

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW031119\  
 Data File : VW009089.D  
 Acq On : 11 Mar 2019 16:25  
 Operator : SY/VA  
 Sample : K1837-09  
 Misc : 6.19G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 14 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MR-MH-07-COMP

Quant Time: Mar 12 08:12:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W030719S.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 08 05:22:30 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 258232   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 411563   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 371886   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 177052   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.30  | 65   | 165206   | 63.59 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 127.18% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 130652   | 52.73 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.46% |          |
| 50) Toluene-d8              | 10.32 | 98   | 495431   | 48.68 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.36%  |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 166886   | 41.65 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 83.30%  |          |

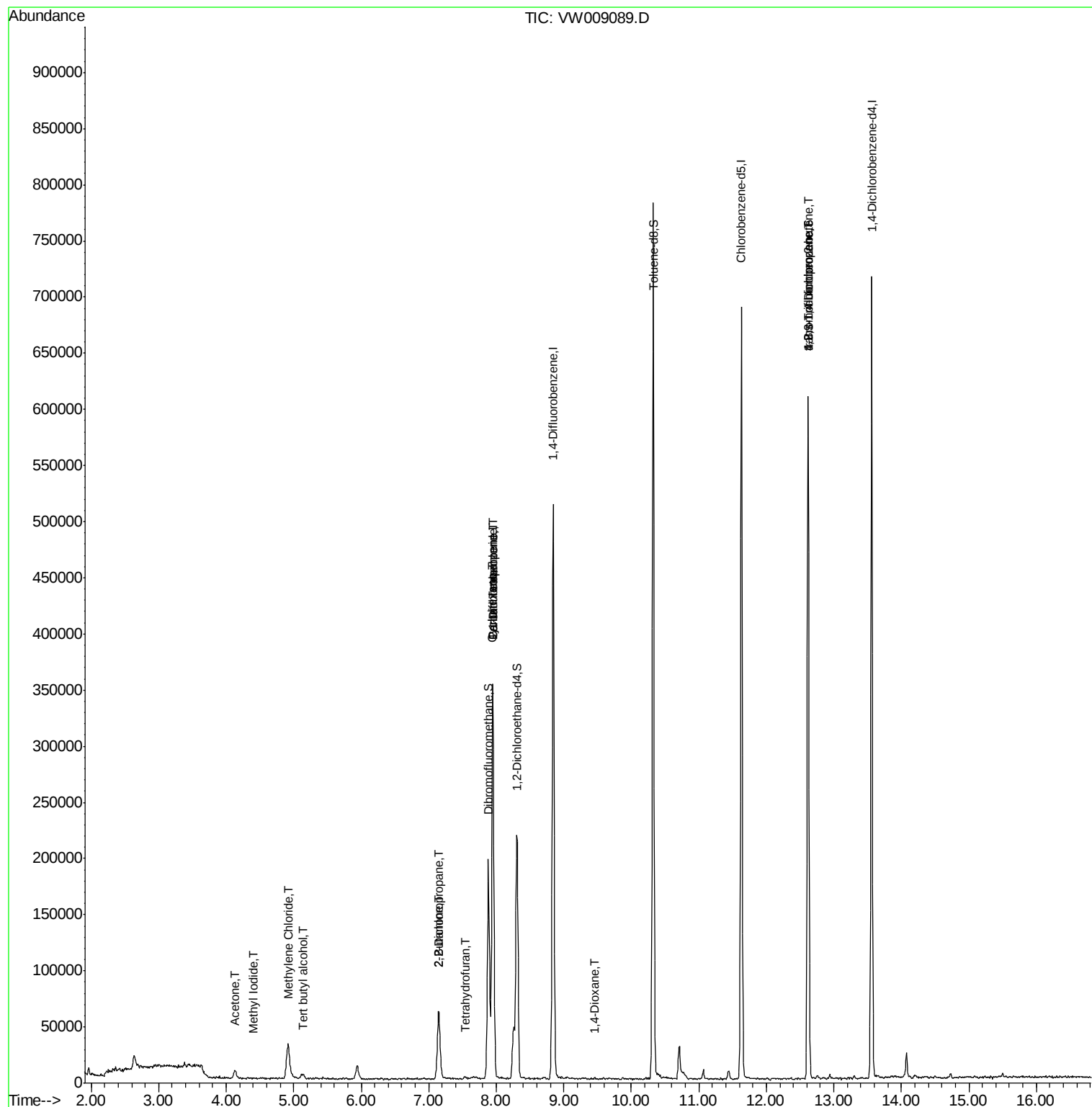
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 10) Methyl Iodide              | 4.40  | 142  | 65       | 3.208   | ug/l # | 40     |
| 11) Tert butyl alcohol         | 5.13  | 59   | 2579     | 12.954  | ug/l # | 90     |
| 16) Acetone                    | 4.13  | 43   | 13899    | 23.707  | ug/l   | 96     |
| 20) Methylene Chloride         | 4.92  | 84   | 23167    | 3.336   | ug/l   | 90     |
| 25) 2-Butanone                 | 7.14  | 43   | 4341     | 5.358   | ug/l # | 63     |
| 26) 2,2-Dichloropropane        | 7.15  | 77   | 4602     | 1.073   | ug/l # | 54     |
| 29) Tetrahydrofuran            | 7.54  | 42   | 1526     | 2.989   | ug/l # | 86     |
| 31) Cyclohexane                | 7.94  | 56   | 6704     | 1.384   | ug/l # | 15     |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 21111    | 4.906   | ug/l # | 50     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 25564    | 5.752   | ug/l # | 20     |
| 49) 1,4-Dioxane                | 9.46  | 88   | 83       | 3.689   | ug/l # | 69     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 91770    | 65.604  | ug/l # | 1      |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 91770    | 146.738 | ug/l # | 5      |

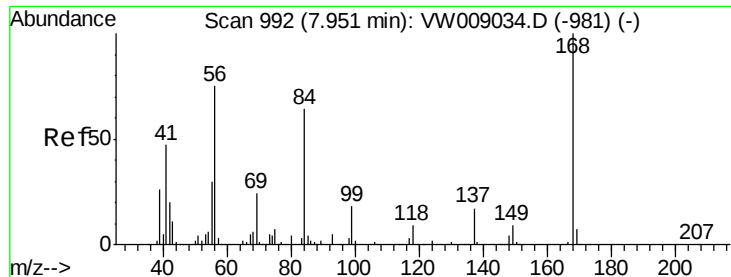
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W030719S.M  
Quant Title : SW846 8260  
QLast Update : Fri Mar 08 05:22:30 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 992

Delta R.T. -0.00 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

Instrument :

MSVOA\_W

ClientSampleId :

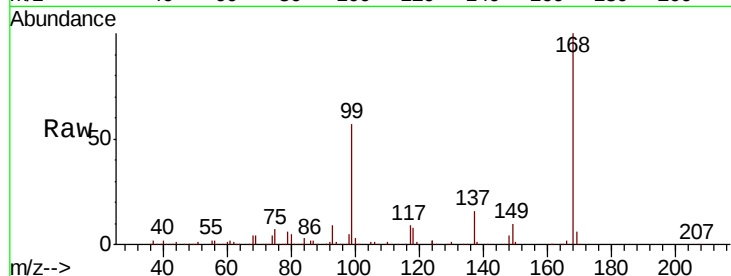
MR-MH-07-COMP

Tgt Ion:168 Resp: 258232

Ion Ratio Lower Upper

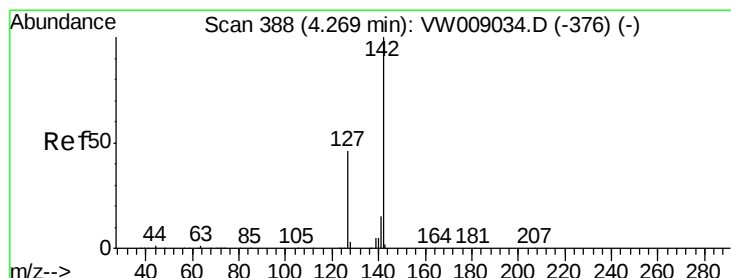
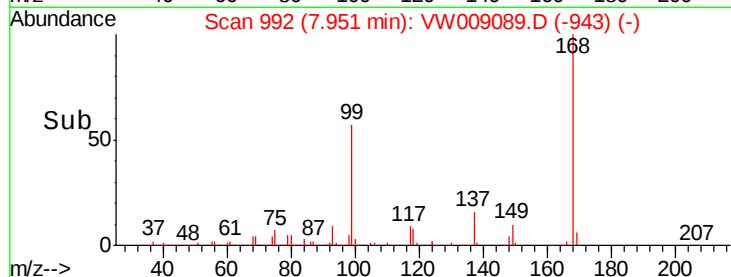
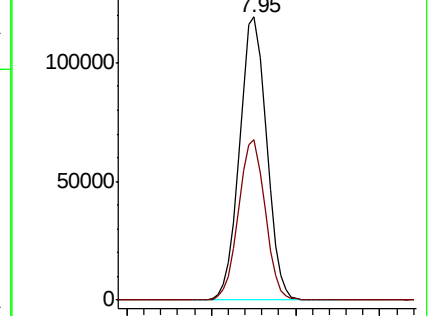
168 100

