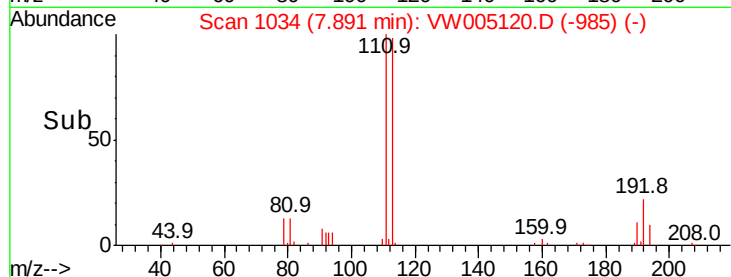
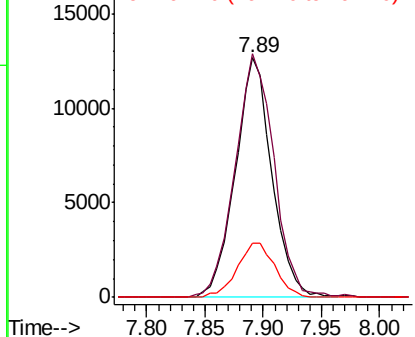
#35  
 Dibromofluoromethane  
 Concen: 36.003 ug/l  
 RT: 7.89 min Scan# 1034  
 Delta R.T. -0.00 min  
 Lab File: VW005120.D  
 Acq: 05 Sep 2018 10:13

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Tot Ion:113 Resp: 27716  
 Ion Ratio Lower Upper  
 113 100  
 111 108.1 82.2 123.2  
 192 23.4 18.1 27.1

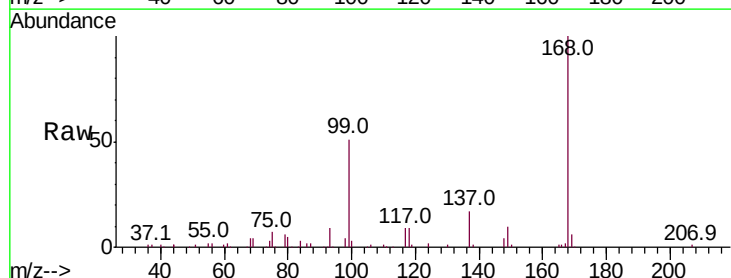


Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

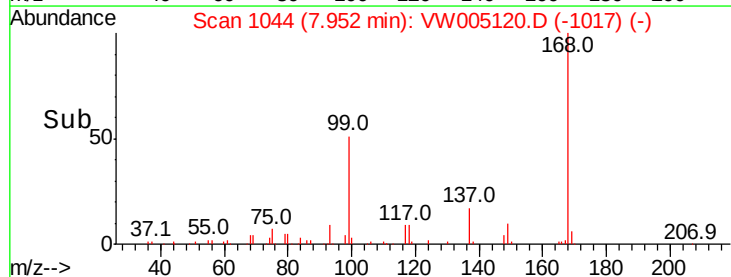
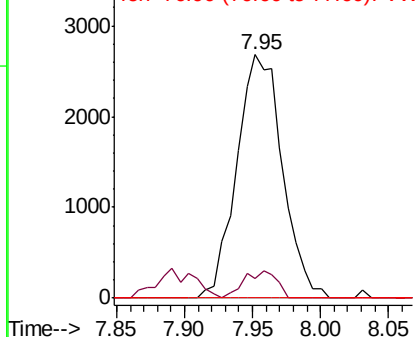


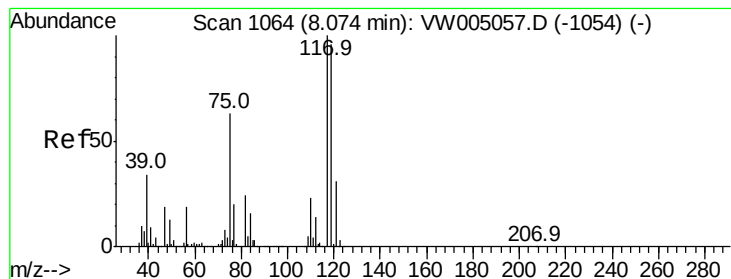
#36  
 1,1-Dichloropropene  
 Concen: 4.966 ug/l  
 RT: 7.95 min Scan# 1044  
 Delta R.T. -0.13 min  
 Lab File: VW005120.D  
 Acq: 05 Sep 2018 10:13

Tgt Ion: 75 Resp: 6300  
 Ion Ratio Lower Upper  
 75 100  
 110 8.0 18.9 56.7#  
 77 0.0 25.5 38.3#



Abundance Ion 74.90 (74.60 to 75.60): VW  
 Ion 109.90 (109.60 to 110.60): V  
 Ion 76.90 (76.60 to 77.60): VW





#38

Carbon Tetrachloride

Concen: 6.554 ug/l

RT: 7.96 min Scan# 1045

Delta R.T. -0.12 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

ClientSampleId :

