

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070220\  
 Data File : VX017153.D  
 Acq On : 02 Jul 2020 17:03  
 Operator : JC/SP  
 Sample : L3192-14  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 16 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 BP-MW180-SOIL-604-608

Quant Time: Jul 03 00:53:18 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

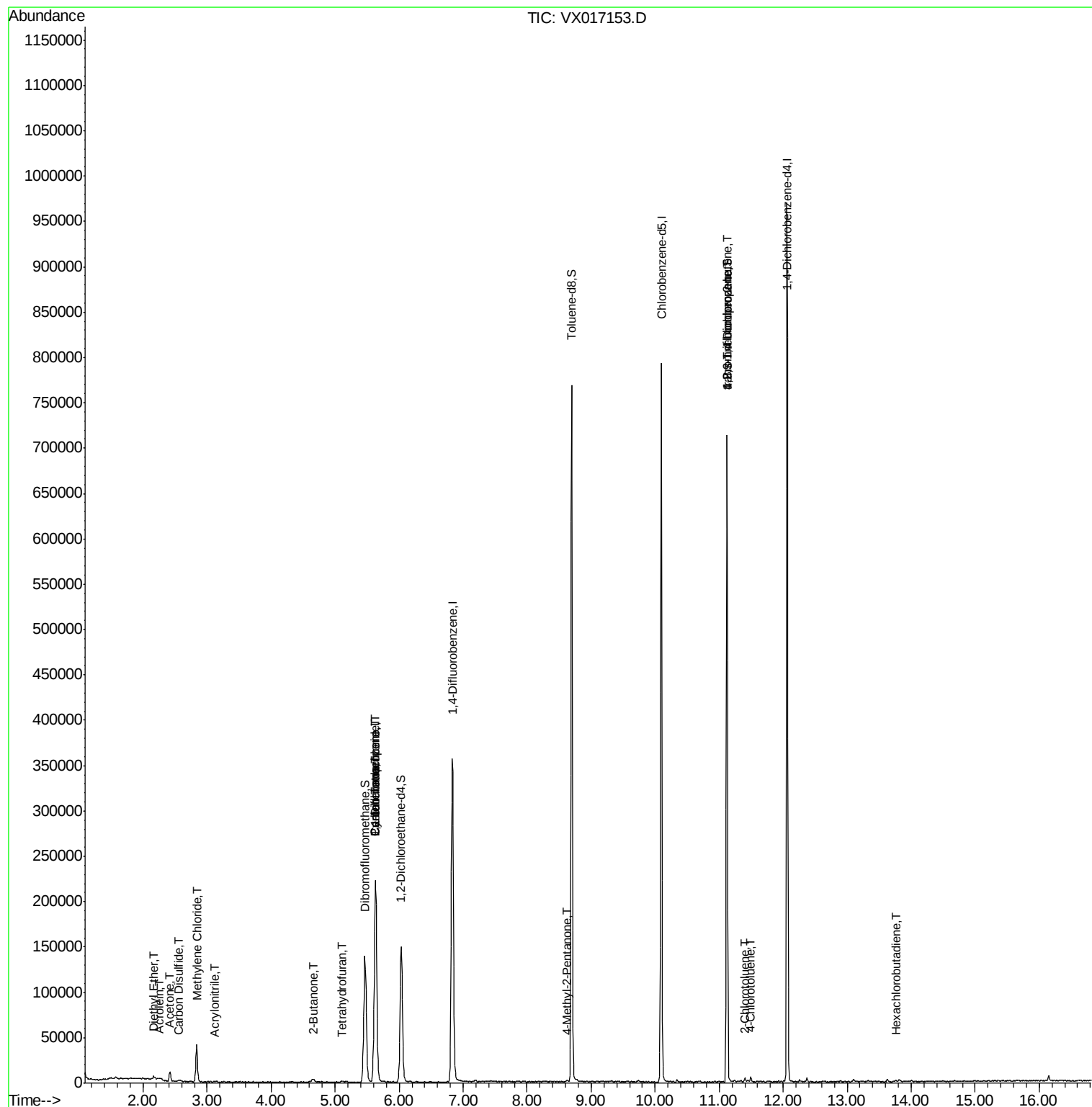
| Internal Standards             | R.T.   | QIon | Response | Conc      | Units   | Dev(Min) |
|--------------------------------|--------|------|----------|-----------|---------|----------|
| 1) Pentafluorobenzene          | 5.63   | 168  | 213374   | 50.00     | ug/l    | 0.00     |
| 34) 1,4-Difluorobenzene        | 6.83   | 114  | 361690   | 50.00     | ug/l    | 0.00     |
| 63) Chlorobenzene-d5           | 10.10  | 117  | 369981   | 50.00     | ug/l    | 0.00     |
| 72) 1,4-Dichlorobenzene-d4     | 12.06  | 152  | 201642   | 50.00     | ug/l    | 0.00     |
| System Monitoring Compounds    |        |      |          |           |         |          |
| 33) 1,2-Dichloroethane-d4      | 6.03   | 65   | 139588   | 53.07     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 106.14% |          |
| 35) Dibromofluoromethane       | 5.46   | 113  | 119400   | 52.19     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 104.38% |          |
| 50) Toluene-d8                 | 8.70   | 98   | 442317   | 52.28     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 104.56% |          |
| 62) 4-Bromofluorobenzene       | 11.12  | 95   | 182252   | 55.11     | ug/l    | 0.00     |
| Spiked Amount                  | 50.000 |      | Recovery | =         | 110.22% |          |
| Target Compounds               |        |      |          |           |         |          |
|                                |        |      |          |           | Qvalue  |          |
| 8) Diethyl Ether               | 2.17   | 74   | 1090     | 1.303     | ug/l    | 78       |
| 13) Acrolein                   | 2.25   | 56   | 304      | 1.013     | ug/l #  | 71       |
| 15) Acrylonitrile              | 3.12   | 53   | 247      | 0.205     | ug/l #  | 65       |
| 16) Acetone                    | 2.42   | 43   | 10633    | 10.806    | ug/l    | 91       |
| 17) Carbon Disulfide           | 2.55   | 76   | 1455     | 0.270     | ug/l #  | 71       |
| 20) Methylene Chloride         | 2.84   | 84   | 18188    | 7.392     | ug/l    | 92       |
| 25) 2-Butanone                 | 4.65   | 43   | 708      | 0.432     | ug/l #  | 58       |
| 29) Tetrahydrofuran            | 5.10   | 42   | 929      | 0.858     | ug/l #  | 49       |
| 31) Cyclohexane                | 5.63   | 56   | 4471     | 1.259     | ug/l #  | 24       |
| 36) 1,1-Dichloropropene        | 5.64   | 75   | 15954    | 4.667     | ug/l #  | 48       |
| 38) Carbon Tetrachloride       | 5.64   | 117  | 21223    | 5.637     | ug/l #  | 18       |
| 44) Trichloroethene            | 7.20   | 130  | 518      | Below Cal |         | 83       |
| 51) 4-Methyl-2-Pentanone       | 8.62   | 43   | 1021     | 0.297     | ug/l    | 93       |
| 76) 1,2,3-Trichloropropane     | 11.12  | 75   | 91488    | 23.073    | ug/l #  | 37       |
| 79) 2-Chlorotoluene            | 11.40  | 91   | 1836     | 0.203     | ug/l    | 98       |
| 81) trans-1,4-Dichloro-2-buten | 11.12  | 75   | 91488    | 59.751    | ug/l #  | 13       |
| 82) 4-Chlorotoluene            | 11.50  | 91   | 2205     | 0.204     | ug/l    | 100      |
| 88) 1,4-Dichlorobenzene        | 12.01  | 146  | 549      | Below Cal |         | 86       |
| 94) Hexachlorobutadiene        | 13.76  | 225  | 307      | 1.033     | ug/l #  | 67       |

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

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX070220\  
Data File : VX017153.D  
Acq On : 02 Jul 2020 17:03  
Operator : JC/SP  
Sample : L3192-14  
Misc : 5.0mL/MSVOA X/WATER  
ALS Vial : 16 Sample Multiplier: 1

Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-MW180-SOIL-604-608

Quant Time: Jul 03 00:53:18 2020  
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: 5.63 min Scan# 745

Delta R.T. -0.01 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

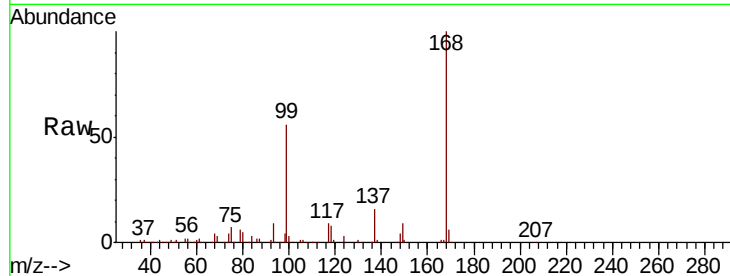
BP-MW180-SOIL-604-608

Tot Ion:168 Resp: 213374

Ion Ratio Lower Upper

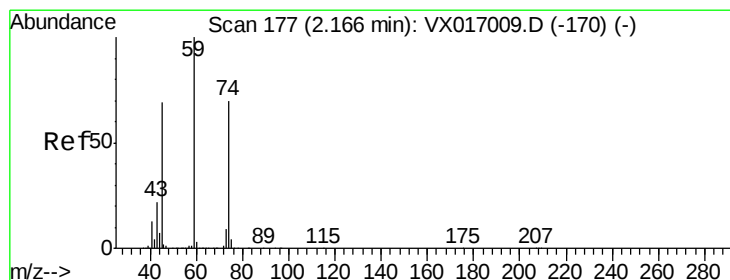
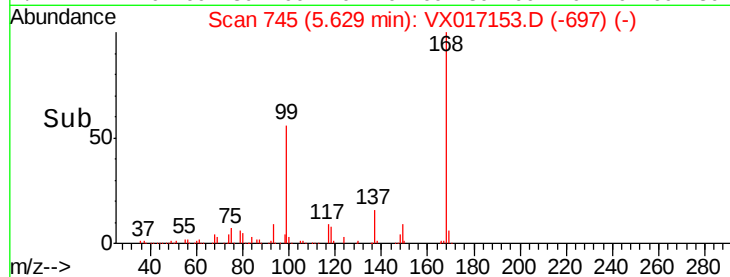
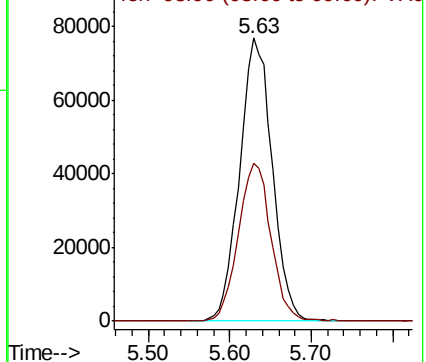
168 100

