

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U111318\  
 Data File : VU028086.D  
 Acq On : 13 Nov 2018 12:53  
 Operator : MD/SY  
 Sample : J5921-02  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SP-TANK2-N48963

Quant Time: Nov 14 07:36:33 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      | 4.98  | 168  | 225844   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 5.89  | 114  | 422929   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 9.09  | 117  | 378769   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 158340   | 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   | 181149   | 53.95 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.90% |          |
| 35) Dibromofluoromethane    | 4.88  | 113  | 135208   | 50.70 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.40% |          |
| 50) Toluene-d8              | 7.57  | 98   | 541361   | 52.55 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 105.10% |          |
| 62) 4-Bromofluorobenzene    | 10.31 | 95   | 186612   | 49.12 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 98.24%  |          |

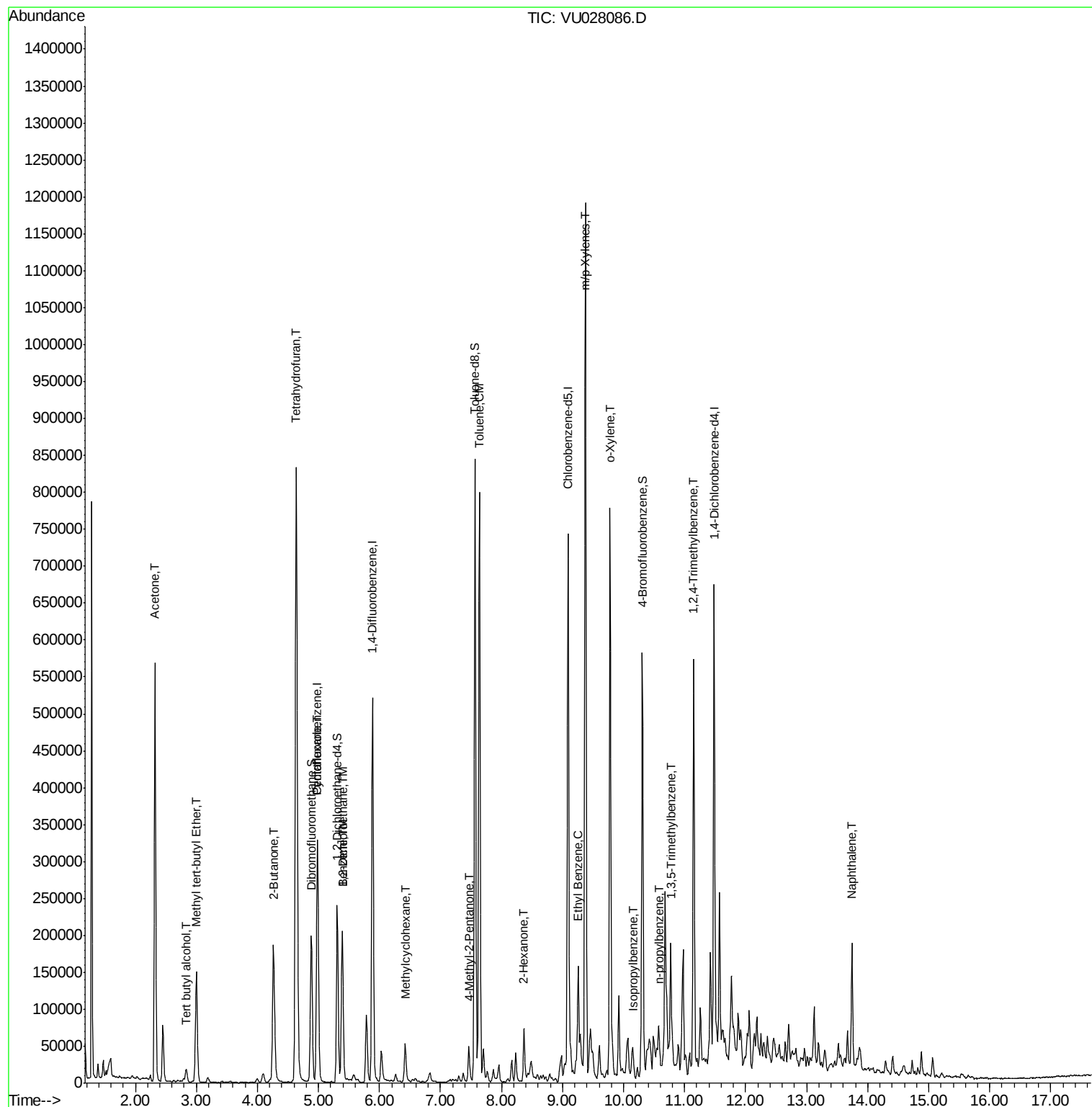
| Target Compounds            | R.T.  | QIon | Response | Conc    | Units  | Qvalue |
|-----------------------------|-------|------|----------|---------|--------|--------|
| 11) Tert butyl alcohol      | 2.83  | 59   | 20868    | 23.476  | ug/l   | 100    |
| 16) Acetone                 | 2.32  | 43   | 578053   | 277.475 | ug/l   | 98     |
| 19) Methyl tert-butyl Ether | 3.00  | 73   | 154836   | 16.221  | ug/l   | 98     |
| 25) 2-Butanone              | 4.26  | 43   | 303850   | 91.679  | ug/l   | 96     |
| 29) Tetrahydrofuran         | 4.64  | 42   | 666639   | 301.227 | ug/l   | 98     |
| 31) Cyclohexane             | 4.99  | 56   | 21046    | 1.982   | ug/l # | 65     |
| 39) Methylcyclohexane       | 6.42  | 83   | 5813     | 1.088   | ug/l   | 94     |
| 40) Benzene                 | 5.39  | 78   | 192121   | 14.186  | ug/l   | 100    |
| 42) 1,2-Dichloroethane      | 5.40  | 62   | 12157    | 2.525   | ug/l   | 95     |
| 51) 4-Methyl-2-Pentanone    | 7.46  | 43   | 36000    | 5.301   | ug/l   | 97     |
| 52) Toluene                 | 7.64  | 92   | 327996   | 41.197  | ug/l   | 98     |
| 59) 2-Hexanone              | 8.37  | 43   | 41543    | 7.910   | ug/l   | 99     |
| 67) Ethyl Benzene           | 9.25  | 91   | 70409    | 4.780   | ug/l   | 97     |
| 68) m/p-Xylenes             | 9.37  | 106  | 321896   | 60.229  | ug/l   | 99     |
| 69) o-Xylene                | 9.78  | 106  | 195018   | 36.135  | ug/l   | 98     |
| 73) Isopropylbenzene        | 10.17 | 105  | 4913     | 0.401   | ug/l   | 96     |
| 78) n-propylbenzene         | 10.59 | 91   | 11091    | 0.755   | ug/l   | 96     |
| 80) 1,3,5-Trimethylbenzene  | 10.77 | 105  | 68045    | 6.696   | ug/l   | 98     |
| 84) 1,2,4-Trimethylbenzene  | 11.15 | 105  | 277362   | 27.107  | ug/l   | 99     |
| 95) Naphthalene             | 13.74 | 128  | 125238   | 9.495   | ug/l   | 99     |

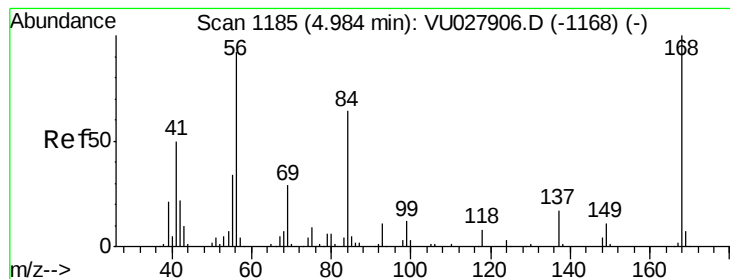
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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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: 4.98 min Scan# 1185

Delta R.T. 0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

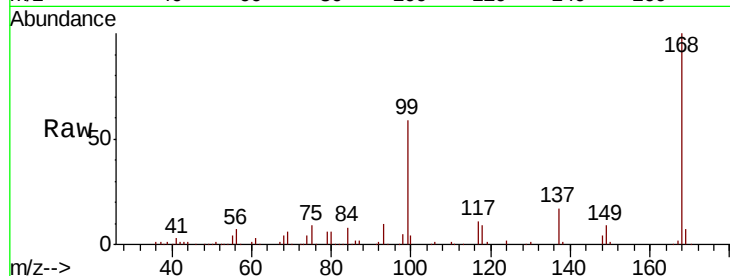
SP-TANK2-N48963

Tot Ion:168 Resp: 225844

Ion Ratio Lower Upper

168 100

99 58.5 47.9 71.9



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

Ion 98.90 (98.60 to 99.60): VU028086.D (-1092) (-)

4.98

100000

80000

60000

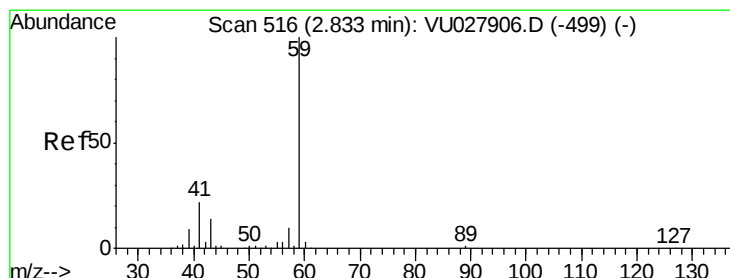
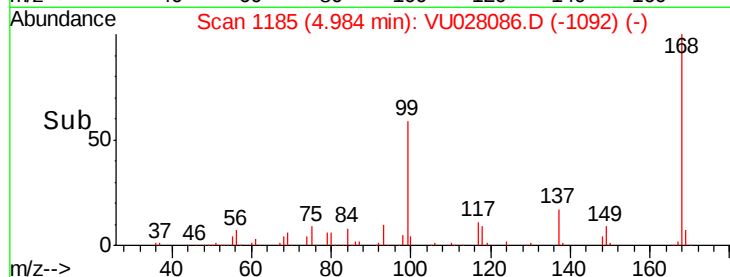
40000

