

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U111218\  
 Data File : VU028066.D  
 Acq On : 12 Nov 2018 15:45  
 Operator : MD/SY  
 Sample : J5885-06DL 200X  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 13 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 MW-5DL

Quant Time: Nov 13 02:45:40 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U110218W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Nov 02 02:28:20 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.99  | 168  | 166606   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 311587   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 276773   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 106802   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 5.31  | 65   | 145070   | 58.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 117.14% |          |
| 35) Dibromofluoromethane    | 4.88  | 113  | 105170   | 53.53 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.06% |          |
| 50) Toluene-d8              | 7.57  | 98   | 410801   | 54.13 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 108.26% |          |
| 62) 4-Bromofluorobenzene    | 10.31 | 95   | 129412   | 46.23 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.46%  |          |

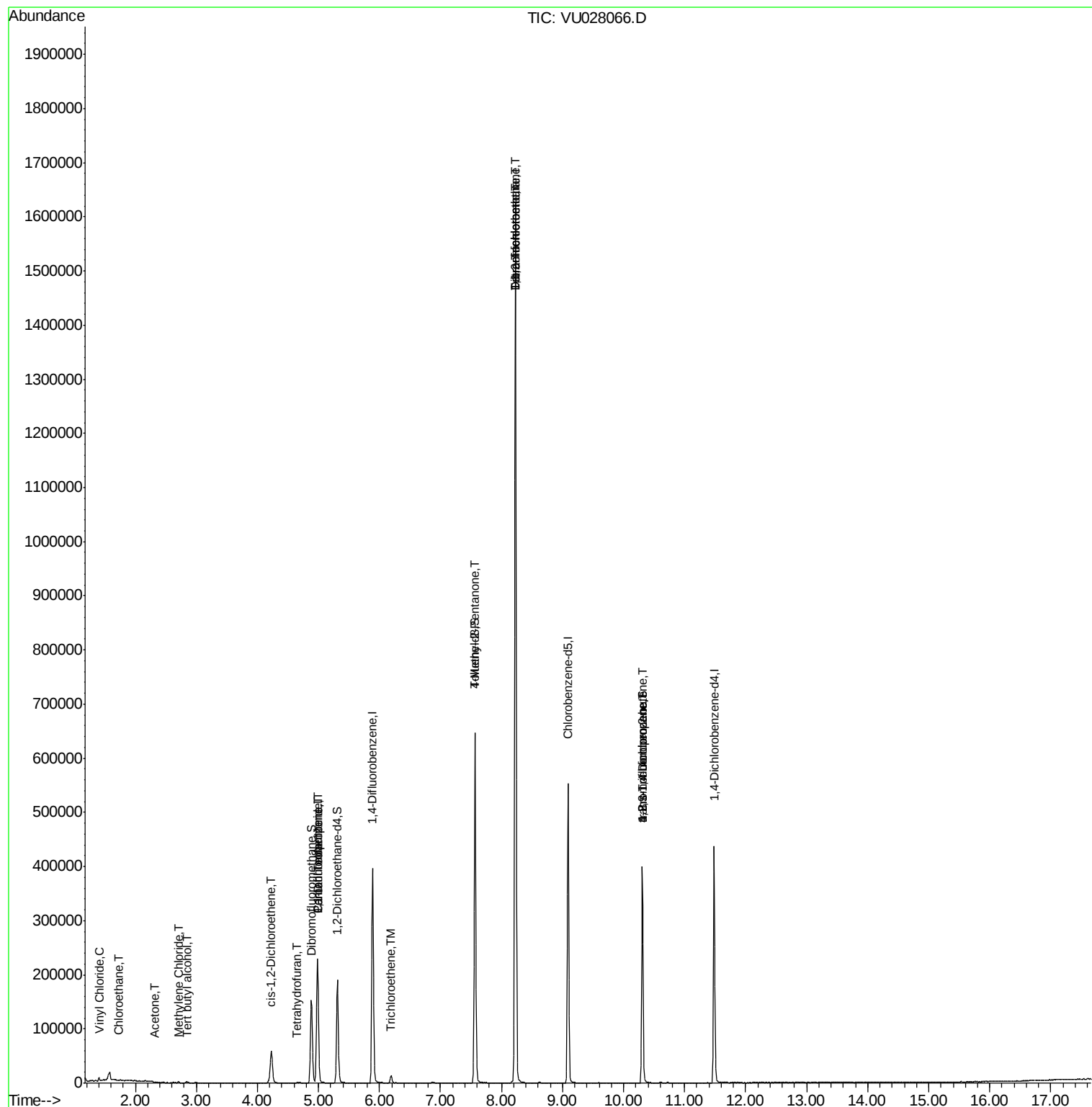
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 4) Vinyl Chloride              | 1.40  | 62   | 3808     | 1.499     | ug/l   | 92     |
| 6) Chloroethane                | 1.72  | 64   | 353      | 0.241     | ug/l # | 42     |
| 11) Tert butyl alcohol         | 2.84  | 59   | 1386     | 2.114     | ug/l # | 73     |
| 13) Acrolein                   | 2.20  | 56   | 59       | Below Cal | #      | 1      |
| 16) Acetone                    | 2.32  | 43   | 784      | 0.510     | ug/l   | 96     |
| 20) Methylene Chloride         | 2.70  | 84   | 716      | 0.319     | ug/l   | 93     |
| 27) cis-1,2-Dichloroethene     | 4.23  | 96   | 30126    | 13.332    | ug/l   | 90     |
| 29) Tetrahydrofuran            | 4.65  | 42   | 405      | 0.248     | ug/l # | 61     |
| 31) Cyclohexane                | 4.99  | 56   | 4204     | Below Cal | #      | 1      |
| 36) 1,1-Dichloropropene        | 4.98  | 75   | 14979    | 4.590     | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 4.98  | 117  | 16959    | 5.864     | ug/l # | 17     |
| 44) Trichloroethene            | 6.19  | 130  | 4479     | 2.088     | ug/l   | 93     |
| 51) 4-Methyl-2-Pentanone       | 7.57  | 43   | 2165     | 0.433     | ug/l # | 1      |
| 55) 1,1,2-Trichloroethane      | 8.22  | 97   | 3318     | 1.390     | ug/l # | 2      |
| 60) Dibromochloromethane       | 8.23  | 129  | 329264   | 145.809   | ug/l # | 10     |
| 64) Tetrachloroethene          | 8.23  | 164  | 341488   | 190.279   | ug/l   | 97     |
| 76) 1,2,3-Trichloropropane     | 10.31 | 75   | 70117    | 24.002    | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 10.31 | 75   | 70117    | 59.875    | ug/l # | 100    |

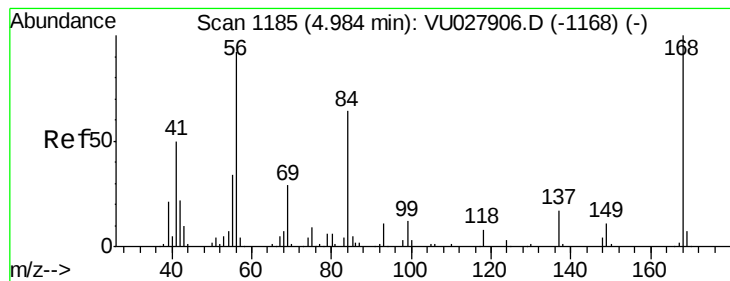
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Nov 13 02:45:40 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U110218W.M  
Quant Title : SW846 8260  
QLast Update : Fri Nov 02 02:28:20 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 4.99 min Scan# 1186

Delta R.T. 0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampleId :

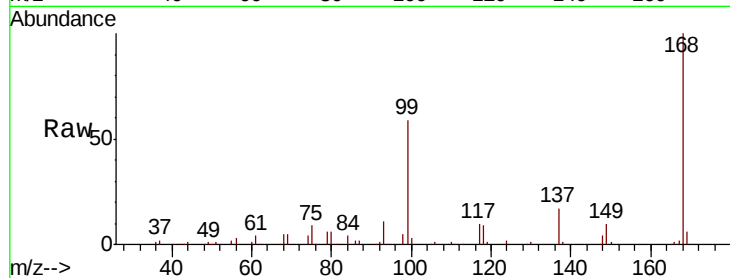
MW-5DL

Tot Ion:168 Resp: 166606

Ion Ratio Lower Upper

168 100

99 59.3 47.9 71.9



Abundance Ion 167.90 (167.60 to 168.60): VU027906.D (-1168) (-)

Ion 98.90 (98.60 to 99.60): VU028066.D (-1092) (-)

4.99

80000

60000

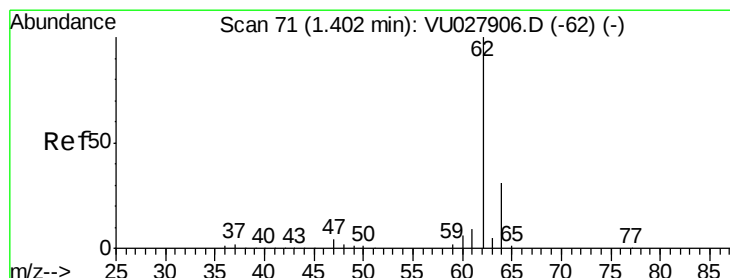
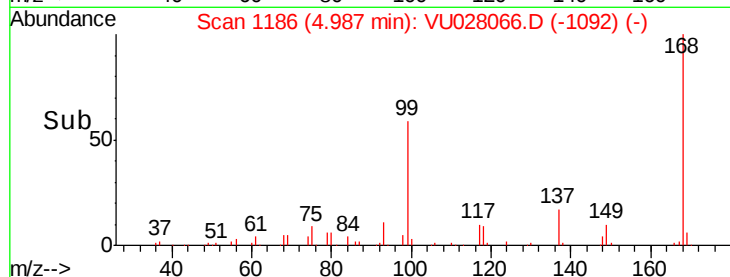
40000

