

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\U101420\  
 Data File : VU040691.D  
 Acq On : 14 Oct 2020 10:38  
 Operator : SY/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

Quant Time: Oct 15 05:09:54 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR100820WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Oct 14 17:03:36 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc | Units | Dev(Min) |
|----------------------------|-------|------|----------|------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.26  | 114  | 128979   | 5.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.42  | 117  | 128913   | 5.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.81 | 152  | 67782    | 5.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |        |       |          |          |      |         |
|--------------------------------|--------|-------|----------|----------|------|---------|
| 4) Vinyl Chloride-d3           | 1.60   | 65    | 39822    | 3.73     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 40 - 130 | Recovery | =    | 74.60%  |
| 7) Chloroethane-d5             | 1.92   | 69    | 36100    | 4.38     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 130 | Recovery | =    | 87.60%  |
| 11) 1,1-Dichloroethene-d2      | 2.58   | 63    | 88217    | 4.22     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 125 | Recovery | =    | 84.40%  |
| 20) 2-Butanone-d5              | 4.66   | 46    | 203937   | 59.63    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 40 - 130 | Recovery | =    | 119.26% |
| 24) Chloroform-d               | 5.08   | 84    | 94526    | 5.04     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 100.80% |
| 26) 1,2-Dichloroethane-d4      | 5.72   | 65    | 56603    | 4.95     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 99.00%  |
| 32) Benzene-d6                 | 5.74   | 84    | 156638   | 4.51     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 125 | Recovery | =    | 90.20%  |
| 36) 1,2-Dichloropropane-d6     | 6.70   | 67    | 56172    | 4.87     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 60 - 140 | Recovery | =    | 97.40%  |
| 41) Toluene-d8                 | 7.90   | 98    | 139637   | 4.49     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 70 - 130 | Recovery | =    | 89.80%  |
| 43) trans-1,3-Dichloropropene- | 8.19   | 79    | 25471    | 5.21     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 55 - 130 | Recovery | =    | 104.20% |
| 46) 2-Hexanone-d5              | 8.64   | 63    | 149085   | 59.16    | ug/L | 0.00    |
| Spiked Amount                  | 50.000 | Range | 45 - 130 | Recovery | =    | 118.32% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.75  | 84    | 55923    | 5.40     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 65 - 120 | Recovery | =    | 108.00% |
| 64) 1,2-Dichlorobenzene-d4     | 12.19  | 152   | 60121    | 4.78     | ug/L | 0.00    |
| Spiked Amount                  | 5.000  | Range | 80 - 120 | Recovery | =    | 95.60%  |

## Target Compounds

| Target Compounds               | R.T. | QIon | Response | Conc   | Units | Ovalue |
|--------------------------------|------|------|----------|--------|-------|--------|
| 2) Dichlorodifluoromethane     | 1.39 | 85   | 58991    | 5.048  | ug/L  | 98     |
| 3) Chloromethane               | 1.53 | 50   | 51325    | 4.696  | ug/L  | 98     |
| 5) Vinyl chloride              | 1.61 | 62   | 54816    | 4.763  | ug/L  | 99     |
| 6) Bromomethane                | 1.87 | 94   | 29529    | 4.725  | ug/L  | 99     |
| 8) Chloroethane                | 1.94 | 64   | 35741    | 4.877  | ug/L  | 95     |
| 9) Trichlorofluoromethane      | 2.15 | 101  | 84054    | 5.086  | ug/L  | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.59 | 101  | 54201    | 5.052  | ug/L  | 98     |
| 12) 1,1-Dichloroethene         | 2.59 | 96   | 46984    | 5.105  | ug/L  | 99     |
| 13) Acetone                    | 2.68 | 43   | 145259   | 54.795 | ug/L  | 98     |
| 14) Carbon disulfide           | 2.81 | 76   | 114361   | 4.439  | ug/L  | 98     |
| 15) Methyl Acetate             | 2.97 | 43   | 30014    | 4.958  | ug/L  | 97     |
| 16) Methylene chloride         | 3.06 | 84   | 59889    | 5.069  | ug/L  | 98     |
| 17) Methyl tert-butyl Ether    | 3.38 | 73   | 138204   | 5.311  | ug/L  | 99     |
| 18) trans-1,2-Dichloroethene   | 3.37 | 96   | 47887    | 4.971  | ug/L  | 98     |
| 19) 1,1-Dichloroethane         | 3.89 | 63   | 104021   | 5.221  | ug/L  | 99     |
| 21) 2-Butanone                 | 4.74 | 43   | 230676   | 55.813 | ug/L  | 98     |
| 22) cis-1,2-Dichloroethene     | 4.68 | 96   | 56112    | 5.401  | ug/L  | 96     |

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU101420\  
 Data File : VU040691.D  
 Acq On : 14 Oct 2020 10:38  
 Operator : SY/MD  
 Sample : VSTDCCC005  
 Misc : 25.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

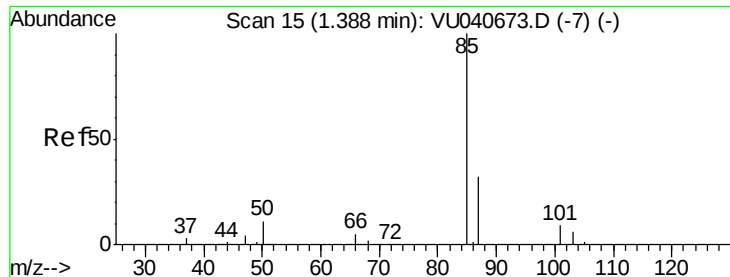
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

Quant Time: Oct 15 05:09:54 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMUTR100820WMA.M  
 Quant Title : TRACE VOA SOM01.0  
 QLast Update : Wed Oct 14 17:03:36 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 4.99  | 128  | 26808    | 5.194  | uq/L  | 93       |
| 25) Chloroform                  | 5.11  | 83   | 109548   | 5.385  | uq/L  | 98       |
| 27) 1,2-Dichloroethane          | 5.81  | 62   | 78537    | 5.455  | uq/L  | 100      |
| 29) 1,1,1-Trichloroethane       | 5.33  | 97   | 91343    | 5.273  | uq/L  | 100      |
| 30) Cyclohexane                 | 5.40  | 56   | 77987    | 4.885  | uq/L  | 98       |
| 31) Carbon tetrachloride        | 5.54  | 117  | 77845    | 5.251  | uq/L  | 99       |
| 33) Benzene                     | 5.79  | 78   | 216564   | 5.229  | uq/L  | 100      |
| 34) Trichloroethene             | 6.55  | 95   | 54874    | 5.111  | uq/L  | 97       |
| 35) Methylcyclohexane           | 6.77  | 83   | 75164    | 4.937  | uq/L  | 98       |
| 37) 1,2-Dichloropropane         | 6.80  | 63   | 61036    | 5.289  | uq/L  | 98       |
| 38) Bromodichloromethane        | 7.11  | 83   | 79219    | 5.370  | uq/L  | 98       |
| 39) cis-1,3-Dichloropropene     | 7.61  | 75   | 83274    | 5.282  | uq/L  | 95       |
| 40) 4-Methyl-2-pentanone        | 7.80  | 43   | 501800   | 54.544 | uq/L  | 100      |
| 42) Toluene                     | 7.97  | 91   | 228511   | 5.415  | uq/L  | 100      |
| 44) trans-1,3-Dichloropropene   | 8.21  | 75   | 79111    | 5.450  | uq/L  | 94       |
| 45) 1,1,2-Trichloroethane       | 8.40  | 97   | 44838    | 5.188  | uq/L  | 98       |
| 47) Tetrachloroethene           | 8.56  | 164  | 40586    | 5.299  | uq/L  | 98       |
| 48) 2-Hexanone                  | 8.69  | 43   | 386555   | 56.435 | uq/L  | 99       |
| 49) Dibromochloromethane        | 8.81  | 129  | 55083    | 5.539  | uq/L  | 99       |
| 50) 1,2-Dibromoethane           | 8.93  | 107  | 43658    | 5.325  | uq/L  | 98       |
| 51) Chlorobenzene               | 9.45  | 112  | 144466   | 5.197  | uq/L  | 99       |
| 52) Ethylbenzene                | 9.57  | 91   | 241312   | 5.283  | uq/L  | 99       |
| 53) m,p-Xylene                  | 9.69  | 106  | 91262    | 5.482  | uq/L  | 99       |
| 54) o-Xylene                    | 10.10 | 106  | 85727    | 5.355  | uq/L  | 99       |
| 55) Styrene                     | 10.11 | 104  | 158402   | 5.697  | uq/L  | 97       |
| 56) Isopropylbenzene            | 10.48 | 105  | 237998   | 5.522  | uq/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.78 | 83   | 60817    | 5.360  | uq/L  | 98       |
| 59) 1,2,3-Trichloropropane      | 10.82 | 75   | 45641    | 5.384  | uq/L  | 98       |
| 61) Bromoform                   | 10.29 | 173  | 31460    | 5.414  | uq/L  | 99       |
| 62) 1,3-Dichlorobenzene         | 11.74 | 146  | 119595   | 5.391  | uq/L  | 98       |
| 63) 1,4-Dichlorobenzene         | 11.83 | 146  | 120001   | 5.246  | uq/L  | 97       |
| 65) 1,2-Dichlorobenzene         | 12.21 | 146  | 115622   | 5.331  | uq/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 12.99 | 75   | 10475    | 5.516  | uq/L  | 93       |
| 67) 1,3,5-Trichlorobenzene      | 13.21 | 180  | 82550    | 5.244  | uq/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.83 | 180  | 66193    | 5.443  | uq/L  | 97       |
| 69) Naphthalene                 | 14.08 | 128  | 103978   | 5.226  | uq/L  | 99       |
| 70) 1,2,3-Trichlorobenzene      | 14.32 | 180  | 61695    | 5.463  | uq/L  | 100      |

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





#2

Dichlorodifluoromethane

Concen: 5.048 ug/L

RT: 1.39 min Scan# 16

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

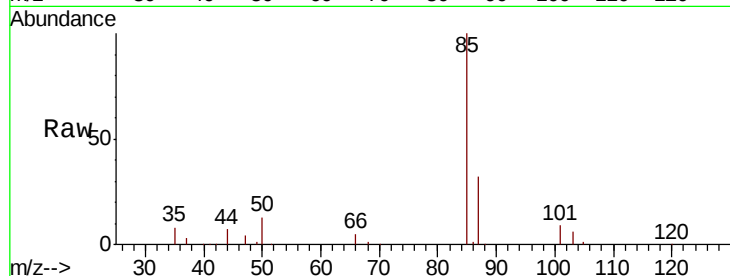
VSTD00509

Tot Ion: 85 Resp: 58991

Ion Ratio Lower Upper

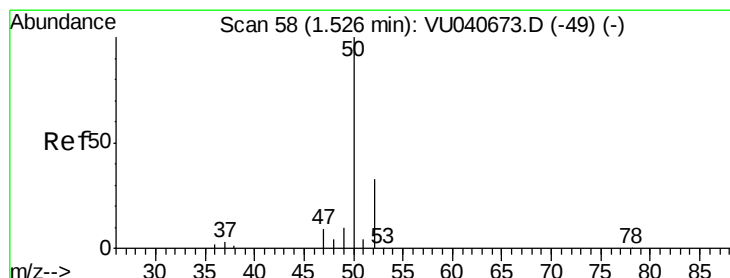
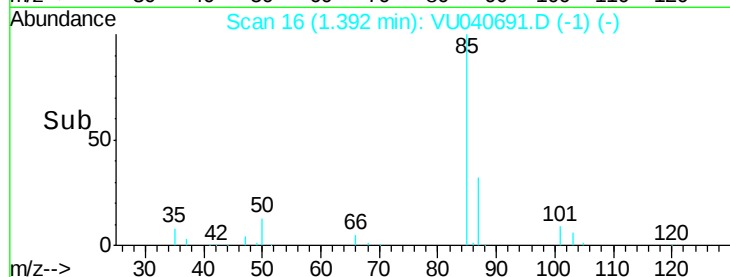
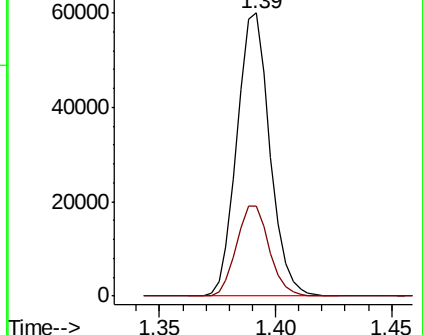
85 100

87 31.9 26.2 39.4



Abundance Ion 85.00 (84.70 to 85.70): VU040673.D (-7) (-)

Ion 87.00 (86.70 to 87.70): VU040673.D (-7) (-)



#3

Chloromethane

Concen: 4.696 ug/L

RT: 1.53 min Scan# 58

Delta R.T. 0.00 min

Lab File: VU040691.D

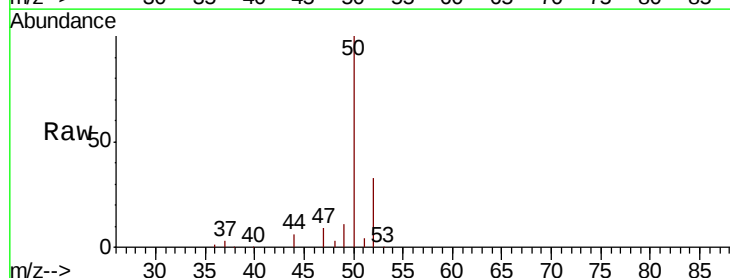
Acq: 14 Oct 2020 10:38

Tgt Ion: 50 Resp: 51325

Ion Ratio Lower Upper

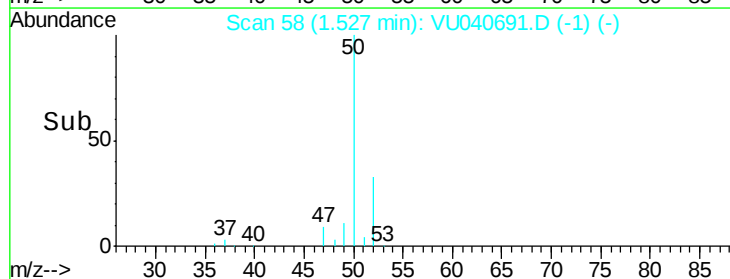
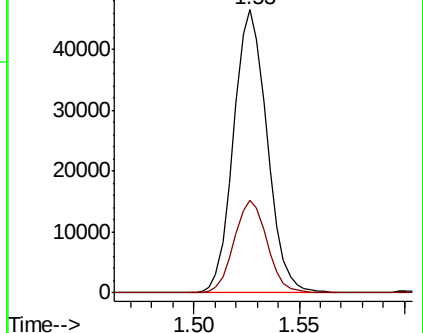
50 100

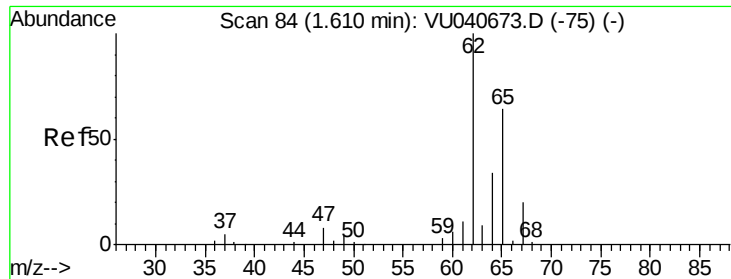
52 32.5 21.9 40.7



Abundance Ion 50.05 (49.75 to 50.75): VU040673.D (-49) (-)

Ion 52.05 (51.75 to 52.75): VU040673.D (-49) (-)





#5

Vinyl chloride

Concen: 4.763 ug/L

RT: 1.61 min Scan# 84

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

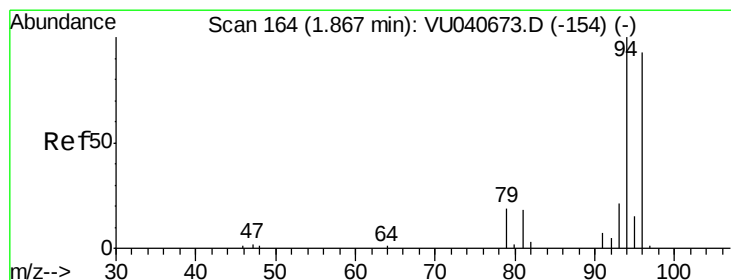
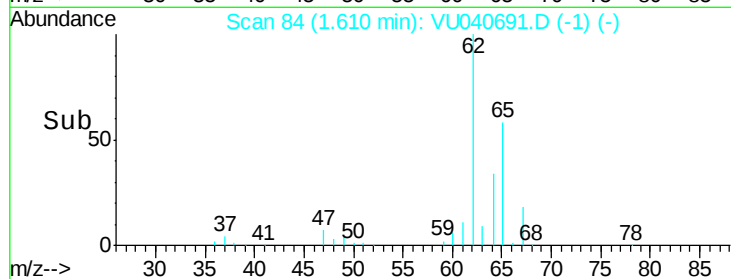
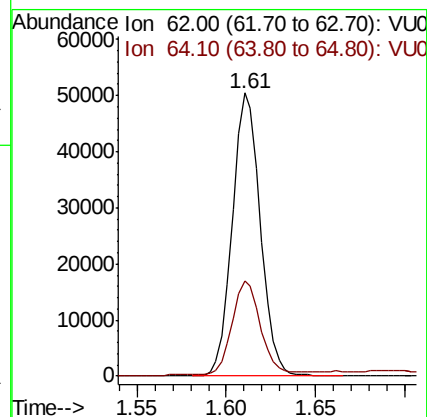
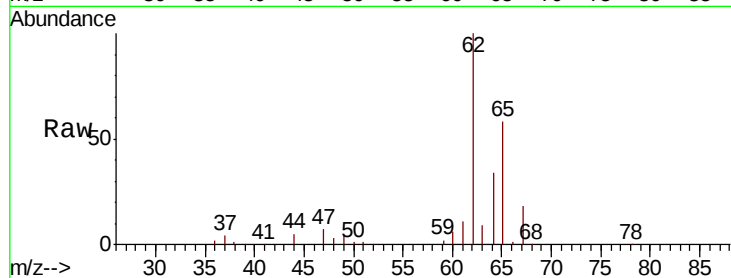
VSTD00509

Tot Ion: 62 Resp: 54816

Ion Ratio Lower Upper

62 100

64 33.6 23.7 44.1



#6

Bromomethane

Concen: 4.725 ug/L

RT: 1.87 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU040691.D

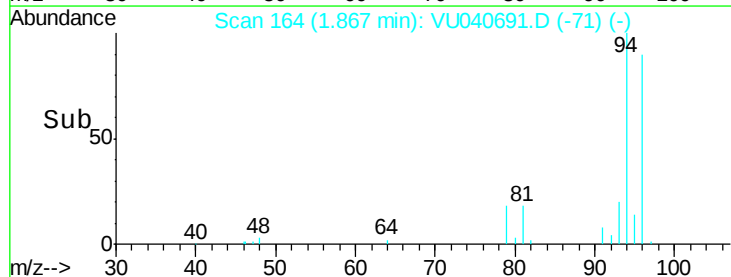
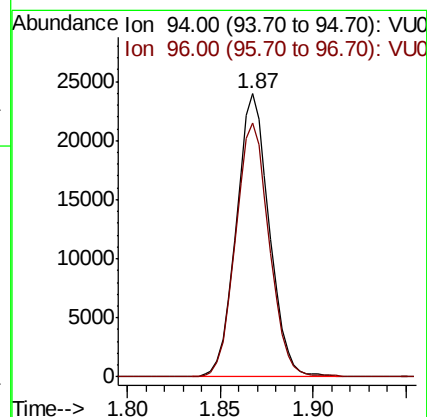
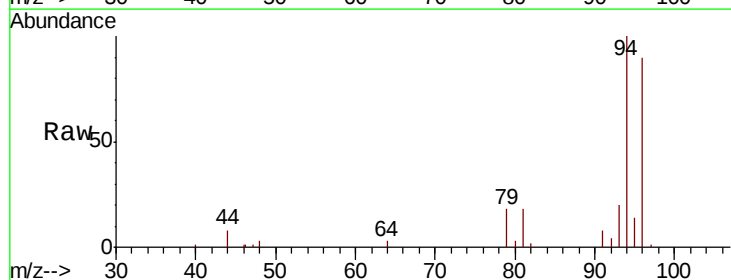
Acq: 14 Oct 2020 10:38

