

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF051019\  
 Data File : VF062419.D  
 Acq On : 10 May 2019 13:15  
 Operator : FY/SY  
 Sample : K2643-01RE  
 Misc : 6.87g/5mL/MSVOA\_F/SOIL  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OR-03-050719-ARE

Quant Time: May 10 14:50:45 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      | 5.06  | 168  | 396316   | 50.00 | ug/l  | 0.01     |
| 34) 1,4-Difluorobenzene    | 5.78  | 114  | 550853   | 50.00 | ug/l  | 0.01     |
| 63) Chlorobenzene-d5       | 9.91  | 117  | 393400   | 50.00 | ug/l  | 0.01     |
| 72) 1,4-Dichlorobenzene-d4 | 12.61 | 152  | 217301   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.04  | 65   | 196946   | 52.58 | ug/l    | 0.02     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 105.16% |          |
| 35) Dibromofluoromethane    | 4.31  | 113  | 245442   | 55.93 | ug/l    | 0.01     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 111.86% |          |
| 50) Toluene-d8              | 7.72  | 98   | 479385   | 45.13 | ug/l    | 0.01     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 90.26%  |          |
| 62) 4-Bromofluorobenzene    | 11.50 | 95   | 209235   | 43.66 | ug/l    | 0.01     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 87.32%  |          |

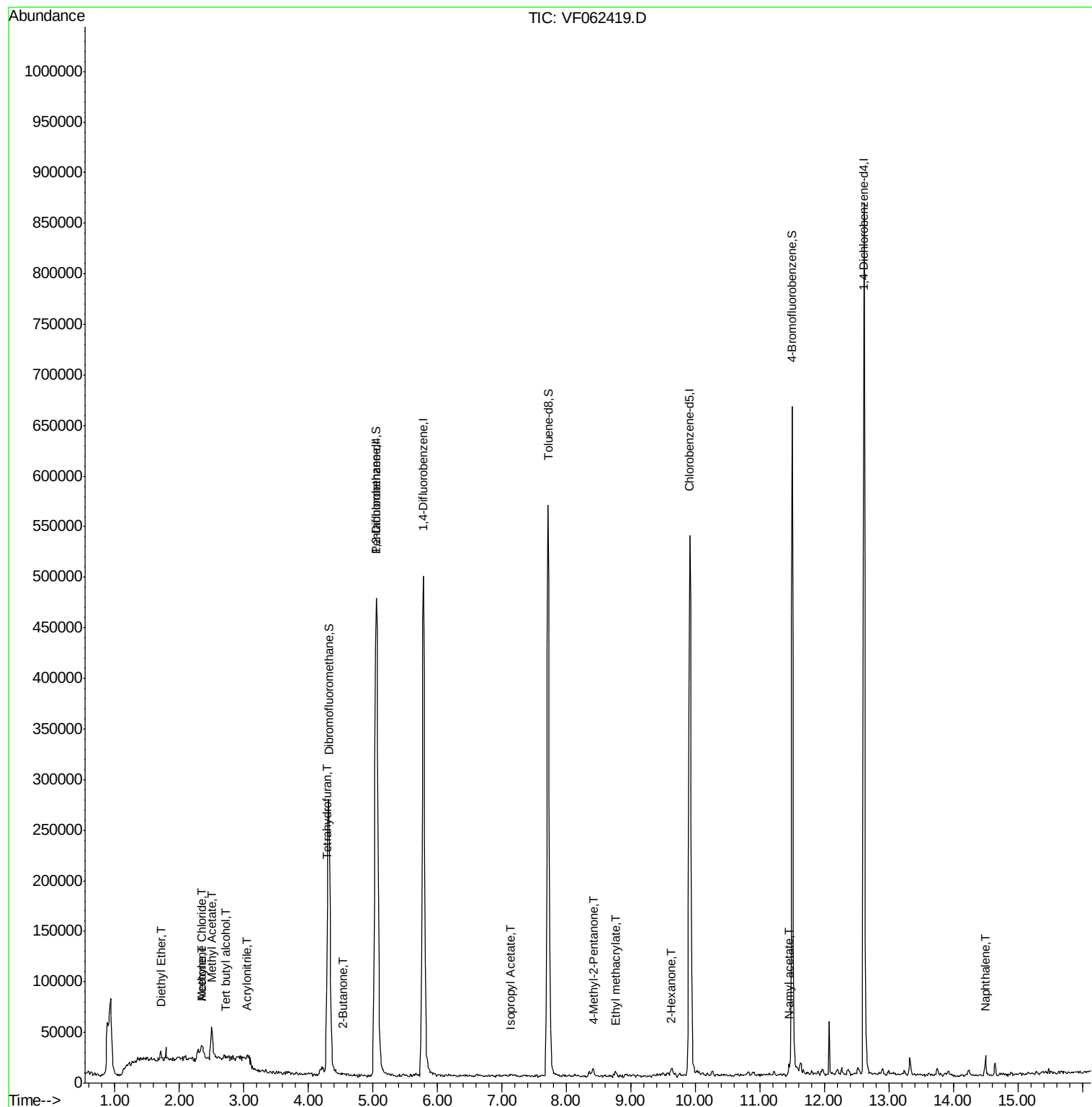
| Target Compounds         | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane          | 1.43  | 94   | 746      | Below Cal | #      | 8      |
| 8) Diethyl Ether         | 1.71  | 74   | 2802     | 2.958     | ug/l   | 95     |
| 11) Tert butyl alcohol   | 2.72  | 59   | 225      | 1.063     | ug/l # | 1      |
| 13) Acrolein             | 2.14  | 56   | 507      | Below Cal | #      | 13     |
| 15) Acrylonitrile        | 3.04  | 53   | 447      | 1.115     | ug/l # | 9      |
| 16) Acetone              | 2.34  | 43   | 2425     | 3.201     | ug/l # | 64     |
| 18) Methyl Acetate       | 2.50  | 43   | 12709    | 6.471     | ug/l # | 72     |
| 20) Methylene Chloride   | 2.35  | 84   | 7448     | 2.717     | ug/l   | 97     |
| 25) 2-Butanone           | 4.53  | 43   | 1894     | 1.990     | ug/l   | 93     |
| 29) Tetrahydrofuran      | 4.28  | 42   | 1132     | 2.588     | ug/l # | 82     |
| 37) Ethyl Acetate        | 4.33  | 43   | 967      | Below Cal | #      | 99     |
| 38) Carbon Tetrachloride | 4.22  | 117  | 130      | Below Cal | #      | 14     |
| 43) Isopropyl Acetate    | 7.12  | 43   | 3151     | 1.464     | ug/l # | 94     |
| 49) 1,4-Dioxane          | 6.90  | 88   | 70       | Below Cal | #      | 1      |
| 51) 4-Methyl-2-Pentanone | 8.41  | 43   | 7097     | 4.351     | ug/l   | 100    |
| 56) Ethyl methacrylate   | 8.77  | 69   | 2580     | 1.198     | ug/l # | 88     |
| 59) 2-Hexanone           | 9.64  | 43   | 8483     | 7.521     | ug/l   | 90     |
| 74) N-amyl acetate       | 11.45 | 43   | 8121     | 2.936     | ug/l # | 72     |
| 95) Naphthalene          | 14.50 | 128  | 12158    | 1.509     | ug/l   | 97     |

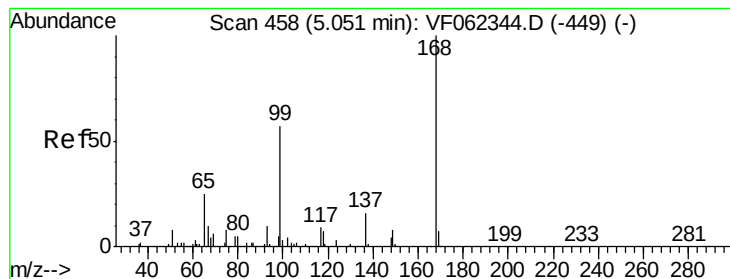
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA\_F\DATA\VF051019\  
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Quant Time: May 10 14:50:45 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: 5.06 min Scan# 460

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

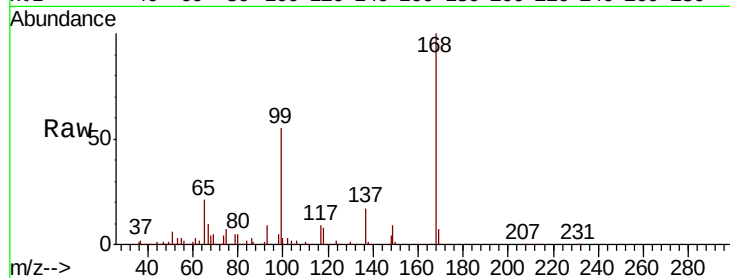
OR-03-050719-ARE

Tgt Ion:168 Resp: 396316

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

5.06

150000

100000

50000

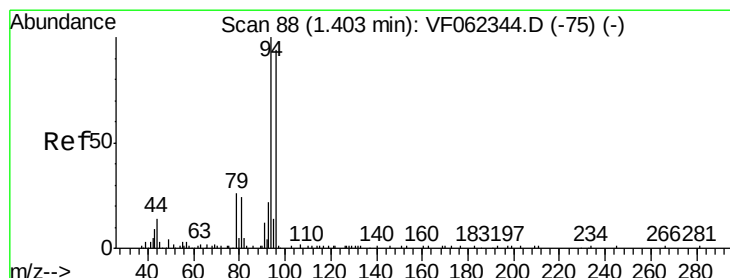
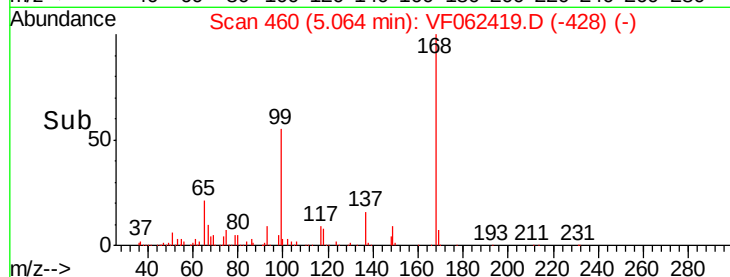
0