20000

0

Time-->

4.90 5.00 5.10



#11

Tert butyl alcohol

Concen: 23.476 ug/l

RT: 2.83 min Scan# 516

Delta R.T. 0.00 min

Lab File: VU028086.D

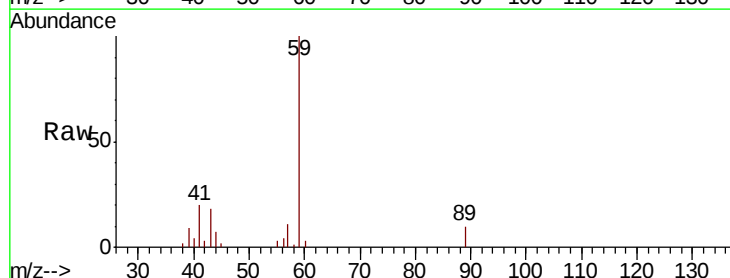
Acq: 13 Nov 2018 12:53

Tgt Ion: 59 Resp: 20868

Ion Ratio Lower Upper

59 100

57 9.8 7.8 11.8



Abundance Ion 59.00 (58.70 to 59.70): VU027906.D (-499) (-)

Ion 57.00 (56.70 to 57.70): VU028086.D (-423) (-)

2.83

10000

8000

6000

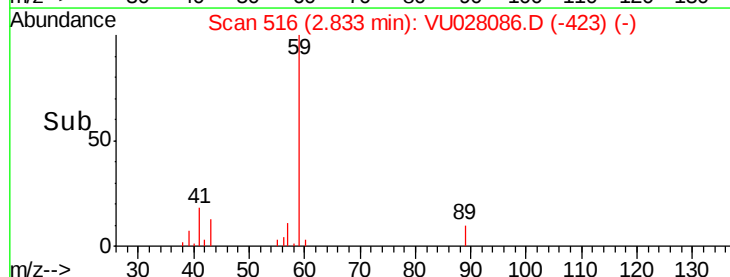
4000

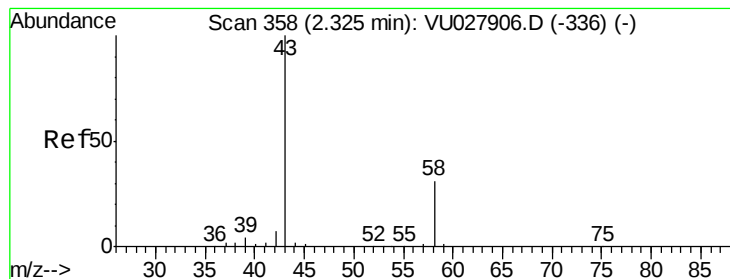
2000

0

Time-->

2.75 2.80 2.85 2.90





#16

Acetone

Concen: 277.475 ug/l

RT: 2.32 min Scan# 357

Delta R.T. -0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

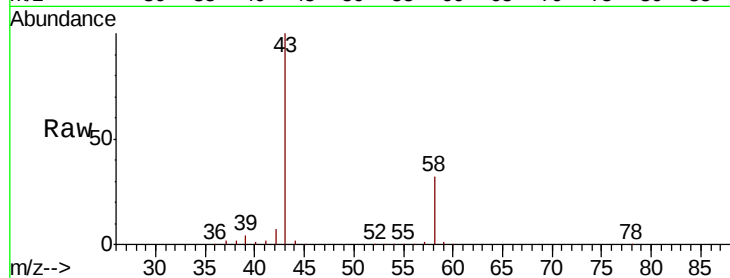
SP-TANK2-N48963

Tot Ion: 43 Resp: 578053

Ion Ratio Lower Upper

43 100

58 32.0 24.6 37.0



Abundance Ion 43.00 (42.70 to 43.70): VU027906.D (-336) (-)

Ion 58.00 (57.70 to 58.70): VU027906.D (-336) (-)

2.32

400000

300000

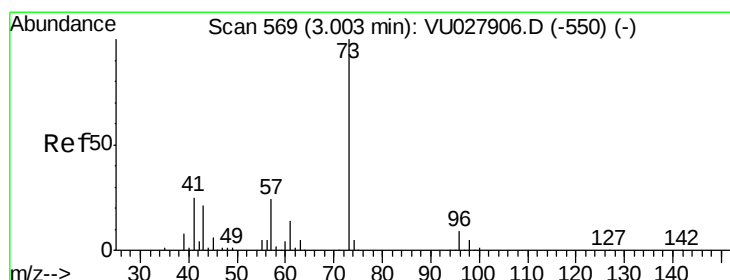
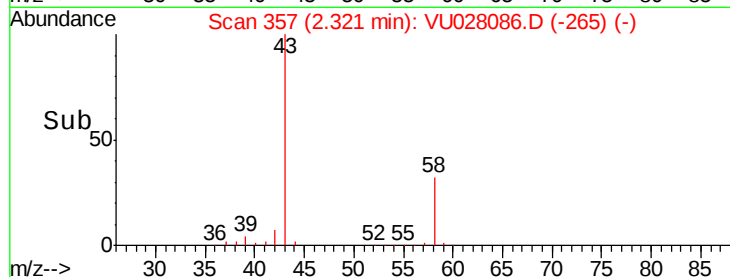
200000

100000

0

2.30 2.40

Time-->



#19

Methyl tert-butyl Ether

Concen: 16.221 ug/l

RT: 3.00 min Scan# 568

Delta R.T. -0.00 min

Lab File: VU028086.D

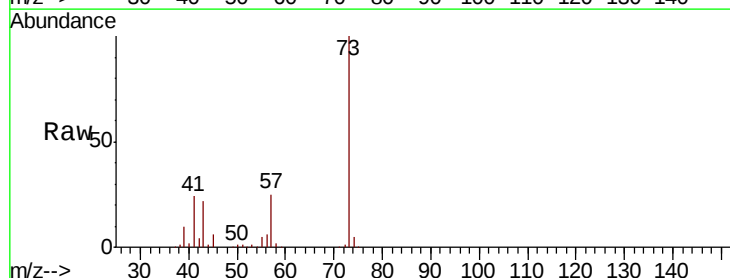
Acq: 13 Nov 2018 12:53

Tgt Ion: 73 Resp: 154836

Ion Ratio Lower Upper

73 100

57 25.0 19.3 28.9



Abundance Ion 73.00 (72.70 to 73.70): VU027906.D (-550) (-)

Ion 57.00 (56.70 to 57.70): VU027906.D (-550) (-)

3.00

80000

60000

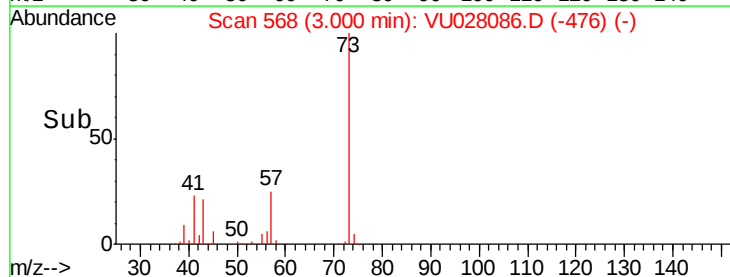
40000

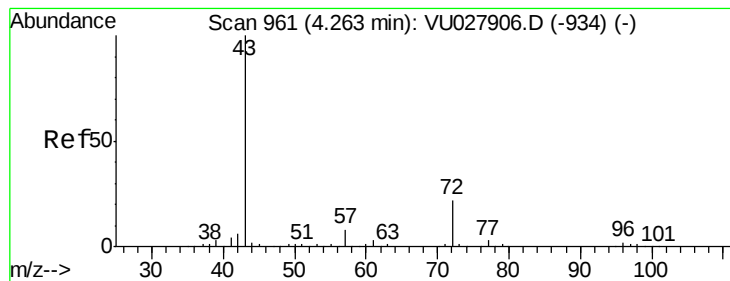
20000

0

2.90 3.00 3.10

Time-->





#25

2-Butanone

Concen: 91.679 ug/l

RT: 4.26 min Scan# 961

Delta R.T. 0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

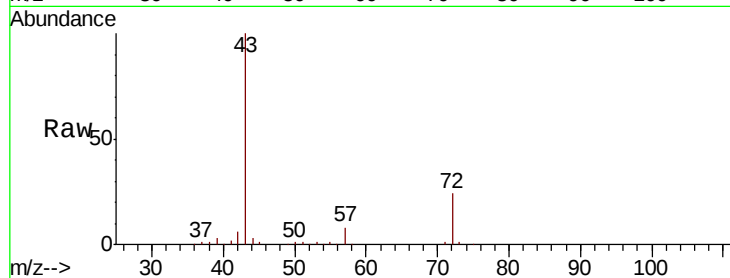
SP-TANK2-N48963

Tot Ion: 43 Resp: 303850

Ion Ratio Lower Upper

43 100

72 23.9 17.7 26.5



Abundance Ion 43.00 (42.70 to 43.70): VU027906.D (-934) (-)

Ion 72.00 (71.70 to 72.70): VU027906.D (-934) (-)

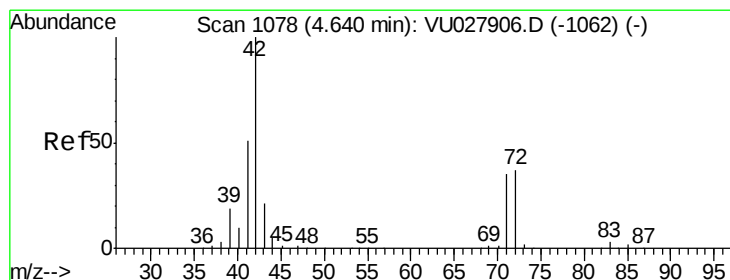
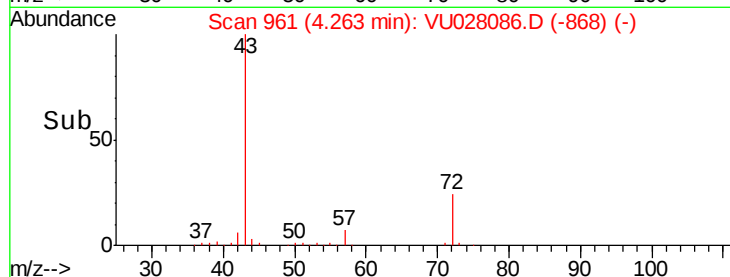
4.26

100000

50000

0

Time-->



#29

Tetrahydrofuran

Concen: 301.227 ug/l

RT: 4.64 min Scan# 1077

Delta R.T. -0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

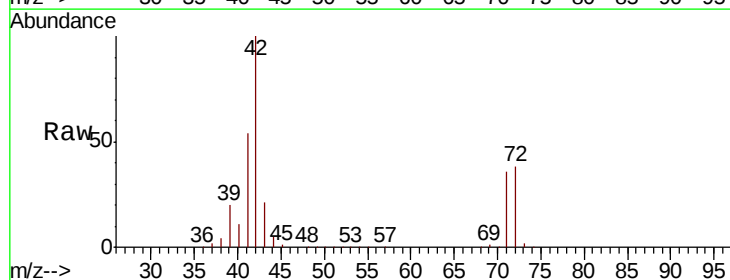
Tgt Ion: 42 Resp: 666639

Ion Ratio Lower Upper

42 100

72 38.1 29.4 44.0

71 35.8 27.9 41.9



Abundance Ion 42.00 (41.70 to 42.70): VU027906.D (-1062) (-)

