

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_W\DATA\VW082719\  
 Data File : VW012229.D  
 Acq On : 28 Aug 2019 02:50  
 Operator : SY/VA  
 Sample : K4551-01  
 Misc : 5.61G/5ML/MSVOA\_W/SOIL  
 ALS Vial : 38 Sample Multiplier: 1

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

Quant Time: Aug 28 05:03:57 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  | 276541   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.84  | 114  | 451712   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.63 | 117  | 338774   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.56 | 152  | 88472    | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 8.30  | 65   | 164116   | 49.92 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.84%  |          |
| 35) Dibromofluoromethane    | 7.88  | 113  | 133740   | 49.60 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 99.20%  |          |
| 50) Toluene-d8              | 10.32 | 98   | 557317   | 50.98 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.96% |          |
| 62) 4-Bromofluorobenzene    | 12.62 | 95   | 140608   | 36.49 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 72.98%  |          |

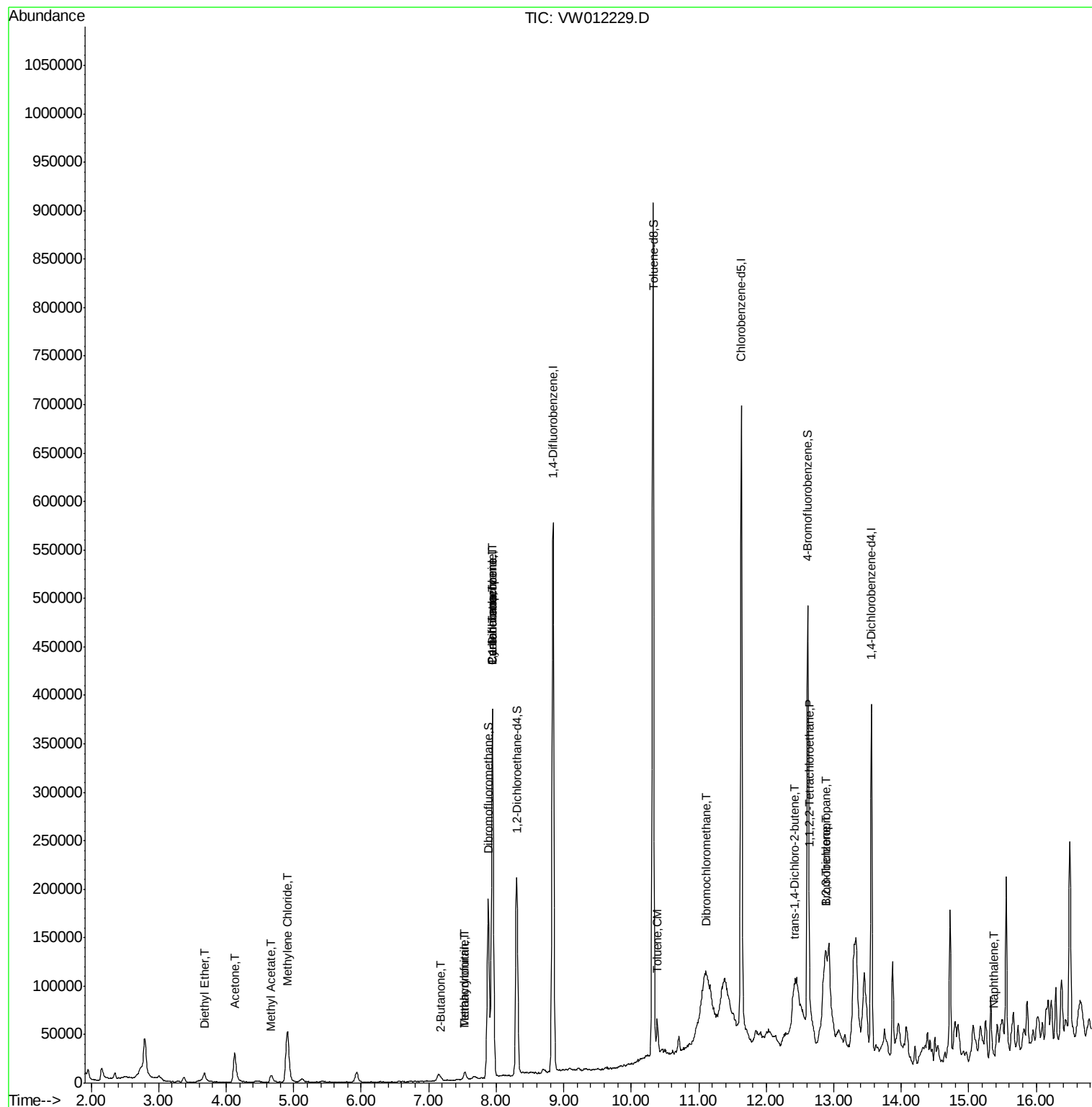
| Target Compounds               | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|--------------------------------|-------|------|----------|---------|--------|--------|
| 8) Diethyl Ether               | 3.67  | 74   | 3417     | 2.220   | ug/l # | 1      |
| 16) Acetone                    | 4.12  | 43   | 59476    | 70.777  | ug/l   | 98     |
| 18) Methyl Acetate             | 4.67  | 43   | 16170    | 7.769   | ug/l   | 92     |
| 20) Methylene Chloride         | 4.90  | 84   | 38690    | 12.179  | ug/l   | 98     |
| 25) 2-Butanone                 | 7.18  | 43   | 2488     | 2.179   | ug/l # | 81     |
| 29) Tetrahydrofuran            | 7.53  | 42   | 7356     | 10.737  | ug/l   | 93     |
| 31) Cyclohexane                | 7.94  | 56   | 6749     | 1.140   | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 7.95  | 75   | 23217    | 4.974   | ug/l # | 52     |
| 38) Carbon Tetrachloride       | 7.95  | 117  | 27938    | 6.915   | ug/l # | 16     |
| 41) Methacrylonitrile          | 7.53  | 41   | 4114     | 2.736   | ug/l # | 52     |
| 52) Toluene                    | 10.38 | 92   | 14460    | 1.888   | ug/l   | 99     |
| 60) Dibromochloromethane       | 11.11 | 129  | 55650    | 23.137  | ug/l # | 13     |
| 75) 1,1,2,2-Tetrachloroethane  | 12.64 | 83   | 12897    | 10.612  | ug/l # | 30     |
| 76) 1,2,3-Trichloropropane     | 12.88 | 75   | 3211     | 3.727   | ug/l # | 100    |
| 77) Bromobenzene               | 12.87 | 156  | 144104   | 100.478 | ug/l # | 1      |
| 81) trans-1,4-Dichloro-2-buten | 12.41 | 75   | 2311     | 5.880   | ug/l # | 18     |
| 95) Naphthalene                | 15.37 | 128  | 913      | 4.571   | ug/l # | 85     |

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

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Sample : K4551-01  
Misc : 5.61G/5ML/MSVOA\_W/SOIL  
ALS Vial : 38 Sample Multiplier: 1

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

Quant Time: Aug 28 05:03:57 2019  
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: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

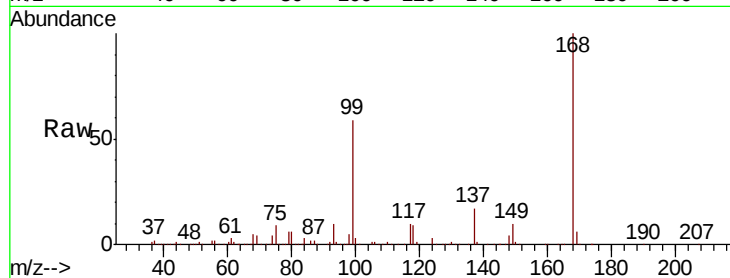
S401-K1-1.0-1.5-082619-FD

Tgt Ion:168 Resp: 276541

Ion Ratio Lower Upper

168 100

99 58.9 49.2 73.8



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VW

7.95

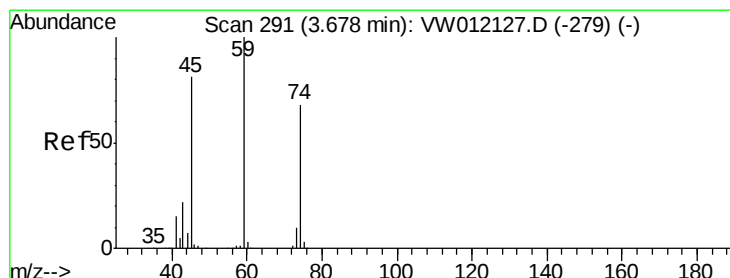
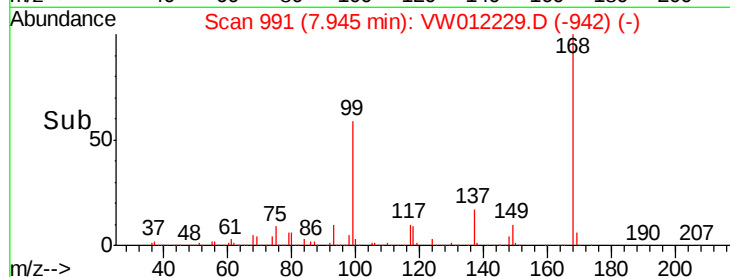
150000