99 55.7 42.6 64.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#8

Diethyl Ether

Concen: 1.303 ug/l

RT: 2.17 min Scan# 177

Delta R.T. 0.00 min

Lab File: VX017153.D

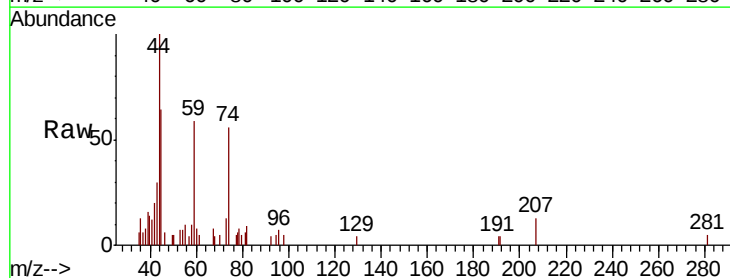
Acq: 02 Jul 2020 17:03

Tgt Ion: 74 Resp: 1090

Ion Ratio Lower Upper

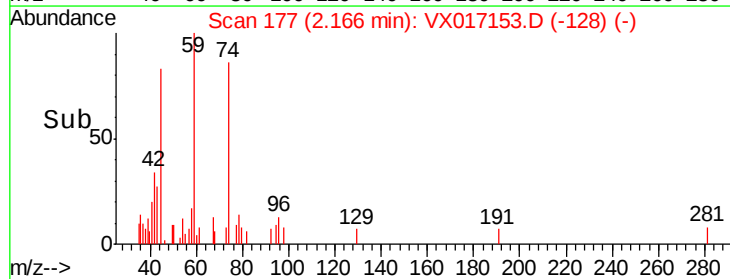
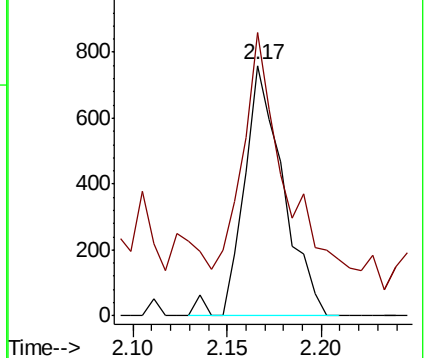
74 100

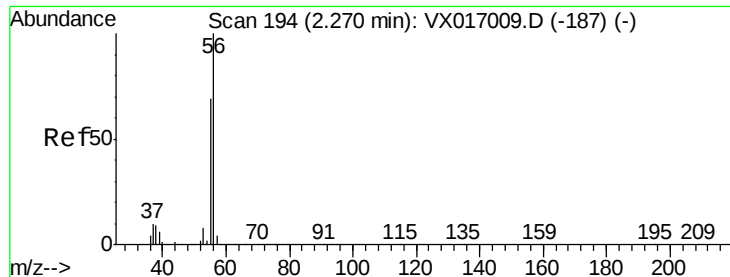
45 121.7 49.8 149.3



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0





#13

Acrolein

Concen: 1.013 ug/l

RT: 2.25 min Scan# 191

Delta R.T. -0.02 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

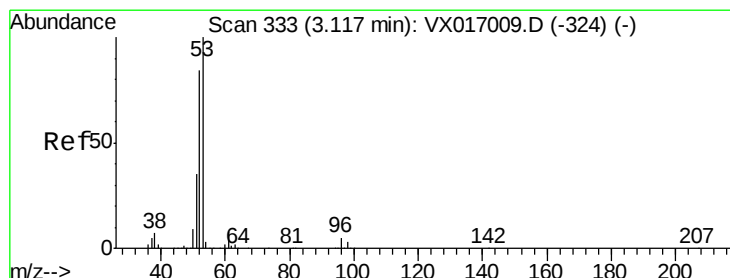
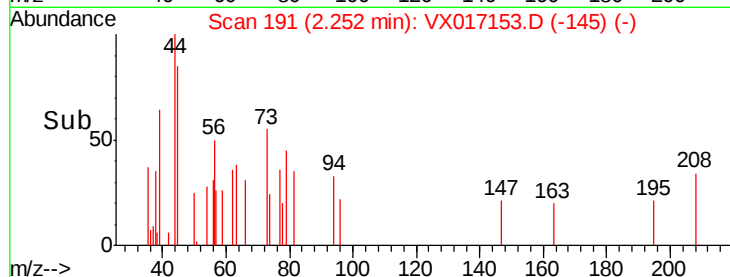
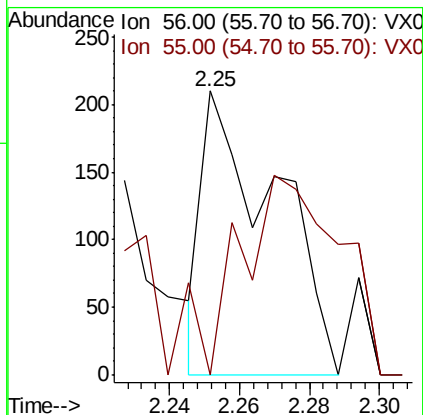
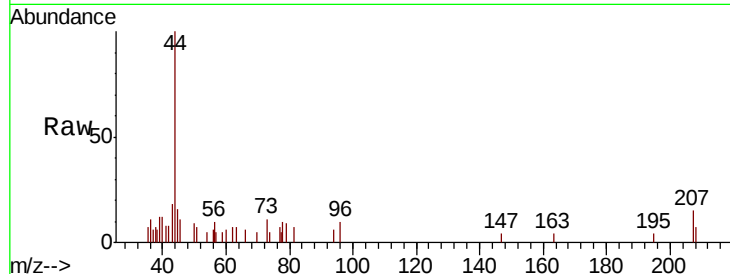
BP-MW180-SOIL-604-608

Tot Ion: 56 Resp: 304

Ion Ratio Lower Upper

56 100

55 93.1 55.7 83.5#



#15

Acrylonitrile

Concen: 0.205 ug/l

RT: 3.12 min Scan# 334

Delta R.T. 0.01 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

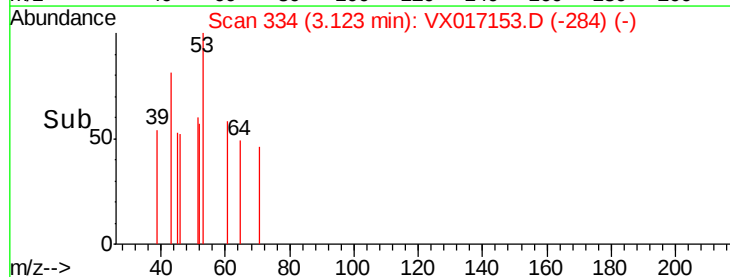
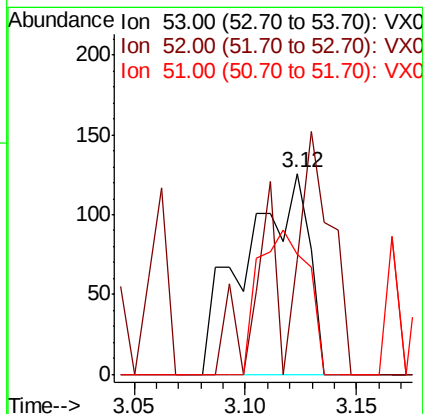
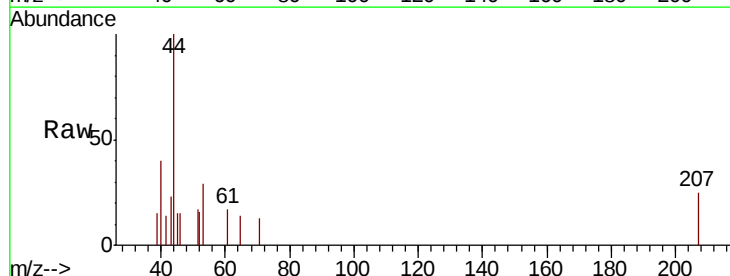
Tgt Ion: 53 Resp: 247

