

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD120220\  
 Data File : VD067847.D  
 Acq On : 02 Dec 2020 20:30  
 Operator : VA/SY  
 Sample : L4891-07RE  
 Misc : 7.04G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 PAV-B3-112420-10.5-11.5

Quant Time: Dec 03 00:36:59 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D120120S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Dec 02 08:05:58 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 244618   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 352735   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 316966   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 145721   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

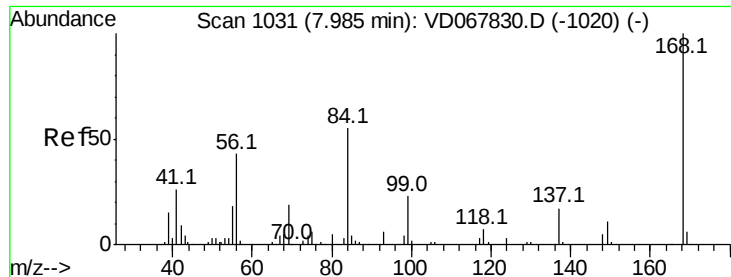
|                           |        |       |          |          |      |        |
|---------------------------|--------|-------|----------|----------|------|--------|
| 33) 1,2-Dichloroethane-d4 | 8.34   | 65    | 127295   | 48.47    | ug/l | 0.00   |
| Spiked Amount             | 50.000 | Range | 50 - 163 | Recovery | =    | 96.94% |
| 35) Dibromofluoromethane  | 7.92   | 113   | 108579   | 46.00    | ug/l | 0.00   |
| Spiked Amount             | 50.000 | Range | 54 - 147 | Recovery | =    | 92.00% |
| 50) Toluene-d8            | 10.34  | 98    | 400276   | 47.11    | ug/l | 0.00   |
| Spiked Amount             | 50.000 | Range | 49 - 140 | Recovery | =    | 94.22% |
| 62) 4-Bromofluorobenzene  | 12.64  | 95    | 130142   | 44.30    | ug/l | 0.00   |
| Spiked Amount             | 50.000 | Range | 25 - 144 | Recovery | =    | 88.60% |

## Target Compounds

|                                |       |     |       |           | Qvalue |    |
|--------------------------------|-------|-----|-------|-----------|--------|----|
| 16) Acetone                    | 4.17  | 43  | 3643  | 11.226    | ug/l # | 66 |
| 18) Methyl Acetate             | 4.72  | 43  | 317   | Below Cal | #      | 41 |
| 20) Methylene Chloride         | 4.96  | 84  | 2995  | Below Cal | #      | 81 |
| 25) 2-Butanone                 | 7.22  | 43  | 3037  | 8.898     | ug/l   | 93 |
| 29) Tetrahydrofuran            | 7.56  | 42  | 245   | 1.261     | ug/l # | 8  |
| 31) Cyclohexane                | 7.98  | 56  | 5325  | 1.925     | ug/l # | 18 |
| 36) 1,1-Dichloropropene        | 7.98  | 75  | 16577 | 5.429     | ug/l # | 48 |
| 37) Ethyl Acetate              | 7.22  | 43  | 3037  | 3.690     | ug/l # | 67 |
| 38) Carbon Tetrachloride       | 7.98  | 117 | 24830 | 5.374     | ug/l # | 16 |
| 41) Methacrylonitrile          | 7.56  | 41  | 217   | Below Cal | #      | 10 |
| 51) 4-Methyl-2-Pentanone       | 10.34 | 43  | 1608  | 2.098     | ug/l # | 1  |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75  | 69763 | 65.741    | ug/l # | 1  |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75  | 69763 | 157.258   | ug/l # | 7  |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.01 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Instrument :

MSVOA\_D

ClientSampleId :

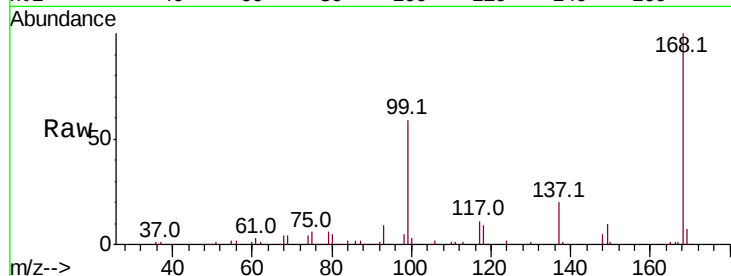
PAV-B3-112420-10.5-11.5

Tot Ion:168 Resp: 244618

Ion Ratio Lower Upper

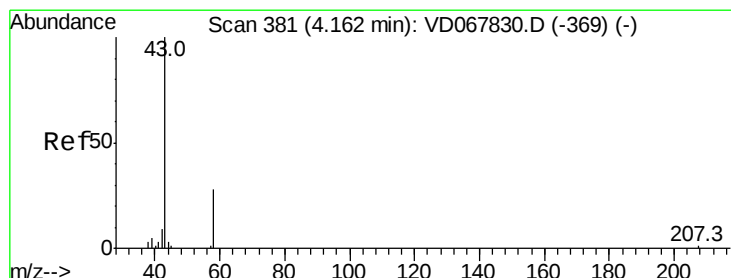
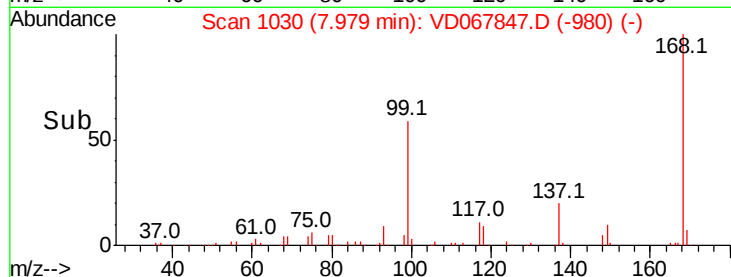
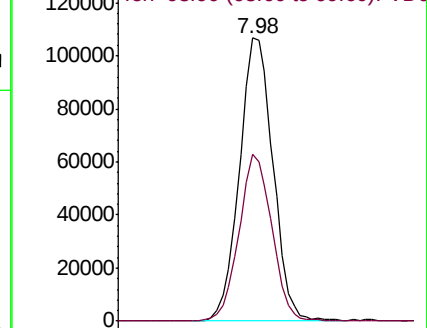
168 100

99 59.0 47.1 70.7



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC



#16

Acetone

Concen: 11.226 ug/l

RT: 4.17 min Scan# 382

Delta R.T. 0.01 min

Lab File: VD067847.D

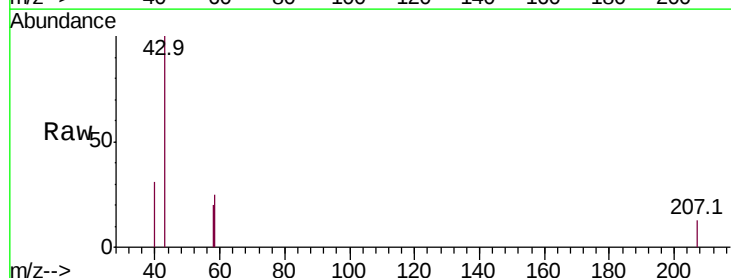
Acq: 02 Dec 2020 20:30

Tgt Ion: 43 Resp: 3643

Ion Ratio Lower Upper

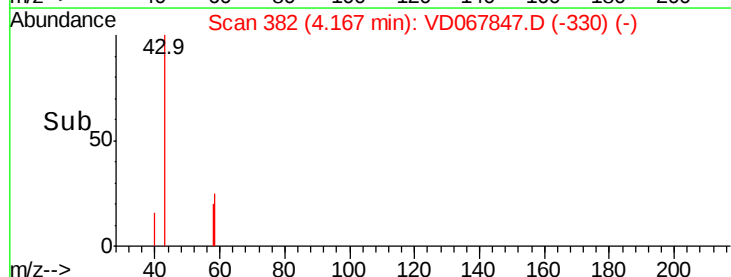
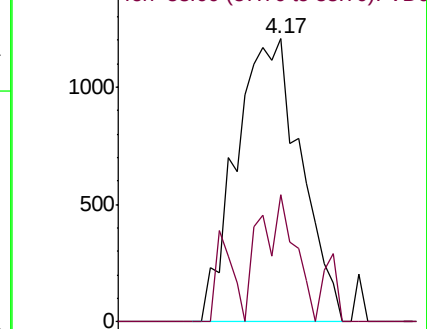
43 100