Ion 72.00 (71.70 to 72.70): VU027906.D (-1062) (-)

Ion 71.00 (70.70 to 71.70): VU027906.D (-1062) (-)

4.64

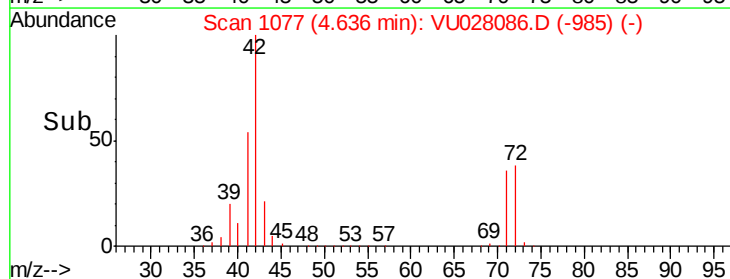
300000

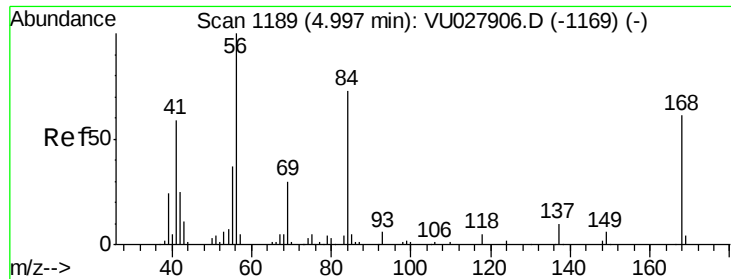
200000

100000

0

Time-->

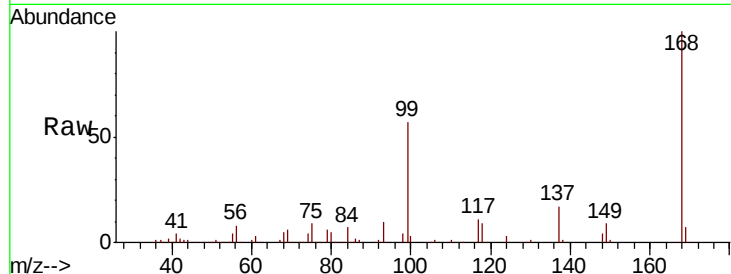




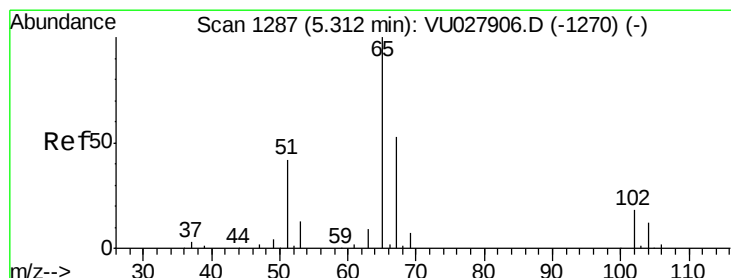
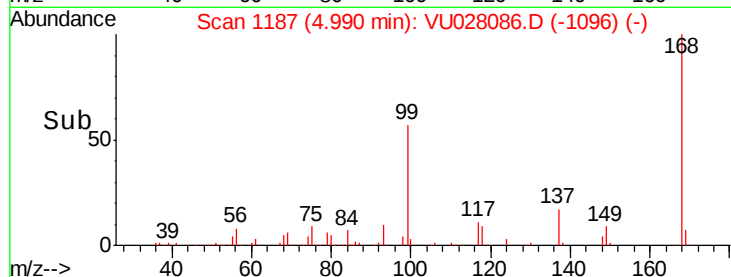
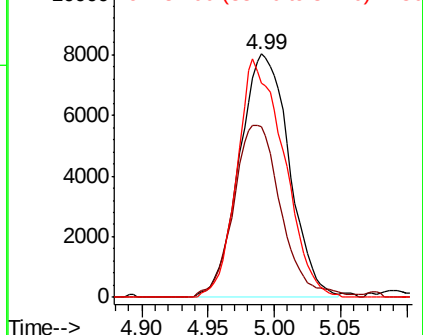
#31  
Cyclohexane  
Concen: 1.982 ug/l  
RT: 4.99 min Scan# 1187  
Delta R.T. -0.01 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Instrument :  
MSVOA\_U  
ClientSampleId :  
SP-TANK2-N48963

Tot Ion: 56 Resp: 21046  
Ion Ratio Lower Upper  
56 100  
69 69.8 23.7 35.5#  
84 88.0 58.2 87.4#

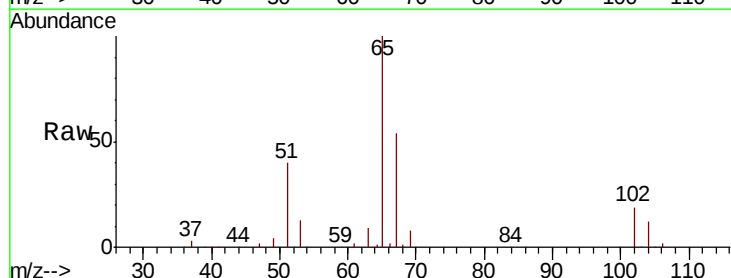


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

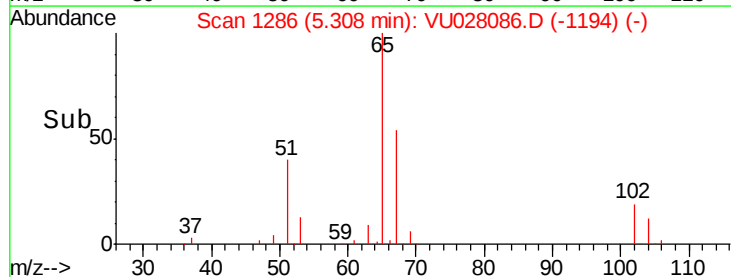
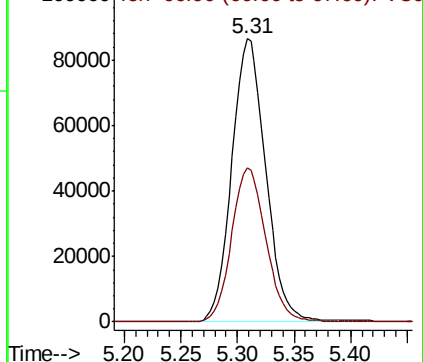


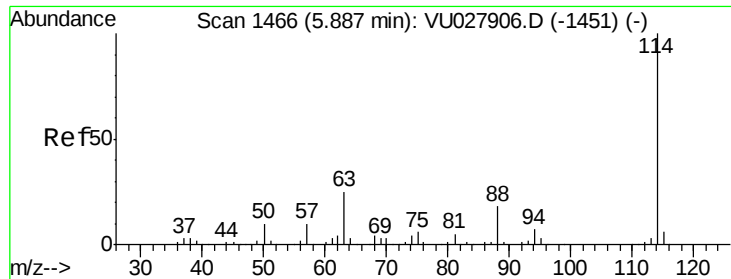
#33  
1,2-Dichloroethane-d4  
Concen: 53.950 ug/l  
RT: 5.31 min Scan# 1286  
Delta R.T. -0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Tgt Ion: 65 Resp: 181149  
Ion Ratio Lower Upper  
65 100  
67 54.9 0.0 109.0



Abundance Ion 64.90 (64.60 to 65.60): VU0  
Ion 66.90 (66.60 to 67.60): VU0

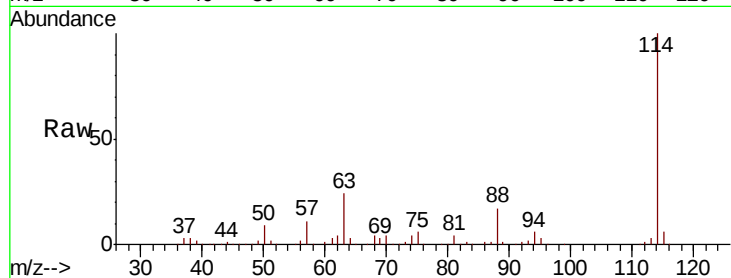




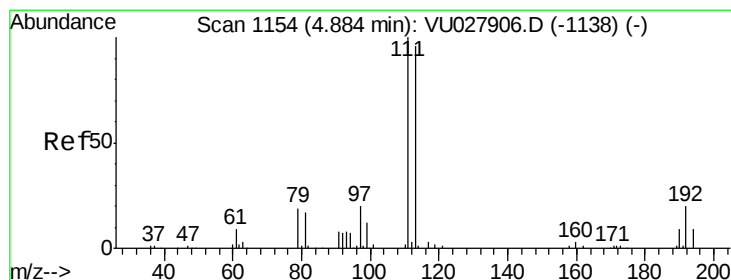
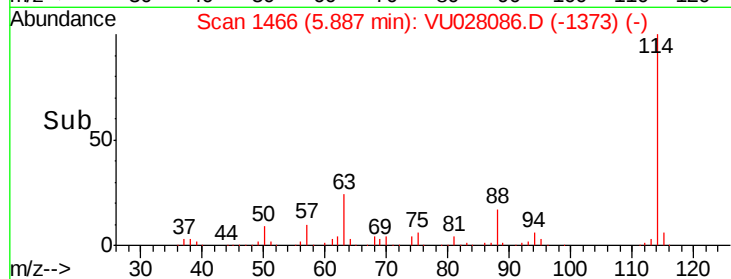
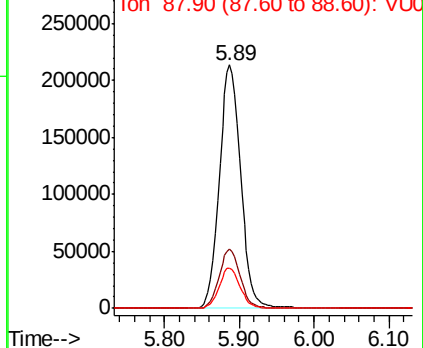
#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 5.89 min Scan# 1466  
 Delta R.T. 0.00 min  
 Lab File: VU028086.D  
 Acq: 13 Nov 2018 12:53

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 SP-TANK2-N48963

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 114     | 100   |       |       |
| 63      | 24.2  | 0.0   | 50.8  |
| 88      | 16.7  | 0.0   | 35.8  |

