

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF070218\  
 Data File : VF059387.D  
 Acq On : 2 Jul 2018 15:17  
 Operator : VA/AP  
 Sample : J3802-01  
 Misc : 7.06g/5mL/MSVOA-F/SOIL  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 CF-1(15.0)

Quant Time: Jul 03 01:08:40 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F062518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Jun 26 08:45:17 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 168658   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.74  | 114  | 287448   | 50.00 | ug/l  | -0.01    |
| 63) Chlorobenzene-d5       | 9.89  | 117  | 251529   | 50.00 | ug/l  | -0.01    |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 175052   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response   | Conc    | Units | Dev(Min) |
|-----------------------------|-------|------|------------|---------|-------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.01  | 65   | 164917     | 75.68   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 151.36% |       |          |
| 35) Dibromofluoromethane    | 4.28  | 113  | 145019     | 69.05   | ug/l  | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery = | 138.10% |       |          |
| 50) Toluene-d8              | 7.69  | 98   | 293885     | 56.52   | ug/l  | -0.01    |
| Spiked Amount 50.000        |       |      | Recovery = | 113.04% |       |          |
| 62) 4-Bromofluorobenzene    | 11.49 | 95   | 174742     | 59.57   | ug/l  | -0.01    |
| Spiked Amount 50.000        |       |      | Recovery = | 119.14% |       |          |

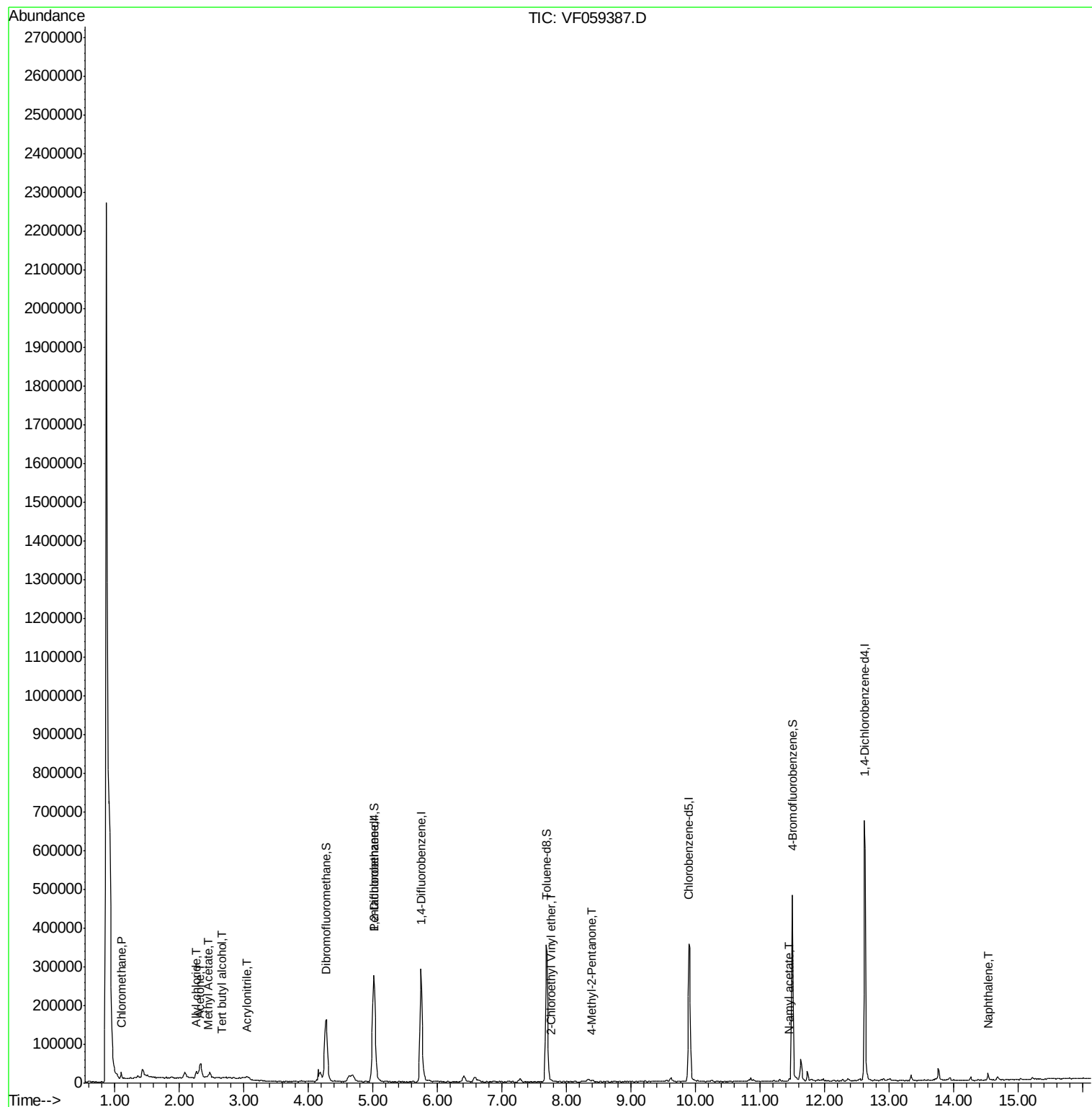
| Target Compounds              | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|-------------------------------|-------|------|----------|-----------|-------|--------|
| 3) Chloromethane              | 1.10  | 50   | 1542     | 1.49      | ug/l  | # 65   |
| 5) Bromomethane               | 1.34  | 94   | 784      | Below Cal |       | # 4    |
| 11) Tert butyl alcohol        | 2.67  | 59   | 3425     | 23.61     | ug/l  | # 82   |
| 13) Acrolein                  | 2.09  | 56   | 404      | Below Cal |       | # 1    |
| 14) Allyl chloride            | 2.27  | 41   | 3167     | 1.70      | ug/l  | # 39   |
| 15) Acrylonitrile             | 3.06  | 53   | 839      | 3.28      | ug/l  | # 48   |
| 16) Acetone                   | 2.33  | 43   | 50130    | 85.40     | ug/l  | # 99   |
| 18) Methyl Acetate            | 2.44  | 43   | 9134     | 8.32      | ug/l  | # 82   |
| 20) Methylene Chloride        | 2.28  | 84   | 4525     | Below Cal |       | # 91   |
| 25) 2-Butanone                | 4.50  | 43   | 1106     | Below Cal |       | # 59   |
| 28) Bromochloromethane        | 3.89  | 49   | 82       | Below Cal |       | # 6    |
| 29) Tetrahydrofuran           | 4.22  | 42   | 399      | Below Cal |       | # 36   |
| 37) Ethyl Acetate             | 4.15  | 43   | 1920     | Below Cal |       | # 44   |
| 49) 1,4-Dioxane               | 6.86  | 88   | 92       | Below Cal |       | # 20   |
| 51) 4-Methyl-2-Pentanone      | 8.40  | 43   | 3715     | 2.40      | ug/l  | # 89   |
| 58) 2-Chloroethyl Vinyl ether | 7.78  | 63   | 253      | 1.68      | ug/l  | # 100  |
| 59) 2-Hexanone                | 9.62  | 43   | 9038     | Below Cal |       | # 86   |
| 74) N-amyl acetate            | 11.45 | 43   | 4817     | 1.30      | ug/l  | # 80   |
| 87) 1,3-Dichlorobenzene       | 12.55 | 146  | 1715     | Below Cal |       | # 76   |
| 95) Naphthalene               | 14.53 | 128  | 9987     | 1.26      | ug/l  | # 96   |

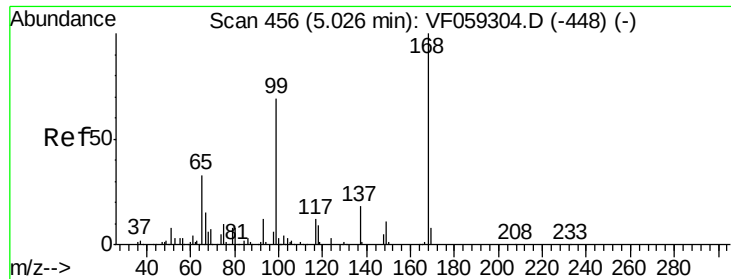
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF070218\  
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ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
CF-1(15.0)

Quant Time: Jul 02 16:06:45 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F062518S.M  
Quant Title : SW846 8260  
QLast Update : Tue Jun 26 08:45:17 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.03 min Scan# 456

Delta R.T. -0.00 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

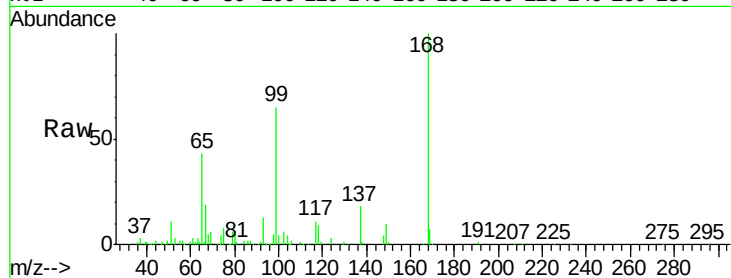
CF-1(15.0)

Tot Ion:168 Resp: 168658

Ion Ratio Lower Upper

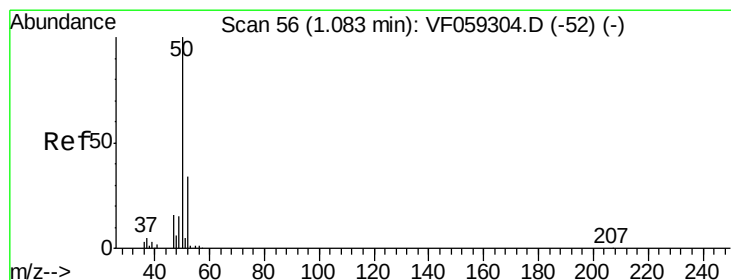
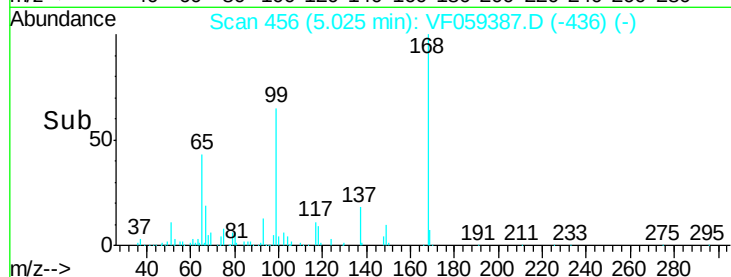
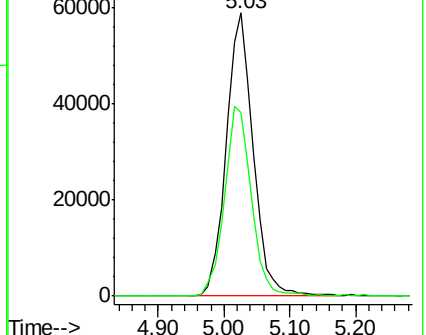
168 100

