

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF032519\  
 Data File : VF062134.D  
 Acq On : 25 Mar 2019 16:23  
 Operator : VA/AP  
 Sample : K2091-01  
 Misc : 4.88g/5mL/MSVOA-F/SOIL  
 ALS Vial : 9 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 DRUM-COMP

Quant Time: Mar 26 04:21:09 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F032219S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Mar 23 01:16:37 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.87  | 168  | 248643   | 50.00 | ug/l  | -0.04    |
| 34) 1,4-Difluorobenzene    | 5.60  | 114  | 388540   | 50.00 | ug/l  | -0.03    |
| 63) Chlorobenzene-d5       | 9.77  | 117  | 259656   | 50.00 | ug/l  | -0.04    |
| 72) 1,4-Dichlorobenzene-d4 | 12.55 | 152  | 93210    | 50.00 | ug/l  | -0.02    |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 4.85  | 65   | 71315    | 38.56 | ug/l   | -0.03    |
| Spiked Amount               |       |      | Recovery | =     | 77.12% |          |
| 35) Dibromofluoromethane    | 4.12  | 113  | 104410   | 39.73 | ug/l   | -0.03    |
| Spiked Amount               |       |      | Recovery | =     | 79.46% |          |
| 50) Toluene-d8              | 7.55  | 98   | 234323   | 29.87 | ug/l   | -0.04    |
| Spiked Amount               |       |      | Recovery | =     | 59.74% |          |
| 62) 4-Bromofluorobenzene    | 11.41 | 95   | 73164    | 24.16 | ug/l   | -0.03    |
| Spiked Amount               |       |      | Recovery | =     | 48.32% |          |

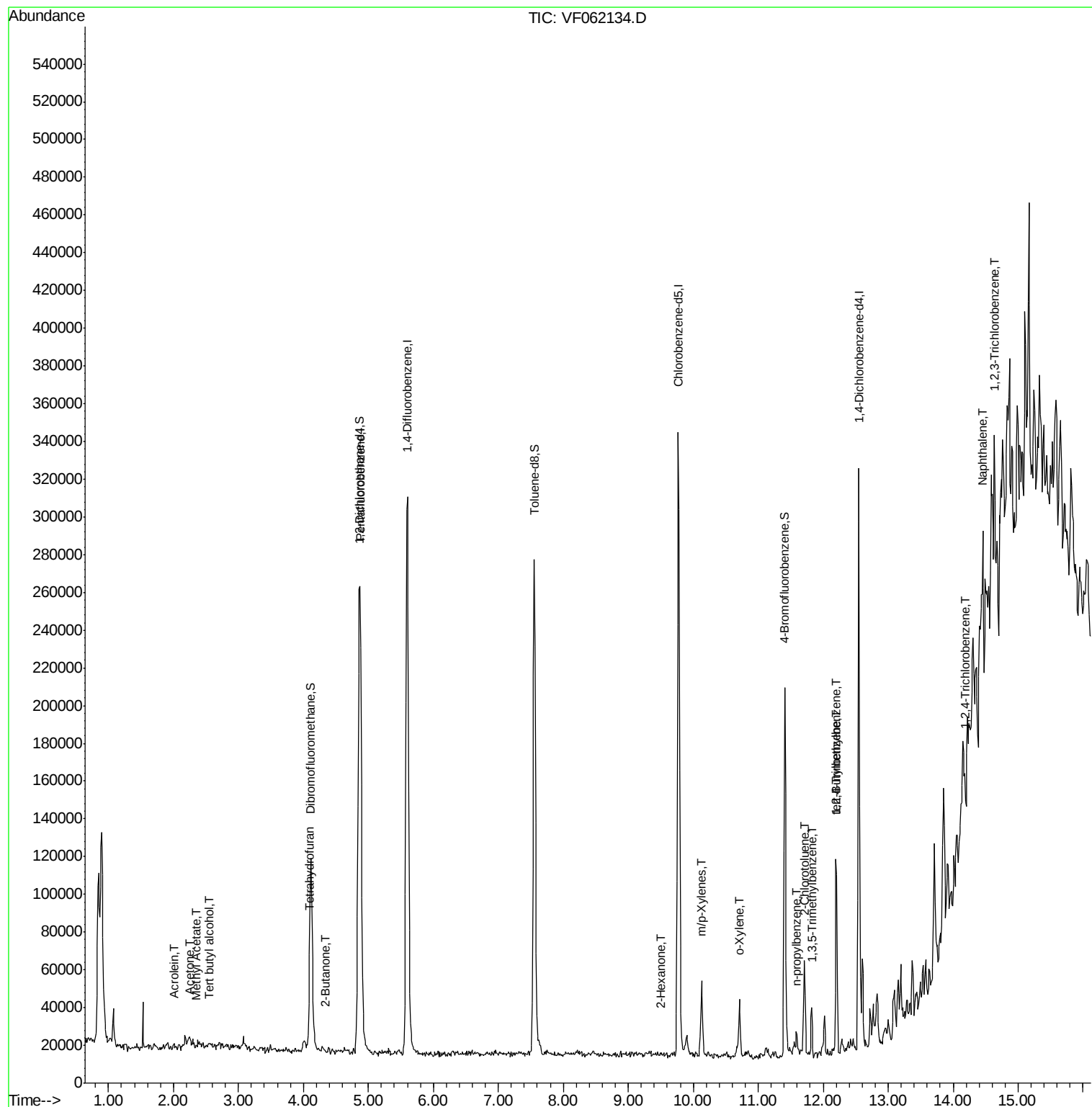
| Target Compounds           | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|----------------------------|-------|------|----------|-----------|--------|--------|
| 11) Tert butyl alcohol     | 2.56  | 59   | 1040     | 10.220    | ug/l # | 66     |
| 13) Acrolein               | 2.02  | 56   | 169      | 1.381     | ug/l # | 52     |
| 16) Acetone                | 2.27  | 43   | 2035     | 5.228     | ug/l # | 49     |
| 18) Methyl Acetate         | 2.34  | 43   | 2923     | 3.148     | ug/l # | 56     |
| 20) Methylene Chloride     | 2.18  | 84   | 2604     | Below Cal | #      | 83     |
| 25) 2-Butanone             | 4.35  | 43   | 944      | 1.162     | ug/l # | 55     |
| 29) Tetrahydrofuran        | 4.08  | 42   | 964      | 2.729     | ug/l # | 61     |
| 59) 2-Hexanone             | 9.51  | 43   | 1066     | 1.109     | ug/l   | 86     |
| 68) m/p-Xylenes            | 10.13 | 106  | 13709    | 4.341     | ug/l   | 88     |
| 69) o-Xylene               | 10.71 | 106  | 9070     | 2.742     | ug/l   | 93     |
| 78) n-propylbenzene        | 11.60 | 91   | 8132     | 1.068     | ug/l   | 100    |
| 79) 2-Chlorotoluene        | 11.71 | 91   | 4651     | 1.099     | ug/l # | 49     |
| 80) 1,3,5-Trimethylbenzene | 11.82 | 105  | 14289    | 2.649     | ug/l   | 89     |
| 83) tert-Butylbenzene      | 12.20 | 119  | 7110     | 1.259     | ug/l # | 63     |
| 84) 1,2,4-Trimethylbenzene | 12.21 | 105  | 54351    | 10.277    | ug/l   | 96     |
| 93) 1,2,4-Trichlorobenzene | 14.19 | 180  | 2021     | 1.037     | ug/l # | 41     |
| 95) Naphthalene            | 14.46 | 128  | 4852     | 1.421     | ug/l # | 80     |
| 96) 1,2,3-Trichlorobenzene | 14.63 | 180  | 15672    | 8.593     | ug/l # | 21     |

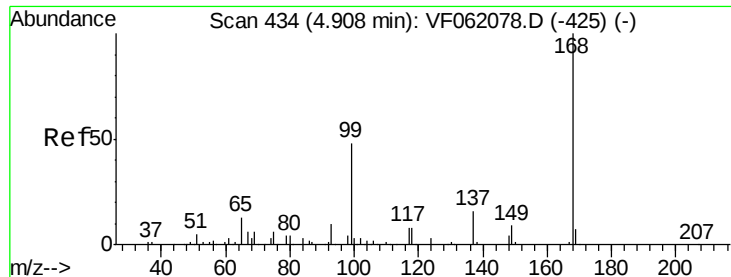
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF032519\  
Data File : VF062134.D  
Acq On : 25 Mar 2019 16:23  
Operator : VA/AP  
Sample : K2091-01  
Misc : 4.88g/5mL/MSVOA-F/SOIL  
ALS Vial : 9 Sample Multiplier: 1

Instrument :  
MSVOA\_F  
ClientSampleId :  
DRUM-COMP

Quant Time: Mar 26 04:21:09 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_F\METHODS\82F032219S.M  
Quant Title : SW846 8260  
QLast Update : Sat Mar 23 01:16:37 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.87 min Scan# 430

Delta R.T. -0.04 min

Lab File: VF062134.D

Acq: 25 Mar 2019 16:23

Instrument :

MSVOA\_F

ClientSampleId :

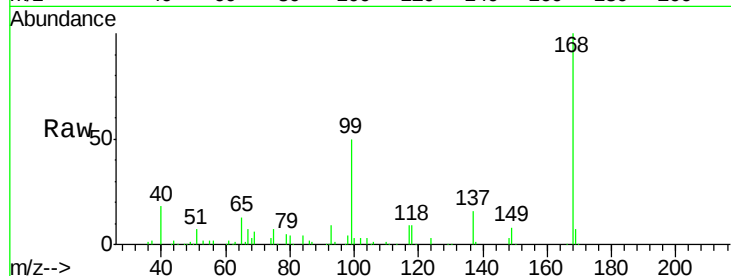
DRUM-COMP

Tot Ion:168 Resp: 248643

Ion Ratio Lower Upper

168 100

99 50.3 38.2 57.4



Abundance Ion 168.00 (167.70 to 168.70): VF0

Ion 99.00 (98.70 to 99.70): VF0

4.87

80000

60000

40000

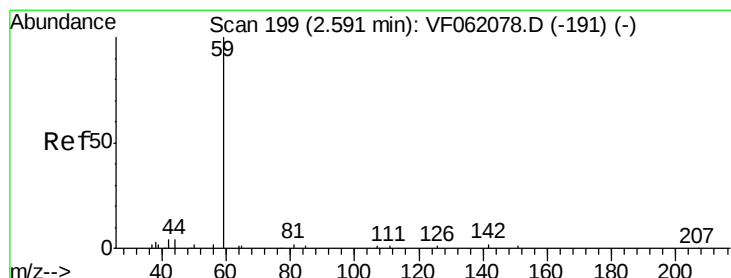
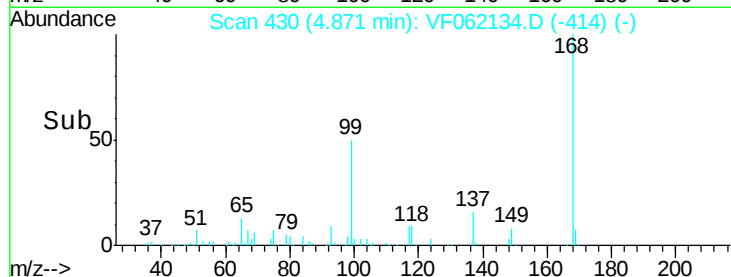
20000

