

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX091518\  
 Data File : VX004580.D  
 Acq On : 15 Sep 2018 13:20  
 Operator : JC/MD  
 Sample : J4925-07  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S13-EB-2018-1

Quant Time: Sep 17 07:18:41 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X091118W.M  
 Quant Title : SW846 8260  
 QLast Update : Wed Sep 12 02:17:23 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.67  | 168  | 251824   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.86  | 114  | 338243   | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.12 | 117  | 320861   | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.08 | 152  | 194381   | 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   | 157423   | 48.48 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 96.96% |          |
| 35) Dibromofluoromethane    | 5.50  | 113  | 145806   | 47.11 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 94.22% |          |
| 50) Toluene-d8              | 8.72  | 98   | 477507   | 46.00 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 92.00% |          |
| 62) 4-Bromofluorobenzene    | 11.14 | 95   | 169563   | 45.76 | ug/l   | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 91.52% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 3) Chloromethane               | 1.32  | 50   | 2402     | 0.74      | ug/l   | 99     |
| 4) Vinyl Chloride              | 1.40  | 62   | 1302     | 0.39      | ug/l   | 91     |
| 5) Bromomethane                | 1.65  | 94   | 1051     | Below Cal |        | 96     |
| 10) Methyl Iodide              | 2.52  | 142  | 1340     | 4.62      | ug/l   | 99     |
| 11) Tert butyl alcohol         | 3.06  | 59   | 1112     | 1.44      | ug/l   | 99     |
| 13) Acrolein                   | 2.29  | 56   | 280      | 0.92      | ug/l # | 1      |
| 15) Acrylonitrile              | 3.14  | 53   | 542      | 0.29      | ug/l # | 70     |
| 16) Acetone                    | 2.44  | 43   | 19150    | 12.08     | ug/l   | 98     |
| 17) Carbon Disulfide           | 2.57  | 76   | 3087     | 0.41      | ug/l # | 85     |
| 20) Methylene Chloride         | 2.85  | 84   | 170121   | 52.33     | ug/l   | 93     |
| 25) 2-Butanone                 | 4.70  | 43   | 27175    | 10.77     | ug/l   | 96     |
| 29) Tetrahydrofuran            | 5.16  | 42   | 407853   | 268.14    | ug/l   | 97     |
| 36) 1,1-Dichloropropene        | 5.66  | 75   | 15987    | 3.89      | ug/l # | 49     |
| 37) Ethyl Acetate              | 4.70  | 43   | 27175    | 5.82      | ug/l # | 67     |
| 38) Carbon Tetrachloride       | 5.66  | 117  | 21764    | 5.43      | ug/l # | 14     |
| 41) Methacrylonitrile          | 5.15  | 41   | 225090   | 87.47     | ug/l # | 42     |
| 76) 1,2,3-Trichloropropane     | 11.14 | 75   | 79147    | 20.24     | ug/l # | 37     |
| 81) trans-1,4-Dichloro-2-buten | 11.14 | 75   | 79147    | 64.51     | ug/l # | 10     |
| 93) 1,2,4-Trichlorobenzene     | 13.65 | 180  | 1238     | 0.26      | ug/l   | 98     |
| 94) Hexachlorobutadiene        | 13.79 | 225  | 565      | 0.23      | ug/l   | 96     |
| 95) Naphthalene                | 13.83 | 128  | 3063     | 0.23      | ug/l   | 98     |

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





#1

Pentafluorobenzene

Concen: 50.00 ug/l

RT: 5.67 min Scan# 740

Delta R.T. -0.00 min

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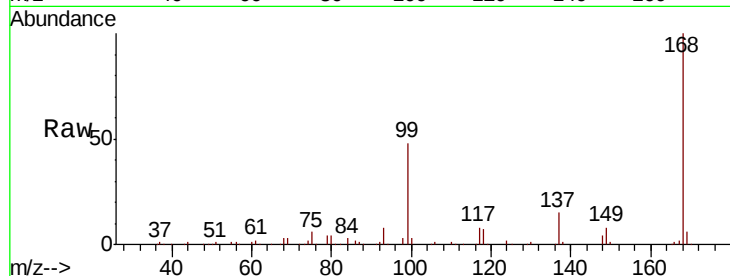
Instrument :  
MSVOA\_X  
ClientSampleId :  
S13-EB-2018-1

Tot Ion:168 Resp: 251824

Ion Ratio Lower Upper

168 100

99 48.3 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

100000

80000

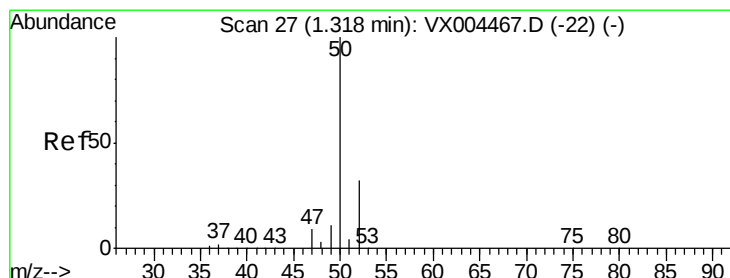
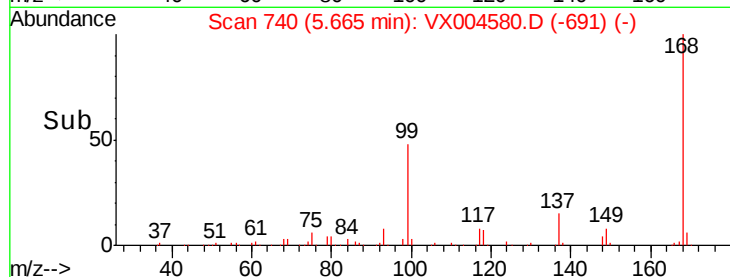
60000

40000

20000

0

Time--> 5.50 5.60 5.70 5.80



#3

Chloromethane

Concen: 0.74 ug/l

RT: 1.32 min Scan# 28

Delta R.T. 0.01 min

Lab File: VX004580.D

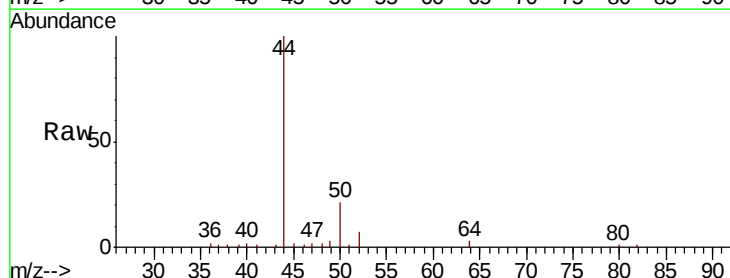
Acq: 15 Sep 2018 13:20

Tgt Ion: 50 Resp: 2402

Ion Ratio Lower Upper

50 100

52 32.1 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

2500

2000

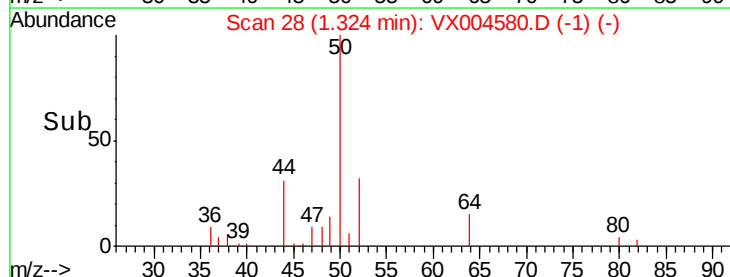
1500

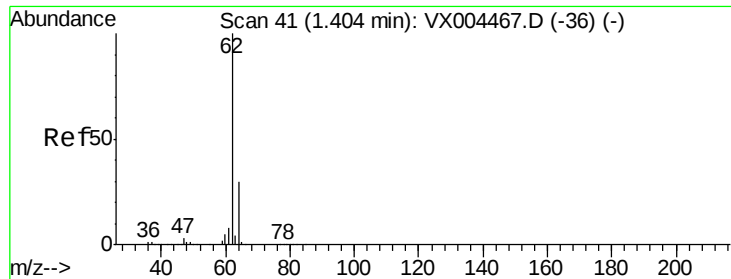
1000

500

0

Time--> 1.30 1.35





#4

Vinyl Chloride

Concen: 0.39 ug/l

RT: 1.40 min Scan# 41

Delta R.T. -0.00 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Instrument :

MSVOA\_X

ClientSampled :

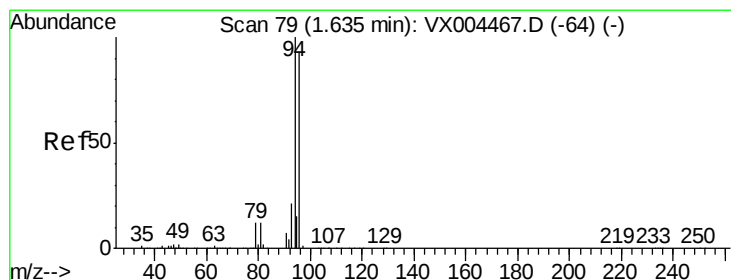
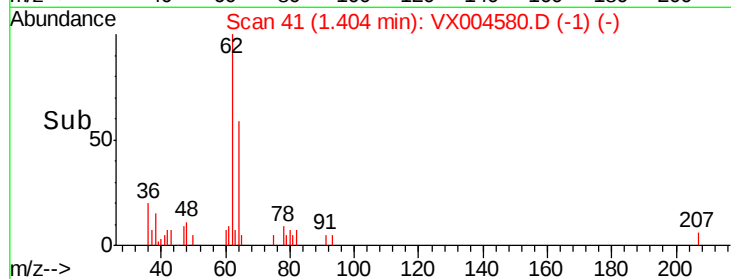
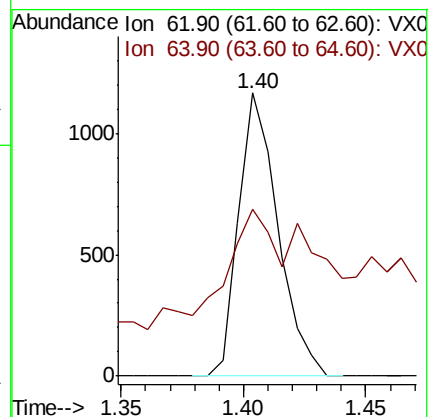
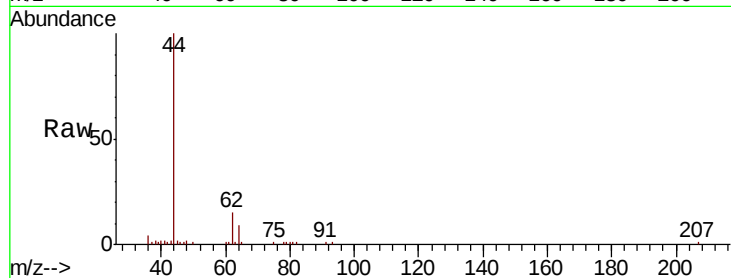
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Tot Ion: 62 Resp: 1302

