

Data Path : W:\HPCHEM1\MSVOA\_W\DATA\VW051518\  
 Data File : VW002570.D  
 Acq On : 16 May 2018 01:22  
 Operator : JC/SY  
 Sample : J2898-04  
 Misc : 4.83G/10ML/MSVOA\_W/SOIL  
 ALS Vial : 29 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SP-04

Quant Time: May 16 05:52:13 2018  
 Quant Method : W:\HPCHEM1\MSVOA\_W\METHOD\82W051518S.M  
 Quant Title : SW846 8260  
 QLast Update : Tue May 15 03:32:11 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 105293   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.85  | 114  | 150549   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.64 | 117  | 104056   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.57 | 152  | 30400    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.31  | 65   | 48958    | 45.00 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 90.00% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 41903    | 43.87 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 87.74% |          |
| 50) Toluene-d8              | 10.33 | 98   | 127157   | 34.99 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 69.98% |          |
| 62) 4-Bromofluorobenzene    | 12.63 | 95   | 32262    | 24.28 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 48.56% |          |

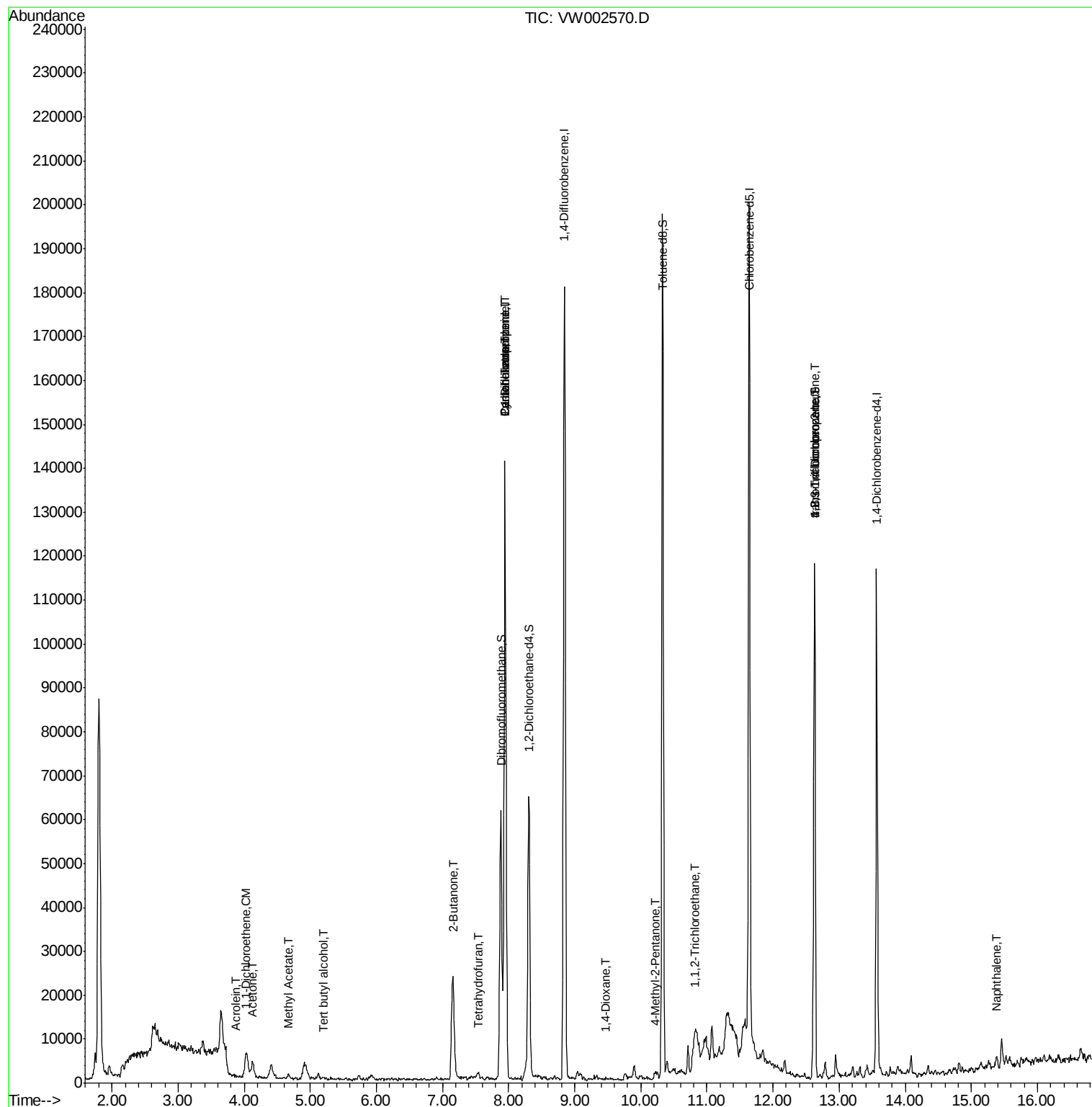
| Target Compounds               | R.T.  | QIon | Response | Conc   | Units  | Qvalue |
|--------------------------------|-------|------|----------|--------|--------|--------|
| 11) Tert butyl alcohol         | 5.20  | 59   | 428      | 5.12   | ug/l # | 81     |
| 12) 1,1-Dichloroethene         | 4.03  | 96   | 4135     | 4.70   | ug/l # | 72     |
| 13) Acrolein                   | 3.87  | 56   | 157      | 1.91   | ug/l # | 56     |
| 16) Acetone                    | 4.13  | 43   | 7173     | 31.23  | ug/l   | 93     |
| 18) Methyl Acetate             | 4.67  | 43   | 1714     | 2.56   | ug/l   | 90     |
| 25) 2-Butanone                 | 7.16  | 43   | 1912     | 5.89   | ug/l # | 74     |
| 29) Tetrahydrofuran            | 7.54  | 42   | 1044     | 5.15   | ug/l # | 78     |
| 31) Cyclohexane                | 7.94  | 56   | 2683     | 1.74   | ug/l # | 41     |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 8236     | 6.20   | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 9712     | 7.47   | ug/l # | 20     |
| 49) 1,4-Dioxane                | 9.47  | 88   | 23       | 2.50   | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 10.21 | 43   | 1336     | 1.92   | ug/l   | 90     |
| 55) 1,1,2-Trichloroethane      | 10.81 | 97   | 1366     | 1.75   | ug/l # | 15     |
| 76) 1,2,3-Trichloropropane     | 12.63 | 75   | 17290    | 60.17  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.63 | 75   | 17290    | 164.05 | ug/l # | 9      |
| 95) Naphthalene                | 15.38 | 128  | 2170     | 1.87   | ug/l # | 87     |

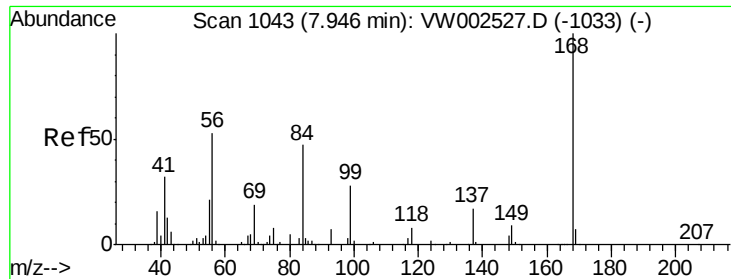
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : W:\HPCHEM1\MSVOA\_W\DATA\VW051518\  
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ALS Vial : 29 Sample Multiplier: 1

Instrument :  
MSVOA\_W  
ClientSampleId :  
SP-04

Quant Time: May 16 05:52:13 2018  
Quant Method : W:\HPCHEM1\MSVOA\_W\METHOD\82W051518S.M  
Quant Title : SW846 8260  
QLast Update : Tue May 15 03:32:11 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 7.95 min Scan# 1043

Delta R.T. -0.00 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampled :

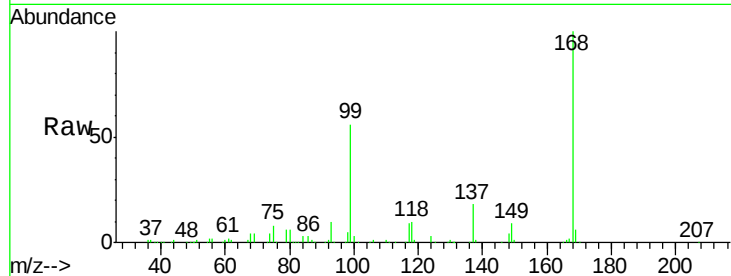
SP-04

Tgt Ion: 168 Resp: 105293

Ion Ratio Lower Upper

168 100

99 56.1 42.6 64.0



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

50000

40000

30000

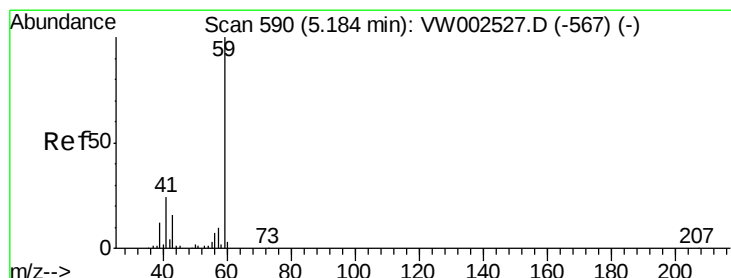
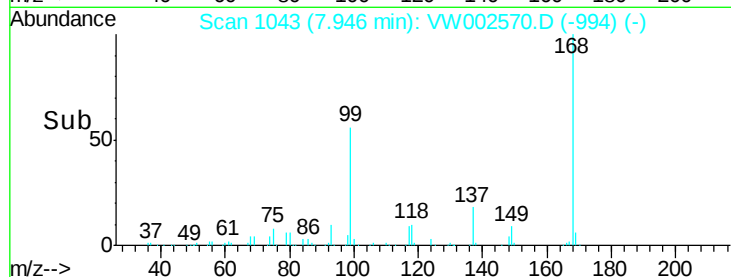
20000

