

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX082918\  
 Data File : VX004285.D  
 Acq On : 29 Aug 2018 11:50  
 Operator : JC/MD  
 Sample : J4681-20  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 10 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-RB1-M12W4-082218

Quant Time: Aug 30 02:07:05 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X082218W.M  
 Quant Title : SW846 8260  
 QLast Update : Thu Aug 23 05:39:44 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 288651   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 446660   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 427701   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 232892   | 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   | 195247   | 51.90 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.80% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 172434   | 51.89 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.78% |          |
| 50) Toluene-d8              | 8.71  | 98   | 635174   | 50.64 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 101.28% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 228239   | 48.77 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 97.54%  |          |

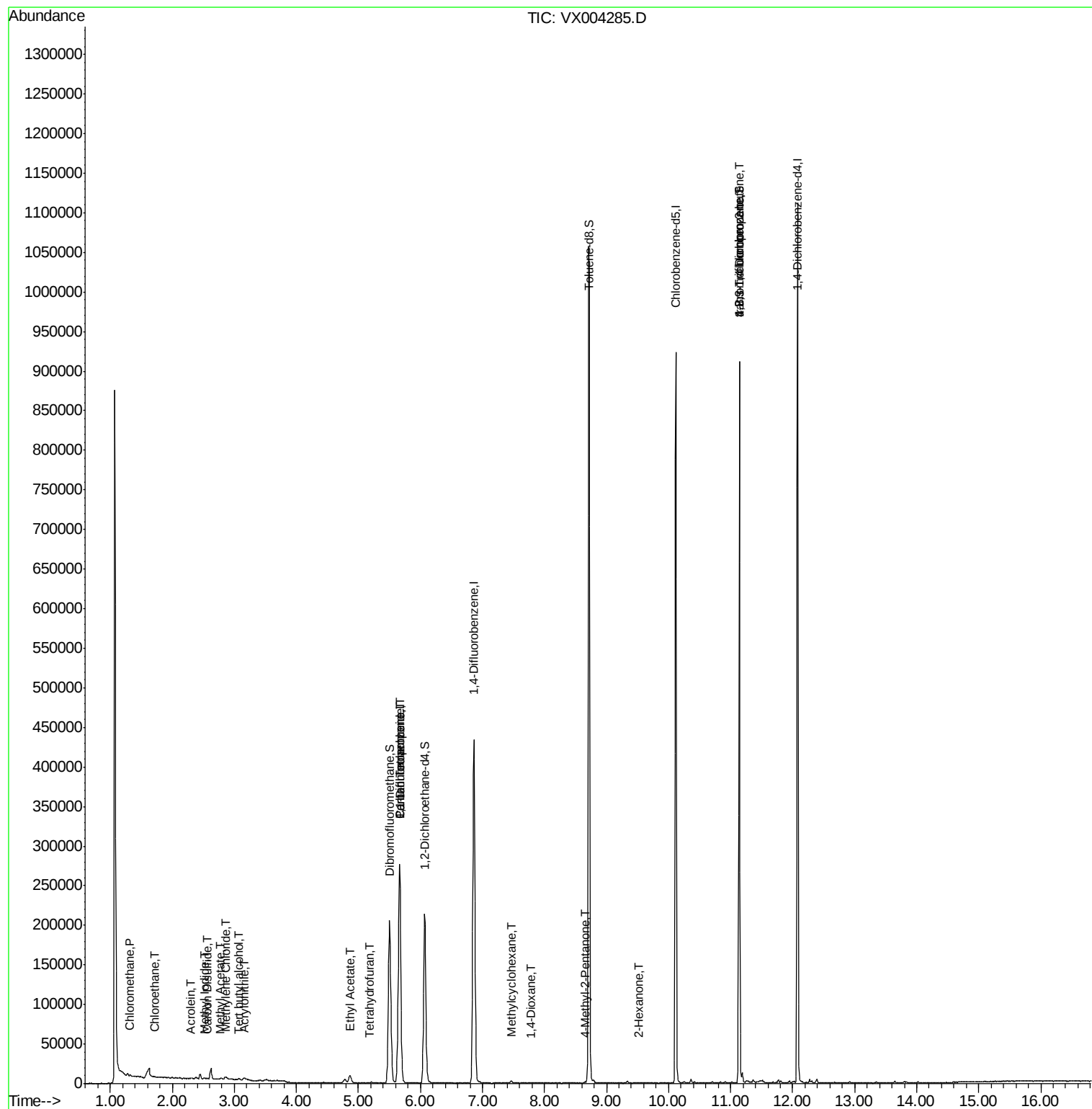
| Target Compounds               | R.T.  | QIon | Response | Conc  | Units | Qvalue |
|--------------------------------|-------|------|----------|-------|-------|--------|
| 3) Chloromethane               | 1.32  | 50   | 1260     | 0.63  | ug/l  | # 82   |
| 5) Bromomethane                | 1.64  | 94   | 1540     | Below | Cal   | 99     |
| 6) Chloroethane                | 1.72  | 64   | 11365    | 4.70  | ug/l  | # 58   |
| 10) Methyl Iodide              | 2.52  | 142  | 1054     | 4.53  | ug/l  | # 93   |
| 11) Tert butyl alcohol         | 3.07  | 59   | 2336     | 2.91  | ug/l  | # 88   |
| 13) Acrolein                   | 2.30  | 56   | 301      | 1.56  | ug/l  | # 54   |
| 15) Acrylonitrile              | 3.15  | 53   | 916      | 0.46  | ug/l  | # 90   |
| 16) Acetone                    | 2.45  | 43   | 6889     | Below | Cal   | 99     |
| 17) Carbon Disulfide           | 2.57  | 76   | 1209     | 0.94  | ug/l  | 96     |
| 18) Methyl Acetate             | 2.78  | 43   | 1121     | 0.20  | ug/l  | 96     |
| 20) Methylene Chloride         | 2.85  | 84   | 1330     | 0.37  | ug/l  | 83     |
| 25) 2-Butanone                 | 4.71  | 43   | 1667     | Below | Cal   | 95     |
| 29) Tetrahydrofuran            | 5.18  | 42   | 652      | 0.40  | ug/l  | # 78   |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 18841    | 3.75  | ug/l  | # 50   |
| 37) Ethyl Acetate              | 4.87  | 43   | 17436    | 3.53  | ug/l  | 98     |
| 38) Carbon Tetrachloride       | 5.67  | 117  | 24728    | 5.23  | ug/l  | # 15   |
| 39) Methylcyclohexane          | 7.46  | 83   | 1178     | 0.21  | ug/l  | 96     |
| 49) 1,4-Dioxane                | 7.77  | 88   | 22       | 0.24  | ug/l  | # 1    |
| 51) 4-Methyl-2-Pentanone       | 8.66  | 43   | 1163     | 0.21  | ug/l  | 96     |
| 59) 2-Hexanone                 | 9.51  | 43   | 1045     | 0.25  | ug/l  | 75     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 108006   | 22.80 | ug/l  | # 37   |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 108006   | 73.98 | ug/l  | # 10   |
| 94) Hexachlorobutadiene        | 13.78 | 225  | 279      | Below | Cal   | 82     |

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

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QLast Update : Thu Aug 23 05:39:44 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 833

Delta R.T. 0.01 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

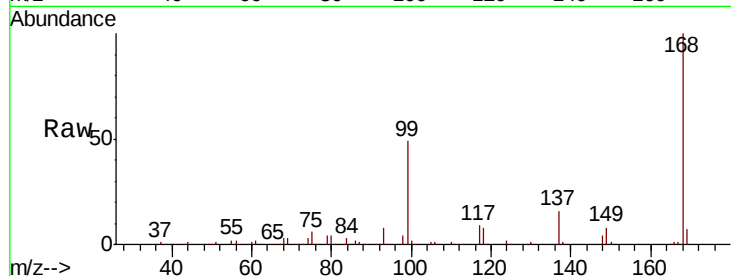
CPA-RB1-M12W4-082218

Tot Ion:168 Resp: 288651

Ion Ratio Lower Upper

168 100

99 48.8 39.9 59.9



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.67

120000

100000

80000

60000

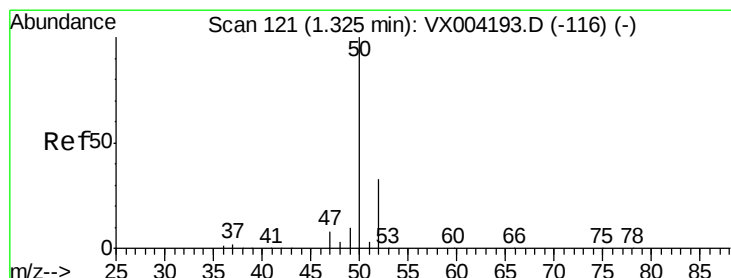
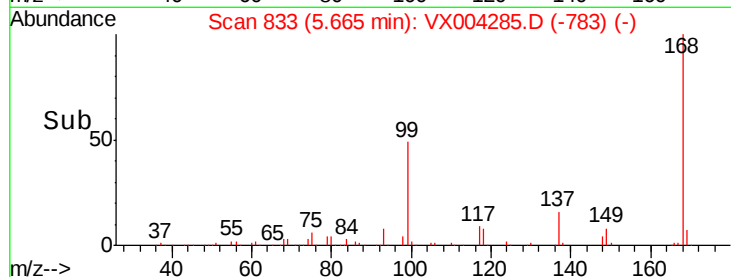
40000