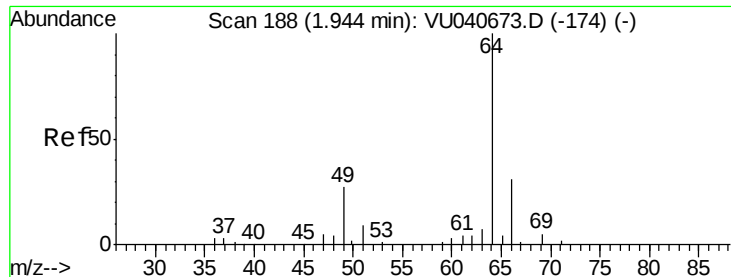
Tgt Ion: 94 Resp: 29529

Ion Ratio Lower Upper

94 100

96 89.6 62.1 115.3





#8

Chloroethane

Concen: 4.877 ug/L

RT: 1.94 min Scan# 188

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

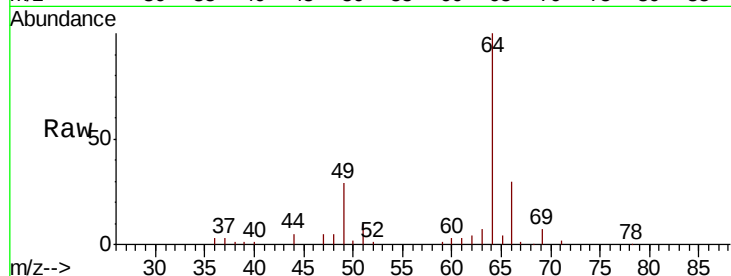
VSTD00509

Tot Ion: 64 Resp: 35741

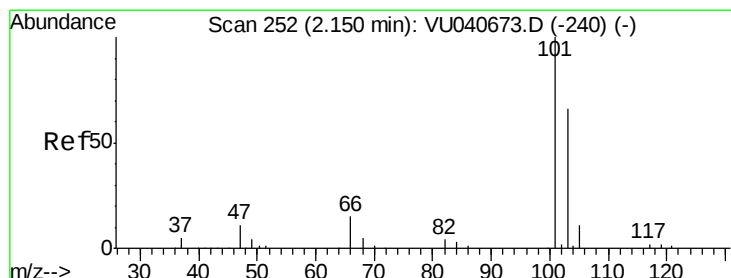
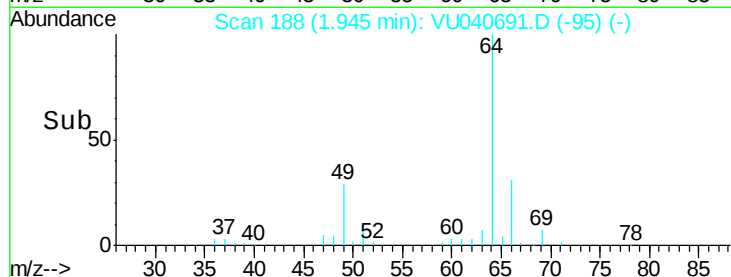
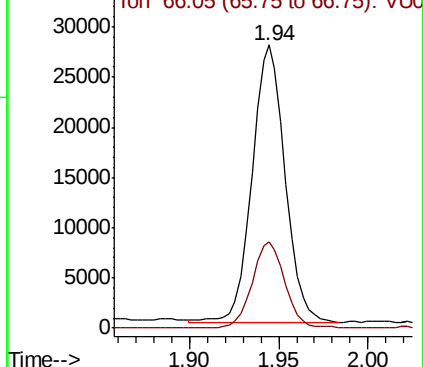
Ion Ratio Lower Upper

64 100

66 30.3 23.3 43.3



Abundance Ion 64.10 (63.80 to 64.80): VU040691.D (-95) (-)



#9

Trichlorofluoromethane

Concen: 5.086 ug/L

RT: 2.15 min Scan# 252

Delta R.T. 0.00 min

Lab File: VU040691.D

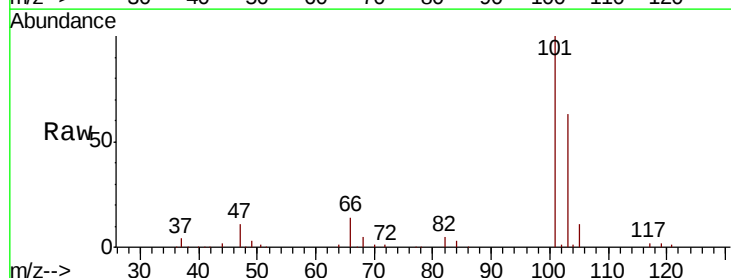
Acq: 14 Oct 2020 10:38

Tgt Ion:101 Resp: 84054

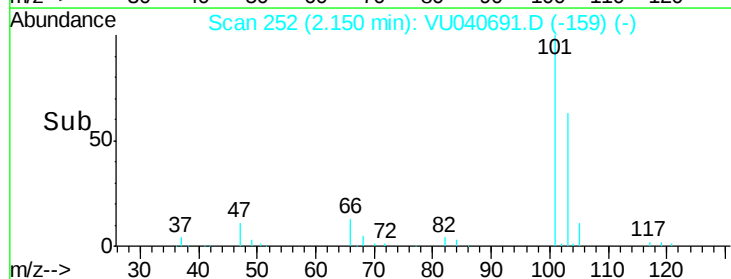
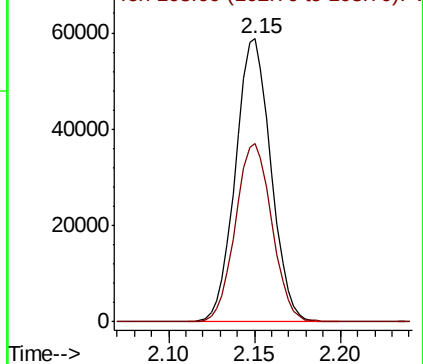
Ion Ratio Lower Upper

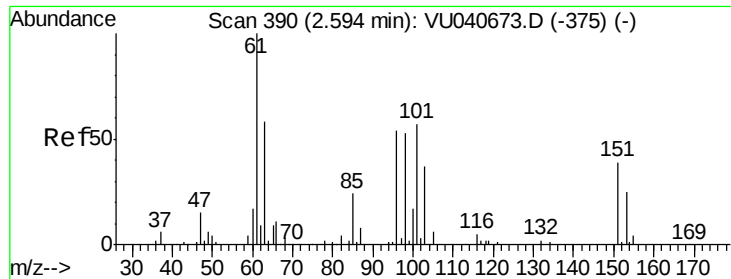
101 100

103 64.7 52.2 78.4



Abundance Ion 101.00 (100.70 to 101.70): VU040691.D (-159) (-)





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 5.052 ug/L

RT: 2.59 min Scan# 390

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

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ClientSampleId :

VSTD00509

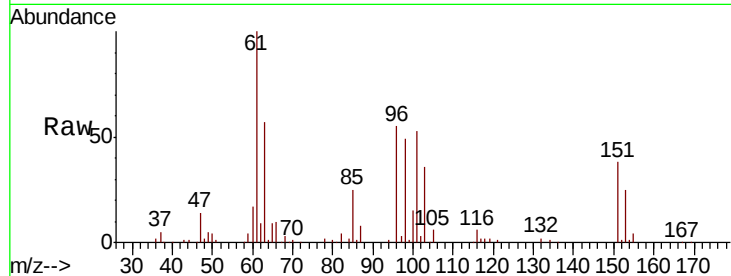
Tot Ion:101 Resp: 54201

Ion Ratio Lower Upper

101 100

85 46.0 36.7 55.1

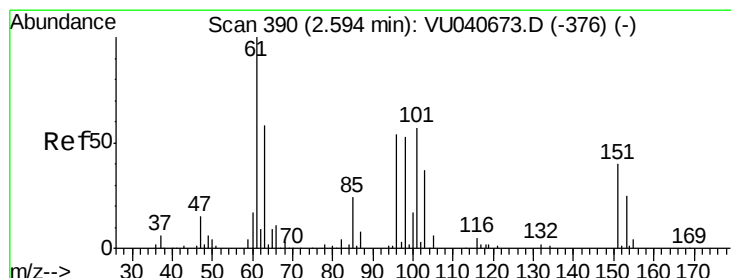
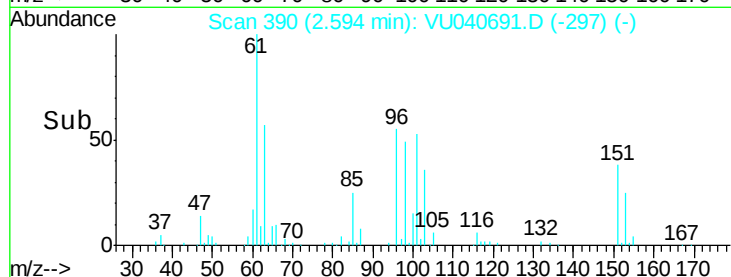
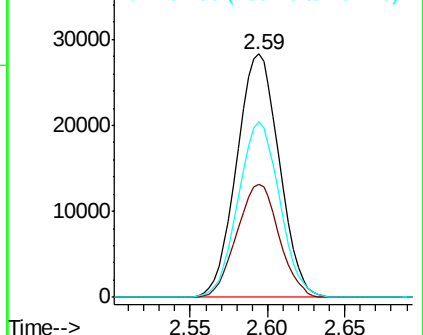
151 70.3 58.0 87.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 5.105 ug/L

RT: 2.59 min Scan# 389

Delta R.T. -0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

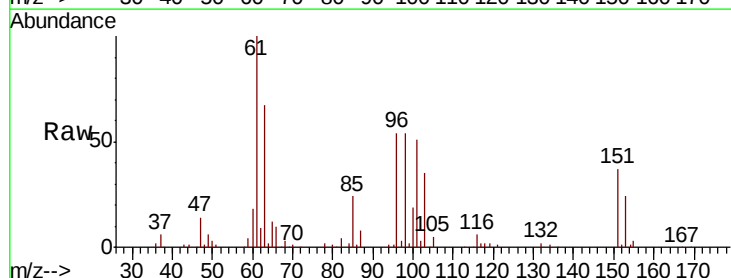
Tgt Ion: 96 Resp: 46984

Ion Ratio Lower Upper

96 100

61 184.5 128.8 239.2

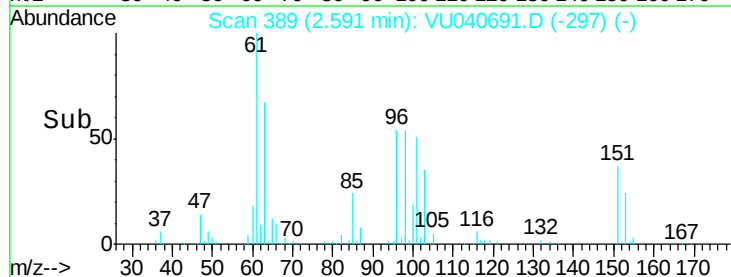
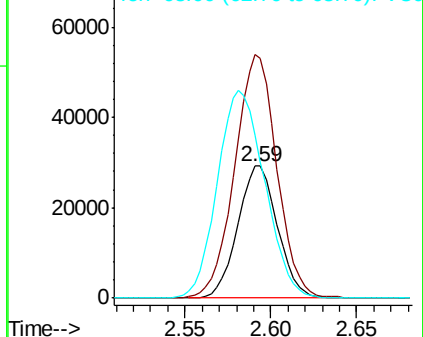
63 123.4 84.6 157.2

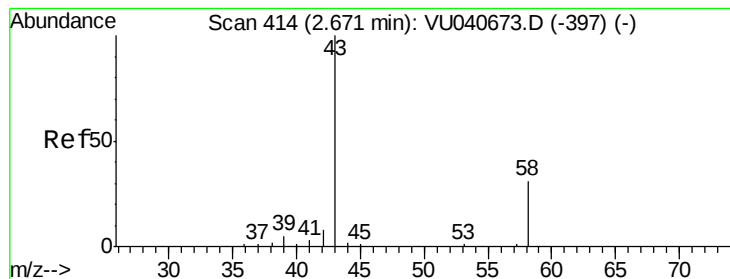


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.05 (60.75 to 61.75): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 54.795 ug/L

RT: 2.68 min Scan# 416

Delta R.T. 0.01 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

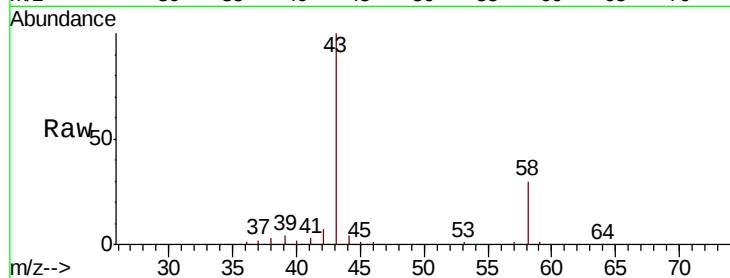
VSTD00509

Tot Ion: 43 Resp: 145259

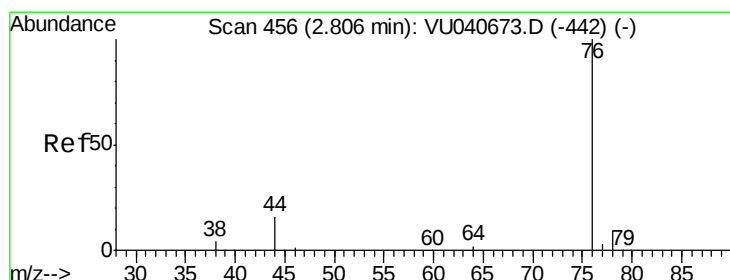
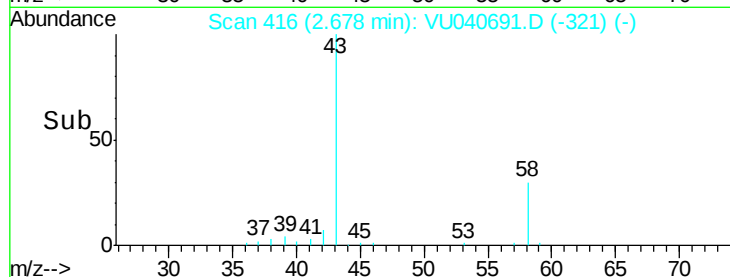
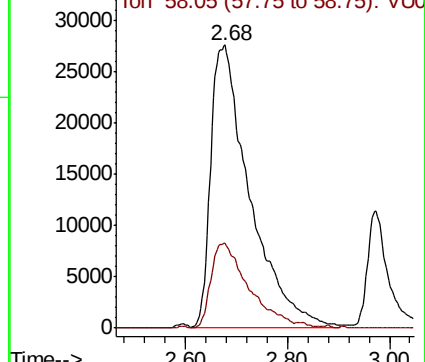
Ion Ratio Lower Upper

43 100

58 29.2 0.0 60.6



Abundance Ion 43.05 (42.75 to 43.75): VU040691.D (-321) (-)



#14

Carbon disulfide

Concen: 4.439 ug/L

RT: 2.81 min Scan# 456

Delta R.T. 0.00 min

Lab File: VU040691.D

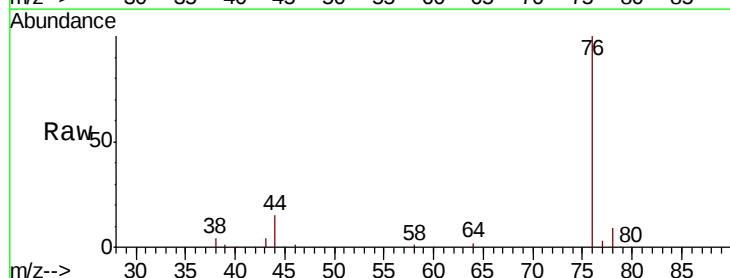
Acq: 14 Oct 2020 10:38

Tgt Ion: 76 Resp: 114361

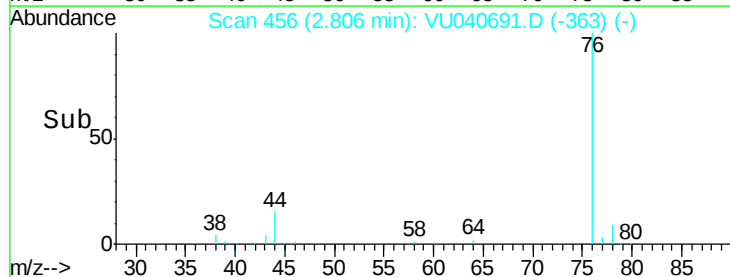
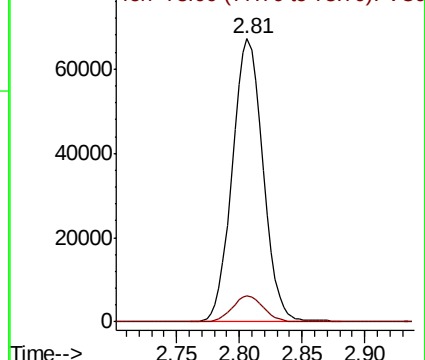
Ion Ratio Lower Upper

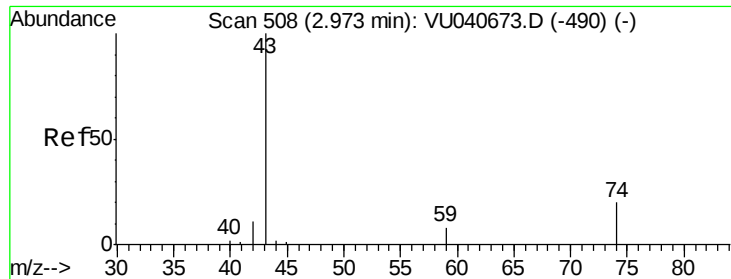
76 100

78 9.3 6.8 10.2



Abundance Ion 76.05 (75.75 to 76.75): VU040691.D (-363) (-)

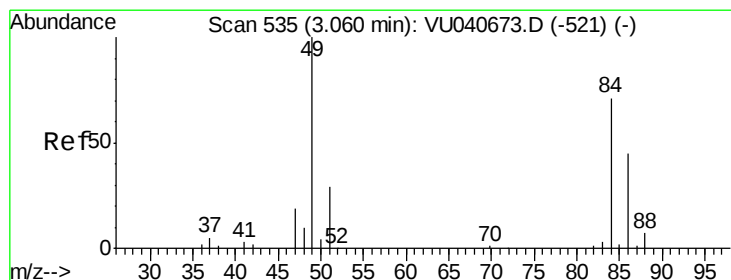
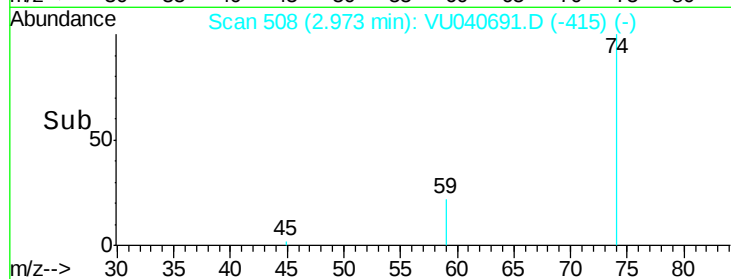
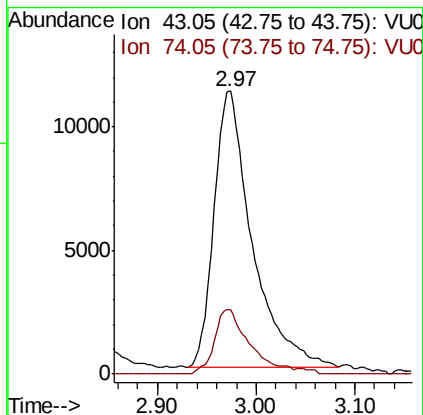
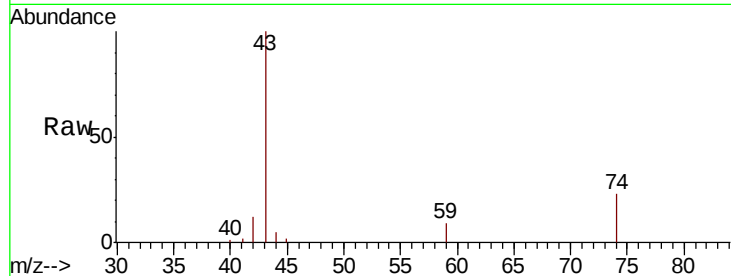




#15  
Methvl Acetate  
Concen: 4.958 ug/L  
RT: 2.97 min Scan# 508  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

