

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\WX070218\  
 Data File : VX003135.D  
 Acq On : 02 Jul 2018 18:51  
 Operator : JC/MD  
 Sample : PB110744ZHE#11  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB110744ZHE#11

Quant Time: Jul 03 06:59:07 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  | 264762   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 369516   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 349865   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.09 | 152  | 206175   | 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   | 171663   | 46.91 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.82% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 141347   | 48.30 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.60% |          |
| 50) Toluene-d8              | 8.72  | 98   | 521843   | 48.84 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.68% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 189312   | 45.94 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.88% |          |

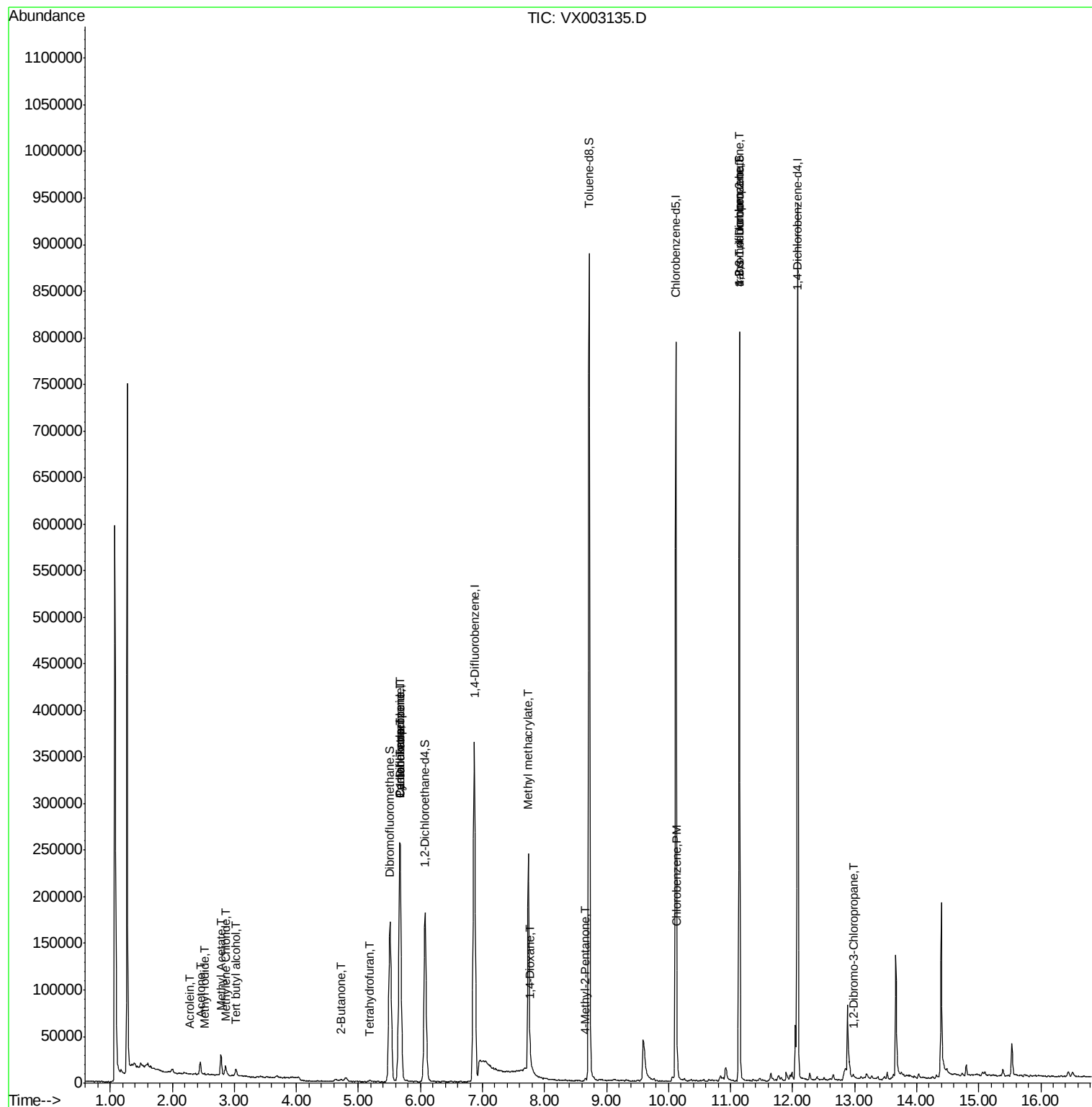
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units | Qvalue |
|--------------------------------|-------|------|----------|-----------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.37  | 85   | 69       | Below Cal | #     | 52     |
| 3) Chloromethane               | 1.33  | 50   | 410      | Below Cal | #     | 53     |
| 5) Bromomethane                | 1.64  | 94   | 1764     | Below Cal | #     | 78     |
| 6) Chloroethane                | 1.63  | 64   | 605      | Below Cal | #     | 54     |
| 10) Methyl Iodide              | 2.52  | 142  | 1360     | 6.63      | ug/l  | 97     |
| 11) Tert butyl alcohol         | 3.02  | 59   | 4485     | 6.15      | ug/l  | 80     |
| 13) Acrolein                   | 2.29  | 56   | 236      | 4.80      | ug/l  | 64     |
| 16) Acetone                    | 2.45  | 43   | 13900    | 9.17      | ug/l  | 97     |
| 18) Methyl Acetate             | 2.78  | 43   | 25492    | 6.02      | ug/l  | 94     |
| 20) Methylene Chloride         | 2.86  | 84   | 4587     | 1.56      | ug/l  | 94     |
| 25) 2-Butanone                 | 4.71  | 43   | 3839     | 1.71      | ug/l  | 96     |
| 29) Tetrahydrofuran            | 5.18  | 42   | 1343     | 0.93      | ug/l  | 93     |
| 31) Cyclohexane                | 5.67  | 56   | 4982     | 1.09      | ug/l  | # 1    |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 17305    | 4.27      | ug/l  | # 51   |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 23482    | 5.28      | ug/l  | # 16   |
| 48) Methyl methacrylate        | 7.74  | 41   | 7305     | 1.94      | ug/l  | # 26   |
| 49) 1,4-Dioxane                | 7.77  | 88   | 23       | 0.31      | ug/l  | # 22   |
| 51) 4-Methyl-2-Pentanone       | 8.67  | 43   | 1679     | 0.37      | ug/l  | 93     |
| 65) Chlorobenzene              | 10.14 | 112  | 2227     | 0.25      | ug/l  | 94     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 94417    | 25.28     | ug/l  | # 33   |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 94417    | 71.78     | ug/l  | # 7    |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 375      | 0.39      | ug/l  | # 1    |

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

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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# 834

Delta R.T. 0.01 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

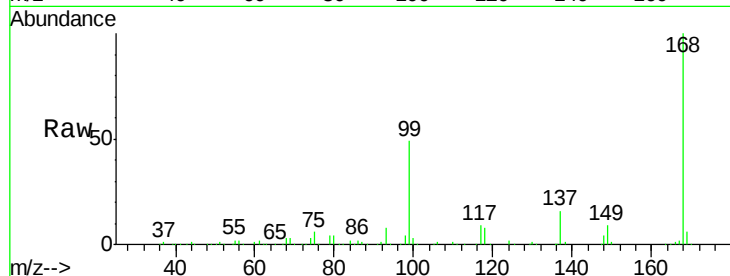
PB110744ZHE#11

Tot Ion:168 Resp: 264762

Ion Ratio Lower Upper

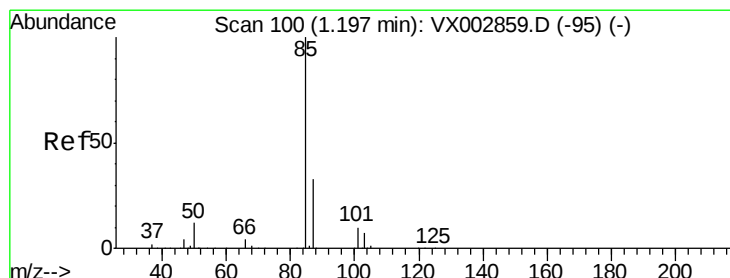
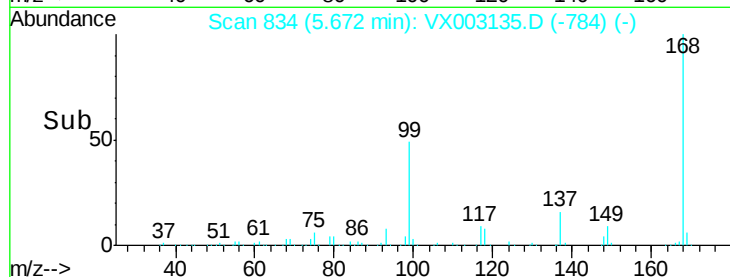
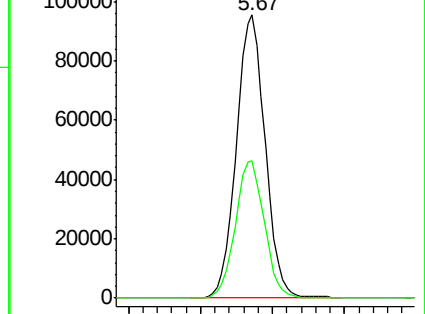
168 100

99 48.5 39.3 58.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#2

Dichlorodifluoromethane

Concen: Below Cal

RT: 1.37 min Scan# 128

Delta R.T. 0.17 min

Lab File: VX003135.D

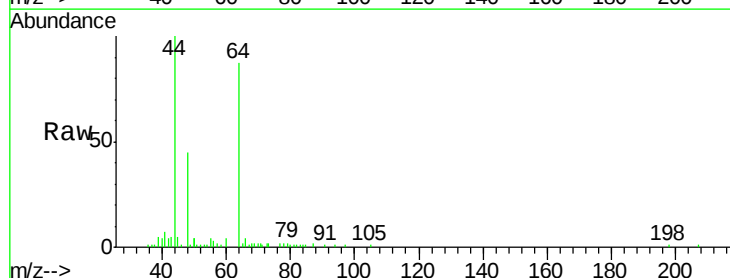
Acq: 02 Jul 2018 18:51

Tgt Ion: 85 Resp: 69

Ion Ratio Lower Upper

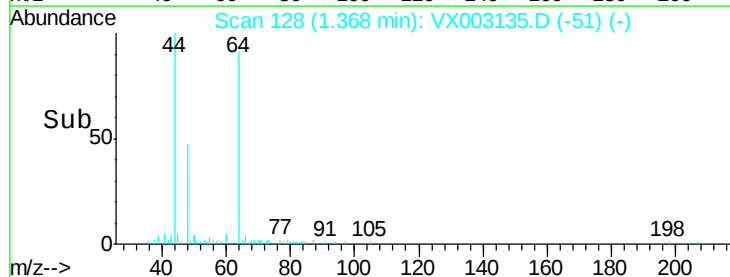
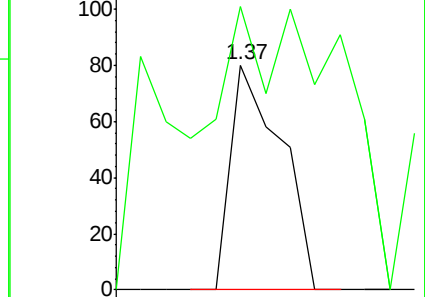
85 100