20000

0

Time-->

5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: 0.63 ug/l

RT: 1.32 min Scan# 120

Delta R.T. -0.01 min

Lab File: VX004285.D

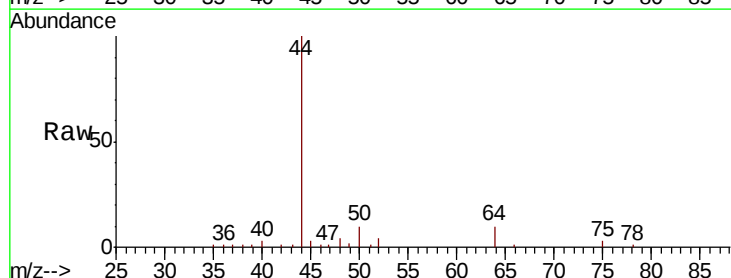
Acq: 29 Aug 2018 11:50

Tgt Ion: 50 Resp: 1260

Ion Ratio Lower Upper

50 100

52 43.1 26.2 39.2#



Abundance Ion 49.90 (49.60 to 50.60): VX0

Ion 51.90 (51.60 to 52.60): VX0

1.32

800

600

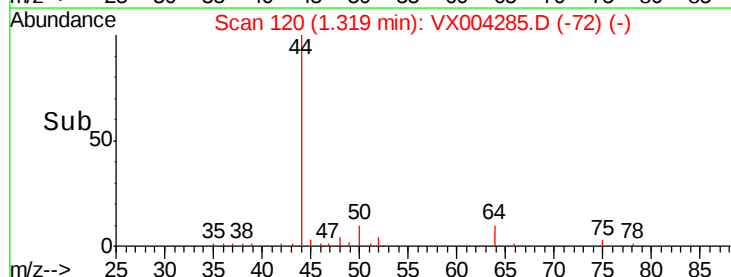
400

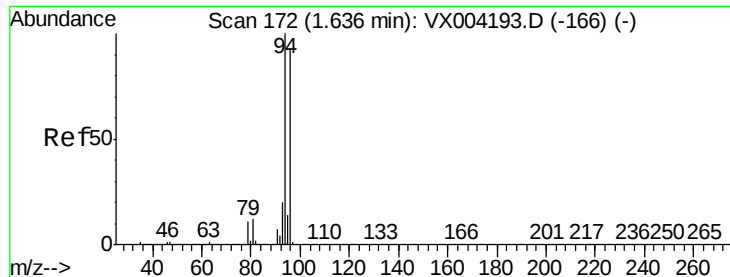
200

0

Time-->

1.30 1.35 1.40





#5

Bromomethane

Concen: Below Cal

RT: 1.64 min Scan# 173

Delta R.T. 0.01 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

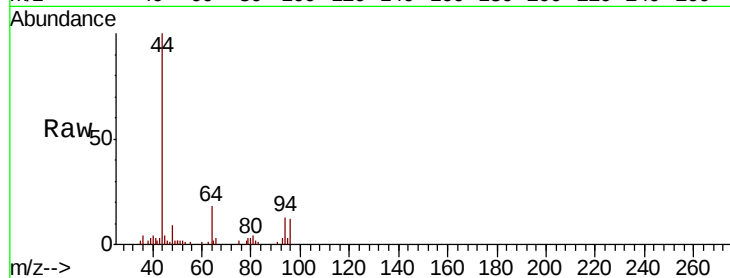
CPA-RB1-M12W4-082218

Tot Ion: 94 Resp: 1540

Ion Ratio Lower Upper

94 100

96 93.6 74.5 111.7



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

800

600

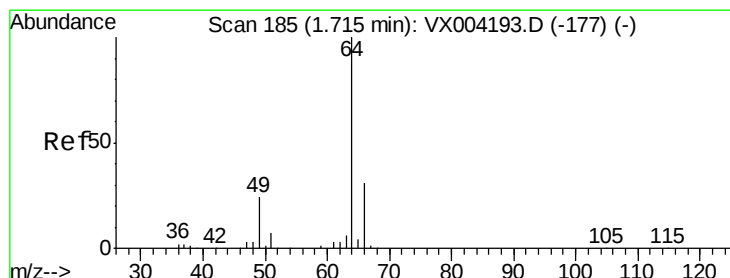
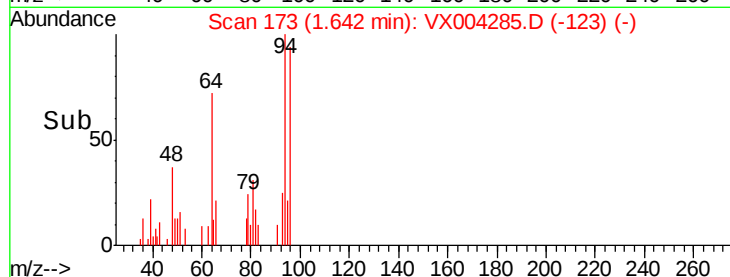
400

200

0

1.60 1.65 1.70 1.75

Time-->



#6

Chloroethane

Concen: 4.70 ug/l

RT: 1.72 min Scan# 186

Delta R.T. 0.01 min

Lab File: VX004285.D

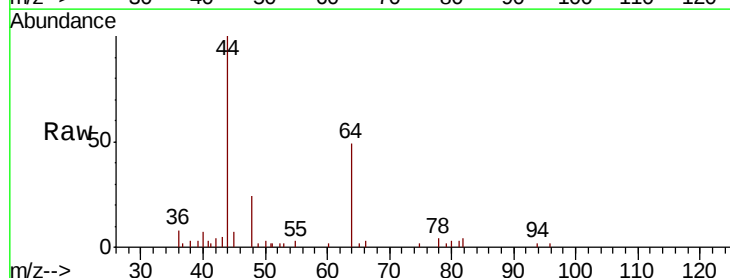
Acq: 29 Aug 2018 11:50

Tgt Ion: 64 Resp: 11365

Ion Ratio Lower Upper

64 100

66 7.5 24.6 36.8#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0

2000

1500

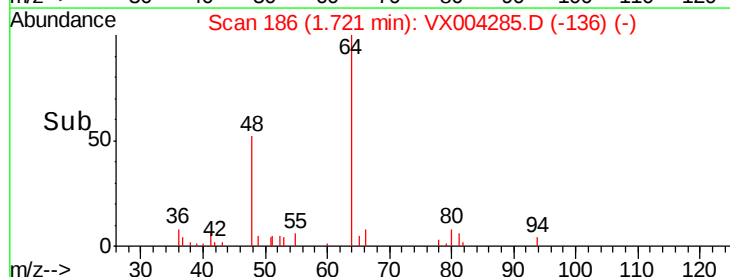
1000

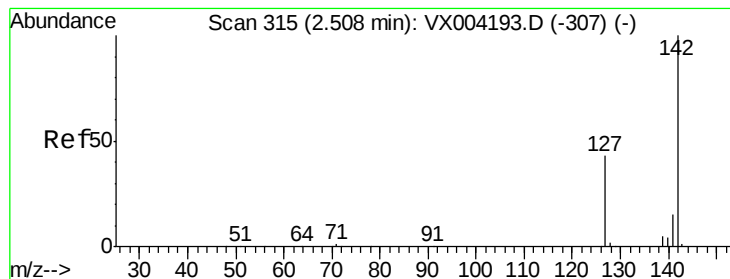
500

0

1.40 1.50 1.60 1.70 1.80

Time-->

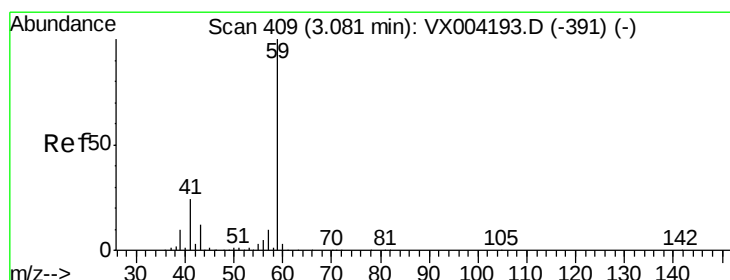
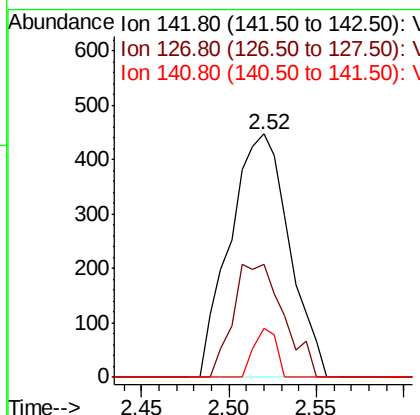
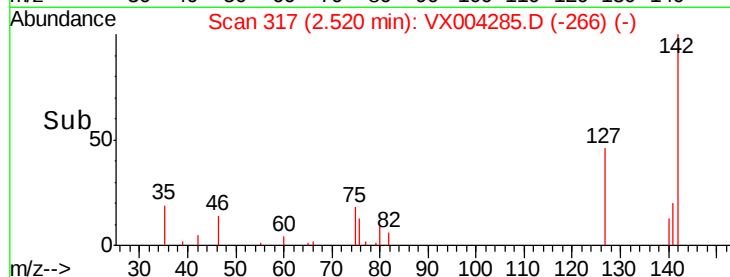
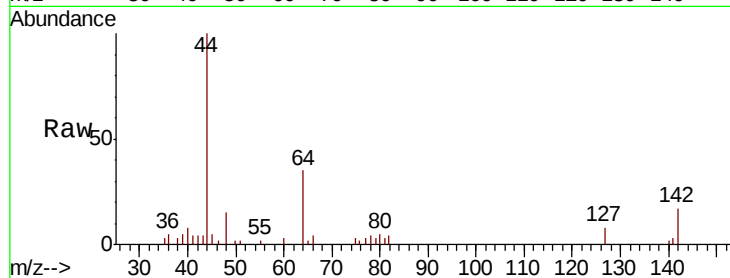




#10  
Methvl Iodide  
Concen: 4.53 ug/l  
RT: 2.52 min Scan# 317  
Delta R.T. 0.01 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

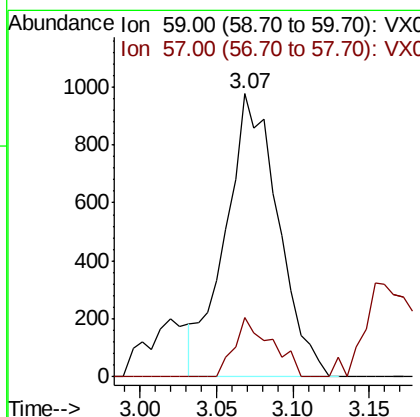
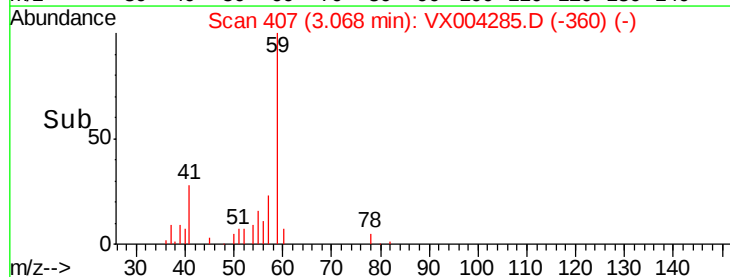
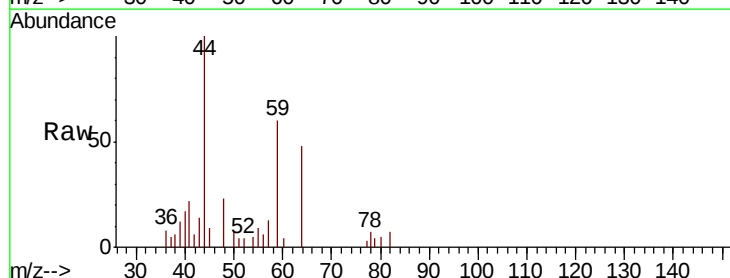
Instrument :  
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CPA-RB1-M12W4-082218

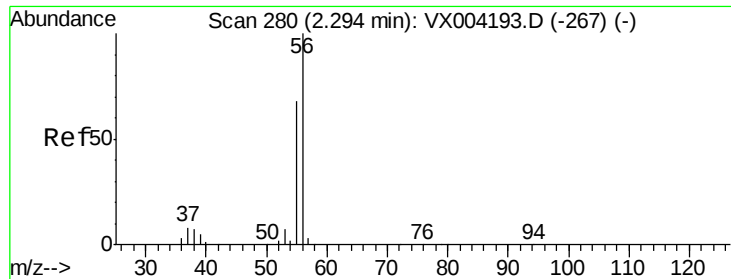
Tot Ion:142 Resp: 1054  
Ion Ratio Lower Upper  
142 100  
127 39.8 33.8 50.6  
141 7.7 11.4 17.0#



#11  
Tert butyl alcohol  
Concen: 2.91 ug/l  
RT: 3.07 min Scan# 407  
Delta R.T. -0.01 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

