

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070618\  
 Data File : VX003228.D  
 Acq On : 06 Jul 2018 22:26  
 Operator : JC/MD  
 Sample : J3754-07  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 22 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :

Quant Time: Jul 07 00:04:24 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X062518W.M  
 Quant Title : SW846 8260  
 QLast Update : Mon Jun 25 14:38:05 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 283579   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 396873   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 368566   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 208624   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units  | Dev(Min) |
|-----------------------------|-------|------|----------|-------|--------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.07  | 65   | 182447   | 46.55 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.10% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 151373   | 48.16 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.32% |          |
| 50) Toluene-d8              | 8.72  | 98   | 549728   | 47.90 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 95.80% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 192920   | 43.59 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 87.18% |          |

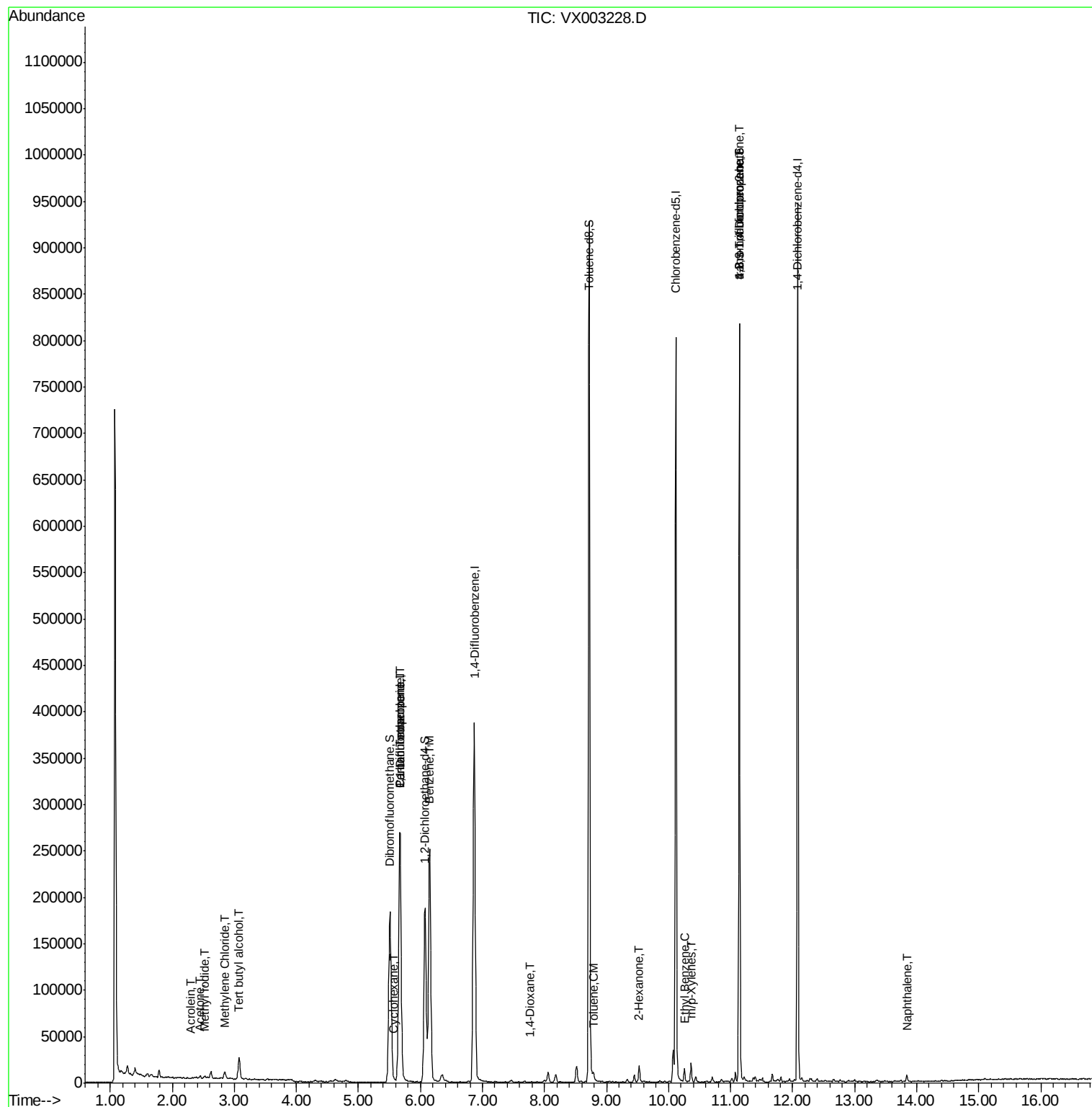
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|--------------------------------|-------|------|----------|-----------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.20  | 85   | 261      | Below Cal |       | 89     |
| 3) Chloromethane               | 1.32  | 50   | 1103     | Below Cal | #     | 78     |
| 5) Bromomethane                | 1.65  | 94   | 2569     | Below Cal |       | 94     |
| 6) Chloroethane                | 1.72  | 64   | 123      | Below Cal |       | 93     |
| 10) Methyl Iodide              | 2.52  | 142  | 3033     | 7.06      | ug/l  | 98     |
| 11) Tert butyl alcohol         | 3.07  | 59   | 29317    | 37.55     | ug/l  | 97     |
| 13) Acrolein                   | 2.29  | 56   | 63       | 4.37      | ug/l  | # 14   |
| 16) Acetone                    | 2.45  | 43   | 3455     | 2.13      | ug/l  | 100    |
| 20) Methylene Chloride         | 2.85  | 84   | 1026     | 0.32      | ug/l  | # 94   |
| 31) Cyclohexane                | 5.57  | 56   | 1496     | 0.30      | ug/l  | # 94   |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 18037    | 4.14      | ug/l  | # 51   |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 24911    | 5.22      | ug/l  | # 16   |
| 40) Benzene                    | 6.15  | 78   | 297791   | 23.55     | ug/l  | 99     |
| 49) 1,4-Dioxane                | 7.77  | 88   | 20       | 0.25      | ug/l  | # 1    |
| 52) Toluene                    | 8.79  | 92   | 1984     | 0.24      | ug/l  | 90     |
| 59) 2-Hexanone                 | 9.52  | 43   | 1593     | 0.43      | ug/l  | 92     |
| 67) Ethyl Benzene              | 10.26 | 91   | 7615     | 0.49      | ug/l  | 98     |
| 68) m/p-Xylenes                | 10.36 | 106  | 4829     | 0.81      | ug/l  | 99     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 96799    | 25.62     | ug/l  | # 33   |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 96799    | 72.69     | ug/l  | # 7    |
| 95) Naphthalene                | 13.84 | 128  | 4190     | 0.29      | ug/l  | 97     |

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

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Quant Time: Jul 07 00:04:24 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X062518W.M  
Quant Title : SW846 8260  
QLast Update : Mon Jun 25 14:38:05 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.00 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

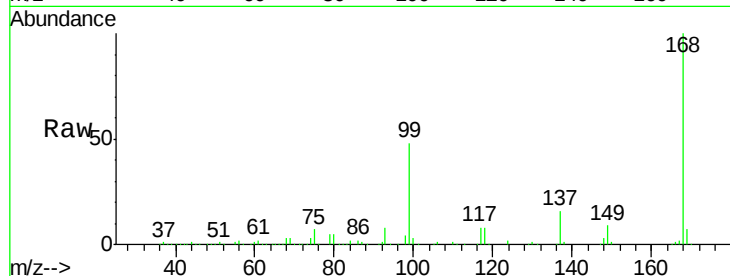
Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:168 Resp: 283579

Ion Ratio Lower Upper

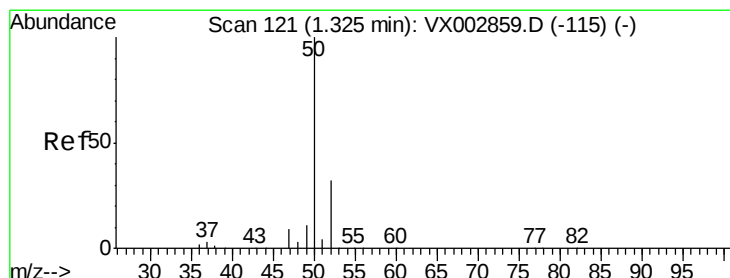
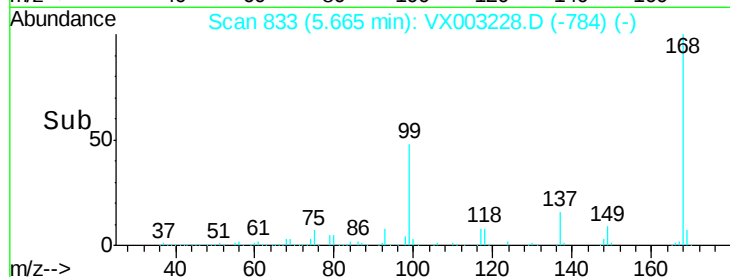
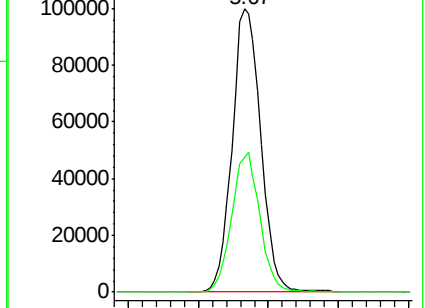
168 100

99 47.7 39.3 58.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#3

Chloromethane

Concen: Below Cal

RT: 1.32 min Scan# 121

Delta R.T. 0.00 min

Lab File: VX003228.D

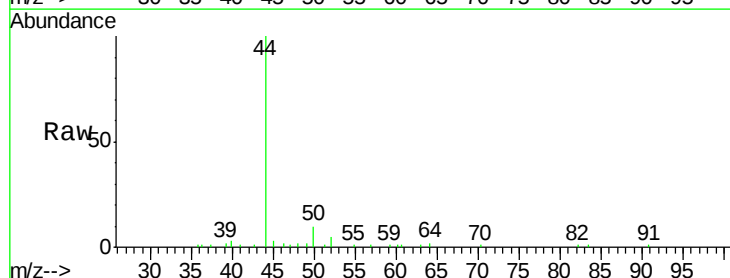
Acq: 06 Jul 2018 22:26

Tgt Ion: 50 Resp: 1103

Ion Ratio Lower Upper

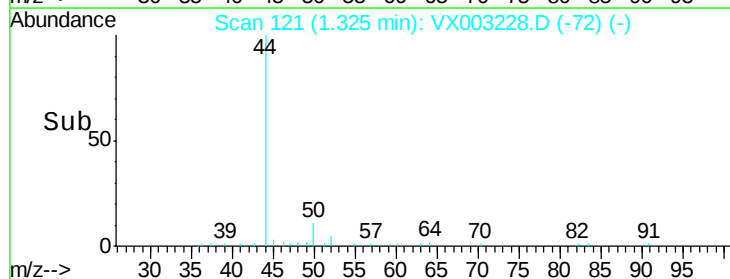
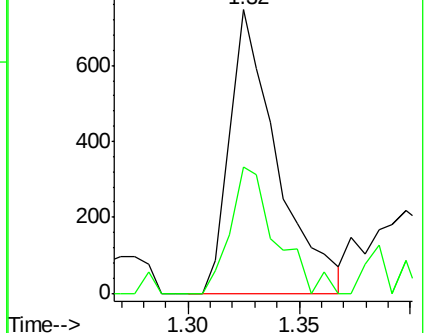
50 100

