

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX031419\  
 Data File : VX008081.D  
 Acq On : 14 Mar 2019 20:40  
 Operator : JC/SP  
 Sample : K1829-05  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 23 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-CPMW02S-M20W2-030419

Quant Time: Mar 15 04:28:13 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X031419W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 15 03:56:35 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 319155   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 488956   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.11 | 117  | 463718   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 226644   | 50.00 | ug/l  | 0.00     |

## System Monitoring Compounds

|                           |        |     |          |       |         |      |
|---------------------------|--------|-----|----------|-------|---------|------|
| 33) 1,2-Dichloroethane-d4 | 6.07   | 65  | 157782   | 49.01 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.02%  |      |
| 35) Dibromofluoromethane  | 5.51   | 113 | 153271   | 49.43 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 98.86%  |      |
| 50) Toluene-d8            | 8.71   | 98  | 585563   | 49.65 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 99.30%  |      |
| 62) 4-Bromofluorobenzene  | 11.13  | 95  | 216809   | 51.32 | ug/l    | 0.00 |
| Spiked Amount             | 50.000 |     | Recovery | =     | 102.64% |      |

## Target Compounds

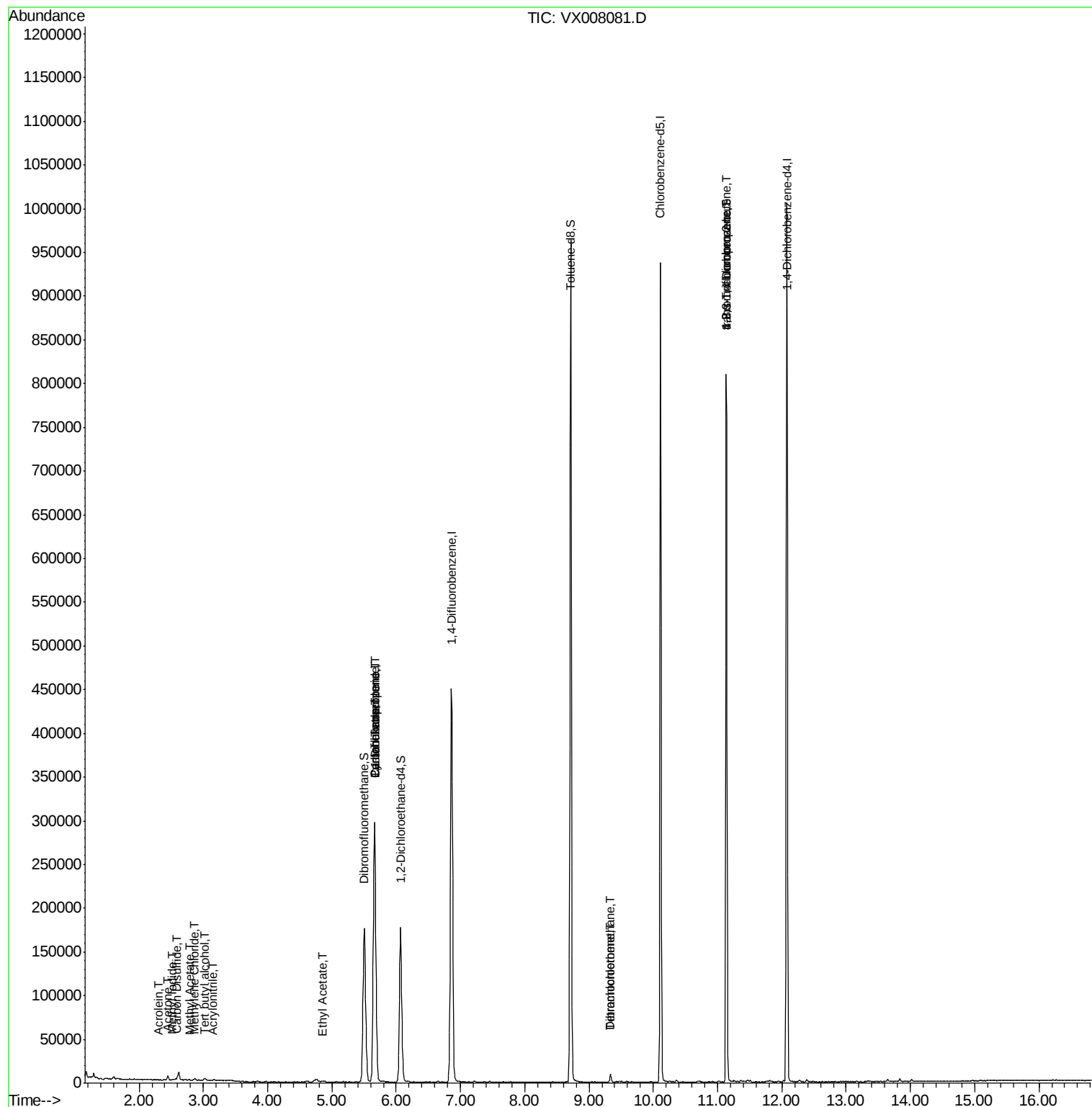
|                                |       |     |       |           |        | Qvalue |
|--------------------------------|-------|-----|-------|-----------|--------|--------|
| 5) Bromomethane                | 1.65  | 94  | 494   | Below Cal | #      | 70     |
| 6) Chloroethane                | 1.70  | 64  | 461   | Below Cal | #      | 43     |
| 10) Methyl Iodide              | 2.53  | 142 | 949   | 0.264     | ug/l # | 82     |
| 11) Tert butyl alcohol         | 3.02  | 59  | 1556  | 2.502     | ug/l # | 73     |
| 13) Acrolein                   | 2.31  | 56  | 150   | 0.262     | ug/l # | 10     |
| 15) Acrylonitrile              | 3.15  | 53  | 482   | 0.318     | ug/l # | 87     |
| 16) Acetone                    | 2.45  | 43  | 4851  | 3.192     | ug/l   | 98     |
| 17) Carbon Disulfide           | 2.57  | 76  | 2006  | 0.287     | ug/l # | 80     |
| 18) Methyl Acetate             | 2.78  | 43  | 856   | 0.261     | ug/l   | 98     |
| 20) Methylene Chloride         | 2.86  | 84  | 808   | 0.298     | ug/l # | 94     |
| 31) Cyclohexane                | 5.67  | 56  | 4731  | 1.028     | ug/l # | 1      |
| 36) 1,1-Dichloropropene        | 5.67  | 75  | 18530 | 4.607     | ug/l # | 49     |
| 37) Ethyl Acetate              | 4.86  | 43  | 1669  | 0.386     | ug/l # | 93     |
| 38) Carbon Tetrachloride       | 5.66  | 117 | 26696 | 6.895     | ug/l # | 17     |
| 60) Dibromochloromethane       | 9.34  | 129 | 1686  | 0.513     | ug/l # | 11     |
| 64) Tetrachloroethene          | 9.34  | 164 | 1841  | 0.490     | ug/l # | 79     |
| 76) 1,2,3-Trichloropropane     | 11.13 | 75  | 96557 | 24.531    | ug/l # | 39     |
| 81) trans-1,4-Dichloro-2-buten | 11.13 | 75  | 96557 | 69.806    | ug/l # | 11     |

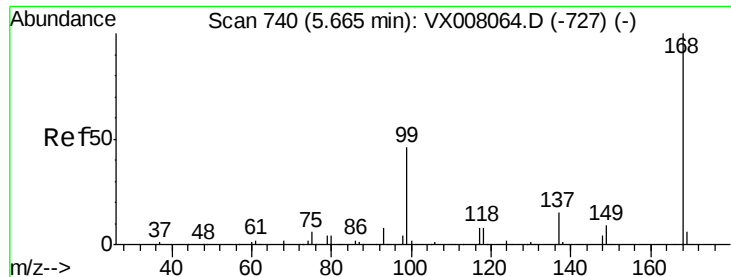
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA X\DATA\VX031419\  
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Quant Time: Mar 15 04:28:13 2019  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_X\METHOD\82X031419W.M  
Quant Title : SW846 8260  
QLast Update : Fri Mar 15 03:56:35 2019  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.00 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

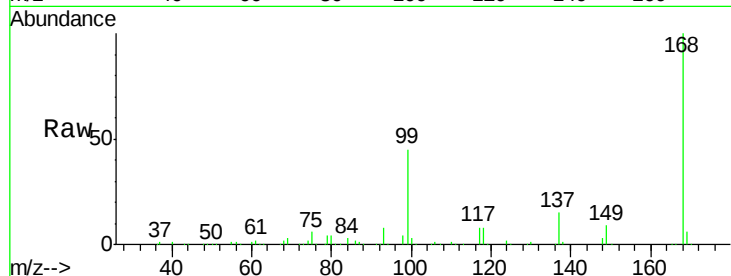
CPA-CPMW02S-M20W2-030419

Tot Ion:168 Resp: 319155

Ion Ratio Lower Upper

168 100

99 44.9 37.6 56.4



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

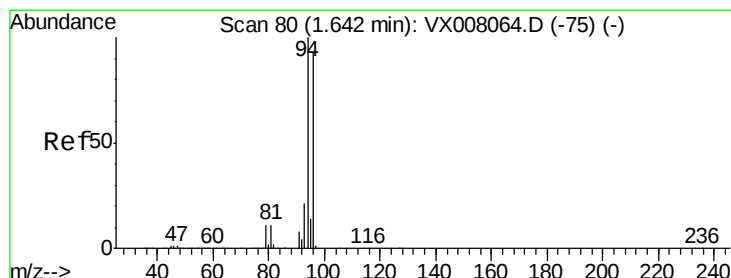
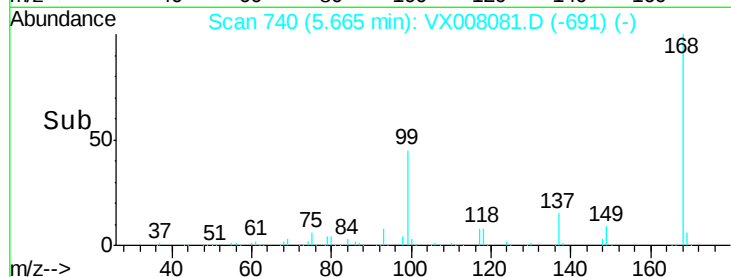
5.67

