

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX031020\  
 Data File : VX015170.D  
 Acq On : 10 Mar 2020 14:56  
 Operator : JC/SP  
 Sample : L1842-17DL 5X  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Mar 11 07:30:00 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X030420W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Mar 04 14:19:10 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.65  | 168  | 334673   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 549584   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 535440   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.07 | 152  | 273299   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

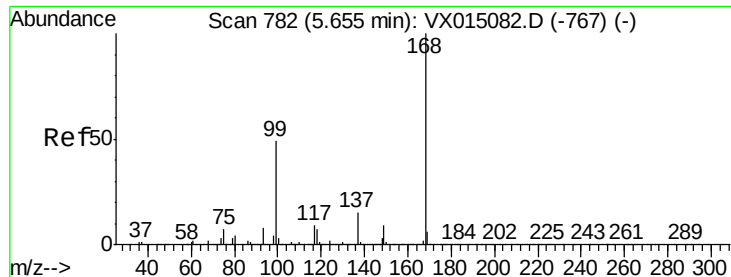
|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.06   | 65  | 207480   | 52.26 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.52% |      |
| 35) Dibromofluoromethane  | 5.49   | 113 | 173167   | 49.94 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.88%  |      |
| 50) Toluene-d8            | 8.71   | 98  | 674078   | 51.11 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.22% |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 245121   | 52.11 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 104.22% |      |

## Target Compounds

|                                |       |     |        |        |        | Qvalue |
|--------------------------------|-------|-----|--------|--------|--------|--------|
| 9) 1,1,2-Trichlorotrifluoroet  | 2.38  | 101 | 5258   | 1.669  | ug/l   | 97     |
| 11) Tert butyl alcohol         | 3.01  | 59  | 1760   | 2.555  | ug/l # | 86     |
| 12) 1,1-Dichloroethene         | 2.37  | 96  | 1274   | 0.392  | ug/l # | 66     |
| 13) Acrolein                   | 2.28  | 56  | 139    | 0.215  | ug/l # | 1      |
| 15) Acrylonitrile              | 3.11  | 53  | 493    | 0.287  | ug/l # | 35     |
| 16) Acetone                    | 2.45  | 43  | 1222   | 0.760  | ug/l # | 50     |
| 25) 2-Butanone                 | 4.67  | 43  | 616    | 0.262  | ug/l # | 49     |
| 27) cis-1,2-Dichloroethene     | 4.59  | 96  | 2460   | 0.631  | ug/l   | 83     |
| 29) Tetrahydrofuran            | 5.12  | 42  | 459    | 0.302  | ug/l # | 10     |
| 36) 1,1-Dichloropropene        | 5.65  | 75  | 23827  | 4.690  | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 5.65  | 117 | 30577  | 6.376  | ug/l # | 16     |
| 44) Trichloroethene            | 7.21  | 130 | 195229 | 46.506 | ug/l   | 100    |
| 49) 1,4-Dioxane                | 7.64  | 88  | 258    | 2.828  | ug/l   | 96     |
| 58) 2-Chloroethyl Vinyl ether  | 8.12  | 63  | 644    | 0.218  | ug/l   | 98     |
| 64) Tetrachloroethene          | 9.33  | 164 | 4603   | 1.040  | ug/l   | 87     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75  | 120672 | 22.136 | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75  | 120672 | 62.821 | ug/l # | 11     |
| 95) Naphthalene                | 13.82 | 128 | 554    | 1.450  | ug/l # | 69     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.65 min Scan# 782

Delta R.T. -0.00 min

Lab File: VX015170.D

Acq: 10 Mar 2020 14:56

Instrument :

MSVOA\_X

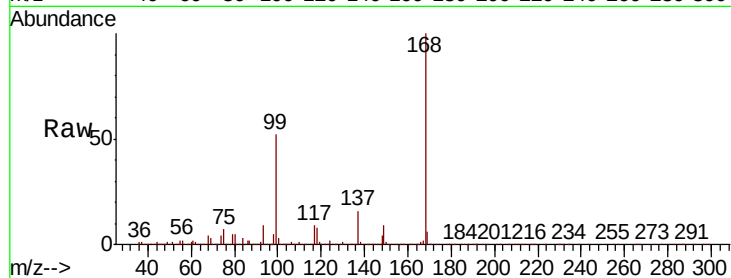
ClientSampled :

Tot Ion:168 Resp: 334673

Ion Ratio Lower Upper

168 100

99 51.5 39.4 59.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

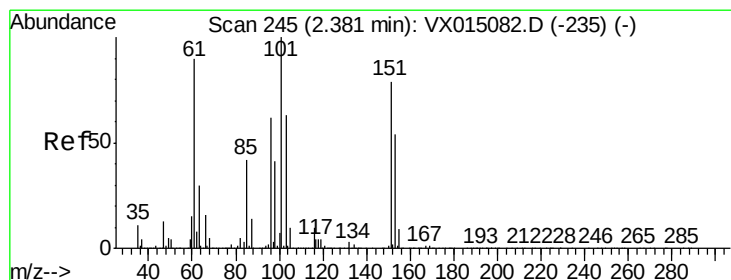
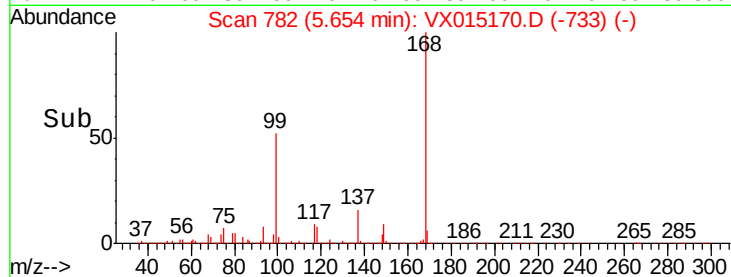
5.65

