

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX070620\  
 Data File : VX017181.D  
 Acq On : 06 Jul 2020 20:12  
 Operator : JC/SP  
 Sample : L3159-14  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 41BR-20200629

Quant Time: Jul 07 06:53:38 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X062920W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jun 29 17:10:38 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.64  | 168  | 265589   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.83  | 114  | 441258   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 457454   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 257026   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.04  | 65   | 168648   | 51.51 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.02% |          |
| 35) Dibromofluoromethane    | 5.46  | 113  | 147358   | 52.79 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.58% |          |
| 50) Toluene-d8              | 8.70  | 98   | 539859   | 52.30 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 104.60% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 226444   | 56.12 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 112.24% |          |

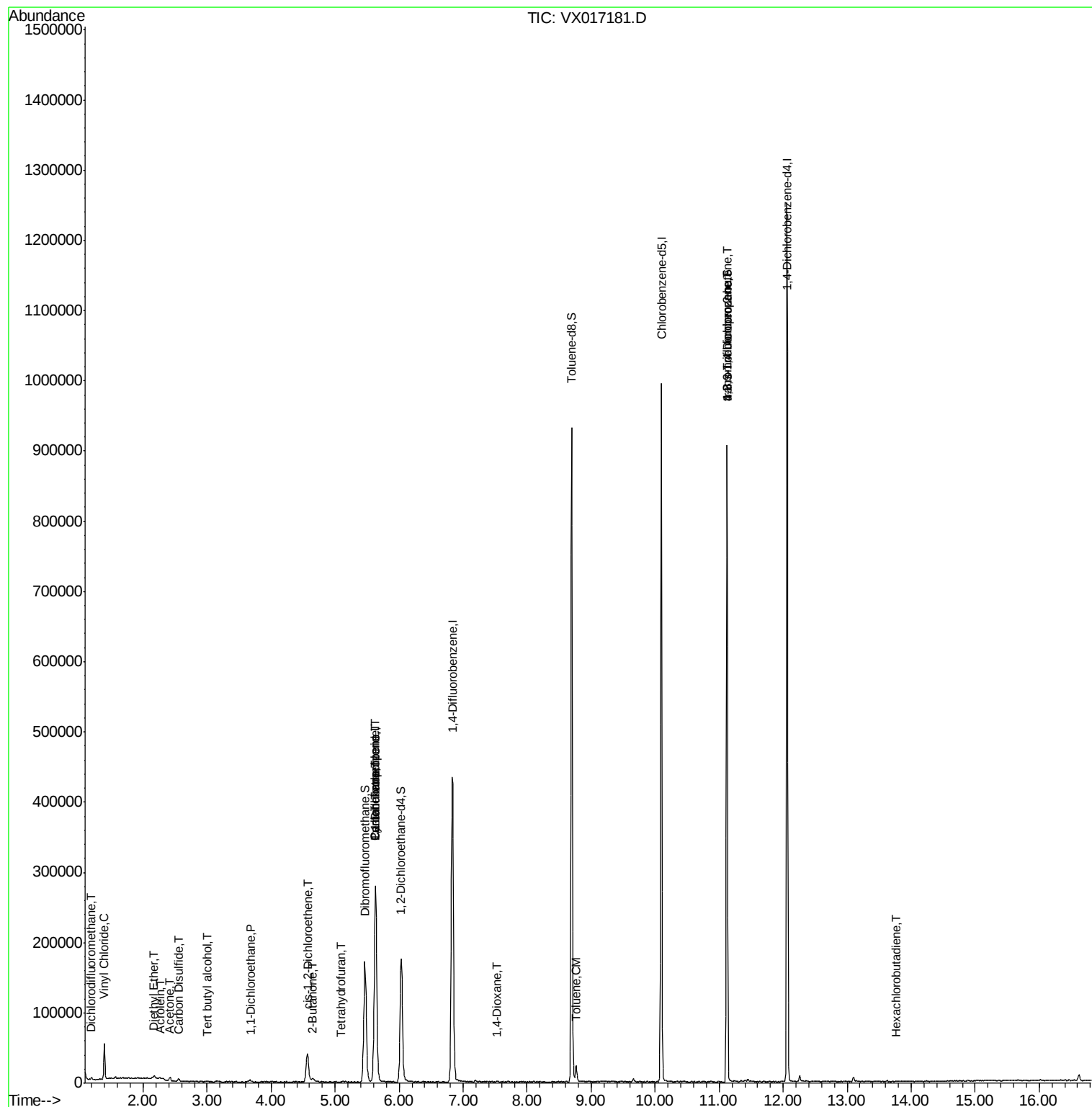
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane     | 1.18  | 85   | 637      | 0.248     | ug/l # | 69     |
| 4) Vinyl Chloride              | 1.39  | 62   | 29621    | 10.265    | ug/l   | 99     |
| 8) Diethyl Ether               | 2.17  | 74   | 72       | 0.415     | ug/l # | 42     |
| 11) Tert butyl alcohol         | 3.01  | 59   | 843      | 1.350     | ug/l # | 94     |
| 13) Acrolein                   | 2.26  | 56   | 373      | 0.999     | ug/l # | 80     |
| 16) Acetone                    | 2.42  | 43   | 5855     | 4.780     | ug/l # | 85     |
| 17) Carbon Disulfide           | 2.55  | 76   | 4453     | 0.630     | ug/l # | 92     |
| 20) Methylene Chloride         | 2.83  | 84   | 417      | Below Cal | #      | 80     |
| 24) 1,1-Dichloroethane         | 3.67  | 63   | 3152     | 0.616     | ug/l # | 89     |
| 25) 2-Butanone                 | 4.65  | 43   | 2420     | 1.186     | ug/l   | 98     |
| 27) cis-1,2-Dichloroethene     | 4.57  | 96   | 25589    | 7.745     | ug/l   | 89     |
| 29) Tetrahydrofuran            | 5.10  | 42   | 379      | 0.281     | ug/l # | 37     |
| 31) Cyclohexane                | 5.63  | 56   | 4957     | 1.121     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.63  | 75   | 19795    | 4.747     | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 5.63  | 117  | 25740    | 5.604     | ug/l # | 17     |
| 44) Trichloroethene            | 7.20  | 130  | 709      | Below Cal |        | 76     |
| 49) 1,4-Dioxane                | 7.52  | 88   | 20       | 0.264     | ug/l # | 1      |
| 52) Toluene                    | 8.76  | 92   | 7828     | 1.023     | ug/l   | 97     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 112092   | 22.178    | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 112092   | 57.432    | ug/l # | 13     |
| 88) 1,4-Dichlorobenzene        | 12.08 | 146  | 426      | Below Cal | #      | 1      |
| 94) Hexachlorobutadiene        | 13.77 | 225  | 23       | 0.855     | ug/l # | 17     |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X062920W.M  
Quant Title : SW846 8260  
QLast Update : Mon Jun 29 17:10:38 2020  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.64 min Scan# 746

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

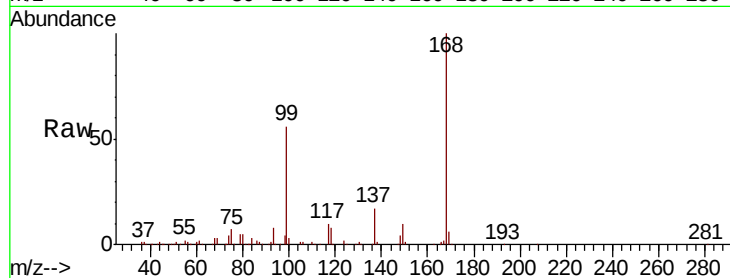
41BR-20200629

Tot Ion:168 Resp: 265589

Ion Ratio Lower Upper

168 100

99 55.9 42.6 64.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.64

100000

80000

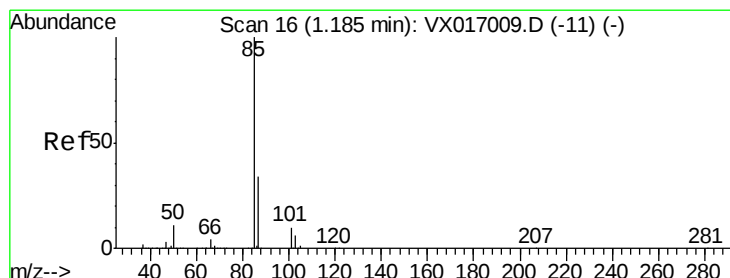
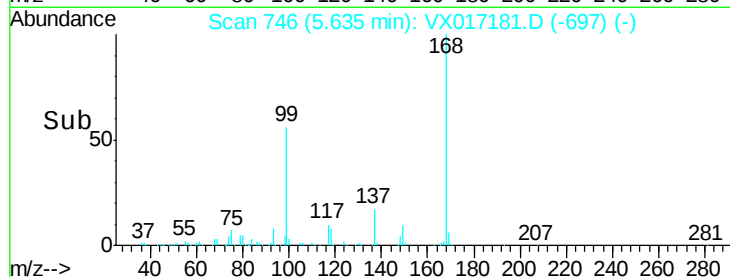
60000

