

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF080818\  
 Data File : VF059930.D  
 Acq On : 8 Aug 2018 14:42  
 Operator : VA/AP  
 Sample : J4360-01RE  
 Misc : 6.13g/5mL/MSVOA F/SOIL  
 ALS Vial : 35 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 155-SOILRE

Quant Time: Aug 09 05:21:41 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Aug 04 07:08:36 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.07  | 168  | 2854     | 50.00 | ug/l  | 0.03     |
| 34) 1,4-Difluorobenzene    | 5.79  | 114  | 2470     | 50.00 | ug/l  | 0.02     |
| 63) Chlorobenzene-d5       | 9.94  | 117  | 2010     | 50.00 | ug/l  | 0.02     |
| 72) 1,4-Dichlorobenzene-d4 | 12.65 | 152  | 729      | 50.00 | ug/l  | 0.02     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.03  | 65   | 646      | 12.56 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 25.12% |          |
| 35) Dibromofluoromethane    | 4.29  | 113  | 874      | 35.56 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 71.12% |          |
| 50) Toluene-d8              | 7.73  | 98   | 2102     | 40.20 | ug/l   | 0.02     |
| Spiked Amount               |       |      | Recovery | =     | 80.40% |          |
| 62) 4-Bromofluorobenzene    | 11.52 | 95   | 694      | 23.62 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 47.24% |          |

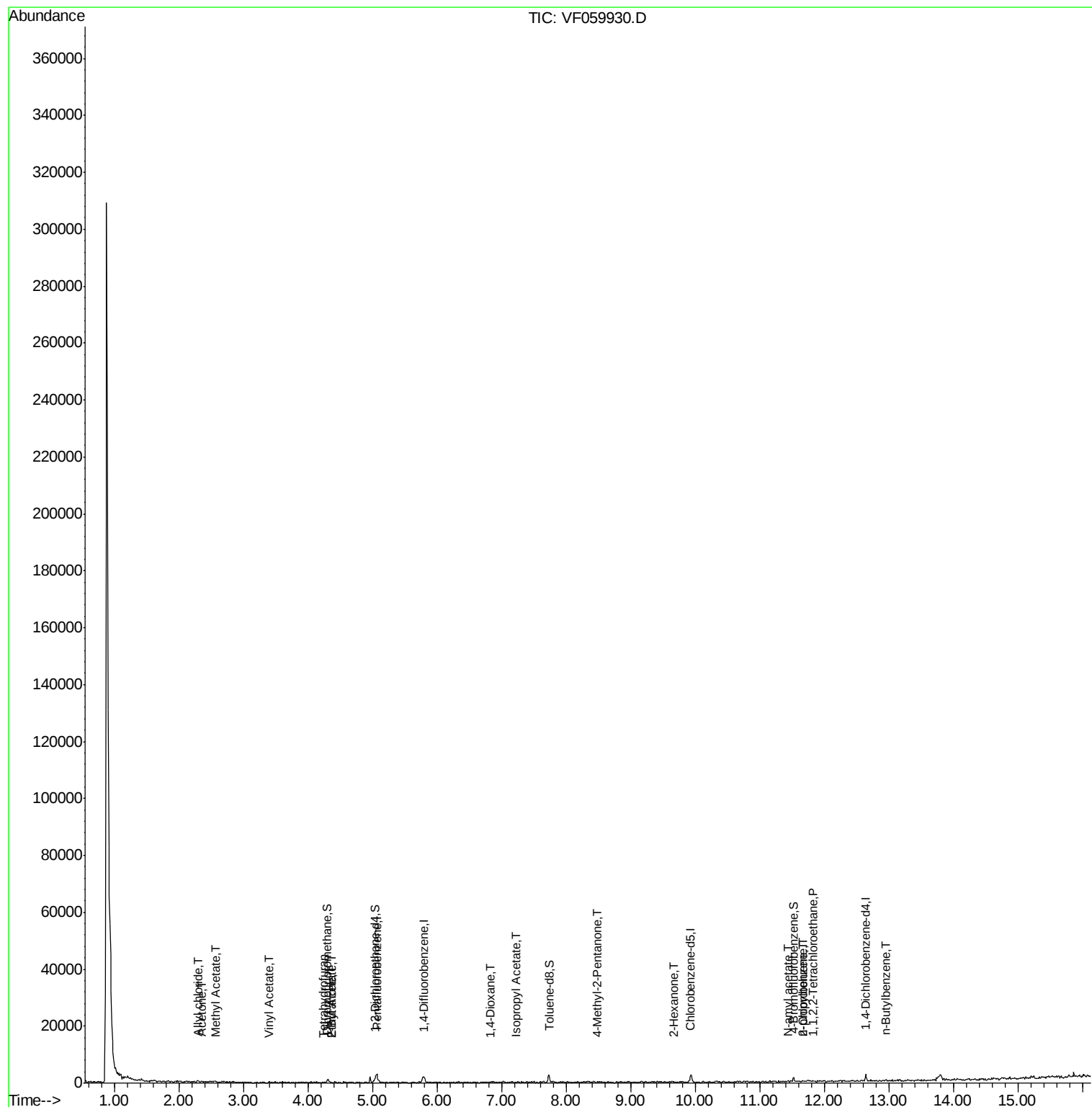
| Target Compounds              | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|-------------------------------|-------|------|----------|--------|--------|--------|
| 14) Allyl chloride            | 2.30  | 41   | 66       | 1.55   | ug/l # | 1      |
| 16) Acetone                   | 2.34  | 43   | 84       | 8.84   | ug/l # | 70     |
| 18) Methyl Acetate            | 2.58  | 43   | 68       | 4.24   | ug/l # | 56     |
| 23) Vinyl Acetate             | 3.38  | 43   | 63       | 1.59   | ug/l # | 80     |
| 25) 2-Butanone                | 4.37  | 43   | 60       | 5.81   | ug/l # | 60     |
| 29) Tetrahydrofuran           | 4.22  | 42   | 60       | 15.78  | ug/l # | 38     |
| 37) Ethyl Acetate             | 4.37  | 43   | 60       | 4.89   | ug/l # | 1      |
| 43) Isopropyl Acetate         | 7.22  | 43   | 87       | 6.89   | ug/l # | 51     |
| 49) 1,4-Dioxane               | 6.81  | 88   | 59       | 848.93 | ug/l # | 16     |
| 51) 4-Methyl-2-Pentanone      | 8.47  | 43   | 59       | 4.57   | ug/l # | 43     |
| 59) 2-Hexanone                | 9.67  | 43   | 72       | 7.89   | ug/l # | 34     |
| 74) N-amyl acetate            | 11.44 | 43   | 94       | 10.83  | ug/l # | 48     |
| 75) 1,1,2,2-Tetrachloroethane | 11.83 | 83   | 71       | 8.33   | ug/l # | 23     |
| 78) n-propylbenzene           | 11.67 | 91   | 64       | 1.19   | ug/l # | 55     |
| 79) 2-Chlorotoluene           | 11.67 | 91   | 64       | 1.89   | ug/l # | 44     |
| 89) n-Butylbenzene            | 12.95 | 91   | 69       | 1.58   | ug/l # | 31     |

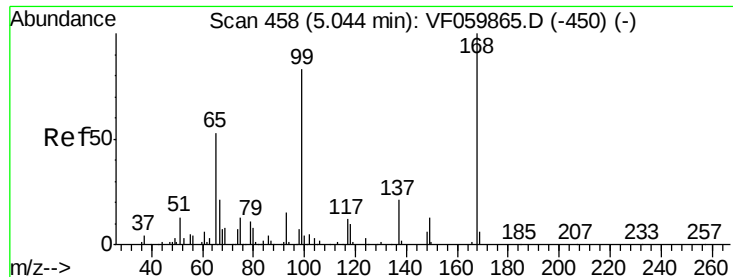
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF080818\  
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Sample : J4360-01RE  
Misc : 6.13q/5mL/MSVOA F/SOIL  
ALS Vial : 35 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
155-SOILRE

Quant Time: Aug 09 05:21:41 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F080418S.M  
Quant Title : SW846 8260  
QLast Update : Sat Aug 04 07:08:36 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.07 min Scan# 460

Delta R.T. 0.03 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampleId :

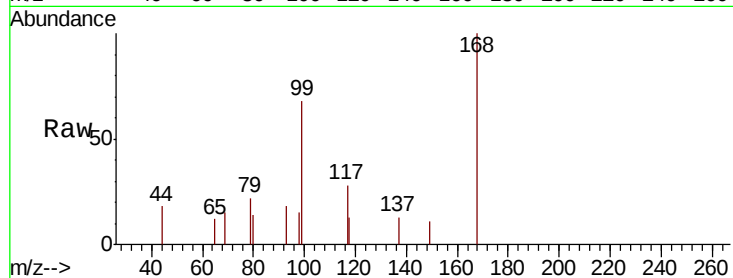
155-SOILRE

Tot Ion:168 Resp: 2854

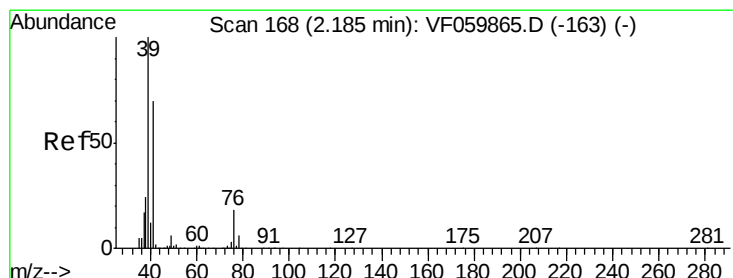
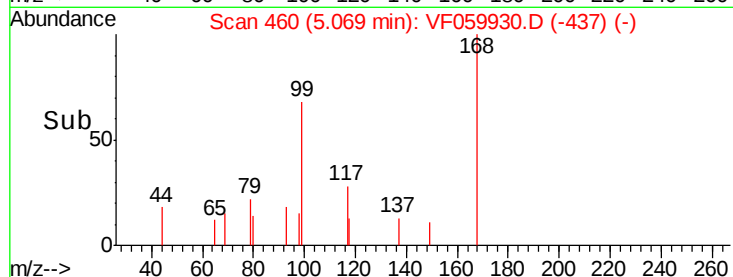
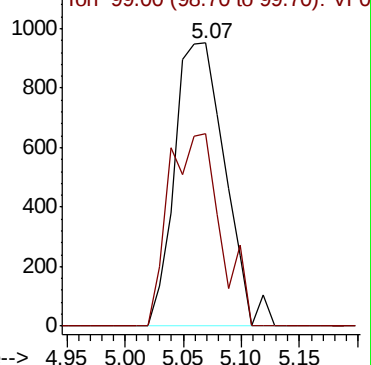
Ion Ratio Lower Upper

168 100

99 68.0 66.3 99.5



Abundance Ion 168.00 (167.70 to 168.70): VF0



#14

Allyl chloride

Concen: 1.55 ug/l

RT: 2.30 min Scan# 179

Delta R.T. 0.11 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

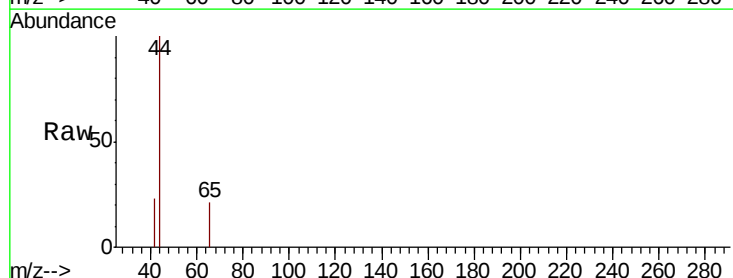
Tgt Ion: 41 Resp: 66

Ion Ratio Lower Upper

41 100

39 0.0 114.6 171.8#

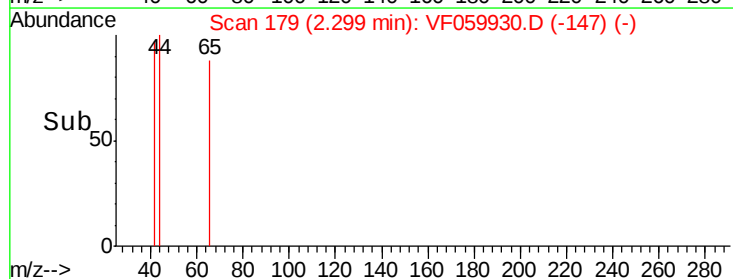
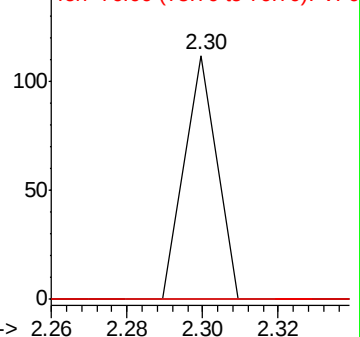
76 0.0 21.0 31.4#

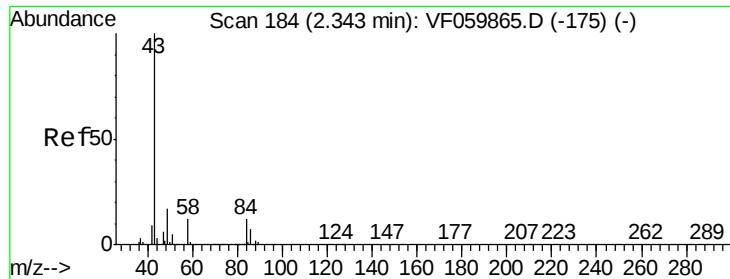


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

Ion 76.00 (75.70 to 76.70): VF0





#16

Acetone

Concen: 8.84 ug/l

RT: 2.34 min Scan# 183

Delta R.T. -0.00 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampleId :

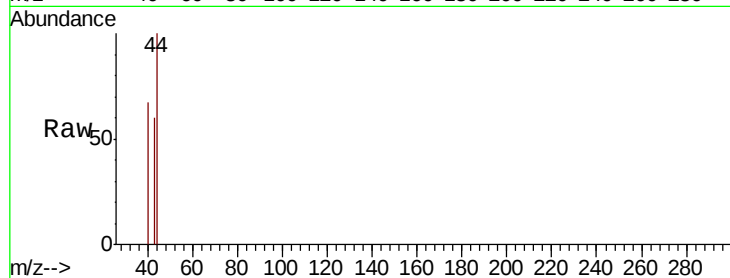
155-SOILRE

Tot Ion: 43 Resp: 84

Ion Ratio Lower Upper

43 100

58 0.0 9.4 14.0#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

2.34

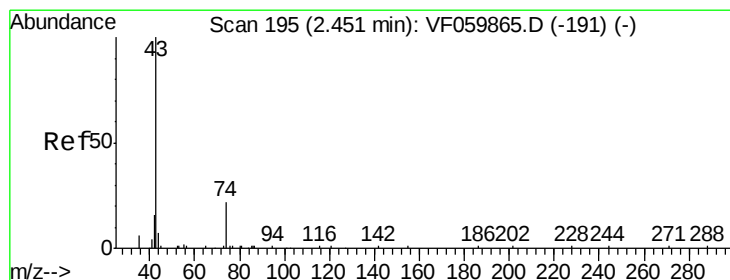
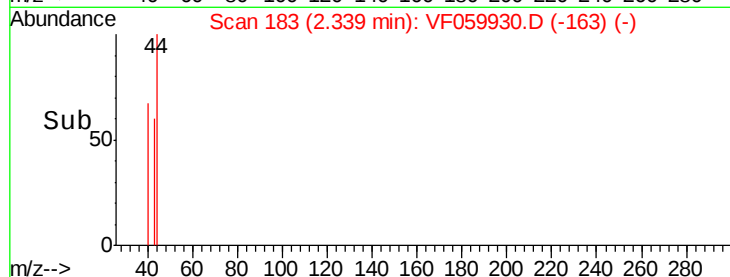
150