99 56.9 42.2 63.2



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#10

Methyl Iodide

Concen: 3.208 ug/l

RT: 4.40 min Scan# 410

Delta R.T. 0.13 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

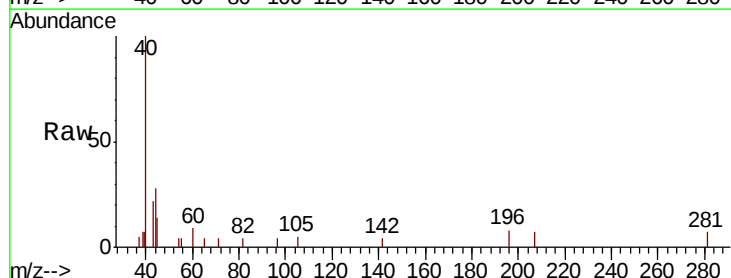
Tgt Ion:142 Resp: 65

Ion Ratio Lower Upper

142 100

127 0.0 35.8 53.6#

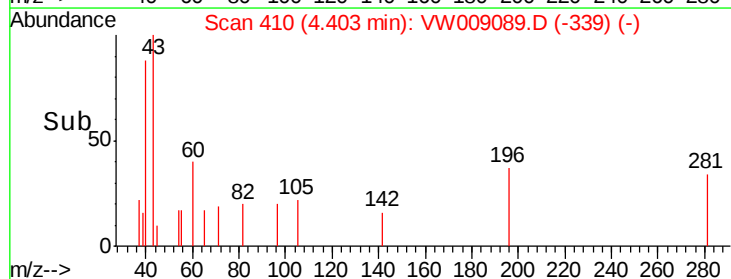
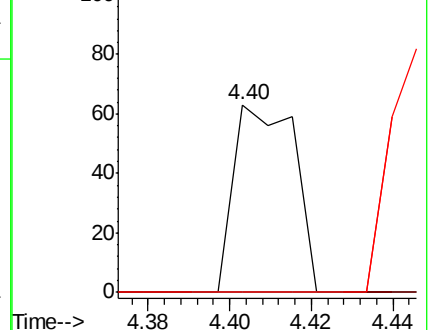
141 0.0 11.8 17.8#

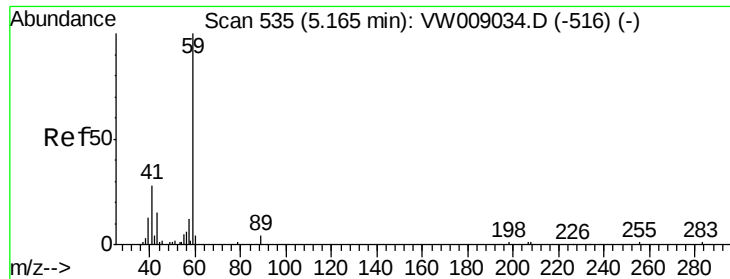


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

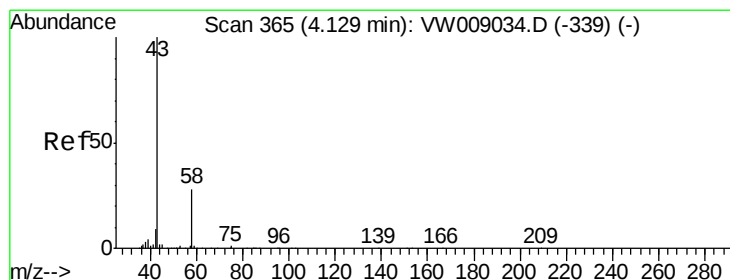
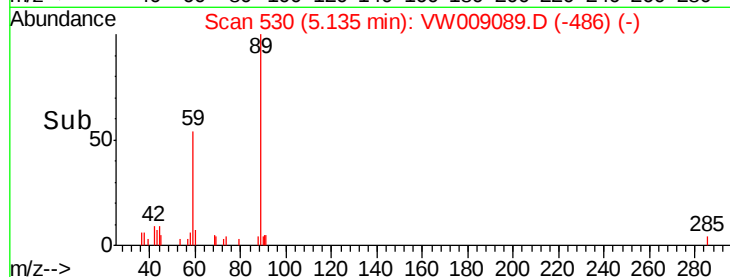
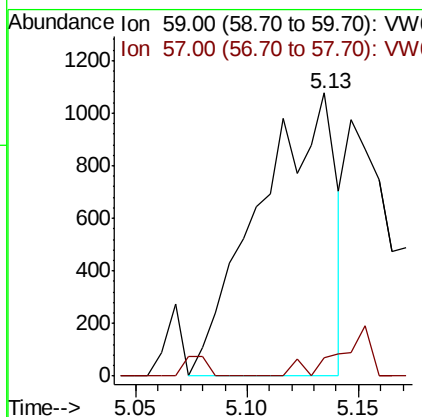
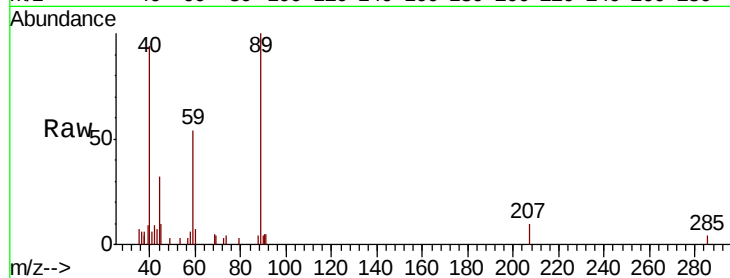




#11  
Tert butyl alcohol  
Concen: 12.954 ug/l  
RT: 5.13 min Scan# 530  
Delta R.T. -0.03 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

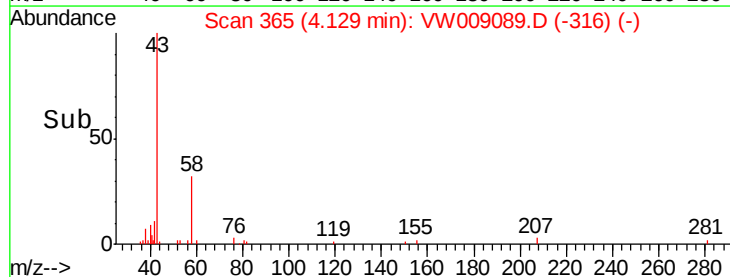
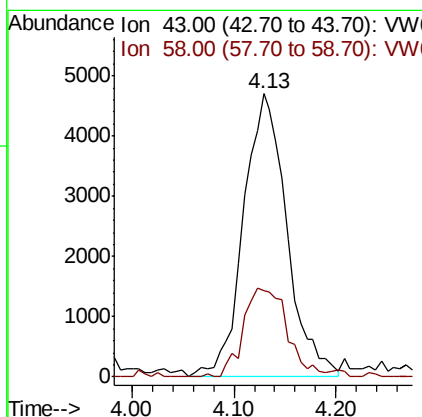
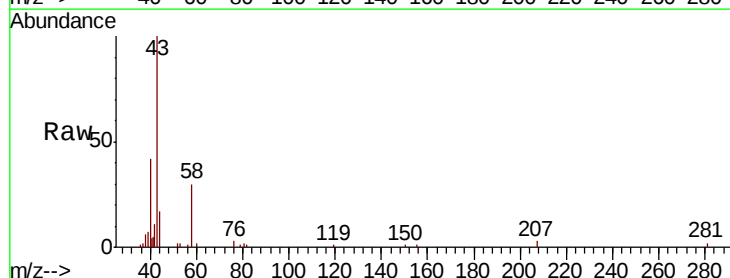
Instrument :  
MSVOA\_W  
ClientSampleId :  
MR-MH-07-COMP

