

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_D\DATA\VD081919\  
 Data File : VD063659.D  
 Acq On : 19 Aug 2019 15:56  
 Operator : JC/SY  
 Sample : K4385-14  
 Misc : 4.75g/5ml/MSVOA\_D/SOIL  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T8-C-(0)

Quant Time: Aug 20 08:15:19 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D080919S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Aug 10 06:42:47 2019  
 Response via : Initial Calibration

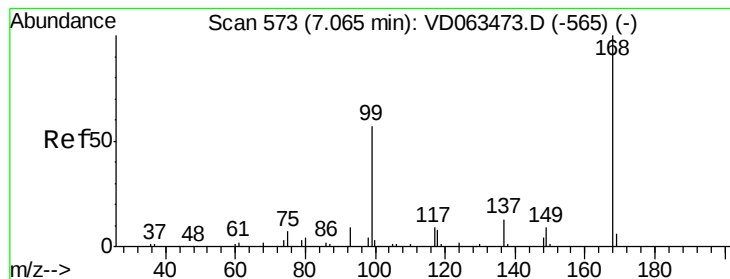
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.05  | 168  | 713230   | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 8.22  | 114  | 1148772  | 50.00 | ug/l  | -0.02    |
| 63) Chlorobenzene-d5       | 12.36 | 117  | 559122   | 50.00 | ug/l  | -0.02    |
| 72) 1,4-Dichlorobenzene-d4 | 14.52 | 152  | 127452   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc   | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|--------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.45  | 65   | 476069   | 62.44  | ug/l    | -0.02    |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 124.88% |          |
| 35) Dibromofluoromethane    | 6.92  | 113  | 501739   | 51.86  | ug/l    | -0.02    |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 103.72% |          |
| 50) Toluene-d8              | 10.40 | 98   | 724166   | 34.04  | ug/l    | -0.02    |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 68.08%  |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 179356   | 18.60  | ug/l    | 0.00     |
| Spiked Amount               |       |      |          | 50.000 |         |          |
|                             |       |      | Recovery | =      | 37.20%  |          |

| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 11) Tert butyl alcohol         | 4.09  | 59   | 621      | 1.871   | ug/l # | 71     |
| 16) Acetone                    | 3.22  | 43   | 174939   | 112.880 | ug/l # | 92     |
| 18) Methyl Acetate             | 3.64  | 43   | 5887     | 2.005   | ug/l # | 82     |
| 20) Methylene Chloride         | 3.81  | 84   | 31826    | 4.749   | ug/l # | 83     |
| 25) 2-Butanone                 | 6.06  | 43   | 20172    | 13.179  | ug/l # | 76     |
| 29) Tetrahydrofuran            | 6.46  | 42   | 8256     | 11.575  | ug/l   | 96     |
| 36) 1,1-Dichloropropene        | 7.04  | 75   | 51224    | 5.044   | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 7.05  | 117  | 66255    | 4.329   | ug/l # | 16     |
| 41) Methacrylonitrile          | 6.45  | 41   | 6242     | 1.165   | ug/l # | 69     |
| 59) 2-Hexanone                 | 11.49 | 43   | 11158    | 3.932   | ug/l # | 30     |
| 68) m/p-Xylenes                | 12.67 | 106  | 6467     | 1.010   | ug/l   | 86     |
| 74) N-amyl acetate             | 13.33 | 43   | 51183    | 25.151  | ug/l # | 45     |
| 75) 1,1,2,2-Tetrachloroethane  | 13.71 | 83   | 11553    | 8.586   | ug/l # | 62     |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75   | 83568    | 212.564 | ug/l # | 2      |
| 84) 1,2,4-Trimethylbenzene     | 14.23 | 105  | 6842     | 1.044   | ug/l   | 95     |
| 92) 1,2-Dibromo-3-Chloropropan | 15.37 | 75   | 293      | 1.156   | ug/l # | 1      |
| 96) 1,2,3-Trichlorobenzene     | 16.29 | 180  | 2315     | 1.146   | ug/l # | 16     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.05 min Scan# 571

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

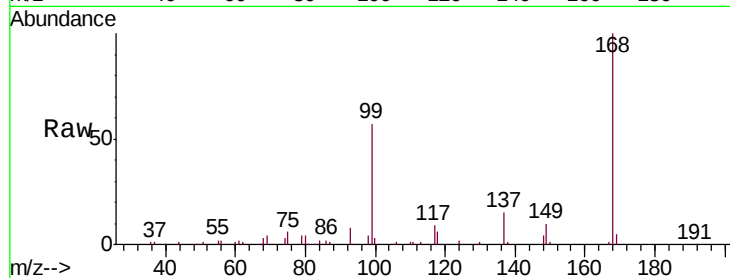
T8-C-(0)

Tgt Ion:168 Resp: 713230

Ion Ratio Lower Upper

168 100

99 57.4 46.7 70.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.05

250000

200000

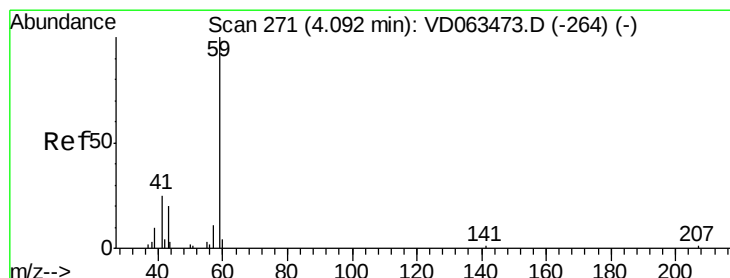
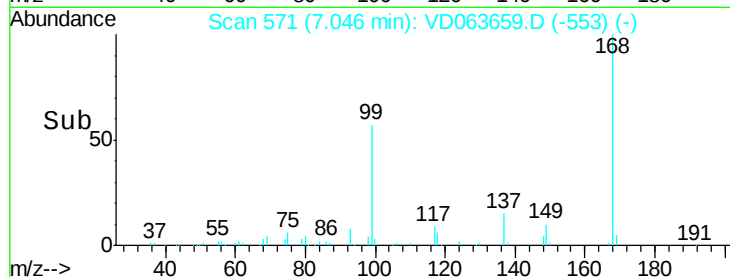
150000

100000

50000

0

Time-->



#11

Tert butyl alcohol

Concen: 1.871 ug/l

RT: 4.09 min Scan# 271

Delta R.T. 0.00 min

Lab File: VD063659.D

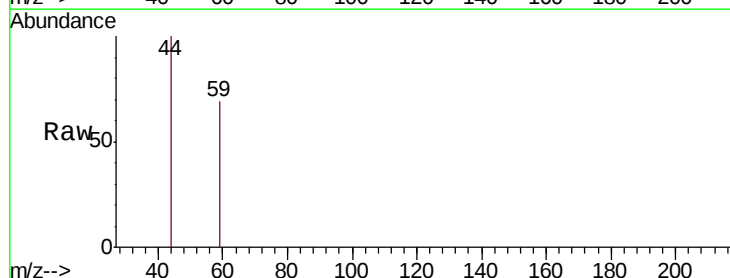
Acq: 19 Aug 2019 15:56

Tgt Ion: 59 Resp: 621

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC

4.09

400

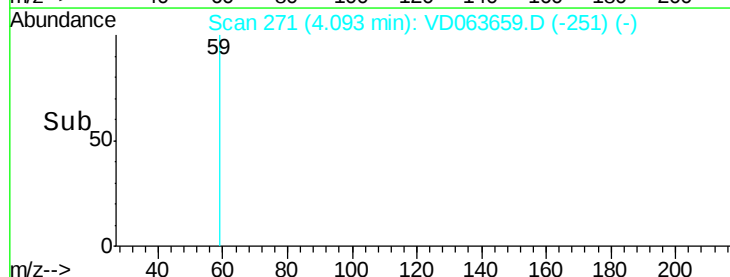
300

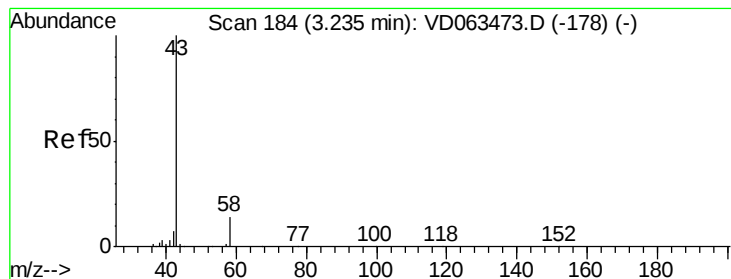
200

100

0

Time-->





#16

Acetone

Concen: 112.880 ug/l

RT: 3.22 min Scan# 182

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

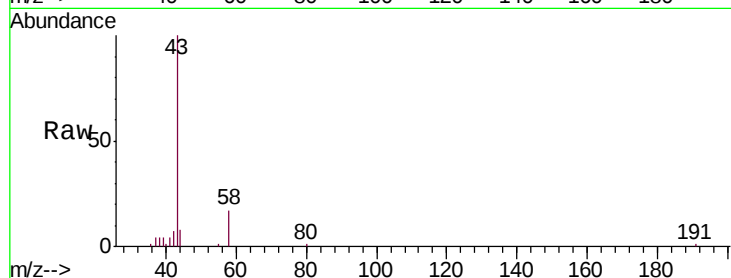
T8-C-(0)

