

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\WV122218\  
 Data File : VW007787.D  
 Acq On : 21 Dec 2018 11:16  
 Operator : SY/AP  
 Sample : J6389-12  
 Misc : 6.01G/5ML/MSVOA W/SOIL  
 ALS Vial : 49 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 P001-SS014-1824-01

Quant Time: Dec 21 12:24:55 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W122118S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Dec 20 06:30:23 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 62538    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 105643   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 68959    | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 20134    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 35070    | 51.16 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.32% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 29018    | 45.03 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.06%  |      |
| 50) Toluene-d8            | 10.32  | 98  | 80666    | 33.20 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 66.40%  |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 21747    | 23.17 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 46.34%  |      |

## Target Compounds

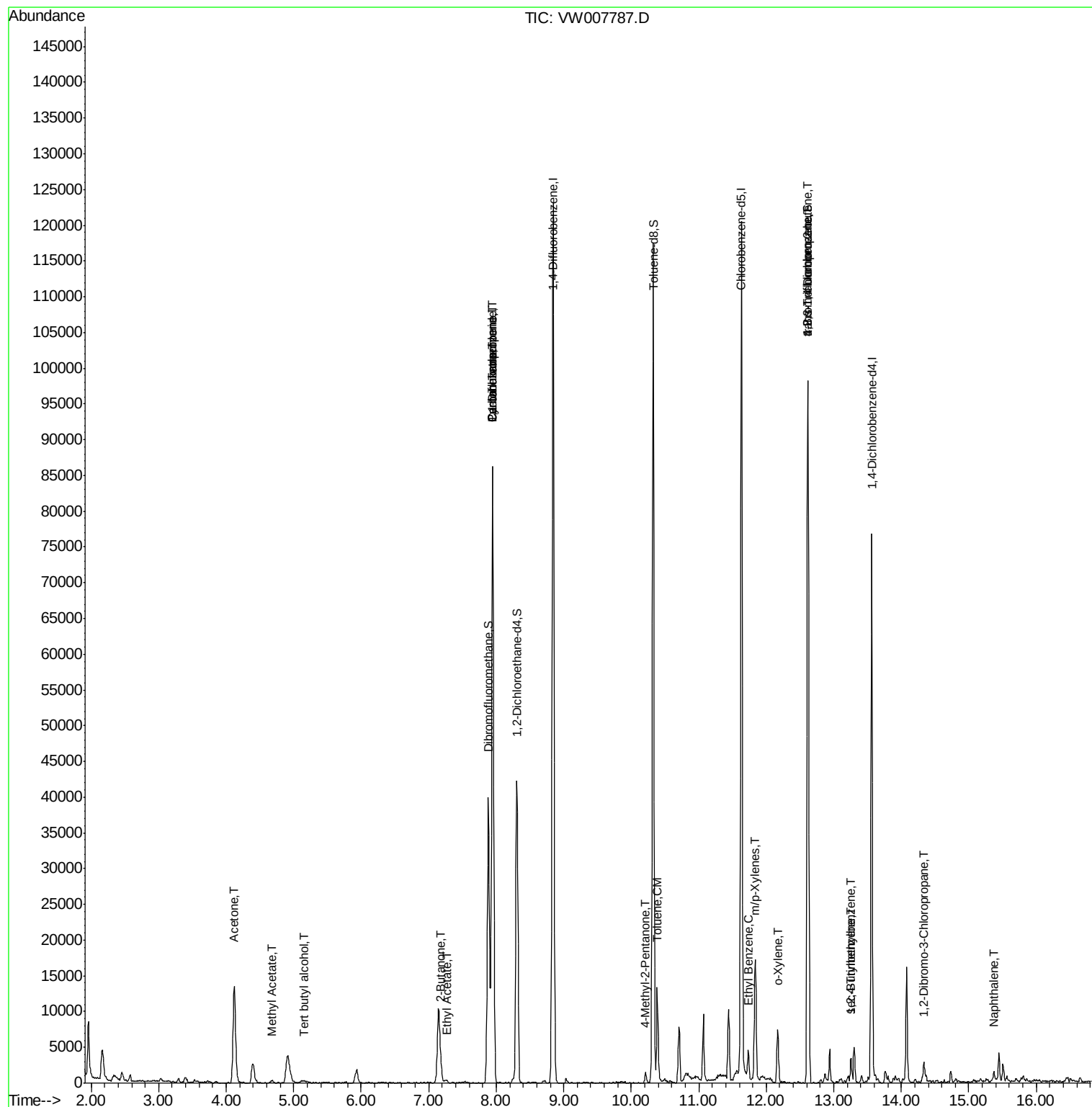
|                                |       |     |       |         |        | Qvalue |
|--------------------------------|-------|-----|-------|---------|--------|--------|
| 11) Tert butyl alcohol         | 5.16  | 59  | 245   | 5.299   | ug/l # | 73     |
| 16) Acetone                    | 4.12  | 43  | 23749 | 185.024 | ug/l   | 96     |
| 18) Methyl Acetate             | 4.68  | 43  | 914   | 2.994   | ug/l # | 53     |
| 25) 2-Butanone                 | 7.18  | 43  | 2558  | 17.014  | ug/l # | 77     |
| 31) Cyclohexane                | 7.94  | 56  | 1215  | 1.191   | ug/l # | 28     |
| 36) 1,1-Dichloropropene        | 7.95  | 75  | 4806  | 4.713   | ug/l # | 48     |
| 37) Ethyl Acetate              | 7.26  | 43  | 567   | 1.611   | ug/l # | 74     |
| 38) Carbon Tetrachloride       | 7.95  | 117 | 6456  | 5.376   | ug/l # | 14     |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43  | 984   | 2.953   | ug/l   | 100    |
| 52) Toluene                    | 10.39 | 92  | 6188  | 3.390   | ug/l   | 96     |
| 67) Ethyl Benzene              | 11.73 | 91  | 2722  | 1.063   | ug/l   | 98     |
| 68) m/p-Xylenes                | 11.84 | 106 | 5464  | 5.500   | ug/l   | 99     |
| 69) o-Xylene                   | 12.17 | 106 | 1971  | 2.116   | ug/l   | 98     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 11126 | 71.496  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 11126 | 150.075 | ug/l # | 10     |
| 84) 1,2,4-Trimethylbenzene     | 13.26 | 105 | 2093  | 1.580   | ug/l   | 97     |
| 85) sec-Butylbenzene           | 13.26 | 105 | 2093  | 1.318   | ug/l # | 56     |
| 92) 1,2-Dibromo-3-Chloropropan | 14.33 | 75  | 192   | 4.097   | ug/l # | 3      |
| 95) Naphthalene                | 15.37 | 128 | 1842  | 2.315   | ug/l # | 90     |

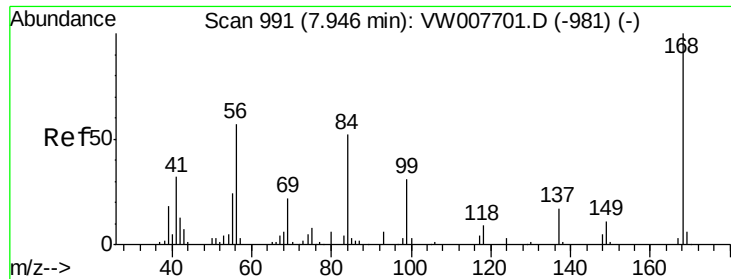
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA W\DATA\VW122218\  
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Quant Time: Dec 21 12:24:55 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W122118S.M  
Quant Title : SW846 8260  
QLast Update : Thu Dec 20 06:30:23 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.00 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

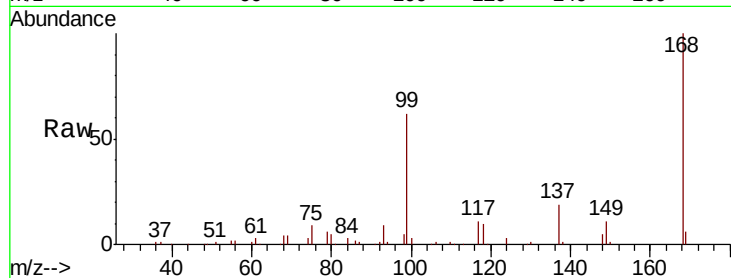
P001-SS014-1824-01

Tot Ion:168 Resp: 62538

Ion Ratio Lower Upper

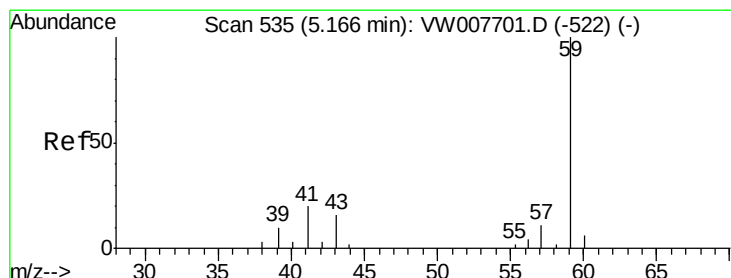
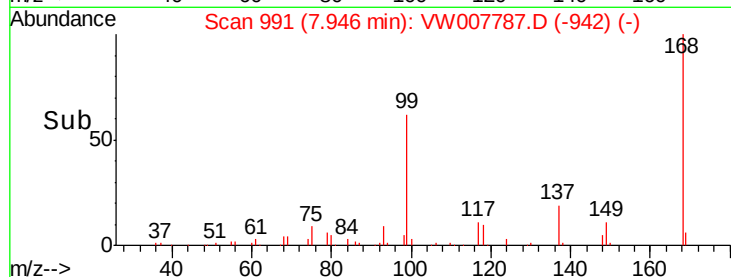
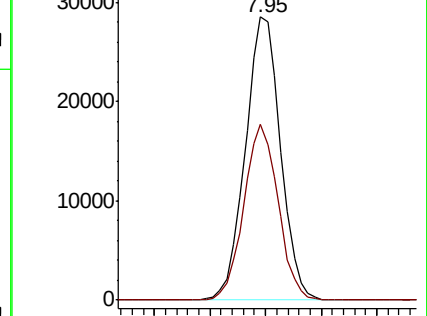
168 100

