

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX042120\  
 Data File : VX015825.D  
 Acq On : 22 Apr 2020 03:58  
 Operator : JC/SP  
 Sample : L2357-04  
 Misc : 5.0mL/MSVOA X/WATER  
 ALS Vial : 47 Sample Multiplier: 1

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TP-6

Quant Time: Apr 22 07:20:20 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_X\METHOD\82X032720W.M  
 Quant Title : SW846 8260  
 QLast Update : Fri Mar 27 09:35:51 2020  
 Response via : Initial Calibration

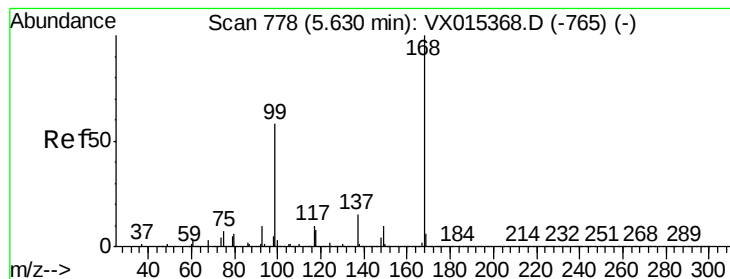
| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 5.64  | 168  | 957398   | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 6.84  | 114  | 1471071  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 10.10 | 117  | 1420279  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 12.06 | 152  | 810897   | 50.00 | ug/l  | 0.00     |

| System Monitoring Compounds | R.T.  | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|-------|------|----------|-------|---------|----------|
| 33) 1,2-Dichloroethane-d4   | 6.04  | 65   | 527708   | 39.08 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 78.16%  |          |
| 35) Dibromofluoromethane    | 5.47  | 113  | 423286   | 45.01 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 90.02%  |          |
| 50) Toluene-d8              | 8.70  | 98   | 1785599  | 51.58 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 103.16% |          |
| 62) 4-Bromofluorobenzene    | 11.12 | 95   | 753591   | 53.56 | ug/l    | 0.00     |
| Spiked Amount               |       |      | Recovery | =     | 107.12% |          |

| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 5) Bromomethane                | 1.64  | 94   | 772      | Below Cal | #      | 3      |
| 8) Diethyl Ether               | 2.19  | 74   | 1192     | 0.214     | ug/l   | 99     |
| 11) Tert butyl alcohol         | 3.00  | 59   | 1585     | 0.490     | ug/l # | 1      |
| 15) Acrylonitrile              | 3.11  | 53   | 2266     | 0.368     | ug/l # | 27     |
| 16) Acetone                    | 2.42  | 43   | 174830   | 30.137    | ug/l   | 99     |
| 17) Carbon Disulfide           | 2.56  | 76   | 26705    | 0.968     | ug/l   | 96     |
| 18) Methyl Acetate             | 2.76  | 43   | 14994    | 1.013     | ug/l   | 99     |
| 20) Methylene Chloride         | 2.84  | 84   | 43610    | 4.025     | ug/l   | 89     |
| 25) 2-Butanone                 | 4.65  | 43   | 21258    | 2.279     | ug/l # | 89     |
| 36) 1,1-Dichloropropene        | 5.64  | 75   | 63348    | 4.674     | ug/l # | 53     |
| 38) Carbon Tetrachloride       | 5.64  | 117  | 85089    | 5.796     | ug/l # | 15     |
| 43) Isopropyl Acetate          | 6.42  | 43   | 301332   | 10.114    | ug/l   | 99     |
| 48) Methyl methacrylate        | 7.86  | 41   | 436899   | 29.359    | ug/l # | 48     |
| 49) 1,4-Dioxane                | 7.72  | 88   | 4172     | 15.028    | ug/l # | 66     |
| 51) 4-Methyl-2-Pentanone       | 8.59  | 43   | 281540   | 16.675    | ug/l # | 48     |
| 54) cis-1,3-Dichloropropene    | 8.60  | 75   | 120288   | 6.632     | ug/l # | 48     |
| 59) 2-Hexanone                 | 9.53  | 43   | 300071   | 23.540    | ug/l # | 52     |
| 76) 1,2,3-Trichloropropane     | 11.12 | 75   | 365543   | 21.921    | ug/l # | 36     |
| 81) trans-1,4-Dichloro-2-buten | 11.12 | 75   | 365543   | 52.599    | ug/l # | 10     |

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





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 5.64 min Scan# 779

Delta R.T. 0.01 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampled :

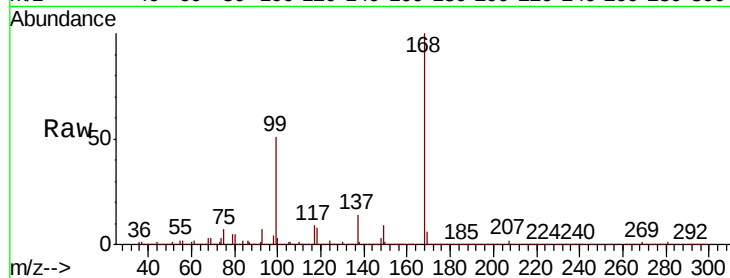
TP-6

Tot Ion:168 Resp: 957398

Ion Ratio Lower Upper

168 100

99 50.7 46.4 69.6



Abundance Ion 167.90 (167.60 to 168.60): V

Ion 98.90 (98.60 to 99.60): VX0

5.64

400000

300000

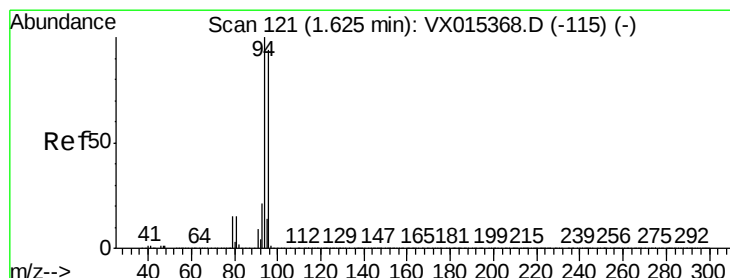
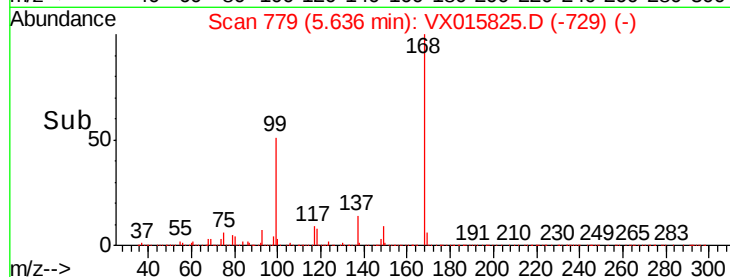
200000

100000

0

Time-->

5.50 5.60 5.70 5.80



#5

Bromomethane

Concen: Below Cal

RT: 1.64 min Scan# 124

Delta R.T. 0.02 min

Lab File: VX015825.D

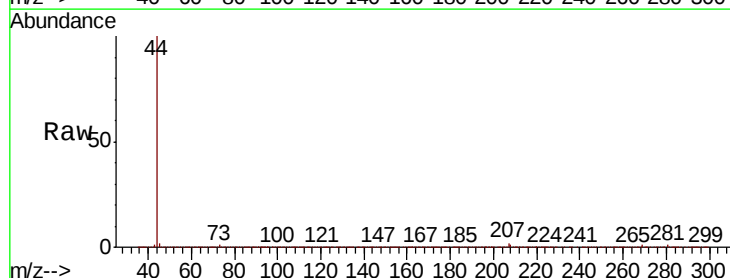
Acq: 22 Apr 2020 03:58

Tgt Ion: 94 Resp: 772

Ion Ratio Lower Upper

94 100

96 0.0 74.8 112.2#



Abundance Ion 93.90 (93.60 to 94.60): VX0

Ion 95.90 (95.60 to 96.60): VX0

2500

2000

1500

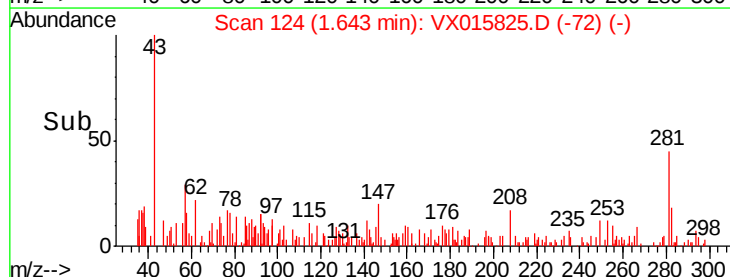
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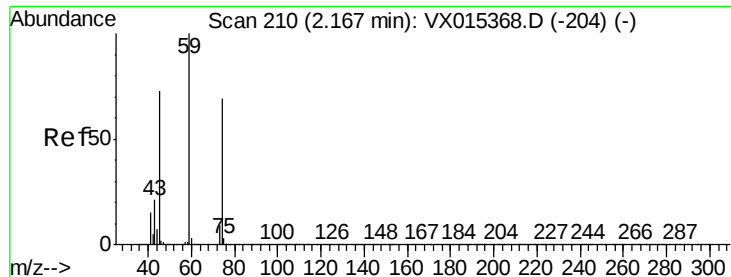
500

0

Time-->

1.60 1.62 1.64 1.66





#8

Diethyl Ether

Concen: 0.214 ug/l

RT: 2.19 min Scan# 213

Delta R.T. 0.02 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampled :

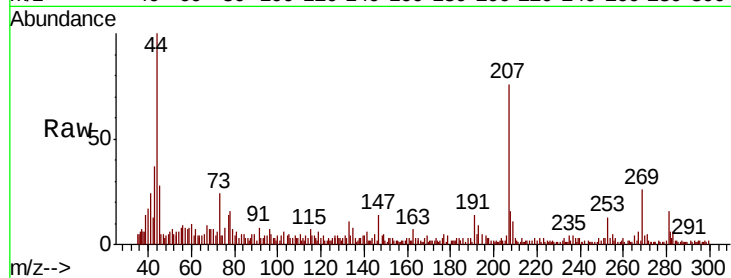
TP-6

Tot Ion: 74 Resp: 1192

Ion Ratio Lower Upper

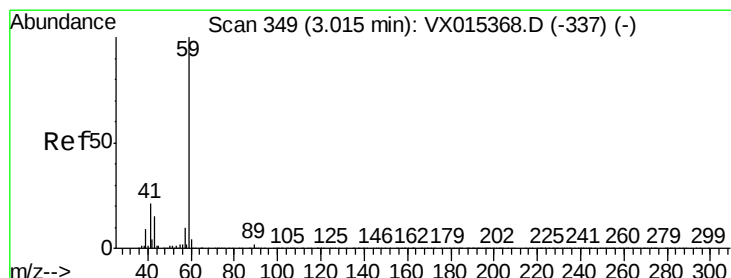
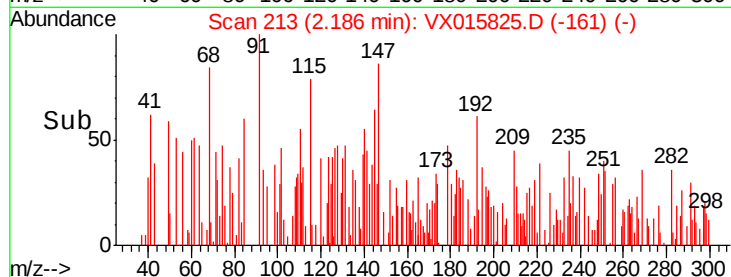
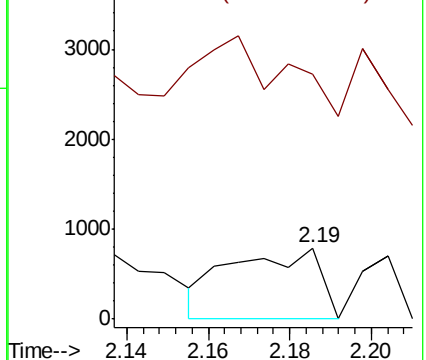
74 100

45 108.3 53.8 161.4



Abundance Ion 74.00 (73.70 to 74.70): VX0

Ion 45.00 (44.70 to 45.70): VX0



#11

Tert butyl alcohol

Concen: 0.490 ug/l

RT: 3.00 min Scan# 346

Delta R.T. -0.02 min

Lab File: VX015825.D

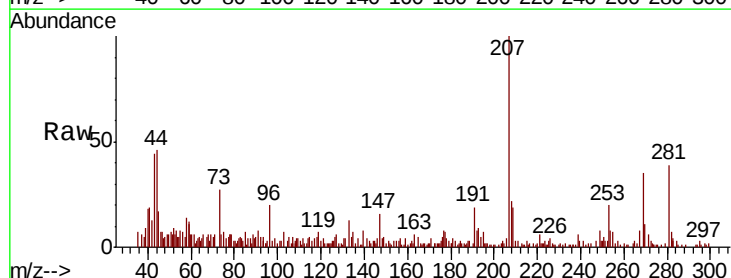
Acq: 22 Apr 2020 03:58

Tgt Ion: 59 Resp: 1585

Ion Ratio Lower Upper

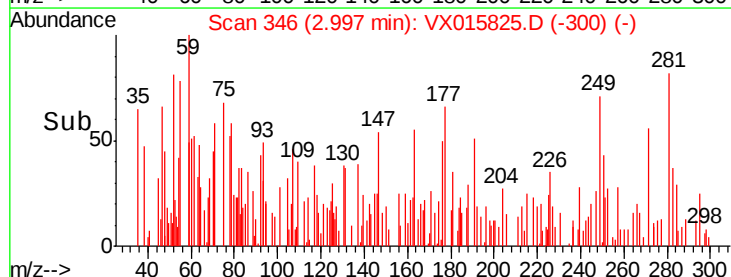
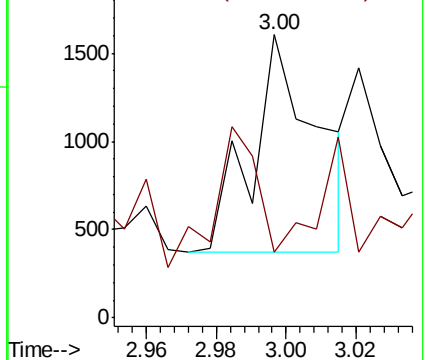
59 100

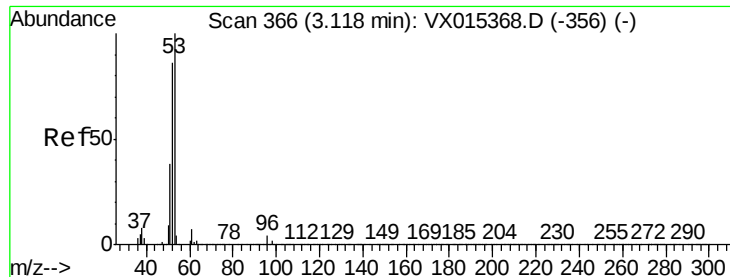
57 61.6 8.1 12.1#



Abundance Ion 59.00 (58.70 to 59.70): VX0

Ion 57.00 (56.70 to 57.70): VX0





#15

Acrylonitrile

Concen: 0.368 ug/l

RT: 3.11 min Scan# 365

Delta R.T. -0.01 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampleId :

TP-6

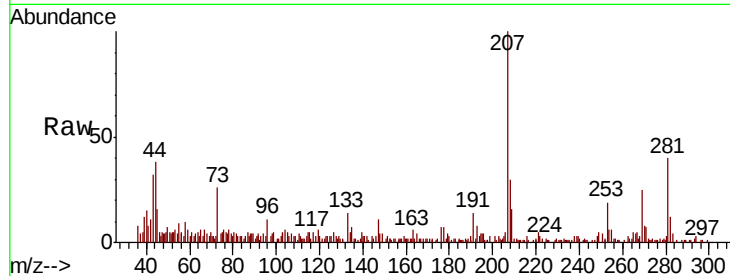
Tot Ion: 53 Resp: 2266

Ion Ratio Lower Upper

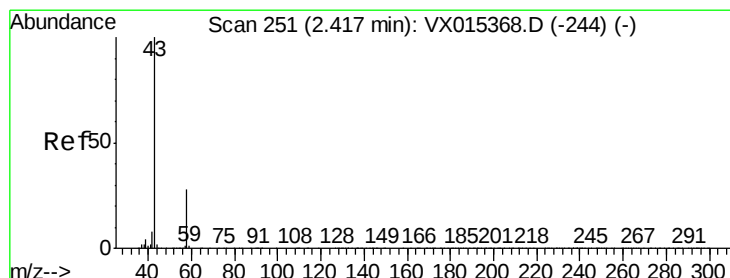
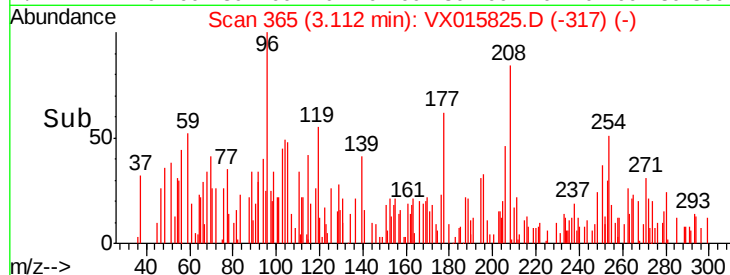
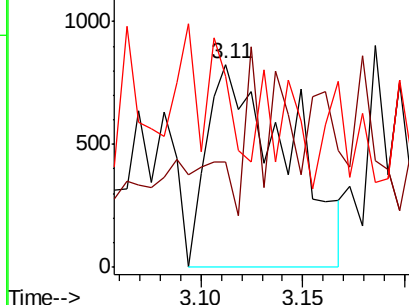
53 100

52 12.9 66.8 100.2#

51 0.0 29.5 44.3#



Abundance Ion 53.00 (52.70 to 53.70): VX0  
Ion 52.00 (51.70 to 52.70): VX0  
Ion 51.00 (50.70 to 51.70): VX0



#16

Acetone

Concen: 30.137 ug/l

RT: 2.42 min Scan# 251

Delta R.T. 0.00 min

Lab File: VX015825.D

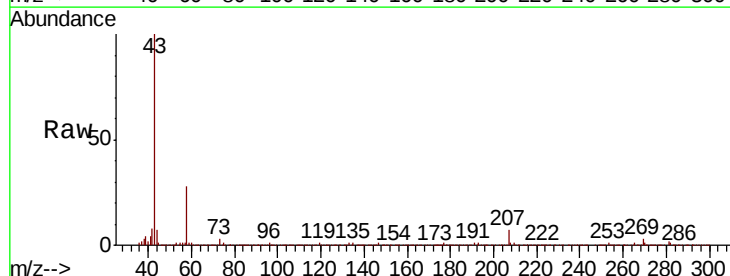
Acq: 22 Apr 2020 03:58

Tgt Ion: 43 Resp: 174830

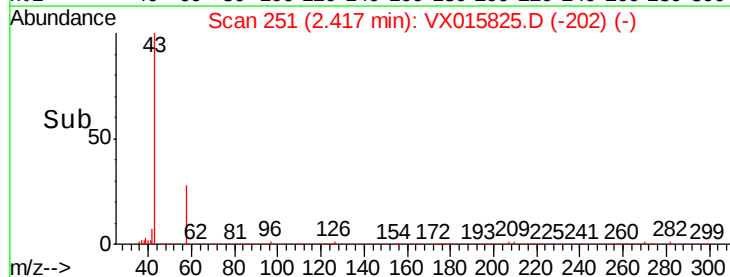
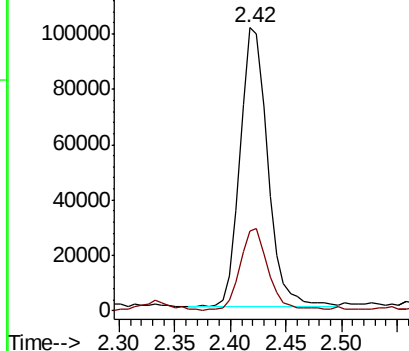
Ion Ratio Lower Upper

