

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU091218\  
 Data File : VU026692.D  
 Acq On : 12 Sep 2018 09:21  
 Operator : MD/SY  
 Sample : VU0912MBL01  
 Misc : 5.00µl/10mL/100µL/5.0mL/MSVOA\_U/MEOH  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Sep 13 06:48:38 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\82U091218W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Sep 12 05:32:45 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 4.98  | 168  | 124814   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 211421   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 203586   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 104170   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 5.31   | 65  | 97709    | 51.61 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 103.22% |      |
| 35) Dibromofluoromethane  | 4.88   | 113 | 88068    | 51.07 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.14% |      |
| 50) Toluene-d8            | 7.57   | 98  | 310942   | 48.75 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 97.50%  |      |
| 62) 4-Bromofluorobenzene  | 10.31  | 95  | 107195   | 46.37 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 92.74%  |      |

## Target Compounds

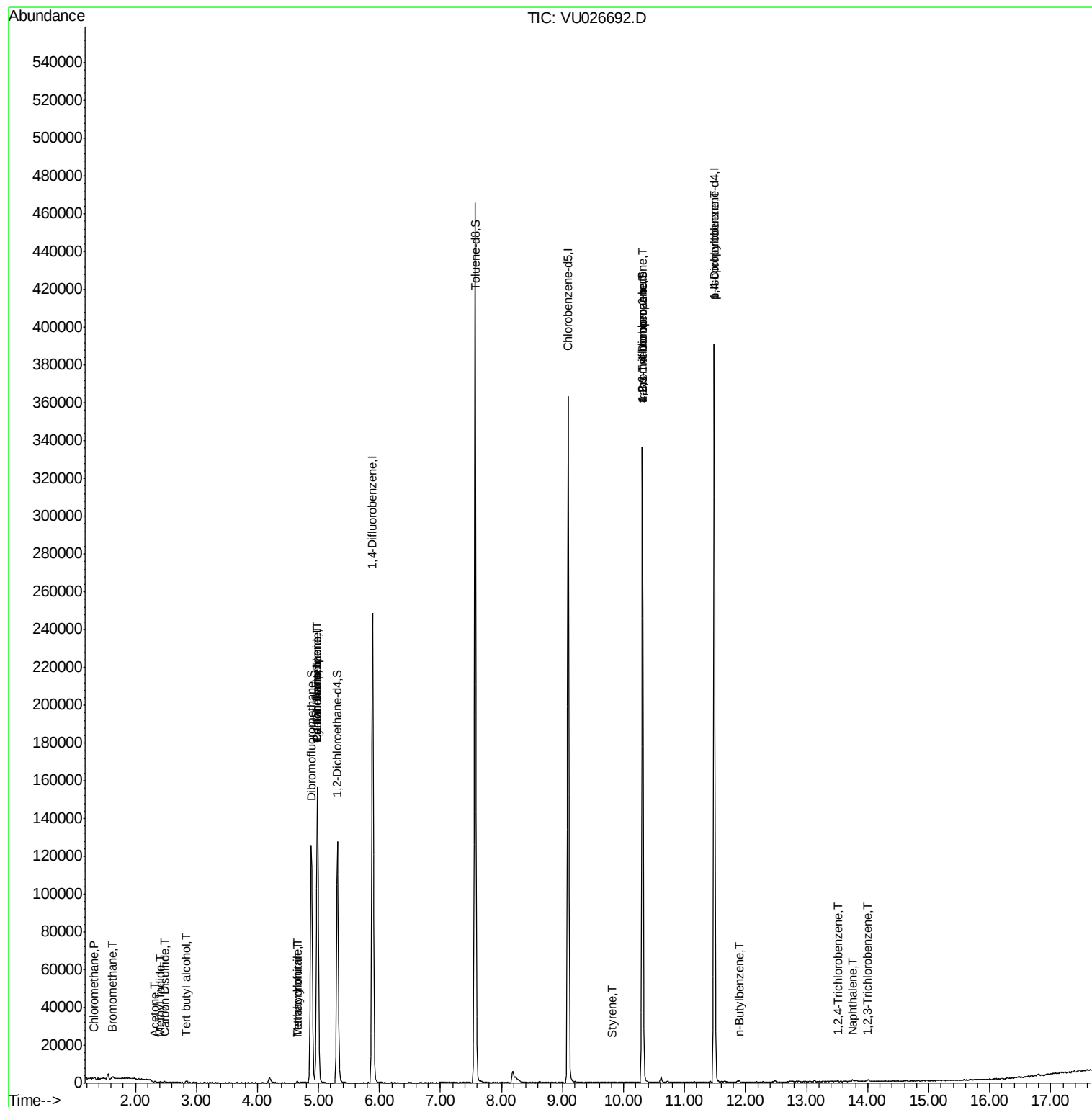
|                                |       |     |       |       |        | Qvalue |
|--------------------------------|-------|-----|-------|-------|--------|--------|
| 3) Chloromethane               | 1.33  | 50  | 1041  | 0.55  | ug/l   | 95     |
| 5) Bromomethane                | 1.63  | 94  | 666   | 0.54  | ug/l   | 91     |
| 10) Methyl Iodide              | 2.41  | 142 | 348   | 9.54  | ug/l # | 72     |
| 11) Tert butyl alcohol         | 2.84  | 59  | 574   | 1.24  | ug/l # | 73     |
| 16) Acetone                    | 2.32  | 43  | 447   | 0.42  | ug/l   | 90     |
| 17) Carbon Disulfide           | 2.48  | 76  | 1015  | 0.22  | ug/l # | 76     |
| 29) Tetrahydrofuran            | 4.66  | 42  | 500   | 0.57  | ug/l # | 56     |
| 31) Cyclohexane                | 4.98  | 56  | 2346  | 0.67  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 4.98  | 75  | 8776  | 3.70  | ug/l # | 49     |
| 38) Carbon Tetrachloride       | 4.98  | 117 | 11545 | 4.60  | ug/l # | 16     |
| 41) Methacrylonitrile          | 4.65  | 41  | 372   | 0.97  | ug/l # | 24     |
| 70) Styrene                    | 9.80  | 104 | 137   | 1.88  | ug/l # | 26     |
| 76) 1,2,3-Trichloropropane     | 10.31 | 75  | 53134 | 22.77 | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 10.31 | 75  | 53134 | 68.54 | ug/l # | 100    |
| 86) p-Isopropyltoluene         | 11.48 | 119 | 272   | 1.09  | ug/l # | 1      |
| 89) n-Butylbenzene             | 11.90 | 91  | 365   | 2.16  | ug/l # | 78     |
| 93) 1,2,4-Trichlorobenzene     | 13.51 | 180 | 492   | 0.20  | ug/l # | 71     |
| 95) Naphthalene                | 13.75 | 128 | 1267  | 1.17  | ug/l # | 76     |
| 96) 1,2,3-Trichlorobenzene     | 14.00 | 180 | 558   | 0.22  | ug/l # | 83     |

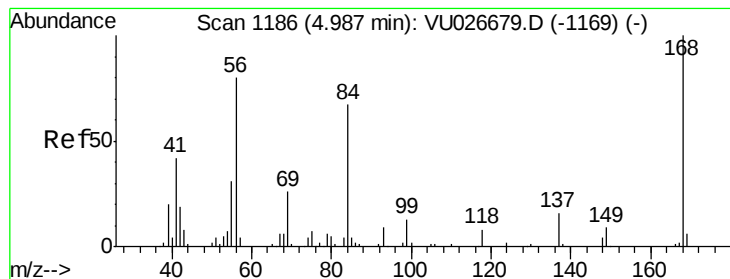
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA U\DATA\VU091218\  
Data File : VU026692.D  
Acq On : 12 Sep 2018 09:21  
Operator : MD/SY  
Sample : VU0912MBL01  
Misc : 5.00g/10mL/100uL/5.0mL/MSVOA\_U/MEOH  
ALS Vial : 18 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :

Quant Time: Sep 13 06:48:38 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\82U091218W.M  
Quant Title : SW846 8260  
QLast Update : Wed Sep 12 05:32:45 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 4.98 min Scan# 1185

Delta R.T. -0.00 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

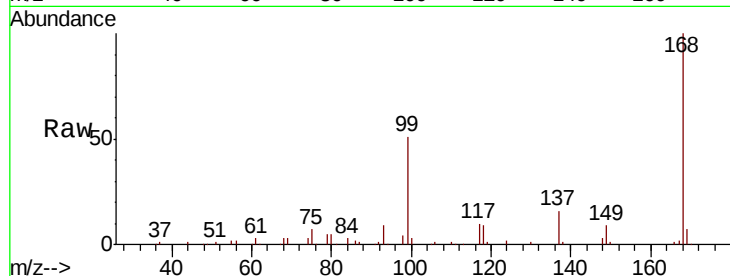
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:168 Resp: 124814

Ion Ratio Lower Upper

168 100

99 51.0 42.0 63.0



Abundance Ion 167.90 (167.60 to 168.60): VU026679.D (-1169) (-)

Ion 98.90 (98.60 to 99.60): VU026679.D (-1169) (-)

4.98

60000

50000

40000

30000

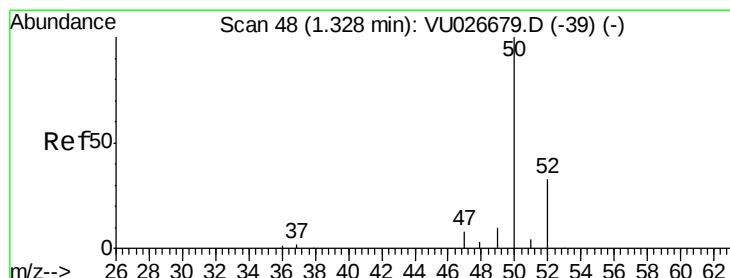
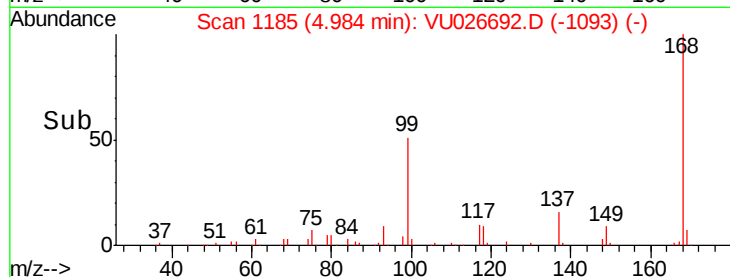
20000

