

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX052220\  
 Data File : VX016404.D  
 Acq On : 22 May 2020 12:12  
 Operator : JC/SP  
 Sample : L2728-02  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: May 23 01:33:37 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X050420W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed May 06 06:43:32 2020  
 Response via : Initial Calibration

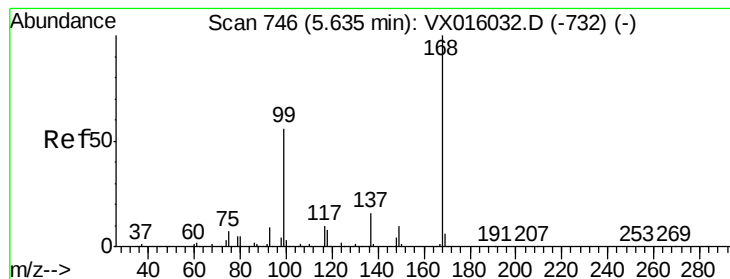
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.64  | 168  | 216576   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 359888   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 353689   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 169807   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.03  | 65   | 125311   | 43.97 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 87.94%  |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 105572   | 46.30 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.60%  |          |
| 50) Toluene-d8              | 8.70  | 98   | 445853   | 50.75 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.50% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 173123   | 51.81 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.62% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol         | 3.00  | 59   | 440      | 0.611     | ug/l # | 72     |
| 13) Acrolein                   | 2.28  | 56   | 275      | 0.610     | ug/l # | 28     |
| 16) Acetone                    | 2.42  | 43   | 12404    | 9.755     | ug/l   | 97     |
| 17) Carbon Disulfide           | 2.56  | 76   | 934      | Below Cal | #      | 80     |
| 18) Methyl Acetate             | 2.75  | 43   | 2757     | 0.882     | ug/l   | 97     |
| 20) Methylene Chloride         | 2.84  | 84   | 4790     | 1.827     | ug/l   | 93     |
| 25) 2-Butanone                 | 4.65  | 43   | 2520     | 1.230     | ug/l # | 88     |
| 29) Tetrahydrofuran            | 5.11  | 42   | 622      | 0.458     | ug/l # | 90     |
| 31) Cyclohexane                | 5.63  | 56   | 3636     | 0.918     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 15519    | 4.381     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 21253    | 5.902     | ug/l # | 14     |
| 43) Isopropyl Acetate          | 6.41  | 43   | 59270    | 9.047     | ug/l   | 95     |
| 48) Methyl methacrylate        | 7.65  | 41   | 3713     | 1.196     | ug/l # | 14     |
| 49) 1,4-Dioxane                | 7.75  | 88   | 47       | 0.631     | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 8.59  | 43   | 54812    | 13.672    | ug/l # | 53     |
| 54) cis-1,3-Dichloropropene    | 8.59  | 75   | 28700    | 6.348     | ug/l # | 54     |
| 56) Ethyl methacrylate         | 9.29  | 69   | 871      | 0.210     | ug/l # | 1      |
| 57) 1,3-Dichloropropane        | 9.52  | 76   | 4894     | 1.103     | ug/l # | 42     |
| 59) 2-Hexanone                 | 9.52  | 43   | 57564    | 18.284    | ug/l # | 52     |
| 75) 1,1,2,2-Tetrachloroethane  | 11.13 | 83   | 125      | 2.103     | ug/l # | 1      |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 82130    | 21.314    | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 82130    | 50.793    | ug/l # | 13     |
| 94) Hexachlorobutadiene        | 13.76 | 225  | 103      | 0.582     | ug/l   | 73     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.64 min Scan# 746

Delta R.T. 0.00 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

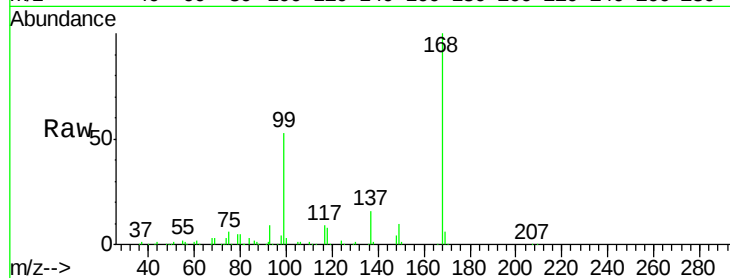
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion:168 Resp: 216576

Ion Ratio Lower Upper

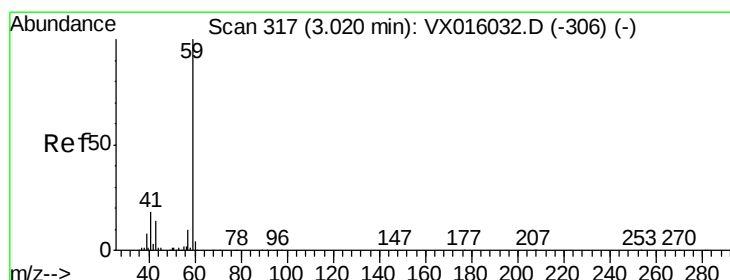
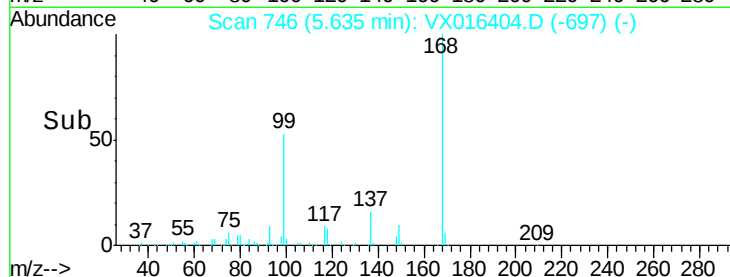
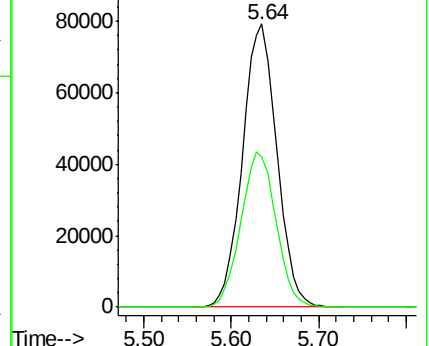
168 100

99 53.3 45.0 67.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#11

Tert butyl alcohol

Concen: 0.611 ug/l

RT: 3.00 min Scan# 314

Delta R.T. -0.02 min

Lab File: VX016404.D

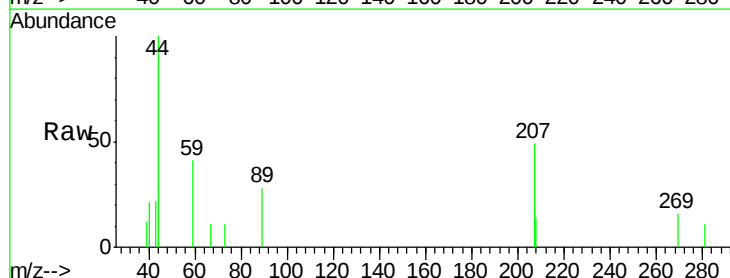
Acq: 22 May 2020 12:12

Tgt Ion: 59 Resp: 440

Ion Ratio Lower Upper

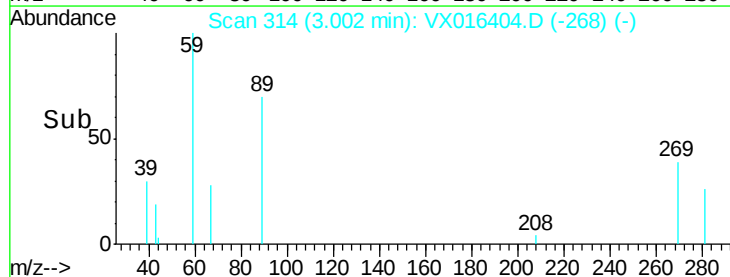
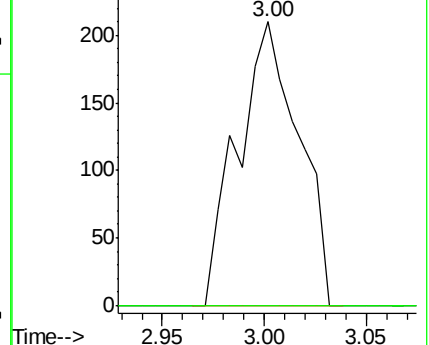
59 100

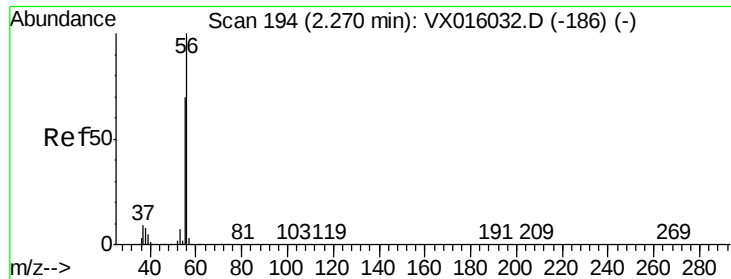
57 0.0 8.2 12.4#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

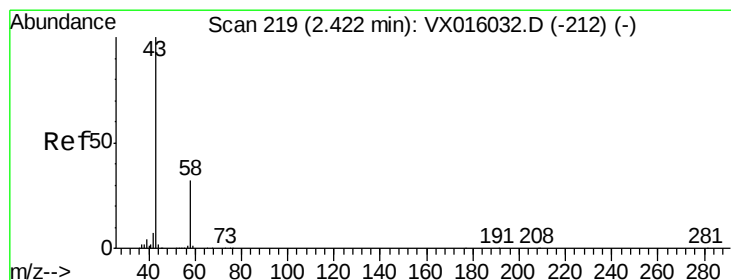
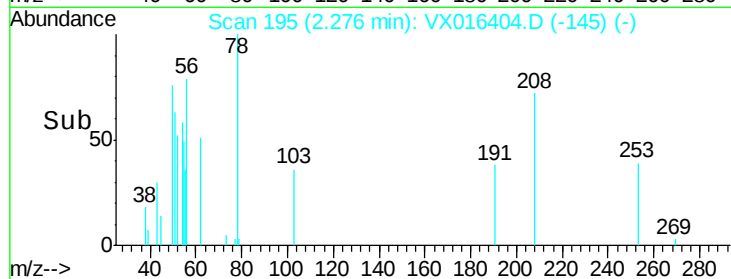
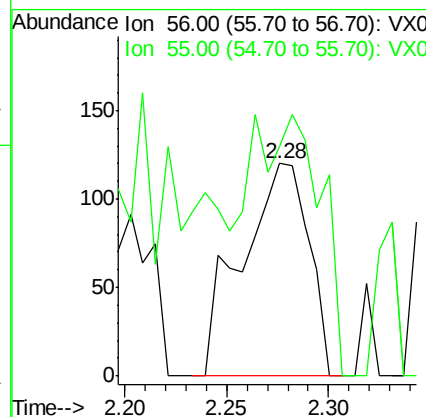
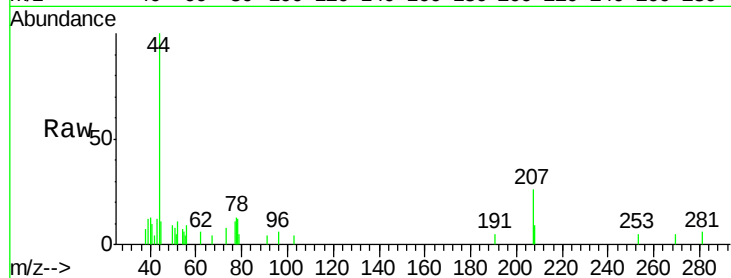




