

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU040519\  
 Data File : VU030688.D  
 Acq On : 04 Apr 2019 16:52  
 Operator : JC/SP  
 Sample : VSTD01047  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

Quant Time: Apr 05 01:45:23 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM040519WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Apr 05 01:40:29 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.88  | 114  | 489772   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 473852   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 209414   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |       |      |      |
|--------------------------------|-------|-----|--------|-------|------|------|
| 4) Vinyl Chloride-d3           | 1.40  | 65  | 45110  | 9.98  | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.68  | 69  | 33960  | 9.95  | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.27  | 63  | 79147  | 9.80  | ug/L | 0.00 |
| 21) 2-Butanone-d5              | 4.19  | 46  | 65912  | 19.97 | ug/L | 0.02 |
| 24) Chloroform-d               | 4.65  | 84  | 65511  | 9.89  | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.31  | 65  | 45573  | 9.82  | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.34  | 84  | 138339 | 10.02 | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.33  | 67  | 47772  | 10.08 | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.56  | 98  | 119038 | 9.84  | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 7.86  | 79  | 19341  | 9.51  | ug/L | 0.00 |
| 47) 2-Hexanone-d5              | 8.31  | 63  | 37826  | 19.04 | ug/L | 0.00 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43 | 84  | 62125  | 9.79  | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 11.86 | 152 | 41691  | 9.98  | ug/L | 0.00 |

## Target Compounds

|                                |      |     |        |        | Qvalue   |
|--------------------------------|------|-----|--------|--------|----------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 42747  | 9.448  | ug/L 99  |
| 3) Chloromethane               | 1.32 | 50  | 55764  | 9.475  | ug/L 100 |
| 5) Vinyl chloride              | 1.40 | 62  | 54241  | 9.573  | ug/L 94  |
| 6) Bromomethane                | 1.63 | 94  | 28214  | 9.659  | ug/L 96  |
| 8) Chloroethane                | 1.70 | 64  | 31799  | 9.832  | ug/L 97  |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 61696  | 9.412  | ug/L 99  |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 33973  | 9.234  | ug/L 99  |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 32100  | 9.196  | ug/L 82  |
| 13) Acetone                    | 2.32 | 43  | 73788  | 19.276 | ug/L 99  |
| 14) Carbon disulfide           | 2.48 | 76  | 101660 | 9.345  | ug/L 98  |
| 15) Methyl Acetate             | 2.62 | 43  | 51665  | 9.357  | ug/L 99  |
| 16) Methylene chloride         | 2.70 | 84  | 40142  | 9.257  | ug/L 99  |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 34727  | 9.206  | ug/L 97  |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 113767 | 9.269  | ug/L 98  |
| 19) 1,1-Dichloroethane         | 3.44 | 63  | 72887  | 9.499  | ug/L 96  |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 38748  | 9.532  | ug/L 96  |
| 22) 2-Butanone                 | 4.27 | 43  | 76872  | 18.952 | ug/L 95  |
| 23) Bromochloromethane         | 4.55 | 128 | 17482  | 9.150  | ug/L 91  |
| 25) Chloroform                 | 4.67 | 83  | 72612  | 9.247  | ug/L 99  |
| 27) 1,2-Dichloroethane         | 5.41 | 62  | 56948  | 9.678  | ug/L 99  |
| 29) Cyclohexane                | 4.99 | 56  | 63879  | 9.490  | ug/L 100 |
| 30) 1,1,1-Trichloroethane      | 4.91 | 97  | 56520  | 9.572  | ug/L 98  |
| 31) Carbon tetrachloride       | 5.13 | 117 | 47723  | 9.401  | ug/L 100 |
| 33) Benzene                    | 5.39 | 78  | 153006 | 9.741  | ug/L 100 |
| 34) Trichloroethene            | 6.19 | 95  | 36434  | 9.424  | ug/L 94  |
| 35) Methylcyclohexane          | 6.41 | 83  | 53774  | 9.284  | ug/L 95  |
| 37) 1,2-Dichloropropane        | 6.43 | 63  | 44609  | 9.956  | ug/L 98  |
| 38) Bromodichloromethane       | 6.76 | 83  | 50412  | 9.382  | ug/L 99  |
| 39) cis-1,3-Dichloropropene    | 7.27 | 75  | 55104  | 9.244  | ug/L 100 |
| 40) 4-Methyl-2-pentanone       | 7.46 | 43  | 129848 | 19.027 | ug/L 99  |