100000

50000

0

Time--> 5.50 5.60 5.70 5.80



#5

Bromomethane

Concen: Below Cal

RT: 1.65 min Scan# 81

Delta R.T. 0.01 min

Lab File: VX008081.D

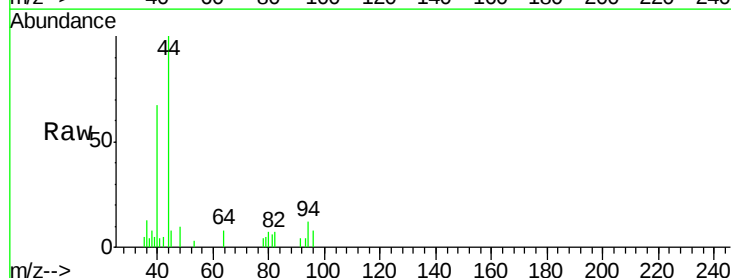
Acq: 14 Mar 2019 20:40

Tgt Ion: 94 Resp: 494

Ion Ratio Lower Upper

94 100

96 64.9 75.5 113.3#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

1.65

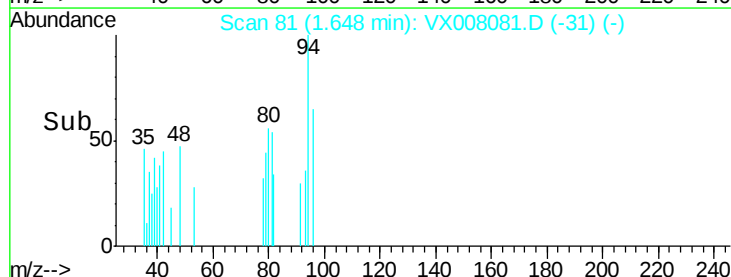
300

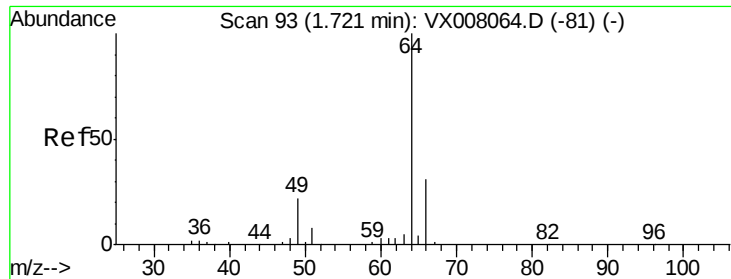
200

100

0

Time--> 1.60 1.65 1.70





#6

Chloroethane

Concen: Below Cal

RT: 1.70 min Scan# 90

Delta R.T. -0.02 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

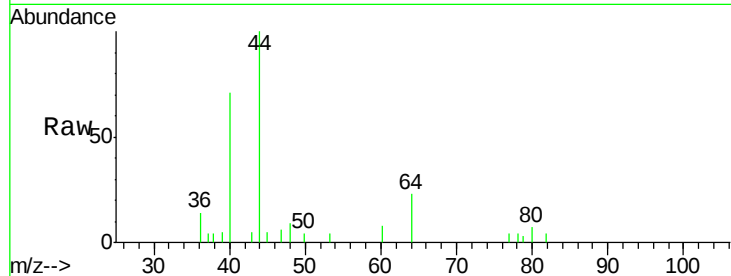
CPA-CPMW02S-M20W2-030419

Tot Ion: 64 Resp: 461

Ion Ratio Lower Upper

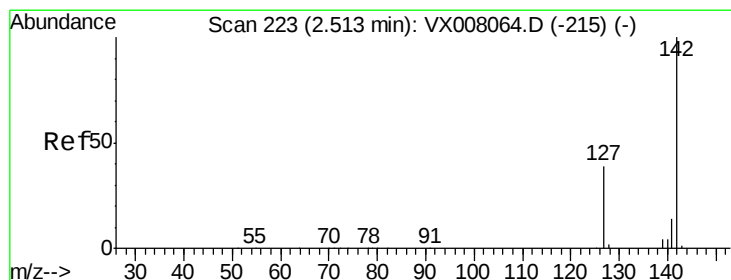
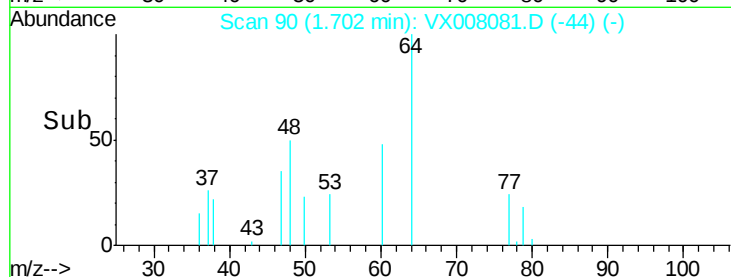
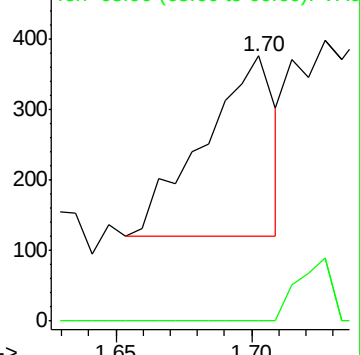
64 100

66 0.0 25.2 37.8#



Abundance Ion 63.90 (63.60 to 64.60): VX0

Ion 65.90 (65.60 to 66.60): VX0



#10

Methyl Iodide

Concen: 0.264 ug/l

RT: 2.53 min Scan# 225

Delta R.T. 0.01 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

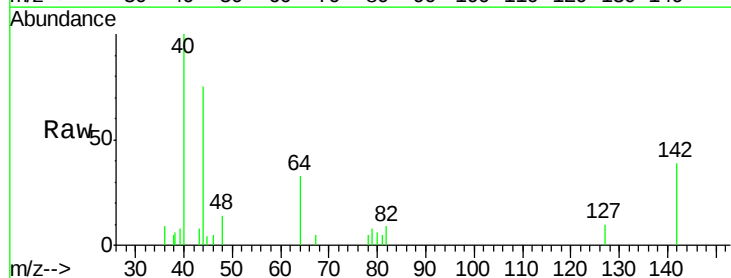
Tgt Ion:142 Resp: 949

Ion Ratio Lower Upper

142 100

127 31.2 32.1 48.1#

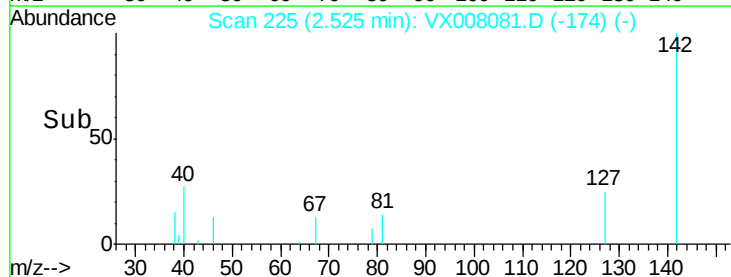
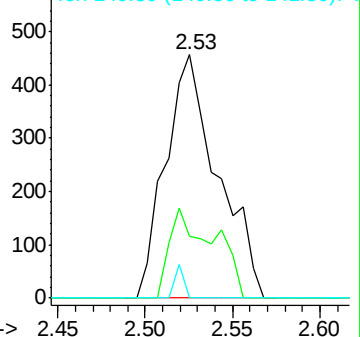
141 2.4 11.4 17.2#

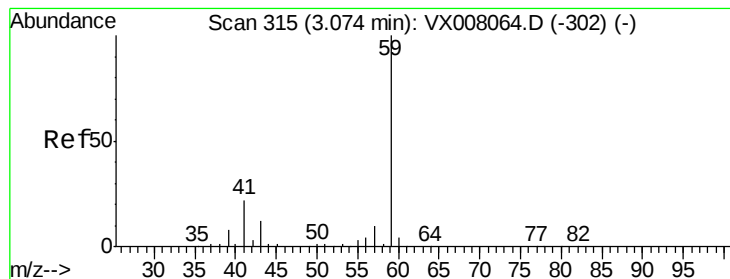


Abundance Ion 141.80 (141.50 to 142.50): V

Ion 126.80 (126.50 to 127.50): V

Ion 140.80 (140.50 to 141.50): V



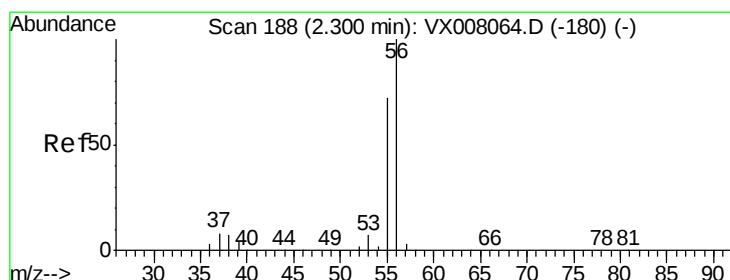
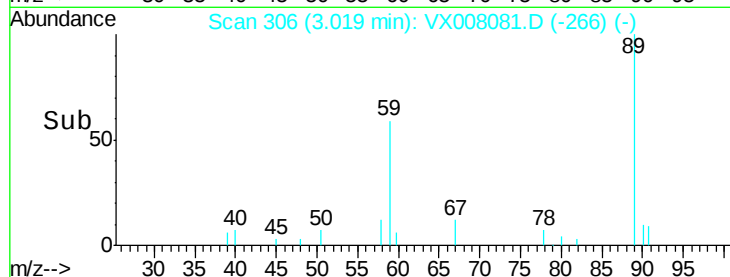
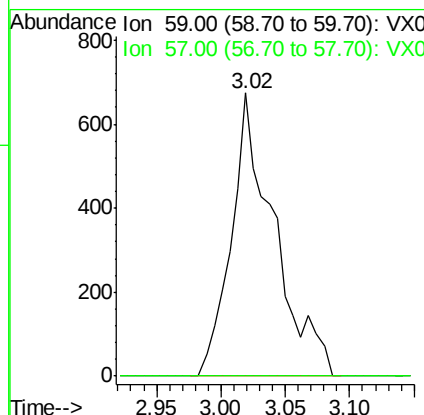
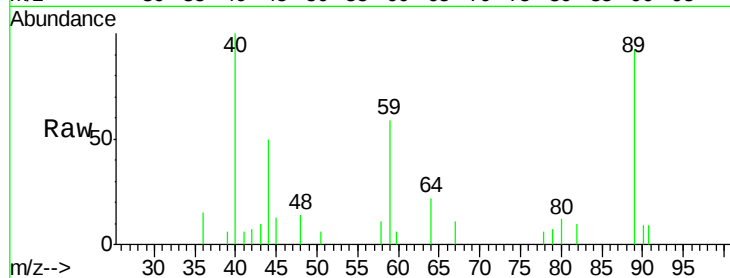


