

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF110918\  
 Data File : VF060675.D  
 Acq On : 9 Nov 2018 16:42  
 Operator : VA/AP  
 Sample : J5864-02RE  
 Misc : 5.43g/5mL/MSVOA-F/SOIL  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OLDMANS-2RE

Quant Time: Nov 12 04:13:32 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F110218S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Nov 03 05:29:31 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.87  | 168  | 255969   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.61  | 114  | 459062   | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 9.78  | 117  | 419861   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.55 | 152  | 224970   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |      |
|-----------------------------|--------|-----|----------|-------|--------|------|
| System Monitoring Compounds |        |     |          |       |        |      |
| 33) 1,2-Dichloroethane-d4   | 4.85   | 65  | 128413   | 49.65 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 99.30% |      |
| 35) Dibromofluoromethane    | 4.12   | 113 | 154936   | 43.68 | ug/l   | 0.01 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 87.36% |      |
| 50) Toluene-d8              | 7.56   | 98  | 388938   | 37.02 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 74.04% |      |
| 62) 4-Bromofluorobenzene    | 11.42  | 95  | 192897   | 41.97 | ug/l   | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 83.94% |      |

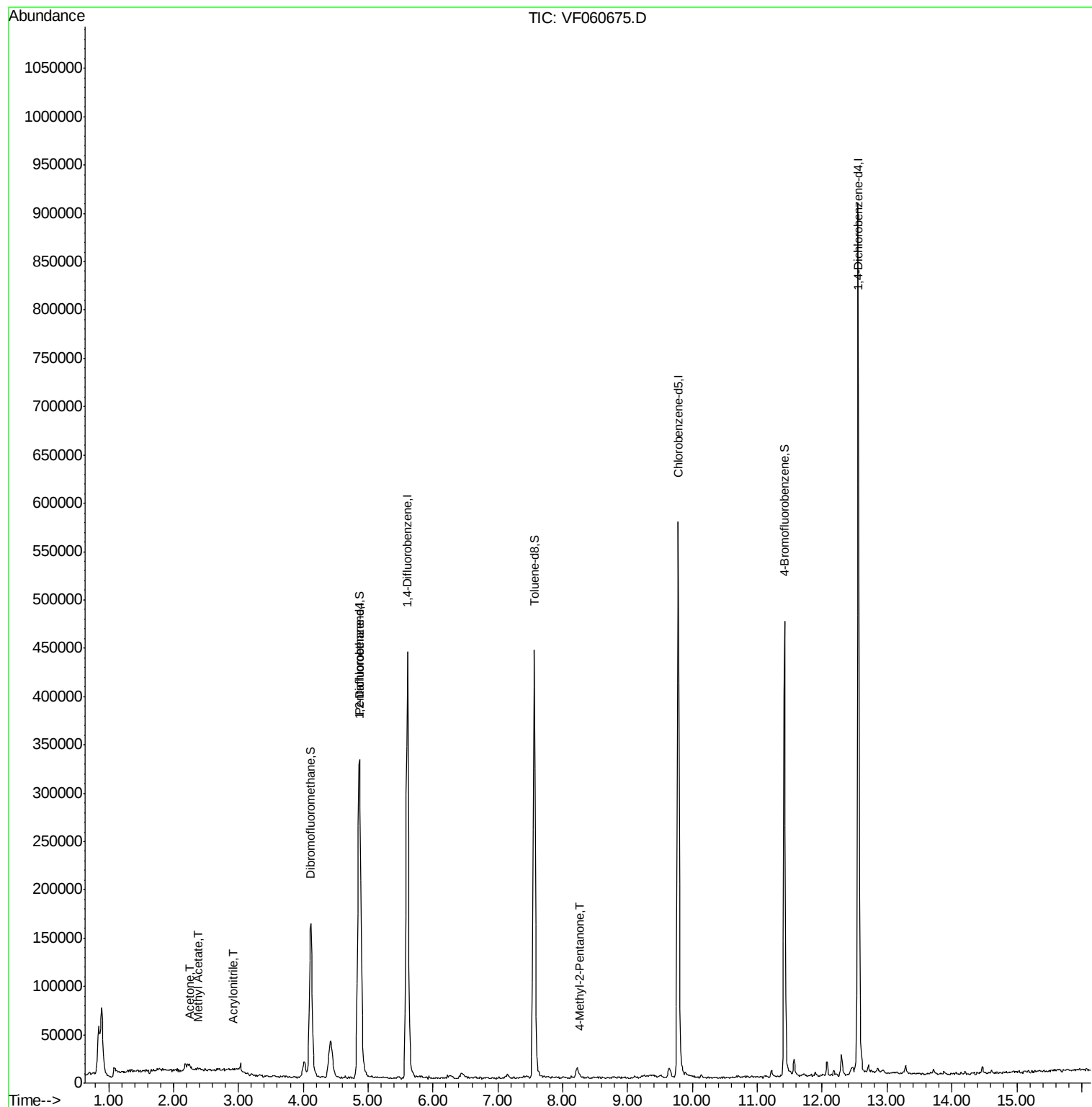
| Target Compounds              | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|-------------------------------|-------|------|----------|-----------|--------|--------|
| 2) Dichlorodifluoromethane    | 0.96  | 85   | 393      | Below Cal |        | 87     |
| 6) Chloroethane               | 1.35  | 64   | 138      | Below Cal | #      | 40     |
| 11) Tert butyl alcohol        | 2.57  | 59   | 422      | Below Cal | #      | 1      |
| 13) Acrolein                  | 1.87  | 56   | 252      | Below Cal |        | 83     |
| 15) Acrylonitrile             | 2.93  | 53   | 527      | 1.710     | ug/l # | 15     |
| 16) Acetone                   | 2.25  | 43   | 1769     | 2.903     | ug/l   | 92     |
| 18) Methyl Acetate            | 2.37  | 43   | 906      | 1.427     | ug/l # | 64     |
| 20) Methylene Chloride        | 2.24  | 84   | 4103     | Below Cal | #      | 85     |
| 25) 2-Butanone                | 4.32  | 43   | 612      | Below Cal | #      | 56     |
| 29) Tetrahydrofuran           | 4.08  | 42   | 773      | Below Cal | #      | 83     |
| 51) 4-Methyl-2-Pentanone      | 8.27  | 43   | 3721     | 1.803     | ug/l # | 68     |
| 58) 2-Chloroethyl Vinyl ether | 7.64  | 63   | 65       | Below Cal |        | 100    |
| 59) 2-Hexanone                | 9.52  | 43   | 2675     | Below Cal |        | 72     |
| 74) N-amyl acetate            | 11.37 | 43   | 892      | Below Cal | #      | 75     |
| 89) n-Butylbenzene            | 12.85 | 91   | 1865     | Below Cal | #      | 70     |

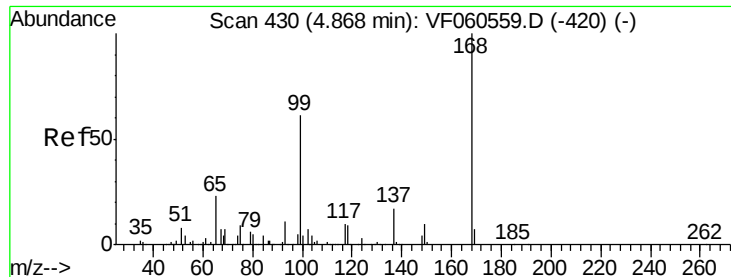
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Sat Nov 03 05:29:31 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.87 min Scan# 430

