

Data File : VU029977.D  
Acq On : 11 Mar 2019 19:32  
Operator : JC/SP  
Sample : VSTD20047  
Misc : 5.0mL/MSVOA\_U/WATER  
ALS Vial : 6 Sample Multiplier: 1

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

Quant Time: Mar 12 05:46:47 2019  
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM031319WMA.M  
Quant Title : VOC Analysis  
QLast Update : Tue Mar 12 05:42:01 2019  
Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 536868   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 534433   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 298479   | 50.00 | ug/L  | 0.00     |

#### System Monitoring Compounds

|                                |       |     |         |        |      |       |
|--------------------------------|-------|-----|---------|--------|------|-------|
| 4) Vinyl Chloride-d3           | 1.40  | 65  | 761148  | 228.17 | ug/L | 0.00  |
| 7) Chloroethane-d5             | 1.66  | 69  | 600527  | 215.84 | ug/L | -0.02 |
| 11) 1,1-Dichloroethene-d2      | 2.27  | 63  | 1351486 | 217.80 | ug/L | 0.00  |
| 21) 2-Butanone-d5              | 4.17  | 46  | 1194368 | 467.38 | ug/L | 0.00  |
| 24) Chloroform-d               | 4.64  | 84  | 1366687 | 214.14 | ug/L | 0.00  |
| 26) 1,2-Dichloroethane-d4      | 5.31  | 65  | 778642  | 209.09 | ug/L | 0.00  |
| 32) Benzene-d6                 | 5.34  | 84  | 2906469 | 215.89 | ug/L | 0.00  |
| 36) 1,2-Dichloropropane-d6     | 6.33  | 67  | 885204  | 217.05 | ug/L | 0.00  |
| 41) Toluene-d8                 | 7.56  | 98  | 2779995 | 216.50 | ug/L | 0.00  |
| 43) trans-1,3-Dichloropropene- | 7.85  | 79  | 463194  | 234.21 | ug/L | 0.00  |
| 47) 2-Hexanone-d5              | 8.31  | 63  | 1112900 | 502.24 | ug/L | 0.00  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43 | 84  | 1420868 | 222.96 | ug/L | 0.00  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86 | 152 | 1198655 | 204.43 | ug/L | 0.00  |

#### Target Compounds

|                                |      |     |         |         |      | Qvalue |
|--------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 674145  | 170.838 | ug/L | 99     |
| 3) Chloromethane               | 1.33 | 50  | 744475  | 147.366 | ug/L | 99     |
| 5) Vinyl chloride              | 1.40 | 62  | 816813  | 198.460 | ug/L | 99     |
| 6) Bromomethane                | 1.60 | 94  | 447539  | 320.045 | ug/L | 98     |
| 8) Chloroethane                | 1.68 | 64  | 487085  | 191.877 | ug/L | 97     |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 1090173 | 199.493 | ug/L | 99     |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 695108  | 204.438 | ug/L | 99     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 676871  | 206.263 | ug/L | 93     |
| 13) Acetone                    | 2.32 | 43  | 1098974 | 393.761 | ug/L | 100    |
| 14) Carbon disulfide           | 2.47 | 76  | 2116846 | 207.029 | ug/L | 100    |
| 15) Methyl Acetate             | 2.61 | 43  | 816808  | 214.599 | ug/L | 99     |
| 16) Methylene chloride         | 2.70 | 84  | 776140  | 201.090 | ug/L | 100    |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 733759  | 209.227 | ug/L | 99     |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 2221366 | 242.936 | ug/L | 100    |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 1258103 | 208.666 | ug/L | 99     |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 842072  | 210.406 | ug/L | 100    |
| 22) 2-Butanone                 | 4.26 | 43  | 1410434 | 440.283 | ug/L | 98     |
| 23) Bromochloromethane         | 4.54 | 128 | 431527  | 213.314 | ug/L | 100    |
| 25) Chloroform                 | 4.67 | 83  | 1306290 | 201.241 | ug/L | 99     |
| 27) 1,2-Dichloroethane         | 5.40 | 62  | 939022  | 203.947 | ug/L | 99     |
| 29) Cyclohexane                | 4.99 | 56  | 1171348 | 212.862 | ug/L | 100    |
| 30) 1,1,1-Trichloroethane      | 4.91 | 97  | 1136115 | 211.211 | ug/L | 99     |
| 31) Carbon tetrachloride       | 5.13 | 117 | 1020863 | 213.656 | ug/L | 100    |
| 33) Benzene                    | 5.39 | 78  | 2992657 | 209.503 | ug/L | 100    |
| 34) Trichloroethene            | 6.18 | 95  | 794067  | 205.899 | ug/L | 99     |
| 35) Methylcyclohexane          | 6.41 | 83  | 1338776 | 217.982 | ug/L | 98     |
| 37) 1,2-Dichloropropane        | 6.43 | 63  | 796486  | 212.781 | ug/L | 100    |
| 38) Bromodichloromethane       | 6.75 | 83  | 1024441 | 219.312 | ug/L | 99     |
| 39) cis-1,3-Dichloropropene    | 7.27 | 75  | 1311808 | 228.878 | ug/L | 100    |
| 40) 4-Methyl-2-pentanone       | 7.46 | 43  | 2254154 | 449.480 | ug/L | 99     |

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ClientSampleId :  
VSTD20047

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Quant Title : VOC Analysis  
QLast Update : Tue Mar 12 05:42:01 2019  
Response via : Initial Calibration

| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 42) Toluene                    | 7.63  | 91   | 3315844  | 212.290 | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.87  | 75   | 1215397  | 237.740 | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 802020   | 211.366 | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.22  | 164  | 688517   | 207.696 | ug/L  | 99       |
| 48) 2-Hexanone                 | 8.36  | 43   | 1924745  | 452.138 | ug/L  | 99       |
| 49) Dibromochloromethane       | 8.48  | 129  | 952023   | 227.709 | ug/L  | 97       |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 902928   | 220.637 | ug/L  | 97       |
| 51) Chlorobenzene              | 9.12  | 112  | 2246535  | 212.712 | ug/L  | 98       |
| 52) Ethylbenzene               | 9.25  | 91   | 3746301  | 216.698 | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.37  | 106  | 1462723  | 219.640 | ug/L  | 97       |
| 54) o-xylene                   | 9.78  | 106  | 1452261  | 220.391 | ug/L  | 99       |
| 55) Styrene                    | 9.79  | 104  | 2535590  | 233.959 | ug/L  | 97       |
| 56) Isopropylbenzene           | 10.16 | 105  | 3789356  | 221.816 | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 1419530  | 216.571 | ug/L  | 99       |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 1065150  | 215.633 | ug/L  | 100      |
| 61) Bromoform                  | 9.95  | 173  | 792810   | 227.342 | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 1925550  | 211.200 | ug/L  | 100      |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 1935495  | 207.320 | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.88 | 146  | 1912645  | 205.660 | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.65 | 75   | 329229   | 222.543 | ug/L  | 99       |
| 67) 1,3,5-Trichlorobenzene     | 12.88 | 180  | 1510352  | 216.952 | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 1429728  | 229.303 | ug/L  | 99       |
| 69) Naphthalene                | 13.74 | 128  | 4716633  | 240.170 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.98 | 180  | 1425625  | 216.969 | ug/L  | 99       |

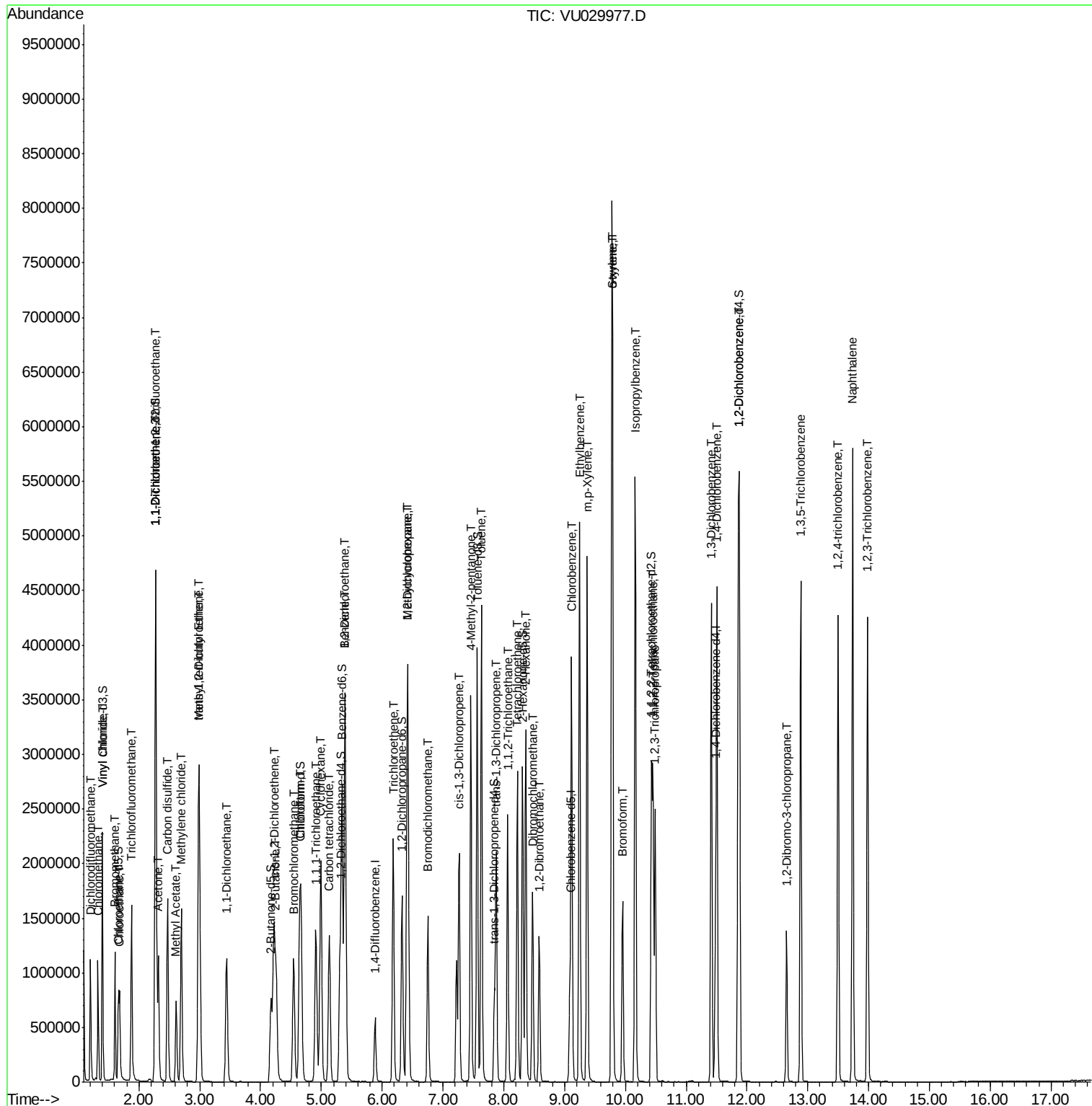
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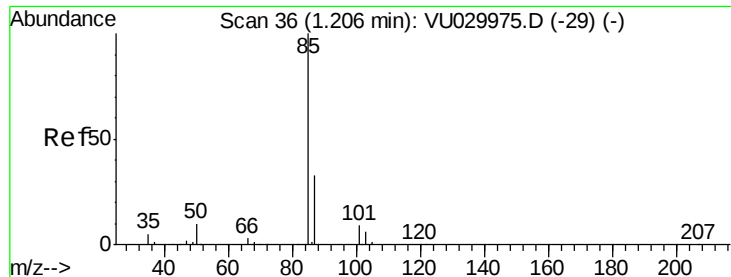
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#2

Dichlorodifluoromethane

Concen: 170.838 ug/L

RT: 1.20 min Scan# 35

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

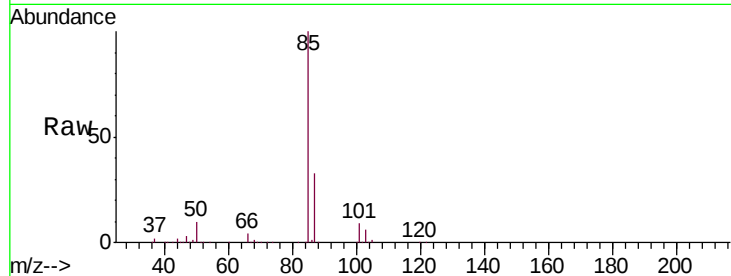
VSTD20047

Tgt Ion: 85 Resp: 674145

Ion Ratio Lower Upper

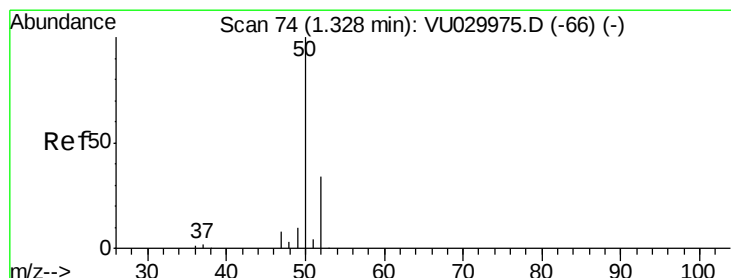
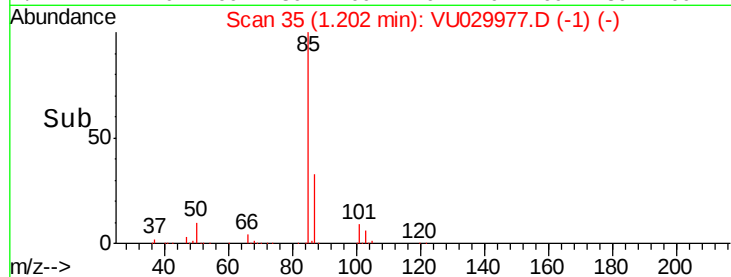
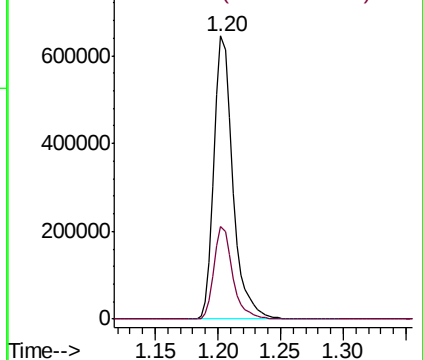
85 100

87 32.3 26.4 39.6



Abundance Ion 85.00 (84.70 to 85.70): VU029977.D (-1) (-)

Ion 87.00 (86.70 to 87.70): VU029977.D (-1) (-)



#3

Chloromethane

Concen: 147.366 ug/L

RT: 1.33 min Scan# 74

Delta R.T. -0.00 min

Lab File: VU029977.D

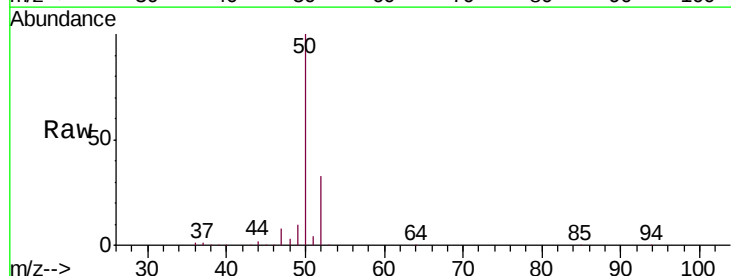
Acq: 11 Mar 2019 19:32

Tgt Ion: 50 Resp: 744475

Ion Ratio Lower Upper

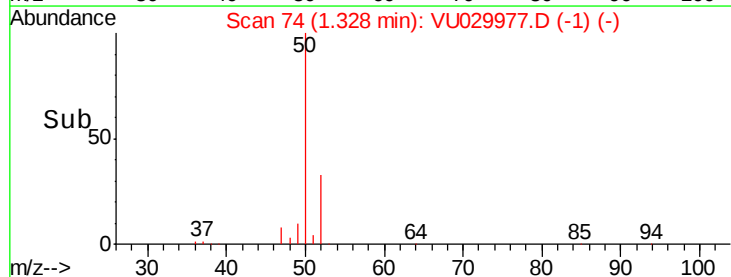
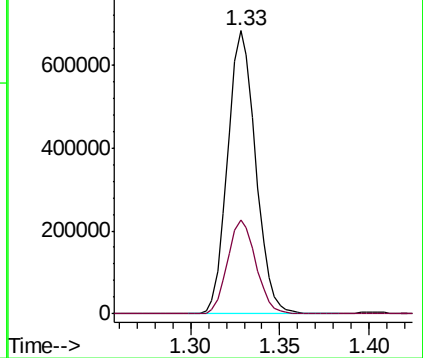
50 100

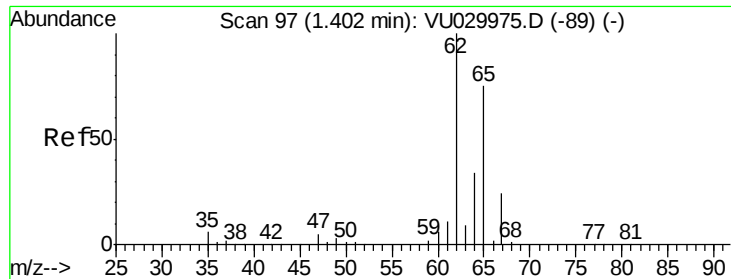
52 33.1 23.4 43.6



Abundance Ion 50.00 (49.70 to 50.70): VU029977.D (-1) (-)

Ion 52.00 (51.70 to 52.70): VU029977.D (-1) (-)





#5

Vinyl chloride

Concen: 198.460 ug/L

RT: 1.40 min Scan# 97

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

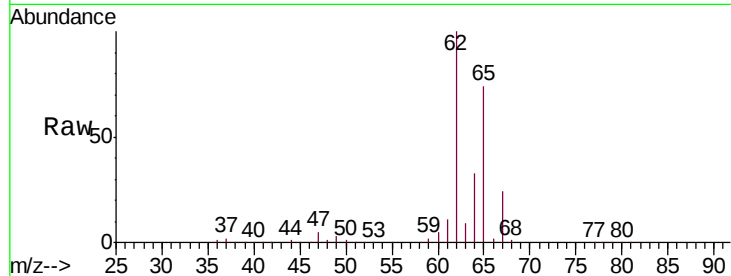
VSTD20047

Tgt Ion: 62 Resp: 816813

Ion Ratio Lower Upper

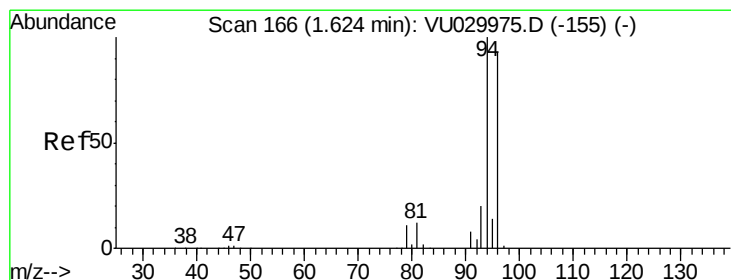
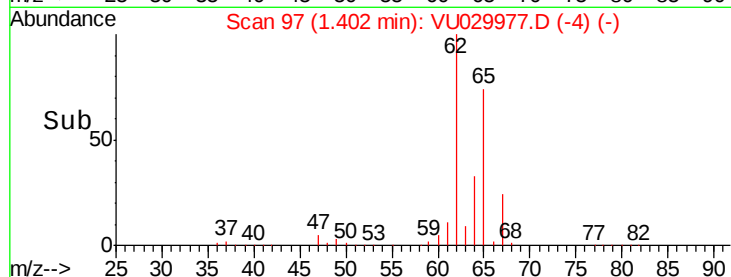
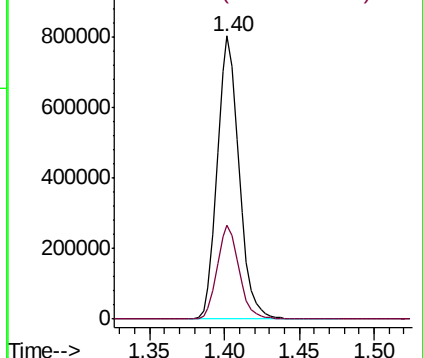
62 100