99 62.2 54.0 81.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#11

Tert butyl alcohol

Concen: 5.299 ug/l

RT: 5.16 min Scan# 534

Delta R.T. -0.01 min

Lab File: VW007787.D

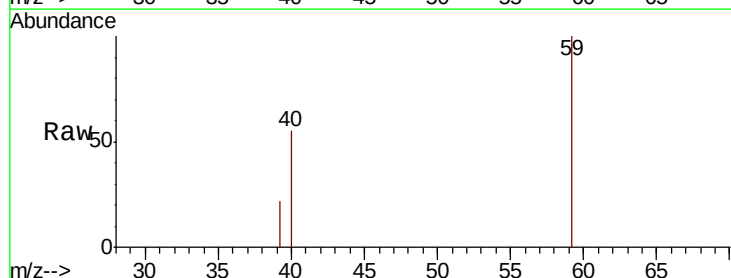
Acq: 21 Dec 2018 11:16

Tgt Ion: 59 Resp: 245

Ion Ratio Lower Upper

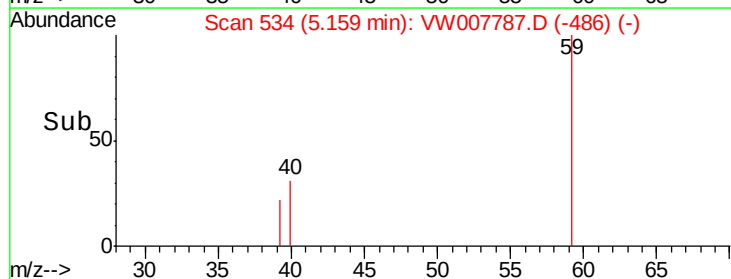
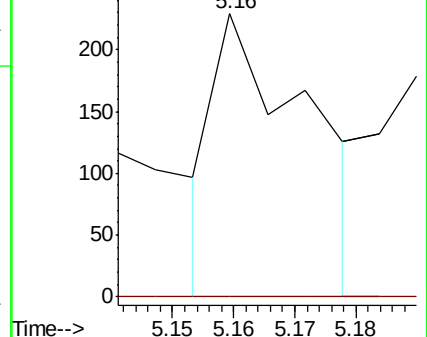
59 100

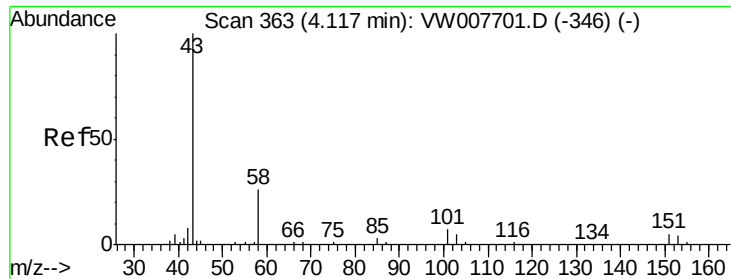
57 0.0 7.8 11.8#



Abundance Ion 59.00 (58.70 to 59.70): VW

Ion 57.00 (56.70 to 57.70): VW





#16

Acetone

Concen: 185.024 ug/l

RT: 4.12 min Scan# 363

Delta R.T. -0.00 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

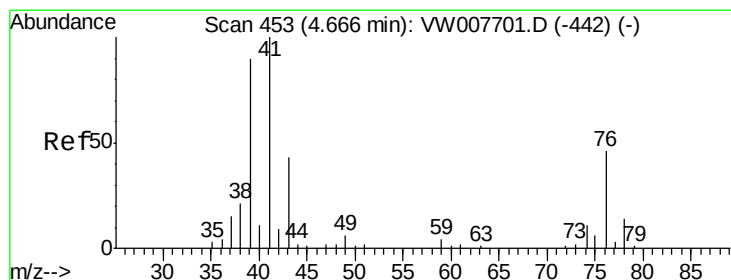
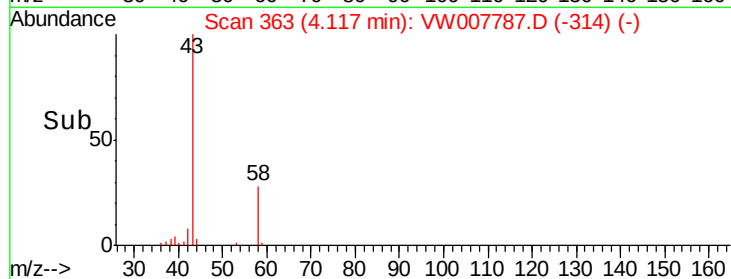
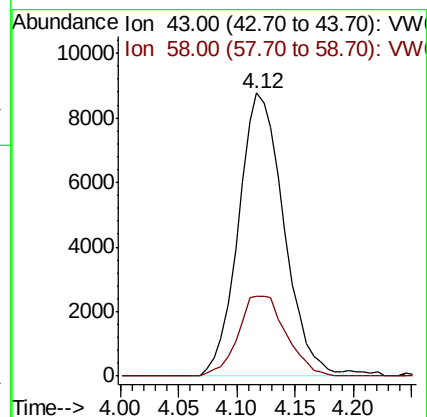
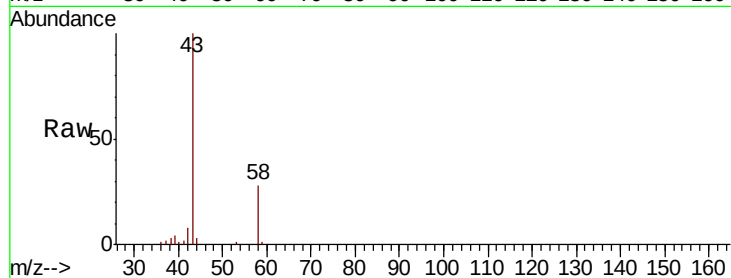
P001-SS014-1824-01

Tot Ion: 43 Resp: 23749

Ion Ratio Lower Upper

43 100

58 28.4 21.2 31.8



#18

Methyl Acetate

Concen: 2.994 ug/l

RT: 4.68 min Scan# 455

Delta R.T. 0.01 min

Lab File: VW007787.D

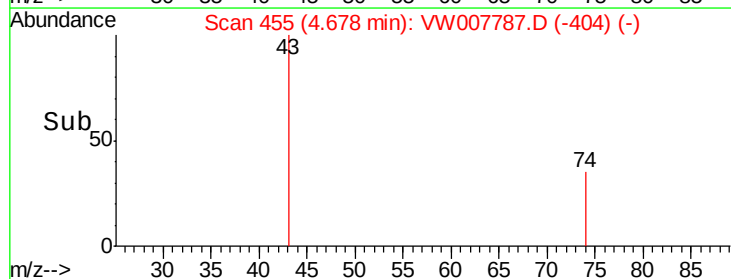
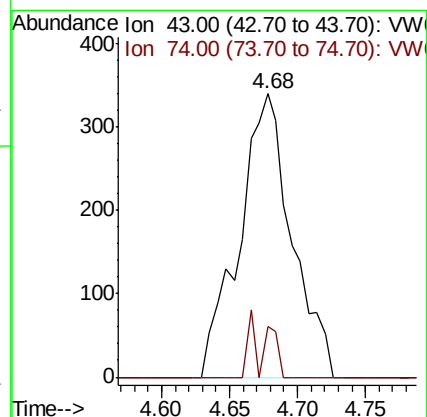
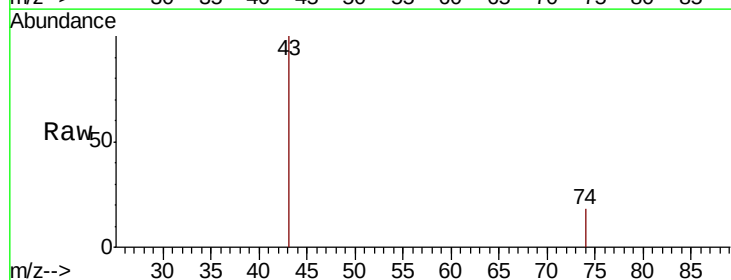
Acq: 21 Dec 2018 11:16

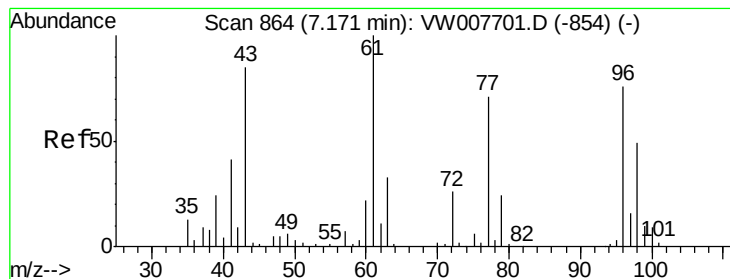
Tgt Ion: 43 Resp: 914

Ion Ratio Lower Upper

43 100

74 3.3 22.7 34.1#





#25

2-Butanone

Concen: 17.014 ug/l

RT: 7.18 min Scan# 865

Delta R.T. 0.01 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

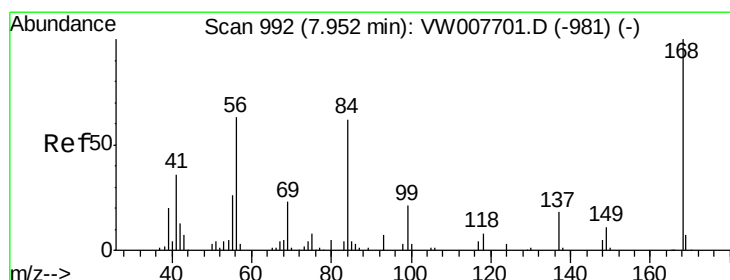
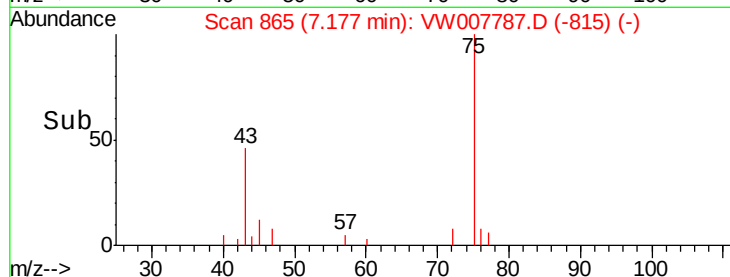
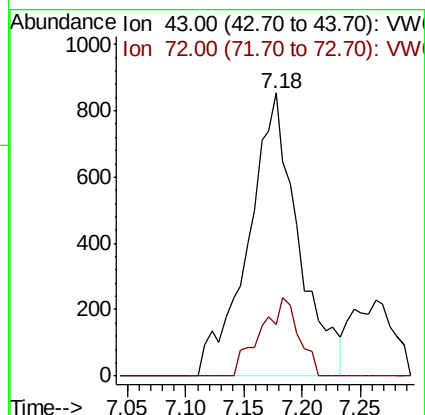
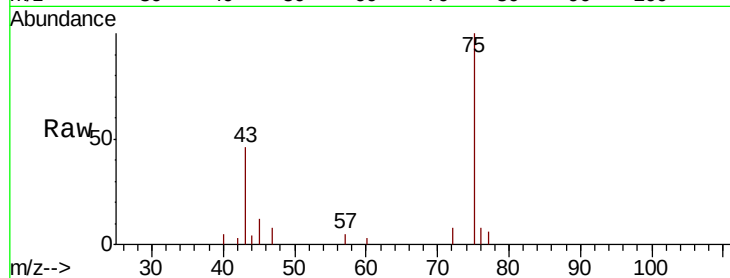
P001-SS014-1824-01