Delta R.T. 0.00 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

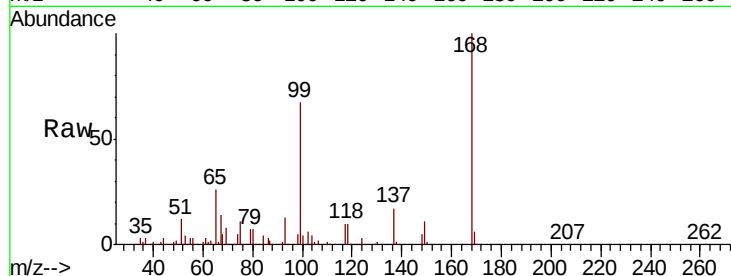
OLDMANS-2RE

Tgt Ion:168 Resp: 255969

Ion Ratio Lower Upper

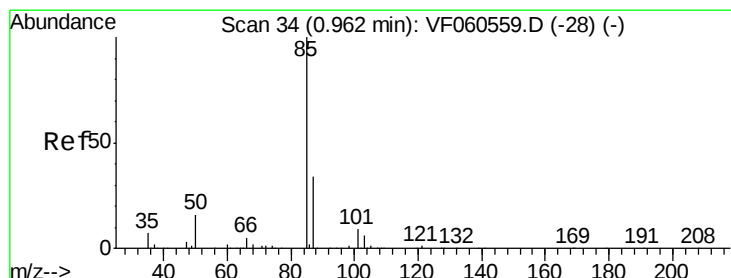
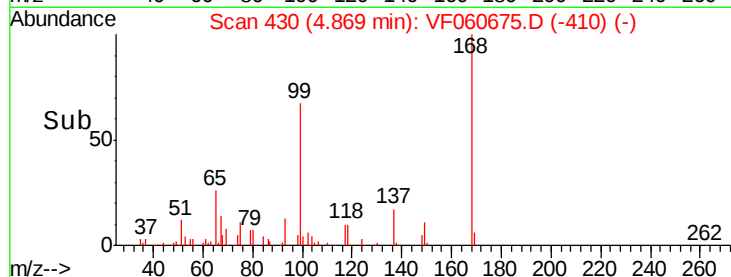
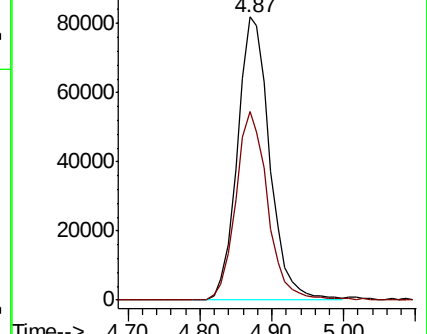
168 100

99 66.7 48.6 72.8



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 0.96 min Scan# 34

Delta R.T. 0.00 min

Lab File: VF060675.D

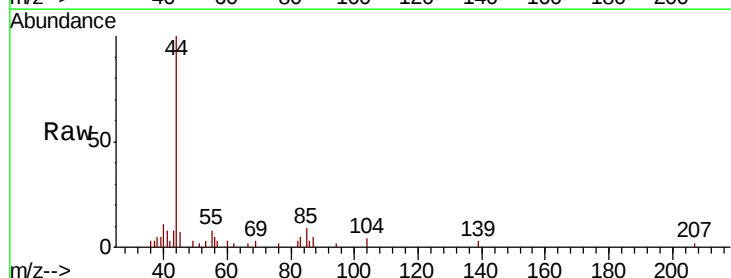
Acq: 9 Nov 2018 16:42

Tgt Ion: 85 Resp: 393

Ion Ratio Lower Upper

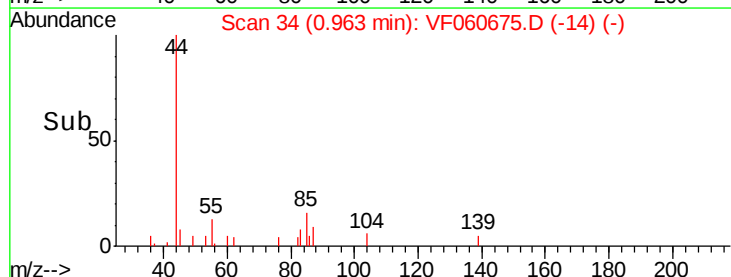
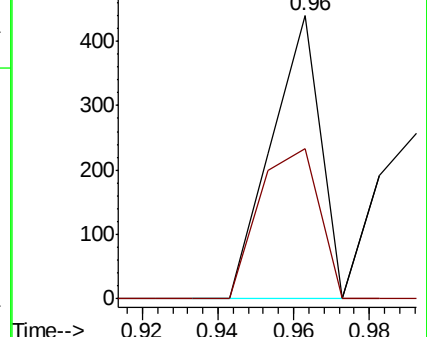
85 100

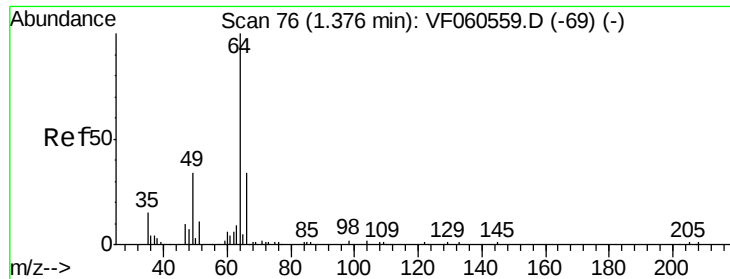
87 41.0 16.9 50.7



Abundance Ion 85.00 (84.70 to 85.70): VF0

Ion 87.00 (86.70 to 87.70): VF0





#6

Chloroethane

Concen: Below Cal

RT: 1.35 min Scan# 73

Delta R.T. -0.03 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

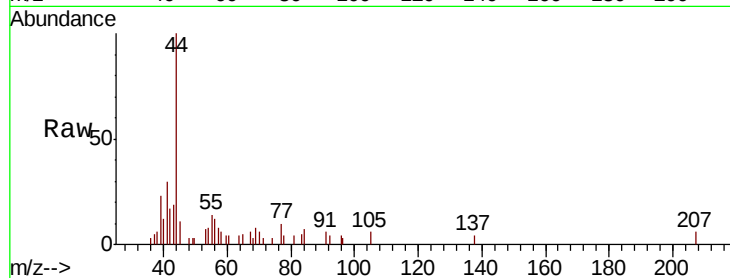
OLDMANS-2RE

Tgt Ion: 64 Resp: 138

Ion Ratio Lower Upper

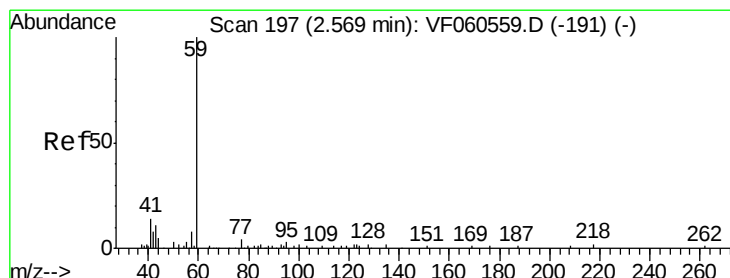
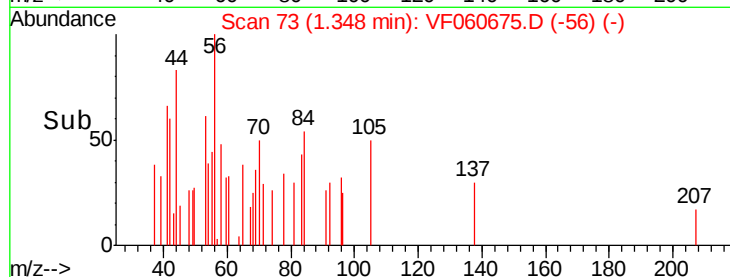
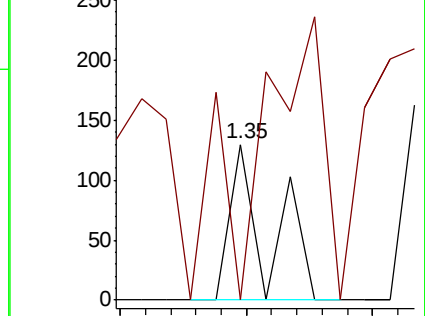
64 100

66 0.0 27.8 41.8#



Abundance Ion 64.00 (63.70 to 64.70): VF0

Ion 66.00 (65.70 to 66.70): VF0



#11

Tert butyl alcohol

Concen: Below Cal

RT: 2.57 min Scan# 197

Delta R.T. 0.00 min

Lab File: VF060675.D

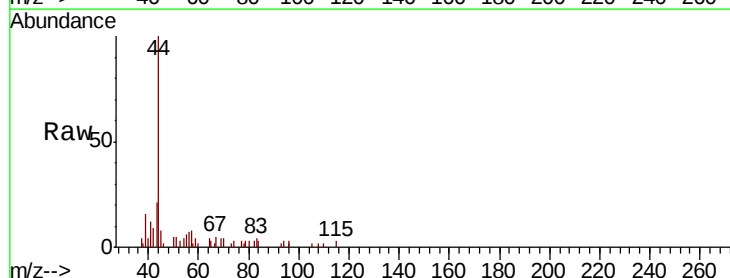
Acq: 9 Nov 2018 16:42

Tgt Ion: 59 Resp: 422

Ion Ratio Lower Upper

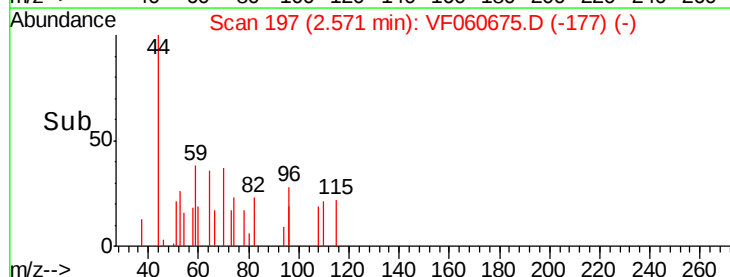
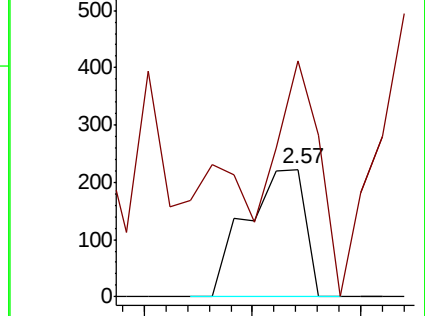
59 100

