

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU041320\  
 Data File : VU037691.D  
 Acq On : 13 Apr 2020 18:30  
 Operator : JC/MD  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

Quant Time: Apr 14 03:31:00 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM040920WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Apr 14 03:27:41 2020  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 6.28  | 114  | 667220   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.44  | 117  | 635507   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.83 | 152  | 308652   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |         |       |          |          |      |        |
|--------------------------------|---------|-------|----------|----------|------|--------|
| 4) Vinyl Chloride-d3           | 1.61    | 65    | 212447   | 36.42    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 135 | Recovery | =    | 72.84% |
| 7) Chloroethane-d5             | 1.93    | 69    | 192799   | 40.90    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 130 | Recovery | =    | 81.80% |
| 11) 1,1-Dichloroethene-d2      | 2.59    | 63    | 395013   | 41.56    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 83.12% |
| 21) 2-Butanone-d5              | 4.66    | 46    | 419142   | 88.69    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 40 - 130 | Recovery | =    | 88.69% |
| 24) Chloroform-d               | 5.10    | 84    | 395260   | 45.09    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 90.18% |
| 26) 1,2-Dichloroethane-d4      | 5.74    | 65    | 261482   | 43.91    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 87.82% |
| 32) Benzene-d6                 | 5.76    | 84    | 814828   | 43.58    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 125 | Recovery | =    | 87.16% |
| 36) 1,2-Dichloropropane-d6     | 6.72    | 67    | 279123   | 44.85    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 70 - 120 | Recovery | =    | 89.70% |
| 41) Toluene-d8                 | 7.92    | 98    | 739468   | 42.66    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 85.32% |
| 43) trans-1,3-Dichloropropene- | 8.20    | 79    | 141737   | 42.13    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 60 - 125 | Recovery | =    | 84.26% |
| 47) 2-Hexanone-d5              | 8.65    | 63    | 318830   | 89.48    | ug/L | 0.00   |
| Spiked Amount                  | 100.000 | Range | 45 - 130 | Recovery | =    | 89.48% |
| 57) 1,1,2,2-Tetrachloroethane- | 10.77   | 84    | 397382   | 45.20    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 65 - 120 | Recovery | =    | 90.40% |
| 64) 1,2-Dichlorobenzene-d4     | 12.20   | 152   | 280687   | 43.70    | ug/L | 0.00   |
| Spiked Amount                  | 50.000  | Range | 80 - 120 | Recovery | =    | 87.40% |

## Target Compounds

|                                |      |     |        |        | Ovalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.40 | 85  | 246269 | 47.118 | ug/L 100 |
| 3) Chloromethane               | 1.54 | 50  | 294999 | 48.259 | ug/L 100 |
| 5) Vinyl chloride              | 1.62 | 62  | 302081 | 47.223 | ug/L 100 |
| 6) Bromomethane                | 1.87 | 94  | 160536 | 47.683 | ug/L 98  |
| 8) Chloroethane                | 1.95 | 64  | 183048 | 48.201 | ug/L 99  |
| 9) Trichlorofluoromethane      | 2.16 | 101 | 332465 | 48.126 | ug/L 100 |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.60 | 101 | 202087 | 48.048 | ug/L 100 |
| 12) 1,1-Dichloroethene         | 2.60 | 96  | 203815 | 47.784 | ug/L 96  |
| 13) Acetone                    | 2.66 | 43  | 244202 | 87.494 | ug/L 100 |
| 14) Carbon disulfide           | 2.82 | 76  | 664938 | 45.508 | ug/L 100 |
| 15) Methyl Acetate             | 2.98 | 43  | 307688 | 46.358 | ug/L 100 |
| 16) Methylene chloride         | 3.08 | 84  | 237503 | 48.740 | ug/L 97  |
| 17) trans-1,2-Dichloroethene   | 3.39 | 96  | 220748 | 48.242 | ug/L 99  |
| 18) Methyl tert-butyl Ether    | 3.40 | 73  | 777104 | 49.196 | ug/L 100 |
| 19) 1,1-Dichloroethane         | 3.91 | 63  | 439210 | 48.960 | ug/L 99  |
| 20) cis-1,2-Dichloroethene     | 4.71 | 96  | 244308 | 48.558 | ug/L 98  |
| 22) 2-Butanone                 | 4.75 | 43  | 438632 | 89.789 | ug/L 100 |

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 Operator : JC/MD  
 Sample : VSTDCCC050EC  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

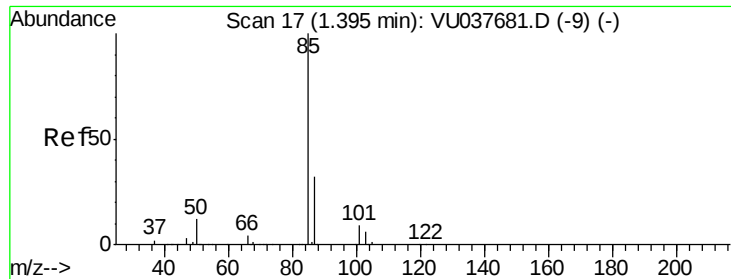
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

Quant Time: Apr 14 03:31:00 2020  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM040920WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Apr 14 03:27:41 2020  
 Response via : Initial Calibration

| Internal Standards              | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|---------------------------------|-------|------|----------|--------|-------|----------|
| 23) Bromochloromethane          | 5.02  | 128  | 118142   | 48.181 | ug/L  | 98       |
| 25) Chloroform                  | 5.13  | 83   | 410895   | 48.679 | ug/L  | 99       |
| 27) 1,2-Dichloroethane          | 5.83  | 62   | 338513   | 48.487 | ug/L  | 99       |
| 29) Cyclohexane                 | 5.42  | 56   | 426473   | 48.800 | ug/L  | 99       |
| 30) 1,1,1-Trichloroethane       | 5.35  | 97   | 356157   | 49.444 | ug/L  | 99       |
| 31) Carbon tetrachloride        | 5.56  | 117  | 285508   | 48.826 | ug/L  | 99       |
| 33) Benzene                     | 5.81  | 78   | 961930   | 49.738 | ug/L  | 100      |
| 34) Trichloroethene             | 6.57  | 95   | 232898   | 48.919 | ug/L  | 98       |
| 35) Methylcyclohexane           | 6.79  | 83   | 403511   | 47.768 | ug/L  | 99       |
| 37) 1,2-Dichloropropane         | 6.82  | 63   | 263617   | 49.607 | ug/L  | 100      |
| 38) Bromodichloromethane        | 7.13  | 83   | 320855   | 49.047 | ug/L  | 98       |
| 39) cis-1,3-Dichloropropene     | 7.63  | 75   | 421212   | 48.426 | ug/L  | 100      |
| 40) 4-Methyl-2-pentanone        | 7.82  | 43   | 869290   | 92.106 | ug/L  | 100      |
| 42) Toluene                     | 7.99  | 91   | 1013922  | 49.353 | ug/L  | 98       |
| 44) trans-1,3-Dichloropropene   | 8.23  | 75   | 400969   | 47.558 | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane       | 8.42  | 97   | 230828   | 48.682 | ug/L  | 99       |
| 46) Tetrachloroethene           | 8.57  | 164  | 167988   | 47.424 | ug/L  | 98       |
| 48) 2-Hexanone                  | 8.71  | 43   | 671463   | 90.102 | ug/L  | 99       |
| 49) Dibromochloromethane        | 8.83  | 129  | 241592   | 47.515 | ug/L  | 97       |
| 50) 1,2-Dibromoethane           | 8.94  | 107  | 248780   | 48.493 | ug/L  | 98       |
| 51) Chlorobenzene               | 9.47  | 112  | 619764   | 48.305 | ug/L  | 100      |
| 52) Ethylbenzene                | 9.59  | 91   | 1123919  | 48.794 | ug/L  | 99       |
| 53) m,p-Xylene                  | 9.71  | 106  | 430690   | 49.244 | ug/L  | 100      |
| 54) o-xylene                    | 10.12 | 106  | 418710   | 48.271 | ug/L  | 100      |
| 55) Styrene                     | 10.13 | 104  | 730484   | 48.570 | ug/L  | 98       |
| 56) Isopropylbenzene            | 10.50 | 105  | 1098307  | 48.628 | ug/L  | 100      |
| 58) 1,1,1,2,2-Tetrachloroethane | 10.80 | 83   | 402112   | 47.493 | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane      | 10.84 | 75   | 337644   | 46.770 | ug/L  | 99       |
| 61) Bromoform                   | 10.31 | 173  | 184249   | 47.102 | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene         | 11.76 | 146  | 479132   | 48.227 | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene         | 11.85 | 146  | 483212   | 48.477 | ug/L  | 99       |
| 65) 1,2-Dichlorobenzene         | 12.22 | 146  | 474644   | 48.477 | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan  | 13.01 | 75   | 101960   | 44.954 | ug/L  | 95       |
| 67) 1,3,5-Trichlorobenzene      | 13.24 | 180  | 341492   | 47.010 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene      | 13.87 | 180  | 332423   | 47.445 | ug/L  | 99       |
| 69) Naphthalene                 | 14.11 | 128  | 1167347  | 45.155 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene      | 14.36 | 180  | 323865   | 46.392 | ug/L  | 98       |

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





#2

Dichlorodifluoromethane

Concen: 47.118 ug/L

RT: 1.40 min Scan# 18

Delta R.T. 0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

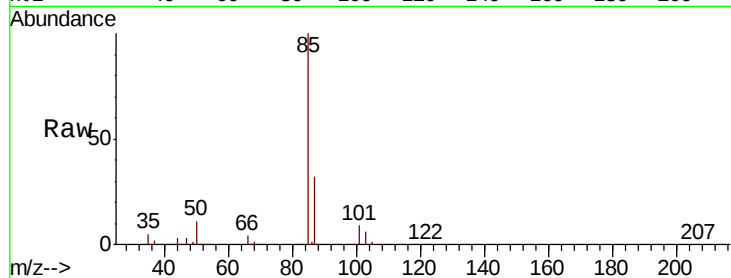
VSTD05045

Tot Ion: 85 Resp: 246269

Ion Ratio Lower Upper

85 100

87 31.7 25.4 38.2



Abundance Ion 85.00 (84.70 to 85.70): VU037691.D (-1) (-)

Ion 87.00 (86.70 to 87.70): VU037691.D (-1) (-)

1.40

250000

200000

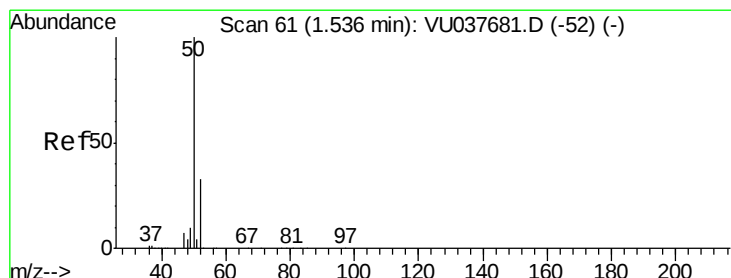
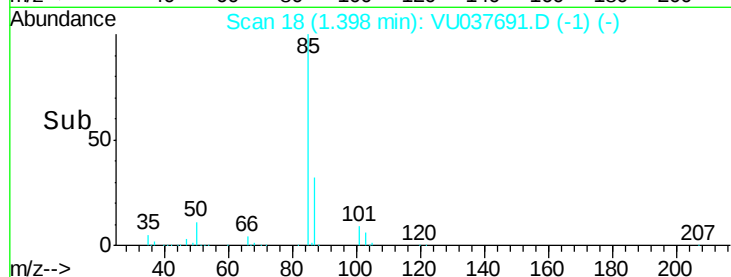
150000

100000

50000

0

Time-->



#3

Chloromethane

Concen: 48.259 ug/L

RT: 1.54 min Scan# 61

Delta R.T. -0.00 min

Lab File: VU037691.D

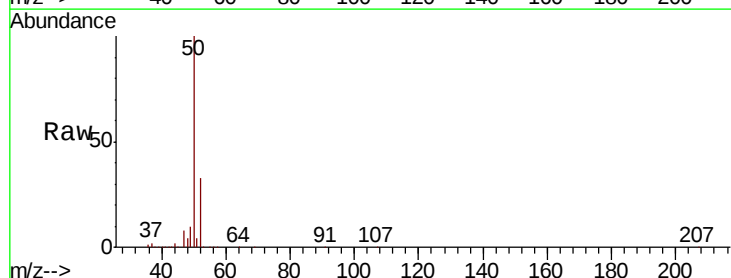
Acq: 13 Apr 2020 18:30

Tgt Ion: 50 Resp: 294999

Ion Ratio Lower Upper

50 100

52 33.2 23.3 43.3



Abundance Ion 50.00 (49.70 to 50.70): VU037691.D (-1) (-)

Ion 52.00 (51.70 to 52.70): VU037691.D (-1) (-)

1.54

300000

250000

200000

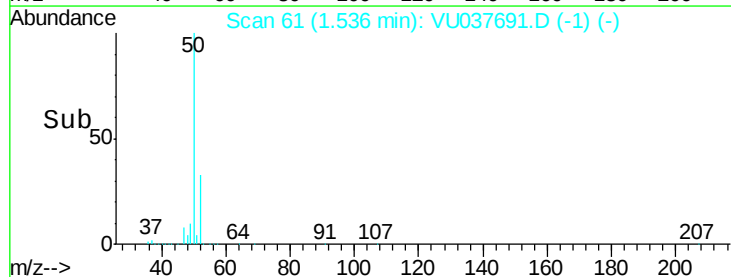
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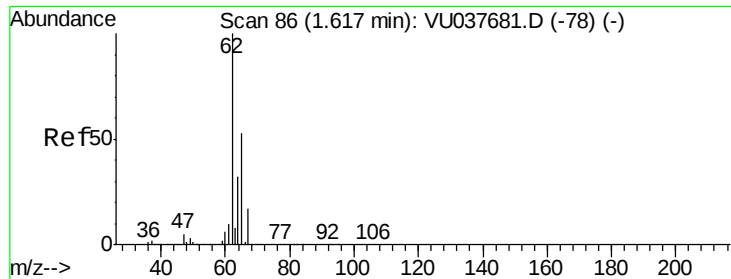
100000

50000

0

Time-->





#5

Vinyl chloride

Concen: 47.223 ug/L

RT: 1.62 min Scan# 86

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

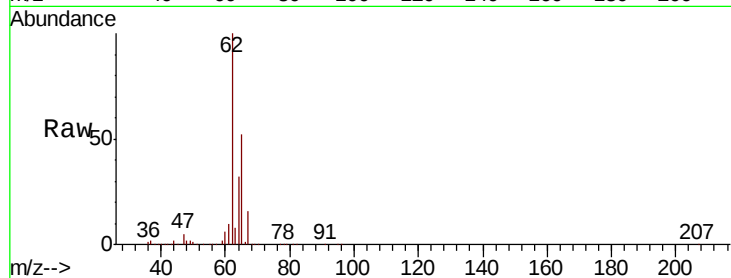
VSTD05045

Tot Ion: 62 Resp: 302081

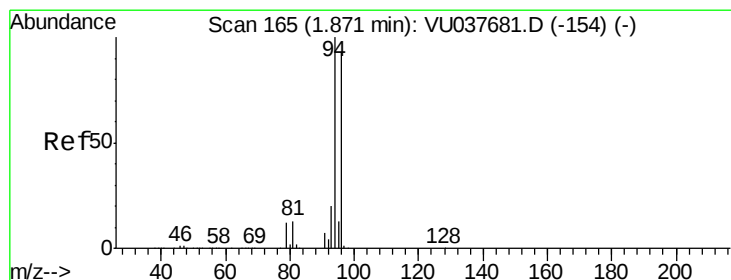
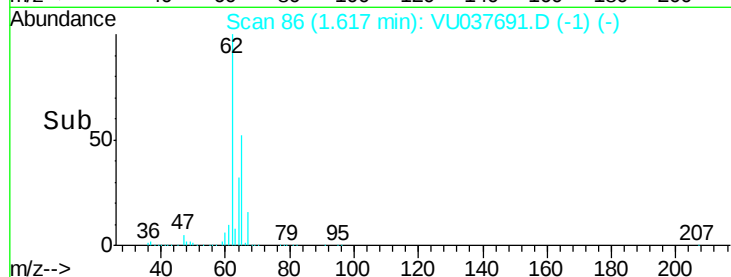
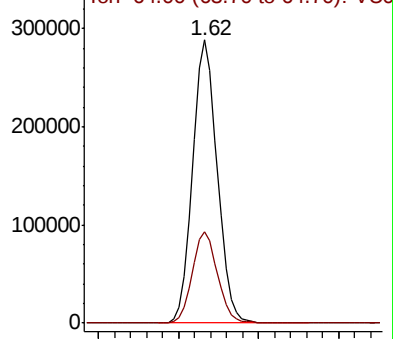
Ion Ratio Lower Upper

62 100

64 32.5 22.8 42.4



Abundance Ion 62.00 (61.70 to 62.70): VU037691.D (-1) (-)



#6

Bromomethane

Concen: 47.683 ug/L

RT: 1.87 min Scan# 165

Delta R.T. -0.00 min

Lab File: VU037691.D

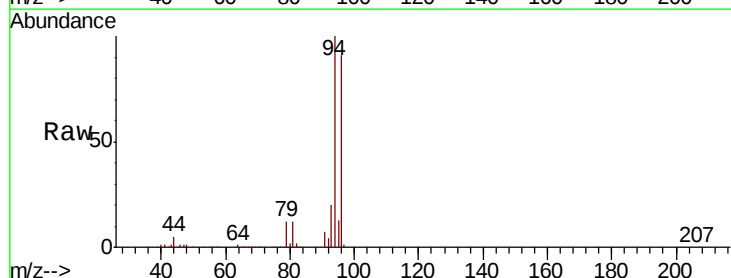
Acq: 13 Apr 2020 18:30

Tgt Ion: 94 Resp: 160536

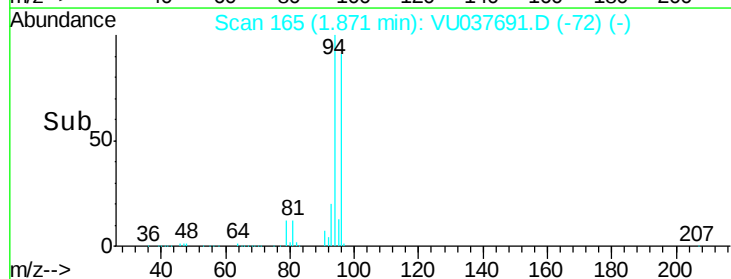
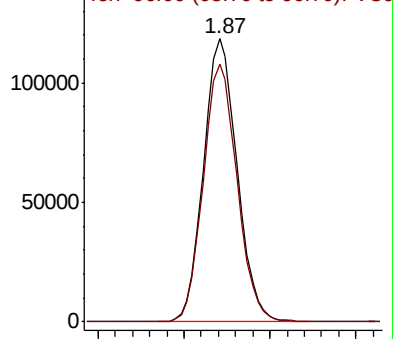
Ion Ratio Lower Upper

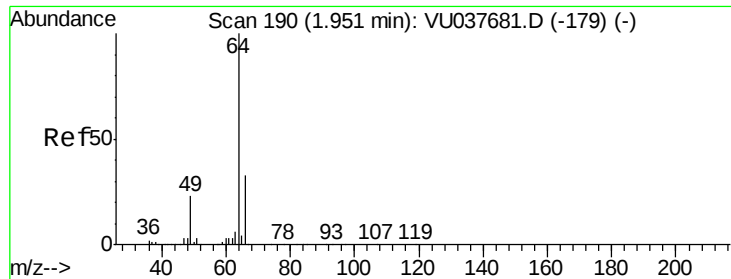
94 100

96 91.2 65.2 121.2



Abundance Ion 94.00 (93.70 to 94.70): VU037691.D (-72) (-)