100000

50000

0

Time-->



#8

Diethyl Ether

Concen: 2.220 ug/l

RT: 3.67 min Scan# 290

Delta R.T. -0.01 min

Lab File: VW012229.D

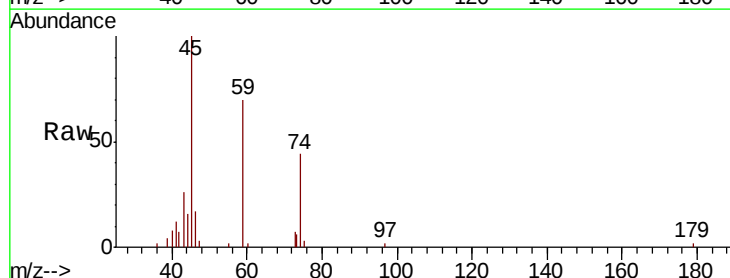
Acq: 28 Aug 2019 02:50

Tgt Ion: 74 Resp: 3417

Ion Ratio Lower Upper

74 100

45 422.3 59.2 177.6#



Abundance Ion 74.00 (73.70 to 74.70): VW

Ion 45.00 (44.70 to 45.70): VW

3.67

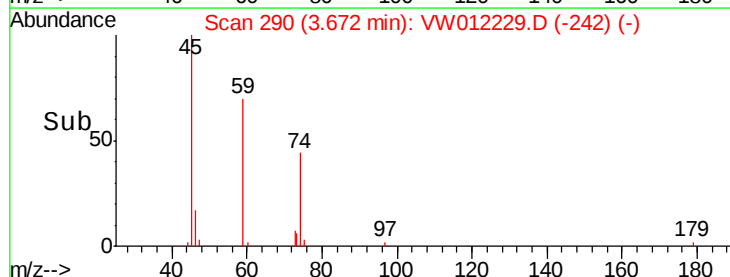
3000

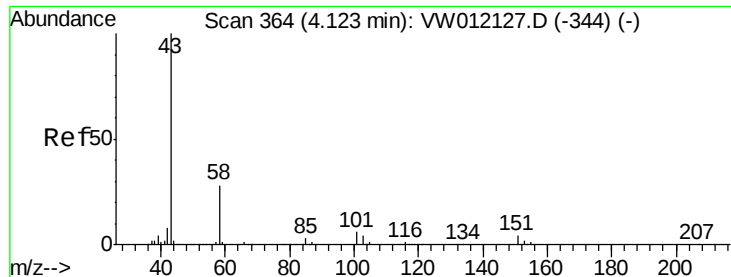
2000

1000

0

Time-->





#16

Acetone

Concen: 70.777 ug/l

RT: 4.12 min Scan# 364

Delta R.T. -0.00 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

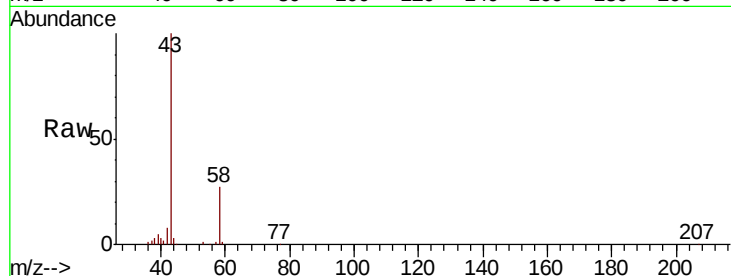
S401-K1-1.0-1.5-082619-FD

Tgt Ion: 43 Resp: 59476

Ion Ratio Lower Upper

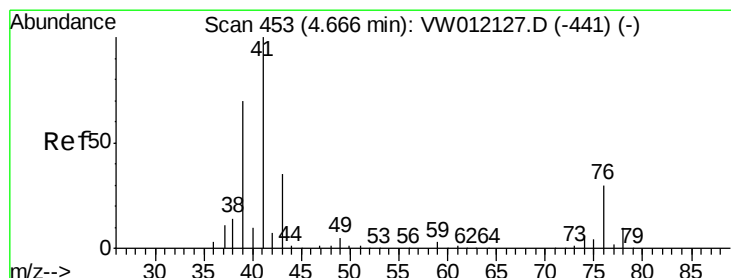
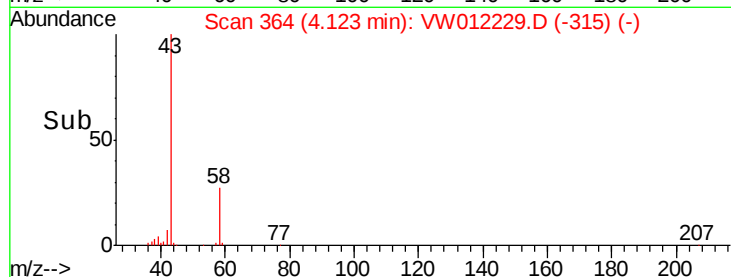
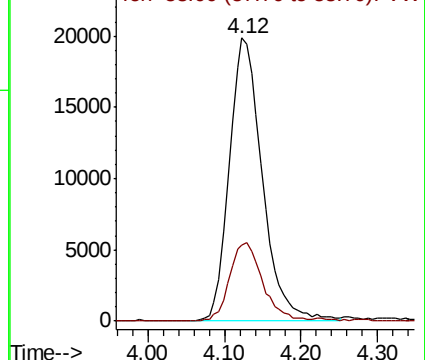
43 100

58 26.8 22.4 33.6



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 58.00 (57.70 to 58.70): VW



#18

Methyl Acetate

Concen: 7.769 ug/l

RT: 4.67 min Scan# 454

Delta R.T. 0.01 min

Lab File: VW012229.D

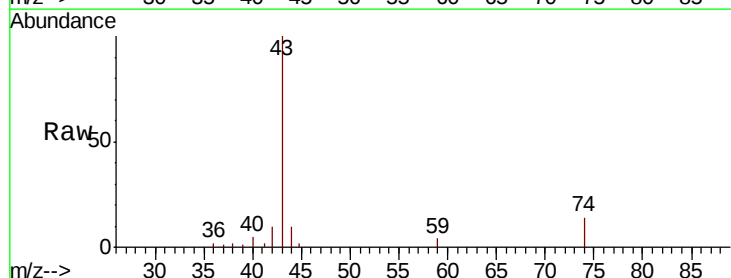
Acq: 28 Aug 2019 02:50

Tgt Ion: 43 Resp: 16170

Ion Ratio Lower Upper

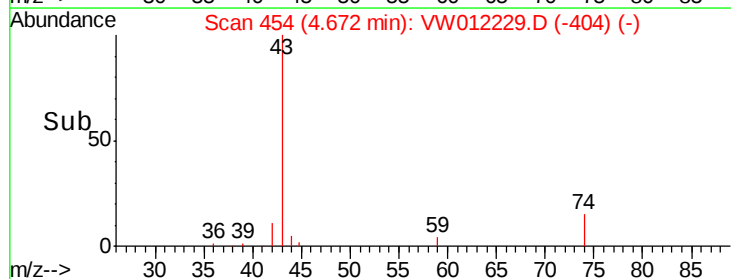
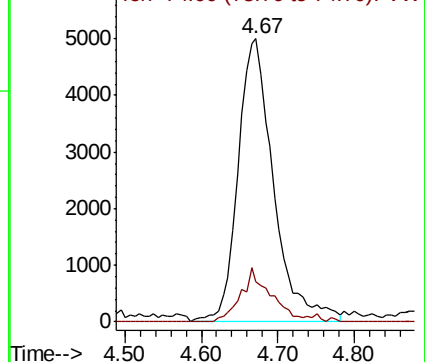
43 100

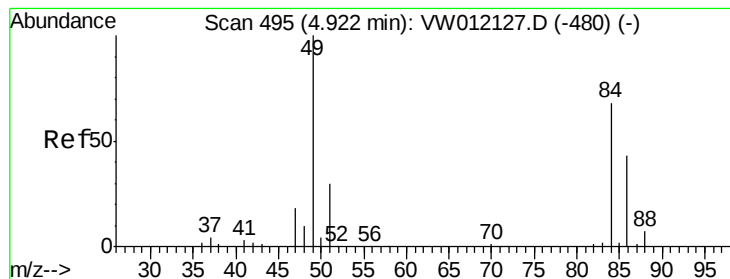
74 15.8 15.7 23.5



Abundance Ion 43.00 (42.70 to 43.70): VW

Ion 74.00 (73.70 to 74.70): VW





#20

Methylene Chloride

Concen: 12.179 ug/l

RT: 4.90 min Scan# 492

Delta R.T. -0.02 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619-FD

Tgt Ion: 84 Resp: 38690

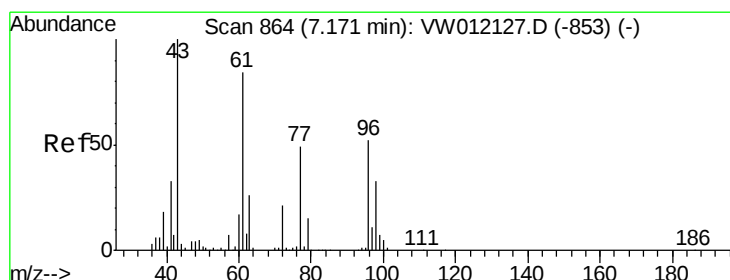
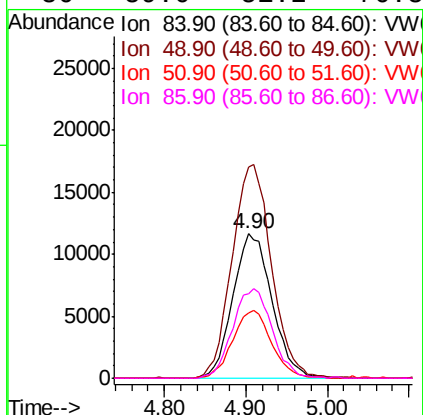
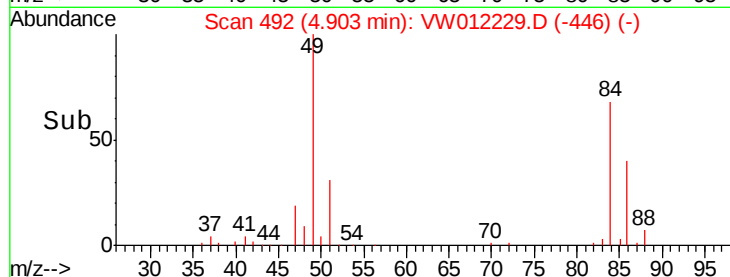
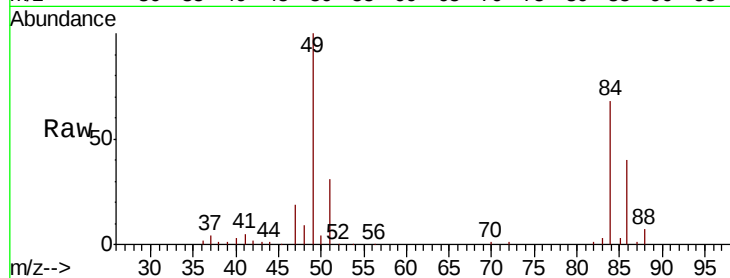
Ion Ratio Lower Upper