64 33.3 23.6 43.8



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.00 (63.70 to 64.70): VU0



#6

Bromomethane

Concen: 320.045 ug/L

RT: 1.60 min Scan# 160

Delta R.T. -0.02 min

Lab File: VU029977.D

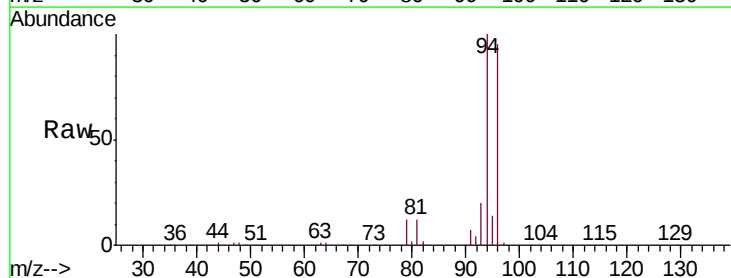
Acq: 11 Mar 2019 19:32

Tgt Ion: 94 Resp: 447539

Ion Ratio Lower Upper

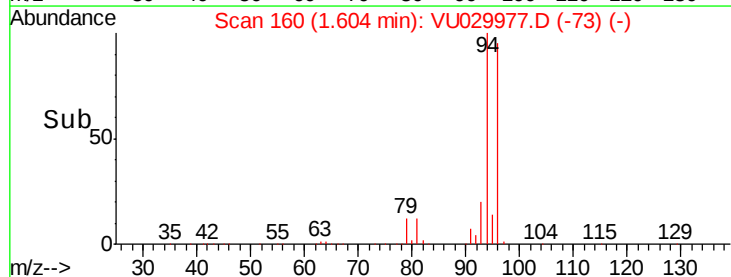
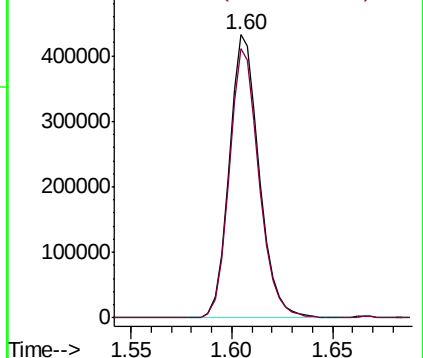
94 100

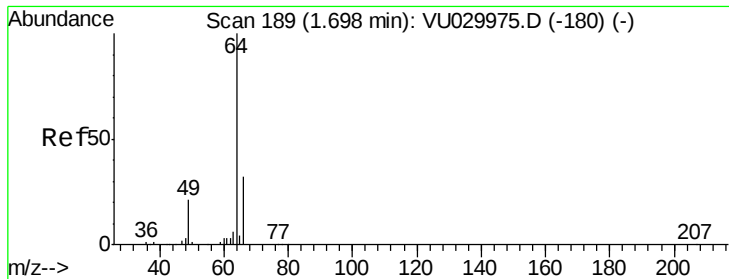
96 95.1 65.0 120.6



Abundance Ion 94.00 (93.70 to 94.70): VU0

Ion 96.00 (95.70 to 96.70): VU0

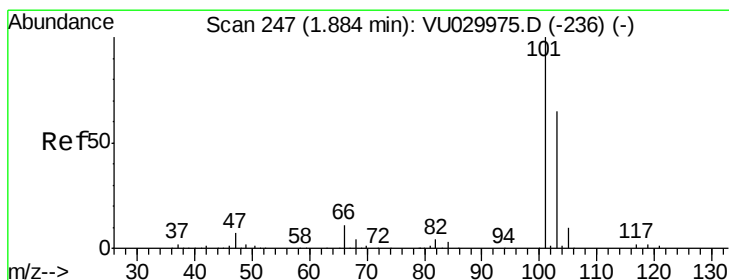
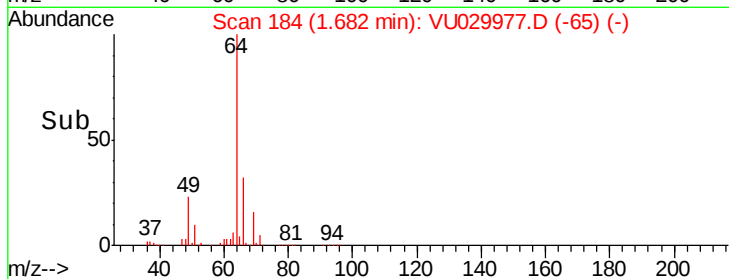
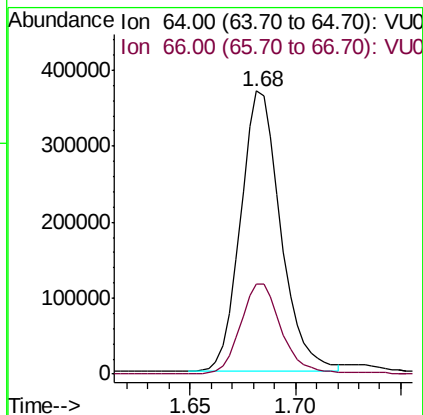
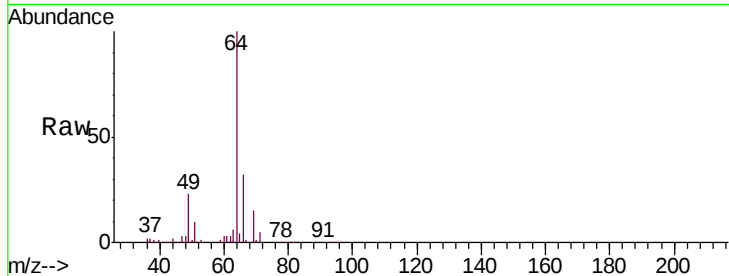




#8  
Chloroethane  
Concen: 191.877 ug/L  
RT: 1.68 min Scan# 184  
Delta R.T. -0.02 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

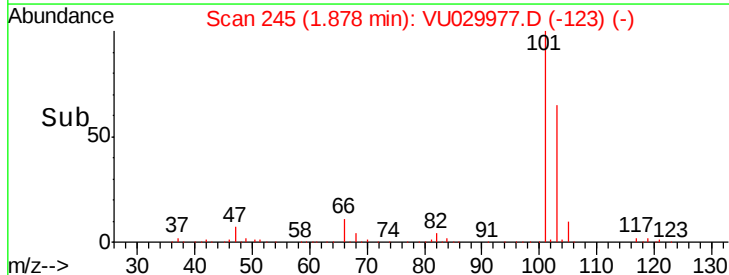
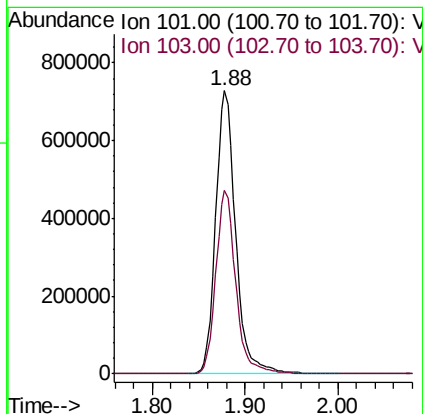
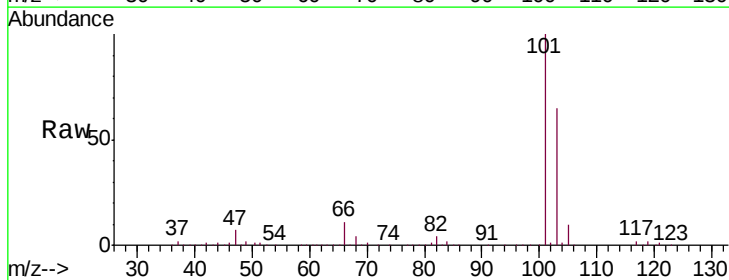
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

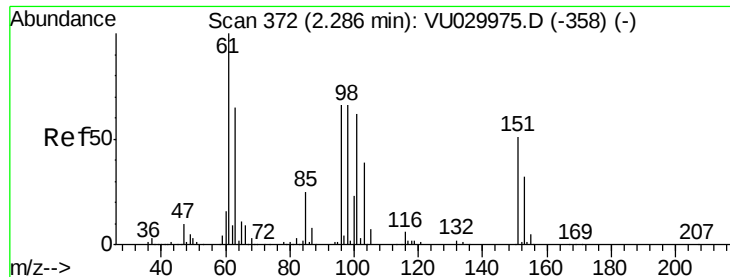
Tgt Ion: 64 Resp: 487085  
Ion Ratio Lower Upper  
64 100  
66 31.9 21.3 39.6



#9  
Trichlorofluoromethane  
Concen: 199.493 ug/L  
RT: 1.88 min Scan# 245  
Delta R.T. -0.01 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Tgt Ion: 101 Resp: 1090173  
Ion Ratio Lower Upper  
101 100  
103 65.1 52.5 78.7





#10

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

Concen: 204.438 ug/L

RT: 2.28 min Scan# 370

Delta R.T. -0.01 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

VSTD20047

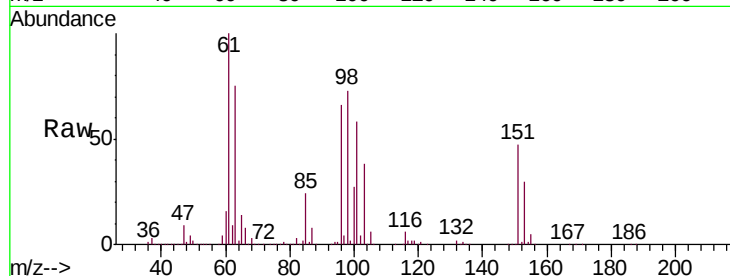
Tgt Ion:101 Resp: 695108

Ion Ratio Lower Upper

101 100

85 41.0 33.0 49.4

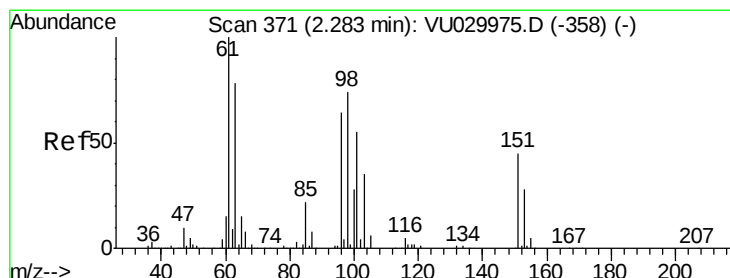
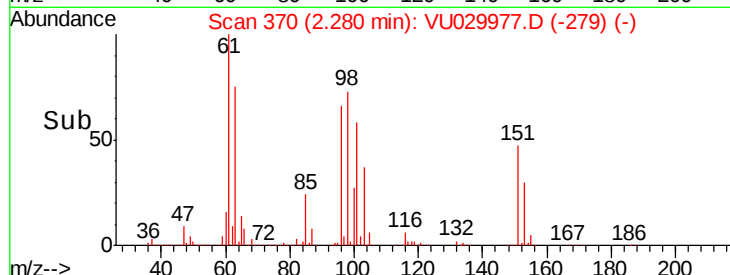
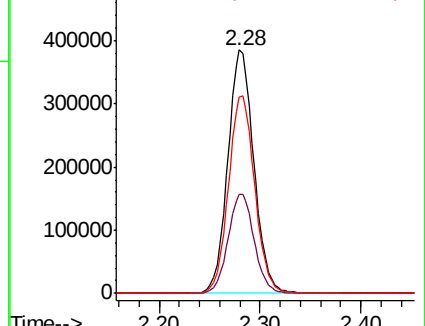
151 81.7 66.1 99.1



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: 206.263 ug/L

RT: 2.28 min Scan# 370

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

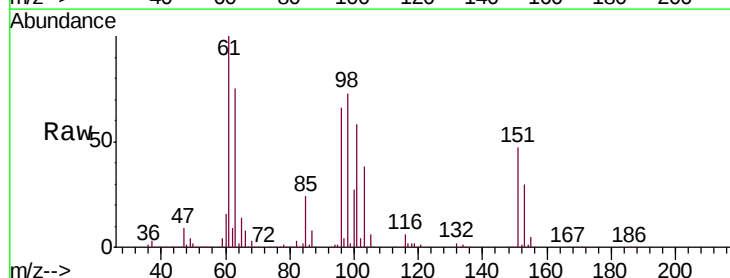
Tgt Ion: 96 Resp: 676871

Ion Ratio Lower Upper

96 100

61 151.2 110.4 205.0

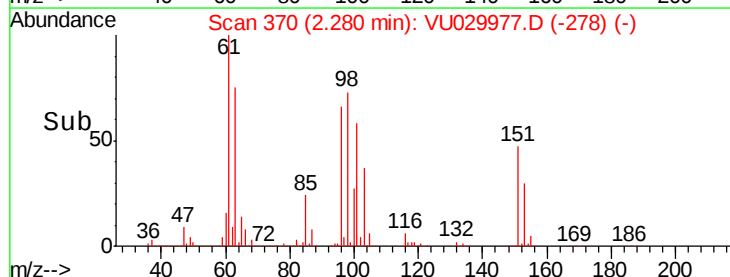
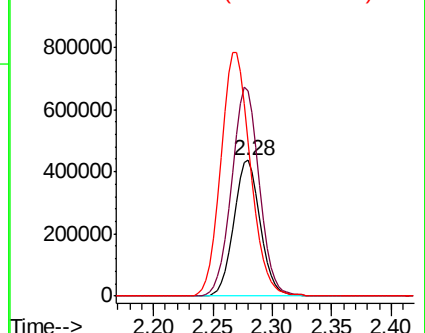
63 113.8 86.5 160.7

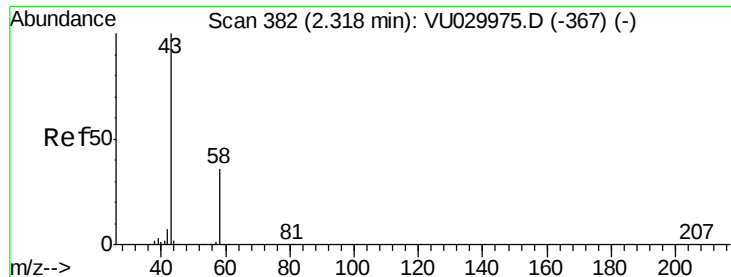


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 393.761 ug/L

RT: 2.32 min Scan# 383

Delta R.T. 0.00 min

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Instrument :

MSVOA\_U

ClientSampleId :

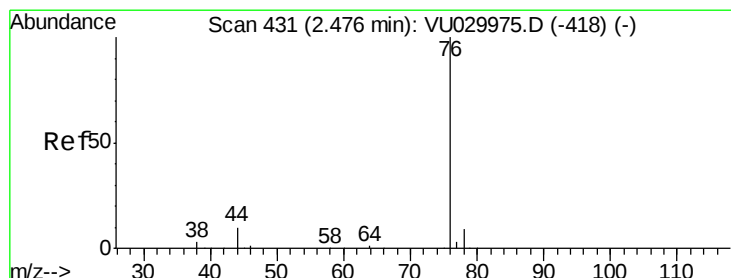
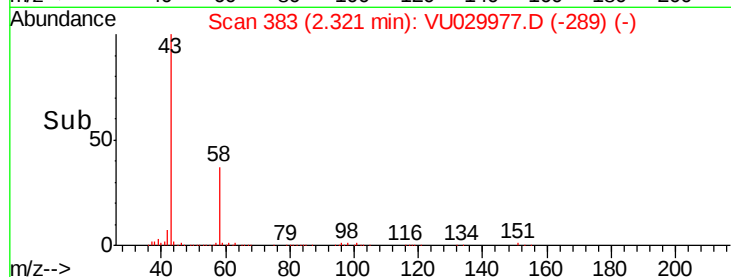
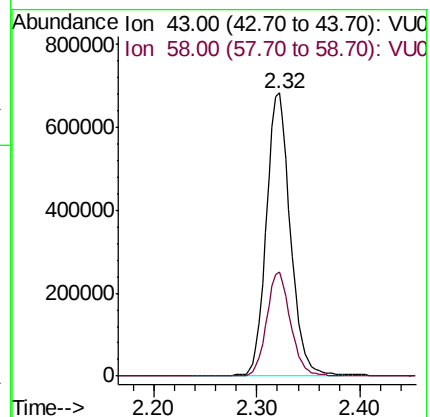
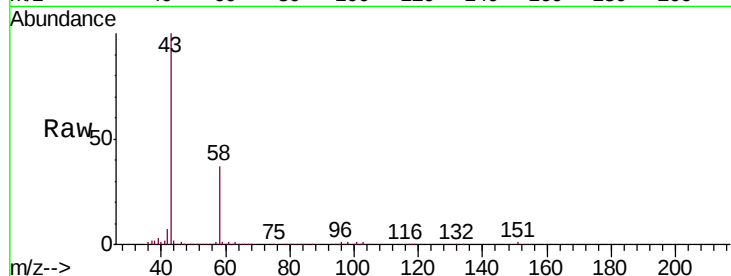
VSTD20047

Tgt Ion: 43 Resp: 1098974

Ion Ratio Lower Upper

43 100

58 36.5 0.0 73.0



#14

Carbon disulfide

Concen: 207.029 ug/L

RT: 2.47 min Scan# 430

Delta R.T. -0.00 min

Lab File: VU029977.D

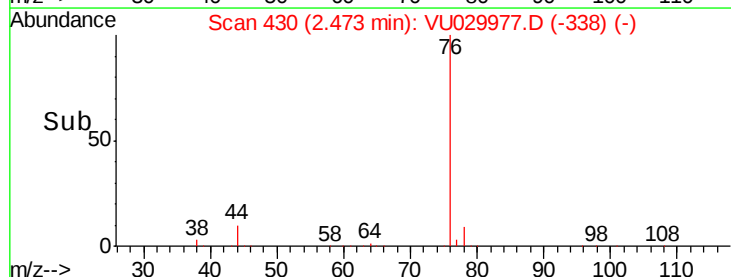
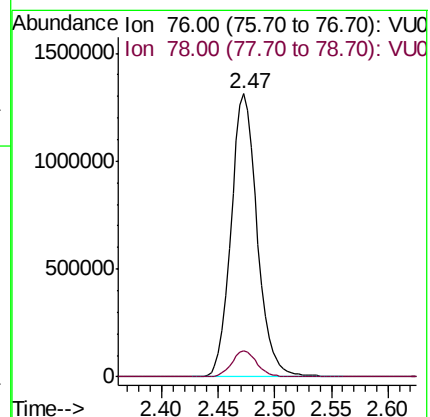
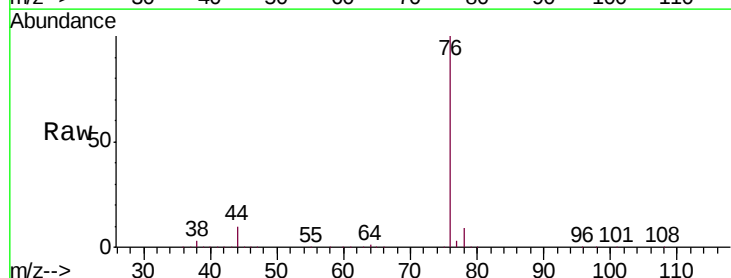
Acq: 11 Mar 2019 19:32