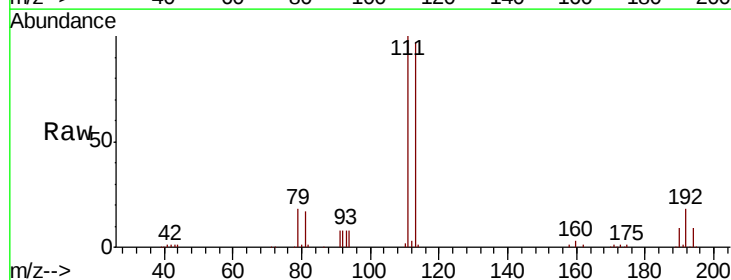


Abundance Ion 113.90 (113.60 to 114.60): V  
 Ion 63.00 (62.70 to 63.70): VU0  
 Ion 87.90 (87.60 to 88.60): VU0

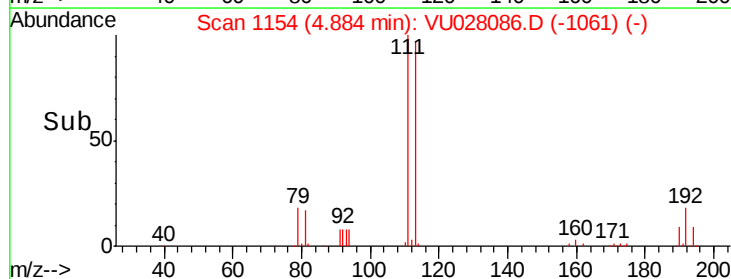
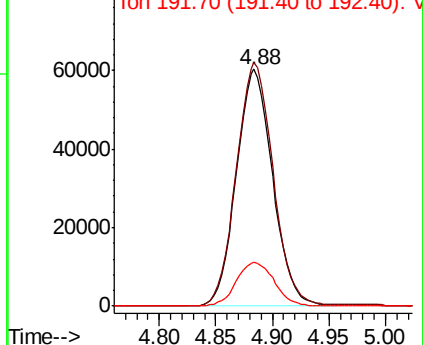


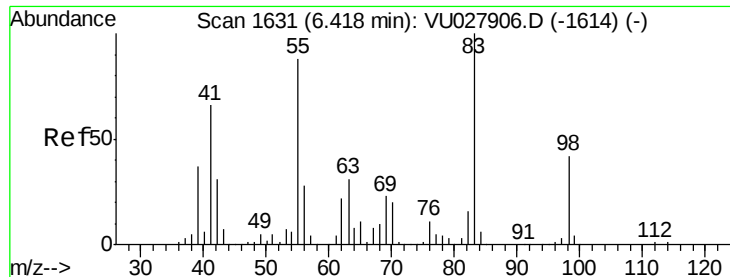
#35  
 Dibromofluoromethane  
 Concen: 50.704 ug/l  
 RT: 4.88 min Scan# 1154  
 Delta R.T. 0.00 min  
 Lab File: VU028086.D  
 Acq: 13 Nov 2018 12:53

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 104.1 | 83.0  | 124.6 |
| 192     | 19.3  | 15.6  | 23.4  |



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

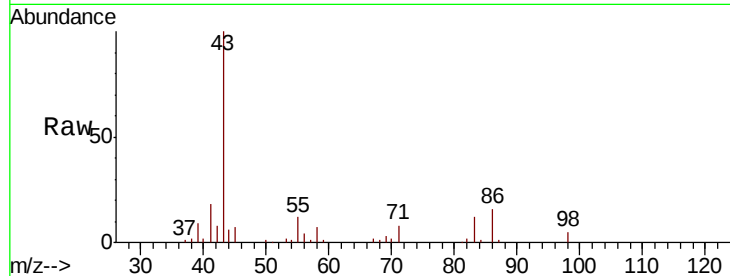




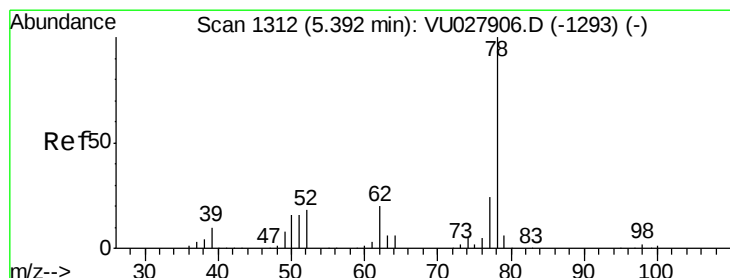
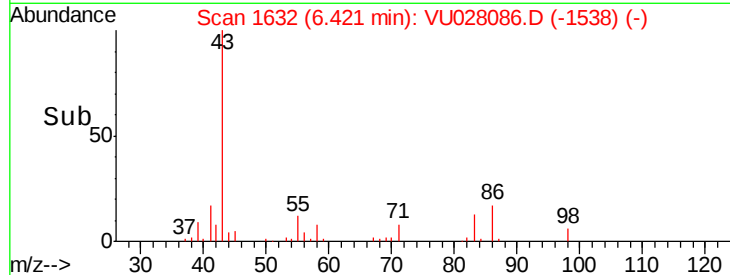
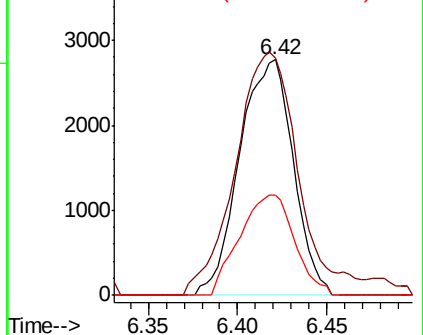
#39  
Methvlcvclohexane  
Concen: 1.088 ug/l  
RT: 6.42 min Scan# 1632  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Instrument :  
MSVOA\_U  
ClientSampleId :  
SP-TANK2-N48963

Tot Ion: 83 Resp: 5813  
Ion Ratio Lower Upper  
83 100  
55 95.5 70.3 105.5  
98 42.8 34.0 51.0

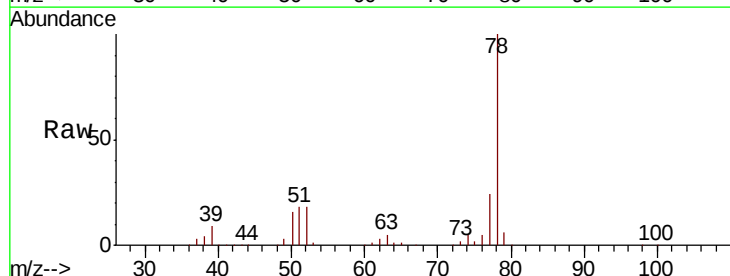


Abundance Ion 83.00 (82.70 to 83.70): VU0  
Ion 55.00 (54.70 to 55.70): VU0  
Ion 98.00 (97.70 to 98.70): VU0

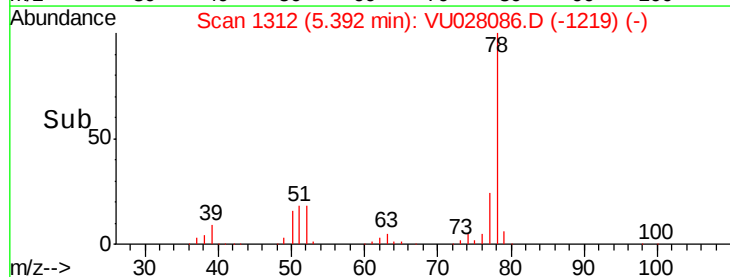
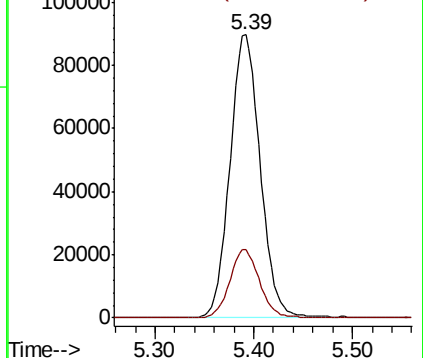


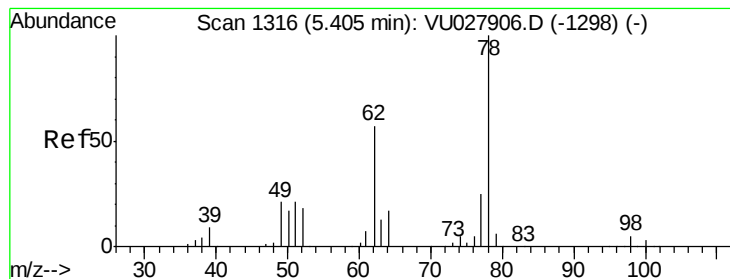
#40  
Benzene  
Concen: 14.186 ug/l  
RT: 5.39 min Scan# 1312  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Tgt Ion: 78 Resp: 192121  
Ion Ratio Lower Upper  
78 100  
77 24.1 19.3 28.9



Abundance Ion 78.00 (77.70 to 78.70): VU0  
Ion 77.00 (76.70 to 77.70): VU0





#42

1,2-Dichloroethane

Concen: 2.525 ug/l

RT: 5.40 min Scan# 1315

Delta R.T. -0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

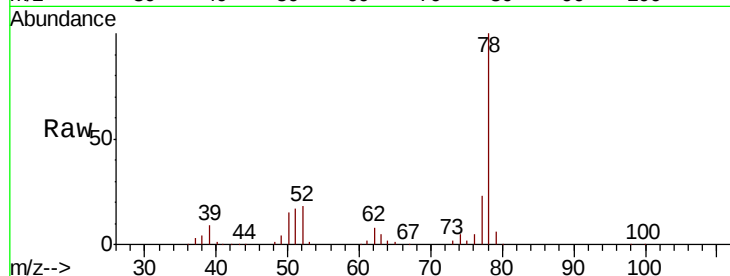
SP-TANK2-N48963

Tot Ion: 62 Resp: 12157

Ion Ratio Lower Upper

62 100

98 6.6 0.0 17.2

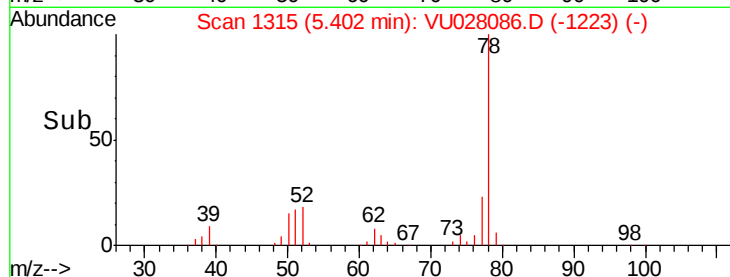


Abundance Ion 61.90 (61.60 to 62.60): VU028086.D (-1298) (-)

