

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX020520\  
 Data File : VX014830.D  
 Acq On : 05 Feb 2020 18:14  
 Operator : JC/SP  
 Sample : L1397-01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Feb 06 02:57:00 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X012220W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 22 12:35:15 2020  
 Response via : Initial Calibration

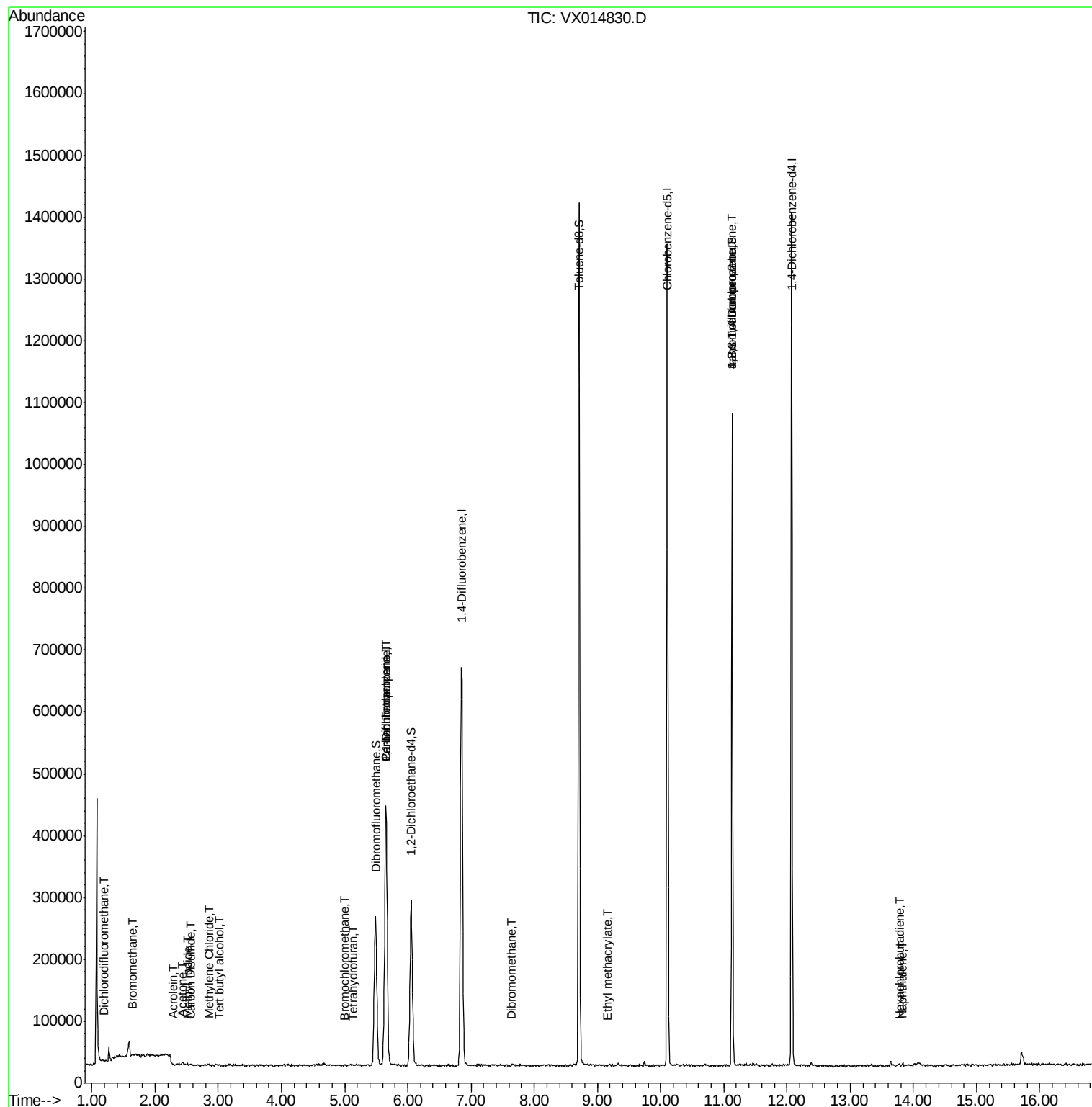
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|--------|----------|
| 1) Pentafluorobenzene          | 5.66   | 168  | 434281   | 50.00     | ug/l   | 0.00     |
| 34) 1,4-Difluorobenzene        | 6.85   | 114  | 677060   | 50.00     | ug/l   | 0.00     |
| 63) Chlorobenzene-d5           | 10.10  | 117  | 623395   | 50.00     | ug/l   | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.07  | 152  | 285427   | 50.00     | ug/l   | 0.00     |
| System Monitoring Compounds    |        |      |          |           |        |          |
| 33) 1,2-Dichloroethane-d4      | 6.06   | 65   | 250955   | 49.48     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 98.96% |          |
| 35) Dibromofluoromethane       | 5.49   | 113  | 207737   | 48.63     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 97.26% |          |
| 50) Toluene-d8                 | 8.71   | 98   | 812936   | 49.50     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 99.00% |          |
| 62) 4-Bromofluorobenzene       | 11.13  | 95   | 278406   | 47.59     | ug/l   | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 95.18% |          |
| Target Compounds               |        |      |          |           |        |          |
|                                |        |      |          |           | Qvalue |          |
| 2) Dichlorodifluoromethane     | 1.19   | 85   | 785      | 0.664     | ug/l   | 98       |
| 5) Bromomethane                | 1.65   | 94   | 1833     | 0.425     | ug/l # | 69       |
| 6) Chloroethane                | 1.74   | 64   | 593      | Below Cal | #      | 43       |
| 10) Methyl Iodide              | 2.51   | 142  | 2104     | 0.369     | ug/l # | 81       |
| 11) Tert butyl alcohol         | 3.01   | 59   | 1263     | 1.109     | ug/l # | 1        |
| 13) Acrolein                   | 2.29   | 56   | 745      | 0.830     | ug/l   | 89       |
| 16) Acetone                    | 2.43   | 43   | 5754     | 2.219     | ug/l   | 92       |
| 17) Carbon Disulfide           | 2.57   | 76   | 3140     | 0.266     | ug/l # | 90       |
| 20) Methylene Chloride         | 2.86   | 84   | 1614     | 0.314     | ug/l # | 75       |
| 28) Bromochloromethane         | 5.01   | 49   | 746      | 0.202     | ug/l # | 85       |
| 29) Tetrahydrofuran            | 5.14   | 42   | 849      | 0.359     | ug/l # | 67       |
| 36) 1,1-Dichloropropene        | 5.65   | 75   | 29830    | 4.742     | ug/l # | 52       |
| 38) Carbon Tetrachloride       | 5.65   | 117  | 38529    | 6.413     | ug/l # | 15       |
| 41) Methacrylonitrile          | 5.04   | 41   | 1045     | Below Cal | #      | 60       |
| 46) Dibromomethane             | 7.65   | 93   | 991      | 0.306     | ug/l # | 53       |
| 56) Ethyl methacrylate         | 9.16   | 69   | 320      | 1.822     | ug/l # | 1        |
| 76) 1,2,3-Trichloropropane     | 11.13  | 75   | 139000   | 20.932    | ug/l # | 40       |
| 81) trans-1,4-Dichloro-2-buten | 11.13  | 75   | 139000   | 59.568    | ug/l # | 11       |
| 94) Hexachlorobutadiene        | 13.78  | 225  | 686      | 0.215     | ug/l # | 67       |
| 95) Naphthalene                | 13.84  | 128  | 3212     | 1.089     | ug/l # | 82       |

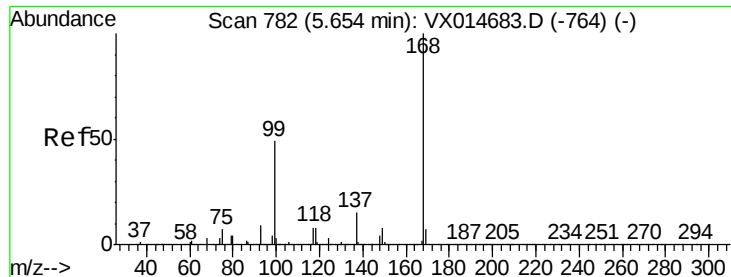
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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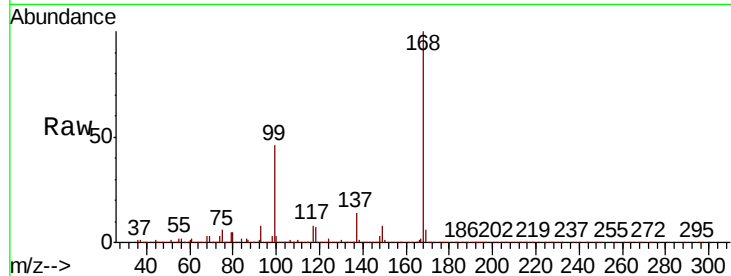


#1

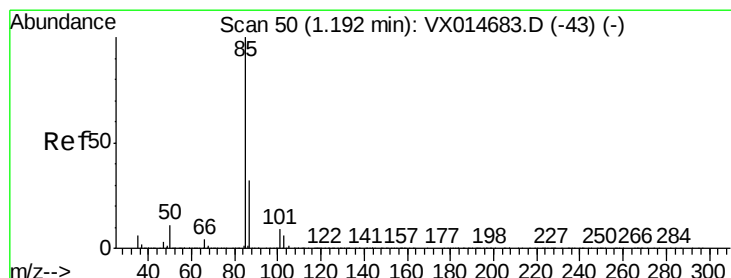
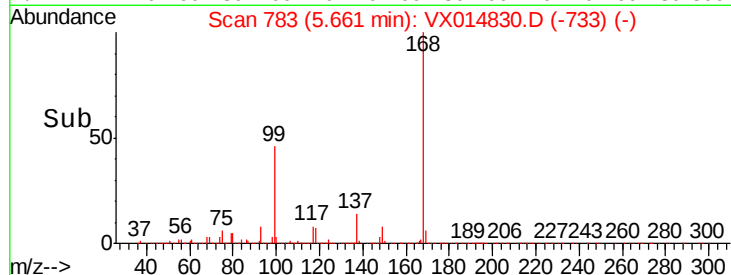
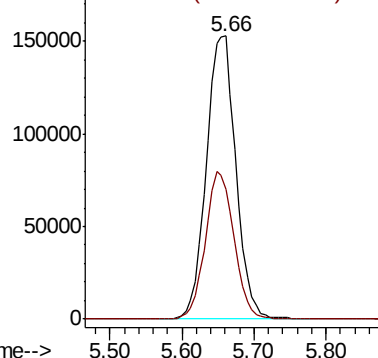
Pentafluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.66 min Scan# 783  
 Delta R.T. 0.01 min  
 Lab File: VX014830.D  
 Acq: 05 Feb 2020 18:14

