

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX061818\  
 Data File : VX002687.D  
 Acq On : 18 Jun 2018 18:48  
 Operator : JC/MD  
 Sample : J3525-01  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TPTW-04

Quant Time: Jun 19 10:51:23 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X061818W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Mon Jun 18 15:18:02 2018  
 Response via : Initial Calibration

| Internal Standards      | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------|-------|------|----------|-------|-------|----------|
| 1) Bromochloromethane   | 5.03  | 128  | 41295    | 30.00 | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene | 6.87  | 114  | 228424   | 30.00 | ug/l  | 0.00     |
| 57) Chlorobenzene-d5    | 10.12 | 117  | 203447   | 30.00 | ug/l  | 0.00     |

| System Monitoring Compounds |        |       |          |          |      |         |
|-----------------------------|--------|-------|----------|----------|------|---------|
| 27) 1,2-Dichloroethane-d4   | 6.07   | 65    | 96850    | 30.71    | ug/l | 0.00    |
| Spiked Amount               | 30.000 | Range | 50 - 169 | Recovery | =    | 102.37% |
| 60) 4-Bromofluorobenzene    | 11.14  | 95    | 92348    | 27.48    | ug/l | 0.00    |
| Spiked Amount               | 30.000 | Range | 56 - 143 | Recovery | =    | 91.60%  |
| 63) Toluene-d8              | 8.72   | 98    | 267315   | 30.08    | ug/l | 0.00    |
| Spiked Amount               | 30.000 | Range | 66 - 137 | Recovery | =    | 100.27% |

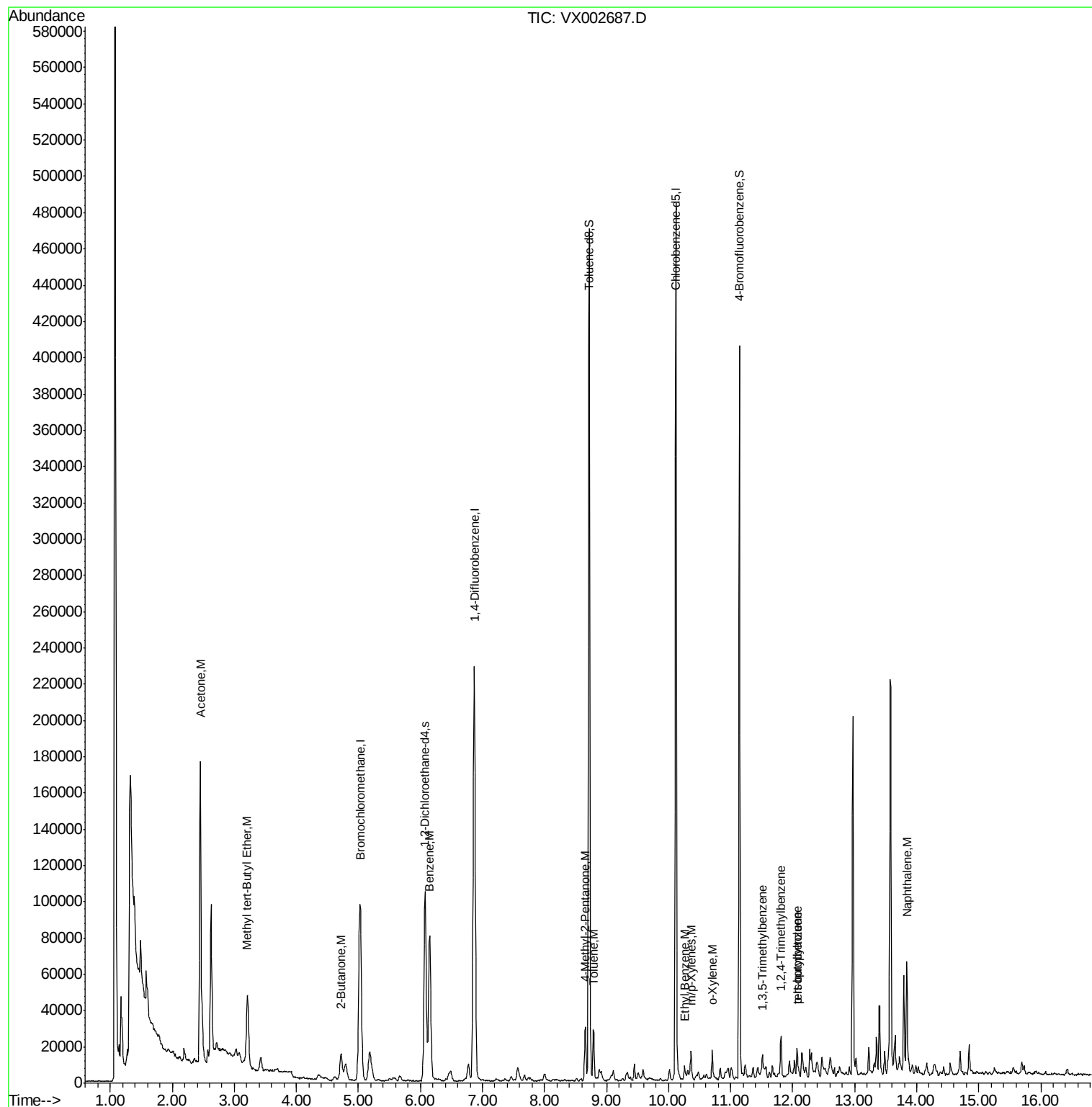
| Target Compounds            |       |     |       |        |      | Ovalue |
|-----------------------------|-------|-----|-------|--------|------|--------|
| 15) Acetone                 | 2.45  | 58  | 52191 | 144.10 | ug/l | 97     |
| 24) Methyl tert-Butyl Ether | 3.21  | 73  | 41451 | 5.20   | ug/l | 100    |
| 30) 2-Butanone              | 4.72  | 43  | 26388 | 14.95  | ug/l | 96     |
| 34) Benzene                 | 6.15  | 78  | 93707 | 10.26  | ug/l | 97     |
| 58) 4-Methyl-2-Pentanone    | 8.66  | 43  | 15701 | 4.55   | ug/l | 98     |
| 62) Toluene                 | 8.79  | 91  | 13536 | 1.38   | ug/l | 99     |
| 66) Ethyl Benzene           | 10.26 | 91  | 3736  | 0.34   | ug/l | 98     |
| 67) m/p-Xylenes             | 10.36 | 106 | 3424  | 0.80   | ug/l | 96     |
| 68) o-Xylene                | 10.70 | 106 | 3057  | 0.73   | ug/l | 96     |
| 76) 1,3,5-Trimethylbenzene  | 11.51 | 105 | 3233  | 0.33   | ug/l | 95     |
| 79) tert-butylbenzene       | 12.07 | 119 | 5165  | 0.48   | ug/l | 98     |
| 80) 1,2,4-Trimethylbenzene  | 11.81 | 105 | 7959  | 0.80   | ug/l | 75     |
| 82) p-Isopropyltoluene      | 12.07 | 119 | 5165  | 0.48   | ug/l | 98     |
| 91) Naphthalene             | 13.84 | 128 | 36507 | 3.06   | ug/l | 100    |

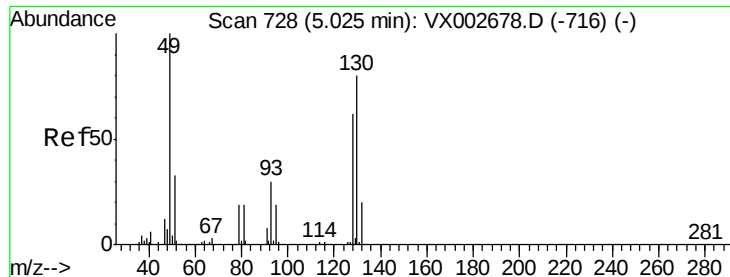
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX061818\  
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TPTW-04

Quant Time: Jun 19 10:51:23 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA X\METHOD\624X061818W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Mon Jun 18 15:18:02 2018  
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.00 ug/l

RT: 5.03 min Scan# 728

Delta R.T. -0.00 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

Instrument :

MSVOA\_X

ClientSampleId :

