

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW072719\  
 Data File : VW011528.D  
 Acq On : 26 Jul 2019 20:32  
 Operator : SY/VA  
 Sample : K3983-05RE  
 Misc : 6.32G/5.0ML/MSVOA W/SOIL  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SP-5

Quant Time: Jul 27 05:33:33 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jul 27 00:23:30 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 242272   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 398365   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 321390   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 118259   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.30   | 65  | 152792   | 54.92 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 109.84% |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 119764   | 53.59 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 107.18% |      |
| 50) Toluene-d8            | 10.32  | 98  | 484537   | 52.95 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 105.90% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 148069   | 45.39 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 90.78%  |      |

## Target Compounds

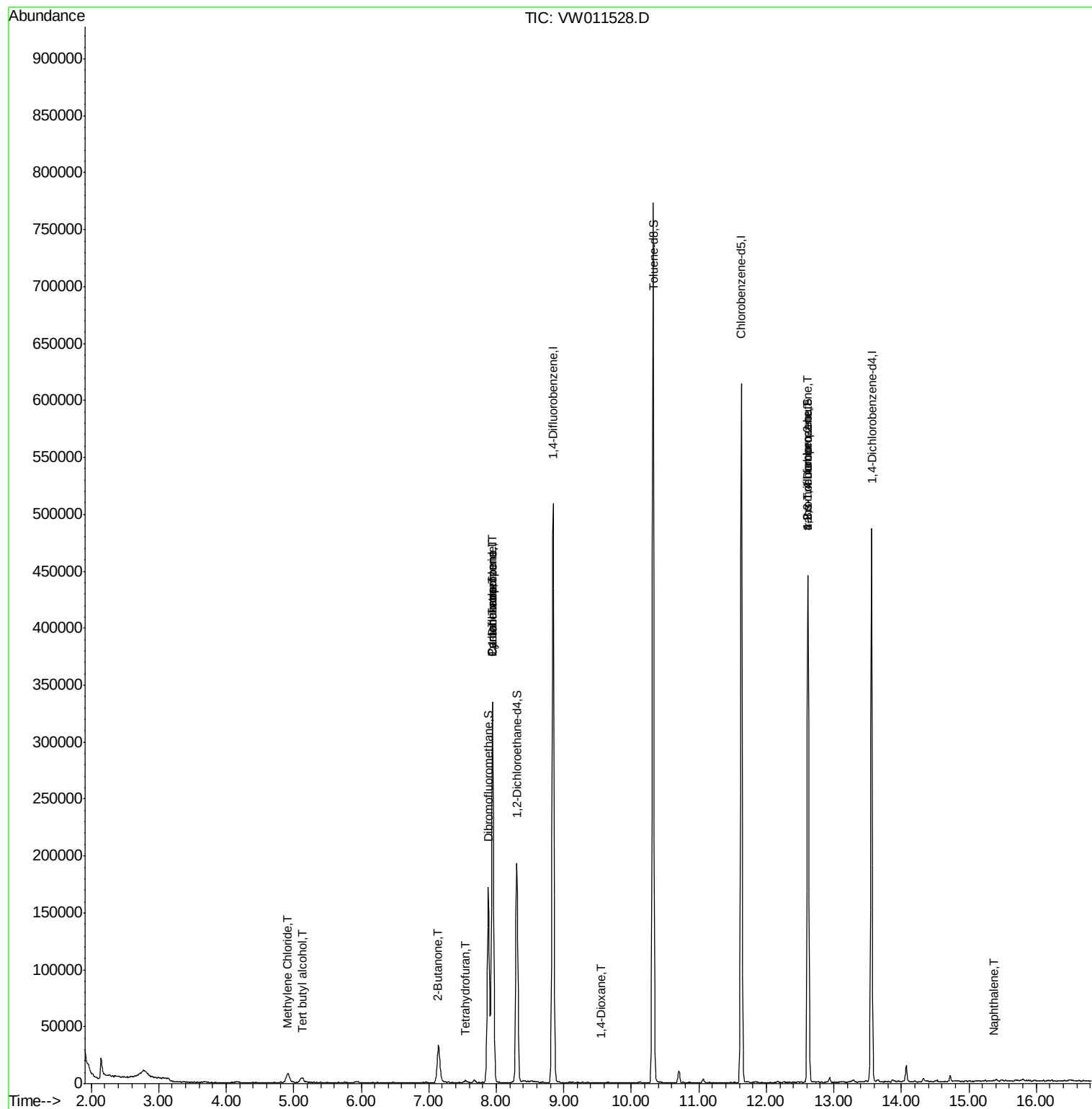
|                                |       |     |       |         | Qvalue |     |
|--------------------------------|-------|-----|-------|---------|--------|-----|
| 11) Tert butyl alcohol         | 5.12  | 59  | 4564  | 4.737   | ug/l # | 75  |
| 20) Methylene Chloride         | 4.92  | 84  | 6032  | 1.976   | ug/l   | 91  |
| 25) 2-Butanone                 | 7.15  | 43  | 2338  | 2.019   | ug/l   | 96  |
| 29) Tetrahydrofuran            | 7.54  | 42  | 1277  | 1.929   | ug/l # | 89  |
| 31) Cyclohexane                | 7.95  | 56  | 6127  | 1.178   | ug/l # | 1   |
| 36) 1,1-Dichloropropene        | 7.95  | 75  | 20474 | 4.943   | ug/l # | 51  |
| 38) Carbon Tetrachloride       | 7.95  | 117 | 24036 | 6.778   | ug/l # | 18  |
| 49) 1,4-Dioxane                | 9.55  | 88  | 41    | 1.998   | ug/l # | 7   |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 77947 | 62.292  | ug/l # | 100 |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 77947 | 143.562 | ug/l # | 6   |
| 95) Naphthalene                | 15.37 | 128 | 683   | 2.206   | ug/l # | 83  |

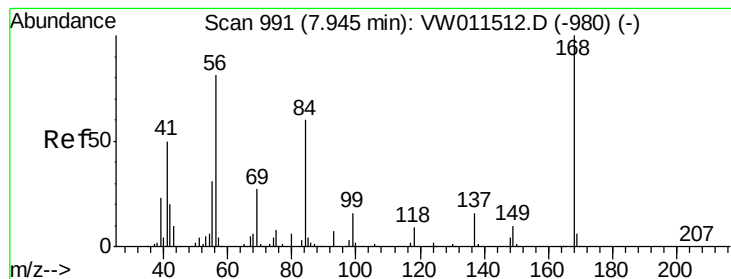
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W072719S.M  
Quant Title : SW846 8260  
QLast Update : Sat Jul 27 00:23:30 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.00 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

Instrument :

MSVOA\_W

ClientSampled :