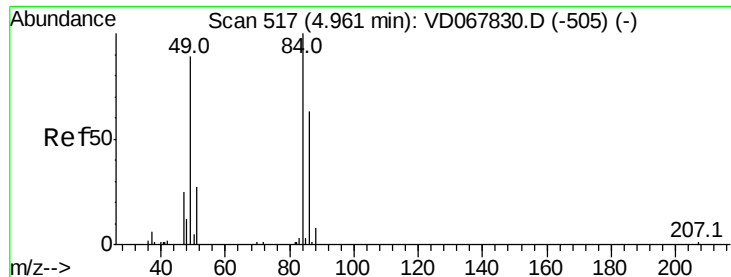
58 45.0 21.9 32.9#



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC

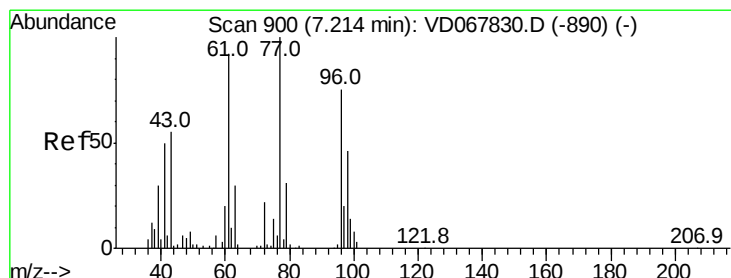
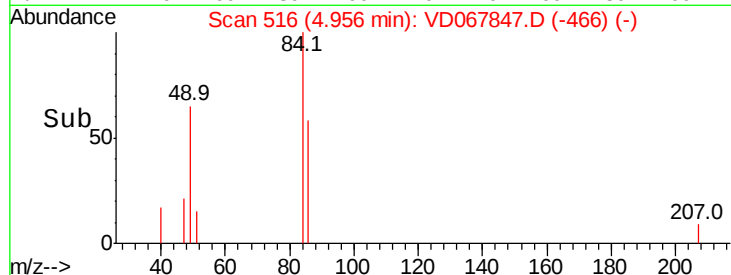
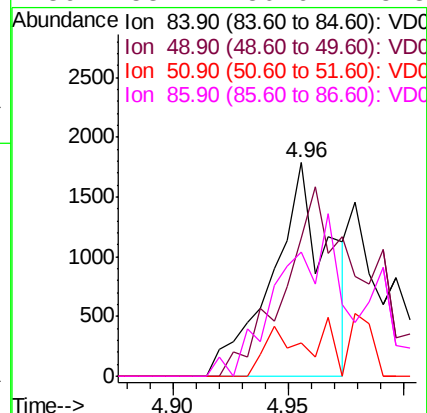
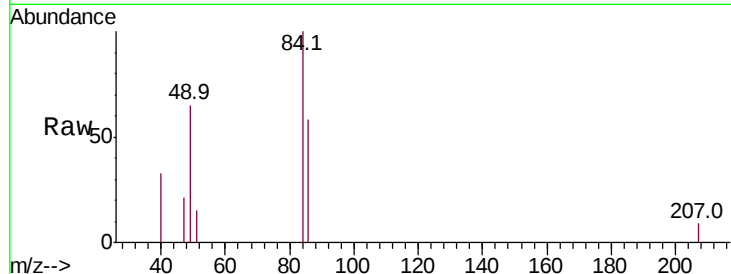




#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 4.96 min Scan# 516  
Delta R.T. -0.01 min  
Lab File: VD067847.D  
Acq: 02 Dec 2020 20:30

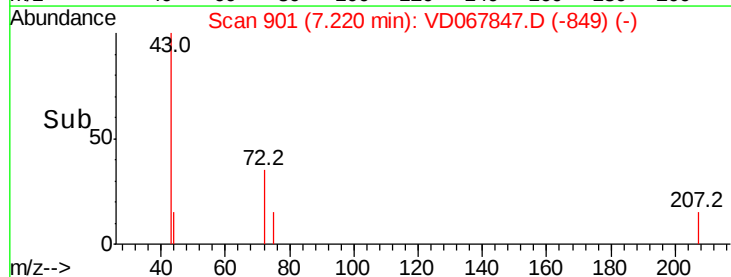
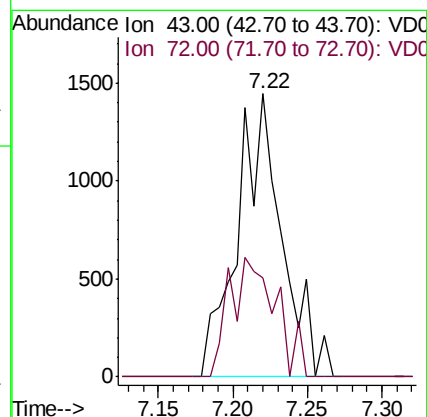
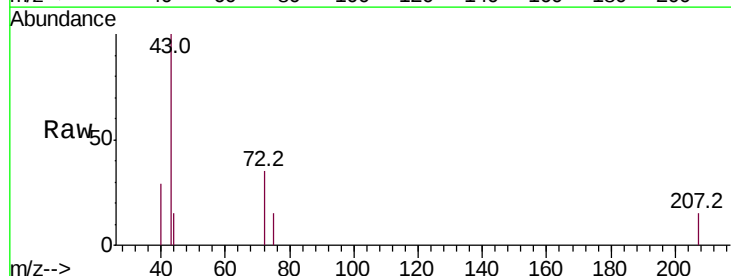
Instrument :  
MSVOA\_D  
ClientSampleId :  
PAV-B3-112420-10.5-11.5

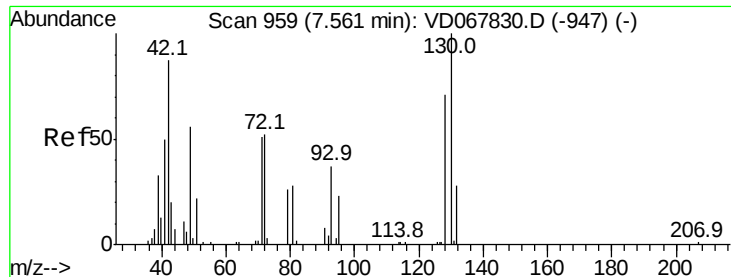
Tot Ion: 84 Resp: 2995  
Ion Ratio Lower Upper  
84 100  
49 65.0 71.4 107.0#  
51 15.3 21.8 32.8#  
86 58.1 50.6 75.8



