

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF071918\  
 Data File : VF059559.D  
 Acq On : 19 Jul 2018 16:02  
 Operator : VA/AP  
 Sample : J4016-04  
 Misc : 6.41g/5mL/MSVOA F/SOIL  
 ALS Vial : 49 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Jul 19 17:21:29 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F071718S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jul 18 04:09:10 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.03  | 168  | 173870   | 50.00 | ug/l  | -0.03    |
| 34) 1,4-Difluorobenzene    | 5.76  | 114  | 256752   | 50.00 | ug/l  | -0.03    |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 261365   | 50.00 | ug/l  | -0.03    |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 169182   | 50.00 | ug/l  | -0.02    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.01  | 65   | 155121   | 57.36 | ug/l    | -0.03    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 114.72% |          |
| 35) Dibromofluoromethane    | 4.28  | 113  | 122659   | 55.16 | ug/l    | -0.03    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 110.32% |          |
| 50) Toluene-d8              | 7.70  | 98   | 241169   | 43.06 | ug/l    | -0.03    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 86.12%  |          |
| 62) 4-Bromofluorobenzene    | 11.51 | 95   | 144736   | 49.26 | ug/l    | -0.02    |
| Spiked Amount 50.000        |       |      | Recovery | =     | 98.52%  |          |

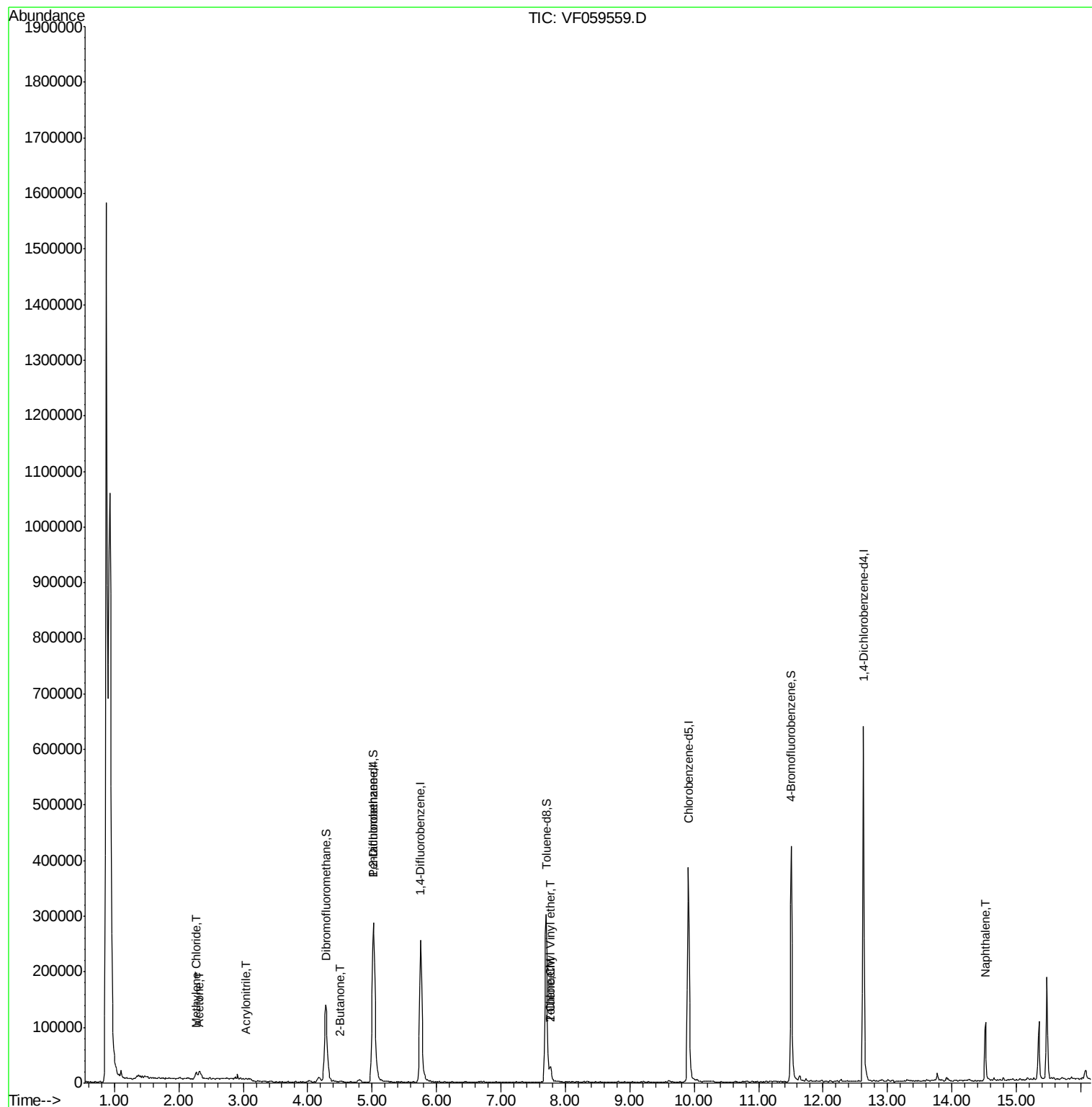
| Target Compounds              | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|-------------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol        | 2.65  | 59   | 503      | Below Cal | #      | 6      |
| 13) Acrolein                  | 2.09  | 56   | 199      | Below Cal |        | 85     |
| 15) Acrylonitrile             | 3.06  | 53   | 468      | 2.06      | ug/l # | 57     |
| 16) Acetone                   | 2.32  | 43   | 17038    | 16.43     | ug/l # | 79     |
| 18) Methyl Acetate            | 2.48  | 43   | 1852     | Below Cal | #      | 83     |
| 20) Methylene Chloride        | 2.27  | 84   | 7111     | 1.37      | ug/l   | 85     |
| 25) 2-Butanone                | 4.49  | 43   | 1845     | 2.94      | ug/l # | 60     |
| 29) Tetrahydrofuran           | 4.25  | 42   | 657      | Below Cal | #      | 47     |
| 37) Ethyl Acetate             | 4.28  | 43   | 854      | Below Cal | #      | 72     |
| 49) 1,4-Dioxane               | 7.08  | 88   | 65       | Below Cal | #      | 15     |
| 52) Toluene                   | 7.78  | 92   | 10811    | 2.99      | ug/l # | 63     |
| 58) 2-Chloroethyl Vinyl ether | 7.77  | 63   | 2416     | 15.75     | ug/l   | 100    |
| 95) Naphthalene               | 14.52 | 128  | 78950    | 12.74     | ug/l   | 98     |

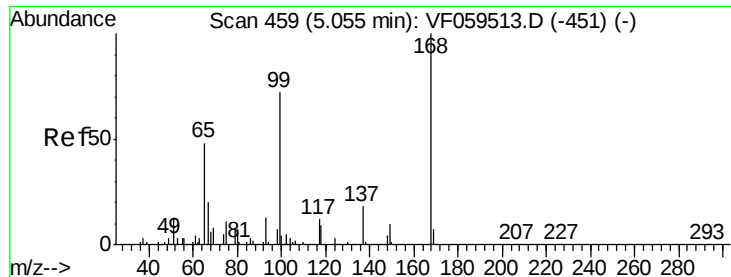
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F071718S.M  
Quant Title : SW846 8260  
QLast Update : Wed Jul 18 04:09:10 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.03 min Scan# 456