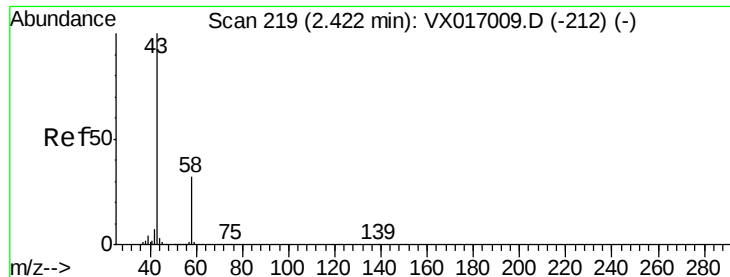
Ion Ratio Lower Upper

53 100

52 60.7 65.6 98.4#

51 0.0 28.3 42.5#





#16

Acetone

Concen: 10.806 ug/l

RT: 2.42 min Scan# 219

Delta R.T. -0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

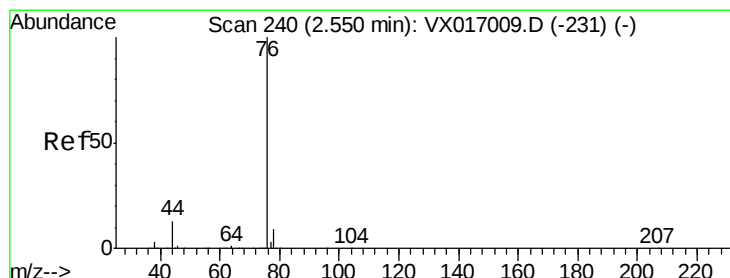
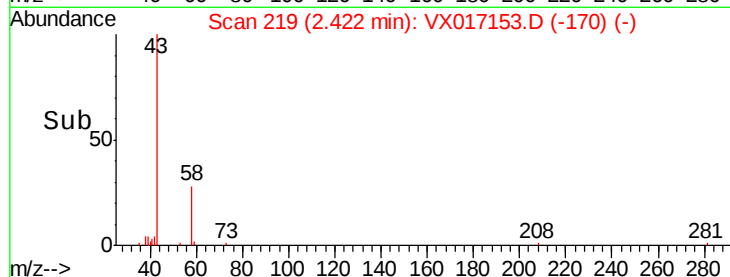
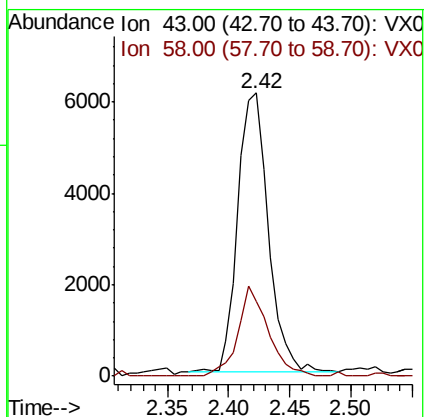
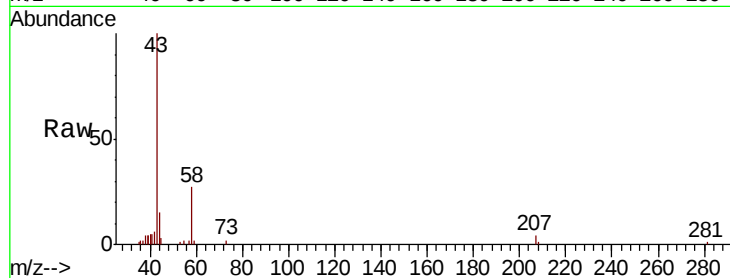
BP-MW180-SOIL-604-608

Tot Ion: 43 Resp: 10633

Ion Ratio Lower Upper

43 100

58 26.9 25.7 38.5



#17

Carbon Disulfide

Concen: 0.270 ug/l

RT: 2.55 min Scan# 240

Delta R.T. 0.00 min

Lab File: VX017153.D

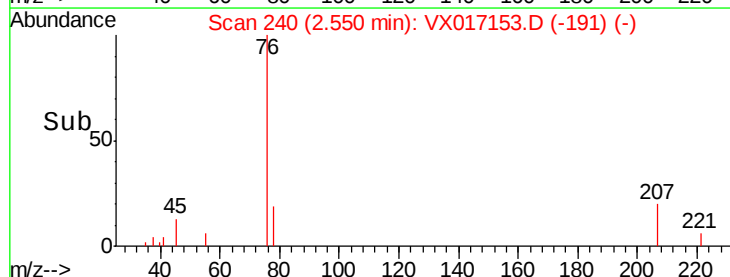
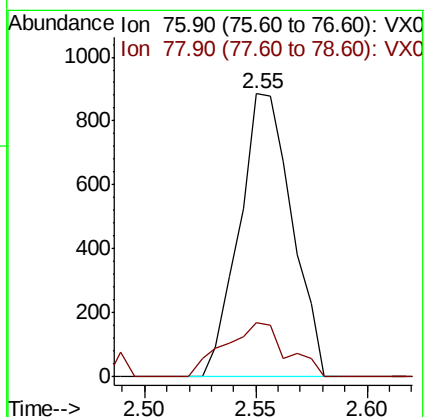
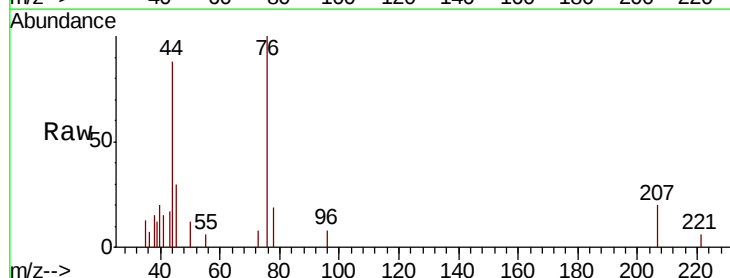
Acq: 02 Jul 2020 17:03

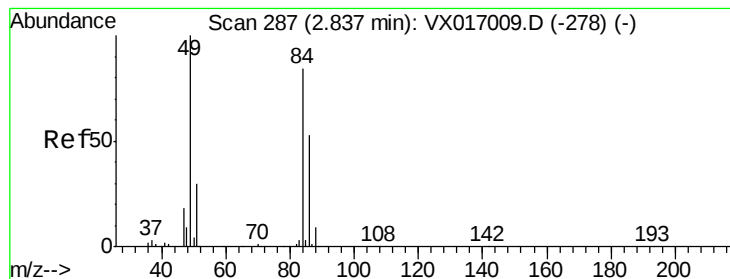
Tgt Ion: 76 Resp: 1455

Ion Ratio Lower Upper

76 100

78 19.3 7.2 10.8#





#20

Methvlene Chloride

Concen: 7.392 ug/l

RT: 2.84 min Scan# 287

Delta R.T. 0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

BP-MW180-SOIL-604-608

Tot Ion: 84 Resp: 18188

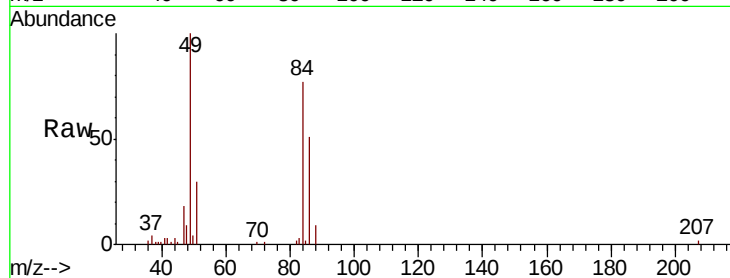
Ion Ratio Lower Upper

84 100

49 130.0 94.7 142.1

51 38.7 28.6 42.8

86 66.8 50.5 75.7

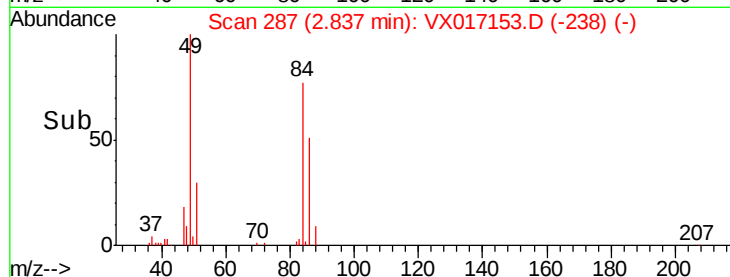
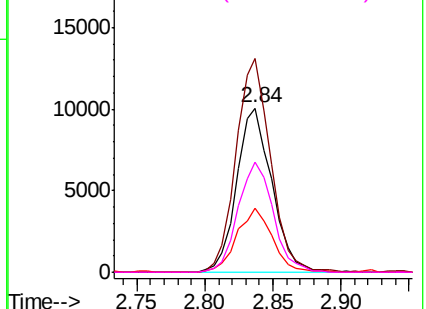


Abundance Ion 83.90 (83.60 to 84.60): VX0

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



#25

2-Butanone

Concen: 0.432 ug/l

RT: 4.65 min Scan# 585

Delta R.T. 0.02 min

Lab File: VX017153.D

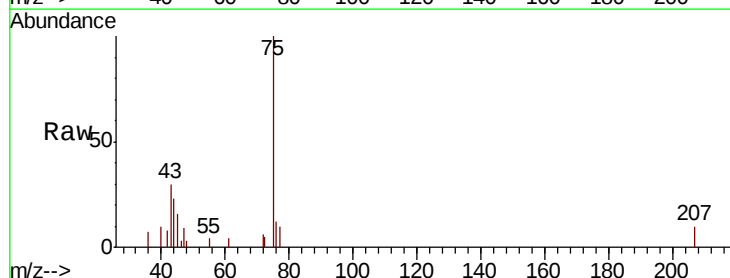
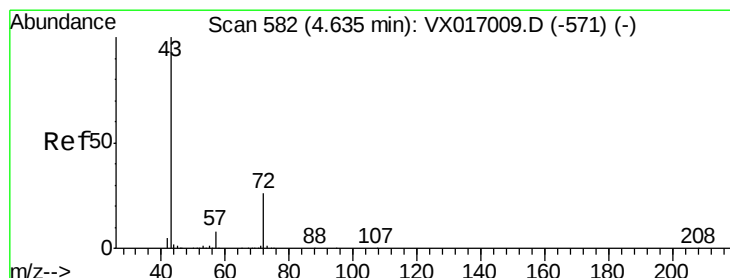
Acq: 02 Jul 2020 17:03