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Tot Ion:168 Resp: 434281  
 Ion Ratio Lower Upper  
 168 100  
 99 45.8 39.8 59.6



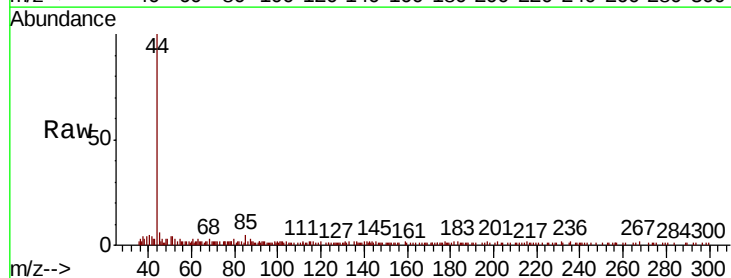
Abundance Ion 167.90 (167.60 to 168.60): V  
 Ion 98.90 (98.60 to 99.60): VX0



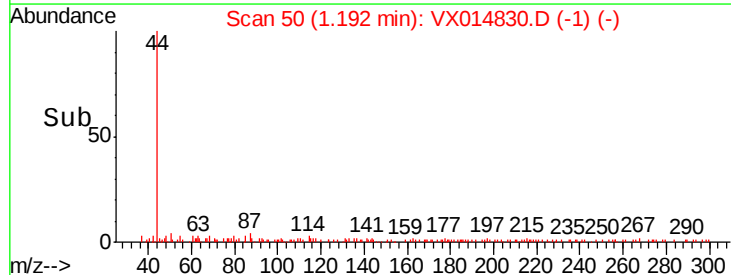
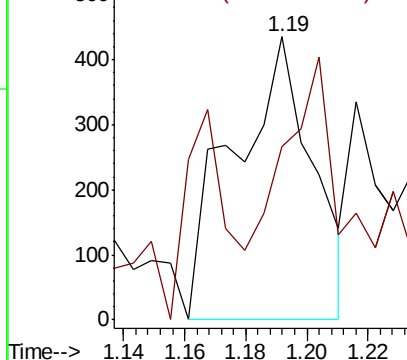
#2

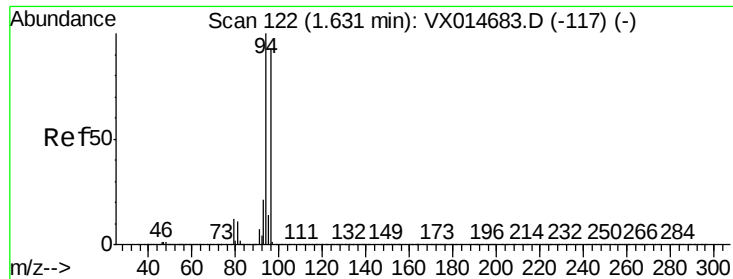
Dichlorodifluoromethane  
 Concen: 0.664 ug/l  
 RT: 1.19 min Scan# 50  
 Delta R.T. 0.00 min  
 Lab File: VX014830.D  
 Acq: 05 Feb 2020 18:14

Tgt Ion: 85 Resp: 785  
 Ion Ratio Lower Upper  
 85 100  
 87 31.0 16.2 48.5



Abundance Ion 84.90 (84.60 to 85.60): VX0  
 Ion 86.90 (86.60 to 87.60): VX0





#5

Bromomethane

Concen: 0.425 ug/l

RT: 1.65 min Scan# 125

Delta R.T. 0.02 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Instrument :

MSVOA\_X

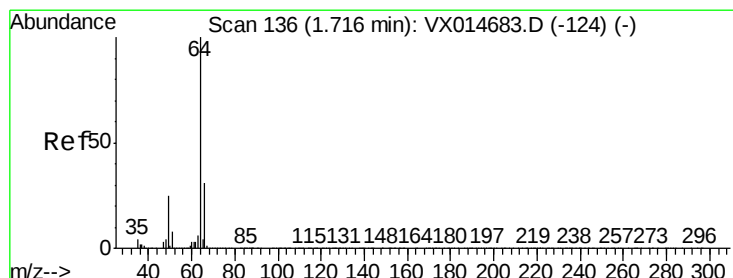
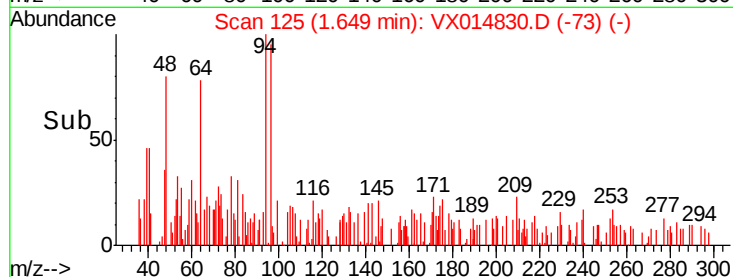
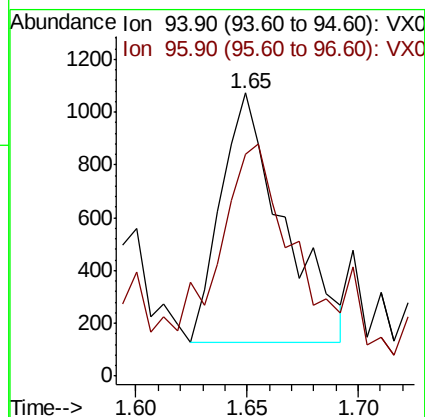
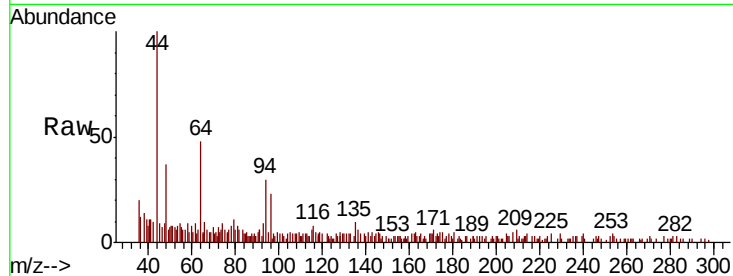
ClientSampled :

Tot Ion: 94 Resp: 1833

Ion Ratio Lower Upper

94 100

96 63.6 74.7 112.1#



#6

Chloroethane

Concen: Below Cal

RT: 1.74 min Scan# 140

Delta R.T. 0.02 min

Lab File: VX014830.D

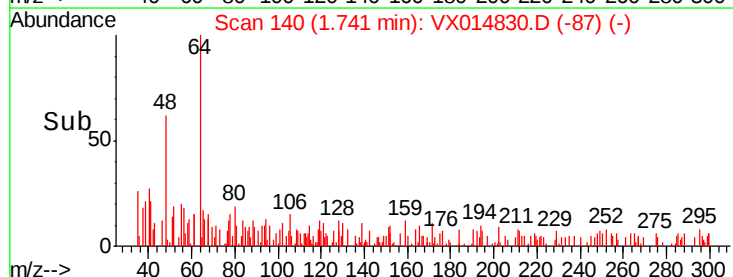
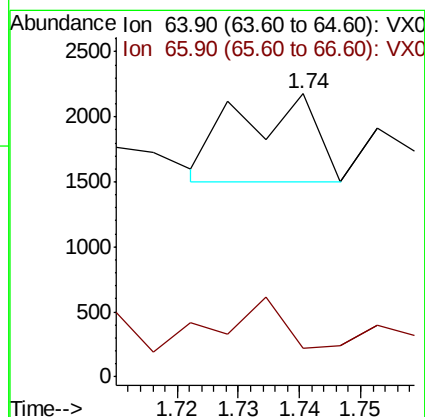
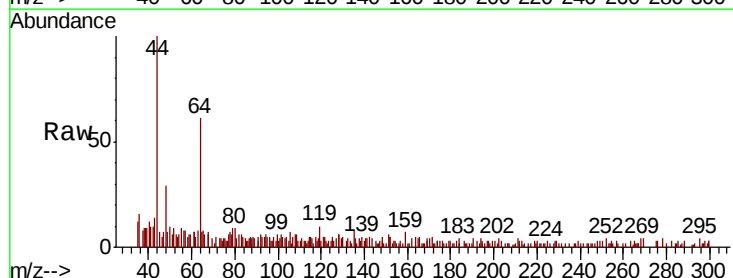
Acq: 05 Feb 2020 18:14

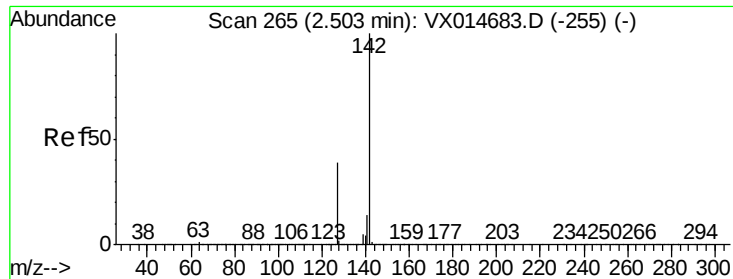
Tgt Ion: 64 Resp: 593

Ion Ratio Lower Upper

64 100

66 0.0 25.2 37.8#

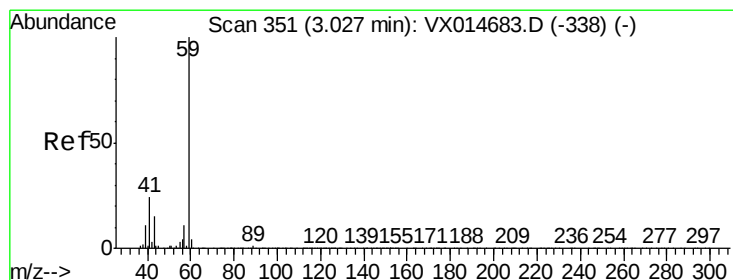
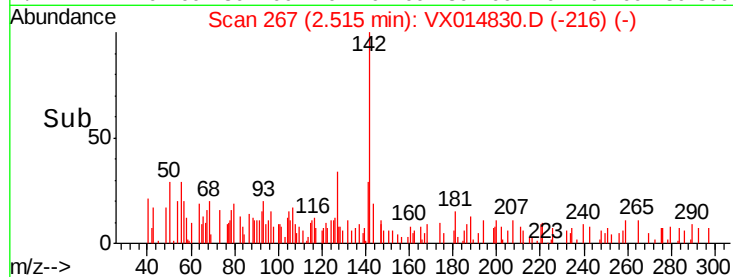
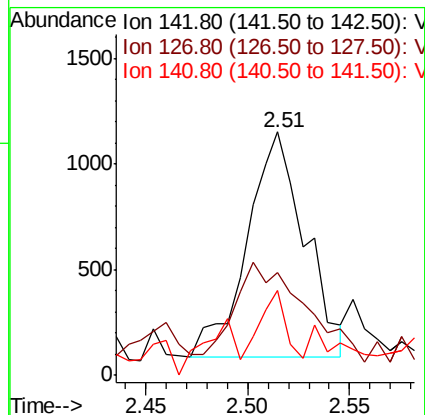
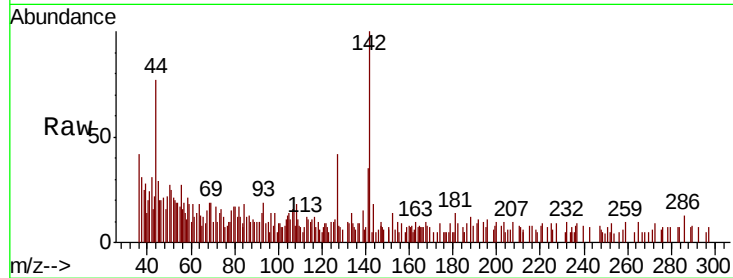