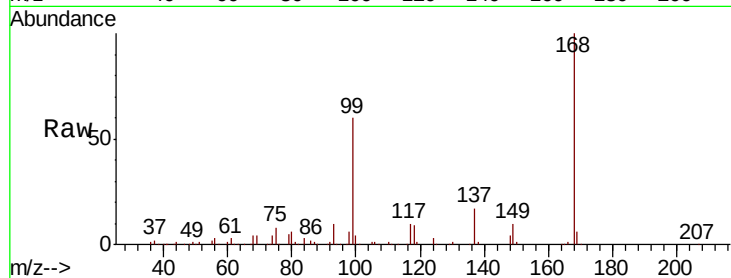
SP-5

Tot Ion:168 Resp: 242272

Ion Ratio Lower Upper

168 100

99 60.1 48.2 72.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

120000

100000

80000

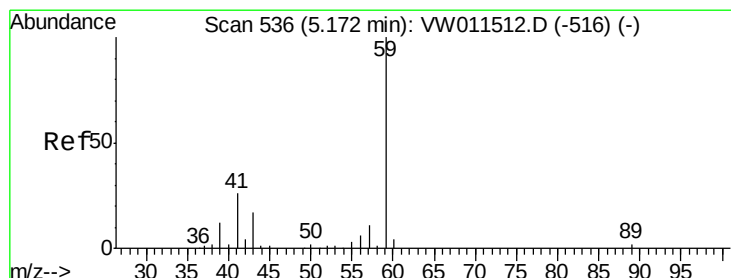
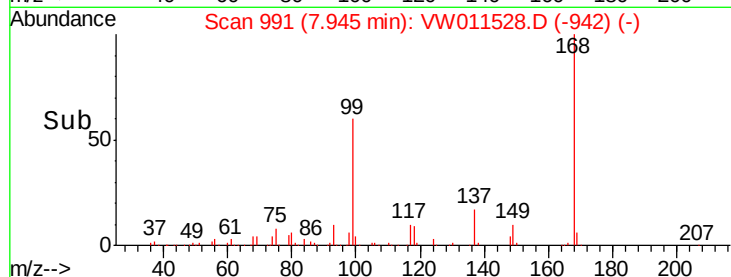
60000

40000

20000

0

Time-->



#11

Tert butyl alcohol

Concen: 4.737 ug/l

RT: 5.12 min Scan# 528

Delta R.T. -0.05 min

Lab File: VW011528.D

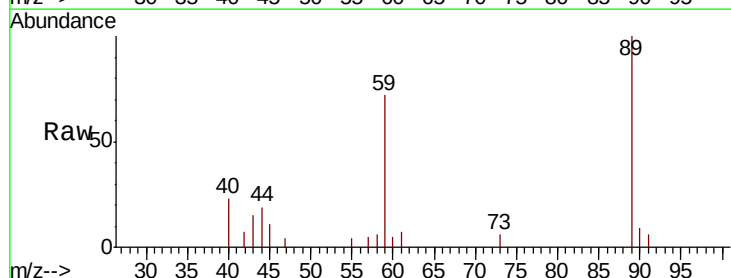
Acq: 26 Jul 2019 20:32

Tgt Ion: 59 Resp: 4564

Ion Ratio Lower Upper

59 100

57 1.3 8.5 12.7#



Abundance Ion 59.00 (58.70 to 59.70): VW

Ion 57.00 (56.70 to 57.70): VW

5.12

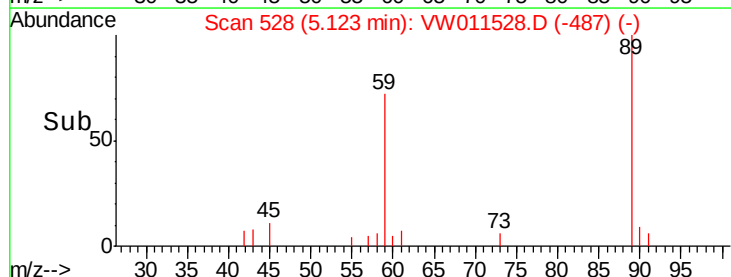
1500

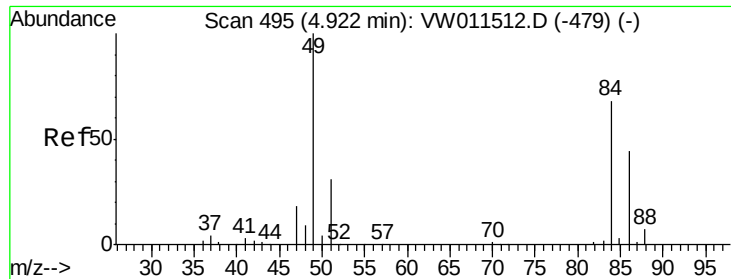
1000

500

0

Time-->

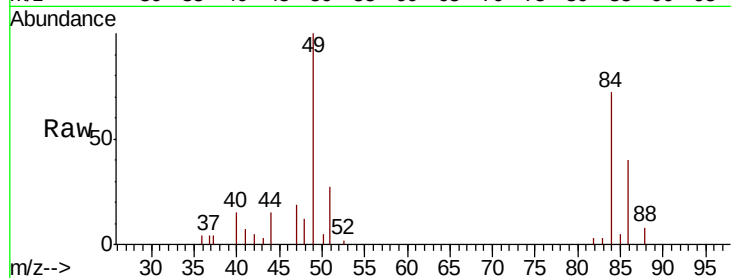




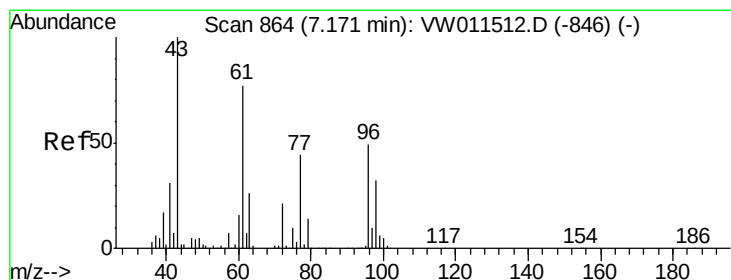
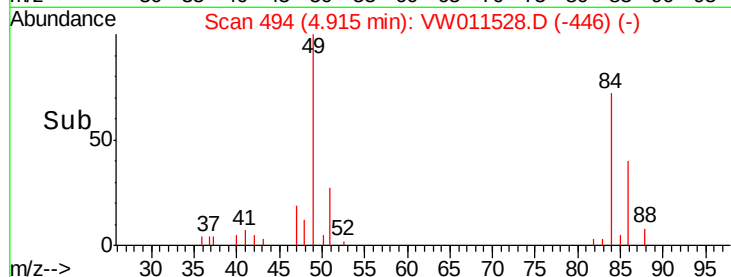
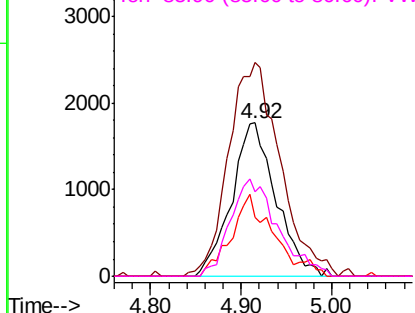
#20  
Methvlene Chloride  
Concen: 1.976 ug/l  
RT: 4.92 min Scan# 494  
Delta R.T. -0.01 min  
Lab File: VW011528.D  
Acq: 26 Jul 2019 20:32

Instrument :  
MSVOA\_W  
ClientSampleId :  
SP-5

|             |             |
|-------------|-------------|
| Tot Ion: 84 | Resp: 6032  |
| Ion Ratio   | Lower Upper |
| 84 100      |             |
| 49 139.4    | 117.8 176.6 |
| 51 38.1     | 37.0 55.4   |
| 86 55.1     | 51.8 77.8   |