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

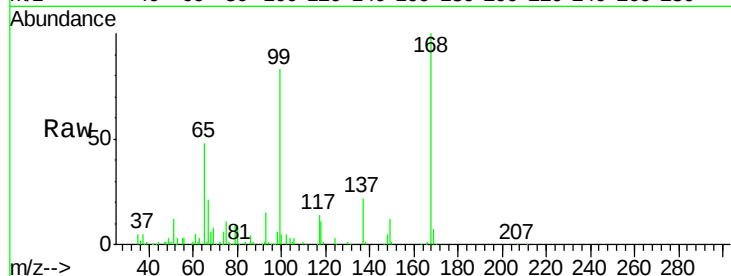
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion:168 Resp: 173870

Ion Ratio Lower Upper

168 100

99 82.8 57.6 86.4



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.03

60000

50000

40000

30000

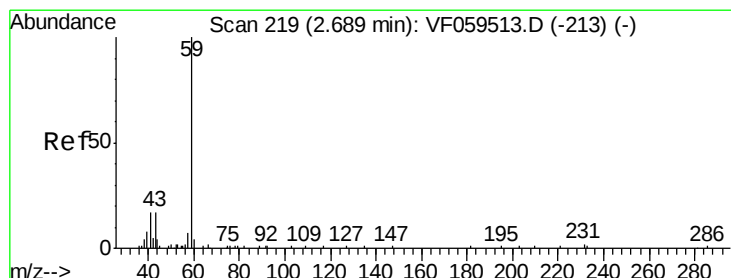
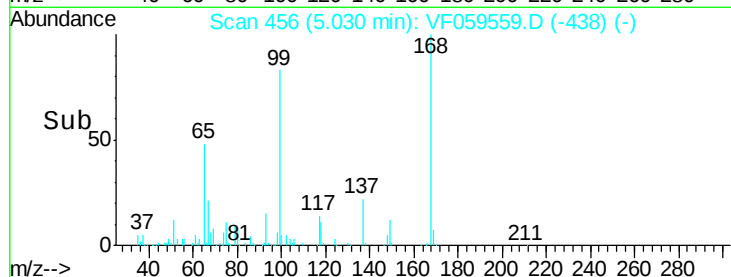
20000

10000

0

Time-->

4.90 5.00 5.10 5.20 5.30



#11

Tert butyl alcohol

Concen: Below Cal

RT: 2.65 min Scan# 215

Delta R.T. -0.03 min

Lab File: VF059559.D

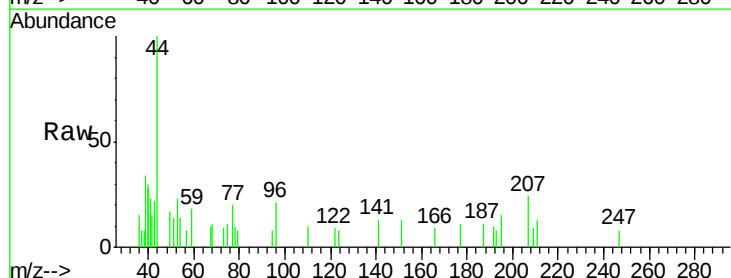
Acq: 19 Jul 2018 16:02

Tgt Ion: 59 Resp: 503

Ion Ratio Lower Upper

59 100

57 44.3 7.7 11.5#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

2.65

300

250

200

150

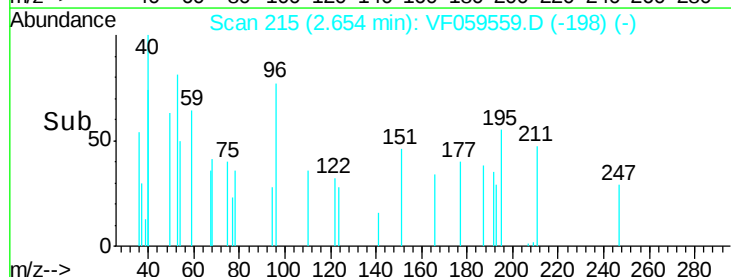
100

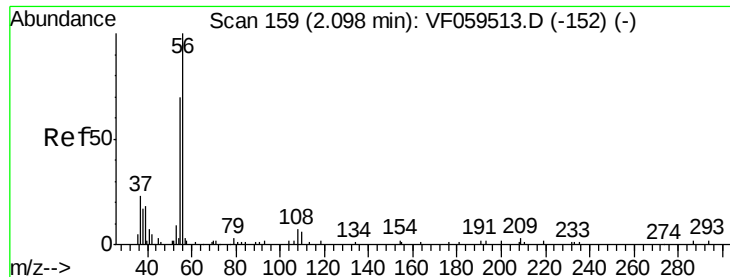
50

0

Time-->

2.60 2.65 2.70





#13

Acrolein

Concen: Below Cal

RT: 2.09 min Scan# 158

Delta R.T. -0.00 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

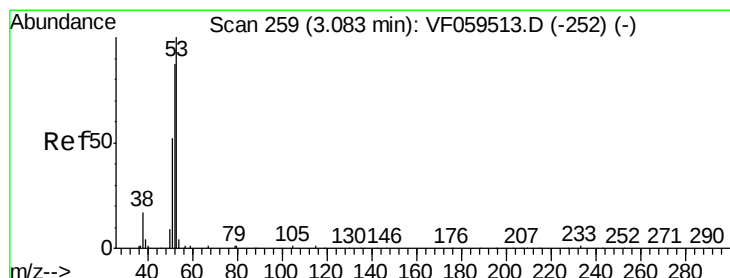
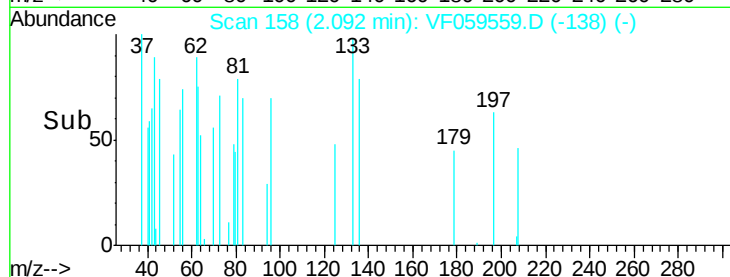
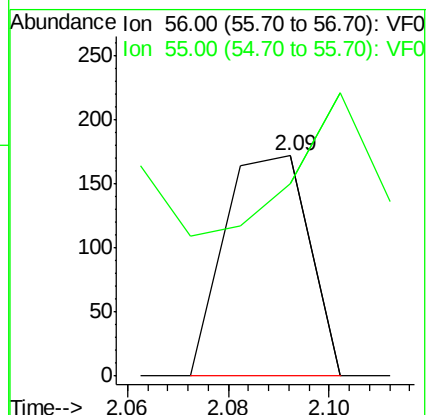
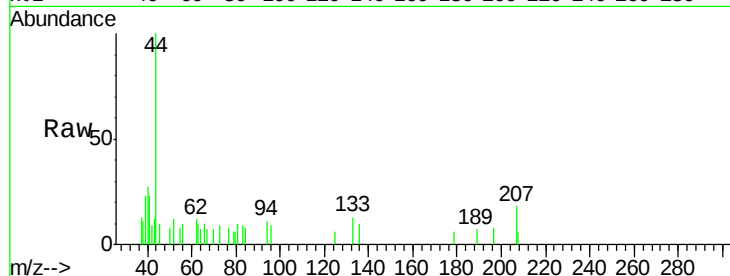
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 56 Resp: 199

