

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF062718\  
 Data File : VF059341.D  
 Acq On : 27 Jun 2018 16:14  
 Operator : VA/AP  
 Sample : J3677-01  
 Misc : 5.06g/5mL/MSVOA-F/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :

Quant Time: Jun 28 01:43:30 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      | 5.02  | 168  | 222030   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.75  | 114  | 340353   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 348836   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.63 | 152  | 212602   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.00  | 65   | 113108   | 39.43 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 78.86% |          |
| 35) Dibromofluoromethane    | 4.27  | 113  | 107697   | 43.31 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 86.62% |          |
| 50) Toluene-d8              | 7.70  | 98   | 241864   | 39.28 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 78.56% |          |
| 62) 4-Bromofluorobenzene    | 11.50 | 95   | 141371   | 40.70 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 81.40% |          |

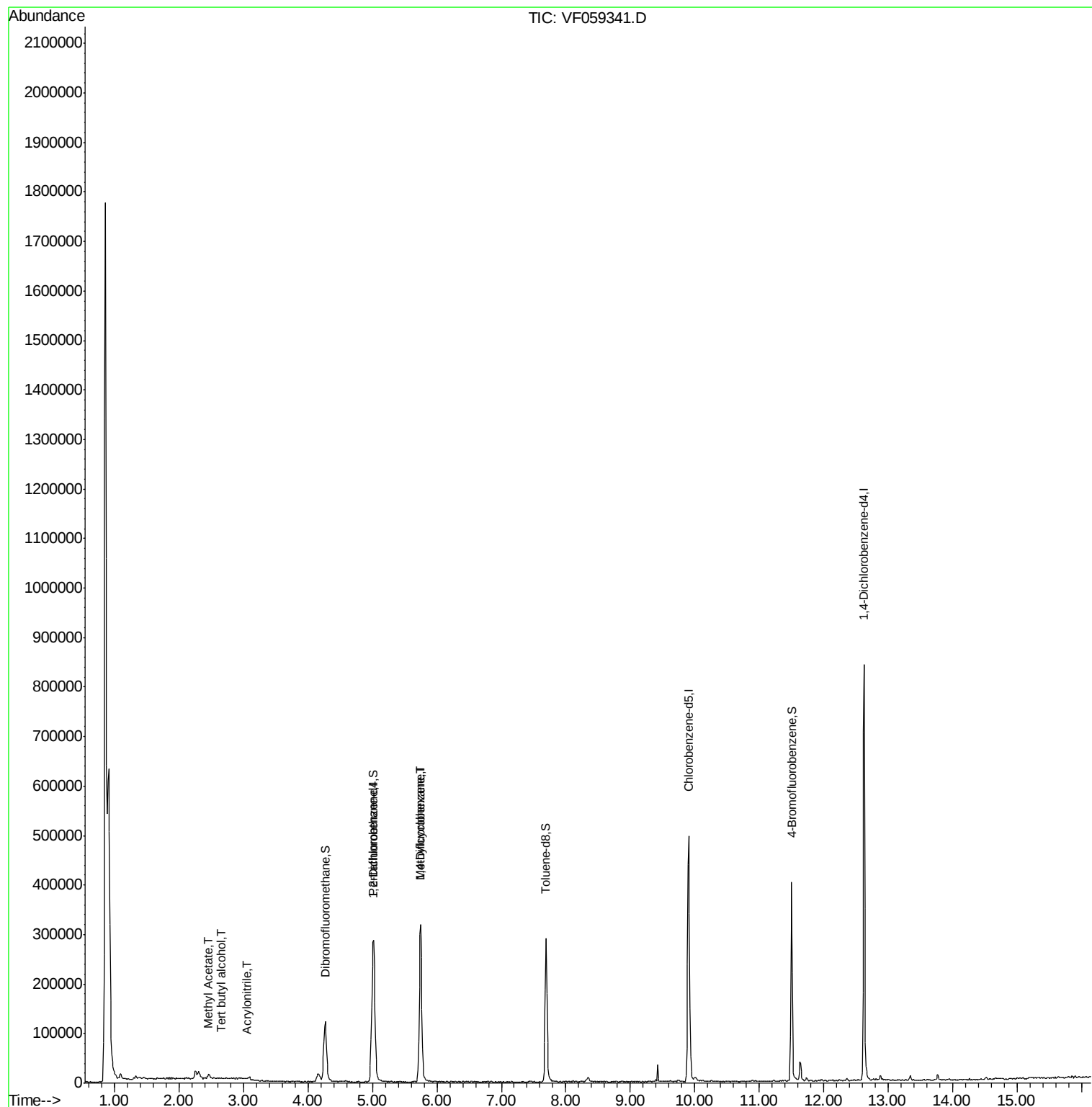
| Target Compounds        | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|-------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane         | 1.30  | 94   | 473      | Below Cal | #      | 4      |
| 11) Tert butyl alcohol  | 2.64  | 59   | 557      | 2.917     | ug/l # | 45     |
| 13) Acrolein            | 2.05  | 56   | 240      | Below Cal |        | 88     |
| 15) Acrylonitrile       | 3.05  | 53   | 812      | 2.415     | ug/l # | 9      |
| 16) Acetone             | 2.31  | 43   | 4261     | Below Cal | #      | 87     |
| 18) Methyl Acetate      | 2.46  | 43   | 4316     | 2.221     | ug/l # | 61     |
| 20) Methylene Chloride  | 2.26  | 84   | 6265     | Below Cal | #      | 80     |
| 25) 2-Butanone          | 4.51  | 43   | 487      | Below Cal | #      | 28     |
| 28) Bromochloromethane  | 3.85  | 49   | 66       | Below Cal | #      | 6      |
| 29) Tetrahydrofuran     | 4.24  | 42   | 513      | Below Cal | #      | 55     |
| 37) Ethyl Acetate       | 4.28  | 43   | 336      | Below Cal | #      | 26     |
| 39) Methylcyclohexane   | 5.75  | 83   | 4809     | 1.825     | ug/l # | 47     |
| 49) 1,4-Dioxane         | 6.83  | 88   | 65       | Below Cal | #      | 41     |
| 59) 2-Hexanone          | 9.61  | 43   | 781      | Below Cal | #      | 30     |
| 87) 1,3-Dichlorobenzene | 12.55 | 146  | 416      | Below Cal | #      | 44     |

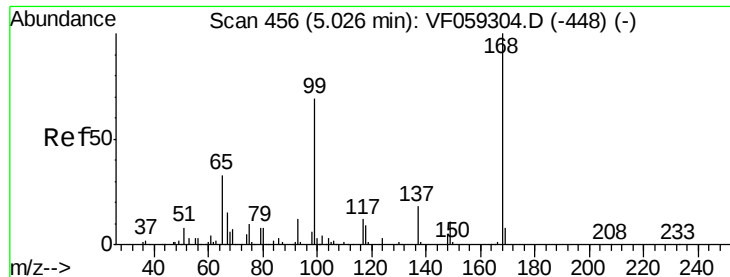
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF062718\  
Data File : VF059341.D  
Acq On : 27 Jun 2018 16:14  
Operator : VA/AP  
Sample : J3677-01  
Misc : 5.06g/5mL/MSVOA-F/SOIL  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :

Quant Time: Jun 28 01:43:30 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: 50.000 ug/l

RT: 5.02 min Scan# 455

Delta R.T. -0.01 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

Instrument :

MSVOA\_F

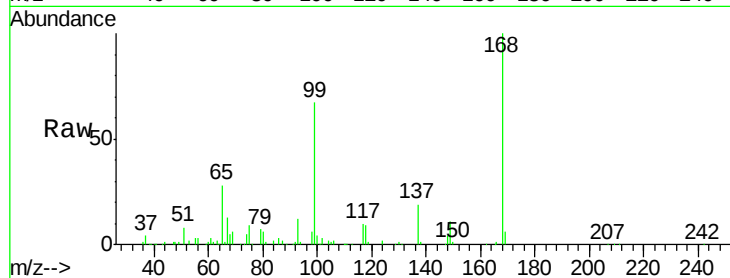
ClientSampleId :

