

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF020819\  
 Data File : VF061570.D  
 Acq On : 8 Feb 2019 21:09  
 Operator : VA/AP  
 Sample : K1356-07  
 Misc : 6.76g/5mL/MSVOA-F/SOIL  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 SU-03-020819-B

Quant Time: Feb 09 04:33:26 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 16 04:51:59 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.86  | 168  | 200182   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.58  | 114  | 362884   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.77  | 117  | 327361   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.54 | 152  | 162546   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 4.83  | 65   | 120508   | 48.76 | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 97.52% |          |
| 35) Dibromofluoromethane    | 4.10  | 113  | 136997   | 47.84 | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 95.68% |          |
| 50) Toluene-d8              | 7.54  | 98   | 323189   | 41.19 | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 82.38% |          |
| 62) 4-Bromofluorobenzene    | 11.40 | 95   | 156452   | 42.68 | ug/l   | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 85.36% |          |

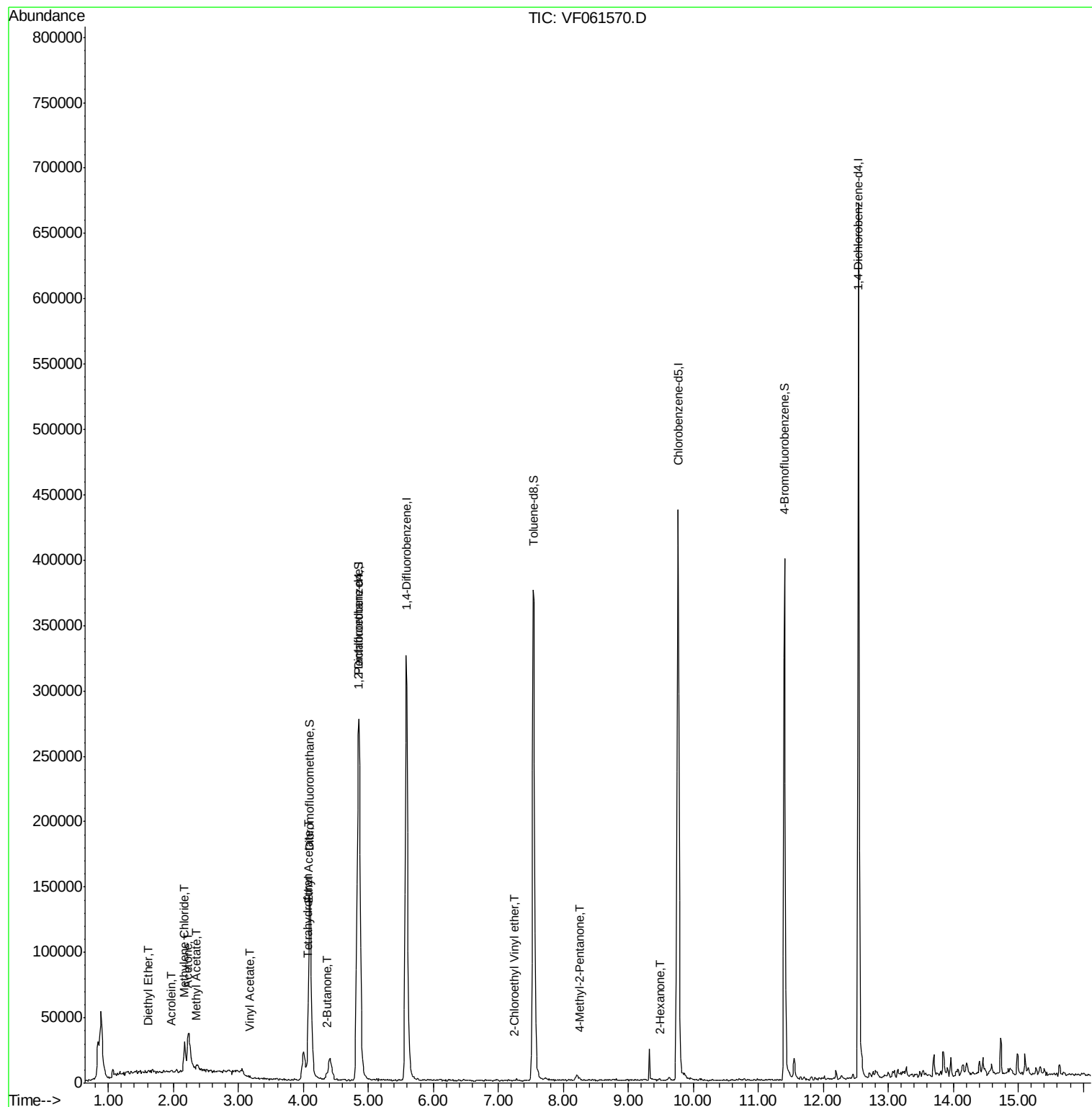
| Target Compounds              | R.T. | QIon | Response | Conc      | Units  | Qvalue |
|-------------------------------|------|------|----------|-----------|--------|--------|
| 8) Diethyl Ether              | 1.62 | 74   | 656      | 1.027     | ug/l   | 98     |
| 13) Acrolein                  | 1.96 | 56   | 225      | 12.731    | ug/l   | 93     |
| 14) Allyl chloride            | 2.14 | 41   | 751      | Below Cal | #      | 57     |
| 16) Acetone                   | 2.24 | 43   | 16722    | 33.726    | ug/l   | 94     |
| 18) Methyl Acetate            | 2.36 | 43   | 3881     | 3.947     | ug/l # | 78     |
| 20) Methylene Chloride        | 2.18 | 84   | 9414     | 3.976     | ug/l   | 97     |
| 23) Vinyl Acetate             | 3.19 | 43   | 725      | 3.451     | ug/l # | 78     |
| 25) 2-Butanone                | 4.35 | 43   | 2067     | 2.507     | ug/l # | 36     |
| 29) Tetrahydrofuran           | 4.07 | 42   | 2095     | 5.901     | ug/l # | 73     |
| 37) Ethyl Acetate             | 4.08 | 43   | 1715     | 1.020     | ug/l # | 45     |
| 49) 1,4-Dioxane               | 6.49 | 88   | 62       | Below Cal | #      | 13     |
| 51) 4-Methyl-2-Pentanone      | 8.26 | 43   | 1832     | 1.181     | ug/l   | 98     |
| 58) 2-Chloroethyl Vinyl ether | 7.24 | 63   | 67       | 27.797    | ug/l # | 47     |
| 59) 2-Hexanone                | 9.48 | 43   | 1128     | 1.042     | ug/l   | 96     |

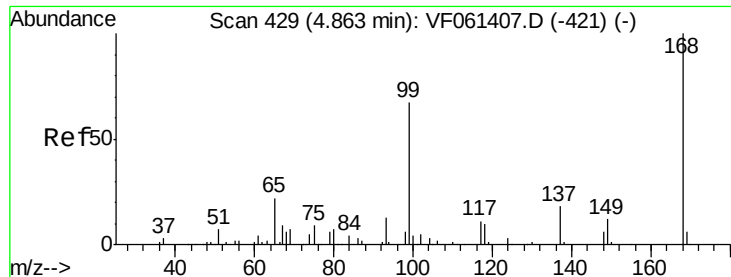
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
Quant Title : SW846 8260  
QLast Update : Wed Jan 16 04:51:59 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.86 min Scan# 429

Delta R.T. 0.00 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

Instrument :

MSVOA\_F

ClientSampleId :