20000

0

4.90 5.00 5.10

Time-->



#4

Vinyl Chloride

Concen: 1.499 ug/l

RT: 1.40 min Scan# 72

Delta R.T. 0.00 min

Lab File: VU028066.D

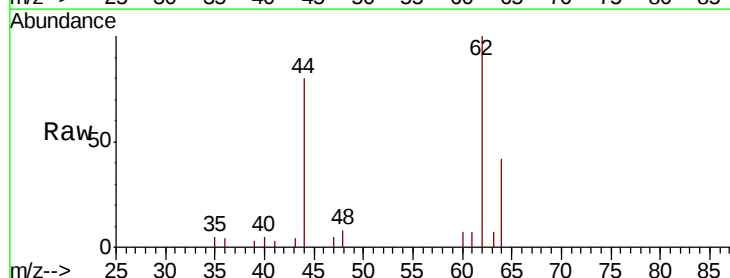
Acq: 12 Nov 2018 15:45

Tgt Ion: 62 Resp: 3808

Ion Ratio Lower Upper

62 100

64 36.1 25.2 37.8



Abundance Ion 61.90 (61.60 to 62.60): VU027906.D (-62) (-)

Ion 63.90 (63.60 to 64.60): VU028066.D (-1) (-)

1.40

4000

3000

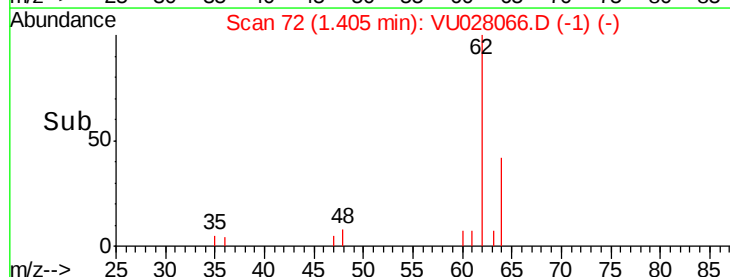
2000

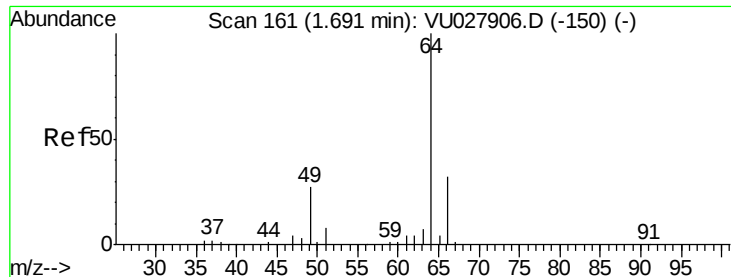
1000

0

1.36 1.38 1.40 1.42 1.44

Time-->





#6

Chloroethane

Concen: 0.241 ug/l

RT: 1.72 min Scan# 170

Delta R.T. 0.03 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampled :

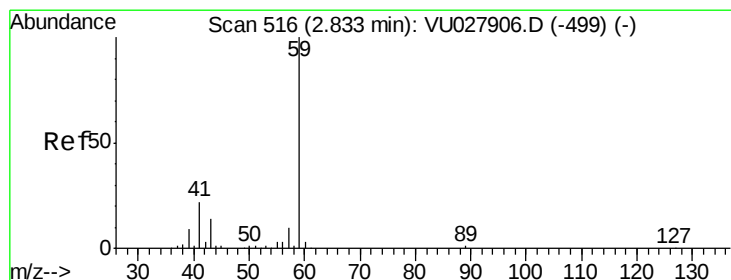
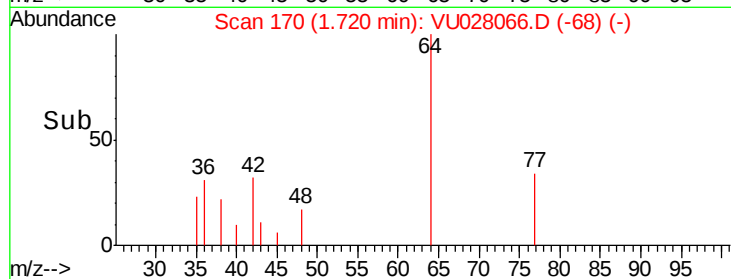
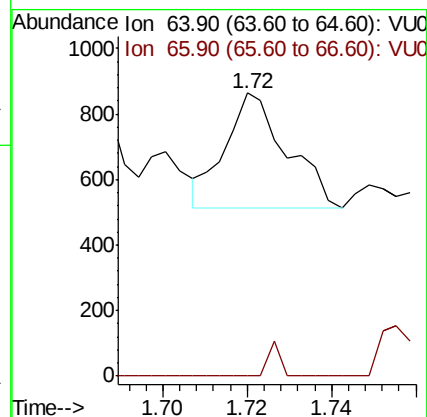
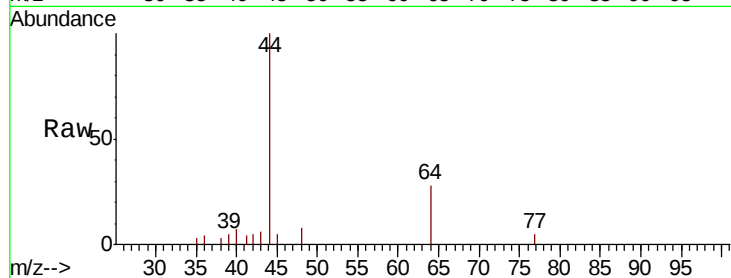
MW-5DL

Tot Ion: 64 Resp: 353

Ion Ratio Lower Upper

64 100

66 0.0 25.9 38.9#



#11

Tert butyl alcohol

Concen: 2.114 ug/l

RT: 2.84 min Scan# 519

Delta R.T. 0.01 min

Lab File: VU028066.D

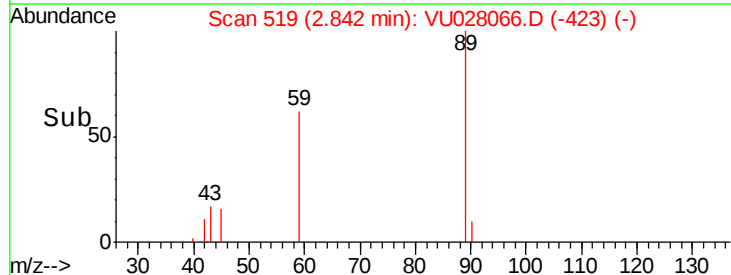
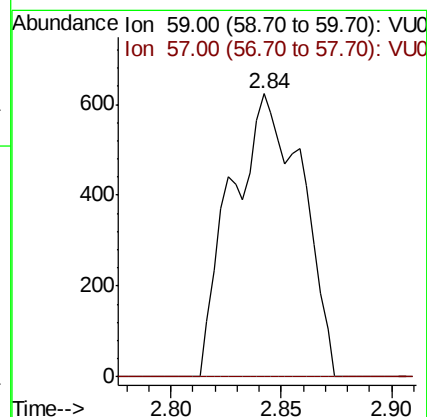
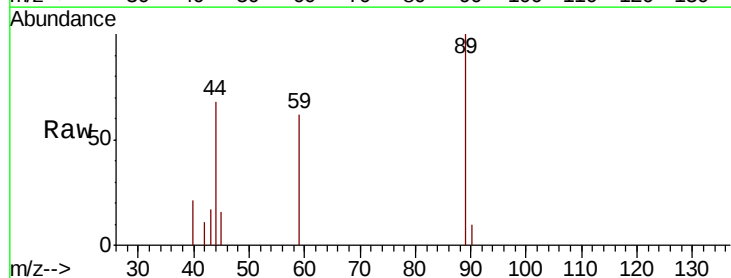
Acq: 12 Nov 2018 15:45

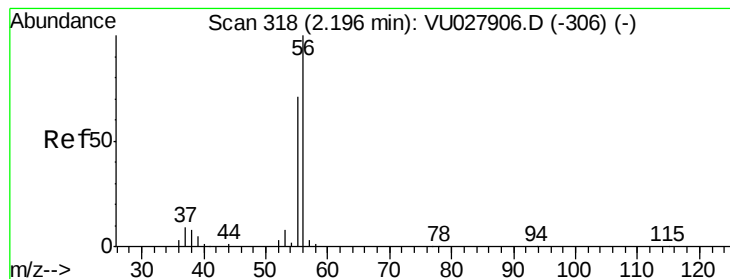
Tgt Ion: 59 Resp: 1386

Ion Ratio Lower Upper

59 100

57 0.0 7.8 11.8#





#13

Acrolein

Concen: Below Cal

RT: 2.20 min Scan# 319

Delta R.T. 0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampleId :

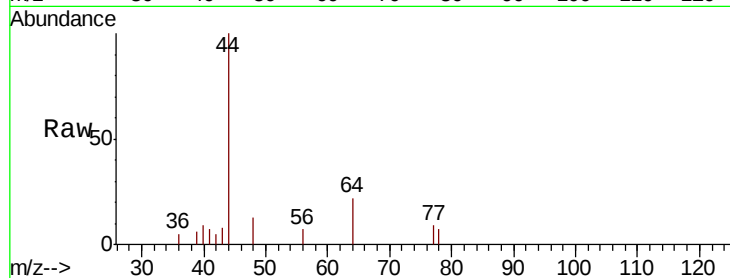
MW-5DL

Tot Ion: 56 Resp: 59

Ion Ratio Lower Upper

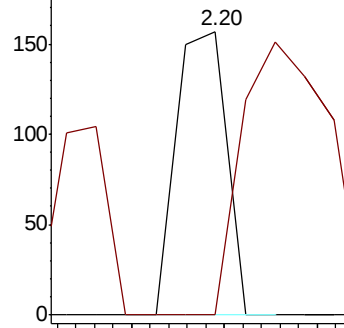
56 100

55 166.1 56.2 84.4#

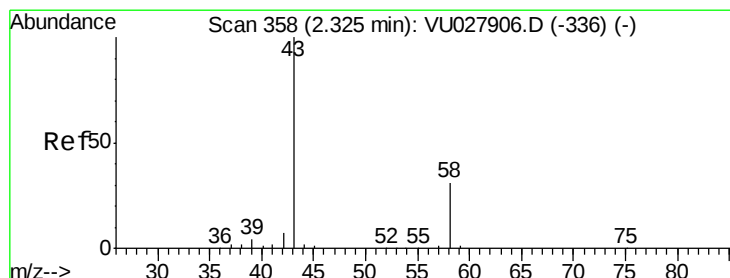
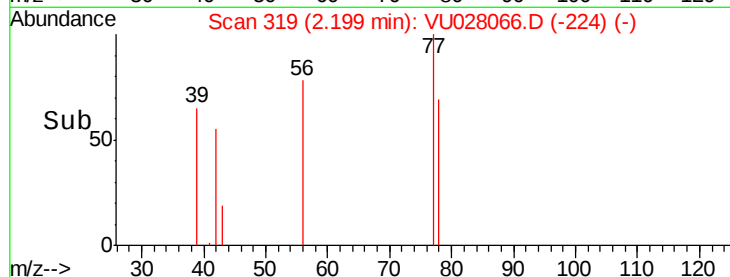