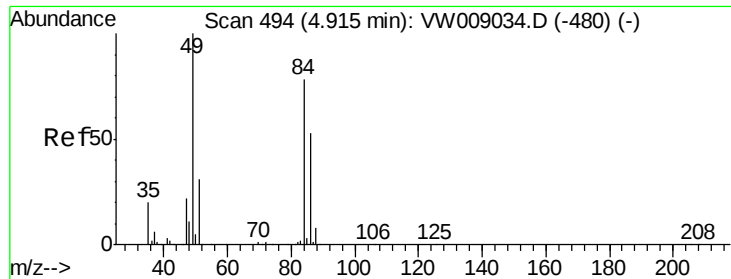
Tgt Ion: 59 Resp: 2579  
Ion Ratio Lower Upper  
59 100  
57 7.1 8.6 12.8#



#16  
Acetone  
Concen: 23.707 ug/l  
RT: 4.13 min Scan# 365  
Delta R.T. -0.00 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

Tgt Ion: 43 Resp: 13899  
Ion Ratio Lower Upper  
43 100  
58 30.5 22.5 33.7

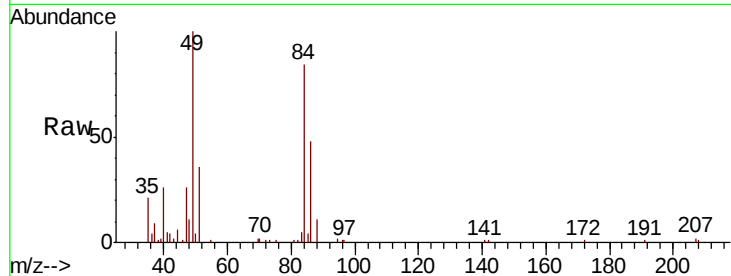




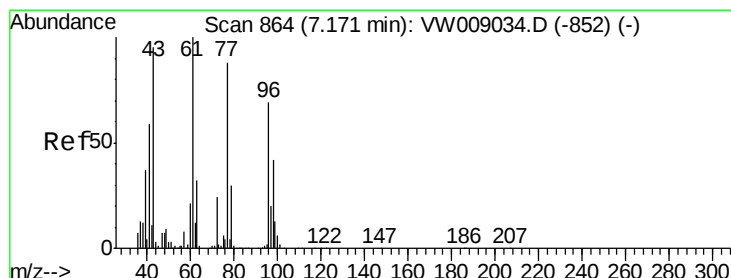
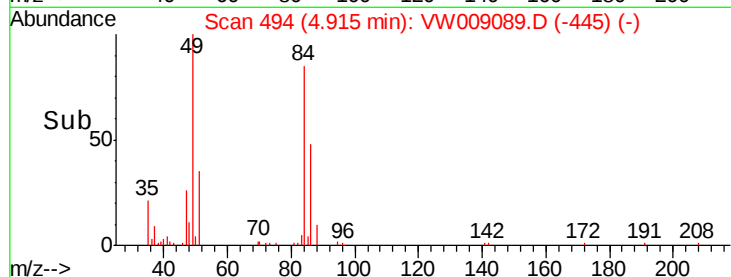
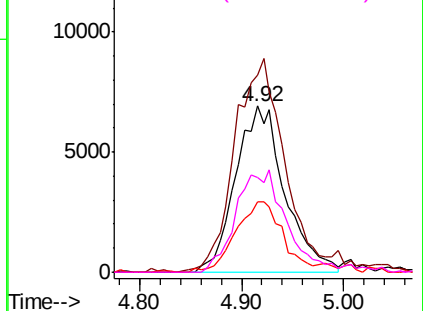
#20  
Methylene Chloride  
Concen: 3.336 ug/l  
RT: 4.92 min Scan# 494  
Delta R.T. 0.00 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

Instrument :  
MSVOA\_W  
ClientSampleId :  
MR-MH-07-COMP

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 23167 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 117.5 | 102.4 | 153.6 |
| 51       | 41.7  | 31.6  | 47.4  |
| 86       | 56.9  | 54.5  | 81.7  |

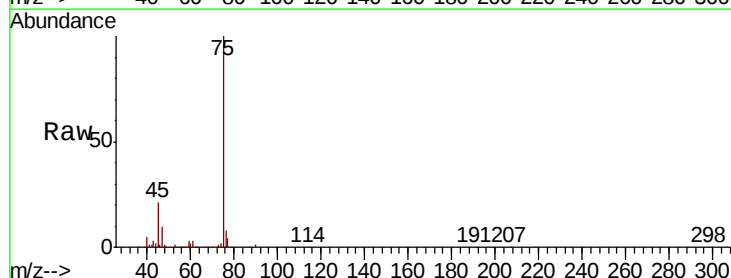


Abundance Ion 83.90 (83.60 to 84.60): VW  
Ion 48.90 (48.60 to 49.60): VW  
Ion 50.90 (50.60 to 51.60): VW  
Ion 85.90 (85.60 to 86.60): VW

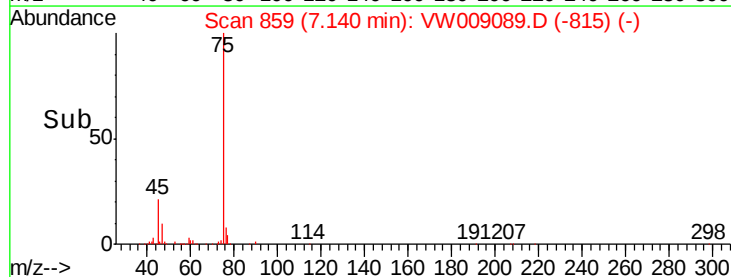
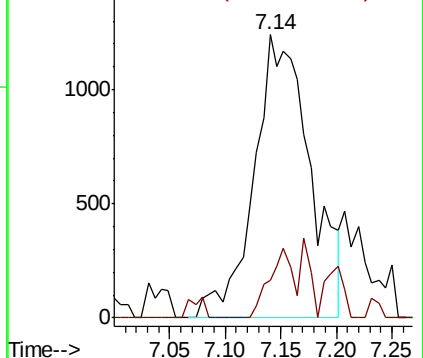


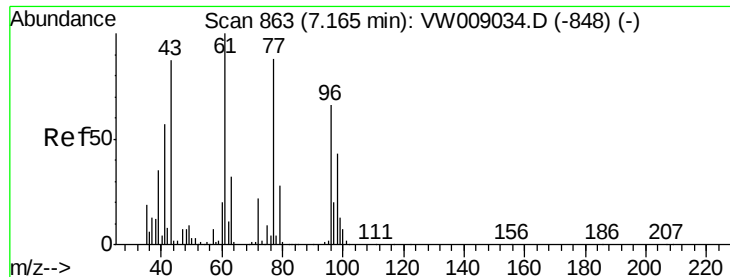
#25  
2-Butanone  
Concen: 5.358 ug/l  
RT: 7.14 min Scan# 859  
Delta R.T. -0.03 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 4341  |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 6.5   | 20.0  | 30.0# |



Abundance Ion 43.00 (42.70 to 43.70): VW  
Ion 72.00 (71.70 to 72.70): VW





#26

2,2-Dichloropropane

Concen: 1.073 ug/l

RT: 7.15 min Scan# 860

Delta R.T. -0.02 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

Instrument :

MSVOA\_W

ClientSampleId :