#10  
Methvl Iodide  
Concen: 0.369 ug/l  
RT: 2.51 min Scan# 267  
Delta R.T. 0.01 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

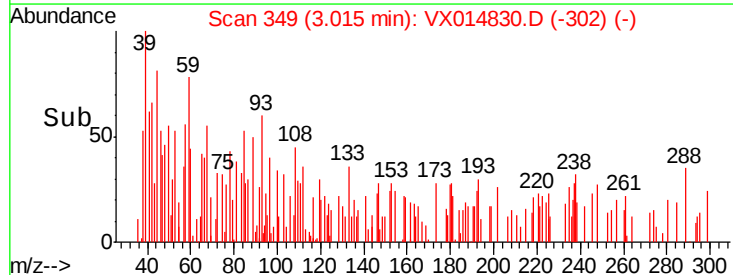
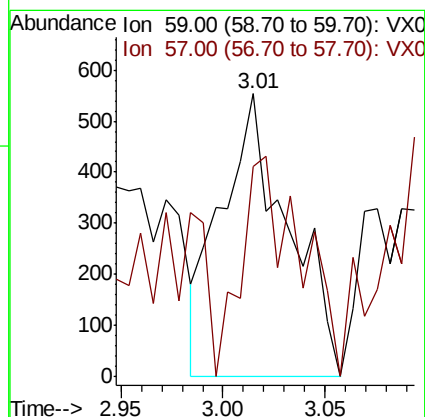
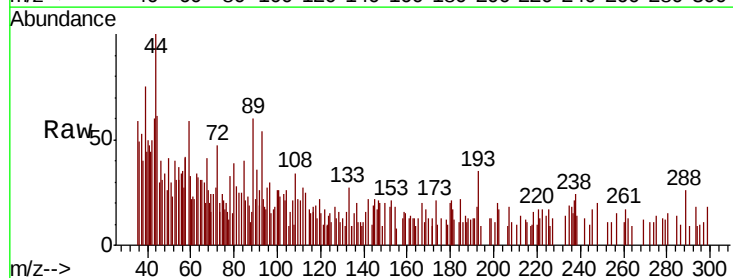
Instrument :  
MSVOA\_X  
ClientSampled :

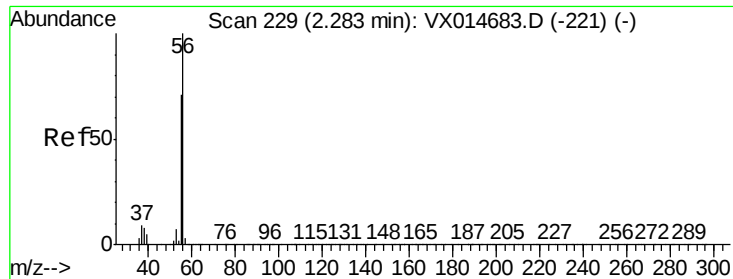
Tot Ion:142 Resp: 2104  
Ion Ratio Lower Upper  
142 100  
127 54.5 31.1 46.7#  
141 13.1 11.3 16.9



#11  
Tert butyl alcohol  
Concen: 1.109 ug/l  
RT: 3.01 min Scan# 349  
Delta R.T. -0.01 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

Tgt Ion: 59 Resp: 1263  
Ion Ratio Lower Upper  
59 100  
57 68.2 8.3 12.5#





#13

Acrolein

Concen: 0.830 ug/l

RT: 2.29 min Scan# 230

Delta R.T. 0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

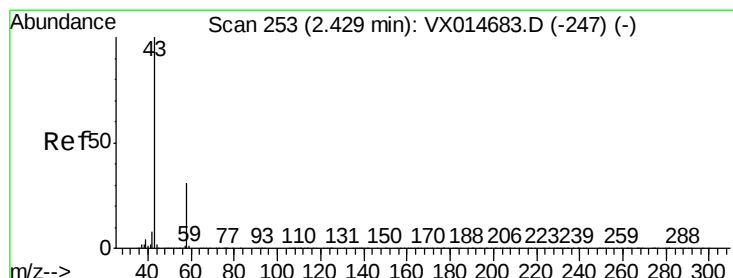
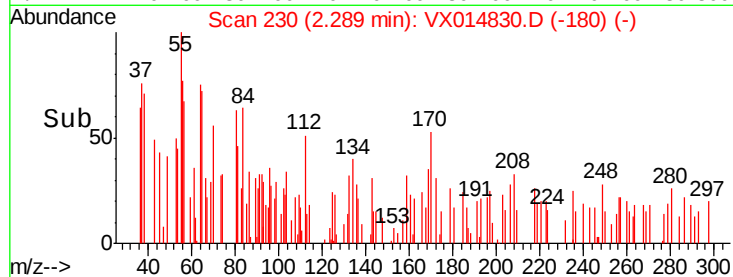
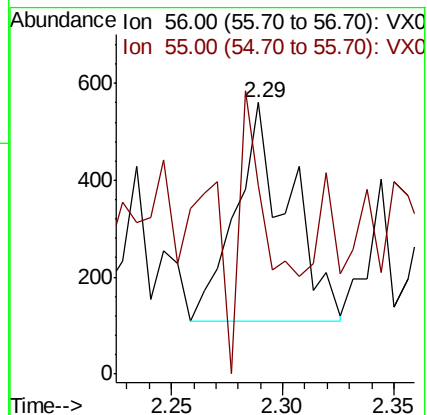
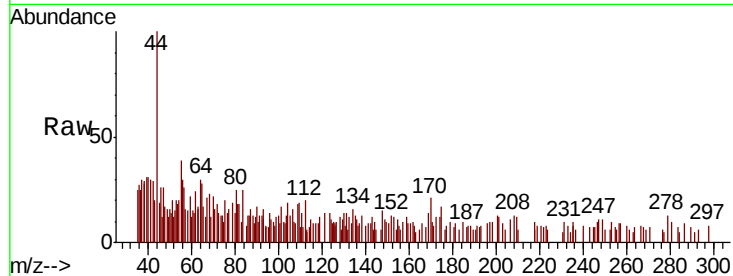
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 56 Resp: 745

Ion Ratio Lower Upper

56 100

55 79.7 56.6 84.8



#16

Acetone

Concen: 2.219 ug/l

RT: 2.43 min Scan# 253

Delta R.T. 0.00 min

Lab File: VX014830.D

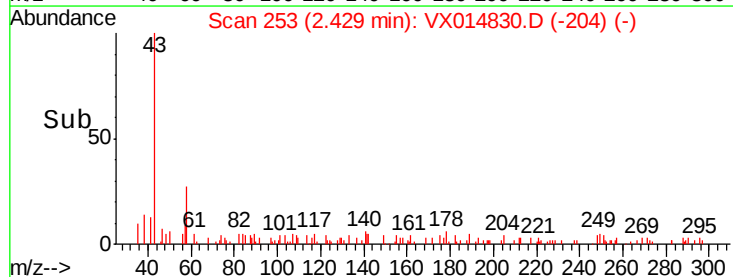
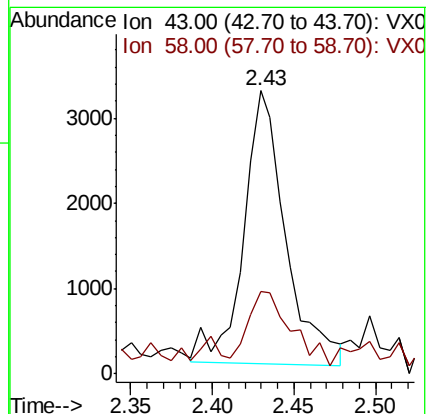
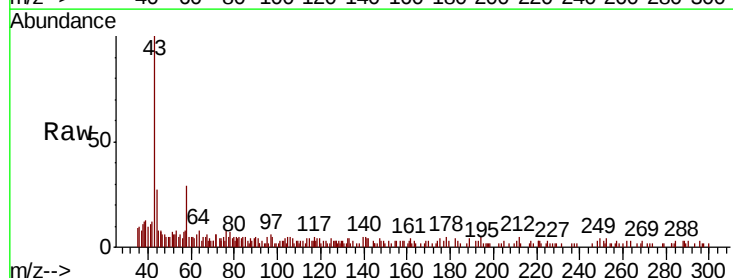
Acq: 05 Feb 2020 18:14

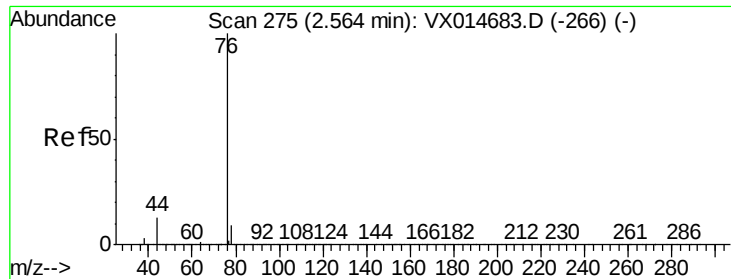
Tgt Ion: 43 Resp: 5754

Ion Ratio Lower Upper

43 100

58 26.2 24.5 36.7





#17

Carbon Disulfide

Concen: 0.266 ug/l

RT: 2.57 min Scan# 276

Delta R.T. 0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Instrument :

