

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW090219\  
 Data File : VW012517.D  
 Acq On : 03 Sep 2019 00:14  
 Operator : SY/VA  
 Sample : K4544-03  
 Misc : 3.80G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_W  
 ClientSampleId :  
 S401-K1-1.0-1.5-082619

Quant Time: Sep 03 07:44:54 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_W\METHOD\82W082319S.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Aug 26 07:18:31 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.95  | 168  | 261899   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 426001   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 348510   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.55 | 152  | 121904   | 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   | 156182   | 50.17 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 100.34% |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 127539   | 50.16 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 100.32% |          |
| 50) Toluene-d8              | 10.32 | 98   | 519681   | 50.40 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 100.80% |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 156508   | 43.06 | ug/l    | 0.00     |
| Spiked Amount 50.000        |       |      | Recovery | =     | 86.12%  |          |

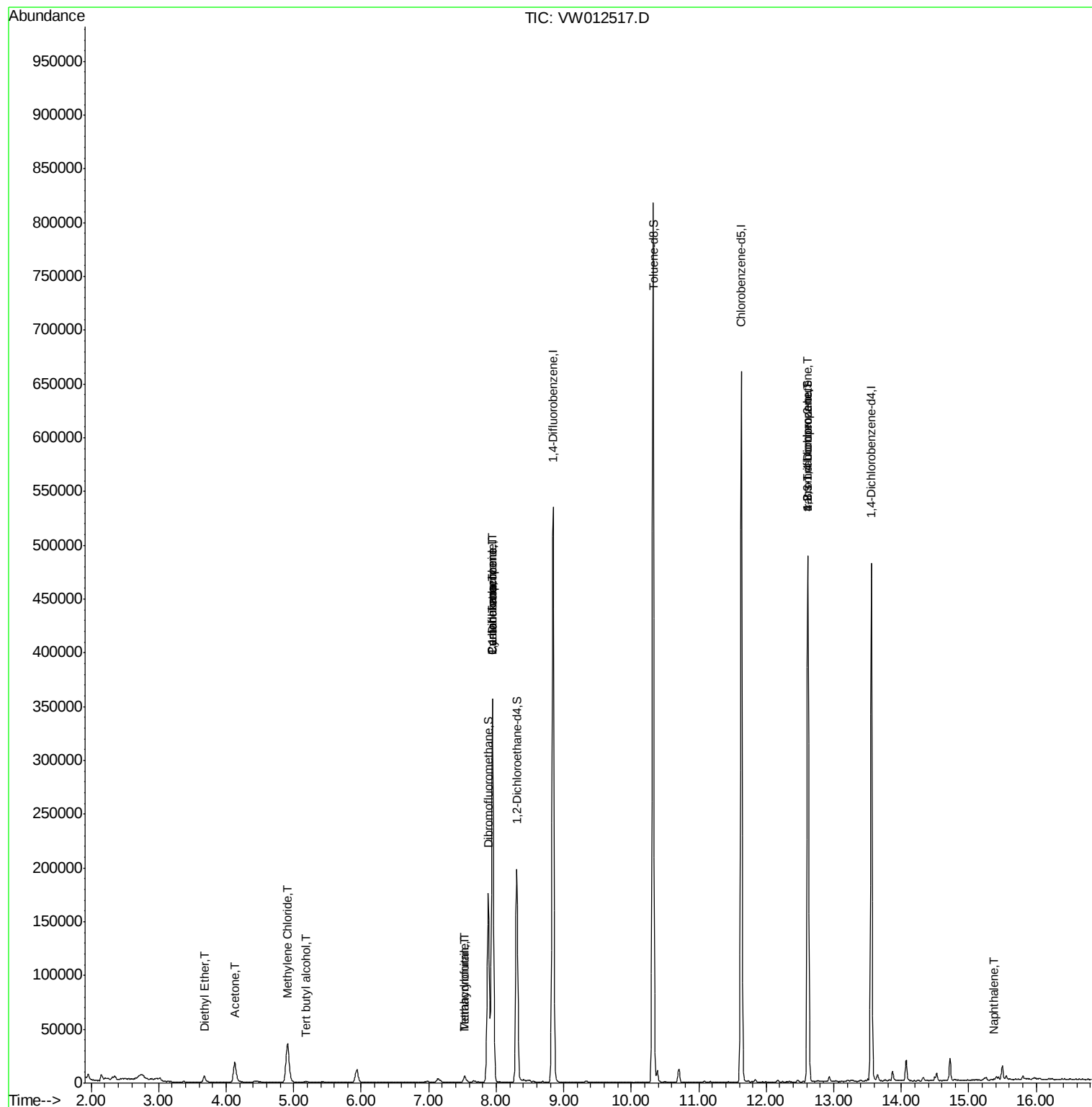
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 8) Diethyl Ether               | 3.68  | 74   | 2817     | 1.933   | ug/l   | 79     |
| 11) Tert butyl alcohol         | 5.17  | 59   | 288      | 1.537   | ug/l # | 71     |
| 16) Acetone                    | 4.13  | 43   | 37702    | 47.374  | ug/l   | 97     |
| 20) Methylene Chloride         | 4.91  | 84   | 25720    | 8.549   | ug/l   | 98     |
| 29) Tetrahydrofuran            | 7.54  | 42   | 5728     | 8.828   | ug/l   | 96     |
| 31) Cyclohexane                | 7.94  | 56   | 6237     | 1.112   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 21429    | 4.868   | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 25500    | 6.693   | ug/l # | 16     |
| 41) Methacrylonitrile          | 7.54  | 41   | 3171     | 2.237   | ug/l # | 53     |
| 76) 1,2,3-Trichloropropane     | 12.62 | 75   | 83285    | 70.149  | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.62 | 75   | 83285    | 153.804 | ug/l # | 6      |
| 95) Naphthalene                | 15.37 | 128  | 736      | 4.467   | ug/l # | 69     |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_W\METHOD\82W082319S.M  
Quant Title : SW846 8260  
QLast Update : Mon Aug 26 07:18:31 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: VW012517.D

Acq: 03 Sep 2019 00:14

Instrument :

MSVOA\_W

ClientSampleId :

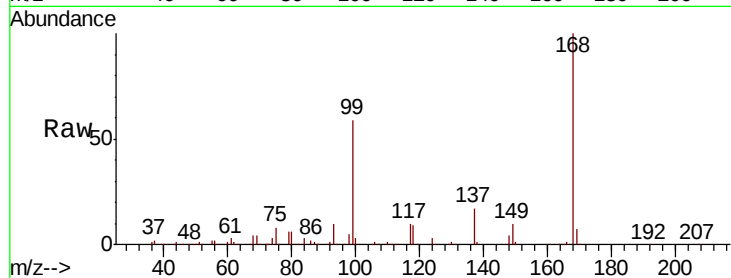
S401-K1-1.0-1.5-082619

Tgt Ion:168 Resp: 261899

Ion Ratio Lower Upper

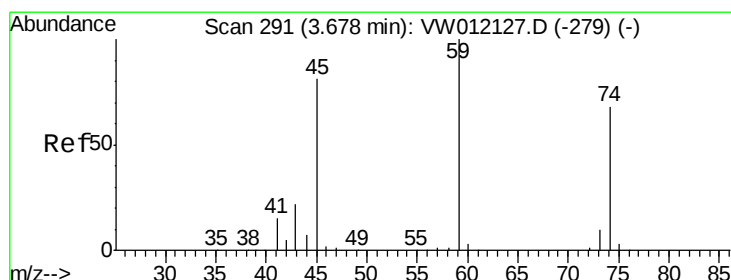
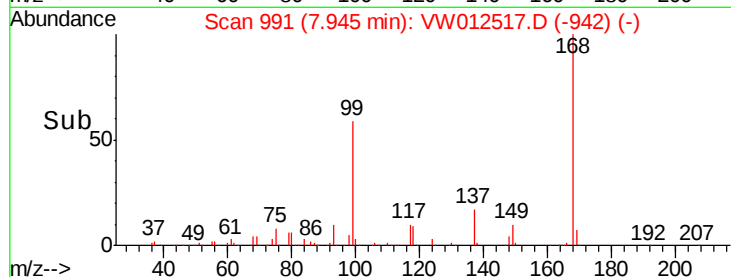
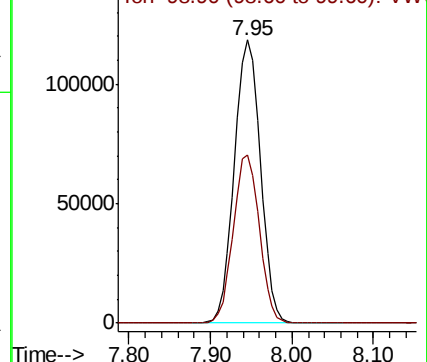
168 100