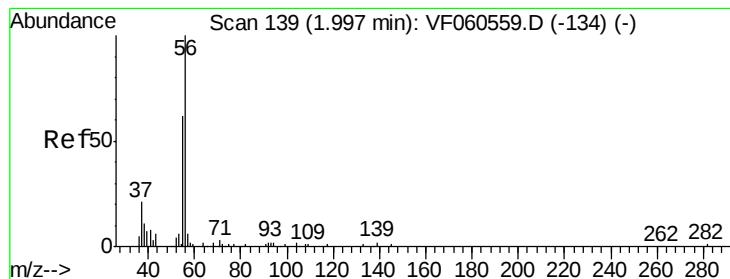
57 185.1 19.0 28.4#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0





#13

Acrolein

Concen: Below Cal

RT: 1.87 min Scan# 126

Delta R.T. -0.13 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

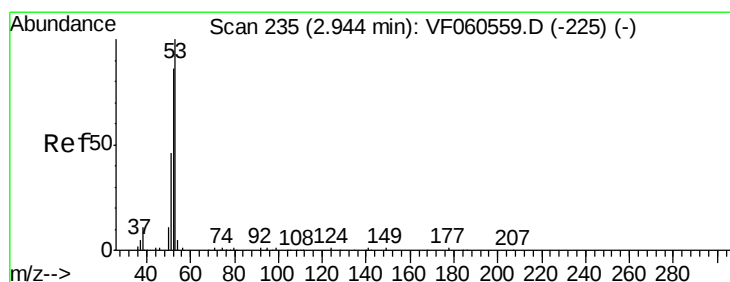
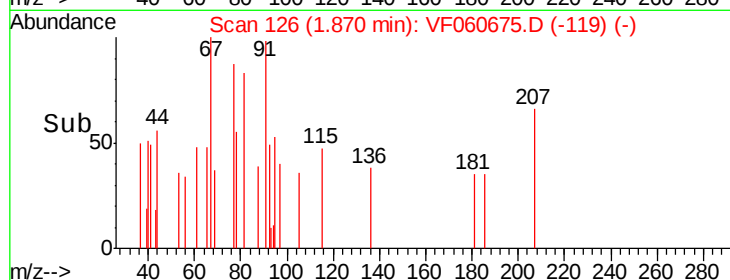
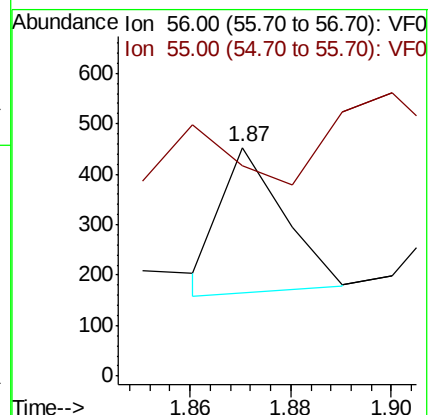
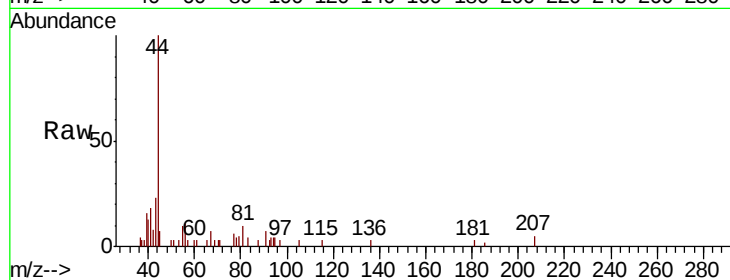
OLDMANS-2RE

Tgt Ion: 56 Resp: 252

Ion Ratio Lower Upper

56 100

55 92.3 61.8 92.6



#15

Acrylonitrile

Concen: 1.710 ug/l

RT: 2.93 min Scan# 233

Delta R.T. -0.02 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

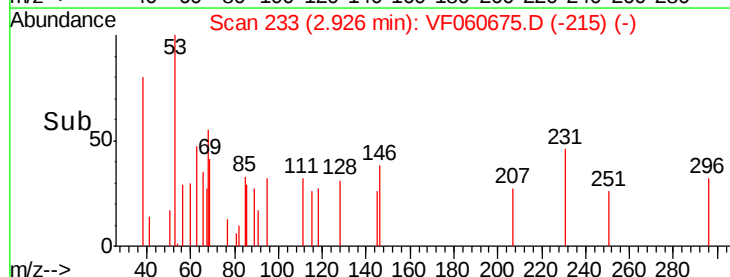
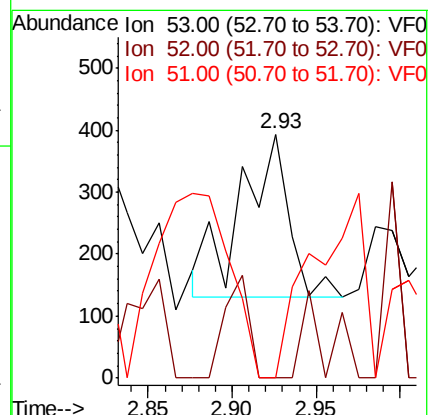
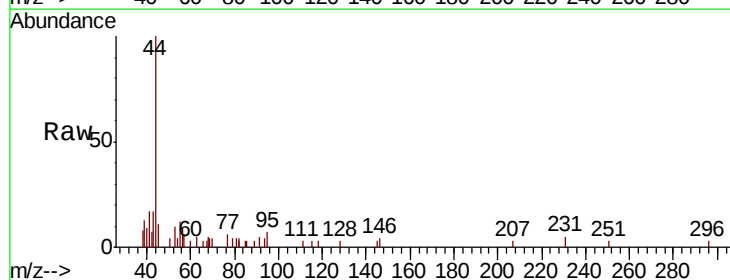
Tgt Ion: 53 Resp: 527