10000

0

7.85 7.90 7.95 8.00 8.05

Time-->



#11

Tert butyl alcohol

Concen: 5.12 ug/l

RT: 5.20 min Scan# 592

Delta R.T. 0.01 min

Lab File: VW002570.D

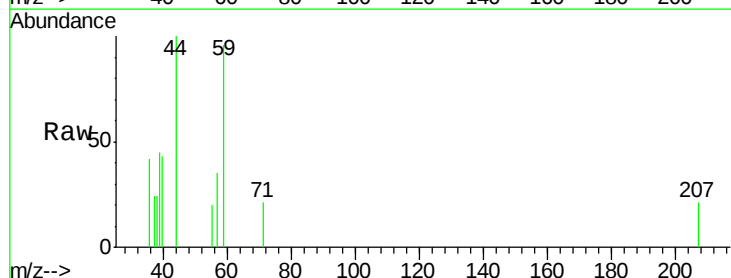
Acq: 16 May 2018 01:22

Tgt Ion: 59 Resp: 428

Ion Ratio Lower Upper

59 100

57 17.5 8.2 12.4#



Abundance Ion 59.00 (58.70 to 59.70): VW

Ion 57.00 (56.70 to 57.70): VW

5.20

300

250

200

150

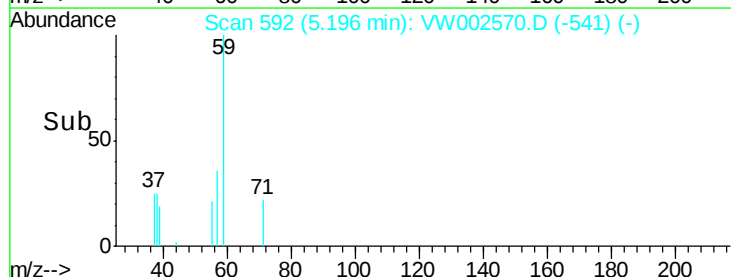
100

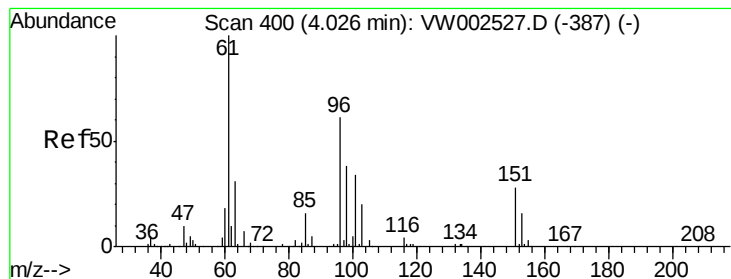
50

0

5.16 5.18 5.20 5.22

Time-->





#12

1,1-Dichloroethene

Concen: 4.70 ug/l

RT: 4.03 min Scan# 400

Delta R.T. -0.00 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampled :

SP-04

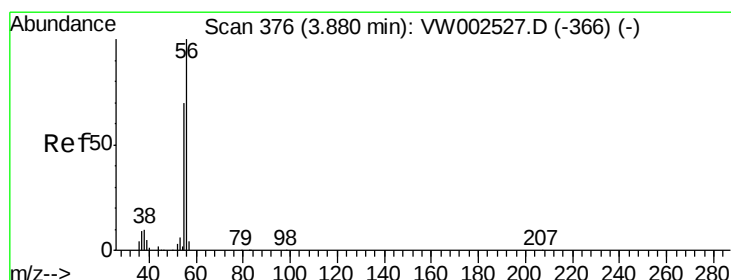
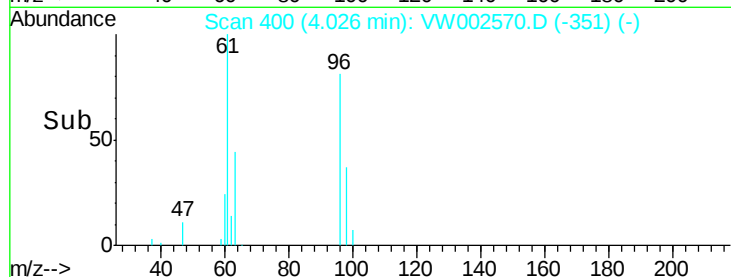
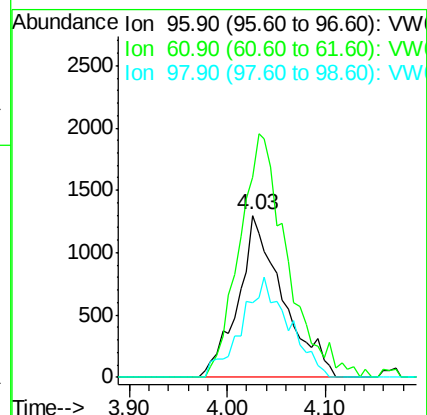
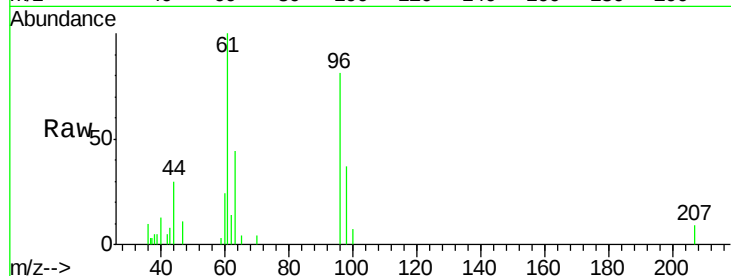
Tgt Ion: 96 Resp: 4135

Ion Ratio Lower Upper

96 100

61 123.5 132.2 198.2#

98 46.3 50.6 76.0#



#13

Acrolein

Concen: 1.91 ug/l

RT: 3.87 min Scan# 374

Delta R.T. -0.01 min

Lab File: VW002570.D

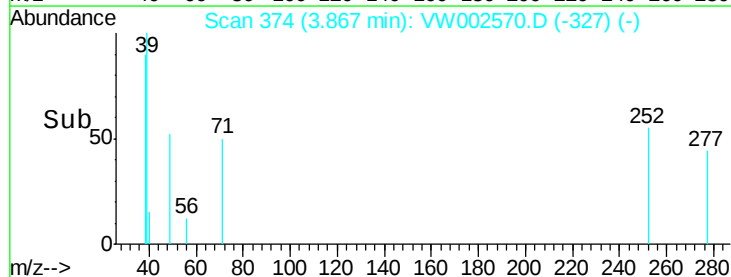
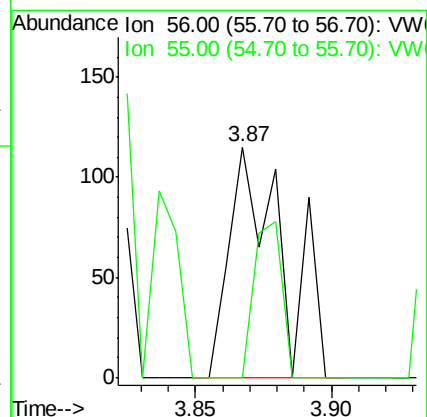
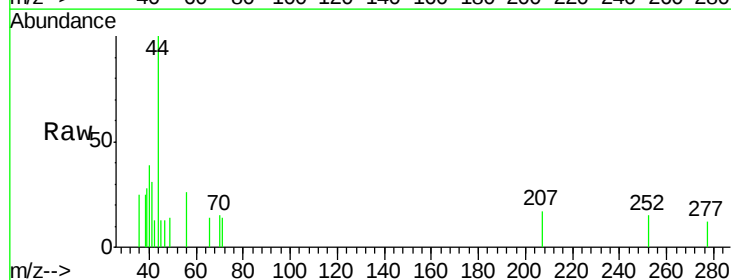
Acq: 16 May 2018 01:22

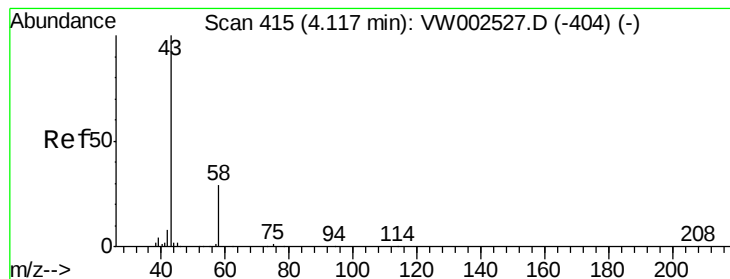
Tgt Ion: 56 Resp: 157

Ion Ratio Lower Upper

56 100

55 35.0 57.0 85.4#





#16

Acetone

Concen: 31.23 ug/l

RT: 4.13 min Scan# 417

Delta R.T. 0.01 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampled :

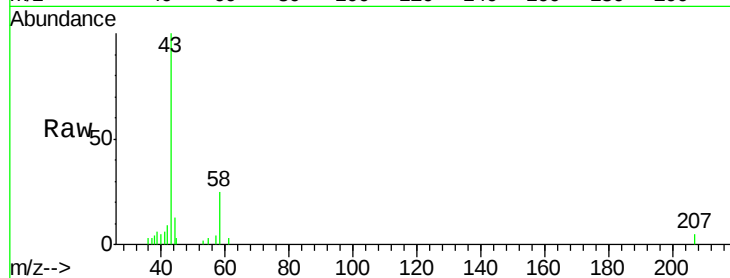
SP-04

Tgt Ion: 43 Resp: 7173

Ion Ratio Lower Upper

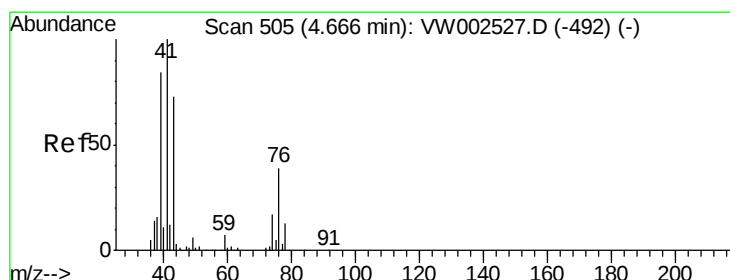
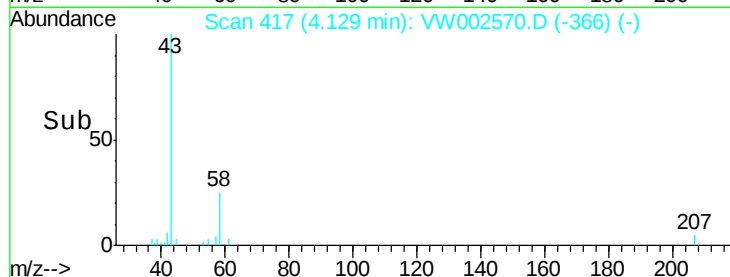
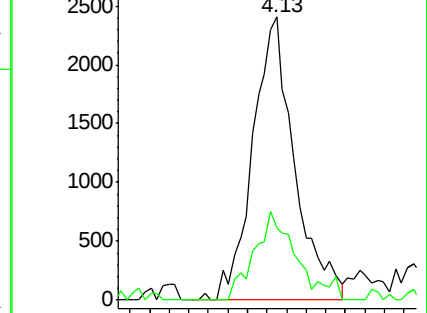
43 100

58 25.4 23.4 35.0



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW



#18

Methyl Acetate

Concen: 2.56 ug/l

RT: 4.67 min Scan# 506

Delta R.T. 0.01 min

Lab File: VW002570.D

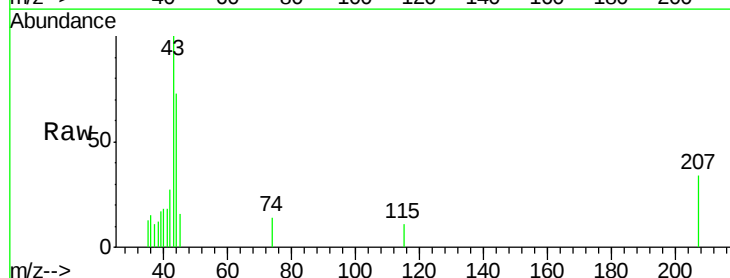
Acq: 16 May 2018 01:22

Tgt Ion: 43 Resp: 1714

Ion Ratio Lower Upper

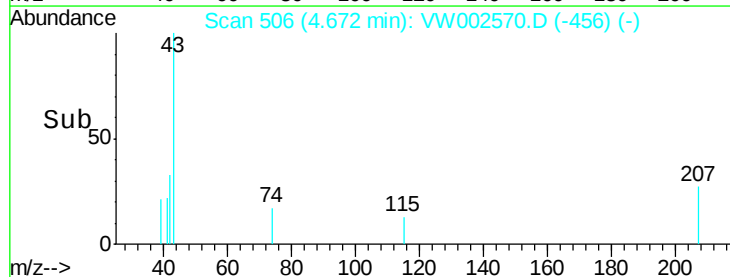
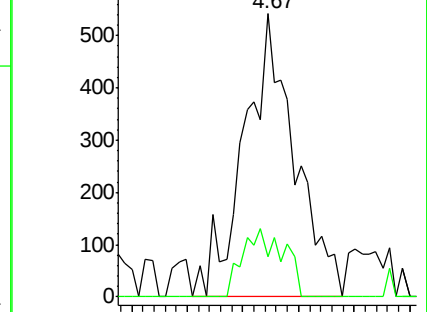
43 100

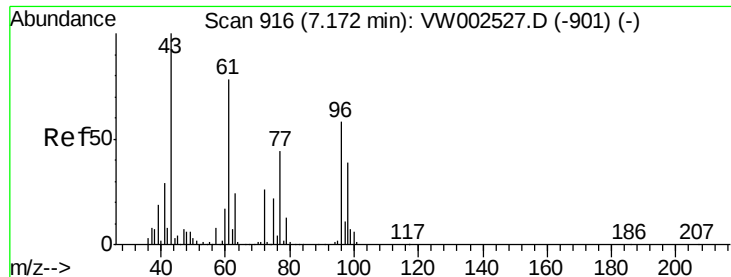
74 19.3 19.2 28.8



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 74.00 (73.70 to 74.70): VW





#25

2-Butanone

Concen: 5.89 ug/l

RT: 7.16 min Scan# 914

Delta R.T. -0.01 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampled :

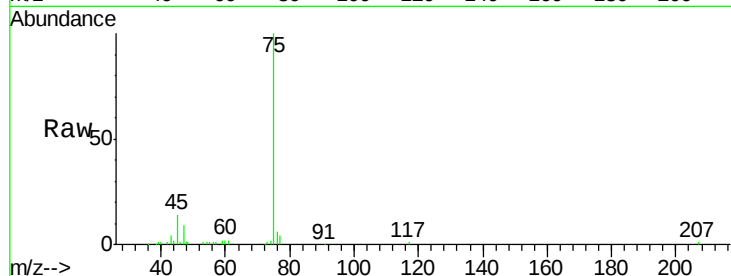
SP-04

Tgt Ion: 43 Resp: 1912

Ion Ratio Lower Upper

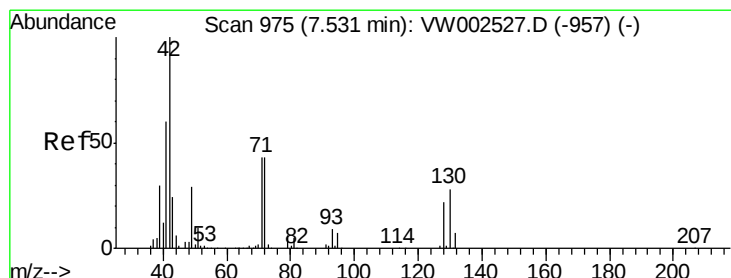
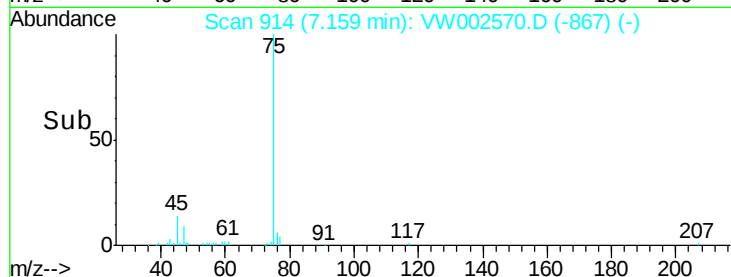
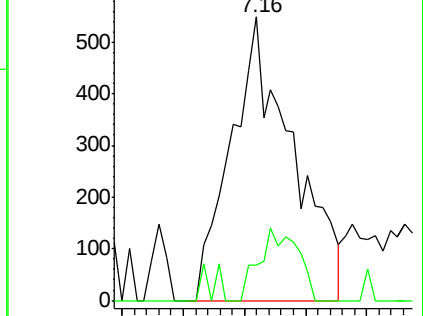
43 100

72 12.6 20.9 31.3#



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 72.00 (71.70 to 72.70): VW



#29

Tetrahydrofuran

Concen: 5.15 ug/l

RT: 7.54 min Scan# 977

Delta R.T. 0.01 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

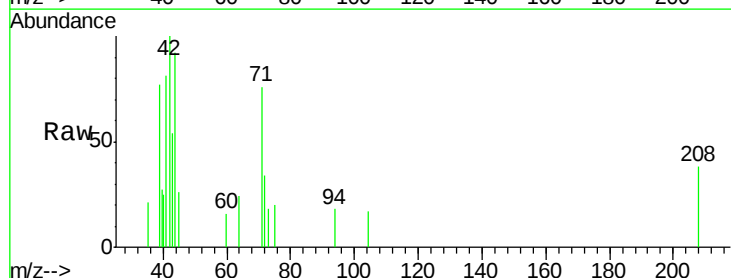
Tgt Ion: 42 Resp: 1044

Ion Ratio Lower Upper

42 100

72 19.6 35.0 52.4#

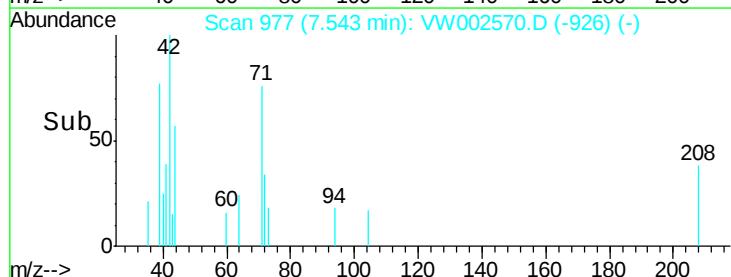
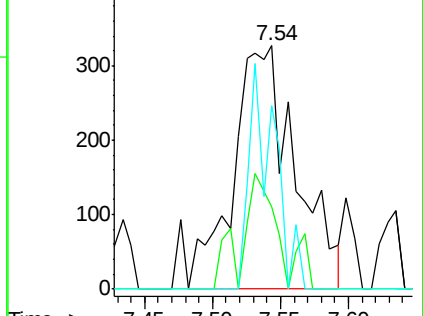
71 38.2 33.0 49.6