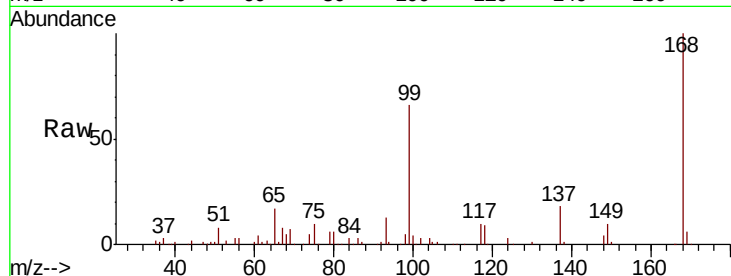
SU-03-020819-B

Tgt Ion:168 Resp: 200182

Ion Ratio Lower Upper

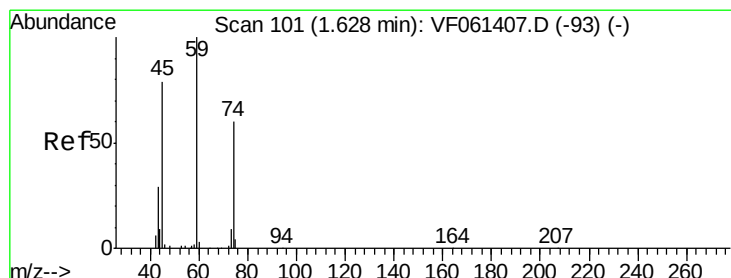
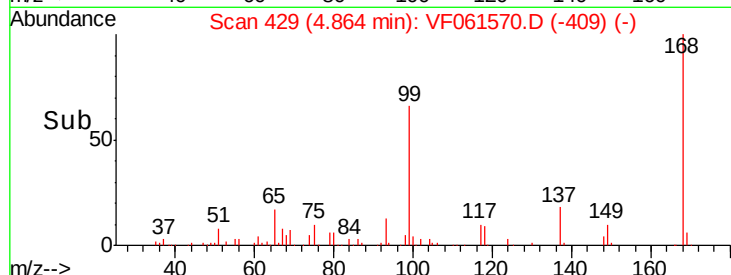
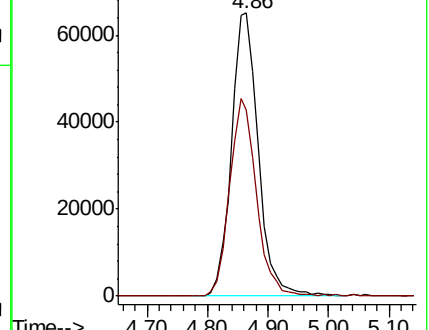
168 100

99 65.6 53.5 80.3



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0



#8

Diethyl Ether

Concen: 1.027 ug/l

RT: 1.62 min Scan# 100

Delta R.T. -0.01 min

Lab File: VF061570.D

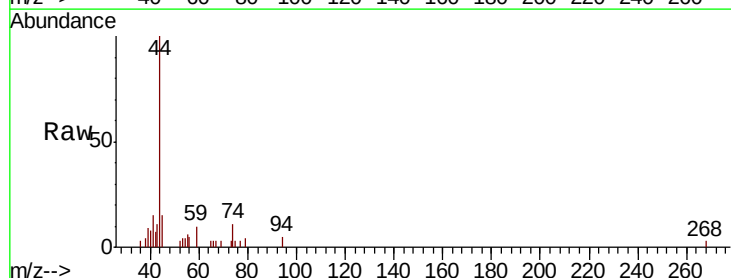
Acq: 8 Feb 2019 21:09

Tgt Ion: 74 Resp: 656

Ion Ratio Lower Upper

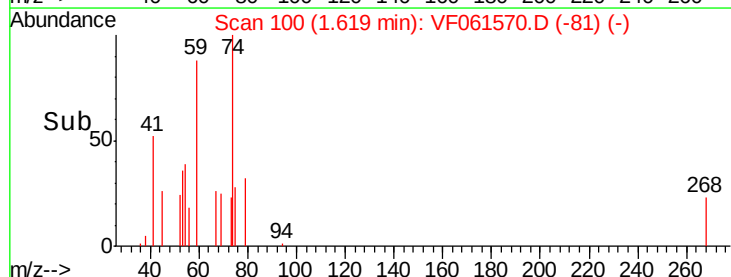
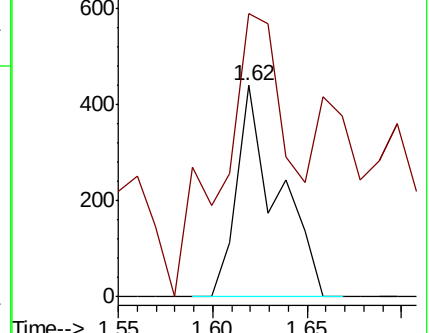
74 100

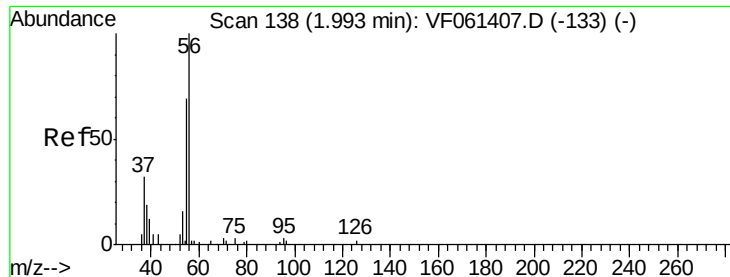
45 133.8 65.8 197.5



Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0





#13

Acrolein

Concen: 12.731 ug/l

RT: 1.96 min Scan# 135

Delta R.T. -0.03 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

Instrument :

MSVOA\_F

ClientSampleId :

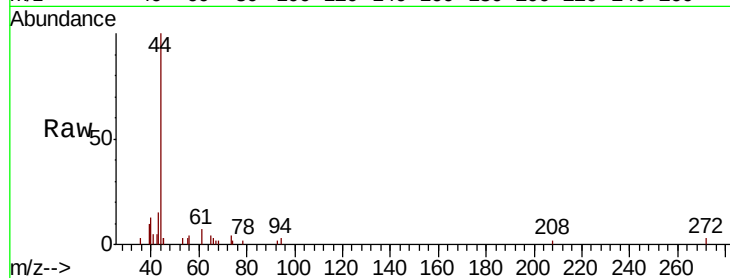
SU-03-020819-B

Tgt Ion: 56 Resp: 225

Ion Ratio Lower Upper

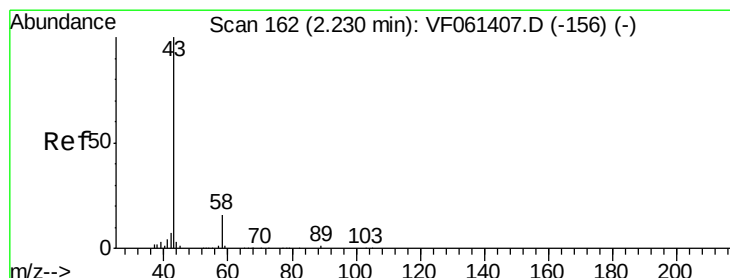
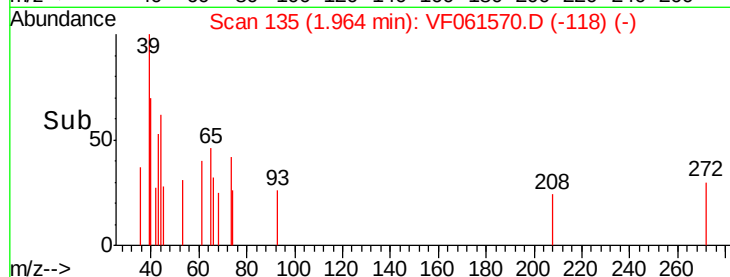
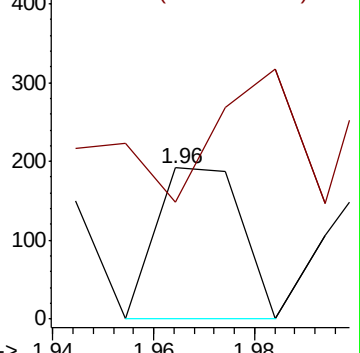
56 100

55 77.6 57.5 86.3



Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 55.00 (54.70 to 55.70): VF0