Tot Ion: 43 Resp: 2558

Ion Ratio Lower Upper

43 100

72 18.2 24.5 36.7#



#31

Cyclohexane

Concen: 1.191 ug/l

RT: 7.94 min Scan# 990

Delta R.T. -0.01 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

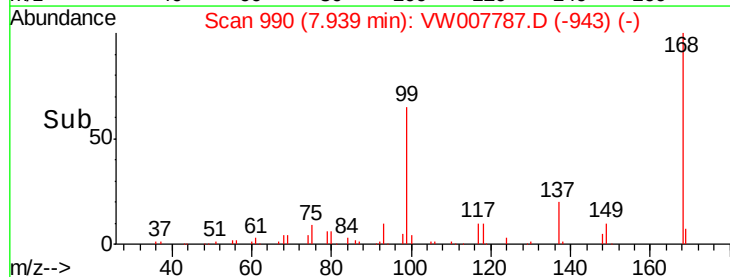
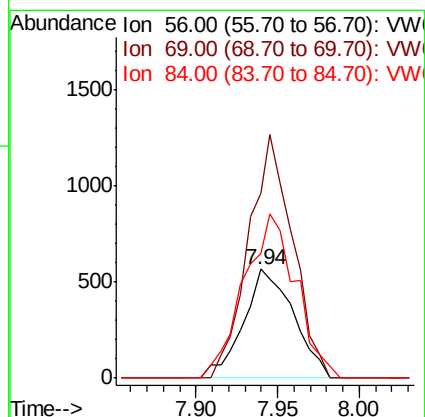
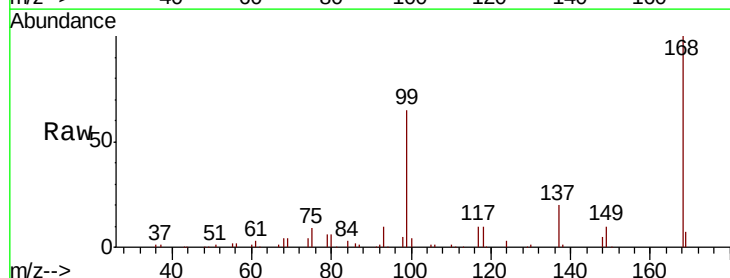
Tgt Ion: 56 Resp: 1215

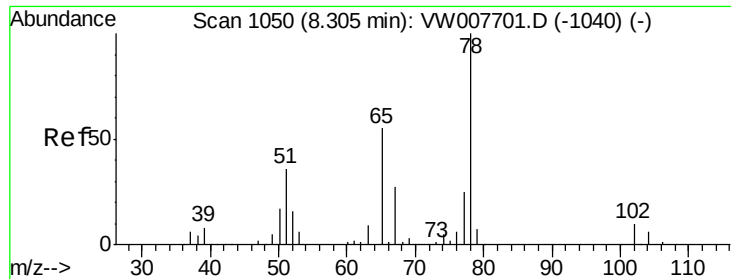
Ion Ratio Lower Upper

56 100

69 169.5 29.7 44.5#

84 114.3 78.9 118.3

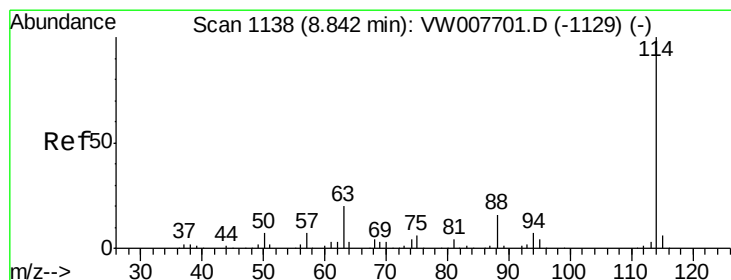
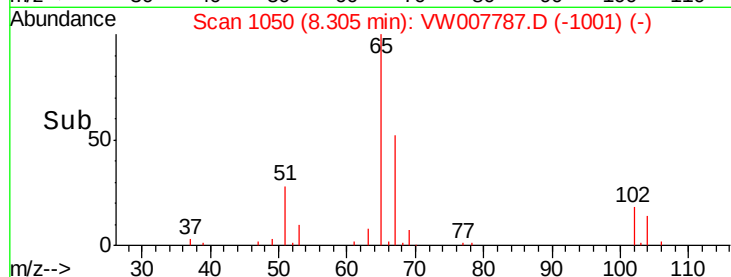
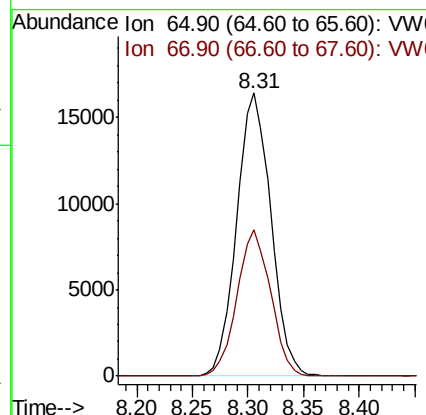
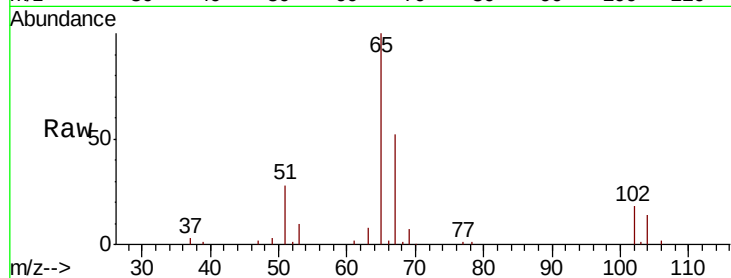




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.164 ug/l  
 RT: 8.31 min Scan# 1050  
 Delta R.T. -0.00 min  
 Lab File: VW007787.D  
 Acq: 21 Dec 2018 11:16

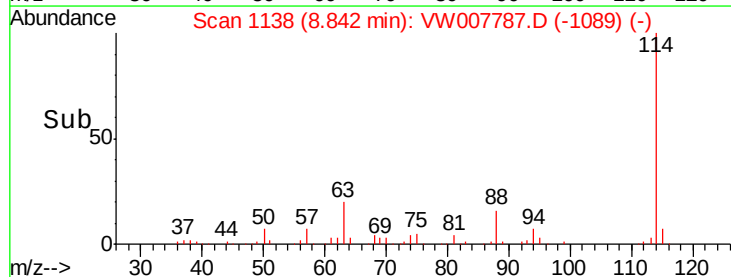
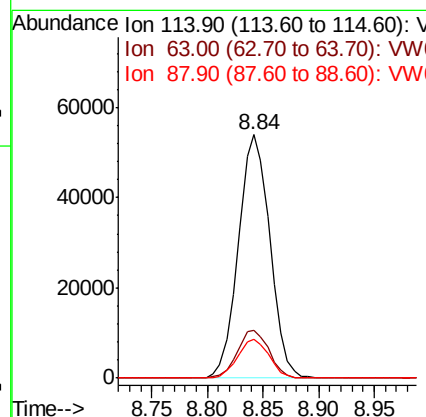
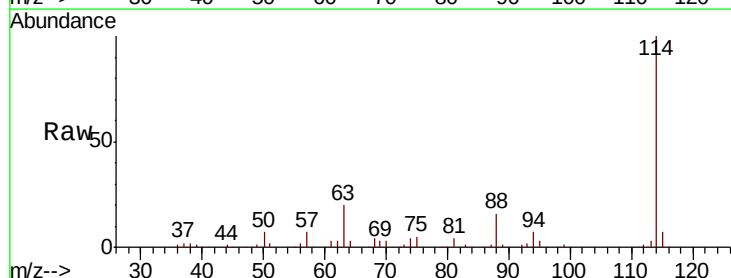
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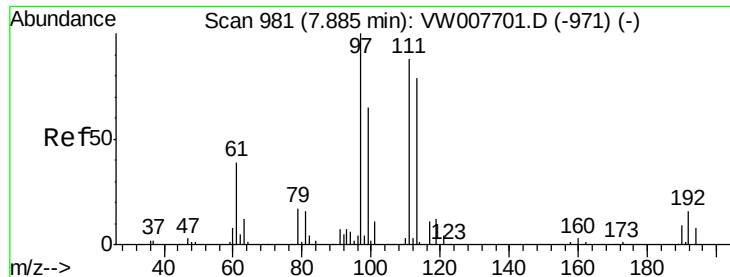
Tot Ion: 65 Resp: 35070  
 Ion Ratio Lower Upper  
 65 100  
 67 50.7 0.0 100.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW007787.D  
 Acq: 21 Dec 2018 11:16

Tgt Ion: 114 Resp: 105643  
 Ion Ratio Lower Upper  
 114 100  
 63 19.7 0.0 40.0  
 88 16.1 0.0 32.6