100

50

0

Time--> 2.30 2.32 2.34 2.36



#18

Methyl Acetate

Concen: 4.24 ug/l

RT: 2.58 min Scan# 207

Delta R.T. 0.12 min

Lab File: VF059930.D

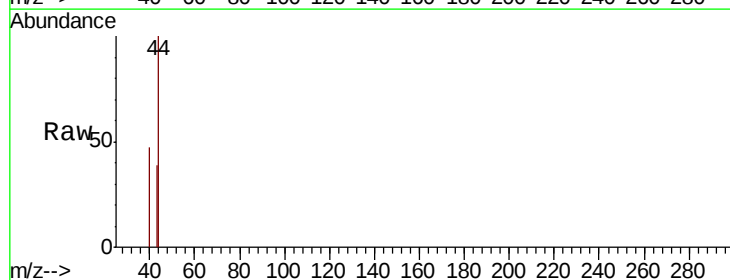
Acq: 8 Aug 2018 14:42

Tgt Ion: 43 Resp: 68

Ion Ratio Lower Upper

43 100

74 0.0 16.3 24.5#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0

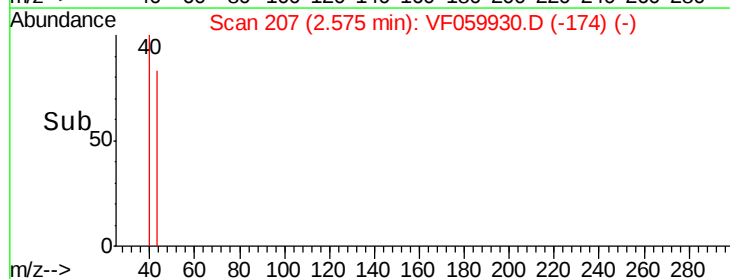
2.58

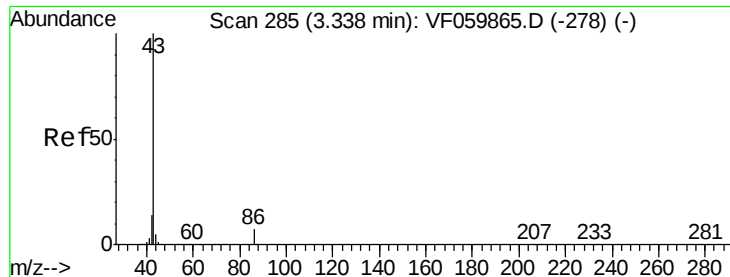
100

50

0

Time--> 2.54 2.56 2.58 2.60





#23

Vinyl Acetate

Concen: 1.59 ug/l

RT: 3.38 min Scan# 289

Delta R.T. 0.05 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

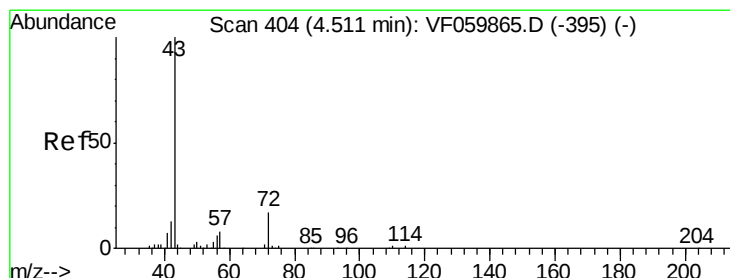
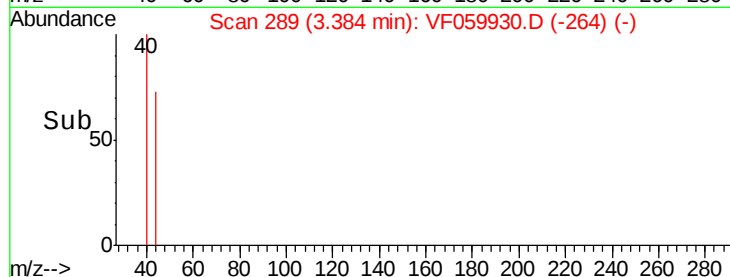
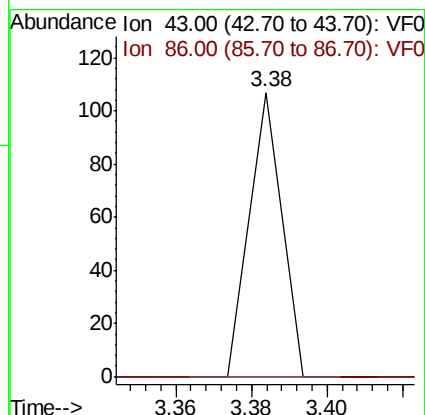
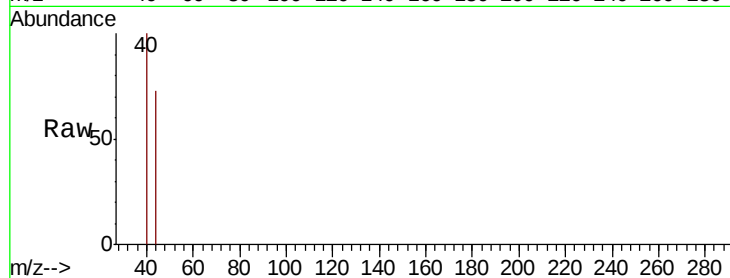
Instrument :  
MSVOA\_F  
ClientSampleId :  
155-SOILRE

Tot Ion: 43 Resp: 63

Ion Ratio Lower Upper

43 100

86 0.0 5.6 8.4#



#25

2-Butanone

Concen: 5.81 ug/l

RT: 4.37 min Scan# 389

Delta R.T. -0.14 min

Lab File: VF059930.D

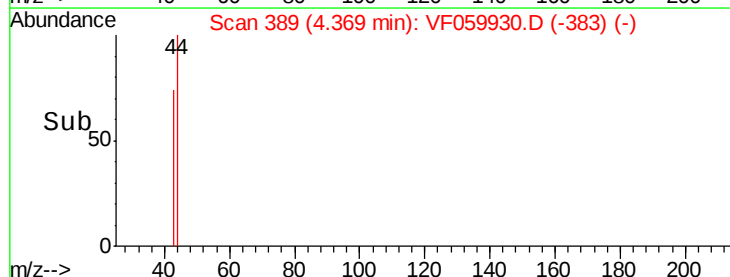
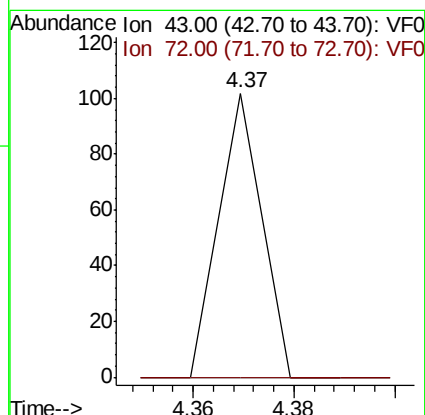
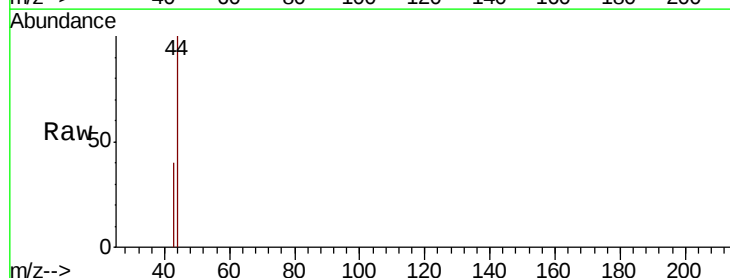
Acq: 8 Aug 2018 14:42

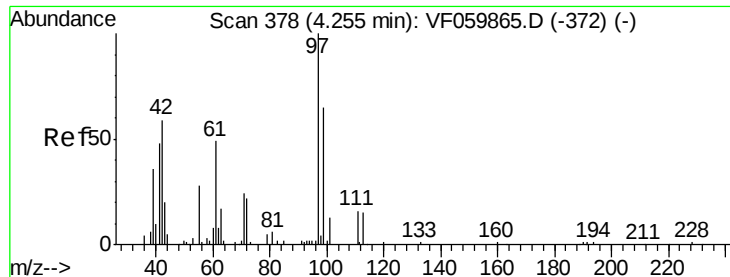
Tgt Ion: 43 Resp: 60

Ion Ratio Lower Upper

43 100

72 0.0 13.9 20.9#

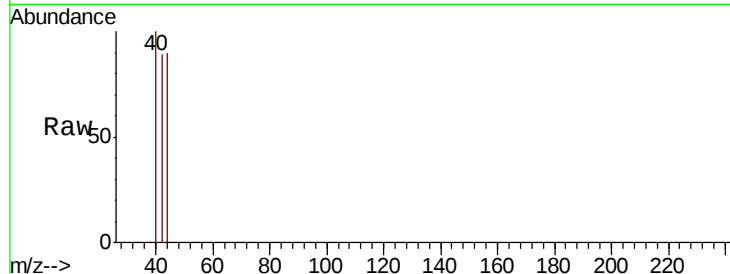




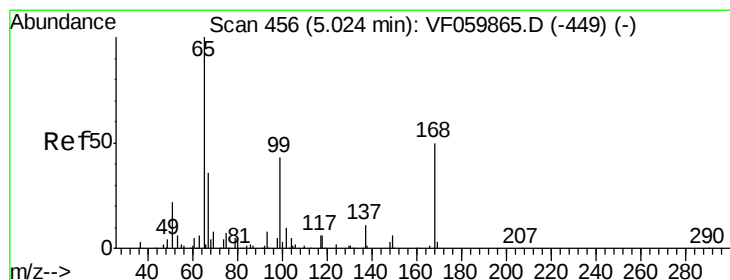
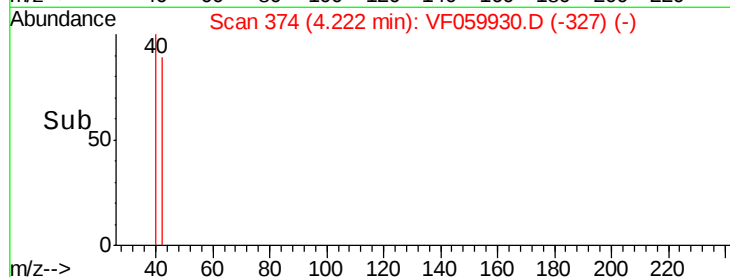
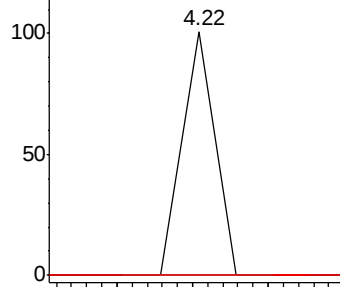
#29  
Tetrahydrofuran  
Concen: 15.78 ug/l  
RT: 4.22 min Scan# 374  
Delta R.T. -0.03 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
155-SOILRE

