

Data Path : Z:\VOASRV\HPCHEM1\MSVOA D\DATA\VD080119\  
 Data File : VD063303.D  
 Acq On : 1 Aug 2019 20:08  
 Operator : VA/AP  
 Sample : K4120-13  
 Misc : 4.85µl/5ml/MSVOA D/SOIL  
 ALS Vial : 20 Sample Multiplier: 1

Instrument :  
 MSVOA\_D  
 ClientSampleID :  
 SW-3

Quant Time: Aug 02 07:27:11 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_D\METHOD\82D072919S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jul 30 03:04:50 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.03  | 168  | 842986   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.20  | 114  | 1270036  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 12.36 | 117  | 778376   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 14.51 | 152  | 189891   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 7.43  | 65   | 349905   | 37.41 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 74.82% |          |
| 35) Dibromofluoromethane    | 6.90  | 113  | 429180   | 39.58 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 79.16% |          |
| 50) Toluene-d8              | 10.40 | 98   | 755795   | 31.14 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 62.28% |          |
| 62) 4-Bromofluorobenzene    | 13.55 | 95   | 214057   | 19.36 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 38.72% |          |

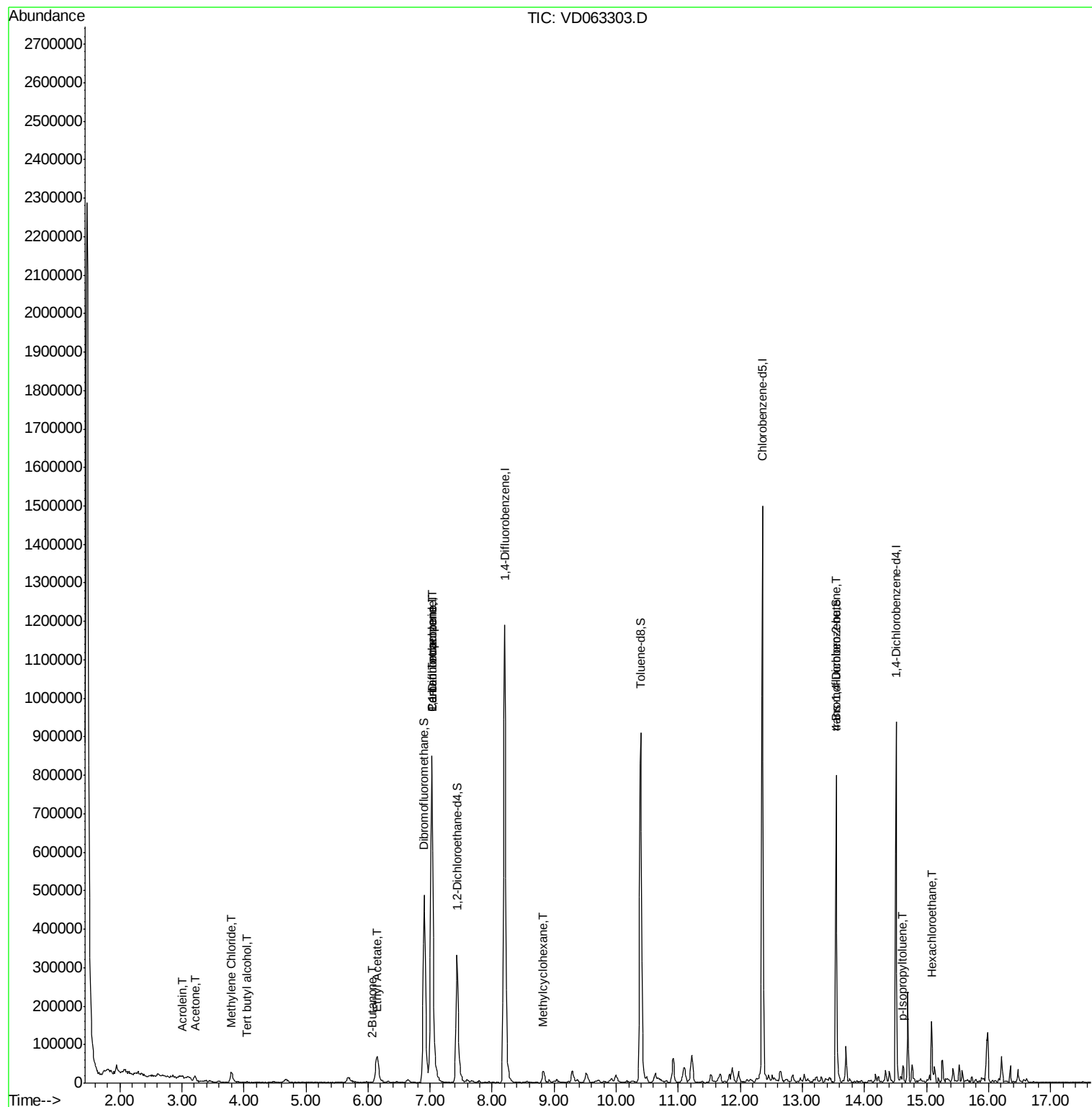
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 11) Tert butyl alcohol         | 4.05  | 59   | 992      | 2.417   | ug/l # | 69     |
| 13) Acrolein                   | 3.02  | 56   | 744      | 1.883   | ug/l # | 15     |
| 16) Acetone                    | 3.21  | 43   | 27726    | 15.213  | ug/l # | 91     |
| 20) Methylene Chloride         | 3.79  | 84   | 17404    | 2.363   | ug/l # | 95     |
| 25) 2-Butanone                 | 6.07  | 43   | 1848     | 1.010   | ug/l # | 56     |
| 36) 1,1-Dichloropropene        | 7.03  | 75   | 62013    | 5.350   | ug/l # | 55     |
| 37) Ethyl Acetate              | 6.15  | 43   | 5735     | 1.101   | ug/l # | 1      |
| 38) Carbon Tetrachloride       | 7.02  | 117  | 84014    | 4.815   | ug/l # | 16     |
| 39) Methylcyclohexane          | 8.83  | 83   | 11132    | 1.153   | ug/l # | 66     |
| 81) trans-1,4-Dichloro-2-buten | 13.55 | 75   | 98202    | 155.054 | ug/l # | 4      |
| 86) p-Isopropyltoluene         | 14.63 | 119  | 14005    | 1.187   | ug/l   | 84     |
| 90) Hexachloroethane           | 15.08 | 117  | 48264    | 15.696  | ug/l # | 14     |

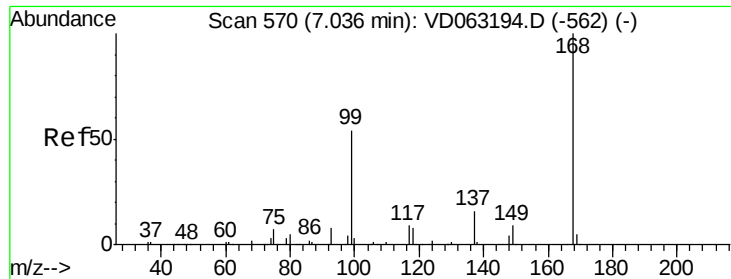
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Aug 02 07:27:11 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_D\METHOD\82D072919S.M  
Quant Title : SW846 8260  
QLast Update : Tue Jul 30 03:04:50 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.01 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

Instrument :

MSVOA\_D

ClientSampleId :