40000

20000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.248 ug/l

RT: 1.18 min Scan# 16

Delta R.T. -0.00 min

Lab File: VX017181.D

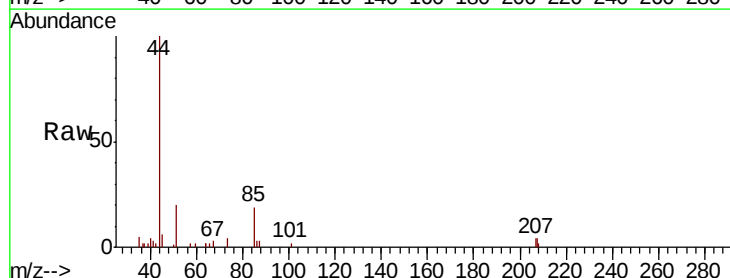
Acq: 06 Jul 2020 20:12

Tgt Ion: 85 Resp: 637

Ion Ratio Lower Upper

85 100

87 15.9 16.8 50.4#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0

1.18

800

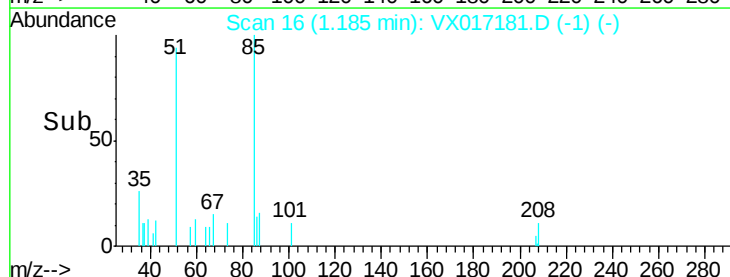
600

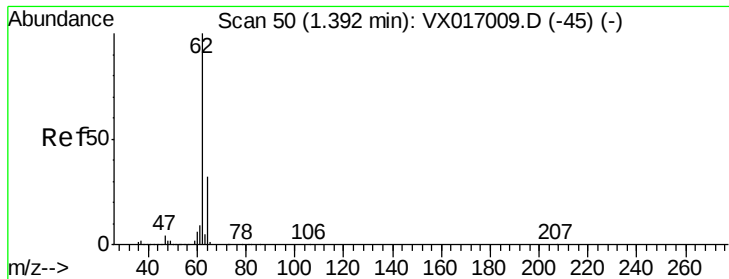
400

200

0

Time-->





#4

Vinyl Chloride

Concen: 10.265 ug/l

RT: 1.39 min Scan# 50

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

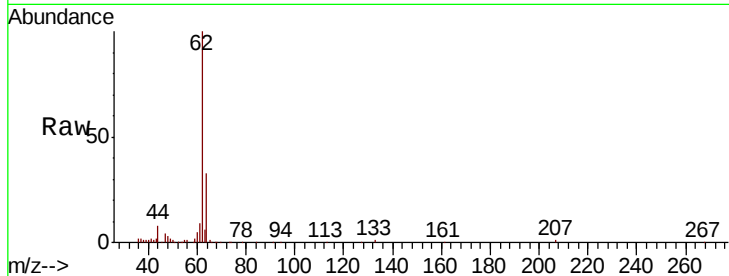
41BR-20200629

Tot Ion: 62 Resp: 29621

Ion Ratio Lower Upper

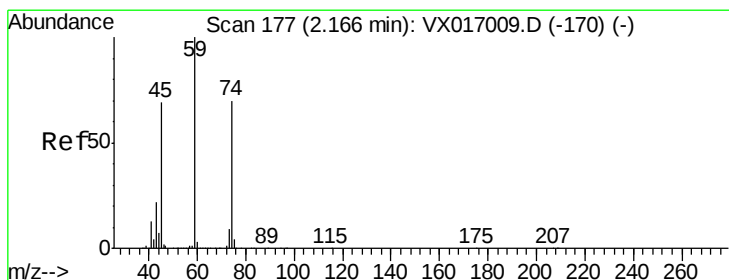
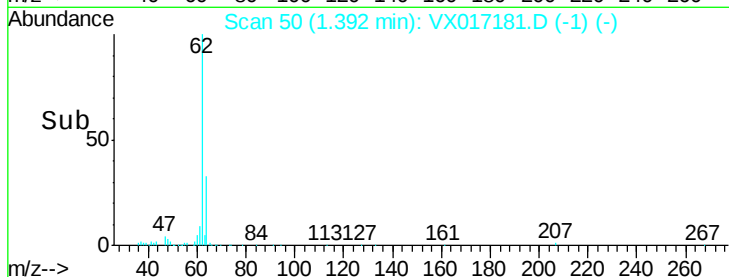
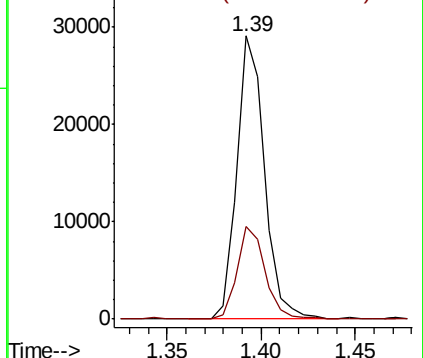
62 100

64 33.0 25.9 38.9



Abundance Ion 61.90 (61.60 to 62.60): VX0

Ion 63.90 (63.60 to 64.60): VX0



#8

Diethyl Ether

Concen: 0.415 ug/l

RT: 2.17 min Scan# 177

Delta R.T. 0.00 min

Lab File: VX017181.D

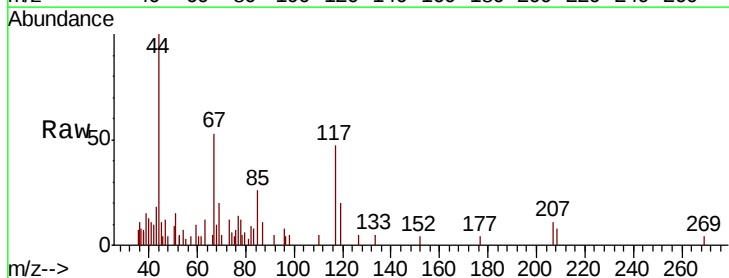
Acq: 06 Jul 2020 20:12

Tgt Ion: 74 Resp: 72

Ion Ratio Lower Upper

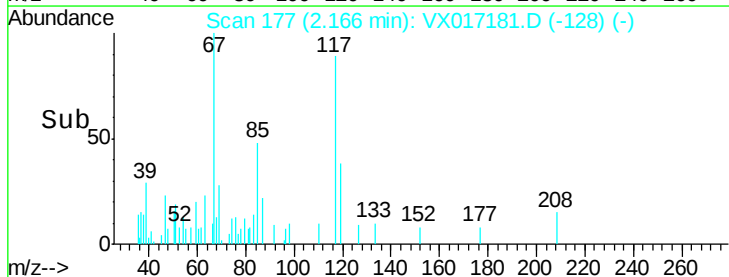
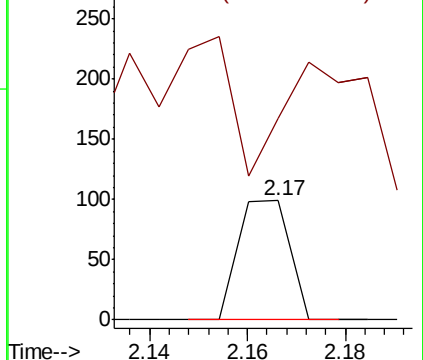
74 100

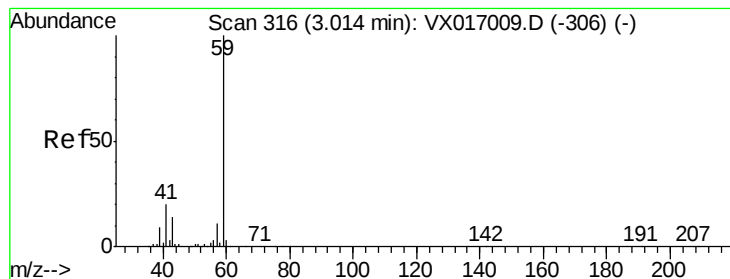
45 156.9 49.8 149.3#



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0



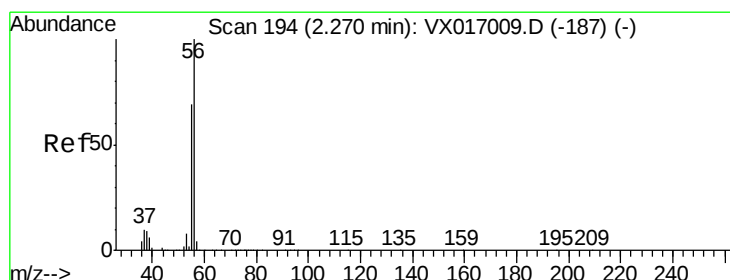
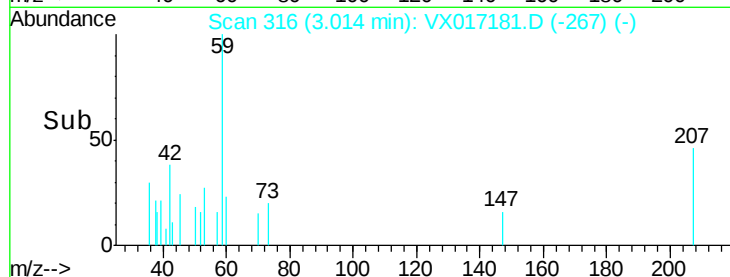
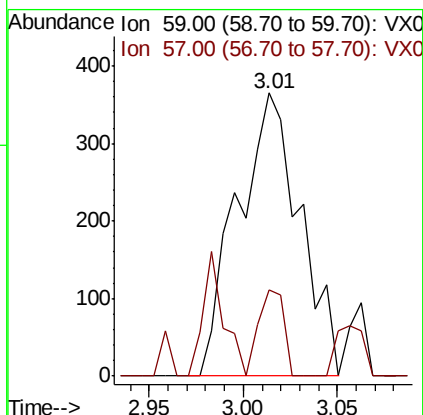
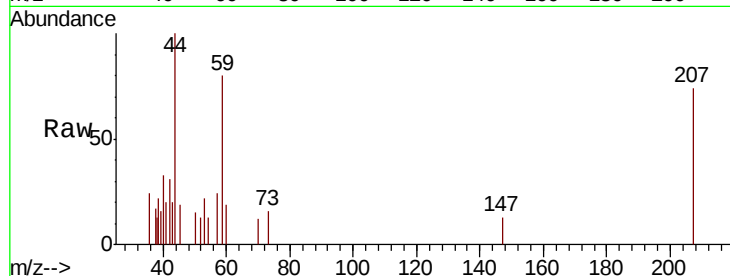


#11

Tert butyl alcohol  
Concen: 1.350 ug/l  
RT: 3.01 min Scan# 316  
Delta R.T. -0.00 min  
Lab File: VX017181.D  
Acq: 06 Jul 2020 20:12