#13  
Acrolein  
Concen: 0.610 ug/l  
RT: 2.28 min Scan# 195  
Delta R.T. 0.01 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

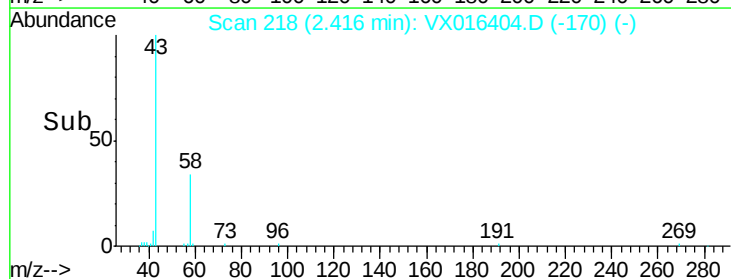
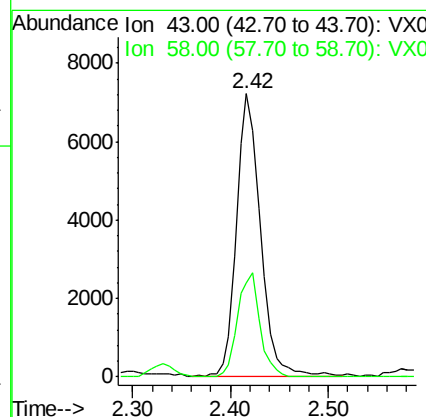
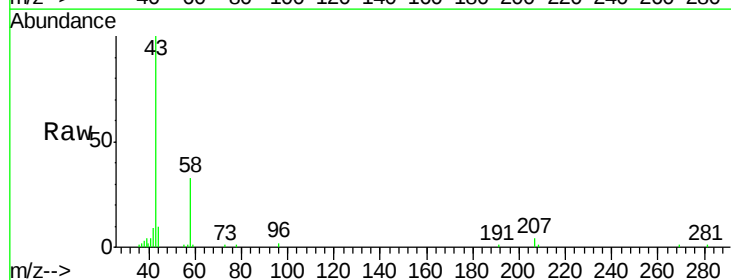
Instrument :  
MSVOA\_X  
ClientSampled :

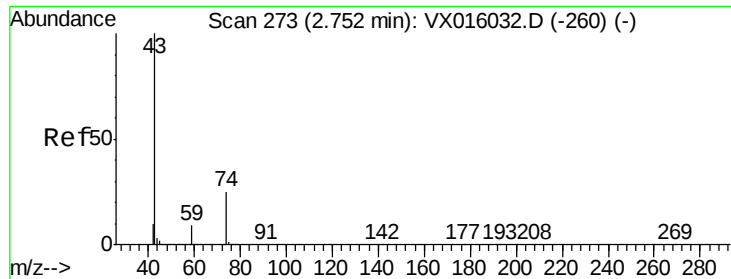
Tot Ion: 56 Resp: 275  
Ion Ratio Lower Upper  
56 100  
55 129.8 56.5 84.7#



#16  
Acetone  
Concen: 9.755 ug/l  
RT: 2.42 min Scan# 218  
Delta R.T. -0.01 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

Tgt Ion: 43 Resp: 12404  
Ion Ratio Lower Upper  
43 100  
58 33.1 25.4 38.0

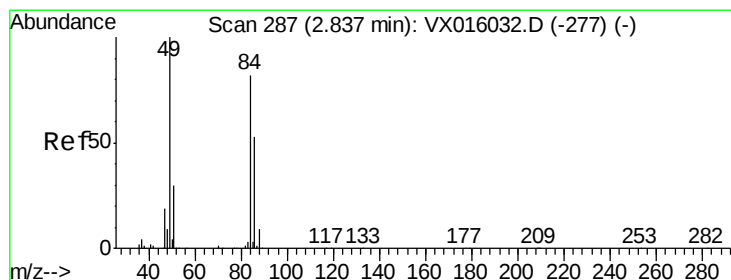
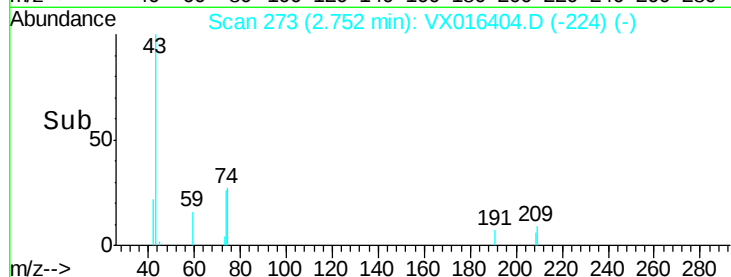
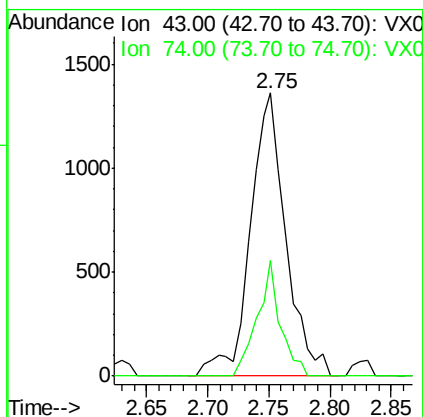
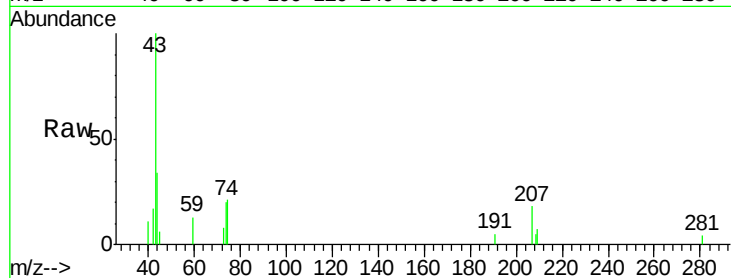




#18  
Methvl Acetate  
Concen: 0.882 ug/l  
RT: 2.75 min Scan# 273  
Delta R.T. 0.00 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

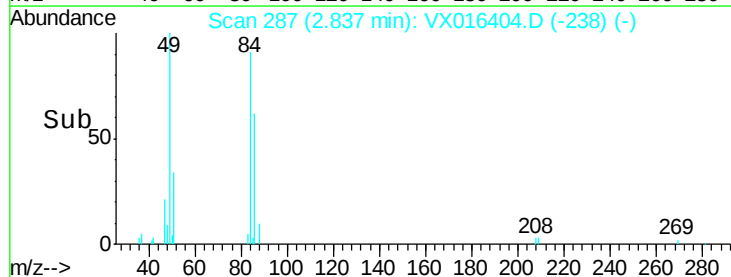
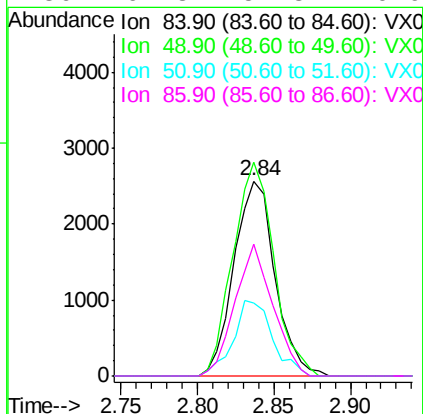
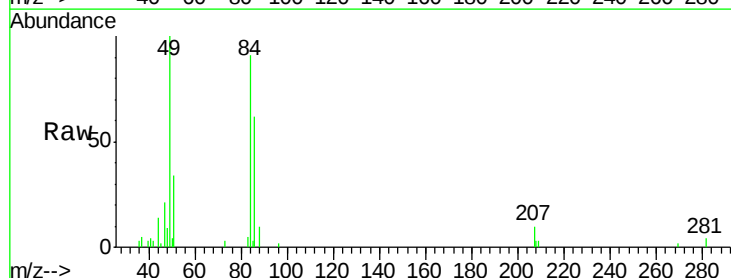
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MSVOA\_X  
ClientSampleId :

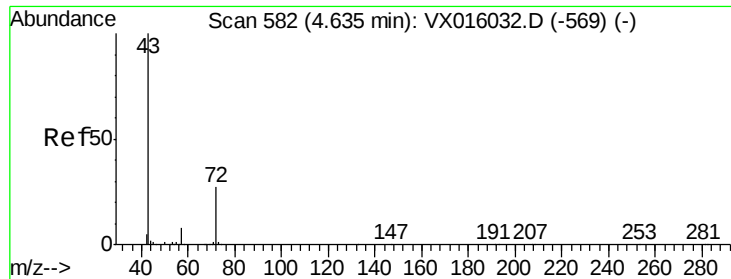
Tot Ion: 43 Resp: 2757  
Ion Ratio Lower Upper  
43 100  
74 26.8 20.2 30.2



#20  
Methylene Chloride  
Concen: 1.827 ug/l  
RT: 2.84 min Scan# 287  
Delta R.T. 0.00 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

Tgt Ion: 84 Resp: 4790  
Ion Ratio Lower Upper  
84 100  
49 109.5 97.3 145.9  
51 37.2 29.3 43.9  
86 67.3 51.3 76.9





#25

2-Butanone

Concen: 1.230 ug/l

RT: 4.65 min Scan# 584

Delta R.T. 0.01 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

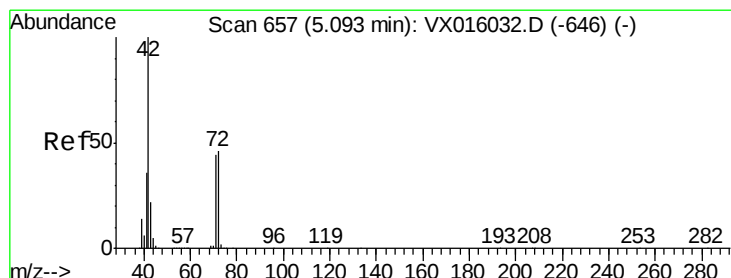
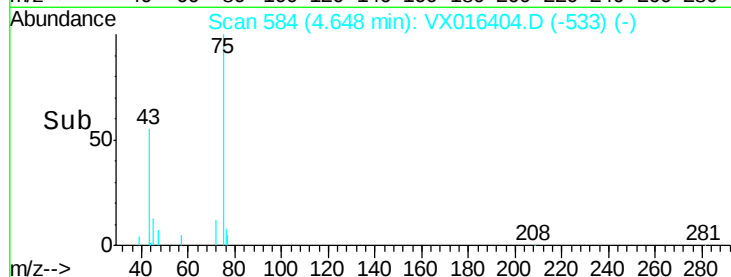
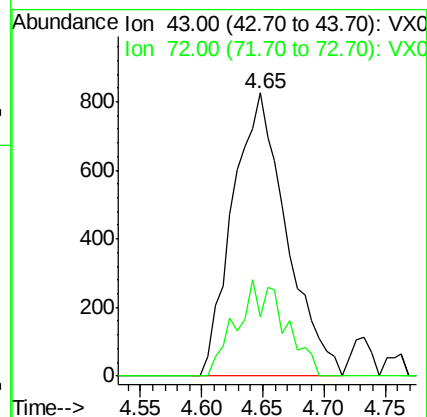
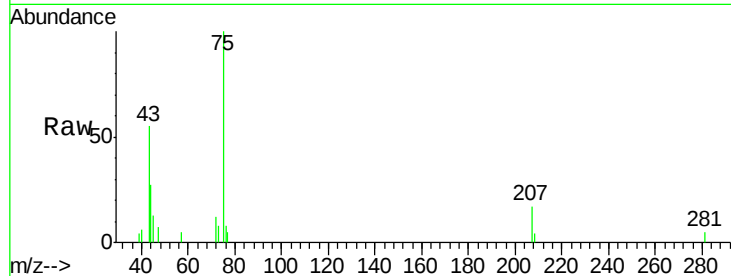
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 43 Resp: 2520