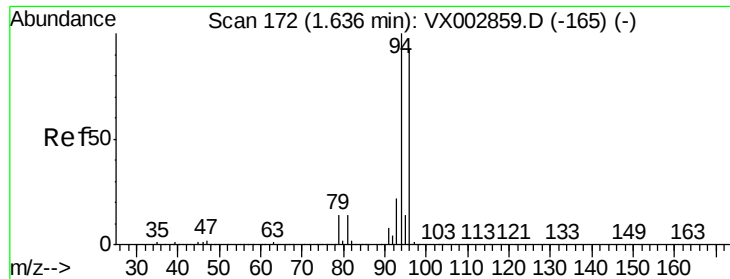
52 44.4 25.7 38.5#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0





#5

Bromomethane

Concen: Below Cal

RT: 1.65 min Scan# 174

Delta R.T. 0.01 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

Instrument :

MSVOA\_X

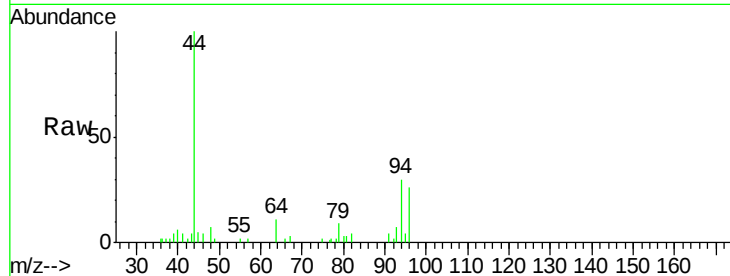
ClientSampleId :

Tot Ion: 94 Resp: 2569

Ion Ratio Lower Upper

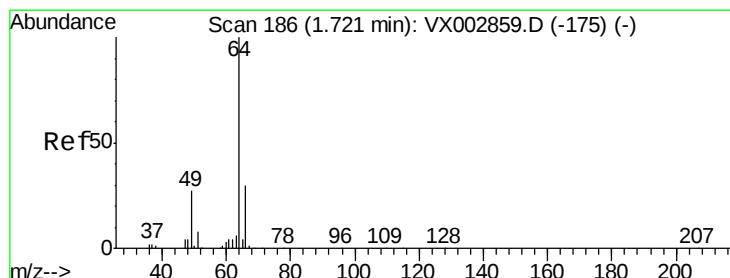
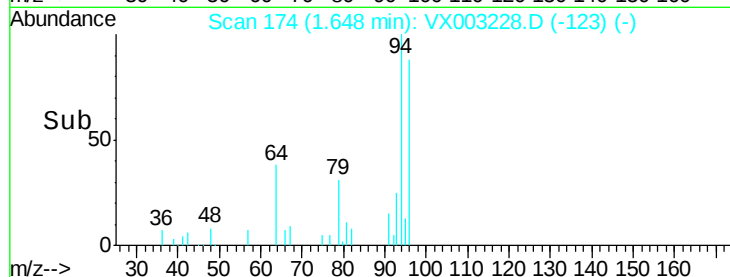
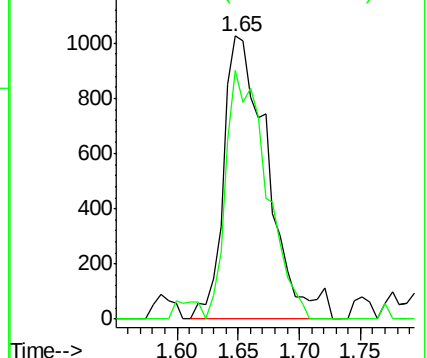
94 100

96 88.1 74.9 112.3



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0



#6

Chloroethane

Concen: Below Cal

RT: 1.72 min Scan# 186

Delta R.T. -0.00 min

Lab File: VX003228.D

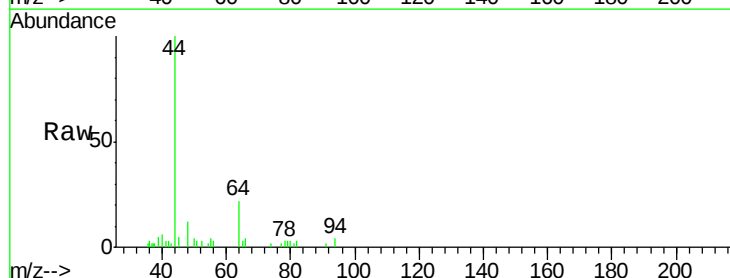
Acq: 06 Jul 2018 22:26

Tgt Ion: 64 Resp: 123

Ion Ratio Lower Upper

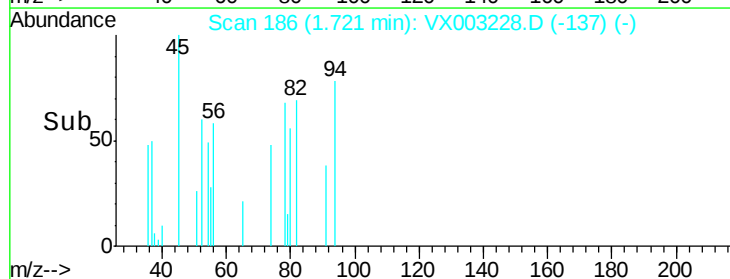
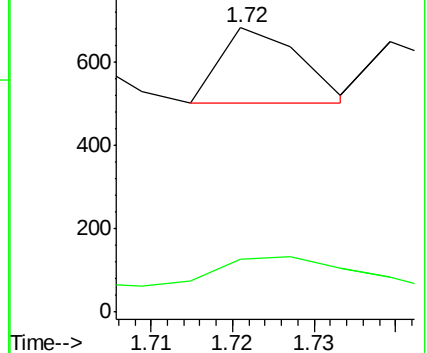
64 100

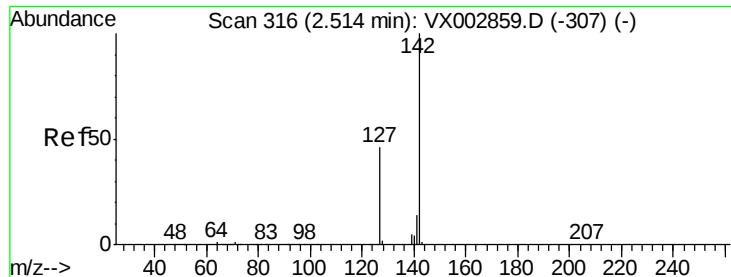
66 28.2 25.5 38.3



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0





#10

Methyl Iodide

Concen: 7.06 ug/l

RT: 2.52 min Scan# 317

Delta R.T. 0.01 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

Instrument :  
MSVOA\_X  
ClientSampleId :

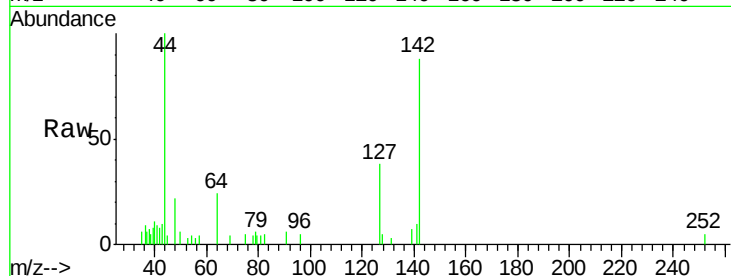
Tot Ion:142 Resp: 3033

Ion Ratio Lower Upper

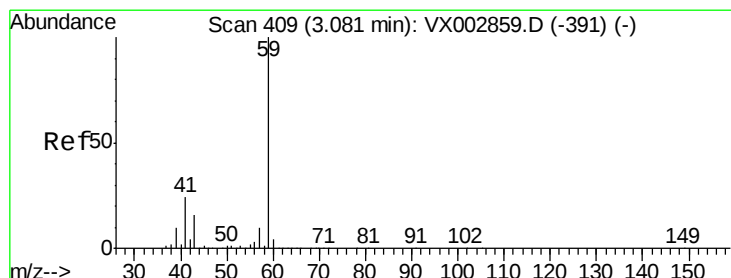
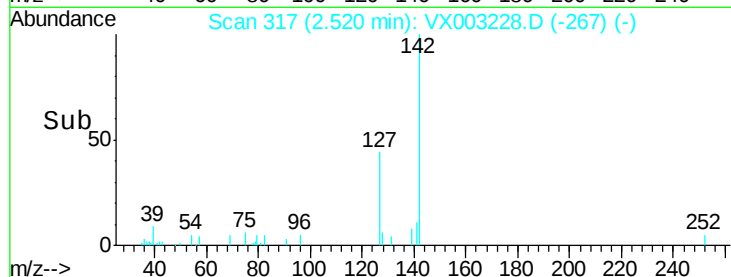
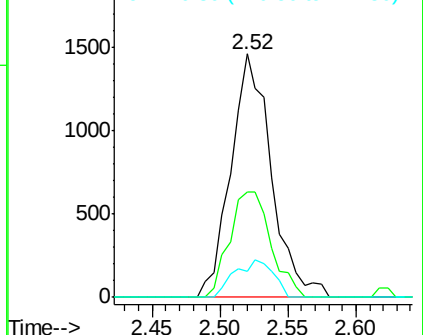
142 100

