

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD103119\  
 Data File : VD064138.D  
 Acq On : 31 Oct 2019 17:47  
 Operator : VA/SY  
 Sample : K5602-03RE  
 Misc : 5.00G/5.00ml/MSVOA D/SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :

Quant Time: Nov 01 06:05:55 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D102919S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Oct 30 08:00:10 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.98  | 168  | 214273   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.87  | 114  | 340978   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.65 | 117  | 356898   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.58 | 152  | 172761   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.34  | 65   | 90809    | 53.29 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 106.58% |          |
| 35) Dibromofluoromethane    | 7.92  | 113  | 108517   | 51.73 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.46% |          |
| 50) Toluene-d8              | 10.34 | 98   | 417975   | 49.82 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.64%  |          |
| 62) 4-Bromofluorobenzene    | 12.64 | 95   | 142156   | 51.11 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 102.22% |          |

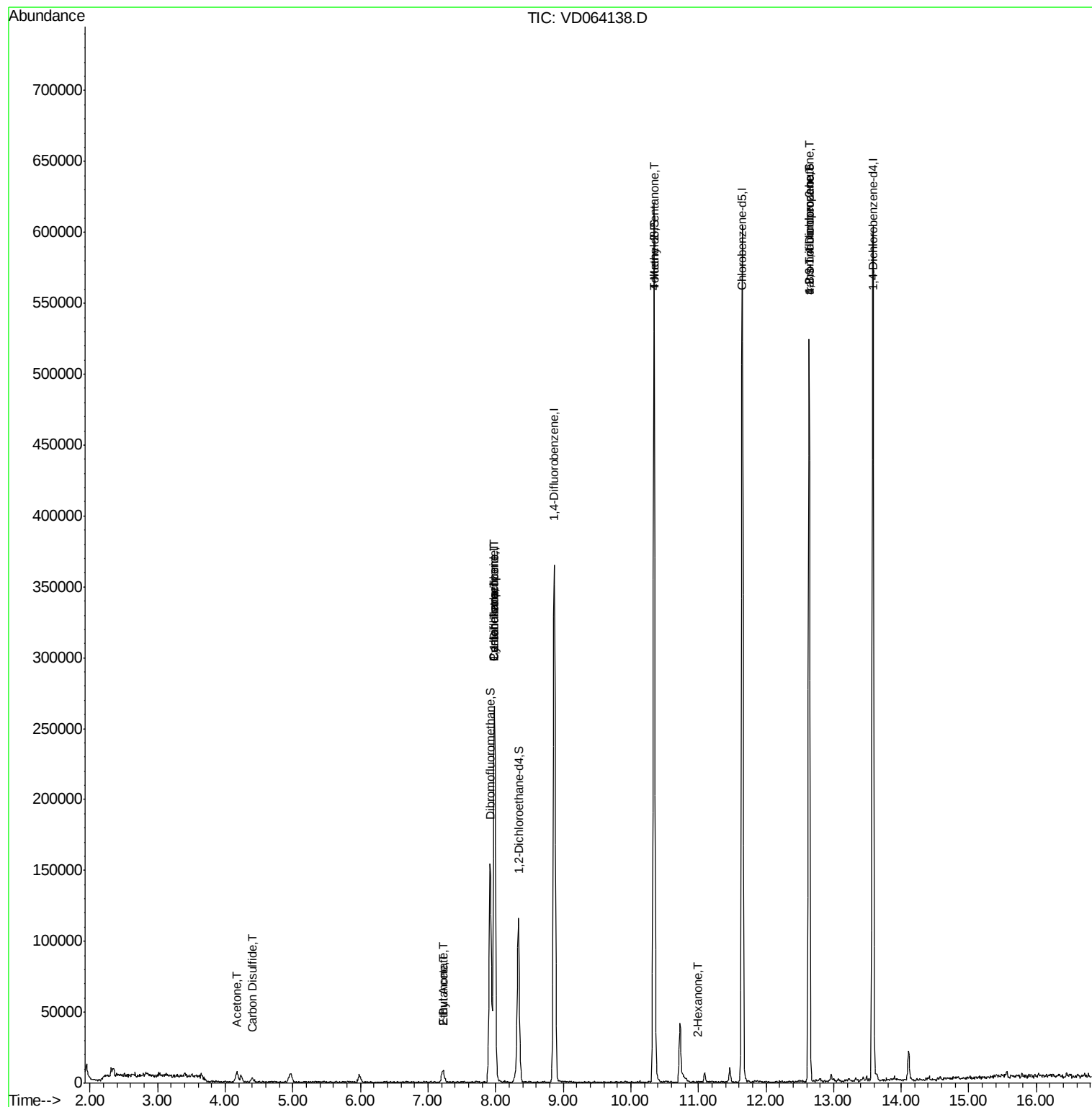
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 4.17  | 43   | 11353    | 35.014    | ug/l   | 100    |
| 17) Carbon Disulfide           | 4.40  | 76   | 6311     | 1.105     | ug/l # | 93     |
| 20) Methylene Chloride         | 4.96  | 84   | 5200     | Below Cal | #      | 93     |
| 25) 2-Butanone                 | 7.23  | 43   | 2869     | 6.400     | ug/l # | 70     |
| 31) Cyclohexane                | 7.98  | 56   | 3679     | 1.161     | ug/l # | 71     |
| 36) 1,1-Dichloropropene        | 7.98  | 75   | 13967    | 4.371     | ug/l # | 48     |
| 37) Ethyl Acetate              | 7.23  | 43   | 2869     | 2.917     | ug/l # | 76     |
| 38) Carbon Tetrachloride       | 7.98  | 117  | 19681    | 5.646     | ug/l # | 18     |
| 51) 4-Methyl-2-Pentanone       | 10.34 | 43   | 1984     | 1.834     | ug/l # | 1      |
| 59) 2-Hexanone                 | 11.00 | 43   | 67       | 9.090     | ug/l # | 22     |
| 76) 1,2,3-Trichloropropane     | 12.64 | 75   | 74897    | 64.519    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.64 | 75   | 74897    | 131.764   | ug/l # | 15     |

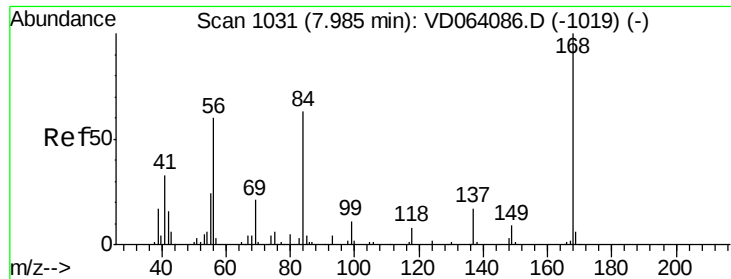
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA D\DATA\VD103119\  
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Sample : K5602-03RE  
Misc : 5.00G/5.00ml/MSVOA D/SOIL  
ALS Vial : 14 Sample Multiplier: 1

Instrument :  
MSVOA\_D  
ClientSampleId :

Quant Time: Nov 01 06:05:55 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D102919S.M  
Quant Title : SW846 8260  
QLast Update : Wed Oct 30 08:00:10 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.98 min Scan# 1030

Delta R.T. -0.01 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

Instrument :

MSVOA\_D

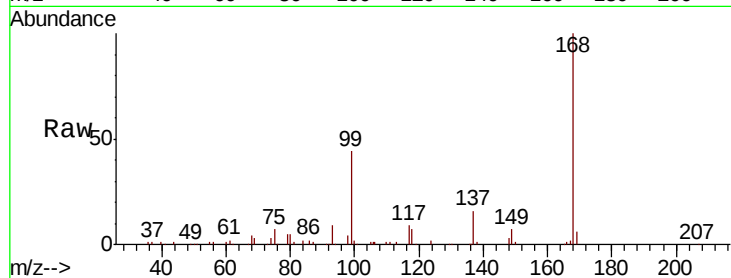
ClientSampleId :