#25  
2-Butanone  
Concen: 8.898 ug/l  
RT: 7.22 min Scan# 901  
Delta R.T. 0.01 min  
Lab File: VD067847.D  
Acq: 02 Dec 2020 20:30

Tgt Ion: 43 Resp: 3037  
Ion Ratio Lower Upper  
43 100  
72 34.8 31.3 46.9





#29

Tetrahydrofuran

Concen: 1.261 ug/l

RT: 7.56 min Scan# 958

Delta R.T. -0.01 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Instrument :

MSVOA\_D

ClientSampleId :

PAV-B3-112420-10.5-11.5

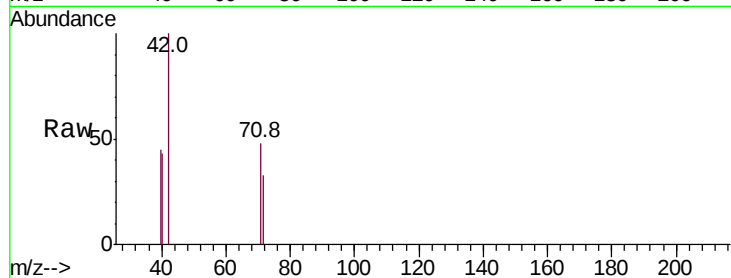
Tot Ion: 42 Resp: 245

Ion Ratio Lower Upper

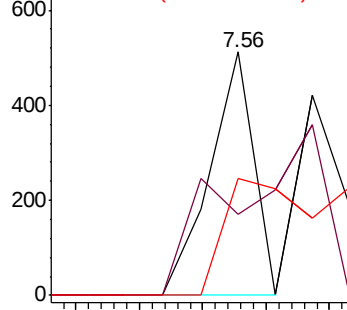
42 100

72 143.3 51.9 77.9#

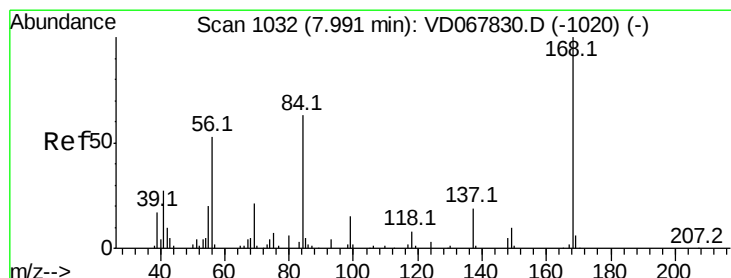
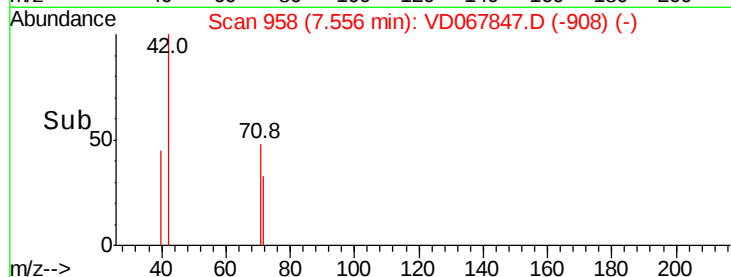
71 123.7 48.2 72.4#



Abundance Ion 42.00 (41.70 to 42.70): VDC  
Ion 72.00 (71.70 to 72.70): VDC  
Ion 71.00 (70.70 to 71.70): VDC



Time-->



#31

Cyclohexane

Concen: 1.925 ug/l

RT: 7.98 min Scan# 1031

Delta R.T. -0.01 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

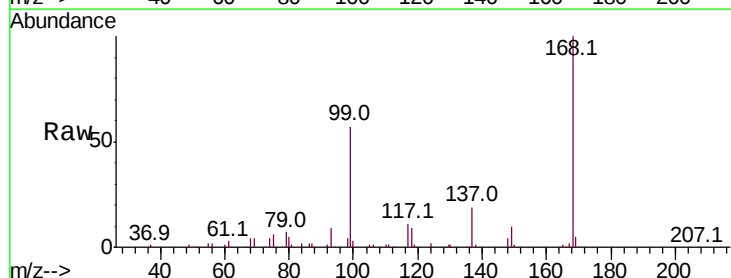
Tgt Ion: 56 Resp: 5325

Ion Ratio Lower Upper

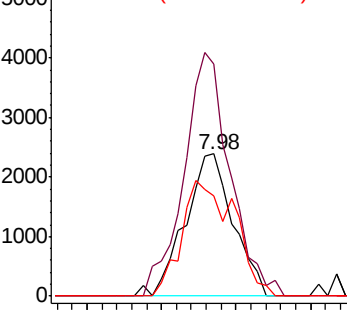
56 100

69 163.5 32.1 48.1#

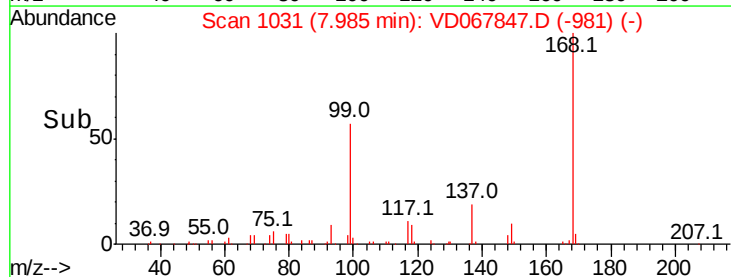
84 70.7 93.2 139.8#

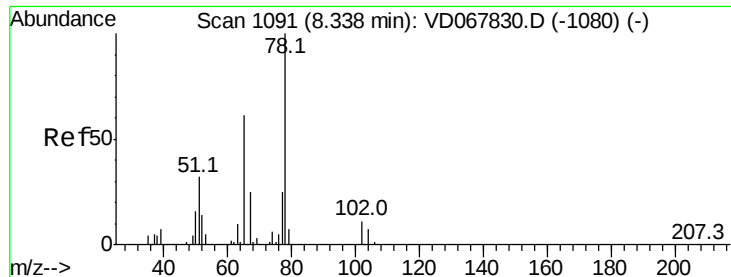


Abundance Ion 56.00 (55.70 to 56.70): VDC  
Ion 69.00 (68.70 to 69.70): VDC  
Ion 84.00 (83.70 to 84.70): VDC



Time-->





#33

1,2-Dichloroethane-d4

Concen: 48.474 ug/l

RT: 8.34 min Scan# 1091

Delta R.T. 0.00 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Instrument :

MSVOA\_D

ClientSampleId :