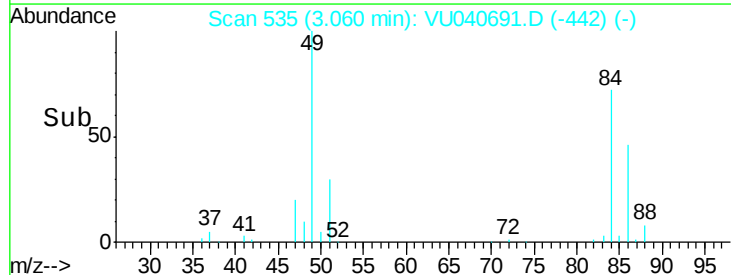
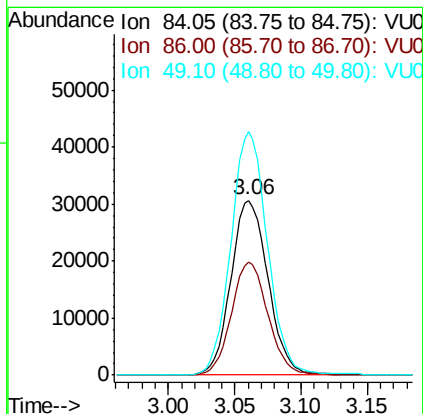
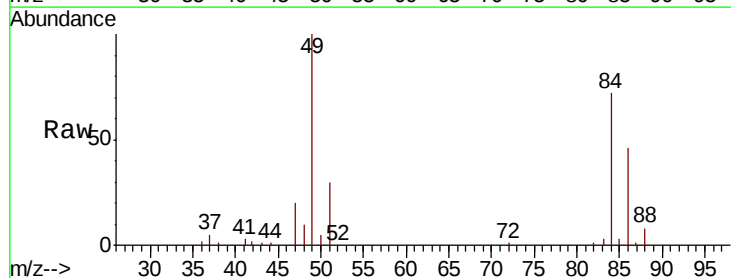
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00509

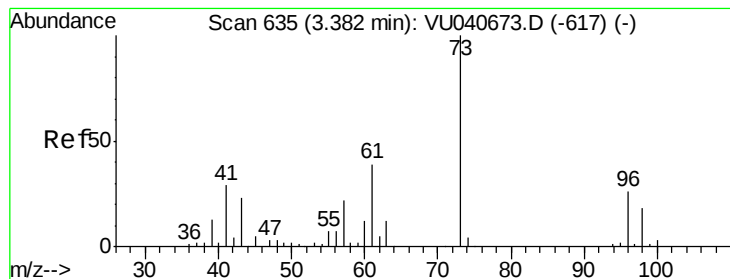
Tot Ion: 43 Resp: 30014  
Ion Ratio Lower Upper  
43 100  
74 21.8 16.5 24.7



#16  
Methylene chloride  
Concen: 5.069 ug/L  
RT: 3.06 min Scan# 535  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

Tgt Ion: 84 Resp: 59889  
Ion Ratio Lower Upper  
84 100  
86 64.6 45.4 84.4  
49 139.0 99.8 185.3



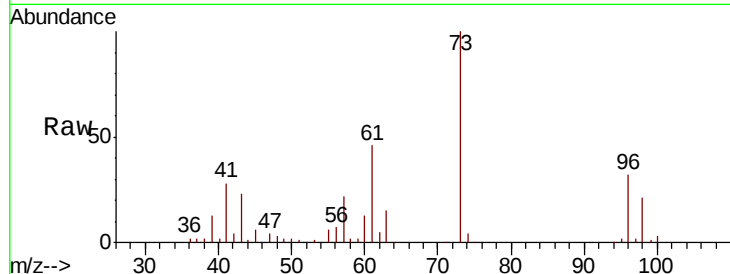


#17

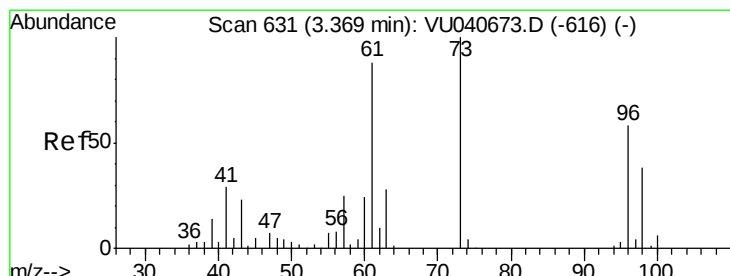
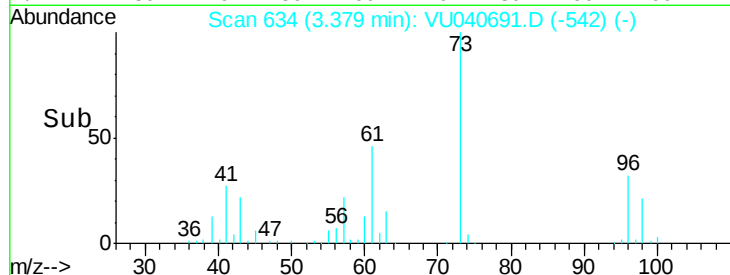
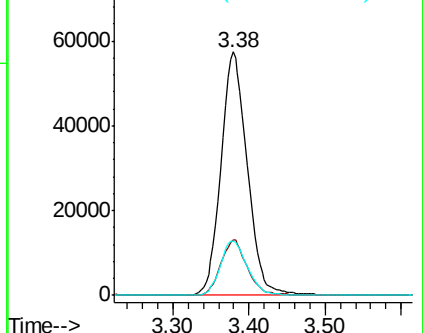
Methvl tert-butvl Ether  
 Concen: 5.311 ug/L  
 RT: 3.38 min Scan# 634  
 Delta R.T. -0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

Tot Ion: 73 Resp: 138204  
 Ion Ratio Lower Upper  
 73 100  
 43 22.9 18.2 27.4  
 57 22.8 18.6 28.0



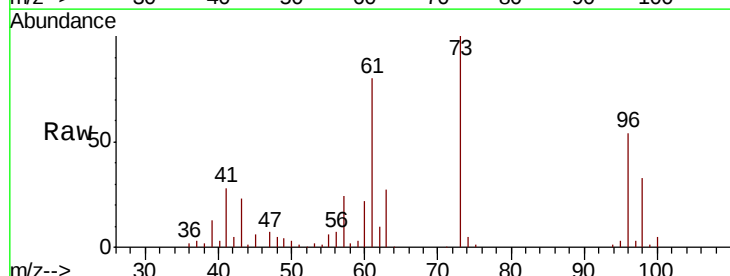
Abundance Ion 73.10 (72.80 to 73.80): VU0  
 Ion 43.05 (42.75 to 43.75): VU0  
 Ion 57.10 (56.80 to 57.80): VU0



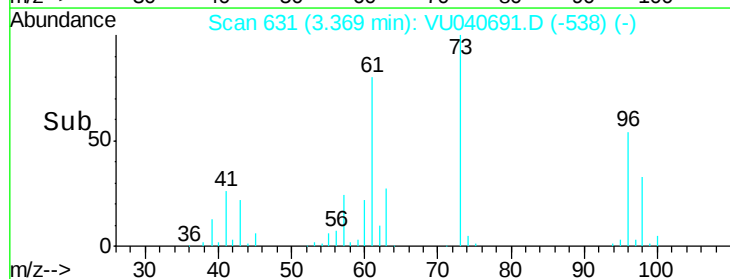
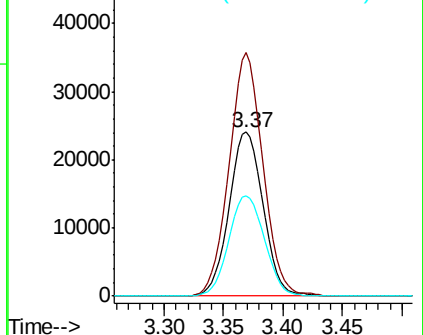
#18

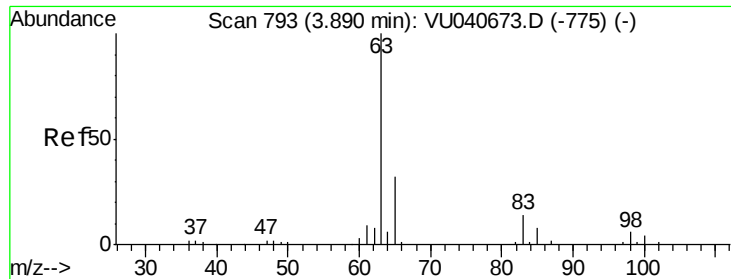
trans-1,2-Dichloroethene  
 Concen: 4.971 ug/L  
 RT: 3.37 min Scan# 631  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Tgt Ion: 96 Resp: 47887  
 Ion Ratio Lower Upper  
 96 100  
 61 148.4 105.9 196.7  
 98 61.3 43.8 81.3



Abundance Ion 96.00 (95.70 to 96.70): VU0  
 Ion 61.05 (60.75 to 61.75): VU0  
 Ion 97.95 (97.65 to 98.65): VU0

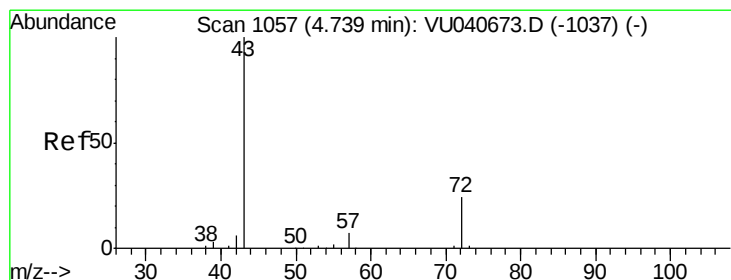
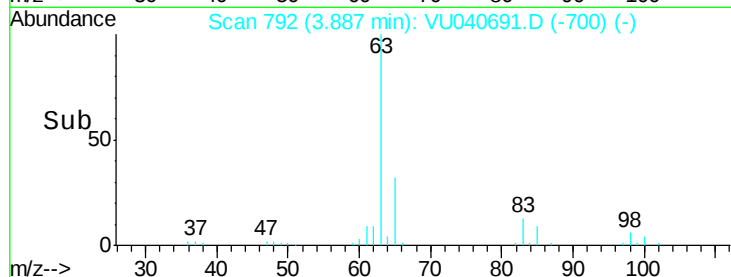
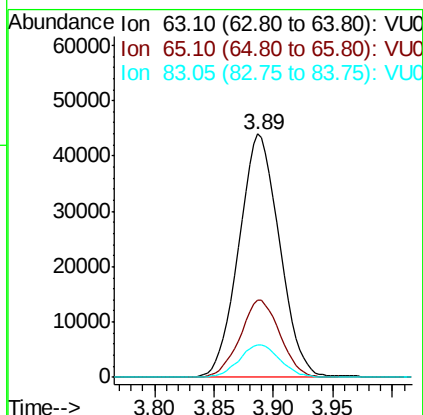
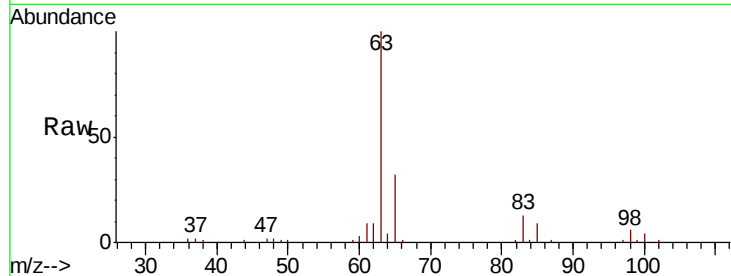




#19  
 1,1-Dichloroethane  
 Concen: 5.221 ug/L  
 RT: 3.89 min Scan# 792  
 Delta R.T. -0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

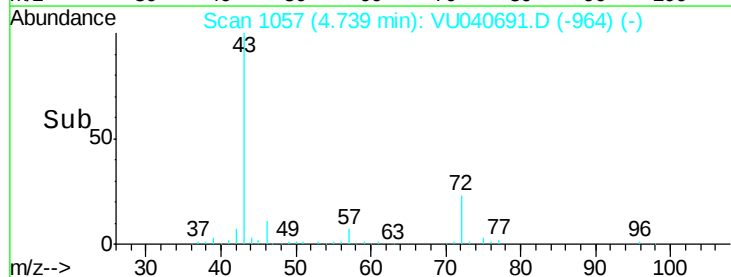
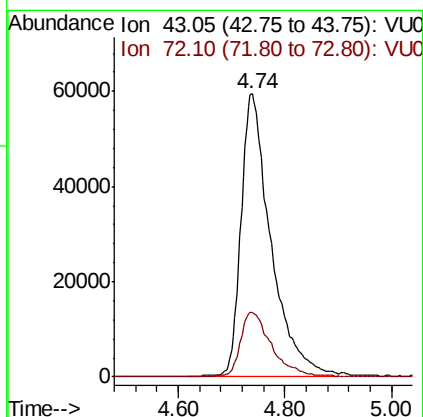
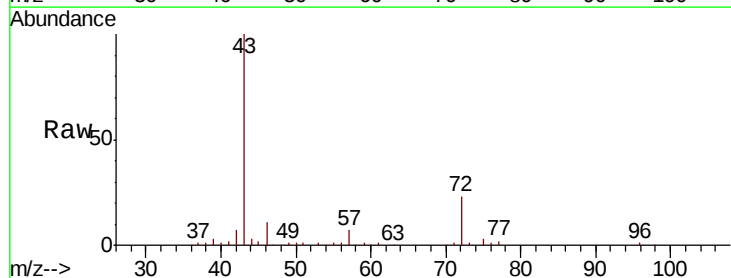
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

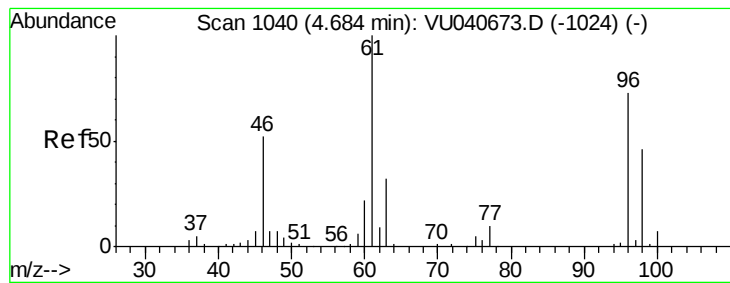
Tot Ion: 63 Resp: 104021  
 Ion Ratio Lower Upper  
 63 100  
 65 31.9 21.9 40.7  
 83 13.3 9.6 17.8



#21  
 2-Butanone  
 Concen: 55.813 ug/L  
 RT: 4.74 min Scan# 1057  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Tgt Ion: 43 Resp: 230676  
 Ion Ratio Lower Upper  
 43 100  
 72 23.6 11.4 34.2





#22

cis-1,2-Dichloroethene

Concen: 5.401 ug/L

RT: 4.68 min Scan# 1040

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00509

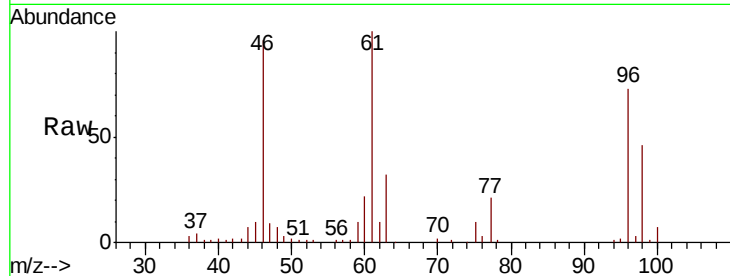
Tot Ion: 96 Resp: 56112

Ion Ratio Lower Upper

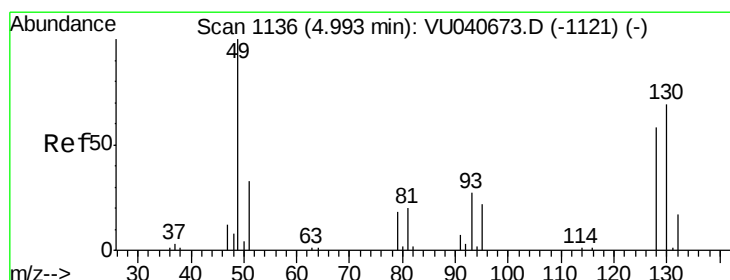
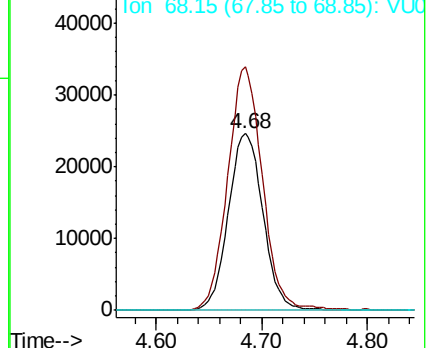
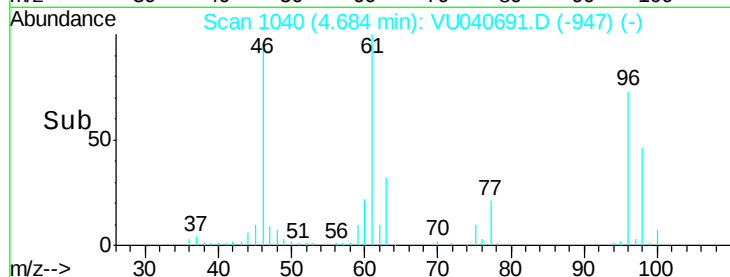
96 100

61 137.6 99.8 185.4

68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU040691.D (-947) (-)



#23

Bromochloromethane

Concen: 5.194 ug/L

RT: 4.99 min Scan# 1136

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Tgt Ion: 128 Resp: 26808

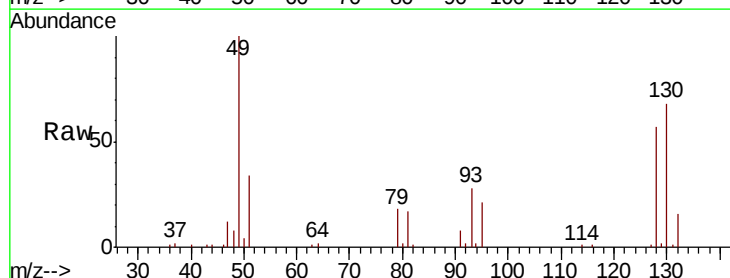
Ion Ratio Lower Upper

128 100

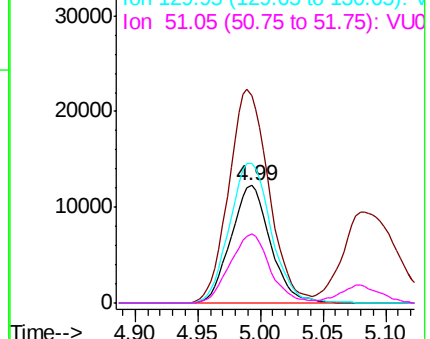
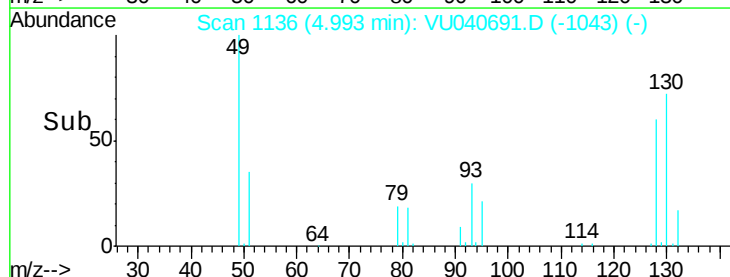
49 176.0 132.2 245.4

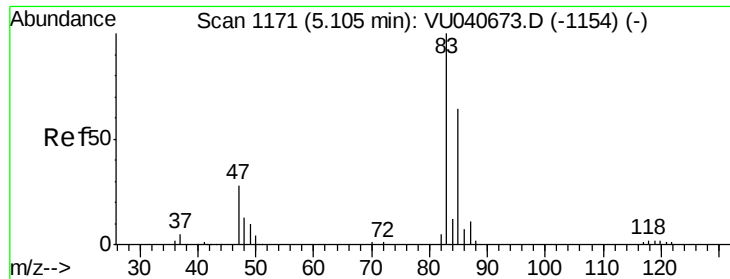
130 118.9 89.2 165.8

51 59.0 45.3 67.9



Abundance Ion 127.90 (127.60 to 128.60): VU040691.D (-1043) (-)