Tot Ion:168 Resp: 214273

Ion Ratio Lower Upper

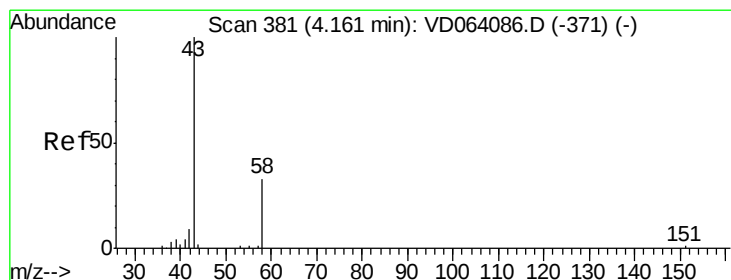
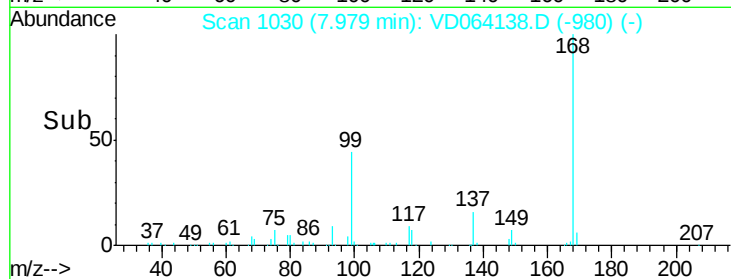
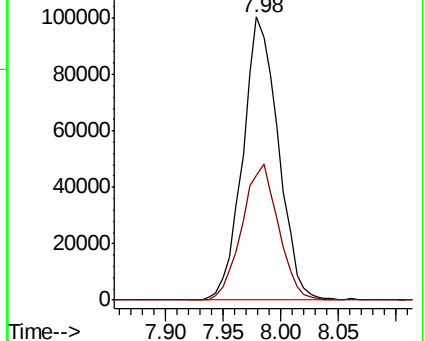
168 100

99 44.2 37.6 56.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VDC



#16

Acetone

Concen: 35.014 ug/l

RT: 4.17 min Scan# 383

Delta R.T. 0.01 min

Lab File: VD064138.D

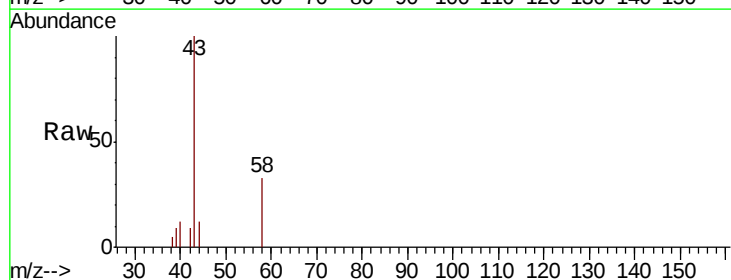
Acq: 31 Oct 2019 17:47

Tgt Ion: 43 Resp: 11353

Ion Ratio Lower Upper

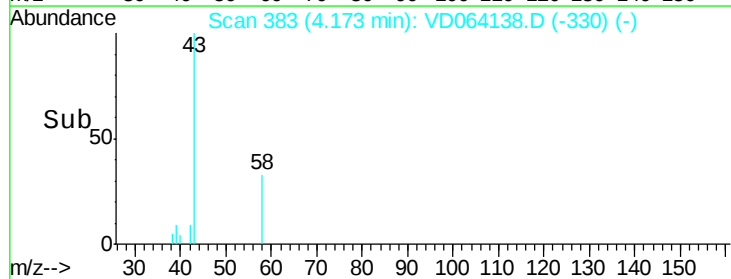
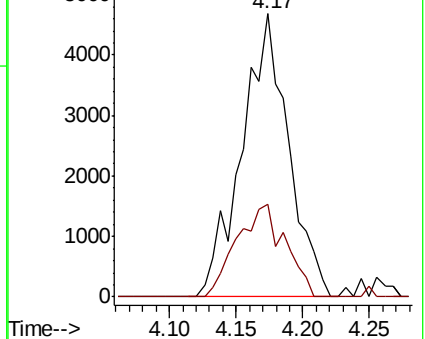
43 100

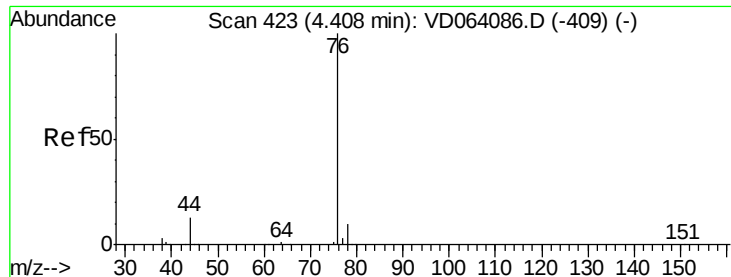
58 32.8 26.3 39.5



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC

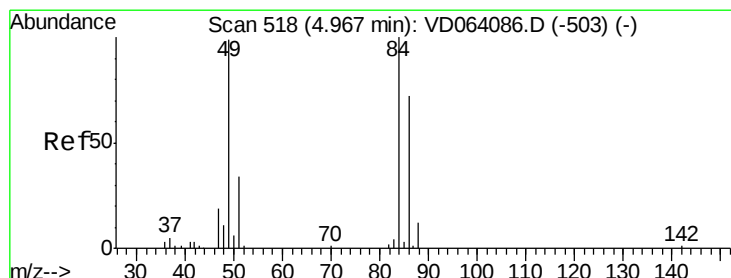
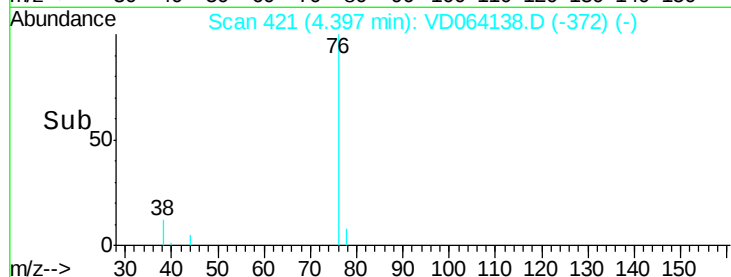
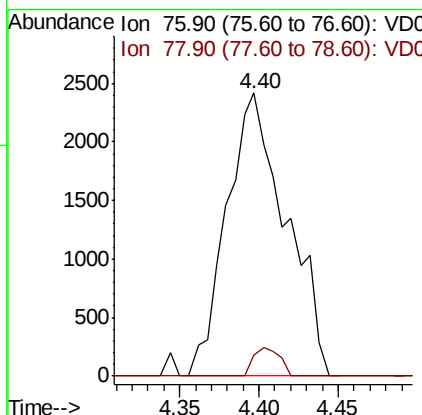
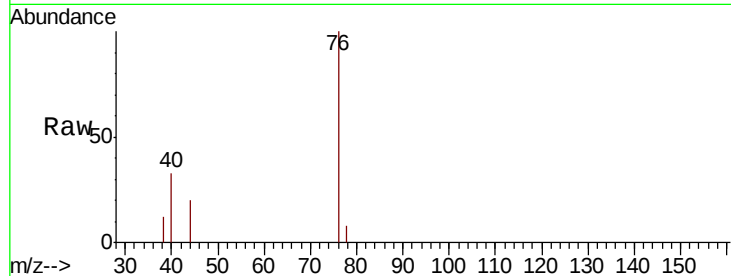




#17  
Carbon Disulfide  
Concen: 1.105 ug/l  
RT: 4.40 min Scan# 421  
Delta R.T. -0.01 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