Tgt Ion: 43 Resp: 174939

Ion Ratio Lower Upper

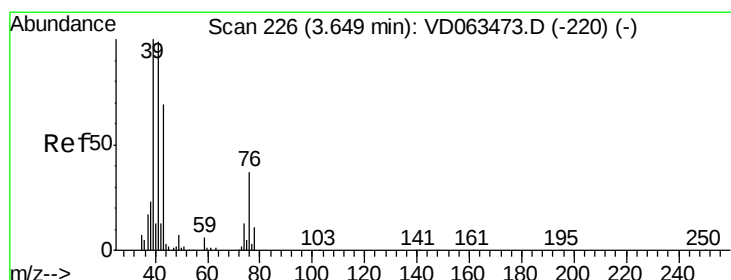
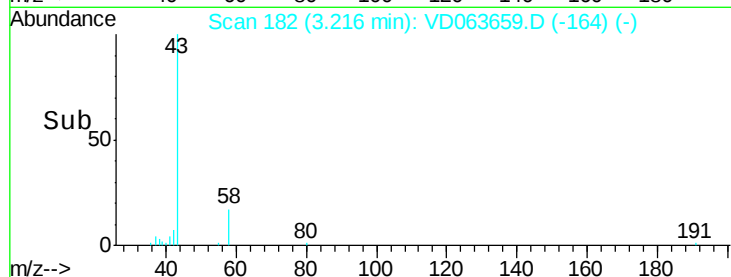
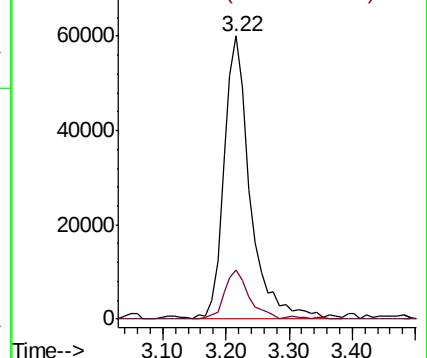
43 100

58 17.4 11.4 17.2#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC



#18

Methyl Acetate

Concen: 2.005 ug/l

RT: 3.64 min Scan# 225

Delta R.T. -0.01 min

Lab File: VD063659.D

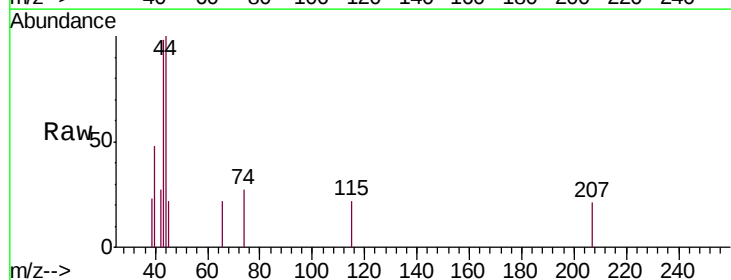
Acq: 19 Aug 2019 15:56

Tgt Ion: 43 Resp: 5887

Ion Ratio Lower Upper

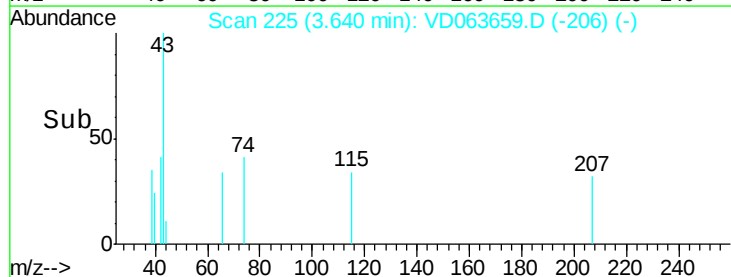
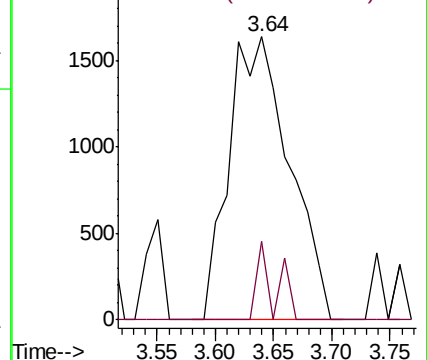
43 100

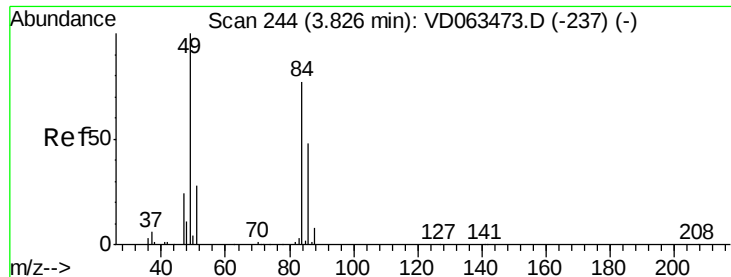
74 27.7 15.4 23.2#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 74.00 (73.70 to 74.70): VDC





#20

Methylene Chloride

Concen: 4.749 ug/l

RT: 3.81 min Scan# 242

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

T8-C-(0)

Tgt Ion: 84 Resp: 31826

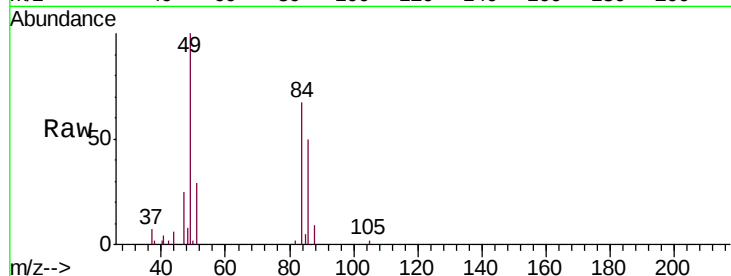
Ion Ratio Lower Upper

84 100

49 150.1 103.4 155.2

51 44.2 28.5 42.7#

86 75.3 49.4 74.2#

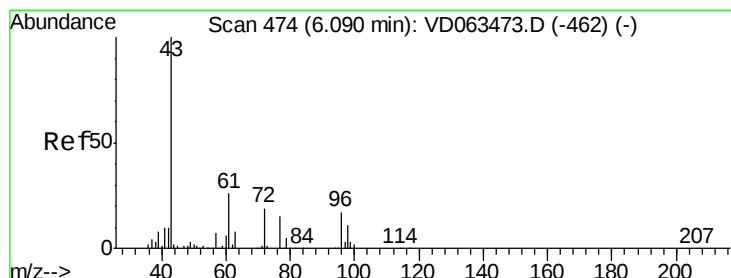
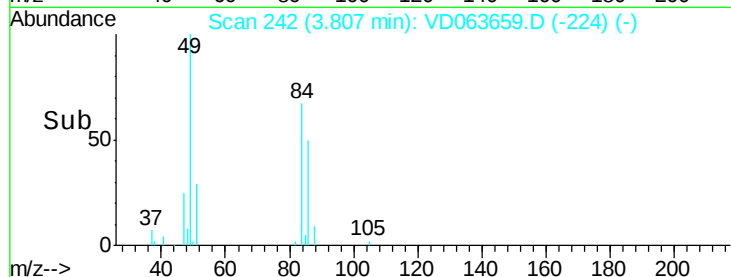
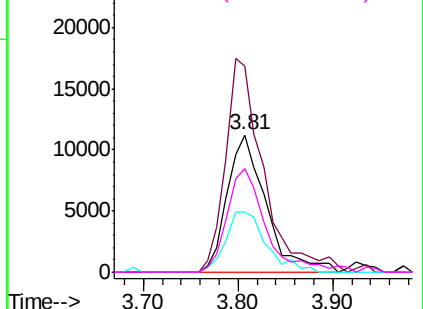


Abundance Ion 83.95 (83.65 to 84.65): VDC

Ion 48.90 (48.60 to 49.60): VDC

Ion 50.90 (50.60 to 51.60): VDC

Ion 85.90 (85.60 to 86.60): VDC



#25

2-Butanone

Concen: 13.179 ug/l

RT: 6.06 min Scan# 471

Delta R.T. -0.03 min

Lab File: VD063659.D

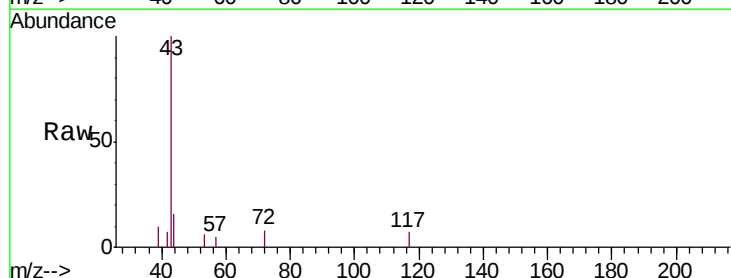
Acq: 19 Aug 2019 15:56

Tgt Ion: 43 Resp: 20172

Ion Ratio Lower Upper

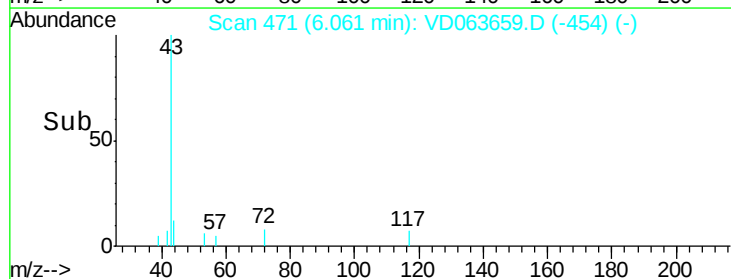
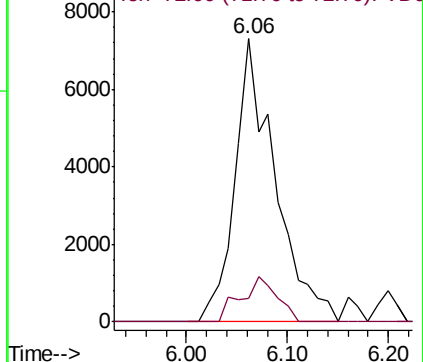
43 100