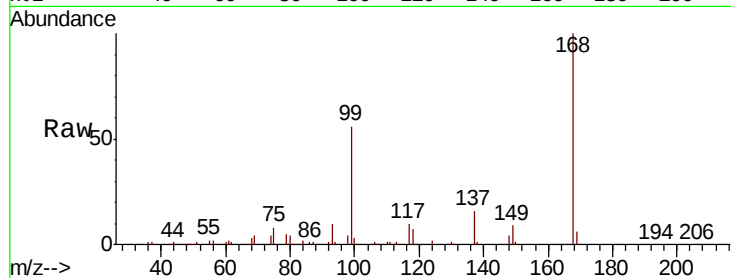
SW-3

Tot Ion:168 Resp: 842986

Ion Ratio Lower Upper

168 100

99 56.5 43.7 65.5



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.95 (98.65 to 99.65): VDC

7.03

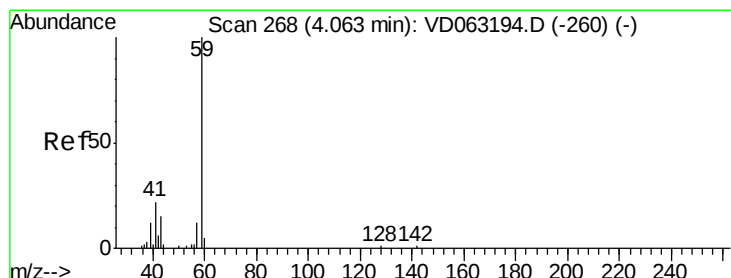
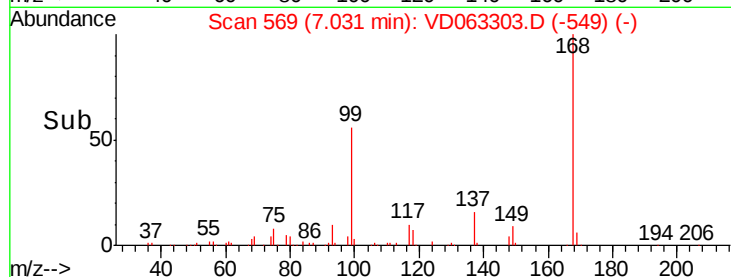
300000

200000

100000

0

Time-->



#11

Tert butyl alcohol

Concen: 2.417 ug/l

RT: 4.05 min Scan# 266

Delta R.T. -0.02 min

Lab File: VD063303.D

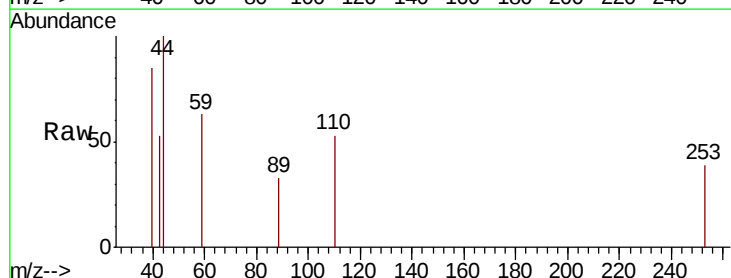
Acq: 1 Aug 2019 20:08

Tgt Ion: 59 Resp: 992

Ion Ratio Lower Upper

59 100

57 0.0 9.6 14.4#



Abundance Ion 58.95 (58.65 to 59.65): VDC

Ion 56.95 (56.65 to 57.65): VDC

4.05

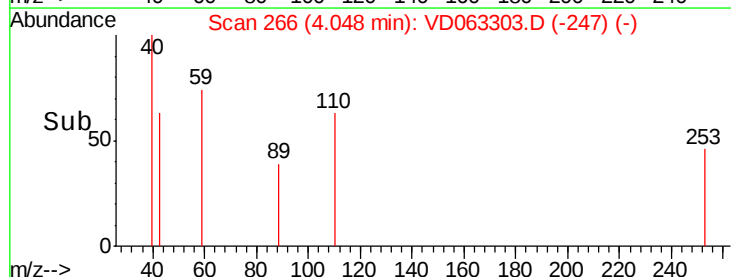
600

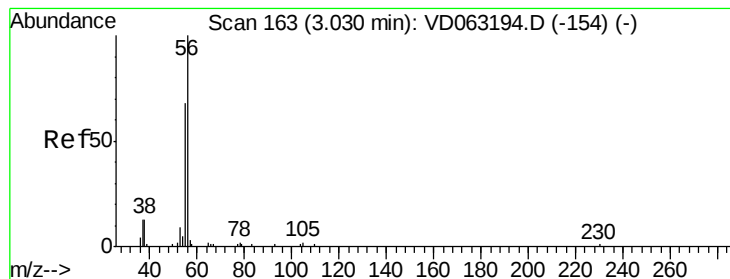
400

200

0

Time-->





#13

Acrolein

Concen: 1.883 ug/l

RT: 3.02 min Scan# 162

Delta R.T. -0.01 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

Instrument :

MSVOA\_D

ClientSampleID :

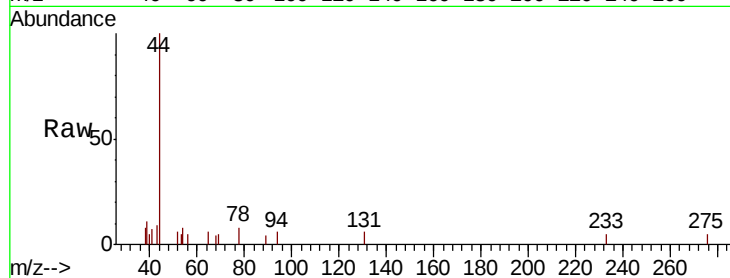
SW-3

Tot Ion: 56 Resp: 744

Ion Ratio Lower Upper

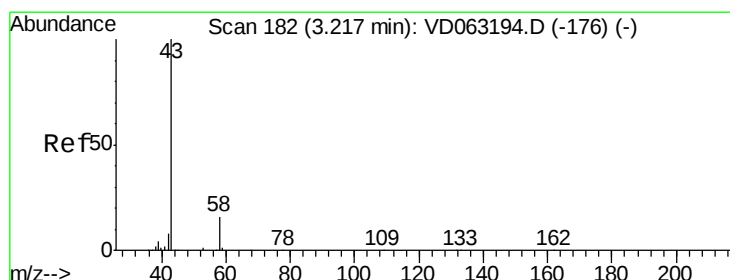
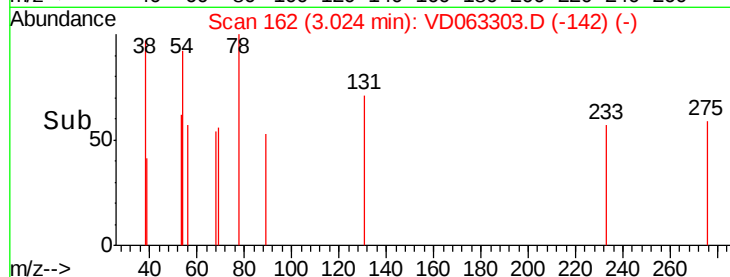
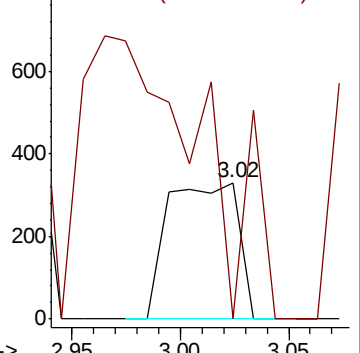
56 100

55 0.0 55.3 82.9#



Abundance Ion 55.95 (55.65 to 56.65): VDC

Ion 55.00 (54.70 to 55.70): VDC



#16

Acetone

Concen: 15.213 ug/l

RT: 3.21 min Scan# 181

Delta R.T. -0.01 min

Lab File: VD063303.D

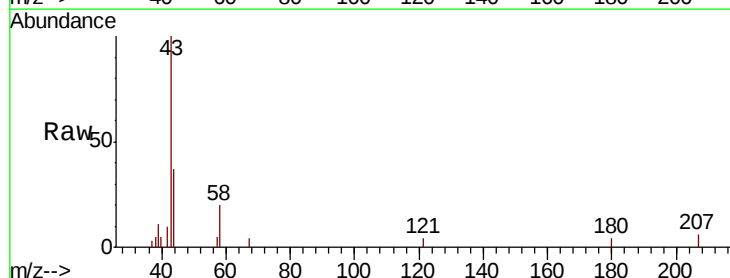
Acq: 1 Aug 2019 20:08

Tgt Ion: 43 Resp: 27726

Ion Ratio Lower Upper

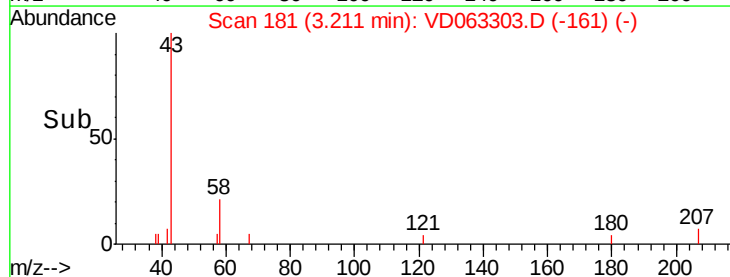
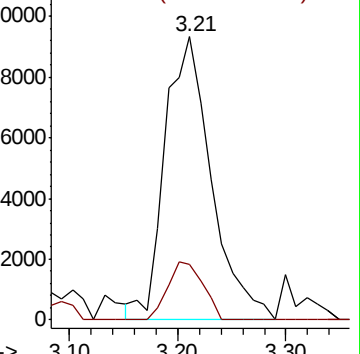
43 100