100000

50000

0

Time-->



#9

1,1,2-Trichlorotrifluoroethane

Concen: 1.669 ug/l

RT: 2.38 min Scan# 245

Delta R.T. -0.00 min

Lab File: VX015170.D

Acq: 10 Mar 2020 14:56

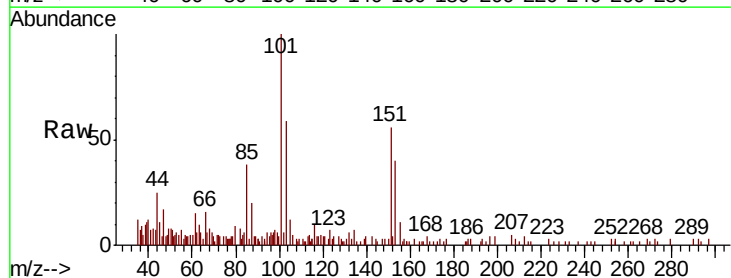
Tgt Ion:101 Resp: 5258

Ion Ratio Lower Upper

101 100

85 38.0 33.7 50.5

151 81.6 64.0 96.0



Abundance Ion 100.90 (100.60 to 101.60): V

Ion 84.90 (84.60 to 85.60): VX0

Ion 150.80 (150.50 to 151.50): V

2.38

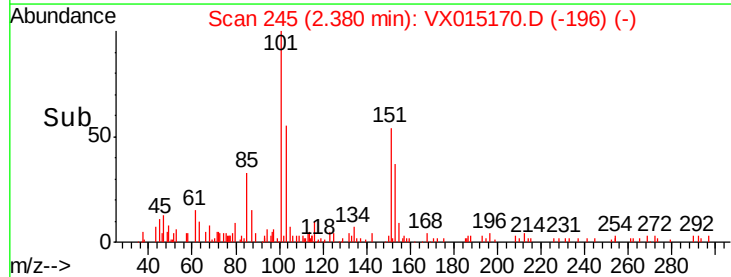
3000

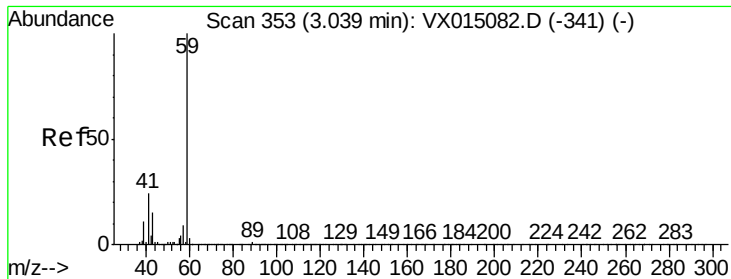
2000

1000

0

Time-->

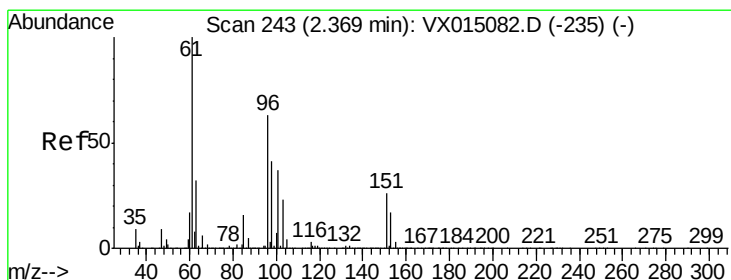
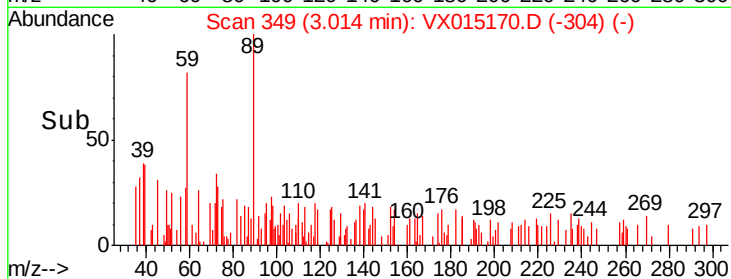
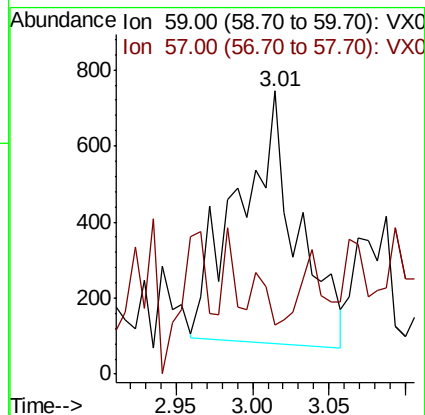
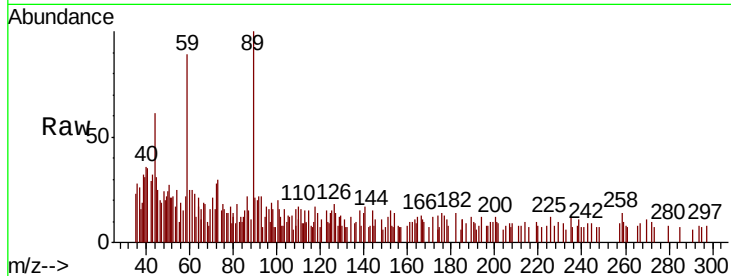




#11  
Tert butyl alcohol  
Concen: 2.555 ug/l  
RT: 3.01 min Scan# 349  
Delta R.T. -0.02 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

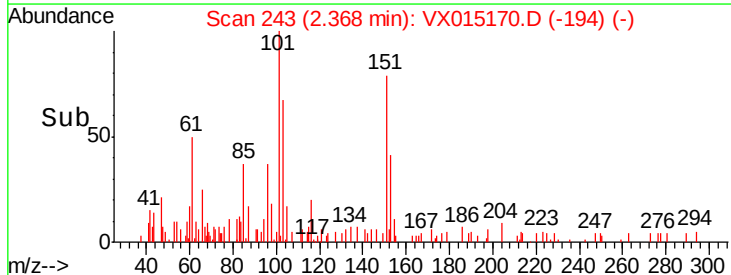
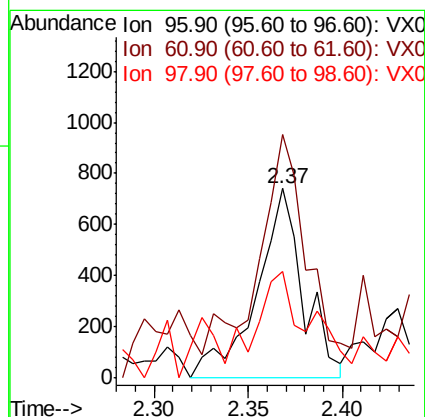
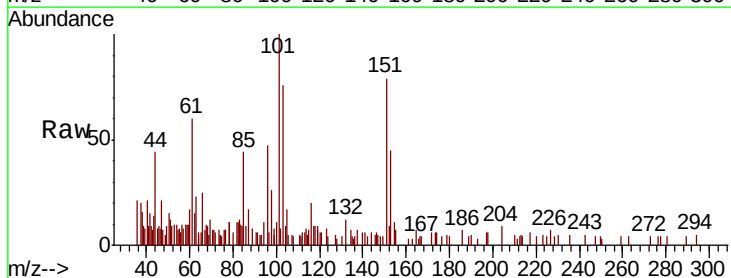
Instrument :  
MSVOA\_X  
ClientSampled :

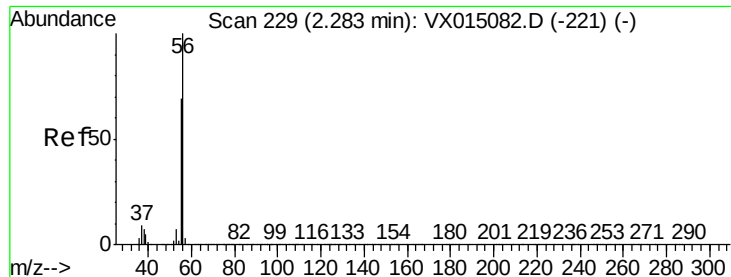
Tot Ion: 59 Resp: 1760  
Ion Ratio Lower Upper  
59 100  
57 5.1 8.2 12.4#



#12  
1,1-Dichloroethene  
Concen: 0.392 ug/l  
RT: 2.37 min Scan# 243  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion: 96 Resp: 1274  
Ion Ratio Lower Upper  
96 100  
61 110.4 126.2 189.4#  
98 41.8 51.4 77.0#

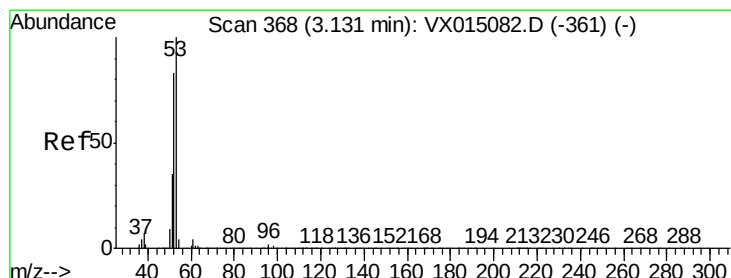
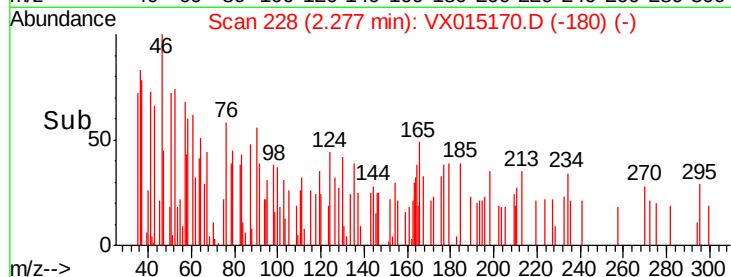
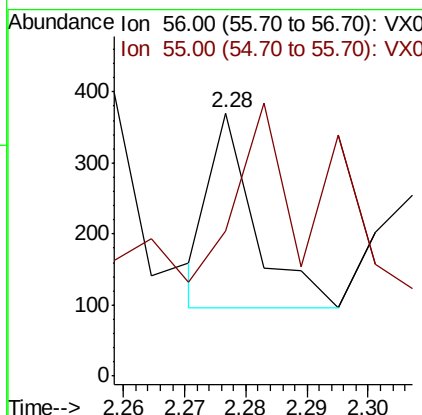
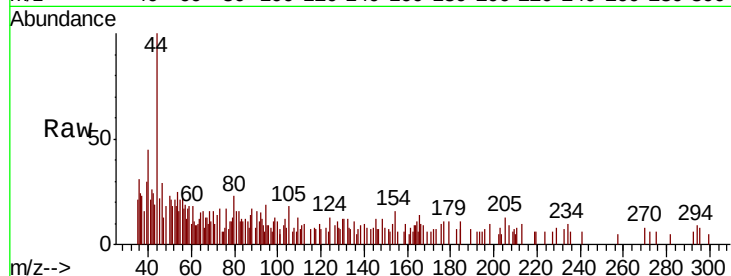




#13  
Acrolein  
Concen: 0.215 ug/l  
RT: 2.28 min Scan# 228  
Delta R.T. -0.01 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

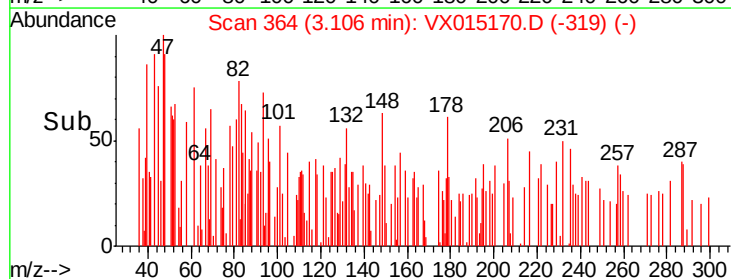
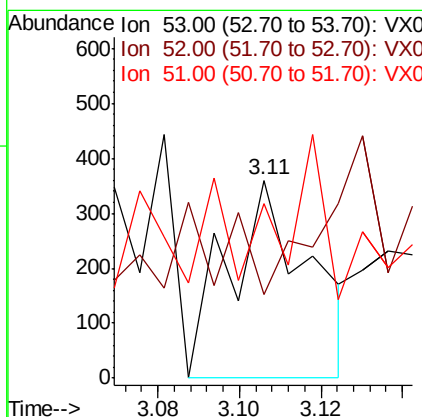
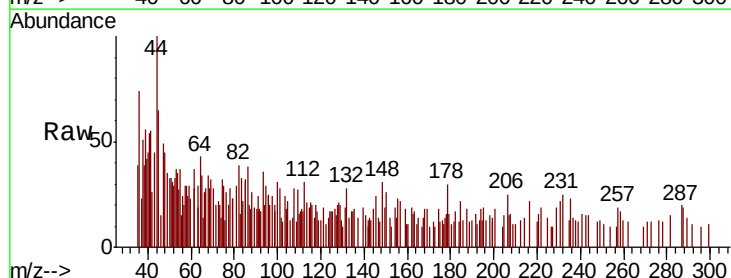
Instrument :  
MSVOA\_X  
ClientSampled :