10000

0

4.90 5.00 5.10

Time-->



#3

Chloromethane

Concen: 0.55 ug/l

RT: 1.33 min Scan# 48

Delta R.T. 0.00 min

Lab File: VU026692.D

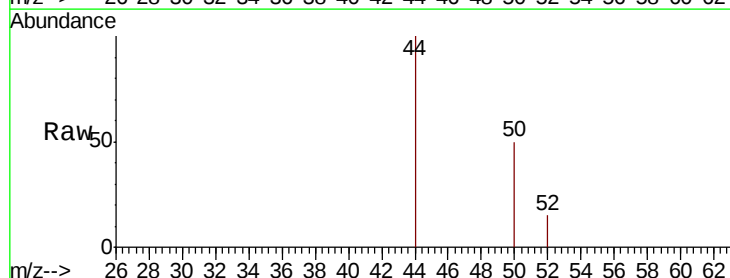
Acq: 12 Sep 2018 09:21

Tgt Ion: 50 Resp: 1041

Ion Ratio Lower Upper

50 100

52 30.2 26.3 39.5



Abundance Ion 49.90 (49.60 to 50.60): VU026679.D (-39) (-)

Ion 51.90 (51.60 to 52.60): VU026679.D (-39) (-)

1.33

1000

800

600

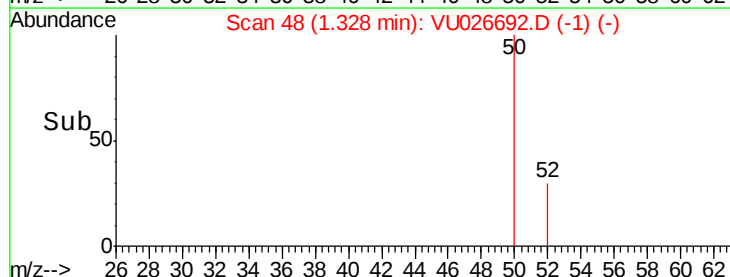
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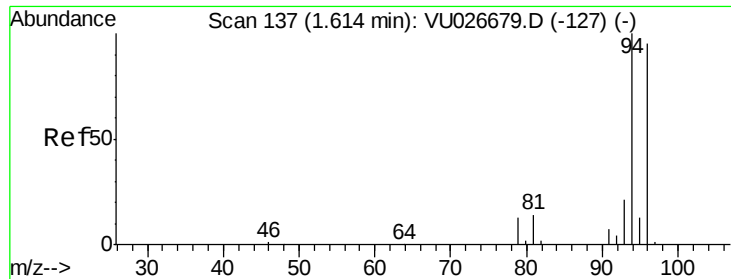
200

0

1.30 1.32 1.34 1.36

Time-->





#5

Bromomethane

Concen: 0.54 ug/l

RT: 1.63 min Scan# 142

Delta R.T. 0.02 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

Instrument :

MSVOA\_U

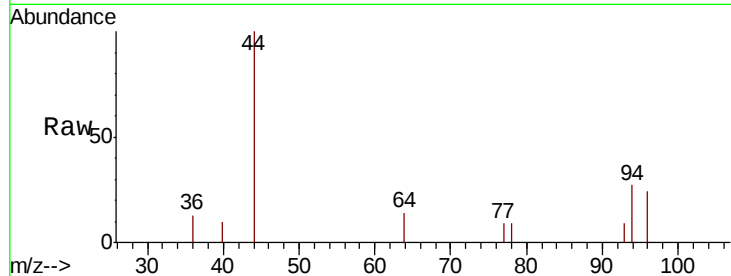
ClientSampled :

Tot Ion: 94 Resp: 666

Ion Ratio Lower Upper

94 100

96 85.7 75.8 113.6



Abundance Ion 93.90 (93.60 to 94.60): VU0

Ion 95.90 (95.60 to 96.60): VU0

1.63

400

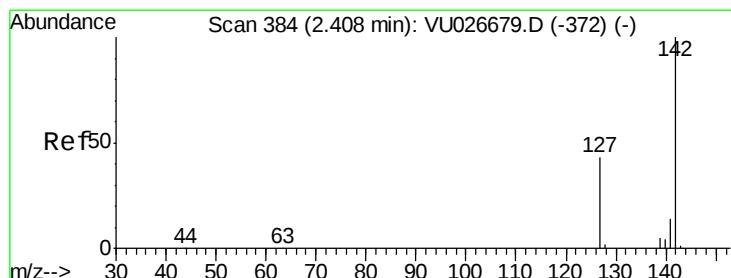
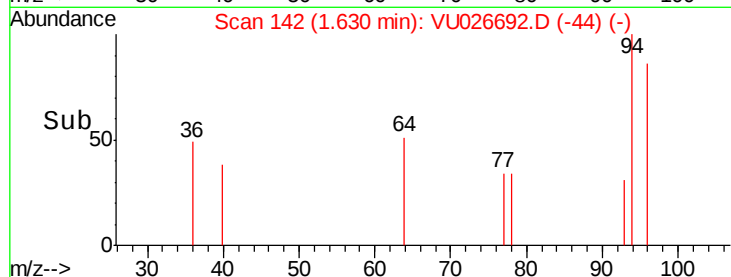
300

200

100

0

Time-->



#10

Methyl Iodide

Concen: 9.54 ug/l

RT: 2.41 min Scan# 386

Delta R.T. 0.01 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

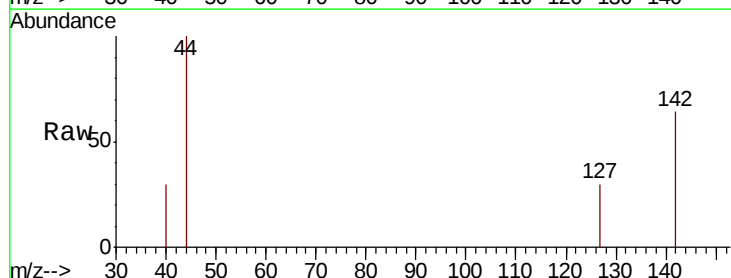
Tgt Ion: 142 Resp: 348

Ion Ratio Lower Upper

142 100

127 26.1 34.1 51.1#

141 0.0 11.2 16.8#



Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

300

250

200

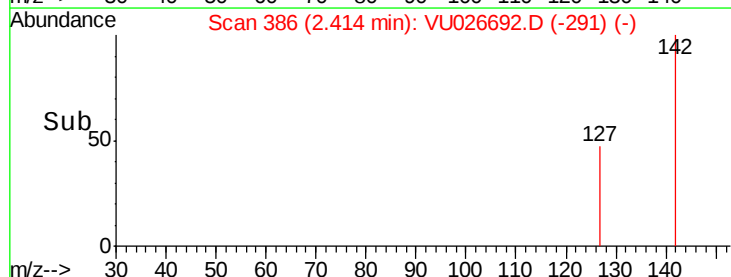
150

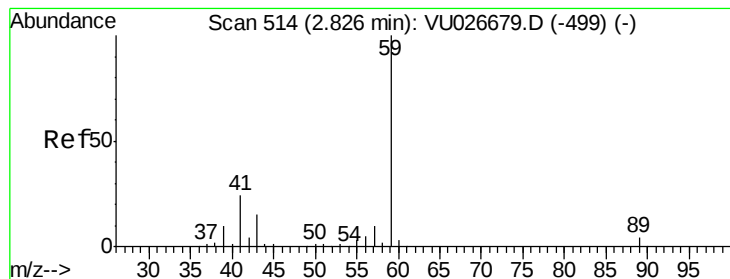
100

50

0

Time-->



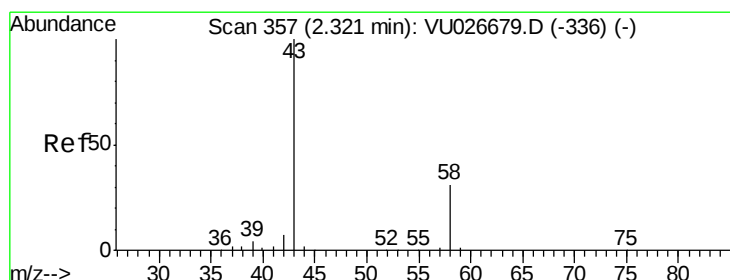
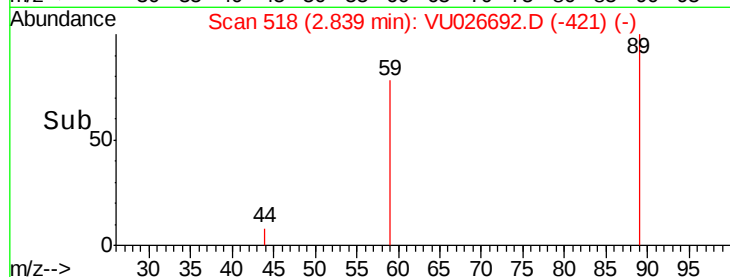
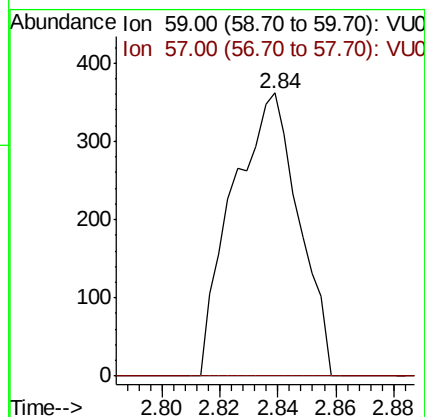
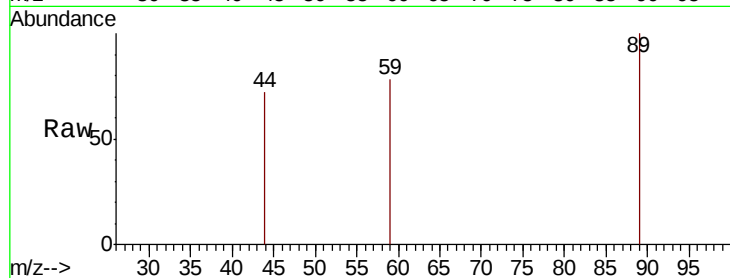


#11

Tert butyl alcohol  
 Concen: 1.24 ug/l  
 RT: 2.84 min Scan# 518  
 Delta R.T. 0.01 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Instrument :  
 MSVOA\_U  
 ClientSampleId :