Ion Ratio Lower Upper

43 100

72 21.1 21.8 32.8#



#29

Tetrahydrofuran

Concen: 0.458 ug/l

RT: 5.11 min Scan# 660

Delta R.T. 0.02 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

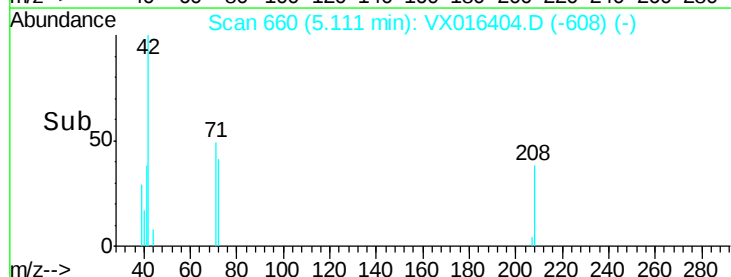
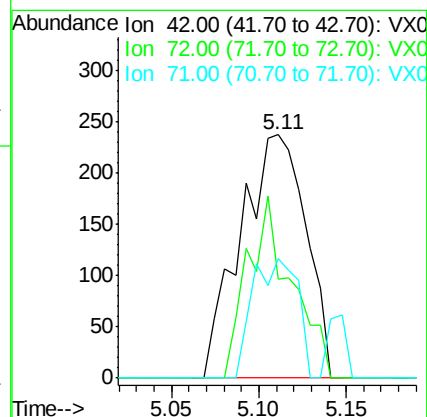
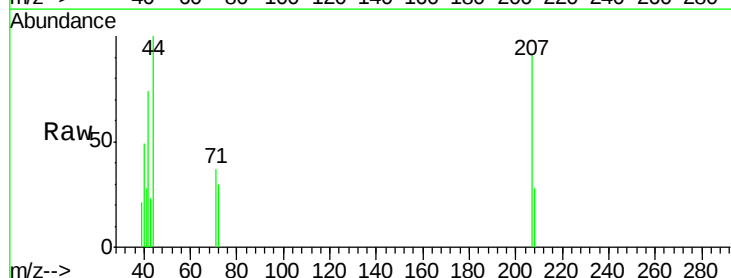
Tgt Ion: 42 Resp: 622

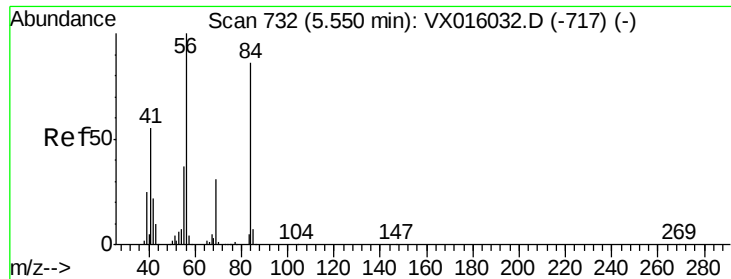
Ion Ratio Lower Upper

42 100

72 50.2 37.1 55.7

71 33.8 34.5 51.7#

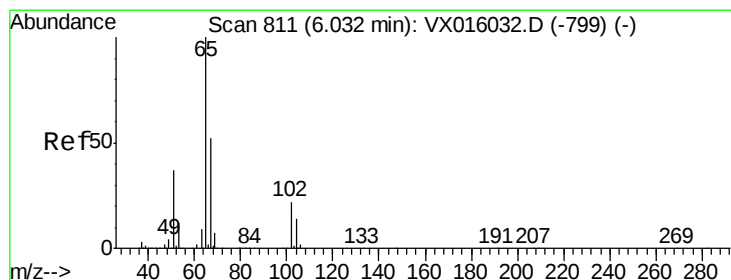
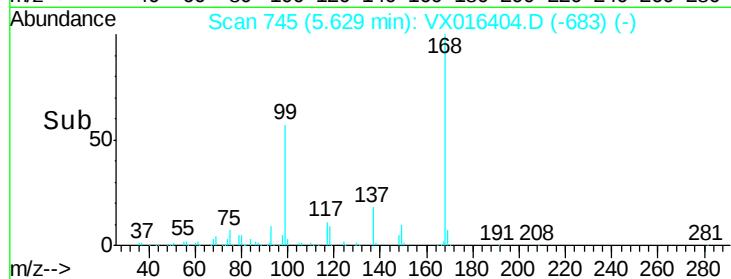
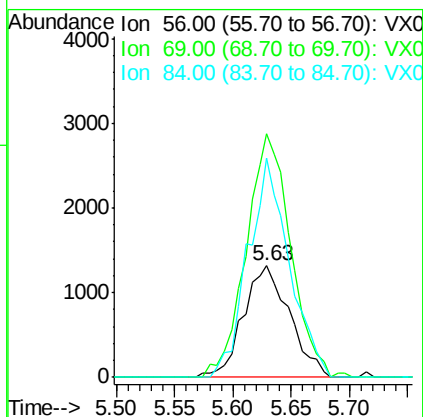
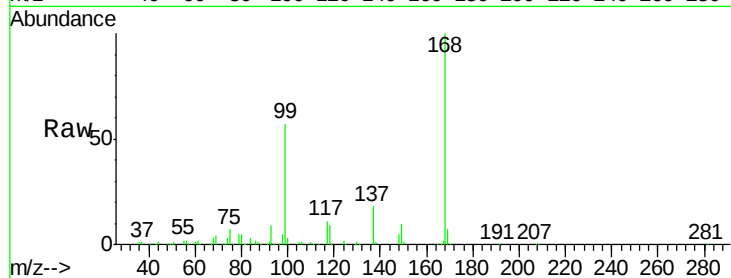




#31  
Cvclohexane  
Concen: 0.918 ug/l  
RT: 5.63 min Scan# 745  
Delta R.T. 0.08 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

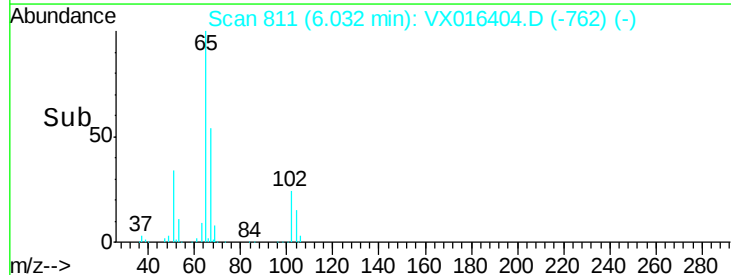
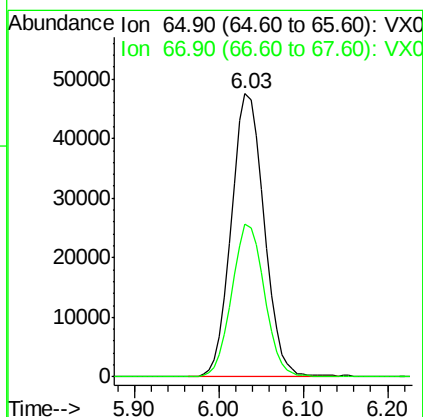
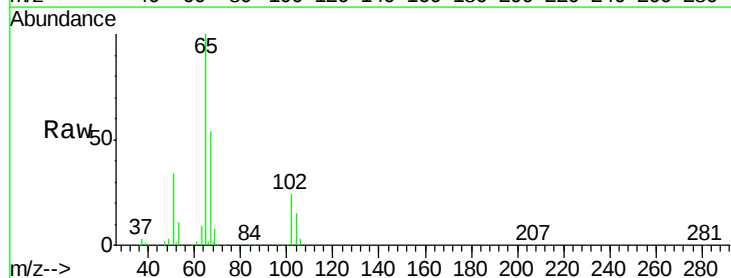
Instrument :  
MSVOA\_X  
ClientSampled :

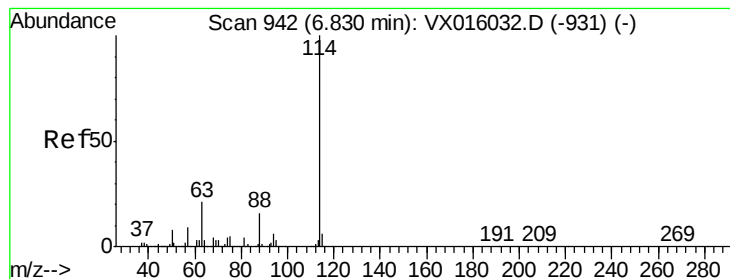
Tot Ion: 56 Resp: 3636  
Ion Ratio Lower Upper  
56 100  
69 218.7 25.0 37.6#  
84 197.0 69.0 103.6#



#33  
1,2-Dichloroethane-d4  
Concen: 43.970 ug/l  
RT: 6.03 min Scan# 811  
Delta R.T. 0.00 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

Tgt Ion: 65 Resp: 125311  
Ion Ratio Lower Upper  
65 100  
67 53.9 0.0 104.8





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. 0.00 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

Instrument :

MSVOA\_X

ClientSampleId :

