

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_F\DATA\VF020819\  
 Data File : VF061574.D  
 Acq On : 8 Feb 2019 23:04  
 Operator : VA/AP  
 Sample : K1349-01RE  
 Misc : 7.82g/5mL/MSVOA-F/SOIL  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OR-03-020719-ARE

Quant Time: Feb 09 04:34:04 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_F\METHODS\82F011519S.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Jan 16 04:51:59 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 0.00  | 168  | 0        | 0.00  | ug/l  | -4.86    |
| 34) 1,4-Difluorobenzene    | 5.98  | 114  | 70       | 50.00 | ug/l  | 0.39     |
| 63) Chlorobenzene-d5       | 0.00  | 117  | 0        | 0.00  | ug/l  | -9.77    |
| 72) 1,4-Dichlorobenzene-d4 | 12.55 | 152  | 67       | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |      |       |  |
|-----------------------------|--------|-----|----------|------|-------|--|
| System Monitoring Compounds |        |     |          |      |       |  |
| 33) 1,2-Dichloroethane-d4   | 0.00   | 65  | 0        | 0.00 | ug/l  |  |
| Spiked Amount               | 50.000 |     | Recovery | =    | 0.00% |  |
| 35) Dibromofluoromethane    | 0.00   | 113 | 0        | 0.00 | ug/l  |  |
| Spiked Amount               | 50.000 |     | Recovery | =    | 0.00% |  |
| 50) Toluene-d8              | 0.00   | 98  | 0        | 0.00 | ug/l  |  |
| Spiked Amount               | 50.000 |     | Recovery | =    | 0.00% |  |
| 62) 4-Bromofluorobenzene    | 0.00   | 95  | 0        | 0.00 | ug/l  |  |
| Spiked Amount               | 50.000 |     | Recovery | =    | 0.00% |  |

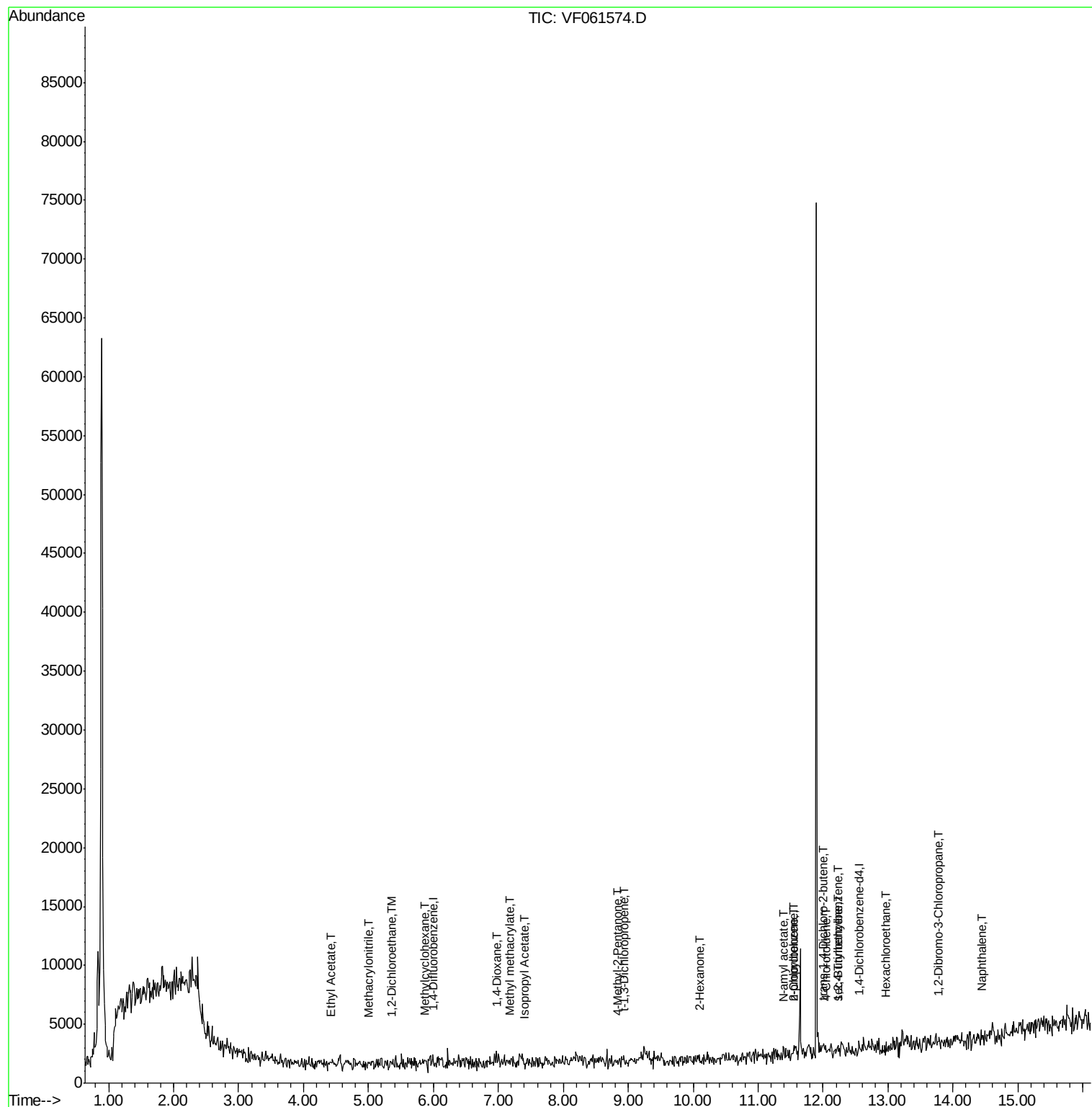
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 37) Ethyl Acetate              | 4.41  | 43   | 210      | 647.291   | ug/l # | 5      |
| 39) Methylcyclohexane          | 5.87  | 83   | 94       | 106.872   | ug/l # | 15     |
| 41) Methacrylonitrile          | 5.01  | 41   | 70       | 405.491   | ug/l # | 29     |
| 42) 1,2-Dichloroethane         | 5.35  | 62   | 60       | 93.233    | ug/l   | 76     |
| 43) Isopropyl Acetate          | 7.40  | 43   | 68       | 167.002   | ug/l # | 51     |
| 48) Methyl methacrylate        | 7.16  | 41   | 218      | 797.298   | ug/l # | 19     |
| 49) 1,4-Dioxane                | 6.97  | 88   | 68       | 38210.906 | ug/l # | 13     |
| 51) 4-Methyl-2-Pentanone       | 8.83  | 43   | 72       | 240.527   | ug/l # | 39     |
| 53) t-1,3-Dichloropropene      | 8.92  | 75   | 73       | 117.894   | ug/l # | 44     |
| 59) 2-Hexanone                 | 10.10 | 43   | 236      | 1130.607  | ug/l # | 26     |
| 74) N-amyl acetate             | 11.39 | 43   | 165      | 128.051   | ug/l # | 47     |
| 78) n-propylbenzene            | 11.55 | 91   | 69       | 9.602     | ug/l # | 54     |
| 79) 2-Chlorotoluene            | 11.55 | 91   | 69       | 18.250    | ug/l # | 45     |
| 81) trans-1,4-Dichloro-2-buten | 11.99 | 75   | 71       | 234.147   | ug/l # | 19     |
| 82) 4-Chlorotoluene            | 12.03 | 91   | 72       | 18.871    | ug/l # | 43     |
| 84) 1,2,4-Trimethylbenzene     | 12.22 | 105  | 60       | 13.246    | ug/l # | 28     |
| 85) sec-Butylbenzene           | 12.22 | 105  | 60       | 9.707     | ug/l # | 56     |
| 90) Hexachloroethane           | 12.98 | 117  | 88       | 73.572    | ug/l # | 22     |
| 92) 1,2-Dibromo-3-Chloropropan | 13.77 | 75   | 138      | 801.471   | ug/l # | 1      |
| 95) Naphthalene                | 14.45 | 128  | 86       | 30.014    | ug/l # | 71     |

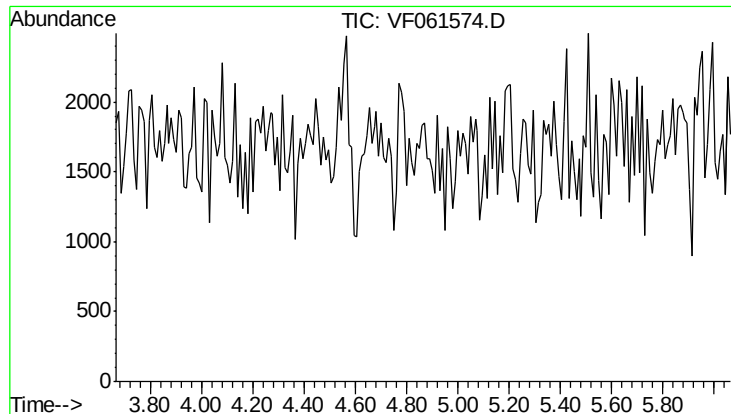
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Wed Jan 16 04:51:59 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 0.000 ug/l

Expected RT: 4.86 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Tgt Ion: 168

Sig Exp Ratio

168 100

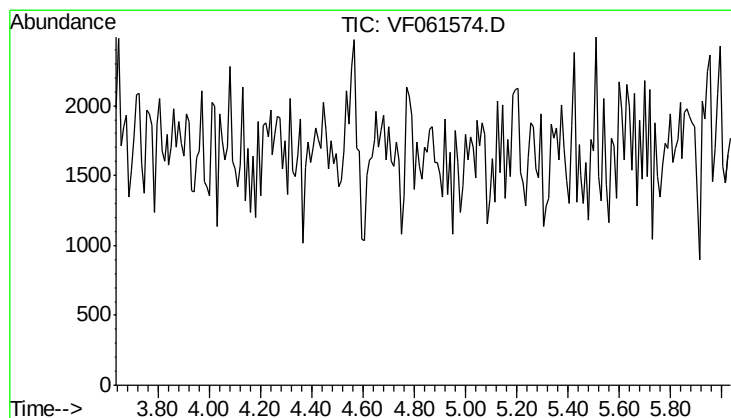
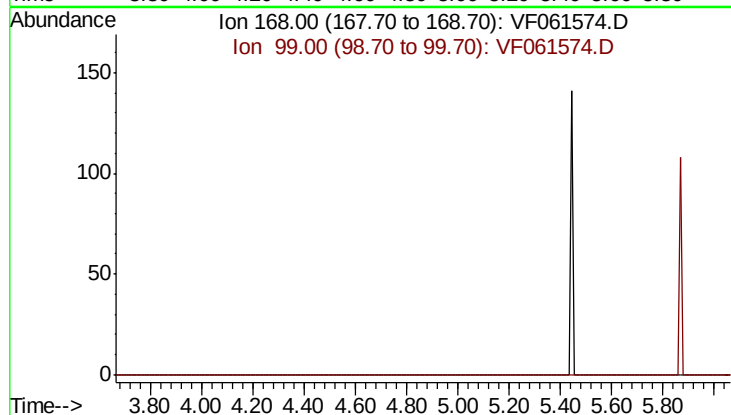
99 66.9