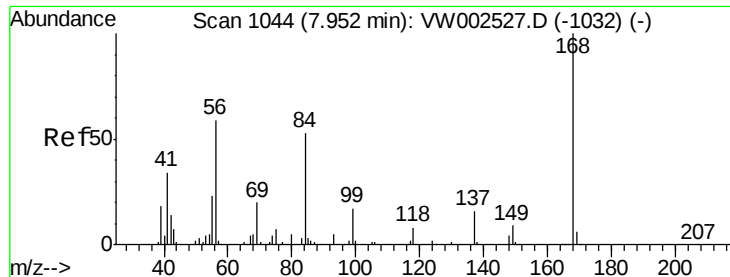


Abundance Ion 42.00 (41.70 to 42.70): VW

Ion 72.00 (71.70 to 72.70): VW

Ion 71.00 (70.70 to 71.70): VW

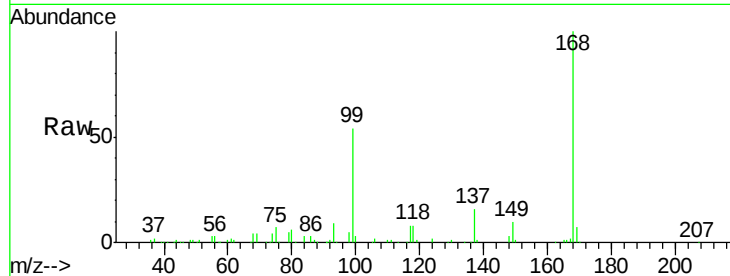




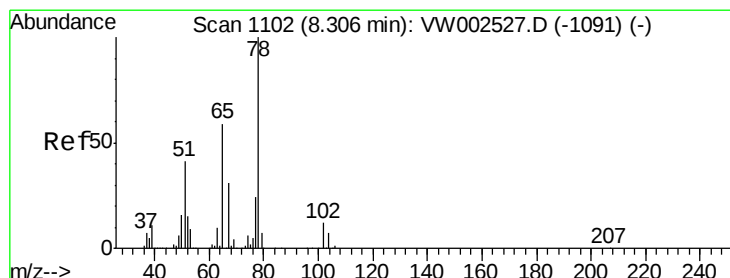
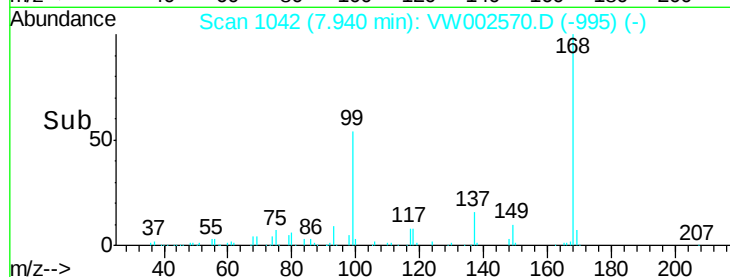
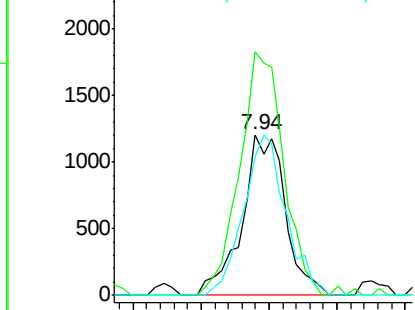
#31  
Cyclohexane  
Concen: 1.74 ug/l  
RT: 7.94 min Scan# 1042  
Delta R.T. -0.01 min  
Lab File: VW002570.D  
Acq: 16 May 2018 01:22

Instrument :  
MSVOA\_W  
ClientSampled :  
SP-04

Tgt Ion: 56 Resp: 2683  
Ion Ratio Lower Upper  
56 100  
69 151.3 27.0 40.4#  
84 86.2 72.2 108.2

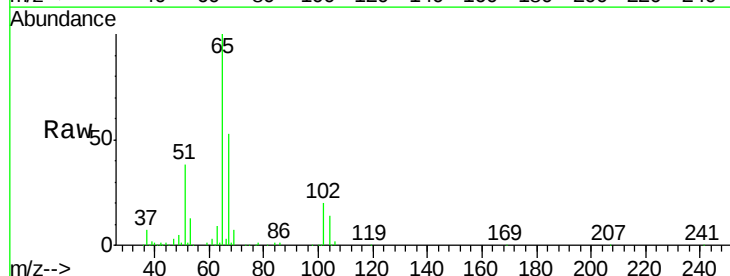


Abundance Ion 56.00 (55.70 to 56.70): VW  
Ion 69.00 (68.70 to 69.70): VW  
Ion 84.00 (83.70 to 84.70): VW

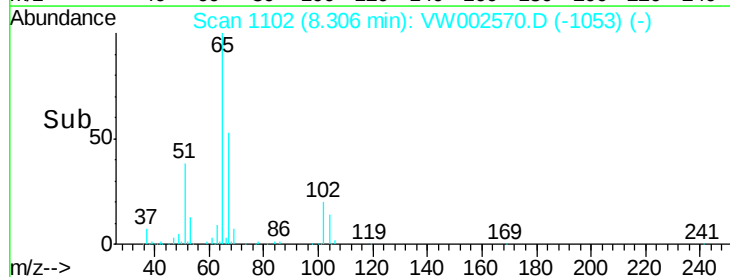
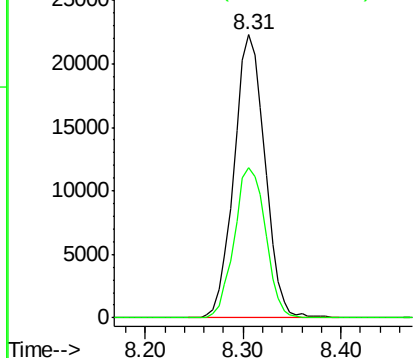


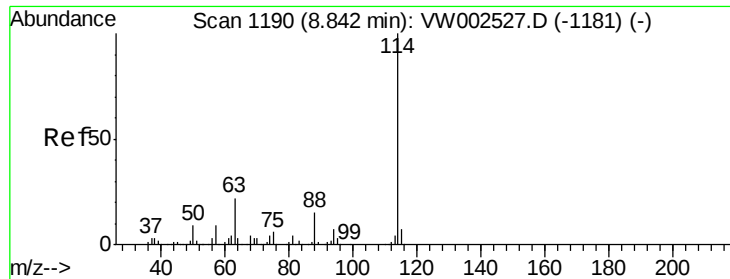
#33  
1,2-Dichloroethane-d4  
Concen: 45.00 ug/l  
RT: 8.31 min Scan# 1102  
Delta R.T. -0.00 min  
Lab File: VW002570.D  
Acq: 16 May 2018 01:22

Tgt Ion: 65 Resp: 48958  
Ion Ratio Lower Upper  
65 100  
67 53.5 0.0 104.4



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

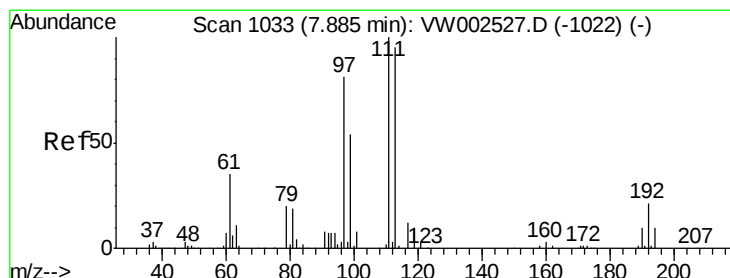
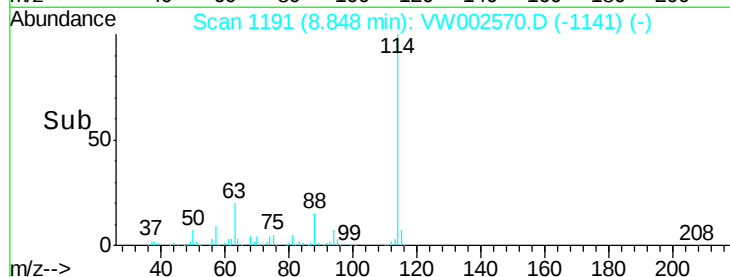
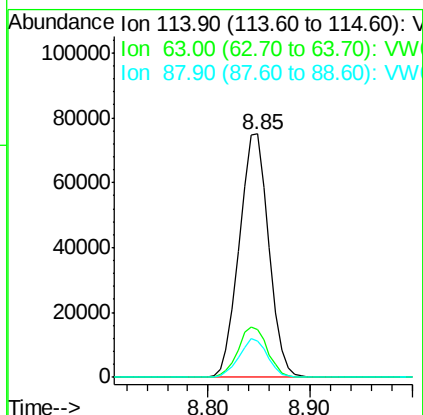
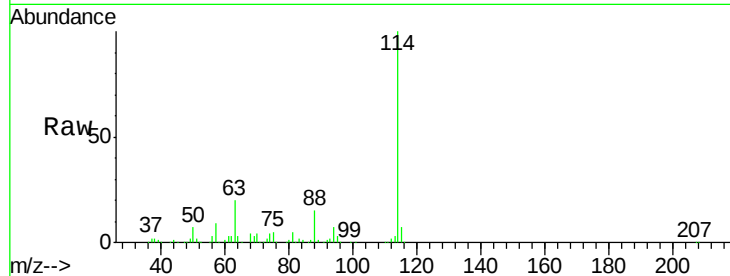