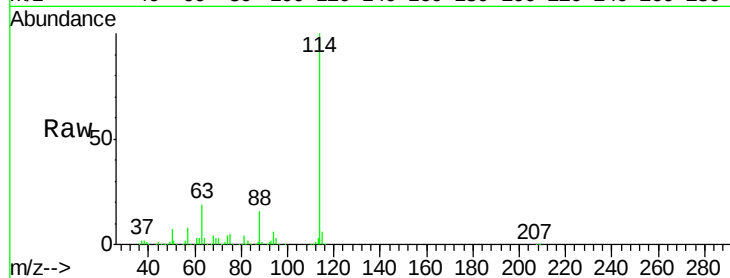
Tot Ion:114 Resp: 359888

Ion Ratio Lower Upper

114 100

63 19.5 0.0 42.8

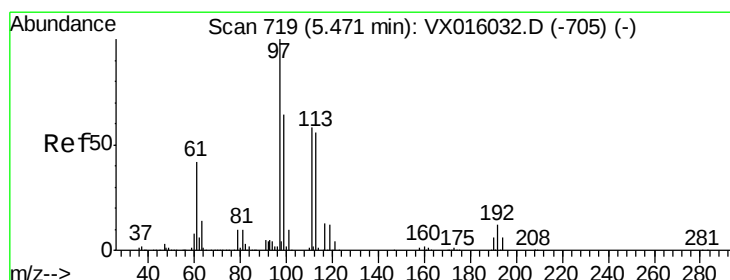
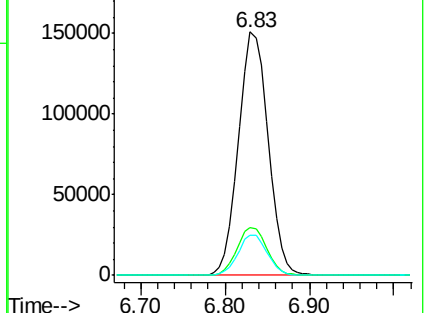
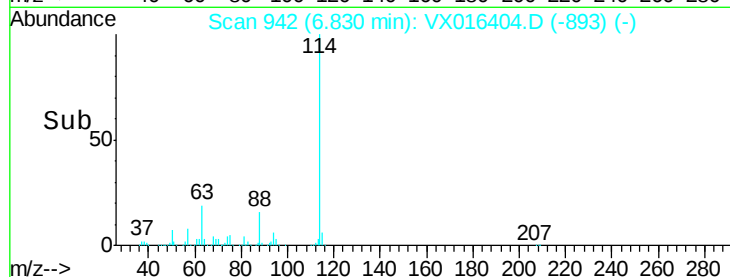
88 16.5 0.0 31.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 46.303 ug/l

RT: 5.46 min Scan# 718

Delta R.T. -0.01 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

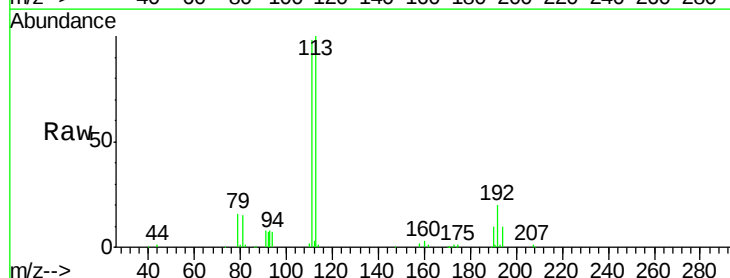
Tgt Ion:113 Resp: 105572

Ion Ratio Lower Upper

113 100

111 101.5 81.6 122.4

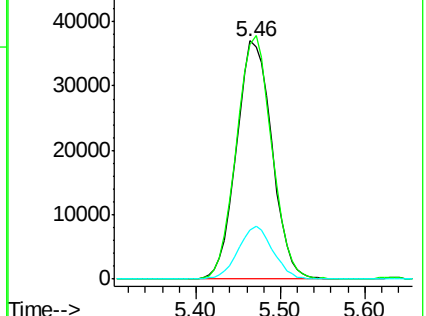
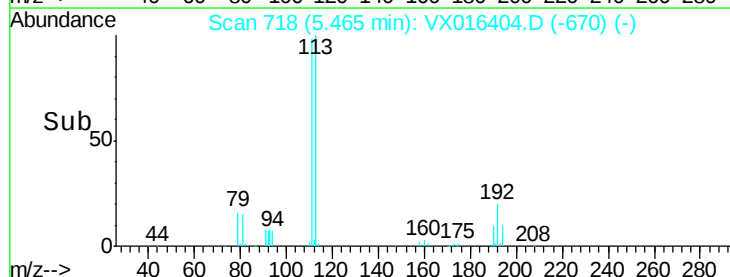
192 21.6 17.0 25.4

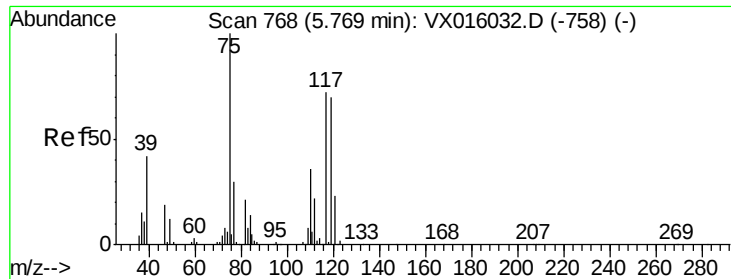


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 4.381 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.14 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

Instrument :

MSVOA\_X

ClientSampleId :

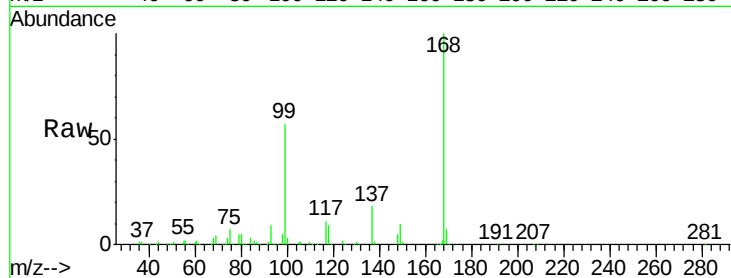
Tot Ion: 75 Resp: 15519

Ion Ratio Lower Upper

75 100

110 9.5 18.1 54.1#

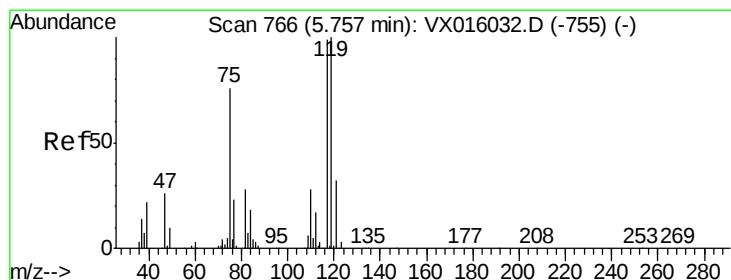
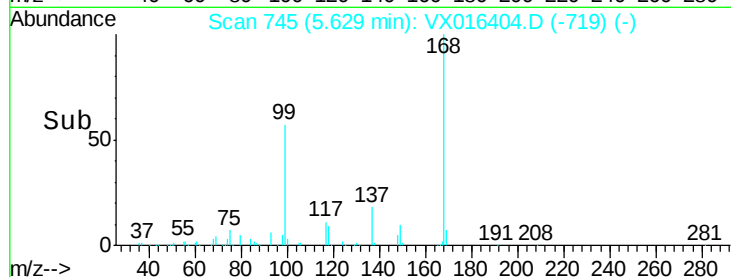
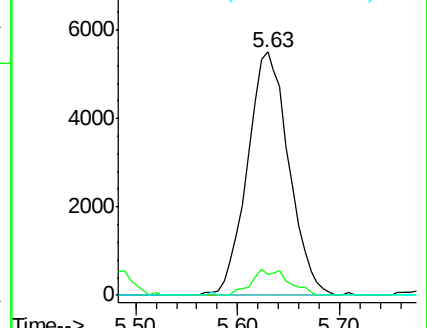
77 0.0 25.0 37.6#



Abundance Ion 74.90 (74.60 to 75.60): VX016404.D (-719) (-)

Ion 109.90 (109.60 to 110.60): VX016404.D (-719) (-)

Ion 76.90 (76.60 to 77.60): VX016404.D (-719) (-)



#38

Carbon Tetrachloride

Concen: 5.902 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.13 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

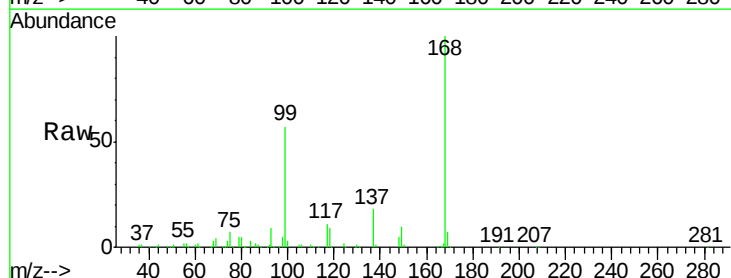
Tgt Ion: 117 Resp: 21253

Ion Ratio Lower Upper

117 100

119 4.4 80.3 120.5#

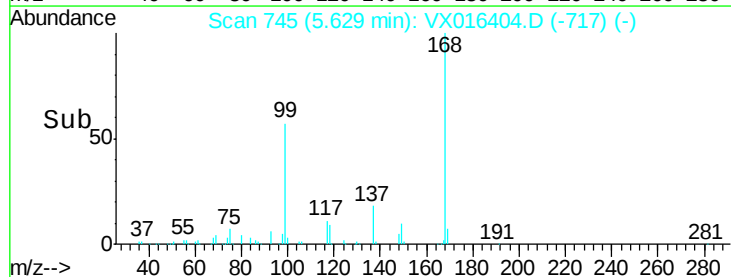
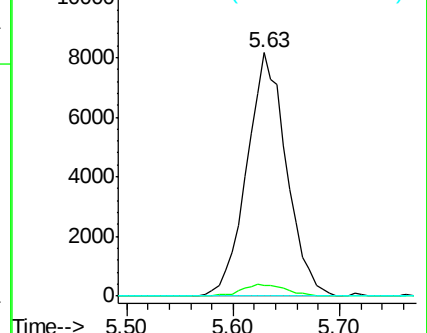
121 0.0 25.7 38.5#

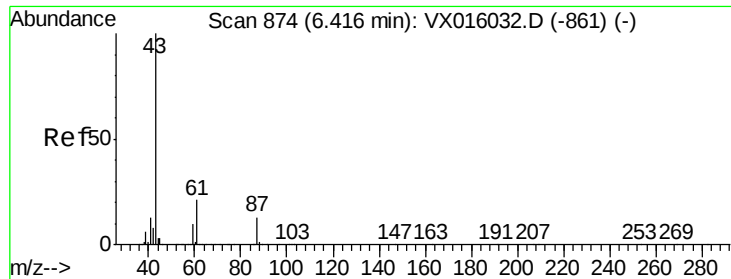


Abundance Ion 116.80 (116.50 to 117.50): VX016404.D (-717) (-)

Ion 118.80 (118.50 to 119.50): VX016404.D (-717) (-)

Ion 120.80 (120.50 to 121.50): VX016404.D (-717) (-)