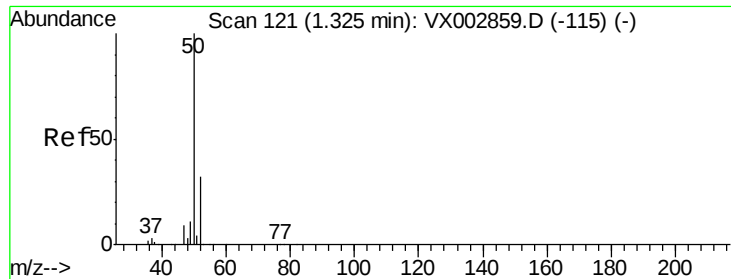
87 58.8 16.0 47.9#



Abundance Ion 84.90 (84.60 to 85.60): VX0

Ion 86.90 (86.60 to 87.60): VX0





#3

Chloromethane

Concen: Below Cal

RT: 1.33 min Scan# 122

Delta R.T. 0.01 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

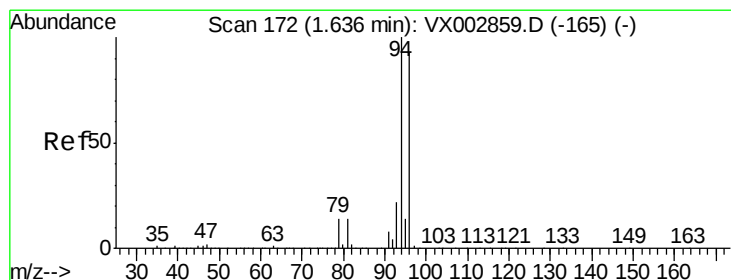
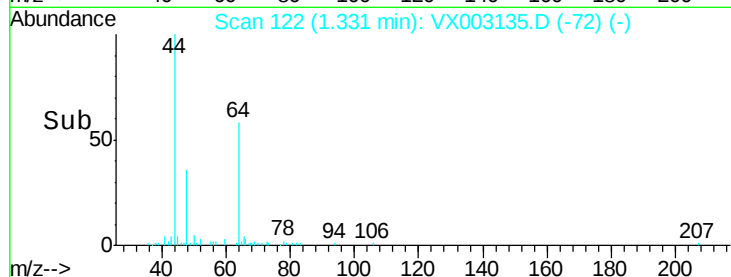
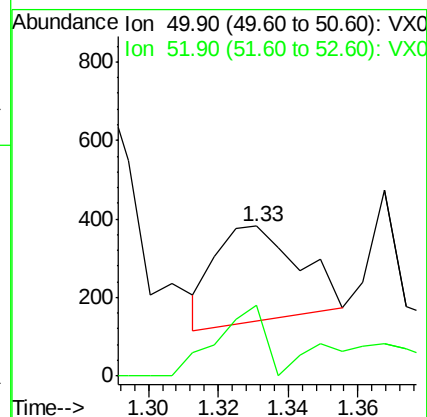
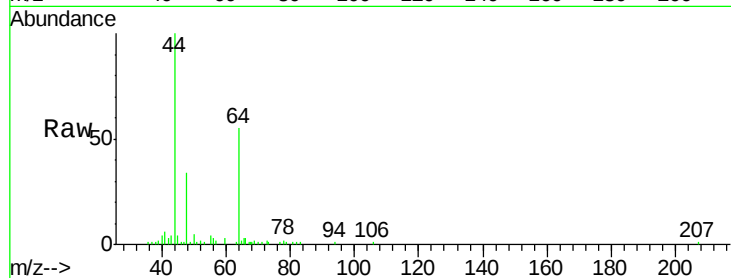
PB110744ZHE#11

Tot Ion: 50 Resp: 410

Ion Ratio Lower Upper

50 100

52 58.4 25.7 38.5#



#5

Bromomethane

Concen: Below Cal

RT: 1.64 min Scan# 173

Delta R.T. 0.01 min

Lab File: VX003135.D

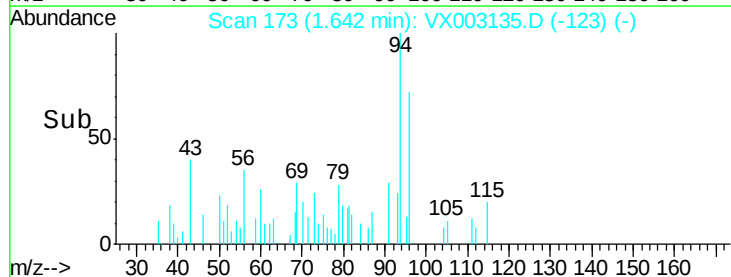
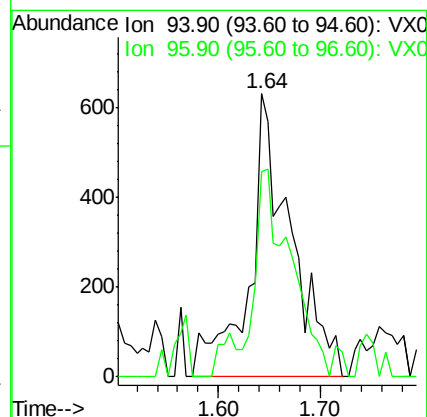
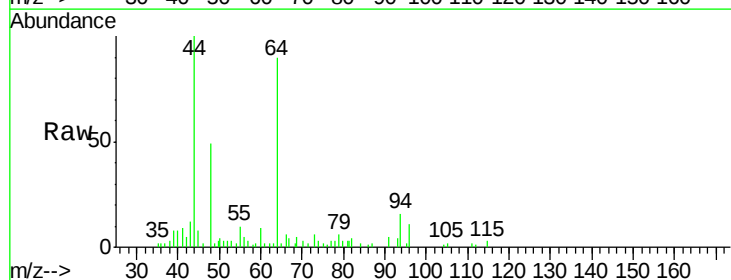
Acq: 02 Jul 2018 18:51

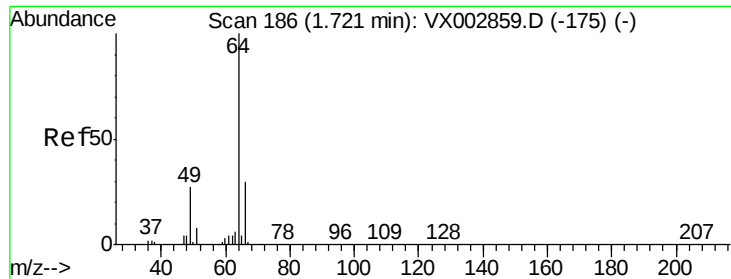
Tgt Ion: 94 Resp: 1764

Ion Ratio Lower Upper

94 100

96 72.4 74.9 112.3#





#6

Chloroethane

Concen: Below Cal

RT: 1.63 min Scan# 171

Delta R.T. -0.09 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

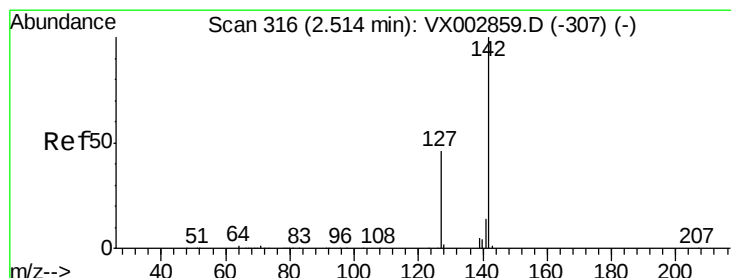
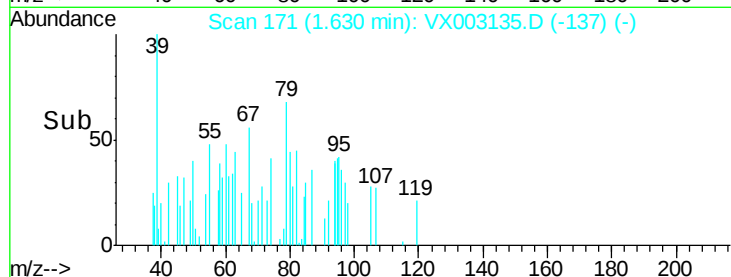
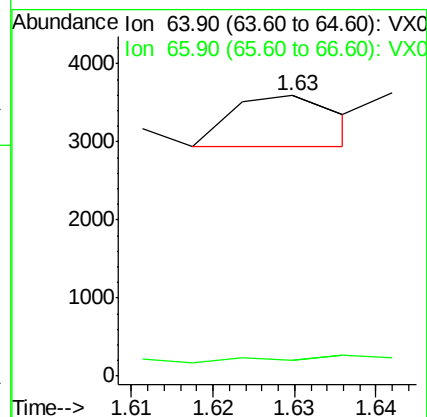
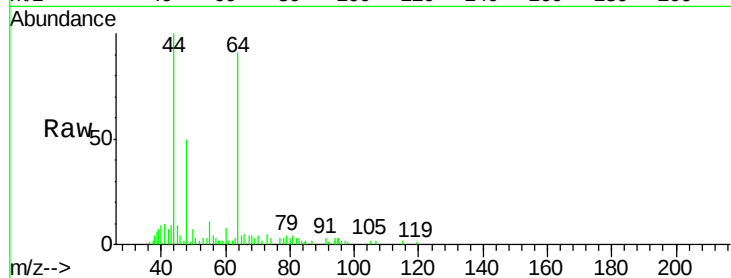
PB110744ZHE#11

Tot Ion: 64 Resp: 605

Ion Ratio Lower Upper

64 100

66 6.2 25.5 38.3#



#10

Methyl Iodide

Concen: 6.63 ug/l

RT: 2.52 min Scan# 317

Delta R.T. 0.01 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

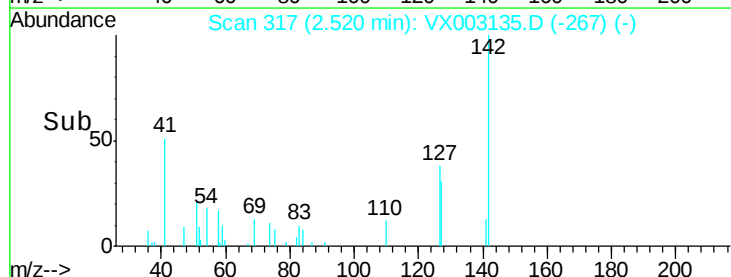
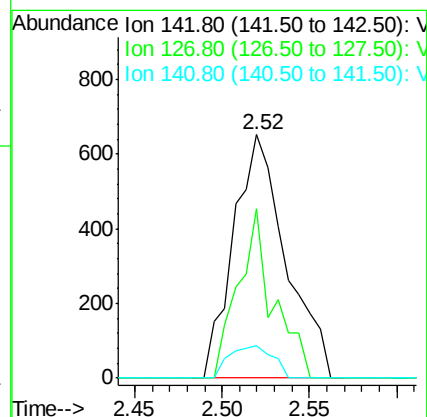
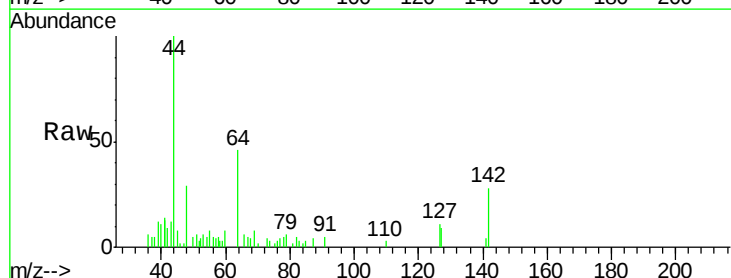
Tgt Ion: 142 Resp: 1360