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 0.0   | 29.3  | 43.9# |
| 71      | 0.0   | 30.0  | 45.0# |

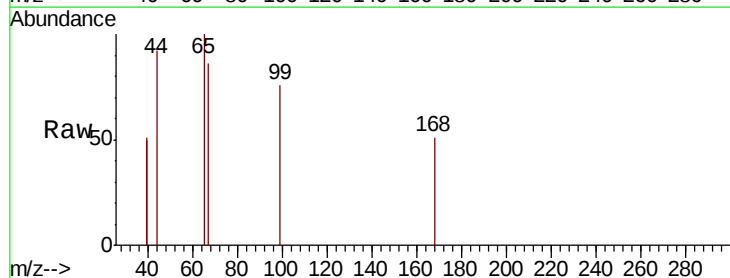


Abundance Ion 42.00 (41.70 to 42.70): VF0  
Ion 72.00 (71.70 to 72.70): VF0  
Ion 71.00 (70.70 to 71.70): VF0

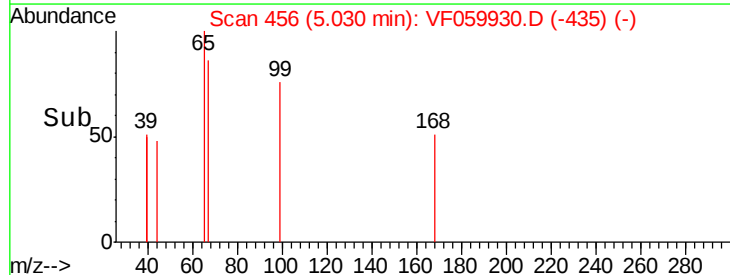
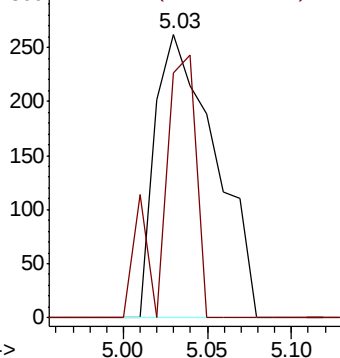


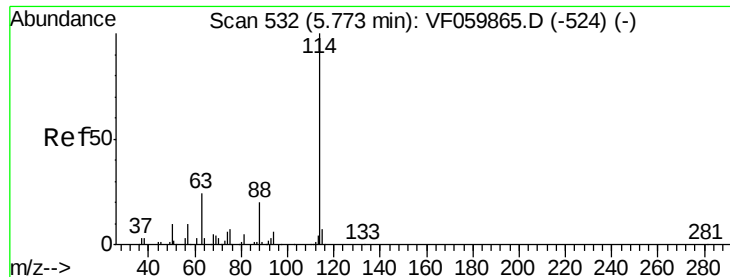
#33  
1,2-Dichloroethane-d4  
Concen: 12.56 ug/l  
RT: 5.03 min Scan# 456  
Delta R.T. 0.01 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 65      | 100   |       |       |
| 67      | 86.3  | 0.0   | 77.2# |



Abundance Ion 65.00 (64.70 to 65.70): VF0  
Ion 67.00 (66.70 to 67.70): VF0





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 5.79 min Scan# 533

Delta R.T. 0.02 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampleId :

155-SOILRE

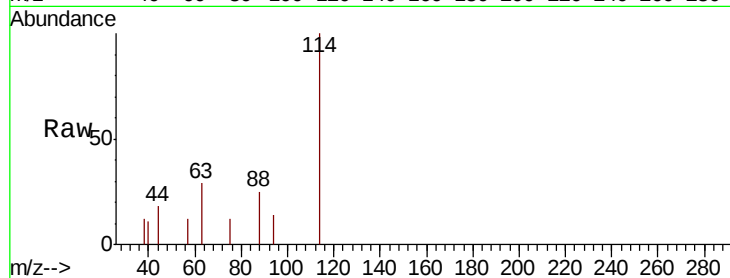
Tot Ion:114 Resp: 2470

Ion Ratio Lower Upper

114 100

63 29.2 0.0 48.0

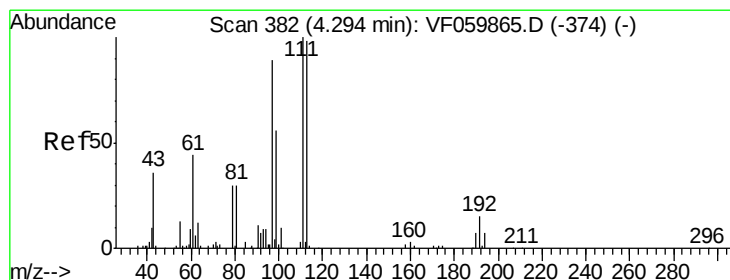
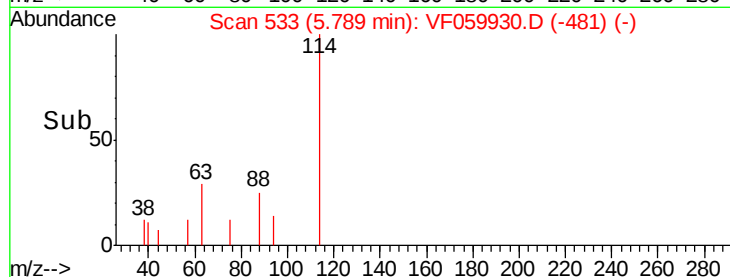
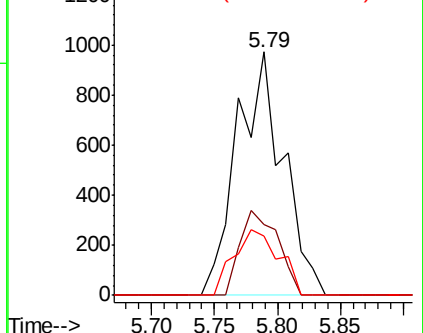
88 24.6 0.0 39.4



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



#35

Dibromofluoromethane

Concen: 35.56 ug/l

RT: 4.29 min Scan# 381

Delta R.T. -0.00 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

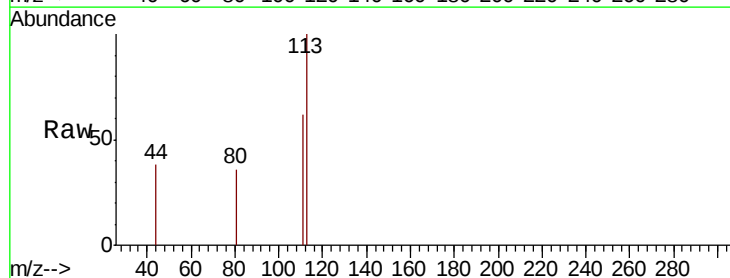
Tgt Ion:113 Resp: 874

Ion Ratio Lower Upper

113 100

111 62.1 81.8 122.8#

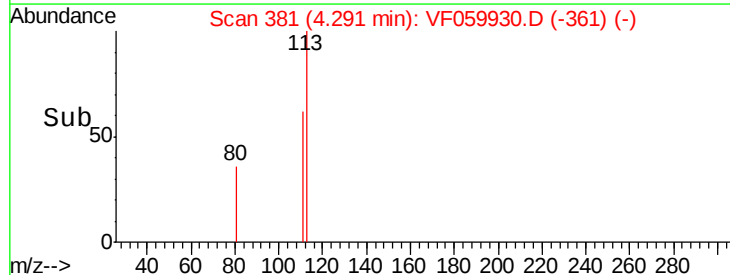
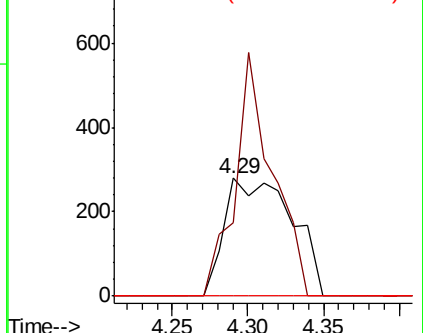
192 0.0 12.4 18.6#