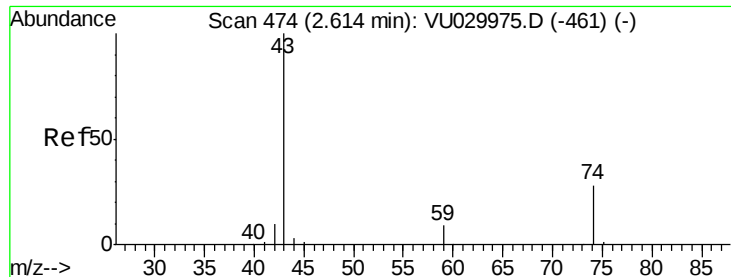
Tgt Ion: 76 Resp: 2116846

Ion Ratio Lower Upper

76 100

78 9.0 7.3 10.9

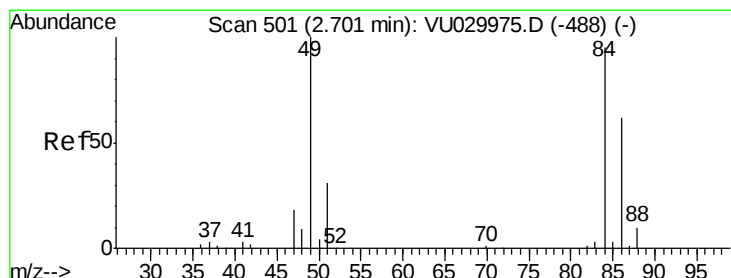
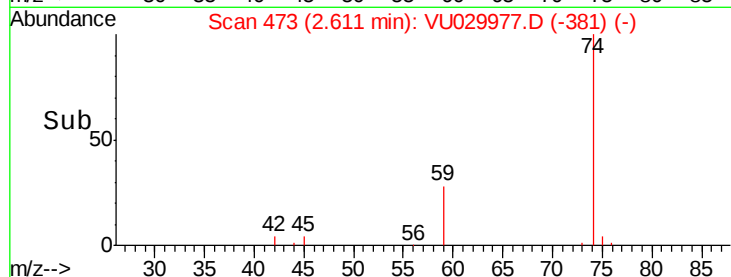
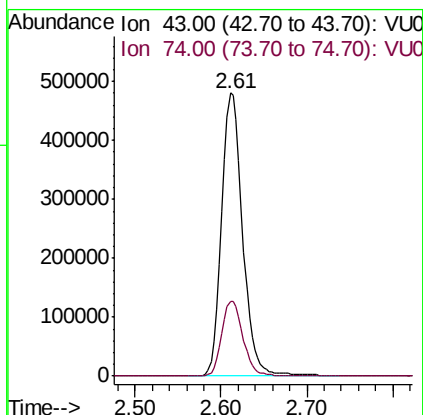
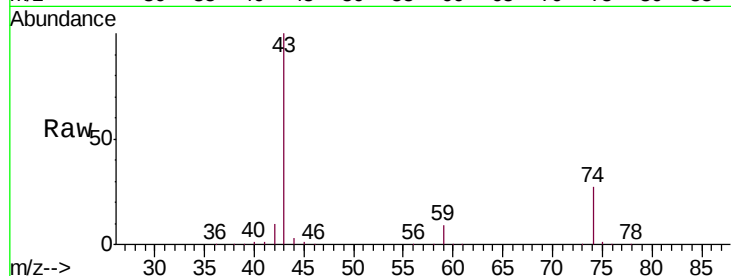




#15  
Methyl Acetate  
Concen: 214.599 ug/L  
RT: 2.61 min Scan# 473  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

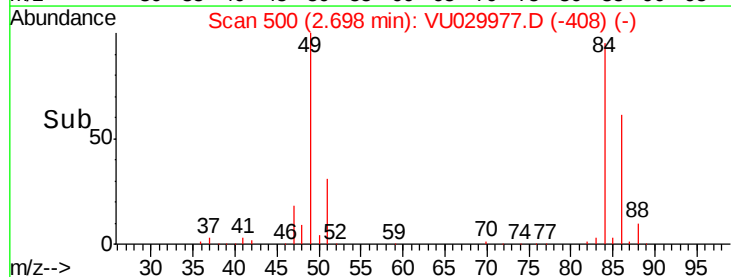
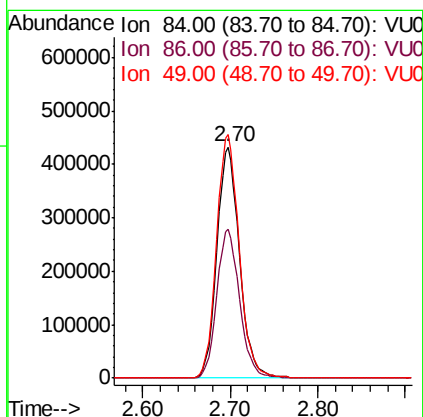
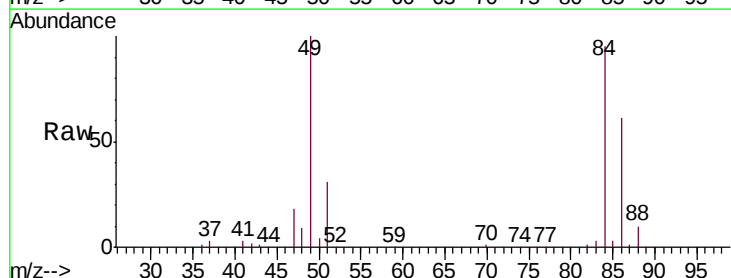
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

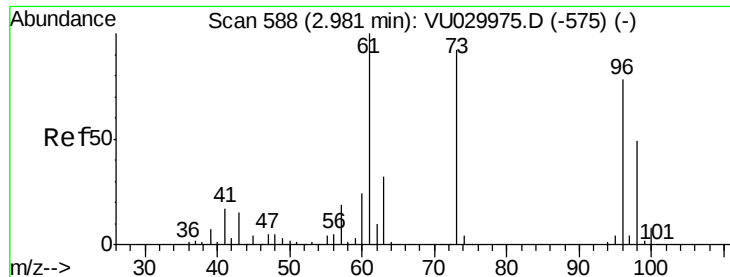
Tgt Ion: 43 Resp: 816808  
Ion Ratio Lower Upper  
43 100  
74 26.9 21.9 32.9



#16  
Methylene chloride  
Concen: 201.090 ug/L  
RT: 2.70 min Scan# 500  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Tgt Ion: 84 Resp: 776140  
Ion Ratio Lower Upper  
84 100  
86 64.4 45.2 84.0  
49 105.3 73.6 136.6

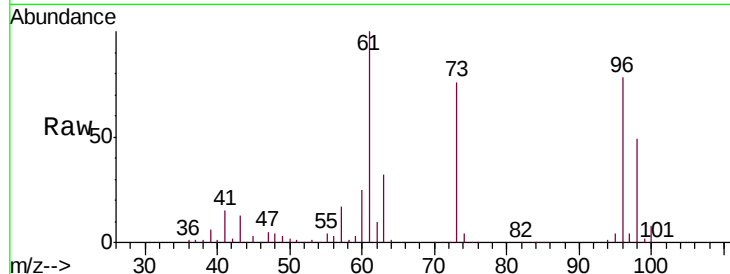




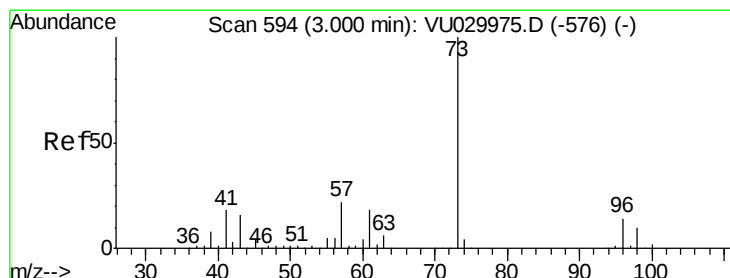
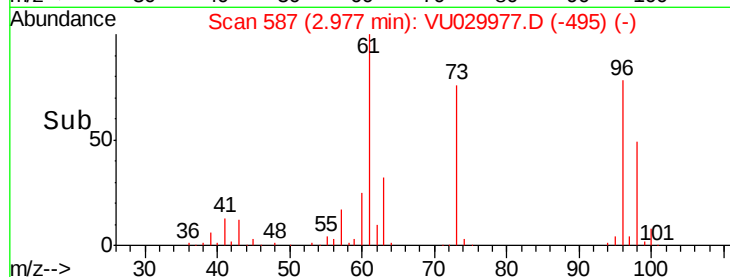
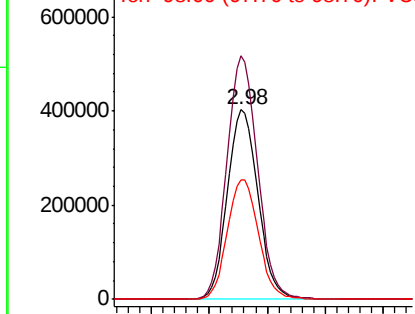
#17  
trans-1,2-Dichloroethene  
Concen: 209.227 ug/L  
RT: 2.98 min Scan# 587  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

Tgt Ion: 96 Resp: 733759  
Ion Ratio Lower Upper  
96 100  
61 128.4 89.4 166.0  
98 63.1 43.3 80.5

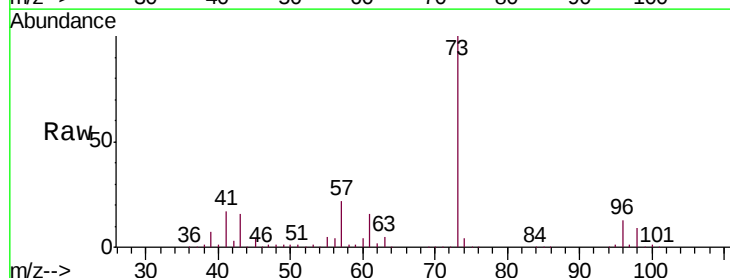


Abundance Ion 96.00 (95.70 to 96.70): VU0  
Ion 61.00 (60.70 to 61.70): VU0  
Ion 98.00 (97.70 to 98.70): VU0

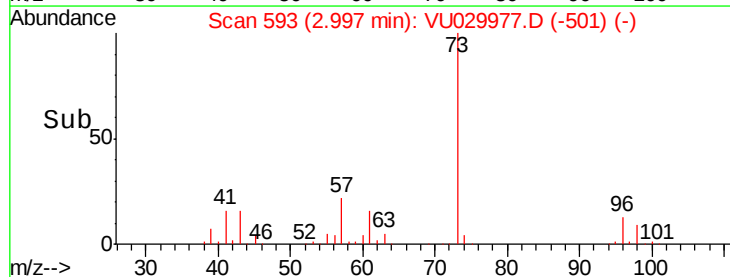
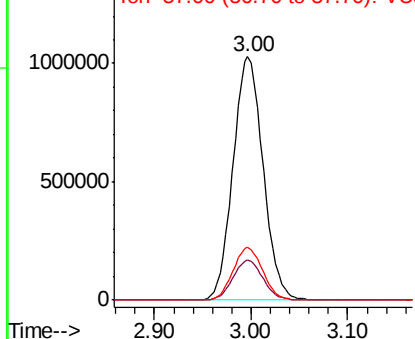


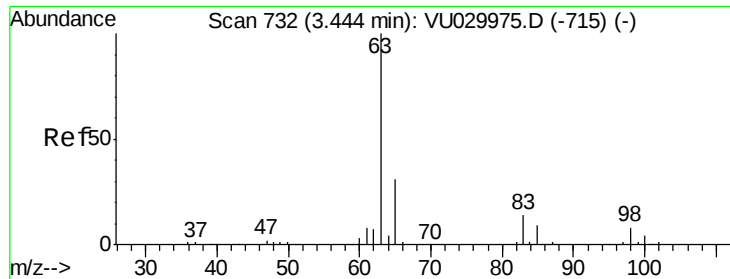
#18  
Methyl tert-butyl Ether  
Concen: 242.936 ug/L  
RT: 3.00 min Scan# 593  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Tgt Ion: 73 Resp: 2221366  
Ion Ratio Lower Upper  
73 100  
43 16.4 13.1 19.7  
57 21.5 17.1 25.7



Abundance Ion 73.00 (72.70 to 73.70): VU0  
Ion 43.00 (42.70 to 43.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0

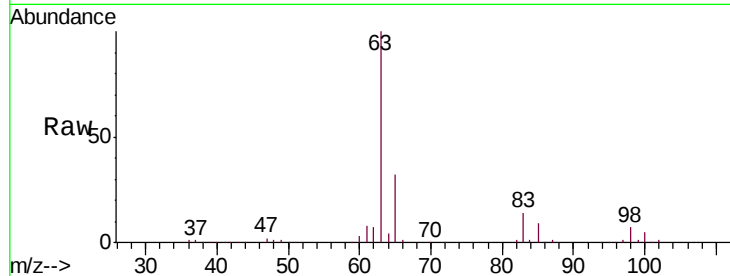




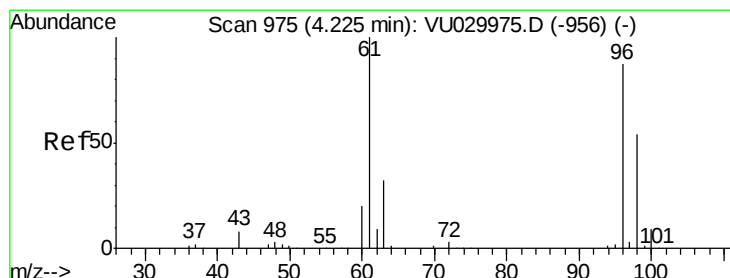
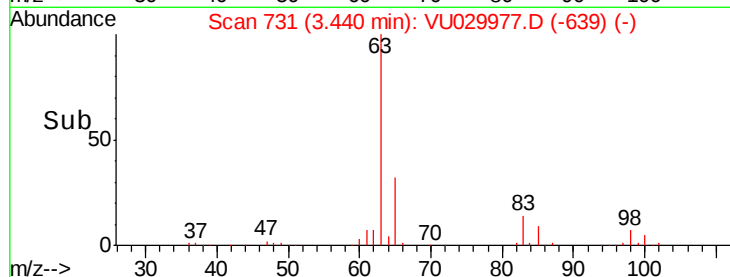
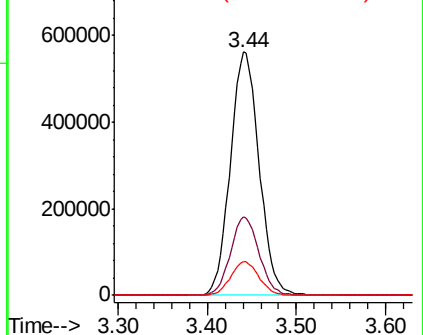
#19  
 1,1-Dichloroethane  
 Concen: 208.666 ug/L  
 RT: 3.44 min Scan# 731  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

Tgt Ion: 63 Resp: 1258103  
 Ion Ratio Lower Upper  
 63 100  
 65 32.4 22.0 41.0  
 83 13.7 9.7 18.1

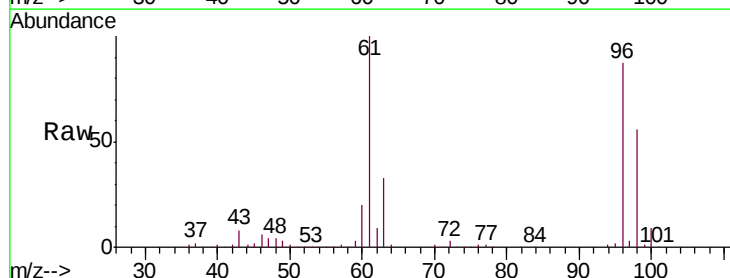


Abundance Ion 63.00 (62.70 to 63.70): VU0  
 Ion 65.00 (64.70 to 65.70): VU0  
 Ion 83.00 (82.70 to 83.70): VU0

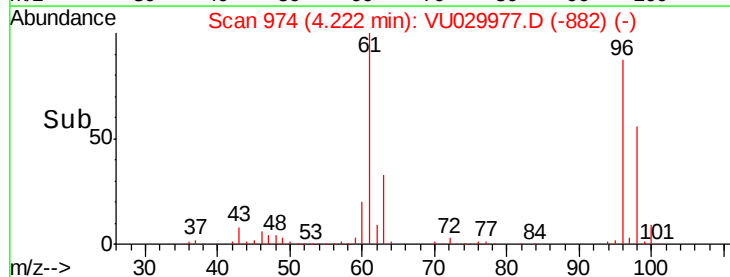
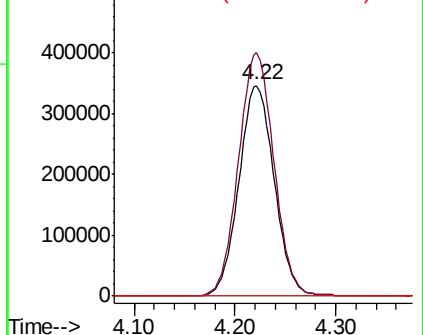


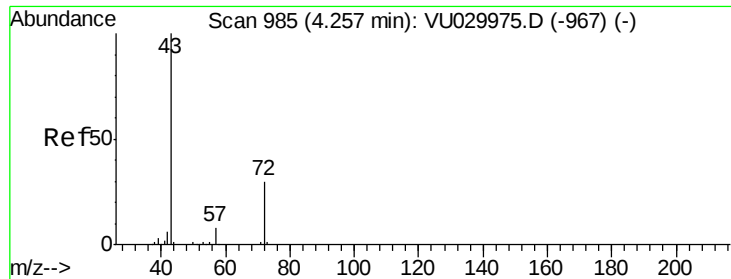
#20  
 cis-1,2-Dichloroethene  
 Concen: 210.406 ug/L  
 RT: 4.22 min Scan# 974  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Tgt Ion: 96 Resp: 842072  
 Ion Ratio Lower Upper  
 96 100  
 61 115.4 80.8 150.2  
 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: 440.283 ug/L

RT: 4.26 min Scan# 985

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

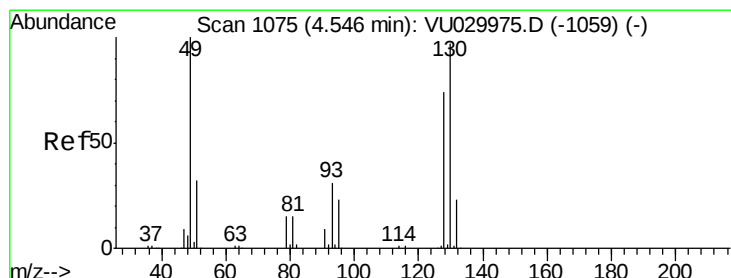
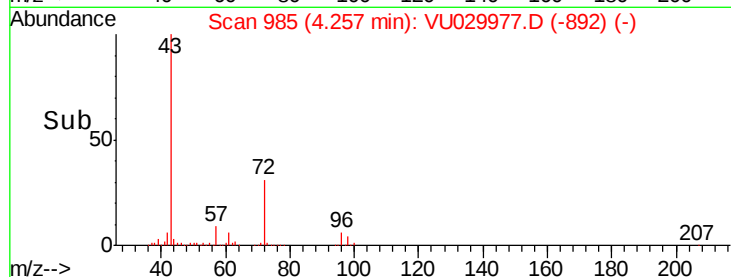
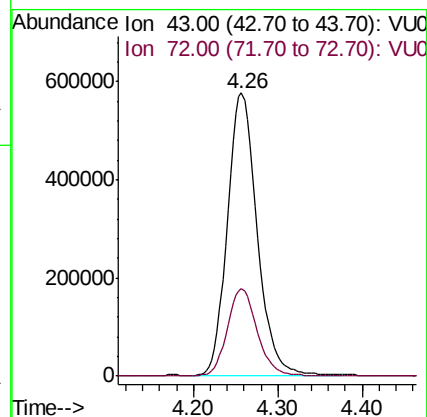
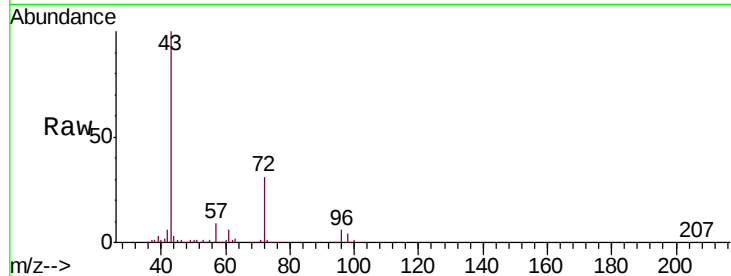
VSTD20047

Tgt Ion: 43 Resp: 1410434

Ion Ratio Lower Upper

43 100

72 31.5 15.3 45.9



#23

Bromochloromethane

Concen: 213.314 ug/L

RT: 4.54 min Scan# 1074

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Tgt Ion: 128 Resp: 431527

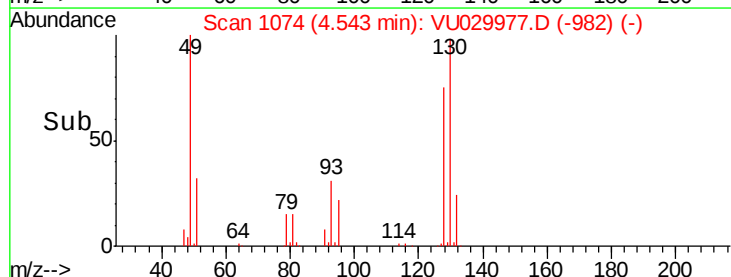
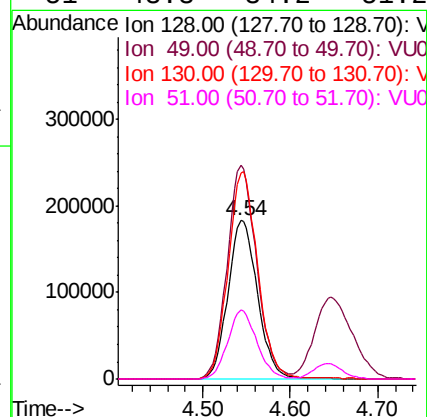
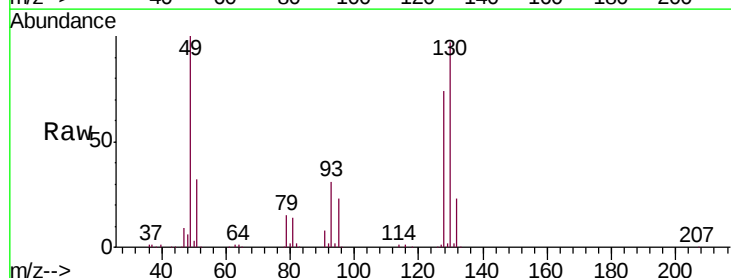
Ion Ratio Lower Upper