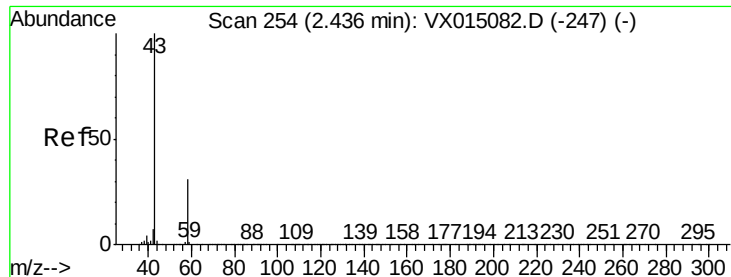
Tot Ion: 56 Resp: 139  
Ion Ratio Lower Upper  
56 100  
55 163.3 55.4 83.0#



#15  
Acrylonitrile  
Concen: 0.287 ug/l  
RT: 3.11 min Scan# 364  
Delta R.T. -0.02 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion: 53 Resp: 493  
Ion Ratio Lower Upper  
53 100  
52 0.0 66.6 100.0#  
51 38.1 29.0 43.6

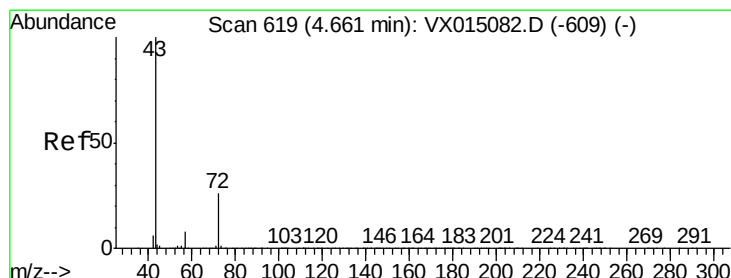
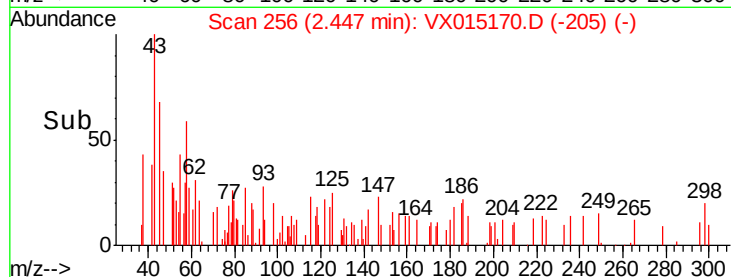
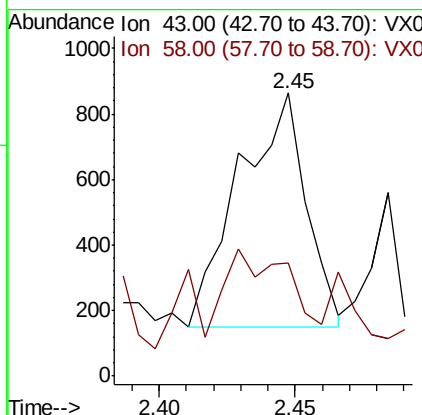
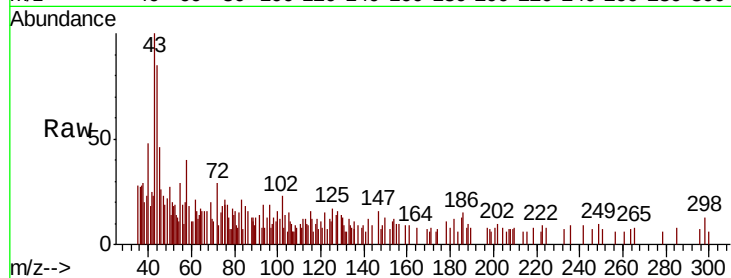




#16  
Acetone  
Concen: 0.760 ug/l  
RT: 2.45 min Scan# 256  
Delta R.T. 0.01 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

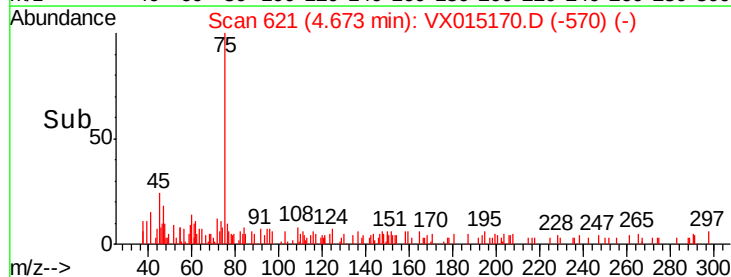
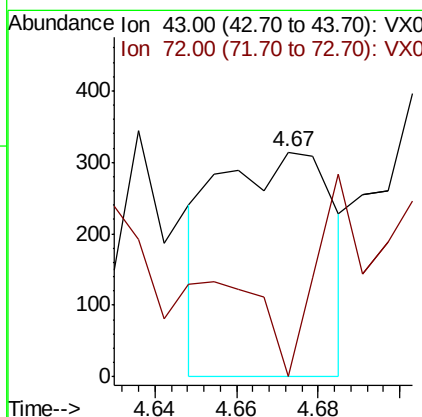
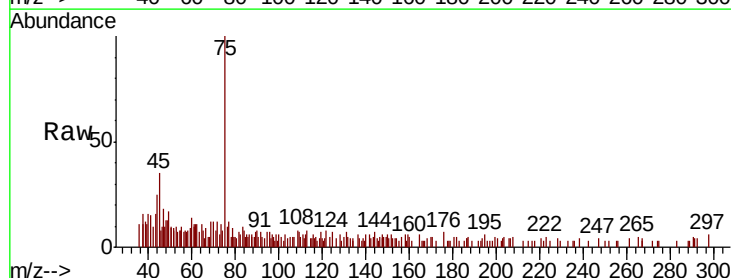
Instrument :  
MSVOA\_X  
ClientSampled :

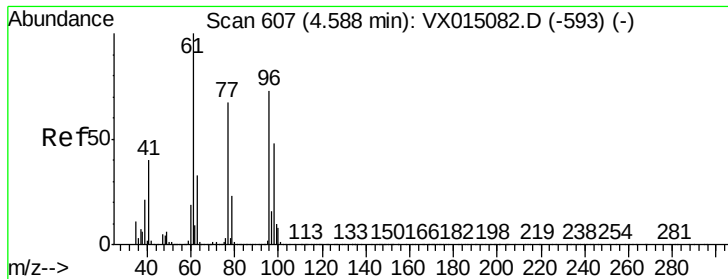
Tot Ion: 43 Resp: 1222  
Ion Ratio Lower Upper  
43 100  
58 3.6 24.8 37.2#



#25  
2-Butanone  
Concen: 0.262 ug/l  
RT: 4.67 min Scan# 621  
Delta R.T. 0.01 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion: 43 Resp: 616  
Ion Ratio Lower Upper  
43 100  
72 0.0 20.6 30.8#



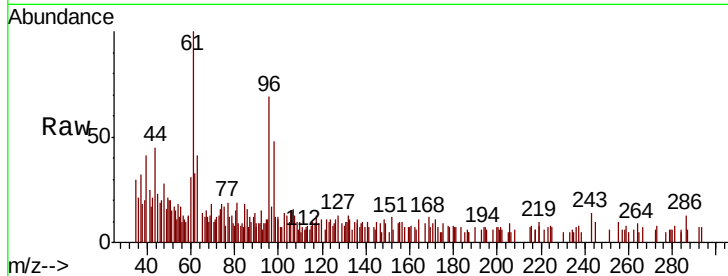


#27

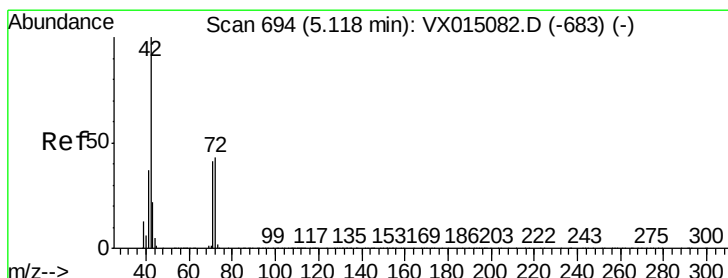
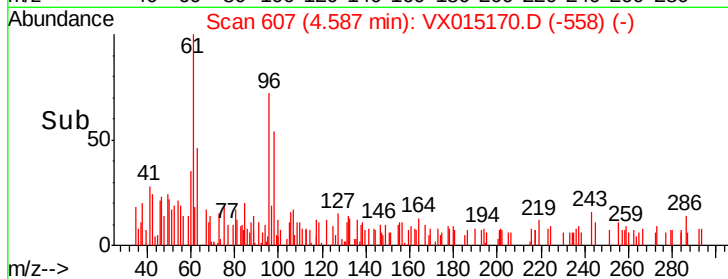
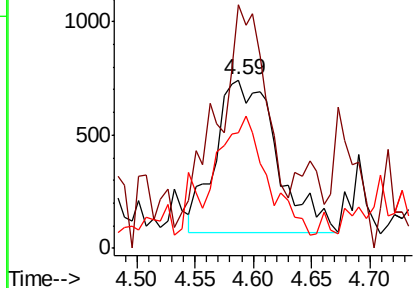
cis-1,2-Dichloroethene  
Concen: 0.631 ug/l  
RT: 4.59 min Scan# 607  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Instrument :  
MSVOA\_X  
ClientSampled :

| Tot Ion | 96    | Resp  | 2460  |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 96      | 100   |       |       |
| 61      | 116.2 | 0.0   | 286.8 |
| 98      | 60.4  | 0.0   | 128.4 |