0

Time-->

4.80

5.00



#11

Tert butyl alcohol

Concen: 10.220 ug/l

RT: 2.56 min Scan# 196

Delta R.T. -0.03 min

Lab File: VF062134.D

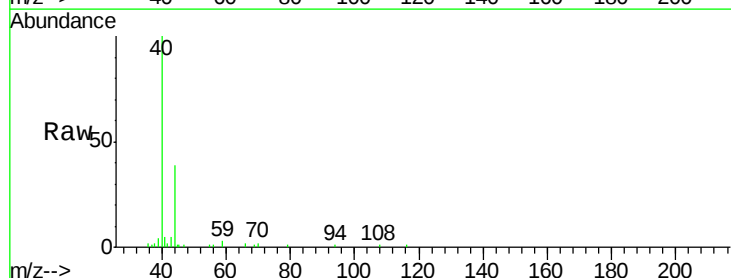
Acq: 25 Mar 2019 16:23

Tgt Ion: 59 Resp: 1040

Ion Ratio Lower Upper

59 100

57 0.0 11.0 16.4#



Abundance Ion 59.00 (58.70 to 59.70): VF0

Ion 57.00 (56.70 to 57.70): VF0

2.56

400

300

200

100

0

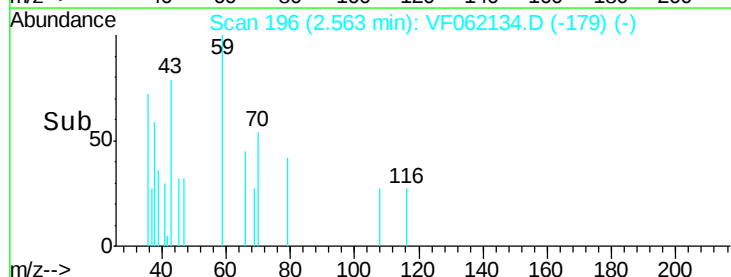
Time-->

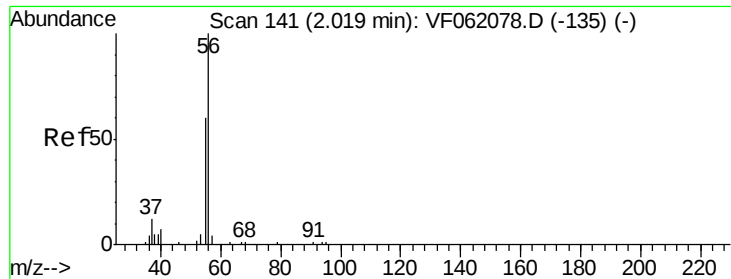
2.50

2.55

2.60

2.65





#13

Acrolein

Concen: 1.381 ug/l

RT: 2.02 min Scan# 141

Delta R.T. 0.00 min

Lab File: VF062134.D

Acq: 25 Mar 2019 16:23

Instrument :

MSVOA\_F

ClientSampleId :

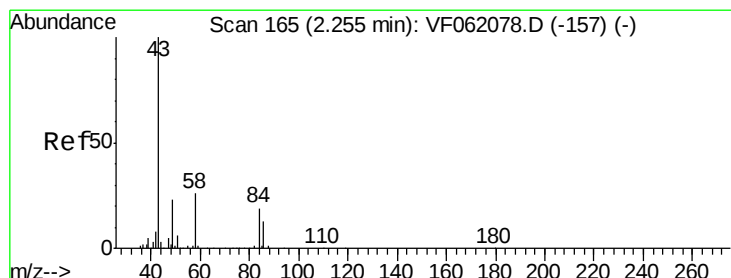
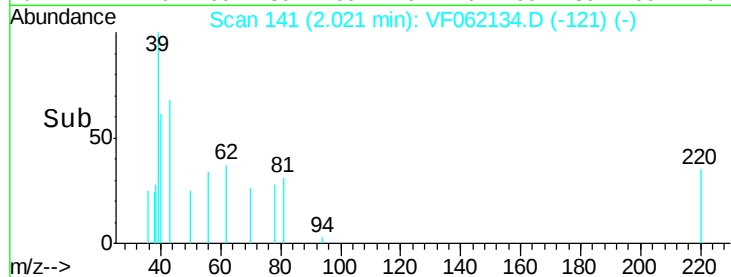
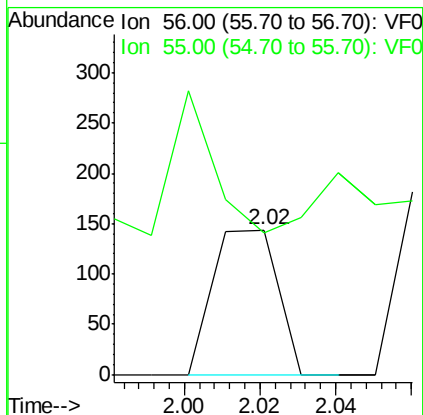
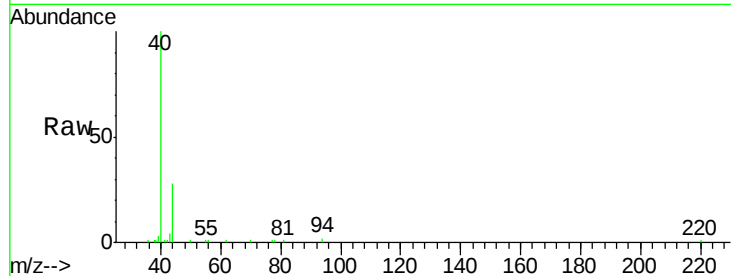
DRUM-COMP

Tot Ion: 56 Resp: 169

Ion Ratio Lower Upper

56 100

55 97.9 49.0 73.4#



#16

Acetone

Concen: 5.228 ug/l

RT: 2.27 min Scan# 166

Delta R.T. 0.01 min

Lab File: VF062134.D

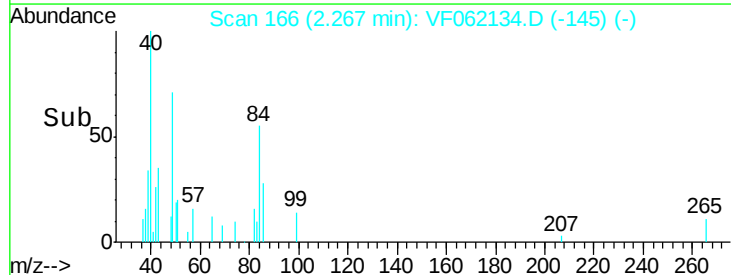
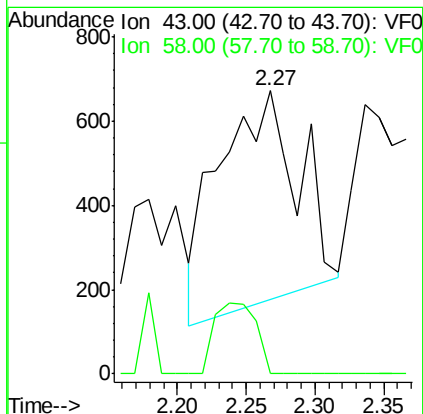
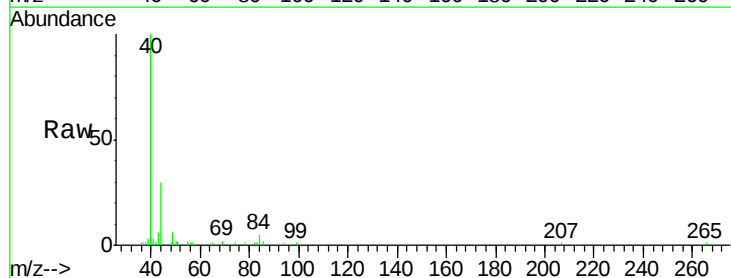
Acq: 25 Mar 2019 16:23