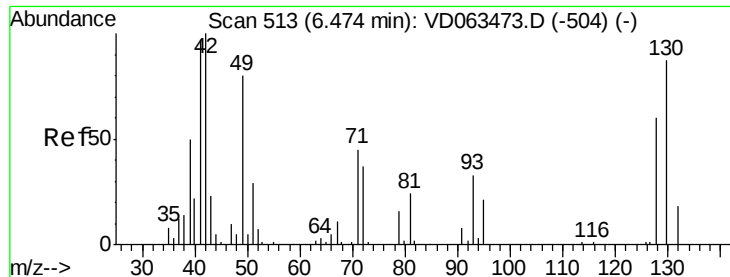
72 8.2 15.1 22.7#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 72.00 (71.70 to 72.70): VDC





#29

Tetrahydrofuran

Concen: 11.575 ug/l

RT: 6.46 min Scan# 511

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

T8-C-(0)

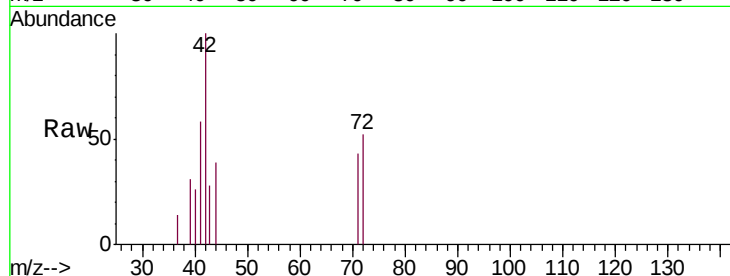
Tgt Ion: 42 Resp: 8256

Ion Ratio Lower Upper

42 100

72 37.3 31.5 47.3

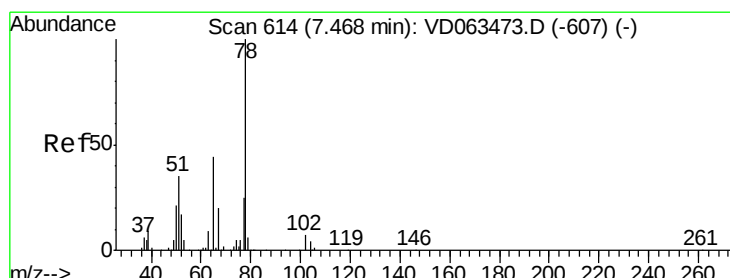
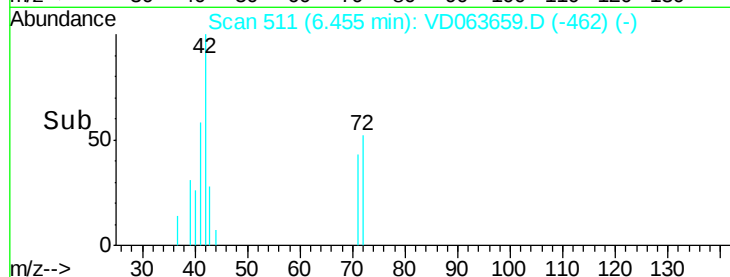
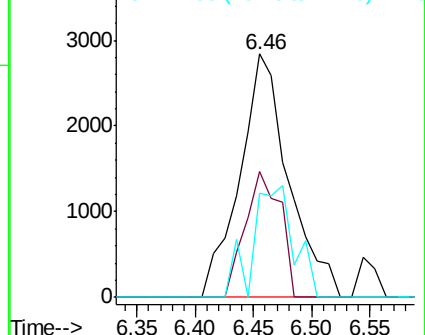
71 38.9 33.8 50.8



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



#33

1,2-Dichloroethane-d4

Concen: 62.444 ug/l

RT: 7.45 min Scan# 612

Delta R.T. -0.02 min

Lab File: VD063659.D

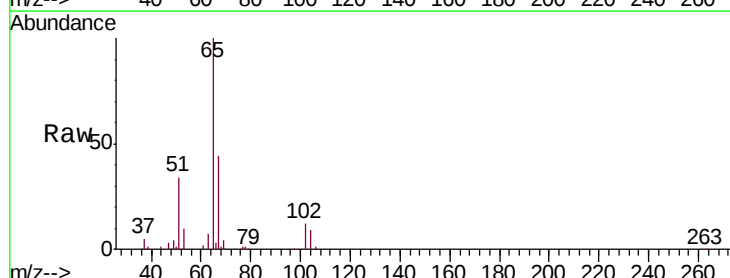
Acq: 19 Aug 2019 15:56

Tgt Ion: 65 Resp: 476069

Ion Ratio Lower Upper

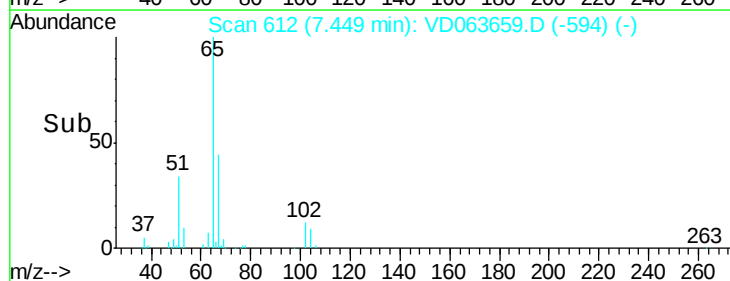
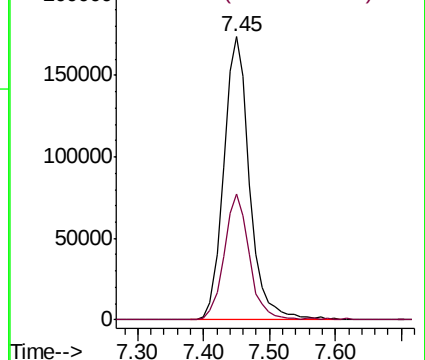
65 100

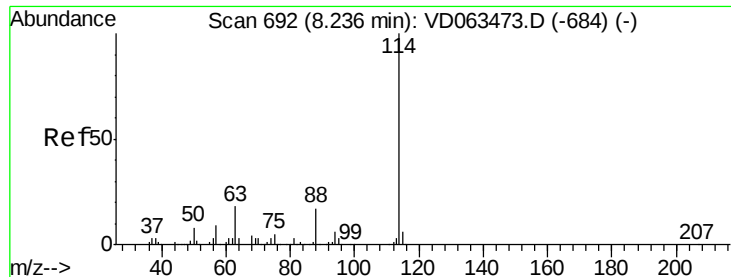
67 44.4 0.0 89.2



Abundance Ion 64.95 (64.65 to 65.65): VDC

Ion 66.90 (66.60 to 67.60): VDC





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.22 min Scan# 690

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

T8-C-(0)

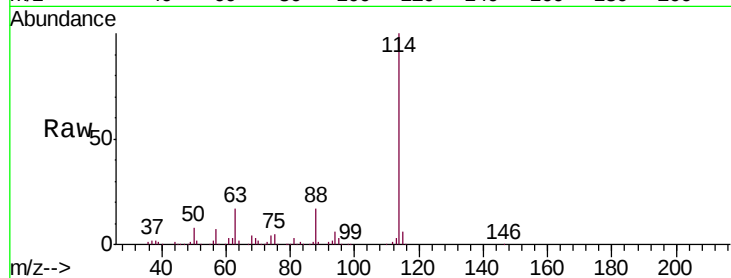
Tgt Ion:114 Resp: 1148772

Ion Ratio Lower Upper

114 100

63 17.0 0.0 36.2

88 16.7 0.0 35.0



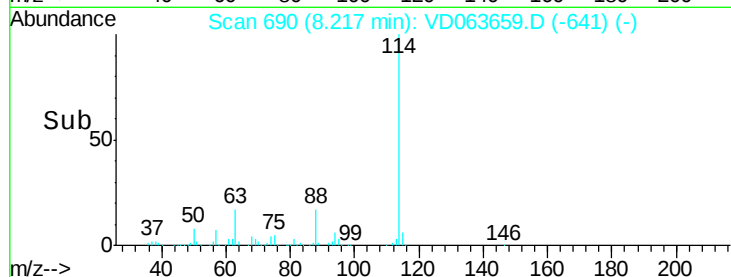
Abundance Ion 114.00 (113.70 to 114.70): V