Ion Ratio Lower Upper

56 100

55 87.2 59.4 89.2



#15

Acrylonitrile

Concen: 2.06 ug/l

RT: 3.06 min Scan# 256

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

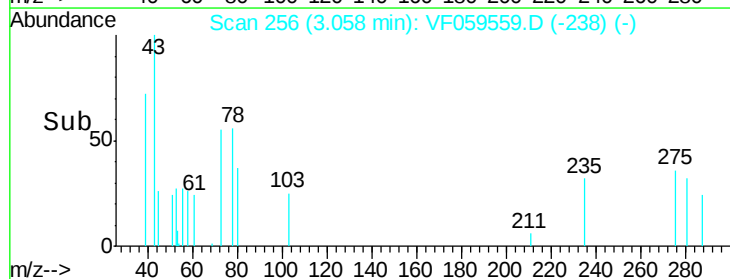
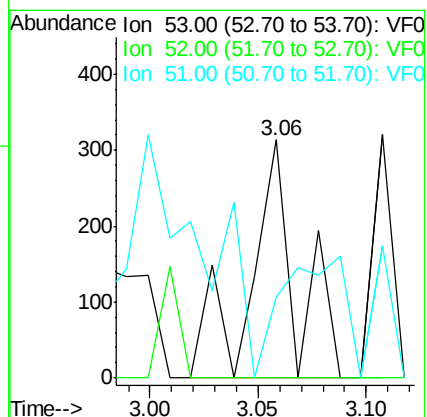
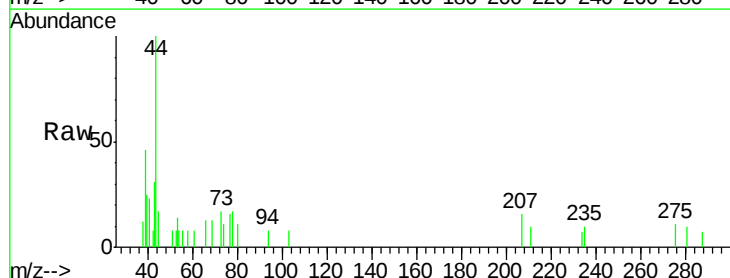
Tgt Ion: 53 Resp: 468

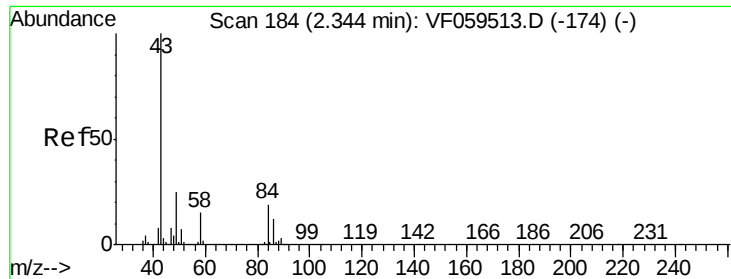
Ion Ratio Lower Upper

53 100

52 37.9 70.1 105.1#

51 34.1 42.5 63.7#





#16

Acetone

Concen: 16.43 ug/l

RT: 2.32 min Scan# 181

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

Instrument :

MSVOA\_F

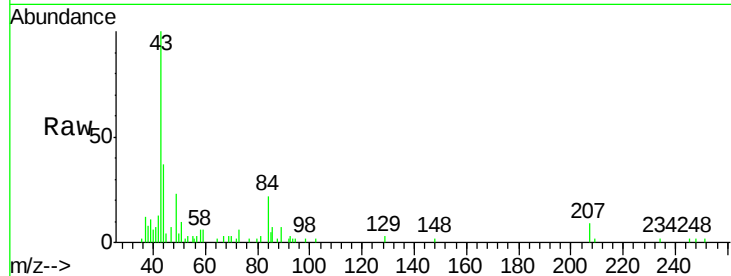
ClientSampleId :

Tot Ion: 43 Resp: 17038

Ion Ratio Lower Upper

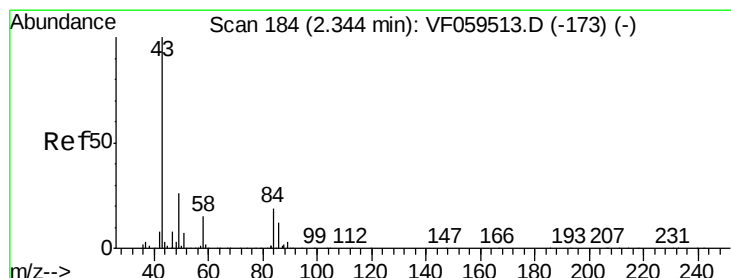
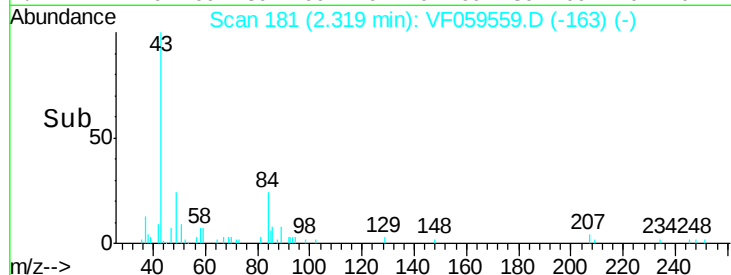
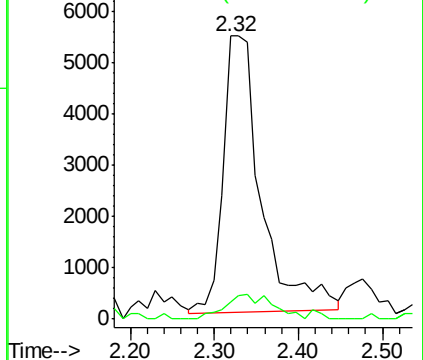
43 100

58 6.1 11.8 17.6#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#20

Methylene Chloride

Concen: 1.37 ug/l

RT: 2.27 min Scan# 176

Delta R.T. -0.07 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

Tgt Ion: 84 Resp: 7111

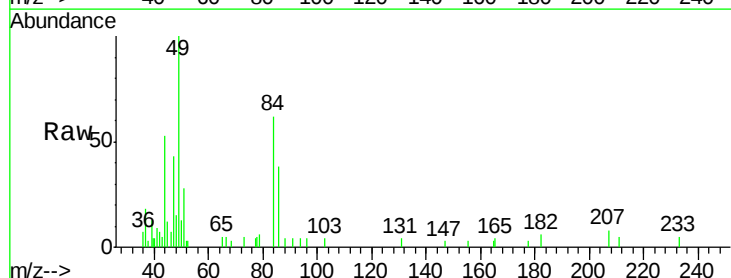
Ion Ratio Lower Upper

84 100

49 161.3 109.4 164.2

51 45.1 30.5 45.7

86 61.8 47.6 71.4

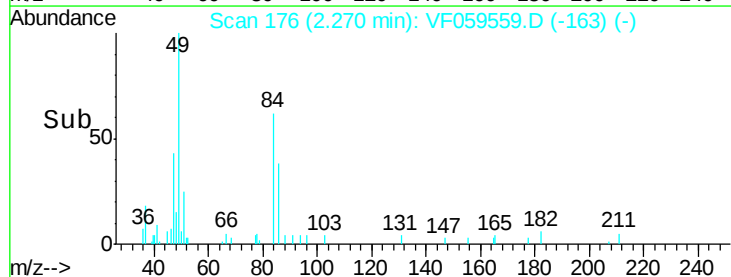
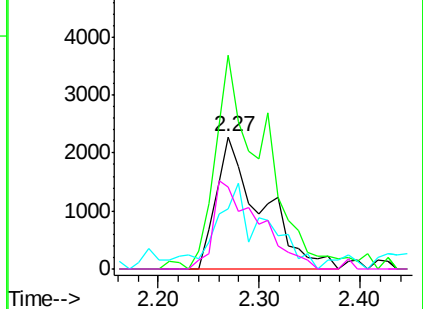