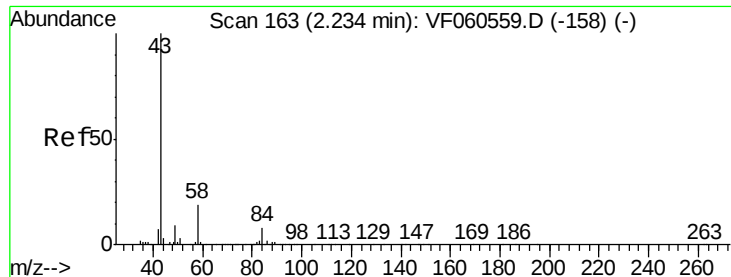
Ion Ratio Lower Upper

53 100

52 0.0 68.5 102.7#

51 0.0 38.2 57.2#





#16

Acetone

Concen: 2.903 ug/l

RT: 2.25 min Scan# 164

Delta R.T. 0.01 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

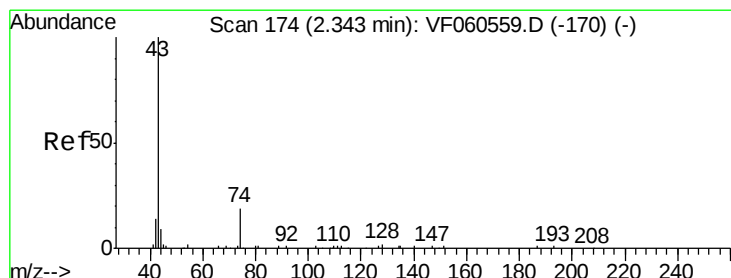
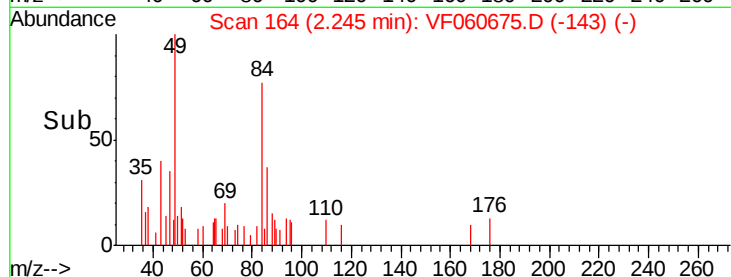
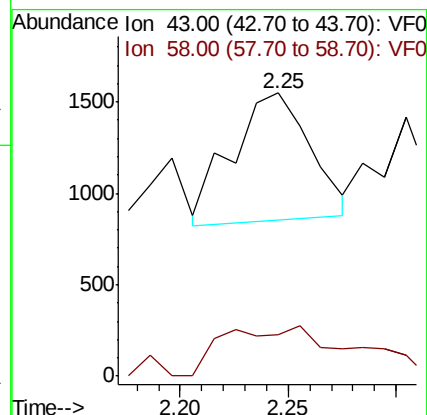
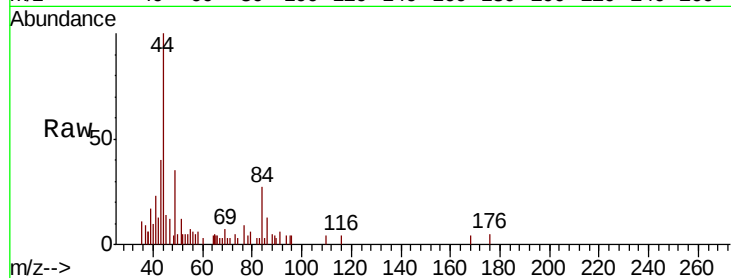
OLDMANS-2RE

Tgt Ion: 43 Resp: 1769

Ion Ratio Lower Upper

43 100

58 14.7 14.6 22.0



#18

Methyl Acetate

Concen: 1.427 ug/l

RT: 2.37 min Scan# 177

Delta R.T. 0.03 min

Lab File: VF060675.D

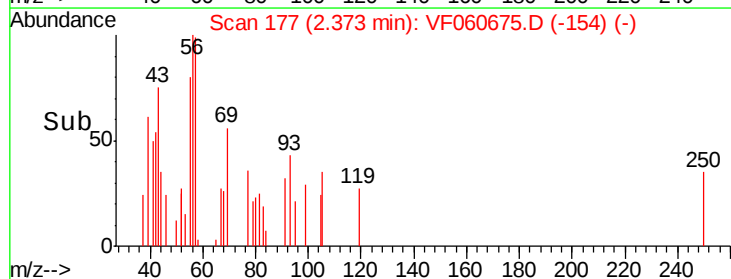
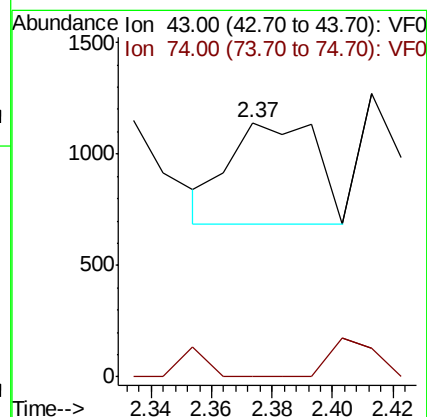
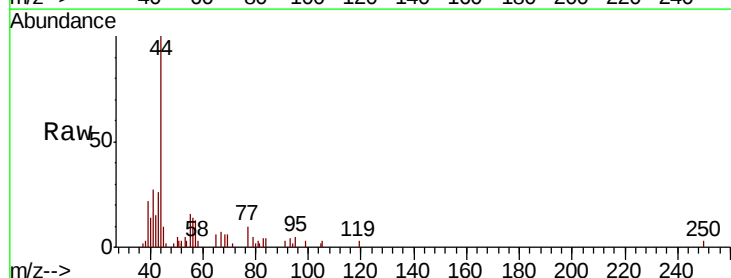
Acq: 9 Nov 2018 16:42

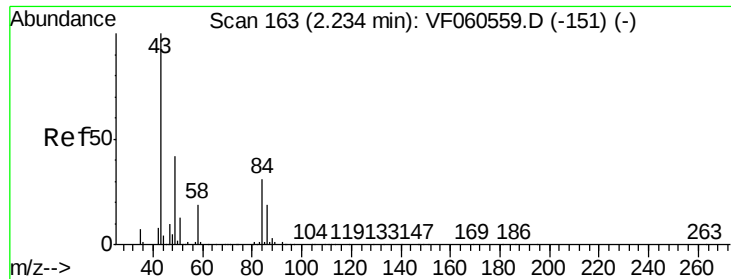
Tgt Ion: 43 Resp: 906

Ion Ratio Lower Upper

43 100

74 0.0 12.1 18.1#

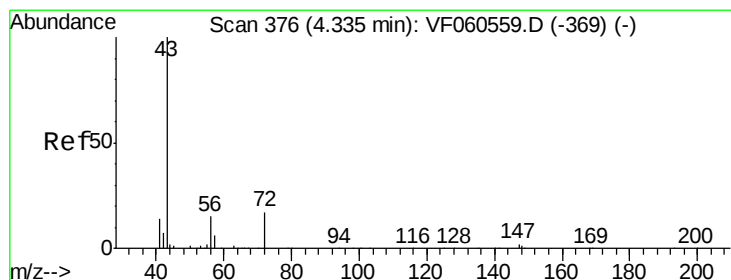
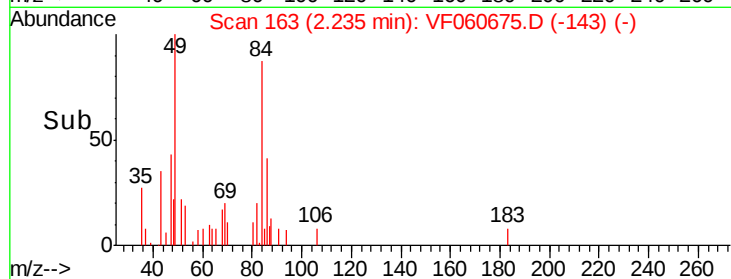
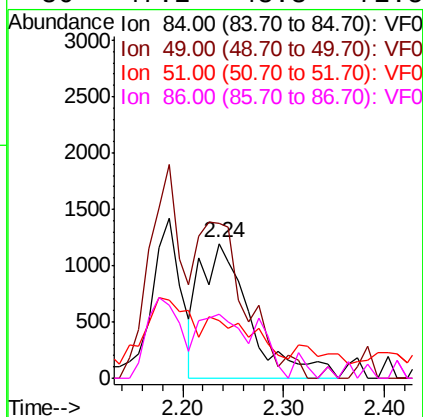
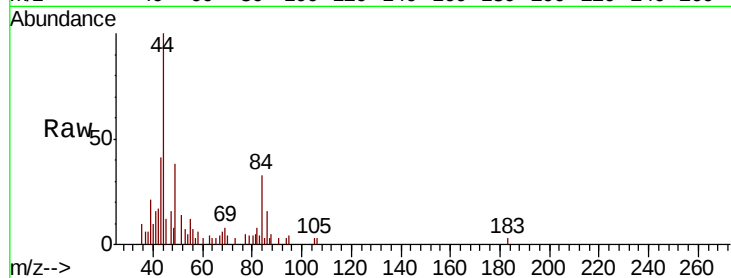




#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.24 min Scan# 163  
Delta R.T. 0.00 min  
Lab File: VF060675.D  
Acq: 9 Nov 2018 16:42