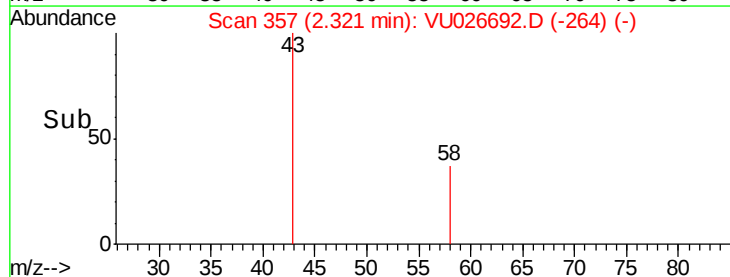
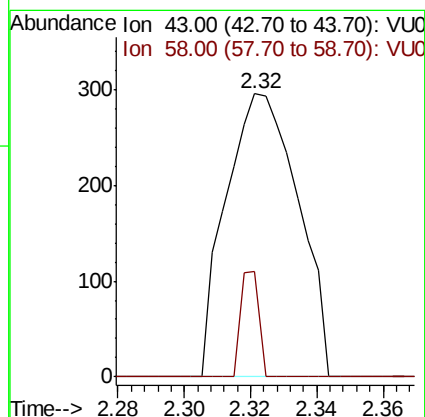
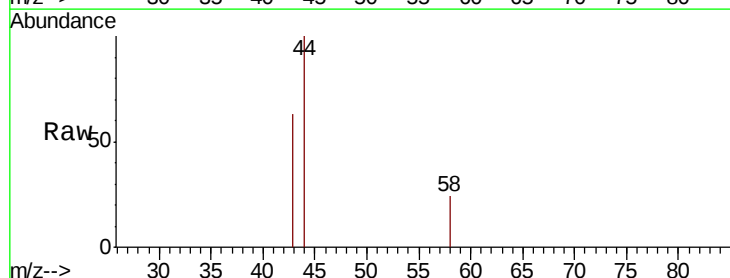
Tot Ion: 59 Resp: 574  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.0 12.0#

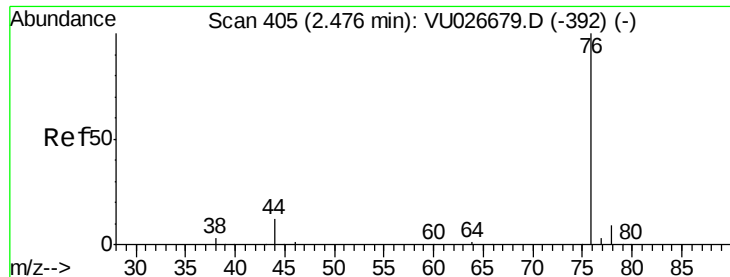


#16

Acetone  
 Concen: 0.42 ug/l  
 RT: 2.32 min Scan# 357  
 Delta R.T. 0.00 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Tgt Ion: 43 Resp: 447  
 Ion Ratio Lower Upper  
 43 100  
 58 37.2 25.1 37.7

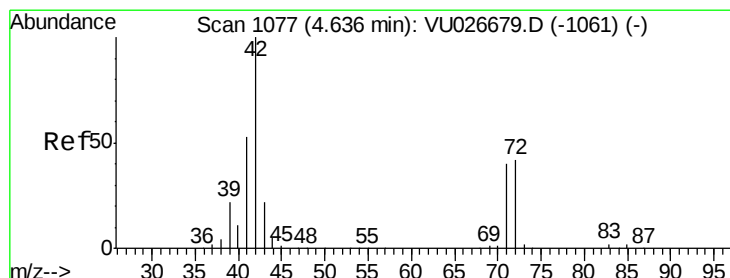
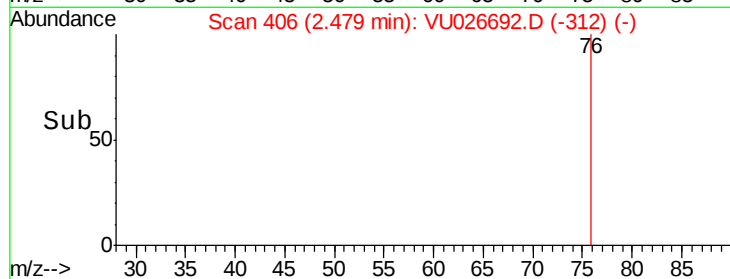
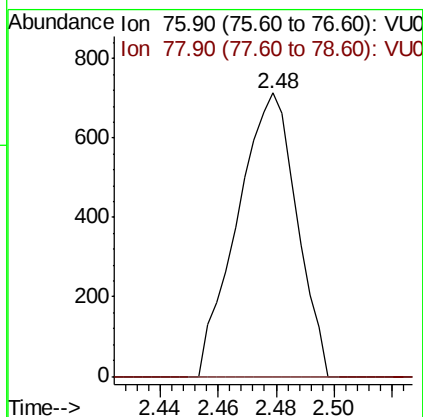
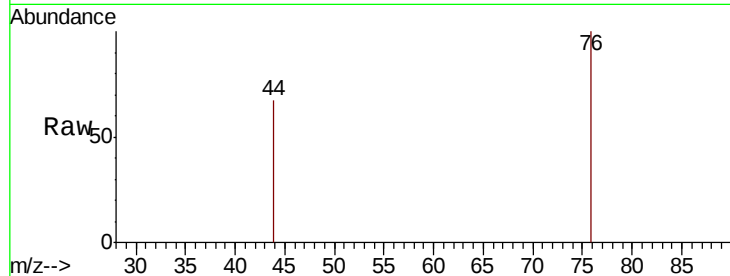




#17  
Carbon Disulfide  
Concen: 0.22 ug/l  
RT: 2.48 min Scan# 406  
Delta R.T. 0.00 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

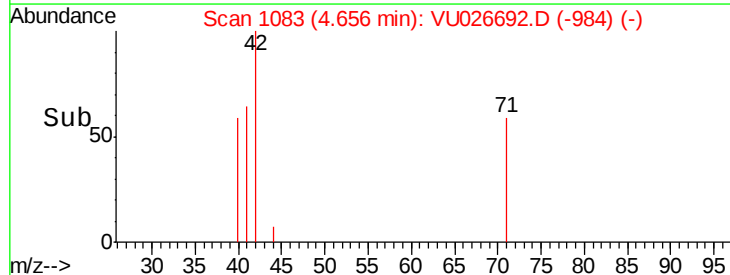
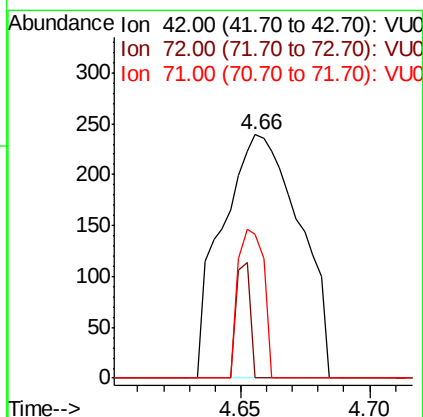
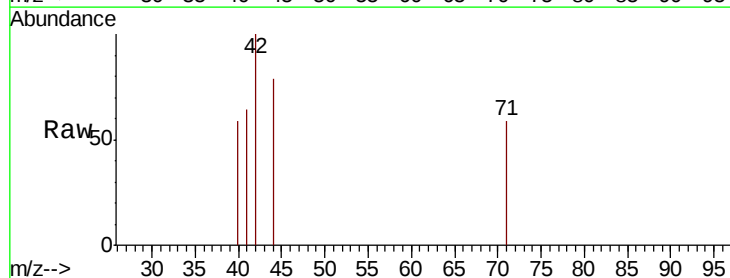
Instrument :  
MSVOA\_U  
ClientSampleId :

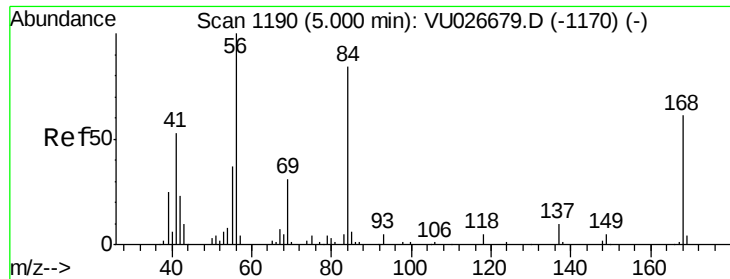
Tot Ion: 76 Resp: 1015  
Ion Ratio Lower Upper  
76 100  
78 0.0 7.0 10.6#



#29  
Tetrahydrofuran  
Concen: 0.57 ug/l  
RT: 4.66 min Scan# 1083  
Delta R.T. 0.02 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

Tgt Ion: 42 Resp: 500  
Ion Ratio Lower Upper  
42 100  
72 8.4 34.4 51.6#  
71 20.2 32.4 48.6#

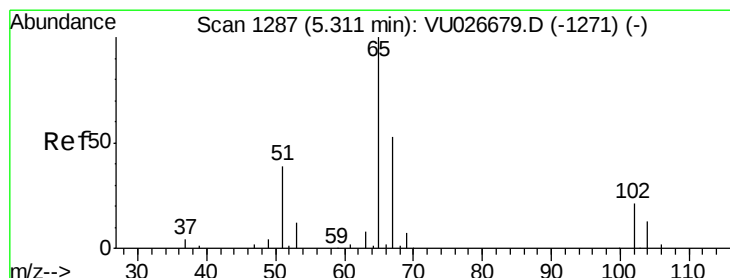
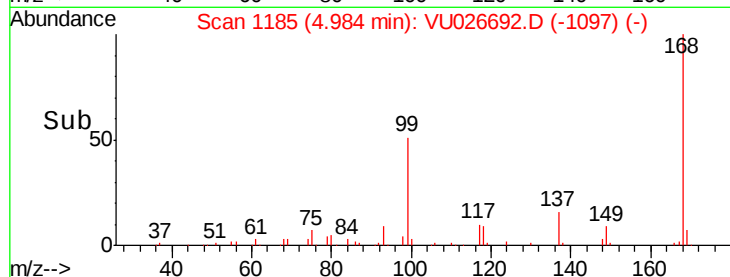
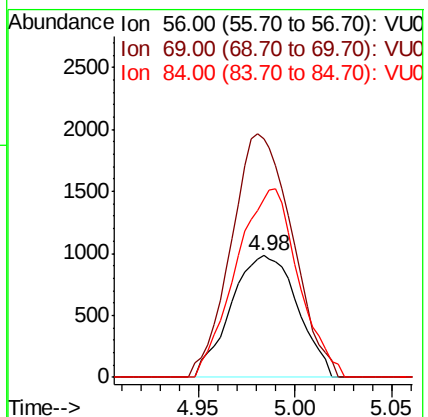
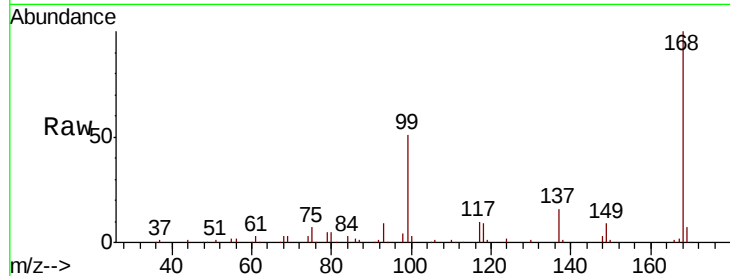




