

Data Path : Z:\VOASRV\HPCHEM1\MSVOA F\DATA\VF051119\  
 Data File : VF062470.D  
 Acq On : 11 May 2019 19:55  
 Operator : FY/SY  
 Sample : K2734-18  
 Misc : 5.88/5mL/MSVOA F/SOIL  
 ALS Vial : 21 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 P026-SS014-0612-01

Quant Time: May 12 03:49:17 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82F050619S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 07 04:34:57 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.05  | 168  | 138832   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.78  | 114  | 216435   | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 174875   | 50.00 | ug/l  | 0.01     |
| 72) 1,4-Dichlorobenzene-d4 | 12.61 | 152  | 97034    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |        |         |      |
|---------------------------|--------|-----|----------|--------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.03   | 65  | 138722   | 105.73 | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 211.46% |      |
| 35) Dibromofluoromethane  | 4.32   | 113 | 159415   | 92.45  | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 184.90% |      |
| 50) Toluene-d8            | 7.72   | 98  | 168039   | 40.26  | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 80.52%  |      |
| 62) 4-Bromofluorobenzene  | 11.50  | 95  | 76926    | 40.85  | ug/l    | 0.01 |
| Spiked Amount             | 50.000 |     | Recovery | =      | 81.70%  |      |

## Target Compounds

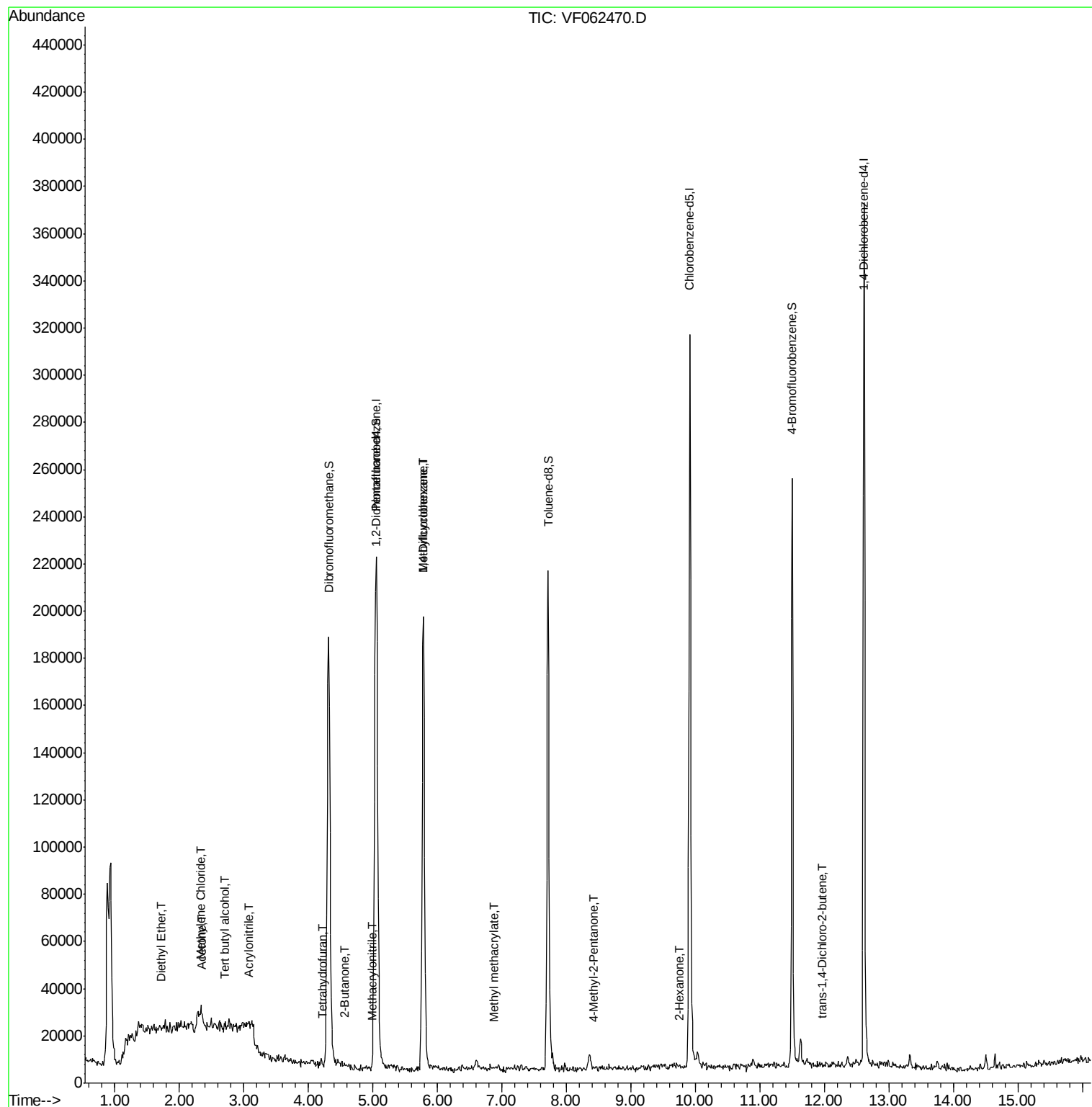
|                                |       |     |      |           | Qvalue |    |
|--------------------------------|-------|-----|------|-----------|--------|----|
| 5) Bromomethane                | 1.39  | 94  | 662  | Below Cal | #      | 18 |
| 8) Diethyl Ether               | 1.71  | 74  | 880  | 2.652     | ug/l   | 60 |
| 11) Tert butyl alcohol         | 2.70  | 59  | 956  | 12.892    | ug/l # | 70 |
| 13) Acrolein                   | 2.09  | 56  | 419  | Below Cal | #      | 1  |
| 15) Acrylonitrile              | 3.07  | 53  | 429  | 3.054     | ug/l # | 73 |
| 16) Acetone                    | 2.36  | 43  | 3775 | 14.223    | ug/l # | 64 |
| 18) Methyl Acetate             | 2.48  | 43  | 972  | Below Cal | #      | 77 |
| 20) Methylene Chloride         | 2.32  | 84  | 4849 | 5.050     | ug/l # | 92 |
| 25) 2-Butanone                 | 4.57  | 43  | 1500 | 4.499     | ug/l # | 60 |
| 29) Tetrahydrofuran            | 4.23  | 42  | 336  | 2.193     | ug/l # | 50 |
| 37) Ethyl Acetate              | 4.30  | 43  | 747  | Below Cal | #      | 73 |
| 38) Carbon Tetrachloride       | 4.14  | 117 | 140  | Below Cal | #      | 14 |
| 39) Methylcyclohexane          | 5.78  | 83  | 4264 | 2.287     | ug/l # | 31 |
| 41) Methacrylonitrile          | 4.98  | 41  | 1101 | 2.470     | ug/l # | 47 |
| 48) Methyl methacrylate        | 6.88  | 41  | 887  | 1.484     | ug/l # | 26 |
| 49) 1,4-Dioxane                | 6.92  | 88  | 71   | Below Cal | #      | 1  |
| 51) 4-Methyl-2-Pentanone       | 8.42  | 43  | 901  | 1.406     | ug/l # | 64 |
| 59) 2-Hexanone                 | 9.76  | 43  | 531  | 1.198     | ug/l   | 65 |
| 81) trans-1,4-Dichloro-2-buten | 11.96 | 75  | 386  | 1.494     | ug/l # | 25 |

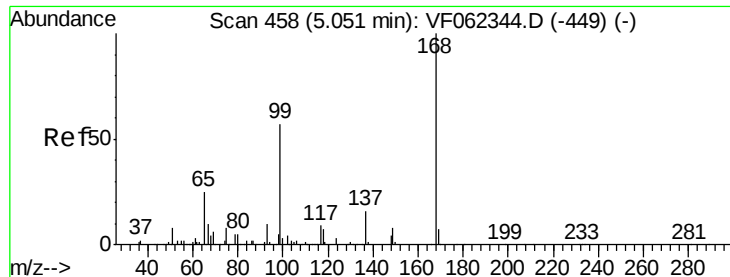
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA F\DATA\VF051119\  
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Quant Time: May 12 03:49:17 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82F050619S.M  
Quant Title : SW846 8260  
QLast Update : Tue May 07 04:34:57 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.05 min Scan# 459

Delta R.T. 0.00 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

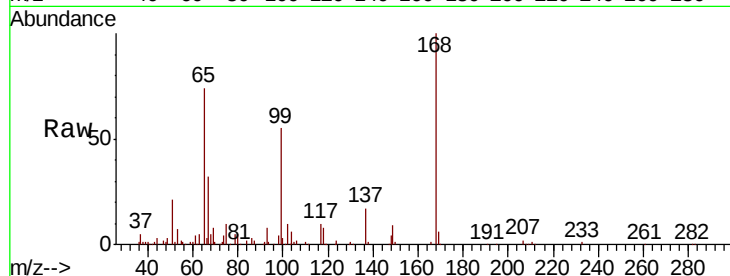
P026-SS014-0612-01

Tot Ion:168 Resp: 138832

Ion Ratio Lower Upper

168 100

99 54.7 45.9 68.9



Abundance Ion 167.90 (167.60 to 168.60): VF0

Ion 98.90 (98.60 to 99.60): VF0

5.05

40000

30000

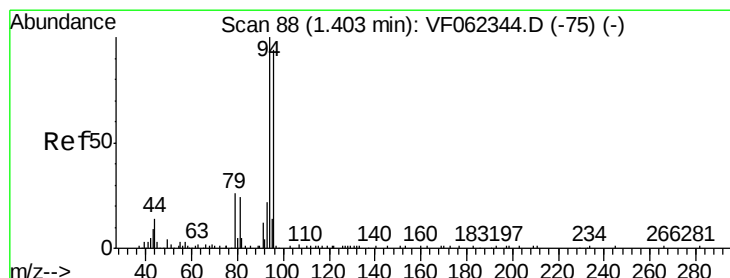
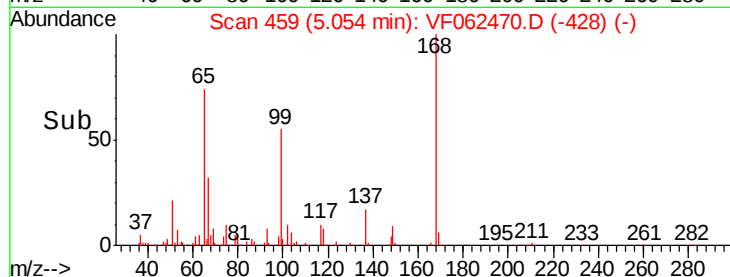
20000