Instrument :  
MSVOA\_X  
ClientSampleId :  
41BR-20200629

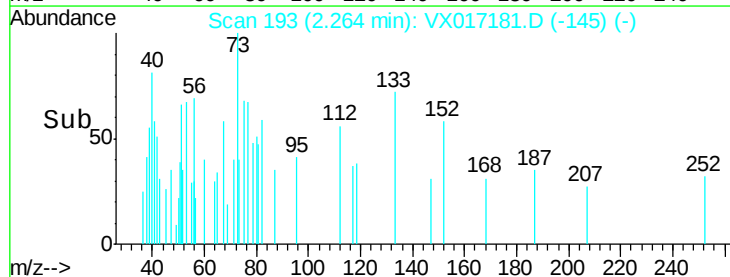
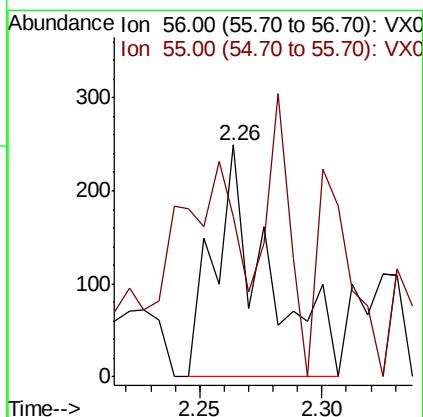
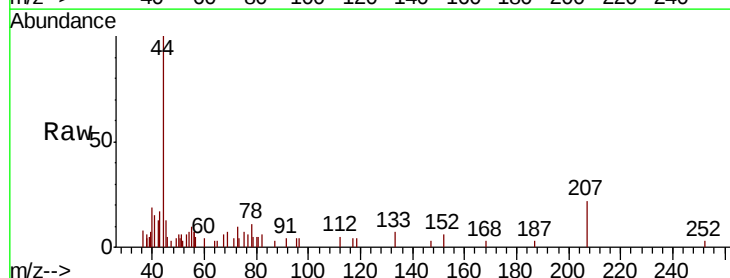
Tot Ion: 59 Resp: 843  
Ion Ratio Lower Upper  
59 100  
57 12.3 8.2 12.2#

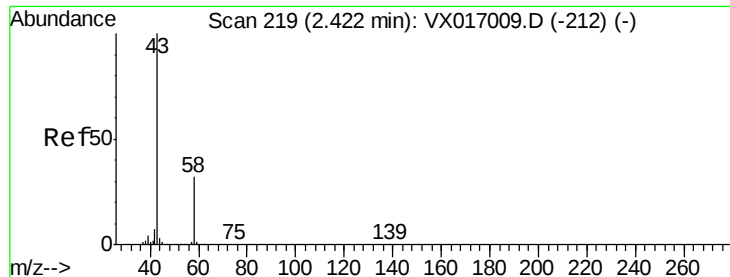


#13

Acrolein  
Concen: 0.999 ug/l  
RT: 2.26 min Scan# 193  
Delta R.T. -0.01 min  
Lab File: VX017181.D  
Acq: 06 Jul 2020 20:12

Tgt Ion: 56 Resp: 373  
Ion Ratio Lower Upper  
56 100  
55 85.8 55.7 83.5#





#16

Acetone

Concen: 4.780 ug/l

RT: 2.42 min Scan# 218

Delta R.T. -0.01 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

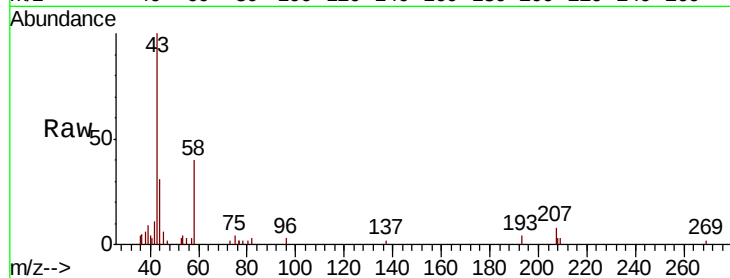
41BR-20200629

Tot Ion: 43 Resp: 5855

Ion Ratio Lower Upper

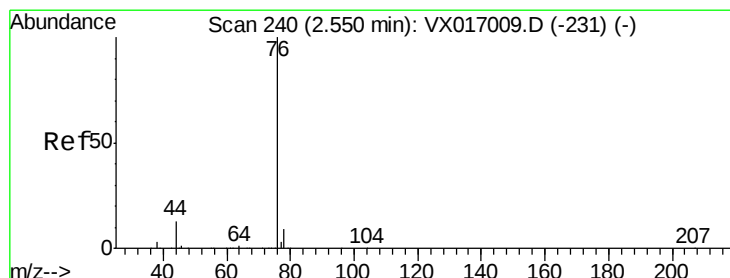
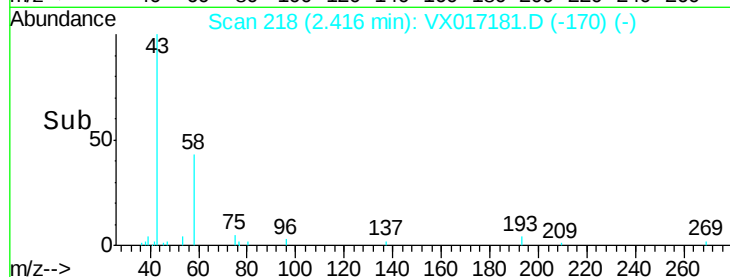
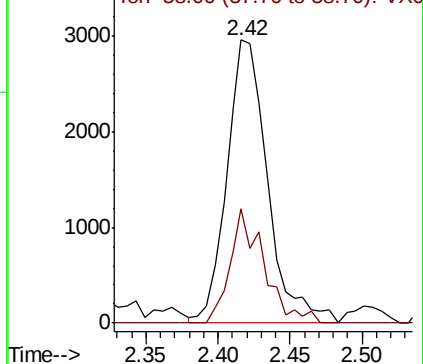
43 100

58 40.3 25.7 38.5#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#17

Carbon Disulfide

Concen: 0.630 ug/l

RT: 2.55 min Scan# 240

Delta R.T. 0.00 min

Lab File: VX017181.D

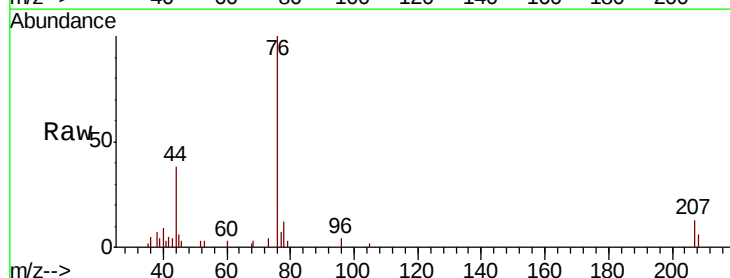
Acq: 06 Jul 2020 20:12

Tgt Ion: 76 Resp: 4453

Ion Ratio Lower Upper

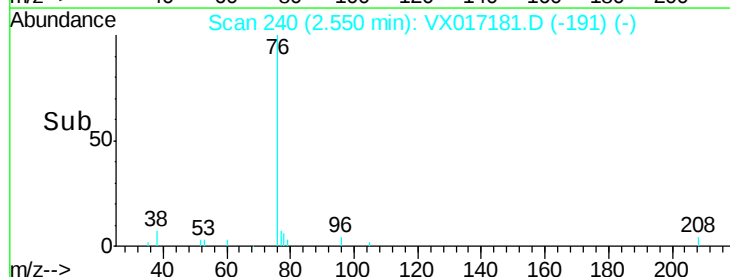
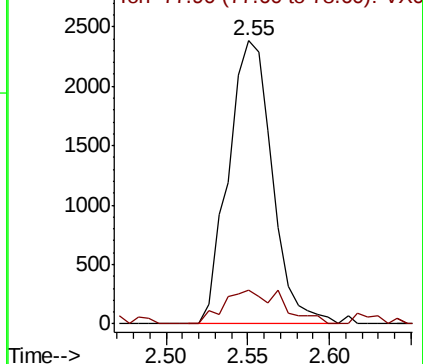
76 100

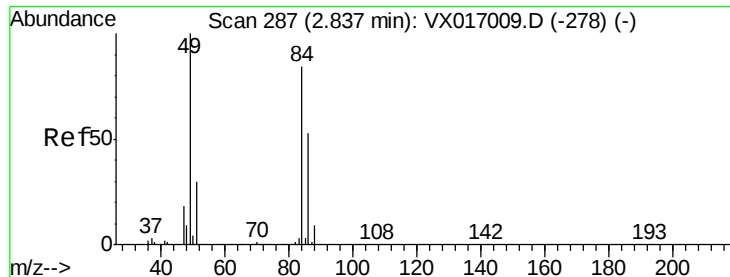
78 11.8 7.2 10.8#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

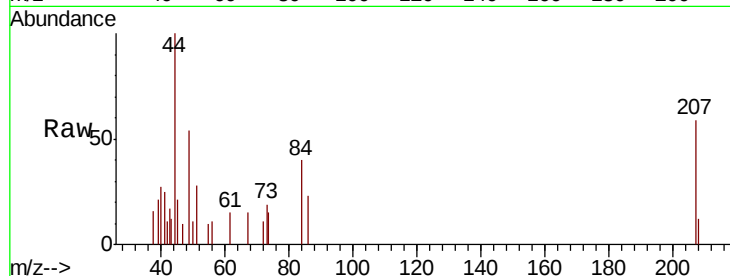




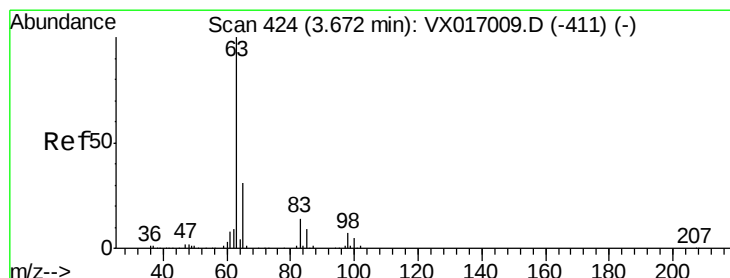
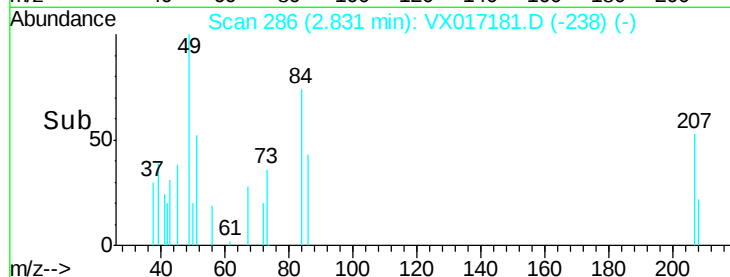
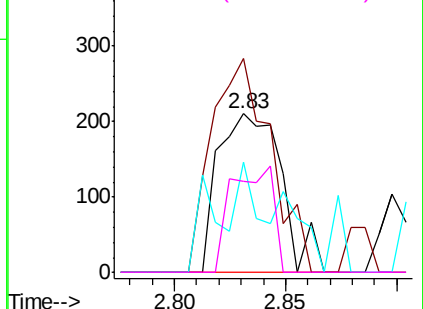
#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 2.83 min Scan# 286  
Delta R.T. -0.01 min  
Lab File: VX017181.D  
Acq: 06 Jul 2020 20:12