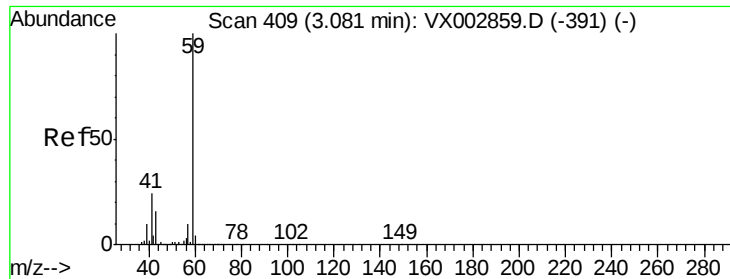
Ion Ratio Lower Upper

142 100

127 46.5 36.6 55.0

141 11.0 11.3 16.9#



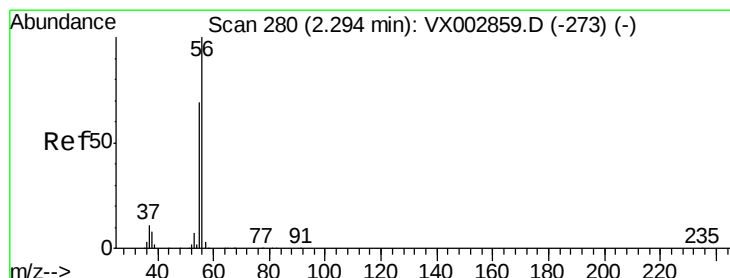
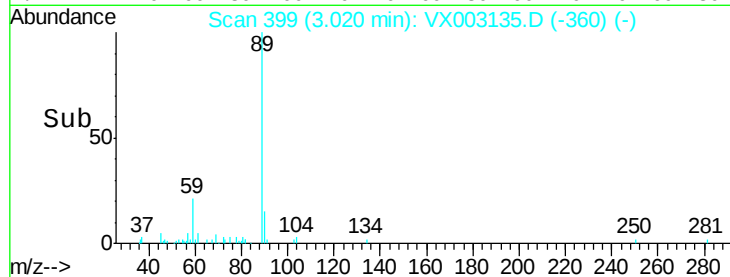
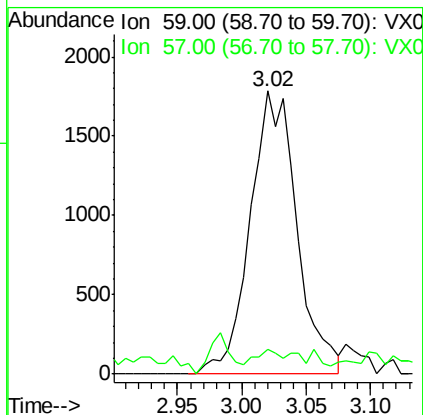
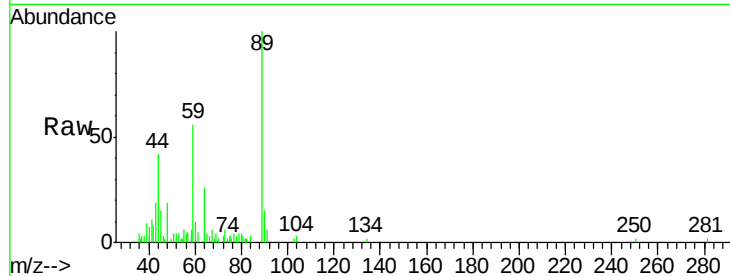


#11

Tert butyl alcohol  
 Concen: 6.15 ug/l  
 RT: 3.02 min Scan# 399  
 Delta R.T. -0.06 min  
 Lab File: VX003135.D  
 Acq: 02 Jul 2018 18:51

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB110744ZHE#11

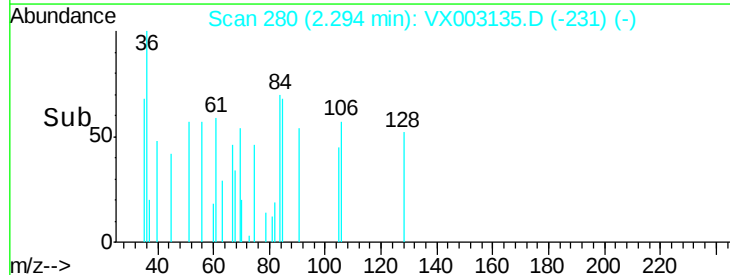
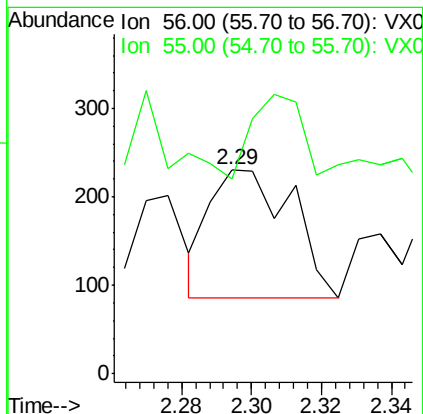
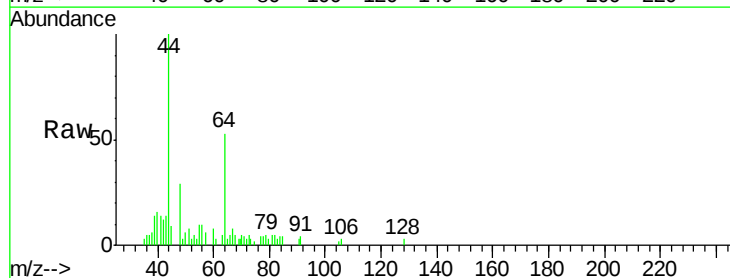
Tot Ion: 59 Resp: 4485  
 Ion Ratio Lower Upper  
 59 100  
 57 2.7 8.2 12.2#

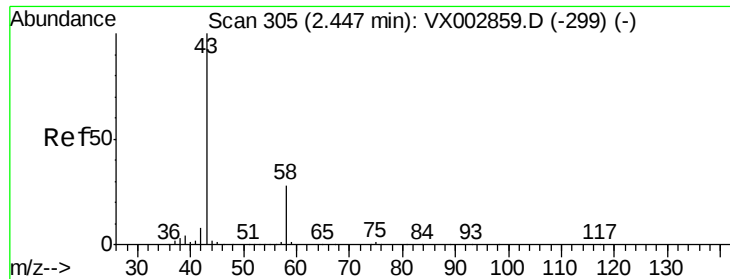


#13

Acrolein  
 Concen: 4.80 ug/l  
 RT: 2.29 min Scan# 280  
 Delta R.T. 0.00 min  
 Lab File: VX003135.D  
 Acq: 02 Jul 2018 18:51

Tgt Ion: 56 Resp: 236  
 Ion Ratio Lower Upper  
 56 100  
 55 41.5 57.0 85.4#





#16

Acetone

Concen: 9.17 ug/l

RT: 2.45 min Scan# 306

Delta R.T. 0.01 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

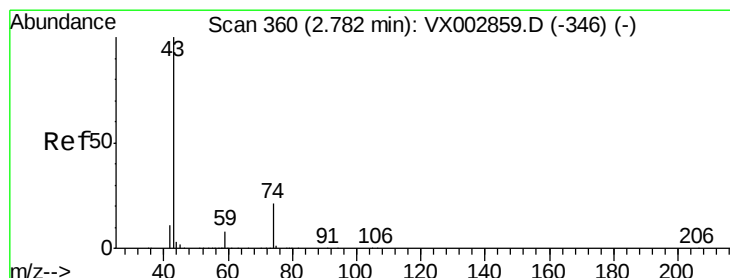
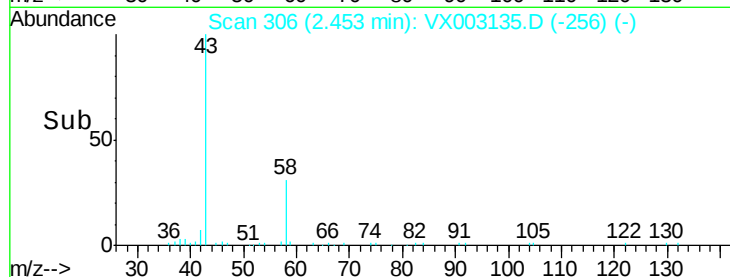
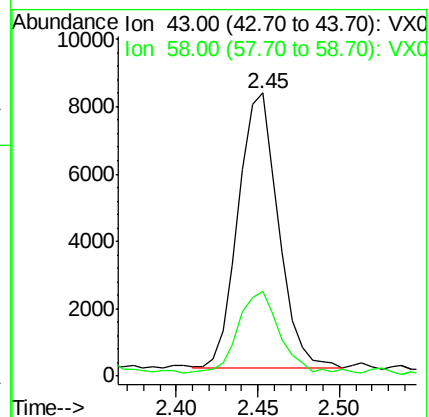
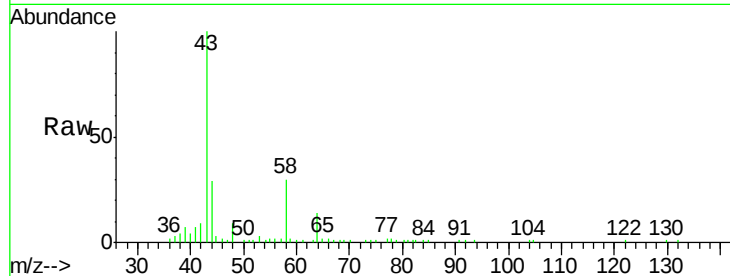
PB110744ZHE#11

Tot Ion: 43 Resp: 13900

Ion Ratio Lower Upper

43 100

58 29.3 22.1 33.1



#18

Methyl Acetate

Concen: 6.02 ug/l

RT: 2.78 min Scan# 360

Delta R.T. 0.00 min

Lab File: VX003135.D

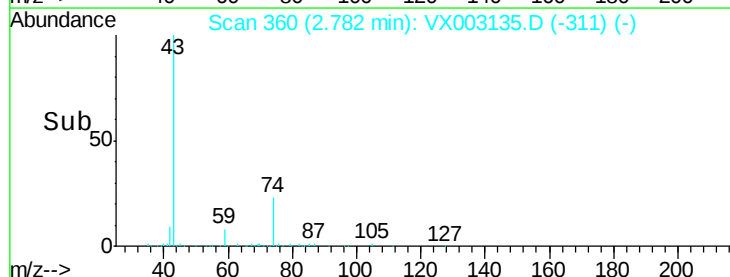
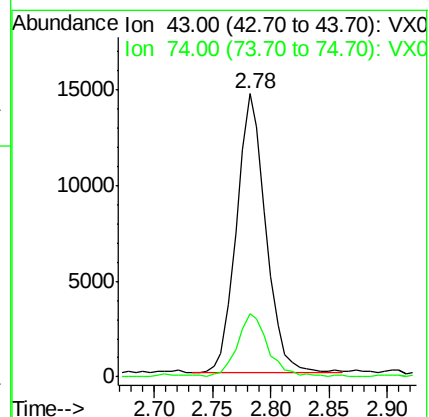
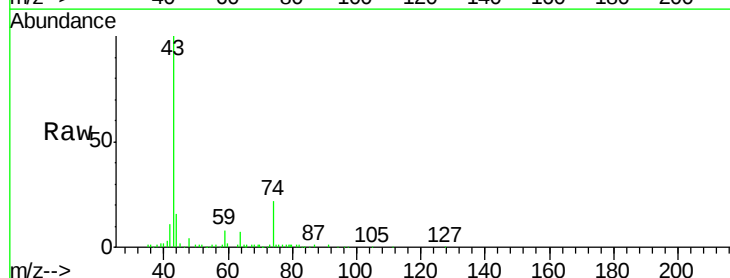
Acq: 02 Jul 2018 18:51