10000

0

Time-->

4.90 5.00 5.10 5.20



#5

Bromomethane

Concen: Below Cal

RT: 1.39 min Scan# 87

Delta R.T. -0.02 min

Lab File: VF062470.D

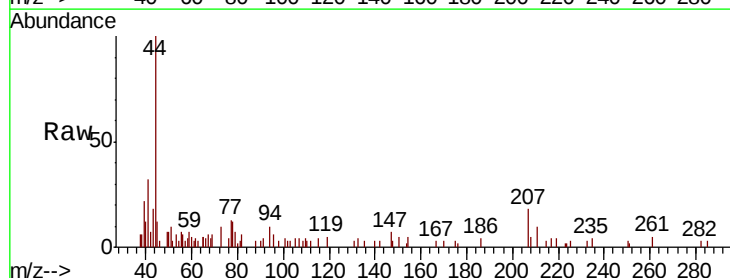
Acq: 11 May 2019 19:55

Tgt Ion: 94 Resp: 662

Ion Ratio Lower Upper

94 100

96 14.8 75.4 113.2#



Abundance Ion 93.90 (93.60 to 94.60): VF0

Ion 95.90 (95.60 to 96.60): VF0

1.39

400

300

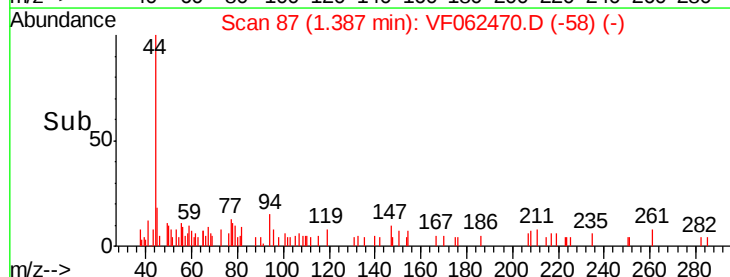
200

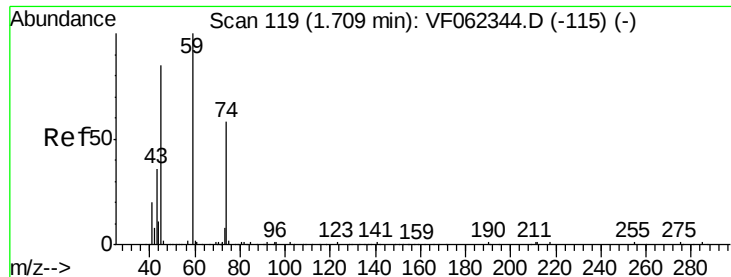
100

0

Time-->

1.35 1.40





#8

Diethyl Ether

Concen: 2.652 ug/l

RT: 1.71 min Scan# 120

Delta R.T. 0.00 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

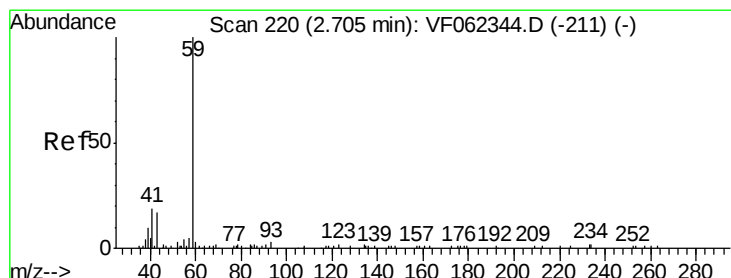
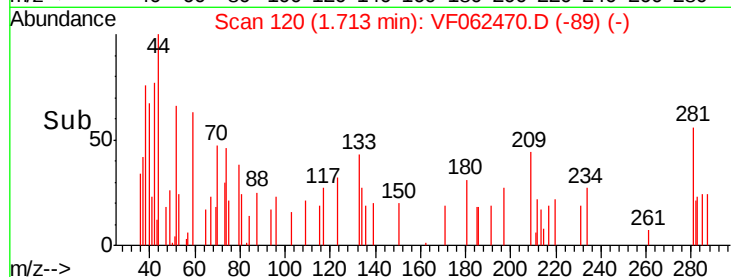
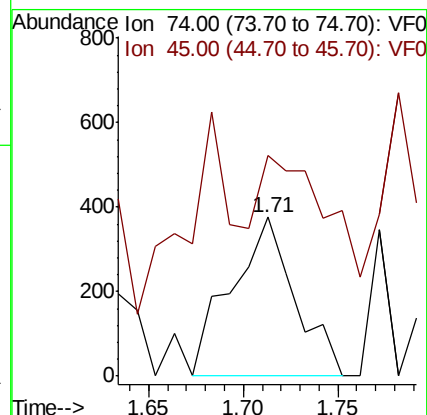
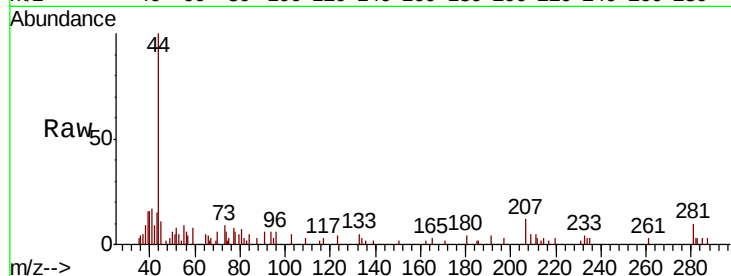
P026-SS014-0612-01

Tot Ion: 74 Resp: 880

Ion Ratio Lower Upper

74 100

45 97.4 73.9 221.6



#11

Tert butyl alcohol

Concen: 12.892 ug/l

RT: 2.70 min Scan# 220

Delta R.T. -0.01 min

Lab File: VF062470.D

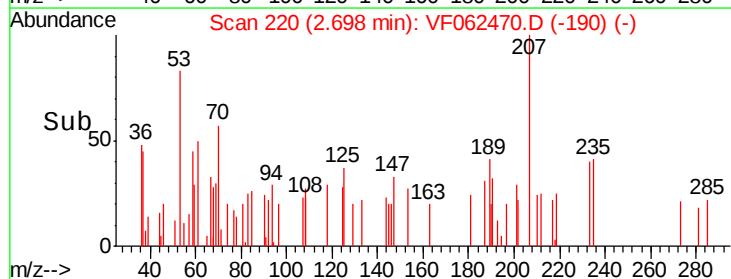
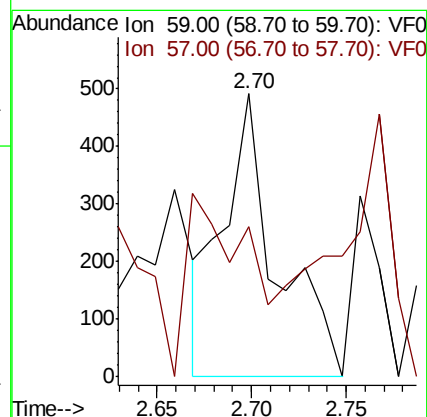
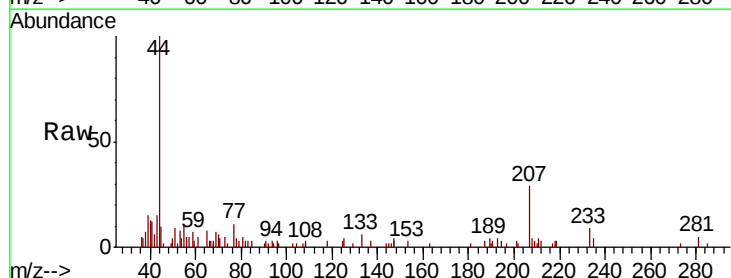
Acq: 11 May 2019 19:55

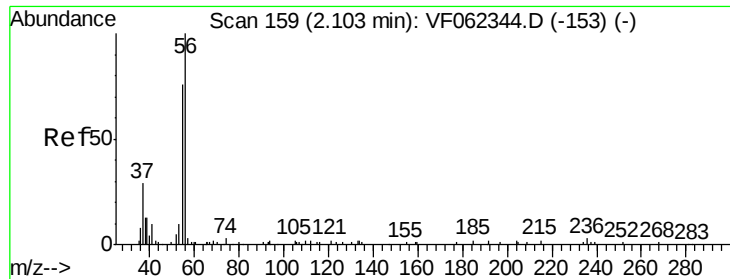
Tgt Ion: 59 Resp: 956

Ion Ratio Lower Upper

59 100

57 0.0 9.3 13.9#





#13

Acrolein

Concen: Below Cal

RT: 2.09 min Scan# 158

Delta R.T. -0.02 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

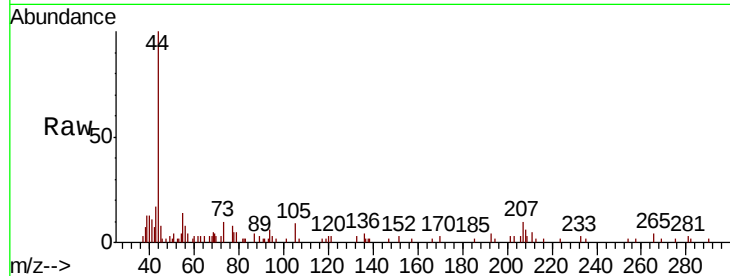
P026-SS014-0612-01

Tot Ion: 56 Resp: 419

Ion Ratio Lower Upper

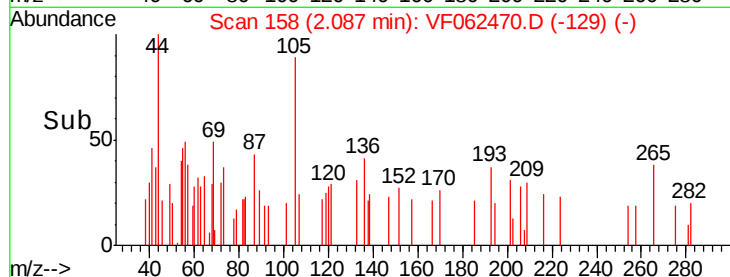
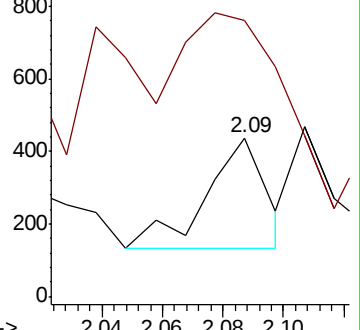
56 100