Abundance Ion 56.00 (55.70 to 56.70): VU0

Ion 55.00 (54.70 to 55.70): VU0



Time-->



#16

Acetone

Concen: 0.510 ug/l

RT: 2.32 min Scan# 357

Delta R.T. -0.00 min

Lab File: VU028066.D

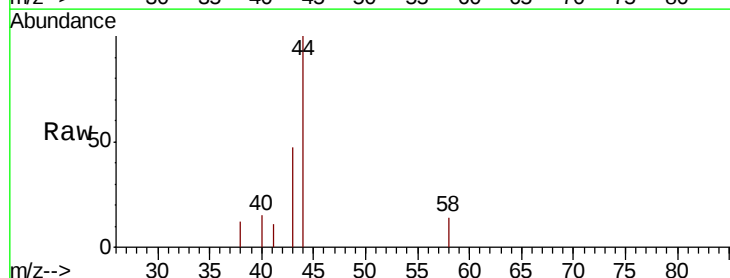
Acq: 12 Nov 2018 15:45

Tgt Ion: 43 Resp: 784

Ion Ratio Lower Upper

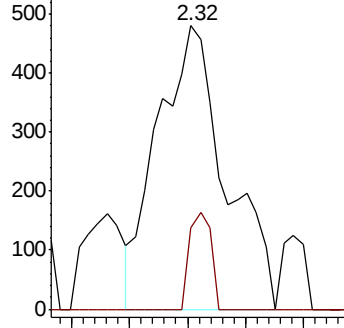
43 100

58 28.8 24.6 37.0

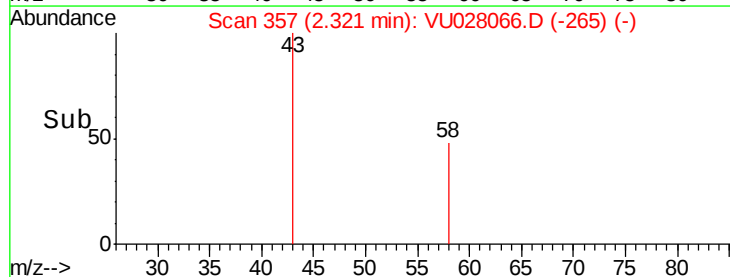


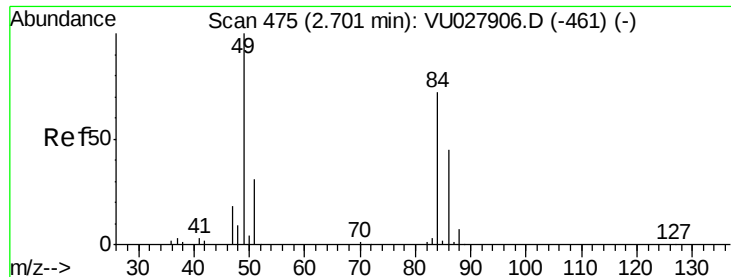
Abundance Ion 43.00 (42.70 to 43.70): VU0

Ion 58.00 (57.70 to 58.70): VU0



Time-->





#20

Methvlene Chloride

Concen: 0.319 ug/l

RT: 2.70 min Scan# 476

Delta R.T. 0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampled :

MW-5DL

Tot Ion: 84 Resp: 716

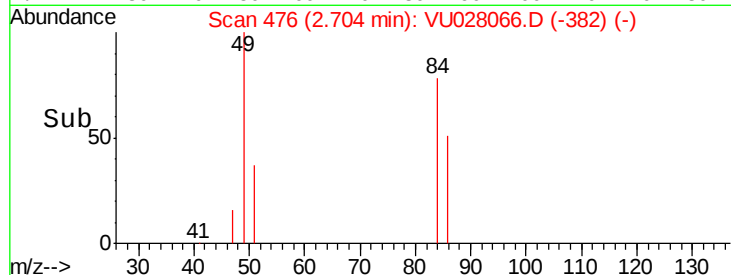
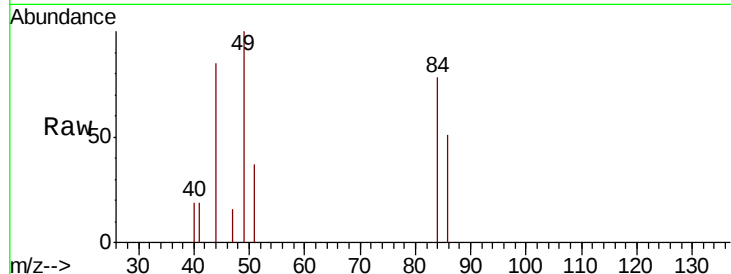
Ion Ratio Lower Upper

84 100

49 128.1 111.6 167.4

51 47.7 34.8 52.2

86 65.0 50.1 75.1

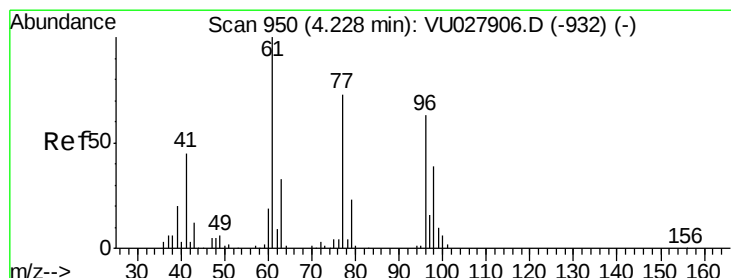
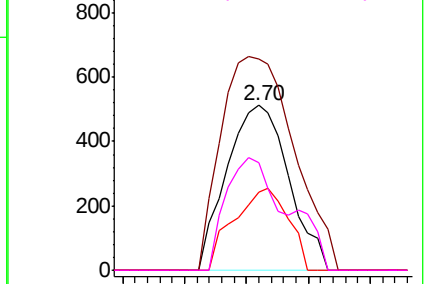


Abundance Ion 83.90 (83.60 to 84.60): VU0

Ion 48.90 (48.60 to 49.60): VU0

Ion 50.90 (50.60 to 51.60): VU0

Ion 85.90 (85.60 to 86.60): VU0



#27

cis-1,2-Dichloroethene

Concen: 13.332 ug/l

RT: 4.23 min Scan# 950

Delta R.T. -0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

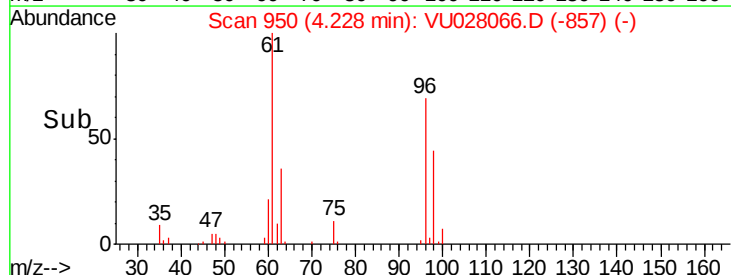
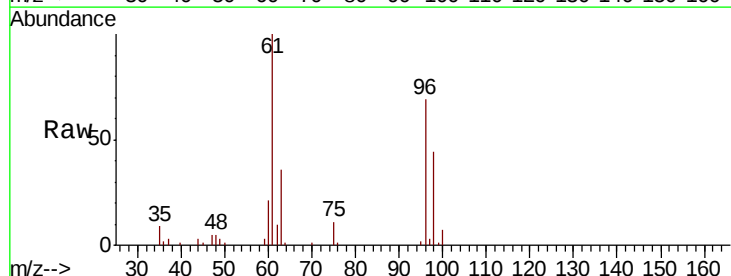
Tgt Ion: 96 Resp: 30126

Ion Ratio Lower Upper

96 100

61 146.0 0.0 329.6

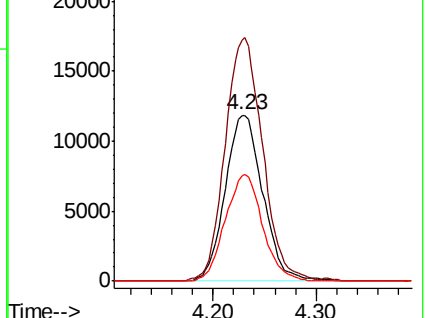
98 63.5 0.0 127.2

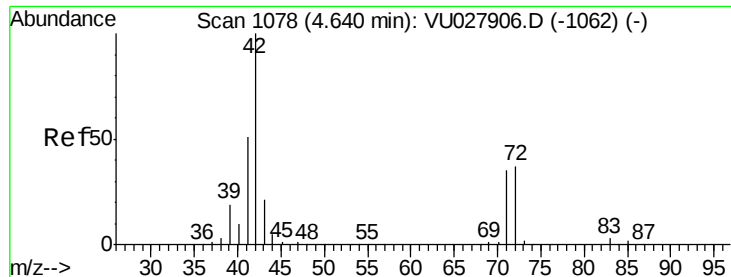


Abundance Ion 95.90 (95.60 to 96.60): VU0

Ion 60.90 (60.60 to 61.60): VU0

Ion 97.90 (97.60 to 98.60): VU0





#29

Tetrahydrofuran

Concen: 0.248 ug/l

RT: 4.65 min Scan# 1080

Delta R.T. 0.01 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampleId :

MW-5DL

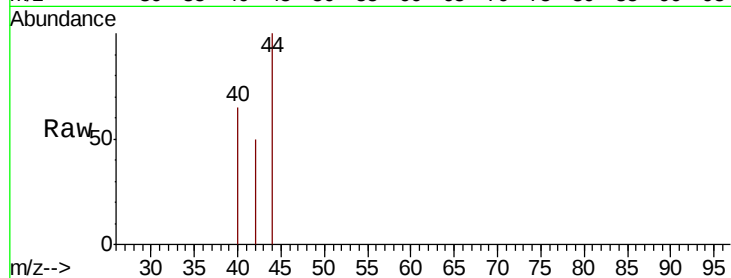
Tot Ion: 42 Resp: 405

Ion Ratio Lower Upper

42 100

72 25.7 29.4 44.0#

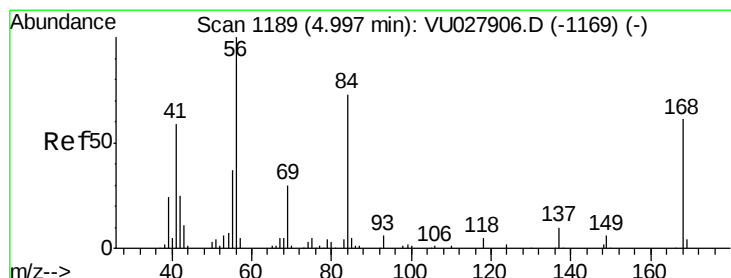
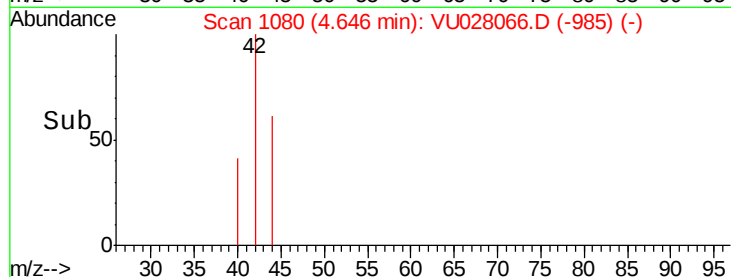
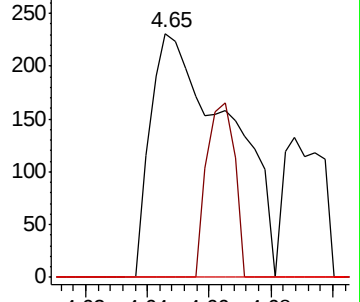
71 0.0 27.9 41.9#



Abundance Ion 42.00 (41.70 to 42.70): VU0

Ion 72.00 (71.70 to 72.70): VU0

Ion 71.00 (70.70 to 71.70): VU0



#31

Cyclohexane

Concen: Below Cal

RT: 4.99 min Scan# 1186

Delta R.T. -0.01 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

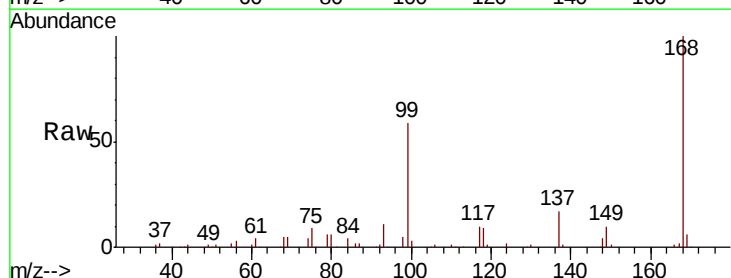
Tgt Ion: 56 Resp: 4204

Ion Ratio Lower Upper

56 100

69 173.2 23.7 35.5#

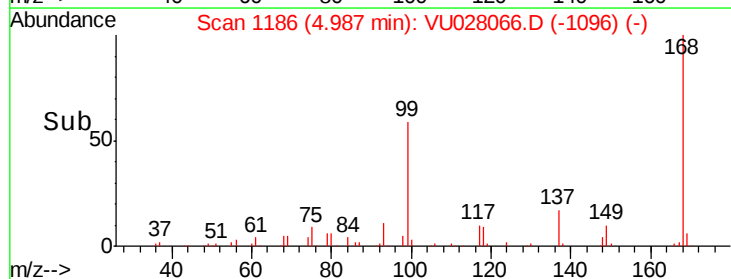
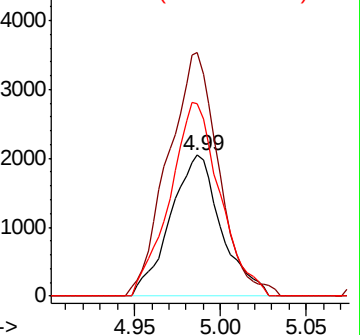
84 137.1 58.2 87.4#

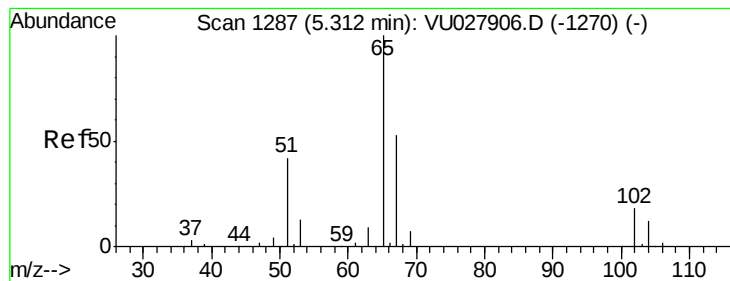


Abundance Ion 56.00 (55.70 to 56.70): VU0

Ion 69.00 (68.70 to 69.70): VU0

Ion 84.00 (83.70 to 84.70): VU0





#33

1,2-Dichloroethane-d4

Concen: 58.566 ug/l

RT: 5.31 min Scan# 1287

Delta R.T. -0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampleId :

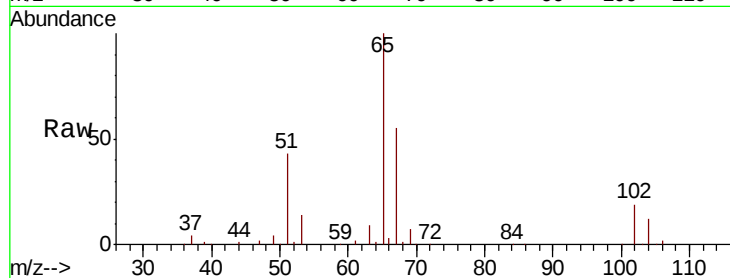
MW-5DL

Tot Ion: 65 Resp: 145070

Ion Ratio Lower Upper

65 100

67 54.6 0.0 109.0

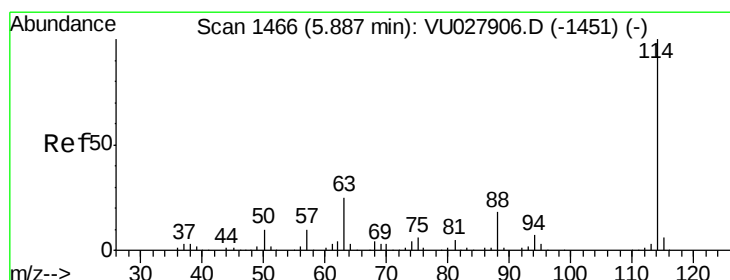
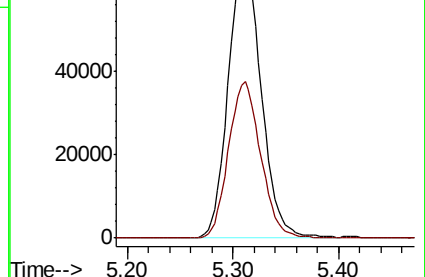
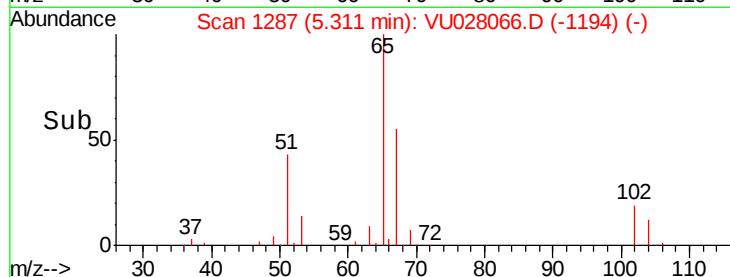


Abundance Ion 64.90 (64.60 to 65.60): VU027906.D (-1270) (-)

Ion 66.90 (66.60 to 67.60): VU027906.D (-1270) (-)

5.31

Time-->



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 5.89 min Scan# 1466

Delta R.T. -0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

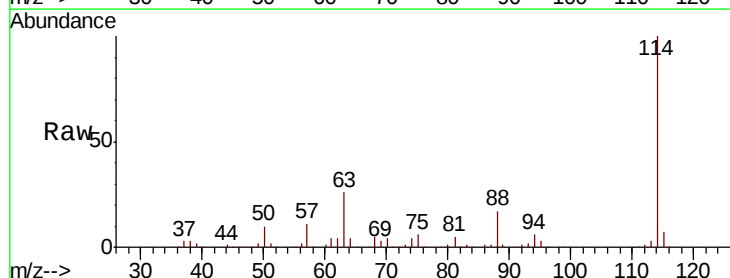
Tgt Ion: 114 Resp: 311587

Ion Ratio Lower Upper

114 100

63 25.7 0.0 50.8

88 16.8 0.0 35.8



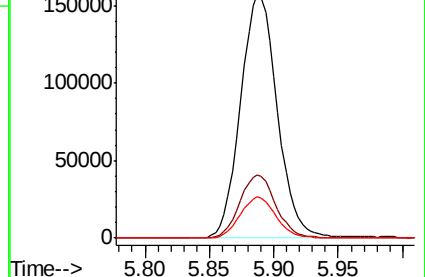
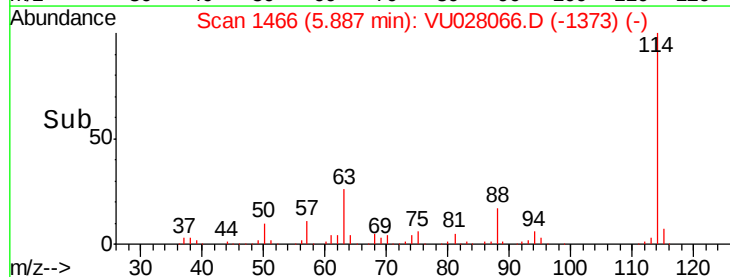
Abundance Ion 113.90 (113.60 to 114.60): VU027906.D (-1451) (-)