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-020719-ARE



#33

1,2-Dichloroethane-d4

Concen: 0.000 ug/l

Expected RT: 4.83 min

Lab File: VF061574.D

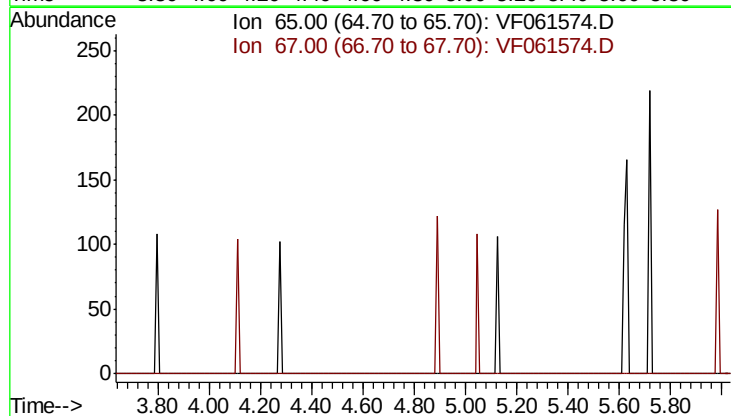
Acq: 8 Feb 2019 23:04

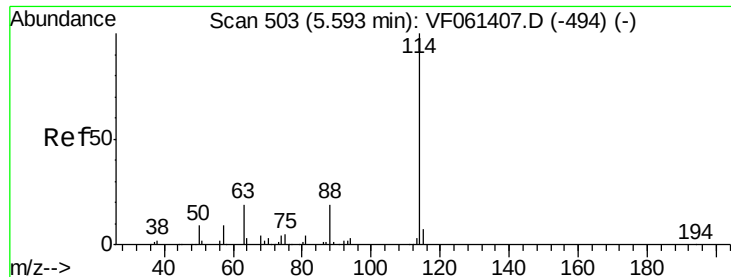
Tgt Ion: 65

Sig Exp Ratio

65 100

67 49.9

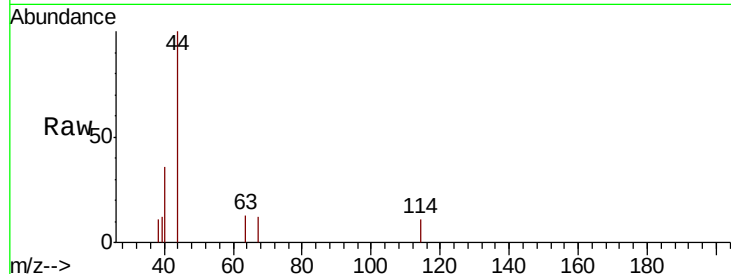




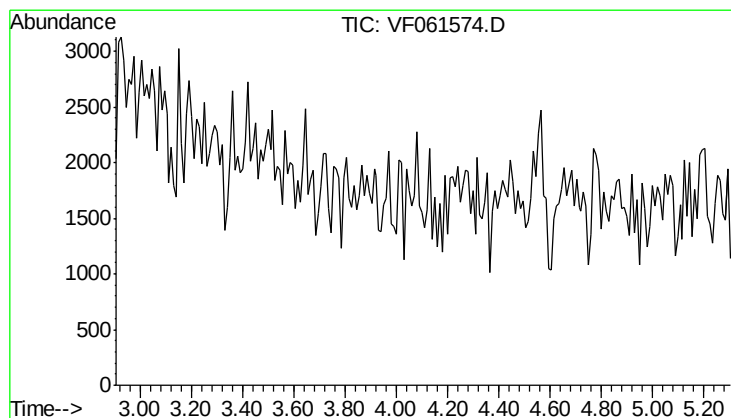
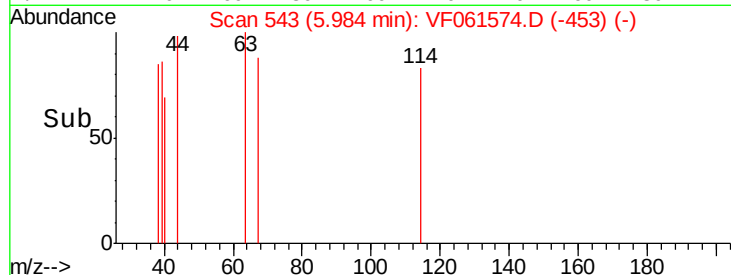
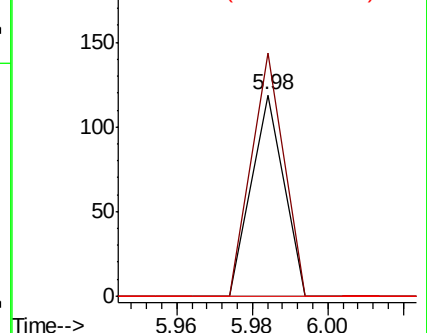
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.98 min Scan# 543  
 Delta R.T. 0.39 min  
 Lab File: VF061574.D  
 Acq: 8 Feb 2019 23:04

Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OR-03-020719-ARE

Tgt Ion: 114 Resp: 70  
 Ion Ratio Lower Upper  
 114 100  
 63 121.0 0.0 39.0#  
 88 0.0 0.0 37.4



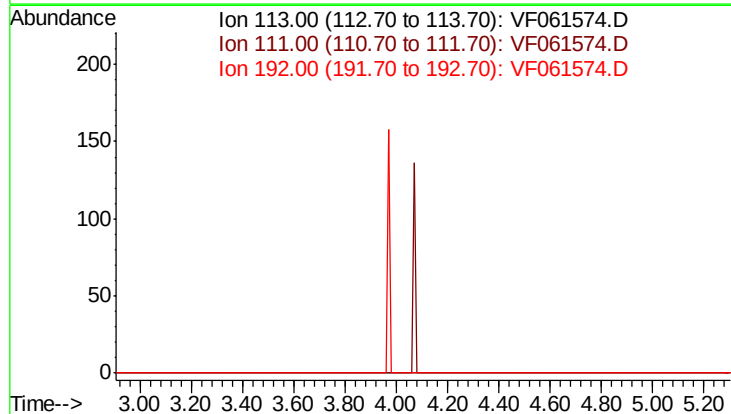
Abundance Ion 114.00 (113.70 to 114.70): V  
 Ion 63.00 (62.70 to 63.70): VF0  
 Ion 88.00 (87.70 to 88.70): VF0

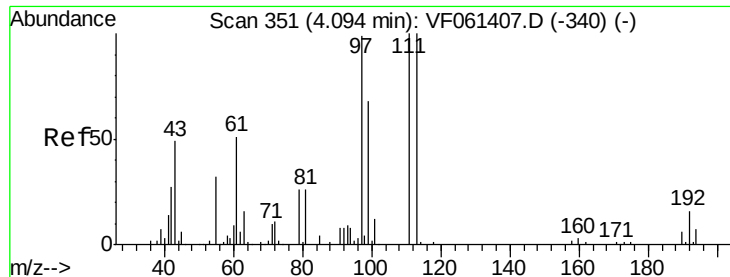


#35  
 Dibromofluoromethane  
 Concen: 0.000 ug/l  
 Expected RT: 4.10 min

Lab File: VF061574.D  
 Acq: 8 Feb 2019 23:04

Tgt Ion: 113  
 Sig Exp Ratio  
 113 100  
 111 99.2  
 192 15.5





#37

Ethyl Acetate

Concen: 647.291 ug/l

RT: 4.41 min Scan# 383

Delta R.T. 0.31 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-020719-ARE

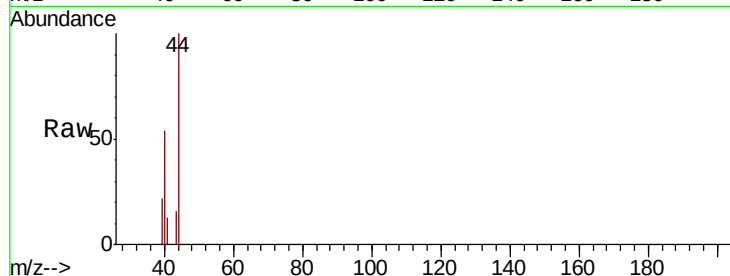
Tgt Ion: 43 Resp: 210

Ion Ratio Lower Upper

43 100

61 0.0 81.7 122.5#

70 0.0 6.2 9.2#



Abundance Ion 43.00 (42.70 to 43.70): VF0

Ion 61.00 (60.70 to 61.70): VF0

Ion 70.00 (69.70 to 70.70): VF0

300

250

200

150

100

50

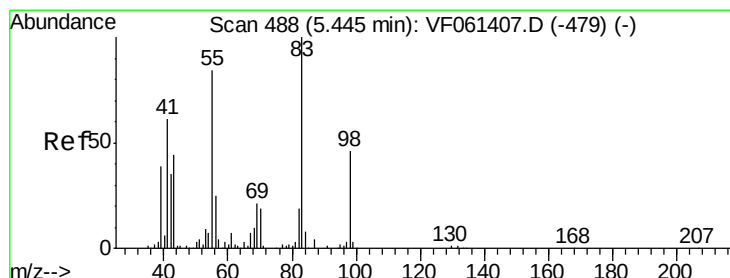
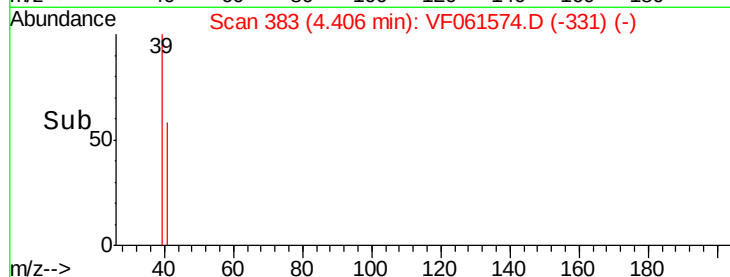
0