Ion 97.90 (97.60 to 98.60): VU028086.D (-1298) (-)

5.40

Time-->

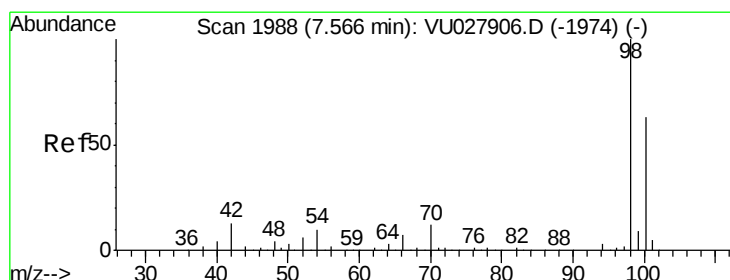


Abundance Ion 61.90 (61.60 to 62.60): VU028086.D (-1223) (-)

Ion 97.90 (97.60 to 98.60): VU028086.D (-1223) (-)

5.40

Time-->



#50

Toluene-d8

Concen: 52.554 ug/l

RT: 7.57 min Scan# 1988

Delta R.T. 0.00 min

Lab File: VU028086.D

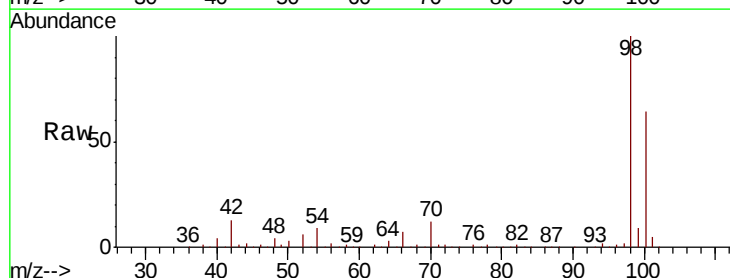
Acq: 13 Nov 2018 12:53

Tgt Ion: 98 Resp: 541361

Ion Ratio Lower Upper

98 100

100 64.0 50.1 75.1

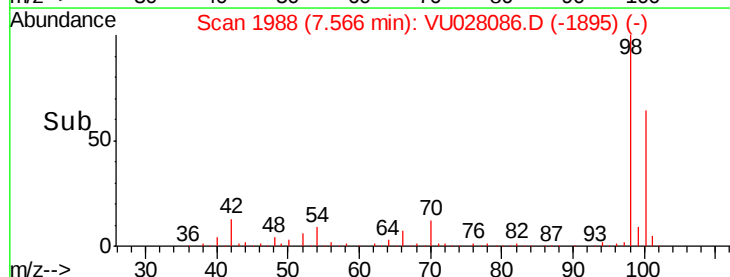


Abundance Ion 98.00 (97.70 to 98.70): VU028086.D (-1974) (-)

Ion 100.00 (99.70 to 100.70): VU028086.D (-1974) (-)

7.57

Time-->

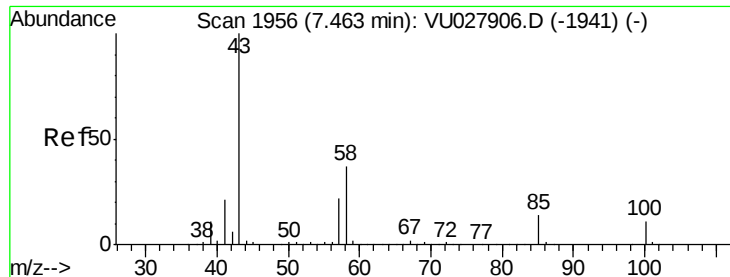


Abundance Ion 98.00 (97.70 to 98.70): VU028086.D (-1895) (-)

Ion 100.00 (99.70 to 100.70): VU028086.D (-1895) (-)

7.57

Time-->



#51

4-Methyl-2-Pentanone

Concen: 5.301 ug/l

RT: 7.46 min Scan# 1956

Delta R.T. 0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

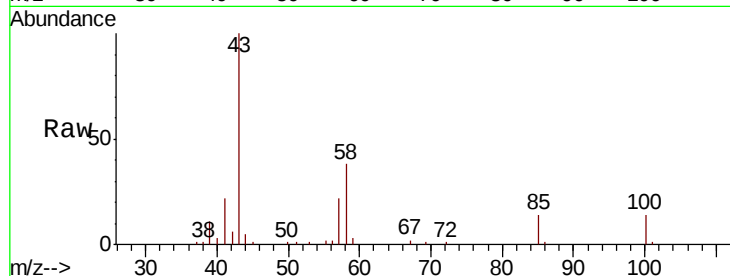
SP-TANK2-N48963

Tot Ion: 43 Resp: 36000

Ion Ratio Lower Upper

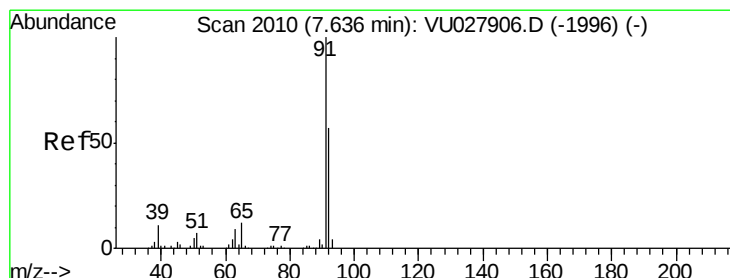
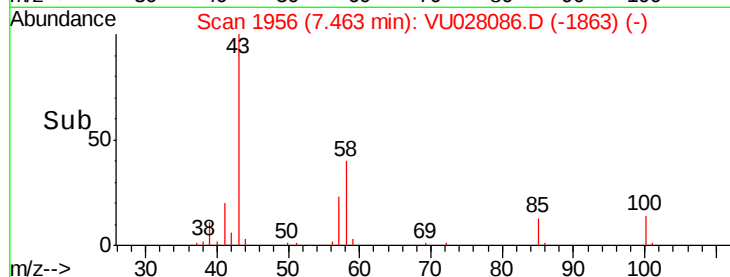
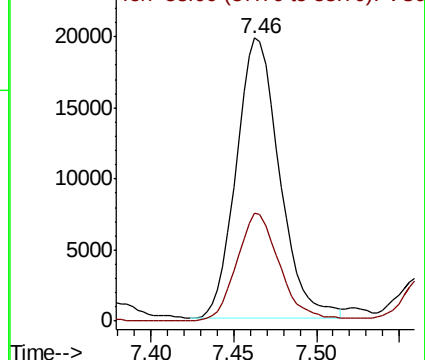
43 100

58 38.7 29.5 44.3



Abundance Ion 43.00 (42.70 to 43.70): VU027906.D (-1941) (-)

Ion 58.00 (57.70 to 58.70): VU027906.D (-1941) (-)



#52

Toluene

Concen: 41.197 ug/l

RT: 7.64 min Scan# 2010

Delta R.T. 0.00 min

Lab File: VU028086.D

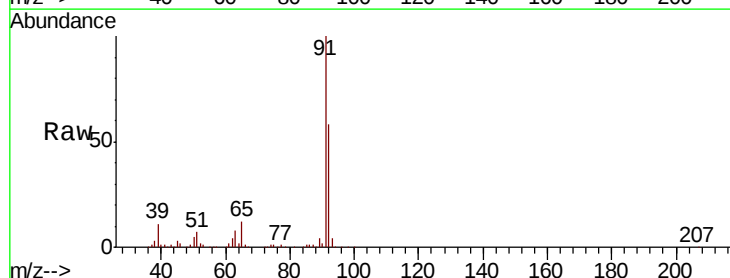
Acq: 13 Nov 2018 12:53

Tgt Ion: 92 Resp: 327996

Ion Ratio Lower Upper

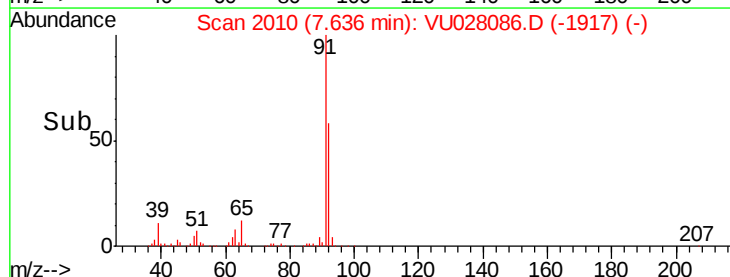
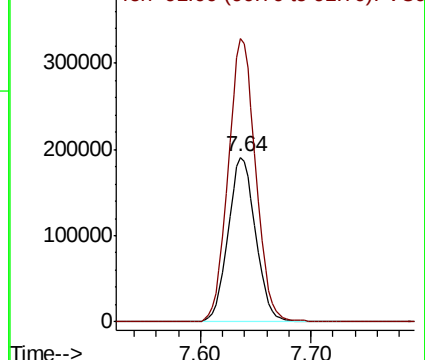
92 100

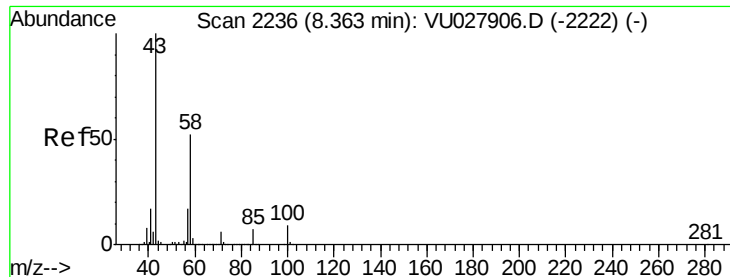
91 173.1 141.2 211.8



Abundance Ion 92.00 (91.70 to 92.70): VU027906.D (-1996) (-)

Ion 91.00 (90.70 to 91.70): VU027906.D (-1996) (-)