#16

Acetone

Concen: 33.726 ug/l

RT: 2.24 min Scan# 163

Delta R.T. 0.01 min

Lab File: VF061570.D

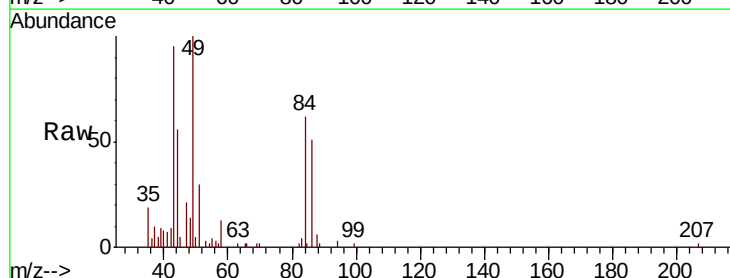
Acq: 8 Feb 2019 21:09

Tgt Ion: 43 Resp: 16722

Ion Ratio Lower Upper

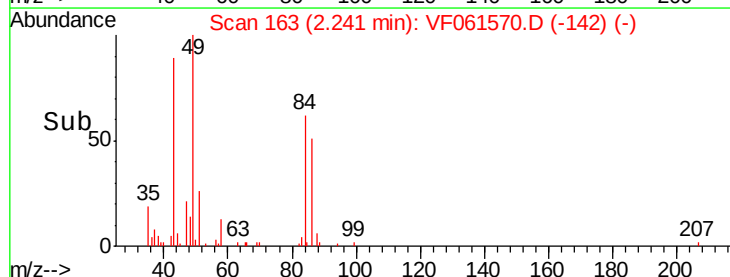
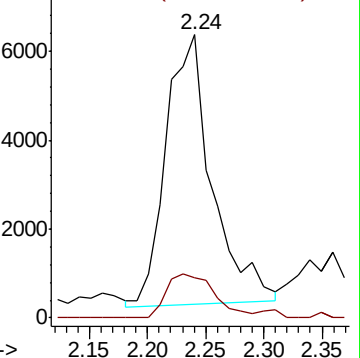
43 100

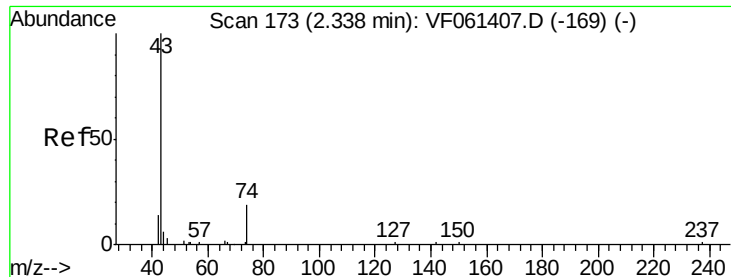
58 14.1 13.3 19.9



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

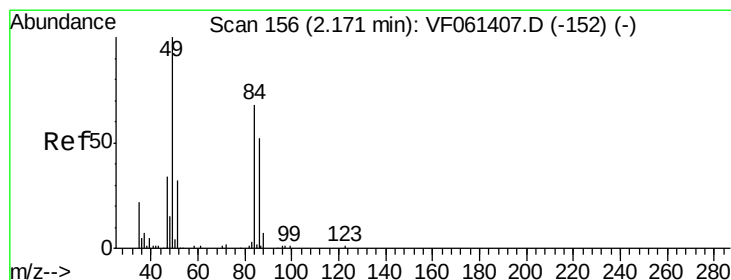
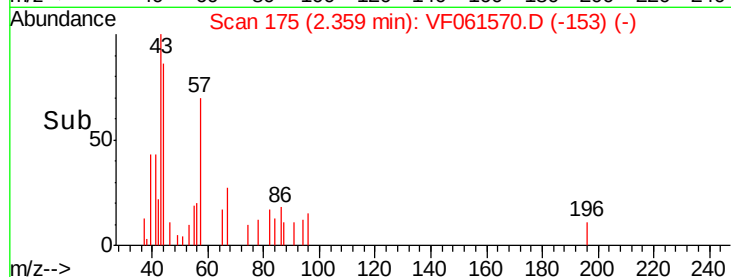
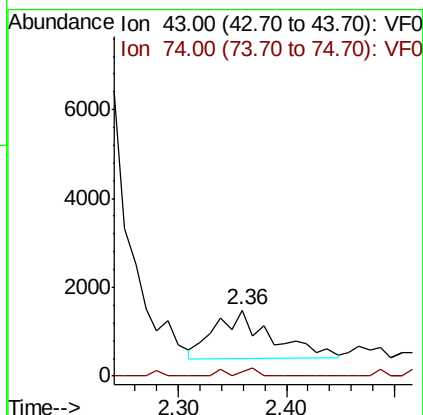
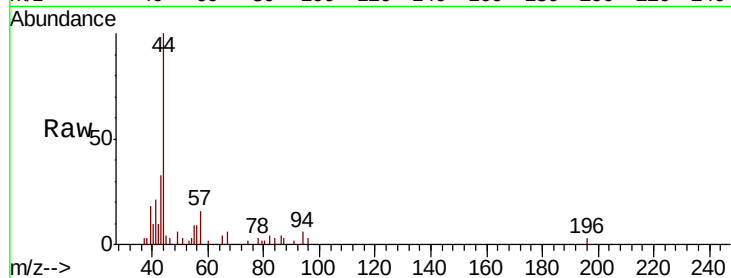




#18  
Methyl Acetate  
Concen: 3.947 ug/l  
RT: 2.36 min Scan# 175  
Delta R.T. 0.02 min  
Lab File: VF061570.D  
Acq: 8 Feb 2019 21:09

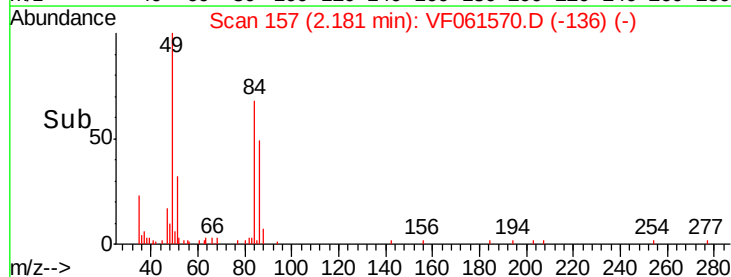
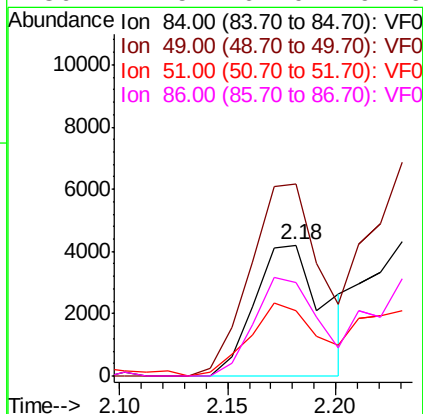
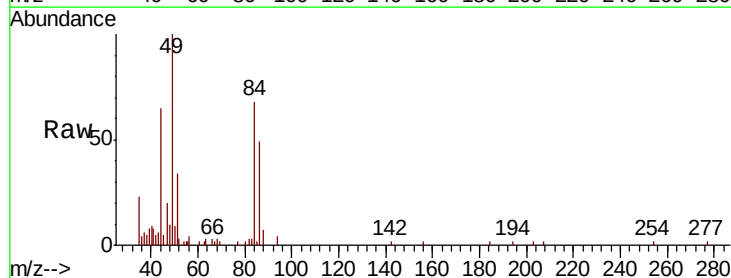
Instrument :  
MSVOA\_F  
ClientSampleId :  
SU-03-020819-B

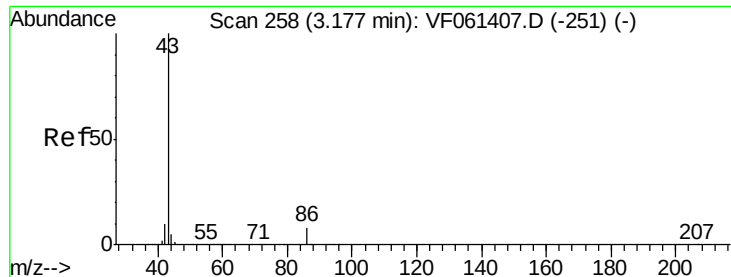
Tgt Ion: 43 Resp: 3881  
Ion Ratio Lower Upper  
43 100  
74 7.2 13.4 20.0#



#20  
Methylene Chloride  
Concen: 3.976 ug/l  
RT: 2.18 min Scan# 157  
Delta R.T. 0.01 min  
Lab File: VF061570.D  
Acq: 8 Feb 2019 21:09