Ion Ratio Lower Upper

62 100

64 37.6 25.8 38.8



#5

Bromomethane

Concen: Below Cal

RT: 1.65 min Scan# 81

Delta R.T. 0.01 min

Lab File: VX004580.D

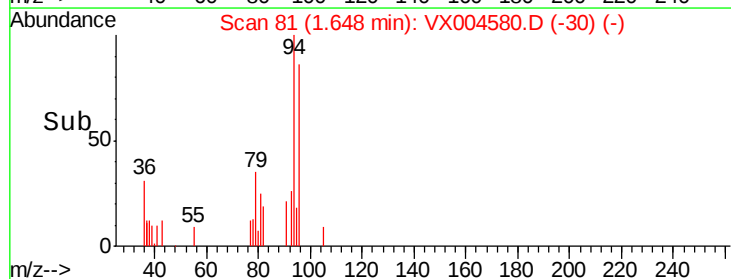
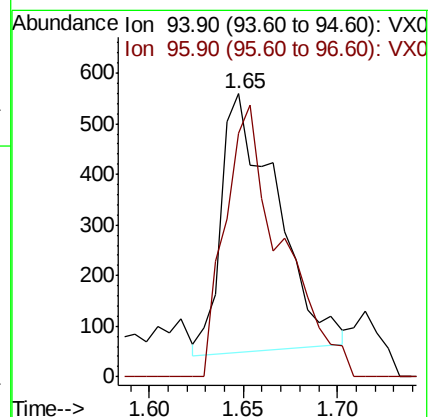
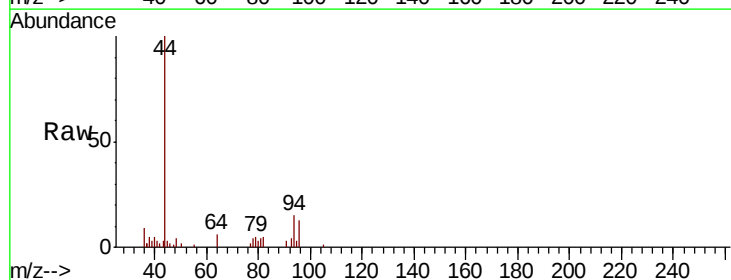
Acq: 15 Sep 2018 13:20

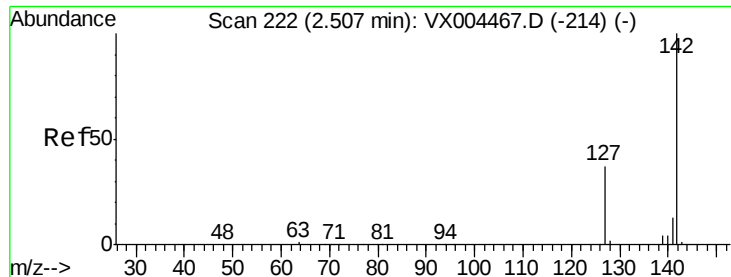
Tgt Ion: 94 Resp: 1051

Ion Ratio Lower Upper

94 100

96 97.4 74.5 111.7

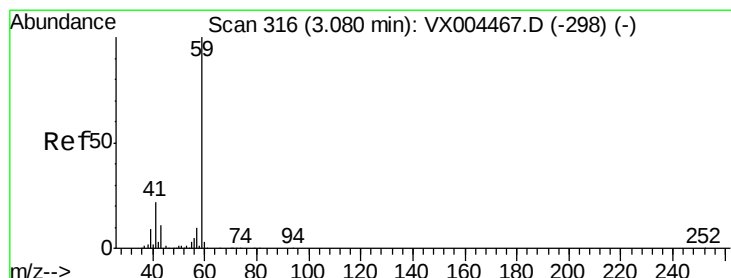
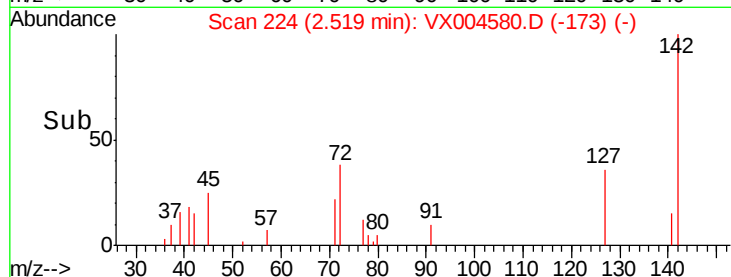
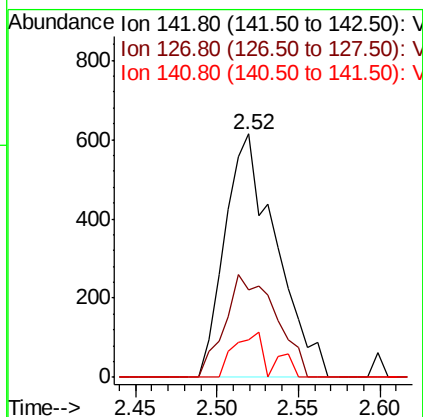
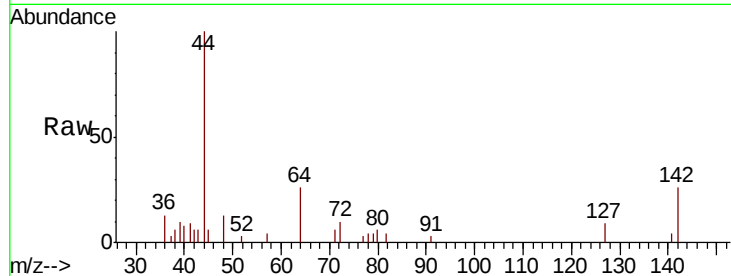




#10  
Methvl Iodide  
Concen: 4.62 ug/l  
RT: 2.52 min Scan# 224  
Delta R.T. 0.01 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

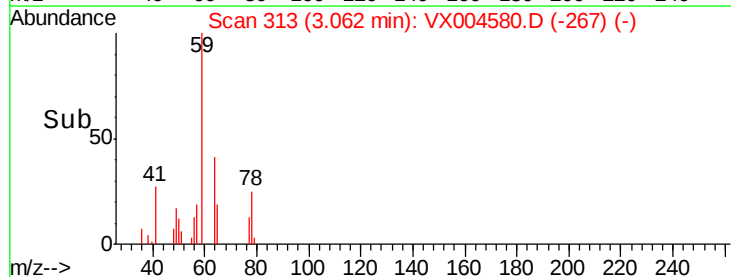
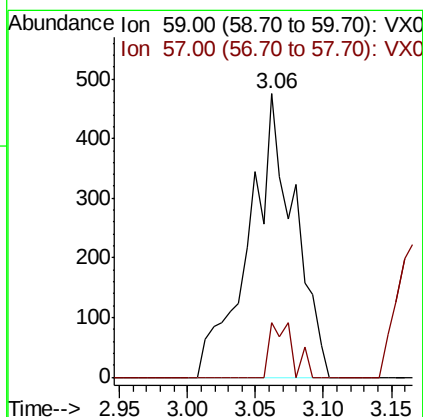
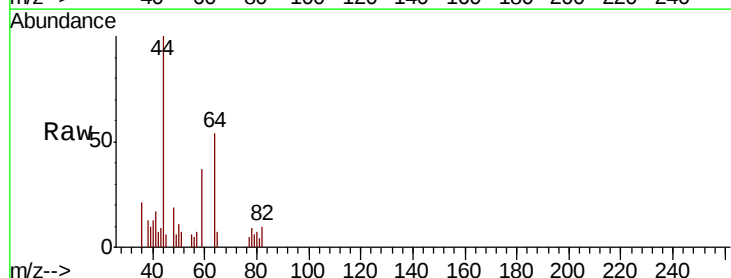
Instrument :  
MSVOA\_X  
ClientSampleId :  
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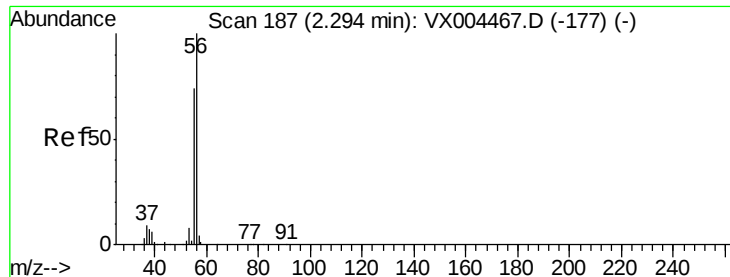
Tot Ion:142 Resp: 1340  
Ion Ratio Lower Upper  
142 100  
127 42.2 33.8 50.6  
141 13.0 11.4 17.0



#11  
Tert butyl alcohol  
Concen: 1.44 ug/l  
RT: 3.06 min Scan# 313  
Delta R.T. -0.02 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

Tgt Ion: 59 Resp: 1112  
Ion Ratio Lower Upper  
59 100  
57 9.9 8.2 12.4

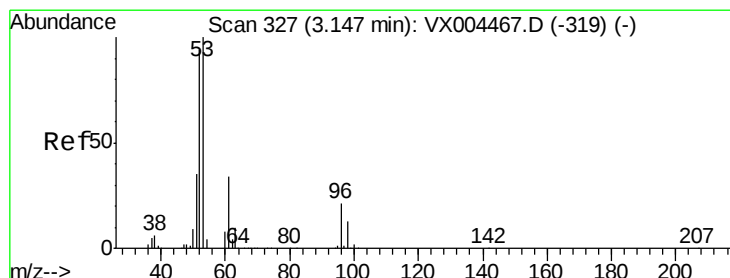
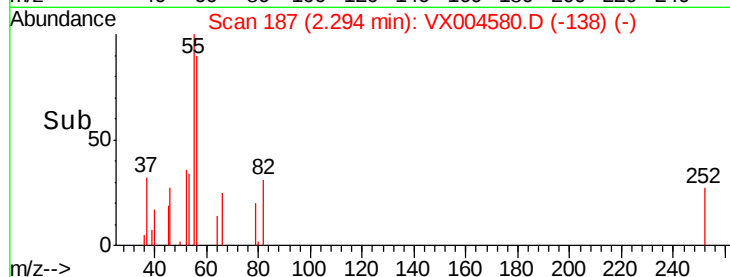
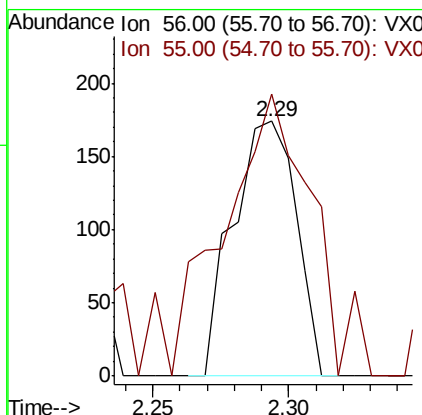
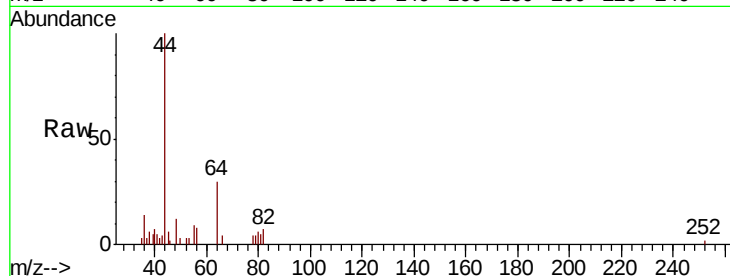