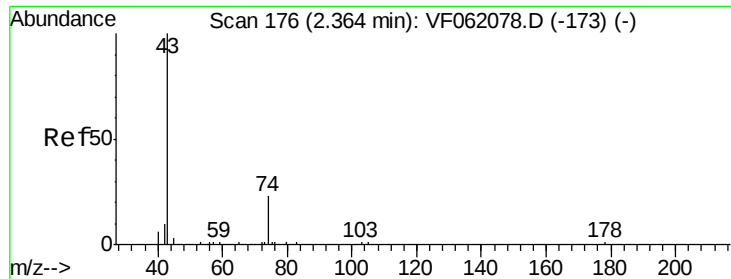
Tgt Ion: 43 Resp: 2035

Ion Ratio Lower Upper

43 100

58 0.0 20.8 31.2#

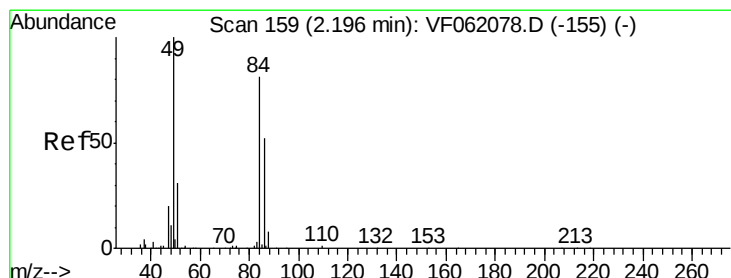
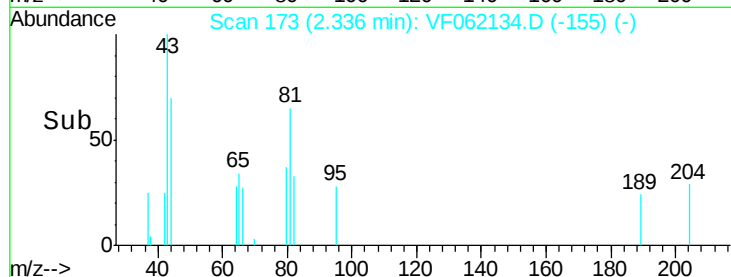
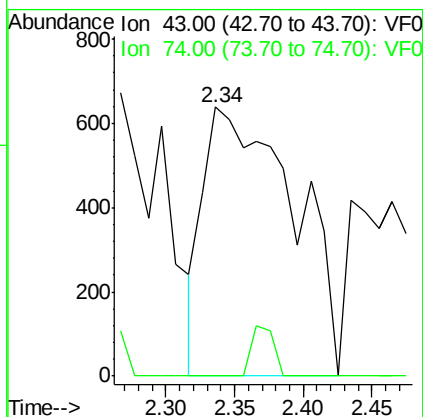
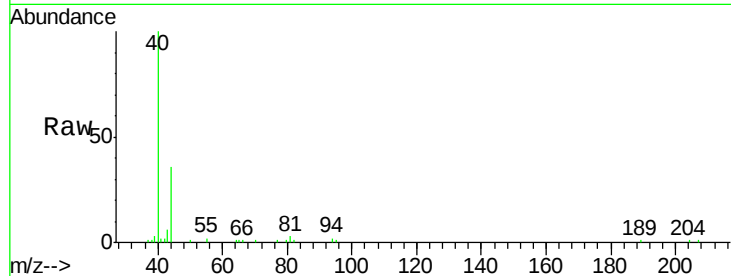




#18  
Methyl Acetate  
Concen: 3.148 ug/l  
RT: 2.34 min Scan# 173  
Delta R.T. -0.03 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

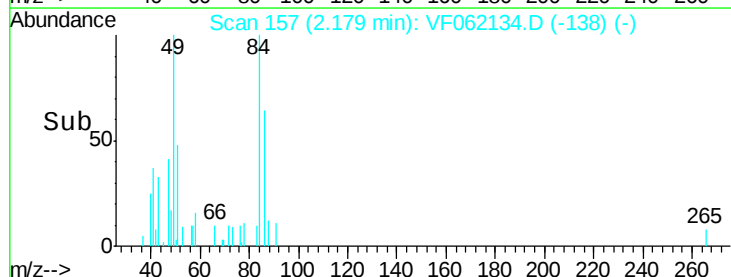
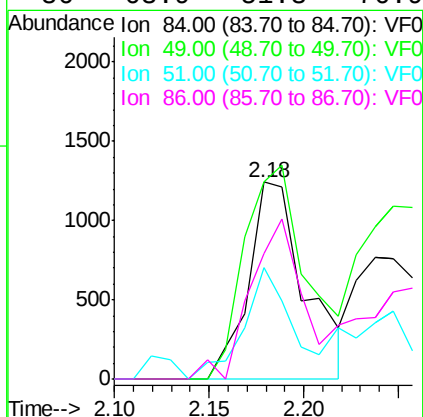
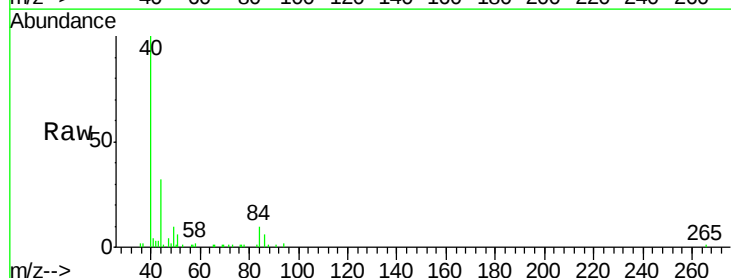
Instrument :  
MSVOA\_F  
ClientSampleId :  
DRUM-COMP

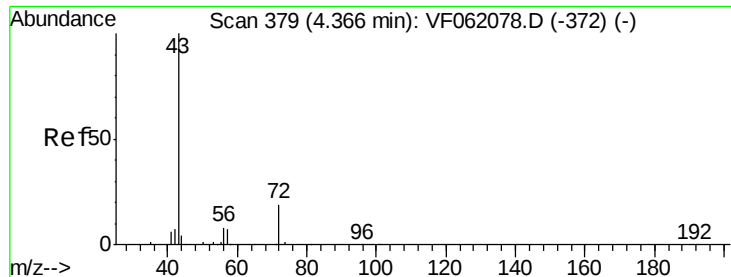
Tot Ion: 43 Resp: 2923  
Ion Ratio Lower Upper  
43 100  
74 0.0 16.3 24.5#



#20  
Methylene Chloride  
Concen: Below Cal  
RT: 2.18 min Scan# 157  
Delta R.T. -0.02 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Tgt Ion: 84 Resp: 2604  
Ion Ratio Lower Upper  
84 100  
49 100.2 100.4 150.6#  
51 56.4 31.0 46.6#  
86 63.9 51.3 76.9





#25

2-Butanone

Concen: 1.162 ug/l

RT: 4.35 min Scan# 377

Delta R.T. -0.02 min

Lab File: VF062134.D

Acq: 25 Mar 2019 16:23

Instrument :

MSVOA\_F

ClientSampleId :

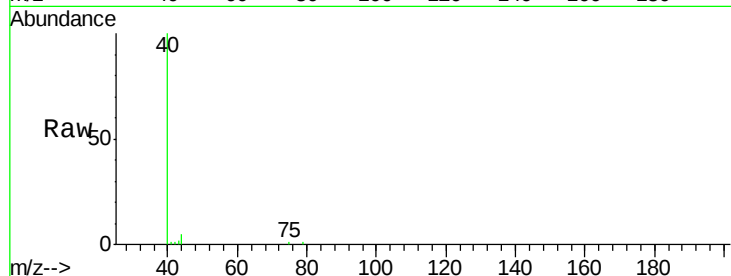
DRUM-COMP

Tot Ion: 43 Resp: 944

Ion Ratio Lower Upper

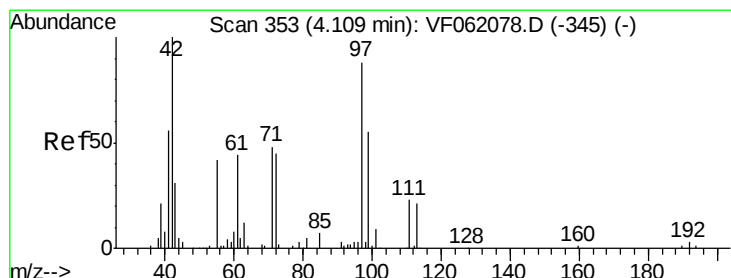
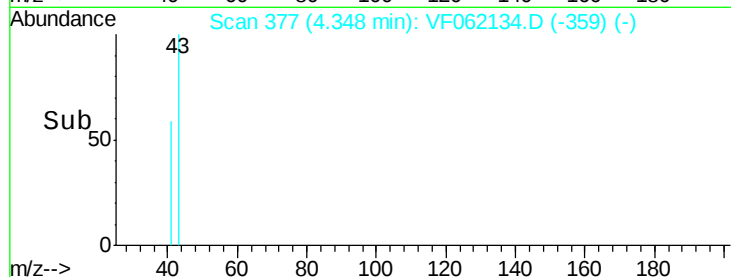
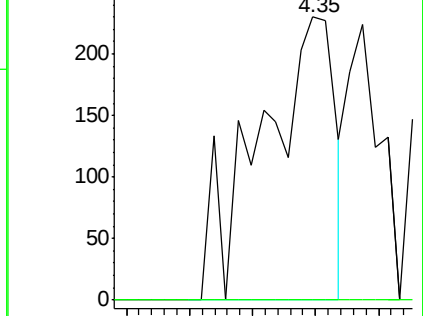
43 100

72 0.0 16.7 25.1#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0



#29

Tetrahydrofuran

Concen: 2.729 ug/l

RT: 4.08 min Scan# 350

Delta R.T. -0.03 min

Lab File: VF062134.D

Acq: 25 Mar 2019 16:23

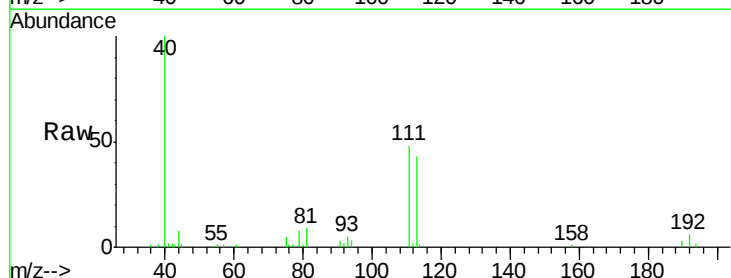
Tgt Ion: 42 Resp: 964

Ion Ratio Lower Upper

42 100

72 11.7 33.3 49.9#

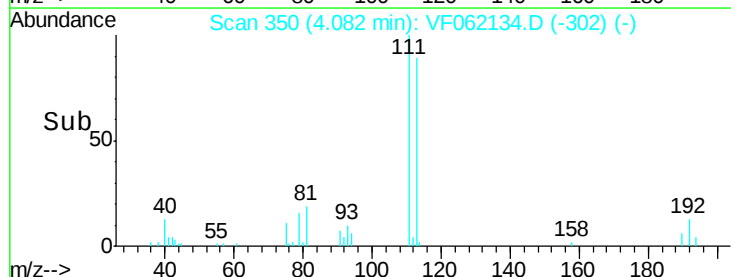
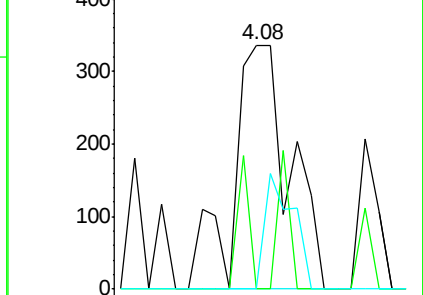
71 23.4 35.0 52.4#