#11

Tert butyl alcohol  
 Concen: 2.502 ug/l  
 RT: 3.02 min Scan# 306  
 Delta R.T. -0.05 min  
 Lab File: VX008081.D  
 Acq: 14 Mar 2019 20:40

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 CPA-CPMW02S-M20W2-030419

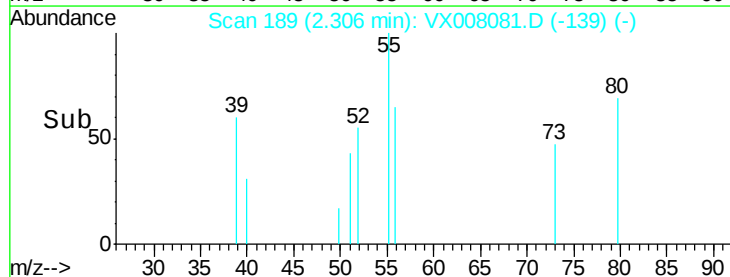
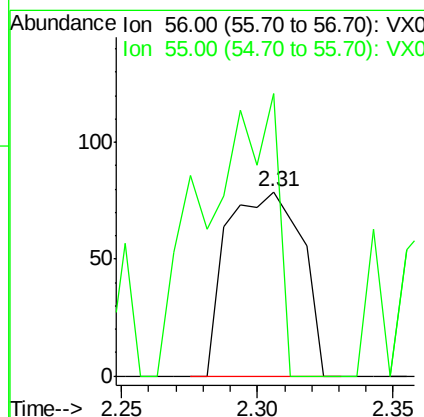
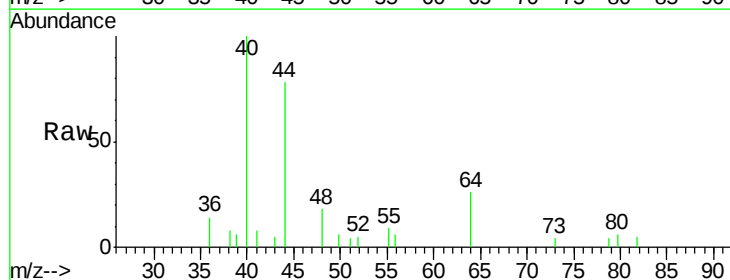
Tot Ion: 59 Resp: 1556  
 Ion Ratio Lower Upper  
 59 100  
 57 0.0 8.2 12.2#

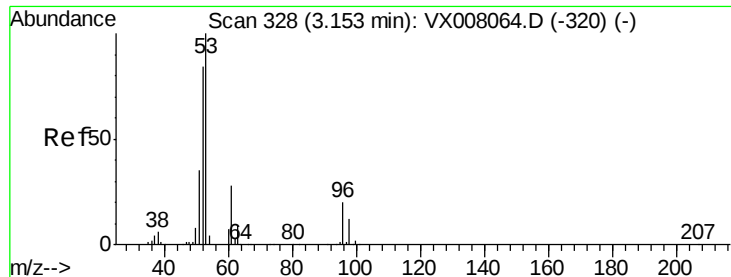


#13

Acrolein  
 Concen: 0.262 ug/l  
 RT: 2.31 min Scan# 189  
 Delta R.T. 0.01 min  
 Lab File: VX008081.D  
 Acq: 14 Mar 2019 20:40

Tgt Ion: 56 Resp: 150  
 Ion Ratio Lower Upper  
 56 100  
 55 147.3 57.8 86.6#





#15

Acrylonitrile

Concen: 0.318 ug/l

RT: 3.15 min Scan# 327

Delta R.T. -0.01 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

CPA-CPMW02S-M20W2-030419

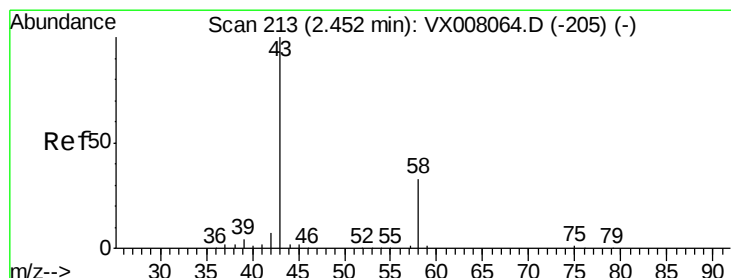
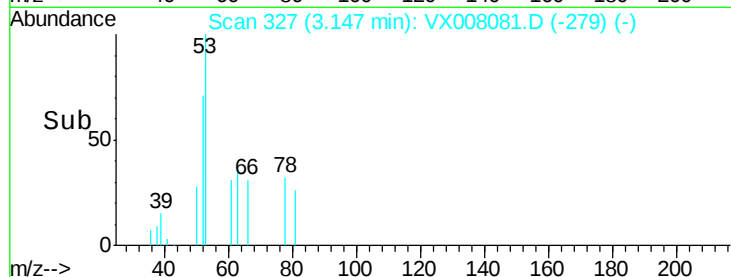
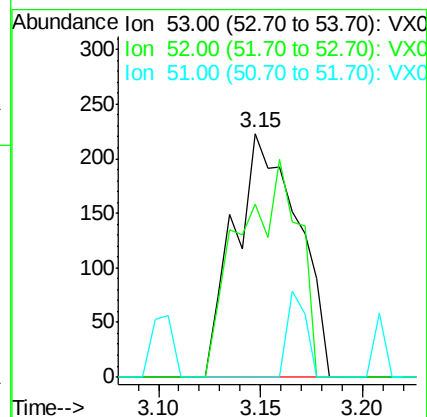
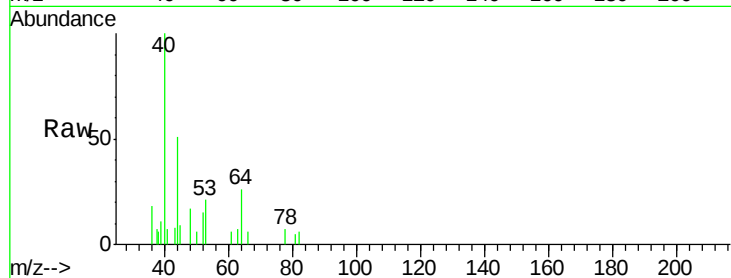
Tot Ion: 53 Resp: 482

Ion Ratio Lower Upper

53 100

52 83.4 66.0 99.0

51 10.4 28.0 42.0#



#16

Acetone

Concen: 3.192 ug/l

RT: 2.45 min Scan# 212

Delta R.T. -0.01 min

Lab File: VX008081.D

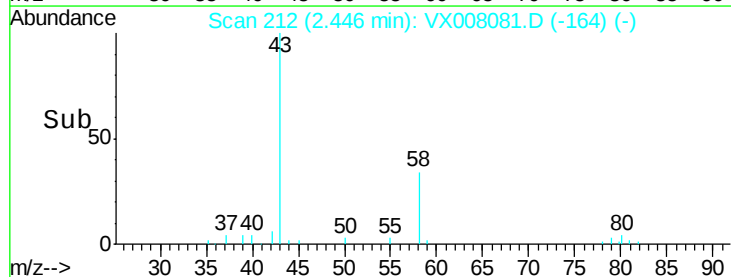
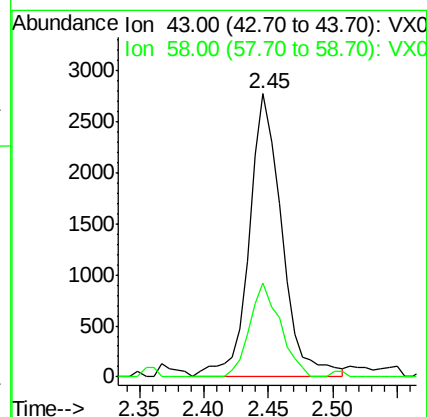
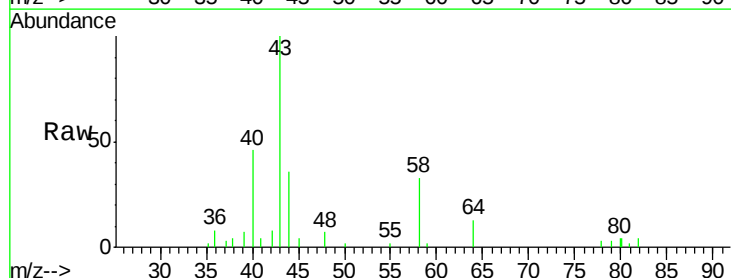
Acq: 14 Mar 2019 20:40