TPTW-04

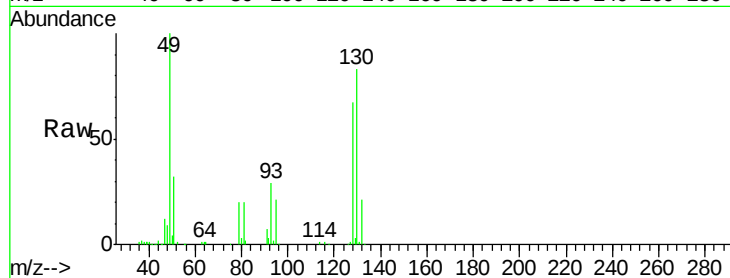
Tot Ion:128 Resp: 41295

Ion Ratio Lower Upper

128 100

49 159.3 0.0 423.0

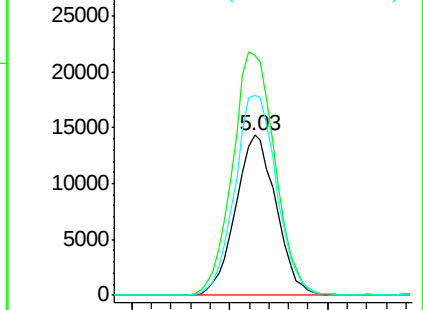
130 129.2 0.0 324.3



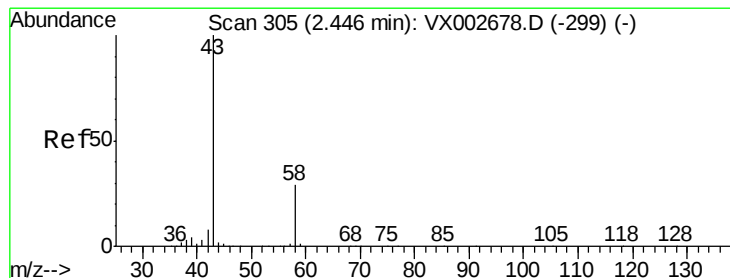
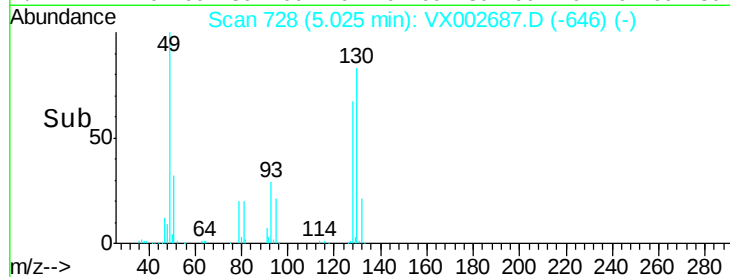
Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VX0

Ion 130.00 (129.70 to 130.70): V



Time--> 4.90 5.00 5.10



#15

Acetone

Concen: 144.10 ug/l

RT: 2.45 min Scan# 306

Delta R.T. -0.01 min

Lab File: VX002687.D

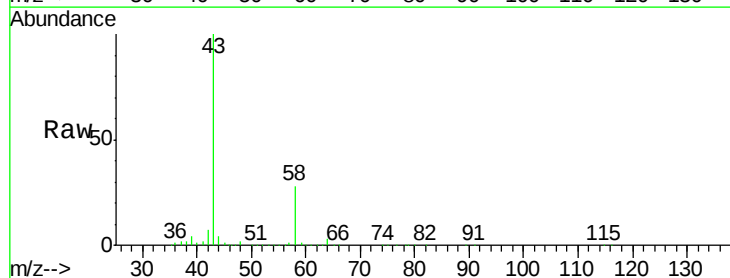
Acq: 18 Jun 2018 18:48

Tgt Ion: 58 Resp: 52191

Ion Ratio Lower Upper

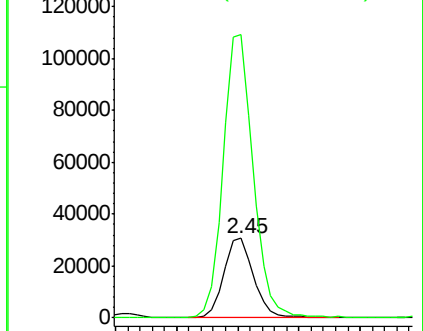
58 100

43 354.6 278.8 418.2

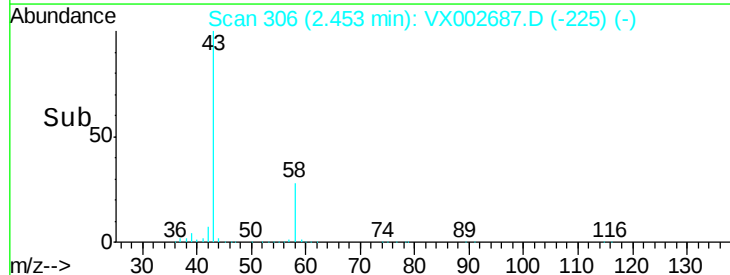


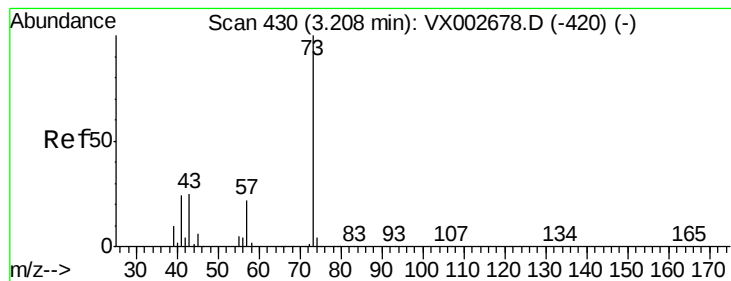
Abundance Ion 58.00 (57.70 to 58.70): VX0

Ion 43.00 (42.70 to 43.70): VX0



Time--> 2.35 2.40 2.45 2.50 2.55





#24

Methyl tert-Butyl Ether

Concen: 5.20 ug/l

RT: 3.21 min Scan# 431

Delta R.T. -0.00 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

Instrument :

MSVOA\_X

ClientSampleId :

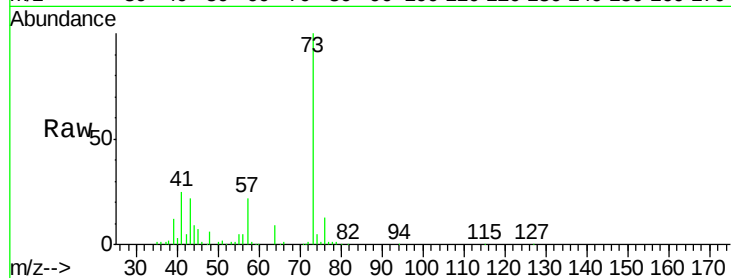
TPTW-04

Tot Ion: 73 Resp: 41451

Ion Ratio Lower Upper

73 100

43 23.6 19.0 28.4



Abundance Ion 73.00 (72.70 to 73.70): VX0

Ion 43.00 (42.70 to 43.70): VX0

3.21

20000

15000

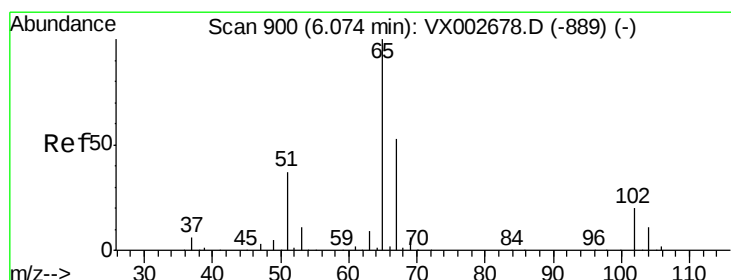
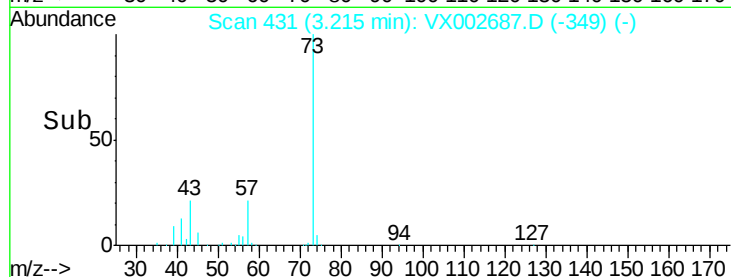
10000