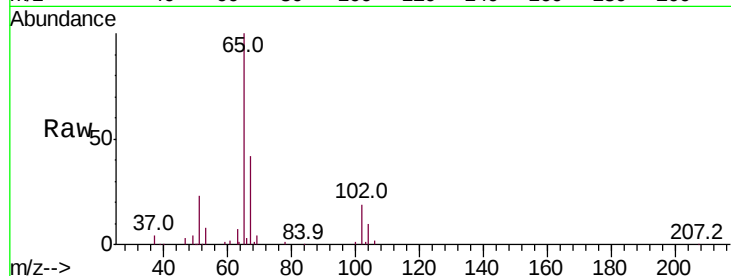
PAV-B3-112420-10.5-11.5

Tot Ion: 65 Resp: 127295

Ion Ratio Lower Upper

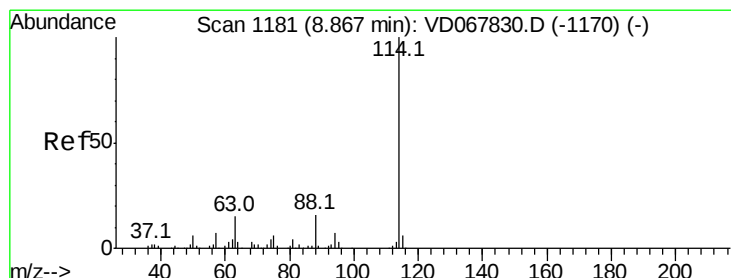
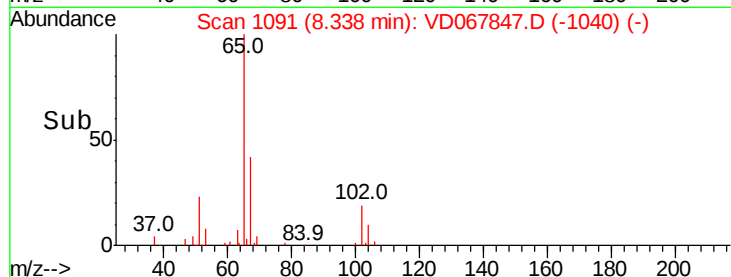
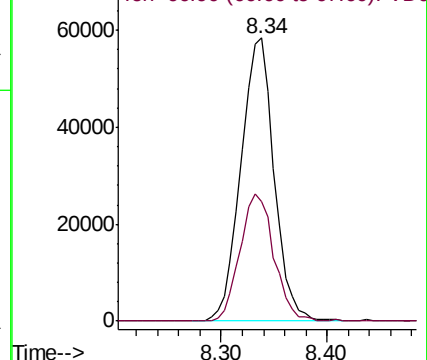
65 100

67 46.0 0.0 92.0



Abundance Ion 64.90 (64.60 to 65.60): VDC

Ion 66.90 (66.60 to 67.60): VDC



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.87 min Scan# 1181

Delta R.T. 0.00 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

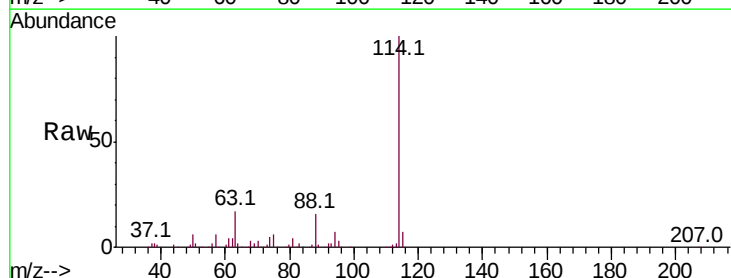
Tgt Ion: 114 Resp: 352735

Ion Ratio Lower Upper

114 100

63 17.0 0.0 30.8

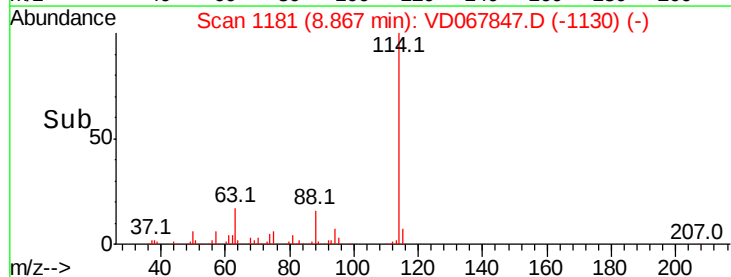
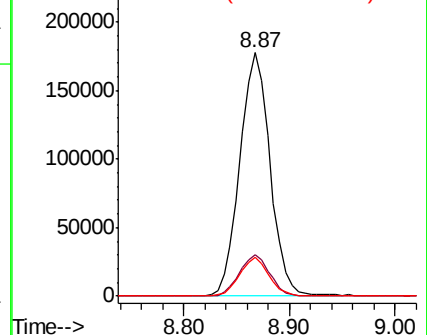
88 15.7 0.0 31.8

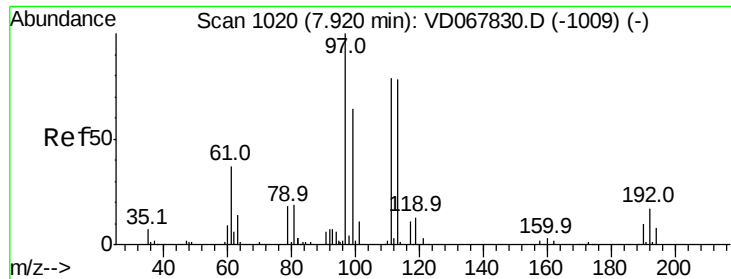


Abundance Ion 113.90 (113.60 to 114.60): VDC

Ion 63.00 (62.70 to 63.70): VDC

Ion 87.90 (87.60 to 88.60): VDC

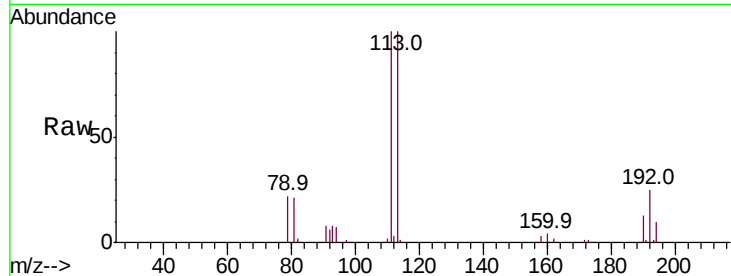




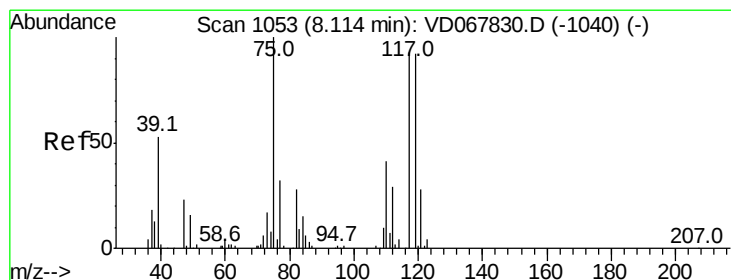
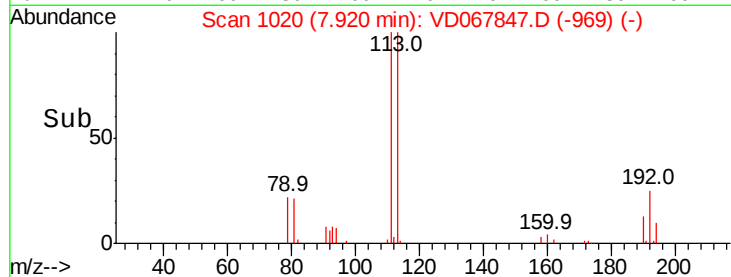
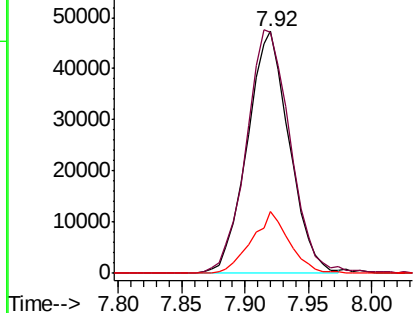
#35  
 Dibromofluoromethane  
 Concen: 46.002 ug/l  
 RT: 7.92 min Scan# 1020  
 Delta R.T. 0.00 min  
 Lab File: VD067847.D  
 Acq: 02 Dec 2020 20:30