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 Sample : VSTD01047  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 3 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

Quant Time: Apr 05 01:45:23 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM040519WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Fri Apr 05 01:40:29 2019  
 Response via : Initial Calibration

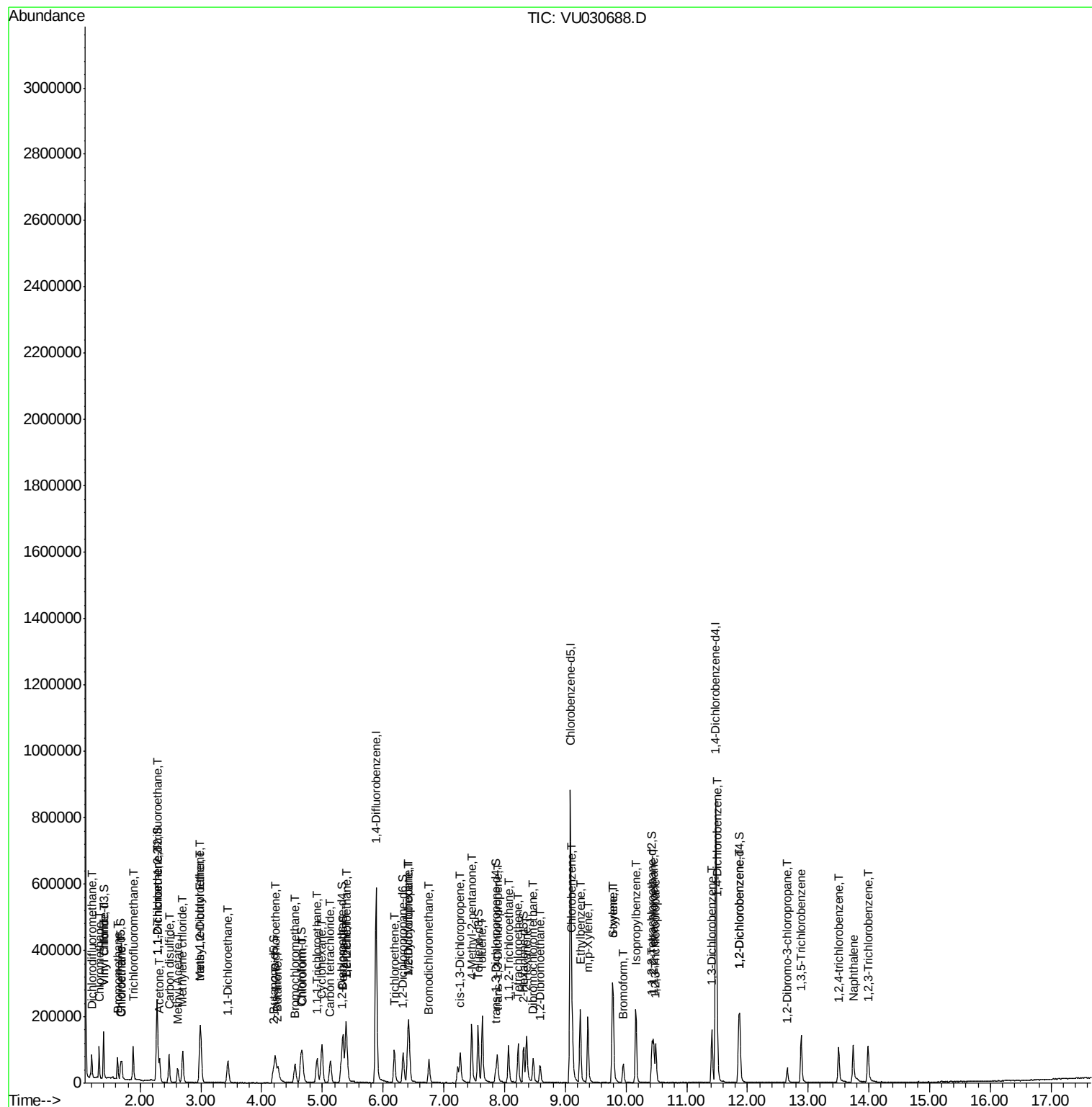
| Internal Standards             | R.T.  | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|-------|------|----------|--------|-------|----------|
| 42) Toluene                    | 7.64  | 91   | 150472   | 9.499  | ug/L  | 98       |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 49380    | 9.358  | ug/L  | 94       |
| 45) 1,1,2-Trichloroethane      | 8.06  | 97   | 35699    | 9.453  | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.22  | 164  | 27422    | 9.650  | ug/L  | 97       |
| 48) 2-Hexanone                 | 8.36  | 43   | 98048    | 18.692 | ug/L  | 98       |
| 49) Dibromochloromethane       | 8.47  | 129  | 37785    | 9.527  | ug/L  | 95       |
| 50) 1,2-Dibromoethane          | 8.58  | 107  | 38528    | 9.489  | ug/L  | 99       |
| 51) Chlorobenzene              | 9.12  | 112  | 92155    | 9.338  | ug/L  | 98       |