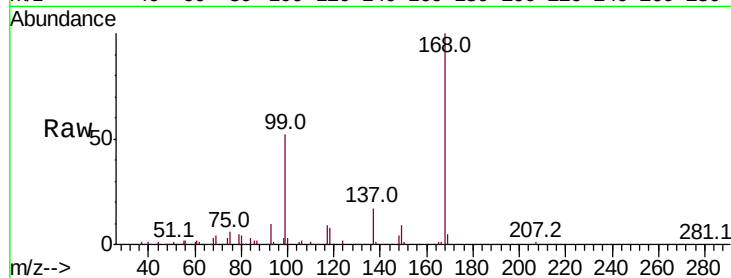
Tot Ion:117 Resp: 7906

Ion Ratio Lower Upper

117 100

119 5.1 76.6 115.0#

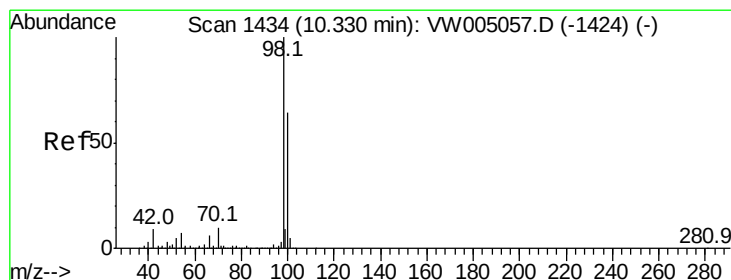
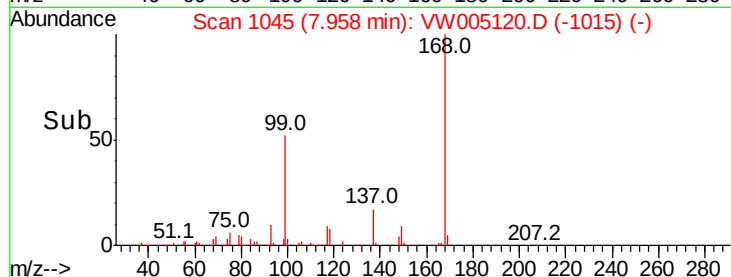
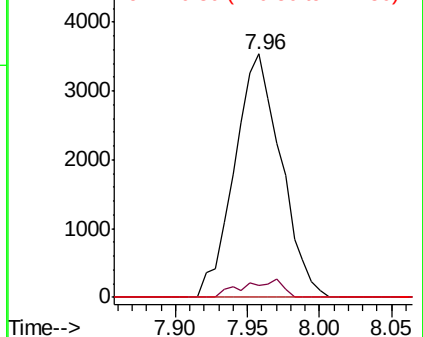
121 0.0 24.8 37.2#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



#50

Toluene-d8

Concen: 25.360 ug/l

RT: 10.33 min Scan# 1434

Delta R.T. -0.00 min

Lab File: VW005120.D

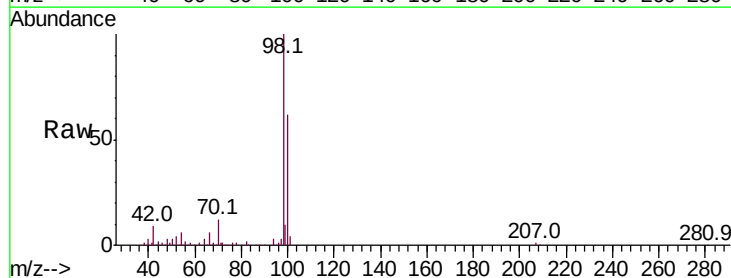
Acq: 05 Sep 2018 10:13

Tgt Ion: 98 Resp: 89957

Ion Ratio Lower Upper

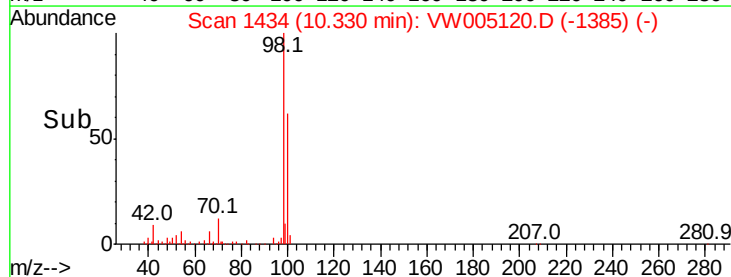
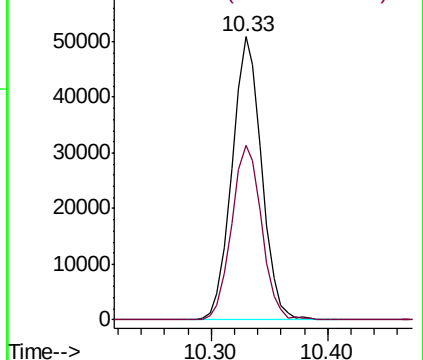
98 100

100 62.7 51.7 77.5

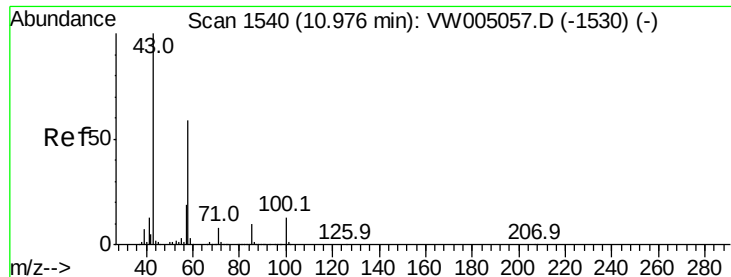


Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW



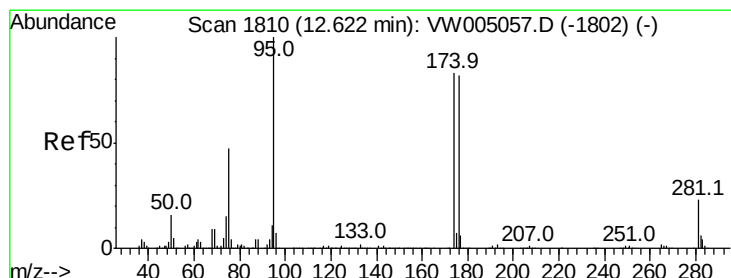
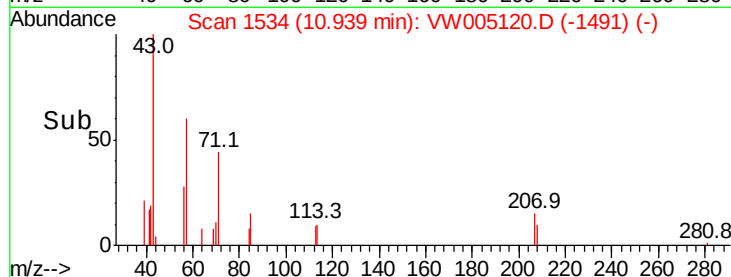
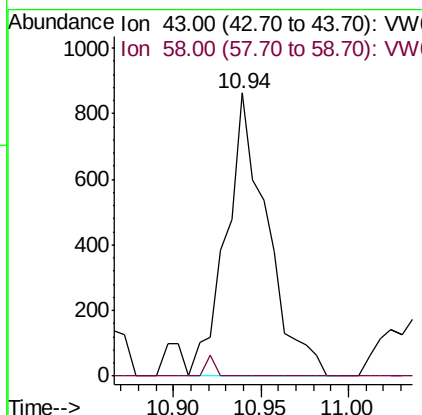
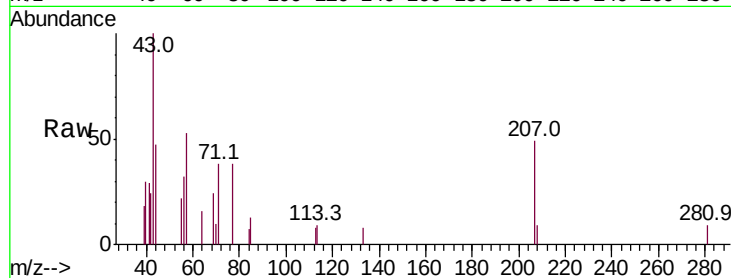