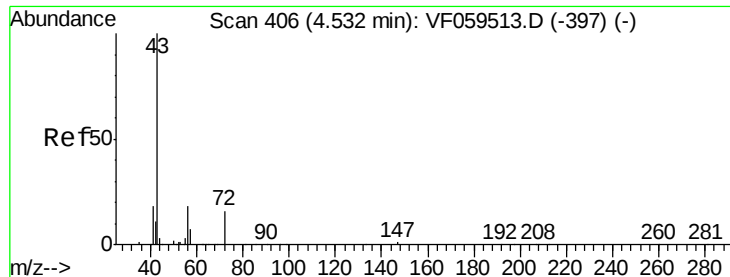
Abundance Ion 84.00 (83.70 to 84.70): VF0

Ion 49.00 (48.70 to 49.70): VF0

Ion 51.00 (50.70 to 51.70): VF0

Ion 86.00 (85.70 to 86.70): VF0





#25

2-Butanone

Concen: 2.94 ug/l

RT: 4.49 min Scan# 401

Delta R.T. -0.04 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

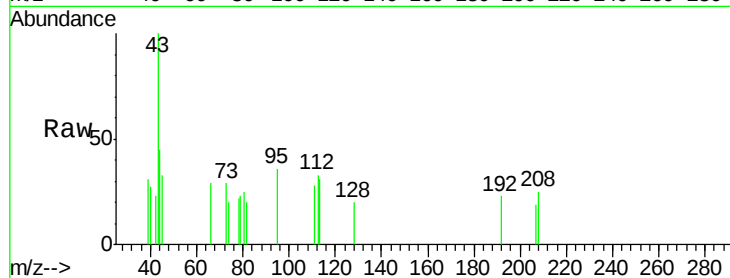
Instrument :  
MSVOA\_F  
ClientSampled :

Tot Ion: 43 Resp: 1845

Ion Ratio Lower Upper

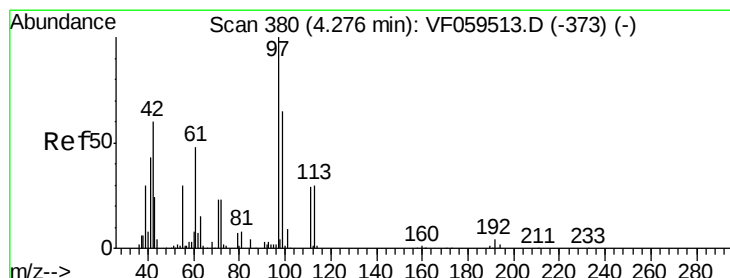
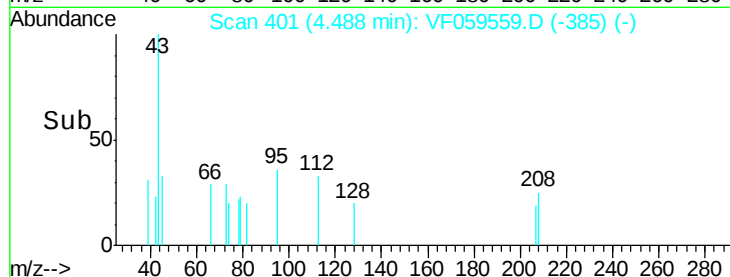
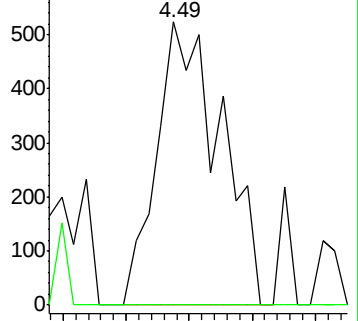
43 100

72 0.0 14.2 21.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0



#29

Tetrahydrofuran

Concen: Below Cal

RT: 4.25 min Scan# 377

Delta R.T. -0.02 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

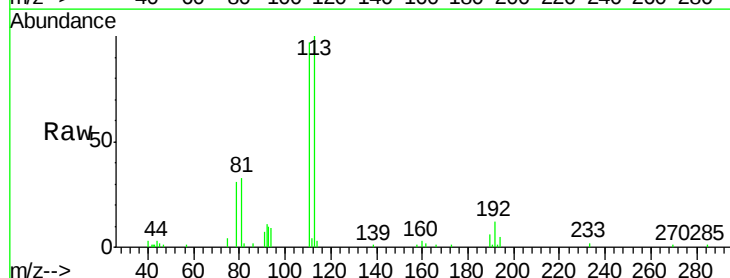
Tgt Ion: 42 Resp: 657

Ion Ratio Lower Upper

42 100

72 0.0 28.7 43.1#

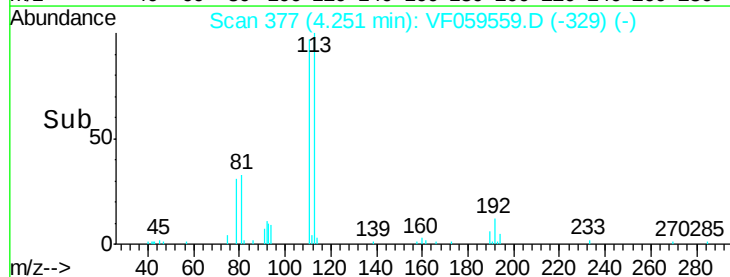
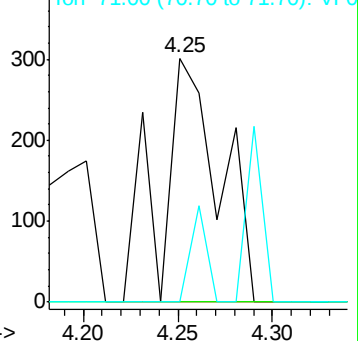
71 10.7 30.8 46.2#