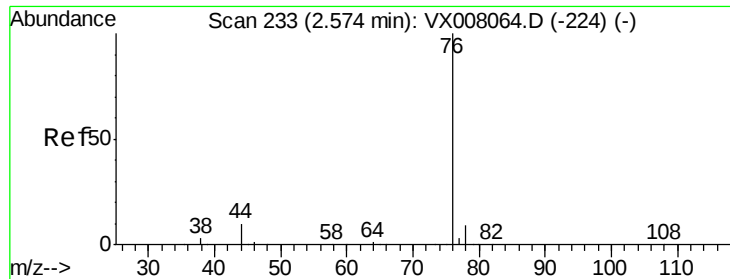
Tgt Ion: 43 Resp: 4851

Ion Ratio Lower Upper

43 100

58 33.0 25.5 38.3

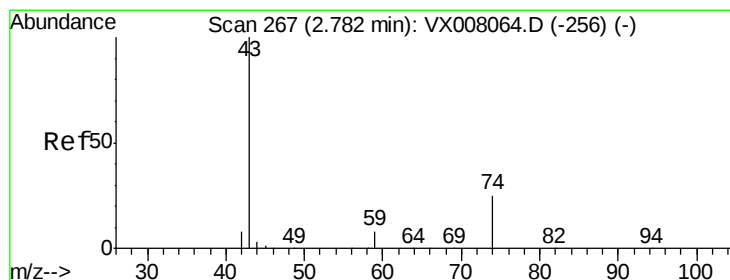
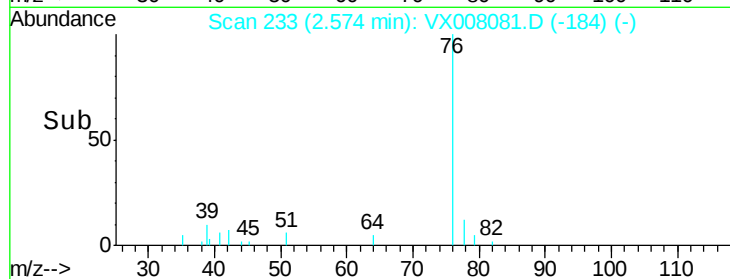
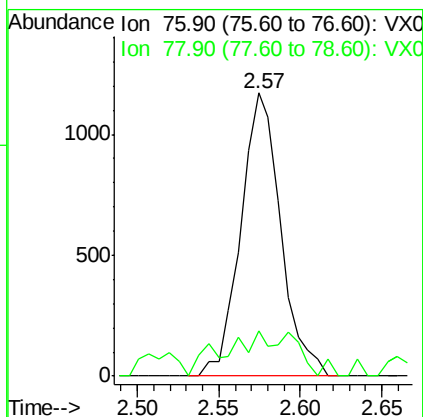
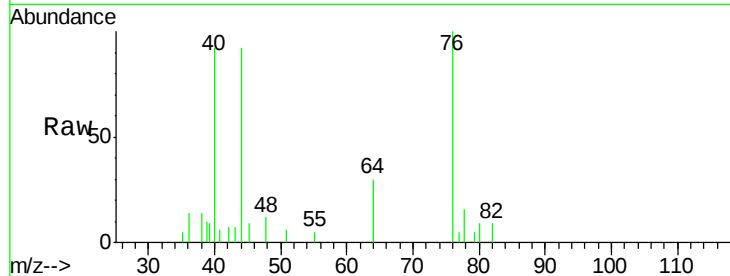




#17  
Carbon Disulfide  
Concen: 0.287 ug/l  
RT: 2.57 min Scan# 233  
Delta R.T. -0.00 min  
Lab File: VX008081.D  
Acq: 14 Mar 2019 20:40

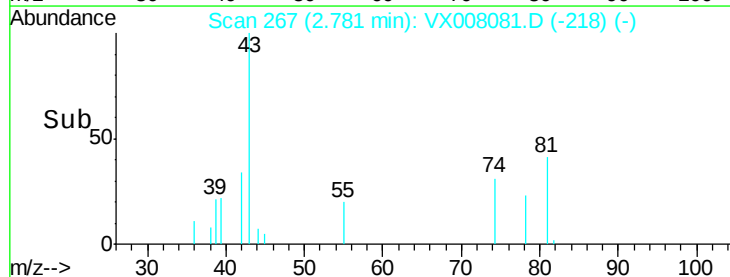
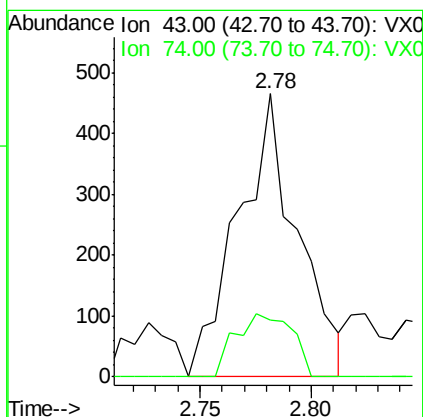
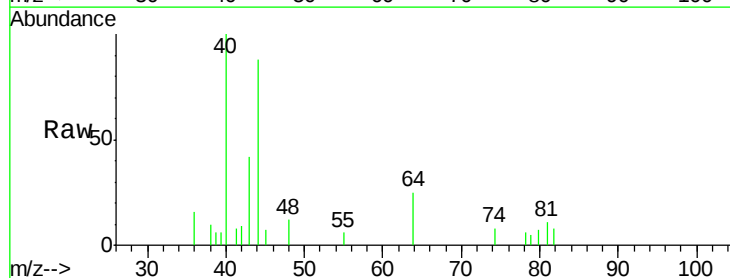
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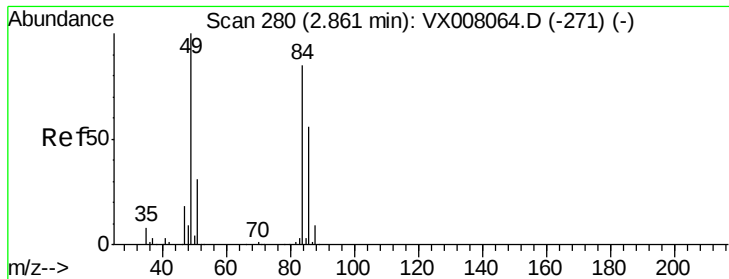
Tot Ion: 76 Resp: 2006  
Ion Ratio Lower Upper  
76 100  
78 16.1 7.2 10.8#



#18  
Methyl Acetate  
Concen: 0.261 ug/l  
RT: 2.78 min Scan# 267  
Delta R.T. -0.00 min  
Lab File: VX008081.D  
Acq: 14 Mar 2019 20:40

Tgt Ion: 43 Resp: 856  
Ion Ratio Lower Upper  
43 100  
74 21.4 17.8 26.6

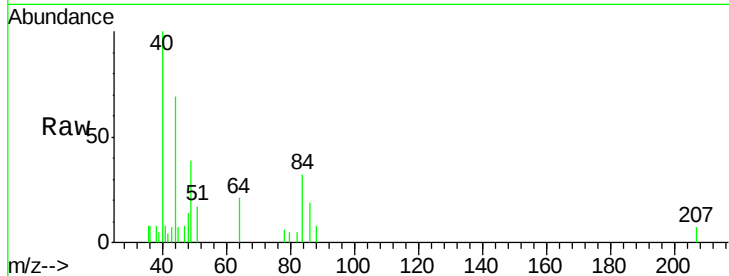




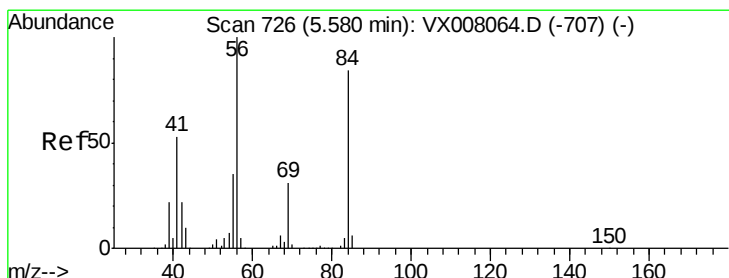
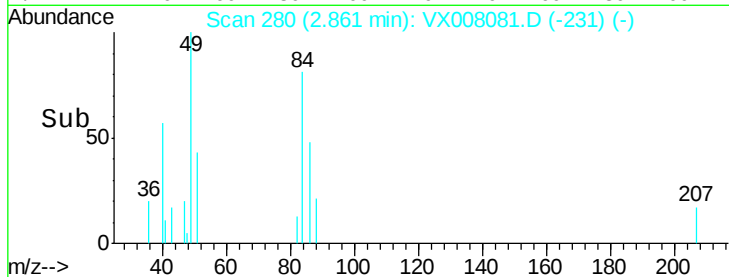
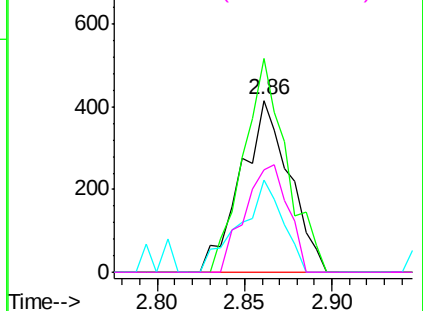
#20  
Methvlene Chloride  
Concen: 0.298 ug/l  
RT: 2.86 min Scan# 280  
Delta R.T. -0.00 min  
Lab File: VX008081.D  
Acq: 14 Mar 2019 20:40

Instrument :  
MSVOA\_X  
ClientSampleId :  
CPA-CPMW02S-M20W2-030419

Tot Ion: 84 Resp: 808  
Ion Ratio Lower Upper  
84 100  
49 124.0 99.3 148.9  
51 53.4 31.3 46.9#  
86 59.4 52.6 79.0

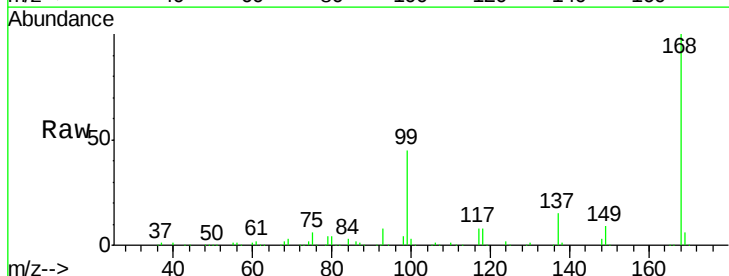


Abundance Ion 83.90 (83.60 to 84.60): VX0  
Ion 48.90 (48.60 to 49.60): VX0  
Ion 50.90 (50.60 to 51.60): VX0  
Ion 85.90 (85.60 to 86.60): VX0