Tot Ion:168 Resp: 222030

Ion Ratio Lower Upper

168 100

99 66.6 54.9 82.3



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

5.02

80000

60000

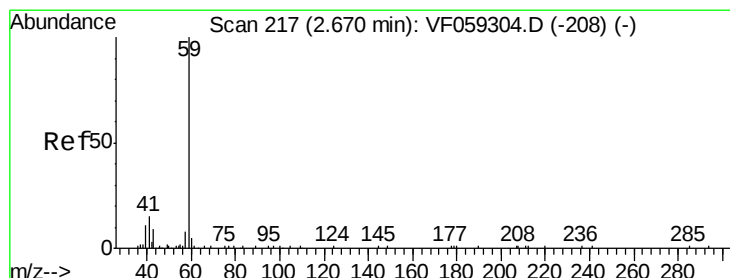
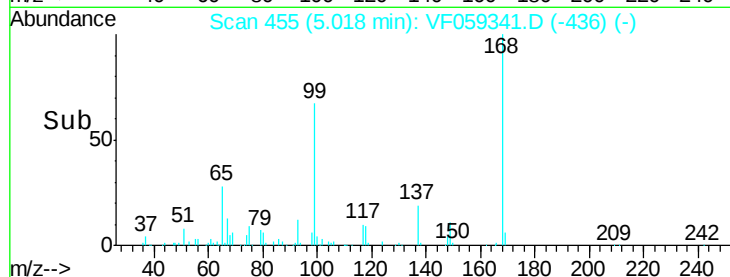
40000

20000

0

Time-->

4.90 5.00 5.10 5.20



#11

Tert butyl alcohol

Concen: 2.917 ug/l

RT: 2.64 min Scan# 214

Delta R.T. -0.03 min

Lab File: VF059341.D

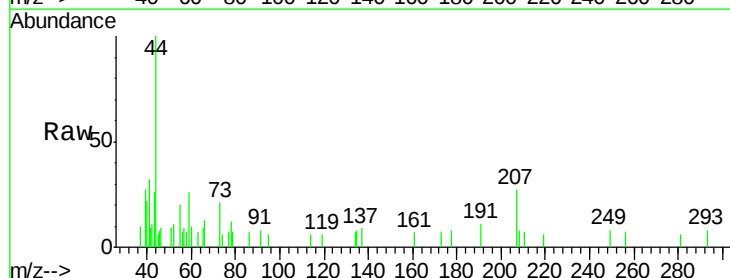
Acq: 27 Jun 2018 16:14

Tgt Ion: 59 Resp: 557

Ion Ratio Lower Upper

59 100

57 35.8 11.0 16.4#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

2.64

500

400

300

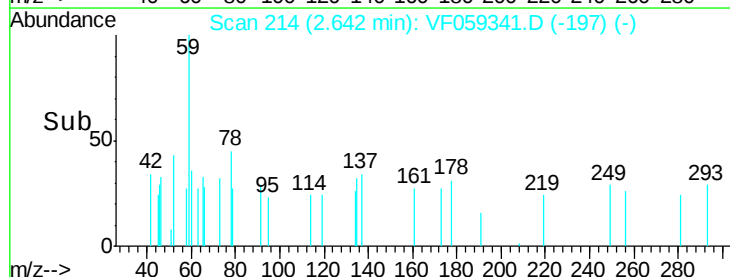
200

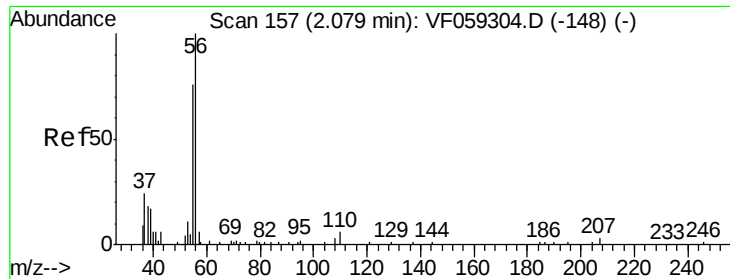
100

0

Time-->

2.60 2.65 2.70





#13

Acrolein

Concen: Below Cal

RT: 2.05 min Scan# 154

Delta R.T. -0.03 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

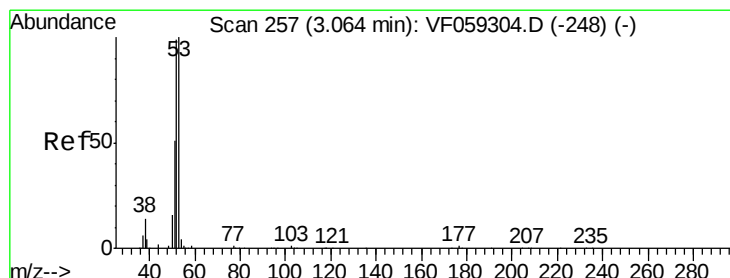
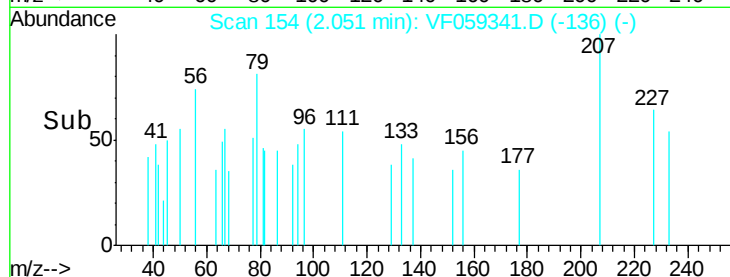
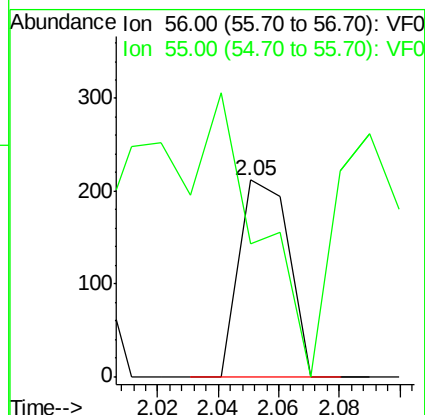
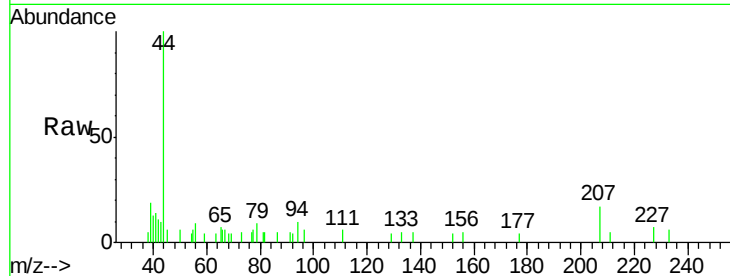
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 56 Resp: 240

Ion Ratio Lower Upper

56 100

55 67.5 62.4 93.6



#15

Acrylonitrile

Concen: 2.415 ug/l

RT: 3.05 min Scan# 255

Delta R.T. -0.02 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

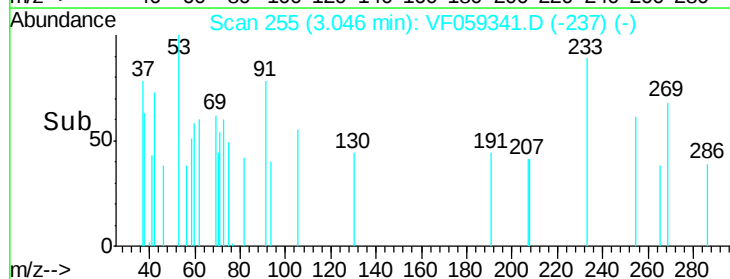
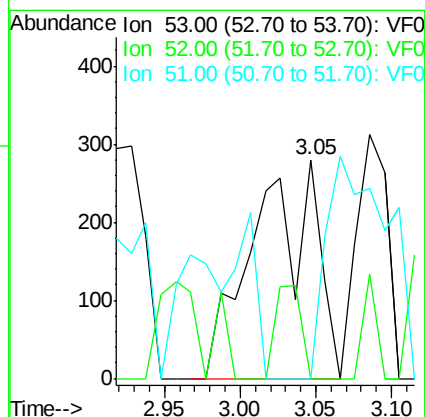
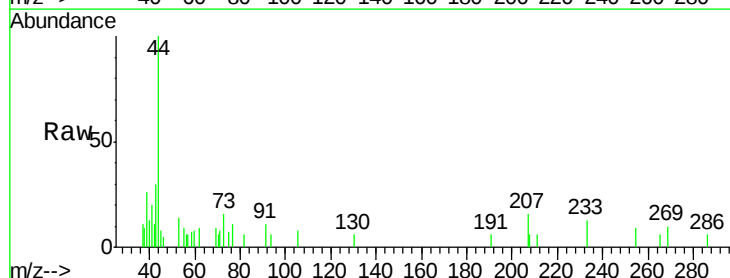
Tgt Ion: 53 Resp: 812