Tgt Ion: 84 Resp: 9414  
Ion Ratio Lower Upper  
84 100  
49 146.8 120.0 180.0  
51 50.2 38.6 58.0  
86 71.5 61.0 91.6





#23

Vinyl Acetate

Concen: 3.451 ug/l

RT: 3.19 min Scan# 259

Delta R.T. 0.01 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

Instrument :

MSVOA\_F

ClientSampleId :

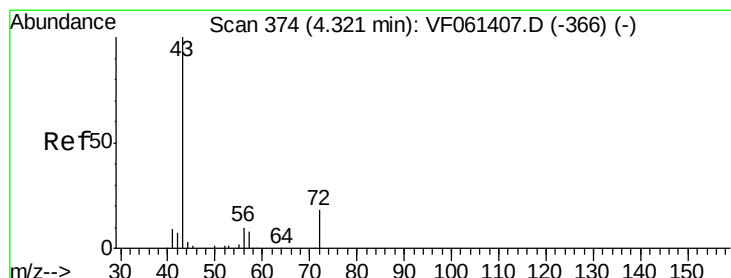
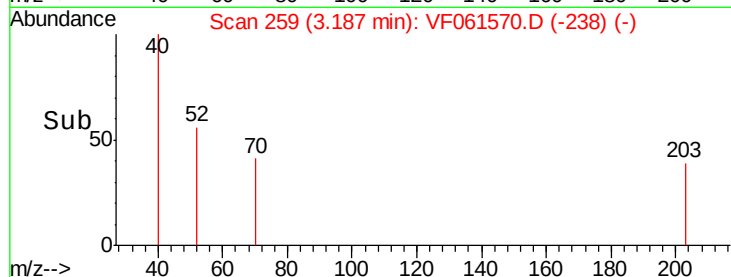
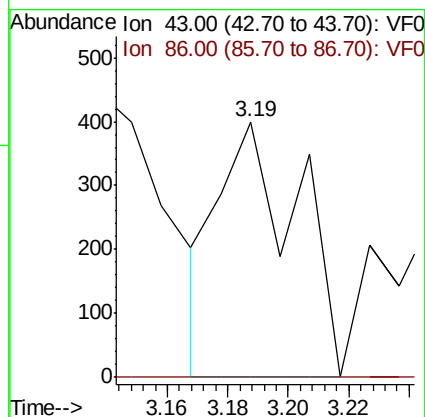
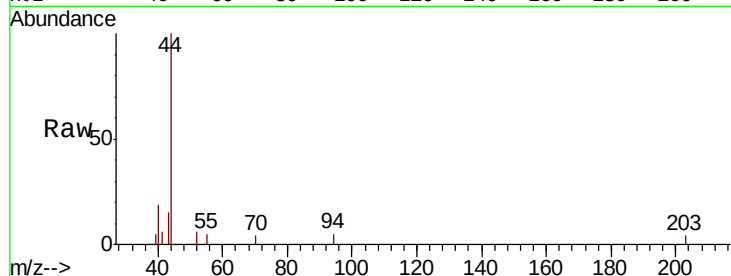
SU-03-020819-B

Tgt Ion: 43 Resp: 725

Ion Ratio Lower Upper

43 100

86 0.0 6.2 9.4#



#25

2-Butanone

Concen: 2.507 ug/l

RT: 4.35 min Scan# 377

Delta R.T. 0.03 min

Lab File: VF061570.D

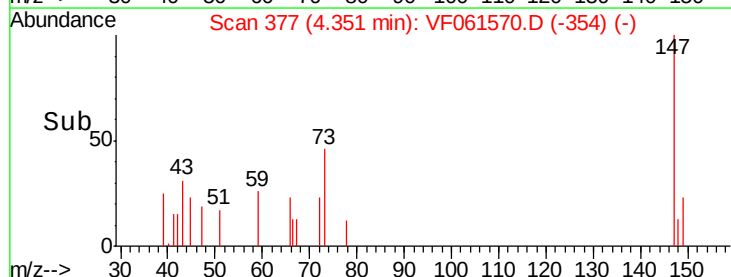
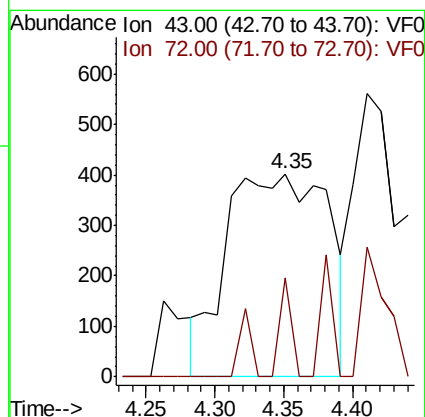
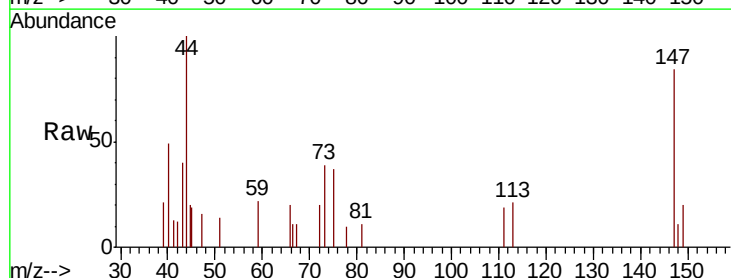
Acq: 8 Feb 2019 21:09

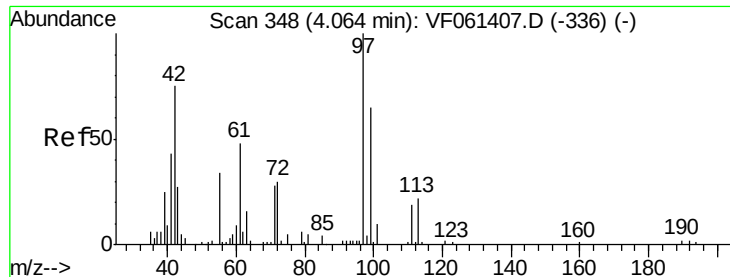
Tgt Ion: 43 Resp: 2067

Ion Ratio Lower Upper

43 100

72 49.0 15.8 23.6#





#29

Tetrahydrofuran

Concen: 5.901 ug/l

RT: 4.07 min Scan# 348

Delta R.T. 0.00 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

Instrument :

MSVOA\_F

ClientSampleId :

SU-03-020819-B

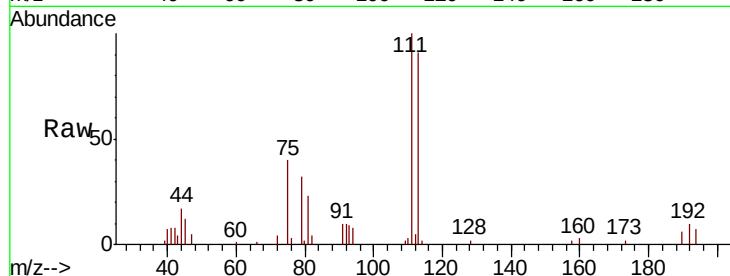
Tgt Ion: 42 Resp: 2095

Ion Ratio Lower Upper

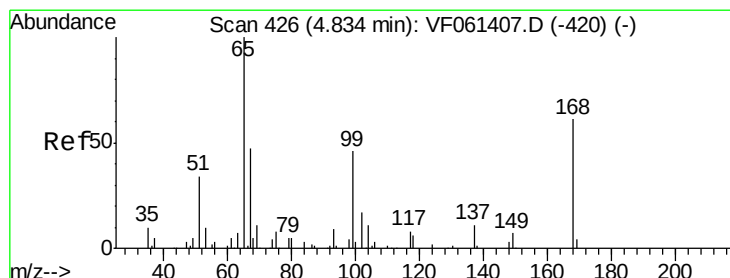
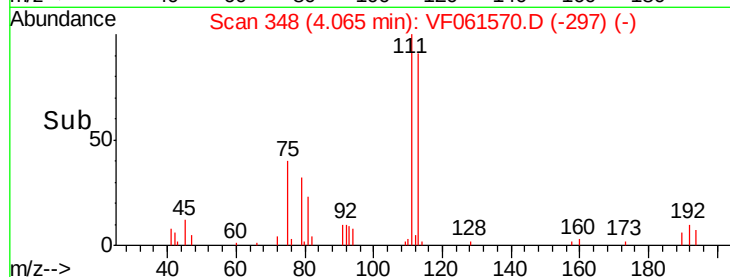
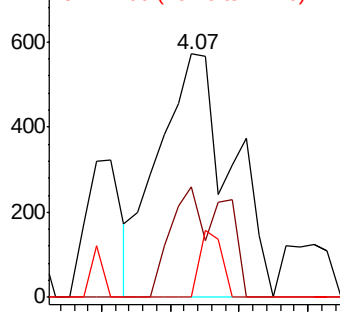
42 100