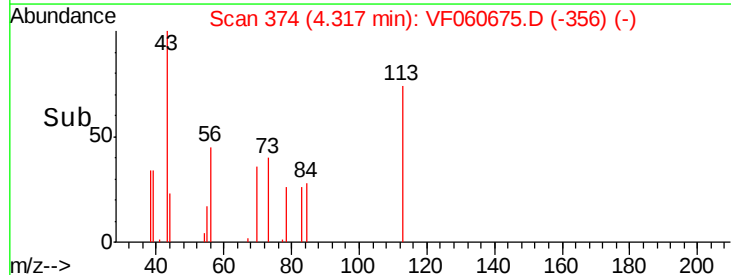
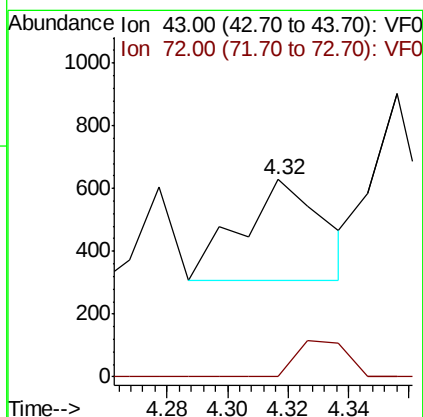
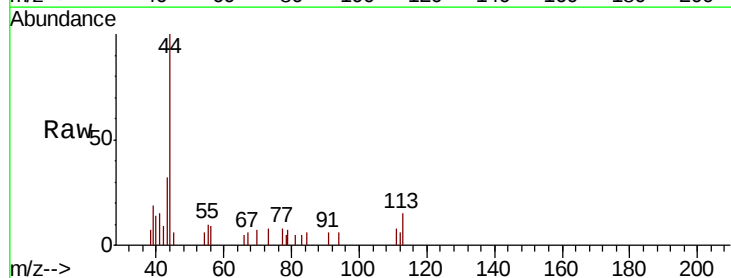
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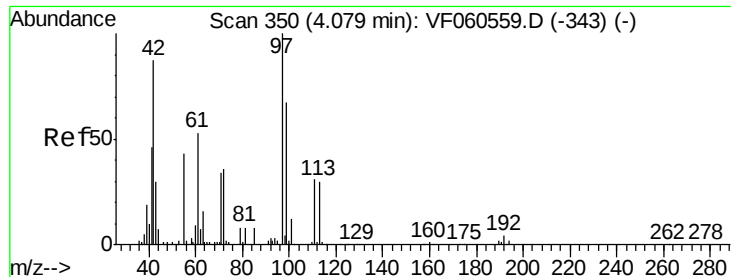
Tgt Ion: 84 Resp: 4103  
Ion Ratio Lower Upper  
84 100  
49 115.1 109.9 164.9  
51 42.9 35.8 53.8  
86 47.2 48.3 72.5#



#25  
2-Butanone  
Concen: Below Cal  
RT: 4.32 min Scan# 374  
Delta R.T. -0.02 min  
Lab File: VF060675.D  
Acq: 9 Nov 2018 16:42

Tgt Ion: 43 Resp: 612  
Ion Ratio Lower Upper  
43 100  
72 0.0 16.2 24.2#





#29

Tetrahydrofuran

Concen: Below Cal

RT: 4.08 min Scan# 350

Delta R.T. 0.00 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

OLDMANS-2RE

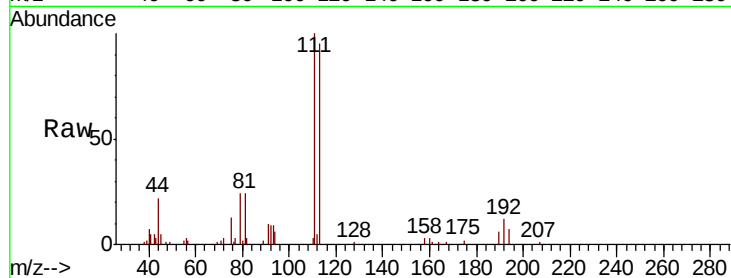
Tgt Ion: 42 Resp: 773

Ion Ratio Lower Upper

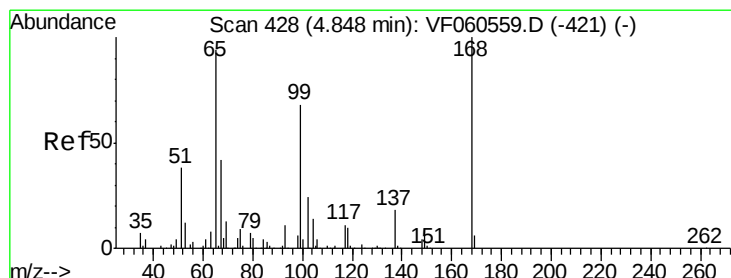
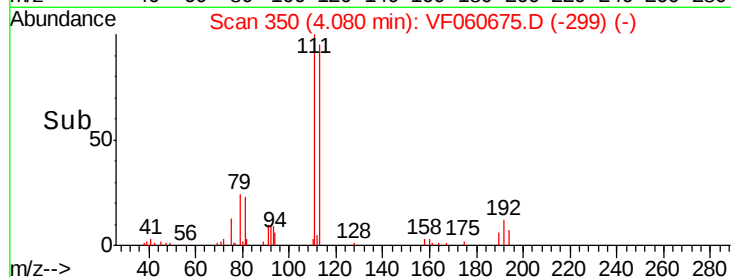
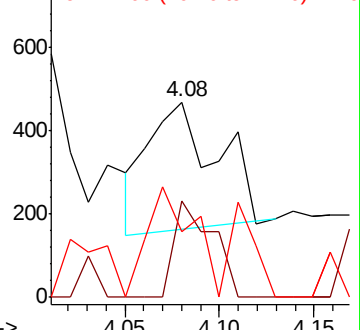
42 100

72 41.8 31.4 47.0

71 58.1 31.8 47.6#



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: 49.652 ug/l

RT: 4.85 min Scan# 428

Delta R.T. 0.00 min

Lab File: VF060675.D

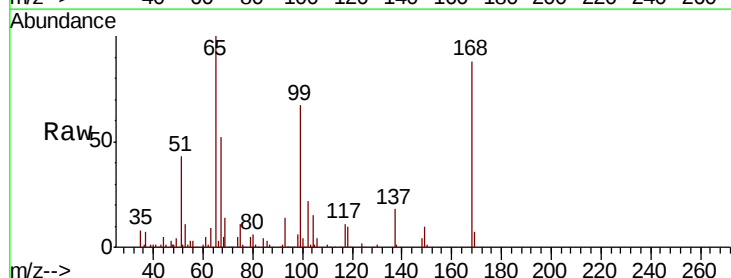
Acq: 9 Nov 2018 16:42

Tgt Ion: 65 Resp: 128413

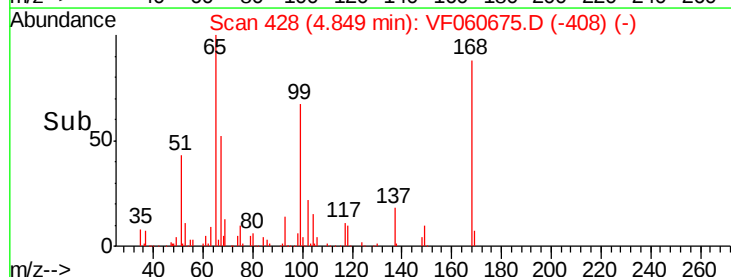
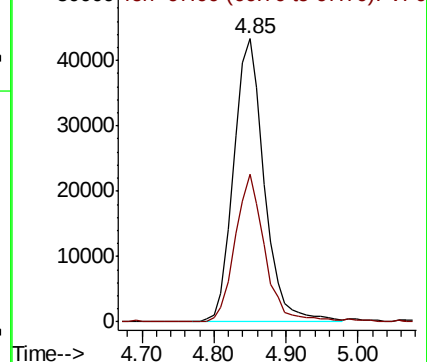
Ion Ratio Lower Upper