Ion 62.95 (62.65 to 63.65): VDC

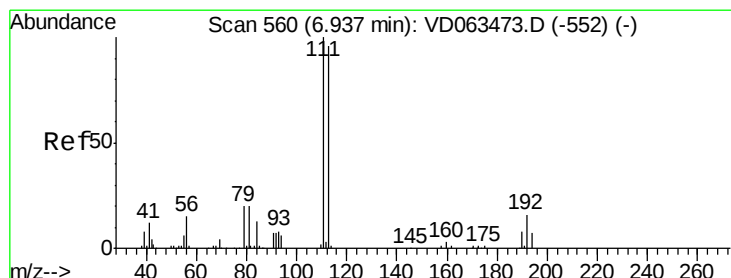
Ion 87.90 (87.60 to 88.60): VDC

8.22

Time-->



Time-->



#35

Dibromofluoromethane

Concen: 51.859 ug/l

RT: 6.92 min Scan# 558

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

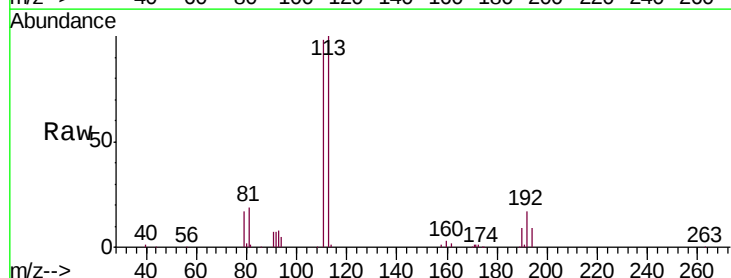
Tgt Ion:113 Resp: 501739

Ion Ratio Lower Upper

113 100

111 97.7 83.1 124.7

192 16.9 13.1 19.7



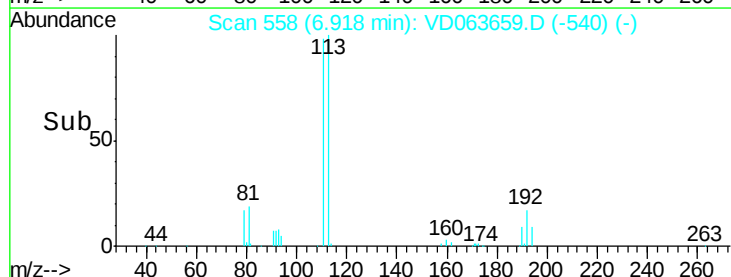
Abundance Ion 112.90 (112.60 to 113.60): V

Ion 110.90 (110.60 to 111.60): V

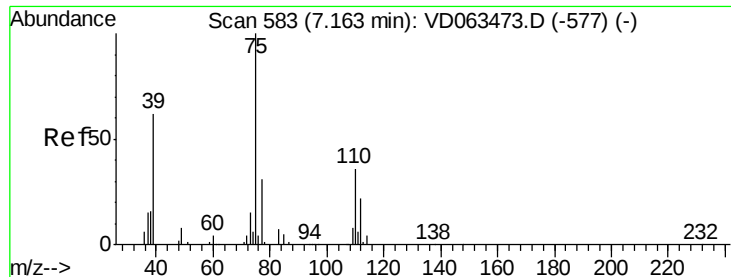
Ion 191.80 (191.50 to 192.50): V

6.92

Time-->



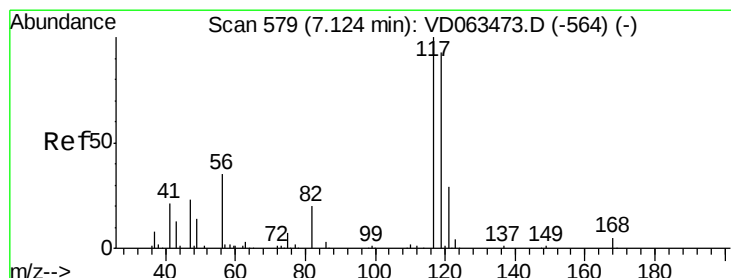
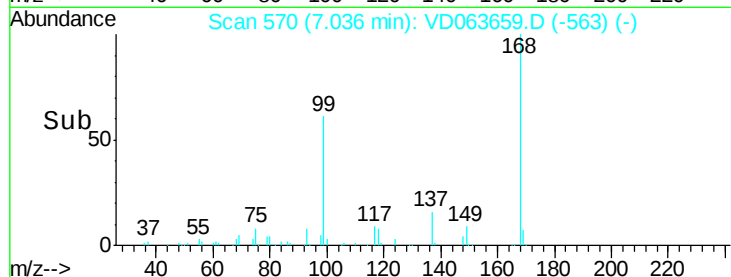
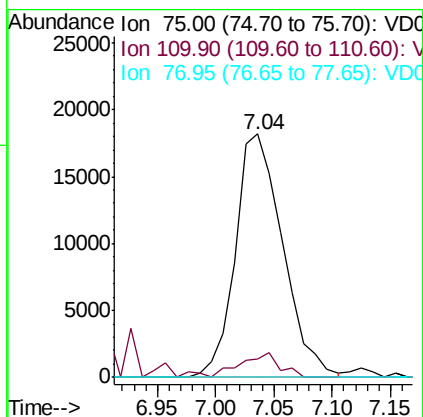
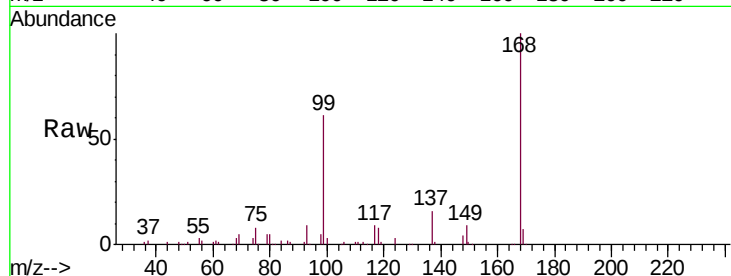
Time-->



#36  
 1,1-Dichloropropene  
 Concen: 5.044 ug/l  
 RT: 7.04 min Scan# 570  
 Delta R.T. -0.13 min  
 Lab File: VD063659.D  
 Acq: 19 Aug 2019 15:56

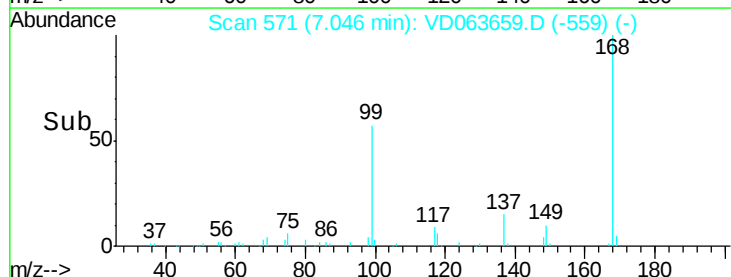
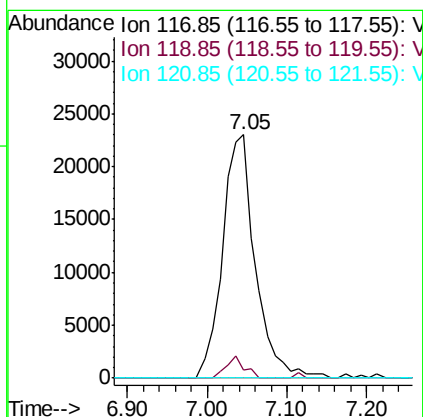
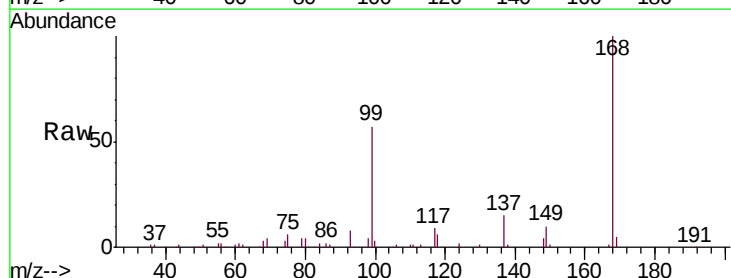
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T8-C-(0)

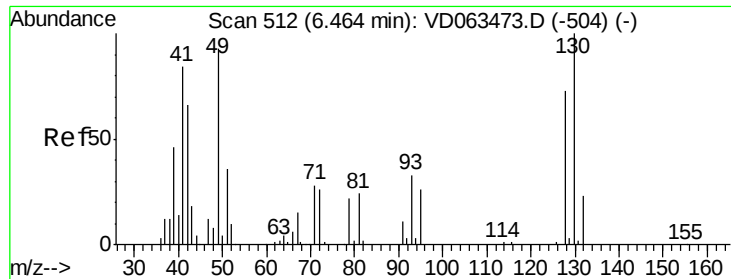
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 7.5   | 17.6  | 52.8# |
| 77      | 0.0   | 24.3  | 36.5# |



#38  
 Carbon Tetrachloride  
 Concen: 4.329 ug/l  
 RT: 7.05 min Scan# 571  
 Delta R.T. -0.08 min  
 Lab File: VD063659.D  
 Acq: 19 Aug 2019 15:56

| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 117     | 100   |       |        |
| 119     | 3.1   | 74.2  | 111.2# |
| 121     | 0.0   | 23.1  | 34.7#  |