99 64.7 54.9 82.3



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0



#3

Chloromethane

Concen: 1.49 ug/l

RT: 1.10 min Scan# 58

Delta R.T. 0.02 min

Lab File: VF059387.D

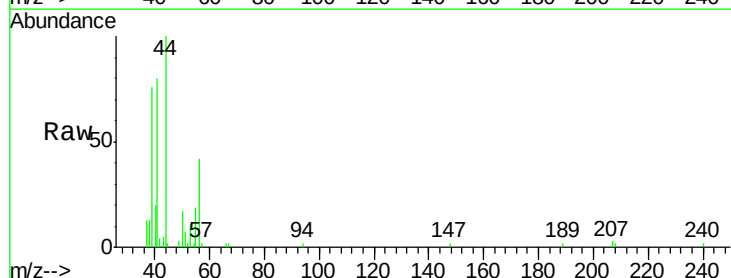
Acq: 2 Jul 2018 15:17

Tgt Ion: 50 Resp: 1542

Ion Ratio Lower Upper

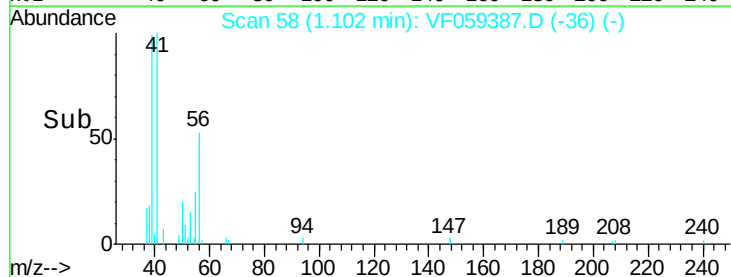
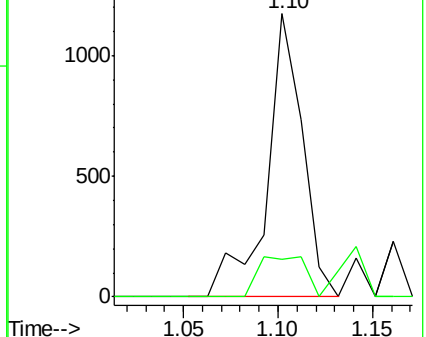
50 100

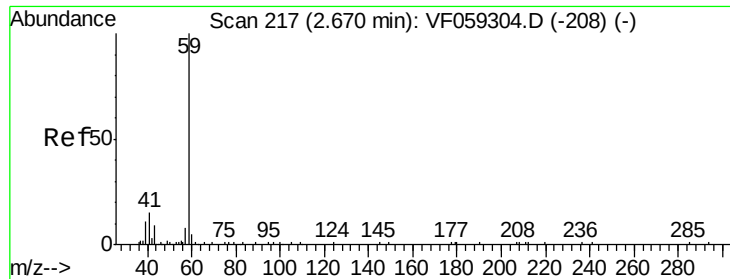
52 13.4 26.7 40.1#



Abundance Ion 50.00 (49.70 to 50.70): VF0

Ion 52.00 (51.70 to 52.70): VF0



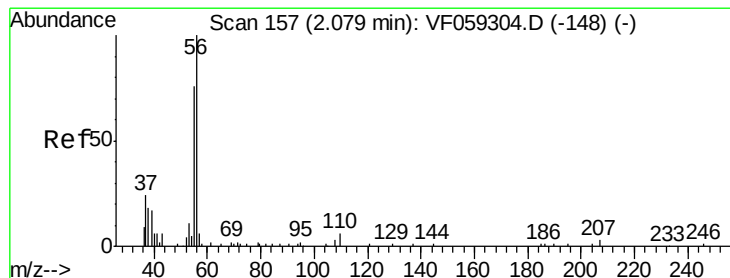
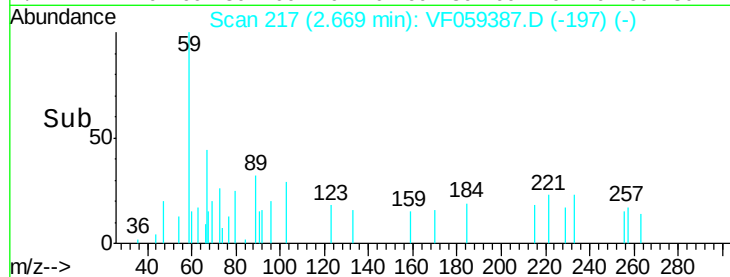
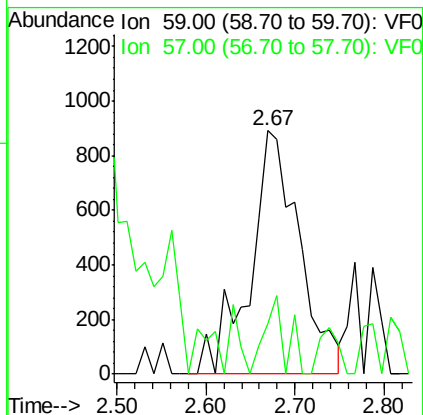
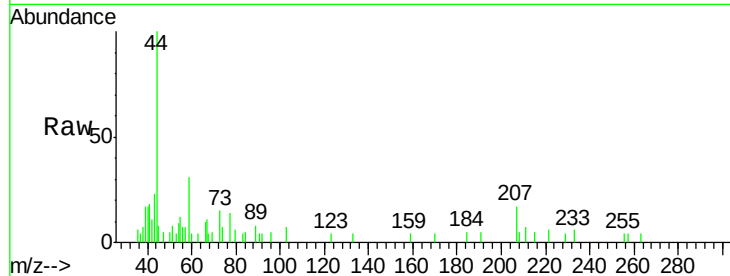


#11

Tert butyl alcohol  
 Concen: 23.61 ug/l  
 RT: 2.67 min Scan# 217  
 Delta R.T. -0.00 min  
 Lab File: VF059387.D  
 Acq: 2 Jul 2018 15:17

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 CF-1(15.0)

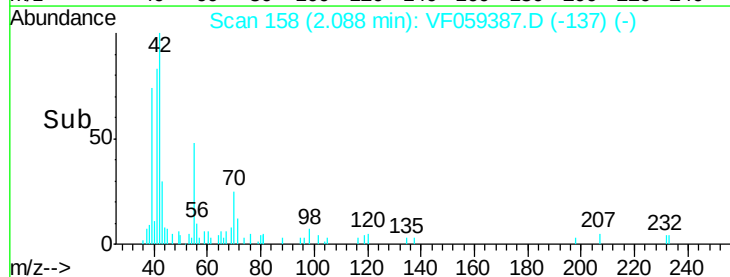
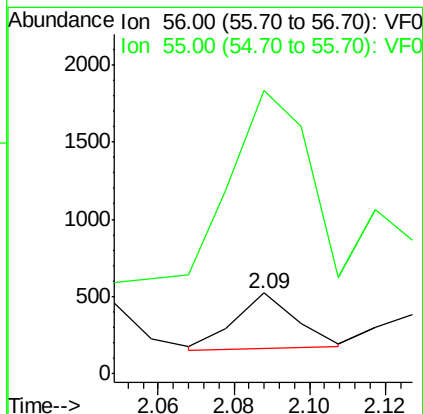
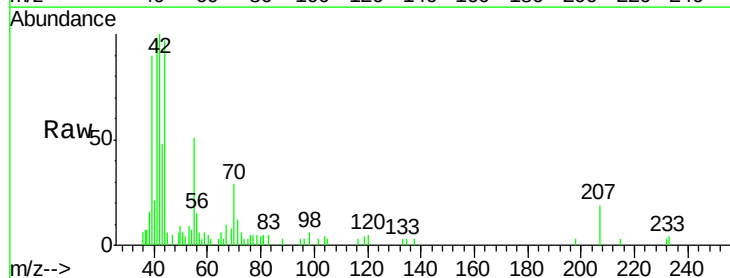
Tot Ion: 59 Resp: 3425  
 Ion Ratio Lower Upper  
 59 100  
 57 21.0 11.0 16.4#

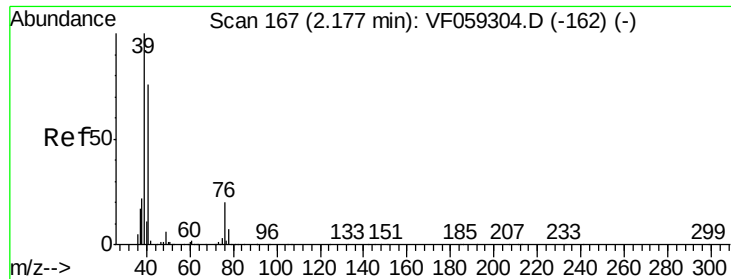


#13

Acrolein  
 Concen: Below Cal  
 RT: 2.09 min Scan# 158  
 Delta R.T. 0.01 min  
 Lab File: VF059387.D  
 Acq: 2 Jul 2018 15:17