#13  
Acrolein  
Concen: 0.92 ug/l  
RT: 2.29 min Scan# 187  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

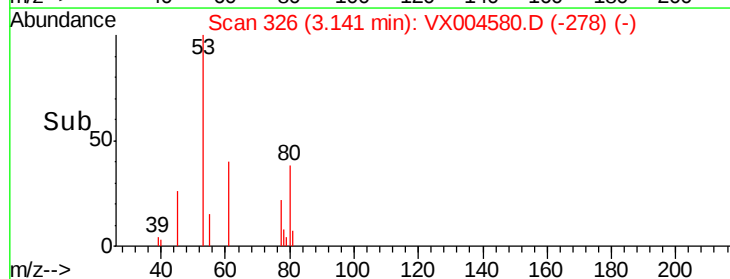
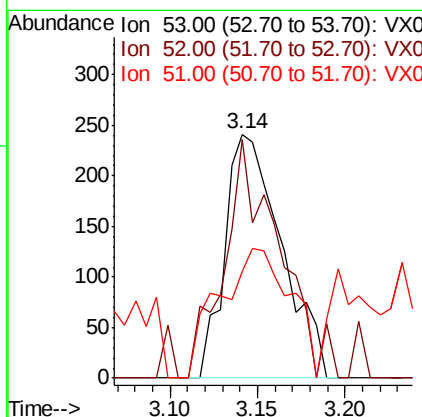
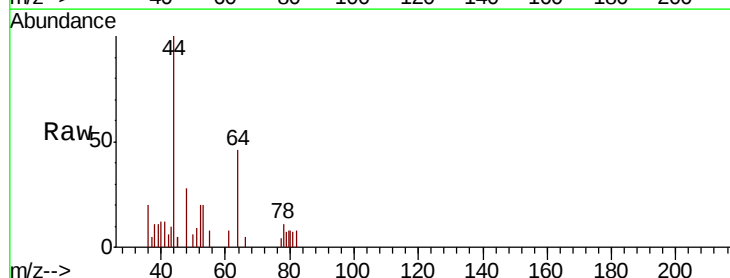
Instrument :  
MSVOA\_X  
ClientSampleId :  
S13-EB-2018-1

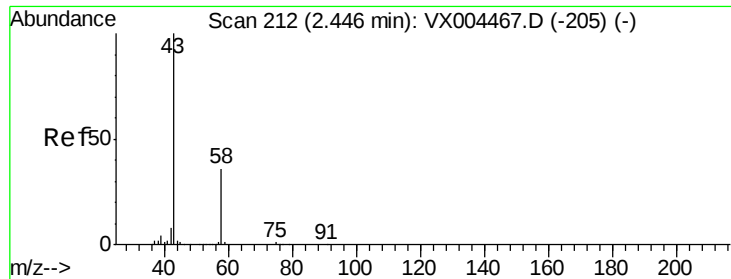
Tot Ion: 56 Resp: 280  
Ion Ratio Lower Upper  
56 100  
55 161.4 54.7 82.1#



#15  
Acrylonitrile  
Concen: 0.29 ug/l  
RT: 3.14 min Scan# 326  
Delta R.T. -0.01 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

Tgt Ion: 53 Resp: 542  
Ion Ratio Lower Upper  
53 100  
52 96.1 65.2 97.8  
51 0.0 28.2 42.2#





#16

Acetone

Concen: 12.08 ug/l

RT: 2.44 min Scan# 211

Delta R.T. -0.01 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Instrument :

MSVOA\_X

ClientSampleId :

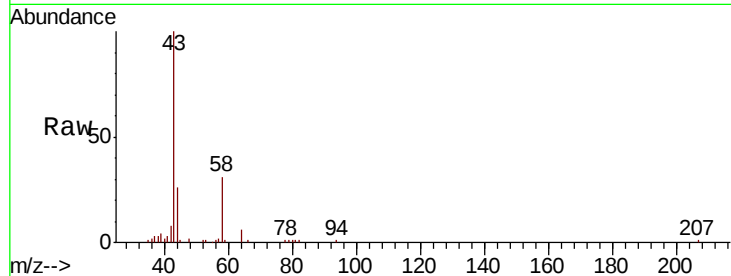
S13-EB-2018-1

Tot Ion: 43 Resp: 19150

Ion Ratio Lower Upper

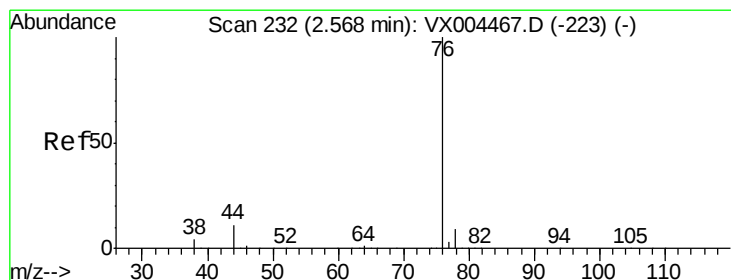
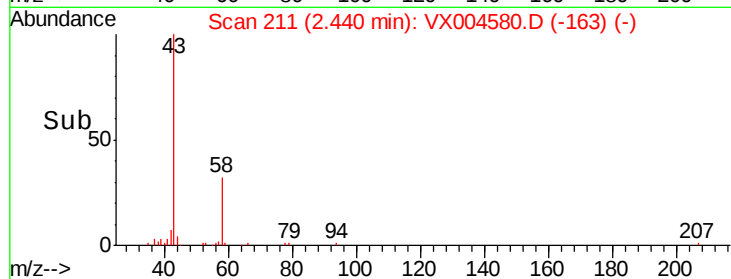
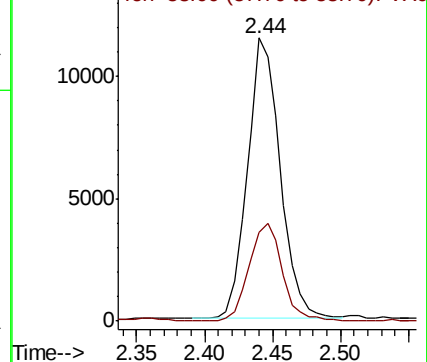
43 100

58 31.8 26.2 39.4



Abundance Ion 43.00 (42.70 to 43.70): VX0

Ion 58.00 (57.70 to 58.70): VX0



#17

Carbon Disulfide

Concen: 0.41 ug/l

RT: 2.57 min Scan# 232

Delta R.T. -0.00 min

Lab File: VX004580.D

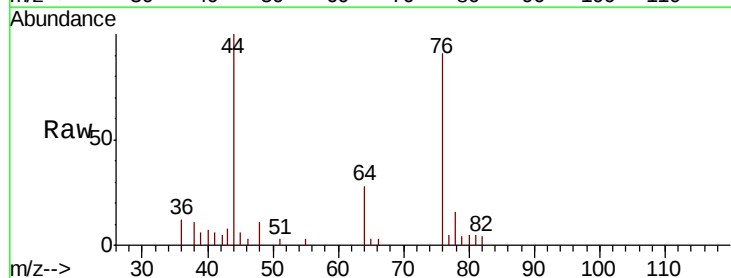
Acq: 15 Sep 2018 13:20

Tgt Ion: 76 Resp: 3087

Ion Ratio Lower Upper

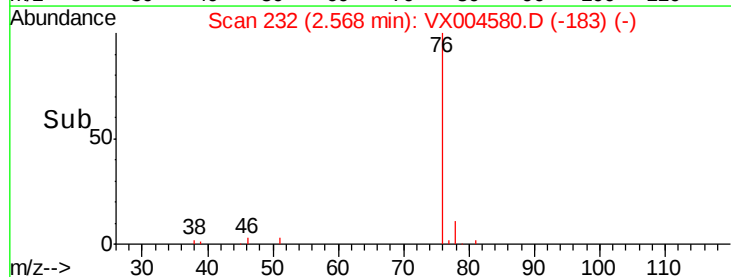
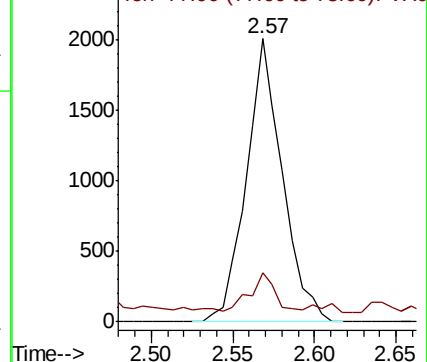
76 100