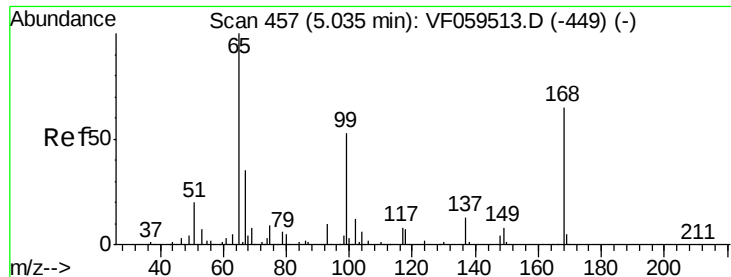


Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0





#33

1,2-Dichloroethane-d4

Concen: 57.36 ug/l

RT: 5.01 min Scan# 454

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

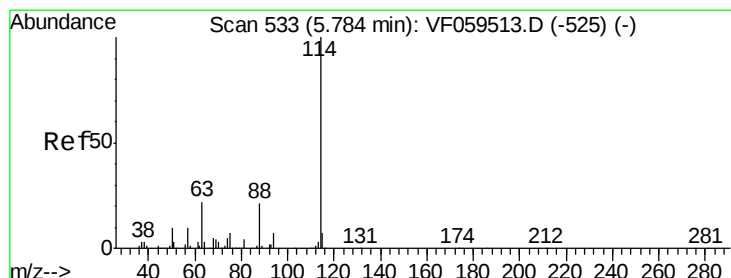
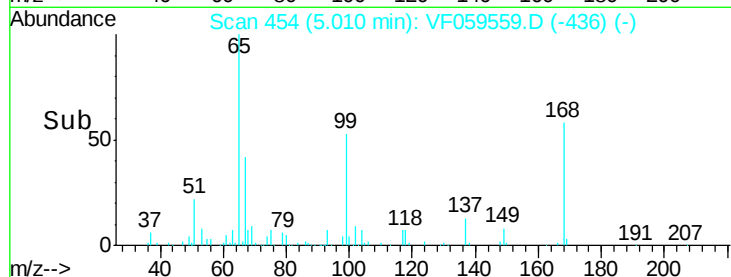
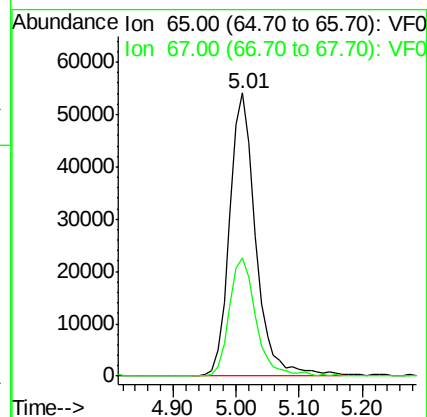
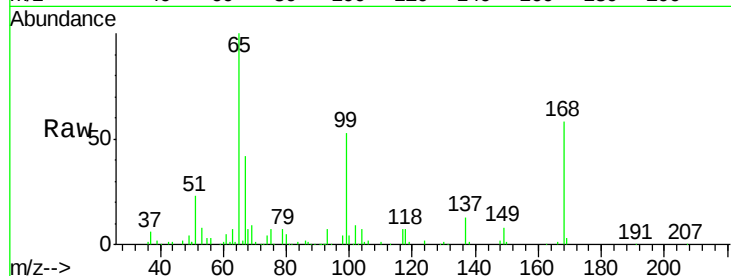
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 65 Resp: 155121

Ion Ratio Lower Upper

65 100

67 41.6 0.0 91.2



#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 5.76 min Scan# 530

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

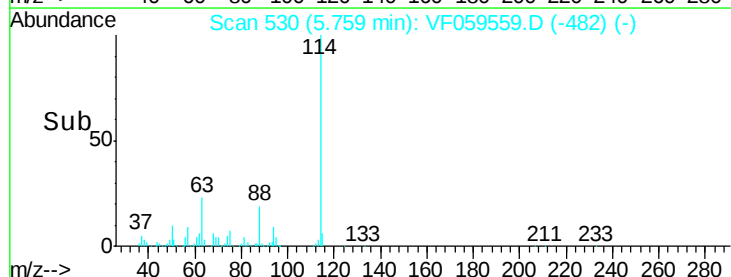
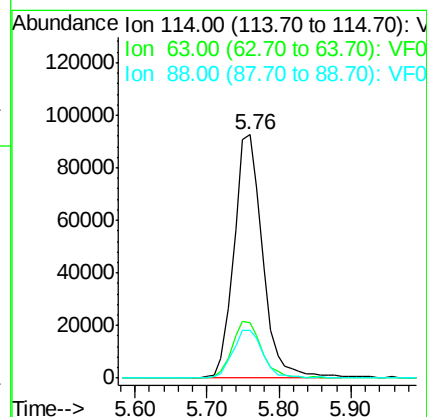
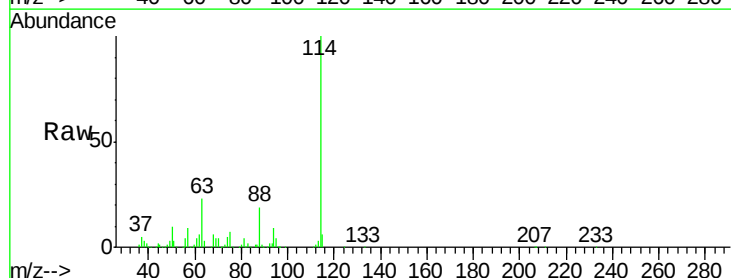
Tgt Ion: 114 Resp: 256752

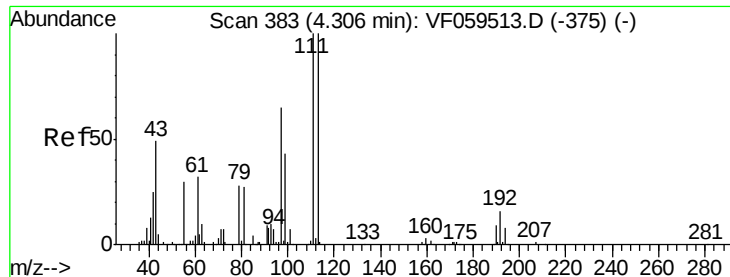
Ion Ratio Lower Upper

114 100

63 22.9 0.0 44.8

88 19.4 0.0 42.6





#35

Dibromofluoromethane

Concen: 55.16 ug/l

RT: 4.28 min Scan# 380

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

Instrument :  
MSVOA\_F  
ClientSampleId :

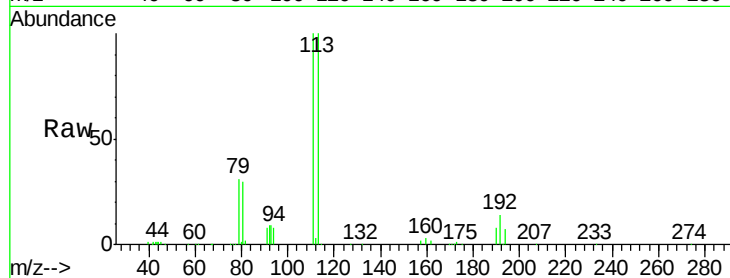
Tot Ion:113 Resp: 122659

Ion Ratio Lower Upper

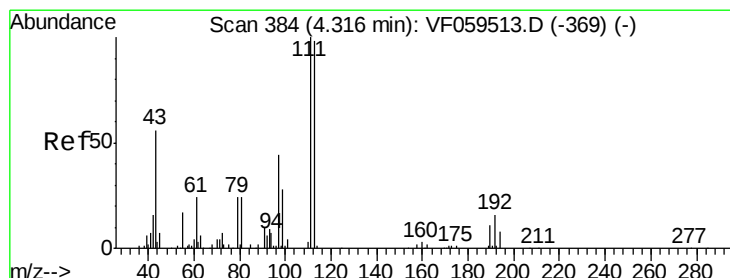
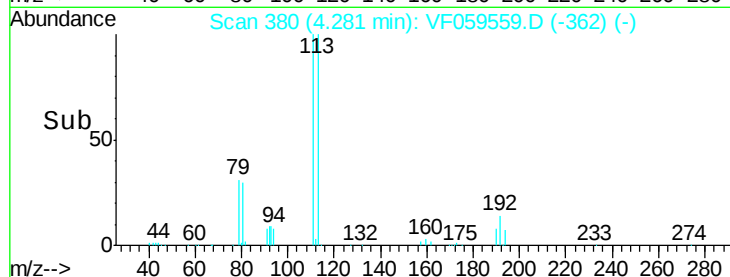
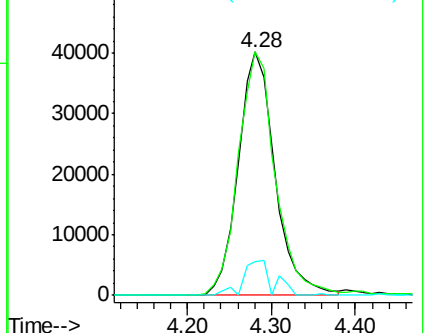
113 100