4.35

4.40

4.41

Time-->



#39

Methylcyclohexane

Concen: 106.872 ug/l

RT: 5.87 min Scan# 531

Delta R.T. 0.42 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

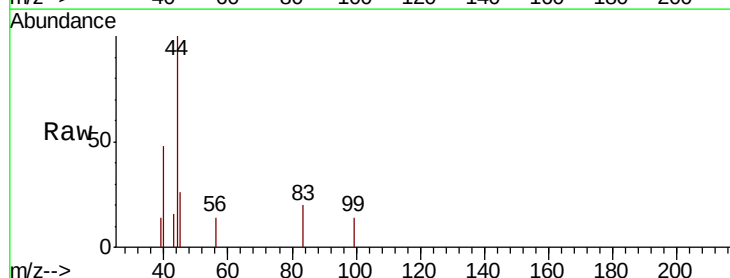
Tgt Ion: 83 Resp: 94

Ion Ratio Lower Upper

83 100

55 0.0 67.4 101.2#

98 0.0 36.7 55.1#



Abundance Ion 83.00 (82.70 to 83.70): VF0

Ion 55.00 (54.70 to 55.70): VF0

Ion 98.00 (97.70 to 98.70): VF0

200

150

100

50

0

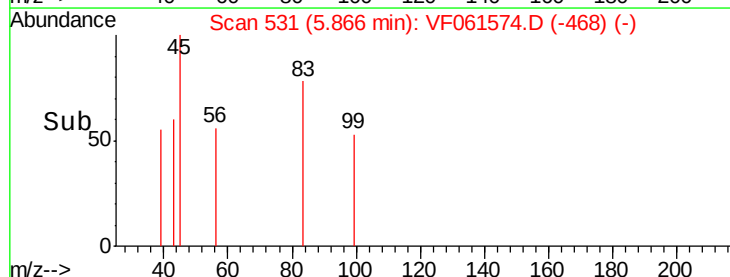
5.84

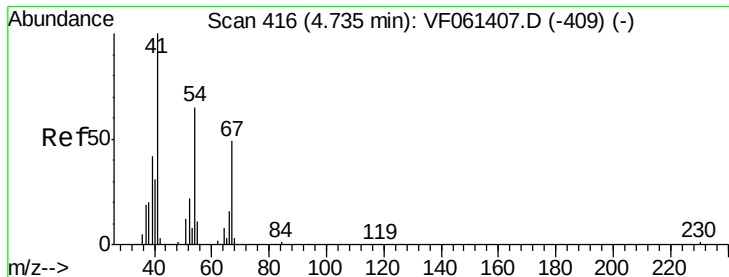
5.86

5.87

5.88

Time-->

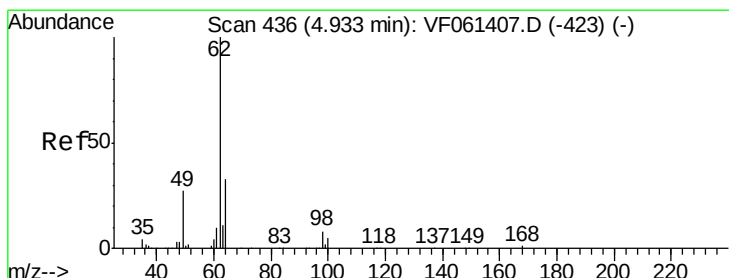
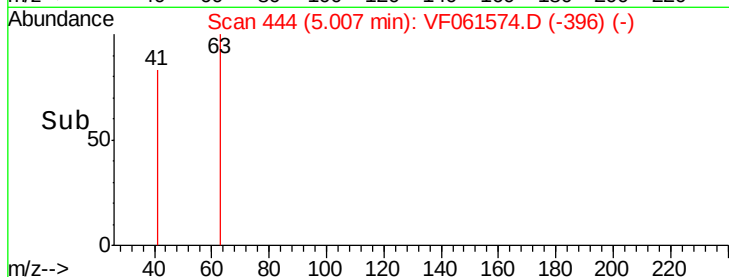
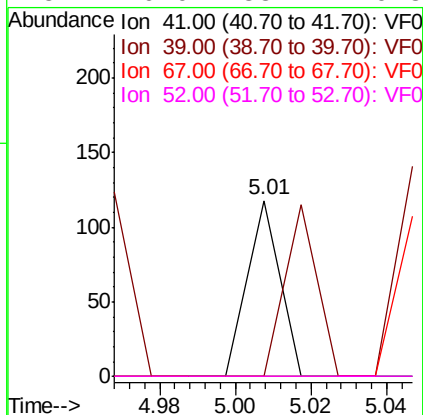
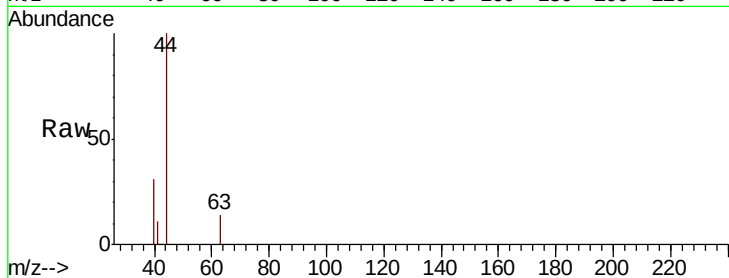




#41  
Methacrylonitrile  
Concen: 405.491 ug/l  
RT: 5.01 min Scan# 444  
Delta R.T. 0.27 min  
Lab File: VF061574.D  
Acq: 8 Feb 2019 23:04

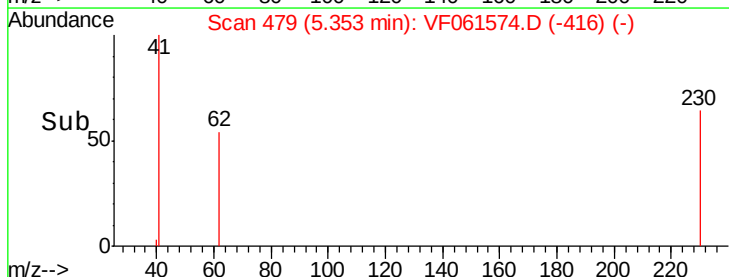
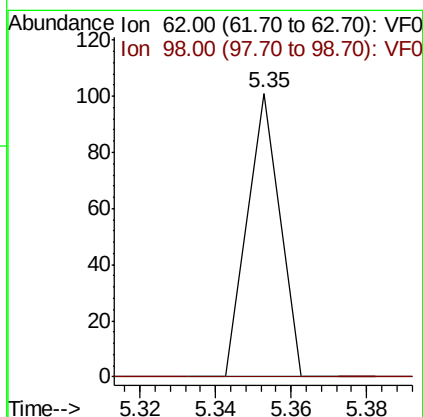
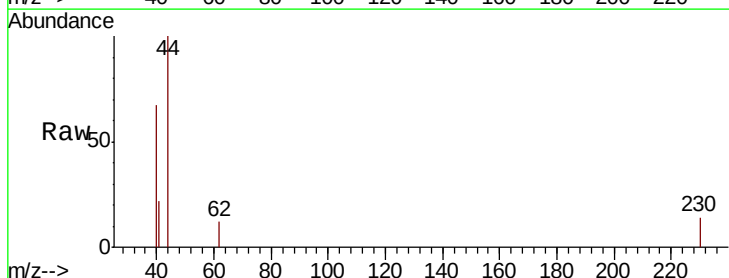
Instrument :  
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ClientSampleId :  
OR-03-020719-ARE

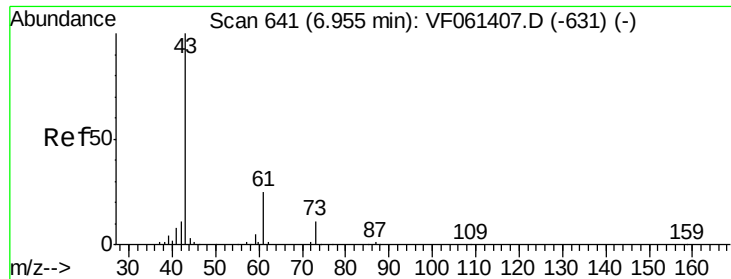
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 70    |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 0.0   | 43.1  | 64.7# |
| 67       | 0.0   | 38.8  | 58.2# |
| 52       | 0.0   | 33.2  | 49.8# |



#42  
1,2-Dichloroethane  
Concen: 93.233 ug/l  
RT: 5.35 min Scan# 479  
Delta R.T. 0.42 min  
Lab File: VF061574.D  
Acq: 8 Feb 2019 23:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 62    | Resp: | 60    |
| Ion      | Ratio | Lower | Upper |
| 62       | 100   |       |       |
| 98       | 0.0   | 0.0   | 17.0  |





#43

Isopropyl Acetate

Concen: 167.002 ug/l

RT: 7.40 min Scan# 687

Delta R.T. 0.45 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-020719-ARE

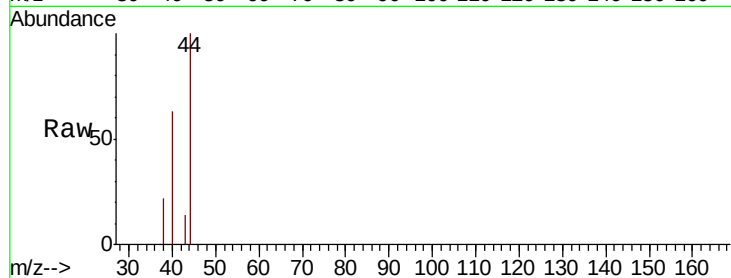
Tgt Ion: 43 Resp: 68

Ion Ratio Lower Upper

43 100

61 0.0 20.3 30.5#

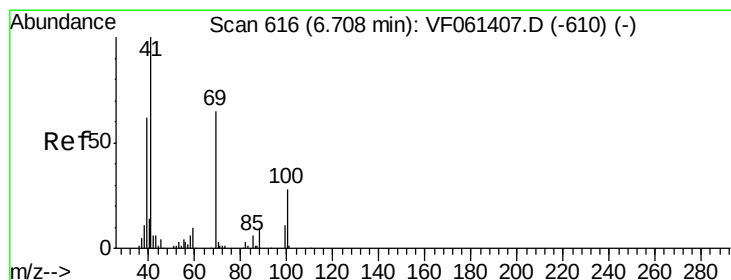
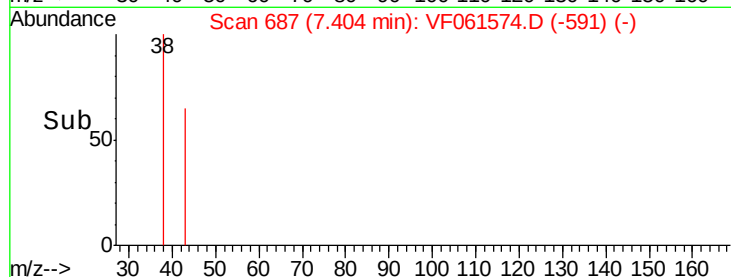
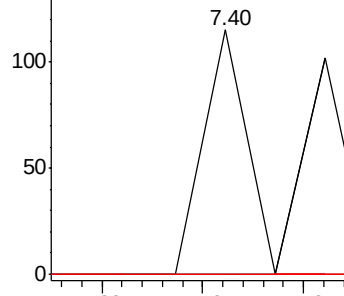
87 0.0 0.5 0.7#