Tgt Ion: 43 Resp: 708

Ion Ratio Lower Upper

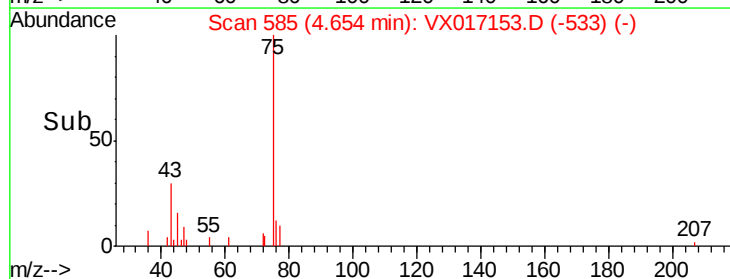
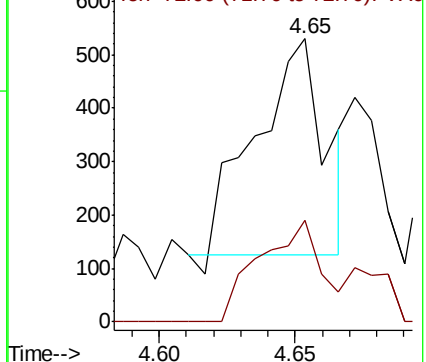
43 100

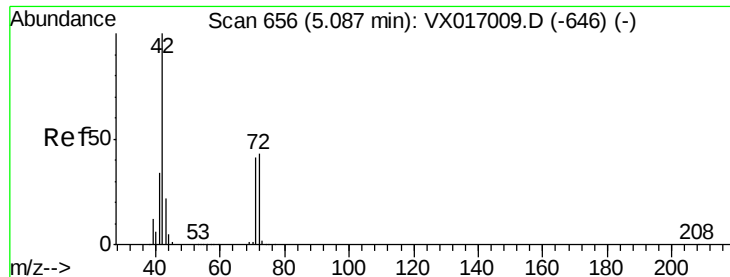
72 47.3 20.8 31.2#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

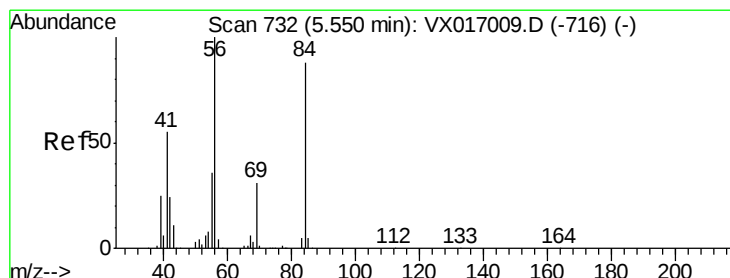
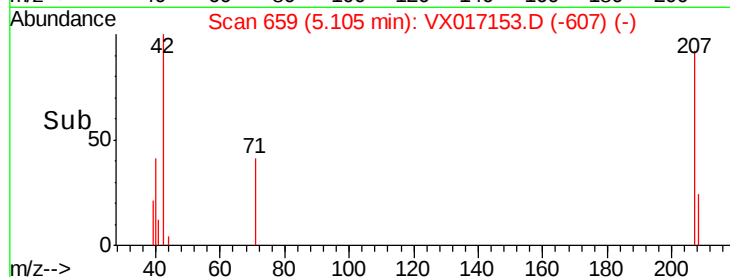
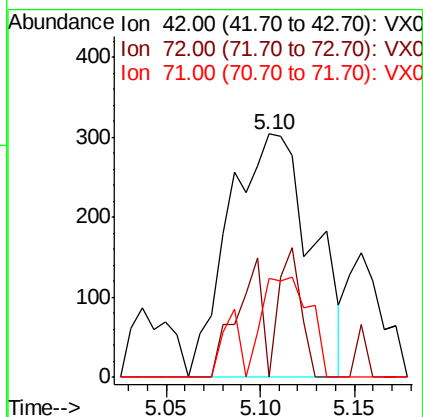
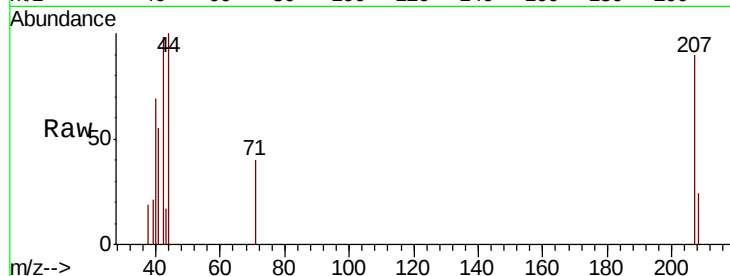




#29  
Tetrahydrofuran  
Concen: 0.858 ug/l  
RT: 5.10 min Scan# 659  
Delta R.T. 0.02 min  
Lab File: VX017153.D  
Acq: 02 Jul 2020 17:03

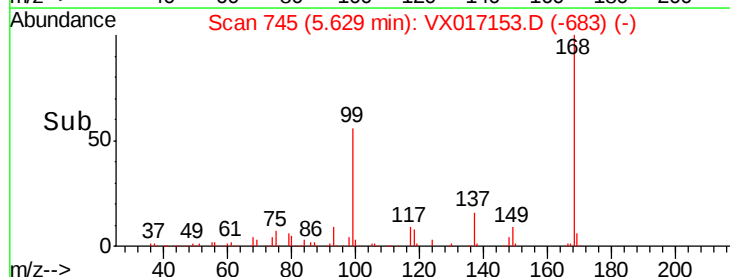
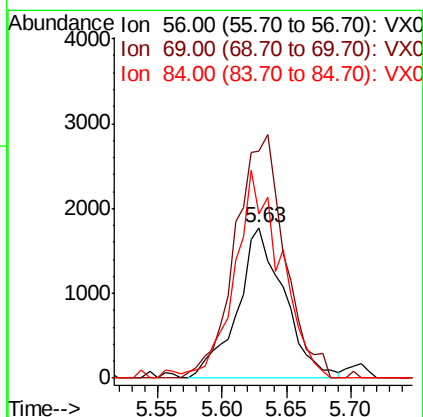
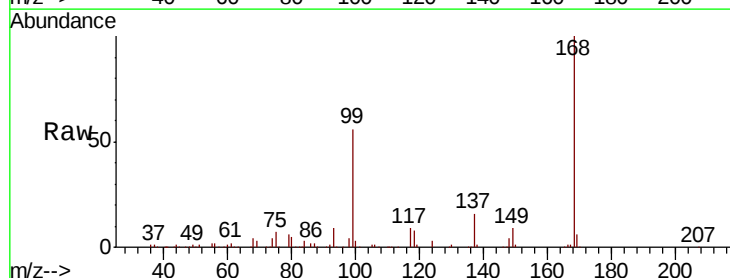
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-MW180-SOIL-604-608

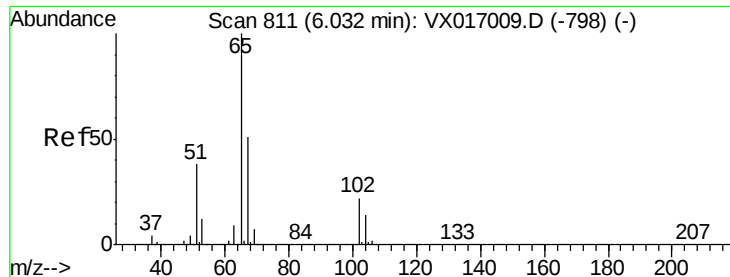
Tot Ion: 42 Resp: 929  
Ion Ratio Lower Upper  
42 100  
72 15.3 35.3 52.9#  
71 5.6 33.1 49.7#



#31  
Cyclohexane  
Concen: 1.259 ug/l  
RT: 5.63 min Scan# 745  
Delta R.T. 0.08 min  
Lab File: VX017153.D  
Acq: 02 Jul 2020 17:03

Tgt Ion: 56 Resp: 4471  
Ion Ratio Lower Upper  
56 100  
69 151.2 25.0 37.4#  
84 108.9 69.1 103.7#





#33

1,2-Dichloroethane-d4

Concen: 53.066 ug/l

RT: 6.03 min Scan# 811

Delta R.T. -0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

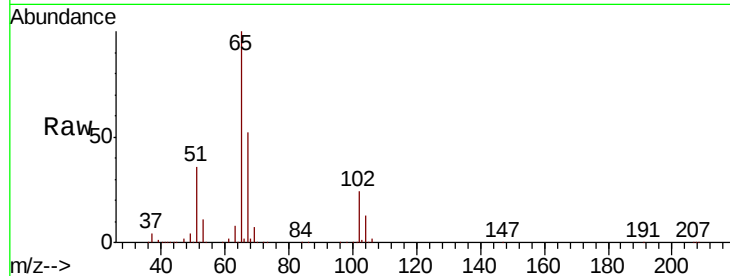
BP-MW180-SOIL-604-608

Tot Ion: 65 Resp: 139588

Ion Ratio Lower Upper

65 100

67 51.7 0.0 103.8



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0

6.03

60000

50000

40000

30000

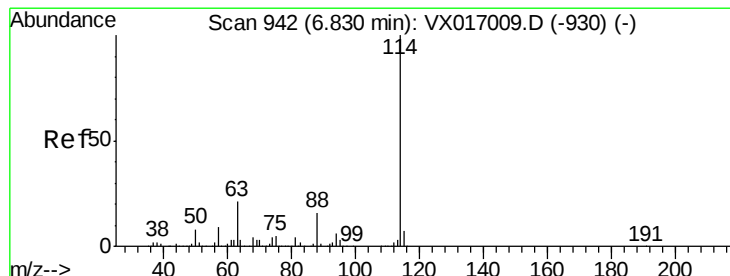
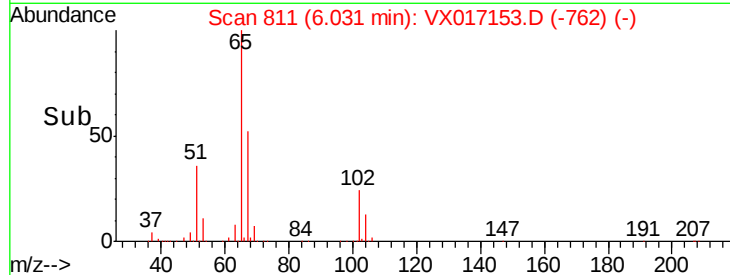
20000