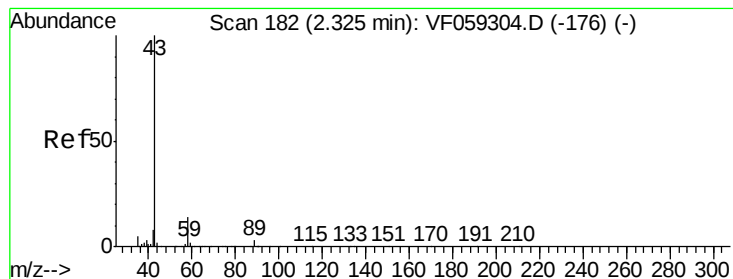
Ion Ratio Lower Upper

53 100

52 0.0 79.2 118.8#

51 0.0 40.9 61.3#





#16

Acetone

Concen: Below Cal

RT: 2.31 min Scan# 180

Delta R.T. -0.02 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

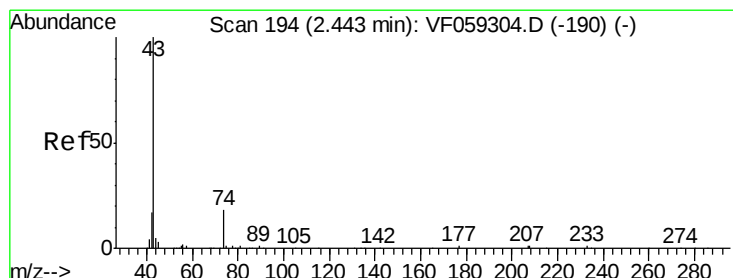
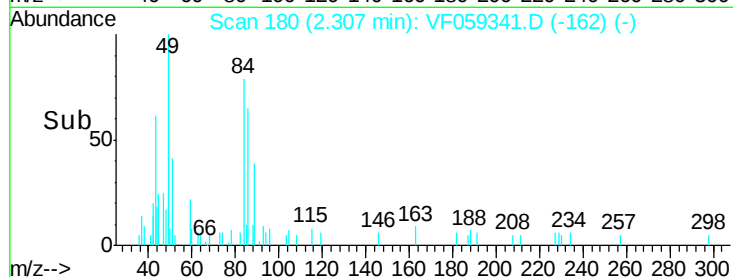
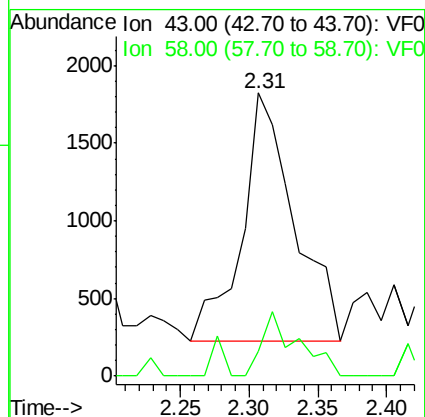
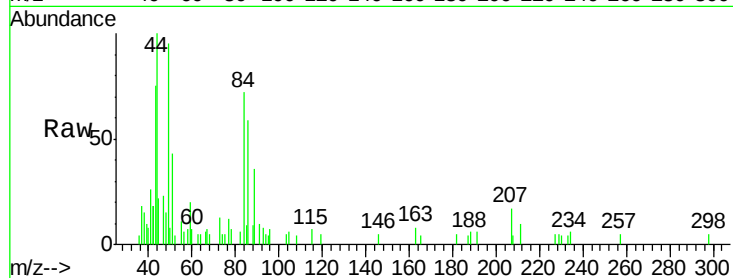
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 43 Resp: 4261

Ion Ratio Lower Upper

43 100

58 8.8 11.4 17.0#



#18

Methyl Acetate

Concen: 2.221 ug/l

RT: 2.46 min Scan# 196

Delta R.T. 0.02 min

Lab File: VF059341.D

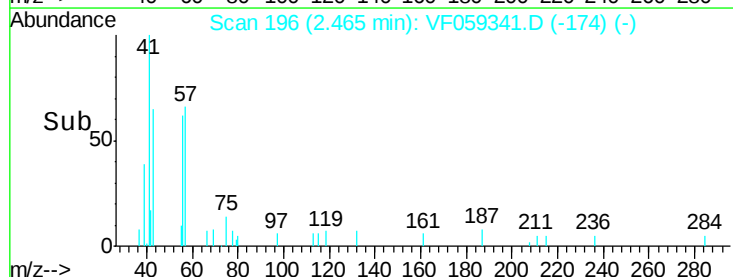
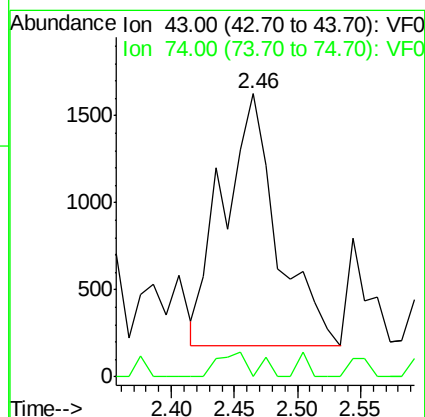
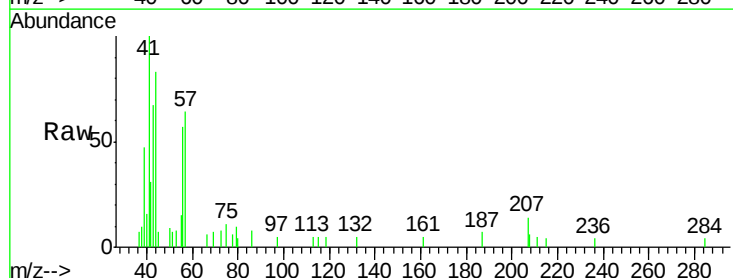
Acq: 27 Jun 2018 16:14

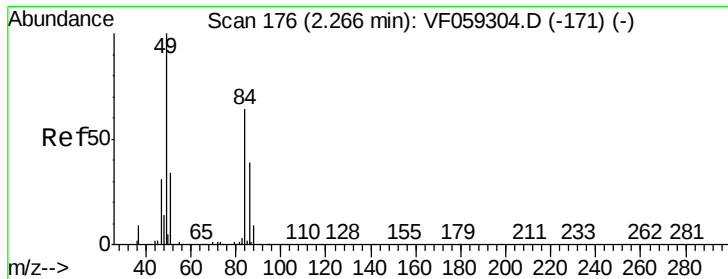
Tgt Ion: 43 Resp: 4316

Ion Ratio Lower Upper

43 100

74 0.0 13.3 19.9#

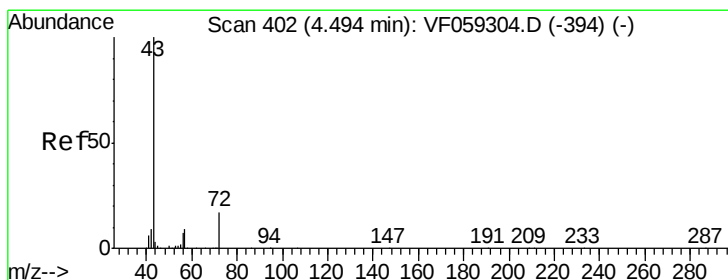
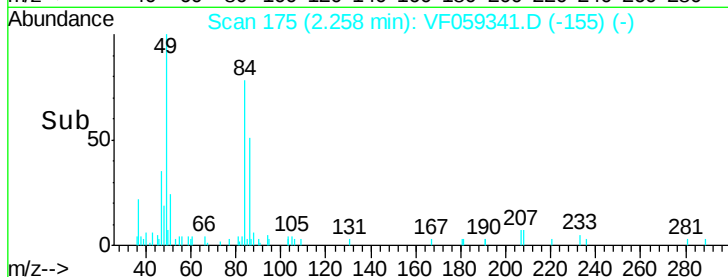
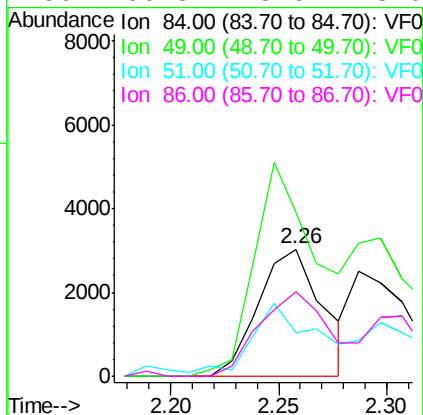
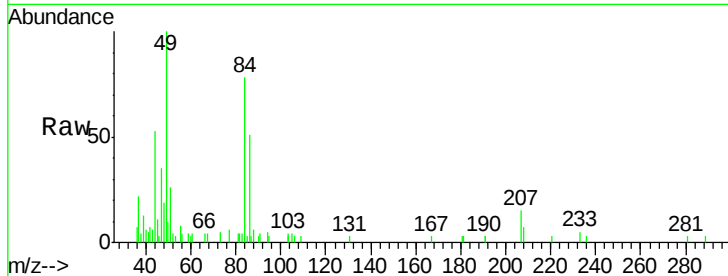




