

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX072618\  
 Data File : VX003679.D  
 Acq On : 26 Jul 2018 19:18  
 Operator : JC/SP  
 Sample : J4113-03  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 11 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LC-SD-EB04-180720

Quant Time: Jul 27 05:37:21 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X072418W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Jul 27 02:16:51 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 71458    | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.87  | 114  | 111917   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 106923   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 71540    | 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   | 65207    | 61.60 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 123.20% |          |
| 35) Dibromofluoromethane    | 5.51  | 113  | 54505    | 59.57 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 119.14% |          |
| 50) Toluene-d8              | 8.72  | 98   | 220101   | 63.04 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 126.08% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 64172    | 50.39 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 100.78% |          |

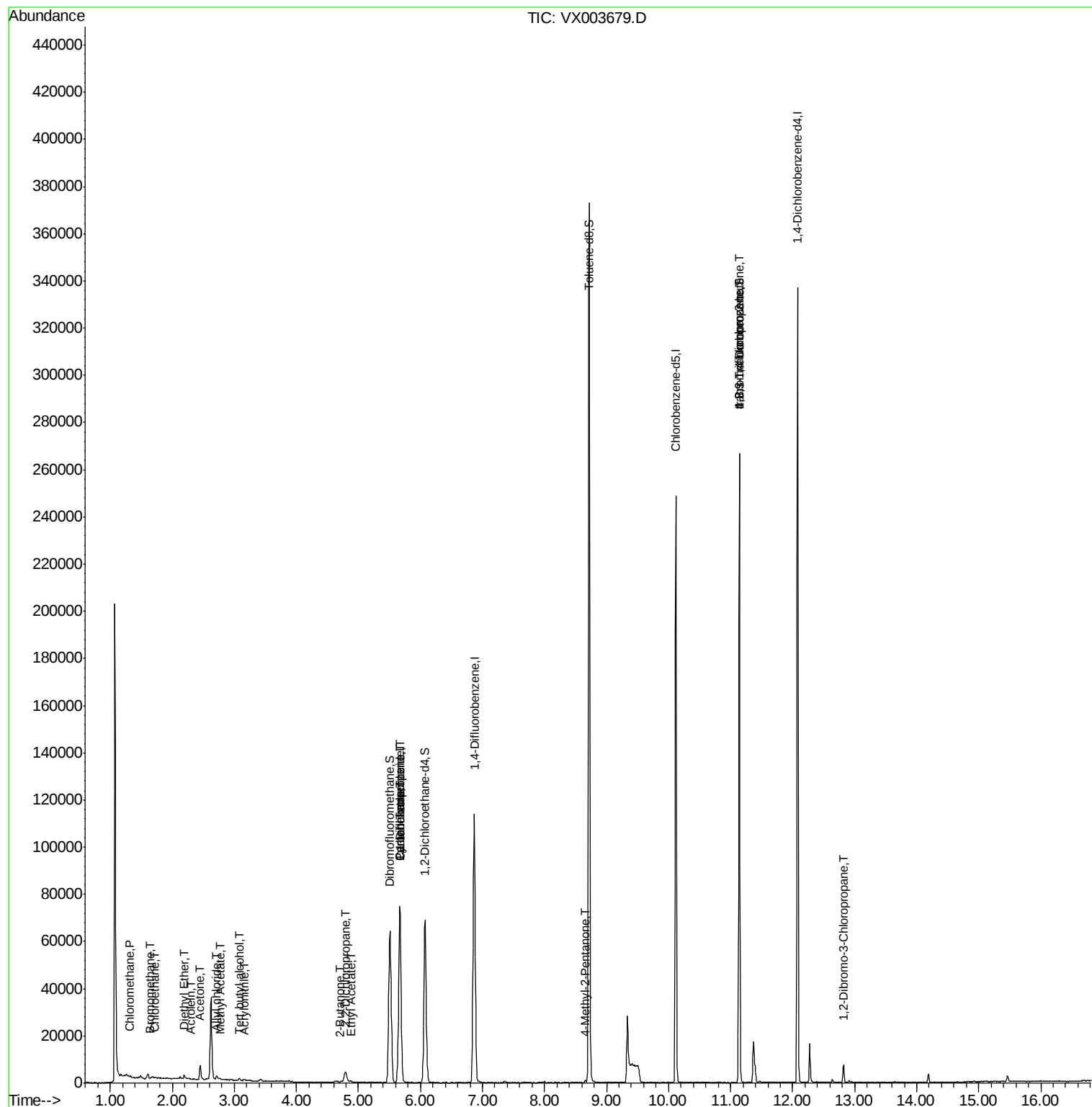
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units  | Qvalue |
|--------------------------------|-------|------|----------|-------|--------|--------|
| 3) Chloromethane               | 1.33  | 50   | 272      | 0.25  | ug/l # | 42     |
| 5) Bromomethane                | 1.64  | 94   | 120      | 0.23  | ug/l # | 65     |
| 6) Chloroethane                | 1.71  | 64   | 1673     | 3.82  | ug/l # | 42     |
| 8) Diethyl Ether               | 2.19  | 74   | 585      | 0.95  | ug/l   | 90     |
| 11) Tert butyl alcohol         | 3.07  | 59   | 1059     | 4.19  | ug/l   | 98     |
| 13) Acrolein                   | 2.30  | 56   | 18       | 4.17  | ug/l # | 15     |
| 14) Allyl chloride             | 2.72  | 41   | 1382     | 0.80  | ug/l # | 50     |
| 15) Acrylonitrile              | 3.15  | 53   | 357      | 0.58  | ug/l # | 81     |
| 16) Acetone                    | 2.45  | 43   | 6555     | 13.18 | ug/l   | 99     |
| 18) Methyl Acetate             | 2.78  | 43   | 435      | 0.29  | ug/l # | 53     |
| 25) 2-Butanone                 | 4.71  | 43   | 691      | 0.90  | ug/l # | 50     |
| 26) 2,2-Dichloropropane        | 4.79  | 77   | 413      | 0.37  | ug/l # | 51     |
| 31) Cyclohexane                | 5.66  | 56   | 1526     | 1.07  | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75   | 5417     | 4.14  | ug/l # | 49     |
| 37) Ethyl Acetate              | 4.88  | 43   | 1252     | 0.80  | ug/l # | 87     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 6805     | 5.40  | ug/l # | 15     |
| 51) 4-Methyl-2-Pentanone       | 8.66  | 43   | 676      | 0.44  | ug/l   | 88     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 33400    | 22.26 | ug/l # | 35     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 33400    | 68.96 | ug/l # | 11     |
| 92) 1,2-Dibromo-3-Chloropropan | 12.82 | 75   | 170      | 0.45  | ug/l # | 2      |

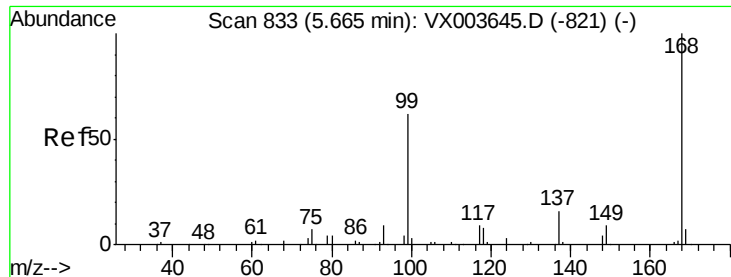
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Fri Jul 27 02:16:51 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: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