#41

Methacrylonitrile

Concen: 1.165 ug/l

RT: 6.45 min Scan# 510

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampled :

T8-C-(0)

Tgt Ion: 41 Resp: 6242

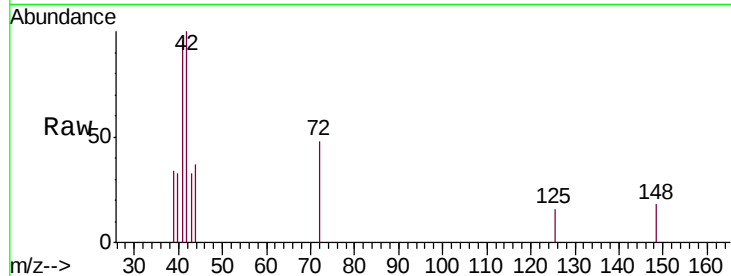
Ion Ratio Lower Upper

41 100

39 34.8 44.6 66.8#

67 0.0 14.4 21.6#

52 0.0 9.3 13.9#

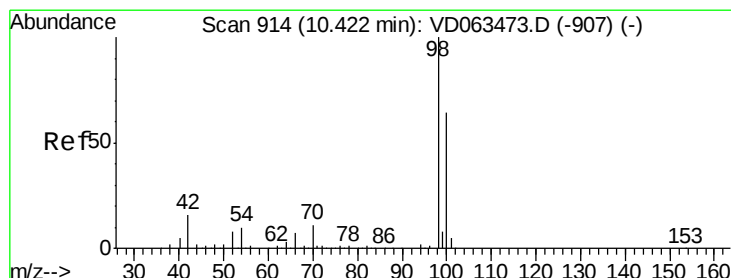
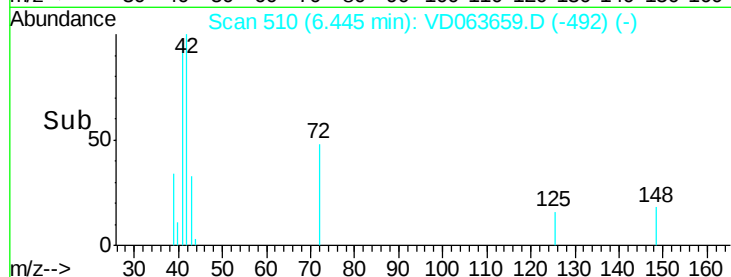
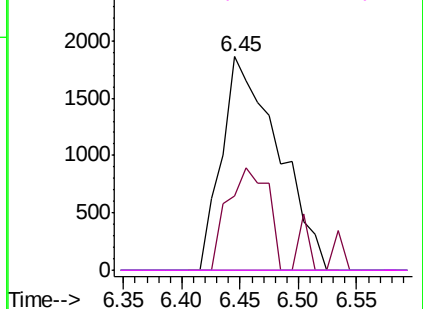


Abundance Ion 40.95 (40.65 to 41.65): VDC

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: 34.045 ug/l

RT: 10.40 min Scan# 912

Delta R.T. -0.02 min

Lab File: VD063659.D

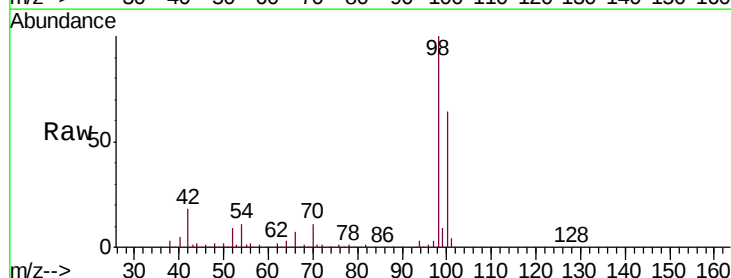
Acq: 19 Aug 2019 15:56

Tgt Ion: 98 Resp: 724166

Ion Ratio Lower Upper

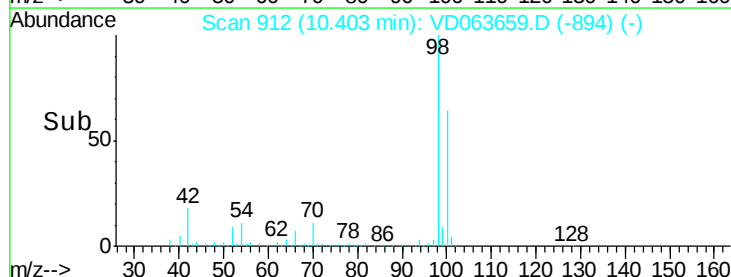
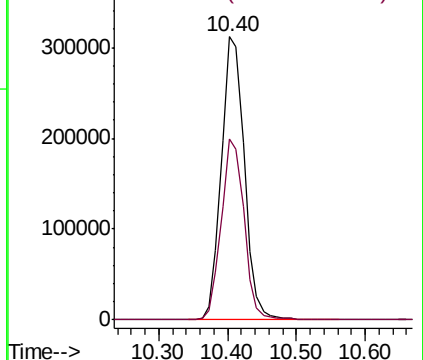
98 100

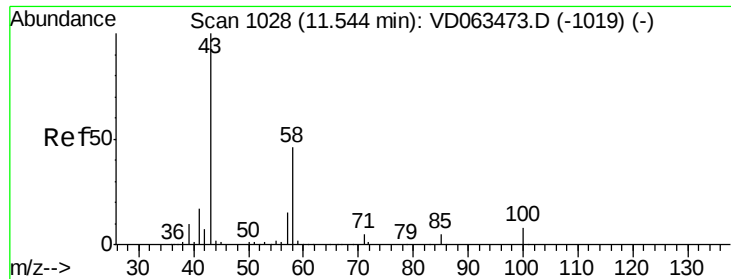
100 63.8 51.7 77.5



Abundance Ion 98.05 (97.75 to 98.75): VDC

Ion 100.05 (99.75 to 100.75): VDC

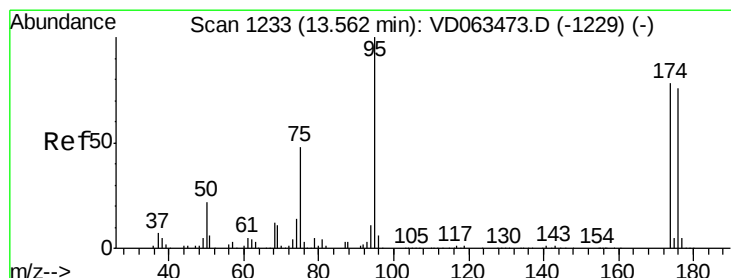
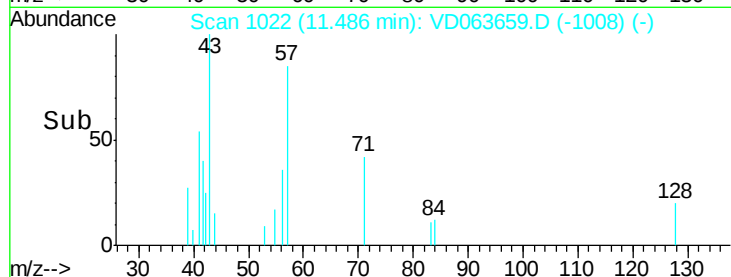
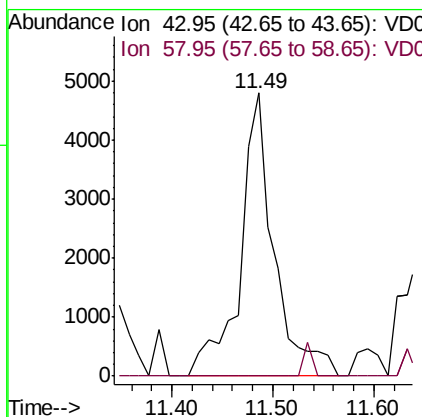
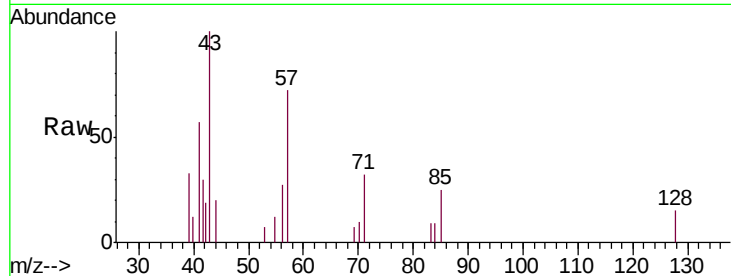




#59  
2-Hexanone  
Concen: 3.932 ug/l  
RT: 11.49 min Scan# 1022  
Delta R.T. -0.06 min  
Lab File: VD063659.D  
Acq: 19 Aug 2019 15:56