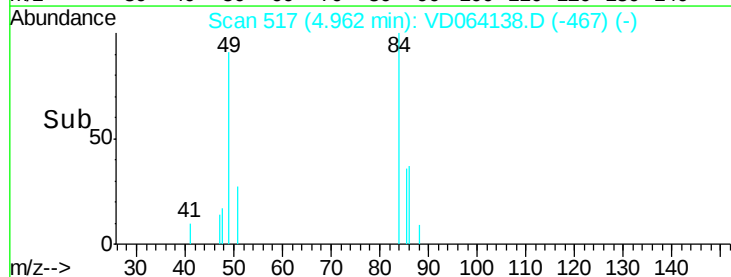
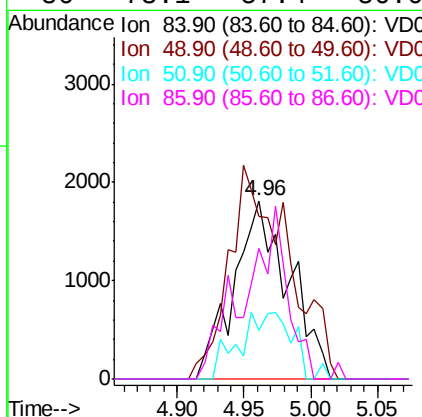
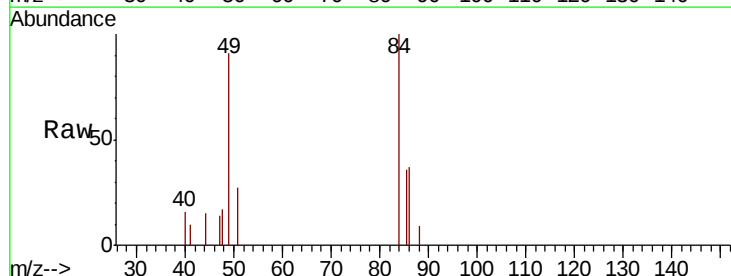
Instrument :  
MSVOA\_D  
ClientSampleId :

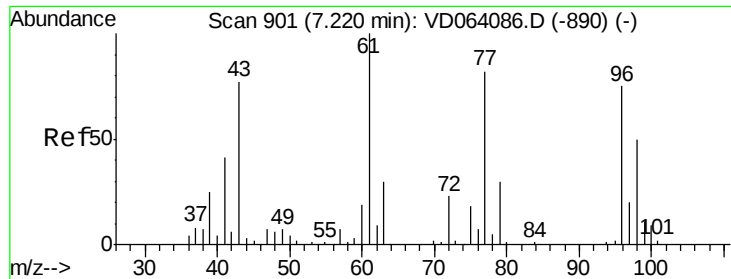
Tot Ion: 76 Resp: 6311  
Ion Ratio Lower Upper  
76 100  
78 7.5 8.1 12.1#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 4.96 min Scan# 517  
Delta R.T. -0.01 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

Tgt Ion: 84 Resp: 5200  
Ion Ratio Lower Upper  
84 100  
49 90.9 79.4 119.0  
51 27.0 27.4 41.2#  
86 73.1 57.4 86.0





#25

2-Butanone

Concen: 6.400 ug/l

RT: 7.23 min Scan# 902

Delta R.T. 0.01 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

Instrument :

MSVOA\_D

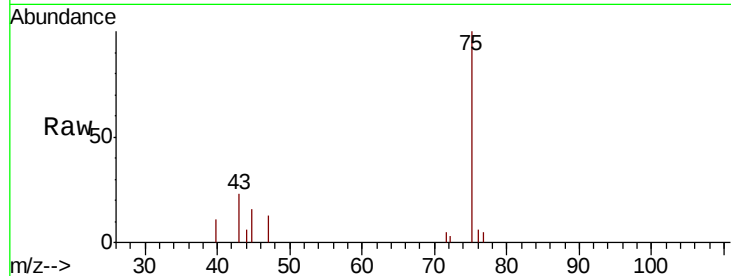
ClientSampleId :

Tot Ion: 43 Resp: 2869

Ion Ratio Lower Upper

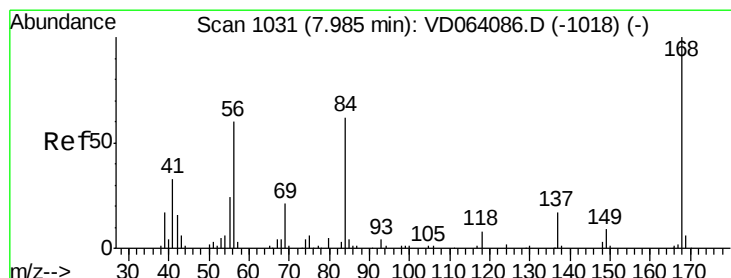
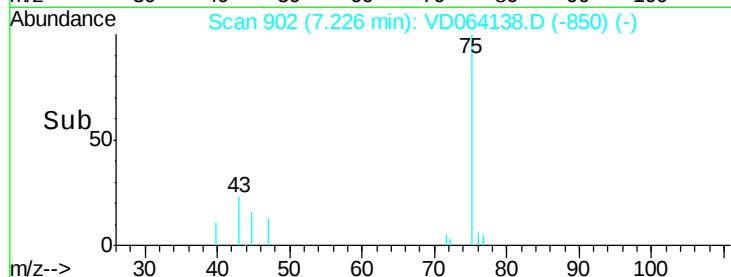
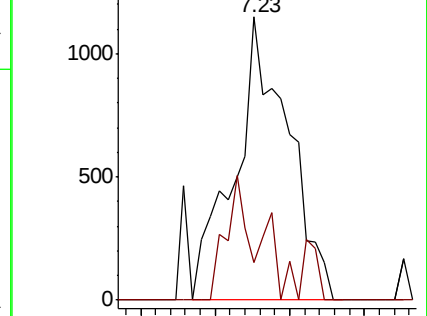
43 100

72 13.3 23.4 35.0#



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 72.00 (71.70 to 72.70): VDC



#31

Cyclohexane

Concen: 1.161 ug/l

RT: 7.98 min Scan# 1031

Delta R.T. 0.00 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

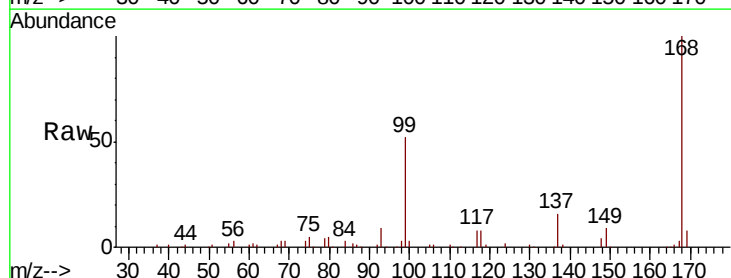
Tgt Ion: 56 Resp: 3679

Ion Ratio Lower Upper

56 100

69 95.3 27.7 41.5#

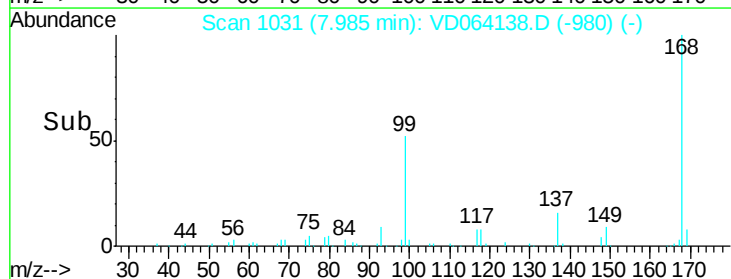
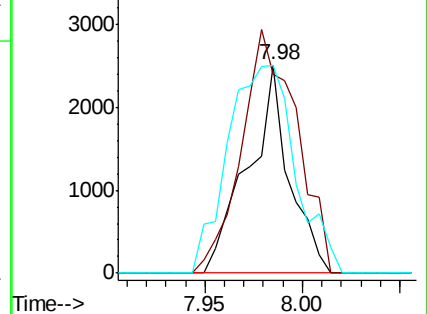
84 99.9 83.1 124.7