Tgt Ion: 56 Resp: 404  
 Ion Ratio Lower Upper  
 56 100  
 55 349.9 62.4 93.6#

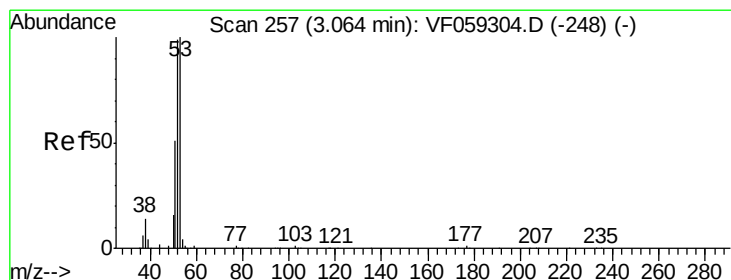
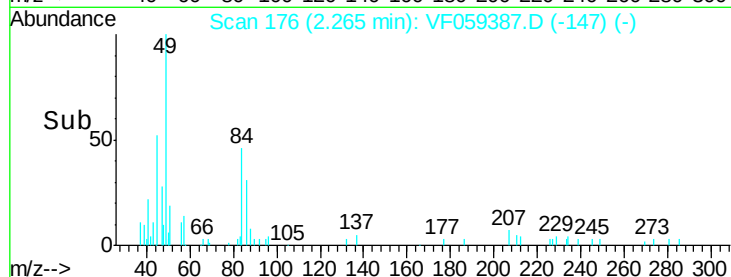
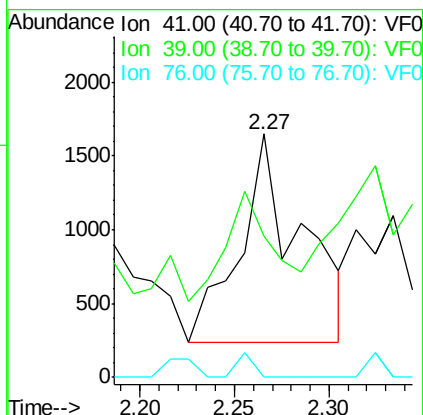
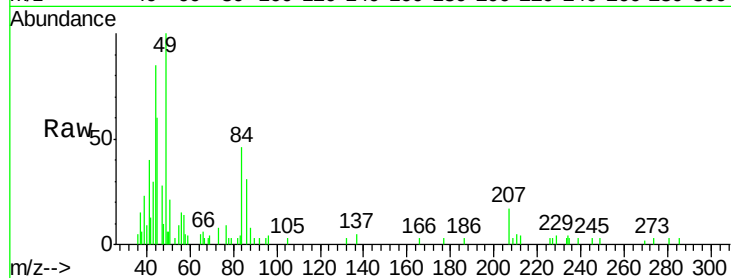




#14  
Allvl chloride  
Concen: 1.70 ug/l  
RT: 2.27 min Scan# 176  
Delta R.T. 0.09 min  
Lab File: VF059387.D  
Acq: 2 Jul 2018 15:17

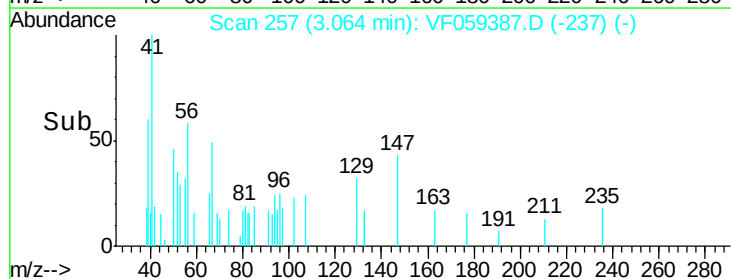
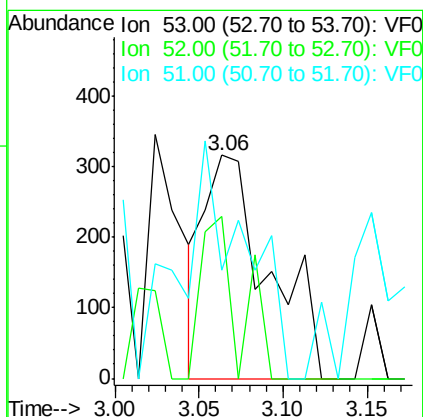
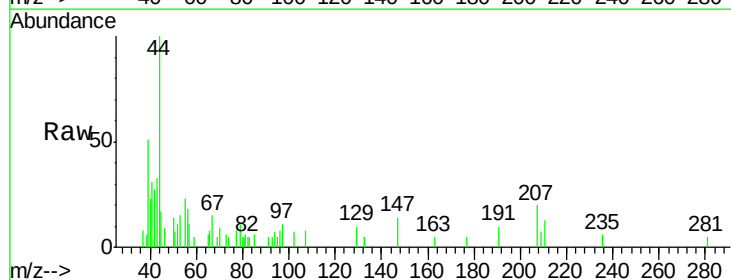
Instrument :  
MSVOA\_F  
ClientSampleId :  
CF-1(15.0)

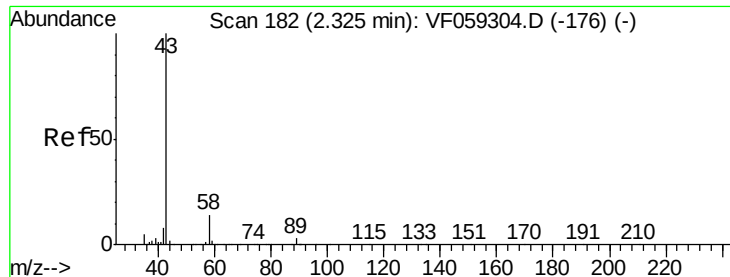
Tot Ion: 41 Resp: 3167  
Ion Ratio Lower Upper  
41 100  
39 58.1 105.6 158.4#  
76 0.0 21.6 32.4#



#15  
Acrylonitrile  
Concen: 3.28 ug/l  
RT: 3.06 min Scan# 257  
Delta R.T. -0.00 min  
Lab File: VF059387.D  
Acq: 2 Jul 2018 15:17

Tgt Ion: 53 Resp: 839  
Ion Ratio Lower Upper  
53 100  
52 72.5 79.2 118.8#  
51 121.2 40.9 61.3#





#16

Acetone

Concen: 85.40 ug/l

RT: 2.33 min Scan# 183

Delta R.T. 0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

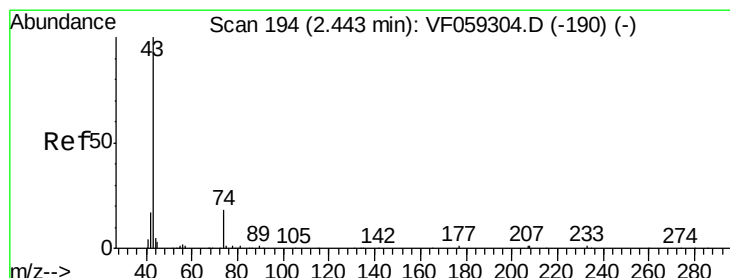
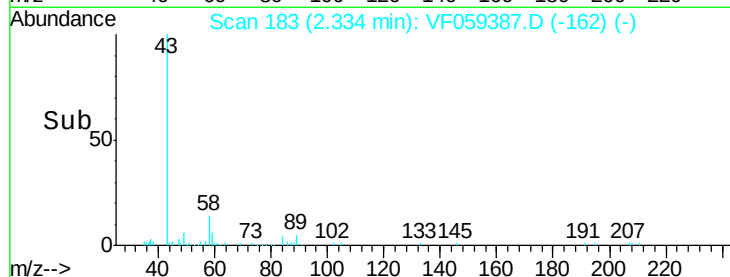
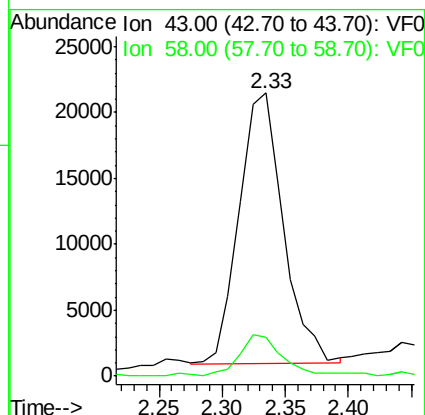
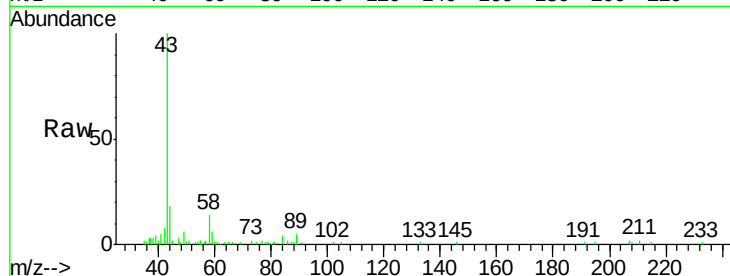
CF-1(15.0)

Tot Ion: 43 Resp: 50130

Ion Ratio Lower Upper

43 100

58 13.9 11.4 17.0



#18

Methyl Acetate

Concen: 8.32 ug/l

RT: 2.44 min Scan# 194

Delta R.T. -0.00 min

Lab File: VF059387.D

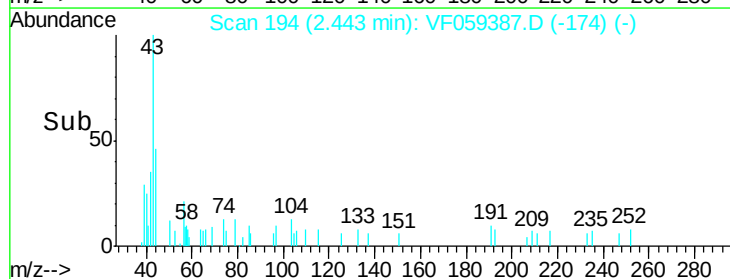
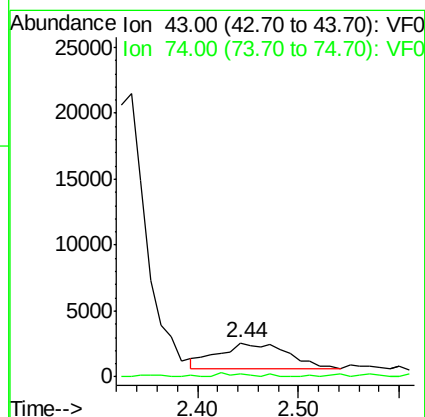
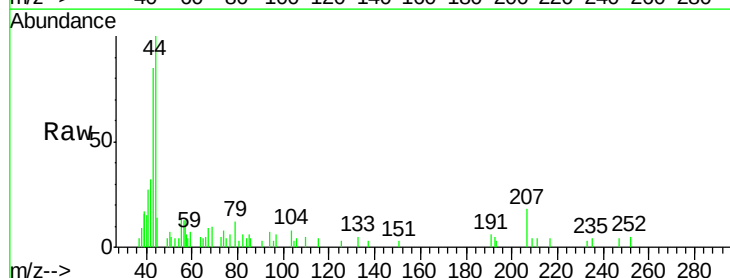
Acq: 2 Jul 2018 15:17