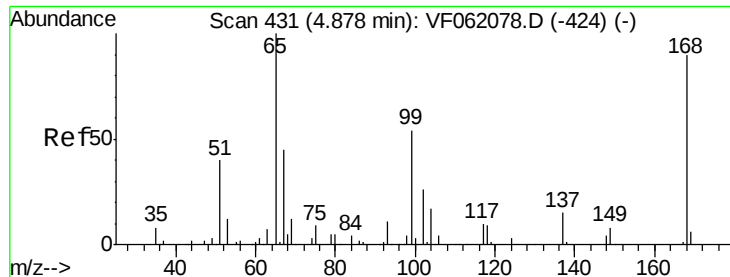


Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0

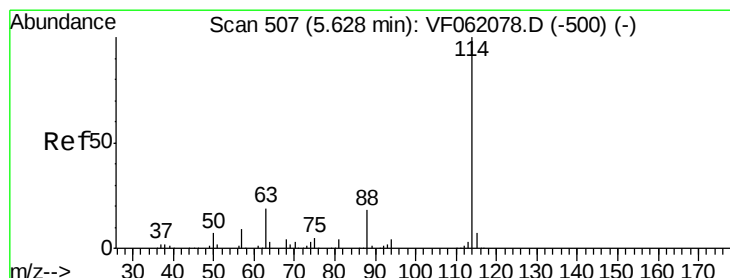
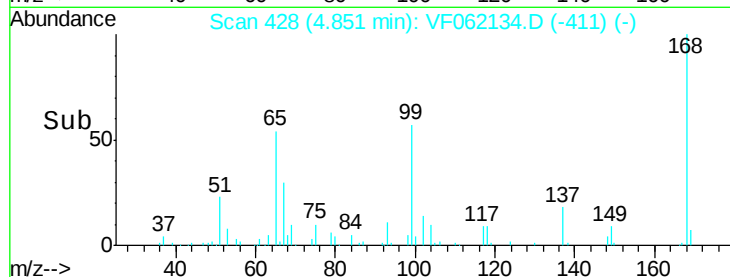
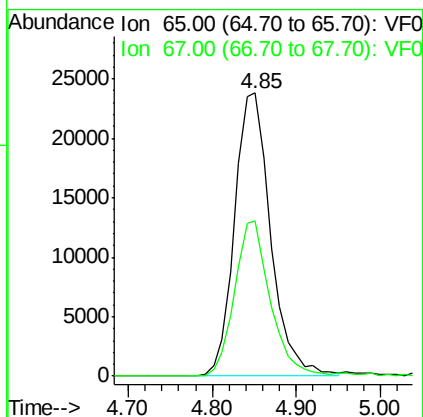
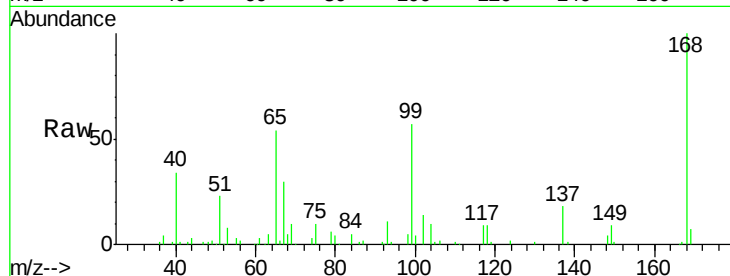




#33  
 1,2-Dichloroethane-d4  
 Concen: 38.561 ug/l  
 RT: 4.85 min Scan# 428  
 Delta R.T. -0.03 min  
 Lab File: VF062134.D  
 Acq: 25 Mar 2019 16:23

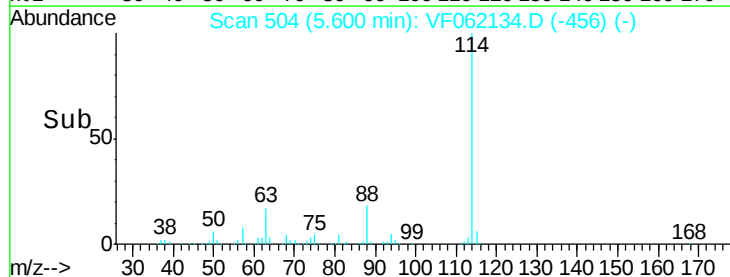
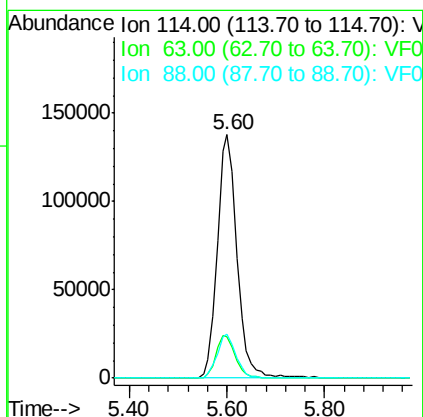
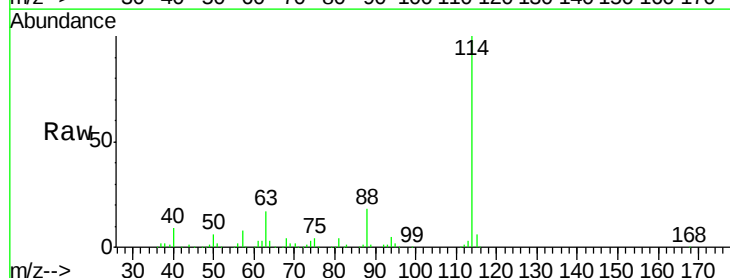
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 DRUM-COMP

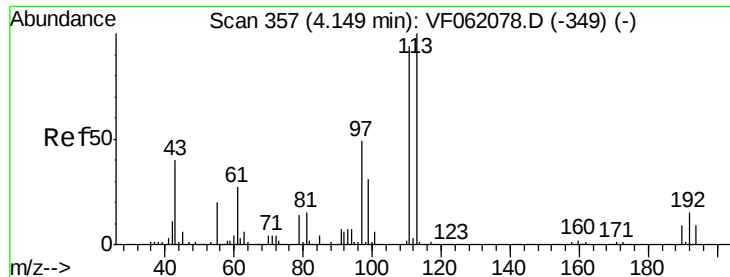
Tot Ion: 65 Resp: 71315  
 Ion Ratio Lower Upper  
 65 100  
 67 55.1 0.0 106.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.60 min Scan# 504  
 Delta R.T. -0.03 min  
 Lab File: VF062134.D  
 Acq: 25 Mar 2019 16:23

Tgt Ion: 114 Resp: 388540  
 Ion Ratio Lower Upper  
 114 100  
 63 16.8 0.0 37.8  
 88 18.3 0.0 36.4





#35

Dibromofluoromethane

Concen: 39.725 ug/l

RT: 4.12 min Scan# 354

Delta R.T. -0.03 min

Lab File: VF062134.D

Acq: 25 Mar 2019 16:23

Instrument :

MSVOA\_F

ClientSampleId :

DRUM-COMP

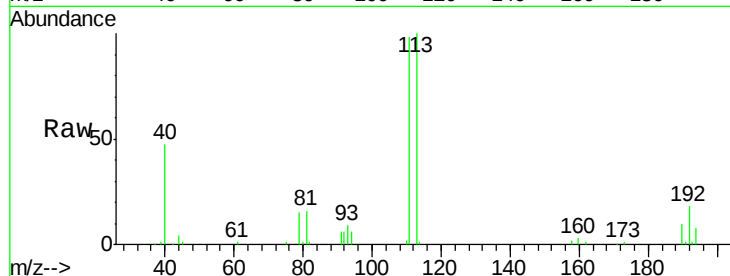
Tot Ion:113 Resp: 104410

Ion Ratio Lower Upper

113 100

111 98.3 75.4 113.0

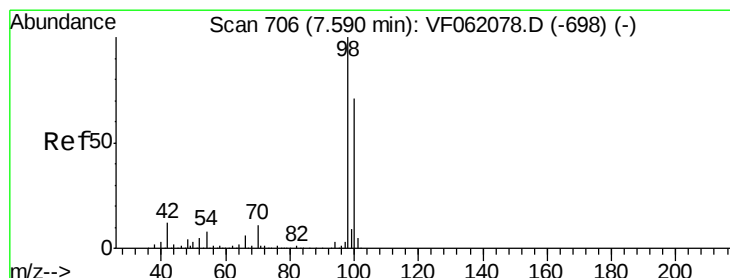
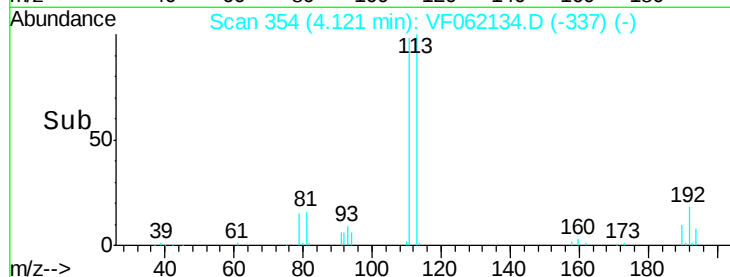
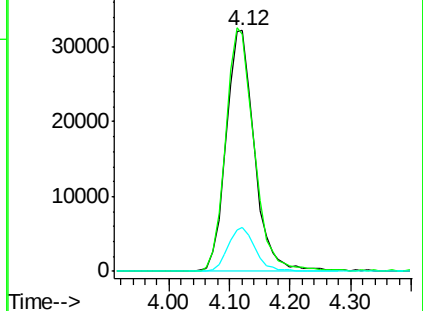
192 18.7 12.3 18.5#