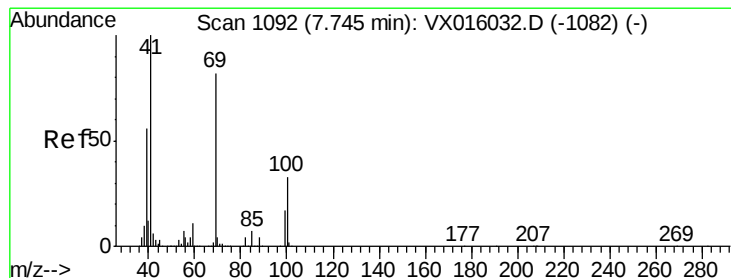
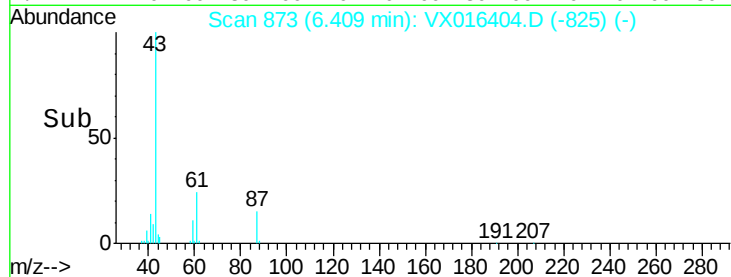
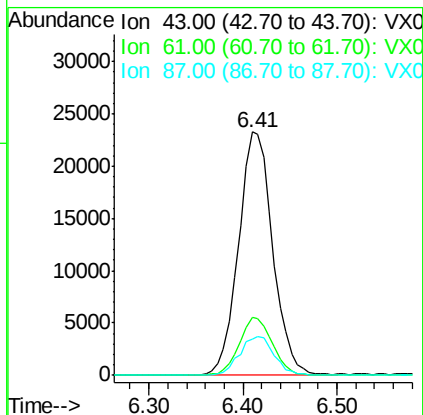
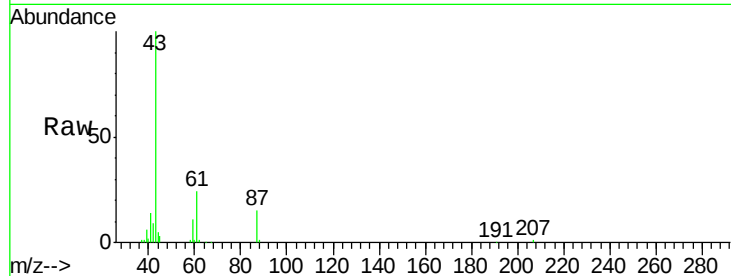


#43

Isopropyl Acetate  
 Concen: 9.047 ug/l  
 RT: 6.41 min Scan# 873  
 Delta R.T. -0.01 min  
 Lab File: VX016404.D  
 Acq: 22 May 2020 12:12

Instrument :  
 MSVOA\_X  
 ClientSampleId :

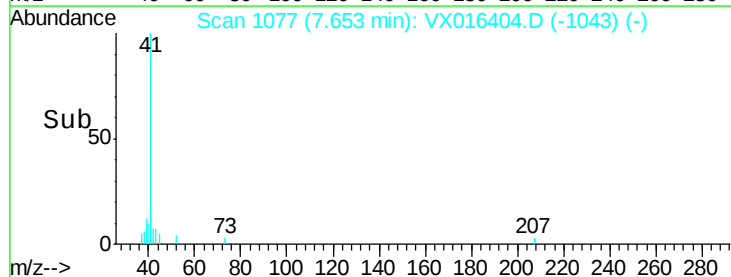
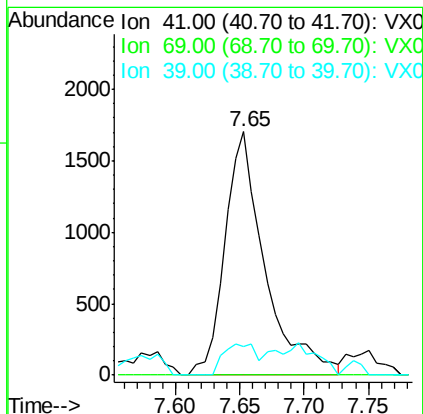
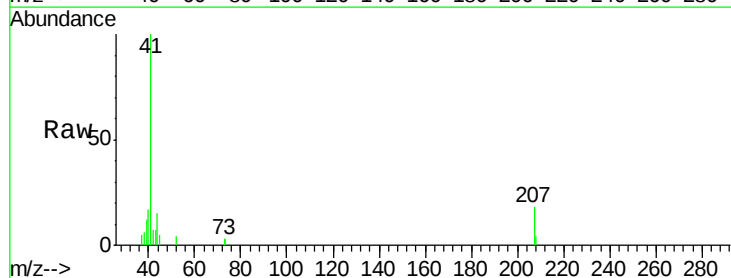
| Tot Ion   | 43    | Resp  | 59270 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 43        | 100   |       |       |
| 61        | 23.1  | 17.0  | 25.4  |
| 87        | 16.0  | 11.0  | 16.6  |

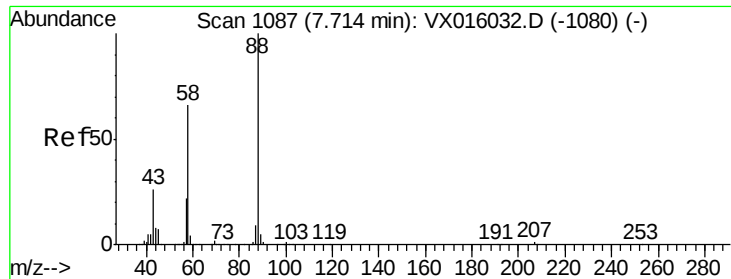


#48

Methyl methacrylate  
 Concen: 1.196 ug/l  
 RT: 7.65 min Scan# 1077  
 Delta R.T. -0.09 min  
 Lab File: VX016404.D  
 Acq: 22 May 2020 12:12

| Tgt Ion   | 41    | Resp  | 3713   |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 41        | 100   |       |        |
| 69        | 0.0   | 67.8  | 101.6# |
| 39        | 0.0   | 44.6  | 67.0#  |

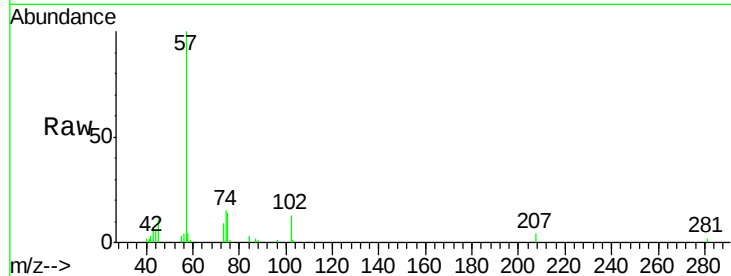




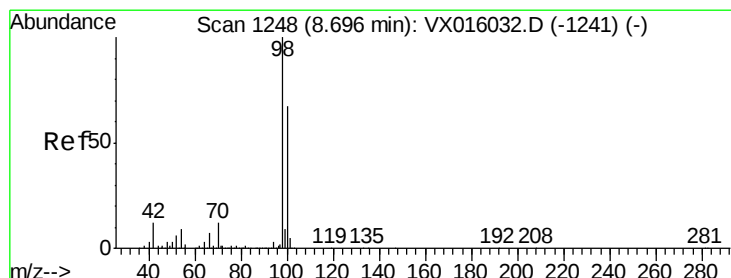
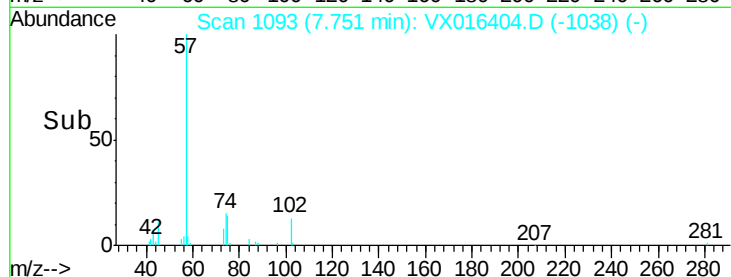
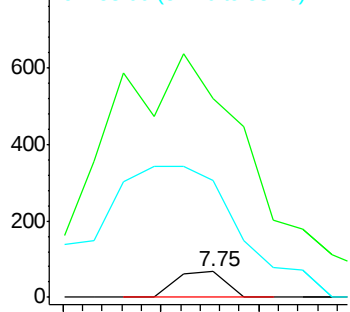
#49  
 1,4-Dioxane  
 Concen: 0.631 ug/l  
 RT: 7.75 min Scan# 1093  
 Delta R.T. 0.04 min  
 Lab File: VX016404.D  
 Acq: 22 May 2020 12:12

Instrument :  
 MSVOA\_X  
 ClientSampled :

Tot Ion: 88 Resp: 47  
 Ion Ratio Lower Upper  
 88 100  
 43 0.0 25.3 37.9#  
 58 1468.1 55.9 83.9#

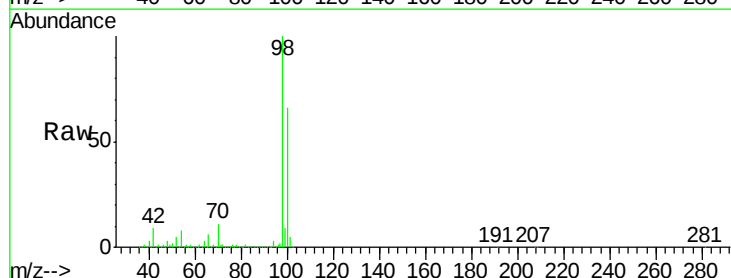


Abundance Ion 88.00 (87.70 to 88.70): VX0  
 Ion 43.00 (42.70 to 43.70): VX0  
 Ion 58.00 (57.70 to 58.70): VX0

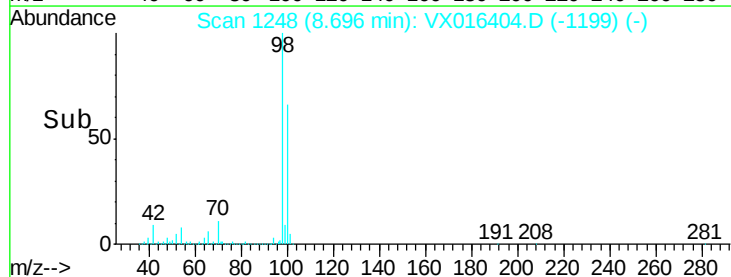
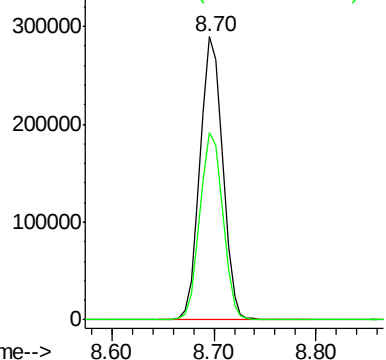


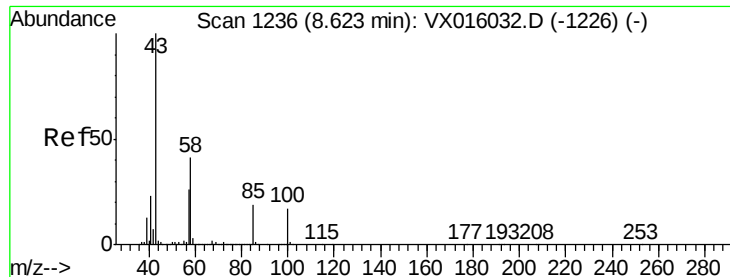
#50  
 Toluene-d8  
 Concen: 50.751 ug/l  
 RT: 8.70 min Scan# 1248  
 Delta R.T. 0.00 min  
 Lab File: VX016404.D  
 Acq: 22 May 2020 12:12

