

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD062519\  
 Data File : VD062897.D  
 Acq On : 26 Jun 2019 2:08  
 Operator : VA/AP  
 Sample : K3518-04  
 Misc : 5.09g/5ml/MSVOA D/SOIL  
 ALS Vial : 35 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 CP-S4-SOIL

Quant Time: Jun 26 05:38:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D061919S.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Jun 20 01:50:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.06  | 168  | 158513   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.22  | 114  | 240989   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.37 | 117  | 221977   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 105420   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

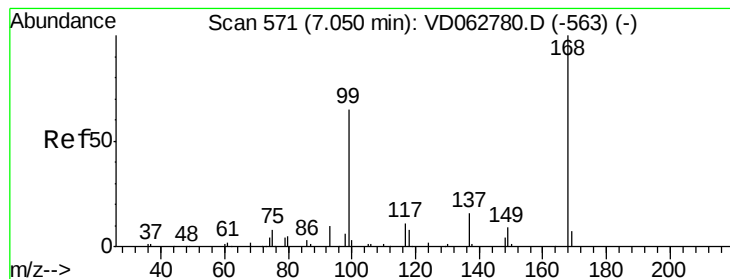
|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 7.46   | 65  | 156221   | 90.67 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 181.34% |      |
| 35) Dibromofluoromethane  | 6.93   | 113 | 117758   | 57.95 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 115.90% |      |
| 50) Toluene-d8            | 10.41  | 98  | 199352   | 45.08 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.16%  |      |
| 62) 4-Bromofluorobenzene  | 13.55  | 95  | 98272    | 48.87 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.74%  |      |

## Target Compounds

|                                |       |     |        |          | Qvalue |    |
|--------------------------------|-------|-----|--------|----------|--------|----|
| 5) Bromomethane                | 2.16  | 94  | 2628   | 3.669    | ug/l # | 49 |
| 11) Tert butyl alcohol         | 4.05  | 59  | 212    | 2.702    | ug/l # | 77 |
| 20) Methylene Chloride         | 3.82  | 84  | 2431   | 1.850    | ug/l # | 62 |
| 25) 2-Butanone                 | 6.07  | 43  | 670    | 2.079    | ug/l # | 64 |
| 28) Bromochloromethane         | 6.45  | 49  | 1684   | 1.943    | ug/l # | 4  |
| 29) Tetrahydrofuran            | 6.46  | 42  | 411933 | 2701.702 | ug/l   | 98 |
| 31) Cyclohexane                | 7.06  | 56  | 4609   | 2.849    | ug/l # | 11 |
| 36) 1,1-Dichloropropene        | 7.05  | 75  | 11674  | 5.117    | ug/l # | 60 |
| 38) Carbon Tetrachloride       | 7.06  | 117 | 15732  | 4.585    | ug/l # | 13 |
| 41) Methacrylonitrile          | 6.45  | 41  | 315748 | 262.452  | ug/l # | 80 |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75  | 46345  | 145.302  | ug/l # | 2  |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.06 min Scan# 572

Delta R.T. 0.01 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleId :

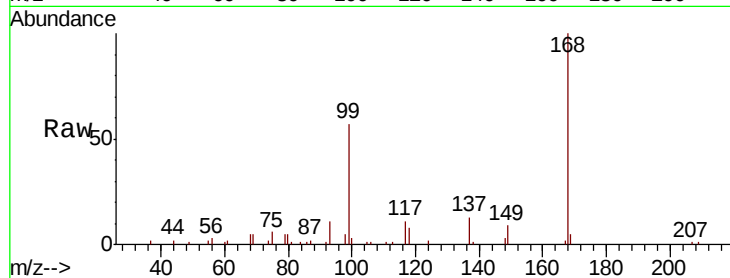
CP-S4-SOIL

Tot Ion:168 Resp: 158513

Ion Ratio Lower Upper

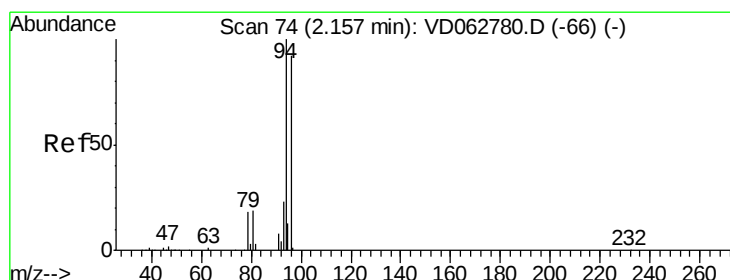
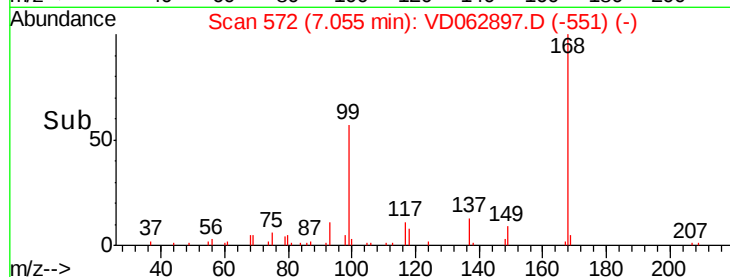
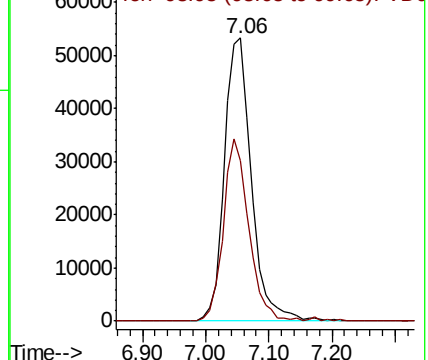
168 100

99 56.6 53.0 79.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC



#5

Bromomethane

Concen: 3.669 ug/l

RT: 2.16 min Scan# 75

Delta R.T. 0.01 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

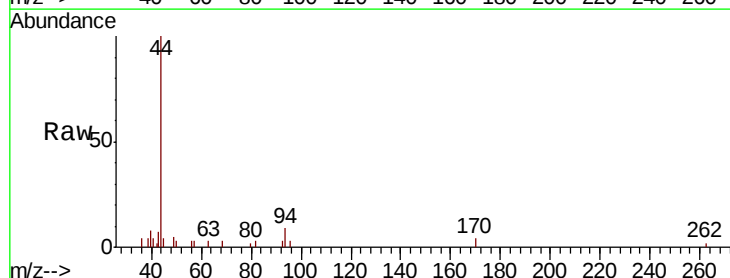
Tgt Ion: 94 Resp: 2628

Ion Ratio Lower Upper

94 100

96 35.0 73.4 110.2#

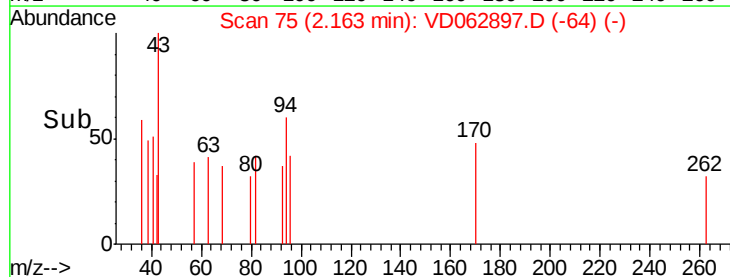
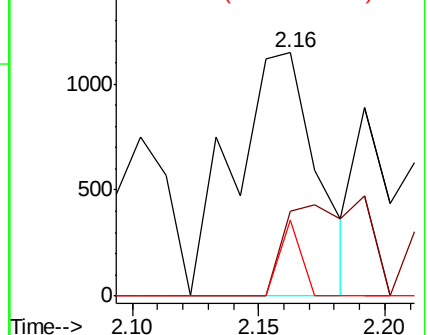
93 31.5 18.2 27.4#