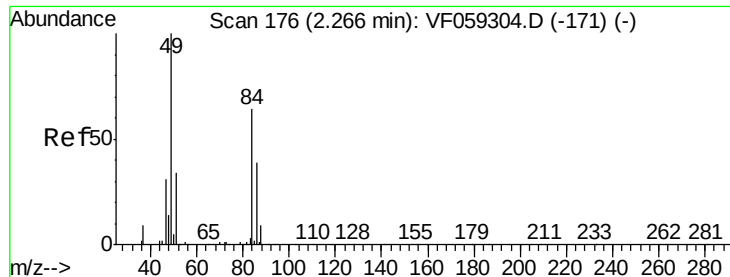
Tgt Ion: 43 Resp: 9134

Ion Ratio Lower Upper

43 100

74 8.8 13.3 19.9#



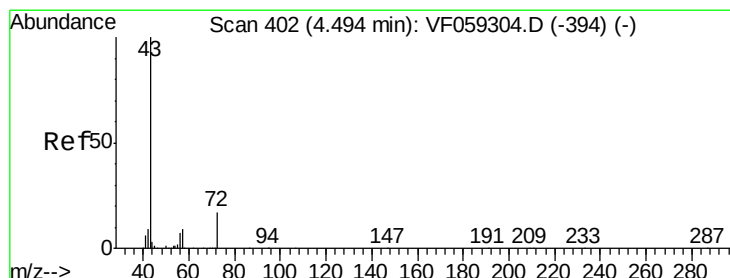
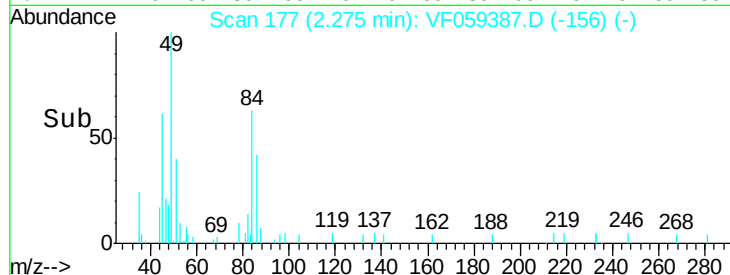
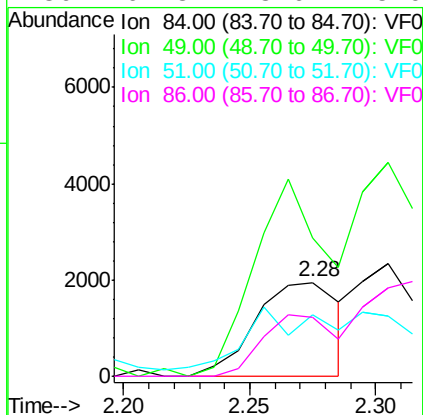
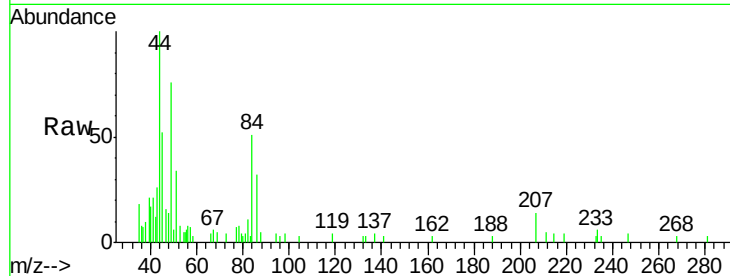


#20

Methylene Chloride  
 Concen: Below Cal  
 RT: 2.28 min Scan# 177  
 Delta R.T. 0.01 min  
 Lab File: VF059387.D  
 Acq: 2 Jul 2018 15:17

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 CF-1(15.0)

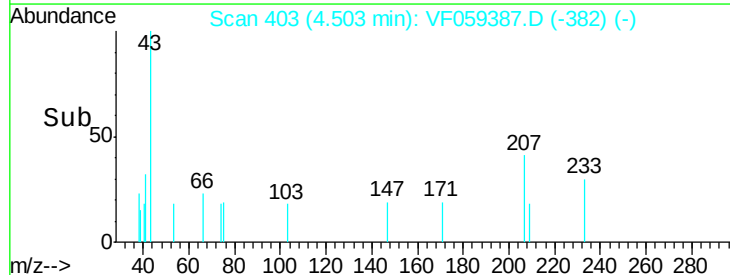
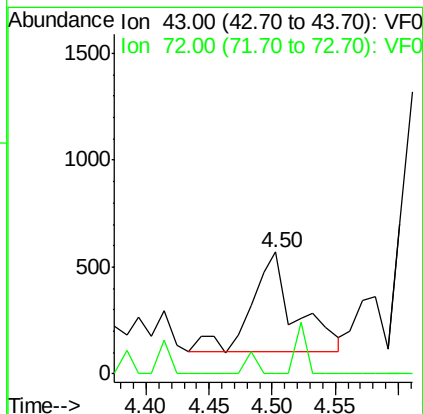
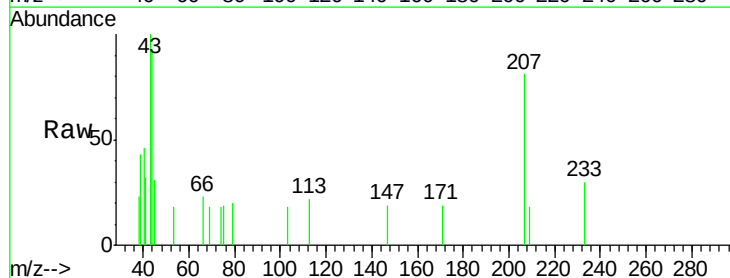
Tot Ion: 84 Resp: 4525  
 Ion Ratio Lower Upper  
 84 100  
 49 147.0 126.5 189.7  
 51 65.1 42.9 64.3#  
 86 62.3 48.6 73.0

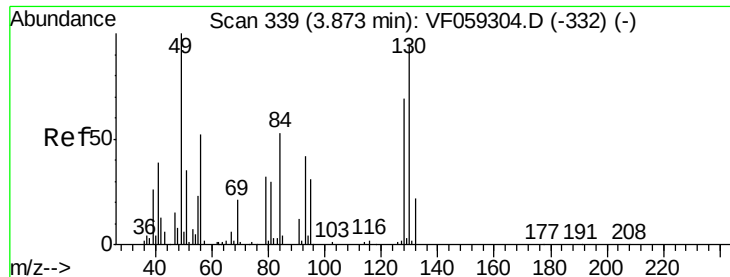


#25

2-Butanone  
 Concen: Below Cal  
 RT: 4.50 min Scan# 403  
 Delta R.T. 0.01 min  
 Lab File: VF059387.D  
 Acq: 2 Jul 2018 15:17

Tgt Ion: 43 Resp: 1106  
 Ion Ratio Lower Upper  
 43 100  
 72 0.0 14.4 21.6#

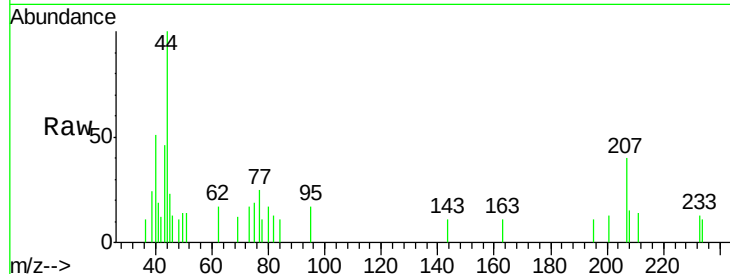




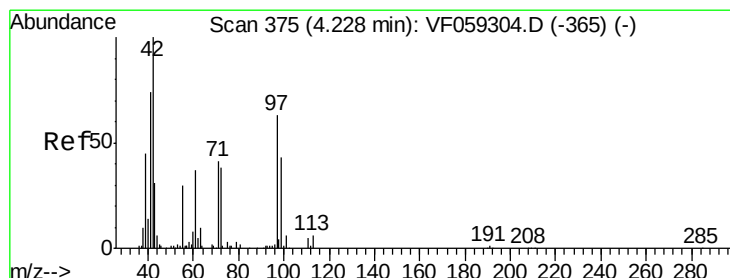
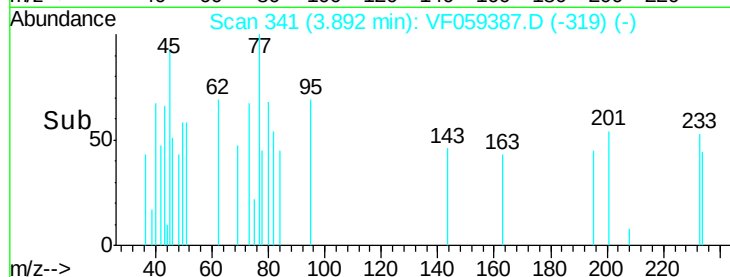
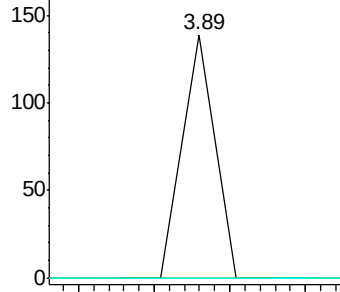
#28  
Bromochloromethane  
Concen: Below Cal  
RT: 3.89 min Scan# 341  
Delta R.T. 0.02 min  
Lab File: VF059387.D  
Acq: 2 Jul 2018 15:17

Instrument :  
MSVOA\_F  
ClientSampleId :  
CF-1(15.0)

Tot Ion: 49 Resp: 82  
Ion Ratio Lower Upper  
49 100  
129 0.0 0.0 6.4  
130 0.0 75.1 112.7#

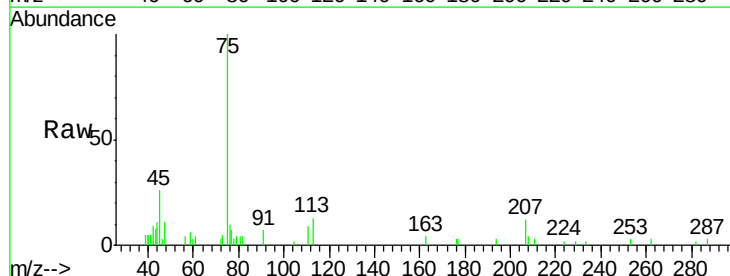


Abundance Ion 49.00 (48.70 to 49.70): VF0  
Ion 129.00 (128.70 to 129.70): V  
Ion 130.00 (129.70 to 130.70): V