55 320.0 58.4 87.6#



Abundance Ion 56.00 (55.70 to 56.70): VF0

Ion 55.00 (54.70 to 55.70): VF0



#15

Acrylonitrile

Concen: 3.054 ug/l

RT: 3.07 min Scan# 258

Delta R.T. -0.02 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

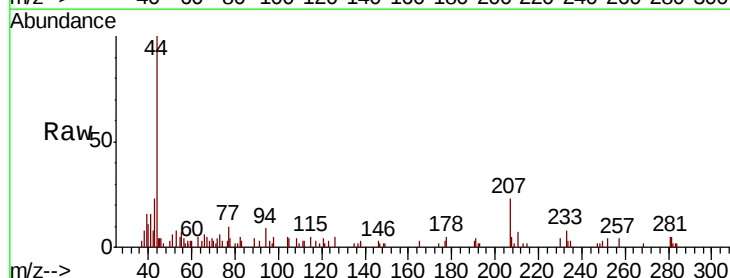
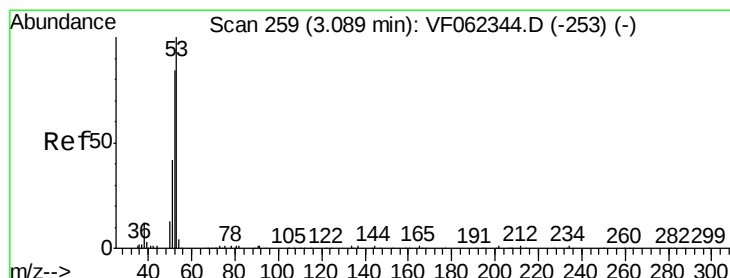
Tgt Ion: 53 Resp: 429

Ion Ratio Lower Upper

53 100

52 94.2 77.2 115.8

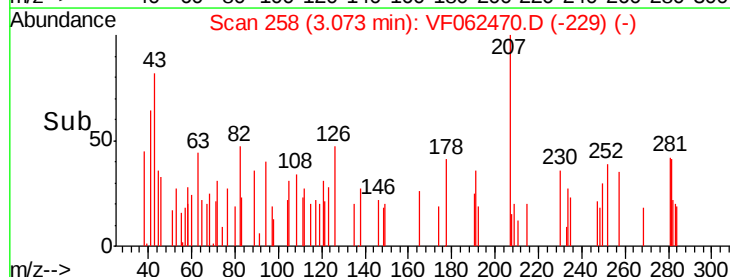
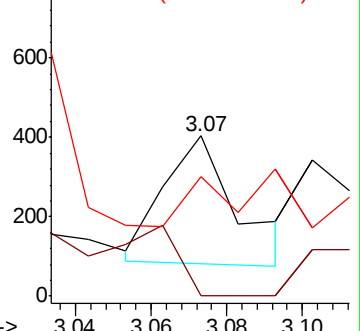
51 0.0 40.6 61.0#

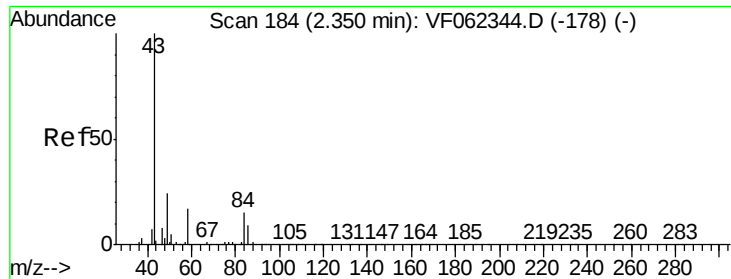


Abundance Ion 53.00 (52.70 to 53.70): VF0

Ion 52.00 (51.70 to 52.70): VF0

Ion 51.00 (50.70 to 51.70): VF0





#16

Acetone

Concen: 14.223 ug/l

RT: 2.36 min Scan# 186

Delta R.T. 0.01 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

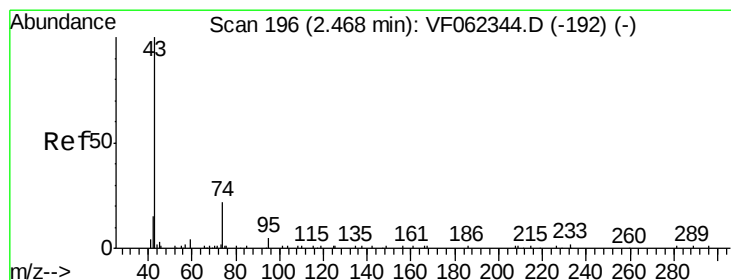
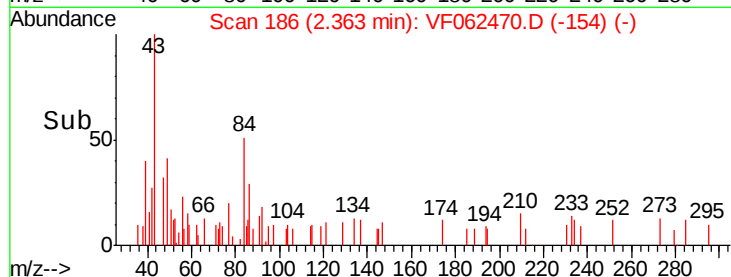
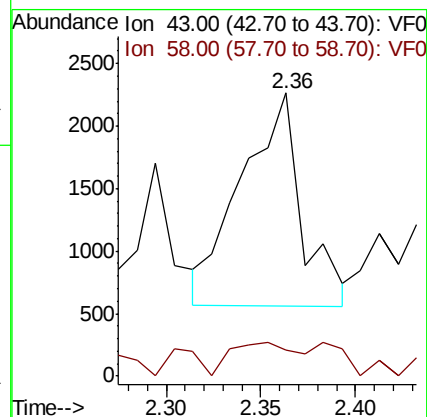
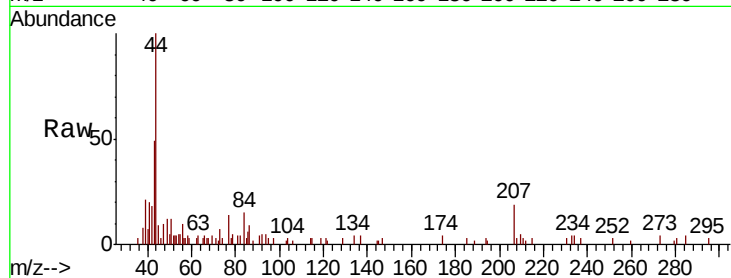
P026-SS014-0612-01

Tot Ion: 43 Resp: 3775

Ion Ratio Lower Upper

43 100

58 0.9 13.1 19.7#



#18

Methyl Acetate

Concen: Below Cal

RT: 2.48 min Scan# 198

Delta R.T. 0.01 min

Lab File: VF062470.D

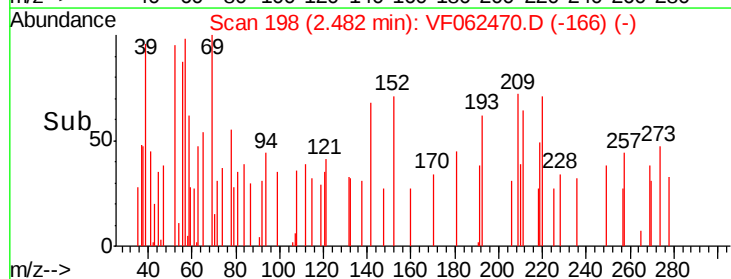
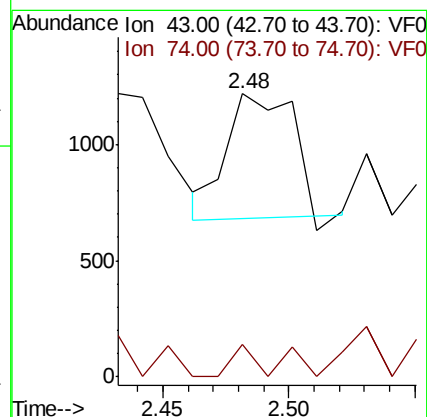
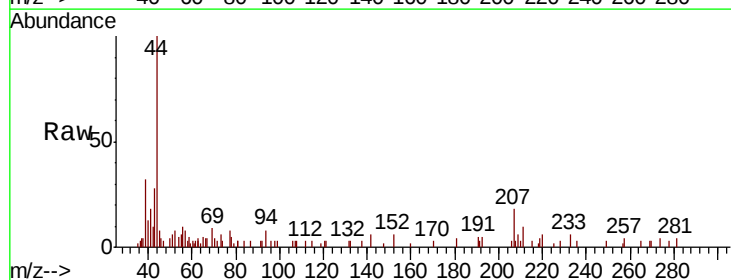
Acq: 11 May 2019 19:55