MSVOA\_X

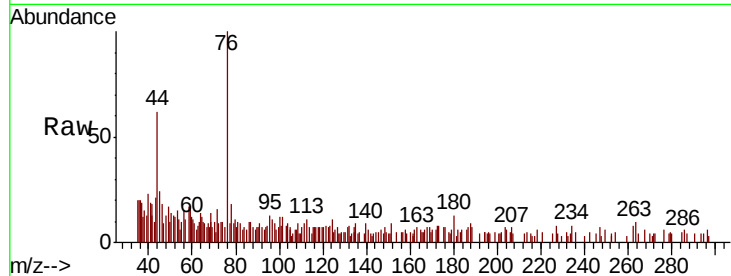
ClientSampleId :

Tot Ion: 76 Resp: 3140

Ion Ratio Lower Upper

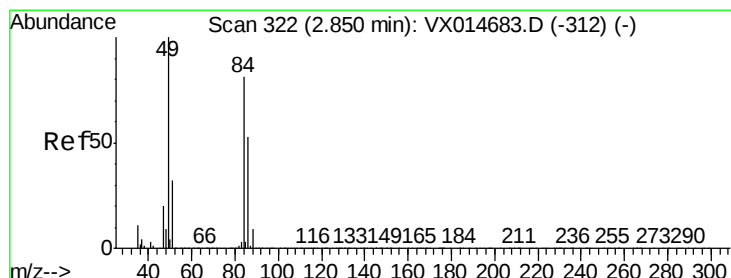
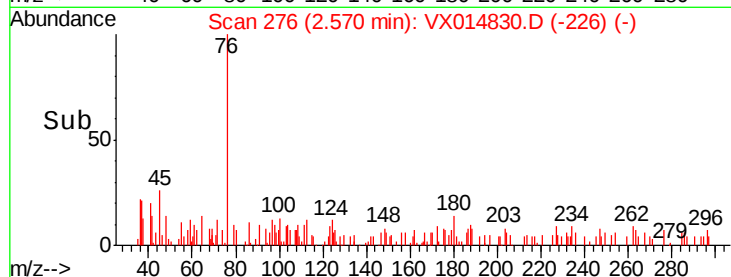
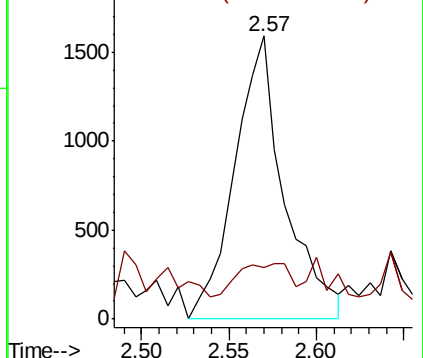
76 100

78 5.3 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0



#20

Methylene Chloride

Concen: 0.314 ug/l

RT: 2.86 min Scan# 323

Delta R.T. 0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Tgt Ion: 84 Resp: 1614

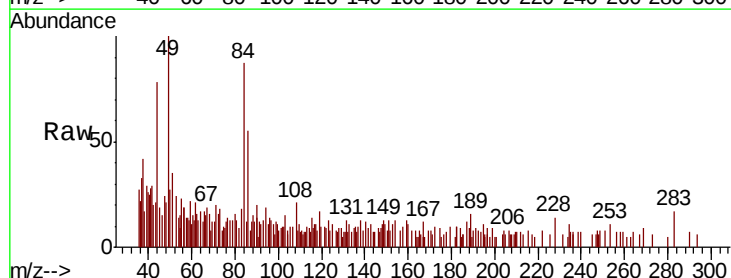
Ion Ratio Lower Upper

84 100

49 97.7 98.2 147.4#

51 14.9 31.3 46.9#

86 47.6 51.8 77.6#

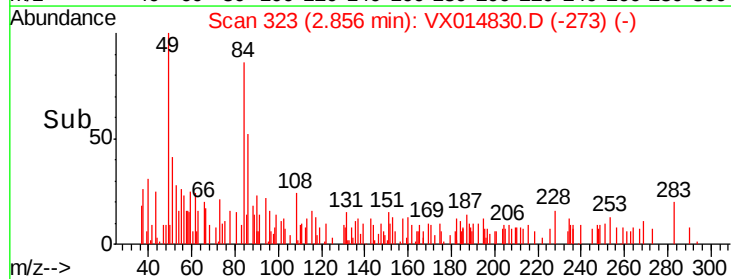
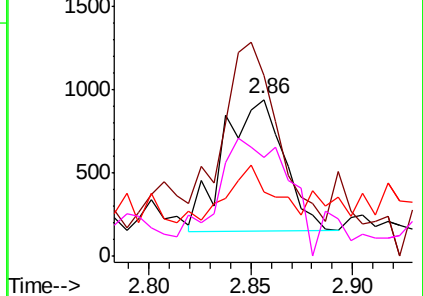


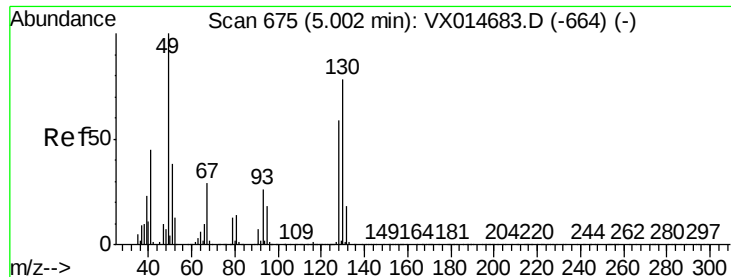
Abundance Ion 83.90 (83.60 to 84.60): VX0

Ion 48.90 (48.60 to 49.60): VX0

Ion 50.90 (50.60 to 51.60): VX0

Ion 85.90 (85.60 to 86.60): VX0





#28

Bromochloromethane

Concen: 0.202 ug/l

RT: 5.01 min Scan# 676

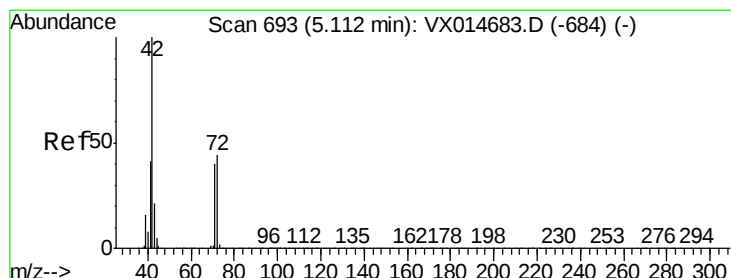
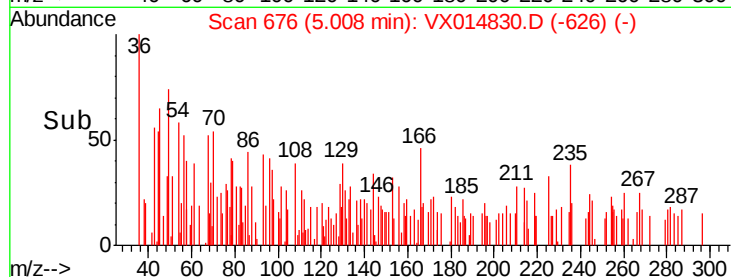
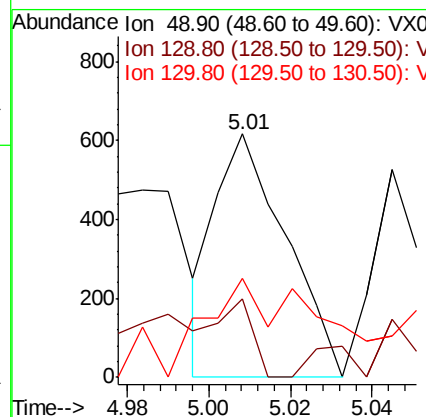
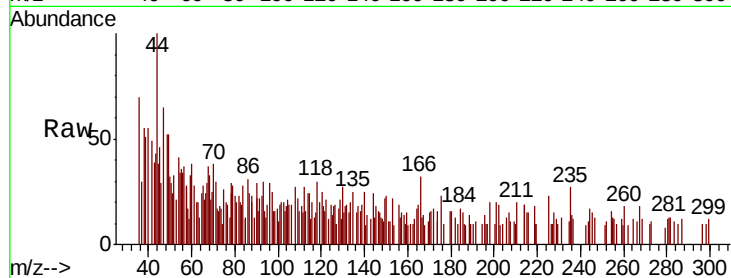
Delta R.T. 0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion: 49 Resp: 746  
Ion Ratio Lower Upper  
49 100  
129 54.8 0.0 4.8#  
130 68.9 62.4 93.6



#29

Tetrahydrofuran

Concen: 0.359 ug/l

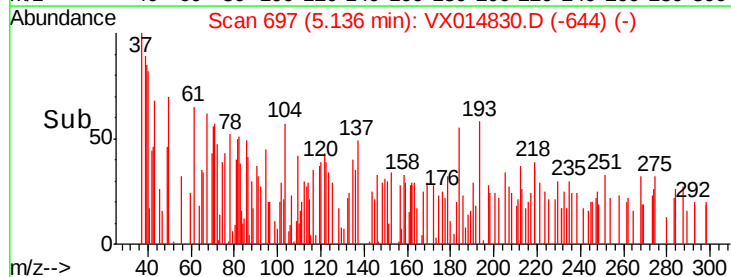
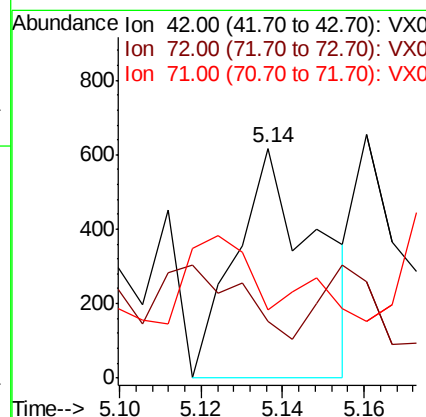
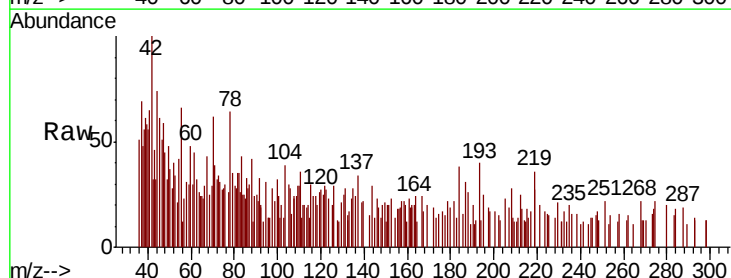
RT: 5.14 min Scan# 697