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



#48

Methyl methacrylate

Concen: 797.298 ug/l

RT: 7.16 min Scan# 662

Delta R.T. 0.45 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

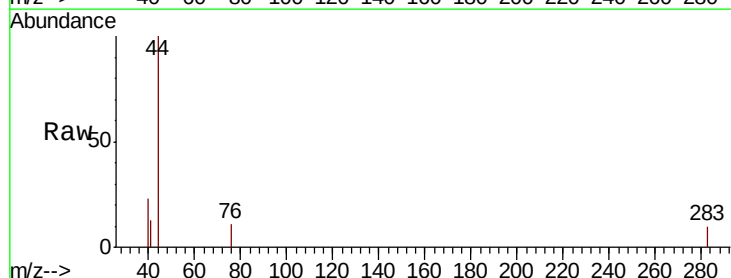
Tgt Ion: 41 Resp: 218

Ion Ratio Lower Upper

41 100

69 0.0 51.7 77.5#

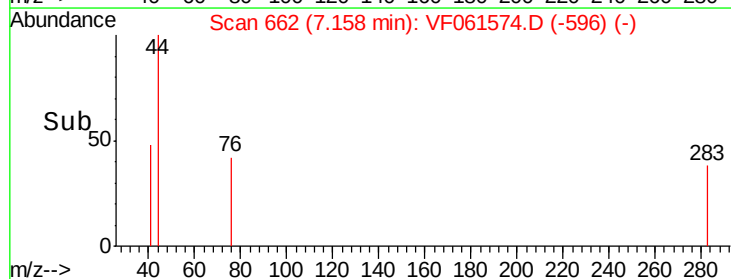
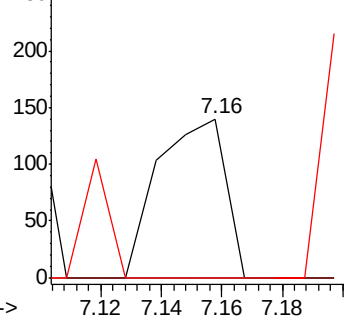
39 0.0 49.2 73.8#

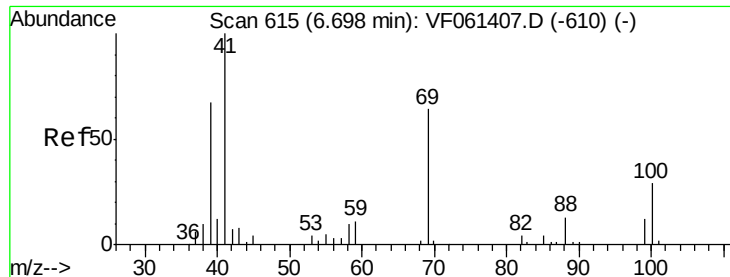


Abundance Ion 41.00 (40.70 to 41.70): VF0

Ion 69.00 (68.70 to 69.70): VF0

Ion 39.00 (38.70 to 39.70): VF0





#49

1,4-Dioxane

Concen: 38210.906 ug/l

RT: 6.97 min Scan# 643

Delta R.T. 0.27 min

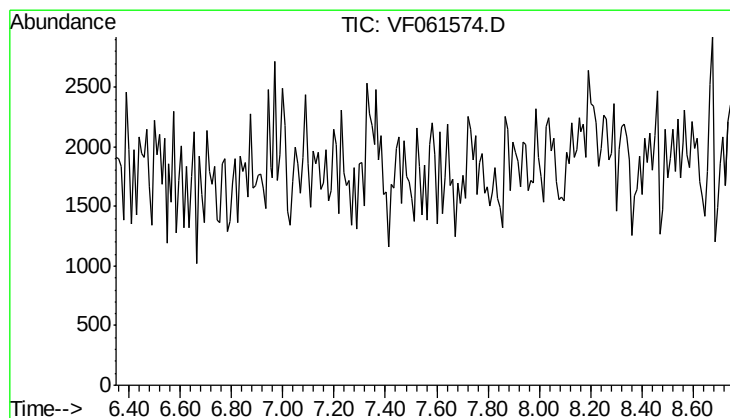
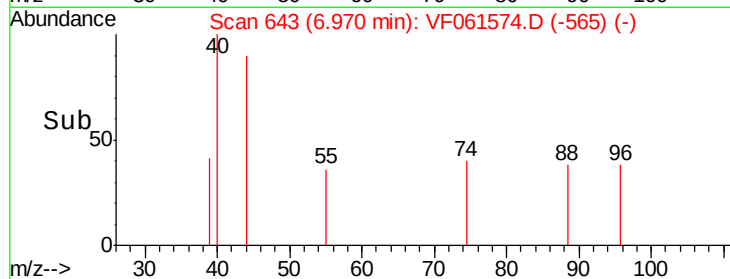
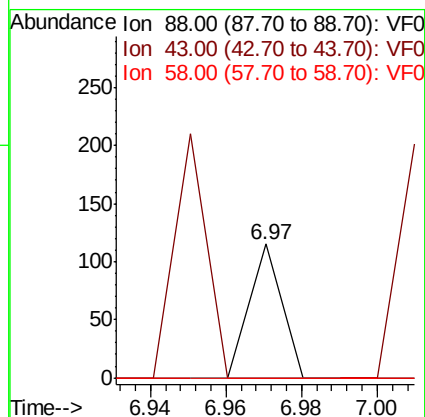
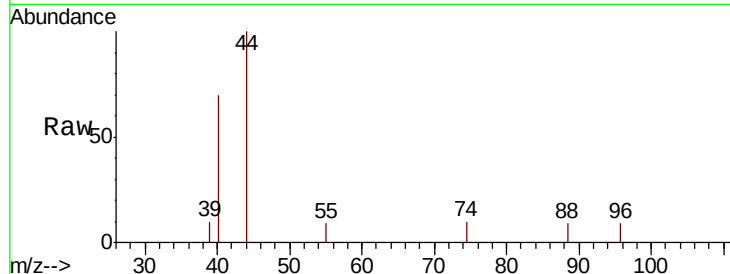
Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

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Tgt Ion: 88 Resp: 68

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 88  | 100   |       |       |
| 43  | 0.0   | 55.5  | 83.3# |
| 58  | 0.0   | 59.9  | 89.9# |



#50

Toluene-d8

Concen: 0.000 ug/l

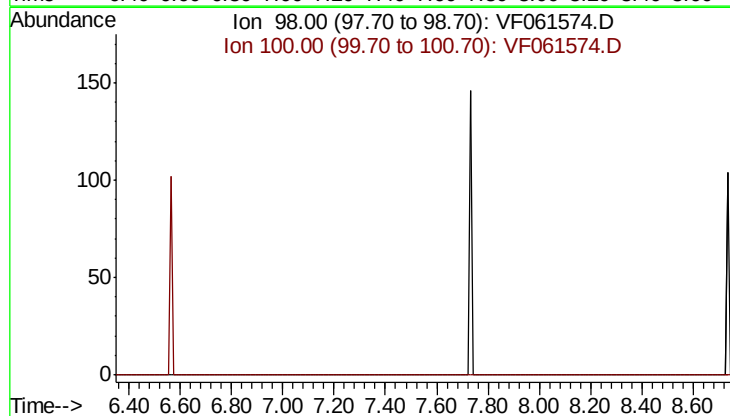
Expected RT: 7.55 min

Lab File: VF061574.D

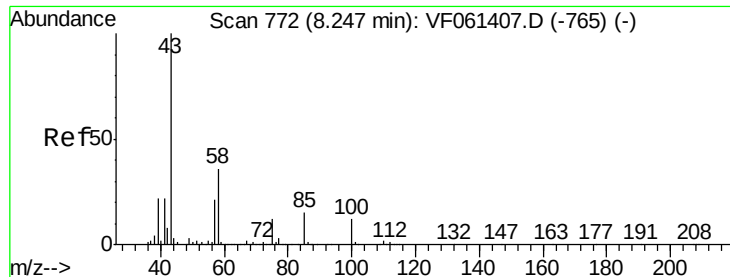
Acq: 8 Feb 2019 23:04

Tgt Ion: 98

| Sig | Exp Ratio |
|-----|-----------|
| 98  | 100       |
| 100 | 69.5      |



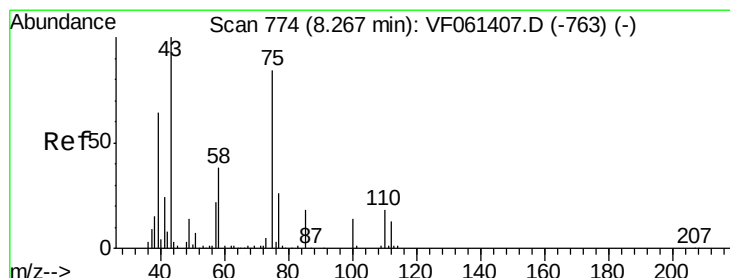
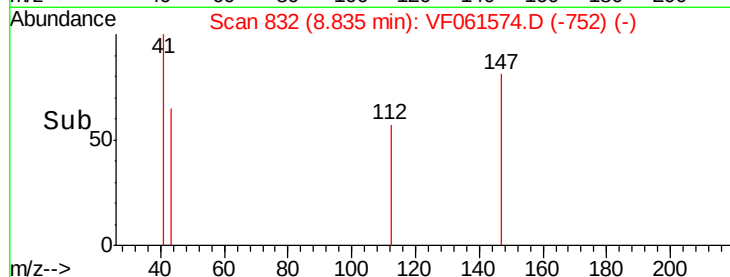
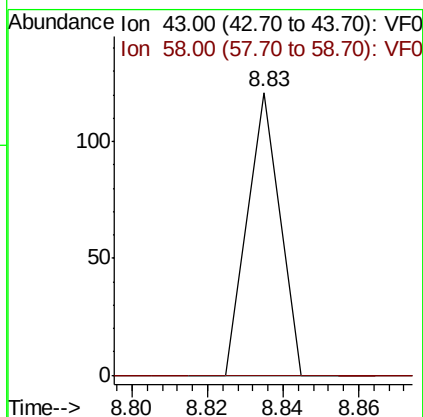
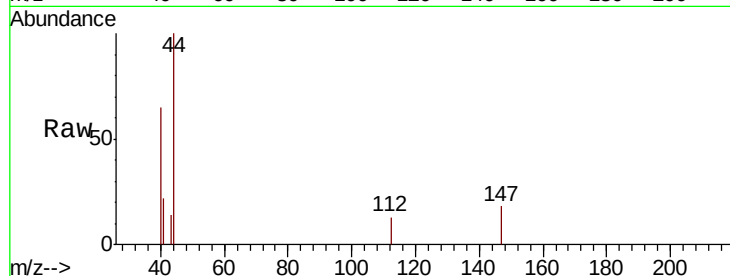