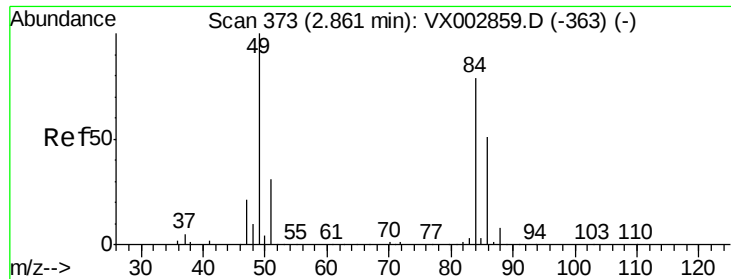
Tgt Ion: 43 Resp: 25492

Ion Ratio Lower Upper

43 100

74 23.7 16.7 25.1

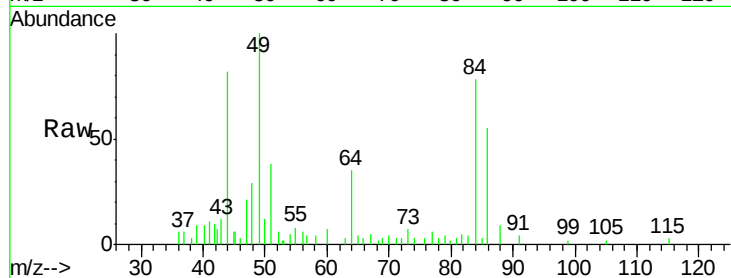




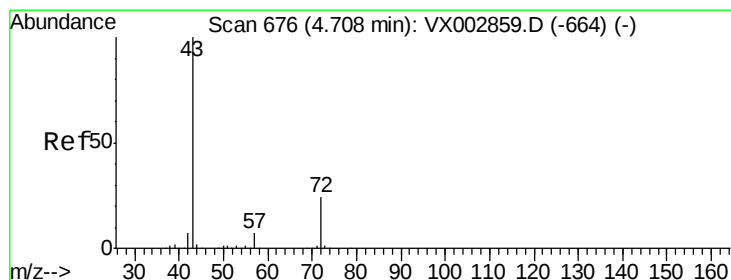
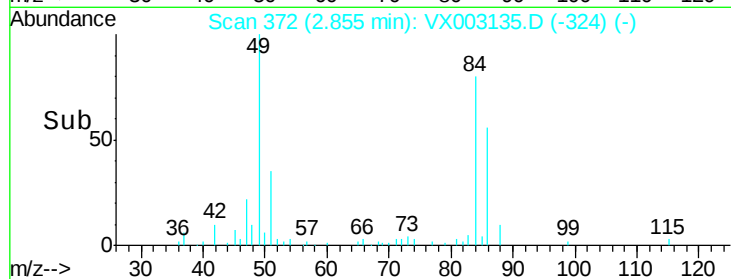
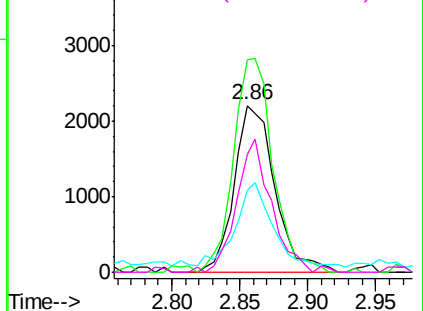
#20  
Methvlene Chloride  
Concen: 1.56 ug/l  
RT: 2.86 min Scan# 372  
Delta R.T. -0.01 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
PB110744ZHE#11

Tot Ion: 84 Resp: 4587  
Ion Ratio Lower Upper  
84 100  
49 127.8 107.8 161.6  
51 44.6 32.8 49.2  
86 70.7 52.5 78.7

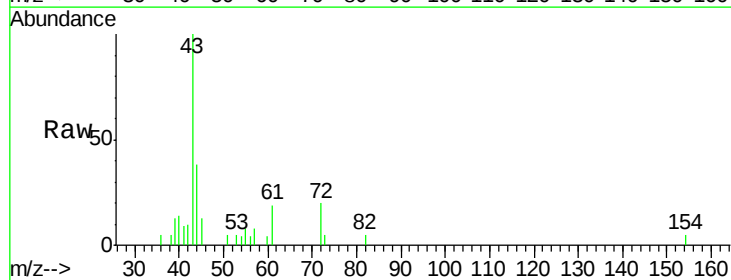


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

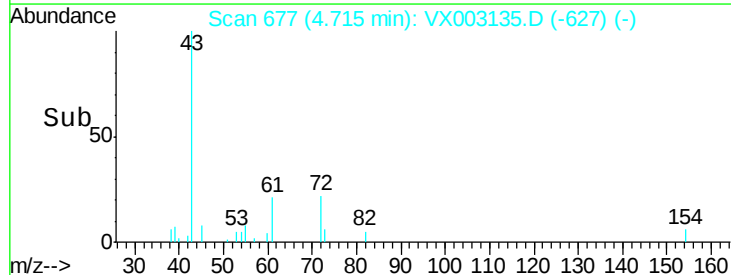
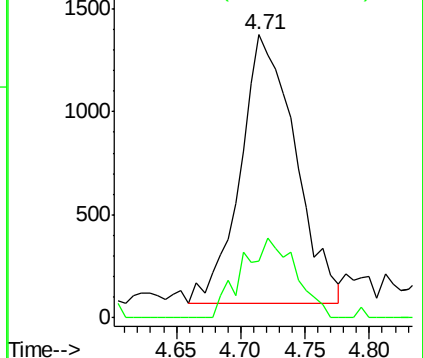


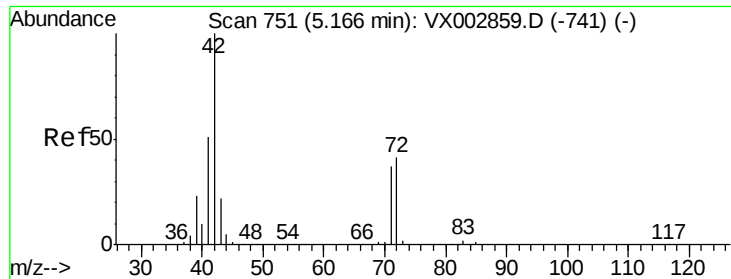
#25  
2-Butanone  
Concen: 1.71 ug/l  
RT: 4.71 min Scan# 677  
Delta R.T. 0.01 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Tgt Ion: 43 Resp: 3839  
Ion Ratio Lower Upper  
43 100  
72 21.2 18.5 27.7



Abundance Ion 43.00 (42.70 to 43.70): VX0  
Ion 72.00 (71.70 to 72.70): VX0

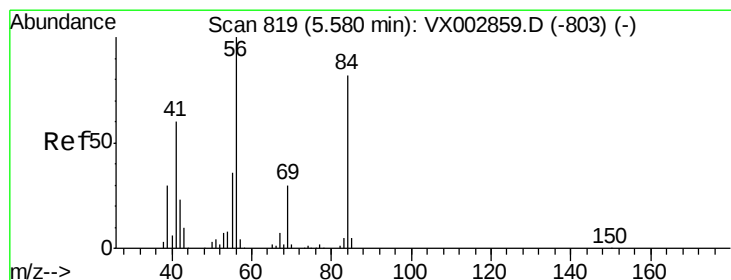
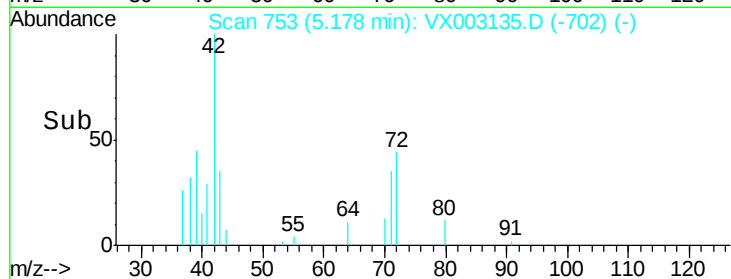
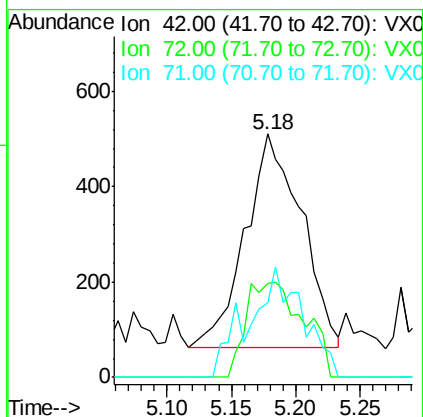
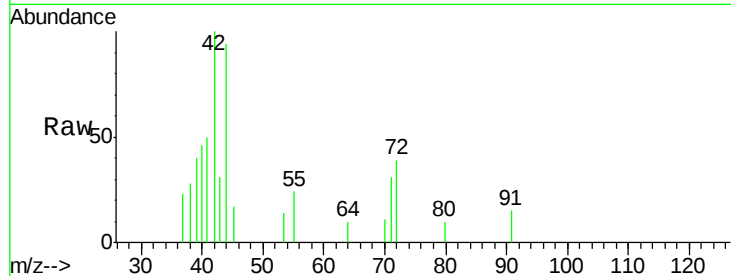




#29  
Tetrahydrofuran  
Concen: 0.93 ug/l  
RT: 5.18 min Scan# 753  
Delta R.T. 0.01 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

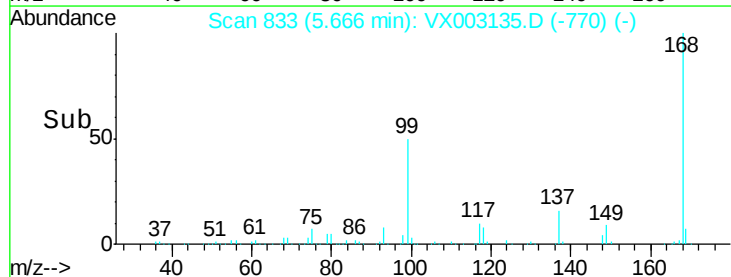
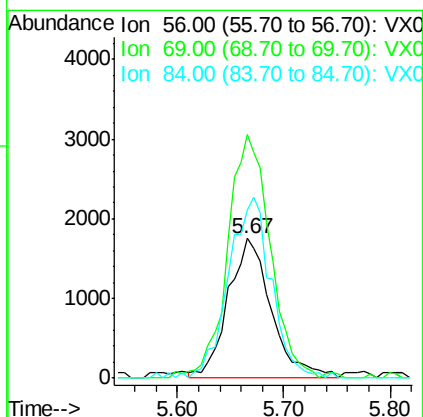
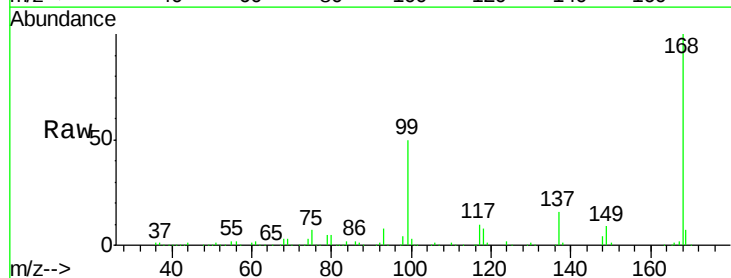
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB110744ZHE#11