127 44.2 36.6 55.0

141 14.6 11.3 16.9



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



#11

Tert butyl alcohol

Concen: 37.55 ug/l

RT: 3.07 min Scan# 408

Delta R.T. -0.01 min

Lab File: VX003228.D

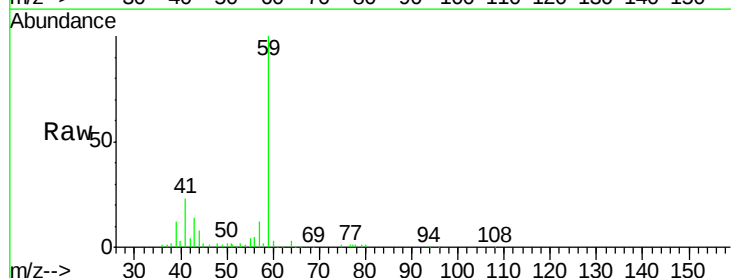
Acq: 06 Jul 2018 22:26

Tgt Ion: 59 Resp: 29317

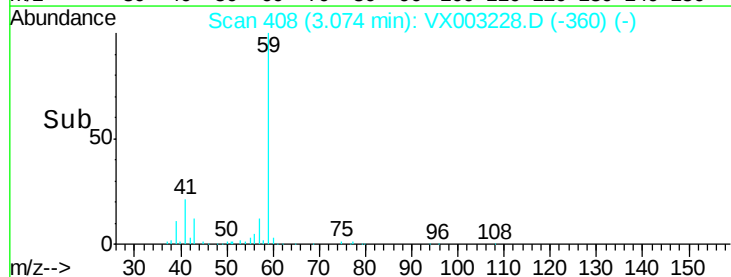
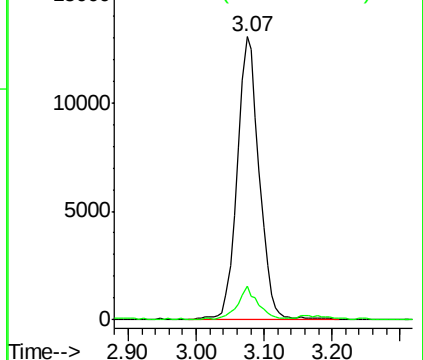
Ion Ratio Lower Upper

59 100

57 11.2 8.2 12.2



Abundance Ion 59.00 (58.70 to 59.70): VX0  
Ion 57.00 (56.70 to 57.70): VX0





#13

Acrolein

Concen: 4.37 ug/l

RT: 2.29 min Scan# 279

Delta R.T. -0.01 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

Instrument :

MSVOA\_X

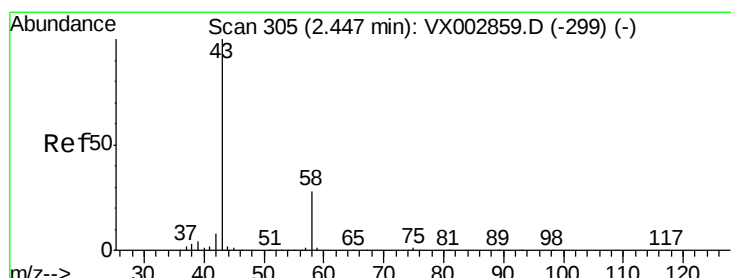
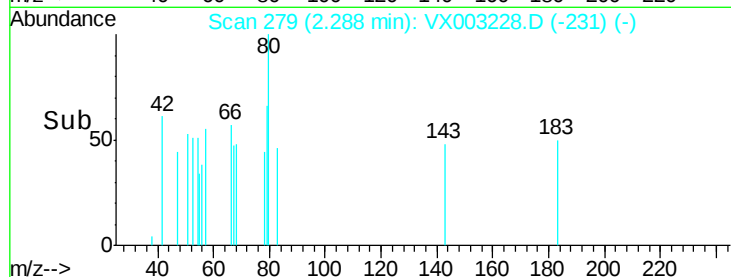
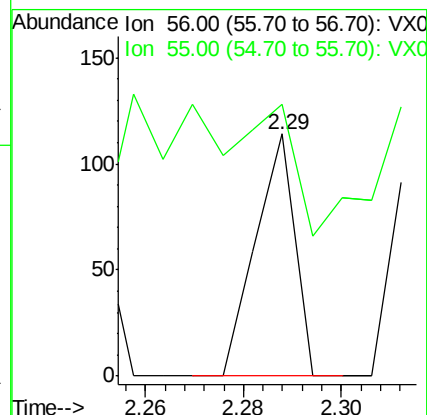
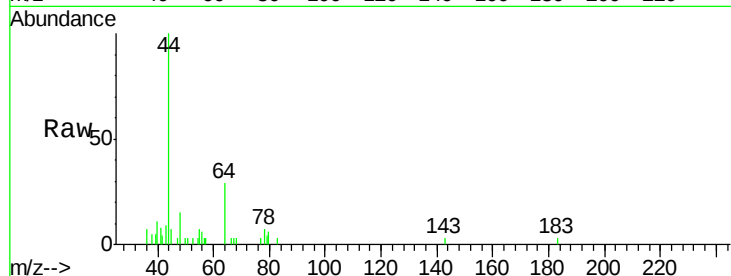
ClientSampled :

Tot Ion: 56 Resp: 63

Ion Ratio Lower Upper

56 100

55 0.0 57.0 85.4#



#16

Acetone

Concen: 2.13 ug/l

RT: 2.45 min Scan# 306

Delta R.T. 0.01 min

Lab File: VX003228.D

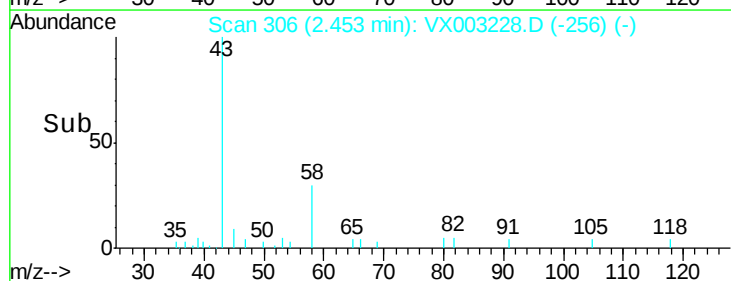
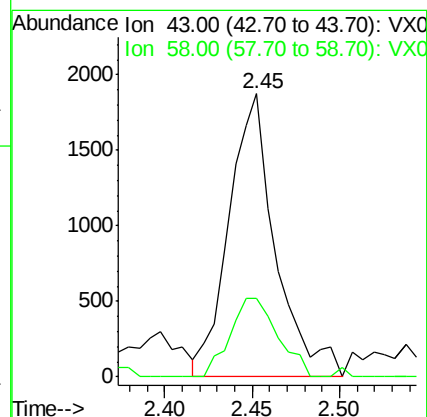
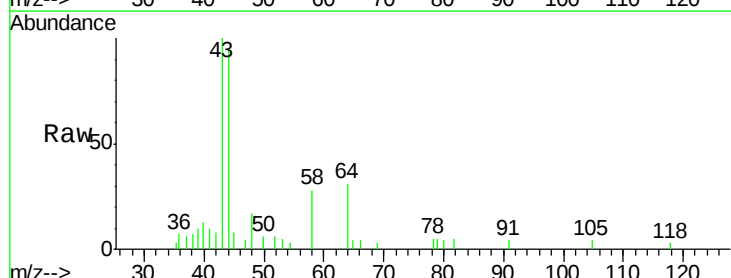
Acq: 06 Jul 2018 22:26

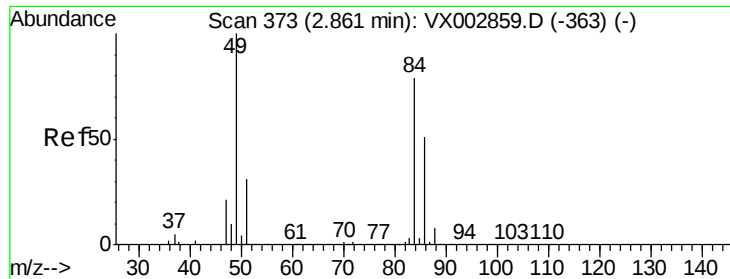
Tgt Ion: 43 Resp: 3455

Ion Ratio Lower Upper

43 100

58 27.8 22.1 33.1

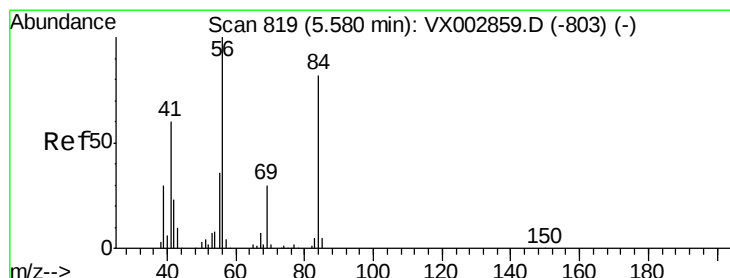
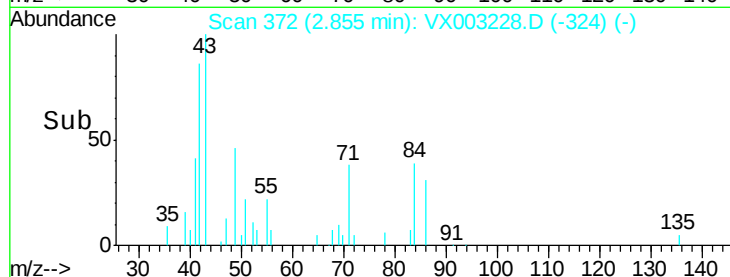
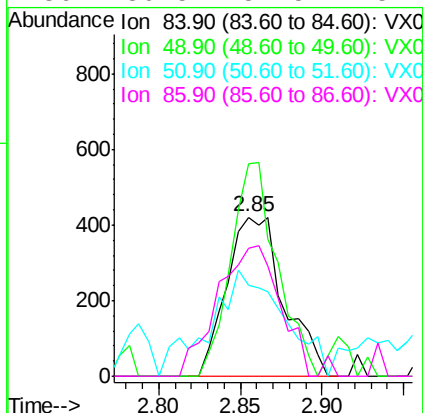
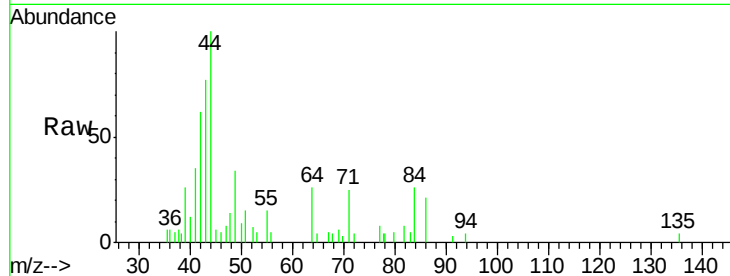




#20  
Methylene Chloride  
Concen: 0.32 ug/l  
RT: 2.85 min Scan# 372  
Delta R.T. -0.01 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