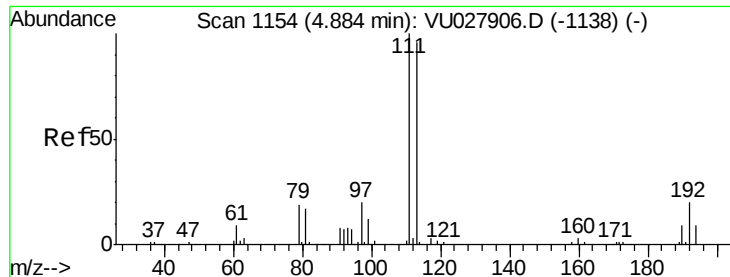
Ion 63.00 (62.70 to 63.70): VU027906.D (-1451) (-)

Ion 87.90 (87.60 to 88.60): VU027906.D (-1451) (-)

5.89

Time-->

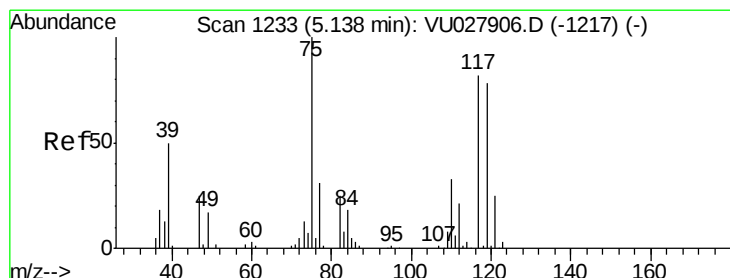
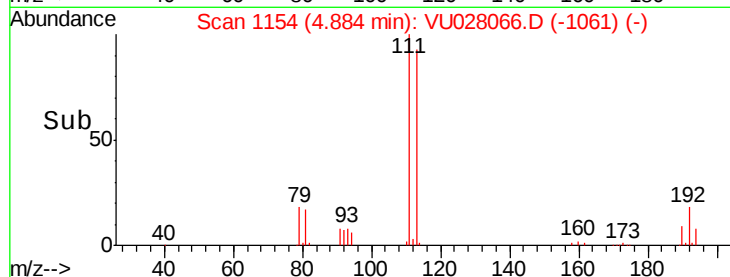
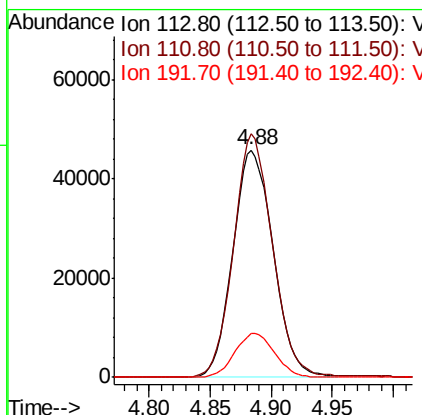
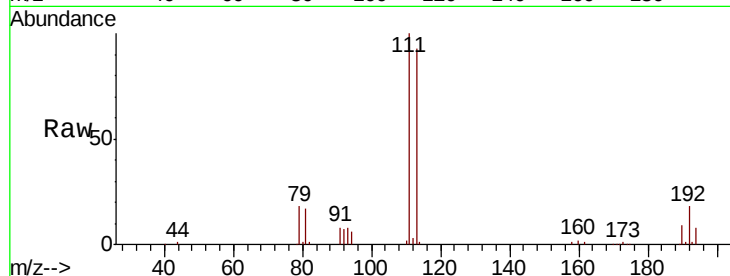




#35  
 Dibromofluoromethane  
 Concen: 53.532 ug/l  
 RT: 4.88 min Scan# 1154  
 Delta R.T. -0.00 min  
 Lab File: VU028066.D  
 Acq: 12 Nov 2018 15:45

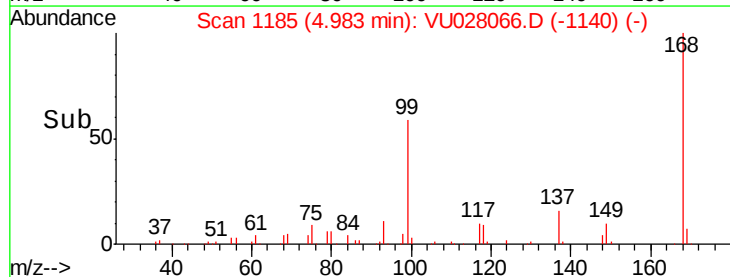
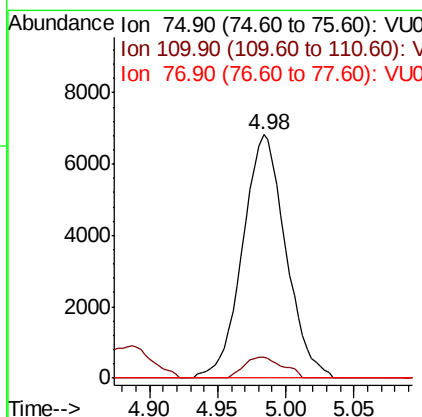
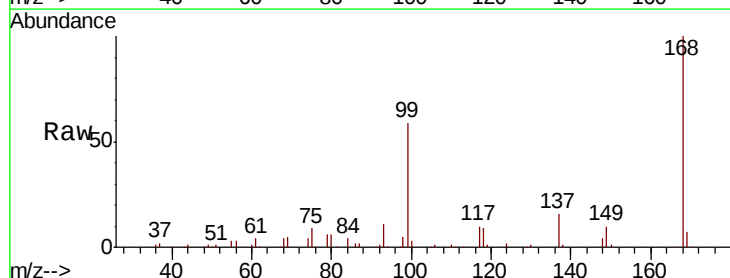
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 MW-5DL

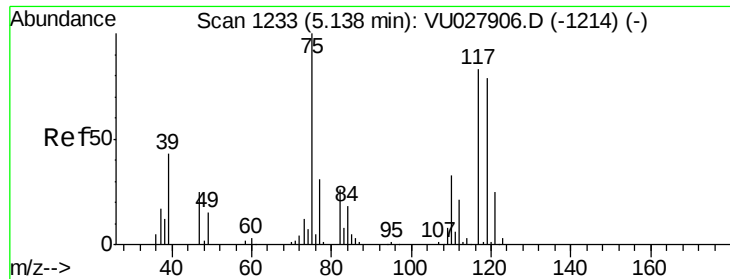
Tot Ion:113 Resp: 105170  
 Ion Ratio Lower Upper  
 113 100  
 111 103.1 83.0 124.6  
 192 19.1 15.6 23.4



#36  
 1,1-Dichloropropene  
 Concen: 4.590 ug/l  
 RT: 4.98 min Scan# 1185  
 Delta R.T. -0.15 min  
 Lab File: VU028066.D  
 Acq: 12 Nov 2018 15:45

Tgt Ion: 75 Resp: 14979  
 Ion Ratio Lower Upper  
 75 100  
 110 7.6 16.5 49.5#  
 77 0.0 24.9 37.3#

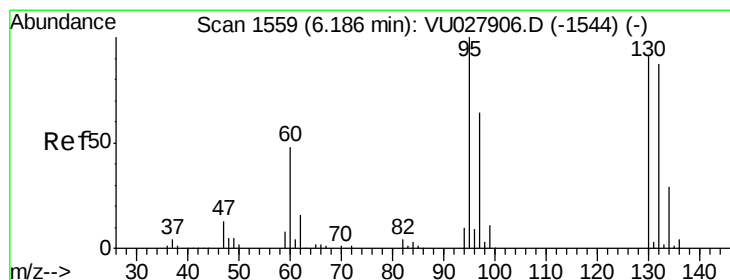
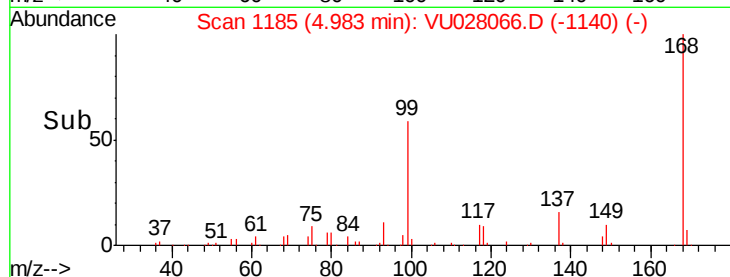
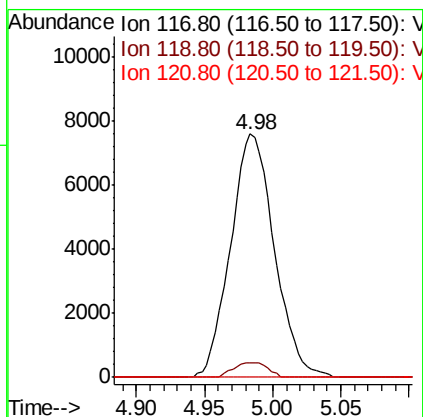
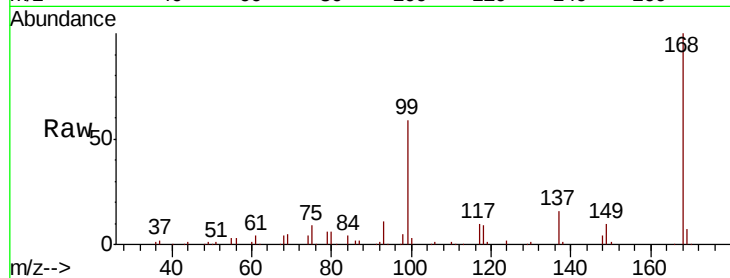




#38  
Carbon Tetrachloride  
Concen: 5.864 ug/l  
RT: 4.98 min Scan# 1185  
Delta R.T. -0.15 min  
Lab File: VU028066.D  
Acq: 12 Nov 2018 15:45