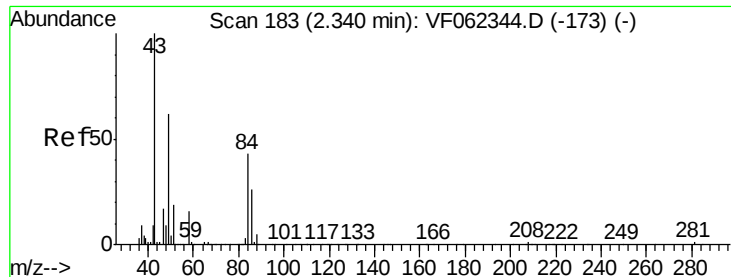
Tgt Ion: 43 Resp: 972

Ion Ratio Lower Upper

43 100

74 8.5 15.0 22.4#

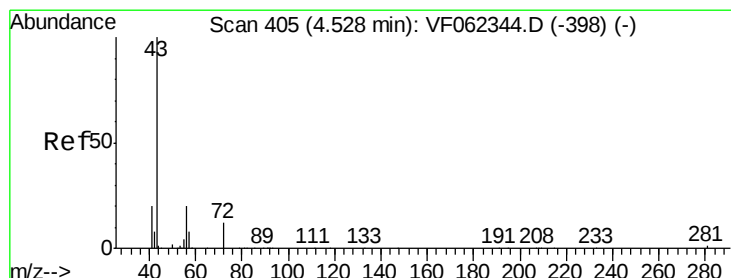
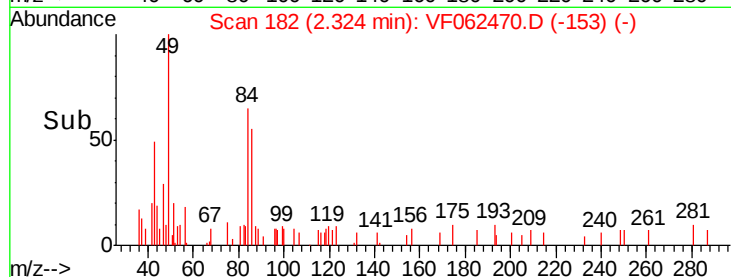
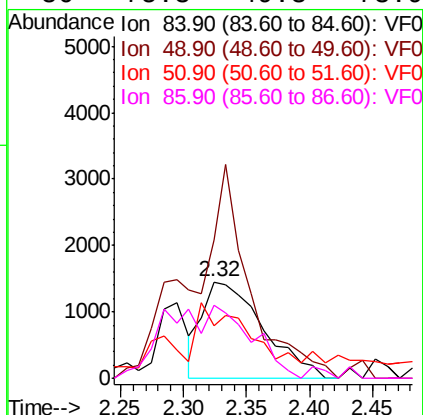
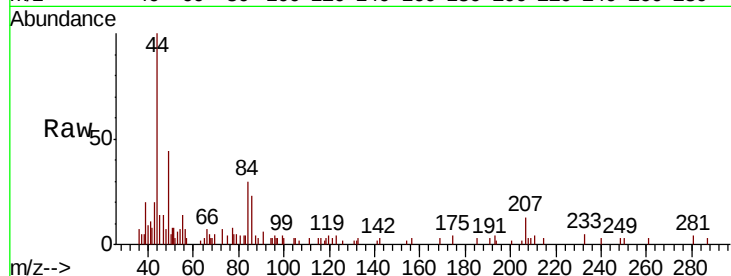




#20  
Methvlene Chloride  
Concen: 5.050 ug/l  
RT: 2.32 min Scan# 182  
Delta R.T. -0.02 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

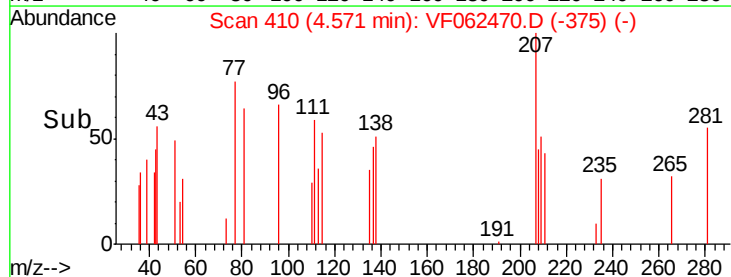
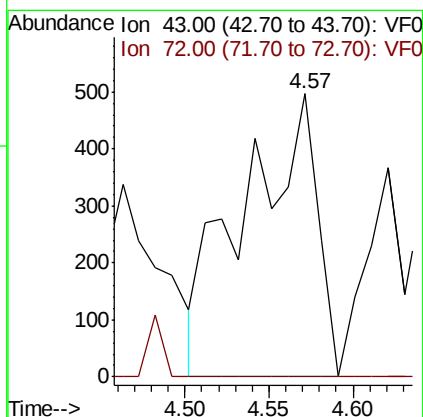
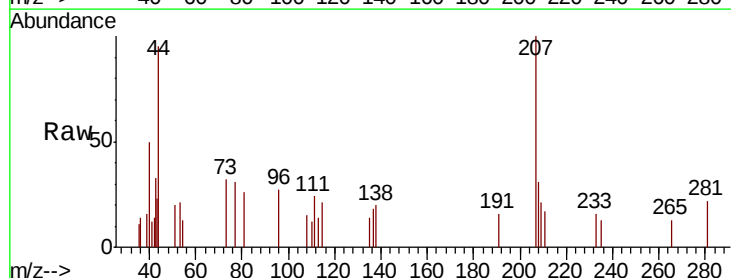
Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

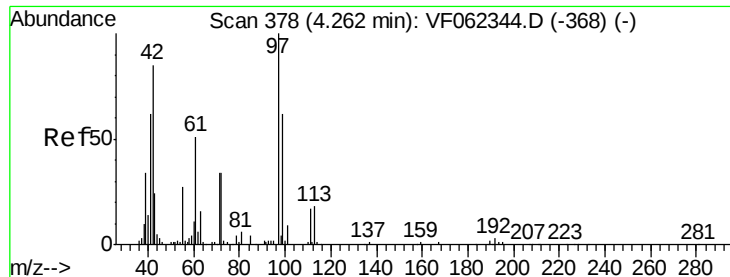
Tot Ion: 84 Resp: 4849  
Ion Ratio Lower Upper  
84 100  
49 144.5 117.5 176.3  
51 36.7 37.0 55.4#  
86 75.3 49.3 73.9#



#25  
2-Butanone  
Concen: 4.499 ug/l  
RT: 4.57 min Scan# 410  
Delta R.T. 0.04 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Tgt Ion: 43 Resp: 1500  
Ion Ratio Lower Upper  
43 100  
72 0.0 14.2 21.4#





#29

Tetrahydrofuran

Concen: 2.193 ug/l

RT: 4.23 min Scan# 375

Delta R.T. -0.04 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

P026-SS014-0612-01

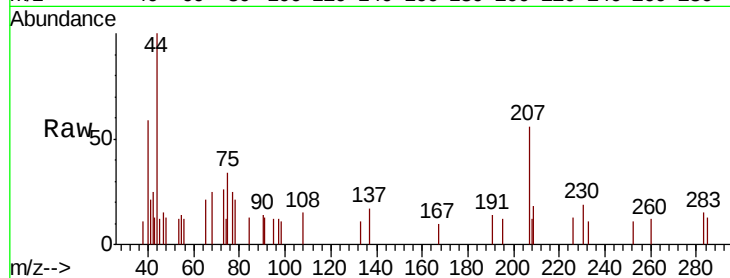
Tot Ion: 42 Resp: 336

Ion Ratio Lower Upper

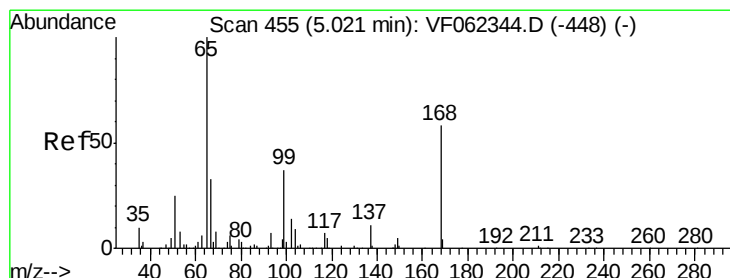
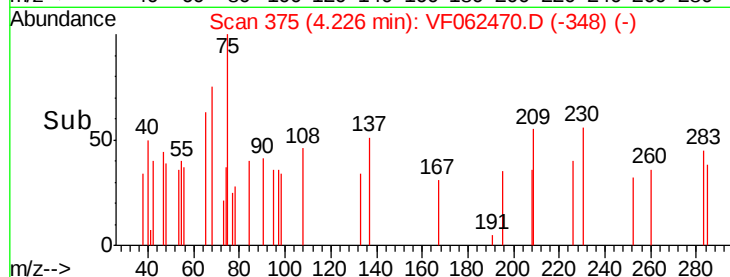
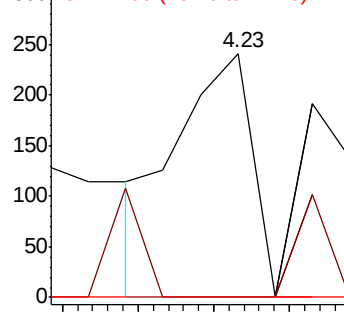
42 100

72 17.9 31.4 47.0#

71 0.0 31.7 47.5#



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: 105.731 ug/l

RT: 5.03 min Scan# 457

Delta R.T. 0.01 min

Lab File: VF062470.D

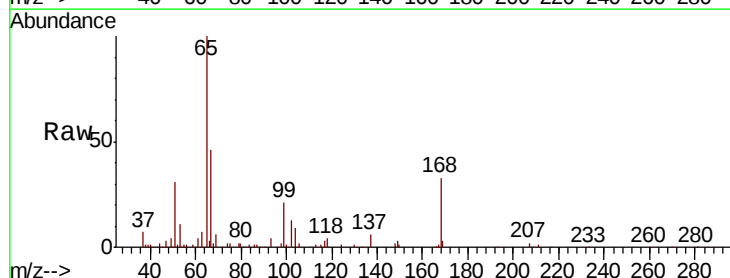
Acq: 11 May 2019 19:55

Tgt Ion: 65 Resp: 138722

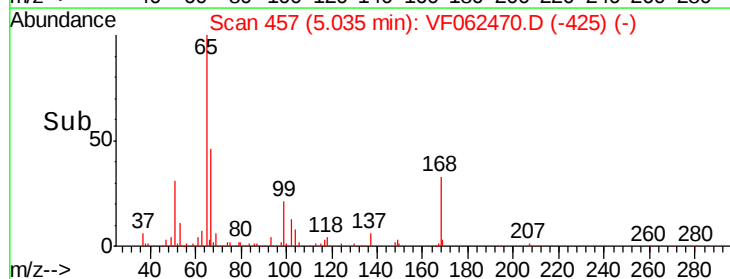
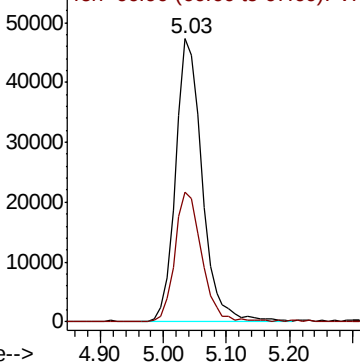
Ion Ratio Lower Upper

