

Data Path : Z:\VOASRV\HPCHEM1\MSVOA W\DATA\VW090819\  
 Data File : VW012809.D  
 Acq On : 09 Sep 2019 09:00  
 Operator : SY/VA  
 Sample : K4760-06  
 Misc : 5.52G/5ML/MSVOA W/SOIL  
 ALS Vial : 50 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :

Quant Time: Sep 09 10:47:37 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W090719S.M  
 Quant Title : SW846 8260  
 QLast Update : Sun Sep 08 05:04:40 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 263921   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 398987   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 315982   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.55 | 152  | 116238   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 8.30   | 65  | 141367   | 47.94 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.88%  |      |
| 35) Dibromofluoromethane  | 7.88   | 113 | 112745   | 47.53 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 95.06%  |      |
| 50) Toluene-d8            | 10.32  | 98  | 465715   | 50.11 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 100.22% |      |
| 62) 4-Bromofluorobenzene  | 12.62  | 95  | 154083   | 45.67 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 91.34%  |      |

## Target Compounds

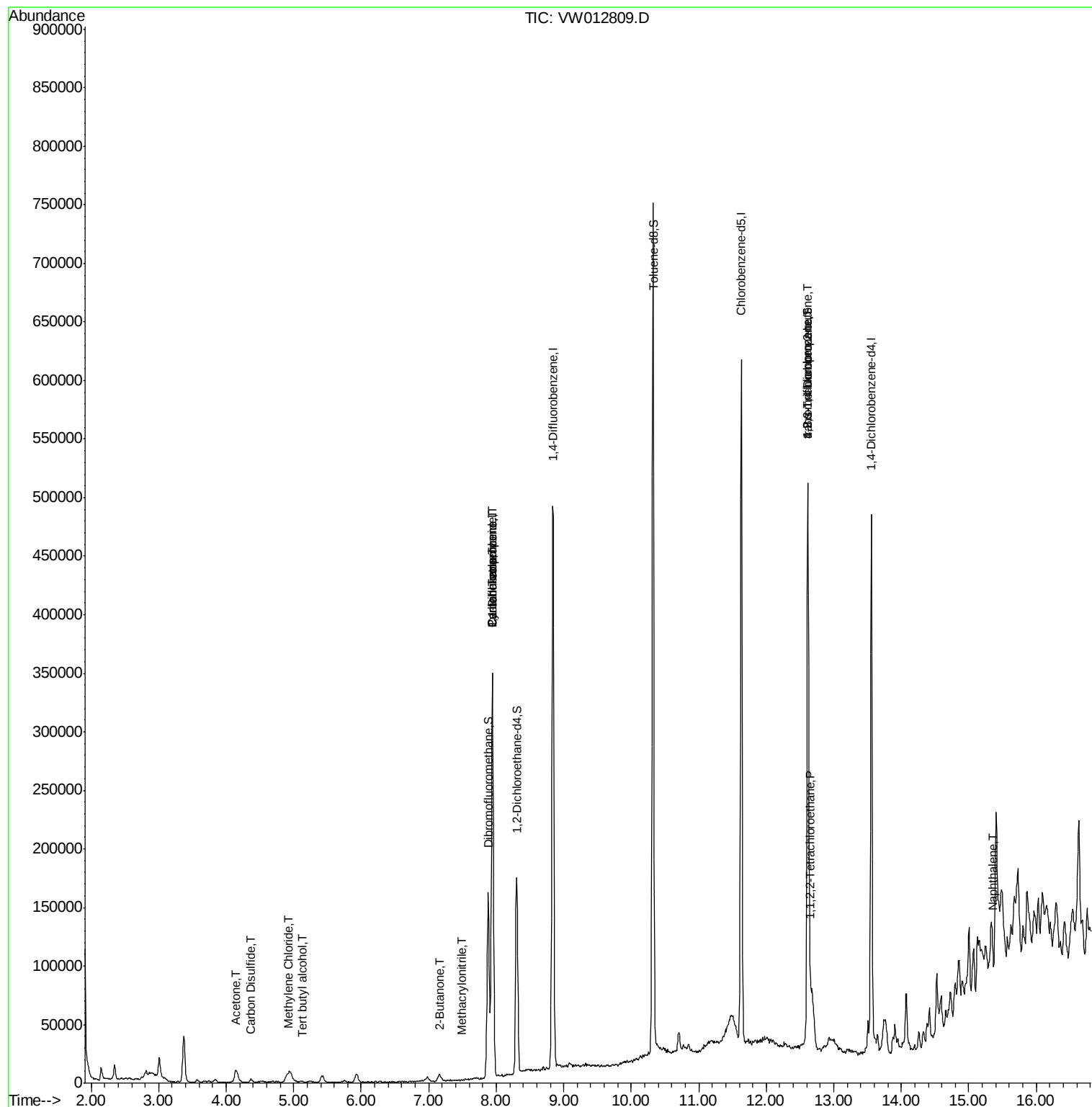
|                                |       |     |       |         |        | Qvalue |
|--------------------------------|-------|-----|-------|---------|--------|--------|
| 11) Tert butyl alcohol         | 5.13  | 59  | 958   | 4.246   | ug/l # | 72     |
| 16) Acetone                    | 4.15  | 43  | 26235 | 32.634  | ug/l   | 94     |
| 17) Carbon Disulfide           | 4.37  | 76  | 5444  | 1.177   | ug/l # | 78     |
| 20) Methylene Chloride         | 4.91  | 84  | 3588  | 1.427   | ug/l # | 75     |
| 25) 2-Butanone                 | 7.15  | 43  | 541   | 20.101  | ug/l # | 53     |
| 31) Cyclohexane                | 7.94  | 56  | 6766  | 1.561   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75  | 21167 | 5.971   | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.95  | 117 | 26081 | 7.463   | ug/l # | 18     |
| 41) Methacrylonitrile          | 7.48  | 41  | 133   | 3.919   | ug/l # | 27     |
| 75) 1,1,2,2-Tetrachloroethane  | 12.65 | 83  | 11700 | 6.988   | ug/l # | 29     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75  | 72983 | 61.403  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75  | 72983 | 129.872 | ug/l # | 8      |
| 95) Naphthalene                | 15.36 | 128 | 708   | 4.571   | ug/l # | 1      |

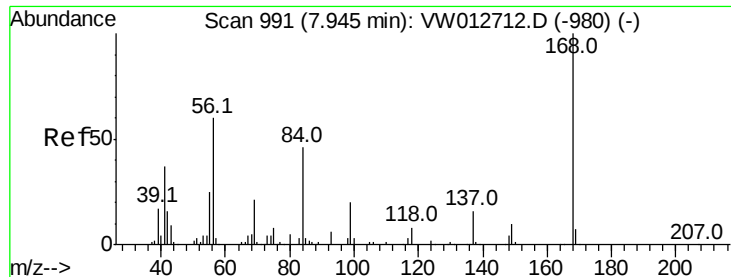
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Sun Sep 08 05:04:40 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: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :

MSVOA\_W

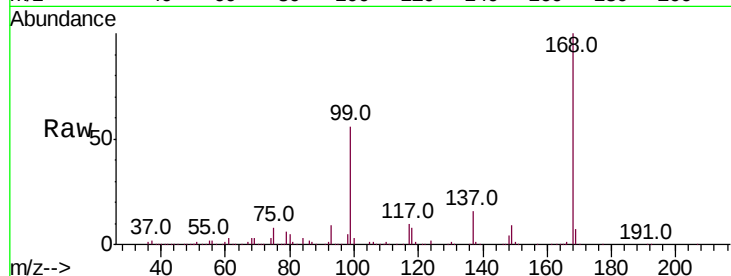
ClientSampleId :