Tgt Ion: 59 Resp: 2336  
Ion Ratio Lower Upper  
59 100  
57 14.7 8.2 12.4#





#13

Acrolein

Concen: 1.56 ug/l

RT: 2.30 min Scan# 281

Delta R.T. 0.01 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

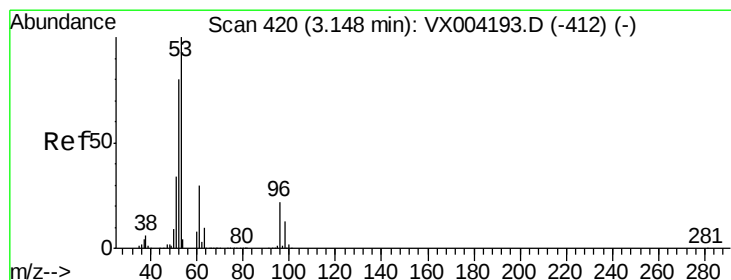
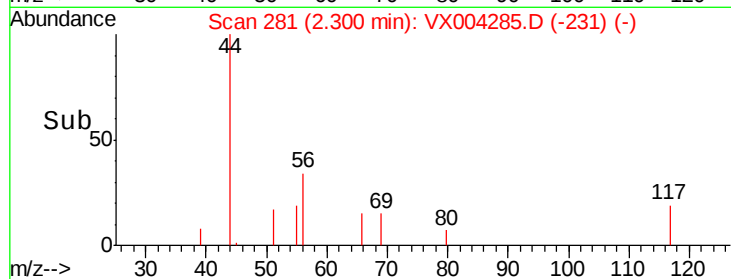
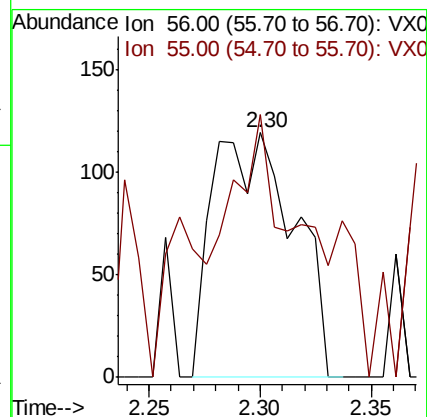
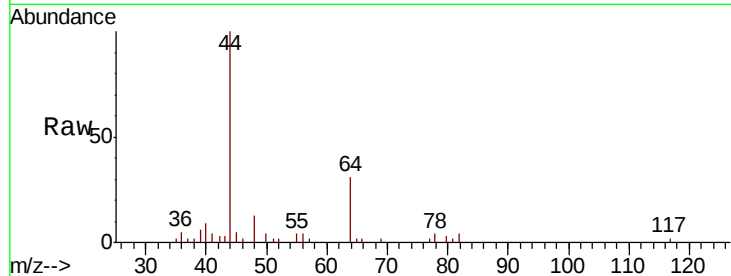
CPA-RB1-M12W4-082218

Tot Ion: 56 Resp: 301

Ion Ratio Lower Upper

56 100

55 105.6 54.7 82.1#



#15

Acrylonitrile

Concen: 0.46 ug/l

RT: 3.15 min Scan# 420

Delta R.T. -0.00 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

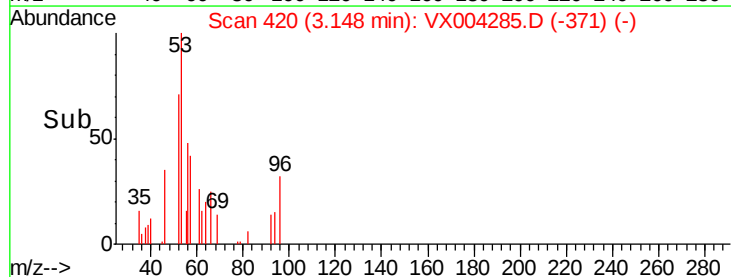
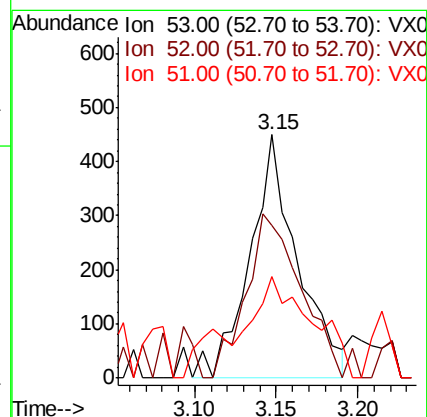
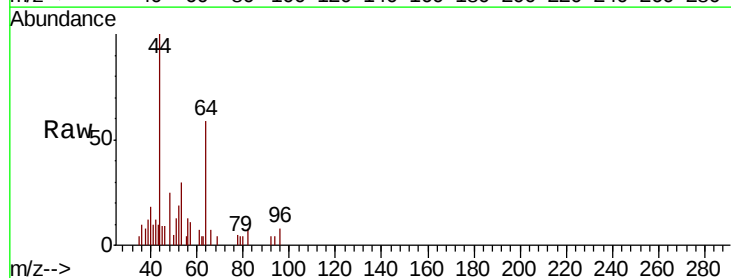
Tgt Ion: 53 Resp: 916

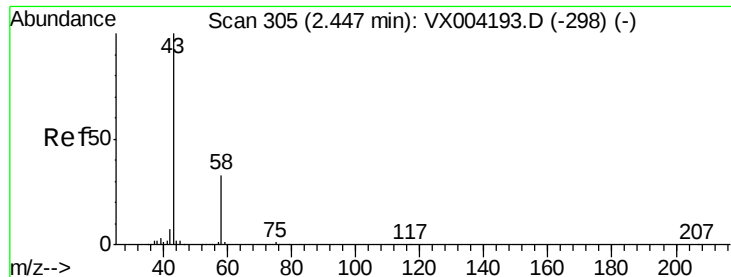
Ion Ratio Lower Upper

53 100

52 79.1 65.2 97.8

51 51.2 28.2 42.2#





#16

Acetone

Concen: Below Cal

RT: 2.45 min Scan# 305

Delta R.T. 0.00 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

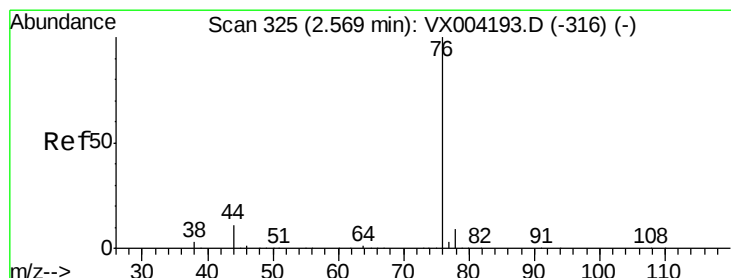
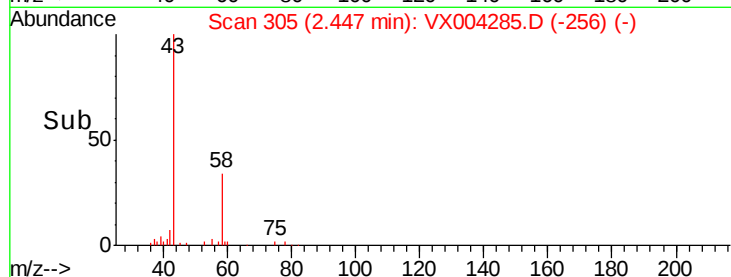
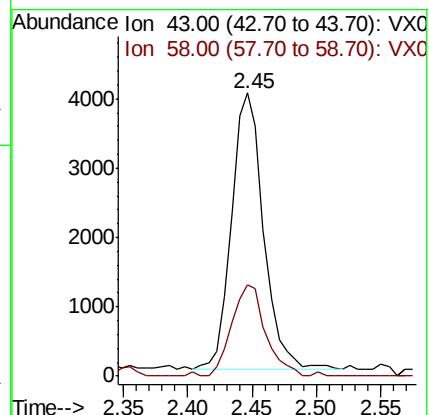
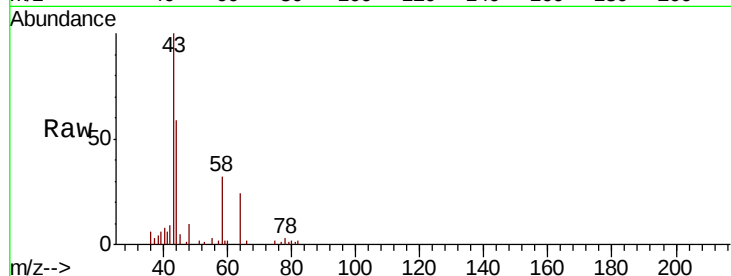
CPA-RB1-M12W4-082218

Tot Ion: 43 Resp: 6889

Ion Ratio Lower Upper

43 100

58 33.3 26.2 39.4



#17

Carbon Disulfide

Concen: 0.94 ug/l

RT: 2.57 min Scan# 325

Delta R.T. 0.00 min

Lab File: VX004285.D

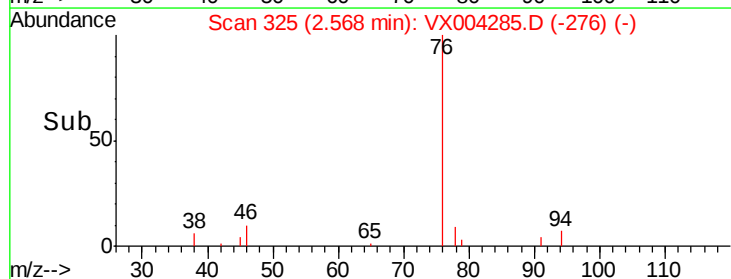
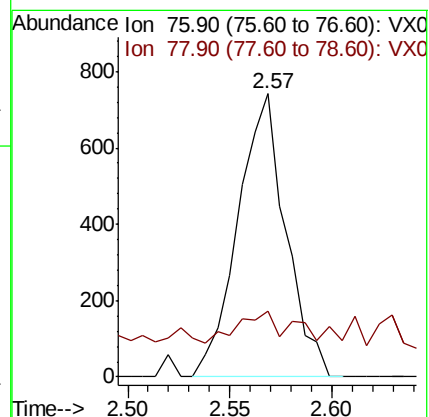
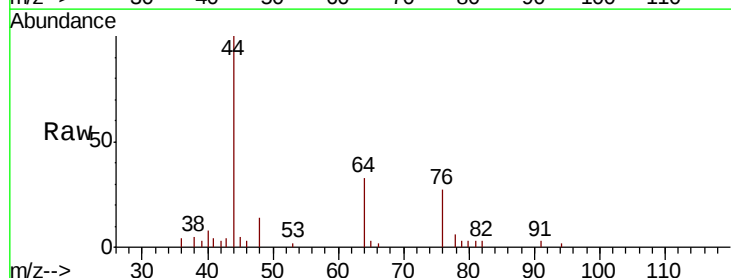
Acq: 29 Aug 2018 11:50