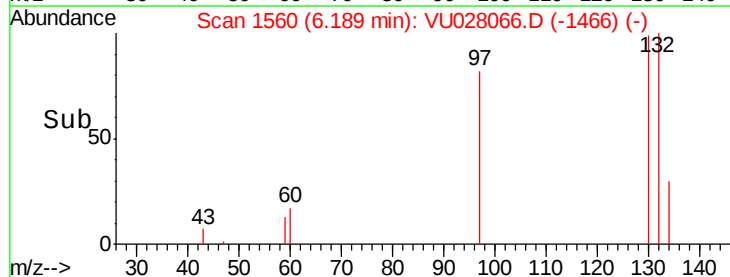
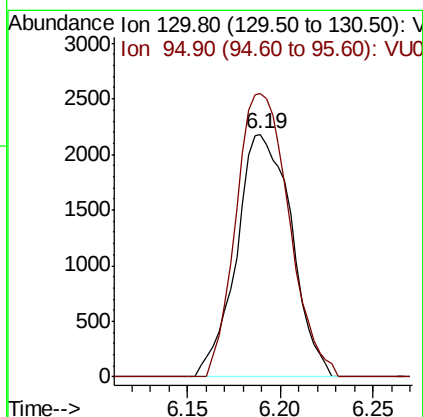
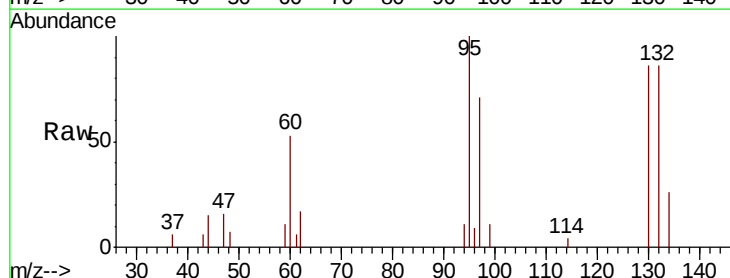
Instrument :  
MSVOA\_U  
ClientSampleId :  
MW-5DL

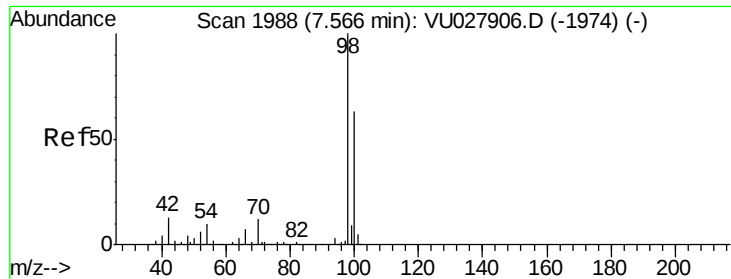
Tot Ion:117 Resp: 16959  
Ion Ratio Lower Upper  
117 100  
119 6.1 76.0 114.0#  
121 0.0 24.5 36.7#



#44  
Trichloroethene  
Concen: 2.088 ug/l  
RT: 6.19 min Scan# 1560  
Delta R.T. 0.00 min  
Lab File: VU028066.D  
Acq: 12 Nov 2018 15:45

Tgt Ion:130 Resp: 4479  
Ion Ratio Lower Upper  
130 100  
95 116.5 0.0 219.2





#50

Toluene-d8

Concen: 54.130 ug/l

RT: 7.57 min Scan# 1988

Delta R.T. -0.00 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampled :

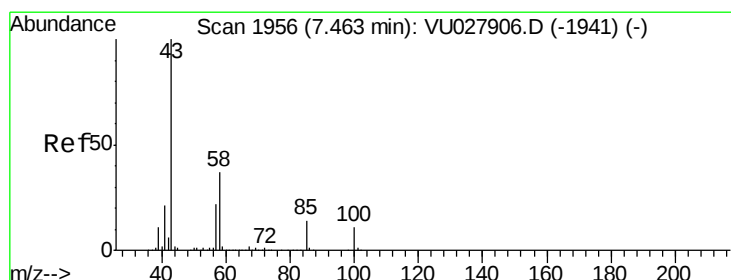
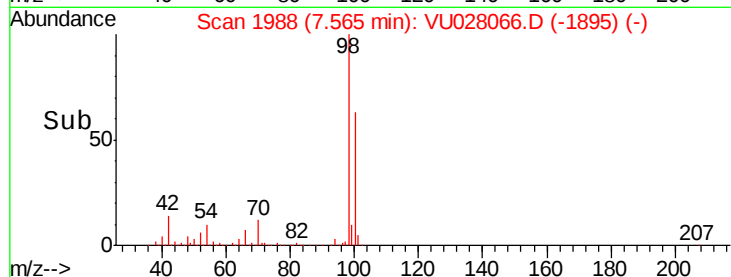
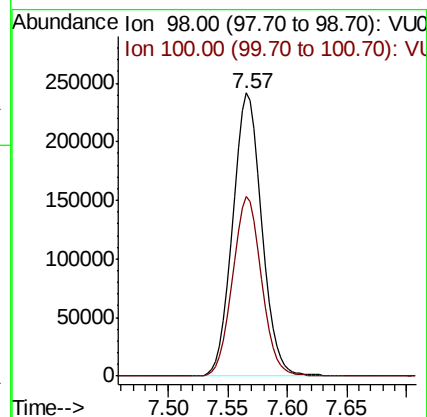
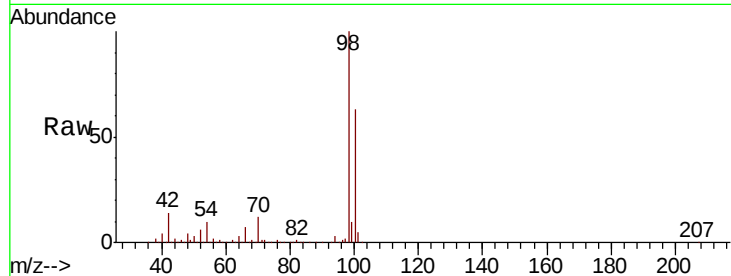
MW-5DL

Tot Ion: 98 Resp: 410801

Ion Ratio Lower Upper

98 100

100 63.1 50.1 75.1



#51

4-Methyl-2-Pentanone

Concen: 0.433 ug/l

RT: 7.57 min Scan# 1988

Delta R.T. 0.10 min

Lab File: VU028066.D

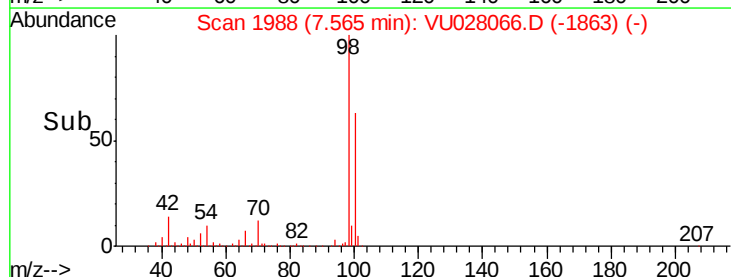
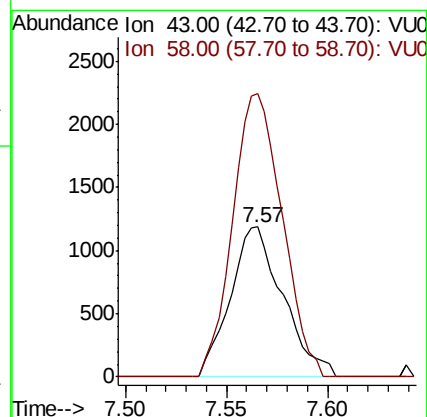
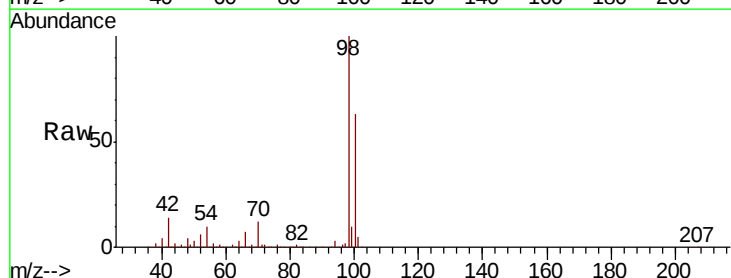
Acq: 12 Nov 2018 15:45

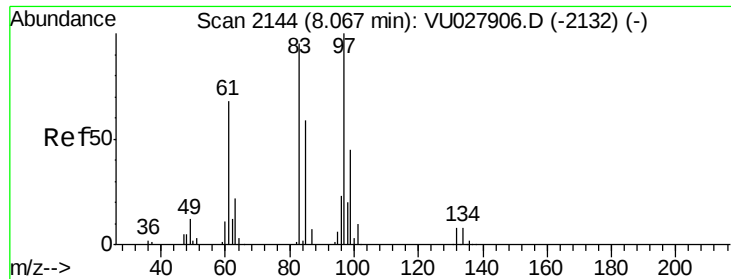
Tgt Ion: 43 Resp: 2165

Ion Ratio Lower Upper

43 100

58 178.1 29.5 44.3#





#55

1,1,2-Trichloroethane

Concen: 1.390 ug/l

RT: 8.22 min Scan# 2193

Delta R.T. 0.16 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampleId :

MW-5DL

Tot Ion: 97 Resp: 3318

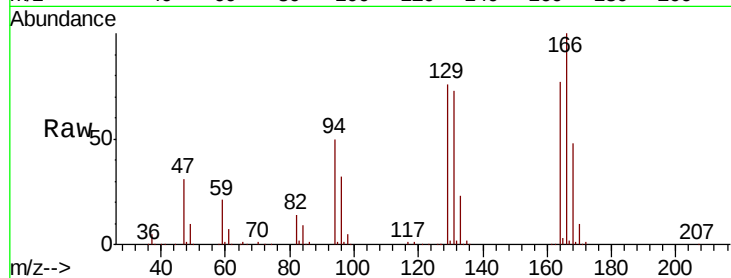
Ion Ratio Lower Upper

97 100

83 254.8 76.1 114.1#

85 37.1 48.9 73.3#

99 15.1 52.0 78.0#

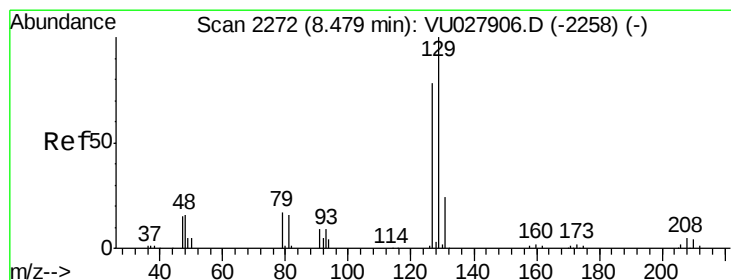
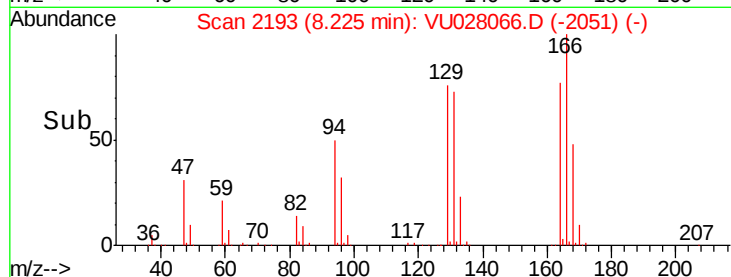
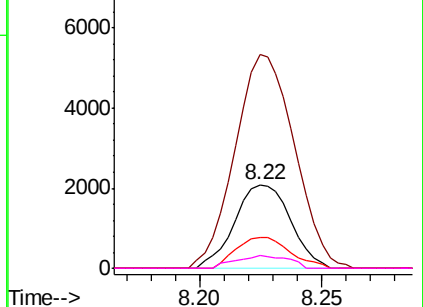