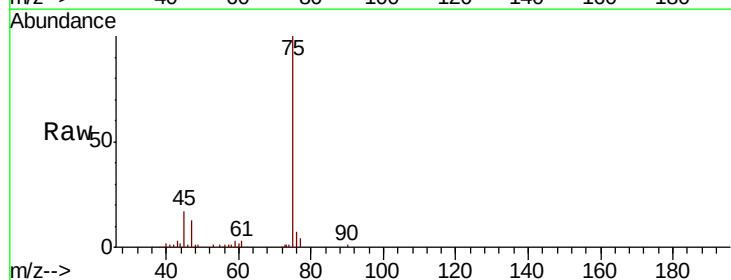


Abundance Ion 83.90 (83.60 to 84.60): VW  
Ion 48.90 (48.60 to 49.60): VW  
Ion 50.90 (50.60 to 51.60): VW  
Ion 85.90 (85.60 to 86.60): VW

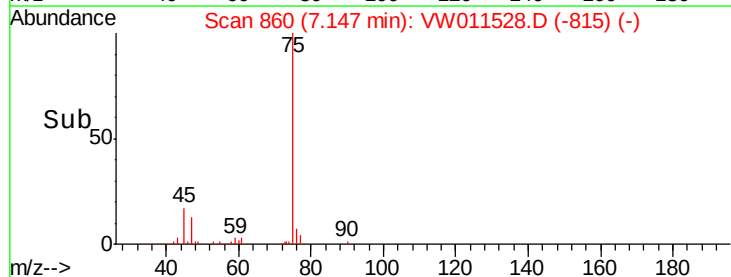
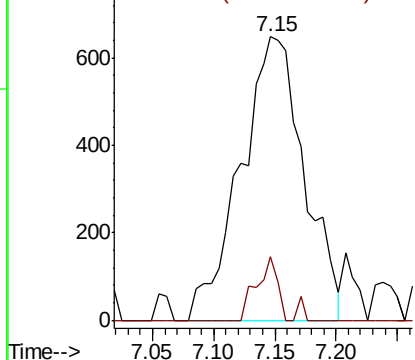


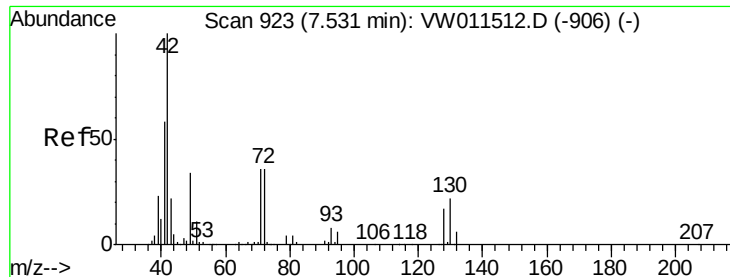
#25  
2-Butanone  
Concen: 2.019 ug/l  
RT: 7.15 min Scan# 860  
Delta R.T. -0.02 min  
Lab File: VW011528.D  
Acq: 26 Jul 2019 20:32

|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 2338  |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 72 22.4     | 16.6 24.8   |



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

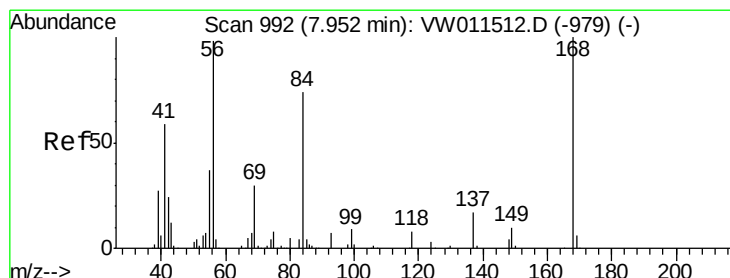
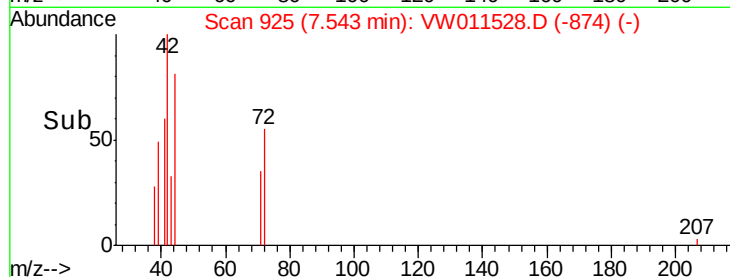
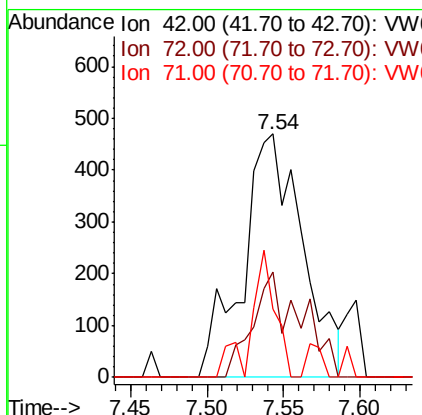
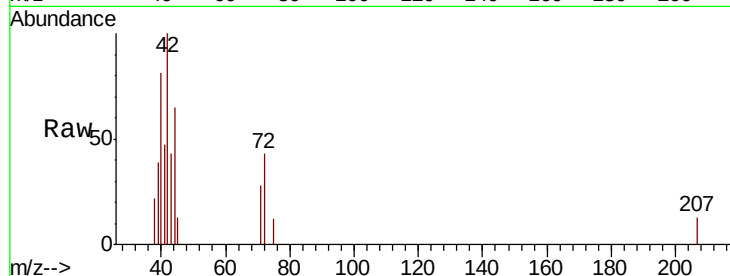




#29  
Tetrahydrofuran  
Concen: 1.929 ug/l  
RT: 7.54 min Scan# 925  
Delta R.T. 0.01 min  
Lab File: VW011528.D  
Acq: 26 Jul 2019 20:32

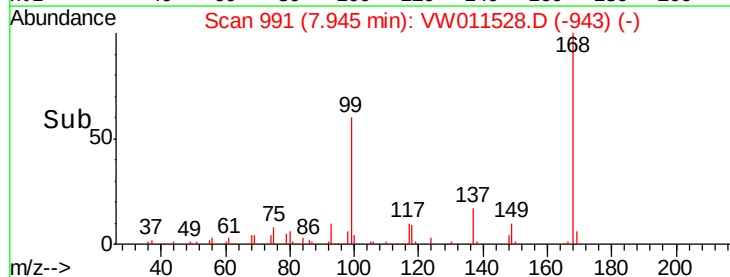
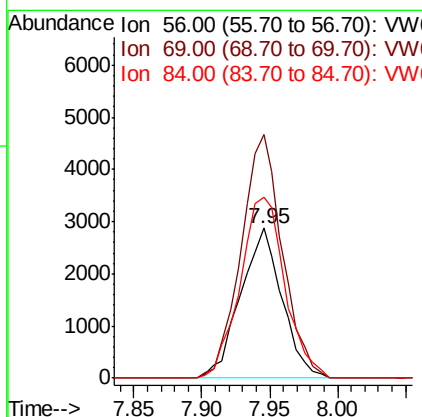
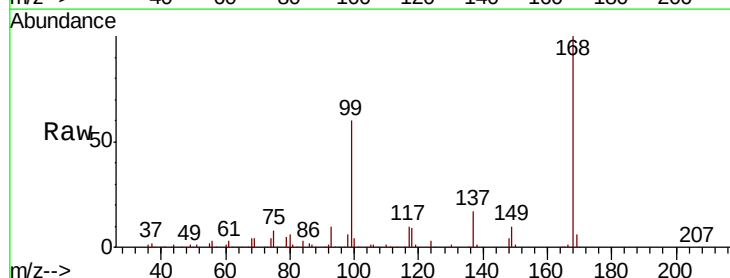
Instrument :  
MSVOA\_W  
ClientSampled :  
SP-5