10000

0

Time-->

5.90 6.00 6.10 6.20



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 6.83 min Scan# 942

Delta R.T. -0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

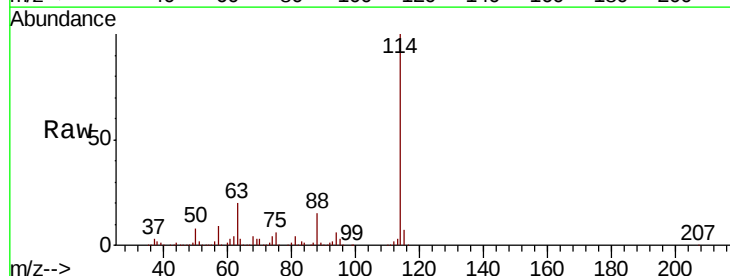
Tgt Ion: 114 Resp: 361690

Ion Ratio Lower Upper

114 100

63 20.0 0.0 41.4

88 14.9 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

200000

150000

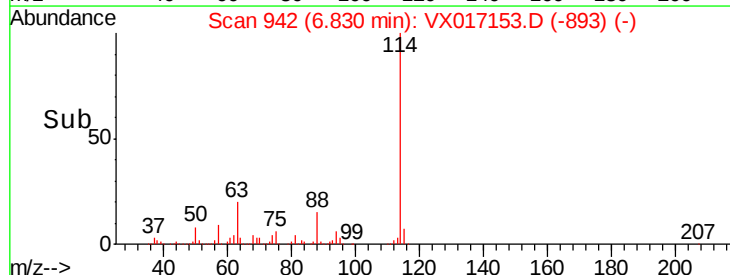
100000

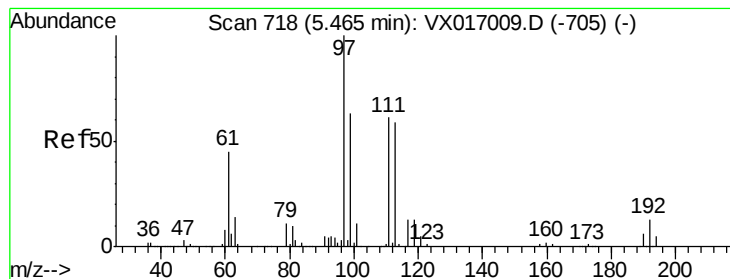
50000

0

Time-->

6.70 6.80 6.90 7.00





#35

Dibromofluoromethane

Concen: 52.187 ug/l

RT: 5.46 min Scan# 718

Delta R.T. -0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

BP-MW180-SOIL-604-608

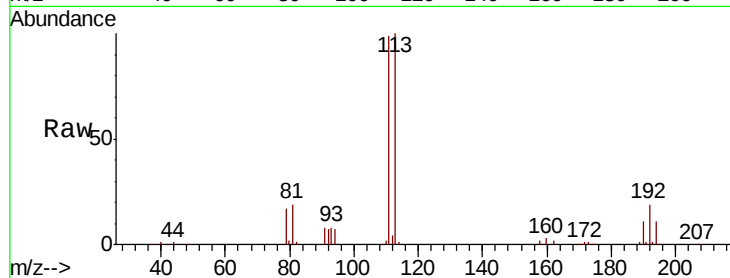
Tot Ion:113 Resp: 119400

Ion Ratio Lower Upper

113 100

111 102.3 81.9 122.9

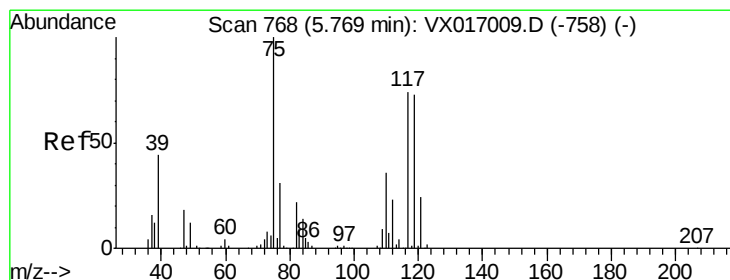
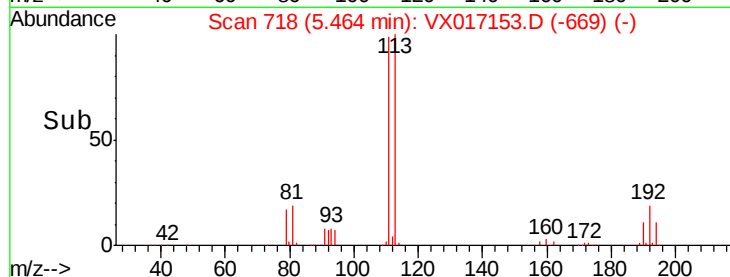
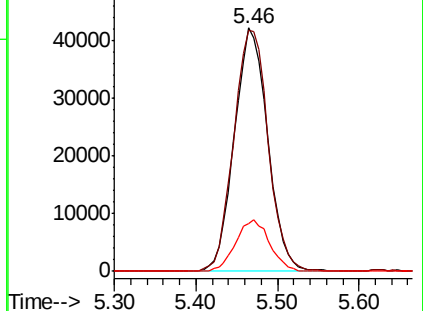
192 21.6 16.7 25.1



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: 4.667 ug/l

RT: 5.64 min Scan# 746

Delta R.T. -0.13 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

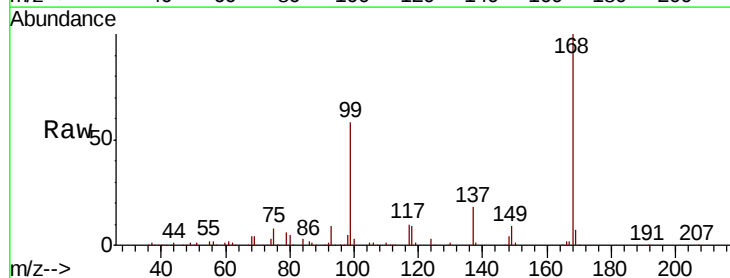
Tgt Ion: 75 Resp: 15954

Ion Ratio Lower Upper

75 100

110 7.2 18.1 54.1#

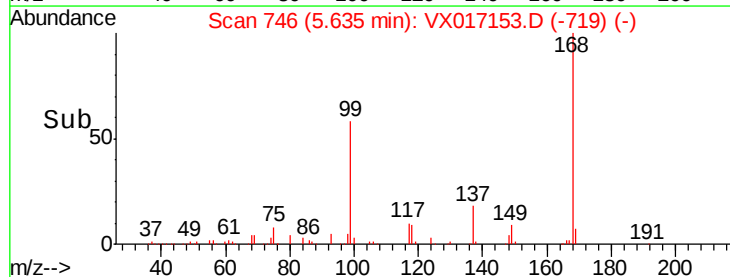
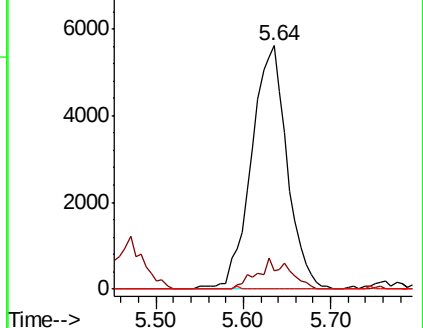
77 0.0 24.6 37.0#