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: 29.867 ug/l

RT: 7.55 min Scan# 702

Delta R.T. -0.04 min

Lab File: VF062134.D

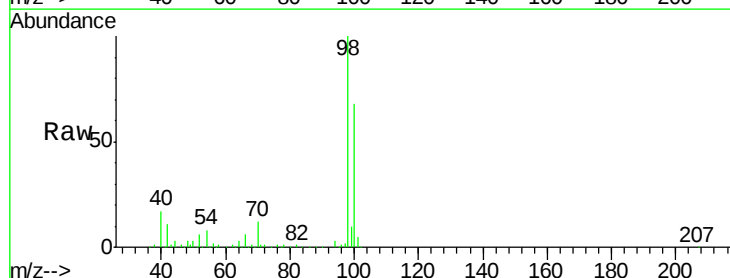
Acq: 25 Mar 2019 16:23

Tgt Ion: 98 Resp: 234323

Ion Ratio Lower Upper

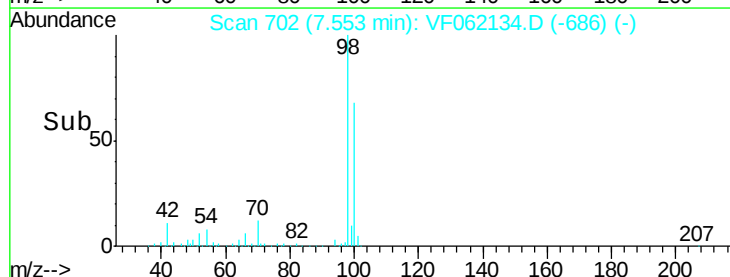
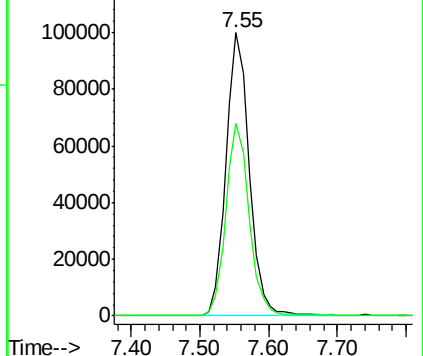
98 100

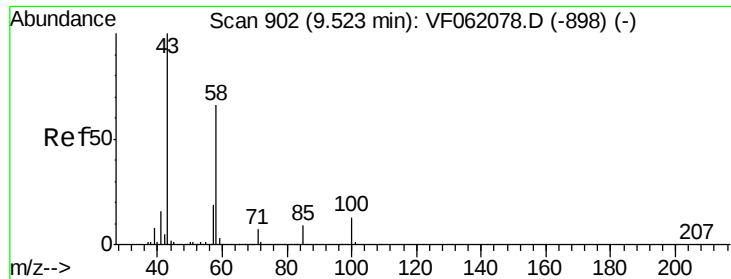
100 68.2 57.0 85.6



Abundance Ion 98.00 (97.70 to 98.70): VF0

Ion 100.00 (99.70 to 100.70): VF

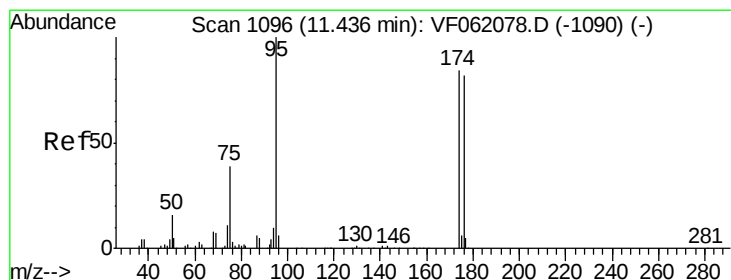
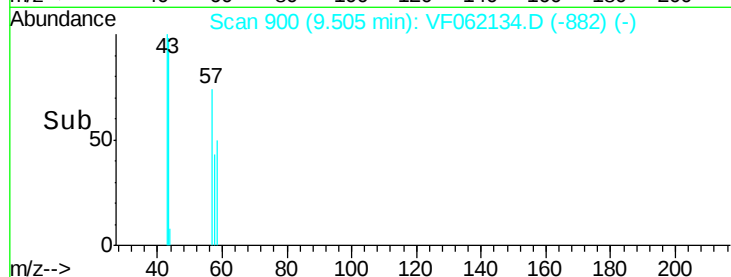
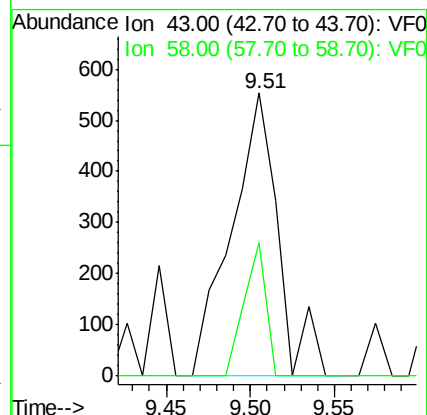
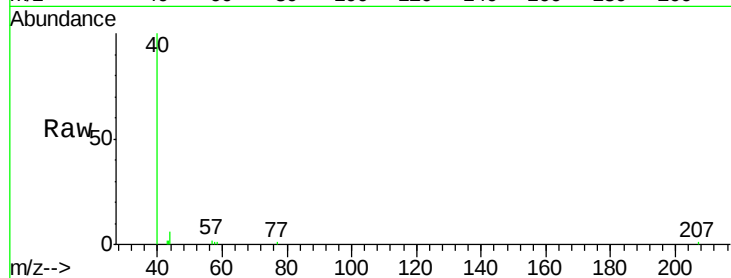




#59  
2-Hexanone  
Concen: 1.109 ug/l  
RT: 9.51 min Scan# 900  
Delta R.T. -0.02 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

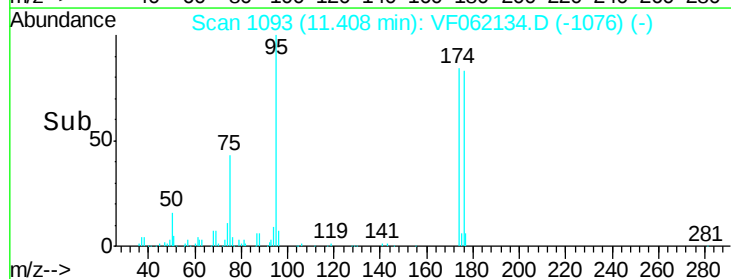
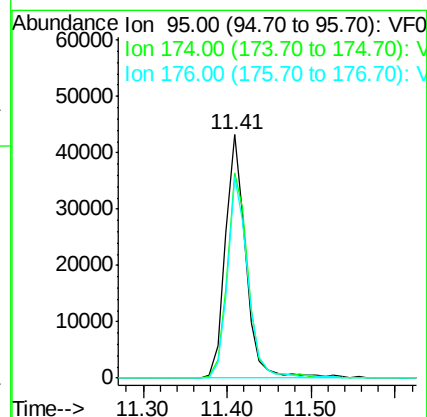
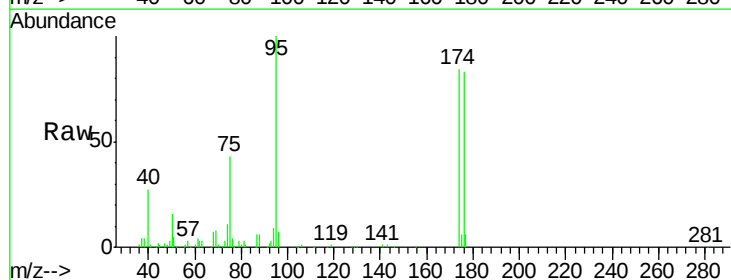
Instrument :  
MSVOA\_F  
ClientSampleId :  
DRUM-COMP

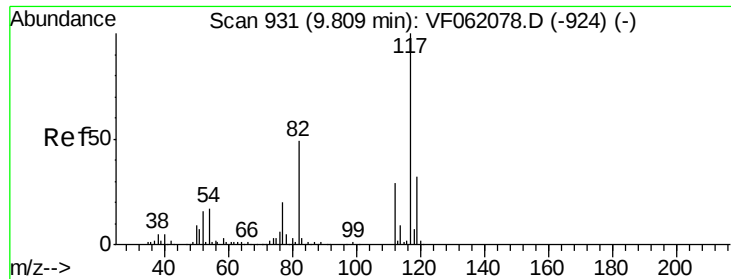
Tot Ion: 43 Resp: 1066  
Ion Ratio Lower Upper  
43 100  
58 47.0 28.8 86.4



#62  
4-Bromofluorobenzene  
Concen: 24.156 ug/l  
RT: 11.41 min Scan# 1093  
Delta R.T. -0.03 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Tgt Ion: 95 Resp: 73164  
Ion Ratio Lower Upper  
95 100  
174 84.4 0.0 168.2  
176 82.5 0.0 164.2

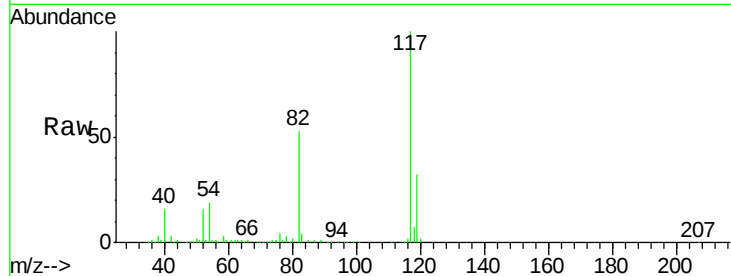




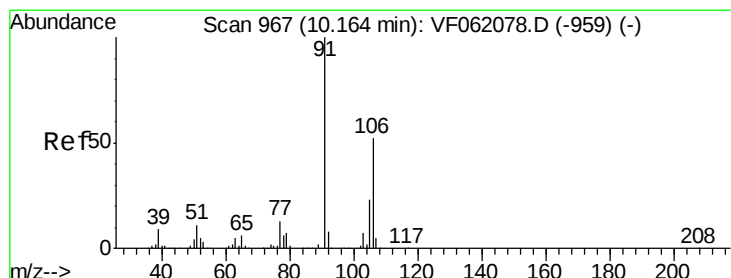
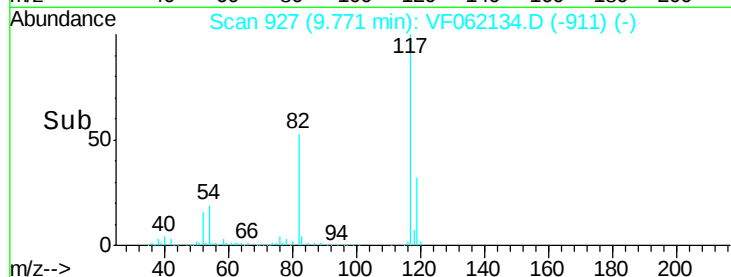
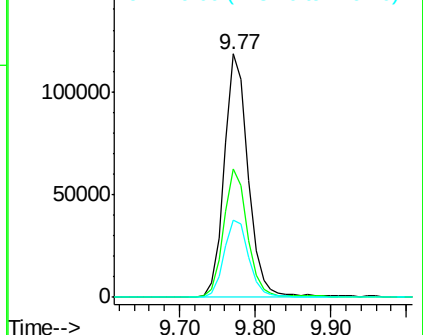
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.77 min Scan# 927  
Delta R.T. -0.04 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Instrument :  
MSVOA\_F  
ClientSampleId :  
DRUM-COMP