84 100

49 146.2 117.8 176.8

51 45.1 35.6 53.4

86 59.0 51.2 76.8



#25

2-Butanone

Concen: 2.179 ug/l

RT: 7.18 min Scan# 866

Delta R.T. 0.01 min

Lab File: VW012229.D

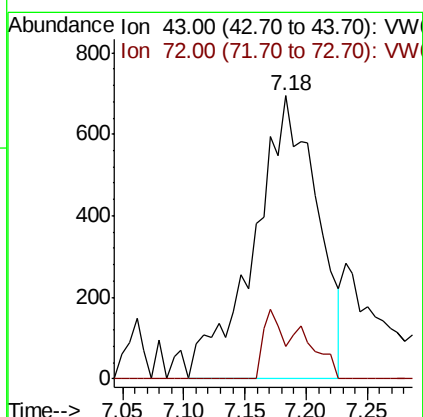
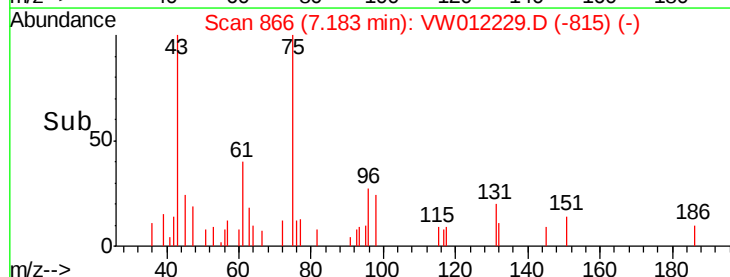
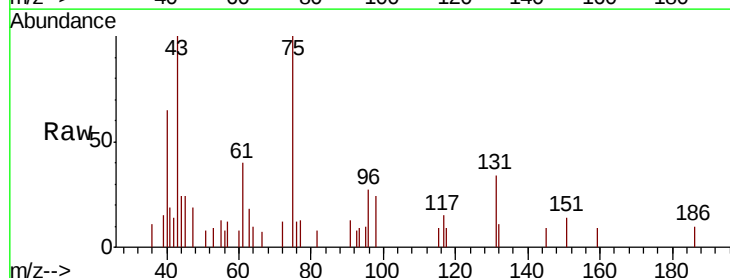
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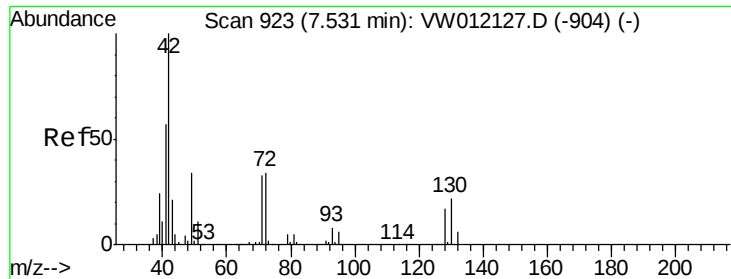
Tgt Ion: 43 Resp: 2488

Ion Ratio Lower Upper

43 100

72 11.7 16.6 24.8#

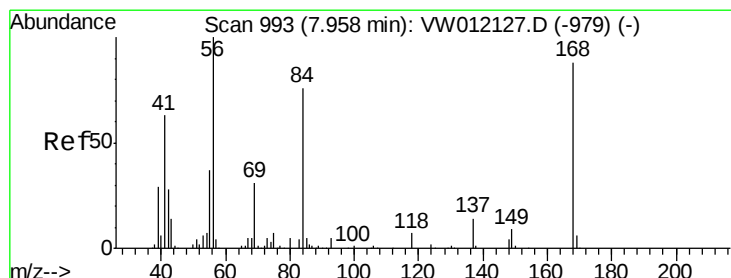
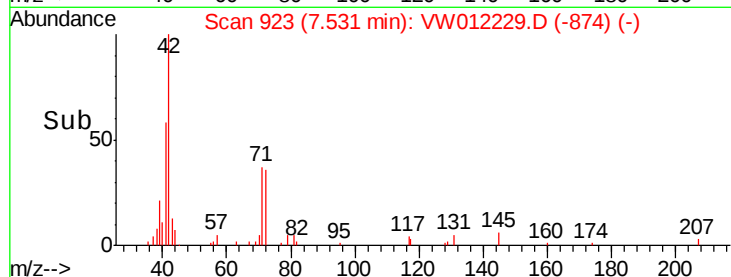
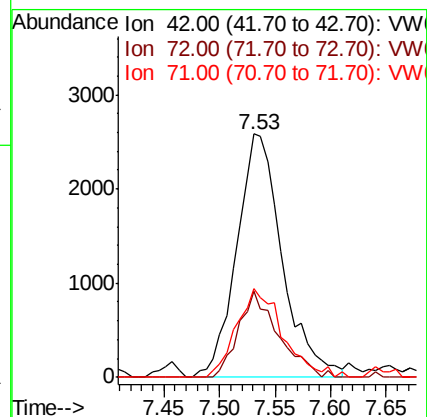
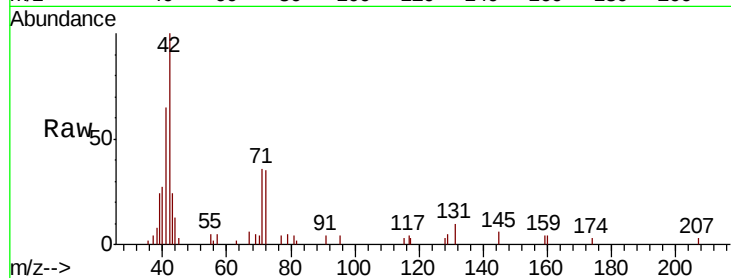




#29  
Tetrahydrofuran  
Concen: 10.737 ug/l  
RT: 7.53 min Scan# 923  
Delta R.T. -0.00 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

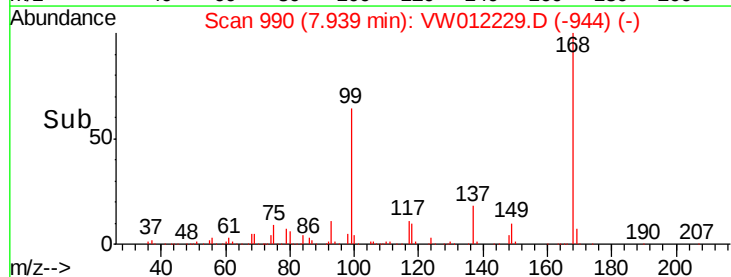
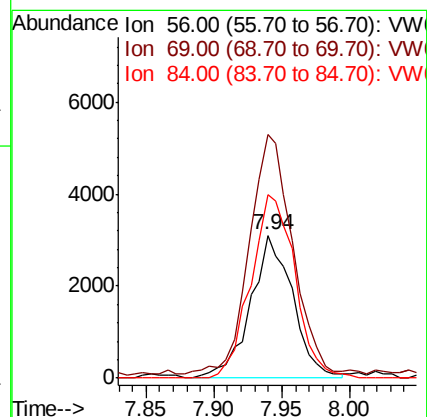
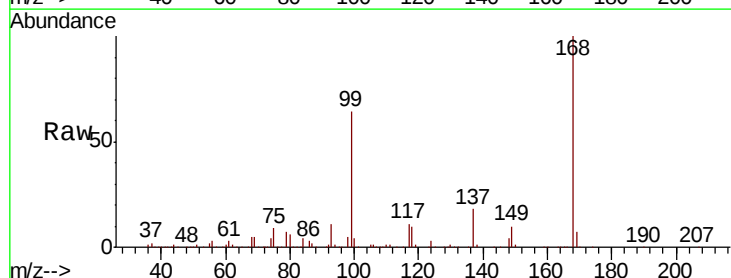
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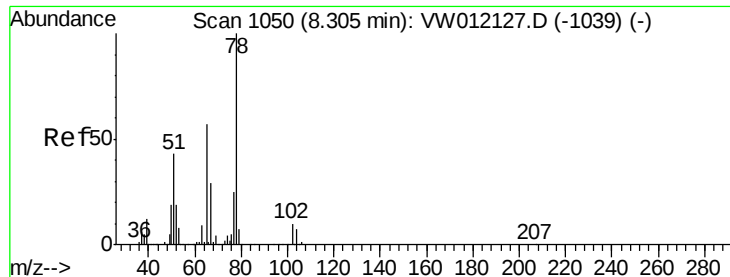
Tgt Ion: 42 Resp: 7356  
Ion Ratio Lower Upper  
42 100  
72 31.0 27.3 40.9  
71 36.9 25.5 38.3