5000

0

Time-->

3.15 3.20 3.25 3.30



#27

1,2-Dichloroethane-d4

Concen: 30.71 ug/l

RT: 6.07 min Scan# 900

Delta R.T. -0.00 min

Lab File: VX002687.D

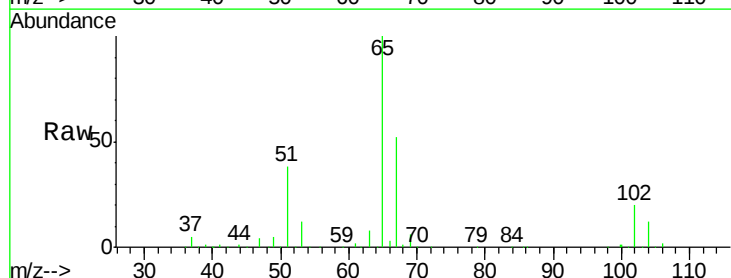
Acq: 18 Jun 2018 18:48

Tgt Ion: 65 Resp: 96850

Ion Ratio Lower Upper

65 100

67 50.6 40.9 61.3



Abundance Ion 65.00 (64.70 to 65.70): VX0

Ion 67.00 (66.70 to 67.70): VX0

6.07

40000

30000

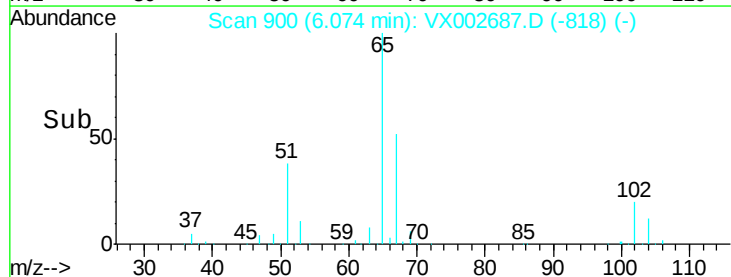
20000

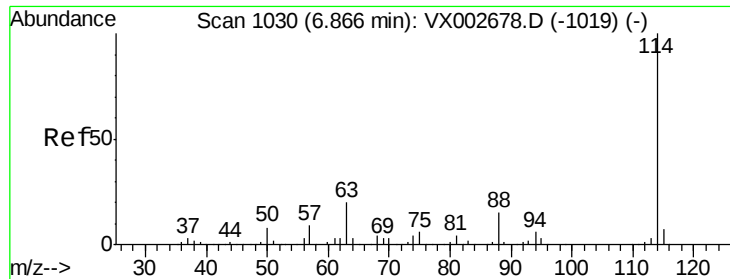
10000

0

Time-->

6.00 6.10 6.20

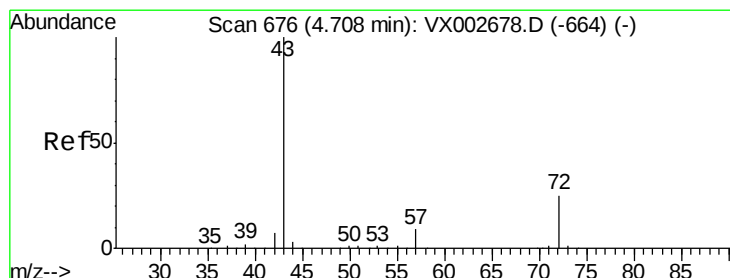
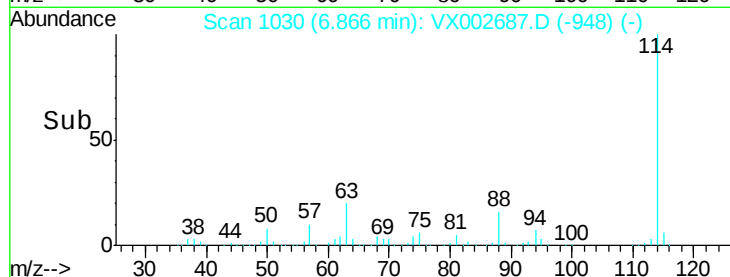
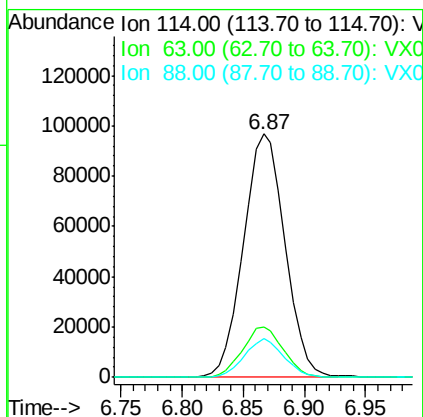
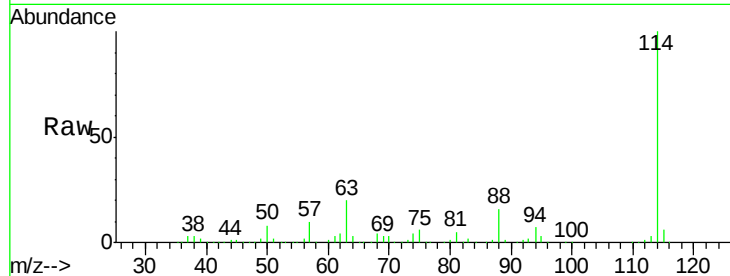




#28  
 1,4-Difluorobenzene  
 Concen: 30.00 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. -0.00 min  
 Lab File: VX002687.D  
 Acq: 18 Jun 2018 18:48

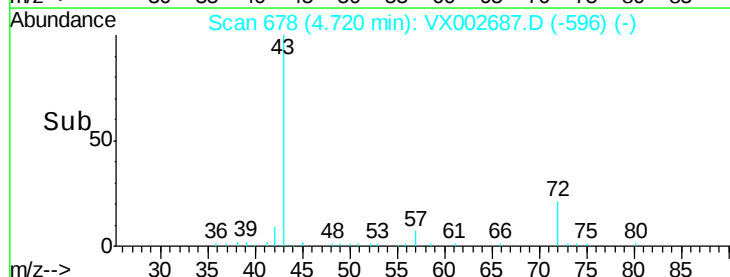
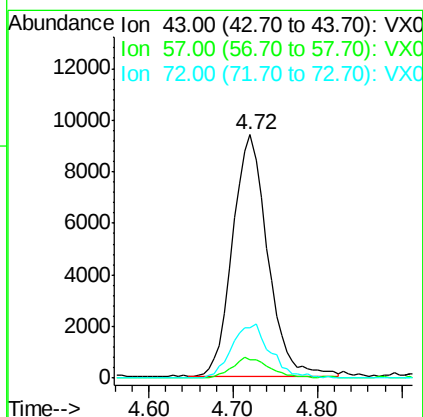
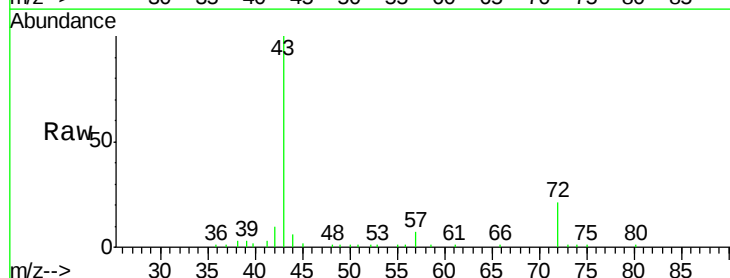
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TPTW-04

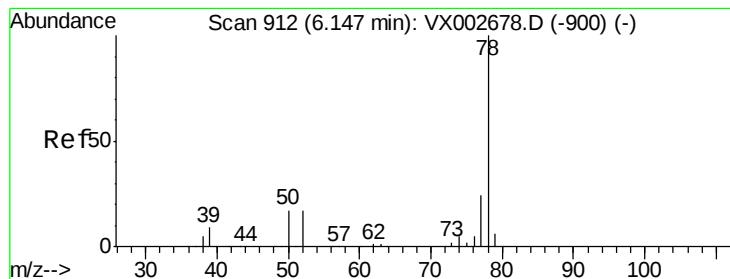
Tot Ion:114 Resp: 228424  
 Ion Ratio Lower Upper  
 114 100  
 63 20.4 17.1 25.7  
 88 15.1 12.6 19.0