Time-->

5.00

5.20

5.40



#5

Bromomethane

Concen: Below Cal

RT: 1.43 min Scan# 91

Delta R.T. 0.02 min

Lab File: VF062419.D

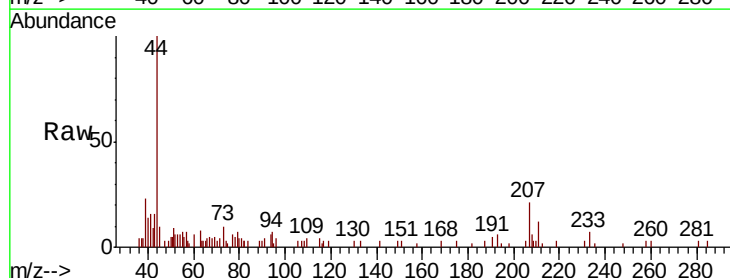
Acq: 10 May 2019 13:15

Tgt Ion: 94 Resp: 746

Ion Ratio Lower Upper

94 100

96 5.2 75.4 113.2#



Abundance Ion 93.90 (93.60 to 94.60): VF0

Ion 95.90 (95.60 to 96.60): VF0

1.43

600

400

200

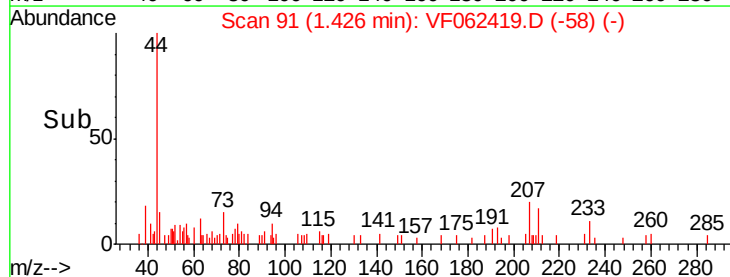
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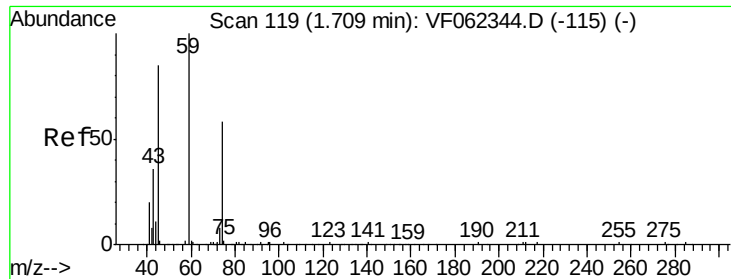
Time-->

1.35

1.40

1.45





#8

Diethyl Ether

Concen: 2.958 ug/l

RT: 1.71 min Scan# 120

Delta R.T. 0.00 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

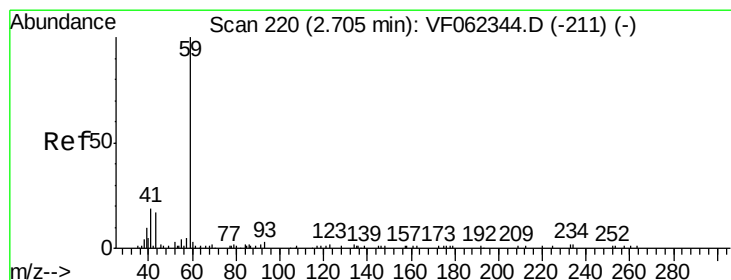
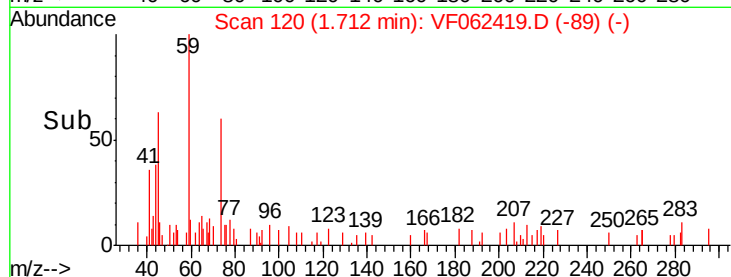
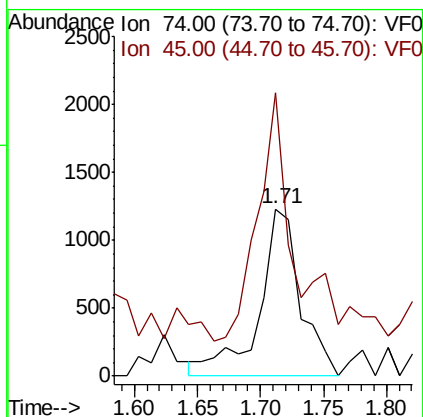
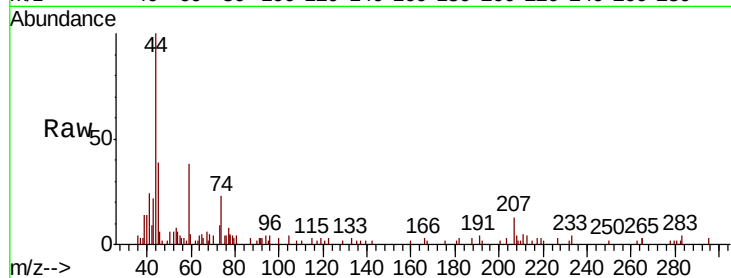
OR-03-050719-ARE

Tgt Ion: 74 Resp: 2802

Ion Ratio Lower Upper

74 100

45 142.0 73.9 221.6



#11

Tert butyl alcohol

Concen: 1.063 ug/l

RT: 2.72 min Scan# 222

Delta R.T. 0.01 min

Lab File: VF062419.D

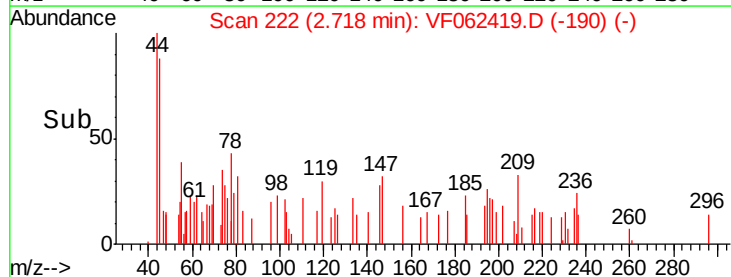
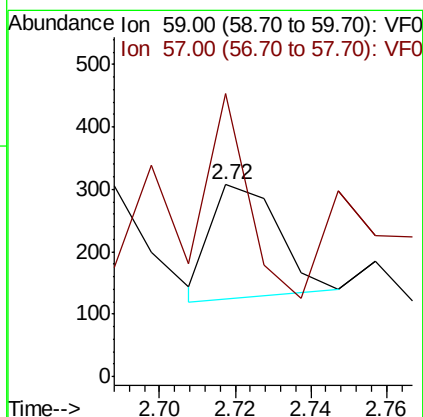
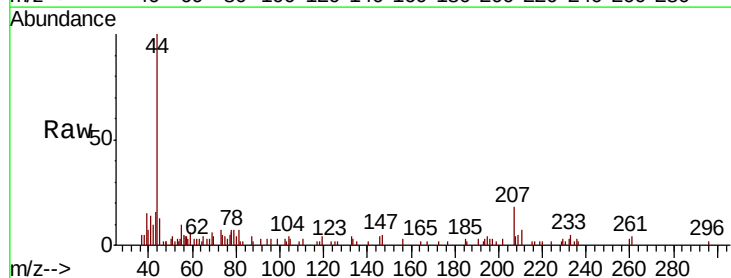
Acq: 10 May 2019 13:15

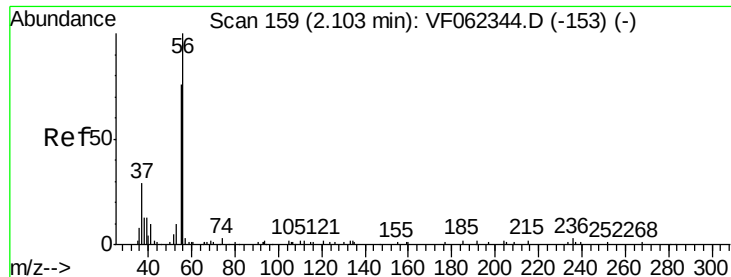
Tgt Ion: 59 Resp: 225

Ion Ratio Lower Upper

59 100

57 380.9 9.3 13.9#

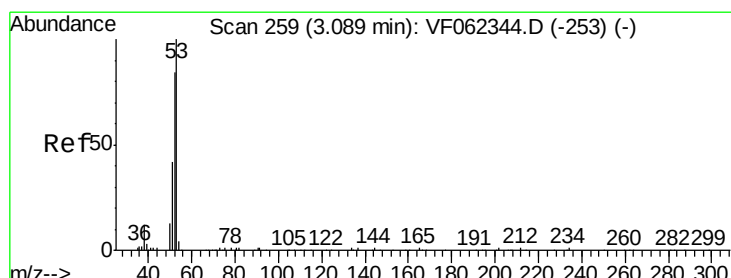
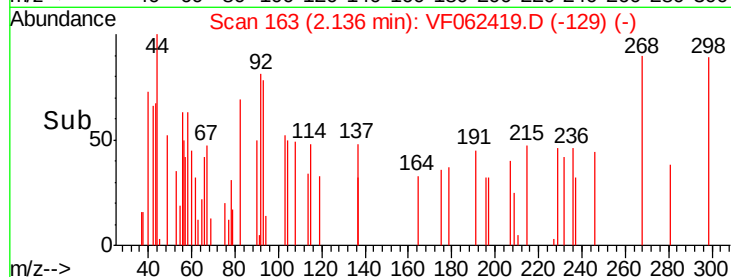
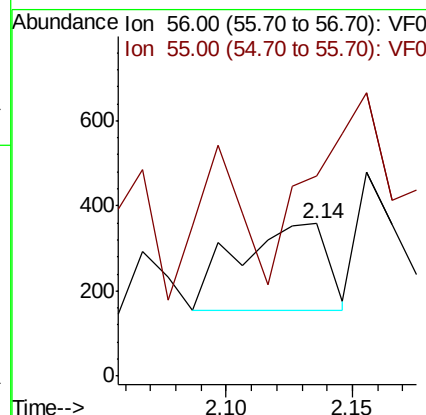
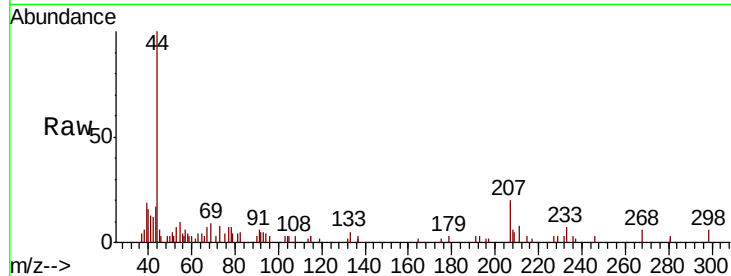