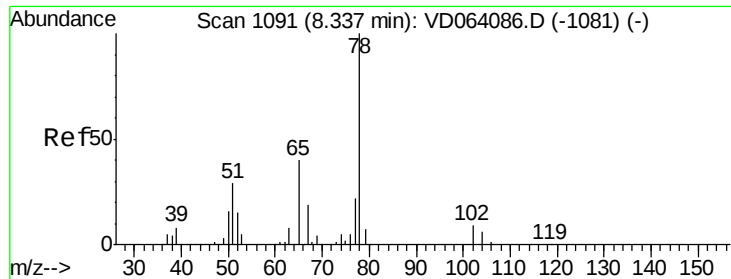


Abundance Ion 56.00 (55.70 to 56.70): VDC

Ion 69.00 (68.70 to 69.70): VDC

Ion 84.00 (83.70 to 84.70): VDC





#33

1,2-Dichloroethane-d4

Concen: 53.288 ug/l

RT: 8.34 min Scan# 1091

Delta R.T. 0.00 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

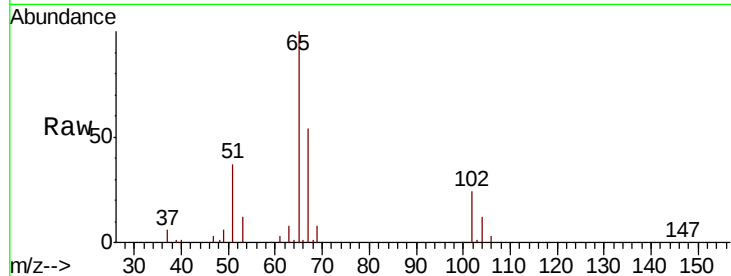
Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 65 Resp: 90809

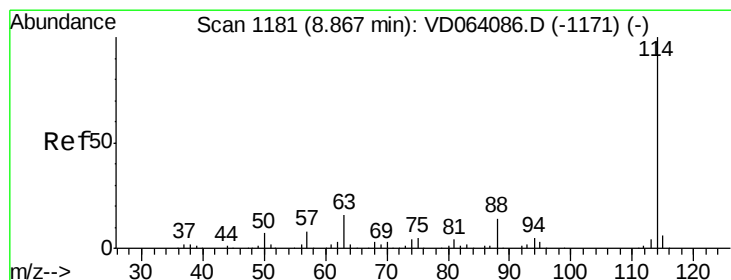
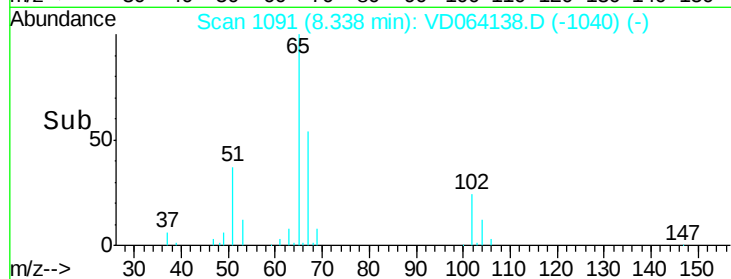
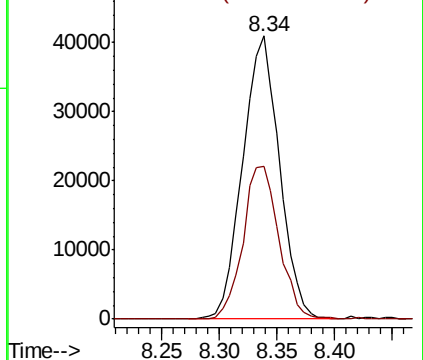
Ion Ratio Lower Upper

65 100

67 52.8 0.0 104.6



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: VD064138.D

Acq: 31 Oct 2019 17:47

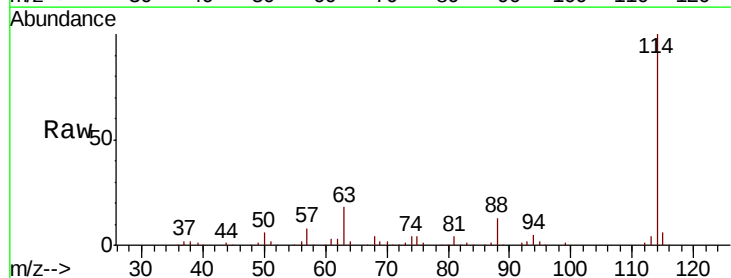
Tgt Ion: 114 Resp: 340978

Ion Ratio Lower Upper

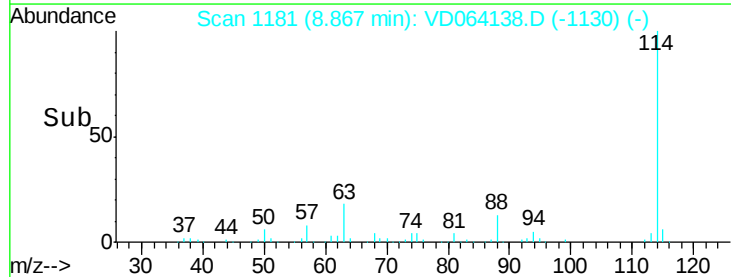
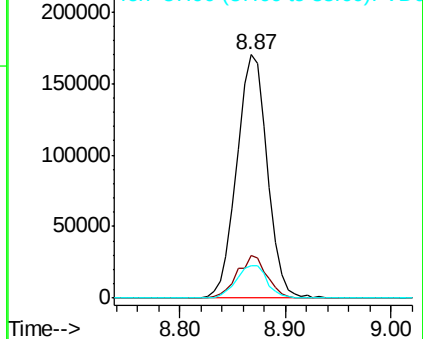
114 100

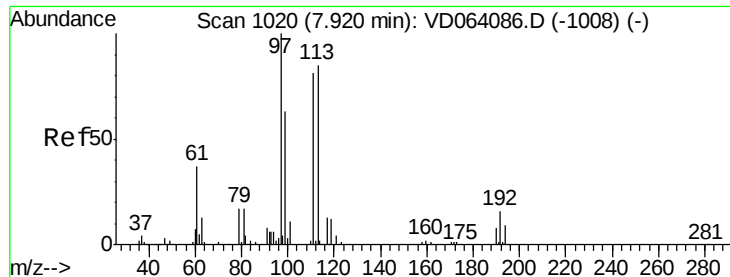
63 17.7 0.0 32.8

88 13.3 0.0 27.6



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

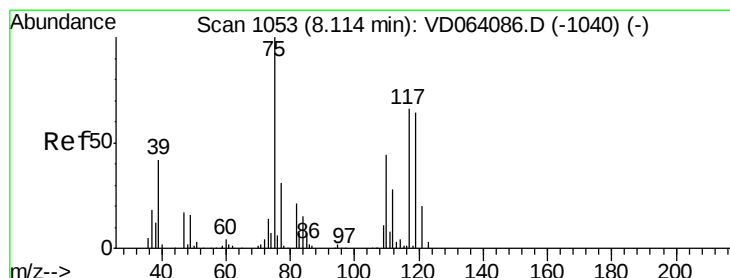
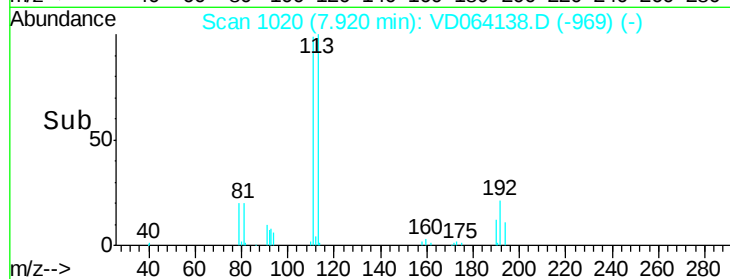
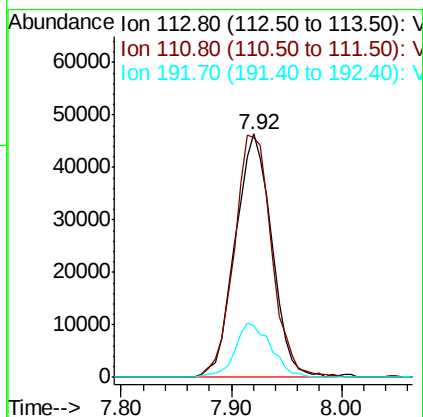
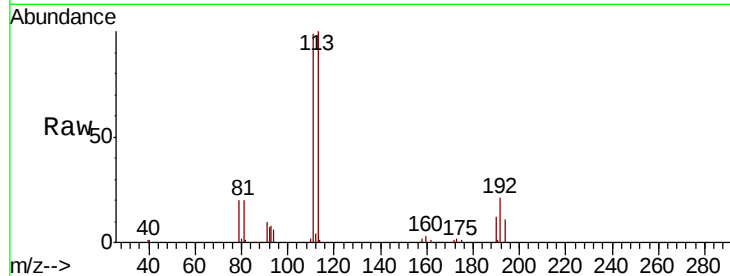




