

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF030419\  
 Data File : VF061836.D  
 Acq On : 4 Mar 2019 23:42  
 Operator : VA/AP  
 Sample : K1707-05  
 Misc : 6.48g/5mL/MSVOA-F/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 S12

Quant Time: Mar 05 05:04:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F030419S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Mar 05 04:04:51 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.87  | 168  | 2783     | 50.00 | ug/l  | -0.02    |
| 34) 1,4-Difluorobenzene    | 5.60  | 114  | 2674     | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.78  | 117  | 697      | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.55 | 152  | 85       | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |        |       |
|-----------------------------|--------|-----|----------|-------|--------|-------|
| System Monitoring Compounds |        |     |          |       |        |       |
| 33) 1,2-Dichloroethane-d4   | 4.82   | 65  | 183      | 8.97  | ug/l   | -0.04 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 17.94% |       |
| 35) Dibromofluoromethane    | 4.10   | 113 | 547      | 27.55 | ug/l   | -0.02 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 55.10% |       |
| 50) Toluene-d8              | 7.55   | 98  | 1671     | 29.27 | ug/l   | 0.00  |
| Spiked Amount               | 50.000 |     | Recovery | =     | 58.54% |       |
| 62) 4-Bromofluorobenzene    | 0.00   | 95  | 0        | 0.00  | ug/l   |       |
| Spiked Amount               | 50.000 |     | Recovery | =     | 0.00%  |       |

| Target Compounds             |      |     |     |         | Qvalue    |
|------------------------------|------|-----|-----|---------|-----------|
| 3) Chloromethane             | 1.09 | 50  | 63  | 1.879   | ug/l # 42 |
| 4) Vinyl Chloride            | 1.08 | 62  | 69  | 2.213   | ug/l # 40 |
| 5) Bromomethane              | 1.32 | 94  | 555 | 25.869  | ug/l # 26 |
| 6) Chloroethane              | 1.39 | 64  | 87  | 5.663   | ug/l # 40 |
| 8) Diethyl Ether             | 1.56 | 74  | 78  | 8.232   | ug/l # 12 |
| 10) Methyl Iodide            | 1.85 | 142 | 76  | 1.467   | ug/l # 39 |
| 11) Tert butyl alcohol       | 2.56 | 59  | 68  | 57.574  | ug/l # 1  |
| 12) 1,1-Dichloroethene       | 1.79 | 96  | 147 | 6.164   | ug/l # 1  |
| 13) Acrolein                 | 1.98 | 56  | 514 | 346.262 | ug/l # 83 |
| 14) Allyl chloride           | 2.08 | 41  | 787 | 26.894  | ug/l # 59 |
| 15) Acrylonitrile            | 2.94 | 53  | 93  | 22.199  | ug/l # 44 |
| 16) Acetone                  | 2.24 | 43  | 673 | 153.699 | ug/l # 46 |
| 17) Carbon Disulfide         | 1.78 | 76  | 92  | 1.227   | ug/l # 1  |
| 18) Methyl Acetate           | 2.37 | 43  | 929 | 94.180  | ug/l # 59 |
| 19) Methyl tert-butyl Ether  | 2.43 | 73  | 94  | 2.306   | ug/l # 1  |
| 20) Methylene Chloride       | 2.16 | 84  | 99  | 3.743   | ug/l # 1  |
| 21) trans-1,2-Dichloroethene | 2.26 | 96  | 437 | 16.857  | ug/l # 1  |
| 22) Diisopropyl ether        | 2.79 | 45  | 466 | 6.634   | ug/l # 1  |
| 23) Vinyl Acetate            | 3.20 | 43  | 456 | 13.291  | ug/l # 74 |
| 24) 1,1-Dichloroethane       | 2.86 | 63  | 219 | 5.152   | ug/l # 86 |
| 25) 2-Butanone               | 4.34 | 43  | 283 | 29.589  | ug/l # 55 |
| 26) 2,2-Dichloropropane      | 3.65 | 77  | 90  | 4.998   | ug/l # 52 |
| 27) cis-1,2-Dichloroethene   | 3.49 | 96  | 70  | 2.057   | ug/l # 1  |
| 29) Tetrahydrofuran          | 4.09 | 42  | 148 | 34.046  | ug/l # 33 |
| 30) Chloroform               | 3.70 | 83  | 66  | 1.365   | ug/l # 18 |
| 31) Cyclohexane              | 3.67 | 56  | 67  | 1.456   | ug/l # 16 |
| 37) Ethyl Acetate            | 4.08 | 43  | 386 | 31.373  | ug/l # 30 |
| 39) Methylcyclohexane        | 5.40 | 83  | 75  | 2.394   | ug/l # 15 |
| 41) Methacrylonitrile        | 4.75 | 41  | 192 | 30.515  | ug/l # 37 |
| 43) Isopropyl Acetate        | 6.94 | 43  | 72  | 4.944   | ug/l # 43 |
| 45) 1,2-Dichloropropane      | 6.11 | 63  | 65  | 3.881   | ug/l # 44 |
| 48) Methyl methacrylate      | 6.68 | 41  | 76  | 8.672   | ug/l # 17 |
| 51) 4-Methyl-2-Pentanone     | 8.25 | 43  | 210 | 20.180  | ug/l # 34 |
| 53) t-1,3-Dichloropropene    | 8.19 | 75  | 60  | 3.193   | ug/l # 42 |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF030419\  
 Data File : VF061836.D  
 Acq On : 4 Mar 2019 23:42  
 Operator : VA/AP  
 Sample : K1707-05  
 Misc : 6.48g/5mL/MSVOA-F/SOIL  
 ALS Vial : 19 Sample Multiplier: 1

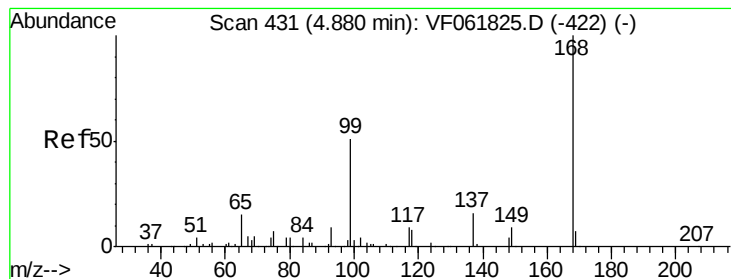
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 S12

Quant Time: Mar 05 05:04:50 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F030419S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Mar 05 04:04:51 2019  
 Response via : Initial Calibration

| Internal Standards            | R.T.  | QIon | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|-------|------|----------|--------|--------|----------|
| 55) 1,1,2-Trichloroethane     | 8.63  | 97   | 69       | 5.589  | ug/l # | 16       |
| 58) 2-Chloroethyl Vinyl ether | 7.18  | 63   | 62       | 26.142 | ug/l # | 44       |
| 59) 2-Hexanone                | 9.51  | 43   | 205      | 28.104 | ug/l # | 23       |
| 74) N-amyl acetate            | 11.41 | 43   | 133      | 91.561 | ug/l # | 44       |
| 78) n-propylbenzene           | 11.47 | 91   | 61       | 8.784  | ug/l # | 51       |
| 82) 4-Chlorotoluene           | 11.98 | 91   | 59       | 14.615 | ug/l # | 37       |
| 83) tert-Butylbenzene         | 12.18 | 119  | 80       | 14.933 | ug/l # | 33       |
| 88) 1,4-Dichlorobenzene       | 12.65 | 146  | 62       | 22.118 | ug/l # | 25       |
| 89) n-Butylbenzene            | 12.91 | 91   | 71       | 12.932 | ug/l # | 28       |
| 95) Naphthalene               | 14.38 | 128  | 63       | 18.120 | ug/l # | 69       |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.87 min Scan# 430

Delta R.T. -0.02 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampled :

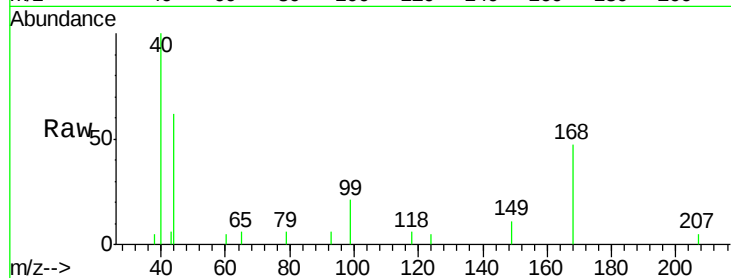
S12

Tot Ion:168 Resp: 2783

Ion Ratio Lower Upper

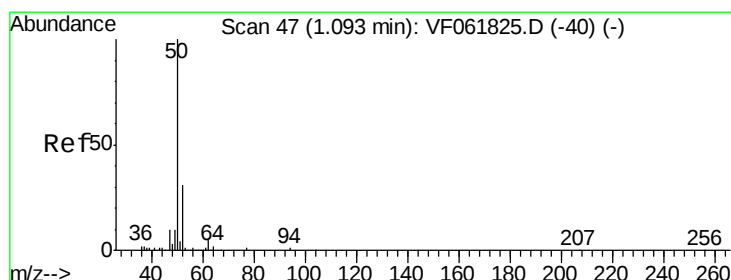
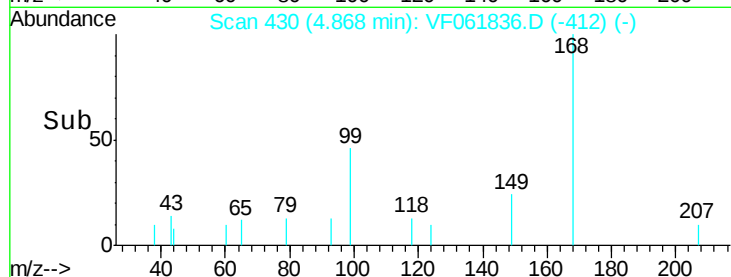
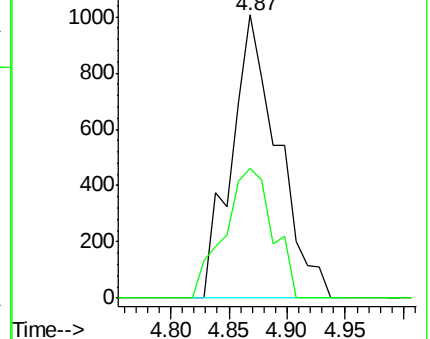
168 100

99 45.7 34.9 52.3



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0



#3

Chloromethane

Concen: 1.879 ug/l

RT: 1.09 min Scan# 47

Delta R.T. -0.01 min

Lab File: VF061836.D

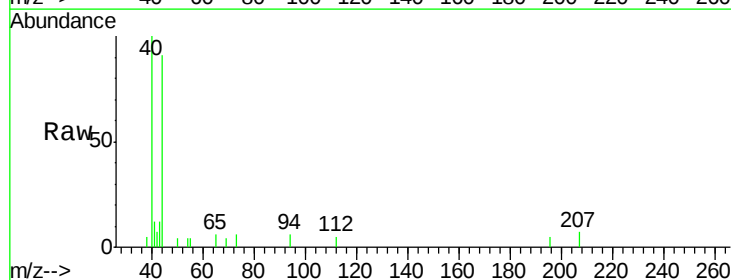
Acq: 4 Mar 2019 23:42

Tgt Ion: 50 Resp: 63

Ion Ratio Lower Upper

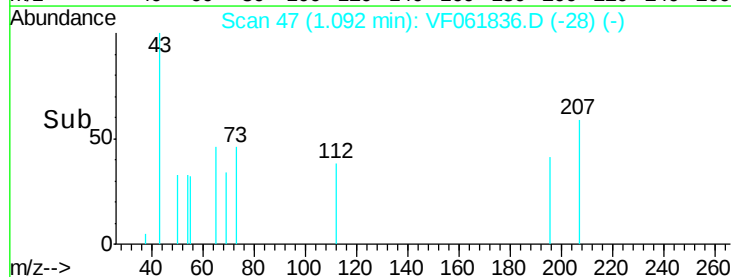
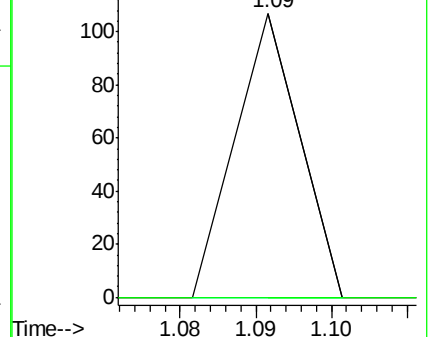
50 100

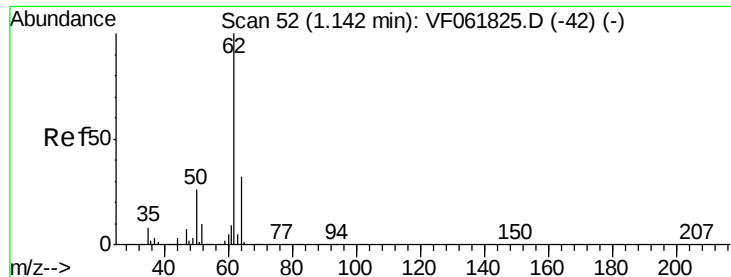
52 0.0 26.2 39.4#



Abundance Ion 50.00 (49.70 to 50.70): VF0

Ion 52.00 (51.70 to 52.70): VF0





#4

Vinyl Chloride

Concen: 2.213 ug/l

RT: 1.08 min Scan# 46

Delta R.T. -0.06 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampleId :

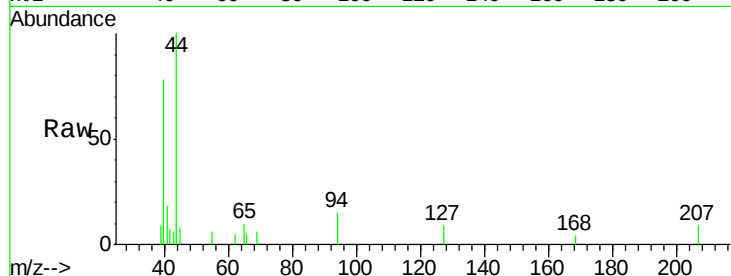
S12

Tot Ion: 62 Resp: 69

Ion Ratio Lower Upper

62 100

64 0.0 27.5 41.3#



Abundance Ion 62.00 (61.70 to 62.70): VF0

Ion 64.00 (63.70 to 64.70): VF0

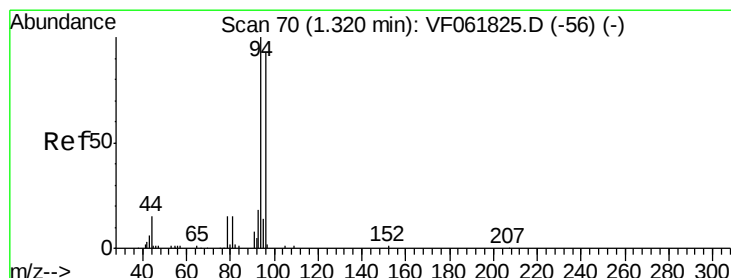
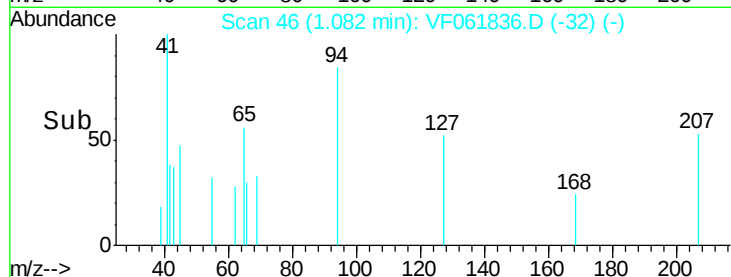
1.08

100

50

0

Time-->



#5

Bromomethane

Concen: 25.869 ug/l

RT: 1.32 min Scan# 70

Delta R.T. -0.00 min

Lab File: VF061836.D

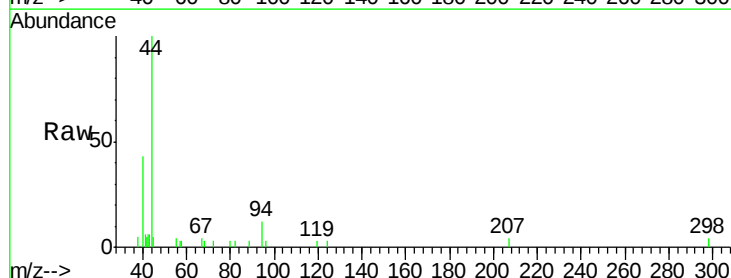
Acq: 4 Mar 2019 23:42

Tgt Ion: 94 Resp: 555

Ion Ratio Lower Upper

94 100

96 22.2 74.6 112.0#



Abundance Ion 94.00 (93.70 to 94.70): VF0

Ion 96.00 (95.70 to 96.70): VF0

1.32

500

400

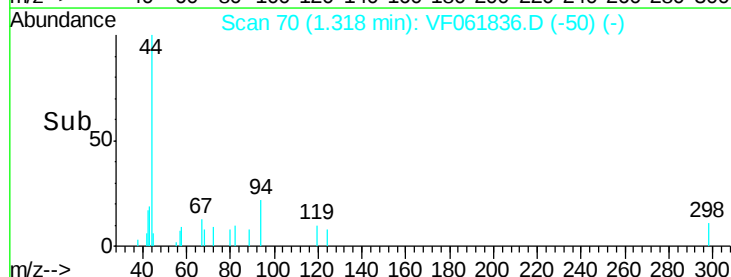
300

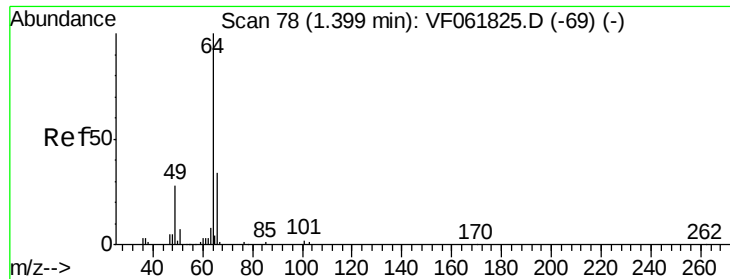
200

100

0

Time-->





#6

Chloroethane

Concen: 5.663 ug/l

RT: 1.39 min Scan# 77

Delta R.T. -0.01 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampled :

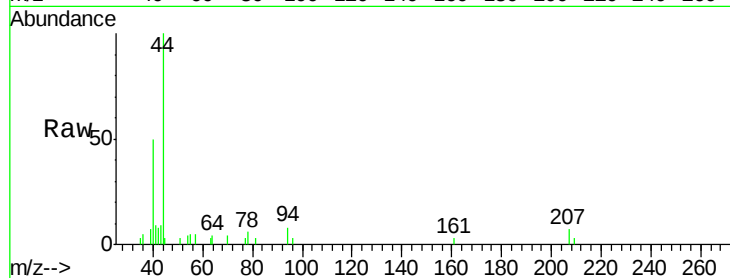
S12

Tot Ion: 64 Resp: 87

Ion Ratio Lower Upper

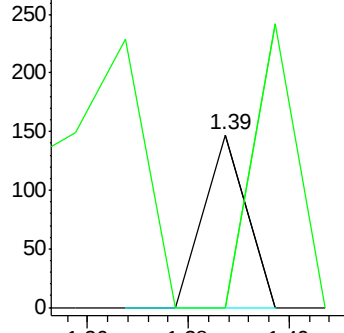
64 100

66 0.0 27.9 41.9#

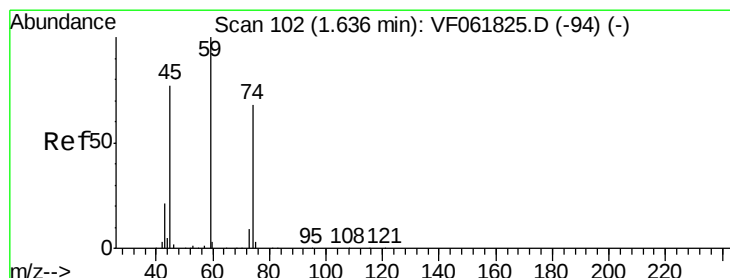
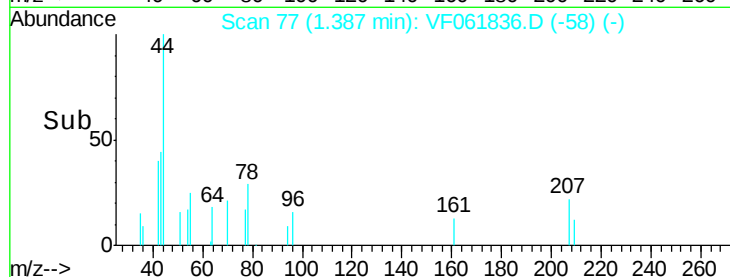


Abundance Ion 64.00 (63.70 to 64.70): VF0

Ion 66.00 (65.70 to 66.70): VF0



Time-->



#8

Diethyl Ether

Concen: 8.232 ug/l

RT: 1.56 min Scan# 95

Delta R.T. -0.07 min

Lab File: VF061836.D

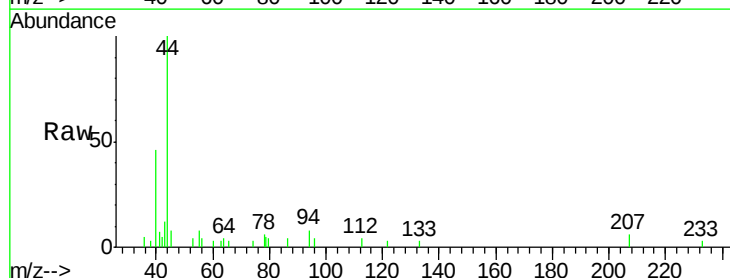
Acq: 4 Mar 2019 23:42

Tgt Ion: 74 Resp: 78

Ion Ratio Lower Upper

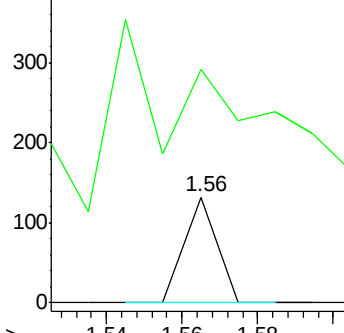
74 100

45 220.5 60.8 182.3#

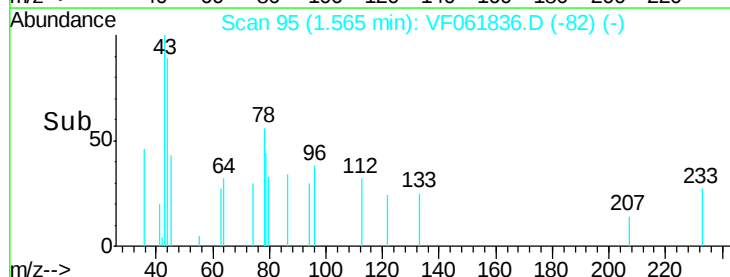


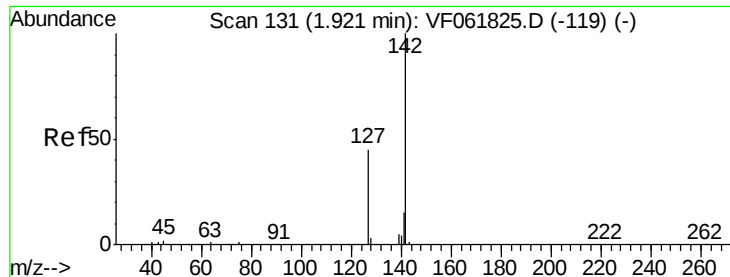
Abundance Ion 74.00 (73.70 to 74.70): VF0

Ion 45.00 (44.70 to 45.70): VF0



Time-->

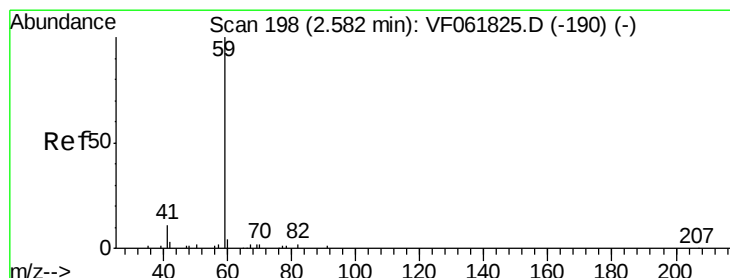
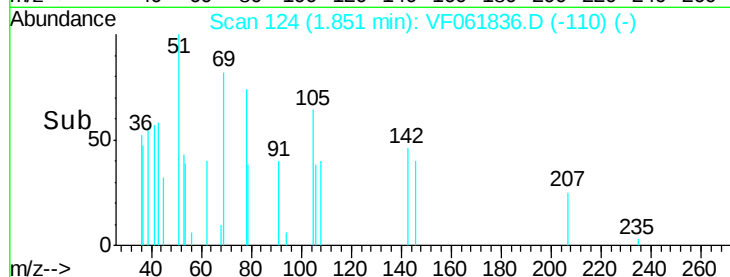
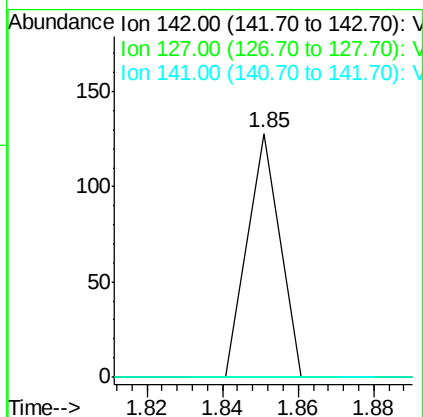
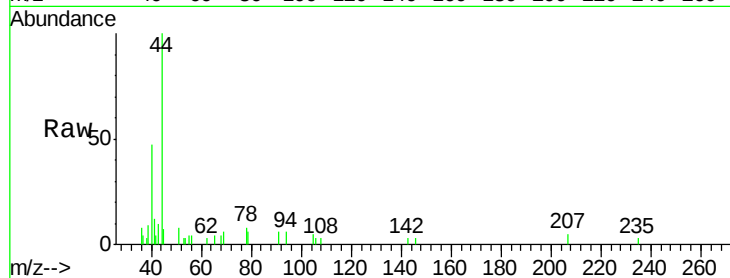




#10  
Methyl Iodide  
Concen: 1.467 ug/l  
RT: 1.85 min Scan# 124  
Delta R.T. -0.06 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

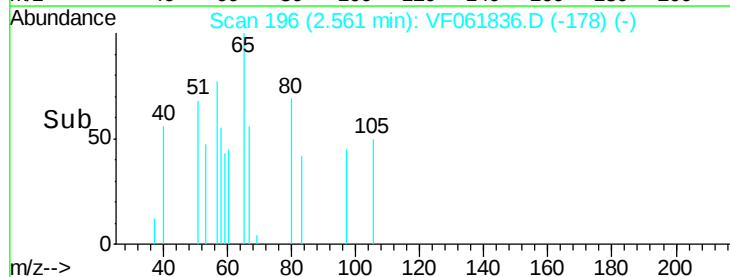
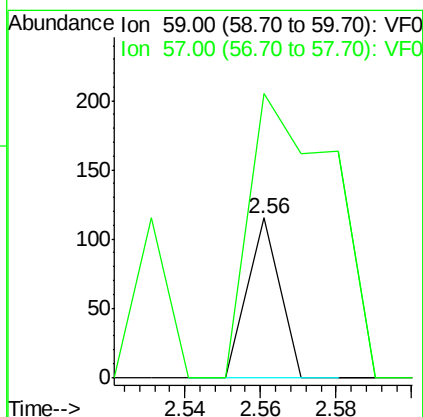
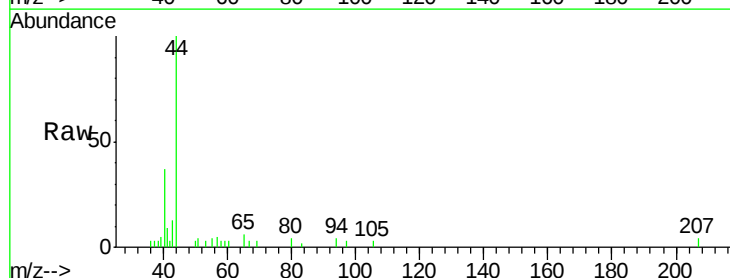
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

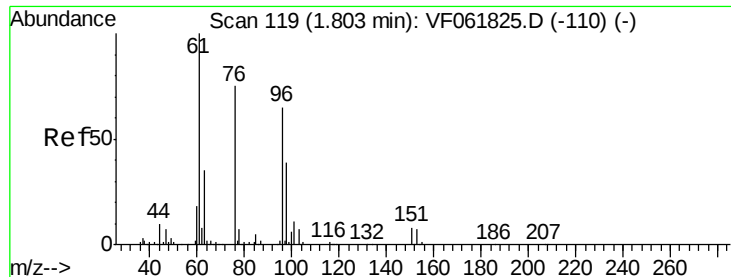
Tot Ion:142 Resp: 76  
Ion Ratio Lower Upper  
142 100  
127 0.0 36.6 55.0#  
141 0.0 11.0 16.6#



#11  
Tert butyl alcohol  
Concen: 57.574 ug/l  
RT: 2.56 min Scan# 196  
Delta R.T. -0.02 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 59 Resp: 68  
Ion Ratio Lower Upper  
59 100  
57 178.3 12.5 18.7#





#12

1,1-Dichloroethene

Concen: 6.164 ug/l

RT: 1.79 min Scan# 118

Delta R.T. -0.01 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampleId :

S12

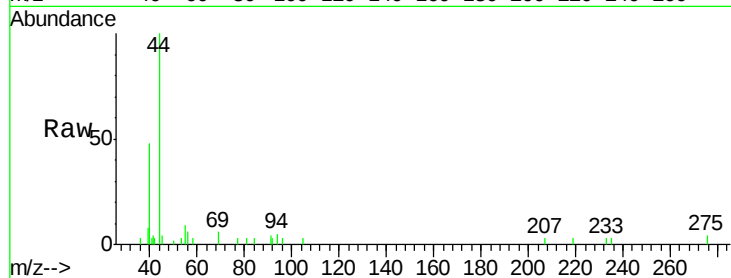
Tot Ion: 96 Resp: 147

Ion Ratio Lower Upper

96 100

61 0.0 122.6 184.0#

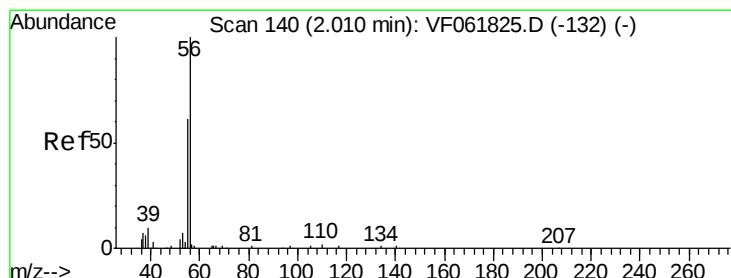
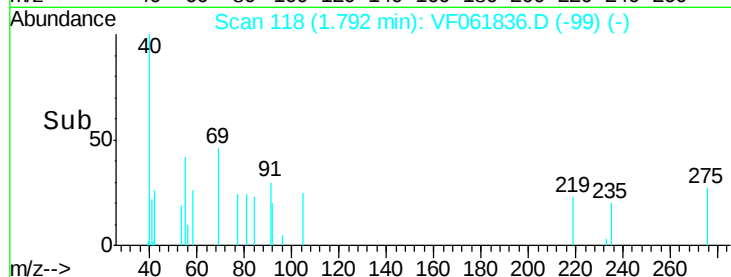
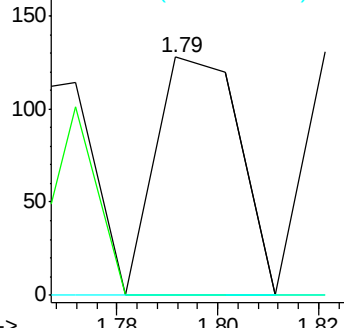
98 0.0 47.2 70.8#



Abundance Ion 96.00 (95.70 to 96.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 98.00 (97.70 to 98.70): VF0



#13

Acrolein

Concen: 346.262 ug/l

RT: 1.98 min Scan# 137

Delta R.T. -0.03 min

Lab File: VF061836.D

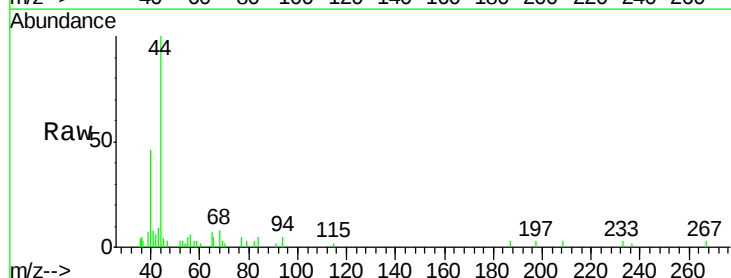
Acq: 4 Mar 2019 23:42

Tgt Ion: 56 Resp: 514

Ion Ratio Lower Upper

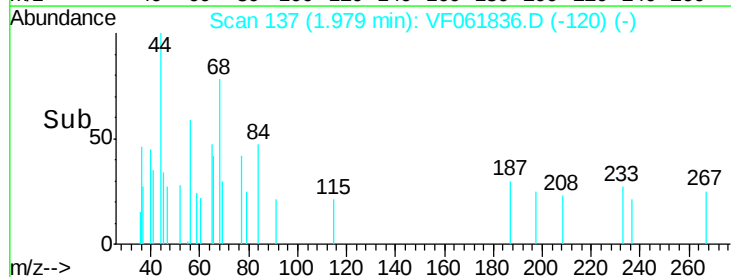
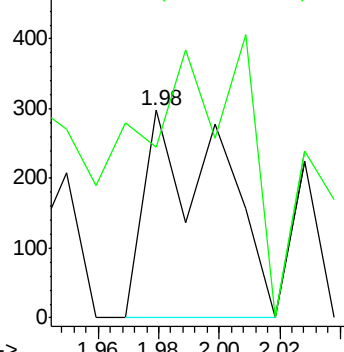
56 100

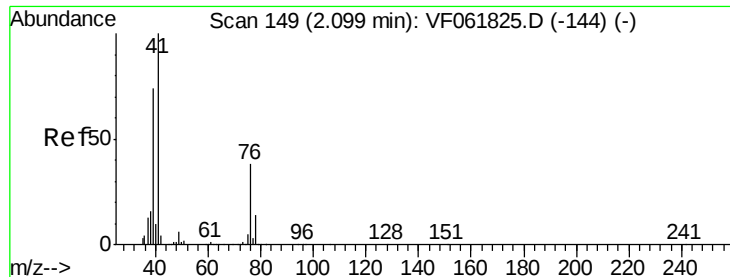
55 82.2 55.0 82.6



Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

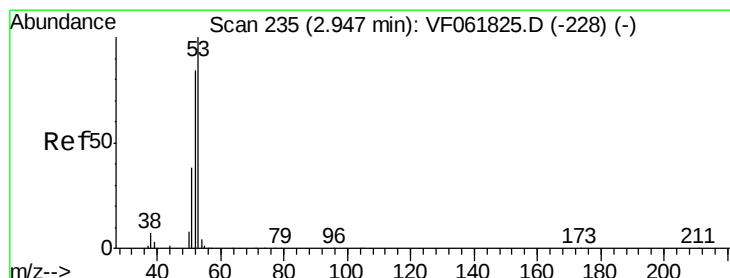
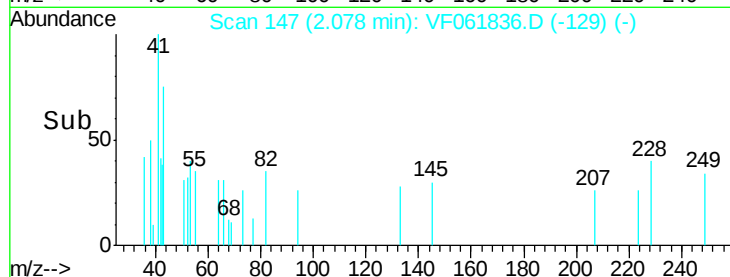
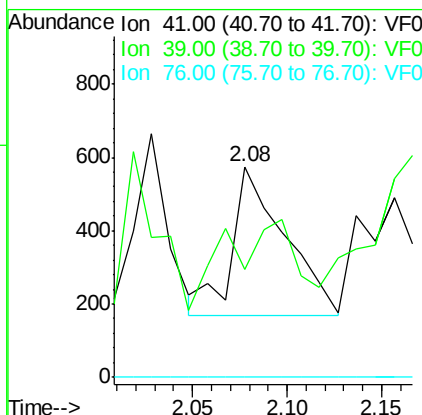
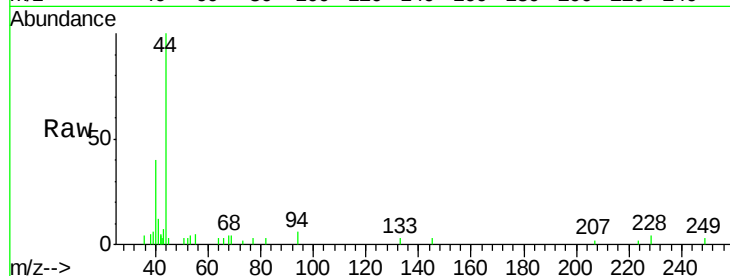




