

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX062118\  
 Data File : VX002809.D  
 Acq On : 22 Jun 2018 01:21  
 Operator : JC/MD  
 Sample : PB110441ZHE#12  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 31 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB110441ZHE#12

Quant Time: Jun 22 02:24:45 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X061518W.M  
 Quant Title : SW846 8260  
 QLast Update : Sat Jun 16 01:37:33 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 228539   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 321979   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 301485   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 168556   | 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   | 156380   | 45.03 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 90.06% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 121649   | 47.34 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.68% |          |
| 50) Toluene-d8              | 8.72  | 98   | 456356   | 46.77 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 93.54% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 159095   | 43.03 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 86.06% |          |

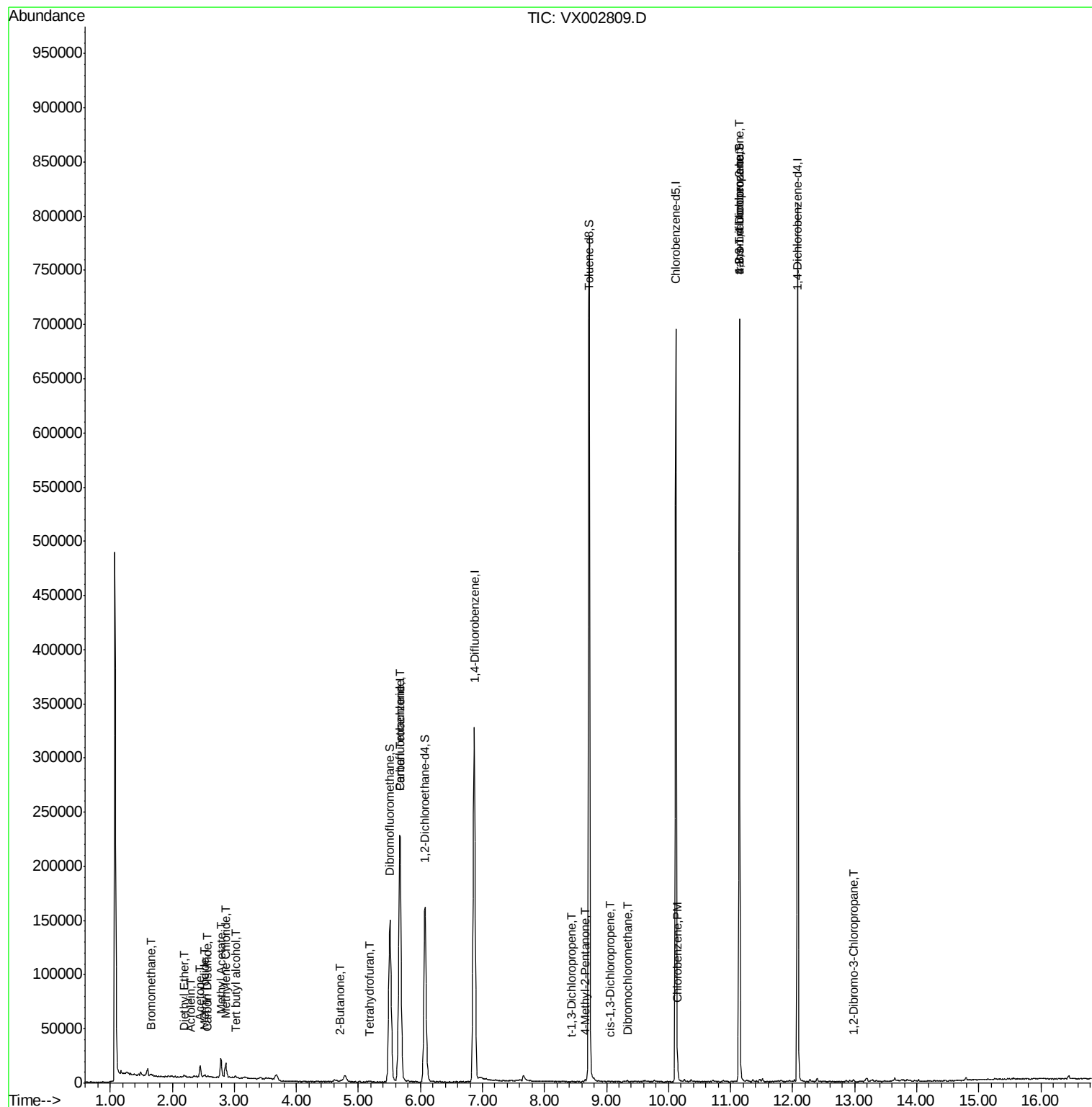
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 5) Bromomethane                | 1.65  | 94   | 1199     | 0.66  | ug/l   | 83     |
| 8) Diethyl Ether               | 2.20  | 74   | 751      | 0.41  | ug/l   | 92     |
| 10) Methyl Iodide              | 2.52  | 142  | 2319     | 5.75  | ug/l   | 96     |
| 11) Tert butyl alcohol         | 3.03  | 59   | 1146     | 1.60  | ug/l # | 89     |
| 13) Acrolein                   | 2.30  | 56   | 271      | 7.65  | ug/l   | 84     |
| 16) Acetone                    | 2.45  | 43   | 12145    | 7.93  | ug/l   | 93     |
| 17) Carbon Disulfide           | 2.57  | 76   | 1406     | 0.23  | ug/l   | 98     |
| 18) Methyl Acetate             | 2.78  | 43   | 20908    | 5.12  | ug/l   | 100    |
| 20) Methylene Chloride         | 2.86  | 84   | 6337     | 2.02  | ug/l   | 96     |
| 25) 2-Butanone                 | 4.71  | 43   | 2651     | 1.32  | ug/l # | 88     |
| 29) Tetrahydrofuran            | 5.17  | 42   | 450      | 0.34  | ug/l # | 74     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 20837    | 6.12  | ug/l # | 16     |
| 51) 4-Methyl-2-Pentanone       | 8.66  | 43   | 1109     | 0.27  | ug/l   | 90     |
| 53) t-1,3-Dichloropropene      | 8.45  | 75   | 146      | 2.43  | ug/l # | 88     |
| 54) cis-1,3-Dichloropropene    | 9.05  | 75   | 162      | 3.25  | ug/l # | 54     |
| 60) Dibromochloromethane       | 9.34  | 129  | 257      | 3.84  | ug/l # | 11     |
| 65) Chlorobenzene              | 10.15 | 112  | 3183     | 0.43  | ug/l   | 91     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 85144    | 26.77 | ug/l # | 33     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 85144    | 82.67 | ug/l # | 7      |
| 92) 1,2-Dibromo-3-Chloropropan | 12.99 | 75   | 313      | 0.45  | ug/l # | 1      |

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

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X061518W.M  
Quant Title : SW846 8260  
QLast Update : Sat Jun 16 01:37:33 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 834

Delta R.T. 0.00 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

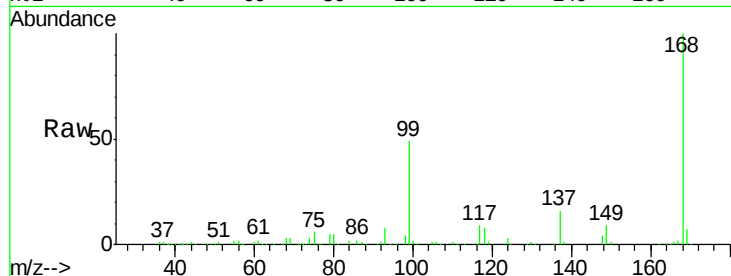
PB110441ZHE#12

Tot Ion:168 Resp: 228539

Ion Ratio Lower Upper

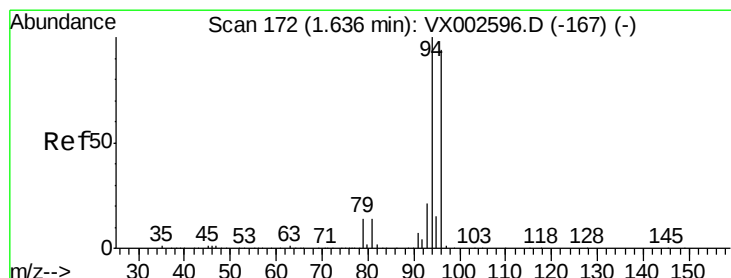
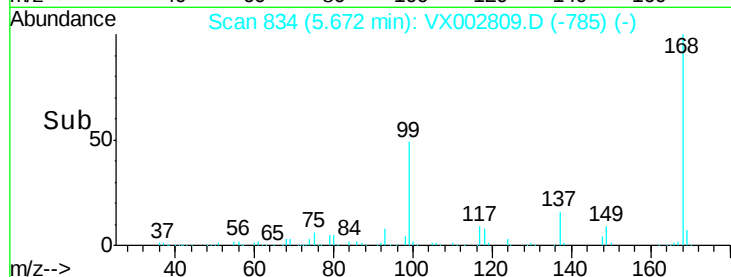
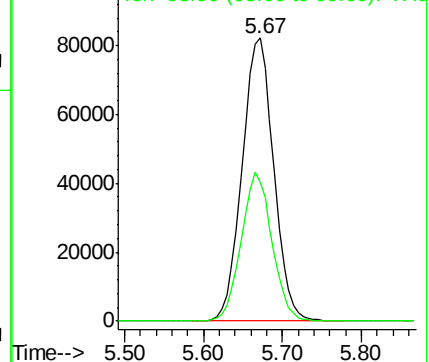
168 100