#30  
 2-Butanone  
 Concen: 14.95 ug/l  
 RT: 4.72 min Scan# 678  
 Delta R.T. -0.00 min  
 Lab File: VX002687.D  
 Acq: 18 Jun 2018 18:48

Tgt Ion: 43 Resp: 26388  
 Ion Ratio Lower Upper  
 43 100  
 57 8.9 6.1 9.1  
 72 24.6 18.1 27.1





#34

Benzene

Concen: 10.26 ug/l

RT: 6.15 min Scan# 912

Delta R.T. -0.00 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

Instrument :

MSVOA\_X

ClientSampleId :

TPTW-04

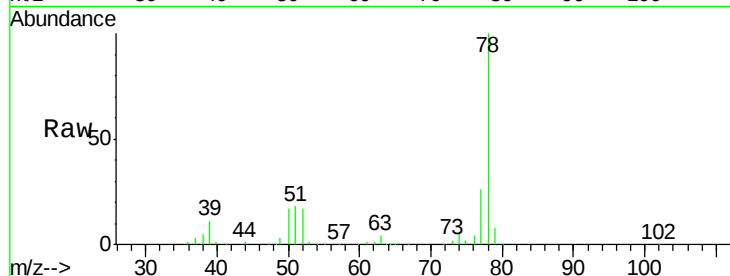
Tot Ion: 78 Resp: 93707

Ion Ratio Lower Upper

78 100

77 25.4 19.4 29.0

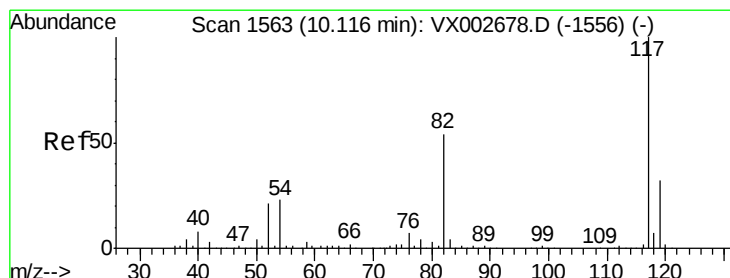
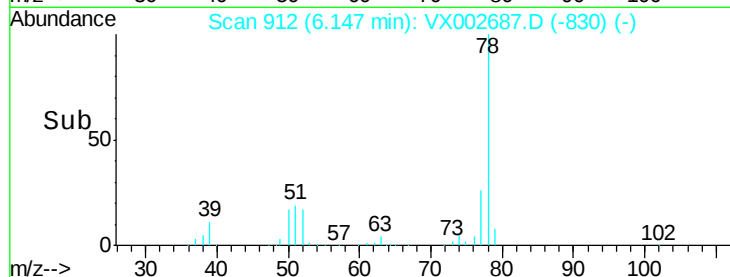
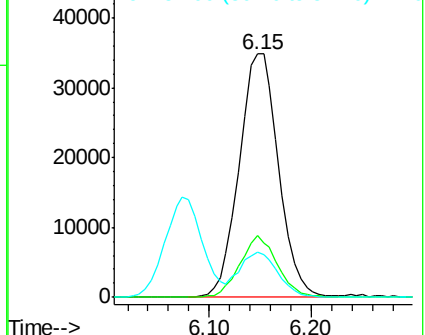
51 18.5 13.8 20.6



Abundance Ion 78.10 (77.80 to 78.80): VX0

Ion 77.00 (76.70 to 77.70): VX0

Ion 51.00 (50.70 to 51.70): VX0



#57

Chlorobenzene-d5

Concen: 30.00 ug/l

RT: 10.12 min Scan# 1563

Delta R.T. -0.00 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

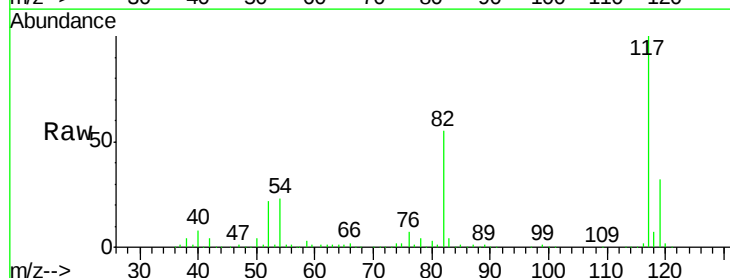
Tgt Ion: 117 Resp: 203447

Ion Ratio Lower Upper

117 100

82 54.3 44.3 66.5

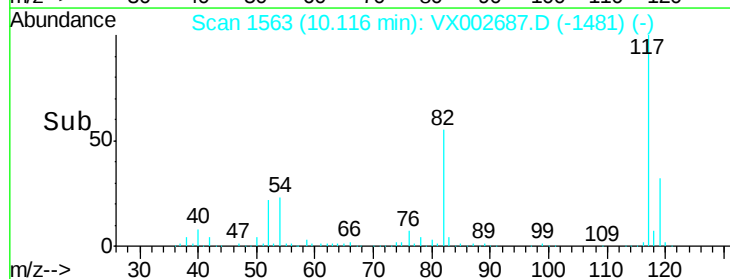
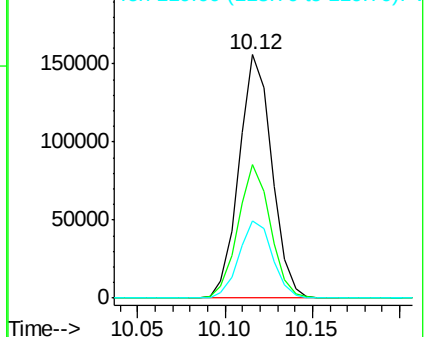
119 32.3 25.7 38.5

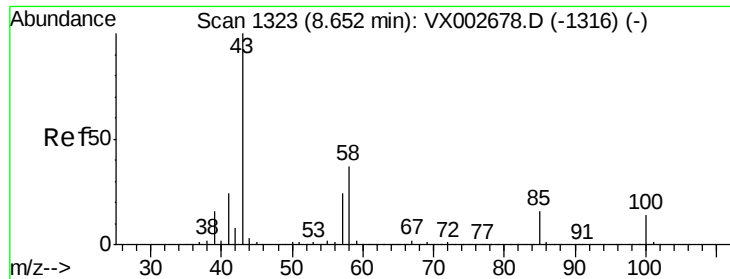


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 119.00 (118.70 to 119.70): V