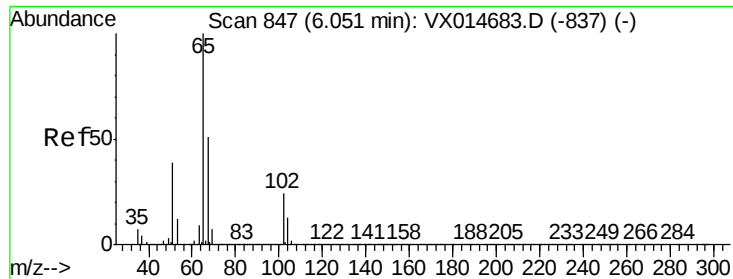
Delta R.T. 0.02 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Tgt Ion: 42 Resp: 849  
Ion Ratio Lower Upper  
42 100  
72 73.9 35.3 52.9#  
71 53.0 33.1 49.7#

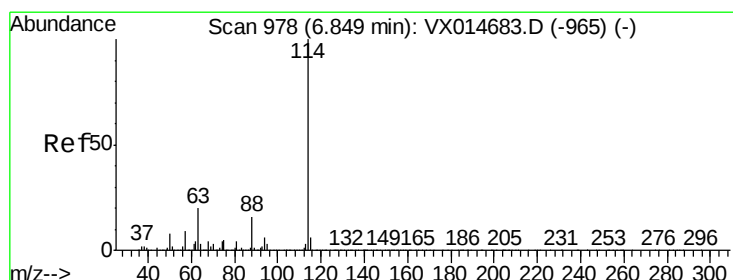
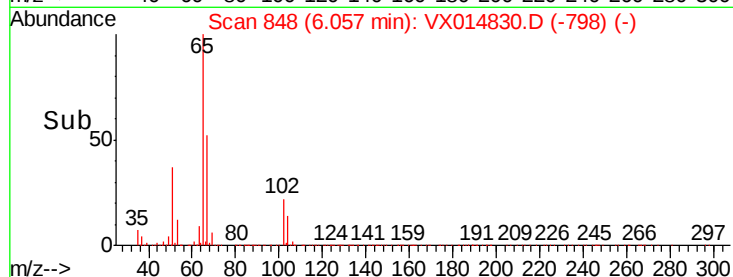
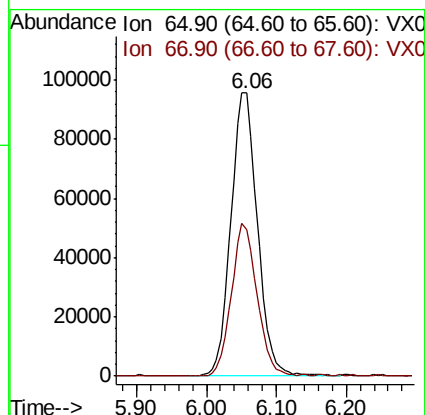
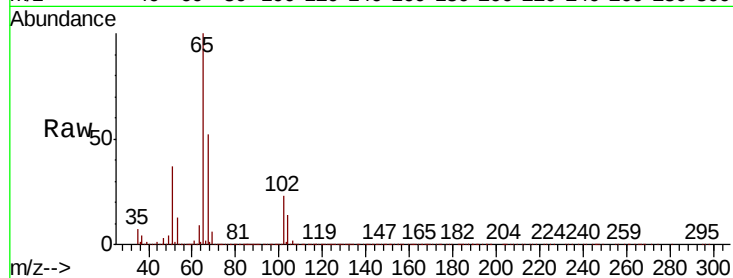




#33  
 1,2-Dichloroethane-d4  
 Concen: 49.485 ug/l  
 RT: 6.06 min Scan# 848  
 Delta R.T. 0.01 min  
 Lab File: VX014830.D  
 Acq: 05 Feb 2020 18:14

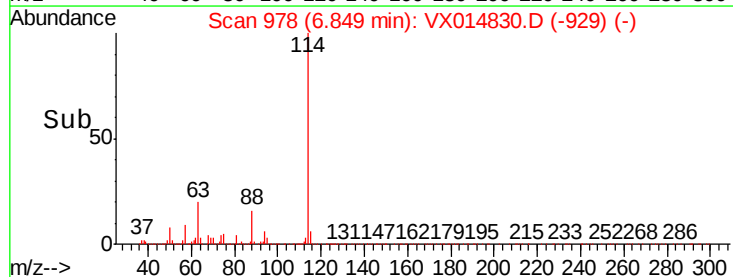
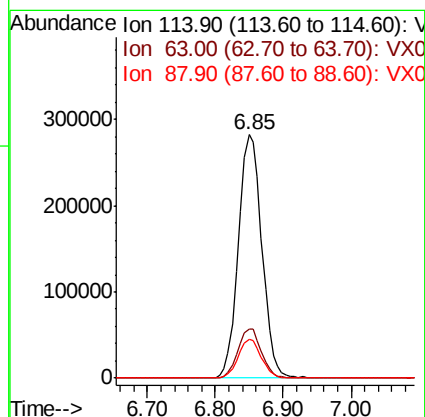
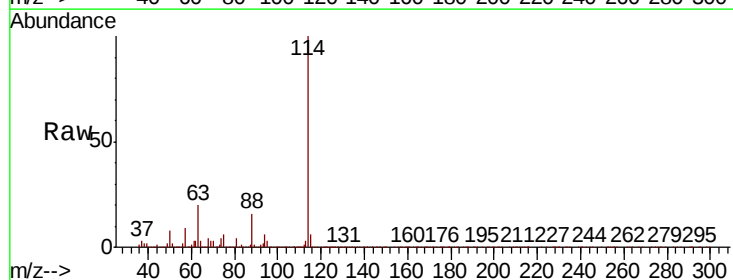
Instrument :  
 MSVOA\_X  
 ClientSampleId :

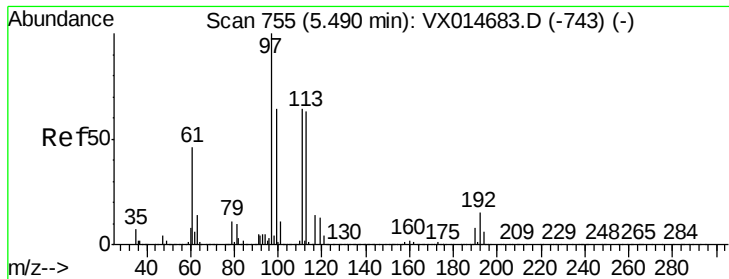
Tot Ion: 65 Resp: 250955  
 Ion Ratio Lower Upper  
 65 100  
 67 52.1 0.0 107.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.85 min Scan# 978  
 Delta R.T. 0.00 min  
 Lab File: VX014830.D  
 Acq: 05 Feb 2020 18:14

Tgt Ion: 114 Resp: 677060  
 Ion Ratio Lower Upper  
 114 100  
 63 19.9 0.0 40.6  
 88 15.7 0.0 31.2

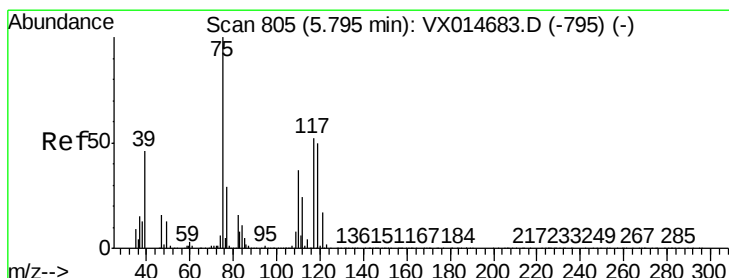
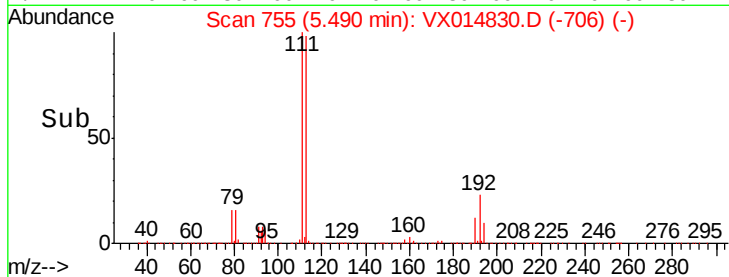
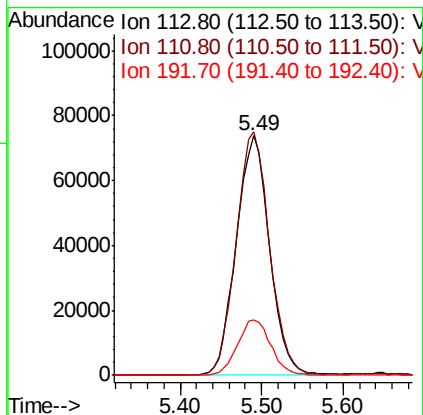
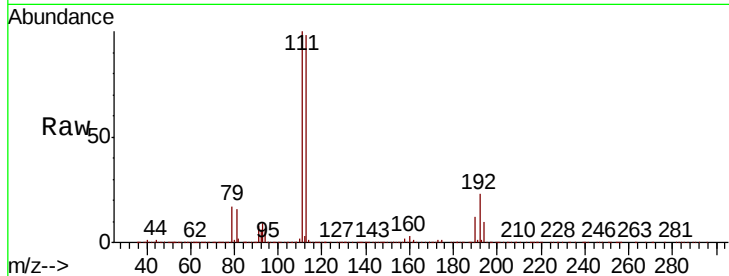




#35  
 Dibromofluoromethane  
 Concen: 48.625 ug/l  
 RT: 5.49 min Scan# 755  
 Delta R.T. 0.00 min  
 Lab File: VX014830.D  
 Acq: 05 Feb 2020 18:14