99 49.1 39.3 58.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0



#5

Bromomethane

Concen: 0.66 ug/l

RT: 1.65 min Scan# 175

Delta R.T. 0.02 min

Lab File: VX002809.D

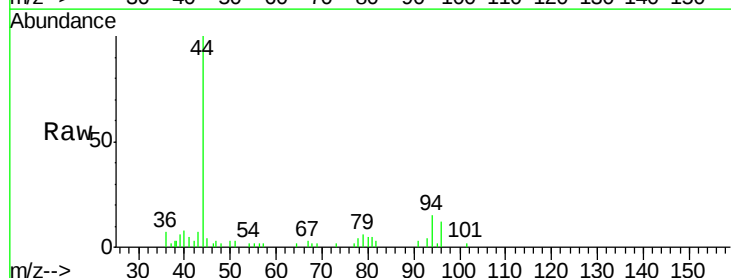
Acq: 22 Jun 2018 01:21

Tgt Ion: 94 Resp: 1199

Ion Ratio Lower Upper

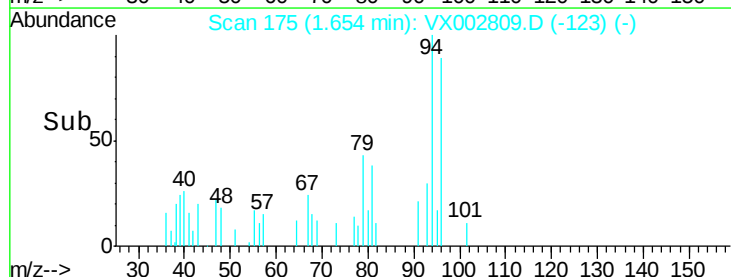
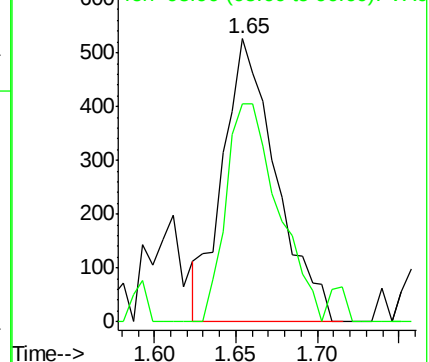
94 100

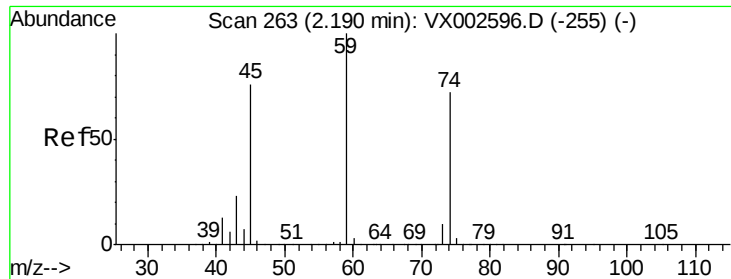
96 77.0 74.9 112.3



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0





#8

Diethyl Ether

Concen: 0.41 ug/l

RT: 2.20 min Scan# 264

Delta R.T. 0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

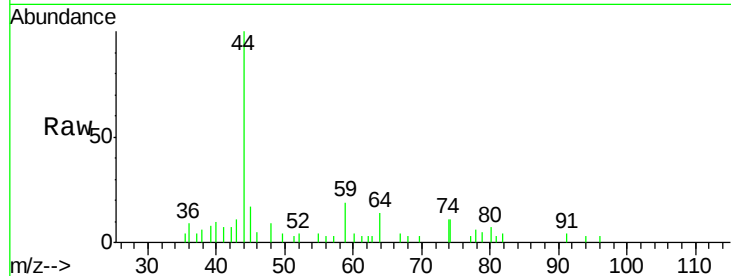
PB110441ZHE#12

Tot Ion: 74 Resp: 751

Ion Ratio Lower Upper

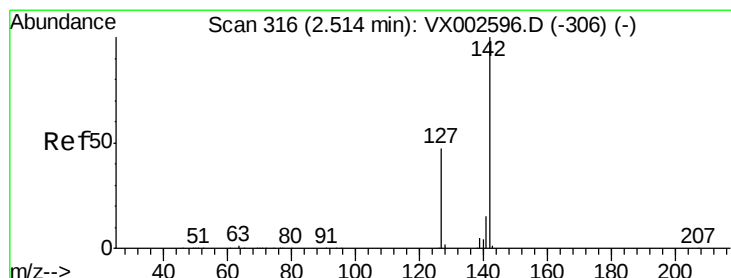
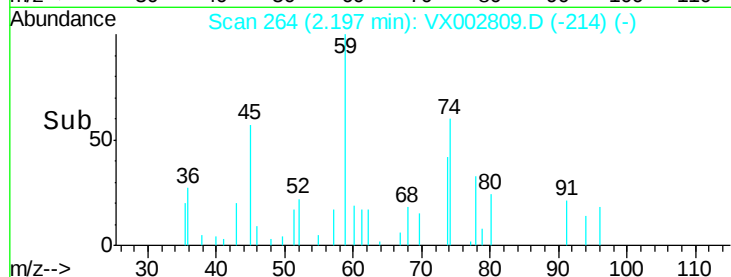
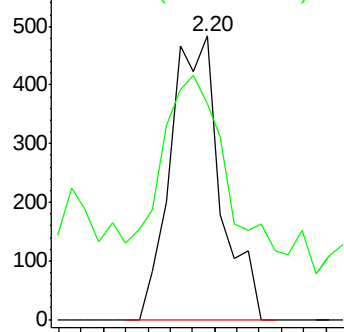
74 100

45 98.4 53.1 159.4



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0



#10

Methyl Iodide

Concen: 5.75 ug/l

RT: 2.52 min Scan# 317

Delta R.T. 0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

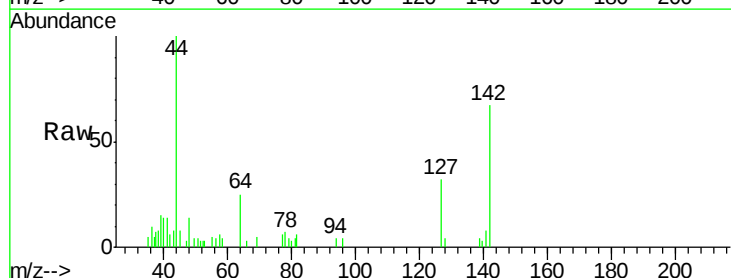
Tgt Ion: 142 Resp: 2319

Ion Ratio Lower Upper

142 100

127 48.8 36.6 55.0

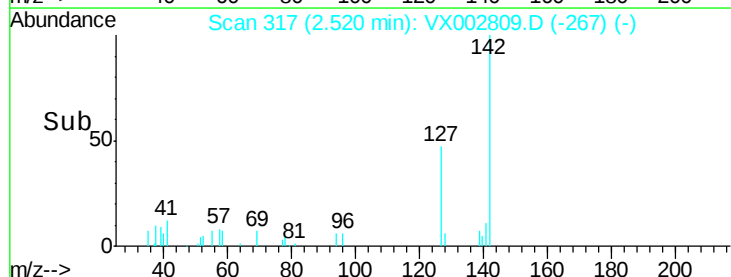
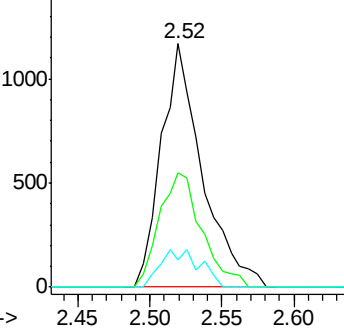
141 14.7 11.3 16.9

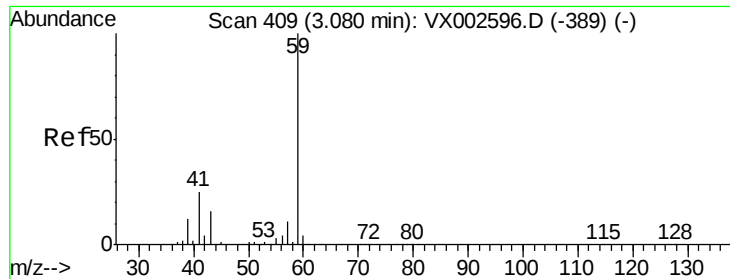


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V

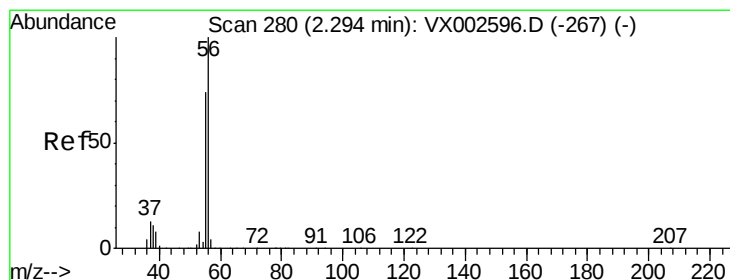
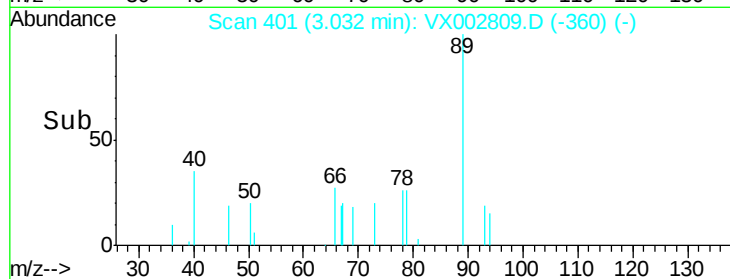
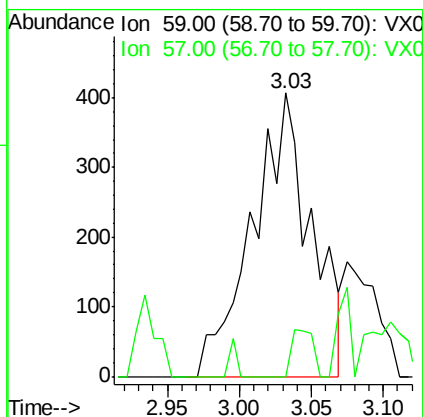
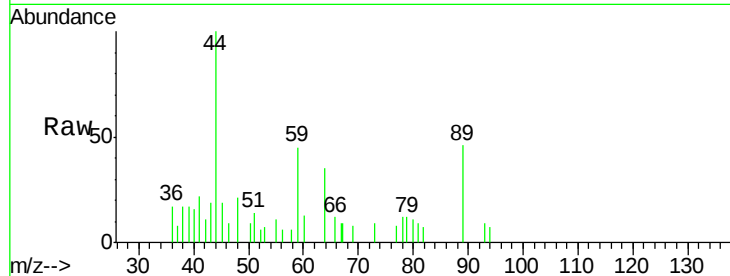




#11  
Tert butyl alcohol  
Concen: 1.60 ug/l  
RT: 3.03 min Scan# 401  
Delta R.T. -0.05 min  
Lab File: VX002809.D  
Acq: 22 Jun 2018 01:21