Tot Ion:168 Resp: 263921

Ion Ratio Lower Upper

168 100

99 56.2 47.8 71.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

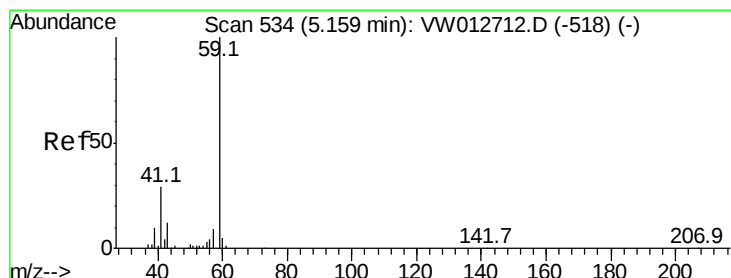
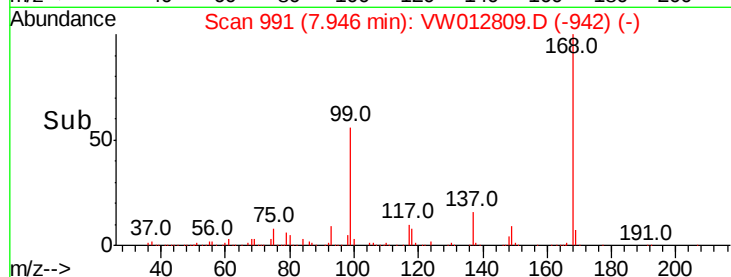
7.95

100000

50000

0

Time--> 7.80 7.90 8.00 8.10



#11

Tert butyl alcohol

Concen: 4.246 ug/l

RT: 5.13 min Scan# 529

Delta R.T. -0.03 min

Lab File: VW012809.D

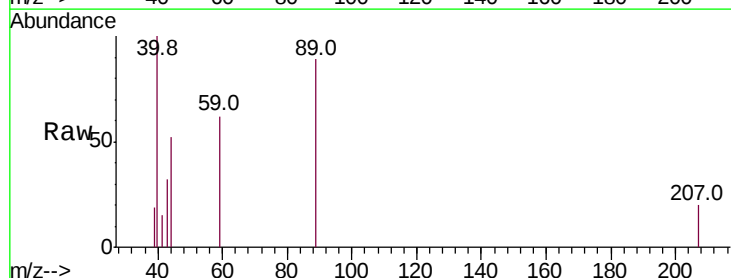
Acq: 09 Sep 2019 09:00

Tgt Ion: 59 Resp: 958

Ion Ratio Lower Upper

59 100

57 0.0 8.2 12.4#



Abundance Ion 59.00 (58.70 to 59.70): VW

Ion 57.00 (56.70 to 57.70): VW

400

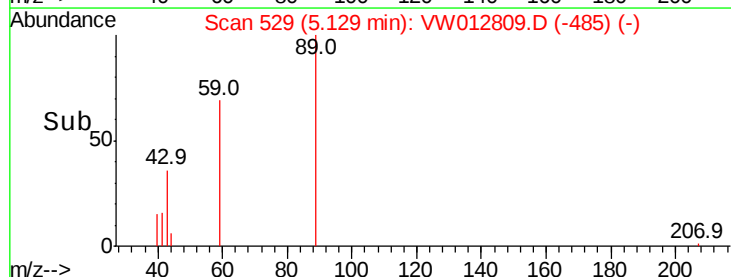
300

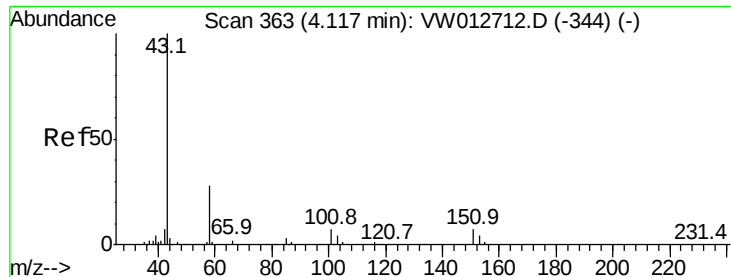
200

100

0

Time--> 5.00 5.05 5.10 5.15 5.20





#16

Acetone

Concen: 32.634 ug/l

RT: 4.15 min Scan# 368

Delta R.T. 0.03 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :

MSVOA\_W

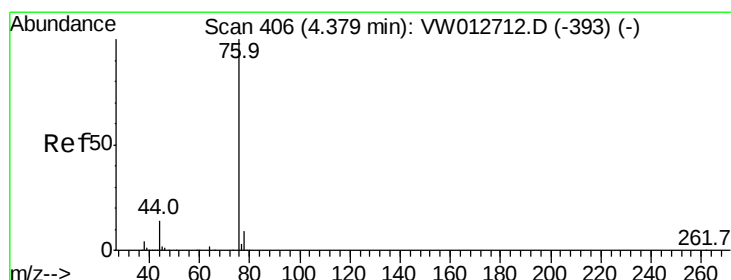
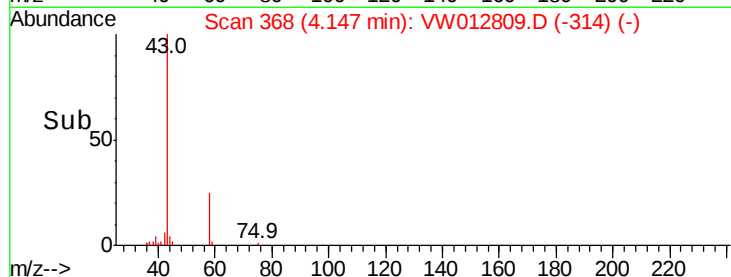
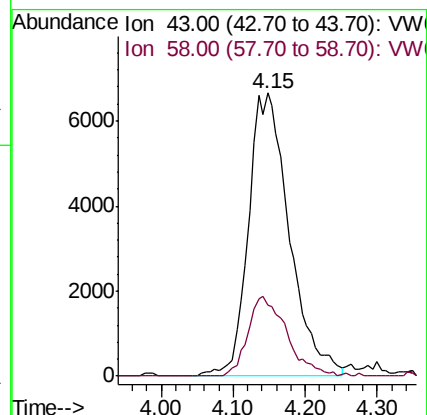
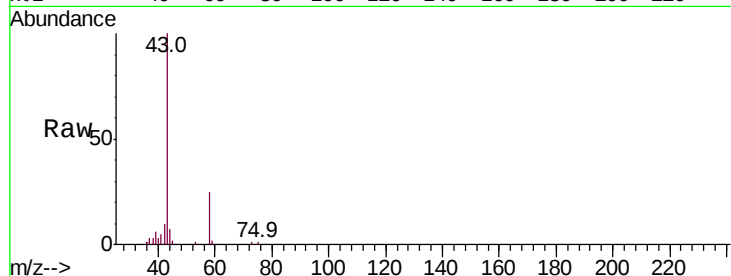
ClientSampleId :

Tot Ion: 43 Resp: 26235

Ion Ratio Lower Upper

43 100

58 25.2 22.6 33.8



#17

Carbon Disulfide

Concen: 1.177 ug/l

RT: 4.37 min Scan# 404

Delta R.T. -0.01 min

Lab File: VW012809.D

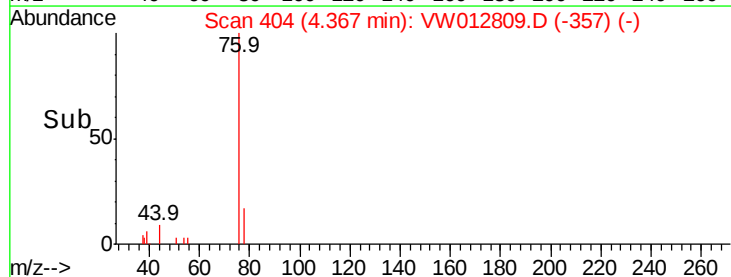
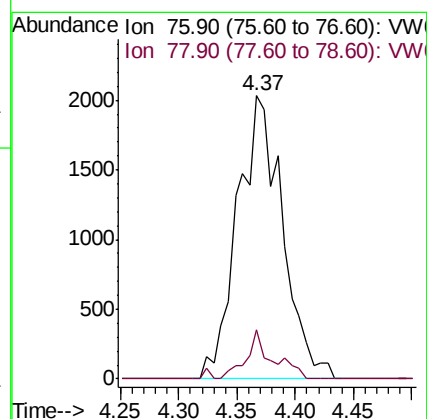
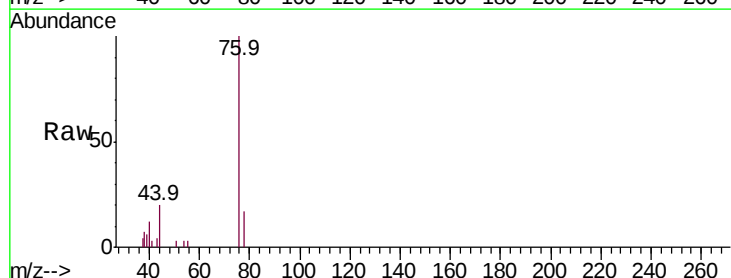
Acq: 09 Sep 2019 09:00