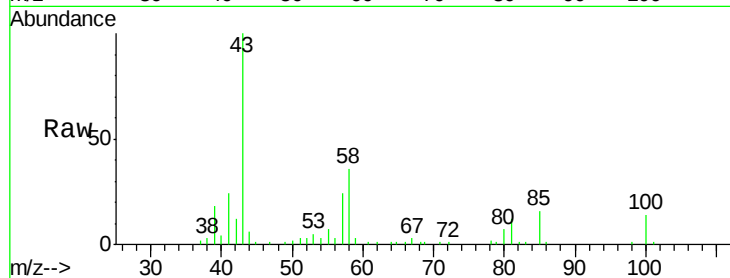




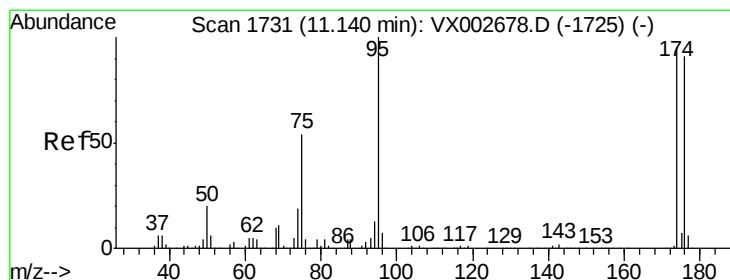
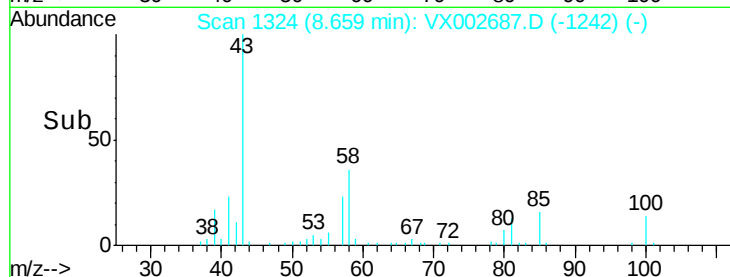
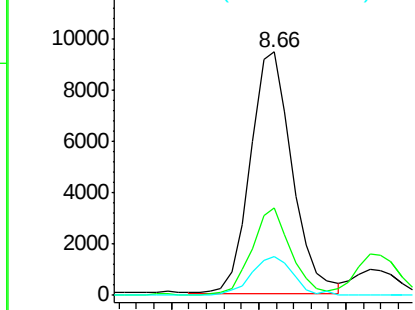
#58  
4-Methyl-2-Pentanone  
Concen: 4.55 ug/l  
RT: 8.66 min Scan# 1324  
Delta R.T. -0.00 min  
Lab File: VX002687.D  
Acq: 18 Jun 2018 18:48

Instrument :  
MSVOA\_X  
ClientSampleId :  
TPTW-04

Tot Ion: 43 Resp: 15701  
Ion Ratio Lower Upper  
43 100  
58 33.6 28.2 42.4  
85 15.8 12.4 18.6

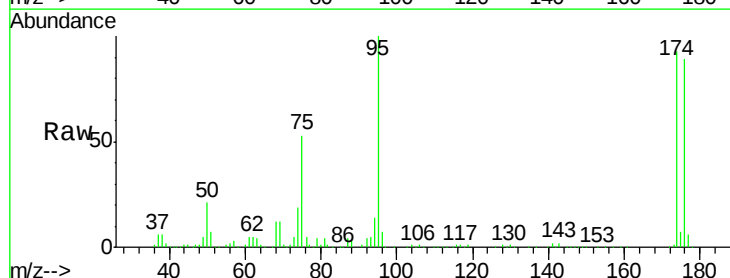


Abundance Ion 43.00 (42.70 to 43.70): VX0  
Ion 58.00 (57.70 to 58.70): VX0  
Ion 85.00 (84.70 to 85.70): VX0

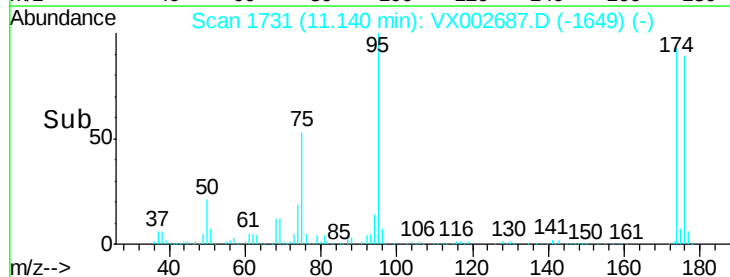
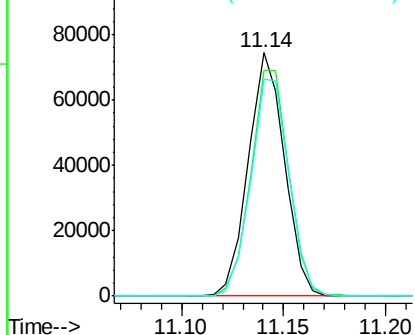


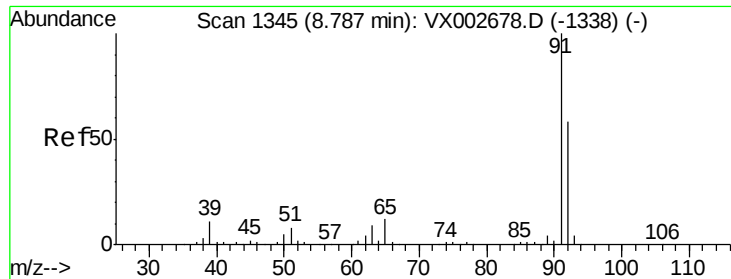
#60  
4-Bromofluorobenzene  
Concen: 27.48 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. -0.00 min  
Lab File: VX002687.D  
Acq: 18 Jun 2018 18:48

Tgt Ion: 95 Resp: 92348  
Ion Ratio Lower Upper  
95 100  
174 97.8 71.8 107.6  
176 94.3 70.1 105.1



Abundance Ion 95.00 (94.70 to 95.70): VX0  
Ion 174.00 (173.70 to 174.70): V  
Ion 176.00 (175.70 to 176.70): V





#62

Toluene

Concen: 1.38 ug/l

RT: 8.79 min Scan# 1346

Delta R.T. -0.00 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

Instrument :

MSVOA\_X

ClientSampleId :

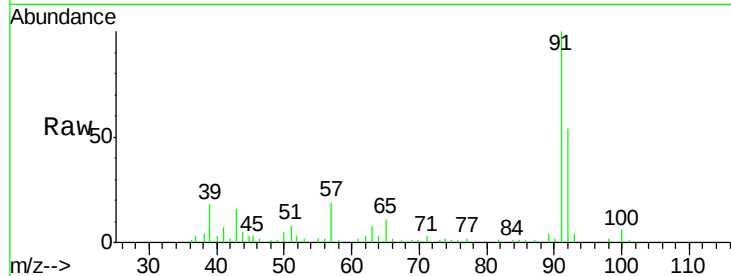
TPTW-04

Tot Ion: 91 Resp: 13536

Ion Ratio Lower Upper

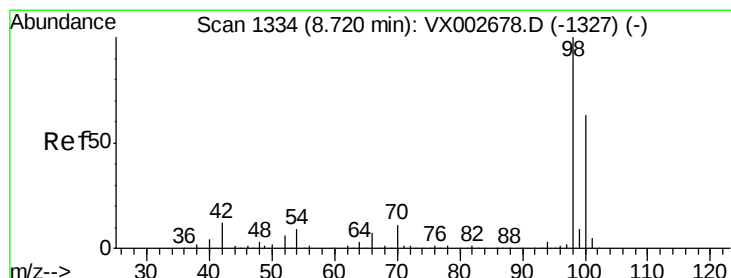
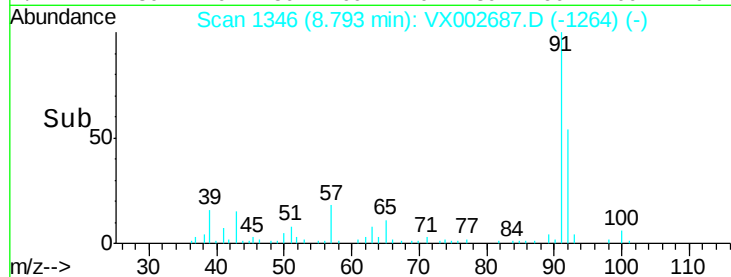
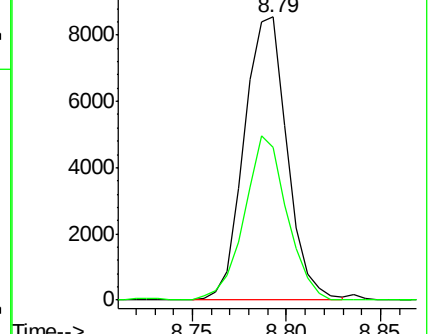
91 100

92 57.1 46.5 69.7



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 92.00 (91.70 to 92.70): VX0