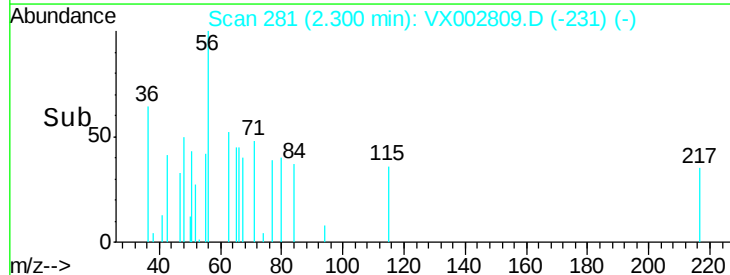
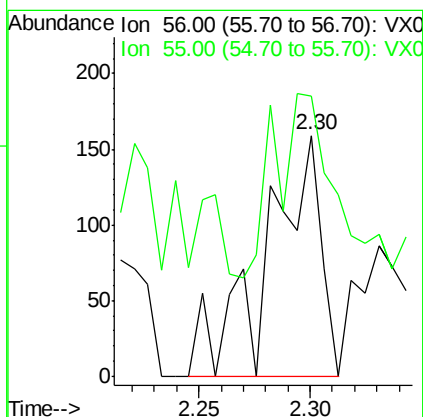
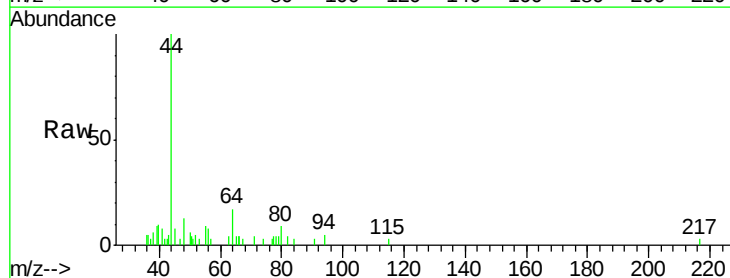
Instrument :  
MSVOA\_X  
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PB110441ZHE#12

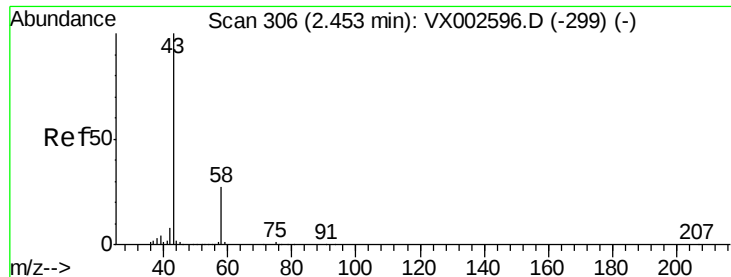
Tot Ion: 59 Resp: 1146  
Ion Ratio Lower Upper  
59 100  
57 6.2 8.2 12.2#



#13  
Acrolein  
Concen: 7.65 ug/l  
RT: 2.30 min Scan# 281  
Delta R.T. 0.01 min  
Lab File: VX002809.D  
Acq: 22 Jun 2018 01:21

Tgt Ion: 56 Resp: 271  
Ion Ratio Lower Upper  
56 100  
55 84.5 57.0 85.4





#16

Acetone

Concen: 7.93 ug/l

RT: 2.45 min Scan# 305

Delta R.T. -0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

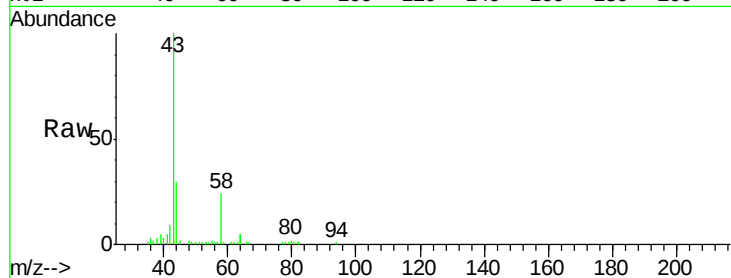
PB110441ZHE#12

Tot Ion: 43 Resp: 12145

Ion Ratio Lower Upper

43 100

58 24.1 22.1 33.1



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

2.45

8000

6000

4000

2000

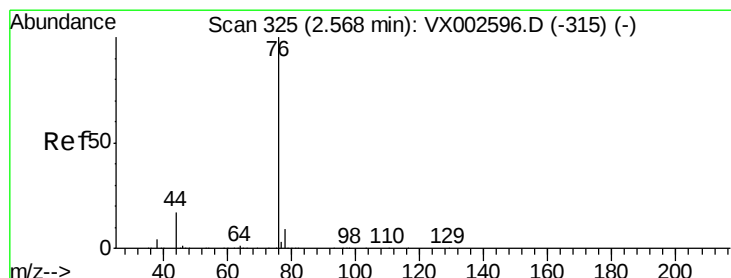
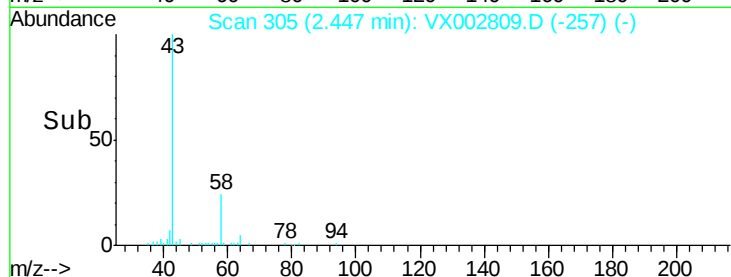
0

Time-->

2.40

2.45

2.50



#17

Carbon Disulfide

Concen: 0.23 ug/l

RT: 2.57 min Scan# 325

Delta R.T. 0.00 min

Lab File: VX002809.D

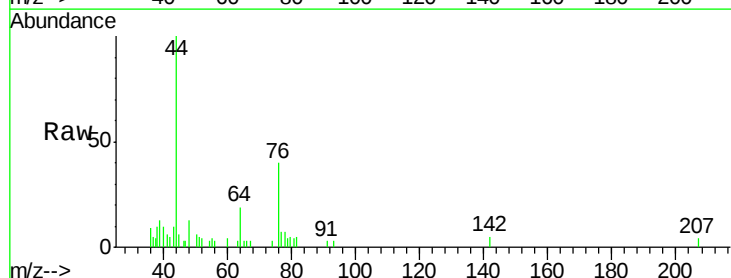
Acq: 22 Jun 2018 01:21

Tgt Ion: 76 Resp: 1406

Ion Ratio Lower Upper

76 100

78 8.0 6.9 10.3



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

2.57

800

600

400

200

0

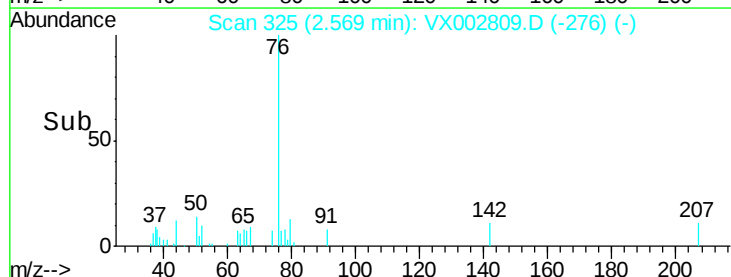
Time-->

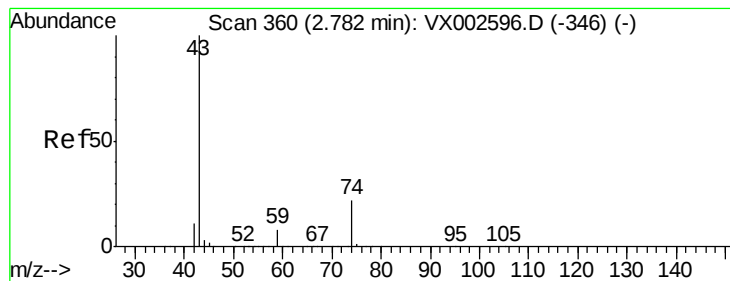
2.50

2.55

2.60

2.65





#18

Methvl Acetate

Concen: 5.12 ug/l

RT: 2.78 min Scan# 360

Delta R.T. 0.00 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

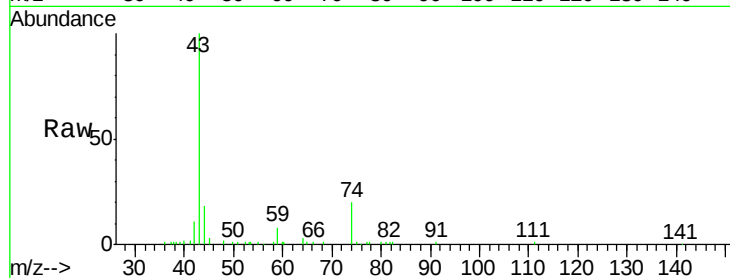
PB110441ZHE#12

Tot Ion: 43 Resp: 20908

Ion Ratio Lower Upper

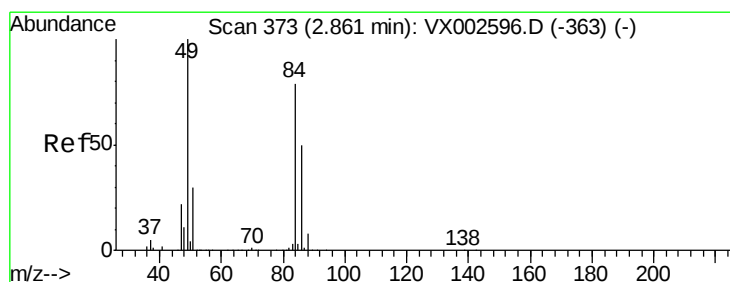
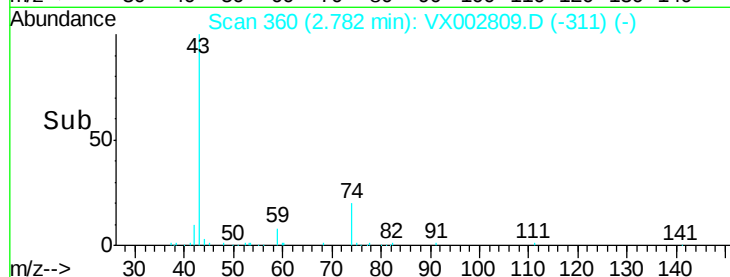
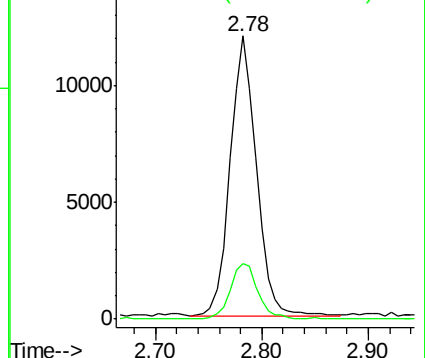
43 100