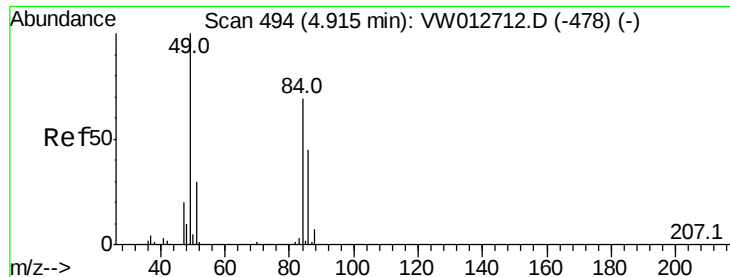
Tgt Ion: 76 Resp: 5444

Ion Ratio Lower Upper

76 100

78 17.1 7.2 10.8#

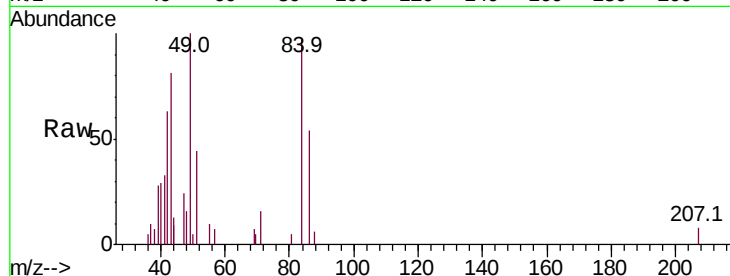




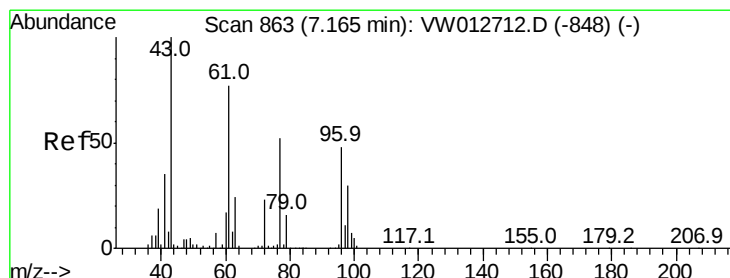
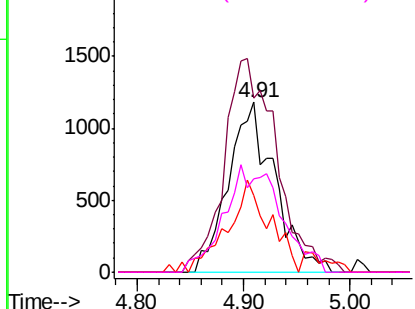
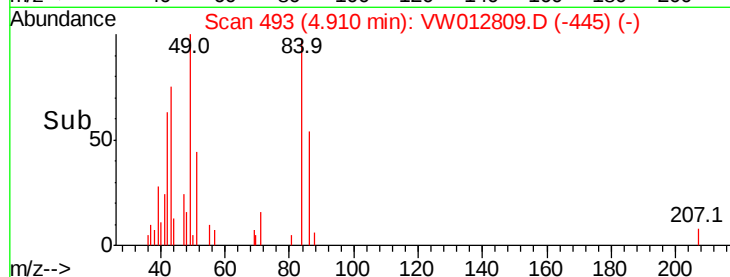
#20  
Methylene Chloride  
Concen: 1.427 ug/l  
RT: 4.91 min Scan# 493  
Delta R.T. -0.01 min  
Lab File: VW012809.D  
Acq: 09 Sep 2019 09:00

Instrument :  
MSVOA\_W  
ClientSampleId :

Tot Ion: 84 Resp: 3588  
Ion Ratio Lower Upper  
84 100  
49 98.0 115.4 173.0#  
51 45.0 34.9 52.3  
86 55.2 52.2 78.4

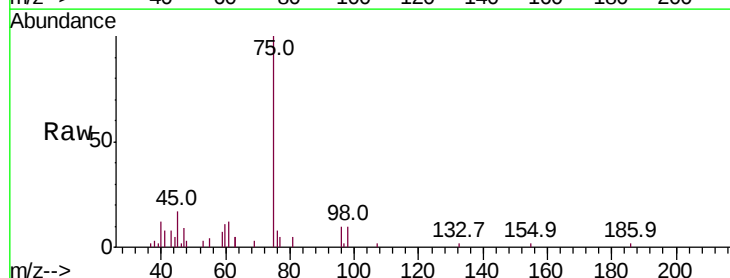


Abundance Ion 83.90 (83.60 to 84.60): VW  
Ion 48.90 (48.60 to 49.60): VW  
Ion 50.90 (50.60 to 51.60): VW  
Ion 85.90 (85.60 to 86.60): VW

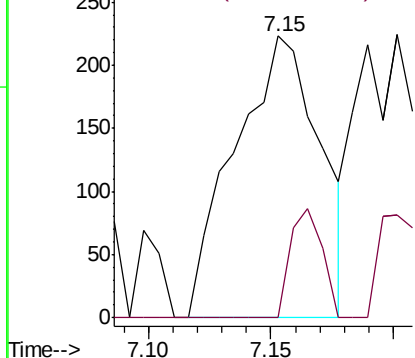
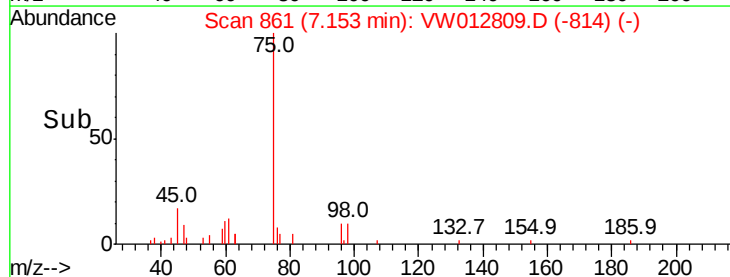


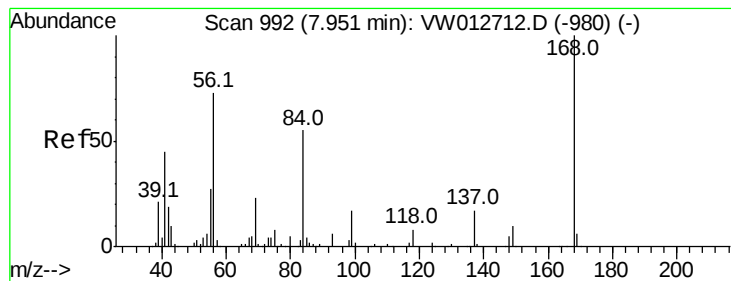
#25  
2-Butanone  
Concen: 20.101 ug/l  
RT: 7.15 min Scan# 861  
Delta R.T. -0.01 min  
Lab File: VW012809.D  
Acq: 09 Sep 2019 09:00

Tgt Ion: 43 Resp: 541  
Ion Ratio Lower Upper  
43 100  
72 0.0 18.0 27.0#



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





#31

Cyclohexane

Concen: 1.561 ug/l

RT: 7.94 min Scan# 990

Delta R.T. -0.01 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :  
MSVOA\_W  
ClientSampled :