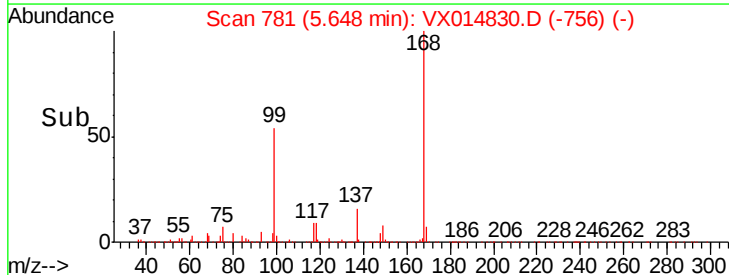
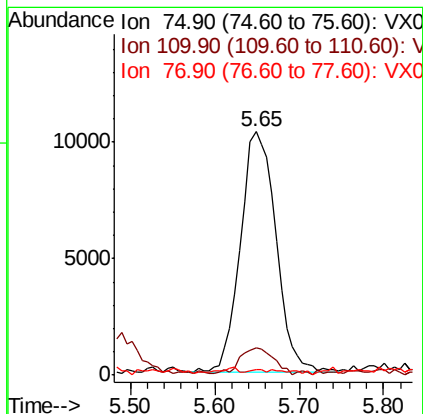
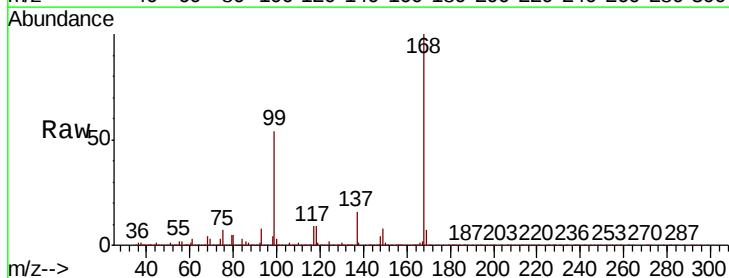
Instrument :  
 MSVOA\_X  
 ClientSampleId :

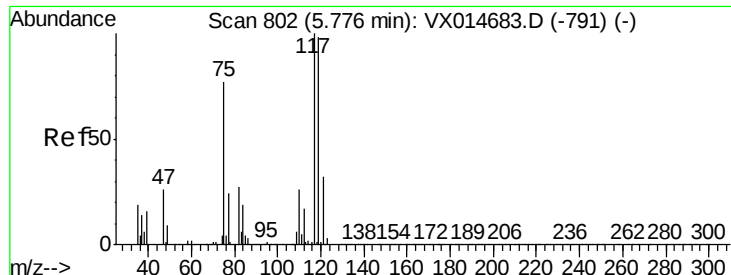
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.1 | 80.7  | 121.1 |
| 192     | 23.4  | 18.5  | 27.7  |



#36  
 1,1-Dichloropropene  
 Concen: 4.742 ug/l  
 RT: 5.65 min Scan# 781  
 Delta R.T. -0.15 min  
 Lab File: VX014830.D  
 Acq: 05 Feb 2020 18:14

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 10.9  | 17.9  | 53.7# |
| 77      | 0.4   | 24.1  | 36.1# |





#38

Carbon Tetrachloride

Concen: 6.413 ug/l

RT: 5.65 min Scan# 781

Delta R.T. -0.13 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Instrument :

MSVOA\_X

ClientSampleId :

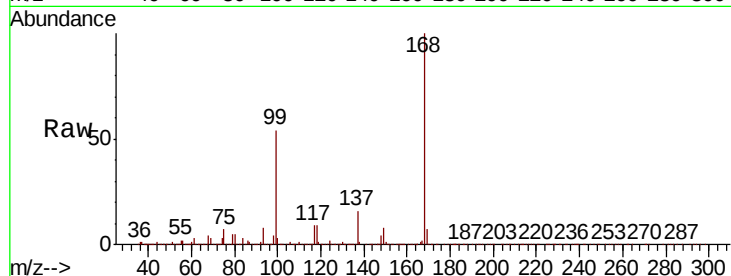
Tot Ion:117 Resp: 38529

Ion Ratio Lower Upper

117 100

119 5.0 77.9 116.9#

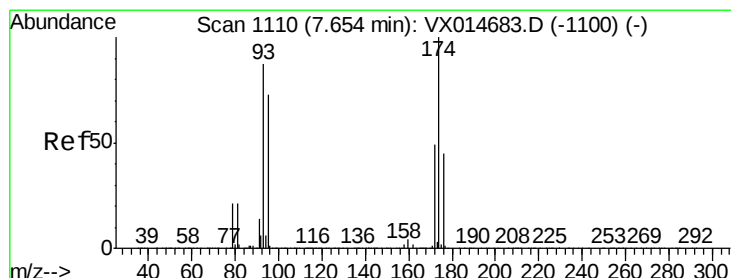
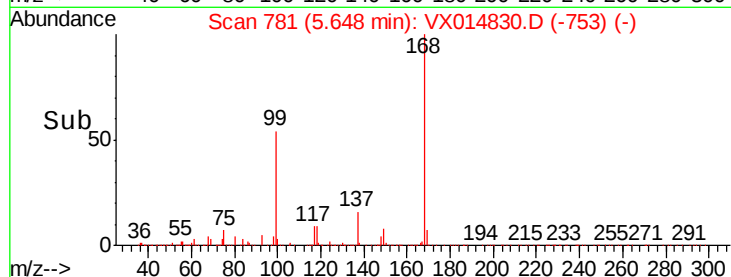
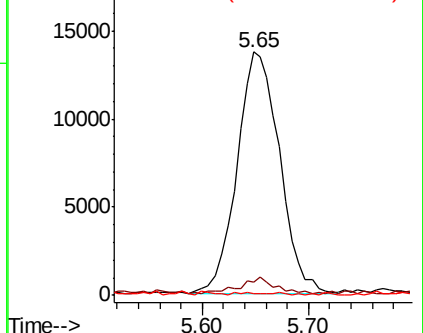
121 0.4 25.4 38.2#



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



#46

Dibromomethane

Concen: 0.306 ug/l

RT: 7.65 min Scan# 1109

Delta R.T. -0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

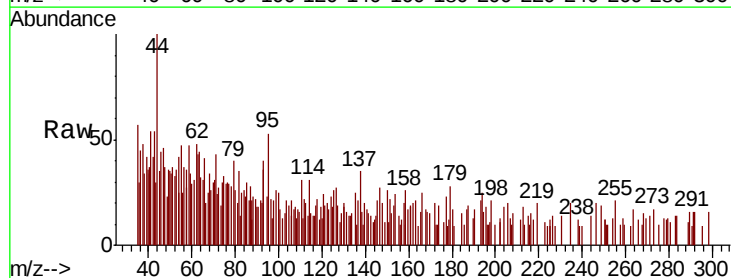
Tgt Ion: 93 Resp: 991

Ion Ratio Lower Upper

93 100

95 46.2 67.0 100.4#

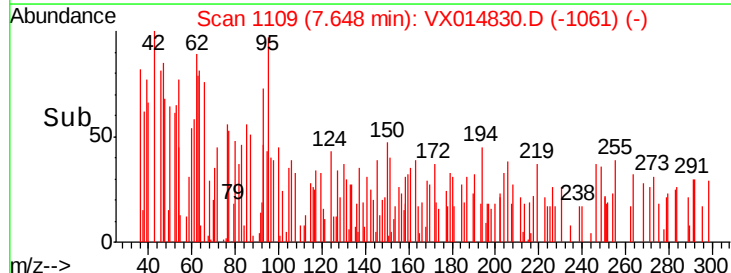
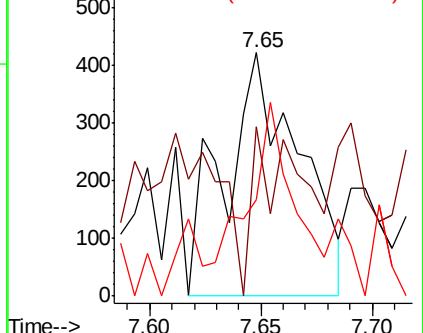
174 58.3 90.2 135.2#

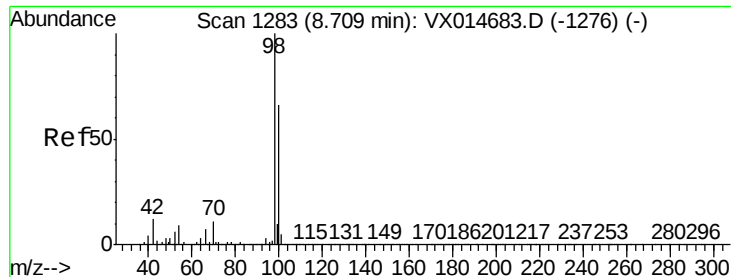


Abundance Ion 92.80 (92.50 to 93.50): VX0

Ion 94.80 (94.50 to 95.50): VX0

Ion 173.70 (173.40 to 174.40): V

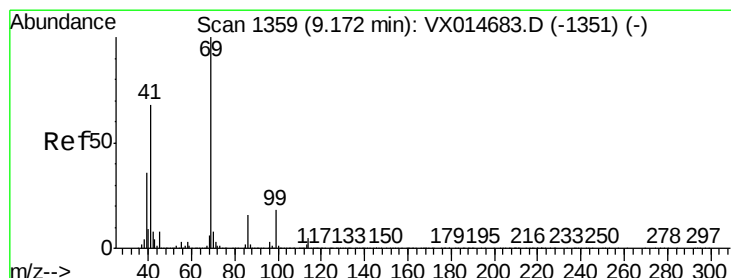
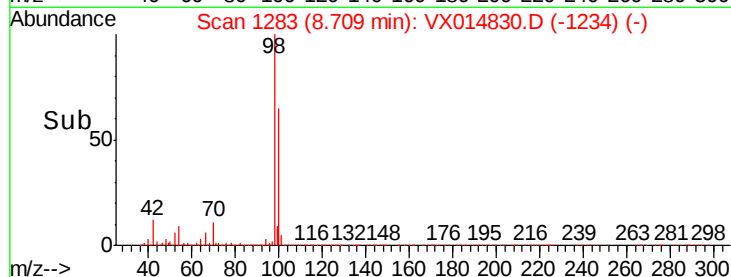
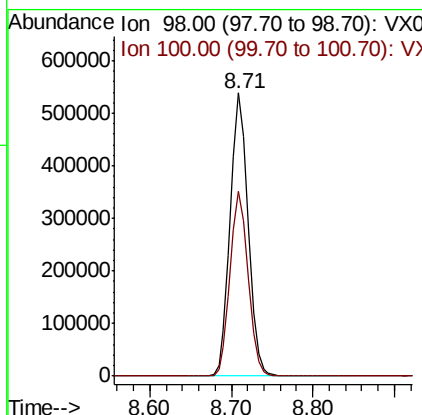
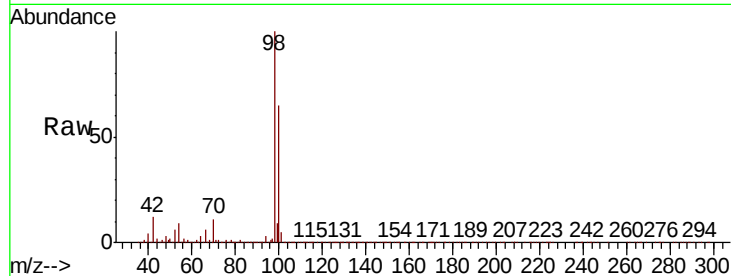