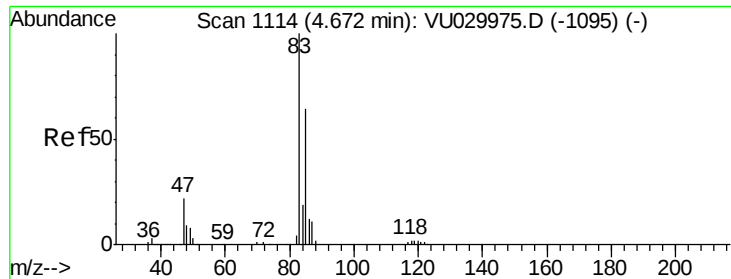
128 100

49 134.9 94.5 175.5

130 130.2 91.4 169.8

51 43.3 34.2 51.2

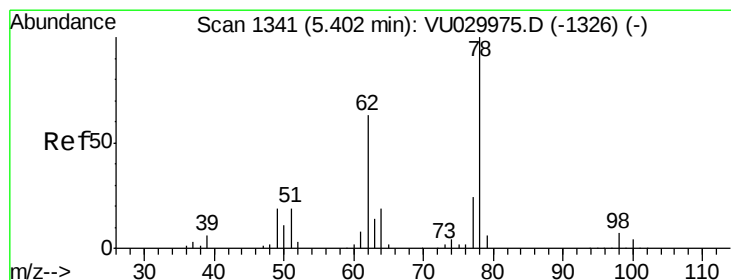
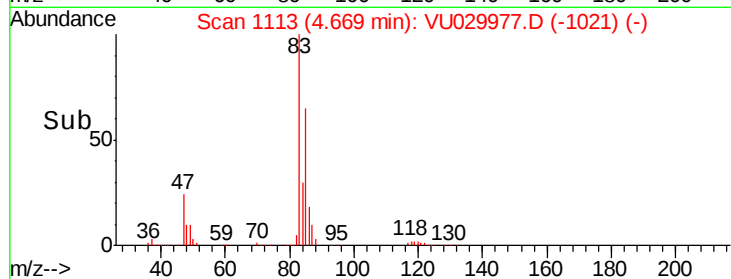
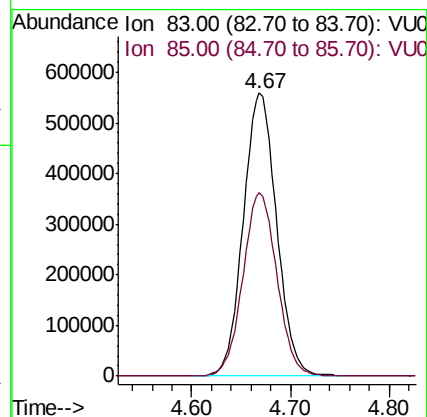
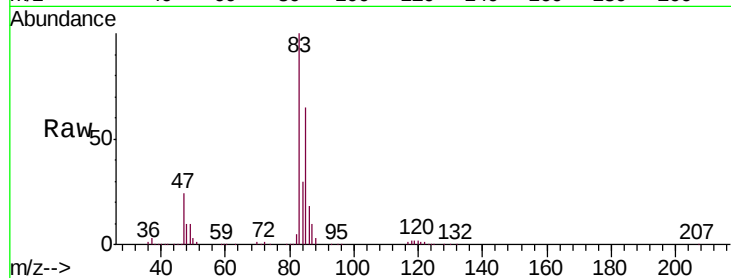




#25  
Chloroform  
Concen: 201.241 ug/L  
RT: 4.67 min Scan# 1113  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

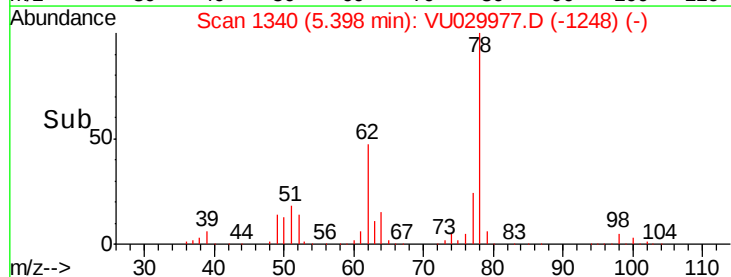
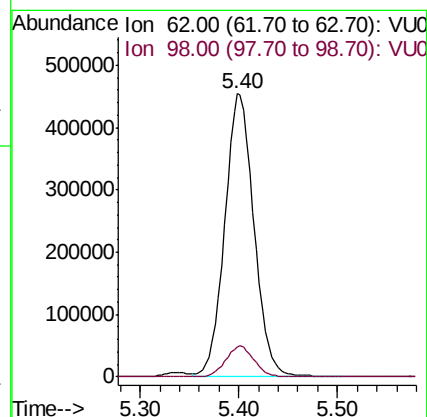
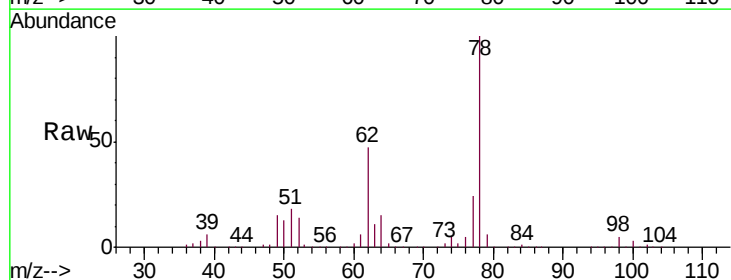
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

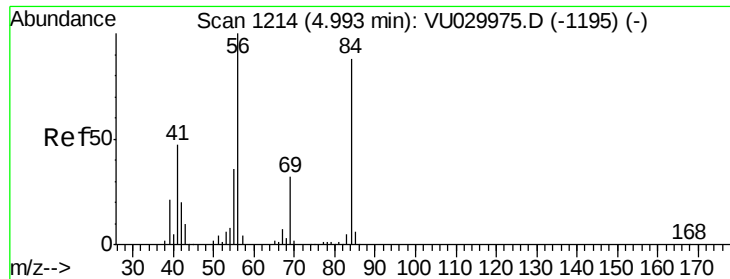
Tgt Ion: 83 Resp: 1306290  
Ion Ratio Lower Upper  
83 100  
85 64.8 44.9 83.5



#27  
1,2-Dichloroethane  
Concen: 203.947 ug/L  
RT: 5.40 min Scan# 1340  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Tgt Ion: 62 Resp: 939022  
Ion Ratio Lower Upper  
62 100  
98 10.7 8.8 13.2

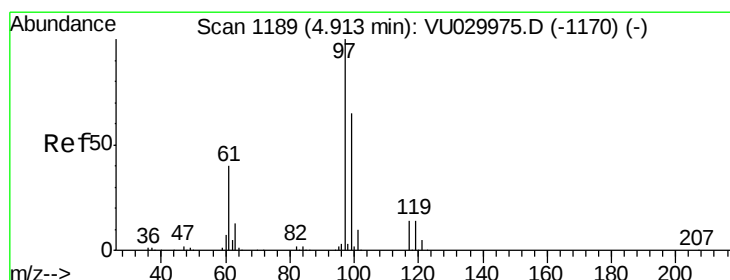
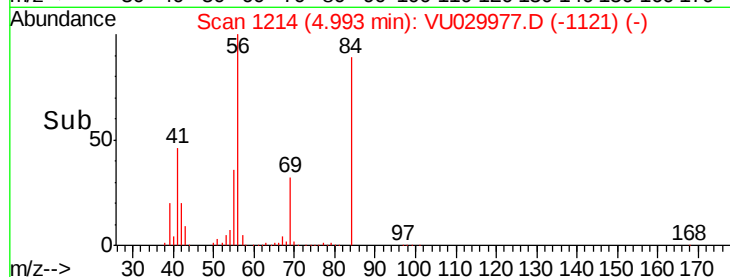
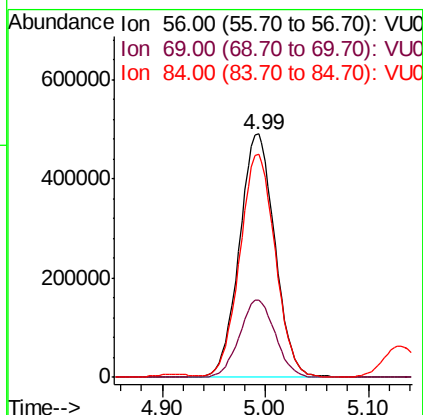
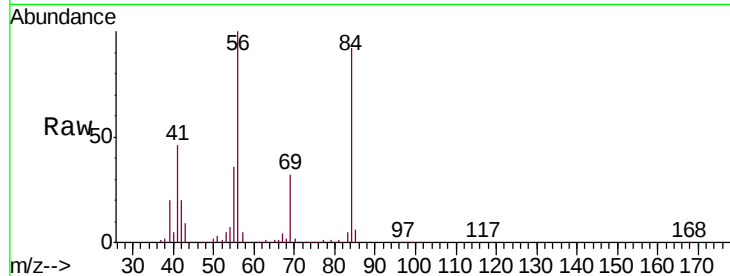




#29  
Cyclohexane  
Concen: 212.862 ug/L  
RT: 4.99 min Scan# 1214  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

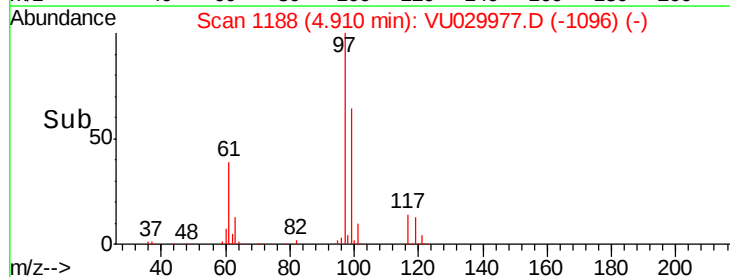
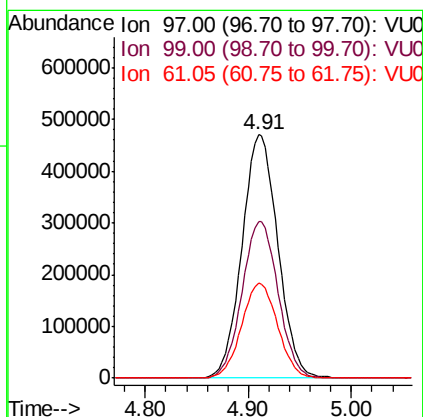
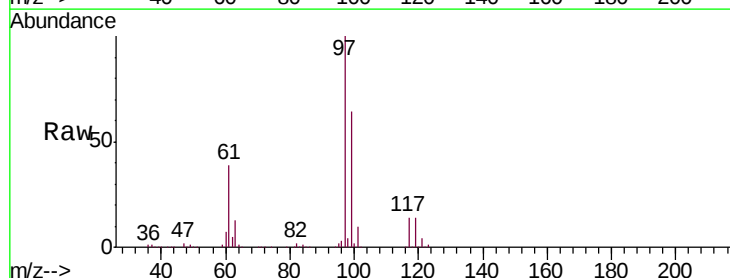
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

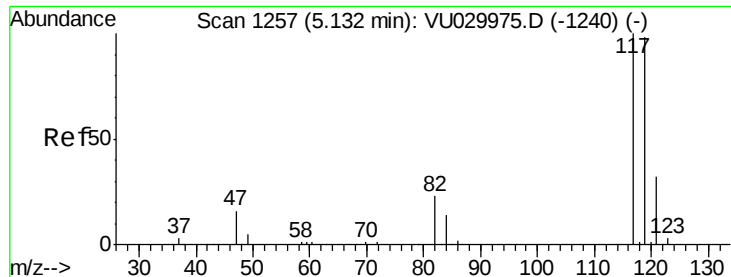
Tgt Ion: 56 Resp: 1171348  
Ion Ratio Lower Upper  
56 100  
69 32.0 25.3 37.9  
84 92.2 73.5 110.3



#30  
1,1,1-Trichloroethane  
Concen: 211.211 ug/L  
RT: 4.91 min Scan# 1188  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Tgt Ion: 97 Resp: 1136115  
Ion Ratio Lower Upper  
97 100  
99 64.8 52.2 78.2  
61 39.4 32.2 48.4





#31

Carbon tetrachloride

Concen: 213.656 ug/L

RT: 5.13 min Scan# 1257

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

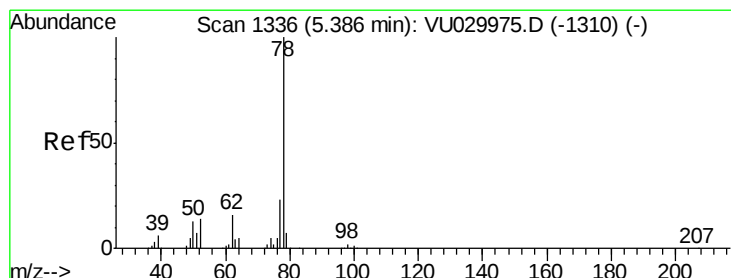
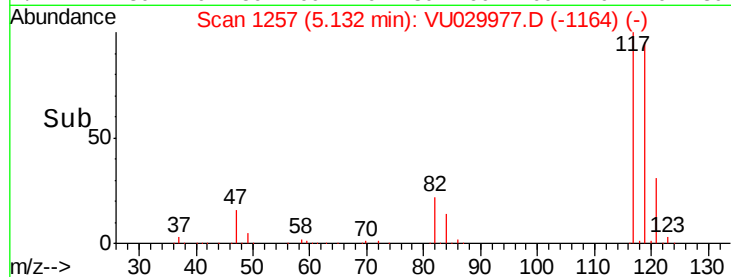
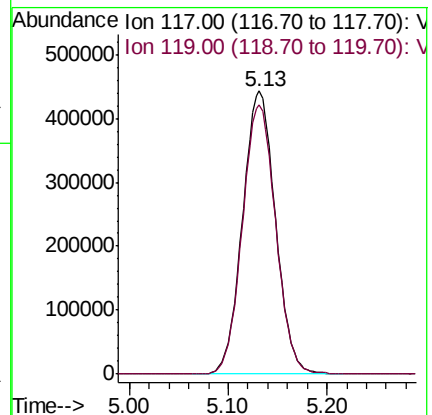
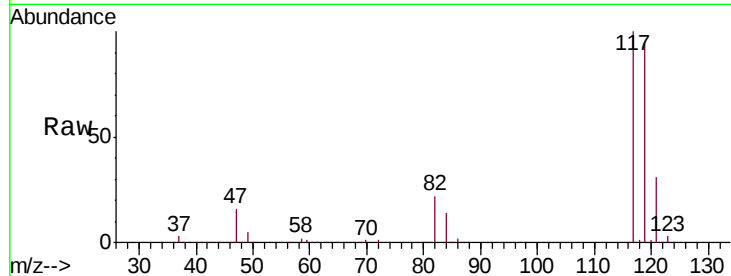
VSTD20047

Tgt Ion:117 Resp: 1020863

Ion Ratio Lower Upper

117 100

119 96.4 77.3 115.9



#33

Benzene

Concen: 209.503 ug/L

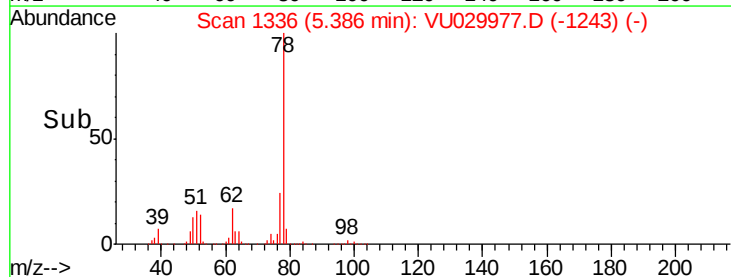
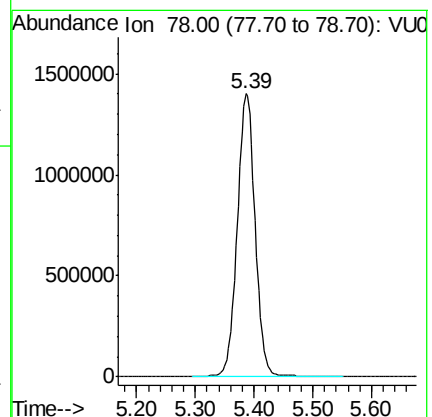
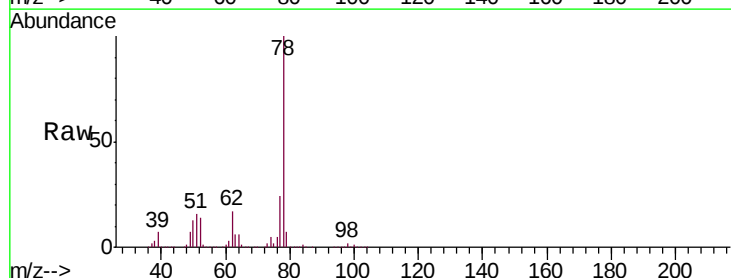
RT: 5.39 min Scan# 1336

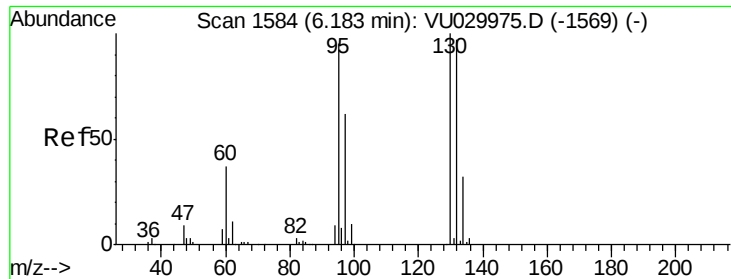
Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Tgt Ion: 78 Resp: 2992657

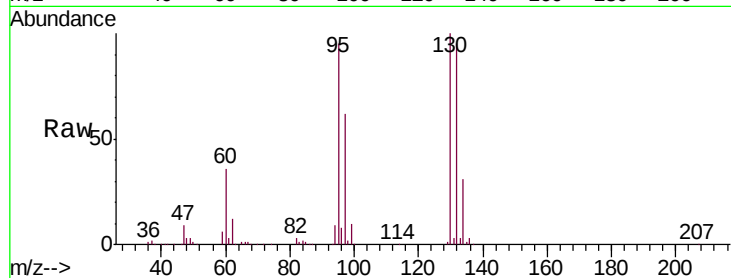




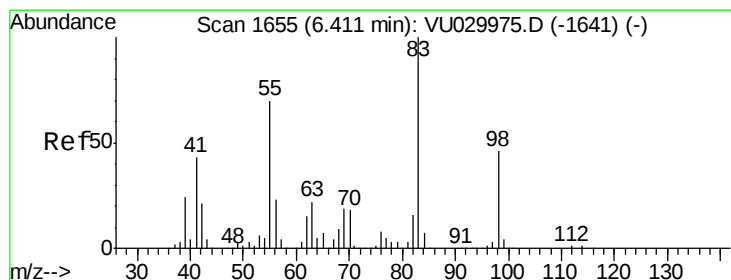
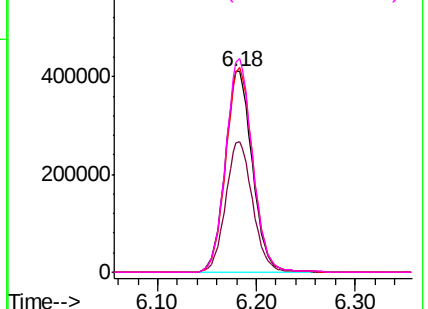
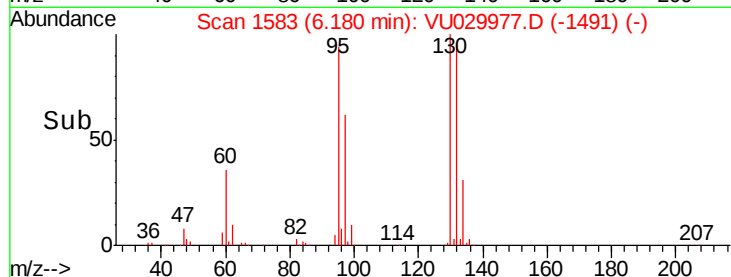
#34  
 Trichloroethene  
 Concen: 205.899 ug/L  
 RT: 6.18 min Scan# 1583  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 95    | Resp: | 794067 |
| Ion      | Ratio | Lower | Upper  |
| 95       | 100   |       |        |
| 97       | 64.6  | 45.5  | 84.5   |
| 132      | 99.7  | 71.5  | 132.7  |
| 130      | 104.8 | 73.5  | 136.5  |