Tgt Ion: 98 Resp: 445853  
 Ion Ratio Lower Upper  
 98 100  
 100 66.9 53.7 80.5



Abundance Ion 98.00 (97.70 to 98.70): VX0  
 Ion 100.00 (99.70 to 100.70): VX0





#51

4-Methyl-2-Pentanone

Concen: 13.672 ug/l

RT: 8.59 min Scan# 1231

Delta R.T. -0.03 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

Instrument :

MSVOA\_X

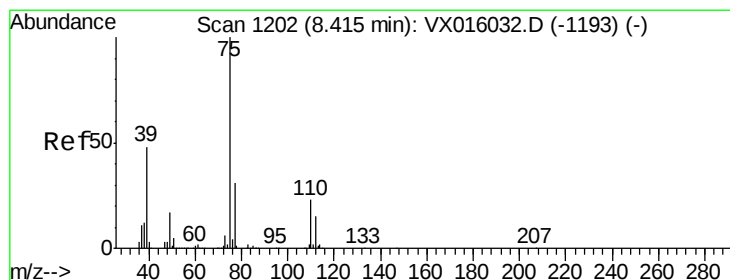
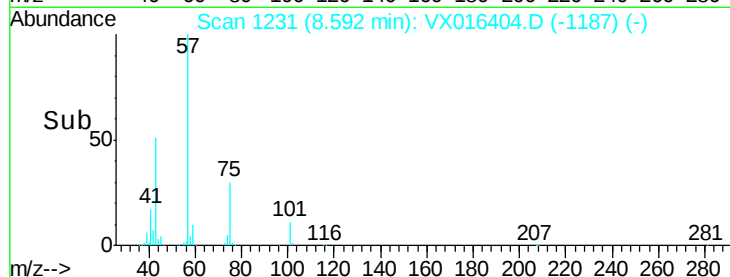
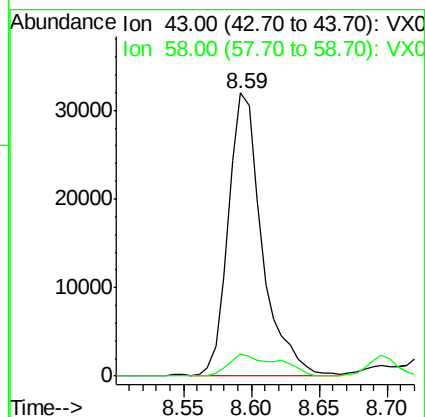
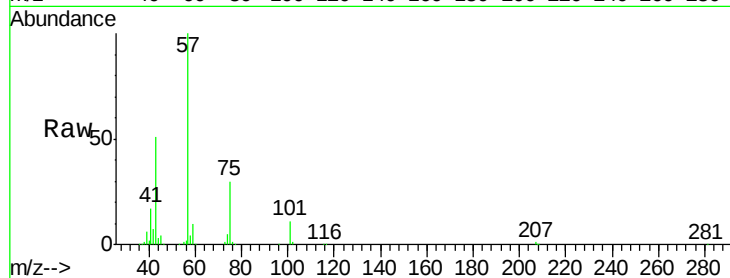
ClientSampleId :

Tot Ion: 43 Resp: 54812

Ion Ratio Lower Upper

43 100

58 11.5 33.0 49.4#



#54

cis-1,3-Dichloropropene

Concen: 6.348 ug/l

RT: 8.59 min Scan# 1231

Delta R.T. 0.18 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

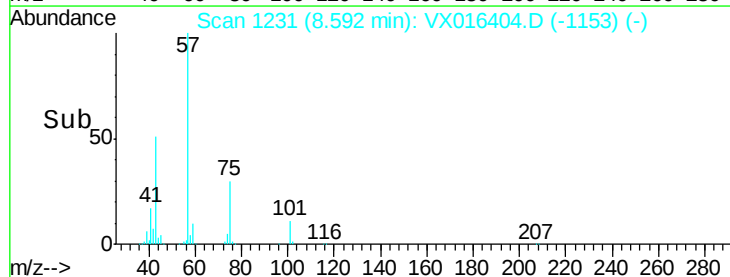
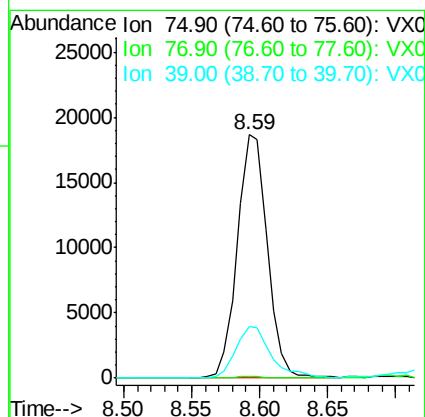
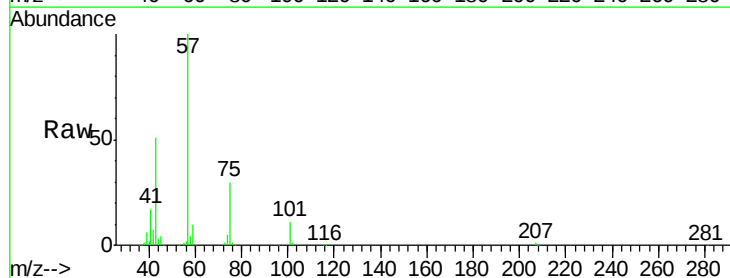
Tgt Ion: 75 Resp: 28700

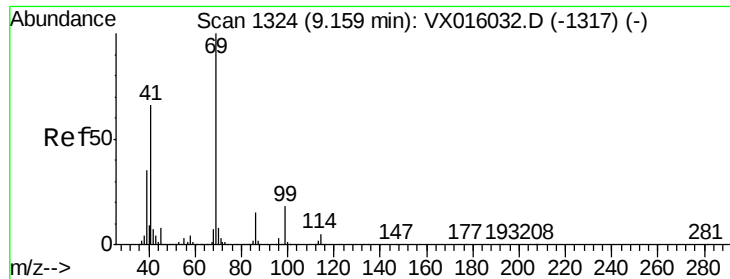
Ion Ratio Lower Upper

75 100

77 0.6 24.7 37.1#

39 21.4 38.7 58.1#





#56

Ethyl methacrylate

Concen: 0.210 ug/l

RT: 9.29 min Scan# 1345

Delta R.T. 0.13 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

Instrument :  
MSVOA\_X  
ClientSampleId :

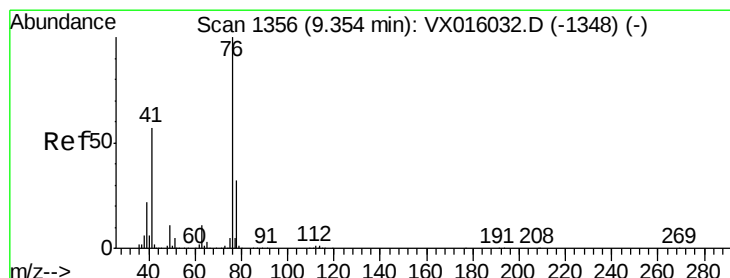
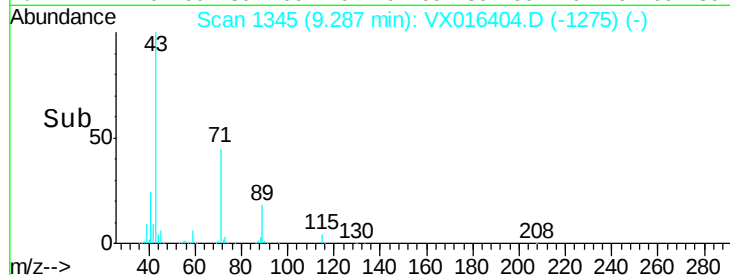
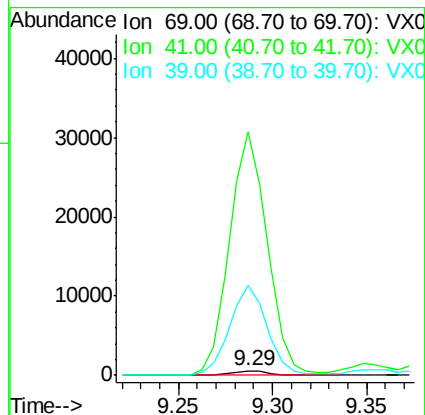
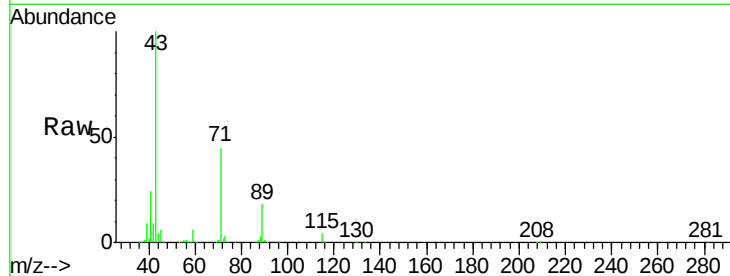
Tot Ion: 69 Resp: 871

Ion Ratio Lower Upper

69 100

41 4893.8 52.2 78.4#

39 1800.5 28.2 42.4#



#57

1,3-Dichloropropane

Concen: 1.103 ug/l

RT: 9.52 min Scan# 1384

Delta R.T. 0.17 min

Lab File: VX016404.D

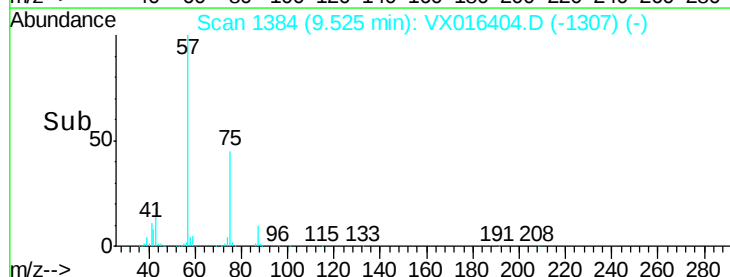
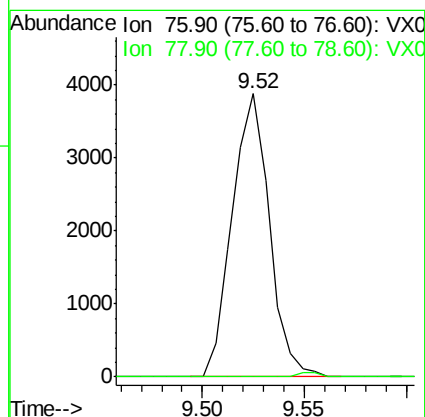
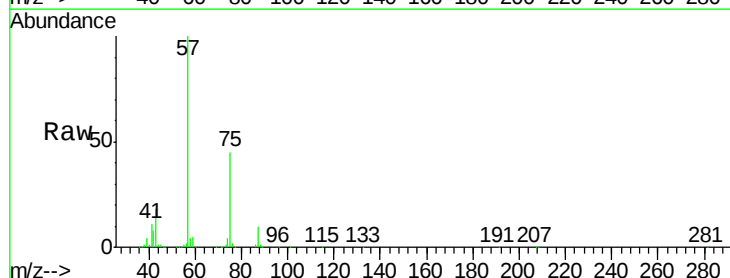
Acq: 22 May 2020 12:12