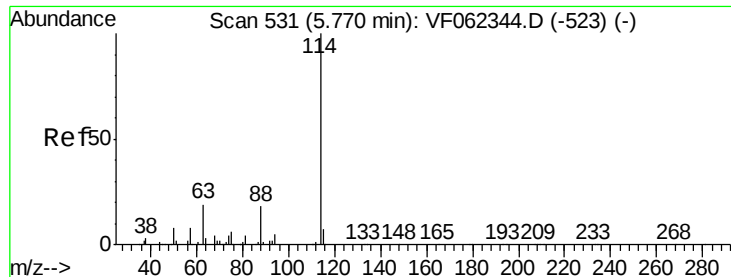
65 100

67 46.5 0.0 85.8



Abundance Ion 64.90 (64.60 to 65.60): VF0  
Ion 66.90 (66.60 to 67.60): VF0





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.78 min Scan# 533

Delta R.T. 0.01 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

P026-SS014-0612-01

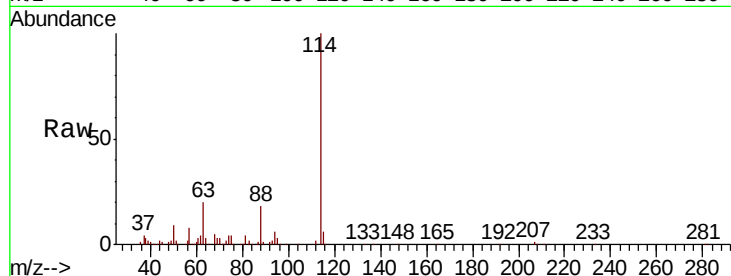
Tot Ion:114 Resp: 216435

Ion Ratio Lower Upper

114 100

63 20.3 0.0 37.4

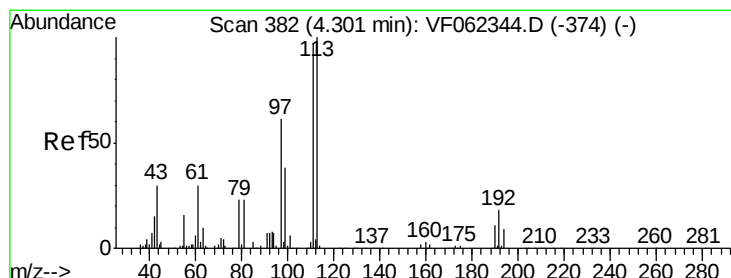
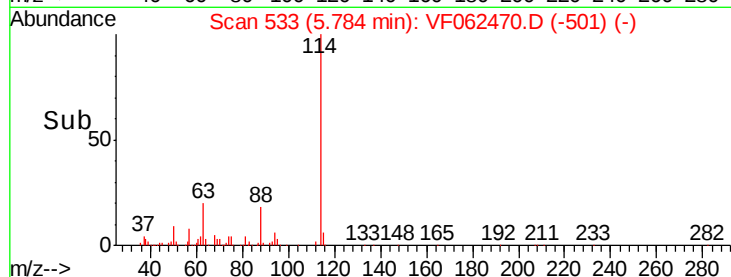
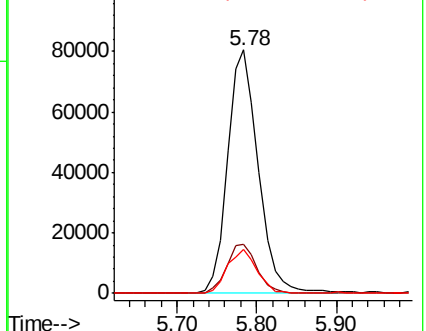
88 18.0 0.0 36.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VF0

Ion 87.90 (87.60 to 88.60): VF0



#35

Dibromofluoromethane

Concen: 92.452 ug/l

RT: 4.32 min Scan# 384

Delta R.T. 0.01 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

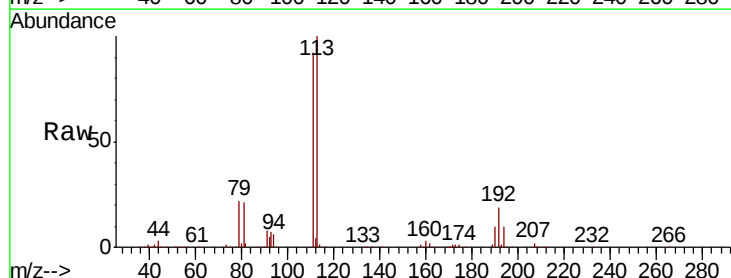
Tgt Ion:113 Resp: 159415

Ion Ratio Lower Upper

113 100

111 102.2 79.4 119.0

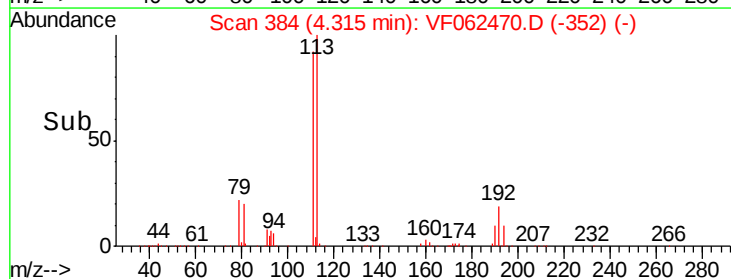
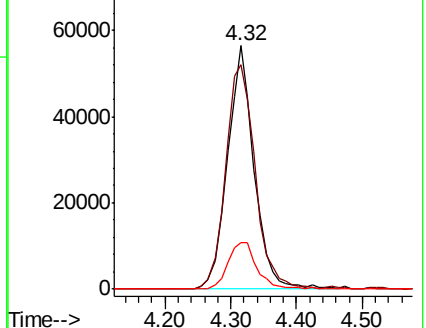
192 21.3 16.0 24.0

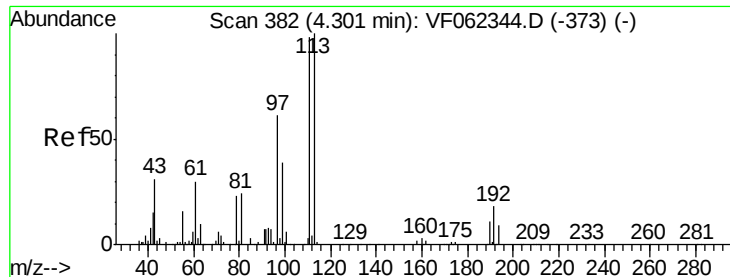


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

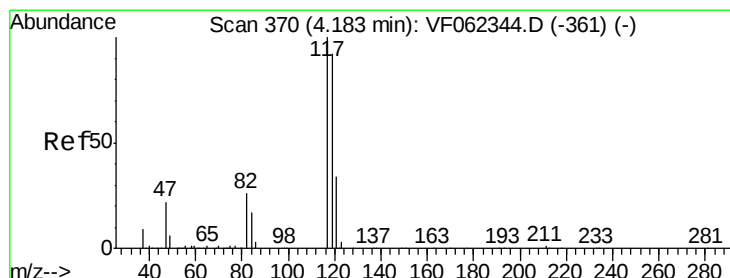
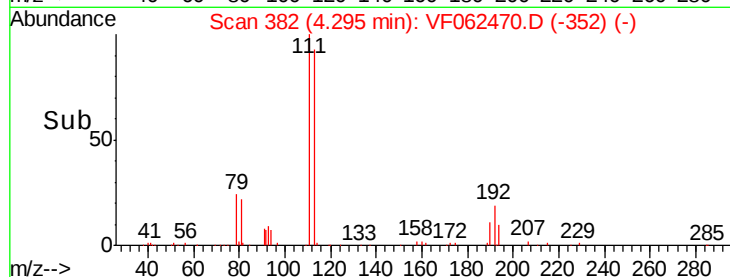
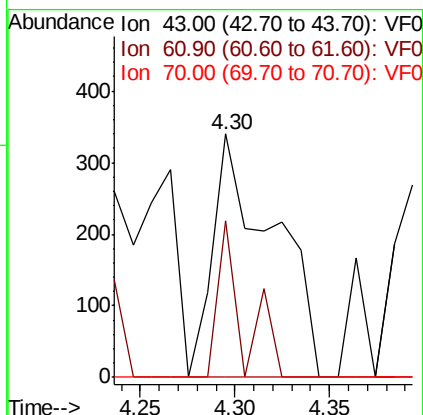
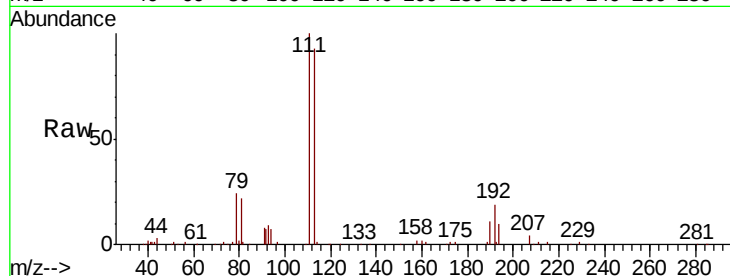




#37  
Ethyl Acetate  
Concen: Below Cal  
RT: 4.30 min Scan# 382  
Delta R.T. -0.01 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

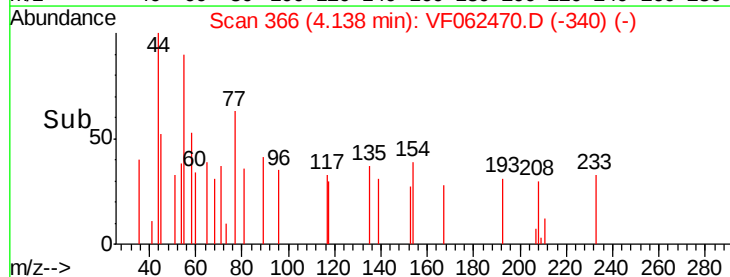
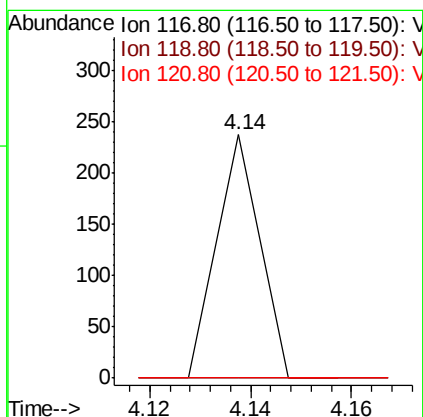
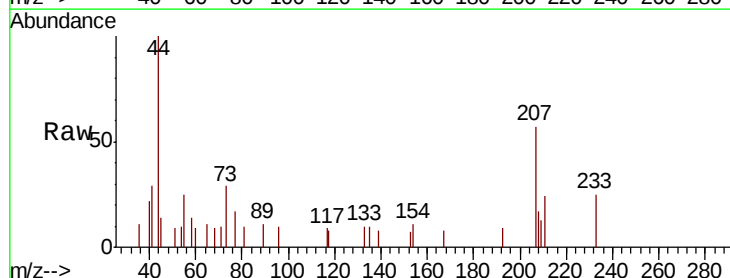
Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