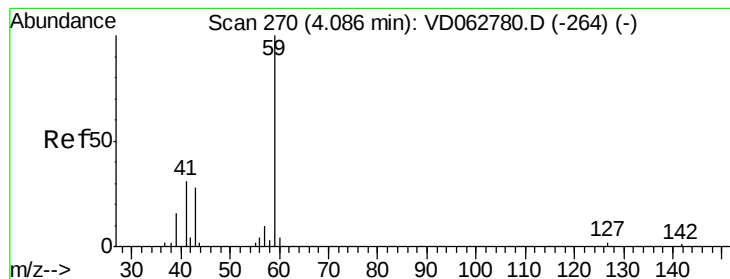


Abundance Ion 94.00 (93.70 to 94.70): VDC

Ion 96.00 (95.70 to 96.70): VDC

Ion 93.00 (92.70 to 93.70): VDC



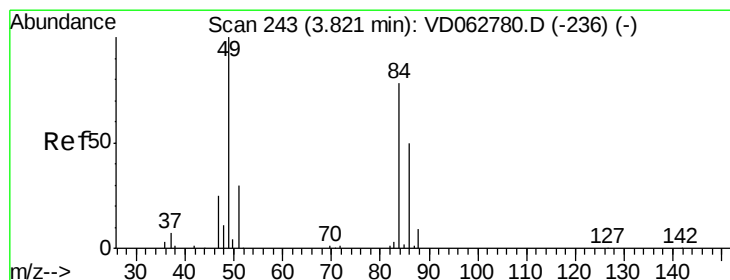
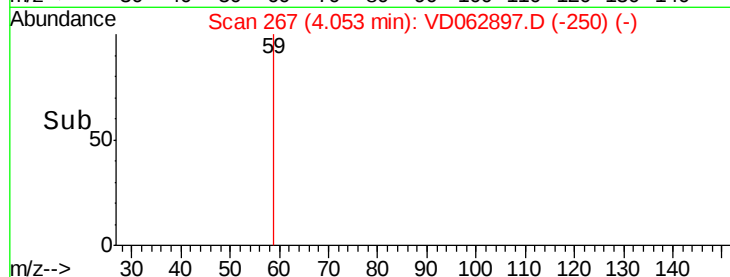
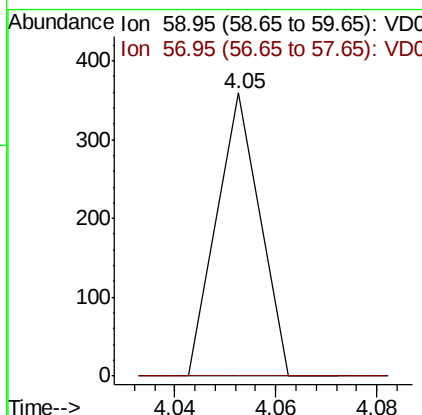
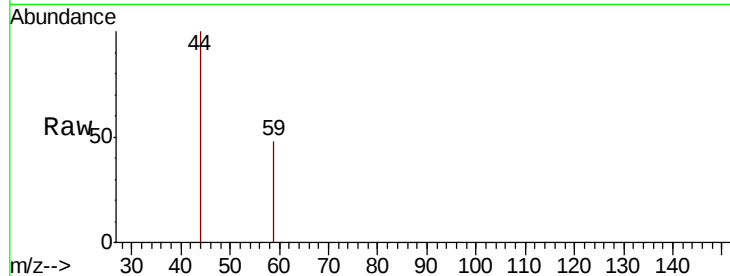


#11

Tert butyl alcohol  
 Concen: 2.702 ug/l  
 RT: 4.05 min Scan# 267  
 Delta R.T. -0.03 min  
 Lab File: VD062897.D  
 Acq: 26 Jun 2019 2:08

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 CP-S4-SOIL

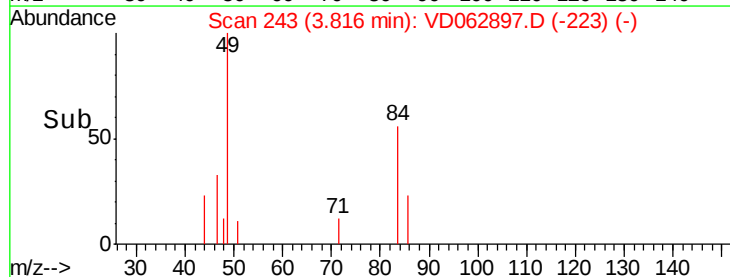
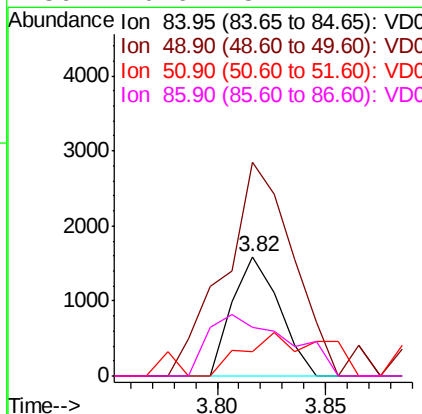
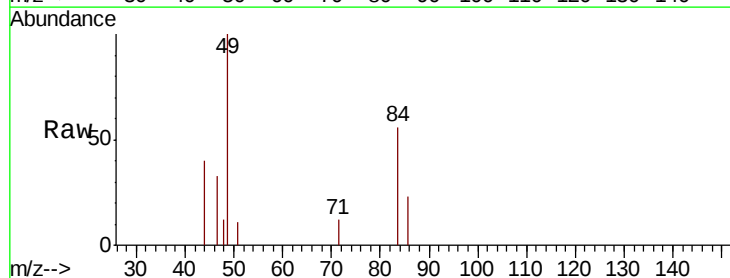
Tot Ion: 59 Resp: 212  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 6.6 10.0#