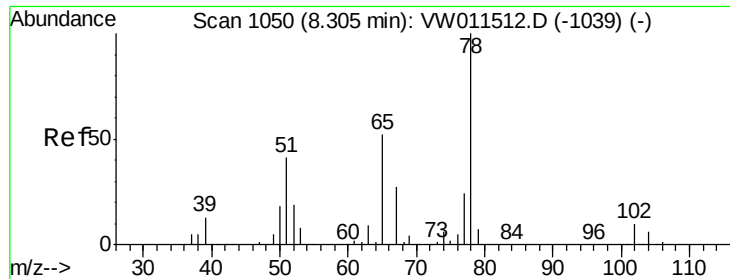
Tot Ion: 42 Resp: 1277  
Ion Ratio Lower Upper  
42 100  
72 34.8 27.1 40.7  
71 21.1 26.2 39.4#



#31  
Cyclohexane  
Concen: 1.178 ug/l  
RT: 7.95 min Scan# 991  
Delta R.T. -0.01 min  
Lab File: VW011528.D  
Acq: 26 Jul 2019 20:32

Tgt Ion: 56 Resp: 6127  
Ion Ratio Lower Upper  
56 100  
69 162.6 24.3 36.5#  
84 120.8 60.4 90.6#

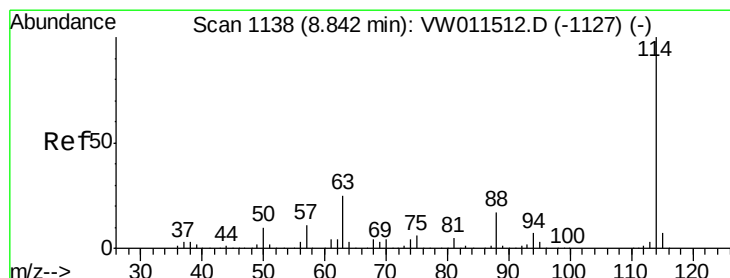
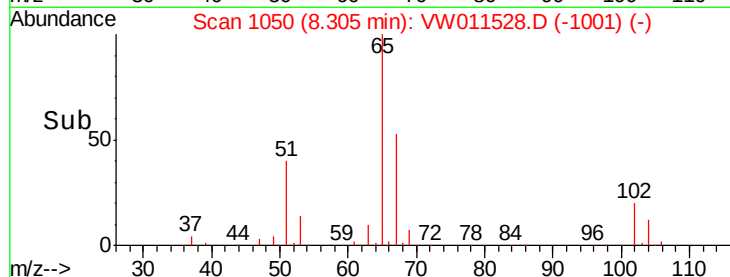
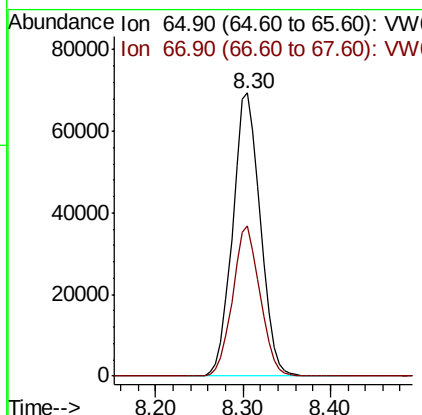
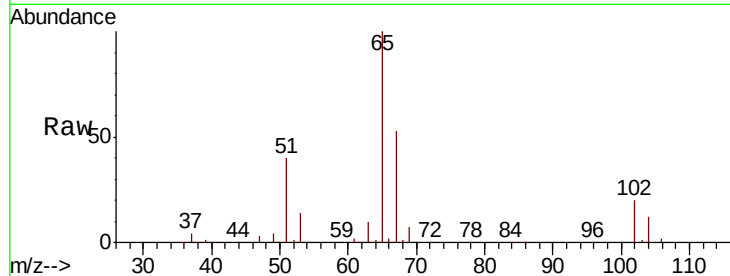




#33  
 1,2-Dichloroethane-d4  
 Concen: 54.922 ug/l  
 RT: 8.30 min Scan# 1050  
 Delta R.T. -0.00 min  
 Lab File: VW011528.D  
 Acq: 26 Jul 2019 20:32

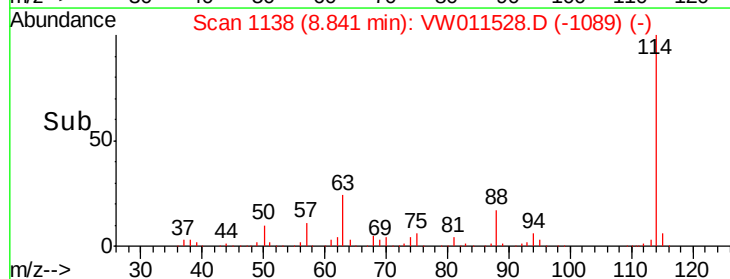
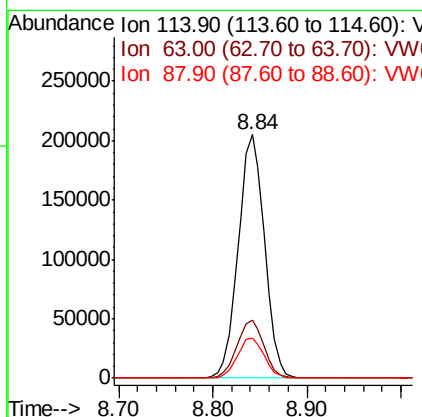
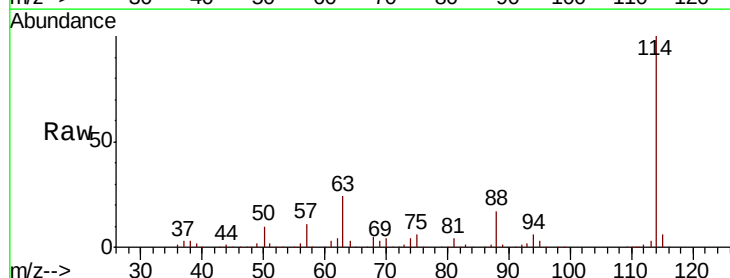
Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 SP-5

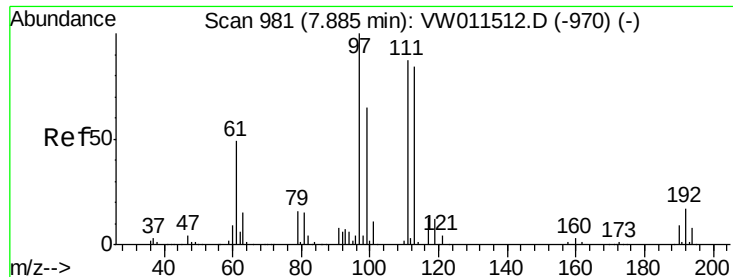
Tot Ion: 65 Resp: 152792  
 Ion Ratio Lower Upper  
 65 100  
 67 52.3 0.0 105.2



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW011528.D  
 Acq: 26 Jul 2019 20:32

Tgt Ion: 114 Resp: 398365  
 Ion Ratio Lower Upper  
 114 100  
 63 24.0 0.0 49.2  
 88 16.6 0.0 33.8