74 20.8 16.7 25.1



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 74.00 (73.70 to 74.70): VX0



#20

Methylene Chloride

Concen: 2.02 ug/l

RT: 2.86 min Scan# 373

Delta R.T. 0.00 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Tgt Ion: 84 Resp: 6337

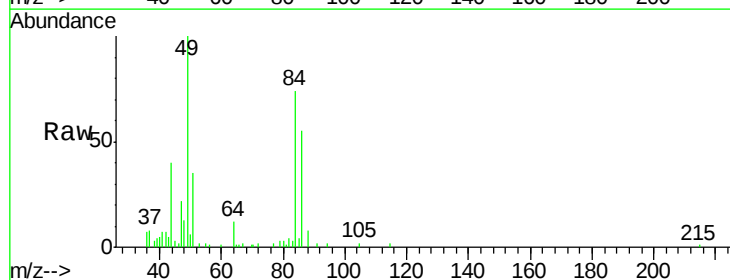
Ion Ratio Lower Upper

84 100

49 133.5 107.8 161.6

51 42.9 32.8 49.2

86 74.3 52.5 78.7

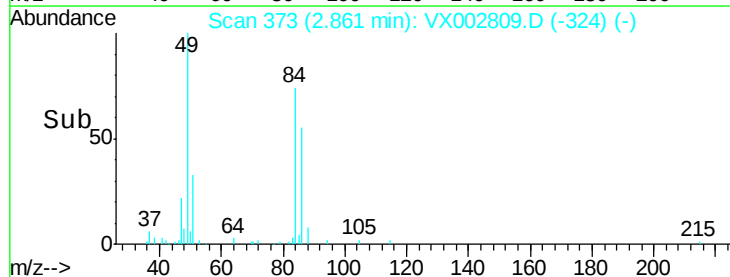
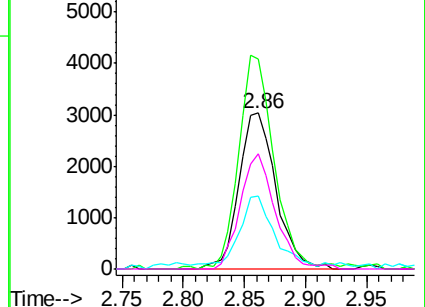


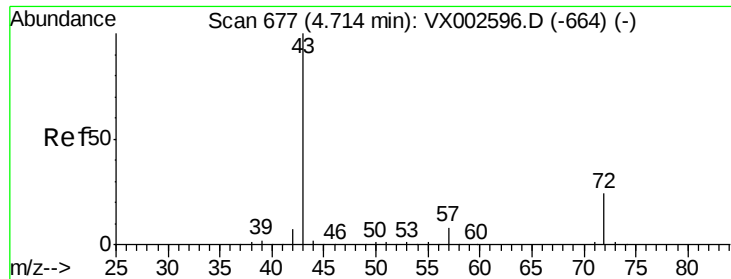
Abundance Ion 83.90 (83.60 to 84.60): VX0

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: 1.32 ug/l

RT: 4.71 min Scan# 676

Delta R.T. -0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

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MSVOA\_X

ClientSampleId :

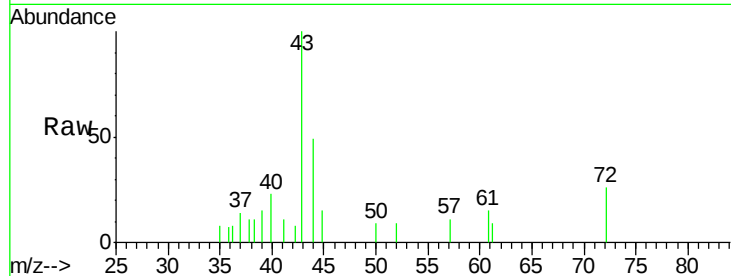
PB110441ZHE#12

Tot Ion: 43 Resp: 2651

Ion Ratio Lower Upper

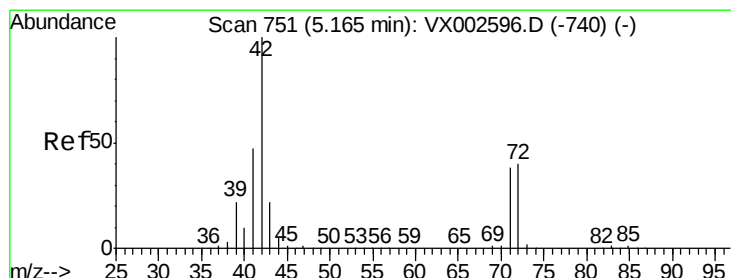
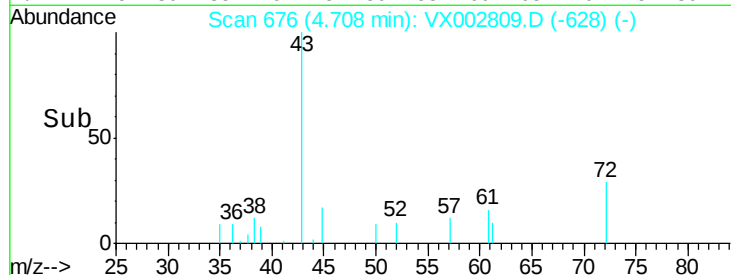
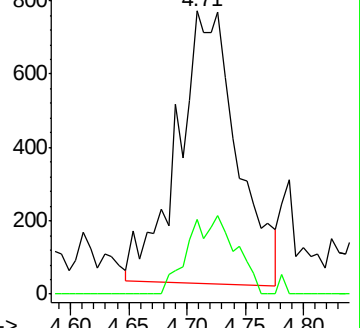
43 100

72 28.8 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: 0.34 ug/l

RT: 5.17 min Scan# 752

Delta R.T. 0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

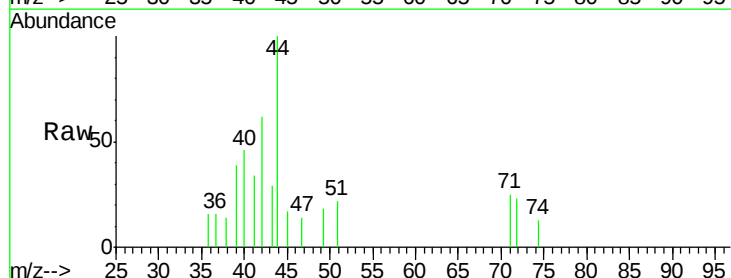
Tgt Ion: 42 Resp: 450

Ion Ratio Lower Upper

42 100

72 10.9 32.0 48.0#

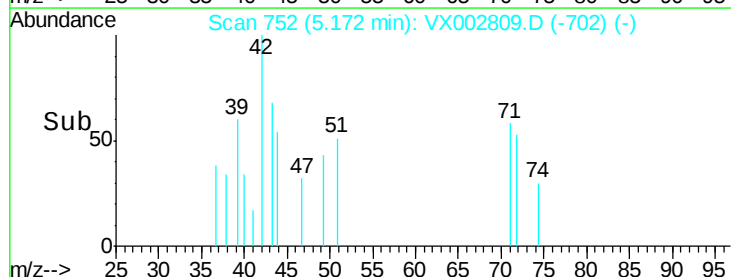
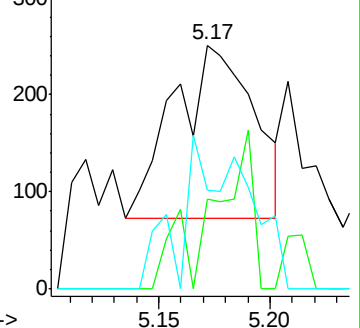
71 40.2 30.1 45.1

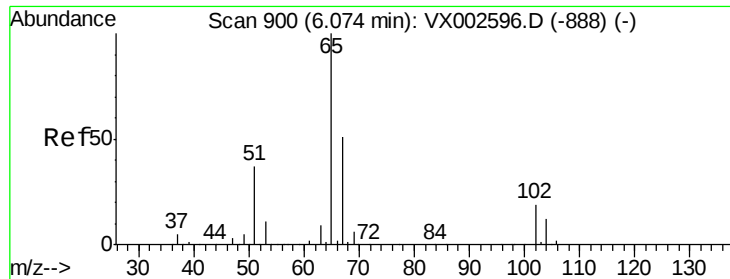


Abundance Ion 42.00 (41.70 to 42.70): VX0

Ion 72.00 (71.70 to 72.70): VX0

Ion 71.00 (70.70 to 71.70): VX0





#33

1,2-Dichloroethane-d4

Concen: 45.03 ug/l

RT: 6.07 min Scan# 900

Delta R.T. 0.00 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

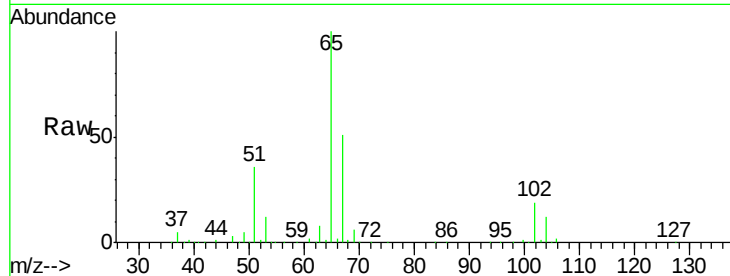
PB110441ZHE#12

Tot Ion: 65 Resp: 156380

Ion Ratio Lower Upper

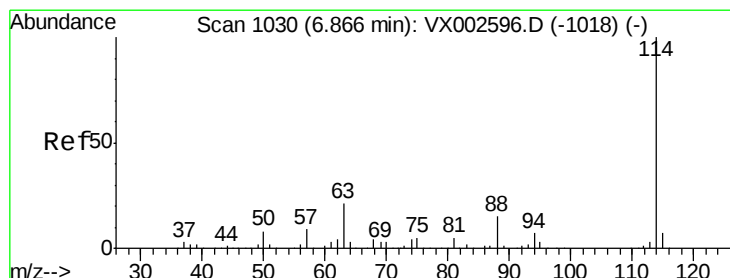
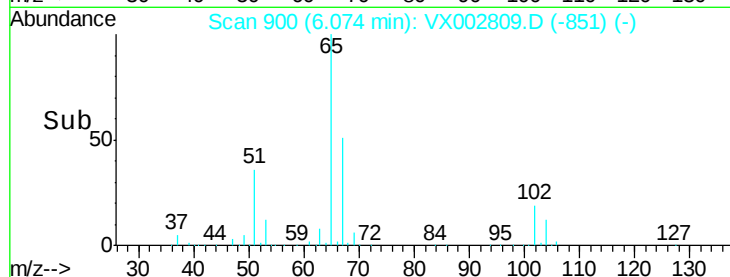
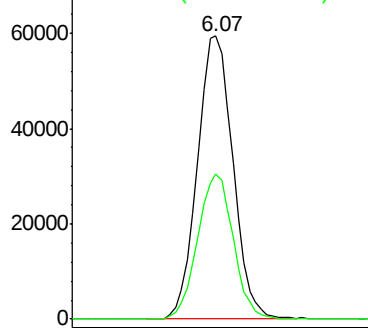
65 100