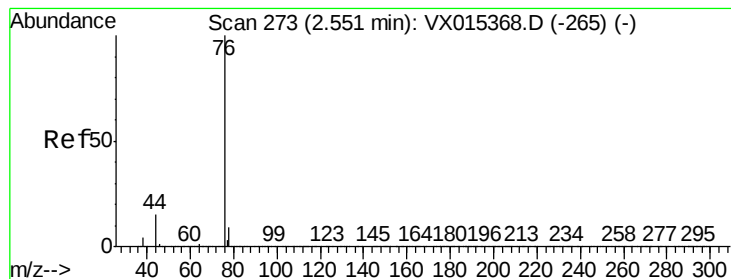
43 100

58 28.1 22.1 33.1



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





#17

Carbon Disulfide

Concen: 0.968 ug/l

RT: 2.56 min Scan# 274

Delta R.T. 0.01 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampleId :

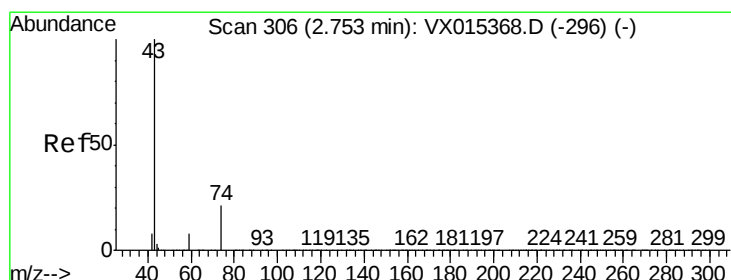
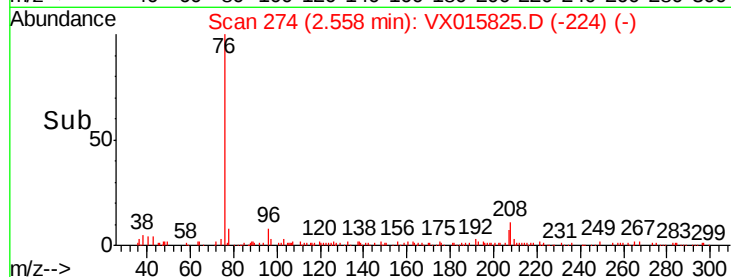
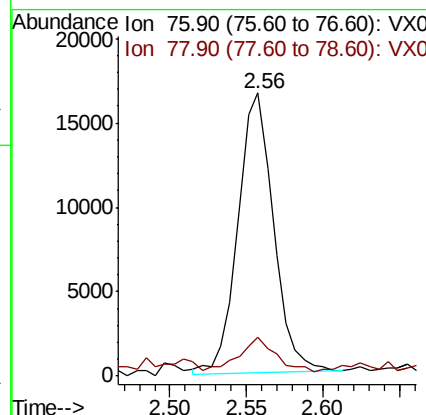
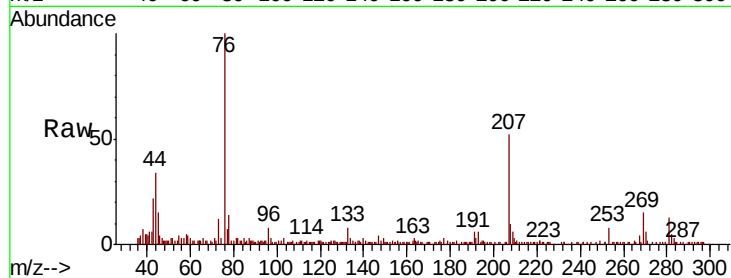
TP-6

Tot Ion: 76 Resp: 26705

Ion Ratio Lower Upper

76 100

78 10.2 7.1 10.7



#18

Methyl Acetate

Concen: 1.013 ug/l

RT: 2.76 min Scan# 307

Delta R.T. 0.01 min

Lab File: VX015825.D

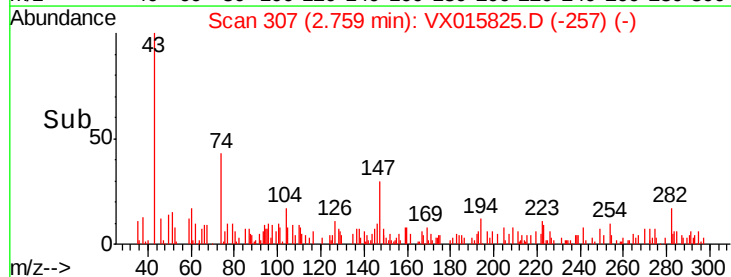
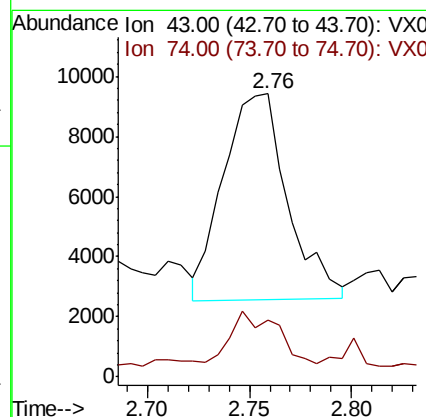
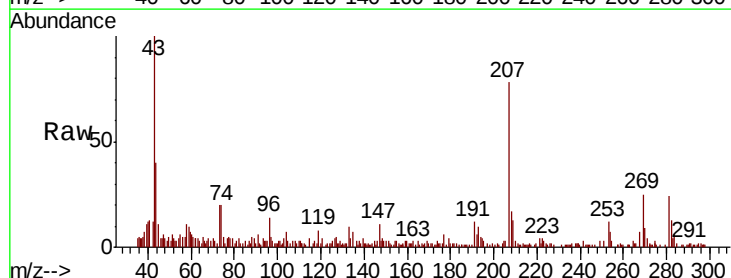
Acq: 22 Apr 2020 03:58

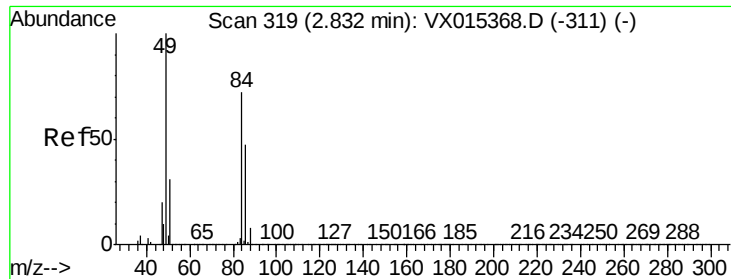
Tgt Ion: 43 Resp: 14994

Ion Ratio Lower Upper

43 100

74 19.9 16.5 24.7

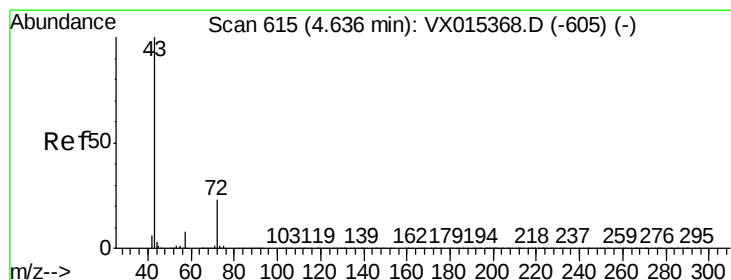
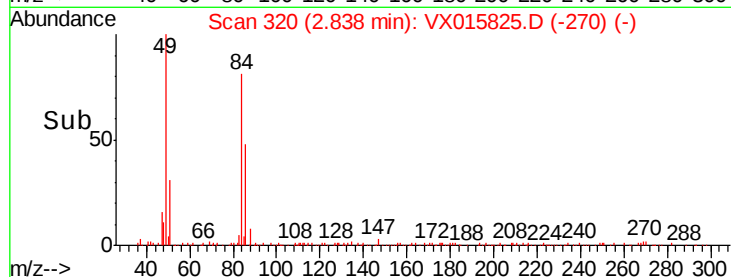
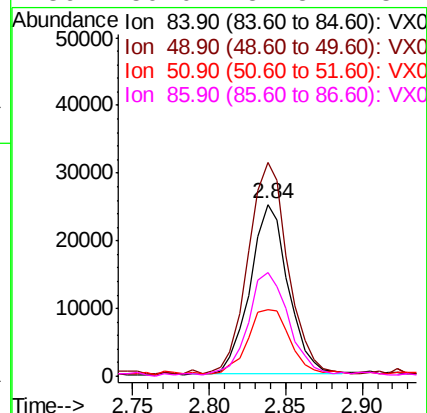
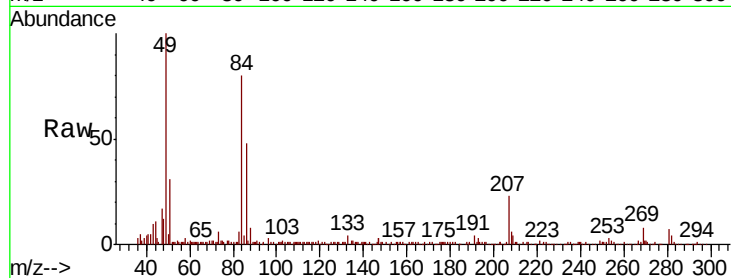




#20  
Methvlene Chloride  
Concen: 4.025 ug/l  
RT: 2.84 min Scan# 320  
Delta R.T. 0.01 min  
Lab File: VX015825.D  
Acq: 22 Apr 2020 03:58