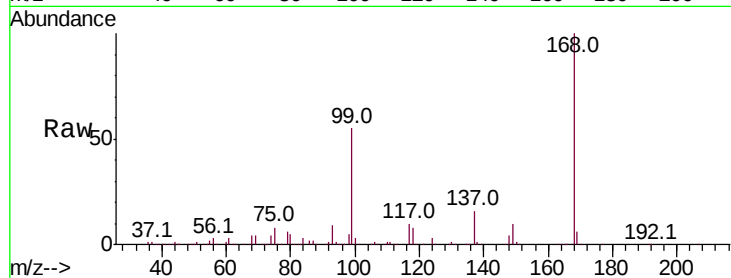
Tot Ion: 56 Resp: 6766

Ion Ratio Lower Upper

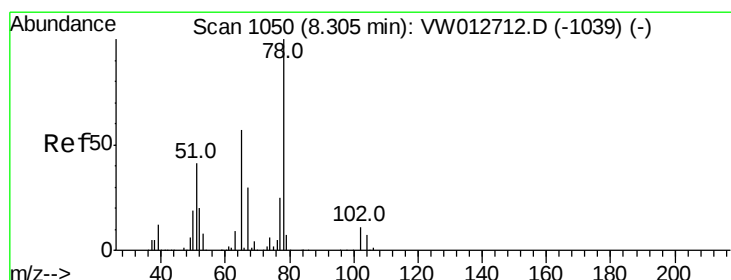
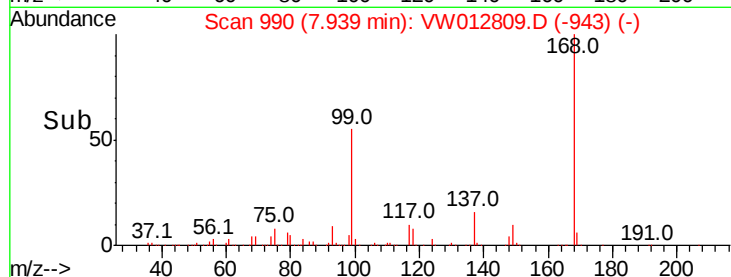
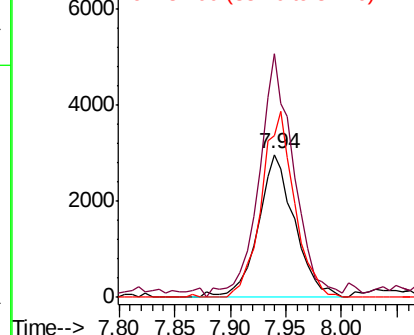
56 100

69 167.6 25.7 38.5#

84 113.4 60.4 90.6#



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: 47.939 ug/l

RT: 8.30 min Scan# 1049

Delta R.T. -0.01 min

Lab File: VW012809.D

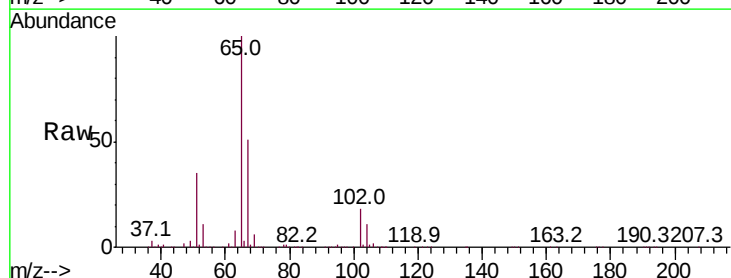
Acq: 09 Sep 2019 09:00

Tgt Ion: 65 Resp: 141367

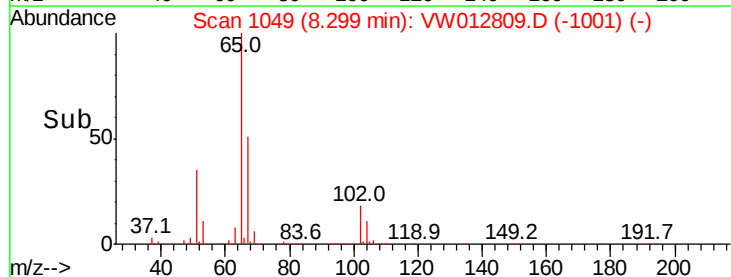
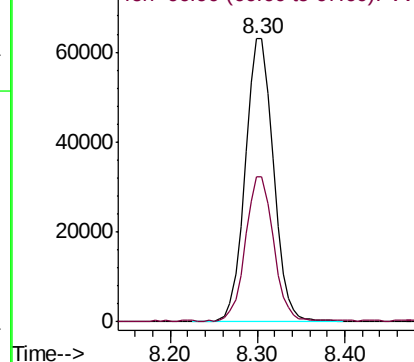
Ion Ratio Lower Upper

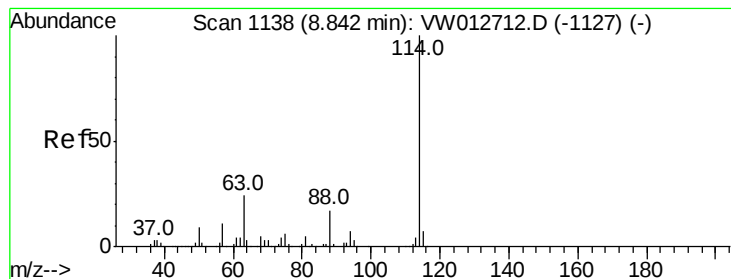
65 100

67 50.4 0.0 101.8



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





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.84 min Scan# 1137

Delta R.T. -0.01 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :

MSVOA\_W

ClientSampleId :

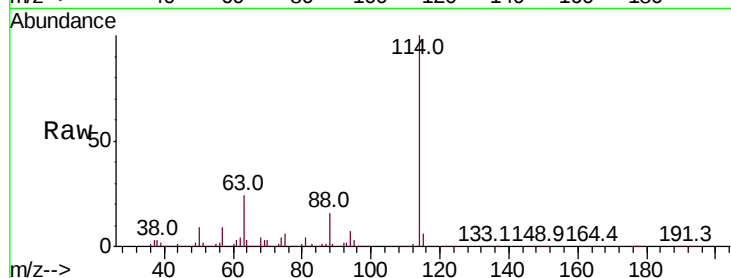
Tot Ion:114 Resp: 398987

Ion Ratio Lower Upper

114 100

63 24.0 0.0 47.2

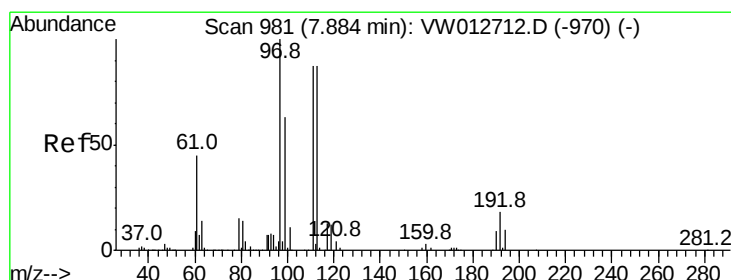
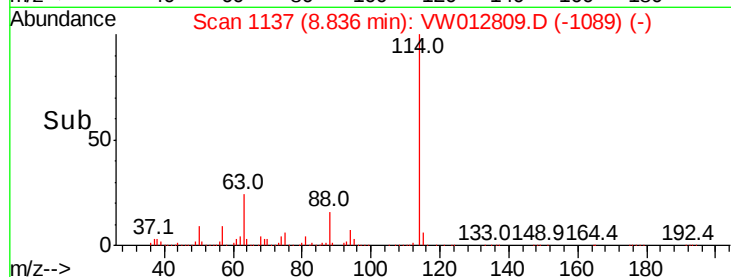
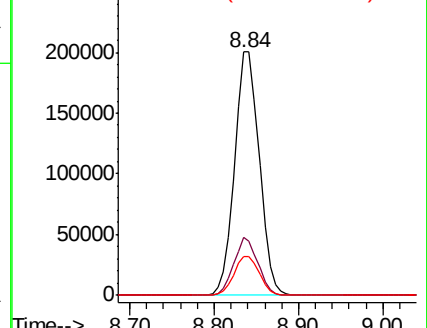
88 15.7 0.0 34.0