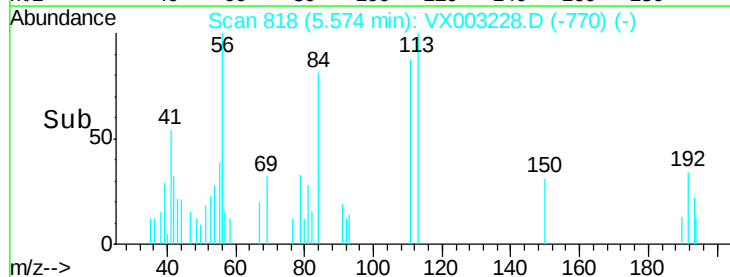
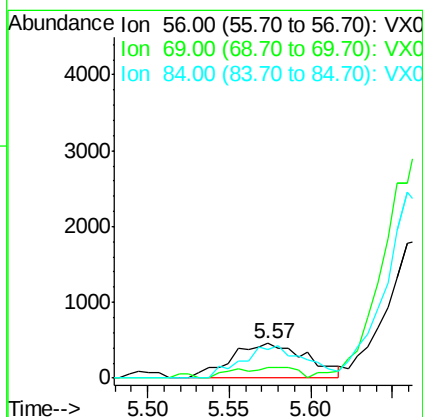
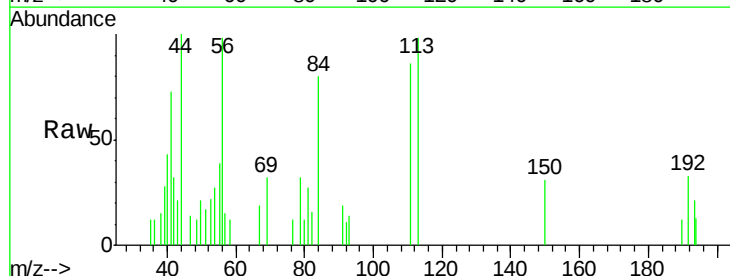
Instrument :  
MSVOA\_X  
ClientSampled :

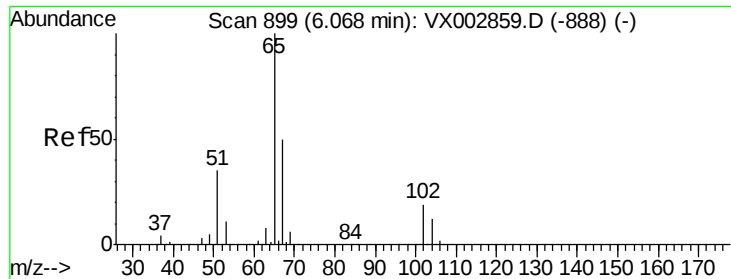
Tot Ion: 84 Resp: 1026  
Ion Ratio Lower Upper  
84 100  
49 133.3 107.8 161.6  
51 40.4 32.8 49.2  
86 80.5 52.5 78.7#



#31  
Cyclohexane  
Concen: 0.30 ug/l  
RT: 5.57 min Scan# 818  
Delta R.T. -0.01 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Tgt Ion: 56 Resp: 1496  
Ion Ratio Lower Upper  
56 100  
69 19.1 23.7 35.5#  
84 81.1 64.1 96.1





#33

1,2-Dichloroethane-d4

Concen: 46.55 ug/l

RT: 6.07 min Scan# 900

Delta R.T. 0.01 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

Instrument :

MSVOA\_X

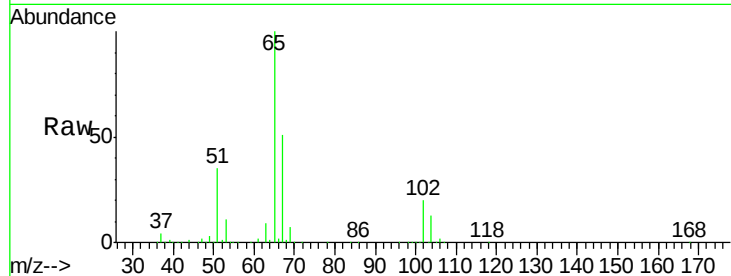
ClientSampleId :

Tot Ion: 65 Resp: 182447

Ion Ratio Lower Upper

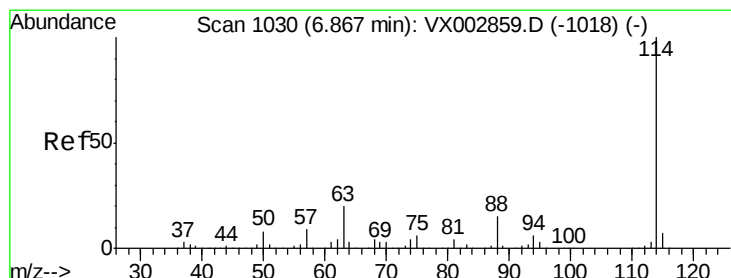
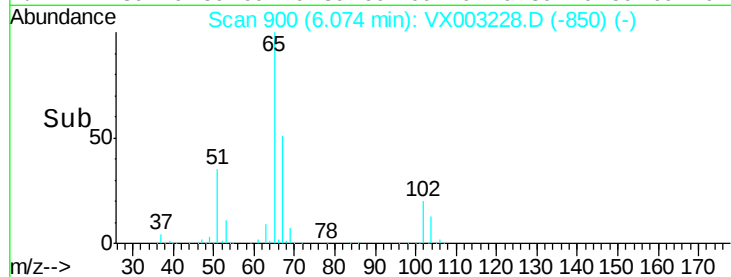
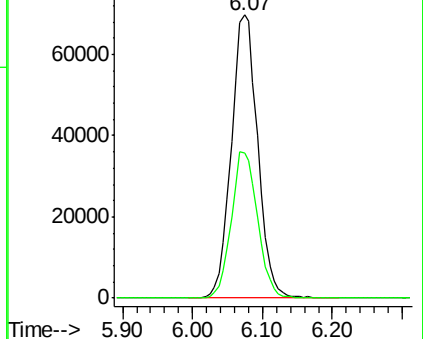
65 100

67 51.5 0.0 102.6



Abundance Ion 64.90 (64.60 to 65.60): VX0

Ion 66.90 (66.60 to 67.60): VX0



#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 6.87 min Scan# 1030

Delta R.T. -0.00 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

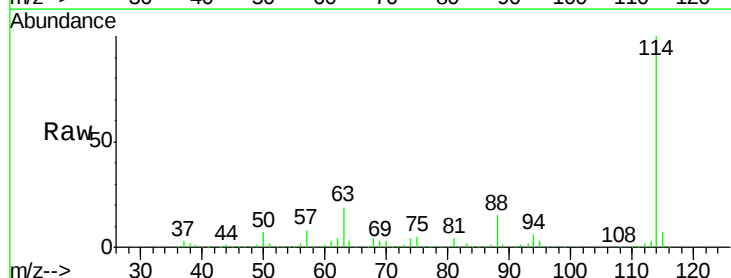
Tgt Ion: 114 Resp: 396873

Ion Ratio Lower Upper

114 100

63 19.4 0.0 41.4

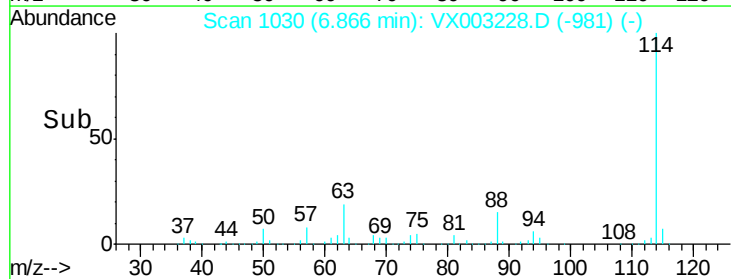
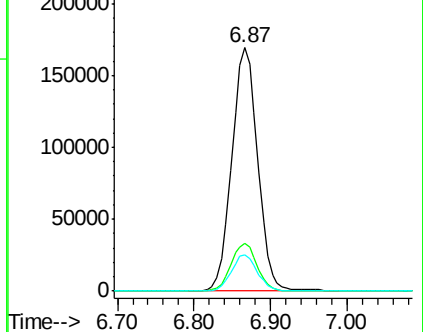
88 14.7 0.0 30.0

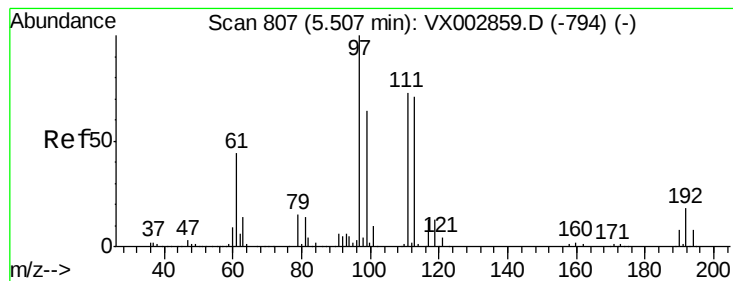


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0





#35

Dibromofluoromethane

Concen: 48.16 ug/l

RT: 5.51 min Scan# 807

Delta R.T. -0.00 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

Instrument :

MSVOA\_X

ClientSampleId :

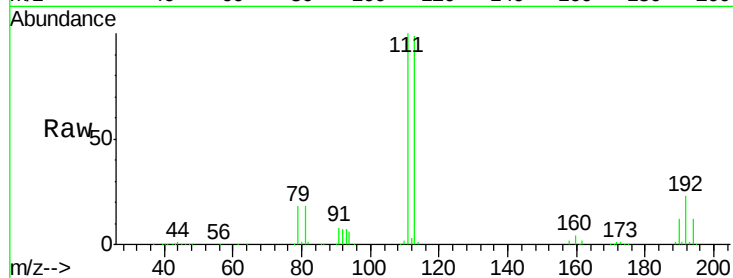
Tot Ion:113 Resp: 151373

Ion Ratio Lower Upper

113 100

111 102.8 81.4 122.0

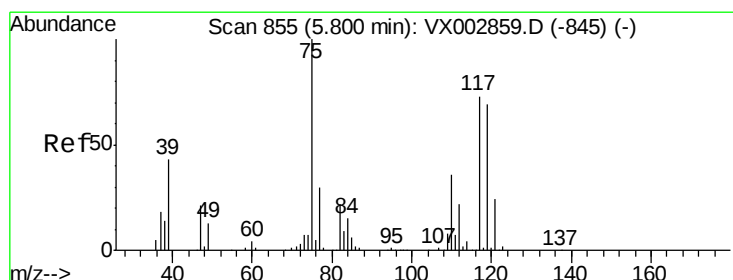
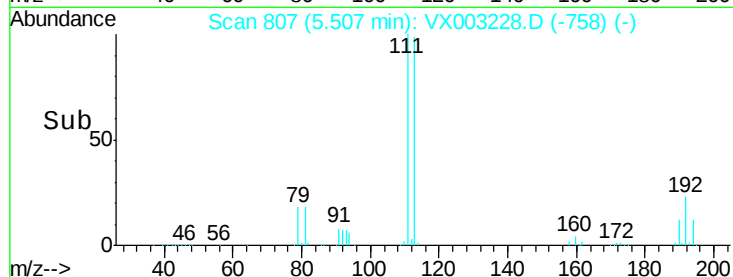
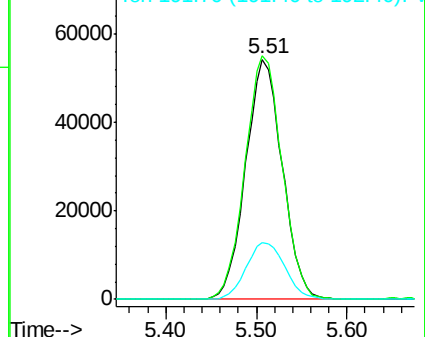
192 25.0 19.1 28.7