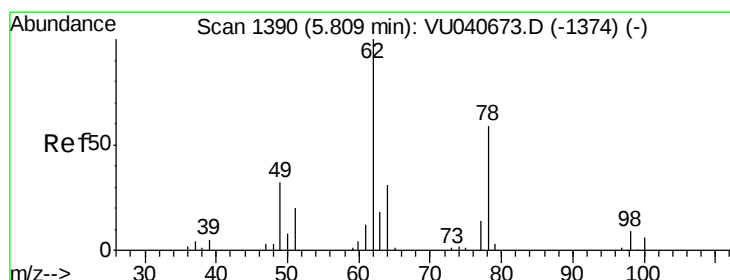
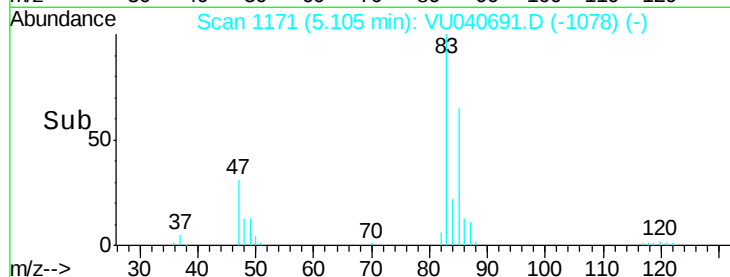
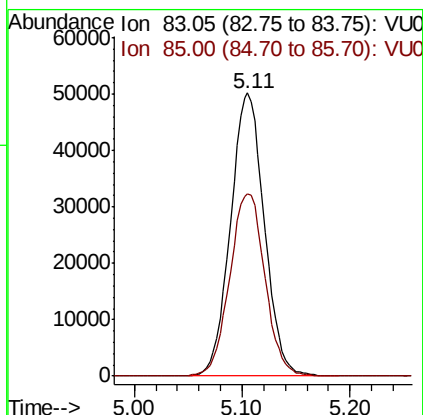
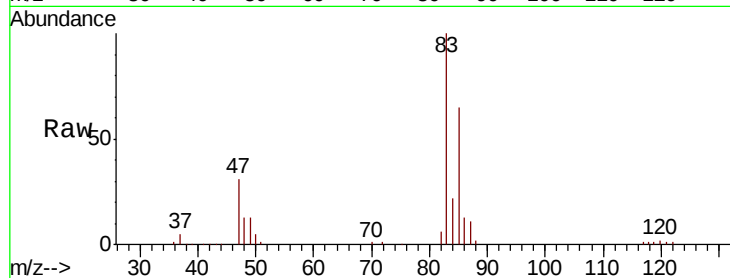




#25  
Chloroform  
Concen: 5.385 ug/L  
RT: 5.11 min Scan# 1171  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

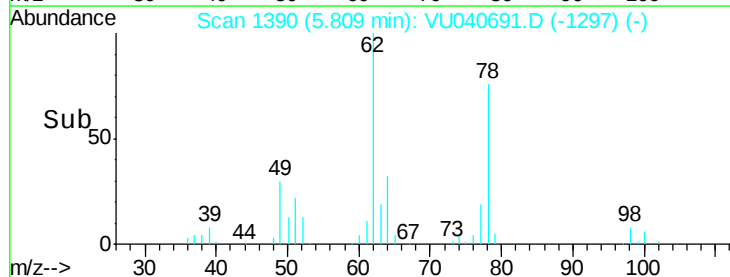
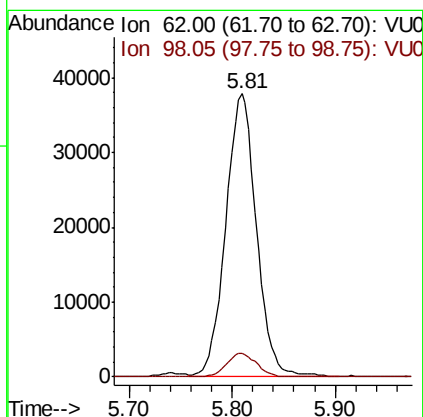
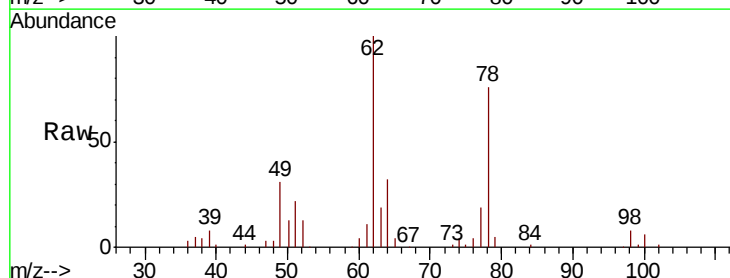
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00509

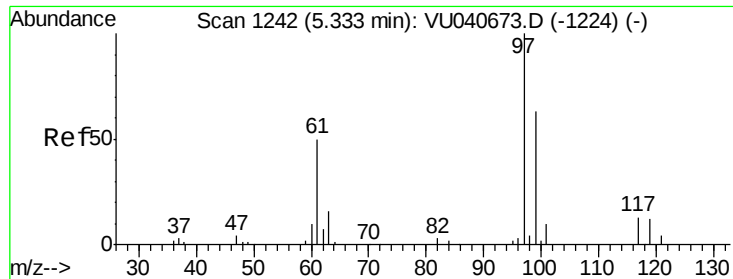
Tot Ion: 83 Resp: 109548  
Ion Ratio Lower Upper  
83 100  
85 64.5 46.5 86.5



#27  
1,2-Dichloroethane  
Concen: 5.455 ug/L  
RT: 5.81 min Scan# 1390  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

Tgt Ion: 62 Resp: 78537  
Ion Ratio Lower Upper  
62 100  
98 8.4 6.6 10.0

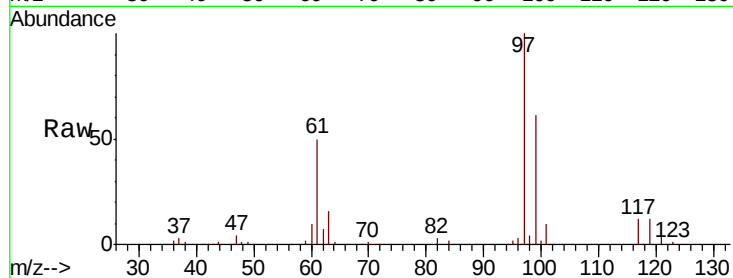




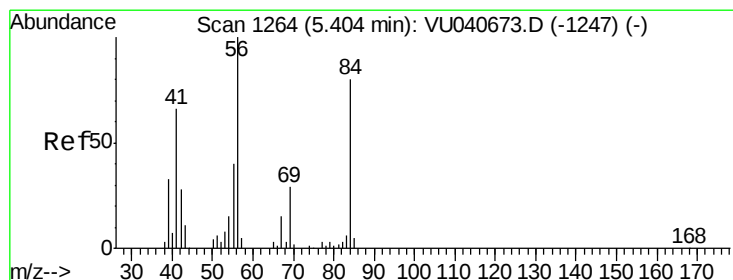
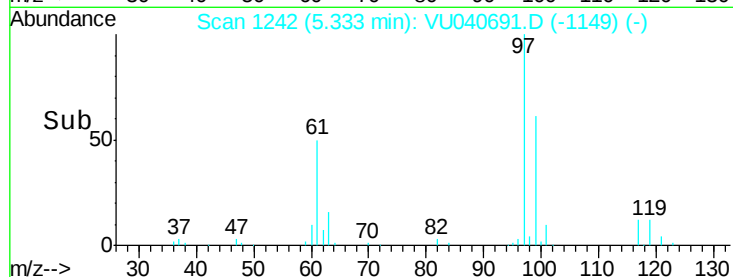
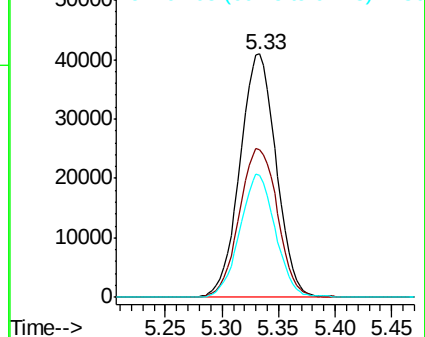
#29  
 1,1,1-Trichloroethane  
 Concen: 5.273 ug/L  
 RT: 5.33 min Scan# 1242  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

Tot Ion: 97 Resp: 91343  
 Ion Ratio Lower Upper  
 97 100  
 99 64.5 51.3 76.9  
 61 49.6 39.4 59.2

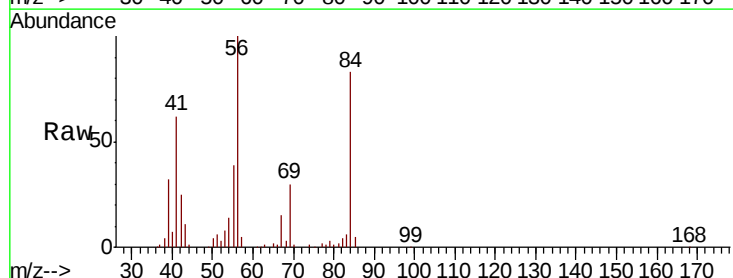


Abundance Ion 96.95 (96.65 to 97.65): VU0  
 Ion 99.05 (98.75 to 99.75): VU0  
 Ion 61.05 (60.75 to 61.75): VU0

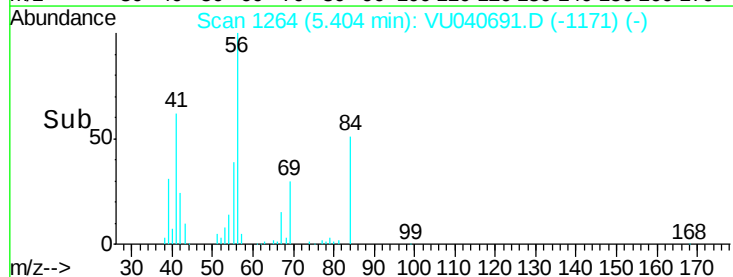
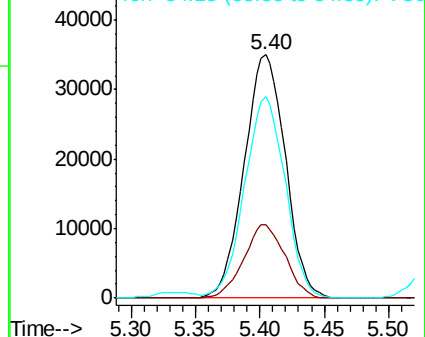


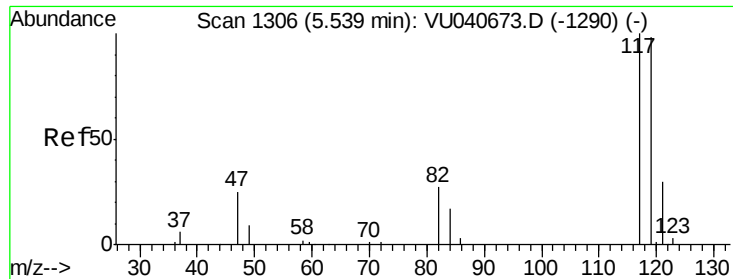
#30  
 Cyclohexane  
 Concen: 4.885 ug/L  
 RT: 5.40 min Scan# 1264  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Tgt Ion: 56 Resp: 77987  
 Ion Ratio Lower Upper  
 56 100  
 69 30.0 23.8 35.8  
 84 81.7 64.0 96.0



Abundance Ion 56.10 (55.80 to 56.80): VU0  
 Ion 69.15 (68.85 to 69.85): VU0  
 Ion 84.15 (83.85 to 84.85): VU0

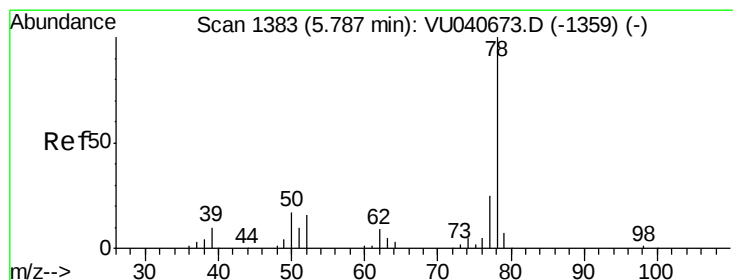
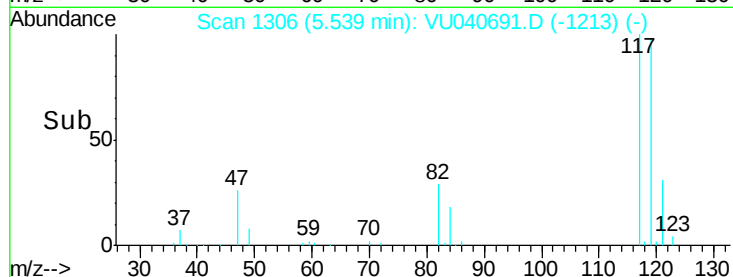
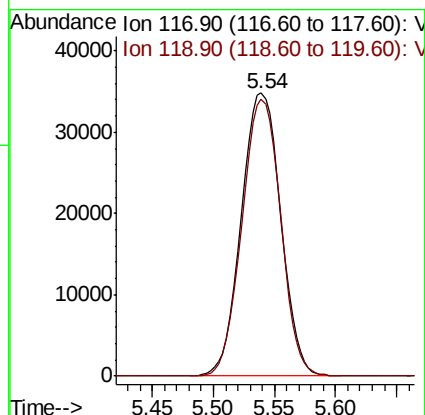
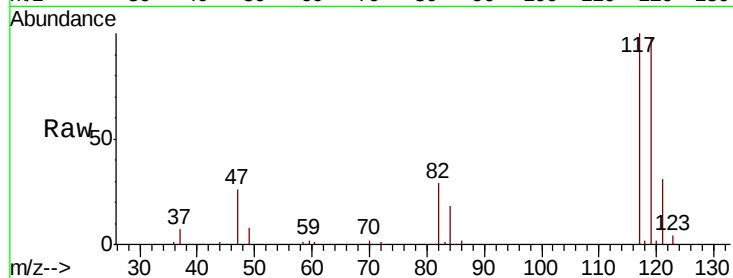




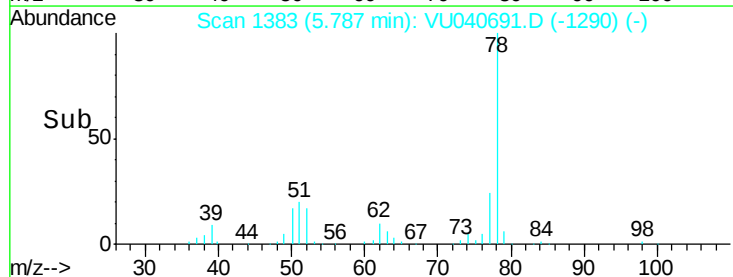
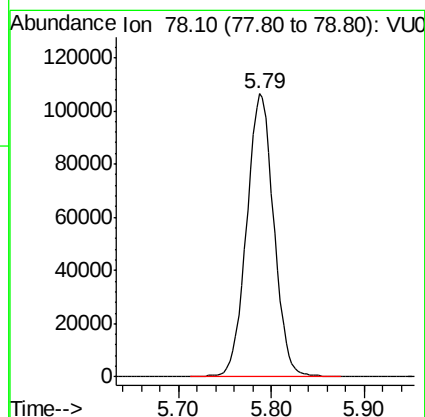
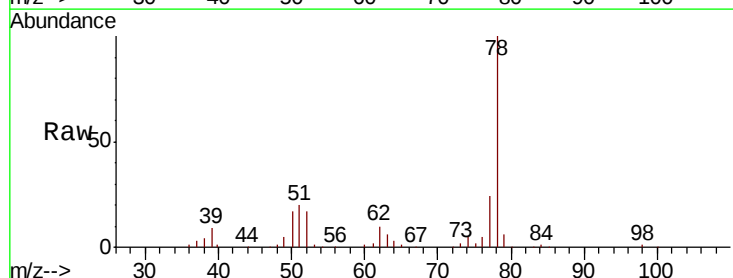
#31  
Carbon tetrachloride  
Concen: 5.251 ug/L  
RT: 5.54 min Scan# 1306  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

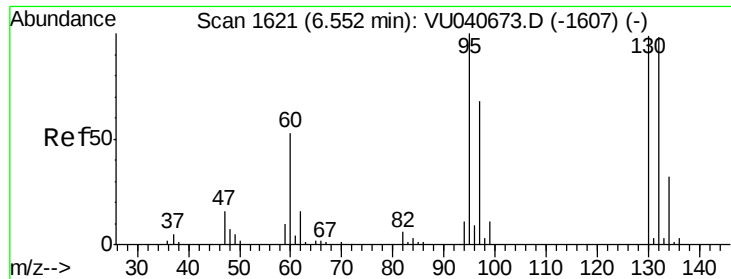
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00509

Tot Ion:117 Resp: 77845  
Ion Ratio Lower Upper  
117 100  
119 96.0 76.2 114.2



#33  
Benzene  
Concen: 5.229 ug/L  
RT: 5.79 min Scan# 1383  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38  
Tgt Ion: 78 Resp: 216564

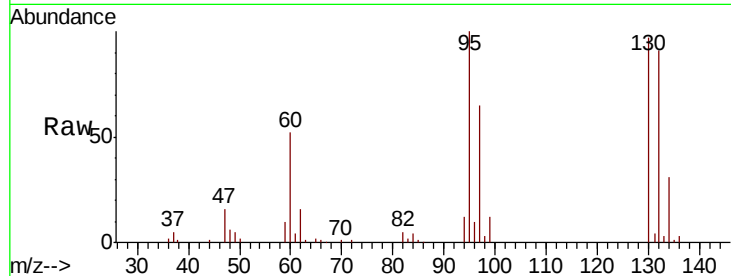




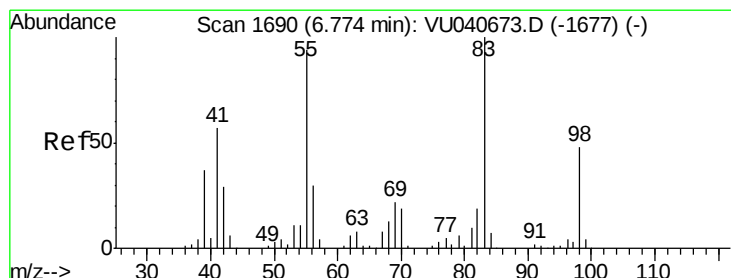
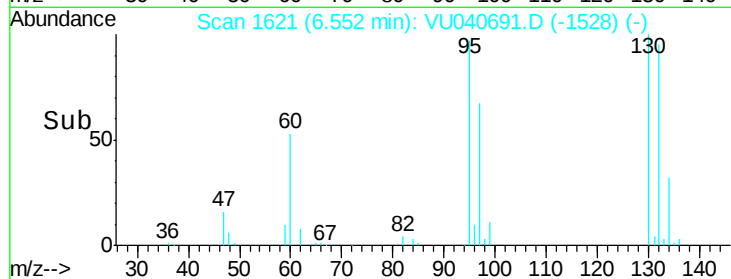
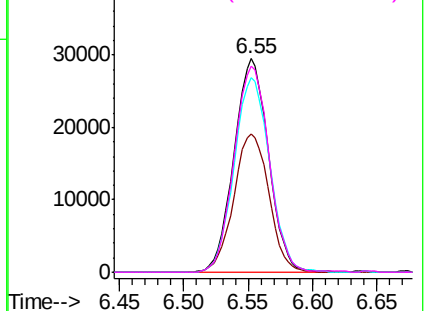
#34  
 Trichloroethene  
 Concen: 5.111 ug/L  
 RT: 6.55 min Scan# 1621  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

Tot Ion: 95 Resp: 54874  
 Ion Ratio Lower Upper  
 95 100  
 97 64.7 45.5 84.5  
 132 91.3 67.5 125.4  
 130 96.5 69.9 129.9

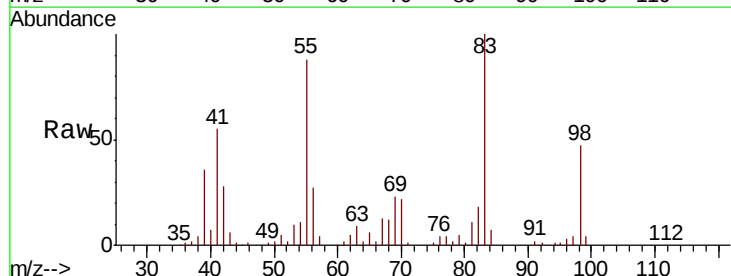


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 96.95 (96.65 to 97.65): VU0  
 Ion 131.95 (131.65 to 132.65): V  
 Ion 129.95 (129.65 to 130.65): V