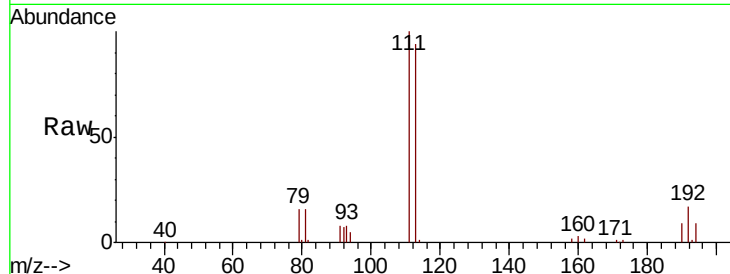




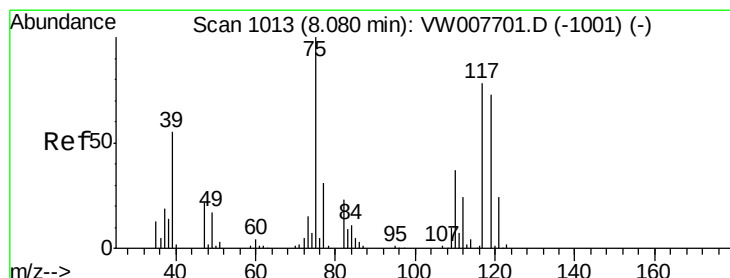
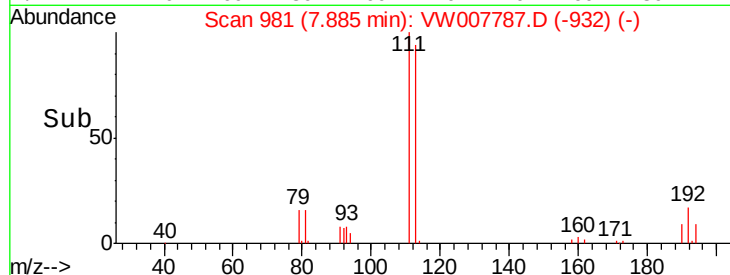
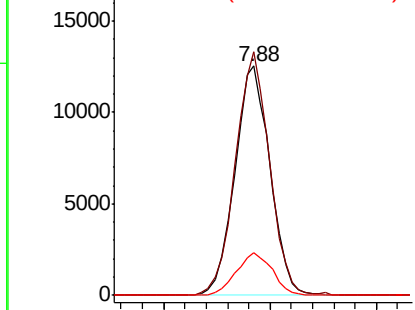
#35  
 Dibromofluoromethane  
 Concen: 45.026 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. -0.00 min  
 Lab File: VW007787.D  
 Acq: 21 Dec 2018 11:16

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 P001-SS014-1824-01

Tot Ion:113 Resp: 29018  
 Ion Ratio Lower Upper  
 113 100  
 111 103.1 82.6 124.0  
 192 18.7 15.5 23.3

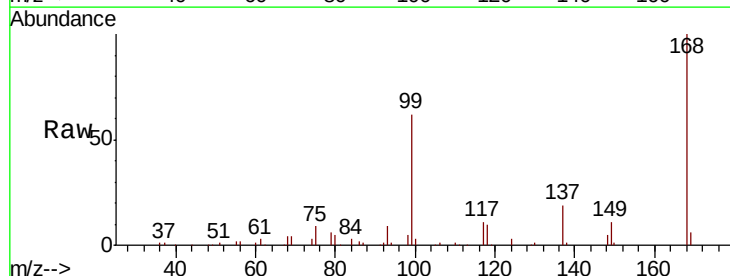


Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

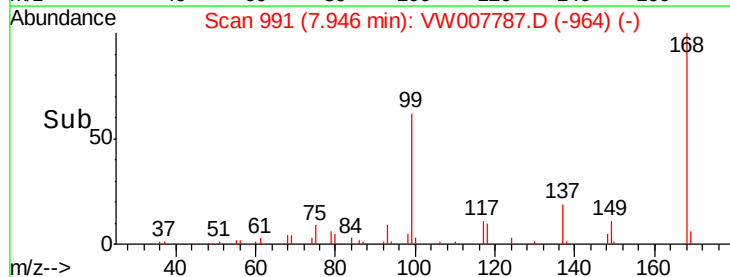
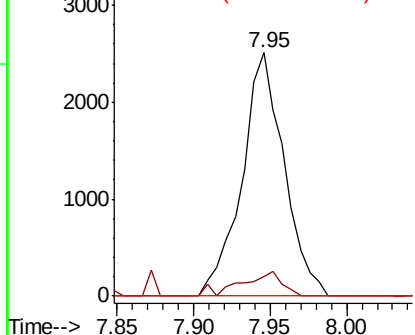


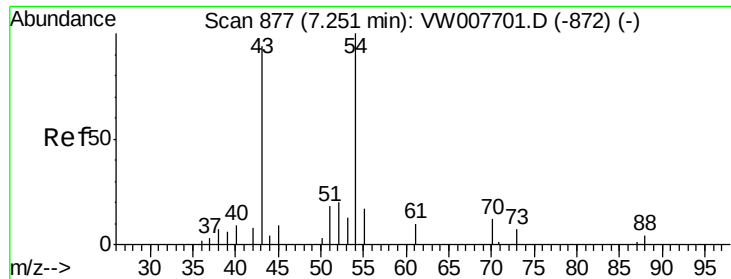
#36  
 1,1-Dichloropropene  
 Concen: 4.713 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW007787.D  
 Acq: 21 Dec 2018 11:16

Tgt Ion: 75 Resp: 4806  
 Ion Ratio Lower Upper  
 75 100  
 110 8.8 18.6 55.8#  
 77 0.0 25.0 37.4#



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

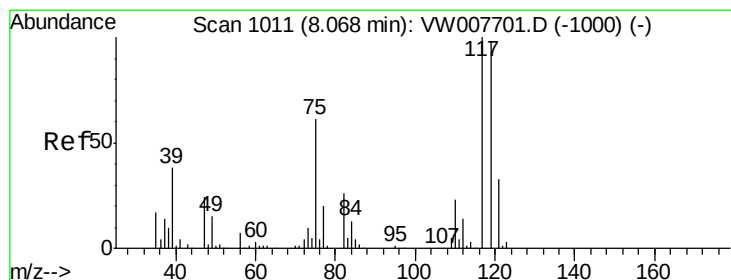
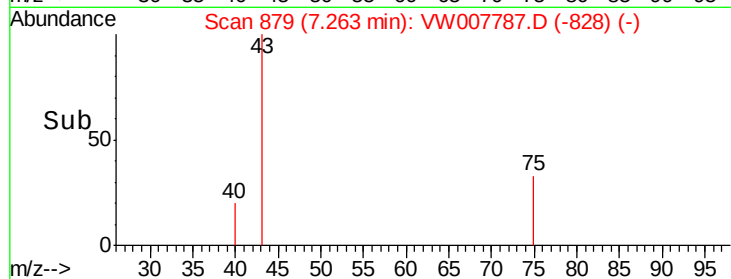
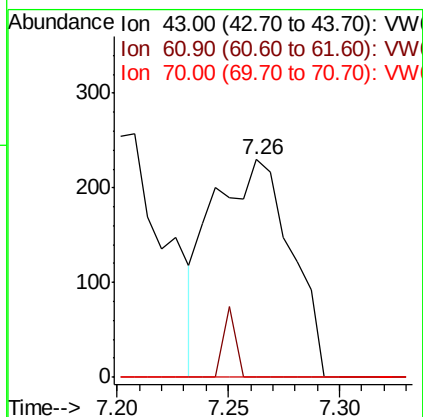
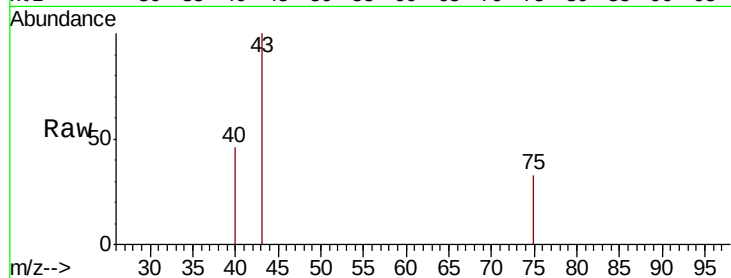




#37  
Ethyl Acetate  
Concen: 1.611 ug/l  
RT: 7.26 min Scan# 879  
Delta R.T. 0.01 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

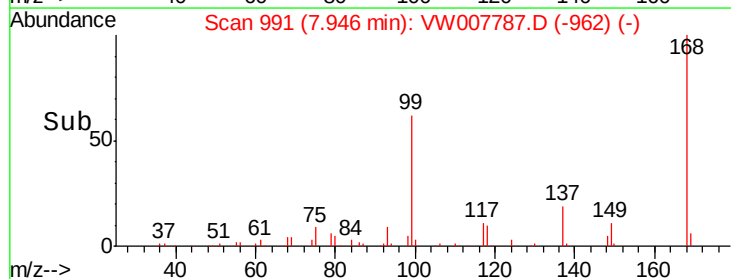
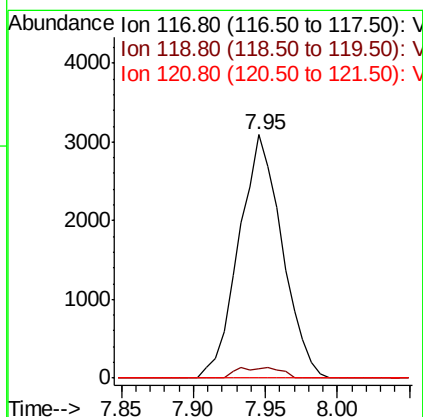
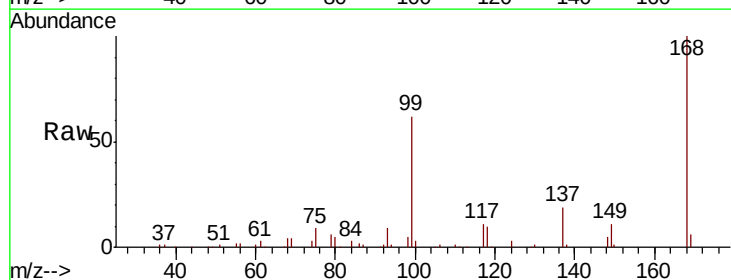
Instrument :  
MSVOA\_W  
ClientSampleId :  
P001-SS014-1824-01

Tot Ion: 43 Resp: 567  
Ion Ratio Lower Upper  
43 100  
61 4.8 11.2 16.8#  
70 0.0 9.3 13.9#

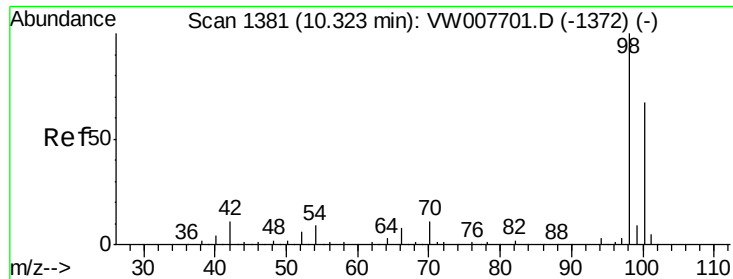


#38  
Carbon Tetrachloride  
Concen: 5.376 ug/l  
RT: 7.95 min Scan# 991  
Delta R.T. -0.12 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