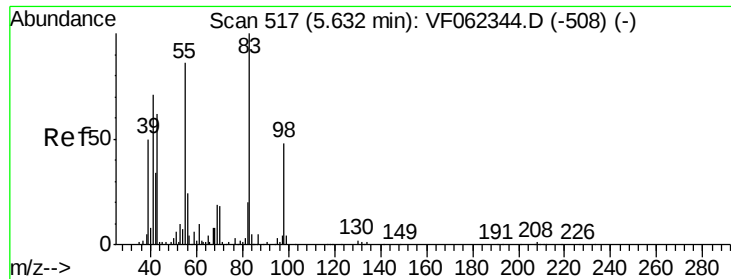
Tot Ion: 43 Resp: 747  
Ion Ratio Lower Upper  
43 100  
61 27.0 0.0 0.0#  
70 0.0 8.2 12.2#



#38  
Carbon Tetrachloride  
Concen: Below Cal  
RT: 4.14 min Scan# 366  
Delta R.T. -0.05 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Tgt Ion: 117 Resp: 140  
Ion Ratio Lower Upper  
117 100  
119 0.0 73.4 110.2#  
121 0.0 27.4 41.0#

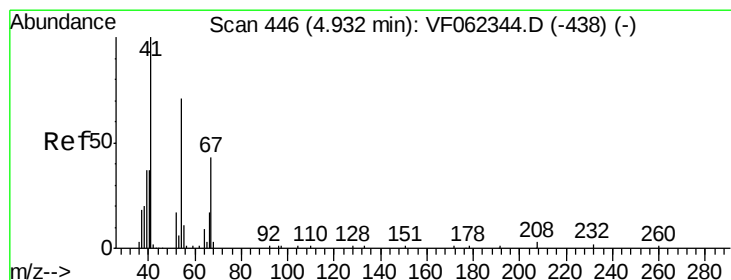
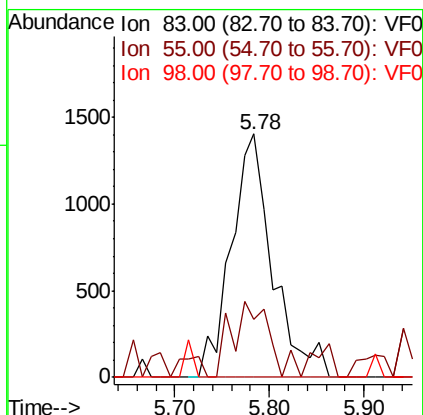
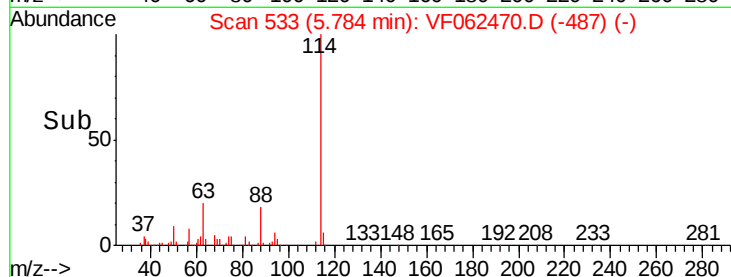
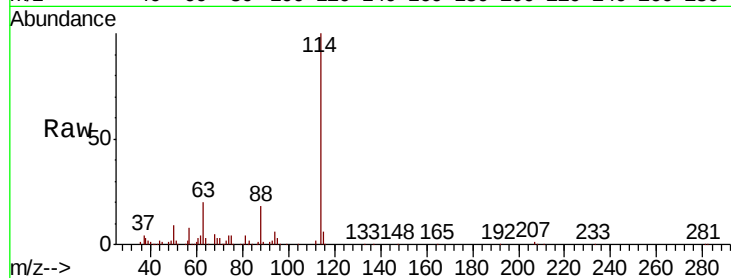




#39  
Methylcyclohexane  
Concen: 2.287 ug/l  
RT: 5.78 min Scan# 533  
Delta R.T. 0.15 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

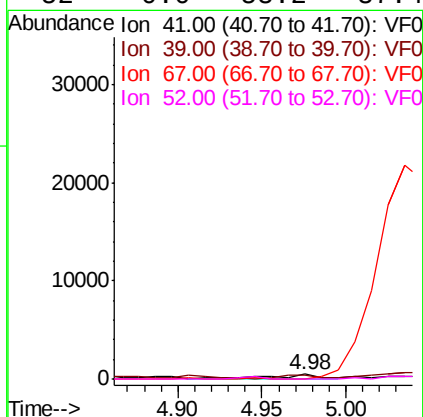
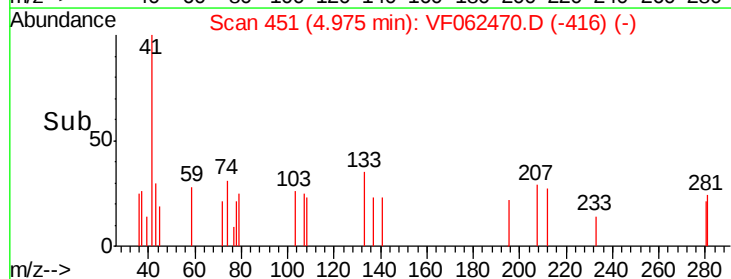
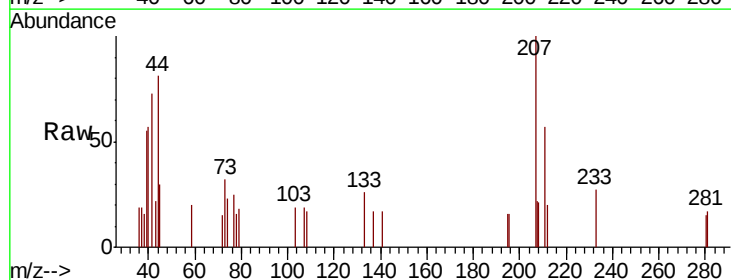
Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

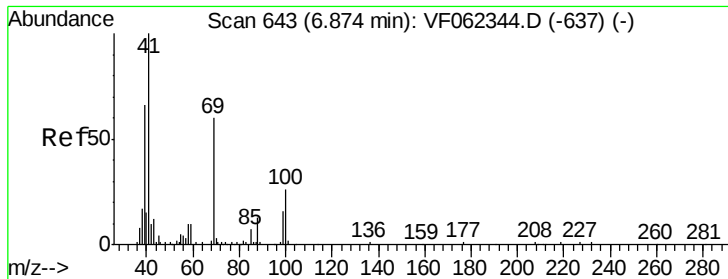
Tot Ion: 83 Resp: 4264  
Ion Ratio Lower Upper  
83 100  
55 23.6 69.0 103.6#  
98 0.0 38.6 58.0#



#41  
Methacrylonitrile  
Concen: 2.470 ug/l  
RT: 4.98 min Scan# 451  
Delta R.T. 0.04 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Tgt Ion: 41 Resp: 1101  
Ion Ratio Lower Upper  
41 100  
39 63.9 54.3 81.5  
67 0.0 37.8 56.8#  
52 0.0 58.2 87.4#

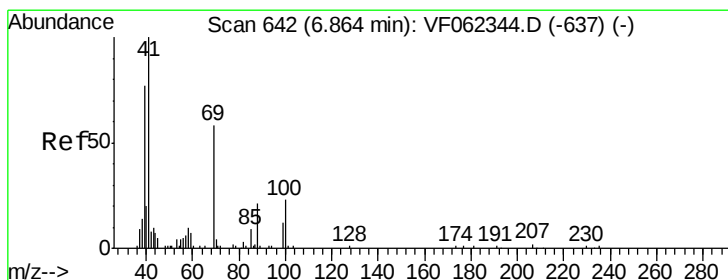
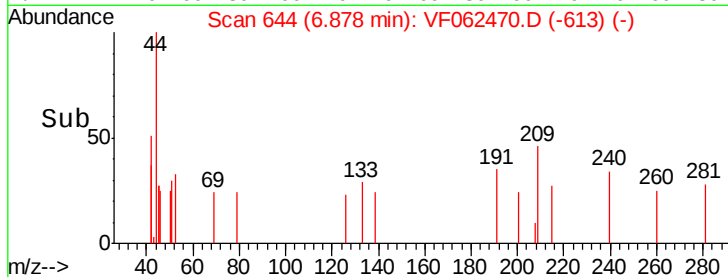
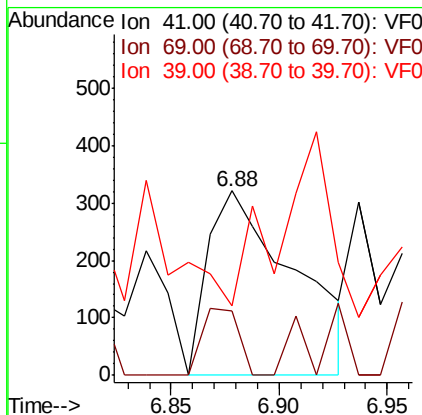
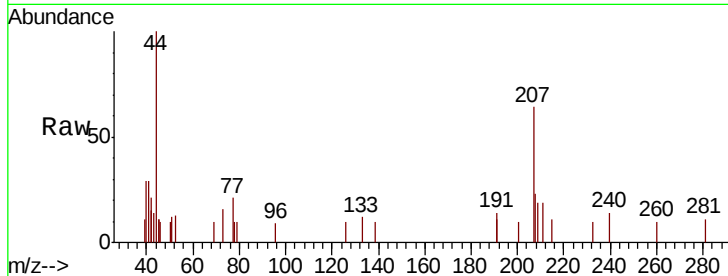




#48  
Methyl methacrylate  
Concen: 1.484 ug/l  
RT: 6.88 min Scan# 644  
Delta R.T. 0.00 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

