

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW052019\  
 Data File : VW010466.D  
 Acq On : 21 May 2019 00:07  
 Operator : SY/VA  
 Sample : K2943-02  
 Misc : 5.27G/5ML/MSVOA W/SOIL  
 ALS Vial : 24 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 GIS-4-4FT

Quant Time: May 21 06:50:34 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W052019S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 21 06:38:43 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 123609   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 237956   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 208676   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 89844    | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.31   | 65  | 74984    | 58.77 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 117.54% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 74576    | 51.65 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.30% |      |
| 50) Toluene-d8            | 10.32  | 98  | 294003   | 53.30 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 106.60% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 107744   | 49.04 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.08%  |      |

## Target Compounds

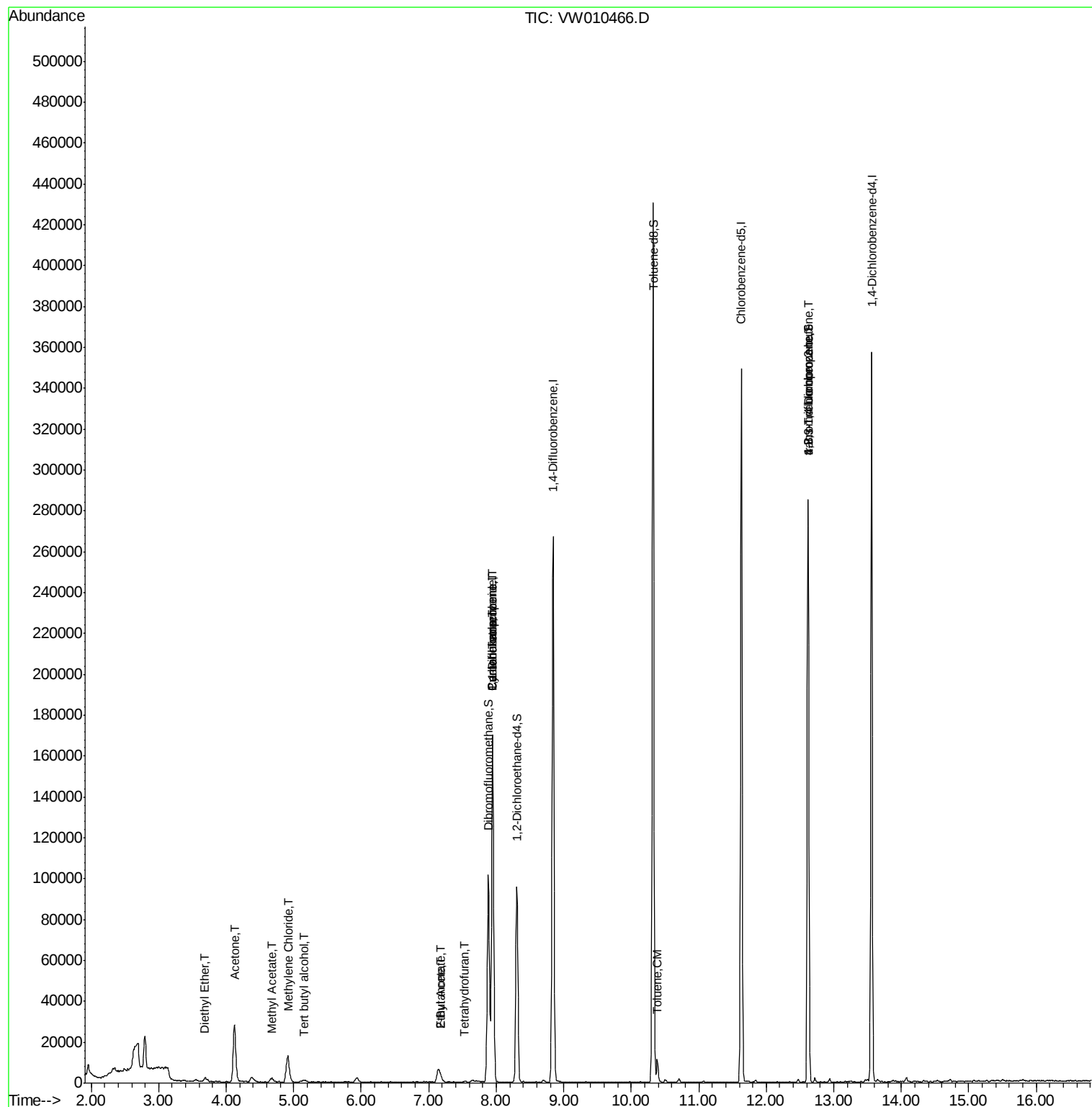
|                                |       |     |       |           | Qvalue |     |
|--------------------------------|-------|-----|-------|-----------|--------|-----|
| 2) Dichlorodifluoromethane     | 2.01  | 85  | 59    | Below Cal | #      | 42  |
| 8) Diethyl Ether               | 3.68  | 74  | 882   | 1.253     | ug/l   | 77  |
| 11) Tert butyl alcohol         | 5.16  | 59  | 1470  | 12.809    | ug/l   | 97  |
| 13) Acrolein                   | 3.86  | 56  | 76    | Below Cal | #      | 64  |
| 16) Acetone                    | 4.12  | 43  | 49264 | 189.164   | ug/l   | 100 |
| 18) Methyl Acetate             | 4.68  | 43  | 3637  | 5.710     | ug/l   | 97  |
| 20) Methylene Chloride         | 4.92  | 84  | 10655 | 2.116     | ug/l   | 97  |
| 25) 2-Butanone                 | 7.18  | 43  | 4808  | 12.900    | ug/l   | 95  |
| 29) Tetrahydrofuran            | 7.53  | 42  | 294   | 1.166     | ug/l # | 65  |
| 31) Cyclohexane                | 7.95  | 56  | 2474  | 1.021     | ug/l # | 1   |
| 36) 1,1-Dichloropropene        | 7.95  | 75  | 9574  | 4.319     | ug/l # | 49  |
| 37) Ethyl Acetate              | 7.18  | 43  | 4871  | 5.167     | ug/l # | 67  |
| 38) Carbon Tetrachloride       | 7.95  | 117 | 13710 | 5.733     | ug/l # | 15  |
| 52) Toluene                    | 10.39 | 92  | 5275  | 1.275     | ug/l   | 97  |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 50462 | 55.333    | ug/l # | 1   |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 50462 | 115.481   | ug/l # | 14  |

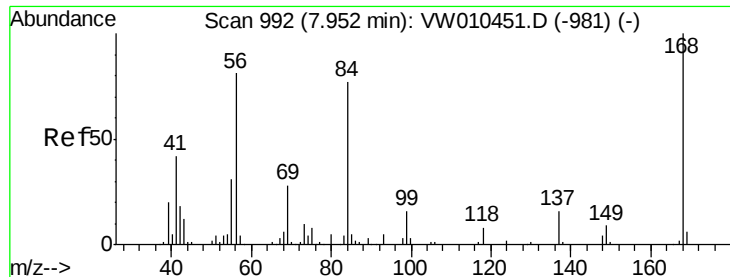
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA W\DATA\VW052019\  
Data File : VW010466.D  
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Operator : SY/VA  
Sample : K2943-02  
Misc : 5.27G/5ML/MSVOA W/SOIL  
ALS Vial : 24 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
GIS-4-4FT

Quant Time: May 21 06:50:34 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W052019S.M  
Quant Title : SW846 8260  
QLast Update : Tue May 21 06:38:43 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.01 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

Instrument :

MSVOA\_W

ClientSampleId :

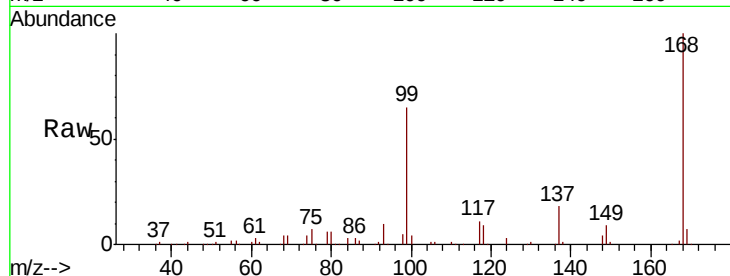
GIS-4-4FT

Tot Ion:168 Resp: 123609

Ion Ratio Lower Upper

168 100

99 64.5 46.1 69.1



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

60000

50000

40000

30000

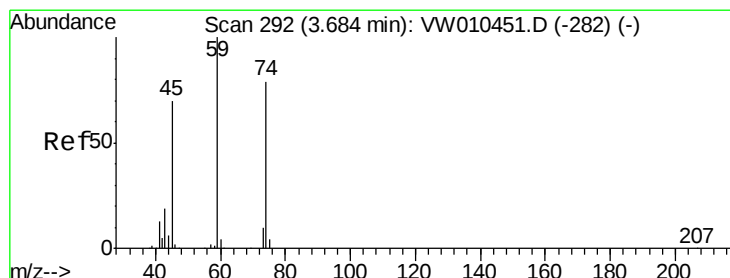
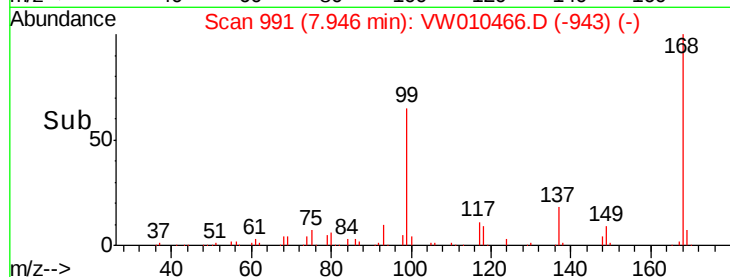
20000