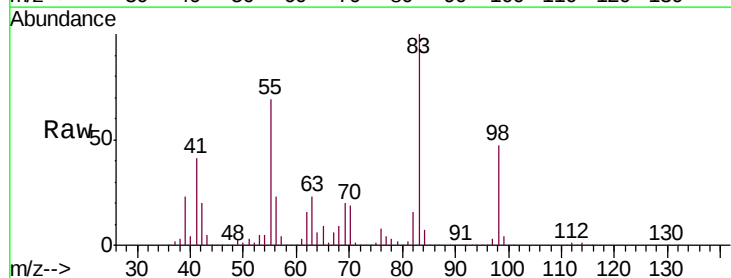


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

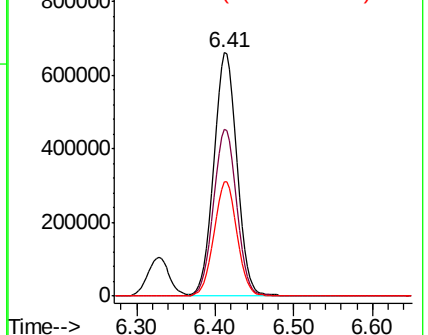
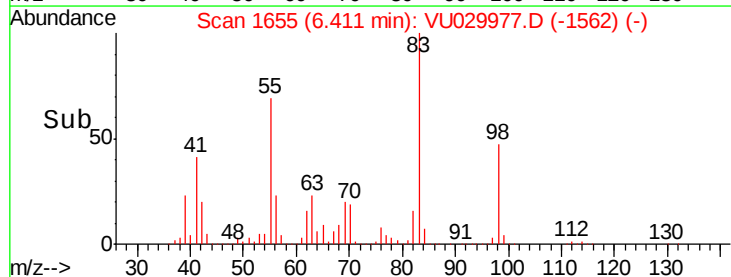


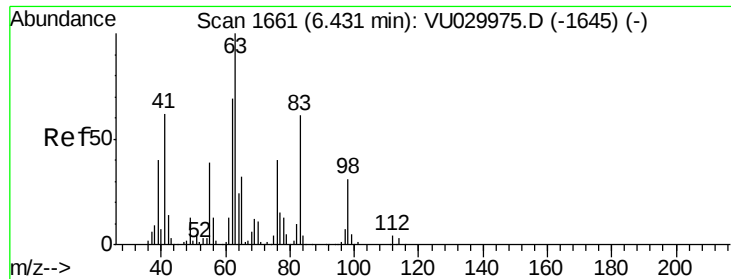
#35  
 Methylcyclohexane  
 Concen: 217.982 ug/L  
 RT: 6.41 min Scan# 1655  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

|          |       |       |         |
|----------|-------|-------|---------|
| Tgt Ion: | 83    | Resp: | 1338776 |
| Ion      | Ratio | Lower | Upper   |
| 83       | 100   |       |         |
| 55       | 69.0  | 56.6  | 84.8    |
| 98       | 46.6  | 37.8  | 56.6    |



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

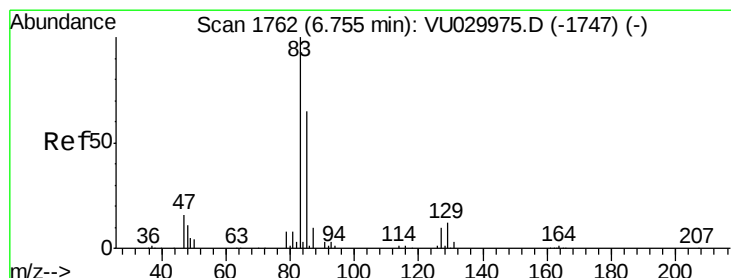
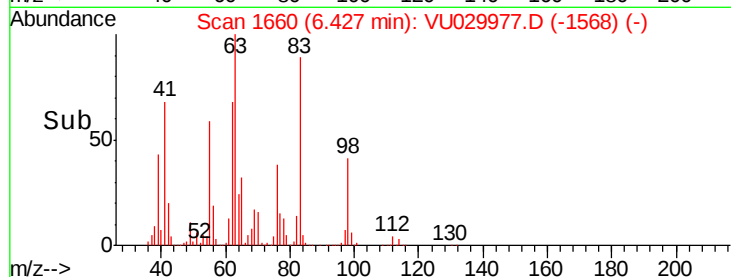
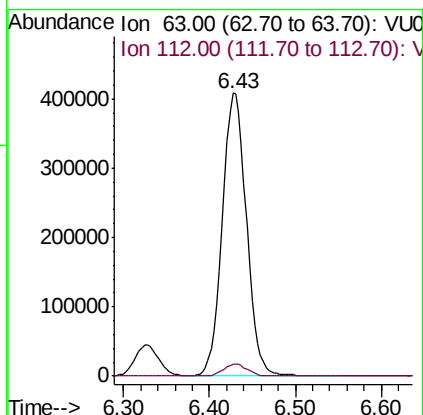
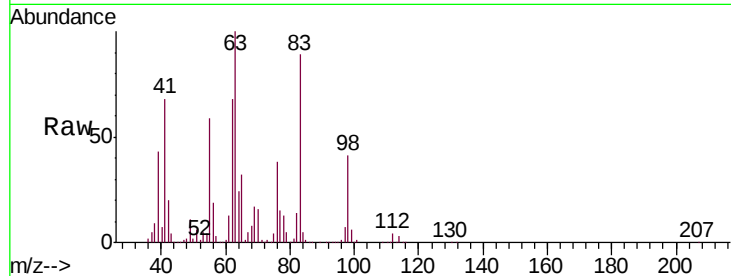




#37  
 1,2-Dichloropropane  
 Concen: 212.781 ug/L  
 RT: 6.43 min Scan# 1660  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

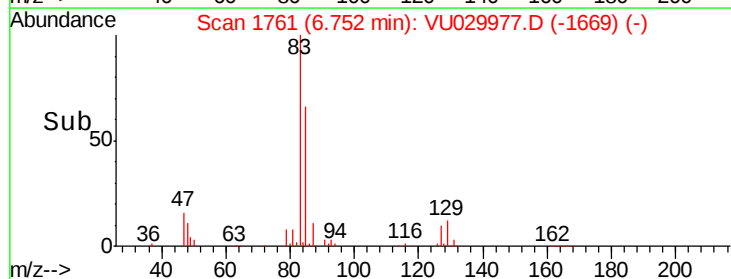
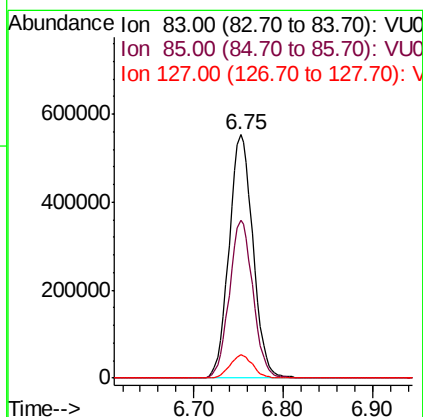
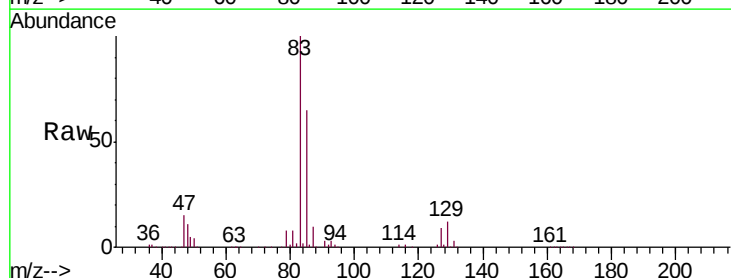
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

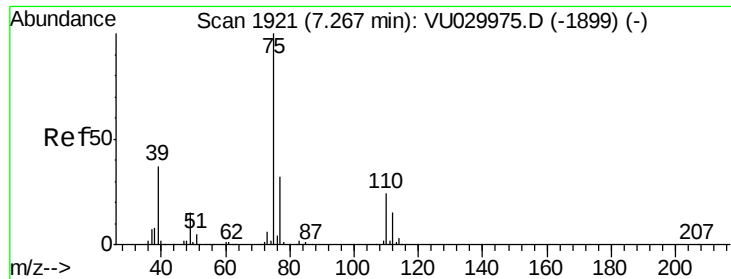
Tgt Ion: 63 Resp: 796486  
 Ion Ratio Lower Upper  
 63 100  
 112 4.2 3.4 5.2



#38  
 Bromodichloromethane  
 Concen: 219.312 ug/L  
 RT: 6.75 min Scan# 1761  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Tgt Ion: 83 Resp: 1024441  
 Ion Ratio Lower Upper  
 83 100  
 85 64.8 45.7 84.9  
 127 9.4 7.7 11.5

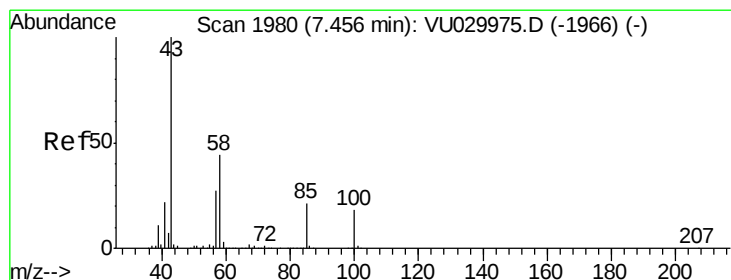
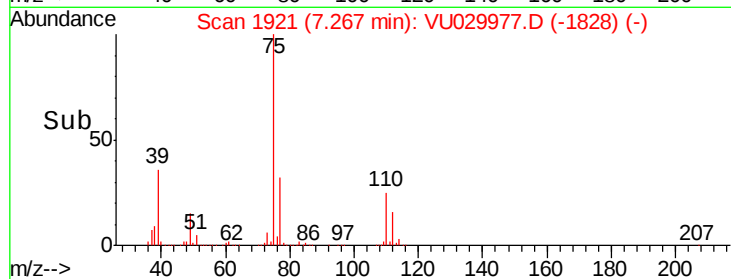
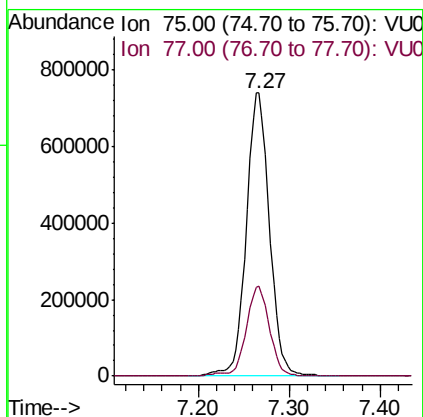
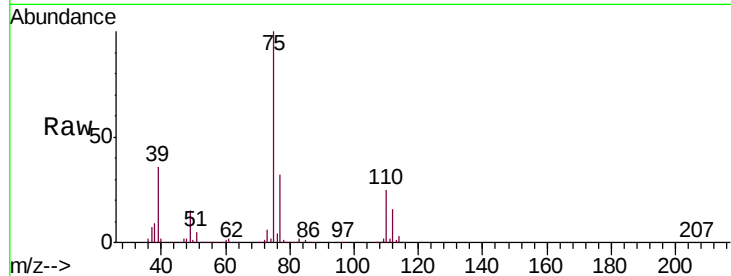




#39  
 cis-1,3-Dichloropropene  
 Concen: 228.878 ug/L  
 RT: 7.27 min Scan# 1921  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

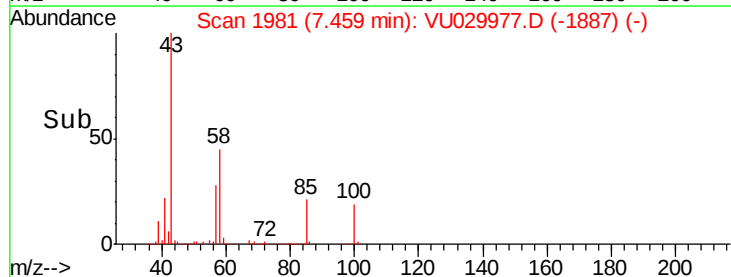
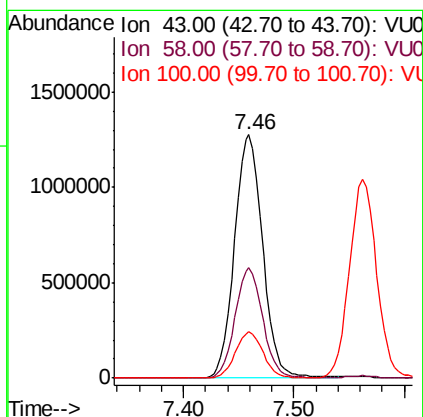
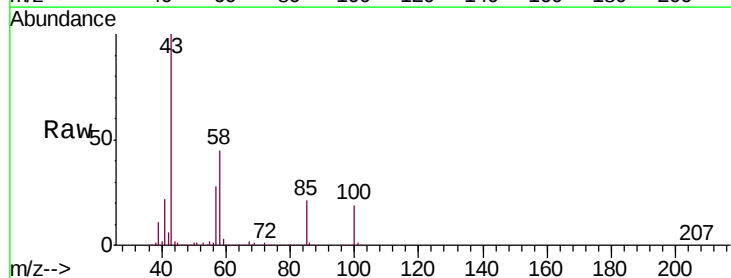
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

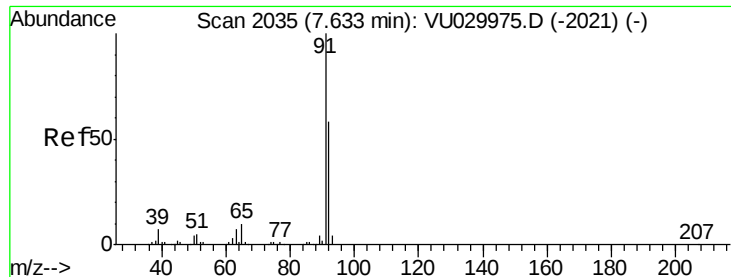
Tgt Ion: 75 Resp: 1311808  
 Ion Ratio Lower Upper  
 75 100  
 77 31.7 22.2 41.2



#40  
 4-Methyl-2-pentanone  
 Concen: 449.480 ug/L  
 RT: 7.46 min Scan# 1981  
 Delta R.T. 0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Tgt Ion: 43 Resp: 2254154  
 Ion Ratio Lower Upper  
 43 100  
 58 44.8 35.1 52.7  
 100 18.7 14.4 21.6





#42

Toluene

Concen: 212.290 ug/L

RT: 7.63 min Scan# 2035

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

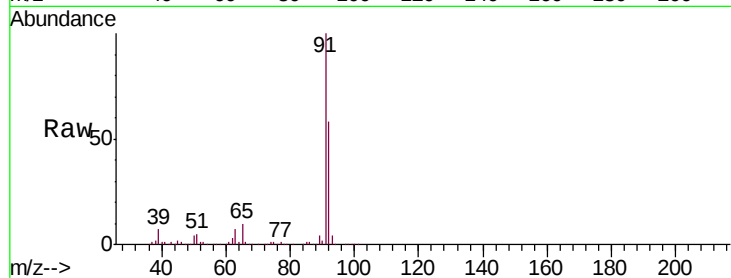
VSTD20047

Tgt Ion: 91 Resp: 3315844

Ion Ratio Lower Upper

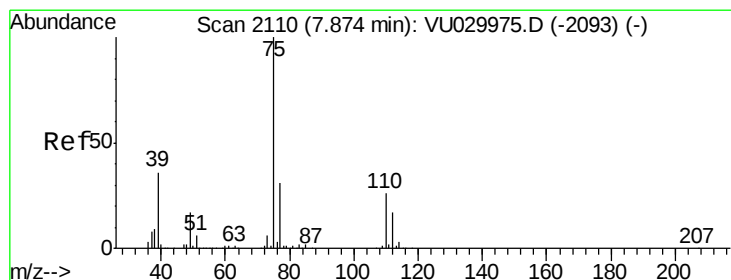
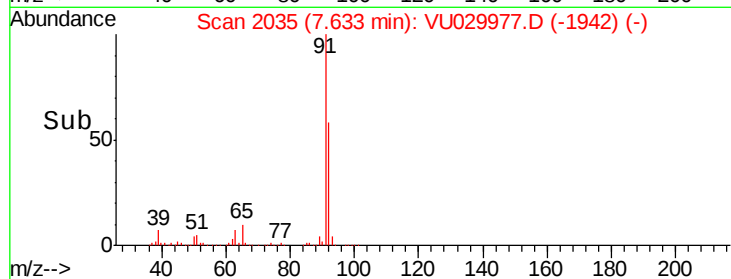
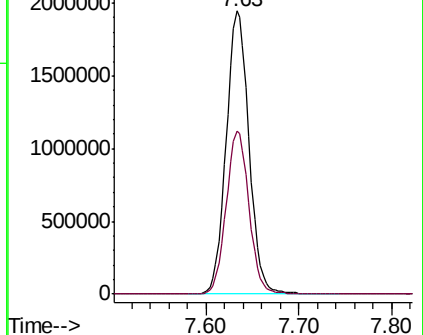
91 100

92 57.7 40.6 75.4



Abundance Ion 91.00 (90.70 to 91.70): VU029977.D (-1942) (-)

Ion 92.00 (91.70 to 92.70): VU029977.D (-1942) (-)



#44

trans-1,3-Dichloropropene

Concen: 237.740 ug/L

RT: 7.87 min Scan# 2110

Delta R.T. -0.00 min

Lab File: VU029977.D

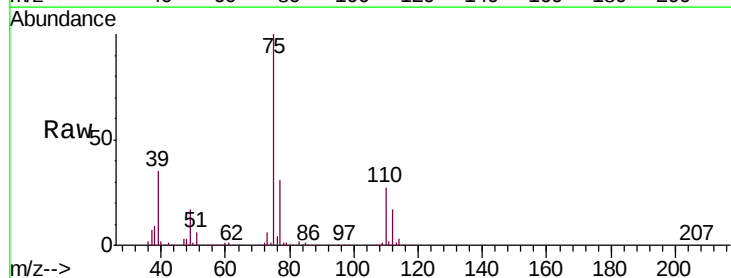
Acq: 11 Mar 2019 19:32

Tgt Ion: 75 Resp: 1215397

Ion Ratio Lower Upper

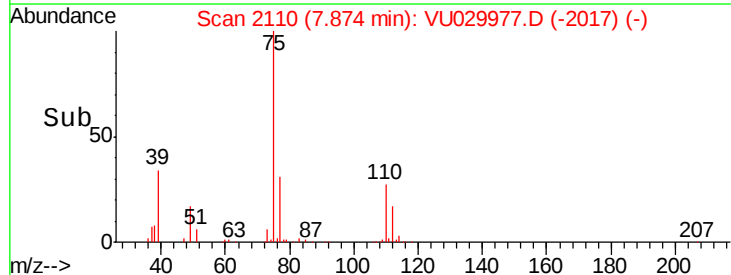
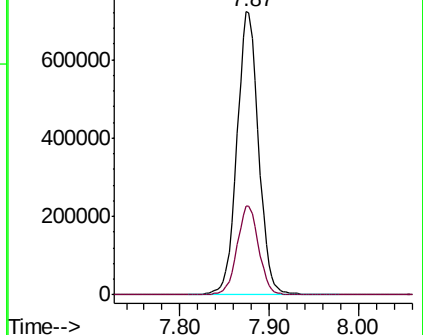
75 100