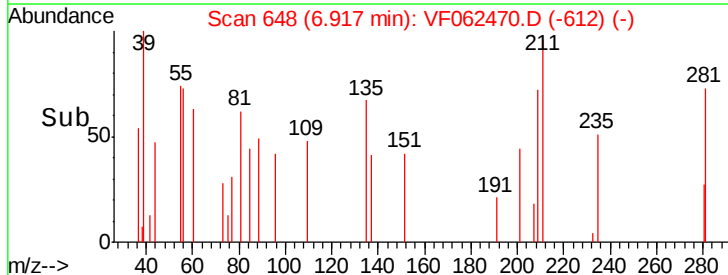
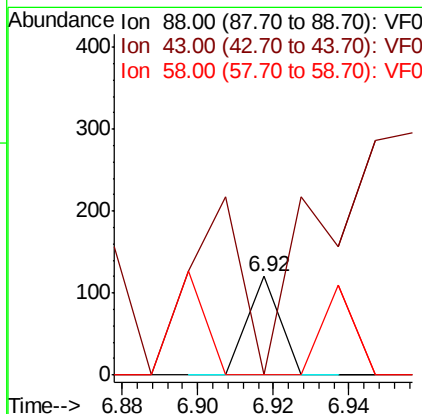
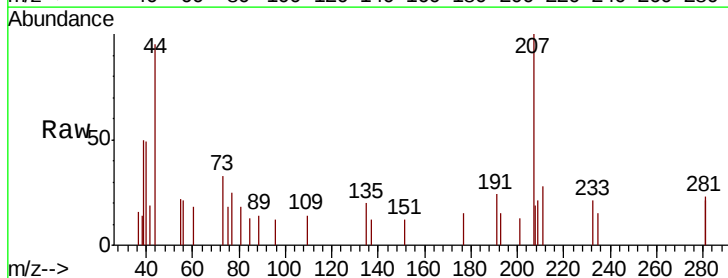
Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

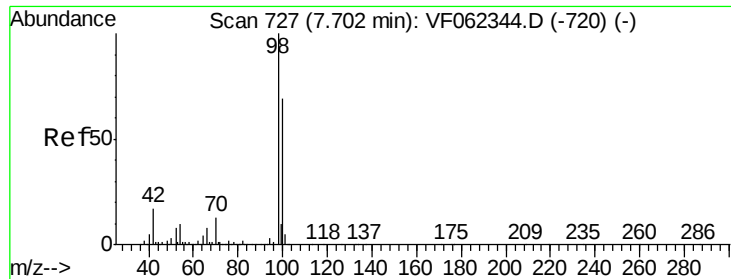
Tot Ion: 41 Resp: 887  
Ion Ratio Lower Upper  
41 100  
69 15.1 48.6 72.8#  
39 0.0 56.1 84.1#



#49  
1,4-Dioxane  
Concen: Below Cal  
RT: 6.92 min Scan# 648  
Delta R.T. 0.05 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Tgt Ion: 88 Resp: 71  
Ion Ratio Lower Upper  
88 100  
43 285.9 55.6 83.4#  
58 105.6 52.8 79.2#

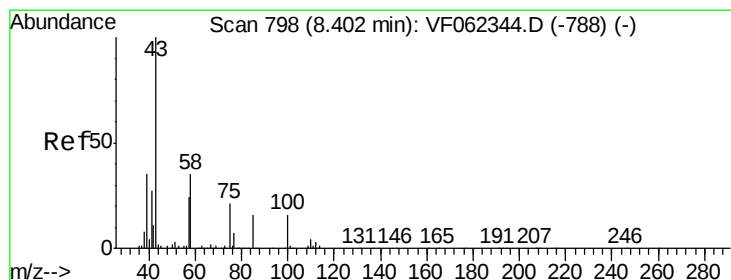
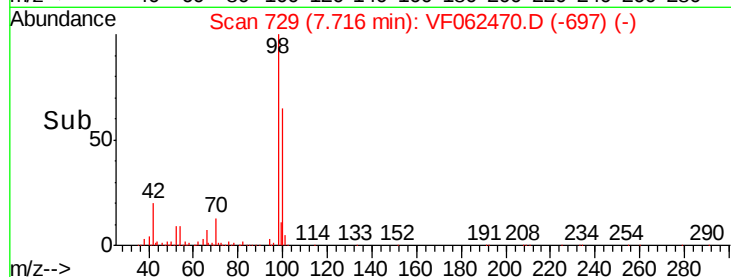
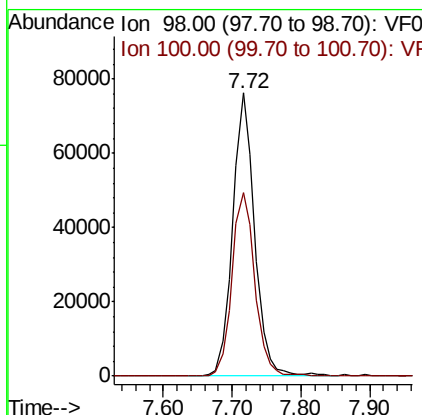
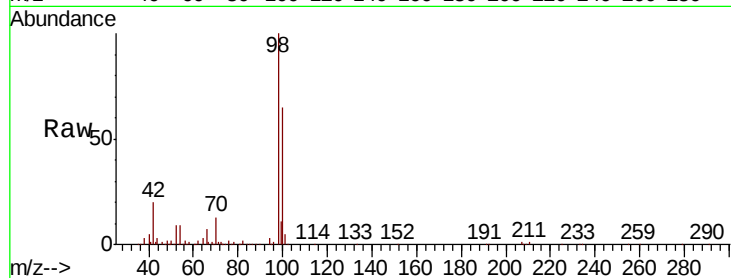




#50  
Toluene-d8  
Concen: 40.259 ug/l  
RT: 7.72 min Scan# 729  
Delta R.T. 0.01 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

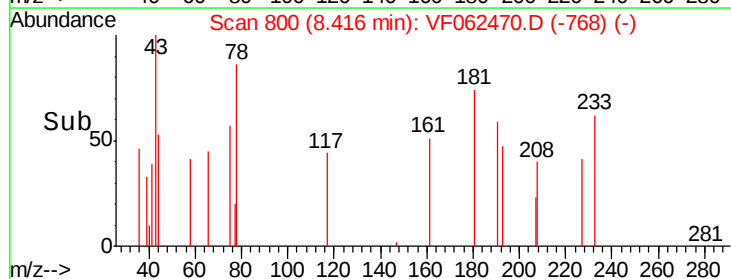
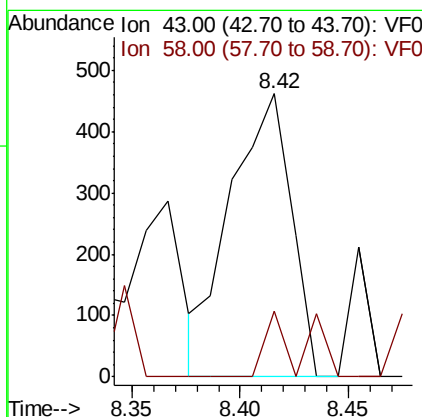
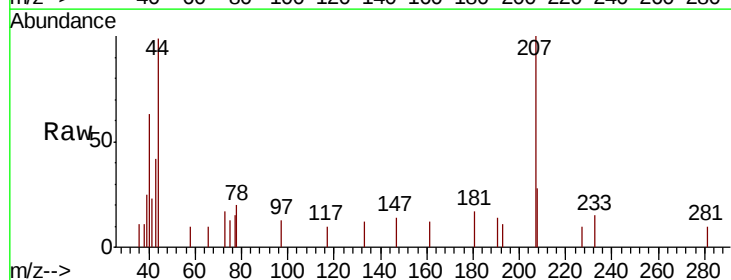
Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

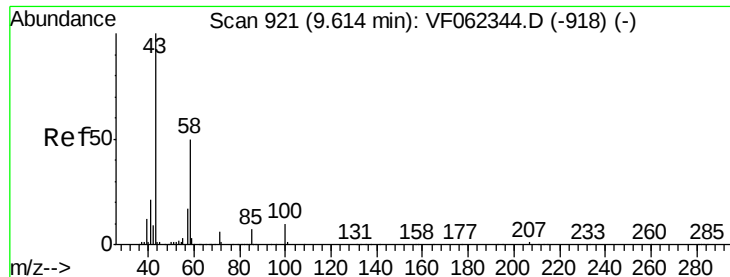
Tot Ion: 98 Resp: 168039  
Ion Ratio Lower Upper  
98 100  
100 67.8 53.3 79.9



#51  
4-Methyl-2-Pentanone  
Concen: 1.406 ug/l  
RT: 8.42 min Scan# 800  
Delta R.T. 0.01 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Tgt Ion: 43 Resp: 901  
Ion Ratio Lower Upper  
43 100  
58 13.8 27.8 41.6#

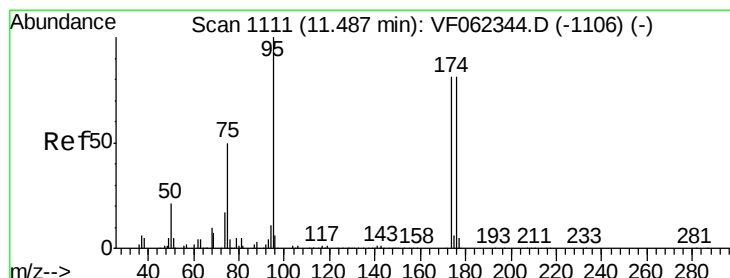
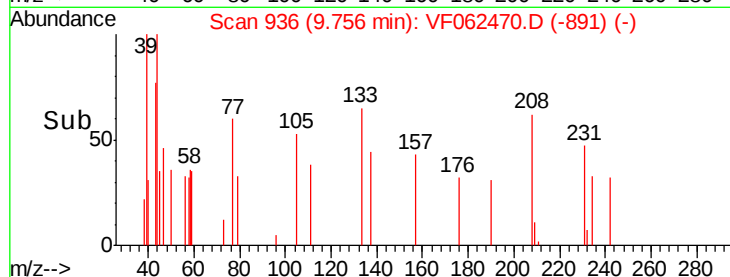
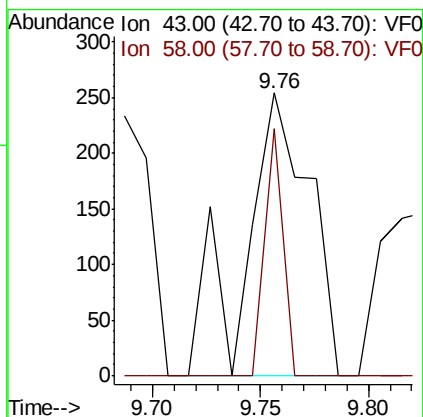
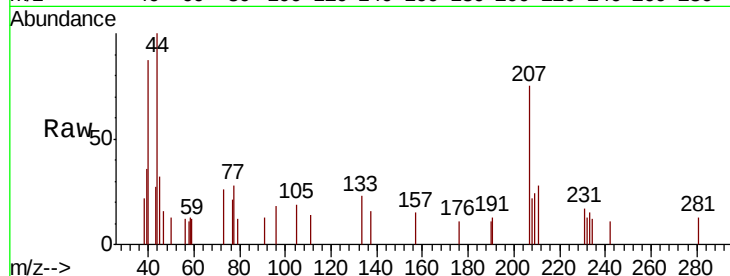