#20  
Methvlene Chloride  
Concen: Below Cal  
RT: 2.26 min Scan# 175  
Delta R.T. -0.01 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

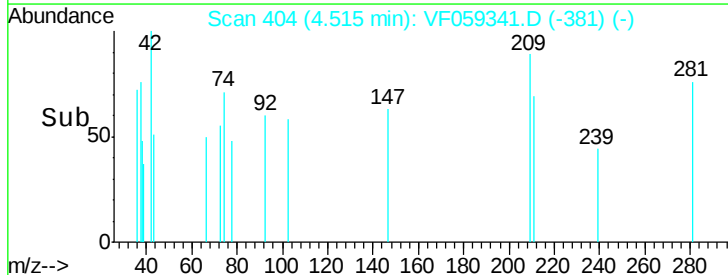
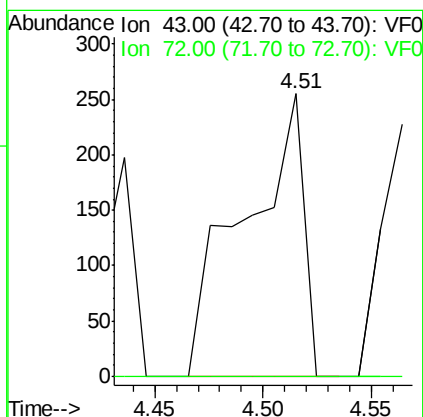
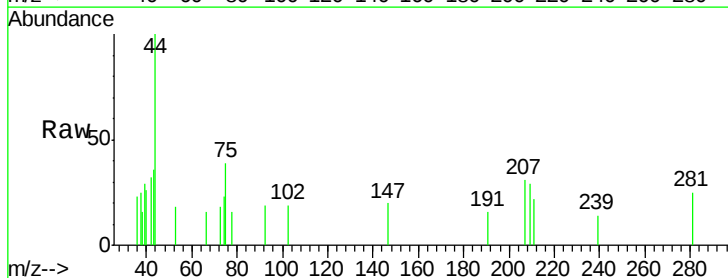
Instrument :  
MSVOA\_F  
ClientSampled :

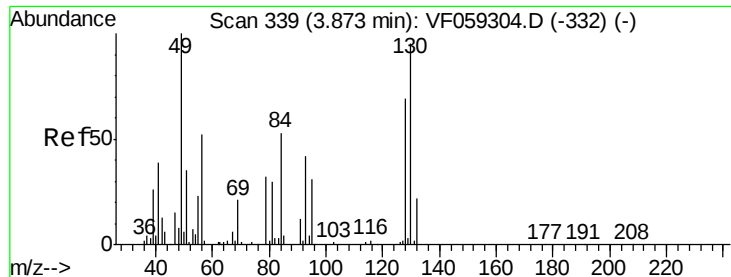
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 129.0 | 126.5 | 189.7 |
| 51      | 34.1  | 42.9  | 64.3# |
| 86      | 66.3  | 48.6  | 73.0  |



#25  
2-Butanone  
Concen: Below Cal  
RT: 4.51 min Scan# 404  
Delta R.T. 0.02 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 72      | 49.8  | 14.4  | 21.6# |





#28

Bromochloromethane

Concen: Below Cal

RT: 3.85 min Scan# 337

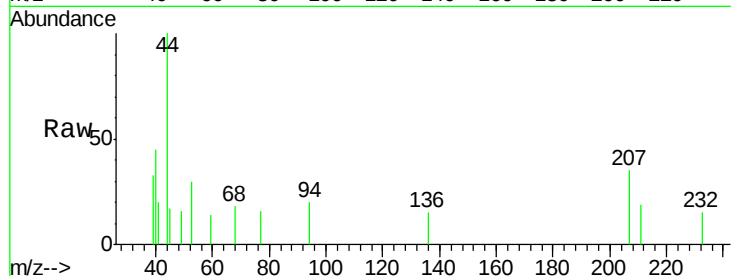
Delta R.T. -0.02 min

Lab File: VF059341.D

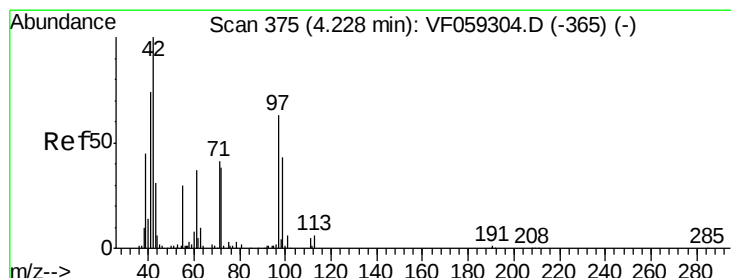
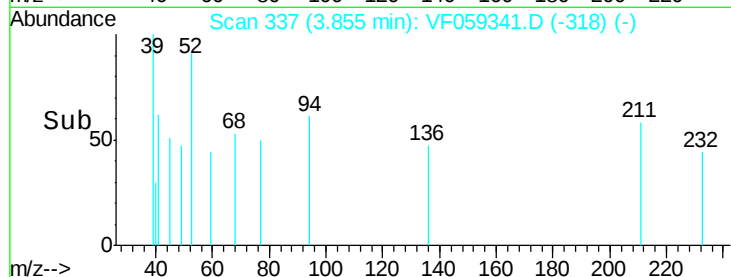
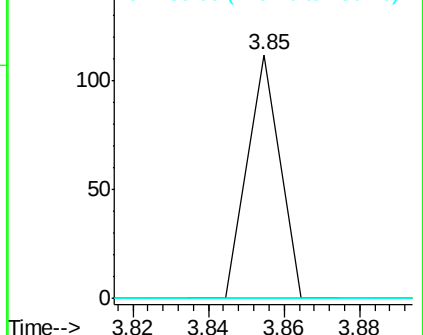
Acq: 27 Jun 2018 16:14

Instrument :  
MSVOA\_F  
ClientSampled :

Tot Ion: 49 Resp: 66  
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

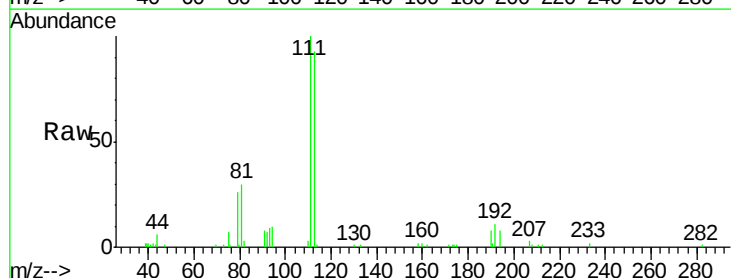
RT: 4.24 min Scan# 376

Delta R.T. 0.01 min

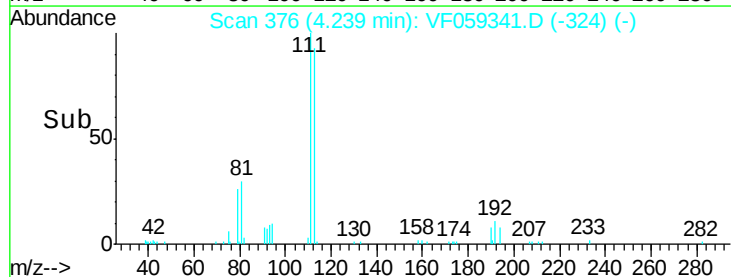
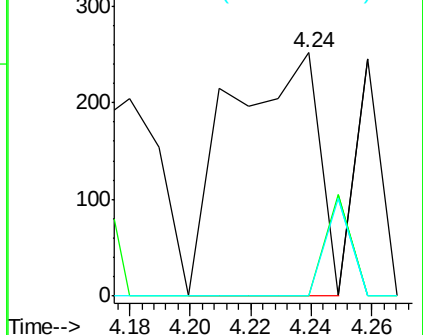
Lab File: VF059341.D