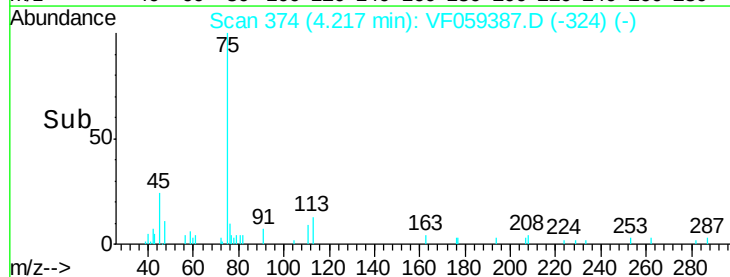
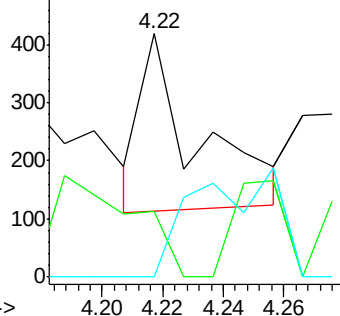


#29  
Tetrahydrofuran  
Concen: Below Cal  
RT: 4.22 min Scan# 374  
Delta R.T. -0.01 min  
Lab File: VF059387.D  
Acq: 2 Jul 2018 15:17

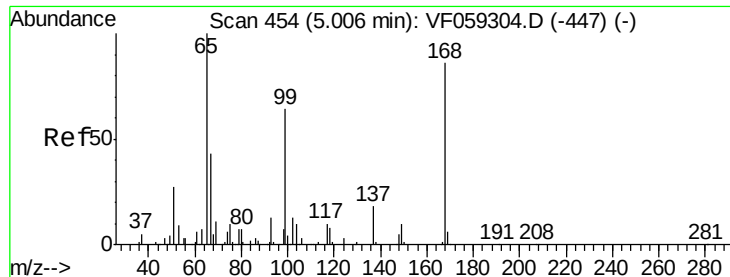
Tgt Ion: 42 Resp: 399  
Ion Ratio Lower Upper  
42 100  
72 0.0 30.5 45.7#  
71 0.0 32.5 48.7#



Abundance Ion 42.00 (41.70 to 42.70): VF0  
Ion 72.00 (71.70 to 72.70): VF0  
Ion 71.00 (70.70 to 71.70): VF0



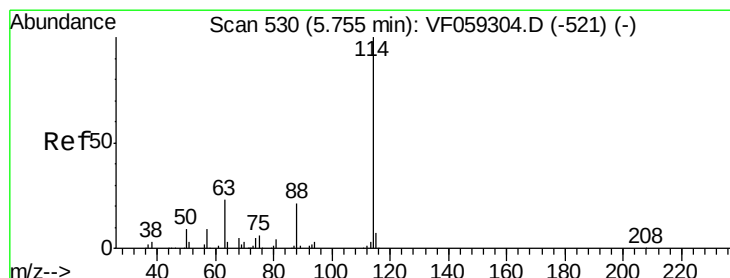
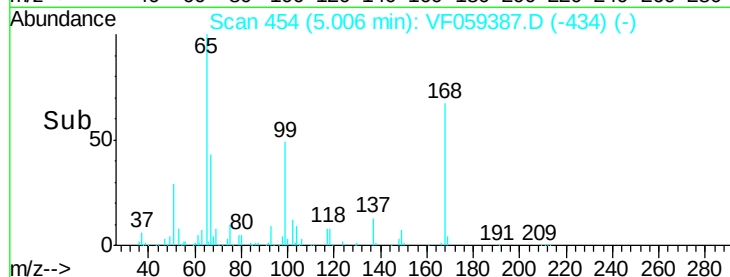
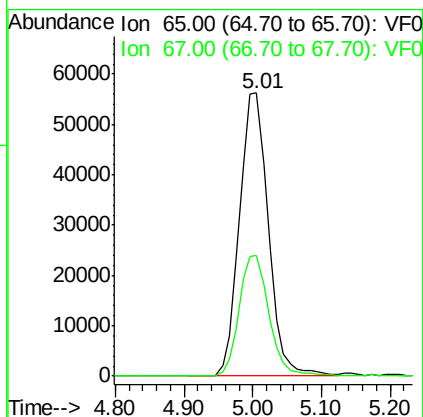
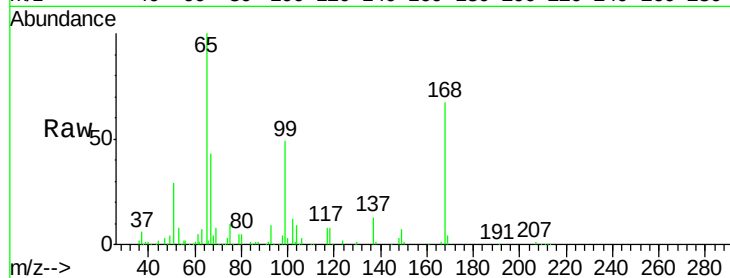




#33  
 1,2-Dichloroethane-d4  
 Concen: 75.68 ug/l  
 RT: 5.01 min Scan# 454  
 Delta R.T. -0.00 min  
 Lab File: VF059387.D  
 Acq: 2 Jul 2018 15:17

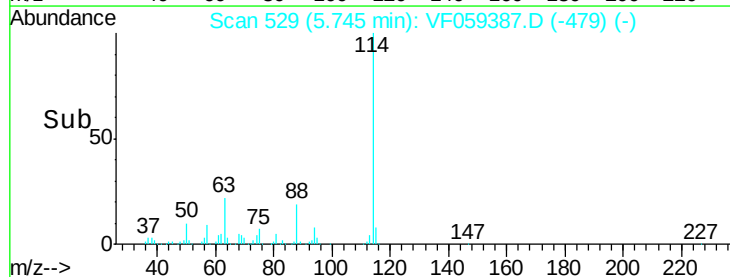
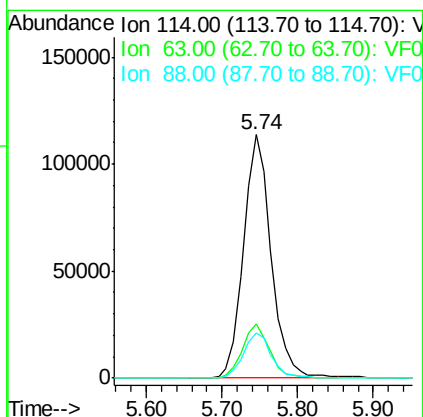
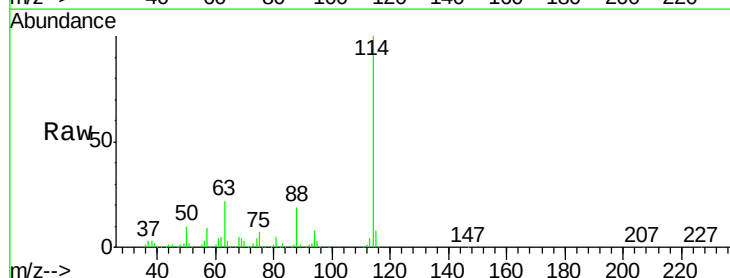
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 CF-1(15.0)

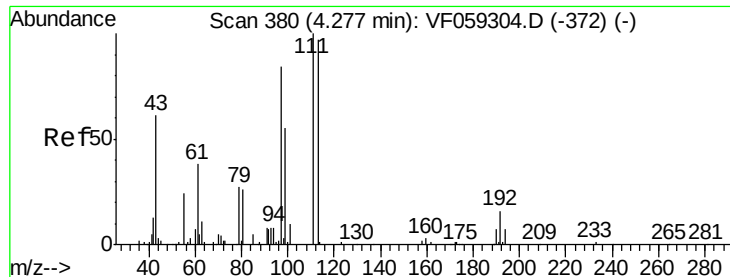
Tot Ion: 65 Resp: 164917  
 Ion Ratio Lower Upper  
 65 100  
 67 42.8 0.0 96.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 5.74 min Scan# 529  
 Delta R.T. -0.01 min  
 Lab File: VF059387.D  
 Acq: 2 Jul 2018 15:17

Tgt Ion: 114 Resp: 287448  
 Ion Ratio Lower Upper  
 114 100  
 63 22.1 0.0 45.8  
 88 18.7 0.0 41.2





#35

Dibromofluoromethane

Concen: 69.05 ug/l

RT: 4.28 min Scan# 380

Delta R.T. -0.00 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

CF-1(15.0)

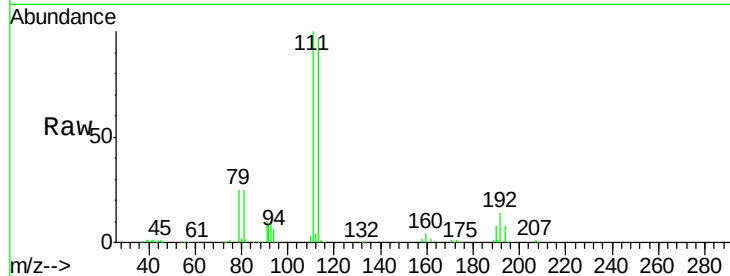
Tot Ion:113 Resp: 145019

Ion Ratio Lower Upper

113 100

111 102.7 82.1 123.1

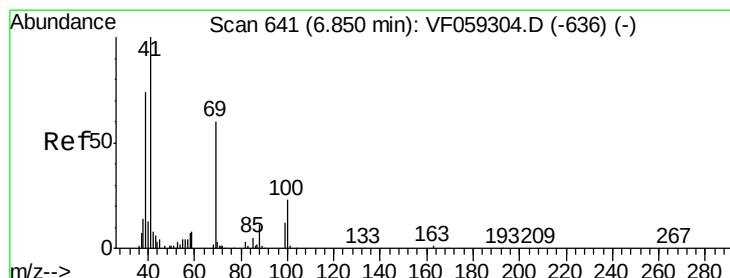
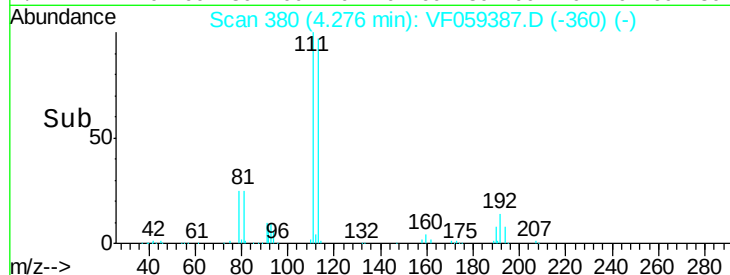
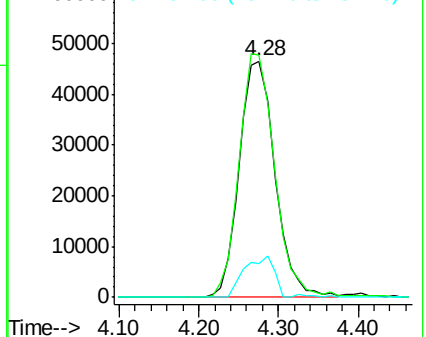
192 14.2 13.0 19.6



Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V



#49

1,4-Dioxane

Concen: Below Cal

RT: 6.86 min Scan# 642

Delta R.T. 0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

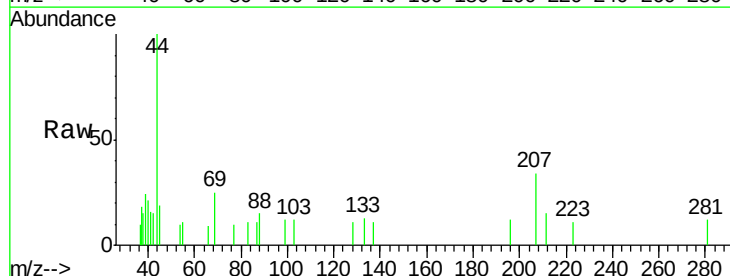
Tgt Ion: 88 Resp: 92

Ion Ratio Lower Upper

88 100

43 0.0 50.6 75.8#

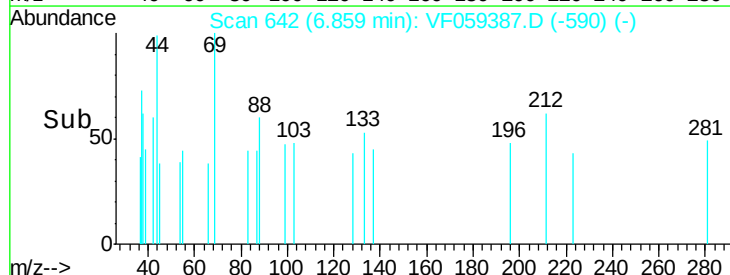
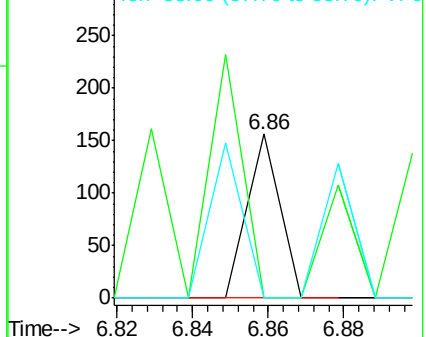
58 0.0 46.6 69.8#

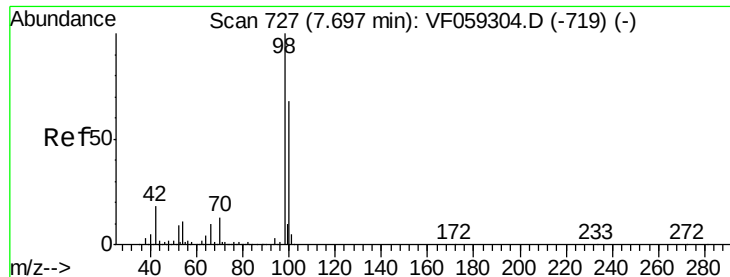


Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#50

Toluene-d8

Concen: 56.52 ug/l

RT: 7.69 min Scan# 726

Delta R.T. -0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

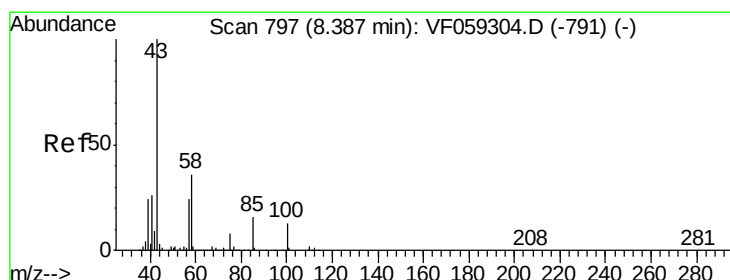
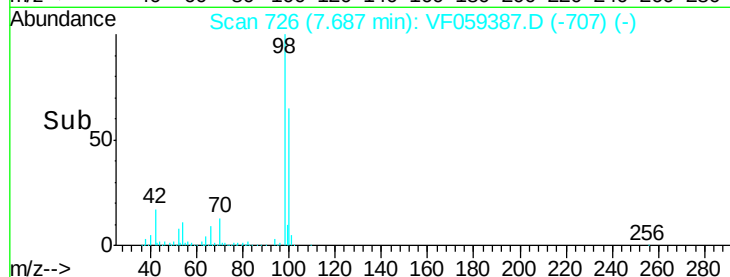
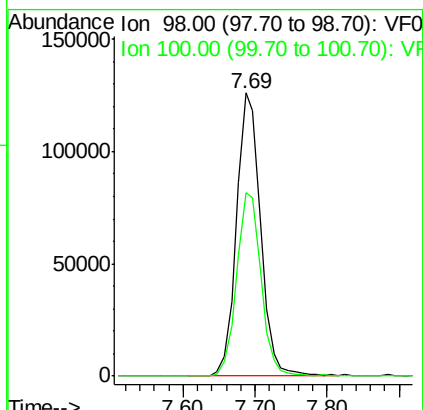
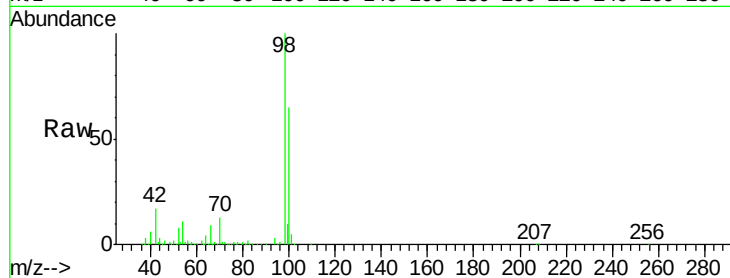
CF-1(15.0)

Tot Ion: 98 Resp: 293885

Ion Ratio Lower Upper

98 100

100 64.7 54.6 82.0



#51

4-Methyl-2-Pentanone

Concen: 2.40 ug/l

RT: 8.40 min Scan# 798

Delta R.T. 0.01 min

Lab File: VF059387.D

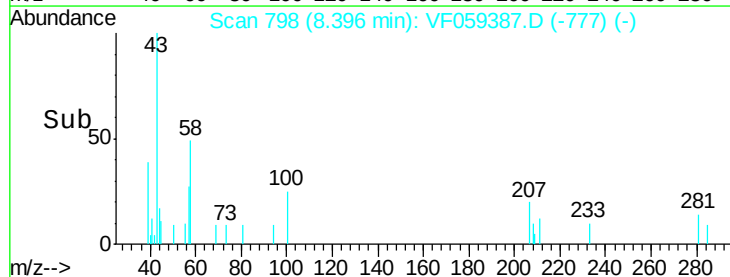
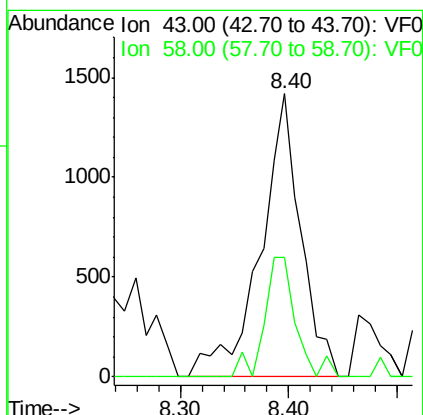
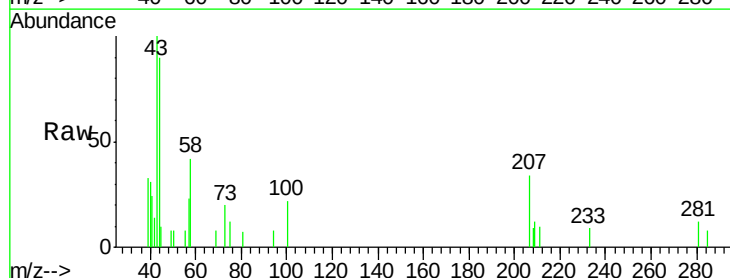
Acq: 2 Jul 2018 15:17

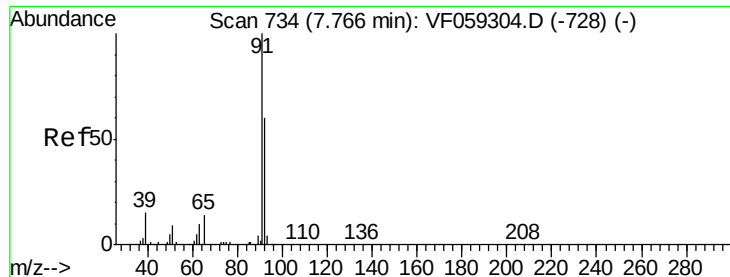
Tgt Ion: 43 Resp: 3715

Ion Ratio Lower Upper

43 100

58 42.2 28.4 42.6





#58

2-Chloroethyl Vinyl ether

Concen: 1.68 ug/l

RT: 7.78 min Scan# 735

Delta R.T. 0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

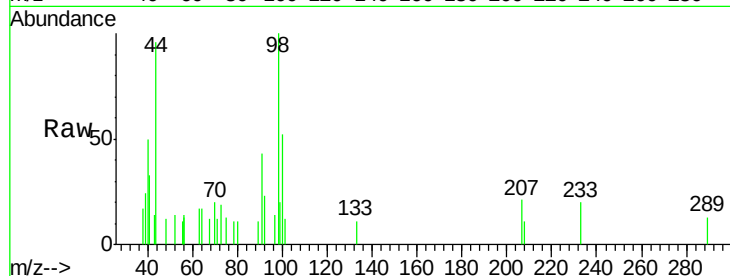
CF-1(15.0)