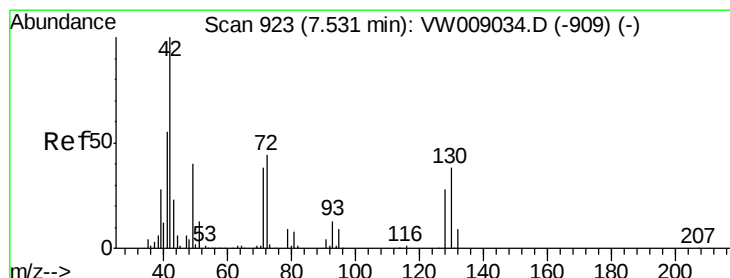
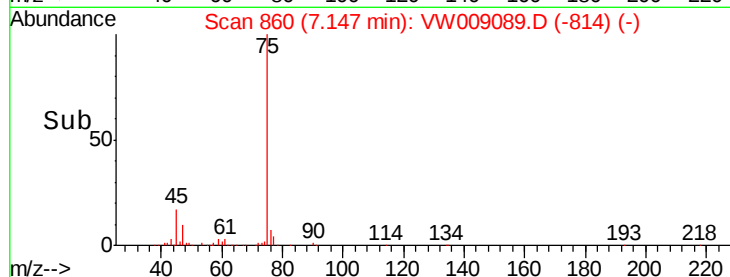
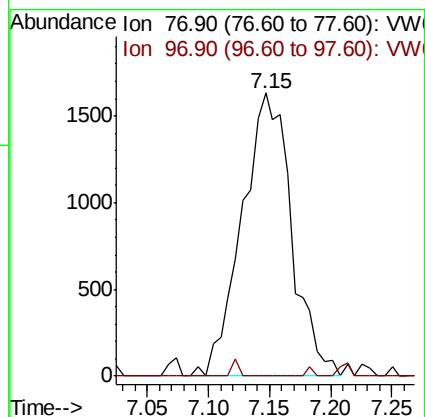
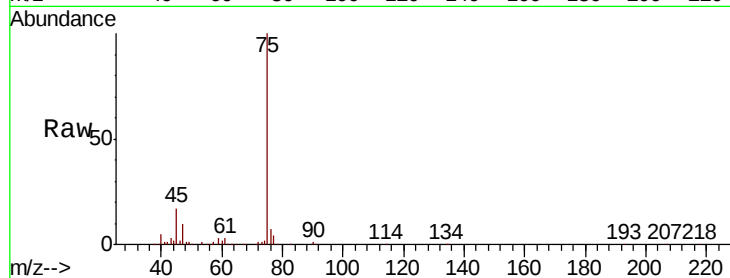
MR-MH-07-COMP

Tgt Ion: 77 Resp: 4602

Ion Ratio Lower Upper

77 100

97 0.0 10.9 32.9#



#29

Tetrahydrofuran

Concen: 2.989 ug/l

RT: 7.54 min Scan# 924

Delta R.T. 0.01 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

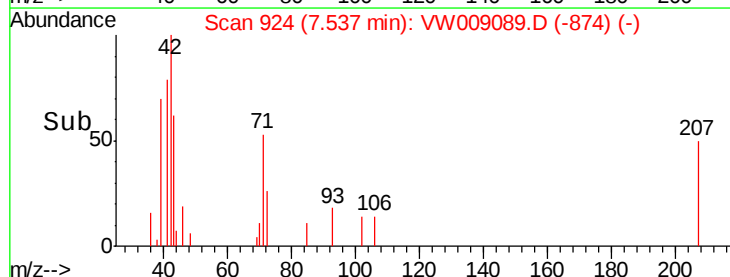
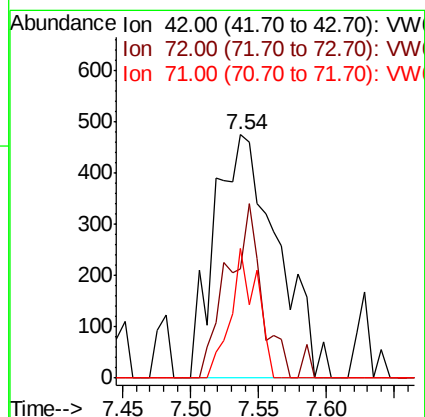
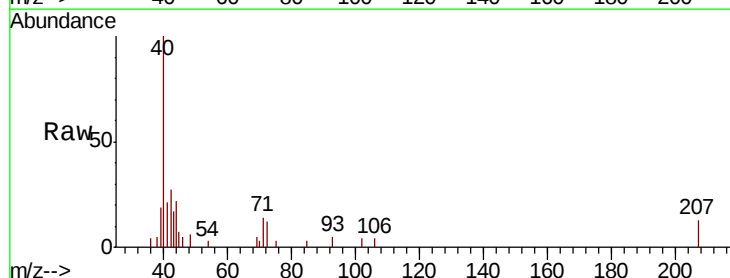
Tgt Ion: 42 Resp: 1526

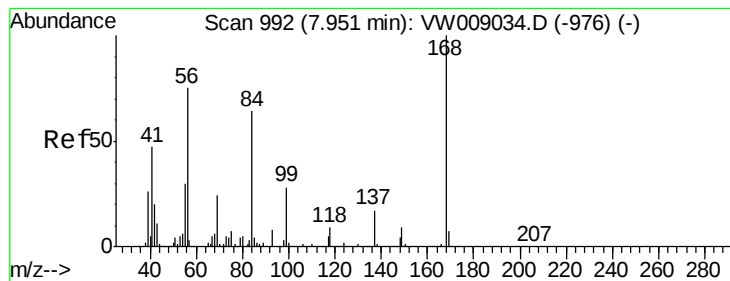
Ion Ratio Lower Upper

42 100

72 38.8 32.2 48.4

71 22.5 30.7 46.1#





#31

Cyclohexane

Concen: 1.384 ug/l

RT: 7.94 min Scan# 990

Delta R.T. -0.01 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

Instrument :

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ClientSampleId :

MR-MH-07-COMP

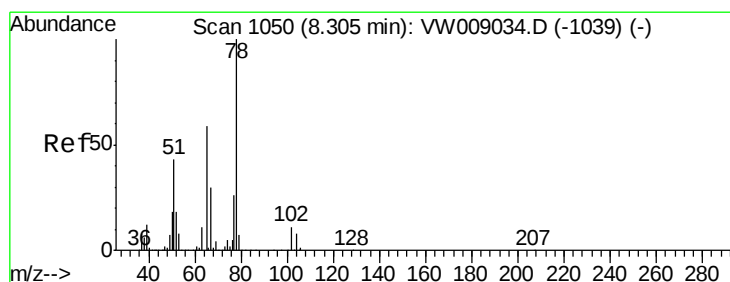
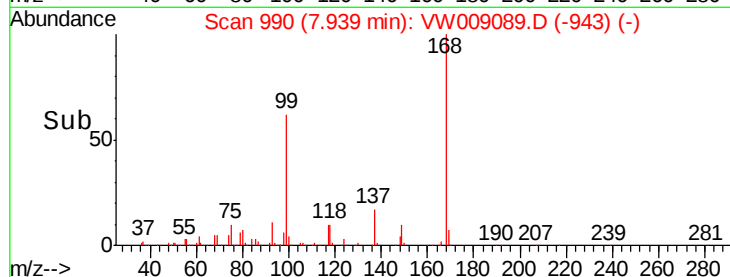
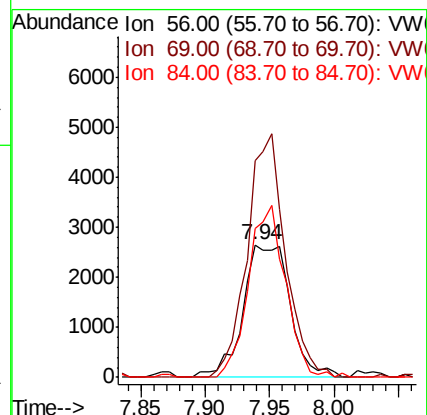
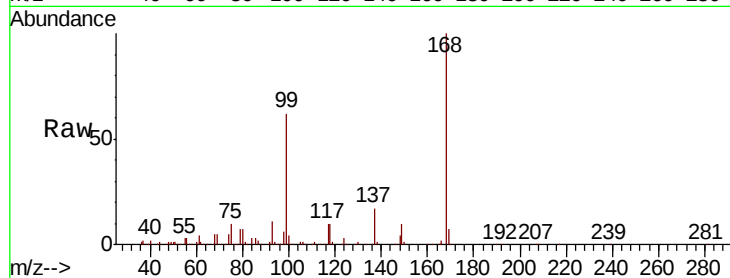
Tgt Ion: 56 Resp: 6704