#59  
2-Hexanone  
Concen: 3.610 ug/l  
RT: 10.94 min Scan# 1534  
Delta R.T. -0.04 min  
Lab File: VW005120.D  
Acq: 05 Sep 2018 10:13

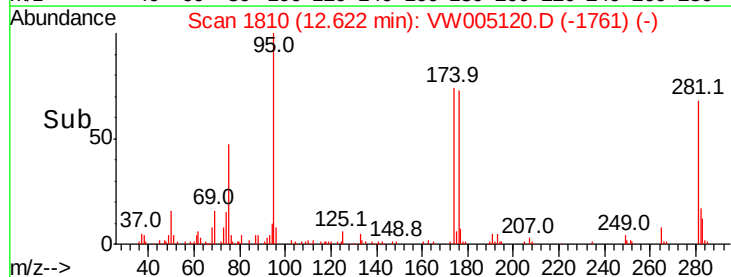
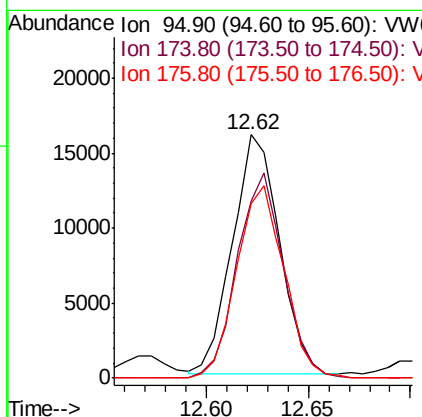
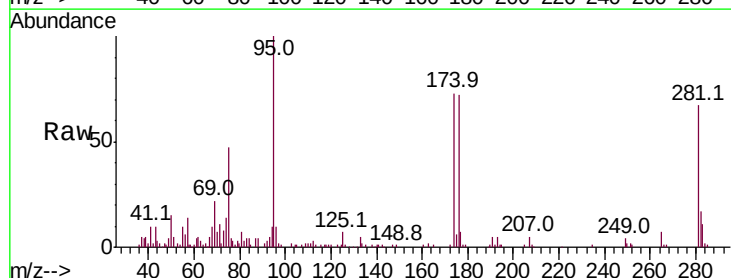
Instrument :  
MSVOA\_W  
ClientSampleId :

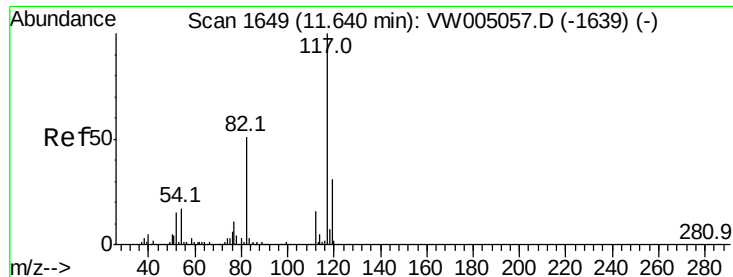
Tot Ion: 43 Resp: 1413  
Ion Ratio Lower Upper  
43 100  
58 1.6 28.7 86.3#



#62  
4-Bromofluorobenzene  
Concen: 20.406 ug/l  
RT: 12.62 min Scan# 1810  
Delta R.T. -0.00 min  
Lab File: VW005120.D  
Acq: 05 Sep 2018 10:13

Tgt Ion: 95 Resp: 25523  
Ion Ratio Lower Upper  
95 100  
174 84.3 0.0 173.4  
176 81.3 0.0 167.4

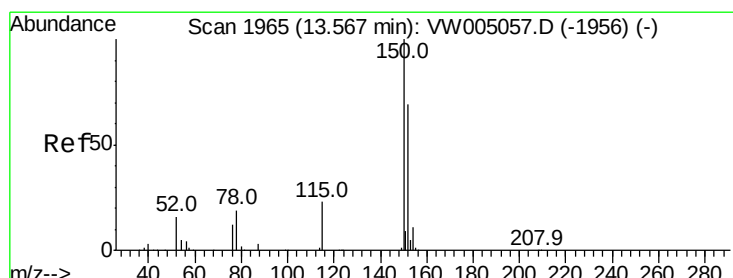
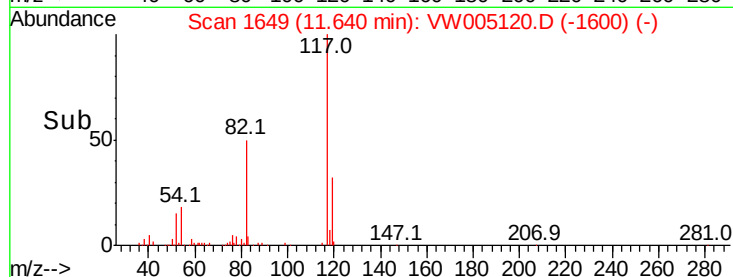
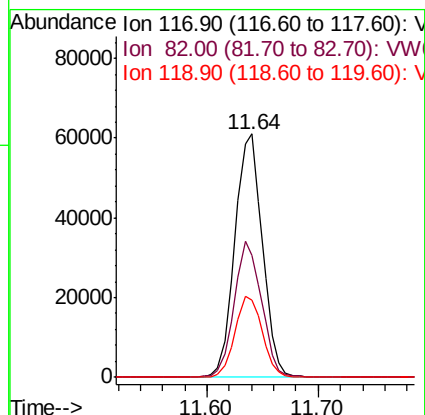
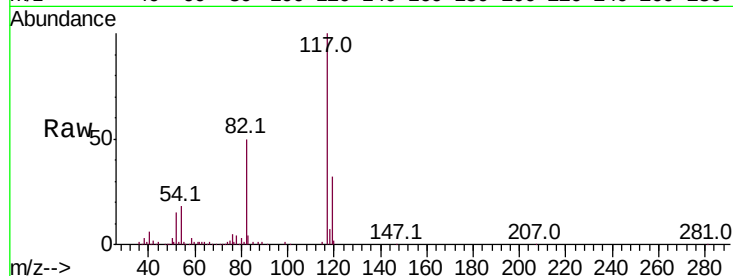




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.64 min Scan# 1649  
Delta R.T. -0.00 min  
Lab File: VW005120.D  
Acq: 05 Sep 2018 10:13