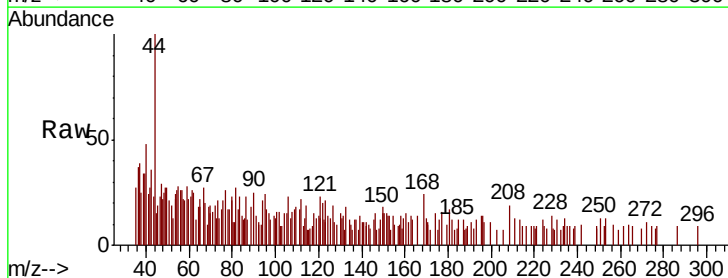
Abundance Ion 95.90 (95.60 to 96.60): VX0  
Ion 60.90 (60.60 to 61.60): VX0  
Ion 97.90 (97.60 to 98.60): VX0



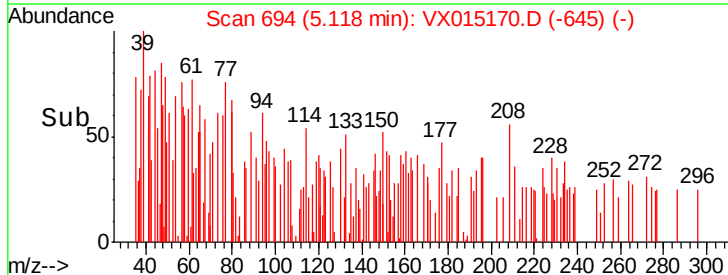
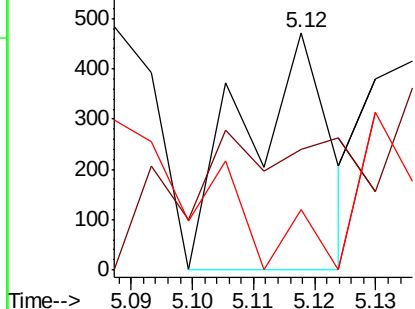
#29

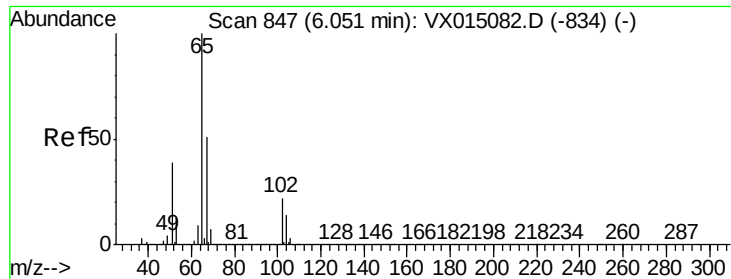
Tetrahydrofuran  
Concen: 0.302 ug/l  
RT: 5.12 min Scan# 694  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

| Tgt Ion | 42    | Resp  | 459   |
|---------|-------|-------|-------|
| Ion     | Ratio | Lower | Upper |
| 42      | 100   |       |       |
| 72      | 0.0   | 36.4  | 54.6# |
| 71      | 113.1 | 33.3  | 49.9# |



Abundance Ion 42.00 (41.70 to 42.70): VX0  
Ion 72.00 (71.70 to 72.70): VX0  
Ion 71.00 (70.70 to 71.70): VX0

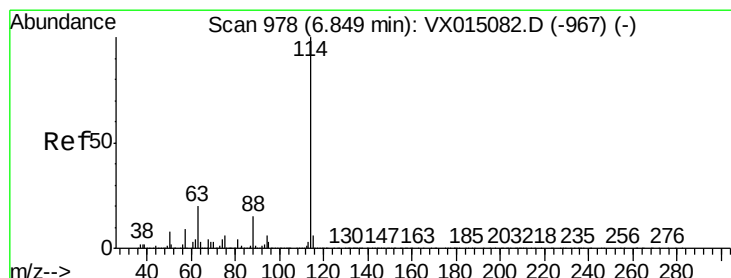
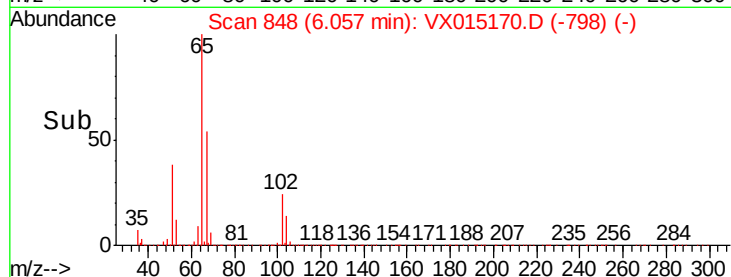
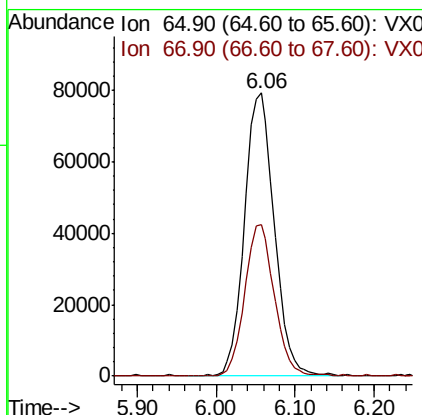
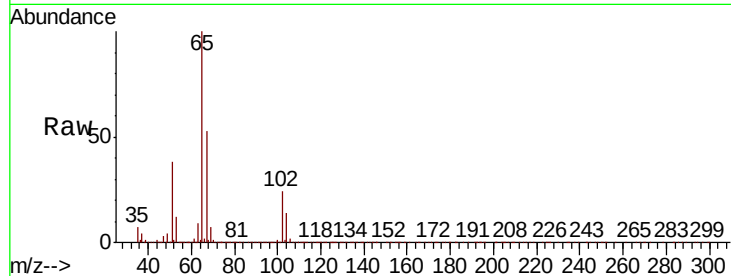




#33  
 1,2-Dichloroethane-d4  
 Concen: 52.256 ug/l  
 RT: 6.06 min Scan# 848  
 Delta R.T. 0.01 min  
 Lab File: VX015170.D  
 Acq: 10 Mar 2020 14:56

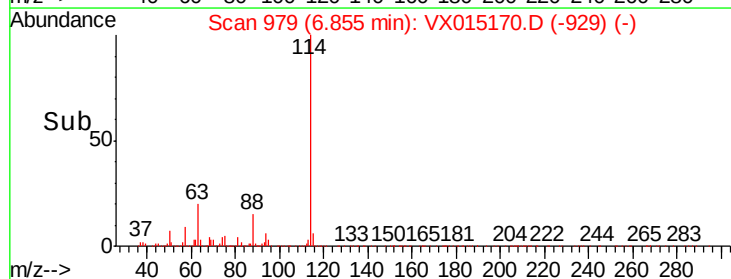
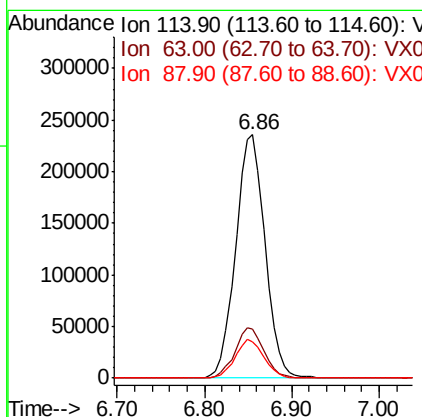
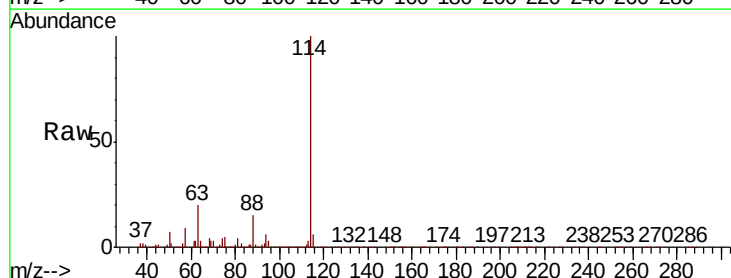
Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion: 65 Resp: 207480  
 Ion Ratio Lower Upper  
 65 100  
 67 52.9 0.0 105.6

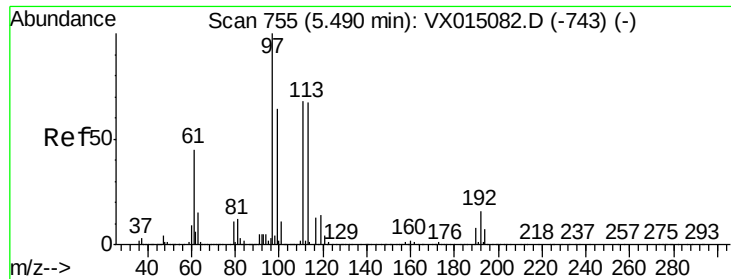


#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 979  
 Delta R.T. 0.01 min  
 Lab File: VX015170.D  
 Acq: 10 Mar 2020 14:56

Tgt Ion: 114 Resp: 549584  
 Ion Ratio Lower Upper  
 114 100  
 63 20.1 0.0 40.0  
 88 15.1 0.0 30.6