Ion Ratio Lower Upper

56 100

69 163.2 25.5 38.3#

84 112.4 68.6 103.0#



#33

1,2-Dichloroethane-d4

Concen: 63.588 ug/l

RT: 8.30 min Scan# 1050

Delta R.T. -0.00 min

Lab File: VW009089.D

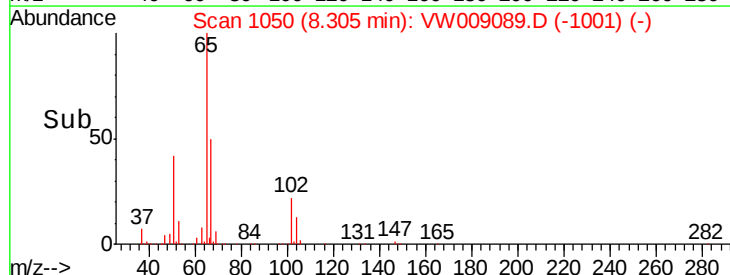
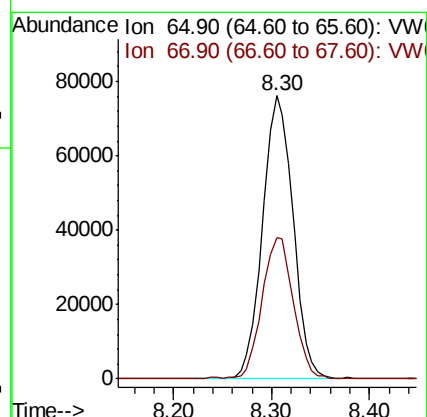
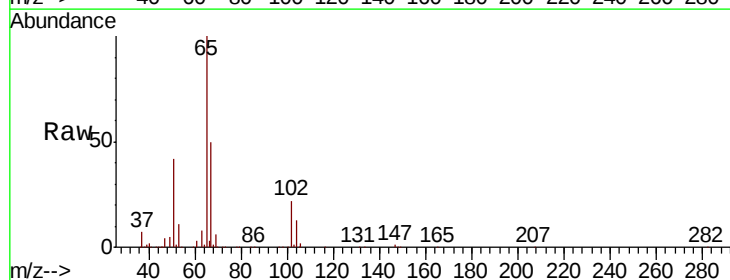
Acq: 11 Mar 2019 16:25

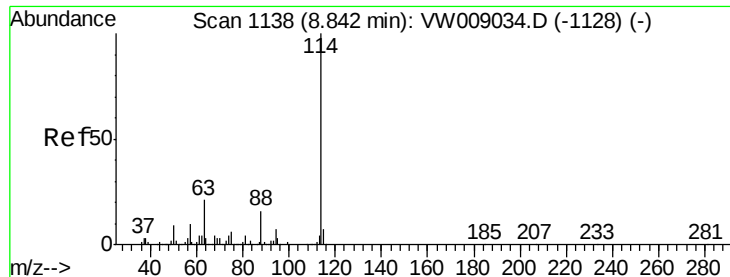
Tgt Ion: 65 Resp: 165206

Ion Ratio Lower Upper

65 100

67 51.2 0.0 103.0

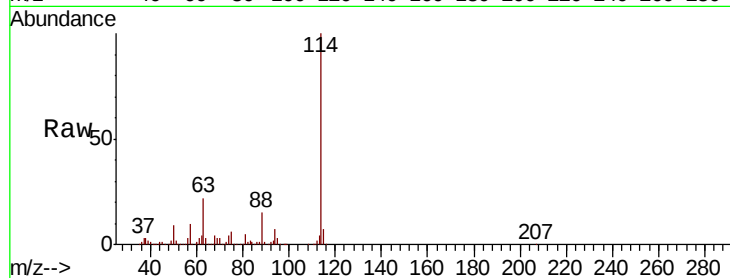




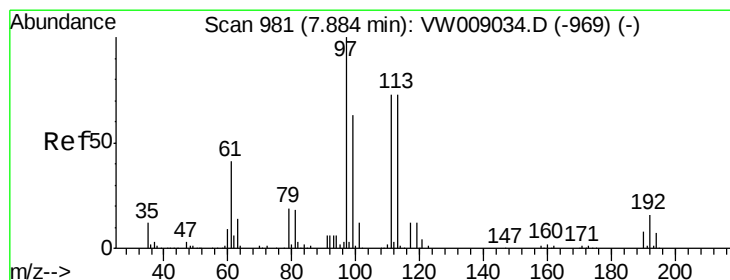
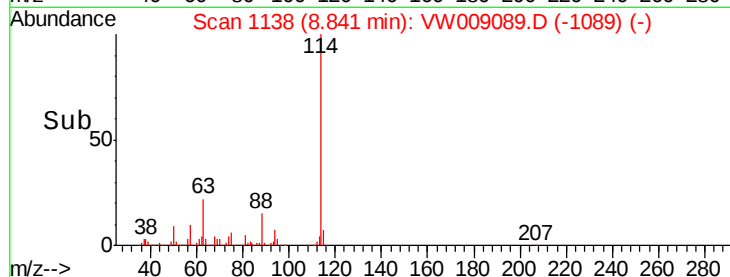
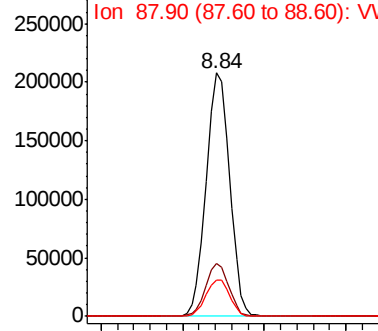
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW009089.D  
 Acq: 11 Mar 2019 16:25

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MR-MH-07-COMP

Tgt Ion:114 Resp: 411563  
 Ion Ratio Lower Upper  
 114 100  
 63 21.9 0.0 41.2  
 88 15.1 0.0 31.2

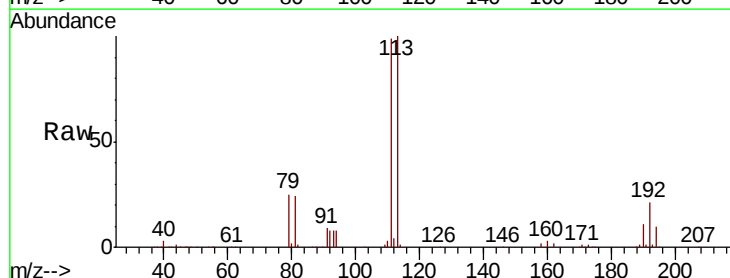


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VW  
 Ion 87.90 (87.60 to 88.60): VW

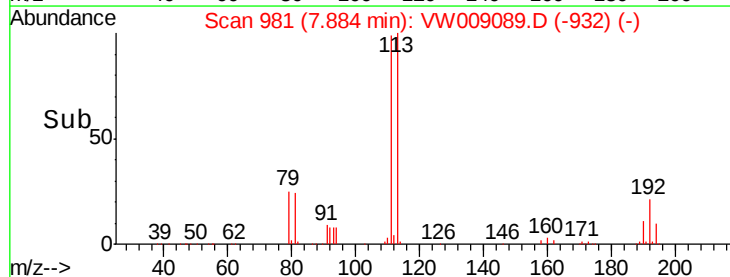
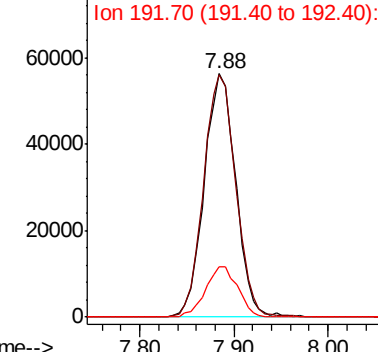


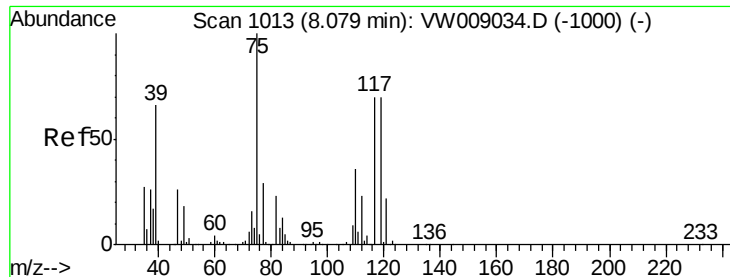
#35  
 Dibromofluoromethane  
 Concen: 52.725 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. -0.00 min  
 Lab File: VW009089.D  
 Acq: 11 Mar 2019 16:25