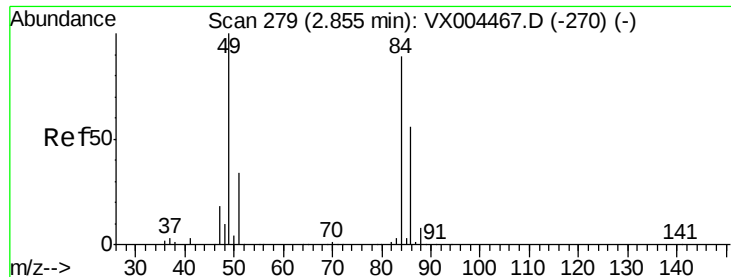
78 14.3 7.0 10.6#



Abundance Ion 75.90 (75.60 to 76.60): VX0

Ion 77.90 (77.60 to 78.60): VX0

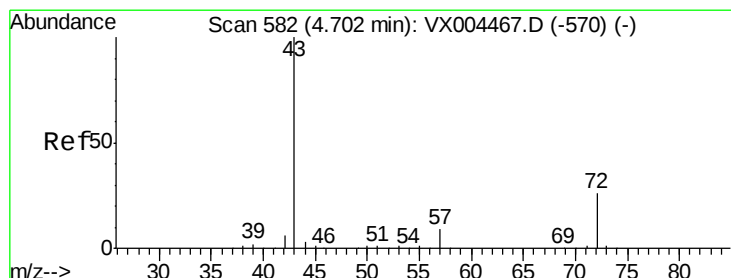
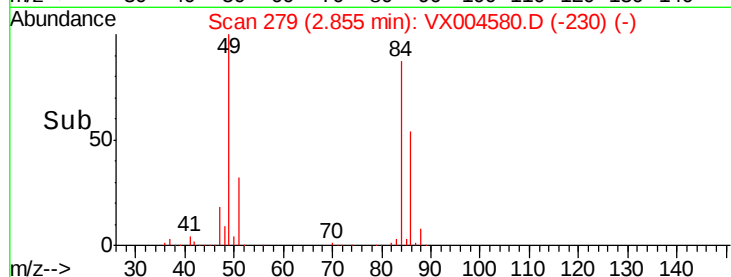
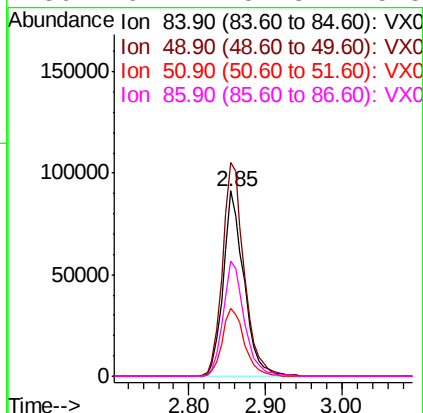
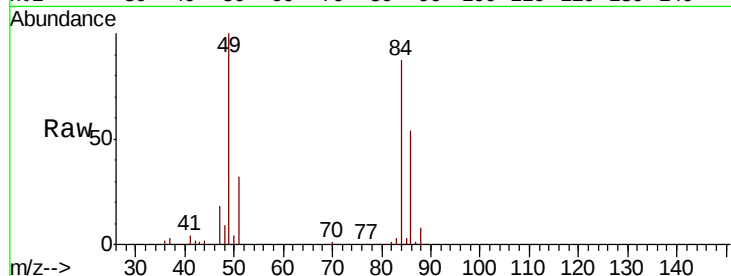




#20  
Methylene Chloride  
Concen: 52.33 ug/l  
RT: 2.85 min Scan# 279  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

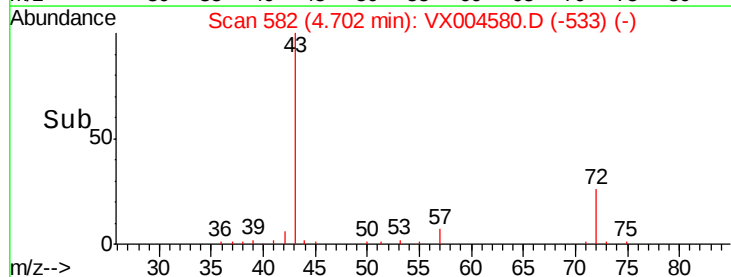
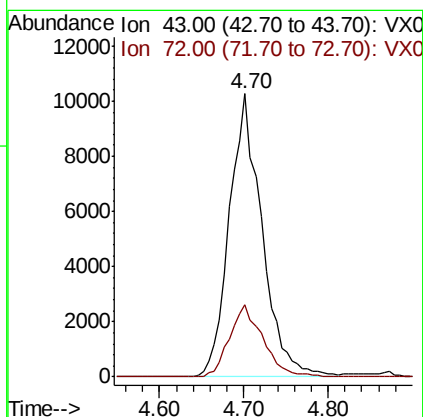
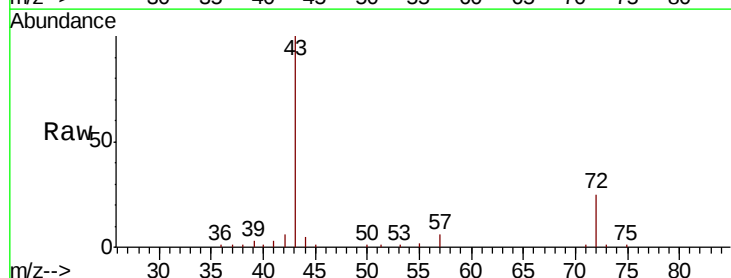
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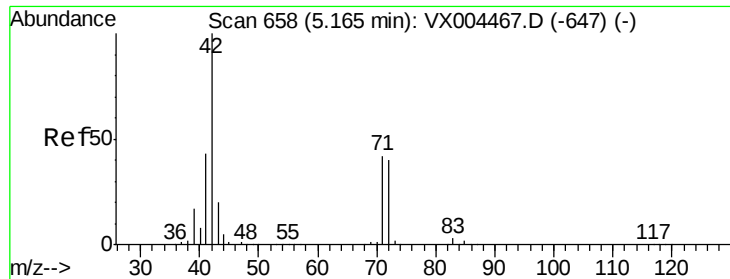
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 84    | Resp: | 170121 |
| Ion      | Ratio | Lower | Upper  |
| 84       | 100   |       |        |
| 49       | 115.3 | 101.2 | 151.8  |
| 51       | 36.4  | 29.5  | 44.3   |
| 86       | 62.1  | 52.3  | 78.5   |



#25  
2-Butanone  
Concen: 10.77 ug/l  
RT: 4.70 min Scan# 582  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 27175 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 25.4  | 22.0  | 33.0  |

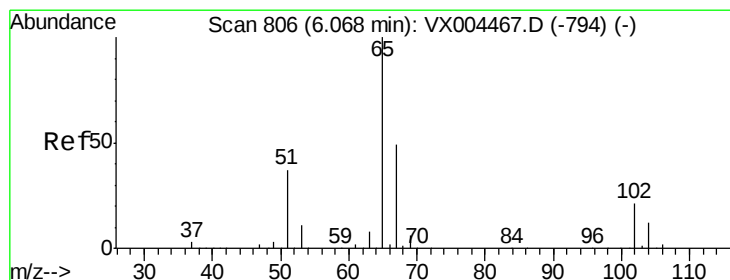
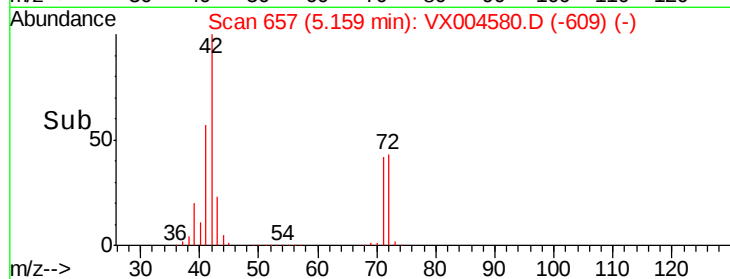
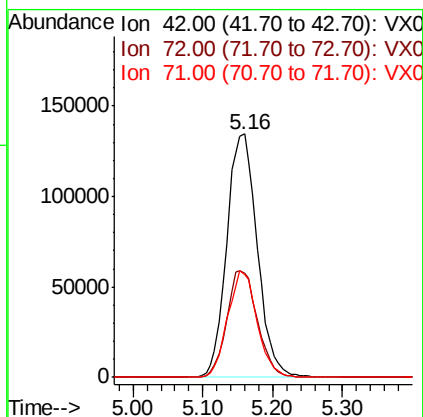
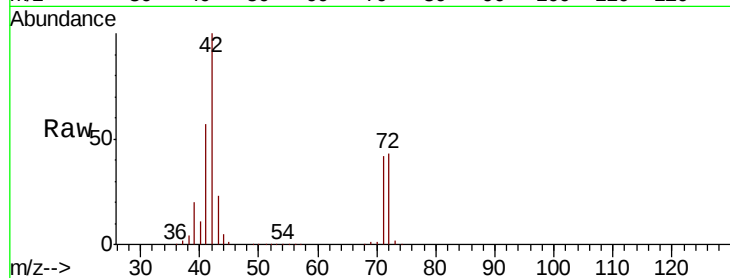




#29  
Tetrahydrofuran  
Concen: 268.14 ug/l  
RT: 5.16 min Scan# 657  
Delta R.T. -0.01 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

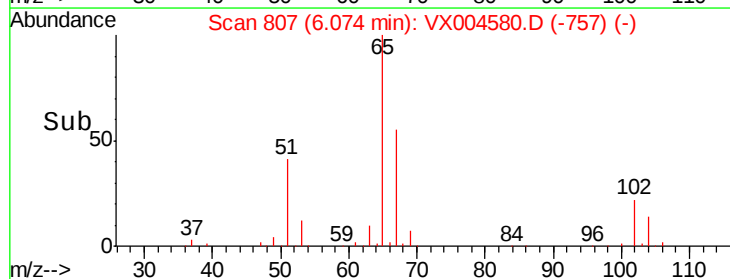
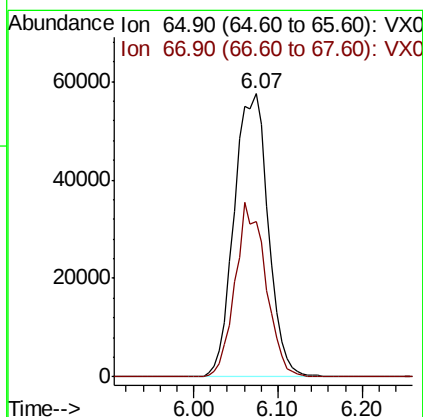
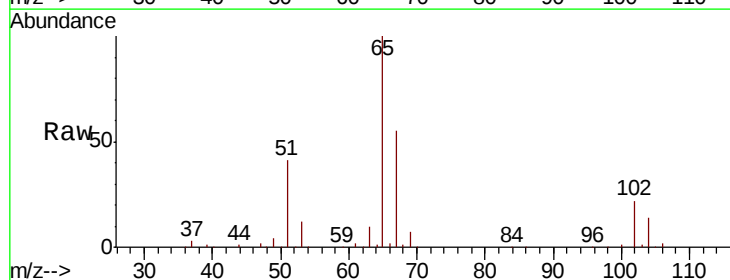
Instrument :  
MSVOA\_X  
ClientSampled :  
S13-EB-2018-1

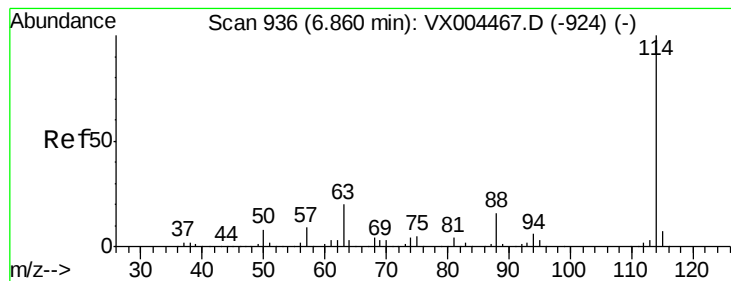
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 42      | 100   |       |       |
| 72      | 44.0  | 37.4  | 56.0  |
| 71      | 42.1  | 34.5  | 51.7  |