#14  
Allvl chloride  
Concen: 26.894 ug/l  
RT: 2.08 min Scan# 147  
Delta R.T. -0.02 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

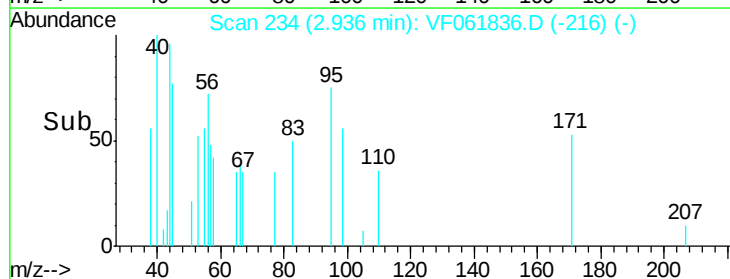
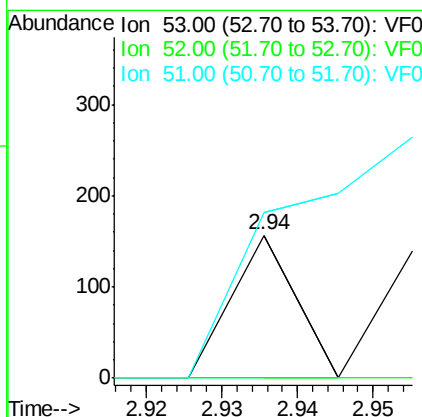
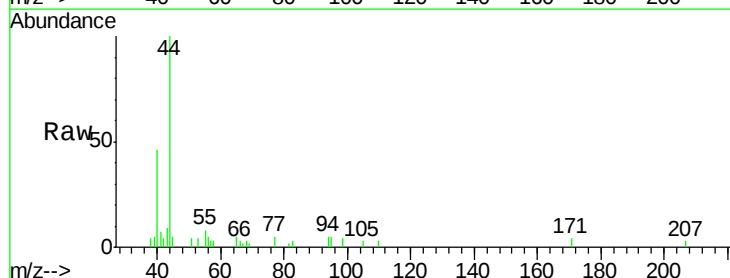
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

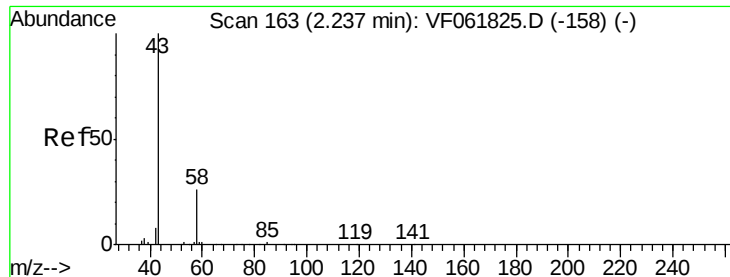
Tot Ion: 41 Resp: 787  
Ion Ratio Lower Upper  
41 100  
39 51.0 61.6 92.4#  
76 0.0 30.3 45.5#



#15  
Acrylonitrile  
Concen: 22.199 ug/l  
RT: 2.94 min Scan# 234  
Delta R.T. -0.02 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 53 Resp: 93  
Ion Ratio Lower Upper  
53 100  
52 100.0 64.6 97.0#  
51 115.3 29.8 44.8#

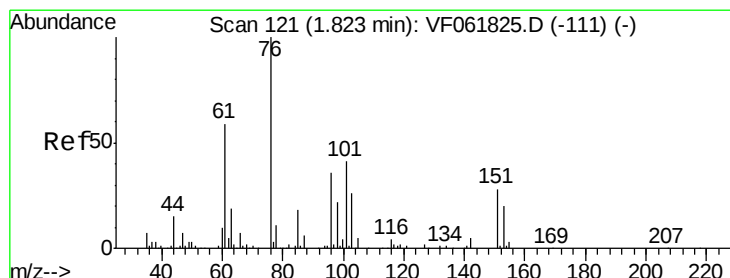
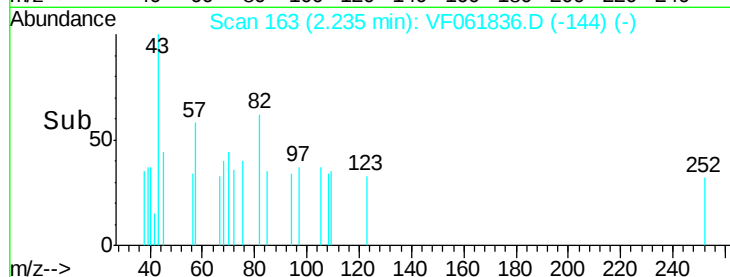
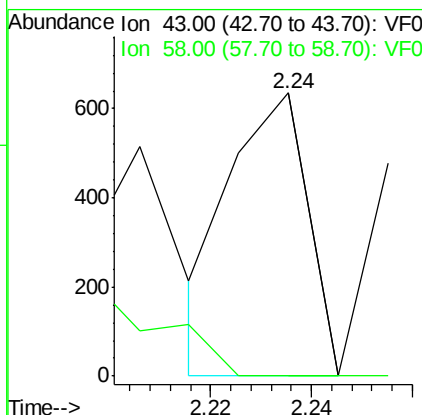
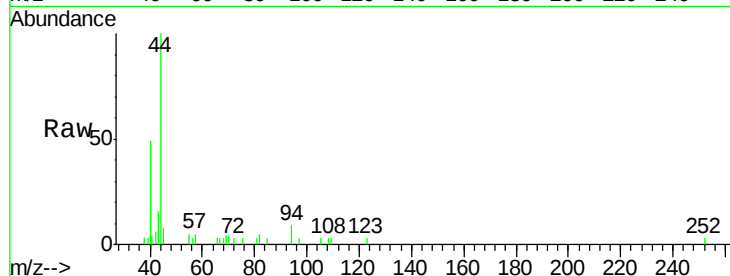




#16  
Acetone  
Concen: 153.699 ug/l  
RT: 2.24 min Scan# 163  
Delta R.T. -0.01 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

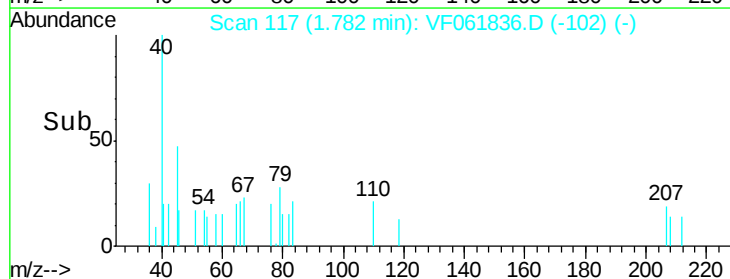
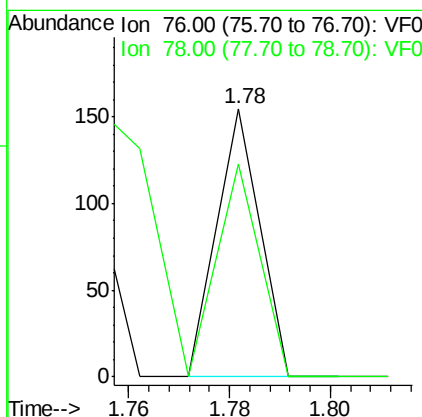
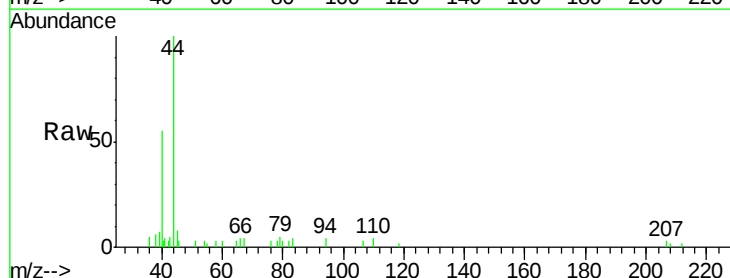
Instrument :  
MSVOA\_F  
ClientSampleId :  
S12

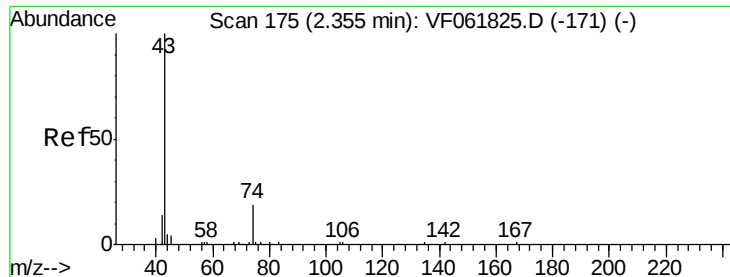
Tot Ion: 43 Resp: 673  
Ion Ratio Lower Upper  
43 100  
58 0.0 22.9 34.3#



#17  
Carbon Disulfide  
Concen: 1.227 ug/l  
RT: 1.78 min Scan# 117  
Delta R.T. -0.05 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 76 Resp: 92  
Ion Ratio Lower Upper  
76 100  
78 79.4 7.9 11.9#

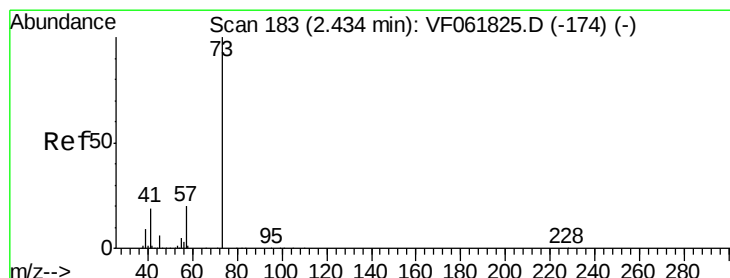
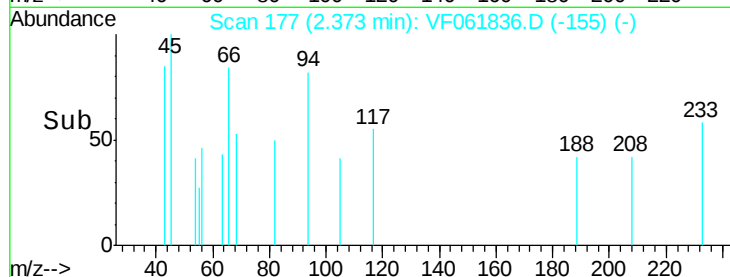
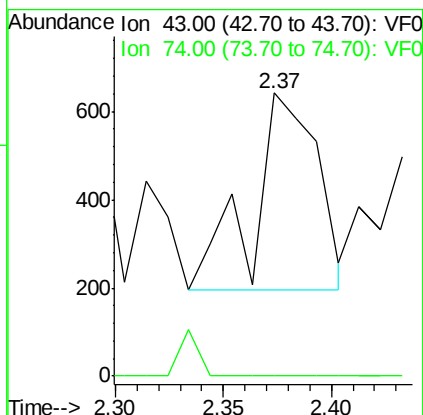
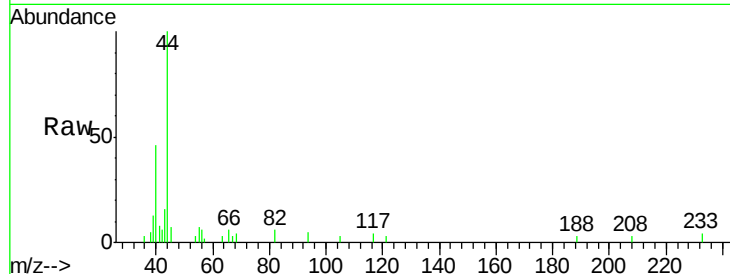




#18  
Methyl Acetate  
Concen: 94.180 ug/l  
RT: 2.37 min Scan# 177  
Delta R.T. 0.02 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

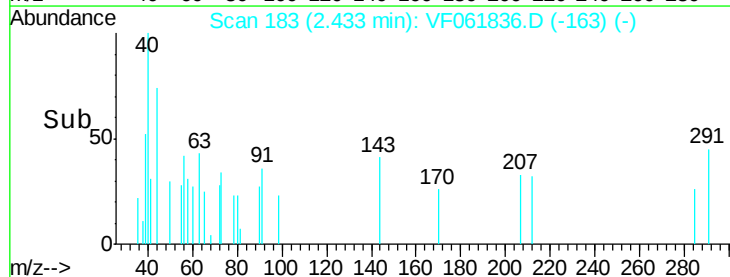
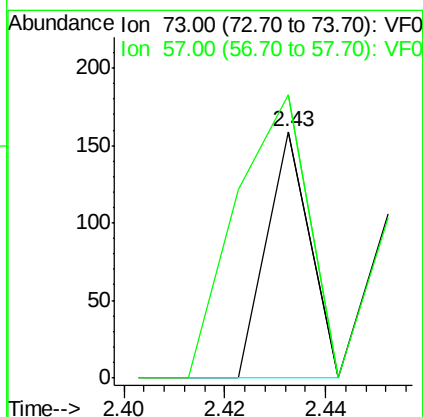
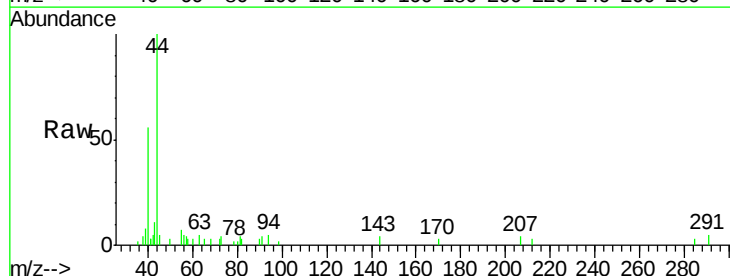
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

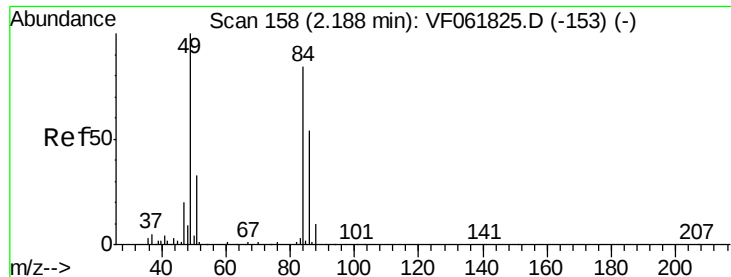
Tot Ion: 43 Resp: 929  
Ion Ratio Lower Upper  
43 100  
74 0.0 14.6 21.8#



#19  
Methyl tert-butyl Ether  
Concen: 2.306 ug/l  
RT: 2.43 min Scan# 183  
Delta R.T. -0.00 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 73 Resp: 94  
Ion Ratio Lower Upper  
73 100  
57 115.1 15.8 23.8#

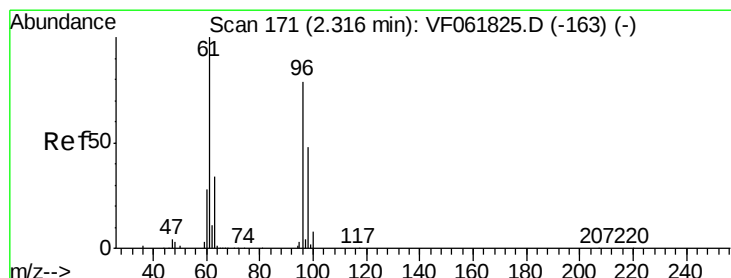
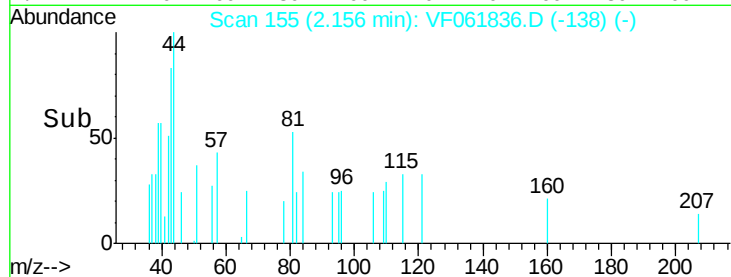
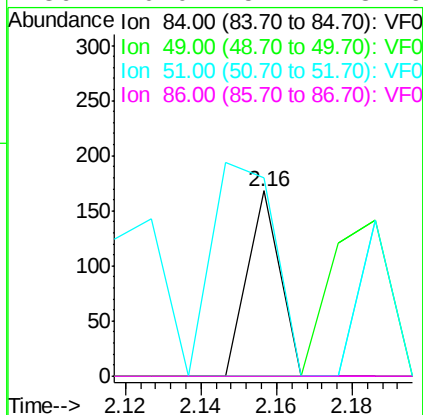
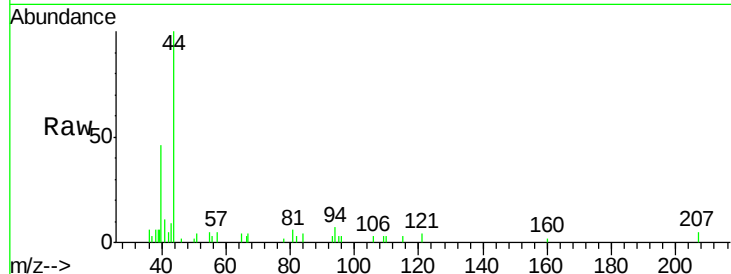




#20  
Methvlene Chloride  
Concen: 3.743 ug/l  
RT: 2.16 min Scan# 155  
Delta R.T. -0.03 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

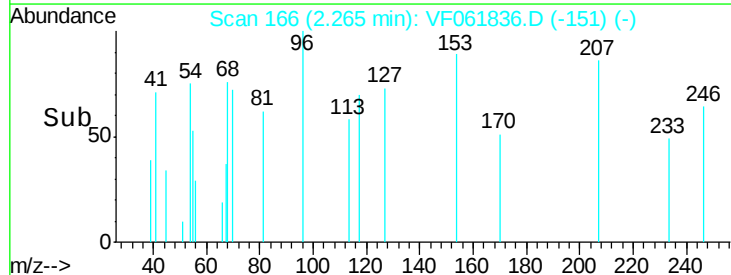
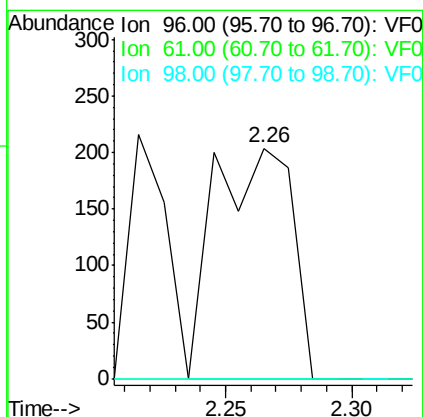
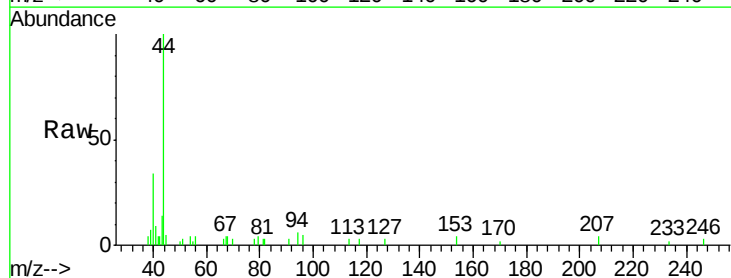
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