#8

Chloroethane

Concen: 48.201 ug/L

RT: 1.95 min Scan# 190

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

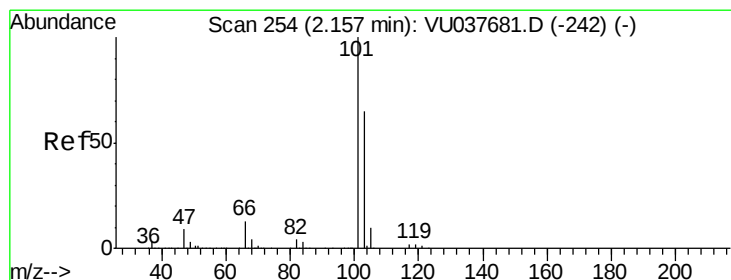
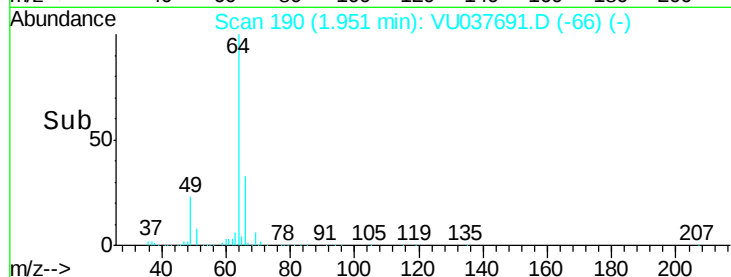
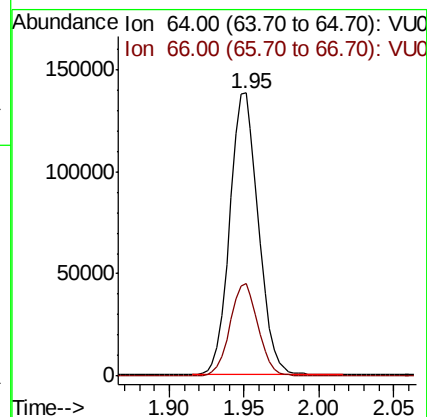
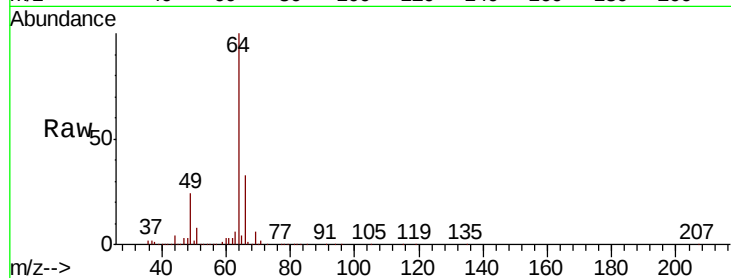
VSTD05045

Tot Ion: 64 Resp: 183048

Ion Ratio Lower Upper

64 100

66 32.6 22.6 42.0



#9

Trichlorofluoromethane

Concen: 48.126 ug/L

RT: 2.16 min Scan# 254

Delta R.T. -0.00 min

Lab File: VU037691.D

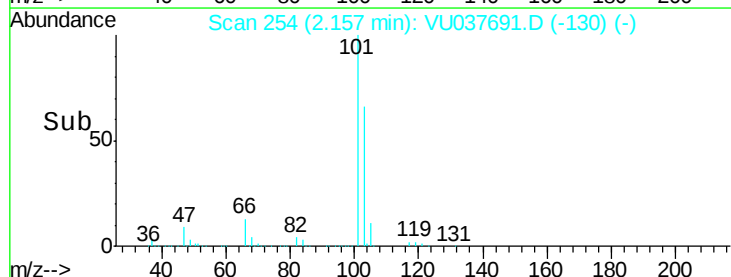
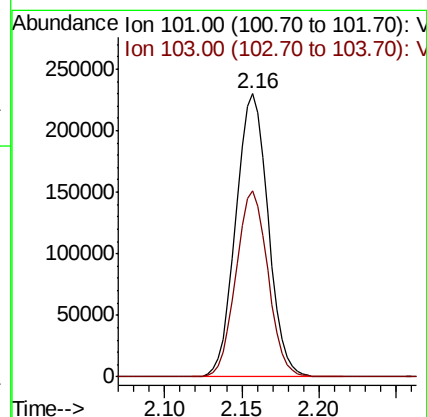
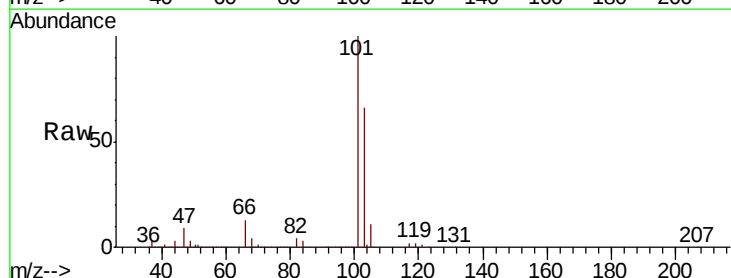
Acq: 13 Apr 2020 18:30

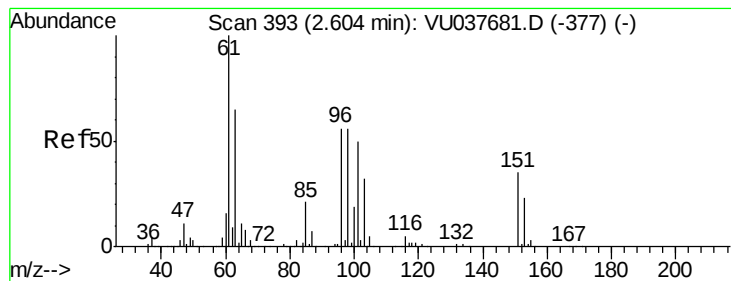
Tgt Ion: 101 Resp: 332465

Ion Ratio Lower Upper

101 100

103 65.1 52.2 78.2





#10

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

Concen: 48.048 ug/L

RT: 2.60 min Scan# 393

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05045

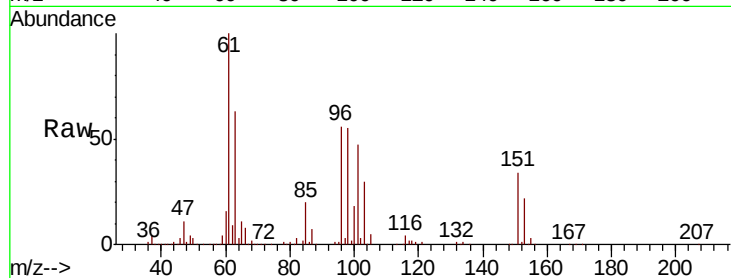
Tot Ion:101 Resp: 202087

Ion Ratio Lower Upper

101 100

85 43.3 34.5 51.7

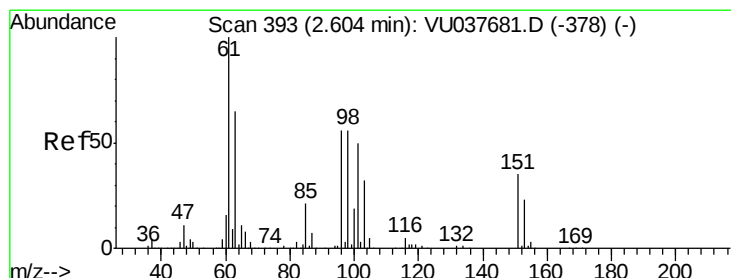
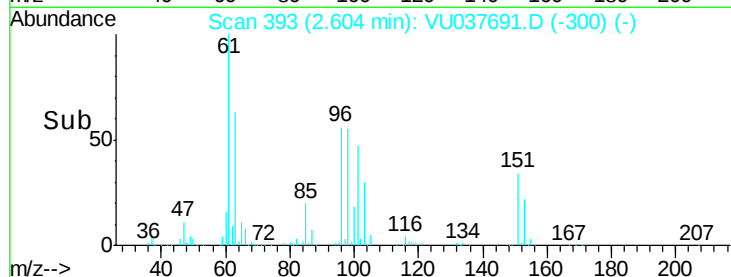
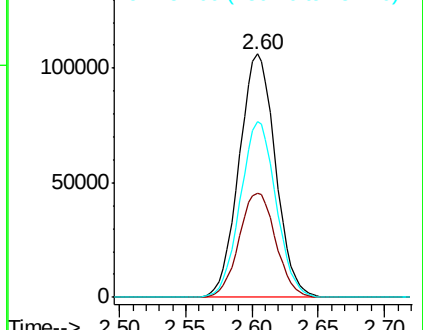
151 71.2 56.8 85.2



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: 47.784 ug/L

RT: 2.60 min Scan# 393

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

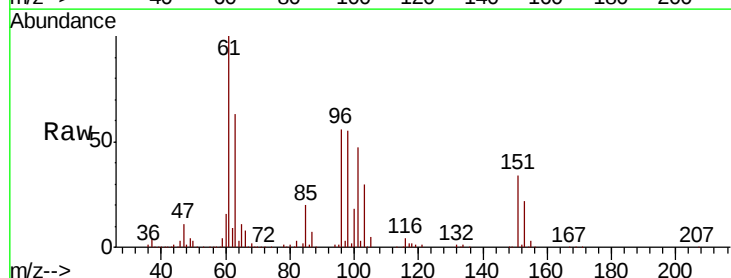
Tgt Ion: 96 Resp: 203815

Ion Ratio Lower Upper

96 100

61 179.3 123.6 229.6

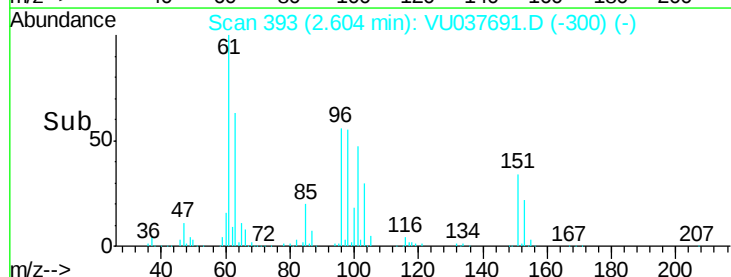
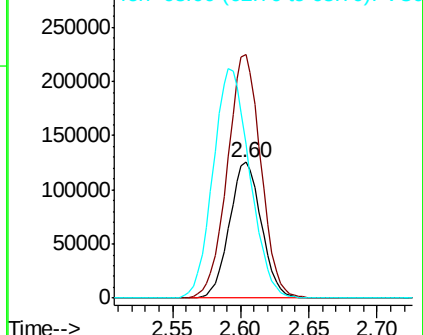
63 113.6 85.7 159.1

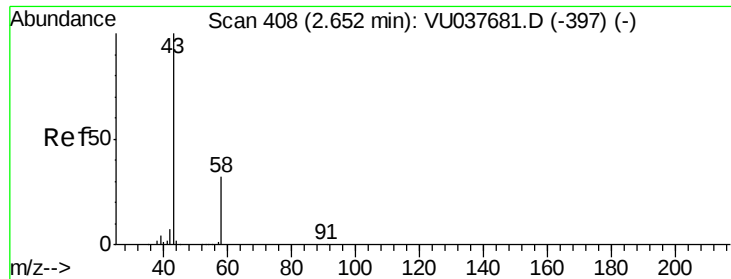


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 87.494 ug/L

RT: 2.66 min Scan# 409

Delta R.T. 0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

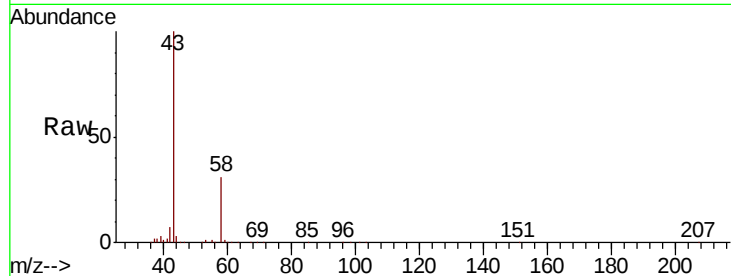
VSTD05045

Tot Ion: 43 Resp: 244202

Ion Ratio Lower Upper

43 100

58 31.6 0.0 63.2



Abundance Ion 43.00 (42.70 to 43.70): VU037691.D (-315) (-)

Ion 58.00 (57.70 to 58.70): VU037691.D (-315) (-)

2.66

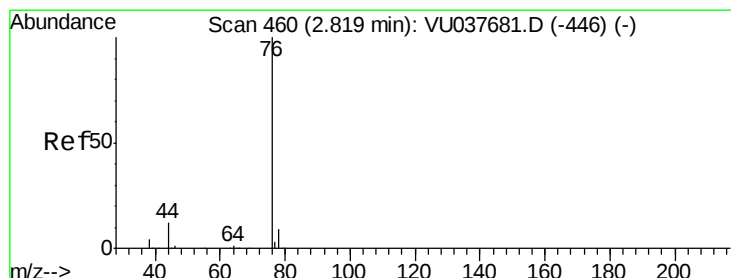
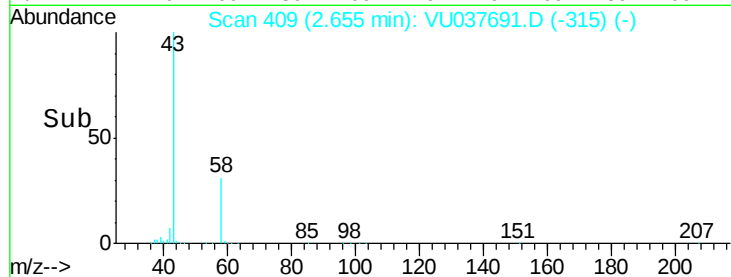
150000

100000

50000

0

Time-->



#14

Carbon disulfide

Concen: 45.508 ug/L

RT: 2.82 min Scan# 460

Delta R.T. -0.00 min

Lab File: VU037691.D

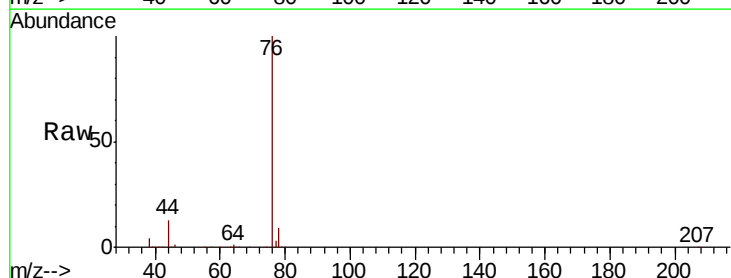
Acq: 13 Apr 2020 18:30

Tgt Ion: 76 Resp: 664938

Ion Ratio Lower Upper

76 100

78 8.9 7.0 10.6



Abundance Ion 76.00 (75.70 to 76.70): VU037691.D (-367) (-)

Ion 78.00 (77.70 to 78.70): VU037691.D (-367) (-)

2.82

400000

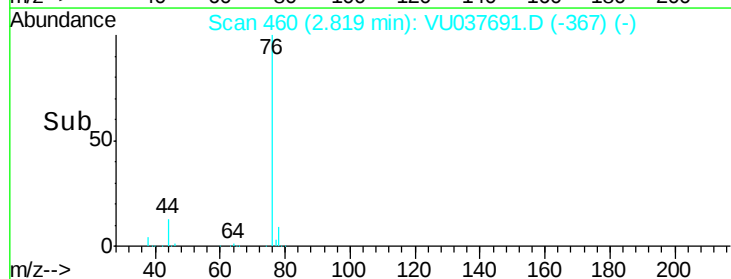
300000

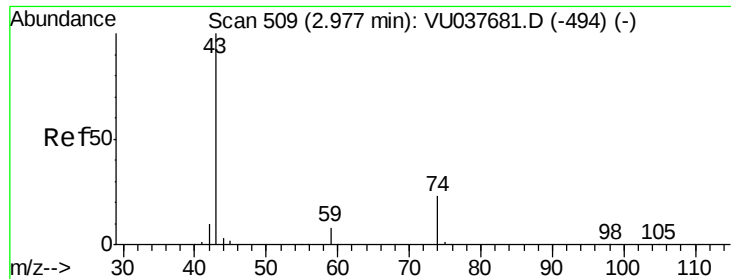
200000

100000

0

Time-->

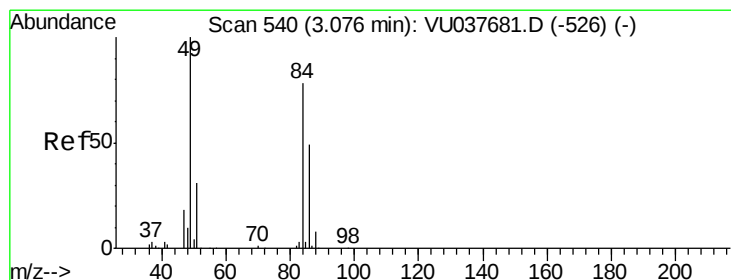
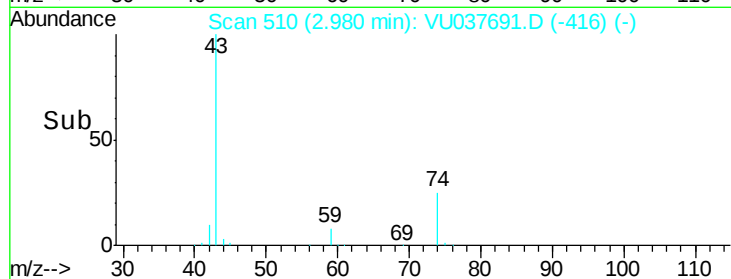
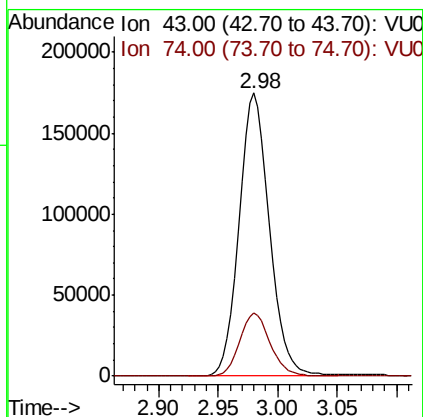
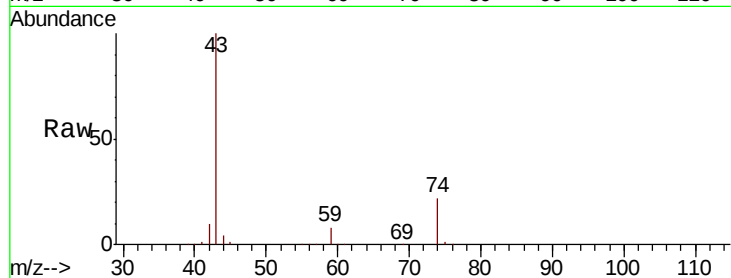




#15  
Methyl Acetate  
Concen: 46.358 ug/L  
RT: 2.98 min Scan# 510  
Delta R.T. 0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