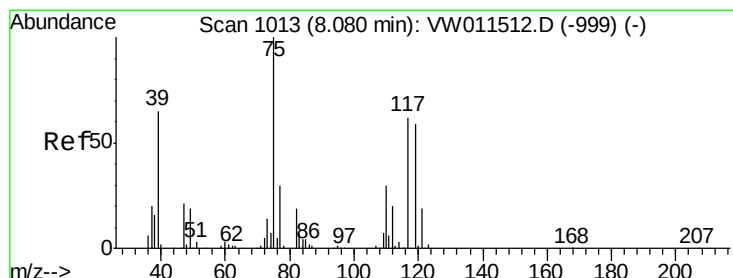
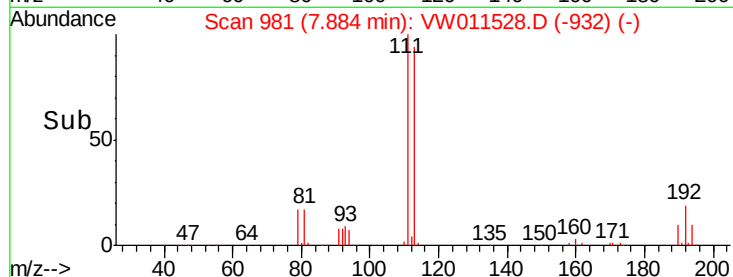
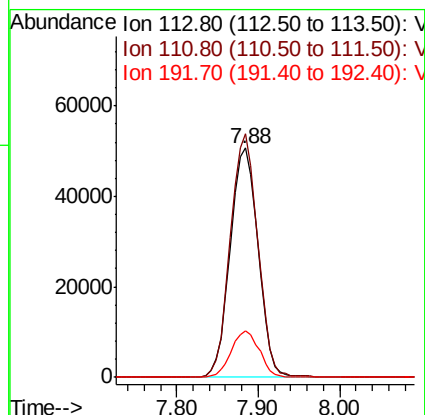
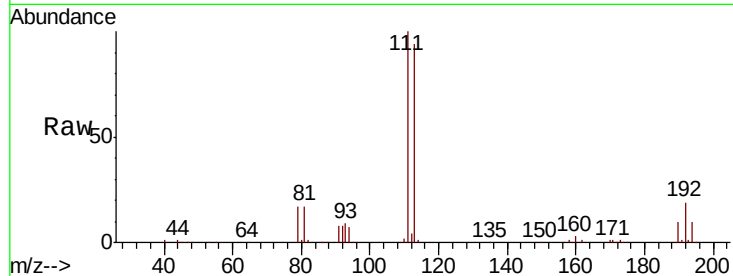




#35  
 Dibromofluoromethane  
 Concen: 53.588 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. -0.00 min  
 Lab File: VW011528.D  
 Acq: 26 Jul 2019 20:32

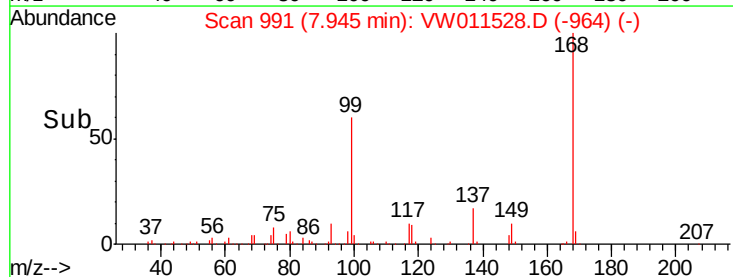
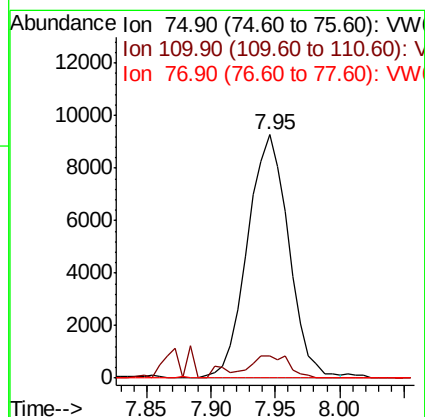
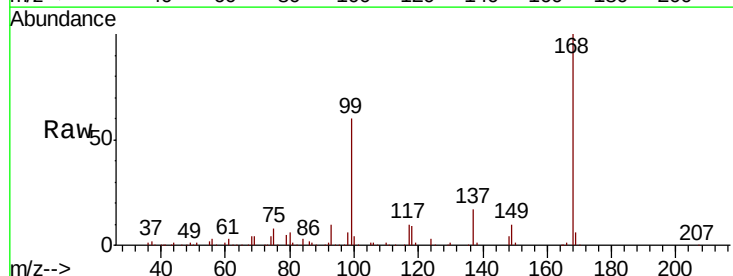
Instrument :  
 MSVOA\_W  
 ClientSampled :  
 SP-5

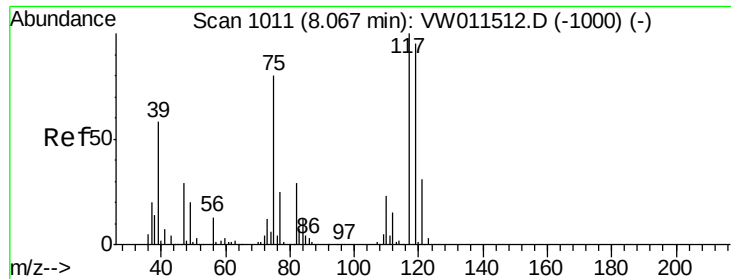
Tot Ion:113 Resp: 119764  
 Ion Ratio Lower Upper  
 113 100  
 111 104.3 82.7 124.1  
 192 20.3 16.1 24.1



#36  
 1,1-Dichloropropene  
 Concen: 4.943 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW011528.D  
 Acq: 26 Jul 2019 20:32

Tgt Ion: 75 Resp: 20474  
 Ion Ratio Lower Upper  
 75 100  
 110 8.3 15.6 46.8#  
 77 0.0 24.3 36.5#





#38

Carbon Tetrachloride

Concen: 6.778 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.12 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

Instrument :

MSVOA\_W

ClientSampled :