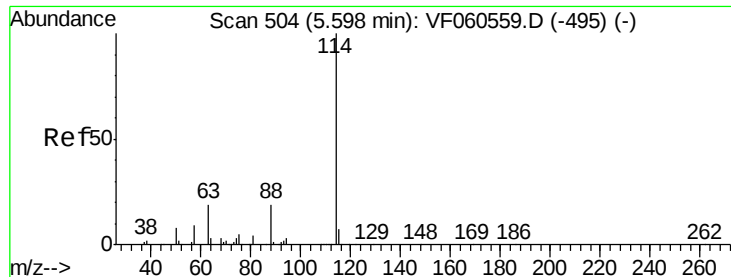
65 100

67 52.2 0.0 101.8



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: 5.61 min Scan# 505

Delta R.T. 0.01 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

OLDMANS-2RE

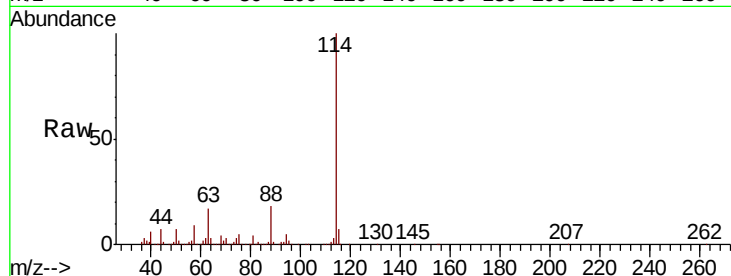
Tgt Ion:114 Resp: 459062

Ion Ratio Lower Upper

114 100

63 17.4 0.0 39.0

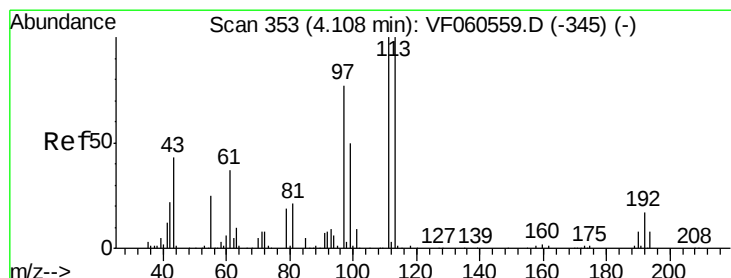
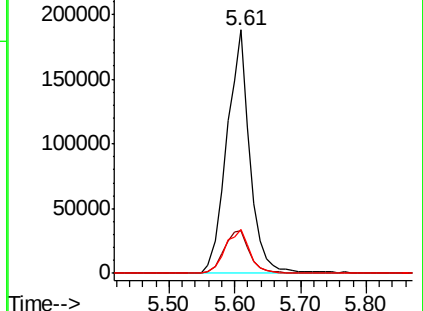
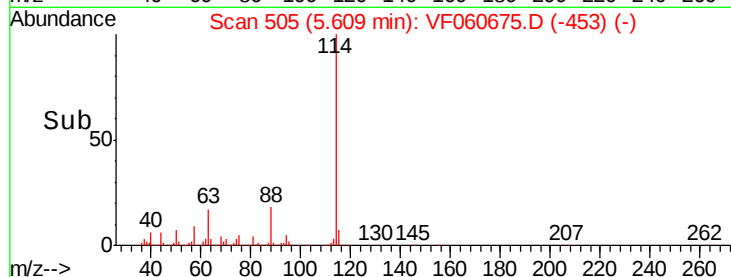
88 18.1 0.0 38.2



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: 43.685 ug/l

RT: 4.12 min Scan# 354

Delta R.T. 0.01 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

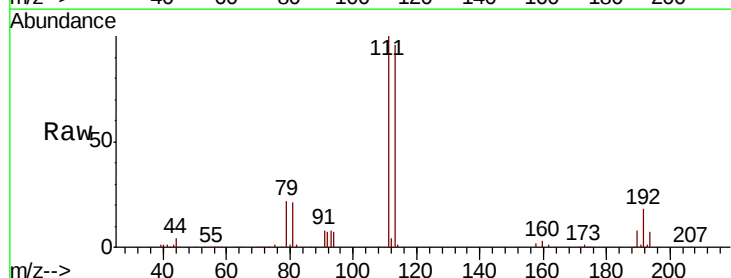
Tgt Ion:113 Resp: 154936

Ion Ratio Lower Upper

113 100

111 103.9 79.9 119.9

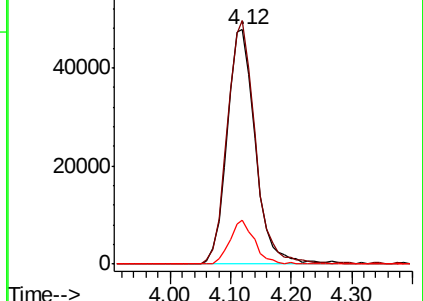
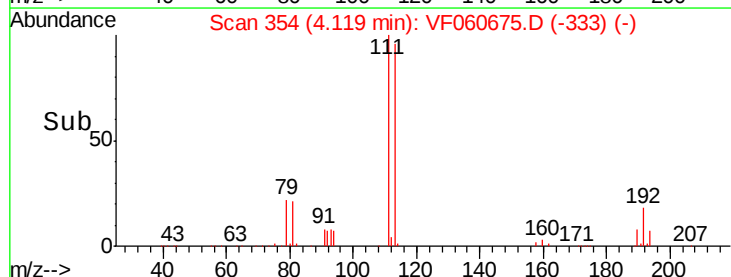
192 19.3 13.3 19.9

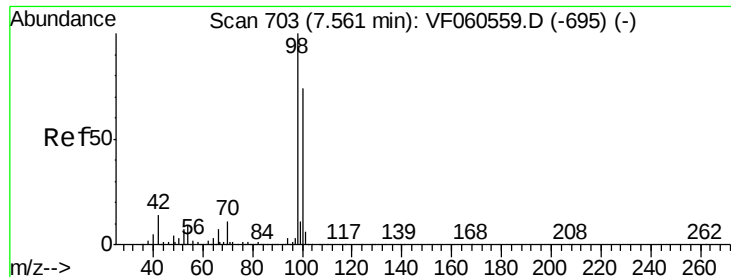


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V





#50

Toluene-d8

Concen: 37.019 ug/l

RT: 7.56 min Scan# 703

Delta R.T. 0.00 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

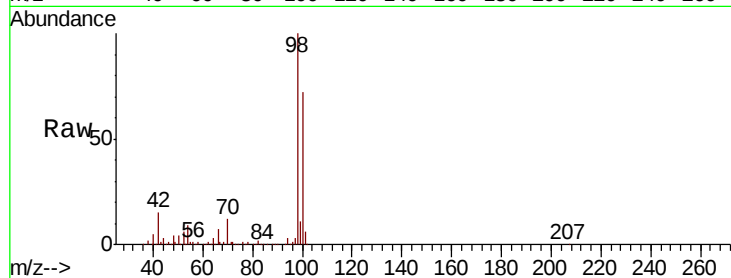
OLDMANS-2RE

Tgt Ion: 98 Resp: 388938

Ion Ratio Lower Upper

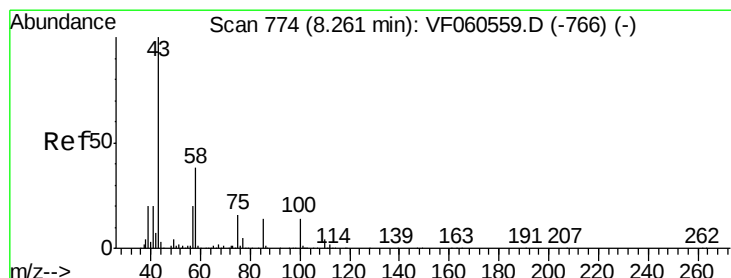
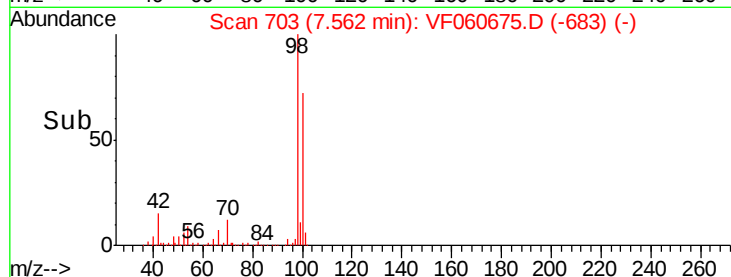
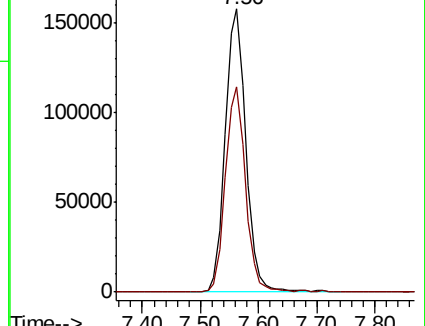
98 100

100 72.5 59.4 89.2



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF0



#51

4-Methyl-2-Pentanone

Concen: 1.803 ug/l

RT: 8.27 min Scan# 775

Delta R.T. 0.01 min

Lab File: VF060675.D

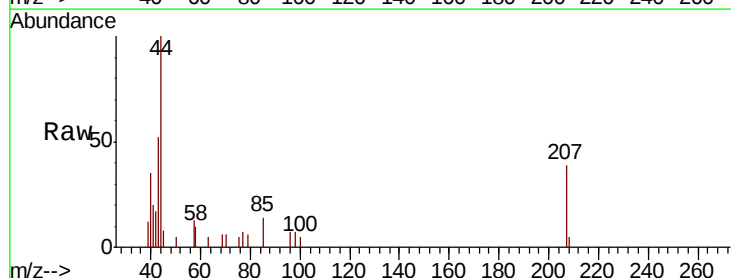
Acq: 9 Nov 2018 16:42

Tgt Ion: 43 Resp: 3721

Ion Ratio Lower Upper

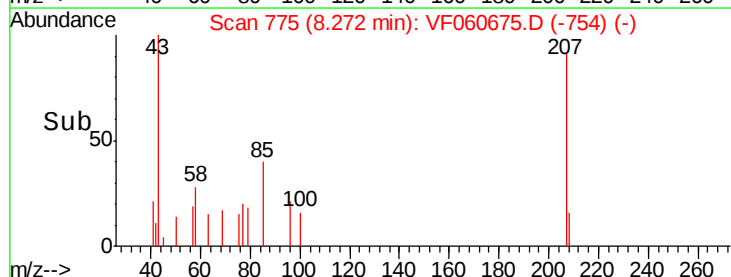
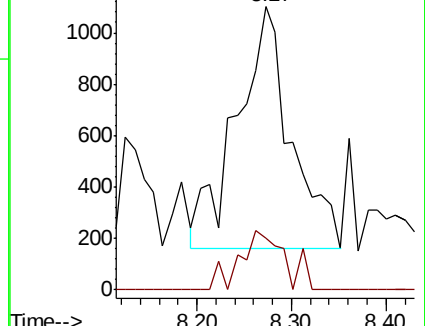
43 100