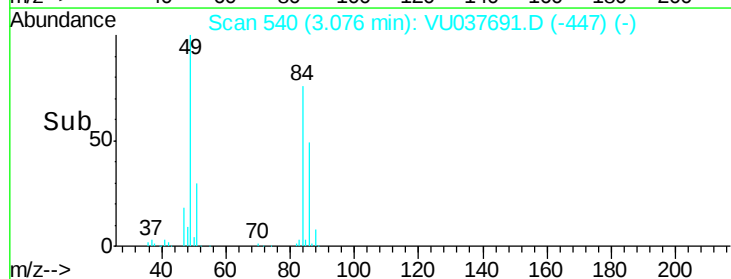
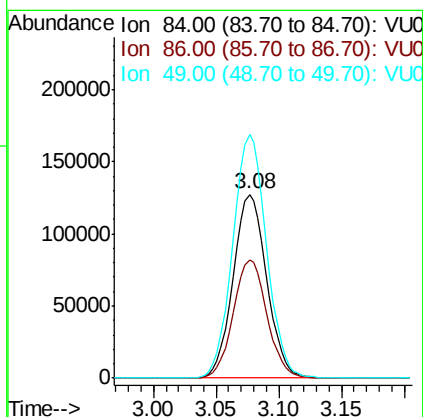
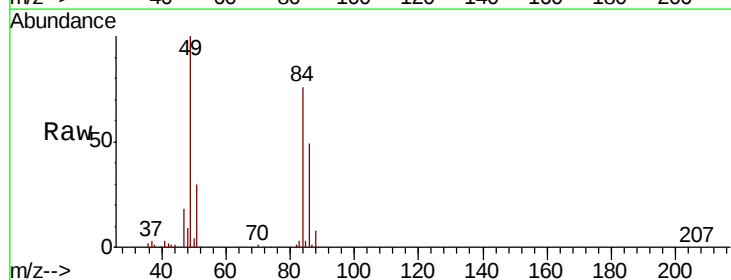
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05045

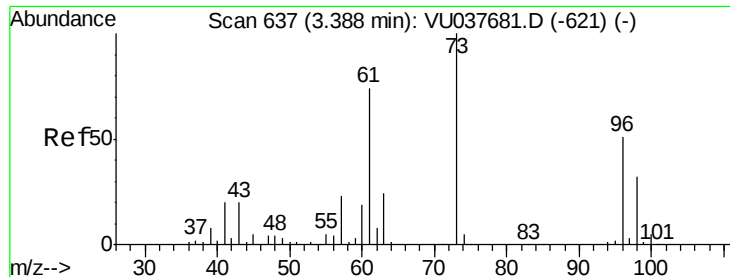
Tot Ion: 43 Resp: 307688  
Ion Ratio Lower Upper  
43 100  
74 22.5 17.9 26.9



#16  
Methylene chloride  
Concen: 48.740 ug/L  
RT: 3.08 min Scan# 540  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

Tgt Ion: 84 Resp: 237503  
Ion Ratio Lower Upper  
84 100  
86 64.3 44.1 81.9  
49 132.4 90.3 167.7





#17

trans-1,2-Dichloroethene

Concen: 48.242 ug/L

RT: 3.39 min Scan# 637

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05045

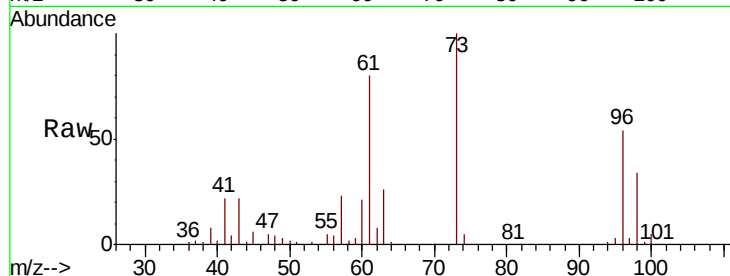
Tot Ion: 96 Resp: 220748

Ion Ratio Lower Upper

96 100

61 148.2 103.2 191.6

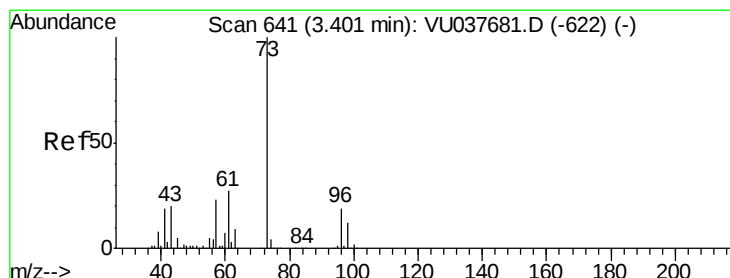
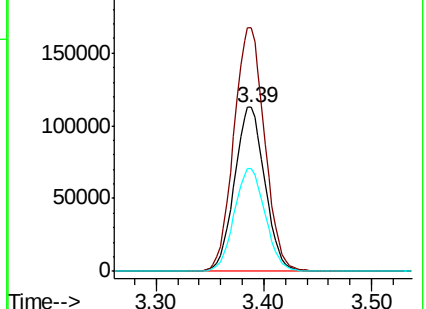
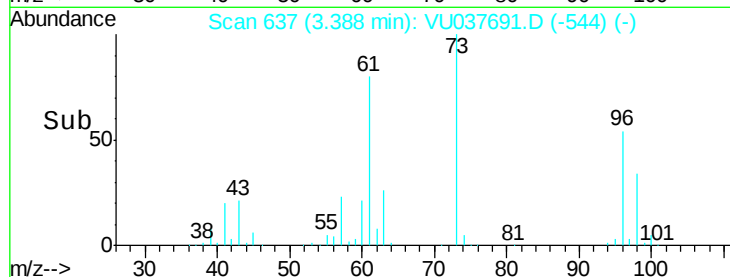
98 62.5 43.1 80.1



Abundance Ion 96.00 (95.70 to 96.70): VU037691.D (-544) (-)

Ion 61.00 (60.70 to 61.70): VU037691.D (-544) (-)

Ion 98.00 (97.70 to 98.70): VU037691.D (-544) (-)



#18

Methyl tert-butyl Ether

Concen: 49.196 ug/L

RT: 3.40 min Scan# 642

Delta R.T. 0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

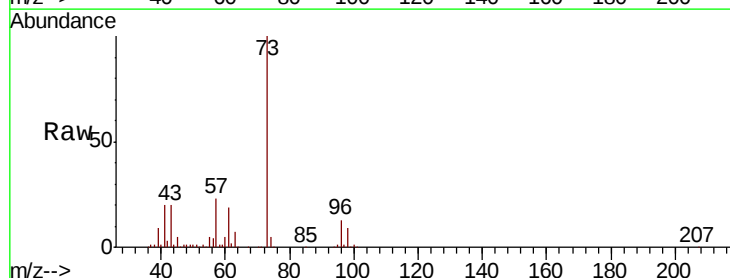
Tgt Ion: 73 Resp: 777104

Ion Ratio Lower Upper

73 100

43 20.3 16.3 24.5

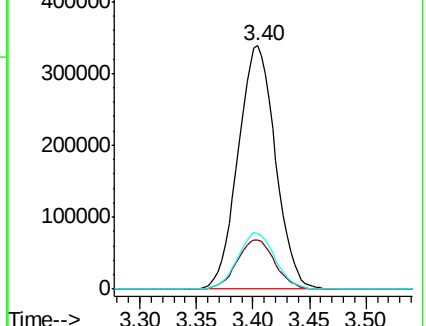
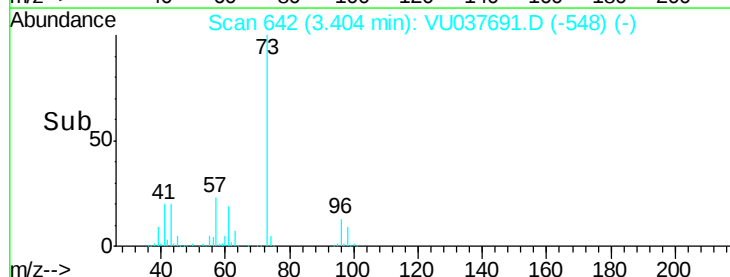
57 23.2 18.3 27.5

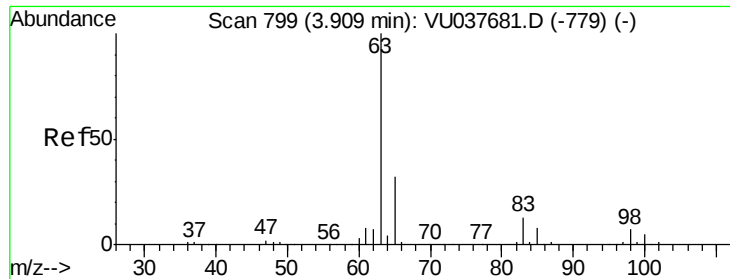


Abundance Ion 73.00 (72.70 to 73.70): VU037691.D (-548) (-)

Ion 43.00 (42.70 to 43.70): VU037691.D (-548) (-)

Ion 57.00 (56.70 to 57.70): VU037691.D (-548) (-)

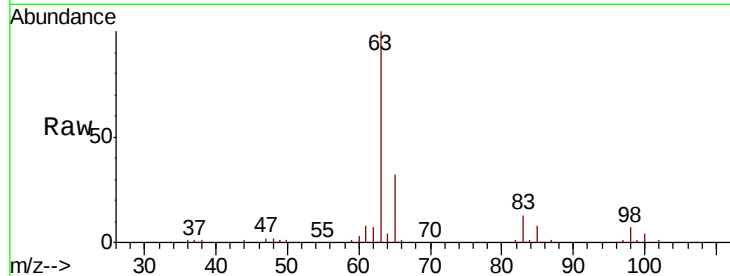




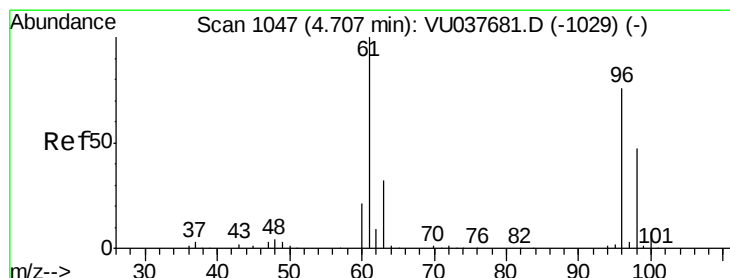
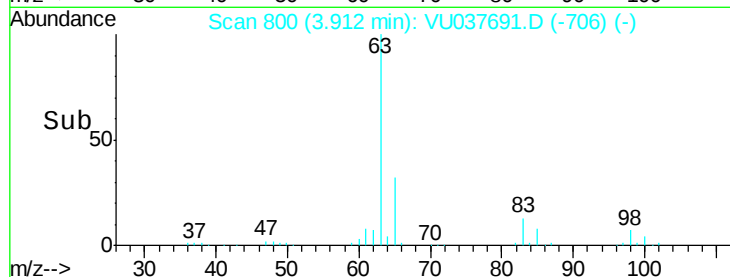
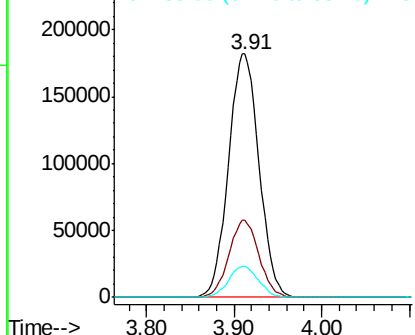
#19  
 1,1-Dichloroethane  
 Concen: 48.960 ug/L  
 RT: 3.91 min Scan# 800  
 Delta R.T. 0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

Tot Ion: 63 Resp: 439210  
 Ion Ratio Lower Upper  
 63 100  
 65 31.9 21.9 40.7  
 83 12.7 9.0 16.6

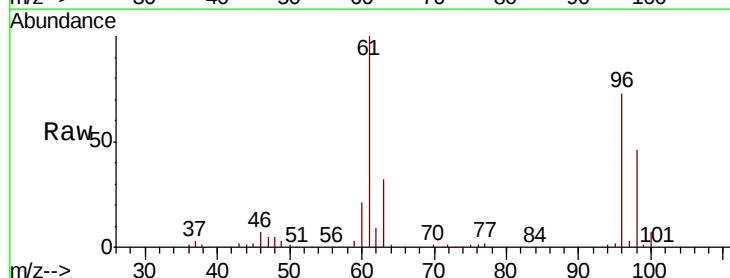


Abundance Ion 63.00 (62.70 to 63.70): VU0  
 Ion 65.00 (64.70 to 65.70): VU0  
 Ion 83.00 (82.70 to 83.70): VU0

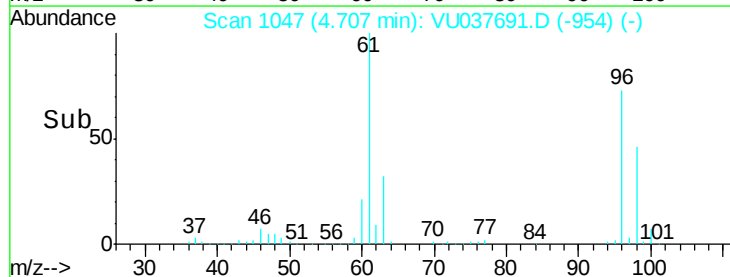
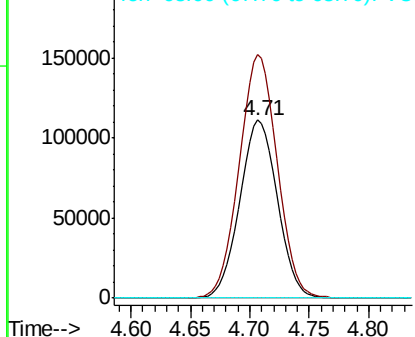


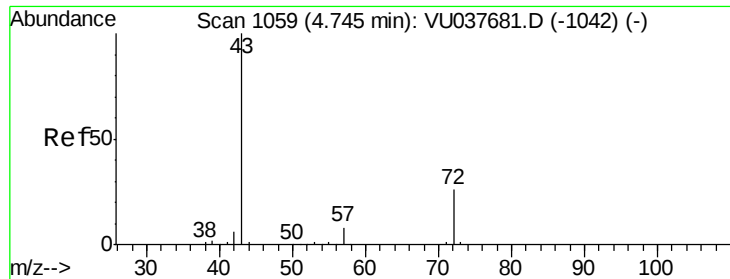
#20  
 cis-1,2-Dichloroethene  
 Concen: 48.558 ug/L  
 RT: 4.71 min Scan# 1047  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Tgt Ion: 96 Resp: 244308  
 Ion Ratio Lower Upper  
 96 100  
 61 136.8 97.5 181.1  
 68 0.0 0.0 0.0



Abundance Ion 96.00 (95.70 to 96.70): VU0  
 Ion 61.00 (60.70 to 61.70): VU0  
 Ion 68.00 (67.70 to 68.70): VU0





#22

2-Butanone

Concen: 89.789 ug/L

RT: 4.75 min Scan# 1059

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

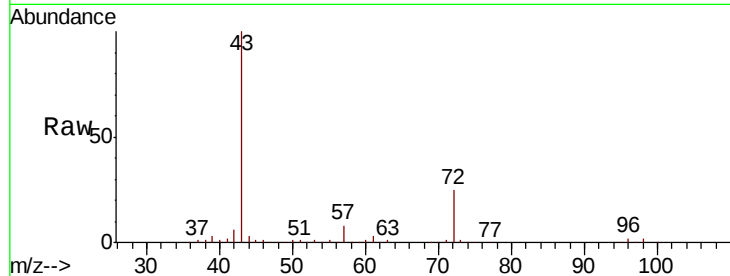
VSTD05045

Tot Ion: 43 Resp: 438632

Ion Ratio Lower Upper

43 100

72 25.5 12.8 38.4



Abundance Ion 43.00 (42.70 to 43.70): VU037691.D (-966) (-)

Ion 72.00 (71.70 to 72.70): VU037691.D (-966) (-)

4.75

200000

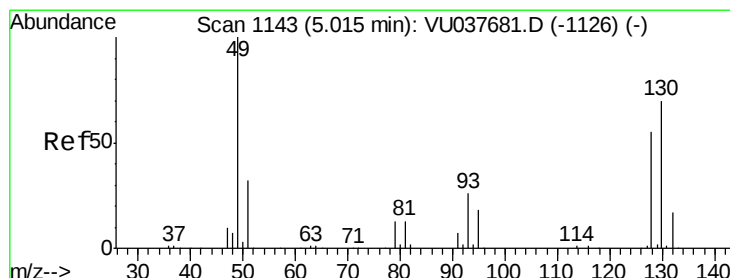
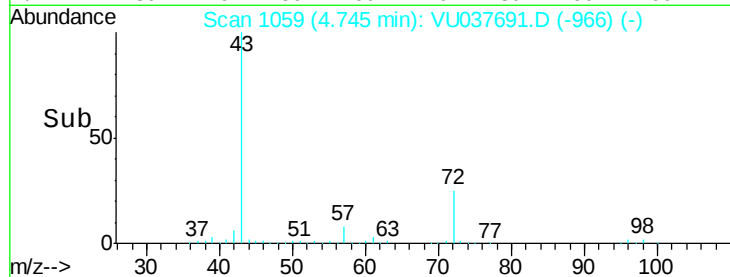
150000

100000

50000

0

Time-->



#23

Bromochloromethane

Concen: 48.181 ug/L

RT: 5.02 min Scan# 1143

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Tgt Ion: 128 Resp: 118142

Ion Ratio Lower Upper

128 100

49 188.0 128.7 238.9

130 128.0 89.9 167.0

51 60.8 46.4 69.6

Abundance Ion 128.00 (127.70 to 128.70): VU037691.D (-1050) (-)

Ion 49.00 (48.70 to 49.70): VU037691.D (-1050) (-)

Ion 130.00 (129.70 to 130.70): VU037691.D (-1050) (-)

Ion 51.00 (50.70 to 51.70): VU037691.D (-1050) (-)

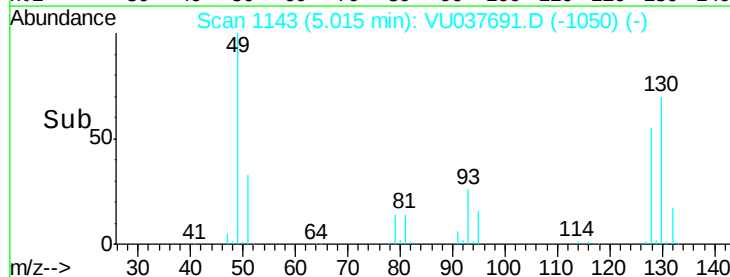
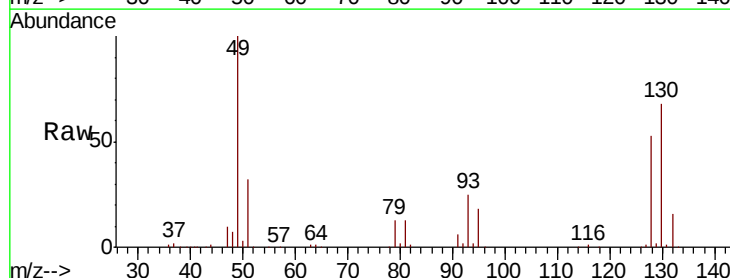
150000