10000

0

7.90 8.00 8.10

Time-->



#8

Diethyl Ether

Concen: 1.253 ug/l

RT: 3.68 min Scan# 291

Delta R.T. -0.01 min

Lab File: VW010466.D

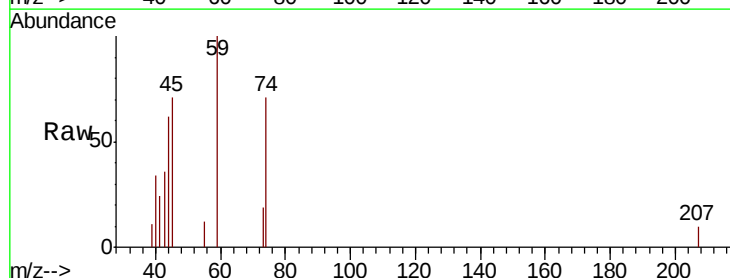
Acq: 21 May 2019 00:07

Tgt Ion: 74 Resp: 882

Ion Ratio Lower Upper

74 100

45 106.6 42.9 128.5



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW

3.68

400

300

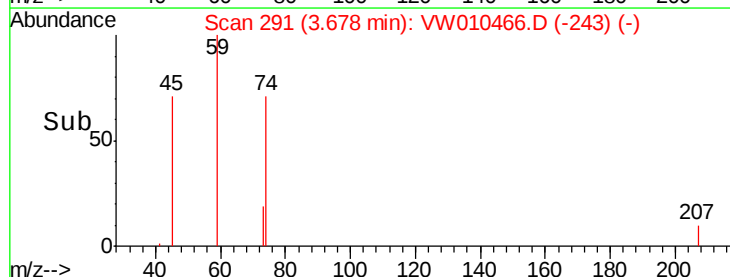
200

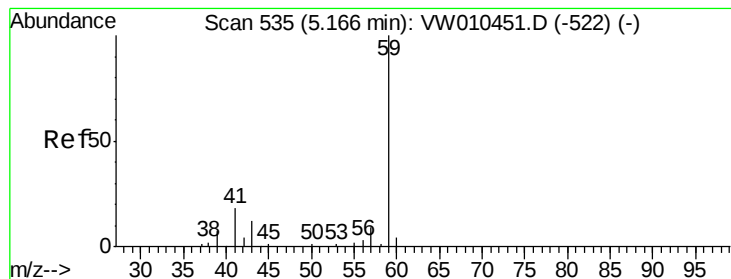
100

0

3.60 3.65 3.70 3.75

Time-->



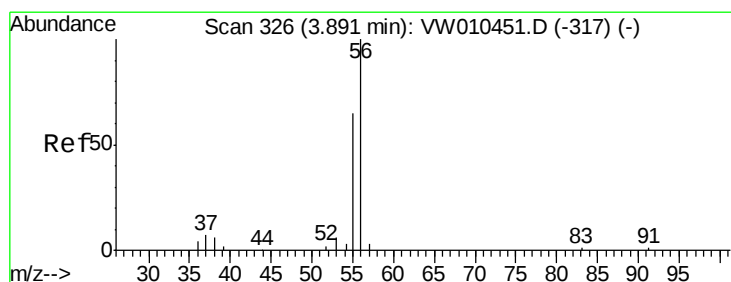
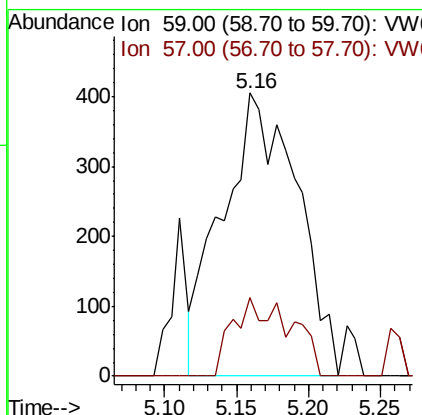
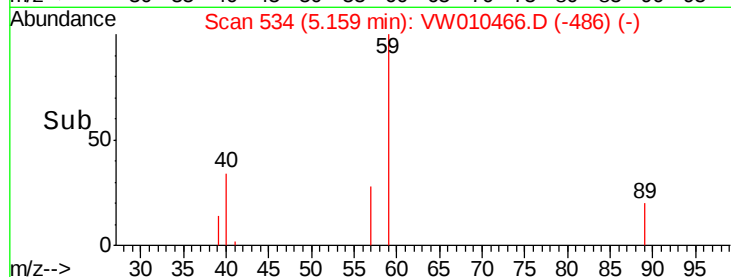
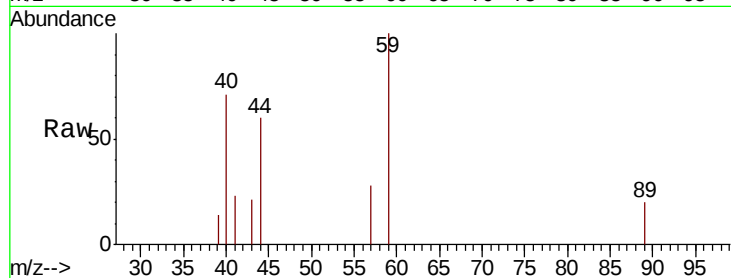


#11

Tert butyl alcohol  
 Concen: 12.809 ug/l  
 RT: 5.16 min Scan# 534  
 Delta R.T. -0.01 min  
 Lab File: VW010466.D  
 Acq: 21 May 2019 00:07

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 GIS-4-4FT

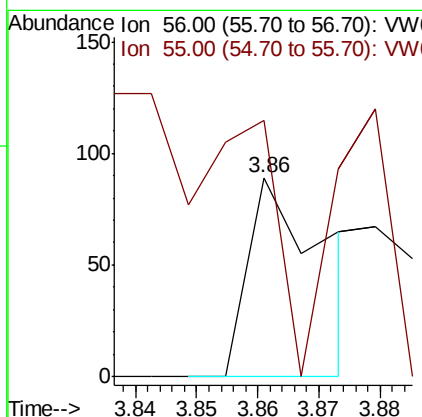
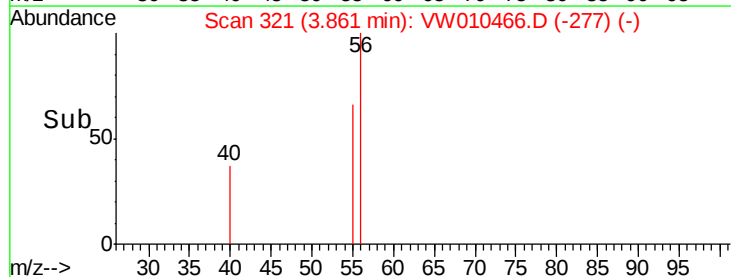
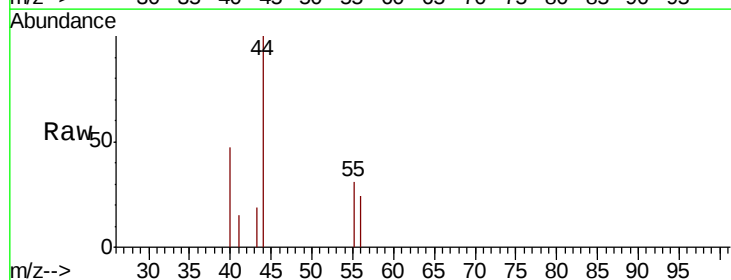
Tot Ion: 59 Resp: 1470  
 Ion Ratio Lower Upper  
 59 100  
 57 12.1 8.8 13.2

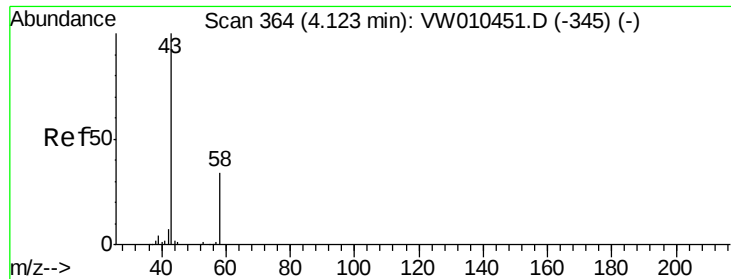


#13

Acrolein  
 Concen: Below Cal  
 RT: 3.86 min Scan# 321  
 Delta R.T. -0.03 min  
 Lab File: VW010466.D  
 Acq: 21 May 2019 00:07