111 100.1 80.3 120.5

192 14.0 13.1 19.7



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



#37

Ethyl Acetate

Concen: Below Cal

RT: 4.28 min Scan# 380

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

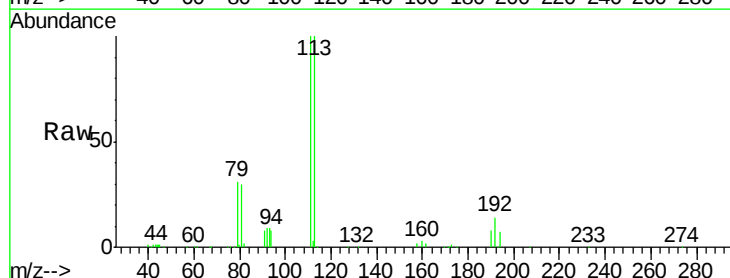
Tgt Ion: 43 Resp: 854

Ion Ratio Lower Upper

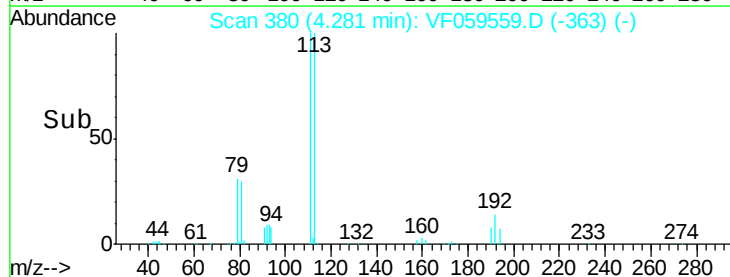
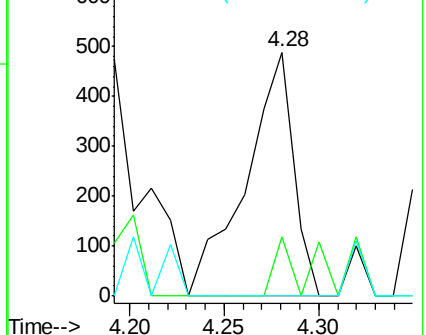
43 100

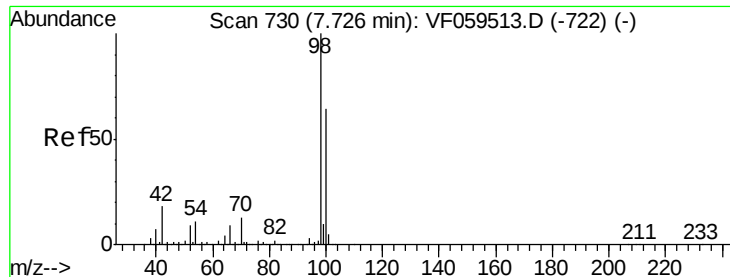
61 24.2 33.7 50.5#

70 0.0 7.4 11.0#



Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 70.00 (69.70 to 70.70): VF0





#50

Toluene-d8

Concen: 43.06 ug/l

RT: 7.70 min Scan# 727

Delta R.T. -0.03 min

Lab File: VF059559.D

Acq: 19 Jul 2018 16:02

Instrument :

MSVOA\_F

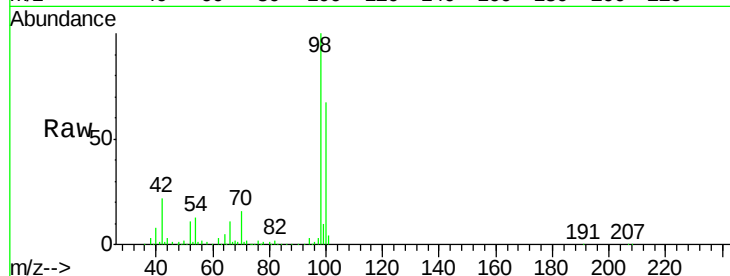
ClientSampleId :

Tot Ion: 98 Resp: 241169

Ion Ratio Lower Upper

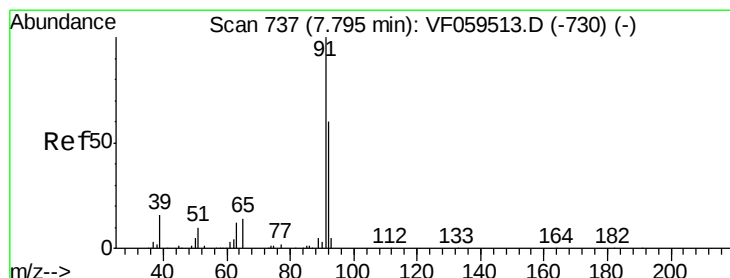
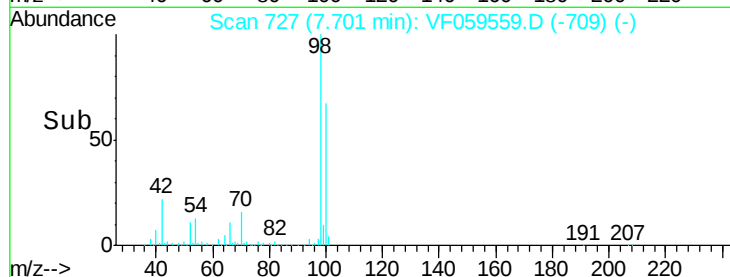
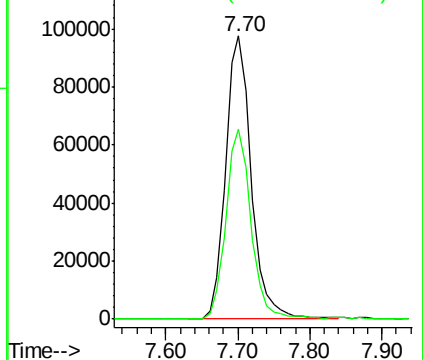
98 100

100 67.2 50.9 76.3



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0



#52

Toluene

Concen: 2.99 ug/l

RT: 7.78 min Scan# 735

Delta R.T. -0.02 min

Lab File: VF059559.D

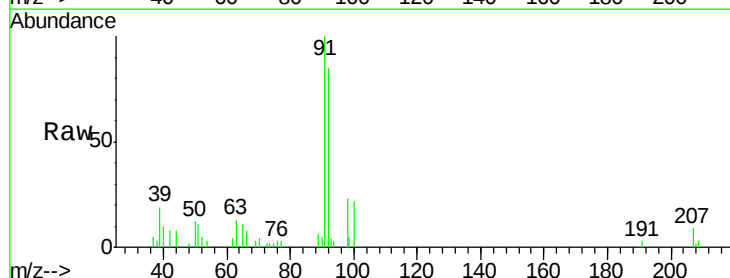
Acq: 19 Jul 2018 16:02

Tgt Ion: 92 Resp: 10811

Ion Ratio Lower Upper

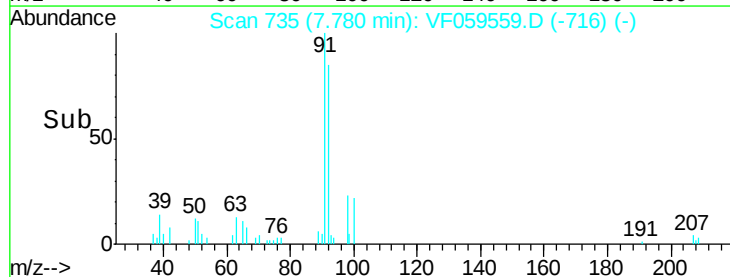
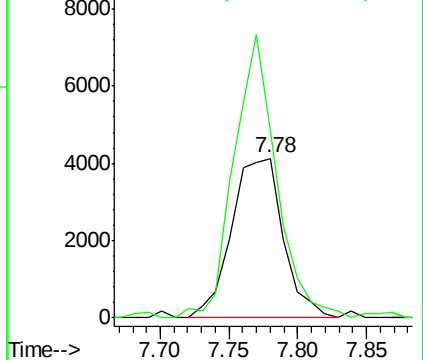
92 100