99 59.5 49.2 73.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW



#8

Diethyl Ether

Concen: 1.933 ug/l

RT: 3.68 min Scan# 292

Delta R.T. 0.01 min

Lab File: VW012517.D

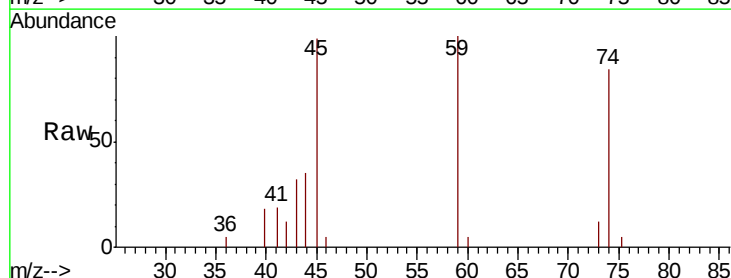
Acq: 03 Sep 2019 00:14

Tgt Ion: 74 Resp: 2817

Ion Ratio Lower Upper

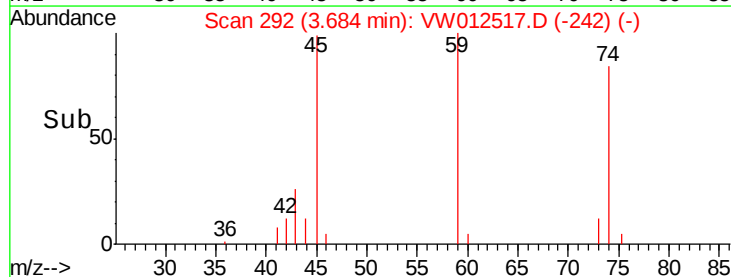
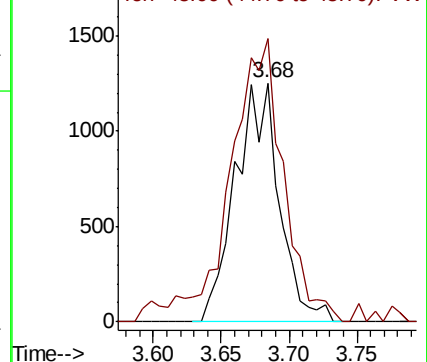
74 100

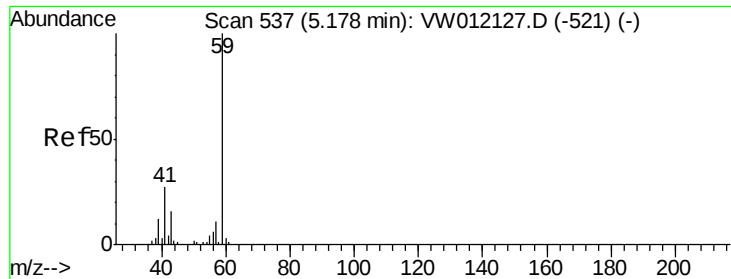
45 141.0 59.2 177.6



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW

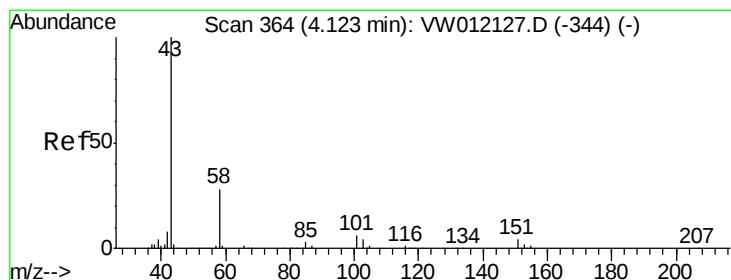
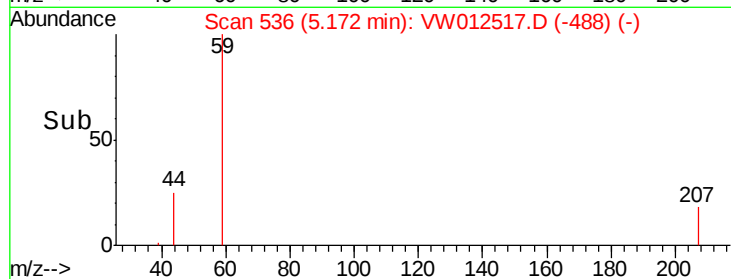
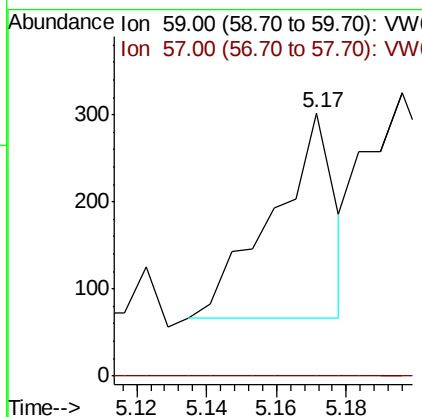
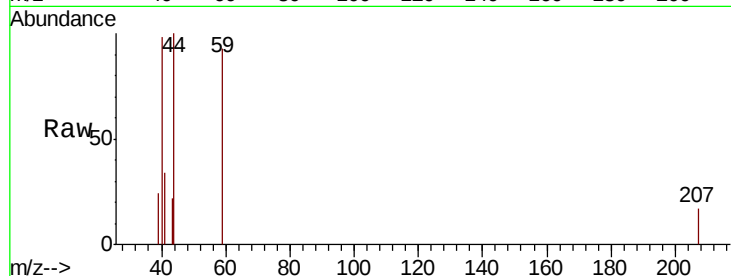




#11  
Tert butyl alcohol  
Concen: 1.537 ug/l  
RT: 5.17 min Scan# 536  
Delta R.T. -0.01 min  
Lab File: VW012517.D  
Acq: 03 Sep 2019 00:14

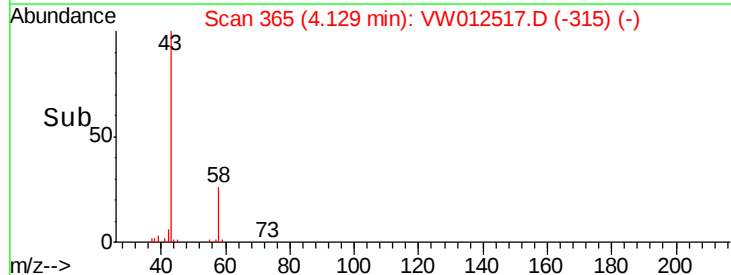
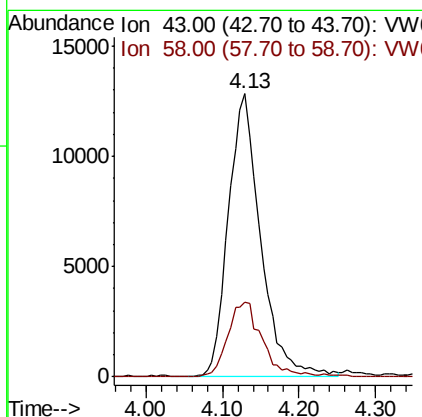
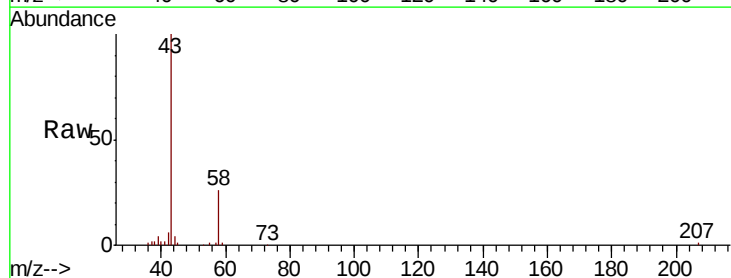
Instrument :  
MSVOA\_W  
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S401-K1-1.0-1.5-082619