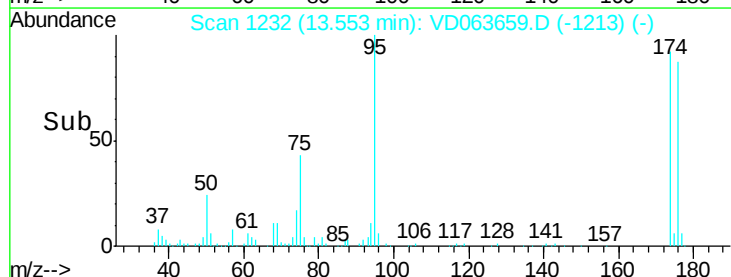
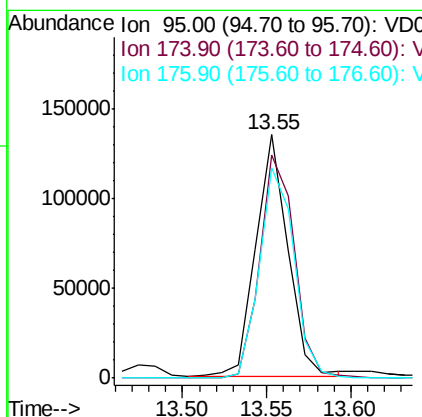
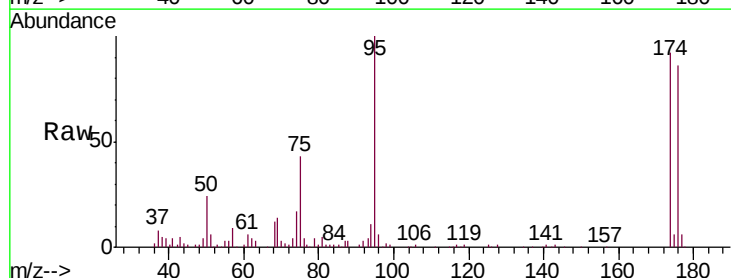
Instrument :  
MSVOA\_D  
ClientSampled :  
T8-C-(0)

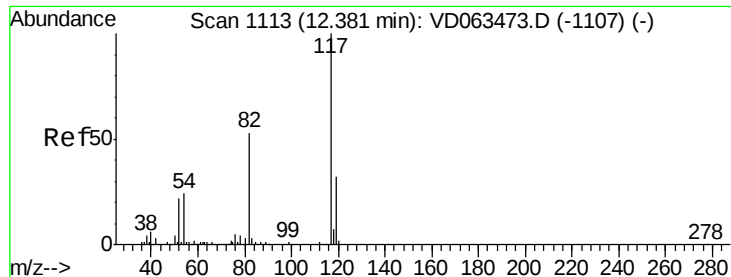
Tgt Ion: 43 Resp: 11158  
Ion Ratio Lower Upper  
43 100  
58 0.0 23.1 69.2#



#62  
4-Bromofluorobenzene  
Concen: 18.604 ug/l  
RT: 13.55 min Scan# 1232  
Delta R.T. -0.01 min  
Lab File: VD063659.D  
Acq: 19 Aug 2019 15:56

Tgt Ion: 95 Resp: 179356  
Ion Ratio Lower Upper  
95 100  
174 91.5 0.0 155.4  
176 86.5 0.0 152.4

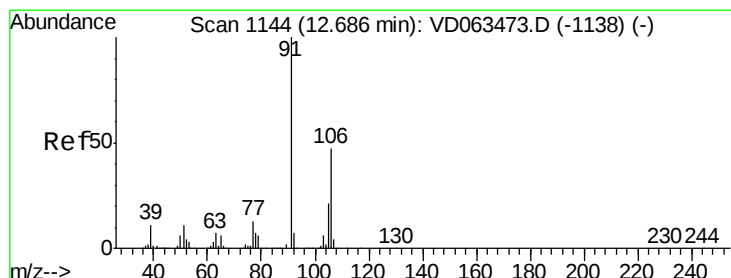
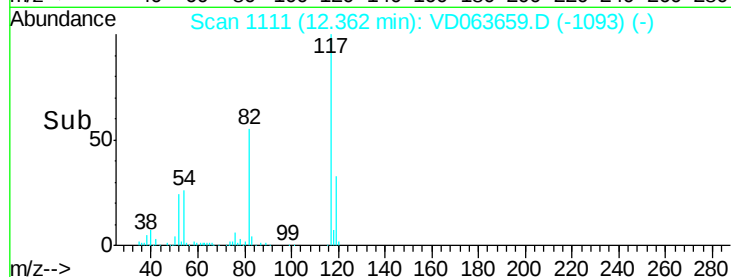
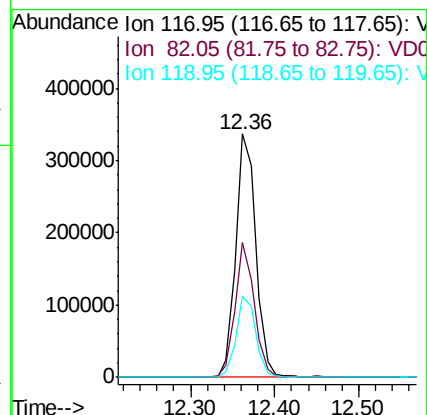
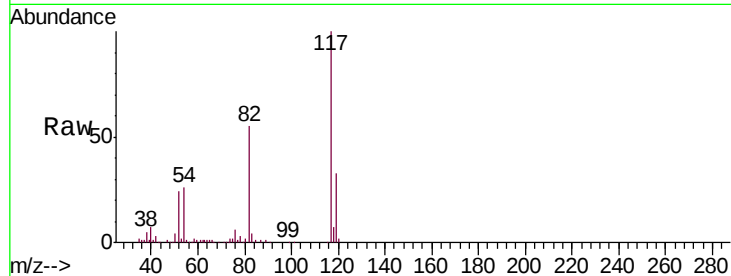




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 12.36 min Scan# 1111  
Delta R.T. -0.02 min  
Lab File: VD063659.D  
Acq: 19 Aug 2019 15:56

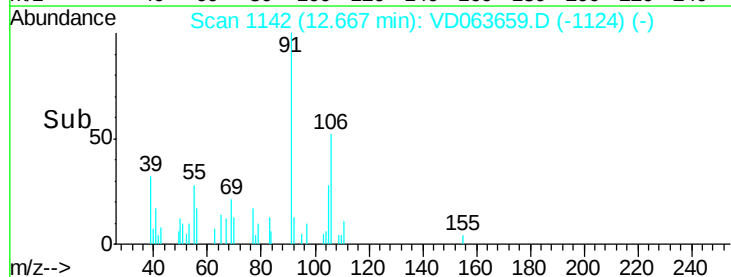
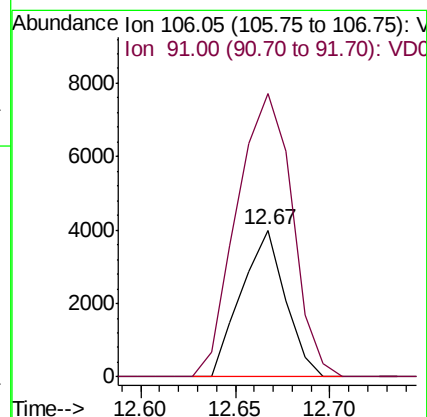
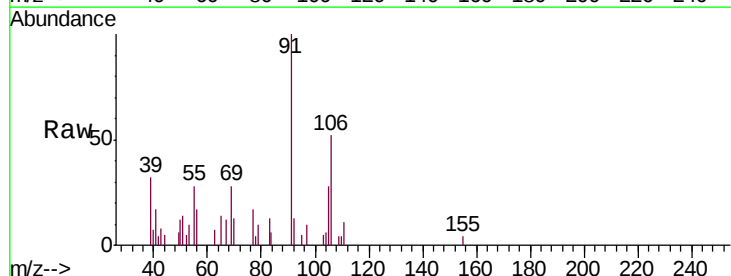
Instrument :  
MSVOA\_D  
ClientSampleId :  
T8-C-(0)

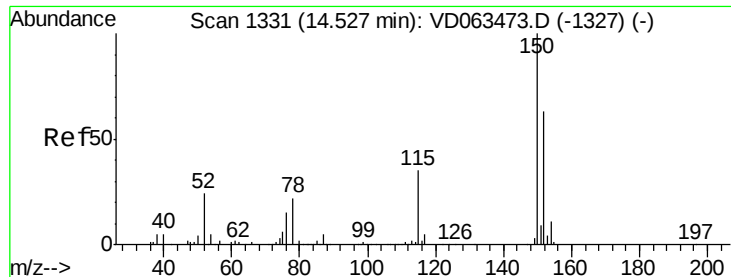
Tgt Ion:117 Resp: 559122  
Ion Ratio Lower Upper  
117 100  
82 55.5 42.0 63.0  
119 33.0 25.4 38.0



#68  
m/p-Xylenes  
Concen: 1.010 ug/l  
RT: 12.67 min Scan# 1142  
Delta R.T. -0.02 min  
Lab File: VD063659.D  
Acq: 19 Aug 2019 15:56