Tot Ion:117 Resp: 259656  
Ion Ratio Lower Upper  
117 100  
82 52.9 39.2 58.8  
119 31.7 25.4 38.2

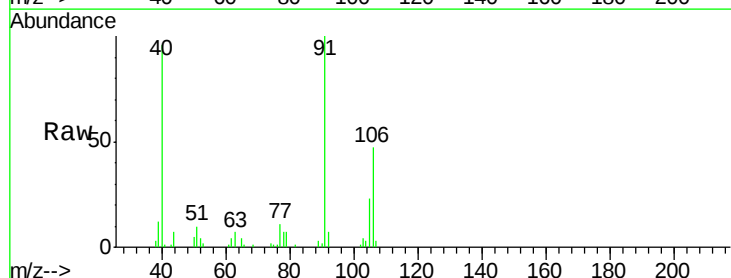


Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 82.00 (81.70 to 82.70): VF0  
Ion 119.00 (118.70 to 119.70): V

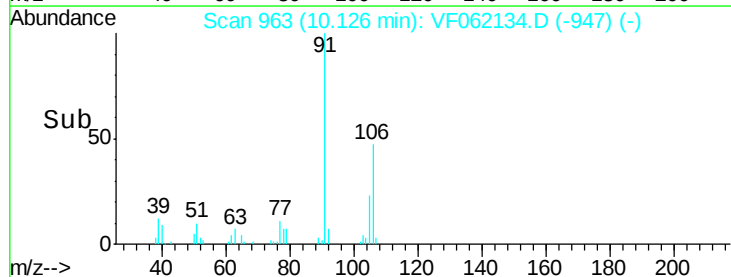
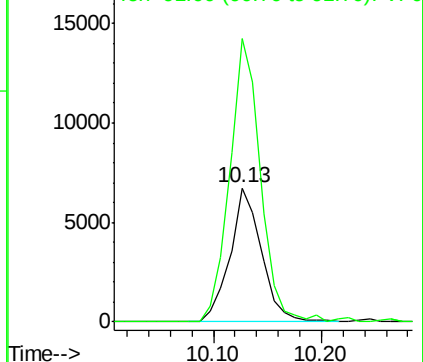


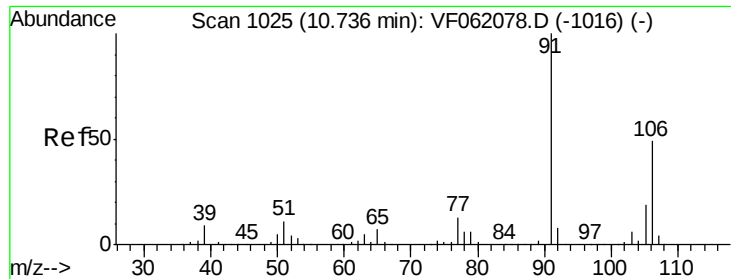
#68  
m/p-Xylenes  
Concen: 4.341 ug/l  
RT: 10.13 min Scan# 963  
Delta R.T. -0.04 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Tgt Ion:106 Resp: 13709  
Ion Ratio Lower Upper  
106 100  
91 211.4 154.4 231.6



Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VF0

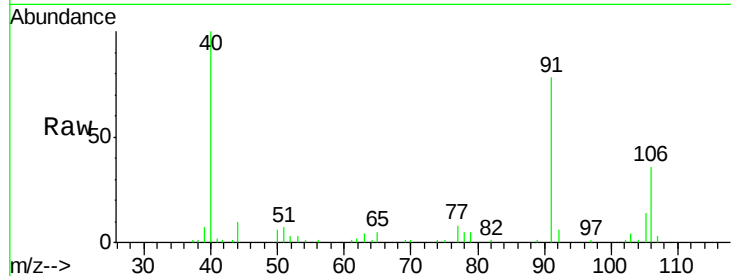




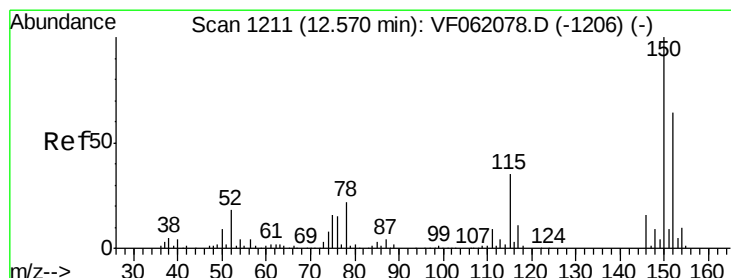
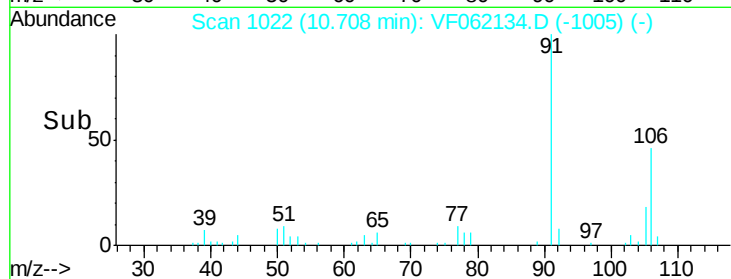
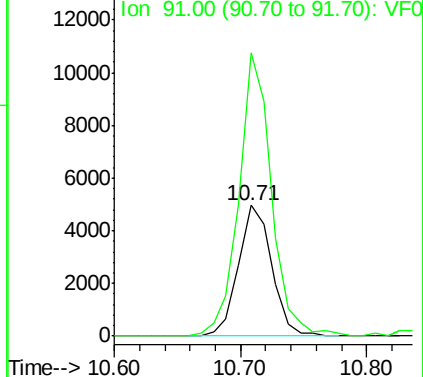
#69  
o-Xylene  
Concen: 2.742 ug/l  
RT: 10.71 min Scan# 1022  
Delta R.T. -0.03 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Instrument :  
MSVOA\_F  
ClientSampleId :  
DRUM-COMP

Tot Ion:106 Resp: 9070  
Ion Ratio Lower Upper  
106 100  
91 216.7 102.6 307.8

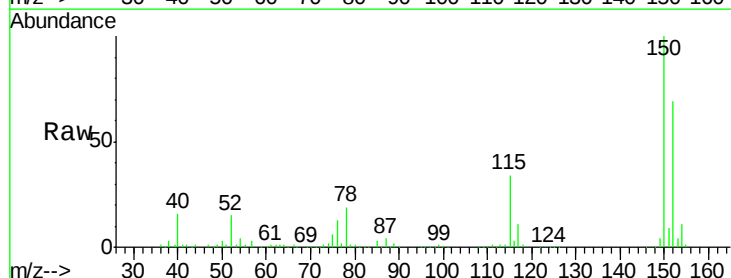


Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VF0

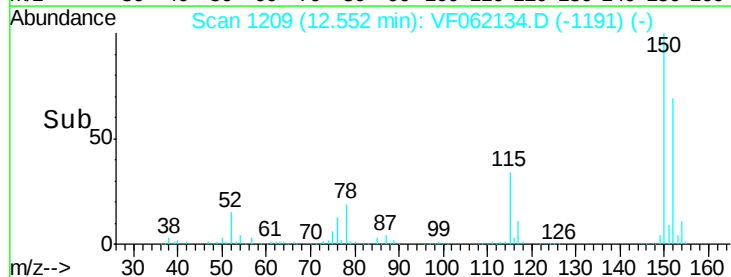
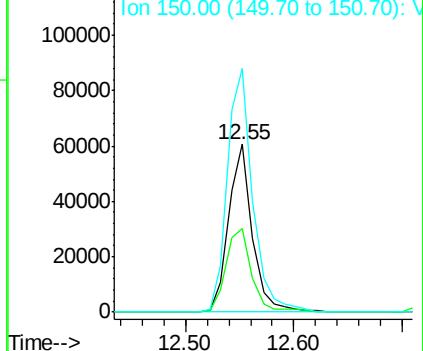


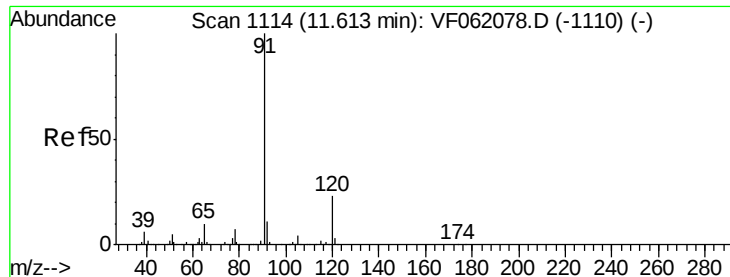
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.55 min Scan# 1209  
Delta R.T. -0.02 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Tgt Ion:152 Resp: 93210  
Ion Ratio Lower Upper  
152 100  
115 49.9 27.7 83.1  
150 144.9 0.0 313.2



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





#78

n-propylbenzene

Concen: 1.068 ug/l

RT: 11.60 min Scan# 1112

Delta R.T. -0.02 min

Lab File: VF062134.D

Acq: 25 Mar 2019 16:23

Instrument :

MSVOA\_F

ClientSampleId :