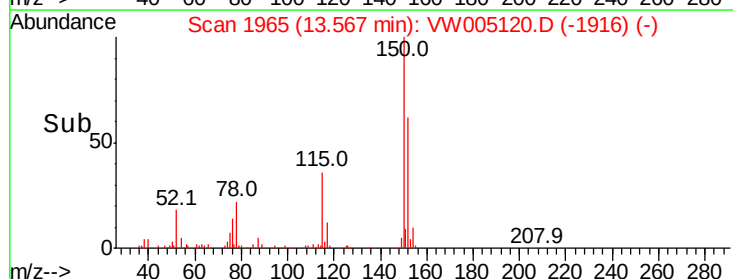
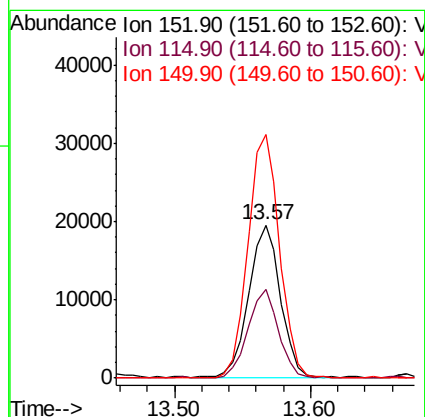
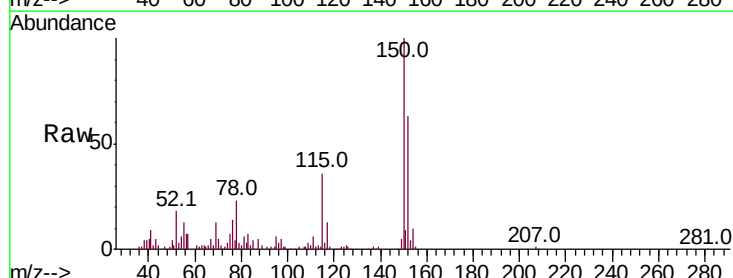
Instrument :  
MSVOA\_W  
ClientSampleId :

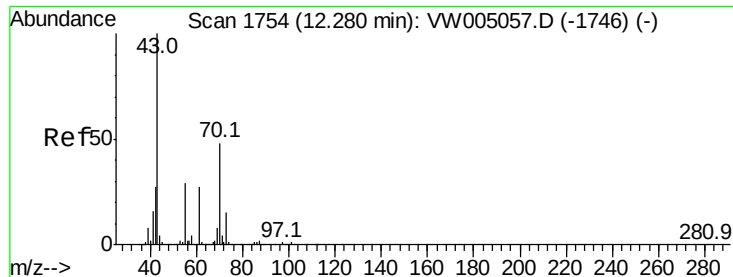
Tot Ion:117 Resp: 104471  
Ion Ratio Lower Upper  
117 100  
82 50.0 40.9 61.3  
119 31.7 24.9 37.3



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.57 min Scan# 1965  
Delta R.T. -0.00 min  
Lab File: VW005120.D  
Acq: 05 Sep 2018 10:13

Tgt Ion:152 Resp: 31613  
Ion Ratio Lower Upper  
152 100  
115 56.6 27.8 83.4  
150 159.8 0.0 351.4





#74

N-amvl acetate

Concen: 30.061 ug/l

RT: 12.26 min Scan# 1750

Delta R.T. -0.02 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

ClientSampled :

Tot Ion: 43 Resp: 11538

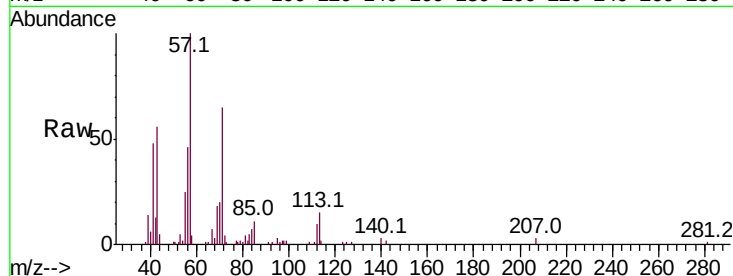
Ion Ratio Lower Upper

43 100

70 37.7 38.2 57.4#

55 50.7 23.2 34.8#

61 0.0 20.6 31.0#

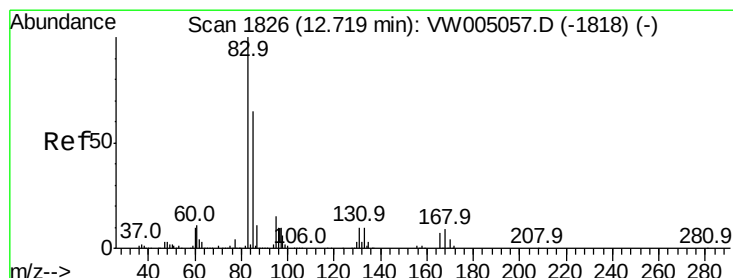
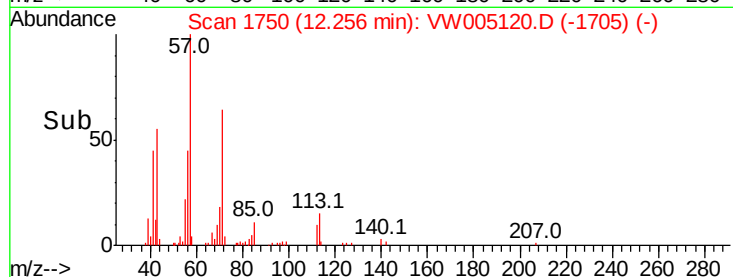
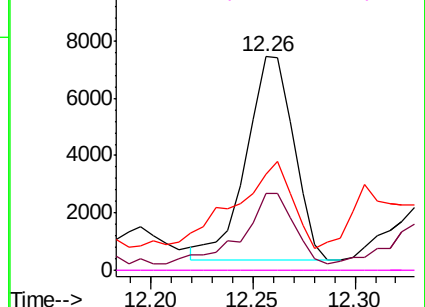


Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 70.00 (69.70 to 70.70): VW

Ion 55.00 (54.70 to 55.70): VW

Ion 61.00 (60.70 to 61.70): VW



#75

1,1,2,2-Tetrachloroethane

Concen: 1.644 ug/l

RT: 12.74 min Scan# 1830

Delta R.T. 0.02 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

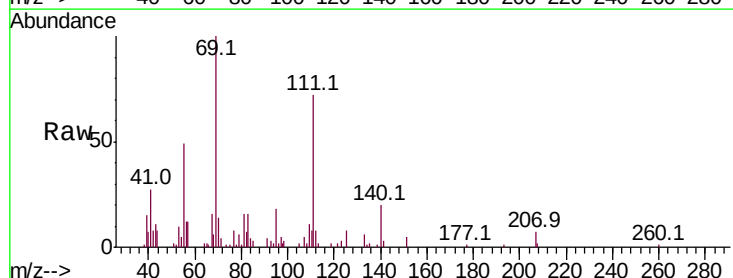
Tgt Ion: 83 Resp: 558

Ion Ratio Lower Upper

83 100

131 0.0 5.5 16.4#

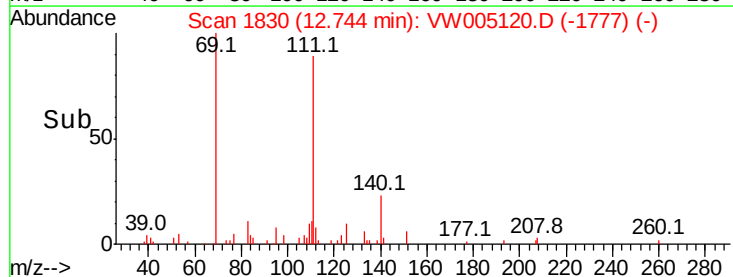
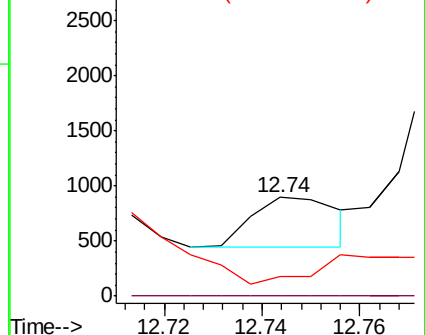
85 73.7 32.5 97.4

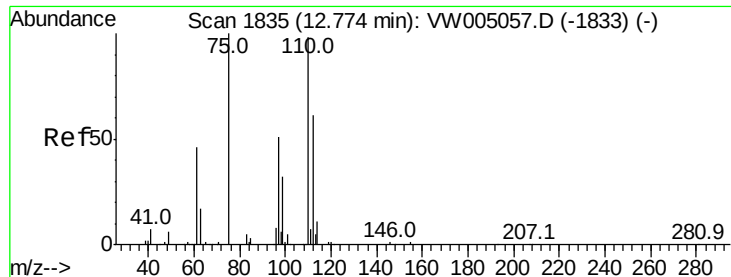


Abundance Ion 82.90 (82.60 to 83.60): VW

Ion 130.80 (130.50 to 131.50): V

Ion 84.90 (84.60 to 85.60): VW





#76

1,2,3-Trichloropropane

Concen: 51.472 ug/l

RT: 12.62 min Scan# 1810

Delta R.T. -0.15 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

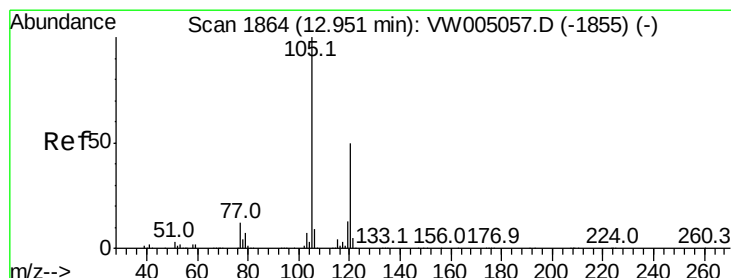
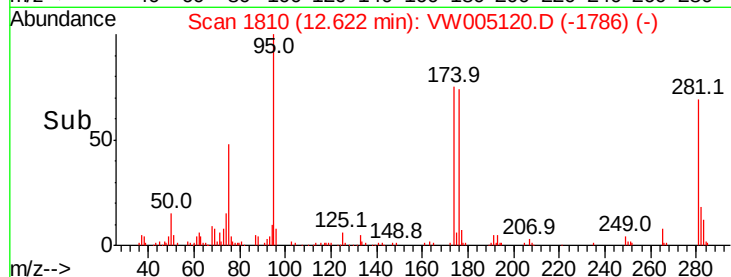
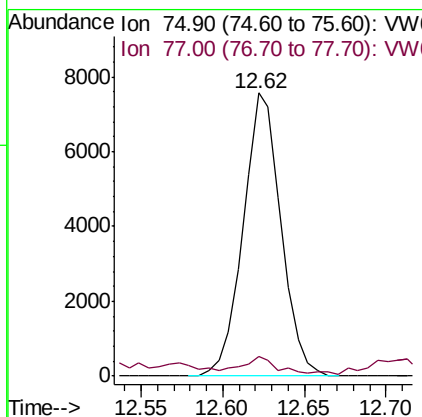
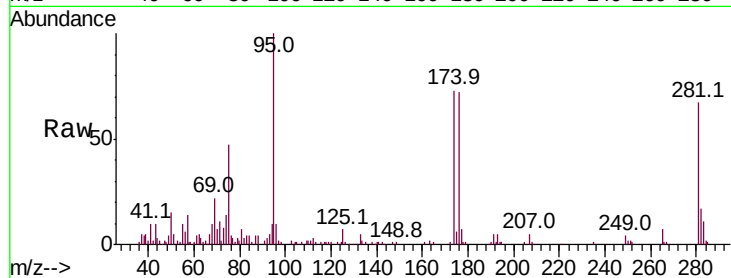
ClientSampleId :