#13  
Acrolein  
Concen: Below Cal  
RT: 2.14 min Scan# 163  
Delta R.T. 0.03 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

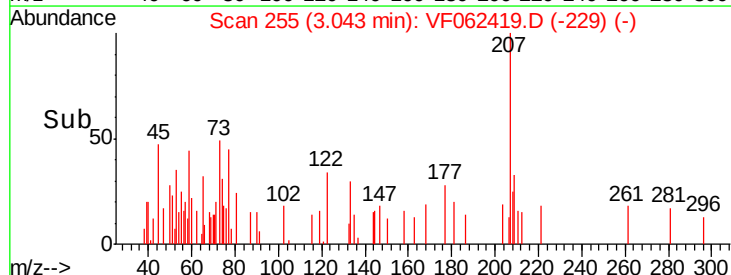
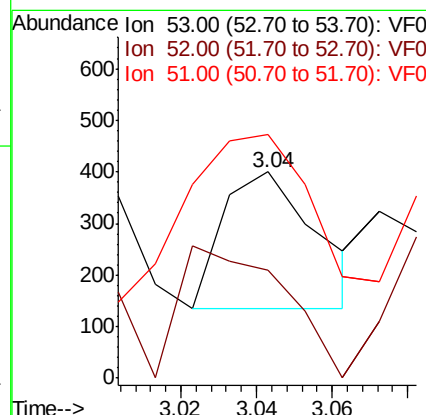
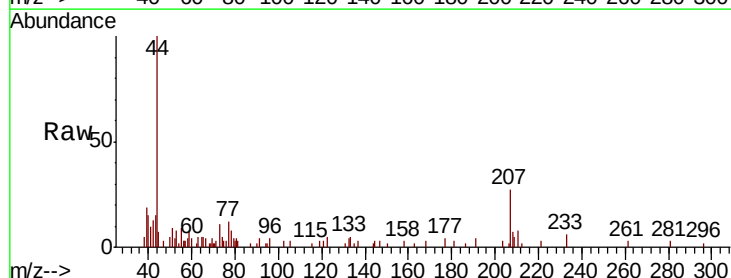
Instrument :  
MSVOA\_F  
ClientSampleId :  
OR-03-050719-ARE

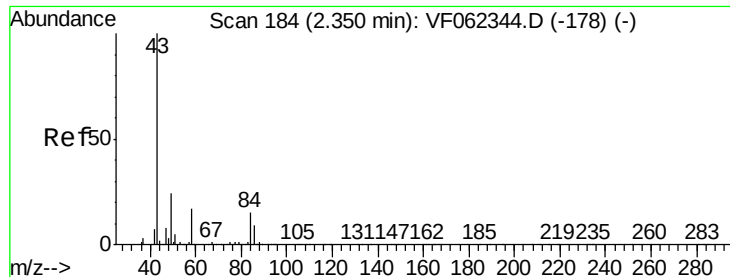
Tgt Ion: 56 Resp: 507  
Ion Ratio Lower Upper  
56 100  
55 0.0 58.4 87.6#



#15  
Acrylonitrile  
Concen: 1.115 ug/l  
RT: 3.04 min Scan# 255  
Delta R.T. -0.05 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

Tgt Ion: 53 Resp: 447  
Ion Ratio Lower Upper  
53 100  
52 109.2 77.2 115.8  
51 217.4 40.6 61.0#





#16

Acetone

Concen: 3.201 ug/l

RT: 2.34 min Scan# 184

Delta R.T. -0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

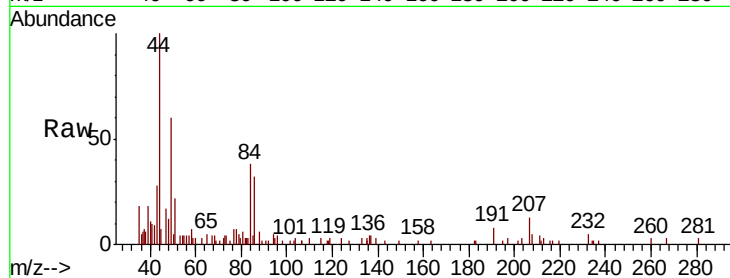
OR-03-050719-ARE

Tgt Ion: 43 Resp: 2425

Ion Ratio Lower Upper

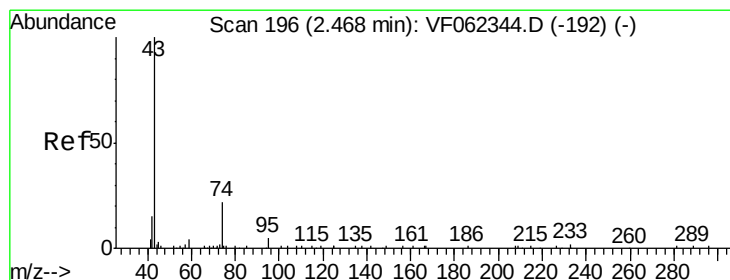
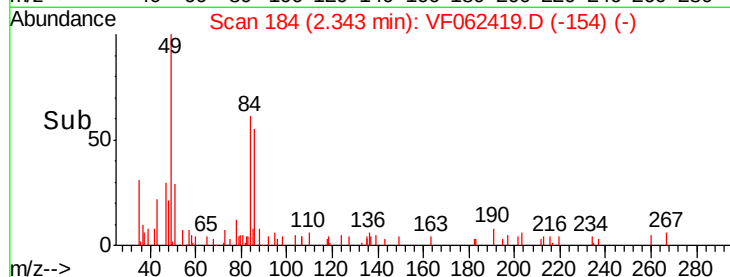
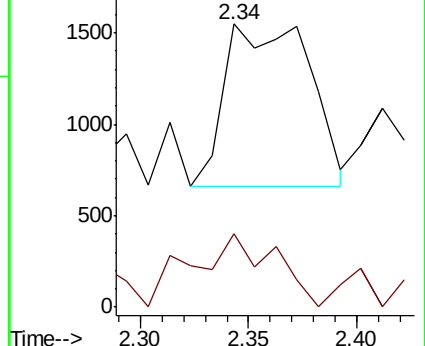
43 100

58 32.0 13.1 19.7#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0



#18

Methyl Acetate

Concen: 6.471 ug/l

RT: 2.50 min Scan# 200

Delta R.T. 0.03 min

Lab File: VF062419.D

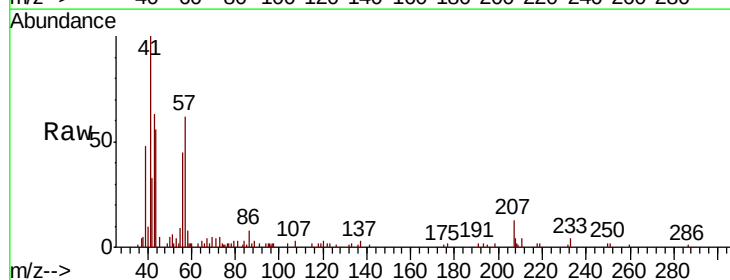
Acq: 10 May 2019 13:15

Tgt Ion: 43 Resp: 12709

Ion Ratio Lower Upper

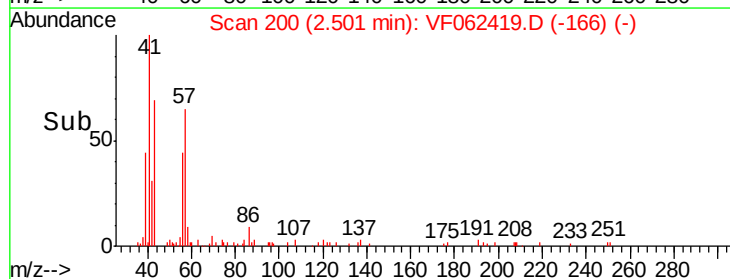
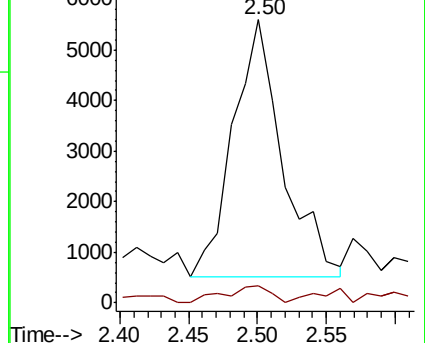
43 100

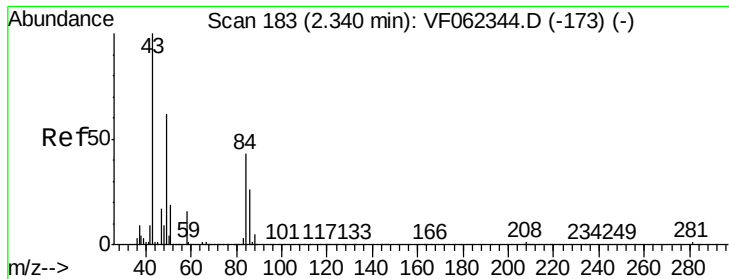
74 6.2 15.0 22.4#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 74.00 (73.70 to 74.70): VF0