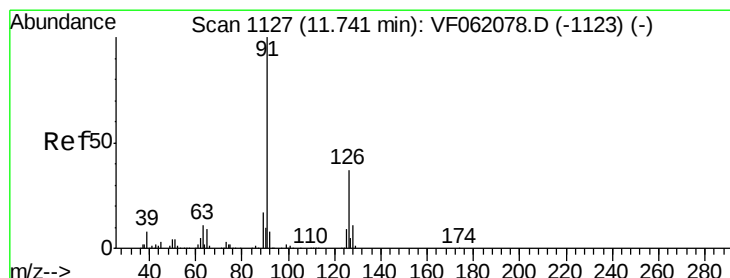
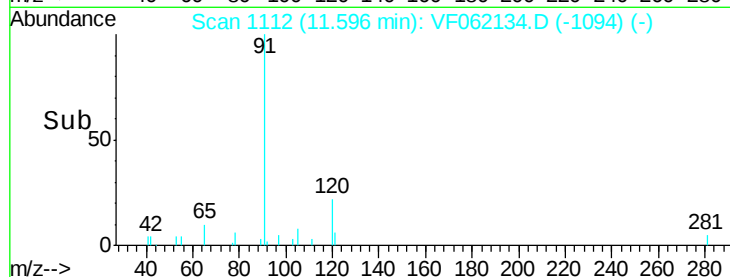
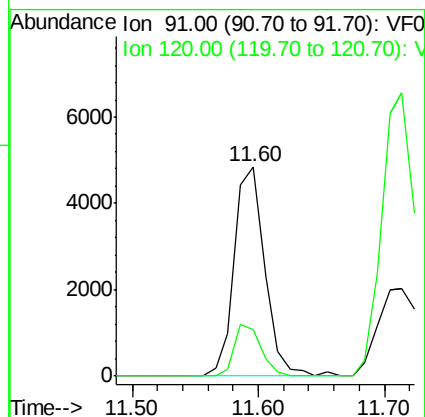
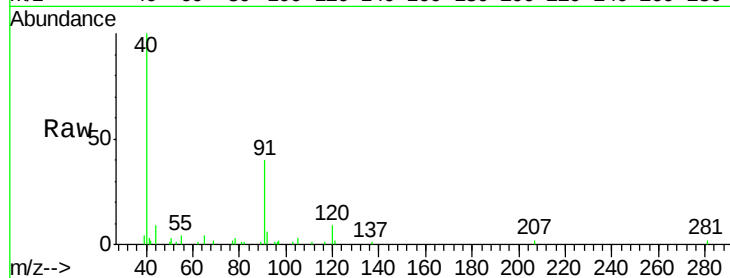
DRUM-COMP

Tot Ion: 91 Resp: 8132

Ion Ratio Lower Upper

91 100

120 22.4 11.3 33.8



#79

2-Chlorotoluene

Concen: 1.099 ug/l

RT: 11.71 min Scan# 1124

Delta R.T. -0.03 min

Lab File: VF062134.D

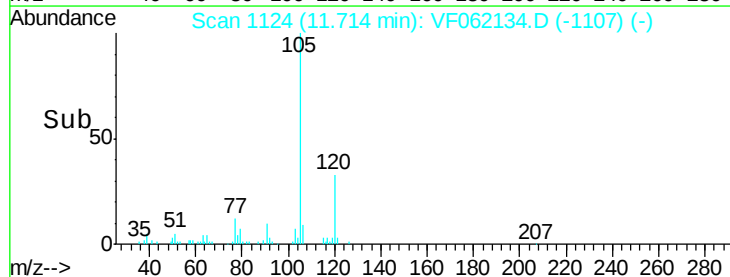
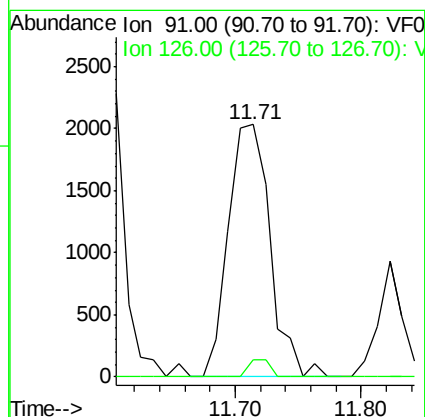
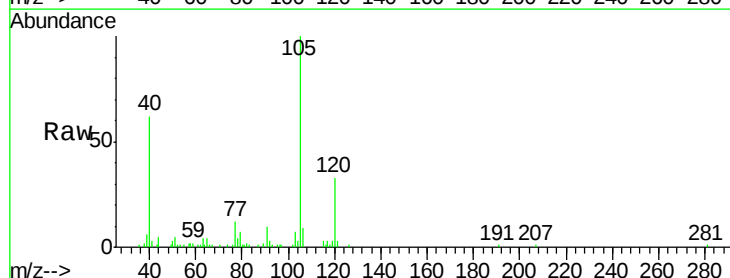
Acq: 25 Mar 2019 16:23

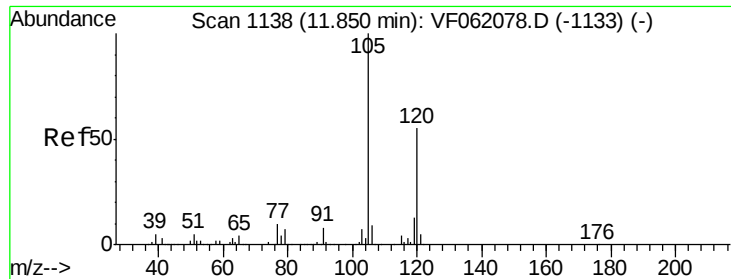
Tgt Ion: 91 Resp: 4651

Ion Ratio Lower Upper

91 100

126 6.6 18.3 54.8#

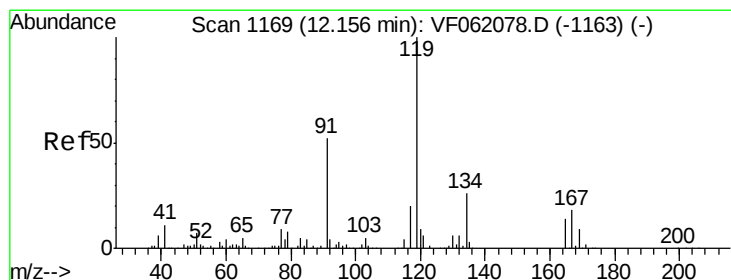
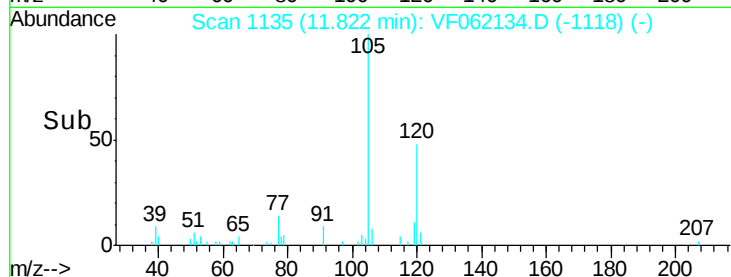
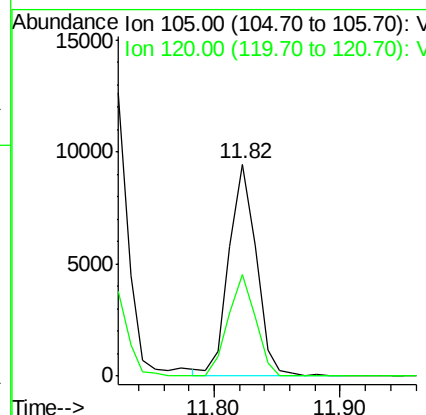
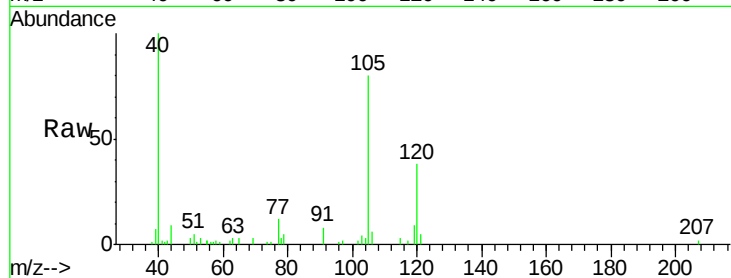




#80  
 1,3,5-Trimethylbenzene  
 Concen: 2.649 ug/l  
 RT: 11.82 min Scan# 1135  
 Delta R.T. -0.03 min  
 Lab File: VF062134.D  
 Acq: 25 Mar 2019 16:23

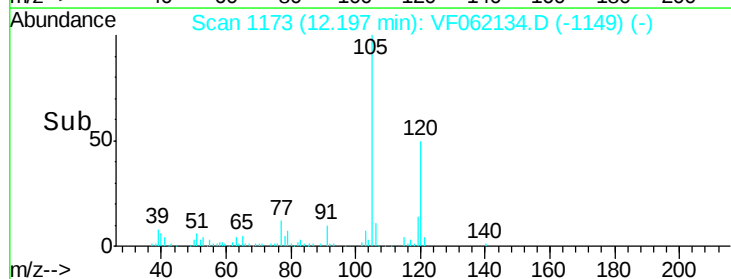
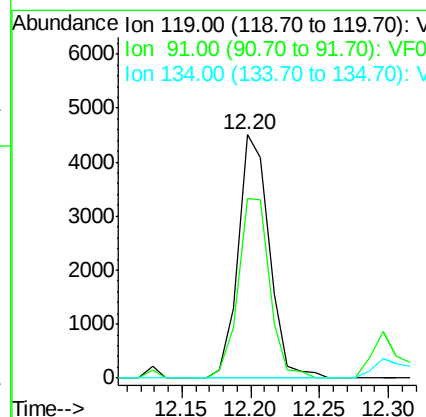
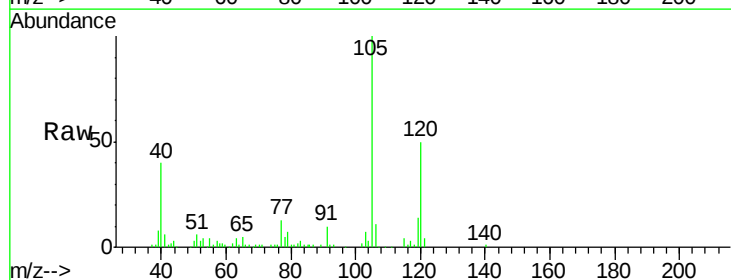
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 DRUM-COMP

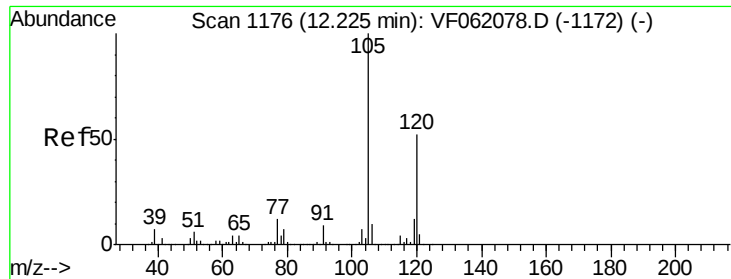
Tot Ion:105 Resp: 14289  
 Ion Ratio Lower Upper  
 105 100  
 120 47.7 27.8 83.3