Tot Ion: 63 Resp: 253

Ion Ratio Lower Upper

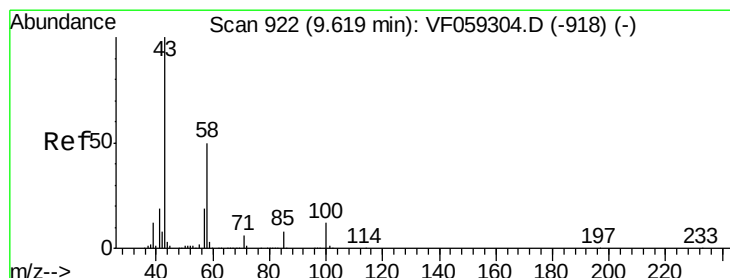
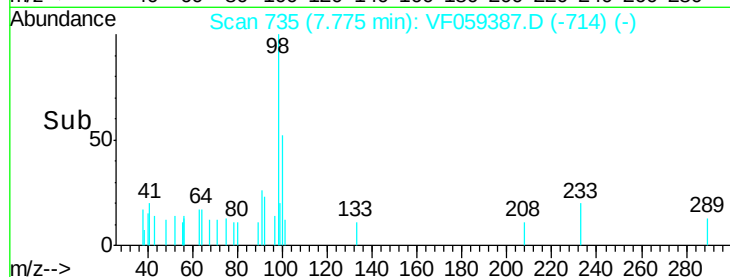
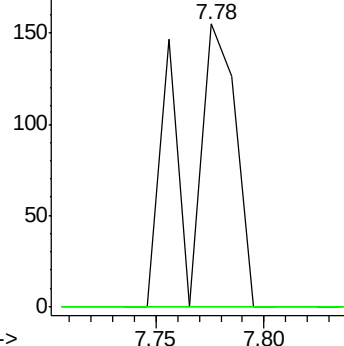
63 100

106 0.0 0.0 0.0



Abundance Ion 63.00 (62.70 to 63.70): VF0

Ion 106.00 (105.70 to 106.70): V



#59

2-Hexanone

Concen: Below Cal

RT: 9.62 min Scan# 922

Delta R.T. -0.00 min

Lab File: VF059387.D

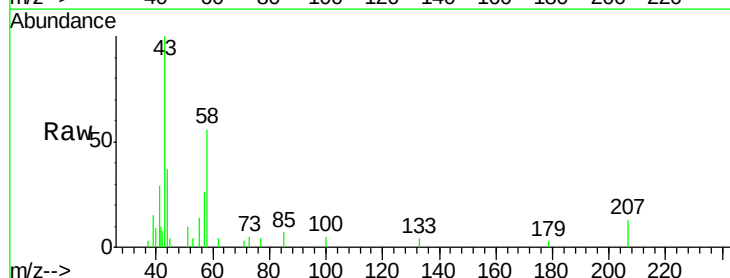
Acq: 2 Jul 2018 15:17

Tgt Ion: 43 Resp: 9038

Ion Ratio Lower Upper

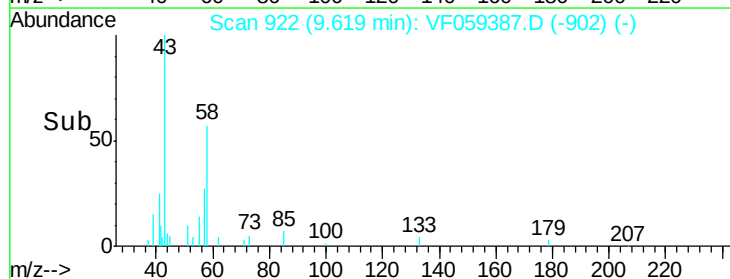
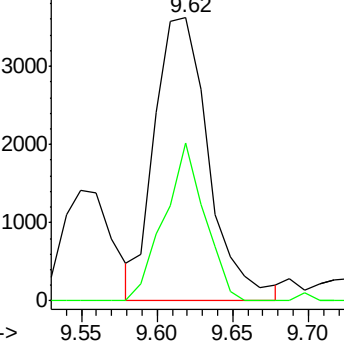
43 100

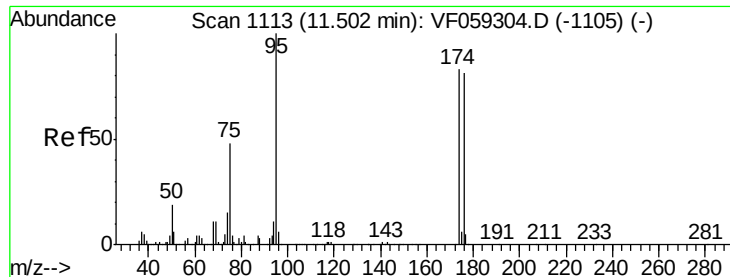
58 55.7 23.3 69.9



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#62

4-Bromofluorobenzene

Concen: 59.57 ug/l

RT: 11.49 min Scan# 1112

Delta R.T. -0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampled :

CF-1(15.0)

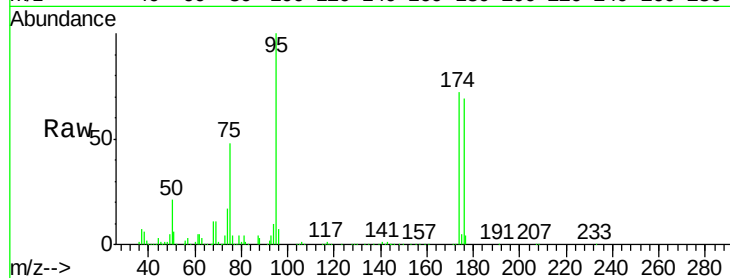
Tot Ion: 95 Resp: 174742

Ion Ratio Lower Upper

95 100

174 72.2 0.0 165.2

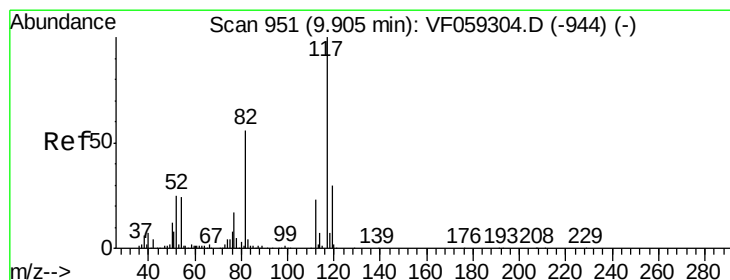
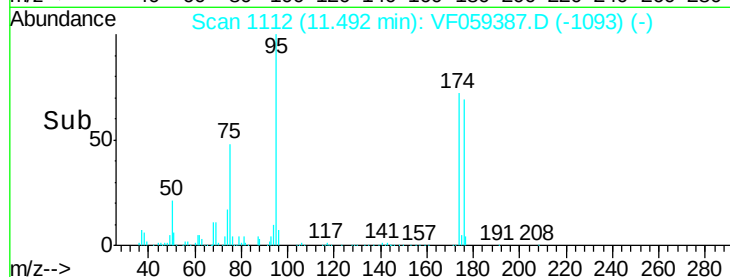
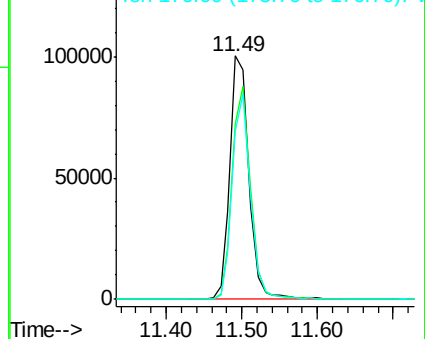
176 68.9 0.0 161.0



Abundance Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): VF0

Ion 176.00 (175.70 to 176.70): VF0



#63

Chlorobenzene-d5

Concen: 50.00 ug/l

RT: 9.89 min Scan# 950

Delta R.T. -0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

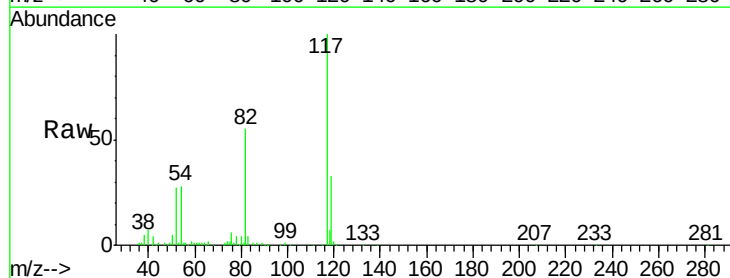
Tgt Ion: 117 Resp: 251529

Ion Ratio Lower Upper

117 100

82 54.6 44.6 66.8

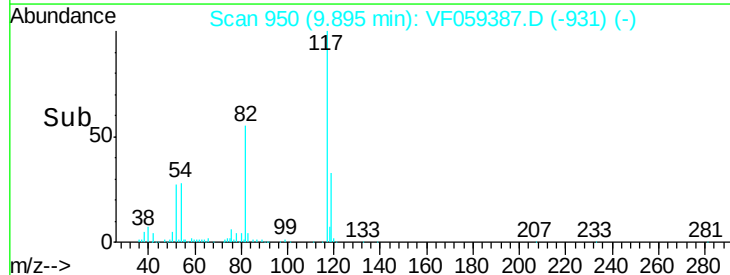
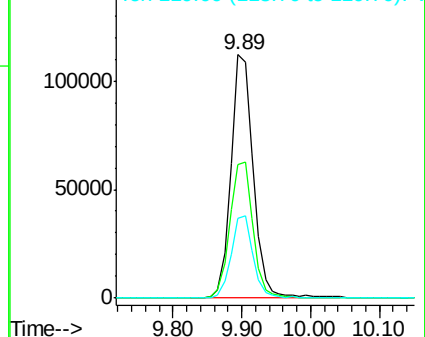
119 32.5 24.1 36.1