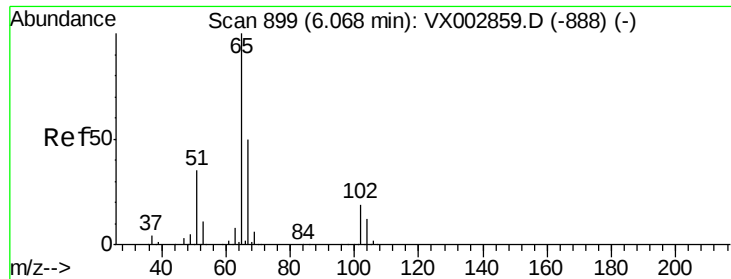
Tot Ion: 42 Resp: 1343  
Ion Ratio Lower Upper  
42 100  
72 45.9 32.0 48.0  
71 40.0 30.1 45.1



#31  
Cyclohexane  
Concen: 1.09 ug/l  
RT: 5.67 min Scan# 833  
Delta R.T. 0.09 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Tgt Ion: 56 Resp: 4982  
Ion Ratio Lower Upper  
56 100  
69 171.6 23.7 35.5#  
84 120.4 64.1 96.1#

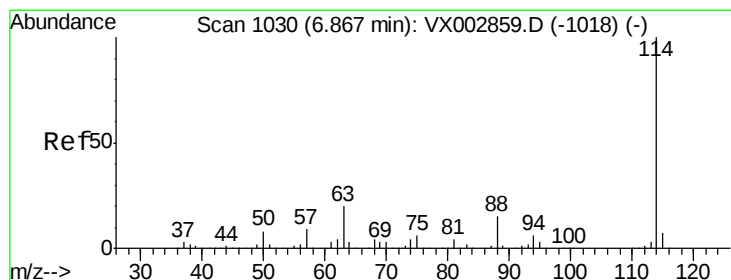
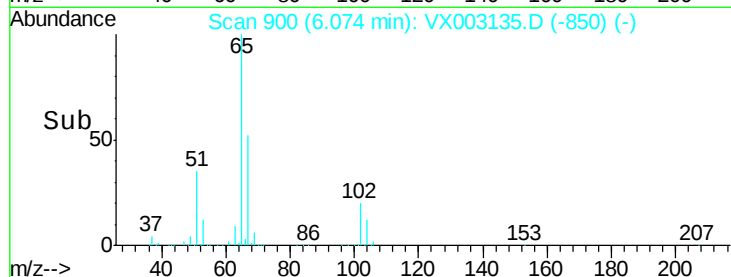
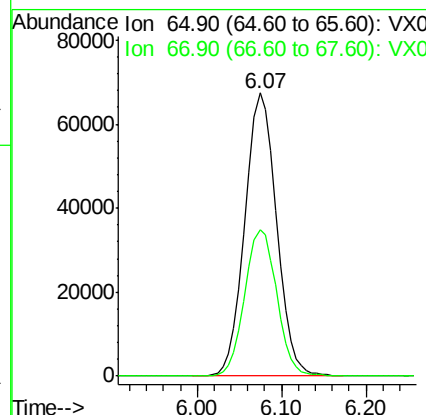
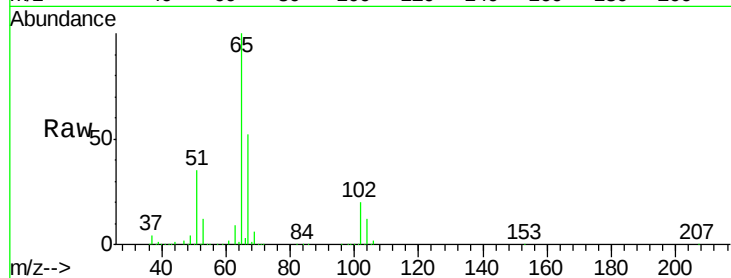




#33  
 1,2-Dichloroethane-d4  
 Concen: 46.91 ug/l  
 RT: 6.07 min Scan# 900  
 Delta R.T. 0.01 min  
 Lab File: VX003135.D  
 Acq: 02 Jul 2018 18:51

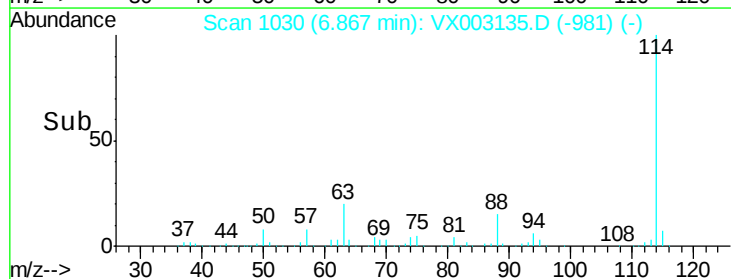
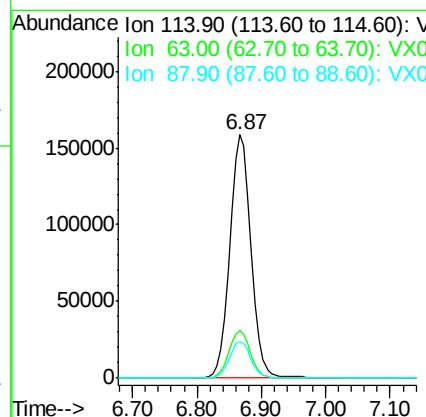
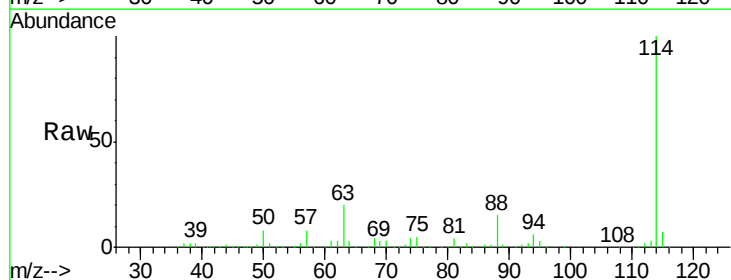
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB110744ZHE#11

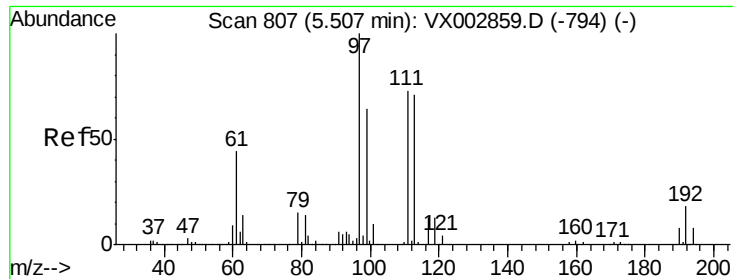
Tot Ion: 65 Resp: 171663  
 Ion Ratio Lower Upper  
 65 100  
 67 52.3 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. 0.00 min  
 Lab File: VX003135.D  
 Acq: 02 Jul 2018 18:51

Tgt Ion: 114 Resp: 369516  
 Ion Ratio Lower Upper  
 114 100  
 63 19.5 0.0 41.4  
 88 14.9 0.0 30.0





#35

Dibromofluoromethane

Concen: 48.30 ug/l

RT: 5.51 min Scan# 807

Delta R.T. 0.00 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

PB110744ZHE#11

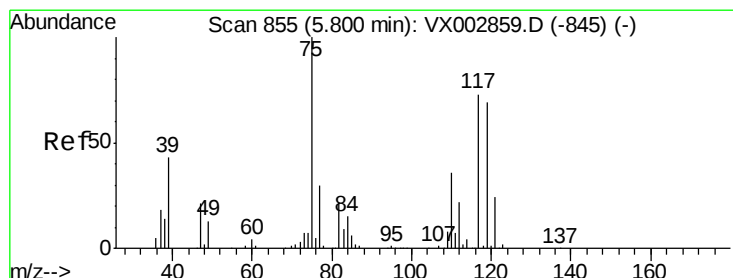
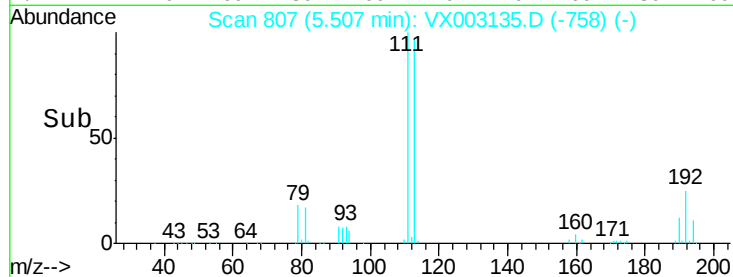
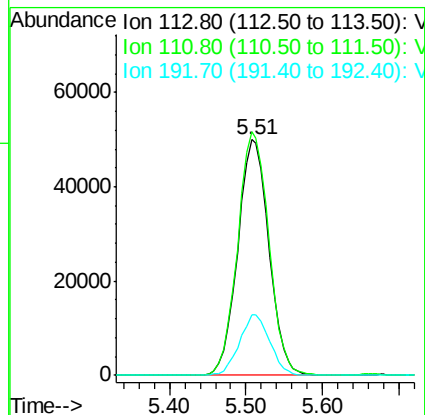
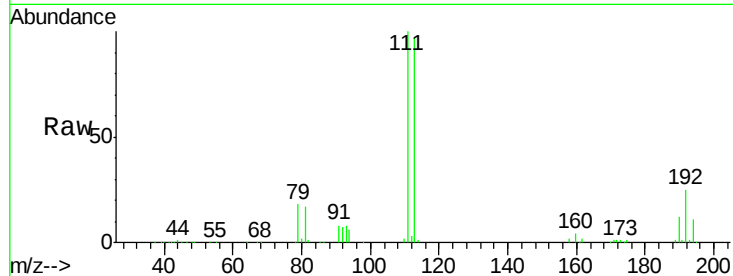
Tot Ion:113 Resp: 141347

Ion Ratio Lower Upper

113 100

111 103.2 81.4 122.0

192 25.2 19.1 28.7



#36

1,1-Dichloropropene

Concen: 4.27 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.13 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