Tgt Ion:106 Resp: 6467  
Ion Ratio Lower Upper  
106 100  
91 192.9 171.8 257.8

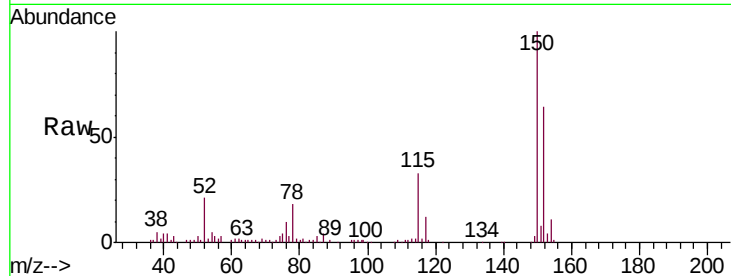




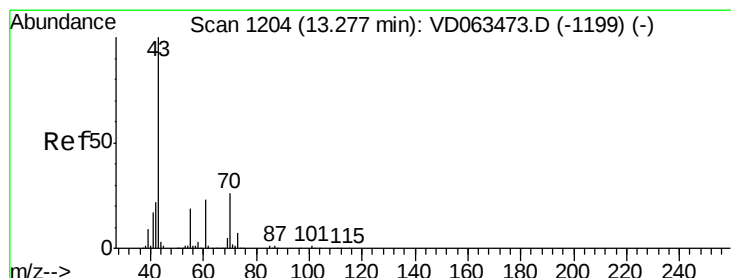
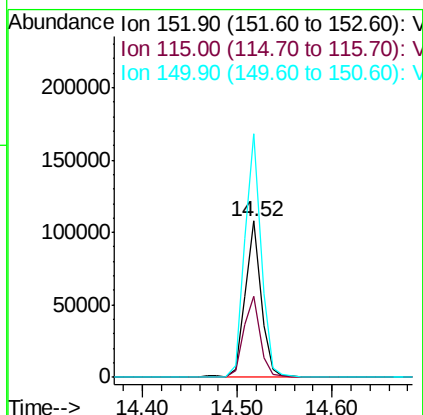
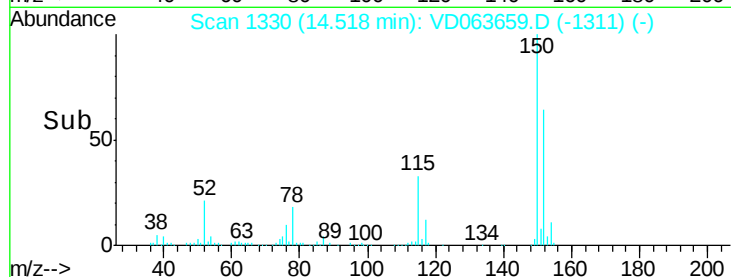
#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 14.52 min Scan# 1330  
 Delta R.T. -0.01 min  
 Lab File: VD063659.D  
 Acq: 19 Aug 2019 15:56

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T8-C-(0)

Tgt Ion:152 Resp: 127452  
 Ion Ratio Lower Upper  
 152 100  
 115 51.6 30.9 92.7  
 150 156.1 0.0 318.6

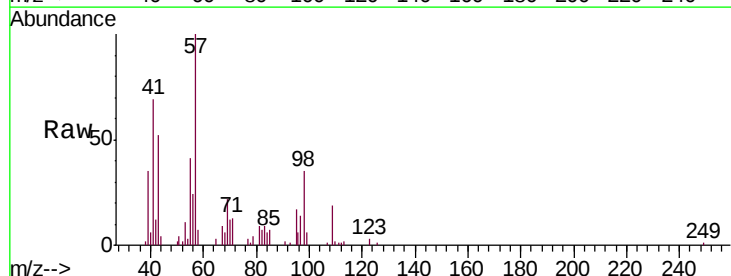


Abundance Ion 151.90 (151.60 to 152.60): V  
 Ion 115.00 (114.70 to 115.70): V  
 Ion 149.90 (149.60 to 150.60): V

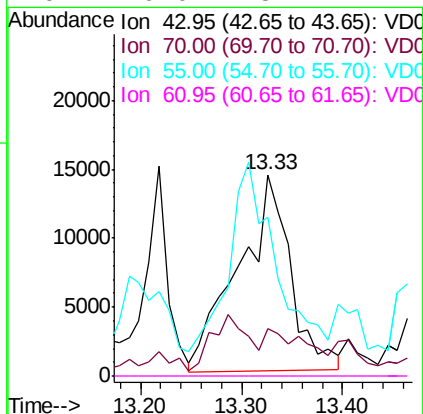
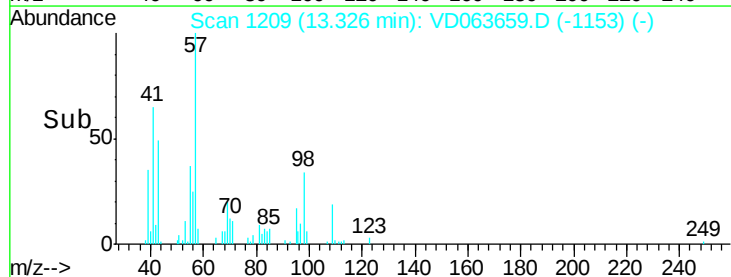


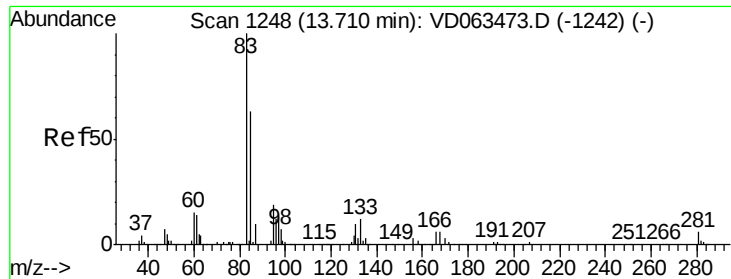
#74  
 N-ethyl acetate  
 Concen: 25.151 ug/l  
 RT: 13.33 min Scan# 1209  
 Delta R.T. 0.05 min  
 Lab File: VD063659.D  
 Acq: 19 Aug 2019 15:56

Tgt Ion: 43 Resp: 51183  
 Ion Ratio Lower Upper  
 43 100  
 70 23.3 21.1 31.7  
 55 79.1 15.4 23.0#  
 61 0.0 18.2 27.2#



Abundance Ion 42.95 (42.65 to 43.65): VDC  
 Ion 70.00 (69.70 to 70.70): VDC  
 Ion 55.00 (54.70 to 55.70): VDC  
 Ion 60.95 (60.65 to 61.65): VDC





#75

1,1,2,2-Tetrachloroethane

Concen: 8.586 ug/l

RT: 13.71 min Scan# 1248

Delta R.T. 0.00 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

T8-C-(0)

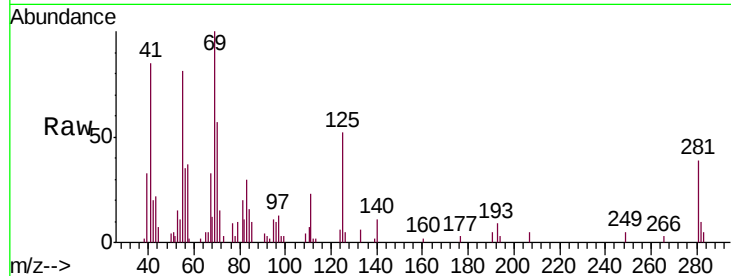
Tgt Ion: 83 Resp: 11553

Ion Ratio Lower Upper

83 100

131 0.0 5.3 15.8#

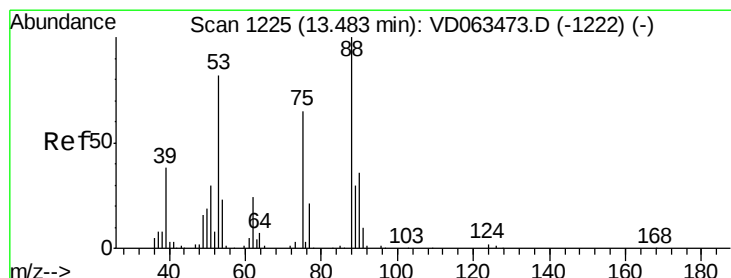
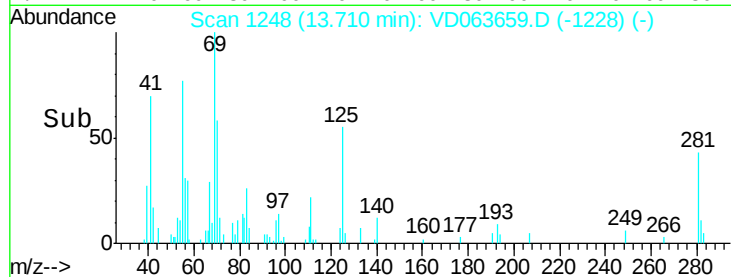
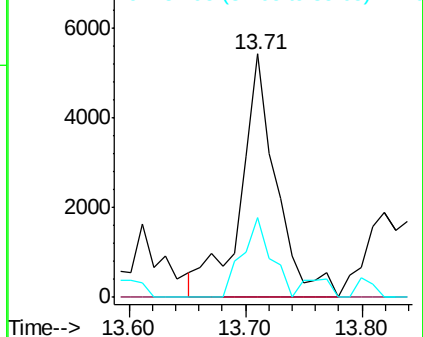
85 32.5 31.4 94.3