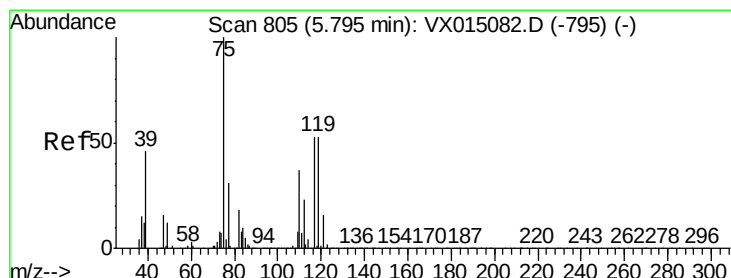
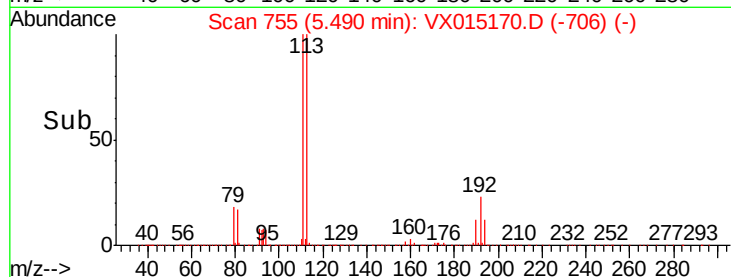
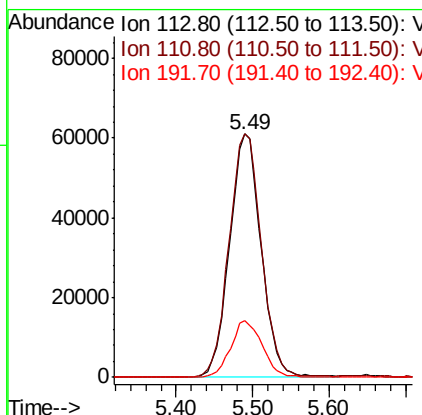
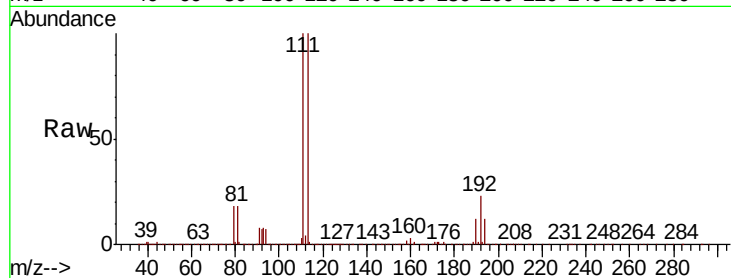




#35  
 Dibromofluoromethane  
 Concen: 49.945 ug/l  
 RT: 5.49 min Scan# 755  
 Delta R.T. -0.00 min  
 Lab File: VX015170.D  
 Acq: 10 Mar 2020 14:56

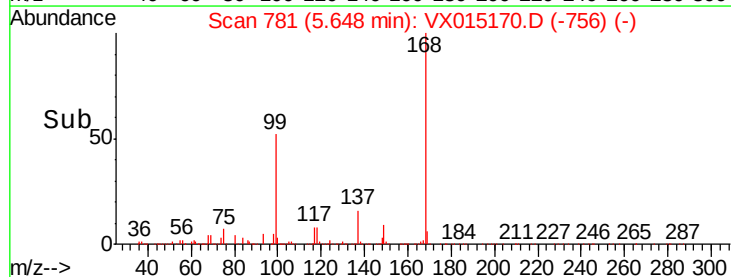
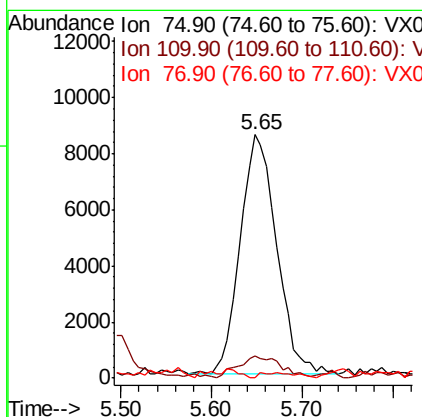
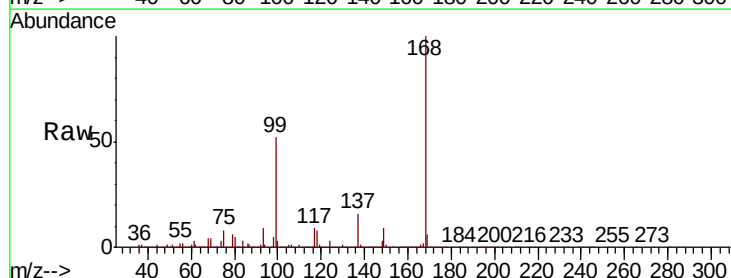
Instrument :  
 MSVOA\_X  
 ClientSampleId :

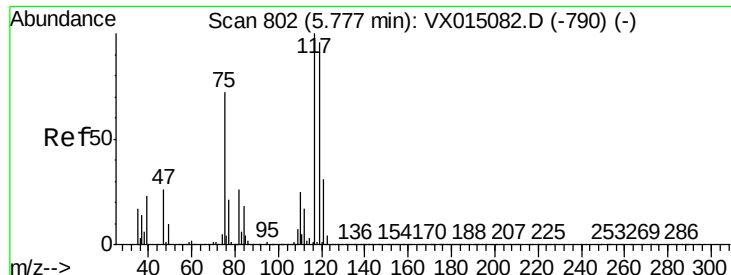
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.2 | 82.6  | 123.8 |
| 192     | 23.4  | 18.6  | 28.0  |



#36  
 1,1-Dichloropropene  
 Concen: 4.690 ug/l  
 RT: 5.65 min Scan# 781  
 Delta R.T. -0.15 min  
 Lab File: VX015170.D  
 Acq: 10 Mar 2020 14:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 11.0  | 17.9  | 53.8# |
| 77      | 0.7   | 24.8  | 37.2# |

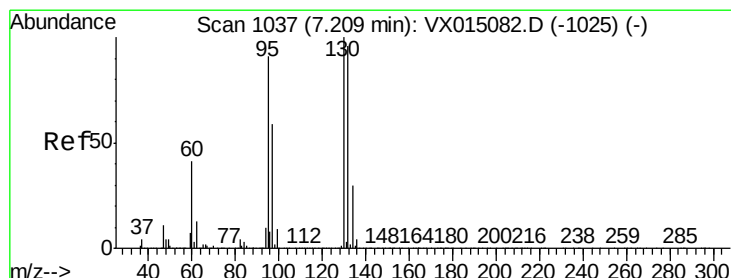
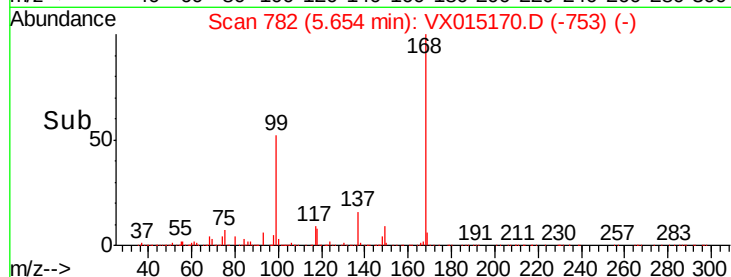
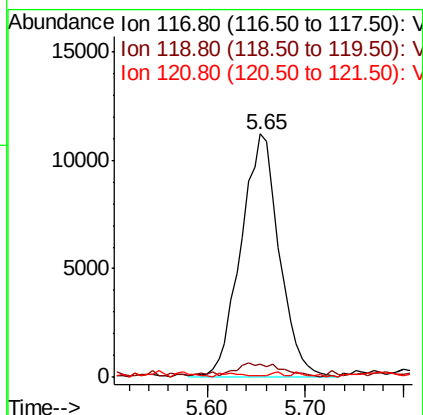
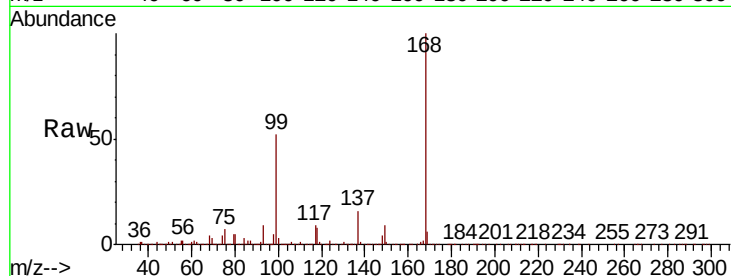




#38  
Carbon Tetrachloride  
Concen: 6.376 ug/l  
RT: 5.65 min Scan# 782  
Delta R.T. -0.12 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

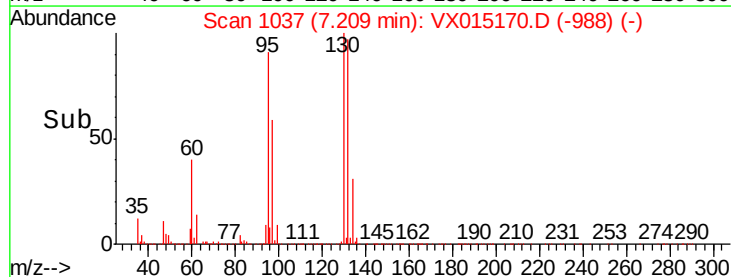
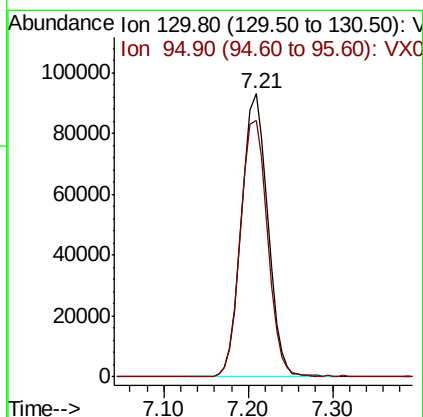
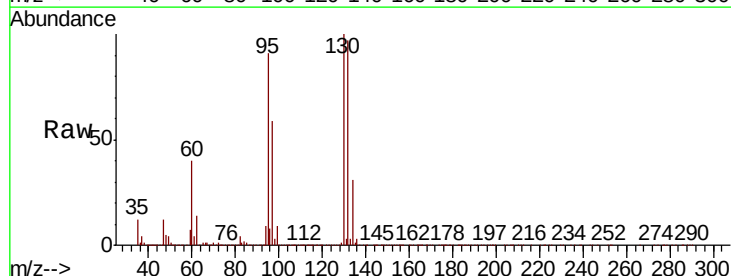
Instrument :  
MSVOA\_X  
ClientSampled :