#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 8.85 min Scan# 1191  
 Delta R.T. 0.01 min  
 Lab File: VW002570.D  
 Acq: 16 May 2018 01:22

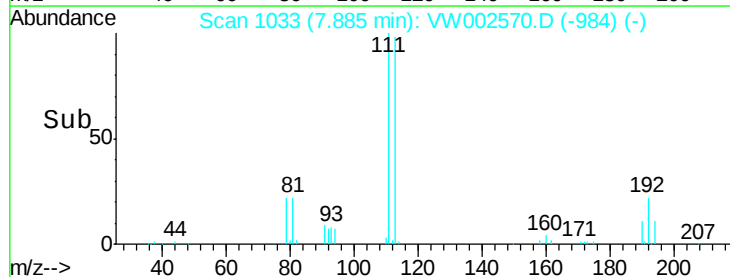
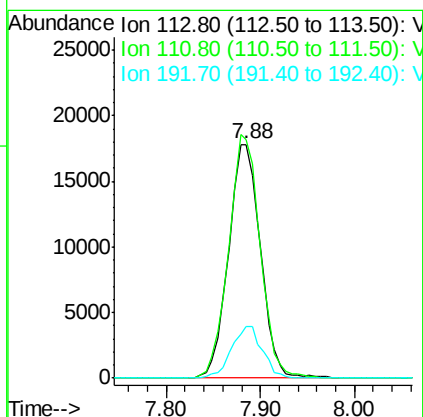
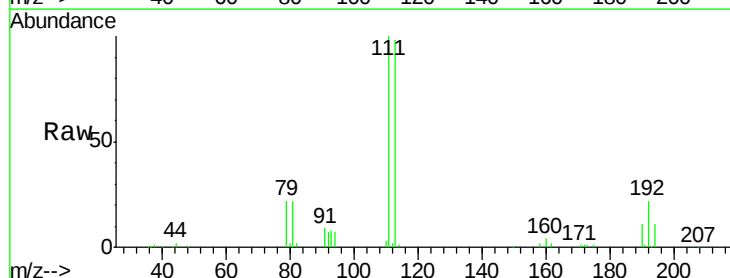
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SP-04

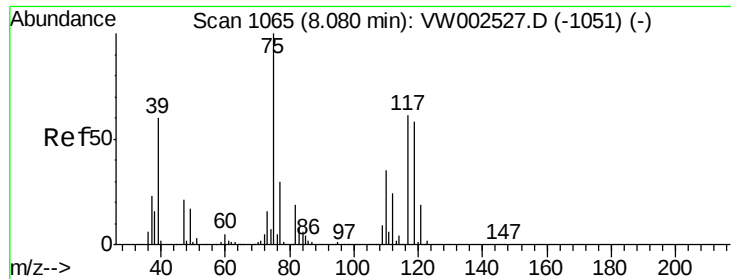
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 19.7  | 0.0   | 43.2  |
| 88      | 15.1  | 0.0   | 29.2  |



#35  
 Dibromofluoromethane  
 Concen: 43.87 ug/l  
 RT: 7.88 min Scan# 1033  
 Delta R.T. -0.00 min  
 Lab File: VW002570.D  
 Acq: 16 May 2018 01:22

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.9 | 81.8  | 122.8 |
| 192     | 21.2  | 17.5  | 26.3  |

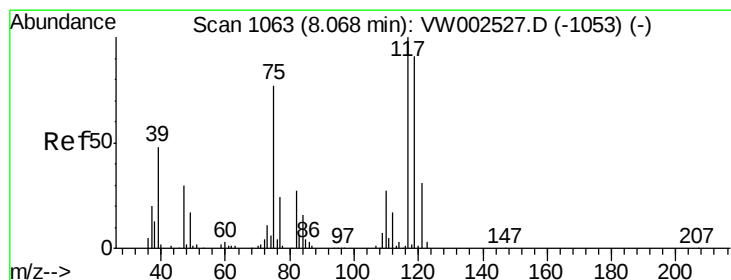
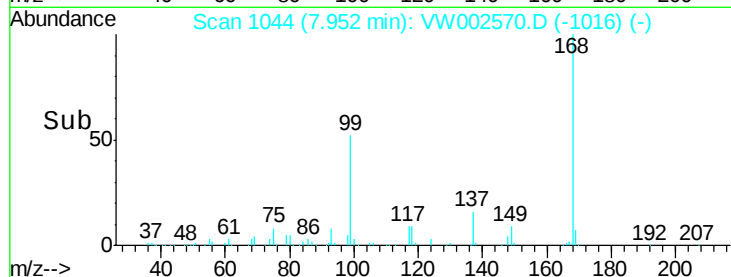
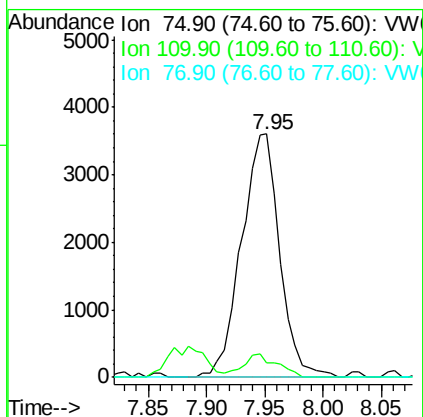
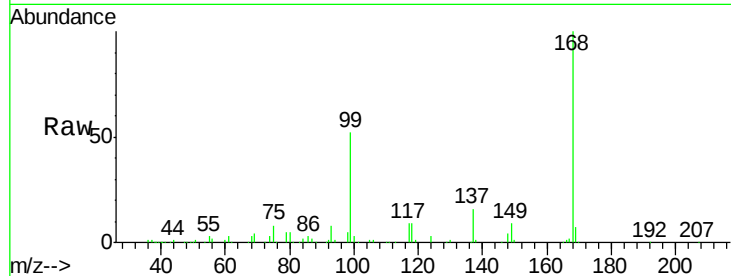




#36  
 1,1-Dichloropropene  
 Concen: 6.20 ug/l  
 RT: 7.95 min Scan# 1044  
 Delta R.T. -0.13 min  
 Lab File: VW002570.D  
 Acq: 16 May 2018 01:22

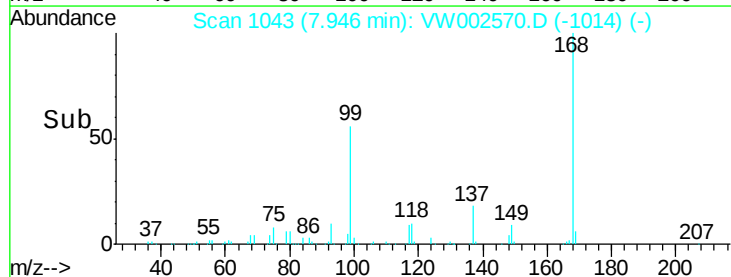
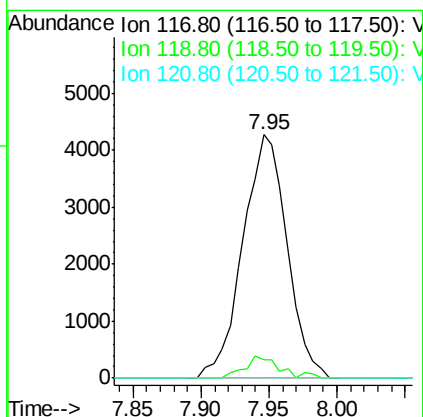
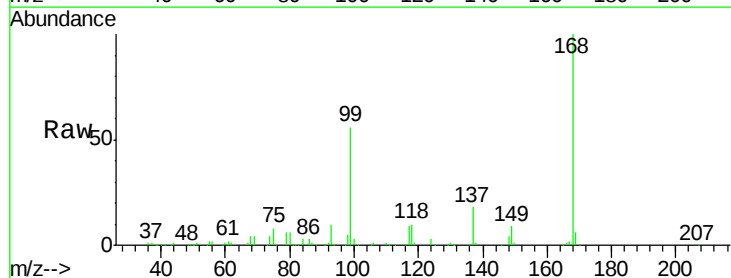
Instrument :  
 MSVOA\_W  
 ClientSampled :  
 SP-04