#31  
Cyclohexane  
Concen: 1.140 ug/l  
RT: 7.94 min Scan# 990  
Delta R.T. -0.02 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

Tgt Ion: 56 Resp: 6749  
Ion Ratio Lower Upper  
56 100  
69 165.7 24.9 37.3#  
84 128.4 60.6 90.8#

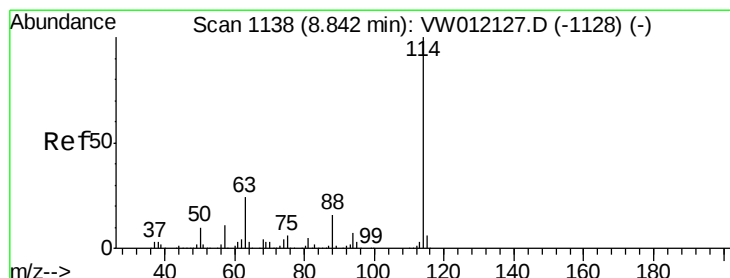
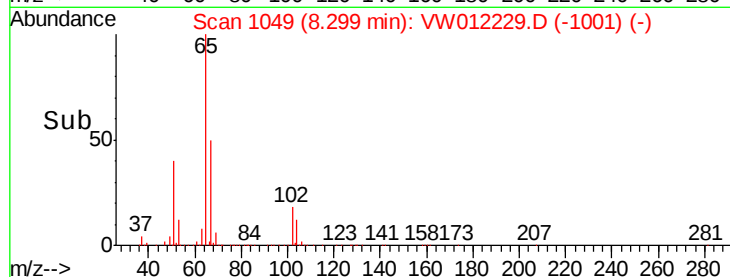
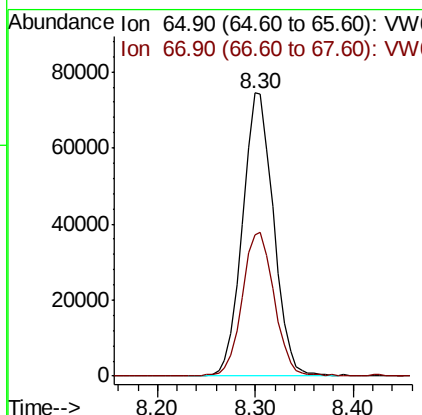
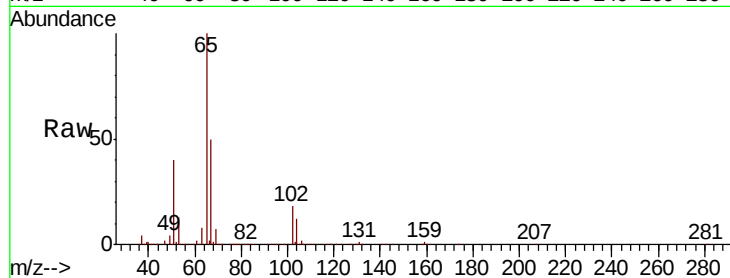




#33  
 1,2-Dichloroethane-d4  
 Concen: 49.923 ug/l  
 RT: 8.30 min Scan# 1049  
 Delta R.T. -0.01 min  
 Lab File: VW012229.D  
 Acq: 28 Aug 2019 02:50

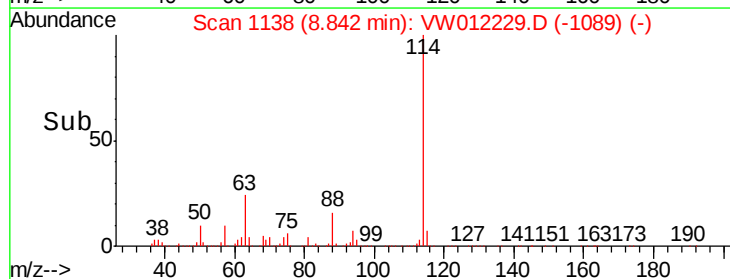
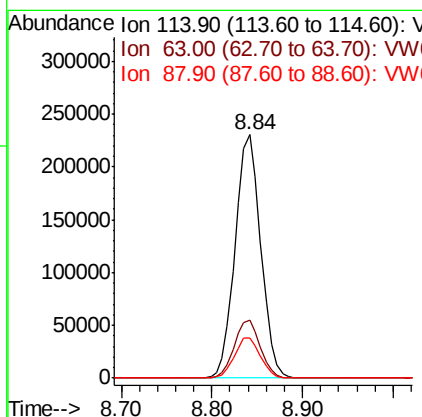
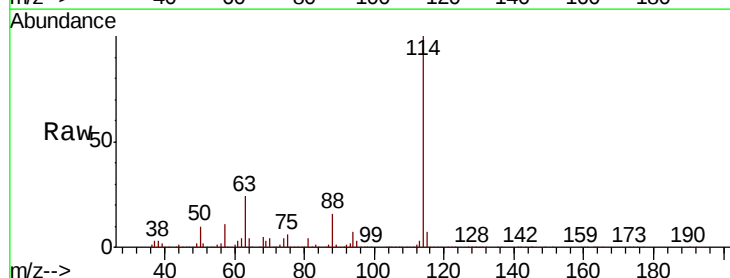
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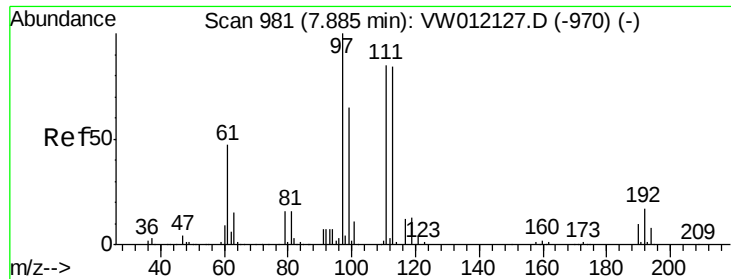
Tgt Ion: 65 Resp: 164116  
 Ion Ratio Lower Upper  
 65 100  
 67 51.5 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.84 min Scan# 1138  
 Delta R.T. -0.00 min  
 Lab File: VW012229.D  
 Acq: 28 Aug 2019 02:50

Tgt Ion: 114 Resp: 451712  
 Ion Ratio Lower Upper  
 114 100  
 63 23.6 0.0 48.6  
 88 16.4 0.0 32.2

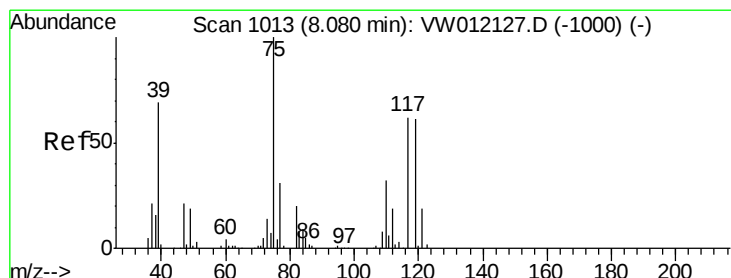
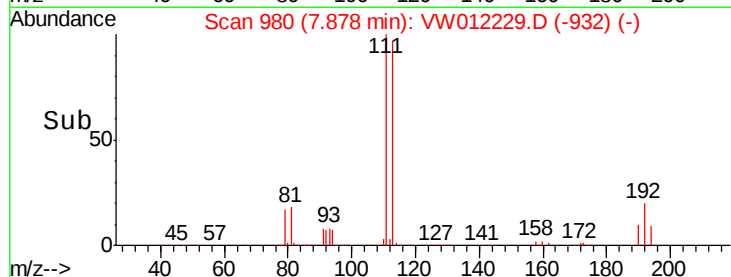
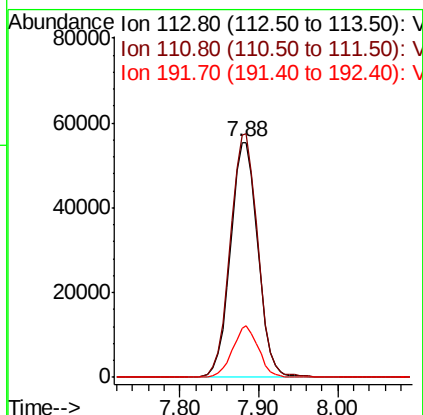
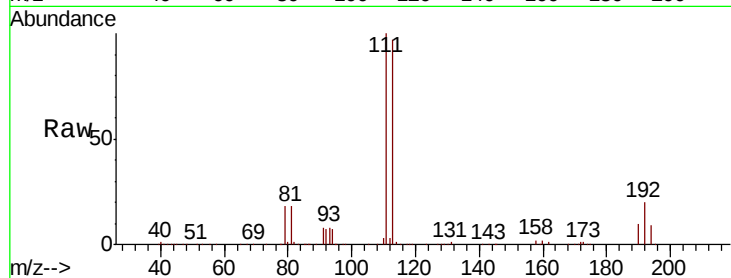




#35  
 Dibromofluoromethane  
 Concen: 49.602 ug/l  
 RT: 7.88 min Scan# 980  
 Delta R.T. -0.01 min  
 Lab File: VW012229.D  
 Acq: 28 Aug 2019 02:50