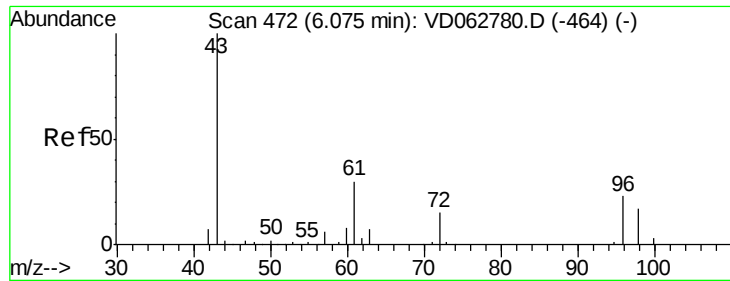


#20

Methylene Chloride  
 Concen: 1.850 ug/l  
 RT: 3.82 min Scan# 243  
 Delta R.T. -0.00 min  
 Lab File: VD062897.D  
 Acq: 26 Jun 2019 2:08

Tgt Ion: 84 Resp: 2431  
 Ion Ratio Lower Upper  
 84 100  
 49 179.0 102.9 154.3#  
 51 20.4 31.2 46.8#  
 86 40.6 51.4 77.2#





#25

2-Butanone

Concen: 2.079 ug/l

RT: 6.07 min Scan# 472

Delta R.T. -0.00 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleId :

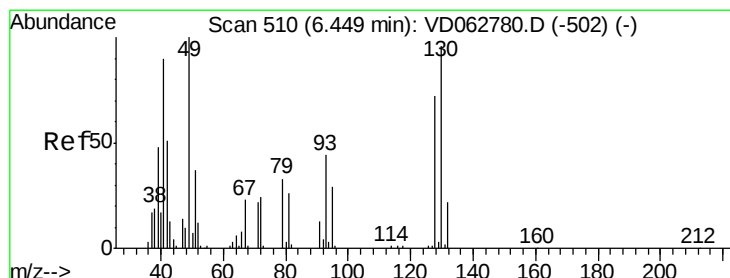
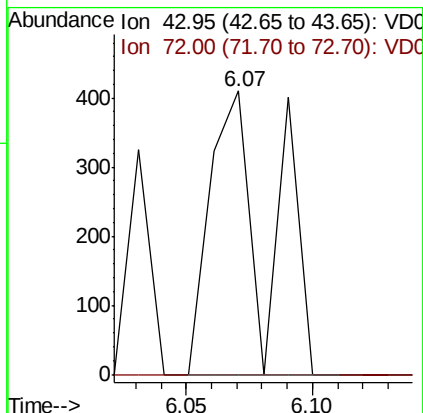
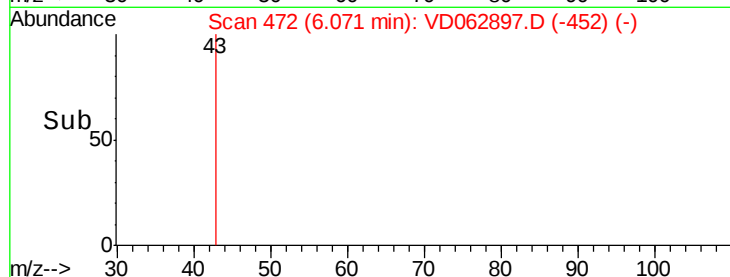
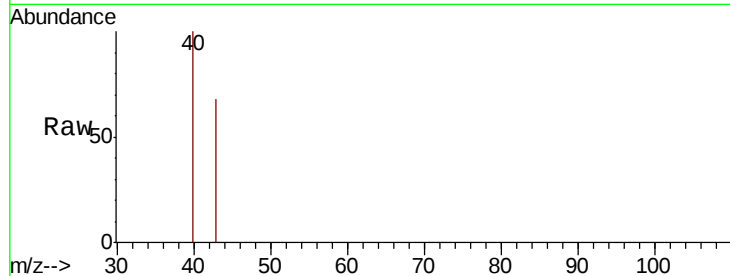
CP-S4-SOIL

Tot Ion: 43 Resp: 670

Ion Ratio Lower Upper

43 100

72 0.0 11.9 17.9#



#28

Bromochloromethane

Concen: 1.943 ug/l

RT: 6.45 min Scan# 511

Delta R.T. 0.01 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

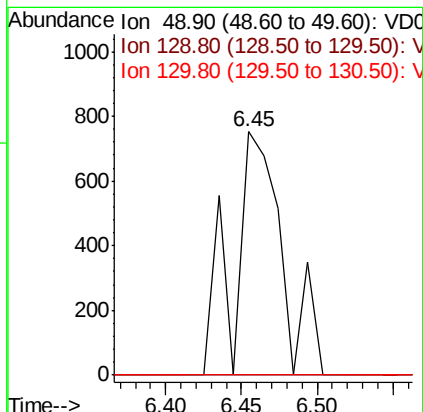
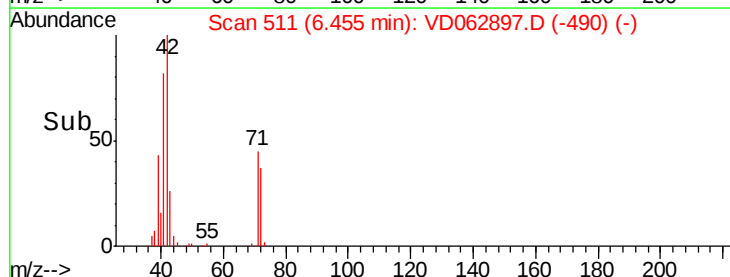
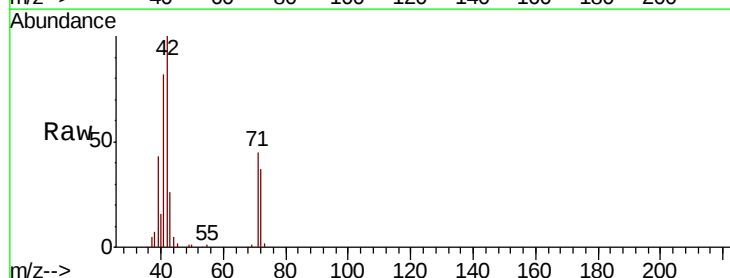
Tgt Ion: 49 Resp: 1684

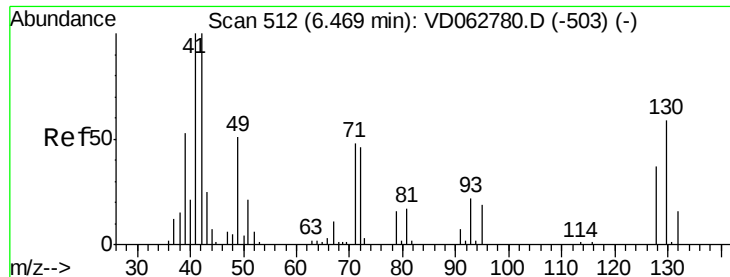
Ion Ratio Lower Upper

49 100

129 0.0 0.0 5.6

130 0.0 76.6 114.8#





#29

Tetrahydrofuran

Concen: 2701.702 ug/l

RT: 6.46 min Scan# 512

Delta R.T. -0.00 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleID :

CP-S4-SOIL

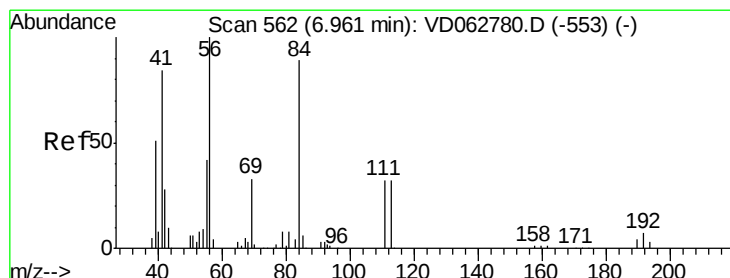
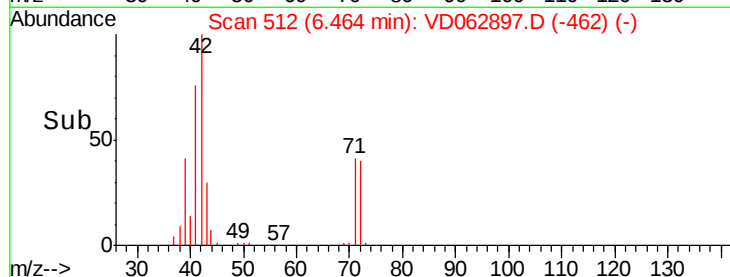
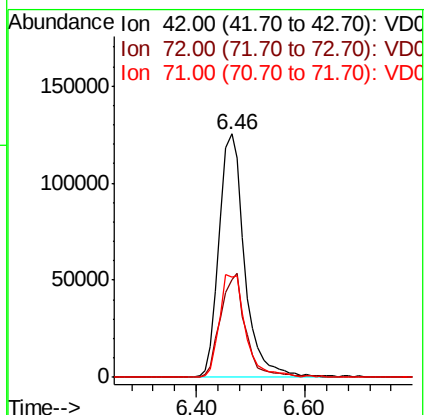
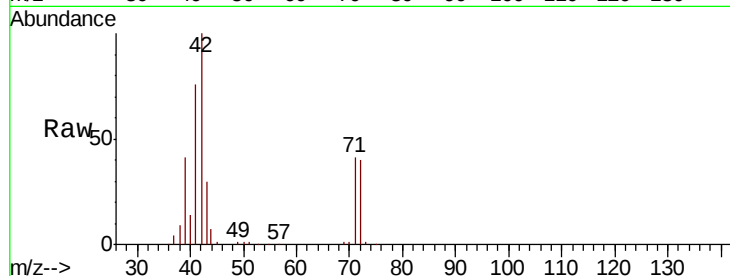
Tot Ion: 42 Resp: 411933

Ion Ratio Lower Upper

42 100

72 42.0 35.0 52.6

71 43.0 33.3 49.9



#31

Cyclohexane

Concen: 2.849 ug/l

RT: 7.06 min Scan# 572

Delta R.T. 0.09 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

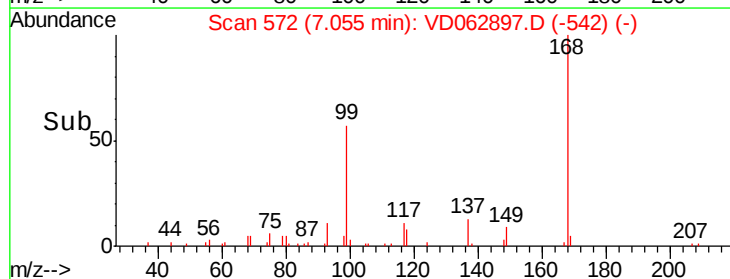
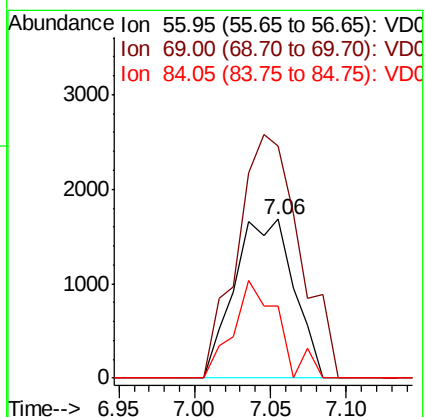
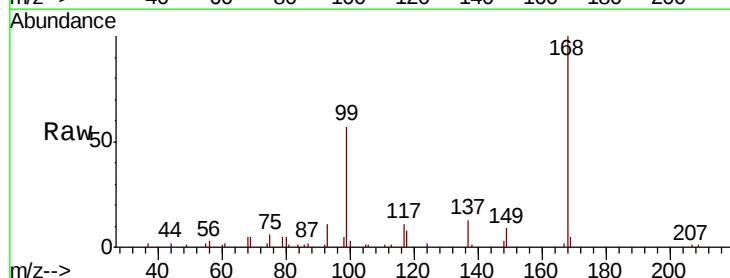
Tgt Ion: 56 Resp: 4609

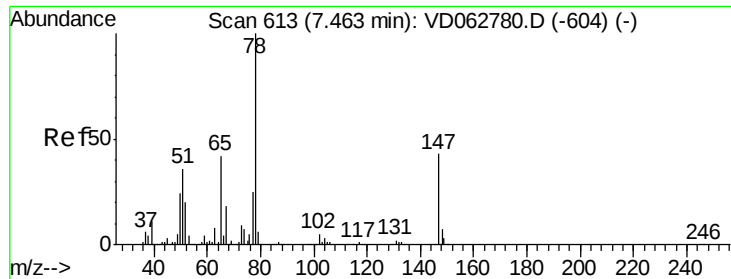
Ion Ratio Lower Upper

56 100

69 145.7 26.6 39.8#

84 45.1 75.5 113.3#

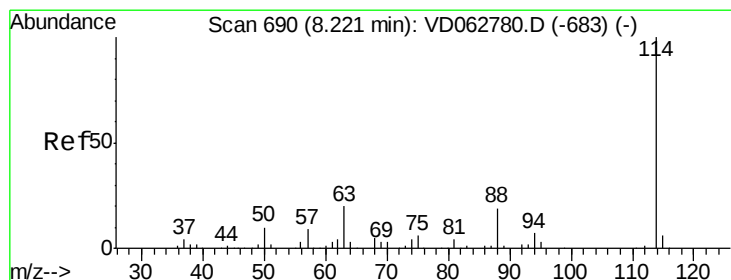
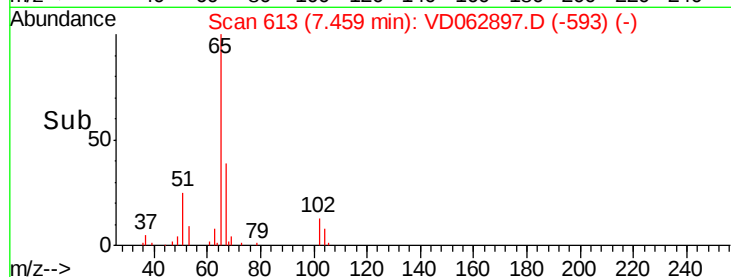
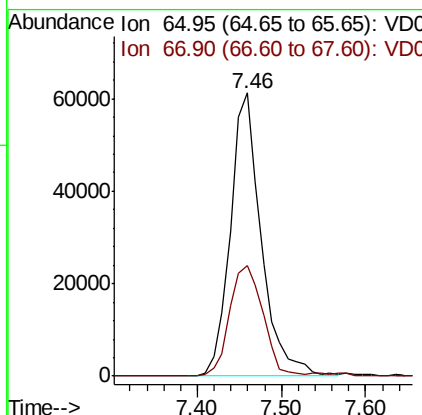
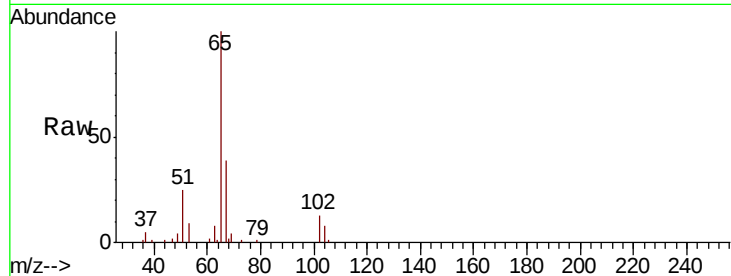