Instrument :  
MSVOA\_X  
ClientSampleId :  
41BR-20200629

Tot Ion: 84 Resp: 417  
Ion Ratio Lower Upper  
84 100  
49 134.8 94.7 142.1  
51 69.5 28.6 42.8#  
86 57.6 50.5 75.7

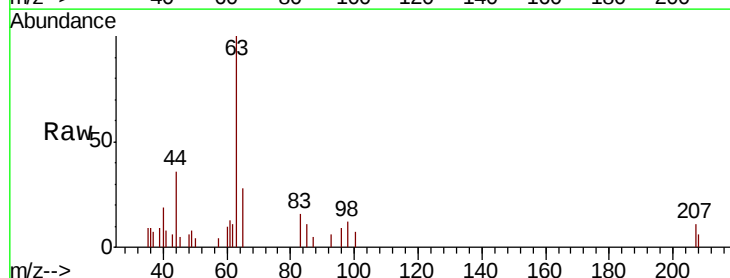


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

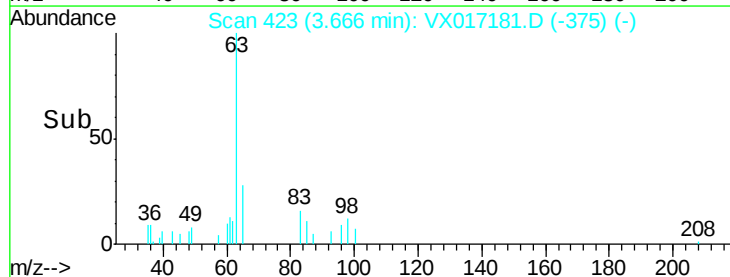
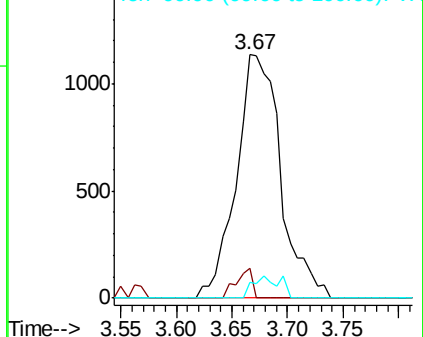


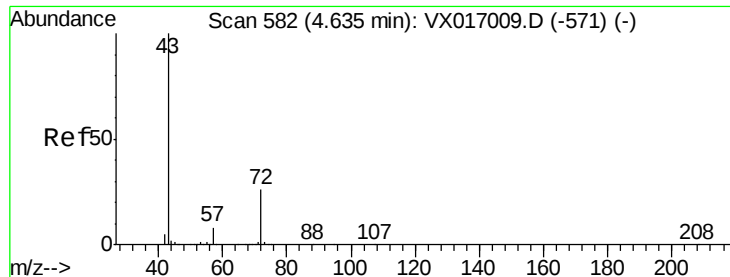
#24  
1,1-Dichloroethane  
Concen: 0.616 ug/l  
RT: 3.67 min Scan# 423  
Delta R.T. -0.01 min  
Lab File: VX017181.D  
Acq: 06 Jul 2020 20:12

Tgt Ion: 63 Resp: 3152  
Ion Ratio Lower Upper  
63 100  
98 12.1 3.6 10.8#  
100 6.6 2.4 7.1



Abundance Ion 62.90 (62.60 to 63.60): VX0  
Ion 97.90 (97.60 to 98.60): VX0  
Ion 99.90 (99.60 to 100.60): VX0





#25

2-Butanone

Concen: 1.186 ug/l

RT: 4.65 min Scan# 585

Delta R.T. 0.02 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

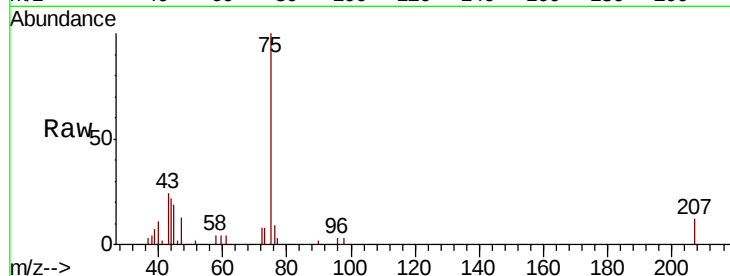
41BR-20200629

Tot Ion: 43 Resp: 2420

Ion Ratio Lower Upper

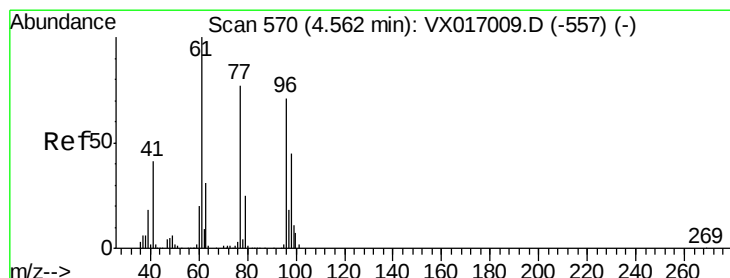
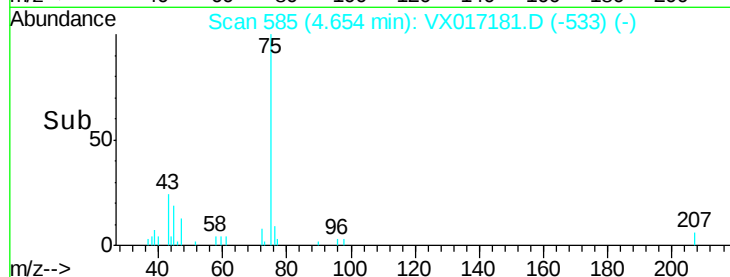
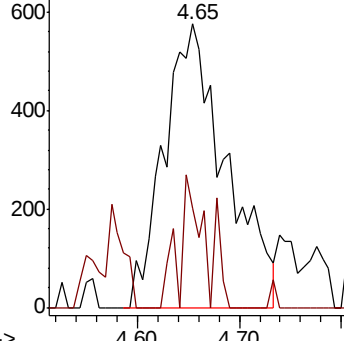
43 100

72 25.0 20.8 31.2



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0



#27

cis-1,2-Dichloroethene

Concen: 7.745 ug/l

RT: 4.57 min Scan# 571

Delta R.T. 0.01 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

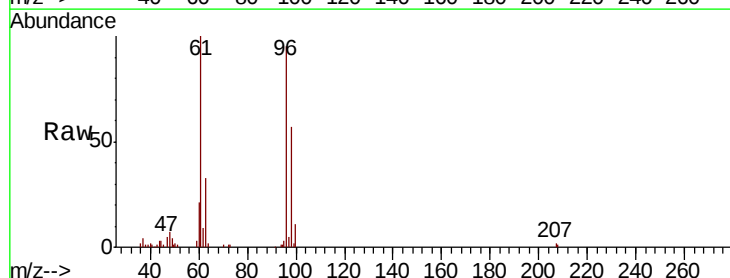
Tgt Ion: 96 Resp: 25589

Ion Ratio Lower Upper

96 100

61 122.3 0.0 282.8

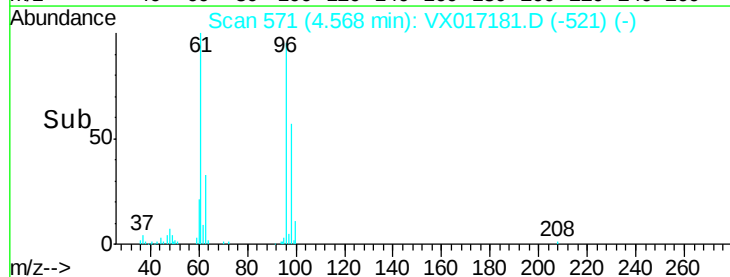
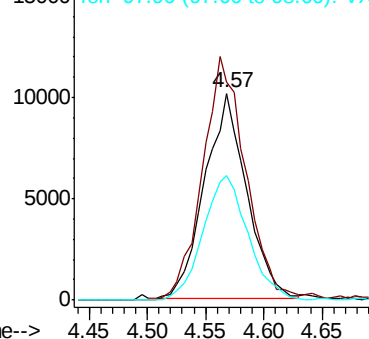
98 64.5 0.0 127.6

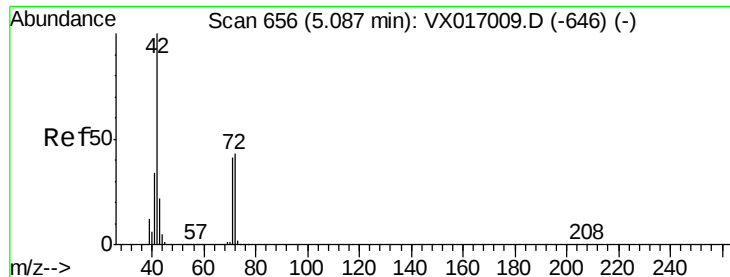


Abundance Ion 95.90 (95.60 to 96.60): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 97.90 (97.60 to 98.60): VX0

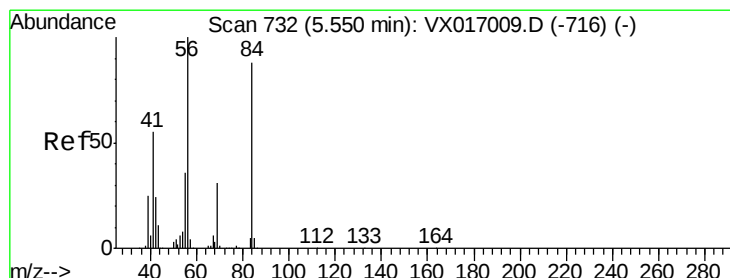
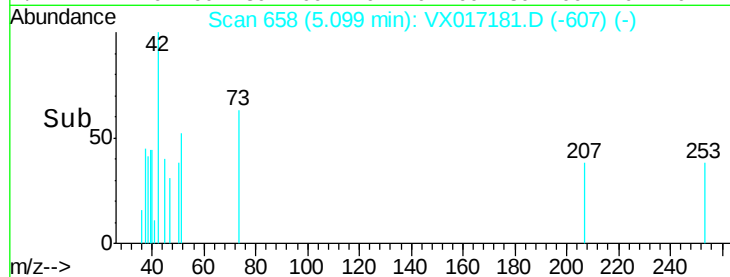
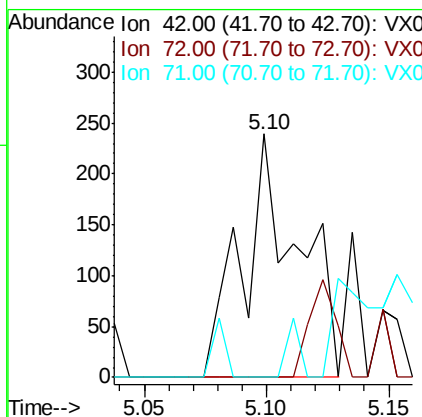
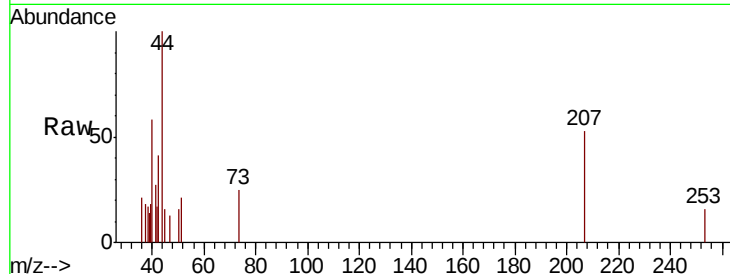