#33  
1,2-Dichloroethane-d4  
Concen: 48.48 ug/l  
RT: 6.07 min Scan# 807  
Delta R.T. 0.01 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 65      | 100   |       |       |
| 67      | 55.2  | 0.0   | 106.8 |





#34

1,4-Difluorobenzene

Concen: 50.00 ug/l

RT: 6.86 min Scan# 936

Delta R.T. -0.00 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Instrument :

MSVOA\_X

ClientSampleId :

S13-EB-2018-1

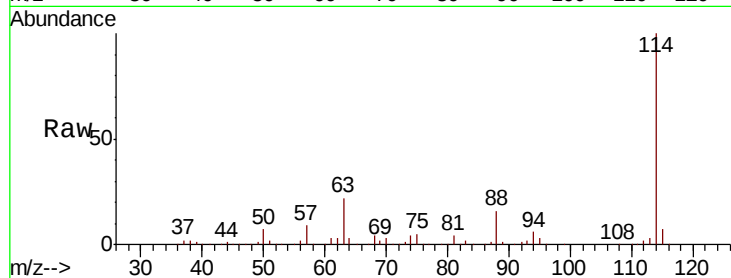
Tot Ion:114 Resp: 338243

Ion Ratio Lower Upper

114 100

63 22.0 0.0 39.0

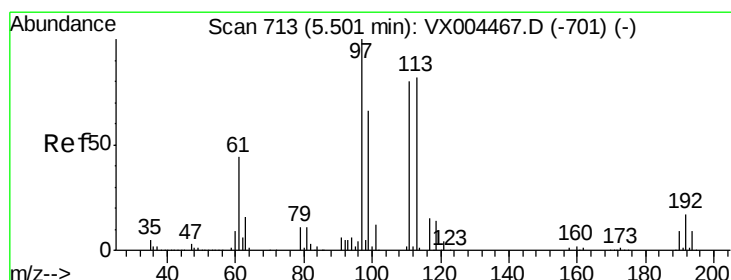
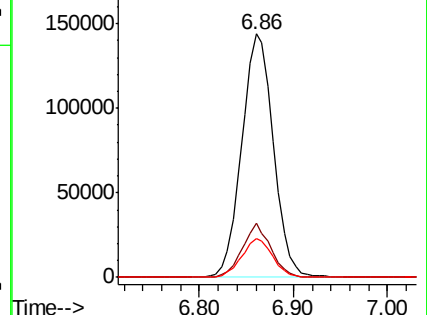
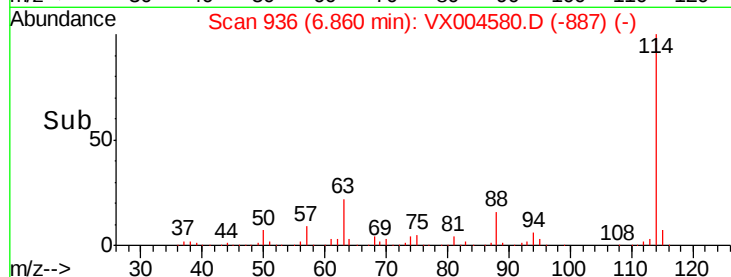
88 15.8 0.0 30.4



Abundance Ion 113.90 (113.60 to 114.60): V

Ion 63.00 (62.70 to 63.70): VX0

Ion 87.90 (87.60 to 88.60): VX0



#35

Dibromofluoromethane

Concen: 47.11 ug/l

RT: 5.50 min Scan# 713

Delta R.T. -0.00 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

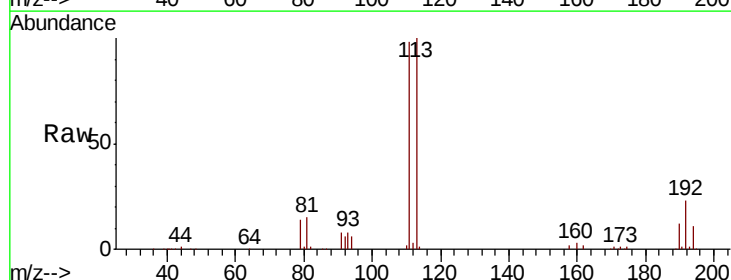
Tgt Ion:113 Resp: 145806

Ion Ratio Lower Upper

113 100

111 100.6 82.4 123.6

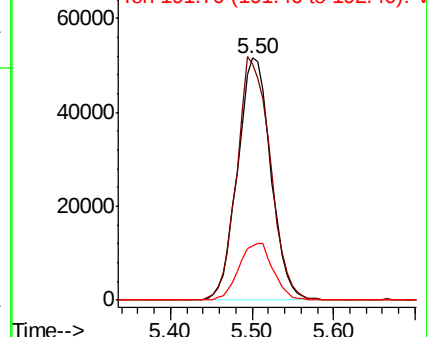
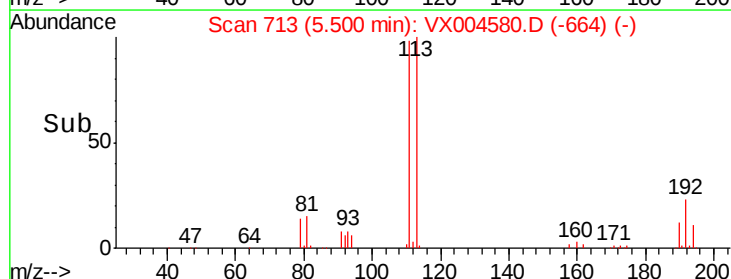
192 24.0 19.4 29.2

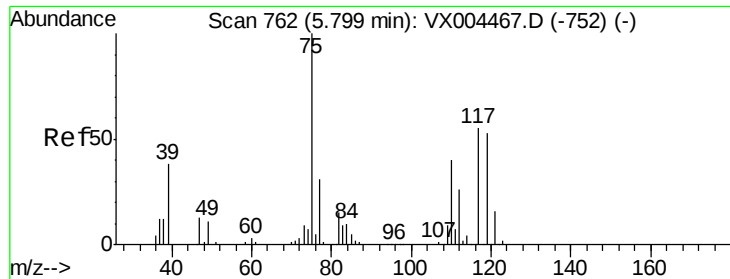


Abundance Ion 112.80 (112.50 to 113.50): V

Ion 110.80 (110.50 to 111.50): V

Ion 191.70 (191.40 to 192.40): V

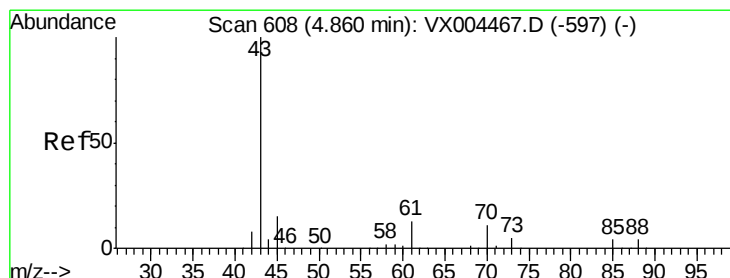
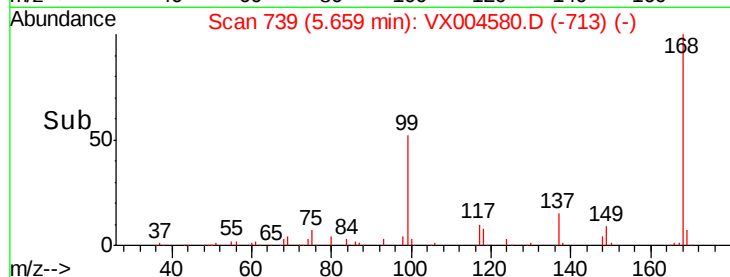
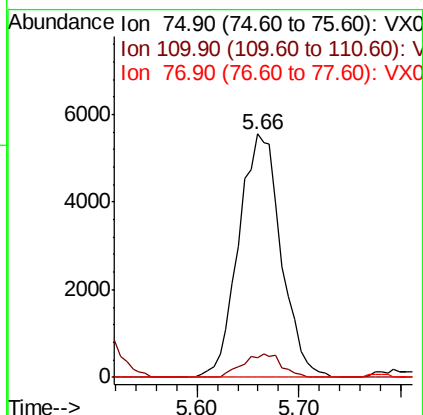
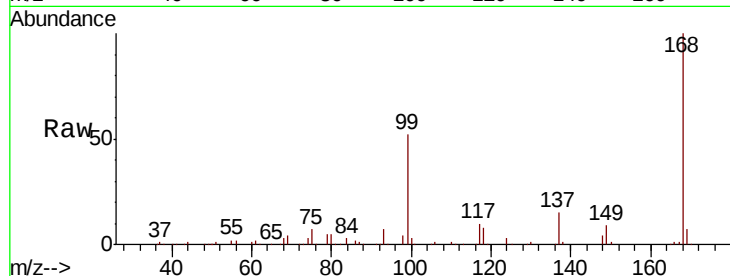




#36  
 1,1-Dichloropropene  
 Concen: 3.89 ug/l  
 RT: 5.66 min Scan# 739  
 Delta R.T. -0.14 min  
 Lab File: VX004580.D  
 Acq: 15 Sep 2018 13:20

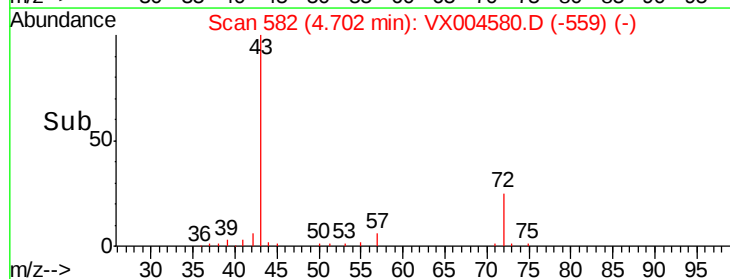
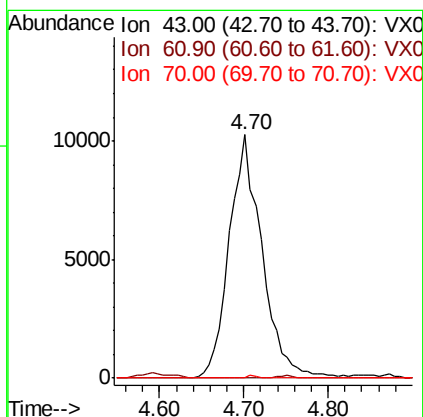
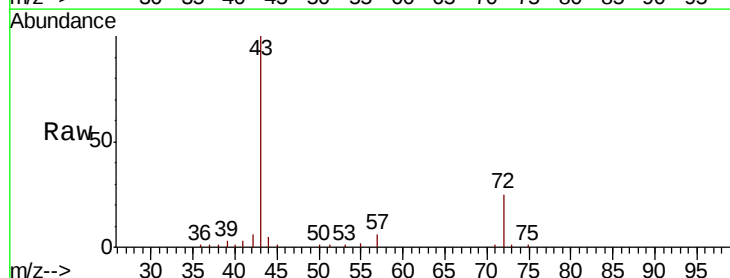
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 S13-EB-2018-1