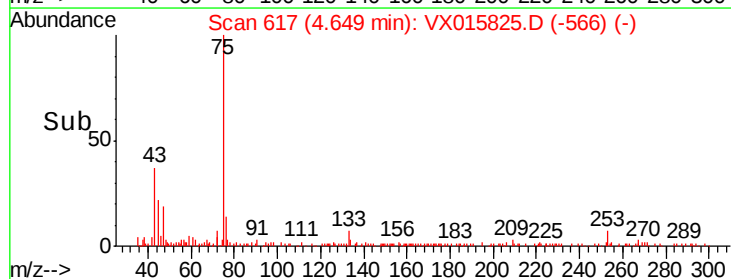
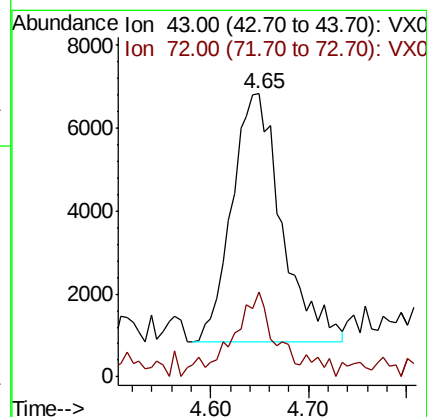
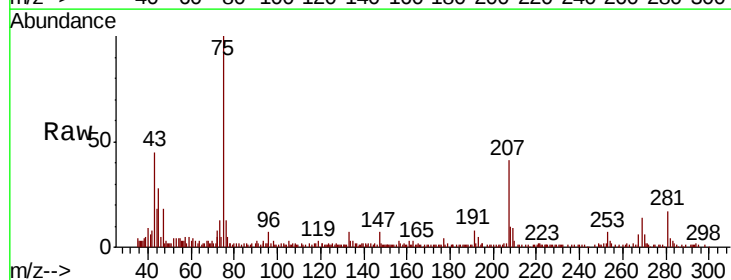
Instrument :  
MSVOA\_X  
ClientSampleId :  
TP-6

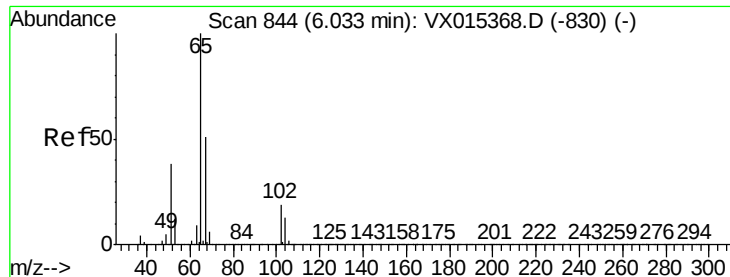
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 84    | Resp: | 43610 |
| Ion      | Ratio | Lower | Upper |
| 84       | 100   |       |       |
| 49       | 123.8 | 111.3 | 166.9 |
| 51       | 37.5  | 34.0  | 51.0  |
| 86       | 59.0  | 52.5  | 78.7  |



#25  
2-Butanone  
Concen: 2.279 ug/l  
RT: 4.65 min Scan# 617  
Delta R.T. 0.01 min  
Lab File: VX015825.D  
Acq: 22 Apr 2020 03:58

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 21258 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 72       | 29.3  | 19.0  | 28.4# |

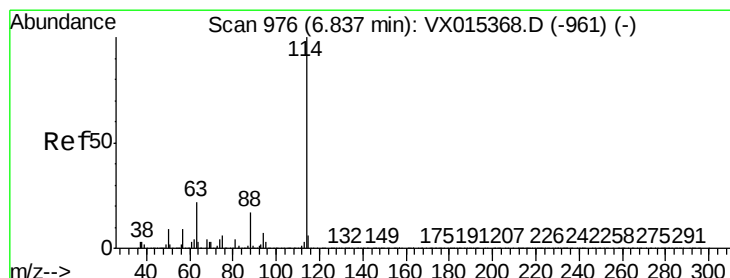
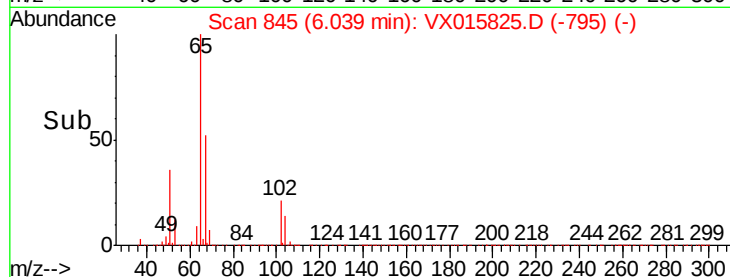
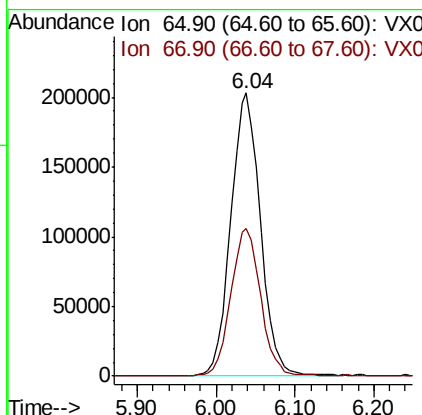
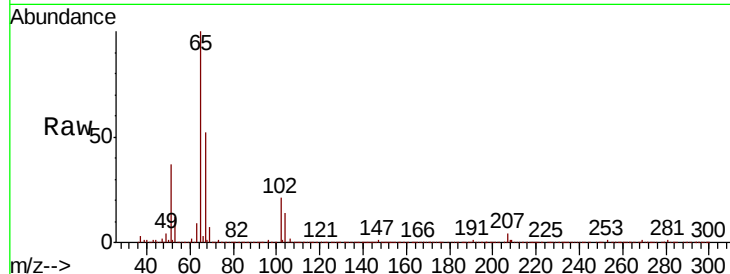




#33  
 1,2-Dichloroethane-d4  
 Concen: 39.081 ug/l  
 RT: 6.04 min Scan# 845  
 Delta R.T. 0.01 min  
 Lab File: VX015825.D  
 Acq: 22 Apr 2020 03:58

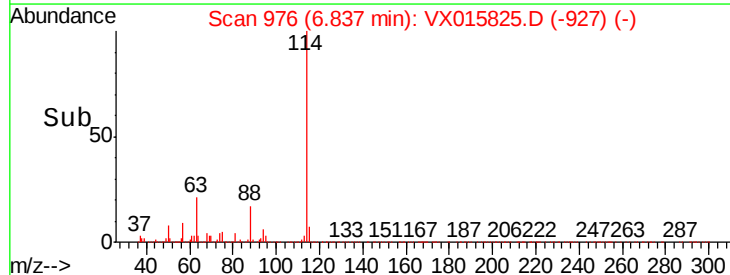
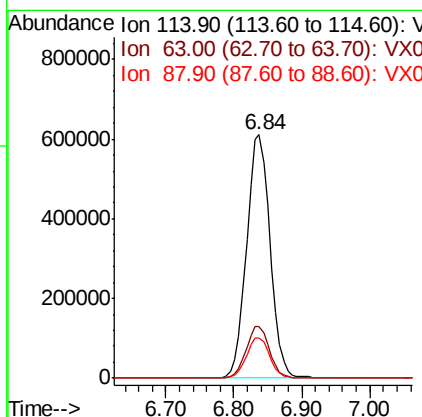
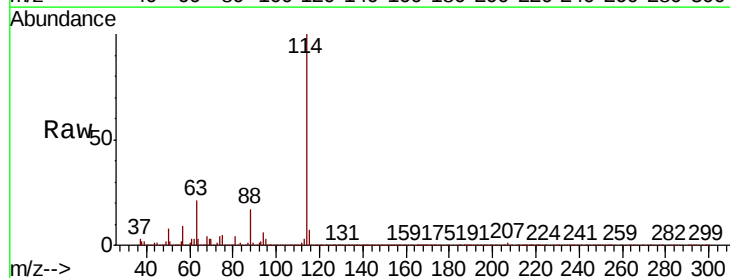
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TP-6

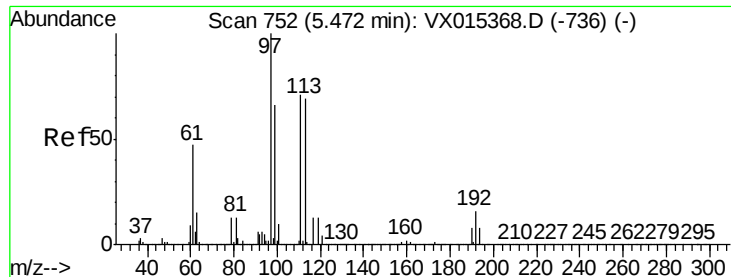
Tot Ion: 65 Resp: 527708  
 Ion Ratio Lower Upper  
 65 100  
 67 52.4 0.0 102.6



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 6.84 min Scan# 976  
 Delta R.T. 0.00 min  
 Lab File: VX015825.D  
 Acq: 22 Apr 2020 03:58

Tgt Ion: 114 Resp: 1471071  
 Ion Ratio Lower Upper  
 114 100  
 63 21.3 0.0 44.2  
 88 16.6 0.0 33.8

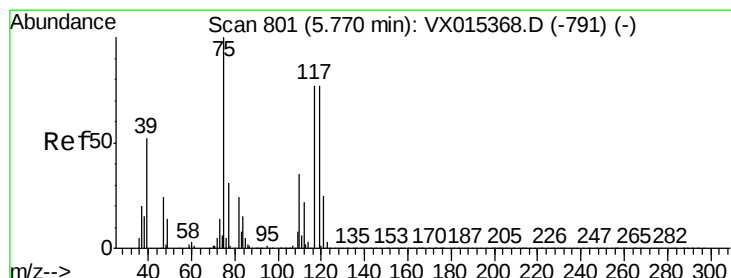
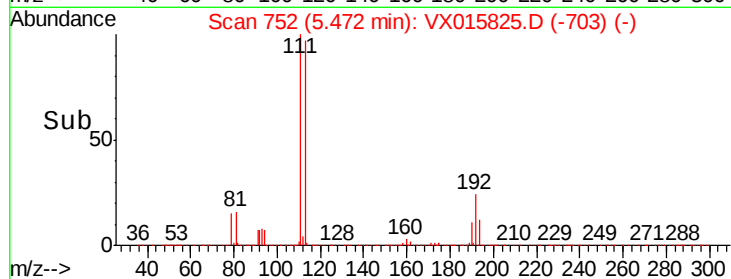
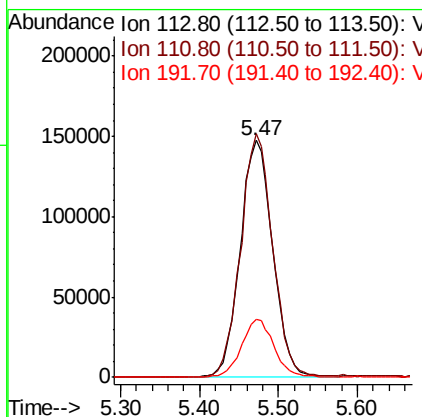
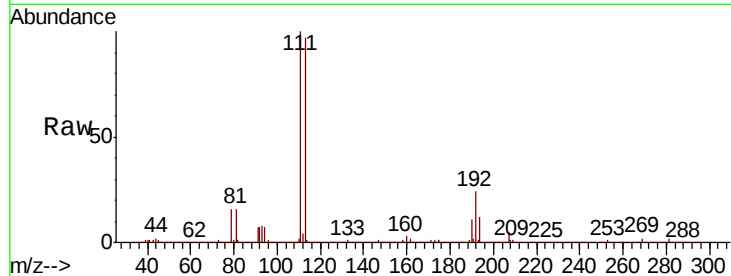