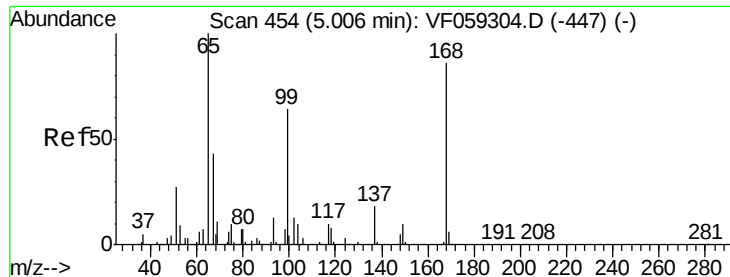
Acq: 27 Jun 2018 16:14

Tgt Ion: 42 Resp: 513  
Ion Ratio Lower Upper  
42 100  
72 12.1 30.5 45.7#  
71 11.7 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: 39.430 ug/l

RT: 5.00 min Scan# 453

Delta R.T. -0.01 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

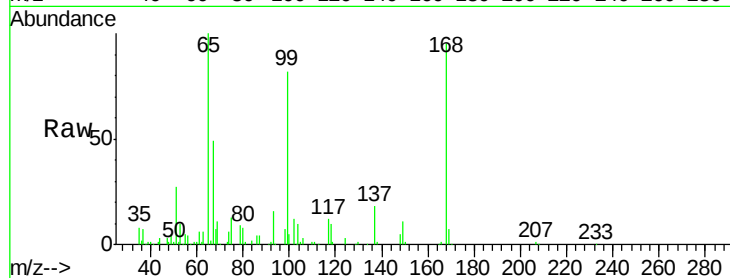
Instrument :  
MSVOA\_F  
ClientSampleId :

Tot Ion: 65 Resp: 113108

Ion Ratio Lower Upper

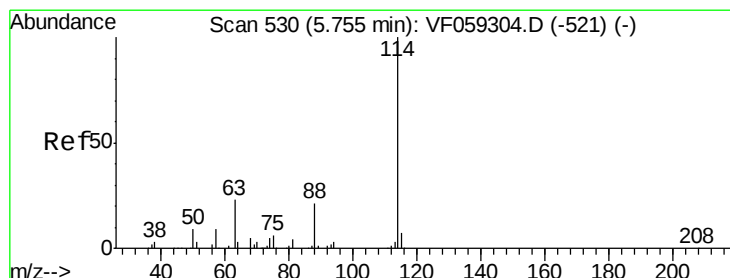
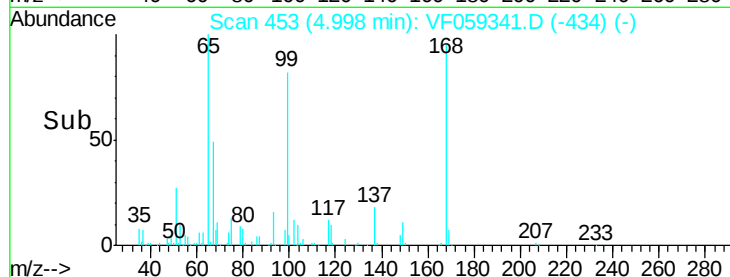
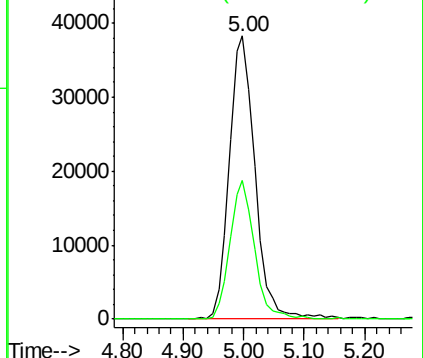
65 100

67 48.9 0.0 96.8



Abundance Ion 65.00 (64.70 to 65.70): VF0

Ion 67.00 (66.70 to 67.70): VF0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.75 min Scan# 529

Delta R.T. -0.01 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

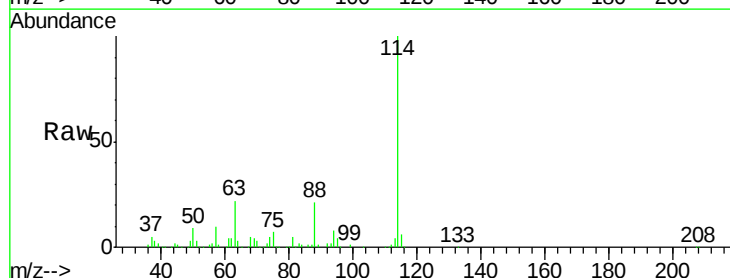
Tgt Ion: 114 Resp: 340353

Ion Ratio Lower Upper

114 100

63 22.3 0.0 45.8

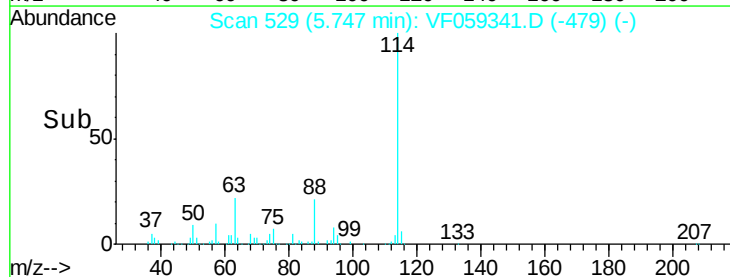
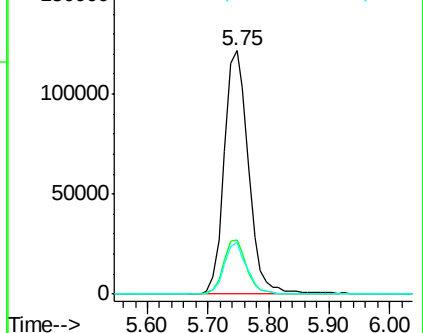
88 21.0 0.0 41.2

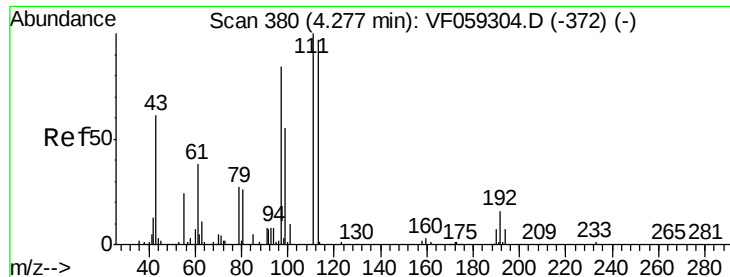


Abundance Ion 114.00 (113.70 to 114.70): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 88.00 (87.70 to 88.70): VF0





#35

Dibromofluoromethane

Concen: 43.307 ug/l

RT: 4.27 min Scan# 379

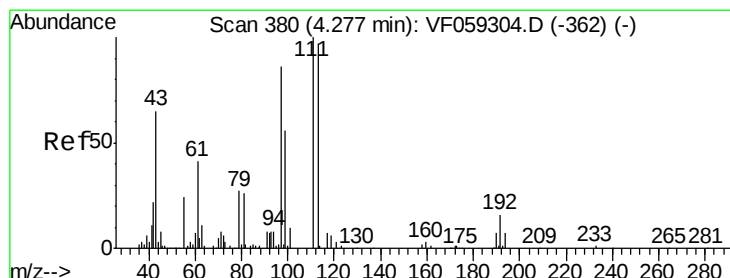
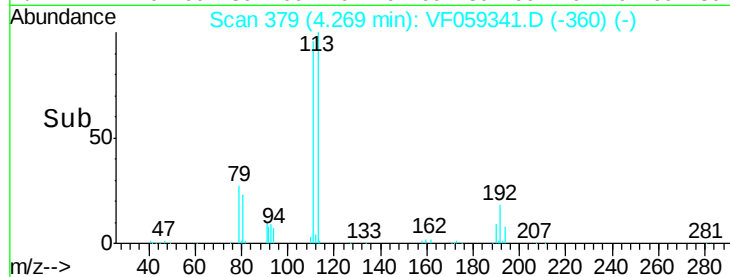
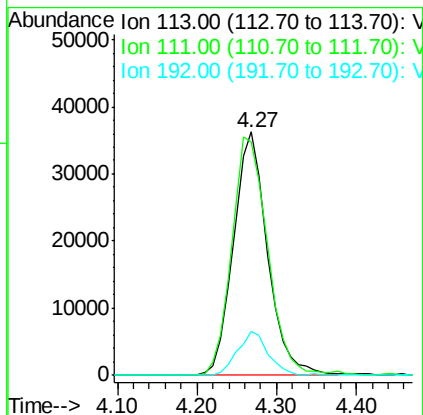
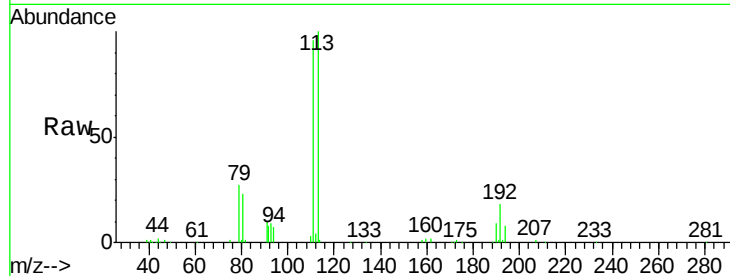
Delta R.T. -0.01 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

Instrument :  
MSVOA\_F  
ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 113   | Resp: | 107697 |
| Ion      | Ratio | Lower | Upper  |
| 113      | 100   |       |        |
| 111      | 96.0  | 82.1  | 123.1  |
| 192      | 18.0  | 13.0  | 19.6   |



#37

Ethyl Acetate

Concen: Below Cal

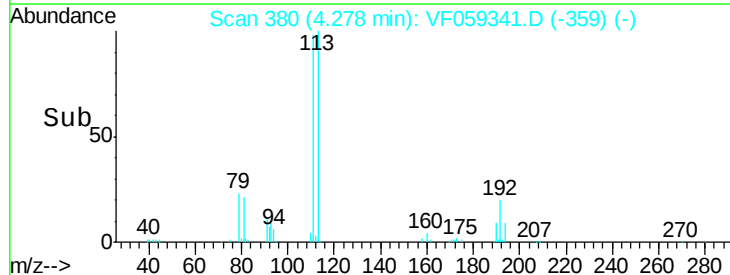
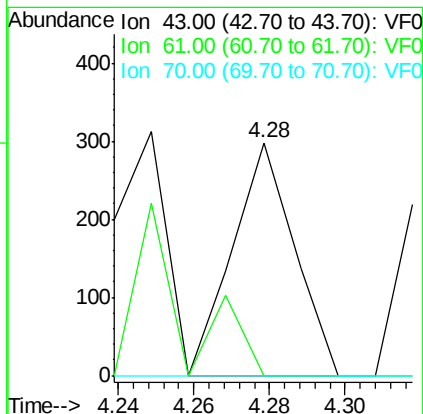
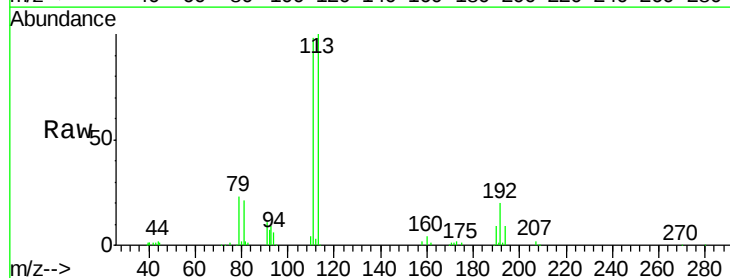
RT: 4.28 min Scan# 380

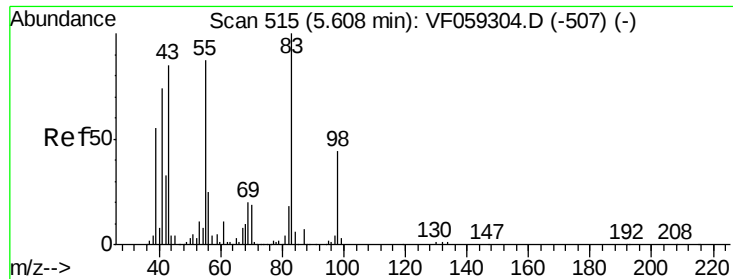
Delta R.T. 0.00 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 336   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 0.0   | 50.1  | 75.1# |
| 70       | 0.0   | 6.2   | 9.4#  |

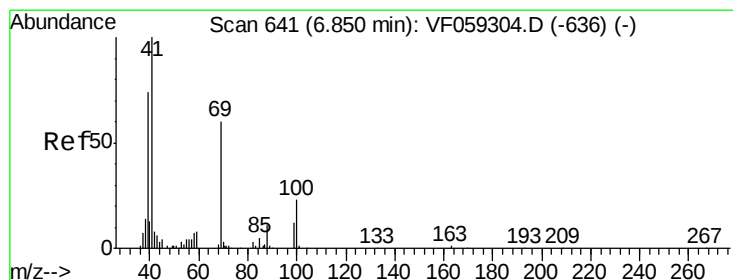
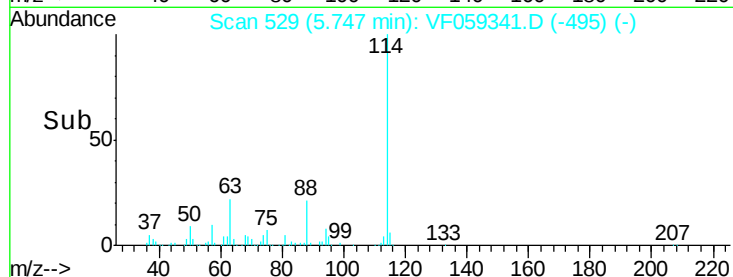
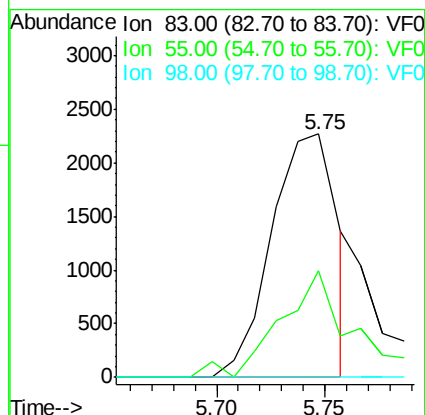
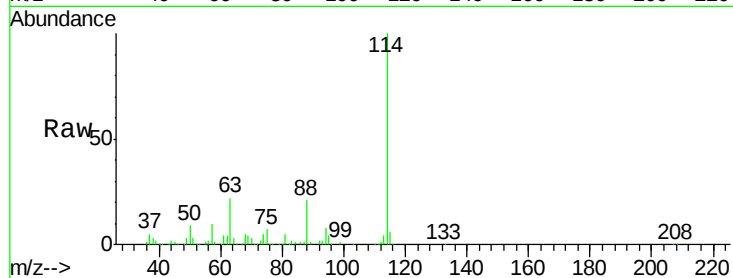




#39  
Methvlcvclohexane  
Concen: 1.825 ug/l  
RT: 5.75 min Scan# 529  
Delta R.T. 0.14 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

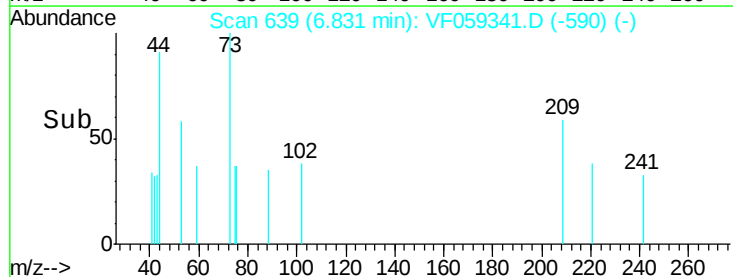
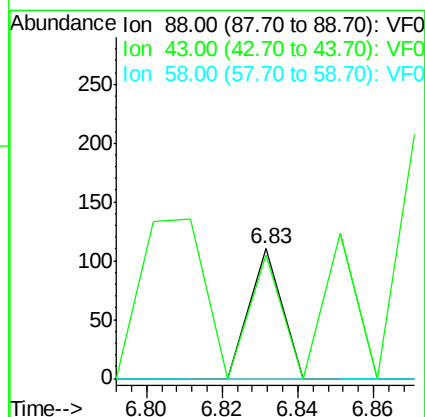
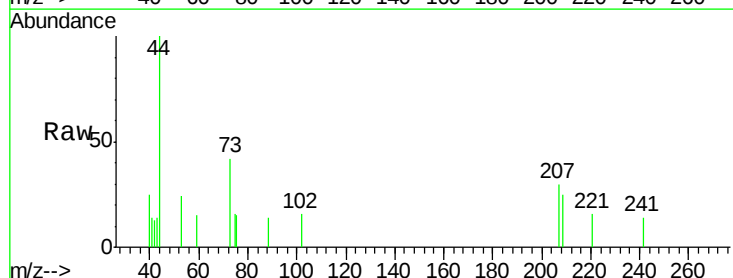
Instrument :  
MSVOA\_F  
ClientSampled :