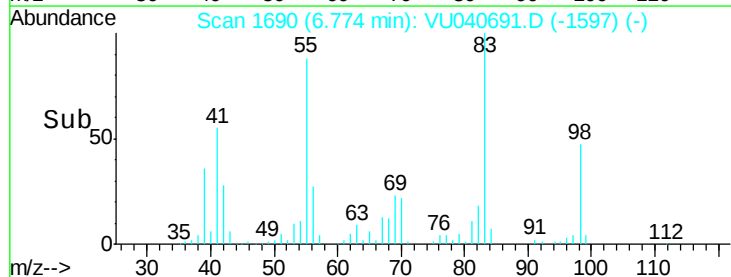
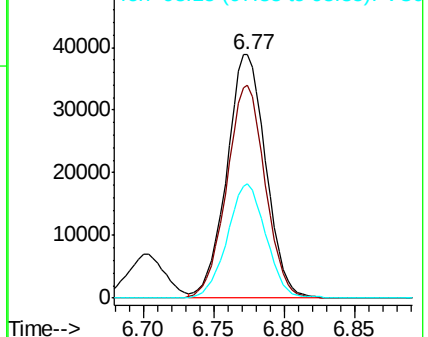


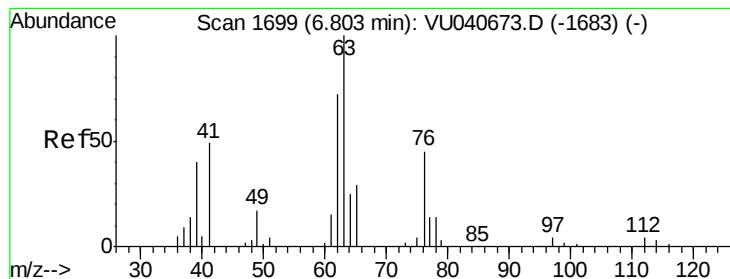
#35  
 Methylcyclohexane  
 Concen: 4.937 ug/L  
 RT: 6.77 min Scan# 1690  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Tgt Ion: 83 Resp: 75164  
 Ion Ratio Lower Upper  
 83 100  
 55 86.2 70.7 106.1  
 98 46.4 38.4 57.6



Abundance Ion 83.15 (82.85 to 83.85): VU0  
 Ion 55.10 (54.80 to 55.80): VU0  
 Ion 98.15 (97.85 to 98.85): VU0





#37

1,2-Dichloropropane

Concen: 5.289 ug/L

RT: 6.80 min Scan# 1699

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

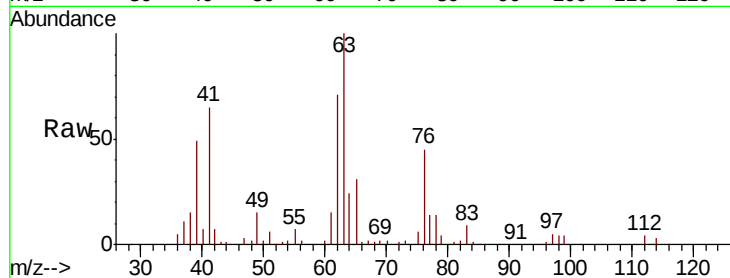
VSTD00509

Tot Ion: 63 Resp: 61036

Ion Ratio Lower Upper

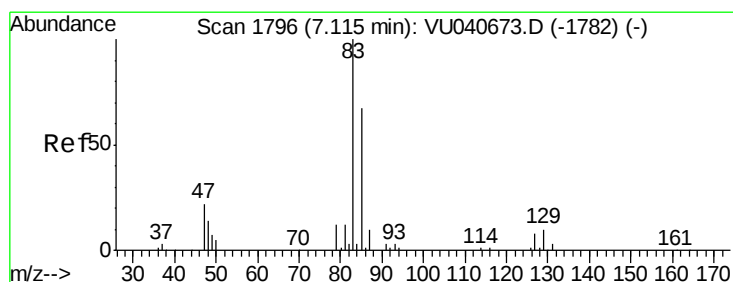
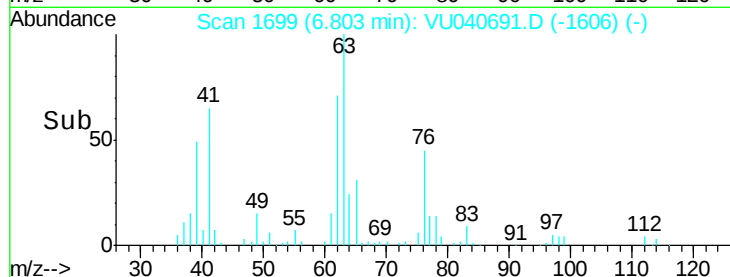
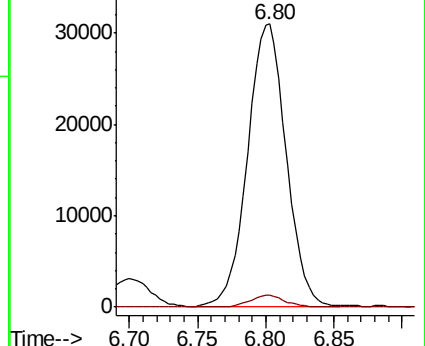
63 100

112 3.8 3.5 5.3



Abundance Ion 63.10 (62.80 to 63.80): VU040691.D (-1606) (-)

Ion 112.10 (111.80 to 112.80): VU040691.D (-1606) (-)



#38

Bromodichloromethane

Concen: 5.370 ug/L

RT: 7.11 min Scan# 1796

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

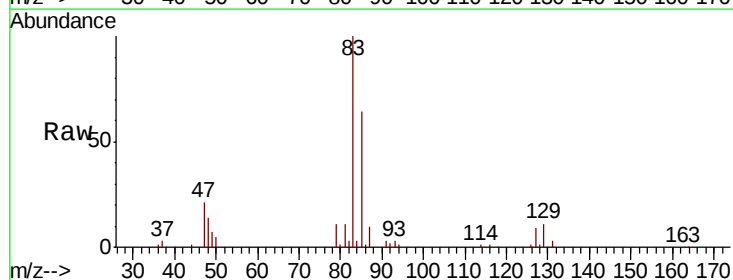
Tgt Ion: 83 Resp: 79219

Ion Ratio Lower Upper

83 100

85 63.7 46.0 85.4

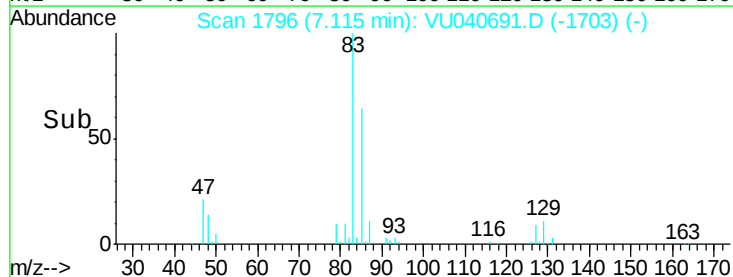
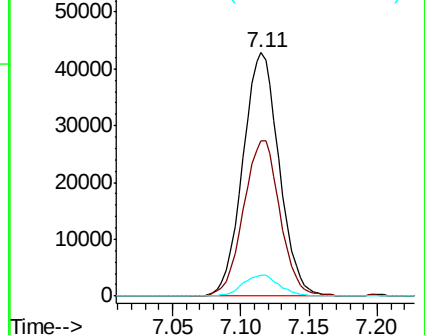
127 8.7 6.7 10.1

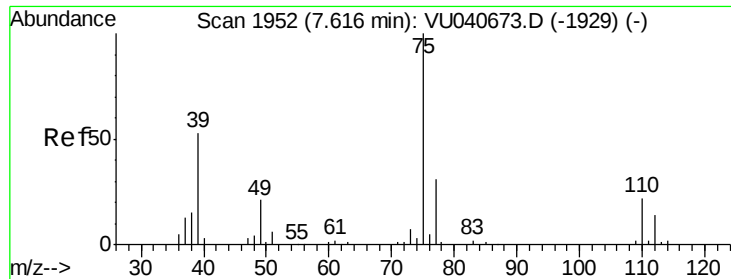


Abundance Ion 82.95 (82.65 to 83.65): VU040691.D (-1703) (-)

Ion 85.00 (84.70 to 85.70): VU040691.D (-1703) (-)

Ion 126.90 (126.60 to 127.60): VU040691.D (-1703) (-)

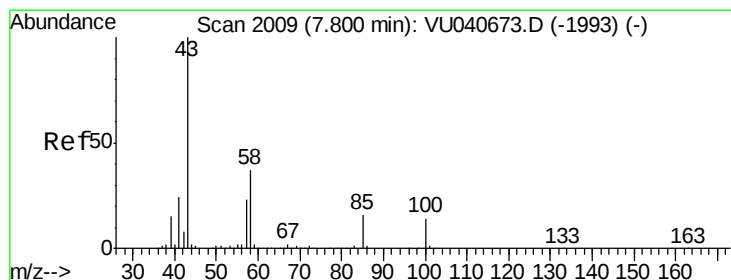
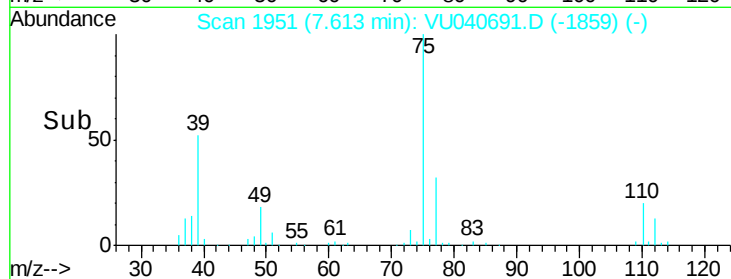
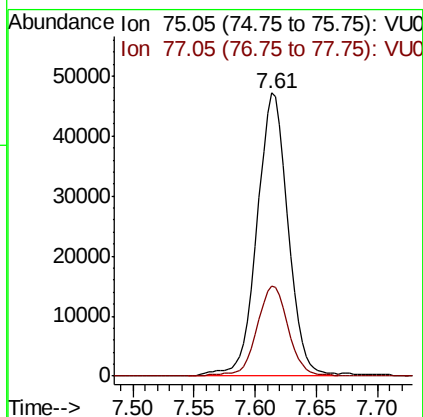
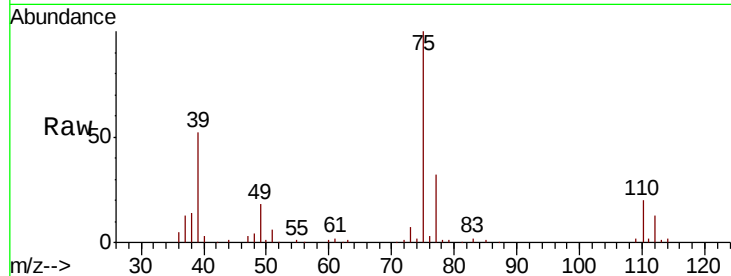




#39  
 cis-1,3-Dichloropropene  
 Concen: 5.282 ug/L  
 RT: 7.61 min Scan# 1951  
 Delta R.T. -0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

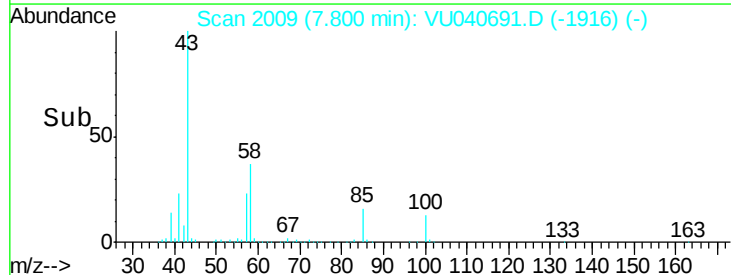
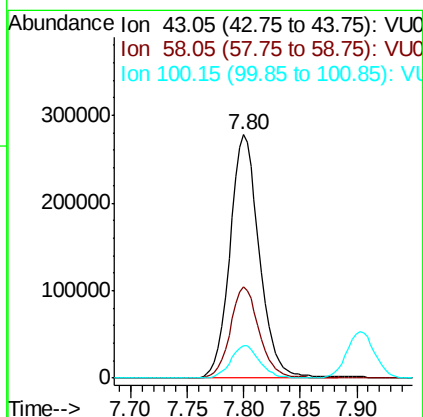
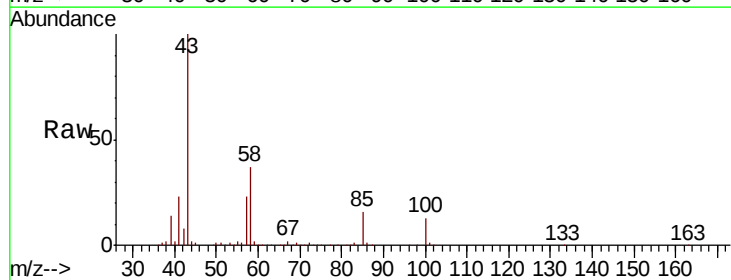
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

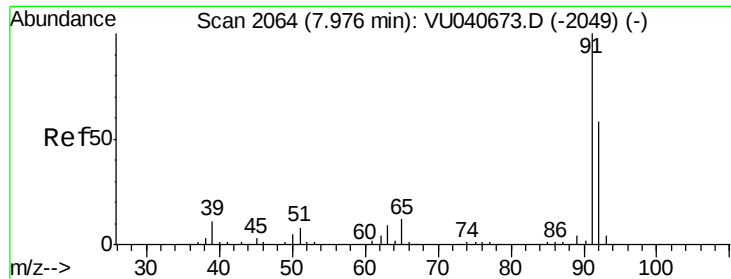
Tot Ion: 75 Resp: 83274  
 Ion Ratio Lower Upper  
 75 100  
 77 31.8 20.5 38.1



#40  
 4-Methyl-2-pentanone  
 Concen: 54.544 ug/L  
 RT: 7.80 min Scan# 2009  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Tgt Ion: 43 Resp: 501800  
 Ion Ratio Lower Upper  
 43 100  
 58 36.9 29.7 44.5  
 100 13.3 10.7 16.1





#42

Toluene

Concen: 5.415 ug/L

RT: 7.97 min Scan# 2063

Delta R.T. -0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

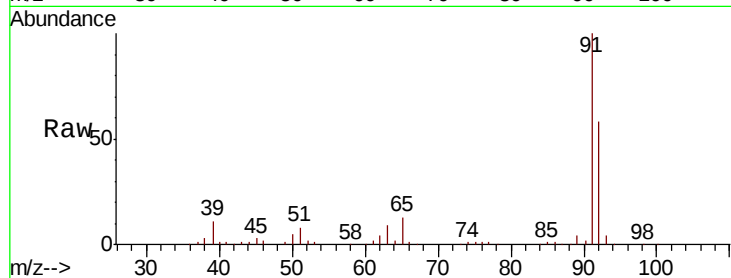
VSTD00509

Tot Ion: 91 Resp: 228511

Ion Ratio Lower Upper

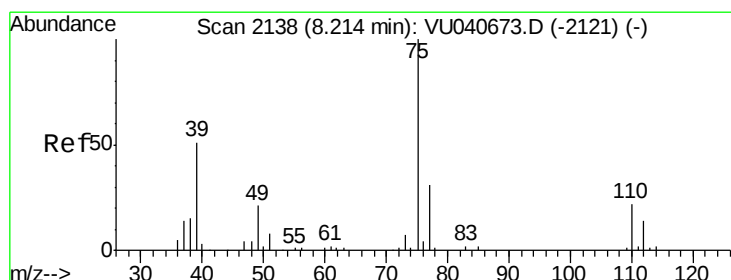
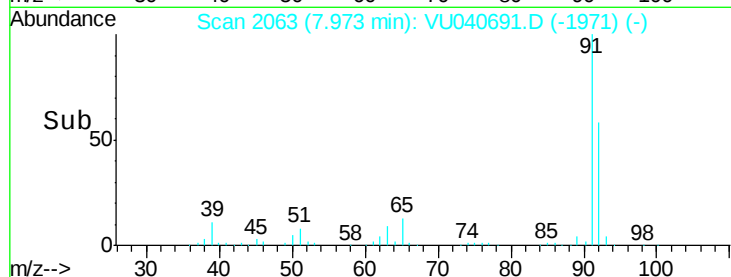
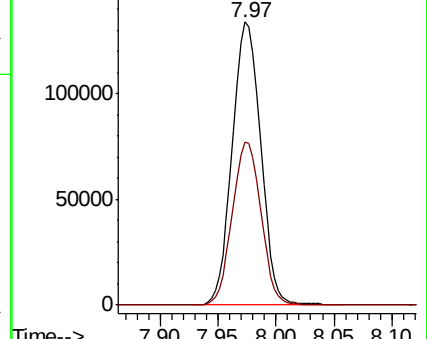
91 100

92 57.6 40.2 74.6



Abundance Ion 91.15 (90.85 to 91.85): VU040691.D (-1971) (-)

Ion 92.15 (91.85 to 92.85): VU040691.D (-1971) (-)



#44

trans-1,3-Dichloropropene

Concen: 5.450 ug/L

RT: 8.21 min Scan# 2138

Delta R.T. 0.00 min

Lab File: VU040691.D

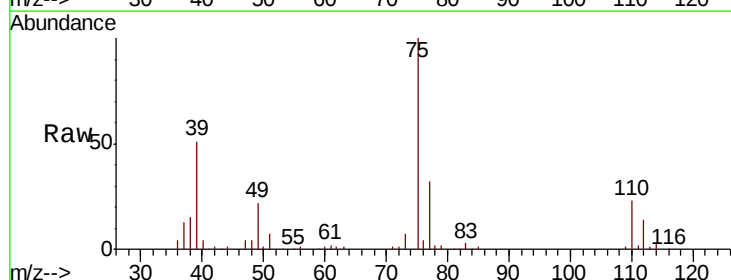
Acq: 14 Oct 2020 10:38

Tgt Ion: 75 Resp: 79111

Ion Ratio Lower Upper

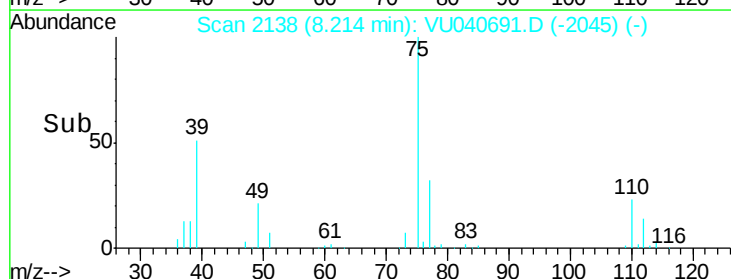
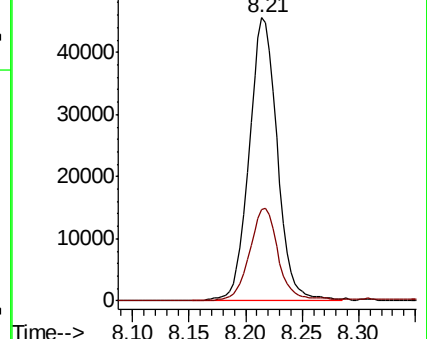
75 100

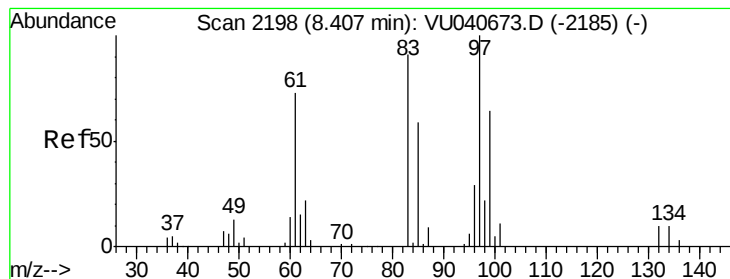
77 32.3 20.4 38.0



Abundance Ion 75.05 (74.75 to 75.75): VU040691.D (-2045) (-)

Ion 77.05 (76.75 to 77.75): VU040691.D (-2045) (-)