#20

Methylene Chloride

Concen: 2.717 ug/l

RT: 2.35 min Scan# 185

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-050719-ARE

Tgt Ion: 84 Resp: 7448

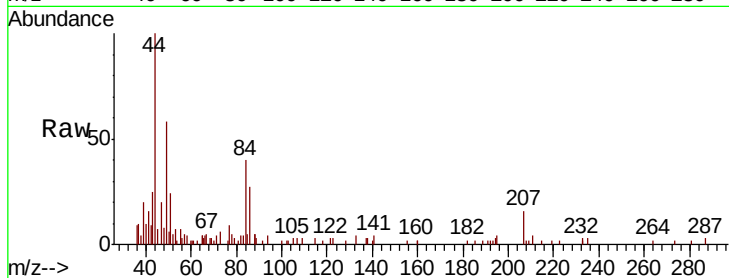
Ion Ratio Lower Upper

84 100

49 143.6 117.5 176.3

51 43.9 37.0 55.4

86 63.3 49.3 73.9

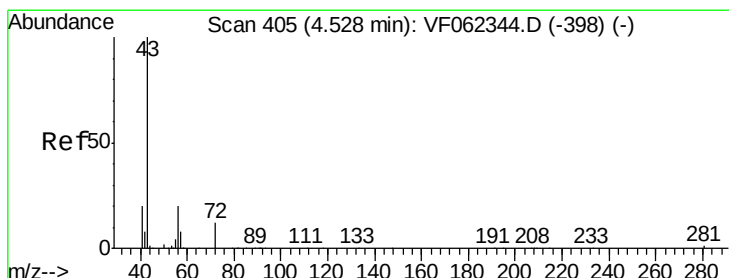
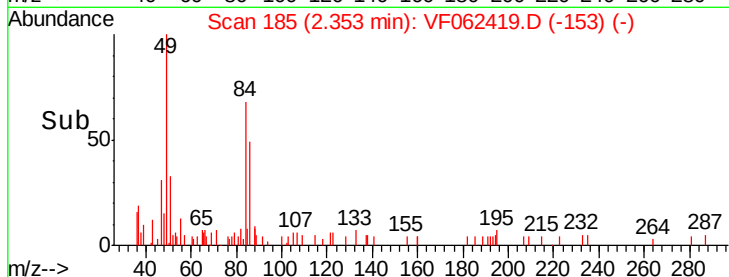
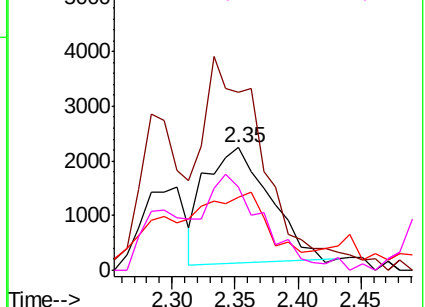


Abundance Ion 83.90 (83.60 to 84.60): VF0

Ion 48.90 (48.60 to 49.60): VF0

Ion 50.90 (50.60 to 51.60): VF0

Ion 85.90 (85.60 to 86.60): VF0



#25

2-Butanone

Concen: 1.990 ug/l

RT: 4.53 min Scan# 406

Delta R.T. 0.00 min

Lab File: VF062419.D

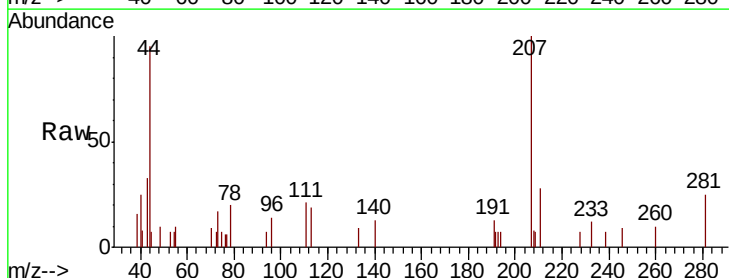
Acq: 10 May 2019 13:15

Tgt Ion: 43 Resp: 1894

Ion Ratio Lower Upper

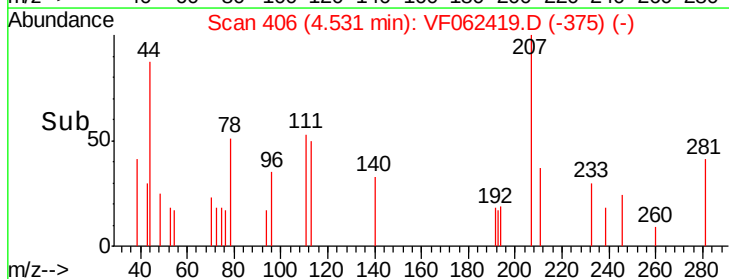
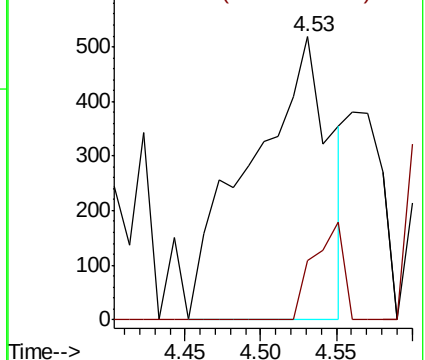
43 100

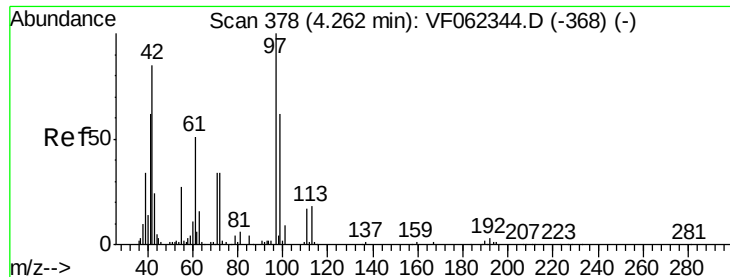
72 20.8 14.2 21.4



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 72.00 (71.70 to 72.70): VF0





#29

Tetrahydrofuran

Concen: 2.588 ug/l

RT: 4.28 min Scan# 381

Delta R.T. 0.02 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

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ClientSampleId :

OR-03-050719-ARE

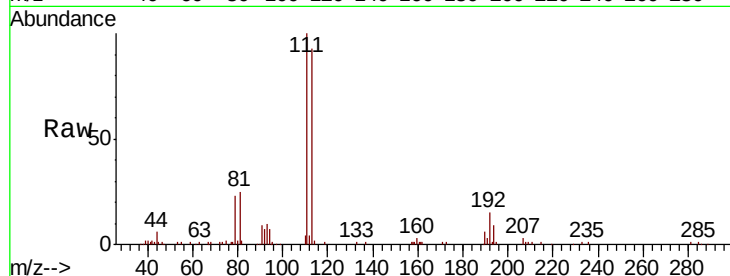
Tgt Ion: 42 Resp: 1132

Ion Ratio Lower Upper

42 100

72 22.2 31.4 47.0#

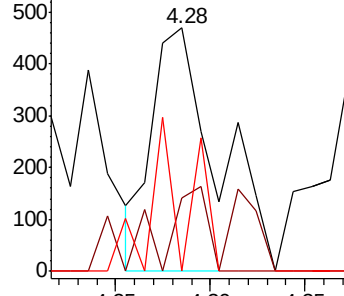
71 34.2 31.7 47.5



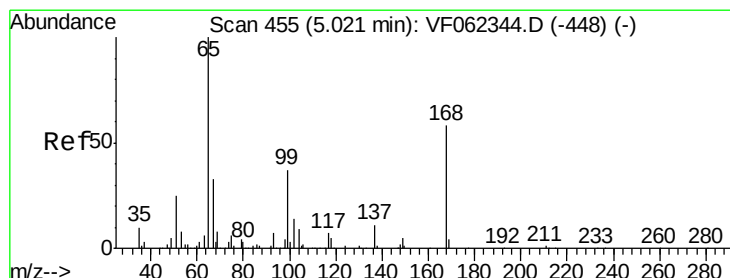
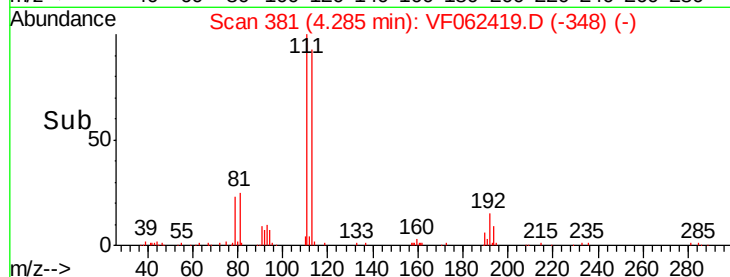
Abundance Ion 42.00 (41.70 to 42.70): VF0