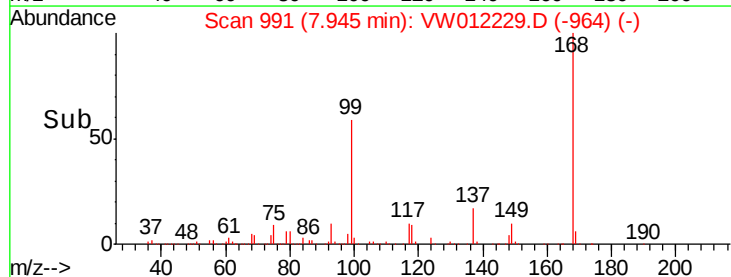
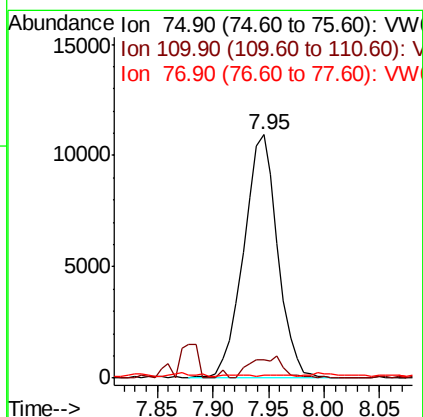
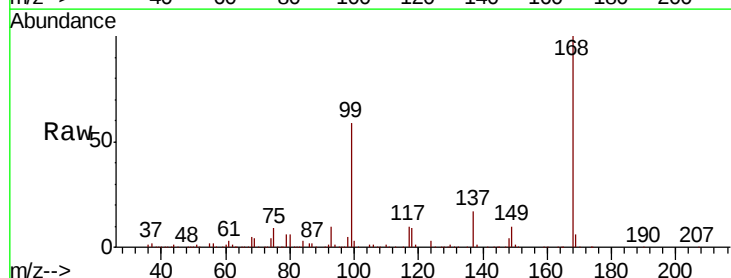
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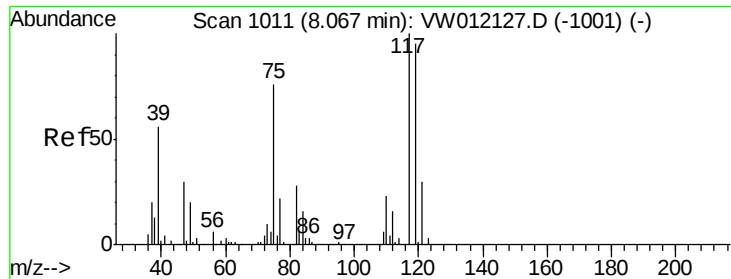
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 103.7 | 82.7  | 124.1 |
| 192     | 20.7  | 16.2  | 24.2  |



#36  
 1,1-Dichloropropene  
 Concen: 4.974 ug/l  
 RT: 7.95 min Scan# 991  
 Delta R.T. -0.13 min  
 Lab File: VW012229.D  
 Acq: 28 Aug 2019 02:50

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.6   | 15.6  | 46.8# |
| 77      | 0.2   | 24.6  | 36.8# |





#38

Carbon Tetrachloride

Concen: 6.915 ug/l

RT: 7.95 min Scan# 991

Delta R.T. -0.12 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619-FD

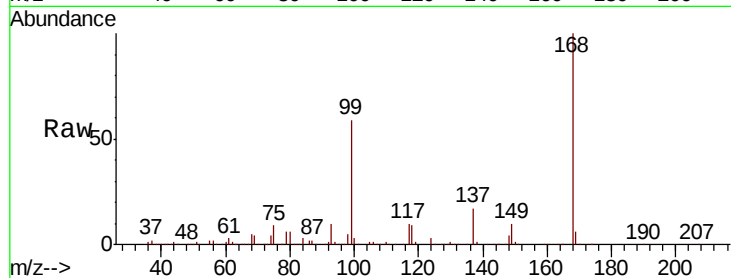
Tgt Ion:117 Resp: 27938

Ion Ratio Lower Upper

117 100

119 5.0 76.2 114.2#

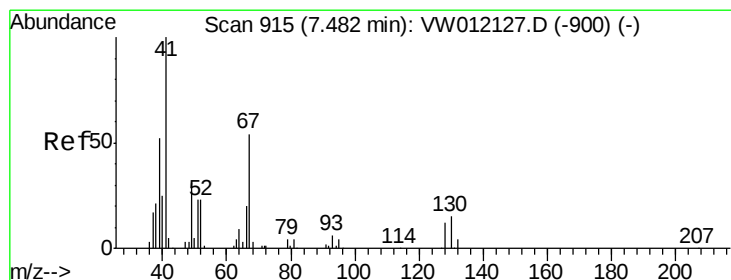
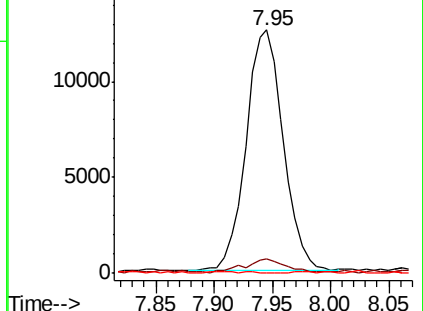
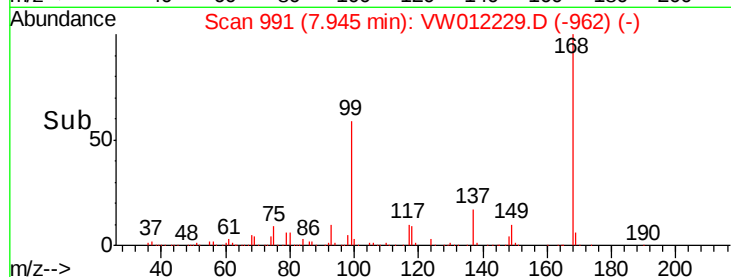
121 0.0 23.8 35.8#



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: 2.736 ug/l

RT: 7.53 min Scan# 923

Delta R.T. 0.05 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Tgt Ion: 41 Resp: 4114

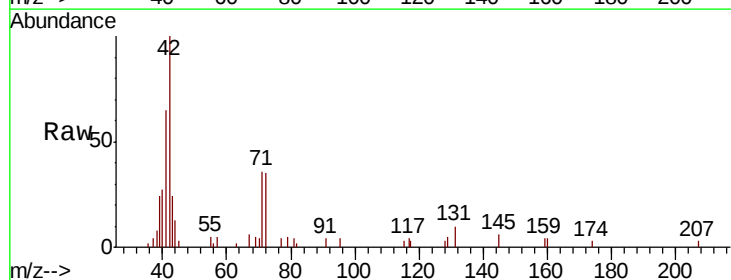
Ion Ratio Lower Upper

41 100

39 44.6 45.8 68.8#

67 0.0 46.2 69.4#

52 0.5 21.0 31.6#

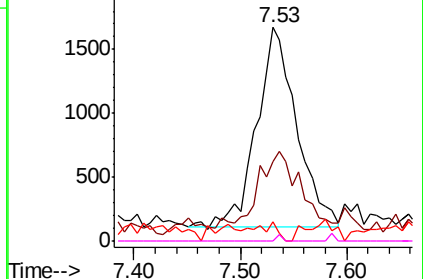
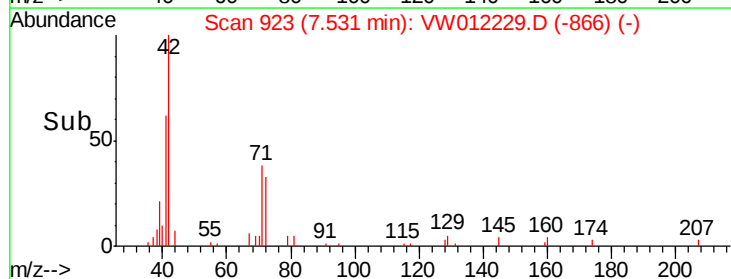


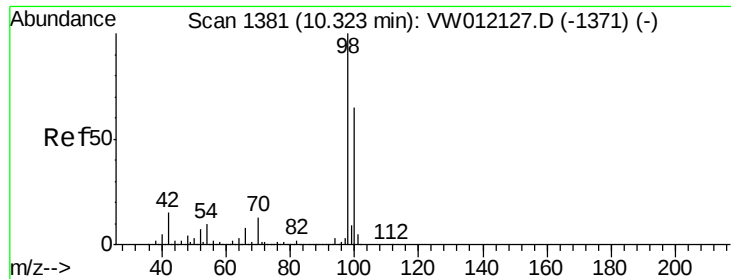
Abundance Ion 41.00 (40.70 to 41.70): VW