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 PAV-B3-112420-10.5-11.5

Tot Ion:113 Resp: 108579  
 Ion Ratio Lower Upper  
 113 100  
 111 106.0 81.2 121.8  
 192 22.8 16.8 25.2

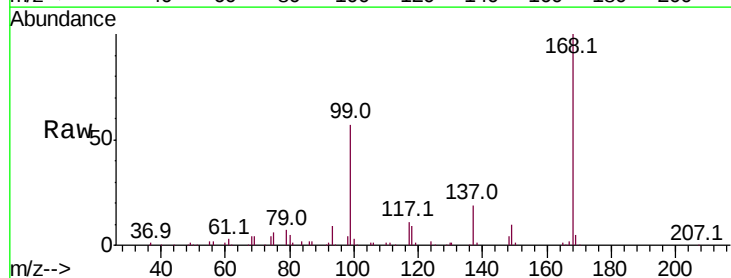


Abundance Ion 112.80 (112.50 to 113.50): V  
 Ion 110.80 (110.50 to 111.50): V  
 Ion 191.70 (191.40 to 192.40): V

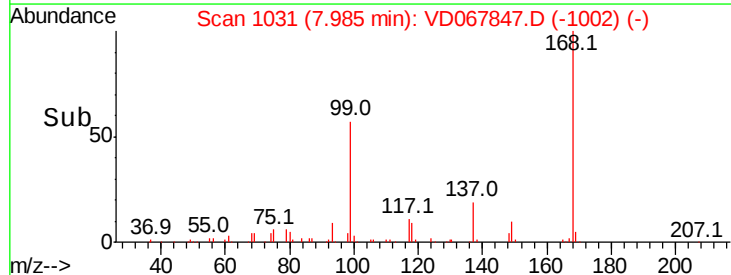
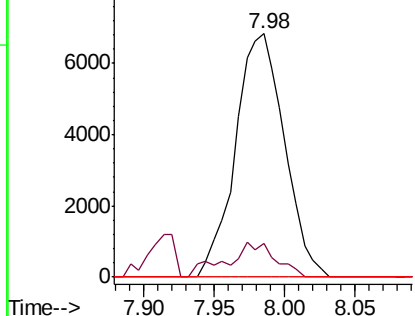


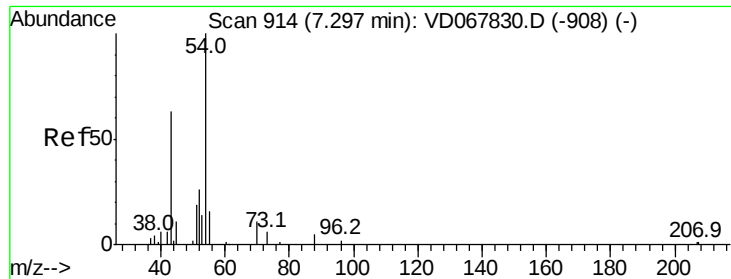
#36  
 1,1-Dichloropropene  
 Concen: 5.429 ug/l  
 RT: 7.98 min Scan# 1031  
 Delta R.T. -0.13 min  
 Lab File: VD067847.D  
 Acq: 02 Dec 2020 20:30

Tgt Ion: 75 Resp: 16577  
 Ion Ratio Lower Upper  
 75 100  
 110 10.1 20.3 61.0#  
 77 0.0 24.7 37.1#



Abundance Ion 74.90 (74.60 to 75.60): V  
 Ion 109.90 (109.60 to 110.60): V  
 Ion 76.90 (76.60 to 77.60): V

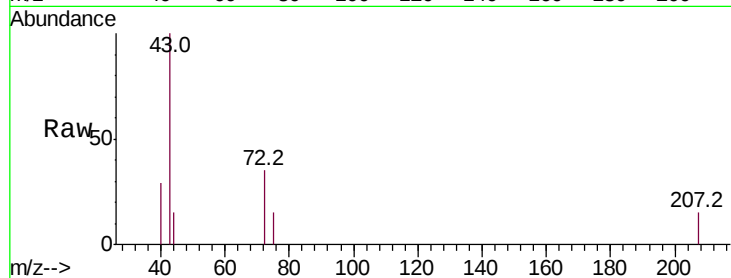




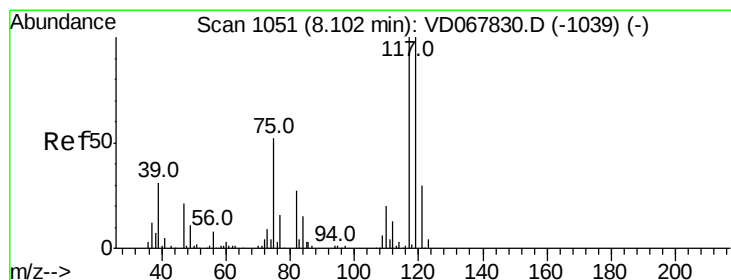
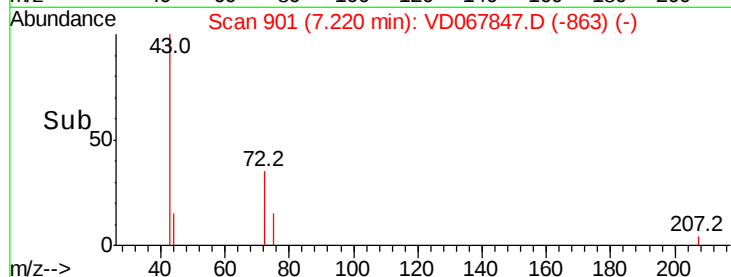
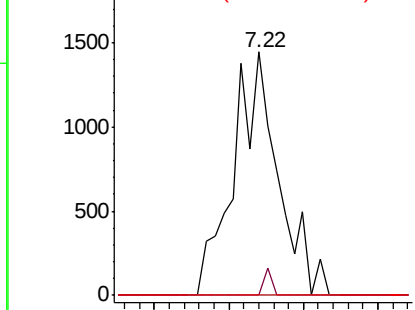
#37  
Ethyl Acetate  
Concen: 3.690 ug/l  
RT: 7.22 min Scan# 901  
Delta R.T. -0.08 min  
Lab File: VD067847.D  
Acq: 02 Dec 2020 20:30

Instrument :  
MSVOA\_D  
ClientSampleId :  
PAV-B3-112420-10.5-11.5

Tot Ion: 43 Resp: 3037  
Ion Ratio Lower Upper  
43 100  
61 1.9 11.4 17.2#  
70 0.0 11.5 17.3#

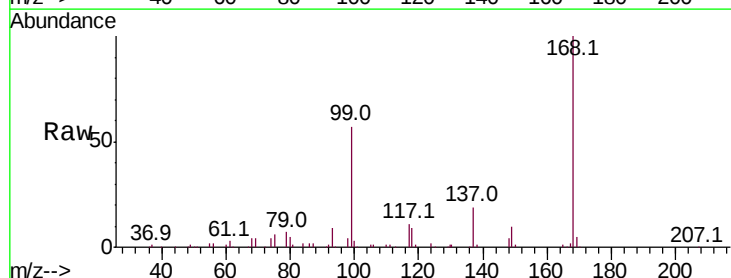


Abundance Ion 43.00 (42.70 to 43.70): VDC  
Ion 60.90 (60.60 to 61.60): VDC  
Ion 70.00 (69.70 to 70.70): VDC