Tgt Ion: 56 Resp: 76  
 Ion Ratio Lower Upper  
 56 100  
 55 102.6 57.9 86.9#





#16

Acetone

Concen: 189.164 ug/l

RT: 4.12 min Scan# 364

Delta R.T. 0.00 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

Instrument :

MSVOA\_W

ClientSampleId :

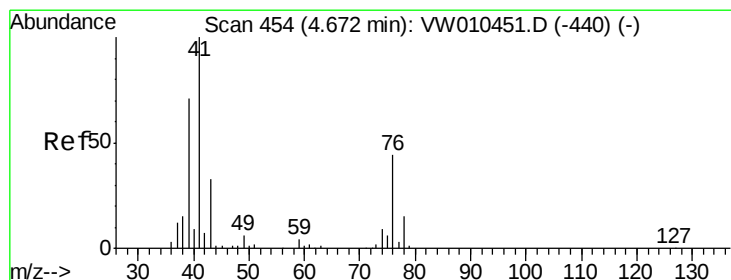
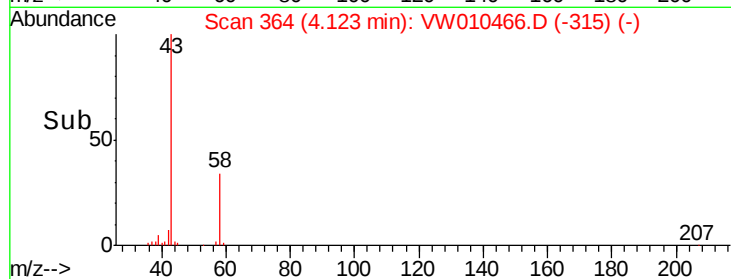
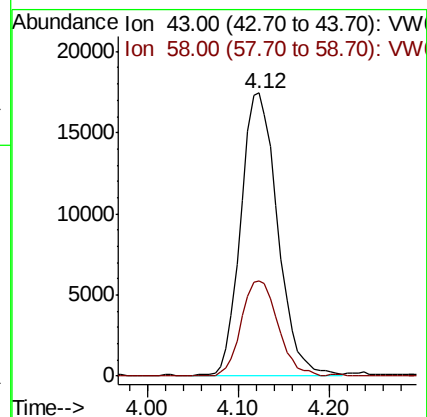
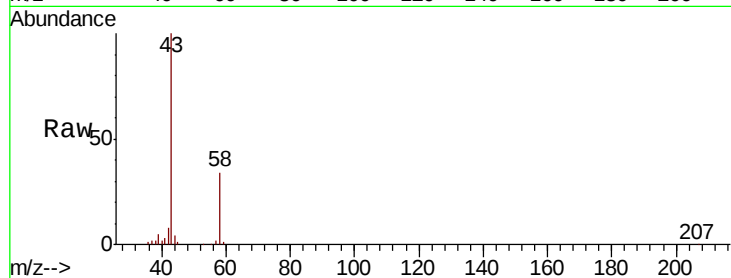
GIS-4-4FT

Tot Ion: 43 Resp: 49264

Ion Ratio Lower Upper

43 100

58 33.6 27.0 40.4



#18

Methyl Acetate

Concen: 5.710 ug/l

RT: 4.68 min Scan# 455

Delta R.T. 0.01 min

Lab File: VW010466.D

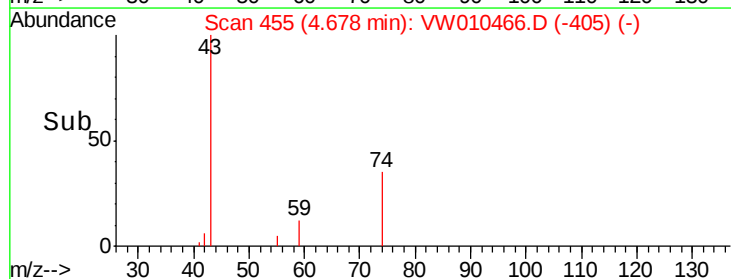
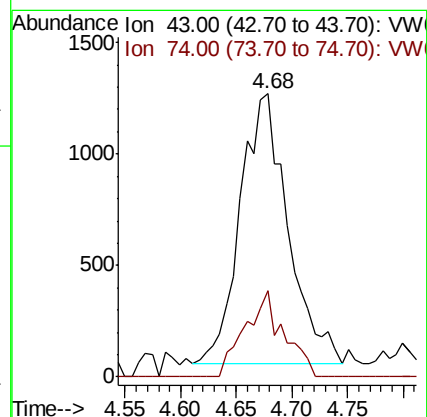
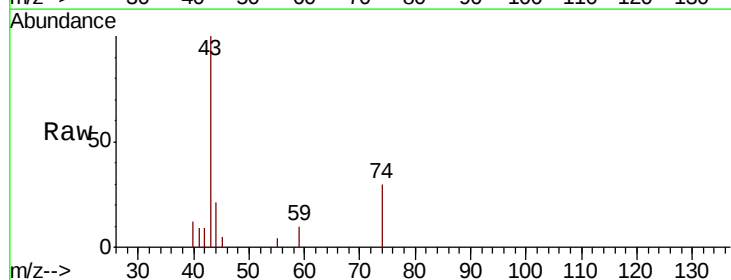
Acq: 21 May 2019 00:07

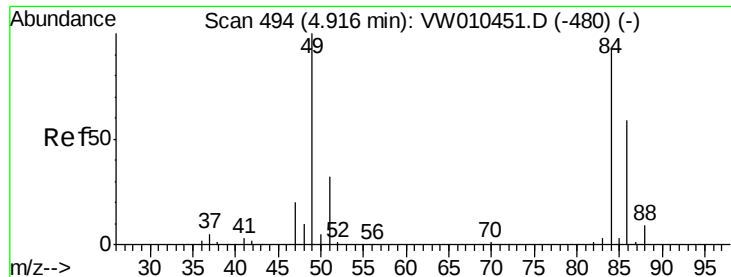
Tgt Ion: 43 Resp: 3637

Ion Ratio Lower Upper

43 100

74 25.7 21.6 32.4

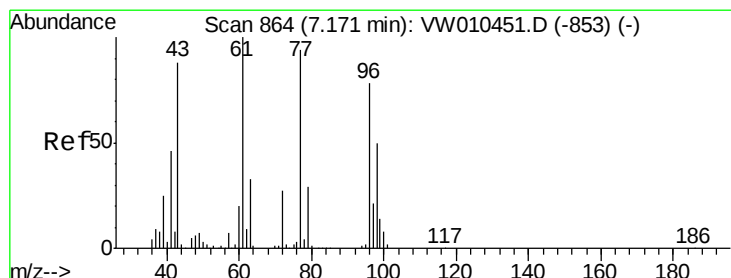
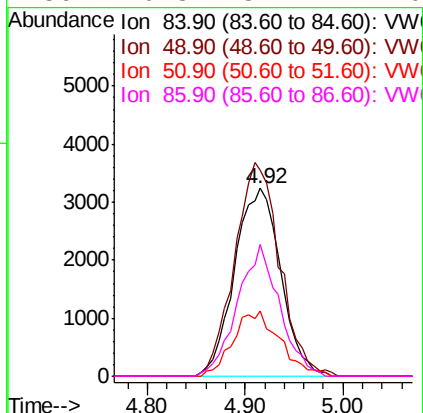
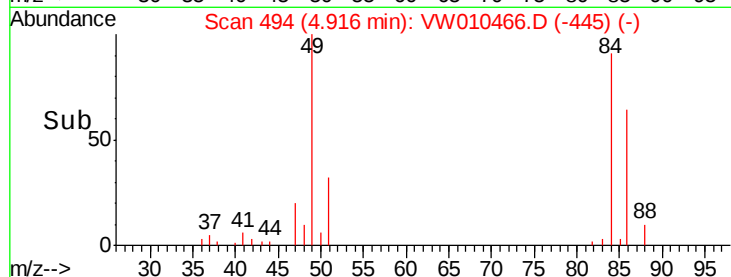
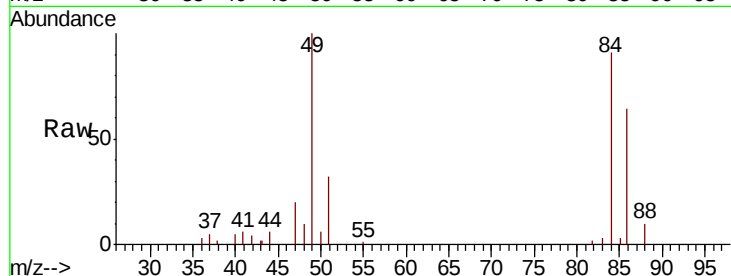




#20  
Methvlene Chloride  
Concen: 2.116 ug/l  
RT: 4.92 min Scan# 494  
Delta R.T. 0.00 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