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: 47.530 ug/l

RT: 7.88 min Scan# 981

Delta R.T. 0.00 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

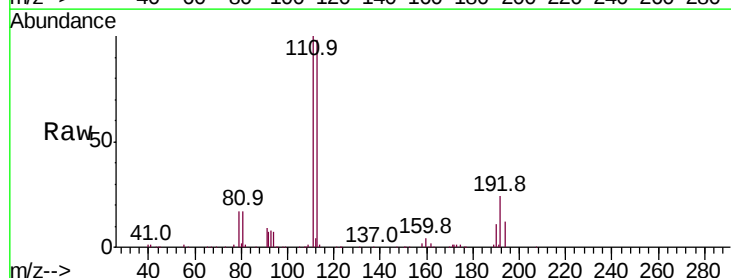
Tgt Ion:113 Resp: 112745

Ion Ratio Lower Upper

113 100

111 104.5 80.2 120.4

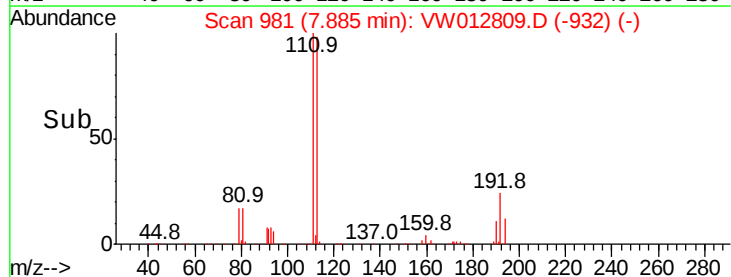
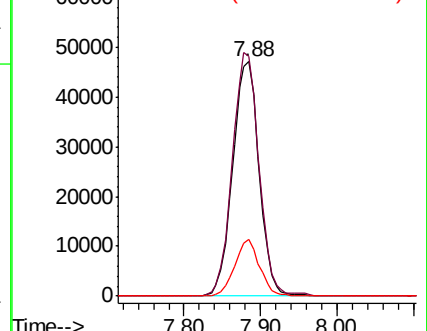
192 22.5 17.3 25.9

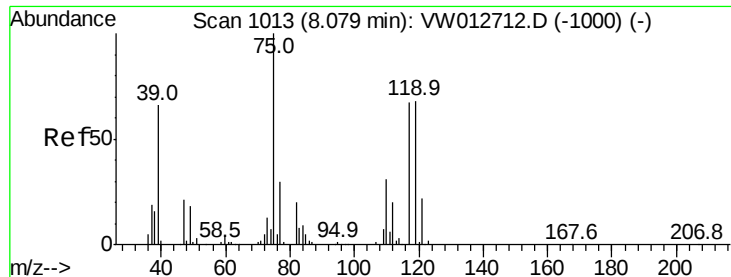


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V





#36

1,1-Dichloropropene

Concen: 5.971 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.13 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :  
MSVOA\_W  
ClientSampleId :

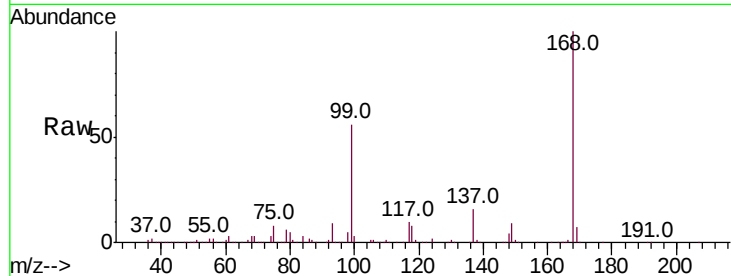
Tot Ion: 75 Resp: 21167

Ion Ratio Lower Upper

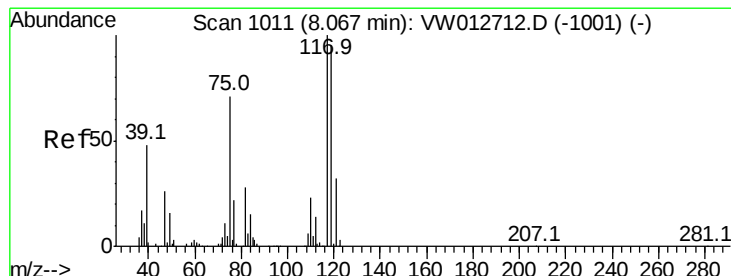
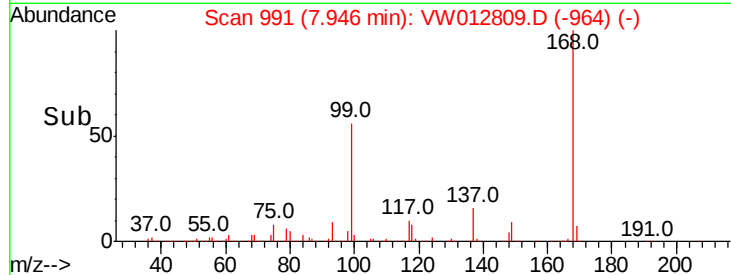
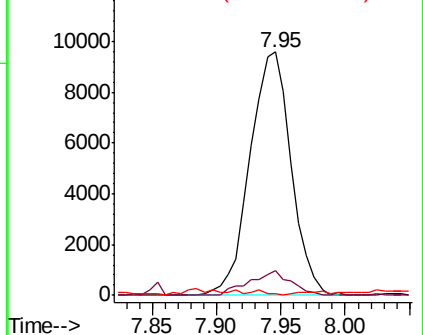
75 100

110 10.2 15.9 47.7#

77 0.0 25.0 37.4#



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



#38

Carbon Tetrachloride

Concen: 7.463 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.12 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

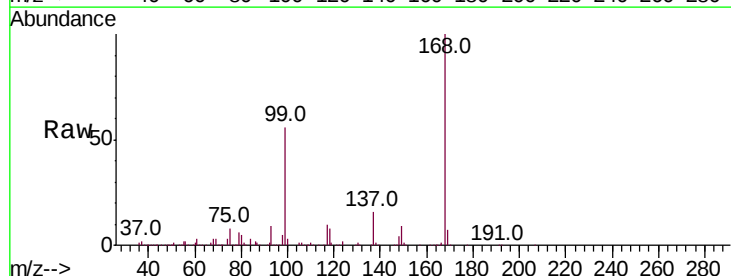
Tgt Ion: 117 Resp: 26081

Ion Ratio Lower Upper

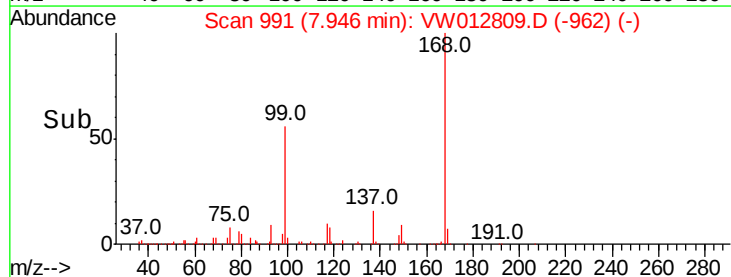
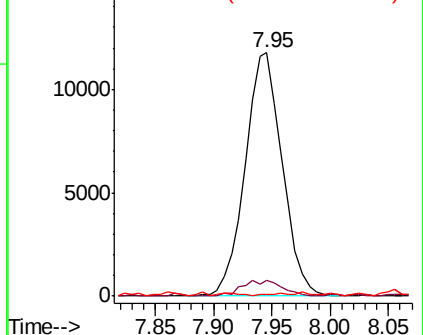
117 100