#31  
Cyclohexane  
Concen: 0.67 ug/l  
RT: 4.98 min Scan# 1185  
Delta R.T. -0.02 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

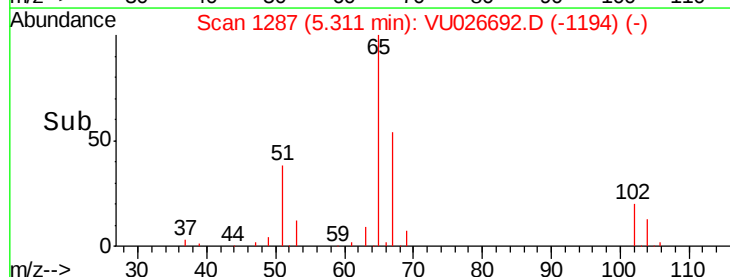
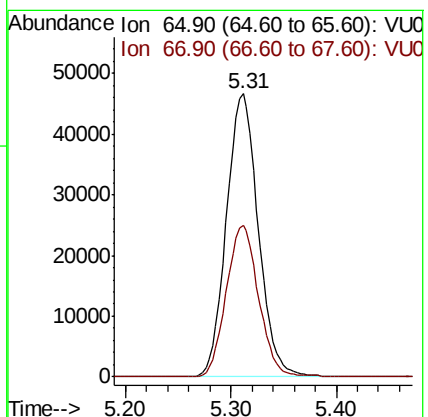
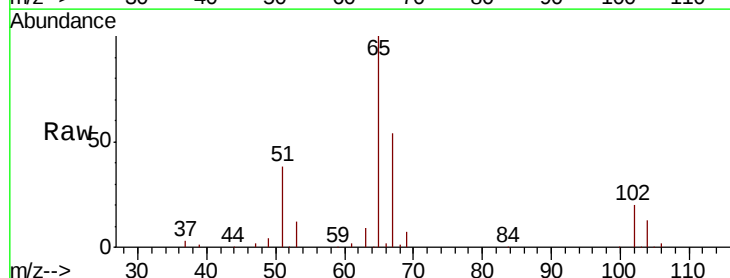
Instrument :  
MSVOA\_U  
ClientSampled :

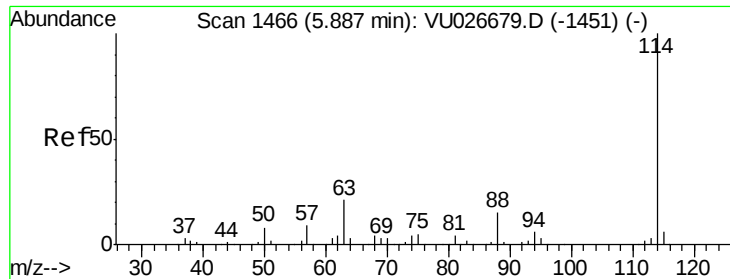
Tot Ion: 56 Resp: 2346  
Ion Ratio Lower Upper  
56 100  
69 195.8 24.9 37.3#  
84 146.9 66.6 100.0#



#33  
1,2-Dichloroethane-d4  
Concen: 51.61 ug/l  
RT: 5.31 min Scan# 1287  
Delta R.T. 0.00 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

Tgt Ion: 65 Resp: 97709  
Ion Ratio Lower Upper  
65 100  
67 54.1 0.0 106.4

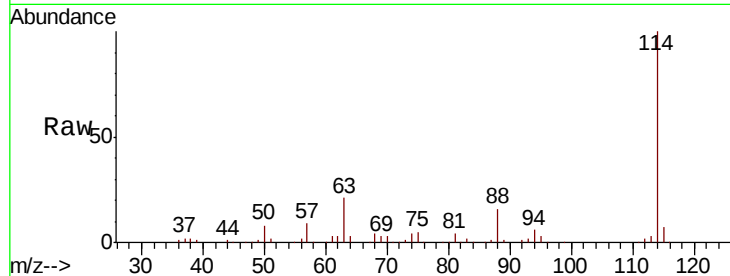




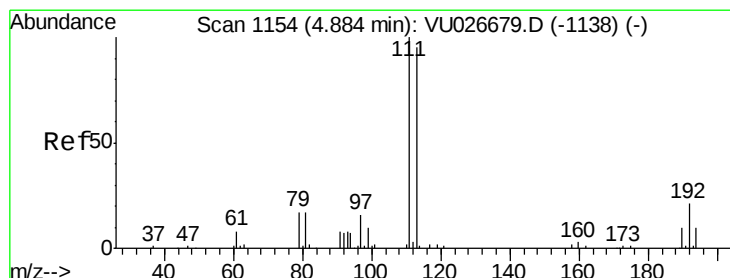
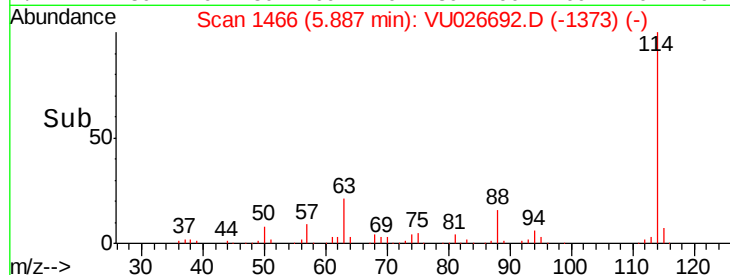
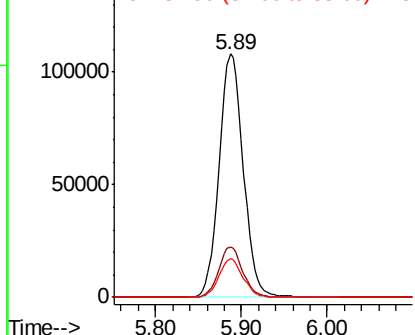
#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 5.89 min Scan# 1466  
 Delta R.T. 0.00 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Instrument :  
 MSVOA\_U  
 ClientSampled :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 20.9  | 0.0   | 41.4  |
| 88      | 15.9  | 0.0   | 30.8  |

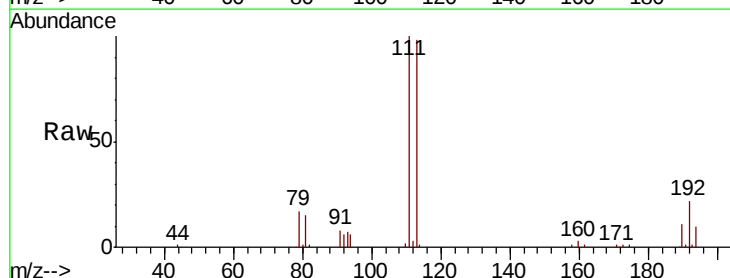


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VU0  
 Ion 87.90 (87.60 to 88.60): VU0

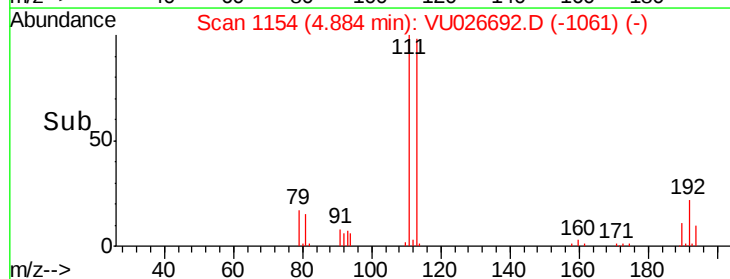
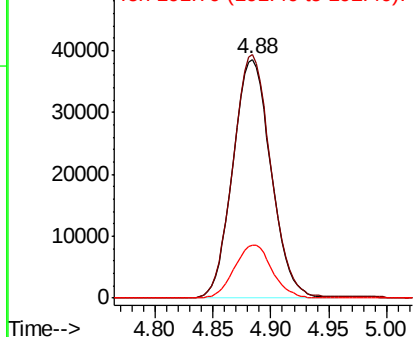


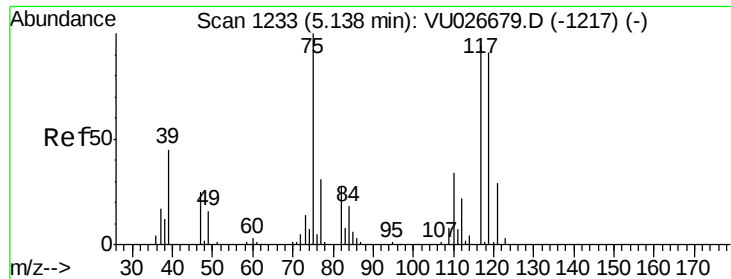
#35  
 Dibromofluoromethane  
 Concen: 51.07 ug/l  
 RT: 4.88 min Scan# 1154  
 Delta R.T. 0.00 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.5 | 83.1  | 124.7 |
| 192     | 22.1  | 17.4  | 26.2  |