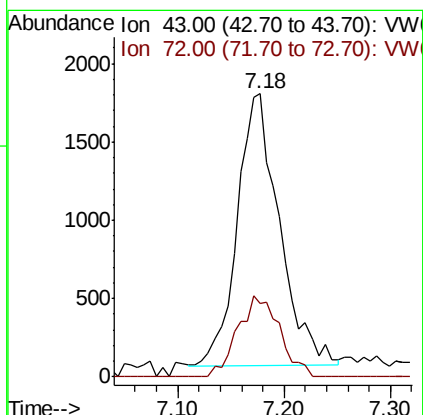
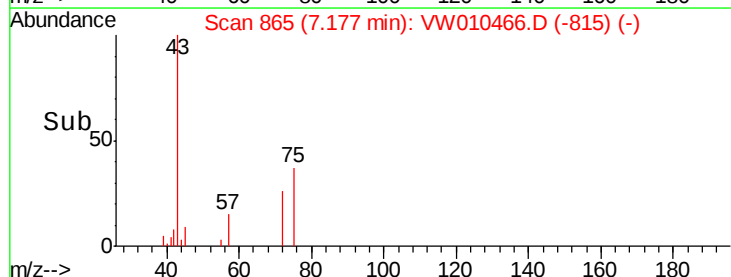
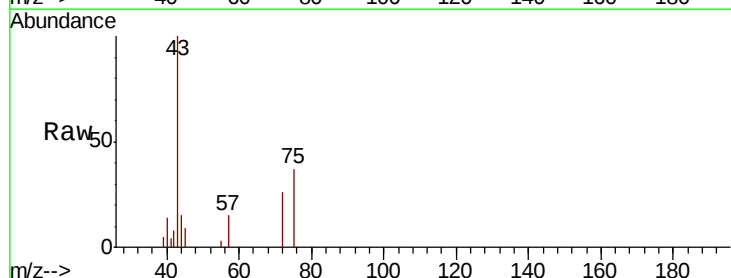
Instrument :  
MSVOA\_W  
ClientSampleId :  
GIS-4-4FT

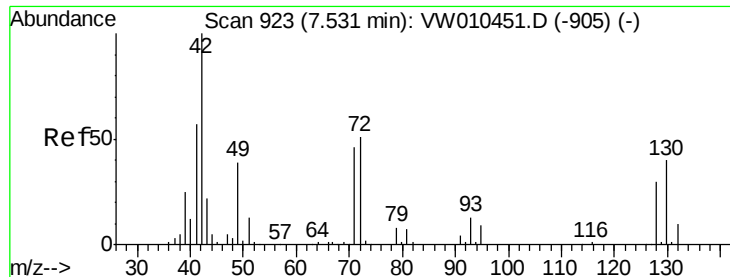
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 10655 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 109.7 | 87.2  | 130.8 |
| 51       | 34.9  | 27.7  | 41.5  |
| 86       | 70.3  | 51.4  | 77.0  |



#25  
2-Butanone  
Concen: 12.900 ug/l  
RT: 7.18 min Scan# 865  
Delta R.T. 0.01 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 4808  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 27.2  | 24.1  | 36.1  |

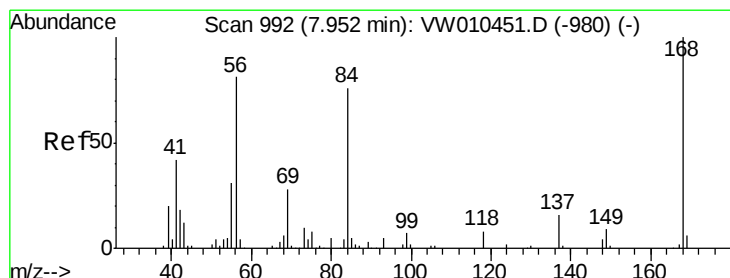
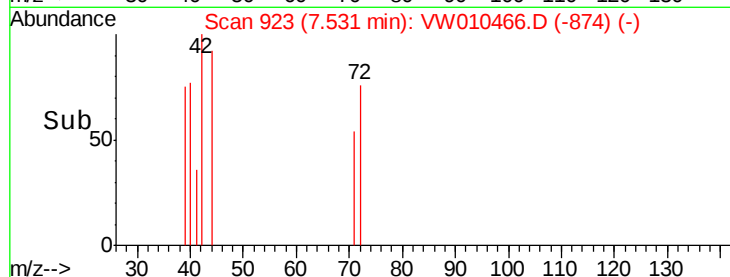
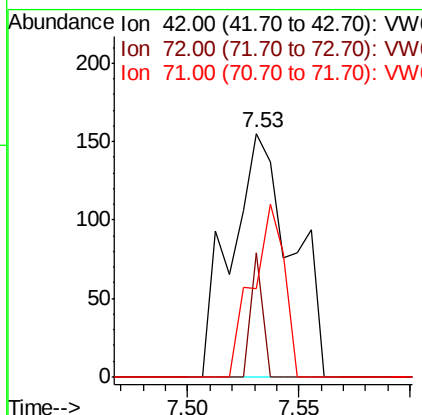
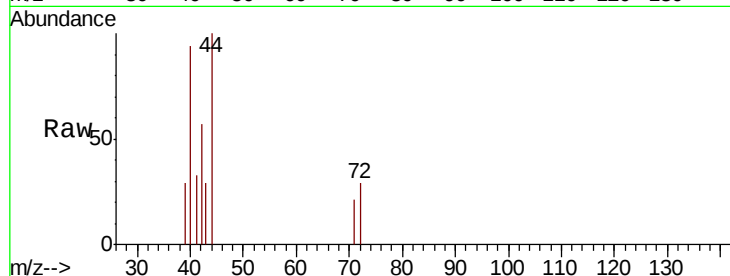




#29  
Tetrahydrofuran  
Concen: 1.166 ug/l  
RT: 7.53 min Scan# 923  
Delta R.T. 0.00 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

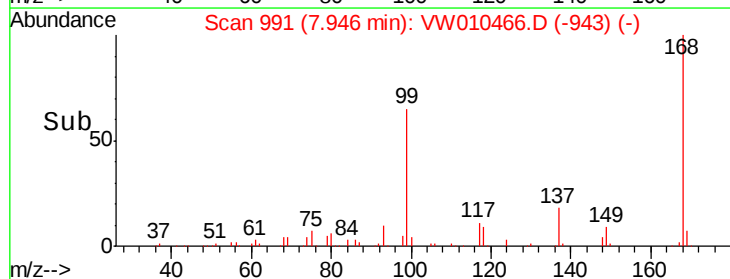
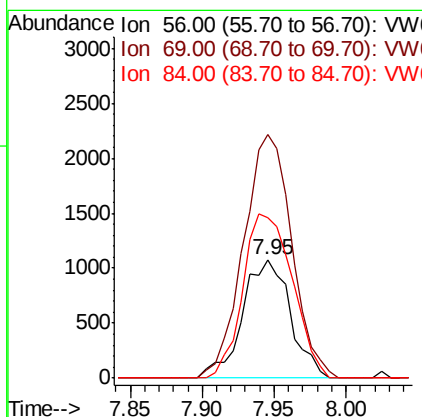
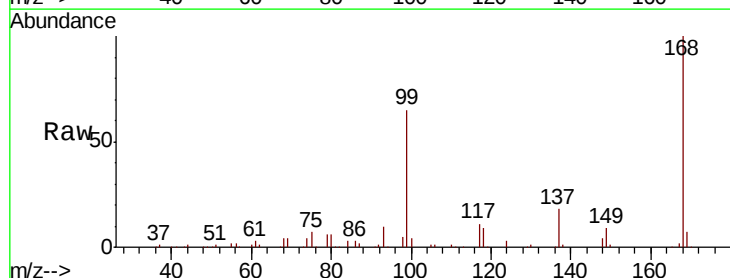
Instrument :  
MSVOA\_W  
ClientSampleId :  
GIS-4-4FT

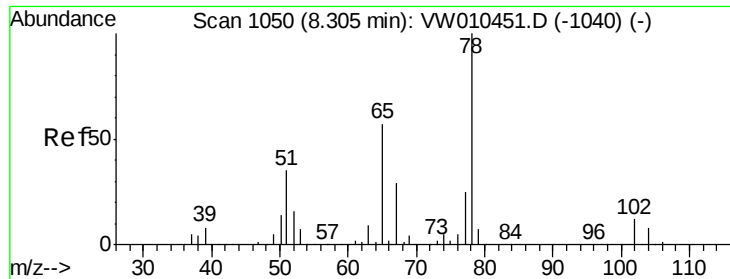
Tot Ion: 42 Resp: 294  
Ion Ratio Lower Upper  
42 100  
72 9.9 38.5 57.7#  
71 37.4 36.5 54.7



#31  
Cyclohexane  
Concen: 1.021 ug/l  
RT: 7.95 min Scan# 991  
Delta R.T. -0.01 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

Tgt Ion: 56 Resp: 2474  
Ion Ratio Lower Upper  
56 100  
69 205.3 28.2 42.2#  
84 135.1 75.8 113.8#