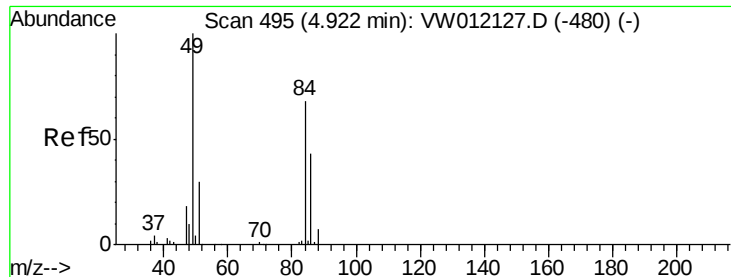
Tgt Ion: 59 Resp: 288  
Ion Ratio Lower Upper  
59 100  
57 0.0 9.0 13.4#



#16  
Acetone  
Concen: 47.374 ug/l  
RT: 4.13 min Scan# 365  
Delta R.T. 0.01 min  
Lab File: VW012517.D  
Acq: 03 Sep 2019 00:14

Tgt Ion: 43 Resp: 37702  
Ion Ratio Lower Upper  
43 100  
58 26.4 22.4 33.6

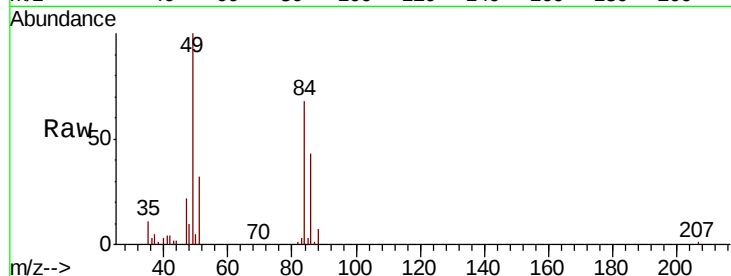




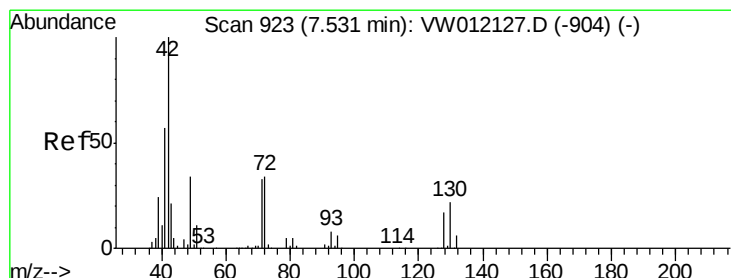
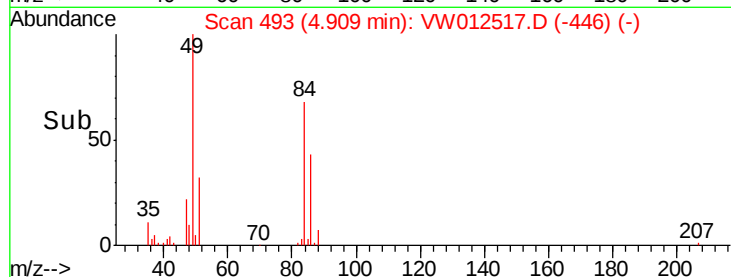
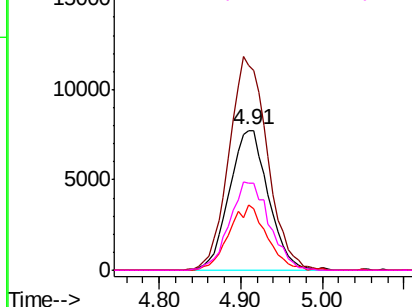
#20  
Methylene Chloride  
Concen: 8.549 ug/l  
RT: 4.91 min Scan# 493  
Delta R.T. -0.01 min  
Lab File: VW012517.D  
Acq: 03 Sep 2019 00:14

Instrument :  
MSVOA\_W  
ClientSampleId :  
S401-K1-1.0-1.5-082619

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 84    | Resp: | 25720 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 146.0 | 117.8 | 176.8 |
| 51       | 46.4  | 35.6  | 53.4  |
| 86       | 62.2  | 51.2  | 76.8  |

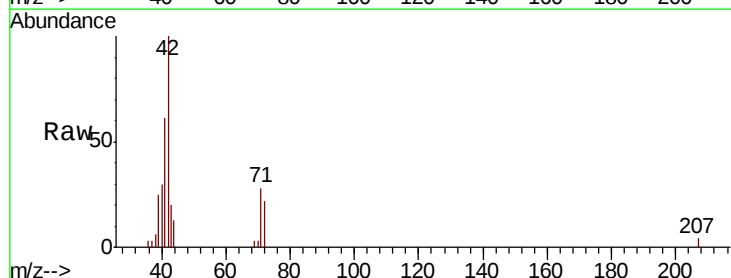


Abundance Ion 83.90 (83.60 to 84.60): VW  
Ion 48.90 (48.60 to 49.60): VW  
Ion 50.90 (50.60 to 51.60): VW  
Ion 85.90 (85.60 to 86.60): VW

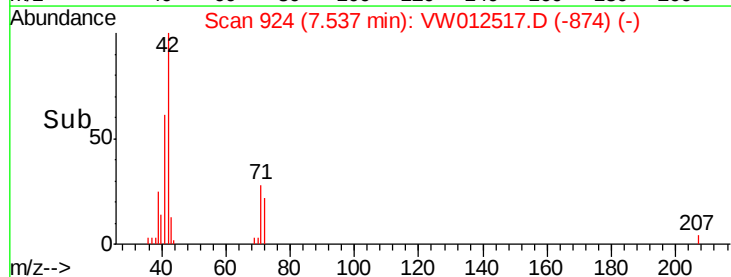
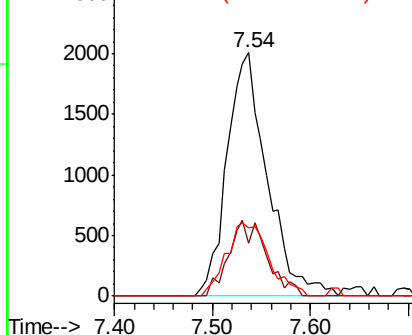


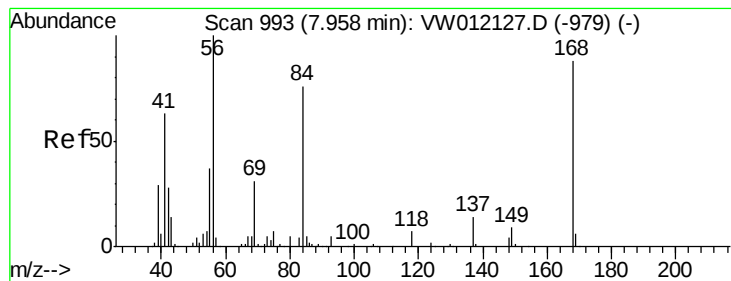
#29  
Tetrahydrofuran  
Concen: 8.828 ug/l  
RT: 7.54 min Scan# 924  
Delta R.T. 0.01 min  
Lab File: VW012517.D  
Acq: 03 Sep 2019 00:14