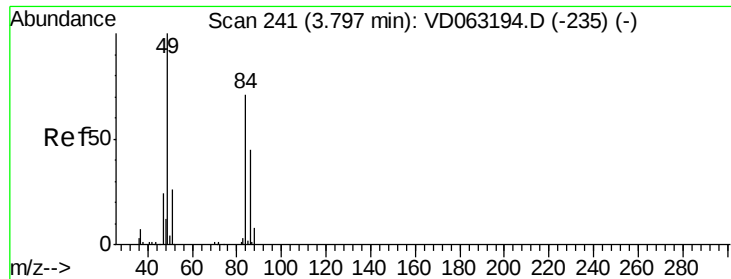
58 19.8 13.0 19.4#



Abundance Ion 42.95 (42.65 to 43.65): VDC

Ion 57.95 (57.65 to 58.65): VDC

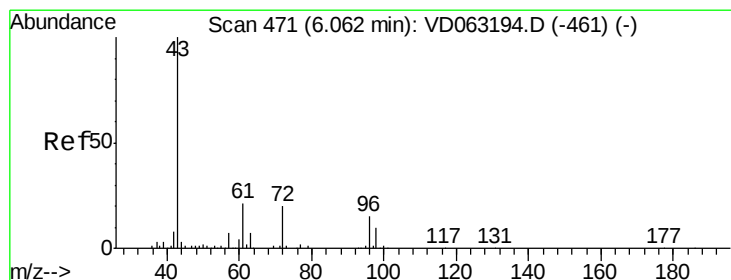
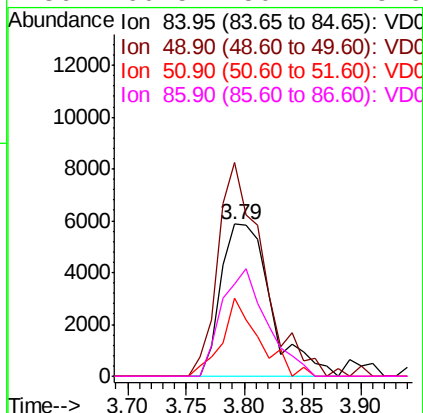
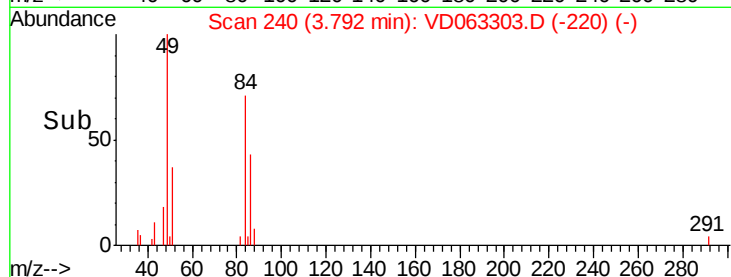
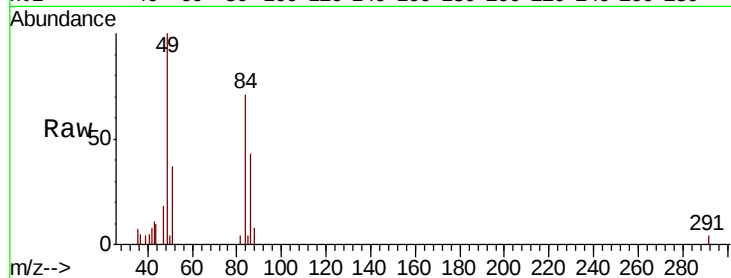




#20  
Methvlene Chloride  
Concen: 2.363 ug/l  
RT: 3.79 min Scan# 240  
Delta R.T. -0.01 min  
Lab File: VD063303.D  
Acq: 1 Aug 2019 20:08

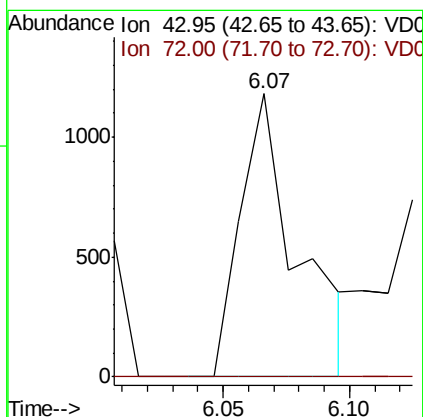
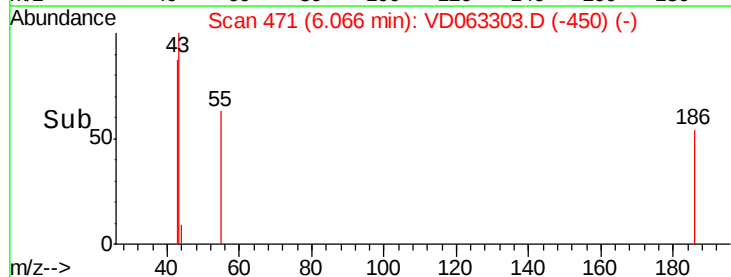
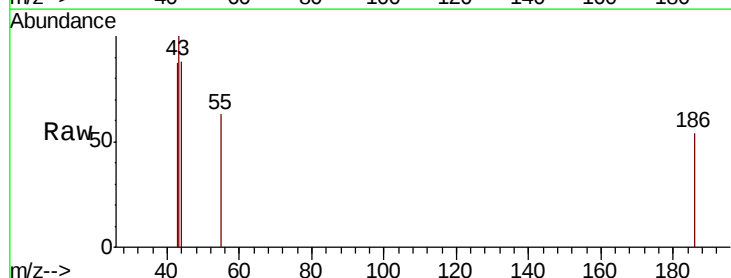
Instrument :  
MSVOA\_D  
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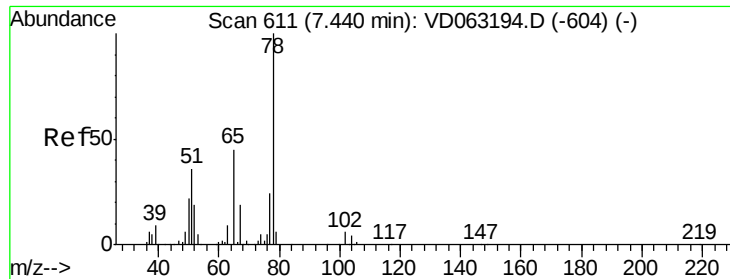
Tot Ion: 84 Resp: 17404  
Ion Ratio Lower Upper  
84 100  
49 140.7 112.5 168.7  
51 51.4 29.6 44.4#  
86 60.5 50.4 75.6



#25  
2-Butanone  
Concen: 1.010 ug/l  
RT: 6.07 min Scan# 471  
Delta R.T. 0.00 min  
Lab File: VD063303.D  
Acq: 1 Aug 2019 20:08