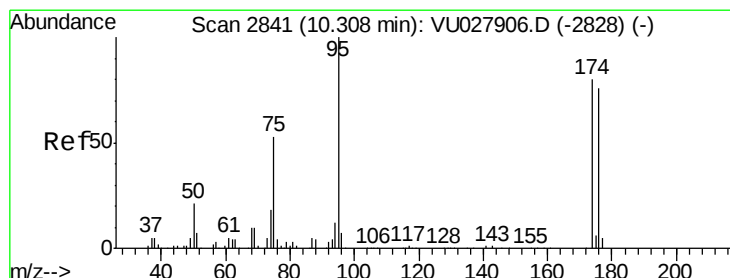
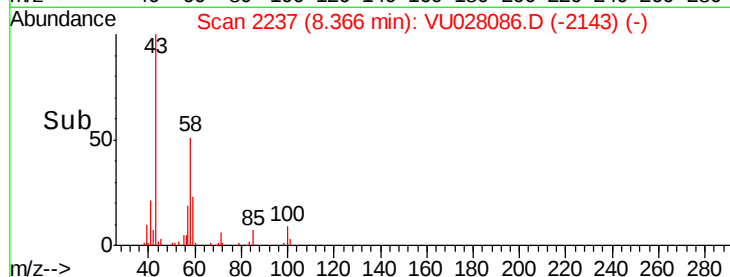
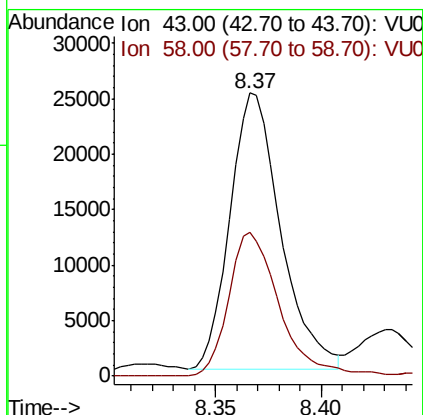
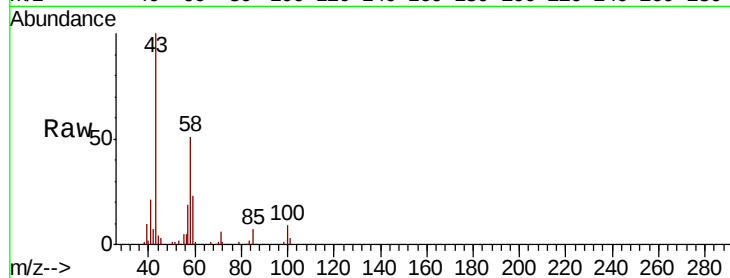




#59  
2-Hexanone  
Concen: 7.910 ug/l  
RT: 8.37 min Scan# 2237  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

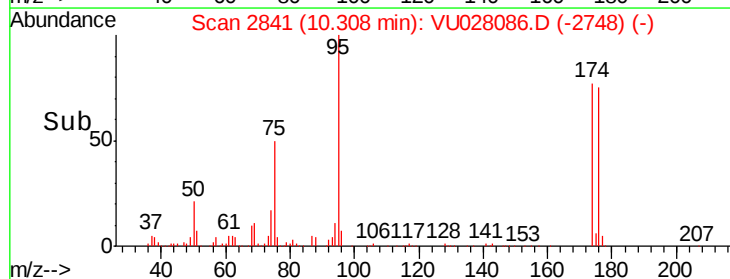
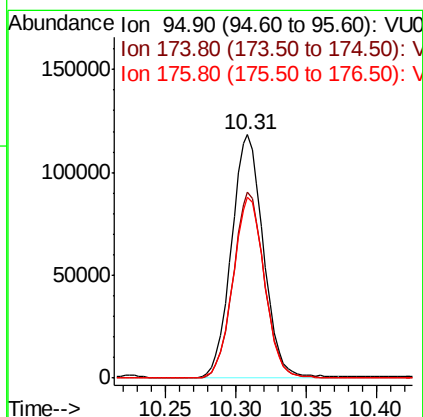
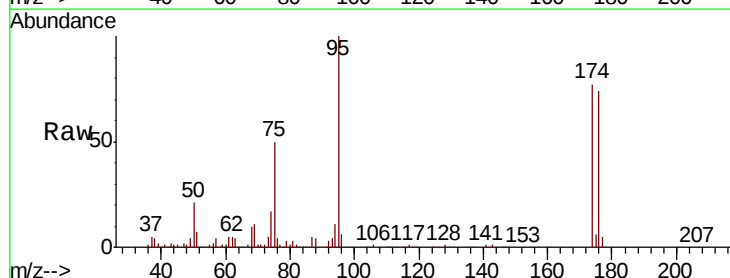
Instrument :  
MSVOA\_U  
ClientSampleId :  
SP-TANK2-N48963

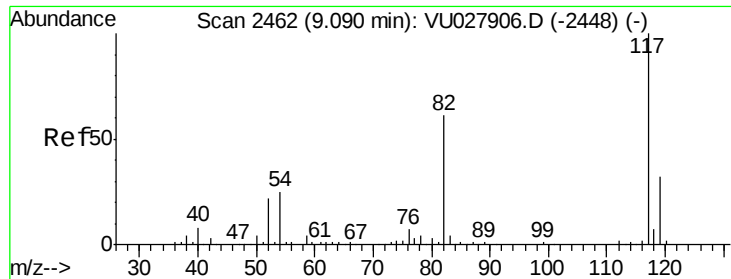
Tot Ion: 43 Resp: 41543  
Ion Ratio Lower Upper  
43 100  
58 52.3 25.8 77.3



#62  
4-Bromofluorobenzene  
Concen: 49.115 ug/l  
RT: 10.31 min Scan# 2841  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Tgt Ion: 95 Resp: 186612  
Ion Ratio Lower Upper  
95 100  
174 74.9 0.0 156.4  
176 73.9 0.0 150.8

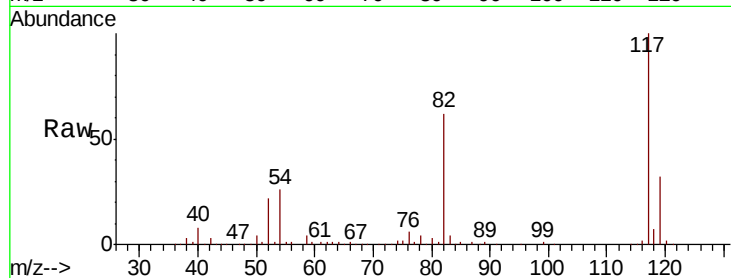




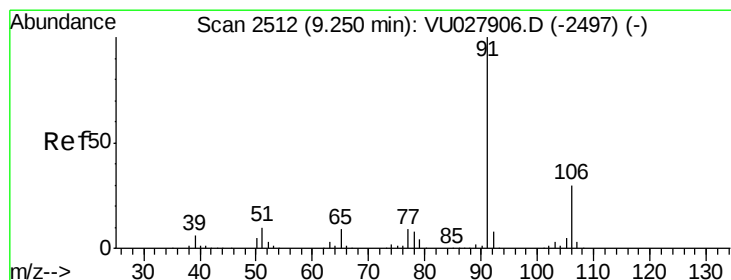
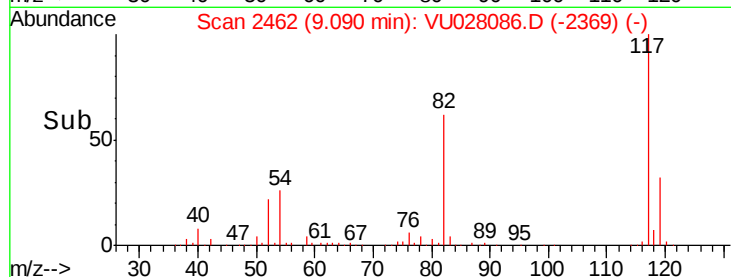
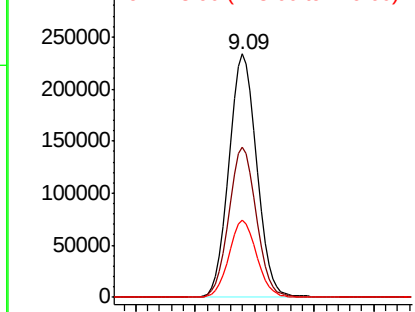
#63  
Chlorobenzene-d5  
Concen: 50.000 ug/l  
RT: 9.09 min Scan# 2462  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Instrument :  
MSVOA\_U  
ClientSampleId :  
SP-TANK2-N48963

Tot Ion:117 Resp: 378769  
Ion Ratio Lower Upper  
117 100  
82 61.9 48.6 73.0  
119 31.6 25.8 38.8

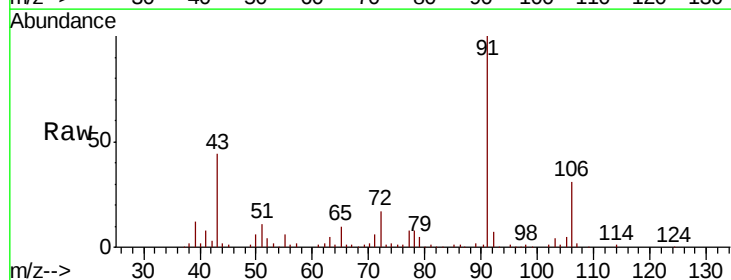


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VU0  
Ion 118.90 (118.60 to 119.60): V

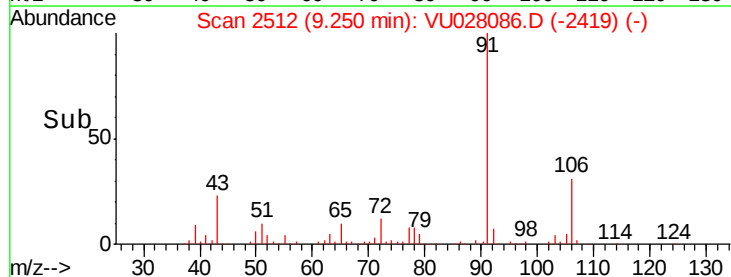
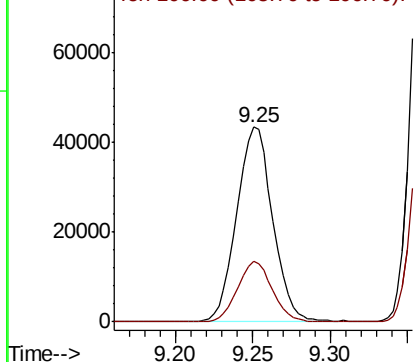


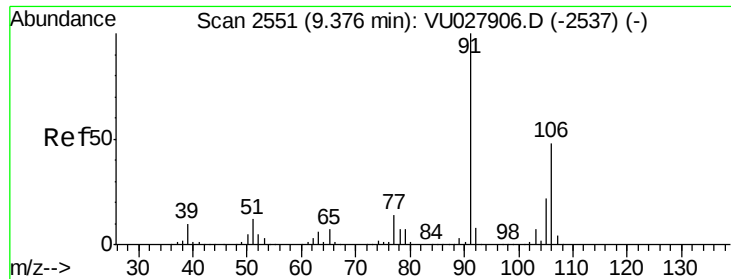
#67  
Ethyl Benzene  
Concen: 4.780 ug/l  
RT: 9.25 min Scan# 2512  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Tgt Ion: 91 Resp: 70409  
Ion Ratio Lower Upper  
91 100  
106 31.2 23.6 35.4