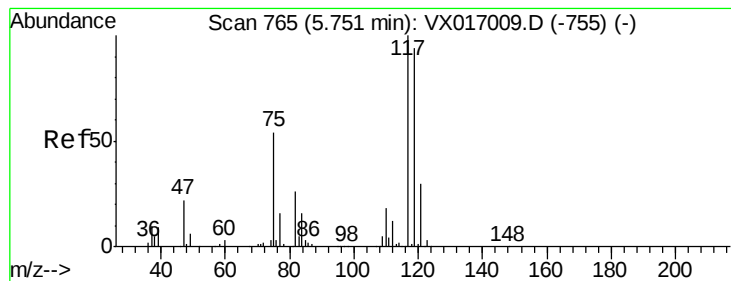


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#38

Carbon Tetrachloride

Concen: 5.637 ug/l

RT: 5.64 min Scan# 746

Delta R.T. -0.12 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

BP-MW180-SOIL-604-608

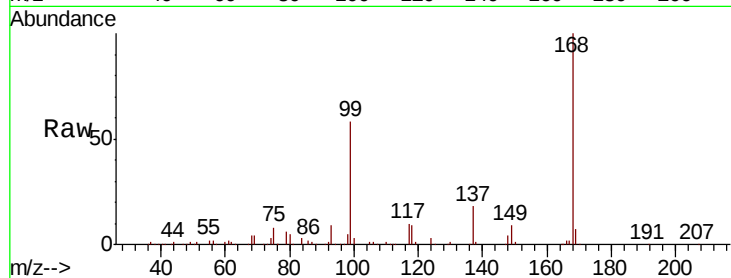
Tot Ion:117 Resp: 21223

Ion Ratio Lower Upper

117 100

119 6.1 75.4 113.0#

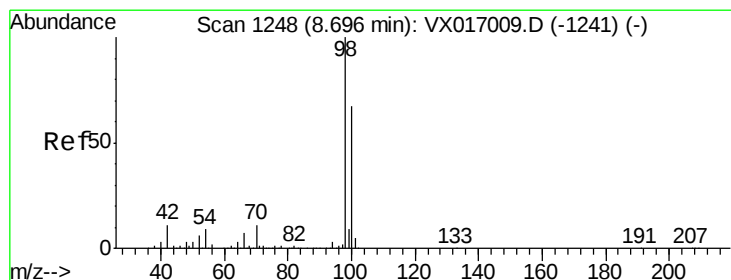
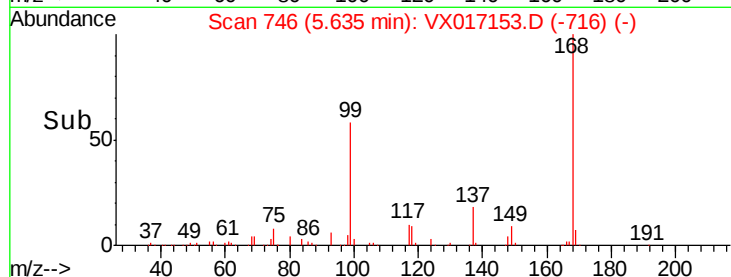
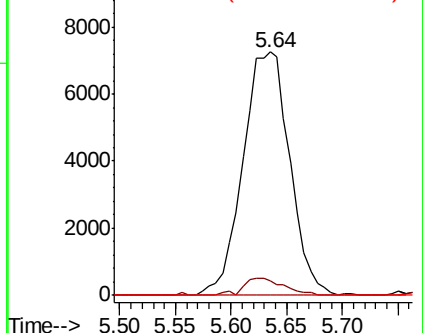
121 0.0 23.8 35.6#



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



#50

Toluene-d8

Concen: 52.281 ug/l

RT: 8.70 min Scan# 1248

Delta R.T. -0.00 min

Lab File: VX017153.D

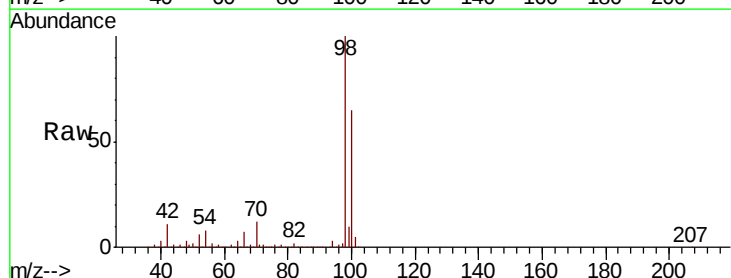
Acq: 02 Jul 2020 17:03

Tgt Ion: 98 Resp: 442317

Ion Ratio Lower Upper

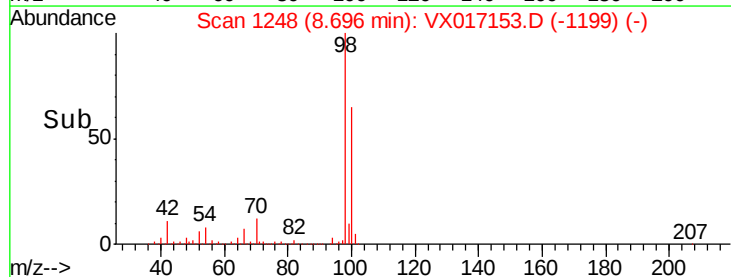
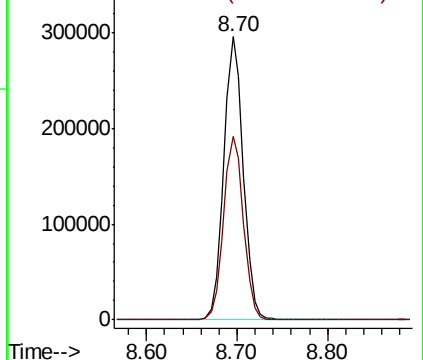
98 100

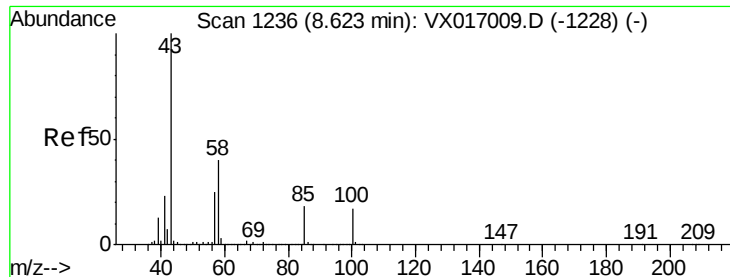
100 65.8 53.8 80.6



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V





#51

4-Methyl-2-Pentanone

Concen: 0.297 ug/l

RT: 8.62 min Scan# 1236

Delta R.T. -0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

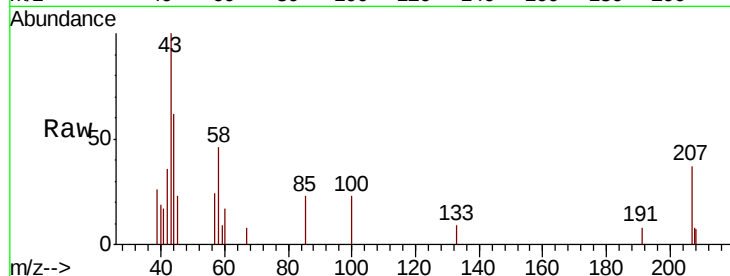
BP-MW180-SOIL-604-608

Tot Ion: 43 Resp: 1021

Ion Ratio Lower Upper

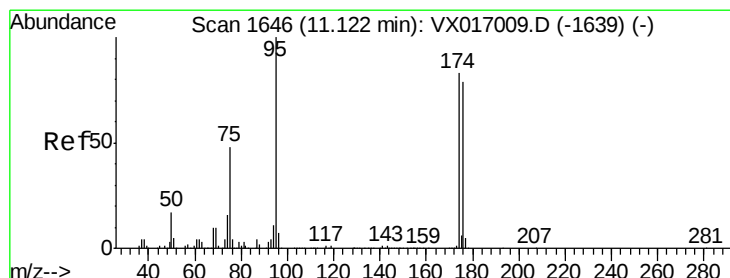
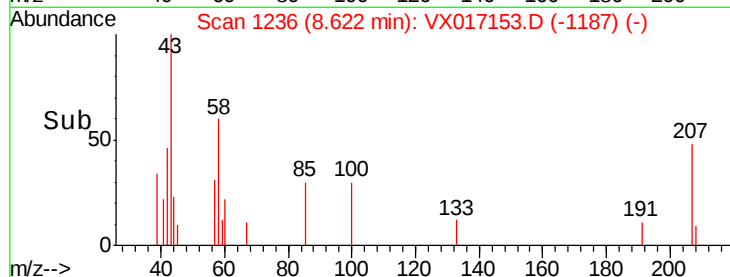
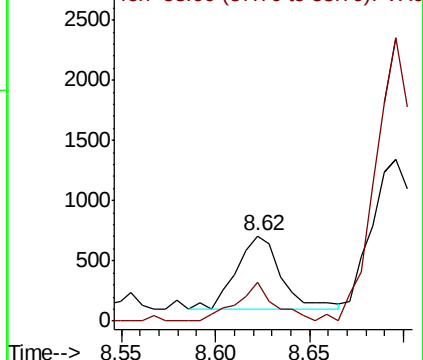
43 100

58 44.1 31.9 47.9



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#62

4-Bromofluorobenzene

Concen: 55.107 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.00 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

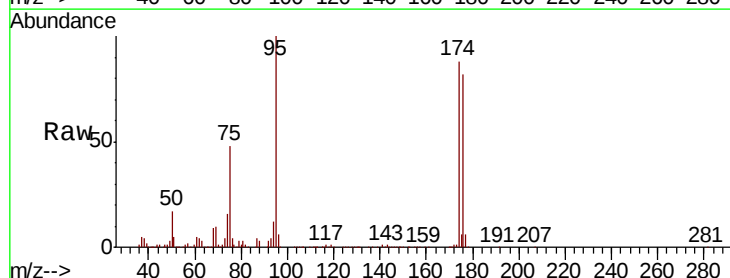
Tgt Ion: 95 Resp: 182252

Ion Ratio Lower Upper

95 100

174 84.6 0.0 164.0

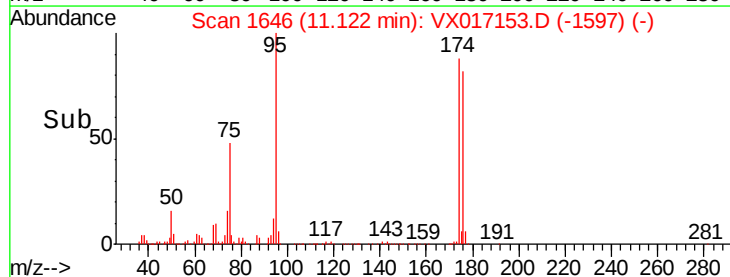
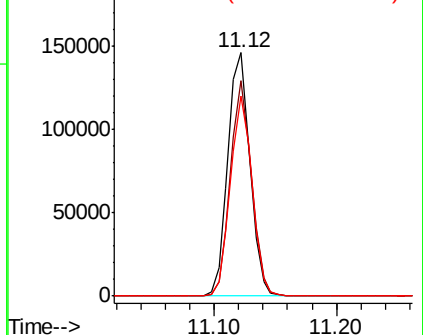
176 80.7 0.0 157.6