Abundance Ion 96.90 (96.60 to 97.60): VU0

Ion 82.90 (82.60 to 83.60): VU0

Ion 84.90 (84.60 to 85.60): VU0

Ion 98.90 (98.60 to 99.60): VU0



#60

Dibromochloromethane

Concen: 145.809 ug/l

RT: 8.23 min Scan# 2194

Delta R.T. -0.25 min

Lab File: VU028066.D

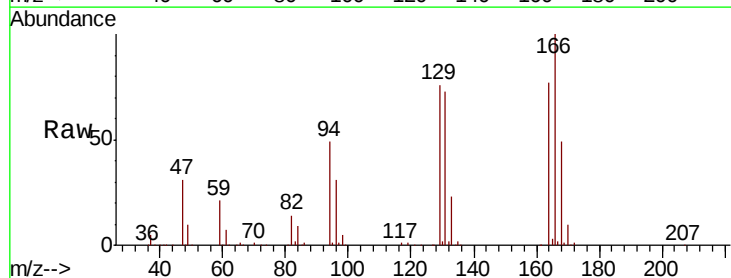
Acq: 12 Nov 2018 15:45

Tgt Ion: 129 Resp: 329264

Ion Ratio Lower Upper

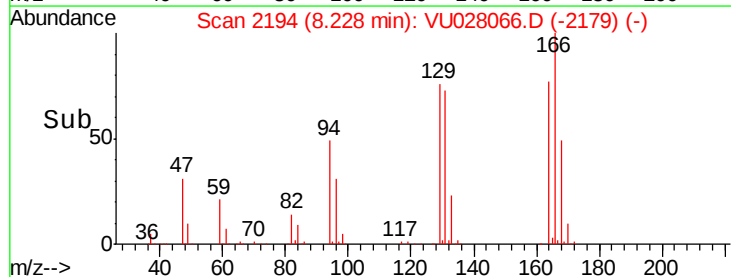
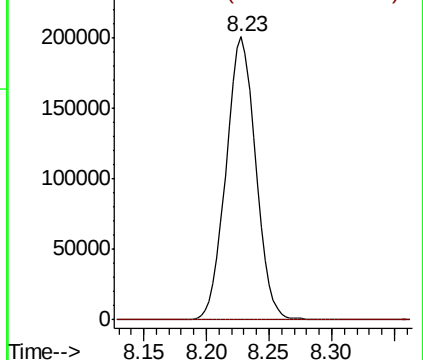
129 100

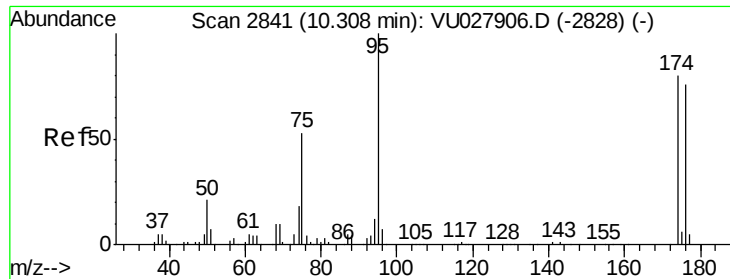
127 0.1 39.2 117.6#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V

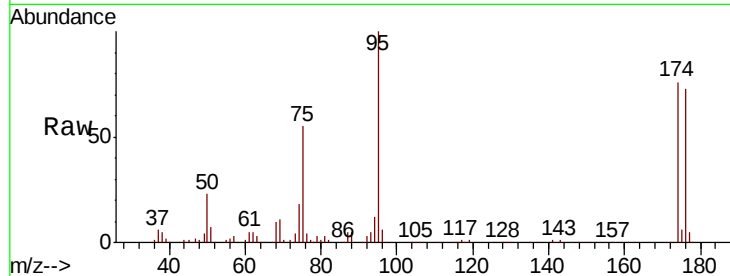




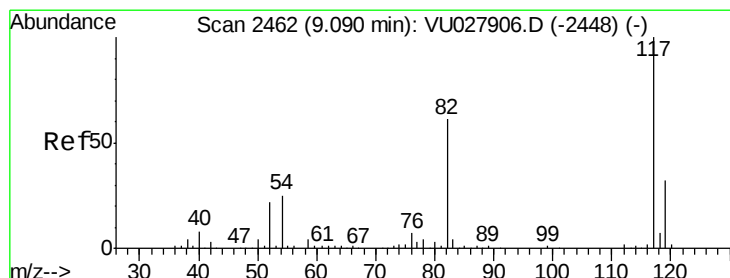
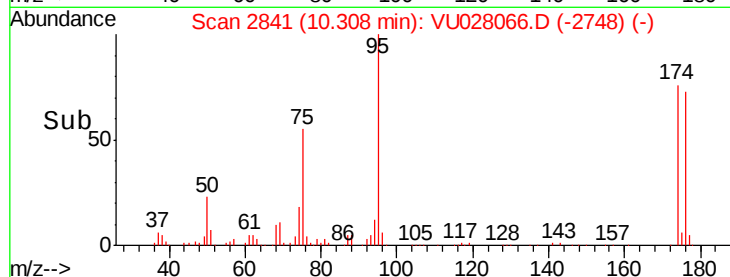
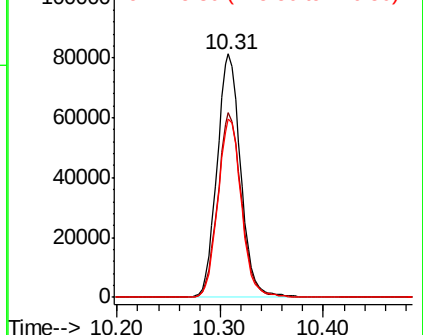
#62  
4-Bromofluorobenzene  
Concen: 46.232 ug/l  
RT: 10.31 min Scan# 2841  
Delta R.T. -0.00 min  
Lab File: VU028066.D  
Acq: 12 Nov 2018 15:45

Instrument :  
MSVOA\_U  
ClientSampleId :  
MW-5DL

Tot Ion: 95 Resp: 129412  
Ion Ratio Lower Upper  
95 100  
174 76.1 0.0 156.4  
176 72.8 0.0 150.8

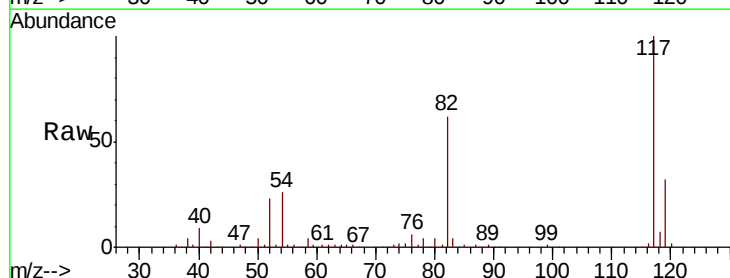


Abundance Ion 94.90 (94.60 to 95.60): VU027906.D (-2828) (-)  
Ion 173.80 (173.50 to 174.50): VU027906.D (-2828) (-)  
Ion 175.80 (175.50 to 176.50): VU027906.D (-2828) (-)

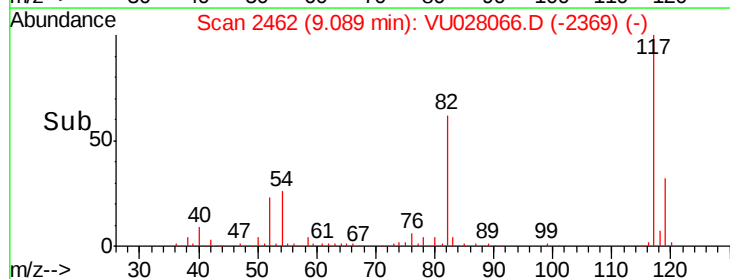
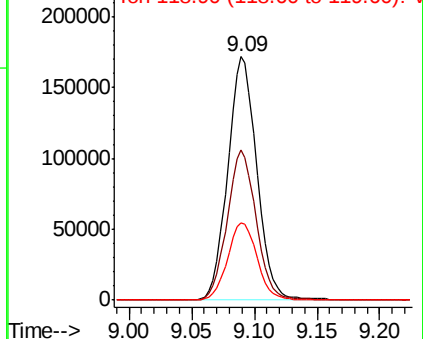


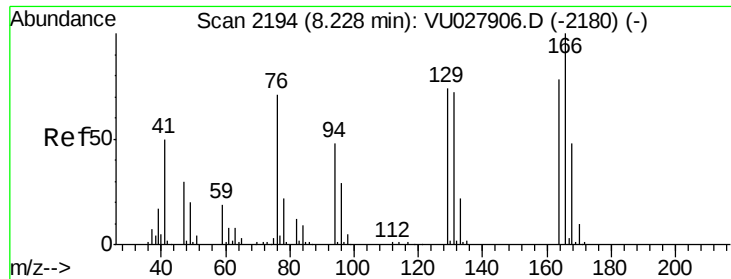
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.09 min Scan# 2462  
Delta R.T. -0.00 min  
Lab File: VU028066.D  
Acq: 12 Nov 2018 15:45