67 51.3 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: VX002809.D

Acq: 22 Jun 2018 01:21

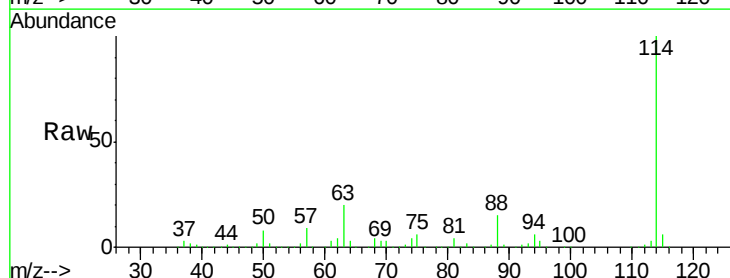
Tgt Ion: 114 Resp: 321979

Ion Ratio Lower Upper

114 100

63 20.0 0.0 41.4

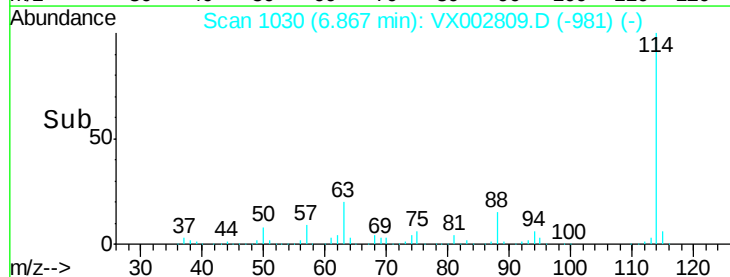
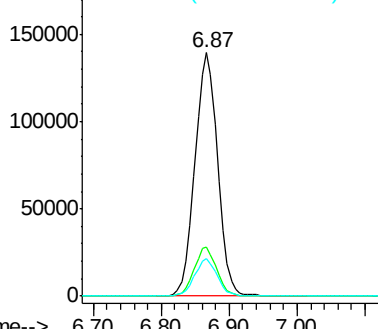
88 15.3 0.0 30.0

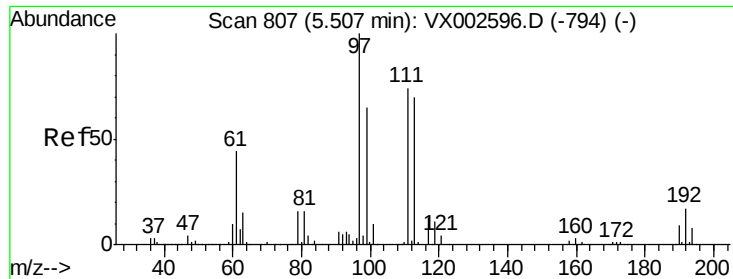


Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0

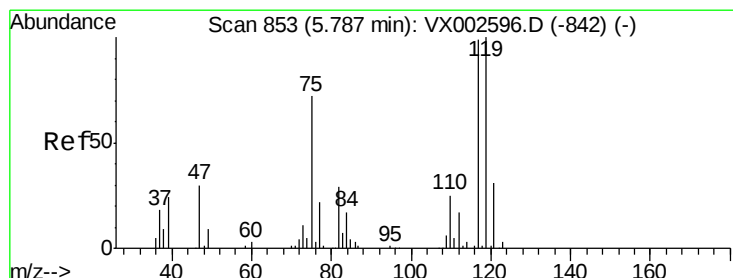
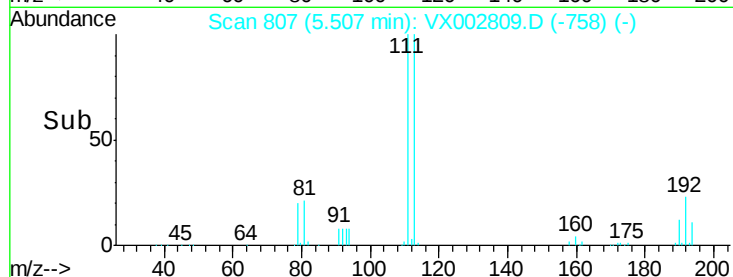
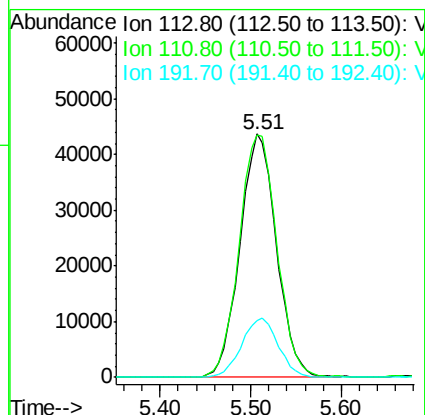
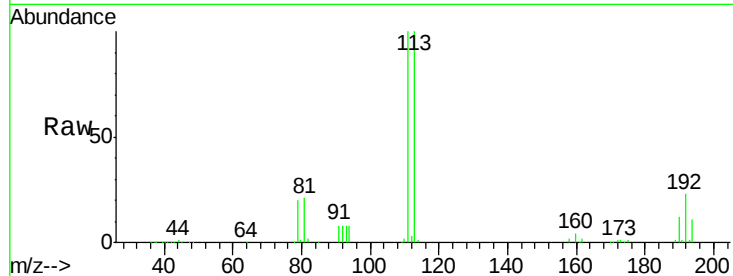




#35  
 Dibromofluoromethane  
 Concen: 47.34 ug/l  
 RT: 5.51 min Scan# 807  
 Delta R.T. 0.00 min  
 Lab File: VX002809.D  
 Acq: 22 Jun 2018 01:21

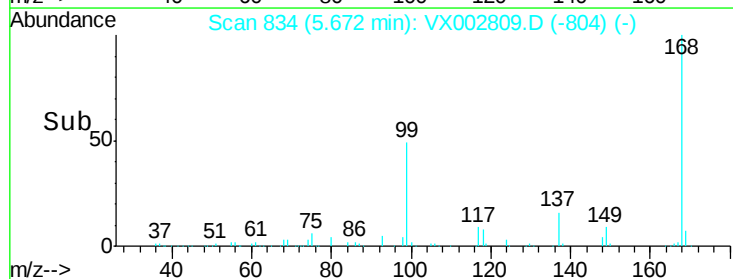
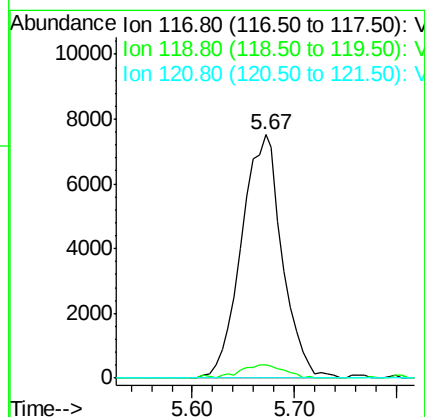
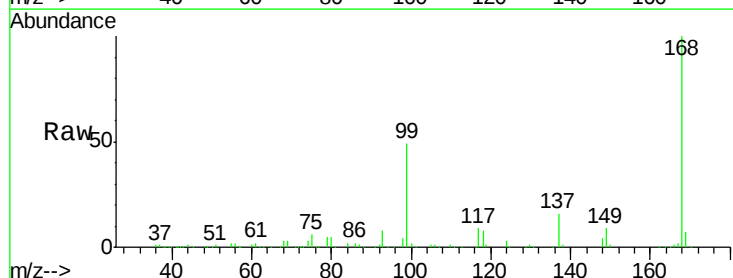
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 PB110441ZHE#12

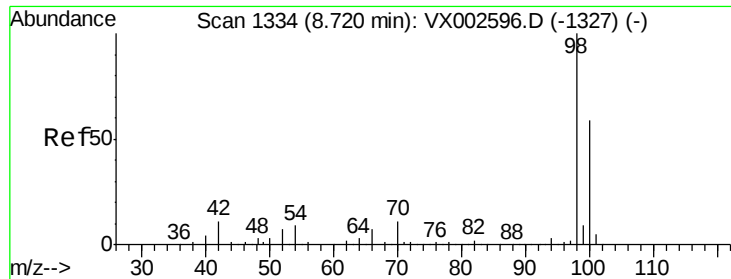
Tot Ion:113 Resp: 121649  
 Ion Ratio Lower Upper  
 113 100  
 111 103.2 81.4 122.0  
 192 24.4 19.1 28.7



#38  
 Carbon Tetrachloride  
 Concen: 6.12 ug/l  
 RT: 5.67 min Scan# 834  
 Delta R.T. -0.12 min  
 Lab File: VX002809.D  
 Acq: 22 Jun 2018 01:21

Tgt Ion:117 Resp: 20837  
 Ion Ratio Lower Upper  
 117 100  
 119 5.5 77.4 116.0#  
 121 0.0 24.4 36.6#





#50

Toluene-d8

Concen: 46.77 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. 0.00 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