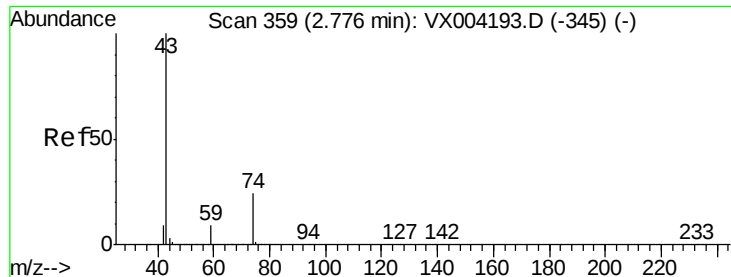
Tgt Ion: 76 Resp: 1209

Ion Ratio Lower Upper

76 100

78 10.4 7.0 10.6

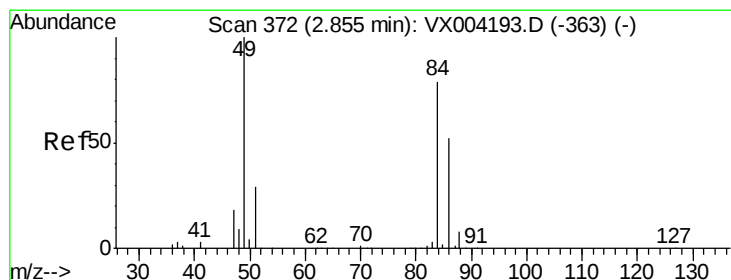
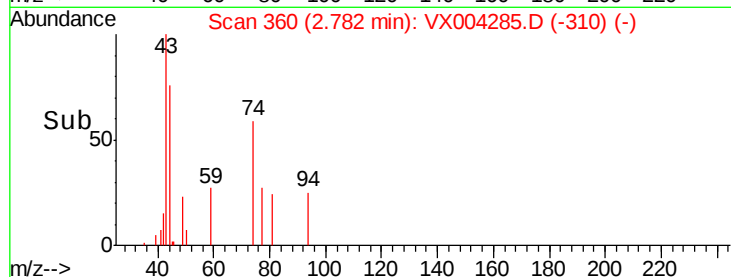
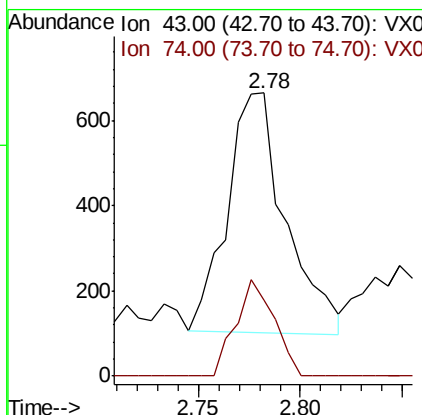
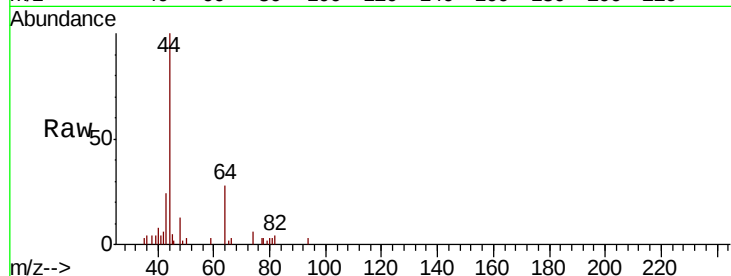




#18  
Methvl Acetate  
Concen: 0.20 ug/l  
RT: 2.78 min Scan# 360  
Delta R.T. 0.01 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

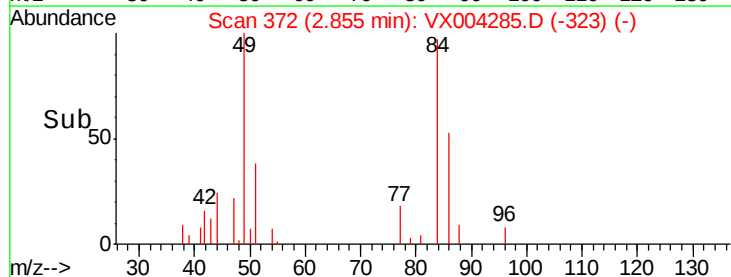
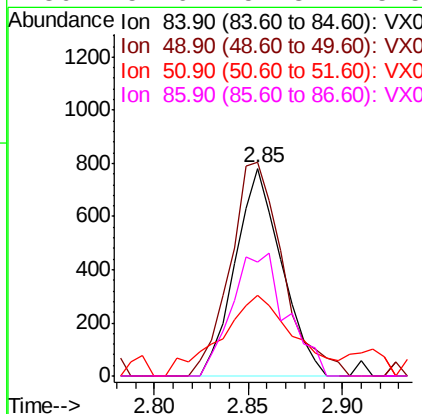
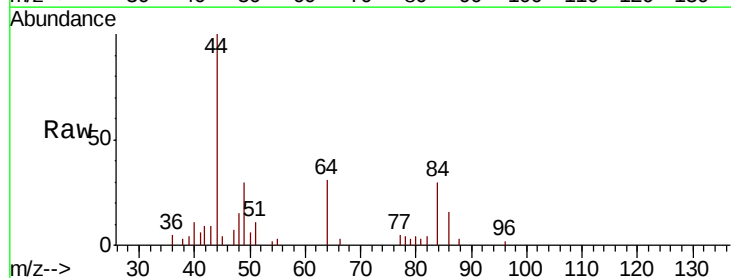
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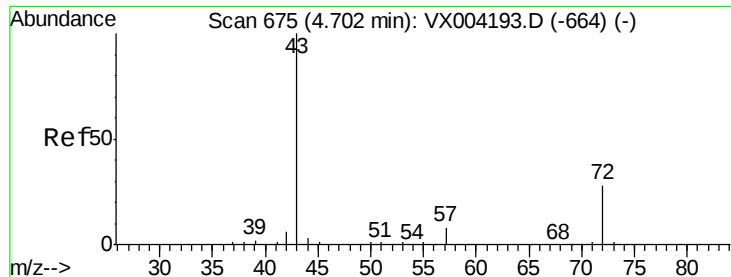
Tot Ion: 43 Resp: 1121  
Ion Ratio Lower Upper  
43 100  
74 26.2 19.4 29.2



#20  
Methylene Chloride  
Concen: 0.37 ug/l  
RT: 2.85 min Scan# 372  
Delta R.T. -0.00 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

Tgt Ion: 84 Resp: 1330  
Ion Ratio Lower Upper  
84 100  
49 102.8 101.2 151.8  
51 32.1 29.5 44.3  
86 54.6 52.3 78.5





#25

2-Butanone

Concen: Below Cal

RT: 4.71 min Scan# 676

Delta R.T. 0.01 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

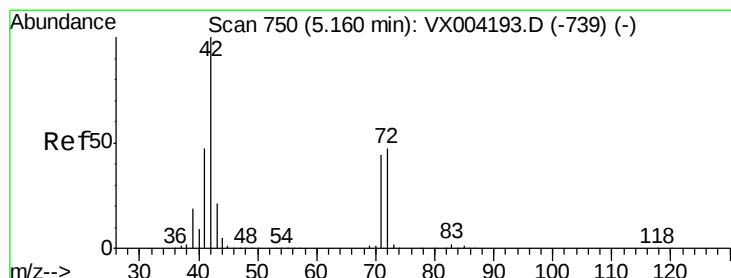
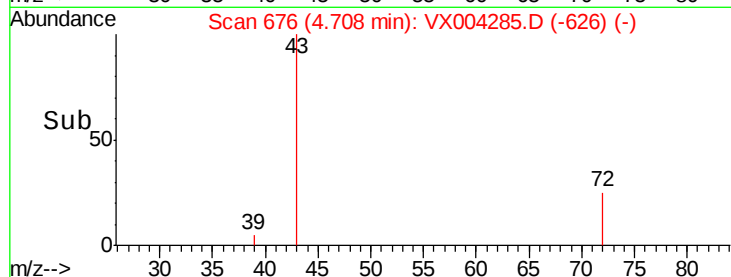
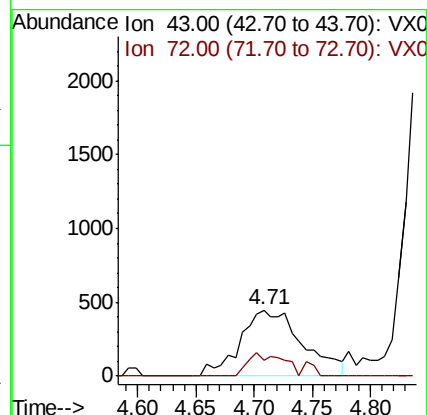
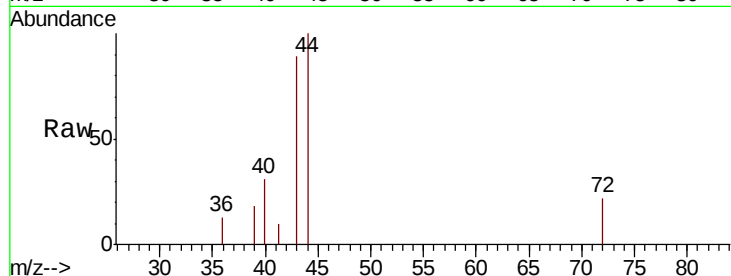
CPA-RB1-M12W4-082218

Tot Ion: 43 Resp: 1667

Ion Ratio Lower Upper

43 100

72 24.9 22.0 33.0



#29

Tetrahydrofuran

Concen: 0.40 ug/l

RT: 5.18 min Scan# 753

Delta R.T. 0.02 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

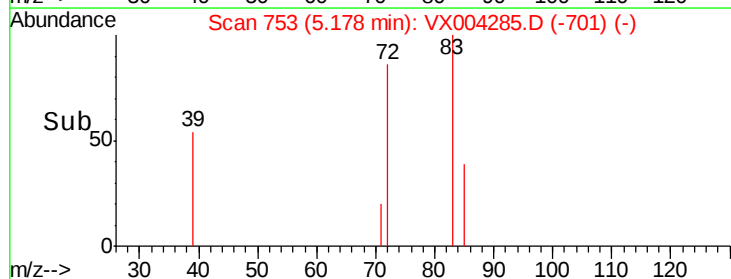
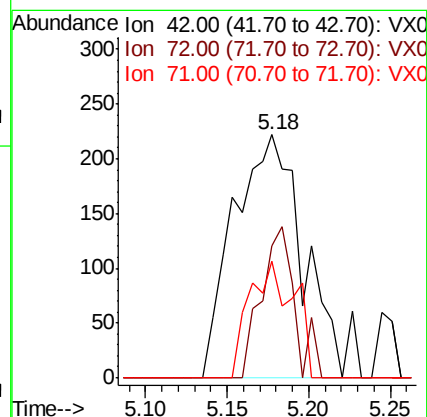
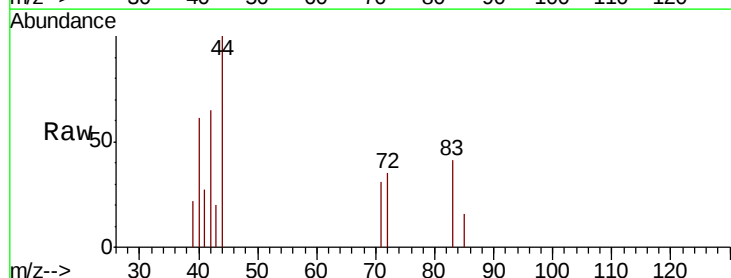
Tgt Ion: 42 Resp: 652