Tgt Ion:113 Resp: 130652  
 Ion Ratio Lower Upper  
 113 100  
 111 101.5 81.0 121.4  
 192 21.3 17.1 25.7



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

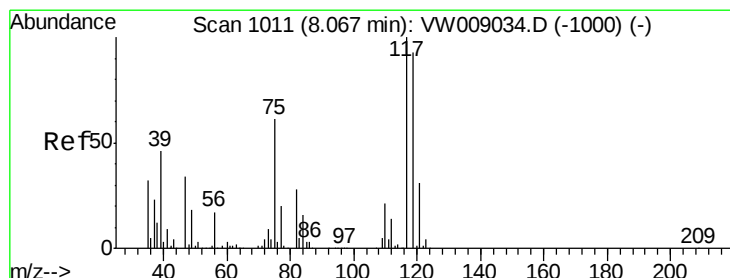
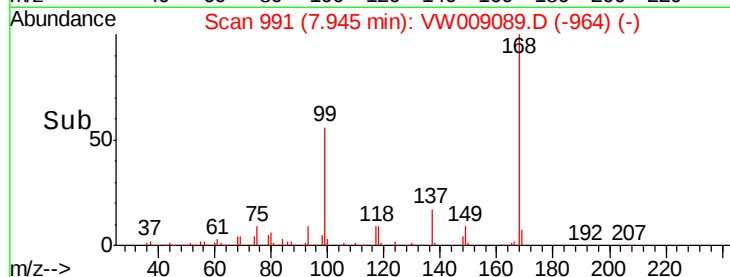
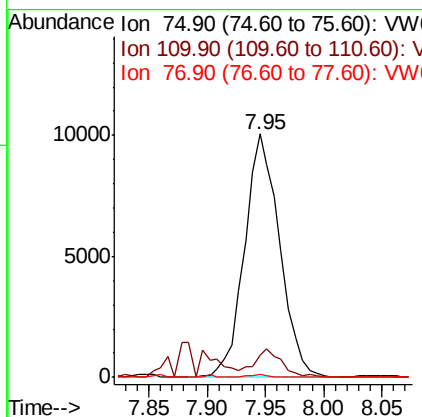
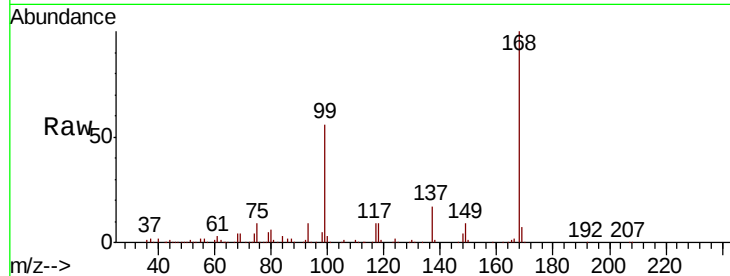




#36  
 1,1-Dichloropropene  
 Concen: 4.906 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW009089.D  
 Acq: 11 Mar 2019 16:25

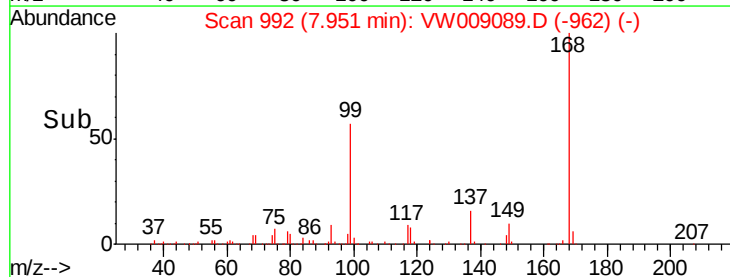
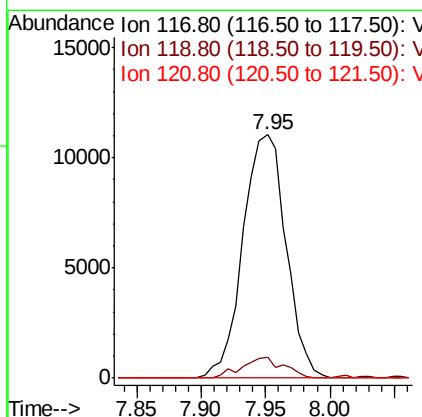
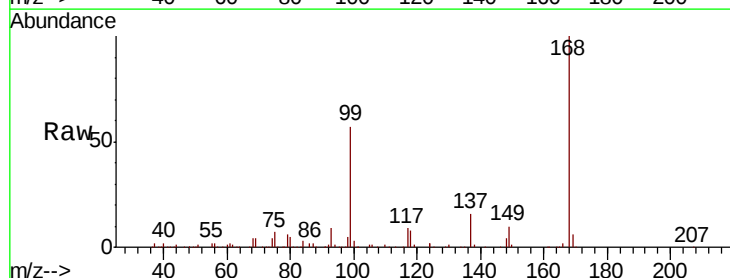
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 MR-MH-07-COMP

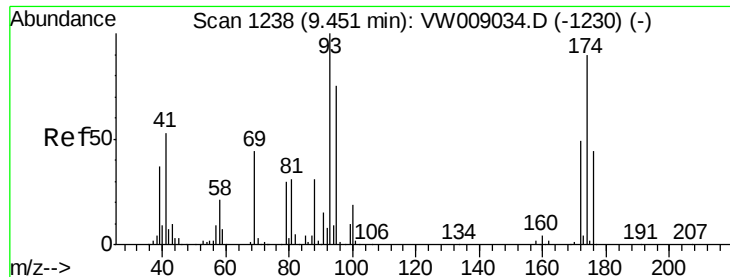
Tgt Ion: 75 Resp: 21111  
 Ion Ratio Lower Upper  
 75 100  
 110 9.1 17.6 52.9#  
 77 0.6 25.1 37.7#



#38  
 Carbon Tetrachloride  
 Concen: 5.752 ug/l  
 RT: 7.95 min Scan# 992  
 Delta R.T. -0.12 min  
 Lab File: VW009089.D  
 Acq: 11 Mar 2019 16:25

Tgt Ion: 117 Resp: 25564  
 Ion Ratio Lower Upper  
 117 100  
 119 8.8 74.6 112.0#  
 121 0.0 24.7 37.1#

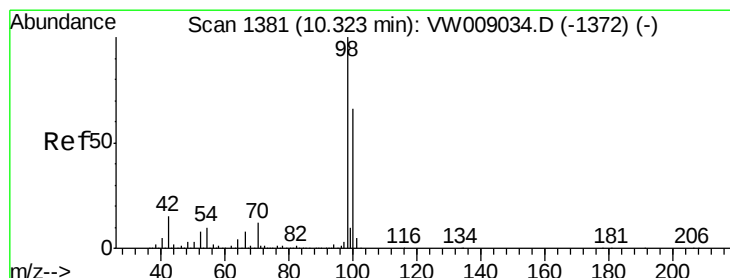
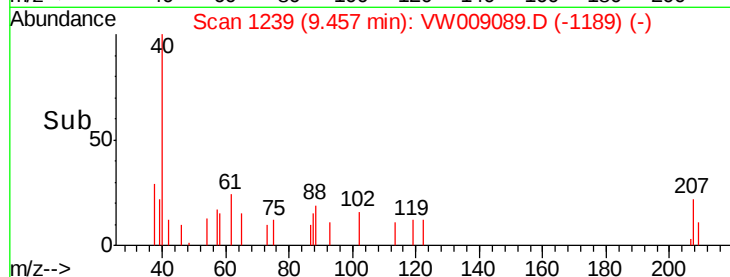
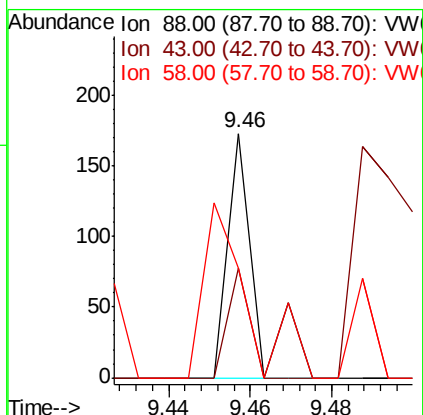
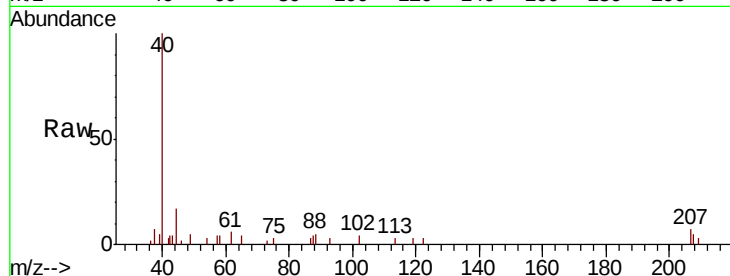