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 42    | Resp: | 5728  |
| Ion      | Ratio | Lower | Upper |
| 42       | 100   |       |       |
| 72       | 29.4  | 27.3  | 40.9  |
| 71       | 32.0  | 25.5  | 38.3  |



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: 1.112 ug/l

RT: 7.94 min Scan# 990

Delta R.T. -0.02 min

Lab File: VW012517.D

Acq: 03 Sep 2019 00:14

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619

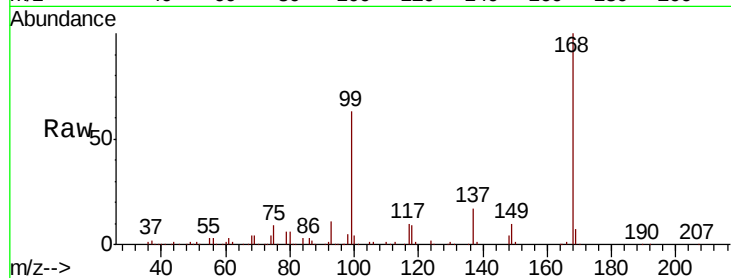
Tgt Ion: 56 Resp: 6237

Ion Ratio Lower Upper

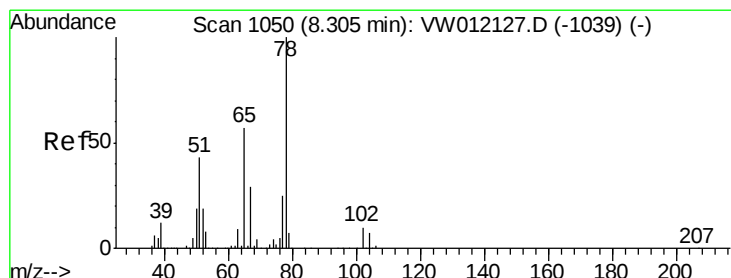
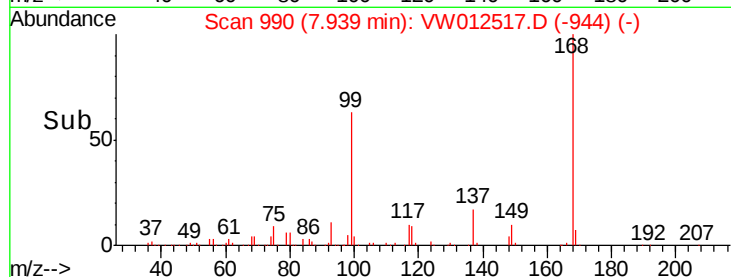
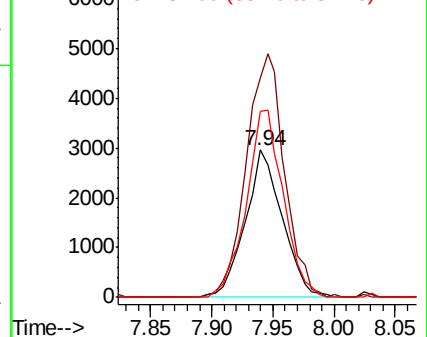
56 100

69 148.5 24.9 37.3#

84 126.6 60.6 90.8#



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: 50.165 ug/l

RT: 8.31 min Scan# 1050

Delta R.T. -0.00 min

Lab File: VW012517.D

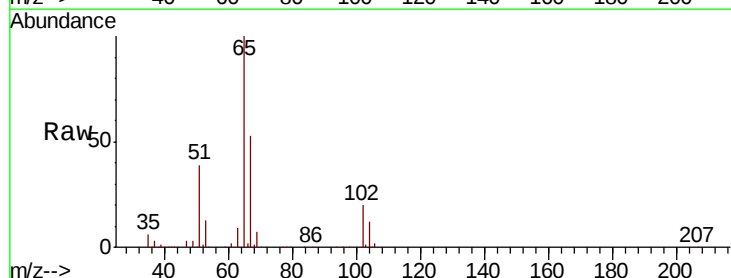
Acq: 03 Sep 2019 00:14

Tgt Ion: 65 Resp: 156182

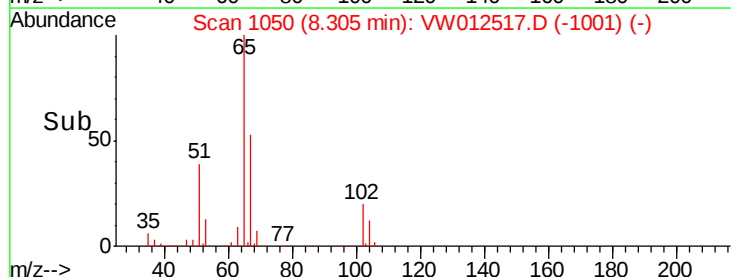
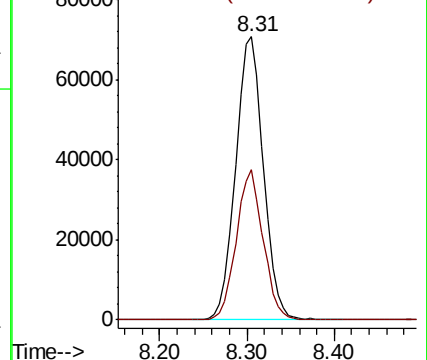
Ion Ratio Lower Upper

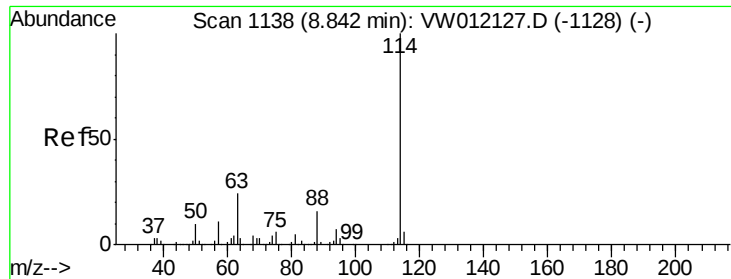
65 100

67 51.1 0.0 102.6



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

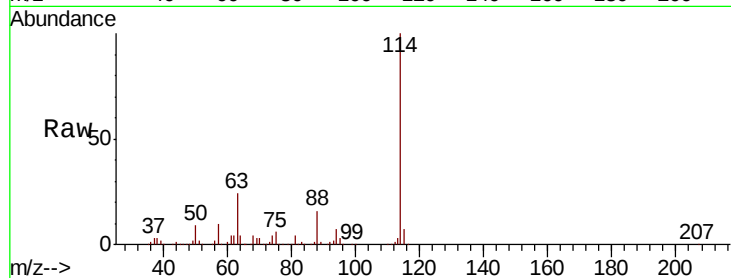




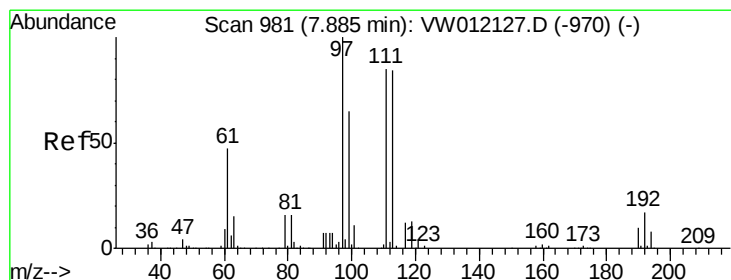
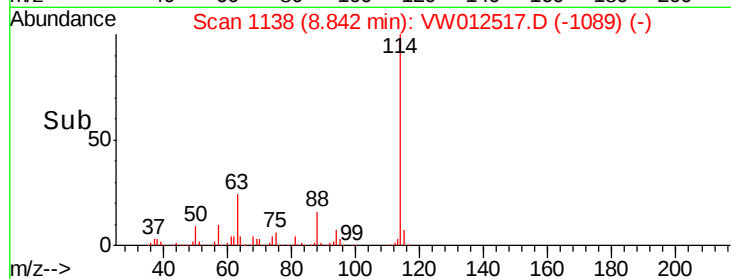
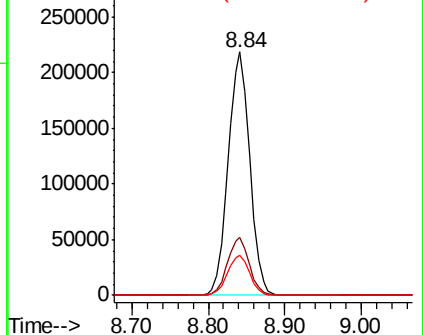
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW012517.D  
 Acq: 03 Sep 2019 00:14

