

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121919\  
 Data File : VX014160.D  
 Acq On : 20 Dec 2019 07:59  
 Operator : JC/SP  
 Sample : K6377-02  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 54 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 MW-2R

Quant Time: Dec 20 10:51:19 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X121319W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 17 03:01:07 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 579357   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.85  | 114  | 884408   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 790653   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 358808   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.06  | 65   | 313645   | 47.77 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.54%  |          |
| 35) Dibromofluoromethane    | 5.49  | 113  | 258210   | 48.03 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.06%  |          |
| 50) Toluene-d8              | 8.71  | 98   | 1046567  | 50.00 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.00% |          |
| 62) 4-Bromofluorobenzene    | 11.13 | 95   | 354216   | 46.30 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.60%  |          |

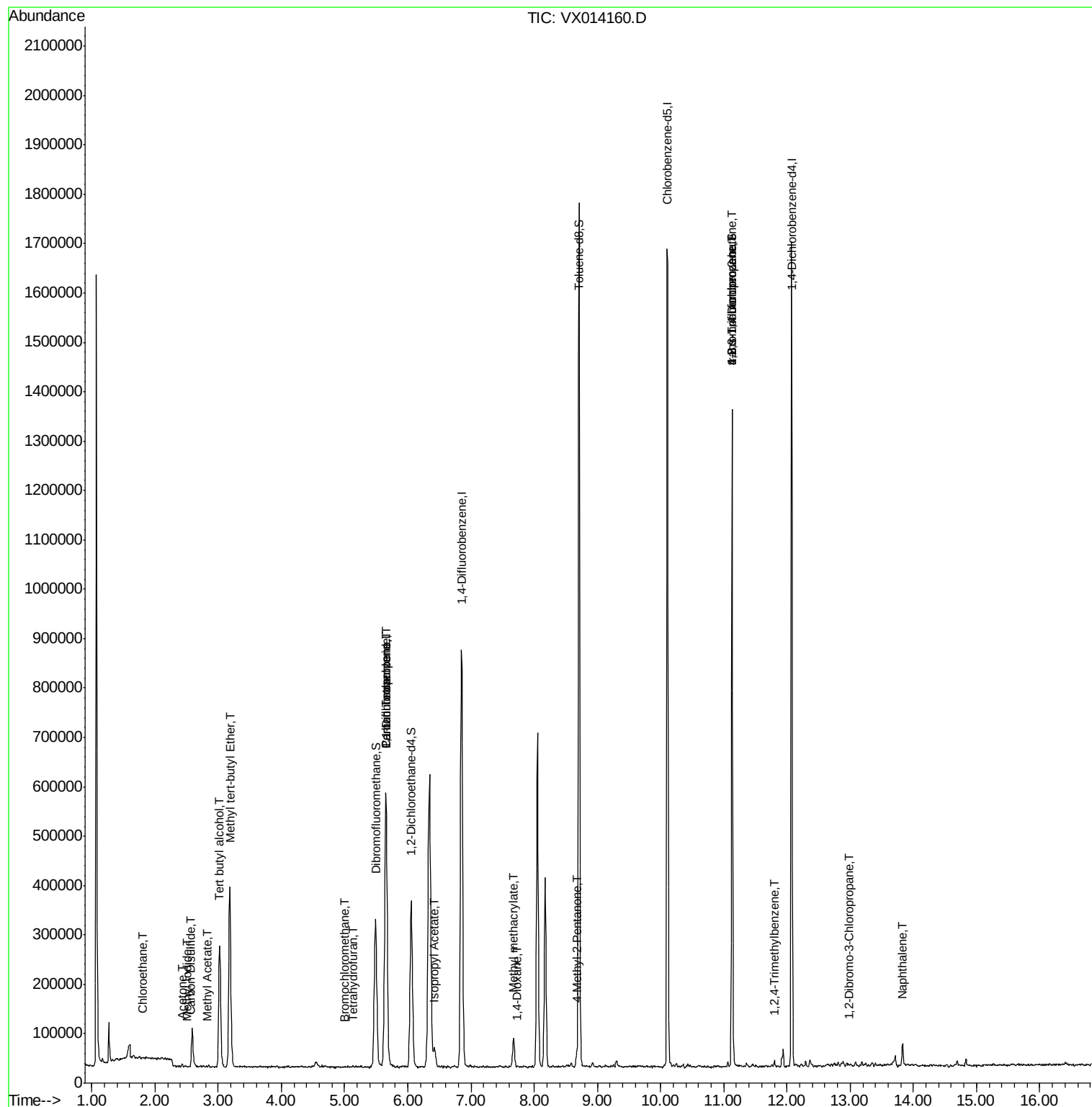
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 6) Chloroethane                | 1.81  | 64   | 1616     | 0.357   | ug/l # | 45     |
| 10) Methyl Iodide              | 2.50  | 142  | 988      | 2.750   | ug/l # | 72     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 296771   | 209.169 | ug/l   | 99     |
| 16) Acetone                    | 2.44  | 43   | 7036     | 1.651   | ug/l   | 96     |
| 17) Carbon Disulfide           | 2.56  | 76   | 2232     | 0.892   | ug/l # | 70     |
| 18) Methyl Acetate             | 2.83  | 43   | 1910     | 0.226   | ug/l # | 58     |
| 19) Methyl tert-butyl Ether    | 3.19  | 73   | 415702   | 22.700  | ug/l   | 100    |
| 28) Bromochloromethane         | 5.00  | 49   | 774      | 0.635   | ug/l # | 68     |
| 29) Tetrahydrofuran            | 5.12  | 42   | 795      | 0.270   | ug/l # | 72     |
| 36) 1,1-Dichloropropene        | 5.65  | 75   | 37542    | 4.626   | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.65  | 117  | 50051    | 6.770   | ug/l # | 19     |
| 43) Isopropyl Acetate          | 6.42  | 43   | 13194    | 0.890   | ug/l # | 14     |
| 48) Methyl methacrylate        | 7.67  | 41   | 16570    | 2.282   | ug/l # | 41     |
| 49) 1,4-Dioxane                | 7.74  | 88   | 281      | 1.901   | ug/l # | 23     |
| 51) 4-Methyl-2-Pentanone       | 8.67  | 43   | 4898     | 0.526   | ug/l # | 35     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75   | 173432   | 22.264  | ug/l # | 39     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75   | 173432   | 62.842  | ug/l # | 11     |
| 84) 1,2,4-Trimethylbenzene     | 11.80 | 105  | 6248     | 0.293   | ug/l   | 93     |
| 92) 1,2-Dibromo-3-Chloropropan | 12.98 | 75   | 517      | 0.267   | ug/l # | 8      |
| 95) Naphthalene                | 13.83 | 128  | 34873    | 1.489   | ug/l   | 98     |

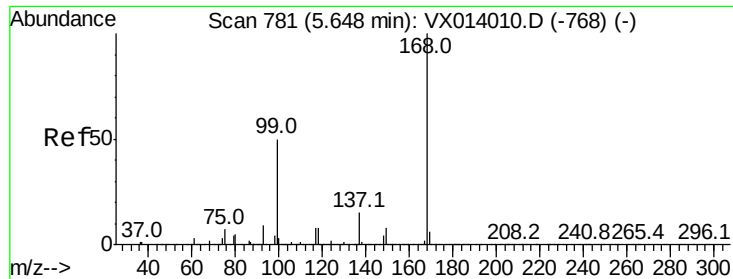
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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MW-2R

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Quant Title : SW846 8260  
QLast Update : Tue Dec 17 03:01:07 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. 0.01 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampleId :

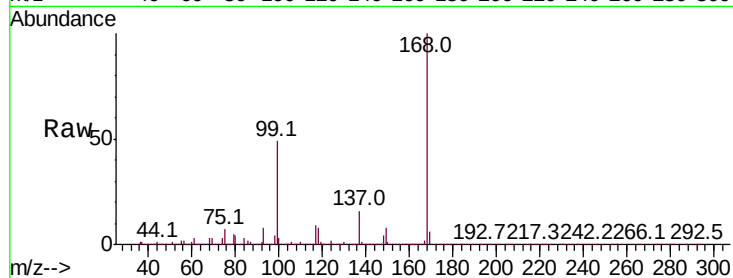
MW-2R

Tot Ion:168 Resp: 579357

Ion Ratio Lower Upper

168 100

99 48.5 40.3 60.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.65

200000

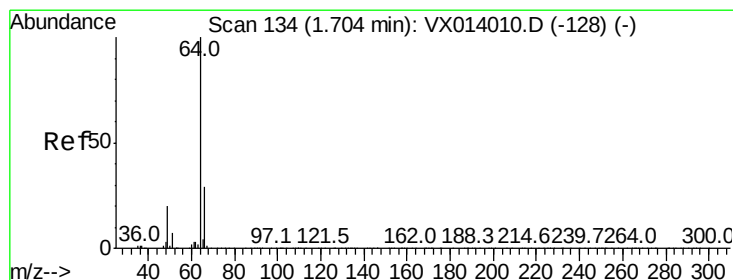
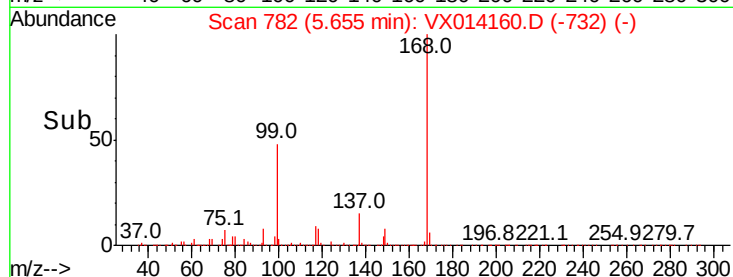
150000