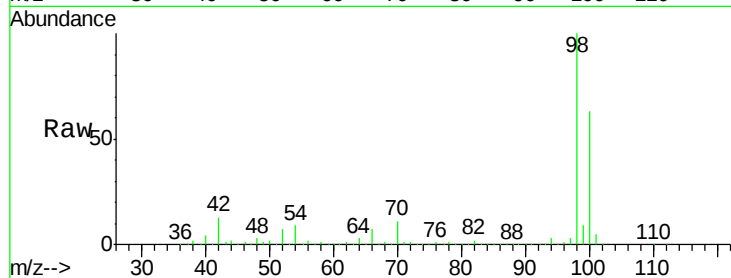
PB110441ZHE#12

Tot Ion: 98 Resp: 456356

Ion Ratio Lower Upper

98 100

100 63.1 50.9 76.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX

8.72

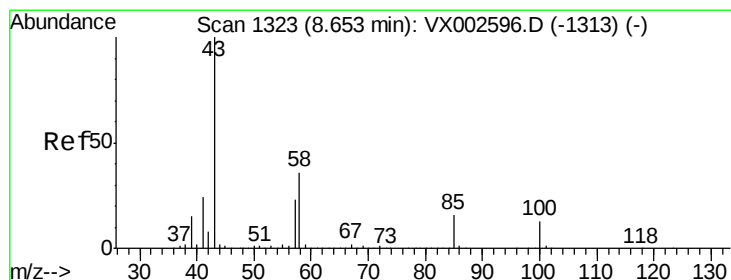
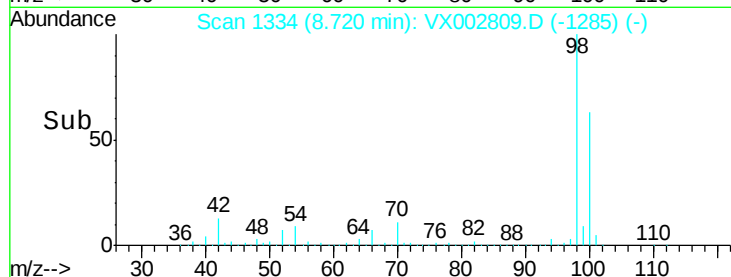
300000

200000

100000

0

Time-->



#51

4-Methyl-2-Pentanone

Concen: 0.27 ug/l

RT: 8.66 min Scan# 1324

Delta R.T. 0.01 min

Lab File: VX002809.D

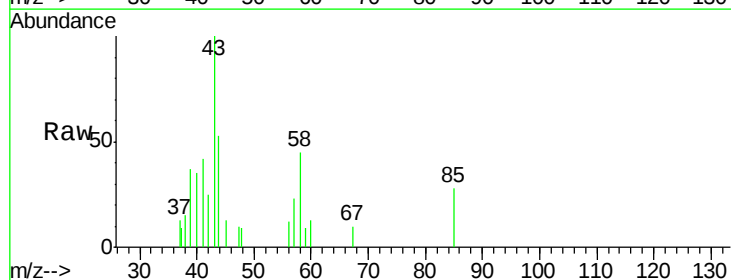
Acq: 22 Jun 2018 01:21

Tgt Ion: 43 Resp: 1109

Ion Ratio Lower Upper

43 100

58 41.5 28.6 42.8



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

3000

2500

2000

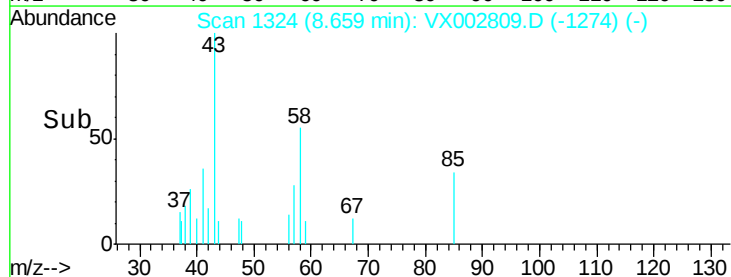
1500

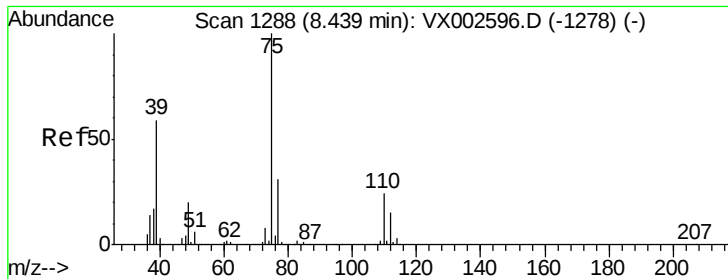
1000

500

0

Time-->





#53

t-1,3-Dichloropropene

Concen: 2.43 ug/l

RT: 8.45 min Scan# 1289

Delta R.T. 0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

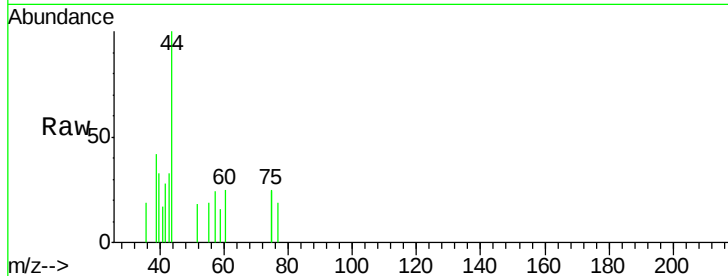
PB110441ZHE#12

Tot Ion: 75 Resp: 146

Ion Ratio Lower Upper

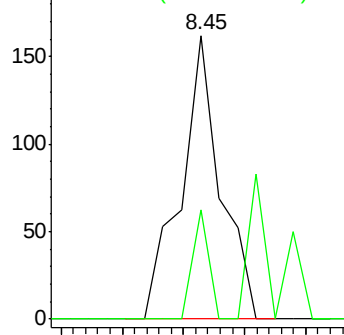
75 100

77 38.3 25.4 38.2#

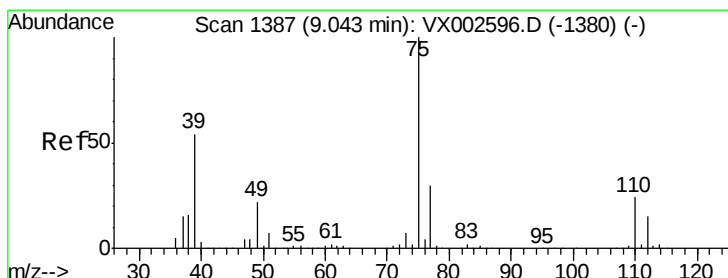
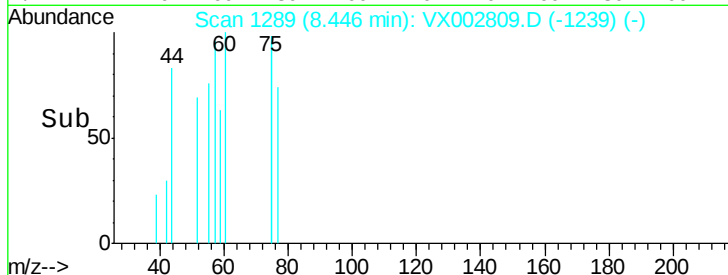


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 76.90 (76.60 to 77.60): VX0



Time--> 8.40 8.42 8.44 8.46 8.48



#54

cis-1,3-Dichloropropene

Concen: 3.25 ug/l

RT: 9.05 min Scan# 1388

Delta R.T. 0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

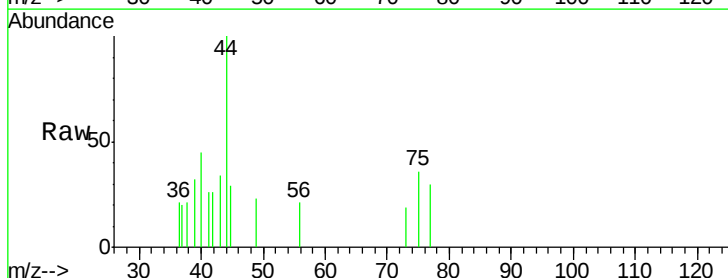
Tgt Ion: 75 Resp: 162

Ion Ratio Lower Upper

75 100

77 82.9 24.8 37.2#

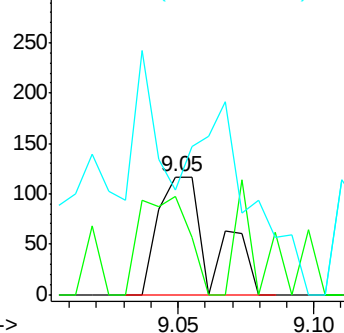
39 40.2 42.4 63.6#



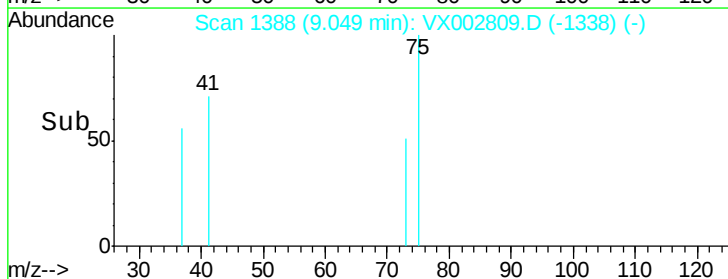
Abundance Ion 74.90 (74.60 to 75.60): VX0