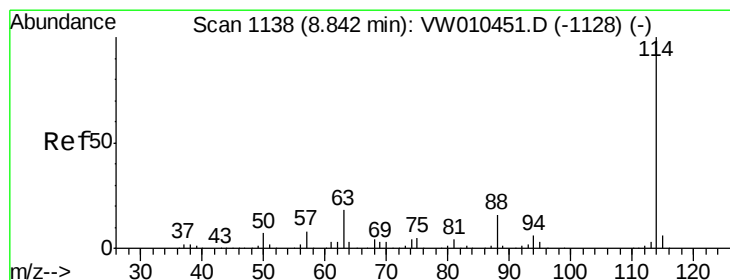
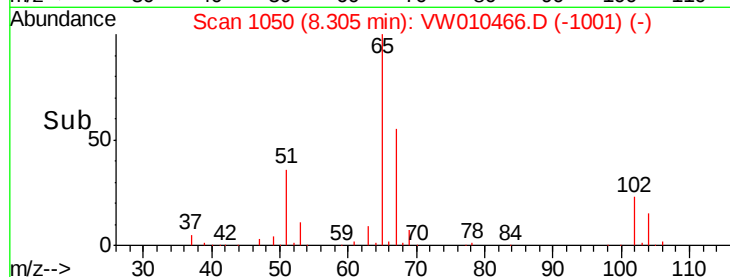
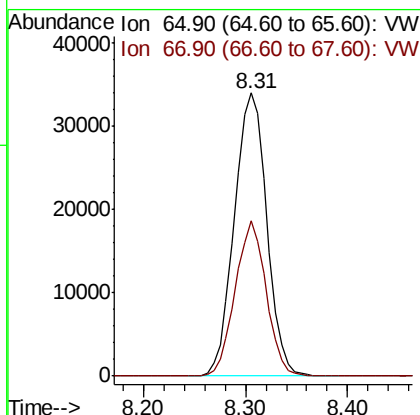
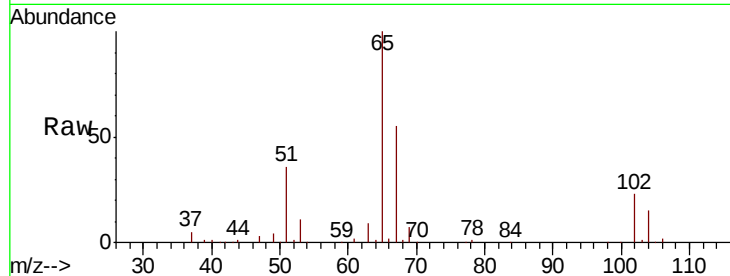




#33  
 1,2-Dichloroethane-d4  
 Concen: 58.772 ug/l  
 RT: 8.31 min Scan# 1050  
 Delta R.T. 0.00 min  
 Lab File: VW010466.D  
 Acq: 21 May 2019 00:07

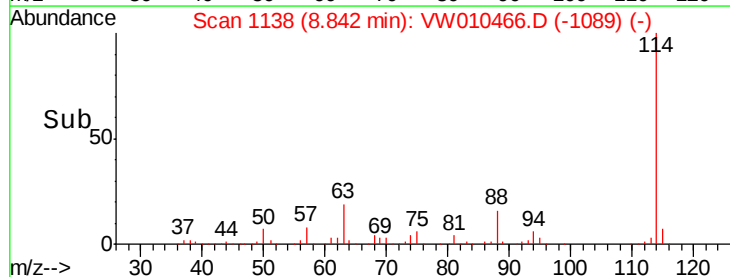
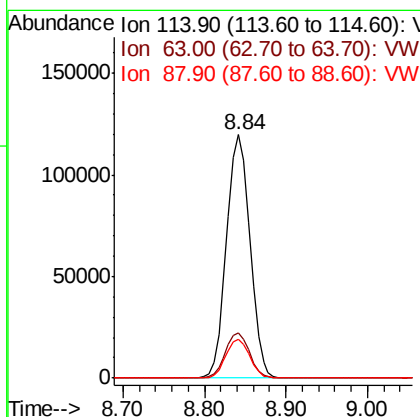
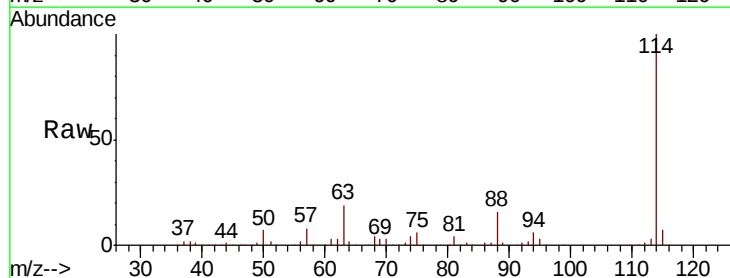
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 GIS-4-4FT

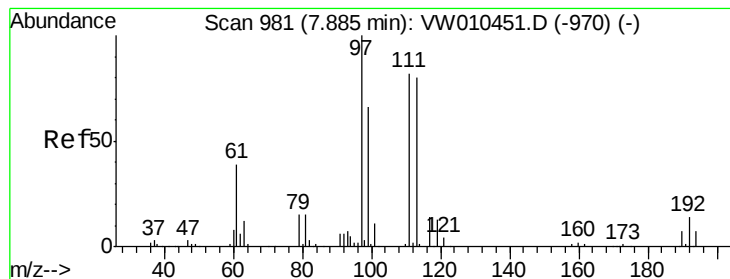
Tot Ion: 65 Resp: 74984  
 Ion Ratio Lower Upper  
 65 100  
 67 52.4 0.0 103.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. 0.00 min  
 Lab File: VW010466.D  
 Acq: 21 May 2019 00:07

Tgt Ion: 114 Resp: 237956  
 Ion Ratio Lower Upper  
 114 100  
 63 18.8 0.0 36.0  
 88 16.0 0.0 32.0





#35

Dibromofluoromethane

Concen: 51.650 ug/l

RT: 7.88 min Scan# 981

Delta R.T. 0.00 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

Instrument :

MSVOA\_W

ClientSampleId :

GIS-4-4FT

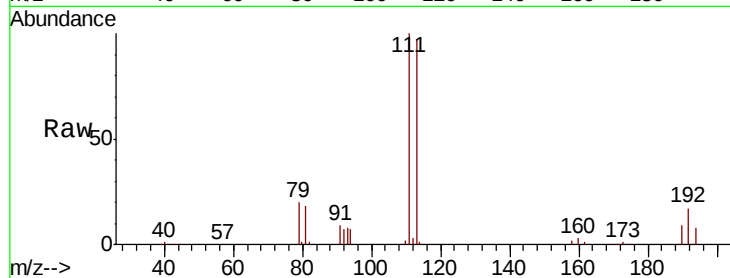
Tot Ion:113 Resp: 74576

Ion Ratio Lower Upper

113 100

111 102.3 82.2 123.4

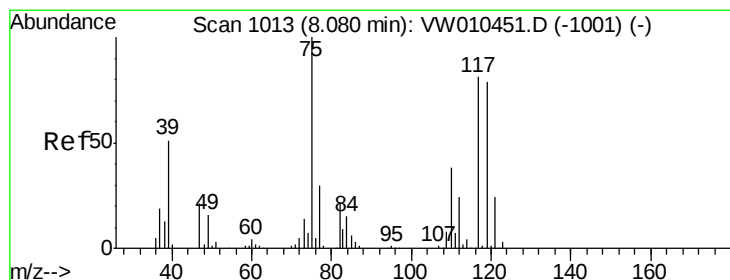
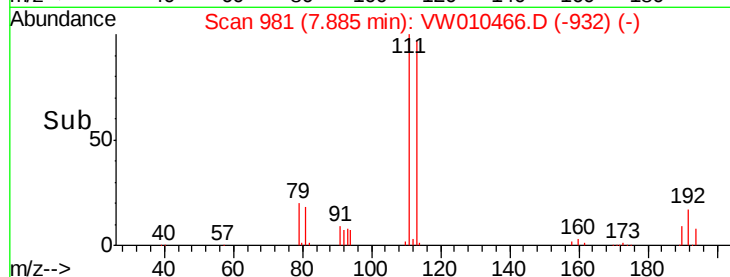
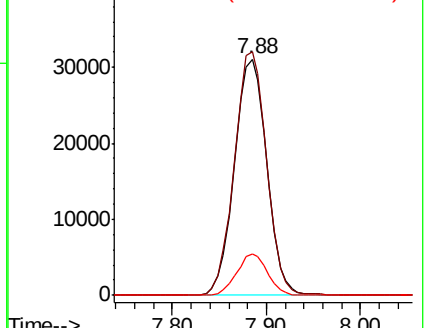
192 16.8 14.3 21.5



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



#36

1,1-Dichloropropene

Concen: 4.319 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.13 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