72 33.5 28.9 43.3

71 8.3 29.6 44.4#



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: 48.759 ug/l

RT: 4.83 min Scan# 426

Delta R.T. 0.00 min

Lab File: VF061570.D

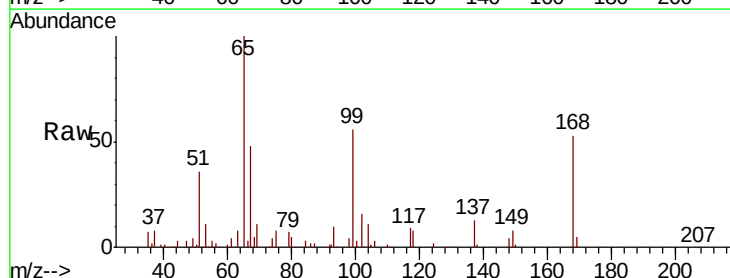
Acq: 8 Feb 2019 21:09

Tgt Ion: 65 Resp: 120508

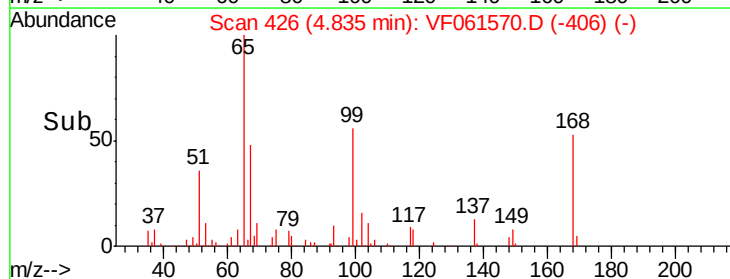
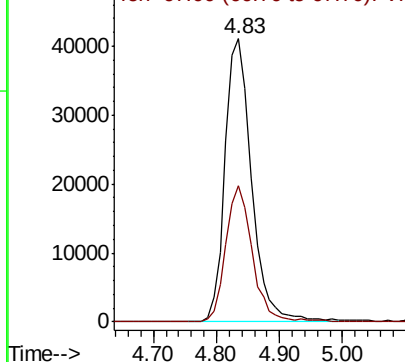
Ion Ratio Lower Upper

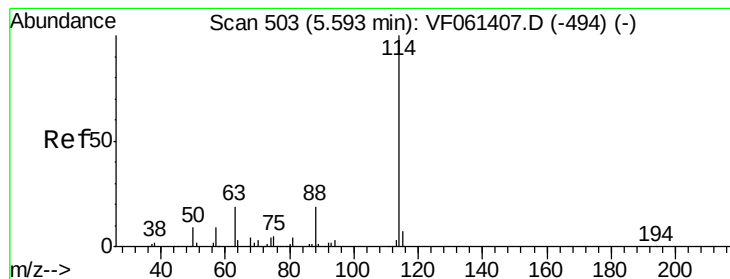
65 100

67 48.0 0.0 99.8



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: 5.58 min Scan# 502

Delta R.T. -0.01 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

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ClientSampleId :

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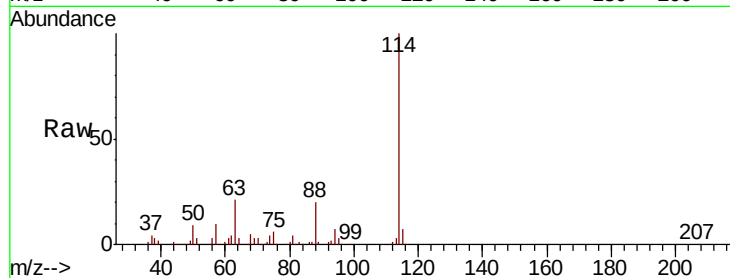
Tgt Ion:114 Resp: 362884

Ion Ratio Lower Upper

114 100

63 21.2 0.0 39.0

88 19.8 0.0 37.4



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

150000

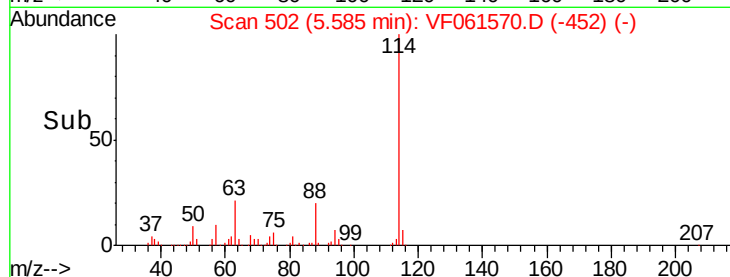
100000

50000

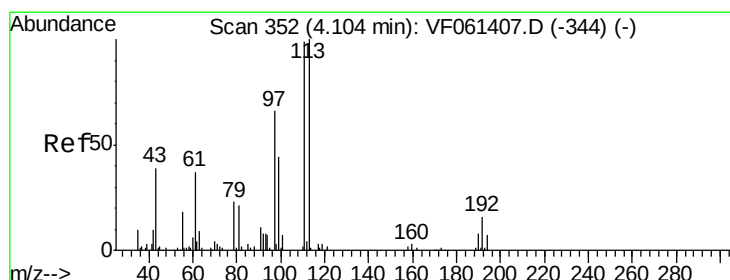
0

5.58

5.40 5.60 5.80



Time-->



#35

Dibromofluoromethane

Concen: 47.843 ug/l

RT: 4.10 min Scan# 352

Delta R.T. 0.00 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

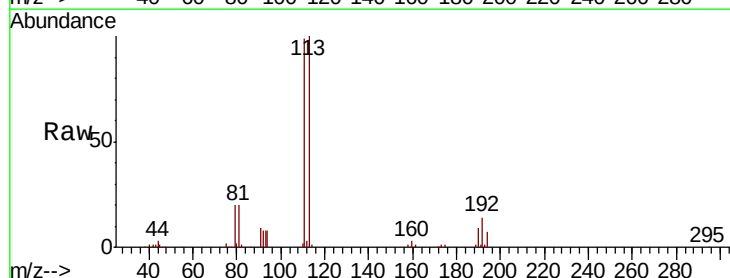
Tgt Ion:113 Resp: 136997

Ion Ratio Lower Upper

113 100

111 99.1 79.4 119.0

192 13.9 12.4 18.6



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

60000

50000

40000

30000

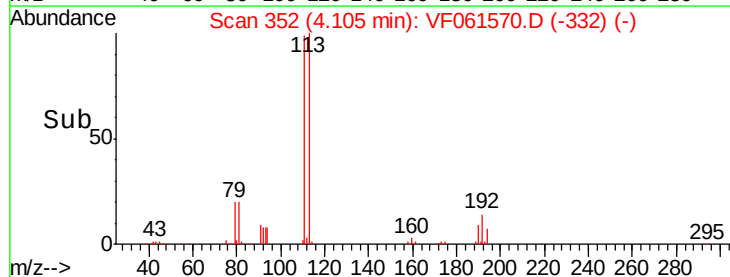
20000

10000

0

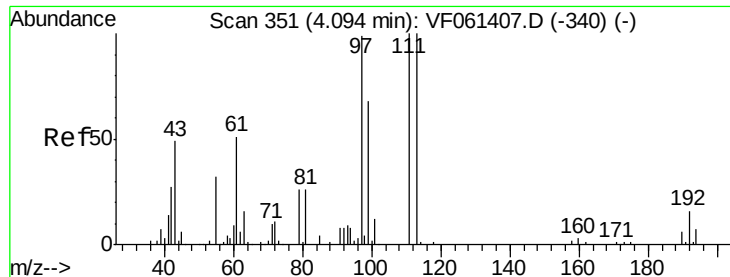
4.10

4.00 4.20 4.30



Time-->





#37

Ethyl Acetate

Concen: 1.020 ug/l

RT: 4.08 min Scan# 349

Delta R.T. -0.02 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

Instrument :