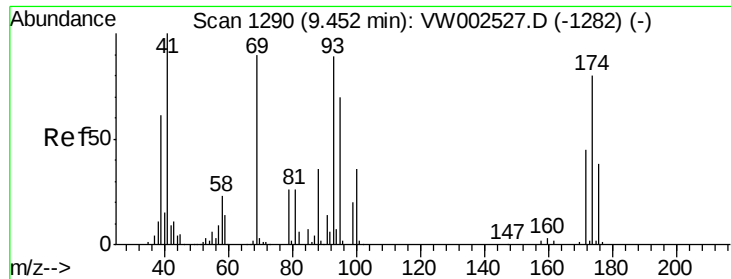
Tgt Ion: 75 Resp: 8236  
 Ion Ratio Lower Upper  
 75 100  
 110 8.4 17.8 53.5#  
 77 0.0 24.5 36.7#



#38  
 Carbon Tetrachloride  
 Concen: 7.47 ug/l  
 RT: 7.95 min Scan# 1043  
 Delta R.T. -0.12 min  
 Lab File: VW002570.D  
 Acq: 16 May 2018 01:22

Tgt Ion: 117 Resp: 9712  
 Ion Ratio Lower Upper  
 117 100  
 119 7.6 73.1 109.7#  
 121 0.0 24.4 36.6#





#49

1,4-Dioxane

Concen: 2.50 ug/l

RT: 9.47 min Scan# 1293

Delta R.T. 0.02 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampled :

SP-04

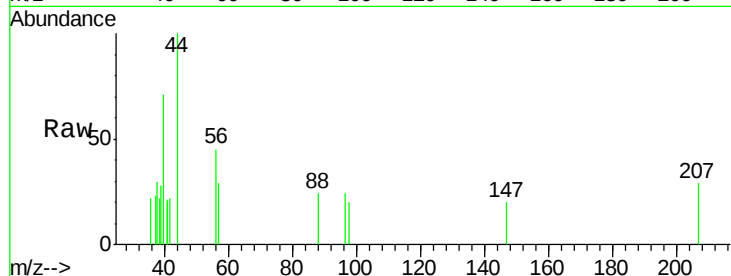
Tgt Ion: 88 Resp: 23

Ion Ratio Lower Upper

88 100

43 113.0 27.0 40.4#

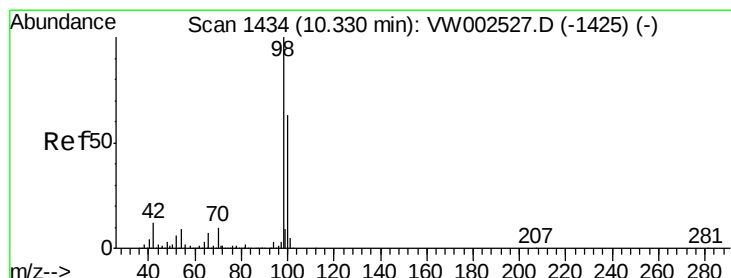
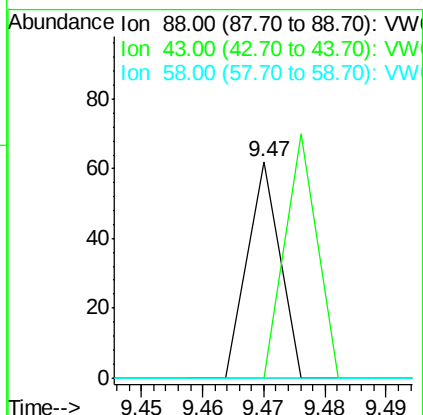
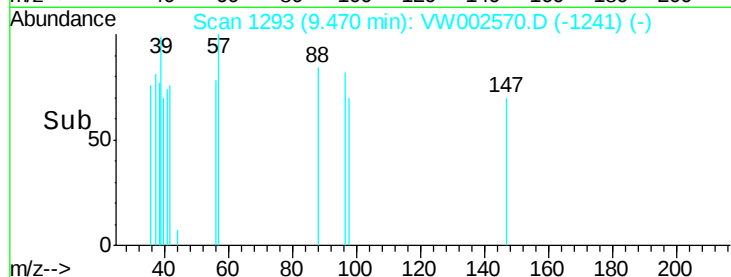
58 0.0 56.9 85.3#



Abundance Ion 88.00 (87.70 to 88.70): VW

Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW



#50

Toluene-d8

Concen: 34.99 ug/l

RT: 10.33 min Scan# 1434

Delta R.T. -0.00 min

Lab File: VW002570.D

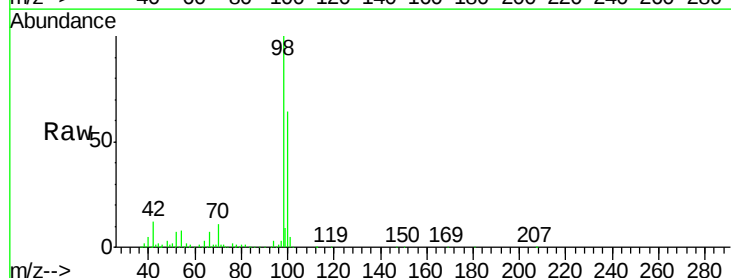
Acq: 16 May 2018 01:22

Tgt Ion: 98 Resp: 127157

Ion Ratio Lower Upper

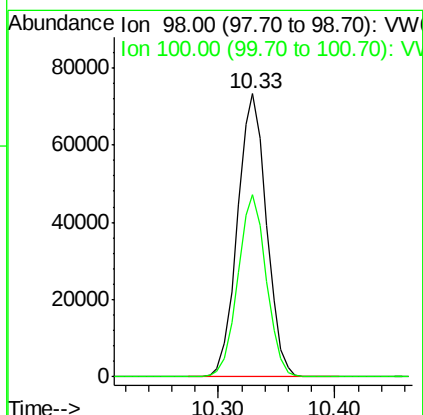
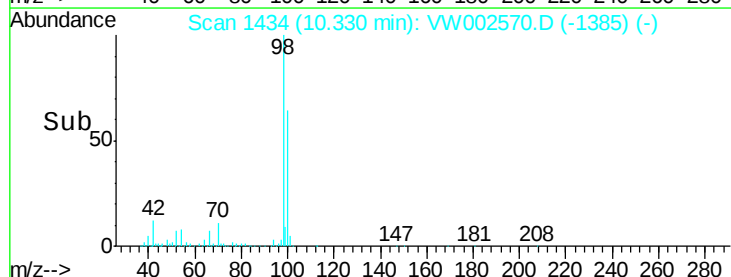
98 100

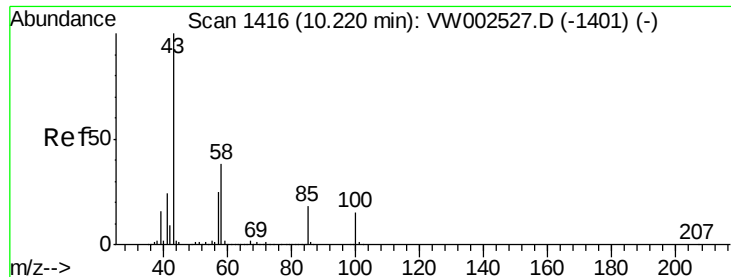
100 63.1 51.0 76.4



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW





#51

4-Methyl-2-Pentanone

Concen: 1.92 ug/l

RT: 10.21 min Scan# 1415

Delta R.T. -0.01 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampled :

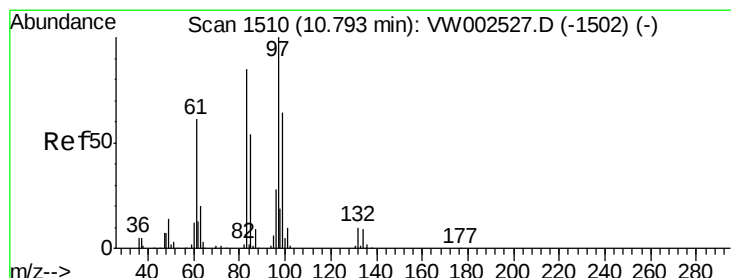
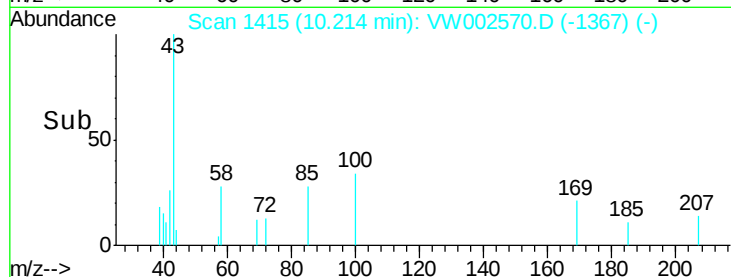
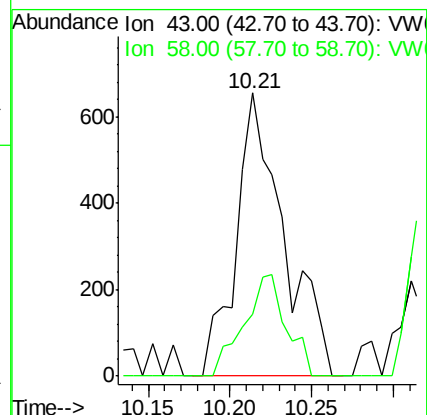
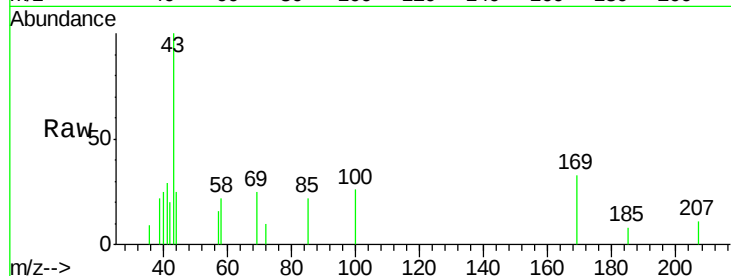
SP-04