#45

1,1,2-Trichloroethane

Concen: 5.188 ug/L

RT: 8.40 min Scan# 2197

Delta R.T. -0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00509

Tot Ion: 97 Resp: 44838

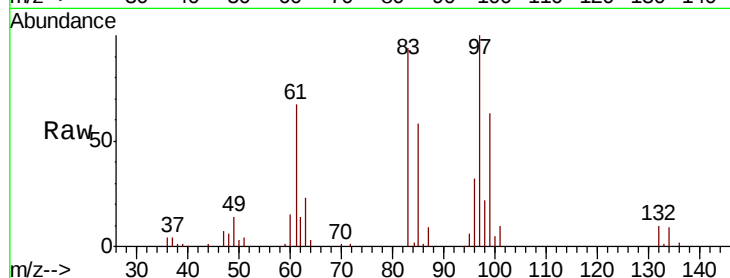
Ion Ratio Lower Upper

97 100

99 63.4 44.0 81.6

83 93.9 62.9 116.9

85 58.3 40.3 74.8

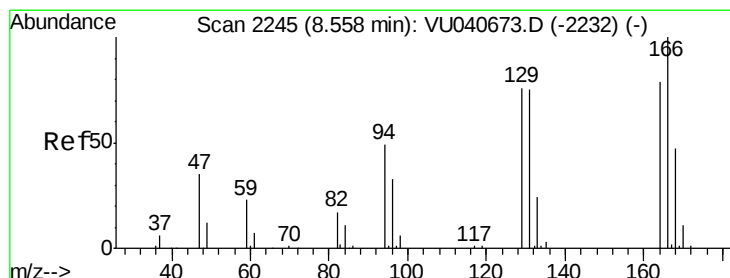
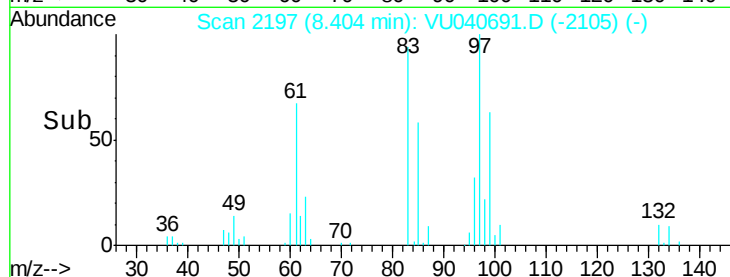
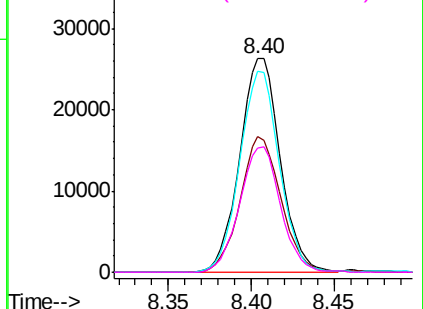


Abundance Ion 96.95 (96.65 to 97.65): VU0

Ion 99.05 (98.75 to 99.75): VU0

Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0



#47

Tetrachloroethene

Concen: 5.299 ug/L

RT: 8.56 min Scan# 2244

Delta R.T. -0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Tgt Ion: 164 Resp: 40586

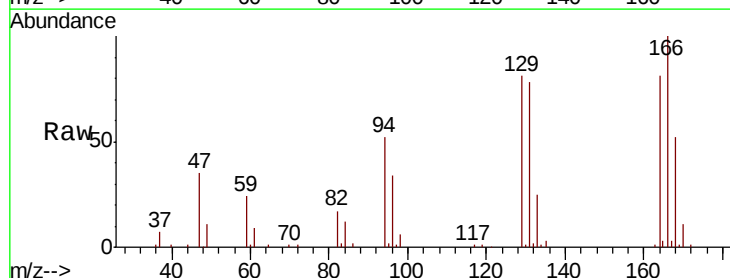
Ion Ratio Lower Upper

164 100

129 99.5 68.8 127.8

131 96.2 66.7 123.9

166 123.1 83.9 155.7

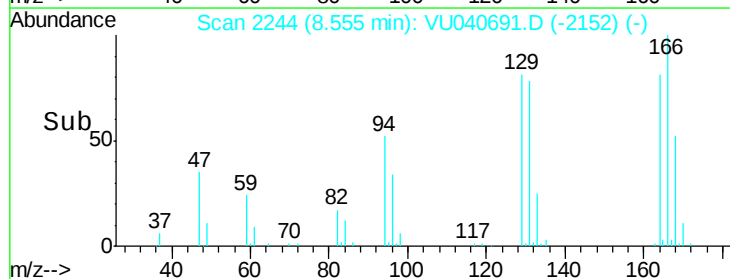
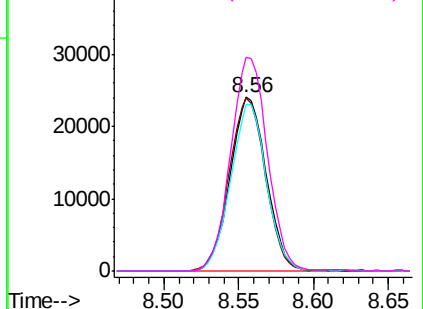


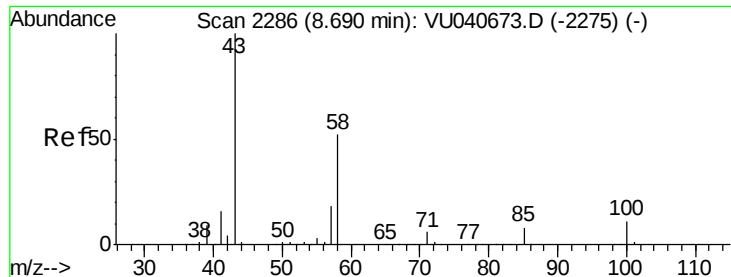
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 128.95 (128.65 to 129.65): V

Ion 130.95 (130.65 to 131.65): V

Ion 165.90 (165.60 to 166.60): V

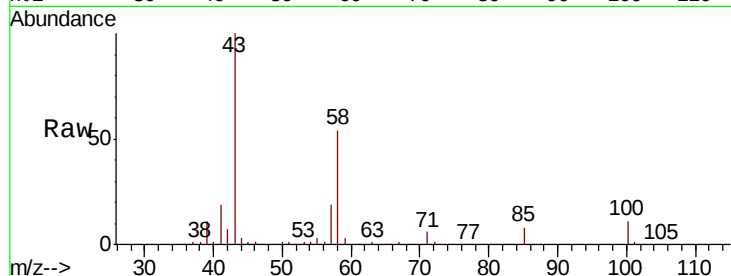




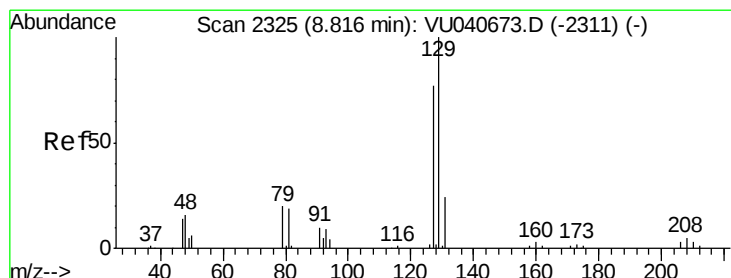
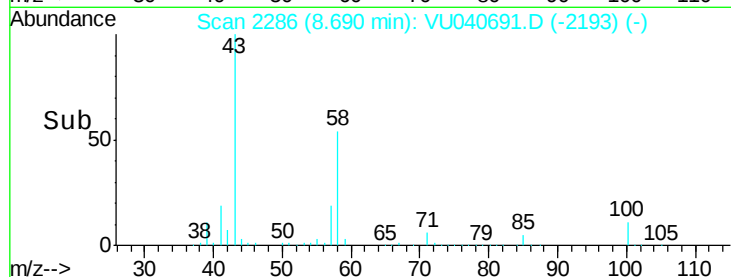
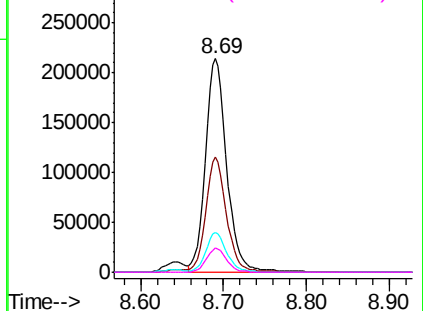
#48  
2-Hexanone  
Concen: 56.435 ug/L  
RT: 8.69 min Scan# 2286  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00509

Tot Ion: 43 Resp: 386555  
Ion Ratio Lower Upper  
43 100  
58 52.6 41.0 61.6  
57 18.1 14.4 21.6  
100 10.6 8.6 13.0

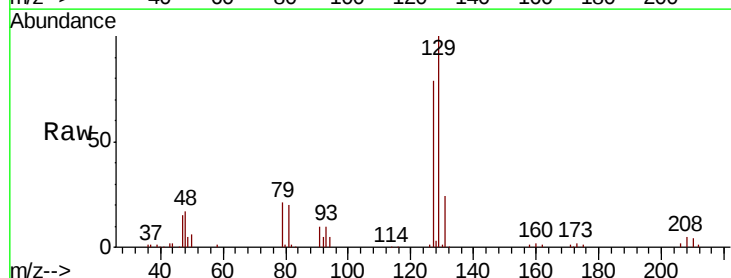


Abundance Ion 43.05 (42.75 to 43.75): VU0  
Ion 58.05 (57.75 to 58.75): VU0  
Ion 57.20 (56.90 to 57.90): VU0  
Ion 100.15 (99.85 to 100.85): VU0

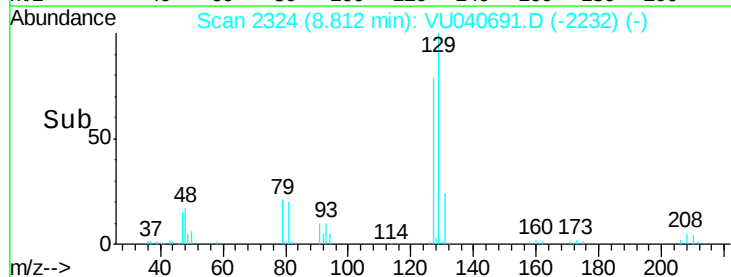
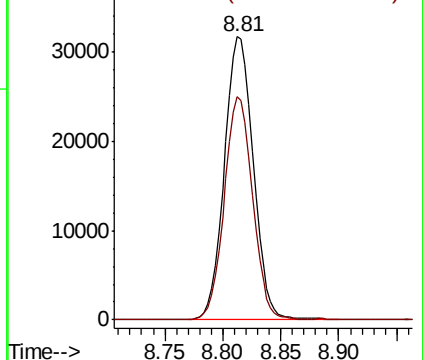


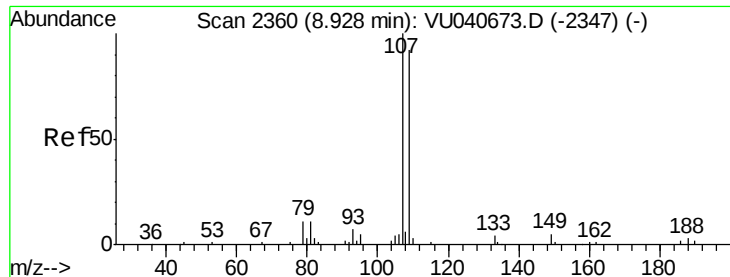
#49  
Dibromochloromethane  
Concen: 5.539 ug/L  
RT: 8.81 min Scan# 2324  
Delta R.T. -0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

Tgt Ion: 129 Resp: 55083  
Ion Ratio Lower Upper  
129 100  
127 78.8 55.8 103.6



Abundance Ion 128.95 (128.65 to 129.65): V  
Ion 126.90 (126.60 to 127.60): V

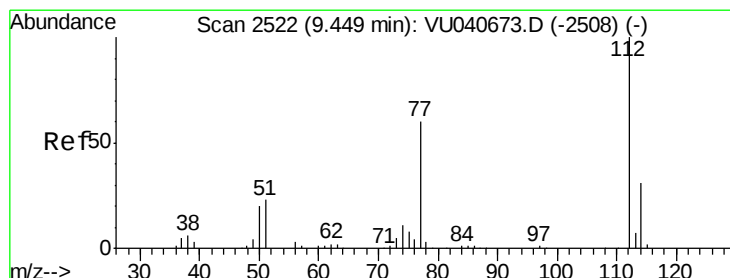
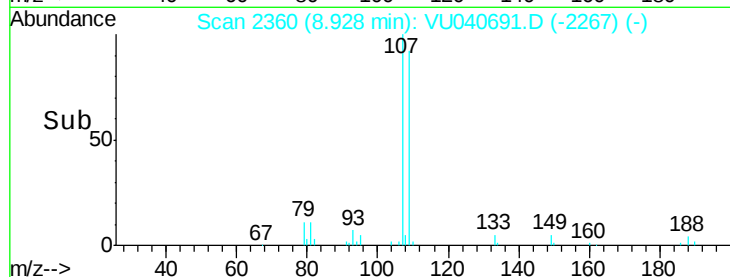
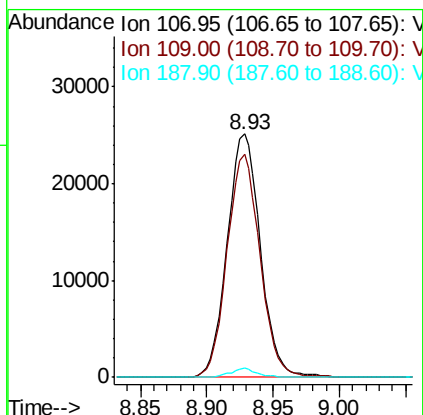
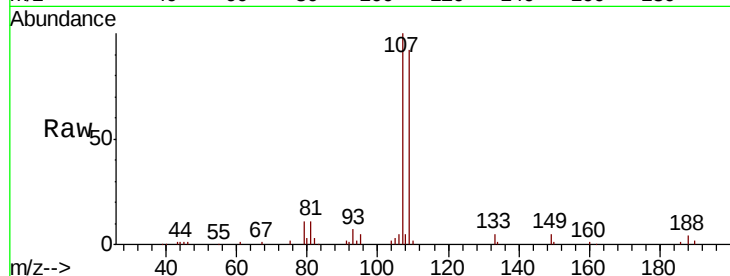




#50  
 1,2-Dibromoethane  
 Concen: 5.325 ug/L  
 RT: 8.93 min Scan# 2360  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

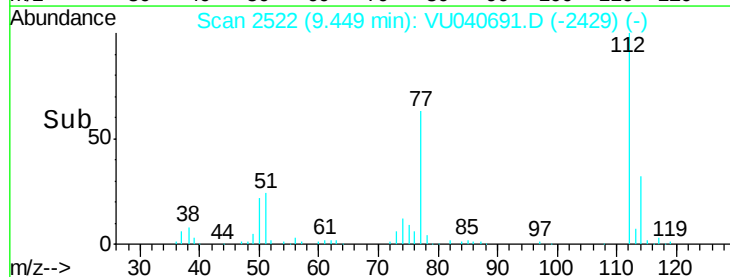
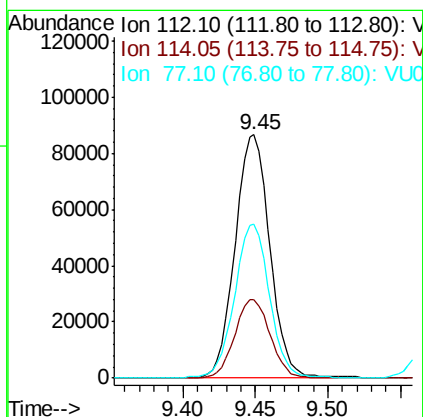
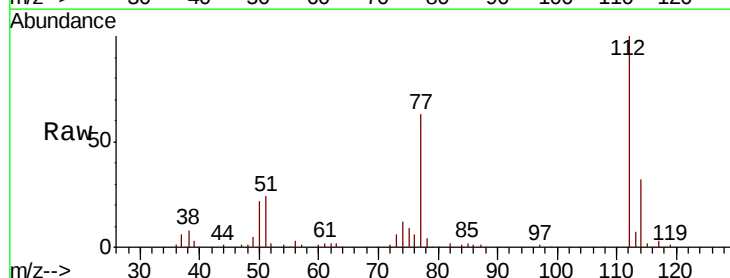
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

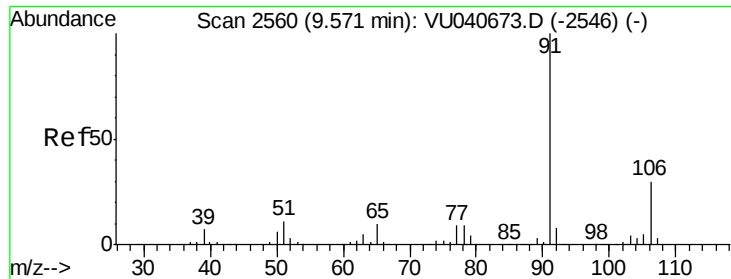
Tot Ion:107 Resp: 43658  
 Ion Ratio Lower Upper  
 107 100  
 109 91.8 65.7 121.9  
 188 3.6 3.0 4.4



#51  
 Chlorobenzene  
 Concen: 5.197 ug/L  
 RT: 9.45 min Scan# 2522  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Tgt Ion:112 Resp: 144466  
 Ion Ratio Lower Upper  
 112 100  
 114 32.1 23.1 42.9  
 77 63.4 50.3 75.5





#52

Ethylbenzene

Concen: 5.283 ug/L

RT: 9.57 min Scan# 2560

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

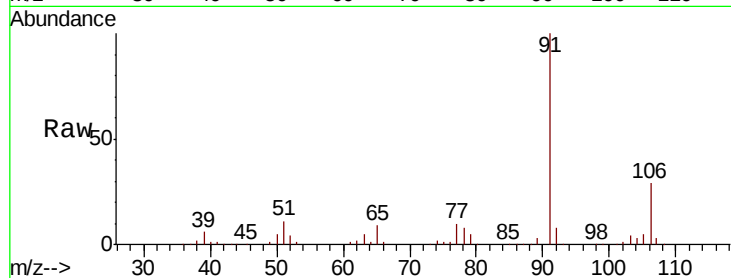
VSTD00509

Tot Ion: 91 Resp: 241312

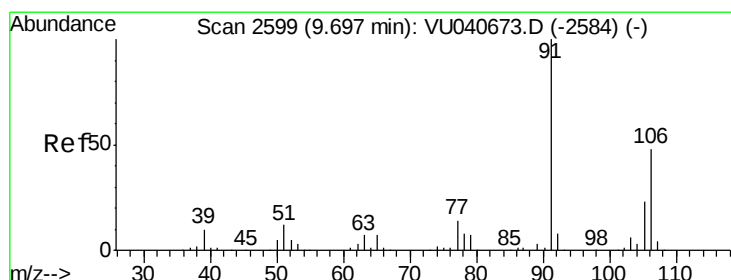
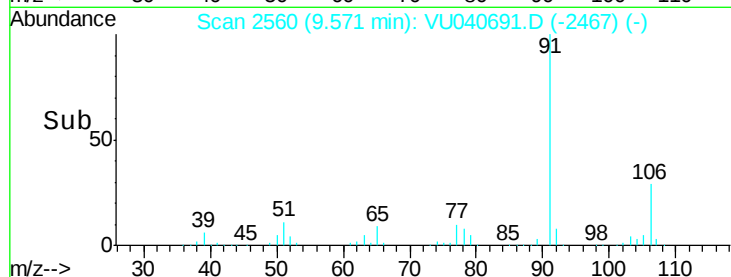
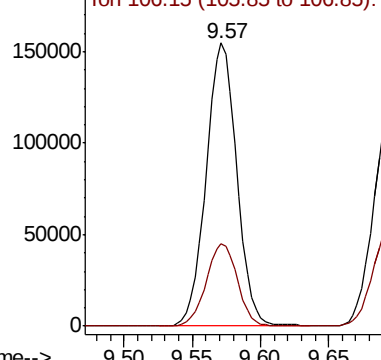
Ion Ratio Lower Upper

91 100

106 29.1 20.7 38.5



Abundance Ion 91.15 (90.85 to 91.85): VU040691.D (-2546) (-)