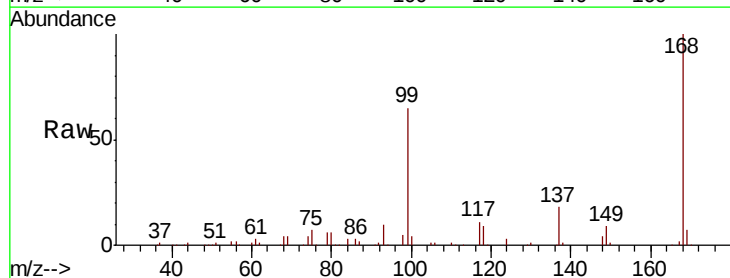
Tgt Ion: 75 Resp: 9574

Ion Ratio Lower Upper

75 100

110 10.3 19.2 57.6#

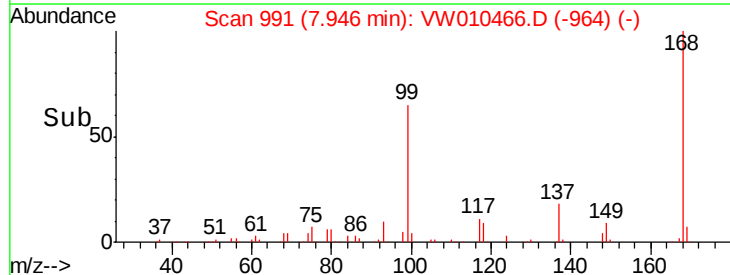
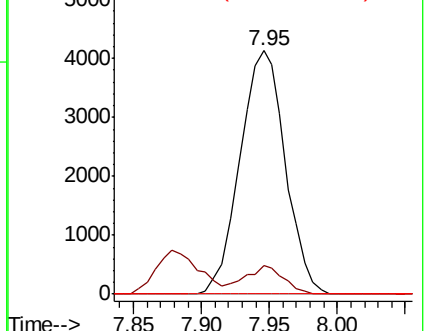
77 0.0 25.2 37.8#

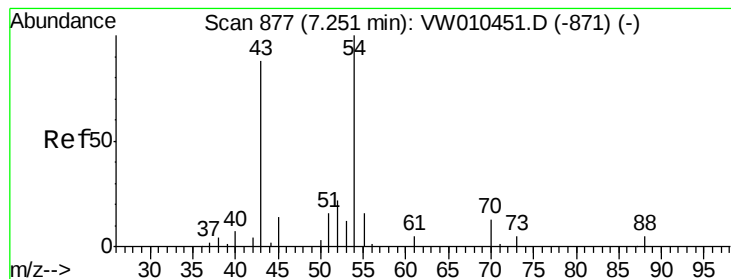


Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VW





#37

Ethyl Acetate

Concen: 5.167 ug/l

RT: 7.18 min Scan# 865

Delta R.T. -0.07 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

Instrument :

MSVOA\_W

ClientSampleId :

GIS-4-4FT

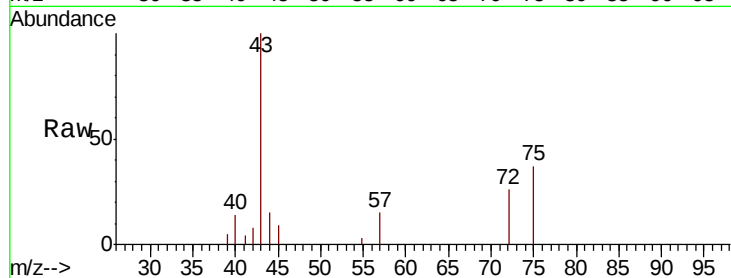
Tot Ion: 43 Resp: 4871

Ion Ratio Lower Upper

43 100

61 0.0 11.2 16.8#

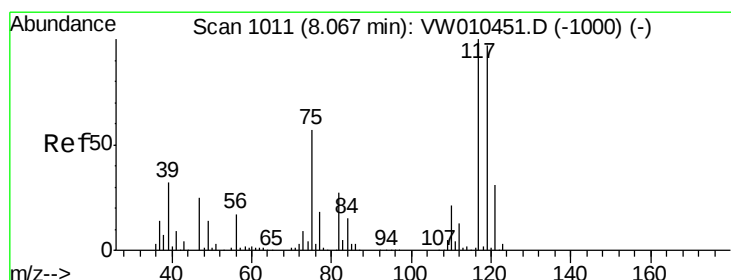
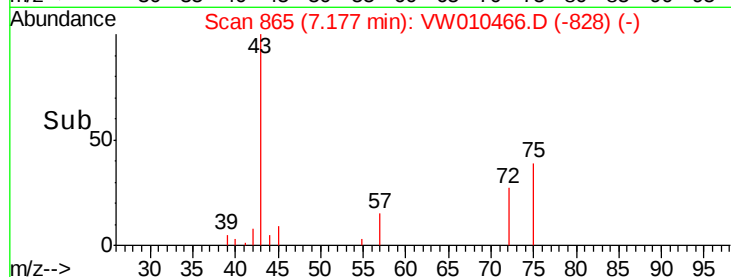
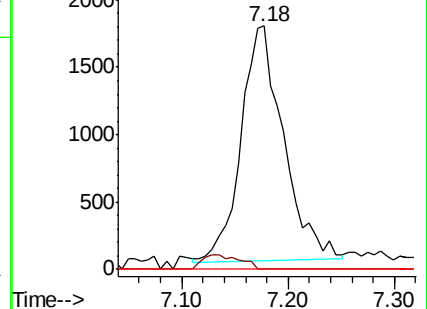
70 0.0 9.9 14.9#



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 60.90 (60.60 to 61.60): VW

Ion 70.00 (69.70 to 70.70): VW



#38

Carbon Tetrachloride

Concen: 5.733 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.12 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

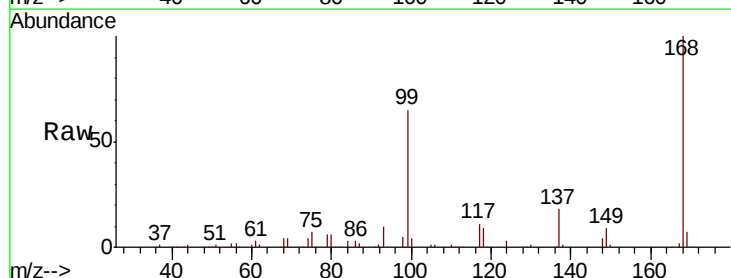
Tgt Ion: 117 Resp: 13710

Ion Ratio Lower Upper

117 100

119 3.8 77.4 116.0#

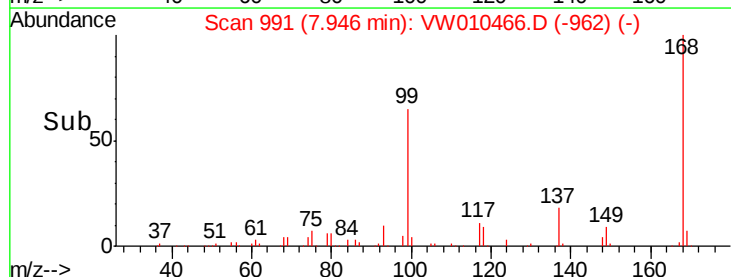
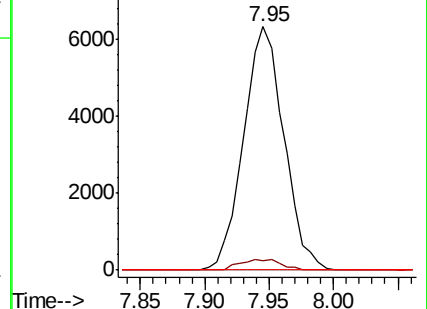
121 0.0 25.0 37.6#