SP-5

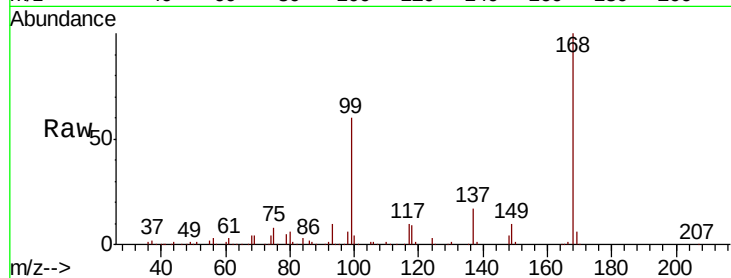
Tot Ion:117 Resp: 24036

Ion Ratio Lower Upper

117 100

119 6.6 75.8 113.6#

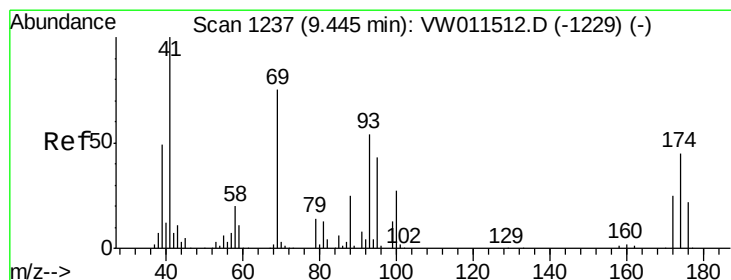
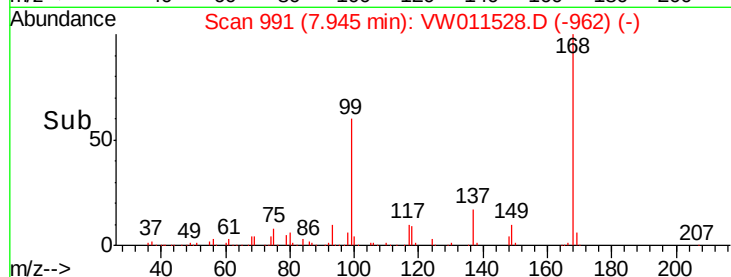
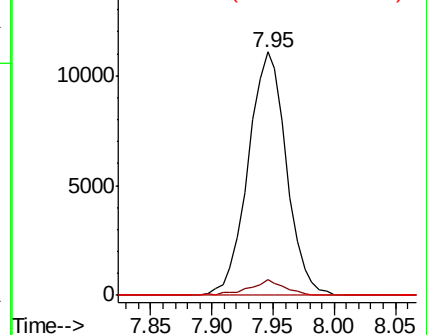
121 0.0 24.7 37.1#



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



#49

1,4-Dioxane

Concen: 1.998 ug/l

RT: 9.55 min Scan# 1255

Delta R.T. 0.11 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

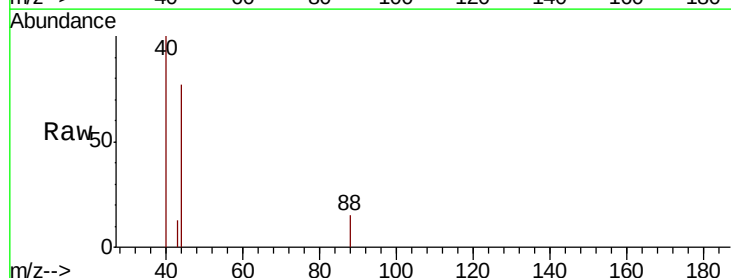
Tgt Ion: 88 Resp: 41

Ion Ratio Lower Upper

88 100

43 100.0 34.0 51.0#

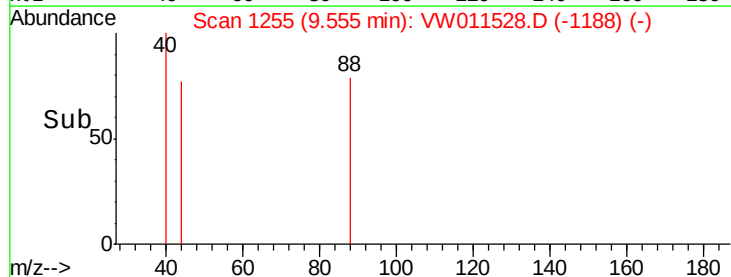
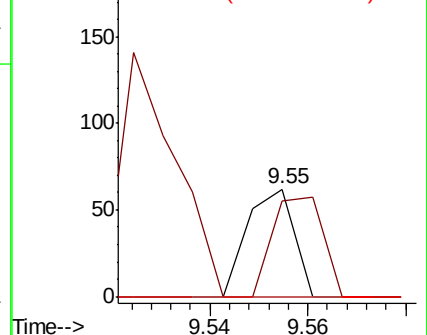
58 0.0 69.7 104.5#



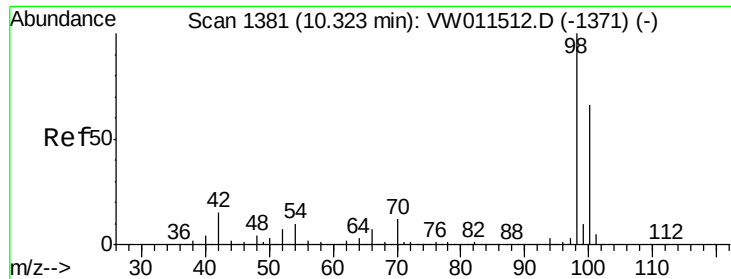
Abundance Ion 88.00 (87.70 to 88.70): VW

Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW







#50

Toluene-d8

Concen: 52.953 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. -0.00 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

Instrument :

MSVOA\_W

ClientSampleId :

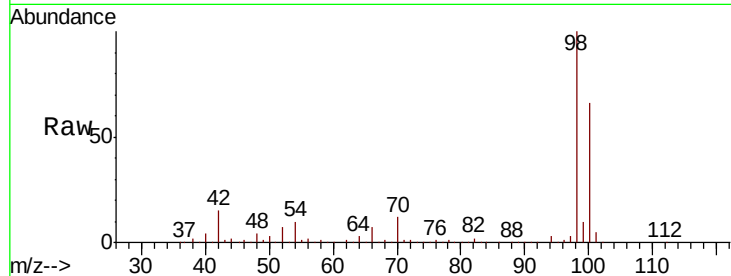
SP-5

Tot Ion: 98 Resp: 484537

Ion Ratio Lower Upper

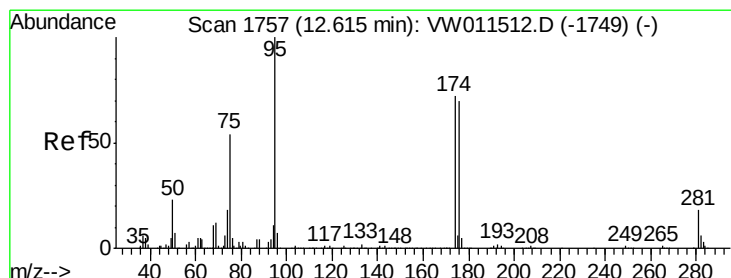
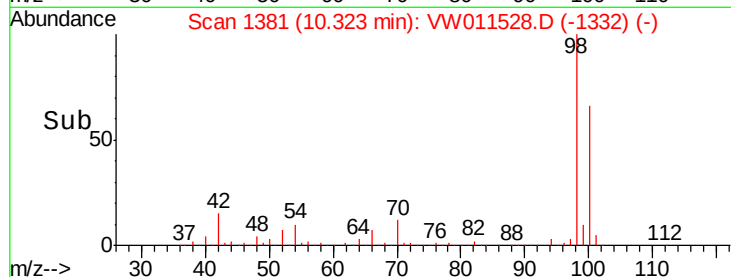
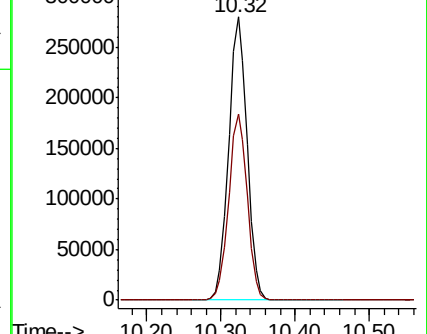
98 100

100 66.0 52.7 79.1



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW



#62

4-Bromofluorobenzene

Concen: 45.388 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.00 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