Instrument :  
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| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 23.7  | 0.0   | 48.6  |
| 88      | 16.3  | 0.0   | 32.2  |

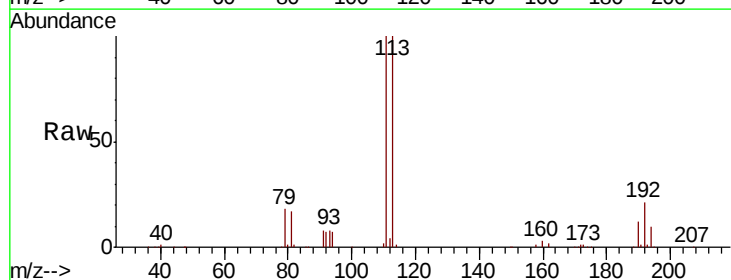


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VW  
 Ion 87.90 (87.60 to 88.60): VW

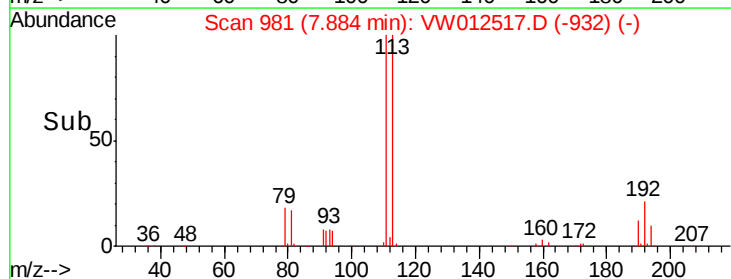
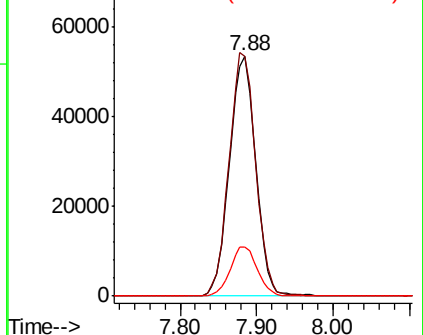


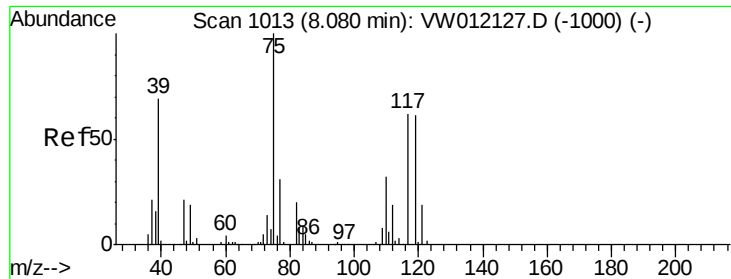
#35  
 Dibromofluoromethane  
 Concen: 50.157 ug/l  
 RT: 7.88 min Scan# 981  
 Delta R.T. -0.00 min  
 Lab File: VW012517.D  
 Acq: 03 Sep 2019 00:14

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 102.4 | 82.7  | 124.1 |
| 192     | 21.2  | 16.2  | 24.2  |



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

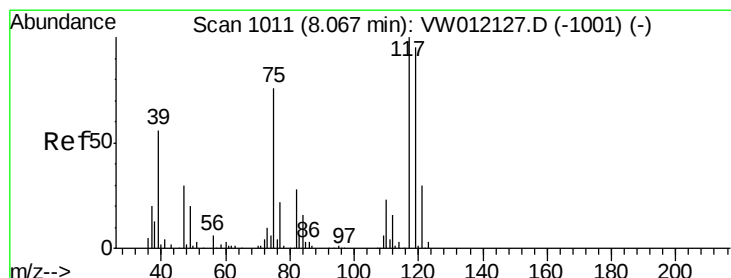
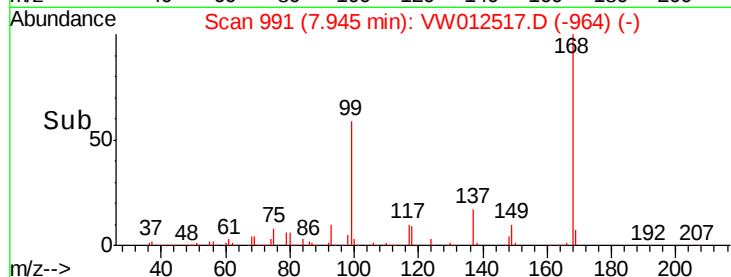
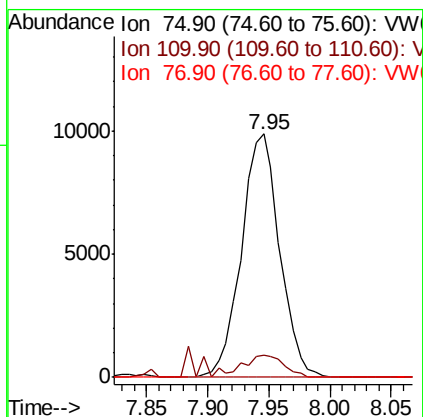
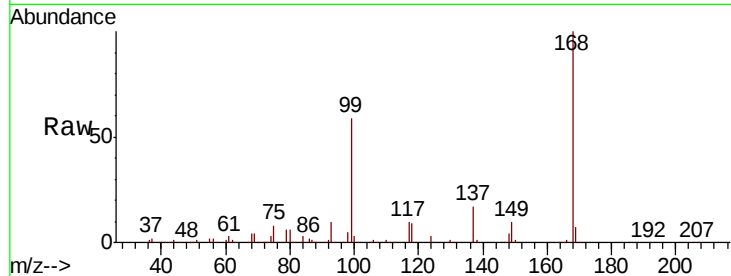




#36  
 1,1-Dichloropropene  
 Concen: 4.868 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW012517.D  
 Acq: 03 Sep 2019 00:14