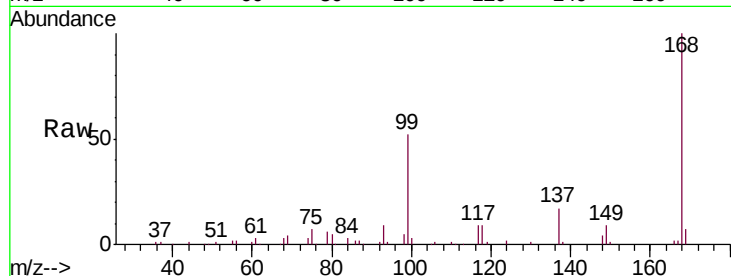
LC-SD-EB04-180720

Tot Ion:168 Resp: 71458

Ion Ratio Lower Upper

168 100

99 52.5 49.5 74.3

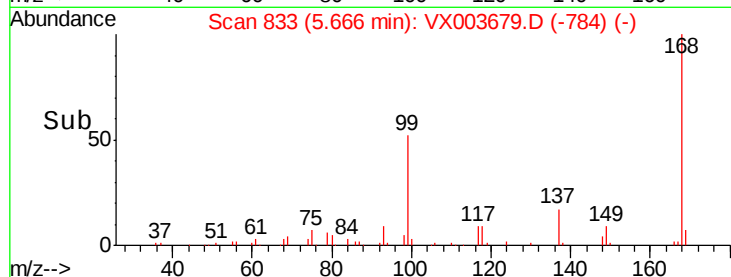


Abundance Ion 167.90 (167.60 to 168.60): V

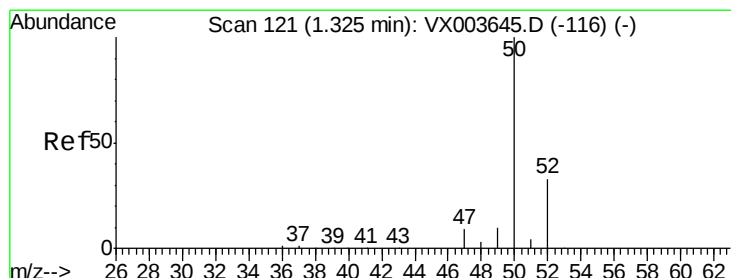
Ion 98.90 (98.60 to 99.60): VX0

5.67

Time-->



Time-->



#3

Chloromethane

Concen: 0.25 ug/l

RT: 1.33 min Scan# 121

Delta R.T. 0.00 min

Lab File: VX003679.D

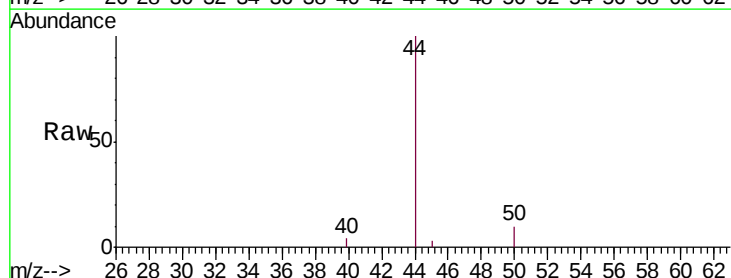
Acq: 26 Jul 2018 19:18

Tgt Ion: 50 Resp: 272

Ion Ratio Lower Upper

50 100

52 0.0 26.3 39.5#

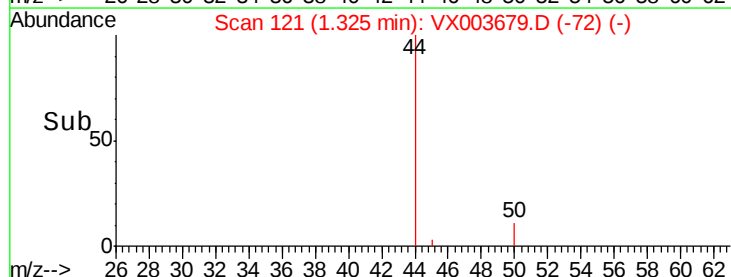


Abundance Ion 49.90 (49.60 to 50.60): VX0

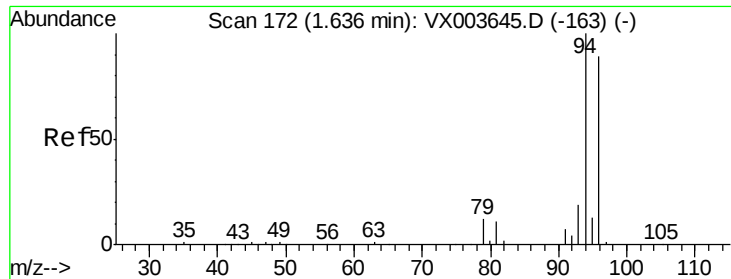
Ion 51.90 (51.60 to 52.60): VX0

1.33

Time-->



Time-->



#5

Bromomethane

Concen: 0.23 ug/l

RT: 1.64 min Scan# 173

Delta R.T. 0.01 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

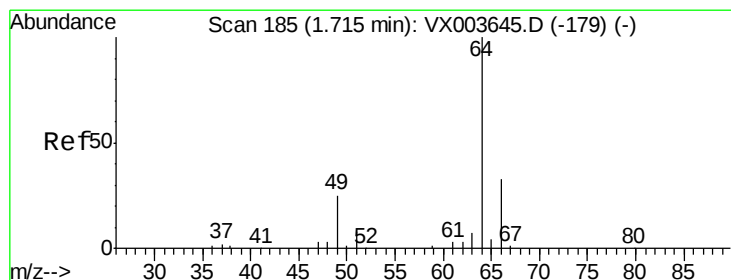
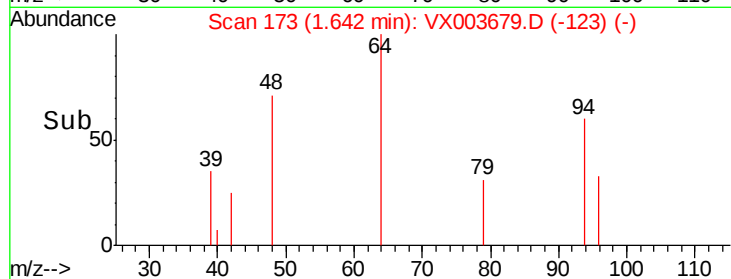
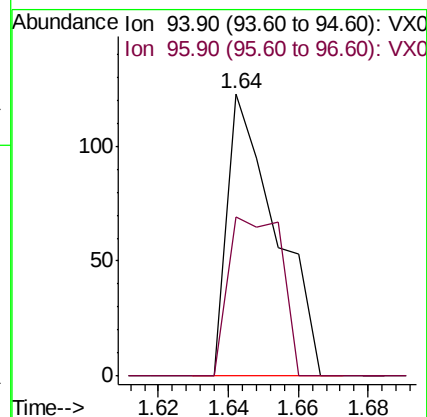
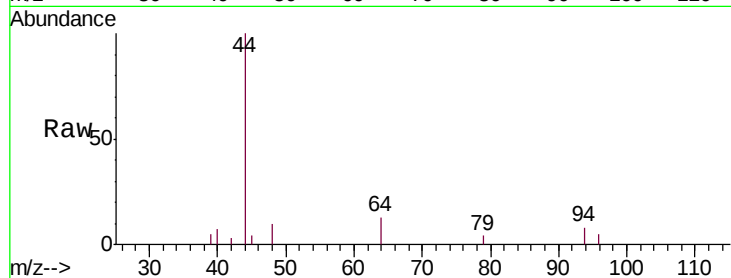
LC-SD-EB04-180720

Tot Ion: 94 Resp: 120

Ion Ratio Lower Upper

94 100

96 56.1 71.3 106.9#



#6

Chloroethane

Concen: 3.82 ug/l

RT: 1.71 min Scan# 184

Delta R.T. -0.00 min

Lab File: VX003679.D

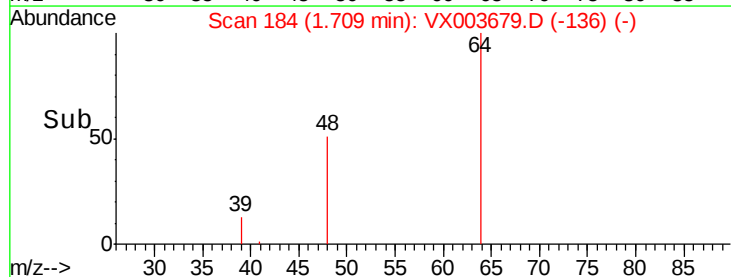
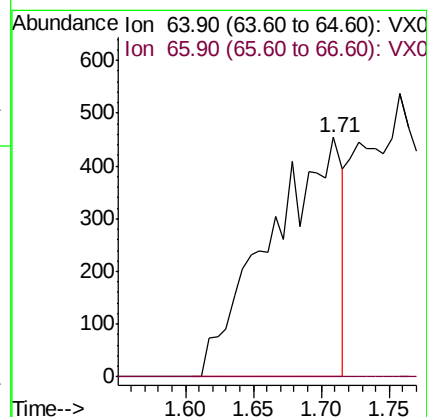
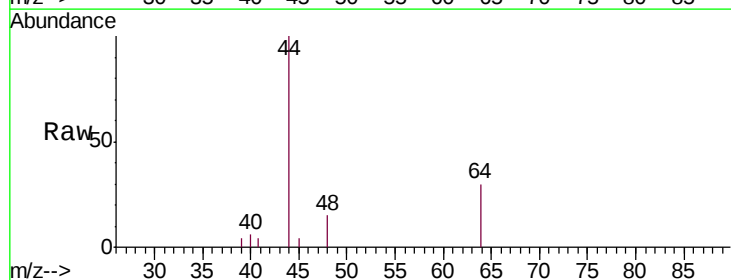
Acq: 26 Jul 2018 19:18

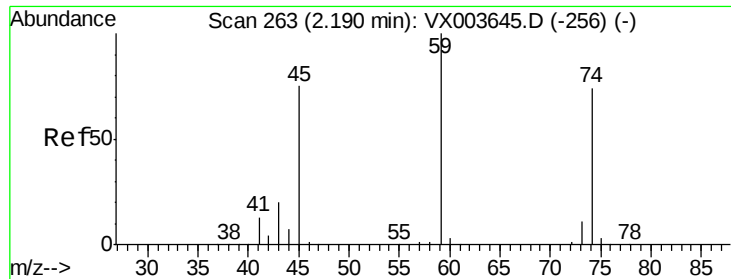
Tgt Ion: 64 Resp: 1673

Ion Ratio Lower Upper

64 100

66 0.0 26.3 39.5#





#8

Diethyl Ether

Concen: 0.95 ug/l

RT: 2.19 min Scan# 263

Delta R.T. 0.00 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

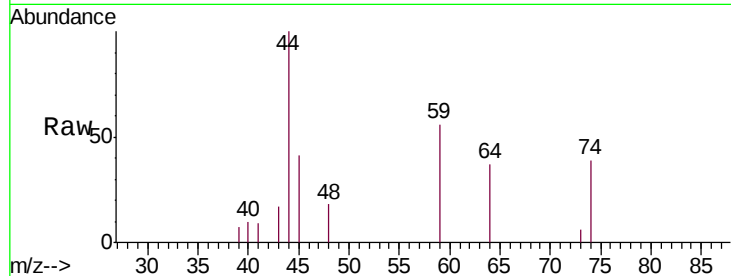
LC-SD-EB04-180720

Tot Ion: 74 Resp: 585

Ion Ratio Lower Upper

74 100

45 112.3 51.0 153.1



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0

500

400

300

200

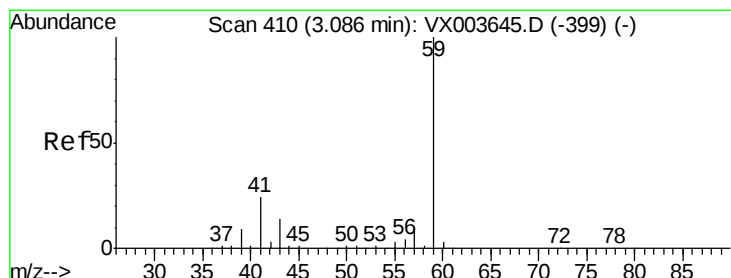
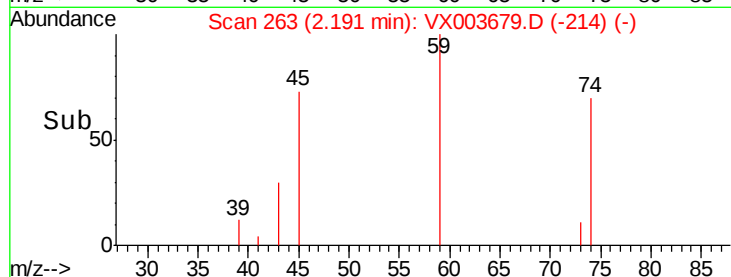
100