#35  
 Dibromofluoromethane  
 Concen: 51.729 ug/l  
 RT: 7.92 min Scan# 1020  
 Delta R.T. 0.00 min  
 Lab File: VD064138.D  
 Acq: 31 Oct 2019 17:47

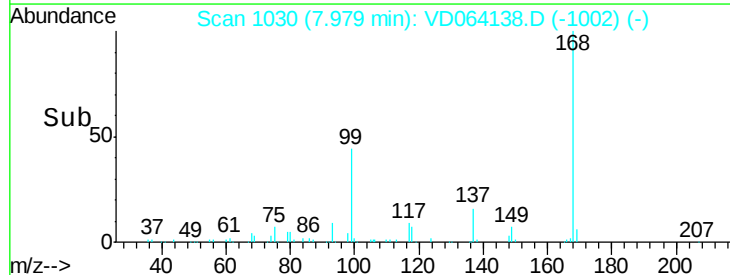
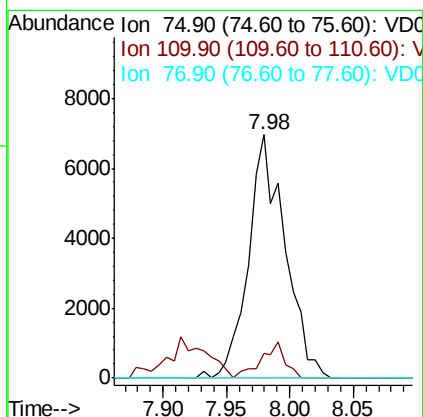
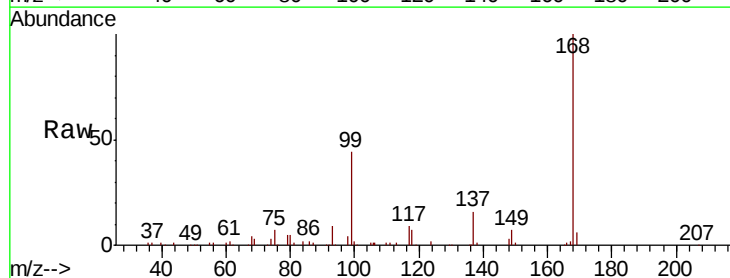
Instrument :  
 MSVOA\_D  
 ClientSampleId :

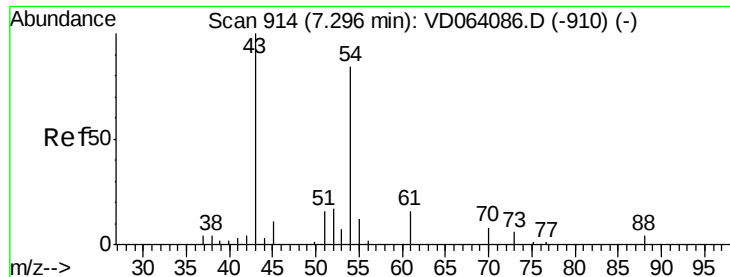
Tot Ion:113 Resp: 108517  
 Ion Ratio Lower Upper  
 113 100  
 111 101.7 79.3 118.9  
 192 21.9 16.2 24.2



#36  
 1,1-Dichloropropene  
 Concen: 4.371 ug/l  
 RT: 7.98 min Scan# 1030  
 Delta R.T. -0.13 min  
 Lab File: VD064138.D  
 Acq: 31 Oct 2019 17:47

Tgt Ion: 75 Resp: 13967  
 Ion Ratio Lower Upper  
 75 100  
 110 9.5 20.0 59.9#  
 77 0.0 24.7 37.1#

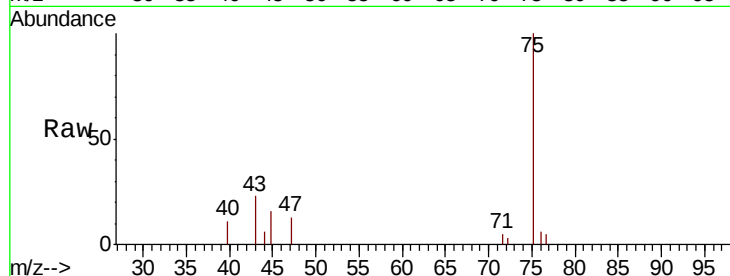




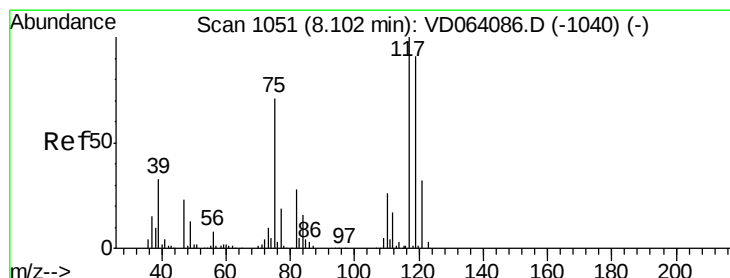
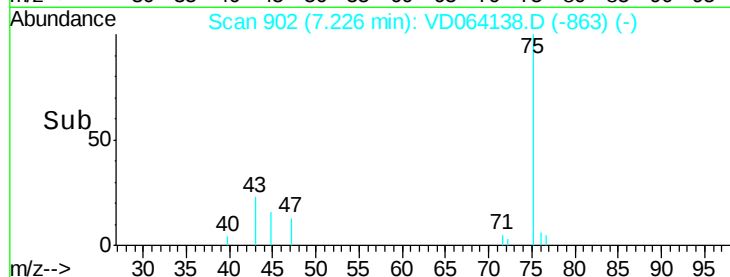
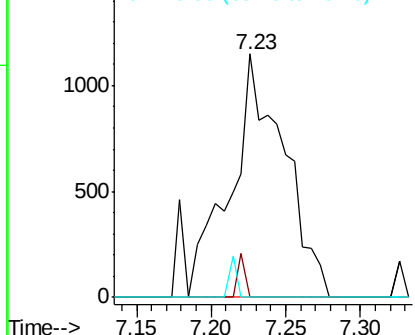
#37  
Ethyl Acetate  
Concen: 2.917 ug/l  
RT: 7.23 min Scan# 902  
Delta R.T. -0.07 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

Instrument :  
MSVOA\_D  
ClientSampleId :

Tot Ion: 43 Resp: 2869  
Ion Ratio Lower Upper  
43 100  
61 2.5 12.0 18.0#  
70 2.4 3.8 5.6#