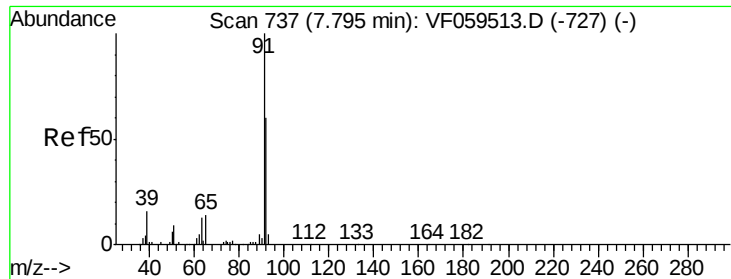
91 117.6 134.2 201.4#



Abundance Ion 92.00 (91.70 to 92.70): VF0

Ion 91.00 (90.70 to 91.70): VF0

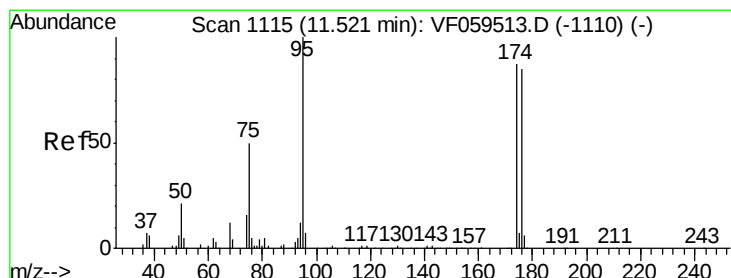
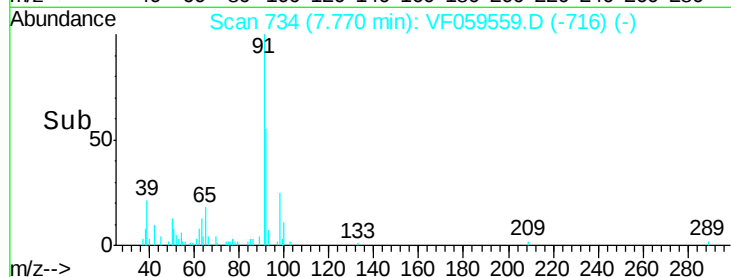
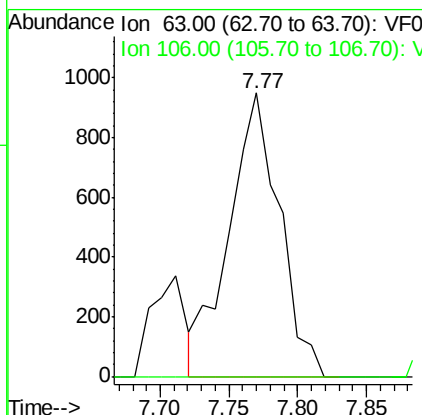
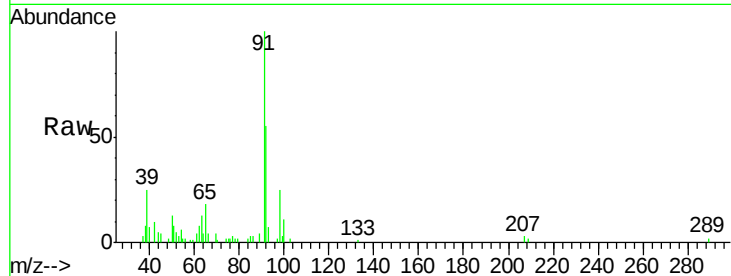




#58  
 2-Chloroethyl Vinyl ether  
 Concen: 15.75 ug/l  
 RT: 7.77 min Scan# 734  
 Delta R.T. -0.03 min  
 Lab File: VF059559.D  
 Acq: 19 Jul 2018 16:02

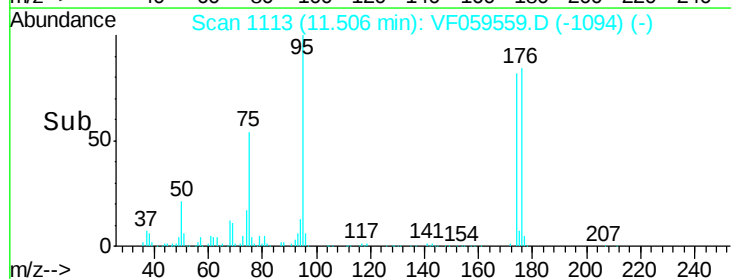
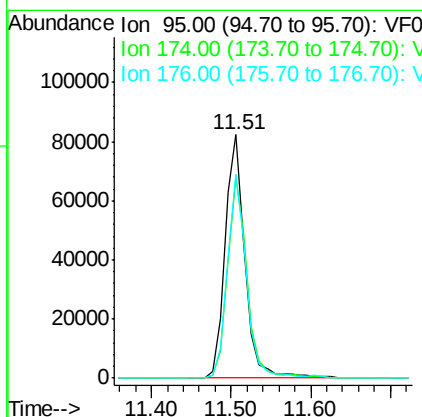
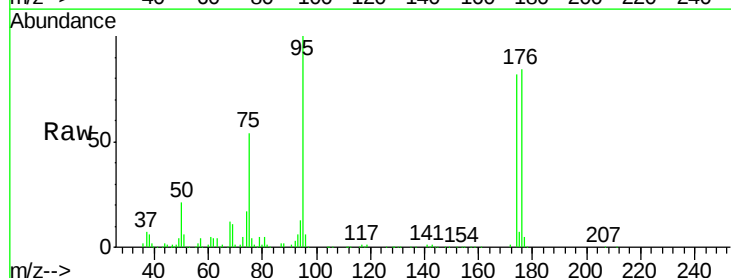
Instrument :  
 MSVOA\_F  
 ClientSampled :

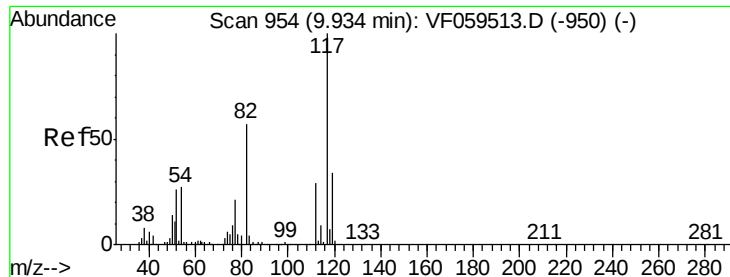
Tot Ion: 63 Resp: 2416  
 Ion Ratio Lower Upper  
 63 100  
 106 0.0 0.0 0.0