#49  
1,4-Dioxane  
Concen: 3.689 ug/l  
RT: 9.46 min Scan# 1239  
Delta R.T. 0.01 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

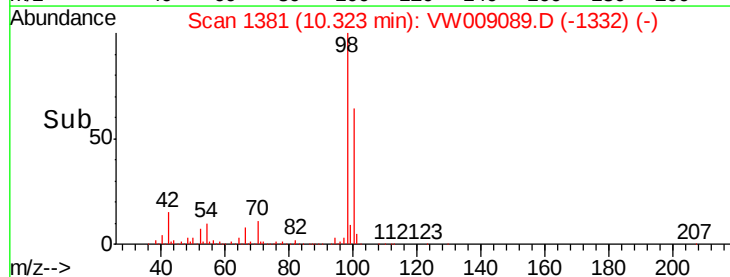
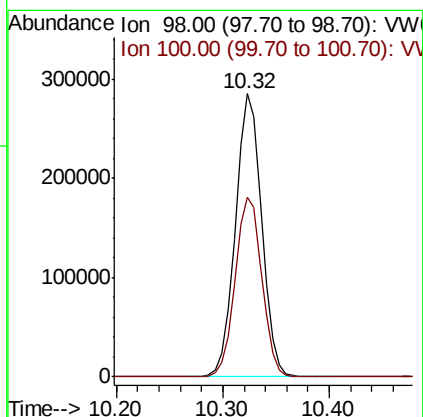
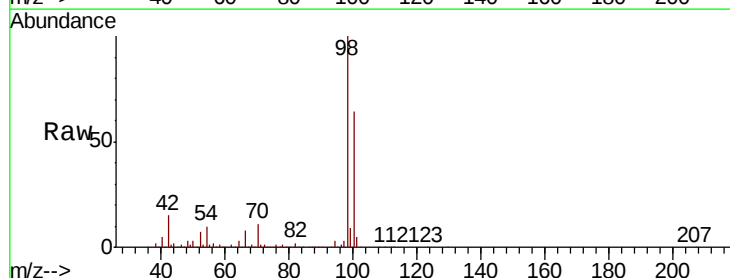
Instrument :  
MSVOA\_W  
ClientSampleId :  
MR-MH-07-COMP

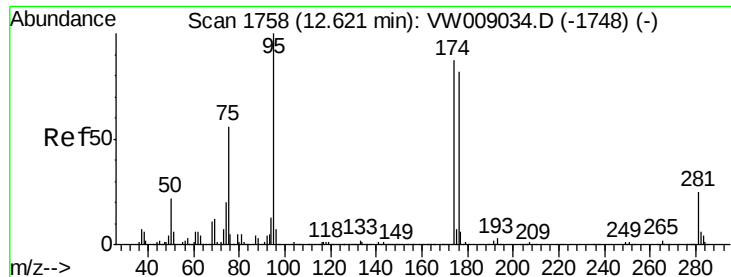
Tgt Ion: 88 Resp: 83  
Ion Ratio Lower Upper  
88 100  
43 34.9 29.0 43.4  
58 112.0 59.2 88.8#



#50  
Toluene-d8  
Concen: 48.679 ug/l  
RT: 10.32 min Scan# 1381  
Delta R.T. -0.00 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

Tgt Ion: 98 Resp: 495431  
Ion Ratio Lower Upper  
98 100  
100 64.4 51.9 77.9

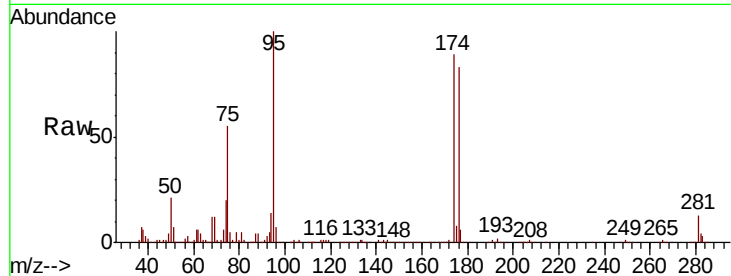




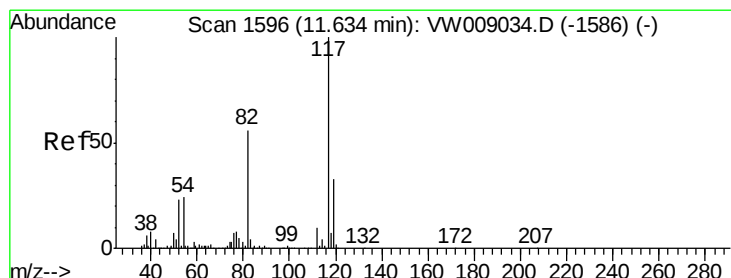
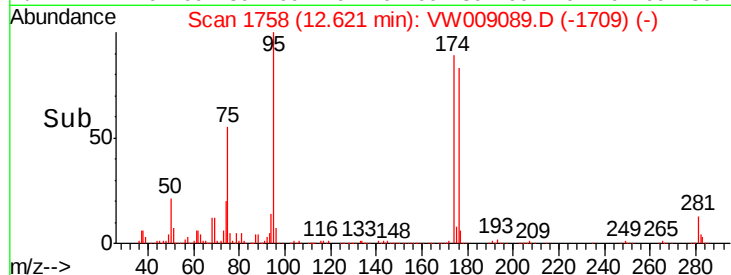
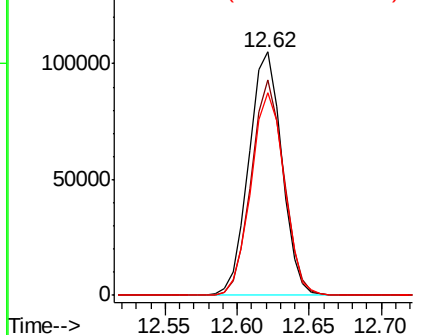
#62  
4-Bromofluorobenzene  
Concen: 41.654 ug/l  
RT: 12.62 min Scan# 1758  
Delta R.T. -0.00 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

Instrument :  
MSVOA\_W  
ClientSampleId :  
MR-MH-07-COMP

Tgt Ion: 95 Resp: 166886  
Ion Ratio Lower Upper  
95 100  
174 87.1 0.0 167.0  
176 84.3 0.0 159.4

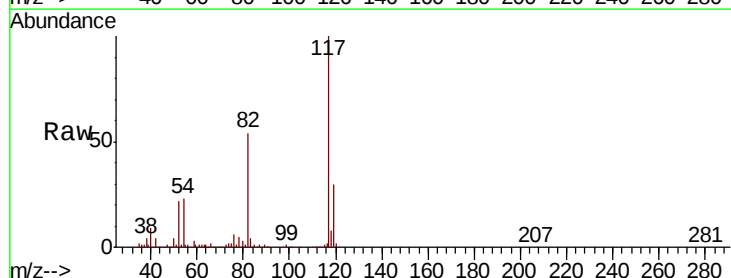


Abundance Ion 94.90 (94.60 to 95.60): VW  
Ion 173.80 (173.50 to 174.50): VW  
Ion 175.80 (175.50 to 176.50): VW