0

2.15

2.20

Time-->



#11

Tert butyl alcohol

Concen: 4.19 ug/l

RT: 3.07 min Scan# 408

Delta R.T. -0.01 min

Lab File: VX003679.D

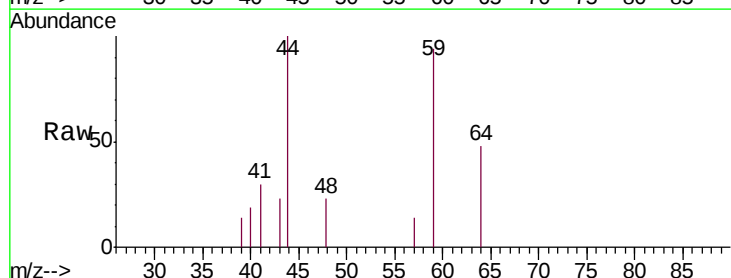
Acq: 26 Jul 2018 19:18

Tgt Ion: 59 Resp: 1059

Ion Ratio Lower Upper

59 100

57 9.4 8.2 12.4



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0

500

400

300

200

100

0

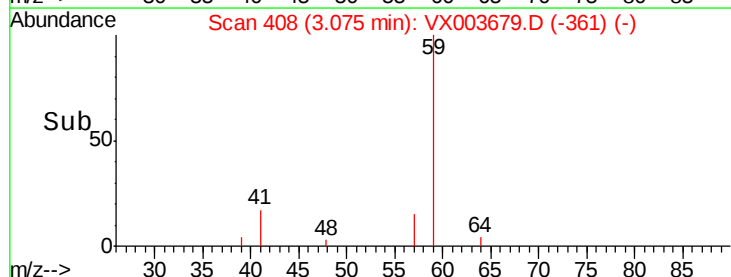
3.00

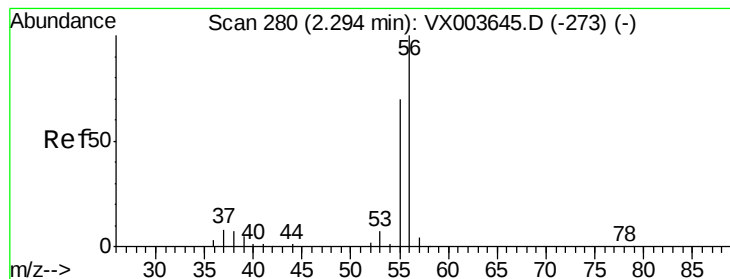
3.05

3.10

3.15

Time-->





#13

Acrolein

Concen: 4.17 ug/l

RT: 2.30 min Scan# 281

Delta R.T. 0.01 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

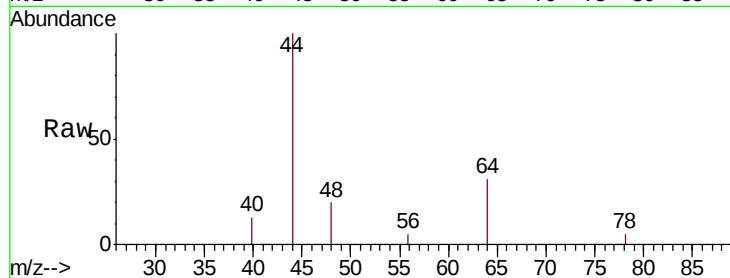
LC-SD-EB04-180720

Tot Ion: 56 Resp: 18

Ion Ratio Lower Upper

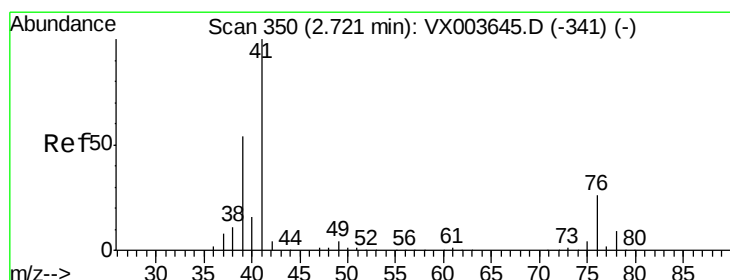
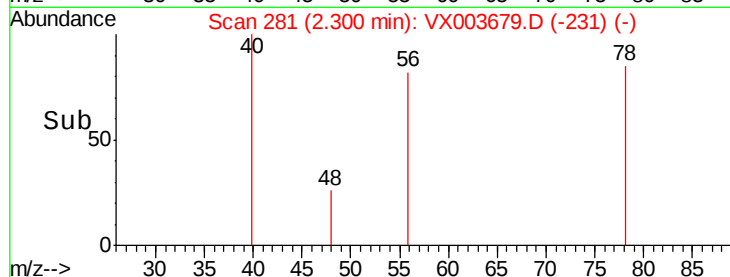
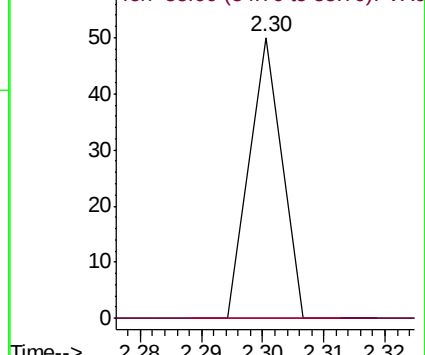
56 100

55 0.0 55.4 83.2#



Abundance Ion 56.00 (55.70 to 56.70): VX0

Ion 55.00 (54.70 to 55.70): VX0



#14

Allyl chloride

Concen: 0.80 ug/l

RT: 2.72 min Scan# 350

Delta R.T. 0.00 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

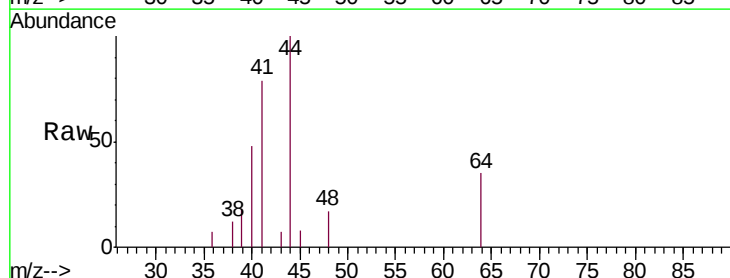
Tgt Ion: 41 Resp: 1382

Ion Ratio Lower Upper

41 100

39 21.7 45.3 67.9#

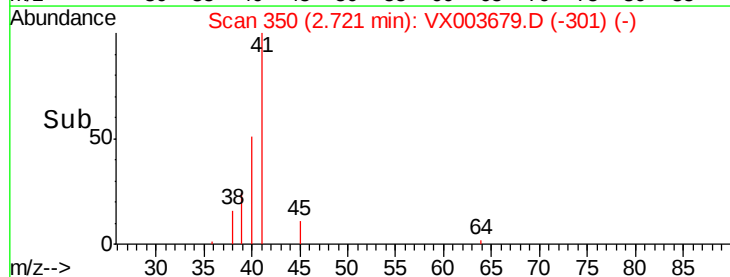
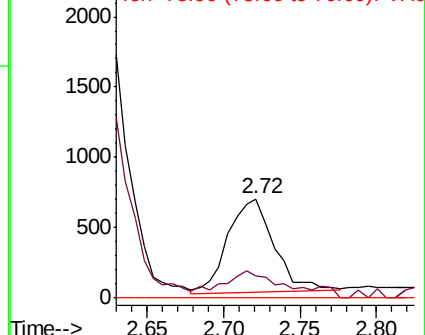
76 0.0 23.8 35.6#

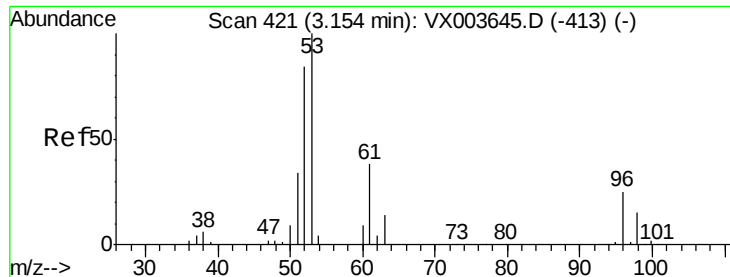


Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

Ion 75.90 (75.60 to 76.60): VX0





#15

Acrylonitrile

Concen: 0.58 ug/l

RT: 3.15 min Scan# 421

Delta R.T. 0.00 min

Lab File: VX003679.D

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ClientSampleId :

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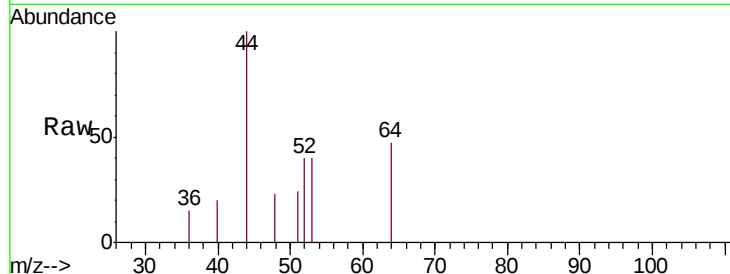
Tot Ion: 53 Resp: 357

Ion Ratio Lower Upper

53 100

52 93.8 66.1 99.1

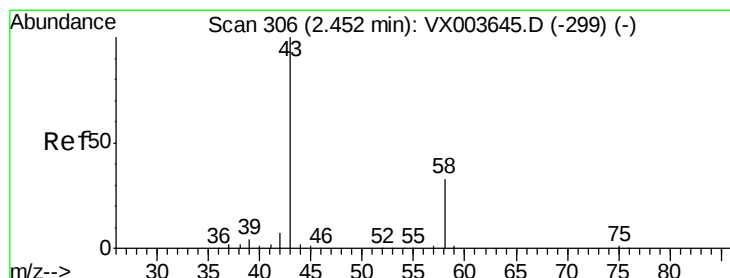
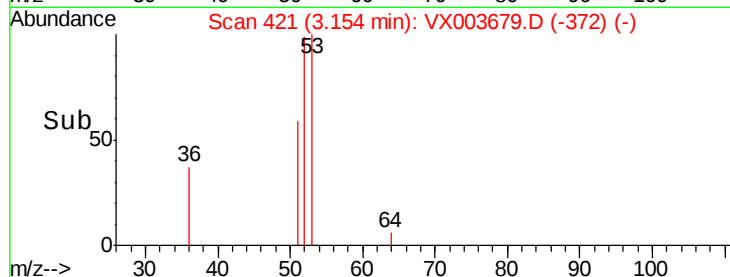
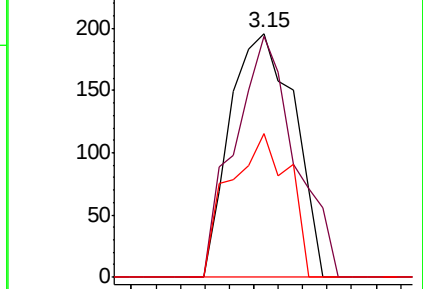
51 54.6 28.2 42.4#