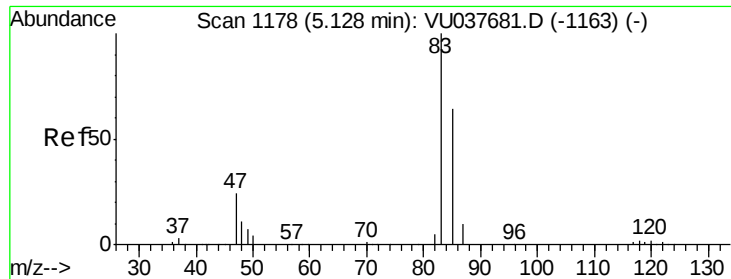
100000

50000

0

Time-->

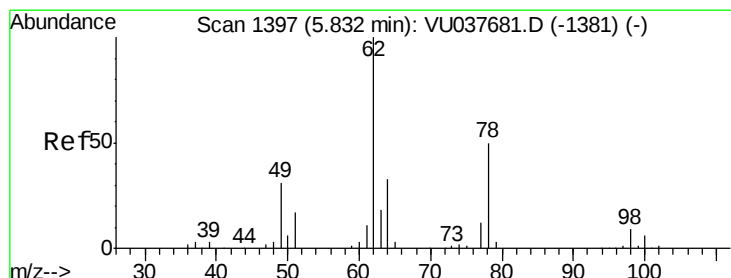
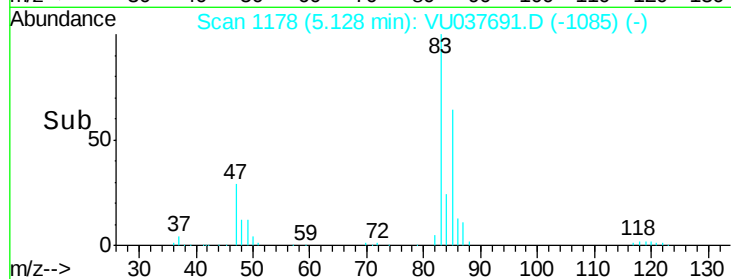
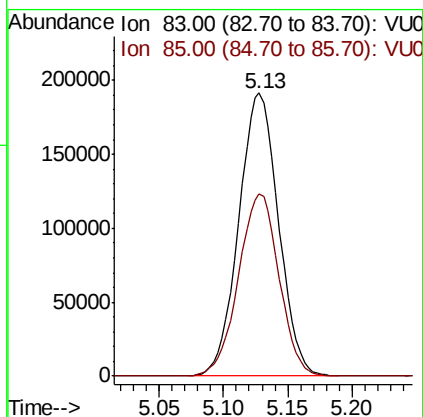
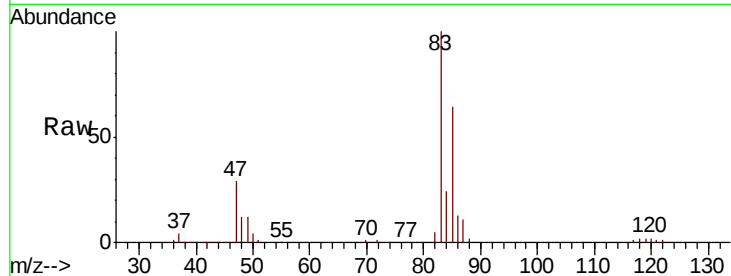




#25  
Chloroform  
Concen: 48.679 ug/L  
RT: 5.13 min Scan# 1178  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

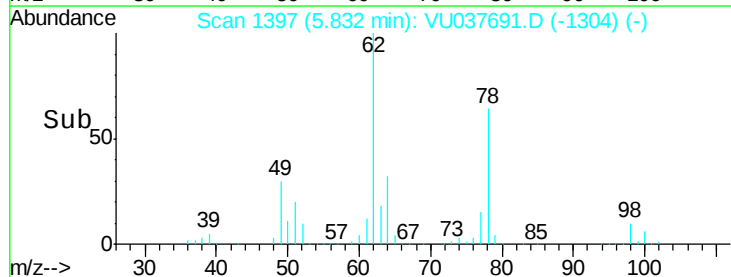
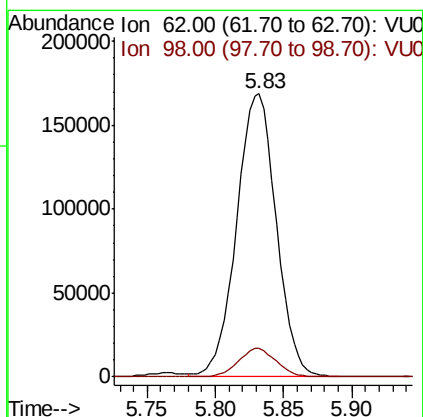
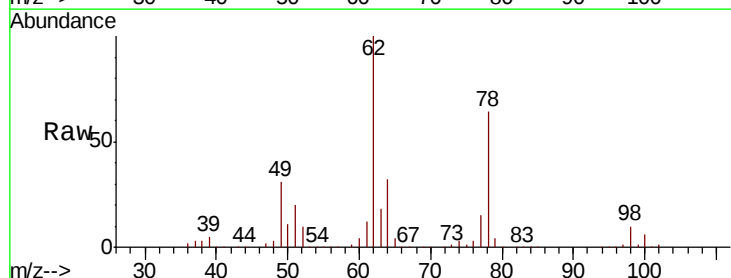
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05045

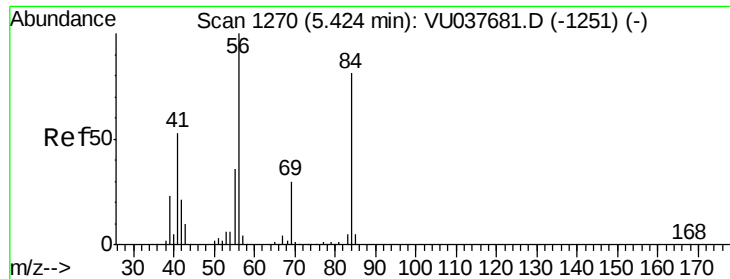
Tot Ion: 83 Resp: 410895  
Ion Ratio Lower Upper  
83 100  
85 64.4 45.5 84.5



#27  
1,2-Dichloroethane  
Concen: 48.487 ug/L  
RT: 5.83 min Scan# 1397  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

Tgt Ion: 62 Resp: 338513  
Ion Ratio Lower Upper  
62 100  
98 10.0 7.8 11.6

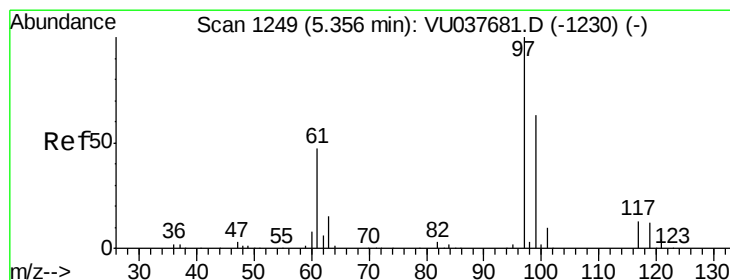
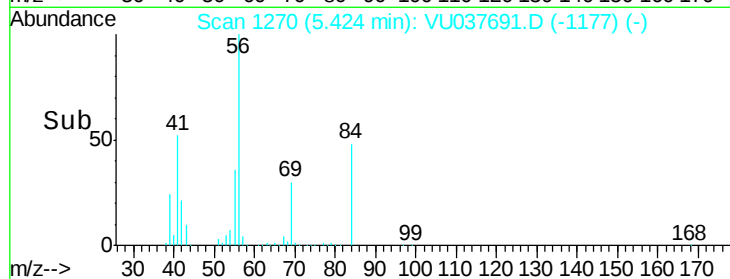
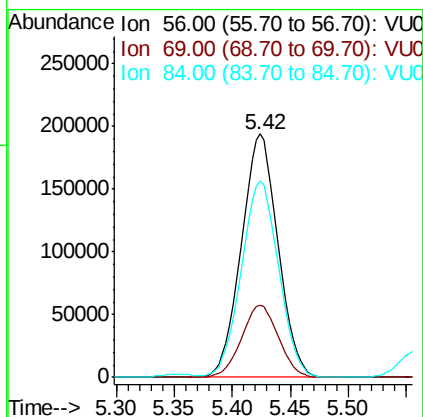
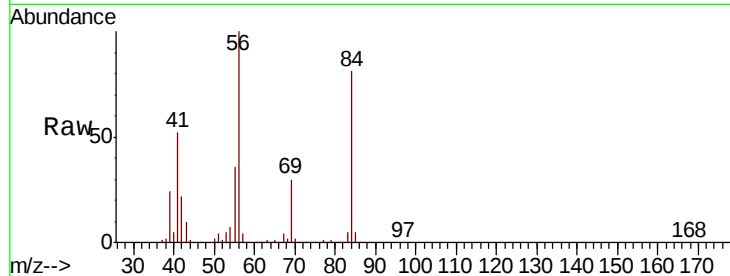




#29  
Cyclohexane  
Concen: 48.800 ug/L  
RT: 5.42 min Scan# 1270  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

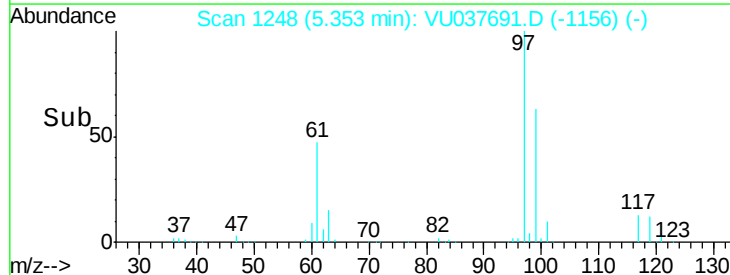
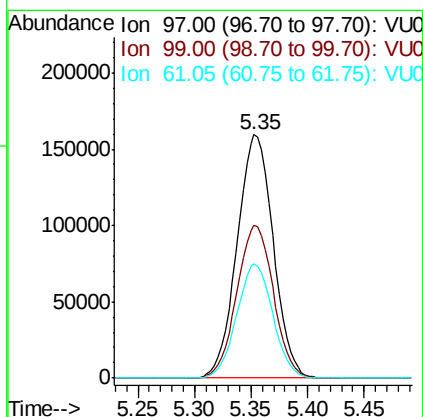
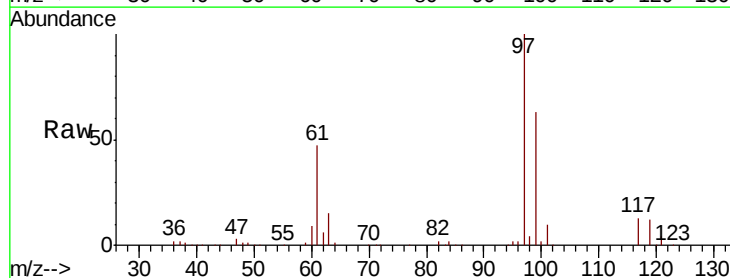
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05045

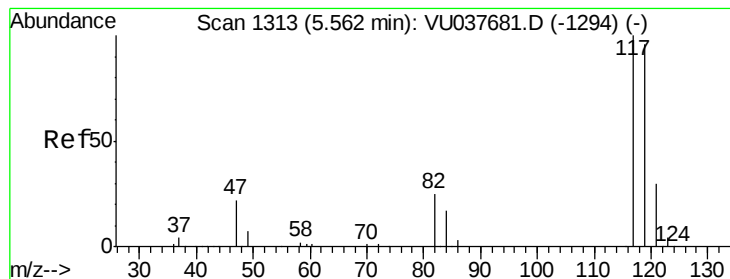
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 56      | 100   |       |       |
| 69      | 29.8  | 24.0  | 36.0  |
| 84      | 82.2  | 66.3  | 99.5  |



#30  
1,1,1-Trichloroethane  
Concen: 49.444 ug/L  
RT: 5.35 min Scan# 1248  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 97      | 100   |       |       |
| 99      | 63.6  | 51.9  | 77.9  |
| 61      | 46.6  | 37.1  | 55.7  |





#31

Carbon tetrachloride

Concen: 48.826 ug/L

RT: 5.56 min Scan# 1312

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

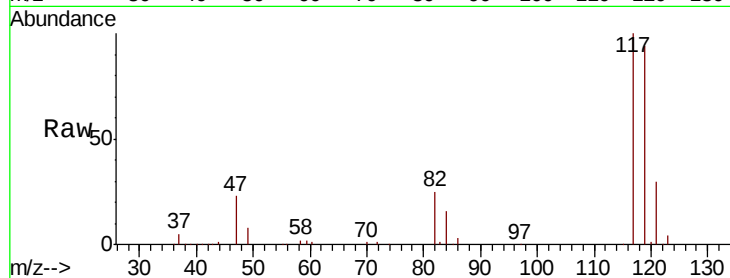
VSTD05045

Tot Ion:117 Resp: 285508

Ion Ratio Lower Upper

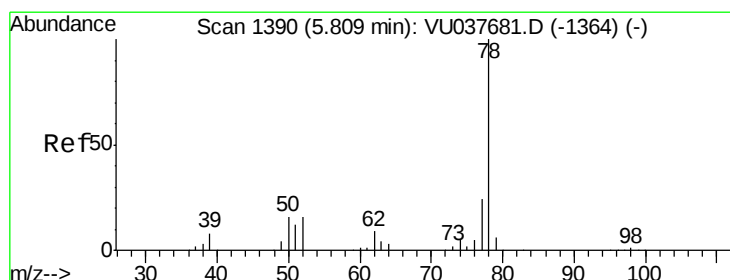
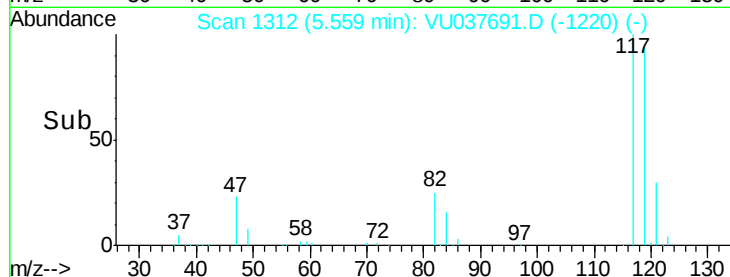
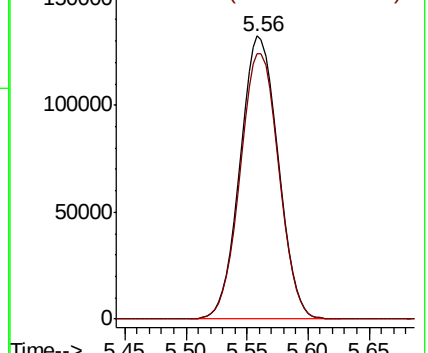
117 100

119 95.4 77.0 115.4



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V



#33

Benzene

Concen: 49.738 ug/L

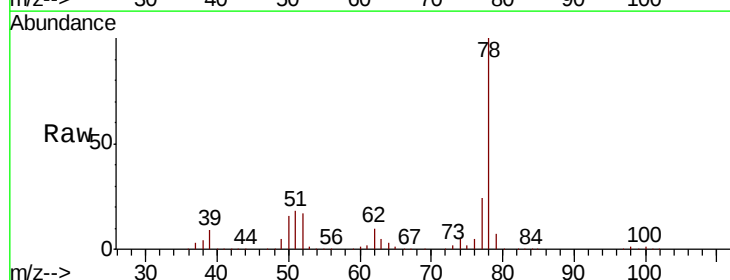
RT: 5.81 min Scan# 1390

Delta R.T. -0.00 min

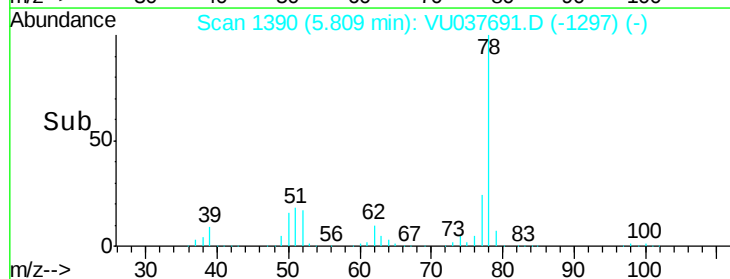
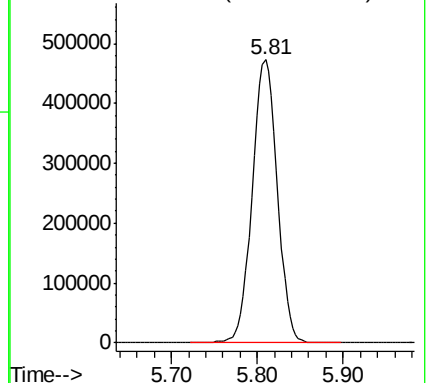
Lab File: VU037691.D

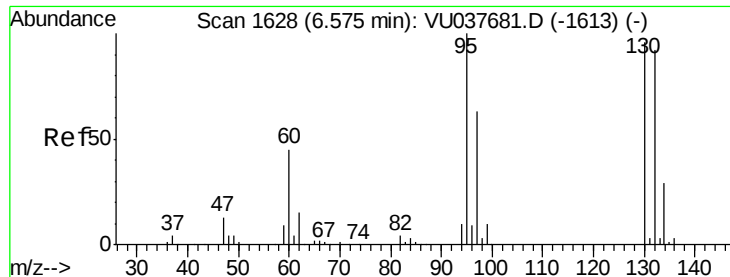
Acq: 13 Apr 2020 18:30

Tgt Ion: 78 Resp: 961930



Abundance Ion 78.00 (77.70 to 78.70): VU0

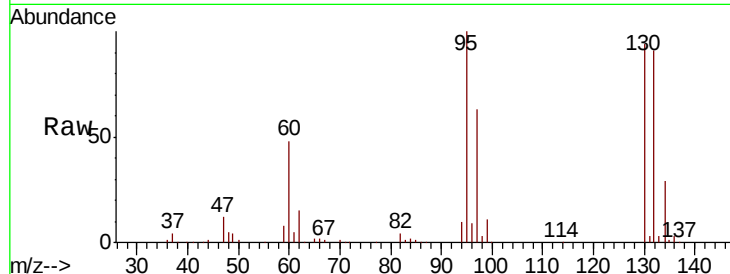




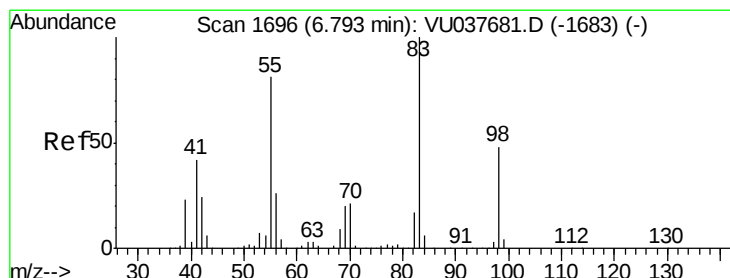
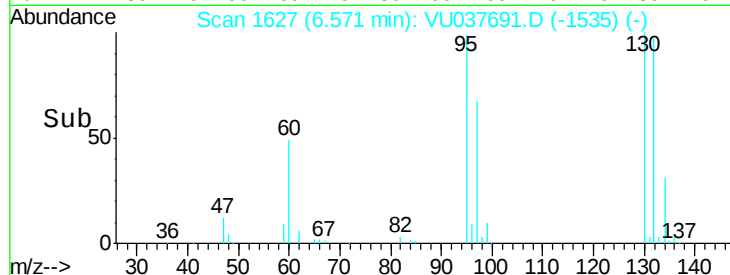
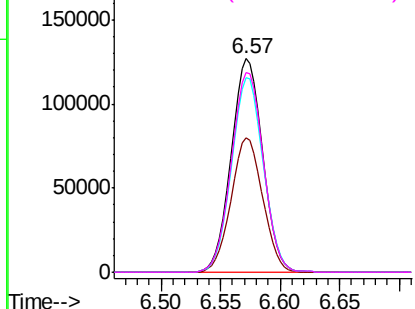
#34  
 Trichloroethene  
 Concen: 48.919 ug/L  
 RT: 6.57 min Scan# 1627  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 95    | Resp: | 232898 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 97       | 63.2  | 43.8  | 81.4   |
| 132      | 91.0  | 64.8  | 120.4  |
| 130      | 93.8  | 68.2  | 126.6  |