100000

50000

0

Time-->



#6

Chloroethane

Concen: 0.357 ug/l

RT: 1.81 min Scan# 151

Delta R.T. 0.10 min

Lab File: VX014160.D

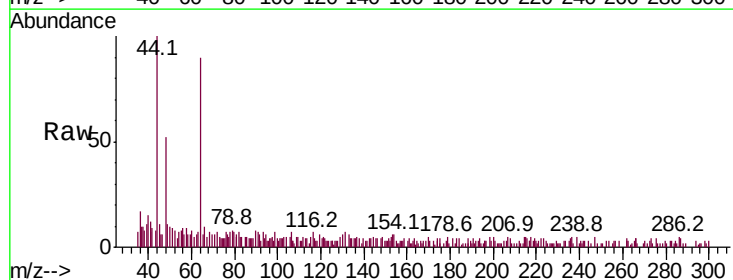
Acq: 20 Dec 2019 07:59

Tgt Ion: 64 Resp: 1616

Ion Ratio Lower Upper

64 100

66 0.0 23.4 35.2#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

1.81

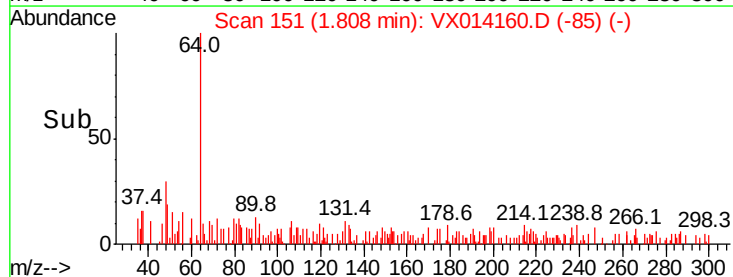
3000

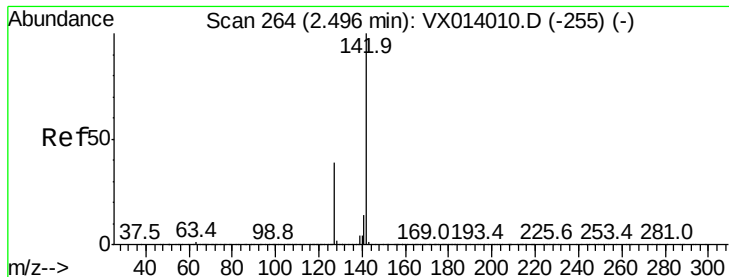
2000

1000

0

Time-->

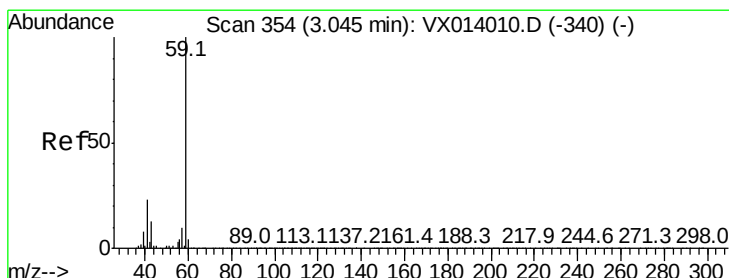
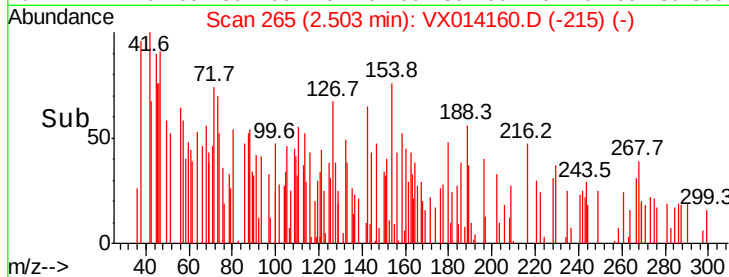
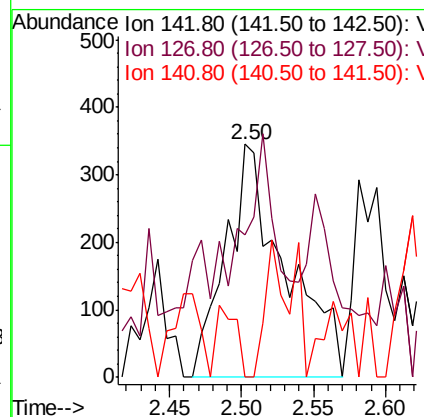
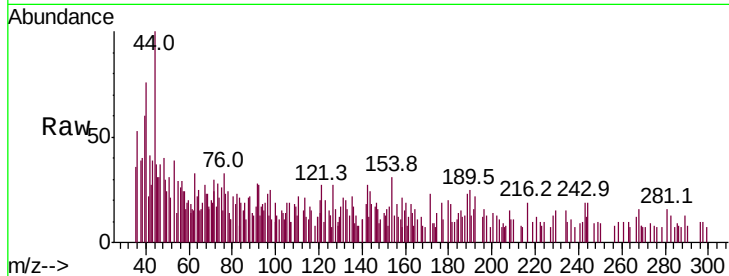




#10  
Methyl Iodide  
Concen: 2.750 ug/l  
RT: 2.50 min Scan# 265  
Delta R.T. 0.01 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

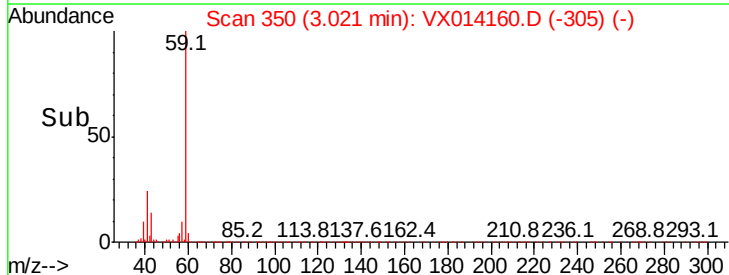
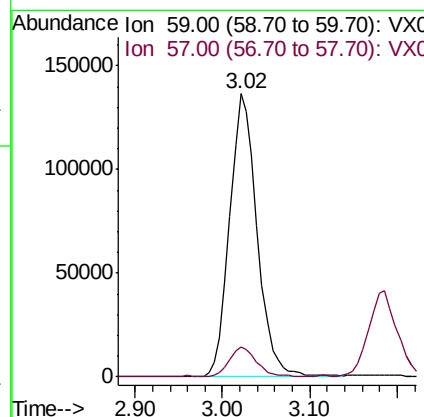
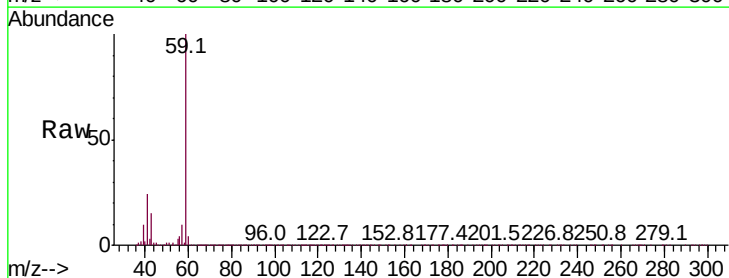
Instrument :  
MSVOA\_X  
ClientSampled :  
MW-2R

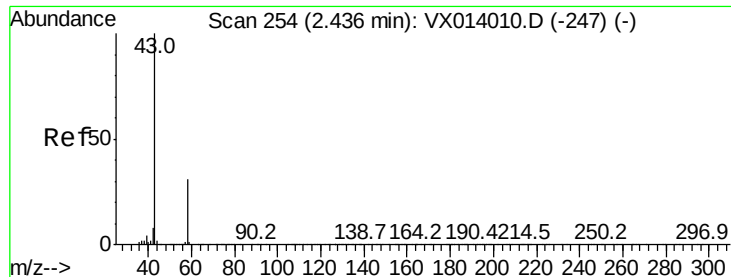
Tot Ion:142 Resp: 988  
Ion Ratio Lower Upper  
142 100  
127 54.6 31.6 47.4#  
141 30.1 11.6 17.4#



#11  
Tert butyl alcohol  
Concen: 209.169 ug/l  
RT: 3.02 min Scan# 350  
Delta R.T. -0.02 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

Tgt Ion: 59 Resp: 296771  
Ion Ratio Lower Upper  
59 100  
57 10.1 8.4 12.6





#16

Acetone

Concen: 1.651 ug/l

RT: 2.44 min Scan# 254

Delta R.T. 0.00 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampleId :

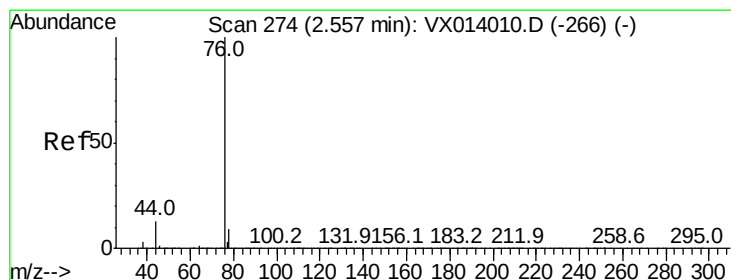
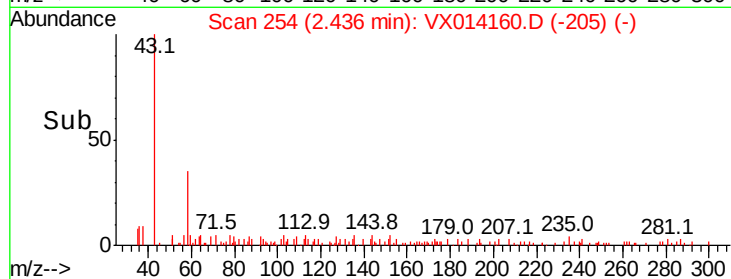
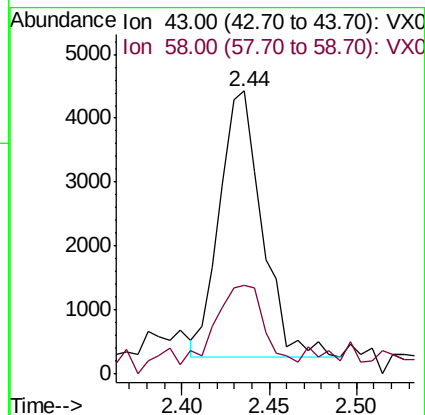
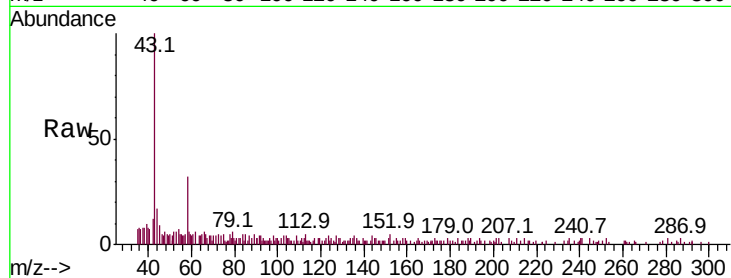
MW-2R