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: 50.977 ug/l

RT: 10.32 min Scan# 1381

Delta R.T. -0.00 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

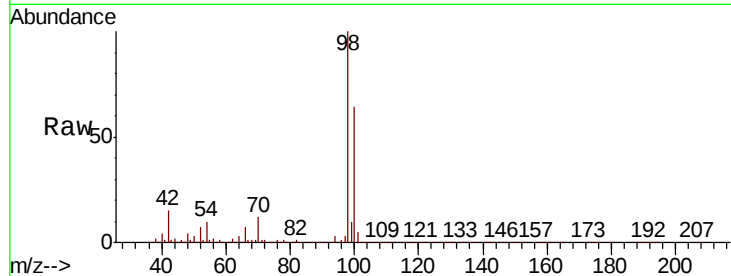
S401-K1-1.0-1.5-082619-FD

Tgt Ion: 98 Resp: 557317

Ion Ratio Lower Upper

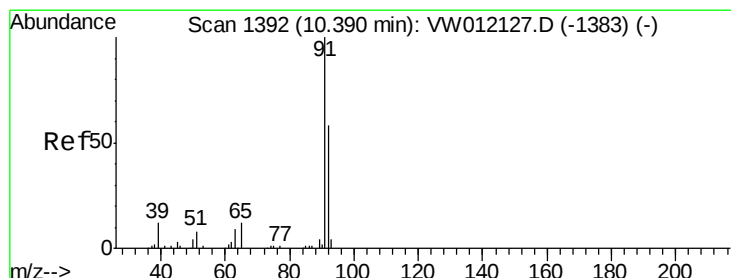
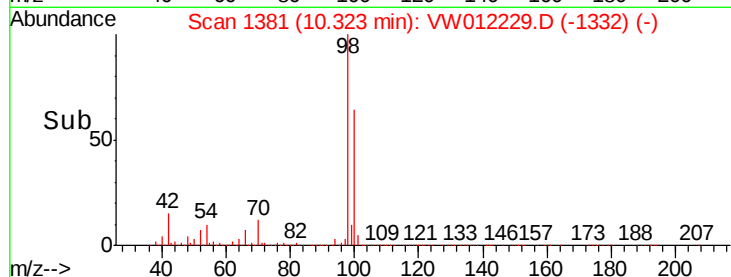
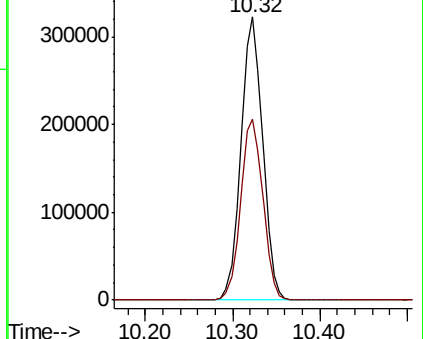
98 100

100 65.3 52.4 78.6



Abundance Ion 98.00 (97.70 to 98.70): VW

Ion 100.00 (99.70 to 100.70): VW



#52

Toluene

Concen: 1.888 ug/l

RT: 10.38 min Scan# 1391

Delta R.T. -0.01 min

Lab File: VW012229.D

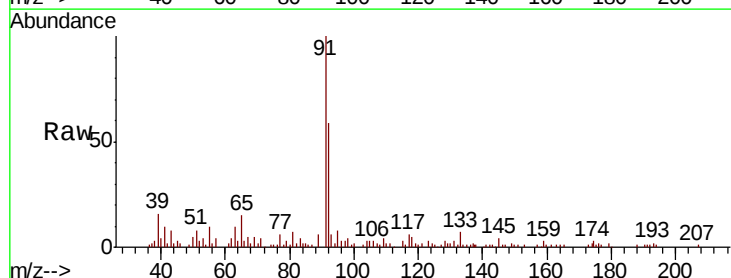
Acq: 28 Aug 2019 02:50

Tgt Ion: 92 Resp: 14460

Ion Ratio Lower Upper

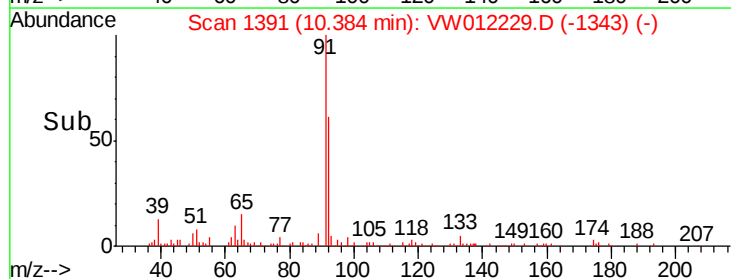
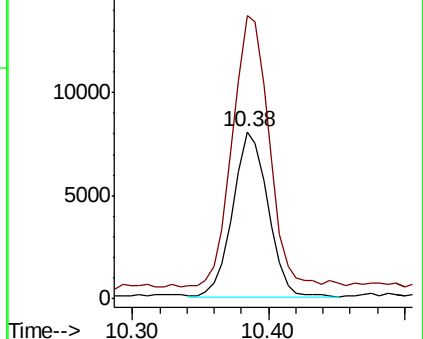
92 100

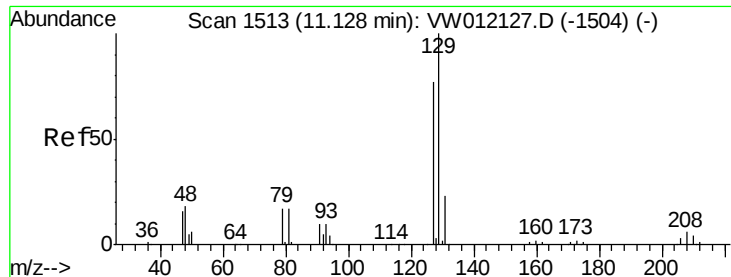
91 172.1 136.6 204.8



Abundance Ion 92.00 (91.70 to 92.70): VW

Ion 91.00 (90.70 to 91.70): VW

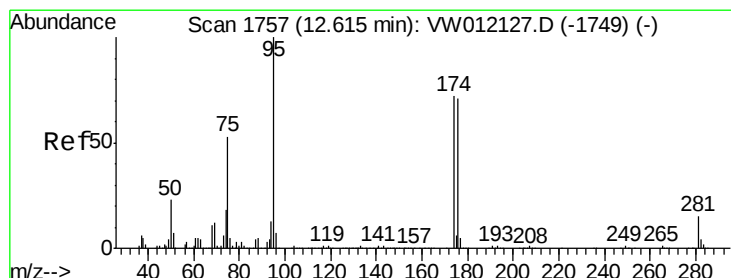
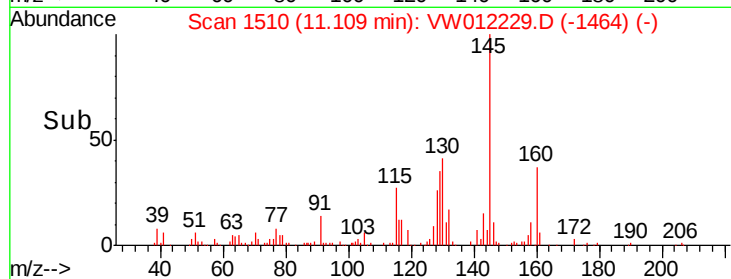
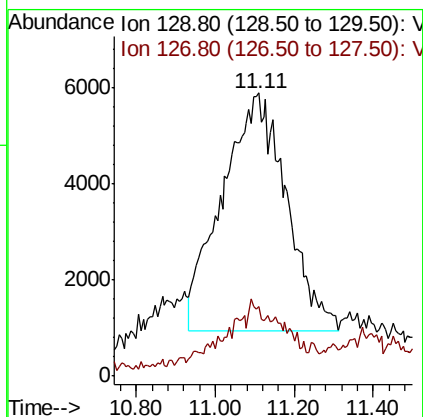
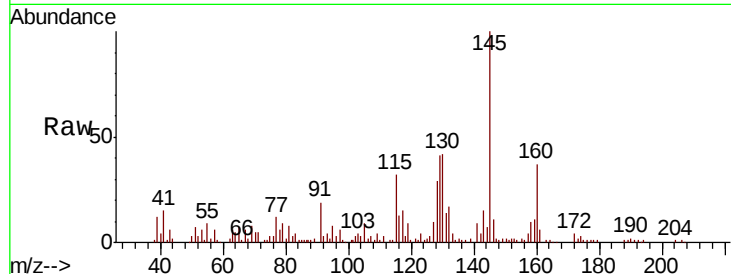




#60  
Dibromochloromethane  
Concen: 23.137 ug/l  
RT: 11.11 min Scan# 1510  
Delta R.T. -0.02 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

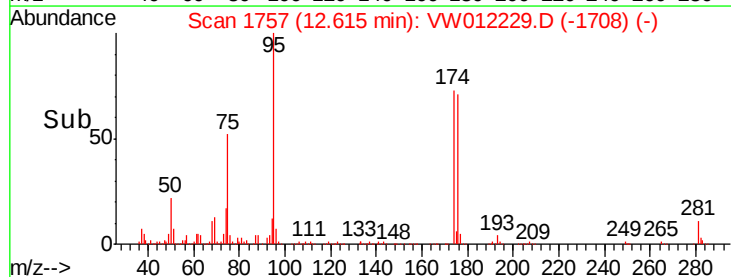
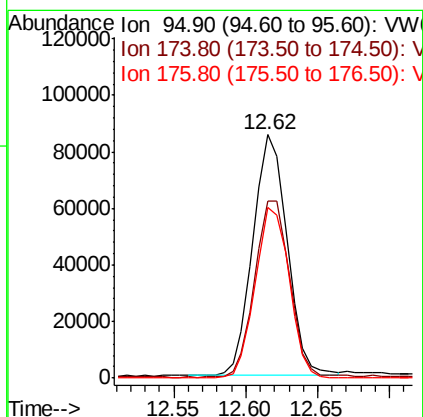
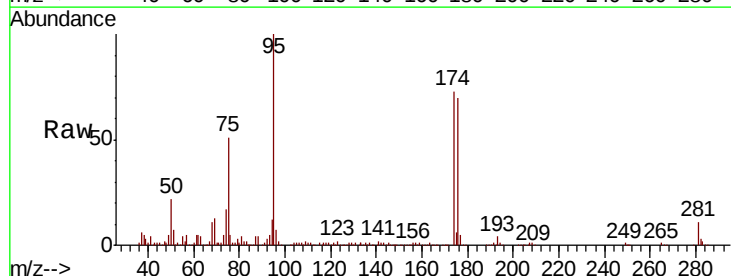
Instrument :  
MSVOA\_W  
ClientSampleId :  
S401-K1-1.0-1.5-082619-FD