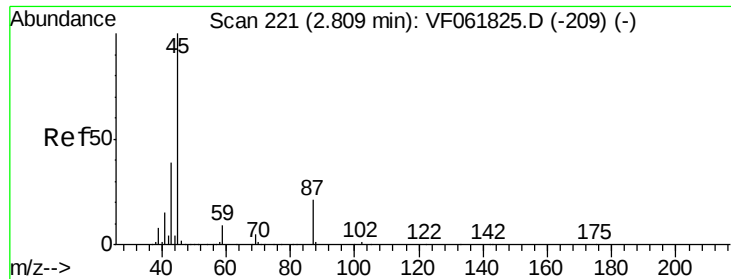
| Tot Ion | 84    | Resp  | 99     |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 84      | 100   |       |        |
| 49      | 0.0   | 101.8 | 152.8# |
| 51      | 107.1 | 31.1  | 46.7#  |
| 86      | 0.0   | 54.4  | 81.6#  |



#21  
trans-1,2-Dichloroethene  
Concen: 16.857 ug/l  
RT: 2.26 min Scan# 166  
Delta R.T. -0.05 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

| Tgt Ion | 96    | Resp  | 437    |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 96      | 100   |       |        |
| 61      | 0.0   | 108.2 | 162.4# |
| 98      | 0.0   | 52.2  | 78.2#  |

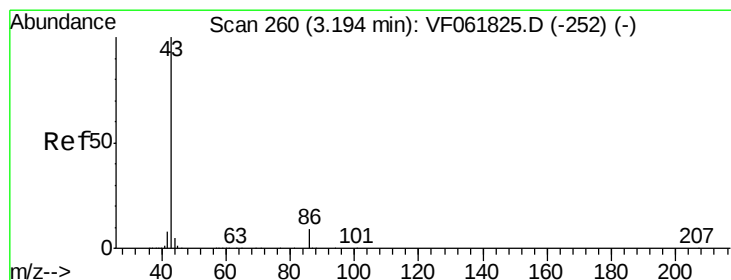
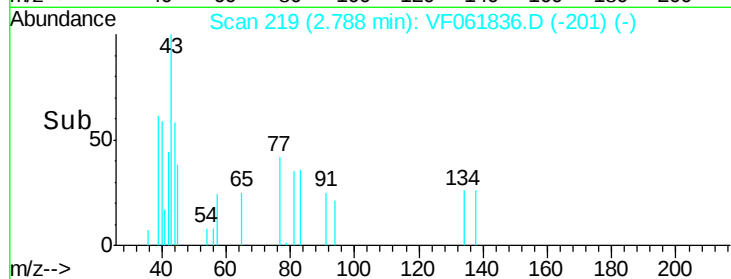
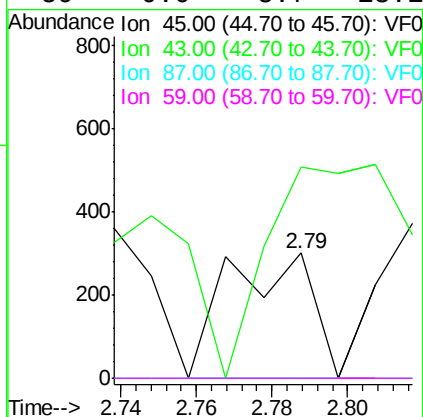
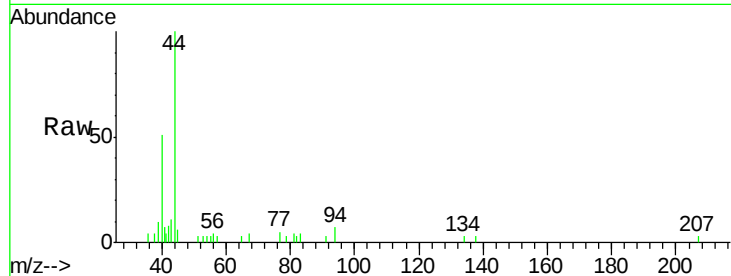




#22  
Diisopropyl ether  
Concen: 6.634 ug/l  
RT: 2.79 min Scan# 219  
Delta R.T. -0.02 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

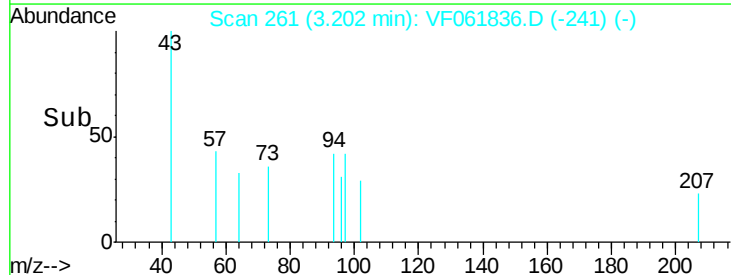
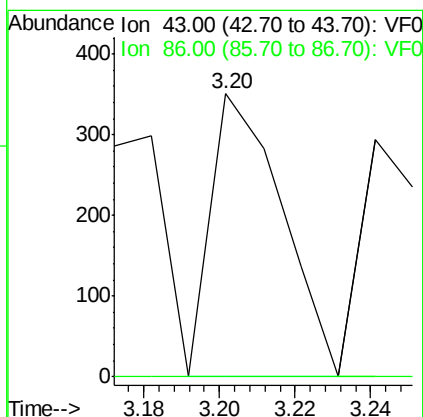
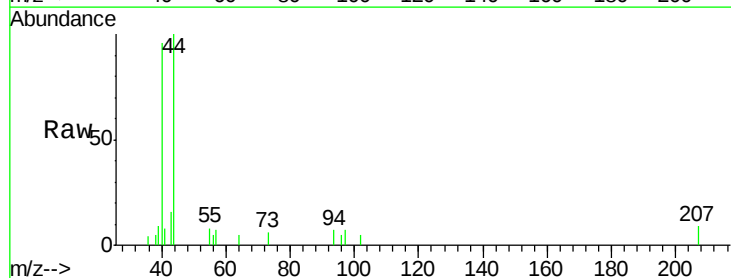
Instrument :  
MSVOA\_F  
ClientSampleId :  
S12

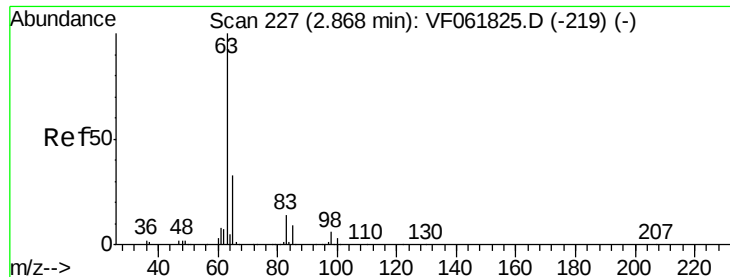
Tot Ion: 45 Resp: 466  
Ion Ratio Lower Upper  
45 100  
43 168.8 31.4 47.2#  
87 0.0 16.3 24.5#  
59 0.0 8.7 13.1#



#23  
Vinyl Acetate  
Concen: 13.291 ug/l  
RT: 3.20 min Scan# 261  
Delta R.T. -0.00 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 43 Resp: 456  
Ion Ratio Lower Upper  
43 100  
86 0.0 7.5 11.3#





#24

1,1-Dichloroethane

Concen: 5.152 ug/l

RT: 2.86 min Scan# 226

Delta R.T. -0.02 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
S12

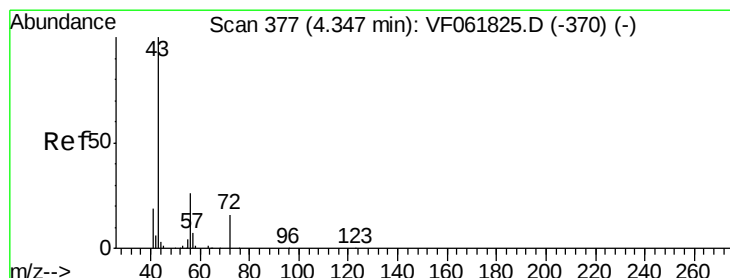
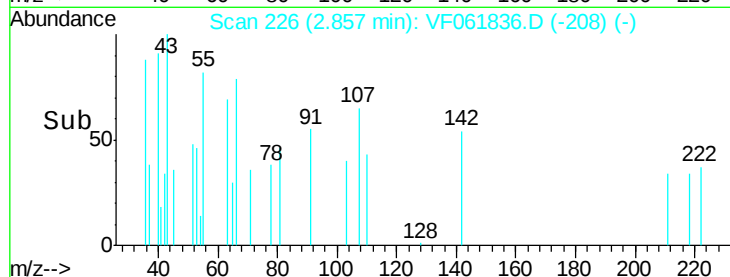
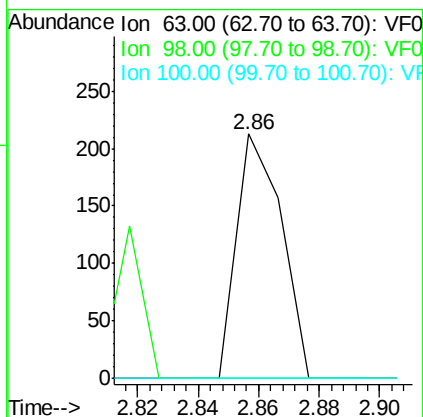
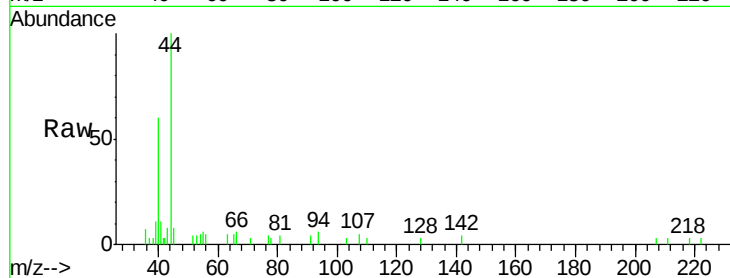
Tot Ion: 63 Resp: 219

Ion Ratio Lower Upper

63 100

98 0.0 2.8 8.3#

100 0.0 1.8 5.4#



#25

2-Butanone

Concen: 29.589 ug/l

RT: 4.34 min Scan# 376

Delta R.T. -0.00 min

Lab File: VF061836.D

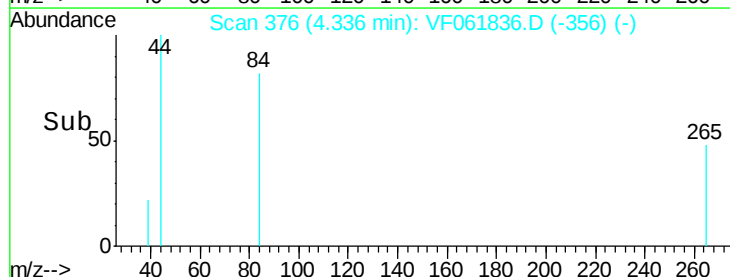
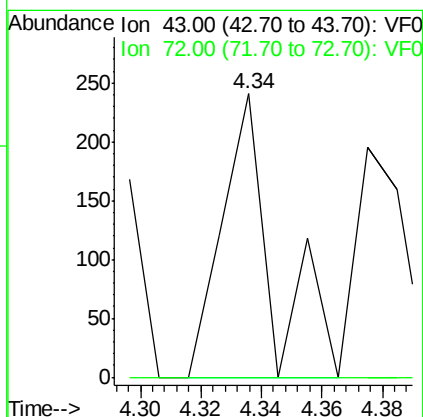
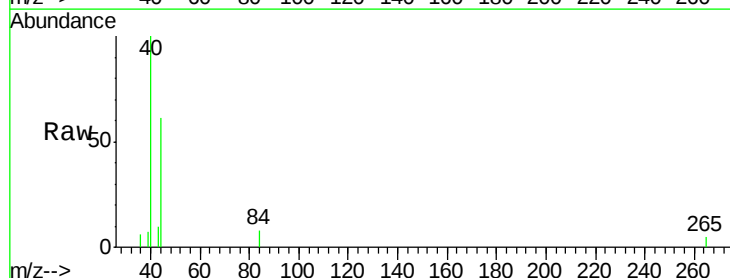
Acq: 4 Mar 2019 23:42

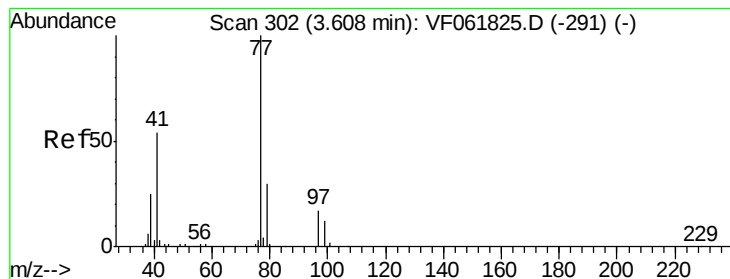
Tgt Ion: 43 Resp: 283

Ion Ratio Lower Upper

43 100

72 0.0 17.1 25.7#





#26

2,2-Dichloropropane

Concen: 4.998 ug/l

RT: 3.65 min Scan# 306

Delta R.T. 0.03 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampleId :

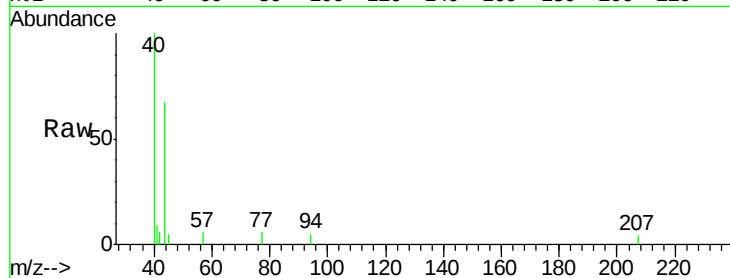
S12

Tot Ion: 77 Resp: 90

Ion Ratio Lower Upper

77 100

97 0.0 11.7 35.0#



Abundance Ion 77.00 (76.70 to 77.70): VF0

Ion 97.00 (96.70 to 97.70): VF0

3.65

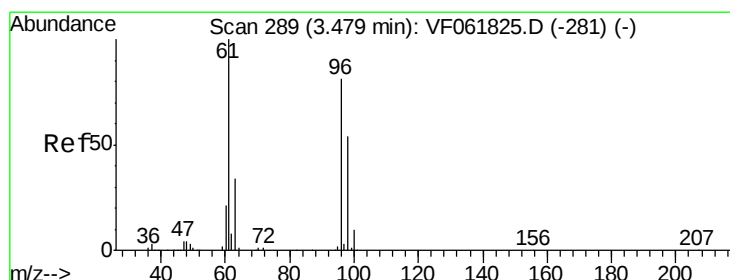
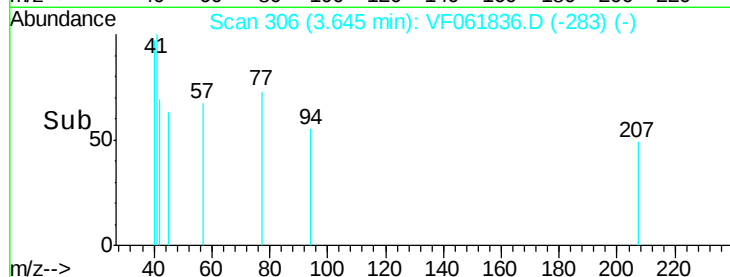
150

100

50

0

Time-->



#27

cis-1,2-Dichloroethene

Concen: 2.057 ug/l

RT: 3.49 min Scan# 290

Delta R.T. -0.00 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

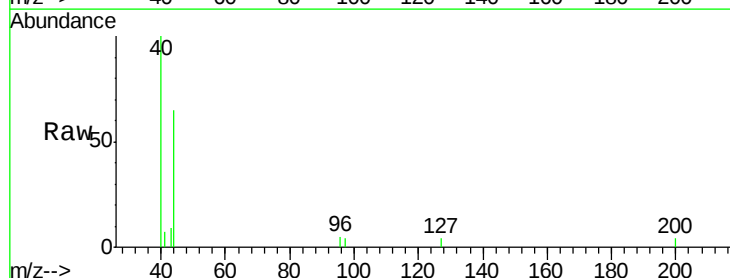
Tgt Ion: 96 Resp: 70

Ion Ratio Lower Upper

96 100

61 0.0 0.0 241.6

98 0.0 0.0 130.2



Abundance Ion 96.00 (95.70 to 96.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 98.00 (97.70 to 98.70): VF0

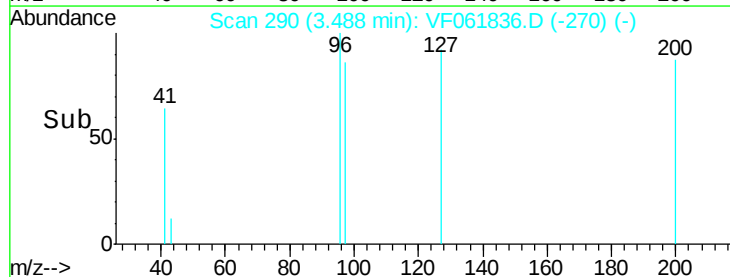
150

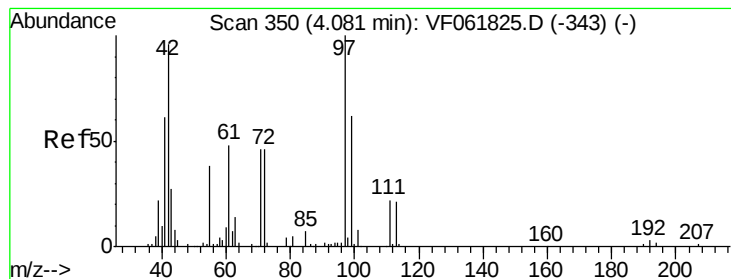
100

50

0

Time-->





#29

Tetrahydrofuran

Concen: 34.046 ug/l

RT: 4.09 min Scan# 351

Delta R.T. -0.00 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampled :

S12

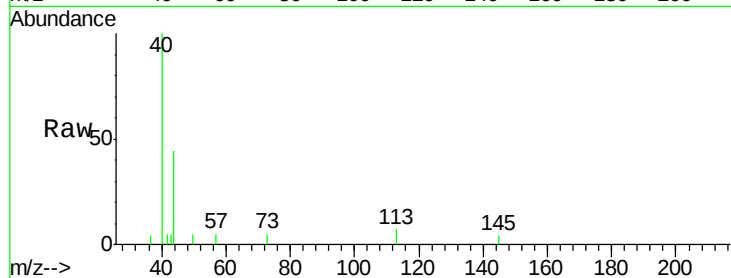
Tot Ion: 42 Resp: 148

Ion Ratio Lower Upper

42 100

72 0.0 35.2 52.8#

71 0.0 32.9 49.3#

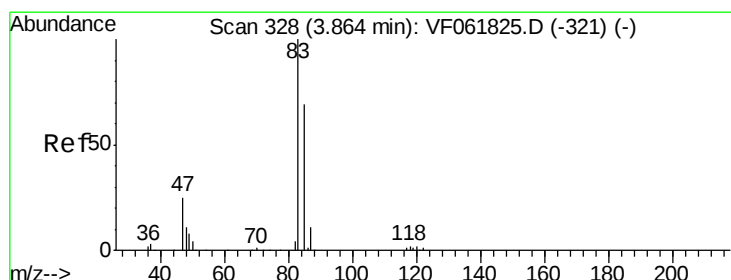
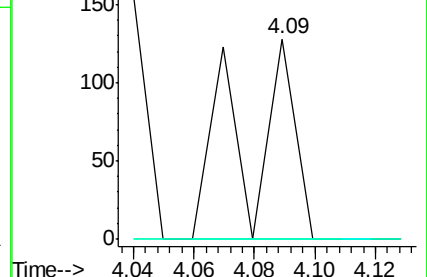
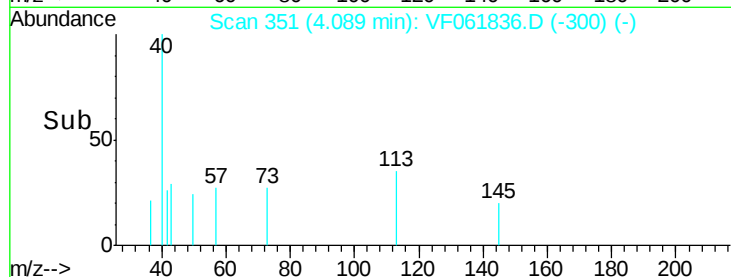


Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0

Time-->



#30

Chloroform

Concen: 1.365 ug/l

RT: 3.70 min Scan# 312

Delta R.T. -0.17 min

Lab File: VF061836.D

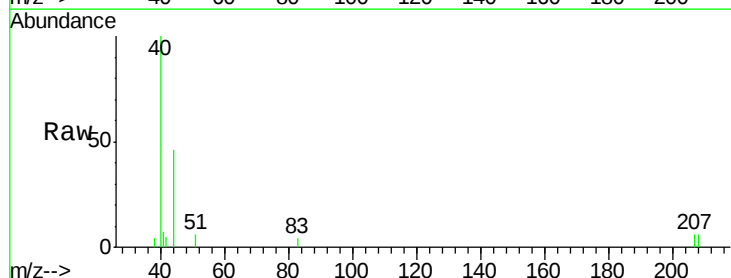
Acq: 4 Mar 2019 23:42

Tgt Ion: 83 Resp: 66

Ion Ratio Lower Upper

83 100

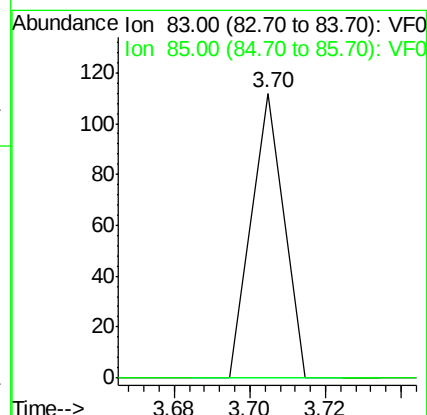
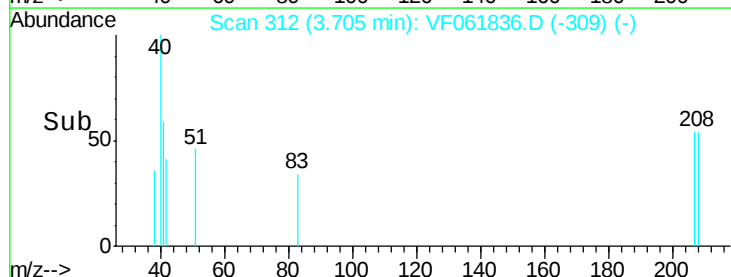
85 0.0 51.1 76.7#

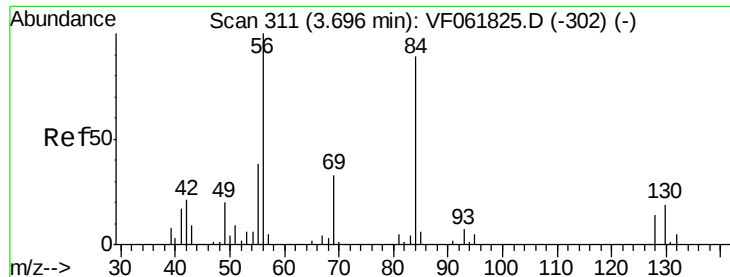


Abundance Ion 83.00 (82.70 to 83.70): VF0

Ion 85.00 (84.70 to 85.70): VF0

Time-->





#31

Cyclohexane

Concen: 1.456 ug/l

RT: 3.67 min Scan# 308

Delta R.T. -0.04 min

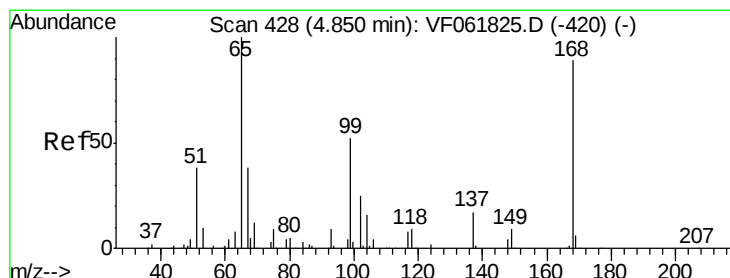
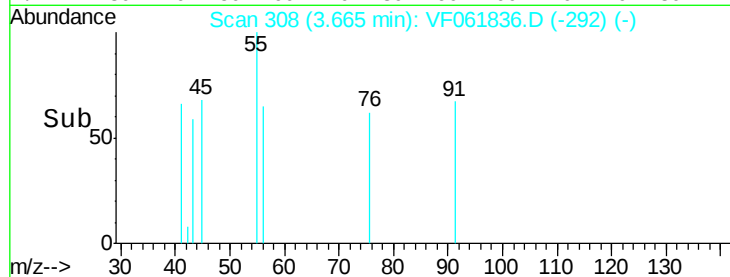
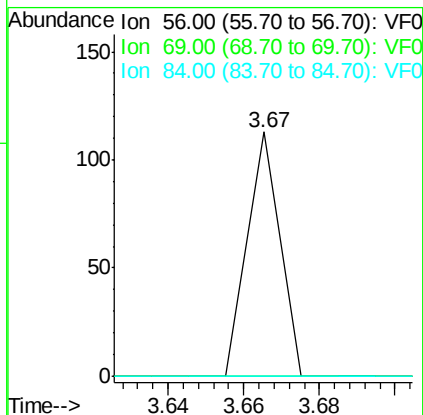
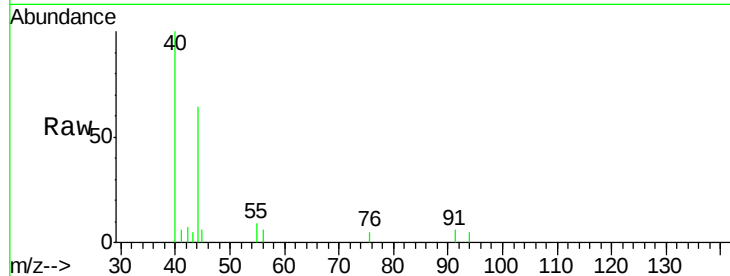
Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :  
MSVOA\_F  
ClientSampled :  
S12

Tot Ion: 56 Resp: 67

| Ion | Ratio | Lower | Upper  |
|-----|-------|-------|--------|
| 56  | 100   |       |        |
| 69  | 0.0   | 23.8  | 35.8#  |
| 84  | 0.0   | 68.6  | 103.0# |



#33

1,2-Dichloroethane-d4

Concen: 8.967 ug/l

RT: 4.82 min Scan# 425

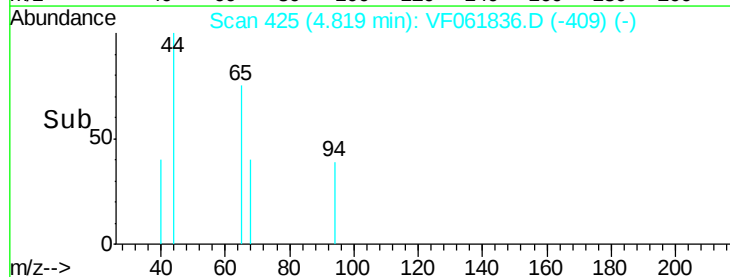
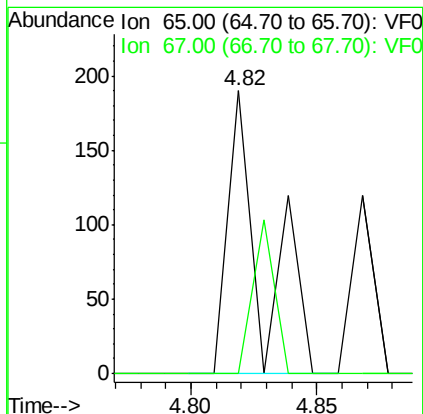
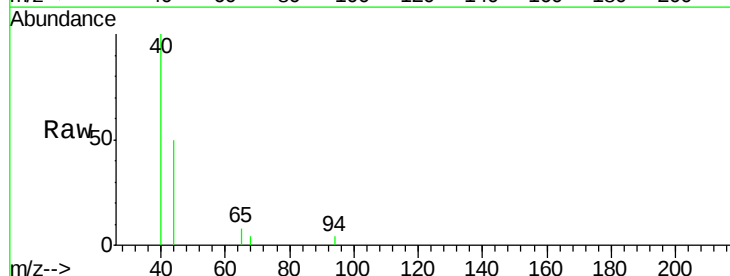
Delta R.T. -0.04 min

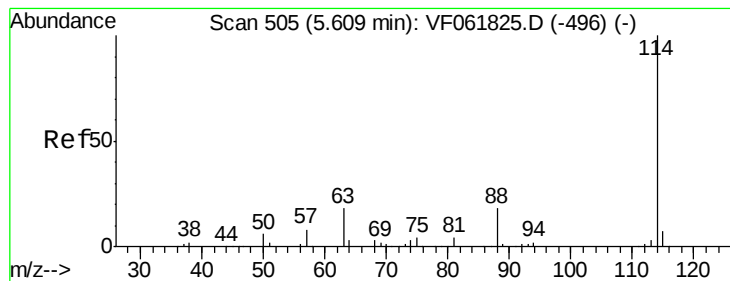
Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Tgt Ion: 65 Resp: 183

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 65  | 100   |       |       |
| 67  | 0.0   | 0.0   | 104.0 |





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.60 min Scan# 504

Delta R.T. -0.01 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampleId :

S12

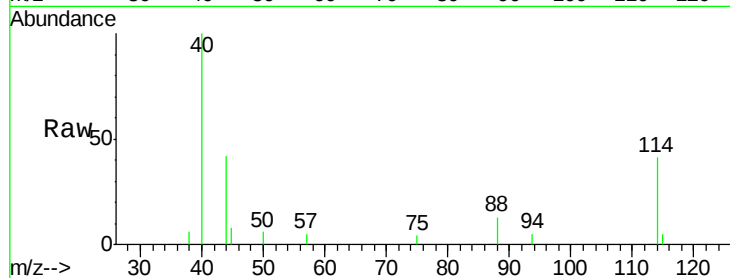
Tot Ion:114 Resp: 2674

Ion Ratio Lower Upper

114 100

63 0.0 0.0 36.6

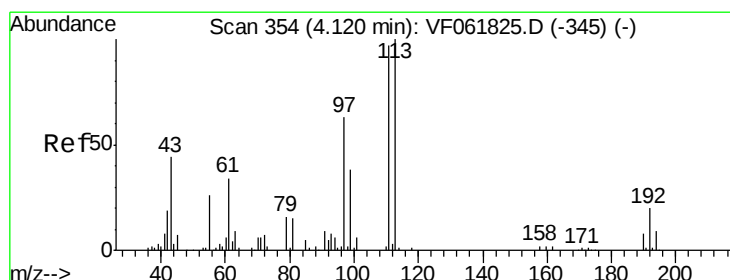
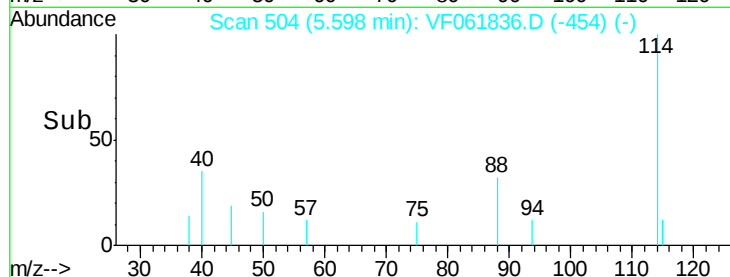
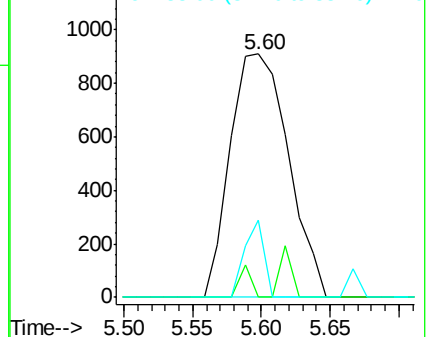
88 31.9 0.0 34.4



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: 27.546 ug/l

RT: 4.10 min Scan# 352

Delta R.T. -0.02 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

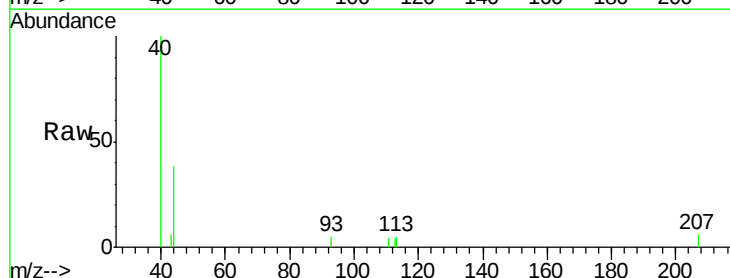
Tgt Ion:113 Resp: 547

Ion Ratio Lower Upper

113 100

111 42.0 78.8 118.2#

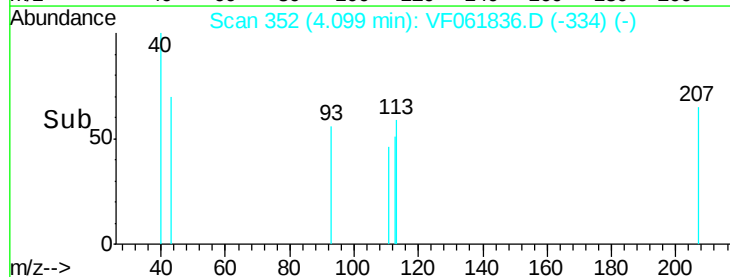
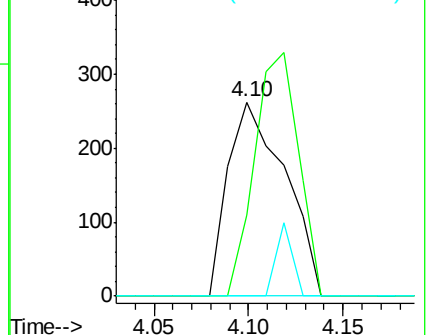
192 0.0 13.4 20.0#

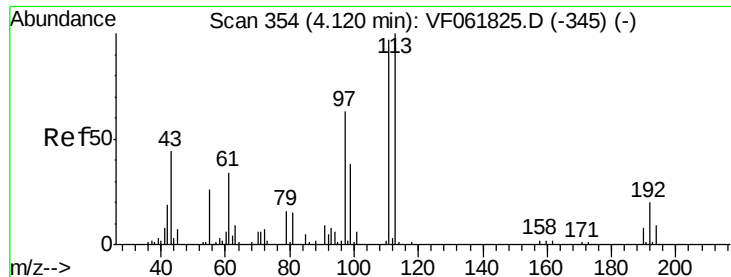


Abundance Ion 113.00 (112.70 to 113.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 192.00 (191.70 to 192.70): V

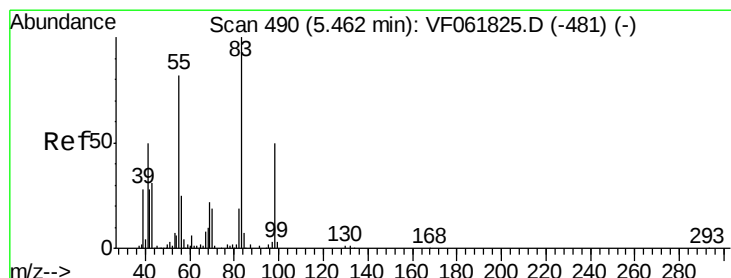
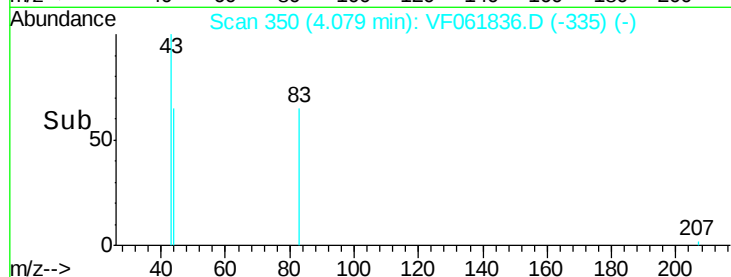
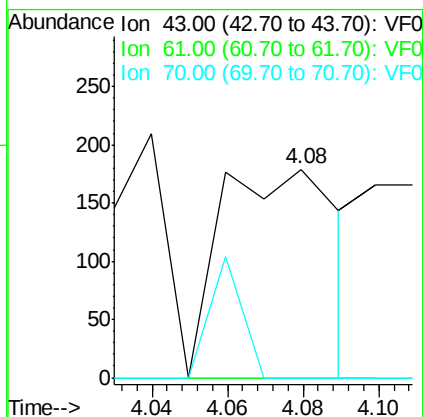
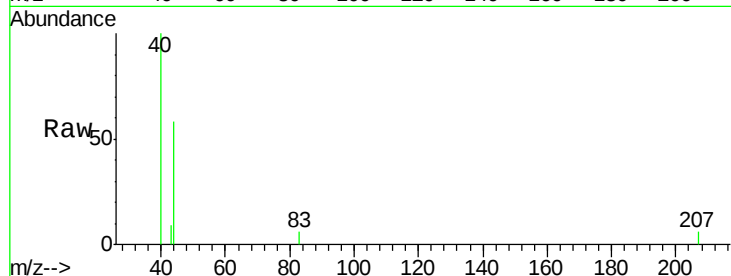