Tgt Ion: 43 Resp: 1848  
Ion Ratio Lower Upper  
43 100  
72 0.0 16.3 24.5#

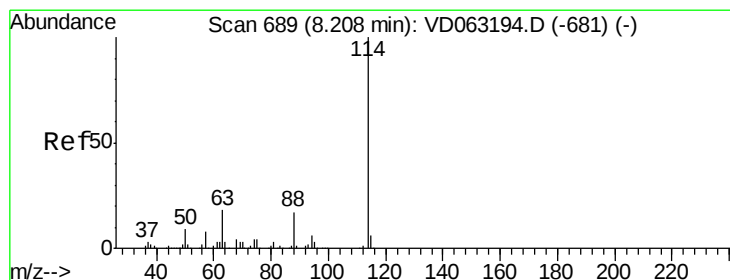
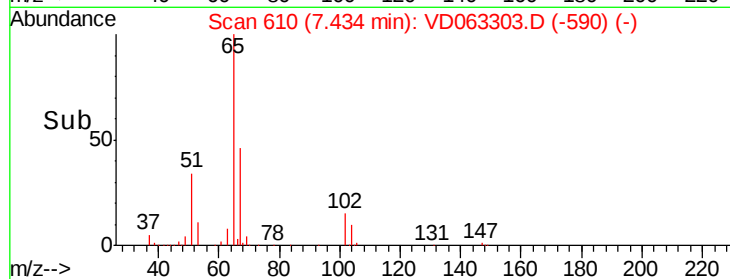
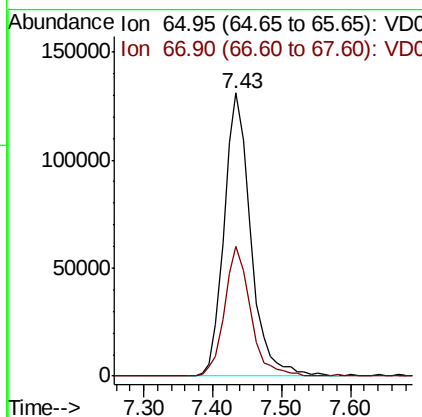
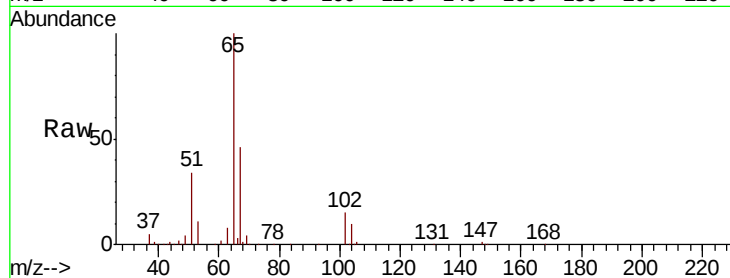




#33  
 1,2-Dichloroethane-d4  
 Concen: 37.408 ug/l  
 RT: 7.43 min Scan# 610  
 Delta R.T. -0.01 min  
 Lab File: VD063303.D  
 Acq: 1 Aug 2019 20:08

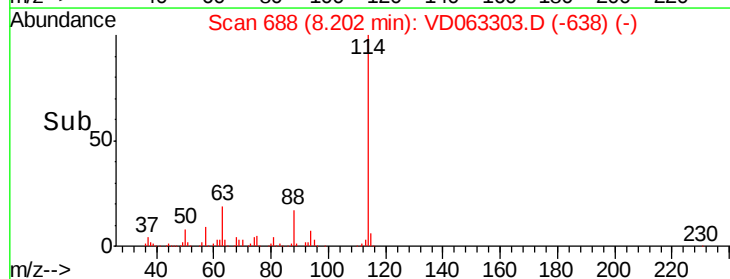
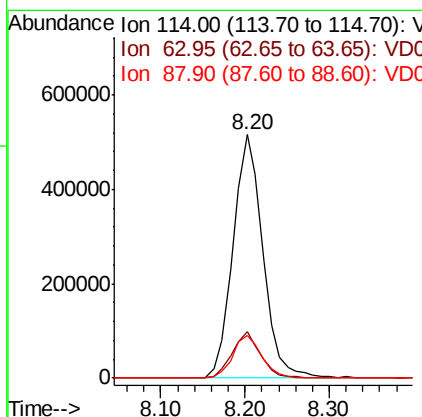
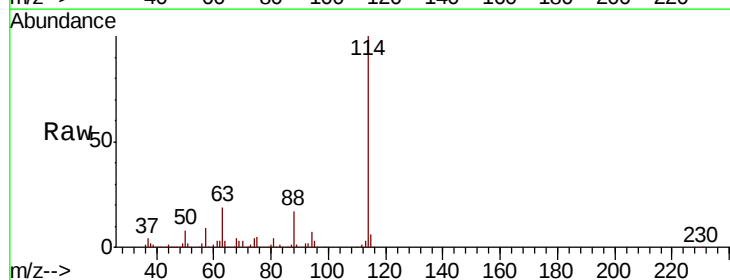
Instrument :  
 MSVOA\_D  
 ClientSampleId :  
 SW-3

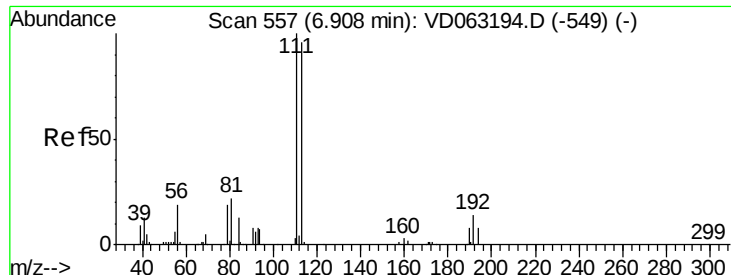
Tot Ion: 65 Resp: 349905  
 Ion Ratio Lower Upper  
 65 100  
 67 45.7 0.0 85.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.20 min Scan# 688  
 Delta R.T. -0.01 min  
 Lab File: VD063303.D  
 Acq: 1 Aug 2019 20:08

Tgt Ion: 114 Resp: 1270036  
 Ion Ratio Lower Upper  
 114 100  
 63 18.9 0.0 35.2  
 88 17.3 0.0 34.6





#35

Dibromofluoromethane

Concen: 39.580 ug/l

RT: 6.90 min Scan# 556

Delta R.T. -0.01 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

Instrument :

MSVOA\_D

ClientSampleId :

SW-3

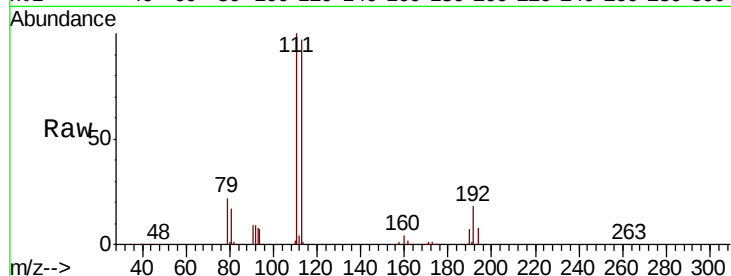
Tot Ion:113 Resp: 429180

Ion Ratio Lower Upper

113 100

111 103.4 83.2 124.8

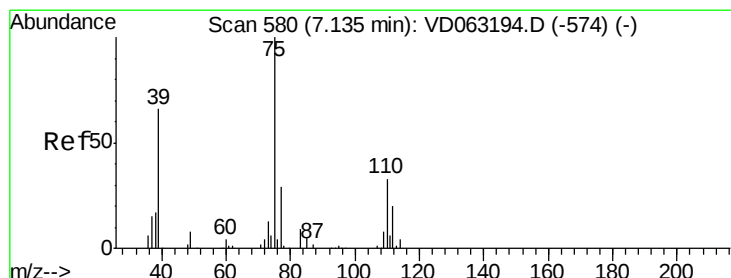
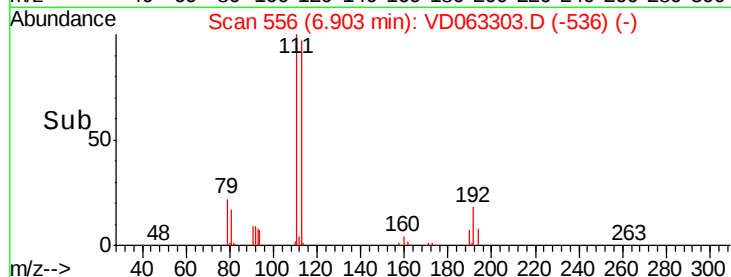
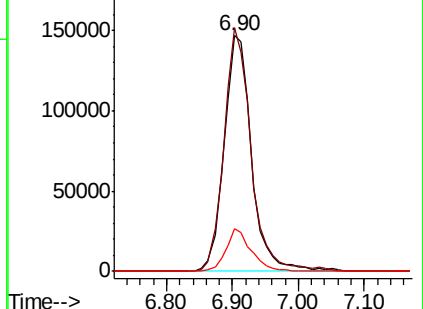
192 18.4 11.8 17.8#