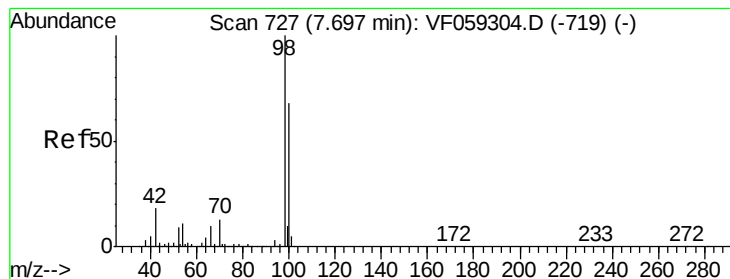
Tot Ion: 83 Resp: 4809  
Ion Ratio Lower Upper  
83 100  
55 44.0 69.2 103.8#  
98 0.0 35.0 52.6#



#49  
1,4-Dioxane  
Concen: Below Cal  
RT: 6.83 min Scan# 639  
Delta R.T. -0.02 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

Tgt Ion: 88 Resp: 65  
Ion Ratio Lower Upper  
88 100  
43 95.5 50.6 75.8#  
58 0.0 46.6 69.8#





#50

Toluene-d8

Concen: 39.282 ug/l

RT: 7.70 min Scan# 727

Delta R.T. 0.00 min

Lab File: VF059341.D

Acq: 27 Jun 2018 16:14

Instrument :

MSVOA\_F

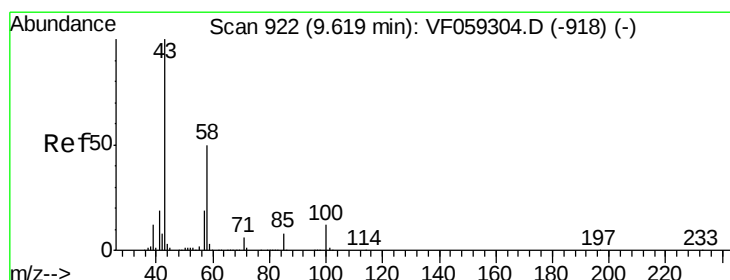
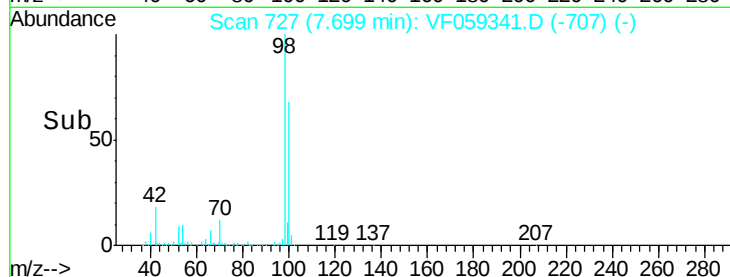
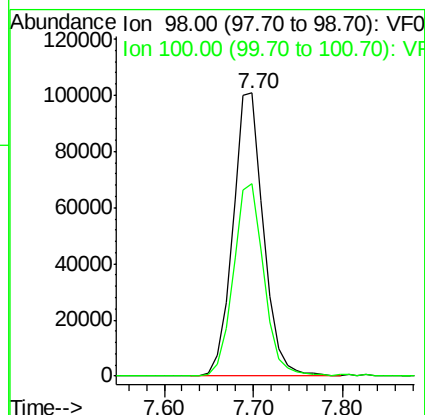
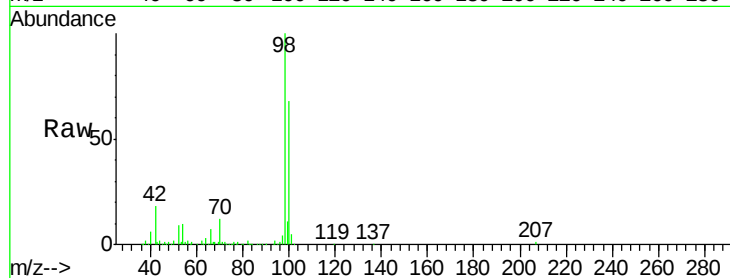
ClientSampleId :

Tot Ion: 98 Resp: 241864

Ion Ratio Lower Upper

98 100

100 67.8 54.6 82.0



#59

2-Hexanone

Concen: Below Cal

RT: 9.61 min Scan# 921

Delta R.T. -0.01 min

Lab File: VF059341.D

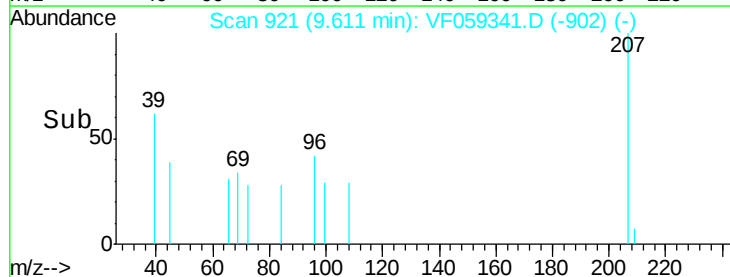
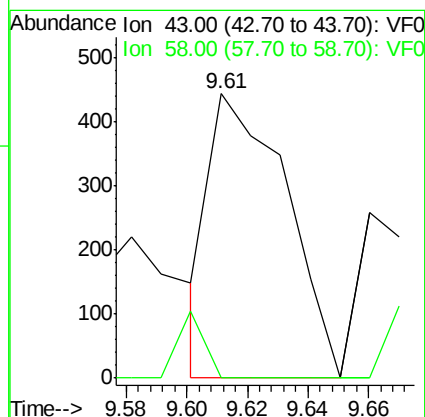
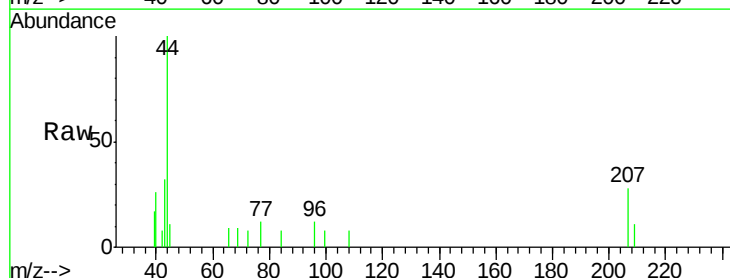
Acq: 27 Jun 2018 16:14