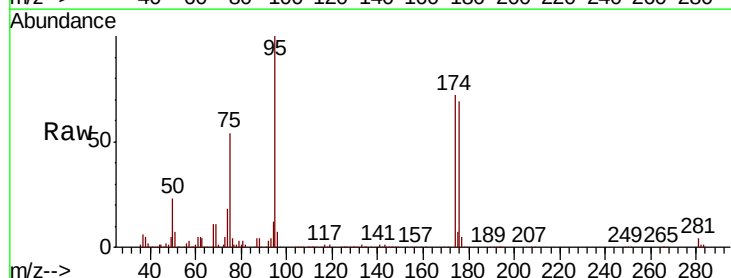
Tgt Ion: 95 Resp: 148069

Ion Ratio Lower Upper

95 100

174 75.1 0.0 150.2

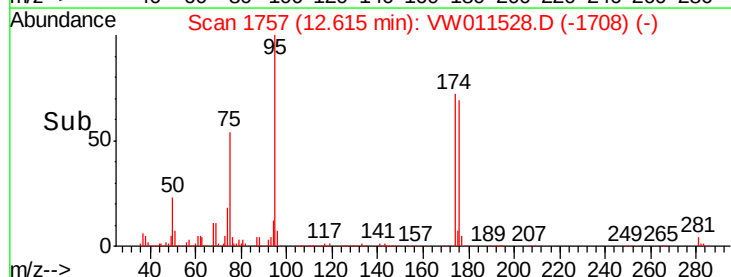
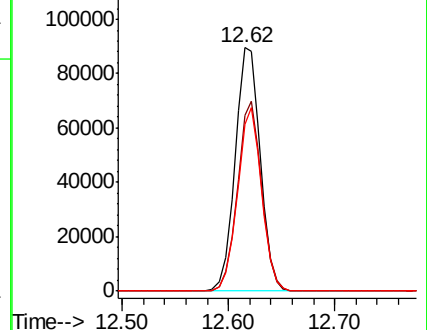
176 72.0 0.0 144.4

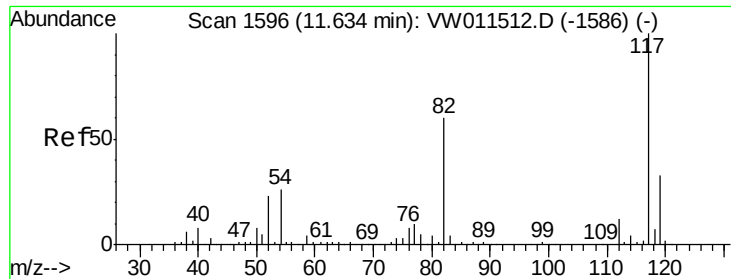


Abundance Ion 94.90 (94.60 to 95.60): VW

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

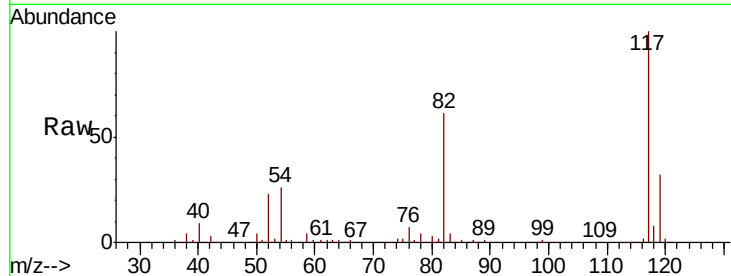




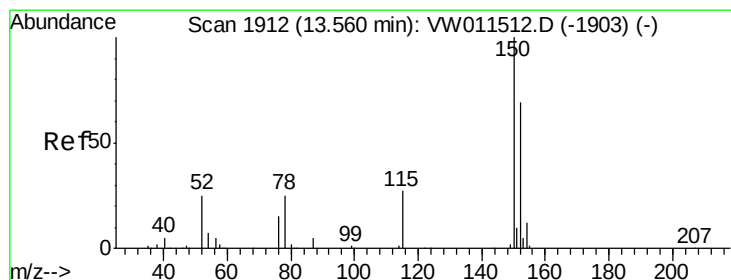
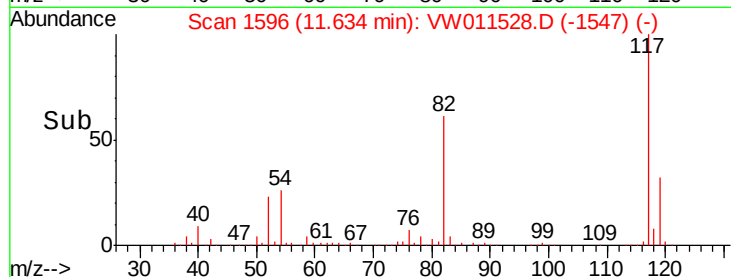
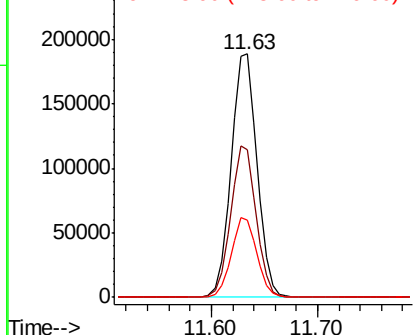
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1596  
Delta R.T. -0.00 min  
Lab File: VW011528.D  
Acq: 26 Jul 2019 20:32

Instrument :  
MSVOA\_W  
ClientSampled :  
SP-5

Tot Ion:117 Resp: 321390  
Ion Ratio Lower Upper  
117 100  
82 60.7 47.9 71.9  
119 31.7 26.2 39.2

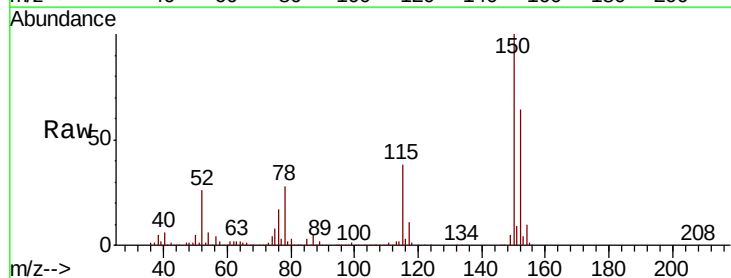


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VW  
Ion 118.90 (118.60 to 119.60): V

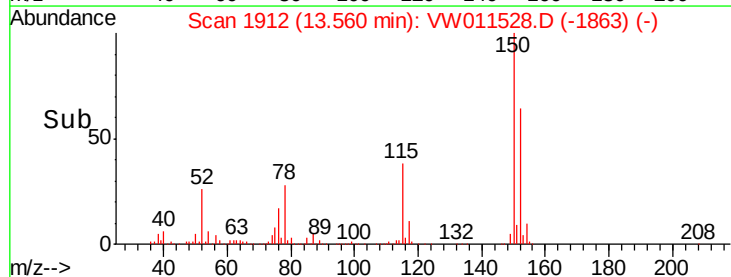
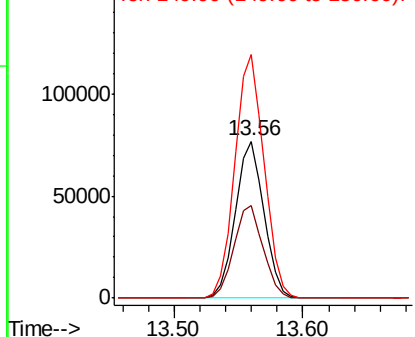