#33  
 1,2-Dichloroethane-d4  
 Concen: 90.667 ug/l  
 RT: 7.46 min Scan# 613  
 Delta R.T. -0.00 min  
 Lab File: VD062897.D  
 Acq: 26 Jun 2019 2:08

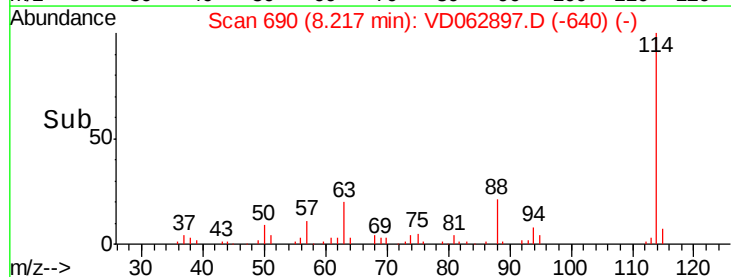
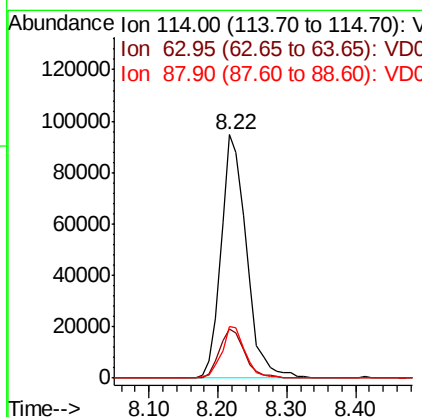
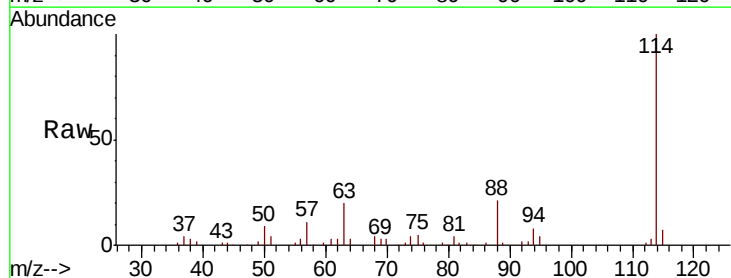
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 CP-S4-SOIL

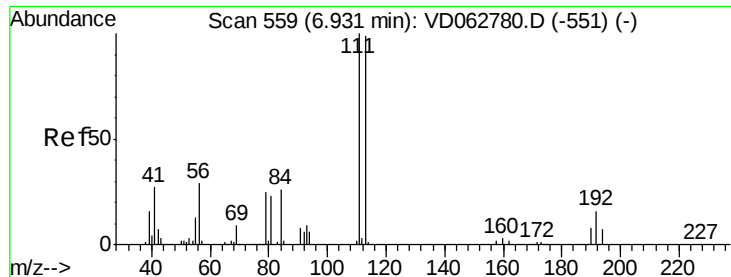
Tot Ion: 65 Resp: 156221  
 Ion Ratio Lower Upper  
 65 100  
 67 39.1 0.0 87.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.22 min Scan# 690  
 Delta R.T. -0.00 min  
 Lab File: VD062897.D  
 Acq: 26 Jun 2019 2:08

Tgt Ion: 114 Resp: 240989  
 Ion Ratio Lower Upper  
 114 100  
 63 20.0 0.0 40.0  
 88 21.2 0.0 38.8





#35

Dibromofluoromethane

Concen: 57.952 ug/l

RT: 6.93 min Scan# 559

Delta R.T. -0.00 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleId :

CP-S4-SOIL

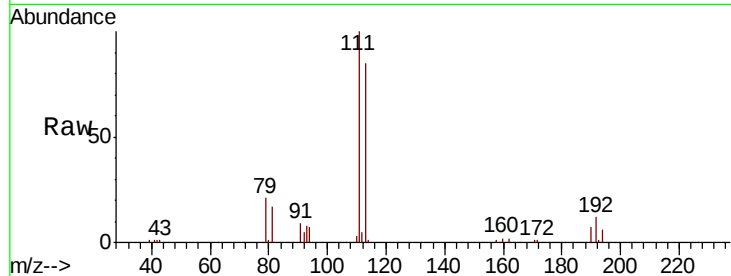
Tot Ion:113 Resp: 117758

Ion Ratio Lower Upper

113 100

111 118.2 81.2 121.8

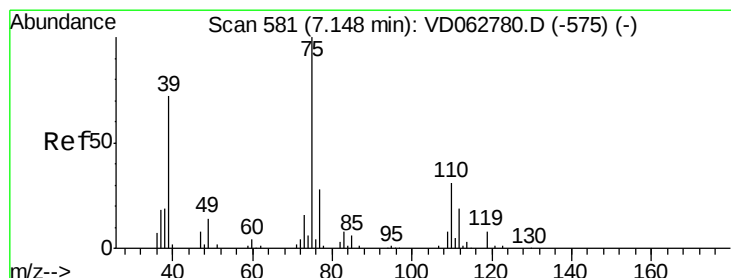
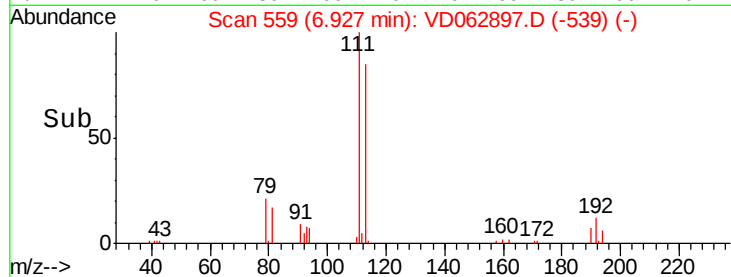
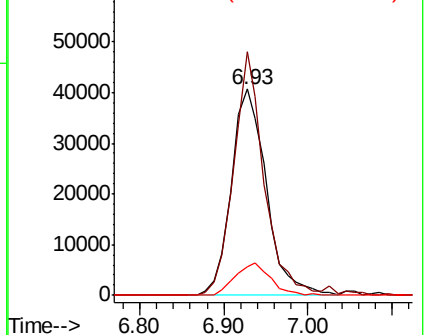
192 14.1 12.9 19.3