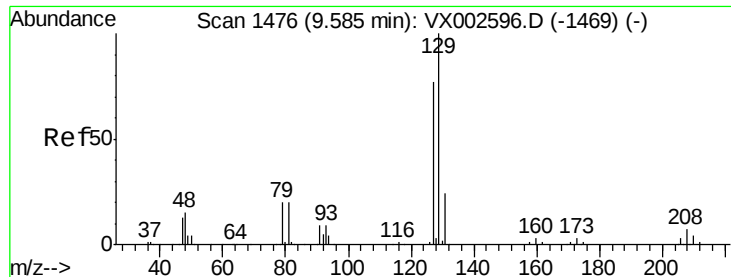
Ion 76.90 (76.60 to 77.60): VX0

Ion 39.00 (38.70 to 39.70): VX0



Time--> 9.05 9.10





#60

Dibromochloromethane

Concen: 3.84 ug/l

RT: 9.34 min Scan# 1436

Delta R.T. -0.24 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

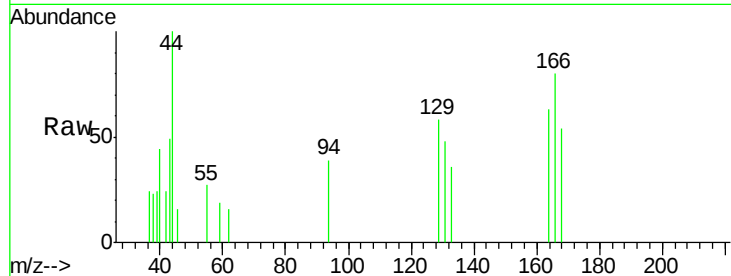
PB110441ZHE#12

Tot Ion:129 Resp: 257

Ion Ratio Lower Upper

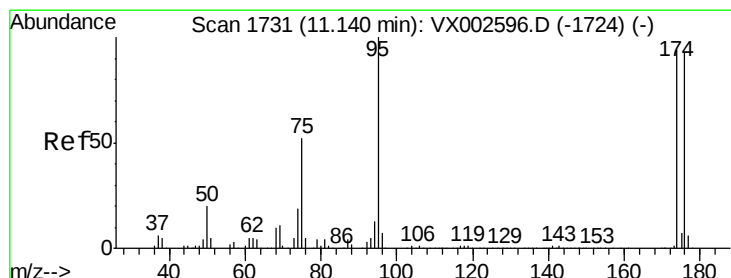
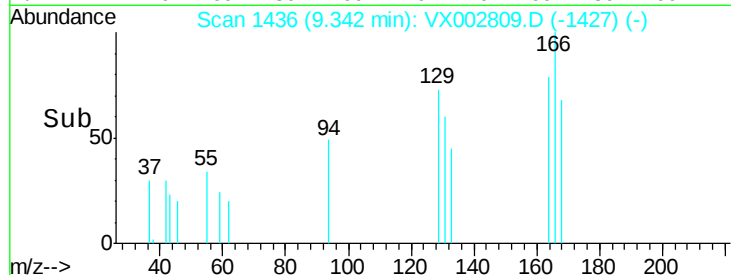
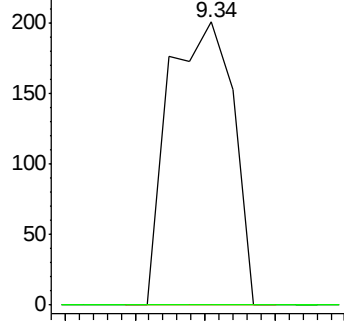
129 100

127 0.0 38.5 115.3#



Abundance Ion 128.80 (128.50 to 129.50): V

Ion 126.80 (126.50 to 127.50): V



#62

4-Bromofluorobenzene

Concen: 43.03 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.00 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

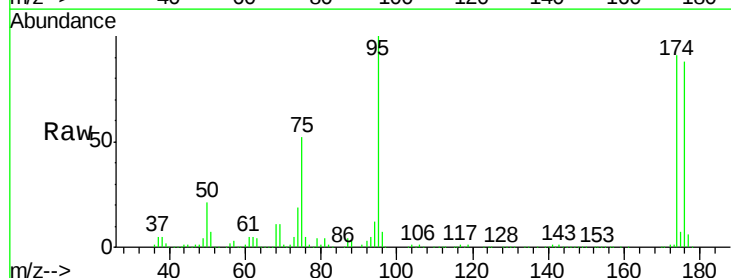
Tgt Ion: 95 Resp: 159095

Ion Ratio Lower Upper

95 100

174 97.2 0.0 187.4

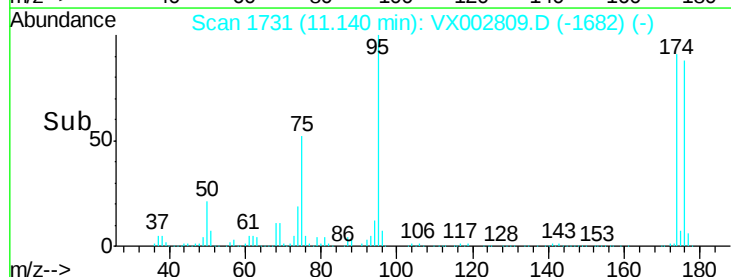
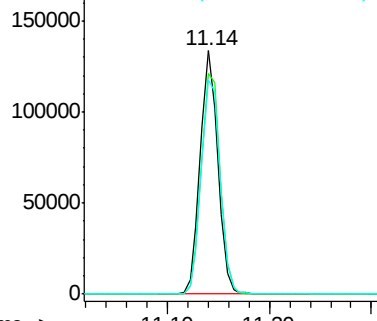
176 94.5 0.0 181.0

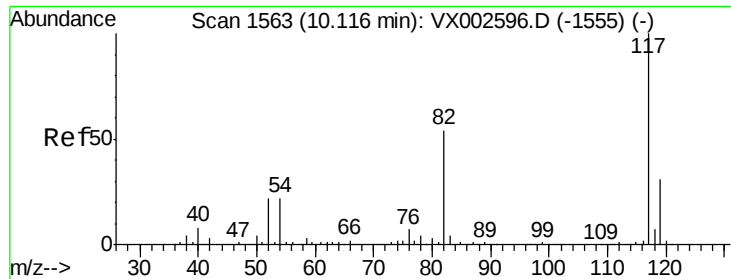


Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): V

Ion 175.80 (175.50 to 176.50): V

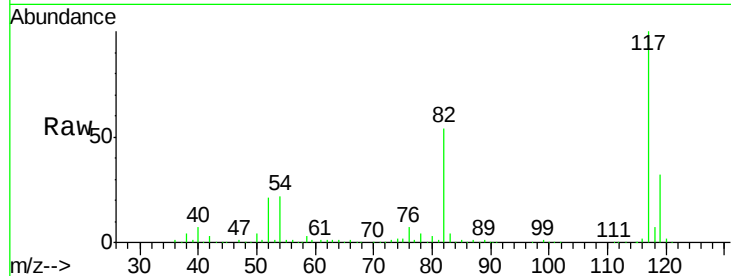




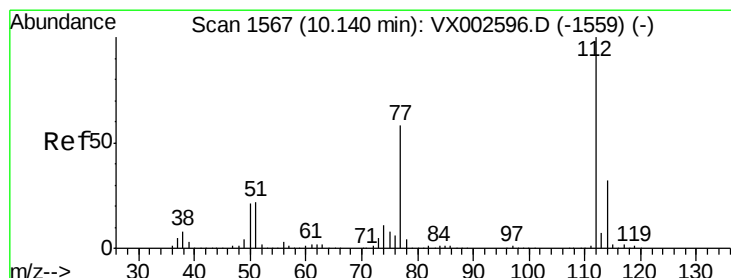
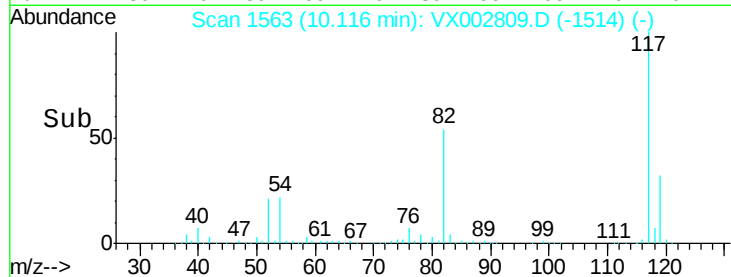
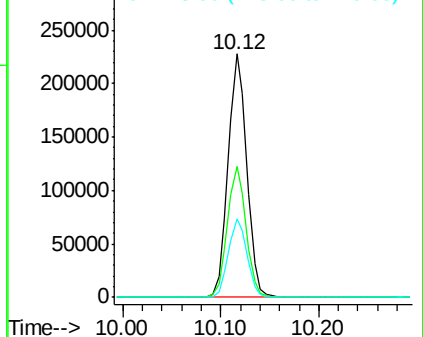
#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. 0.00 min  
Lab File: VX002809.D  
Acq: 22 Jun 2018 01:21

Instrument :  
MSVOA\_X  
ClientSampleId :  
PB110441ZHE#12

Tot Ion:117 Resp: 301485  
Ion Ratio Lower Upper  
117 100  
82 53.8 45.0 67.4  
119 32.3 25.8 38.6

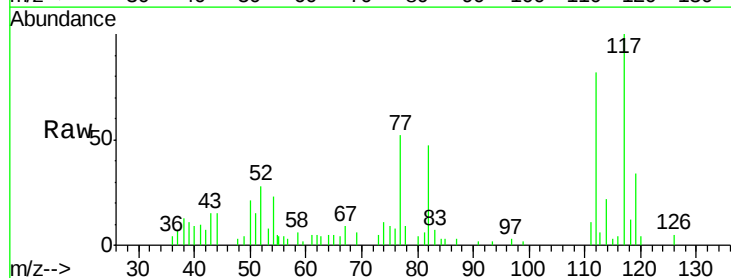


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

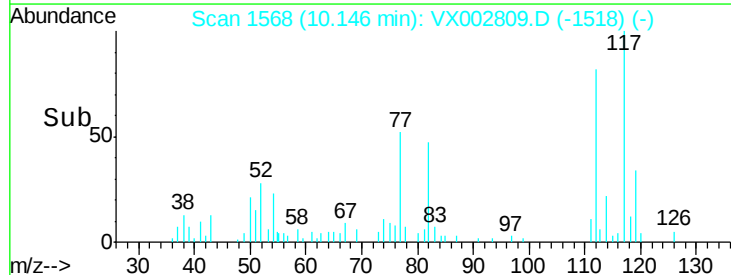
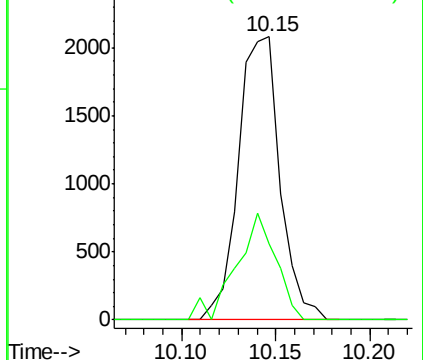