Tgt Ion: 117 Resp: 276773  
Ion Ratio Lower Upper  
117 100  
82 61.6 48.6 73.0  
119 31.9 25.8 38.8



Abundance Ion 116.90 (116.60 to 117.60): VU027906.D (-2448) (-)  
Ion 82.00 (81.70 to 82.70): VU027906.D (-2448) (-)  
Ion 118.90 (118.60 to 119.60): VU027906.D (-2448) (-)

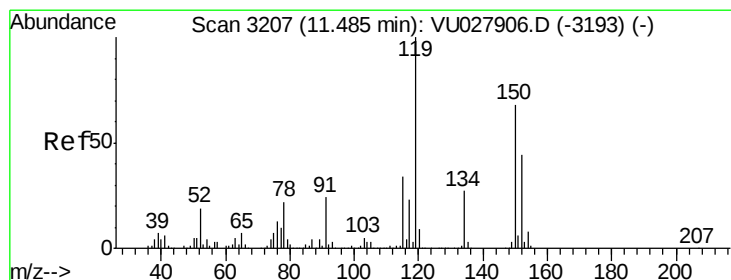
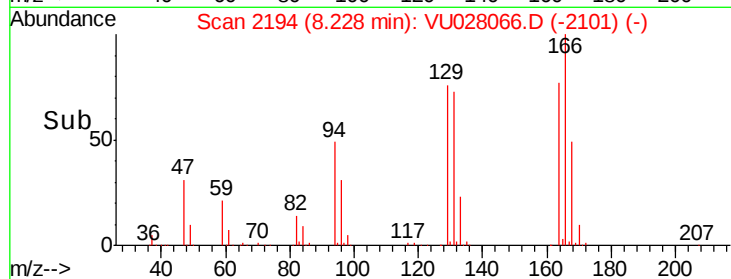
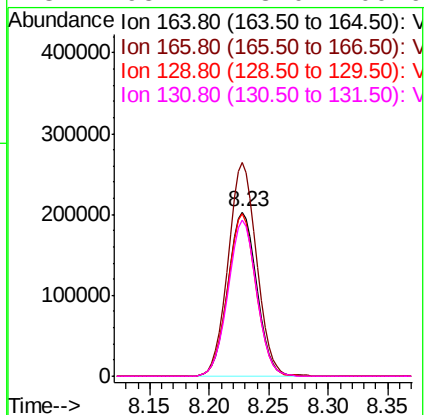
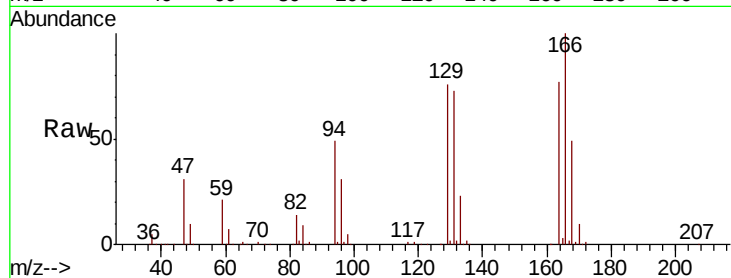




#64  
Tetrachloroethene  
Concen: 190.279 ug/l  
RT: 8.23 min Scan# 2194  
Delta R.T. -0.00 min  
Lab File: VU028066.D  
Acq: 12 Nov 2018 15:45

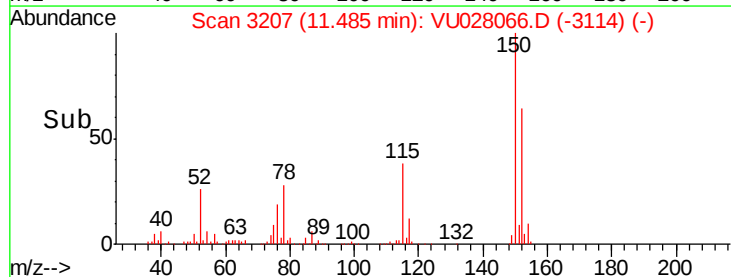
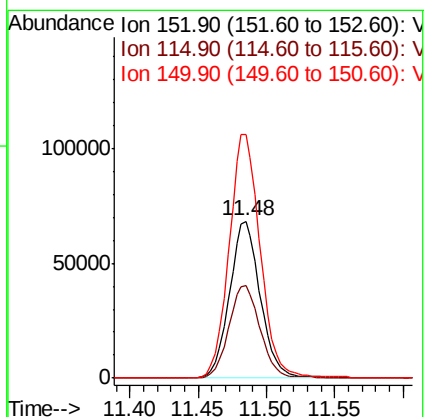
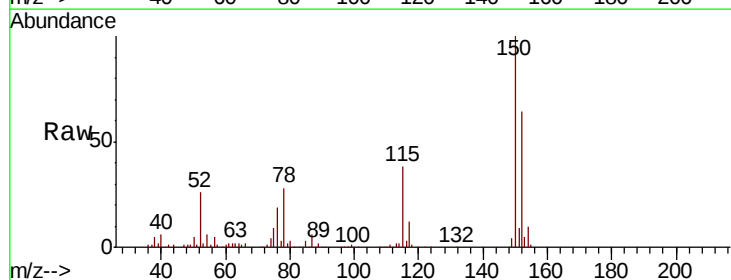
Instrument :  
MSVOA\_U  
ClientSampleId :  
MW-5DL

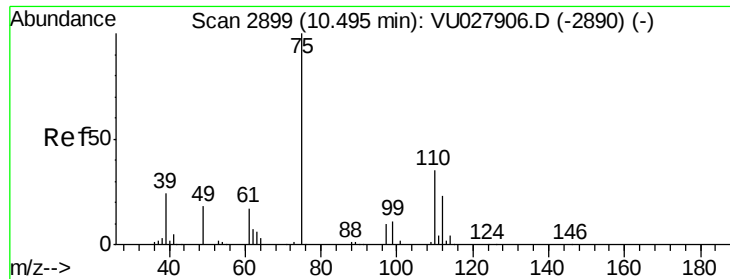
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 164     | 100   |       |       |
| 166     | 130.1 | 102.1 | 153.1 |
| 129     | 98.7  | 75.9  | 113.9 |
| 131     | 95.1  | 73.0  | 109.6 |



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 11.48 min Scan# 3207  
Delta R.T. -0.00 min  
Lab File: VU028066.D  
Acq: 12 Nov 2018 15:45

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 60.3  | 43.0  | 129.0 |
| 150     | 156.6 | 0.0   | 349.4 |





#76

1,2,3-Trichloropropane

Concen: 24.002 ug/l

RT: 10.31 min Scan# 2841

Delta R.T. -0.19 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

Instrument :

MSVOA\_U

ClientSampleId :

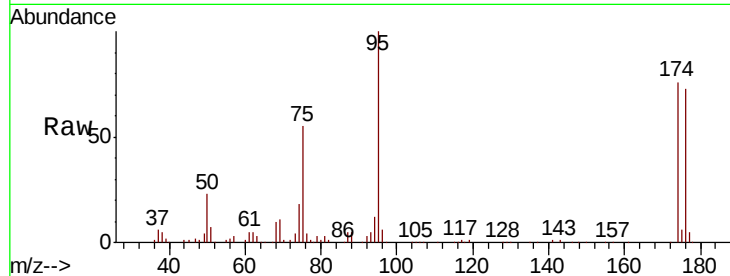
MW-5DL

Tot Ion: 75 Resp: 70117

Ion Ratio Lower Upper

75 100

77 1.3 21.6 64.6#



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 77.00 (76.70 to 77.70): VU0

10.31

50000

40000

30000

20000

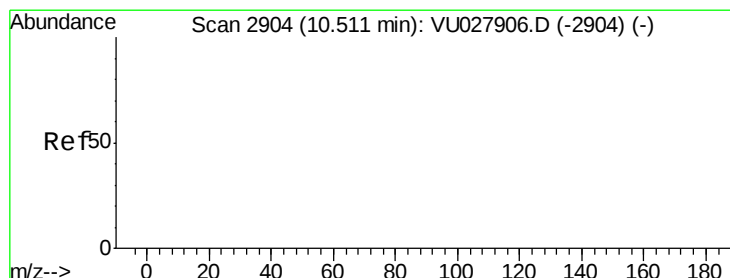
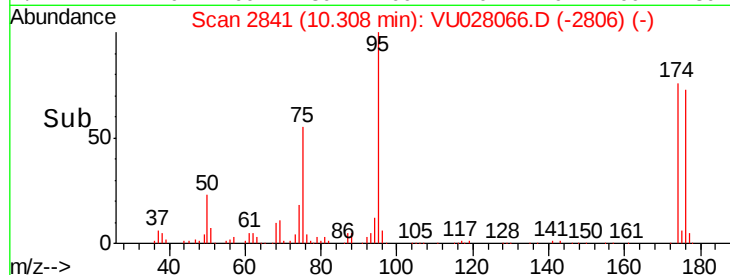
10000

0

Time-->

10.30

10.40



#81

trans-1,4-Dichloro-2-butene

Concen: 59.875 ug/l

RT: 10.31 min Scan# 2841

Delta R.T. -0.20 min

Lab File: VU028066.D

Acq: 12 Nov 2018 15:45

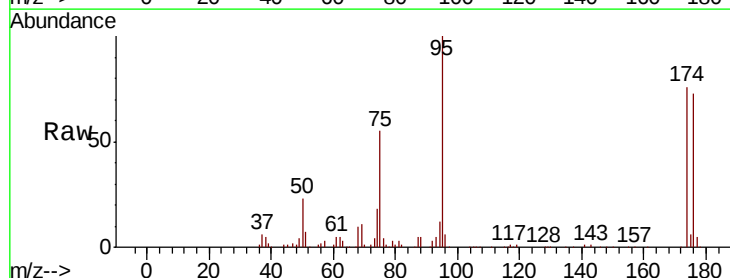
Tgt Ion: 75 Resp: 70117

Ion Ratio Lower Upper

75 100

53 0.0 0.0 0.0

89 0.0 0.0 0.0



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 53.00 (52.70 to 53.70): VU0

Ion 88.90 (88.60 to 89.60): VU0

60000

50000

40000

30000

20000

10000

0

Time-->

10.30

10.40