#35  
 Dibromofluoromethane  
 Concen: 45.014 ug/l  
 RT: 5.47 min Scan# 752  
 Delta R.T. 0.00 min  
 Lab File: VX015825.D  
 Acq: 22 Apr 2020 03:58

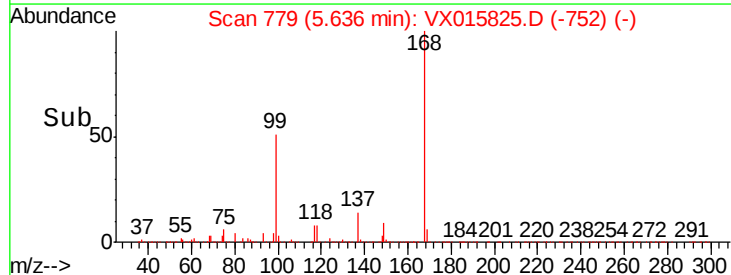
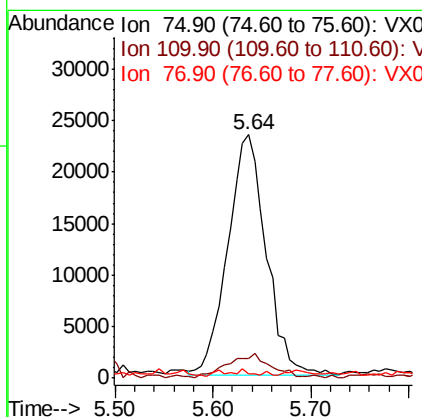
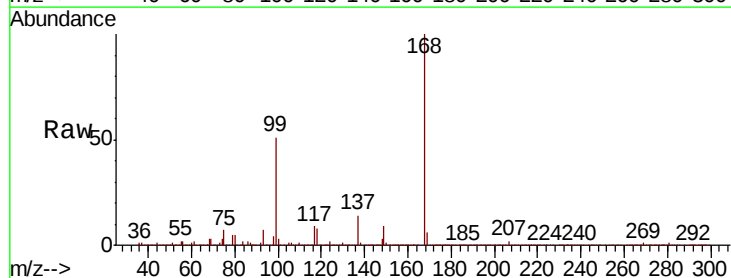
Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TP-6

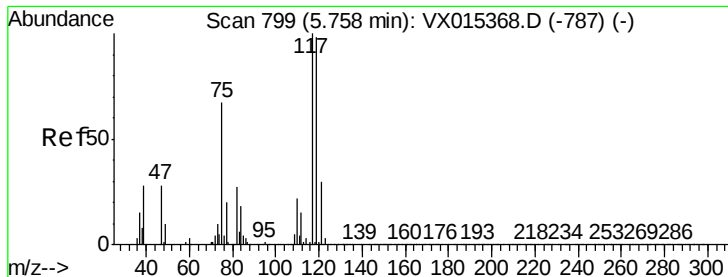
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 113     | 100   |       |       |
| 111     | 101.5 | 81.5  | 122.3 |
| 192     | 24.5  | 17.8  | 26.6  |



#36  
 1,1-Dichloropropene  
 Concen: 4.674 ug/l  
 RT: 5.64 min Scan# 779  
 Delta R.T. -0.13 min  
 Lab File: VX015825.D  
 Acq: 22 Apr 2020 03:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 110     | 11.7  | 17.1  | 51.3# |
| 77      | 0.4   | 24.6  | 36.8# |

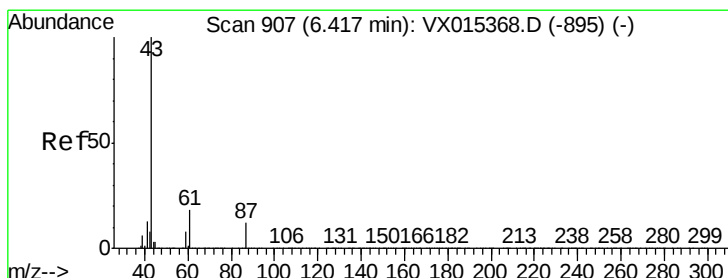
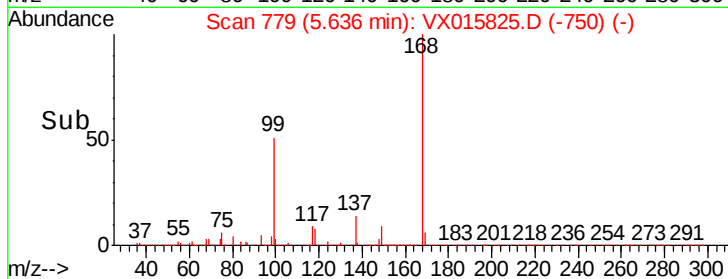
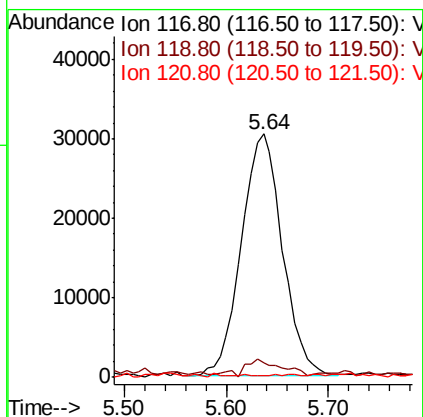
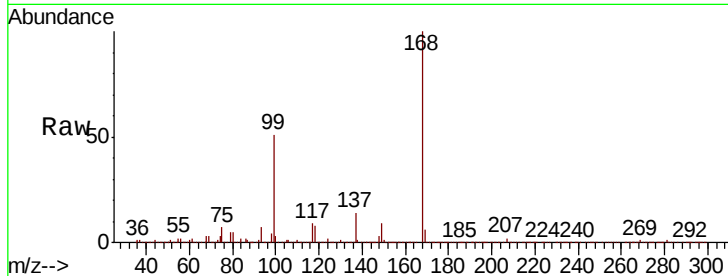




#38  
Carbon Tetrachloride  
Concen: 5.796 ug/l  
RT: 5.64 min Scan# 779  
Delta R.T. -0.12 min  
Lab File: VX015825.D  
Acq: 22 Apr 2020 03:58

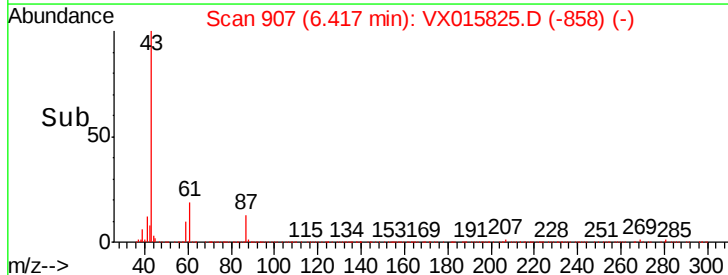
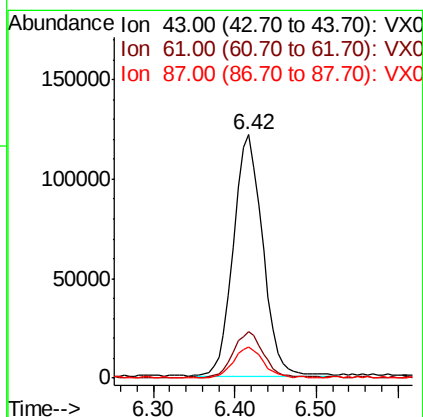
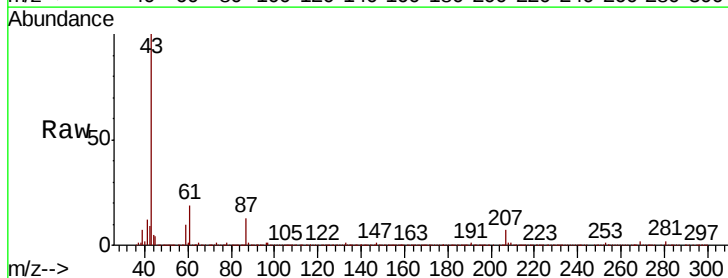
Instrument :  
MSVOA\_X  
ClientSampleId :  
TP-6

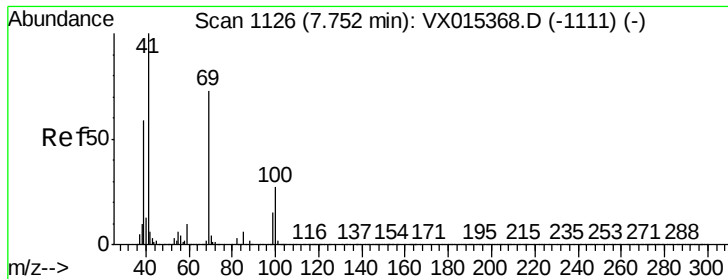
Tot Ion:117 Resp: 85089  
Ion Ratio Lower Upper  
117 100  
119 4.4 78.0 117.0#  
121 0.0 23.8 35.8#



#43  
Isopropyl Acetate  
Concen: 10.114 ug/l  
RT: 6.42 min Scan# 907  
Delta R.T. 0.00 min  
Lab File: VX015825.D  
Acq: 22 Apr 2020 03:58