Abundance Ion 82.95 (82.65 to 83.65): VDC

Ion 130.90 (130.60 to 131.60): VDC

Ion 84.95 (84.65 to 85.65): VDC



#81

trans-1,4-Dichloro-2-butene

Concen: 212.564 ug/l

RT: 13.55 min Scan# 1232

Delta R.T. 0.07 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

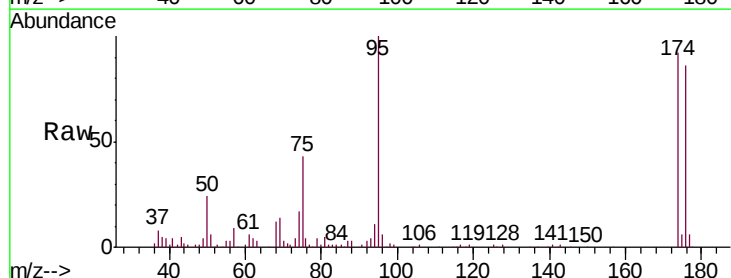
Tgt Ion: 75 Resp: 83568

Ion Ratio Lower Upper

75 100

53 1.6 101.0 151.4#

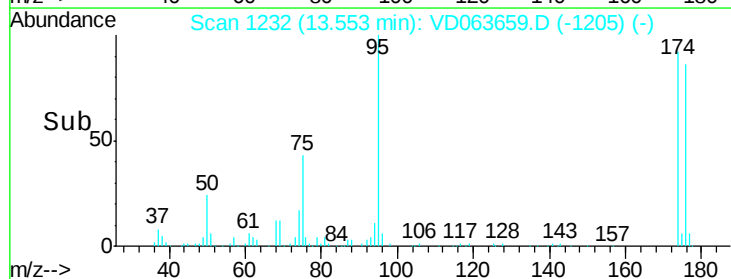
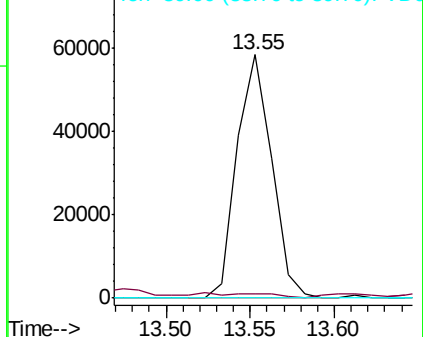
89 0.0 37.0 55.6#

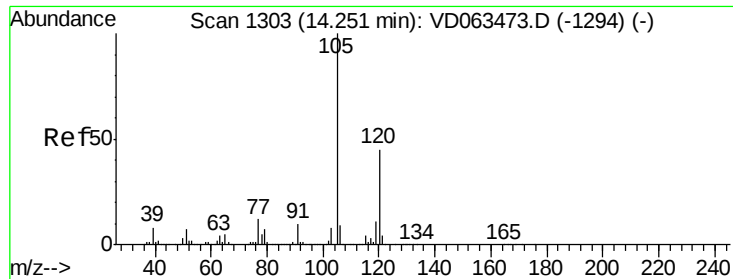


Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC





#84

1,2,4-Trimethylbenzene

Concen: 1.044 ug/l

RT: 14.23 min Scan# 1301

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

Instrument :

MSVOA\_D

ClientSampleId :

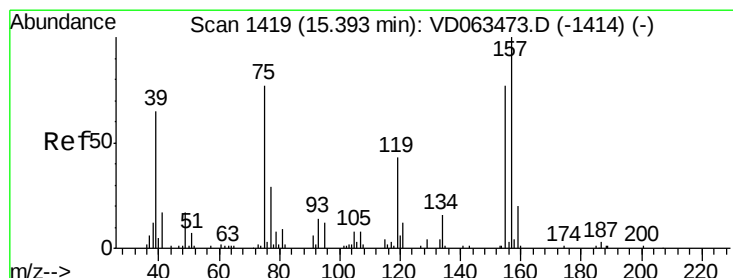
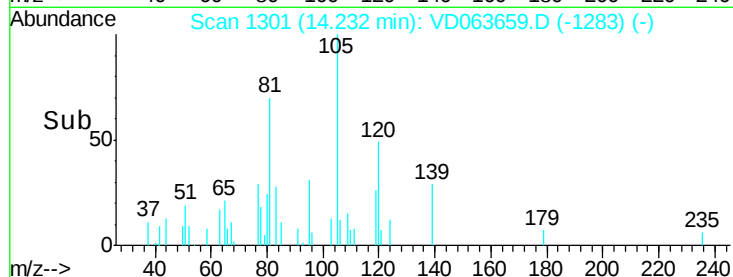
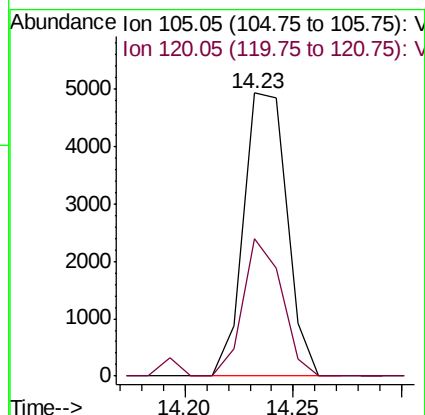
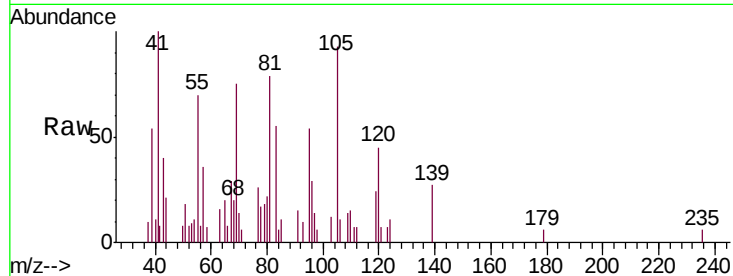
T8-C-(0)

Tgt Ion: 105 Resp: 6842

Ion Ratio Lower Upper

105 100

120 48.7 22.7 68.1



#92

1,2-Dibromo-3-Chloropropane

Concen: 1.156 ug/l

RT: 15.37 min Scan# 1417

Delta R.T. -0.02 min

Lab File: VD063659.D

Acq: 19 Aug 2019 15:56

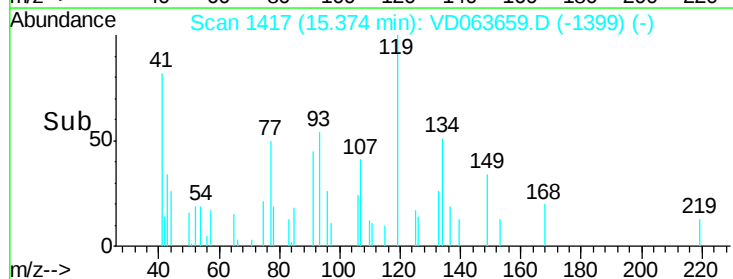
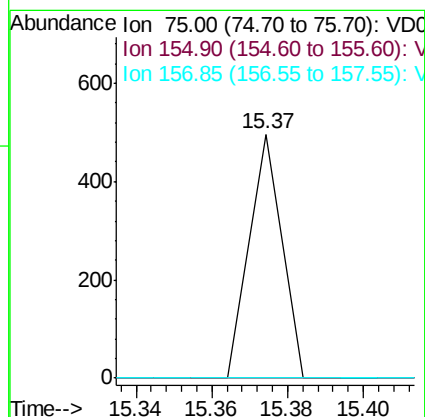
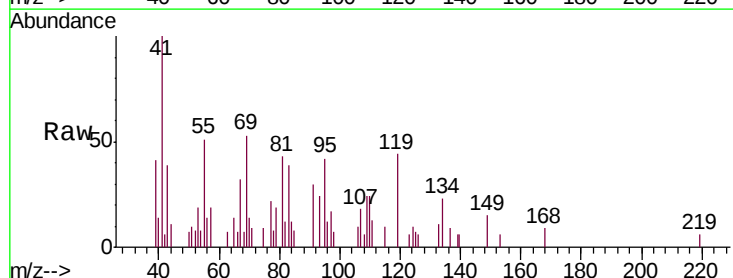
Tgt Ion: 75 Resp: 293

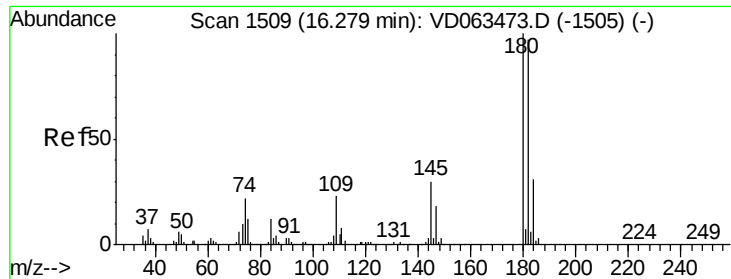
Ion Ratio Lower Upper

75 100

155 0.0 50.1 150.3#

157 0.0 65.0 195.1#





#96  
 1,2,3-Trichlorobenzene  
 Concen: 1.146 ug/l  
 RT: 16.29 min Scan# 1510  
 Delta R.T. 0.01 min  
 Lab File: VD063659.D  
 Acq: 19 Aug 2019 15:56

Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 T8-C-(0)

Tgt Ion:180 Resp: 2315  
 Ion Ratio Lower Upper  
 180 100  
 182 0.0 48.4 145.2#  
 145 50.8 14.9 44.9#