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: 4.14 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.13 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

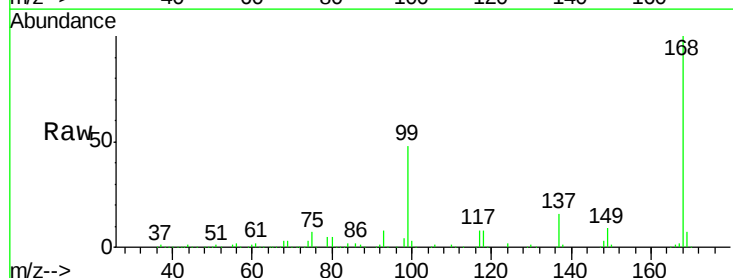
Tgt Ion: 75 Resp: 18037

Ion Ratio Lower Upper

75 100

110 10.6 18.1 54.4#

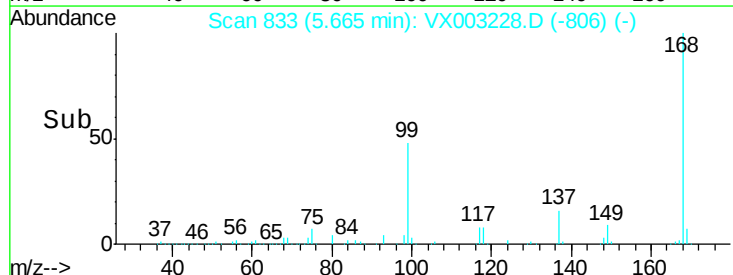
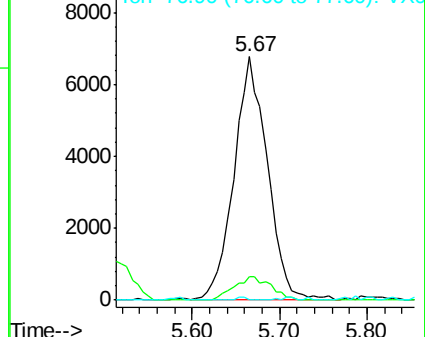
77 0.3 24.3 36.5#

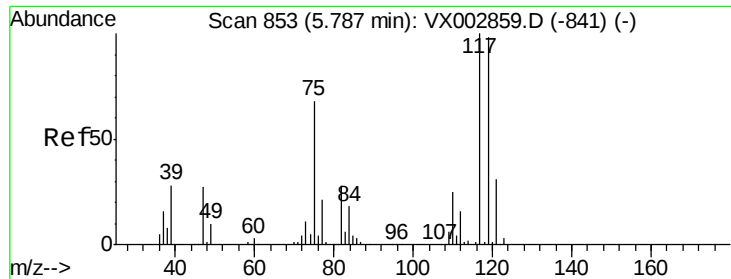


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0

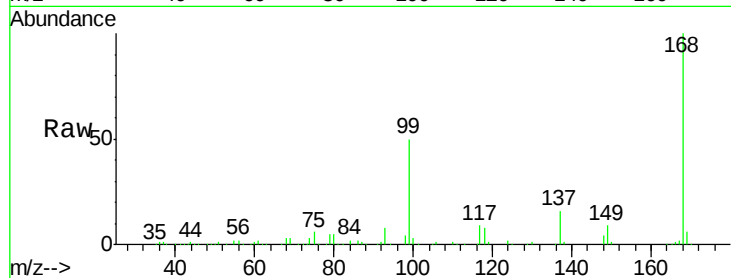




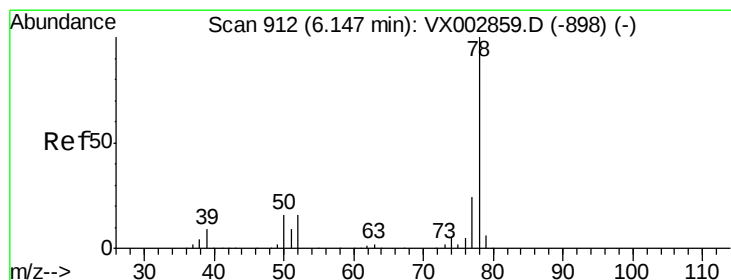
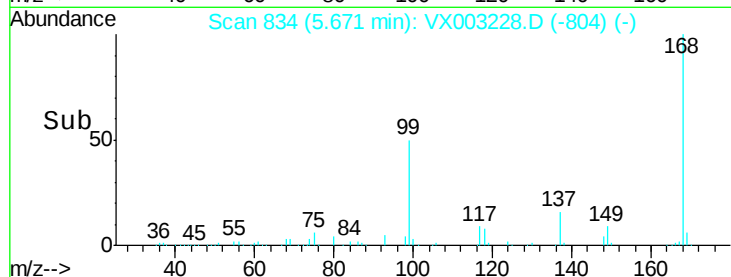
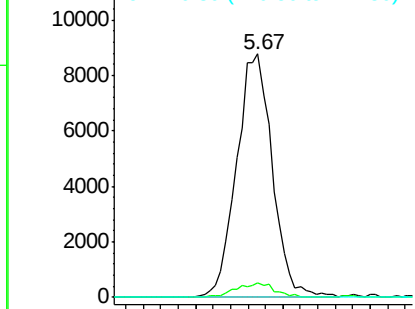
#38  
Carbon Tetrachloride  
Concen: 5.22 ug/l  
RT: 5.67 min Scan# 834  
Delta R.T. -0.12 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Instrument :  
MSVOA\_X  
ClientSampleId :

Tot Ion:117 Resp: 24911  
Ion Ratio Lower Upper  
117 100  
119 6.1 77.4 116.0#  
121 0.0 24.4 36.6#

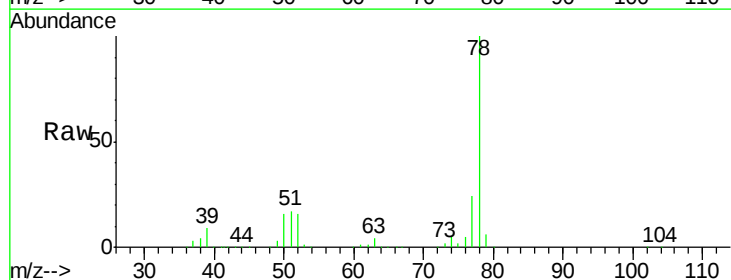


Abundance Ion 116.80 (116.50 to 117.50): V  
Ion 118.80 (118.50 to 119.50): V  
Ion 120.80 (120.50 to 121.50): V

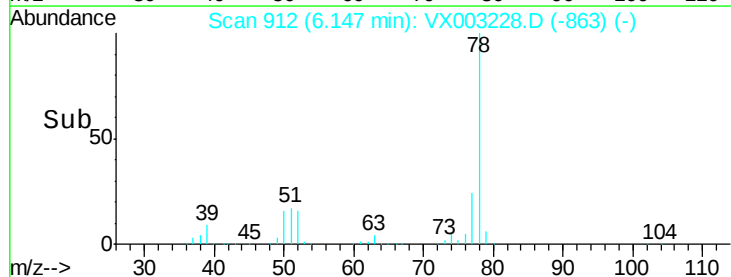
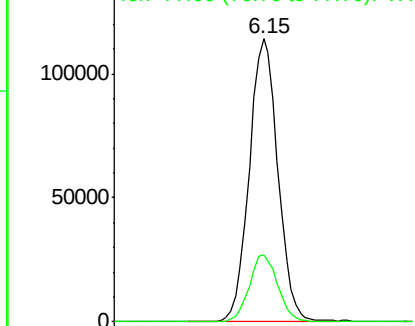


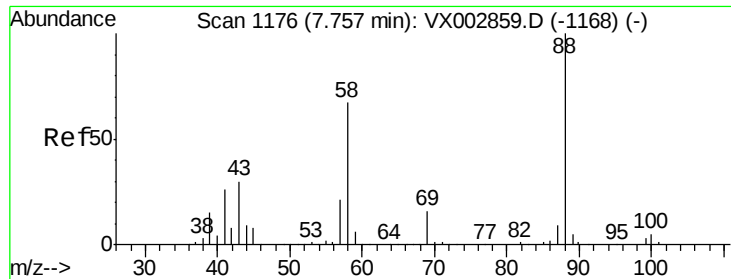
#40  
Benzene  
Concen: 23.55 ug/l  
RT: 6.15 min Scan# 912  
Delta R.T. -0.00 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Tgt Ion: 78 Resp: 297791  
Ion Ratio Lower Upper  
78 100  
77 23.6 19.1 28.7