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: 5.350 ug/l

RT: 7.03 min Scan# 569

Delta R.T. -0.10 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

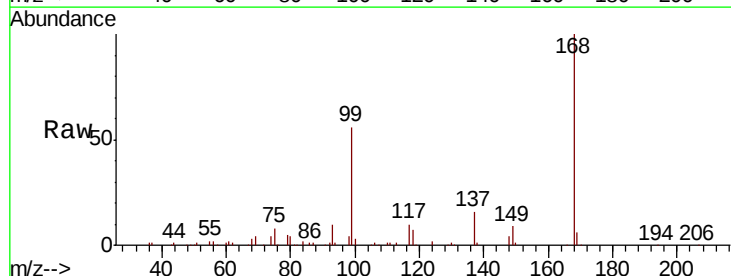
Tgt Ion: 75 Resp: 62013

Ion Ratio Lower Upper

75 100

110 11.1 16.1 48.2#

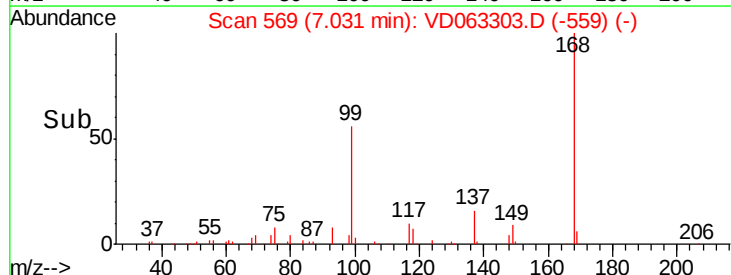
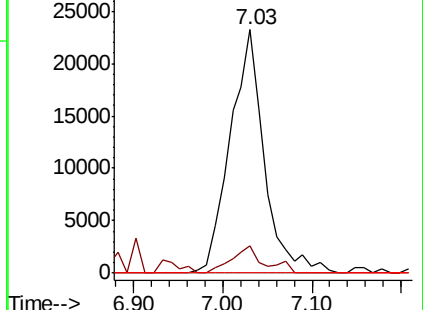
77 0.0 22.7 34.1#

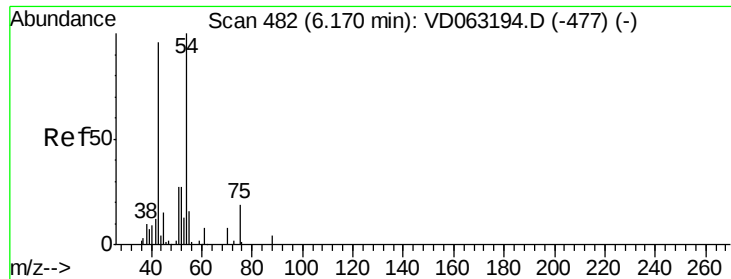


Abundance Ion 75.00 (74.70 to 75.70): V

Ion 109.90 (109.60 to 110.60): V

Ion 76.95 (76.65 to 77.65): V

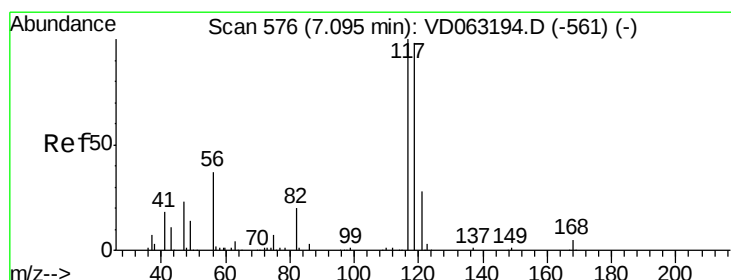
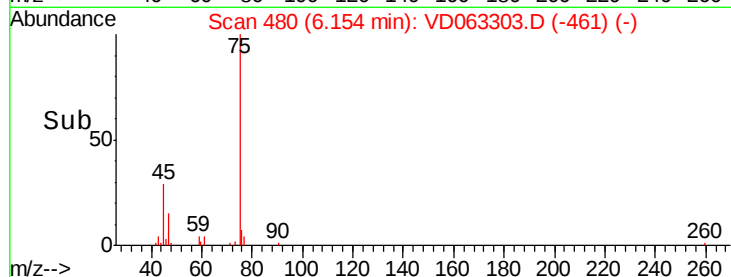
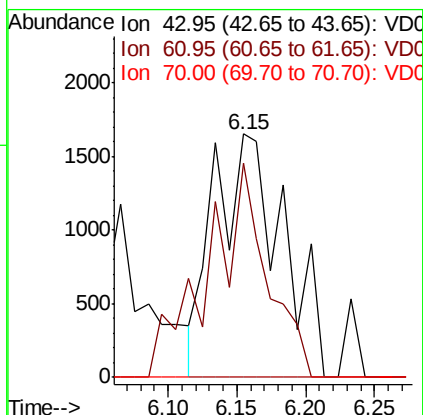
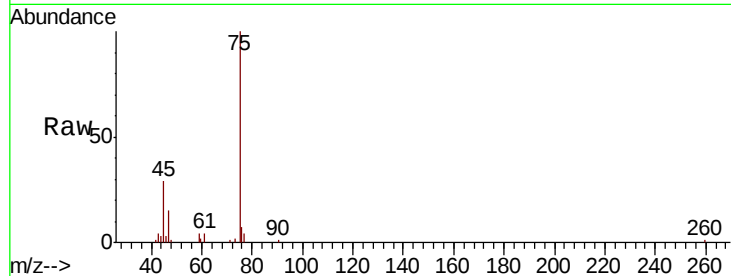




#37  
Ethyl Acetate  
Concen: 1.101 ug/l  
RT: 6.15 min Scan# 480  
Delta R.T. -0.02 min  
Lab File: VD063303.D  
Acq: 1 Aug 2019 20:08

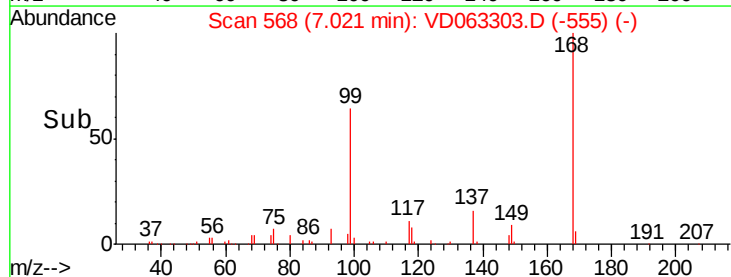
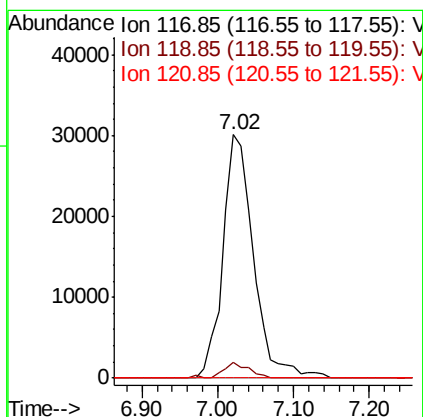
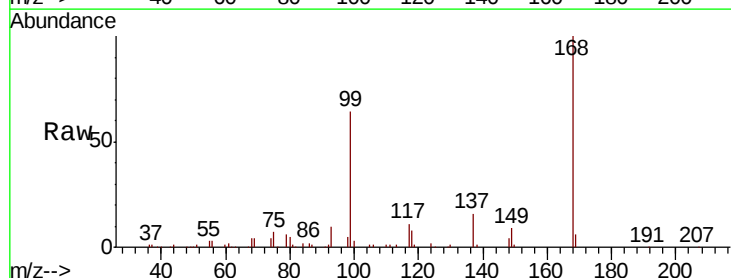
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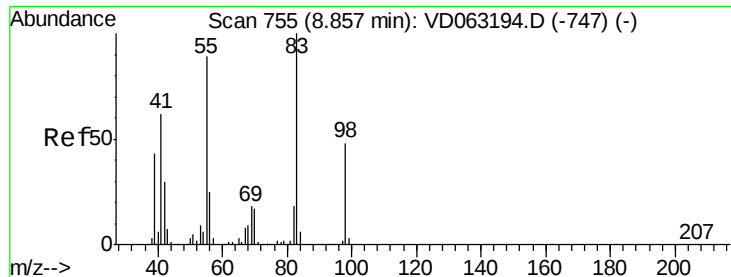
Tot Ion: 43 Resp: 5735  
Ion Ratio Lower Upper  
43 100  
61 88.1 11.3 16.9#  
70 0.0 5.1 7.7#