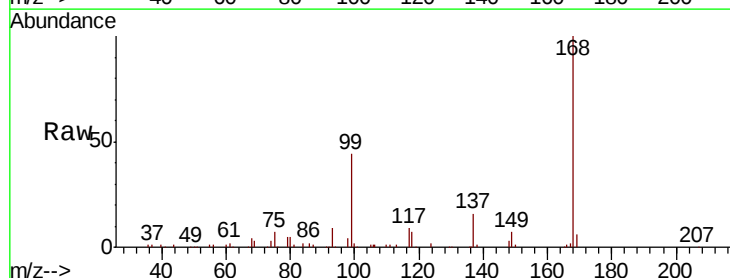


Abundance Ion 43.00 (42.70 to 43.70): VDC  
Ion 60.90 (60.60 to 61.60): VDC  
Ion 70.00 (69.70 to 70.70): VDC

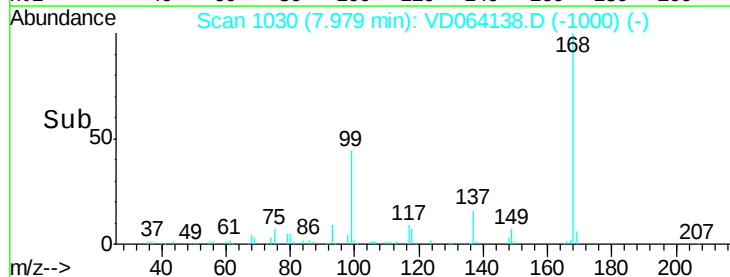
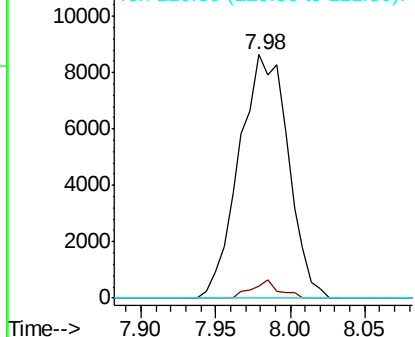


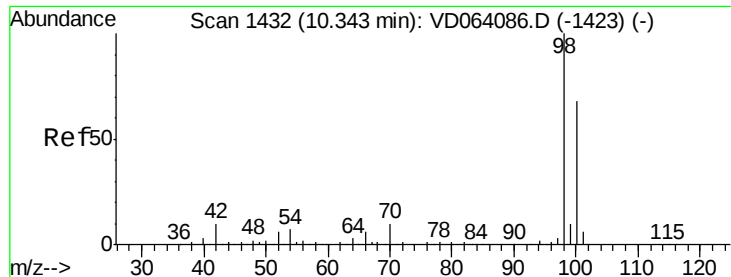
#38  
Carbon Tetrachloride  
Concen: 5.646 ug/l  
RT: 7.98 min Scan# 1030  
Delta R.T. -0.12 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

Tgt Ion: 117 Resp: 19681  
Ion Ratio Lower Upper  
117 100  
119 4.7 72.6 108.8#  
121 0.0 25.8 38.6#



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: 49.822 ug/l

RT: 10.34 min Scan# 1432

Delta R.T. 0.00 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

Instrument :

MSVOA\_D

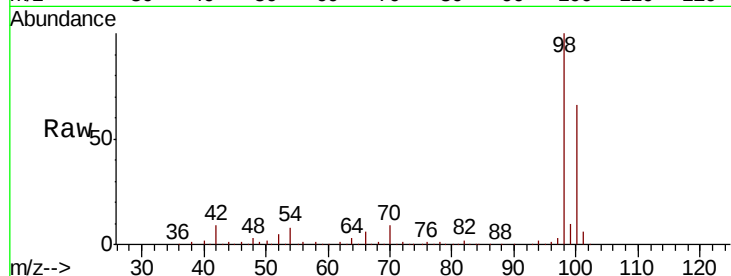
ClientSampleId :

Tot Ion: 98 Resp: 417975

Ion Ratio Lower Upper

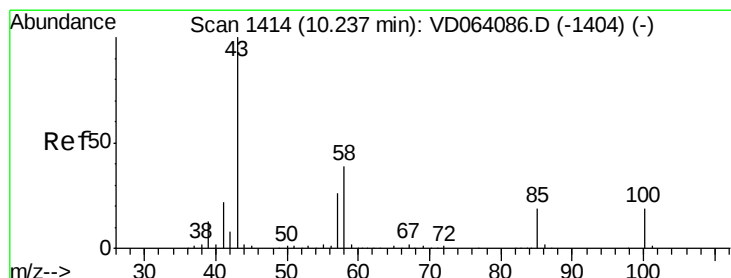
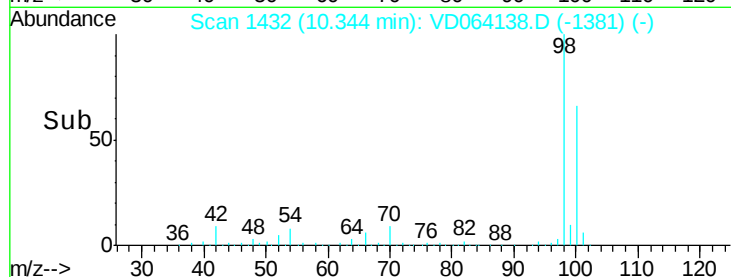
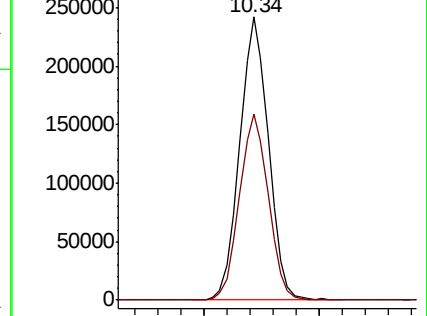
98 100

100 66.1 53.4 80.0



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: 1.834 ug/l

RT: 10.34 min Scan# 1431

Delta R.T. 0.10 min

Lab File: VD064138.D

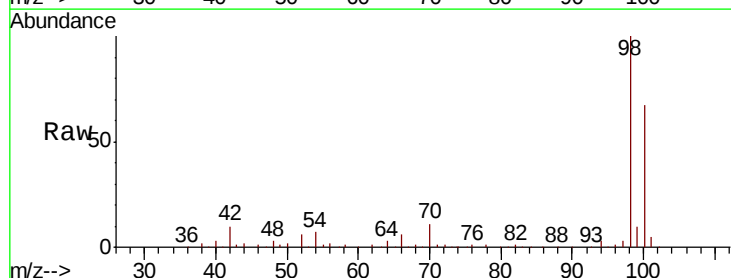
Acq: 31 Oct 2019 17:47

Tgt Ion: 43 Resp: 1984

Ion Ratio Lower Upper

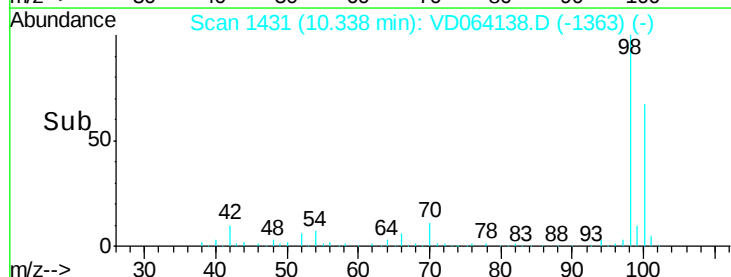
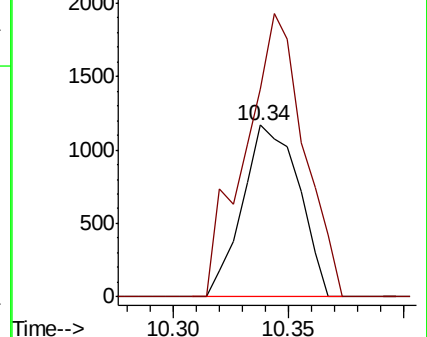
43 100