Abundance Ion 91.00 (90.70 to 91.70): VU0  
Ion 106.00 (105.70 to 106.70): V

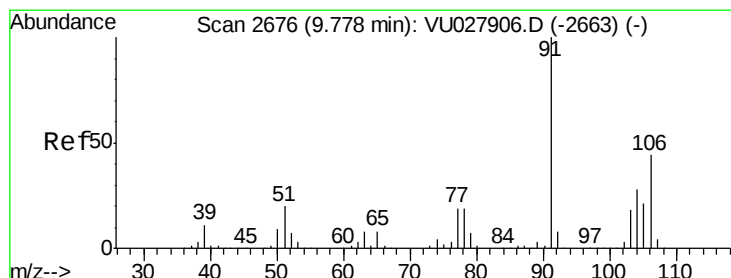
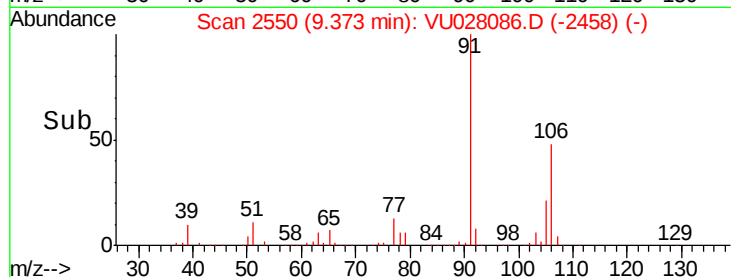
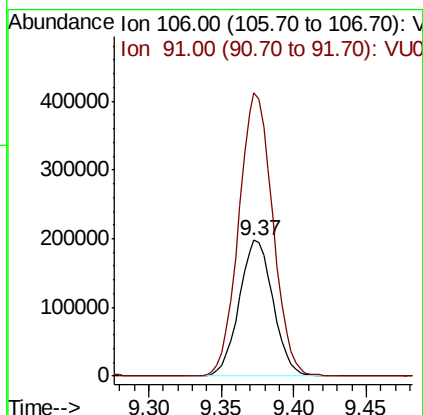
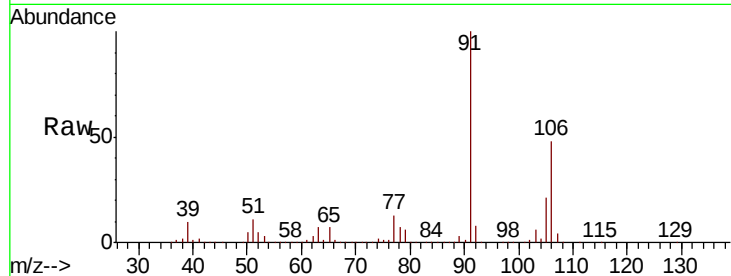




#68  
m/p-Xylenes  
Concen: 60.229 ug/l  
RT: 9.37 min Scan# 2550  
Delta R.T. -0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

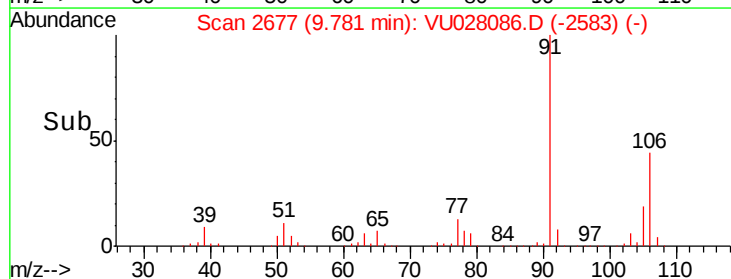
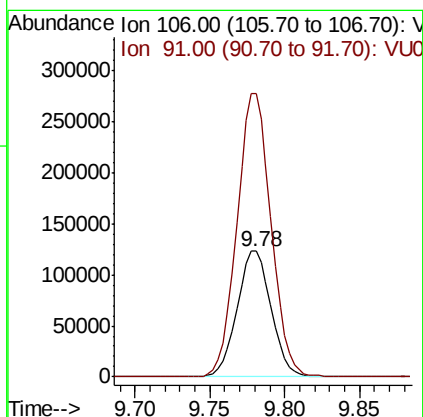
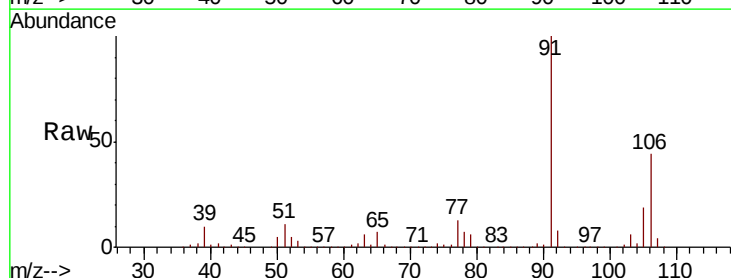
Instrument :  
MSVOA\_U  
ClientSampleId :  
SP-TANK2-N48963

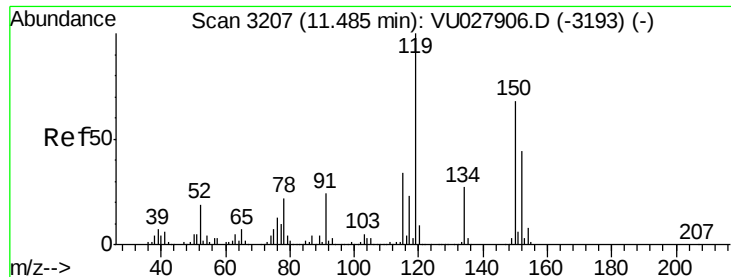
Tot Ion:106 Resp: 321896  
Ion Ratio Lower Upper  
106 100  
91 208.9 168.2 252.4



#69  
o-Xylene  
Concen: 36.135 ug/l  
RT: 9.78 min Scan# 2677  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Tgt Ion:106 Resp: 195018  
Ion Ratio Lower Upper  
106 100  
91 225.4 111.1 333.4



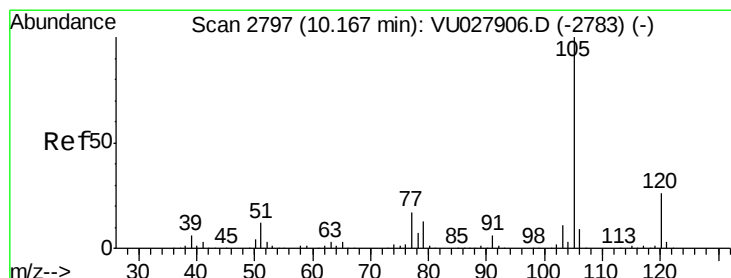
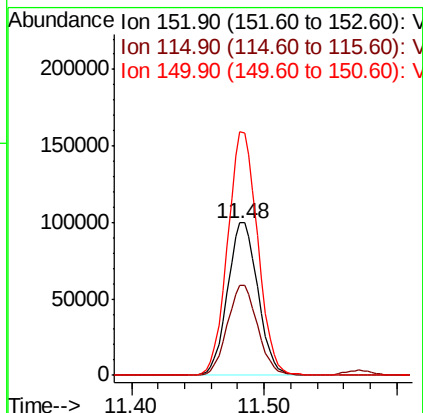
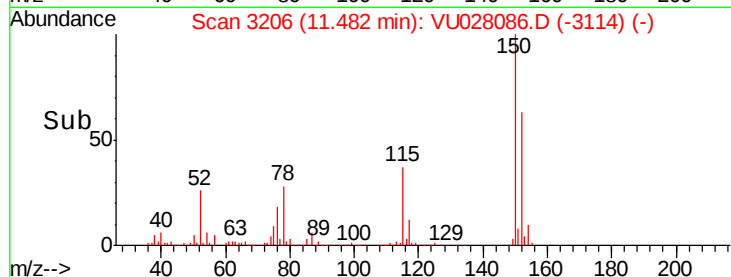
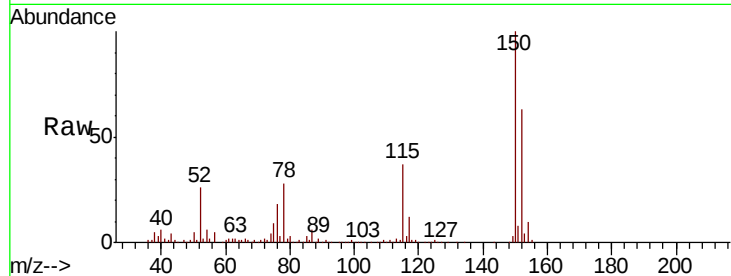


#72

1,4-Dichlorobenzene-d4  
Concen: 50.000 ug/l  
RT: 11.48 min Scan# 3206  
Delta R.T. -0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Instrument :  
MSVOA\_U  
ClientSampleId :  
SP-TANK2-N48963

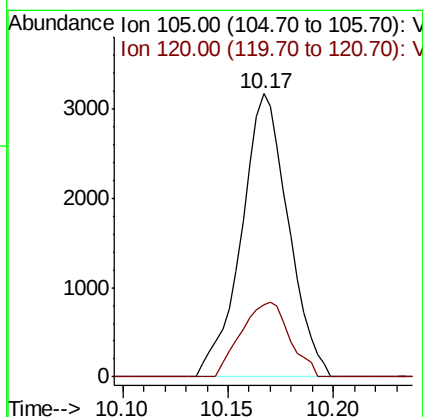
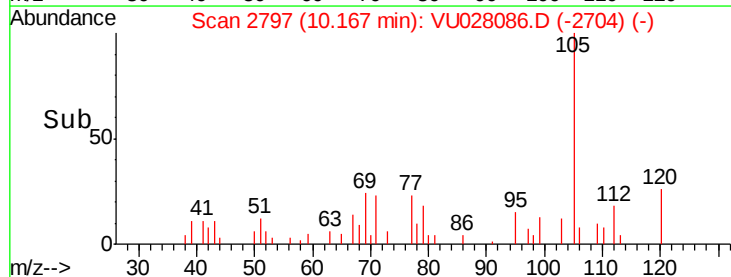
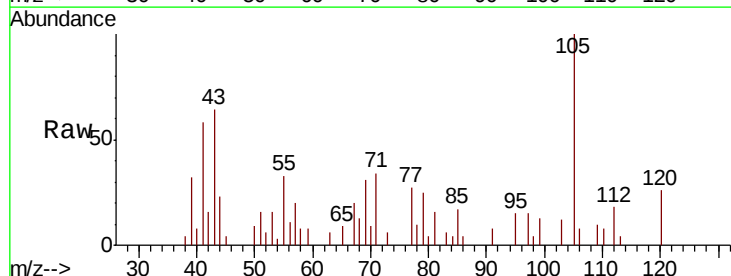
Tot Ion:152 Resp: 158340  
Ion Ratio Lower Upper  
152 100  
115 58.5 43.0 129.0  
150 158.3 0.0 349.4