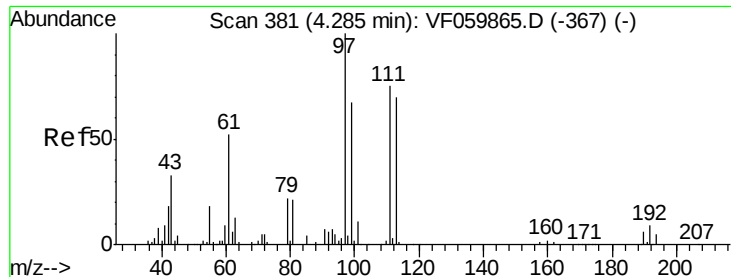


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V

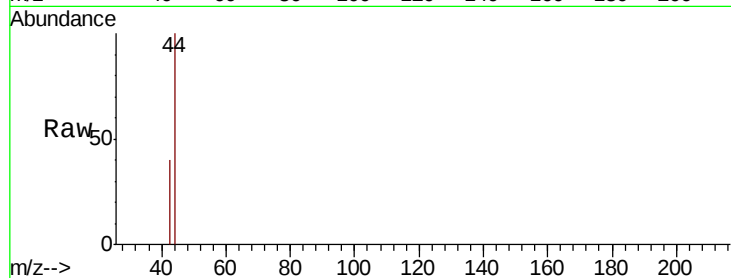




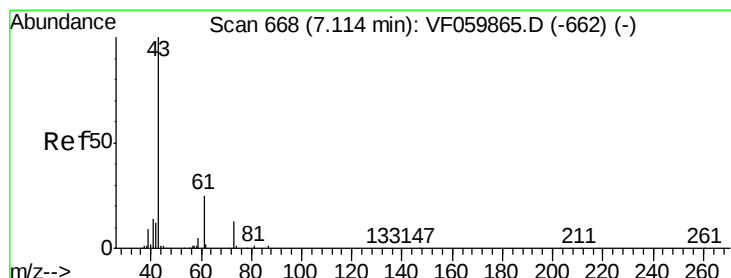
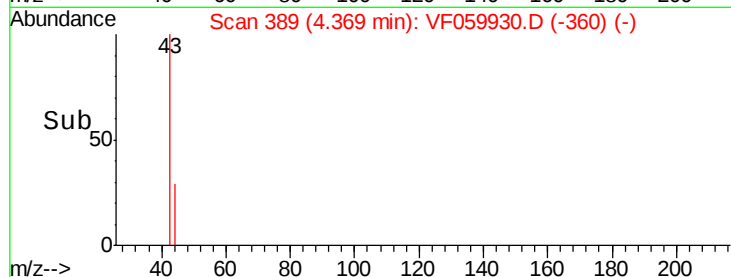
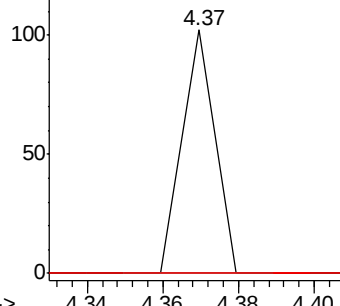
#37  
Ethyl Acetate  
Concen: 4.89 ug/l  
RT: 4.37 min Scan# 389  
Delta R.T. 0.08 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
155-SOILRE

Tot Ion: 43 Resp: 60  
Ion Ratio Lower Upper  
43 100  
61 0.0 123.7 185.5#  
70 0.0 7.8 11.8#

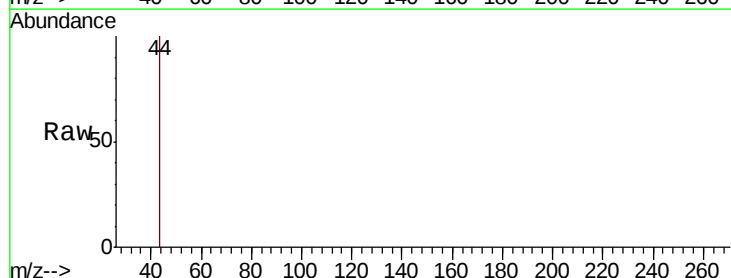


Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 70.00 (69.70 to 70.70): VF0

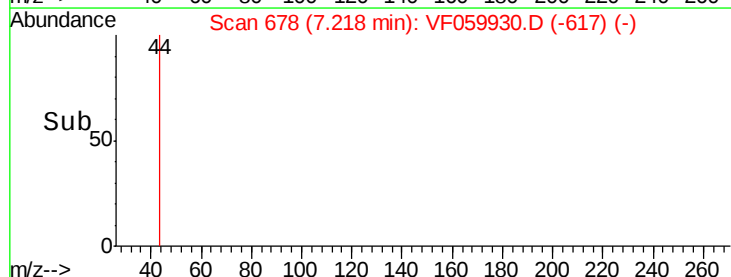
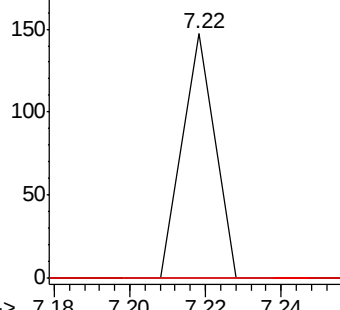


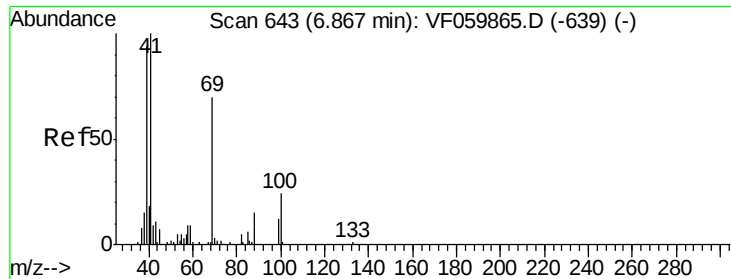
#43  
Isopropyl Acetate  
Concen: 6.89 ug/l  
RT: 7.22 min Scan# 678  
Delta R.T. 0.10 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Tgt Ion: 43 Resp: 87  
Ion Ratio Lower Upper  
43 100  
61 0.0 20.3 30.5#  
87 0.0 0.7 1.1#



Abundance Ion 43.00 (42.70 to 43.70): VF0  
Ion 61.00 (60.70 to 61.70): VF0  
Ion 87.00 (86.70 to 87.70): VF0

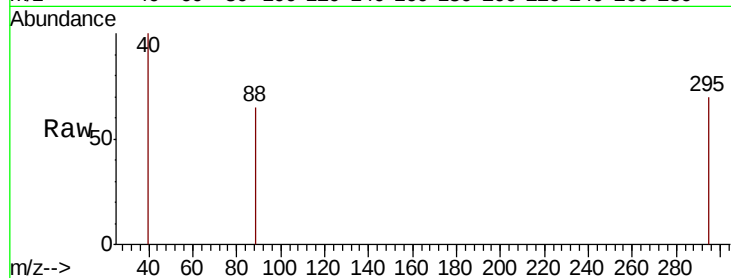




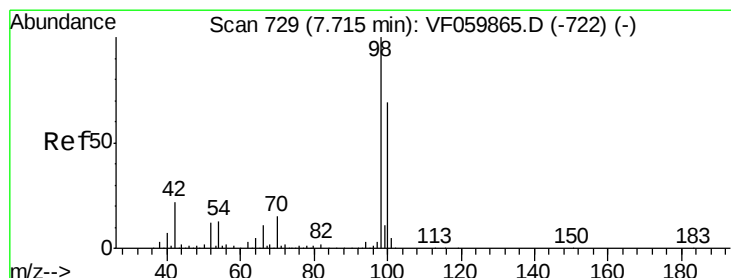
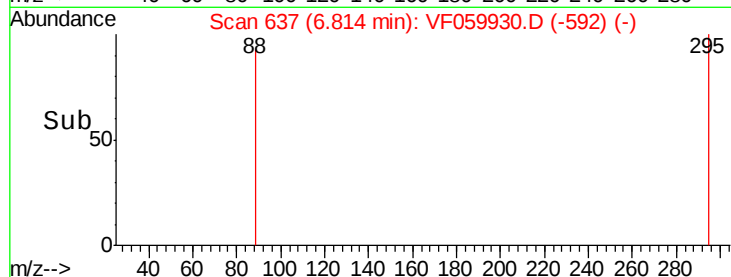
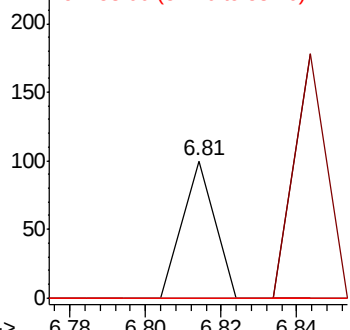
#49  
1,4-Dioxane  
Concen: 848.93 ug/l  
RT: 6.81 min Scan# 637  
Delta R.T. -0.05 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
155-SOILRE

Tot Ion: 88 Resp: 59  
Ion Ratio Lower Upper  
88 100  
43 0.0 58.3 87.5#  
58 0.0 49.4 74.2#

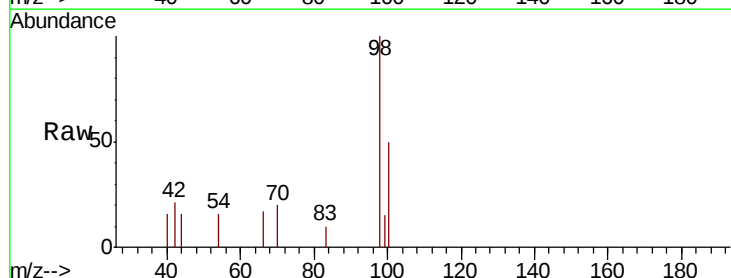


Abundance Ion 88.00 (87.70 to 88.70): VF0  
Ion 43.00 (42.70 to 43.70): VF0  
Ion 58.00 (57.70 to 58.70): VF0