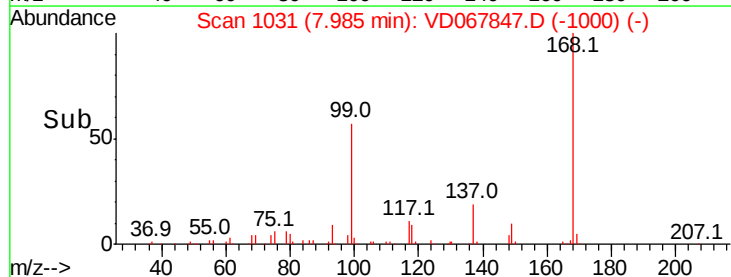
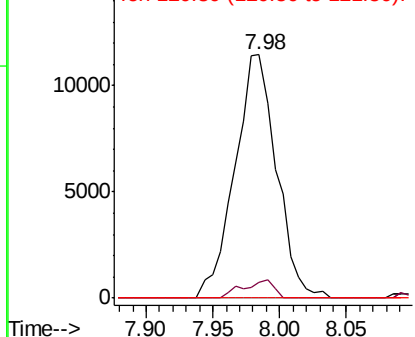


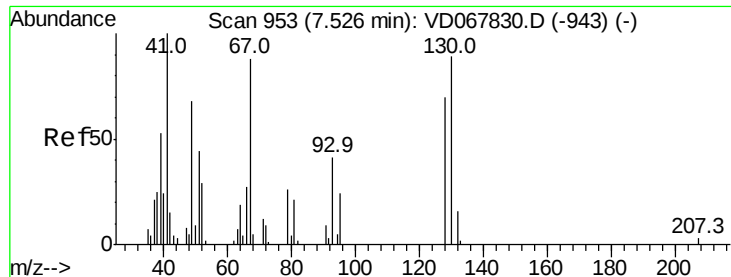
#38  
Carbon Tetrachloride  
Concen: 5.374 ug/l  
RT: 7.98 min Scan# 1031  
Delta R.T. -0.12 min  
Lab File: VD067847.D  
Acq: 02 Dec 2020 20:30

Tgt Ion: 117 Resp: 24830  
Ion Ratio Lower Upper  
117 100  
119 6.7 79.7 119.5#  
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





#41

Methacrylonitrile

Concen: Below Cal

RT: 7.56 min Scan# 959

Delta R.T. 0.04 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Instrument :

MSVOA\_D

ClientSampleId :

PAV-B3-112420-10.5-11.5

Tot Ion: 41 Resp: 217

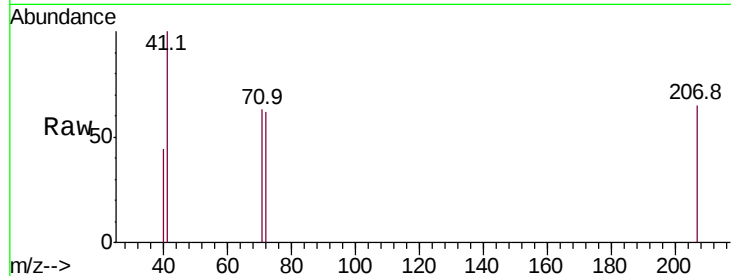
Ion Ratio Lower Upper

41 100

39 113.4 42.1 63.1#

67 0.0 82.4 123.6#

52 0.0 30.6 45.8#

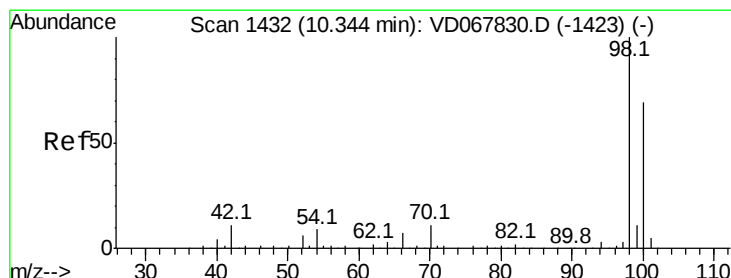
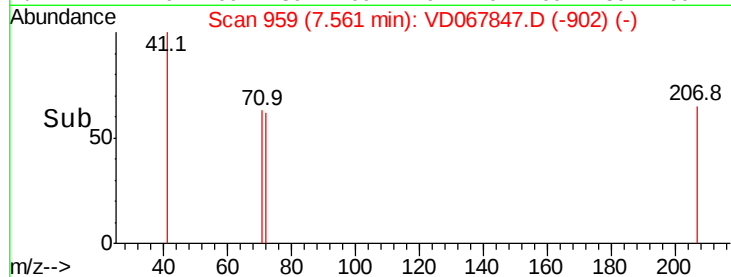
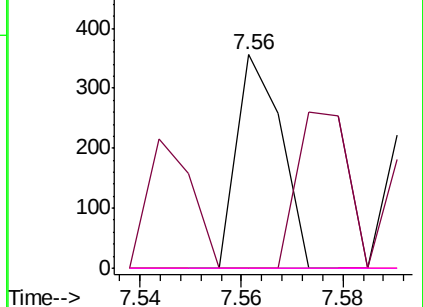


Abundance Ion 41.00 (40.70 to 41.70): VDC

Ion 39.00 (38.70 to 39.70): VDC

Ion 67.00 (66.70 to 67.70): VDC

Ion 52.00 (51.70 to 52.70): VDC



#50

Toluene-d8

Concen: 47.110 ug/l

RT: 10.34 min Scan# 1432

Delta R.T. 0.00 min

Lab File: VD067847.D

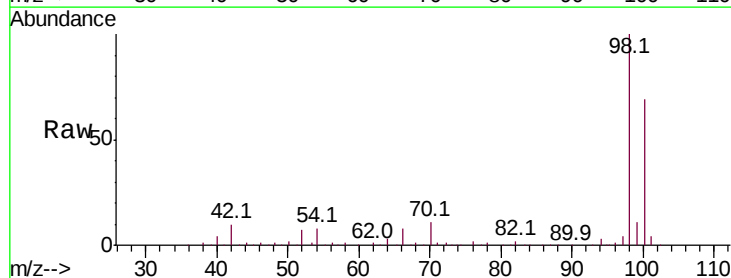
Acq: 02 Dec 2020 20:30

Tgt Ion: 98 Resp: 400276

Ion Ratio Lower Upper

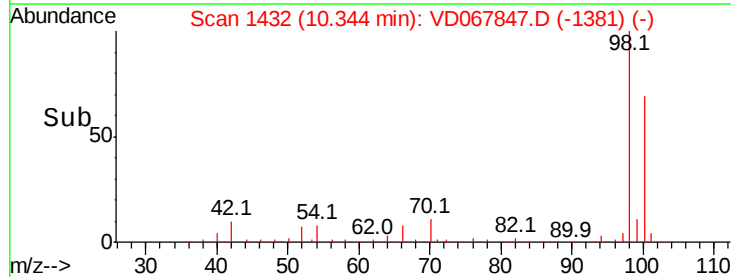
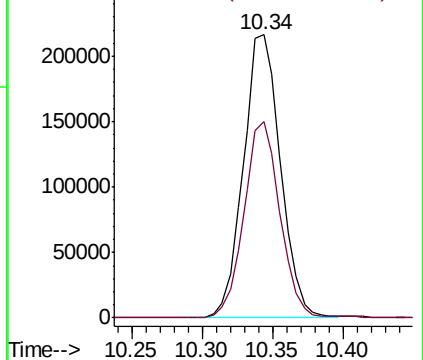
98 100