Tgt Ion: 117 Resp: 6456  
Ion Ratio Lower Upper  
117 100  
119 4.0 78.2 117.2#  
121 0.0 26.1 39.1#



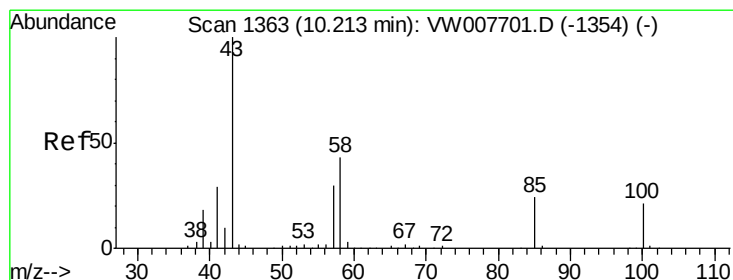
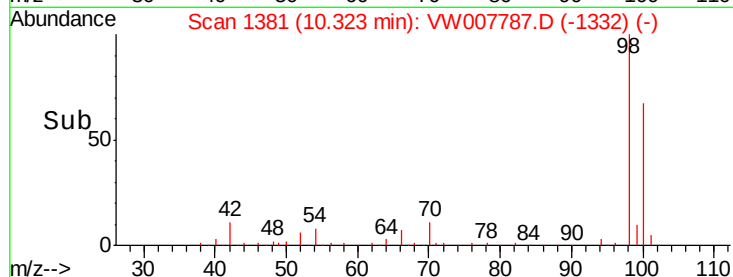
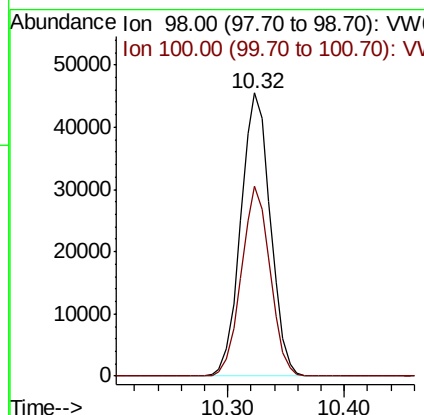
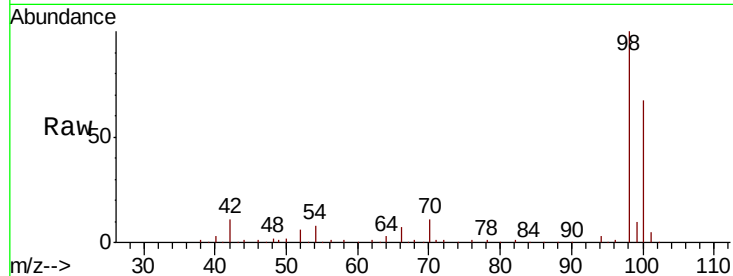




#50  
Toluene-d8  
Concen: 33.202 ug/l  
RT: 10.32 min Scan# 1381  
Delta R.T. -0.00 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

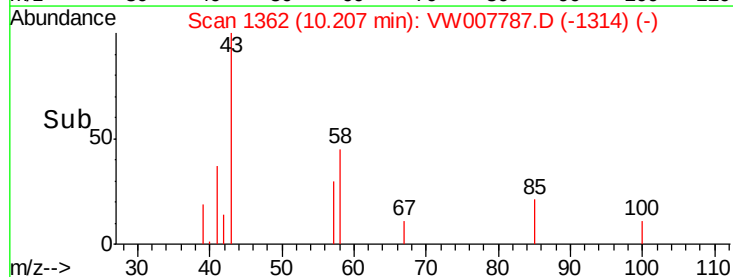
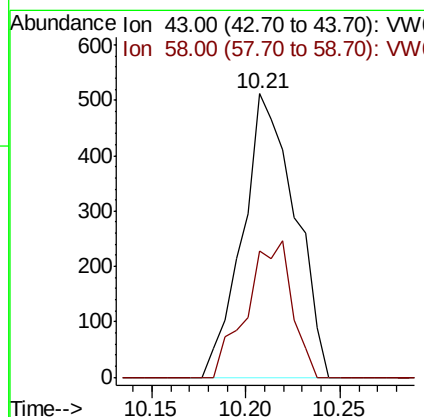
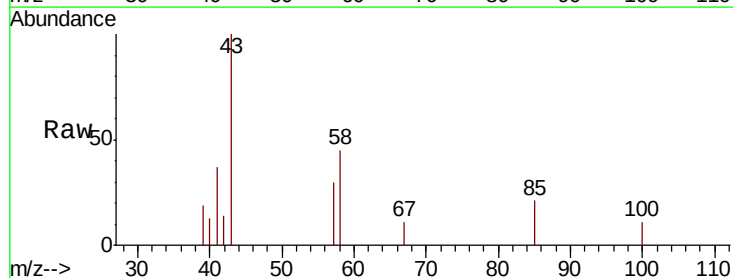
Instrument :  
MSVOA\_W  
ClientSampleId :  
P001-SS014-1824-01

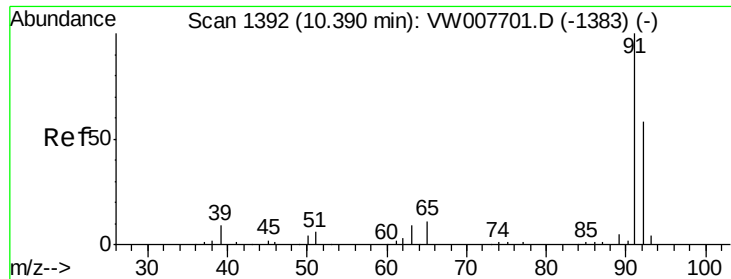
Tot Ion: 98 Resp: 80666  
Ion Ratio Lower Upper  
98 100  
100 65.1 52.2 78.2



#51  
4-Methyl-2-Pentanone  
Concen: 2.953 ug/l  
RT: 10.21 min Scan# 1362  
Delta R.T. -0.01 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

Tgt Ion: 43 Resp: 984  
Ion Ratio Lower Upper  
43 100  
58 41.3 33.2 49.8





#52

Toluene

Concen: 3.390 ug/l

RT: 10.39 min Scan# 1392

Delta R.T. -0.00 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

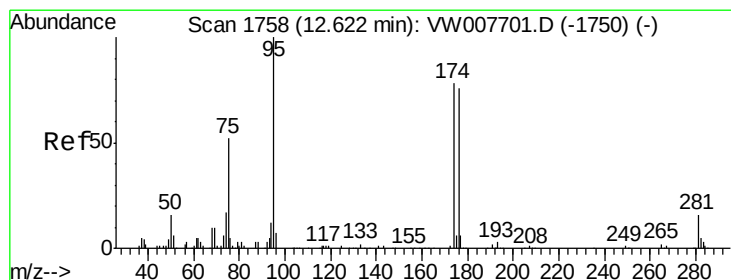
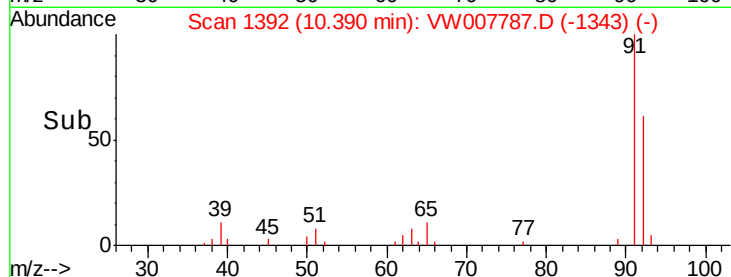
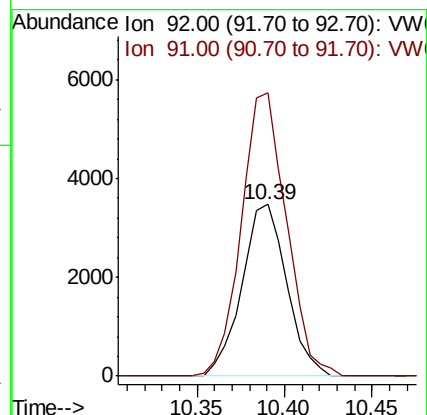
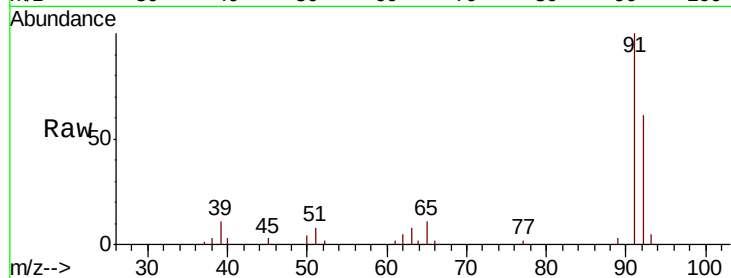
P001-SS014-1824-01

Tot Ion: 92 Resp: 6188

Ion Ratio Lower Upper

92 100

91 166.0 137.0 205.4



#62

4-Bromofluorobenzene

Concen: 23.170 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. -0.00 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

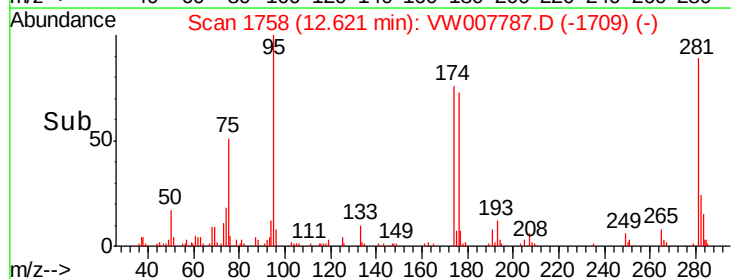
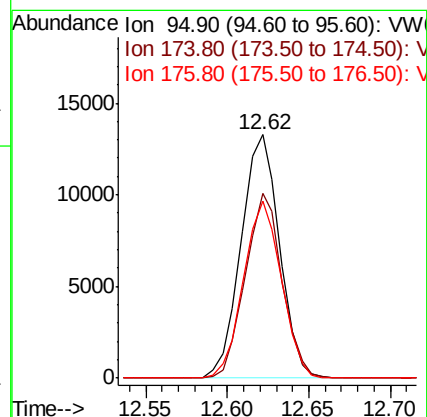
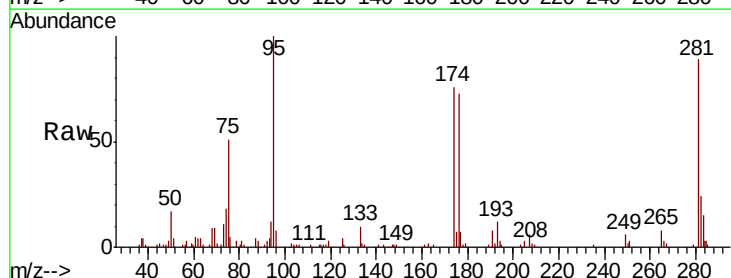
Tgt Ion: 95 Resp: 21747