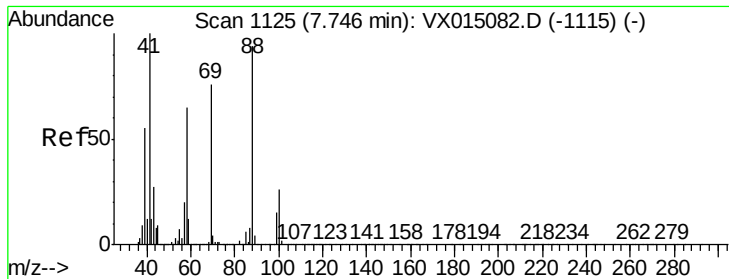
Tot Ion:117 Resp: 30577  
Ion Ratio Lower Upper  
117 100  
119 4.8 76.9 115.3#  
121 0.9 24.6 37.0#



#44  
Trichloroethene  
Concen: 46.506 ug/l  
RT: 7.21 min Scan# 1037  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion:130 Resp: 195229  
Ion Ratio Lower Upper  
130 100  
95 90.7 0.0 181.2

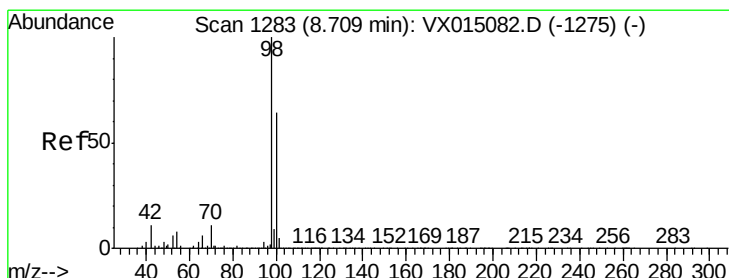
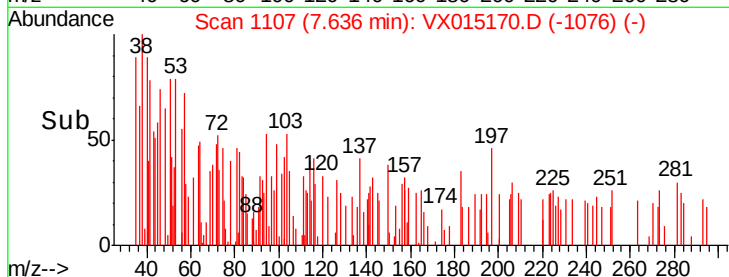
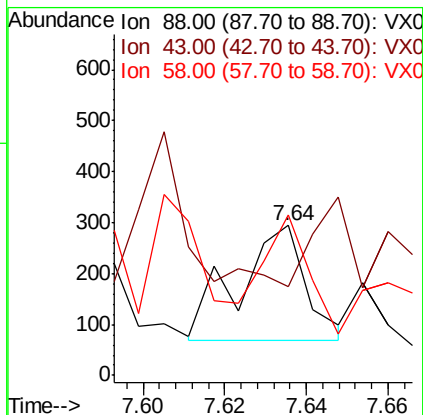
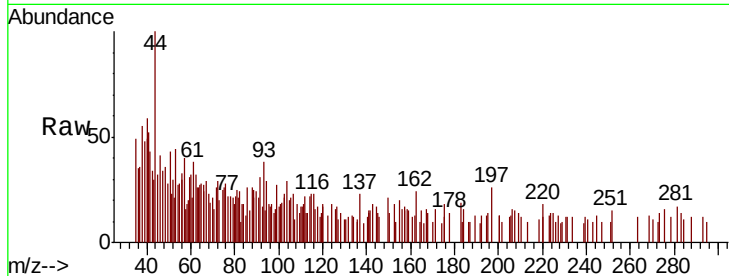




#49  
1,4-Dioxane  
Concen: 2.828 ug/l  
RT: 7.64 min Scan# 1107  
Delta R.T. -0.11 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

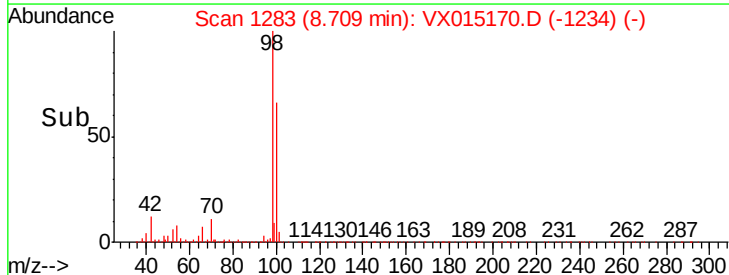
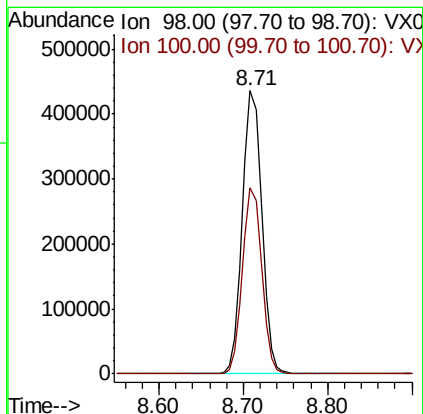
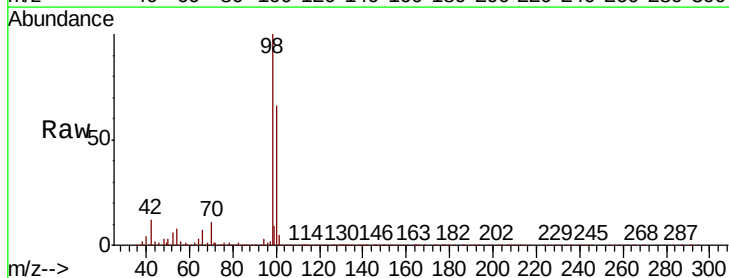
Instrument :  
MSVOA\_X  
ClientSampleId :

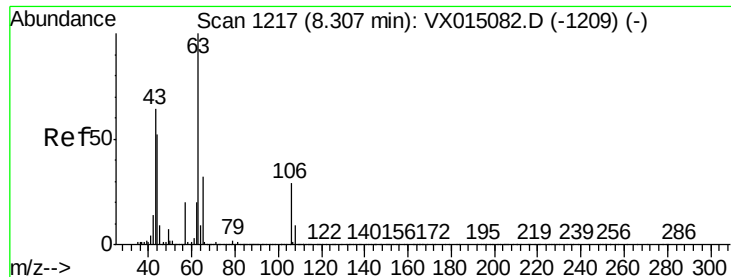
Tot Ion: 88 Resp: 258  
Ion Ratio Lower Upper  
88 100  
43 39.9 27.0 40.4  
58 68.6 55.6 83.4



#50  
Toluene-d8  
Concen: 51.111 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion: 98 Resp: 674078  
Ion Ratio Lower Upper  
98 100  
100 65.0 52.4 78.6

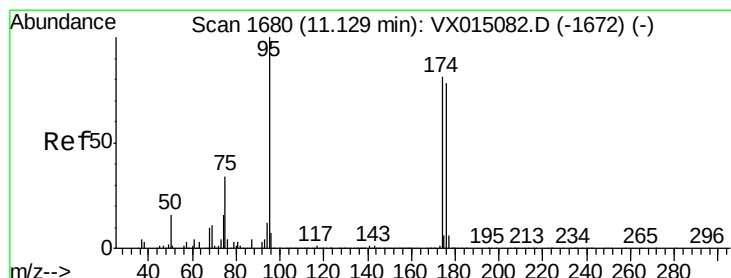
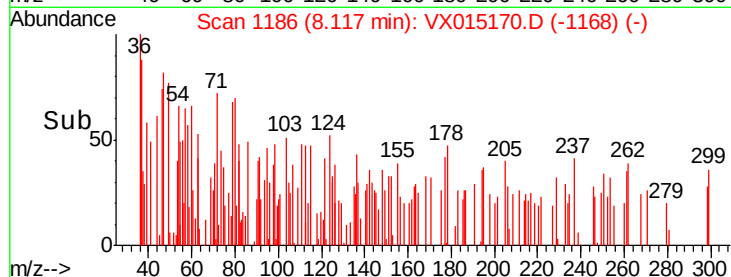
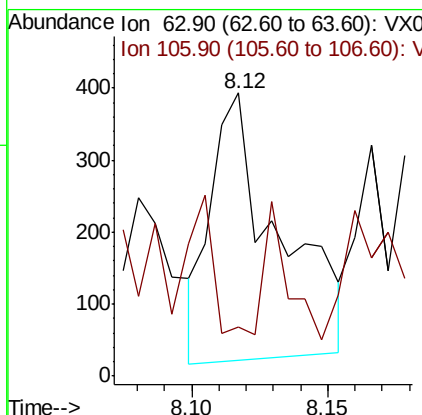
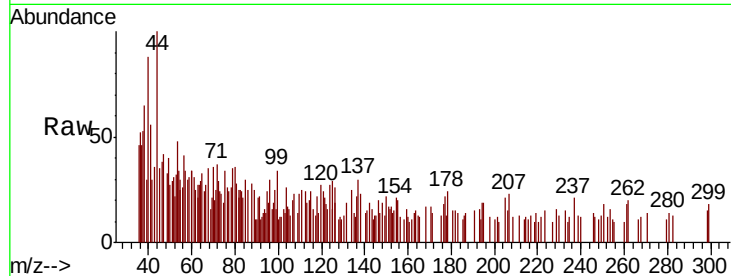