Abundance Ion 78.00 (77.70 to 78.70): VX0  
Ion 77.00 (76.70 to 77.70): VX0

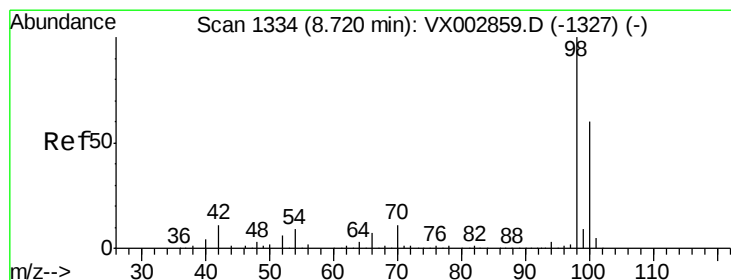
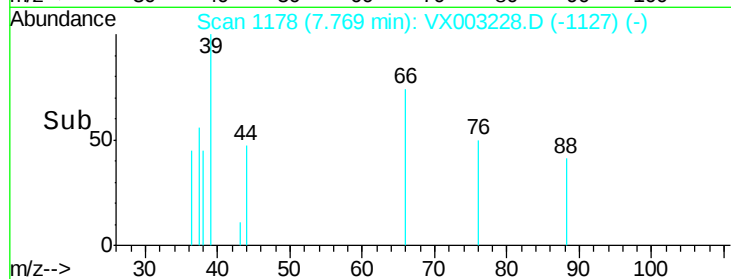
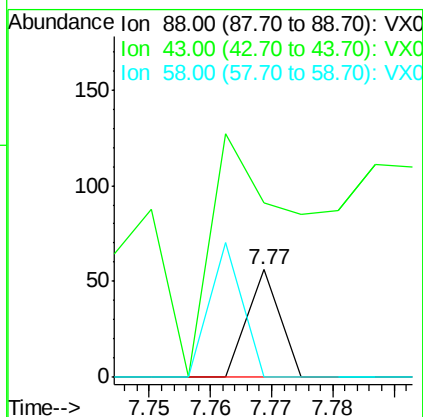
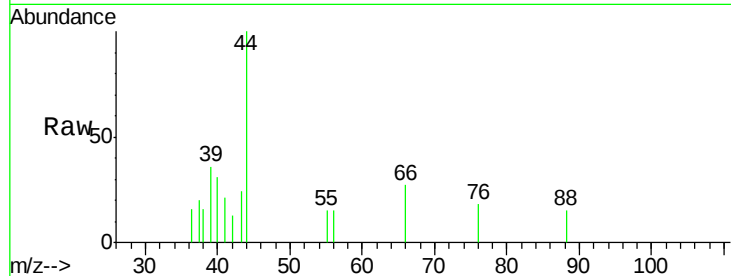




#49  
 1,4-Dioxane  
 Concen: 0.25 ug/l  
 RT: 7.77 min Scan# 1178  
 Delta R.T. 0.01 min  
 Lab File: VX003228.D  
 Acq: 06 Jul 2018 22:26

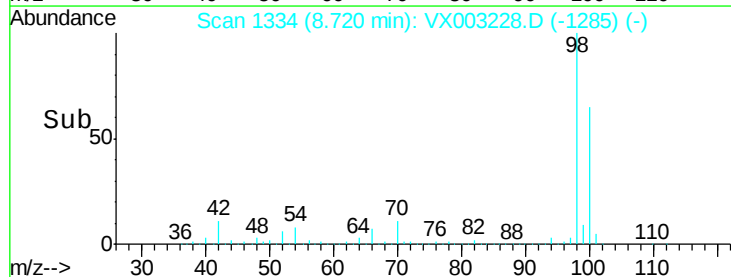
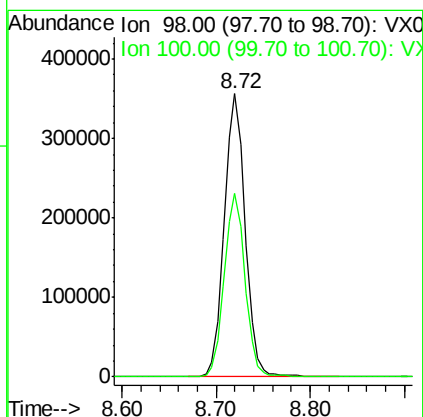
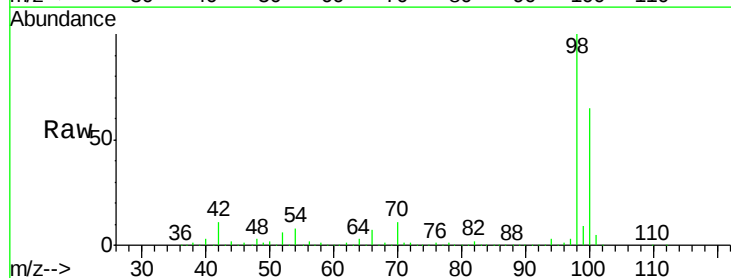
Instrument :  
 MSVOA\_X  
 ClientSampled :

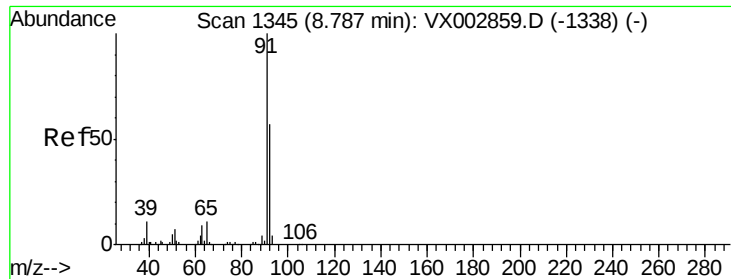
Tot Ion: 88 Resp: 20  
 Ion Ratio Lower Upper  
 88 100  
 43 555.0 29.8 44.6#  
 58 130.0 57.1 85.7#



#50  
 Toluene-d8  
 Concen: 47.90 ug/l  
 RT: 8.72 min Scan# 1334  
 Delta R.T. 0.00 min  
 Lab File: VX003228.D  
 Acq: 06 Jul 2018 22:26

Tgt Ion: 98 Resp: 549728  
 Ion Ratio Lower Upper  
 98 100  
 100 64.6 50.9 76.3





#52

Toluene

Concen: 0.24 ug/l

RT: 8.79 min Scan# 1345

Delta R.T. -0.00 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

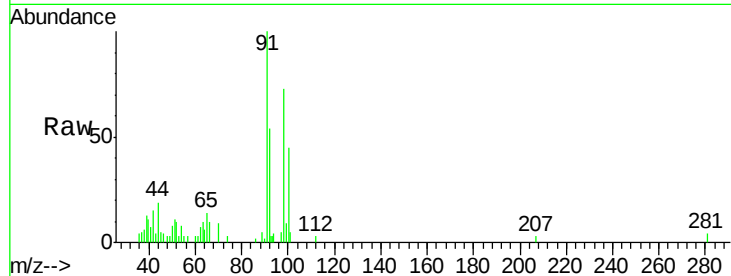
Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 92 Resp: 1984

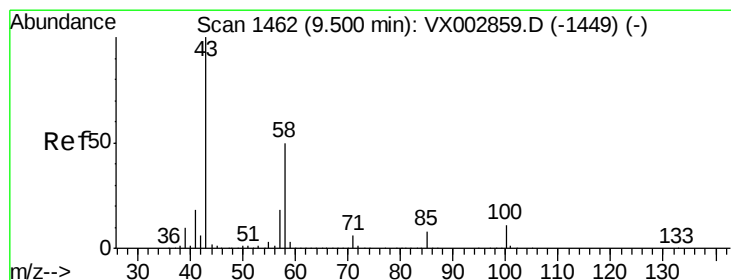
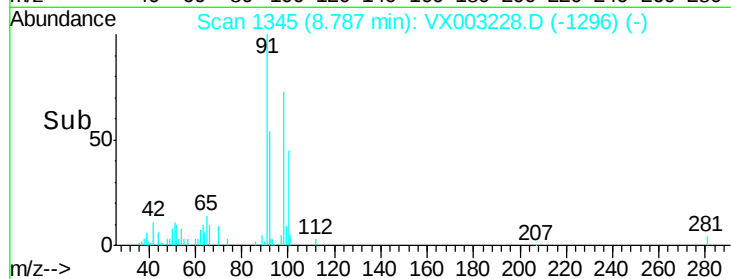
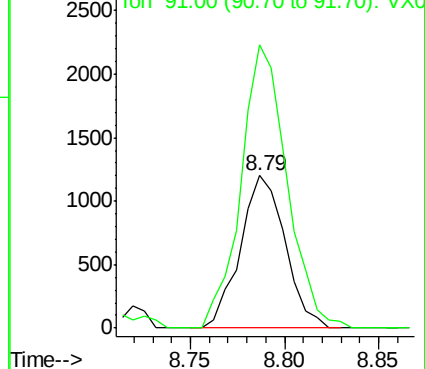
Ion Ratio Lower Upper

92 100

91 190.1 140.4 210.6



Abundance Ion 92.00 (91.70 to 92.70): VX0  
Ion 91.00 (90.70 to 91.70): VX0



#59

2-Hexanone

Concen: 0.43 ug/l

RT: 9.52 min Scan# 1466

Delta R.T. 0.02 min

Lab File: VX003228.D

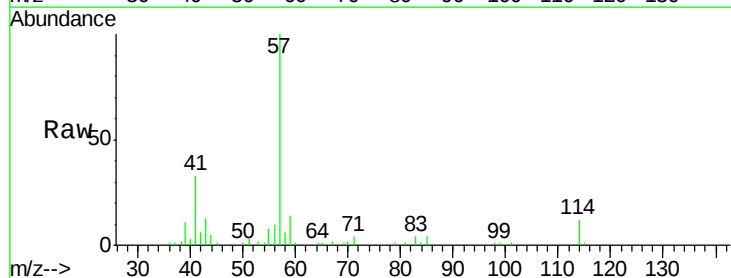
Acq: 06 Jul 2018 22:26

Tgt Ion: 43 Resp: 1593

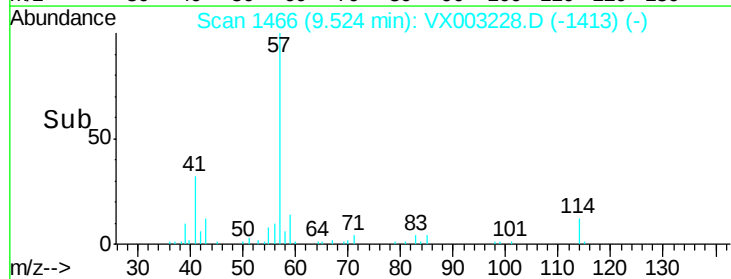
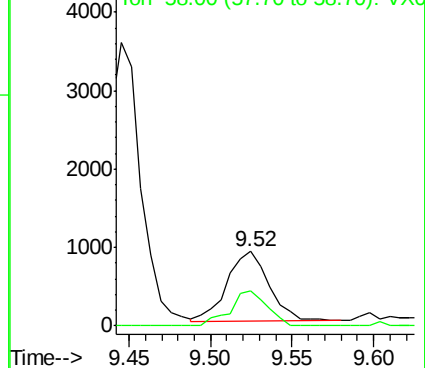
Ion Ratio Lower Upper