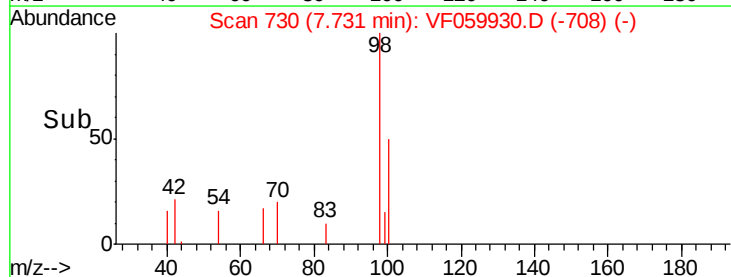
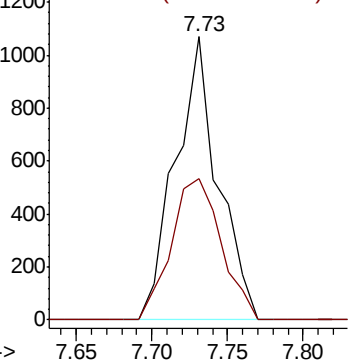


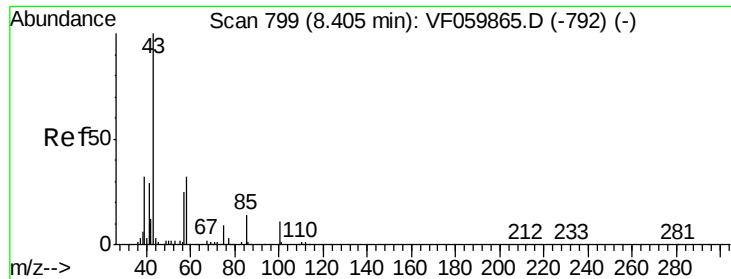
#50  
Toluene-d8  
Concen: 40.20 ug/l  
RT: 7.73 min Scan# 730  
Delta R.T. 0.02 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Tgt Ion: 98 Resp: 2102  
Ion Ratio Lower Upper  
98 100  
100 49.8 55.0 82.6#



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: 4.57 ug/l

RT: 8.47 min Scan# 805

Delta R.T. 0.07 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampleId :

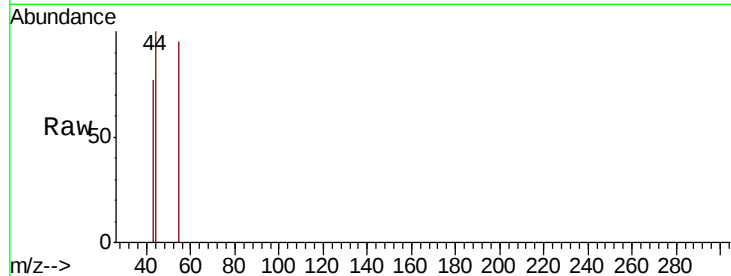
155-SOILRE

Tot Ion: 43 Resp: 59

Ion Ratio Lower Upper

43 100

58 0.0 25.4 38.0#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

8.47

100

80

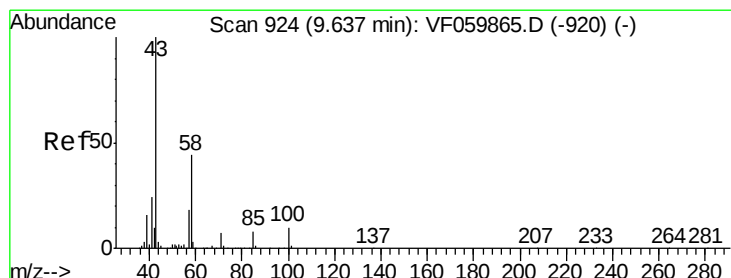
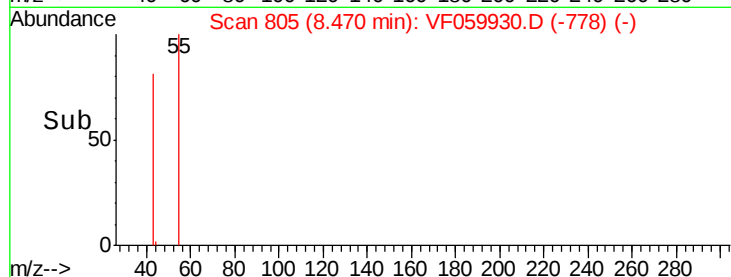
60

40

20

0

Time-->



#59

2-Hexanone

Concen: 7.89 ug/l

RT: 9.67 min Scan# 927

Delta R.T. 0.04 min

Lab File: VF059930.D

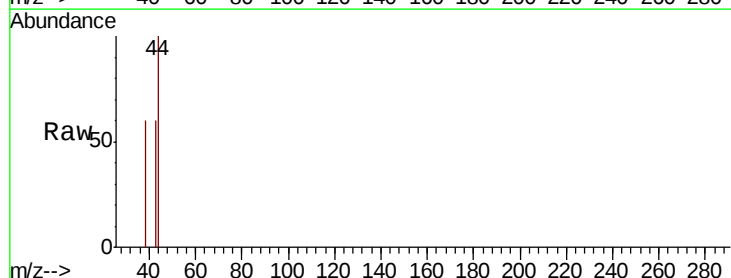
Acq: 8 Aug 2018 14:42

Tgt Ion: 43 Resp: 72

Ion Ratio Lower Upper

43 100

58 0.0 20.8 62.2#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0

9.67

100

80

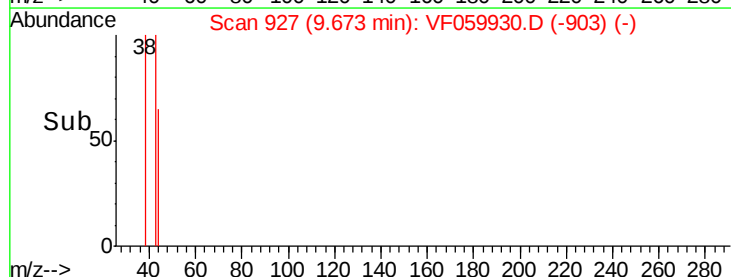
60

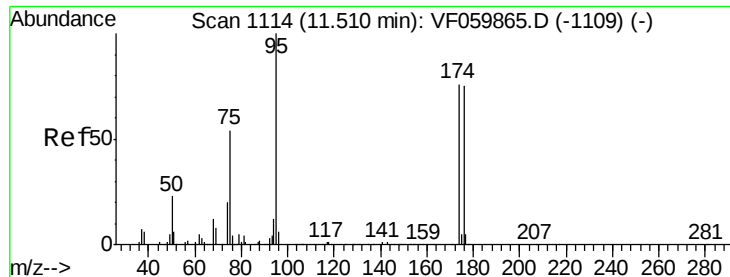
40

20

0

Time-->





#62

4-Bromofluorobenzene

Concen: 23.62 ug/l

RT: 11.52 min Scan# 1114

Delta R.T. 0.01 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampleId :

155-SOILRE

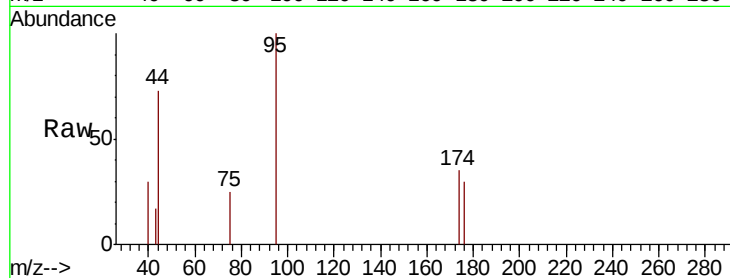
Tot Ion: 95 Resp: 694

Ion Ratio Lower Upper

95 100

174 34.6 0.0 151.6

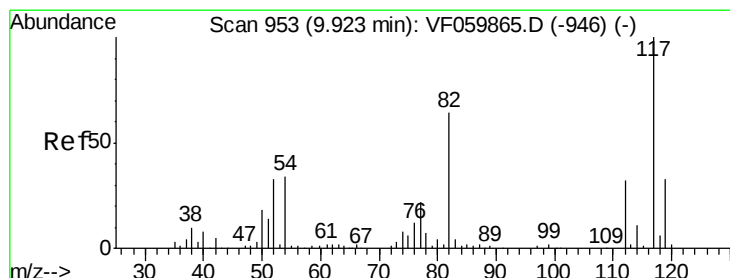
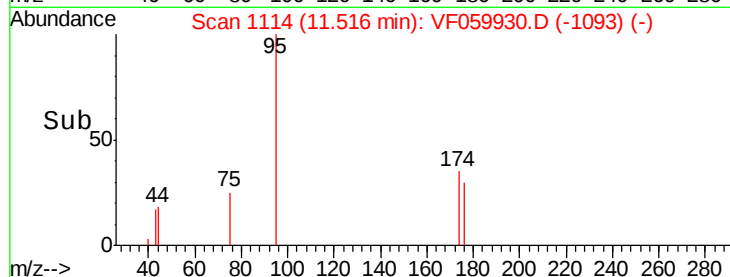
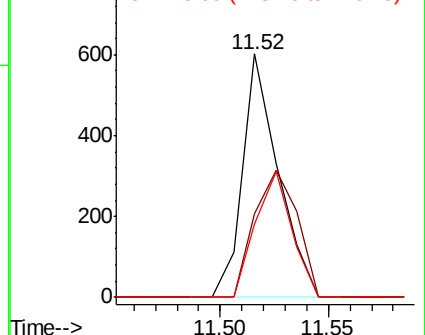
176 30.4 0.0 149.8