Tot Ion: 75 Resp: 12214

Ion Ratio Lower Upper

75 100

77 5.0 0.0 0.0#



#80

1,3,5-Trimethylbenzene

Concen: 1.197 ug/l

RT: 12.95 min Scan# 1864

Delta R.T. -0.00 min

Lab File: VW005120.D

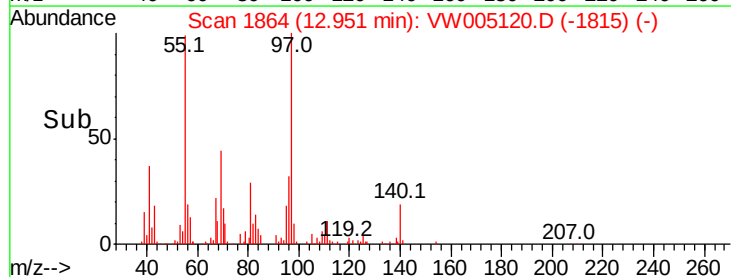
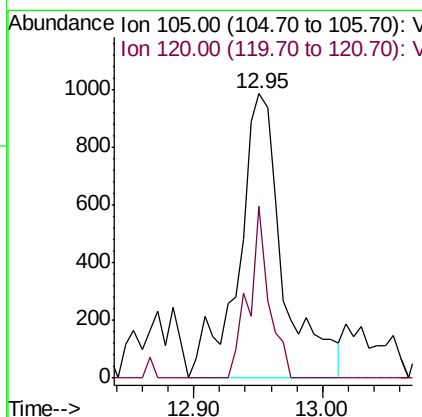
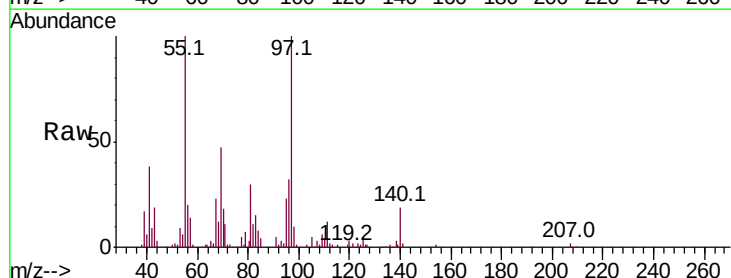
Acq: 05 Sep 2018 10:13

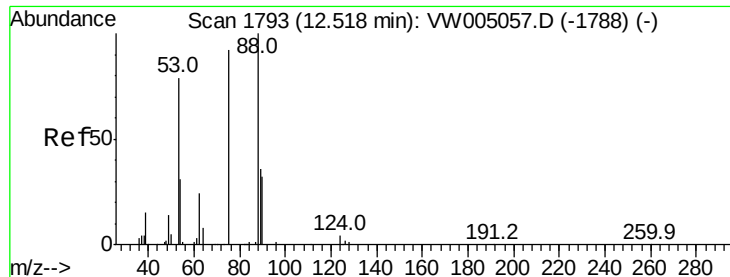
Tgt Ion:105 Resp: 2307

Ion Ratio Lower Upper

105 100

120 27.5 24.9 74.8





#81

trans-1,4-Dichloro-2-butene

Concen: 123.887 ug/l

RT: 12.62 min Scan# 1810

Delta R.T. 0.10 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

ClientSampleId :

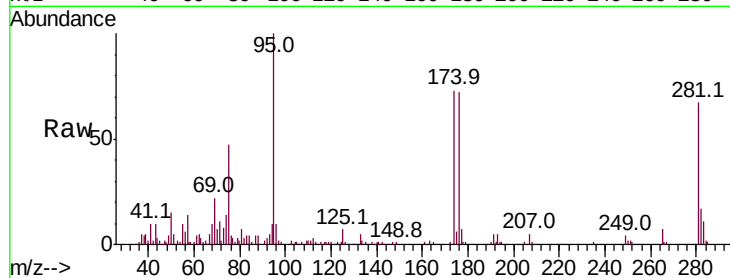
Tot Ion: 75 Resp: 12214

Ion Ratio Lower Upper

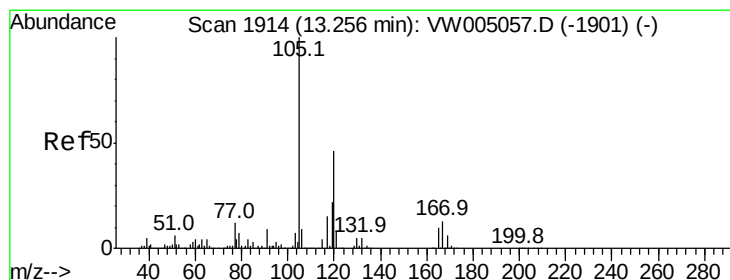
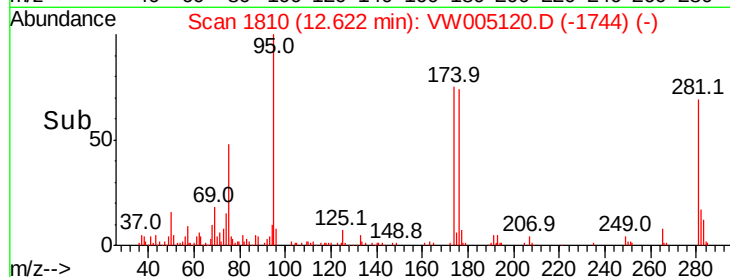
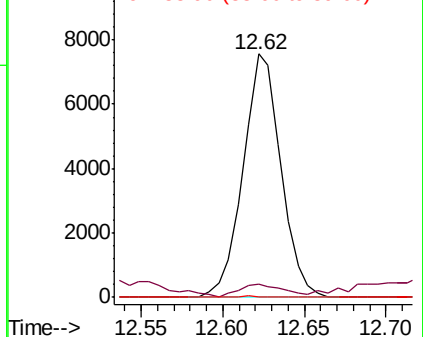
75 100

53 6.6 69.8 104.8#

89 0.2 36.0 54.0#



Abundance Ion 74.90 (74.60 to 75.60): VW  
Ion 53.00 (52.70 to 53.70): VW  
Ion 88.90 (88.60 to 89.60): VW



#84

1,2,4-Trimethylbenzene

Concen: 3.074 ug/l

RT: 13.26 min Scan# 1915

Delta R.T. 0.01 min

Lab File: VW005120.D

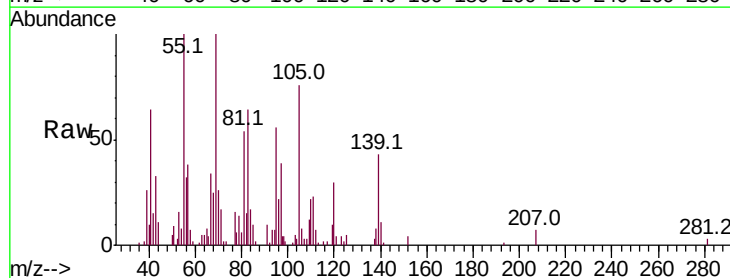
Acq: 05 Sep 2018 10:13

Tgt Ion: 105 Resp: 6034

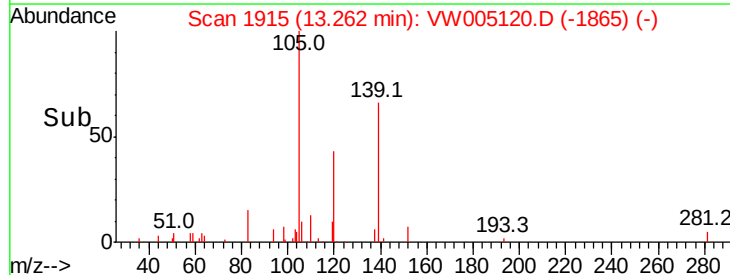
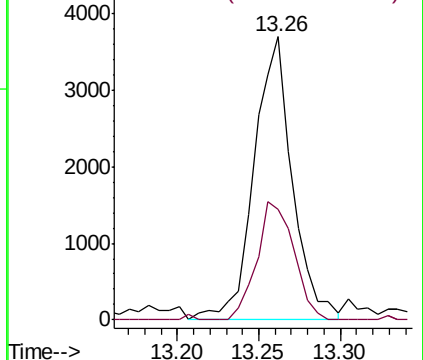
Ion Ratio Lower Upper