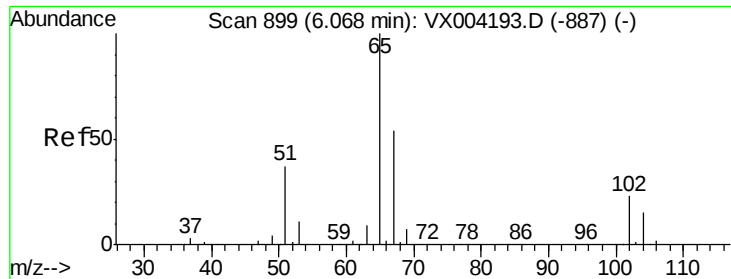
Ion Ratio Lower Upper

42 100

72 29.9 37.4 56.0#

71 31.1 34.5 51.7#

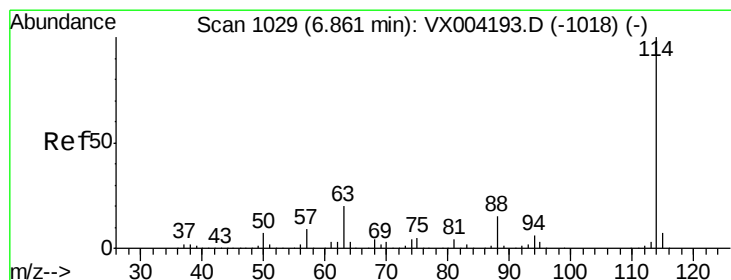
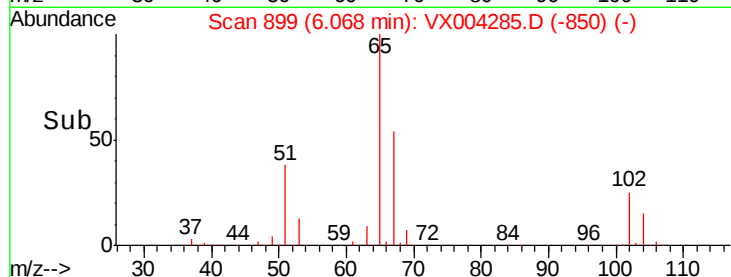
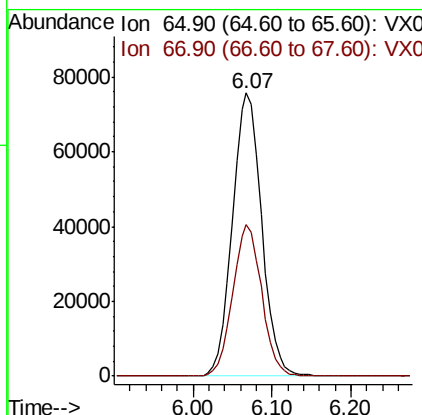
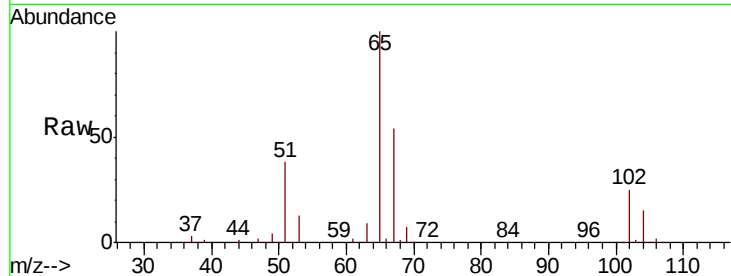




#33  
 1,2-Dichloroethane-d4  
 Concen: 51.90 ug/l  
 RT: 6.07 min Scan# 899  
 Delta R.T. -0.00 min  
 Lab File: VX004285.D  
 Acq: 29 Aug 2018 11:50

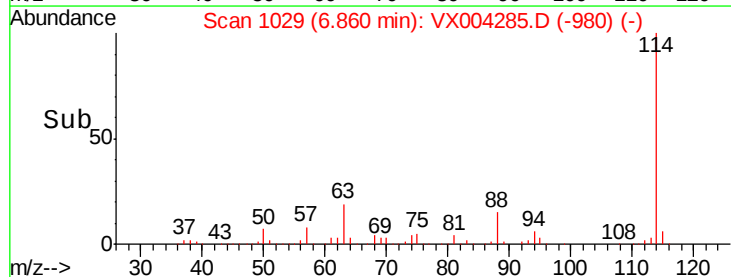
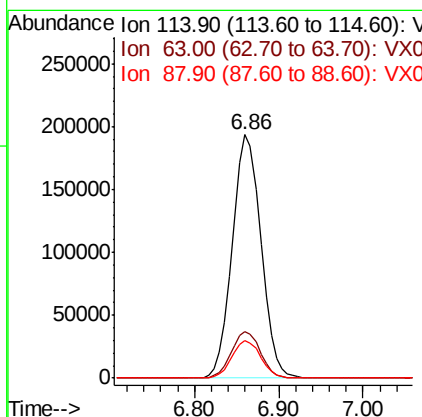
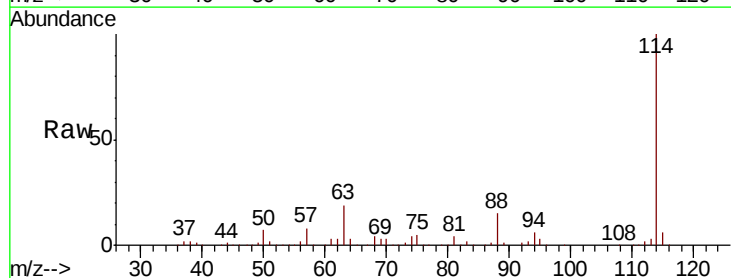
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-RB1-M12W4-082218

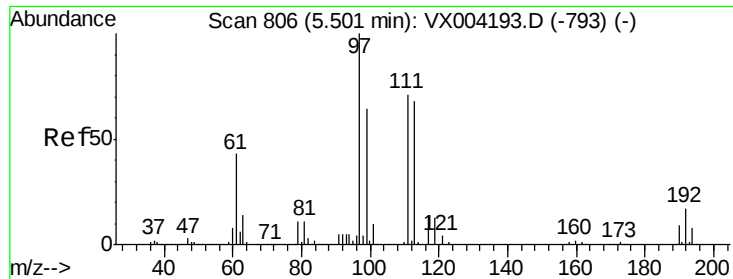
Tot Ion: 65 Resp: 195247  
 Ion Ratio Lower Upper  
 65 100  
 67 53.0 0.0 106.8



#34  
 1,4-Difluorobenzene  
 Concen: 50.00 ug/l  
 RT: 6.86 min Scan# 1029  
 Delta R.T. -0.00 min  
 Lab File: VX004285.D  
 Acq: 29 Aug 2018 11:50

Tgt Ion: 114 Resp: 446660  
 Ion Ratio Lower Upper  
 114 100  
 63 19.3 0.0 39.0  
 88 15.4 0.0 30.4

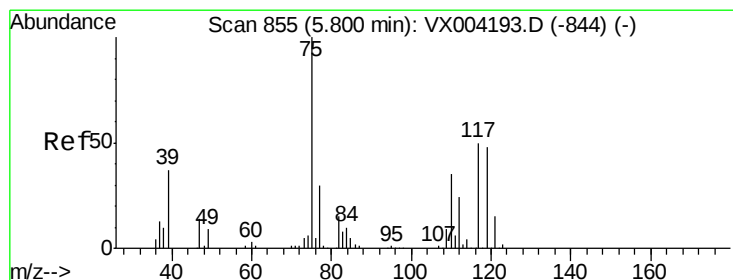
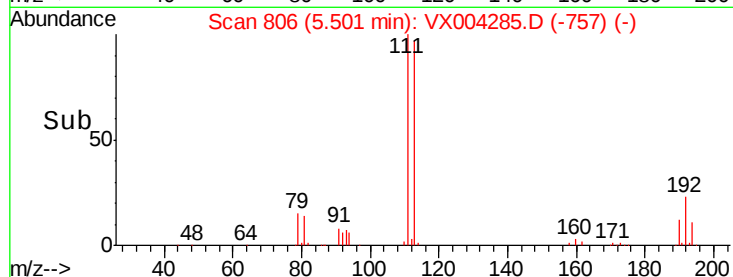
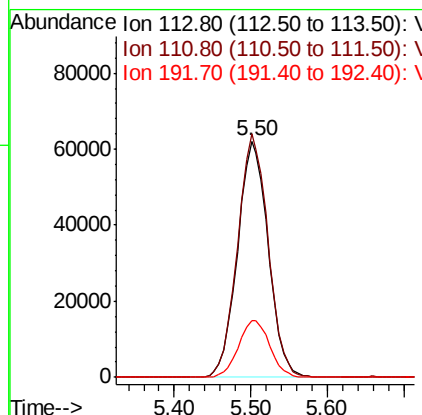
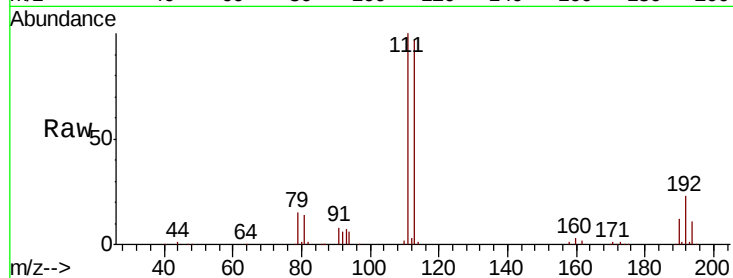




#35  
 Dibromofluoromethane  
 Concen: 51.89 ug/l  
 RT: 5.50 min Scan# 806  
 Delta R.T. -0.00 min  
 Lab File: VX004285.D  
 Acq: 29 Aug 2018 11:50

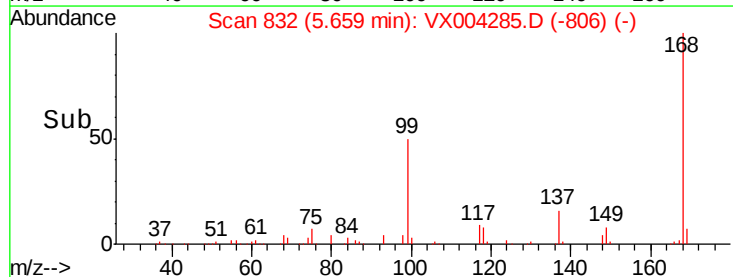
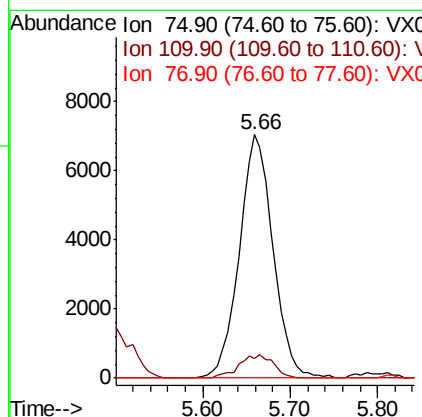
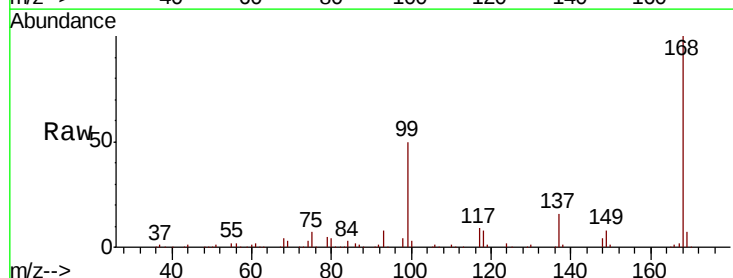
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-RB1-M12W4-082218