#62  
 4-Bromofluorobenzene  
 Concen: 49.26 ug/l  
 RT: 11.51 min Scan# 1113  
 Delta R.T. -0.02 min  
 Lab File: VF059559.D  
 Acq: 19 Jul 2018 16:02

Tgt Ion: 95 Resp: 144736  
 Ion Ratio Lower Upper  
 95 100  
 174 82.4 0.0 174.4  
 176 83.8 0.0 169.4





#63

Chlorobenzene-d5

Concen: 50.00 ug/l

RT: 9.91 min Scan# 951

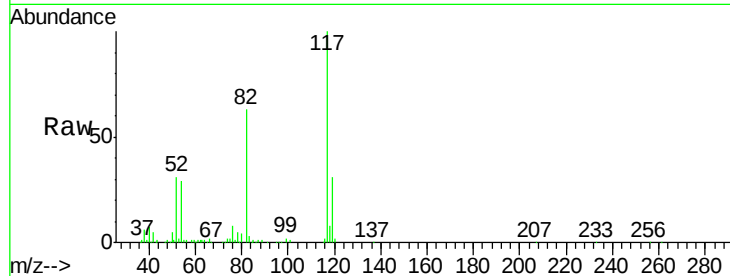
Delta R.T. -0.03 min

Lab File: VF059559.D

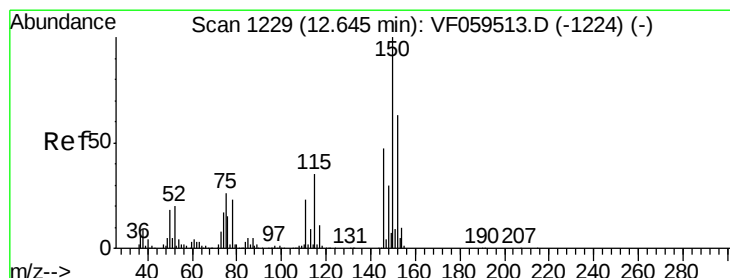
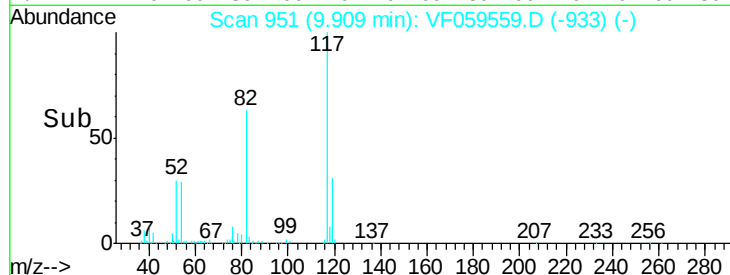
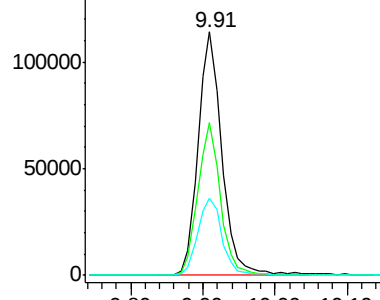
Acq: 19 Jul 2018 16:02

Instrument :  
MSVOA\_F  
ClientSampleId :

|             |       |        |
|-------------|-------|--------|
| Tot Ion:117 | Resp: | 261365 |
| Ion Ratio   | Lower | Upper  |
| 117 100     |       |        |
| 82 62.5     | 46.1  | 69.1   |
| 119 31.5    | 27.2  | 40.8   |



Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 82.00 (81.70 to 82.70): V  
Ion 119.00 (118.70 to 119.70): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

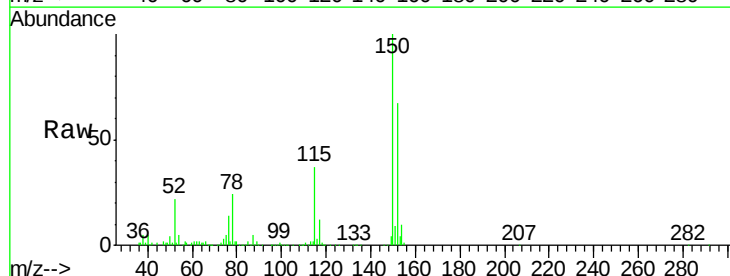
RT: 12.63 min Scan# 1227

Delta R.T. -0.02 min

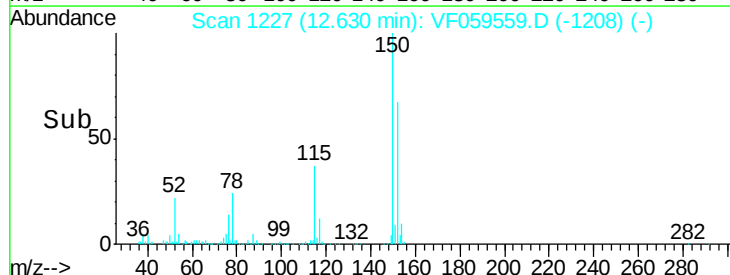
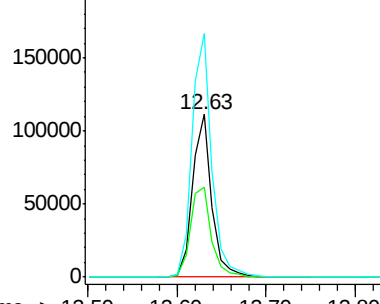
Lab File: VF059559.D

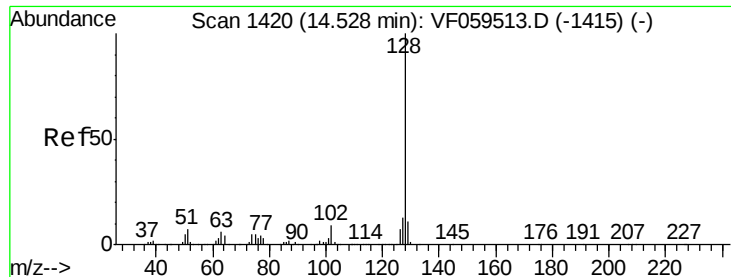
Acq: 19 Jul 2018 16:02

|             |       |        |
|-------------|-------|--------|
| Tgt Ion:152 | Resp: | 169182 |
| Ion Ratio   | Lower | Upper  |
| 152 100     |       |        |
| 115 55.2    | 27.8  | 83.3   |
| 150 150.0   | 0.0   | 318.4  |



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

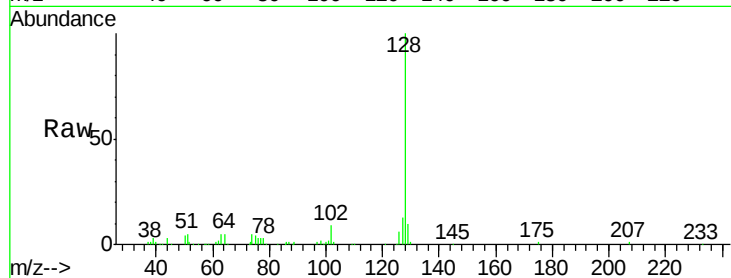




#95  
 Naphthalene  
 Concen: 12.74 ug/l  
 RT: 14.52 min Scan# 1419  
 Delta R.T. -0.01 min  
 Lab File: VF059559.D  
 Acq: 19 Jul 2018 16:02

Instrument :  
 MSVOA\_F  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 13.1  | 10.2  | 15.2  |
| 129     | 10.0  | 9.0   | 13.4  |



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