#58  
2-Chloroethyl Vinyl ether  
Concen: 0.218 ug/l  
RT: 8.12 min Scan# 1186  
Delta R.T. -0.19 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

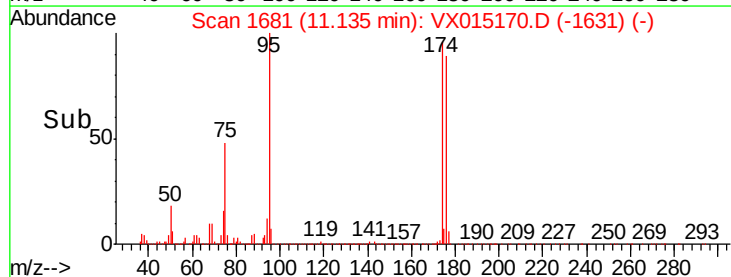
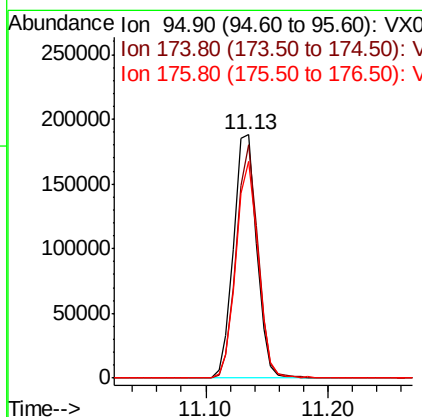
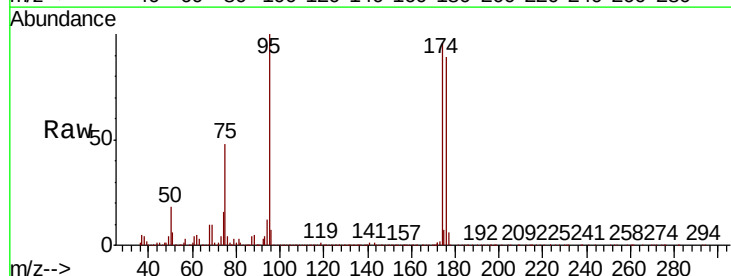
Instrument :  
MSVOA\_X  
ClientSampled :

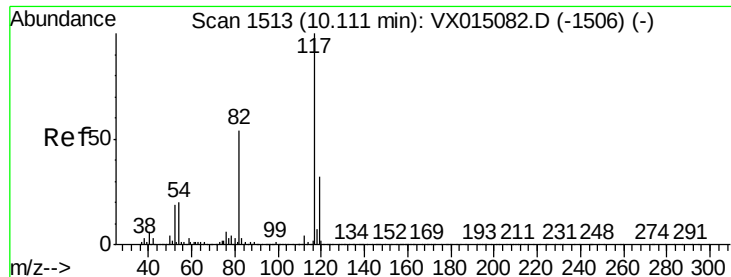
Tot Ion: 63 Resp: 644  
Ion Ratio Lower Upper  
63 100  
106 29.8 22.8 34.2



#62  
4-Bromofluorobenzene  
Concen: 52.107 ug/l  
RT: 11.13 min Scan# 1681  
Delta R.T. 0.01 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion: 95 Resp: 245121  
Ion Ratio Lower Upper  
95 100  
174 90.0 0.0 177.6  
176 85.4 0.0 170.2

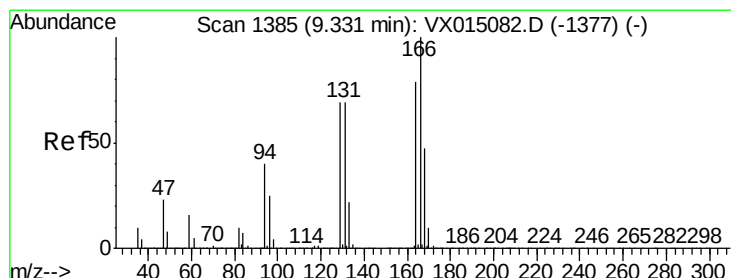
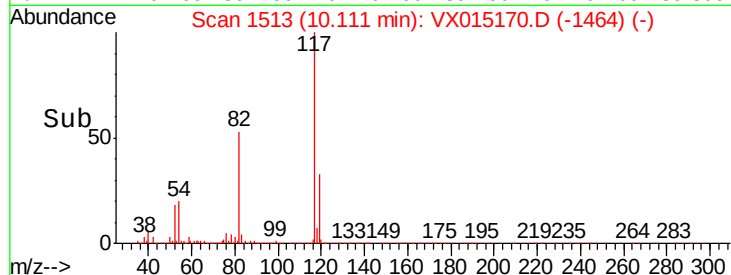
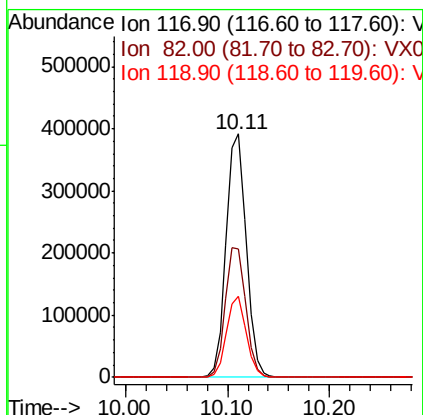
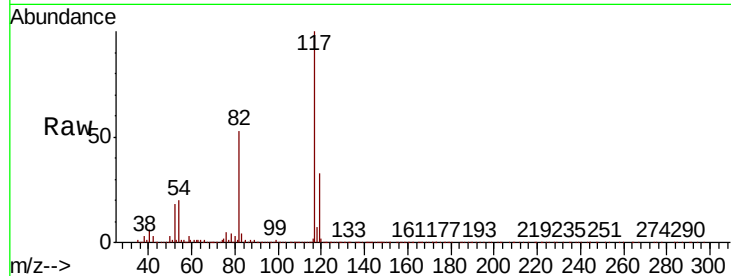




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.11 min Scan# 1513  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

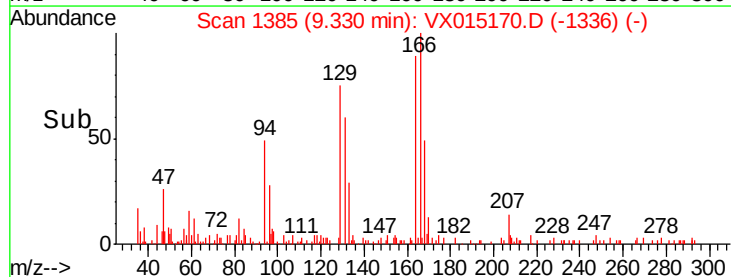
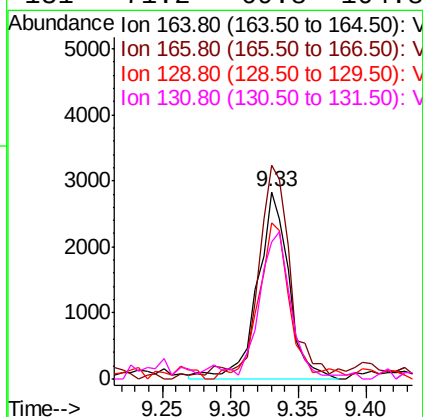
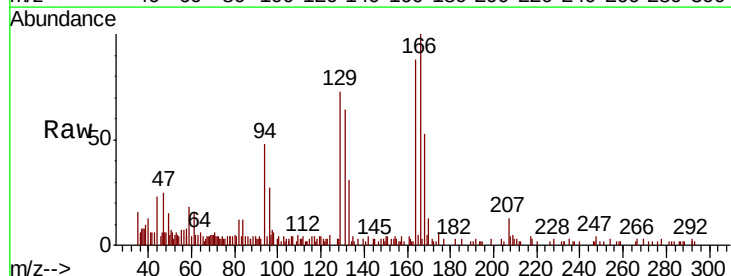
Instrument :  
MSVOA\_X  
ClientSampled :

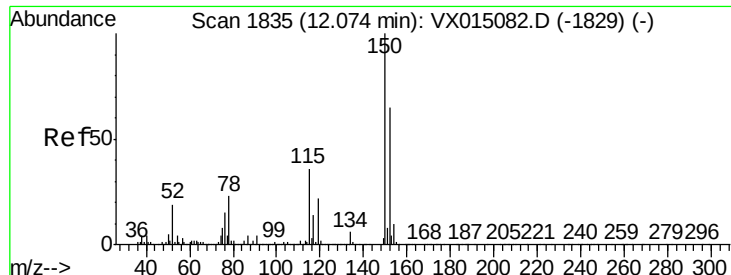
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 52.6  | 43.3  | 64.9  |
| 119     | 33.1  | 25.8  | 38.8  |