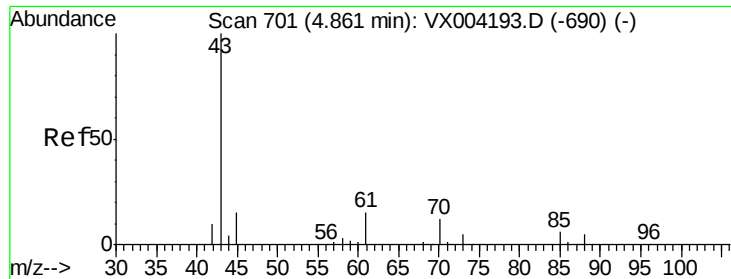
Tot Ion:113 Resp: 172434  
 Ion Ratio Lower Upper  
 113 100  
 111 102.7 82.4 123.6  
 192 24.6 19.4 29.2



#36  
 1,1-Dichloropropene  
 Concen: 3.75 ug/l  
 RT: 5.66 min Scan# 832  
 Delta R.T. -0.14 min  
 Lab File: VX004285.D  
 Acq: 29 Aug 2018 11:50

Tgt Ion: 75 Resp: 18841  
 Ion Ratio Lower Upper  
 75 100  
 110 9.7 18.0 54.0#  
 77 0.0 24.6 36.8#





#37

Ethyl Acetate

Concen: 3.53 ug/l

RT: 4.87 min Scan# 702

Delta R.T. 0.01 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

CPA-RB1-M12W4-082218

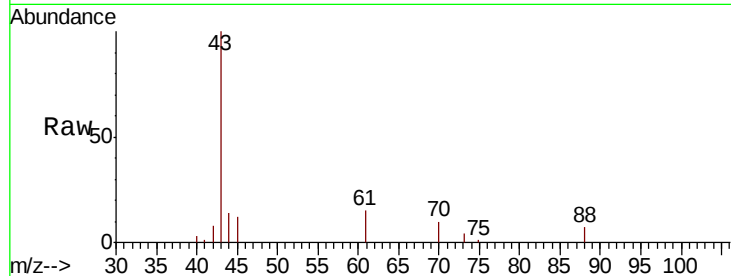
Tot Ion: 43 Resp: 17436

Ion Ratio Lower Upper

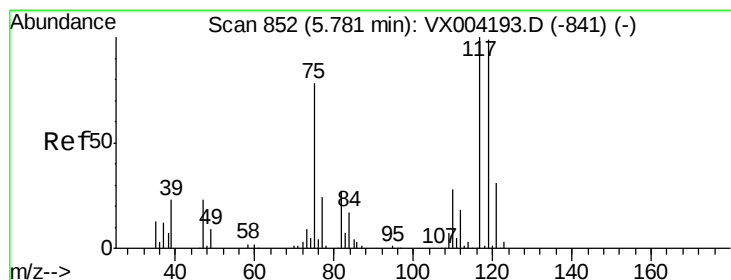
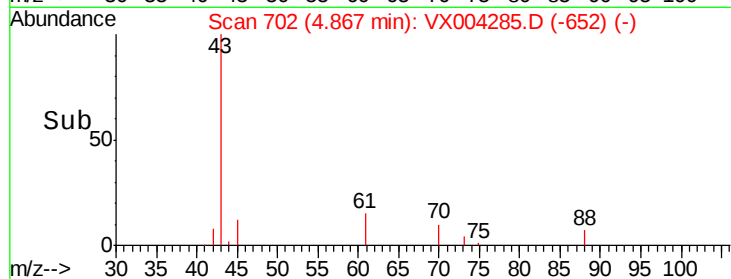
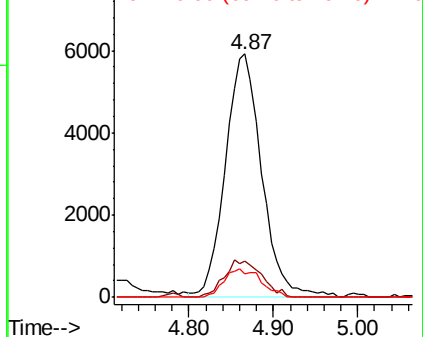
43 100

61 15.7 11.5 17.3

70 11.8 9.0 13.6



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: 5.23 ug/l

RT: 5.67 min Scan# 833

Delta R.T. -0.12 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

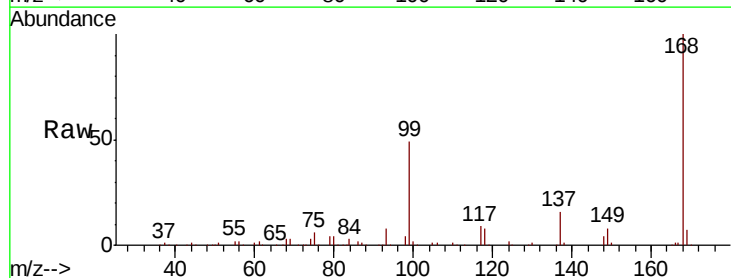
Tgt Ion: 117 Resp: 24728

Ion Ratio Lower Upper

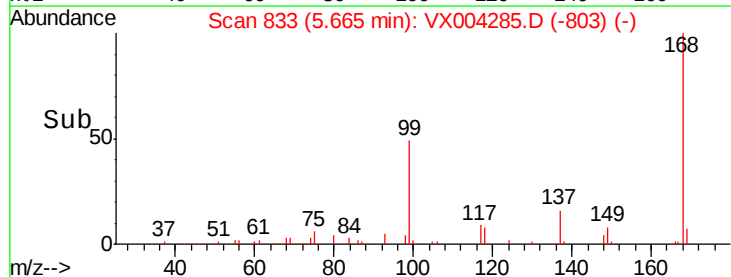
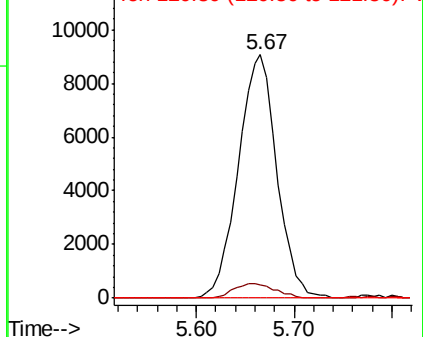
117 100

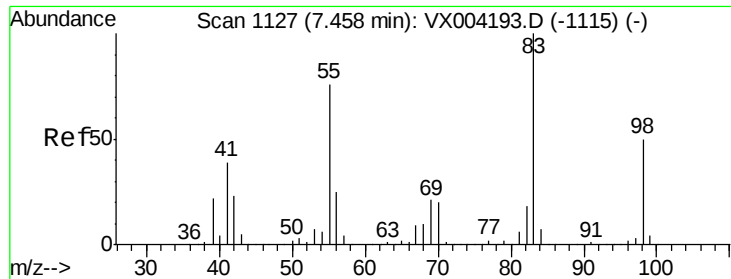
119 5.5 78.8 118.2#

121 0.0 24.9 37.3#



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

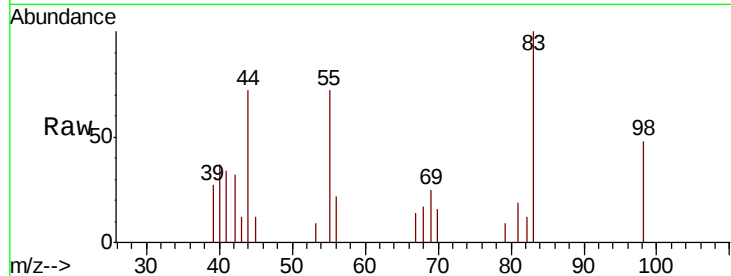




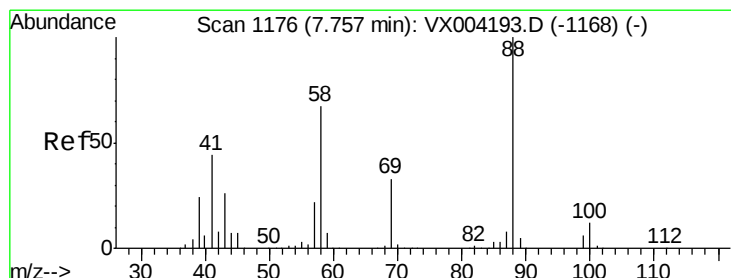
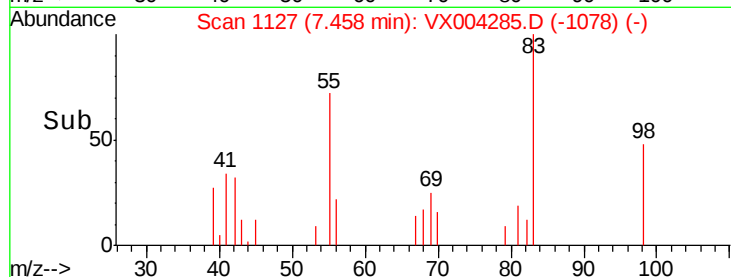
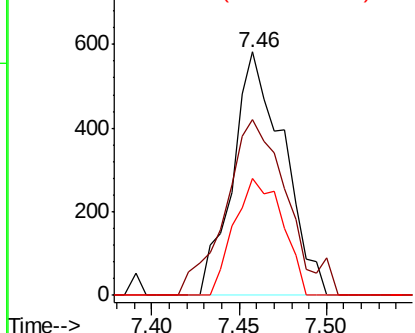
#39  
Methylcyclohexane  
Concen: 0.21 ug/l  
RT: 7.46 min Scan# 1127  
Delta R.T. -0.00 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

Instrument :  
MSVOA\_X  
ClientSampleId :  
CPA-RB1-M12W4-082218

Tot Ion: 83 Resp: 1178  
Ion Ratio Lower Upper  
83 100  
55 72.2 61.0 91.4  
98 47.9 39.6 59.4

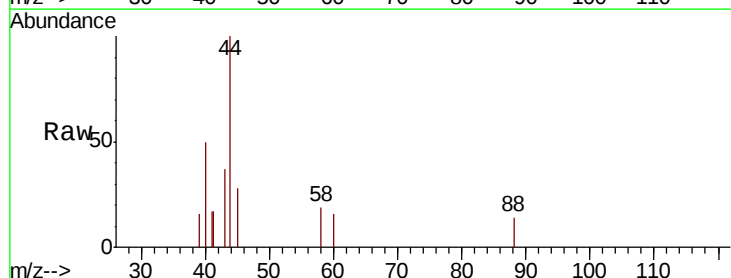


Abundance Ion 83.00 (82.70 to 83.70): VX0  
Ion 55.00 (54.70 to 55.70): VX0  
Ion 98.00 (97.70 to 98.70): VX0