#53

m,p-Xylene

Concen: 5.482 ug/L

RT: 9.69 min Scan# 2598

Delta R.T. -0.00 min

Lab File: VU040691.D

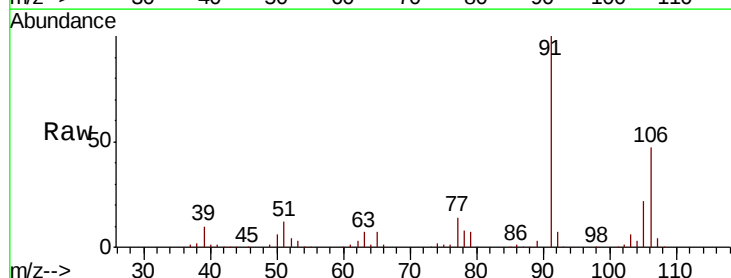
Acq: 14 Oct 2020 10:38

Tgt Ion: 106 Resp: 91262

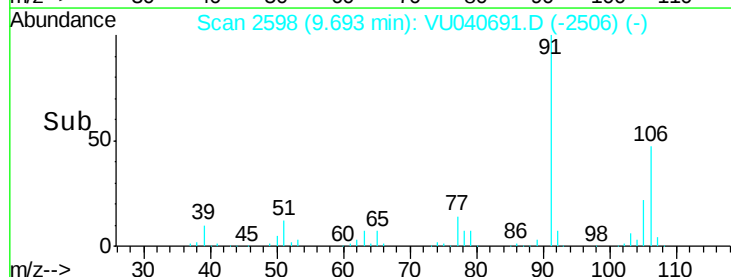
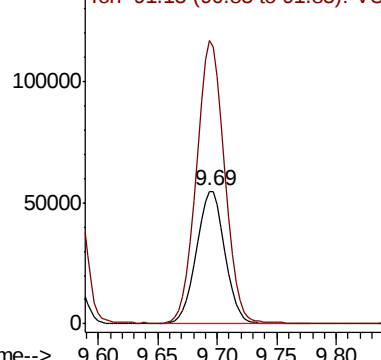
Ion Ratio Lower Upper

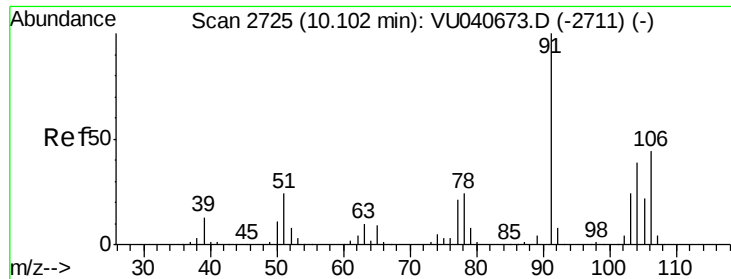
106 100

91 213.0 148.5 275.7



Abundance Ion 106.15 (105.85 to 106.85): VU040691.D (-2598) (-)

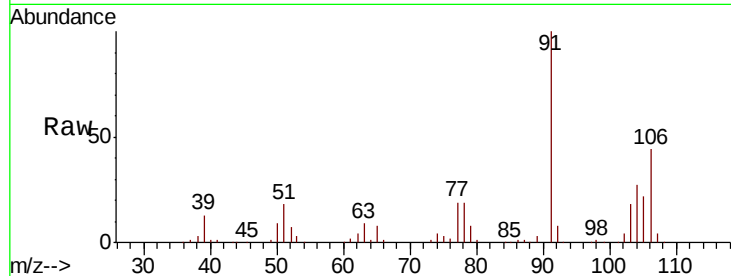




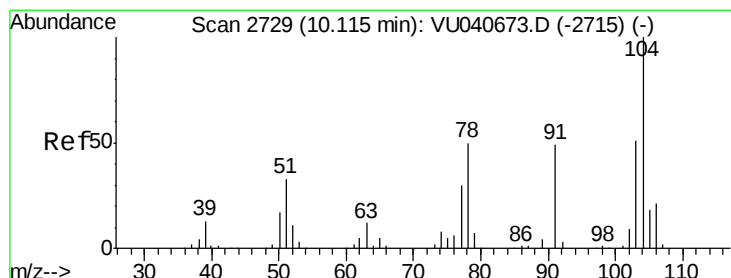
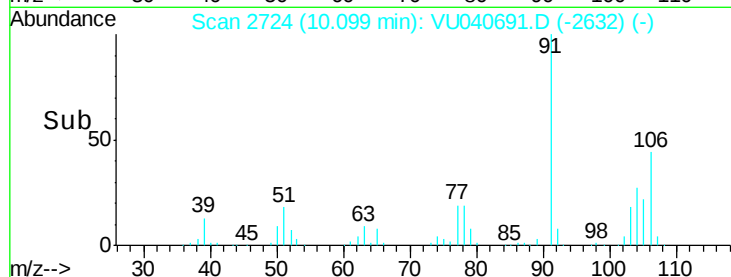
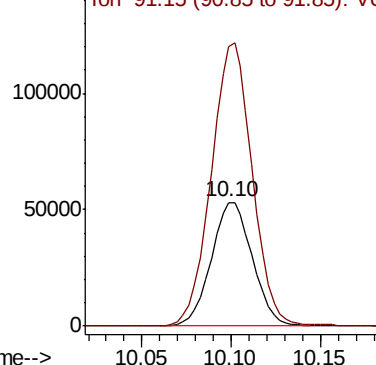
#54  
o-Xylene  
Concen: 5.355 ug/L  
RT: 10.10 min Scan# 2724  
Delta R.T. -0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD00509

Tot Ion:106 Resp: 85727  
Ion Ratio Lower Upper  
106 100  
91 226.4 160.2 297.4

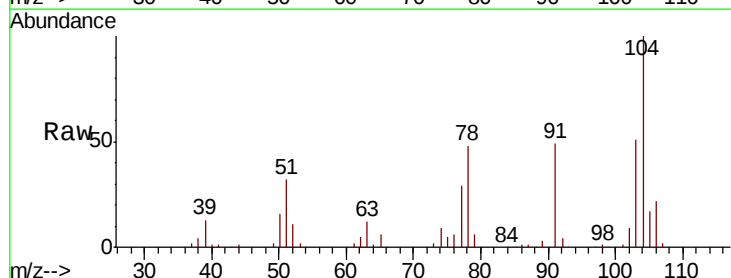


Abundance Ion 106.15 (105.85 to 106.85): V  
Ion 91.15 (90.85 to 91.85): VU0

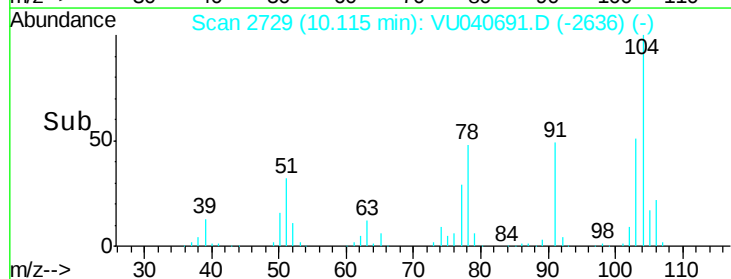
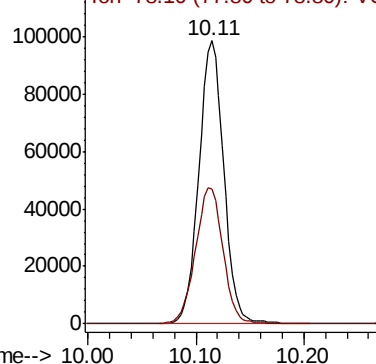


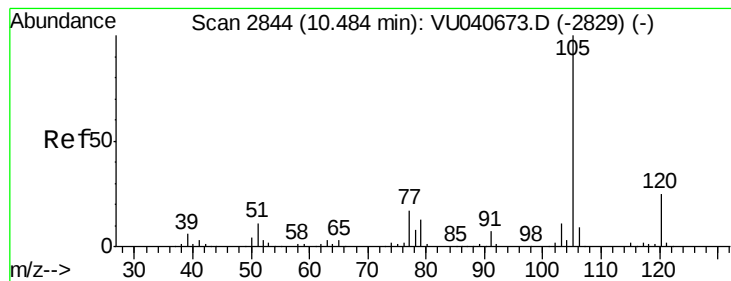
#55  
Styrene  
Concen: 5.697 ug/L  
RT: 10.11 min Scan# 2729  
Delta R.T. 0.00 min  
Lab File: VU040691.D  
Acq: 14 Oct 2020 10:38

Tgt Ion:104 Resp: 158402  
Ion Ratio Lower Upper  
104 100  
78 47.6 34.6 64.3



Abundance Ion 104.10 (103.80 to 104.80): V  
Ion 78.10 (77.80 to 78.80): VU0





#56

Isopropylbenzene

Concen: 5.522 ug/L

RT: 10.48 min Scan# 2844

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00509

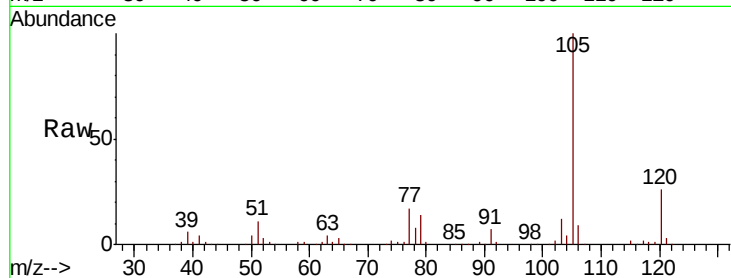
Tot Ion:105 Resp: 237998

Ion Ratio Lower Upper

105 100

120 26.1 20.6 30.8

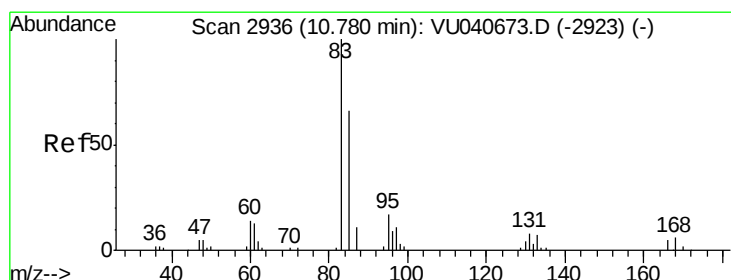
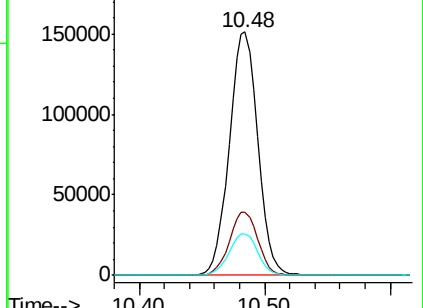
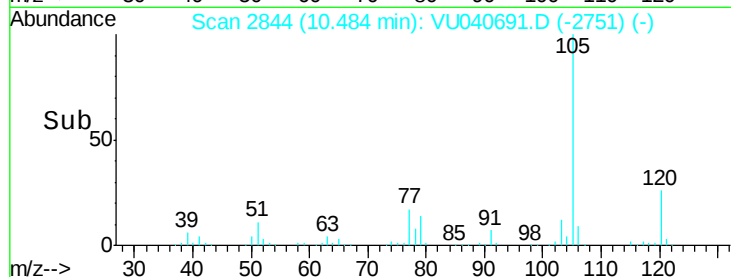
77 17.3 13.8 20.6



Abundance Ion 105.05 (104.75 to 105.75): V

Ion 120.10 (119.80 to 120.80): V

Ion 77.10 (76.80 to 77.80): V



#58

1,1,2,2-Tetrachloroethane

Concen: 5.360 ug/L

RT: 10.78 min Scan# 2936

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

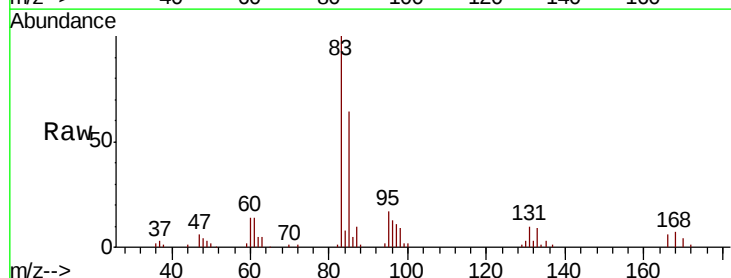
Tgt Ion: 83 Resp: 60817

Ion Ratio Lower Upper

83 100

85 63.7 45.6 84.6

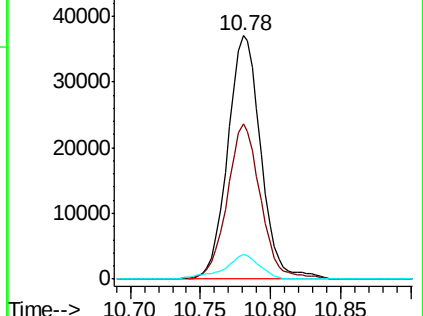
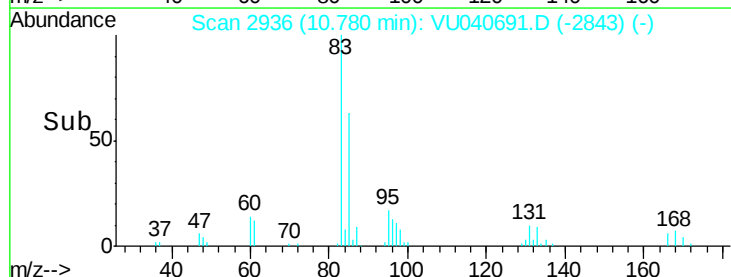
131 9.9 7.1 10.7

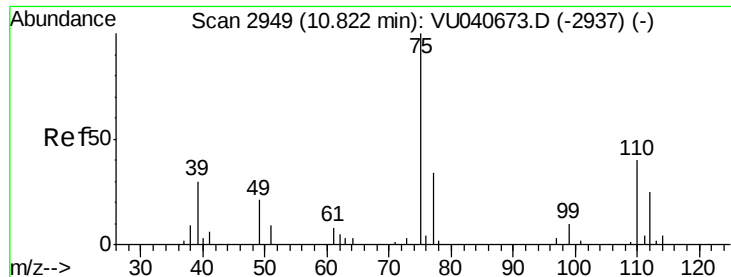


Abundance Ion 82.95 (82.65 to 83.65): VU0

Ion 85.00 (84.70 to 85.70): VU0

Ion 130.95 (130.65 to 131.65): V





#59

1,2,3-Trichloropropane

Concen: 5.384 ug/L

RT: 10.82 min Scan# 2949

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

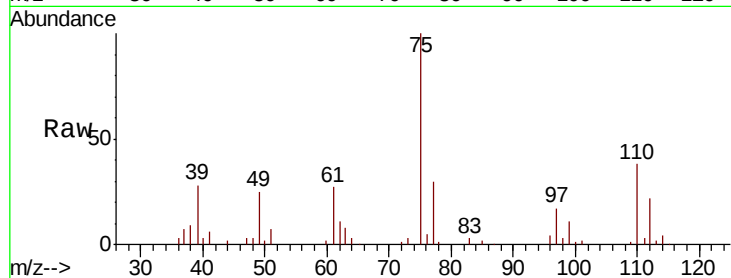
VSTD00509

Tot Ion: 75 Resp: 45641

Ion Ratio Lower Upper

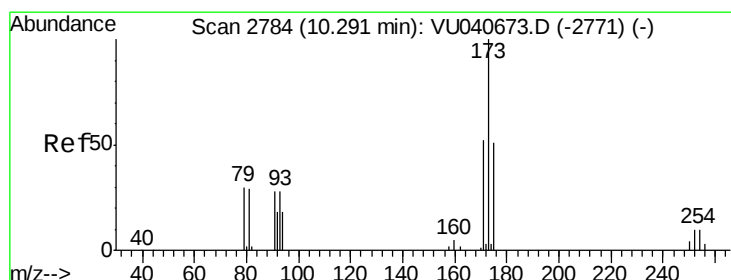
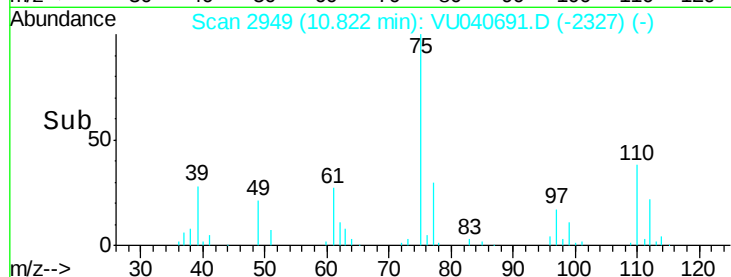
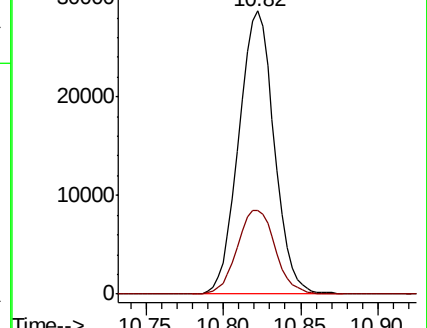
75 100

77 31.8 26.4 39.6



Abundance Ion 75.00 (74.70 to 75.70): VU040673.D (-2937) (-)

Ion 77.00 (76.70 to 77.70): VU040673.D (-2937) (-)



#61

Bromoform

Concen: 5.414 ug/L

RT: 10.29 min Scan# 2784

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

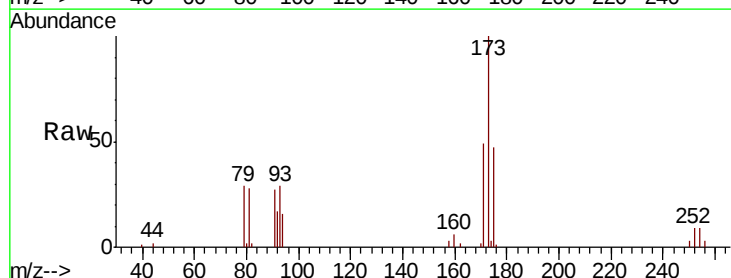
Tgt Ion: 173 Resp: 31460

Ion Ratio Lower Upper

173 100

175 47.5 37.4 56.0

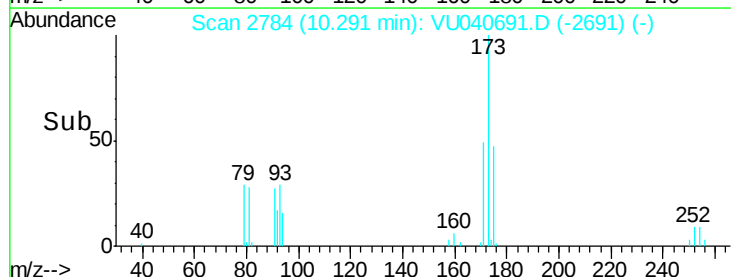
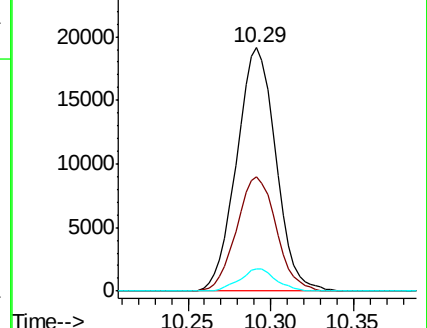
254 8.3 7.4 11.2

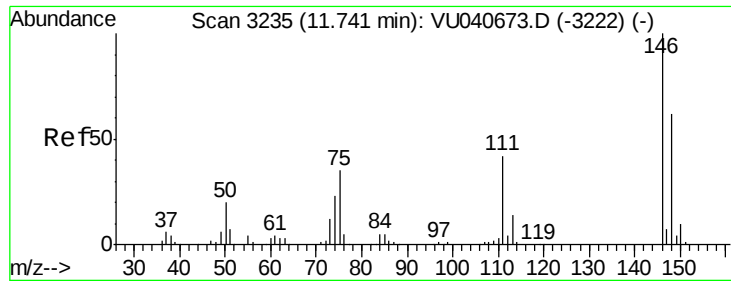


Abundance Ion 172.90 (172.60 to 173.60): VU040673.D (-2771) (-)

Ion 174.90 (174.60 to 175.60): VU040673.D (-2771) (-)

Ion 253.75 (253.45 to 254.45): VU040673.D (-2771) (-)