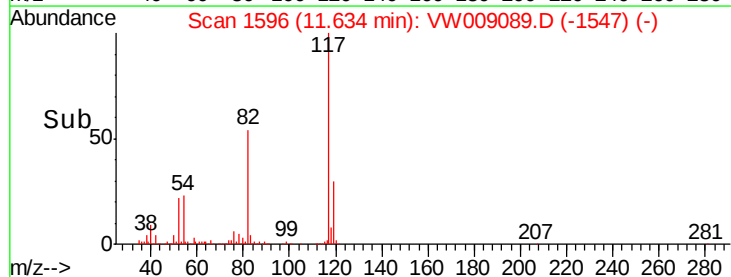
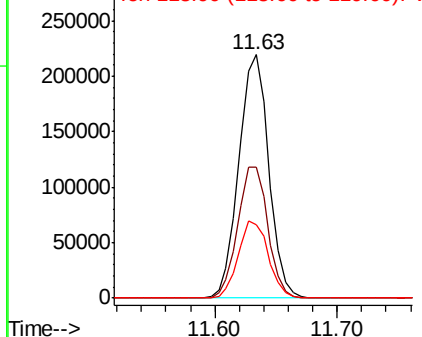


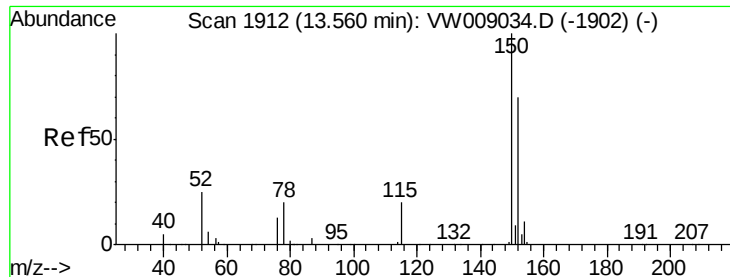
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. -0.00 min  
Lab File: VW009089.D  
Acq: 11 Mar 2019 16:25

Tgt Ion: 117 Resp: 371886  
Ion Ratio Lower Upper  
117 100  
82 53.9 45.0 67.6  
119 30.3 26.6 39.8



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





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.56 min Scan# 1912

Delta R.T. -0.00 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

Instrument :

MSVOA\_W

ClientSampleId :

MR-MH-07-COMP

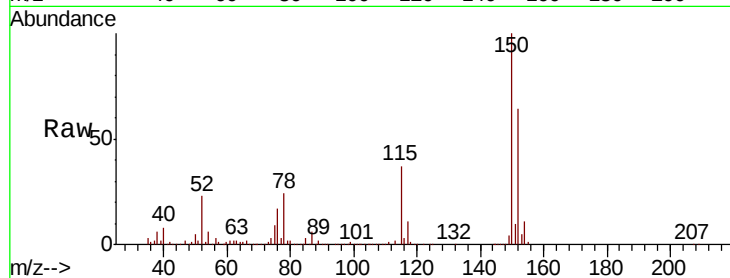
Tgt Ion:152 Resp: 177052

Ion Ratio Lower Upper

152 100

115 56.9 28.9 86.7

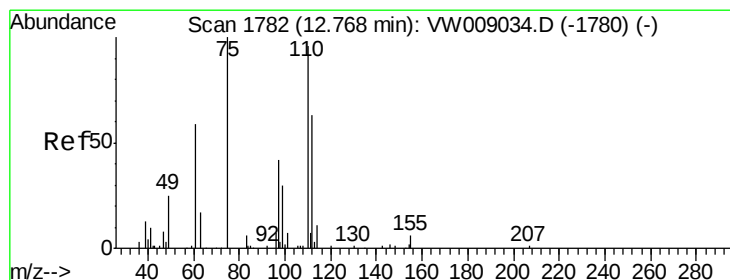
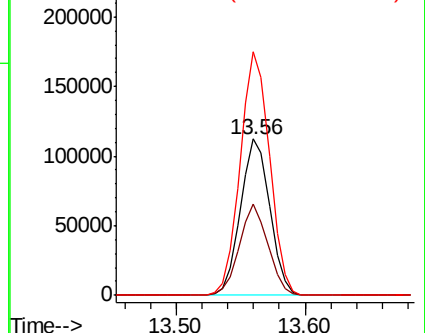
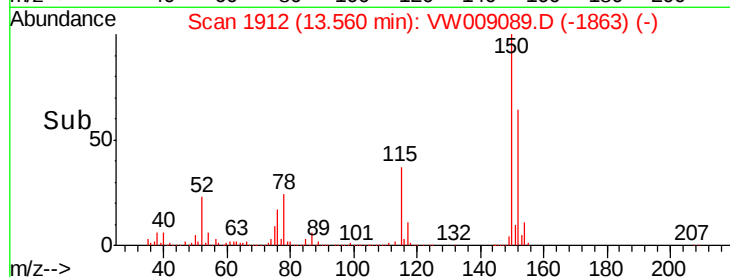
150 155.7 0.0 349.2



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: 65.604 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. -0.15 min

Lab File: VW009089.D

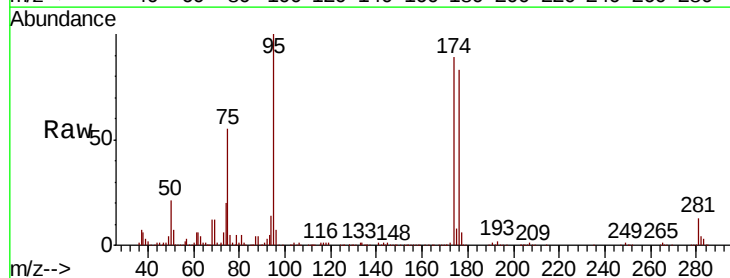
Acq: 11 Mar 2019 16:25

Tgt Ion: 75 Resp: 91770

Ion Ratio Lower Upper

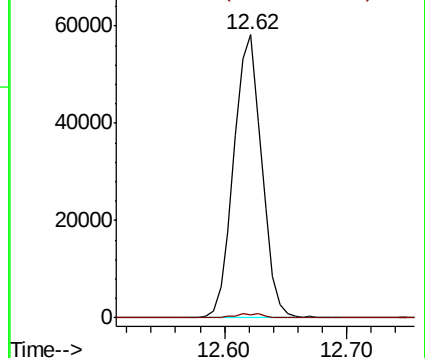
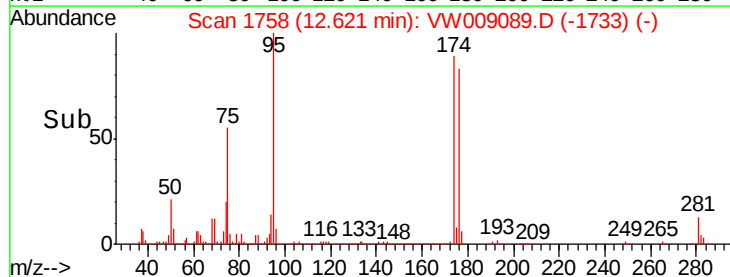
75 100

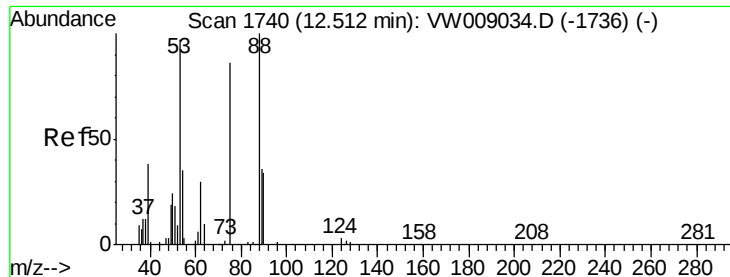
77 1.5 186.7 560.0#



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: 146.738 ug/l

RT: 12.62 min Scan# 1758

Delta R.T. 0.11 min

Lab File: VW009089.D

Acq: 11 Mar 2019 16:25

Instrument :

MSVOA\_W

ClientSampleId :

MR-MH-07-COMP

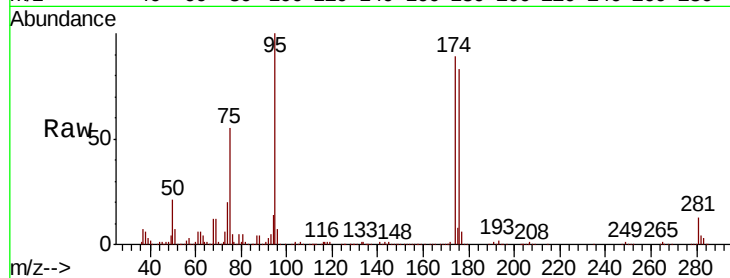
Tgt Ion: 75 Resp: 91770

Ion Ratio Lower Upper

75 100

53 0.4 90.5 135.7#

89 0.2 37.5 56.3#



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