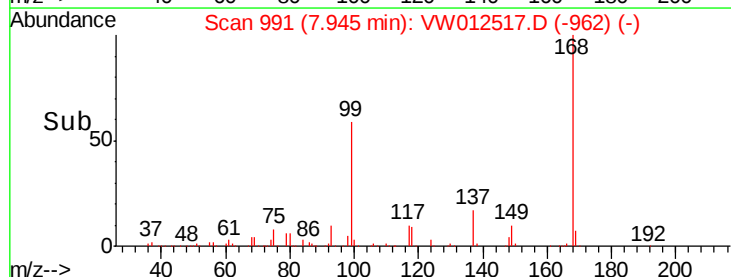
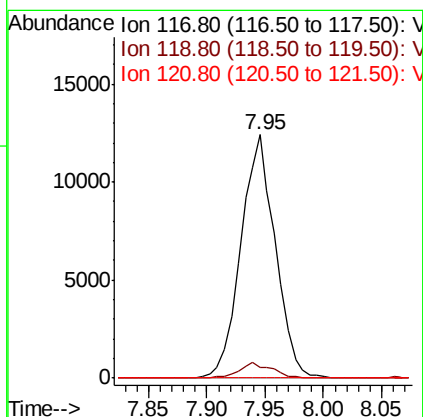
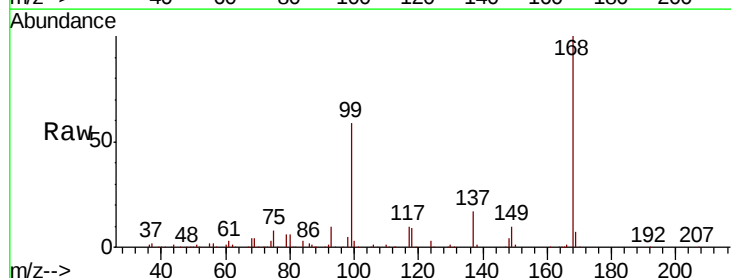
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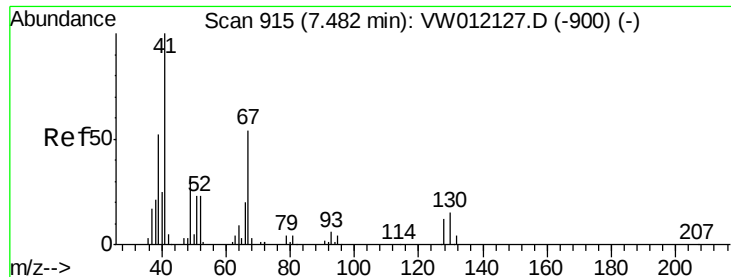
Tgt Ion: 75 Resp: 21429  
 Ion Ratio Lower Upper  
 75 100  
 110 9.3 15.6 46.8#  
 77 0.0 24.6 36.8#



#38  
 Carbon Tetrachloride  
 Concen: 6.693 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.12 min  
 Lab File: VW012517.D  
 Acq: 03 Sep 2019 00:14

Tgt Ion: 117 Resp: 25500  
 Ion Ratio Lower Upper  
 117 100  
 119 4.3 76.2 114.2#  
 121 0.0 23.8 35.8#





#41

Methacrylonitrile

Concen: 2.237 ug/l

RT: 7.54 min Scan# 924

Delta R.T. 0.05 min

Lab File: VW012517.D

Acq: 03 Sep 2019 00:14

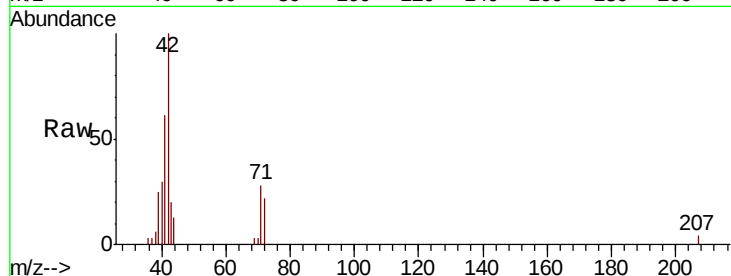
Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 41    | Resp: | 3171  |
| Ion      | Ratio | Lower | Upper |
| 41       | 100   |       |       |
| 39       | 47.8  | 45.8  | 68.8  |
| 67       | 0.0   | 46.2  | 69.4# |
| 52       | 0.0   | 21.0  | 31.6# |

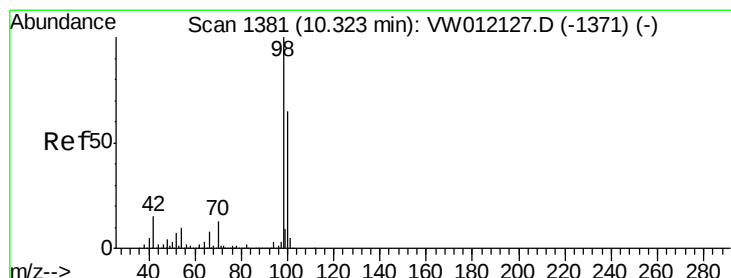
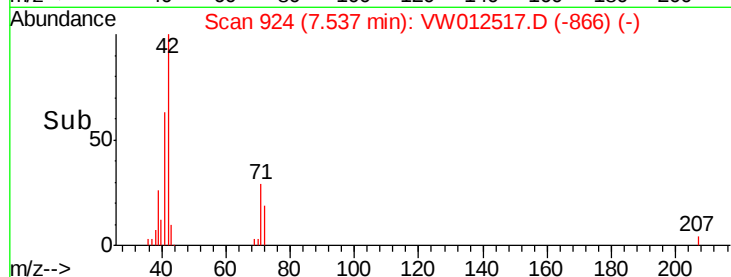
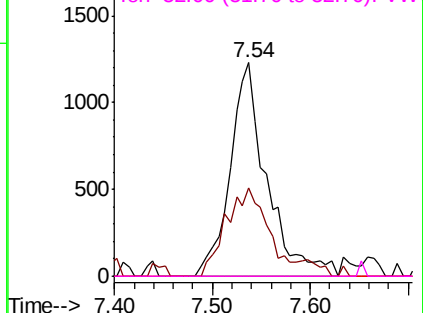


Abundance Ion 41.00 (40.70 to 41.70): VW

Ion 39.00 (38.70 to 39.70): VW

Ion 67.00 (66.70 to 67.70): VW

Ion 52.00 (51.70 to 52.70): VW



#50

Toluene-d8

Concen: 50.404 ug/l

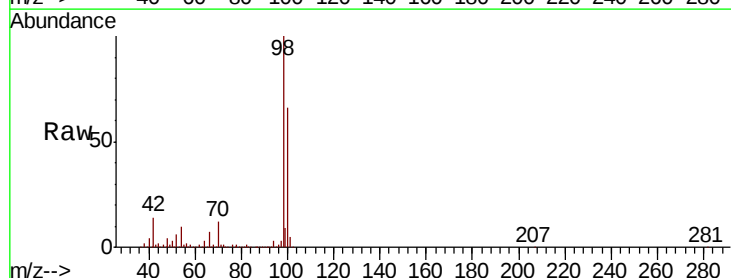
RT: 10.32 min Scan# 1381

Delta R.T. -0.00 min

Lab File: VW012517.D

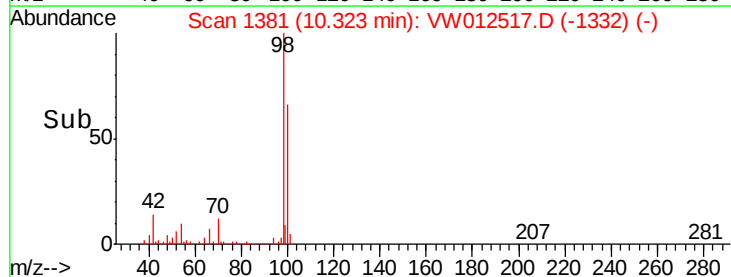
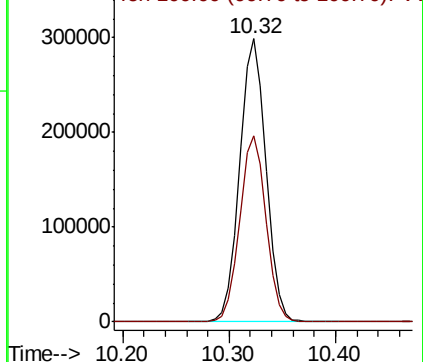
Acq: 03 Sep 2019 00:14