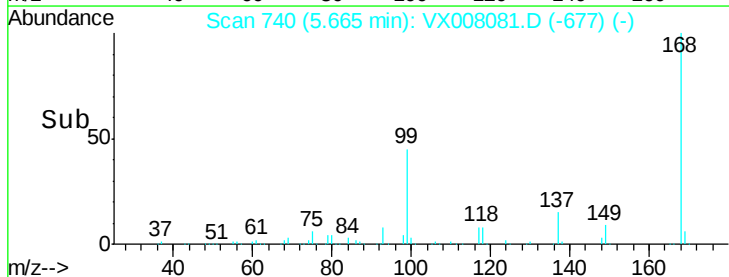
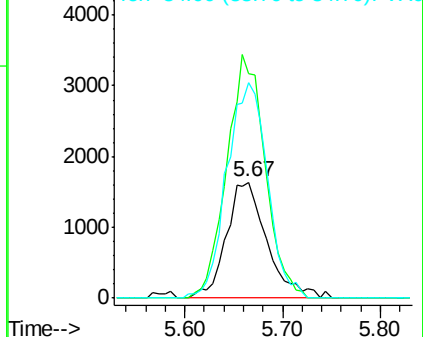


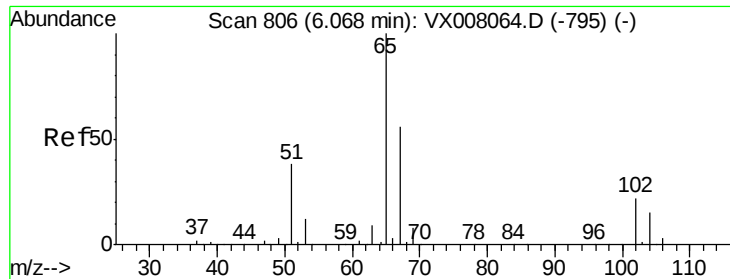
#31  
Cyclohexane  
Concen: 1.028 ug/l  
RT: 5.67 min Scan# 740  
Delta R.T. 0.09 min  
Lab File: VX008081.D  
Acq: 14 Mar 2019 20:40

Tgt Ion: 56 Resp: 4731  
Ion Ratio Lower Upper  
56 100  
69 194.3 24.0 36.0#  
84 185.7 65.3 97.9#



Abundance Ion 56.00 (55.70 to 56.70): VX0  
Ion 69.00 (68.70 to 69.70): VX0  
Ion 84.00 (83.70 to 84.70): VX0

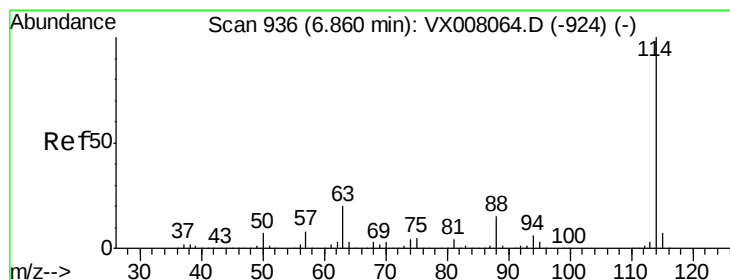
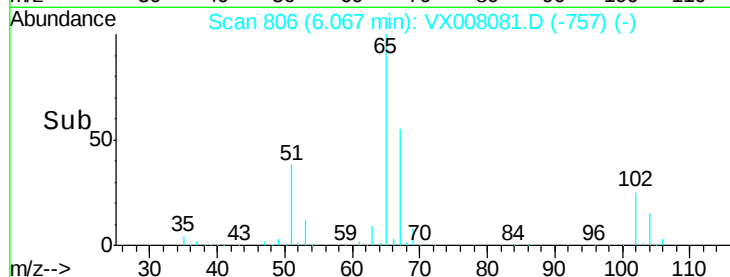
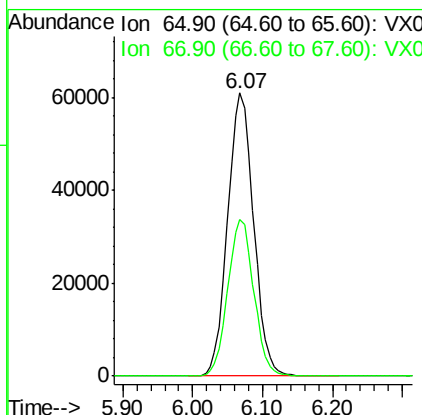
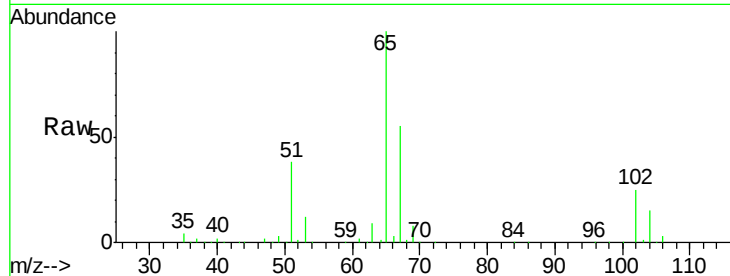




#33  
 1,2-Dichloroethane-d4  
 Concen: 49.009 ug/l  
 RT: 6.07 min Scan# 806  
 Delta R.T. -0.00 min  
 Lab File: VX008081.D  
 Acq: 14 Mar 2019 20:40

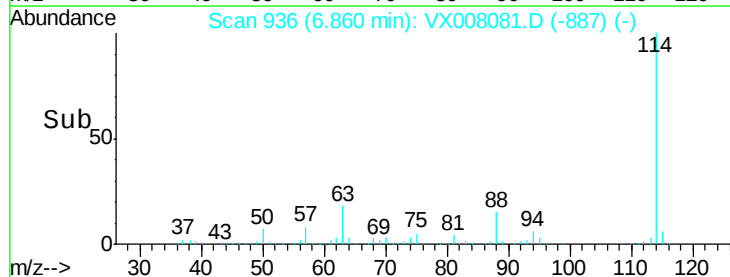
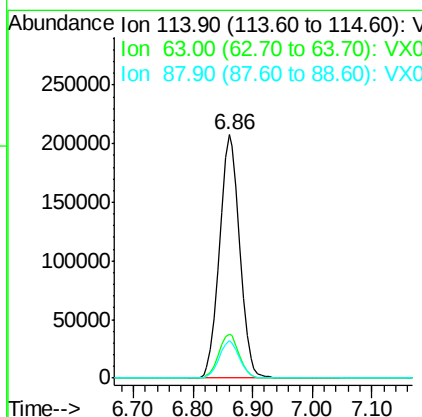
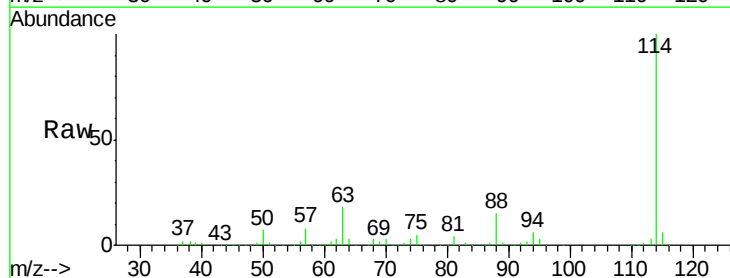
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-CPMW02S-M20W2-030419

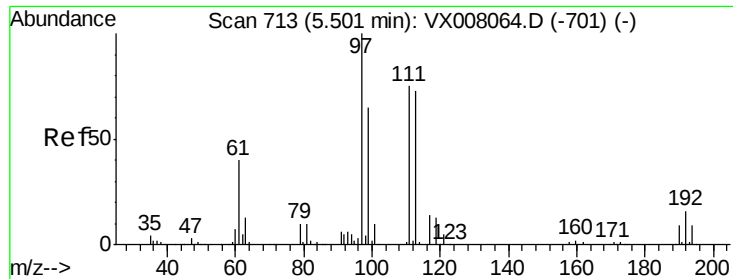
Tot Ion: 65 Resp: 157782  
 Ion Ratio Lower Upper  
 65 100  
 67 55.1 0.0 110.0



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.86 min Scan# 936  
 Delta R.T. -0.00 min  
 Lab File: VX008081.D  
 Acq: 14 Mar 2019 20:40

Tgt Ion: 114 Resp: 488956  
 Ion Ratio Lower Upper  
 114 100  
 63 18.1 0.0 39.8  
 88 15.5 0.0 31.4





#35

Dibromofluoromethane

Concen: 49.431 ug/l

RT: 5.51 min Scan# 714

Delta R.T. 0.01 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

CPA-CPMW02S-M20W2-030419

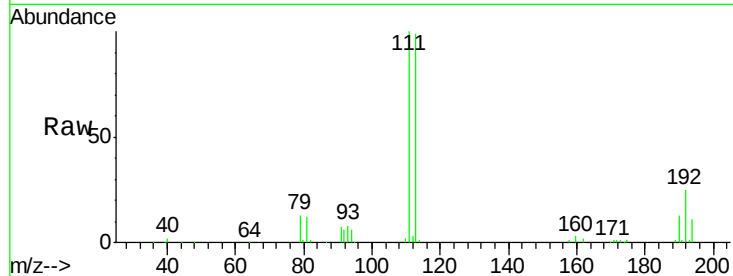
Tot Ion:113 Resp: 153271

Ion Ratio Lower Upper

113 100

111 102.5 81.4 122.0

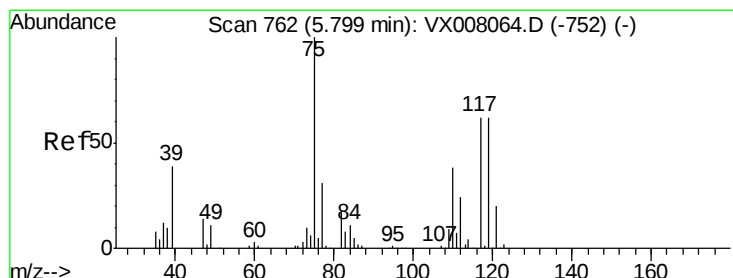
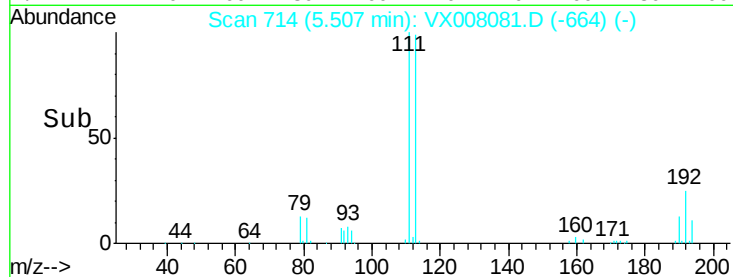
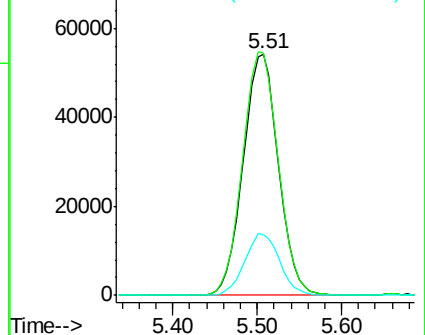
192 25.5 19.4 29.0