Abundance Ion 112.90 (112.60 to 113.60): V

Ion 110.90 (110.60 to 111.60): V

Ion 191.80 (191.50 to 192.50): V



#36

1,1-Dichloropropene

Concen: 5.117 ug/l

RT: 7.05 min Scan# 571

Delta R.T. -0.10 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

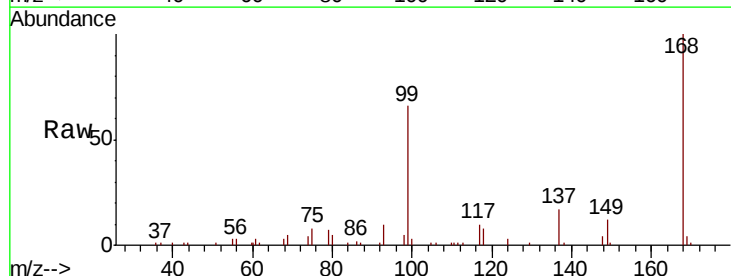
Tgt Ion: 75 Resp: 11674

Ion Ratio Lower Upper

75 100

110 14.9 15.0 45.1#

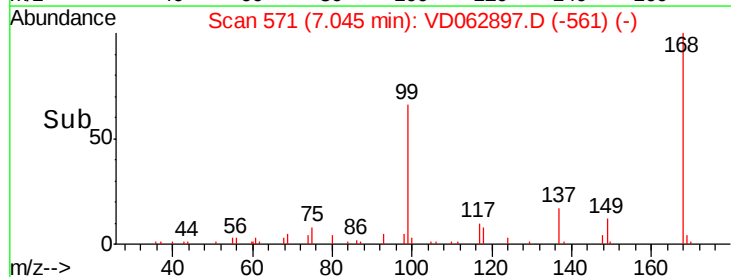
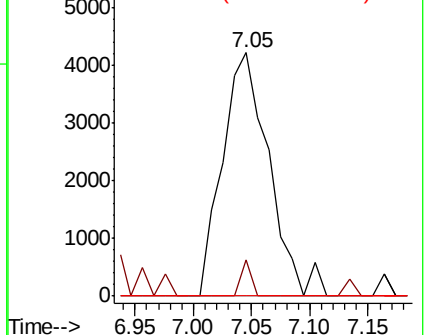
77 0.0 22.2 33.2#

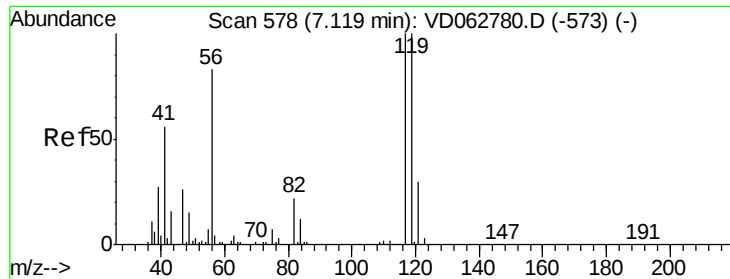


Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V





#38

Carbon Tetrachloride

Concen: 4.585 ug/l

RT: 7.06 min Scan# 572

Delta R.T. -0.06 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleId :

CP-S4-SOIL

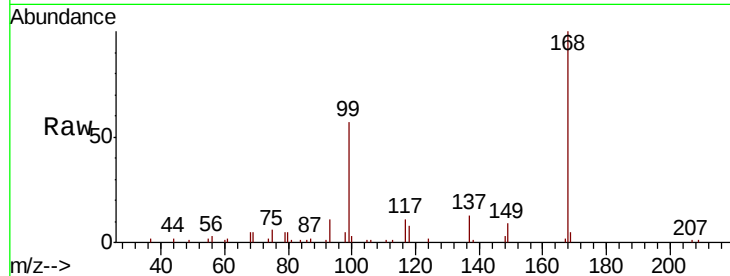
Tot Ion:117 Resp: 15732

Ion Ratio Lower Upper

117 100

119 0.0 75.4 113.2#

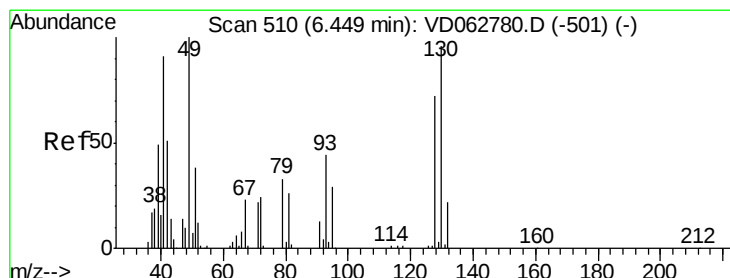
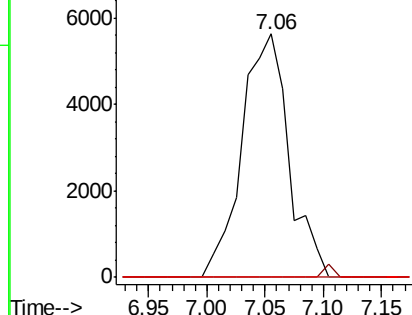
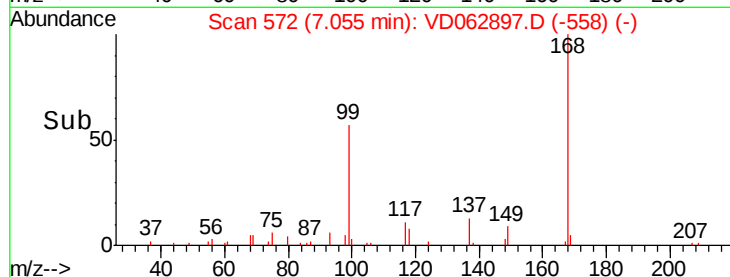
121 0.0 22.3 33.5#



Abundance Ion 116.85 (116.55 to 117.55): V

Ion 118.85 (118.55 to 119.55): V

Ion 120.85 (120.55 to 121.55): V



#41

Methacrylonitrile

Concen: 262.452 ug/l

RT: 6.45 min Scan# 511

Delta R.T. 0.01 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Tgt Ion: 41 Resp: 315748