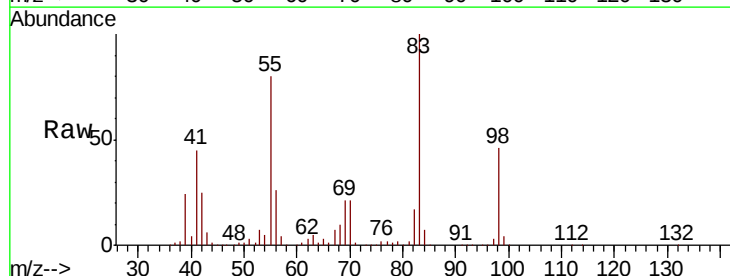


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

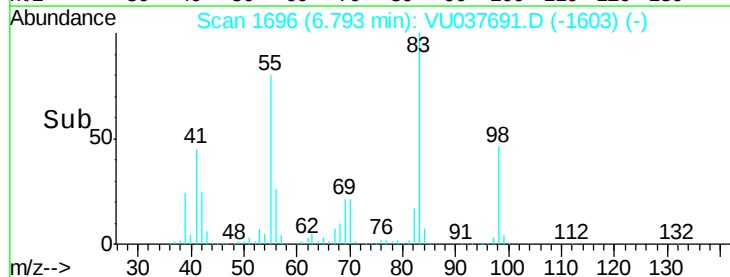
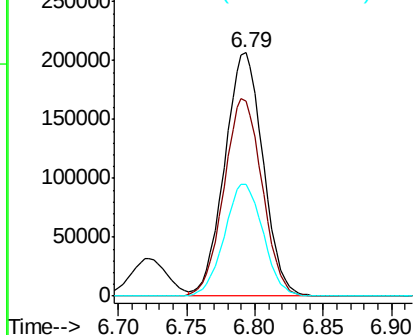


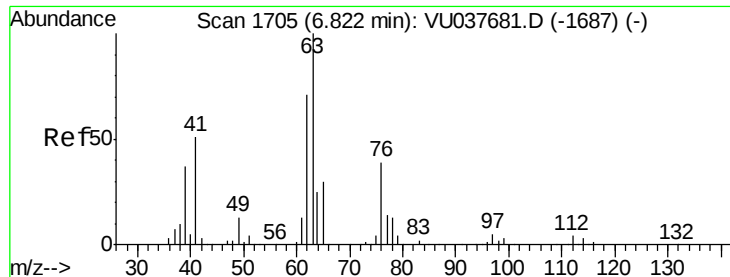
#35  
 Methylcyclohexane  
 Concen: 47.768 ug/L  
 RT: 6.79 min Scan# 1696  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 83    | Resp: | 403511 |
| Ion      | Ratio | Lower | Upper  |
| 83       | 100   |       |        |
| 55       | 80.8  | 64.6  | 96.8   |
| 98       | 46.4  | 38.0  | 57.0   |



Abundance Ion 83.00 (82.70 to 83.70): VU0  
 Ion 55.00 (54.70 to 55.70): VU0  
 Ion 98.00 (97.70 to 98.70): VU0

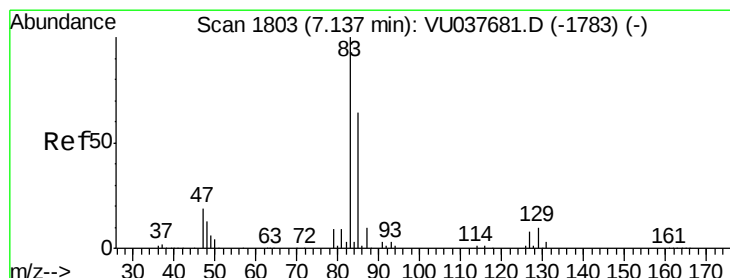
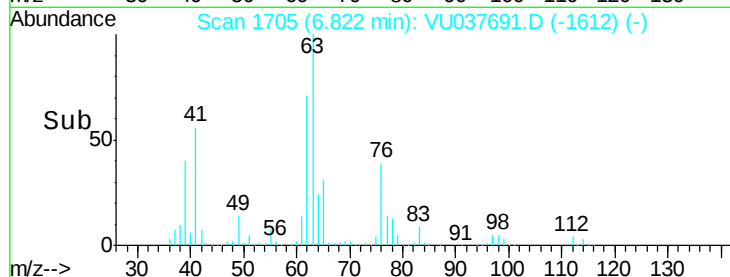
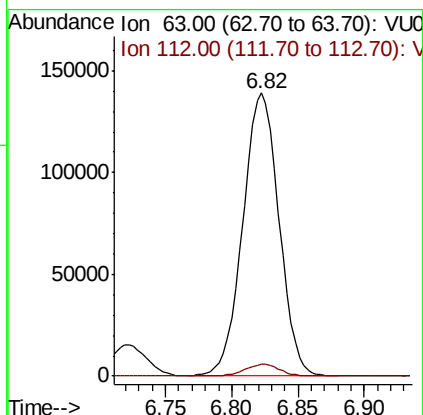
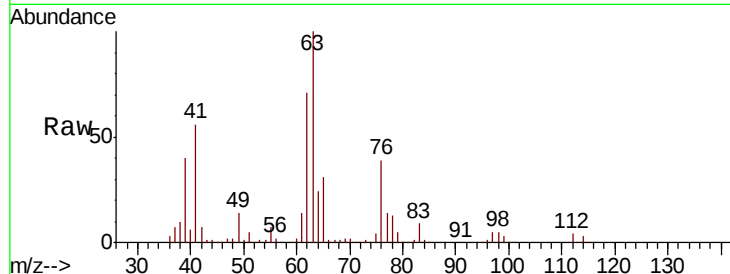




#37  
 1,2-Dichloropropane  
 Concen: 49.607 ug/L  
 RT: 6.82 min Scan# 1705  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

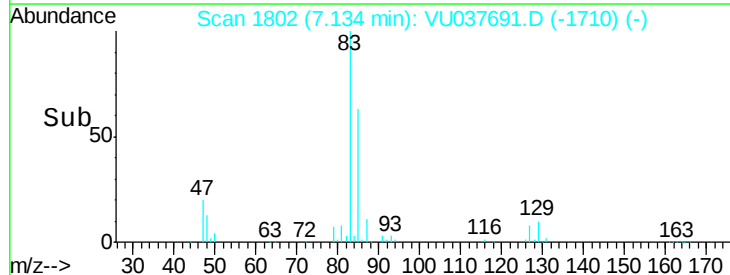
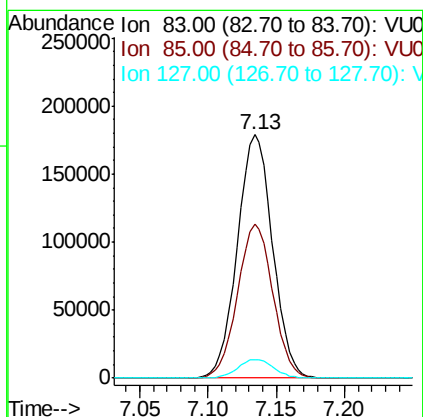
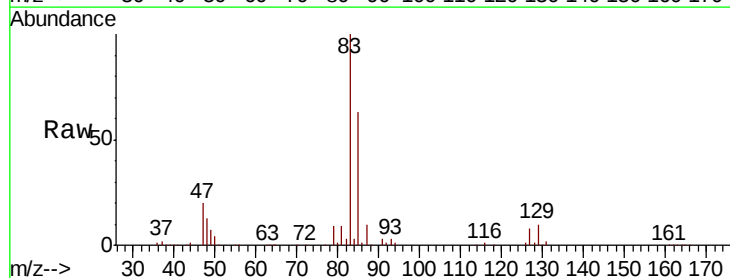
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

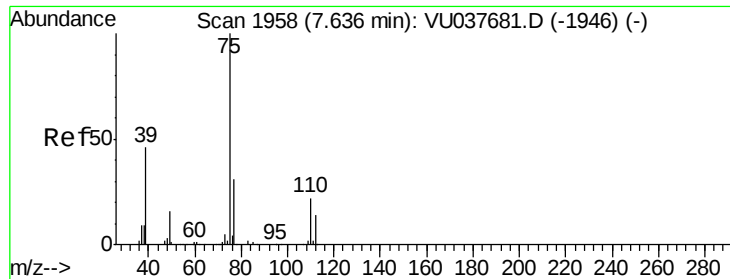
Tot Ion: 63 Resp: 263617  
 Ion Ratio Lower Upper  
 63 100  
 112 4.1 3.4 5.0



#38  
 Bromodichloromethane  
 Concen: 49.047 ug/L  
 RT: 7.13 min Scan# 1802  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Tgt Ion: 83 Resp: 320855  
 Ion Ratio Lower Upper  
 83 100  
 85 63.0 45.1 83.7  
 127 7.7 6.6 9.8

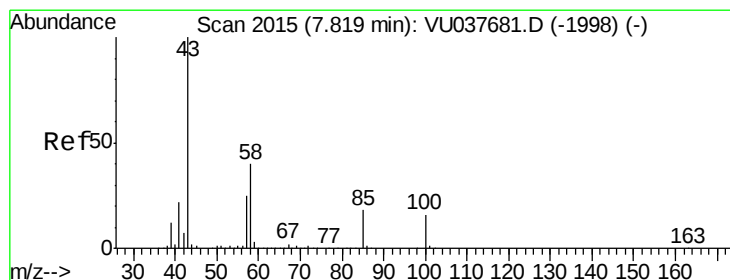
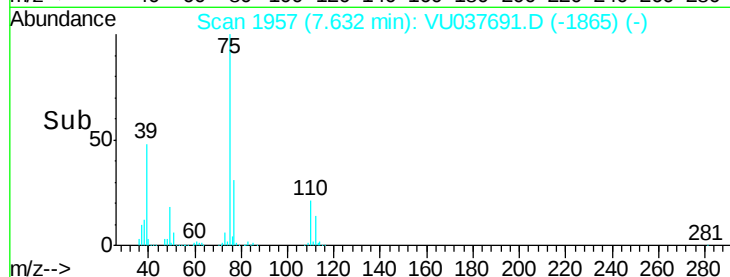
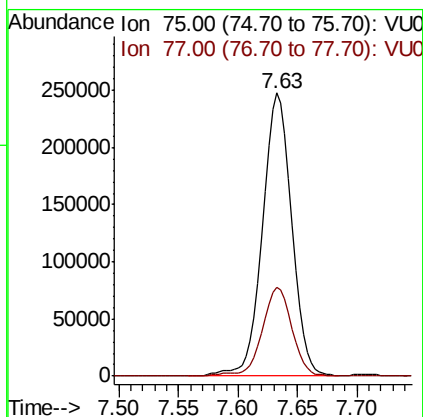
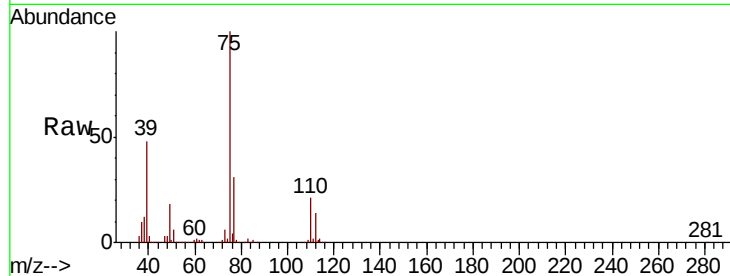




#39  
 cis-1,3-Dichloropropene  
 Concen: 48.426 ug/L  
 RT: 7.63 min Scan# 1957  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

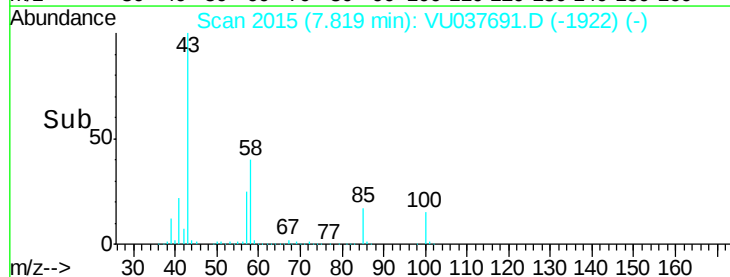
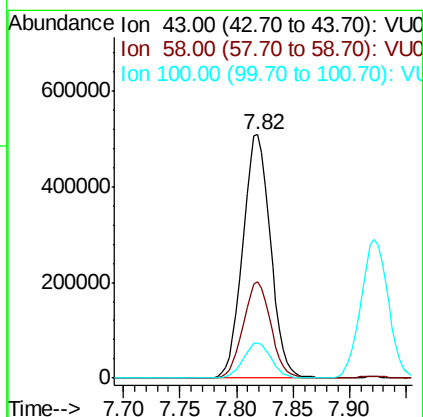
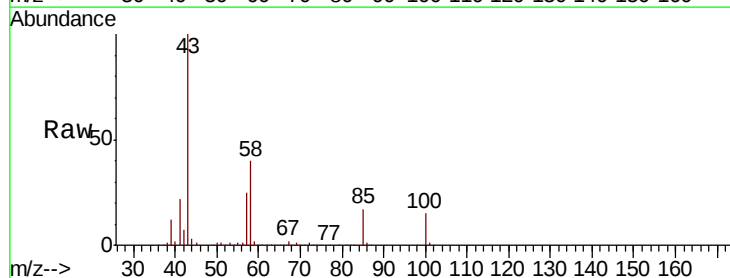
Instrument :  
 MSVOA\_U  
 ClientSampled :  
 VSTD05045

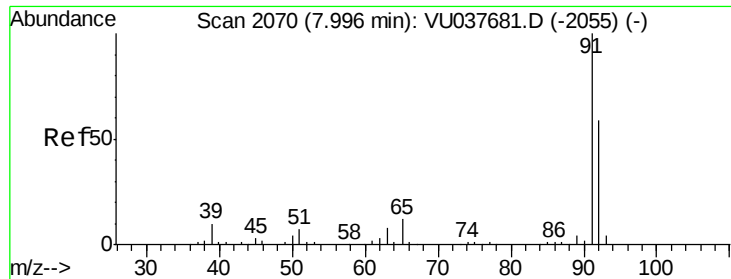
Tot Ion: 75 Resp: 421212  
 Ion Ratio Lower Upper  
 75 100  
 77 31.5 22.1 41.1



#40  
 4-Methyl-2-pentanone  
 Concen: 92.106 ug/L  
 RT: 7.82 min Scan# 2015  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Tgt Ion: 43 Resp: 869290  
 Ion Ratio Lower Upper  
 43 100  
 58 39.5 31.5 47.3  
 100 14.5 12.0 18.0





#42

Toluene

Concen: 49.353 ug/L

RT: 7.99 min Scan# 2069

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

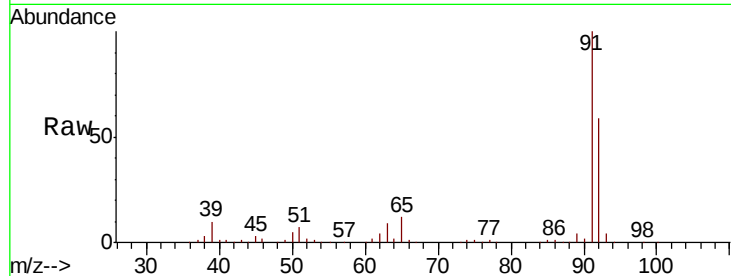
VSTD05045

Tot Ion: 91 Resp: 1013922

Ion Ratio Lower Upper

91 100

92 58.6 41.8 77.6



Abundance Ion 91.00 (90.70 to 91.70): VU037691.D (-1977) (-)

Ion 92.00 (91.70 to 92.70): VU037691.D (-1977) (-)

7.99

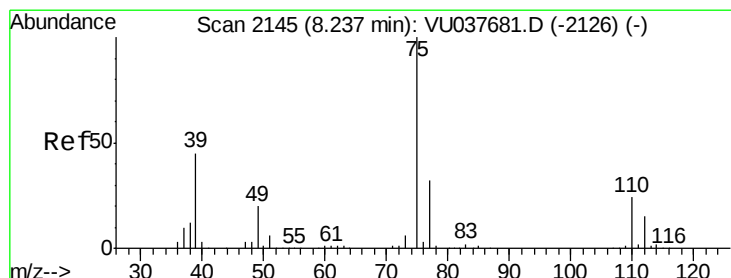
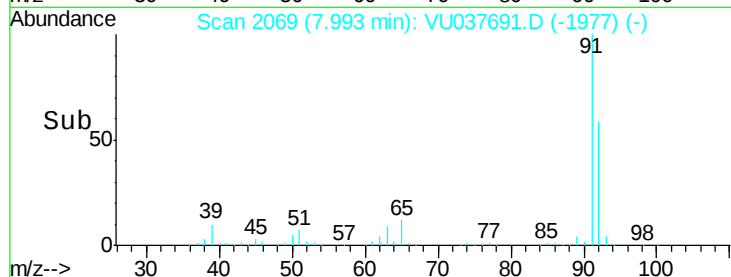
600000

400000

200000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 47.558 ug/L

RT: 8.23 min Scan# 2144

Delta R.T. -0.00 min

Lab File: VU037691.D

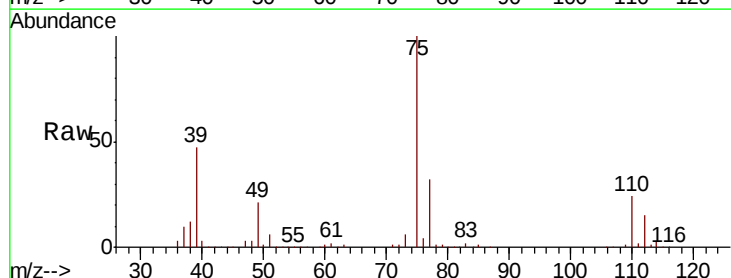
Acq: 13 Apr 2020 18:30

Tgt Ion: 75 Resp: 400969

Ion Ratio Lower Upper

75 100

77 32.3 22.7 42.1



Abundance Ion 75.00 (74.70 to 75.70): VU037691.D (-2052) (-)

Ion 77.00 (76.70 to 77.70): VU037691.D (-2052) (-)