#29  
Tetrahydrofuran  
Concen: 0.281 ug/l  
RT: 5.10 min Scan# 658  
Delta R.T. 0.01 min  
Lab File: VX017181.D  
Acq: 06 Jul 2020 20:12

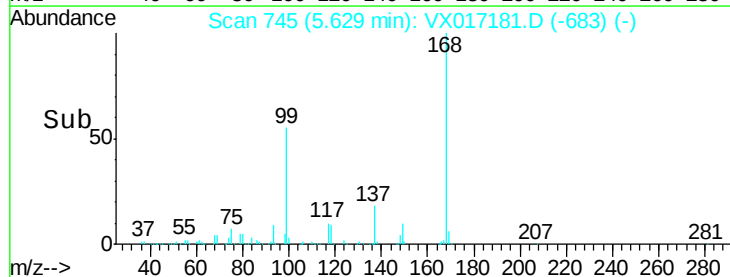
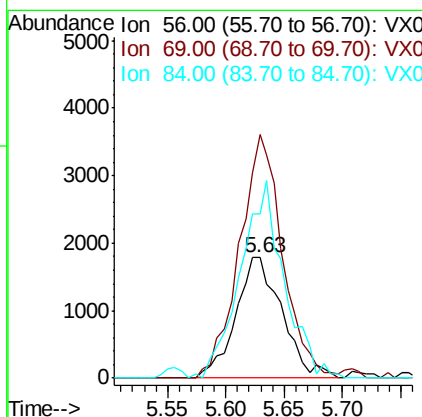
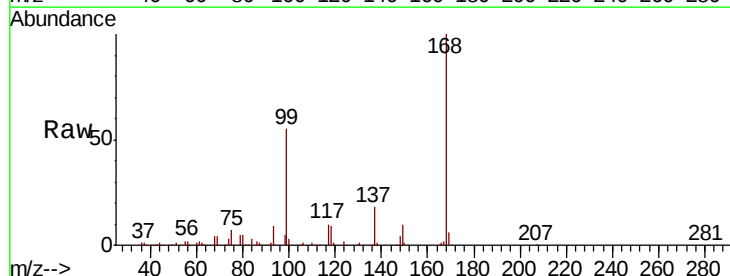
Instrument :  
MSVOA\_X  
ClientSampleId :  
41BR-20200629

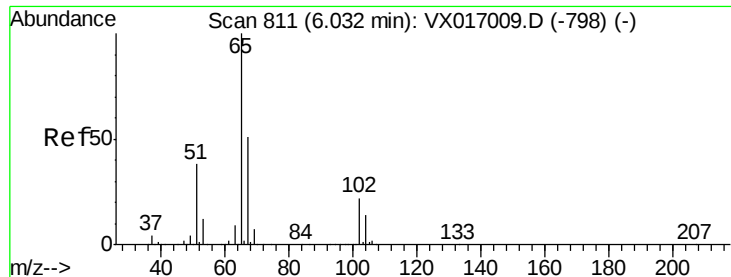
Tot Ion: 42 Resp: 379  
Ion Ratio Lower Upper  
42 100  
72 0.0 35.3 52.9#  
71 5.8 33.1 49.7#



#31  
Cyclohexane  
Concen: 1.121 ug/l  
RT: 5.63 min Scan# 745  
Delta R.T. 0.08 min  
Lab File: VX017181.D  
Acq: 06 Jul 2020 20:12

Tgt Ion: 56 Resp: 4957  
Ion Ratio Lower Upper  
56 100  
69 202.2 25.0 37.4#  
84 136.5 69.1 103.7#





#33

1,2-Dichloroethane-d4

Concen: 51.508 ug/l

RT: 6.04 min Scan# 812

Delta R.T. 0.01 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

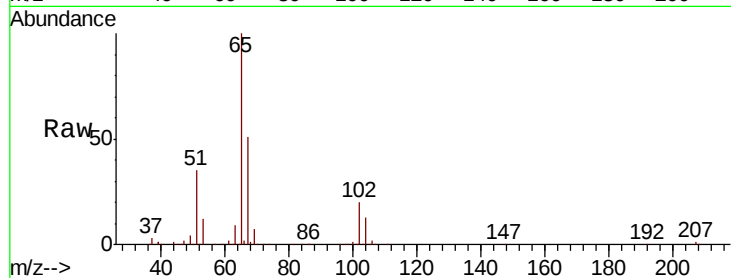
41BR-20200629

Tot Ion: 65 Resp: 168648

Ion Ratio Lower Upper

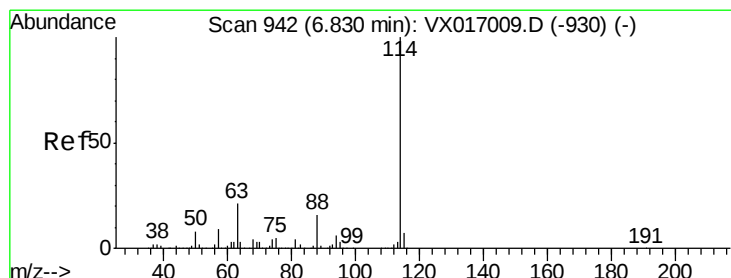
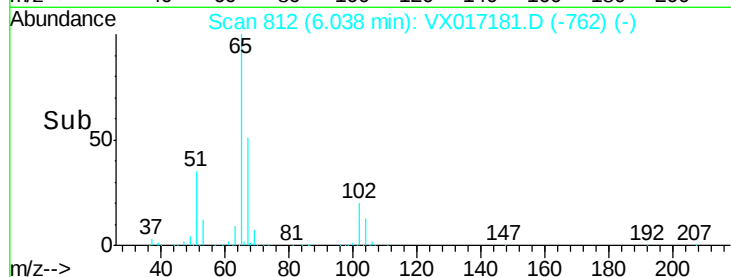
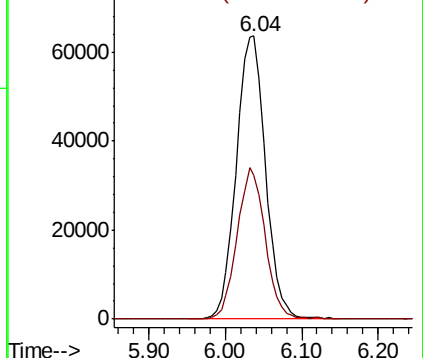
65 100

67 51.4 0.0 103.8



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

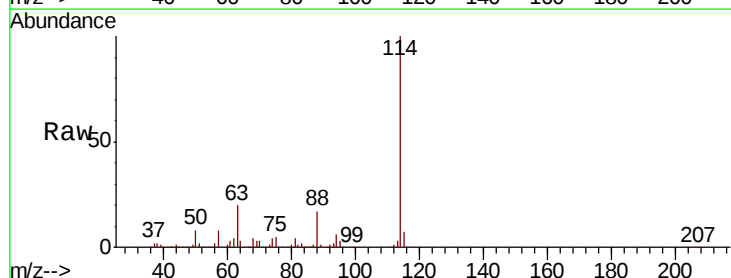
Tgt Ion: 114 Resp: 441258

Ion Ratio Lower Upper

114 100

63 19.9 0.0 41.4

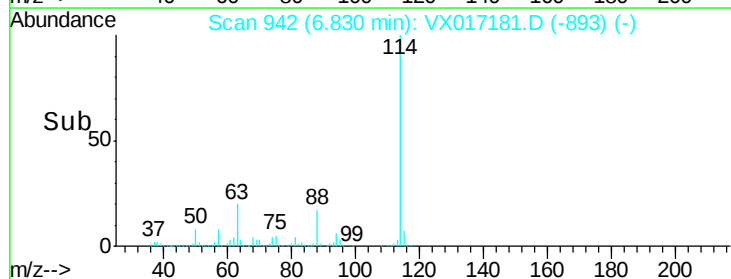
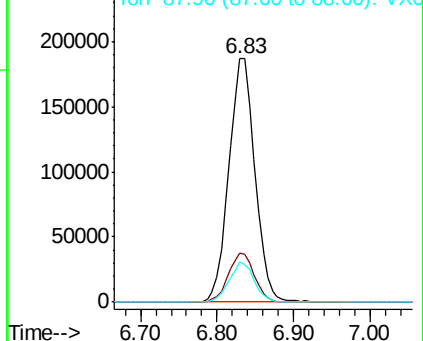
88 16.7 0.0 32.4