#38  
Carbon Tetrachloride  
Concen: 4.815 ug/l  
RT: 7.02 min Scan# 568  
Delta R.T. -0.07 min  
Lab File: VD063303.D  
Acq: 1 Aug 2019 20:08

Tgt Ion: 117 Resp: 84014  
Ion Ratio Lower Upper  
117 100  
119 6.5 78.2 117.2#  
121 0.0 22.1 33.1#

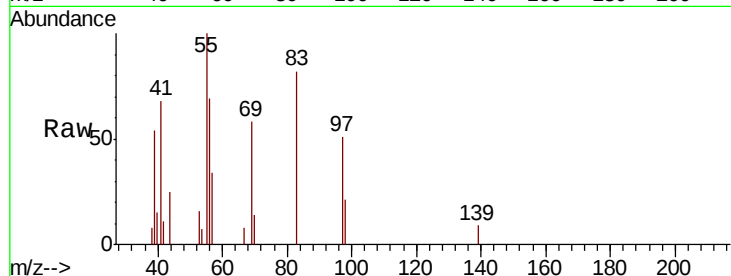




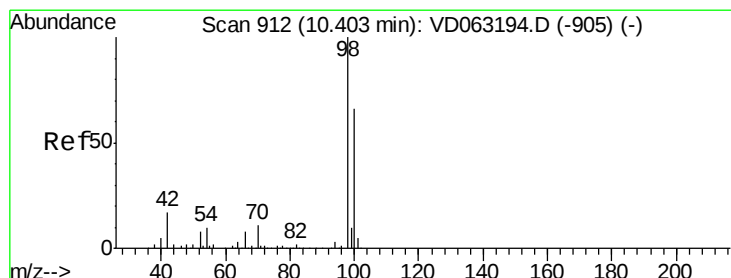
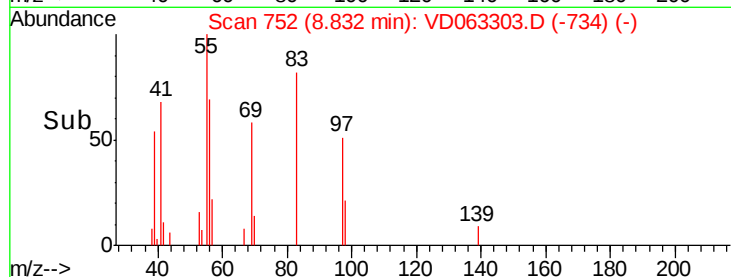
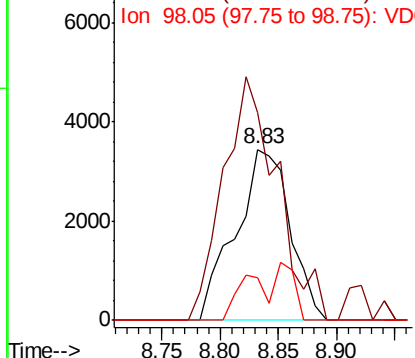
#39  
Methylcyclohexane  
Concen: 1.153 ug/l  
RT: 8.83 min Scan# 752  
Delta R.T. -0.03 min  
Lab File: VD063303.D  
Acq: 1 Aug 2019 20:08

Instrument :  
MSVOA\_D  
ClientSampleId :  
SW-3

Tot Ion: 83 Resp: 11132  
Ion Ratio Lower Upper  
83 100  
55 121.4 71.1 106.7#  
98 25.2 38.5 57.7#

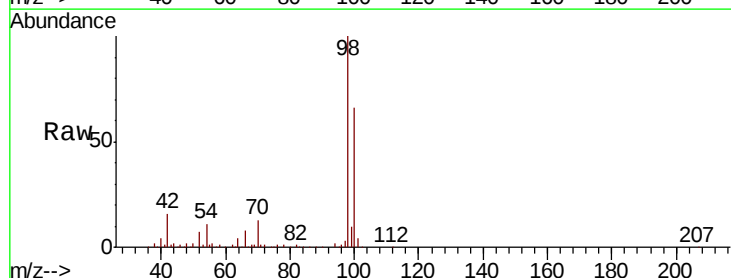


Abundance Ion 83.05 (82.75 to 83.75): VDC  
Ion 55.00 (54.70 to 55.70): VDC  
Ion 98.05 (97.75 to 98.75): VDC

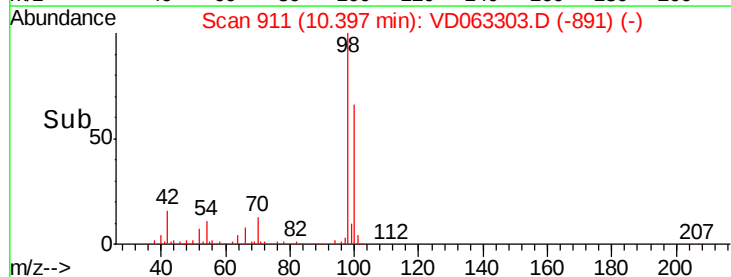
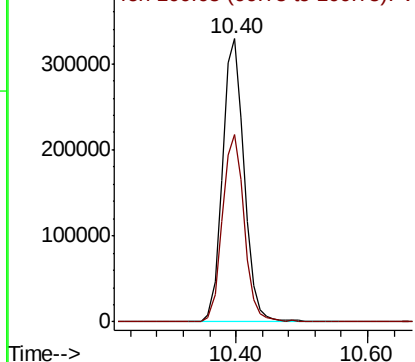


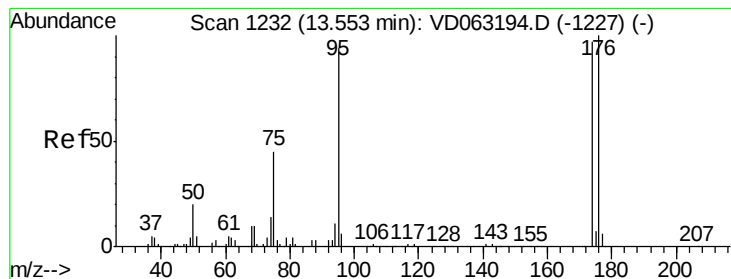
#50  
Toluene-d8  
Concen: 31.144 ug/l  
RT: 10.40 min Scan# 911  
Delta R.T. -0.01 min  
Lab File: VD063303.D  
Acq: 1 Aug 2019 20:08

Tgt Ion: 98 Resp: 755795  
Ion Ratio Lower Upper  
98 100  
100 66.2 53.2 79.8



Abundance Ion 98.05 (97.75 to 98.75): VDC  
Ion 100.05 (99.75 to 100.75): VDC





#62

4-Bromofluorobenzene

Concen: 19.357 ug/l

RT: 13.55 min Scan# 1231

Delta R.T. -0.01 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

Instrument :

MSVOA\_D

ClientSampleId :