8.23

250000

200000

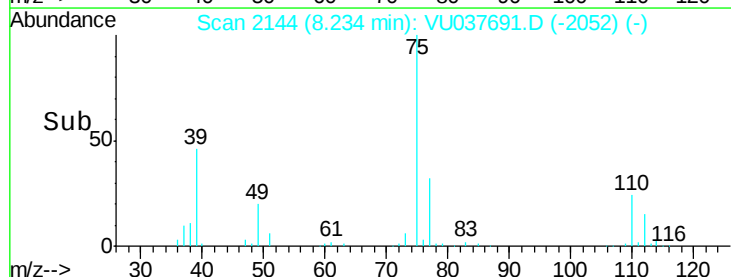
150000

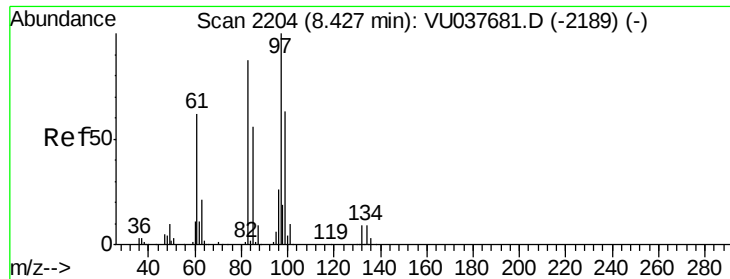
100000

50000

0

Time-->

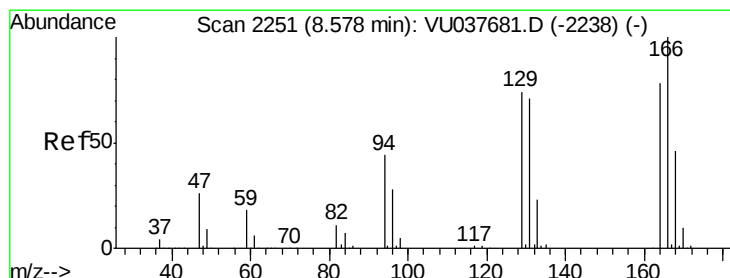
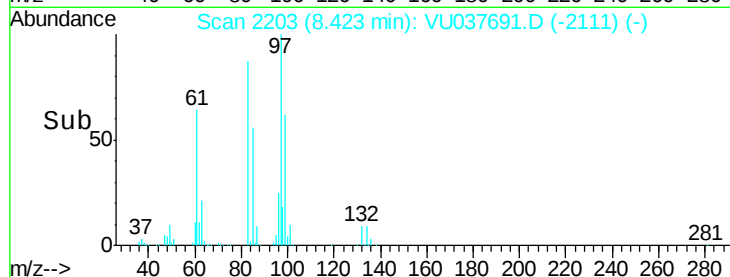
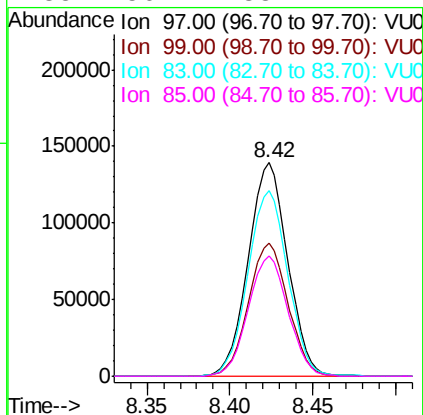
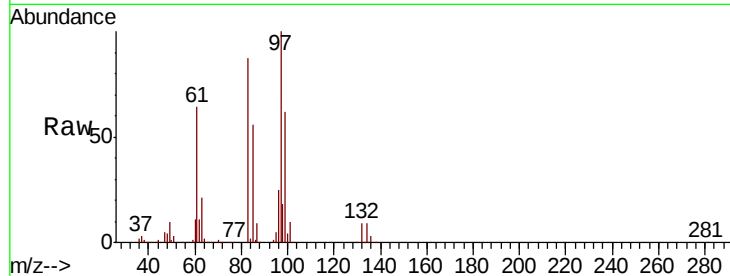




#45  
 1,1,2-Trichloroethane  
 Concen: 48.682 ug/L  
 RT: 8.42 min Scan# 2203  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

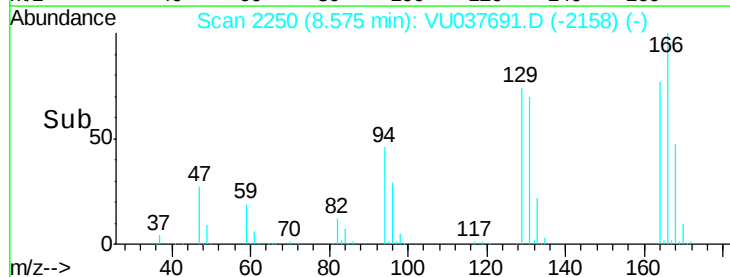
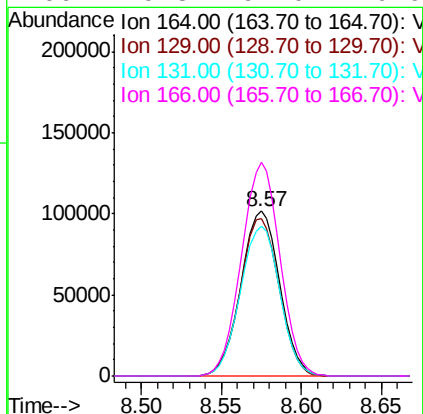
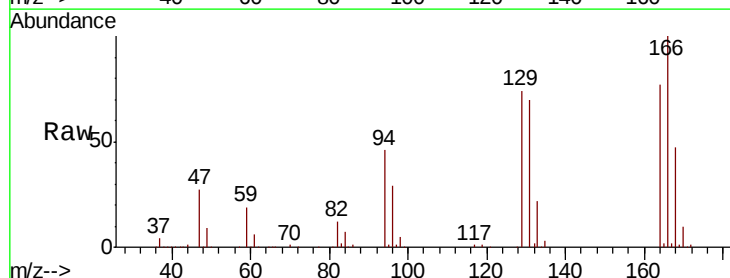
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

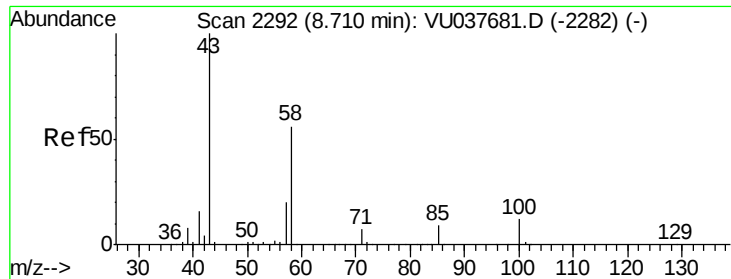
Tot Ion: 97 Resp: 230828  
 Ion Ratio Lower Upper  
 97 100  
 99 62.2 43.6 81.0  
 83 86.8 61.2 113.8  
 85 56.1 38.4 71.4



#46  
 Tetrachloroethene  
 Concen: 47.424 ug/L  
 RT: 8.57 min Scan# 2250  
 Delta R.T. -0.00 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Tgt Ion: 164 Resp: 167988  
 Ion Ratio Lower Upper  
 164 100  
 129 95.5 68.0 126.2  
 131 91.2 65.8 122.2  
 166 129.8 92.0 170.9

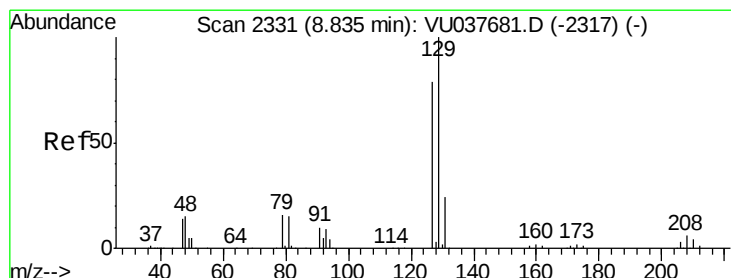
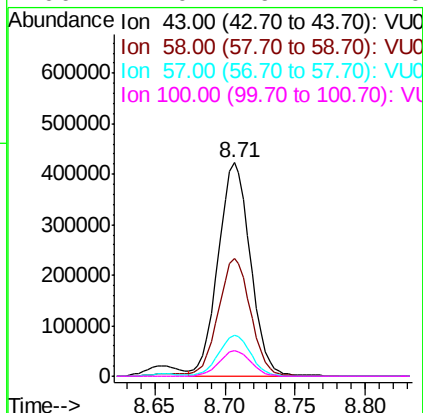
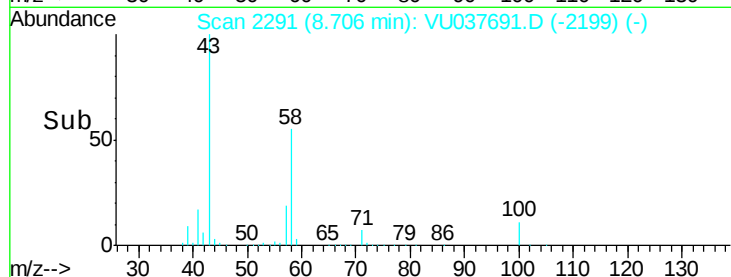
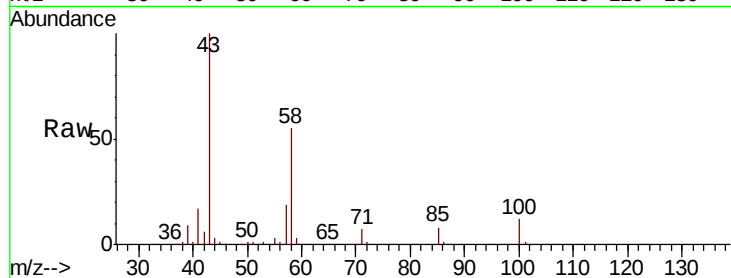




#48  
2-Hexanone  
Concen: 90.102 ug/L  
RT: 8.71 min Scan# 2291  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

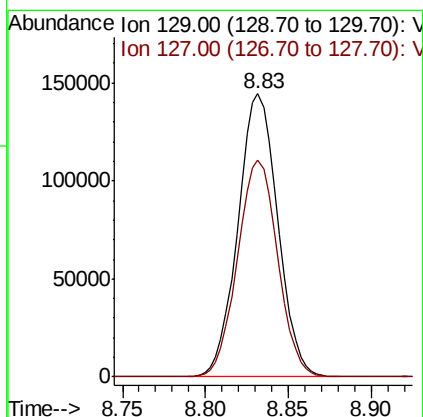
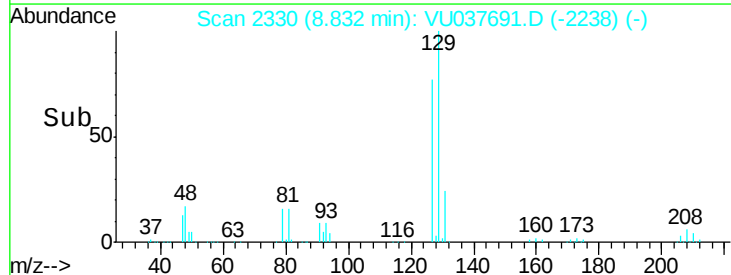
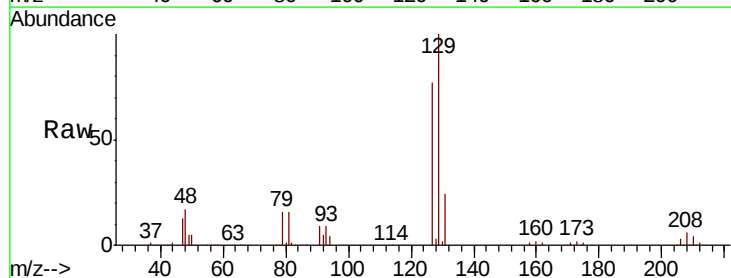
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05045

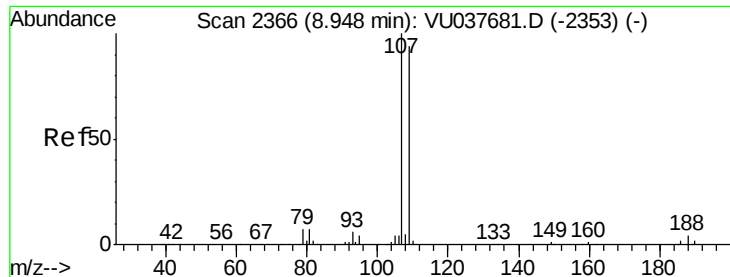
Tot Ion: 43 Resp: 671463  
Ion Ratio Lower Upper  
43 100  
58 55.6 44.0 66.0  
57 19.1 15.2 22.8  
100 12.0 9.4 14.0



#49  
Dibromochloromethane  
Concen: 47.515 ug/L  
RT: 8.83 min Scan# 2330  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

Tgt Ion: 129 Resp: 241592  
Ion Ratio Lower Upper  
129 100  
127 76.7 55.2 102.6

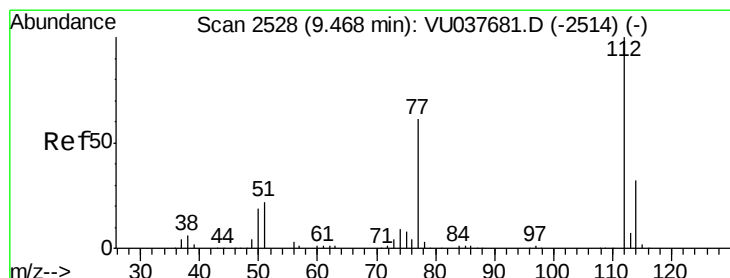
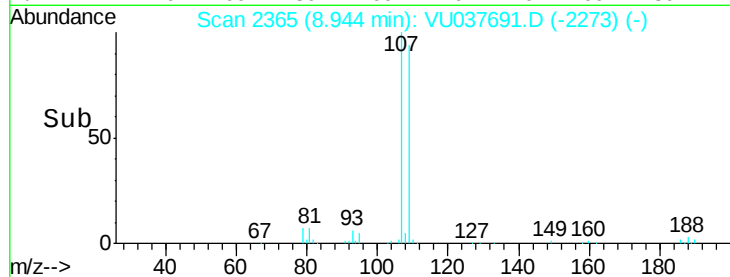
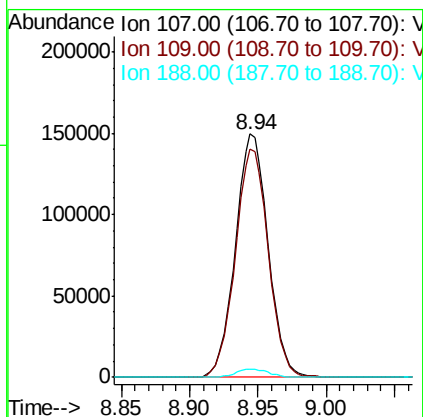
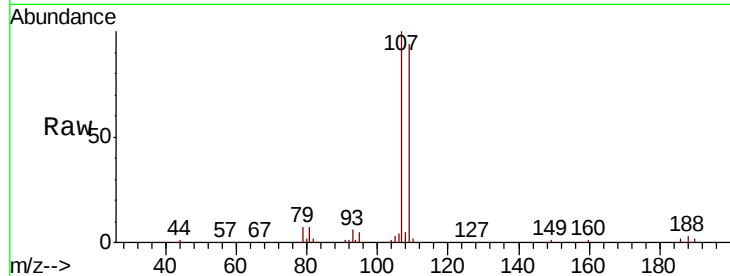




#50  
1,2-Dibromoethane  
Concen: 48.493 ug/L  
RT: 8.94 min Scan# 2365  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

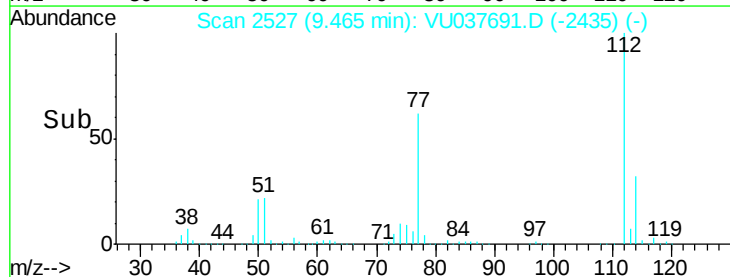
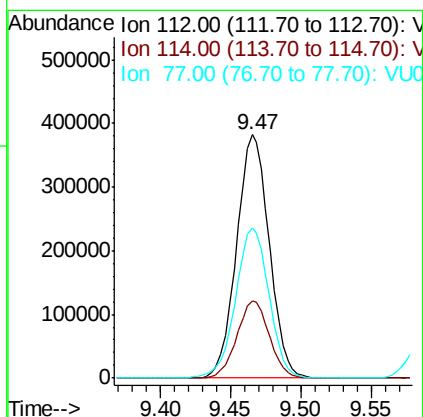
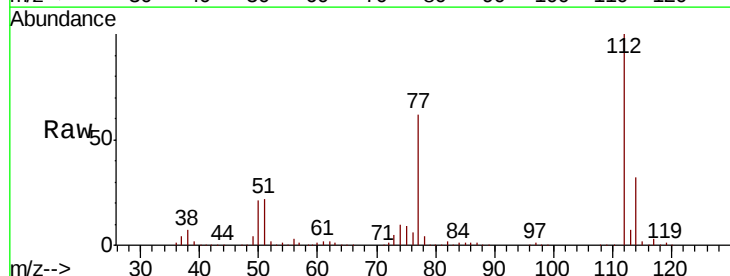
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05045

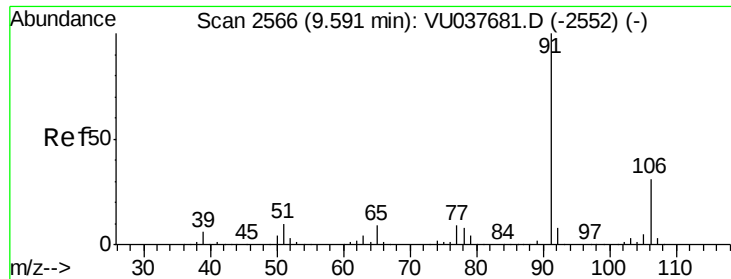
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 93.8  | 67.3  | 125.1 |
| 188     | 3.3   | 2.9   | 4.3   |



#51  
Chlorobenzene  
Concen: 48.305 ug/L  
RT: 9.47 min Scan# 2527  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 31.8  | 22.4  | 41.6  |
| 77      | 61.9  | 49.2  | 73.8  |





#52

Ethylbenzene

Concen: 48.794 ug/L

RT: 9.59 min Scan# 2565

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

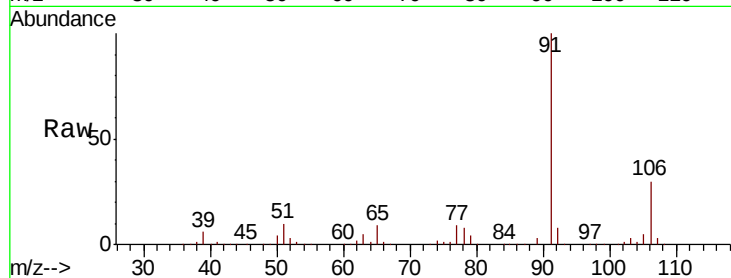
VSTD05045

Tot Ion: 91 Resp: 1123919

Ion Ratio Lower Upper

91 100

106 30.3 21.6 40.0



Abundance Ion 91.00 (90.70 to 91.70): VU037681.D (-2552) (-)

Ion 106.00 (105.70 to 106.70): VU037681.D (-2552) (-)

9.59

800000

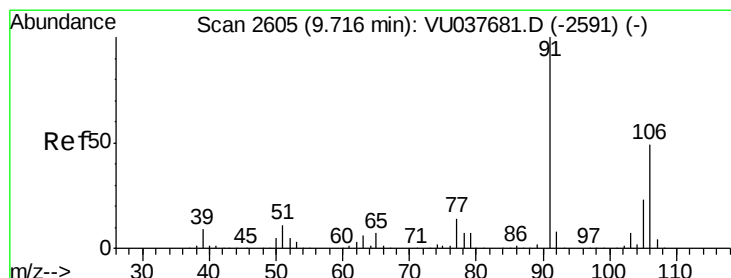
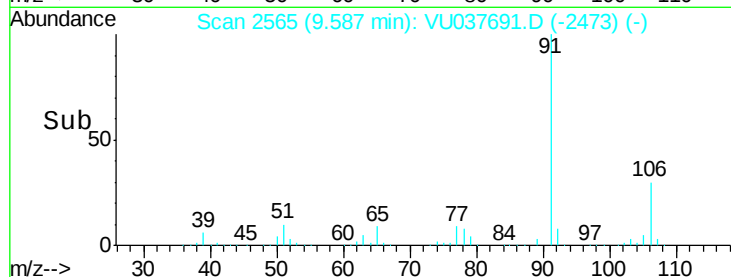
600000