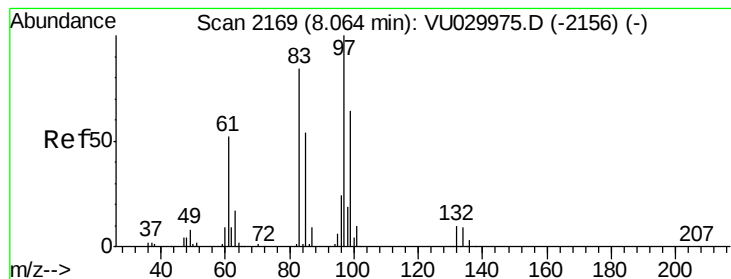
77 31.2 21.9 40.7



Abundance Ion 75.00 (74.70 to 75.70): VU029977.D (-2017) (-)

Ion 77.00 (76.70 to 77.70): VU029977.D (-2017) (-)





#45

1,1,2-Trichloroethane

Concen: 211.366 ug/L

RT: 8.06 min Scan# 2169

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

VSTD20047

Tgt Ion: 97 Resp: 802020

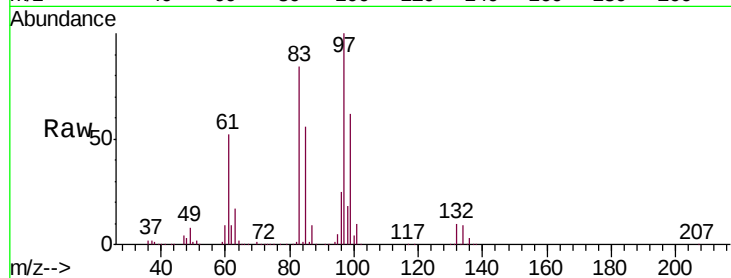
Ion Ratio Lower Upper

97 100

99 62.3 44.7 82.9

83 84.4 58.6 108.8

85 55.6 38.1 70.7

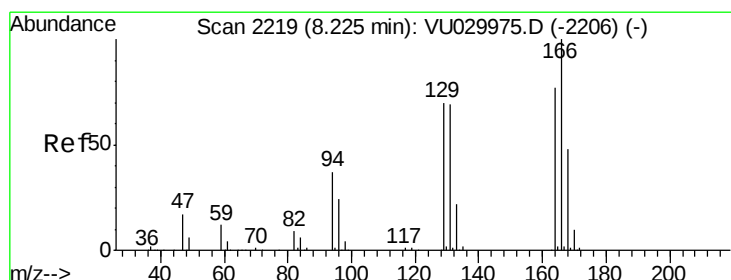
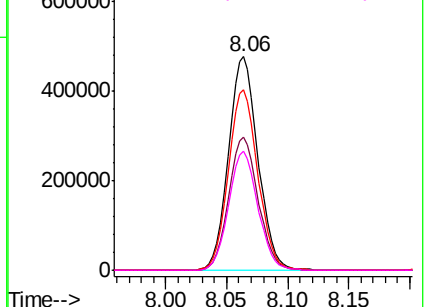
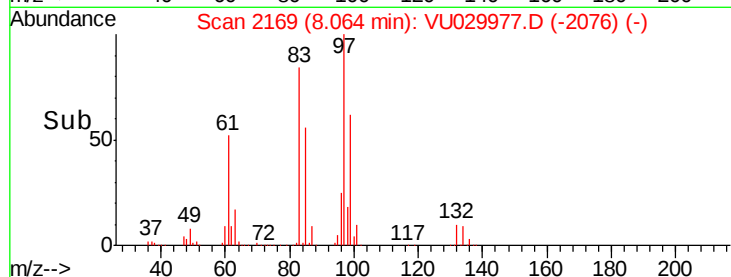


Abundance Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46

Tetrachloroethene

Concen: 207.696 ug/L

RT: 8.22 min Scan# 2219

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Tgt Ion: 164 Resp: 688517

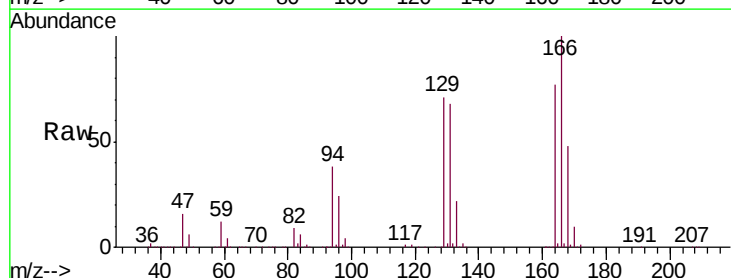
Ion Ratio Lower Upper

164 100

129 92.0 63.3 117.7

131 87.8 62.0 115.2

166 129.5 90.5 168.1

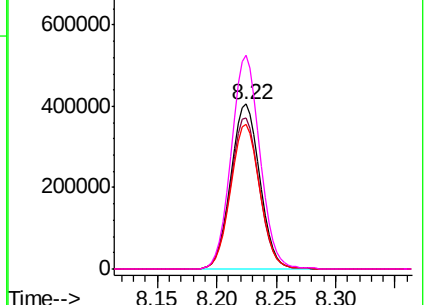
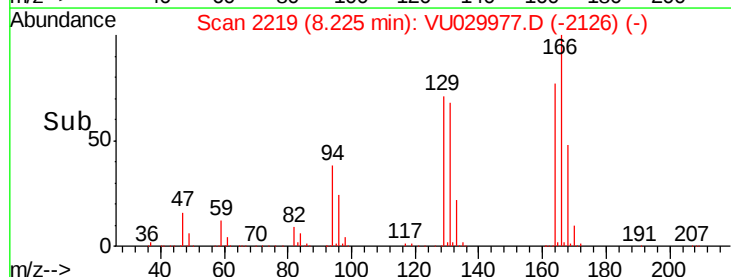


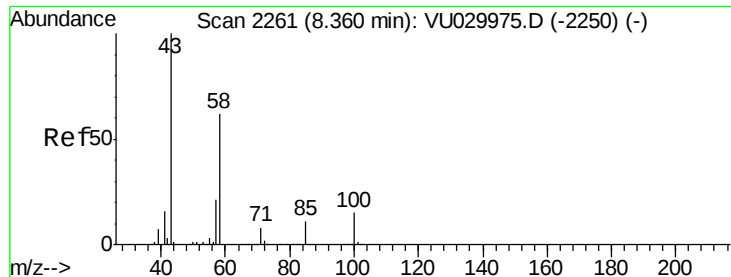
Abundance Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V



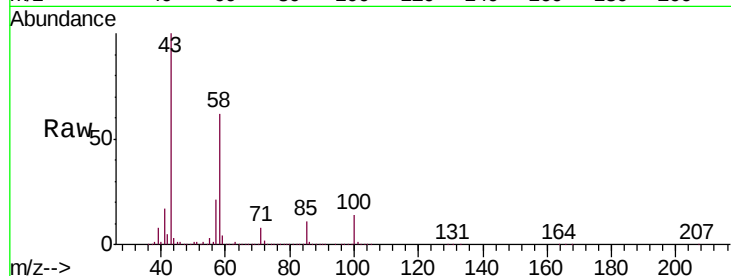


#48  
2-Hexanone  
Concen: 452.138 ug/L  
RT: 8.36 min Scan# 2261  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

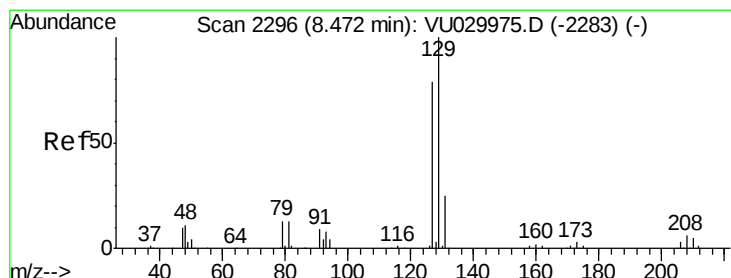
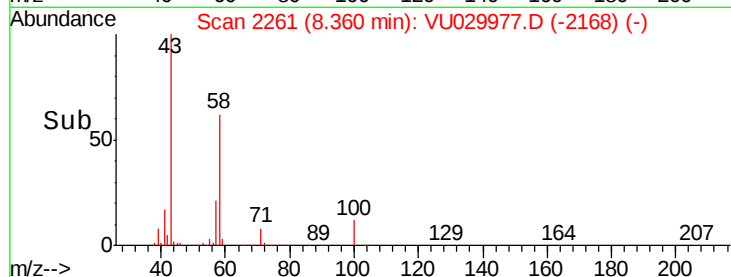
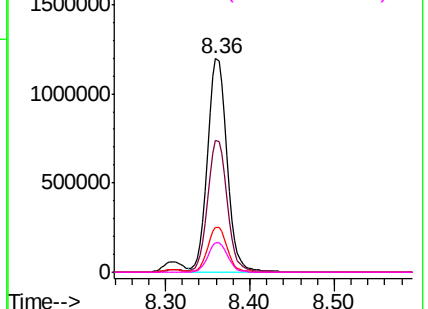
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

Tgt Ion: 43 Resp: 1924745

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 43  | 100   |       |       |
| 58  | 61.6  | 48.6  | 72.8  |
| 57  | 20.9  | 16.1  | 24.1  |
| 100 | 14.1  | 11.6  | 17.4  |



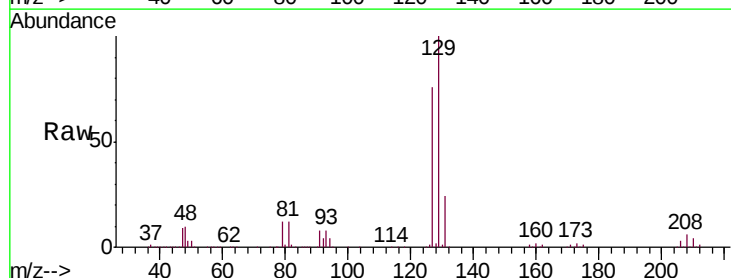
Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0



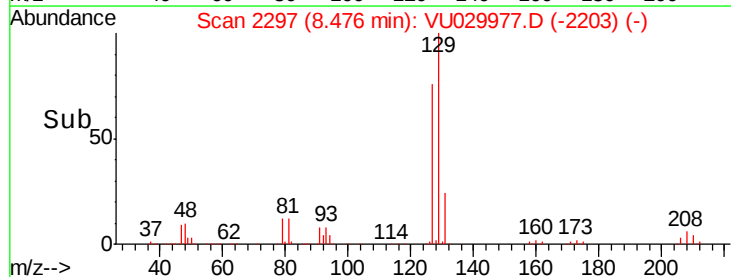
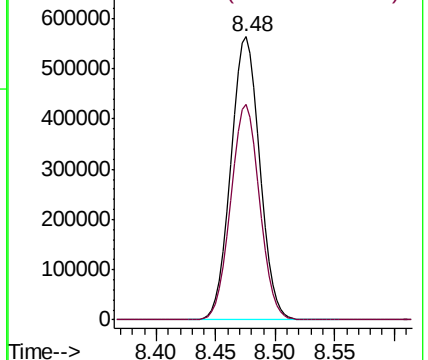
#49  
Dibromochloromethane  
Concen: 227.709 ug/L  
RT: 8.48 min Scan# 2297  
Delta R.T. 0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

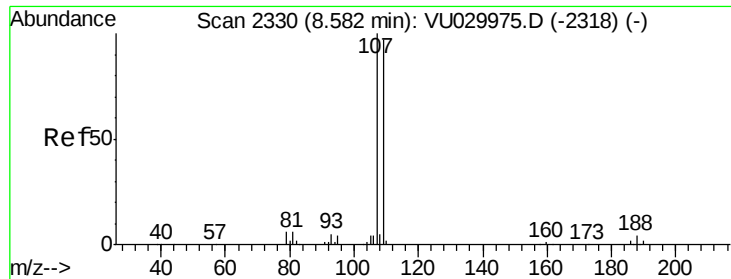
Tgt Ion: 129 Resp: 952023

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 129 | 100   |       |       |
| 127 | 76.2  | 55.2  | 102.4 |



Abundance Ion 129.00 (128.70 to 129.70): V  
Ion 127.00 (126.70 to 127.70): V

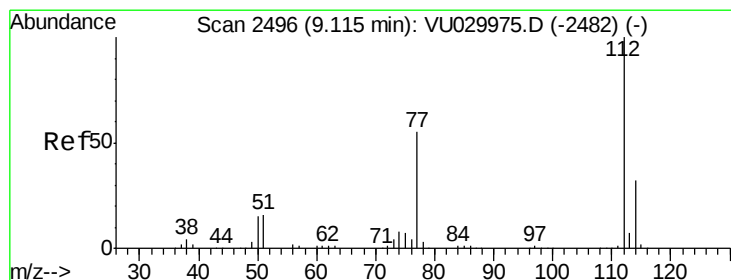
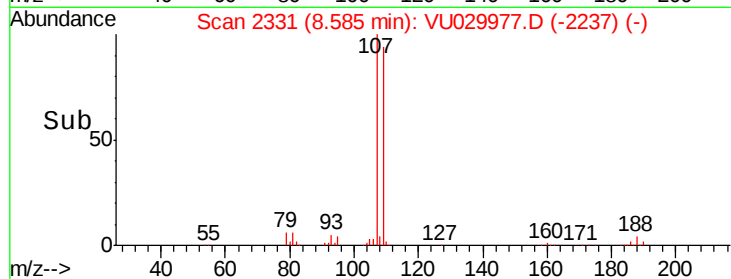
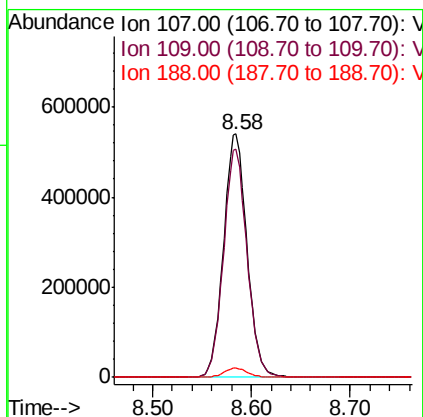
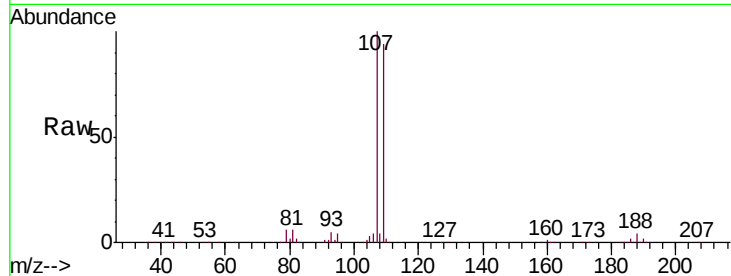




#50  
1,2-Dibromoethane  
Concen: 220.637 ug/L  
RT: 8.58 min Scan# 2331  
Delta R.T. 0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

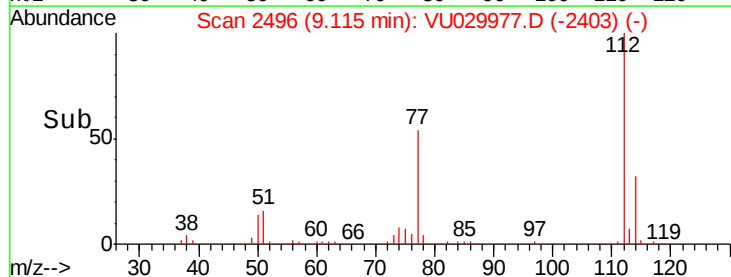
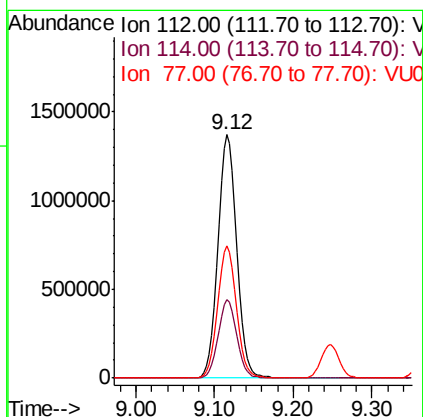
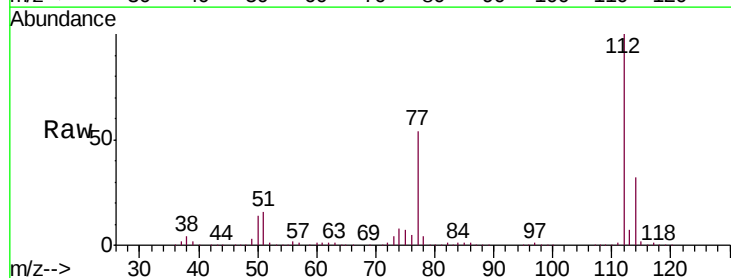
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD20047

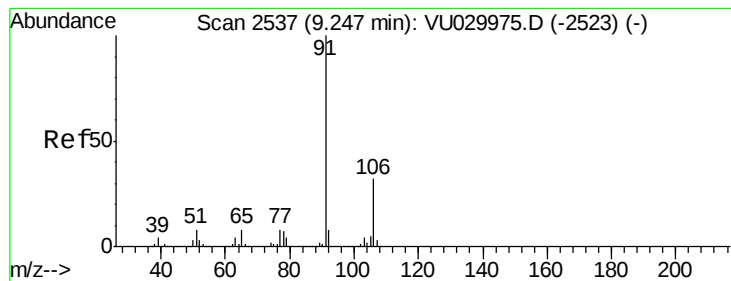
Tgt Ion:107 Resp: 902928  
Ion Ratio Lower Upper  
107 100  
109 93.6 67.8 126.0  
188 3.8 3.2 4.8



#51  
Chlorobenzene  
Concen: 212.712 ug/L  
RT: 9.12 min Scan# 2496  
Delta R.T. -0.00 min  
Lab File: VU029977.D  
Acq: 11 Mar 2019 19:32

Tgt Ion:112 Resp: 2246535  
Ion Ratio Lower Upper  
112 100  
114 32.0 22.5 41.9  
77 54.1 44.6 66.8





#52

Ethylbenzene

Concen: 216.698 ug/L

RT: 9.25 min Scan# 2537

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

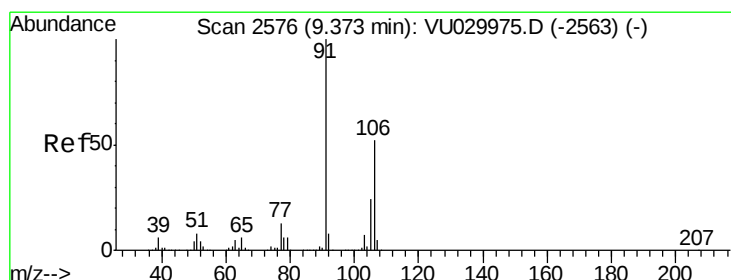
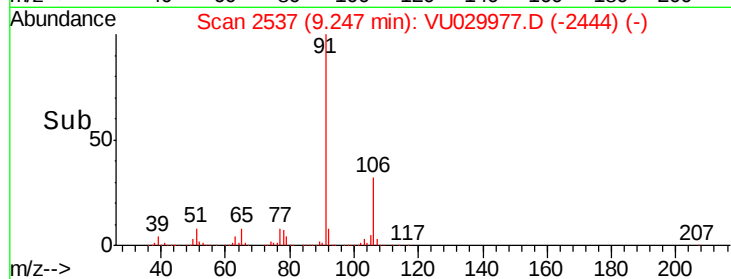
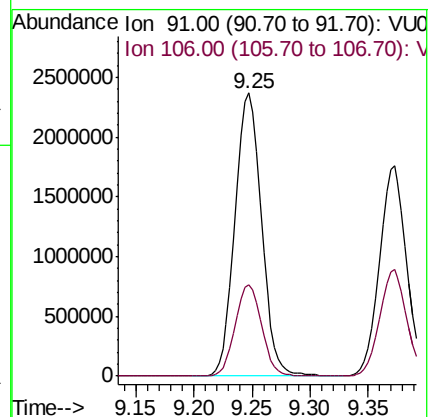
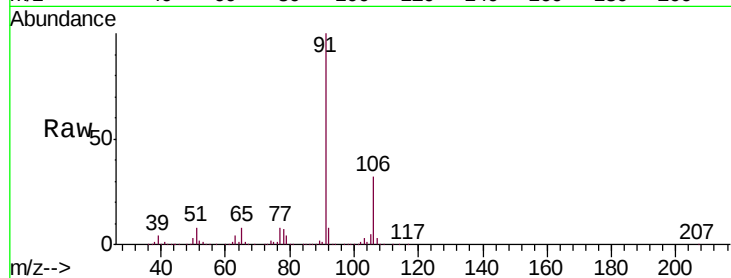
VSTD20047