#51  
4-Methyl-2-Pentanone  
Concen: 240.527 ug/l  
RT: 8.83 min Scan# 832  
Delta R.T. 0.59 min  
Lab File: VF061574.D  
Acq: 8 Feb 2019 23:04

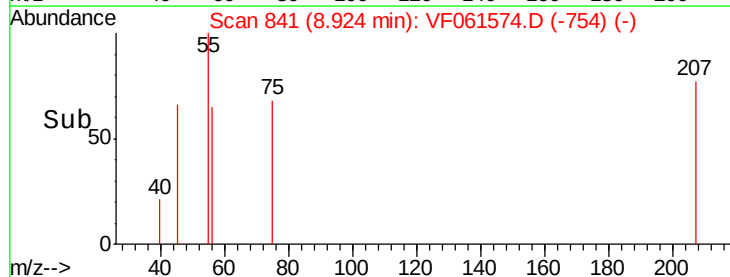
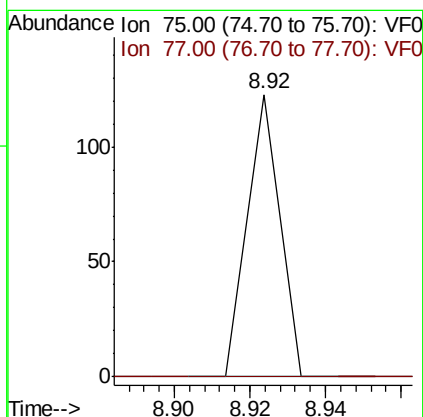
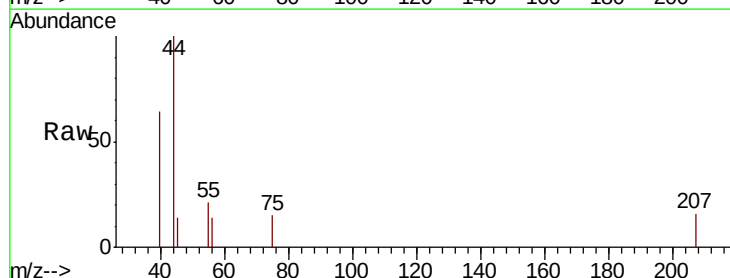
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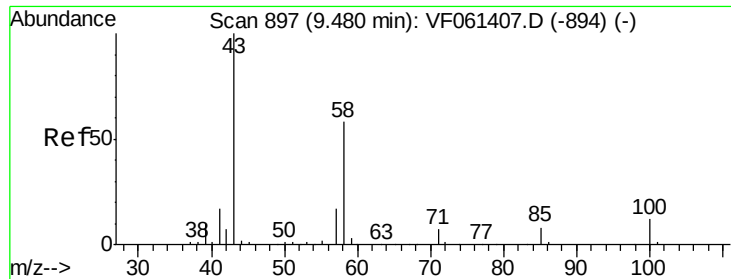
Tgt Ion: 43 Resp: 72  
Ion Ratio Lower Upper  
43 100  
58 0.0 28.8 43.2#



#53  
t-1,3-Dichloropropene  
Concen: 117.894 ug/l  
RT: 8.92 min Scan# 841  
Delta R.T. 0.66 min  
Lab File: VF061574.D  
Acq: 8 Feb 2019 23:04

Tgt Ion: 75 Resp: 73  
Ion Ratio Lower Upper  
75 100  
77 0.0 24.4 36.6#

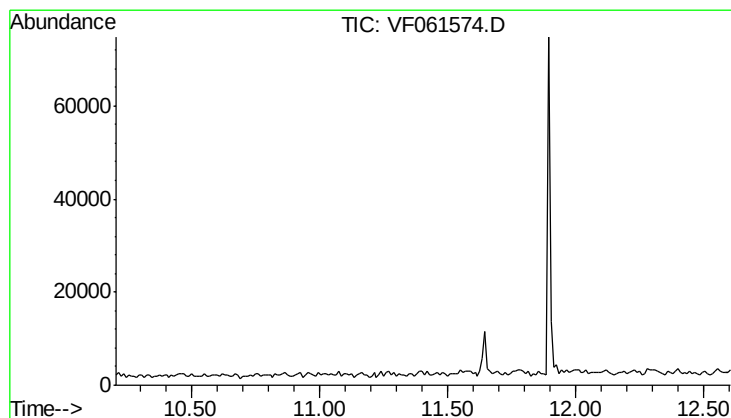
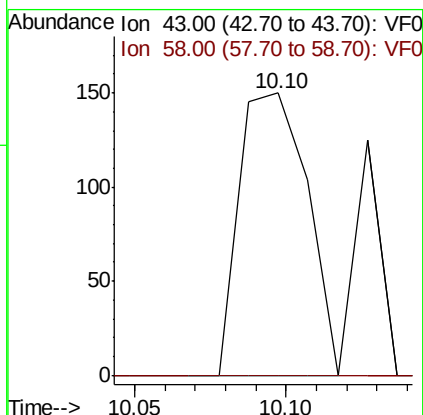
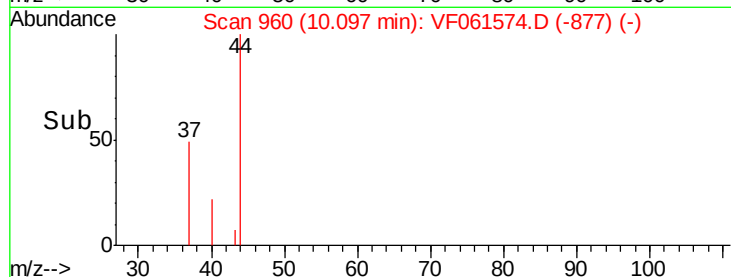
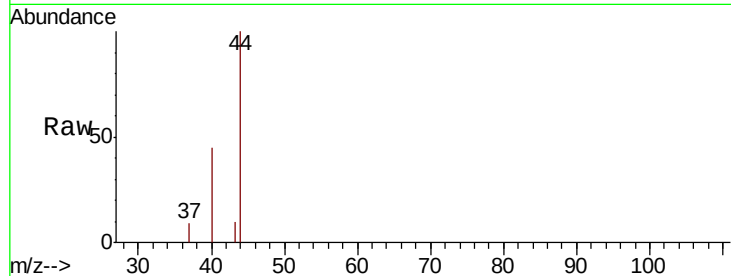




#59  
2-Hexanone  
Concen: 1130.607 ug/l  
RT: 10.10 min Scan# 960  
Delta R.T. 0.62 min  
Lab File: VF061574.D  
Acq: 8 Feb 2019 23:04

Instrument :  
MSVOA\_F  
ClientSampleId :  
OR-03-020719-ARE

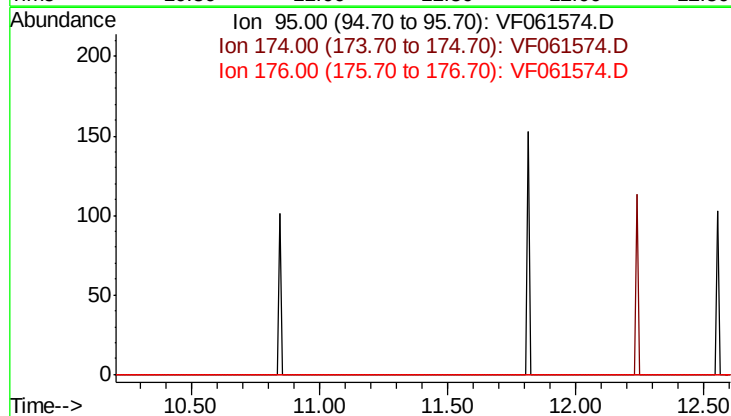
Tgt Ion: 43 Resp: 236  
Ion Ratio Lower Upper  
43 100  
58 0.0 25.9 77.6#

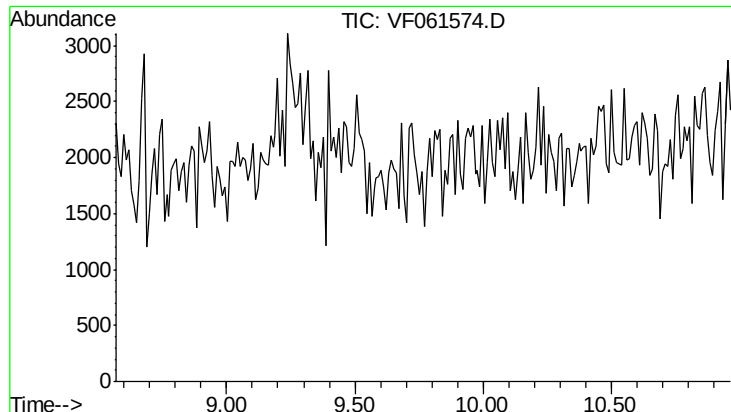


#62  
4-Bromofluorobenzene  
Concen: 0.000 ug/l  
Expected RT: 11.40 min

Lab File: VF061574.D  
Acq: 8 Feb 2019 23:04

Tgt Ion: 95  
Sig Exp Ratio  
95 100  
174 65.2  
176 63.1

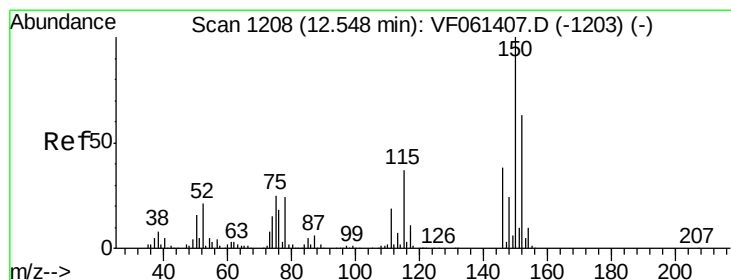
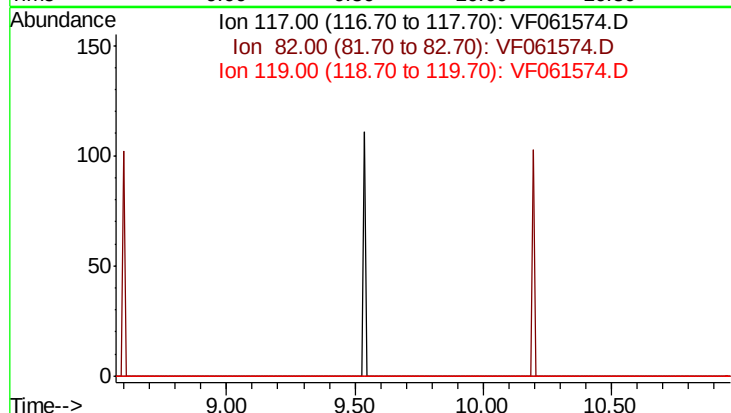