#64  
Tetrachloroethene  
Concen: 1.040 ug/l  
RT: 9.33 min Scan# 1385  
Delta R.T. -0.00 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 112.1 | 101.1 | 151.7 |
| 129     | 79.4  | 69.4  | 104.0 |
| 131     | 71.2  | 69.8  | 104.8 |

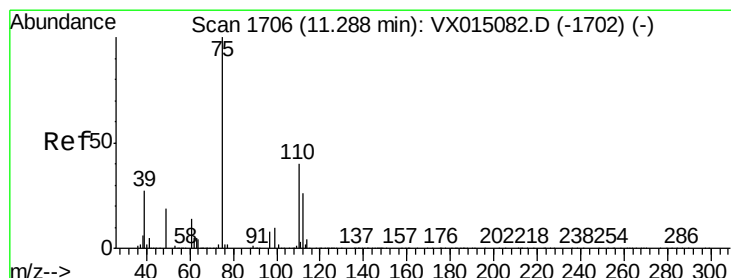
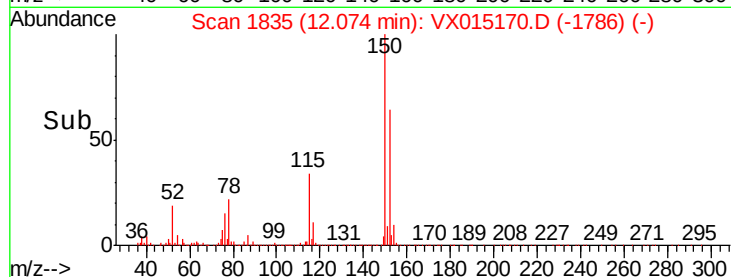
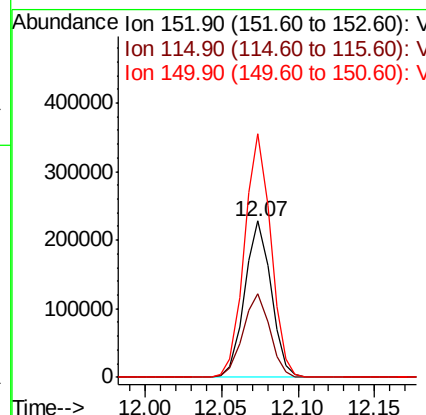
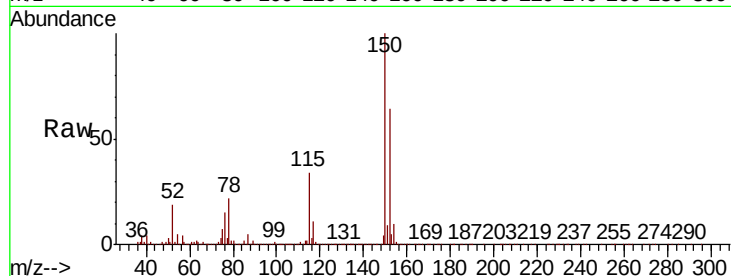




#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 12.07 min Scan# 1835  
 Delta R.T. -0.00 min  
 Lab File: VX015170.D  
 Acq: 10 Mar 2020 14:56

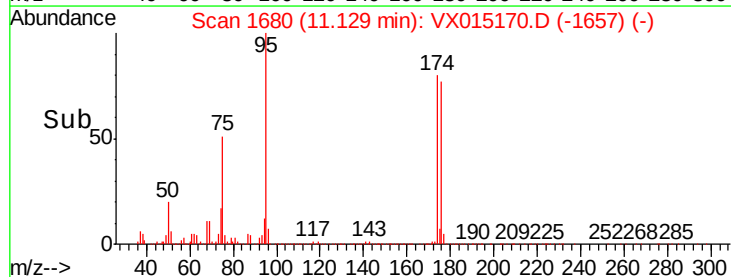
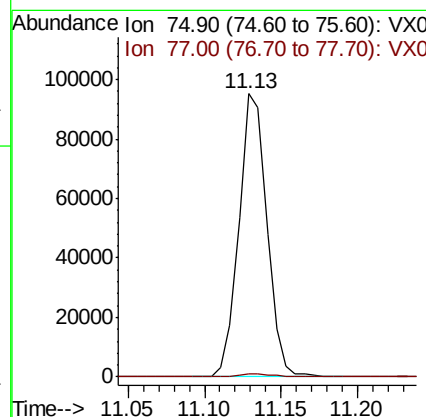
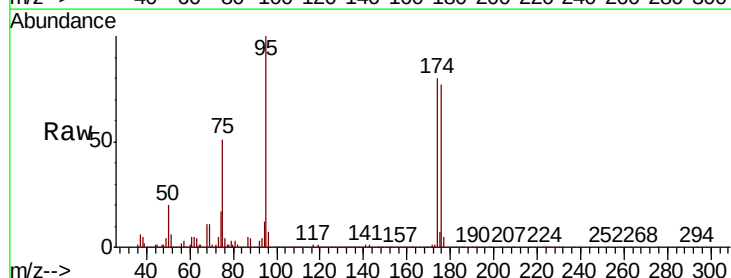
Instrument :  
 MSVOA\_X  
 ClientSampleId :

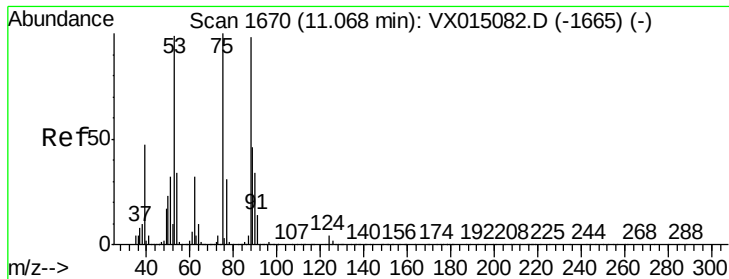
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 54.7  | 38.2  | 114.6 |
| 150     | 155.3 | 0.0   | 343.8 |



#76  
 1,2,3-Trichloropropane  
 Concen: 22.136 ug/l  
 RT: 11.13 min Scan# 1680  
 Delta R.T. -0.16 min  
 Lab File: VX015170.D  
 Acq: 10 Mar 2020 14:56

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 1.3   | 22.6  | 67.8# |

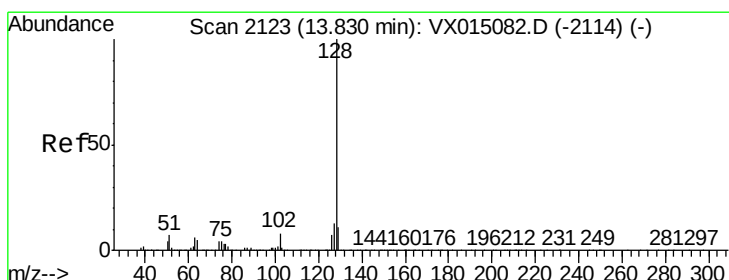
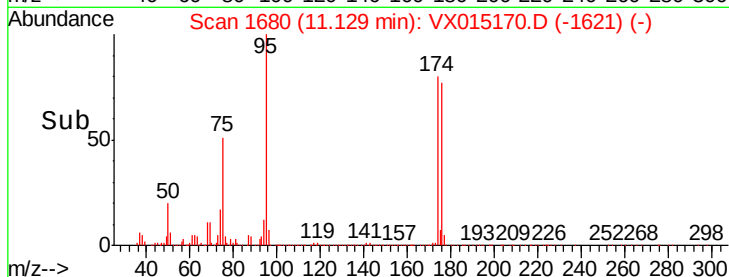
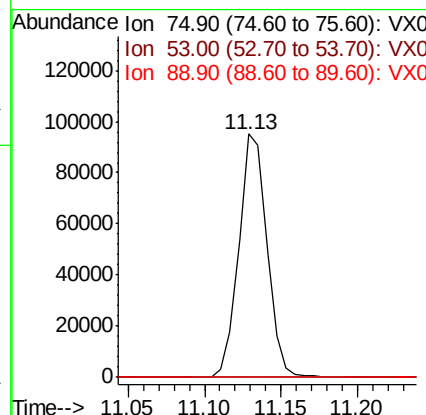
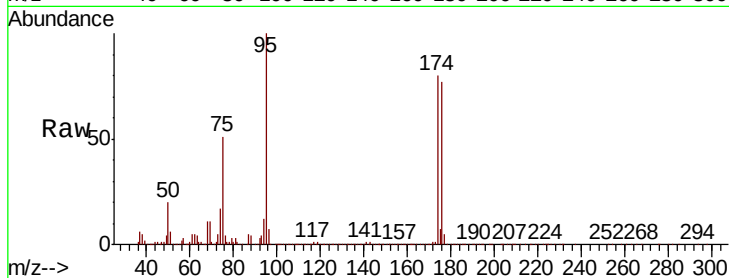




#81  
trans-1,4-Dichloro-2-butene  
Concen: 62.821 ug/l  
RT: 11.13 min Scan# 1680  
Delta R.T. 0.06 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 75 Resp: 120672  
Ion Ratio Lower Upper  
75 100  
53 0.5 77.9 116.9#  
89 0.2 36.2 54.2#



#95  
Naphthalene  
Concen: 1.450 ug/l  
RT: 13.82 min Scan# 2122  
Delta R.T. -0.01 min  
Lab File: VX015170.D  
Acq: 10 Mar 2020 14:56

Tgt Ion: 128 Resp: 554  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.3 15.5#  
129 0.0 8.6 13.0#