SW-3

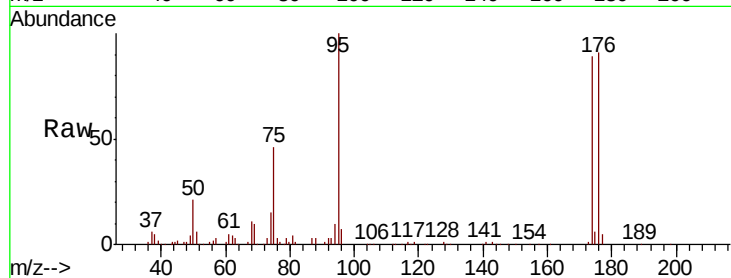
Tot Ion: 95 Resp: 214057

Ion Ratio Lower Upper

95 100

174 89.3 0.0 205.4

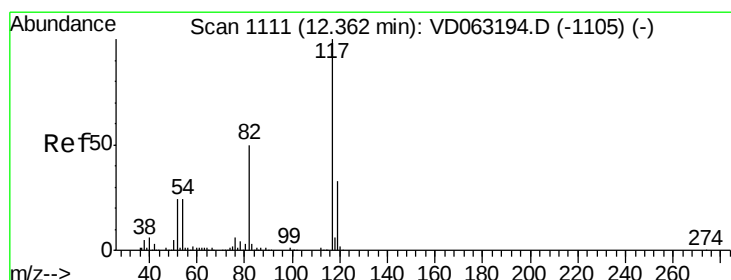
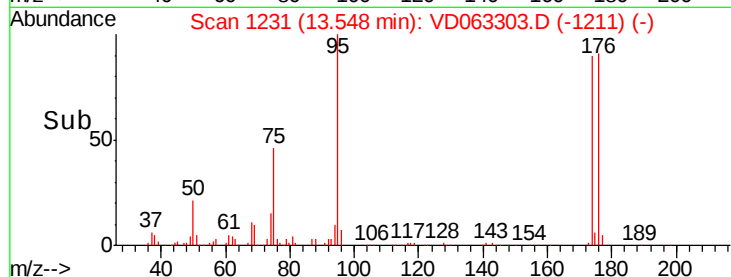
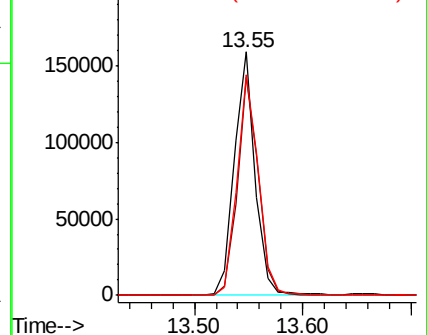
176 90.8 0.0 211.8



Abundance Ion 95.00 (94.70 to 95.70): VDC

Ion 173.90 (173.60 to 174.60): VDC

Ion 175.90 (175.60 to 176.60): VDC



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 12.36 min Scan# 1110

Delta R.T. -0.01 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

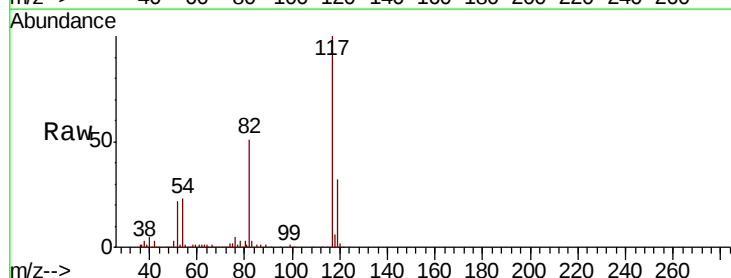
Tgt Ion: 117 Resp: 778376

Ion Ratio Lower Upper

117 100

82 50.5 40.1 60.1

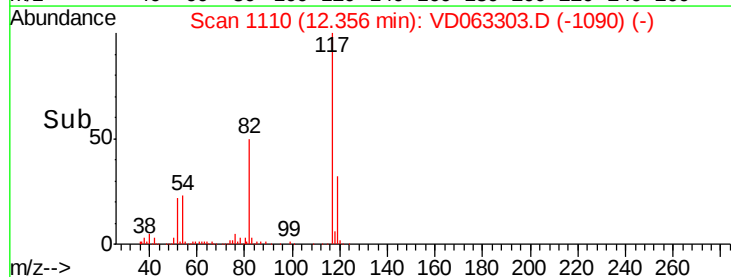
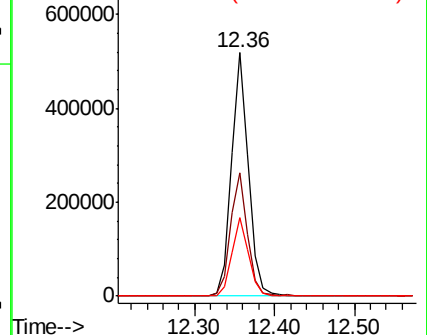
119 32.2 26.5 39.7

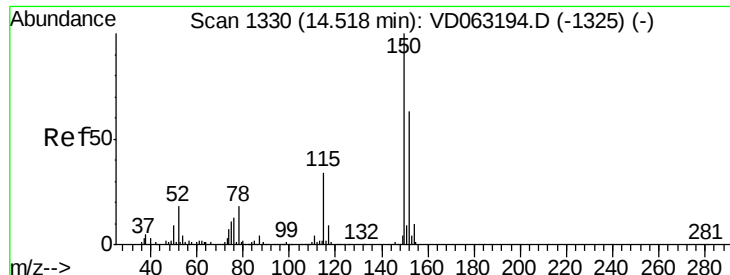


Abundance Ion 116.95 (116.65 to 117.65): VDC

Ion 82.05 (81.75 to 82.75): VDC

Ion 118.95 (118.65 to 119.65): VDC





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 14.51 min Scan# 1329

Delta R.T. -0.01 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

Instrument :

MSVOA\_D

ClientSampleId :

SW-3

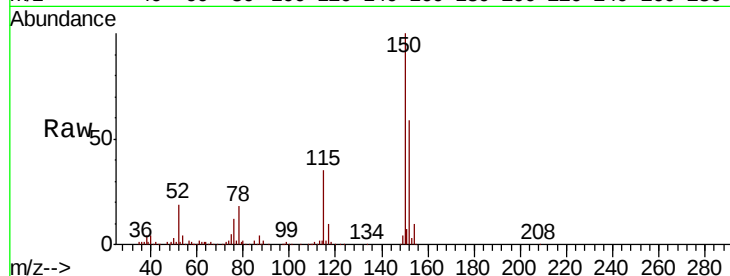
Tot Ion:152 Resp: 189891

Ion Ratio Lower Upper

152 100

115 59.6 27.5 82.4

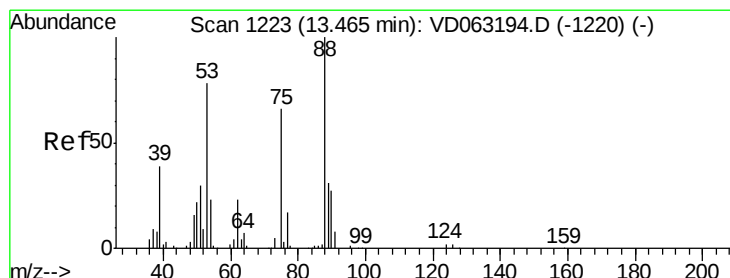
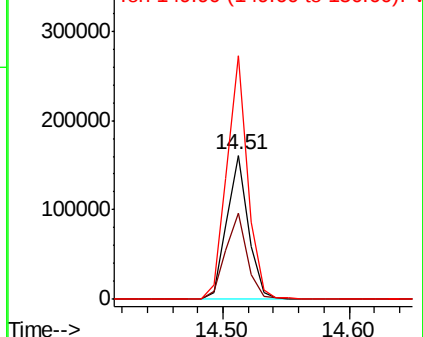
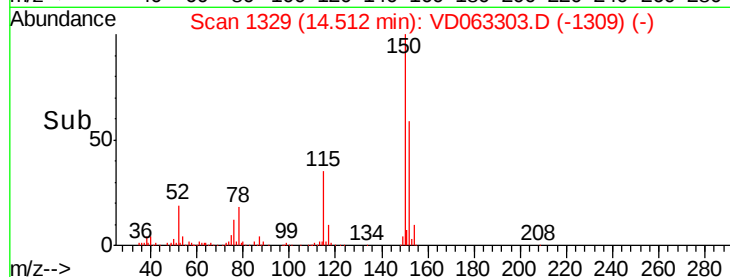
150 169.0 0.0 320.6