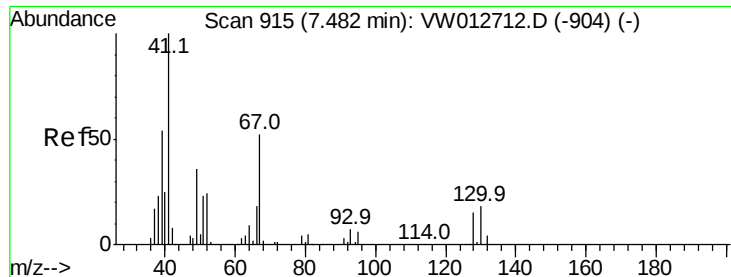
119 6.7 76.2 114.2#

121 0.8 25.4 38.2#



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





#41

Methacrylonitrile

Concen: 3.919 ug/l

RT: 7.48 min Scan# 915

Delta R.T. 0.00 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :  
MSVOA\_W  
ClientSampled :

Tot Ion: 41 Resp: 133

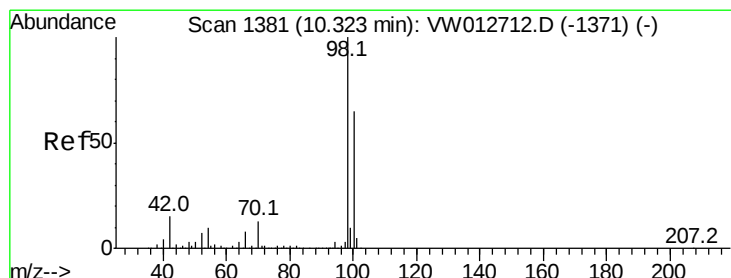
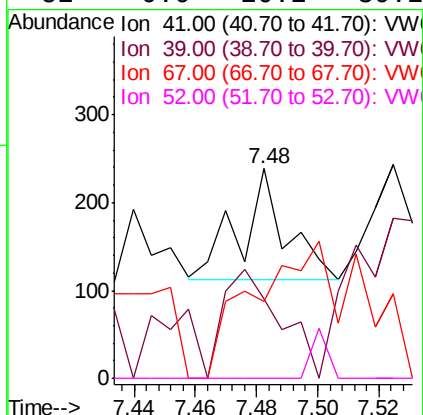
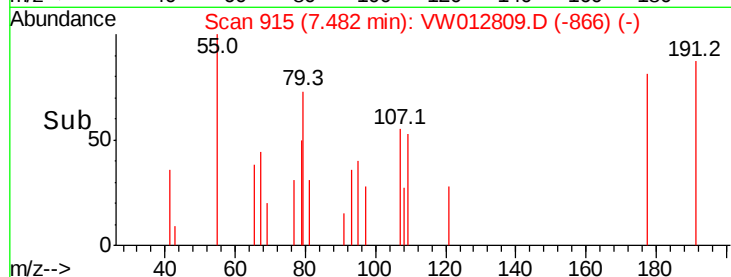
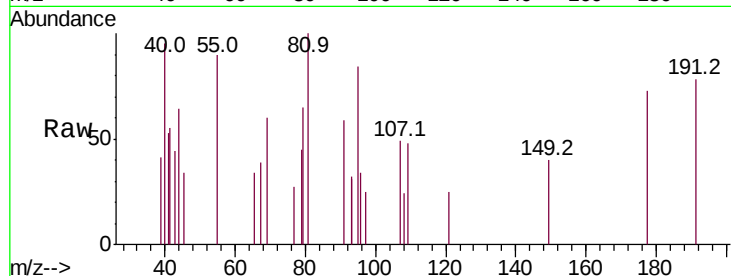
Ion Ratio Lower Upper

41 100

39 119.5 47.5 71.3#

67 0.0 45.1 67.7#

52 0.0 20.2 30.2#



#50

Toluene-d8

Concen: 50.113 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. 0.00 min

Lab File: VW012809.D

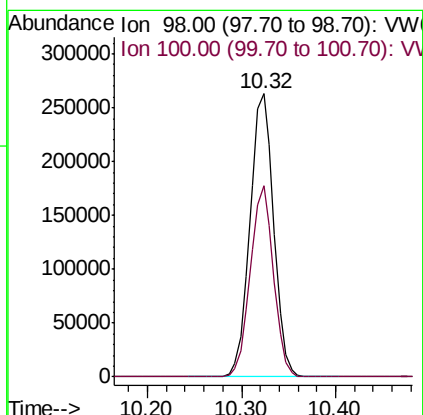
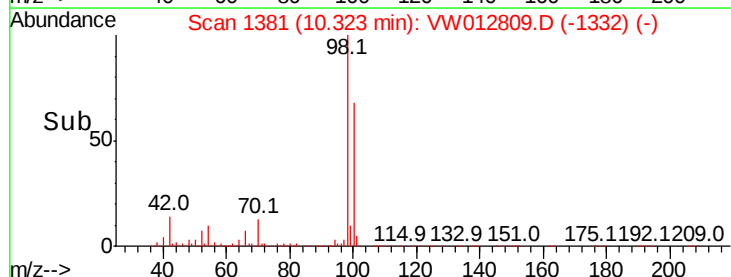
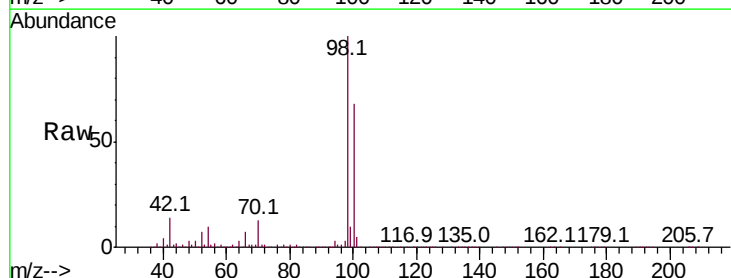
Acq: 09 Sep 2019 09:00

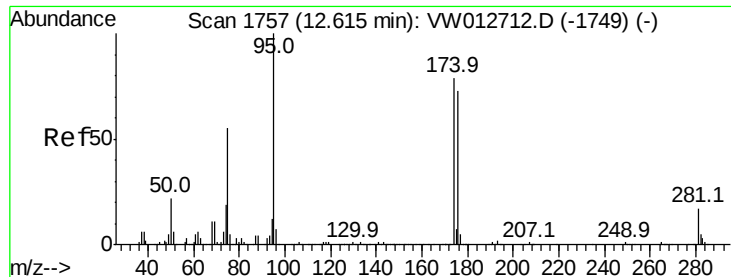
Tgt Ion: 98 Resp: 465715

Ion Ratio Lower Upper

98 100

100 66.2 52.2 78.4

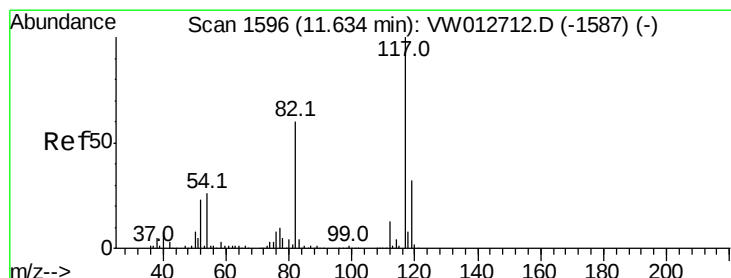
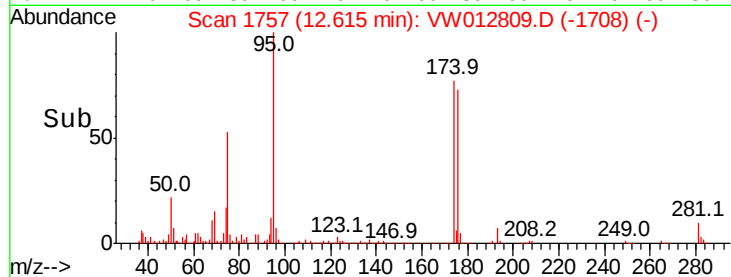
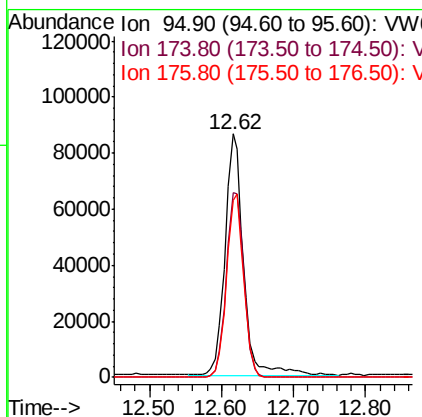
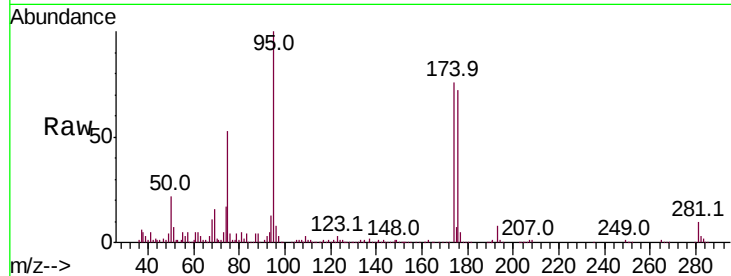