Ion 72.00 (71.70 to 72.70): VF0

Ion 71.00 (70.70 to 71.70): VF0



Time-->



#33

1,2-Dichloroethane-d4

Concen: 52.584 ug/l

RT: 5.04 min Scan# 458

Delta R.T. 0.02 min

Lab File: VF062419.D

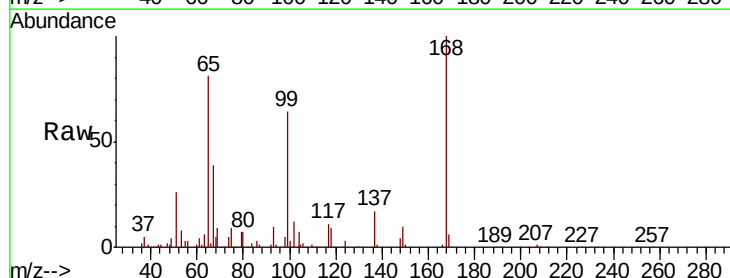
Acq: 10 May 2019 13:15

Tgt Ion: 65 Resp: 196946

Ion Ratio Lower Upper

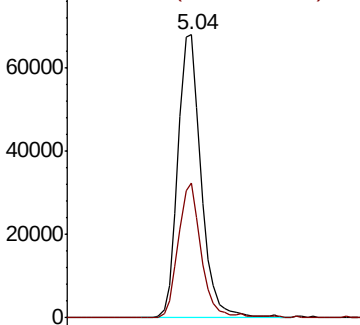
65 100

67 46.9 0.0 85.8

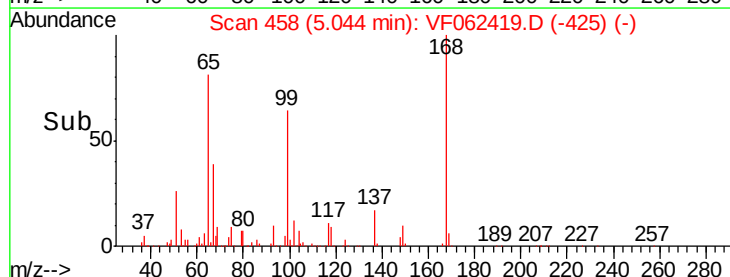


Abundance Ion 64.90 (64.60 to 65.60): VF0

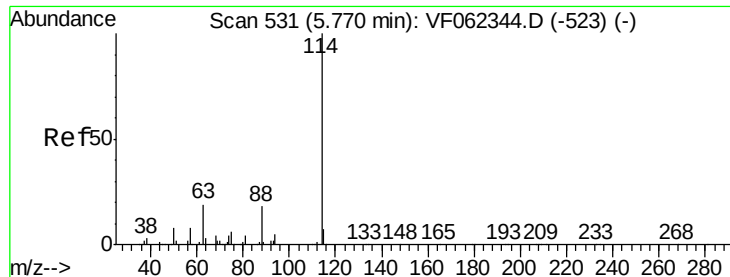
Ion 66.90 (66.60 to 67.60): VF0



Time-->







#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.78 min Scan# 533

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-050719-ARE

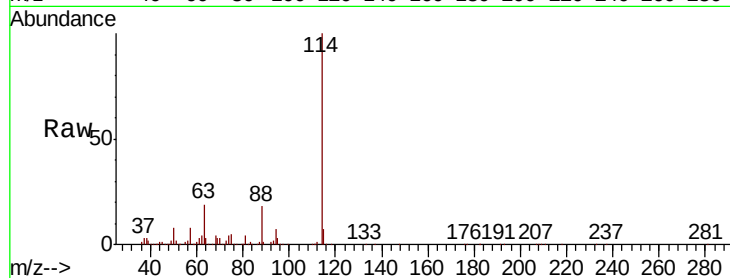
Tgt Ion:114 Resp: 550853

Ion Ratio Lower Upper

114 100

63 19.1 0.0 37.4

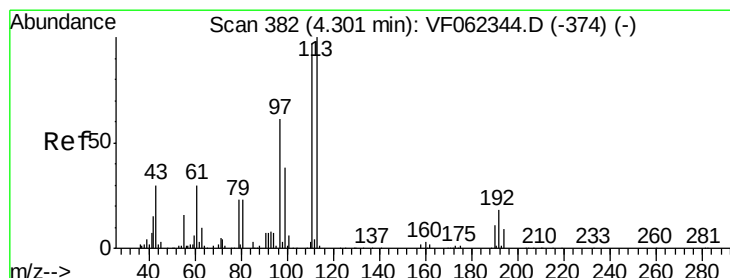
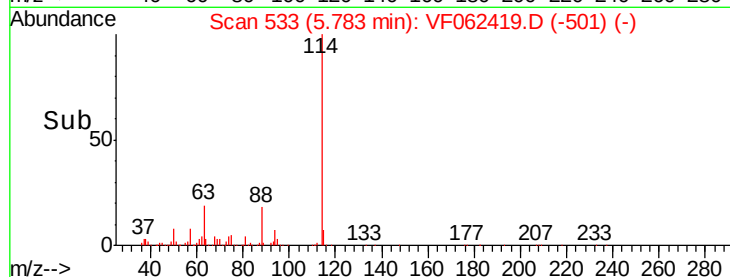
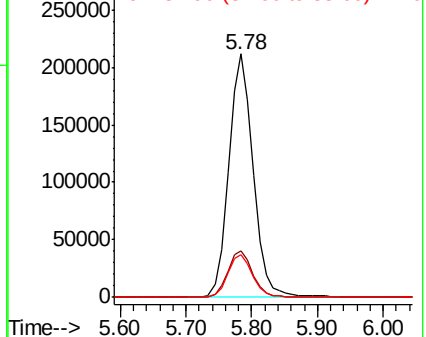
88 17.6 0.0 36.4



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: 55.928 ug/l

RT: 4.31 min Scan# 384

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

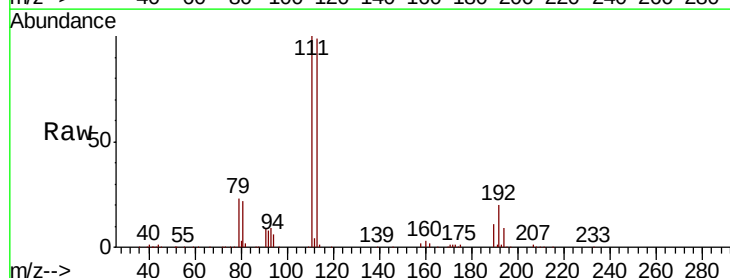
Tgt Ion:113 Resp: 245442

Ion Ratio Lower Upper

113 100

111 102.1 79.4 119.0

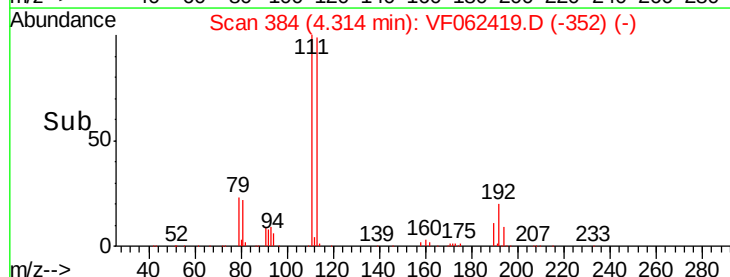
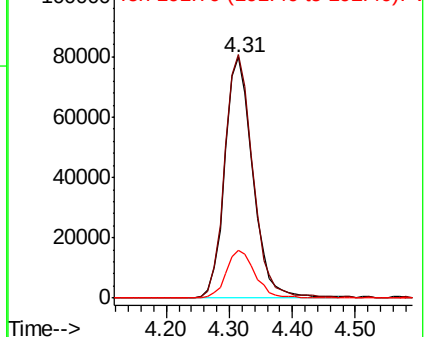
192 20.5 16.0 24.0

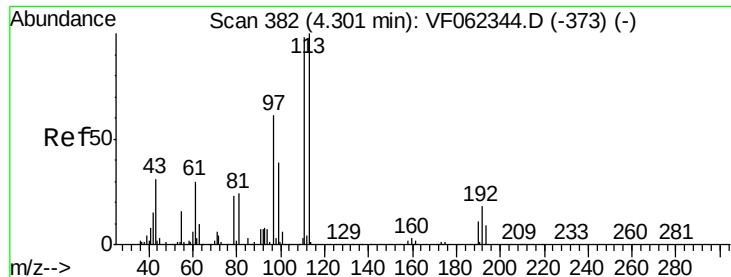


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

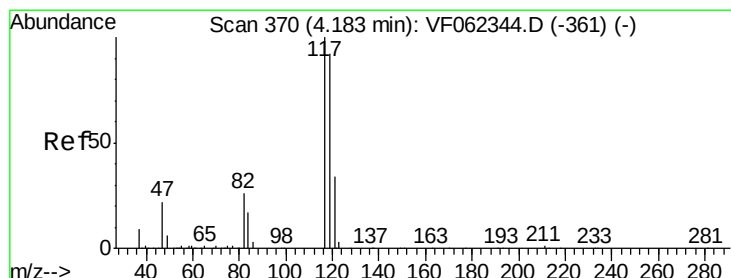
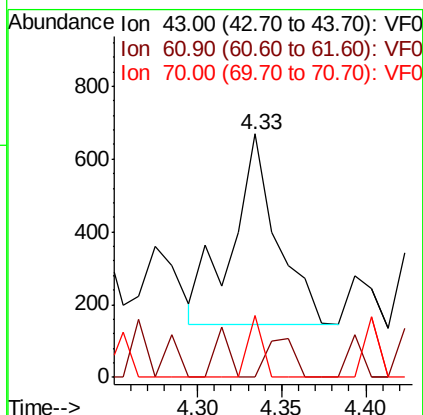
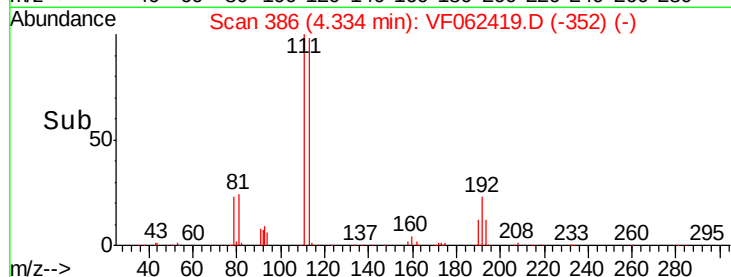
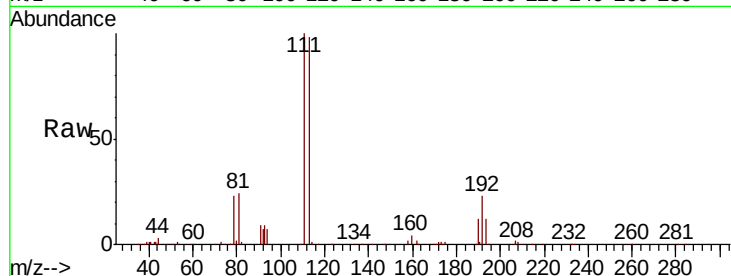




#37  
Ethyl Acetate  
Concen: Below Cal  
RT: 4.33 min Scan# 386  
Delta R.T. 0.03 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

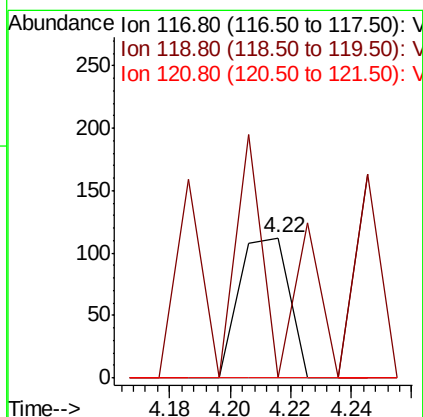
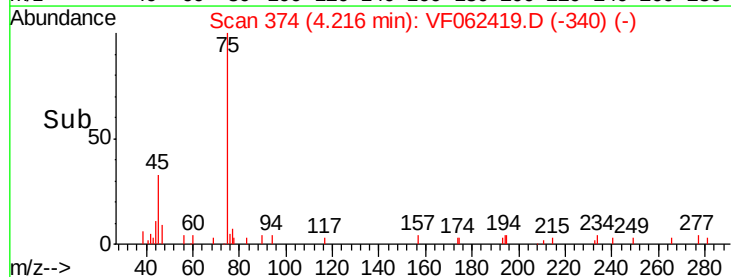
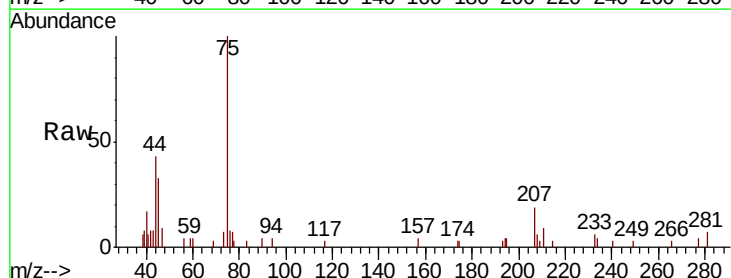
Instrument :  
MSVOA\_F  
ClientSampleId :  
OR-03-050719-ARE