#63

Toluene-d8

Concen: 30.08 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. -0.00 min

Lab File: VX002687.D

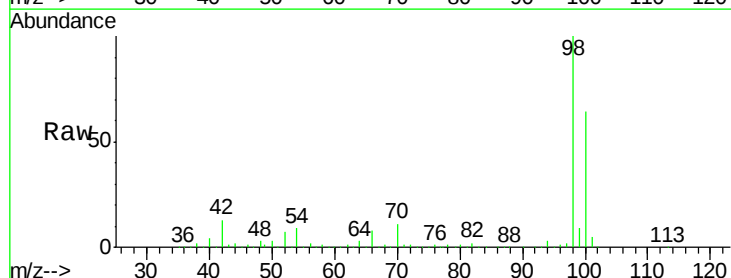
Acq: 18 Jun 2018 18:48

Tgt Ion: 98 Resp: 267315

Ion Ratio Lower Upper

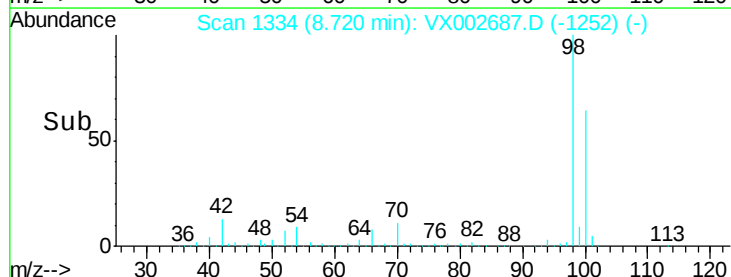
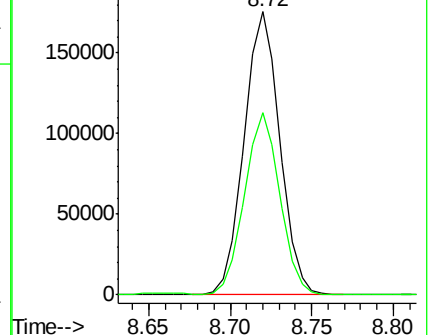
98 100

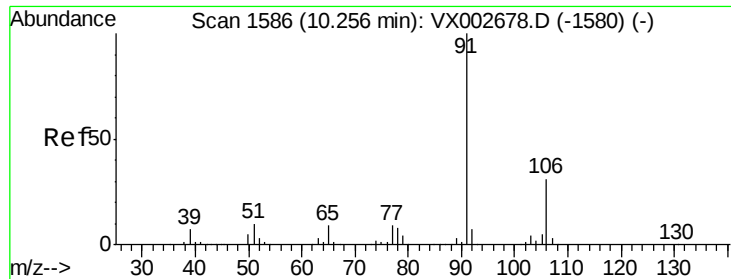
100 63.8 50.8 76.2



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0





#66

Ethyl Benzene

Concen: 0.34 ug/l

RT: 10.26 min Scan# 1586

Delta R.T. -0.00 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

Instrument :

MSVOA\_X

ClientSampled :

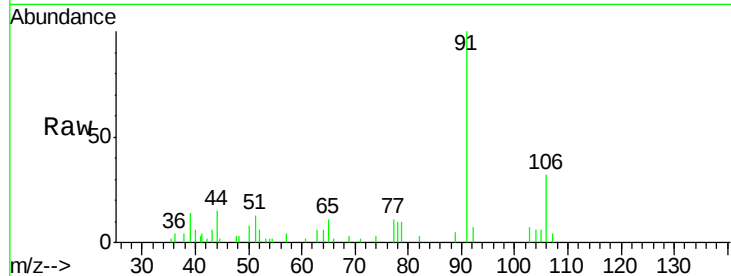
TPTW-04

Tot Ion: 91 Resp: 3736

Ion Ratio Lower Upper

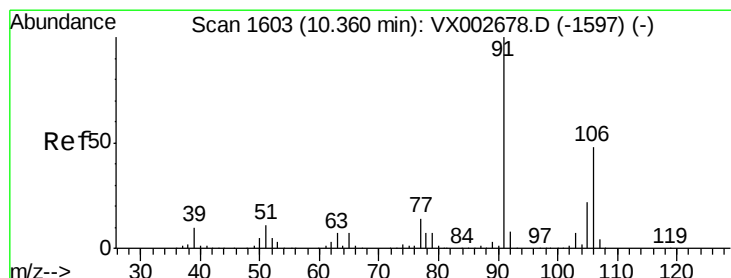
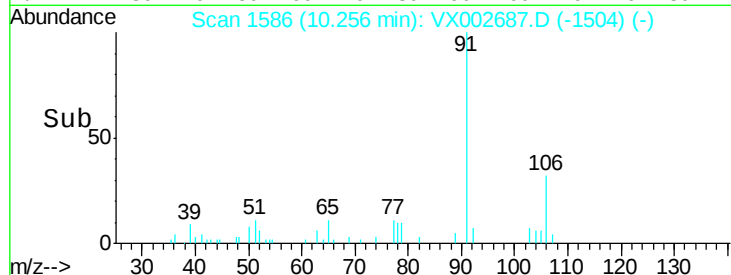
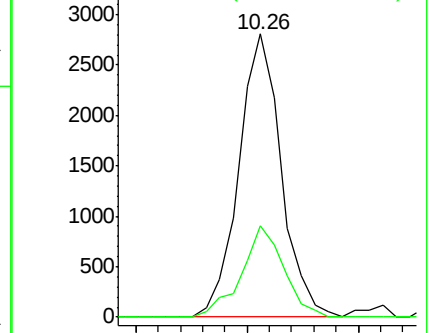
91 100

106 32.5 25.2 37.8



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 106.00 (105.70 to 106.70): V



#67

m/p-Xylenes

Concen: 0.80 ug/l

RT: 10.36 min Scan# 1603

Delta R.T. -0.01 min

Lab File: VX002687.D

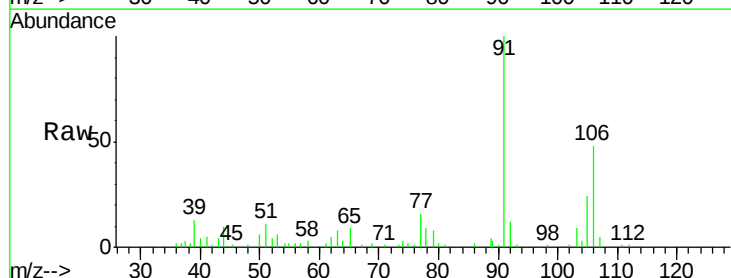
Acq: 18 Jun 2018 18:48

Tgt Ion: 106 Resp: 3424

Ion Ratio Lower Upper

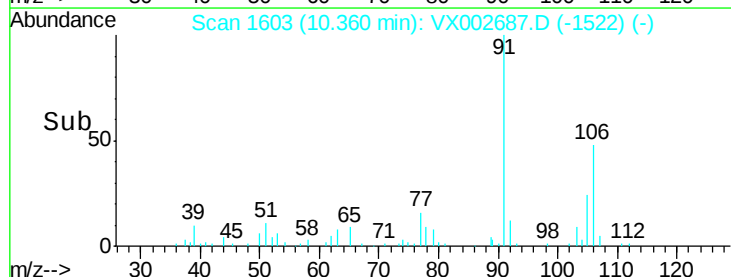
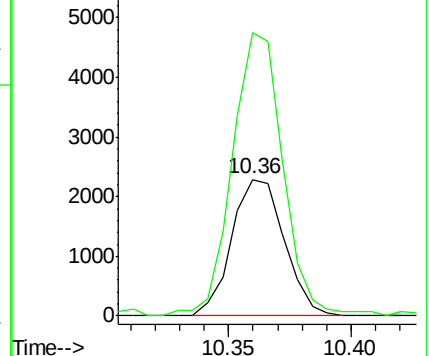
106 100