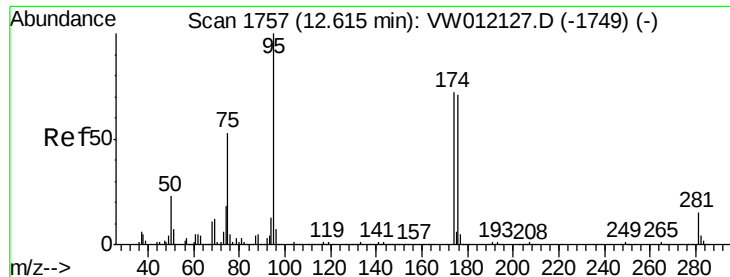
|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 98    | Resp: | 519681 |
| Ion      | Ratio | Lower | Upper  |
| 98       | 100   |       |        |
| 100      | 65.5  | 52.4  | 78.6   |



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW





#62

4-Bromofluorobenzene

Concen: 43.063 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. -0.00 min

Lab File: VW012517.D

Acq: 03 Sep 2019 00:14

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619

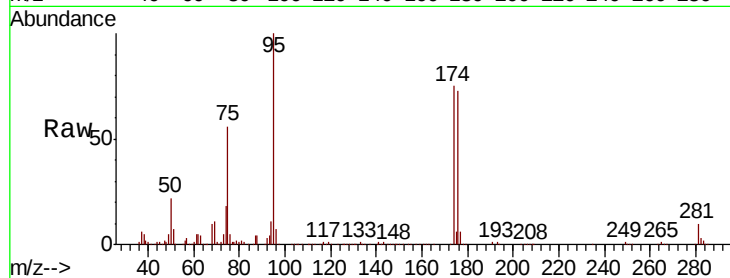
Tgt Ion: 95 Resp: 156508

Ion Ratio Lower Upper

95 100

174 78.9 0.0 150.8

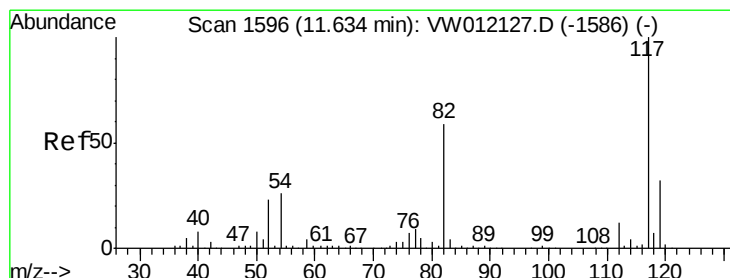
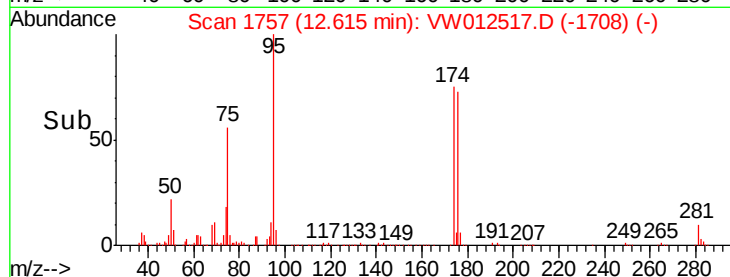
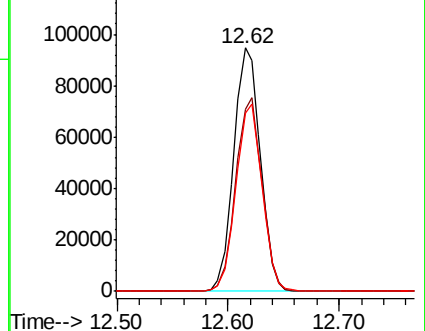
176 76.0 0.0 148.6



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# 1595

Delta R.T. -0.01 min

Lab File: VW012517.D

Acq: 03 Sep 2019 00:14

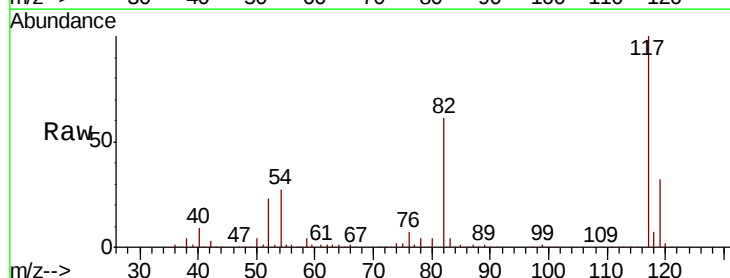
Tgt Ion: 117 Resp: 348510

Ion Ratio Lower Upper

117 100

82 60.8 47.4 71.2

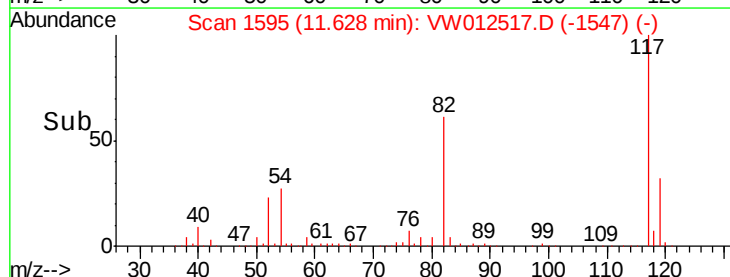
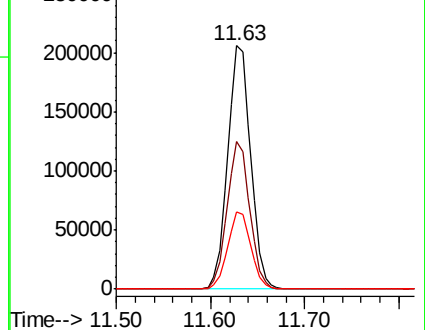
119 31.7 25.4 38.2