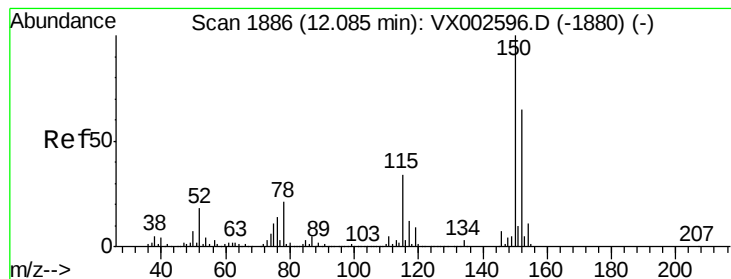
#65  
Chlorobenzene  
Concen: 0.43 ug/l  
RT: 10.15 min Scan# 1568  
Delta R.T. 0.01 min  
Lab File: VX002809.D  
Acq: 22 Jun 2018 01:21

Tgt Ion:112 Resp: 3183  
Ion Ratio Lower Upper  
112 100  
114 26.9 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: 12.08 min Scan# 1885

Delta R.T. -0.01 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

PB110441ZHE#12

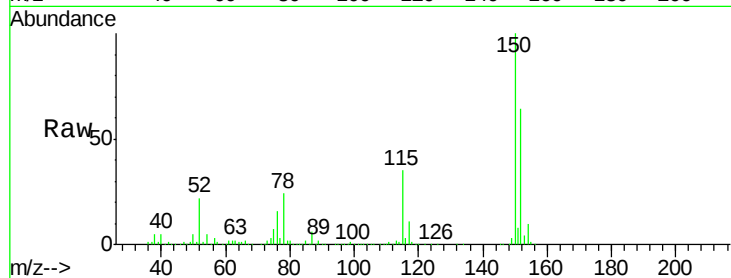
Tot Ion:152 Resp: 168556

Ion Ratio Lower Upper

152 100

115 54.0 40.1 120.2

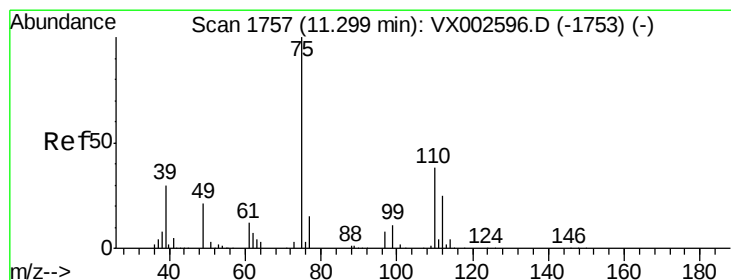
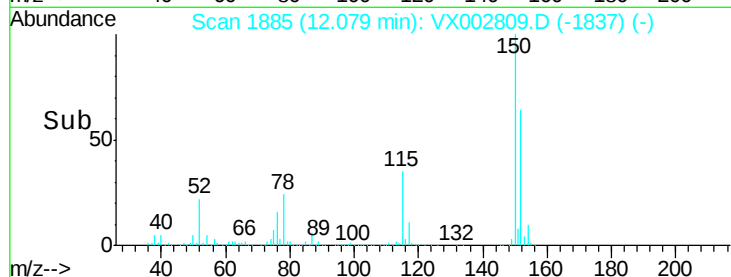
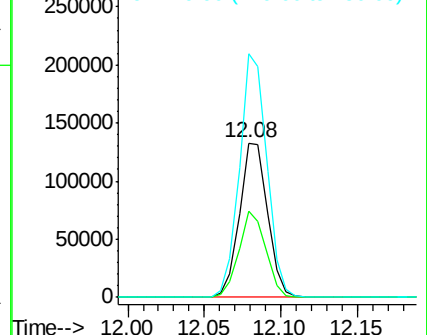
150 154.4 0.0 347.2



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: 26.77 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX002809.D

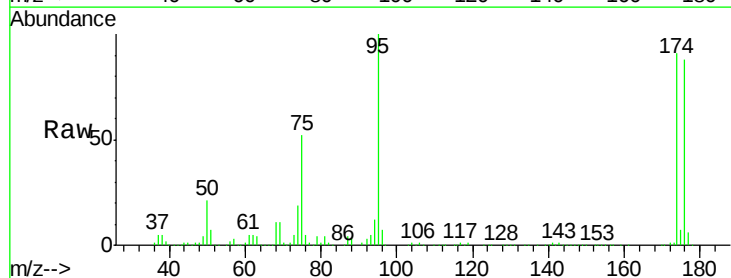
Acq: 22 Jun 2018 01:21

Tgt Ion: 75 Resp: 85144

Ion Ratio Lower Upper

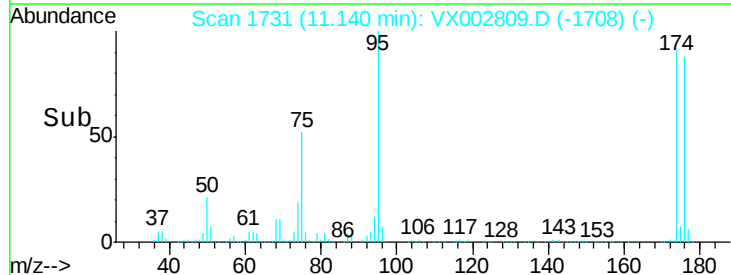
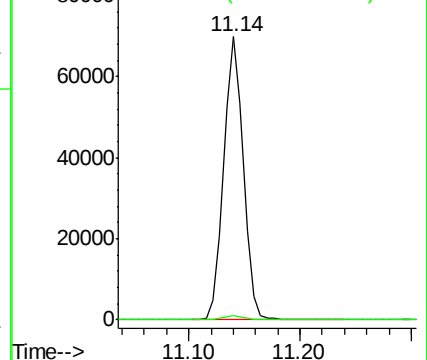
75 100

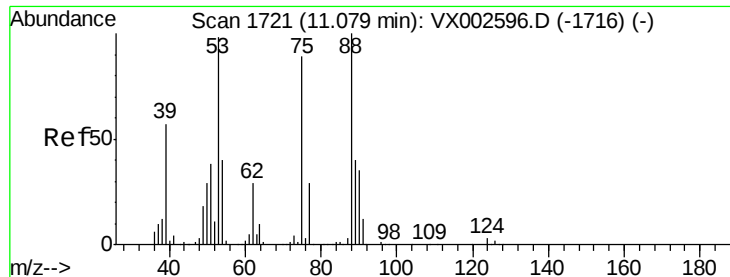
77 1.4 22.8 68.3#



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: 82.67 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

Instrument :

MSVOA\_X

ClientSampleId :

PB110441ZHE#12

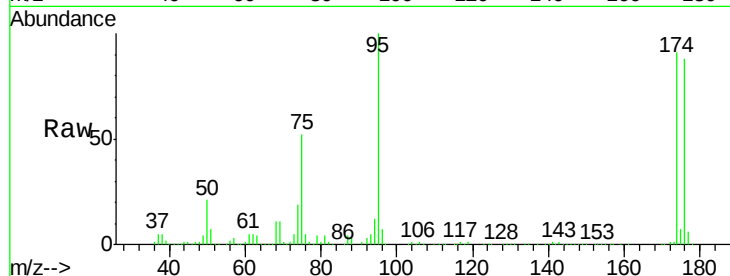
Tot Ion: 75 Resp: 85144

Ion Ratio Lower Upper

75 100

53 0.2 86.8 130.2#

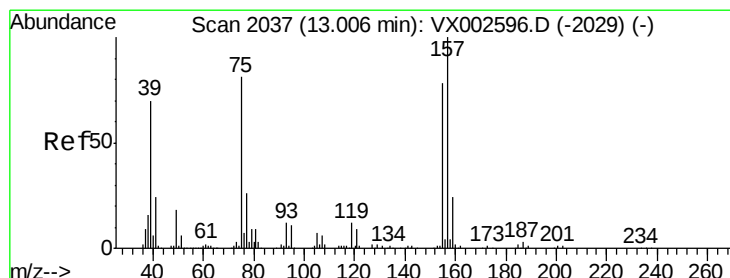
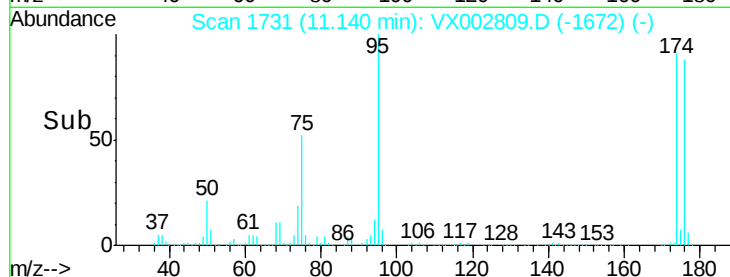
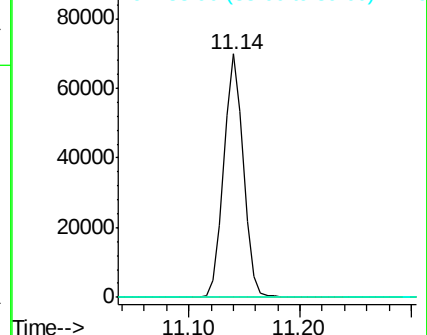
89 0.0 38.2 57.2#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0



#92

1,2-Dibromo-3-Chloropropane

Concen: 0.45 ug/l

RT: 12.99 min Scan# 2034

Delta R.T. -0.02 min

Lab File: VX002809.D

Acq: 22 Jun 2018 01:21

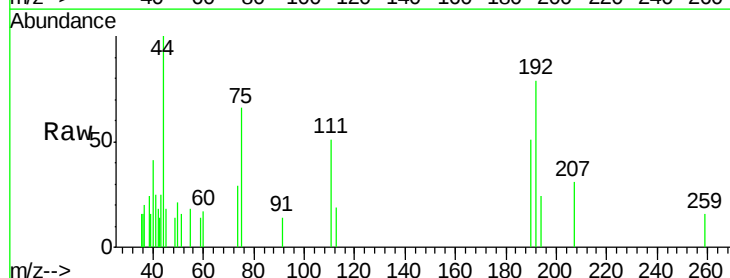
Tgt Ion: 75 Resp: 313

Ion Ratio Lower Upper

75 100

155 0.0 45.8 137.4#

157 0.0 60.1 180.3#



Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 154.80 (154.50 to 155.50): V

Ion 156.80 (156.50 to 157.50): V