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

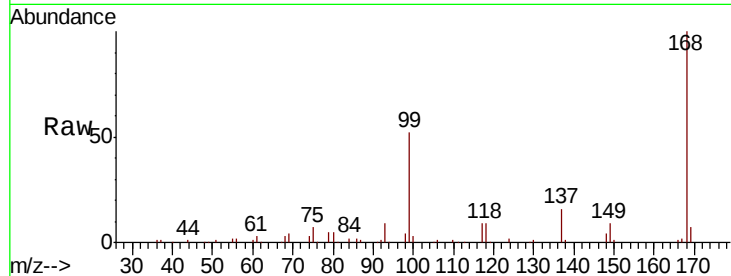




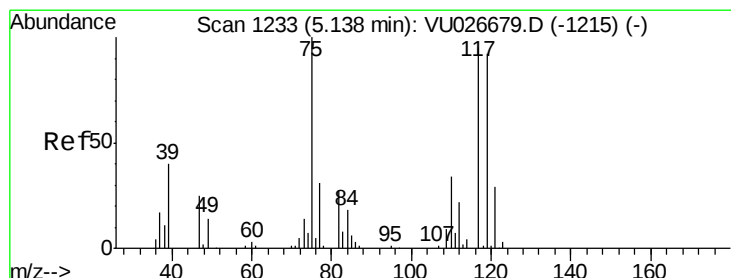
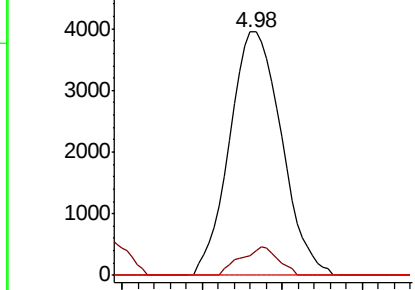
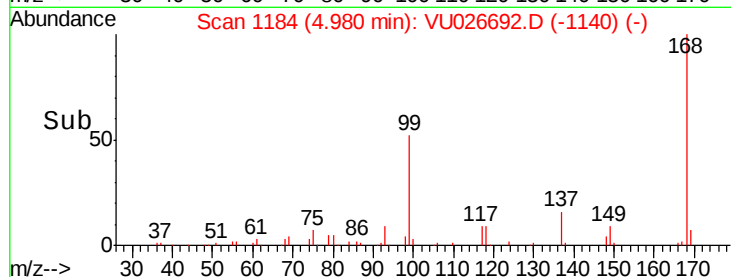
#36  
 1,1-Dichloropropene  
 Concen: 3.70 ug/l  
 RT: 4.98 min Scan# 1184  
 Delta R.T. -0.16 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Instrument :  
 MSVOA\_U  
 ClientSampled :

Tot Ion: 75 Resp: 8776  
 Ion Ratio Lower Upper  
 75 100  
 110 8.4 17.3 51.9#  
 77 0.0 24.9 37.3#

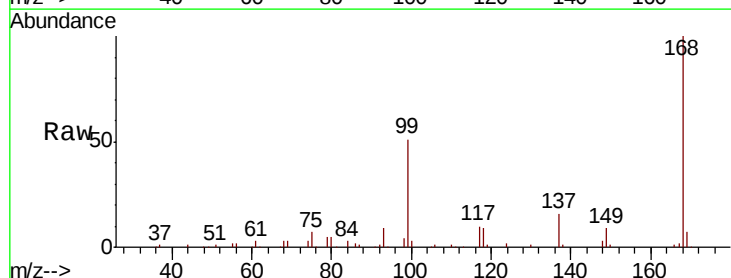


Abundance Ion 74.90 (74.60 to 75.60): VU0  
 Ion 109.90 (109.60 to 110.60): V  
 Ion 76.90 (76.60 to 77.60): VU0

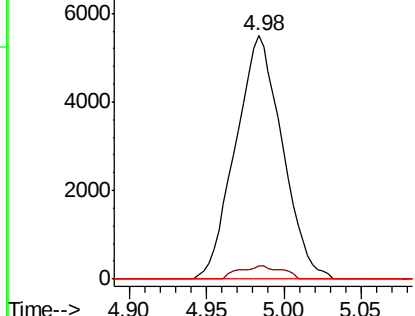
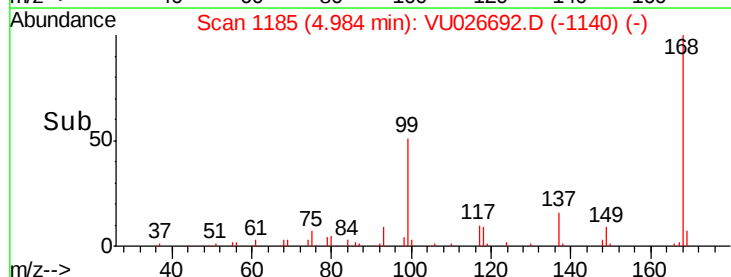


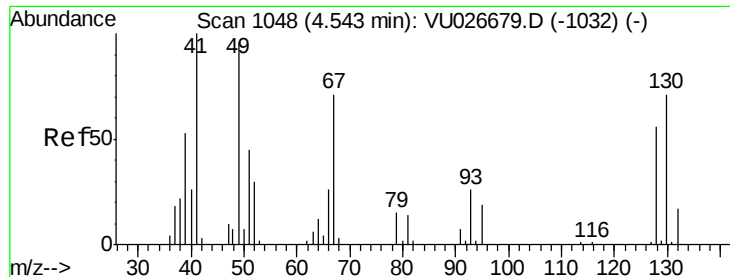
#38  
 Carbon Tetrachloride  
 Concen: 4.60 ug/l  
 RT: 4.98 min Scan# 1185  
 Delta R.T. -0.15 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Tgt Ion: 117 Resp: 11545  
 Ion Ratio Lower Upper  
 117 100  
 119 5.7 77.8 116.8#  
 121 0.0 25.0 37.4#



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

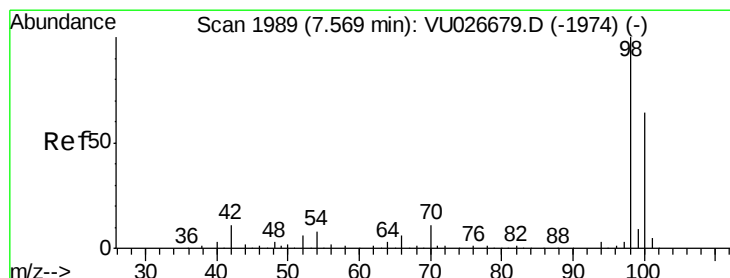
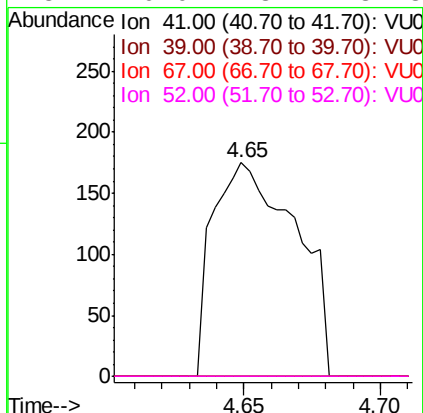
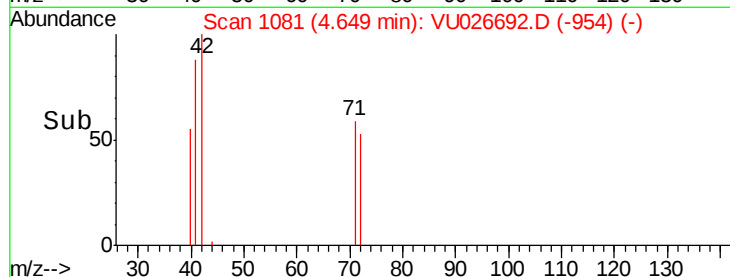
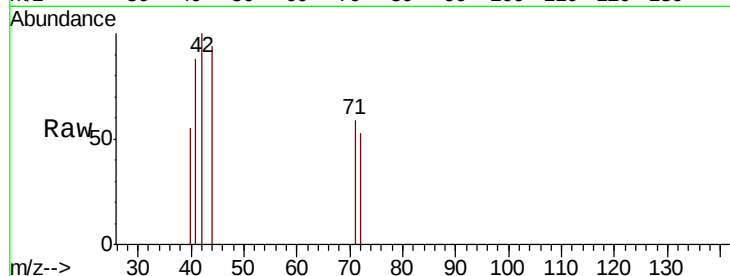




#41  
Methacrylonitrile  
Concen: 0.97 ug/l  
RT: 4.65 min Scan# 1081  
Delta R.T. 0.11 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

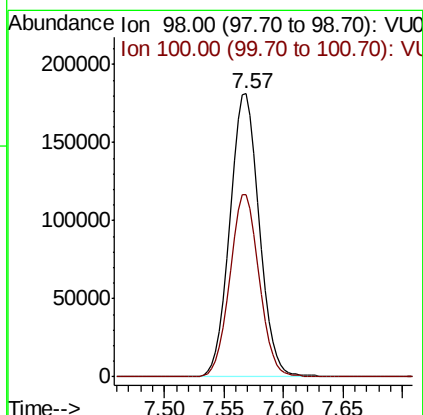
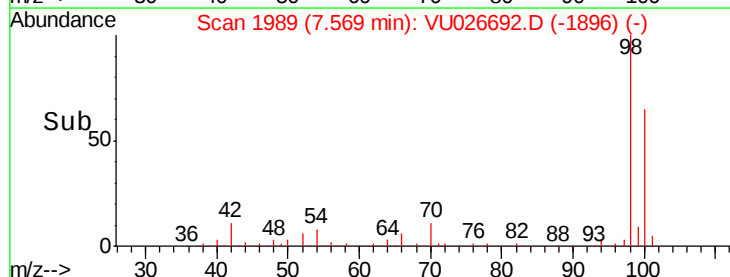
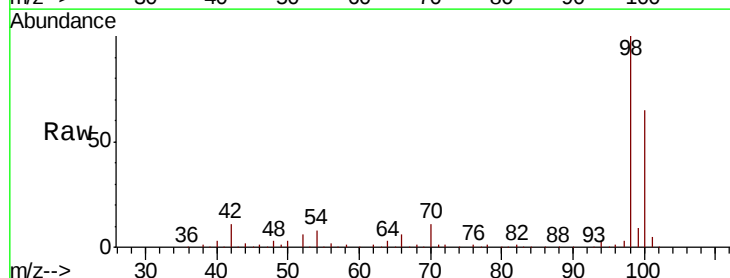
Instrument :  
MSVOA\_U  
ClientSampled :