Tgt Ion: 91 Resp: 3746301

Ion Ratio Lower Upper

91 100

106 32.3 22.5 41.9



#53

m,p-Xylene

Concen: 219.640 ug/L

RT: 9.37 min Scan# 2576

Delta R.T. -0.00 min

Lab File: VU029977.D

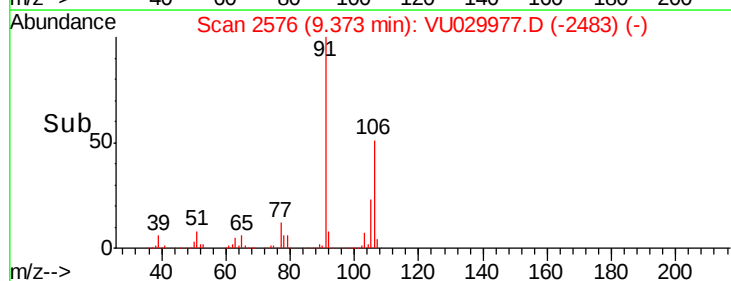
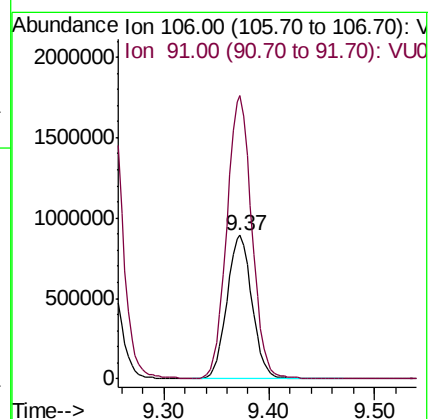
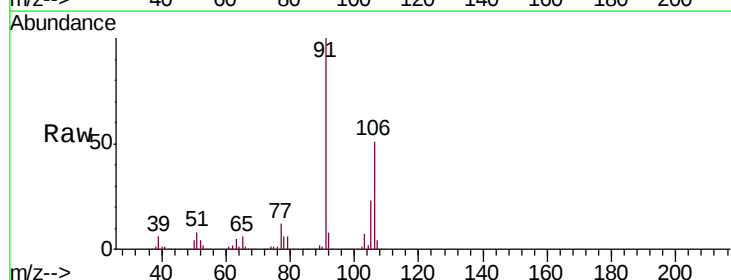
Acq: 11 Mar 2019 19:32

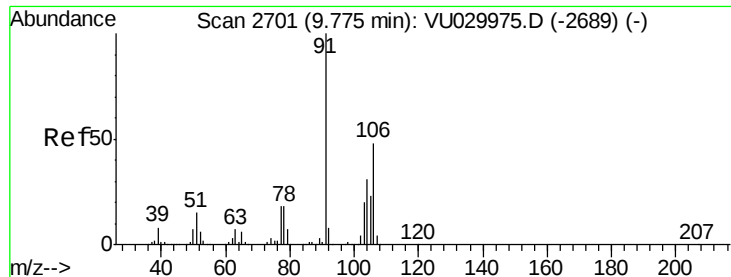
Tgt Ion: 106 Resp: 1462723

Ion Ratio Lower Upper

106 100

91 197.2 135.1 250.9





#54

o-xylene

Concen: 220.391 ug/L

RT: 9.78 min Scan# 2702

Delta R.T. 0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

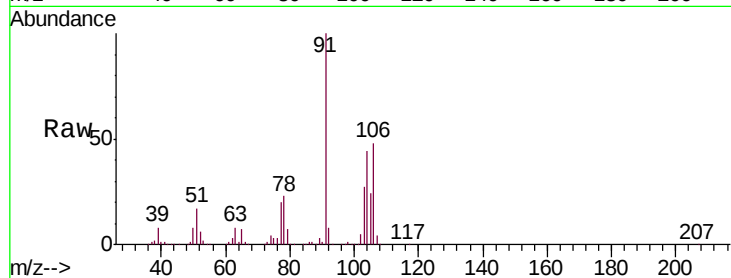
VSTD20047

Tgt Ion:106 Resp: 1452261

Ion Ratio Lower Upper

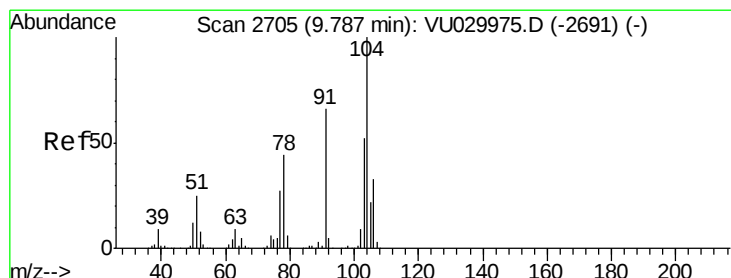
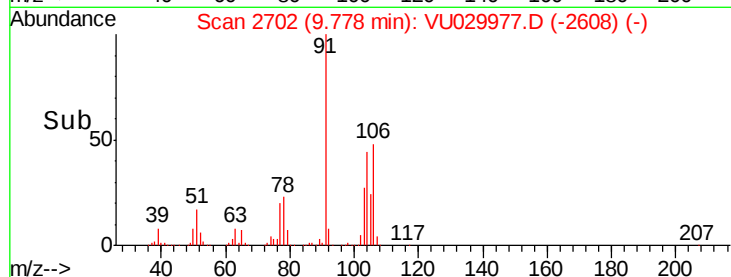
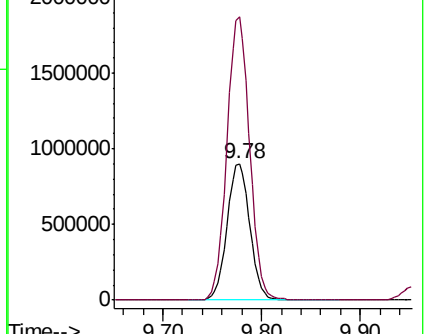
106 100

91 207.3 144.5 268.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 233.959 ug/L

RT: 9.79 min Scan# 2706

Delta R.T. 0.00 min

Lab File: VU029977.D

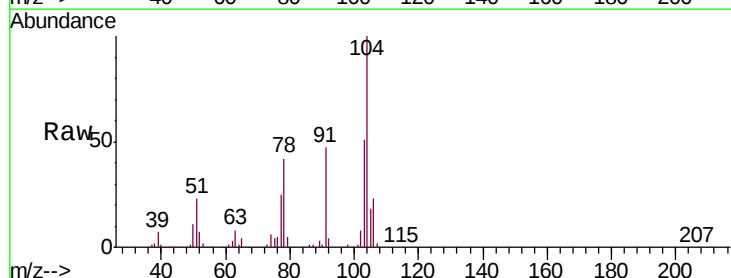
Acq: 11 Mar 2019 19:32

Tgt Ion:104 Resp: 2535590

Ion Ratio Lower Upper

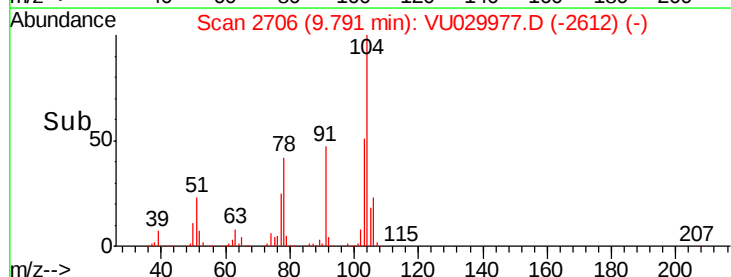
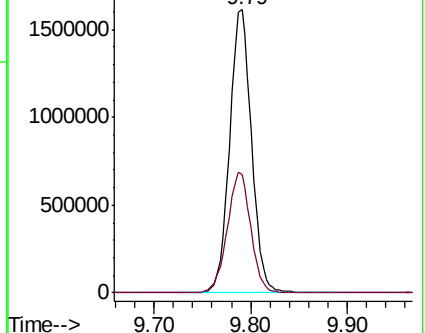
104 100

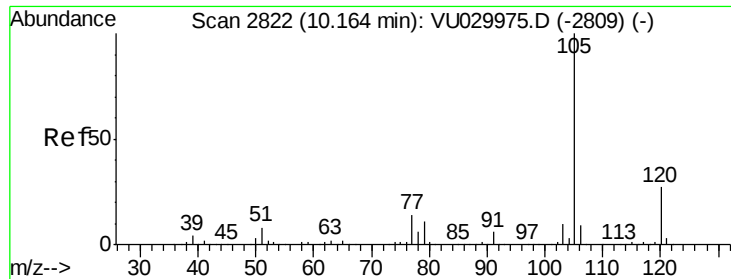
78 41.6 30.6 56.8



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 221.816 ug/L

RT: 10.16 min Scan# 2822

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

VSTD20047

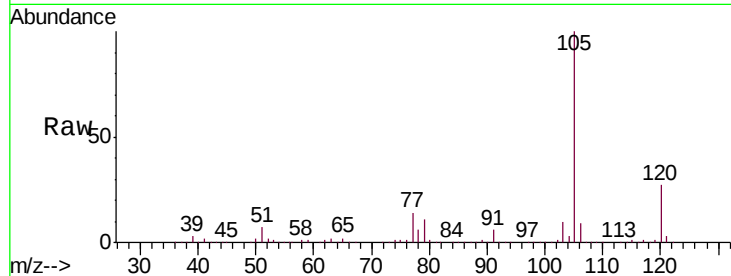
Tgt Ion:105 Resp: 3789356

Ion Ratio Lower Upper

105 100

120 27.2 21.7 32.5

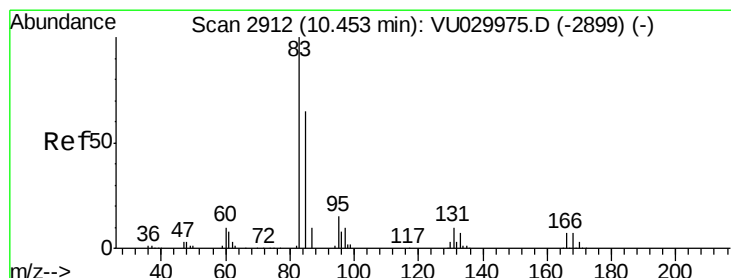
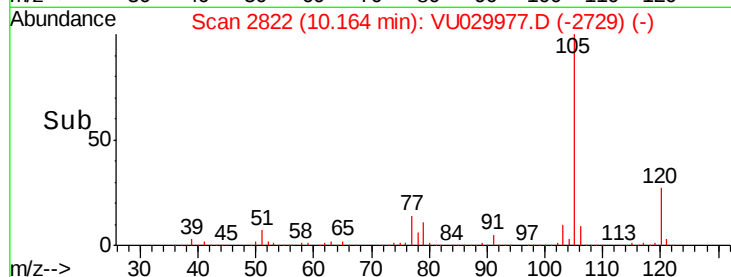
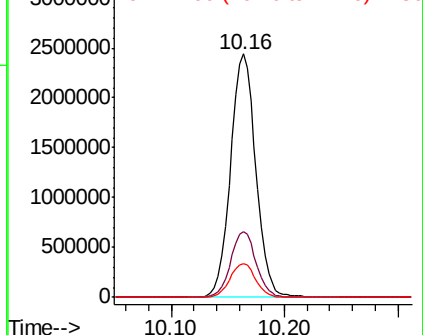
77 14.1 11.1 16.7



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: 216.571 ug/L

RT: 10.45 min Scan# 2912

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

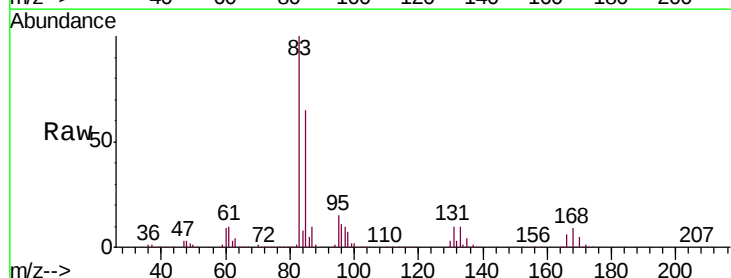
Tgt Ion: 83 Resp: 1419530

Ion Ratio Lower Upper

83 100

85 64.9 45.9 85.3

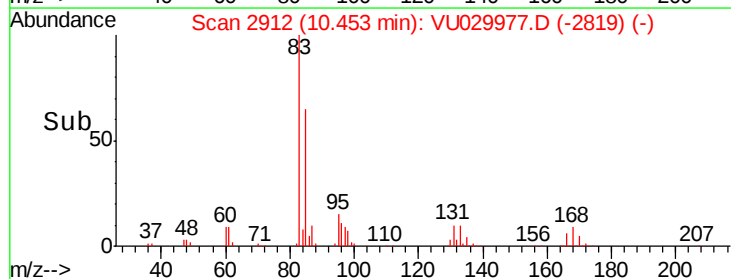
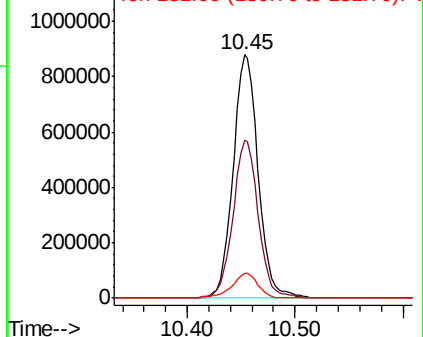
131 10.1 8.5 12.7

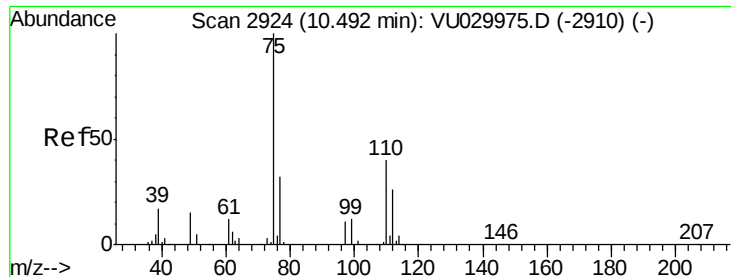


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0

Ion 131.00 (130.70 to 131.70): V

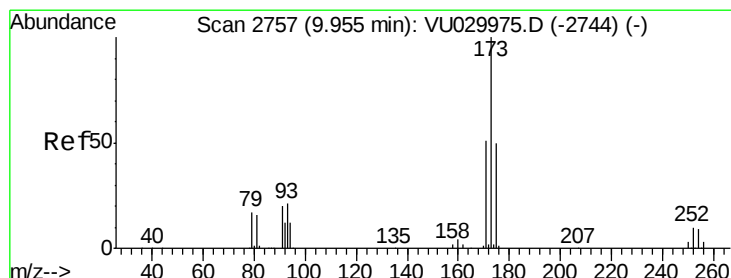
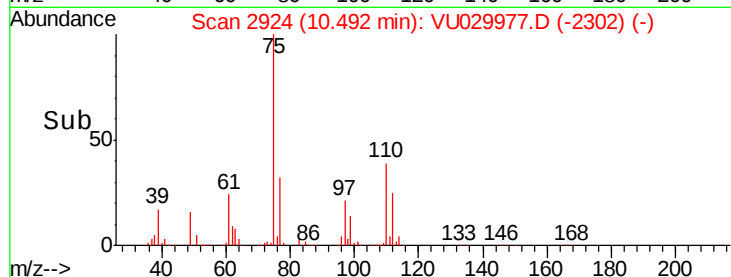
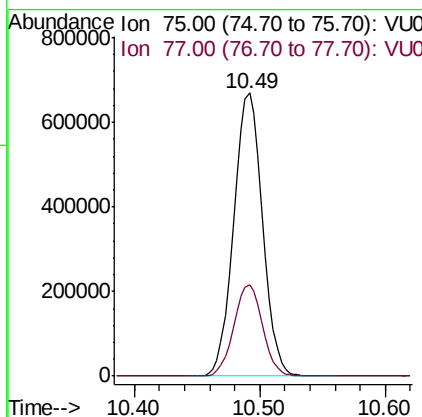
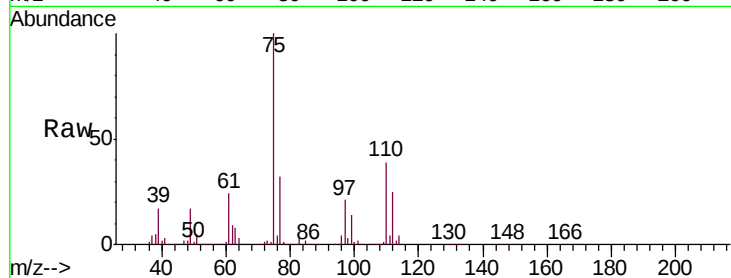




#59  
 1,2,3-Trichloropropane  
 Concen: 215.633 ug/L  
 RT: 10.49 min Scan# 2924  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

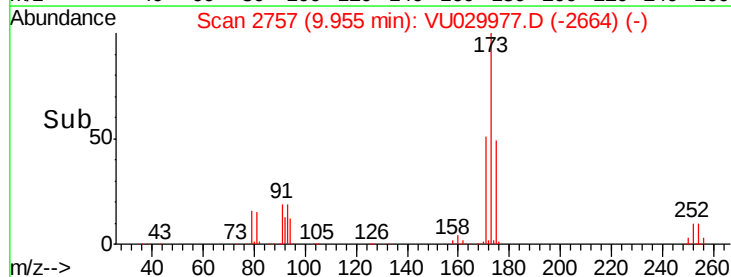
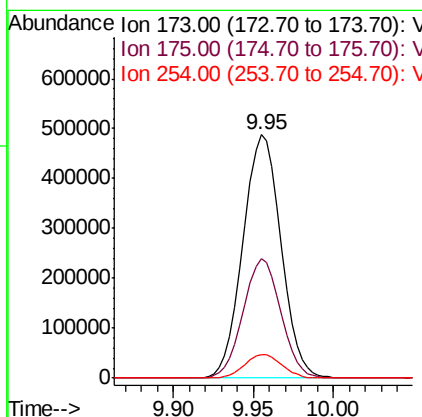
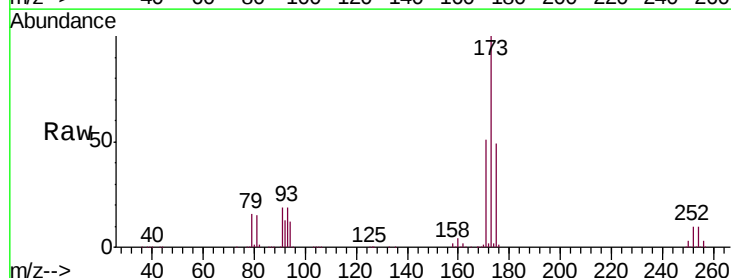
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

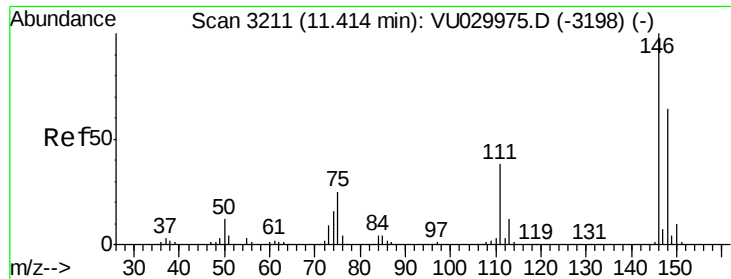
Tgt Ion: 75 Resp: 1065150  
 Ion Ratio Lower Upper  
 75 100  
 77 32.4 25.8 38.8



#61  
 Bromoform  
 Concen: 227.342 ug/L  
 RT: 9.95 min Scan# 2757  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Tgt Ion: 173 Resp: 792810  
 Ion Ratio Lower Upper  
 173 100  
 175 48.5 39.0 58.6  
 254 9.5 7.4 11.0