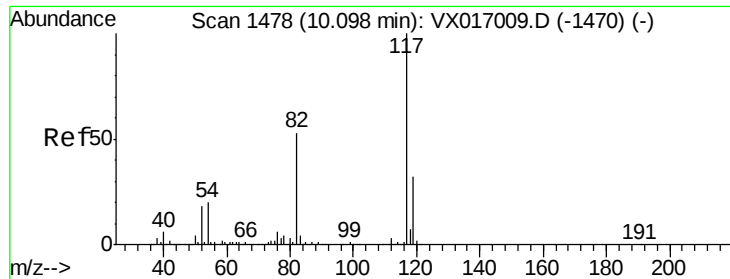


Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

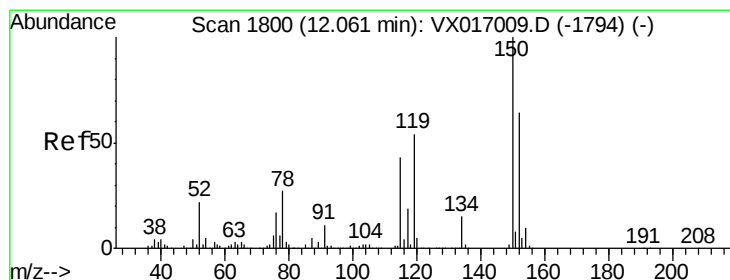
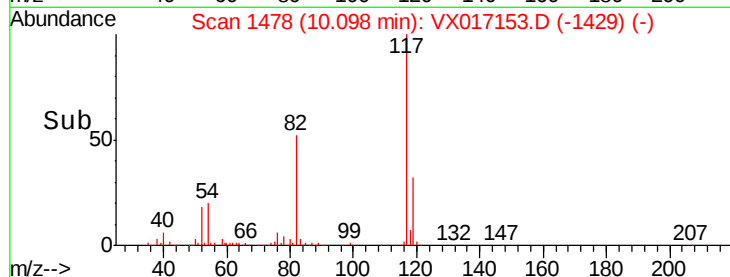
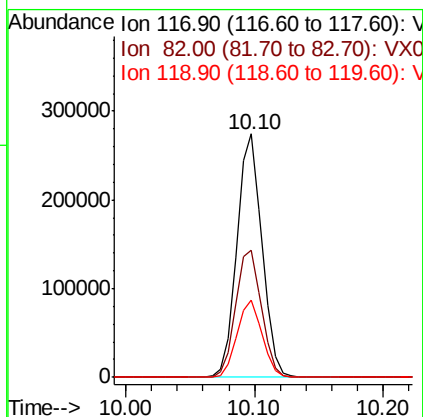
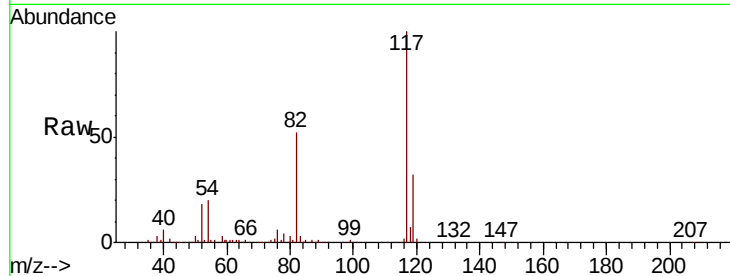




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 10.10 min Scan# 1478  
Delta R.T. -0.00 min  
Lab File: VX017153.D  
Acq: 02 Jul 2020 17:03

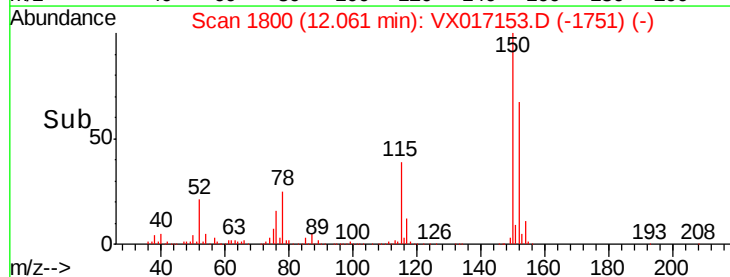
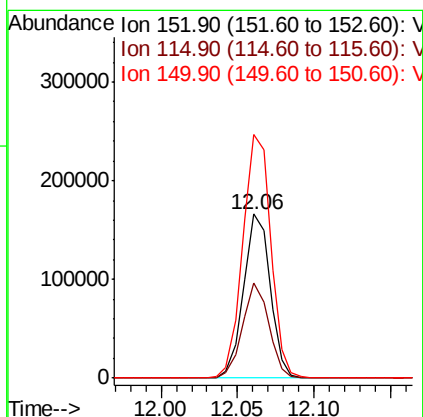
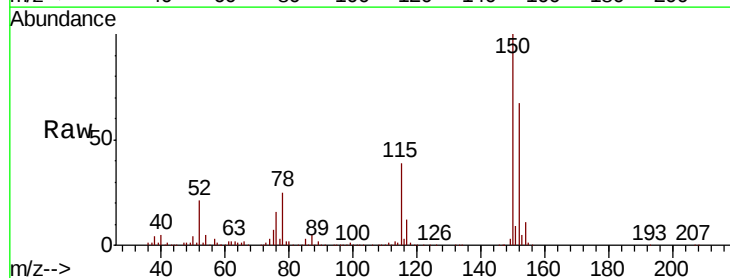
Instrument :  
MSVOA\_X  
ClientSampleId :  
BP-MW180-SOIL-604-608

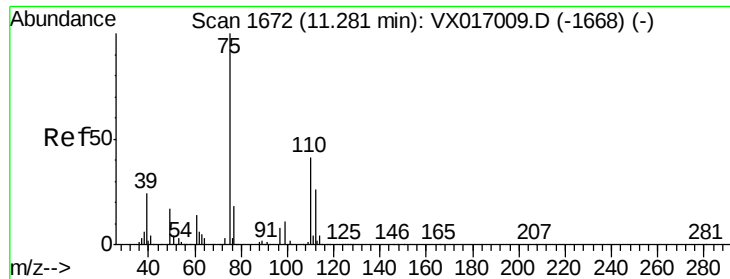
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 52.1  | 42.6  | 63.8  |
| 119     | 31.9  | 25.4  | 38.2  |



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.06 min Scan# 1800  
Delta R.T. -0.00 min  
Lab File: VX017153.D  
Acq: 02 Jul 2020 17:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 57.0  | 40.9  | 122.7 |
| 150     | 155.1 | 0.0   | 351.6 |





#76

1,2,3-Trichloropropane

Concen: 23.073 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. -0.16 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

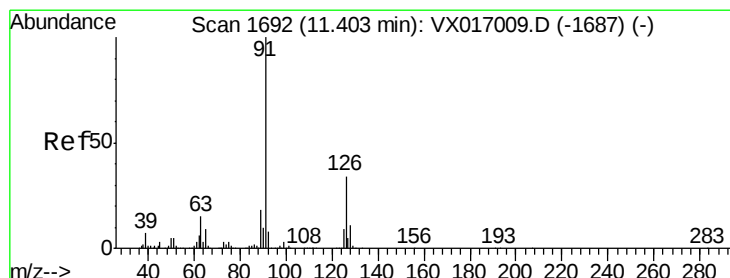
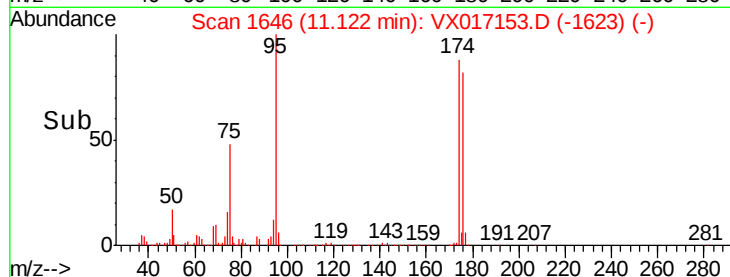
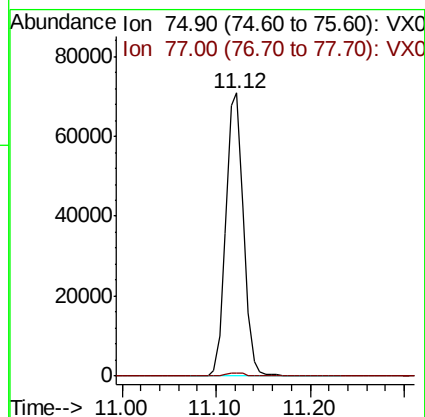
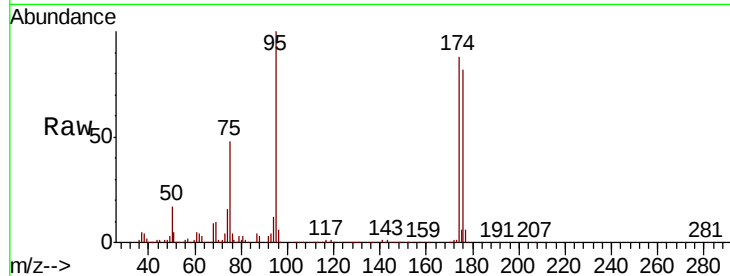
BP-MW180-SOIL-604-608