#83  
 tert-Butylbenzene  
 Concen: 1.259 ug/l  
 RT: 12.20 min Scan# 1173  
 Delta R.T. 0.04 min  
 Lab File: VF062134.D  
 Acq: 25 Mar 2019 16:23

Tgt Ion:119 Resp: 7110  
 Ion Ratio Lower Upper  
 119 100  
 91 73.7 26.1 78.2  
 134 0.0 12.8 38.4#

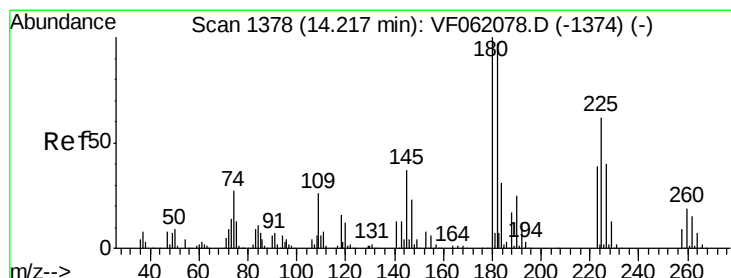
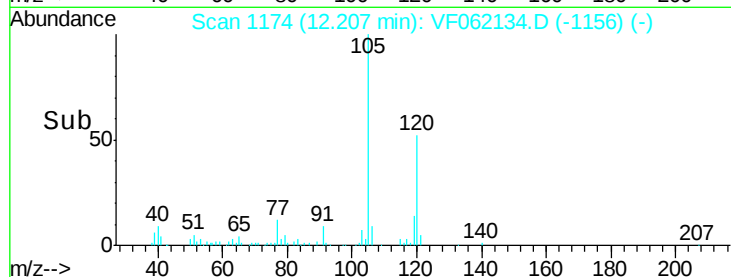
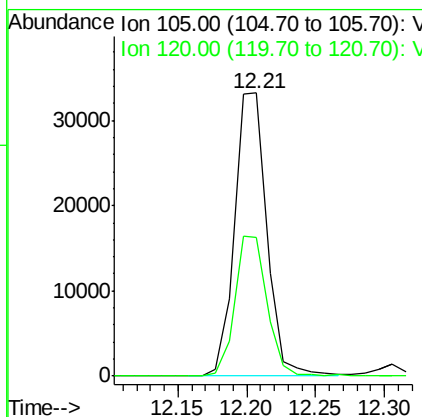
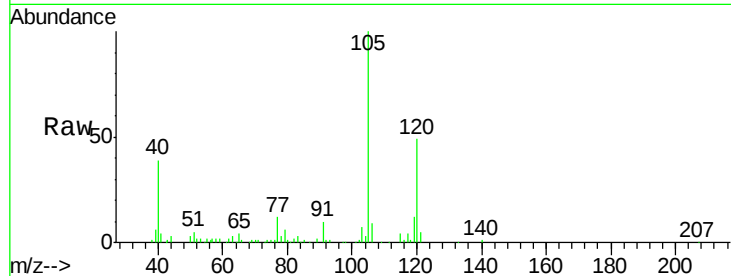




#84  
 1,2,4-Trimethylbenzene  
 Concen: 10.277 ug/l  
 RT: 12.21 min Scan# 1174  
 Delta R.T. -0.02 min  
 Lab File: VF062134.D  
 Acq: 25 Mar 2019 16:23

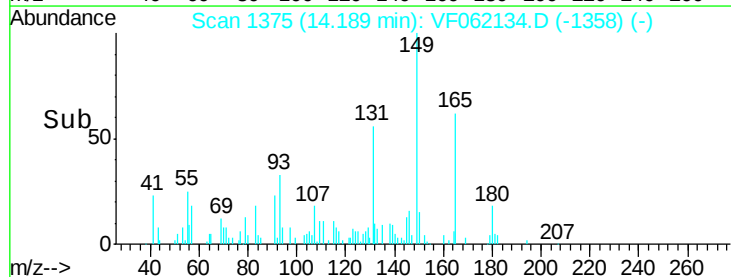
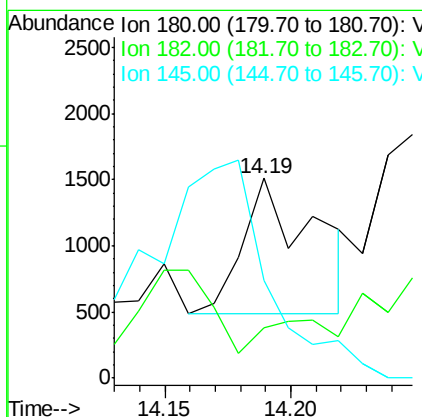
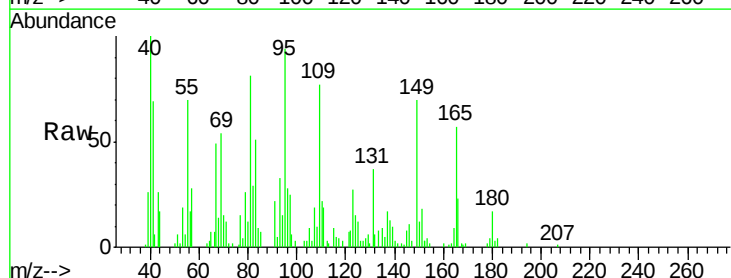
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 DRUM-COMP

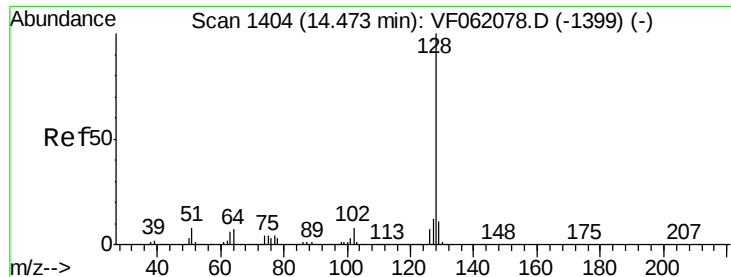
Tot Ion:105 Resp: 54351  
 Ion Ratio Lower Upper  
 105 100  
 120 49.1 26.1 78.2



#93  
 1,2,4-Trichlorobenzene  
 Concen: 1.037 ug/l  
 RT: 14.19 min Scan# 1375  
 Delta R.T. -0.03 min  
 Lab File: VF062134.D  
 Acq: 25 Mar 2019 16:23

Tgt Ion:180 Resp: 2021  
 Ion Ratio Lower Upper  
 180 100  
 182 25.4 48.7 146.1#  
 145 49.1 18.3 54.8

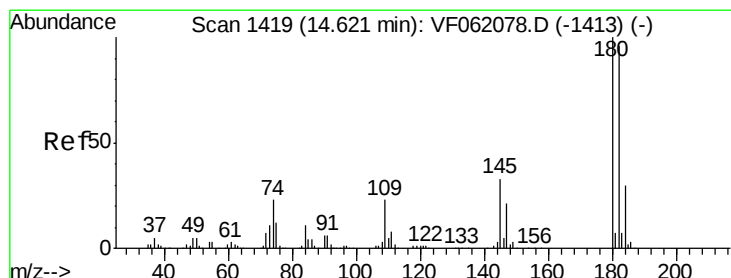
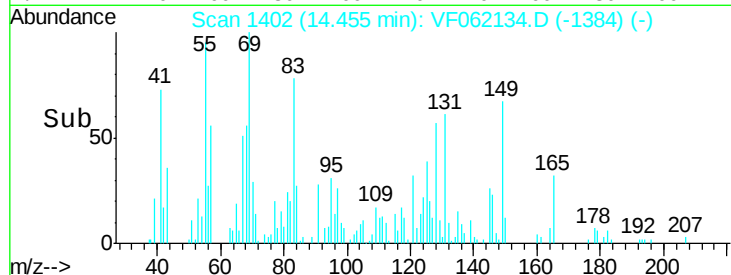
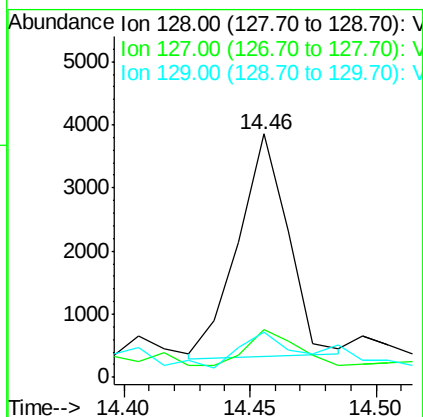
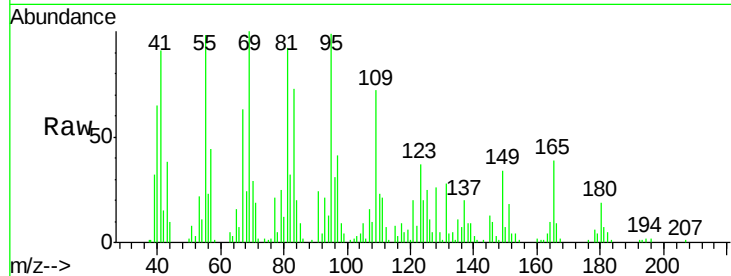




#95  
Naphthalene  
Concen: 1.421 ug/l  
RT: 14.46 min Scan# 1402  
Delta R.T. -0.02 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Instrument :  
MSVOA\_F  
ClientSampleId :  
DRUM-COMP

Tot Ion:128 Resp: 4852  
Ion Ratio Lower Upper  
128 100  
127 19.5 9.5 14.3#  
129 18.5 8.7 13.1#



#96  
1,2,3-Trichlorobenzene  
Concen: 8.593 ug/l  
RT: 14.63 min Scan# 1420  
Delta R.T. 0.01 min  
Lab File: VF062134.D  
Acq: 25 Mar 2019 16:23

Tgt Ion:180 Resp: 15672  
Ion Ratio Lower Upper  
180 100  
182 4.1 47.9 143.7#  
145 12.2 16.6 49.7#