#37  
Ethyl Acetate  
Concen: 31.373 ug/l  
RT: 4.08 min Scan# 350  
Delta R.T. -0.05 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

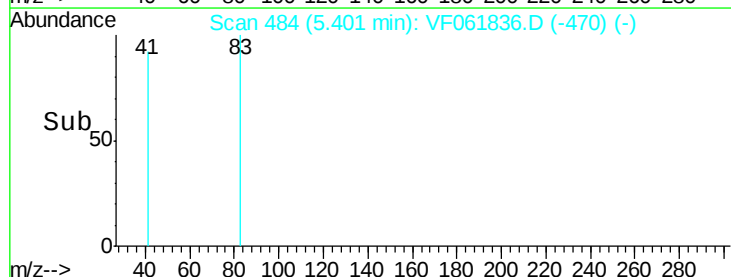
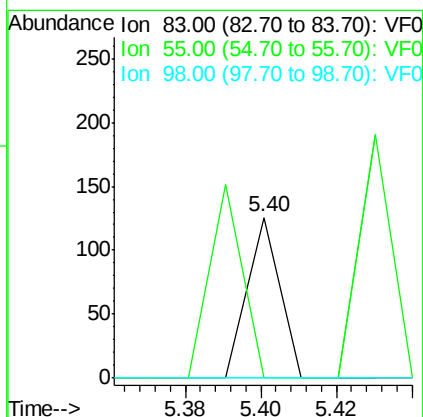
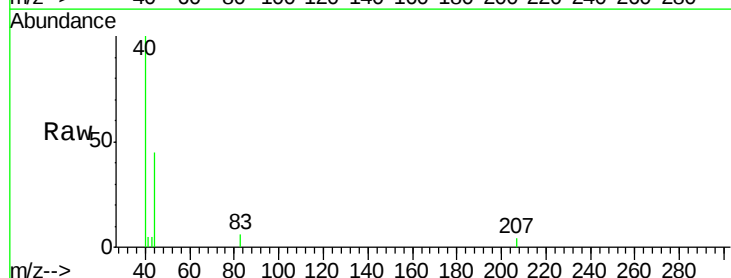
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

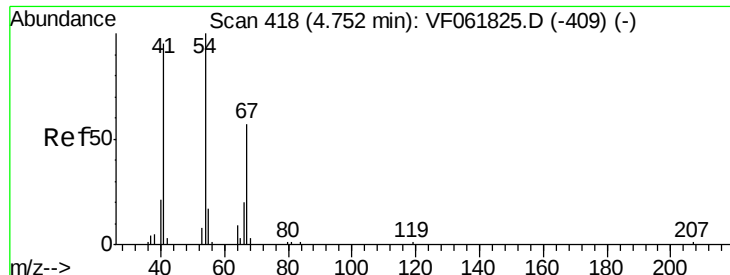
Tot Ion: 43 Resp: 386  
Ion Ratio Lower Upper  
43 100  
61 0.0 45.7 68.5#  
70 0.0 8.5 12.7#



#39  
Methylcyclohexane  
Concen: 2.394 ug/l  
RT: 5.40 min Scan# 484  
Delta R.T. -0.06 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 83 Resp: 75  
Ion Ratio Lower Upper  
83 100  
55 0.0 66.6 99.8#  
98 0.0 40.4 60.6#

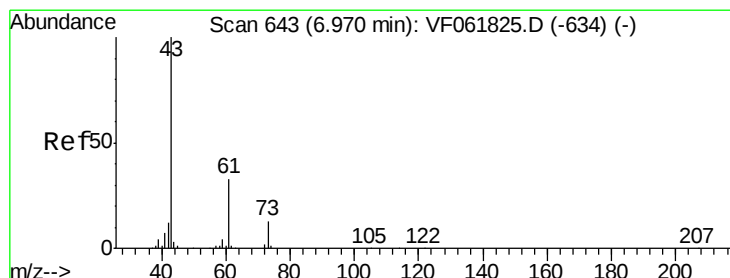
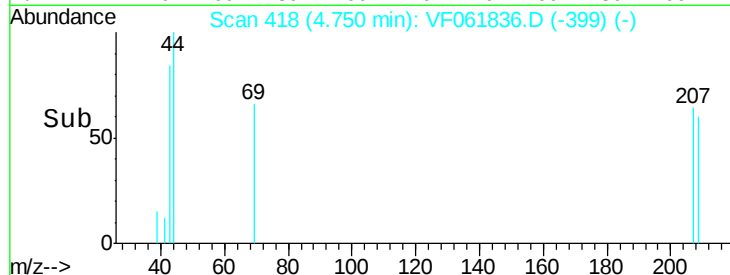
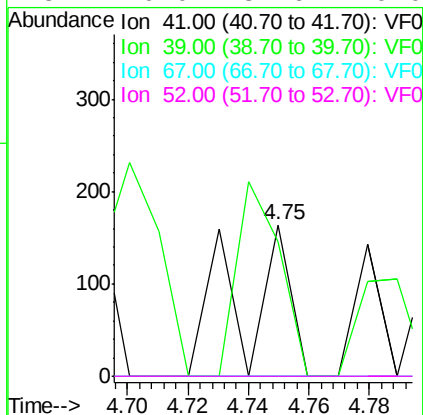
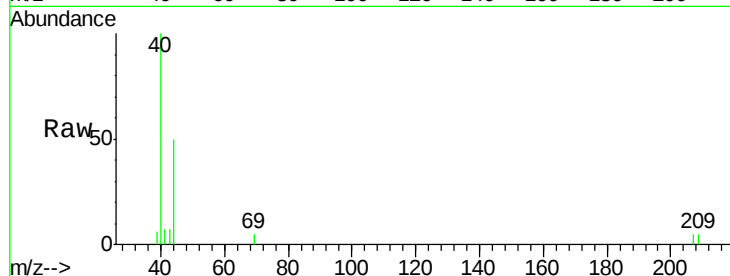




#41  
Methacrylonitrile  
Concen: 30.515 ug/l  
RT: 4.75 min Scan# 418  
Delta R.T. -0.01 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

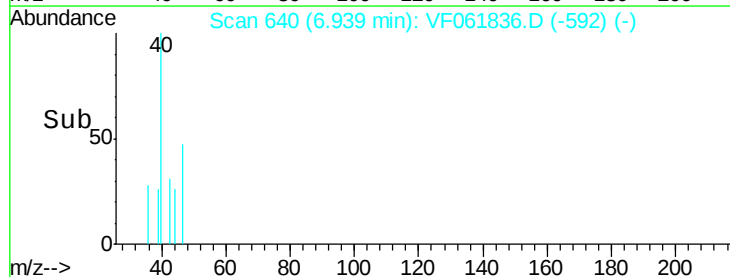
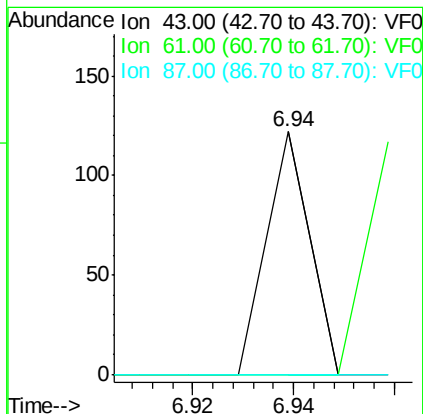
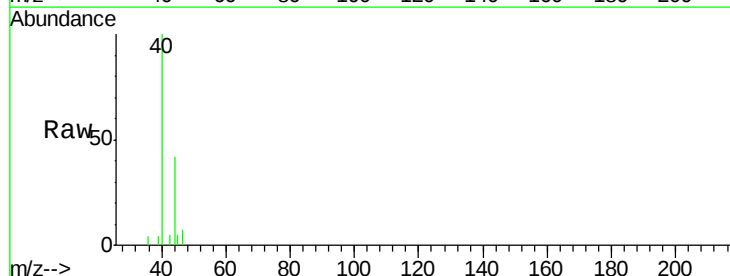
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

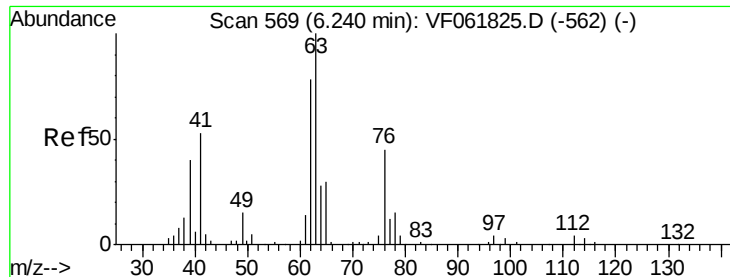
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 41    | Resp: | 192   |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 88.4  | 45.3  | 67.9# |
| 67       | 0.0   | 49.3  | 73.9# |
| 52       | 0.0   | 32.6  | 49.0# |



#43  
Isopropyl Acetate  
Concen: 4.944 ug/l  
RT: 6.94 min Scan# 640  
Delta R.T. -0.03 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 72    |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 61       | 0.0   | 25.8  | 38.6# |
| 87       | 0.0   | 0.4   | 0.6#  |





#45

1,2-Dichloropropane

Concen: 3.881 ug/l

RT: 6.11 min Scan# 556

Delta R.T. -0.14 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampleId :

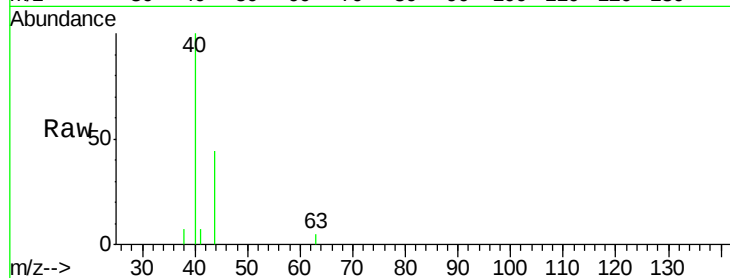
S12

Tot Ion: 63 Resp: 65

Ion Ratio Lower Upper

63 100

65 0.0 24.9 37.3#



Abundance Ion 63.00 (62.70 to 63.70): VF0

Ion 65.00 (64.70 to 65.70): VF0

6.11

120

100

80

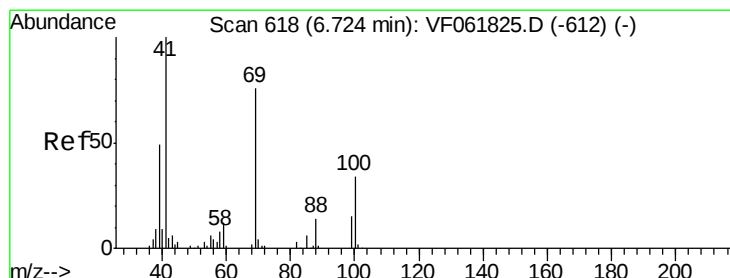
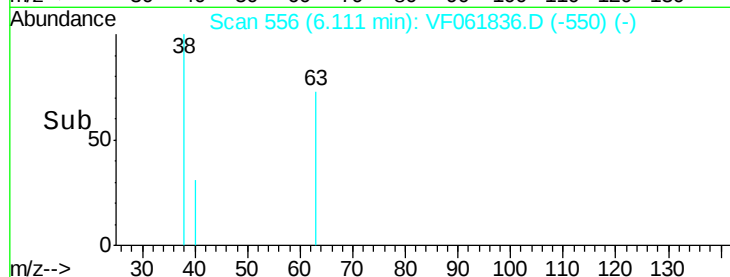
60

40

20

0

Time-->



#48

Methyl methacrylate

Concen: 8.672 ug/l

RT: 6.68 min Scan# 614

Delta R.T. -0.04 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

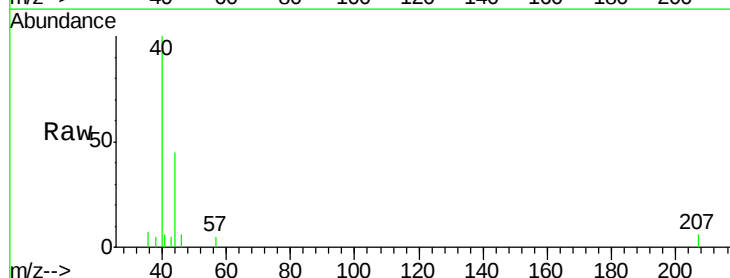
Tgt Ion: 41 Resp: 76

Ion Ratio Lower Upper

41 100

69 0.0 60.4 90.6#

39 0.0 43.7 65.5#



Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0

300

250

200

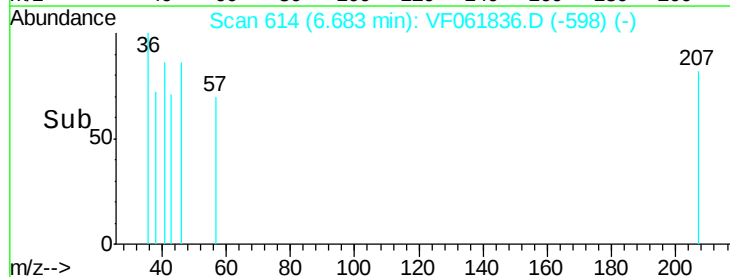
150

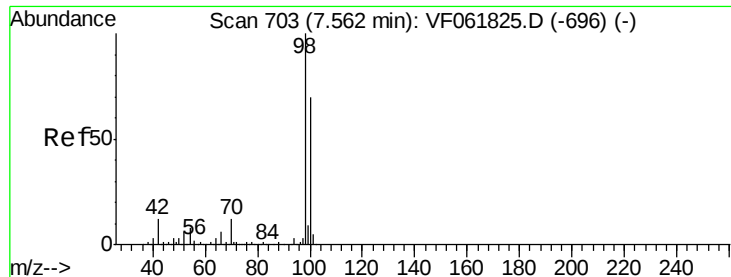
100

50

0

Time-->

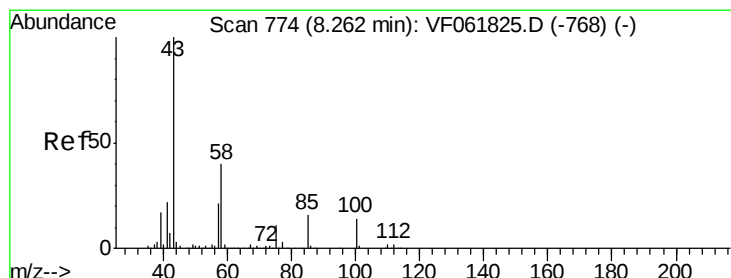
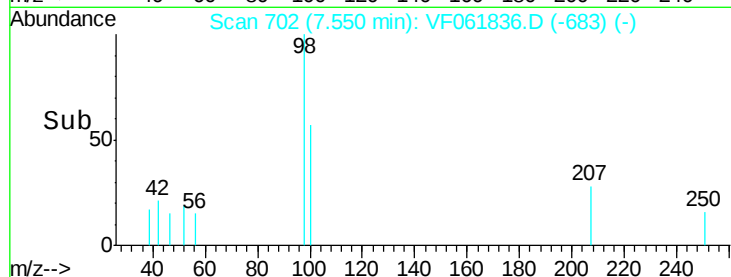
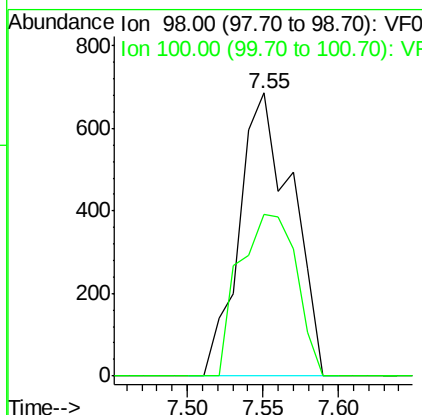
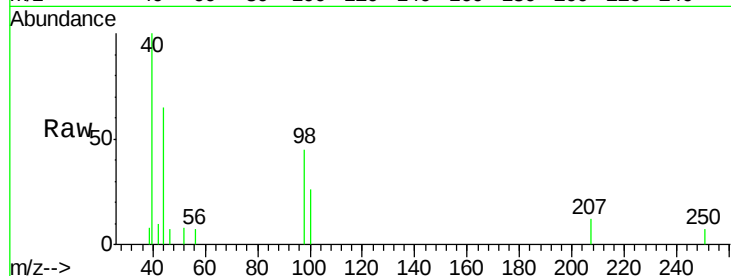




#50  
Toluene-d8  
Concen: 29.273 ug/l  
RT: 7.55 min Scan# 702  
Delta R.T. -0.01 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

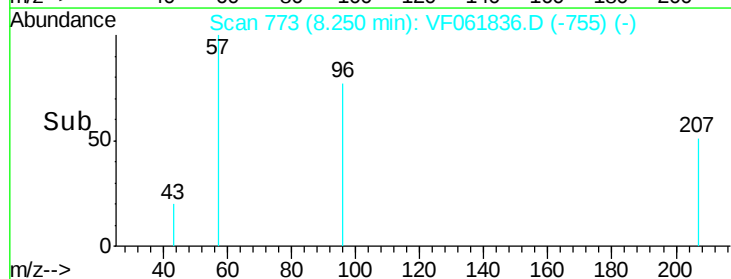
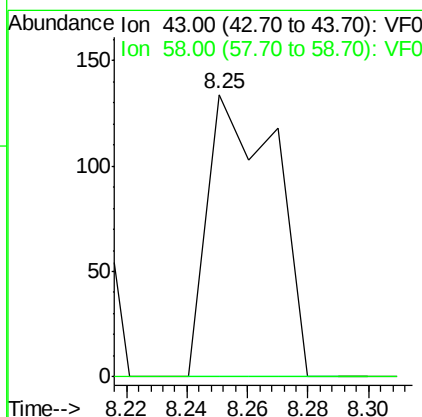
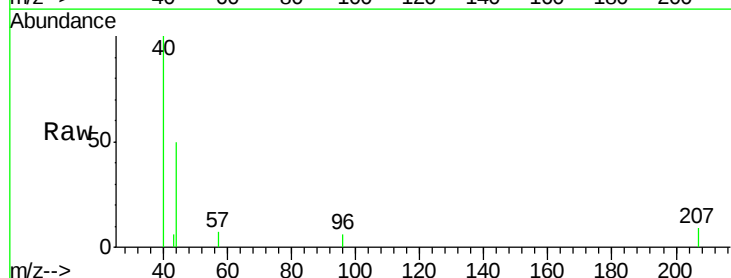
Instrument :  
MSVOA\_F  
ClientSampleId :  
S12