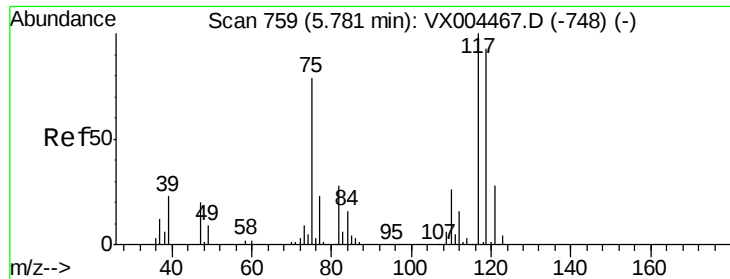
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 8.7   | 18.0  | 54.0# |
| 77      | 0.0   | 24.6  | 36.8# |



#37  
 Ethyl Acetate  
 Concen: 5.82 ug/l  
 RT: 4.70 min Scan# 582  
 Delta R.T. -0.16 min  
 Lab File: VX004580.D  
 Acq: 15 Sep 2018 13:20

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 61      | 0.0   | 11.5  | 17.3# |
| 70      | 0.0   | 9.0   | 13.6# |





#38

Carbon Tetrachloride

Concen: 5.43 ug/l

RT: 5.66 min Scan# 739

Delta R.T. -0.12 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Instrument :

MSVOA\_X

ClientSampled :

S13-EB-2018-1

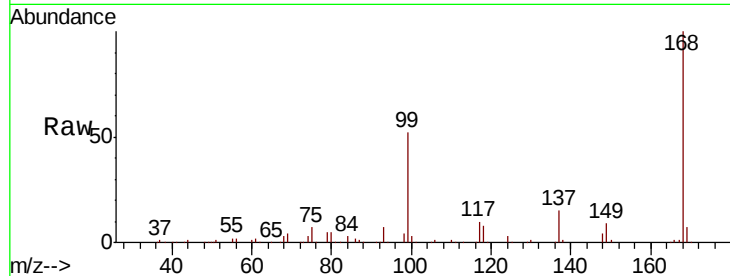
Tot Ion:117 Resp: 21764

Ion Ratio Lower Upper

117 100

119 4.6 78.8 118.2#

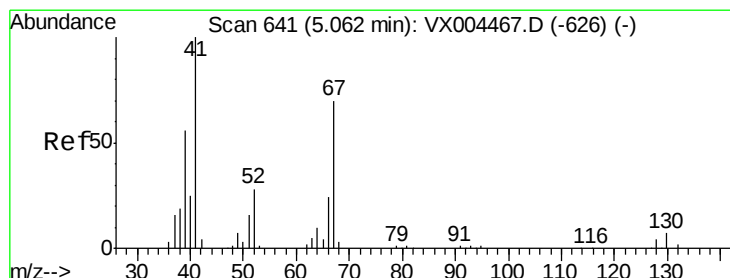
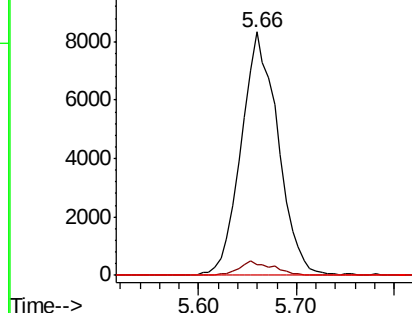
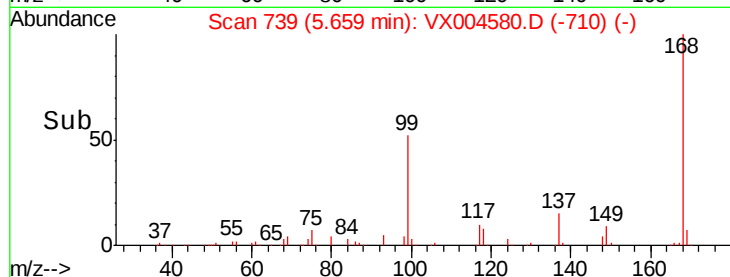
121 0.0 24.9 37.3#



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



#41

Methacrylonitrile

Concen: 87.47 ug/l

RT: 5.15 min Scan# 656

Delta R.T. 0.09 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Tgt Ion: 41 Resp: 225090

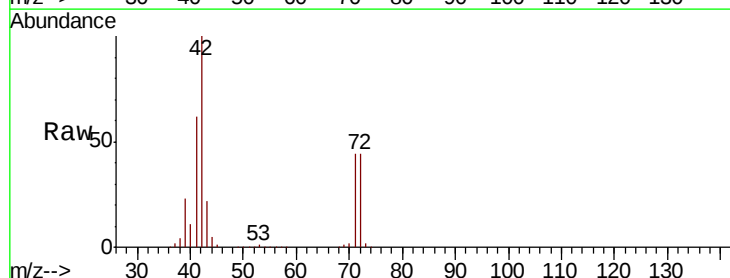
Ion Ratio Lower Upper

41 100

39 39.2 42.4 63.6#

67 0.0 59.2 88.8#

52 0.2 23.0 34.4#

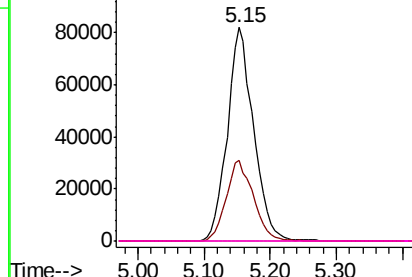
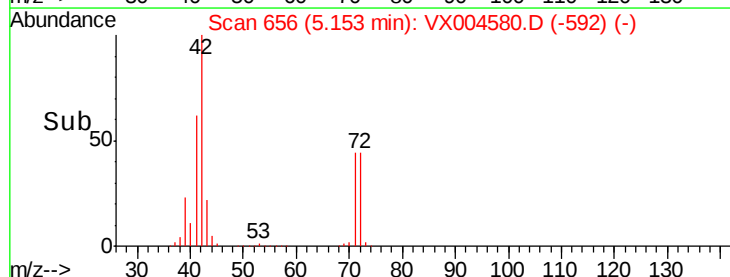


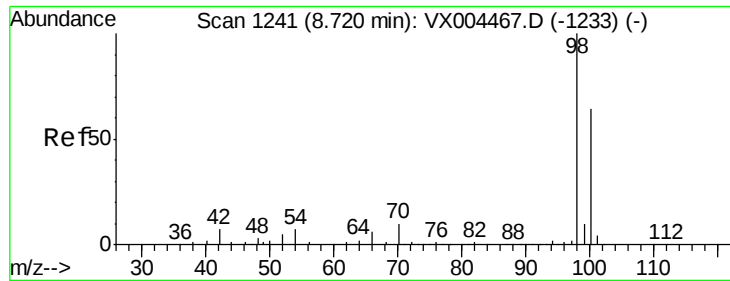
Abundance Ion 41.00 (40.70 to 41.70): VX0

Ion 39.00 (38.70 to 39.70): VX0

Ion 67.00 (66.70 to 67.70): VX0

Ion 52.00 (51.70 to 52.70): VX0

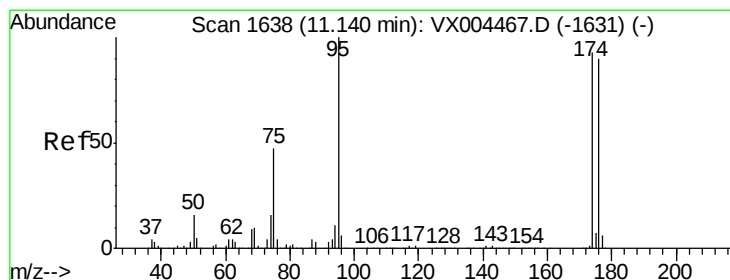
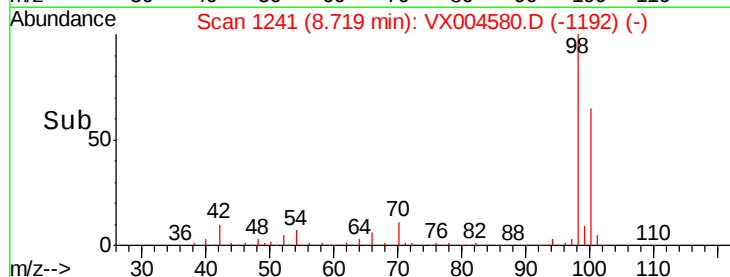
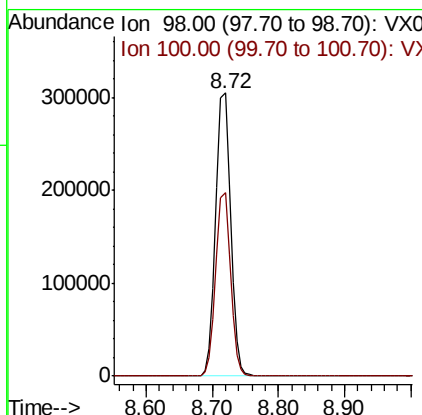
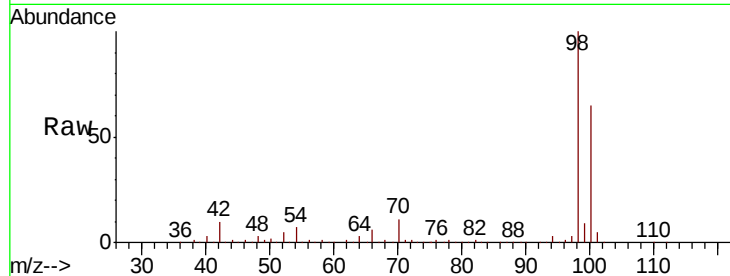




#50  
Toluene-d8  
Concen: 46.00 ug/l  
RT: 8.72 min Scan# 1241  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