Tot Ion: 75 Resp: 91488

Ion Ratio Lower Upper

75 100

77 1.3 20.2 60.6#



#79

2-Chlorotoluene

Concen: 0.203 ug/l

RT: 11.40 min Scan# 1692

Delta R.T. -0.00 min

Lab File: VX017153.D

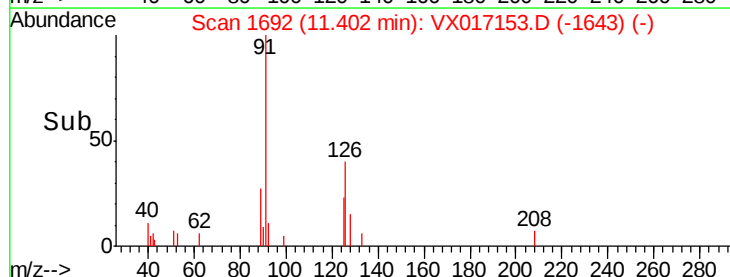
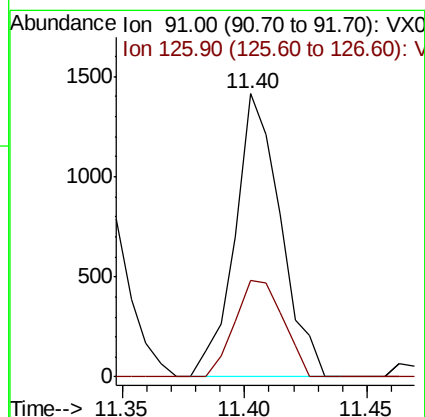
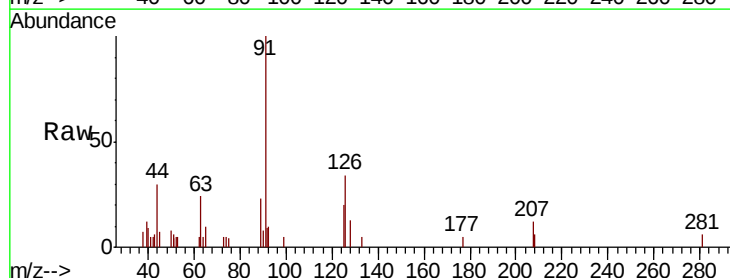
Acq: 02 Jul 2020 17:03

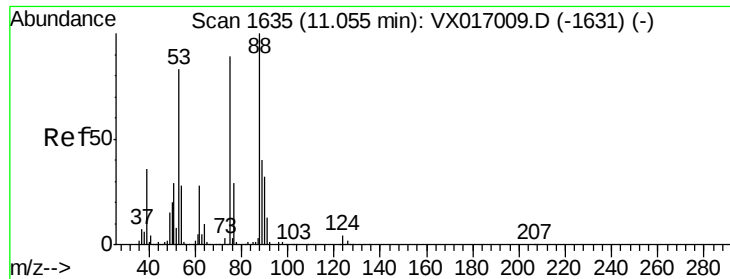
Tgt Ion: 91 Resp: 1836

Ion Ratio Lower Upper

91 100

126 36.2 17.4 52.3





#81

trans-1,4-Dichloro-2-butene

Concen: 59.751 ug/l

RT: 11.12 min Scan# 1646

Delta R.T. 0.07 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

BP-MW180-SOIL-604-608

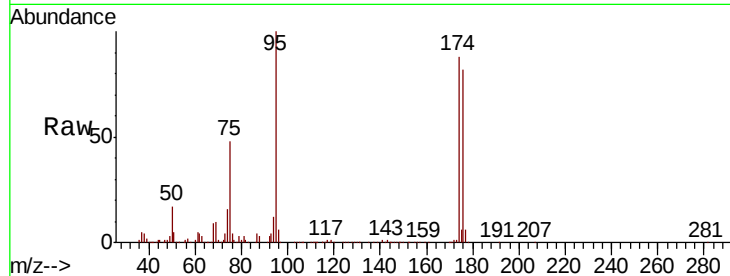
Tot Ion: 75 Resp: 91488

Ion Ratio Lower Upper

75 100

53 0.3 72.4 108.6#

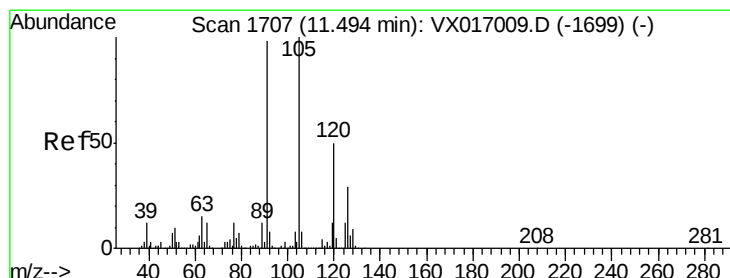
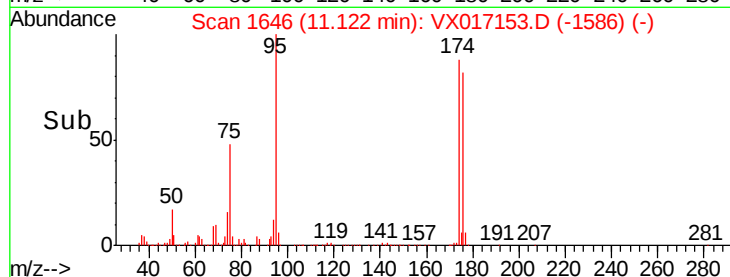
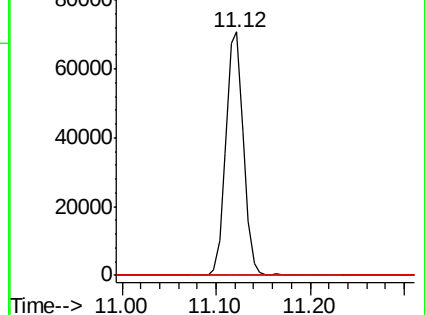
89 0.0 37.0 55.4#



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



#82

4-Chlorotoluene

Concen: 0.204 ug/l

RT: 11.50 min Scan# 1708

Delta R.T. 0.01 min

Lab File: VX017153.D

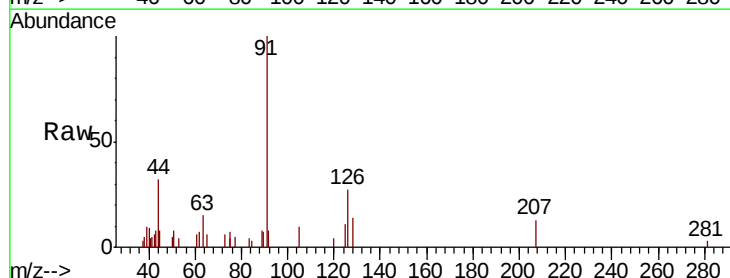
Acq: 02 Jul 2020 17:03

Tgt Ion: 91 Resp: 2205

Ion Ratio Lower Upper

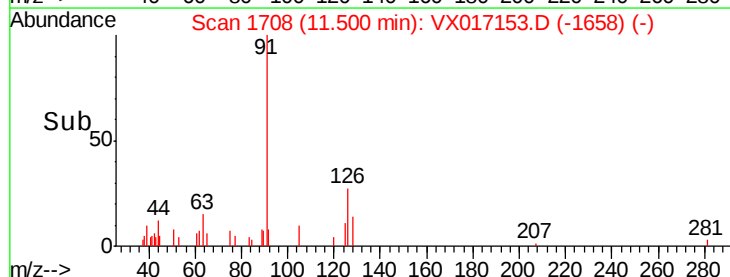
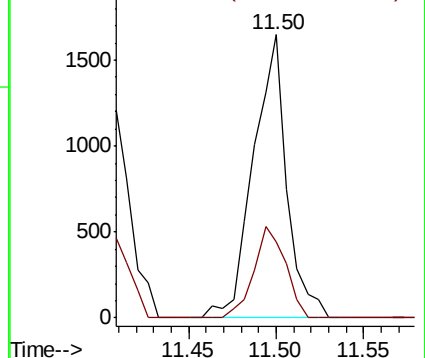
91 100

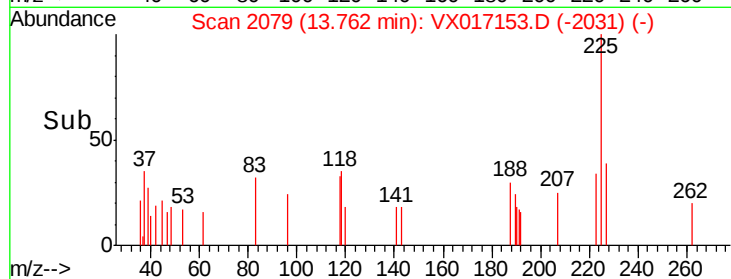
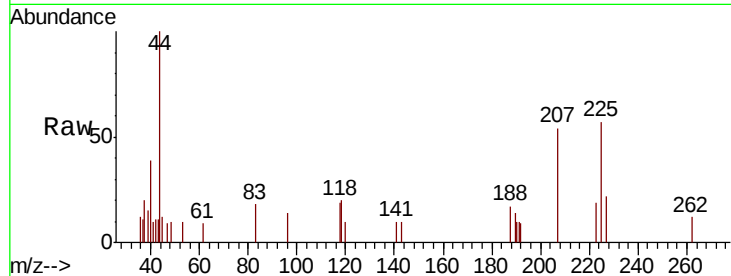
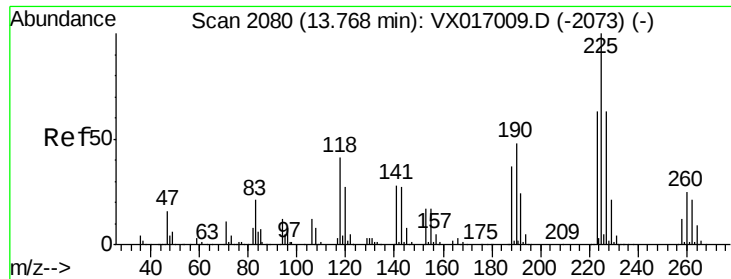
126 30.4 15.2 45.5



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 125.90 (125.60 to 126.60): V





#94

Hexachlorobutadiene

Concen: 1.033 ug/l

RT: 13.76 min Scan# 2079

Delta R.T. -0.01 min

Lab File: VX017153.D

Acq: 02 Jul 2020 17:03

Instrument :

MSVOA\_X

ClientSampleId :

BP-MW180-SOIL-604-608

Tot Ion:225 Resp: 307

Ion Ratio Lower Upper

225 100

223 46.6 32.5 97.5

227 31.6 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