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: 4.607 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.13 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

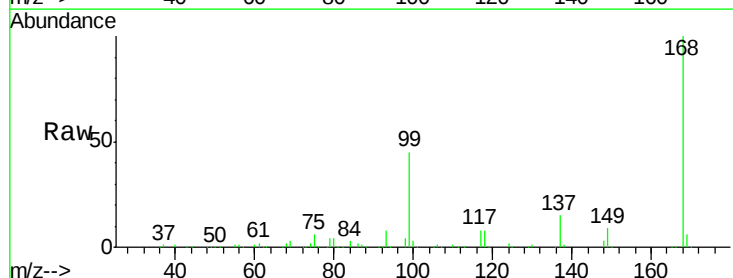
Tgt Ion: 75 Resp: 18530

Ion Ratio Lower Upper

75 100

110 9.4 18.4 55.0#

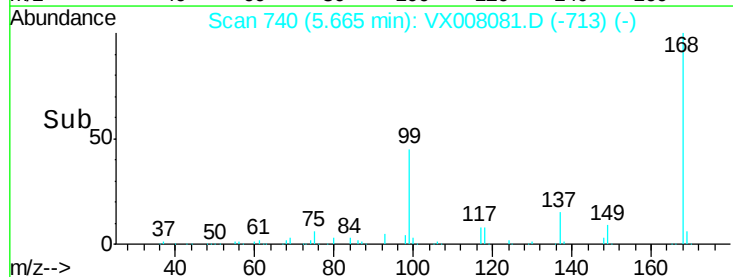
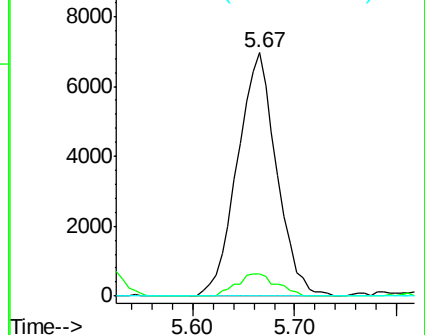
77 0.0 25.0 37.4#

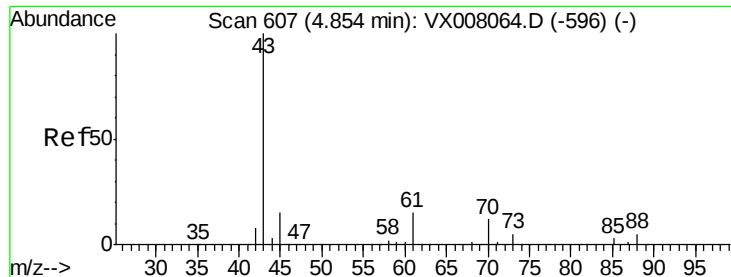


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 109.90 (109.60 to 110.60): V

Ion 76.90 (76.60 to 77.60): VX0





#37

Ethyl Acetate

Concen: 0.386 ug/l

RT: 4.86 min Scan# 608

Delta R.T. 0.01 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

CPA-CPMW02S-M20W2-030419

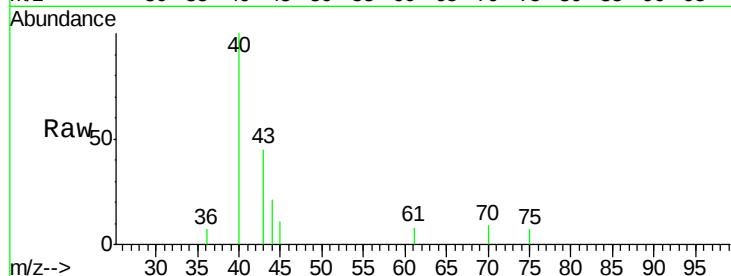
Tot Ion: 43 Resp: 1669

Ion Ratio Lower Upper

43 100

61 9.5 11.3 16.9#

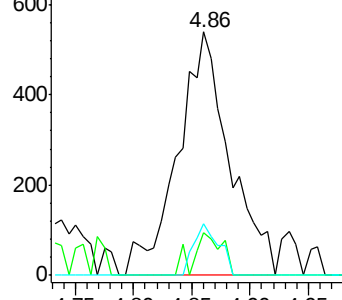
70 10.2 8.5 12.7



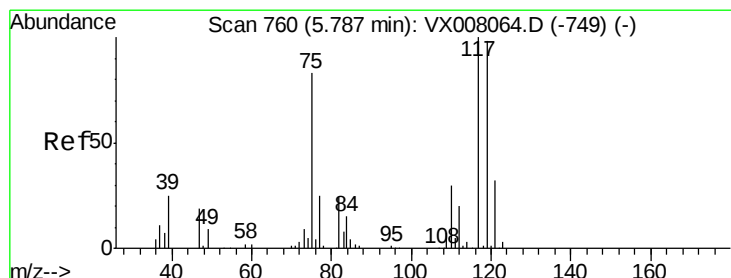
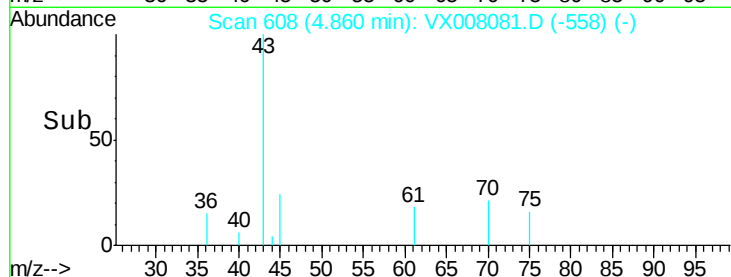
Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 60.90 (60.60 to 61.60): VX0

Ion 70.00 (69.70 to 70.70): VX0



Time-->



#38

Carbon Tetrachloride

Concen: 6.895 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.13 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

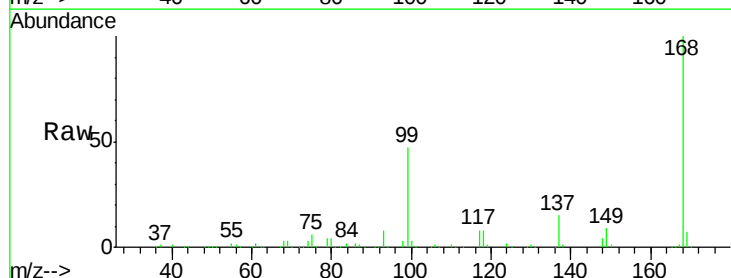
Tgt Ion: 117 Resp: 26696

Ion Ratio Lower Upper

117 100

119 6.2 76.2 114.2#

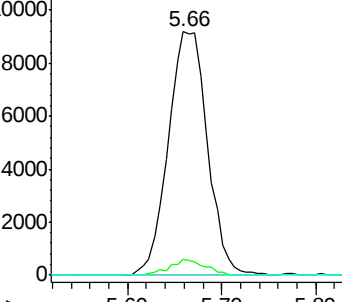
121 0.0 24.6 36.8#



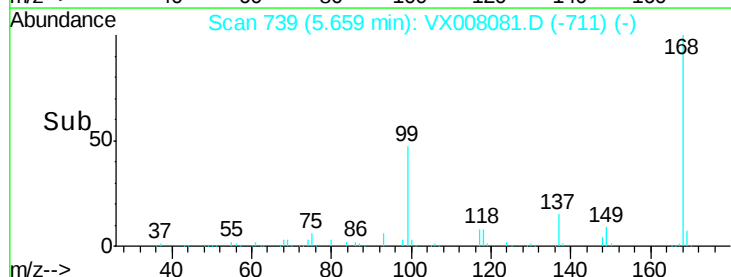
Abundance Ion 116.80 (116.50 to 117.50): V

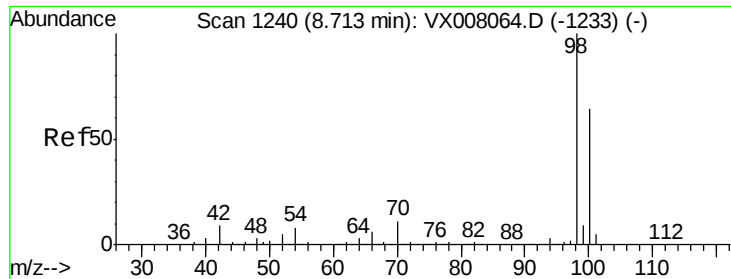
Ion 118.80 (118.50 to 119.50): V

Ion 120.80 (120.50 to 121.50): V



Time-->

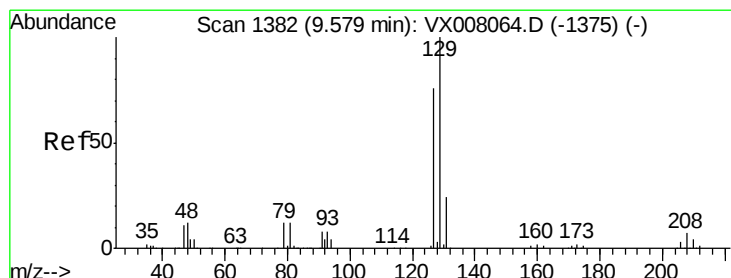
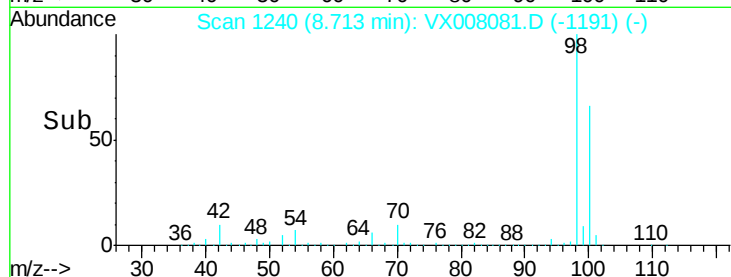
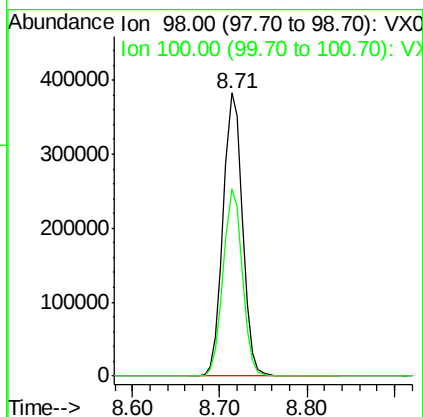
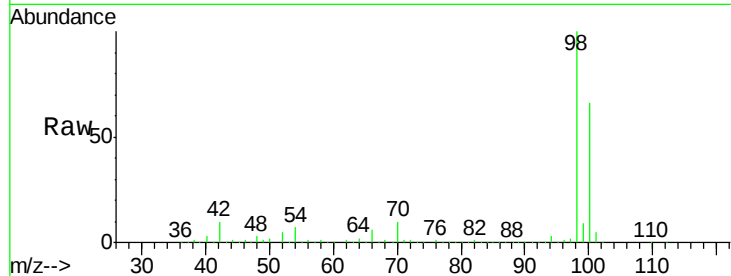