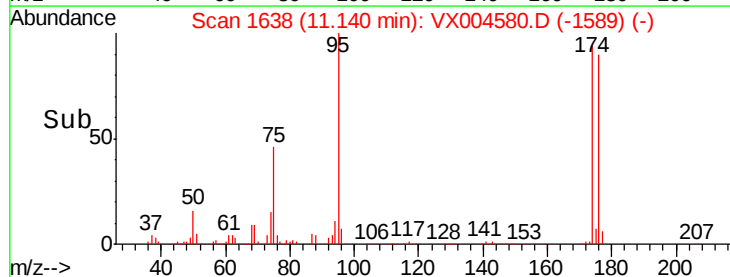
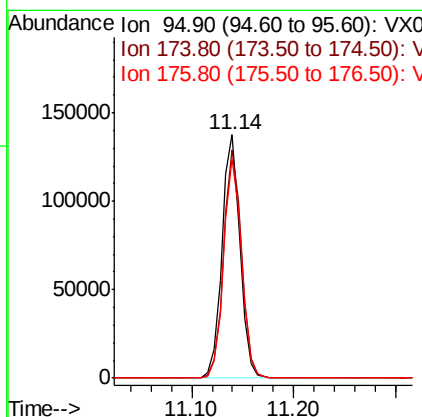
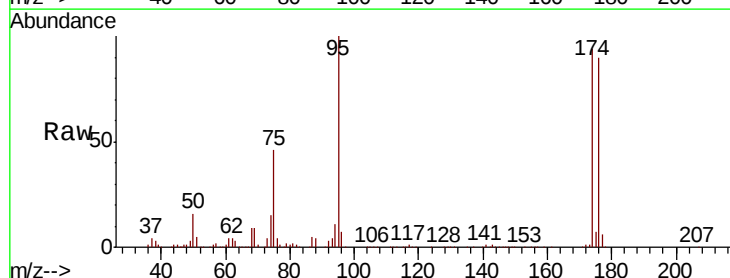
Instrument :  
MSVOA\_X  
ClientSampleId :  
S13-EB-2018-1

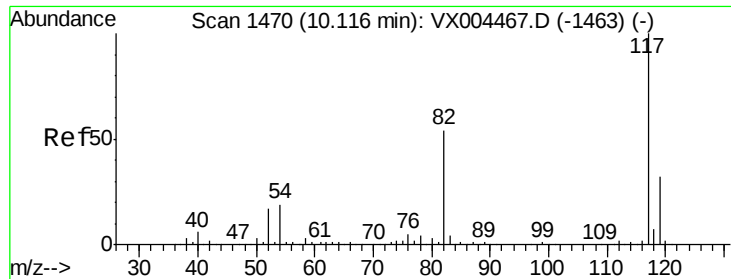
Tot Ion: 98 Resp: 477507  
Ion Ratio Lower Upper  
98 100  
100 64.1 52.9 79.3



#62  
4-Bromofluorobenzene  
Concen: 45.76 ug/l  
RT: 11.14 min Scan# 1638  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

Tgt Ion: 95 Resp: 169563  
Ion Ratio Lower Upper  
95 100  
174 93.3 0.0 185.2  
176 89.5 0.0 178.6

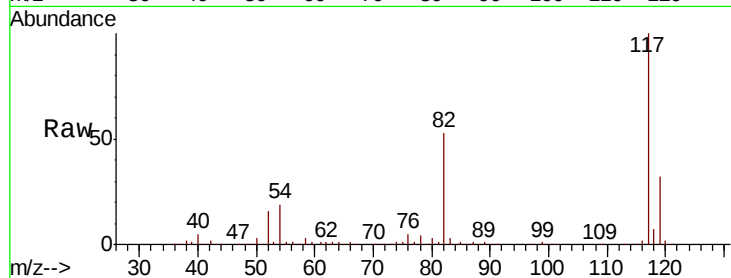




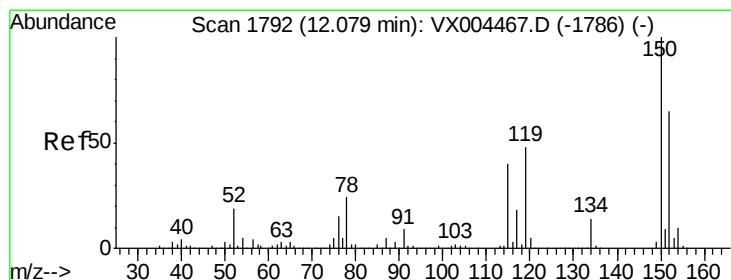
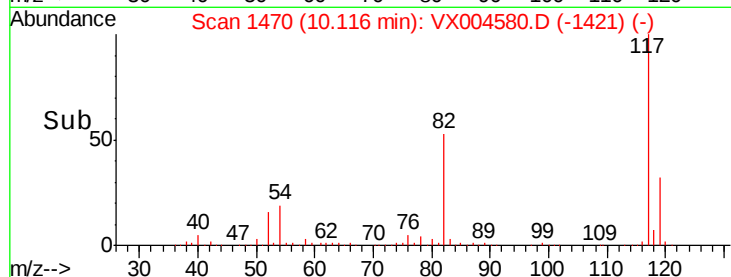
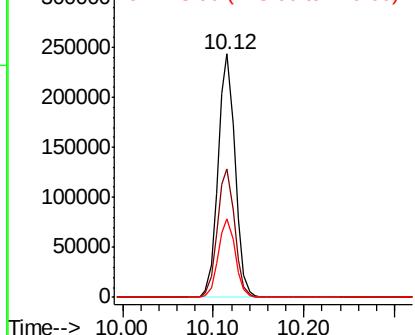
#63  
Chlorobenzene-d5  
Concen: 50.00 ug/l  
RT: 10.12 min Scan# 1470  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

Instrument :  
MSVOA\_X  
ClientSampleId :  
S13-EB-2018-1

Tot Ion:117 Resp: 320861  
Ion Ratio Lower Upper  
117 100  
82 52.9 47.8 71.6  
119 32.0 29.3 43.9

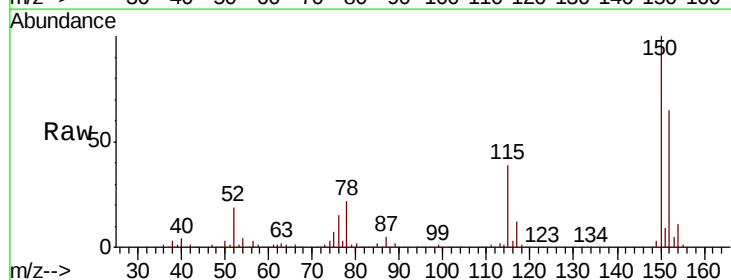


Abundance Ion 116.90 (116.60 to 117.60): V  
Ion 82.00 (81.70 to 82.70): VX0  
Ion 118.90 (118.60 to 119.60): V

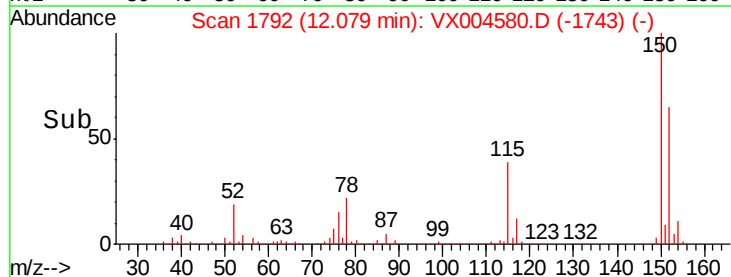
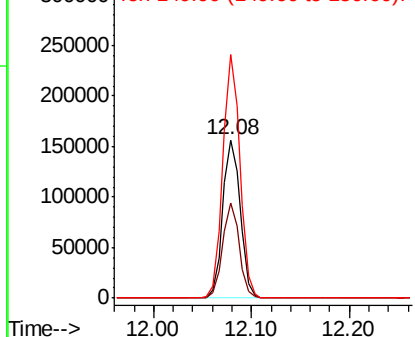


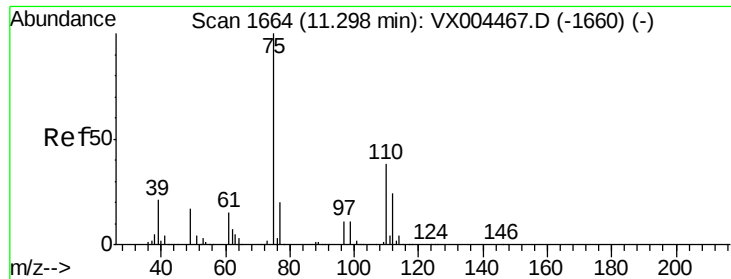
#72  
1,4-Dichlorobenzene-d4  
Concen: 50.00 ug/l  
RT: 12.08 min Scan# 1792  
Delta R.T. -0.00 min  
Lab File: VX004580.D  
Acq: 15 Sep 2018 13:20

Tgt Ion:152 Resp: 194381  
Ion Ratio Lower Upper  
152 100  
115 57.0 39.0 117.0  
150 150.6 0.0 351.0



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: 20.24 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. -0.16 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Instrument :

MSVOA\_X

ClientSampleId :

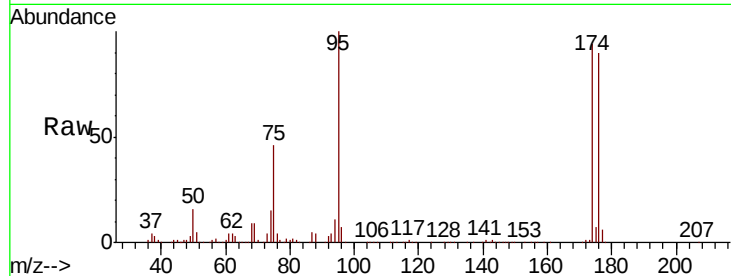
S13-EB-2018-1

Tot Ion: 75 Resp: 79147

Ion Ratio Lower Upper

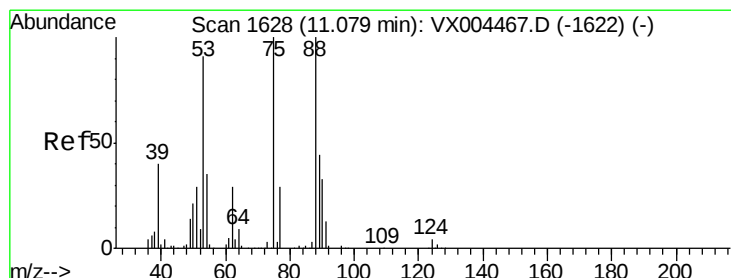
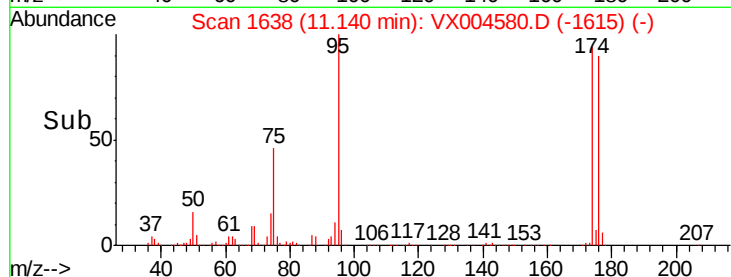
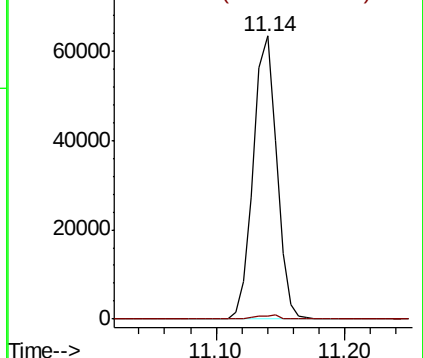
75 100