#63  
 Chlorobenzene-d5  
 Concen: 0.000 ug/l  
 Expected RT: 9.77 min  
 Lab File: VF061574.D  
 Acq: 8 Feb 2019 23:04

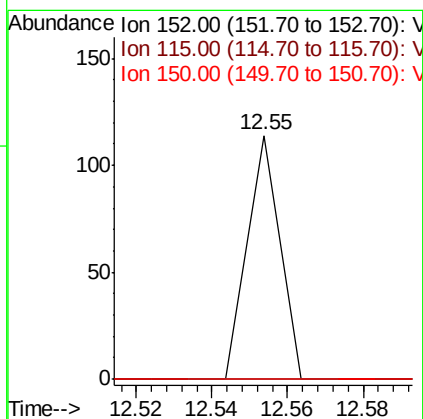
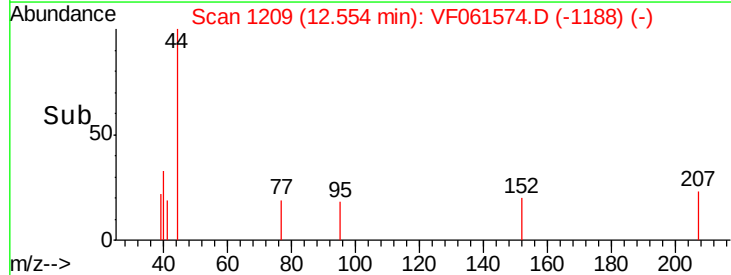
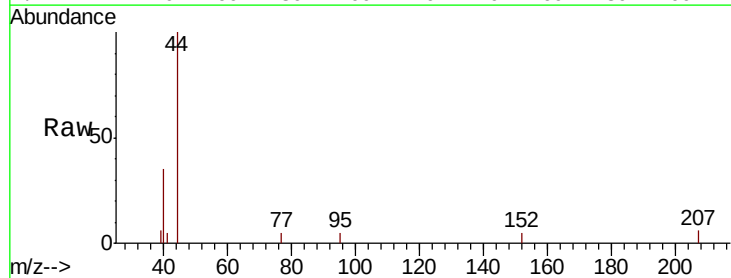
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OR-03-020719-ARE

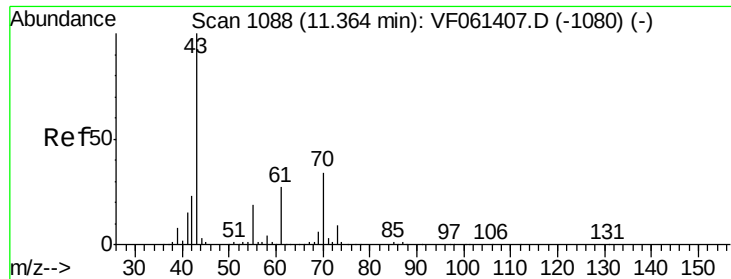
Tgt Ion: 117  
 Sig Exp Ratio  
 117 100  
 82 58.0  
 119 34.0



#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 12.55 min Scan# 1209  
 Delta R.T. 0.01 min  
 Lab File: VF061574.D  
 Acq: 8 Feb 2019 23:04

Tgt Ion: 152 Resp: 67  
 Ion Ratio Lower Upper  
 152 100  
 115 0.0 30.0 90.0#  
 150 0.0 0.0 321.4





#74

N-amyl acetate

Concen: 128.051 ug/l

RT: 11.39 min Scan# 1091

Delta R.T. 0.03 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-020719-ARE

Tgt Ion: 43 Resp: 165

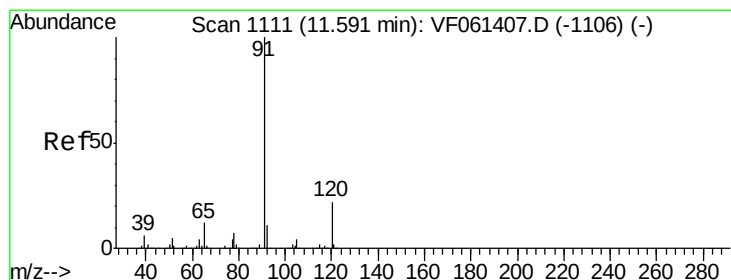
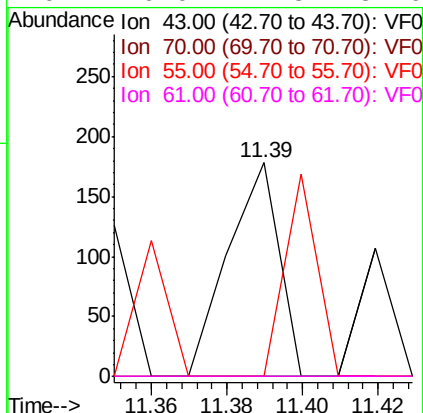
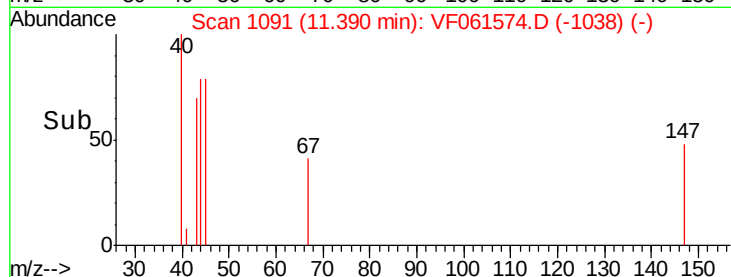
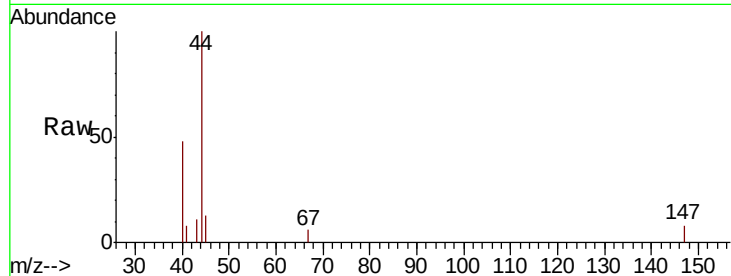
Ion Ratio Lower Upper

43 100

70 0.0 27.6 41.4#

55 0.0 15.4 23.2#

61 0.0 21.8 32.6#



#78

n-propylbenzene

Concen: 9.602 ug/l

RT: 11.55 min Scan# 1107

Delta R.T. -0.04 min

Lab File: VF061574.D

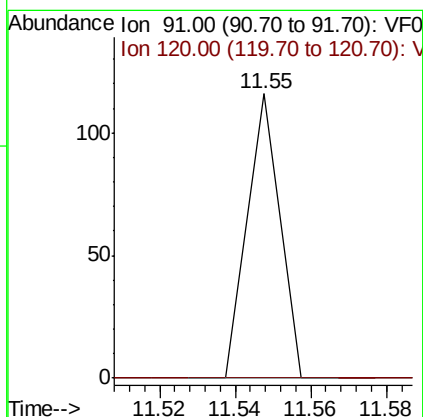
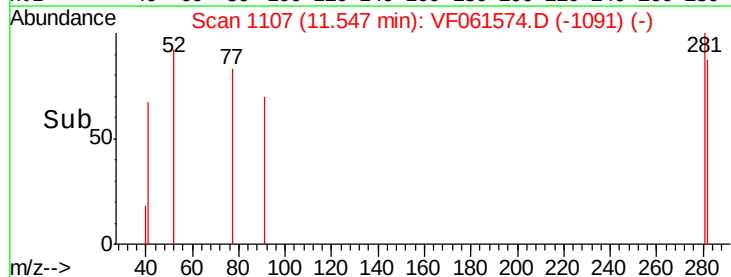
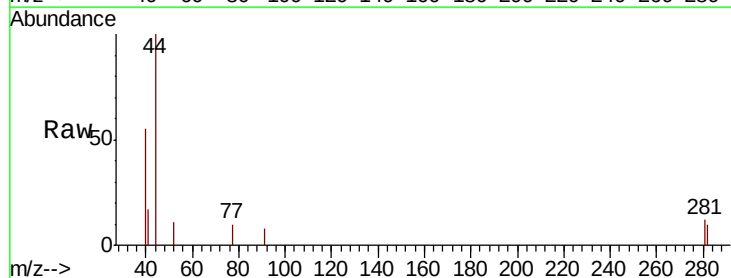
Acq: 8 Feb 2019 23:04

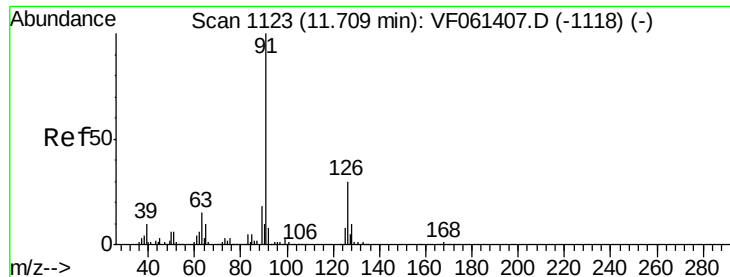
Tgt Ion: 91 Resp: 69

Ion Ratio Lower Upper

91 100

120 0.0 10.9 32.6#





#79

2-Chlorotoluene

Concen: 18.250 ug/l

RT: 11.55 min Scan# 1107

Delta R.T. -0.16 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Instrument :

MSVOA\_F

ClientSampleId :