MSVOA\_F

ClientSampleId :

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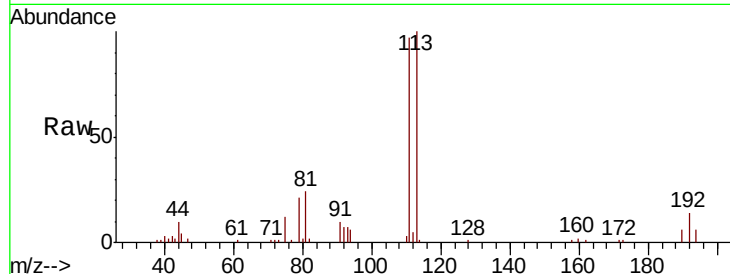
Tgt Ion: 43 Resp: 1715

Ion Ratio Lower Upper

43 100

61 44.1 81.7 122.5#

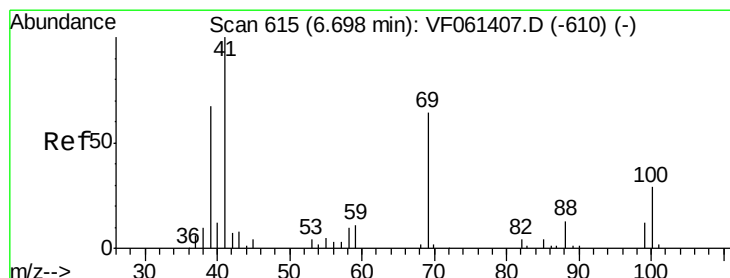
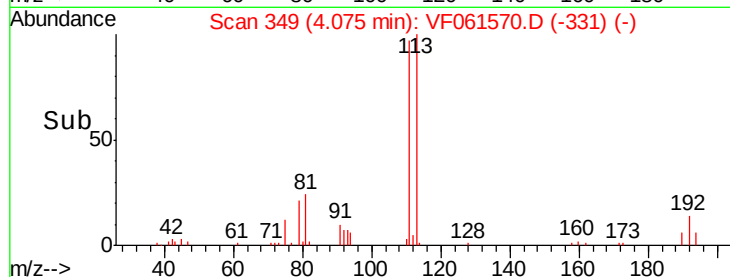
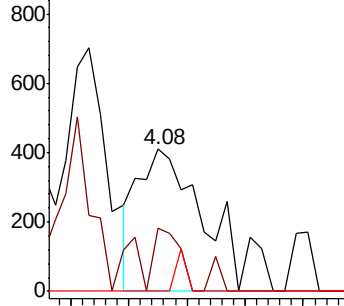
70 0.0 6.2 9.2#



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



#49

1,4-Dioxane

Concen: Below Cal

RT: 6.49 min Scan# 594

Delta R.T. -0.21 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

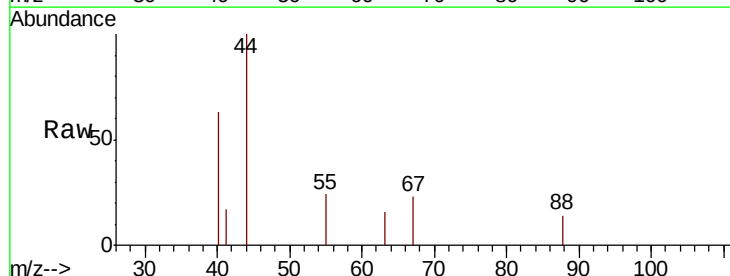
Tgt Ion: 88 Resp: 62

Ion Ratio Lower Upper

88 100

43 0.0 55.5 83.3#

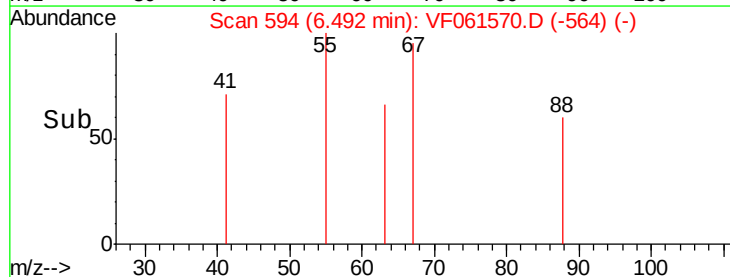
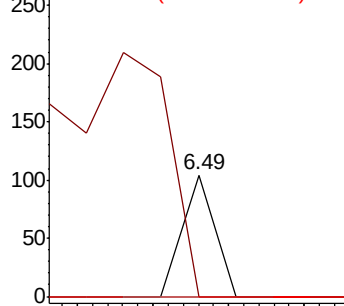
58 0.0 59.9 89.9#

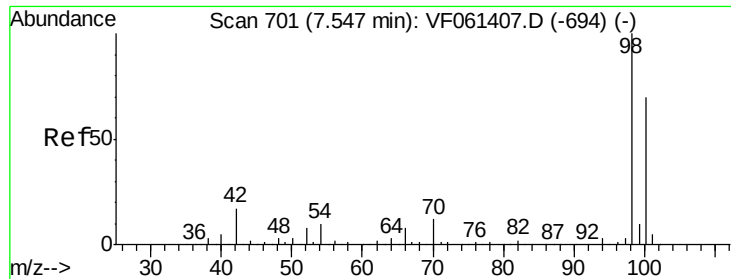


Abundance Ion 88.00 (87.70 to 88.70): VF0

Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

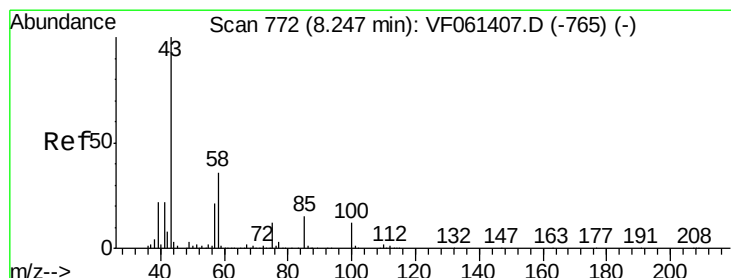
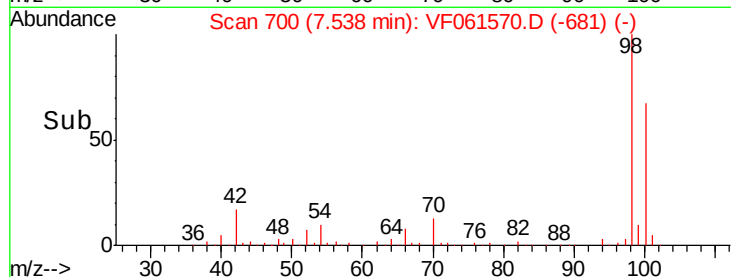
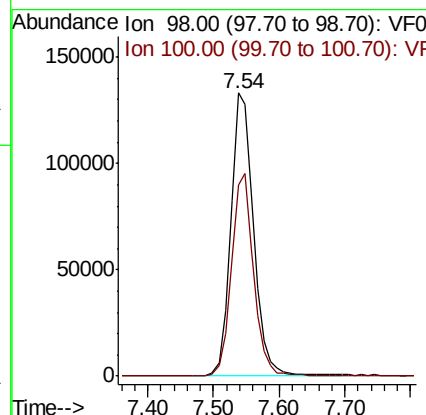
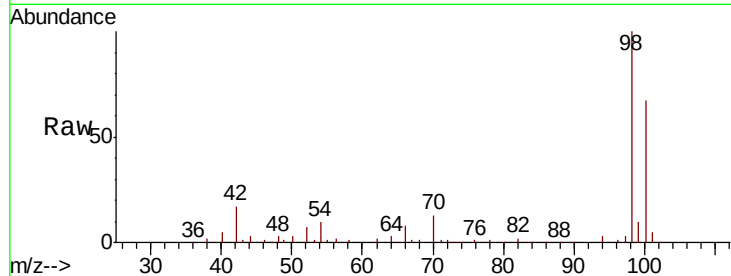