Abundance Ion 53.00 (52.70 to 53.70): VX0

Ion 52.00 (51.70 to 52.70): VX0

Ion 51.00 (50.70 to 51.70): VX0



#16

Acetone

Concen: 13.18 ug/l

RT: 2.45 min Scan# 306

Delta R.T. 0.00 min

Lab File: VX003679.D

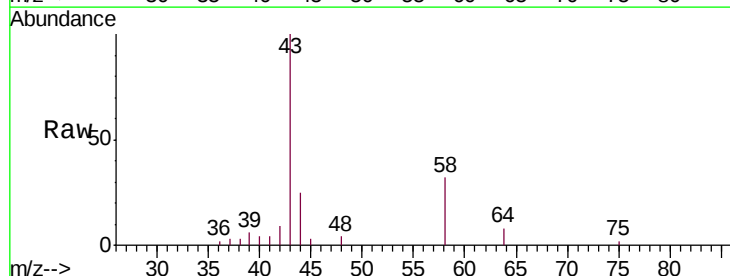
Acq: 26 Jul 2018 19:18

Tgt Ion: 43 Resp: 6555

Ion Ratio Lower Upper

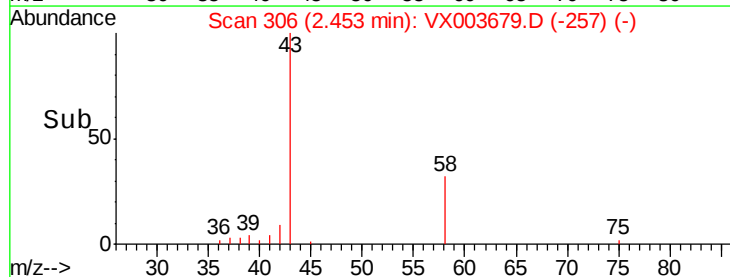
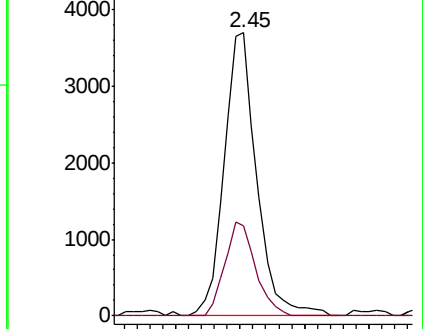
43 100

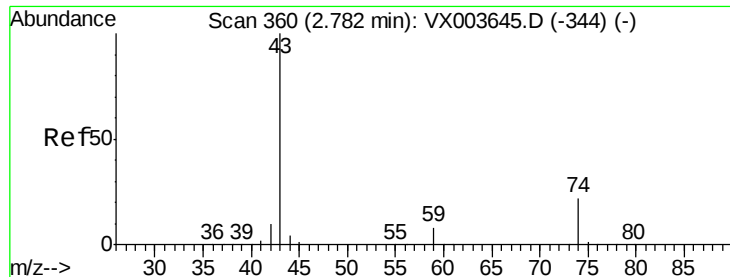
58 32.0 26.1 39.1



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

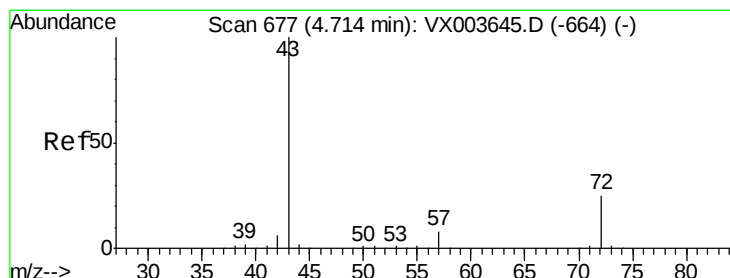
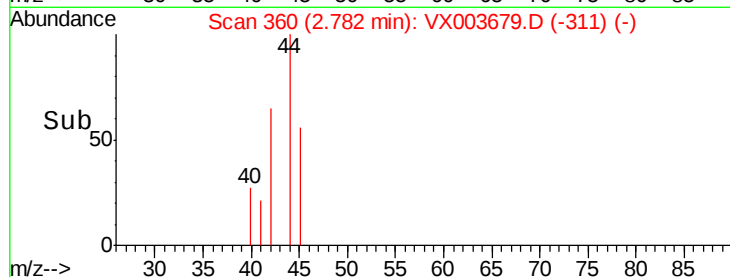
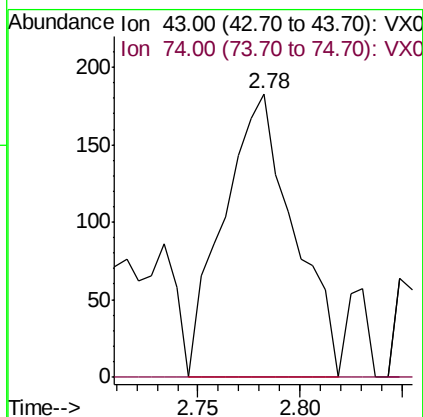
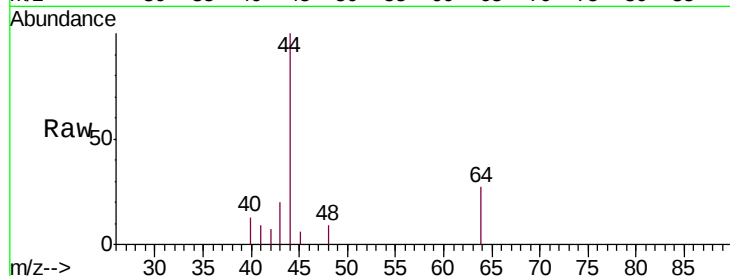




#18  
Methyl Acetate  
Concen: 0.29 ug/l  
RT: 2.78 min Scan# 360  
Delta R.T. 0.00 min  
Lab File: VX003679.D  
Acq: 26 Jul 2018 19:18

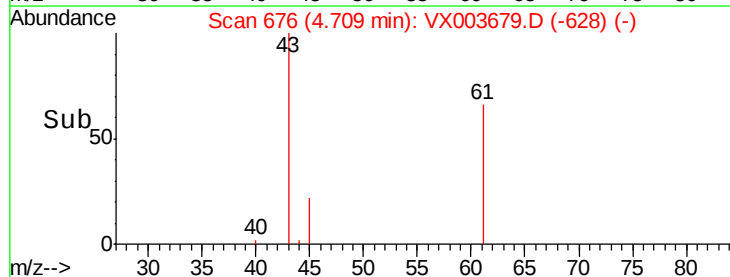
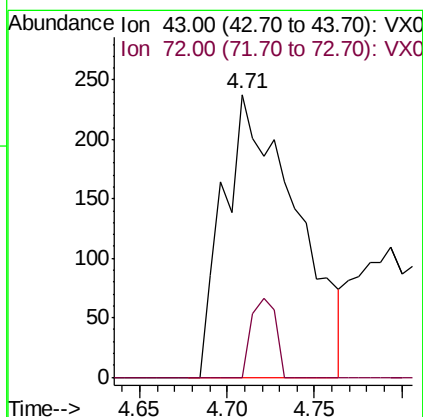
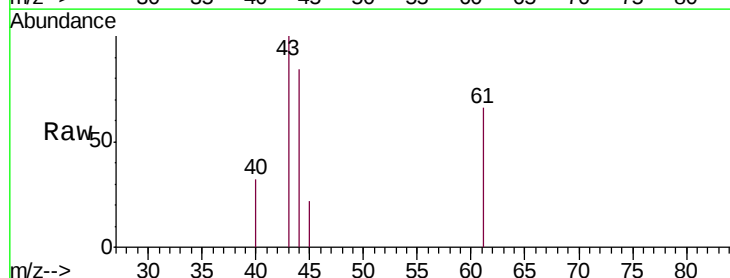
Instrument :  
MSVOA\_X  
ClientSampleId :  
LC-SD-EB04-180720

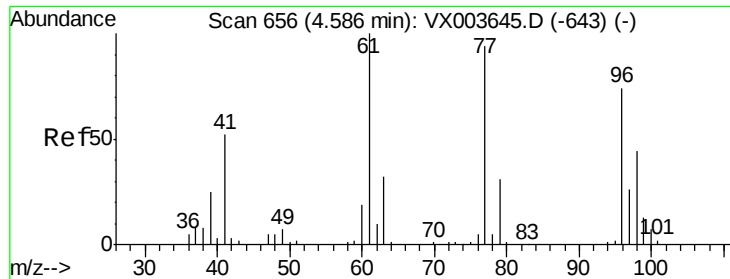
Tot Ion: 43 Resp: 435  
Ion Ratio Lower Upper  
43 100  
74 0.0 17.8 26.8#



#25  
2-Butanone  
Concen: 0.90 ug/l  
RT: 4.71 min Scan# 676  
Delta R.T. -0.01 min  
Lab File: VX003679.D  
Acq: 26 Jul 2018 19:18

Tgt Ion: 43 Resp: 691  
Ion Ratio Lower Upper  
43 100  
72 0.0 20.2 30.4#

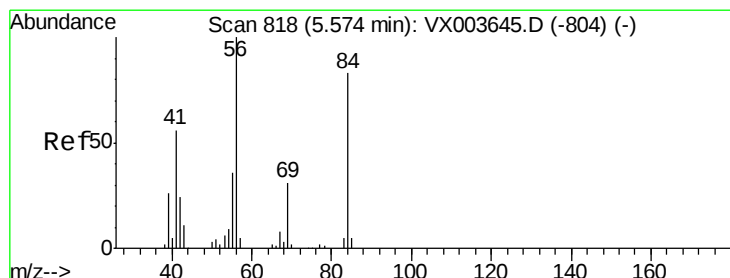
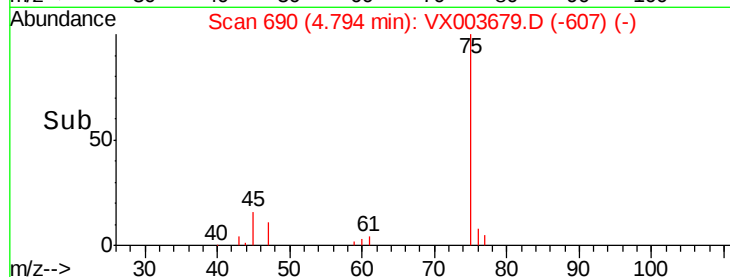
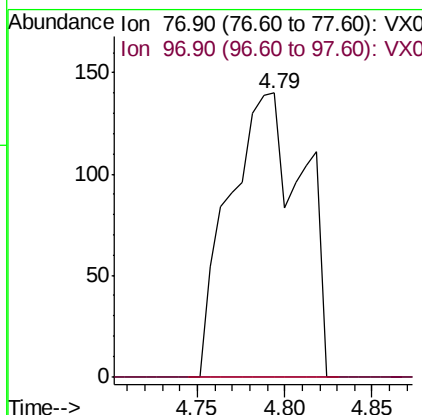
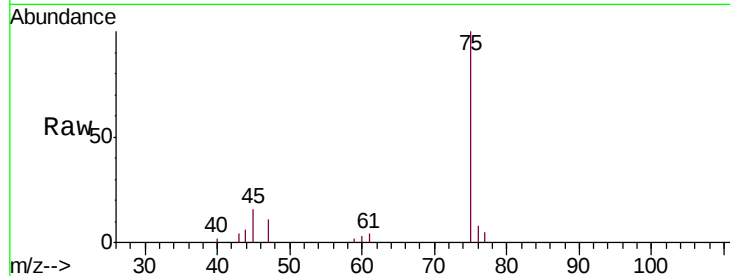