77 1.5 20.2 60.6#



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: 64.51 ug/l

RT: 11.14 min Scan# 1638

Delta R.T. 0.06 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

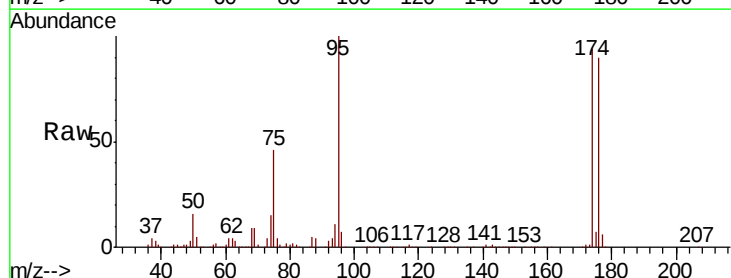
Tgt Ion: 75 Resp: 79147

Ion Ratio Lower Upper

75 100

53 0.2 80.1 120.1#

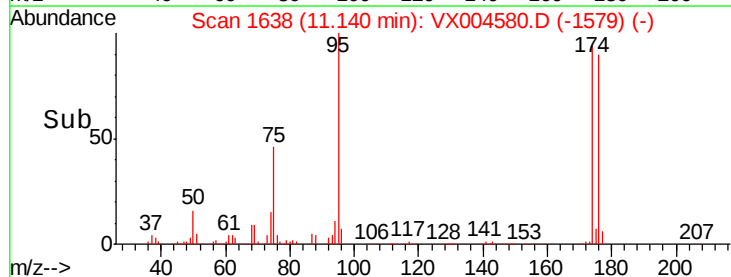
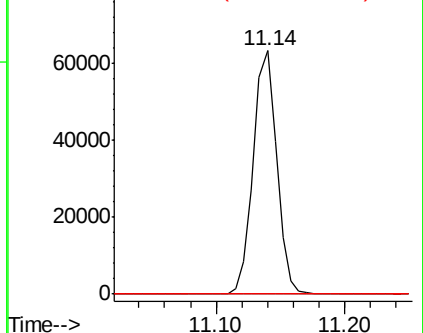
89 0.0 37.2 55.8#

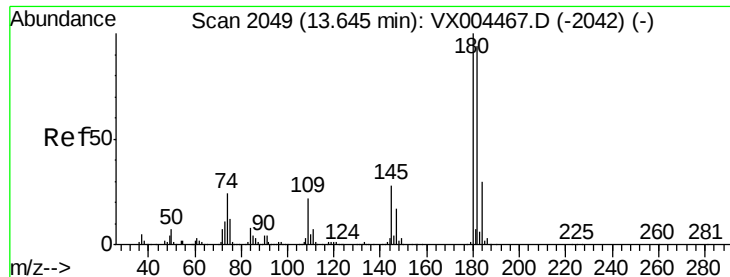


Abundance Ion 74.90 (74.60 to 75.60): VX0

Ion 53.00 (52.70 to 53.70): VX0

Ion 88.90 (88.60 to 89.60): VX0

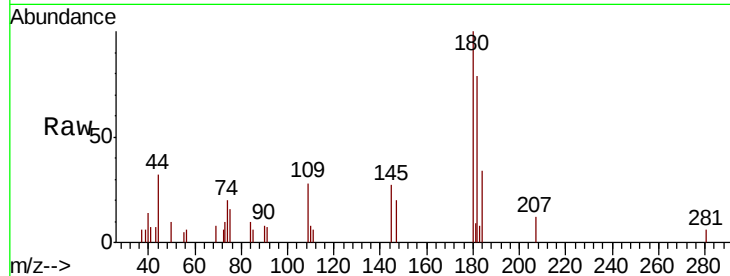




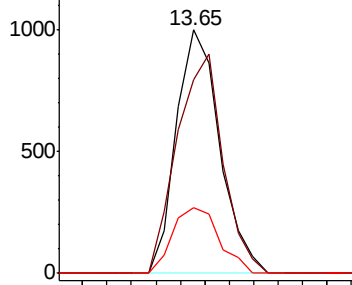
#93  
 1,2,4-Trichlorobenzene  
 Concen: 0.26 ug/l  
 RT: 13.65 min Scan# 2049  
 Delta R.T. -0.00 min  
 Lab File: VX004580.D  
 Acq: 15 Sep 2018 13:20

Instrument :  
 MSVOA\_X  
 ClientSampled :  
 S13-EB-2018-1

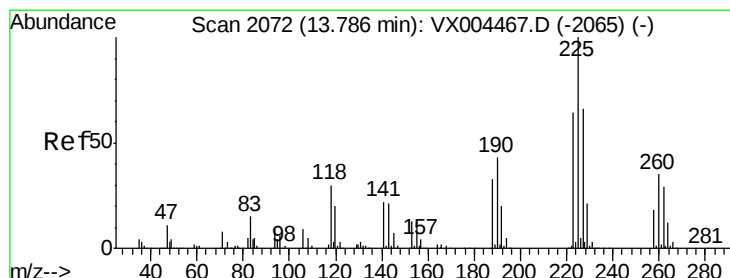
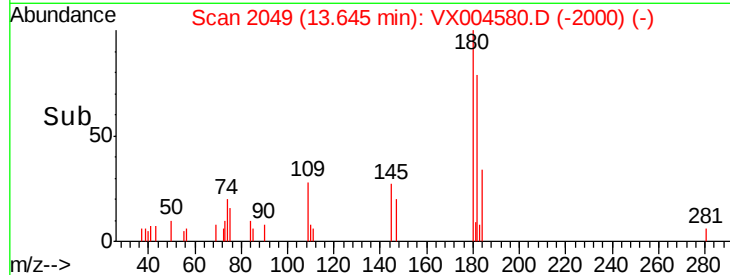
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.0  | 48.4  | 145.0 |
| 145     | 29.1  | 14.3  | 42.9  |



Abundance Ion 179.80 (179.50 to 180.50): V  
 Ion 181.80 (181.50 to 182.50): V  
 Ion 144.80 (144.50 to 145.50): V

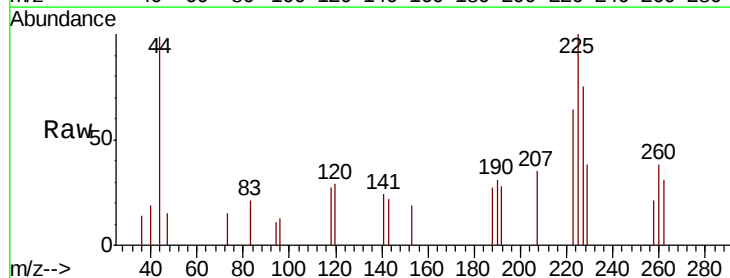


Time-->

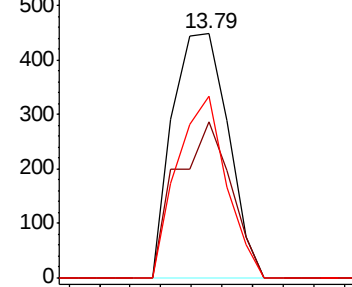


#94  
 Hexachlorobutadiene  
 Concen: 0.23 ug/l  
 RT: 13.79 min Scan# 2072  
 Delta R.T. -0.00 min  
 Lab File: VX004580.D  
 Acq: 15 Sep 2018 13:20

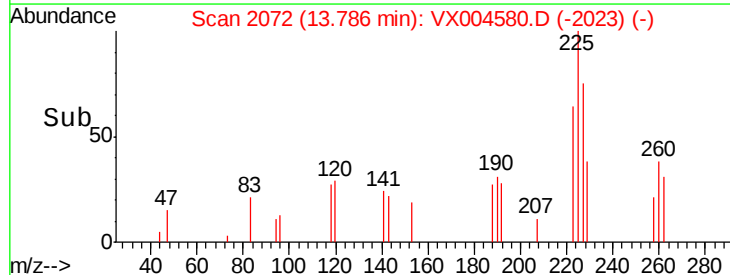
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 225     | 100   |       |       |
| 223     | 61.8  | 30.1  | 90.5  |
| 227     | 65.5  | 30.8  | 92.4  |

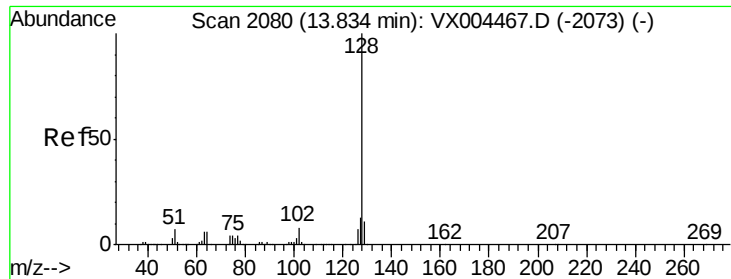


Abundance Ion 224.70 (224.40 to 225.40): V  
 Ion 222.70 (222.40 to 223.40): V  
 Ion 226.70 (226.40 to 227.40): V



Time-->





#95

Naphthalene

Concen: 0.23 ug/l

RT: 13.83 min Scan# 2080

Delta R.T. -0.00 min

Lab File: VX004580.D

Acq: 15 Sep 2018 13:20

Instrument :

MSVOA\_X

ClientSampleId :

S13-EB-2018-1

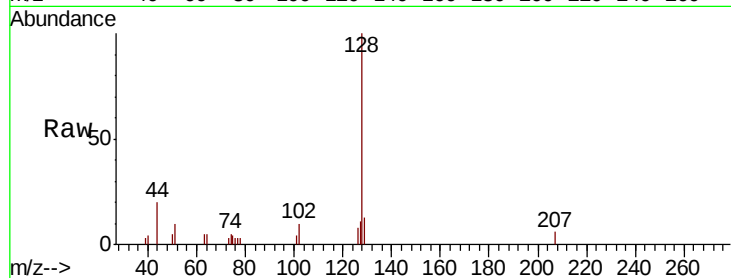
Tot Ion:128 Resp: 3063

Ion Ratio Lower Upper

128 100

127 11.8 10.2 15.2

129 11.7 8.6 12.8



Abundance Ion 128.00 (127.70 to 128.70): V

3000 Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V