Tot Ion: 43 Resp: 7036

Ion Ratio Lower Upper

43 100

58 28.7 24.9 37.3



#17

Carbon Disulfide

Concen: 0.892 ug/l

RT: 2.56 min Scan# 275

Delta R.T. 0.01 min

Lab File: VX014160.D

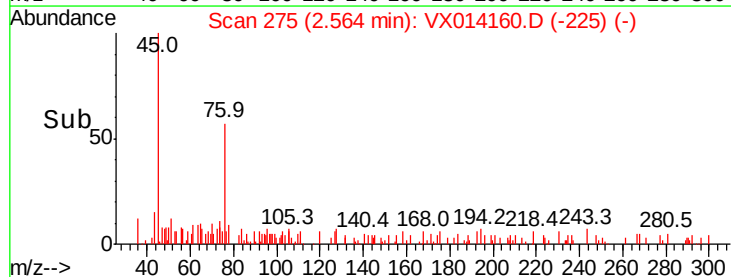
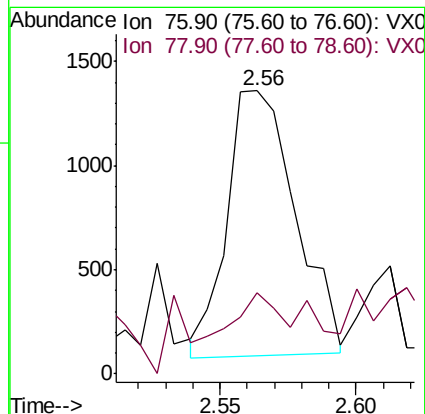
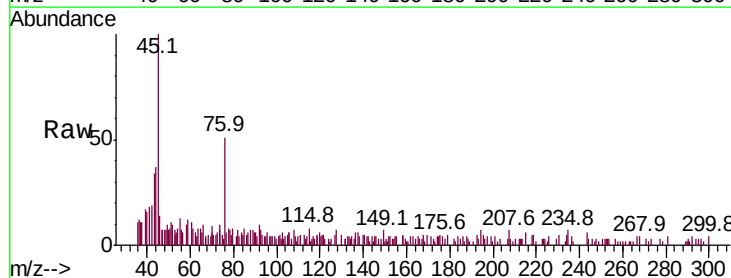
Acq: 20 Dec 2019 07:59

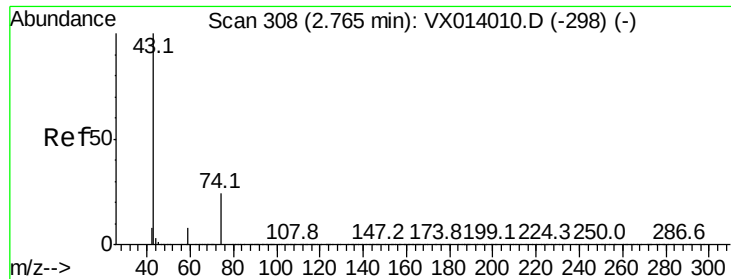
Tgt Ion: 76 Resp: 2232

Ion Ratio Lower Upper

76 100

78 19.9 7.2 10.8#

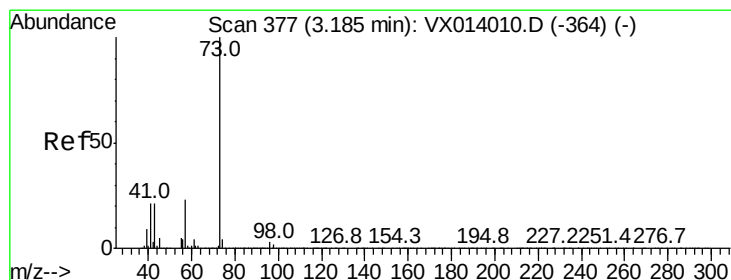
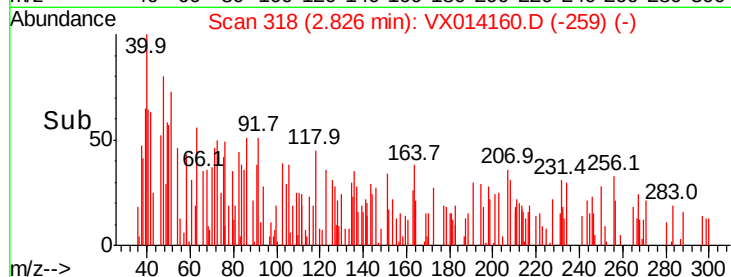
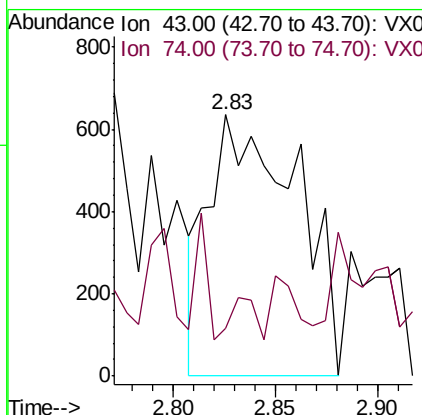
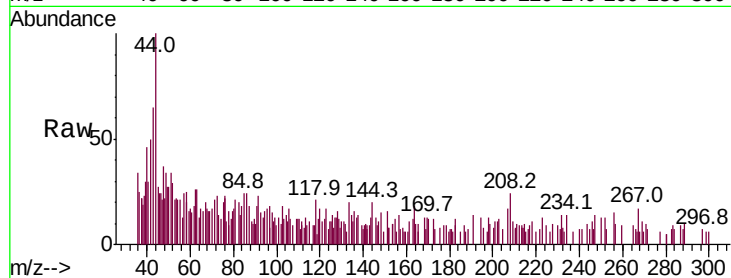




#18  
Methyl Acetate  
Concen: 0.226 ug/l  
RT: 2.83 min Scan# 318  
Delta R.T. 0.06 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

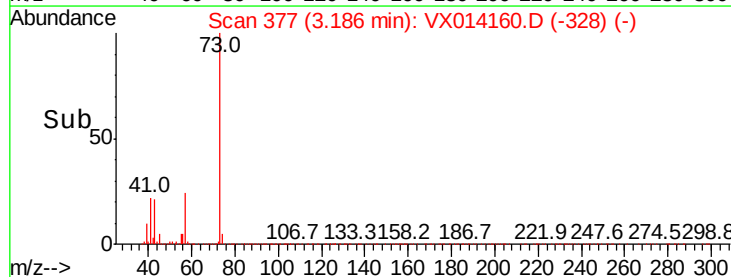
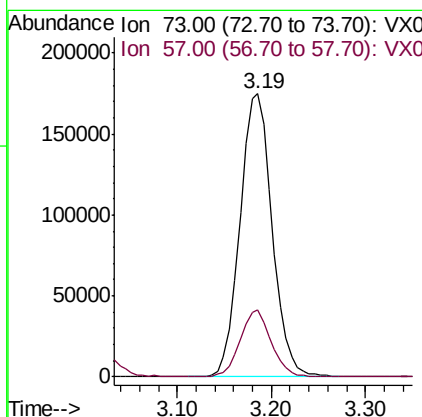
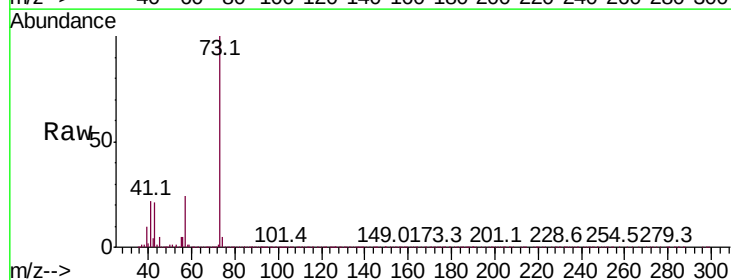
Instrument :  
MSVOA\_X  
ClientSampled :  
MW-2R

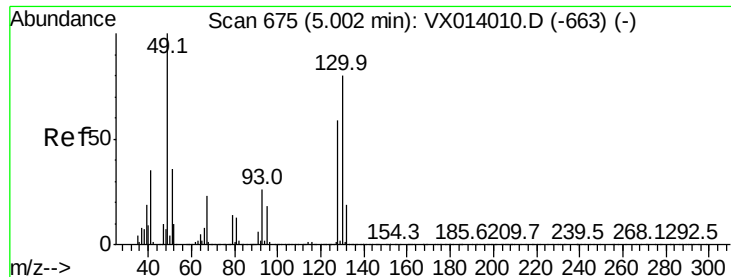
Tot Ion: 43 Resp: 1910  
Ion Ratio Lower Upper  
43 100  
74 3.8 19.5 29.3#



#19  
Methyl tert-butyl Ether  
Concen: 22.700 ug/l  
RT: 3.19 min Scan# 377  
Delta R.T. 0.00 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

Tgt Ion: 73 Resp: 415702  
Ion Ratio Lower Upper  
73 100  
57 23.7 18.8 28.2

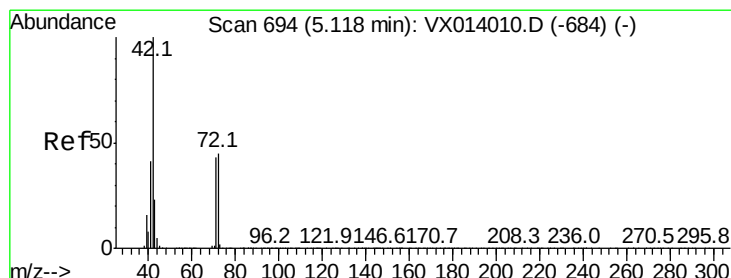
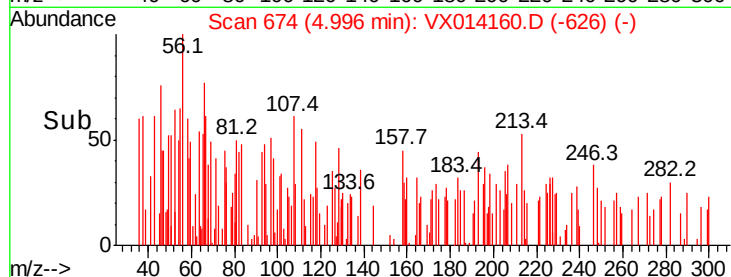
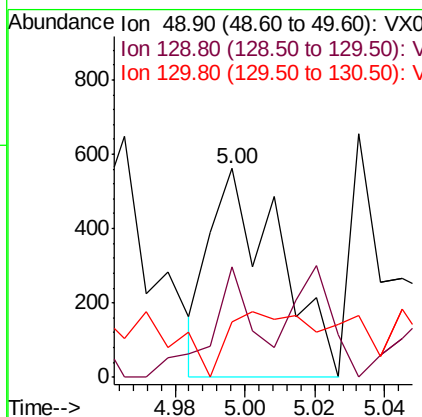
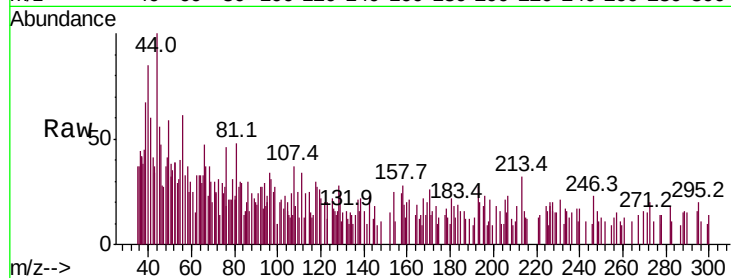