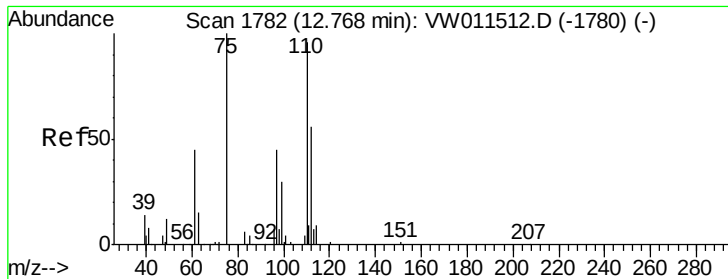
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.56 min Scan# 1912  
Delta R.T. -0.00 min  
Lab File: VW011528.D  
Acq: 26 Jul 2019 20:32

Tgt Ion:152 Resp: 118259  
Ion Ratio Lower Upper  
152 100  
115 60.2 30.5 91.5  
150 158.3 0.0 352.6



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: 62.292 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.15 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

Instrument :

MSVOA\_W

ClientSampled :

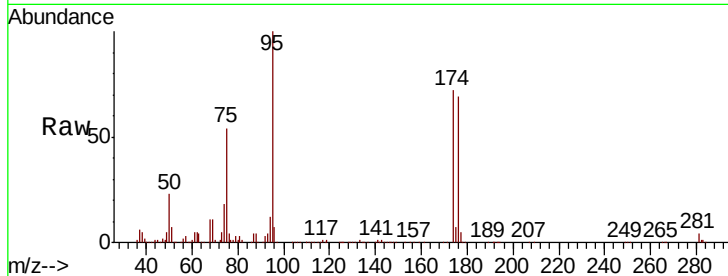
SP-5

Tot Ion: 75 Resp: 77947

Ion Ratio Lower Upper

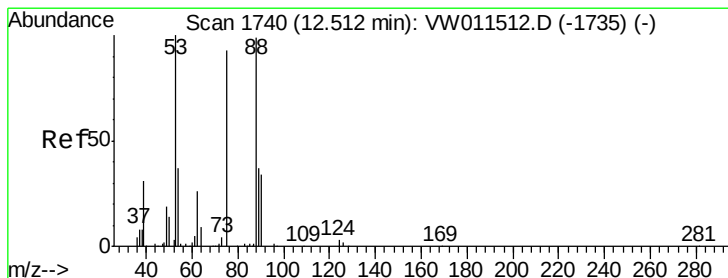
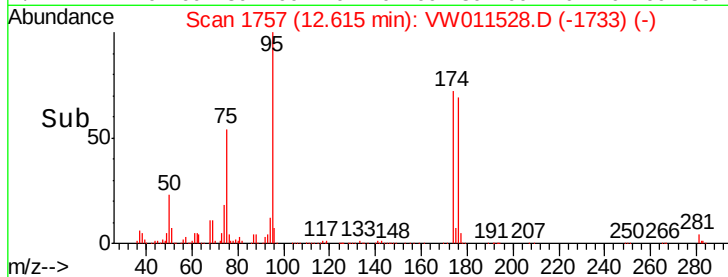
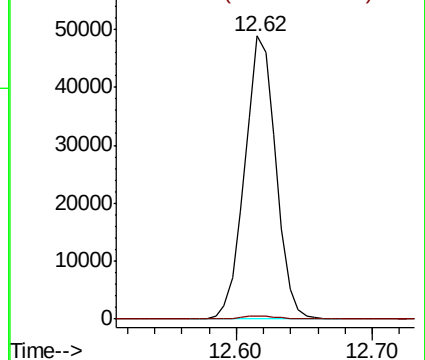
75 100

77 1.4 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: 143.562 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

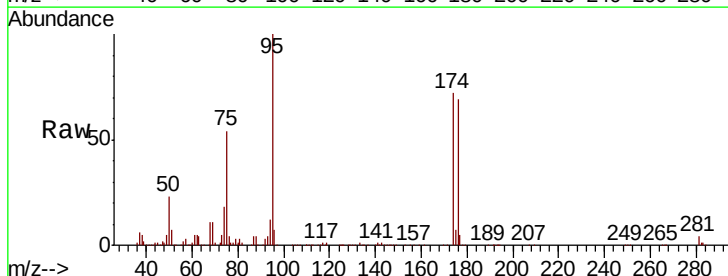
Tgt Ion: 75 Resp: 77947

Ion Ratio Lower Upper

75 100

53 0.1 88.0 132.0#

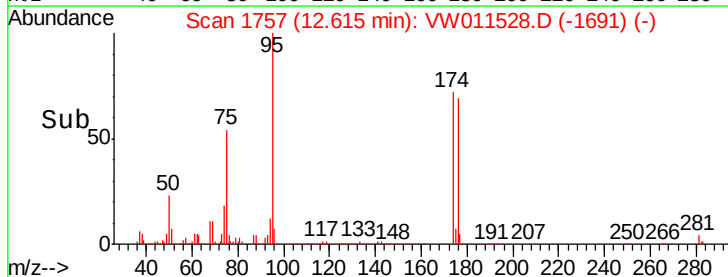
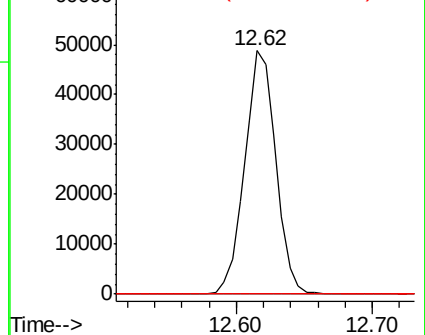
89 0.1 35.3 52.9#

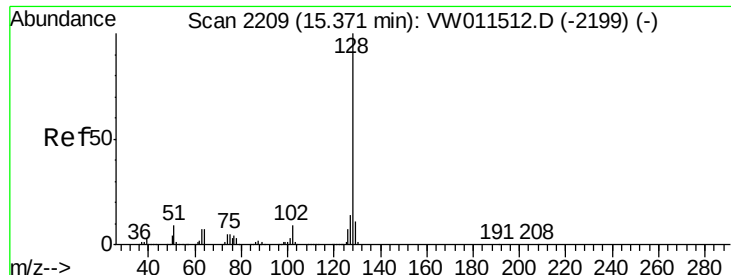


Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW





#95

Naphthalene

Concen: 2.206 ug/l

RT: 15.37 min Scan# 2209

Delta R.T. 0.00 min

Lab File: VW011528.D

Acq: 26 Jul 2019 20:32

Instrument :

MSVOA\_W

ClientSampleId :

SP-5

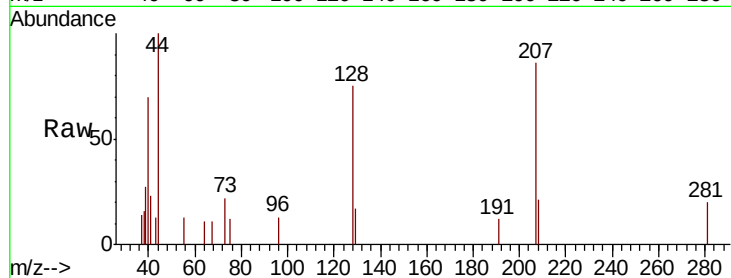
Tot Ion:128 Resp: 683

Ion Ratio Lower Upper

128 100

127 3.7 10.6 16.0#

129 7.6 8.6 13.0#



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