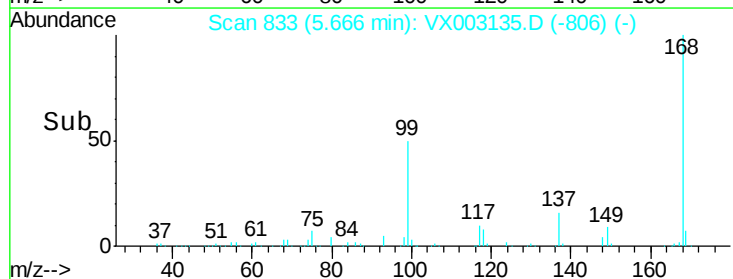
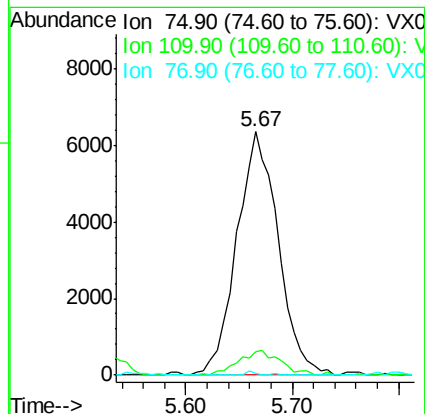
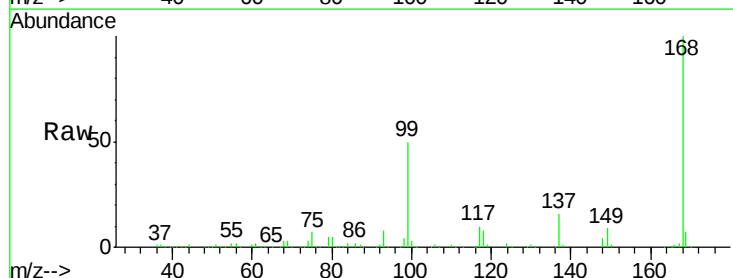
Tgt Ion: 75 Resp: 17305

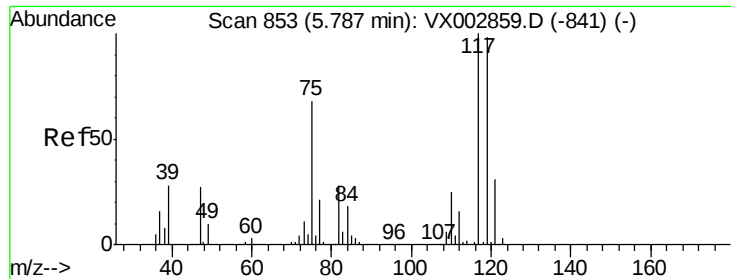
Ion Ratio Lower Upper

75 100

110 10.2 18.1 54.4#

77 0.4 24.3 36.5#





#38

Carbon Tetrachloride

Concen: 5.28 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.12 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

PB110744ZHE#11

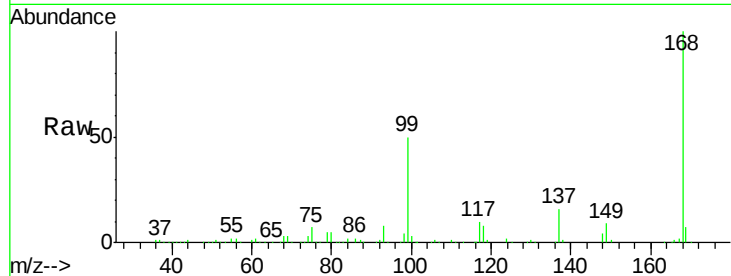
Tot Ion:117 Resp: 23482

Ion Ratio Lower Upper

117 100

119 5.7 77.4 116.0#

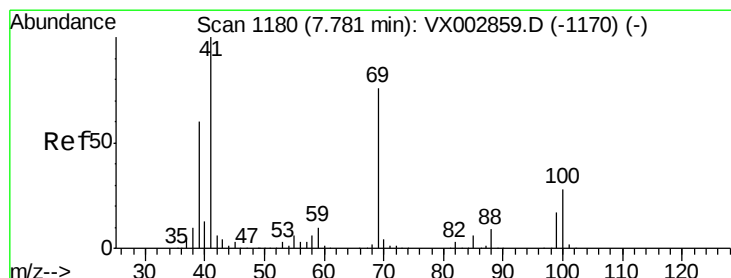
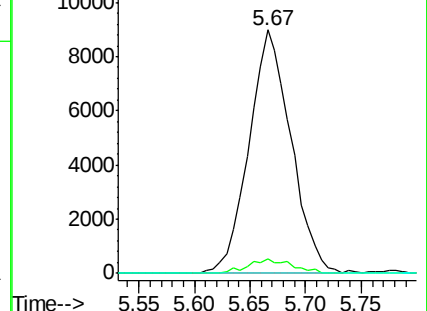
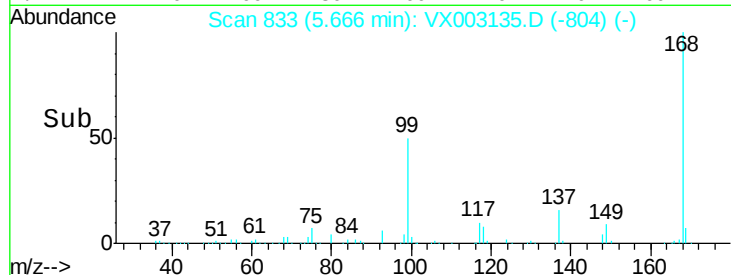
121 0.0 24.4 36.6#



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



#48

Methyl methacrylate

Concen: 1.94 ug/l

RT: 7.74 min Scan# 1173

Delta R.T. -0.04 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

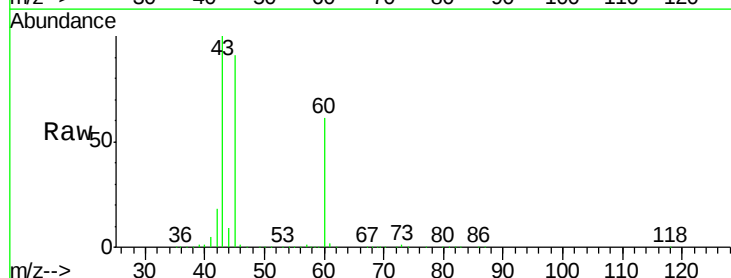
Tgt Ion: 41 Resp: 7305

Ion Ratio Lower Upper

41 100

69 5.0 59.1 88.7#

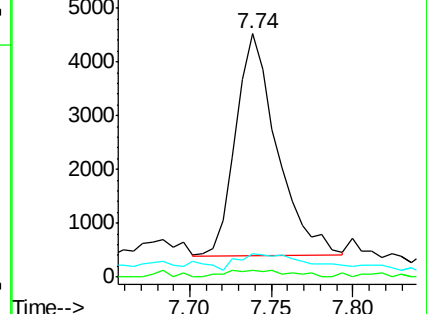
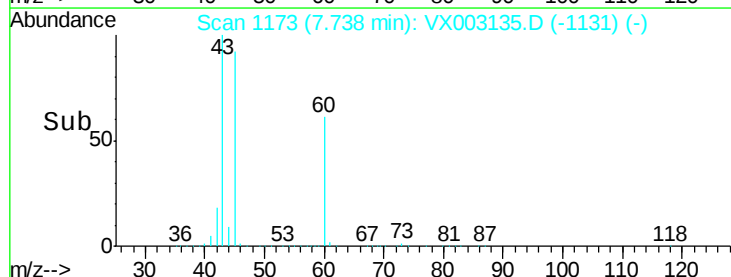
39 12.3 48.9 73.3#

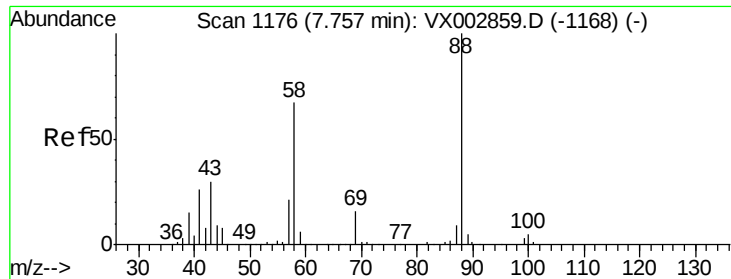


Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 69.00 (68.70 to 69.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

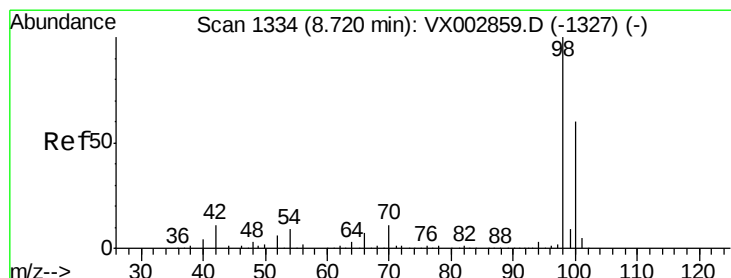
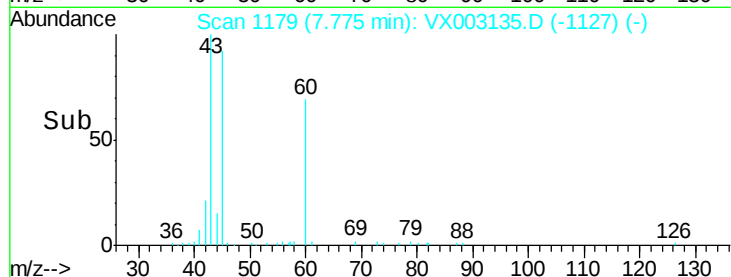
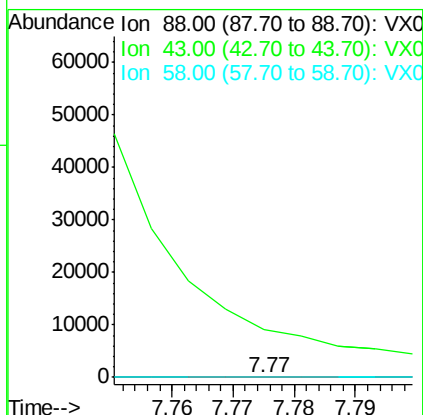
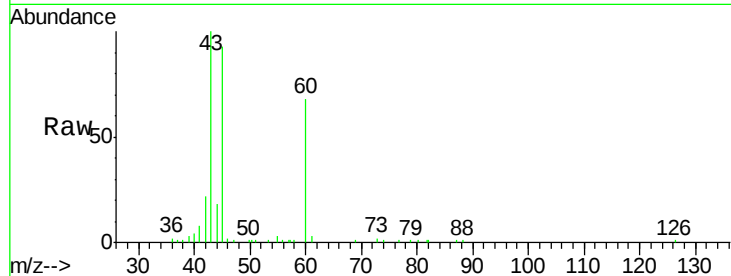




#49  
1,4-Dioxane  
Concen: 0.31 ug/l  
RT: 7.77 min Scan# 1179  
Delta R.T. 0.02 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