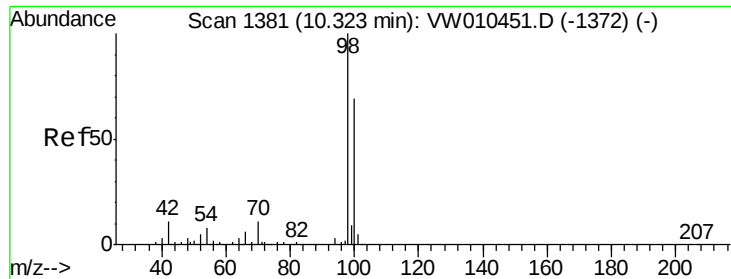


Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V

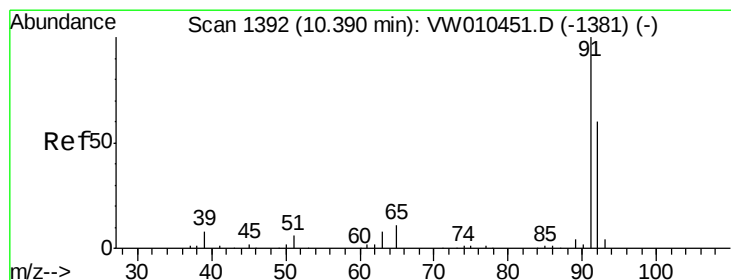
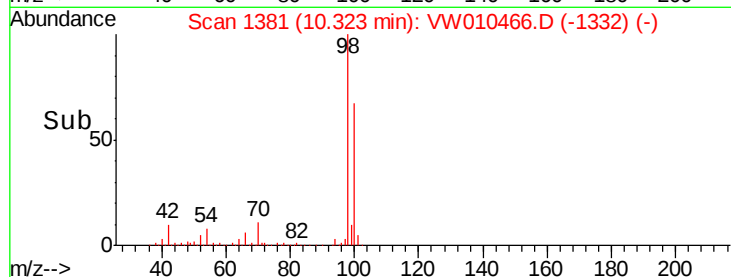
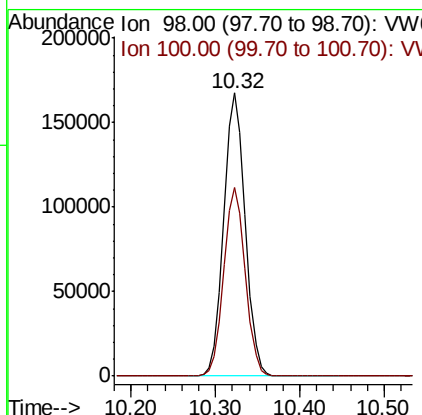
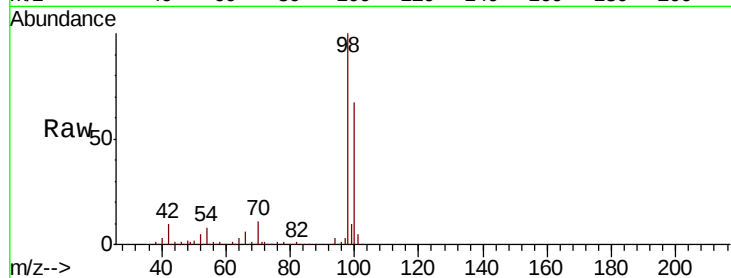




#50  
Toluene-d8  
Concen: 53.301 ug/l  
RT: 10.32 min Scan# 1381  
Delta R.T. 0.00 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

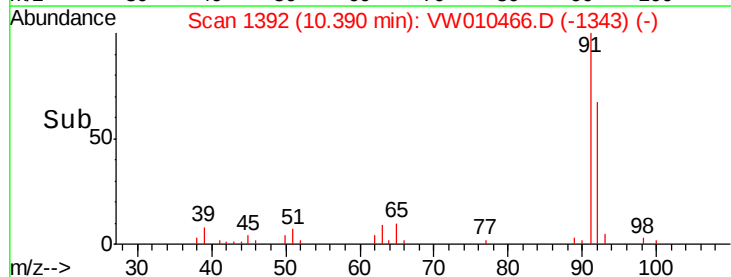
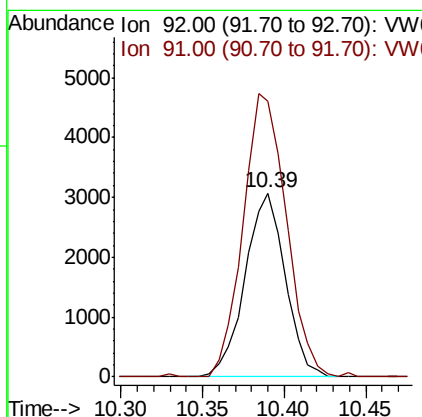
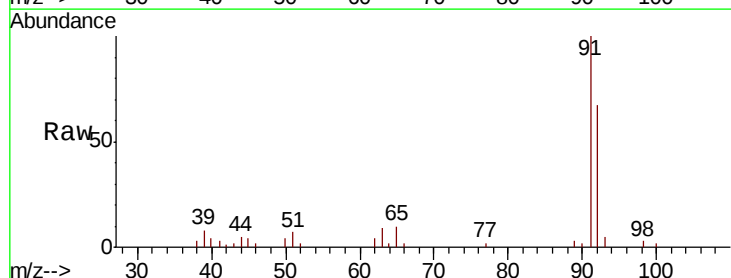
Instrument :  
MSVOA\_W  
ClientSampleId :  
GIS-4-4FT

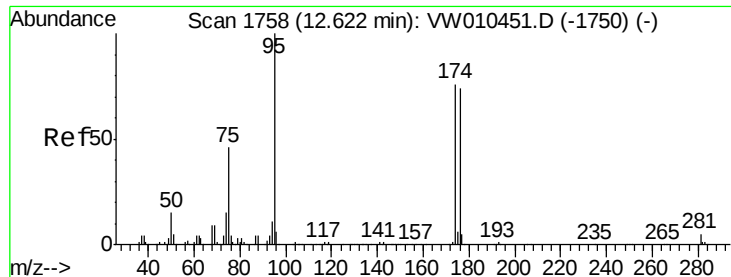
Tot Ion: 98 Resp: 294003  
Ion Ratio Lower Upper  
98 100  
100 66.5 53.7 80.5



#52  
Toluene  
Concen: 1.275 ug/l  
RT: 10.39 min Scan# 1392  
Delta R.T. 0.00 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

Tgt Ion: 92 Resp: 5275  
Ion Ratio Lower Upper  
92 100  
91 165.3 135.4 203.0

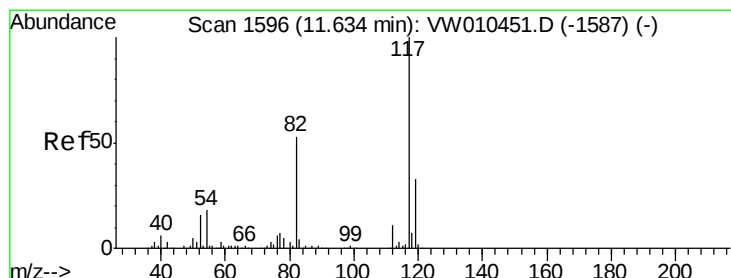
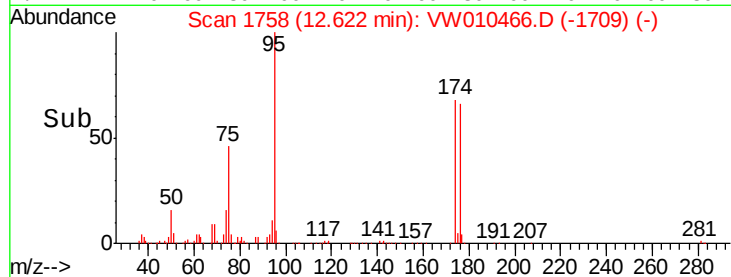
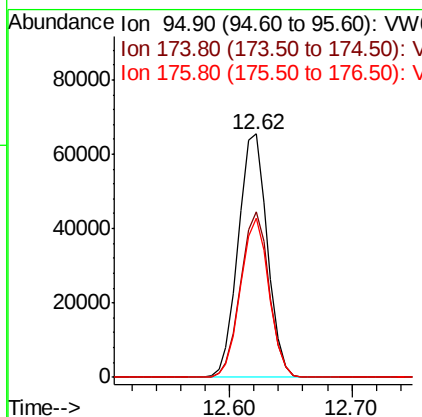
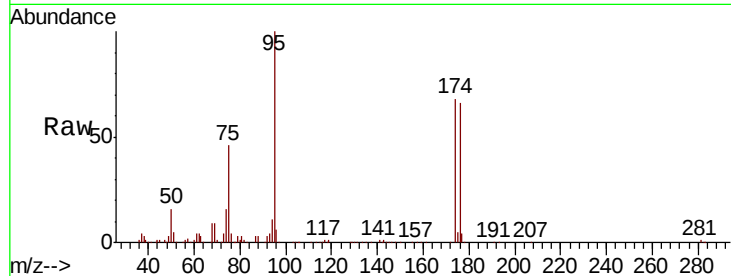




#62  
4-Bromofluorobenzene  
Concen: 49.040 ug/l  
RT: 12.62 min Scan# 1758  
Delta R.T. 0.00 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

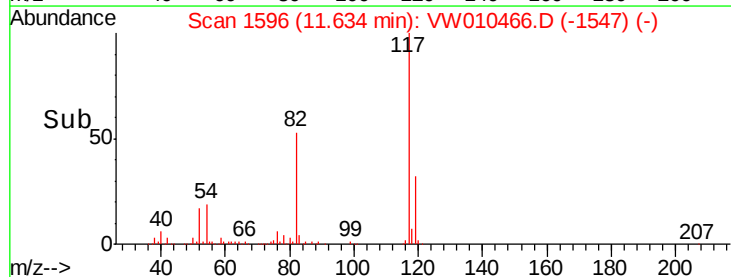
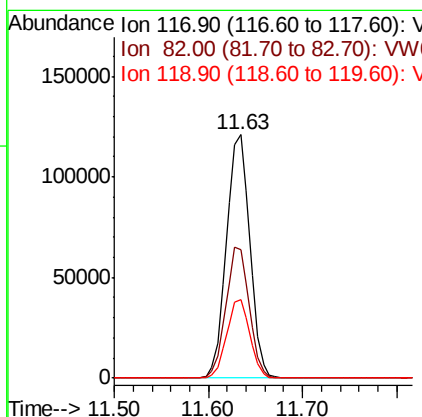
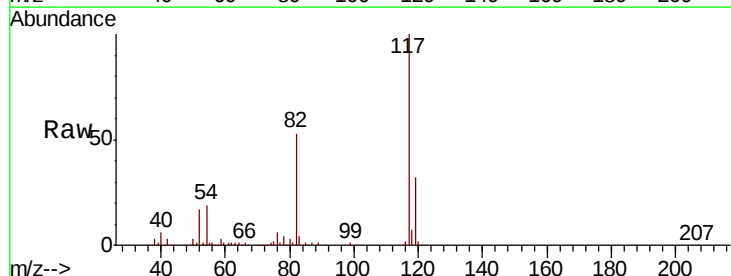
Instrument :  
MSVOA\_W  
ClientSampleId :  
GIS-4-4FT