#28  
Bromochloromethane  
Concen: 0.635 ug/l  
RT: 5.00 min Scan# 674  
Delta R.T. -0.01 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

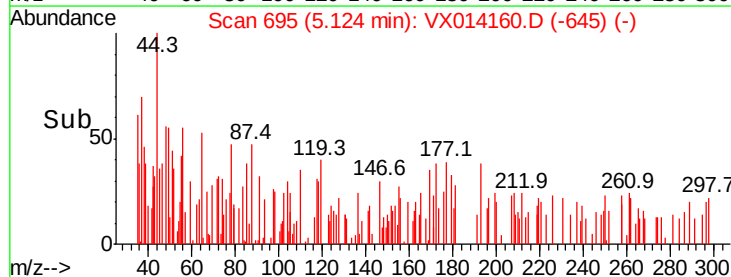
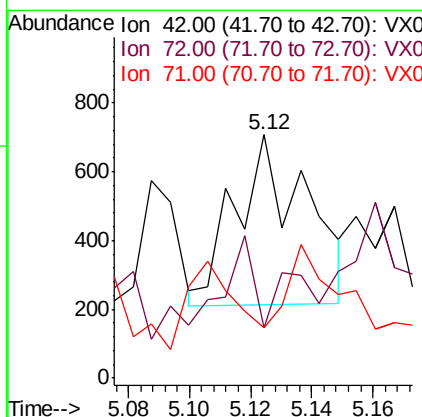
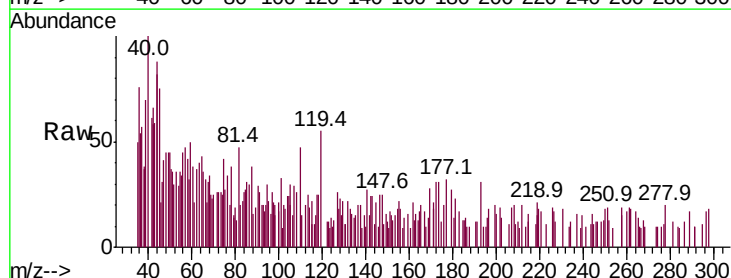
Instrument :  
MSVOA\_X  
ClientSampled :  
MW-2R

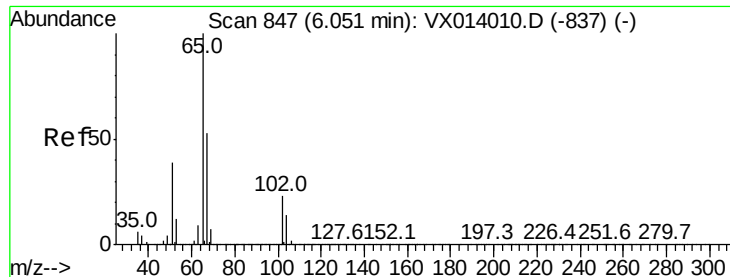
Tot Ion: 49 Resp: 774  
Ion Ratio Lower Upper  
49 100  
129 33.1 0.0 5.0#  
130 53.6 64.6 97.0#



#29  
Tetrahydrofuran  
Concen: 0.270 ug/l  
RT: 5.12 min Scan# 695  
Delta R.T. 0.01 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

Tgt Ion: 42 Resp: 795  
Ion Ratio Lower Upper  
42 100  
72 22.3 35.8 53.8#  
71 55.3 33.6 50.4#





#33

1,2-Dichloroethane-d4

Concen: 47.767 ug/l

RT: 6.06 min Scan# 848

Delta R.T. 0.01 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampleId :

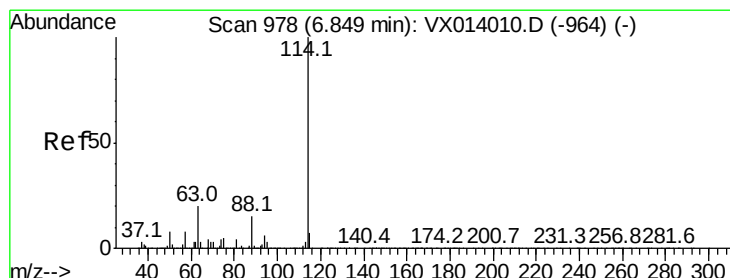
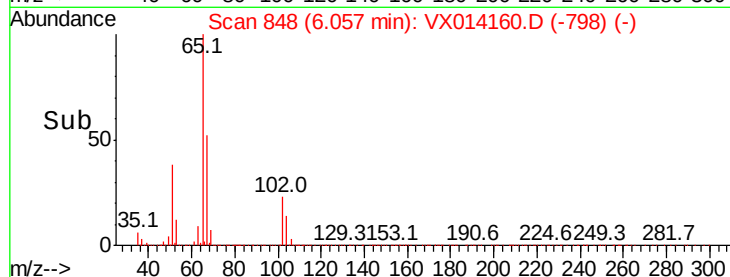
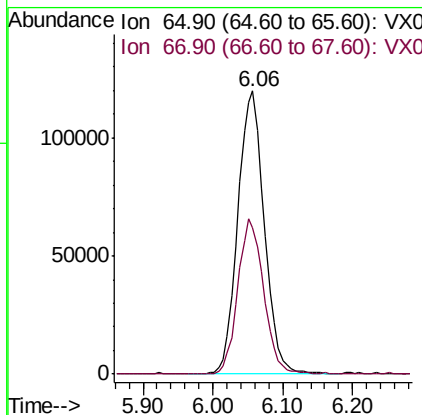
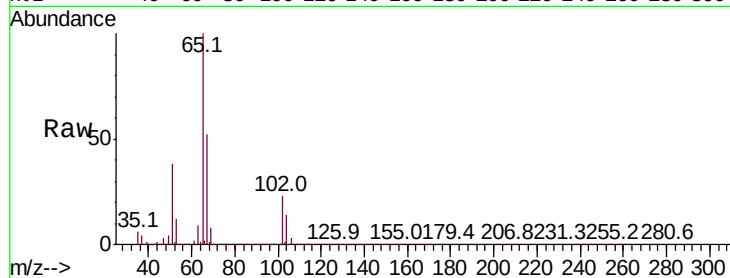
MW-2R

Tot Ion: 65 Resp: 313645

Ion Ratio Lower Upper

65 100

67 53.4 0.0 106.4



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.85 min Scan# 978

Delta R.T. 0.00 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

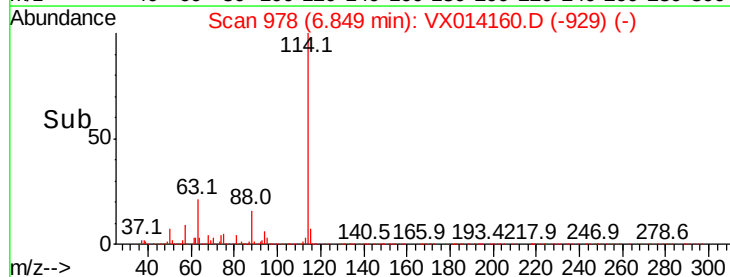
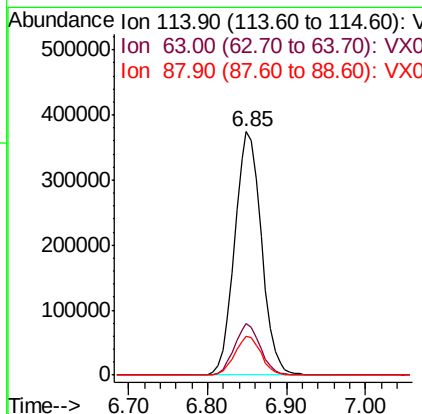
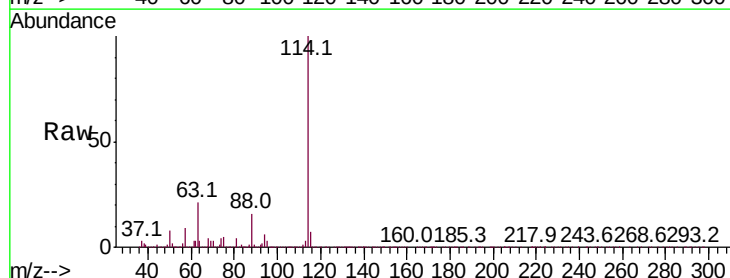
Tgt Ion: 114 Resp: 884408

Ion Ratio Lower Upper

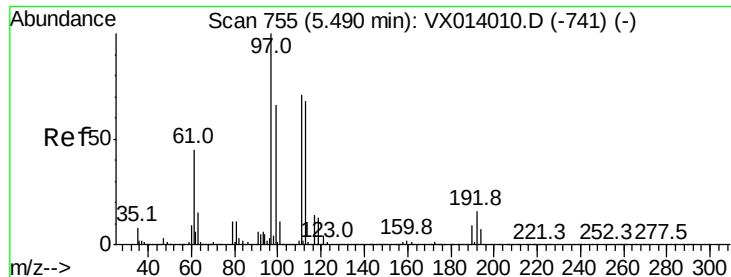
114 100

63 20.9 0.0 40.8

88 16.0 0.0 30.4







#35

Dibromofluoromethane

Concen: 48.028 ug/l

RT: 5.49 min Scan# 755

Delta R.T. 0.00 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampleId :

MW-2R

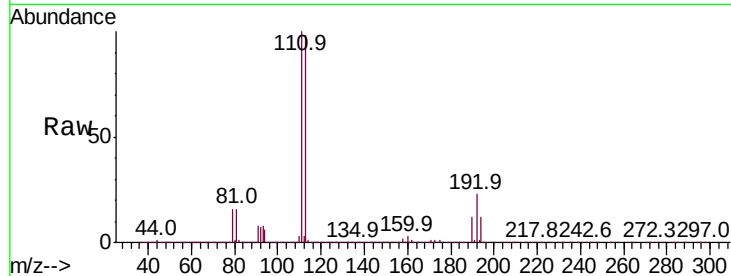
Tot Ion:113 Resp: 258210

Ion Ratio Lower Upper

113 100

111 102.6 82.0 123.0

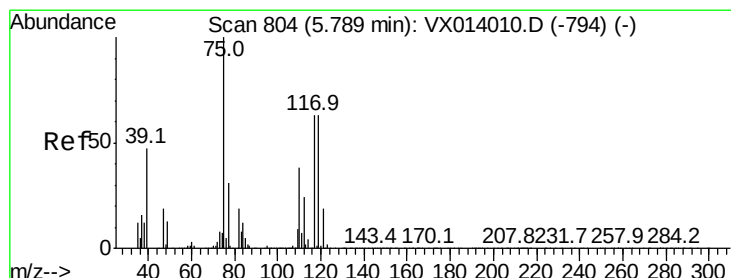
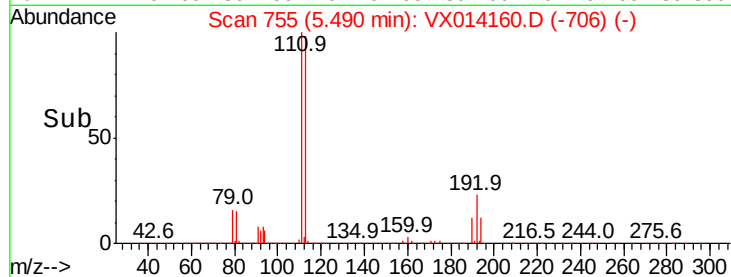
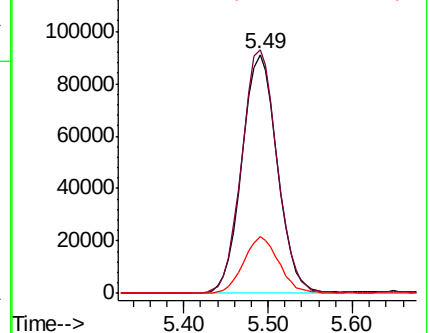
192 23.7 19.3 28.9



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: 4.626 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.13 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

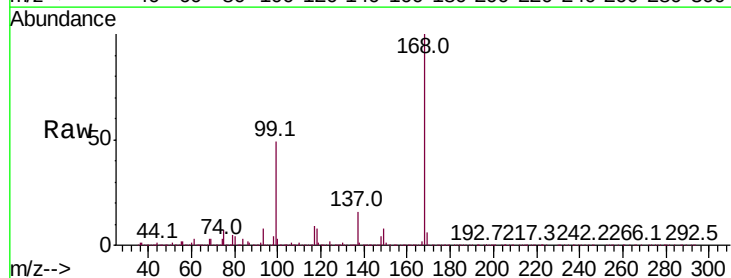
Tgt Ion: 75 Resp: 37542

Ion Ratio Lower Upper

75 100

110 10.0 18.3 54.9#

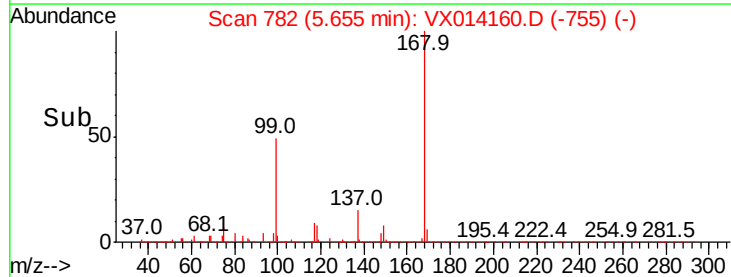
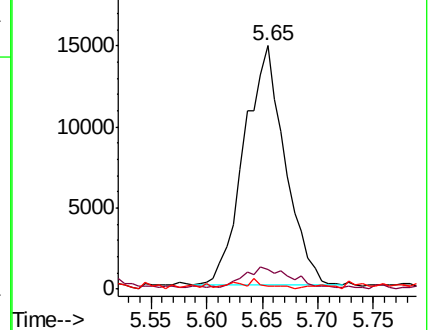
77 2.9 24.8 37.2#

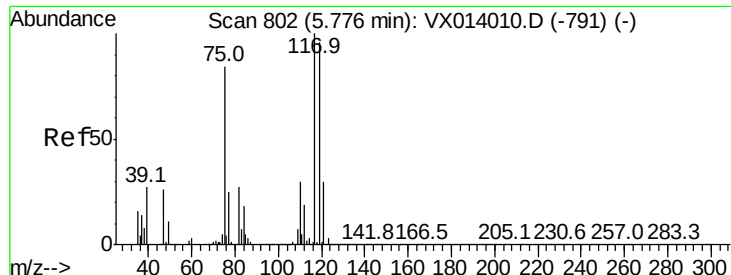


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 6.770 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.12 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampled :

MW-2R

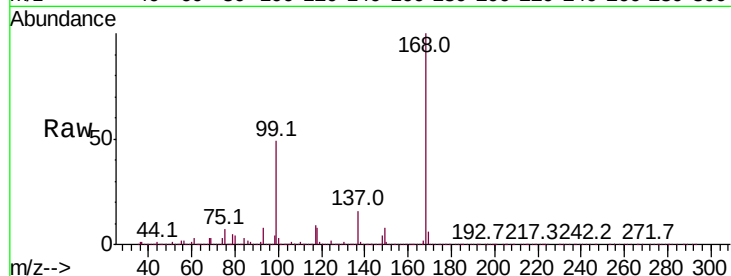
Tot Ion:117 Resp: 50051

Ion Ratio Lower Upper

117 100

119 8.0 76.2 114.4#

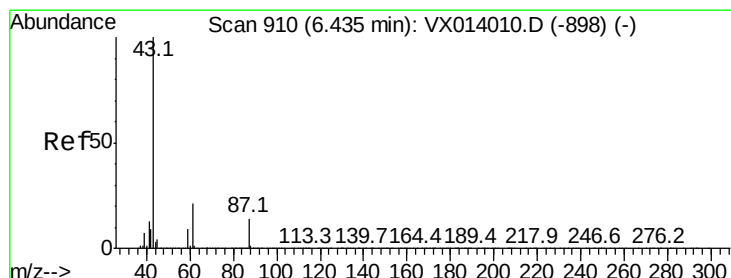
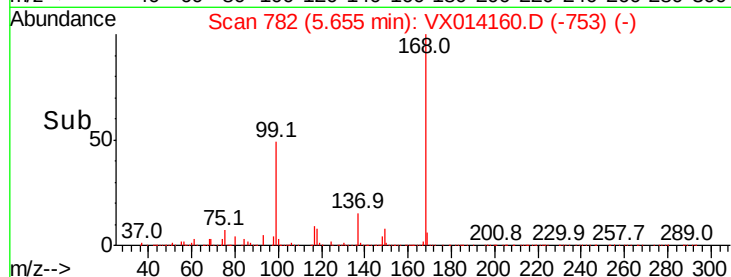
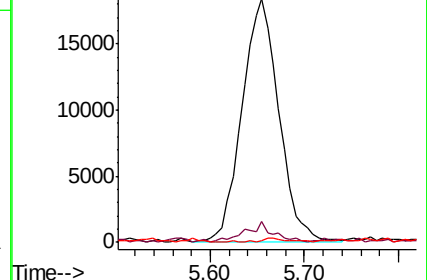
121 0.0 23.6 35.4#



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



#43

Isopropyl Acetate

Concen: 0.890 ug/l

RT: 6.42 min Scan# 907

Delta R.T. -0.02 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

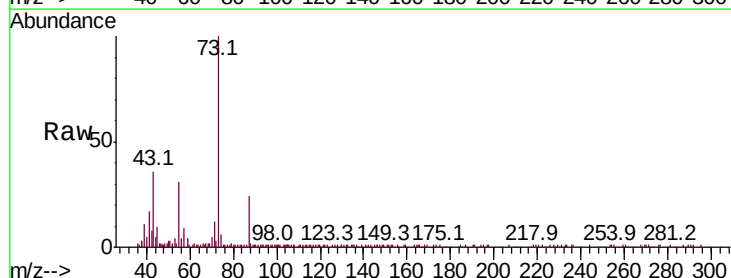
Tgt Ion: 43 Resp: 13194

Ion Ratio Lower Upper

43 100

61 3.7 16.4 24.6#

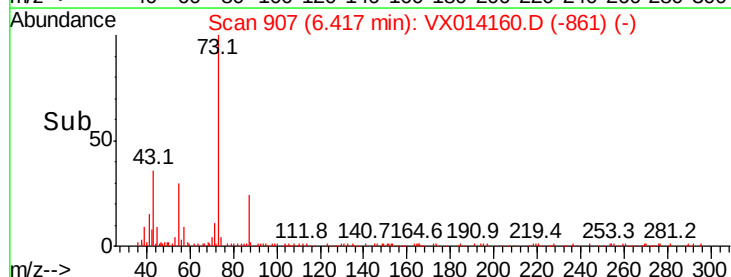
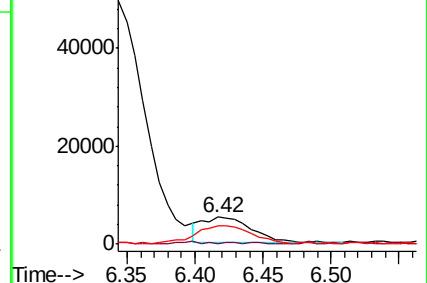
87 78.2 10.7 16.1#

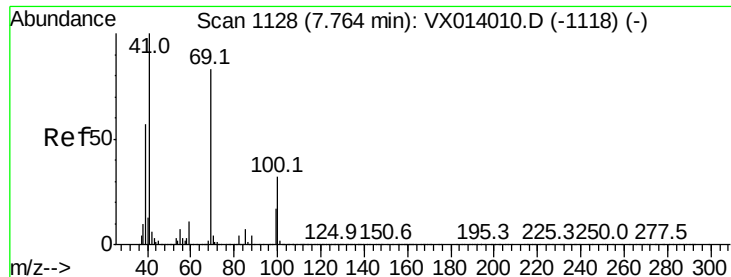


Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 61.00 (60.70 to 61.70): VX0

Ion 87.00 (86.70 to 87.70): VX0





#48

Methvl methacrylate

Concen: 2.282 ug/l

RT: 7.67 min Scan# 1113

Delta R.T. -0.09 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampled :

MW-2R

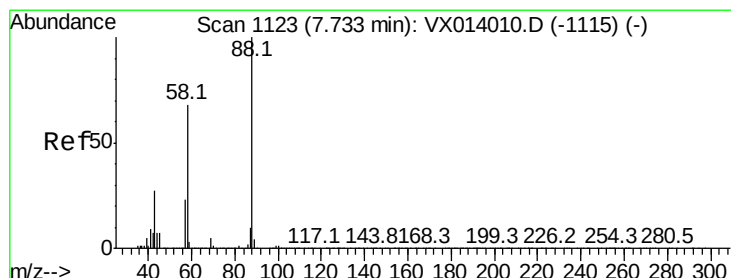
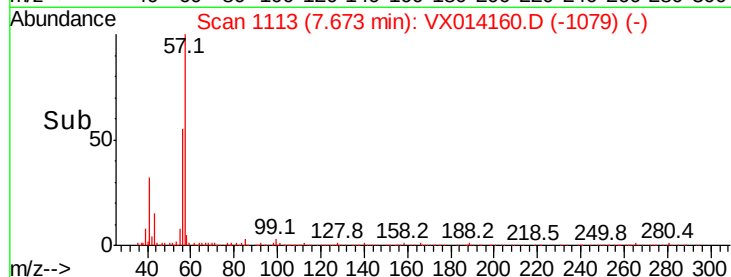
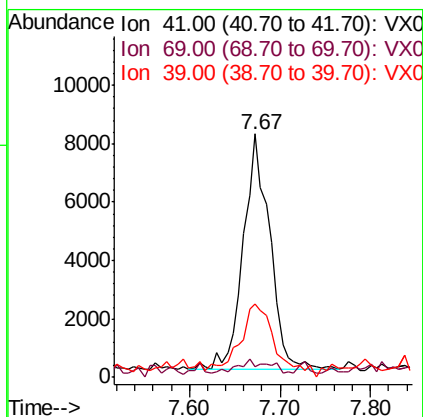
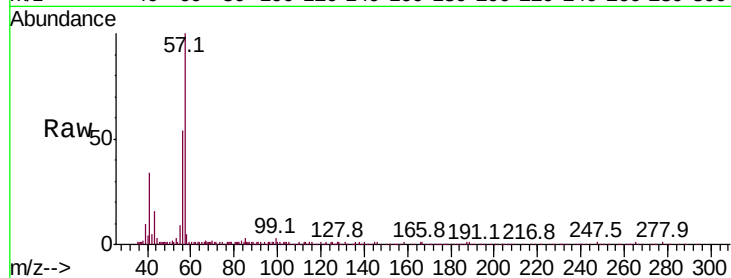
Tot Ion: 41 Resp: 16570

Ion Ratio Lower Upper

41 100

69 5.2 65.8 98.6#

39 40.9 44.6 67.0#



#49

1,4-Dioxane

Concen: 1.901 ug/l

RT: 7.74 min Scan# 1124

Delta R.T. 0.01 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

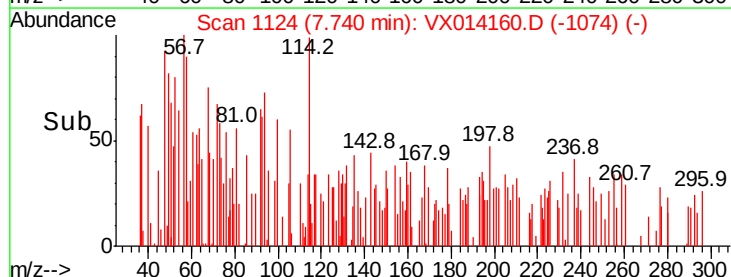
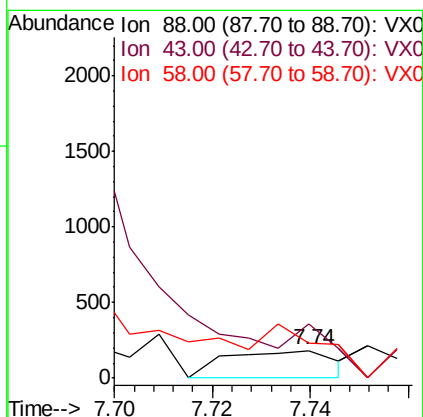
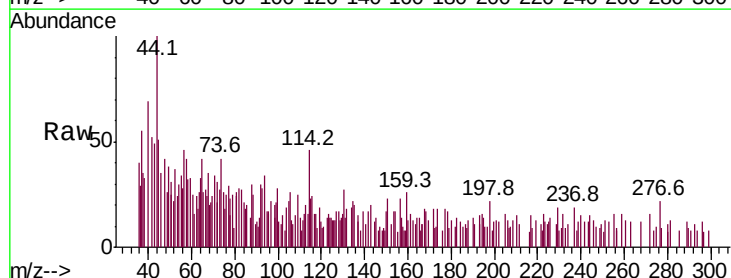
Tgt Ion: 88 Resp: 281

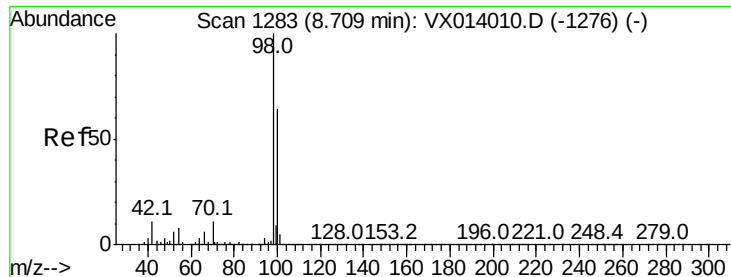
Ion Ratio Lower Upper

88 100

43 0.0 26.5 39.7#

58 0.0 56.8 85.2#

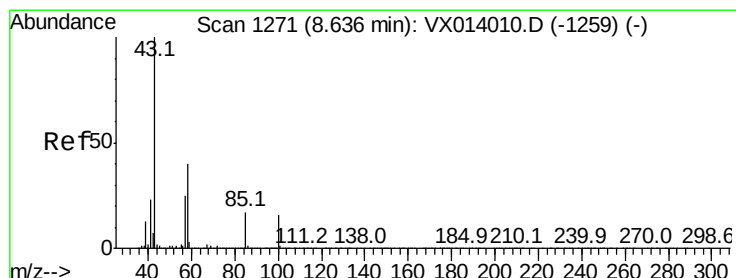
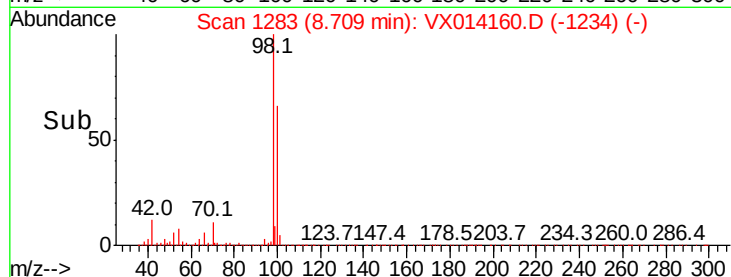
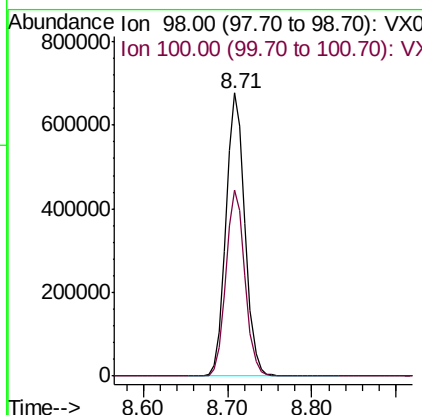
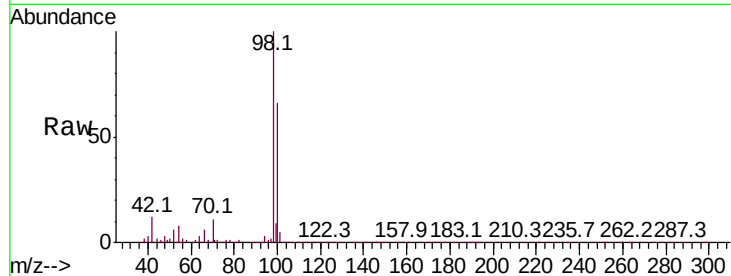




#50  
Toluene-d8  
Concen: 50.001 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

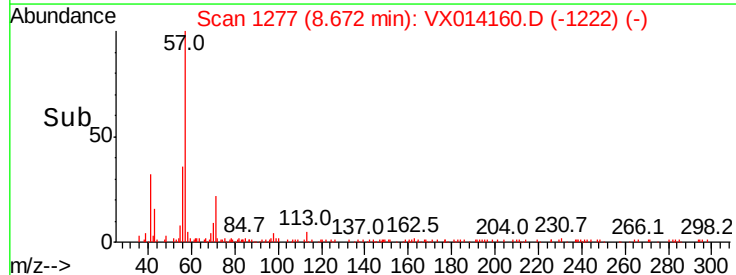
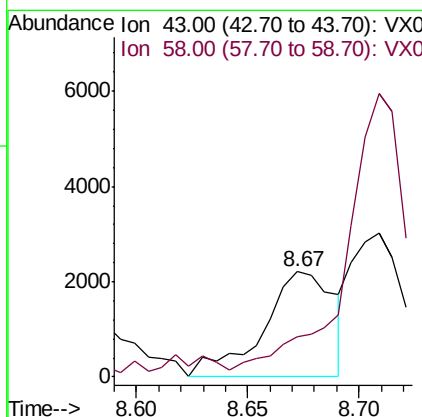
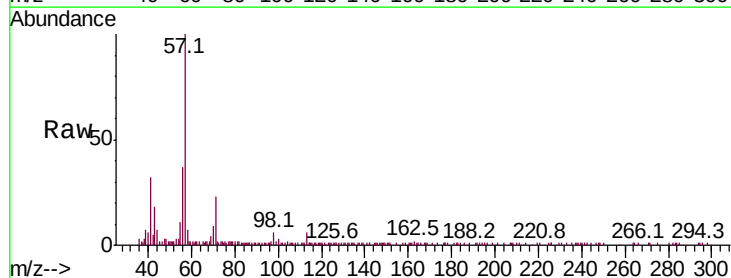
Instrument :  
MSVOA\_X  
ClientSampleId :  
MW-2R