| 52) Ethylbenzene               | 9.25  | 91   | 160946   | 9.368  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.37  | 106  | 55187    | 9.412  | ug/L  | 99       |
| 54) o-xylene                   | 9.78  | 106  | 54949    | 9.325  | ug/L  | 94       |
| 55) Styrene                    | 9.79  | 104  | 90388    | 9.106  | ug/L  | 97       |
| 56) Isopropylbenzene           | 10.16 | 105  | 142934   | 9.235  | ug/L  | 99       |
| 58) 1,1,2,2-Tetrachloroethane  | 10.45 | 83   | 65364    | 9.577  | ug/L  | 97       |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 49361    | 9.303  | ug/L  | 97       |
| 61) Bromoform                  | 9.95  | 173  | 26919    | 9.581  | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.41 | 146  | 66171    | 9.784  | ug/L  | 95       |
| 63) 1,4-Dichlorobenzene        | 11.50 | 146  | 64427    | 9.339  | ug/L  | 96       |
| 65) 1,2-Dichlorobenzene        | 11.88 | 146  | 64892    | 9.485  | ug/L  | 97       |
| 66) 1,2-Dibromo-3-chloropropan | 12.66 | 75   | 13690    | 9.716  | ug/L  | 91       |
| 67) 1,3,5-Trichlorobenzene     | 12.89 | 180  | 45203    | 9.271  | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 36241    | 9.144  | ug/L  | 100      |
| 69) Naphthalene                | 13.74 | 128  | 113869   | 9.357  | ug/L  | 97       |
| 70) 1,2,3-Trichlorobenzene     | 13.99 | 180  | 38512    | 9.115  | ug/L  | 97       |