#26  
 2,2-Dichloropropane  
 Concen: 0.37 ug/l  
 RT: 4.79 min Scan# 690  
 Delta R.T. 0.21 min  
 Lab File: VX003679.D  
 Acq: 26 Jul 2018 19:18

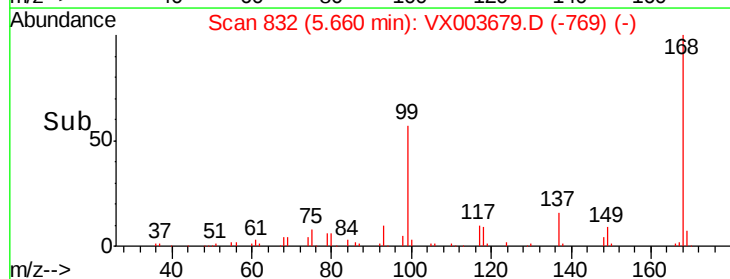
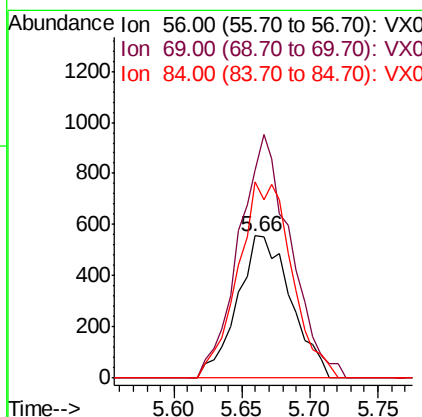
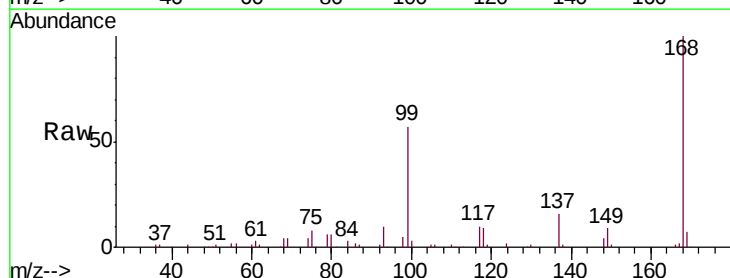
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LC-SD-EB04-180720

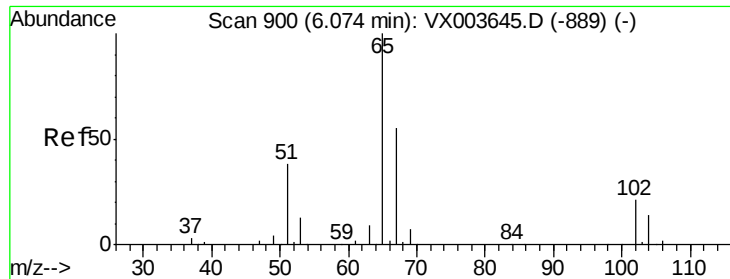
Tot Ion: 77 Resp: 413  
 Ion Ratio Lower Upper  
 77 100  
 97 0.0 12.0 36.0#



#31  
 Cyclohexane  
 Concen: 1.07 ug/l  
 RT: 5.66 min Scan# 832  
 Delta R.T. 0.09 min  
 Lab File: VX003679.D  
 Acq: 26 Jul 2018 19:18

Tgt Ion: 56 Resp: 1526  
 Ion Ratio Lower Upper  
 56 100  
 69 146.3 25.0 37.6#  
 84 138.2 66.5 99.7#

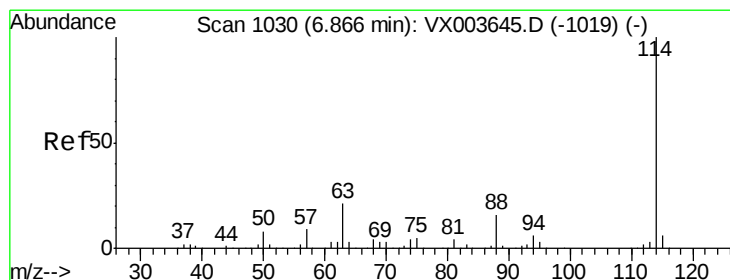
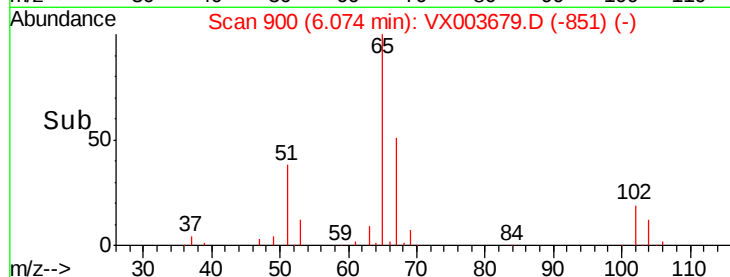
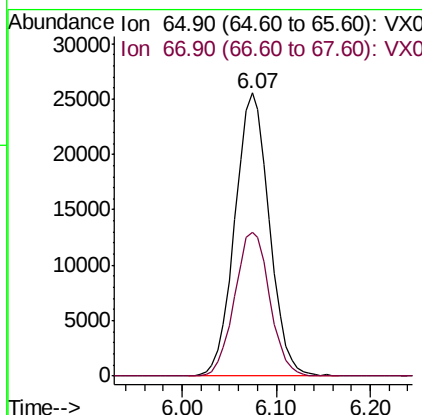
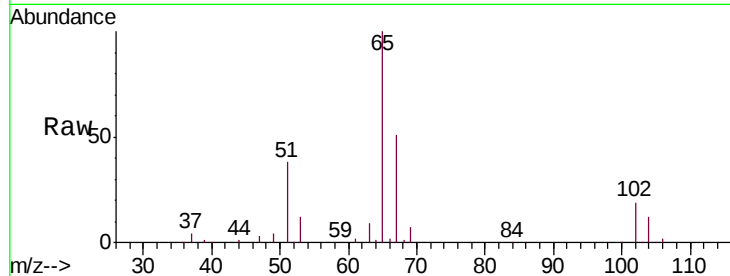




#33  
 1,2-Dichloroethane-d4  
 Concen: 61.60 ug/l  
 RT: 6.07 min Scan# 900  
 Delta R.T. 0.00 min  
 Lab File: VX003679.D  
 Acq: 26 Jul 2018 19:18

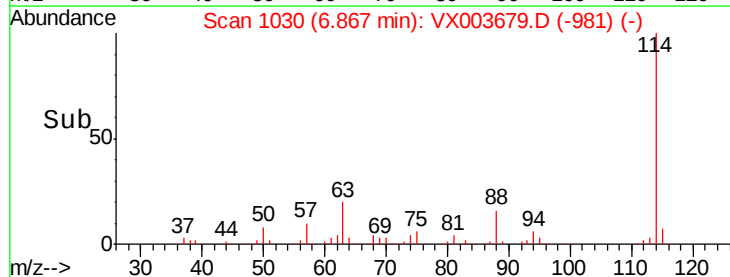
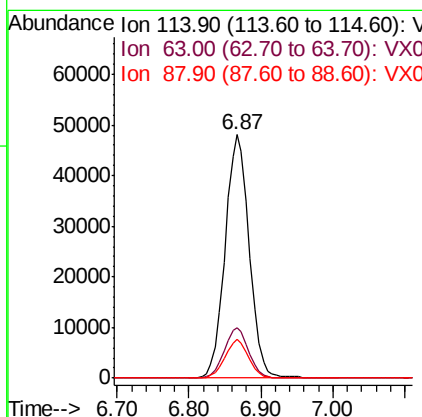
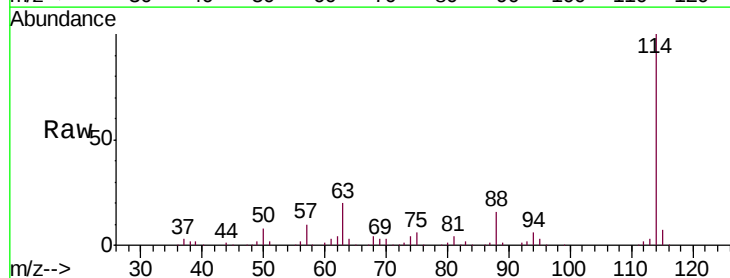
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 LC-SD-EB04-180720

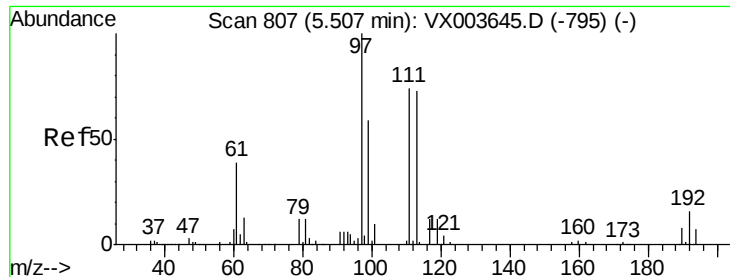
Tot Ion: 65 Resp: 65207  
 Ion Ratio Lower Upper  
 65 100  
 67 52.0 0.0 107.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 6.87 min Scan# 1030  
 Delta R.T. 0.00 min  
 Lab File: VX003679.D  
 Acq: 26 Jul 2018 19:18

Tgt Ion: 114 Resp: 111917  
 Ion Ratio Lower Upper  
 114 100  
 63 20.4 0.0 41.0  
 88 16.0 0.0 31.8