#50  
Toluene-d8  
Concen: 49.654 ug/l  
RT: 8.71 min Scan# 1240  
Delta R.T. -0.00 min  
Lab File: VX008081.D  
Acq: 14 Mar 2019 20:40

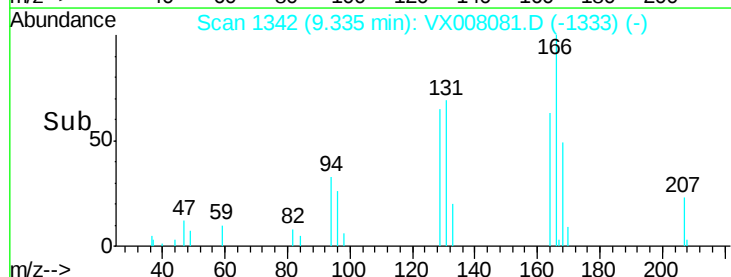
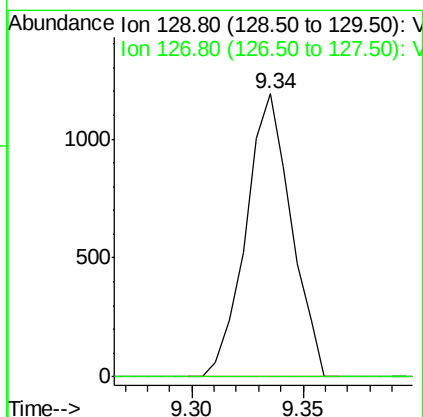
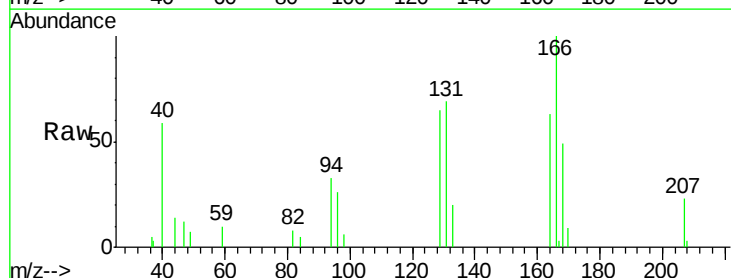
Instrument :  
MSVOA\_X  
ClientSampleId :  
CPA-CPMW02S-M20W2-030419

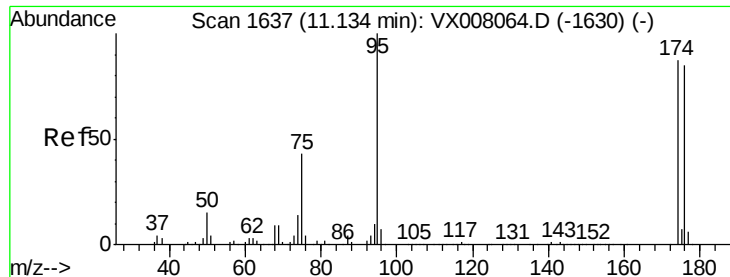
Tot Ion: 98 Resp: 585563  
Ion Ratio Lower Upper  
98 100  
100 65.4 51.7 77.5



#60  
Dibromochloromethane  
Concen: 0.513 ug/l  
RT: 9.34 min Scan# 1342  
Delta R.T. -0.24 min  
Lab File: VX008081.D  
Acq: 14 Mar 2019 20:40

Tgt Ion:129 Resp: 1686  
Ion Ratio Lower Upper  
129 100  
127 0.0 38.3 114.8#





#62

4-Bromofluorobenzene

Concen: 51.320 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.00 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

CPA-CPMW02S-M20W2-030419

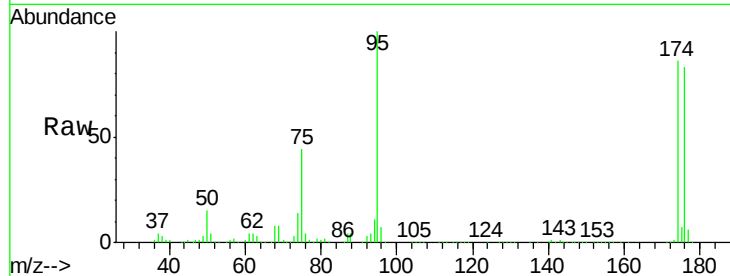
Tot Ion: 95 Resp: 216809

Ion Ratio Lower Upper

95 100

174 94.6 0.0 182.8

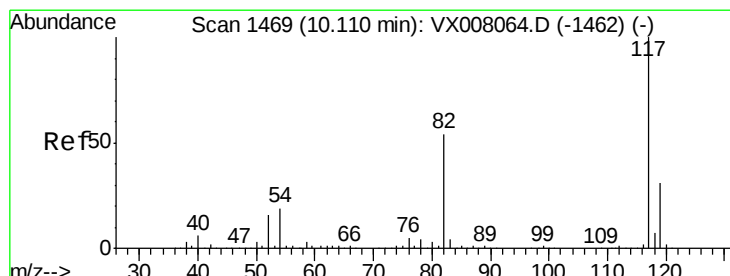
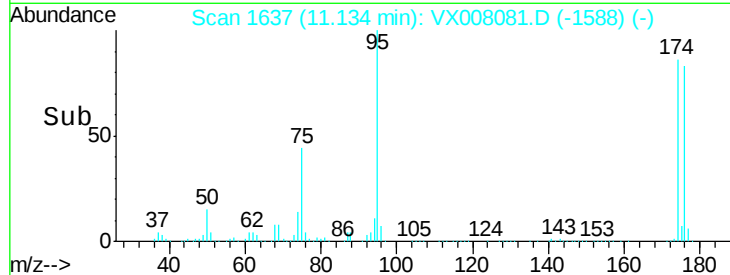
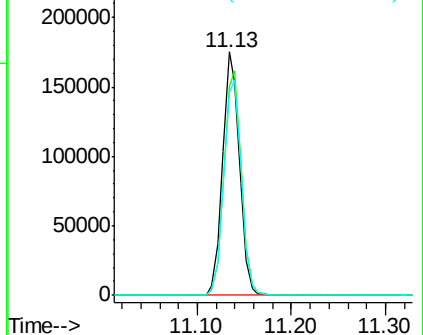
176 92.1 0.0 178.0



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: 50.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. -0.00 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

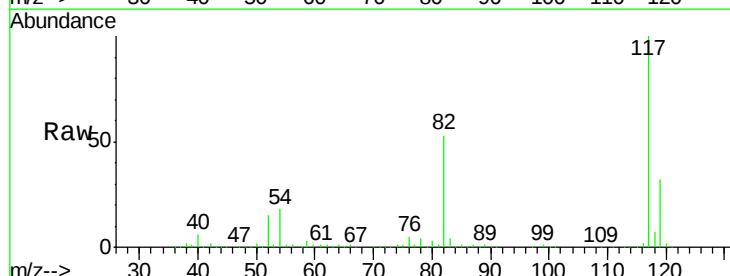
Tgt Ion: 117 Resp: 463718

Ion Ratio Lower Upper

117 100

82 53.1 44.3 66.5

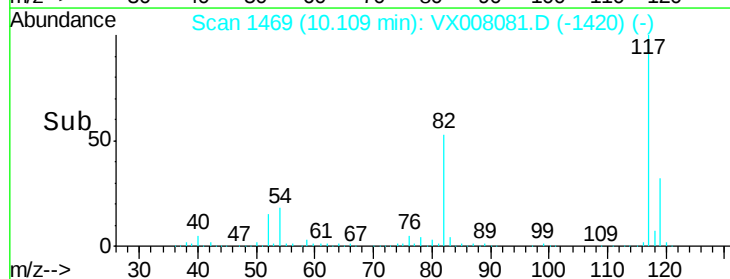
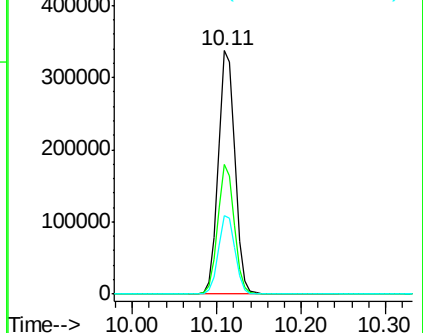
119 32.0 25.3 37.9