#50  
Toluene-d8  
Concen: 41.195 ug/l  
RT: 7.54 min Scan# 700  
Delta R.T. -0.01 min  
Lab File: VF061570.D  
Acq: 8 Feb 2019 21:09

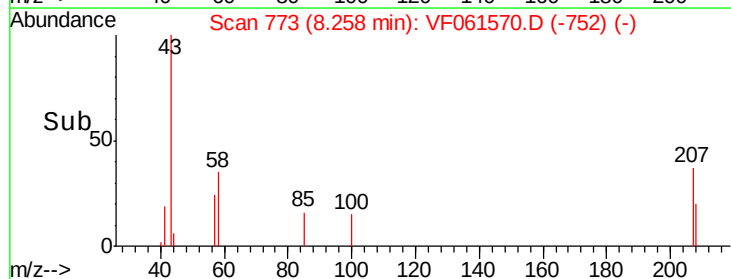
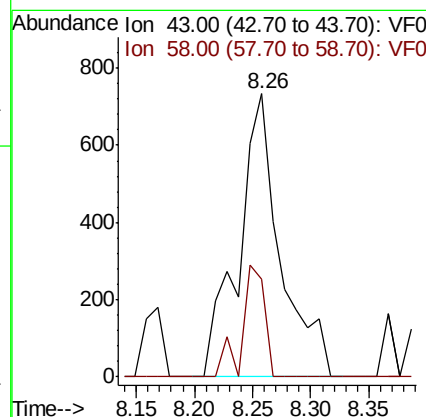
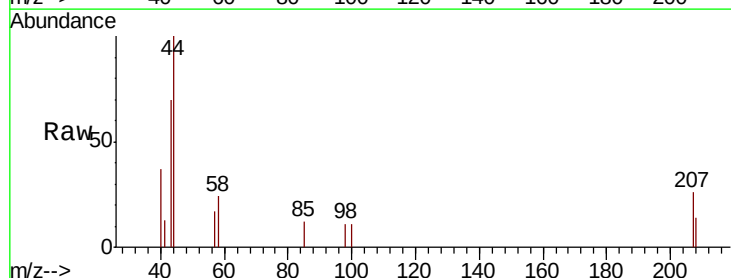
Instrument :  
MSVOA\_F  
ClientSampleId :  
SU-03-020819-B

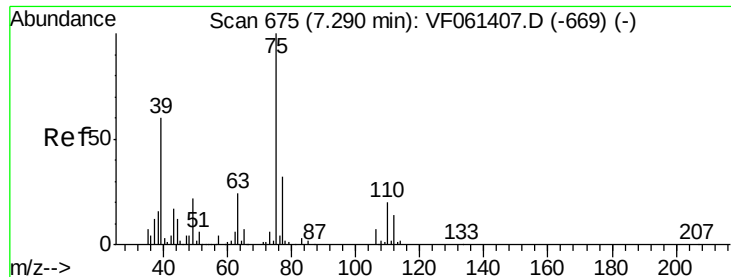
Tgt Ion: 98 Resp: 323189  
Ion Ratio Lower Upper  
98 100  
100 67.4 55.6 83.4



#51  
4-Methyl-2-Pentanone  
Concen: 1.181 ug/l  
RT: 8.26 min Scan# 773  
Delta R.T. 0.01 min  
Lab File: VF061570.D  
Acq: 8 Feb 2019 21:09

Tgt Ion: 43 Resp: 1832  
Ion Ratio Lower Upper  
43 100  
58 34.7 28.8 43.2

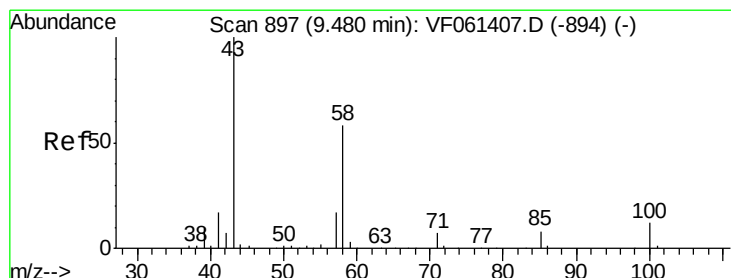
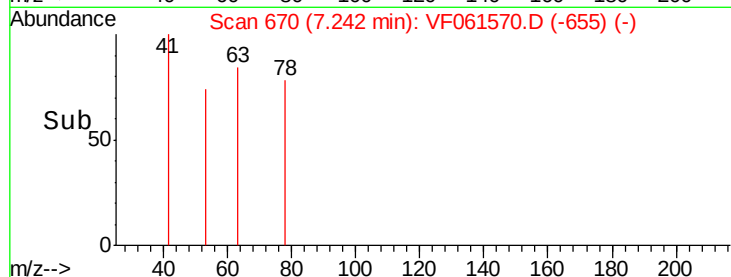
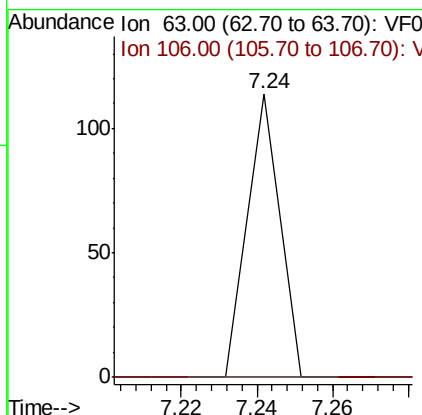
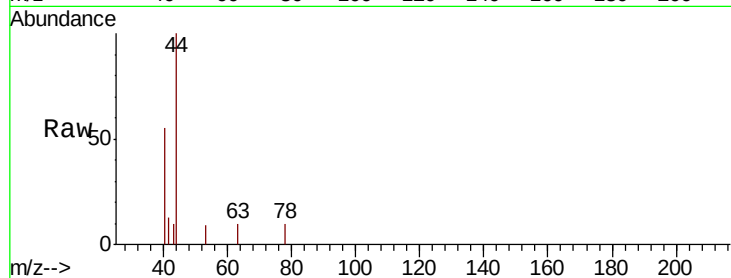




#58  
 2-Chloroethyl Vinyl ether  
 Concen: 27.797 ug/l  
 RT: 7.24 min Scan# 670  
 Delta R.T. -0.05 min  
 Lab File: VF061570.D  
 Acq: 8 Feb 2019 21:09

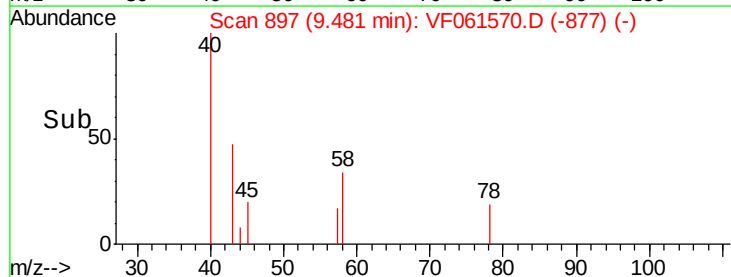
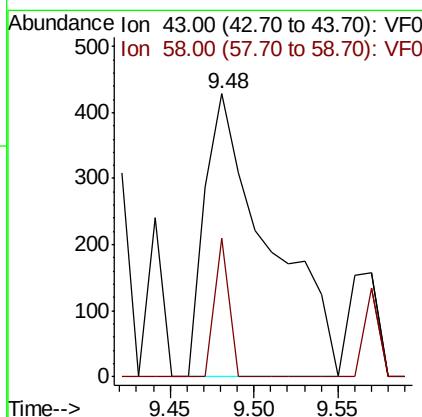
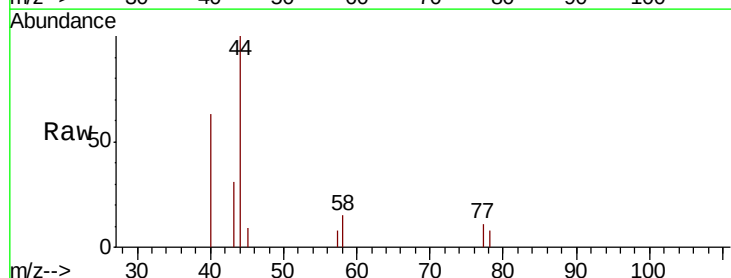
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 SU-03-020819-B