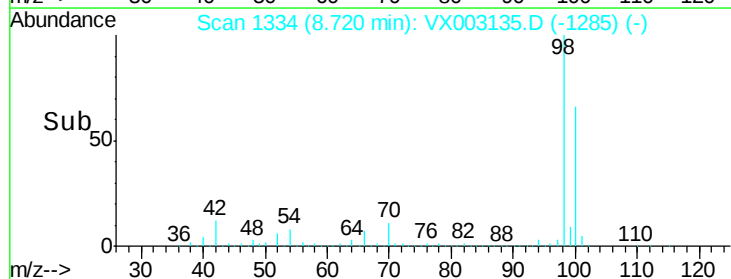
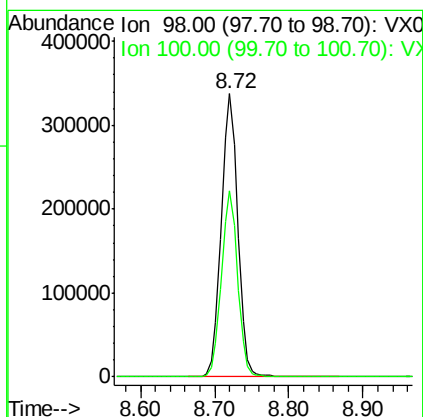
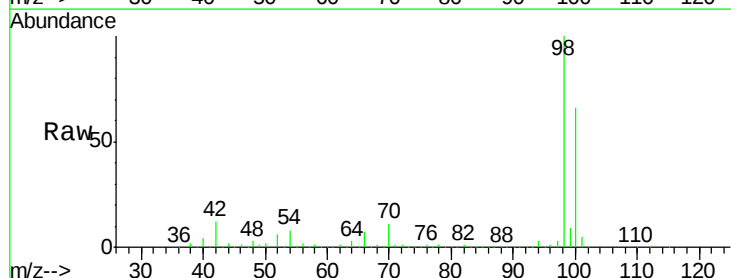
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB110744ZHE#11

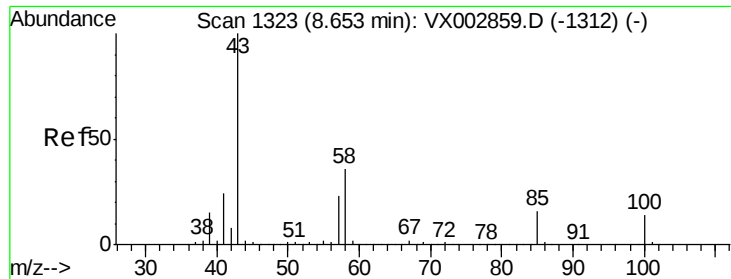
Tot Ion: 88 Resp: 23  
Ion Ratio Lower Upper  
88 100  
43 0.0 29.8 44.6#  
58 0.0 57.1 85.7#



#50  
Toluene-d8  
Concen: 48.84 ug/l  
RT: 8.72 min Scan# 1334  
Delta R.T. 0.00 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Tgt Ion: 98 Resp: 521843  
Ion Ratio Lower Upper  
98 100  
100 64.2 50.9 76.3

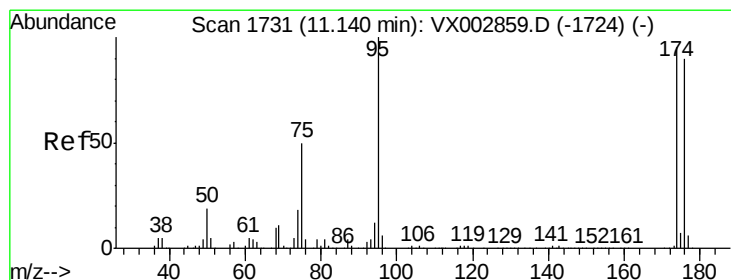
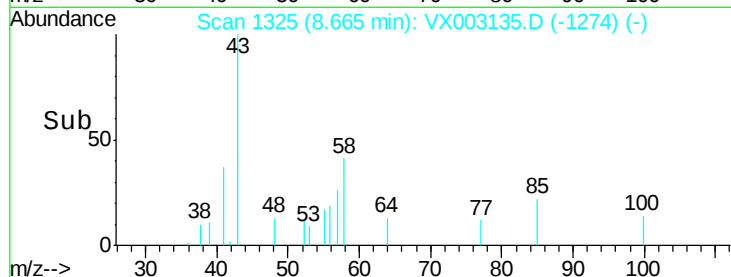
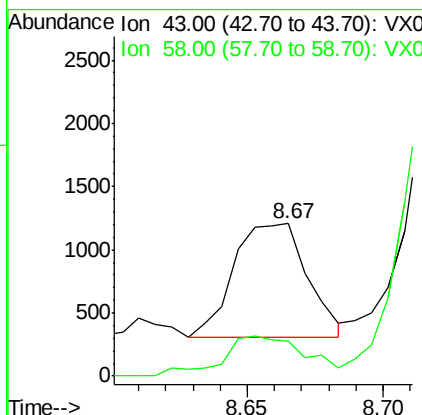
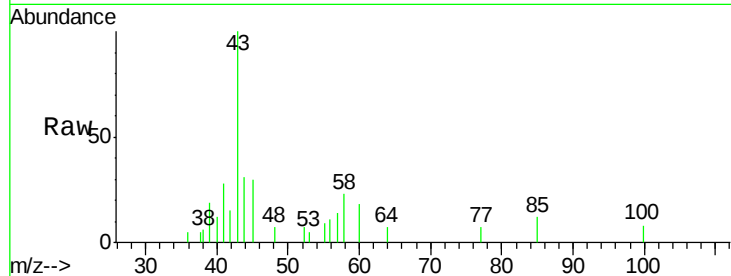




#51  
4-Methyl-2-Pentanone  
Concen: 0.37 ug/l  
RT: 8.67 min Scan# 1325  
Delta R.T. 0.01 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

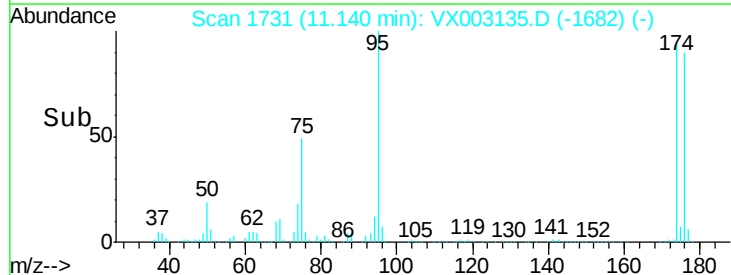
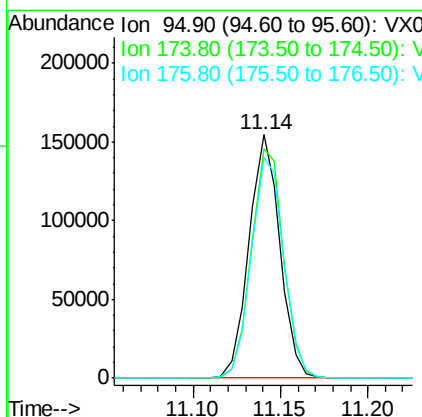
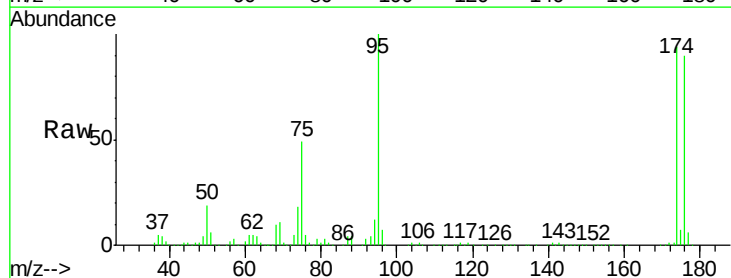
Instrument :  
MSVOA\_X  
ClientSampleId :  
PB110744ZHE#11

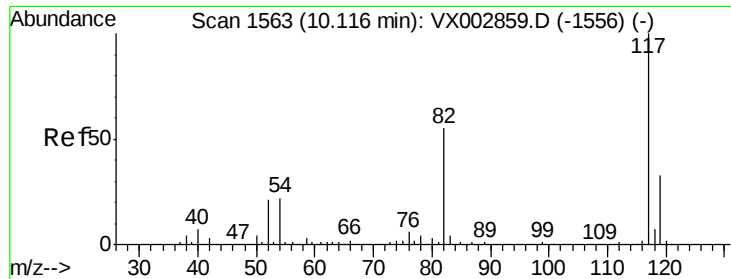
Tot Ion: 43 Resp: 1679  
Ion Ratio Lower Upper  
43 100  
58 40.1 28.6 42.8



#62  
4-Bromofluorobenzene  
Concen: 45.94 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. 0.00 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Tgt Ion: 95 Resp: 189312  
Ion Ratio Lower Upper  
95 100  
174 98.8 0.0 187.4  
176 94.9 0.0 181.0

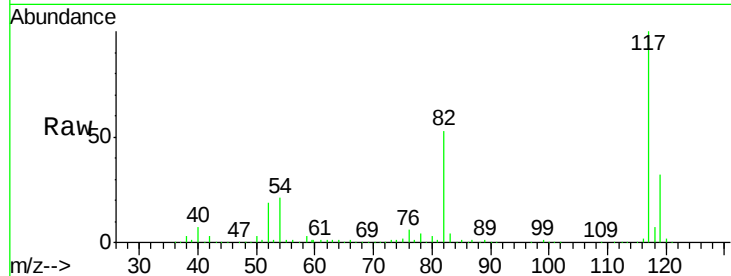




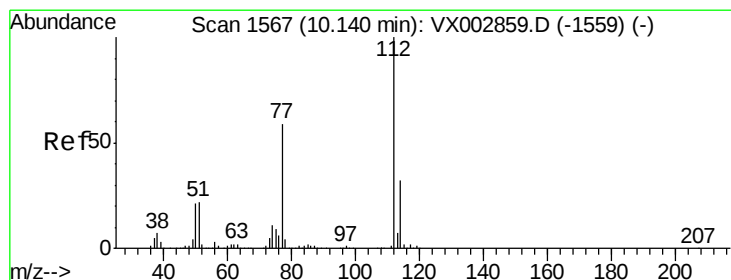
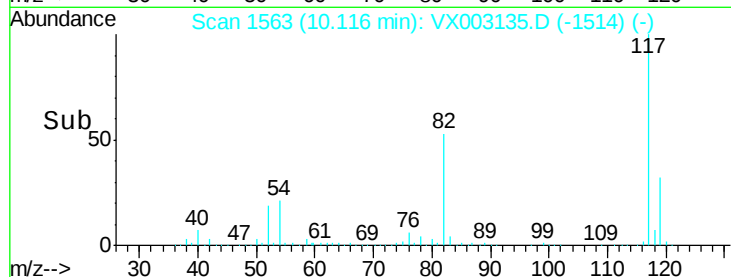
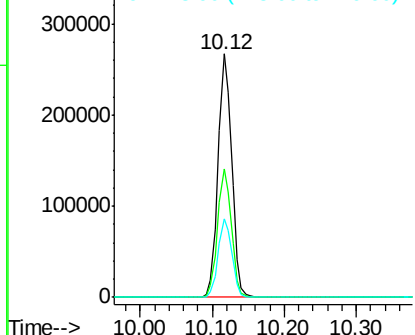
#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. 0.00 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Instrument :  
MSVOA\_X  
ClientSampleId :  
PB110744ZHE#11

Tot Ion:117 Resp: 349865  
Ion Ratio Lower Upper  
117 100  
82 53.0 45.0 67.4  
119 32.5 25.8 38.6