#50  
Toluene-d8  
Concen: 49.497 ug/l  
RT: 8.71 min Scan# 1283  
Delta R.T. 0.00 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

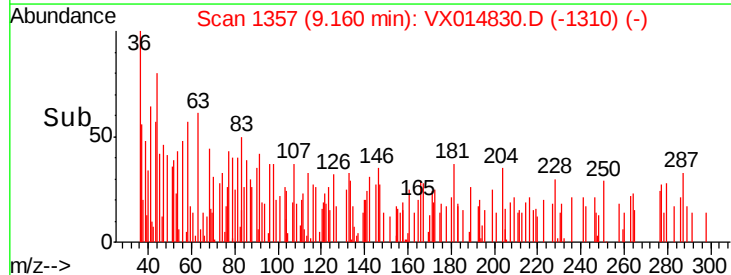
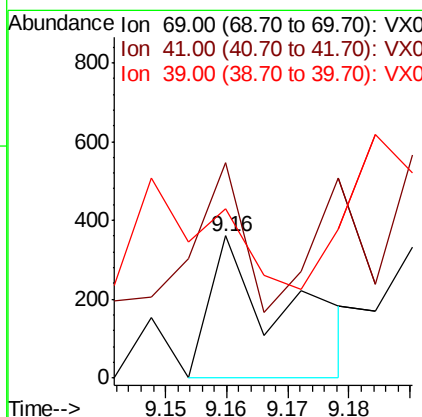
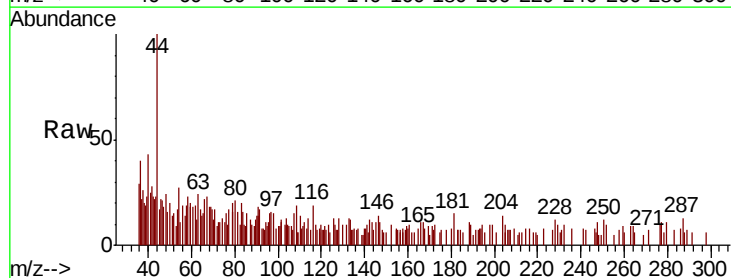
Instrument :  
MSVOA\_X  
ClientSampleId :

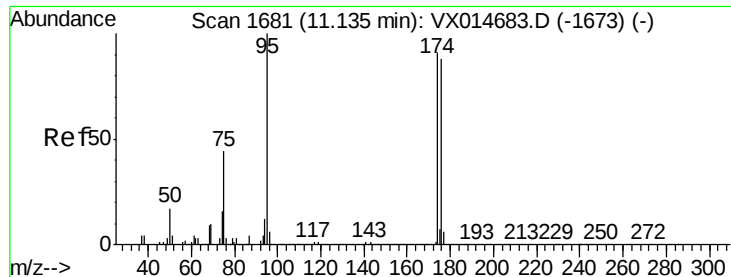
Tot Ion: 98 Resp: 812936  
Ion Ratio Lower Upper  
98 100  
100 65.3 53.0 79.6



#56  
Ethyl methacrylate  
Concen: 1.822 ug/l  
RT: 9.16 min Scan# 1357  
Delta R.T. -0.01 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

Tgt Ion: 69 Resp: 320  
Ion Ratio Lower Upper  
69 100  
41 63.4 54.9 82.3  
39 295.3 29.3 43.9#





#62

4-Bromofluorobenzene

Concen: 47.586 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. -0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Instrument :

MSVOA\_X

ClientSampleId :

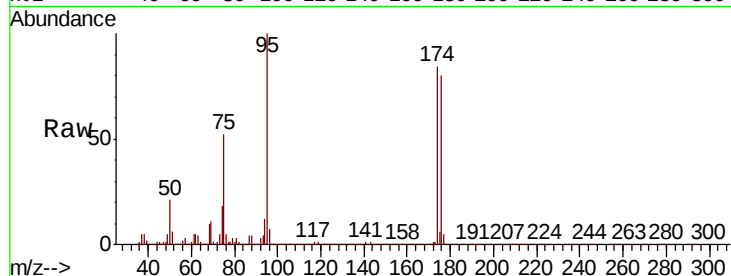
Tot Ion: 95 Resp: 278406

Ion Ratio Lower Upper

95 100

174 90.5 0.0 176.0

176 87.1 0.0 172.2



Abundance Ion 94.90 (94.60 to 95.60): VX014683.D (-1673) (-)

Ion 173.80 (173.50 to 174.50): VX014683.D (-1673) (-)

Ion 175.80 (175.50 to 176.50): VX014683.D (-1673) (-)

11.13

250000

200000

150000

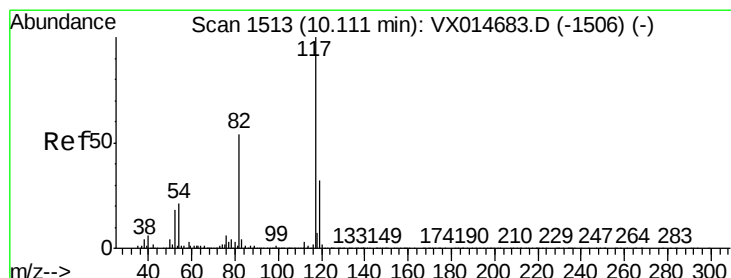
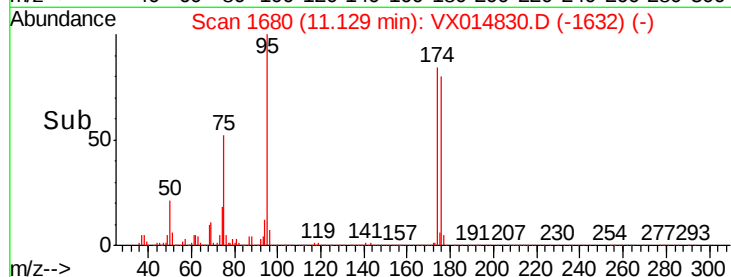
100000

50000

0

11.10 11.20

Time-->



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1512

Delta R.T. -0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

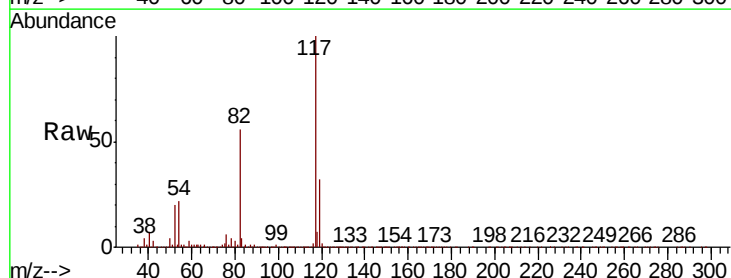
Tgt Ion: 117 Resp: 623395

Ion Ratio Lower Upper

117 100

82 55.7 43.2 64.8

119 31.9 25.8 38.6



Abundance Ion 116.90 (116.60 to 117.60): VX014683.D (-1506) (-)

Ion 82.00 (81.70 to 82.70): VX014683.D (-1506) (-)

Ion 118.90 (118.60 to 119.60): VX014683.D (-1506) (-)

10.10

600000

500000

400000

300000

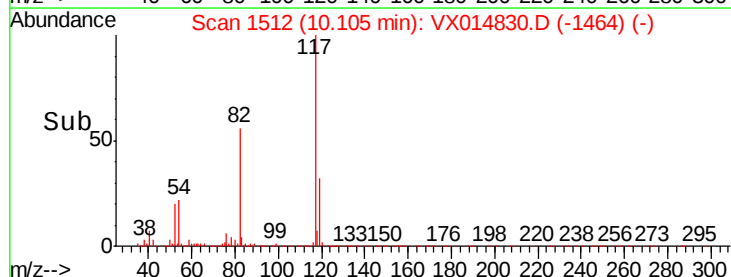
200000

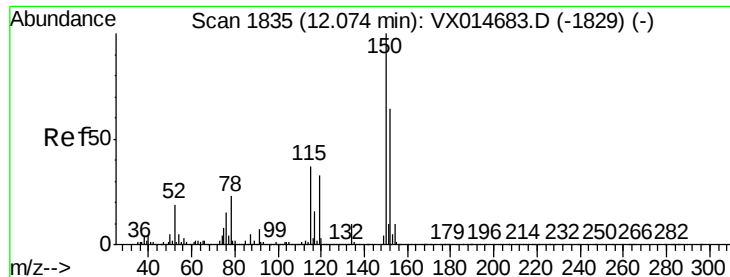
100000

0

10.00 10.10 10.20

Time-->



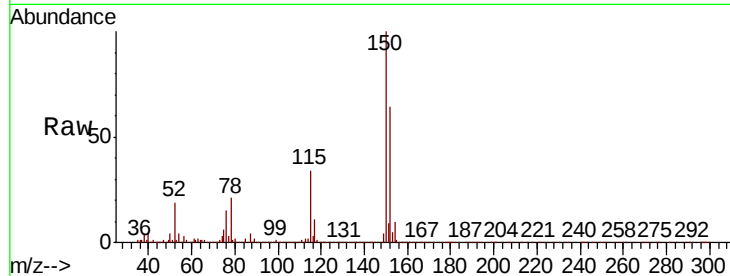


#72

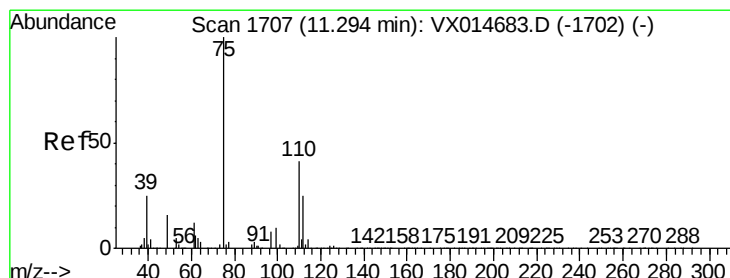
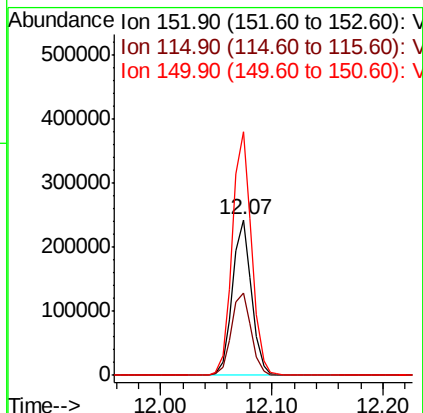
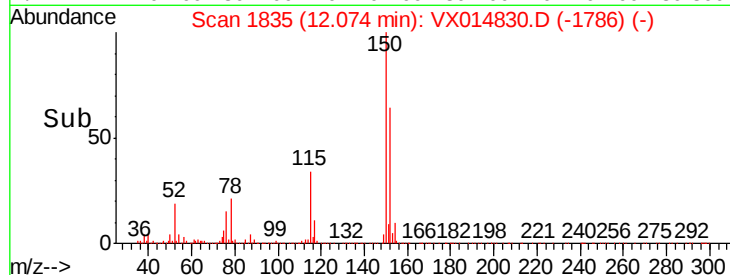
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.07 min Scan# 1835  
Delta R.T. 0.00 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