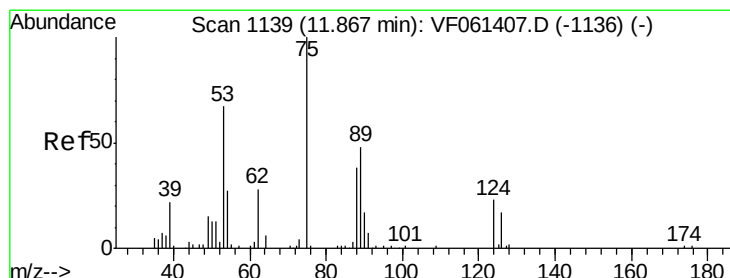
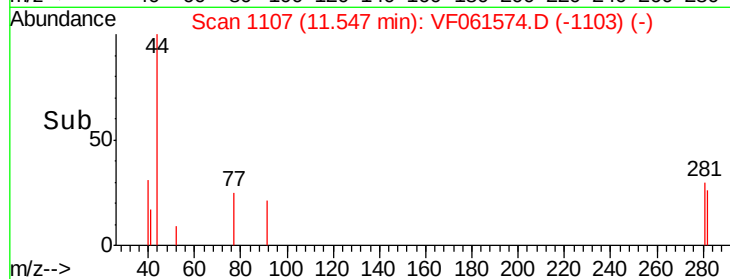
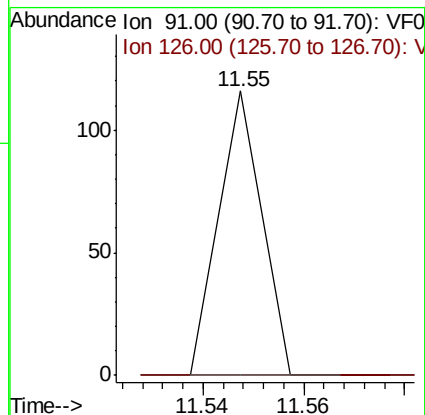
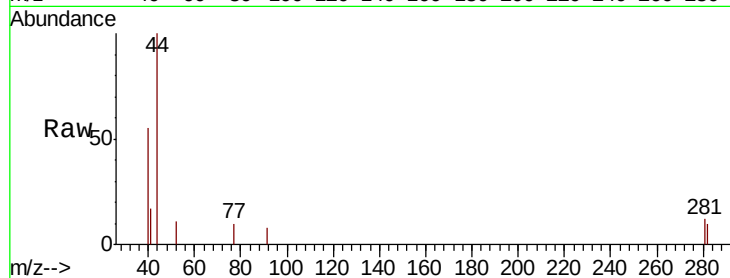
OR-03-020719-ARE

Tgt Ion: 91 Resp: 69

Ion Ratio Lower Upper

91 100

126 0.0 15.0 45.1#



#81

trans-1,4-Dichloro-2-butene

Concen: 234.147 ug/l

RT: 11.99 min Scan# 1152

Delta R.T. 0.12 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

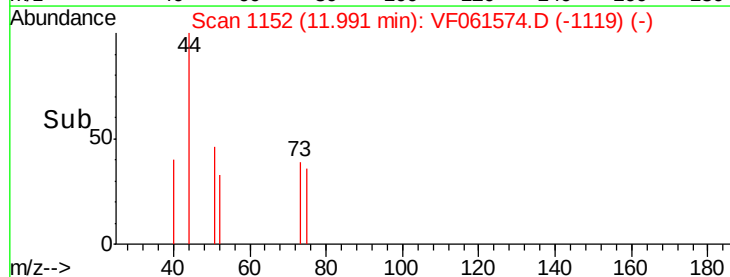
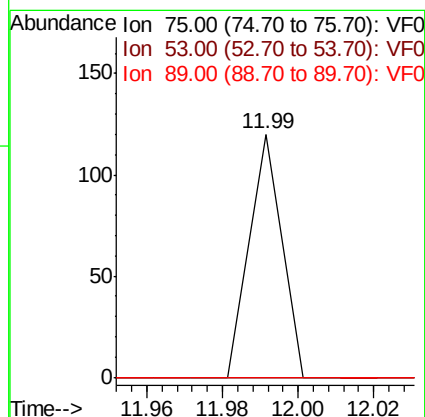
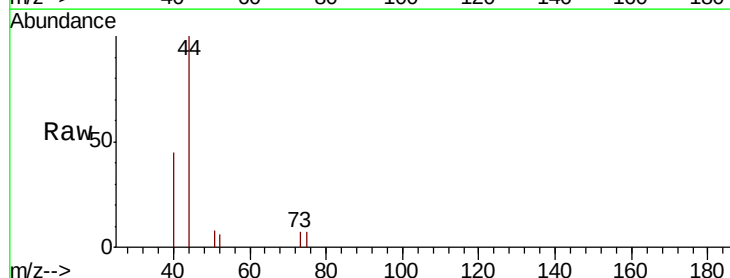
Tgt Ion: 75 Resp: 71

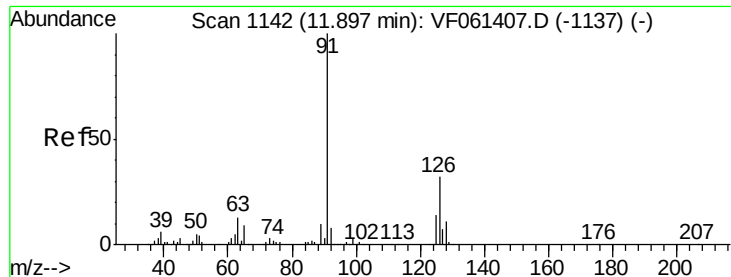
Ion Ratio Lower Upper

75 100

53 0.0 57.8 86.6#

89 0.0 40.7 61.1#

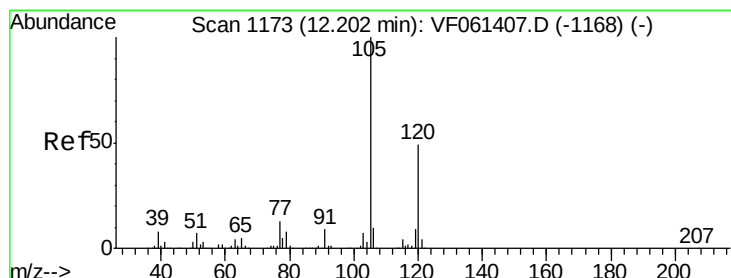
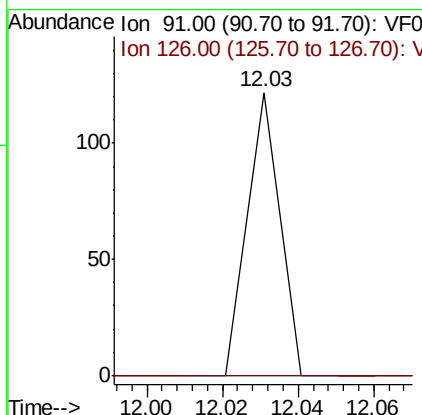
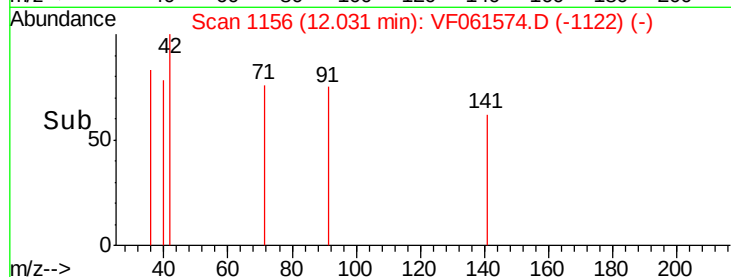
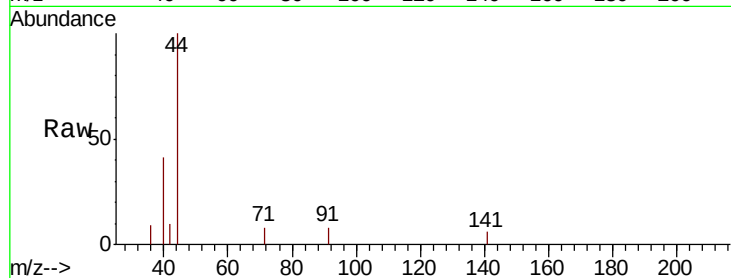




#82  
 4-Chlorotoluene  
 Concen: 18.871 ug/l  
 RT: 12.03 min Scan# 1156  
 Delta R.T. 0.13 min  
 Lab File: VF061574.D  
 Acq: 8 Feb 2019 23:04

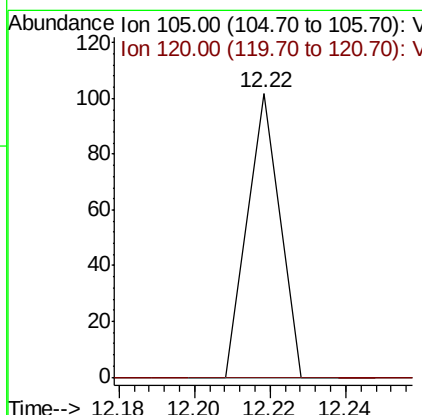
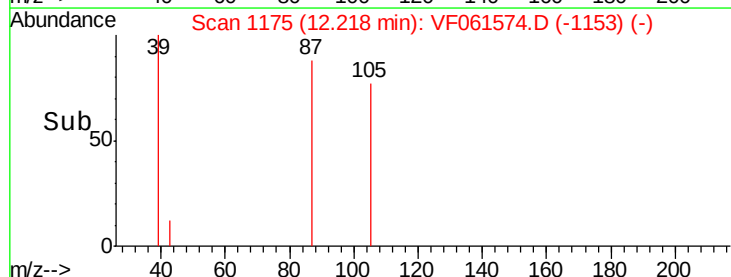
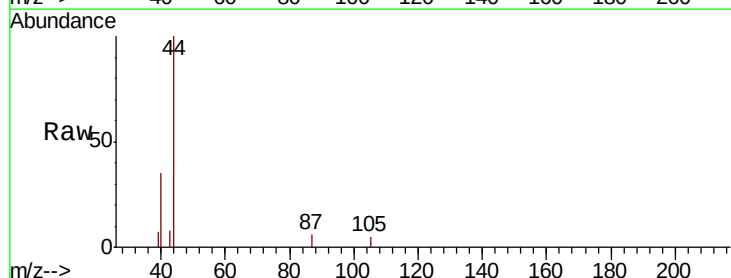
Instrument :  
 MSVOA\_F  
 ClientSampleId :  
 OR-03-020719-ARE

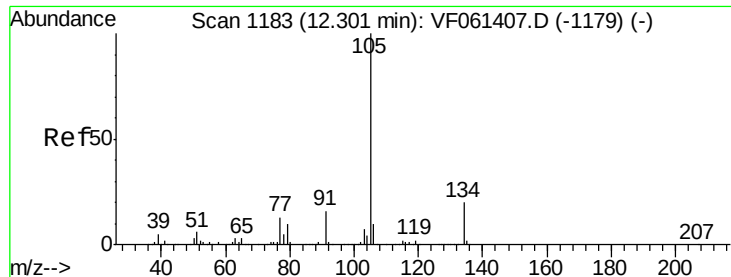
Tgt Ion: 91 Resp: 72  
 Ion Ratio Lower Upper  
 91 100  
 126 0.0 16.0 47.9#