#35

Dibromofluoromethane

Concen: 59.57 ug/l

RT: 5.51 min Scan# 807

Delta R.T. 0.00 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

LC-SD-EB04-180720

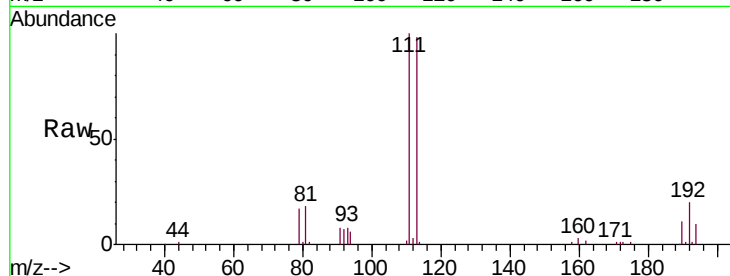
Tot Ion:113 Resp: 54505

Ion Ratio Lower Upper

113 100

111 102.3 81.2 121.8

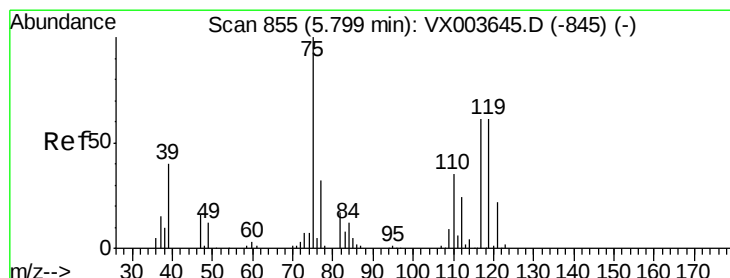
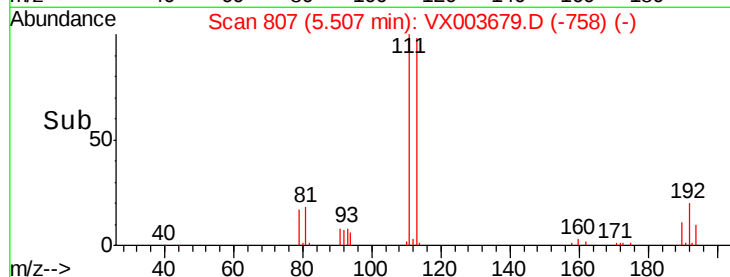
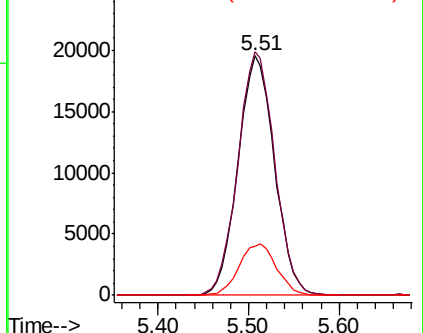
192 22.0 18.2 27.4



Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V



#36

1,1-Dichloropropene

Concen: 4.14 ug/l

RT: 5.67 min Scan# 834

Delta R.T. -0.13 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

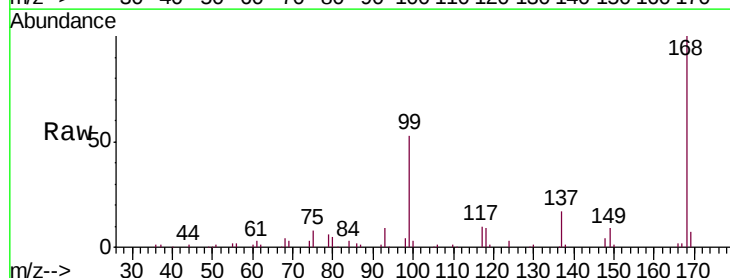
Tgt Ion: 75 Resp: 5417

Ion Ratio Lower Upper

75 100

110 8.5 18.1 54.1#

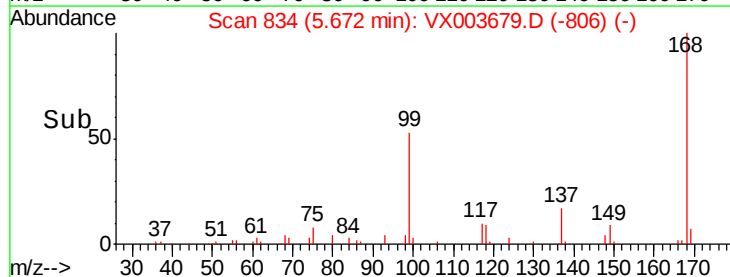
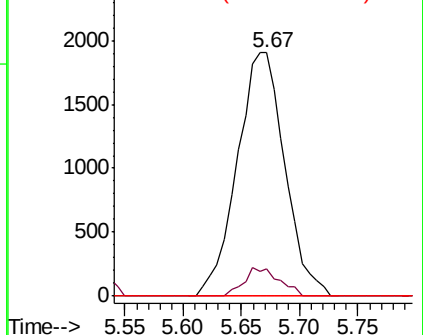
77 0.0 25.1 37.7#

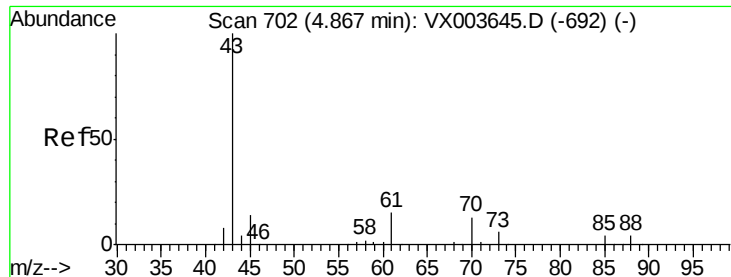


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#37

Ethyl Acetate

Concen: 0.80 ug/l

RT: 4.88 min Scan# 704

Delta R.T. 0.01 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

LC-SD-EB04-180720

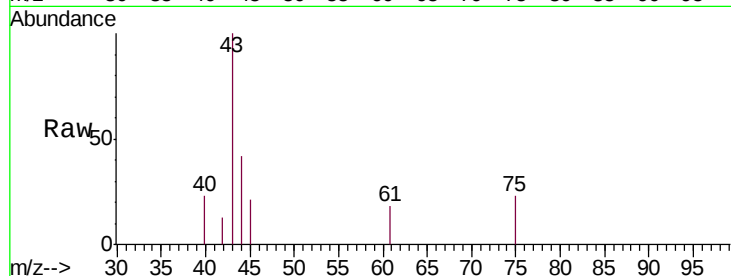
Tot Ion: 43 Resp: 1252

Ion Ratio Lower Upper

43 100

61 14.2 11.9 17.9

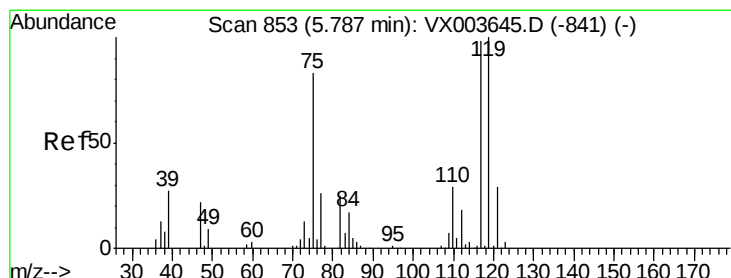
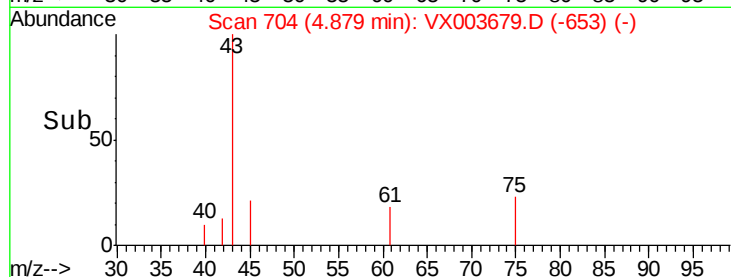
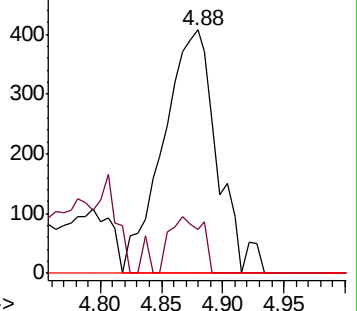
70 0.0 8.6 12.8#



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 70.00 (69.70 to 70.70): VX0



#38

Carbon Tetrachloride

Concen: 5.40 ug/l

RT: 5.67 min Scan# 834

Delta R.T. -0.12 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

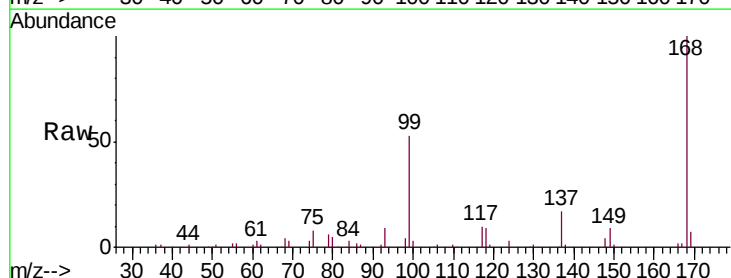
Tgt Ion: 117 Resp: 6805

Ion Ratio Lower Upper

117 100

119 7.0 81.0 121.4#

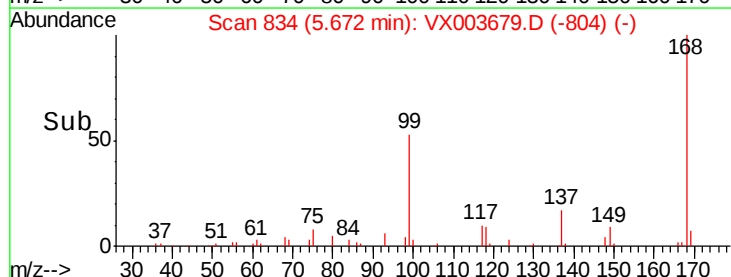
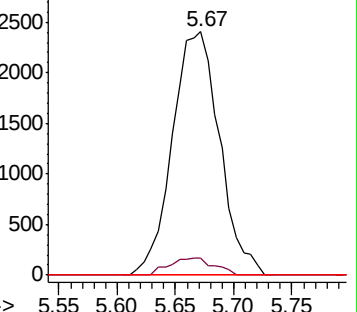
121 0.0 23.7 35.5#