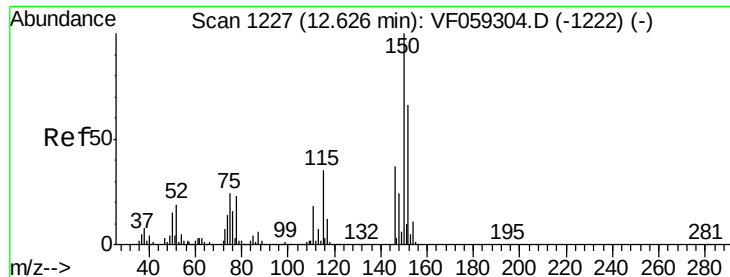


Abundance Ion 117.00 (116.70 to 117.70): VF0

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): VF0





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.63 min Scan# 1227

Delta R.T. -0.00 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

CF-1(15.0)

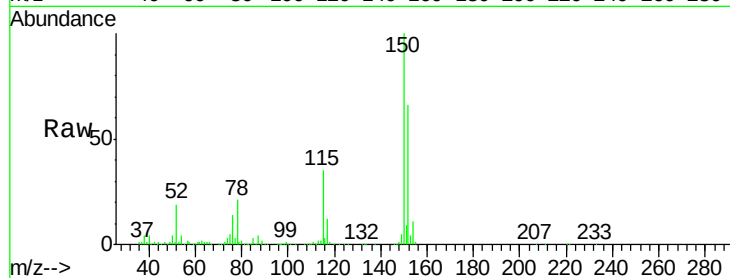
Tot Ion:152 Resp: 175052

Ion Ratio Lower Upper

152 100

115 53.6 27.1 81.3

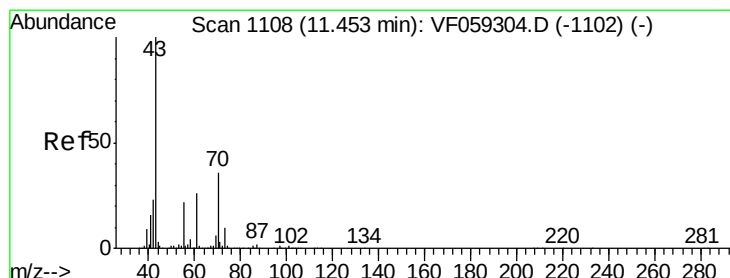
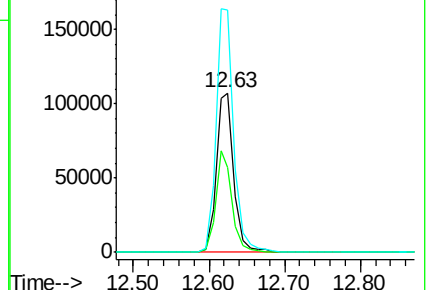
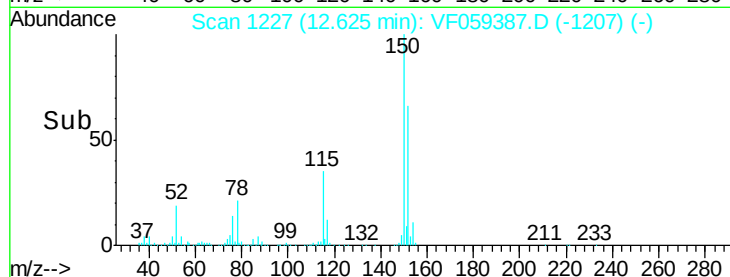
150 152.2 0.0 305.2



Abundance Ion 152.00 (151.70 to 152.70): V

Ion 115.00 (114.70 to 115.70): V

Ion 150.00 (149.70 to 150.70): V



#74

N-amyl acetate

Concen: 1.30 ug/l

RT: 11.45 min Scan# 1108

Delta R.T. -0.00 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Tgt Ion: 43 Resp: 4817

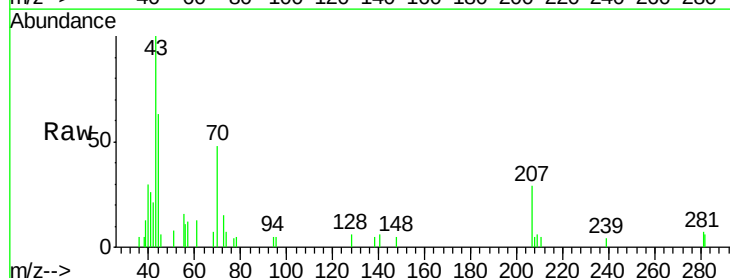
Ion Ratio Lower Upper

43 100

70 48.2 28.8 43.2#

55 15.5 17.4 26.0#

61 13.0 21.1 31.7#

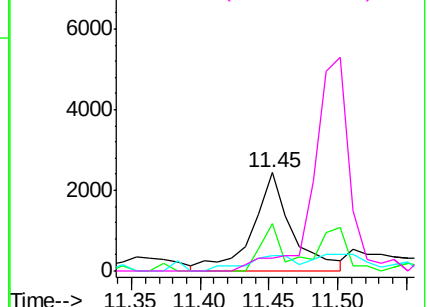
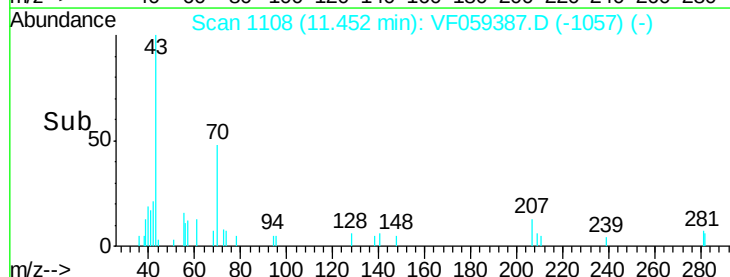


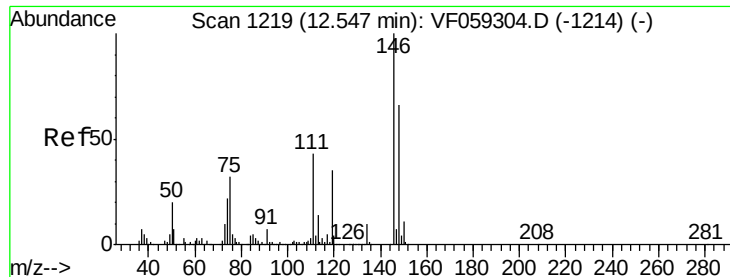
Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 70.00 (69.70 to 70.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 61.00 (60.70 to 61.70): VF0





#87

1,3-Dichlorobenzene

Concen: Below Cal

RT: 12.55 min Scan# 1219

Delta R.T. -0.00 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

Instrument :

MSVOA\_F

ClientSampleId :

CF-1(15.0)

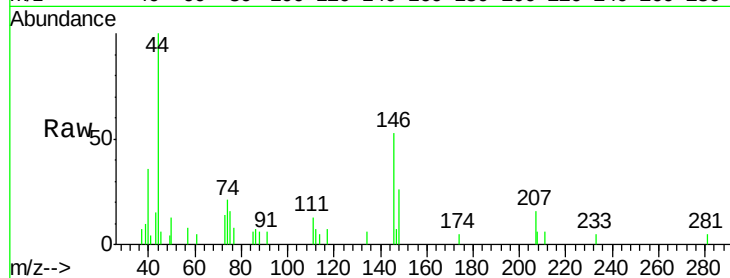
Tot Ion:146 Resp: 1715

Ion Ratio Lower Upper

146 100

111 24.4 21.4 64.2

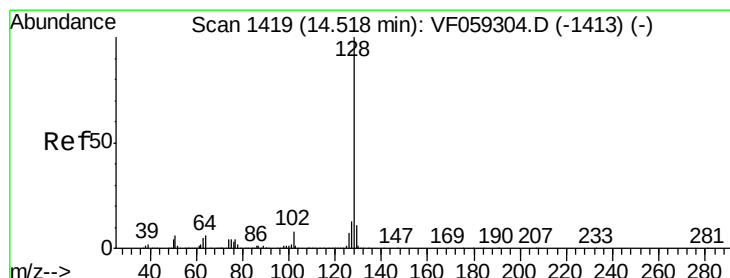
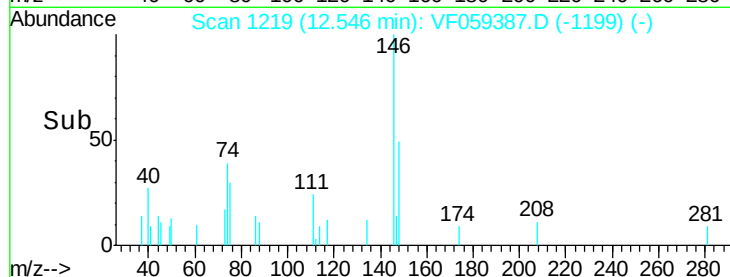
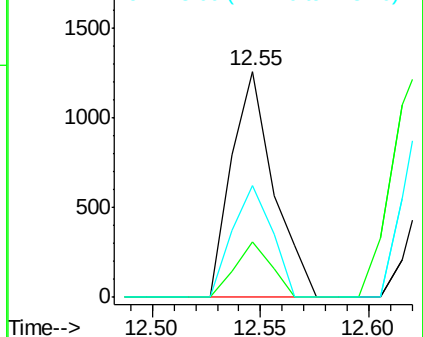
148 49.3 32.8 98.4



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#95

Naphthalene

Concen: 1.26 ug/l

RT: 14.53 min Scan# 1420

Delta R.T. 0.01 min

Lab File: VF059387.D

Acq: 2 Jul 2018 15:17

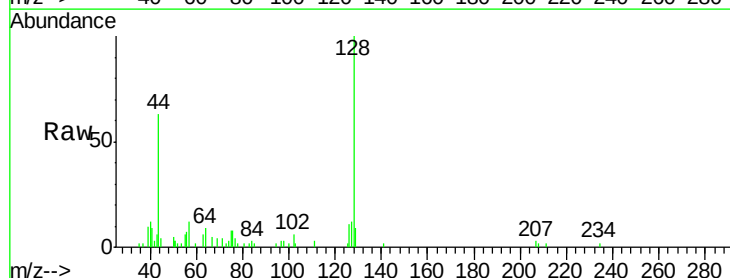
Tgt Ion:128 Resp: 9987

Ion Ratio Lower Upper

128 100

127 12.0 10.1 15.1

129 8.5 8.8 13.2#



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