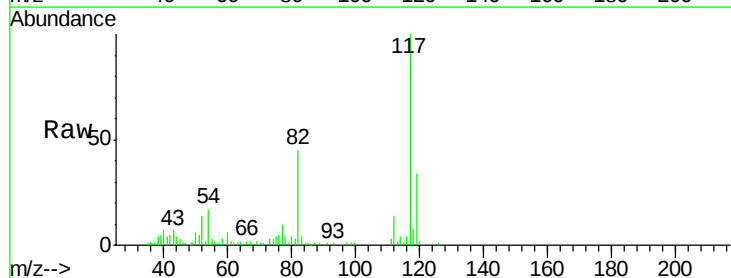


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

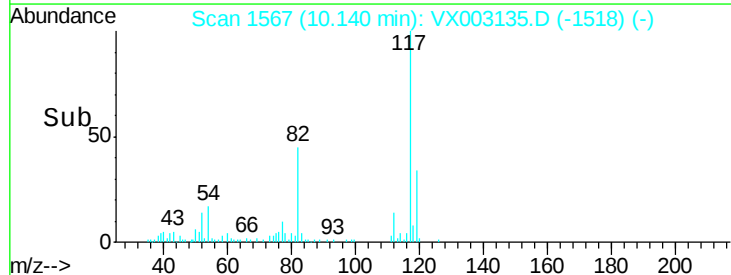
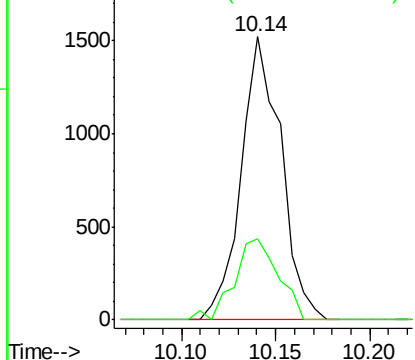


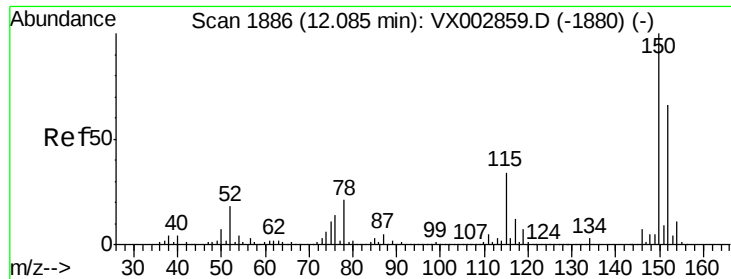
#65  
Chlorobenzene  
Concen: 0.25 ug/l  
RT: 10.14 min Scan# 1567  
Delta R.T. 0.00 min  
Lab File: VX003135.D  
Acq: 02 Jul 2018 18:51

Tgt Ion:112 Resp: 2227  
Ion Ratio Lower Upper  
112 100  
114 28.5 25.3 37.9



Abundance Ion 111.90 (111.60 to 112.60): V  
Ion 113.90 (113.60 to 114.60): V





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.09 min Scan# 1886

Delta R.T. 0.00 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

PB110744ZHE#11

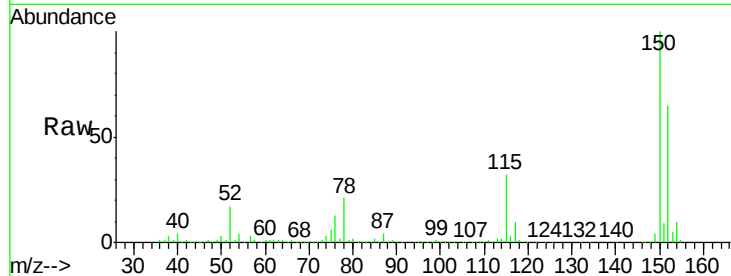
Tot Ion:152 Resp: 206175

Ion Ratio Lower Upper

152 100

115 52.7 40.1 120.2

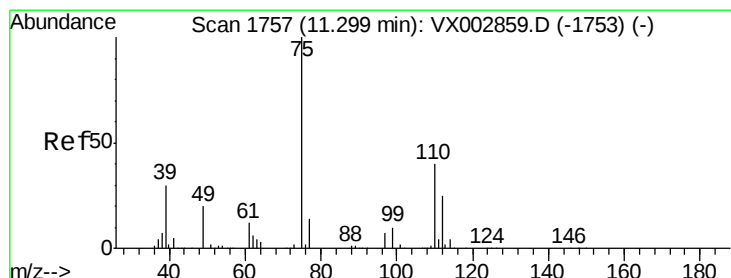
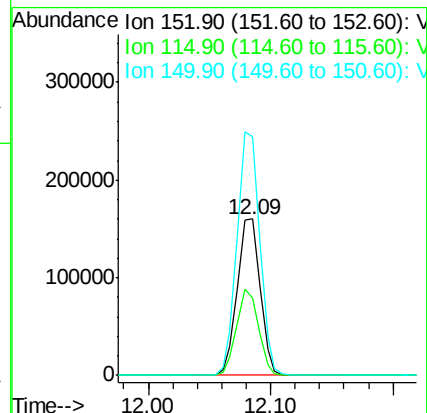
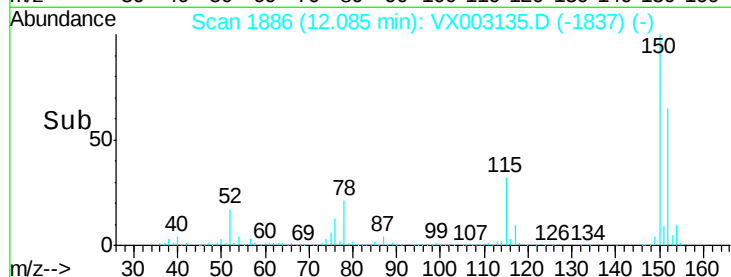
150 154.7 0.0 347.2



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: 25.28 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX003135.D

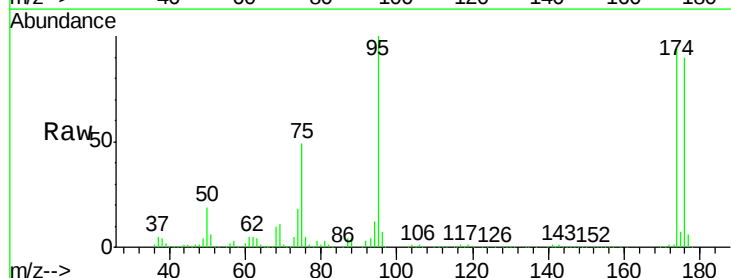
Acq: 02 Jul 2018 18:51

Tgt Ion: 75 Resp: 94417

Ion Ratio Lower Upper

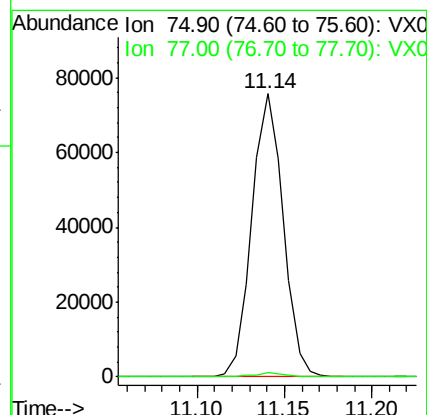
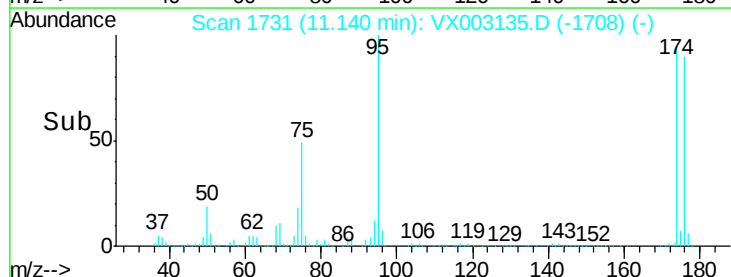
75 100

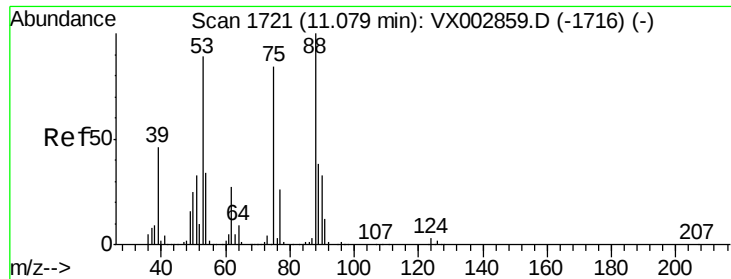
77 1.3 22.8 68.3#



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: 71.78 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Instrument :

MSVOA\_X

ClientSampleId :

PB110744ZHE#11

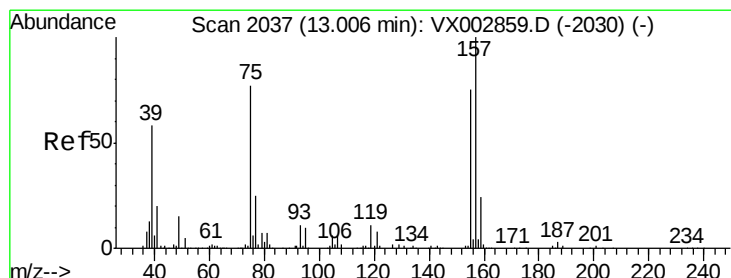
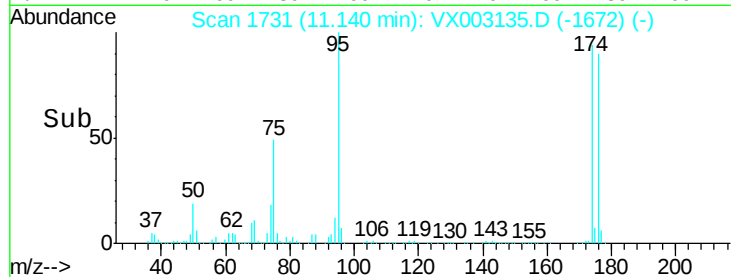
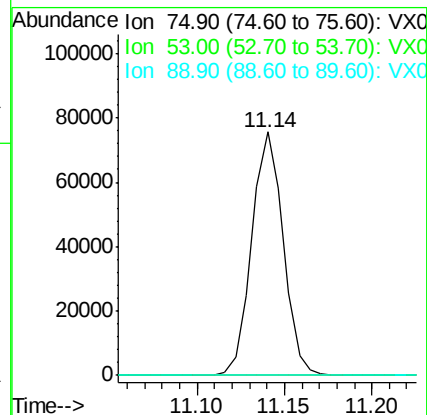
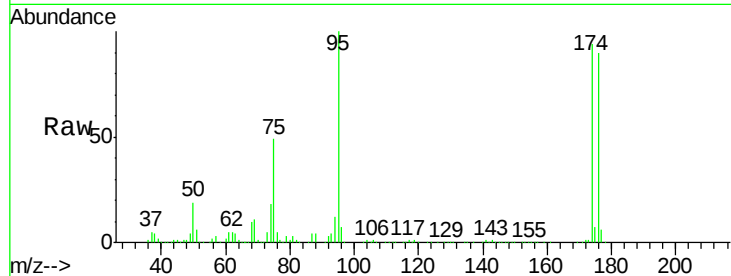
Tot Ion: 75 Resp: 94417

Ion Ratio Lower Upper

75 100

53 0.5 86.8 130.2#

89 0.0 38.2 57.2#



#92

1,2-Dibromo-3-Chloropropane

Concen: 0.39 ug/l

RT: 12.99 min Scan# 2034

Delta R.T. -0.02 min

Lab File: VX003135.D

Acq: 02 Jul 2018 18:51

Tgt Ion: 75 Resp: 375

Ion Ratio Lower Upper

75 100

155 0.0 45.8 137.4#

157 0.0 60.1 180.3#