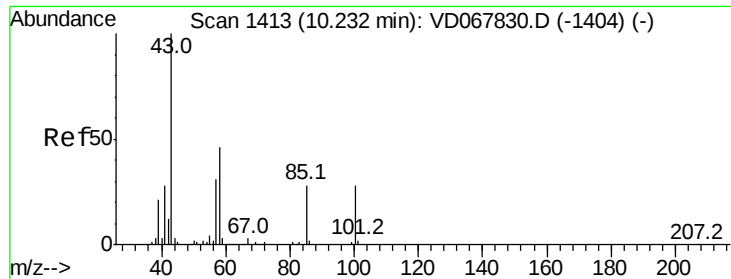
100 67.3 52.9 79.3



Abundance Ion 98.00 (97.70 to 98.70): VDC

Ion 100.00 (99.70 to 100.70): VDC





#51

4-Methyl-2-Pentanone

Concen: 2.098 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. 0.11 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Instrument :

MSVOA\_D

ClientSampleId :

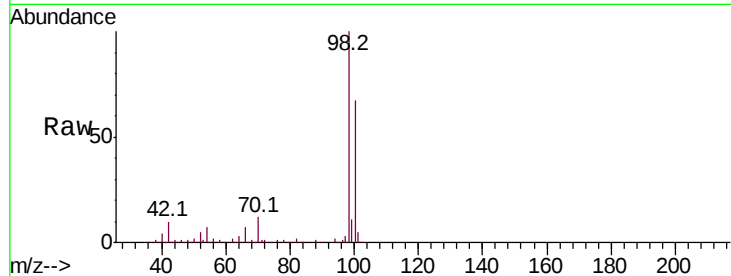
PAV-B3-112420-10.5-11.5

Tot Ion: 43 Resp: 1608

Ion Ratio Lower Upper

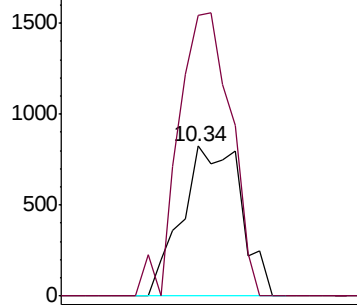
43 100

58 166.7 35.7 53.5#

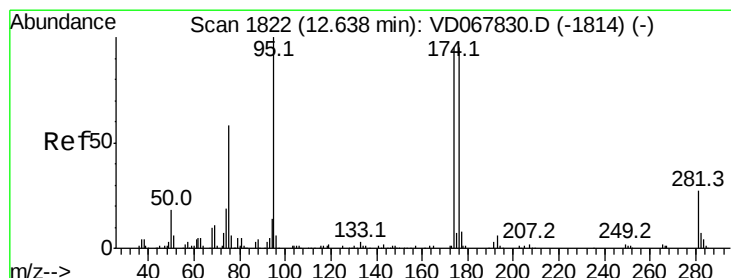
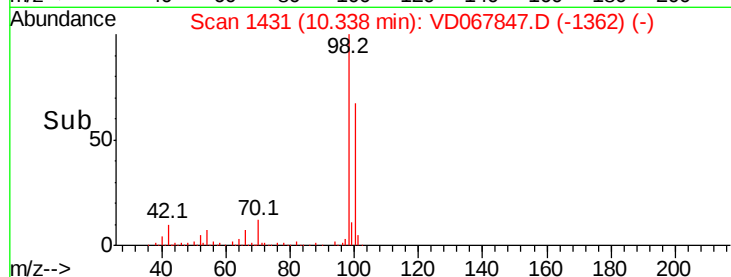


Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC



Time-->



#62

4-Bromofluorobenzene

Concen: 44.303 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.00 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

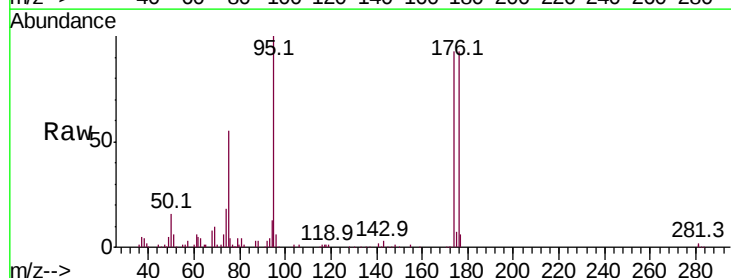
Tgt Ion: 95 Resp: 130142

Ion Ratio Lower Upper

95 100

174 94.7 0.0 186.0

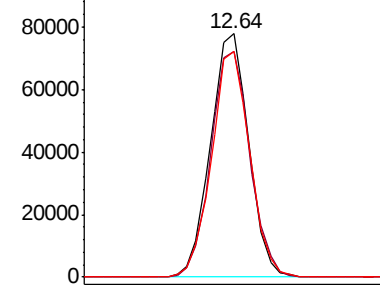
176 92.9 0.0 184.2



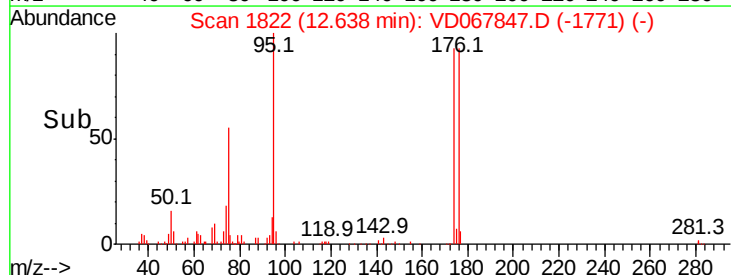
Abundance Ion 94.90 (94.60 to 95.60): VDC

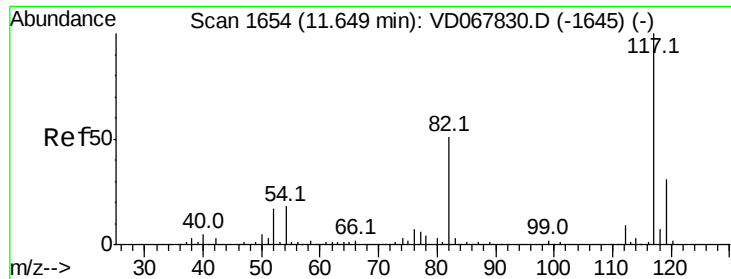
Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V