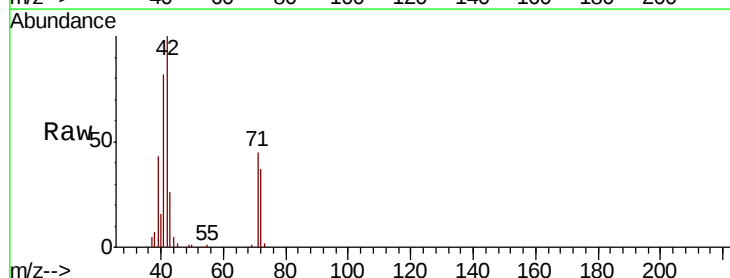
Ion Ratio Lower Upper

41 100

39 52.0 43.2 64.8

67 0.0 19.9 29.9#

52 0.0 10.2 15.4#

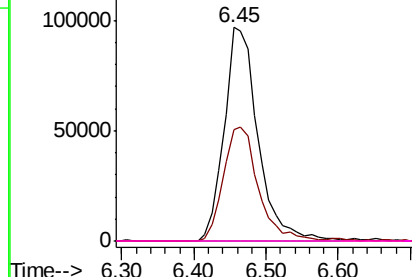
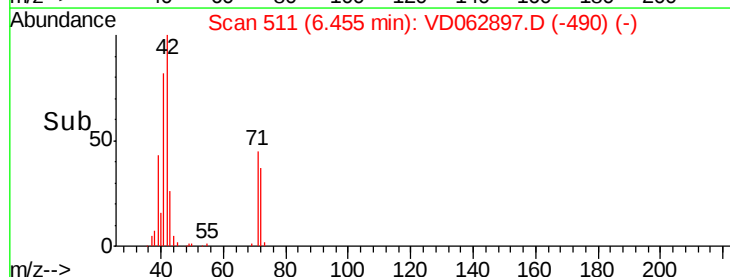


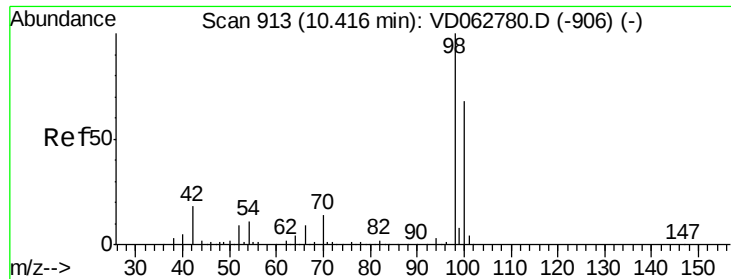
Abundance Ion 40.95 (40.65 to 41.65): VDC

Ion 38.95 (38.65 to 39.65): VDC

Ion 67.00 (66.70 to 67.70): VDC

Ion 52.00 (51.70 to 52.70): VDC





#50

Toluene-d8

Concen: 45.076 ug/l

RT: 10.41 min Scan# 913

Delta R.T. -0.00 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleId :

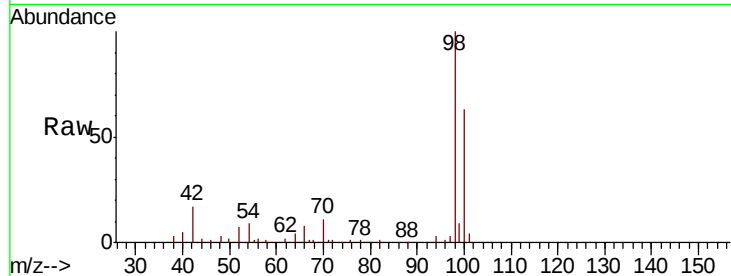
CP-S4-SOIL

Tot Ion: 98 Resp: 199352

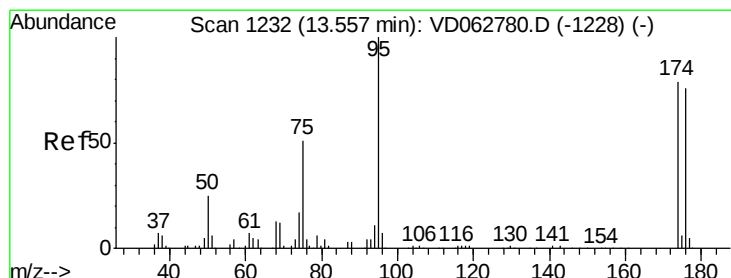
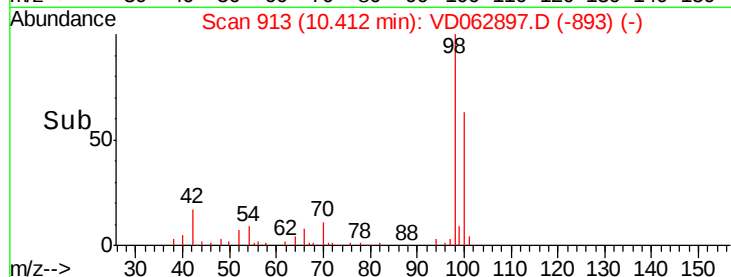
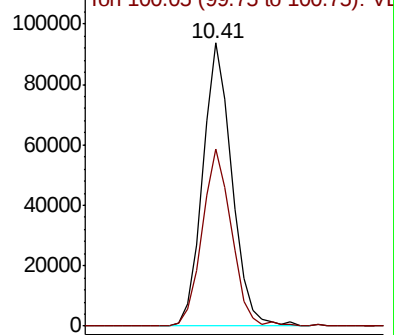
Ion Ratio Lower Upper

98 100

100 62.8 54.7 82.1



Abundance Ion 98.05 (97.75 to 98.75): VD062780.D (-906) (-)



#62

4-Bromofluorobenzene

Concen: 48.868 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. -0.00 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

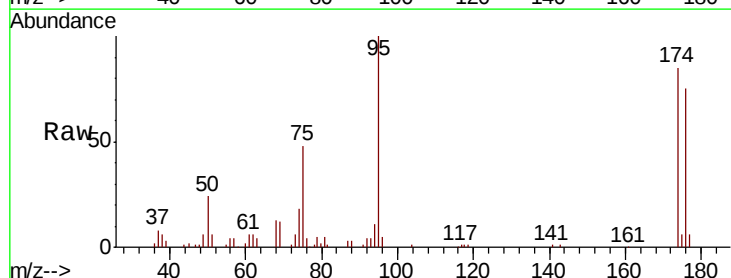
Tgt Ion: 95 Resp: 98272

Ion Ratio Lower Upper

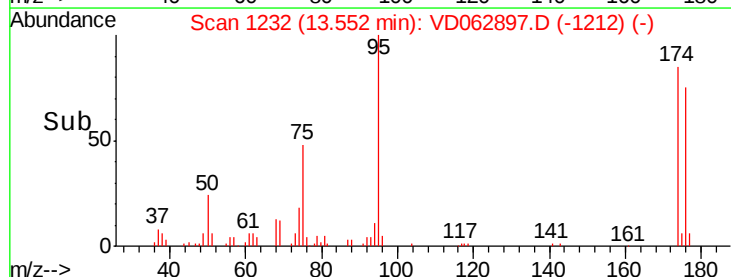
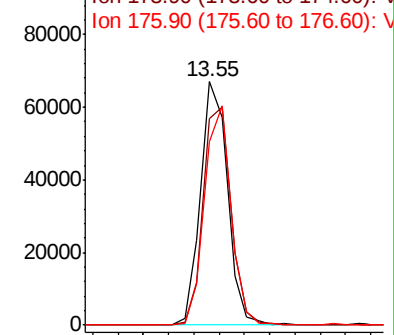
95 100