#62

1,3-Dichlorobenzene

Concen: 211.200 ug/L

RT: 11.41 min Scan# 3211

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

VSTD20047

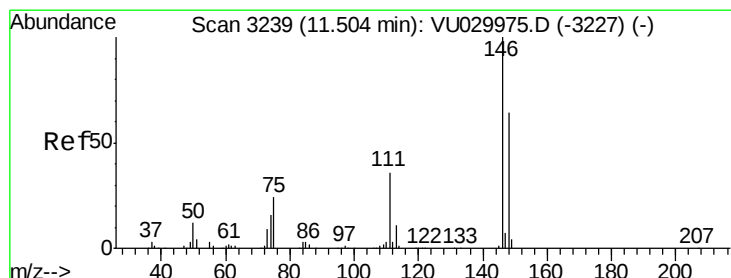
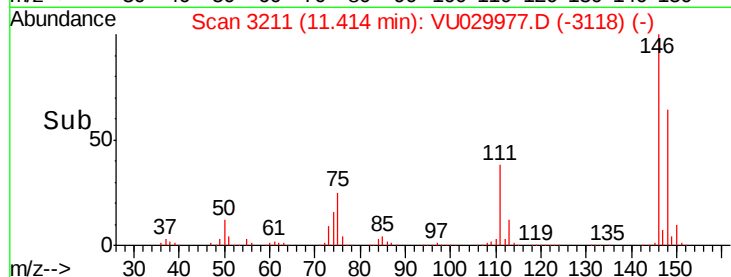
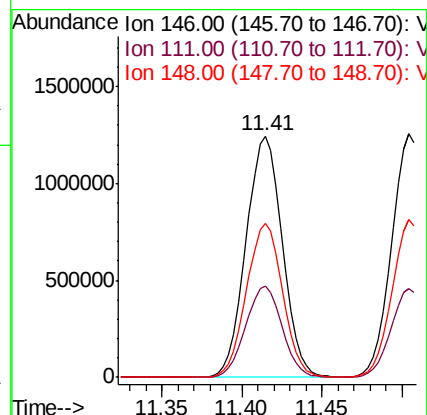
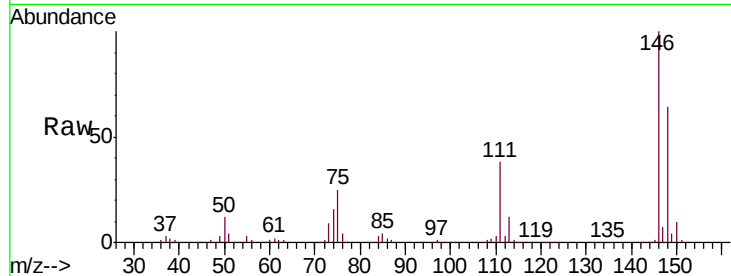
Tgt Ion:146 Resp: 1925550

Ion Ratio Lower Upper

146 100

111 37.7 26.7 49.5

148 64.1 44.9 83.5



#63

1,4-Dichlorobenzene

Concen: 207.320 ug/L

RT: 11.50 min Scan# 3239

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

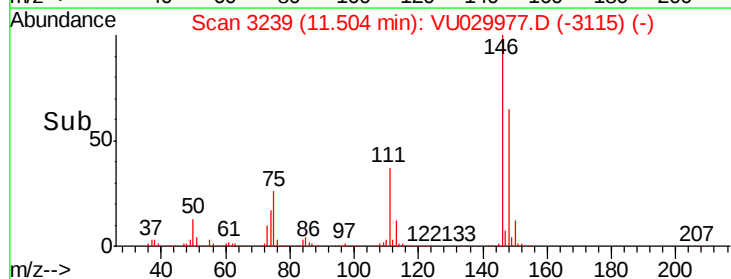
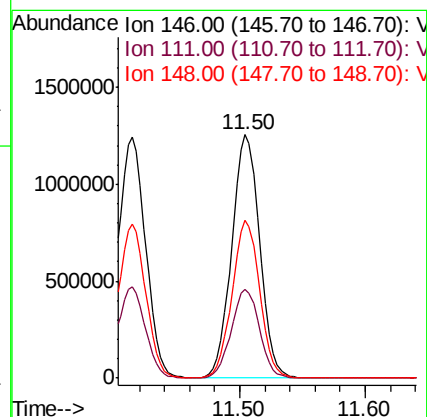
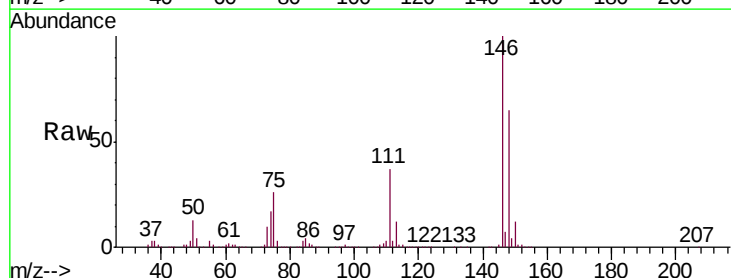
Tgt Ion:146 Resp: 1935495

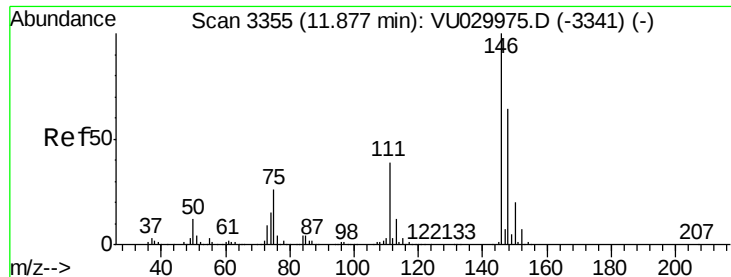
Ion Ratio Lower Upper

146 100

111 36.6 25.5 47.3

148 64.6 45.0 83.6

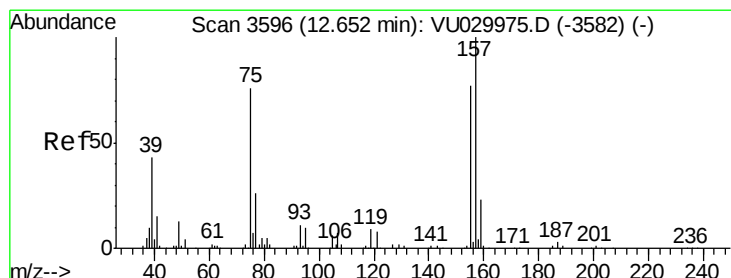
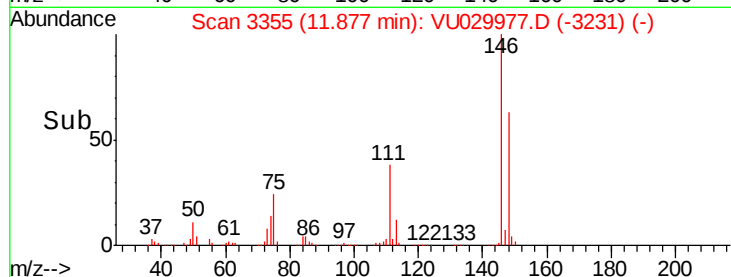
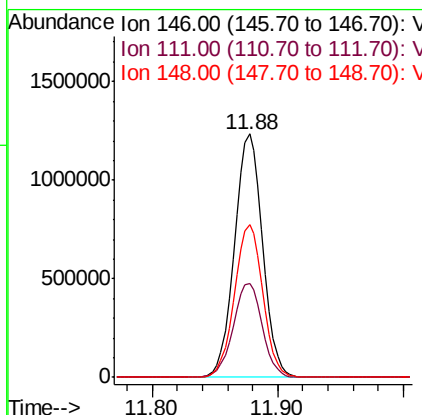
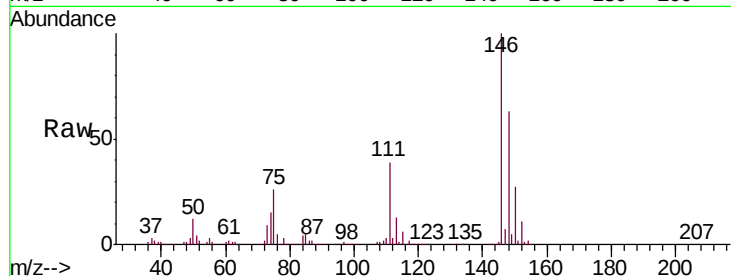




#65  
 1,2-Dichlorobenzene  
 Concen: 205.660 ug/L  
 RT: 11.88 min Scan# 3355  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

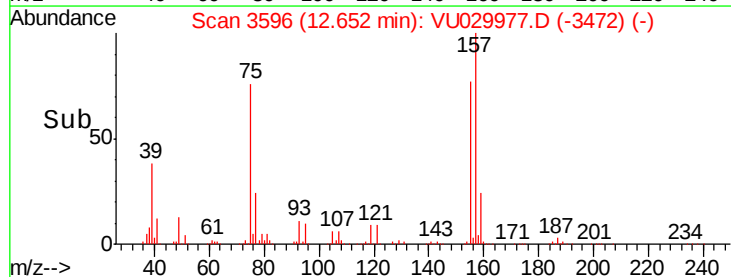
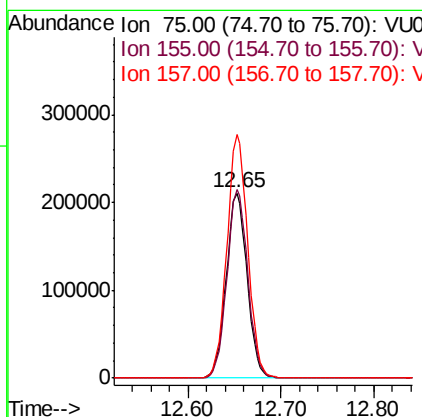
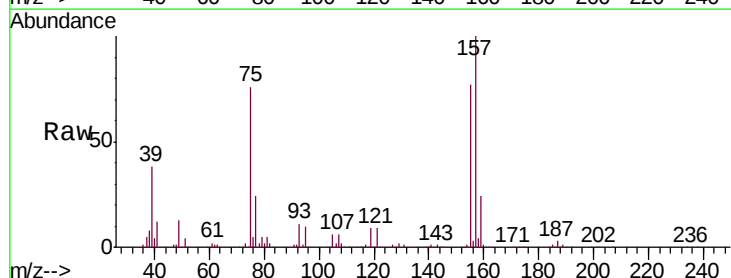
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

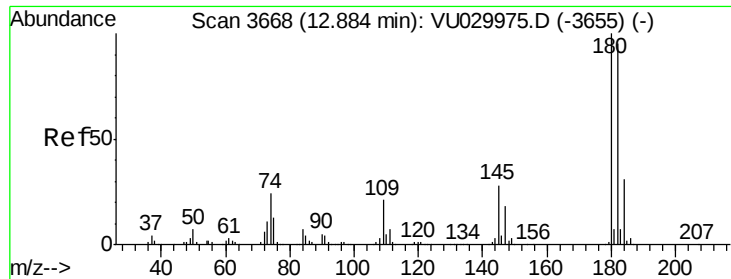
Tgt Ion:146 Resp: 1912645  
 Ion Ratio Lower Upper  
 146 100  
 111 38.7 30.9 46.3  
 148 62.6 51.2 76.8



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 222.543 ug/L  
 RT: 12.65 min Scan# 3596  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Tgt Ion: 75 Resp: 329229  
 Ion Ratio Lower Upper  
 75 100  
 155 101.7 80.9 121.3  
 157 131.7 104.6 156.8

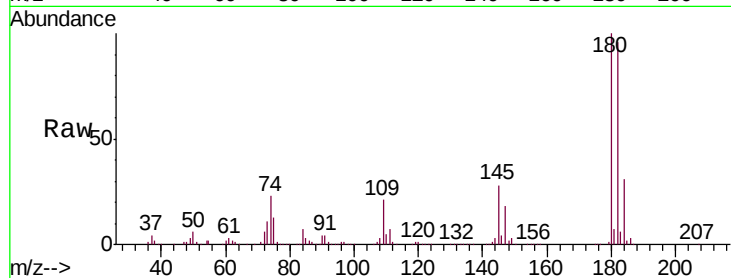




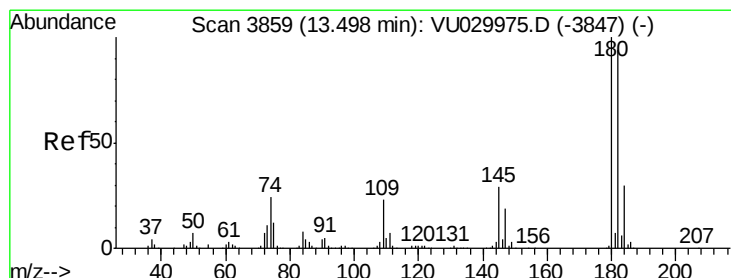
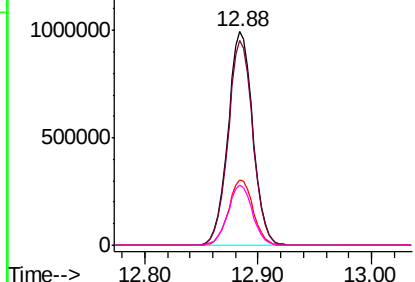
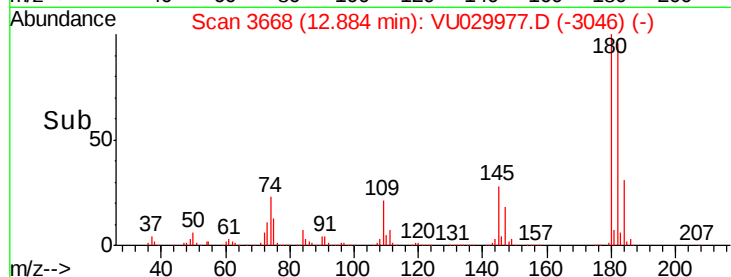
#67  
 1,3,5-Trichlorobenzene  
 Concen: 216.952 ug/L  
 RT: 12.88 min Scan# 3668  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD20047

Tgt Ion:180 Resp: 1510352  
 Ion Ratio Lower Upper  
 180 100  
 182 95.6 76.3 114.5  
 184 30.5 24.7 37.1  
 145 28.0 22.3 33.5

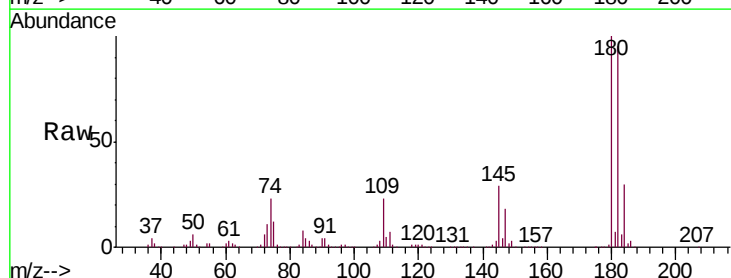


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

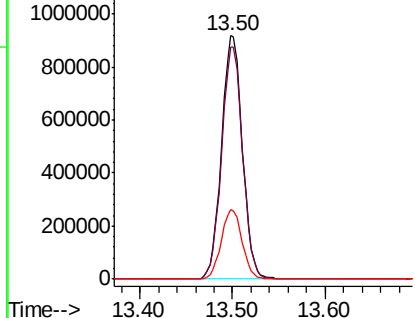
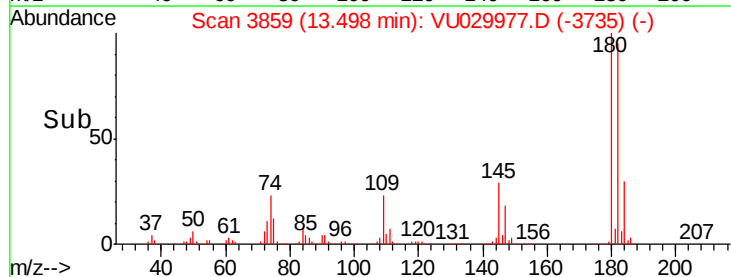


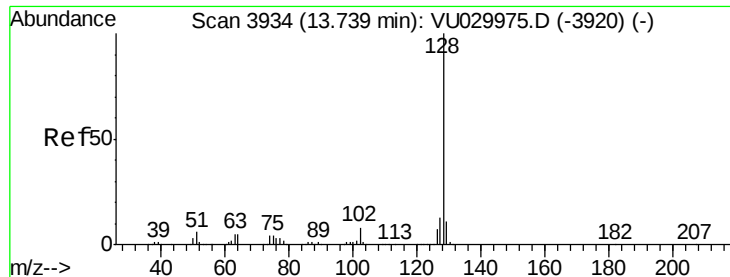
#68  
 1,2,4-trichlorobenzene  
 Concen: 229.303 ug/L  
 RT: 13.50 min Scan# 3859  
 Delta R.T. -0.00 min  
 Lab File: VU029977.D  
 Acq: 11 Mar 2019 19:32

Tgt Ion:180 Resp: 1429728  
 Ion Ratio Lower Upper  
 180 100  
 182 95.8 76.1 114.1  
 145 28.7 23.0 34.4



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: 240.170 ug/L

RT: 13.74 min Scan# 3934

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

Instrument :

MSVOA\_U

ClientSampleId :

VSTD20047

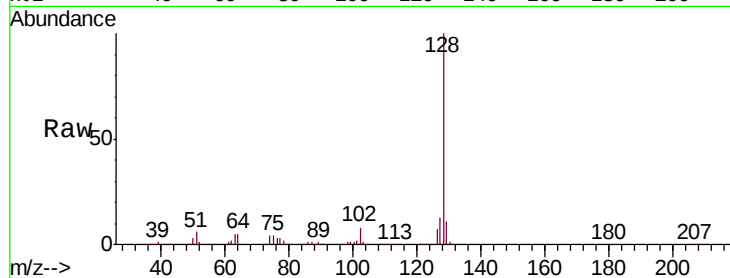
Tgt Ion:128 Resp: 4716633

Ion Ratio Lower Upper

128 100

127 12.7 10.1 15.1

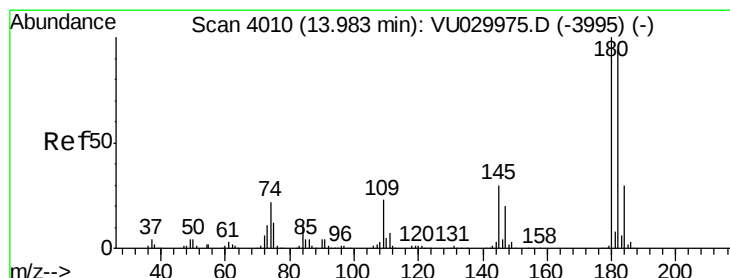
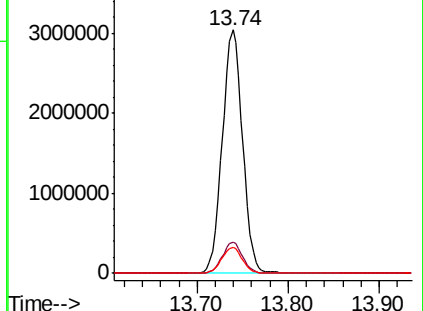
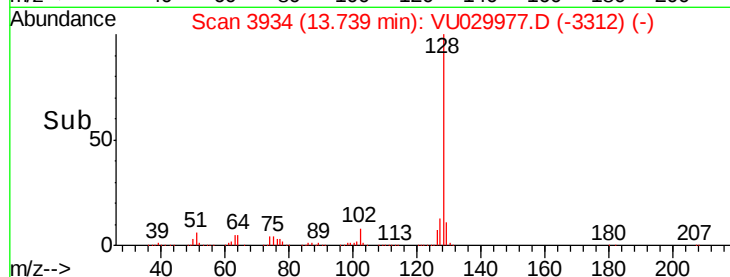
129 10.9 8.7 13.1



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: 216.969 ug/L

RT: 13.98 min Scan# 4010

Delta R.T. -0.00 min

Lab File: VU029977.D

Acq: 11 Mar 2019 19:32

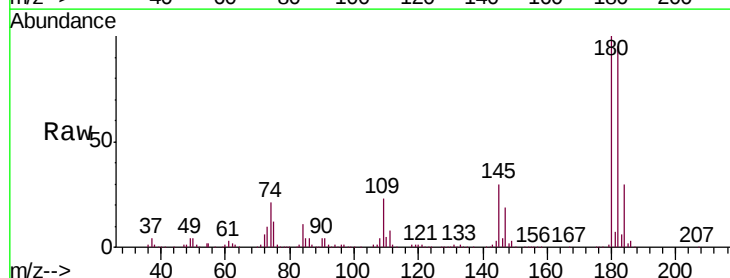
Tgt Ion:180 Resp: 1425625

Ion Ratio Lower Upper

180 100

182 95.9 75.9 113.9

145 30.6 24.0 36.0



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