Tgt Ion: 43 Resp: 301332  
Ion Ratio Lower Upper  
43 100  
61 18.7 14.8 22.2  
87 12.6 9.4 14.0





#48

Methyl methacrylate

Concen: 29.359 ug/l

RT: 7.86 min Scan# 1143

Delta R.T. 0.10 min

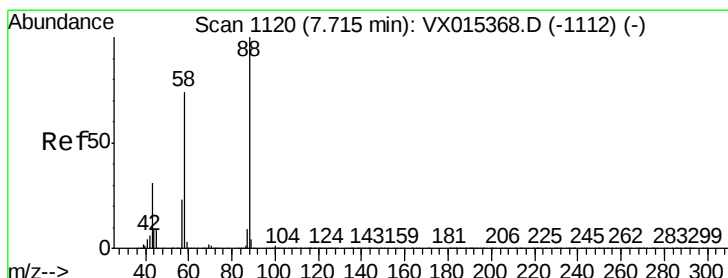
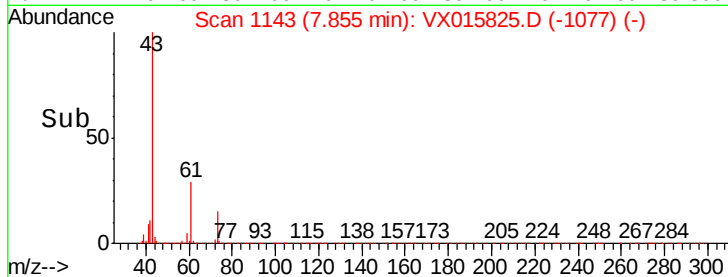
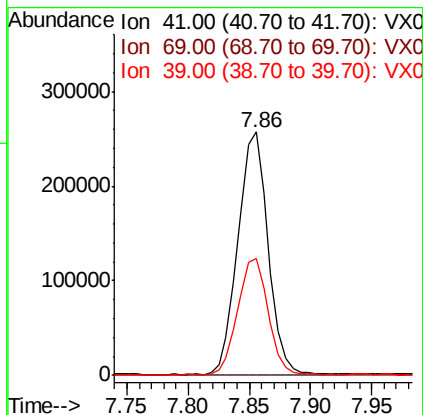
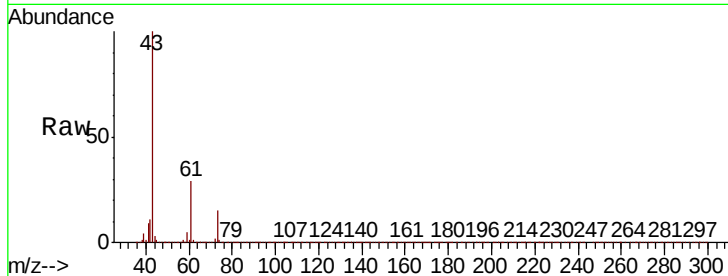
Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :  
MSVOA\_X  
ClientSampleId :  
TP-6

Tot Ion: 41 Resp: 436899

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 41  | 100   |       |       |
| 69  | 0.5   | 56.7  | 85.1# |
| 39  | 49.4  | 46.5  | 69.7  |



#49

1,4-Dioxane

Concen: 15.028 ug/l

RT: 7.72 min Scan# 1120

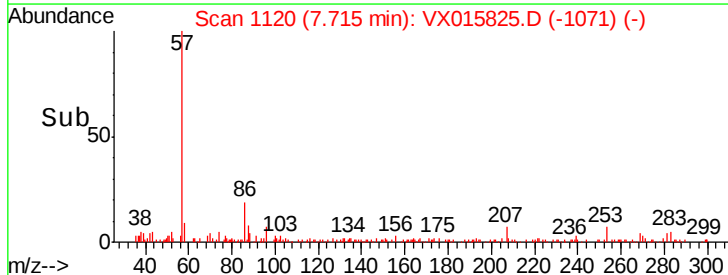
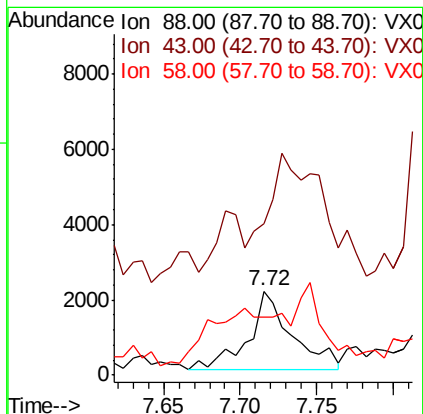
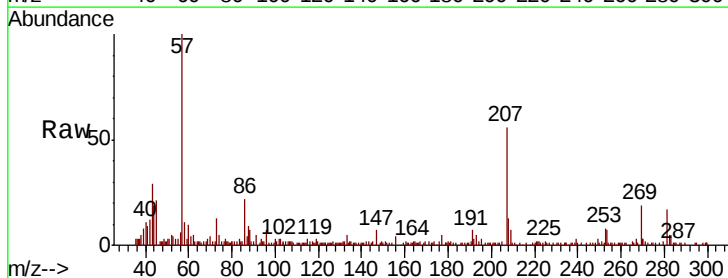
Delta R.T. 0.00 min

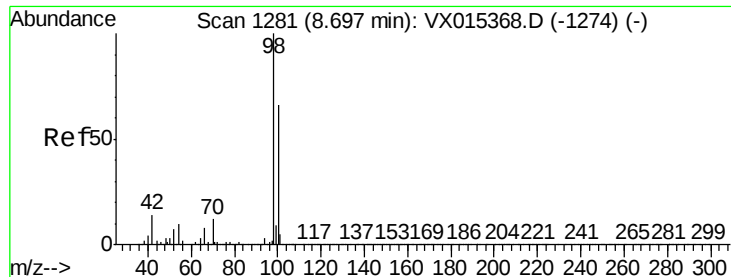
Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Tgt Ion: 88 Resp: 4172

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 88  | 100   |       |       |
| 43  | 0.0   | 30.1  | 45.1# |
| 58  | 92.8  | 60.6  | 90.8# |





#50

Toluene-d8

Concen: 51.575 ug/l

RT: 8.70 min Scan# 1281

Delta R.T. 0.00 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampleId :

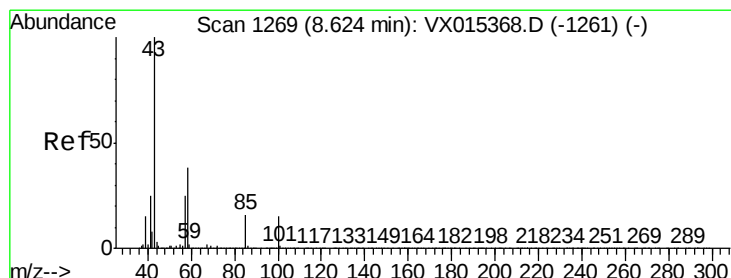
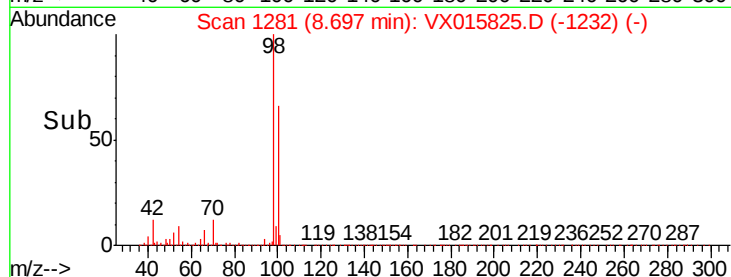
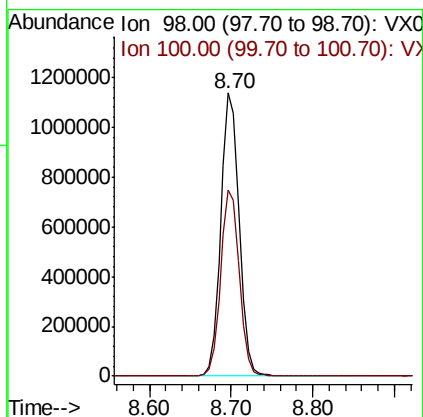
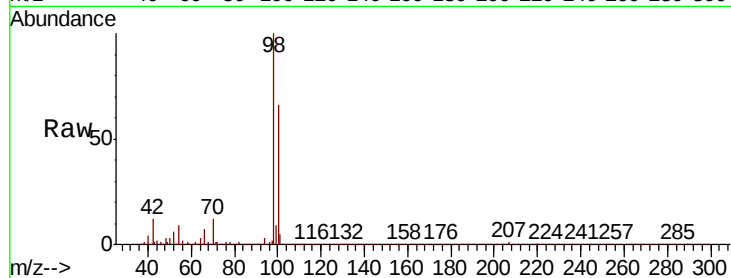
TP-6

Tot Ion: 98 Resp: 1785599

Ion Ratio Lower Upper

98 100

100 66.6 53.5 80.3



#51

4-Methyl-2-Pentanone

Concen: 16.675 ug/l

RT: 8.59 min Scan# 1264

Delta R.T. -0.03 min

Lab File: VX015825.D

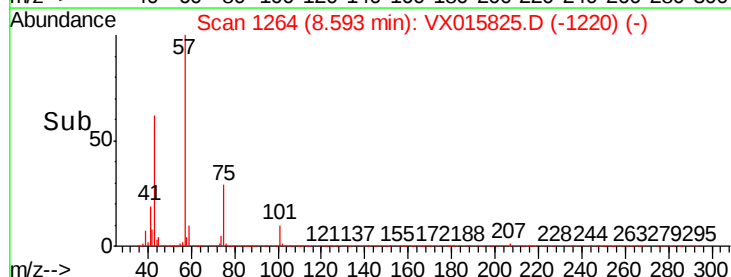
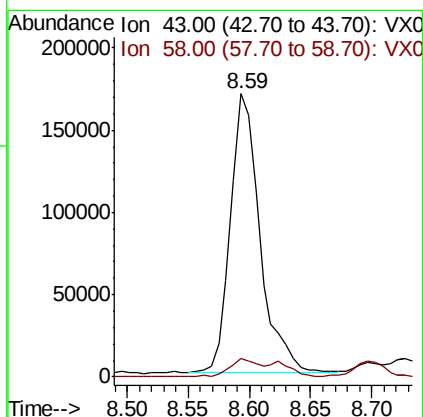
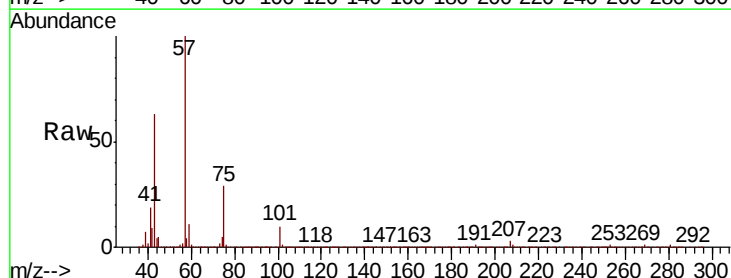
Acq: 22 Apr 2020 03:58