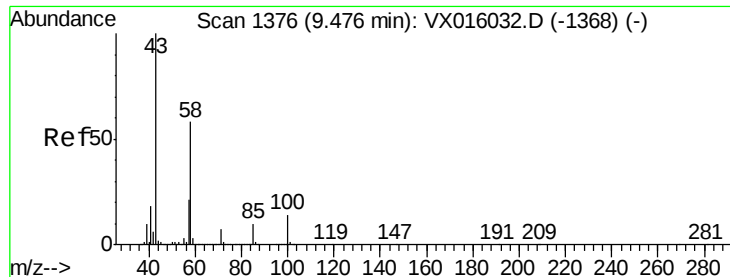
Tgt Ion: 76 Resp: 4894

Ion Ratio Lower Upper

76 100

78 0.0 25.9 38.9#

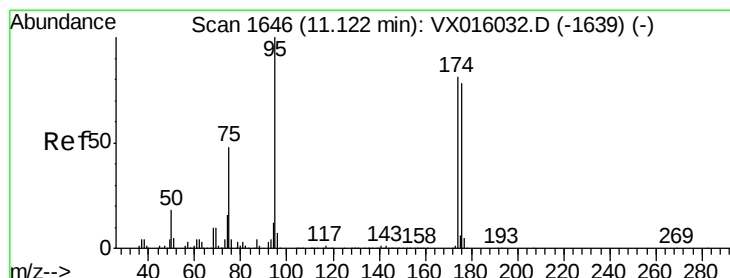
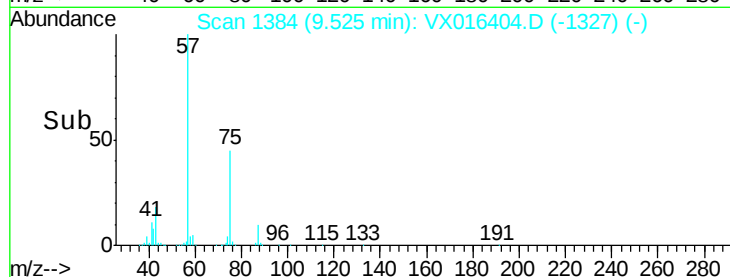
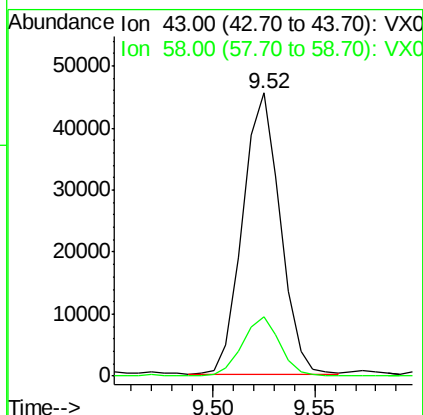
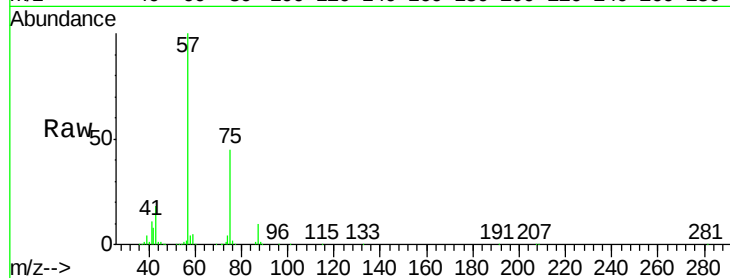




#59  
2-Hexanone  
Concen: 18.284 ug/l  
RT: 9.52 min Scan# 1384  
Delta R.T. 0.05 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

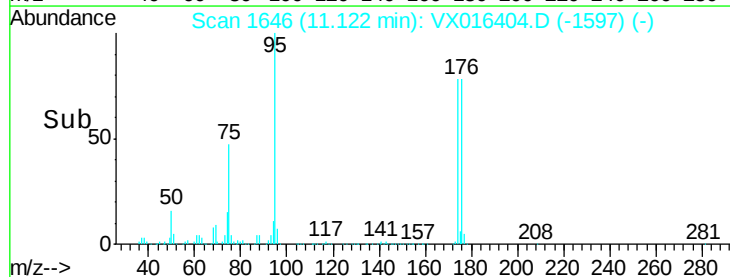
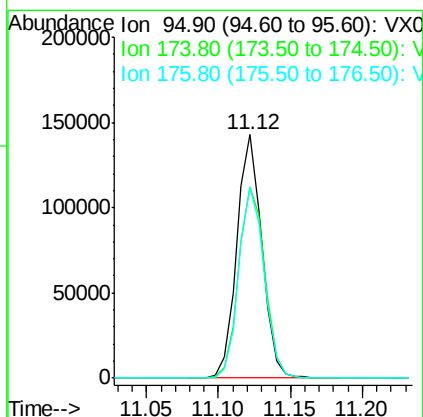
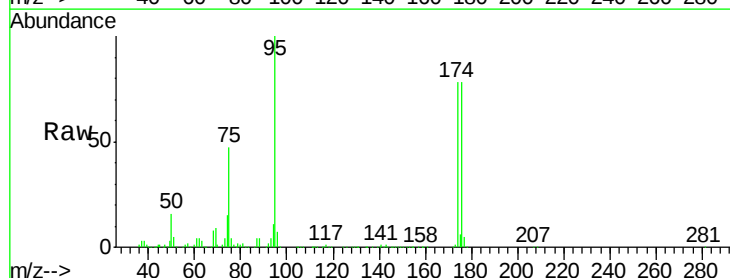
Instrument :  
MSVOA\_X  
ClientSampled :

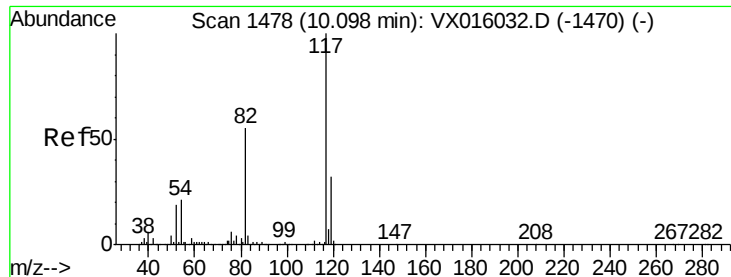
Tot Ion: 43 Resp: 57564  
Ion Ratio Lower Upper  
43 100  
58 21.6 28.6 85.9#



#62  
4-Bromofluorobenzene  
Concen: 51.811 ug/l  
RT: 11.12 min Scan# 1646  
Delta R.T. 0.00 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

Tgt Ion: 95 Resp: 173123  
Ion Ratio Lower Upper  
95 100  
174 81.9 0.0 159.4  
176 79.7 0.0 157.6

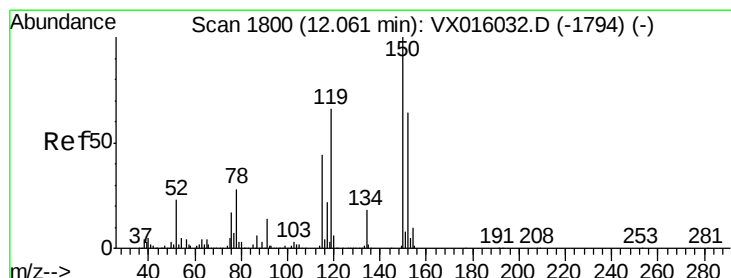
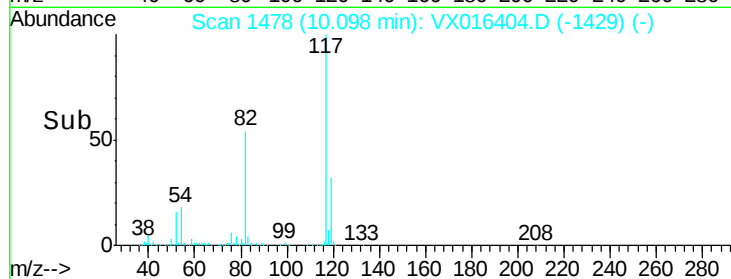
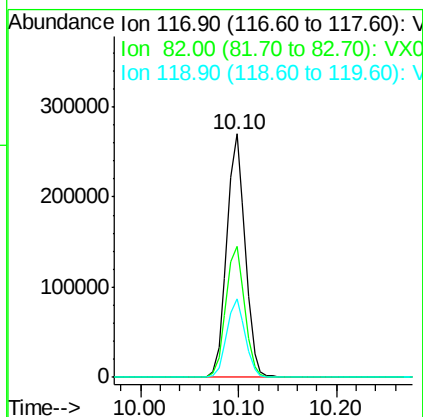
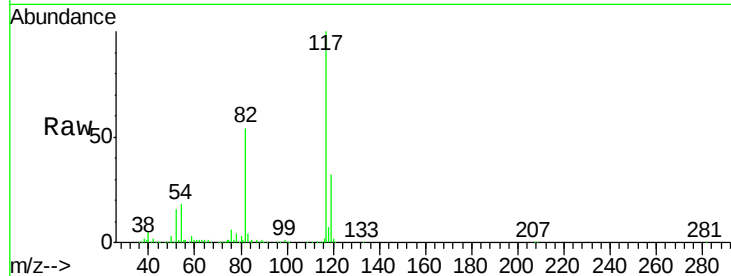




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

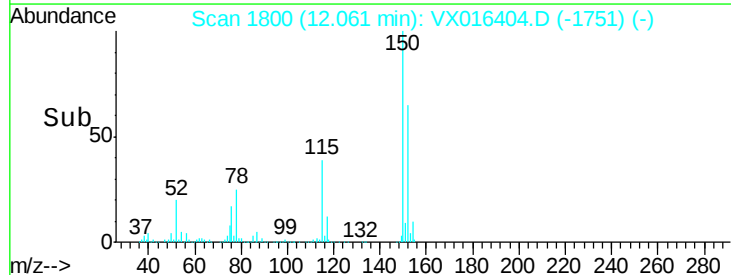
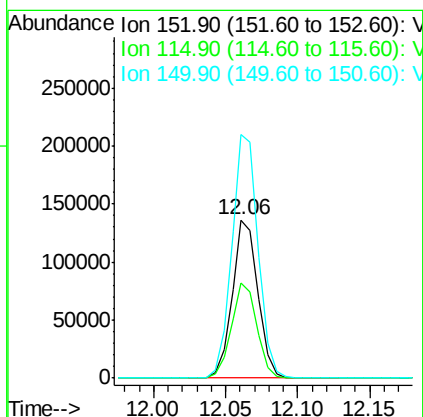
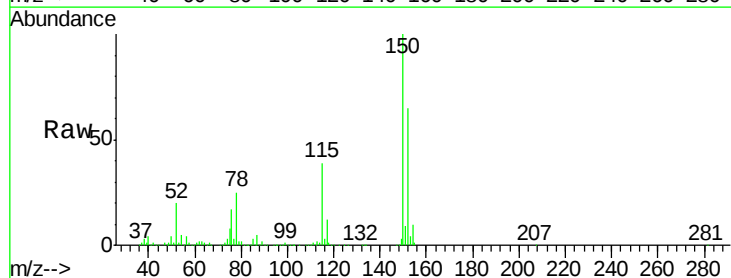
Instrument :  
MSVOA\_X  
ClientSampleId :