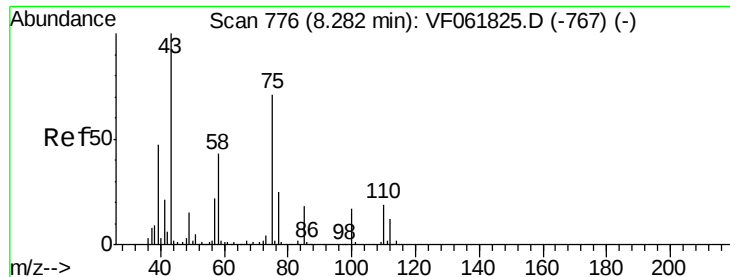
Tot Ion: 98 Resp: 1671  
Ion Ratio Lower Upper  
98 100  
100 57.1 55.4 83.2



#51  
4-Methyl-2-Pentanone  
Concen: 20.180 ug/l  
RT: 8.25 min Scan# 773  
Delta R.T. -0.02 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion: 43 Resp: 210  
Ion Ratio Lower Upper  
43 100  
58 0.0 33.1 49.7#





#53

t-1,3-Dichloropropene

Concen: 3.193 ug/l

RT: 8.19 min Scan# 767

Delta R.T. -0.10 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

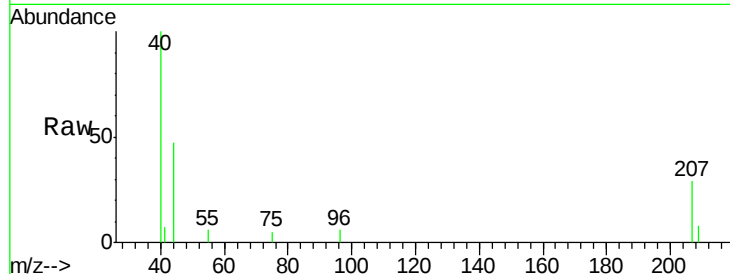
Instrument :  
MSVOA\_F  
ClientSampled :  
S12

Tot Ion: 75 Resp: 60

Ion Ratio Lower Upper

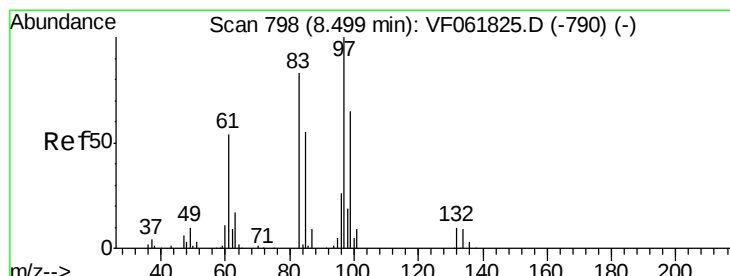
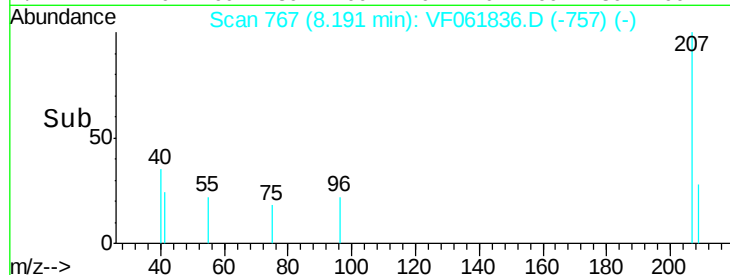
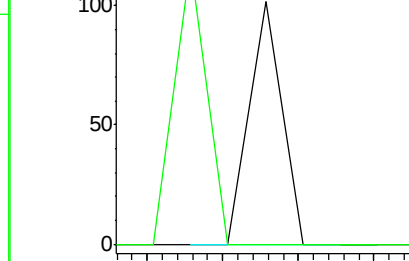
75 100

77 0.0 26.2 39.2#



Abundance Ion 75.00 (74.70 to 75.70): VF0  
Ion 77.00 (76.70 to 77.70): VF0

8.19



#55

1,1,2-Trichloroethane

Concen: 5.589 ug/l

RT: 8.63 min Scan# 811

Delta R.T. 0.13 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Tgt Ion: 97 Resp: 69

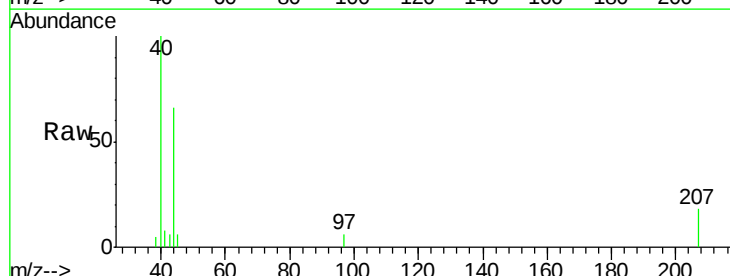
Ion Ratio Lower Upper

97 100

83 0.0 69.2 103.8#

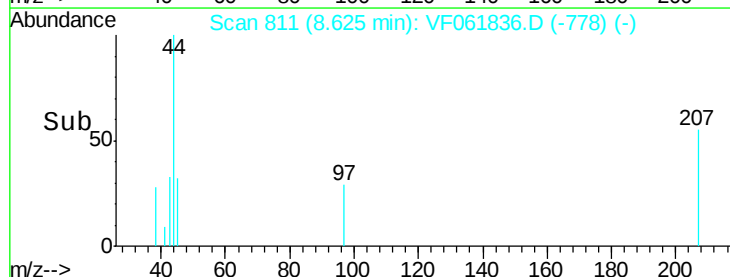
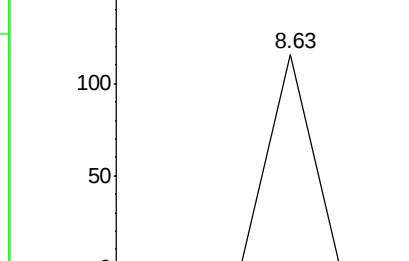
85 0.0 43.0 64.4#

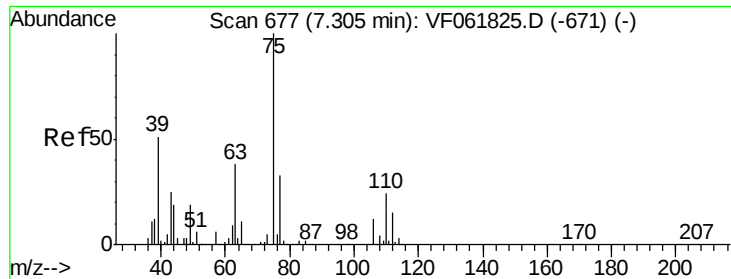
99 0.0 47.2 70.8#



Abundance Ion 97.00 (96.70 to 97.70): VF0  
Ion 82.95 (82.65 to 83.65): VF0  
Ion 84.95 (84.65 to 85.65): VF0  
Ion 98.95 (98.65 to 99.65): VF0

8.63

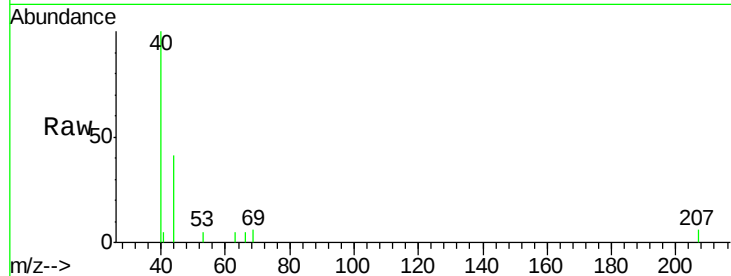




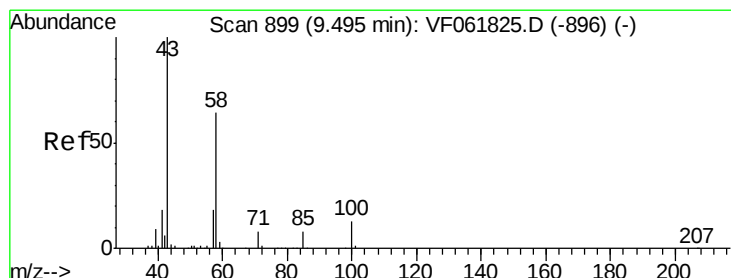
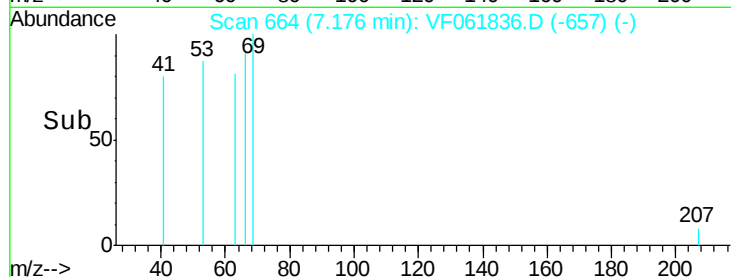
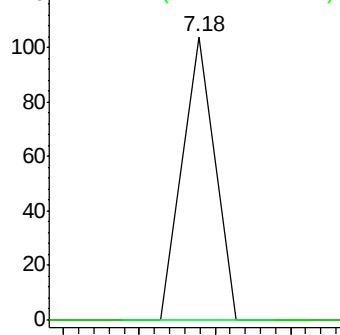
#58  
 2-Chloroethyl Vinyl ether  
 Concen: 26.142 ug/l  
 RT: 7.18 min Scan# 664  
 Delta R.T. -0.13 min  
 Lab File: VF061836.D  
 Acq: 4 Mar 2019 23:42

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 S12

Tot Ion: 63 Resp: 62  
 Ion Ratio Lower Upper  
 63 100  
 106 0.0 24.6 36.8#

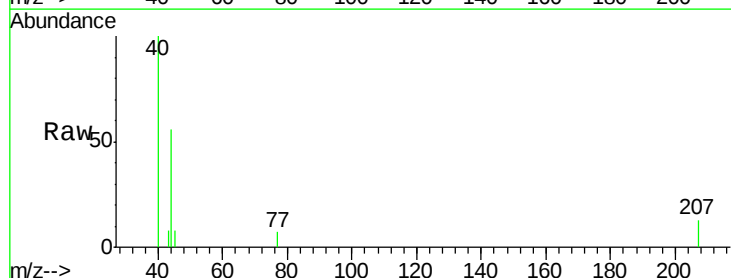


Abundance Ion 63.00 (62.70 to 63.70): VF0  
 Ion 106.00 (105.70 to 106.70): V

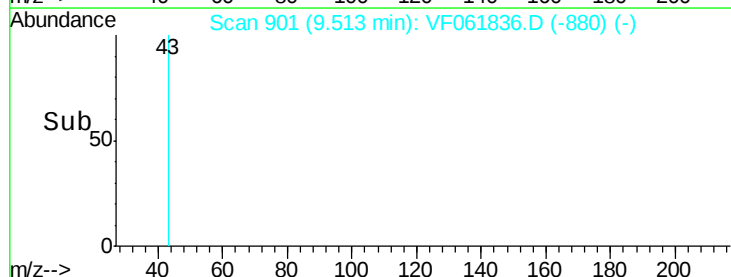
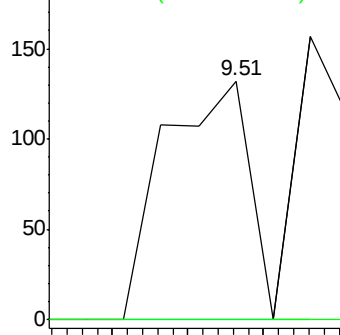


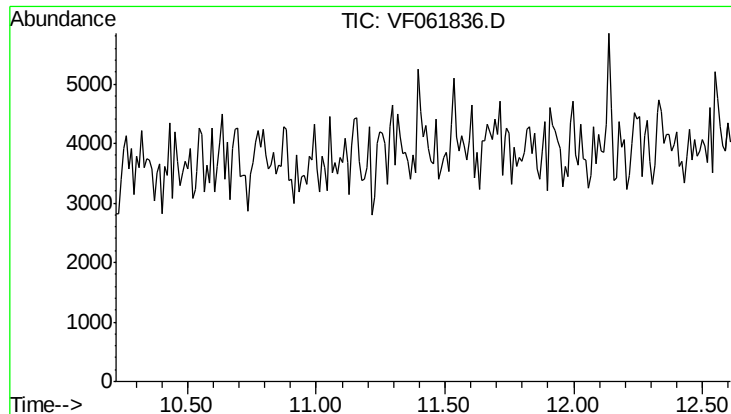
#59  
 2-Hexanone  
 Concen: 28.104 ug/l  
 RT: 9.51 min Scan# 901  
 Delta R.T. 0.01 min  
 Lab File: VF061836.D  
 Acq: 4 Mar 2019 23:42

Tgt Ion: 43 Resp: 205  
 Ion Ratio Lower Upper  
 43 100  
 58 0.0 28.5 85.5#



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

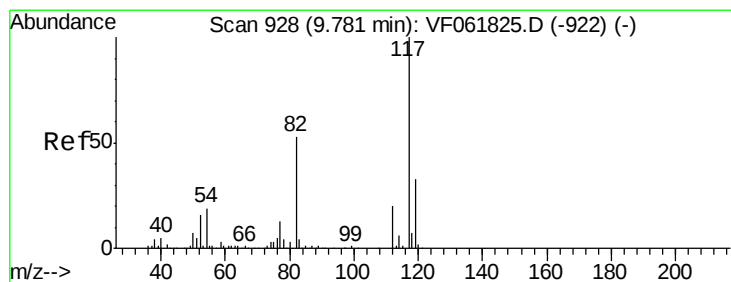
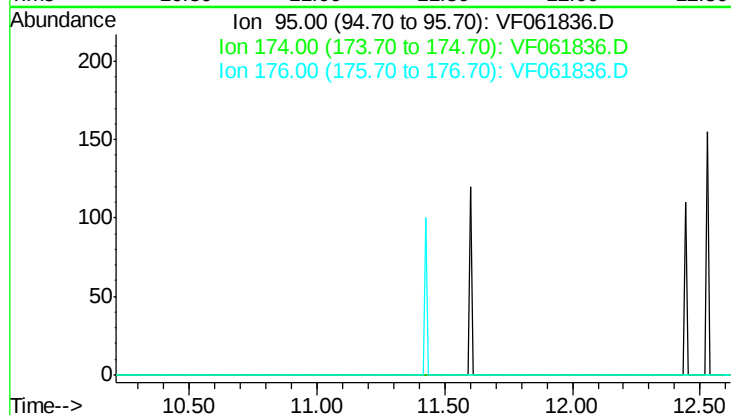




#62  
 4-Bromofluorobenzene  
 Concen: 0.000 ug/l  
 Expected RT: 11.42 min  
 Lab File: VF061836.D  
 Acq: 4 Mar 2019 23:42

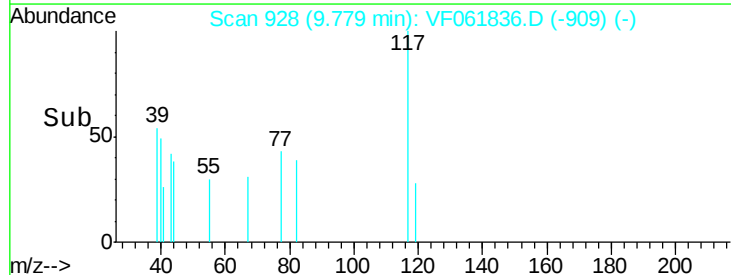
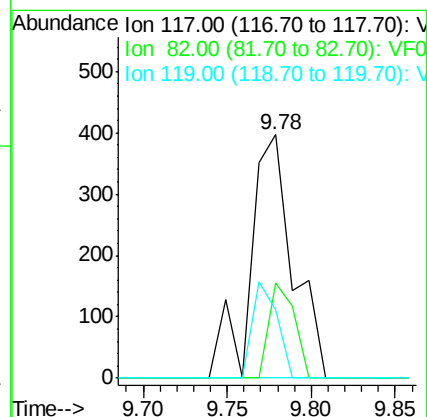
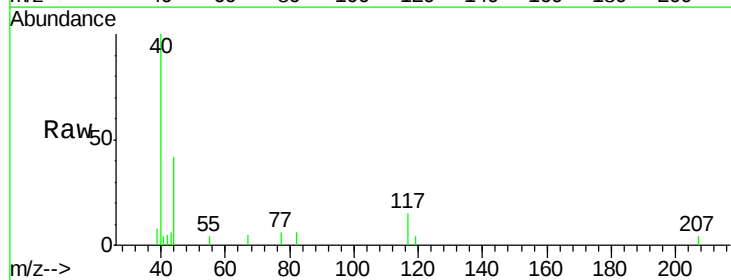
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 S12

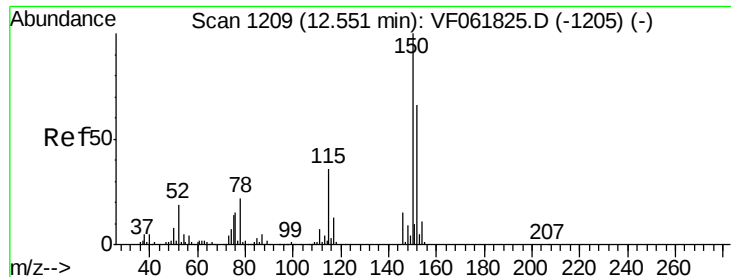
Tot Ion: 95  
 Sig Exp Ratio  
 95 100  
 174 82.9  
 176 83.5



#63  
 Chlorobenzene-d5  
 Concen: 50.000 ug/l  
 RT: 9.78 min Scan# 928  
 Delta R.T. -0.01 min  
 Lab File: VF061836.D  
 Acq: 4 Mar 2019 23:42

Tgt Ion:117 Resp: 697  
 Ion Ratio Lower Upper  
 117 100  
 82 39.0 39.3 58.9#  
 119 28.0 26.6 40.0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.55 min Scan# 1209

Delta R.T. -0.01 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampled :

S12

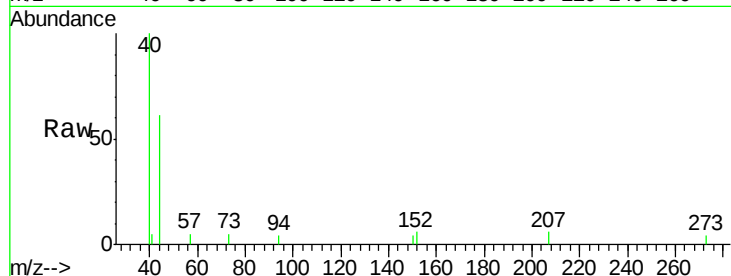
Tot Ion:152 Resp: 85

Ion Ratio Lower Upper

152 100

115 0.0 24.3 72.8#

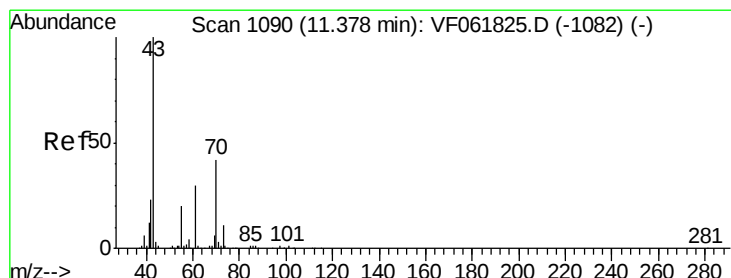
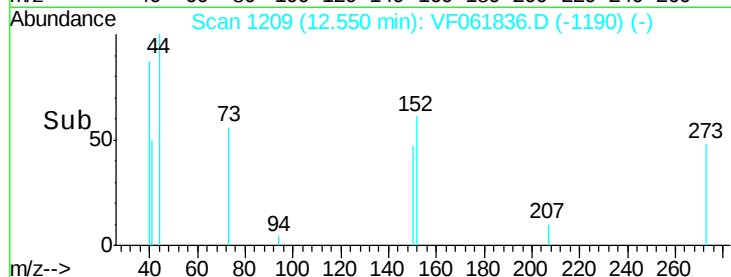
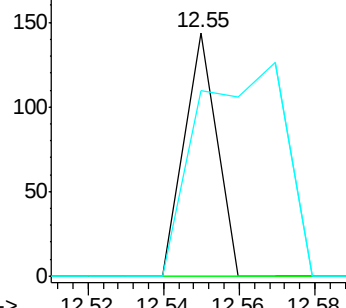
150 76.4 0.0 312.0



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-aryl acetate

Concen: 91.561 ug/l

RT: 11.41 min Scan# 1093

Delta R.T. 0.03 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Tgt Ion: 43 Resp: 133

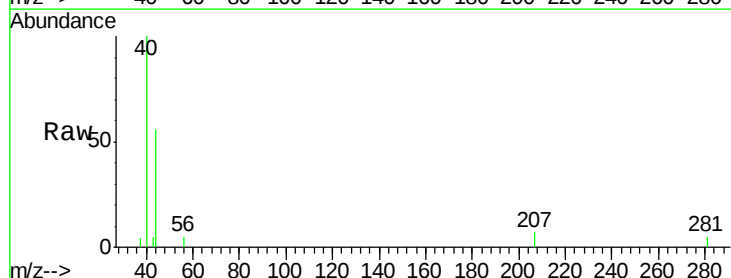
Ion Ratio Lower Upper

43 100

70 0.0 31.5 47.3#

55 0.0 16.7 25.1#

61 0.0 23.0 34.6#

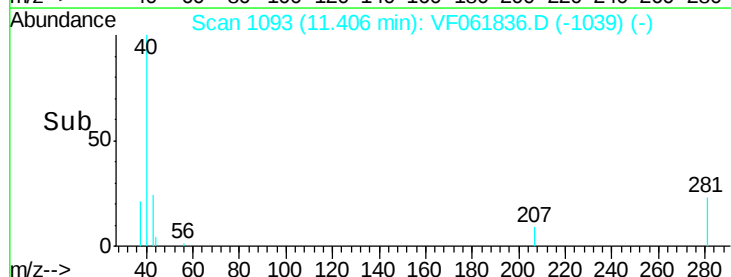
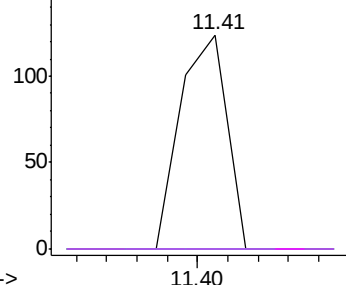


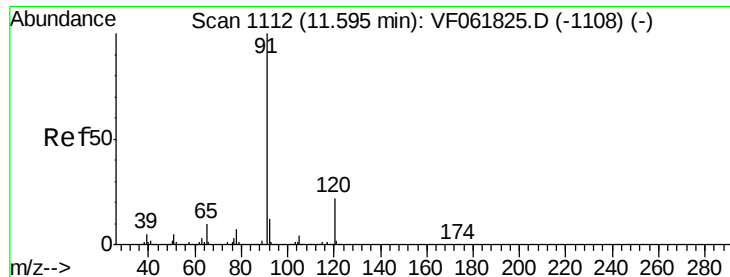
Abundance Ion 43.00 (42.70 to 43.70): VF0

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





#78

n-propylbenzene

Concen: 8.784 ug/l

RT: 11.47 min Scan# 1099

Delta R.T. -0.14 min

Lab File: VF061836.D

Acq: 4 Mar 2019 23:42

Instrument :

MSVOA\_F

ClientSampleId :

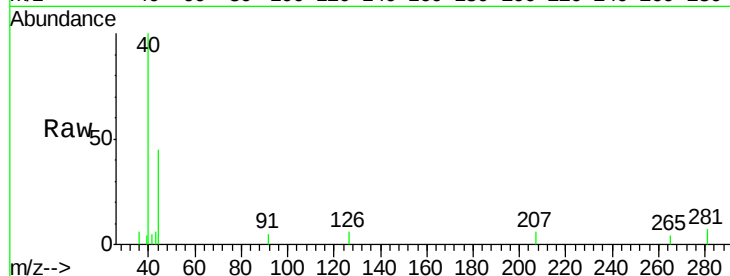
S12

Tot Ion: 91 Resp: 61

Ion Ratio Lower Upper

91 100

120 0.0 12.1 36.3#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 120.00 (119.70 to 120.70): V

11.47

100

80

60

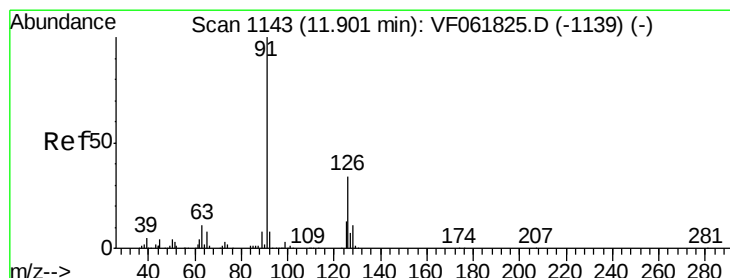
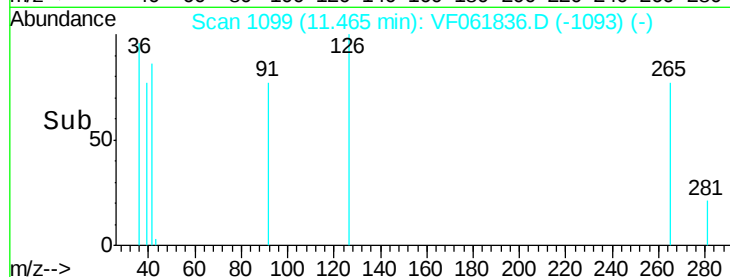
40

20

0

11.44 11.46 11.48

Time-->



#82

4-Chlorotoluene

Concen: 14.615 ug/l

RT: 11.98 min Scan# 1151

Delta R.T. 0.07 min

Lab File: VF061836.D

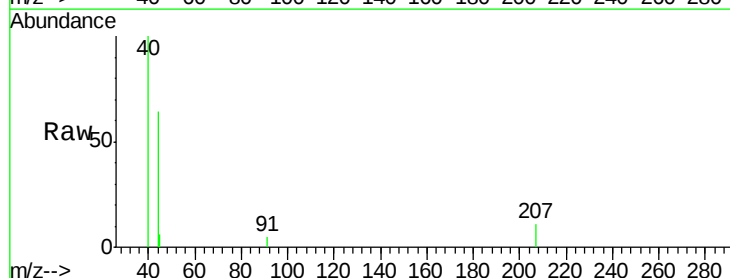
Acq: 4 Mar 2019 23:42

Tgt Ion: 91 Resp: 59

Ion Ratio Lower Upper

91 100

126 0.0 19.1 57.1#



Abundance Ion 91.00 (90.70 to 91.70): VF0

Ion 126.00 (125.70 to 126.70): V

11.98

100

80

60

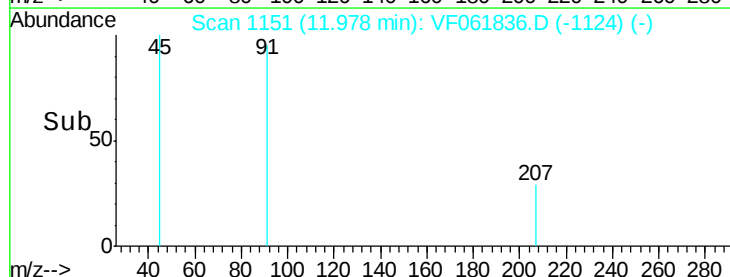
40

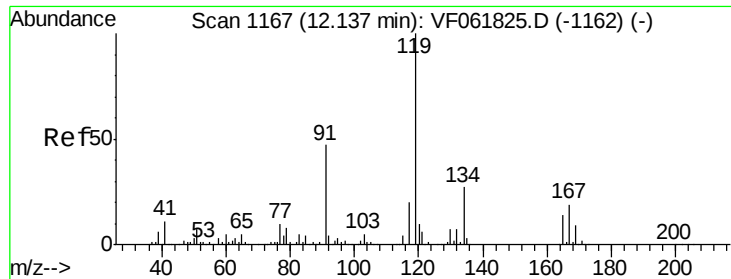
20

0

11.94 11.96 11.98 12.00

Time-->

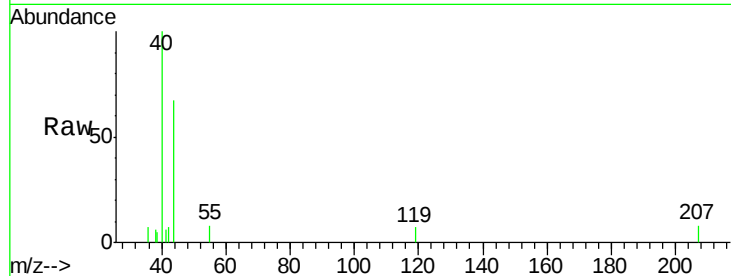




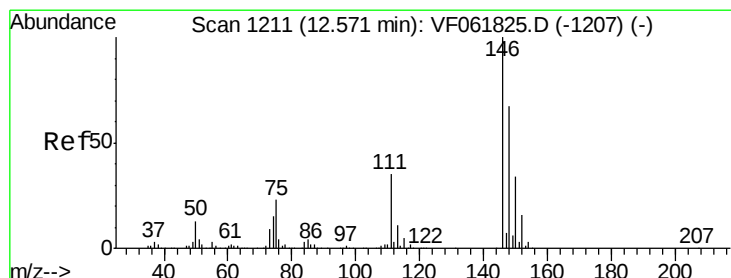
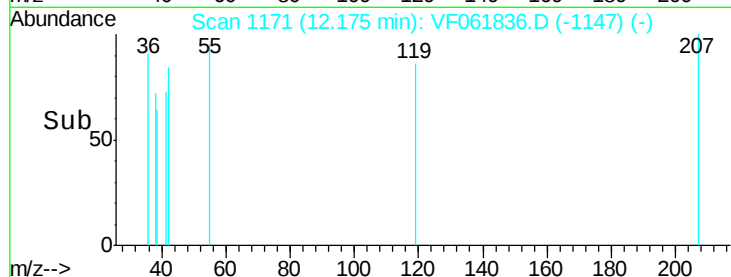
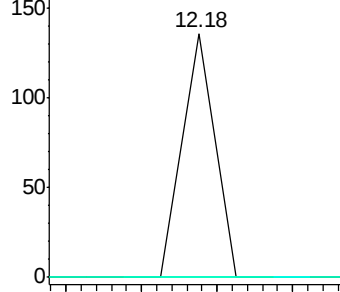
#83  
tert-Butylbenzene  
Concen: 14.933 ug/l  
RT: 12.18 min Scan# 1171  
Delta R.T. 0.04 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
S12

Tot Ion:119 Resp: 80  
Ion Ratio Lower Upper  
119 100  
91 0.0 26.3 78.8#  
134 0.0 12.9 38.7#

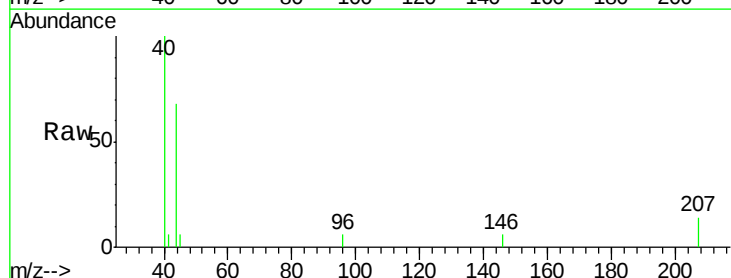


Abundance Ion 119.00 (118.70 to 119.70): V  
Ion 91.00 (90.70 to 91.70): V  
Ion 134.00 (133.70 to 134.70): V

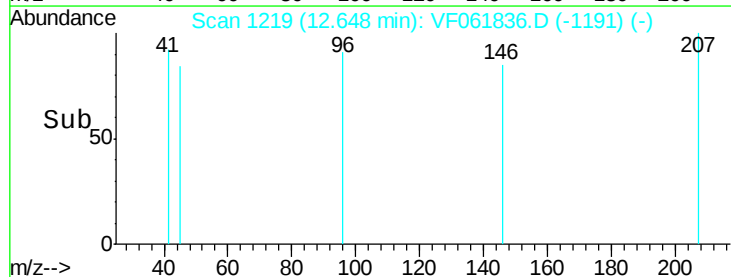
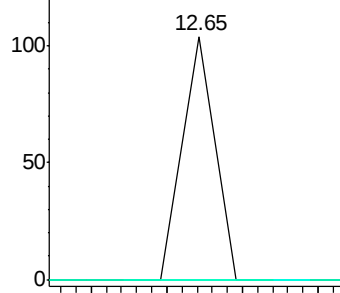


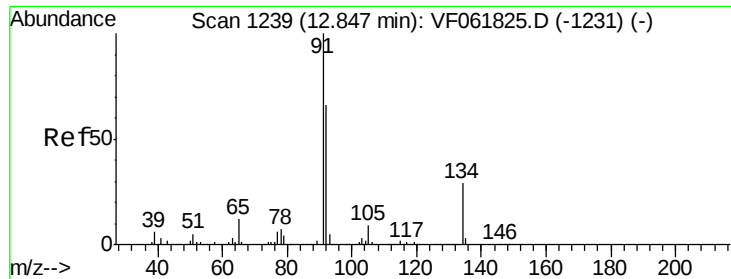
#88  
1,4-Dichlorobenzene  
Concen: 22.118 ug/l  
RT: 12.65 min Scan# 1219  
Delta R.T. 0.08 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Tgt Ion:146 Resp: 62  
Ion Ratio Lower Upper  
146 100  
111 0.0 18.4 55.4#  
148 0.0 32.2 96.6#



Abundance Ion 146.00 (145.70 to 146.70): V  
Ion 111.00 (110.70 to 111.70): V  
Ion 148.00 (147.70 to 148.70): V

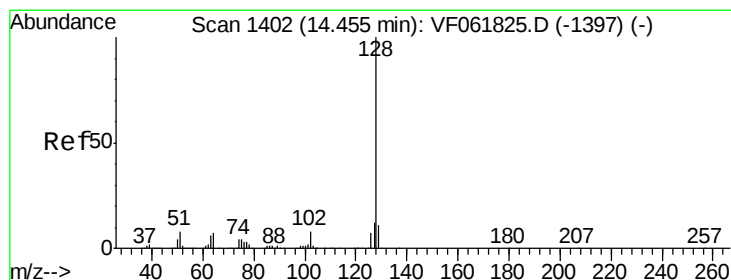
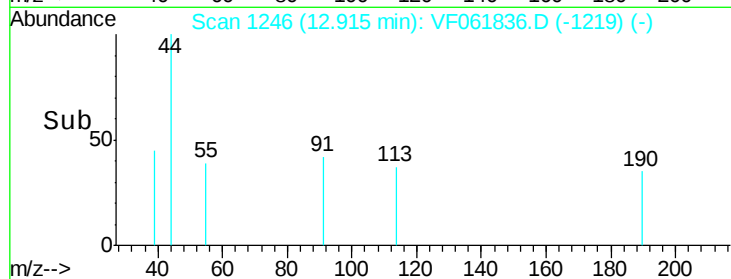
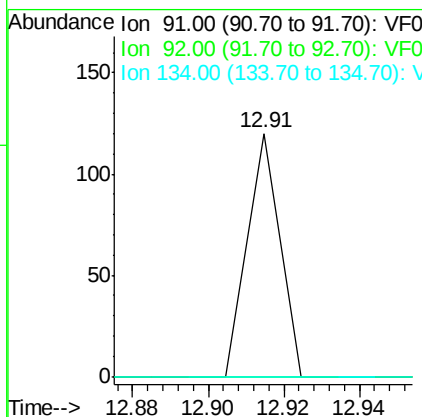
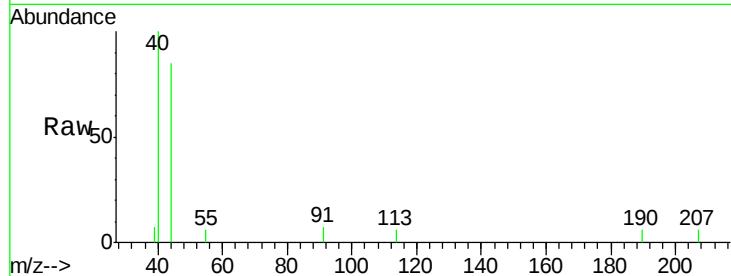




#89  
n-Butylbenzene  
Concen: 12.932 ug/l  
RT: 12.91 min Scan# 1246  
Delta R.T. 0.07 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

Instrument :  
MSVOA\_F  
ClientSampleId :  
S12

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 91      | 100   |       |       |
| 92      | 0.0   | 31.4  | 94.3# |
| 134     | 0.0   | 12.3  | 36.9# |



#95  
Naphthalene  
Concen: 18.120 ug/l  
RT: 14.38 min Scan# 1395  
Delta R.T. -0.08 min  
Lab File: VF061836.D  
Acq: 4 Mar 2019 23:42

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 0.0   | 9.8   | 14.6# |
| 129     | 0.0   | 9.4   | 14.2# |