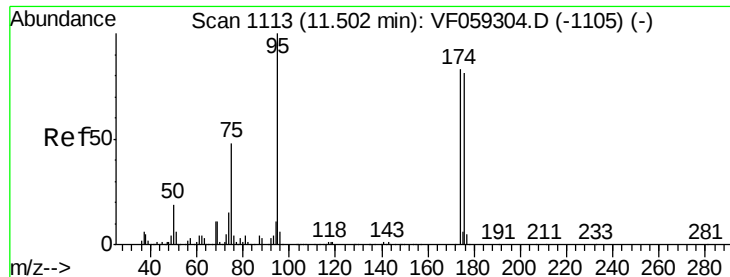
Tgt Ion: 43 Resp: 781

Ion Ratio Lower Upper

43 100

58 0.0 23.3 69.9#

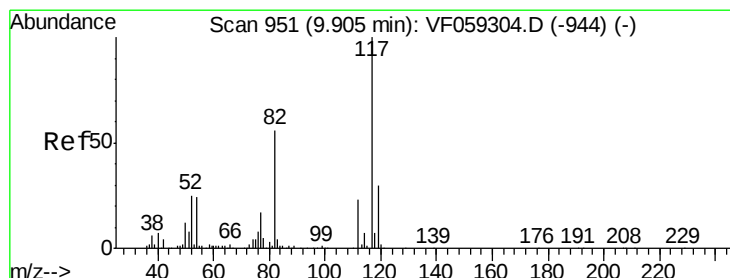
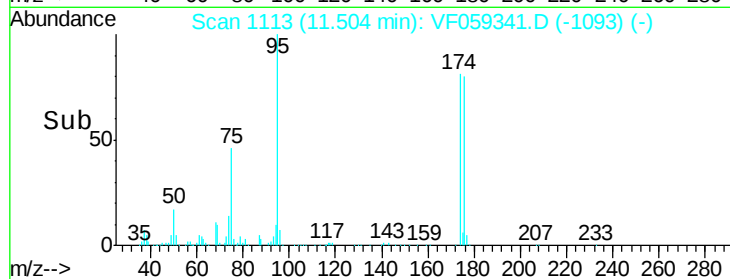
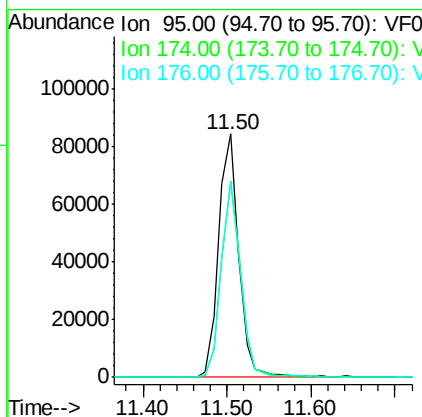
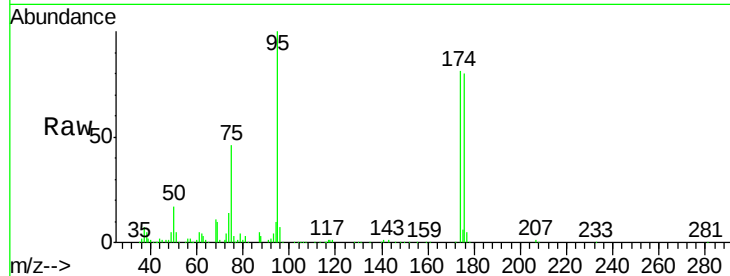




#62  
4-Bromofluorobenzene  
Concen: 40.703 ug/l  
RT: 11.50 min Scan# 1113  
Delta R.T. 0.00 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

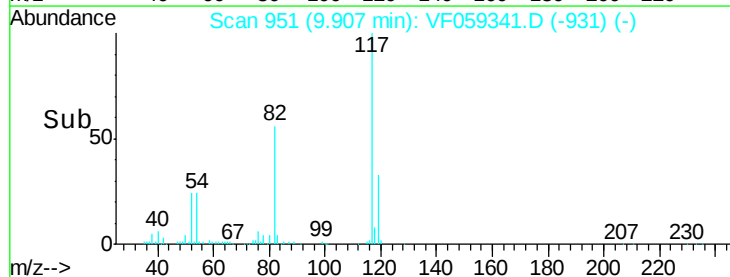
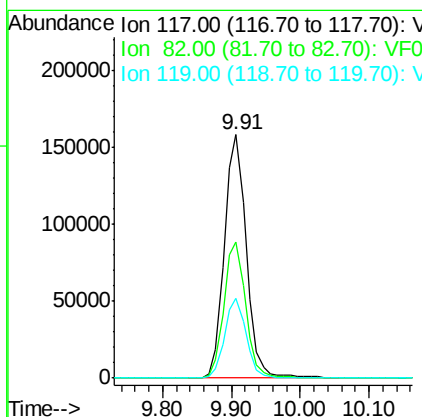
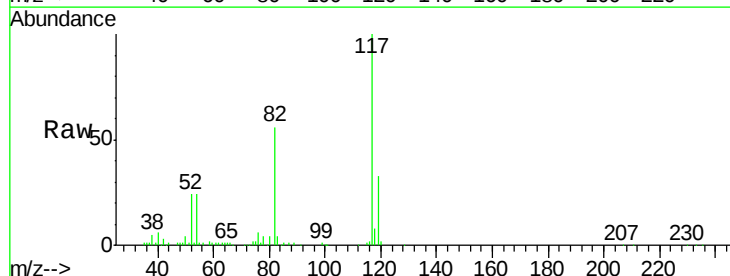
Instrument :  
MSVOA\_F  
ClientSampled :

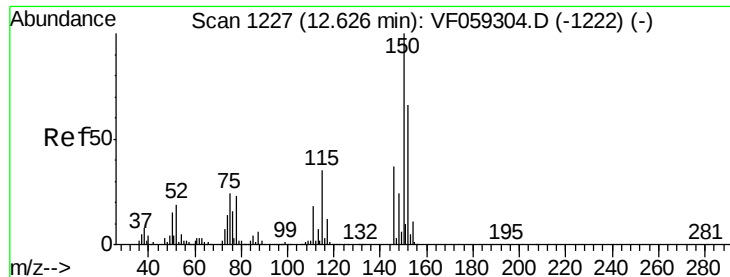
Tot Ion: 95 Resp: 141371  
Ion Ratio Lower Upper  
95 100  
174 80.5 0.0 165.2  
176 80.1 0.0 161.0



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.91 min Scan# 951  
Delta R.T. 0.00 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

Tgt Ion: 117 Resp: 348836  
Ion Ratio Lower Upper  
117 100  
82 56.0 44.6 66.8  
119 32.5 24.1 36.1



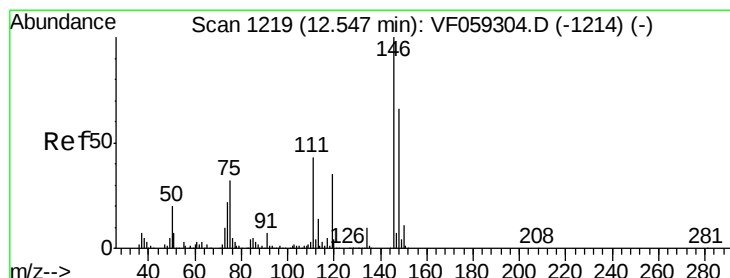
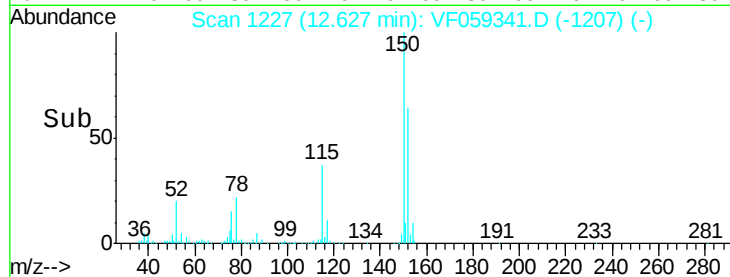
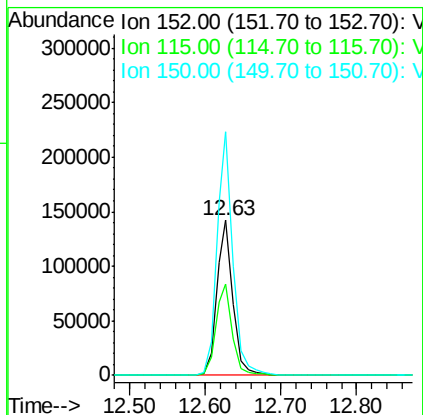
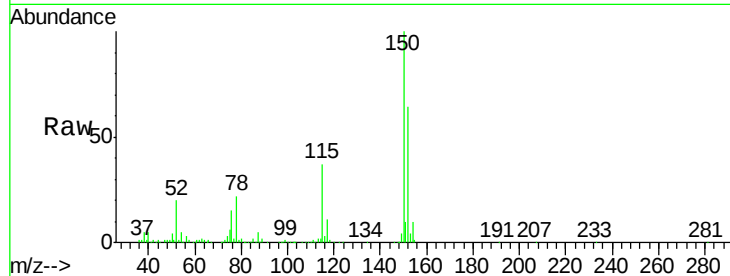


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.63 min Scan# 1227  
Delta R.T. 0.00 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

Instrument :  
MSVOA\_F  
ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 58.7  | 27.1  | 81.3  |
| 150     | 157.0 | 0.0   | 305.2 |



#87

1,3-Dichlorobenzene  
Concen: Below Cal  
RT: 12.55 min Scan# 1219  
Delta R.T. 0.00 min  
Lab File: VF059341.D  
Acq: 27 Jun 2018 16:14

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 0.0   | 21.4  | 64.2# |
| 148     | 26.7  | 32.8  | 98.4# |