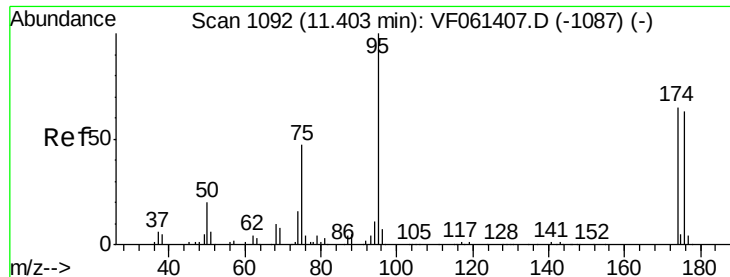
Tgt Ion: 63 Resp: 67  
 Ion Ratio Lower Upper  
 63 100  
 106 0.0 21.9 32.9#



#59  
 2-Hexanone  
 Concen: 1.042 ug/l  
 RT: 9.48 min Scan# 897  
 Delta R.T. 0.00 min  
 Lab File: VF061570.D  
 Acq: 8 Feb 2019 21:09

Tgt Ion: 43 Resp: 1128  
 Ion Ratio Lower Upper  
 43 100  
 58 48.8 25.9 77.6





#62

4-Bromofluorobenzene

Concen: 42.681 ug/l

RT: 11.40 min Scan# 1092

Delta R.T. 0.00 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

Instrument :

MSVOA\_F

ClientSampleId :

SU-03-020819-B

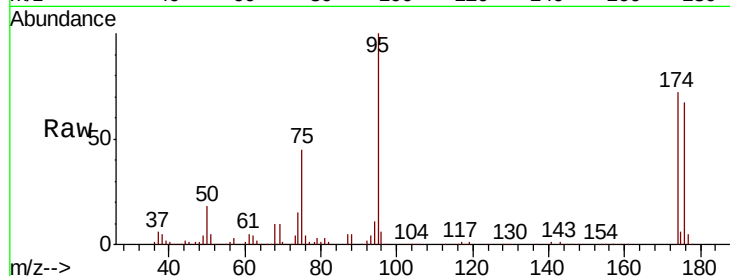
Tgt Ion: 95 Resp: 156452

Ion Ratio Lower Upper

95 100

174 71.6 0.0 130.4

176 67.4 0.0 126.2

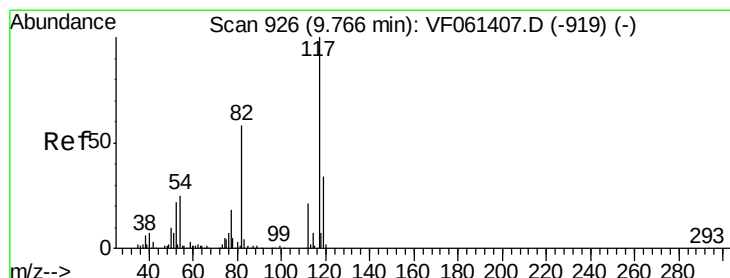
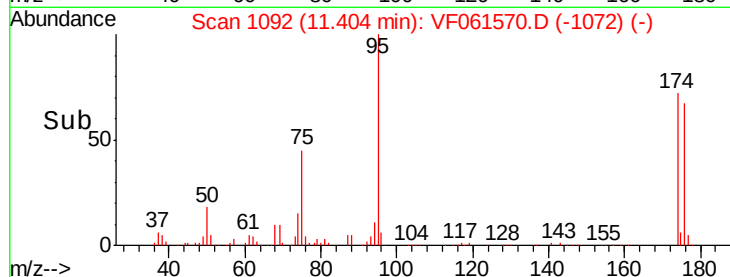
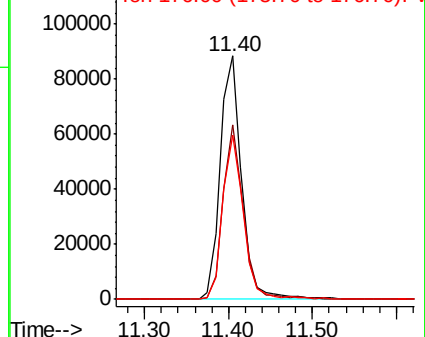


Abundance

Ion 95.00 (94.70 to 95.70): VF0

Ion 174.00 (173.70 to 174.70): V

Ion 176.00 (175.70 to 176.70): V



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 9.77 min Scan# 926

Delta R.T. 0.00 min

Lab File: VF061570.D

Acq: 8 Feb 2019 21:09

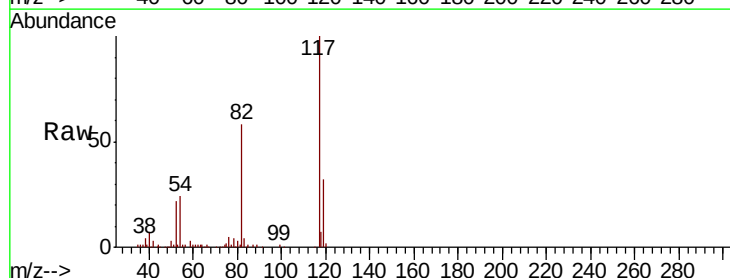
Tgt Ion: 117 Resp: 327361

Ion Ratio Lower Upper

117 100

82 57.6 46.4 69.6

119 32.3 27.2 40.8

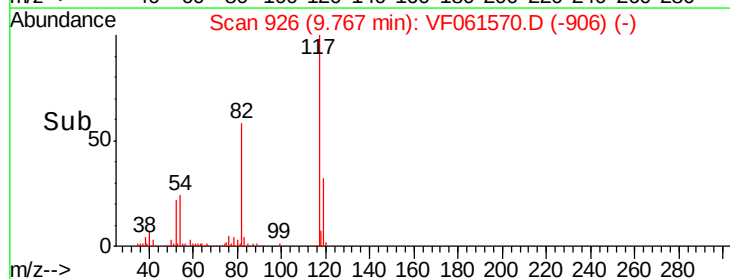
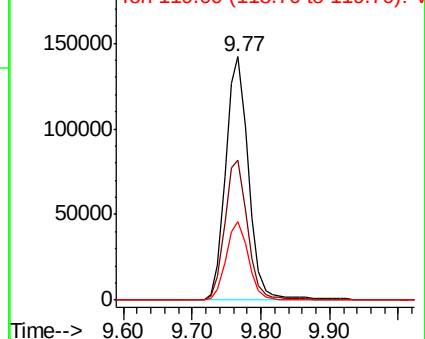


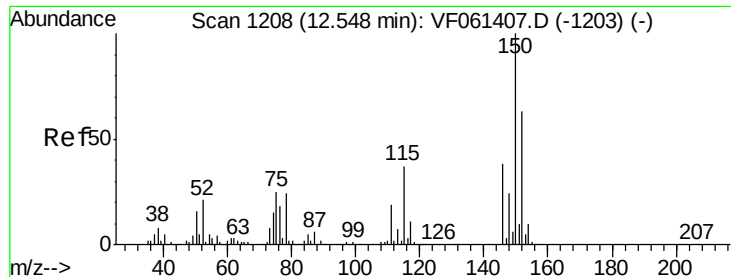
Abundance

Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): V





#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.54 min Scan# 1207  
Delta R.T. -0.01 min  
Lab File: VF061570.D  
Acq: 8 Feb 2019 21:09

Instrument :  
MSVOA\_F  
ClientSampleId :  
SU-03-020819-B

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 66.4  | 30.0  | 90.0  |
| 150     | 156.5 | 0.0   | 321.4 |