Tgt Ion: 43 Resp: 1336

Ion Ratio Lower Upper

43 100

58 31.8 30.1 45.1



#55

1,1,2-Trichloroethane

Concen: 1.75 ug/l

RT: 10.81 min Scan# 1513

Delta R.T. 0.02 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Tgt Ion: 97 Resp: 1366

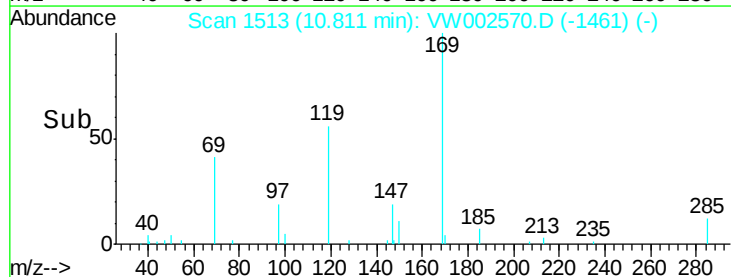
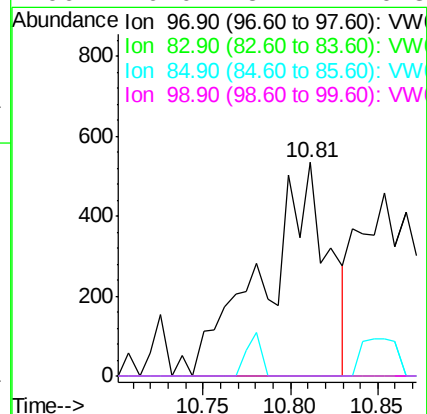
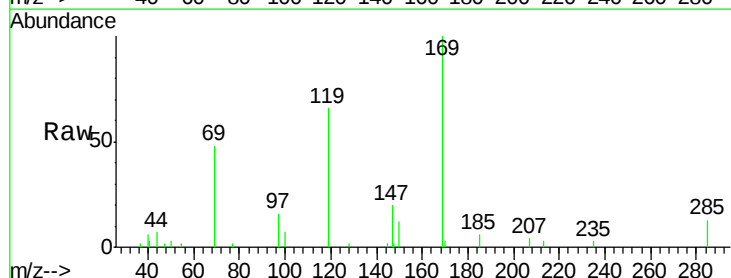
Ion Ratio Lower Upper

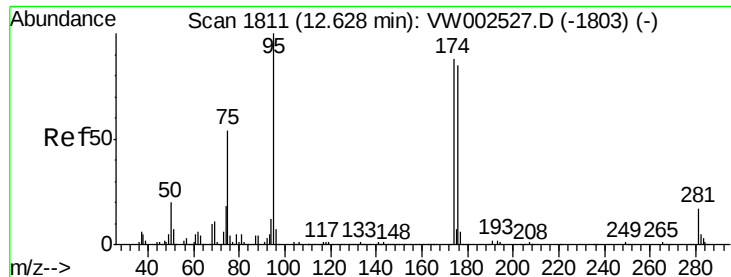
97 100

83 0.0 68.1 102.1#

85 0.0 43.6 65.4#

99 0.0 51.2 76.8#





#62

4-Bromofluorobenzene

Concen: 24.28 ug/l

RT: 12.63 min Scan# 1811

Delta R.T. -0.00 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampleId :

SP-04

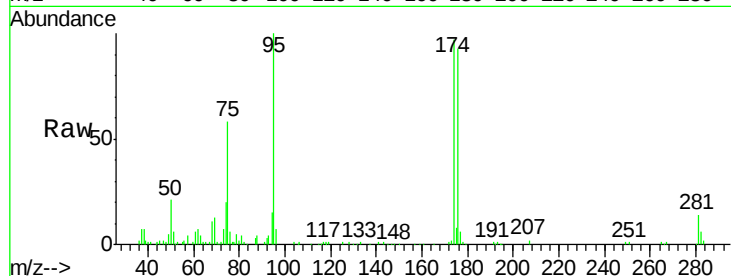
Tgt Ion: 95 Resp: 32262

Ion Ratio Lower Upper

95 100

174 92.6 0.0 176.6

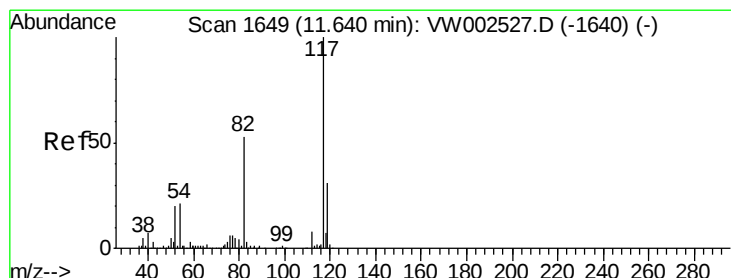
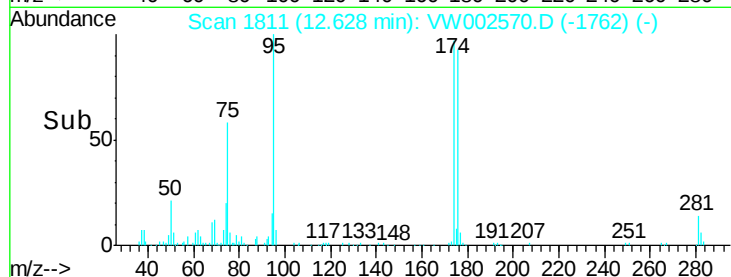
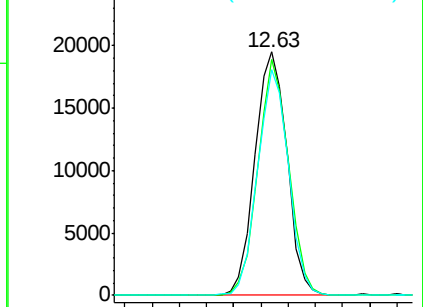
176 89.2 0.0 172.2



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: 50.00 ug/l

RT: 11.64 min Scan# 1649

Delta R.T. -0.00 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

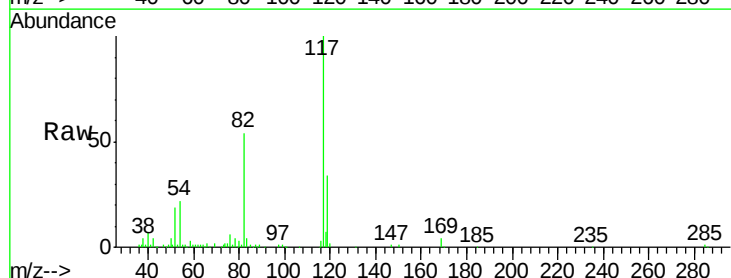
Tgt Ion: 117 Resp: 104056

Ion Ratio Lower Upper

117 100

82 54.2 42.6 64.0

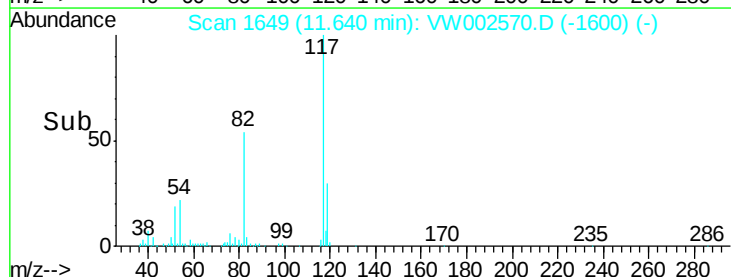
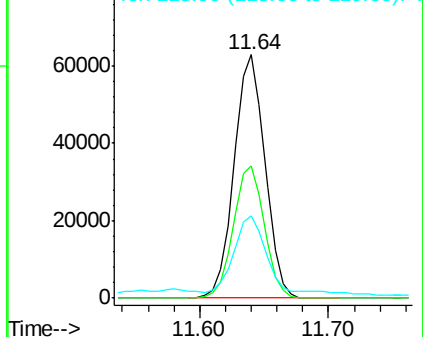
119 31.7 25.0 37.6

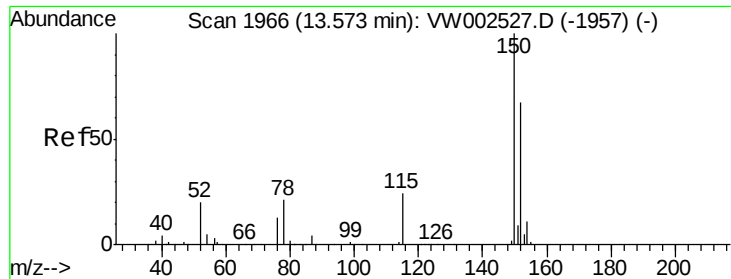


Abundance Ion 116.90 (116.60 to 117.60): VW

Ion 82.00 (81.70 to 82.70): VW

Ion 118.90 (118.60 to 119.60): VW





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 13.57 min Scan# 1965

Delta R.T. -0.01 min

Lab File: VW002570.D

Acq: 16 May 2018 01:22

Instrument :