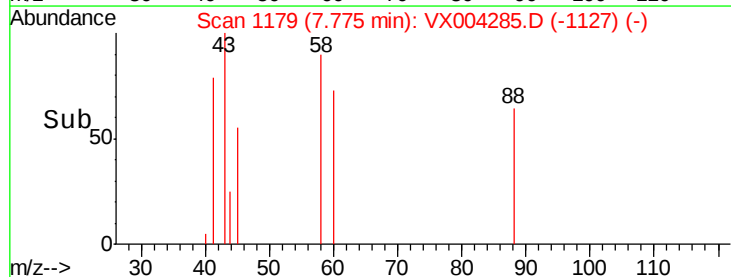
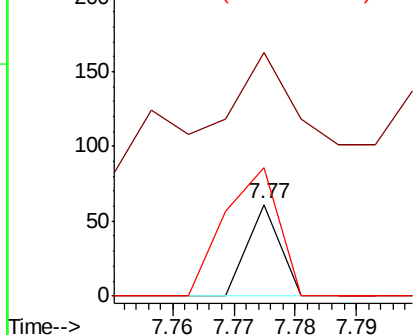


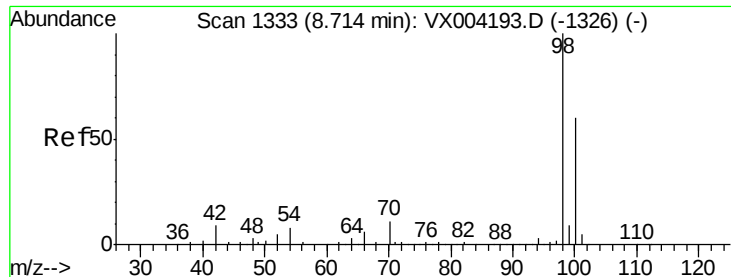
#49  
1,4-Dioxane  
Concen: 0.24 ug/l  
RT: 7.77 min Scan# 1179  
Delta R.T. 0.02 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

Tgt Ion: 88 Resp: 22  
Ion Ratio Lower Upper  
88 100  
43 1781.8 24.7 37.1#  
58 236.4 55.3 82.9#



Abundance Ion 88.00 (87.70 to 88.70): VX0  
Ion 43.00 (42.70 to 43.70): VX0  
Ion 58.00 (57.70 to 58.70): VX0





#50

Toluene-d8

Concen: 50.64 ug/l

RT: 8.71 min Scan# 1333

Delta R.T. -0.00 min

Lab File: VX004285.D

Acq: 29 Aug 2018 11:50

Instrument :

MSVOA\_X

ClientSampleId :

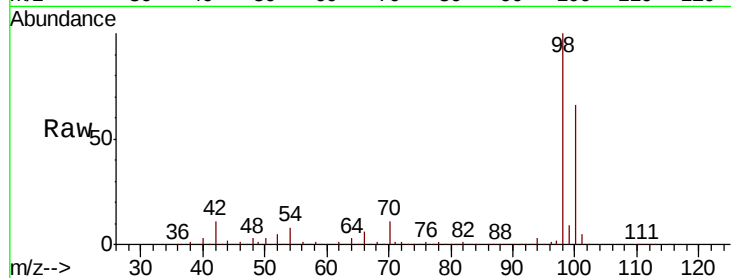
CPA-RB1-M12W4-082218

Tot Ion: 98 Resp: 635174

Ion Ratio Lower Upper

98 100

100 66.1 52.9 79.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): VX0

8.71

400000

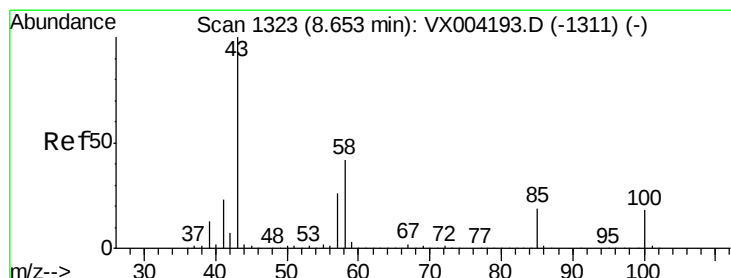
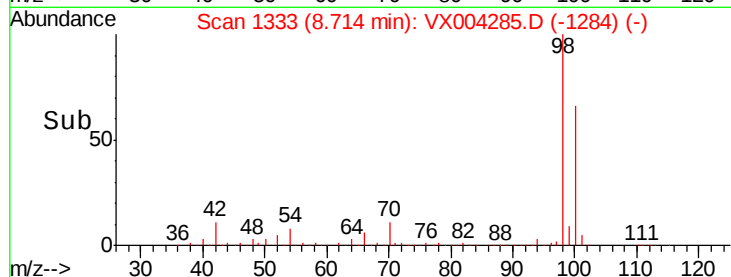
300000

200000

100000

0

Time-->



#51

4-Methyl-2-Pentanone

Concen: 0.21 ug/l

RT: 8.66 min Scan# 1324

Delta R.T. 0.01 min

Lab File: VX004285.D

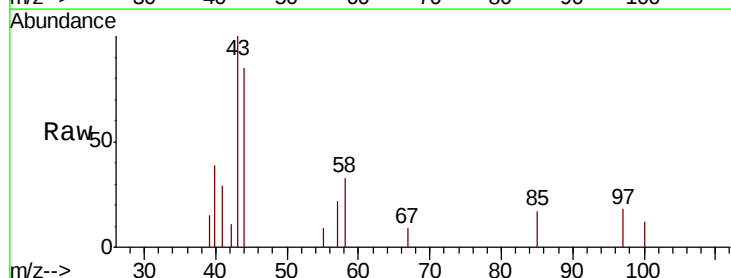
Acq: 29 Aug 2018 11:50

Tgt Ion: 43 Resp: 1163

Ion Ratio Lower Upper

43 100

58 39.0 33.1 49.7



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0

8.66

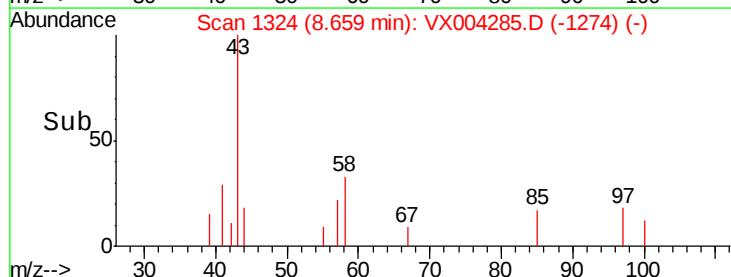
3000

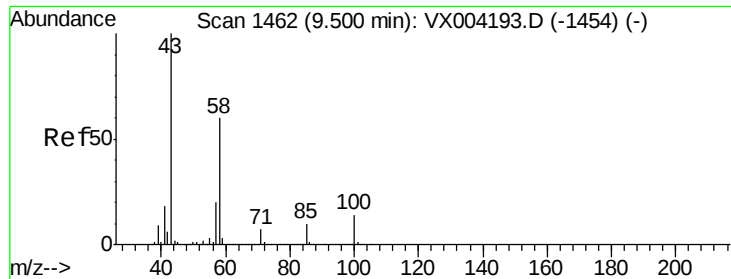
2000

1000

0

Time-->

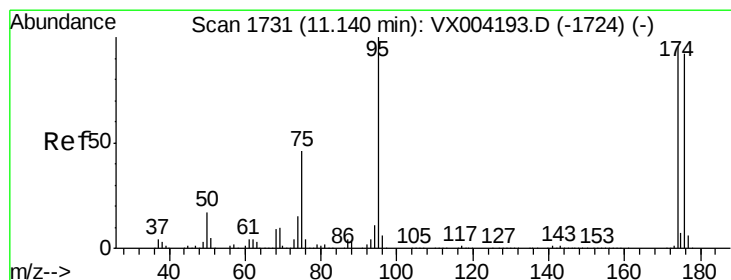
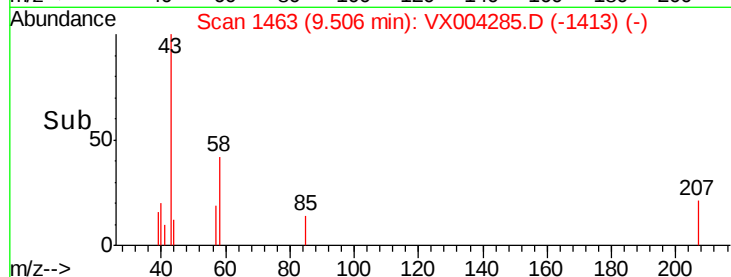
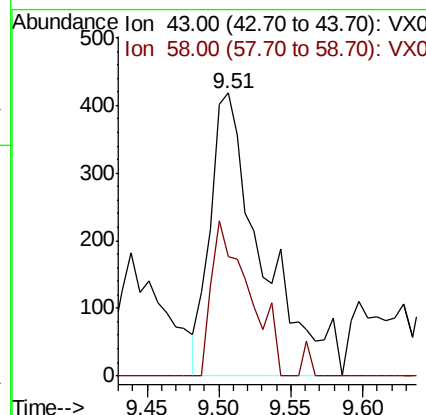
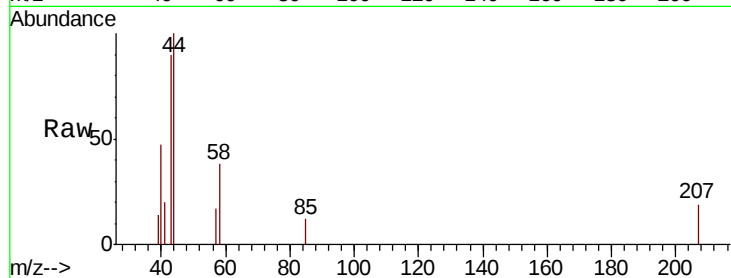




#59  
2-Hexanone  
Concen: 0.25 ug/l  
RT: 9.51 min Scan# 1463  
Delta R.T. 0.01 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

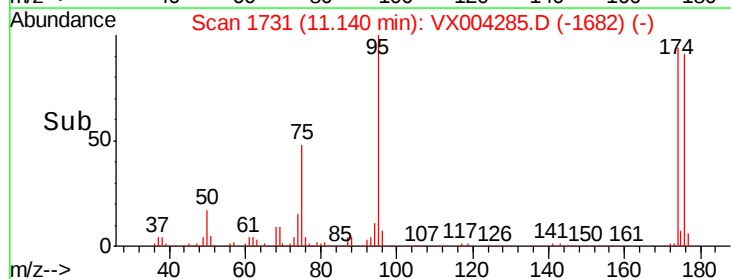
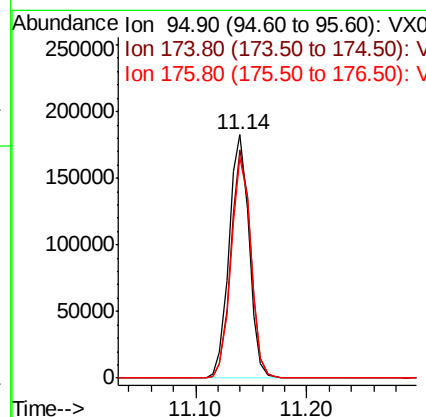
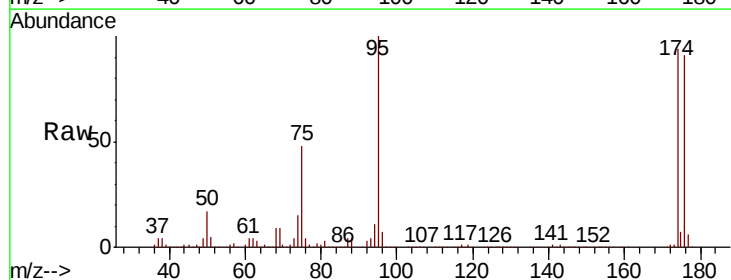
Instrument :  
MSVOA\_X  
ClientSampleId :  
CPA-RB1-M12W4-082218