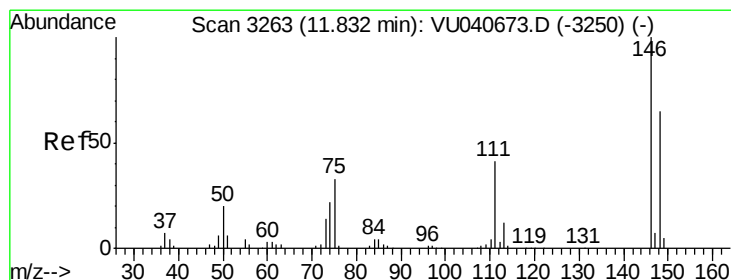
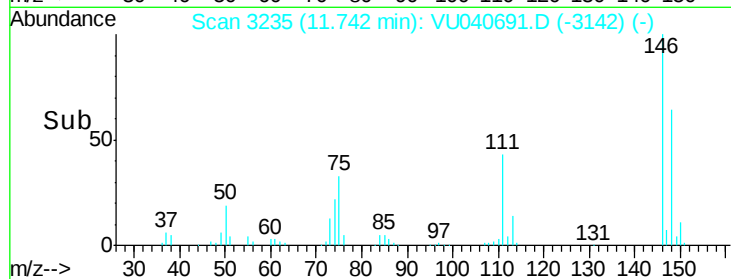
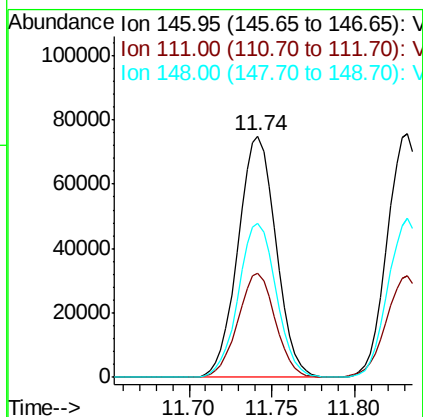
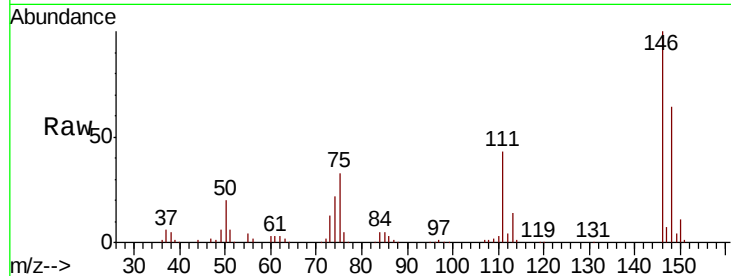




#62  
 1,3-Dichlorobenzene  
 Concen: 5.391 ug/L  
 RT: 11.74 min Scan# 3235  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

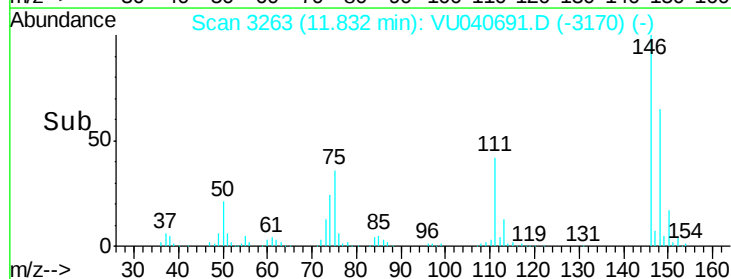
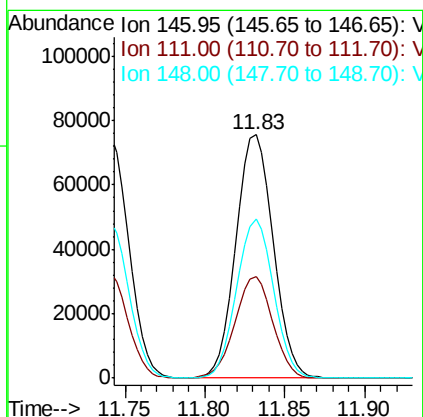
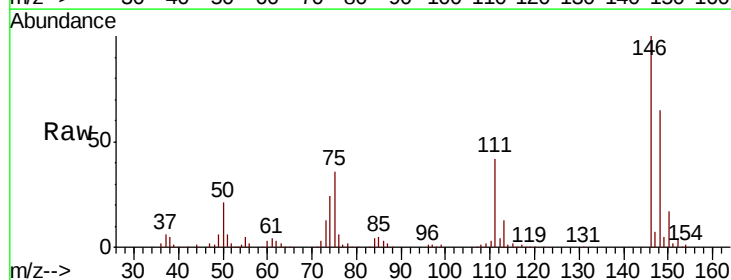
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

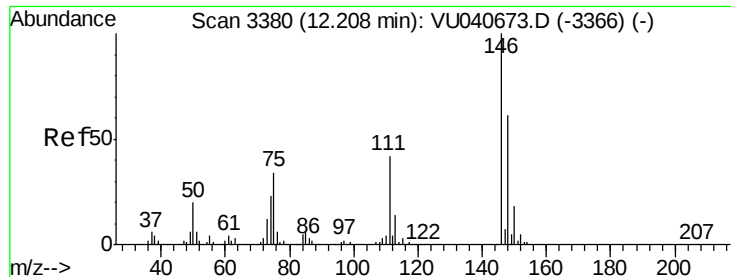
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 43.2  | 28.8  | 53.6  |
| 148     | 64.0  | 44.4  | 82.4  |



#63  
 1,4-Dichlorobenzene  
 Concen: 5.246 ug/L  
 RT: 11.83 min Scan# 3263  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 146     | 100   |       |       |
| 111     | 41.7  | 28.4  | 52.8  |
| 148     | 65.1  | 44.0  | 81.6  |





#65

1,2-Dichlorobenzene

Concen: 5.331 ug/L

RT: 12.21 min Scan# 3380

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00509

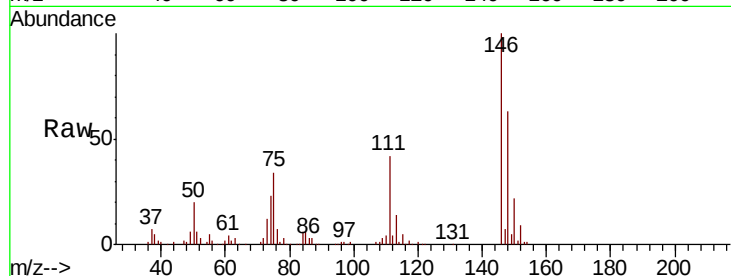
Tot Ion:146 Resp: 115622

Ion Ratio Lower Upper

146 100

111 42.4 34.4 51.6

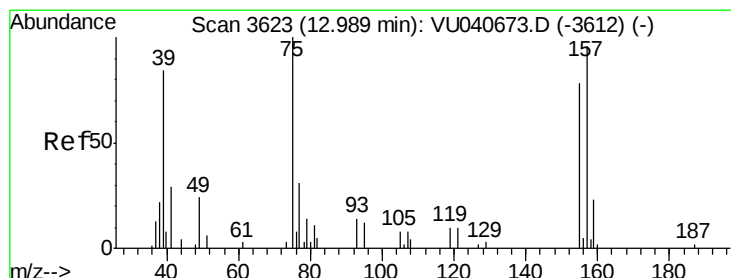
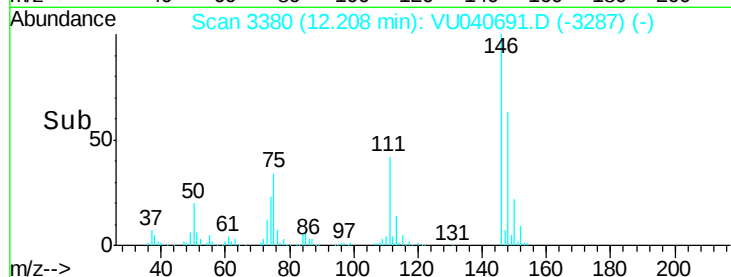
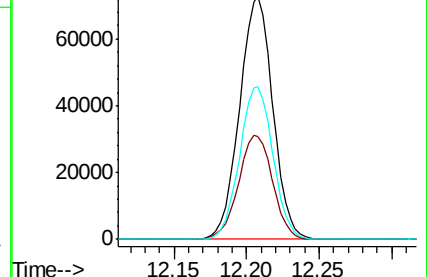
148 62.7 50.0 75.0



Abundance Ion 145.95 (145.65 to 146.65): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#66

1,2-Dibromo-3-chloropropane

Concen: 5.516 ug/L

RT: 12.99 min Scan# 3624

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

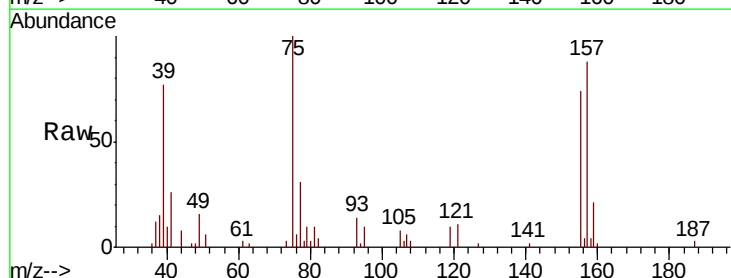
Tgt Ion: 75 Resp: 10475

Ion Ratio Lower Upper

75 100

155 73.9 53.8 80.6

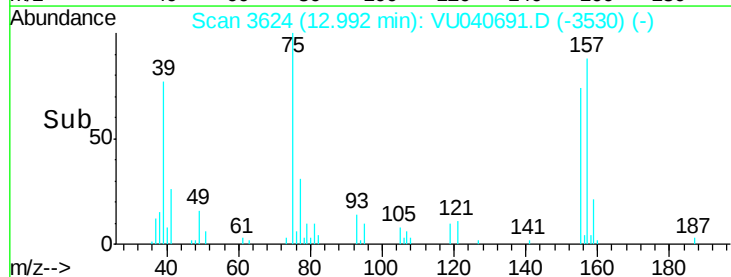
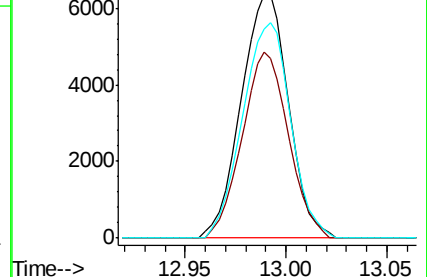
157 88.3 74.6 112.0

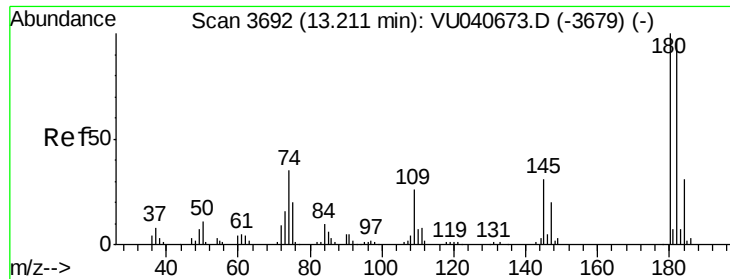


Abundance Ion 75.05 (74.75 to 75.75): VU0

Ion 154.95 (154.65 to 155.65): V

Ion 156.90 (156.60 to 157.60): V

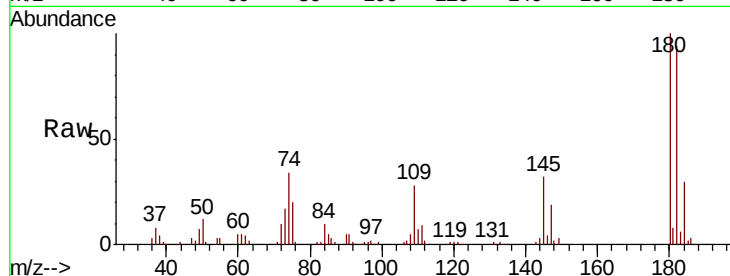




#67  
 1,3,5-Trichlorobenzene  
 Concen: 5.244 ug/L  
 RT: 13.21 min Scan# 3692  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD00509

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 94.8  | 77.0  | 115.4 |
| 184     | 30.4  | 24.5  | 36.7  |
| 145     | 32.0  | 25.9  | 38.9  |

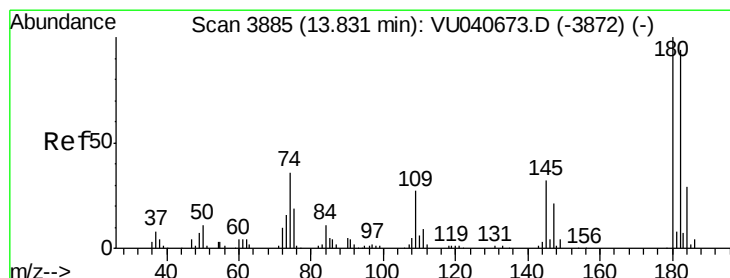
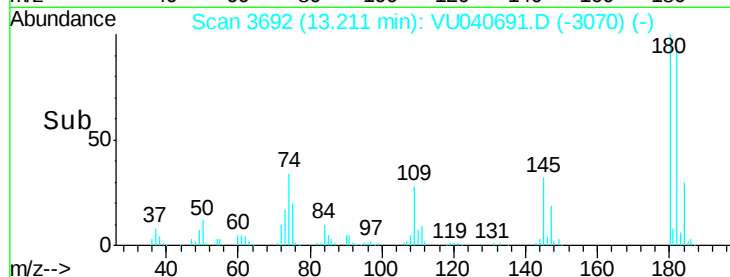
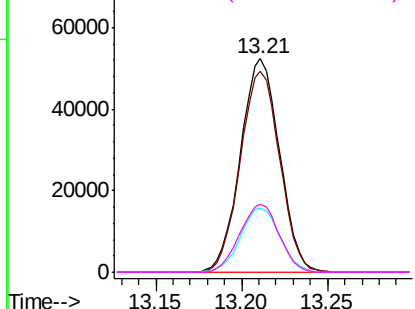


Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

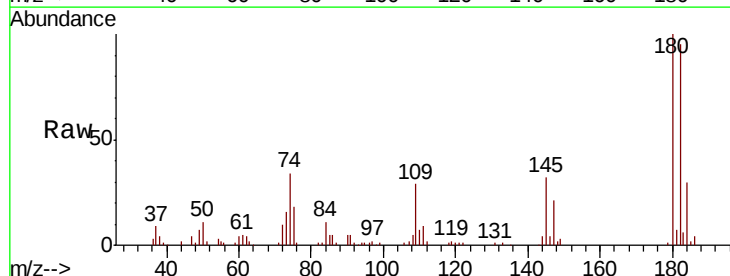
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 5.443 ug/L  
 RT: 13.83 min Scan# 3885  
 Delta R.T. 0.00 min  
 Lab File: VU040691.D  
 Acq: 14 Oct 2020 10:38

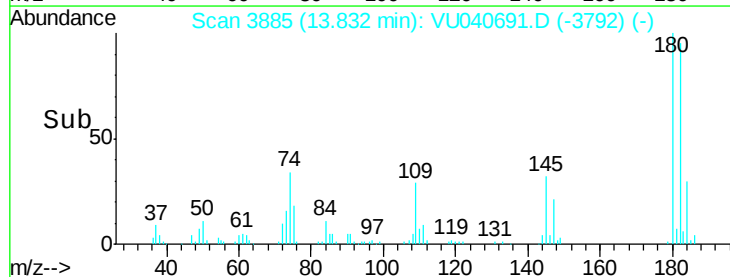
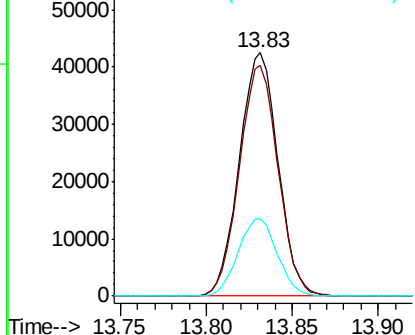
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.0  | 78.8  | 118.2 |
| 145     | 32.2  | 26.1  | 39.1  |

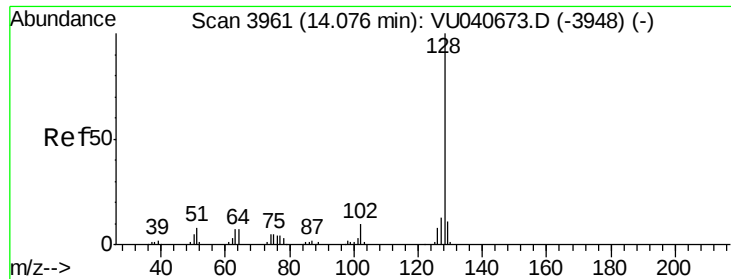


Abundance Ion 179.90 (179.60 to 180.60): V

Ion 182.00 (181.70 to 182.70): V

Ion 144.95 (144.65 to 145.65): V





#69

Naphthalene

Concen: 5.226 ug/L

RT: 14.08 min Scan# 3962

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

Instrument :

MSVOA\_U

ClientSampleId :

VSTD00509

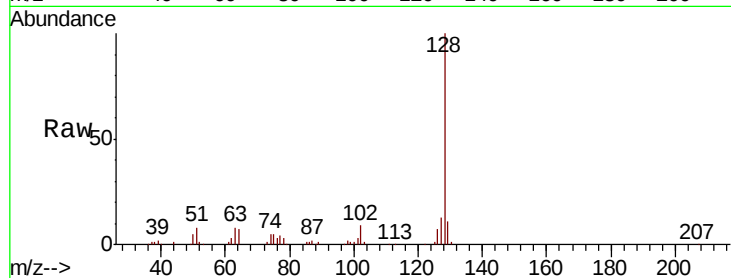
Tot Ion:128 Resp: 103978

Ion Ratio Lower Upper

128 100

129 11.1 9.0 13.4

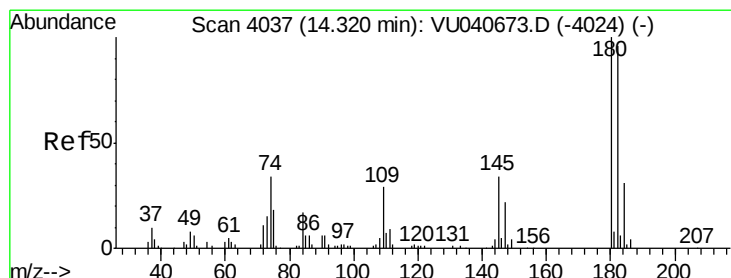
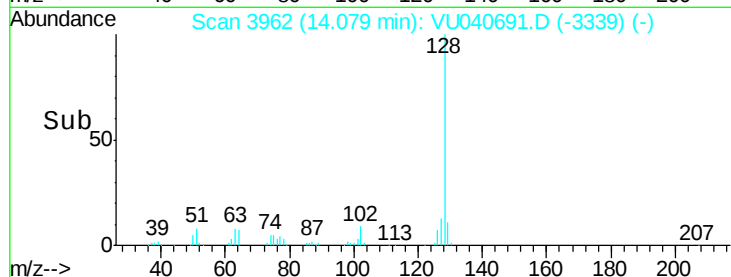
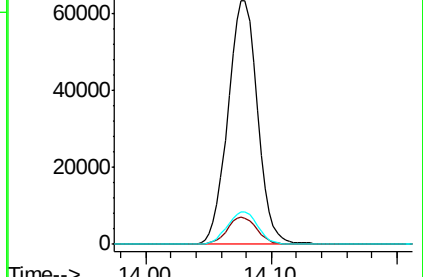
127 13.6 10.2 15.4



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V



#70

1,2,3-Trichlorobenzene

Concen: 5.463 ug/L

RT: 14.32 min Scan# 4037

Delta R.T. 0.00 min

Lab File: VU040691.D

Acq: 14 Oct 2020 10:38

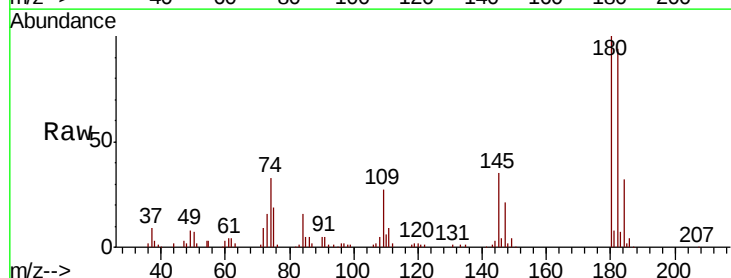
Tgt Ion:180 Resp: 61695

Ion Ratio Lower Upper

180 100

182 94.8 75.8 113.8

145 34.7 27.4 41.2



Abundance Ion 179.90 (179.60 to 180.60): V

Ion 181.90 (181.60 to 182.60): V

Ion 144.95 (144.65 to 145.65): V