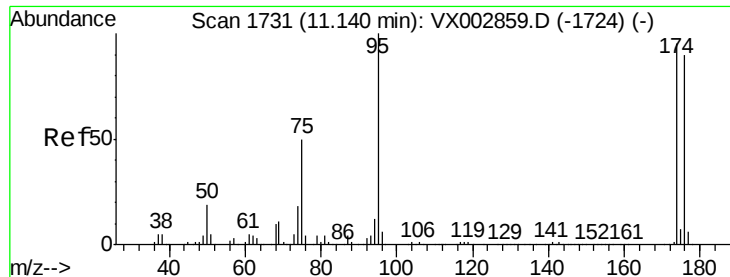
43 100

58 43.9 24.6 73.6



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

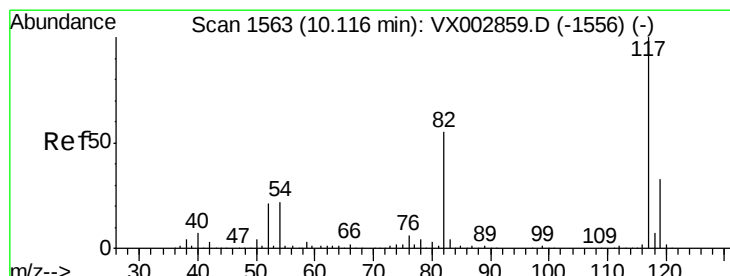
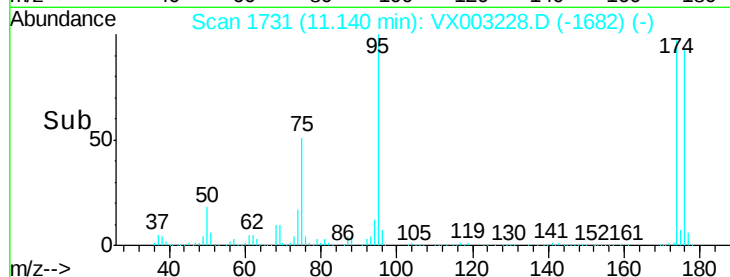
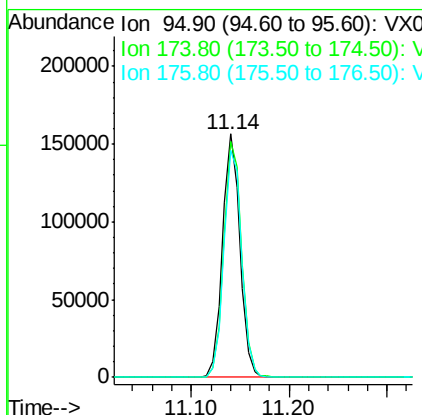
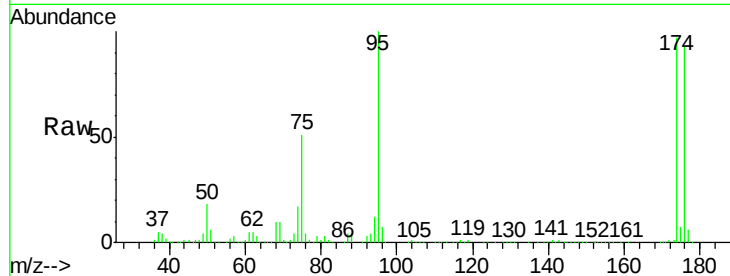




#62  
4-Bromofluorobenzene  
Concen: 43.59 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. 0.00 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

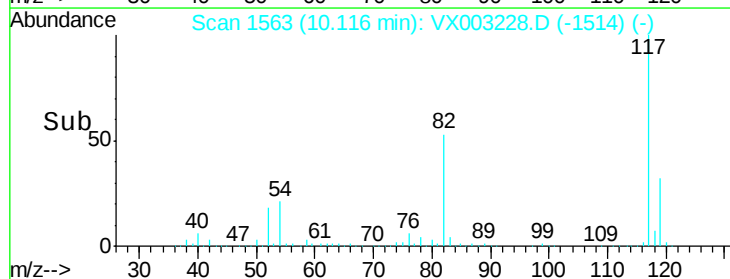
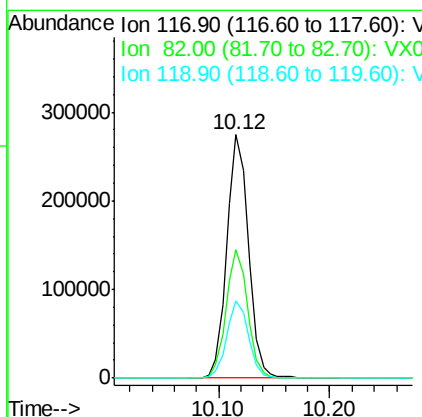
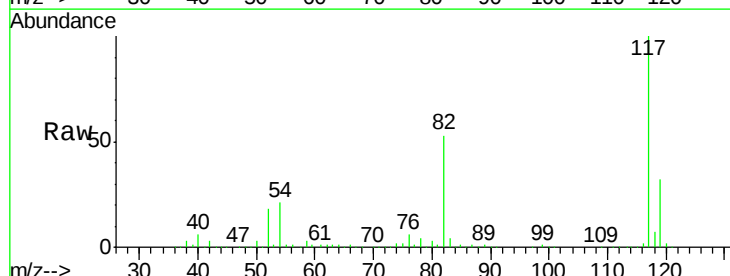
Instrument :  
MSVOA\_X  
ClientSampleId :

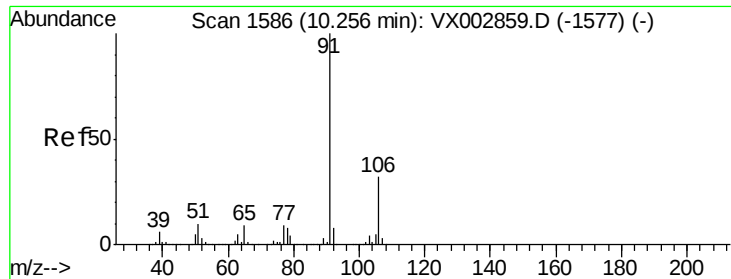
Tot Ion: 95 Resp: 192920  
Ion Ratio Lower Upper  
95 100  
174 99.2 0.0 187.4  
176 96.0 0.0 181.0



#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. -0.00 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Tgt Ion: 117 Resp: 368566  
Ion Ratio Lower Upper  
117 100  
82 52.8 45.0 67.4  
119 31.9 25.8 38.6

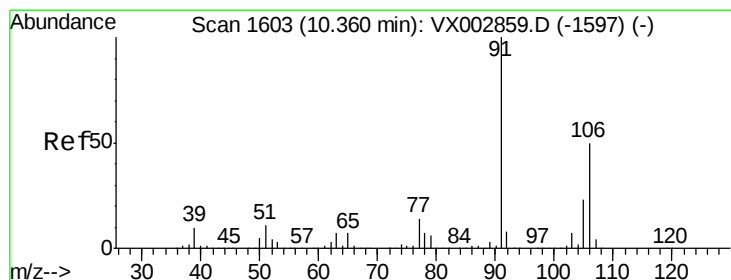
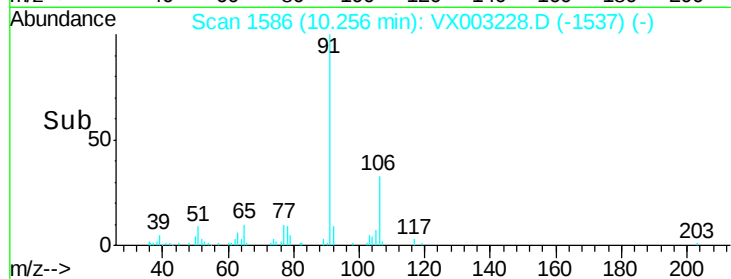
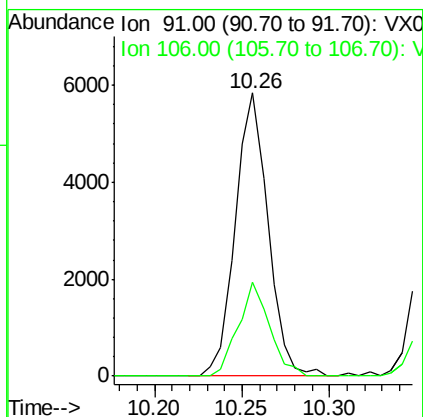
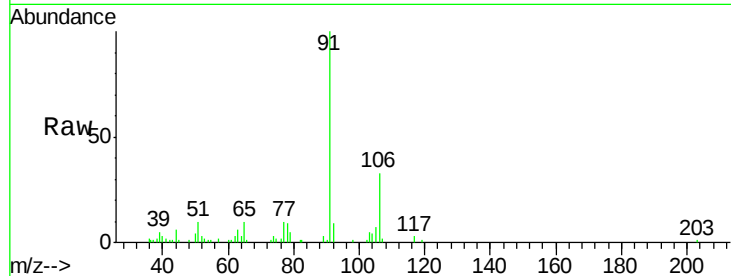




#67  
Ethyl Benzene  
Concen: 0.49 ug/l  
RT: 10.26 min Scan# 1586  
Delta R.T. -0.00 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

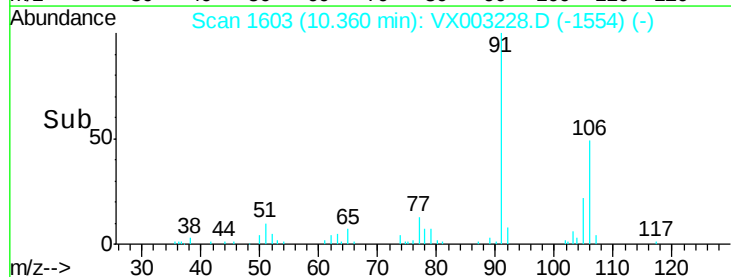
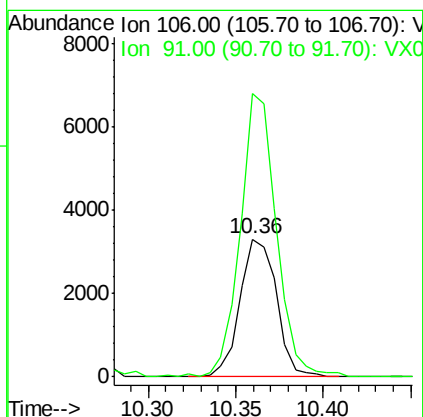
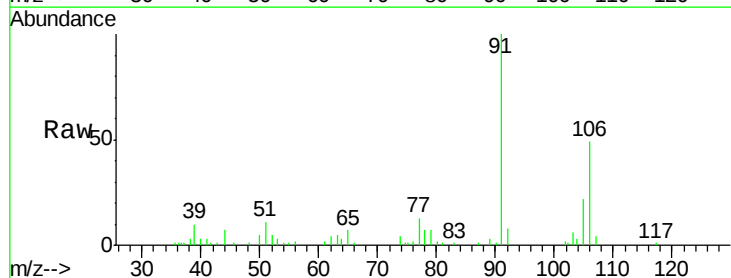
Instrument :  
MSVOA\_X  
ClientSampleId :