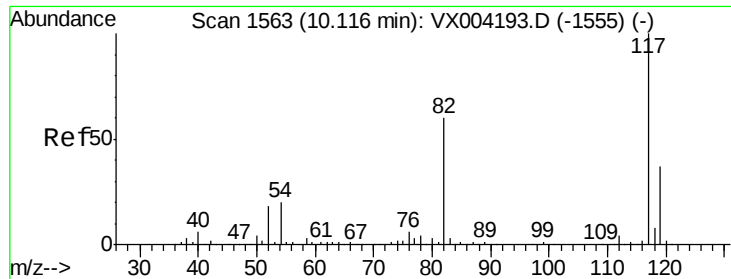
Tot Ion: 43 Resp: 1045  
Ion Ratio Lower Upper  
43 100  
58 39.6 29.0 87.0



#62  
4-Bromofluorobenzene  
Concen: 48.77 ug/l  
RT: 11.14 min Scan# 1731  
Delta R.T. -0.00 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

Tgt Ion: 95 Resp: 228239  
Ion Ratio Lower Upper  
95 100  
174 93.2 0.0 185.2  
176 89.6 0.0 178.6

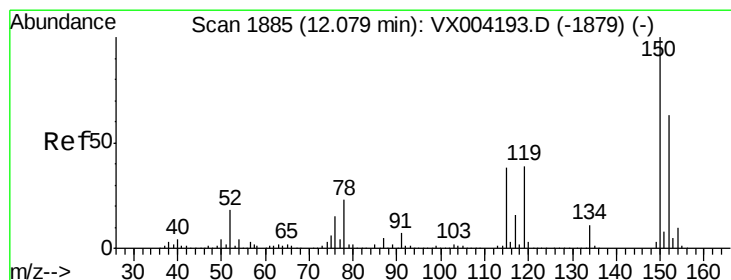
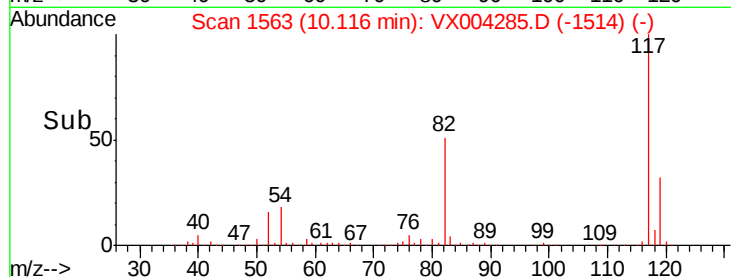
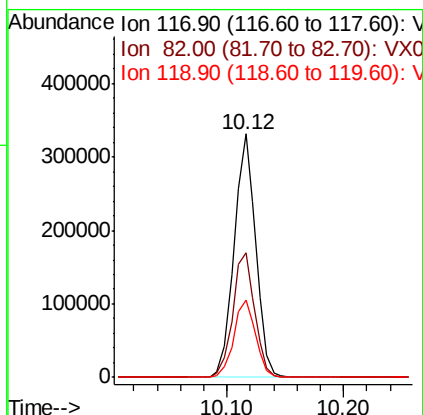
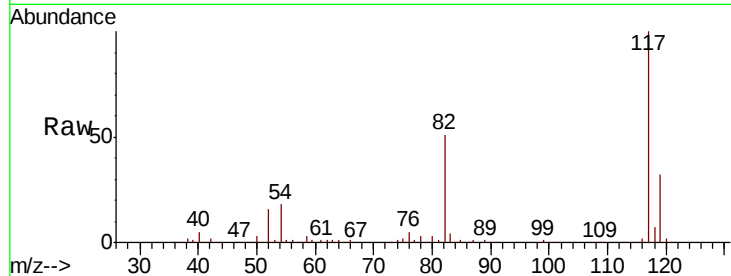




#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1563  
Delta R.T. -0.00 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

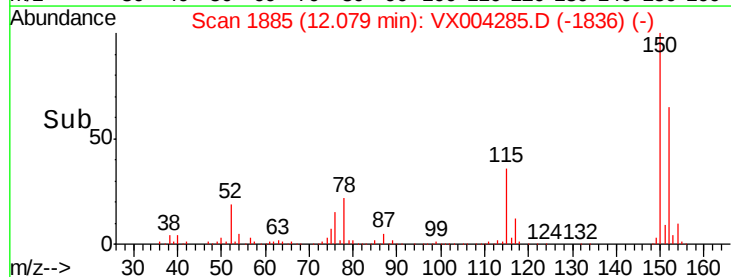
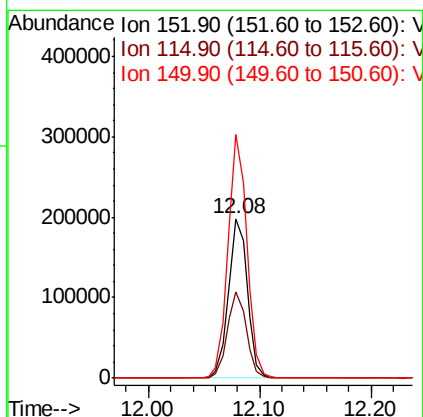
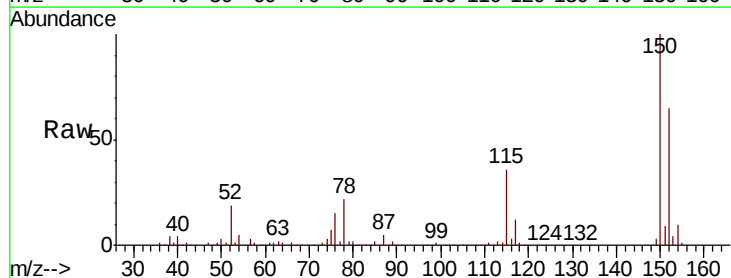
Instrument :  
MSVOA\_X  
ClientSampleId :  
CPA-RB1-M12W4-082218

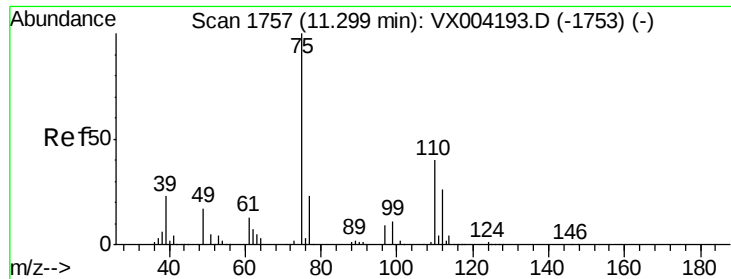
Tot Ion:117 Resp: 427701  
Ion Ratio Lower Upper  
117 100  
82 51.2 47.8 71.6  
119 31.7 29.3 43.9



#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 12.08 min Scan# 1885  
Delta R.T. -0.00 min  
Lab File: VX004285.D  
Acq: 29 Aug 2018 11:50

Tgt Ion:152 Resp: 232892  
Ion Ratio Lower Upper  
152 100  
115 54.4 39.0 117.0  
150 152.1 0.0 351.0

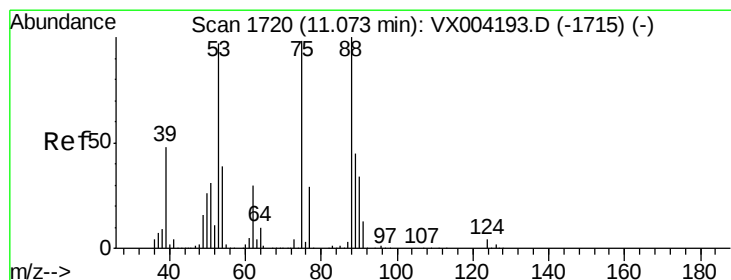
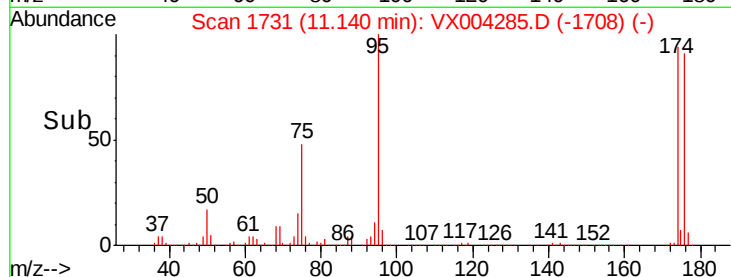
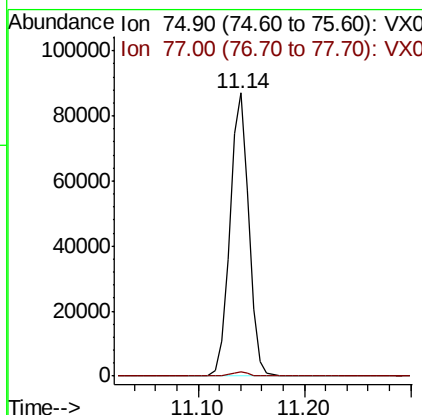
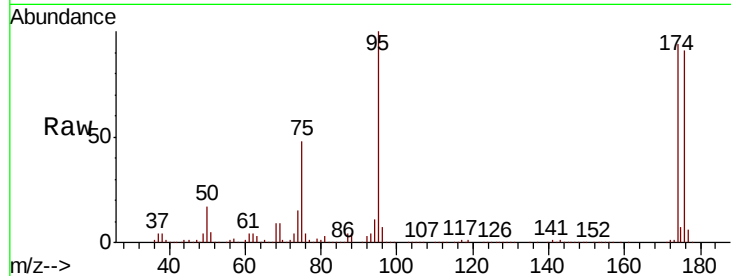




#76  
 1,2,3-Trichloropropane  
 Concen: 22.80 ug/l  
 RT: 11.14 min Scan# 1731  
 Delta R.T. -0.16 min  
 Lab File: VX004285.D  
 Acq: 29 Aug 2018 11:50

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-RB1-M12W4-082218

Tot Ion: 75 Resp: 108006  
 Ion Ratio Lower Upper  
 75 100  
 77 1.3 20.2 60.6#



#81  
 trans-1,4-Dichloro-2-butene  
 Concen: 73.98 ug/l  
 RT: 11.14 min Scan# 1731  
 Delta R.T. 0.07 min  
 Lab File: VX004285.D  
 Acq: 29 Aug 2018 11:50

Tgt Ion: 75 Resp: 108006  
 Ion Ratio Lower Upper  
 75 100  
 53 0.2 80.1 120.1#  
 89 0.0 37.2 55.8#