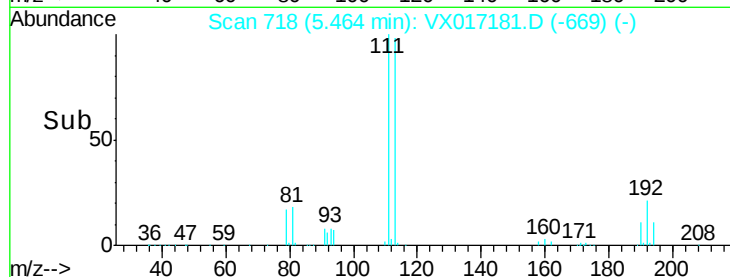
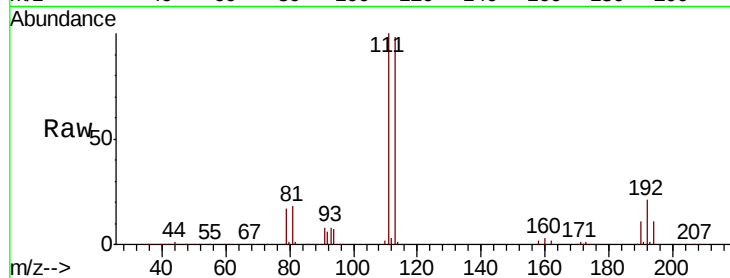
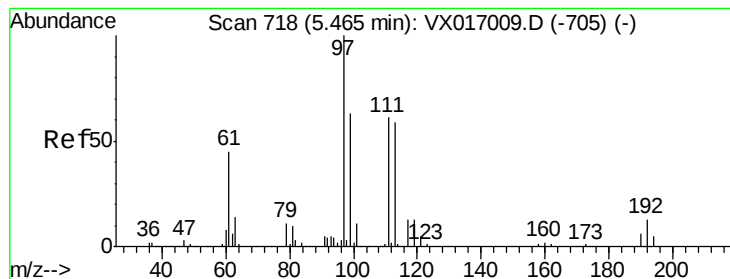


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 52.793 ug/l

RT: 5.46 min Scan# 718

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

41BR-20200629

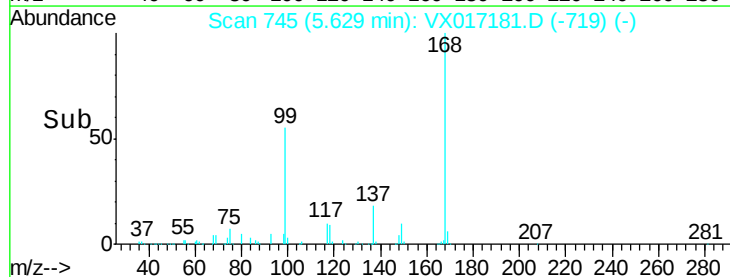
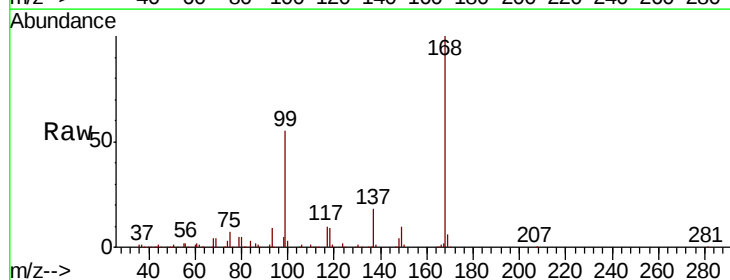
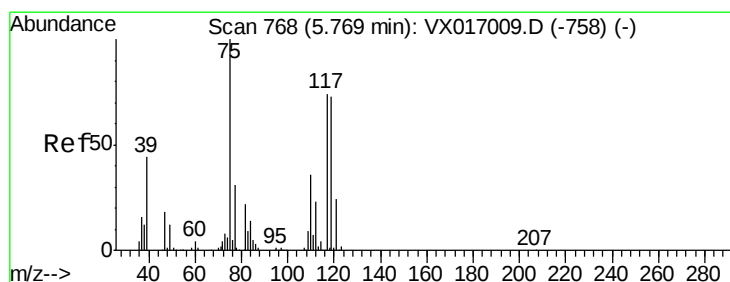
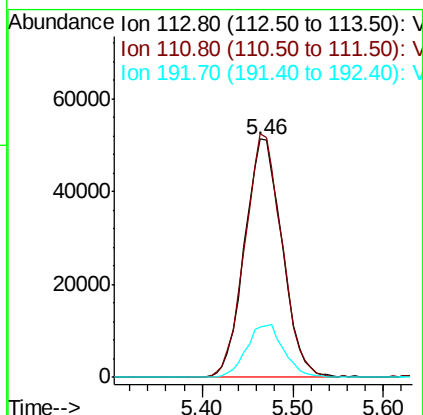
Tot Ion:113 Resp: 147358

Ion Ratio Lower Upper

113 100

111 100.5 81.9 122.9

192 22.1 16.7 25.1



#36

1,1-Dichloropropene

Concen: 4.747 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.14 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

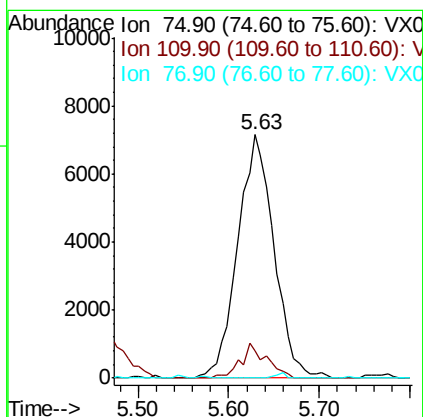
Tgt Ion: 75 Resp: 19795

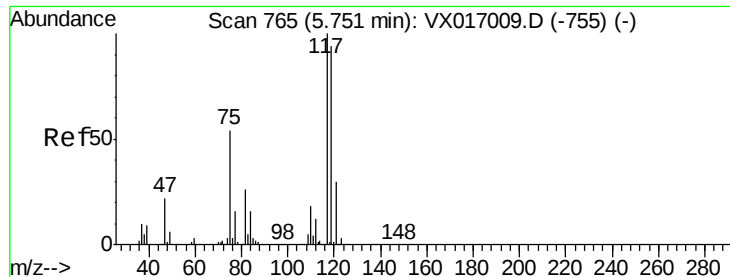
Ion Ratio Lower Upper

75 100

110 10.2 18.1 54.1#

77 0.0 24.6 37.0#





#38

Carbon Tetrachloride

Concen: 5.604 ug/l

RT: 5.63 min Scan# 745

Delta R.T. -0.12 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

41BR-20200629

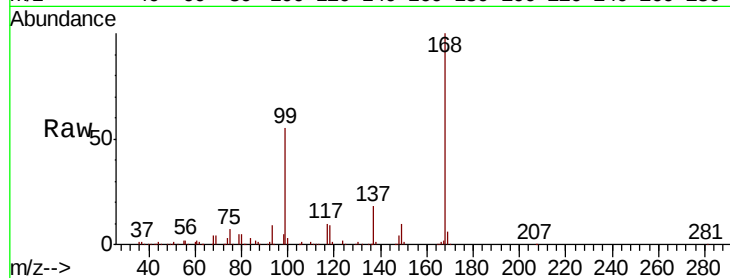
Tot Ion:117 Resp: 25740

Ion Ratio Lower Upper

117 100

119 5.5 75.4 113.0#

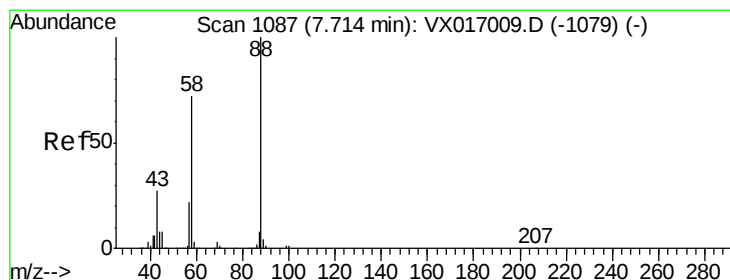
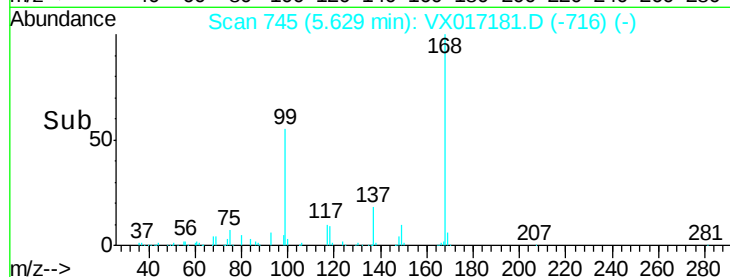
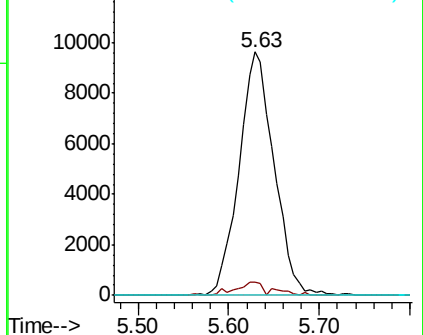
121 0.0 23.8 35.6#



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



#49

1,4-Dioxane

Concen: 0.264 ug/l

RT: 7.52 min Scan# 1055

Delta R.T. -0.20 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

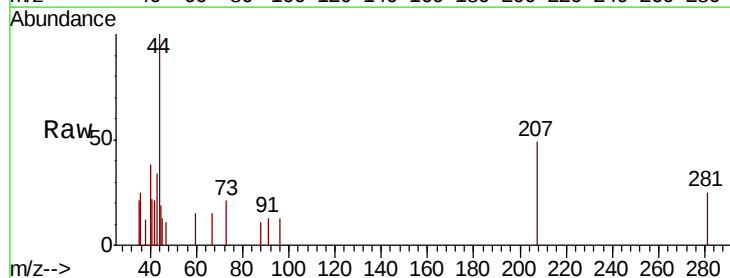
Tgt Ion: 88 Resp: 20

Ion Ratio Lower Upper

88 100

43 690.0 25.8 38.8#

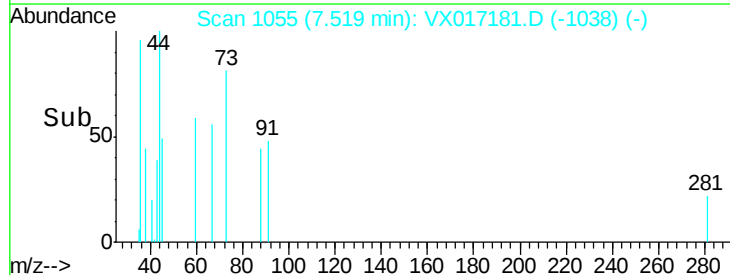
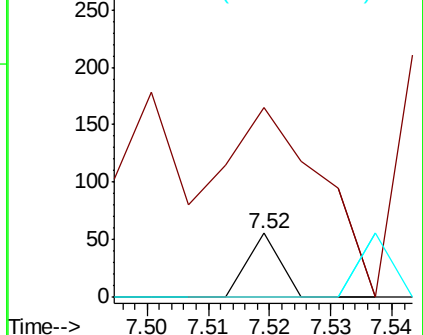
58 0.0 54.8 82.2#