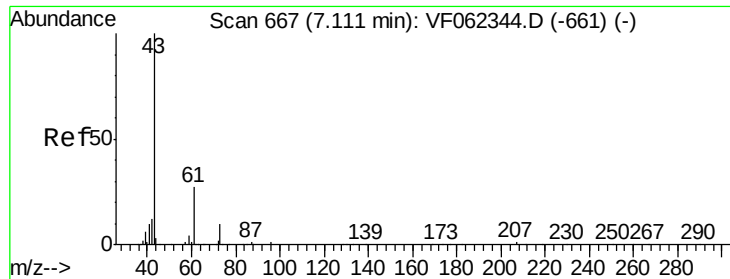
Tgt Ion: 43 Resp: 967  
Ion Ratio Lower Upper  
43 100  
61 12.6 0.0 0.0#  
70 10.4 8.2 12.2



#38  
Carbon Tetrachloride  
Concen: Below Cal  
RT: 4.22 min Scan# 374  
Delta R.T. 0.03 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

Tgt Ion: 117 Resp: 130  
Ion Ratio Lower Upper  
117 100  
119 0.0 73.4 110.2#  
121 0.0 27.4 41.0#





#43

Isopropyl Acetate

Concen: 1.464 ug/l

RT: 7.12 min Scan# 669

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-050719-ARE

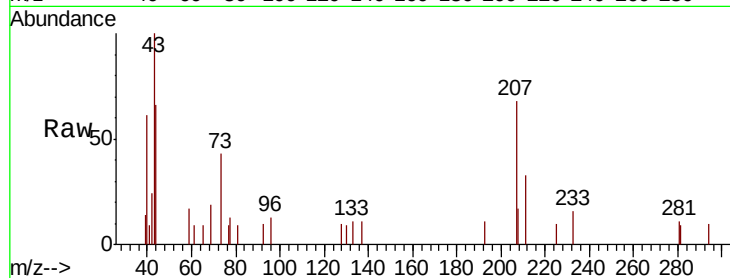
Tgt Ion: 43 Resp: 3151

Ion Ratio Lower Upper

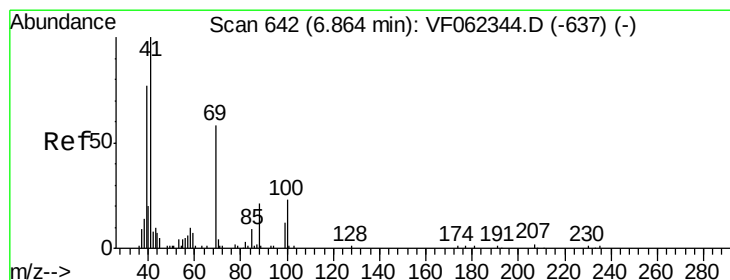
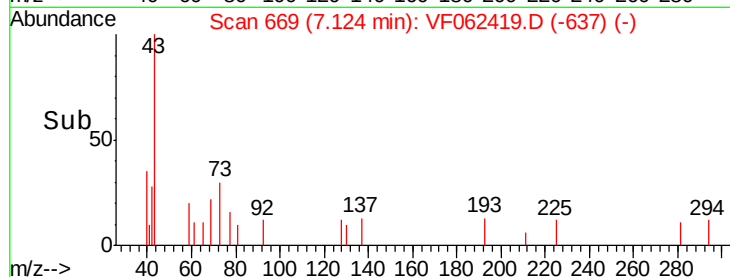
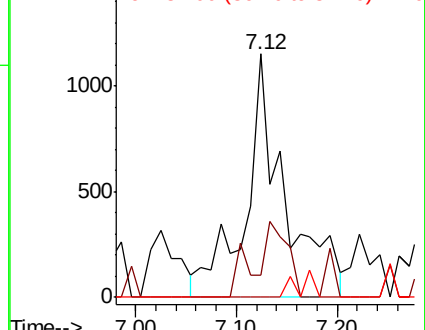
43 100

61 25.2 22.8 34.2

87 0.0 0.6 1.0#



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



#49

1,4-Dioxane

Concen: Below Cal

RT: 6.90 min Scan# 646

Delta R.T. 0.03 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

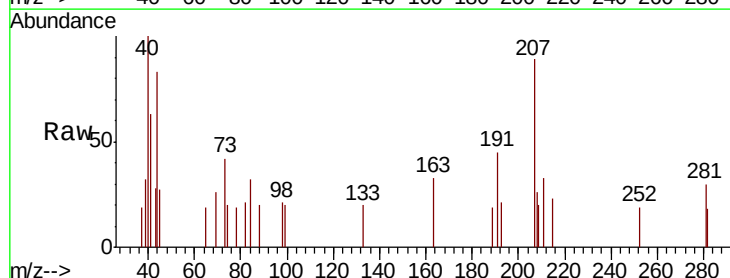
Tgt Ion: 88 Resp: 70

Ion Ratio Lower Upper

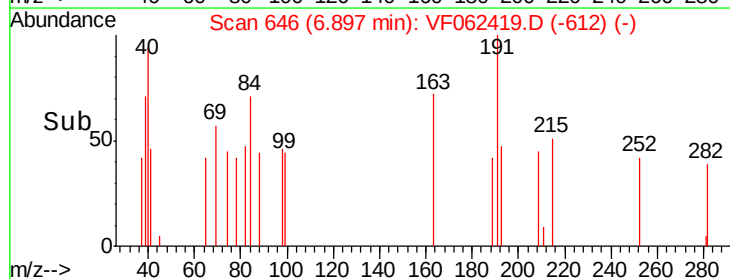
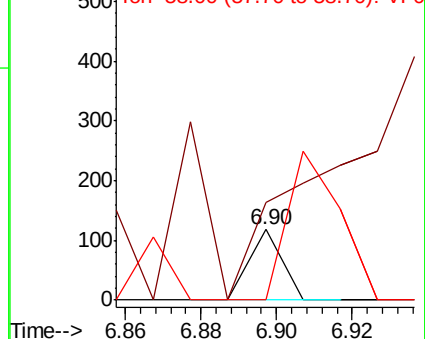
88 100

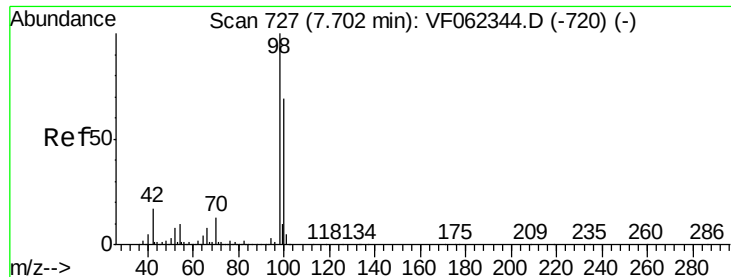
43 0.0 55.6 83.4#

58 340.0 52.8 79.2#



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

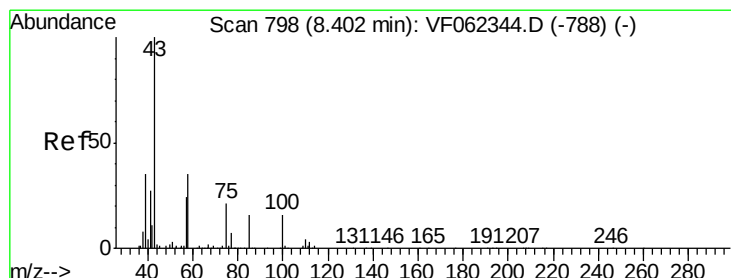
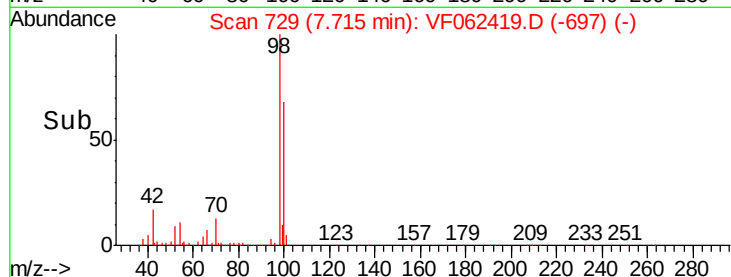
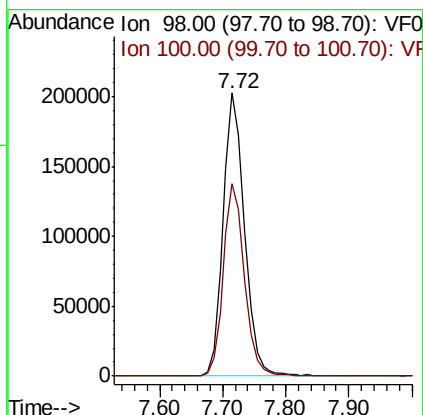
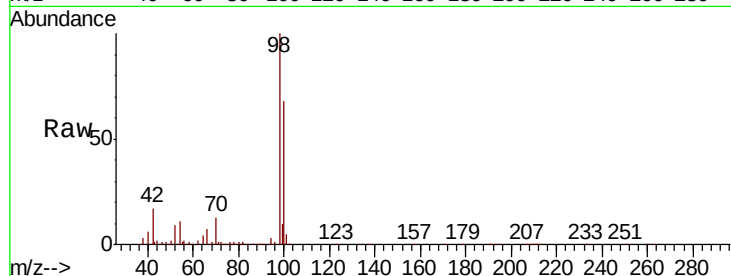




#50  
Toluene-d8  
Concen: 45.126 ug/l  
RT: 7.72 min Scan# 729  
Delta R.T. 0.01 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