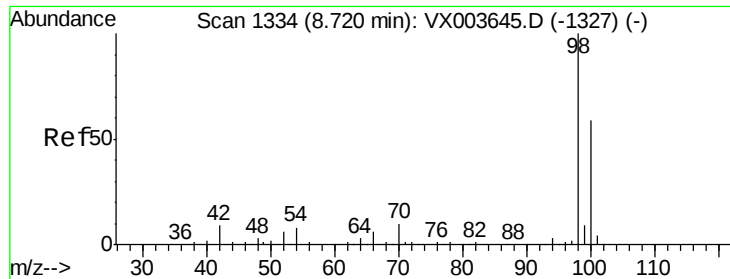


Abundance Ion 116.80 (116.50 to 117.50): V

Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V





#50

Toluene-d8

Concen: 63.04 ug/l

RT: 8.72 min Scan# 1334

Delta R.T. 0.00 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

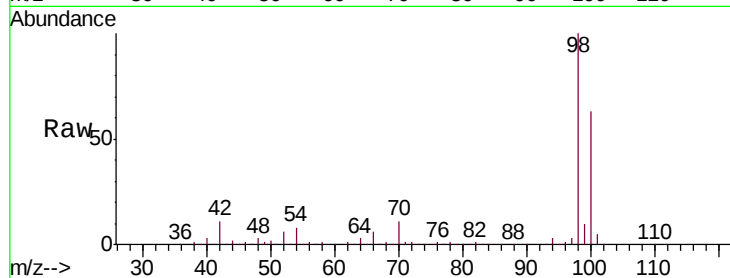
LC-SD-EB04-180720

Tot Ion: 98 Resp: 220101

Ion Ratio Lower Upper

98 100

100 63.2 50.9 76.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX

150000

8.72

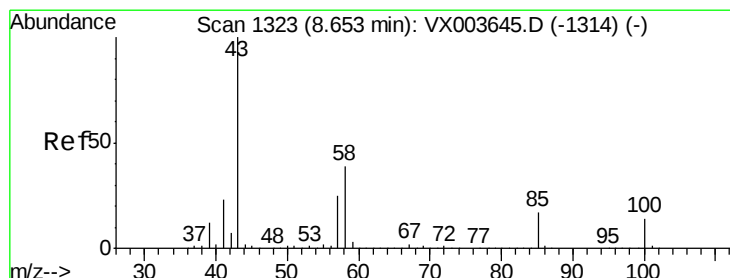
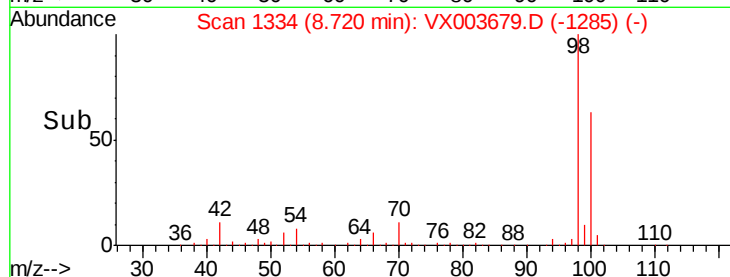
100000

50000

0

8.60 8.70 8.80 8.90

Time-->



#51

4-Methyl-2-Pentanone

Concen: 0.44 ug/l

RT: 8.66 min Scan# 1324

Delta R.T. 0.01 min

Lab File: VX003679.D

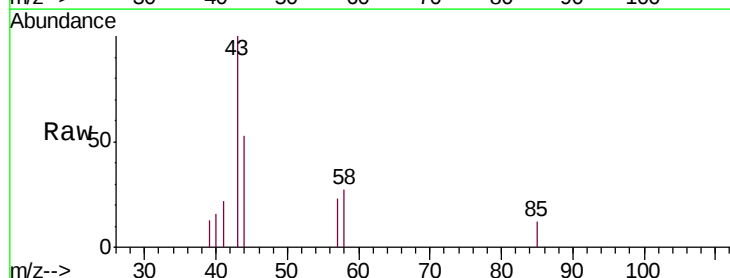
Acq: 26 Jul 2018 19:18

Tgt Ion: 43 Resp: 676

Ion Ratio Lower Upper

43 100

58 32.2 31.5 47.3



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

1000

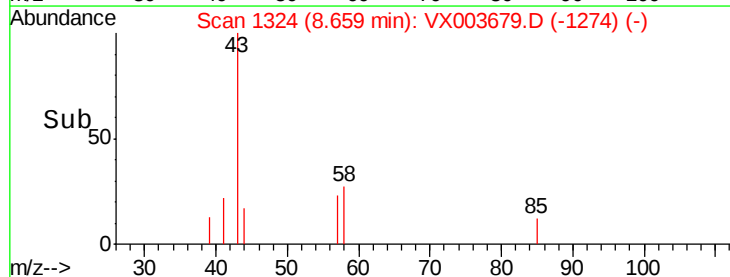
8.66

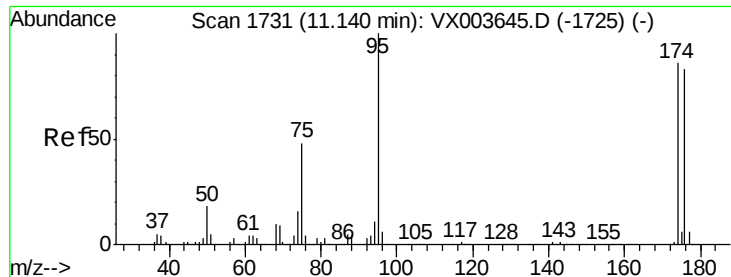
500

0

8.60 8.65 8.70

Time-->





#62

4-Bromofluorobenzene

Concen: 50.39 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.00 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

LC-SD-EB04-180720

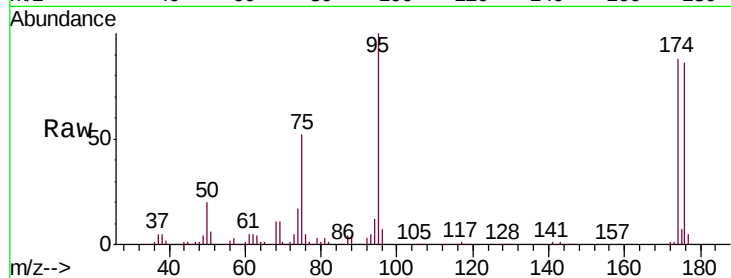
Tot Ion: 95 Resp: 64172

Ion Ratio Lower Upper

95 100

174 90.2 0.0 179.0

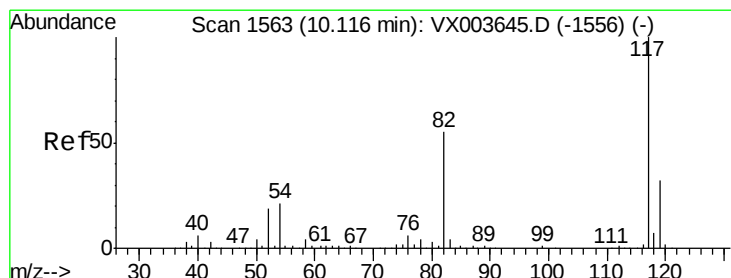
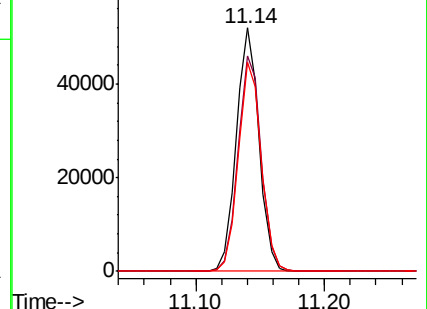
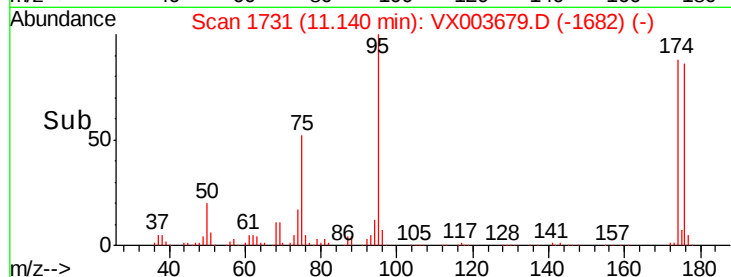
176 86.7 0.0 173.0



Abundance Ion 94.90 (94.60 to 95.60): VX003679.D (-1682) (-)

Ion 173.80 (173.50 to 174.50): VX003679.D (-1682) (-)

Ion 175.80 (175.50 to 176.50): VX003679.D (-1682) (-)



#63

Chlorobenzene-d5

Concen: 50.00 ug/l

RT: 10.12 min Scan# 1563

Delta R.T. 0.00 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

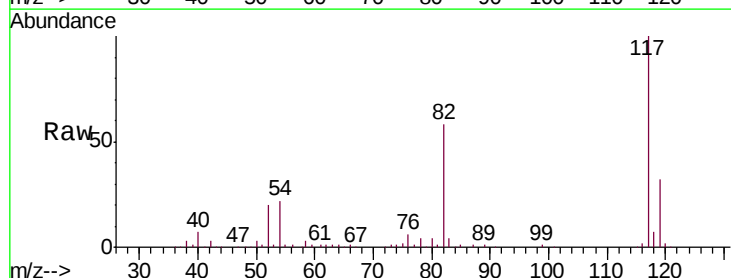
Tgt Ion: 117 Resp: 106923

Ion Ratio Lower Upper

117 100

82 57.7 44.3 66.5

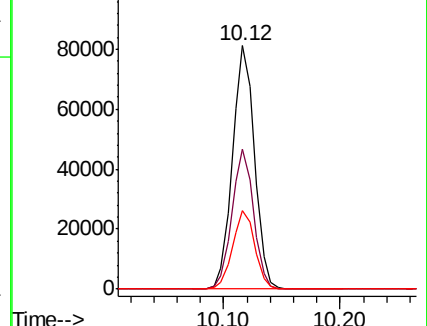
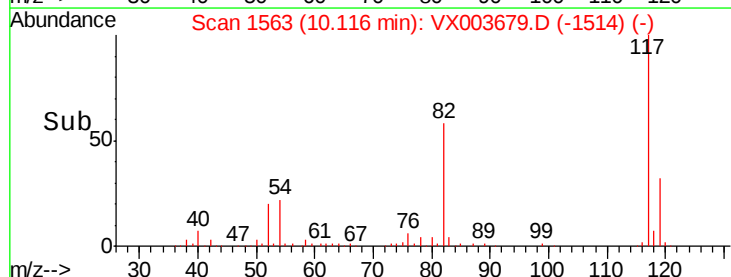
119 32.3 25.6 38.4