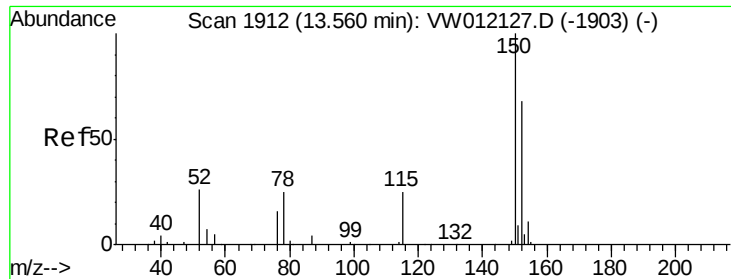


Abundance Ion 116.90 (116.60 to 117.60): VW

Ion 82.00 (81.70 to 82.70): VW

Ion 118.90 (118.60 to 119.60): VW



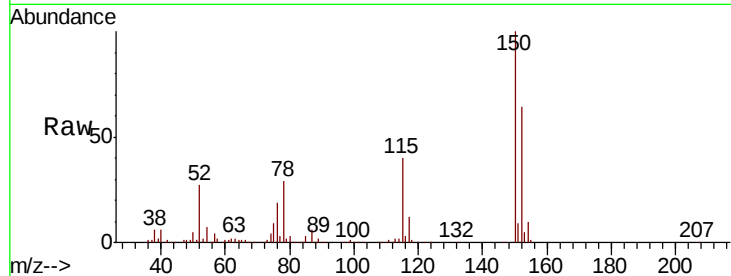


#72

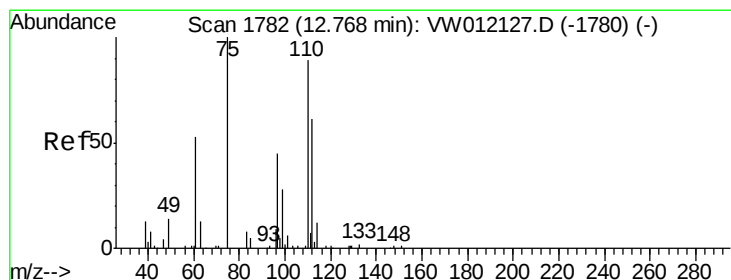
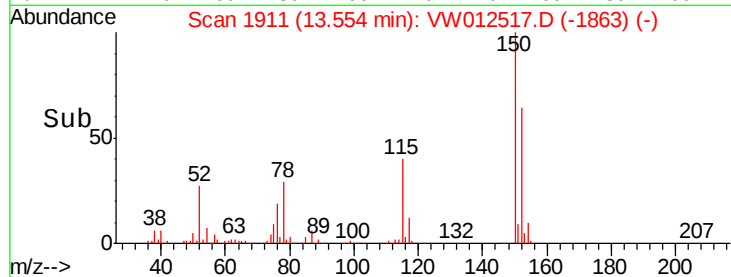
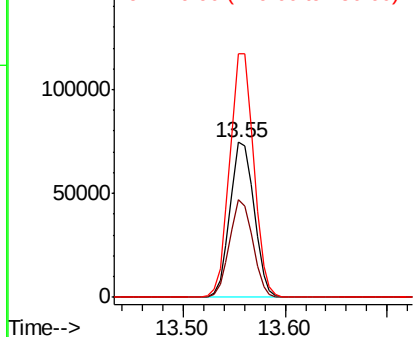
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.55 min Scan# 1911  
Delta R.T. -0.01 min  
Lab File: VW012517.D  
Acq: 03 Sep 2019 00:14

Instrument :  
MSVOA\_W  
ClientSampleId :  
S401-K1-1.0-1.5-082619

Tgt Ion:152 Resp: 121904  
Ion Ratio Lower Upper  
152 100  
115 60.6 30.1 90.3  
150 156.2 0.0 345.8



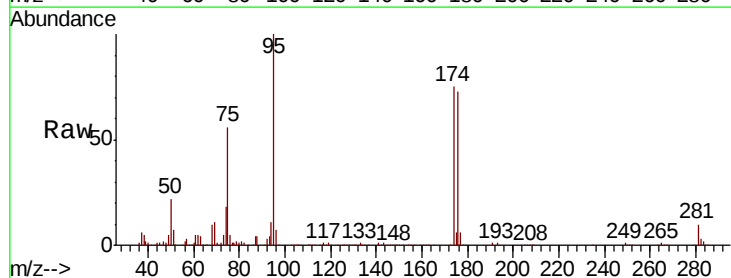
Abundance Ion 151.90 (151.60 to 152.60): V  
Ion 114.90 (114.60 to 115.60): V  
Ion 149.90 (149.60 to 150.60): V



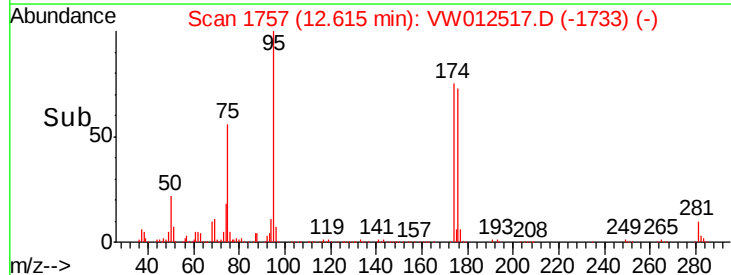
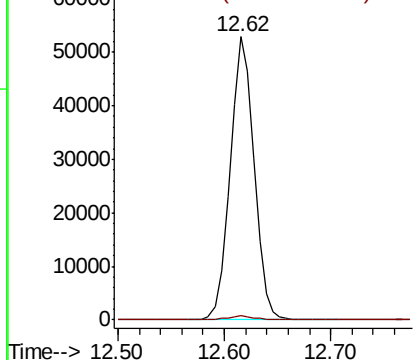
#76

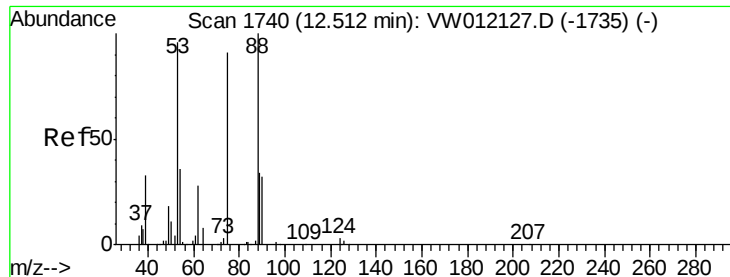
1,2,3-Trichloropropane  
Concen: 70.149 ug/l  
RT: 12.62 min Scan# 1757  
Delta R.T. -0.15 min  
Lab File: VW012517.D  
Acq: 03 Sep 2019 00:14

Tgt Ion: 75 Resp: 83285  
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: 153.804 ug/l

RT: 12.62 min Scan# 1757

Delta R.T. 0.10 min

Lab File: VW012517.D

Acq: 03 Sep 2019 00:14

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619

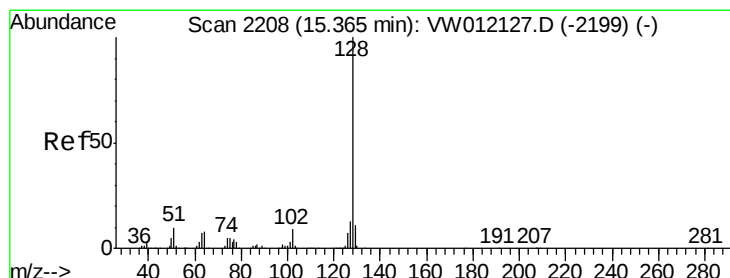
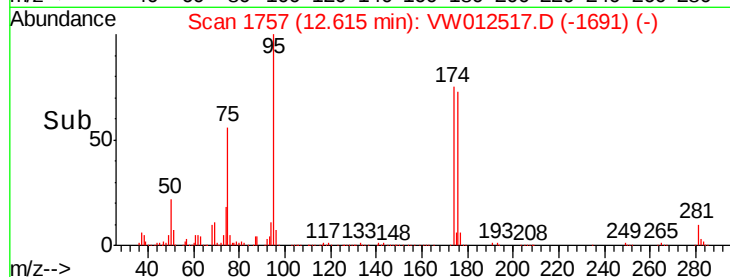
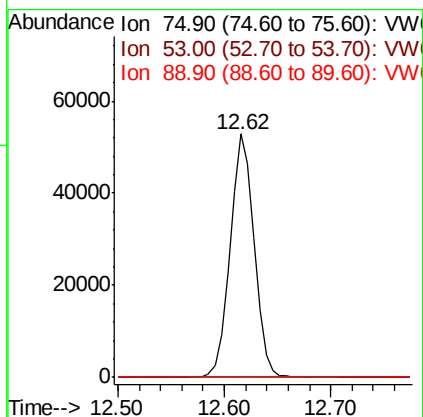
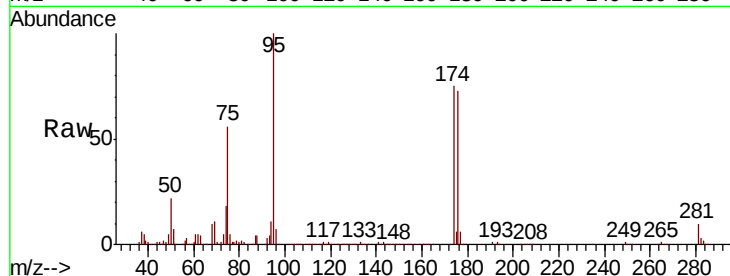
Tgt Ion: 75 Resp: 83285

Ion Ratio Lower Upper

75 100

53 0.0 89.4 134.0#

89 0.1 34.5 51.7#



#95

Naphthalene

Concen: 4.467 ug/l

RT: 15.37 min Scan# 2209

Delta R.T. 0.01 min

Lab File: VW012517.D

Acq: 03 Sep 2019 00:14

Tgt Ion: 128 Resp: 736

Ion Ratio Lower Upper

128 100

127 0.0 10.7 16.1#

129 0.0 8.7 13.1#