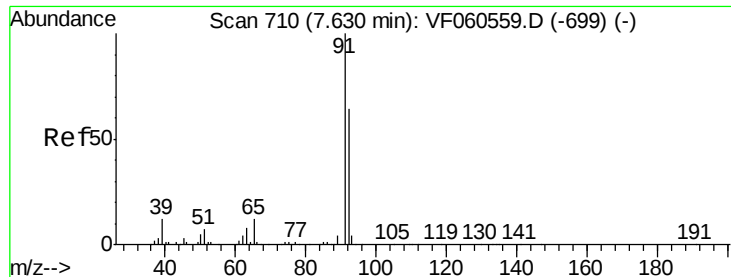
58 18.3 30.1 45.1#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

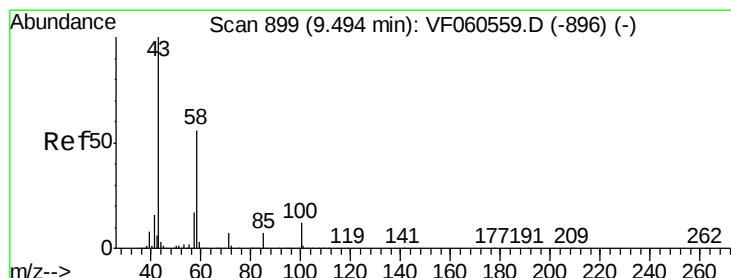
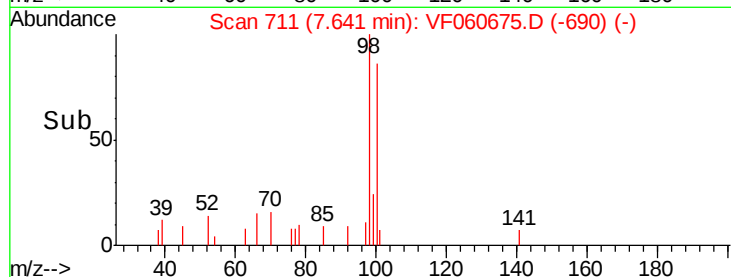
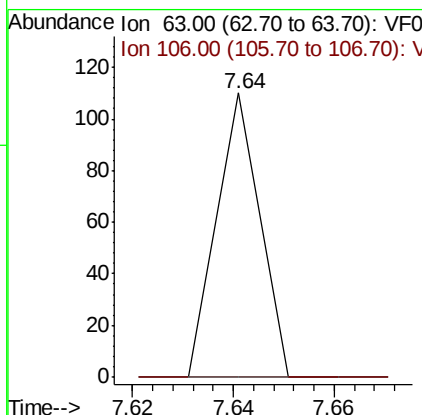
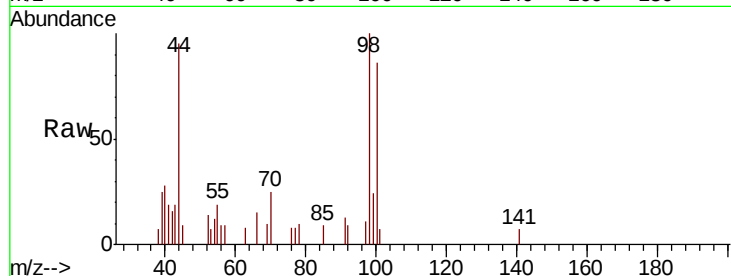




#58  
 2-Chloroethyl Vinyl ether  
 Concen: Below Cal  
 RT: 7.64 min Scan# 711  
 Delta R.T. 0.01 min  
 Lab File: VF060675.D  
 Acq: 9 Nov 2018 16:42

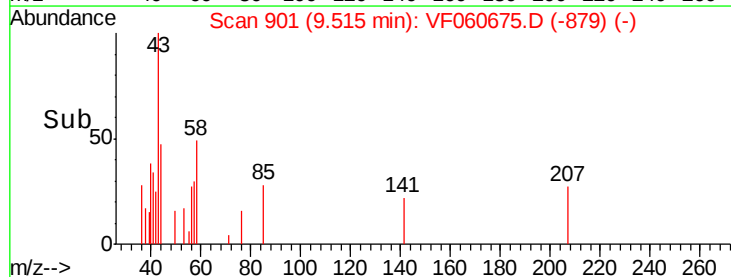
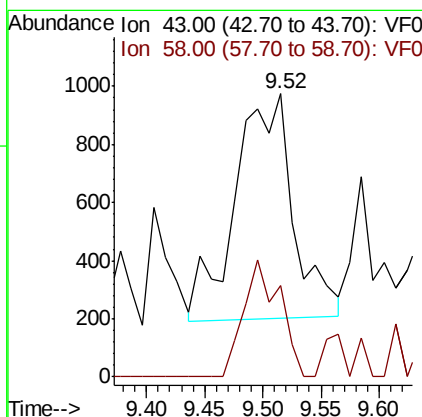
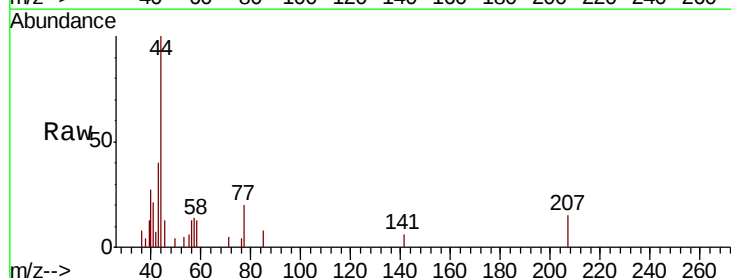
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OLDMANS-2RE

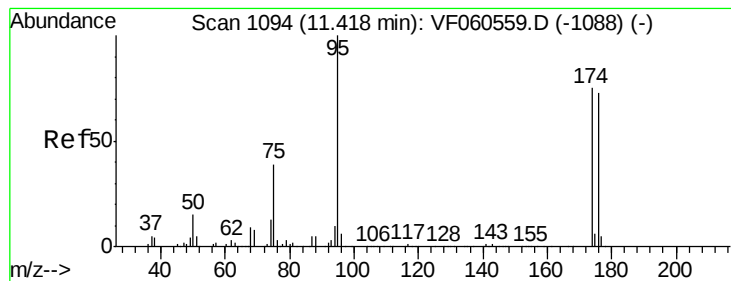
Tgt Ion: 63 Resp: 65  
 Ion Ratio Lower Upper  
 63 100  
 106 0.0 0.0 0.0



#59  
 2-Hexanone  
 Concen: Below Cal  
 RT: 9.52 min Scan# 901  
 Delta R.T. 0.02 min  
 Lab File: VF060675.D  
 Acq: 9 Nov 2018 16:42

Tgt Ion: 43 Resp: 2675  
 Ion Ratio Lower Upper  
 43 100  
 58 32.2 26.1 78.3





#62

4-Bromofluorobenzene

Concen: 41.974 ug/l

RT: 11.42 min Scan# 1094

Delta R.T. 0.00 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampled :

OLDMANS-2RE

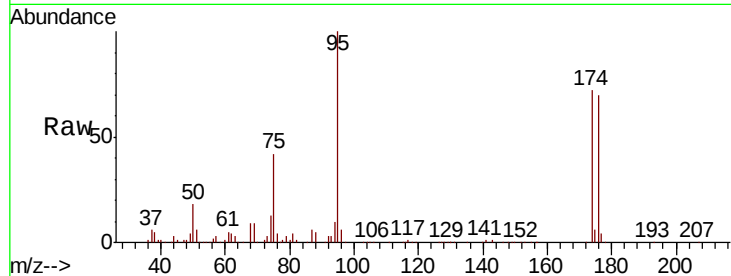
Tgt Ion: 95 Resp: 192897

Ion Ratio Lower Upper

95 100

174 72.0 0.0 149.0

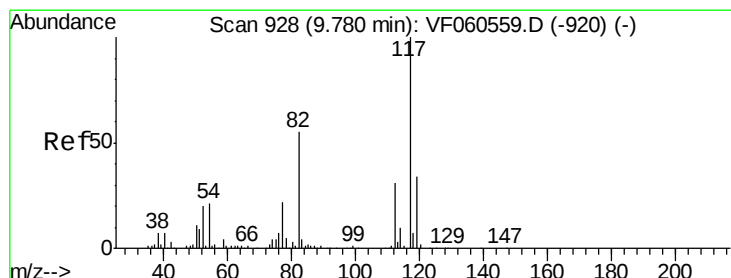
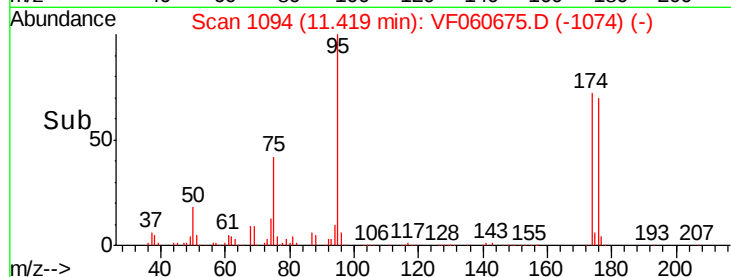
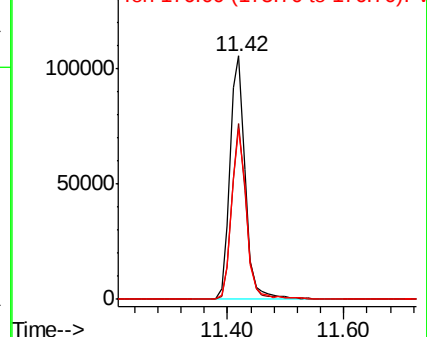
176 70.3 0.0 145.6



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: 50.000 ug/l

RT: 9.78 min Scan# 928

Delta R.T. 0.00 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

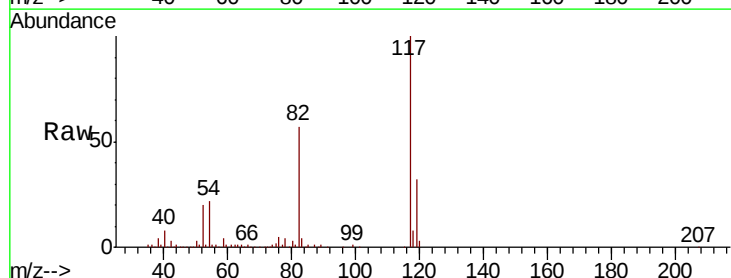
Tgt Ion: 117 Resp: 419861

Ion Ratio Lower Upper

117 100

82 57.4 43.9 65.9

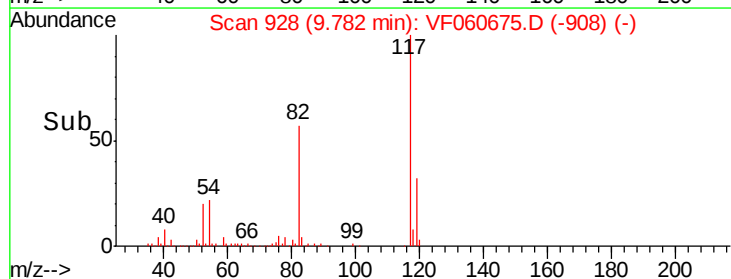
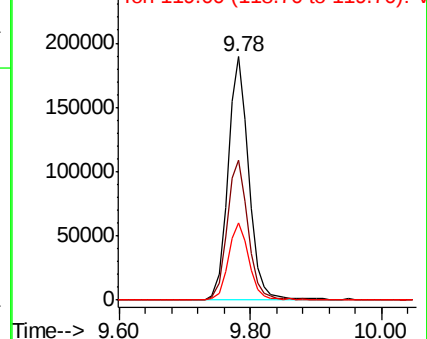
119 31.9 27.4 41.0

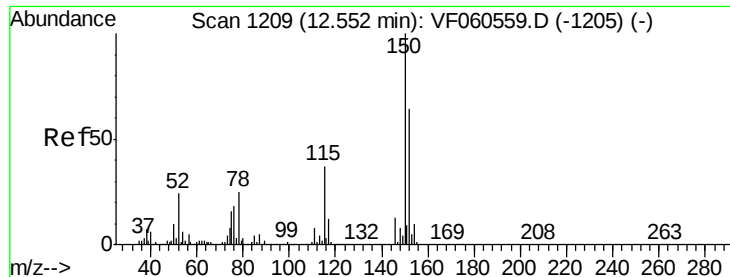


Abundance Ion 117.00 (116.70 to 117.70): VF0

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): VF0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.55 min Scan# 1209

Delta R.T. 0.00 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Instrument :

MSVOA\_F

ClientSampleId :

OLDMANS-2RE

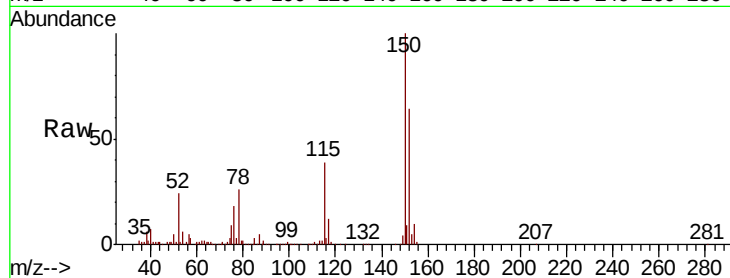
Tgt Ion:152 Resp: 224970

Ion Ratio Lower Upper

152 100

115 61.7 29.6 88.8

150 157.3 0.0 315.6

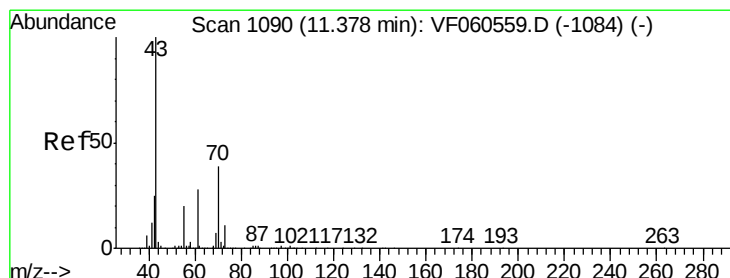
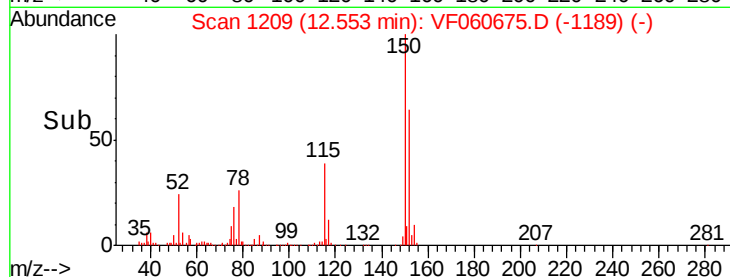
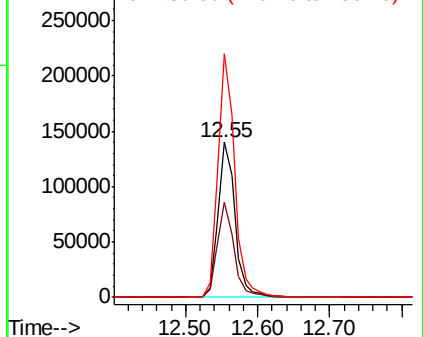


Abundance

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-ethyl acetate

Concen: Below Cal

RT: 11.37 min Scan# 1089

Delta R.T. -0.01 min

Lab File: VF060675.D

Acq: 9 Nov 2018 16:42

Tgt Ion: 43 Resp: 892

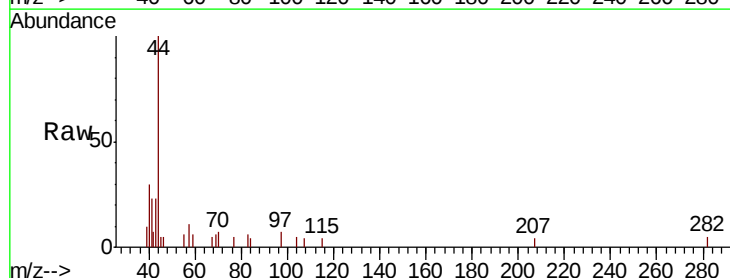
Ion Ratio Lower Upper

43 100

70 30.5 30.9 46.3#

55 24.8 16.6 24.8

61 0.0 22.0 33.0#



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