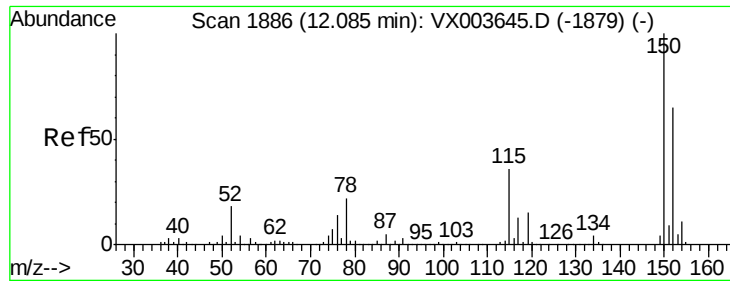


Abundance Ion 116.90 (116.60 to 117.60): VX003679.D (-1514) (-)

Ion 82.00 (81.70 to 82.70): VX003679.D (-1514) (-)

Ion 118.90 (118.60 to 119.60): VX003679.D (-1514) (-)





#72

1,4-Dichlorobenzene-d4

Concen: 50.00 ug/l

RT: 12.08 min Scan# 1885

Delta R.T. -0.01 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

LC-SD-EB04-180720

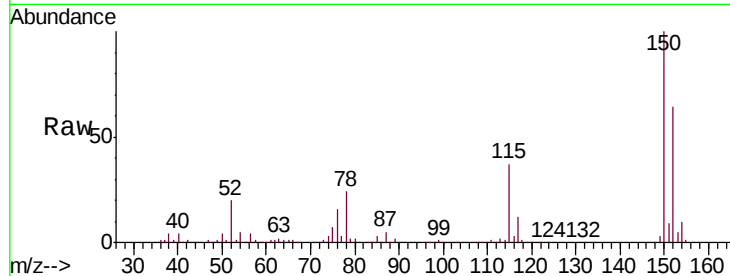
Tot Ion:152 Resp: 71540

Ion Ratio Lower Upper

152 100

115 55.3 40.0 119.9

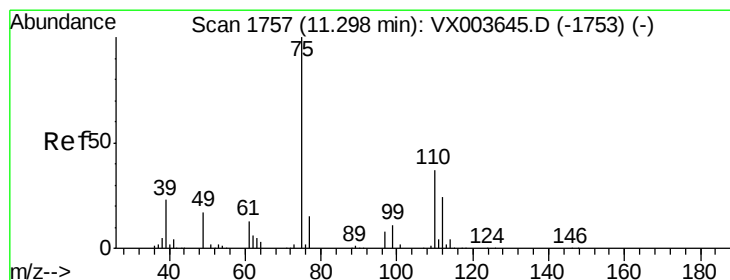
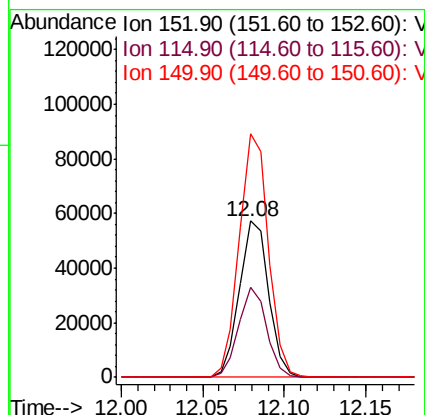
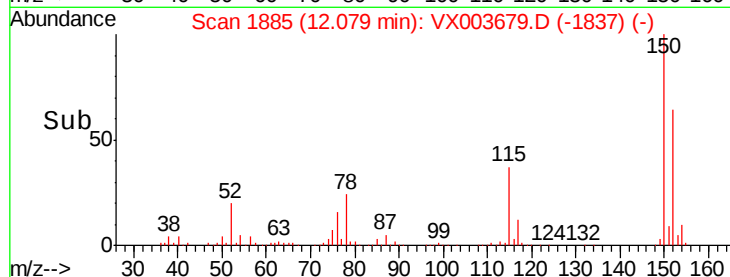
150 155.7 0.0 348.4



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: 22.26 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. -0.16 min

Lab File: VX003679.D

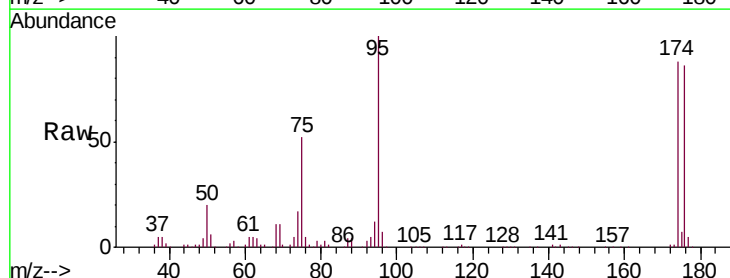
Acq: 26 Jul 2018 19:18

Tgt Ion: 75 Resp: 33400

Ion Ratio Lower Upper

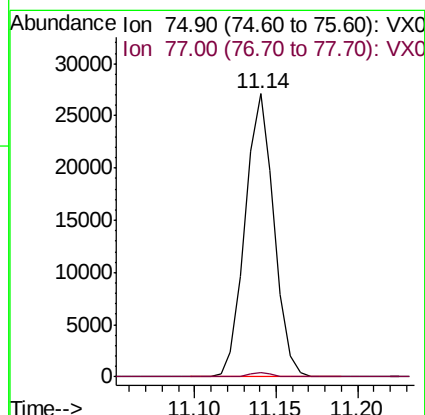
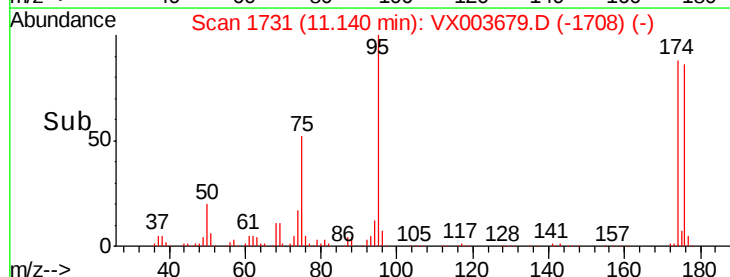
75 100

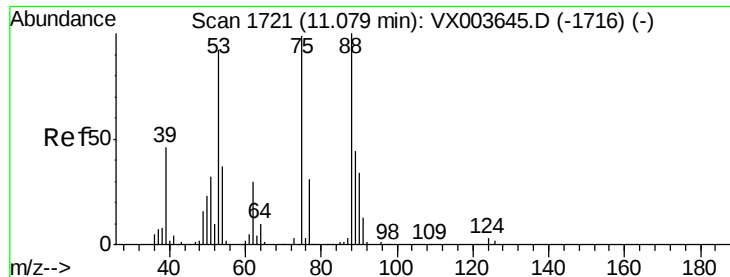
77 1.3 21.6 64.6#



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: 68.96 ug/l

RT: 11.14 min Scan# 1731

Delta R.T. 0.06 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

Instrument :

MSVOA\_X

ClientSampleId :

LC-SD-EB04-180720

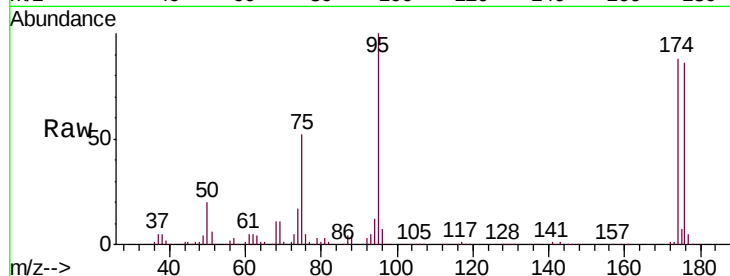
Tot Ion: 75 Resp: 33400

Ion Ratio Lower Upper

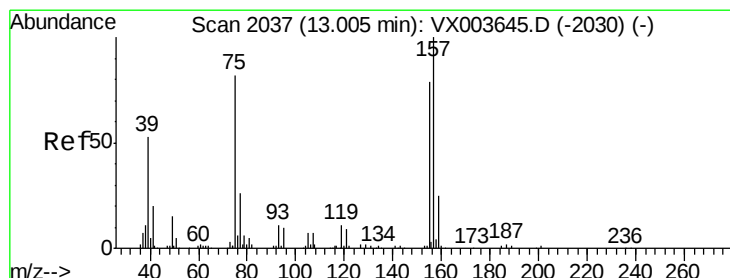
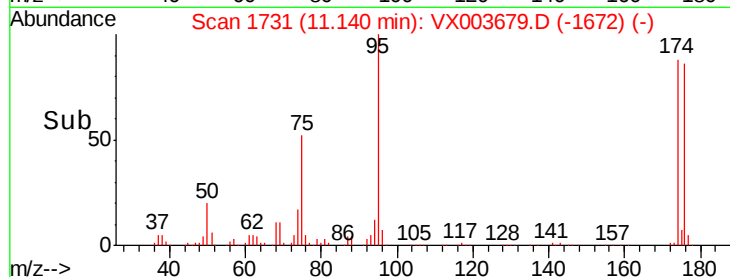
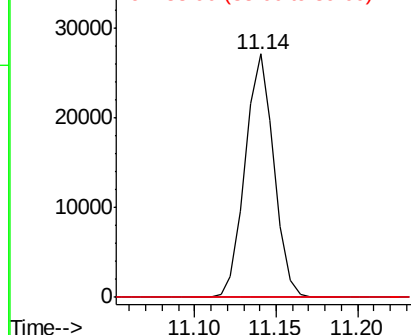
75 100

53 0.0 77.8 116.8#

89 0.0 36.6 54.8#



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: 12.82 min Scan# 2006

Delta R.T. -0.19 min

Lab File: VX003679.D

Acq: 26 Jul 2018 19:18

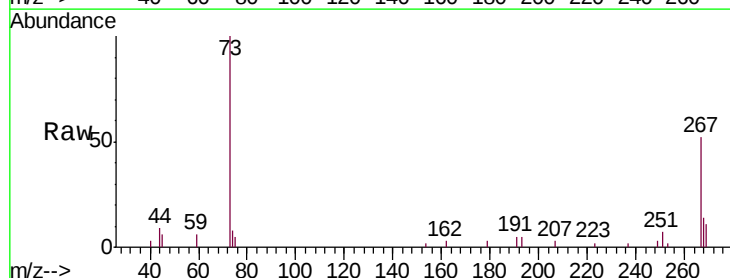
Tgt Ion: 75 Resp: 170

Ion Ratio Lower Upper

75 100

155 11.2 46.1 138.3#

157 0.0 59.7 179.0#



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