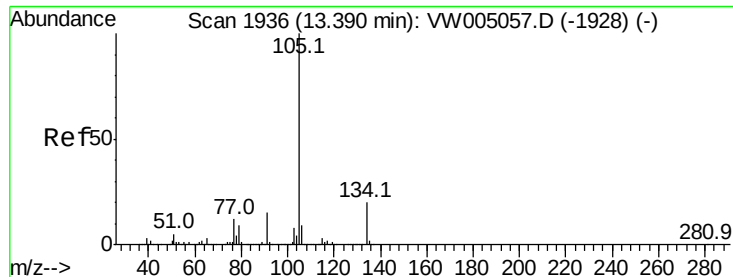
105 100

120 40.4 23.1 69.3



Abundance Ion 105.00 (104.70 to 105.70): V  
Ion 120.00 (119.70 to 120.70): V





#85

sec-Butylbenzene

Concen: 3.647 ug/l

RT: 13.39 min Scan# 1936

Delta R.T. -0.00 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

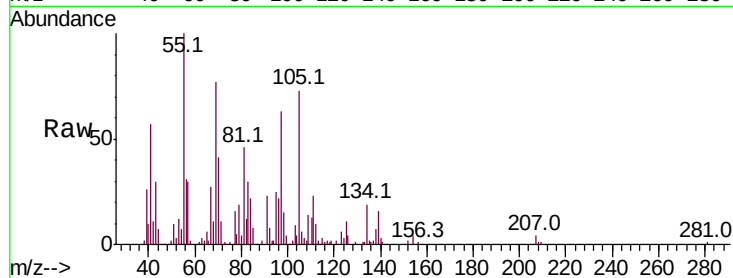
ClientSampleId :

Tot Ion: 105 Resp: 8628

Ion Ratio Lower Upper

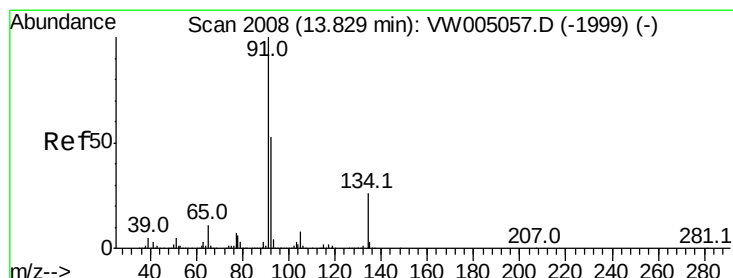
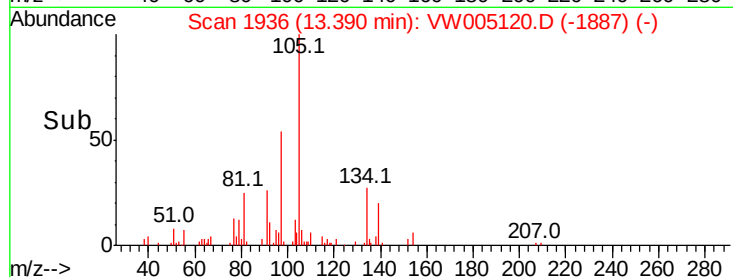
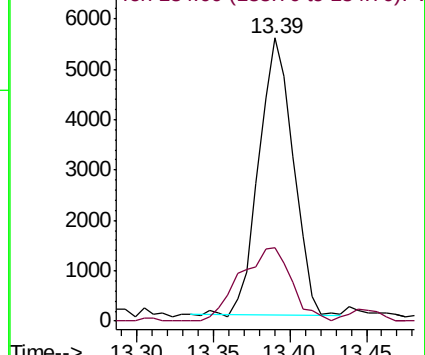
105 100

134 39.5 10.1 30.3#



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 134.00 (133.70 to 134.70): V



#89

n-Butylbenzene

Concen: 1.307 ug/l

RT: 13.80 min Scan# 2004

Delta R.T. -0.02 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

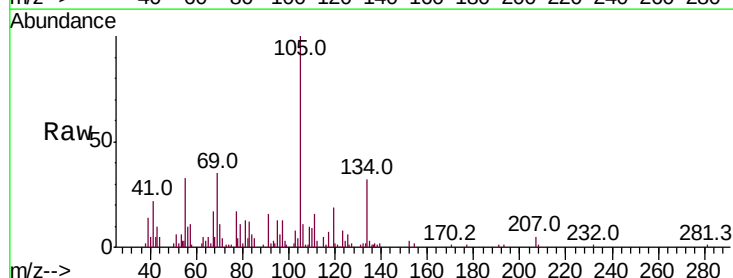
Tgt Ion: 91 Resp: 2536

Ion Ratio Lower Upper

91 100

92 45.5 26.5 79.5

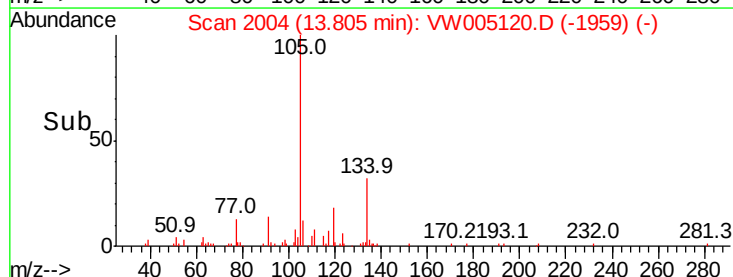
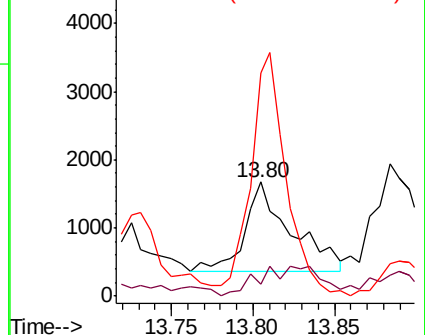
134 212.7 13.5 40.4#