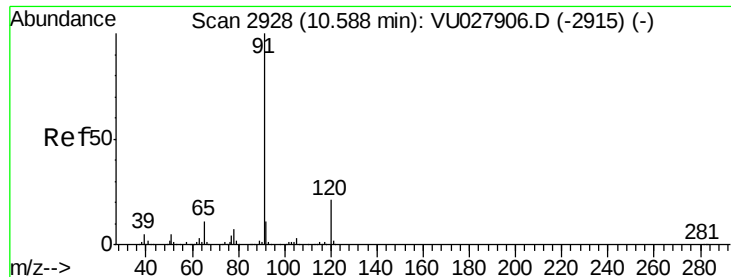


#73

Isopropylbenzene  
Concen: 0.401 ug/l  
RT: 10.17 min Scan# 2797  
Delta R.T. 0.00 min  
Lab File: VU028086.D  
Acq: 13 Nov 2018 12:53

Tgt Ion:105 Resp: 4913  
Ion Ratio Lower Upper  
105 100  
120 27.1 12.7 38.0





#78

n-propylbenzene

Concen: 0.755 ug/l

RT: 10.59 min Scan# 2928

Delta R.T. 0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

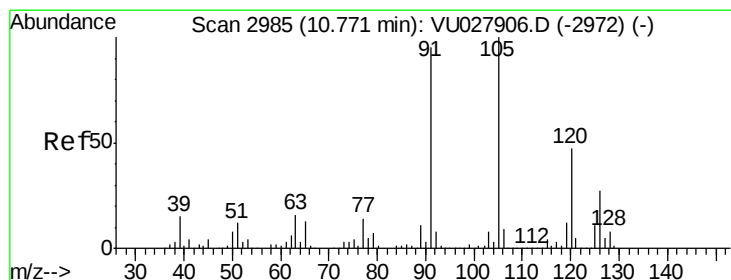
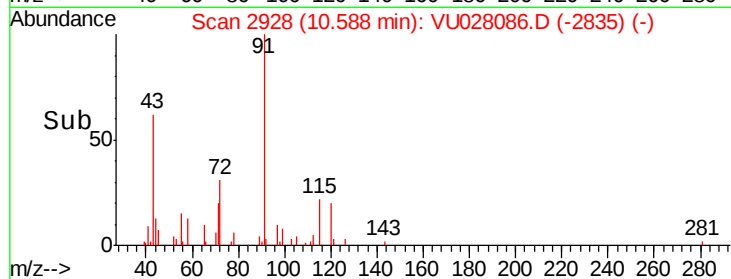
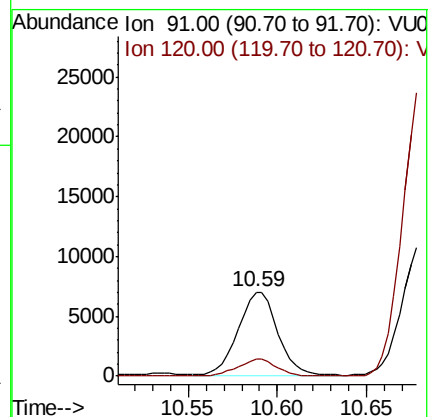
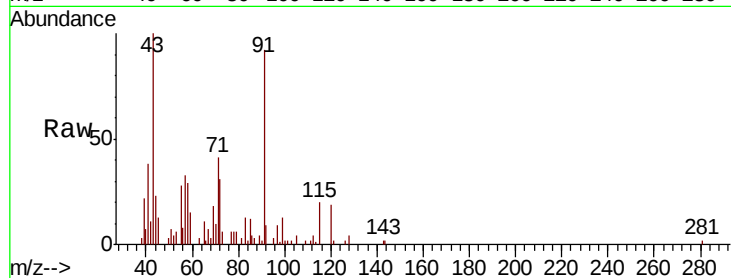
SP-TANK2-N48963

Tot Ion: 91 Resp: 11091

Ion Ratio Lower Upper

91 100

120 19.1 10.6 31.8



#80

1,3,5-Trimethylbenzene

Concen: 6.696 ug/l

RT: 10.77 min Scan# 2985

Delta R.T. 0.00 min

Lab File: VU028086.D

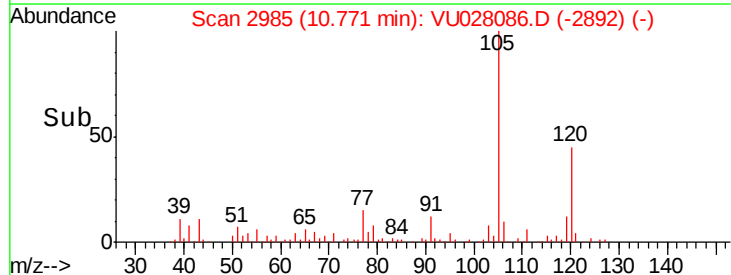
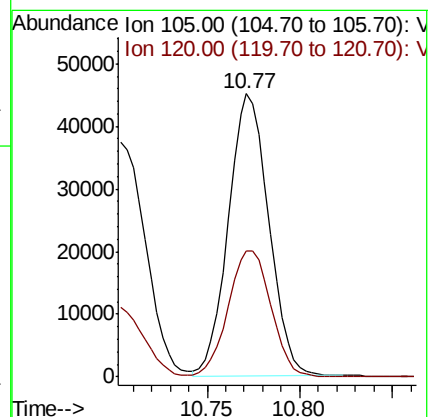
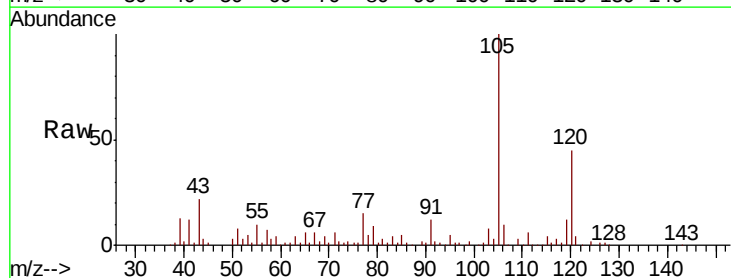
Acq: 13 Nov 2018 12:53

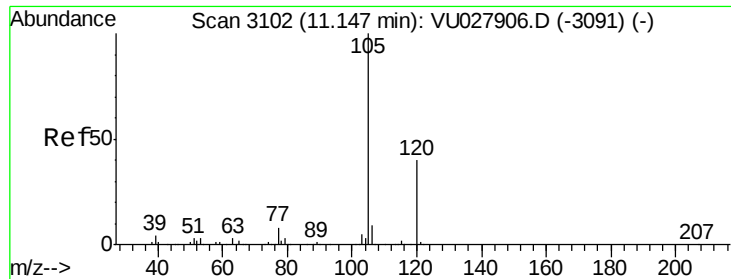
Tgt Ion: 105 Resp: 68045

Ion Ratio Lower Upper

105 100

120 47.6 23.3 69.9





#84

1,2,4-Trimethylbenzene

Concen: 27.107 ug/l

RT: 11.15 min Scan# 3102

Delta R.T. 0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Instrument :

MSVOA\_U

ClientSampleId :

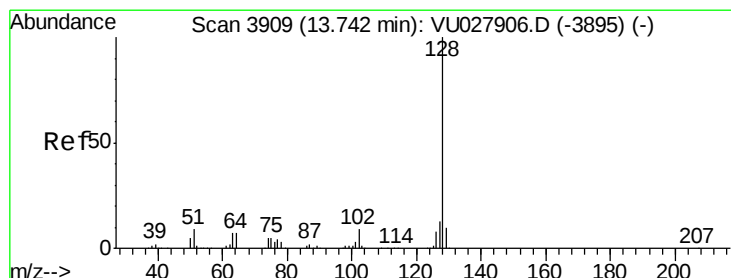
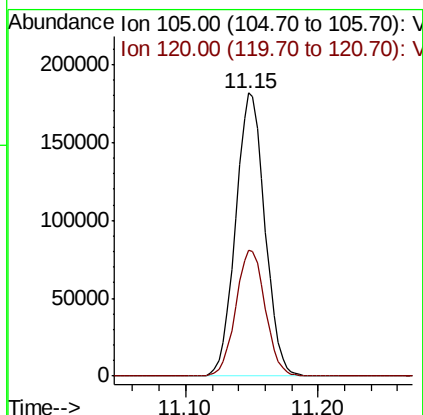
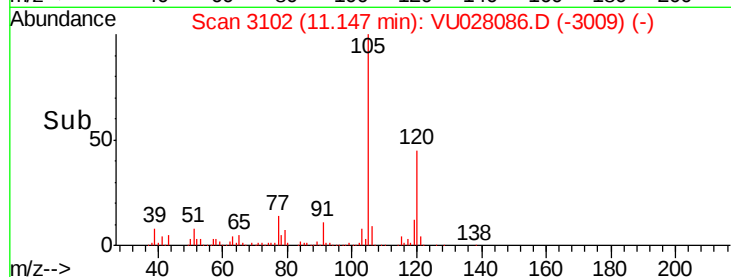
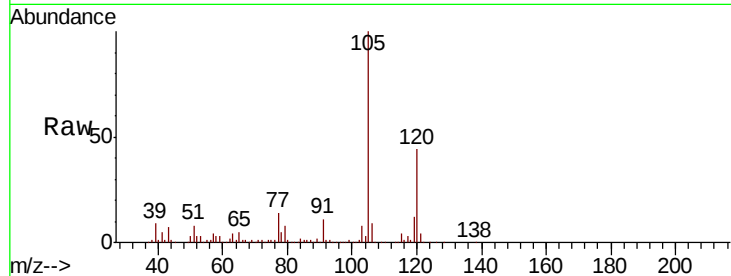
SP-TANK2-N48963

Tot Ion:105 Resp: 277362

Ion Ratio Lower Upper

105 100

120 44.9 22.1 66.1



#95

Naphthalene

Concen: 9.495 ug/l

RT: 13.74 min Scan# 3909

Delta R.T. 0.00 min

Lab File: VU028086.D

Acq: 13 Nov 2018 12:53

Tgt Ion:128 Resp: 125238

Ion Ratio Lower Upper

128 100

127 13.0 10.4 15.6

129 11.0 8.3 12.5