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



#81

trans-1,4-Dichloro-2-butene

Concen: 155.054 ug/l

RT: 13.55 min Scan# 1231

Delta R.T. 0.08 min

Lab File: VD063303.D

Acq: 1 Aug 2019 20:08

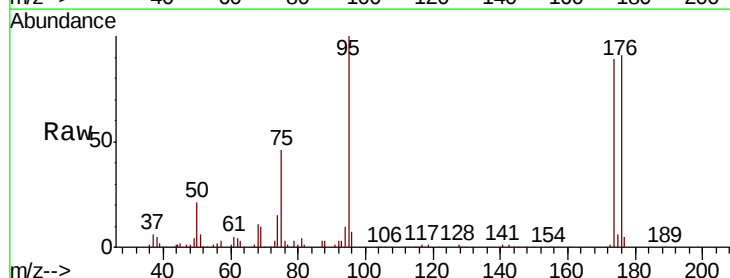
Tgt Ion: 75 Resp: 98202

Ion Ratio Lower Upper

75 100

53 0.9 94.9 142.3#

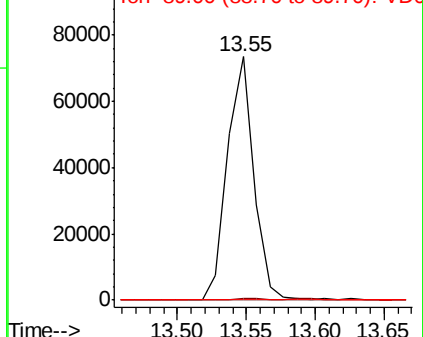
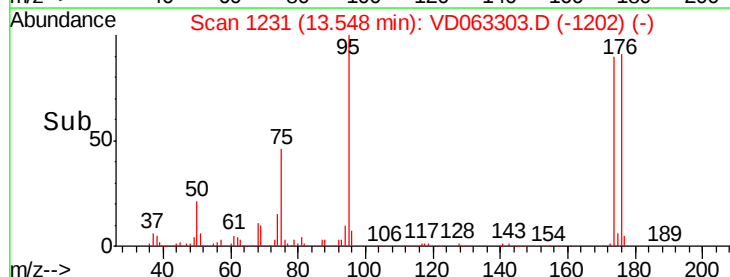
89 0.0 37.4 56.0#

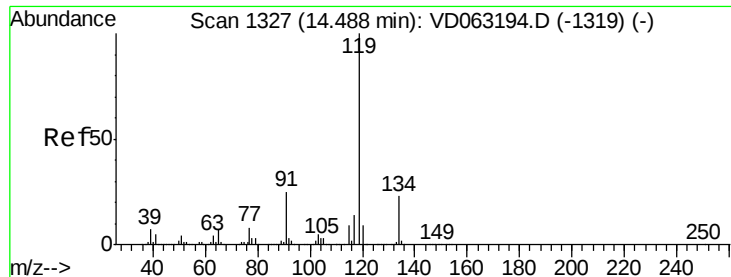


Abundance Ion 75.00 (74.70 to 75.70): VDC

Ion 53.00 (52.70 to 53.70): VDC

Ion 89.00 (88.70 to 89.70): VDC

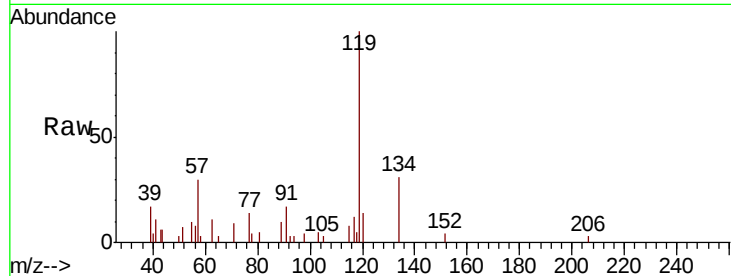




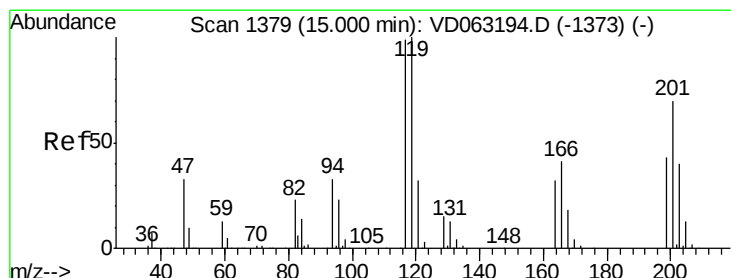
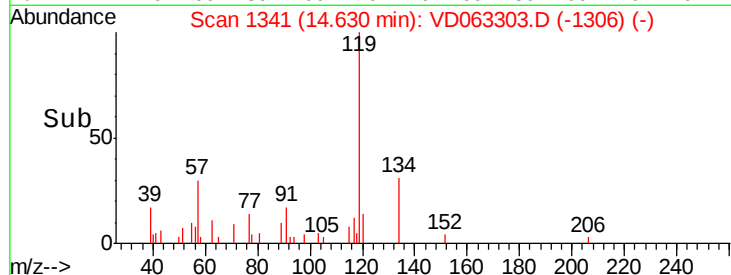
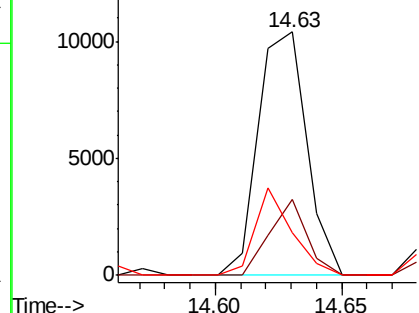
#86  
 p-Isopropyltoluene  
 Concen: 1.187 ug/l  
 RT: 14.63 min Scan# 1341  
 Delta R.T. 0.14 min  
 Lab File: VD063303.D  
 Acq: 1 Aug 2019 20:08

Instrument :  
 MSVOA\_D  
 ClientSampleID :  
 SW-3

Tot Ion:119 Resp: 14005  
 Ion Ratio Lower Upper  
 119 100  
 134 31.0 11.5 34.5  
 91 17.3 12.6 37.6

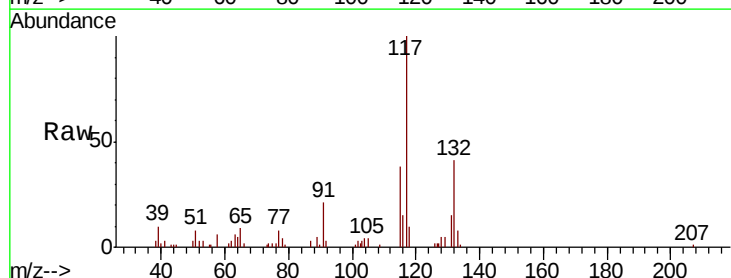


Abundance Ion 119.05 (118.75 to 119.75): V  
 Ion 134.10 (133.80 to 134.80): V  
 Ion 91.00 (90.70 to 91.70): V



#90  
 Hexachloroethane  
 Concen: 15.696 ug/l  
 RT: 15.08 min Scan# 1387  
 Delta R.T. 0.08 min  
 Lab File: VD063303.D  
 Acq: 1 Aug 2019 20:08

Tgt Ion:117 Resp: 48264  
 Ion Ratio Lower Upper  
 117 100  
 201 0.0 35.2 105.6#



Abundance Ion 116.85 (116.55 to 117.55): V  
 Ion 200.75 (200.45 to 201.45): V