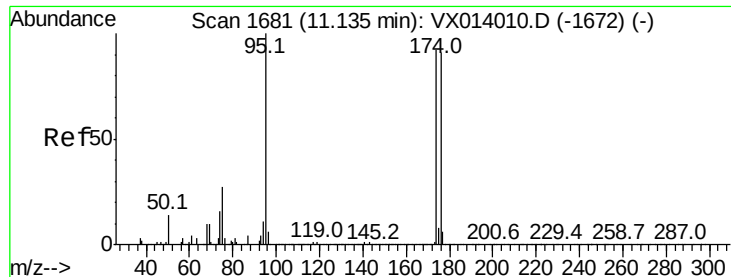
Tot Ion: 98 Resp: 1046567  
Ion Ratio Lower Upper  
98 100  
100 65.7 52.9 79.3



#51  
4-Methyl-2-Pentanone  
Concen: 0.526 ug/l  
RT: 8.67 min Scan# 1277  
Delta R.T. 0.04 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

Tgt Ion: 43 Resp: 4898  
Ion Ratio Lower Upper  
43 100  
58 0.0 32.2 48.2#





#62

4-Bromofluorobenzene

Concen: 46.295 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.01 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampleId :

MW-2R

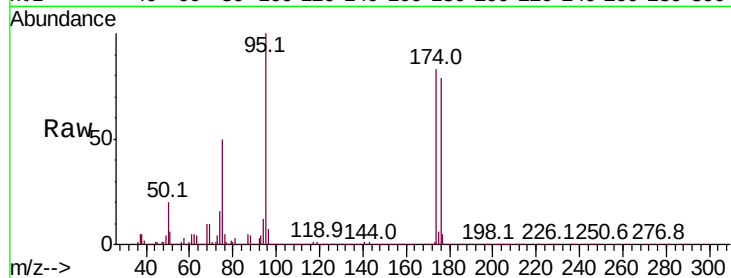
Tot Ion: 95 Resp: 354216

Ion Ratio Lower Upper

95 100

174 90.6 0.0 175.8

176 86.8 0.0 173.0

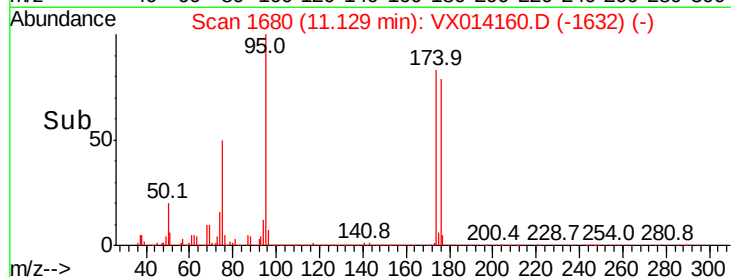


Abundance Ion 94.90 (94.60 to 95.60): VX014010.D (-1672) (-)

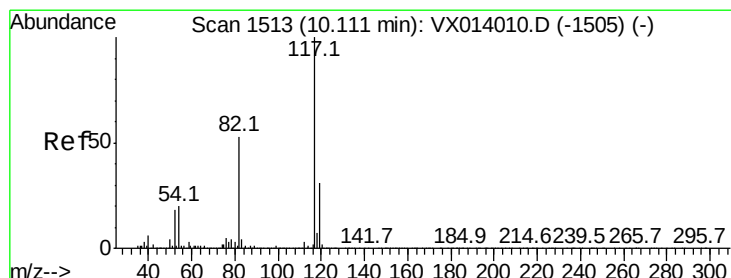
Ion 173.80 (173.50 to 174.50): VX014010.D (-1672) (-)

Ion 175.80 (175.50 to 176.50): VX014010.D (-1672) (-)

Time-->



Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.11 min Scan# 1513

Delta R.T. 0.00 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

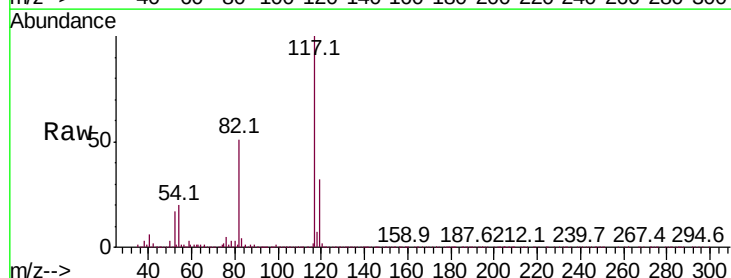
Tgt Ion: 117 Resp: 790653

Ion Ratio Lower Upper

117 100

82 51.1 42.2 63.4

119 31.8 25.1 37.7

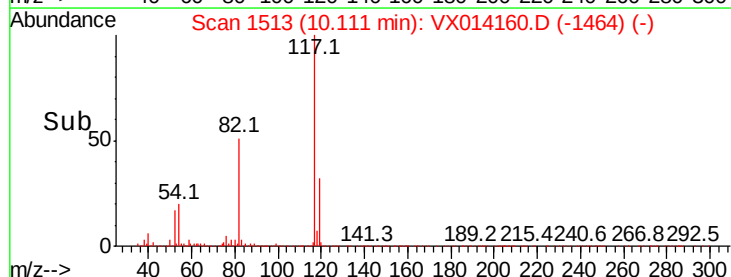


Abundance Ion 116.90 (116.60 to 117.60): VX014010.D (-1505) (-)

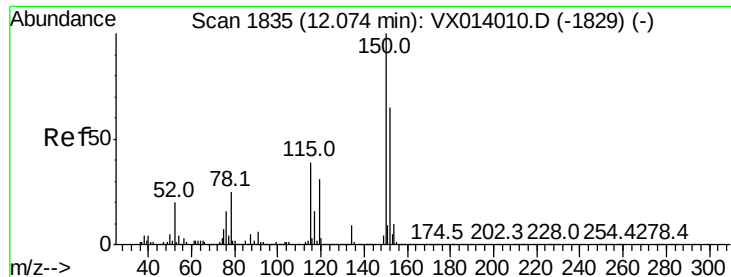
Ion 82.00 (81.70 to 82.70): VX014010.D (-1505) (-)

Ion 118.90 (118.60 to 119.60): VX014010.D (-1505) (-)

Time-->



Time-->



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.07 min Scan# 1835

Delta R.T. 0.00 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampled :

MW-2R

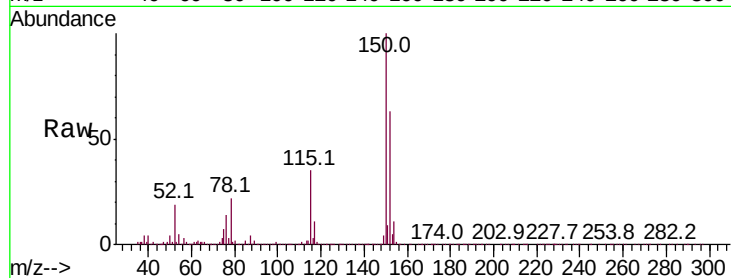
Tot Ion:152 Resp: 358808

Ion Ratio Lower Upper

152 100

115 55.0 38.3 114.9

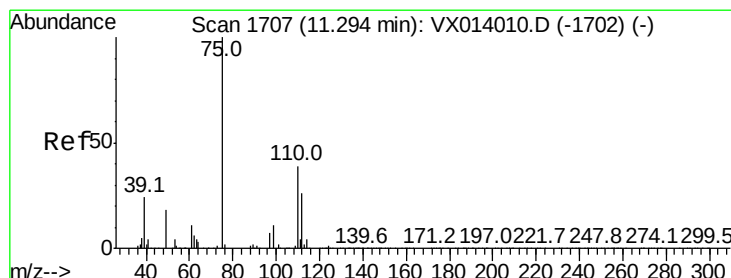
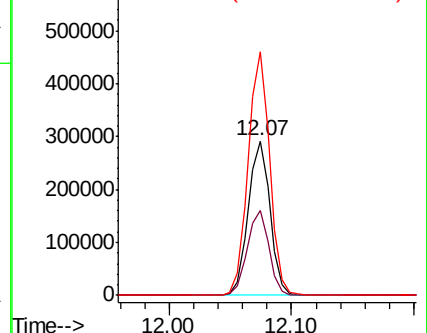
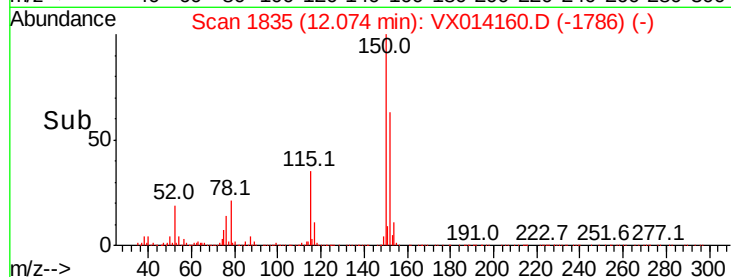
150 156.1 0.0 345.4



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 22.264 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.16 min

Lab File: VX014160.D

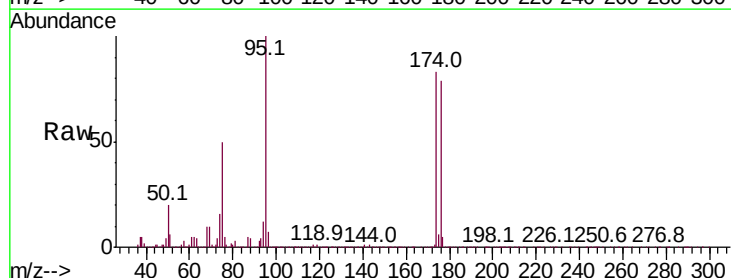
Acq: 20 Dec 2019 07:59

Tgt Ion: 75 Resp: 173432

Ion Ratio Lower Upper

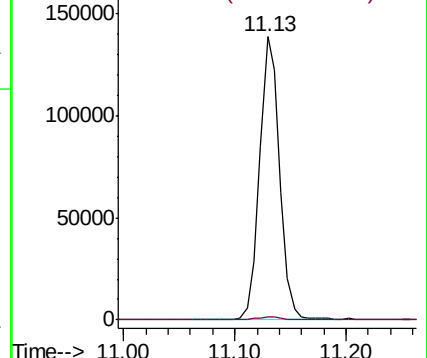
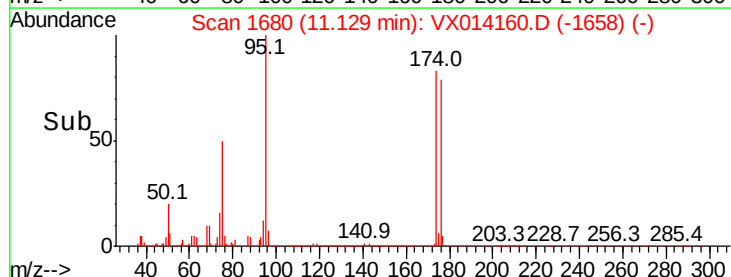
75 100