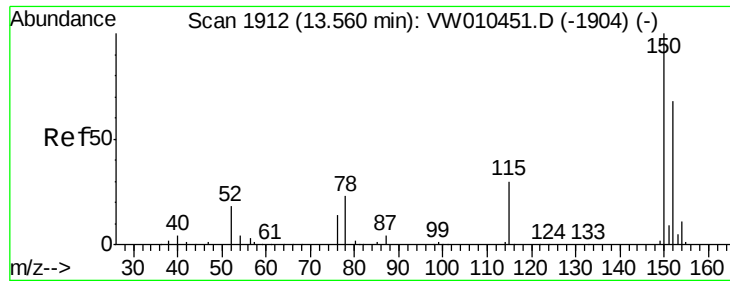
Tot Ion: 95 Resp: 107744  
Ion Ratio Lower Upper  
95 100  
174 67.1 0.0 148.6  
176 64.2 0.0 144.2



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. 0.00 min  
Lab File: VW010466.D  
Acq: 21 May 2019 00:07

Tgt Ion: 117 Resp: 208676  
Ion Ratio Lower Upper  
117 100  
82 52.6 42.8 64.2  
119 32.3 26.3 39.5





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.56 min Scan# 1912

Delta R.T. 0.00 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

Instrument :

MSVOA\_W

ClientSampleId :

GIS-4-4FT

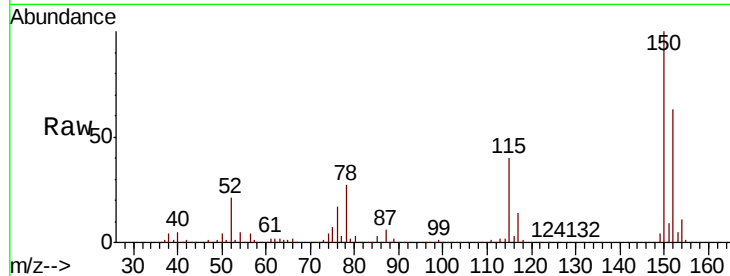
Tot Ion:152 Resp: 89844

Ion Ratio Lower Upper

152 100

115 64.5 30.3 91.0

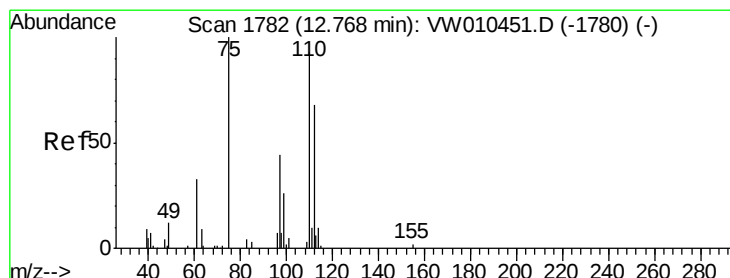
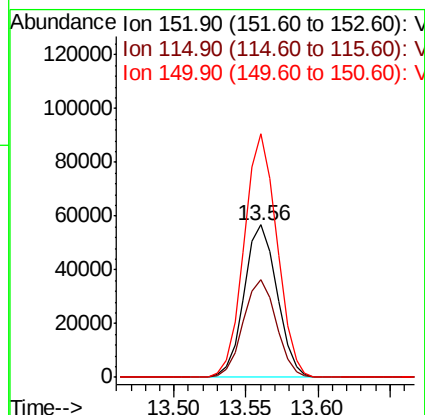
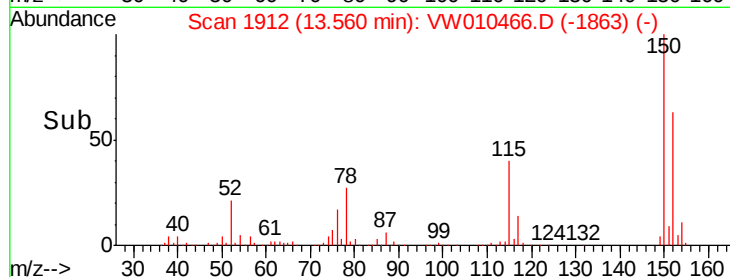
150 159.4 0.0 349.8



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



#76

1,2,3-Trichloropropane

Concen: 55.333 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. -0.15 min

Lab File: VW010466.D

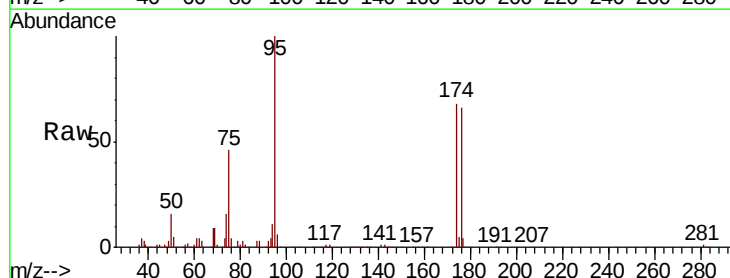
Acq: 21 May 2019 00:07

Tgt Ion: 75 Resp: 50462

Ion Ratio Lower Upper

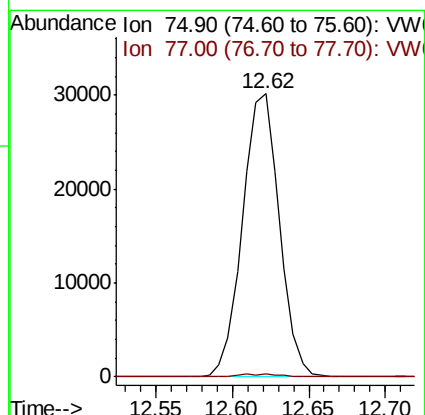
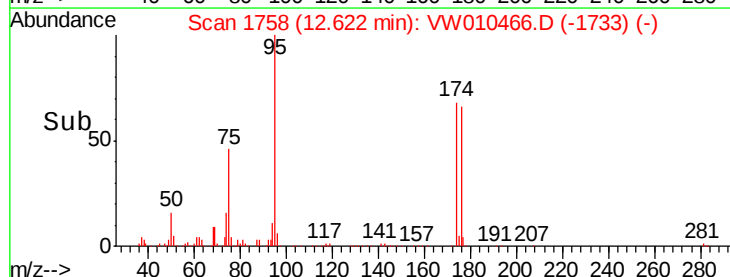
75 100

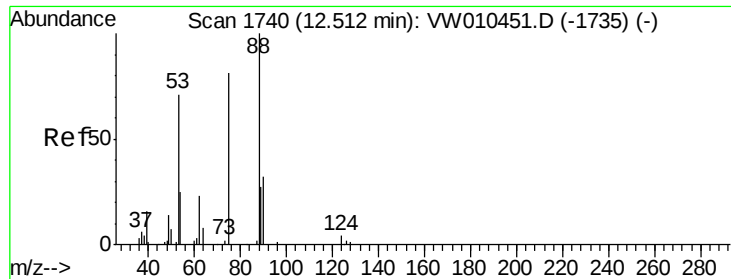
77 1.0 170.0 510.1#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW





#81

trans-1,4-Dichloro-2-butene

Concen: 115.481 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.11 min

Lab File: VW010466.D

Acq: 21 May 2019 00:07

Instrument :

MSVOA\_W

ClientSampleId :

GIS-4-4FT

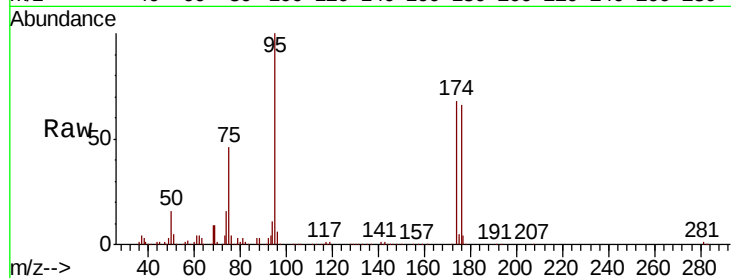
Tot Ion: 75 Resp: 50462

Ion Ratio Lower Upper

75 100

53 0.0 69.8 104.8#

89 0.0 39.5 59.3#



Abundance

Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW