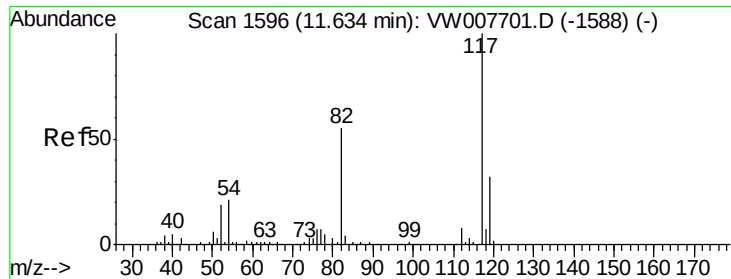
Ion Ratio Lower Upper

95 100

174 72.8 0.0 152.2

176 71.9 0.0 146.8

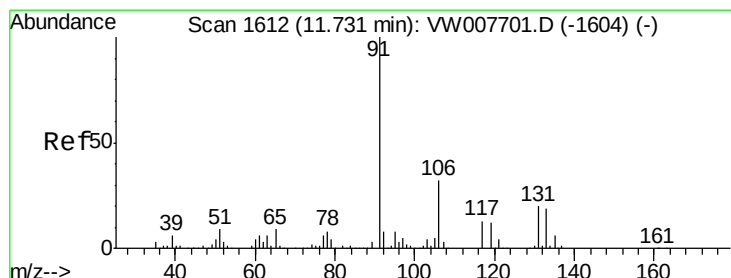
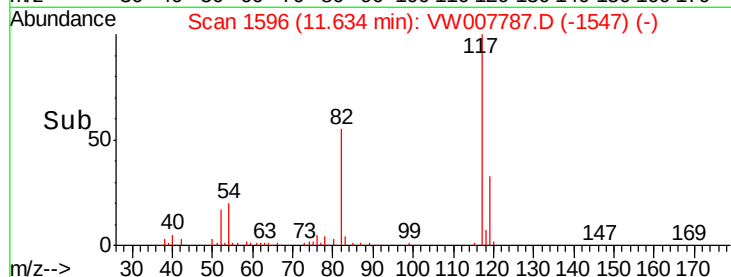
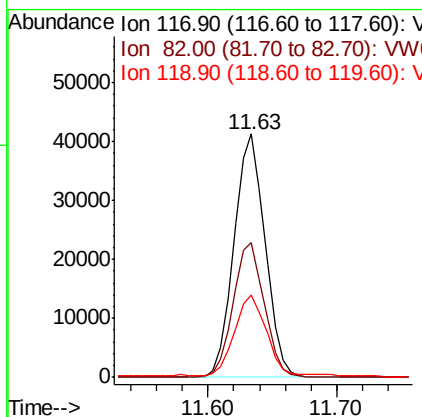
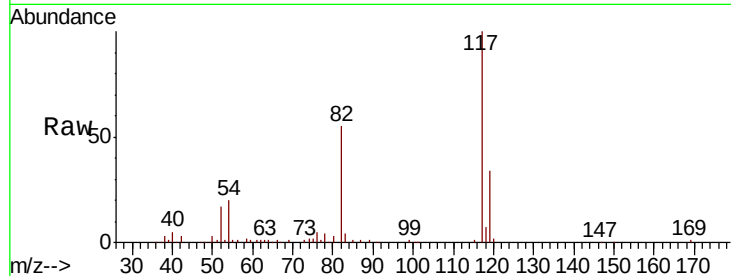




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. -0.00 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

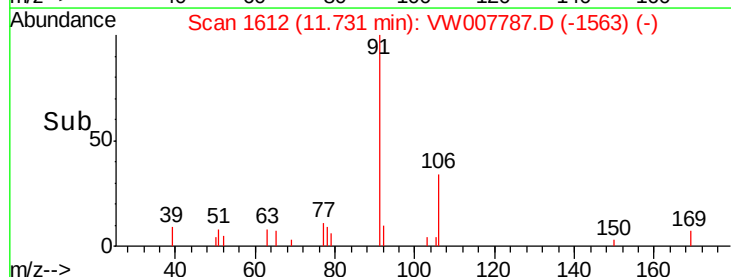
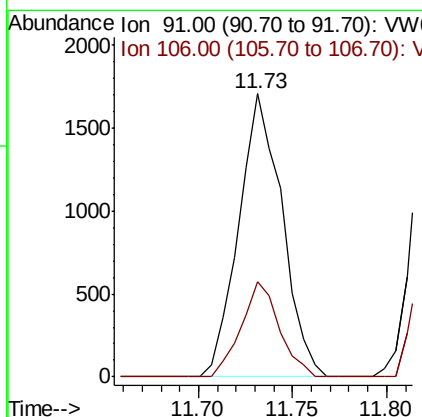
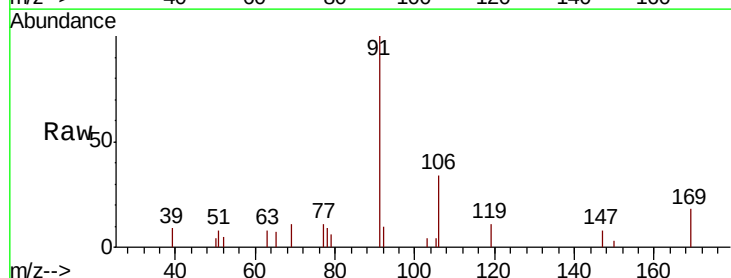
Instrument :  
MSVOA\_W  
ClientSampleId :  
P001-SS014-1824-01

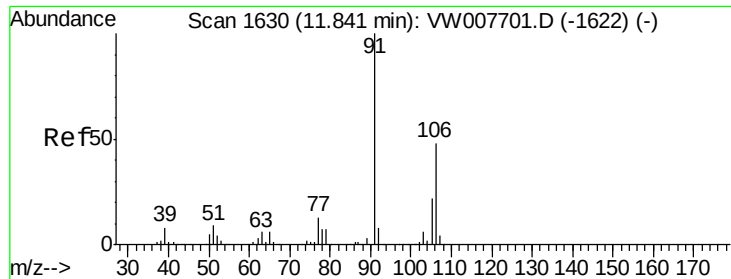
Tot Ion:117 Resp: 68959  
Ion Ratio Lower Upper  
117 100  
82 55.2 44.3 66.5  
119 33.2 25.7 38.5



#67  
Ethyl Benzene  
Concen: 1.063 ug/l  
RT: 11.73 min Scan# 1612  
Delta R.T. -0.00 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

Tgt Ion: 91 Resp: 2722  
Ion Ratio Lower Upper  
91 100  
106 33.7 25.8 38.8

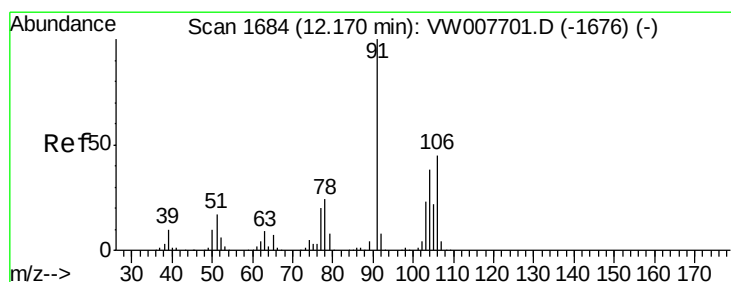
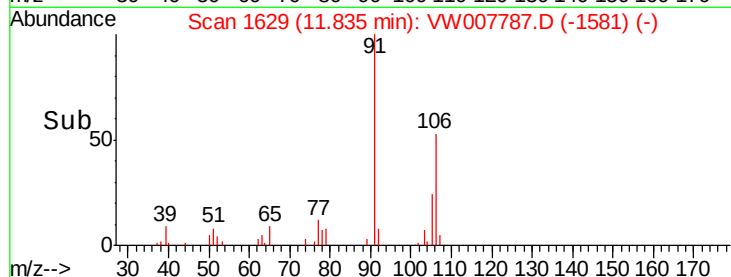
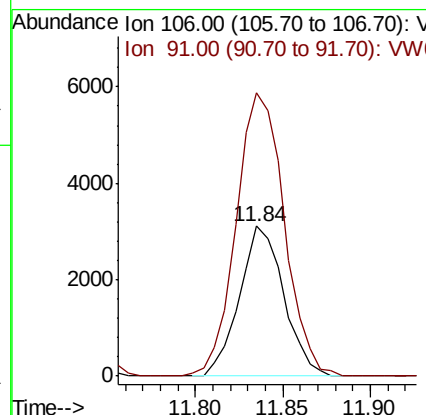
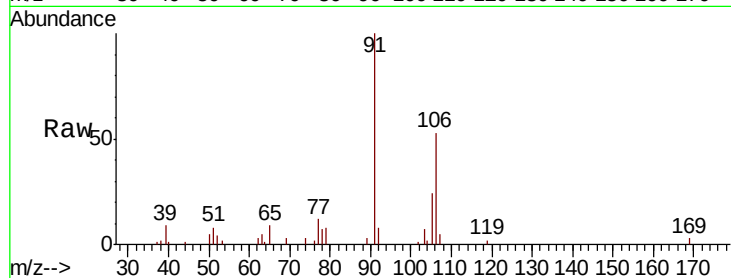




#68  
m/p-Xylenes  
Concen: 5.500 ug/l  
RT: 11.84 min Scan# 1629  
Delta R.T. -0.01 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