MSVOA\_W

ClientSampleId :

SP-04

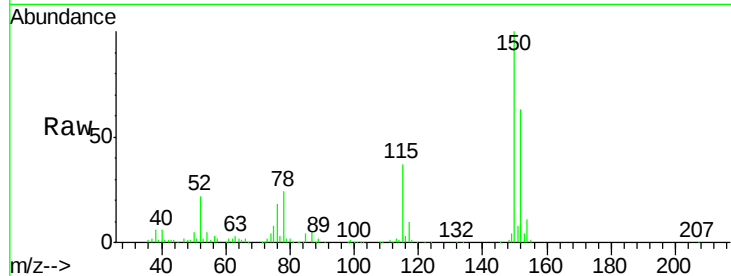
Tgt Ion:152 Resp: 30400

Ion Ratio Lower Upper

152 100

115 56.0 28.0 84.0

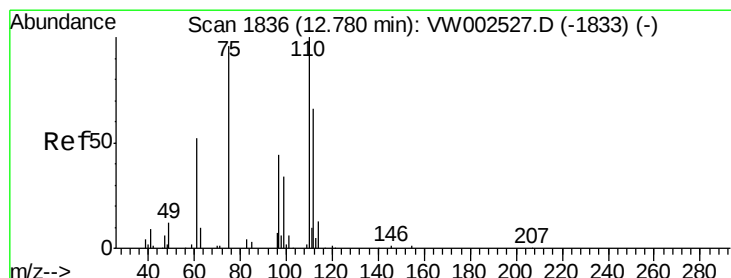
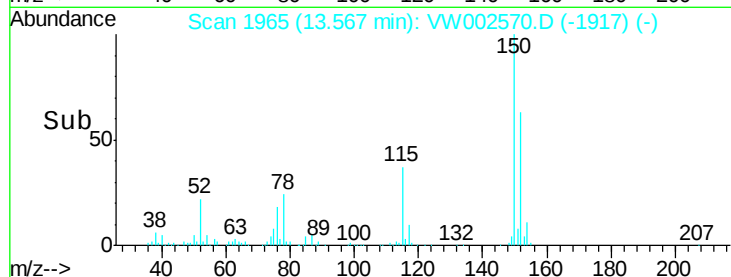
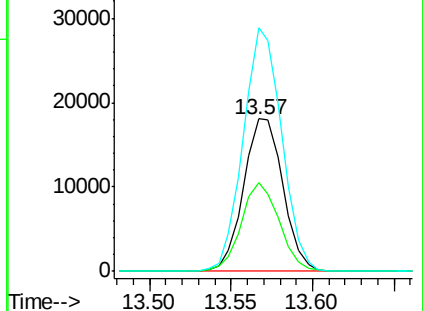
150 156.0 0.0 345.4



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: 60.17 ug/l

RT: 12.63 min Scan# 1811

Delta R.T. -0.15 min

Lab File: VW002570.D

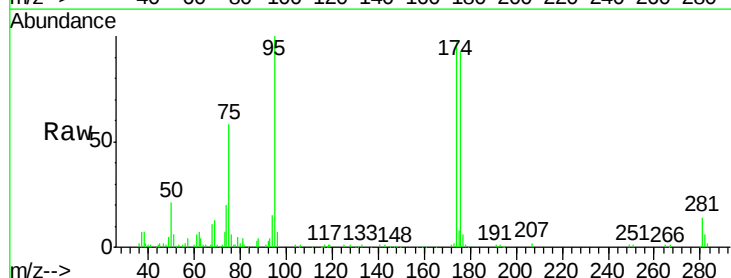
Acq: 16 May 2018 01:22

Tgt Ion: 75 Resp: 17290

Ion Ratio Lower Upper

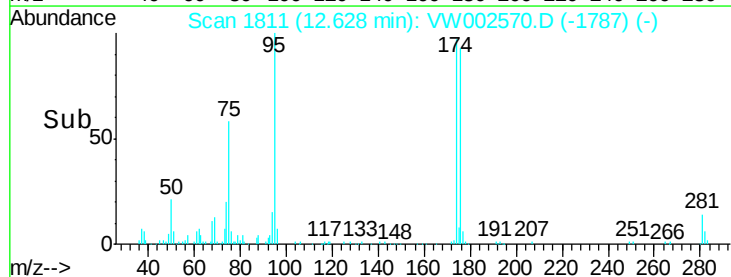
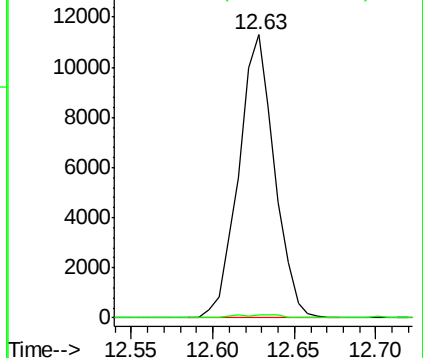
75 100

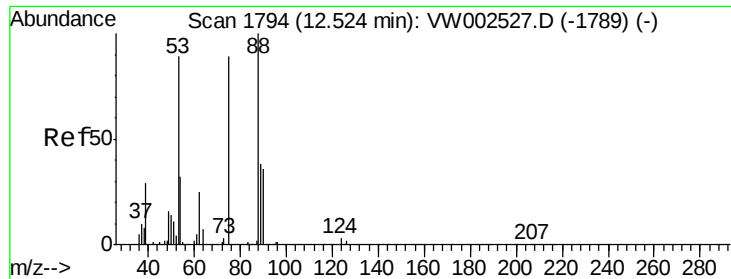
77 1.3 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW

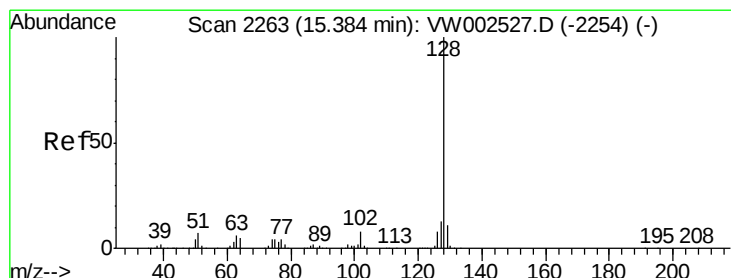
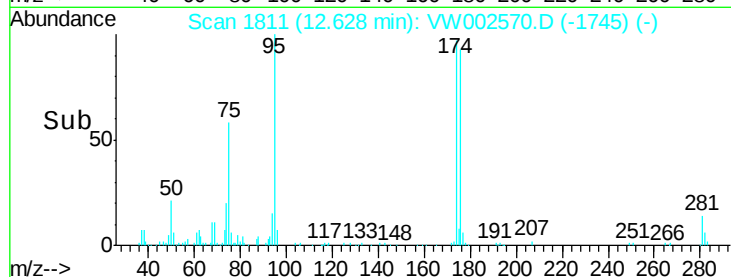
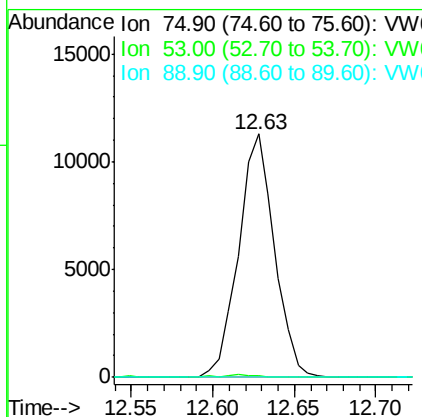
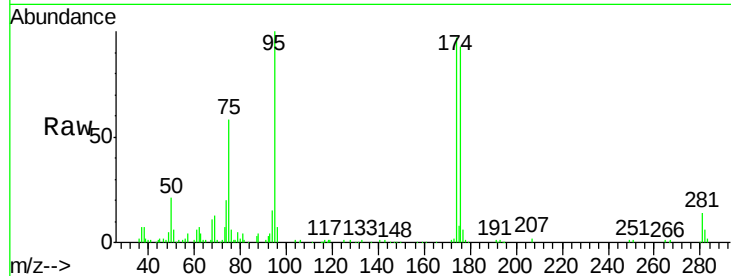




#81  
trans-1,4-Dichloro-2-butene  
Concen: 164.05 ug/l  
RT: 12.63 min Scan# 1811  
Delta R.T. 0.10 min  
Lab File: VW002570.D  
Acq: 16 May 2018 01:22

Instrument :  
MSVOA\_W  
ClientSampled :  
SP-04

Tgt Ion: 75 Resp: 17290  
Ion Ratio Lower Upper  
75 100  
53 0.8 82.6 124.0#  
89 0.0 39.2 58.8#



#95  
Naphthalene  
Concen: 1.87 ug/l  
RT: 15.38 min Scan# 2262  
Delta R.T. -0.01 min  
Lab File: VW002570.D  
Acq: 16 May 2018 01:22

Tgt Ion: 128 Resp: 2170  
Ion Ratio Lower Upper  
128 100  
127 20.6 10.6 15.8#  
129 8.9 8.9 13.3