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: 50.00 ug/l

RT: 9.94 min Scan# 954

Delta R.T. 0.02 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

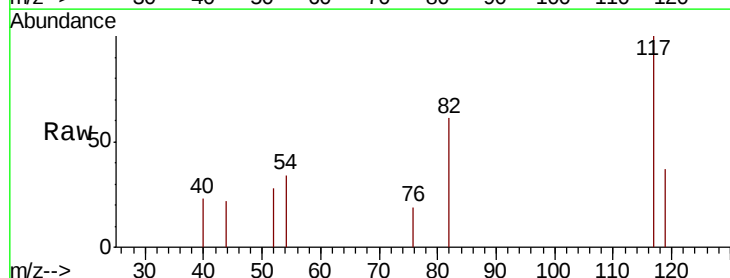
Tgt Ion: 117 Resp: 2010

Ion Ratio Lower Upper

117 100

82 60.9 51.3 76.9

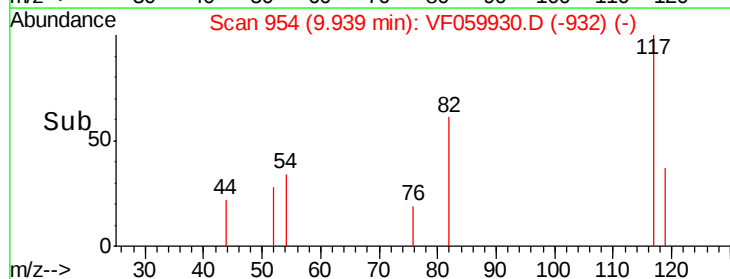
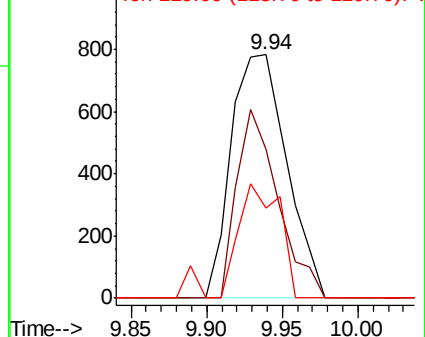
119 37.2 26.4 39.6

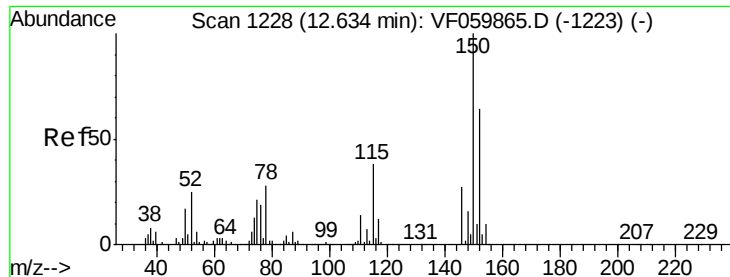


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VF0

Ion 119.00 (118.70 to 119.70): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.65 min Scan# 1229

Delta R.T. 0.02 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampled :

155-SOILRE

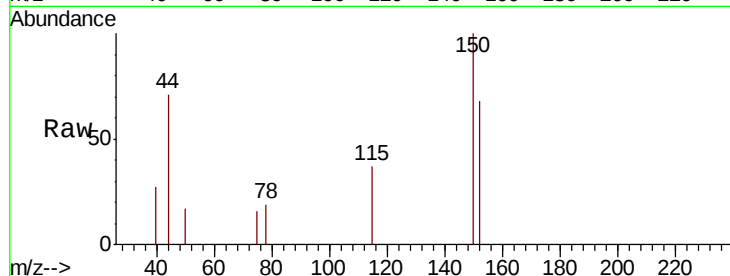
Tot Ion:152 Resp: 729

Ion Ratio Lower Upper

152 100

115 54.8 29.8 89.4

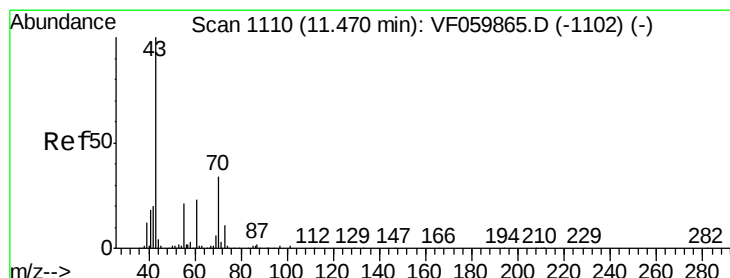
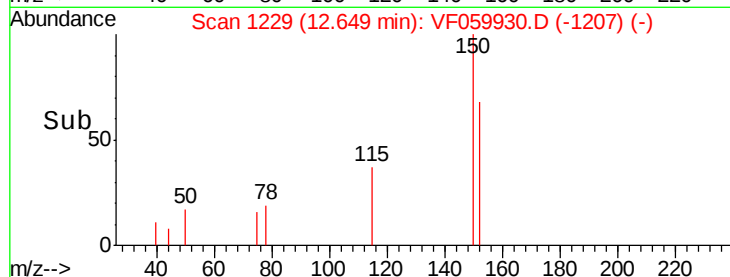
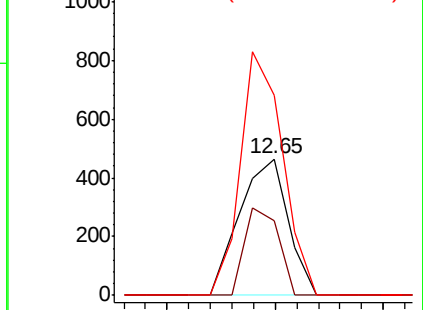
150 146.7 0.0 315.6



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: 10.83 ug/l

RT: 11.44 min Scan# 1106

Delta R.T. -0.03 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Tgt Ion: 43 Resp: 94

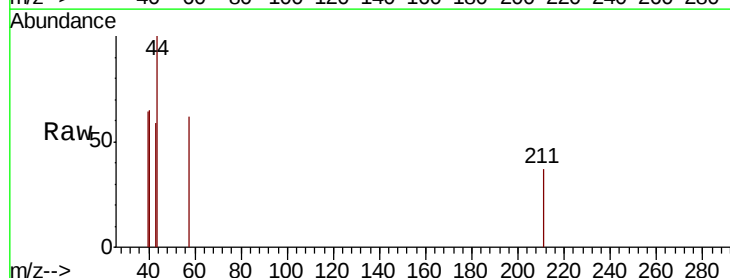
Ion Ratio Lower Upper

43 100

70 0.0 27.5 41.3#

55 0.0 16.6 25.0#

61 0.0 18.2 27.4#

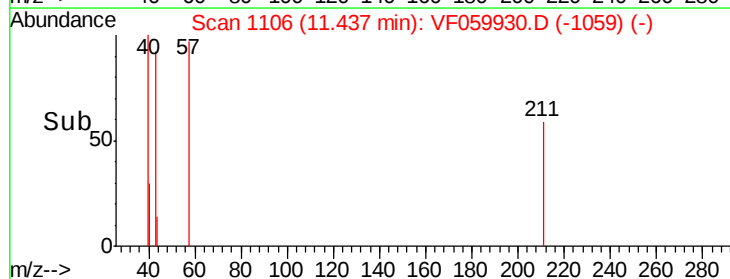
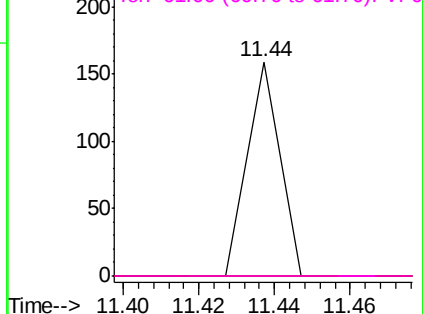