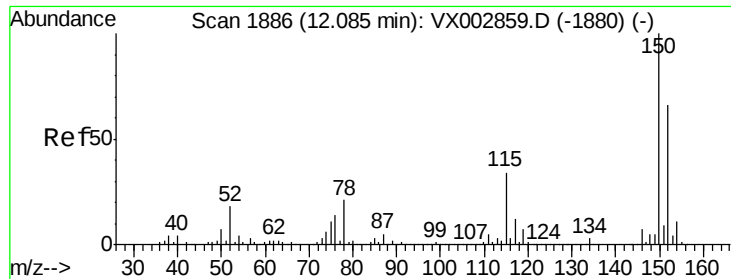
Tot Ion: 91 Resp: 7615  
Ion Ratio Lower Upper  
91 100  
106 33.3 25.5 38.3



#68  
m/p-Xylenes  
Concen: 0.81 ug/l  
RT: 10.36 min Scan# 1603  
Delta R.T. -0.00 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Tgt Ion: 106 Resp: 4829  
Ion Ratio Lower Upper  
106 100  
91 202.9 163.4 245.2





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.08 min Scan# 1885

Delta R.T. -0.01 min

Lab File: VX003228.D

Acq: 06 Jul 2018 22:26

Instrument :

MSVOA\_X

ClientSampleId :

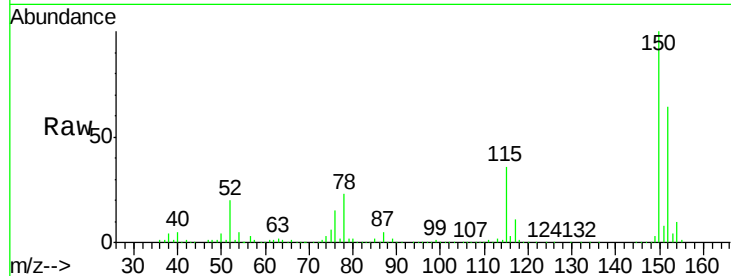
Tot Ion:152 Resp: 208624

Ion Ratio Lower Upper

152 100

115 53.4 40.1 120.2

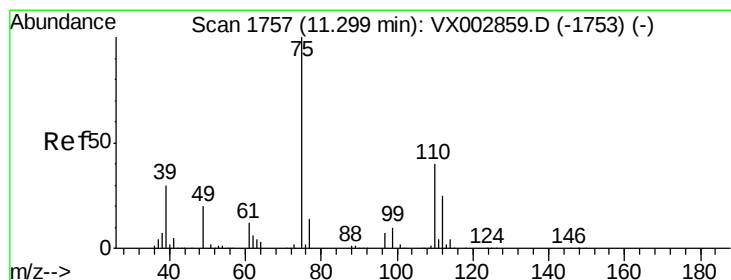
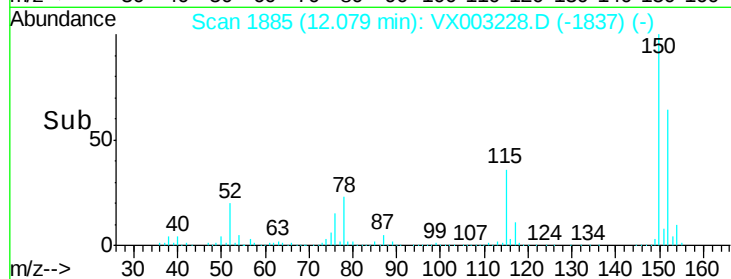
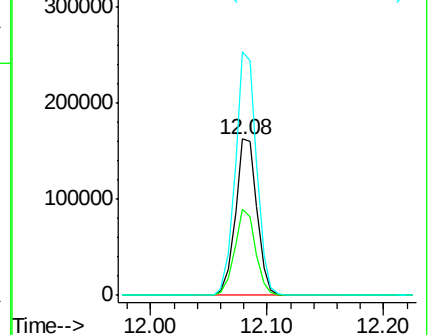
150 154.3 0.0 347.2



Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V



#76

1,2,3-Trichloropropane

Concen: 25.62 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX003228.D

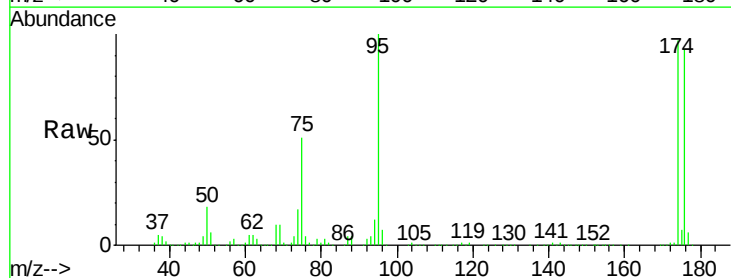
Acq: 06 Jul 2018 22:26

Tgt Ion: 75 Resp: 96799

Ion Ratio Lower Upper

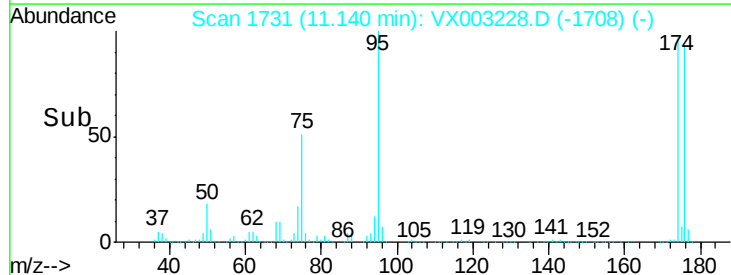
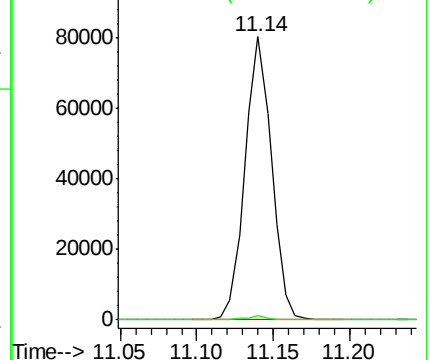
75 100

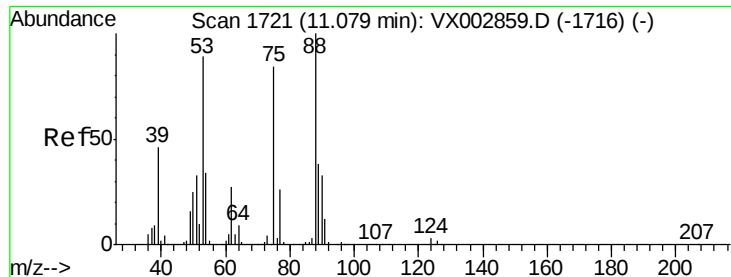
77 1.3 22.8 68.3#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 77.00 (76.70 to 77.70): VX0

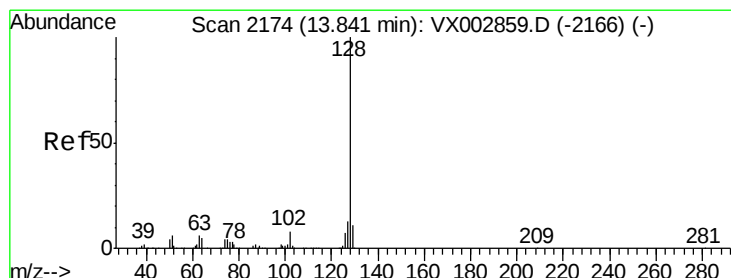
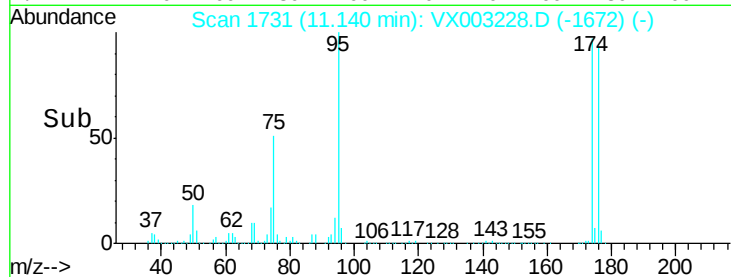
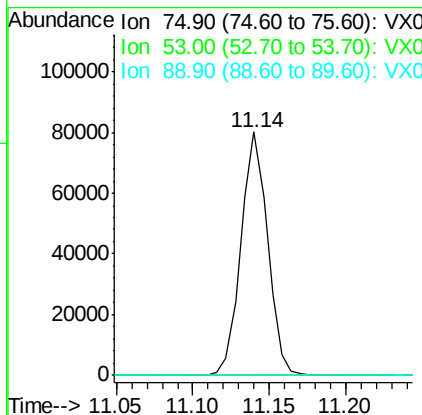
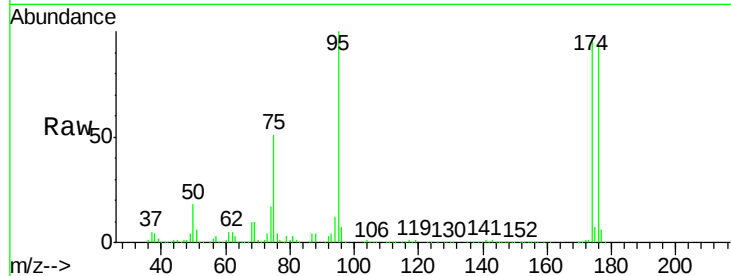




#81  
trans-1,4-Dichloro-2-butene  
Concen: 72.69 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. 0.06 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Instrument :  
MSVOA\_X  
ClientSampled :

Tot Ion: 75 Resp: 96799  
Ion Ratio Lower Upper  
75 100  
53 0.5 86.8 130.2#  
89 0.0 38.2 57.2#



#95  
Naphthalene  
Concen: 0.29 ug/l  
RT: 13.84 min Scan# 2174  
Delta R.T. -0.00 min  
Lab File: VX003228.D  
Acq: 06 Jul 2018 22:26

Tgt Ion:128 Resp: 4190  
Ion Ratio Lower Upper  
128 100  
127 15.1 10.4 15.6  
129 11.1 8.6 13.0