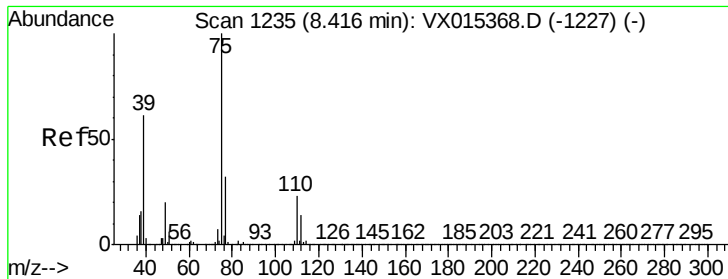
Tgt Ion: 43 Resp: 281540

Ion Ratio Lower Upper

43 100

58 6.2 29.7 44.5#



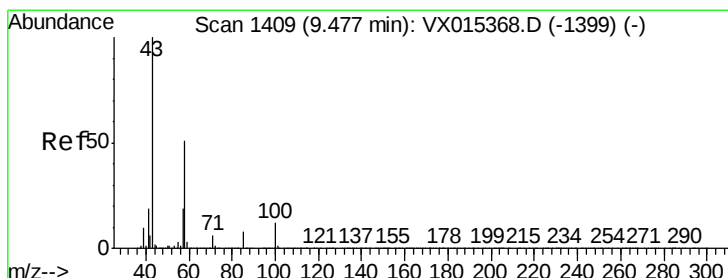
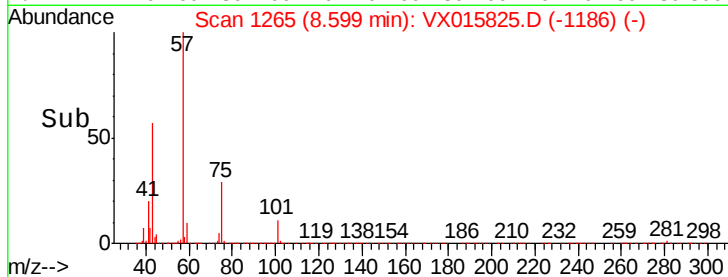
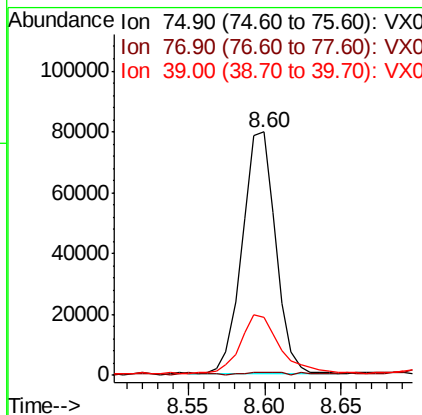
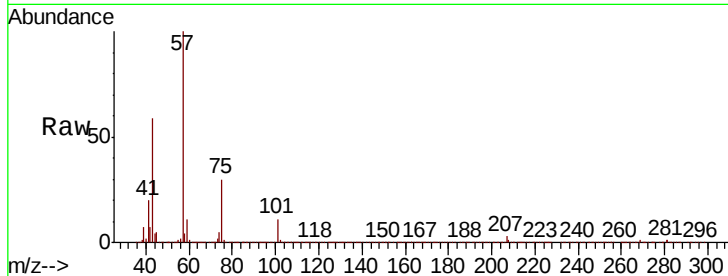


#54

cis-1,3-Dichloropropene  
 Concen: 6.632 ug/l  
 RT: 8.60 min Scan# 1265  
 Delta R.T. 0.18 min  
 Lab File: VX015825.D  
 Acq: 22 Apr 2020 03:58

Instrument :  
 MSVOA\_X  
 ClientSampleId :  
 TP-6

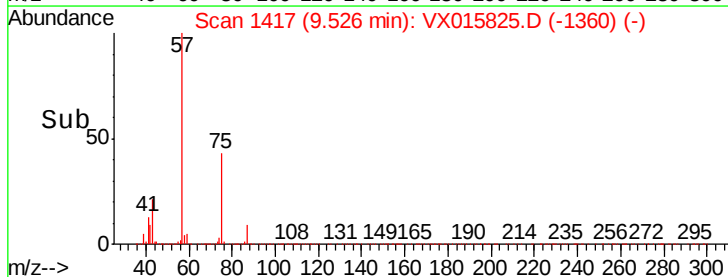
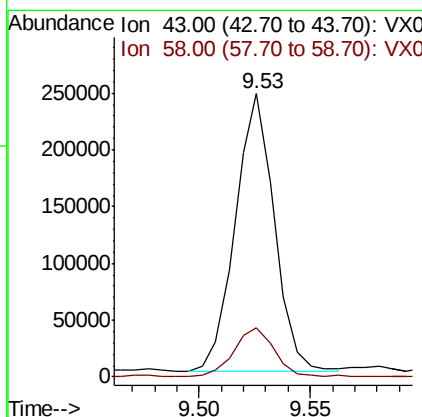
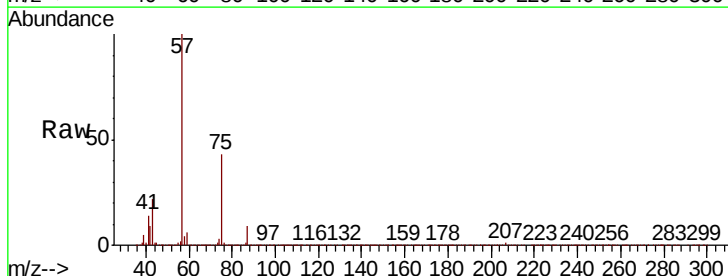
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 75      | 100   |       |       |
| 77      | 0.6   | 25.8  | 38.6# |
| 39      | 23.3  | 49.0  | 73.4# |

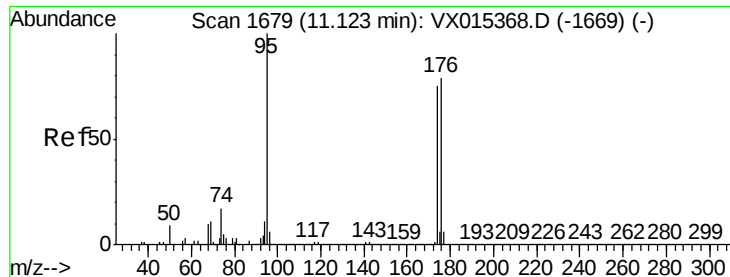


#59

2-Hexanone  
 Concen: 23.540 ug/l  
 RT: 9.53 min Scan# 1417  
 Delta R.T. 0.05 min  
 Lab File: VX015825.D  
 Acq: 22 Apr 2020 03:58

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 17.7  | 25.6  | 76.6# |





#62

4-Bromofluorobenzene

Concen: 53.560 ug/l

RT: 11.12 min Scan# 1679

Delta R.T. 0.00 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampled :

TP-6

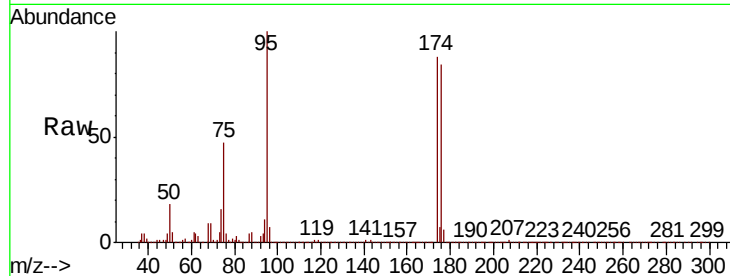
Tot Ion: 95 Resp: 753591

Ion Ratio Lower Upper

95 100

174 85.1 0.0 158.6

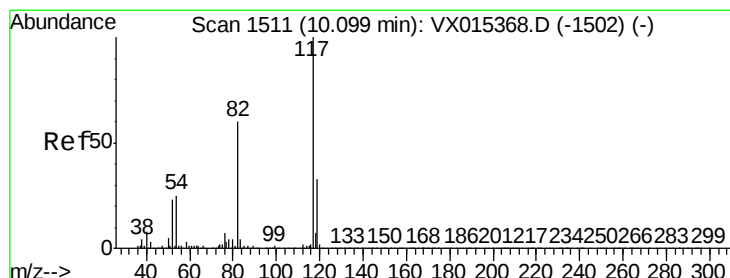
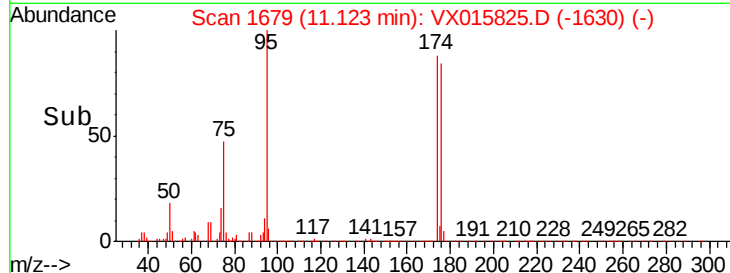
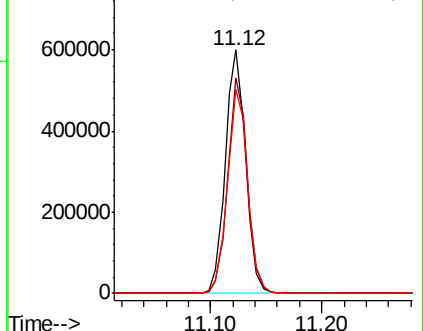
176 83.6 0.0 159.0