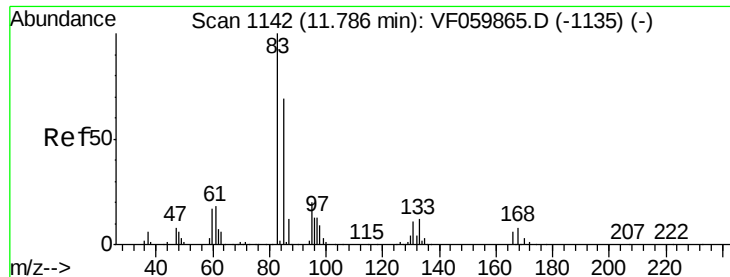
Abundance Ion 43.00 (42.70 to 43.70): VF0

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





#75

1,1,2,2-Tetrachloroethane

Concen: 8.33 ug/l

RT: 11.83 min Scan# 1146

Delta R.T. 0.05 min

Lab File: VF059930.D

Acq: 8 Aug 2018 14:42

Instrument :

MSVOA\_F

ClientSampleId :

155-SOILRE

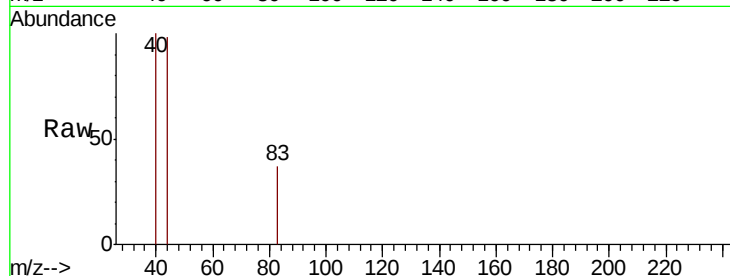
Tot Ion: 83 Resp: 71

Ion Ratio Lower Upper

83 100

131 0.0 5.3 15.9#

85 0.0 34.5 103.5#



Abundance Ion 83.00 (82.70 to 83.70): VF0

Ion 131.00 (130.70 to 131.70): V

Ion 85.00 (84.70 to 85.70): VF0

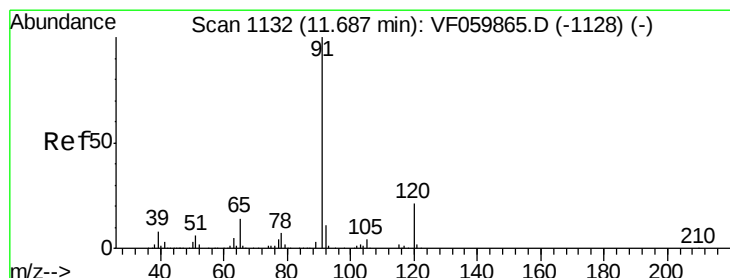
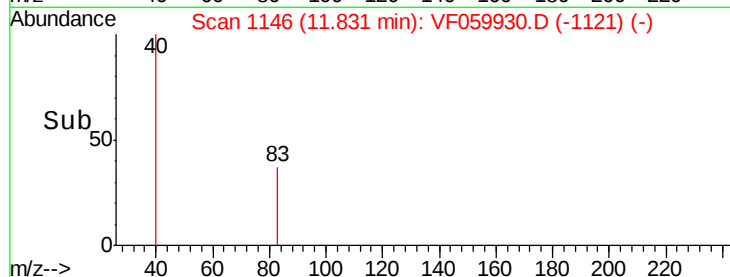
11.83

100

50

0

Time--> 11.80 11.82 11.84 11.86



#78

n-propylbenzene

Concen: 1.19 ug/l

RT: 11.67 min Scan# 1130

Delta R.T. -0.01 min

Lab File: VF059930.D

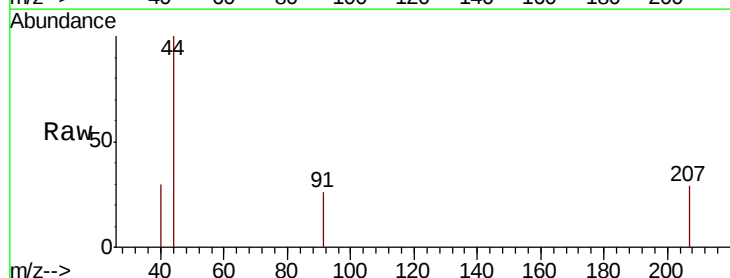
Acq: 8 Aug 2018 14:42

Tgt Ion: 91 Resp: 64

Ion Ratio Lower Upper

91 100

120 0.0 10.4 31.2#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 120.00 (119.70 to 120.70): V

11.67

120

100

80

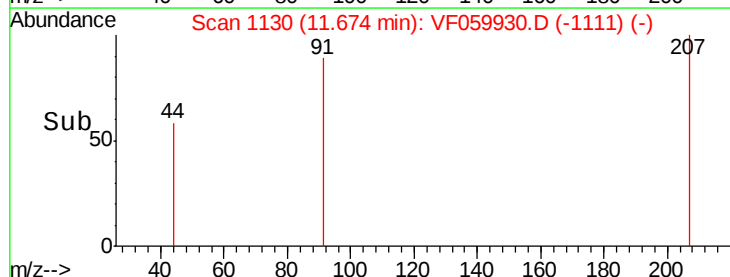
60

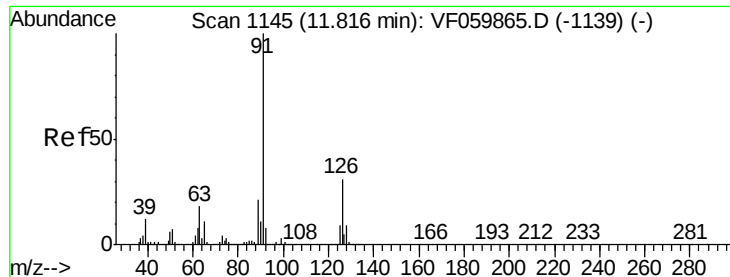
40

20

0

Time--> 11.64 11.66 11.68 11.70

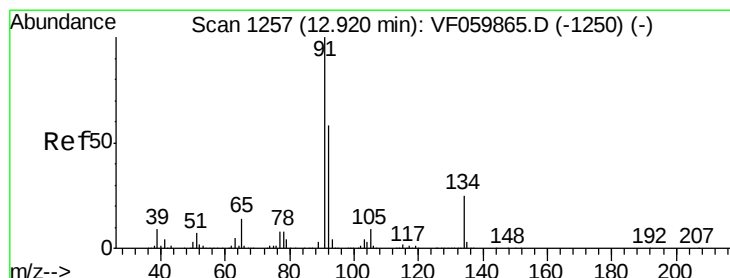
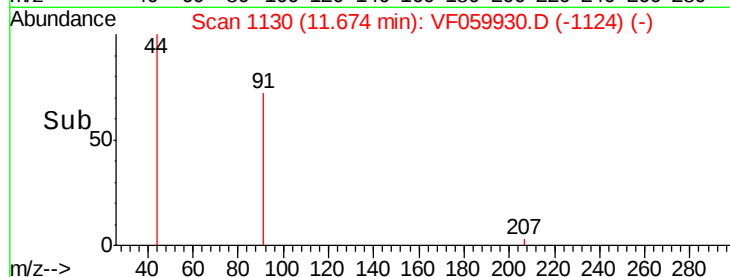
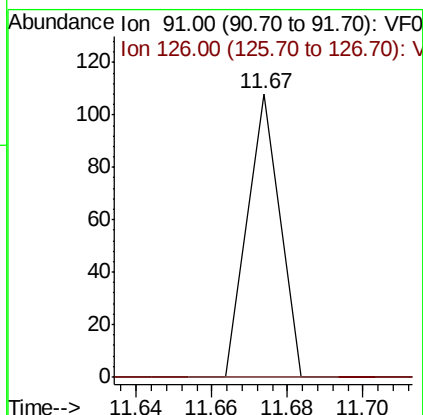
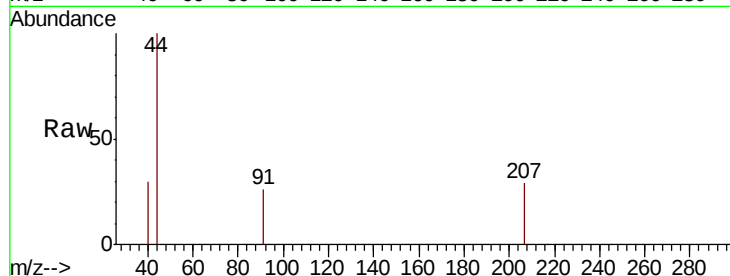




#79  
2-Chlorotoluene  
Concen: 1.89 ug/l  
RT: 11.67 min Scan# 1130  
Delta R.T. -0.14 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
155-SOILRE

Tot Ion: 91 Resp: 64  
Ion Ratio Lower Upper  
91 100  
126 0.0 15.6 46.7#



#89  
n-Butylbenzene  
Concen: 1.58 ug/l  
RT: 12.95 min Scan# 1259  
Delta R.T. 0.03 min  
Lab File: VF059930.D  
Acq: 8 Aug 2018 14:42

Tgt Ion: 91 Resp: 69  
Ion Ratio Lower Upper  
91 100  
92 0.0 28.8 86.5#  
134 0.0 12.6 37.6#