#59  
2-Hexanone  
Concen: 1.198 ug/l  
RT: 9.76 min Scan# 936  
Delta R.T. 0.14 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

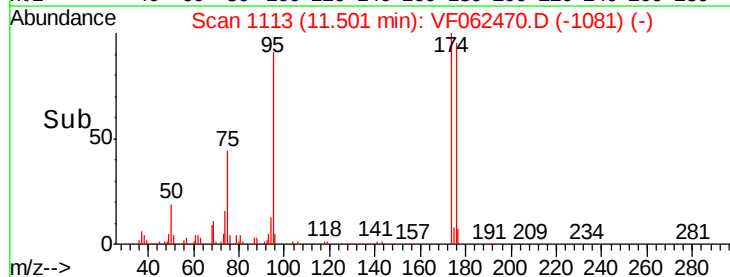
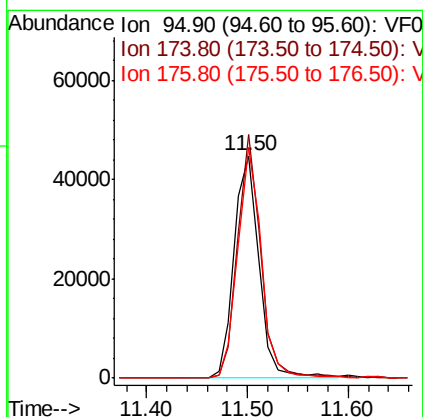
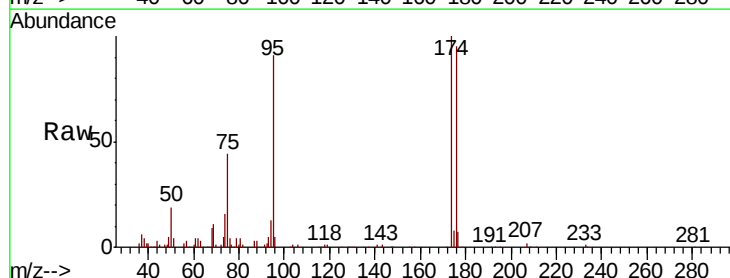
Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

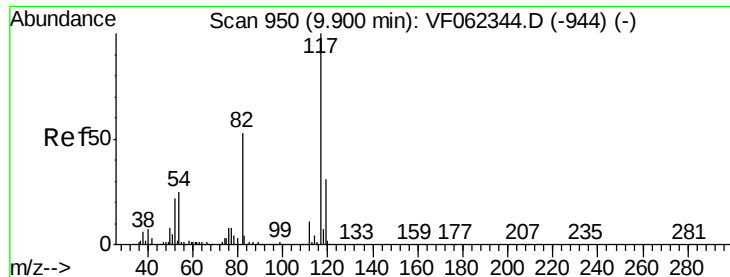
Tot Ion: 43 Resp: 531  
Ion Ratio Lower Upper  
43 100  
58 24.7 24.3 73.0



#62  
4-Bromofluorobenzene  
Concen: 40.850 ug/l  
RT: 11.50 min Scan# 1113  
Delta R.T. 0.01 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Tgt Ion: 95 Resp: 76926  
Ion Ratio Lower Upper  
95 100  
174 102.2 0.0 191.8  
176 99.0 0.0 193.2

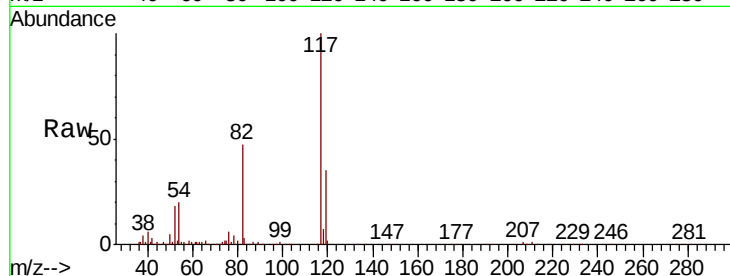




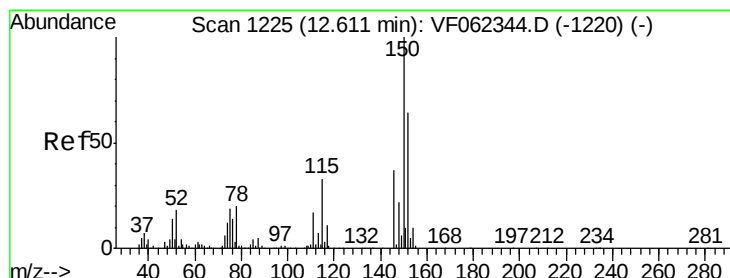
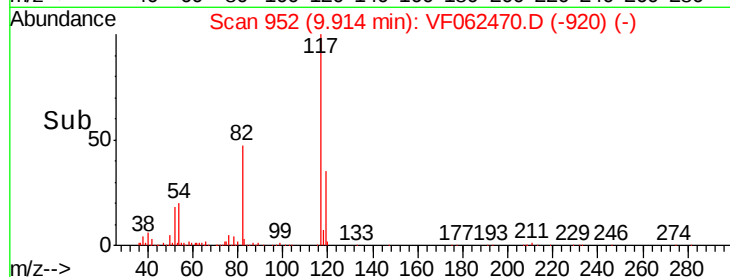
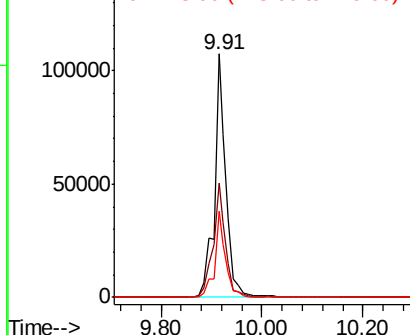
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.91 min Scan# 952  
Delta R.T. 0.01 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

Instrument :  
MSVOA\_F  
ClientSampleId :  
P026-SS014-0612-01

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 117     | 100   |       |       |
| 82      | 46.7  | 42.2  | 63.2  |
| 119     | 35.2  | 25.0  | 37.4  |

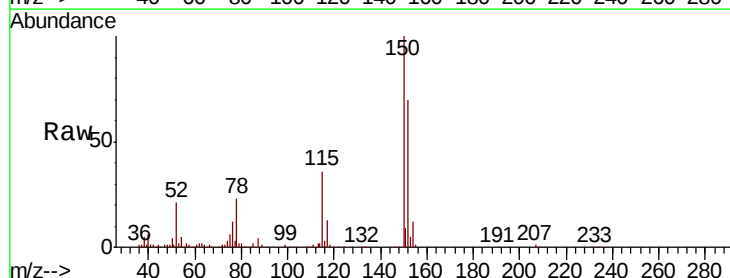


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VF0  
Ion 118.90 (118.60 to 119.60): V

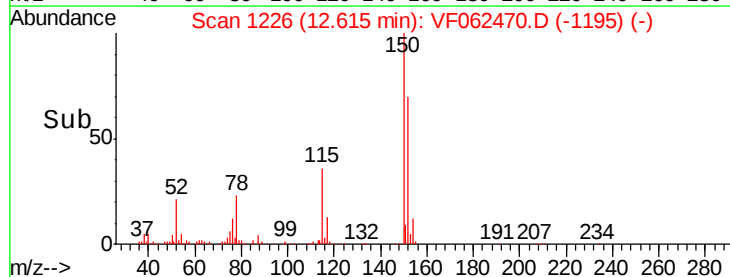
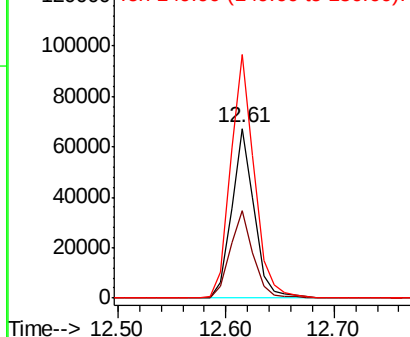


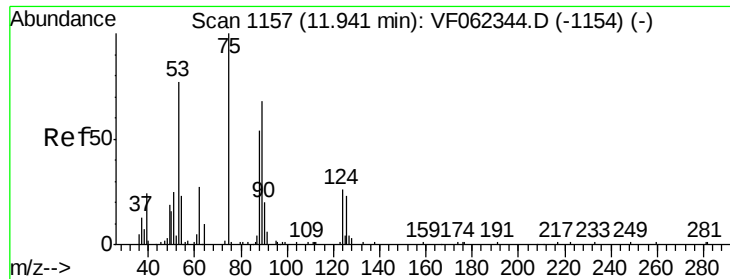
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.61 min Scan# 1226  
Delta R.T. 0.00 min  
Lab File: VF062470.D  
Acq: 11 May 2019 19:55

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 53.1  | 26.4  | 79.2  |
| 150     | 151.7 | 0.0   | 335.0 |



Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V





#81

trans-1,4-Dichloro-2-butene

Concen: 1.494 ug/l

RT: 11.96 min Scan# 1160

Delta R.T. 0.02 min

Lab File: VF062470.D

Acq: 11 May 2019 19:55

Instrument :

MSVOA\_F

ClientSampleId :

P026-SS014-0612-01

Tot Ion: 75 Resp: 386

Ion Ratio Lower Upper

75 100

53 19.2 71.9 107.9#

89 0.0 0.0 0.0