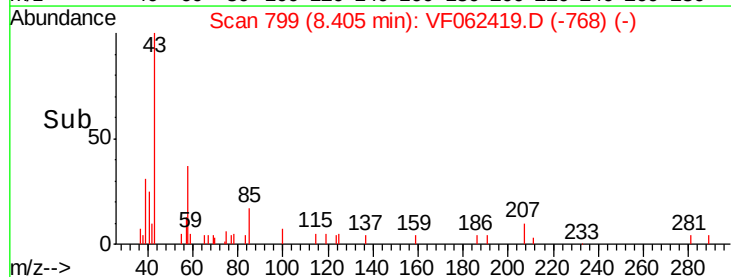
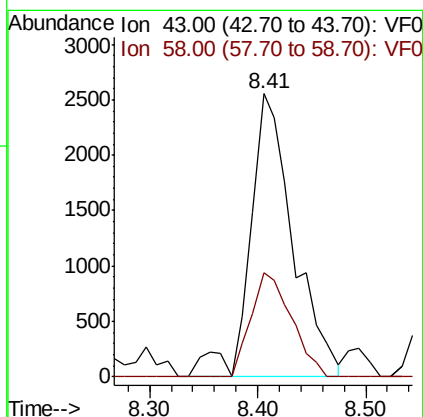
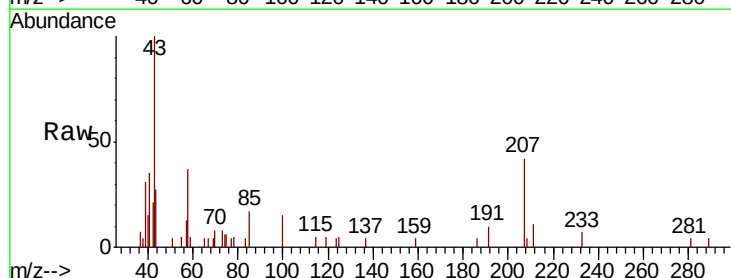
Instrument :  
MSVOA\_F  
ClientSampleId :  
OR-03-050719-ARE

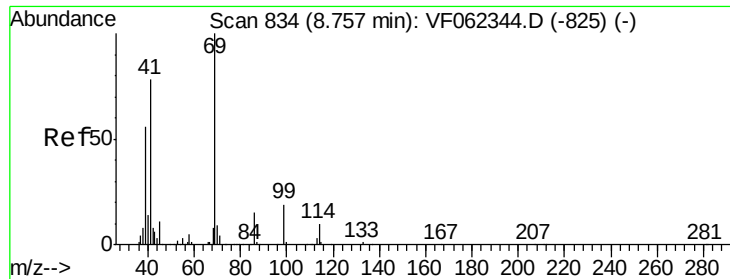
Tgt Ion: 98 Resp: 479385  
Ion Ratio Lower Upper  
98 100  
100 67.0 53.3 79.9



#51  
4-Methyl-2-Pentanone  
Concen: 4.351 ug/l  
RT: 8.41 min Scan# 799  
Delta R.T. 0.00 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

Tgt Ion: 43 Resp: 7097  
Ion Ratio Lower Upper  
43 100  
58 34.5 27.8 41.6





#56

Ethyl methacrylate

Concen: 1.198 ug/l

RT: 8.77 min Scan# 836

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-050719-ARE

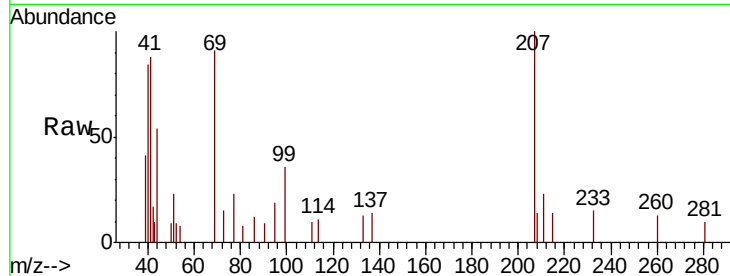
Tgt Ion: 69 Resp: 2580

Ion Ratio Lower Upper

69 100

41 101.3 66.3 99.5#

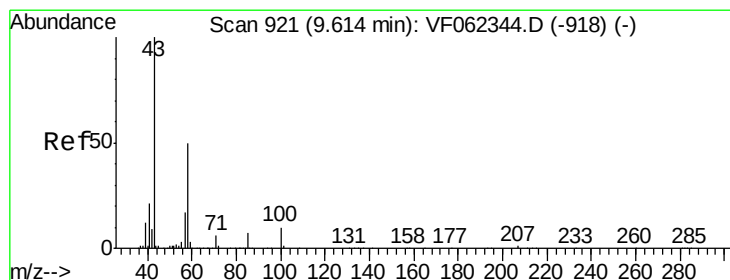
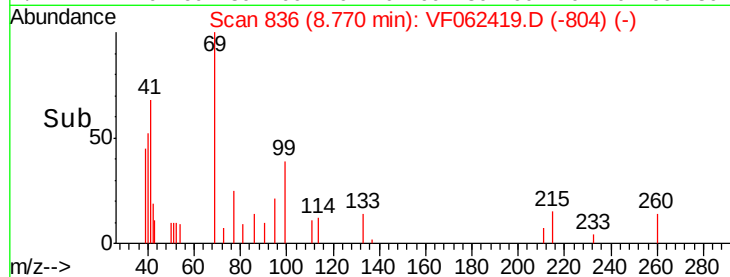
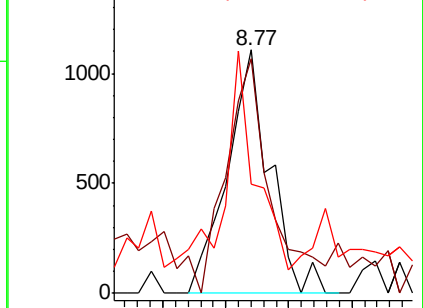
39 63.6 50.1 75.1



Abundance Ion 69.00 (68.70 to 69.70): VF0

Ion 41.00 (40.70 to 41.70): VF0

Ion 39.00 (38.70 to 39.70): VF0



#59

2-Hexanone

Concen: 7.521 ug/l

RT: 9.64 min Scan# 924

Delta R.T. 0.02 min

Lab File: VF062419.D

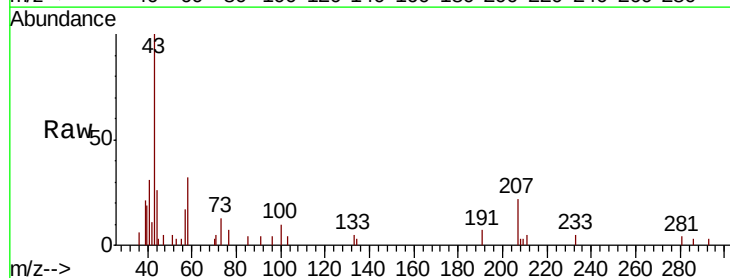
Acq: 10 May 2019 13:15

Tgt Ion: 43 Resp: 8483

Ion Ratio Lower Upper

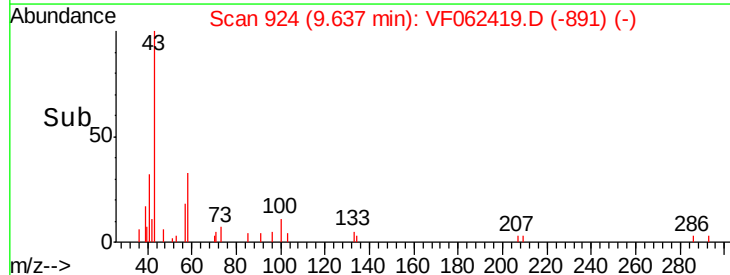
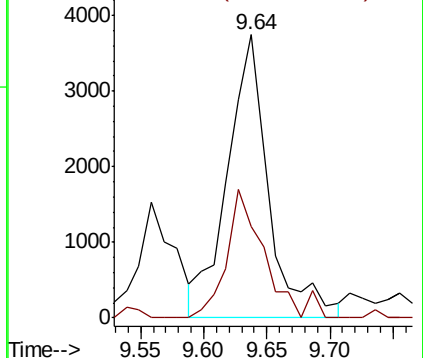
43 100

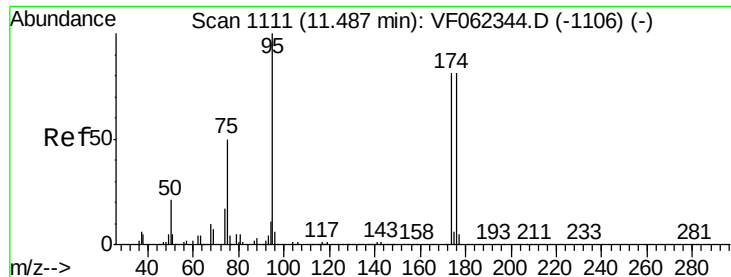
58 41.7 24.3 73.0



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 58.00 (57.70 to 58.70): VF0





#62

4-Bromofluorobenzene

Concen: 43.656 ug/l

RT: 11.50 min Scan# 1113

Delta R.T. 0.01 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-050719-ARE

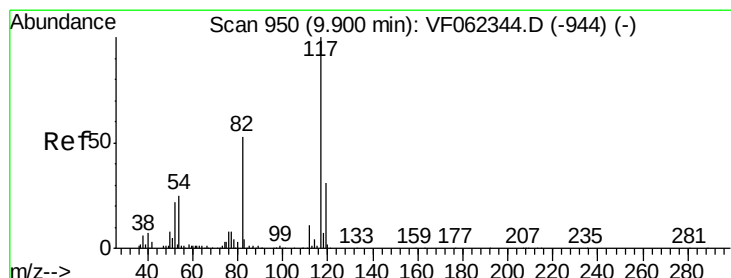
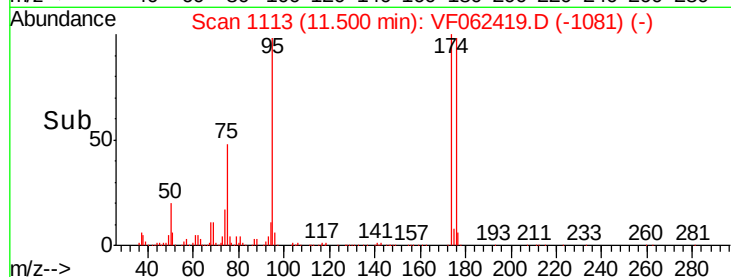
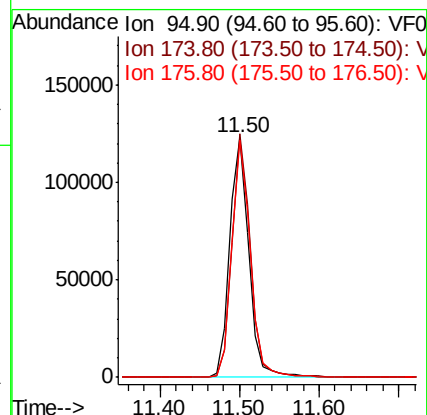
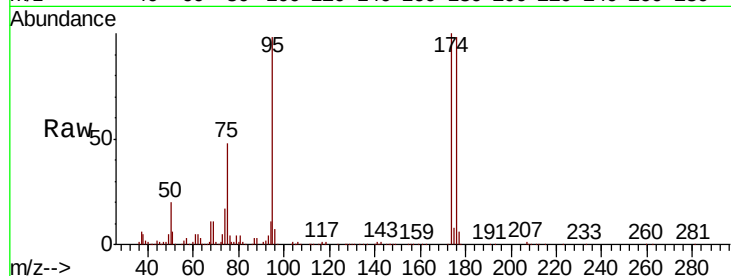
Tgt Ion: 95 Resp: 209235