Instrument :  
MSVOA\_X  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 55.0  | 39.4  | 118.1 |
| 150     | 158.0 | 0.0   | 351.2 |



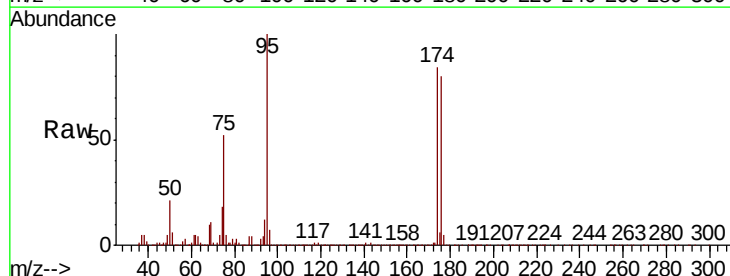
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



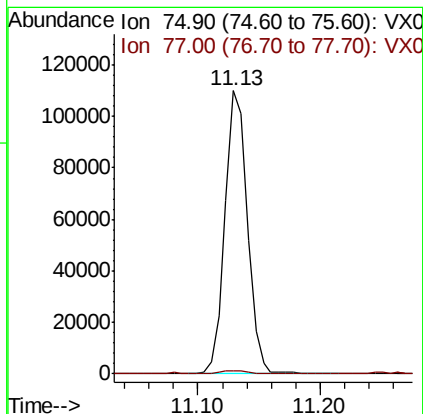
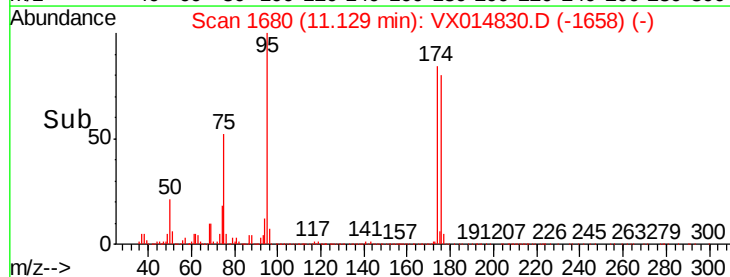
#76

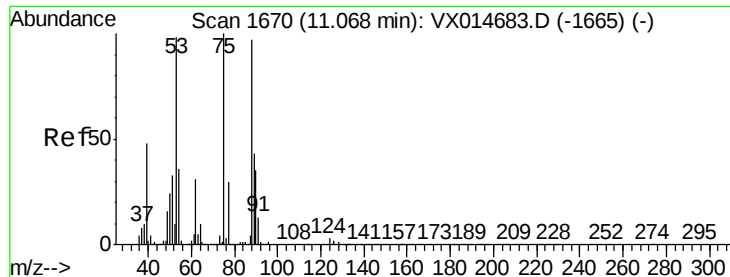
1,2,3-Trichloropropane  
Concen: 20.932 ug/l  
RT: 11.13 min Scan# 1680  
Delta R.T. -0.16 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 1.3   | 18.7  | 56.1# |



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: 59.568 ug/l

RT: 11.13 min Scan# 1680

Delta R.T. 0.06 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

Instrument :

MSVOA\_X

ClientSampleId :

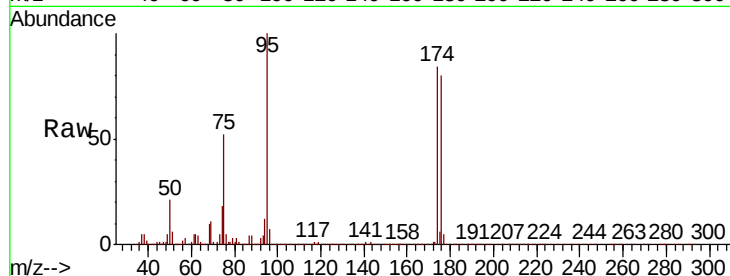
Tot Ion: 75 Resp: 139000

Ion Ratio Lower Upper

75 100

53 0.3 78.8 118.2#

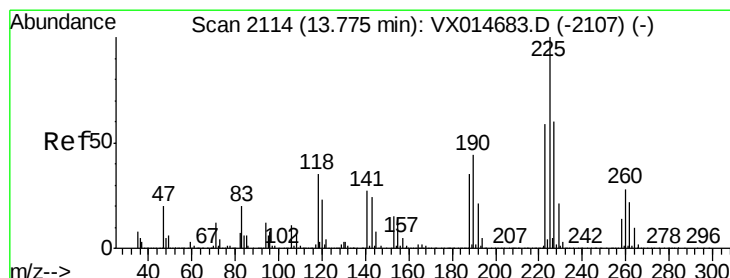
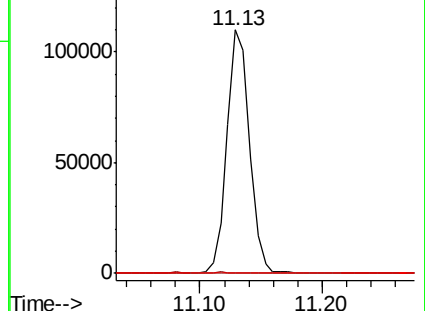
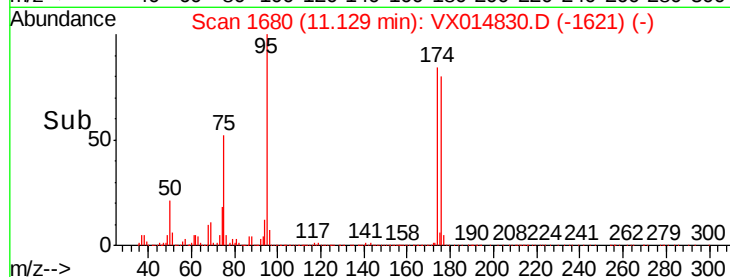
89 0.3 35.4 53.0#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



#94

Hexachlorobutadiene

Concen: 0.215 ug/l

RT: 13.78 min Scan# 2115

Delta R.T. 0.01 min

Lab File: VX014830.D

Acq: 05 Feb 2020 18:14

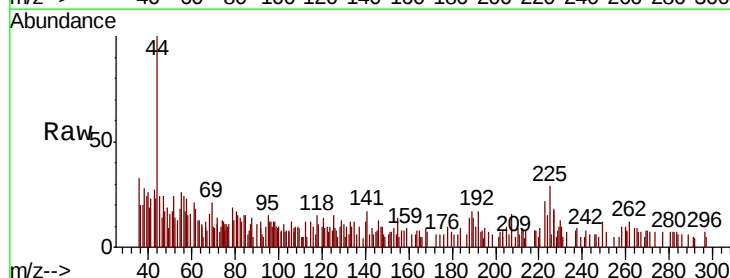
Tgt Ion: 225 Resp: 686

Ion Ratio Lower Upper

225 100

223 65.2 30.6 91.8

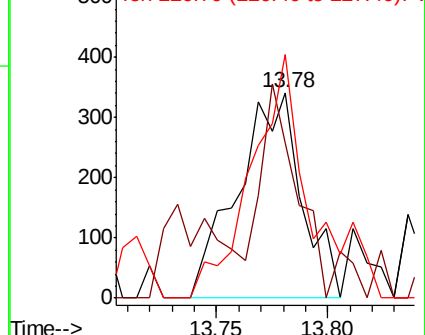
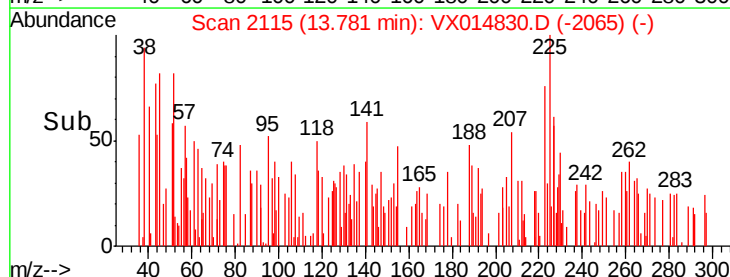
227 109.0 31.4 94.0#

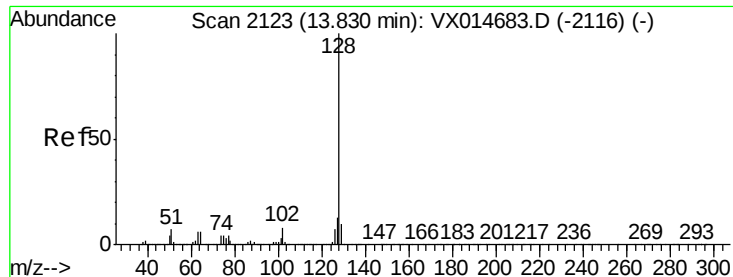


Abundance Ion 224.70 (224.40 to 225.40): V

Ion 222.70 (222.40 to 223.40): V

Ion 226.70 (226.40 to 227.40): V





#95  
Naphthalene  
Concen: 1.089 ug/l  
RT: 13.84 min Scan# 2124  
Delta R.T. 0.01 min  
Lab File: VX014830.D  
Acq: 05 Feb 2020 18:14

Instrument :  
MSVOA\_X  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 19.1  | 10.3  | 15.5# |
| 129     | 18.6  | 8.6   | 12.8# |