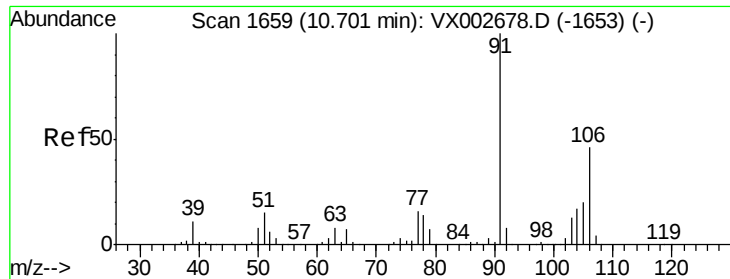
91 199.0 164.1 246.1



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0

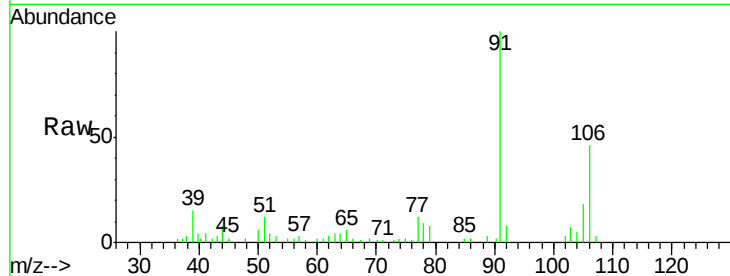




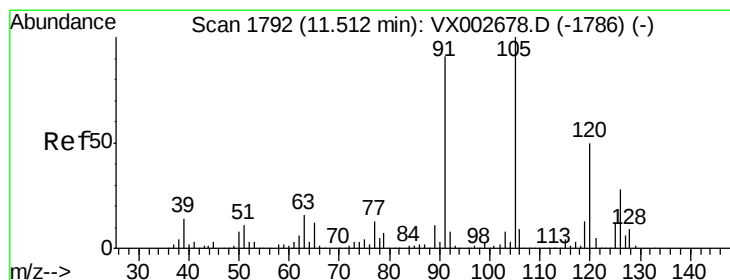
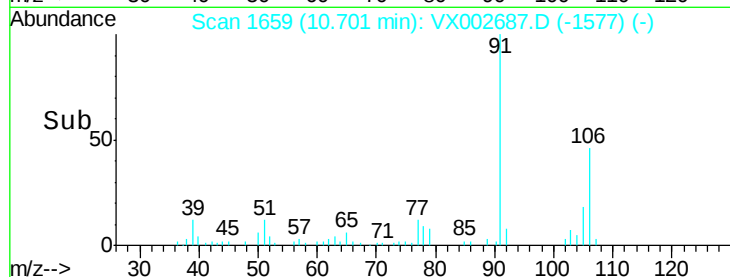
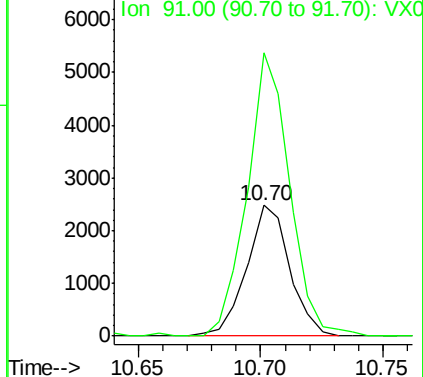
#68  
o-Xylene  
Concen: 0.73 ug/l  
RT: 10.70 min Scan# 1659  
Delta R.T. -0.00 min  
Lab File: VX002687.D  
Acq: 18 Jun 2018 18:48

Instrument :  
MSVOA\_X  
ClientSampled :  
TPTW-04

Tot Ion:106 Resp: 3057  
Ion Ratio Lower Upper  
106 100  
91 212.4 109.1 327.3

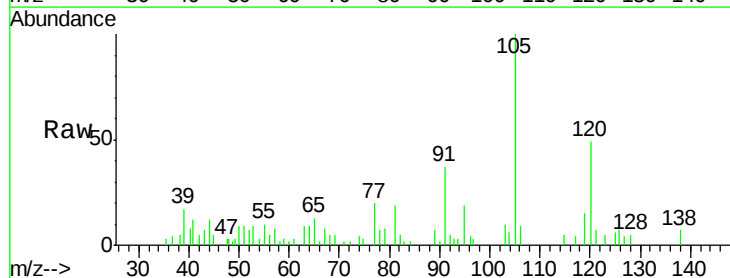


Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VX0

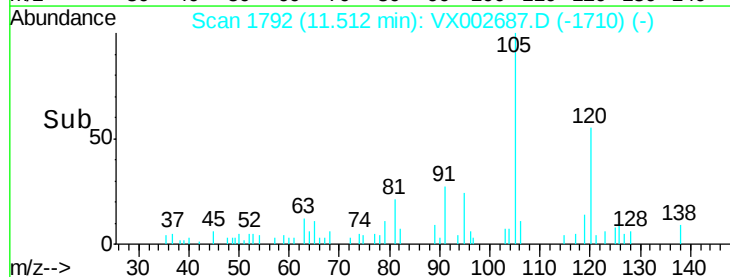
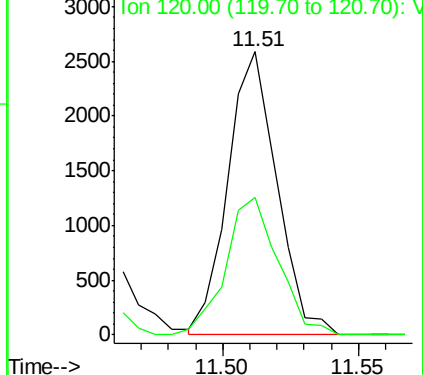


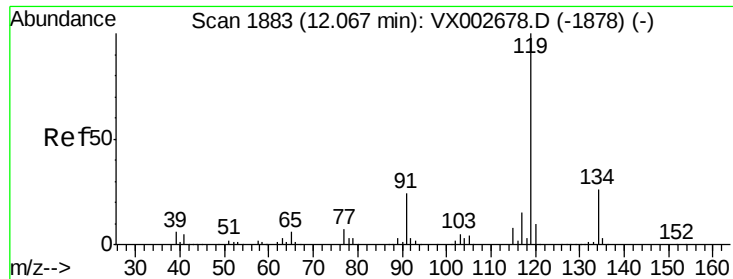
#76  
1,3,5-Trimethylbenzene  
Concen: 0.33 ug/l  
RT: 11.51 min Scan# 1792  
Delta R.T. -0.00 min  
Lab File: VX002687.D  
Acq: 18 Jun 2018 18:48

Tgt Ion:105 Resp: 3233  
Ion Ratio Lower Upper  
105 100  
120 52.0 0.0 96.8



Abundance Ion 105.00 (104.70 to 105.70): V  
Ion 120.00 (119.70 to 120.70): V





#79

tert-butylbenzene

Concen: 0.48 ug/l

RT: 12.07 min Scan# 1884

Delta R.T. 0.01 min

Lab File: VX002687.D

Acq: 18 Jun 2018 18:48

Instrument :

MSVOA\_X

ClientSampled :

TPTW-04

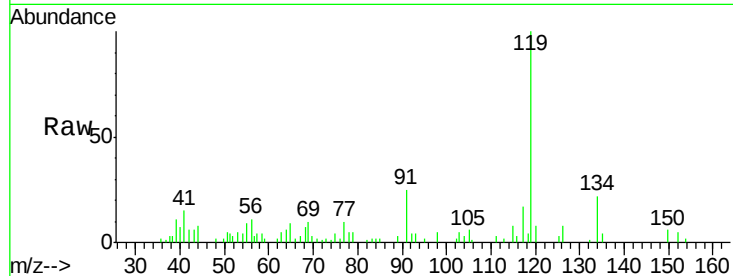
Tot Ion:119 Resp: 5165

Ion Ratio Lower Upper

119 100

91 25.6 0.0 48.0

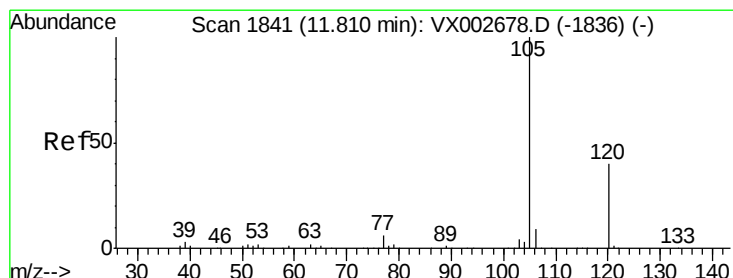
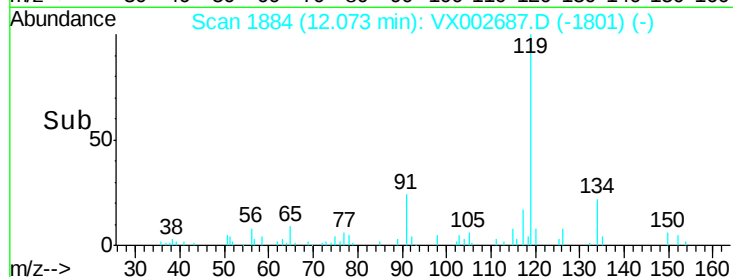
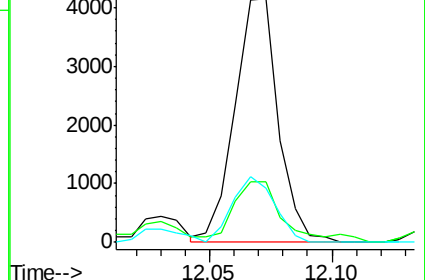
134 26.1 0.0 52.6