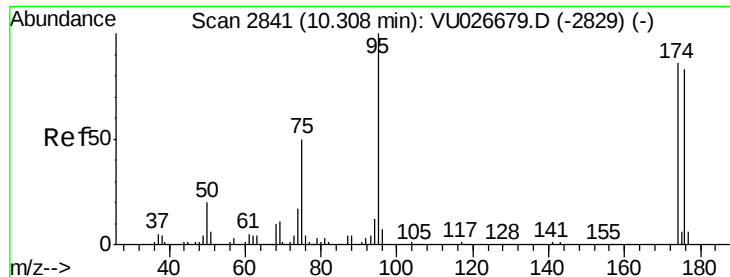
Tot Ion: 41 Resp: 372  
Ion Ratio Lower Upper  
41 100  
39 0.0 42.9 64.3#  
67 0.0 56.6 84.8#  
52 0.0 23.2 34.8#



#50  
Toluene-d8  
Concen: 48.75 ug/l  
RT: 7.57 min Scan# 1989  
Delta R.T. 0.00 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

Tgt Ion: 98 Resp: 310942  
Ion Ratio Lower Upper  
98 100  
100 64.6 51.2 76.8

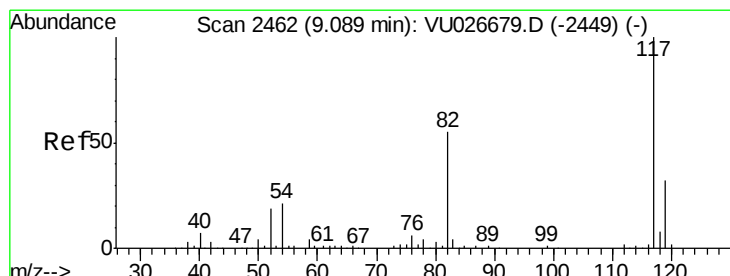
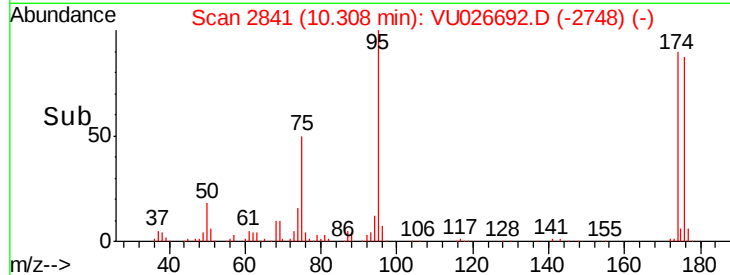
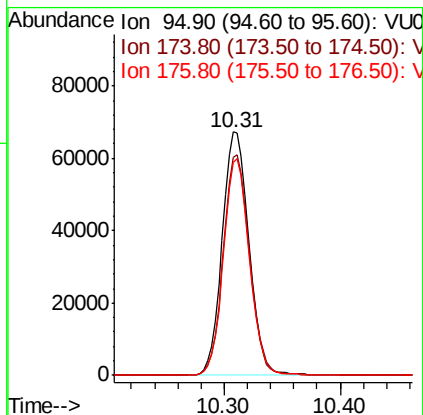
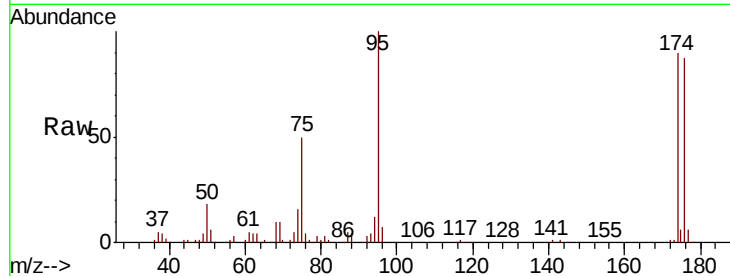




#62  
4-Bromofluorobenzene  
Concen: 46.37 ug/l  
RT: 10.31 min Scan# 2841  
Delta R.T. 0.00 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

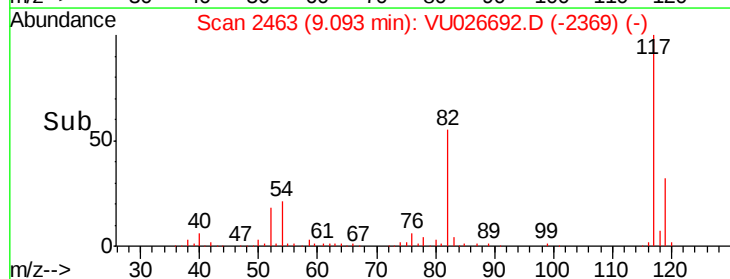
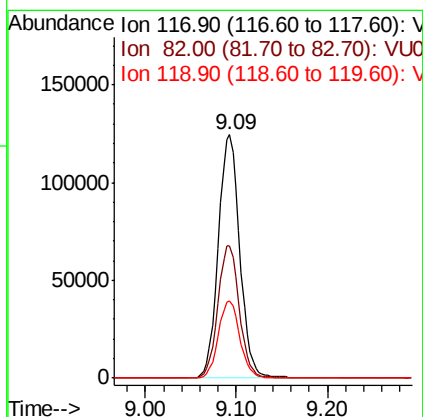
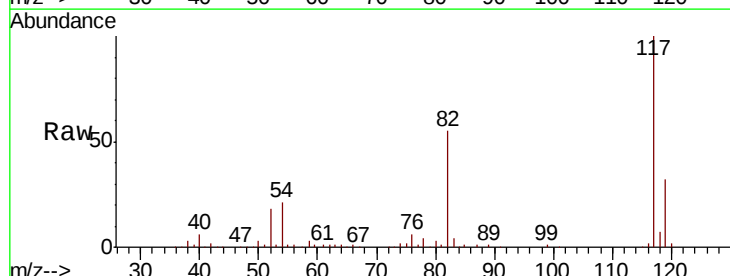
Instrument :  
MSVOA\_U  
ClientSampleId :

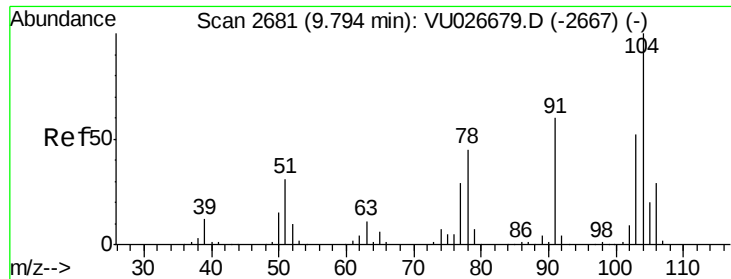
| Tot Ion   | 95    | Resp  | 107195 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 95        | 100   |       |        |
| 174       | 89.3  | 0.0   | 172.8  |
| 176       | 86.3  | 0.0   | 168.6  |



#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 9.09 min Scan# 2463  
Delta R.T. 0.00 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

| Tgt Ion   | 117   | Resp  | 203586 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 117       | 100   |       |        |
| 82        | 54.6  | 44.1  | 66.1   |
| 119       | 31.7  | 25.7  | 38.5   |

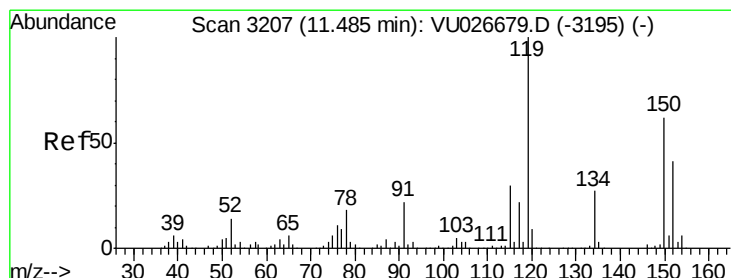
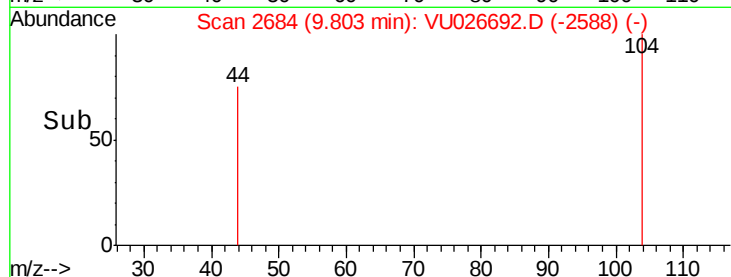
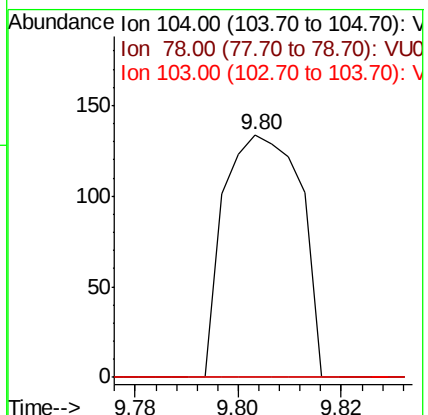
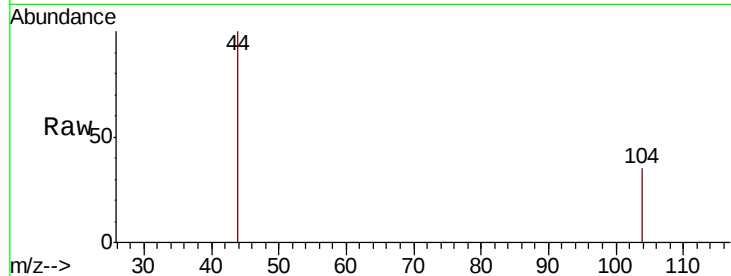




#70  
Stvrene  
Concen: 1.88 ug/l  
RT: 9.80 min Scan# 2684  
Delta R.T. 0.01 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