400000

200000

0

Time-->



#53

m,p-Xylene

Concen: 49.244 ug/L

RT: 9.71 min Scan# 2604

Delta R.T. -0.00 min

Lab File: VU037691.D

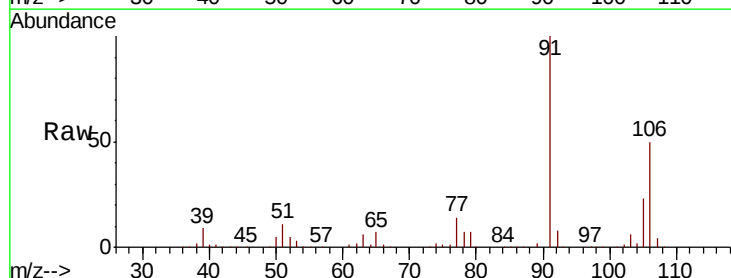
Acq: 13 Apr 2020 18:30

Tgt Ion: 106 Resp: 430690

Ion Ratio Lower Upper

106 100

91 201.1 140.8 261.6



Abundance Ion 106.00 (105.70 to 106.70): VU037681.D (-2591) (-)

Ion 91.00 (90.70 to 91.70): VU037681.D (-2591) (-)

9.71

600000

500000

400000

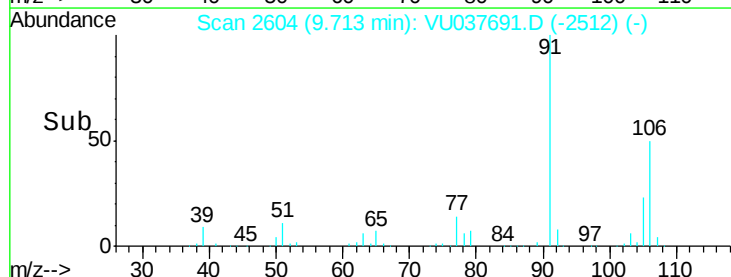
300000

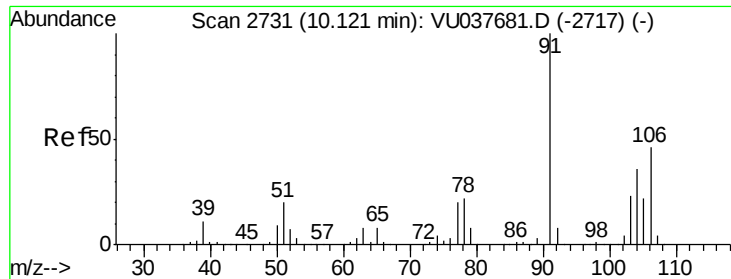
200000

100000

0

Time-->

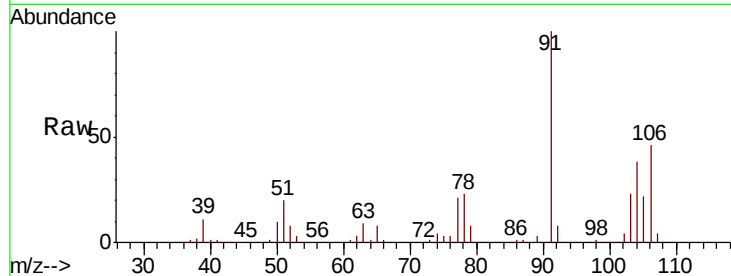




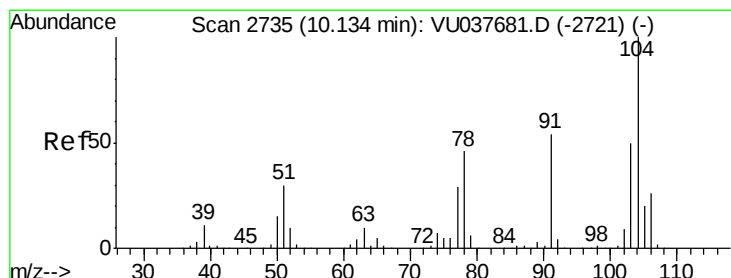
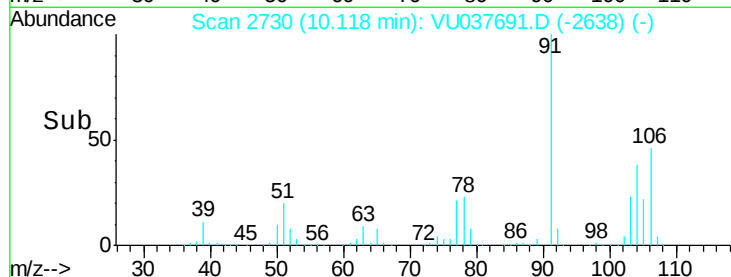
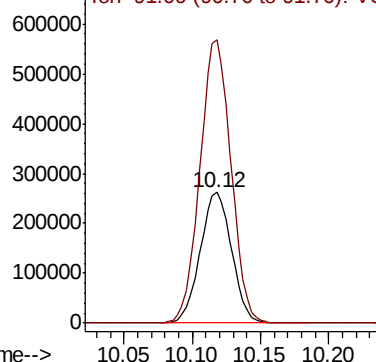
#54  
o-xylene  
Concen: 48.271 ug/L  
RT: 10.12 min Scan# 2730  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD05045

Tot Ion:106 Resp: 418710  
Ion Ratio Lower Upper  
106 100  
91 216.4 151.1 280.5

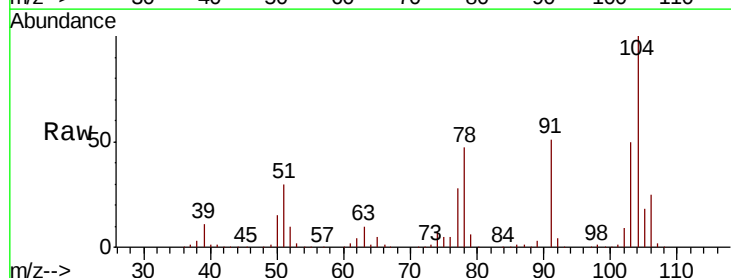


Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VU0

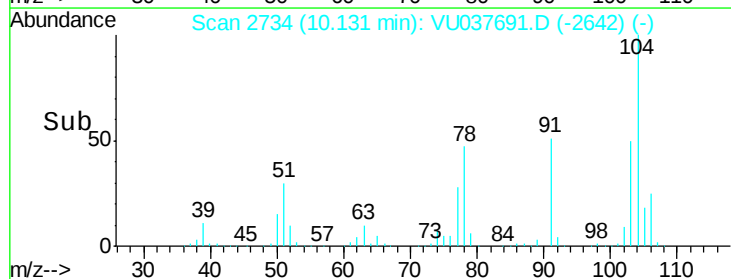
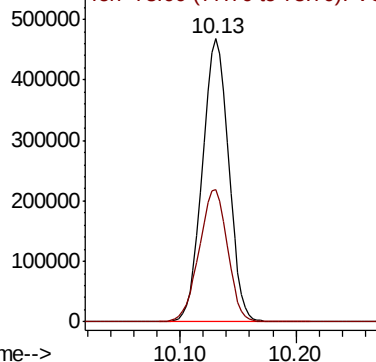


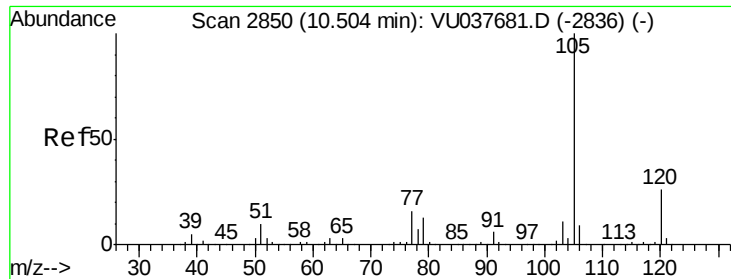
#55  
Styrene  
Concen: 48.570 ug/L  
RT: 10.13 min Scan# 2734  
Delta R.T. -0.00 min  
Lab File: VU037691.D  
Acq: 13 Apr 2020 18:30

Tgt Ion:104 Resp: 730484  
Ion Ratio Lower Upper  
104 100  
78 46.8 32.0 59.4



Abundance Ion 104.00 (103.70 to 104.70): V  
Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 48.628 ug/L

RT: 10.50 min Scan# 2849

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05045

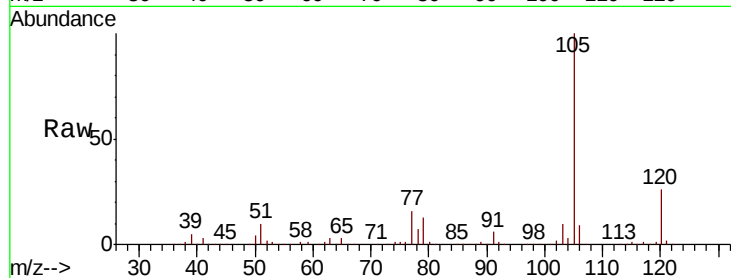
Tot Ion:105 Resp: 1098307

Ion Ratio Lower Upper

105 100

120 25.8 20.7 31.1

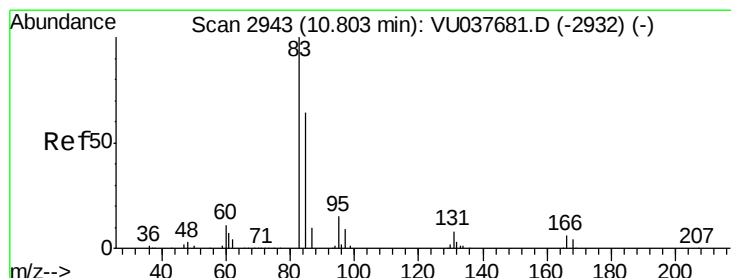
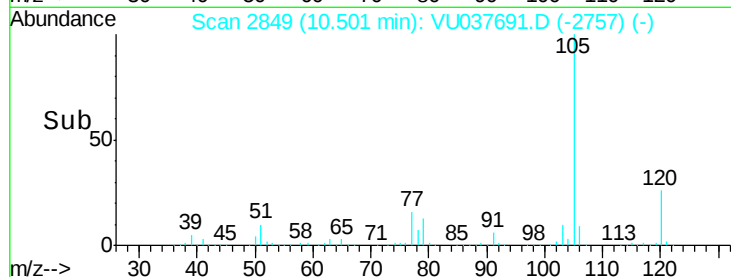
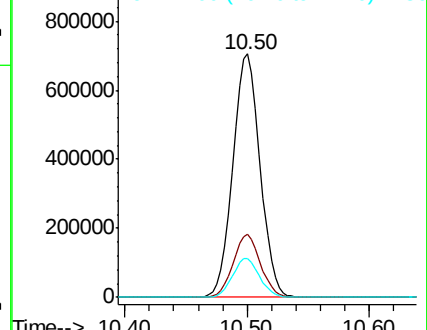
77 16.0 12.7 19.1



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V

Ion 77.00 (76.70 to 77.70): V



#58

1,1,2,2-Tetrachloroethane

Concen: 47.493 ug/L

RT: 10.80 min Scan# 2941

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

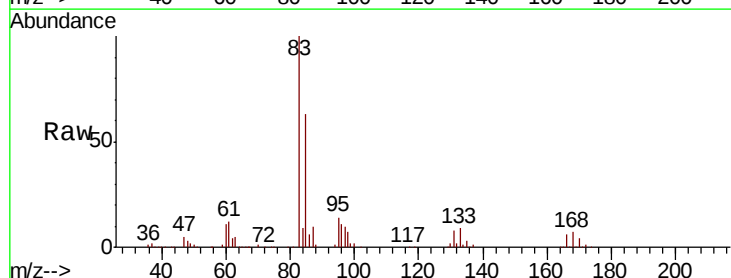
Tgt Ion: 83 Resp: 402112

Ion Ratio Lower Upper

83 100

85 63.5 44.2 82.2

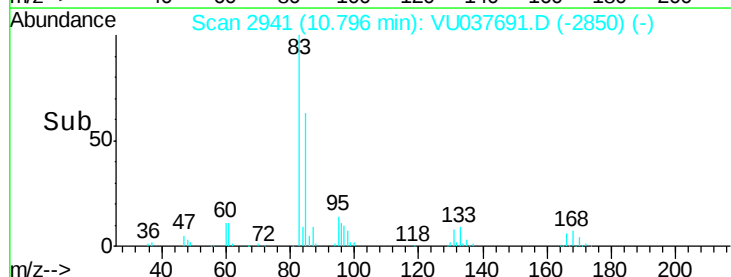
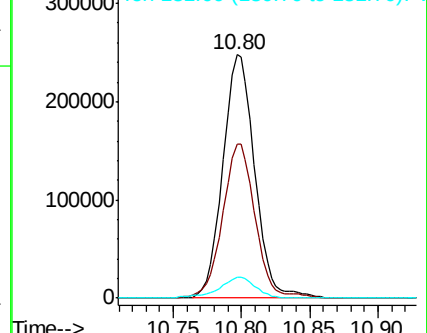
131 8.5 7.6 11.4

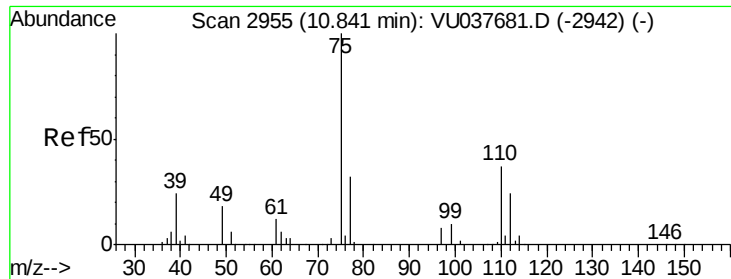


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 46.770 ug/L

RT: 10.84 min Scan# 2954

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

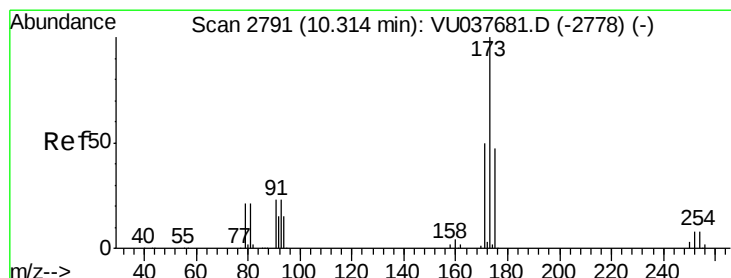
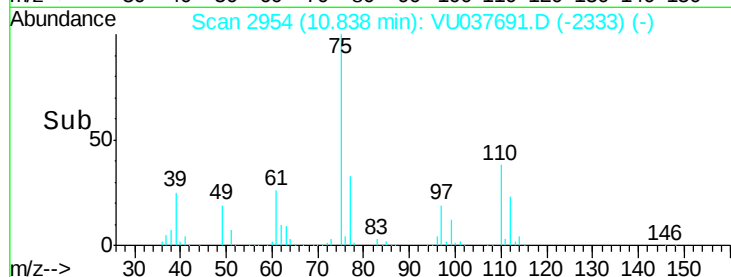
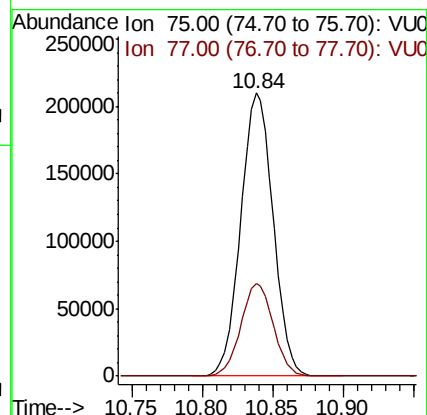
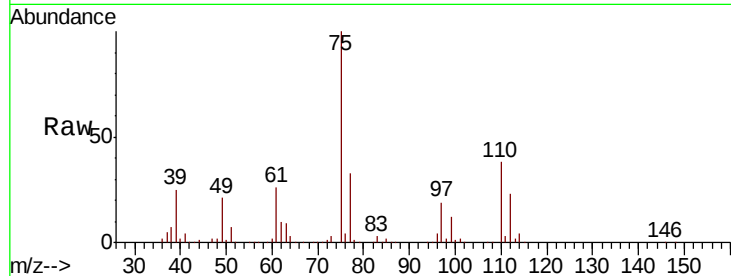
VSTD05045

Tot Ion: 75 Resp: 337644

Ion Ratio Lower Upper

75 100

77 32.8 25.6 38.4



#61

Bromoform

Concen: 47.102 ug/L

RT: 10.31 min Scan# 2789

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

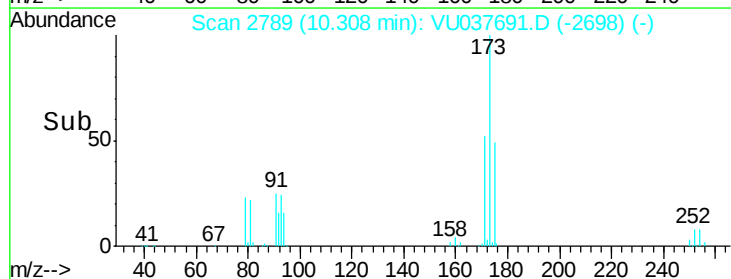
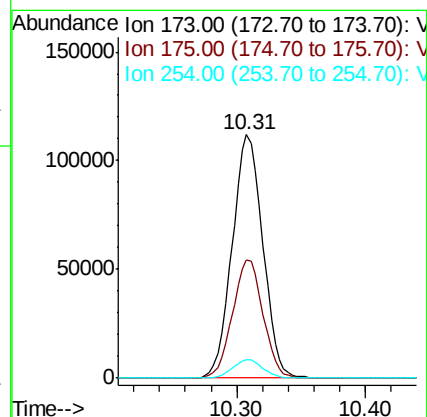
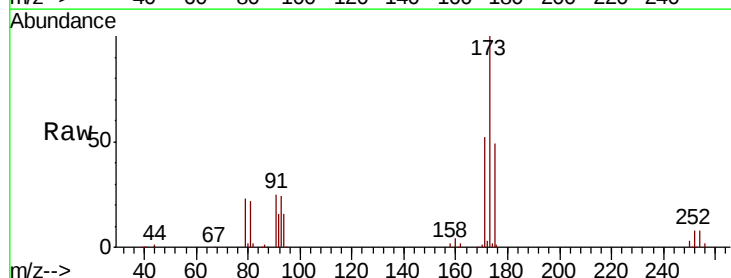
Tgt Ion: 173 Resp: 184249