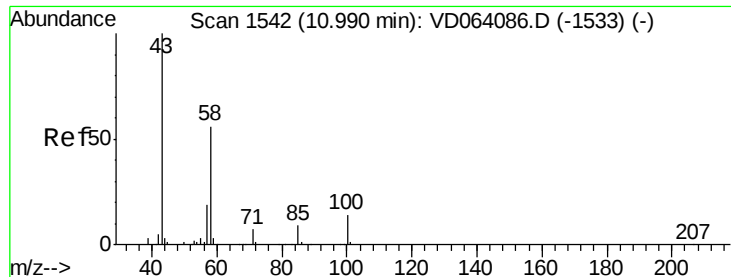
58 172.9 33.0 49.4#



Abundance Ion 43.00 (42.70 to 43.70): VDC

Ion 58.00 (57.70 to 58.70): VDC

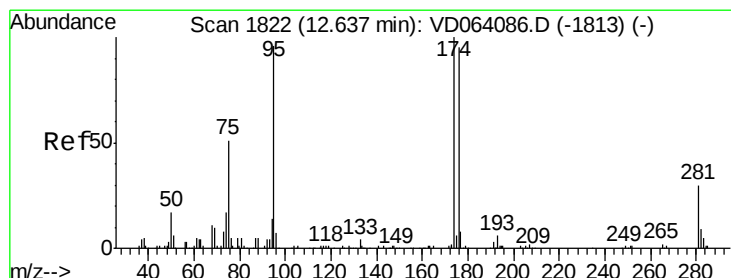
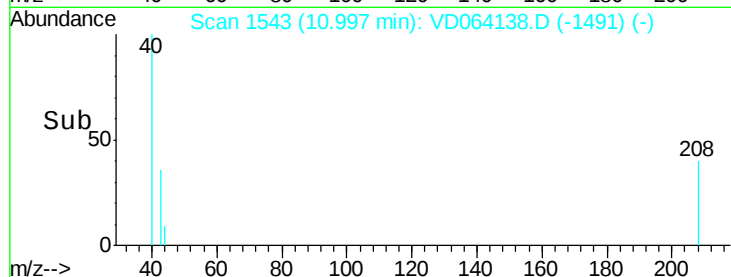
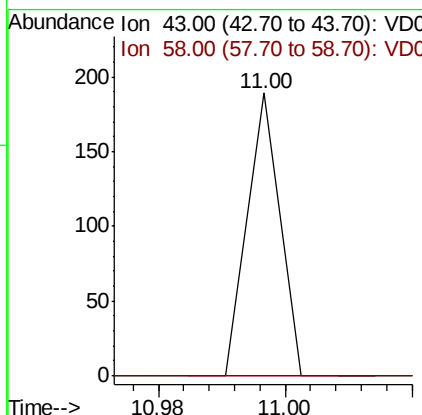
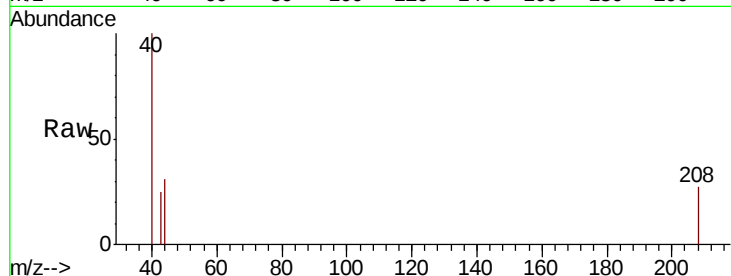




#59  
2-Hexanone  
Concen: 9.090 ug/l  
RT: 11.00 min Scan# 1543  
Delta R.T. 0.01 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

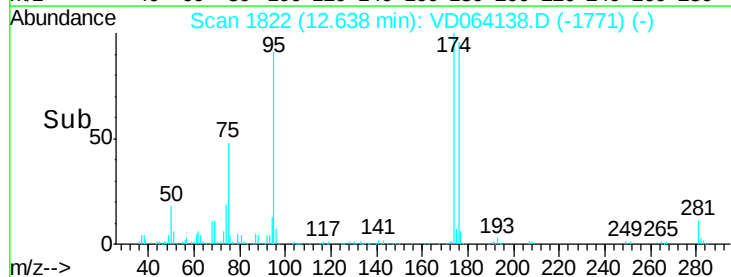
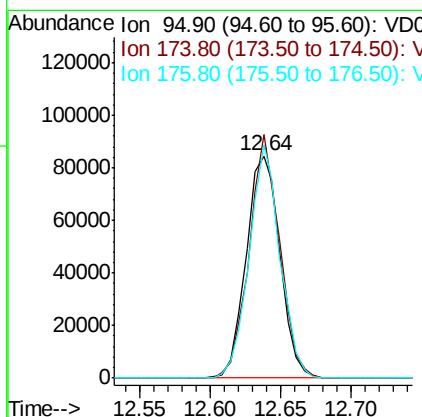
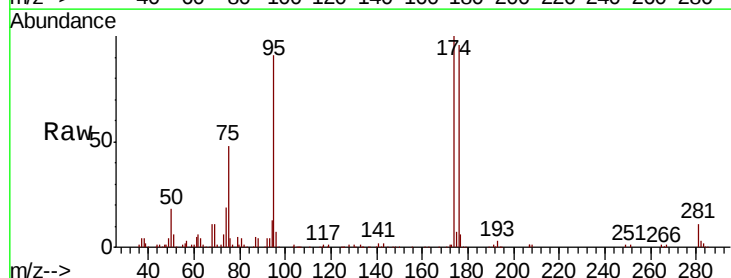
Instrument :  
MSVOA\_D  
ClientSampleId :

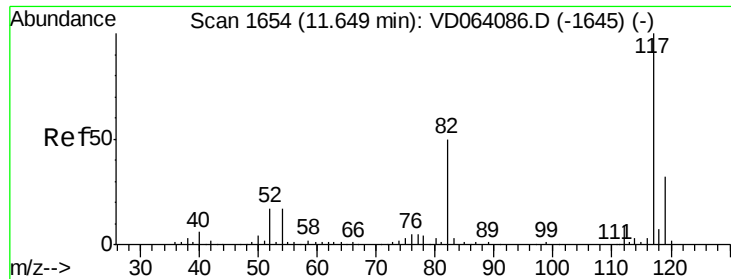
Tot Ion: 43 Resp: 67  
Ion Ratio Lower Upper  
43 100  
58 0.0 29.2 87.6#



#62  
4-Bromofluorobenzene  
Concen: 51.110 ug/l  
RT: 12.64 min Scan# 1822  
Delta R.T. 0.00 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

Tgt Ion: 95 Resp: 142156  
Ion Ratio Lower Upper  
95 100  
174 99.4 0.0 201.6  
176 95.7 0.0 192.6

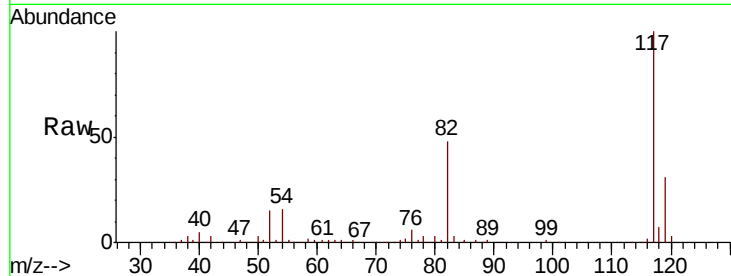




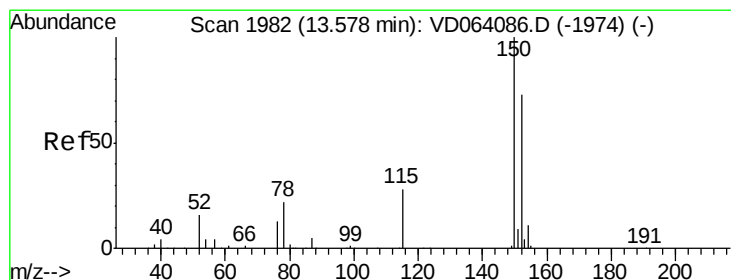
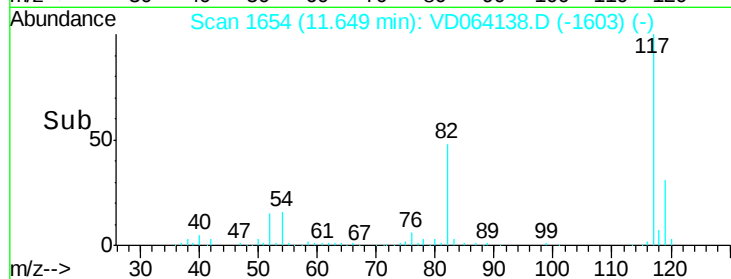
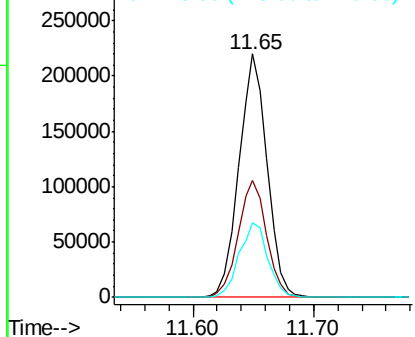
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.65 min Scan# 1654  
Delta R.T. 0.00 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