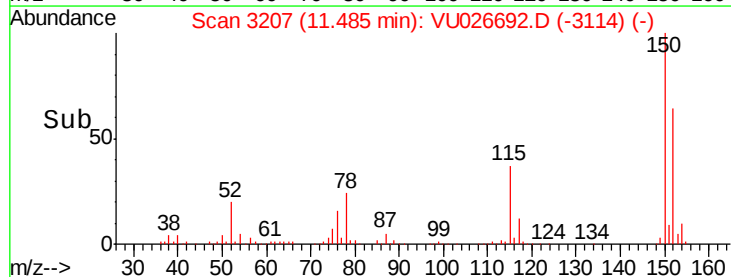
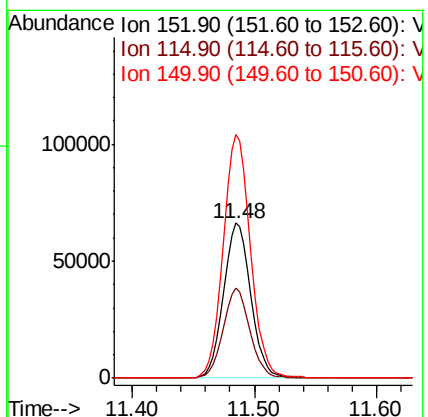
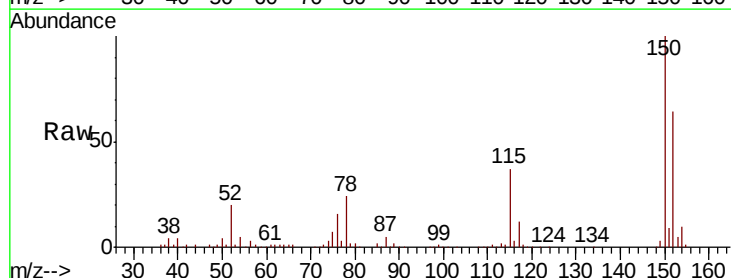
Instrument :  
MSVOA\_U  
ClientSampleId :

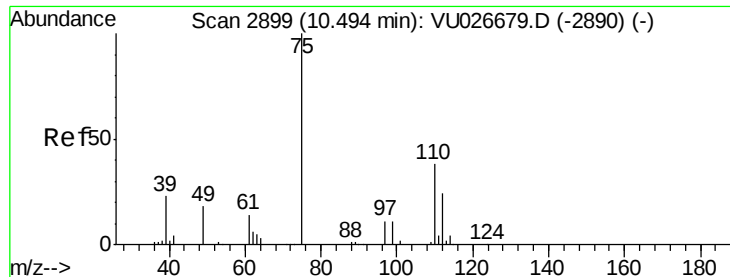
Tot Ion:104 Resp: 137  
Ion Ratio Lower Upper  
104 100  
78 0.0 39.4 59.2#  
103 0.0 44.5 66.7#



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 11.48 min Scan# 3207  
Delta R.T. 0.00 min  
Lab File: VU026692.D  
Acq: 12 Sep 2018 09:21

Tgt Ion:152 Resp: 104170  
Ion Ratio Lower Upper  
152 100  
115 56.8 40.4 121.1  
150 156.9 0.0 345.2





#76

1,2,3-Trichloropropane

Concen: 22.77 ug/l

RT: 10.31 min Scan# 2841

Delta R.T. -0.19 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

Instrument :

MSVOA\_U

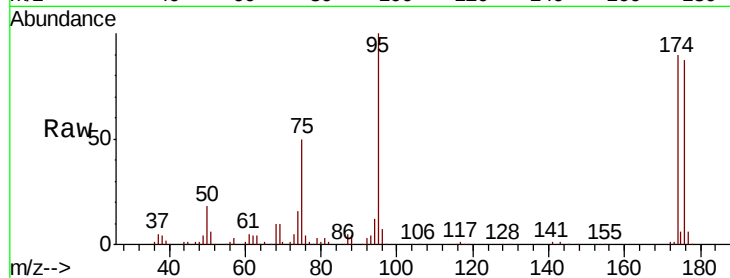
ClientSampleId :

Tot Ion: 75 Resp: 53134

Ion Ratio Lower Upper

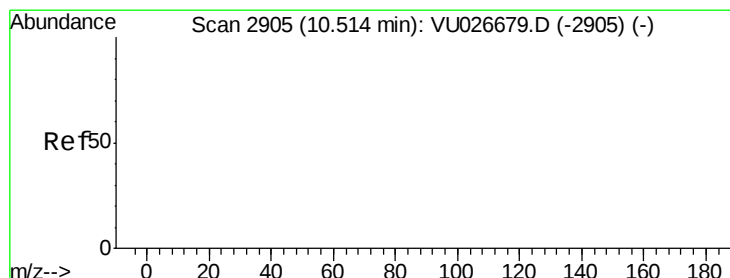
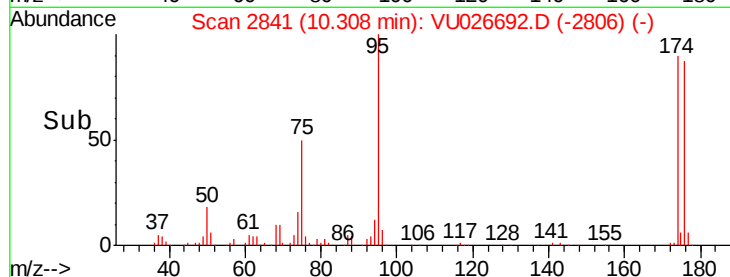
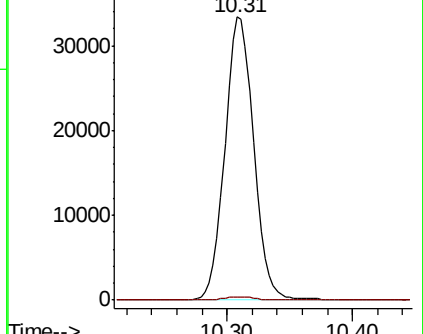
75 100

77 1.2 21.1 63.1#



Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 77.00 (76.70 to 77.70): VU0



#81

trans-1,4-Dichloro-2-butene

Concen: 68.54 ug/l

RT: 10.31 min Scan# 2841

Delta R.T. -0.20 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

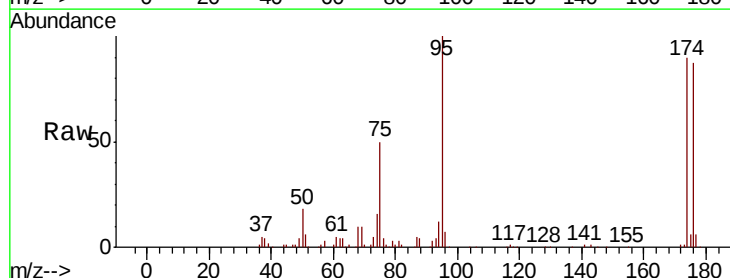
Tgt Ion: 75 Resp: 53134

Ion Ratio Lower Upper

75 100

53 0.0 0.0 0.0

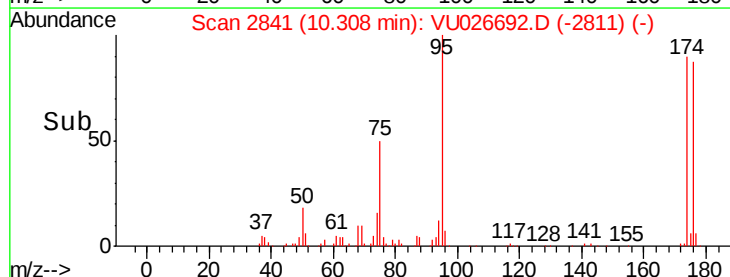
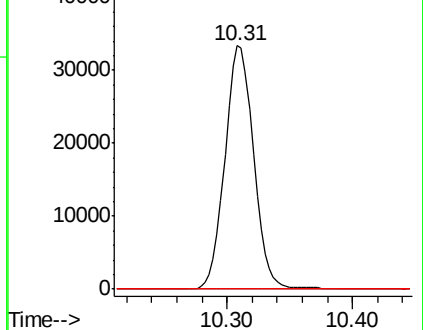
89 0.0 0.0 0.0

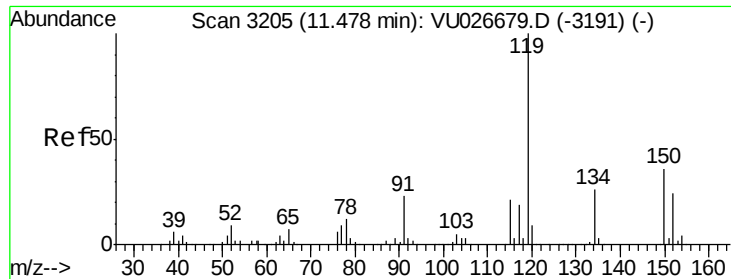


Abundance Ion 74.90 (74.60 to 75.60): VU0

Ion 53.00 (52.70 to 53.70): VU0

Ion 88.90 (88.60 to 89.60): VU0





#86

p-Isopropyltoluene

Concen: 1.09 ug/l

RT: 11.48 min Scan# 3204

Delta R.T. -0.00 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

Instrument :

MSVOA\_U

ClientSampleId :

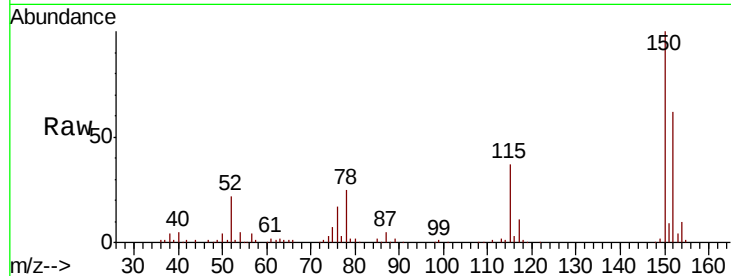
Tot Ion: 119 Resp: 272

Ion Ratio Lower Upper

119 100

134 14.7 13.2 39.5

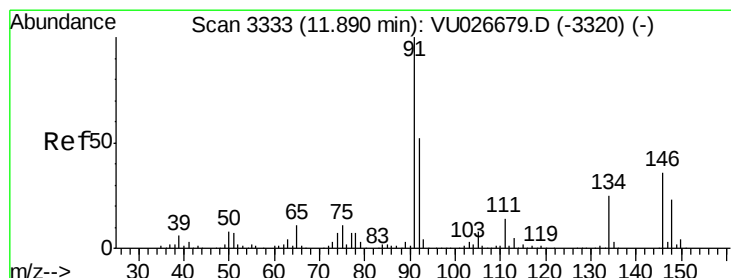
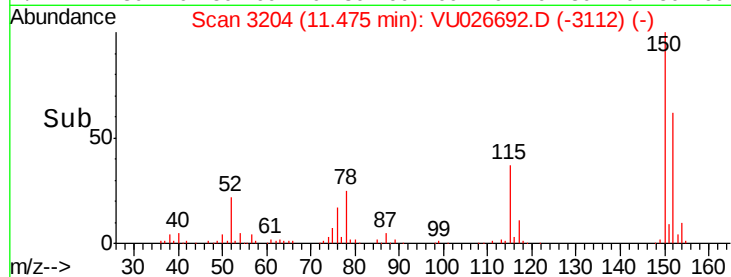
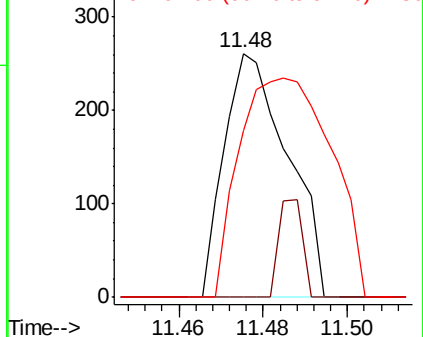
91 130.5 11.6 34.8#