Abundance Ion 94.90 (94.60 to 95.60): VX0

Ion 173.80 (173.50 to 174.50): VX0

Ion 175.80 (175.50 to 176.50): VX0



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 10.10 min Scan# 1511

Delta R.T. 0.00 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

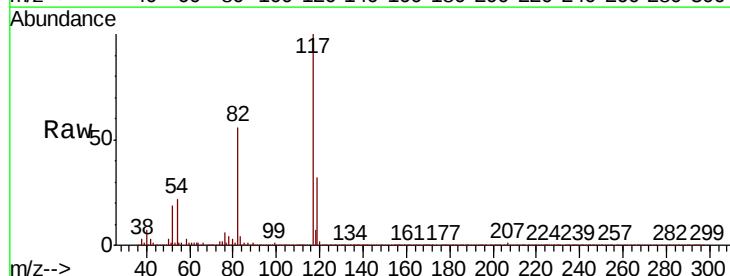
Tgt Ion: 117 Resp: 1420279

Ion Ratio Lower Upper

117 100

82 56.1 47.8 71.8

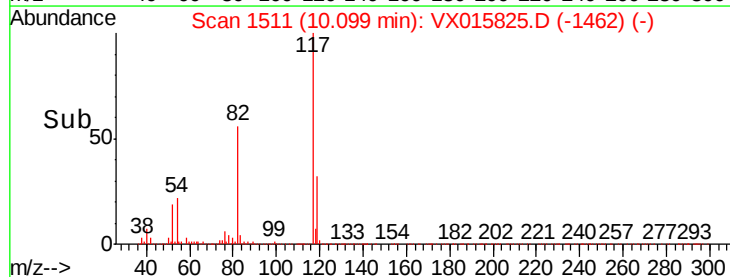
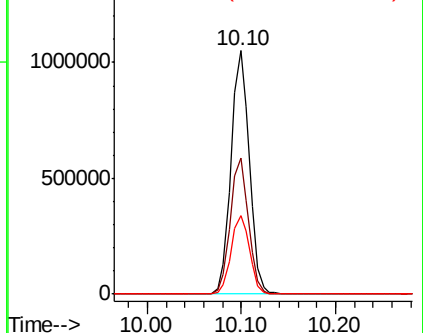
119 32.2 26.8 40.2

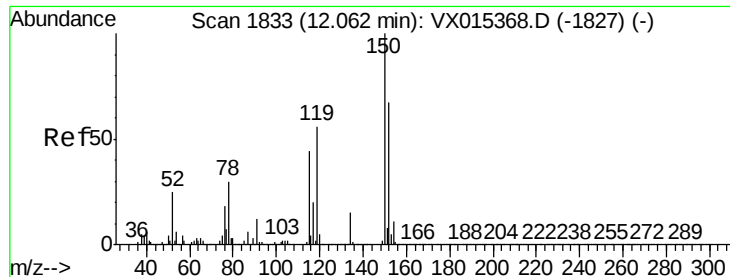


Abundance Ion 116.90 (116.60 to 117.60): VX0

Ion 82.00 (81.70 to 82.70): VX0

Ion 118.90 (118.60 to 119.60): VX0





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 12.06 min Scan# 1833

Delta R.T. 0.00 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampled :

TP-6

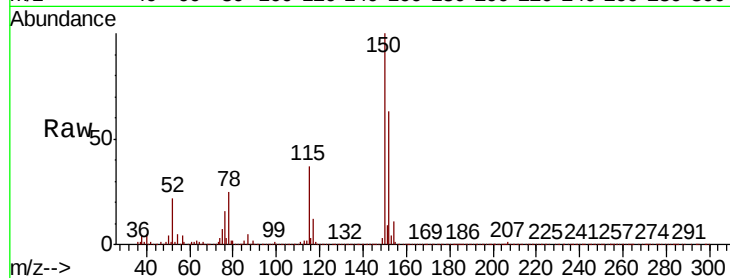
Tot Ion:152 Resp: 810897

Ion Ratio Lower Upper

152 100

115 56.9 39.0 116.9

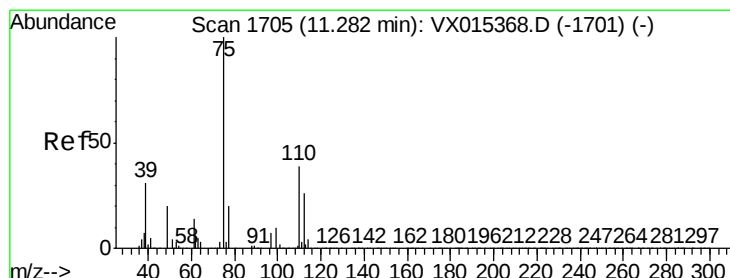
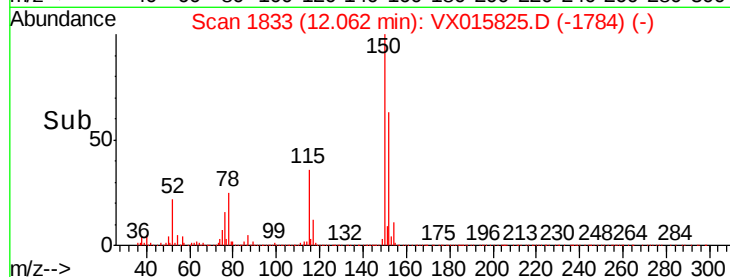
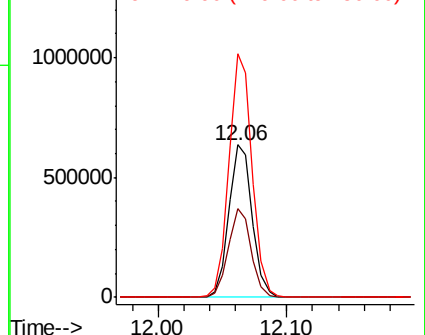
150 158.0 0.0 340.8



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: 21.921 ug/l

RT: 11.12 min Scan# 1679

Delta R.T. -0.16 min

Lab File: VX015825.D

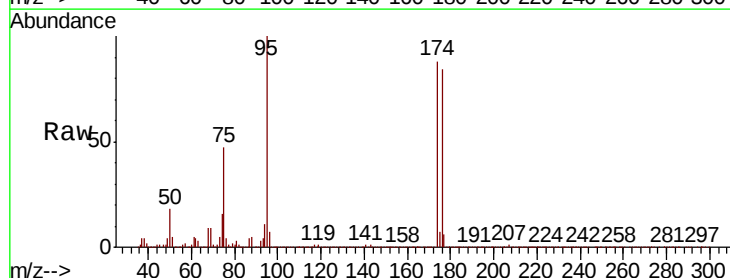
Acq: 22 Apr 2020 03:58

Tgt Ion: 75 Resp: 365543

Ion Ratio Lower Upper

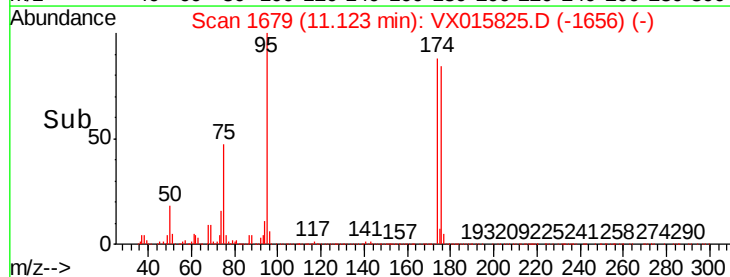
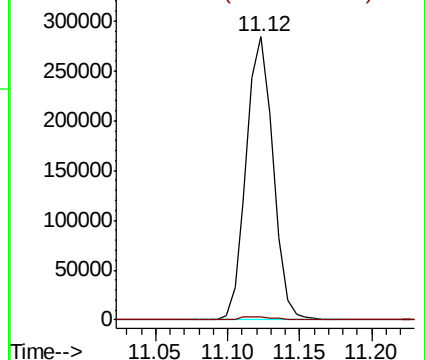
75 100

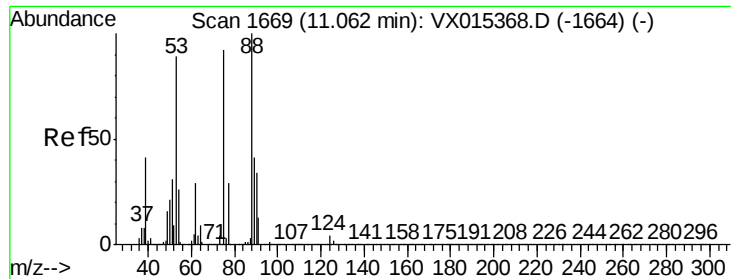
77 1.5 21.2 63.6#



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: 52.599 ug/l

RT: 11.12 min Scan# 1679

Delta R.T. 0.06 min

Lab File: VX015825.D

Acq: 22 Apr 2020 03:58

Instrument :

MSVOA\_X

ClientSampleId :

TP-6

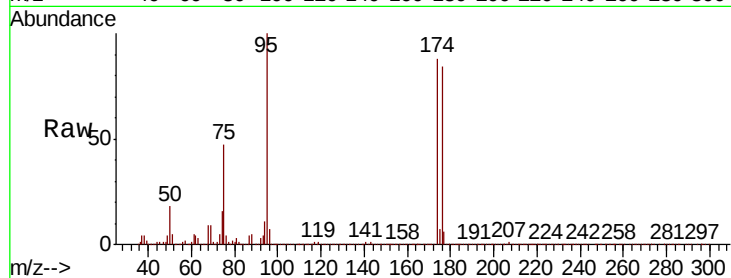
Tot Ion: 75 Resp: 365543

Ion Ratio Lower Upper

75 100

53 0.0 80.1 120.1#

89 0.0 36.1 54.1#



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