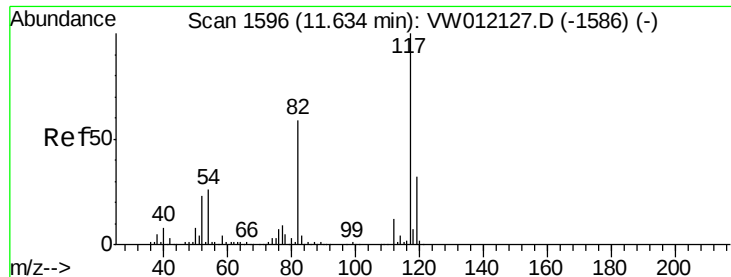
Tgt Ion: 129 Resp: 55650  
Ion Ratio Lower Upper  
129 100  
127 1.7 38.6 115.8#



#62  
4-Bromofluorobenzene  
Concen: 36.486 ug/l  
RT: 12.62 min Scan# 1757  
Delta R.T. -0.00 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

Tgt Ion: 95 Resp: 140608  
Ion Ratio Lower Upper  
95 100  
174 75.5 0.0 150.8  
176 70.4 0.0 148.6

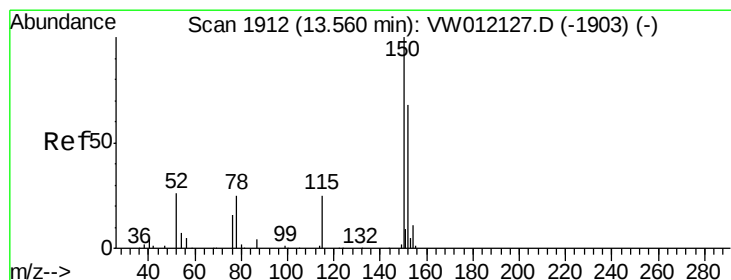
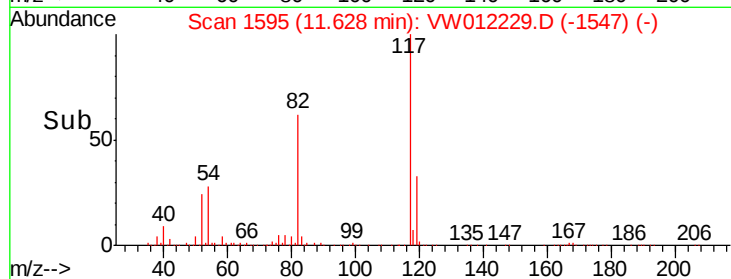
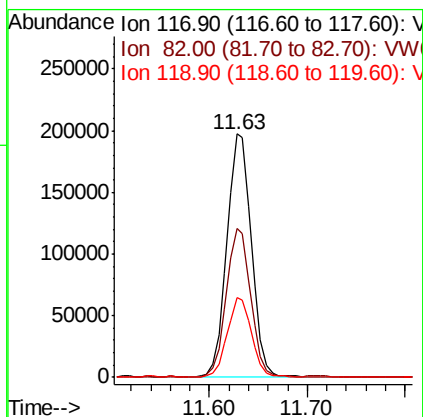
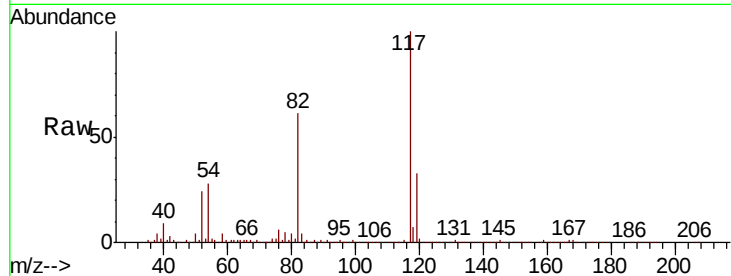




#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 11.63 min Scan# 1595  
Delta R.T. -0.01 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

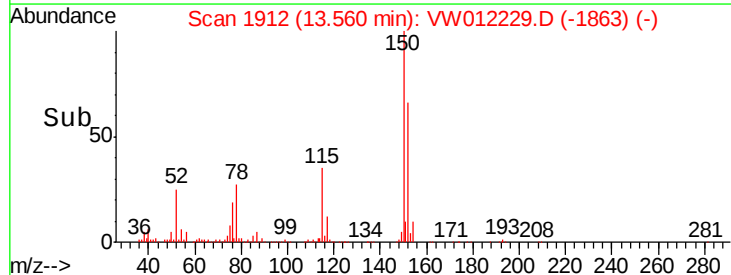
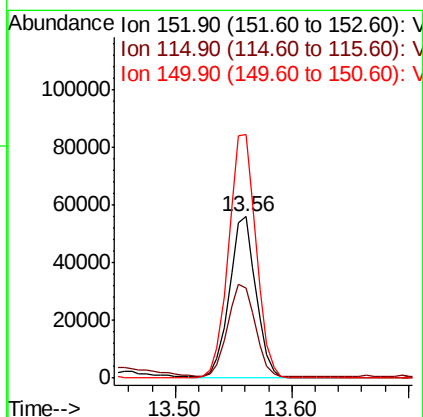
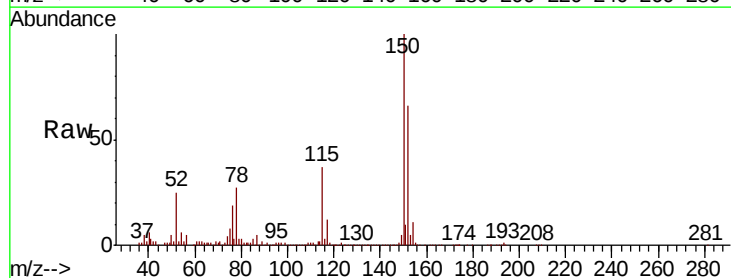
Instrument :  
MSVOA\_W  
ClientSampleId :  
S401-K1-1.0-1.5-082619-FD

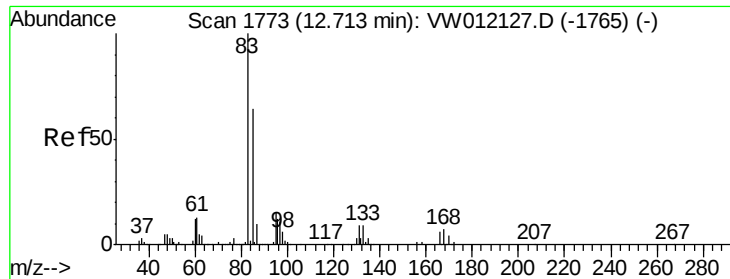
Tgt Ion:117 Resp: 338774  
Ion Ratio Lower Upper  
117 100  
82 61.3 47.4 71.2  
119 32.8 25.4 38.2



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 13.56 min Scan# 1912  
Delta R.T. -0.00 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

Tgt Ion:152 Resp: 88472  
Ion Ratio Lower Upper  
152 100  
115 59.2 30.1 90.3  
150 156.0 0.0 345.8





#75

1,1,2,2-Tetrachloroethane

Concen: 10.612 ug/l

RT: 12.64 min Scan# 1761

Delta R.T. -0.07 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619-FD

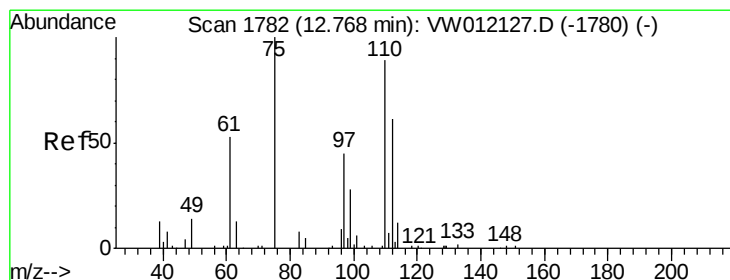
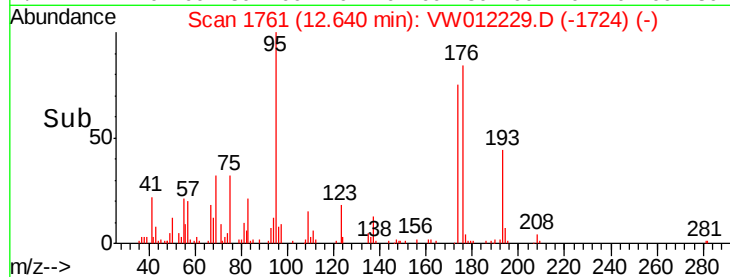
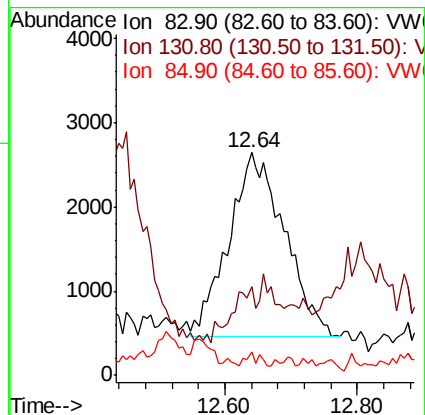
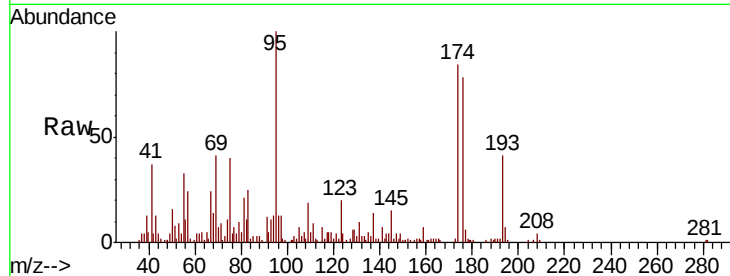
Tgt Ion: 83 Resp: 12897