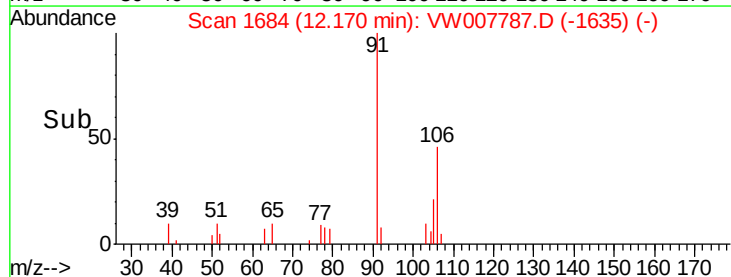
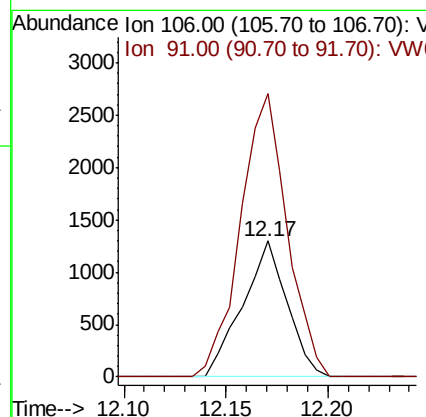
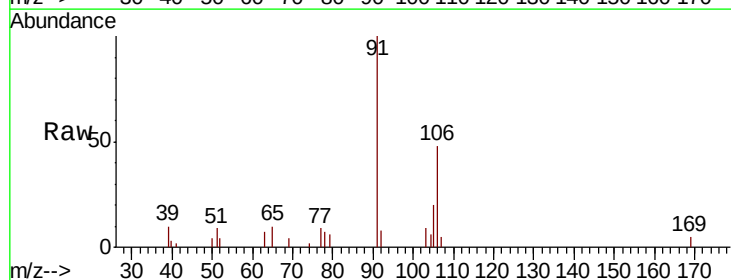
Instrument :  
MSVOA\_W  
ClientSampleId :  
P001-SS014-1824-01

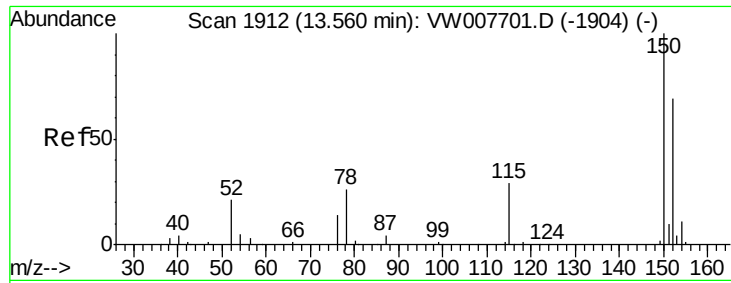
Tot Ion:106 Resp: 5464  
Ion Ratio Lower Upper  
106 100  
91 205.3 165.2 247.8



#69  
o-Xylene  
Concen: 2.116 ug/l  
RT: 12.17 min Scan# 1684  
Delta R.T. -0.00 min  
Lab File: VW007787.D  
Acq: 21 Dec 2018 11:16

Tgt Ion:106 Resp: 1971  
Ion Ratio Lower Upper  
106 100  
91 217.6 110.5 331.4





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.56 min Scan# 1912

Delta R.T. -0.00 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

P001-SS014-1824-01

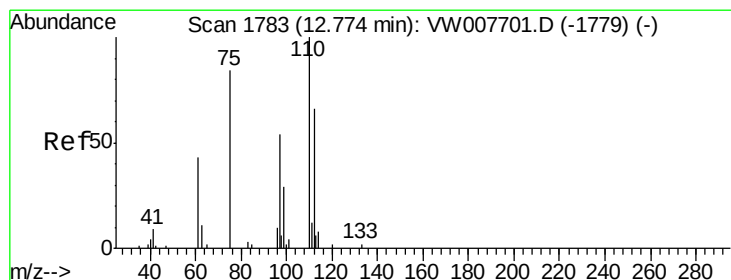
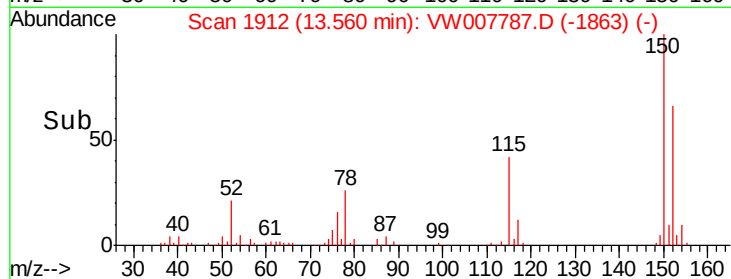
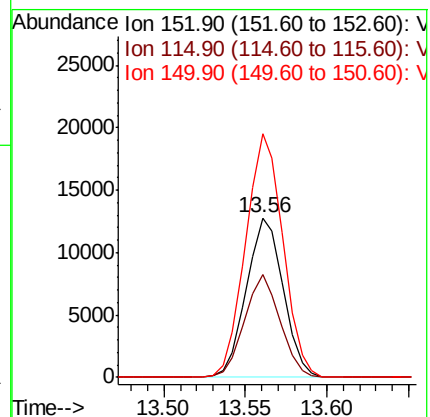
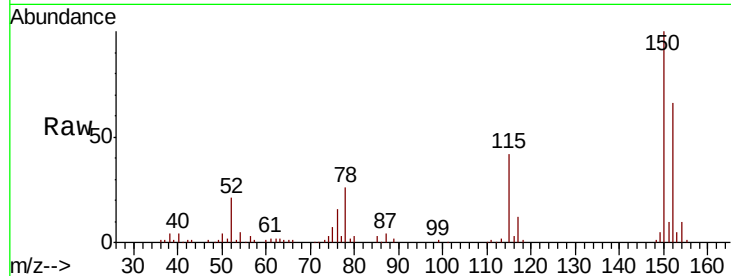
Tot Ion:152 Resp: 20134

Ion Ratio Lower Upper

152 100

115 62.2 31.8 95.4

150 154.5 0.0 350.8



#76

1,2,3-Trichloropropane

Concen: 71.496 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. -0.15 min

Lab File: VW007787.D

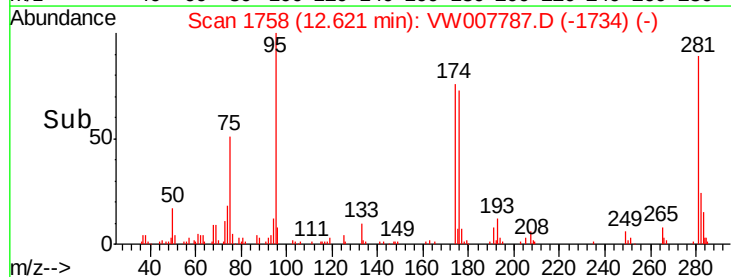
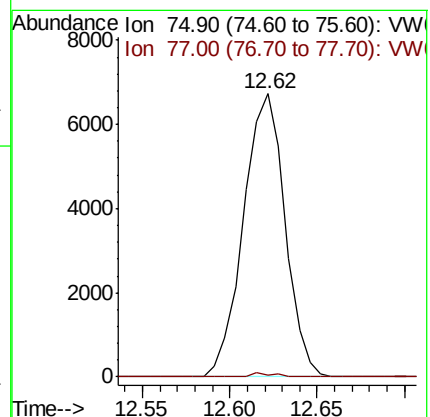
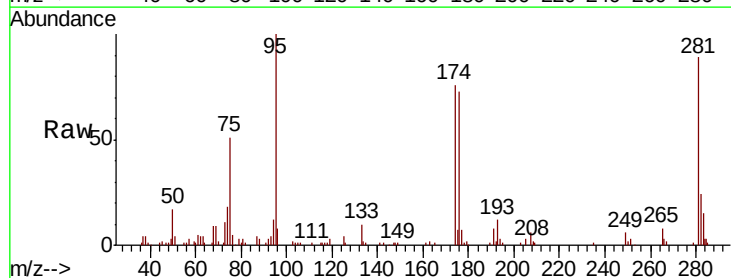
Acq: 21 Dec 2018 11:16

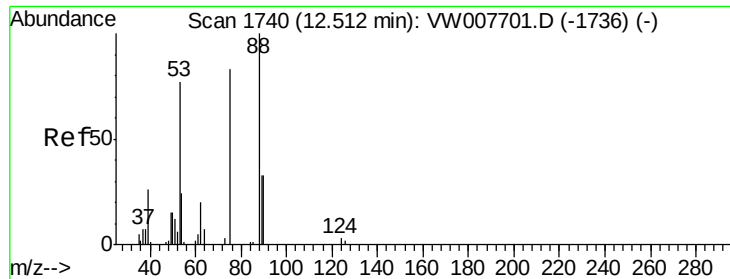
Tgt Ion: 75 Resp: 11126

Ion Ratio Lower Upper

75 100

77 0.7 0.0 0.0#





#81

trans-1,4-Dichloro-2-butene

Concen: 150.075 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.11 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

P001-SS014-1824-01

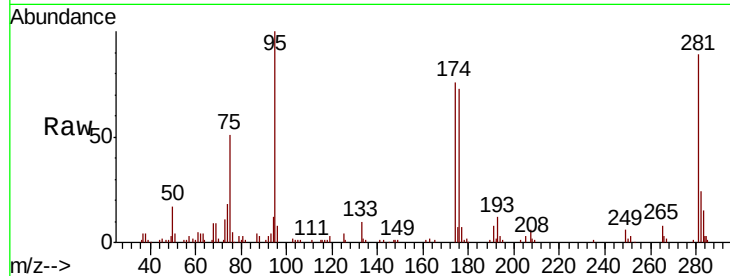
Tot Ion: 75 Resp: 11126

Ion Ratio Lower Upper

75 100

53 0.0 80.2 120.2#

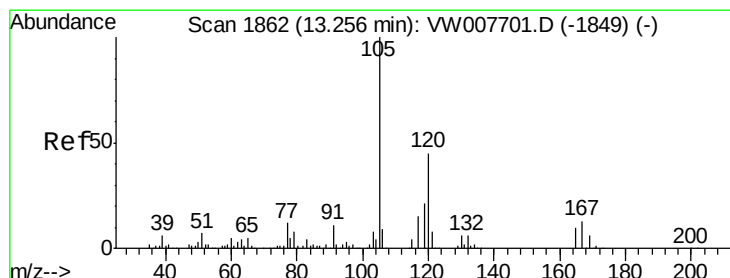
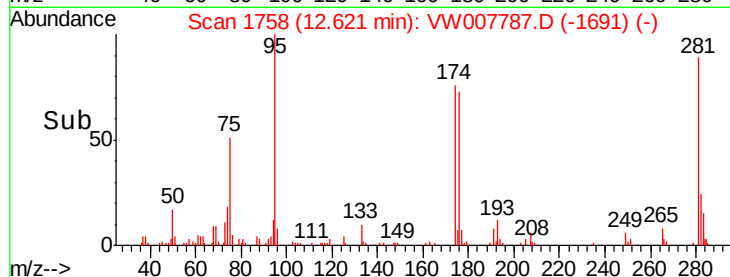
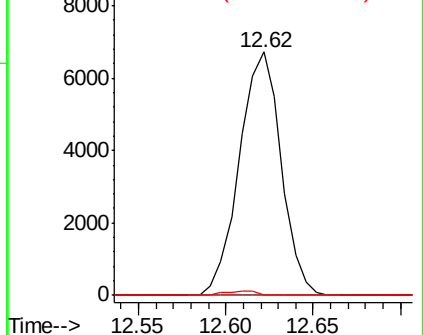
89 1.3 39.2 58.8#