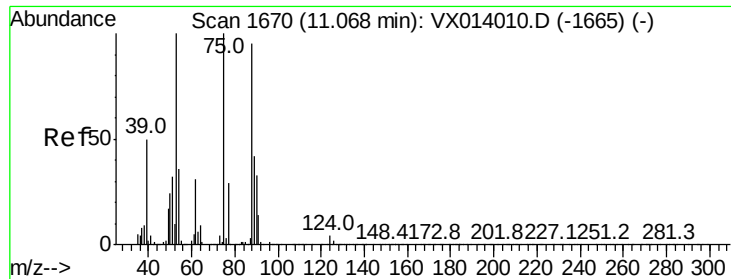
77 1.6 19.3 57.8#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0

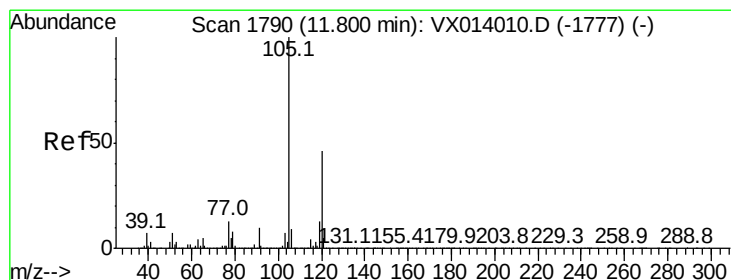
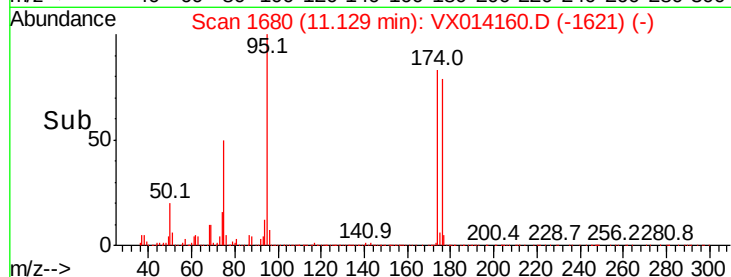
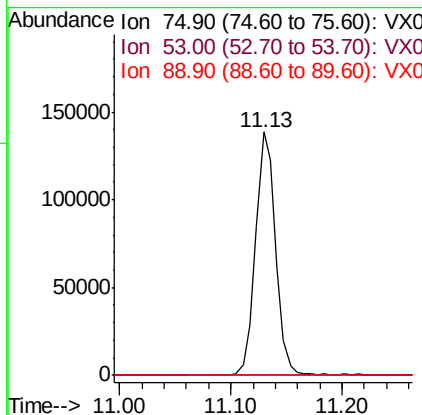
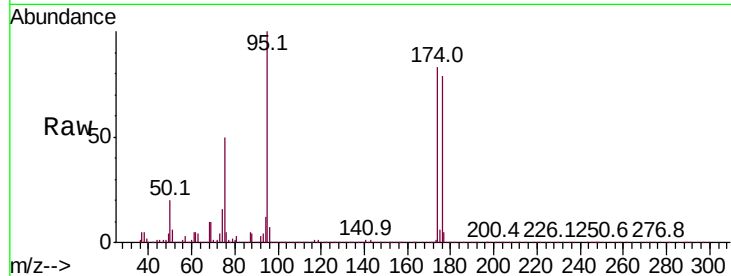




#81  
trans-1,4-Dichloro-2-butene  
Concen: 62.842 ug/l  
RT: 11.13 min Scan# 1680  
Delta R.T. 0.06 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

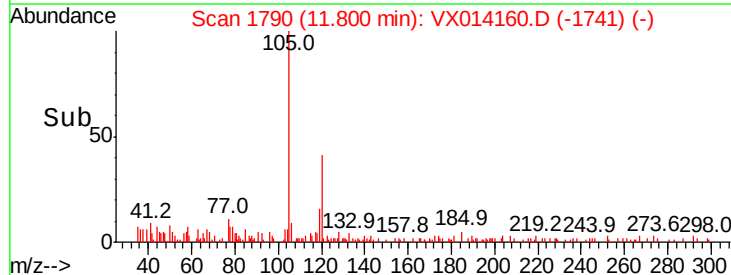
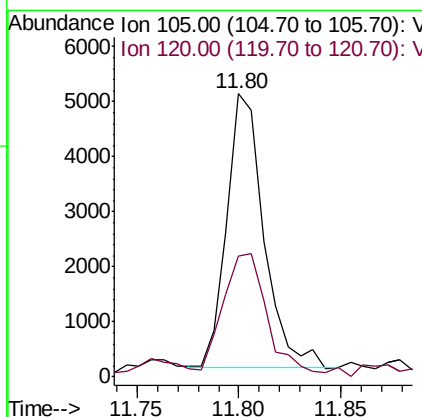
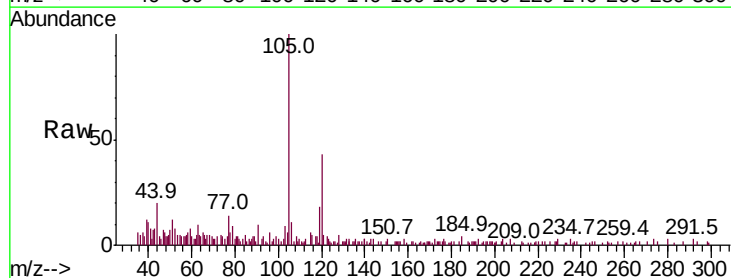
Instrument :  
MSVOA\_X  
ClientSampleId :  
MW-2R

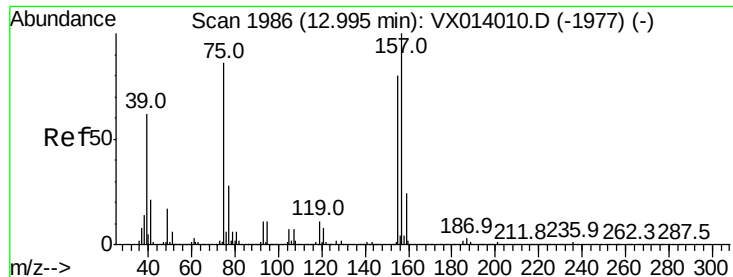
Tot Ion: 75 Resp: 173432  
Ion Ratio Lower Upper  
75 100  
53 0.0 76.7 115.1#  
89 0.2 34.6 51.8#



#84  
1,2,4-Trimethylbenzene  
Concen: 0.293 ug/l  
RT: 11.80 min Scan# 1790  
Delta R.T. 0.00 min  
Lab File: VX014160.D  
Acq: 20 Dec 2019 07:59

Tgt Ion: 105 Resp: 6248  
Ion Ratio Lower Upper  
105 100  
120 50.4 23.1 69.2





#92

1,2-Dibromo-3-Chloropropane

Concen: 0.267 ug/l

RT: 12.98 min Scan# 1984

Delta R.T. -0.01 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Instrument :

MSVOA\_X

ClientSampled :

MW-2R

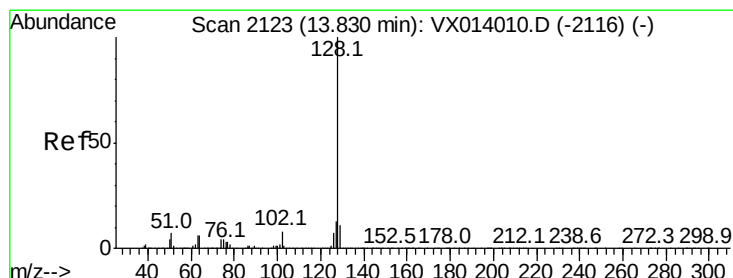
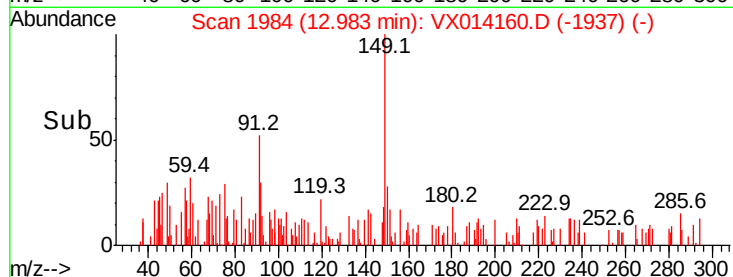
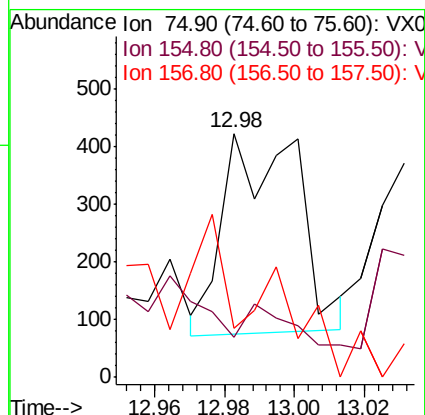
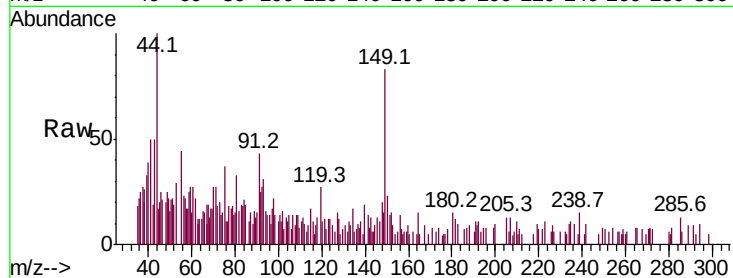
Tot Ion: 75 Resp: 517

Ion Ratio Lower Upper

75 100

155 0.0 46.9 140.6#

157 23.4 60.8 182.4#



#95

Naphthalene

Concen: 1.489 ug/l

RT: 13.83 min Scan# 2123

Delta R.T. 0.00 min

Lab File: VX014160.D

Acq: 20 Dec 2019 07:59

Tgt Ion:128 Resp: 34873

Ion Ratio Lower Upper

128 100

127 14.1 10.2 15.4

129 10.6 8.7 13.1