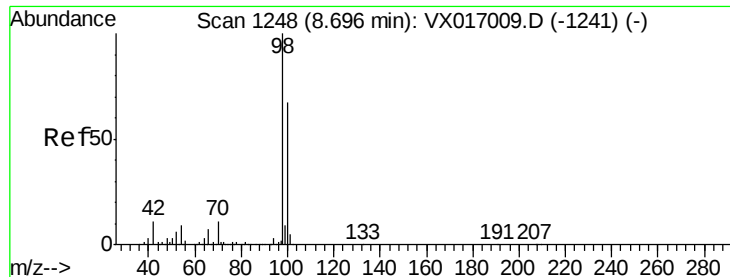


Abundance Ion 88.00 (87.70 to 88.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 52.304 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

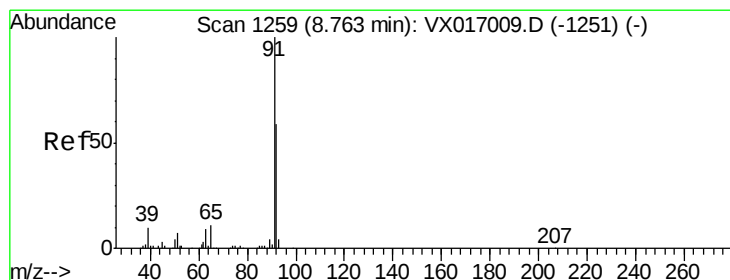
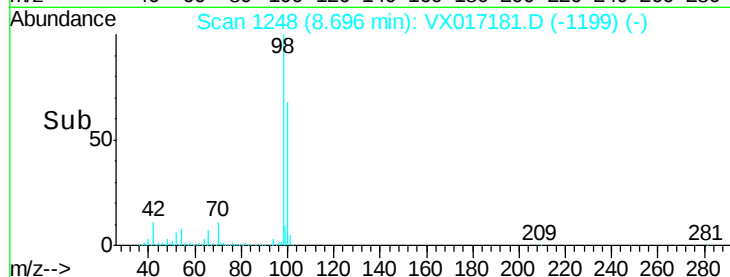
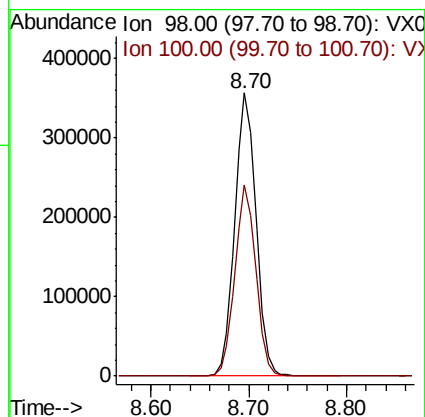
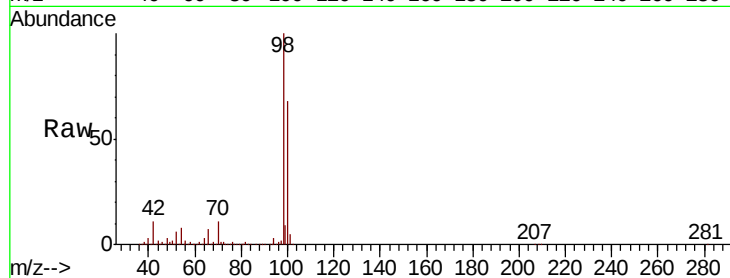
41BR-20200629

Tot Ion: 98 Resp: 539859

Ion Ratio Lower Upper

98 100

100 66.6 53.8 80.6



#52

Toluene

Concen: 1.023 ug/l

RT: 8.76 min Scan# 1259

Delta R.T. -0.00 min

Lab File: VX017181.D

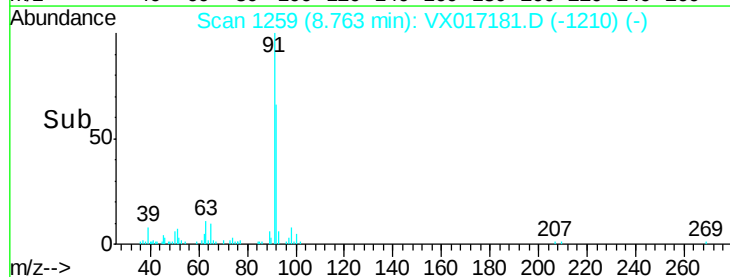
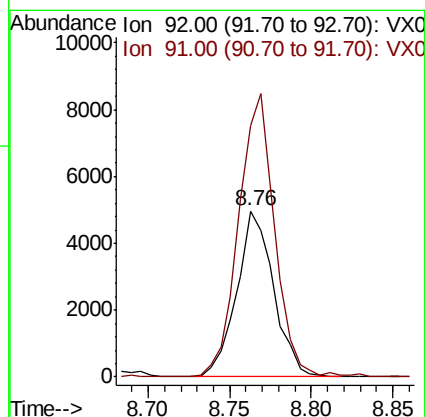
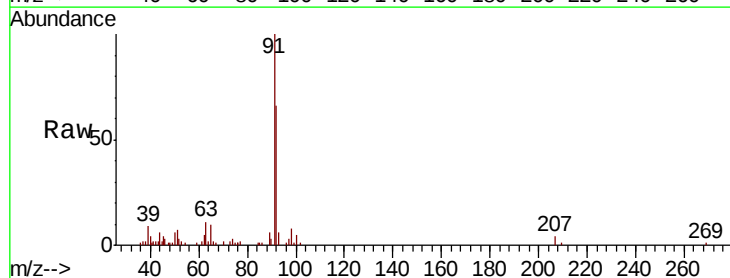
Acq: 06 Jul 2020 20:12

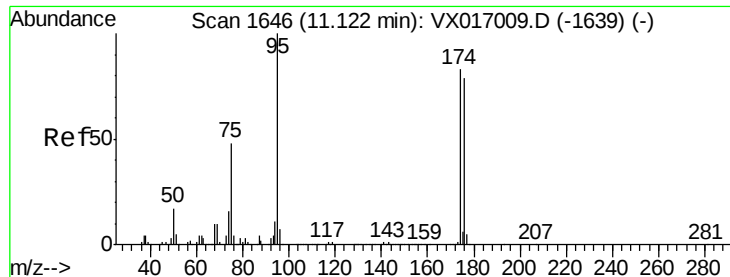
Tgt Ion: 92 Resp: 7828

Ion Ratio Lower Upper

92 100

91 167.6 136.9 205.3





#62

4-Bromofluorobenzene

Concen: 56.123 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

41BR-20200629

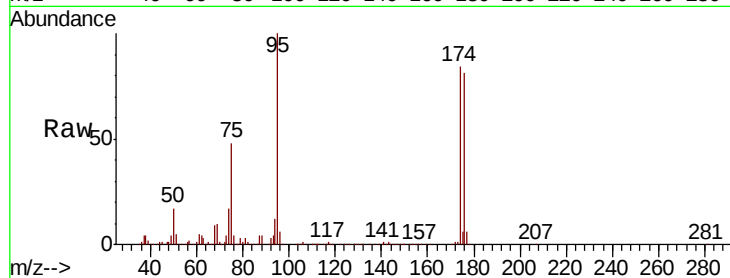
Tot Ion: 95 Resp: 226444

Ion Ratio Lower Upper

95 100

174 84.2 0.0 164.0

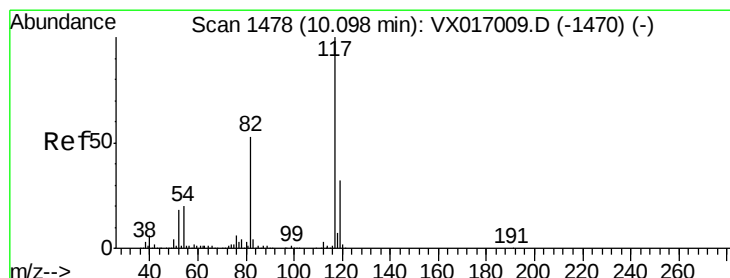
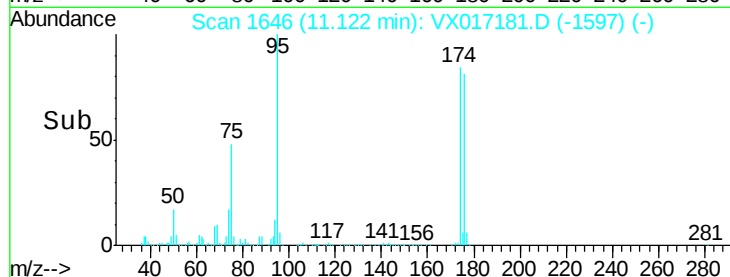
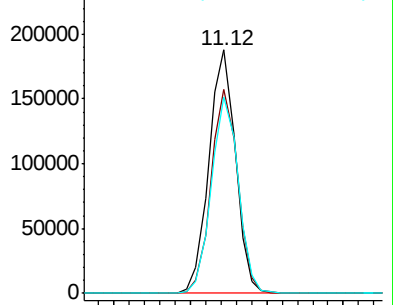
176 82.1 0.0 157.6



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1478

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

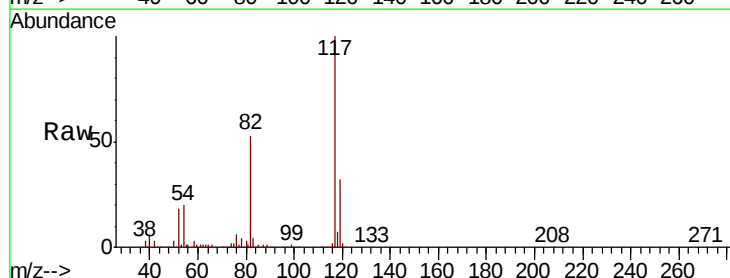
Tgt Ion: 117 Resp: 457454

Ion Ratio Lower Upper

117 100

82 53.1 42.6 63.8

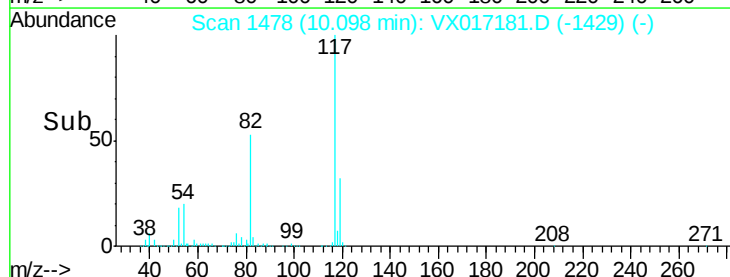
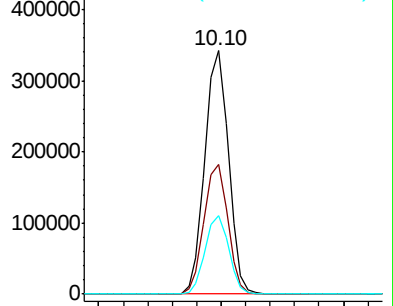
119 32.2 25.4 38.2