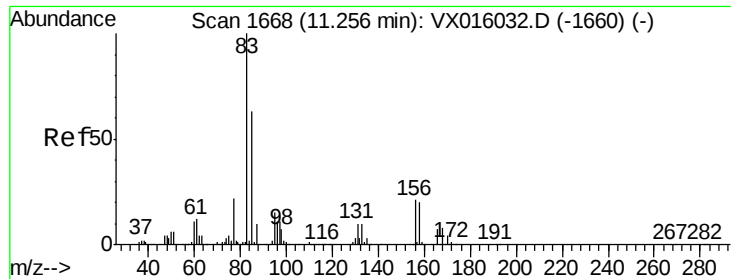
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 53.6  | 44.4  | 66.6  |
| 119     | 32.0  | 25.5  | 38.3  |



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. 0.00 min  
Lab File: VX016404.D  
Acq: 22 May 2020 12:12

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 59.7  | 41.3  | 124.1 |
| 150     | 157.7 | 0.0   | 352.2 |





#75

1,1,2,2-Tetrachloroethane

Concen: 2.103 ug/l

RT: 11.13 min Scan# 1647

Delta R.T. -0.13 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

Instrument :

MSVOA\_X

ClientSampleId :

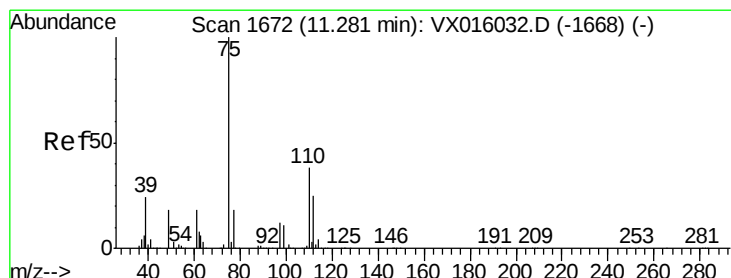
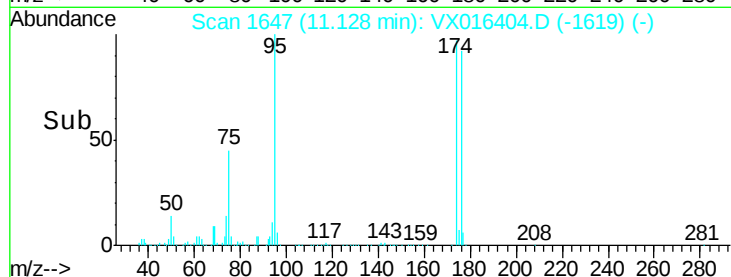
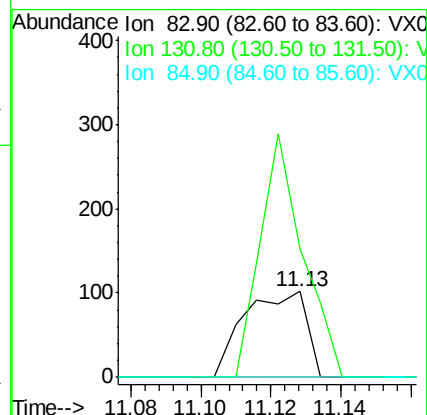
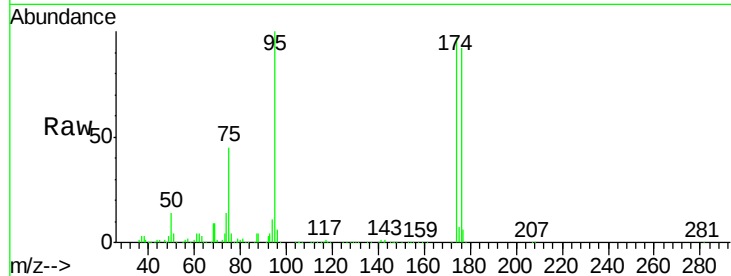
Tot Ion: 83 Resp: 125

Ion Ratio Lower Upper

83 100

131 194.4 5.1 15.4#

85 0.0 32.0 96.0#



#76

1,2,3-Trichloropropane

Concen: 21.314 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX016404.D

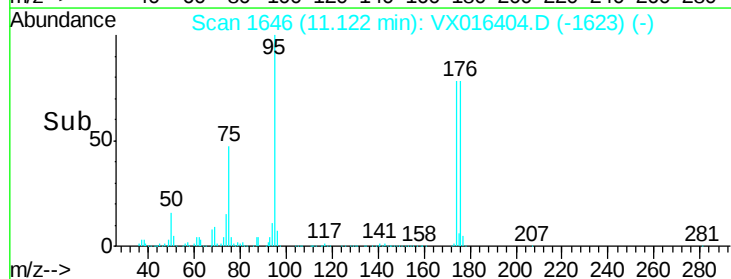
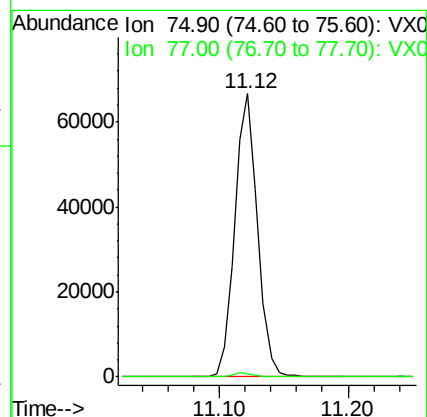
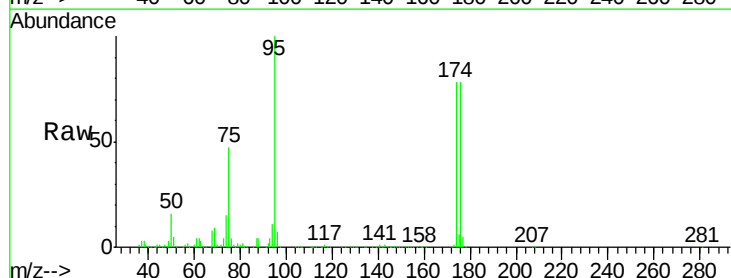
Acq: 22 May 2020 12:12

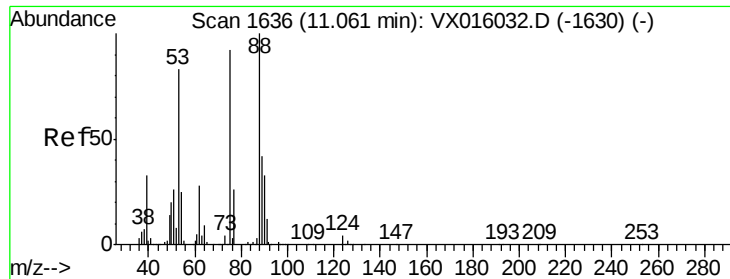
Tgt Ion: 75 Resp: 82130

Ion Ratio Lower Upper

75 100

77 1.3 21.2 63.6#





#81

trans-1,4-Dichloro-2-butene

Concen: 50.793 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.06 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

Instrument :

MSVOA\_X

ClientSampleId :

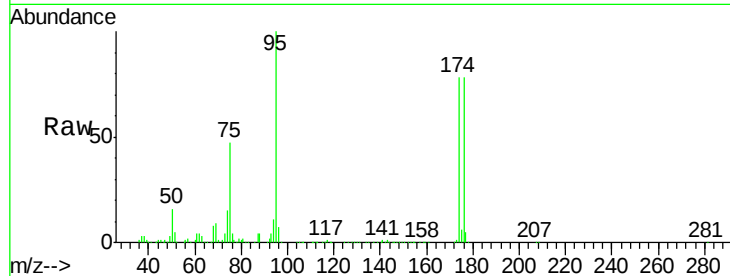
Tot Ion: 75 Resp: 82130

Ion Ratio Lower Upper

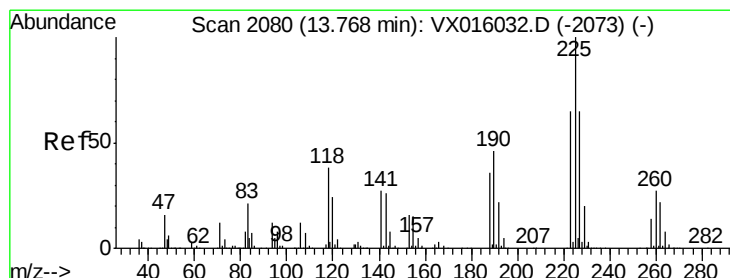
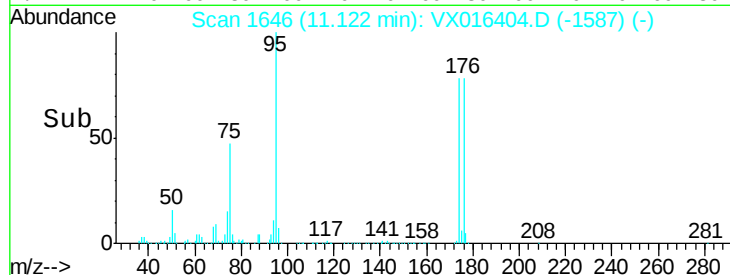
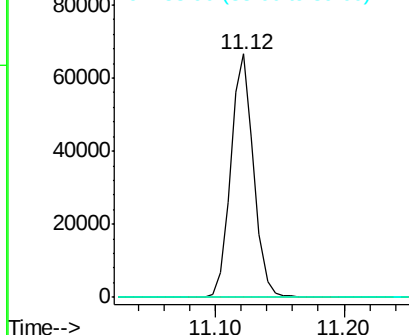
75 100

53 0.0 73.1 109.7#

89 0.0 36.7 55.1#



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: 0.582 ug/l

RT: 13.76 min Scan# 2079

Delta R.T. -0.01 min

Lab File: VX016404.D

Acq: 22 May 2020 12:12

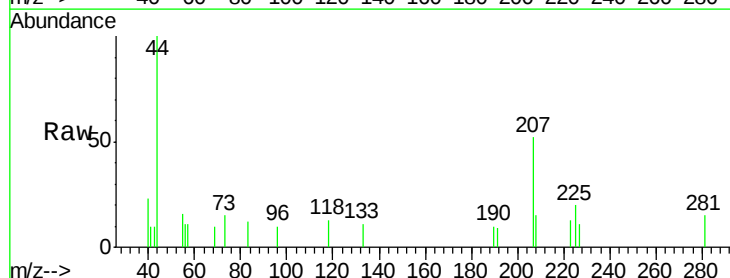
Tgt Ion: 225 Resp: 103

Ion Ratio Lower Upper

225 100

223 84.5 32.3 96.9

227 40.8 31.8 95.4



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