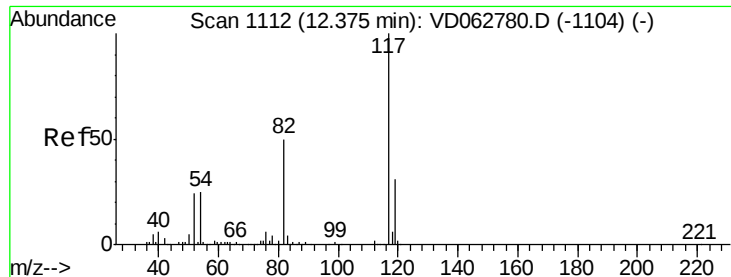
174 85.0 0.0 158.0

176 75.2 0.0 151.6



Abundance Ion 95.00 (94.70 to 95.70): VD062780.D (-1228) (-)

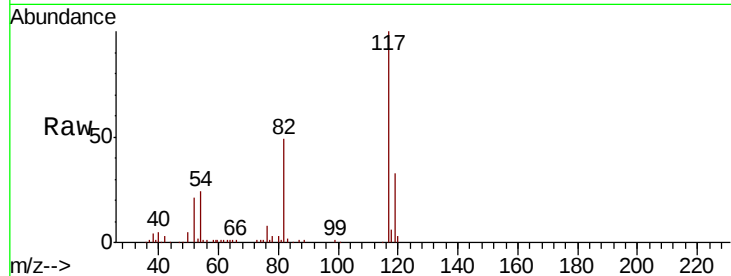




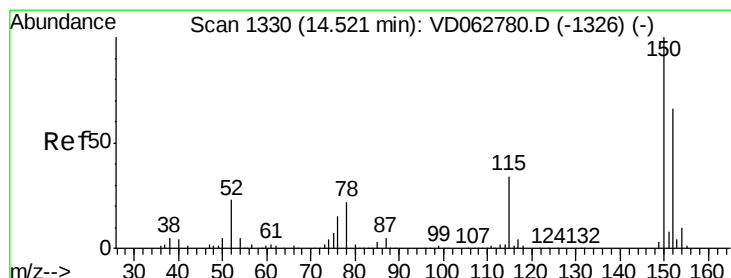
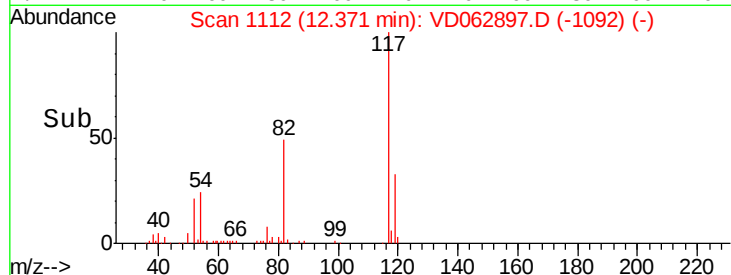
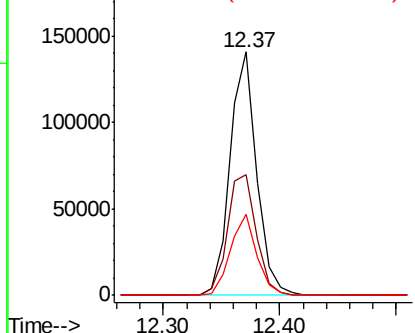
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.37 min Scan# 1112  
Delta R.T. -0.00 min  
Lab File: VD062897.D  
Acq: 26 Jun 2019 2:08

Instrument :  
MSVOA\_D  
ClientSampleId :  
CP-S4-SOIL

Tot Ion:117 Resp: 221977  
Ion Ratio Lower Upper  
117 100  
82 49.3 40.4 60.6  
119 33.1 25.2 37.8

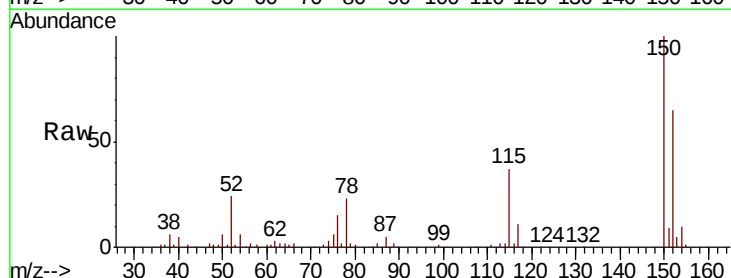


Abundance Ion 116.95 (116.65 to 117.65): V  
Ion 82.05 (81.75 to 82.75): V  
Ion 118.95 (118.65 to 119.65): V

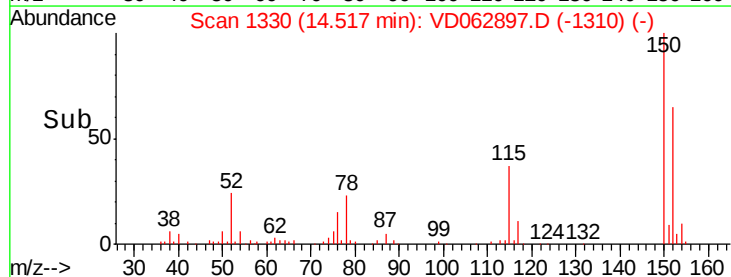
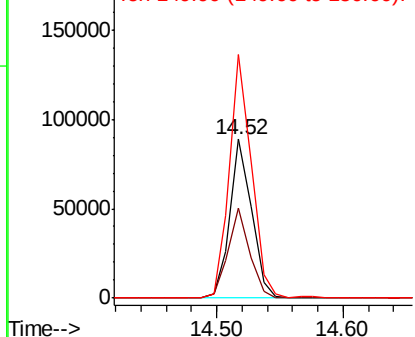


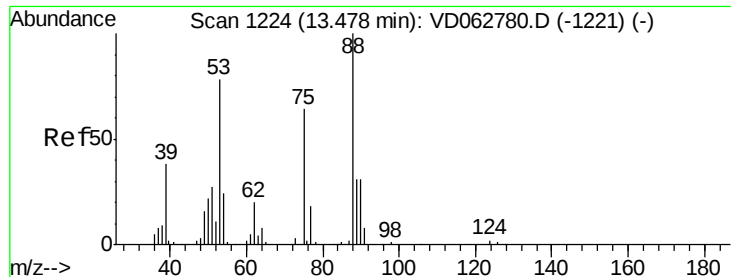
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 14.52 min Scan# 1330  
Delta R.T. -0.00 min  
Lab File: VD062897.D  
Acq: 26 Jun 2019 2:08

Tgt Ion:152 Resp: 105420  
Ion Ratio Lower Upper  
152 100  
115 56.5 29.2 87.6  
150 153.5 0.0 305.8



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 115.00 (114.70 to 115.70): V  
Ion 149.90 (149.60 to 150.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 145.302 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. 0.07 min

Lab File: VD062897.D

Acq: 26 Jun 2019 2:08

Instrument :

MSVOA\_D

ClientSampleId :

CP-S4-SOIL

Tot Ion: 75 Resp: 46345

Ion Ratio Lower Upper

75 100

53 0.0 97.8 146.8#

89 0.0 39.4 59.2#