#62  
4-Bromofluorobenzene  
Concen: 45.671 ug/l  
RT: 12.62 min Scan# 1757  
Delta R.T. 0.00 min  
Lab File: VW012809.D  
Acq: 09 Sep 2019 09:00

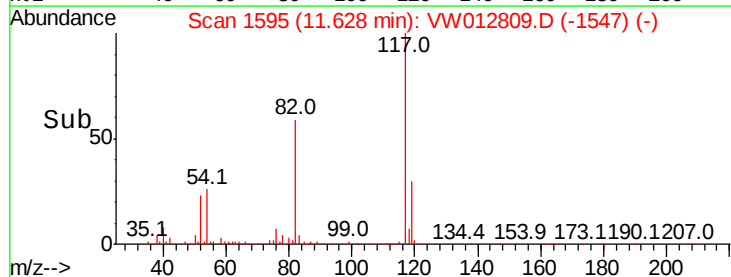
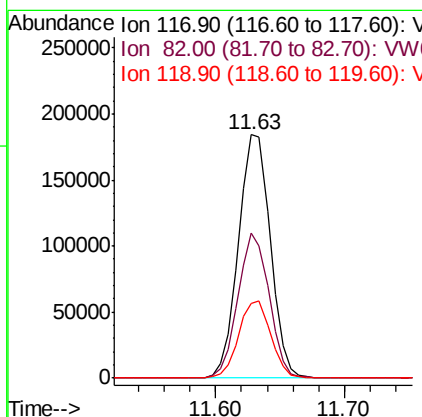
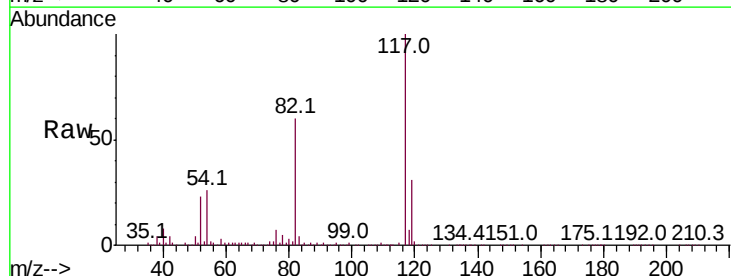
Instrument :  
MSVOA\_W  
ClientSampleId :

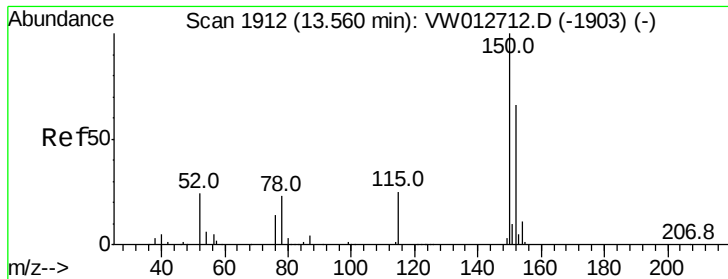
| Tot Ion | 95    | Resp  | 154083 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 95      | 100   |       |        |
| 174     | 73.1  | 0.0   | 161.0  |
| 176     | 70.5  | 0.0   | 156.4  |



#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1595  
Delta R.T. -0.01 min  
Lab File: VW012809.D  
Acq: 09 Sep 2019 09:00

| Tgt Ion | 117   | Resp  | 315982 |
|---------|-------|-------|--------|
| Ion     | Ratio | Lower | Upper  |
| 117     | 100   |       |        |
| 82      | 59.4  | 48.2  | 72.4   |
| 119     | 30.4  | 25.8  | 38.6   |



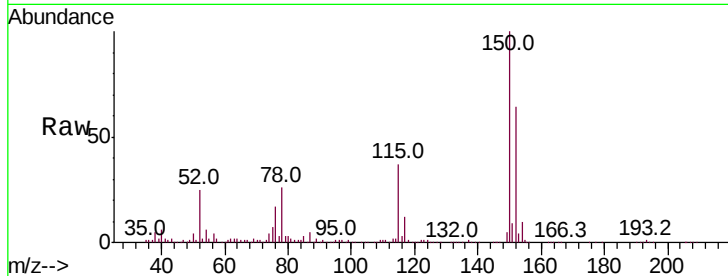


#72

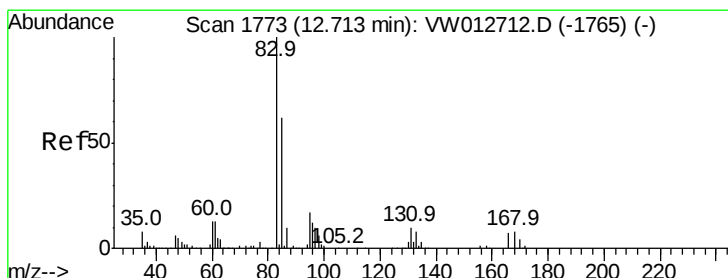
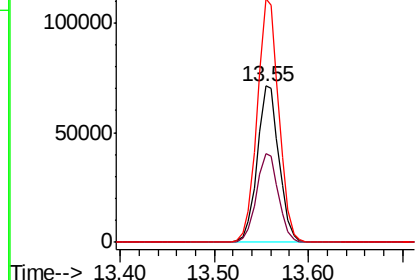
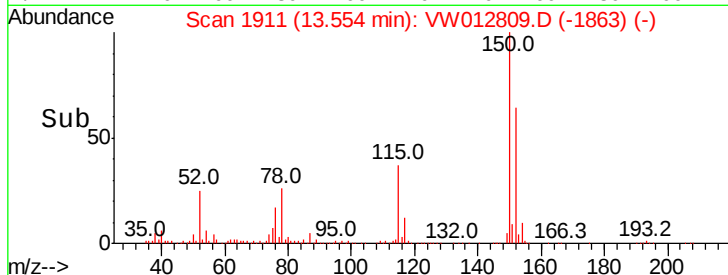
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.55 min Scan# 1911  
Delta R.T. -0.01 min  
Lab File: VW012809.D  
Acq: 09 Sep 2019 09:00

Instrument :  
MSVOA\_W  
ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 57.3  | 30.0  | 90.1  |
| 150     | 154.1 | 0.0   | 349.0 |



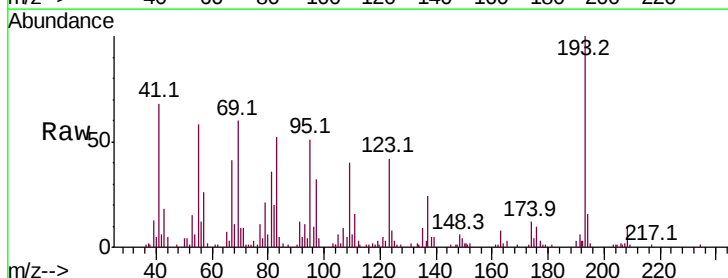
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