Time-->

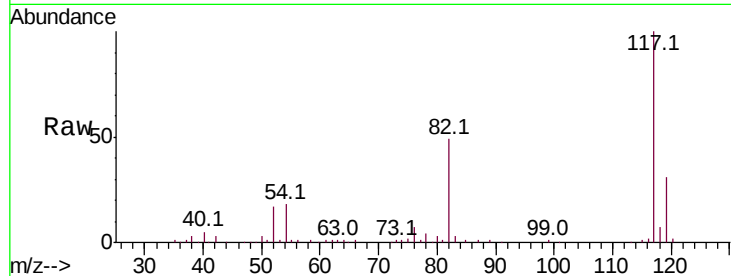




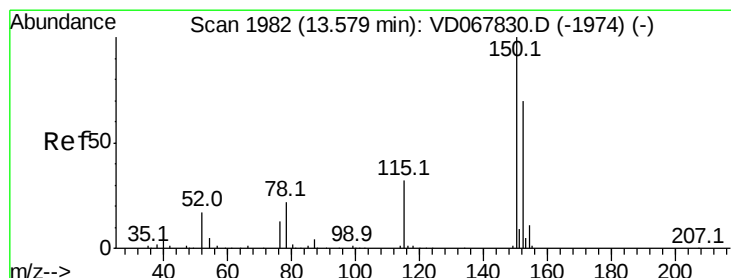
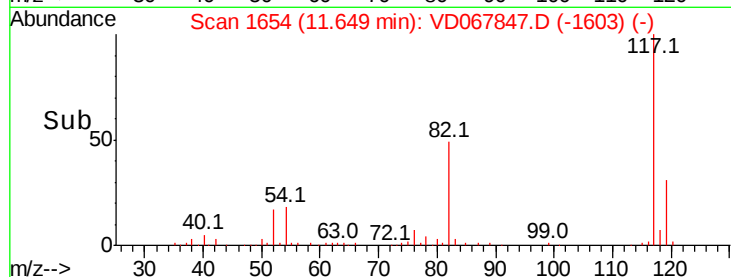
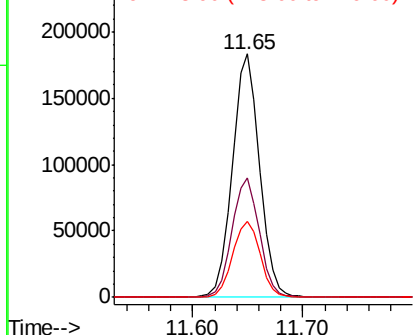
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. 0.00 min  
Lab File: VD067847.D  
Acq: 02 Dec 2020 20:30

Instrument :  
MSVOA\_D  
ClientSampleId :  
PAV-B3-112420-10.5-11.5

Tot Ion:117 Resp: 316966  
Ion Ratio Lower Upper  
117 100  
82 49.3 40.6 60.8  
119 31.4 25.1 37.7

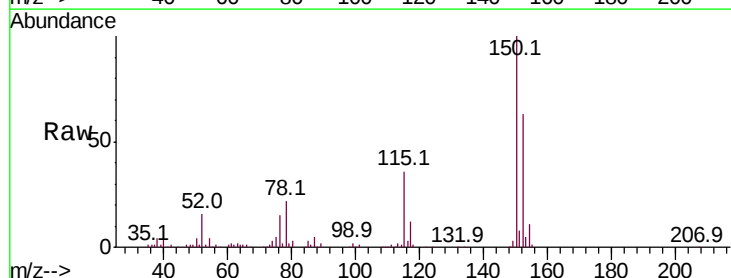


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

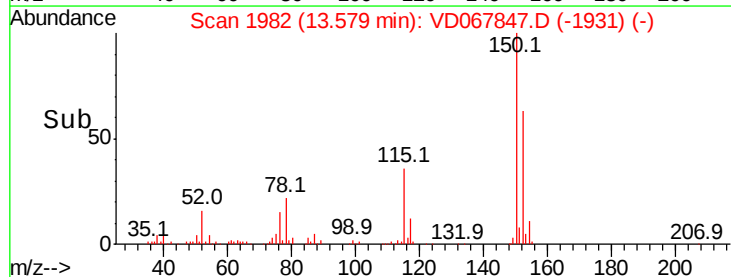
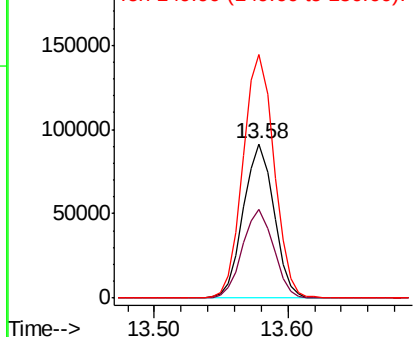


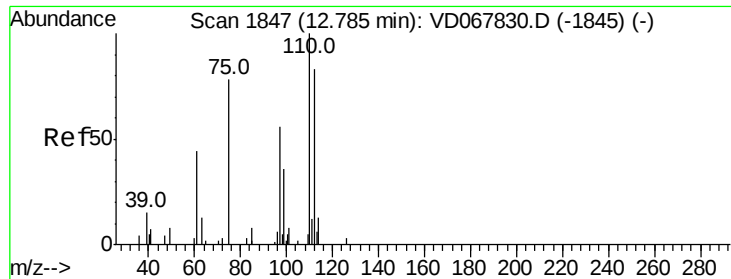
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.58 min Scan# 1982  
Delta R.T. 0.00 min  
Lab File: VD067847.D  
Acq: 02 Dec 2020 20:30

Tgt Ion:152 Resp: 145721  
Ion Ratio Lower Upper  
152 100  
115 58.5 29.1 87.4  
150 159.5 0.0 339.0



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: 65.741 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. -0.15 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Instrument :

MSVOA\_D

ClientSampleId :

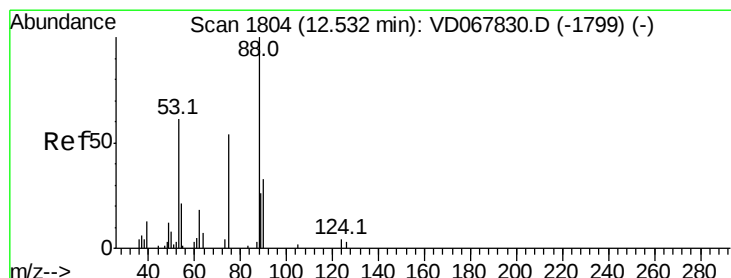
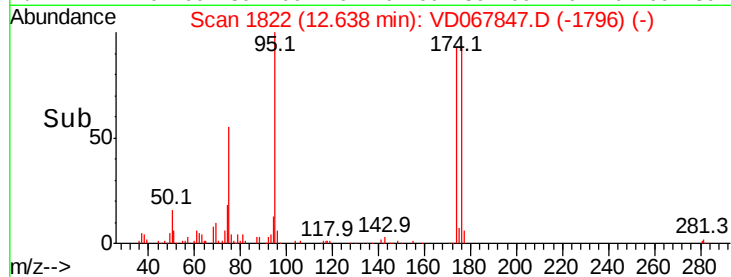
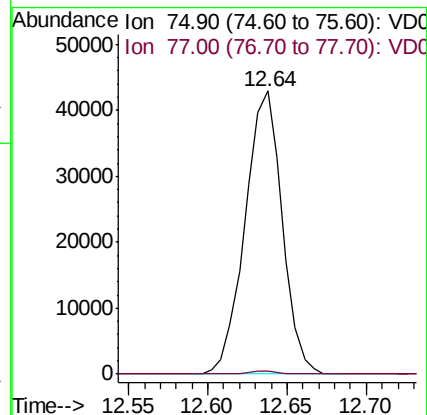
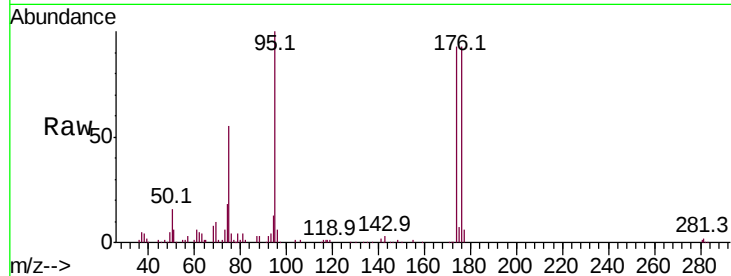
PAV-B3-112420-10.5-11.5

Tot Ion: 75 Resp: 69763

Ion Ratio Lower Upper

75 100

77 0.8 175.9 527.7#



#81

trans-1,4-Dichloro-2-butene

Concen: 157.258 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.11 min

Lab File: VD067847.D

Acq: 02 Dec 2020 20:30

Tgt Ion: 75 Resp: 69763

Ion Ratio Lower Upper

75 100

53 0.0 84.6 127.0#

89 0.0 41.0 61.6#