Instrument :  
MSVOA\_D  
ClientSampled :

Tot Ion:117 Resp: 356898  
Ion Ratio Lower Upper  
117 100  
82 48.0 40.2 60.4  
119 30.8 26.0 39.0

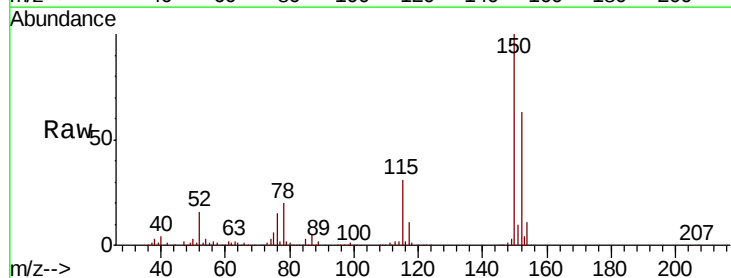


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 118.90 (118.60 to 119.60): V

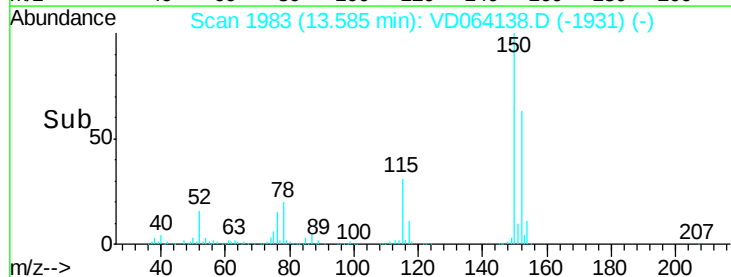
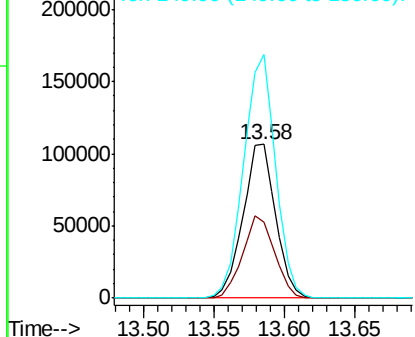


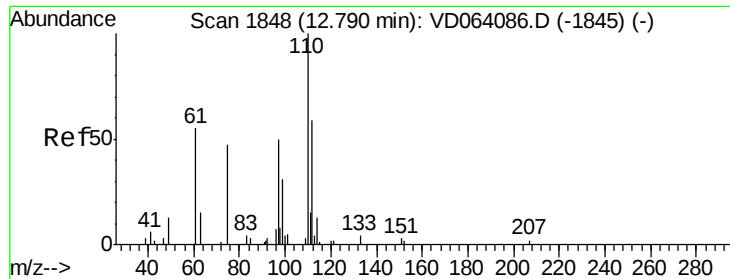
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.58 min Scan# 1983  
Delta R.T. 0.01 min  
Lab File: VD064138.D  
Acq: 31 Oct 2019 17:47

Tgt Ion:152 Resp: 172761  
Ion Ratio Lower Upper  
152 100  
115 52.2 26.2 78.6  
150 155.0 0.0 338.8



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: 64.519 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. -0.15 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

Instrument :

MSVOA\_D

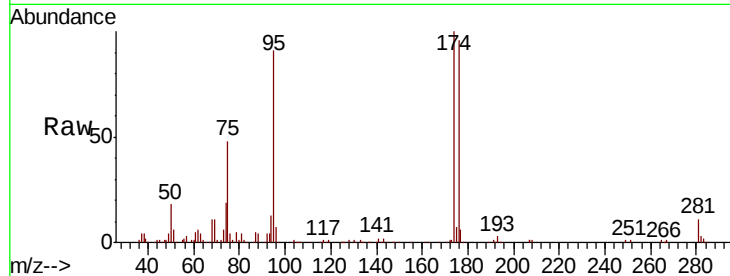
ClientSampled :

Tot Ion: 75 Resp: 74897

Ion Ratio Lower Upper

75 100

77 1.6 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 77.00 (76.70 to 77.70): VDC

12.64

50000

40000

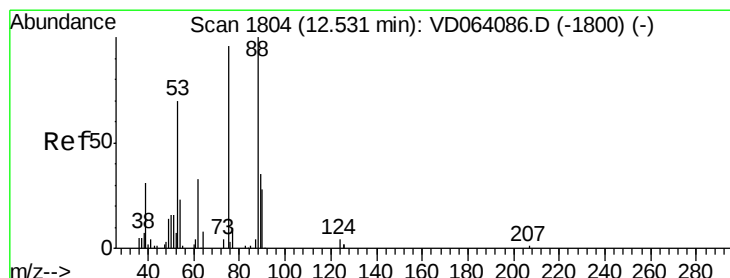
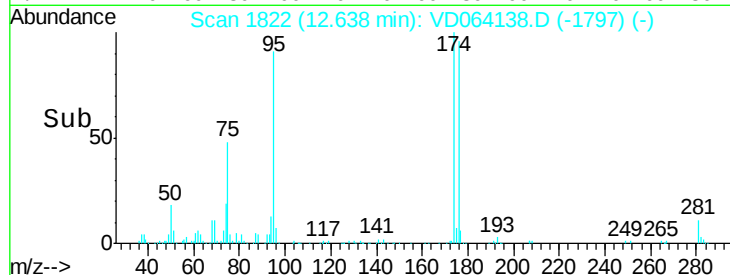
30000

20000

10000

0

Time--> 12.55 12.60 12.65 12.70



#81

trans-1,4-Dichloro-2-butene

Concen: 131.764 ug/l

RT: 12.64 min Scan# 1822

Delta R.T. 0.11 min

Lab File: VD064138.D

Acq: 31 Oct 2019 17:47

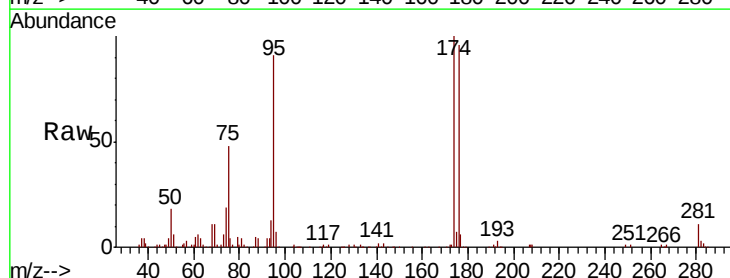
Tgt Ion: 75 Resp: 74897

Ion Ratio Lower Upper

75 100

53 0.0 68.6 103.0#

89 0.0 36.9 55.3#



Abundance Ion 74.90 (74.60 to 75.60): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 88.90 (88.60 to 89.60): VDC

12.64

60000

50000

40000

30000

20000

10000

0

Time--> 12.55 12.60 12.65 12.70