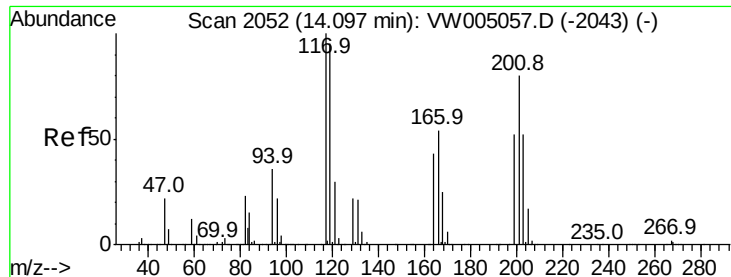


Abundance Ion 91.00 (90.70 to 91.70): VW

Ion 92.00 (91.70 to 92.70): VW

Ion 134.00 (133.70 to 134.70): V





#90

Hexachloroethane

Concen: 5.948 ug/l

RT: 14.11 min Scan# 2054

Delta R.T. 0.01 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

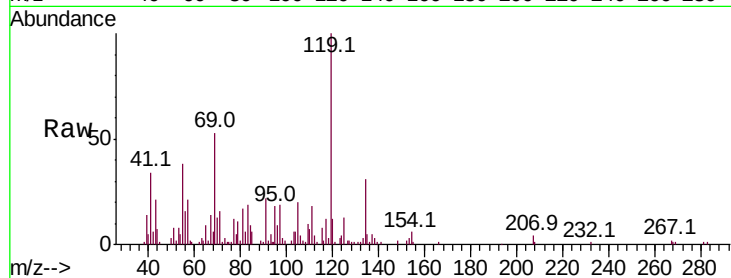
ClientSampled :

Tot Ion:117 Resp: 2069

Ion Ratio Lower Upper

117 100

201 0.0 44.6 133.8#



Abundance Ion 116.80 (116.50 to 117.50): V

Ion 200.70 (200.40 to 201.40): V

1500

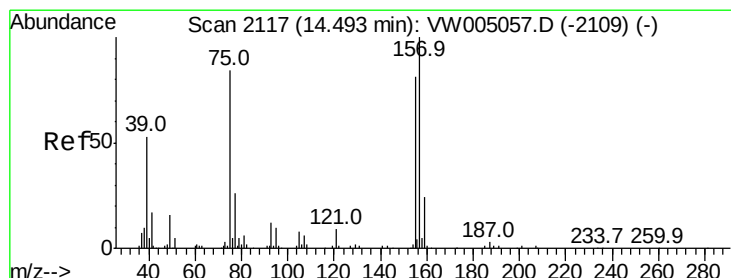
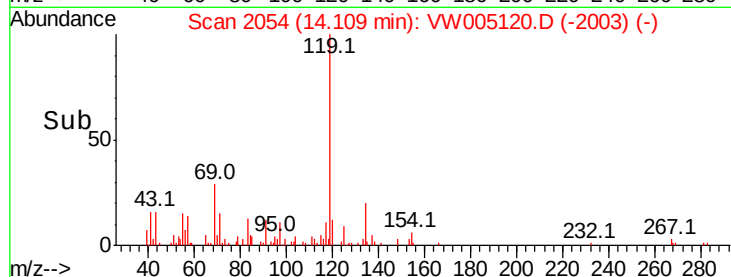
1000

500

0

14.05 14.10 14.15

Time-->



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.716 ug/l

RT: 14.50 min Scan# 2118

Delta R.T. 0.01 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

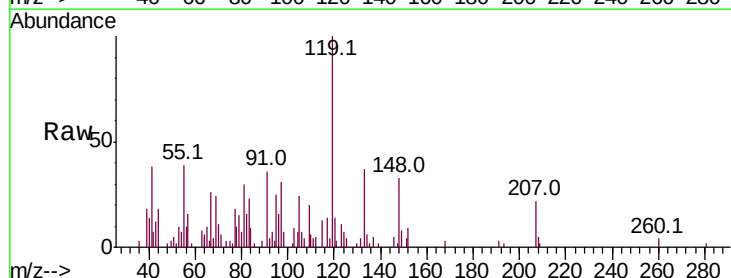
Tgt Ion: 75 Resp: 91

Ion Ratio Lower Upper

75 100

155 0.0 46.0 137.8#

157 0.0 58.6 175.7#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

100

80

60

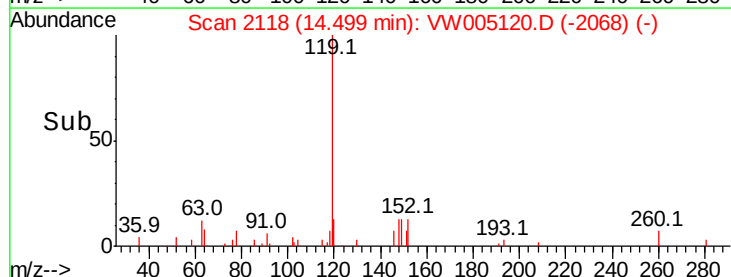
40

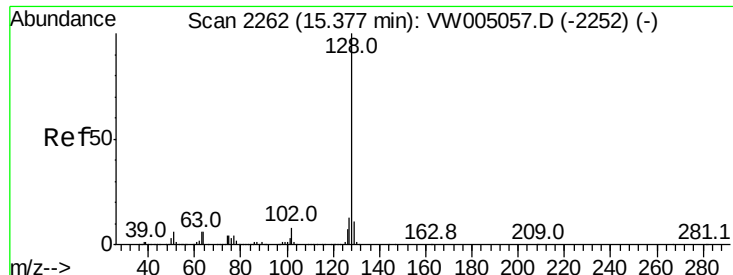
20

0

14.48 14.50 14.52 14.54

Time-->





#95

Naphthalene

Concen: 4.176 ug/l

RT: 15.37 min Scan# 2261

Delta R.T. -0.01 min

Lab File: VW005120.D

Acq: 05 Sep 2018 10:13

Instrument :

MSVOA\_W

ClientSampleId :

Tot Ion:128 Resp: 244

Ion Ratio Lower Upper

128 100

127 0.0 10.4 15.6#

129 0.0 8.7 13.1#