#84  
 1,2,4-Trimethylbenzene  
 Concen: 13.246 ug/l  
 RT: 12.22 min Scan# 1175  
 Delta R.T. 0.02 min  
 Lab File: VF061574.D  
 Acq: 8 Feb 2019 23:04

Tgt Ion: 105 Resp: 60  
 Ion Ratio Lower Upper  
 105 100  
 120 0.0 24.9 74.6#





#85

sec-Butylbenzene

Concen: 9.707 ug/l

RT: 12.22 min Scan# 1175

Delta R.T. -0.08 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Instrument :

MSVOA\_F

ClientSampleId :

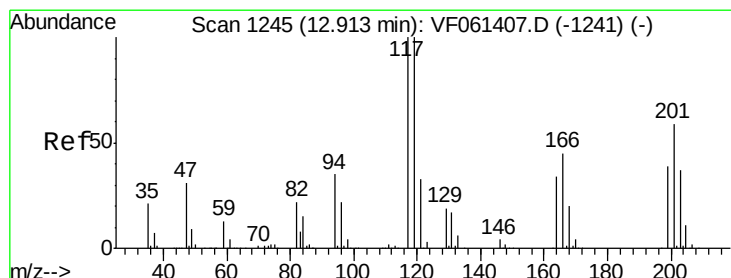
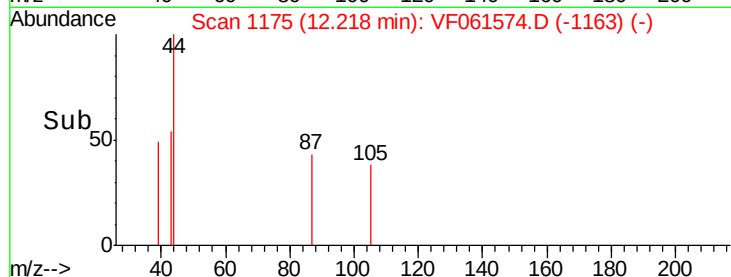
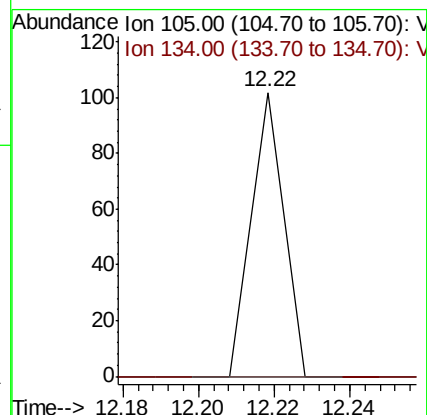
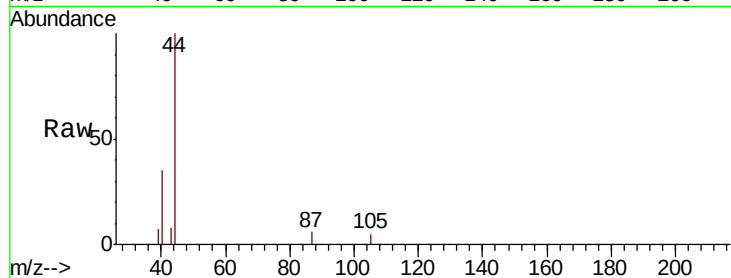
OR-03-020719-ARE

Tgt Ion:105 Resp: 60

Ion Ratio Lower Upper

105 100

134 0.0 10.0 30.0#



#90

Hexachloroethane

Concen: 73.572 ug/l

RT: 12.98 min Scan# 1252

Delta R.T. 0.07 min

Lab File: VF061574.D

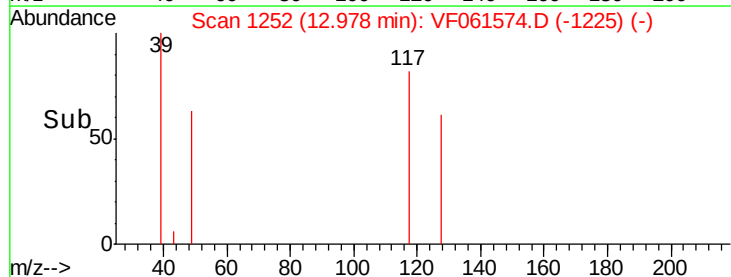
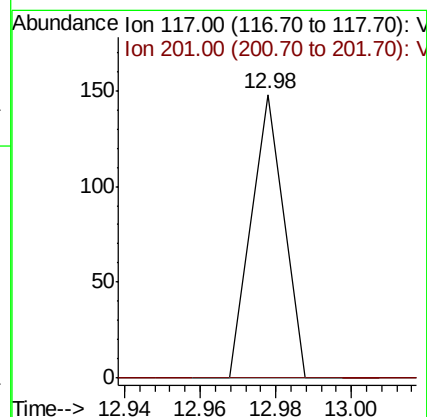
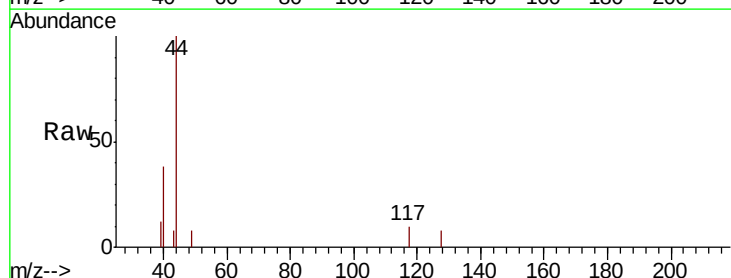
Acq: 8 Feb 2019 23:04

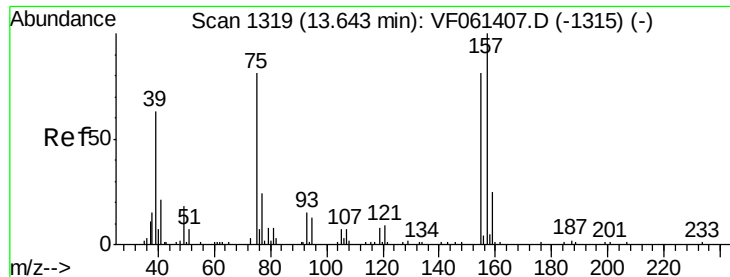
Tgt Ion:117 Resp: 88

Ion Ratio Lower Upper

117 100

201 0.0 29.3 87.8#





#92

1,2-Dibromo-3-Chloropropane

Concen: 801.471 ug/l

RT: 13.77 min Scan# 1332

Delta R.T. 0.12 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

Instrument :

MSVOA\_F

ClientSampleId :

OR-03-020719-ARE

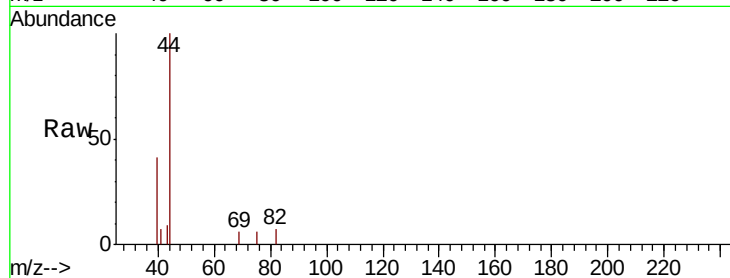
Tgt Ion: 75 Resp: 138

Ion Ratio Lower Upper

75 100

155 0.0 49.7 149.1#

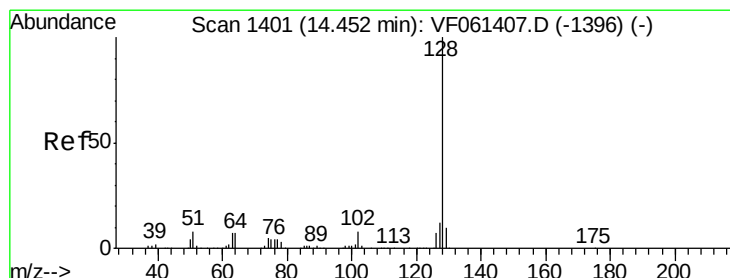
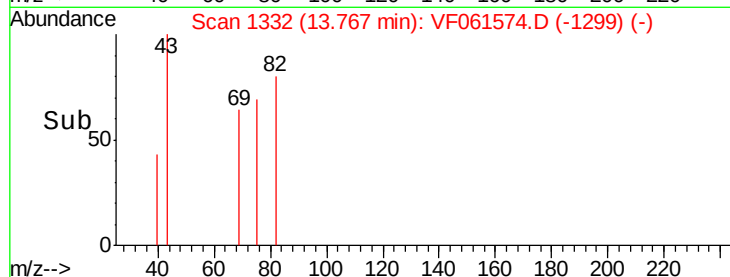
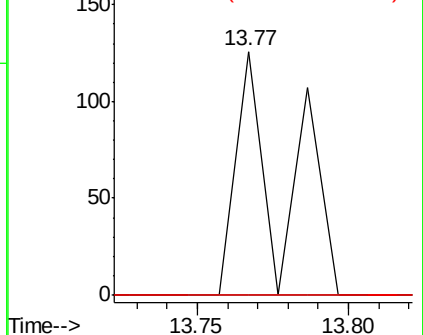
157 0.0 61.4 184.1#



Abundance Ion 75.00 (74.70 to 75.70): VF0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V



#95

Naphthalene

Concen: 30.014 ug/l

RT: 14.45 min Scan# 1401

Delta R.T. -0.00 min

Lab File: VF061574.D

Acq: 8 Feb 2019 23:04

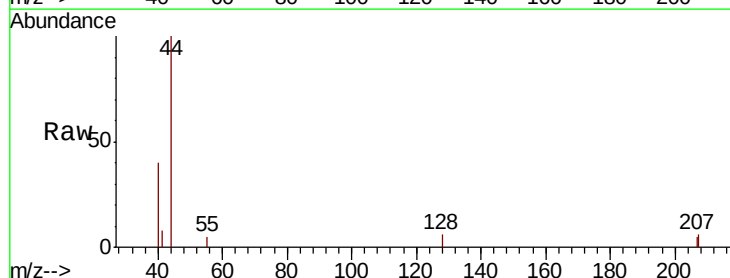
Tgt Ion: 128 Resp: 86

Ion Ratio Lower Upper

128 100

127 0.0 9.5 14.3#

129 0.0 8.4 12.6#



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