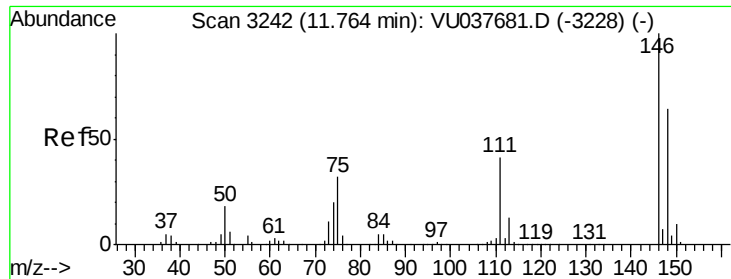
Ion Ratio Lower Upper

173 100

175 48.4 38.7 58.1

254 7.5 7.0 10.6





#62

1,3-Dichlorobenzene

Concen: 48.227 ug/L

RT: 11.76 min Scan# 3240

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05045

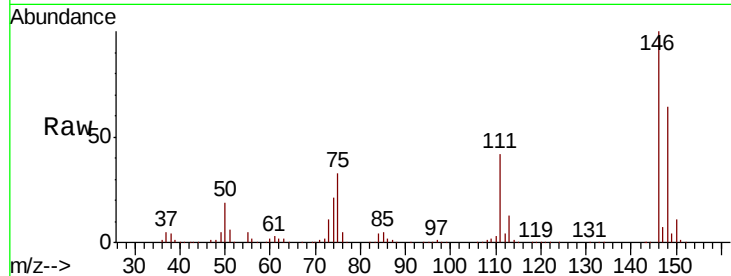
Tot Ion:146 Resp: 479132

Ion Ratio Lower Upper

146 100

111 41.5 28.6 53.0

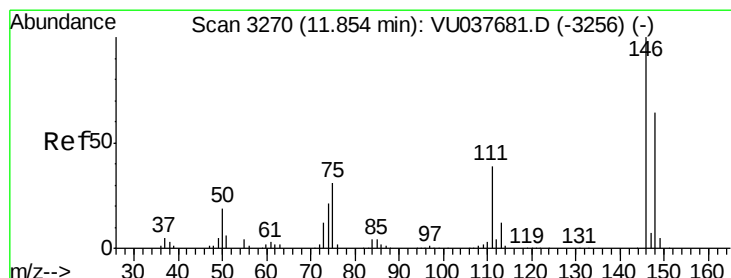
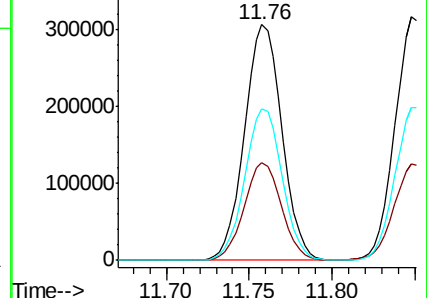
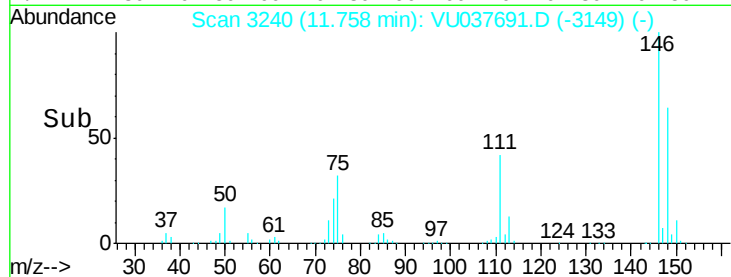
148 64.4 44.7 82.9



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#63

1,4-Dichlorobenzene

Concen: 48.477 ug/L

RT: 11.85 min Scan# 3268

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

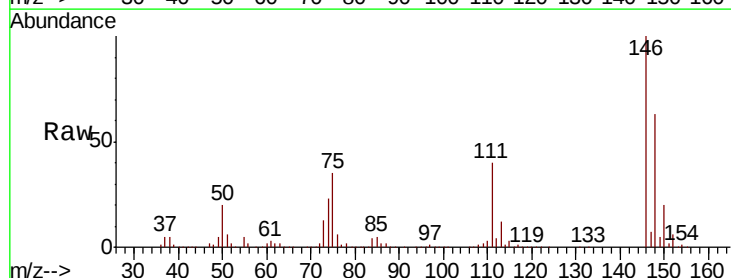
Tgt Ion:146 Resp: 483212

Ion Ratio Lower Upper

146 100

111 39.6 27.2 50.6

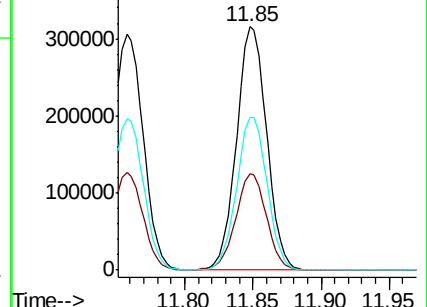
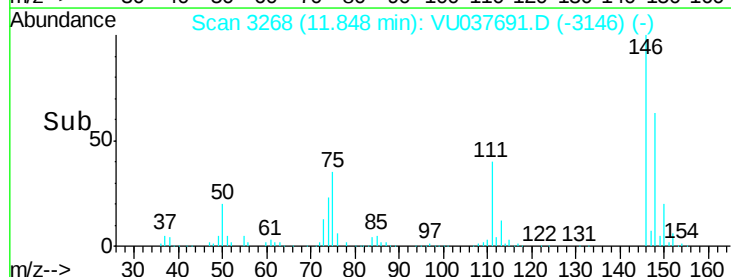
148 62.9 44.9 83.3

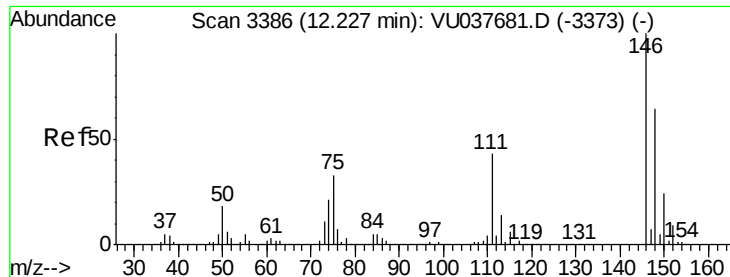


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 48.477 ug/L

RT: 12.22 min Scan# 3385

Delta R.T. -0.00 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05045

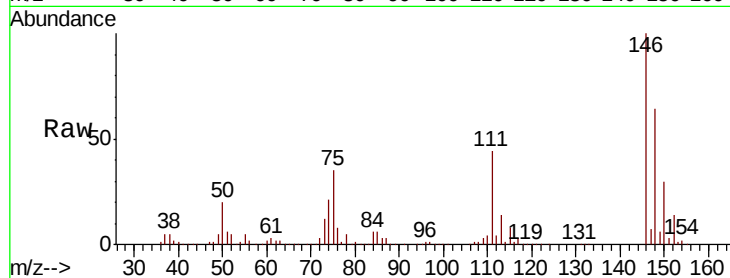
Tot Ion:146 Resp: 474644

Ion Ratio Lower Upper

146 100

111 43.7 34.2 51.4

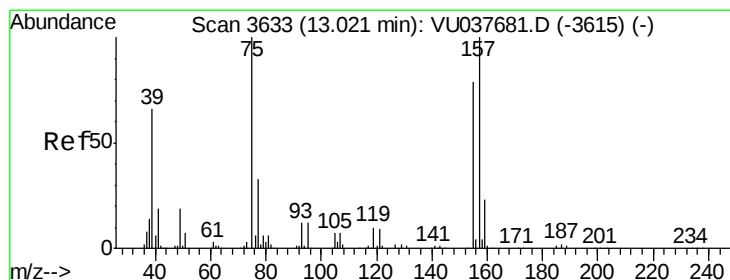
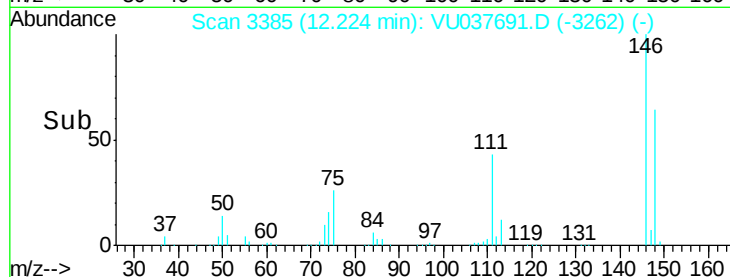
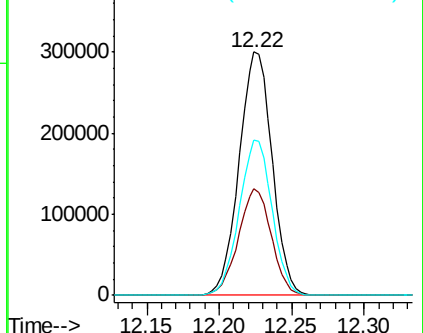
148 63.7 50.9 76.3



Abundance Ion 146.00 (145.70 to 146.70): 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: 44.954 ug/L

RT: 13.01 min Scan# 3631

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

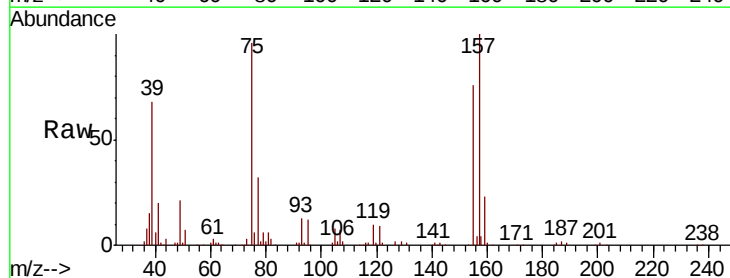
Tgt Ion: 75 Resp: 101960

Ion Ratio Lower Upper

75 100

155 79.6 60.9 91.3

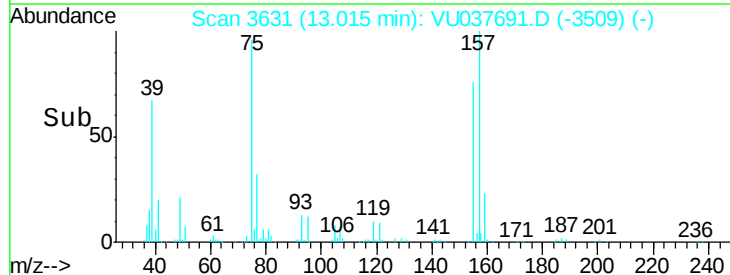
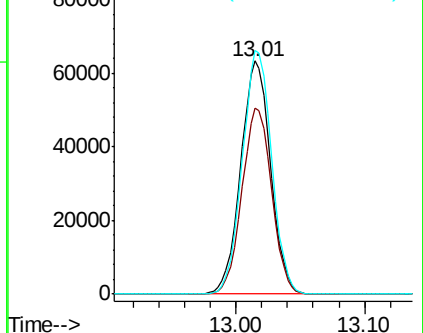
157 104.5 78.8 118.2

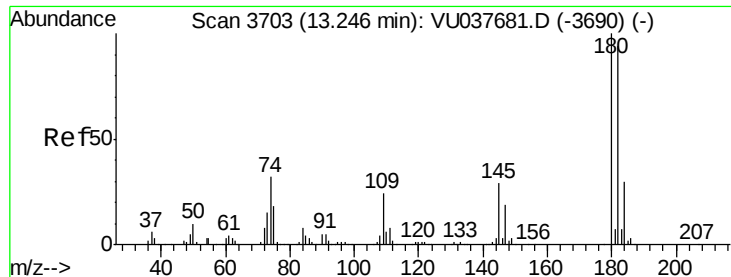


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

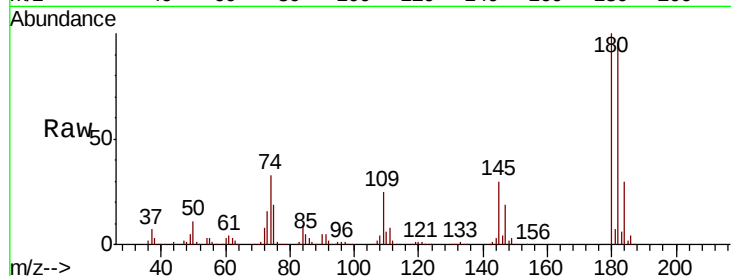




#67  
 1,3,5-Trichlorobenzene  
 Concen: 47.010 ug/L  
 RT: 13.24 min Scan# 3701  
 Delta R.T. -0.01 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD05045

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 96.2  | 76.2  | 114.4 |
| 184     | 30.1  | 24.7  | 37.1  |
| 145     | 30.1  | 23.8  | 35.6  |



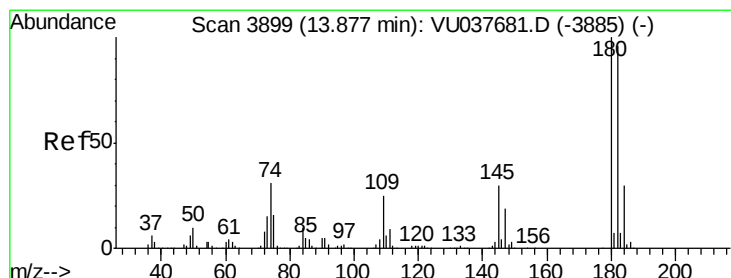
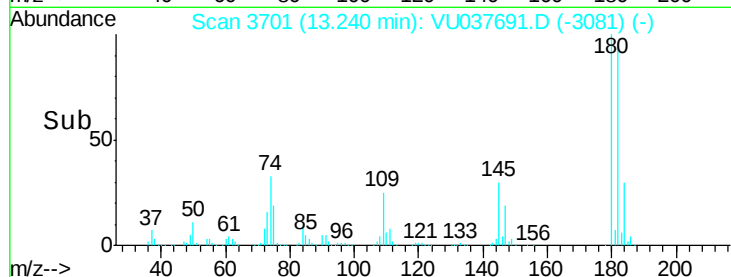
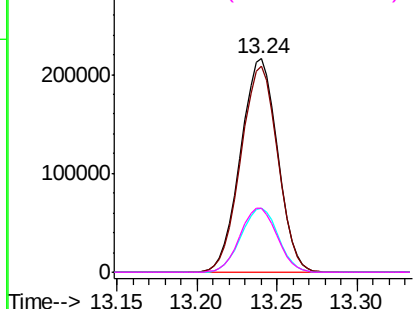
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

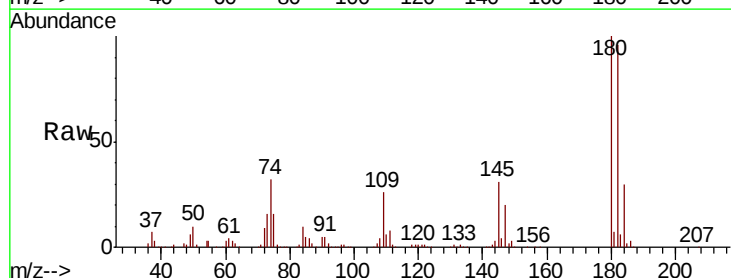
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 47.445 ug/L  
 RT: 13.87 min Scan# 3896  
 Delta R.T. -0.01 min  
 Lab File: VU037691.D  
 Acq: 13 Apr 2020 18:30

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.7  | 76.5  | 114.7 |
| 145     | 30.9  | 23.8  | 35.6  |

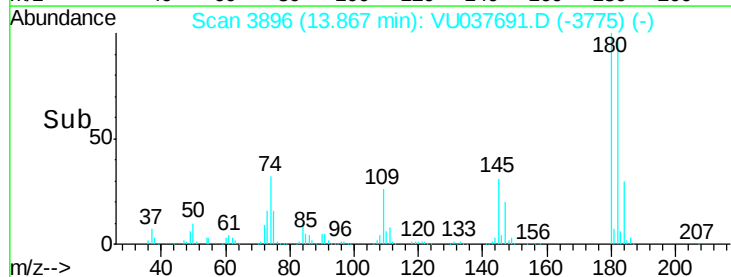
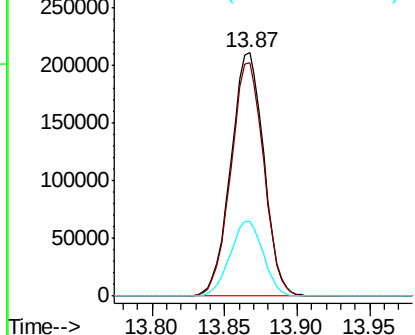


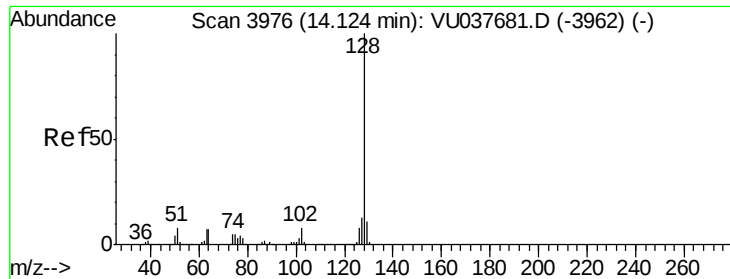
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 45.155 ug/L

RT: 14.11 min Scan# 3972

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

Instrument :

MSVOA\_U

ClientSampleId :

VSTD05045

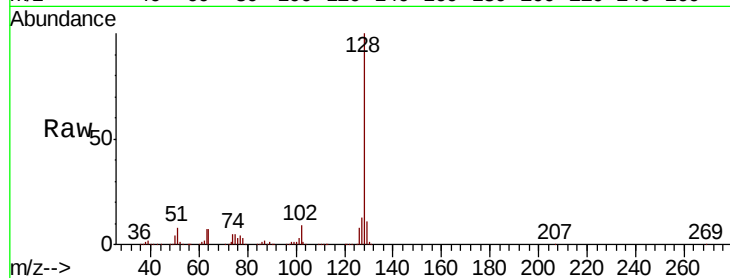
Tot Ion:128 Resp: 1167347

Ion Ratio Lower Upper

128 100

127 13.2 10.5 15.7

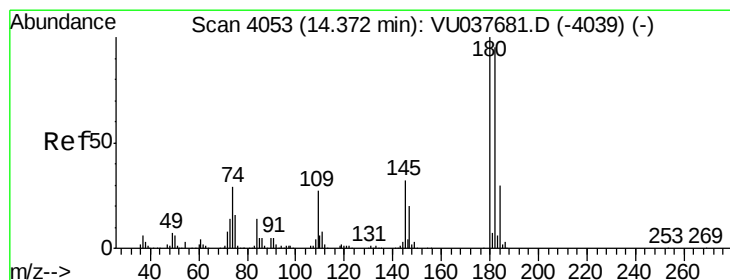
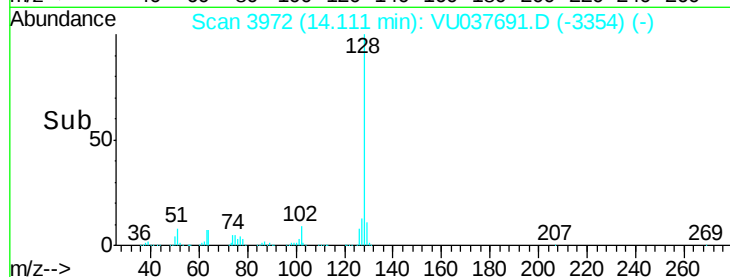
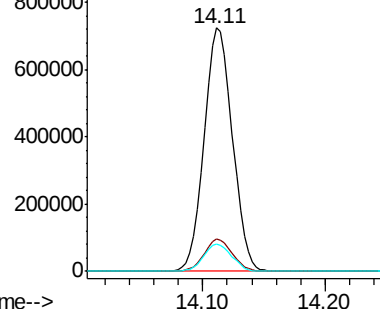
129 11.0 8.6 13.0



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 46.392 ug/L

RT: 14.36 min Scan# 4049

Delta R.T. -0.01 min

Lab File: VU037691.D

Acq: 13 Apr 2020 18:30

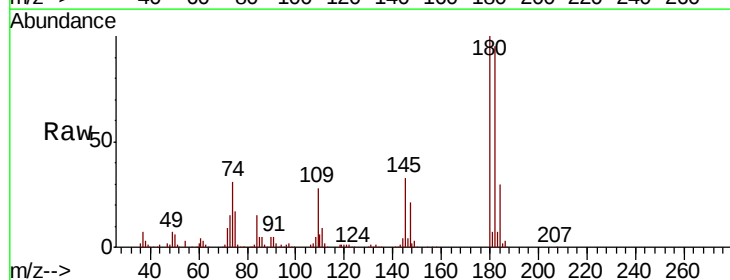
Tgt Ion:180 Resp: 323865

Ion Ratio Lower Upper

180 100

182 96.0 75.6 113.4

145 33.1 25.8 38.8



Abundance Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V