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 134.00 (133.70 to 134.70): V

Ion 91.00 (90.70 to 91.70): V



#89

n-Butylbenzene

Concen: 2.16 ug/l

RT: 11.90 min Scan# 3335

Delta R.T. 0.01 min

Lab File: VU026692.D

Acq: 12 Sep 2018 09:21

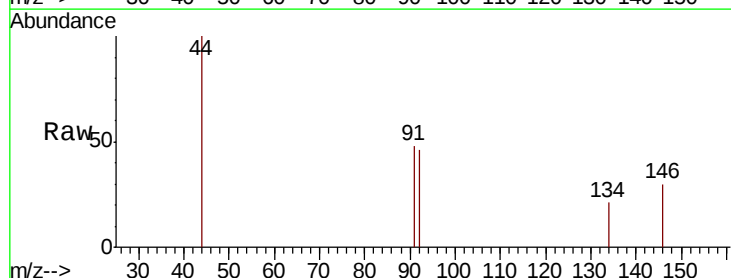
Tgt Ion: 91 Resp: 365

Ion Ratio Lower Upper

91 100

92 38.6 25.8 77.3

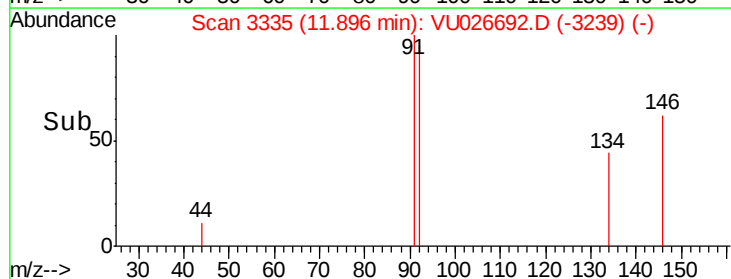
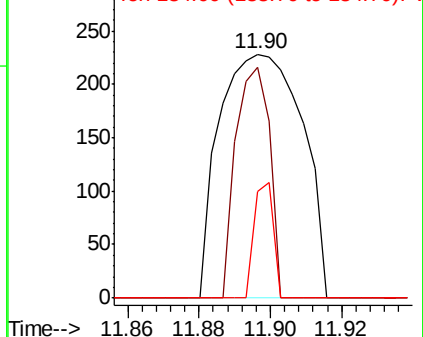
134 11.0 12.6 37.8#

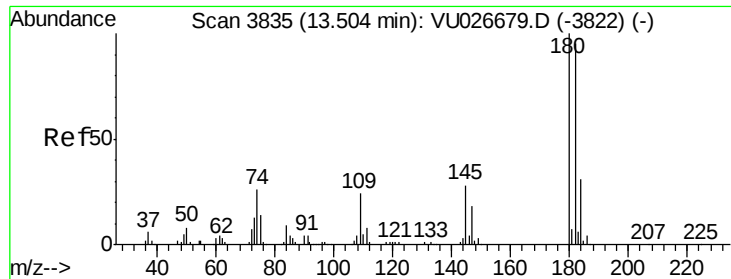


Abundance Ion 91.00 (90.70 to 91.70): V

Ion 92.00 (91.70 to 92.70): V

Ion 134.00 (133.70 to 134.70): V

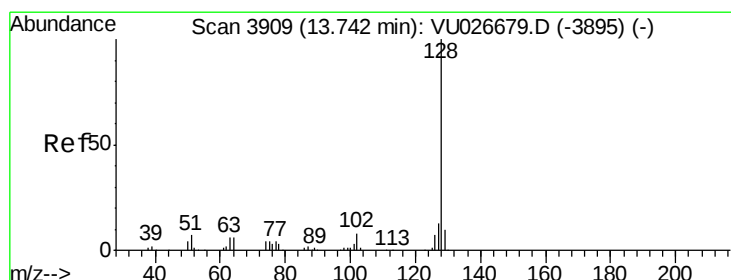
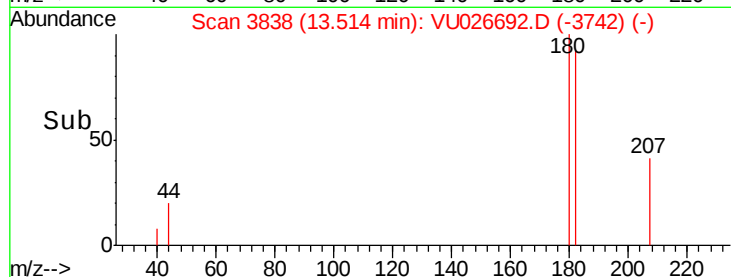
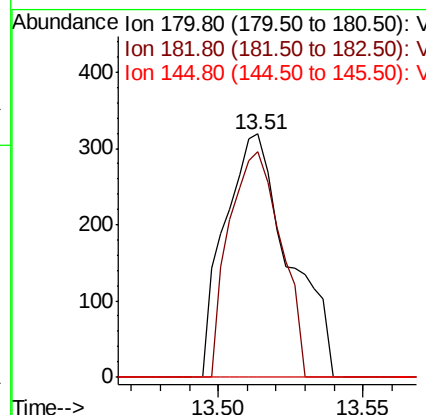
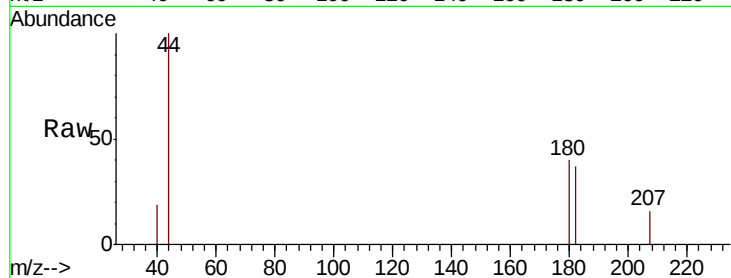




#93  
 1,2,4-Trichlorobenzene  
 Concen: 0.20 ug/l  
 RT: 13.51 min Scan# 3838  
 Delta R.T. 0.01 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

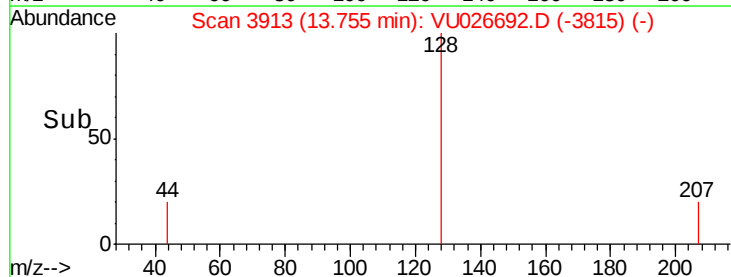
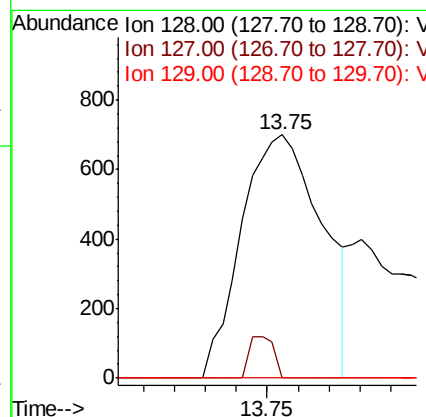
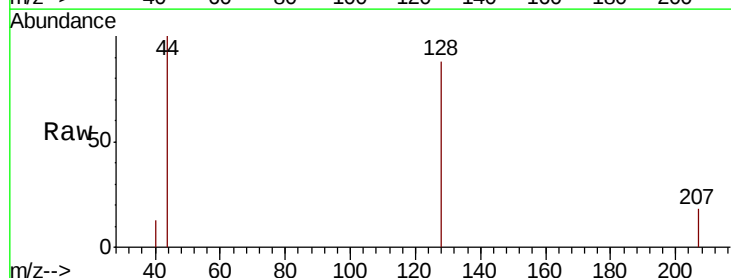
Instrument :  
 MSVOA\_U  
 ClientSampleId :

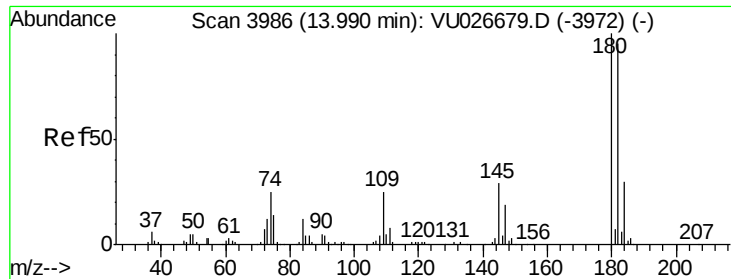
Tot Ion:180 Resp: 492  
 Ion Ratio Lower Upper  
 180 100  
 182 74.6 47.9 143.7  
 145 0.0 14.0 42.0#



#95  
 Naphthalene  
 Concen: 1.17 ug/l  
 RT: 13.75 min Scan# 3913  
 Delta R.T. 0.01 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Tgt Ion:128 Resp: 1267  
 Ion Ratio Lower Upper  
 128 100  
 127 5.2 10.4 15.6#  
 129 0.0 8.6 12.8#





#96  
 1,2,3-Trichlorobenzene  
 Concen: 0.22 ug/l  
 RT: 14.00 min Scan# 3989  
 Delta R.T. 0.01 min  
 Lab File: VU026692.D  
 Acq: 12 Sep 2018 09:21

Instrument :  
 MSVOA\_U  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 91.0  | 47.9  | 143.7 |
| 145     | 0.0   | 14.9  | 44.9# |