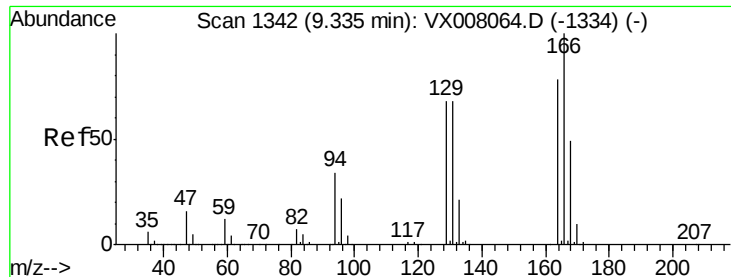


Abundance Ion 116.90 (116.60 to 117.60): V

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): V

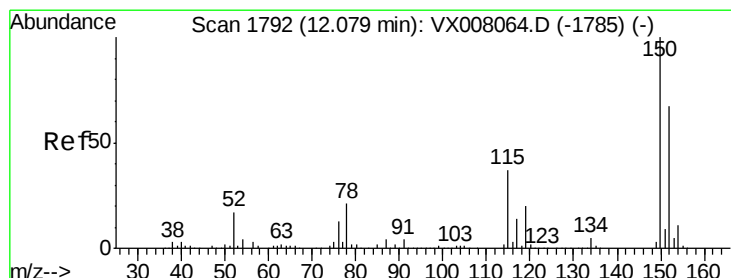
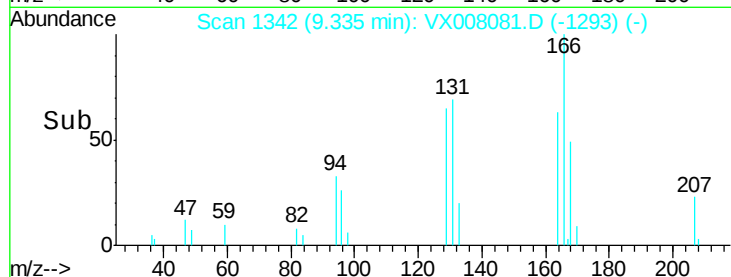
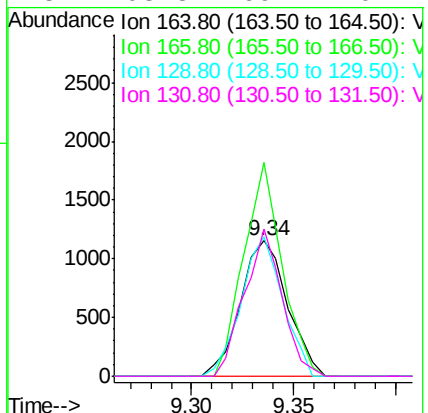
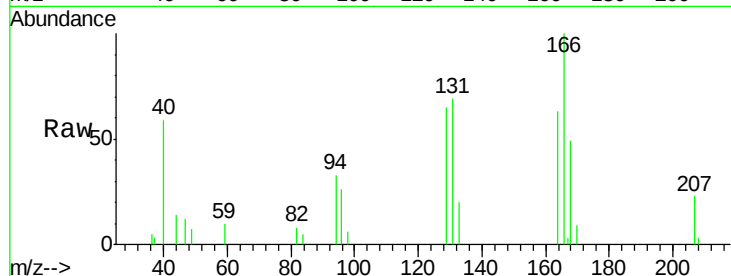




#64  
 Tetrachloroethene  
 Concen: 0.490 ug/l  
 RT: 9.34 min Scan# 1342  
 Delta R.T. -0.00 min  
 Lab File: VX008081.D  
 Acq: 14 Mar 2019 20:40

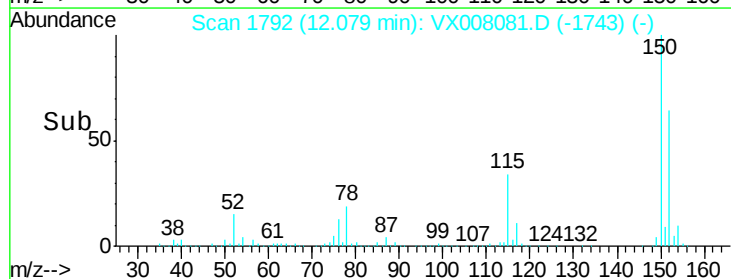
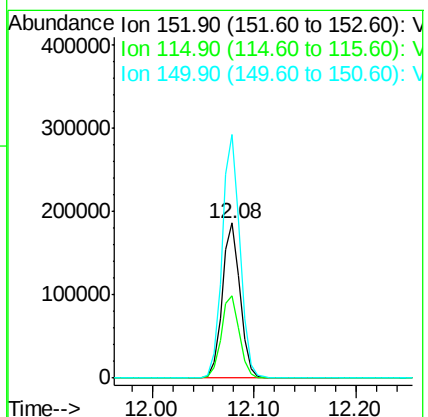
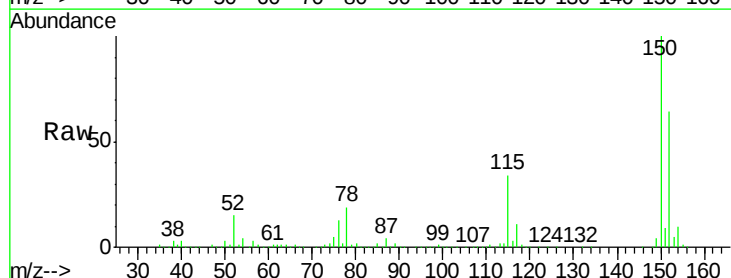
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 CPA-CPMW02S-M20W2-030419

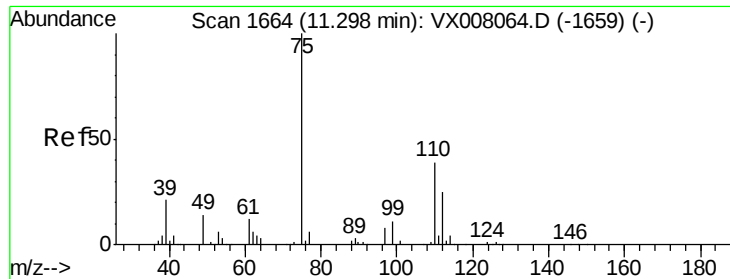
| Tot Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 164     | 100   |       |        |
| 166     | 157.8 | 103.4 | 155.0# |
| 129     | 103.2 | 72.2  | 108.4  |
| 131     | 108.8 | 69.4  | 104.2# |



#72  
 1,4-Dichlorobenzene-d4  
 Concen: 50.000 ug/l  
 RT: 12.08 min Scan# 1792  
 Delta R.T. -0.00 min  
 Lab File: VX008081.D  
 Acq: 14 Mar 2019 20:40

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 152     | 100   |       |       |
| 115     | 54.5  | 38.6  | 115.7 |
| 150     | 156.7 | 0.0   | 348.4 |





#76

1,2,3-Trichloropropane

Concen: 24.531 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. -0.16 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

Instrument :

MSVOA\_X

ClientSampleId :

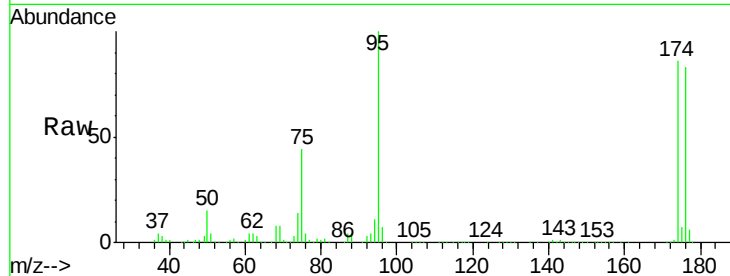
CPA-CPMW02S-M20W2-030419

Tot Ion: 75 Resp: 96557

Ion Ratio Lower Upper

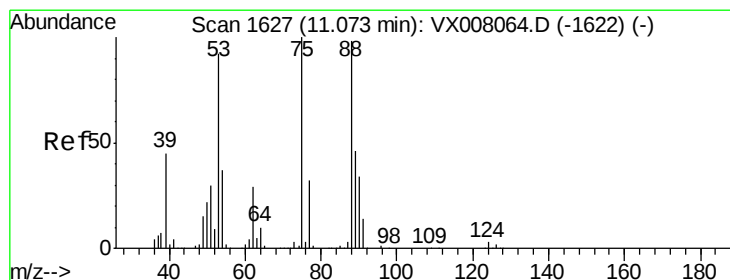
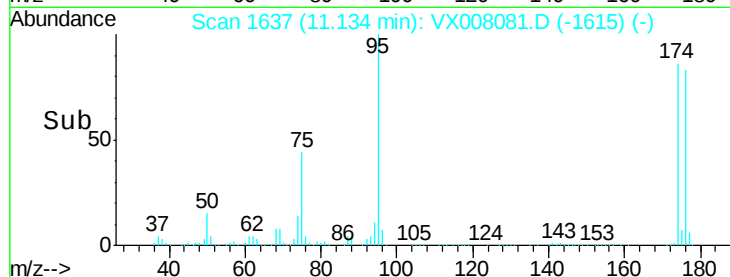
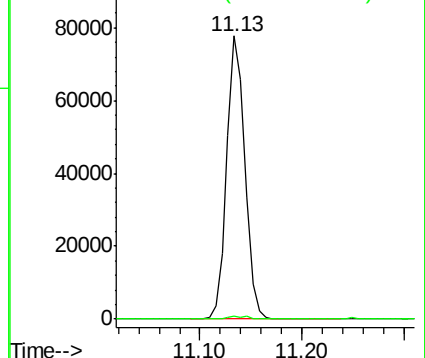
75 100

77 1.4 18.9 56.7#



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: 69.806 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX008081.D

Acq: 14 Mar 2019 20:40

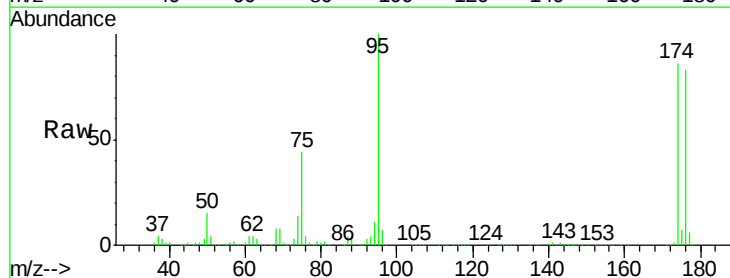
Tgt Ion: 75 Resp: 96557

Ion Ratio Lower Upper

75 100

53 0.0 76.1 114.1#

89 0.0 36.3 54.5#



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