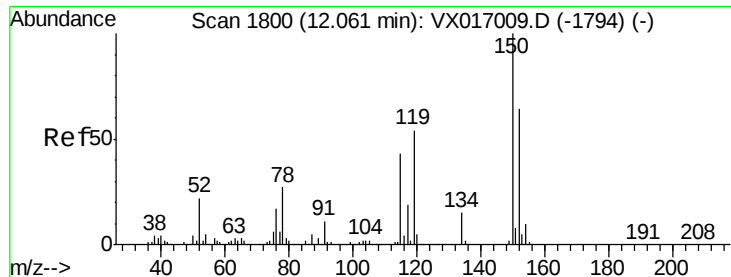


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1800

Delta R.T. -0.00 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

41BR-20200629

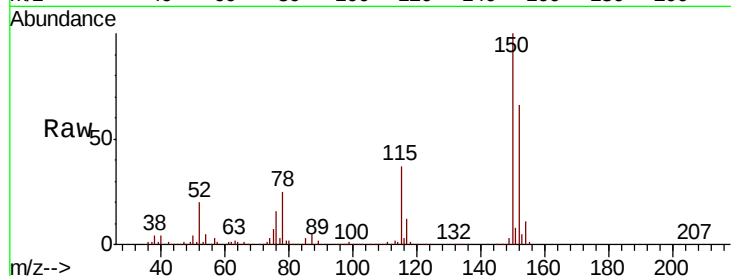
Tot Ion:152 Resp: 257026

Ion Ratio Lower Upper

152 100

115 56.4 40.9 122.7

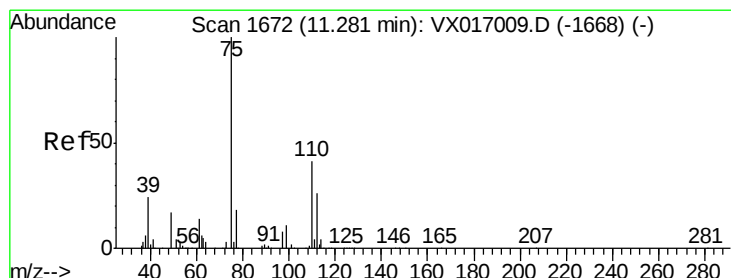
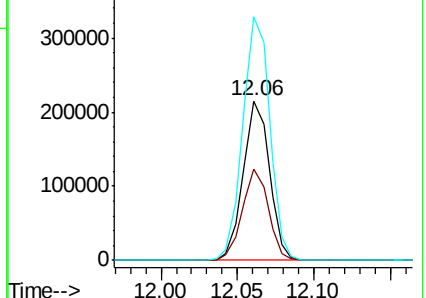
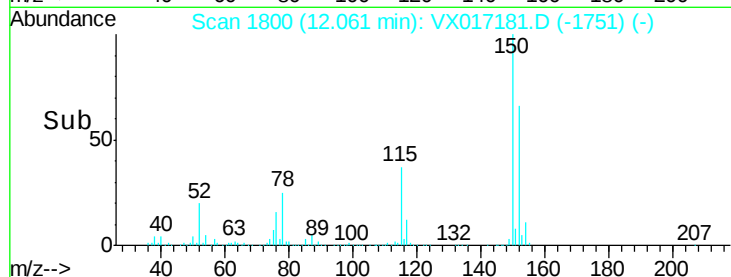
150 157.1 0.0 351.6



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 22.178 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX017181.D

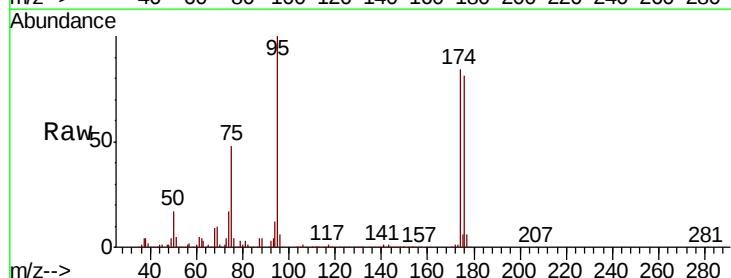
Acq: 06 Jul 2020 20:12

Tgt Ion: 75 Resp: 112092

Ion Ratio Lower Upper

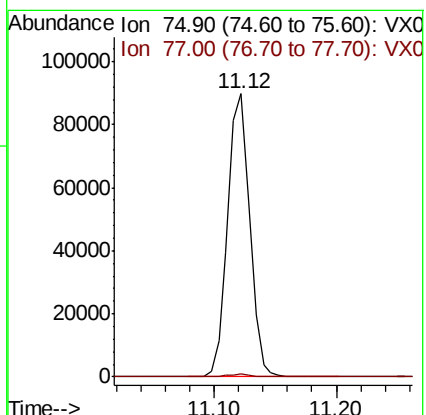
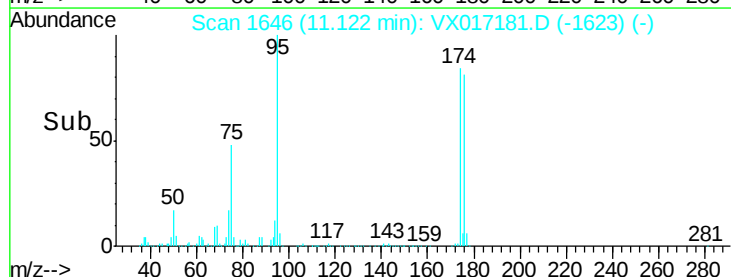
75 100

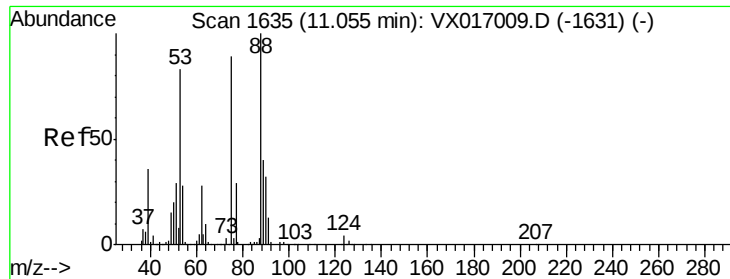
77 1.1 20.2 60.6#



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: 57.432 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.07 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

Instrument :

MSVOA\_X

ClientSampleId :

41BR-20200629

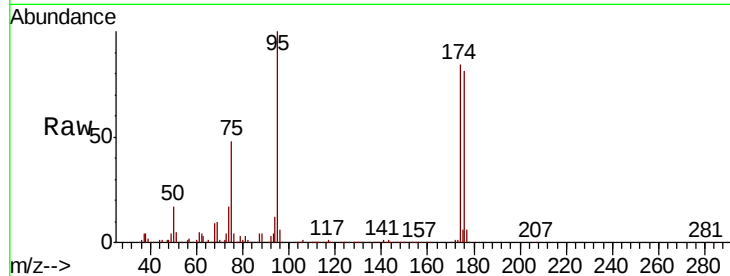
Tot Ion: 75 Resp: 112092

Ion Ratio Lower Upper

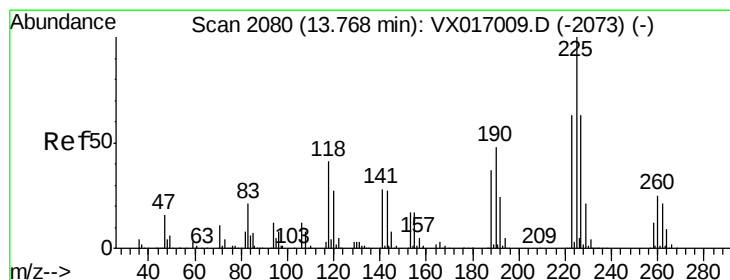
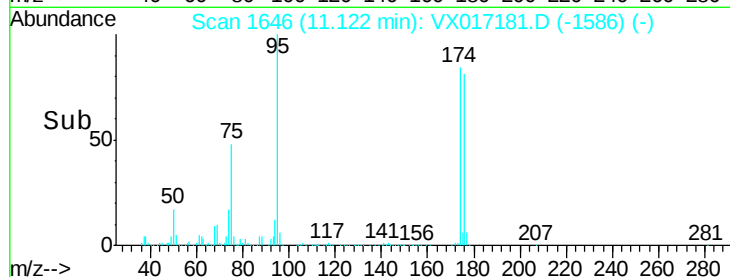
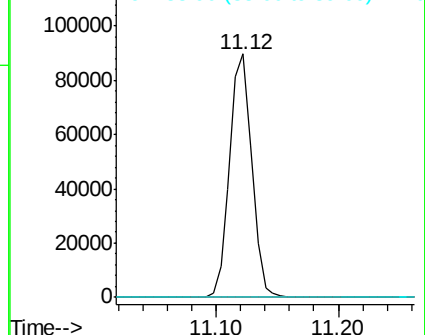
75 100

53 0.1 72.4 108.6#

89 0.0 37.0 55.4#



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: 0.855 ug/l

RT: 13.77 min Scan# 2081

Delta R.T. 0.01 min

Lab File: VX017181.D

Acq: 06 Jul 2020 20:12

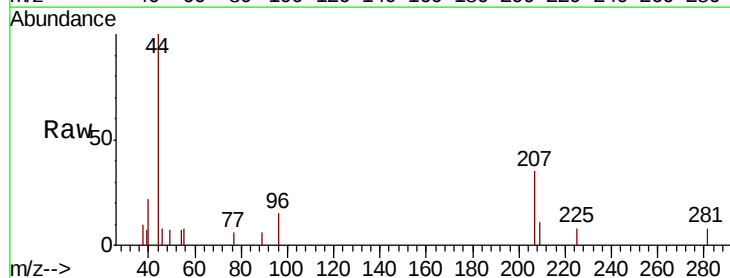
Tgt Ion: 225 Resp: 23

Ion Ratio Lower Upper

225 100

223 0.0 32.5 97.5#

227 0.0 33.1 99.2#



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