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: 1.580 ug/l

RT: 13.26 min Scan# 1862

Delta R.T. -0.00 min

Lab File: VW007787.D

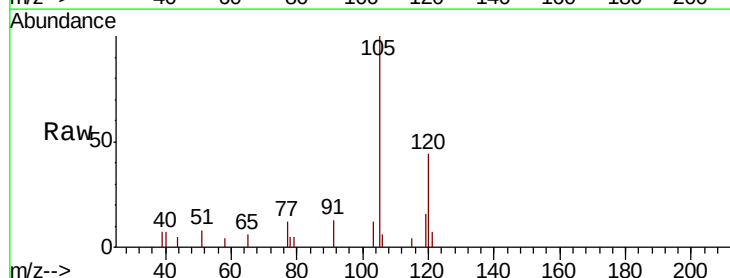
Acq: 21 Dec 2018 11:16

Tgt Ion: 105 Resp: 2093

Ion Ratio Lower Upper

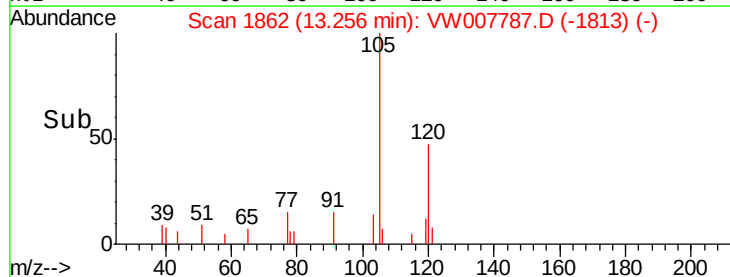
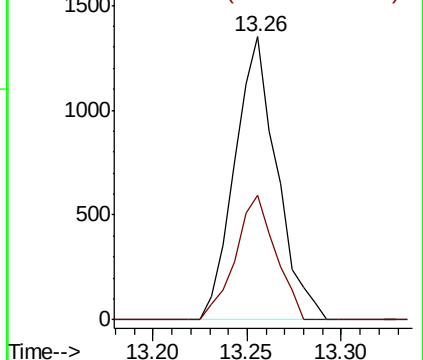
105 100

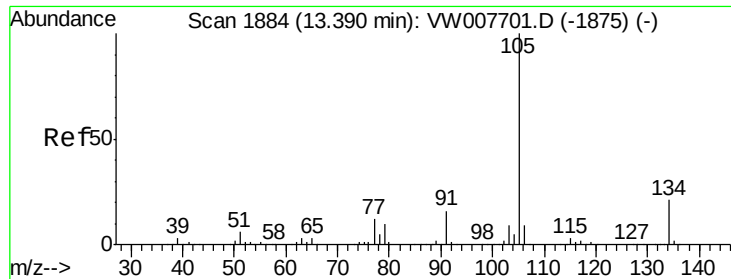
120 42.1 22.0 66.0



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

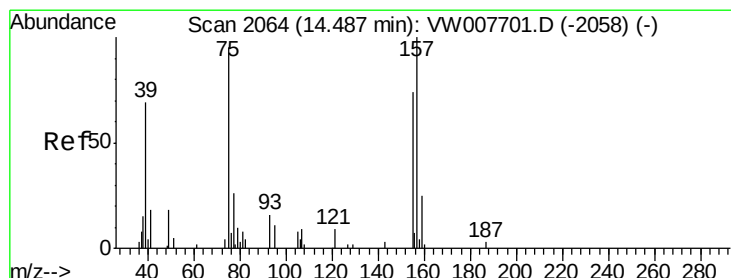
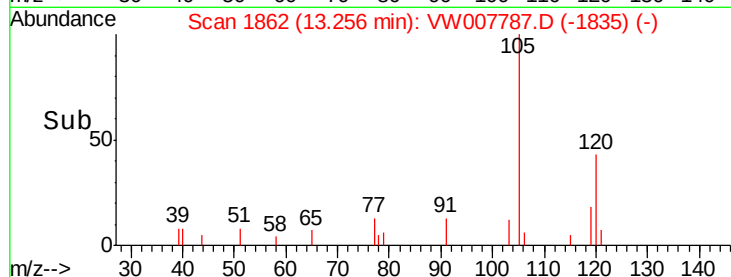
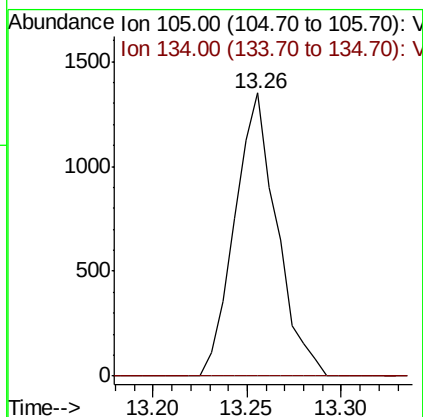
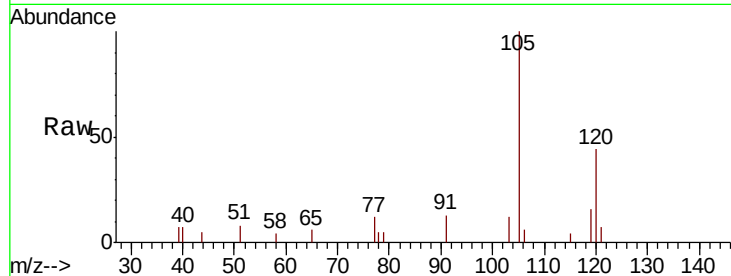




#85  
 sec-Butylbenzene  
 Concen: 1.318 ug/l  
 RT: 13.26 min Scan# 1862  
 Delta R.T. -0.13 min  
 Lab File: VW007787.D  
 Acq: 21 Dec 2018 11:16

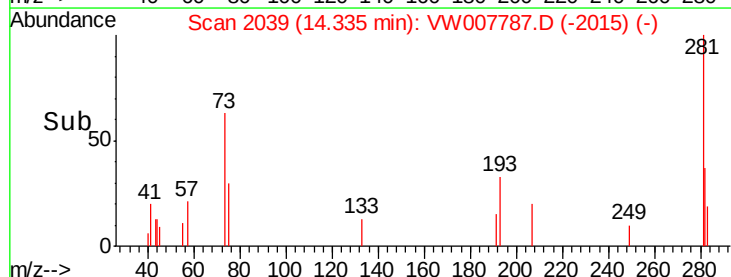
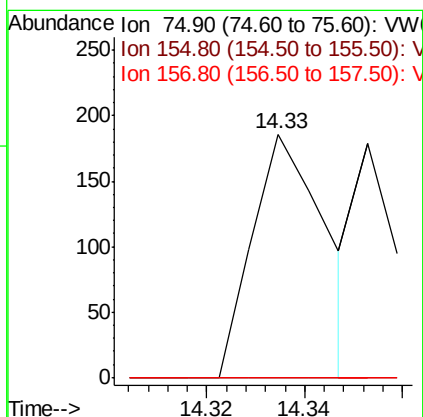
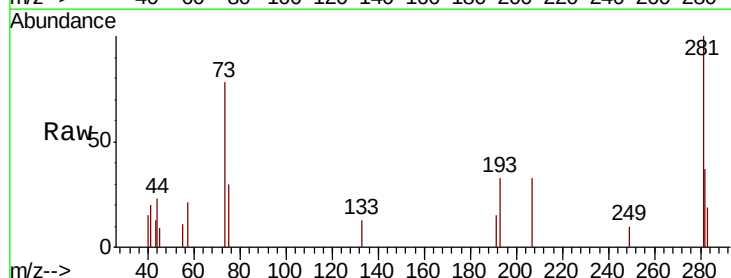
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 P001-SS014-1824-01

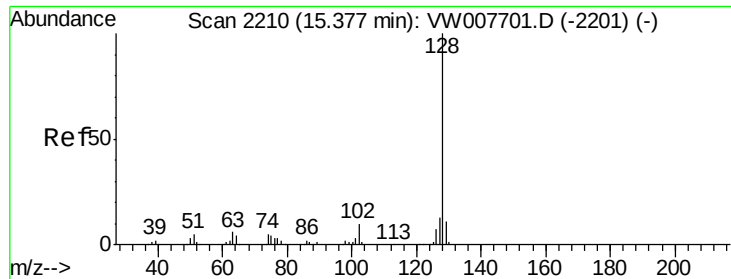
Tot Ion: 105 Resp: 2093  
 Ion Ratio Lower Upper  
 105 100  
 134 0.0 10.2 30.4#



#92  
 1,2-Dibromo-3-Chloropropane  
 Concen: 4.097 ug/l  
 RT: 14.33 min Scan# 2039  
 Delta R.T. -0.15 min  
 Lab File: VW007787.D  
 Acq: 21 Dec 2018 11:16

Tgt Ion: 75 Resp: 192  
 Ion Ratio Lower Upper  
 75 100  
 155 0.0 39.4 118.1#  
 157 0.0 52.0 156.0#





#95

Naphthalene

Concen: 2.315 ug/l

RT: 15.37 min Scan# 2209

Delta R.T. -0.01 min

Lab File: VW007787.D

Acq: 21 Dec 2018 11:16

Instrument :

MSVOA\_W

ClientSampleId :

P001-SS014-1824-01

Tot Ion:128 Resp: 1842

Ion Ratio Lower Upper

128 100

127 14.5 10.7 16.1

129 4.1 8.8 13.2#