Ion Ratio Lower Upper

95 100

174 97.8 0.0 191.8

176 96.4 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: VF062419.D

Acq: 10 May 2019 13:15

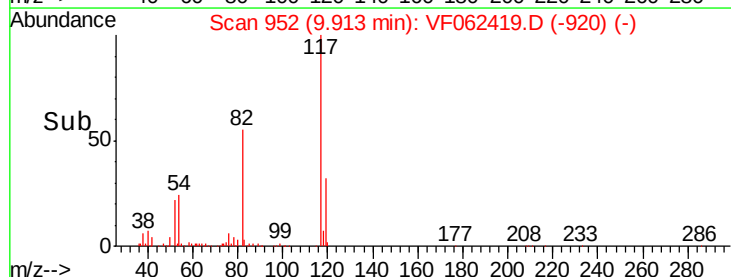
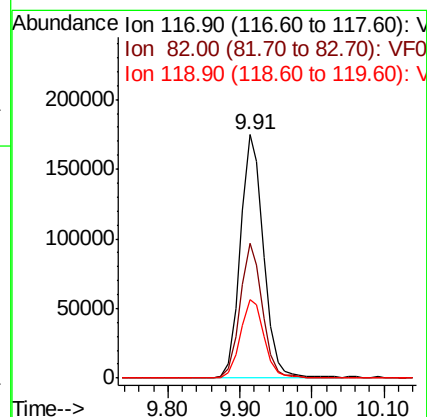
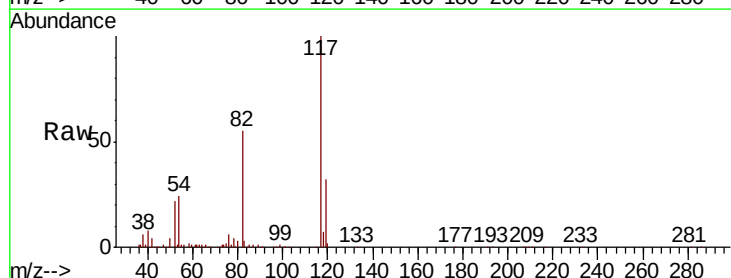
Tgt Ion: 117 Resp: 393400

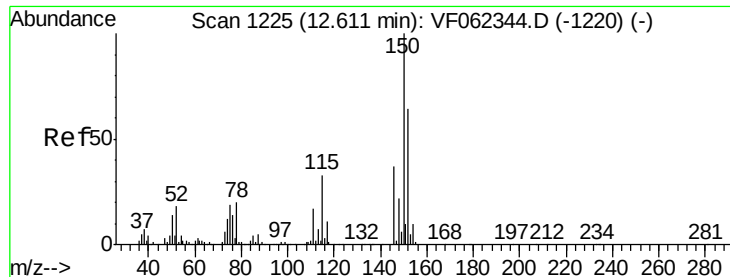
Ion Ratio Lower Upper

117 100

82 55.1 42.2 63.2

119 32.0 25.0 37.4



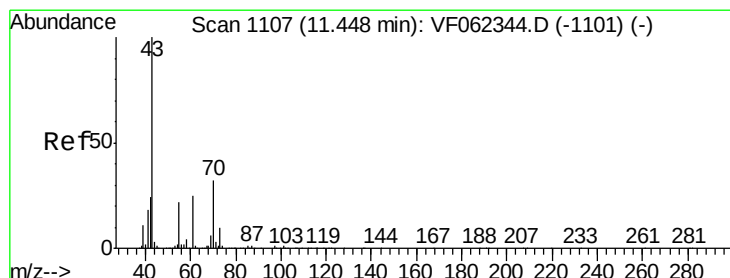
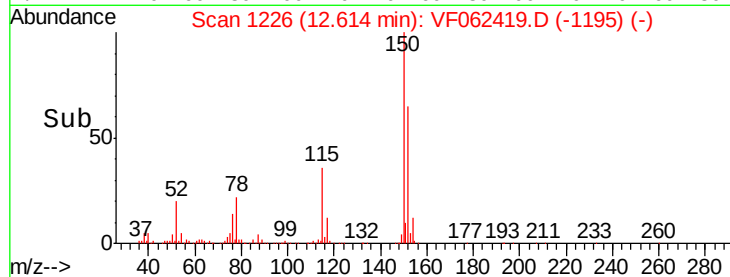
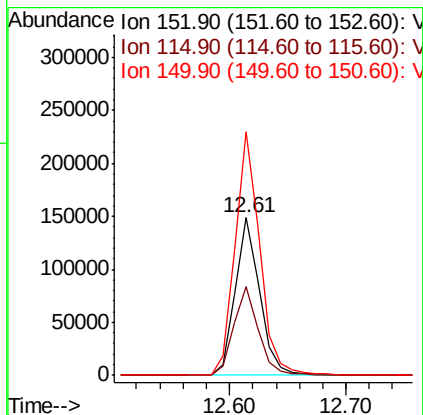
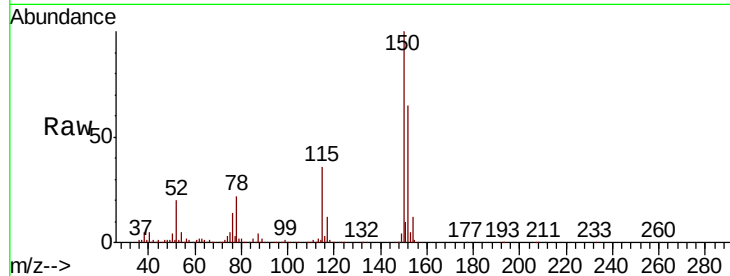


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 12.61 min Scan# 1226  
Delta R.T. 0.00 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

Instrument :  
MSVOA\_F  
ClientSampleId :  
OR-03-050719-ARE

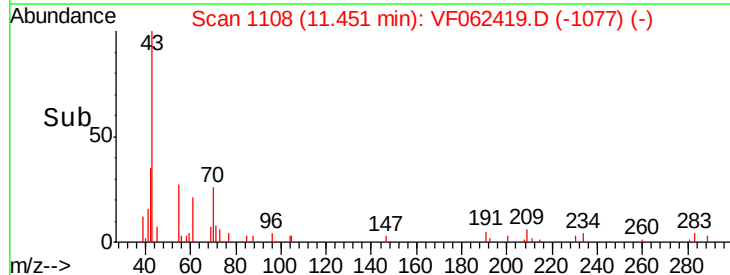
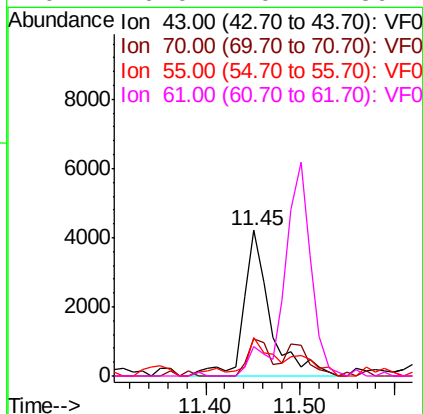
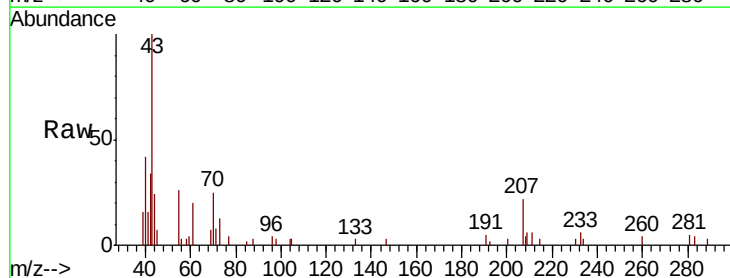
Tgt Ion: 152 Resp: 217301  
Ion Ratio Lower Upper  
152 100  
115 56.5 26.4 79.2  
150 155.9 0.0 335.0

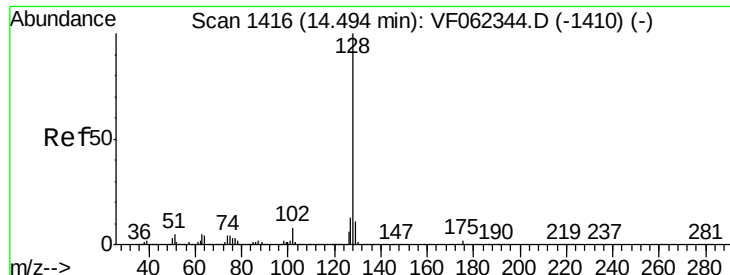


#74

N-ethyl acetate  
Concen: 2.936 ug/l  
RT: 11.45 min Scan# 1108  
Delta R.T. 0.00 min  
Lab File: VF062419.D  
Acq: 10 May 2019 13:15

Tgt Ion: 43 Resp: 8121  
Ion Ratio Lower Upper  
43 100  
70 19.7 26.5 39.7#  
55 17.7 17.8 26.6#  
61 0.0 20.2 30.2#





#95

Naphthalene

Concen: 1.509 ug/l

RT: 14.50 min Scan# 1417

Delta R.T. 0.00 min

Lab File: VF062419.D

Acq: 10 May 2019 13:15

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-050719-ARE

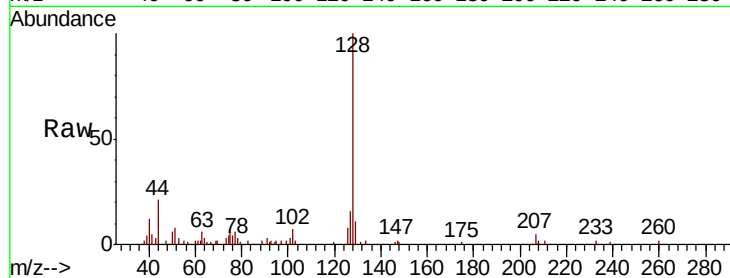
Tgt Ion:128 Resp: 12158

Ion Ratio Lower Upper

128 100

127 13.3 10.5 15.7

129 12.7 8.6 12.8



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