Abundance Ion 119.00 (118.70 to 119.70): V

Ion 91.00 (90.70 to 91.70): VX0

Ion 134.00 (133.70 to 134.70): V



#80

1,2,4-Trimethylbenzene

Concen: 0.80 ug/l

RT: 11.81 min Scan# 1841

Delta R.T. -0.00 min

Lab File: VX002687.D

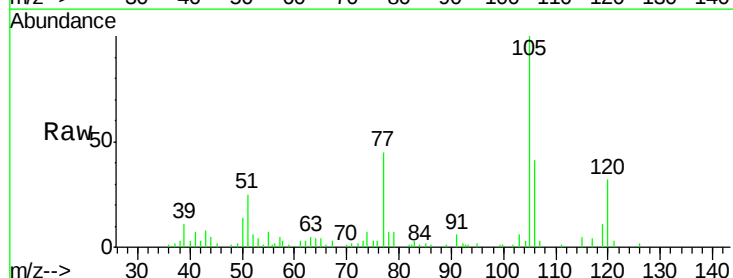
Acq: 18 Jun 2018 18:48

Tgt Ion:105 Resp: 7959

Ion Ratio Lower Upper

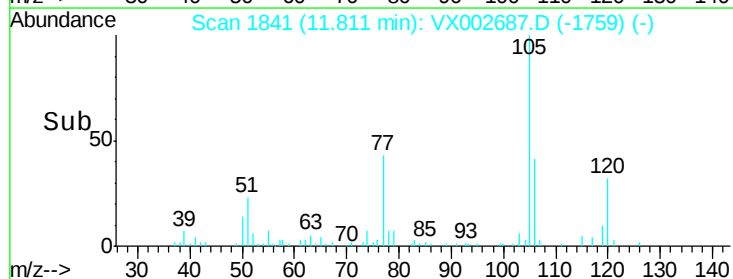
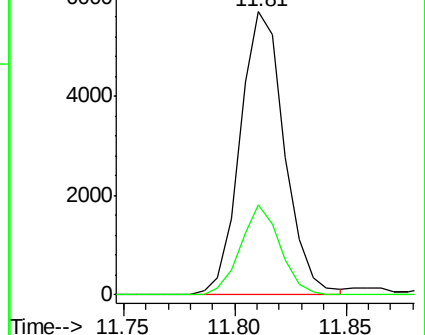
105 100

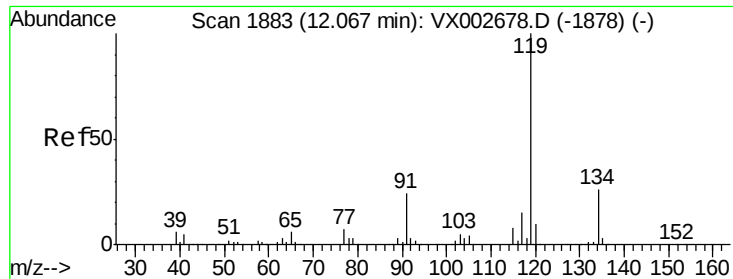
120 28.2 0.0 89.2



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

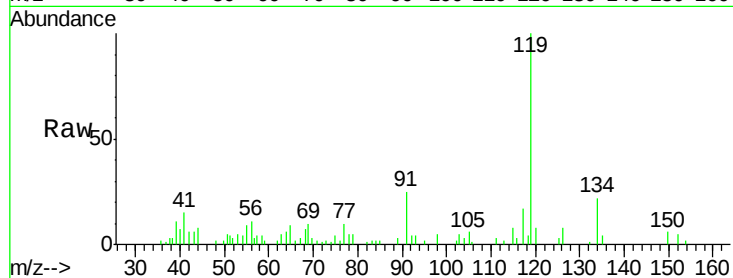




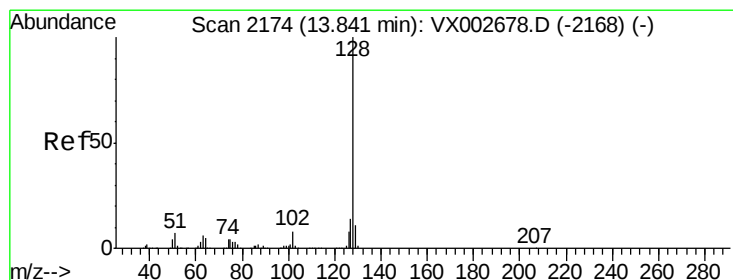
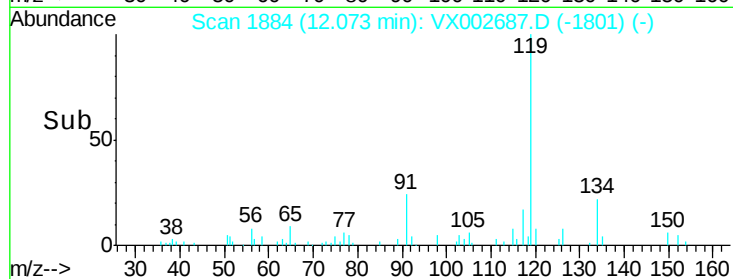
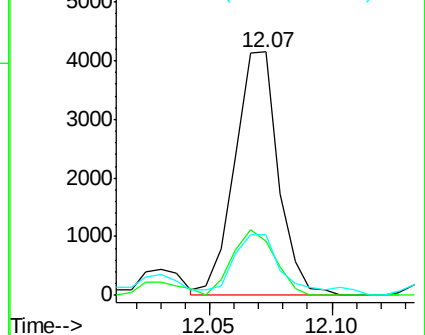
#82  
p-Isopropyltoluene  
Concen: 0.48 ug/l  
RT: 12.07 min Scan# 1884  
Delta R.T. 0.01 min  
Lab File: VX002687.D  
Acq: 18 Jun 2018 18:48

Instrument :  
MSVOA\_X  
ClientSampled :  
TPTW-04

Tot Ion:119 Resp: 5165  
Ion Ratio Lower Upper  
119 100  
134 26.1 0.0 52.6  
91 25.6 0.0 48.0

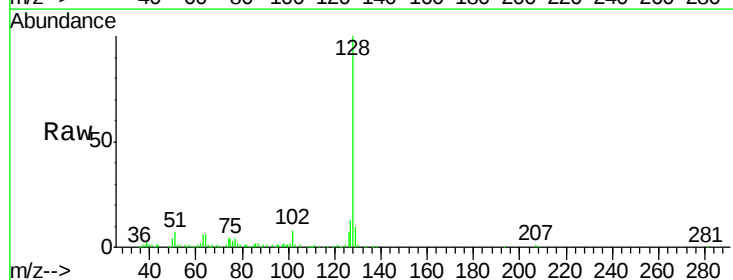


Abundance Ion 119.00 (118.70 to 119.70): V  
Ion 134.00 (133.70 to 134.70): V  
Ion 91.00 (90.70 to 91.70): V



#91  
Naphthalene  
Concen: 3.06 ug/l  
RT: 13.84 min Scan# 2174  
Delta R.T. -0.00 min  
Lab File: VX002687.D  
Acq: 18 Jun 2018 18:48

Tgt Ion:128 Resp: 36507  
Ion Ratio Lower Upper  
128 100  
127 13.2 10.3 15.5  
129 11.1 8.9 13.3



Abundance Ion 128.00 (127.70 to 128.70): V  
Ion 127.00 (126.70 to 127.70): V  
Ion 129.00 (128.70 to 129.70): V