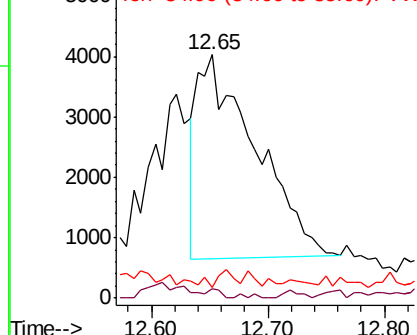
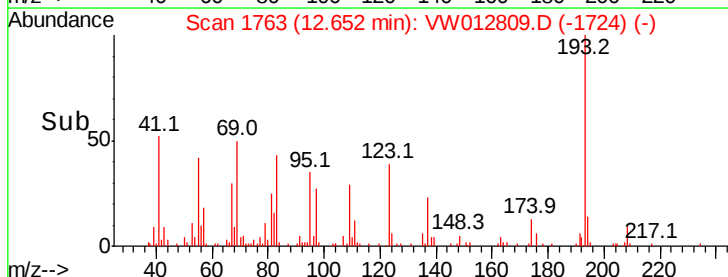
#75

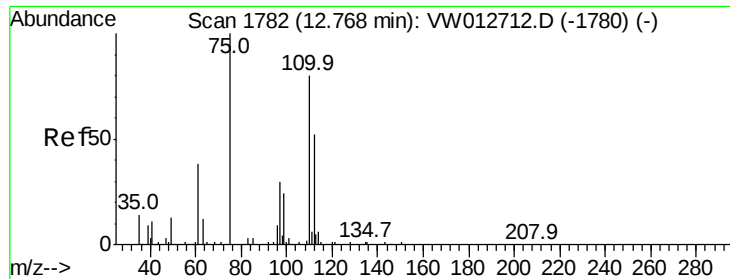
1,1,2,2-Tetrachloroethane  
Concen: 6.988 ug/l  
RT: 12.65 min Scan# 1763  
Delta R.T. -0.06 min  
Lab File: VW012809.D  
Acq: 09 Sep 2019 09:00

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 131     | 0.9   | 5.1   | 15.4# |
| 85      | 2.2   | 31.4  | 94.2# |



Abundance Ion 82.90 (82.60 to 83.60): VW  
Ion 130.80 (130.50 to 131.50): V  
Ion 84.90 (84.60 to 85.60): VW





#76

1,2,3-Trichloropropane

Concen: 61.403 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.15 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :

MSVOA\_W

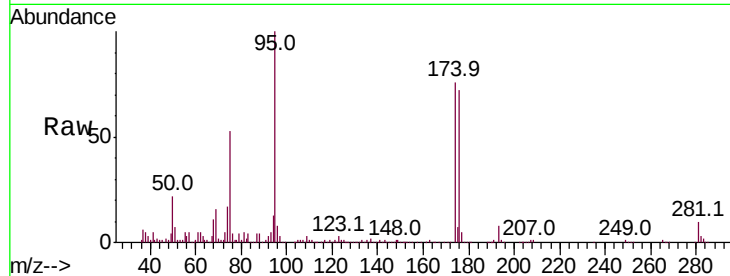
ClientSampled :

Tot Ion: 75 Resp: 72983

Ion Ratio Lower Upper

75 100

77 3.3 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 77.00 (76.70 to 77.70): VW

12.62

50000

40000

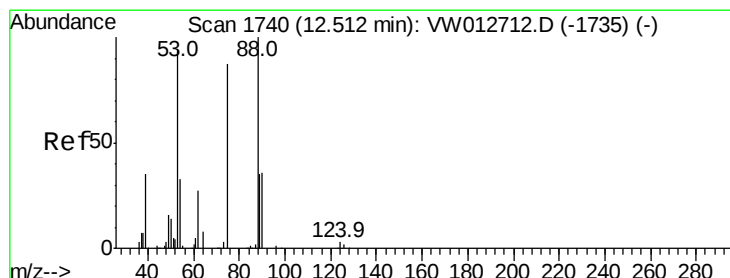
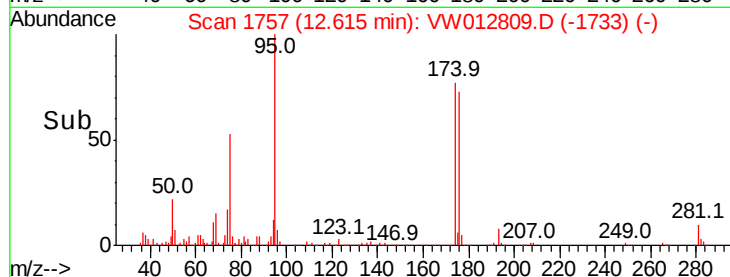
30000

20000

10000

0

Time-->



#81

trans-1,4-Dichloro-2-butene

Concen: 129.872 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

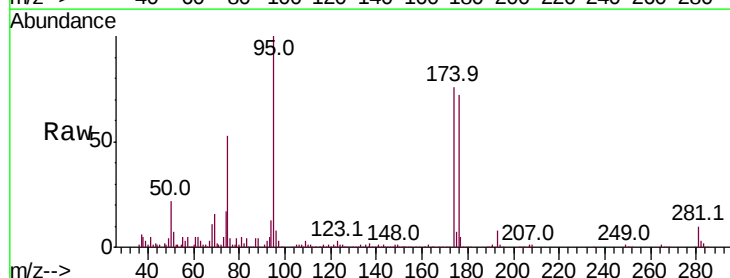
Tgt Ion: 75 Resp: 72983

Ion Ratio Lower Upper

75 100

53 2.2 87.6 131.4#

89 0.5 35.5 53.3#



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

12.62

60000

50000

40000

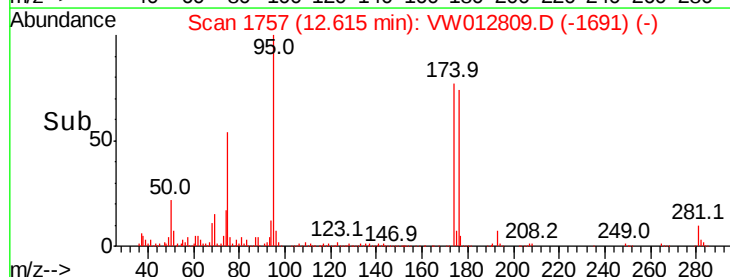
30000

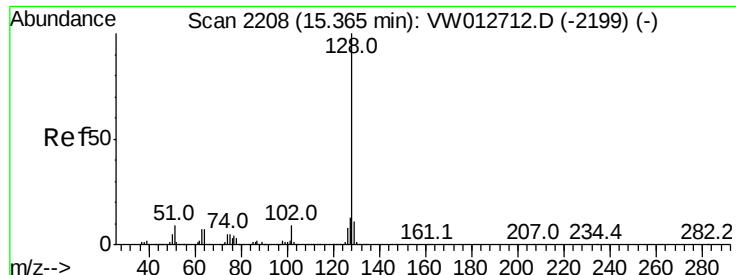
20000

10000

0

Time-->





#95

Naphthalene

Concen: 4.571 ug/l

RT: 15.36 min Scan# 2208

Delta R.T. 0.00 min

Lab File: VW012809.D

Acq: 09 Sep 2019 09:00

Instrument :

MSVOA\_W

ClientSampleId :

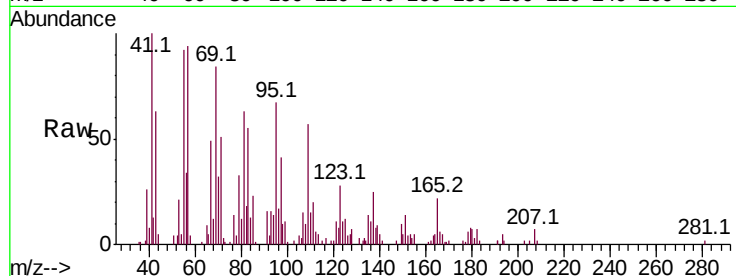
Tot Ion:128 Resp: 708

Ion Ratio Lower Upper

128 100

127 164.3 10.7 16.1#

129 14.4 8.7 13.1#



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