Ion Ratio Lower Upper

83 100

131 11.8 4.9 14.7

85 1.8 31.9 95.7#



#76

1,2,3-Trichloropropane

Concen: 3.727 ug/l

RT: 12.88 min Scan# 1801

Delta R.T. 0.12 min

Lab File: VW012229.D

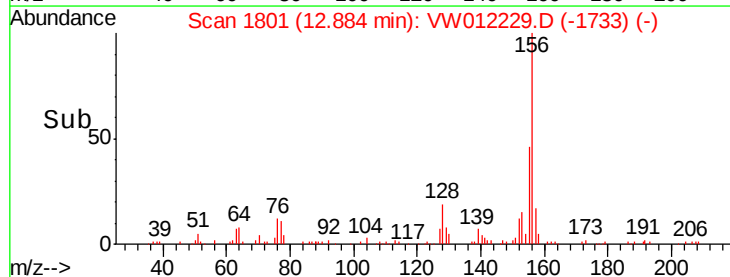
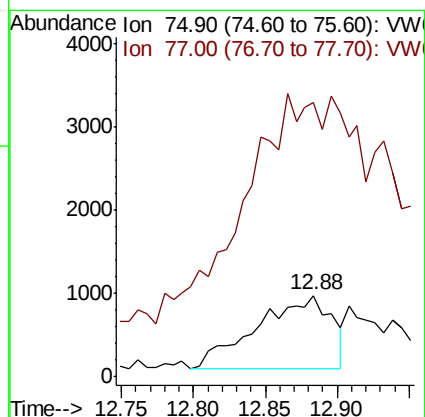
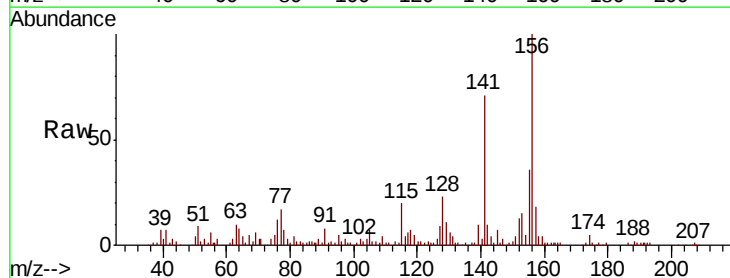
Acq: 28 Aug 2019 02:50

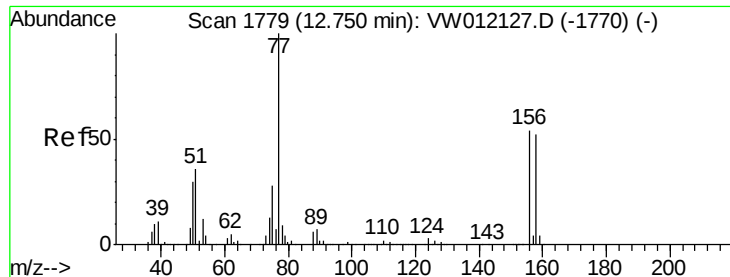
Tgt Ion: 75 Resp: 3211

Ion Ratio Lower Upper

75 100

77 264.3 0.0 0.0#





#77

Bromobenzene

Concen: 100.478 ug/l

RT: 12.87 min Scan# 1799

Delta R.T. 0.12 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

Instrument :

MSVOA\_W

ClientSampleId :

S401-K1-1.0-1.5-082619-FD

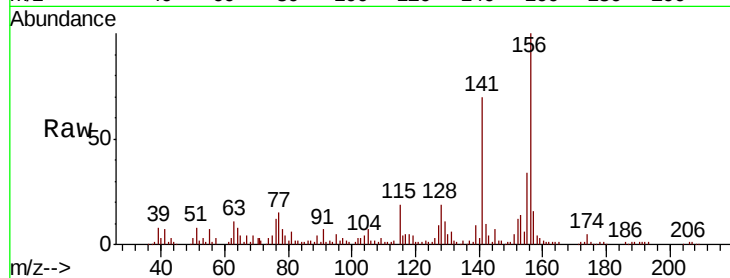
Tgt Ion:156 Resp: 144104

Ion Ratio Lower Upper

156 100

77 5.9 107.3 321.8#

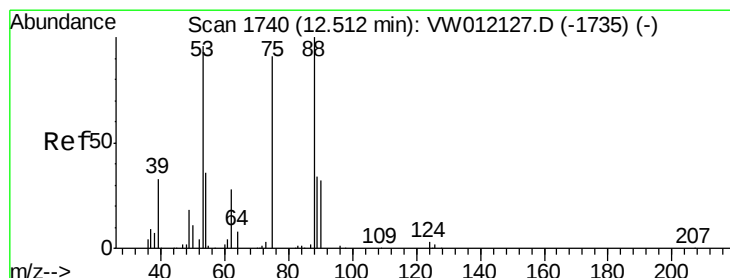
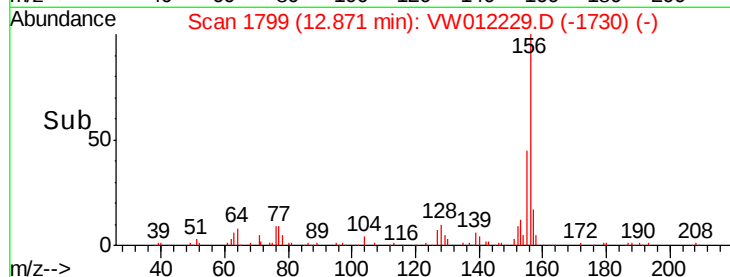
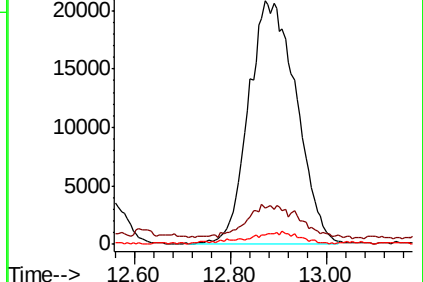
158 0.3 49.0 147.0#



Abundance Ion 155.80 (155.50 to 156.50): V

Ion 77.00 (76.70 to 77.70): VW

Ion 157.80 (157.50 to 158.50): V



#81

trans-1,4-Dichloro-2-butene

Concen: 5.880 ug/l

RT: 12.41 min Scan# 1724

Delta R.T. -0.10 min

Lab File: VW012229.D

Acq: 28 Aug 2019 02:50

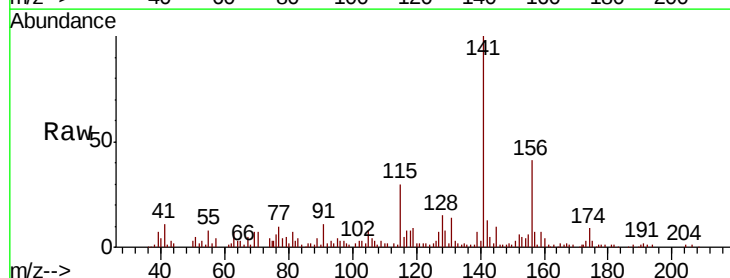
Tgt Ion: 75 Resp: 2311

Ion Ratio Lower Upper

75 100

53 11.4 89.4 134.0#

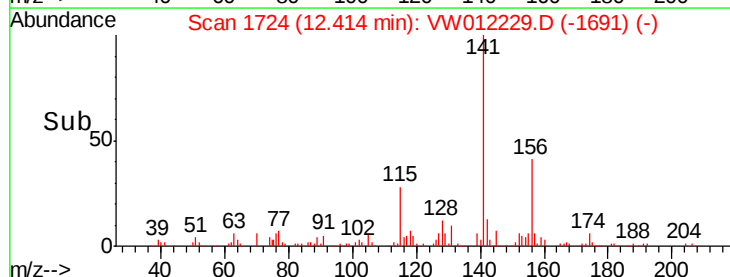
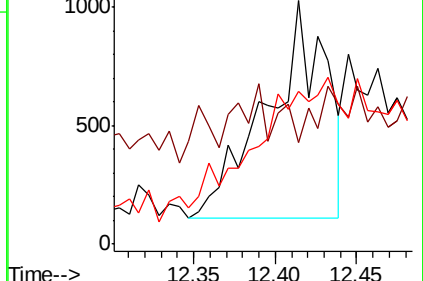
89 75.0 34.5 51.7#

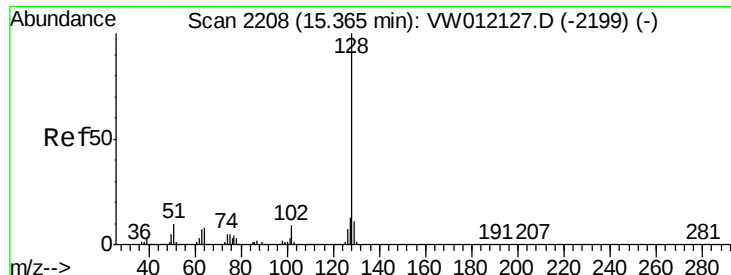


Abundance Ion 74.90 (74.60 to 75.60): VW

Ion 53.00 (52.70 to 53.70): VW

Ion 88.90 (88.60 to 89.60): VW





#95  
Naphthalene  
Concen: 4.571 ug/l  
RT: 15.37 min Scan# 2209  
Delta R.T. 0.01 min  
Lab File: VW012229.D  
Acq: 28 Aug 2019 02:50

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

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 128     | 100   |       |       |
| 127     | 9.1   | 10.7  | 16.1# |
| 129     | 18.8  | 8.7   | 13.1# |