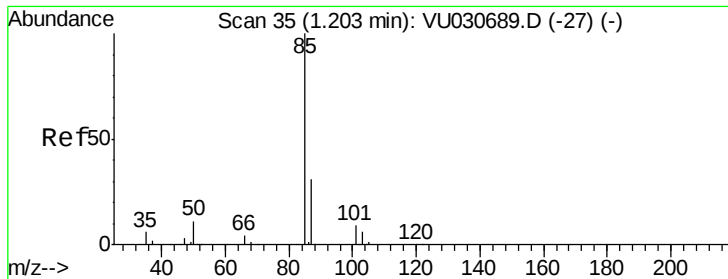
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#2

Dichlorodifluoromethane

Concen: 9.448 ug/L

RT: 1.20 min Scan# 35

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

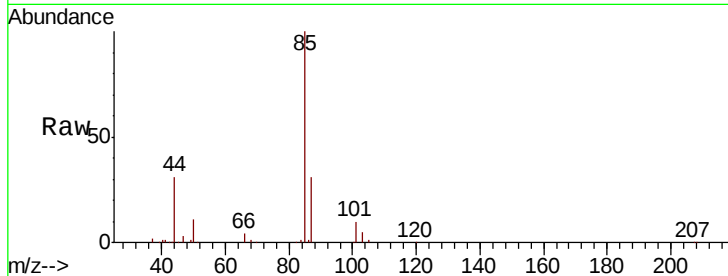
VSTD01047

Tot Ion: 85 Resp: 42747

Ion Ratio Lower Upper

85 100

87 31.7 25.7 38.5

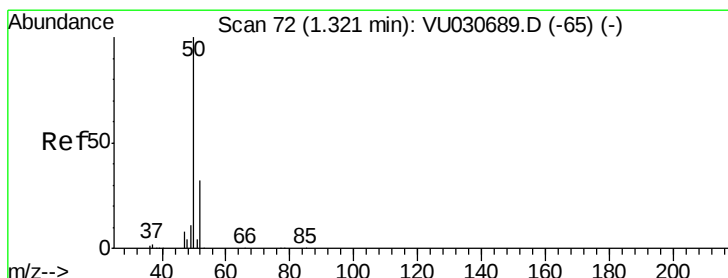
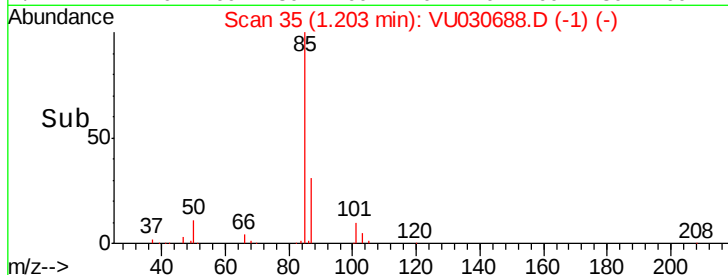


Abundance Ion 85.00 (84.70 to 85.70): VU030689.D (-27) (-)

Ion 87.00 (86.70 to 87.70): VU030689.D (-27) (-)

1.20

Time-->



#3

Chloromethane

Concen: 9.475 ug/L

RT: 1.32 min Scan# 73

Delta R.T. 0.00 min

Lab File: VU030688.D

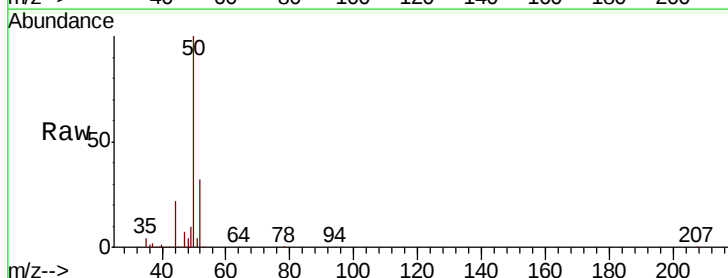
Acq: 04 Apr 2019 16:52

Tgt Ion: 50 Resp: 55764

Ion Ratio Lower Upper

50 100

52 32.3 22.7 42.1

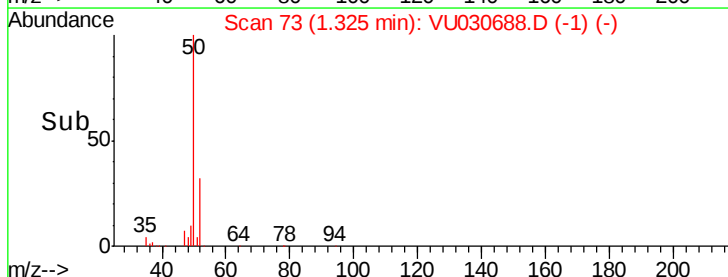


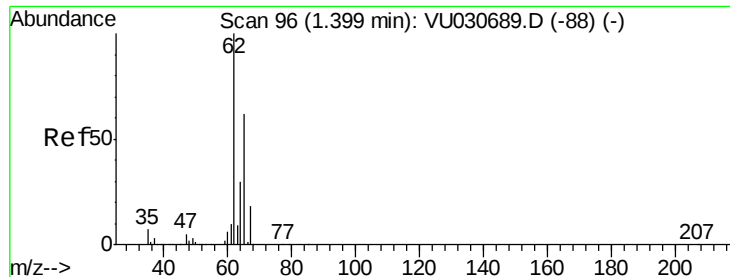
Abundance Ion 50.00 (49.70 to 50.70): VU030689.D (-65) (-)

Ion 52.00 (51.70 to 52.70): VU030689.D (-65) (-)

1.32

Time-->





#5

Vinyl chloride

Concen: 9.573 ug/L

RT: 1.40 min Scan# 96

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

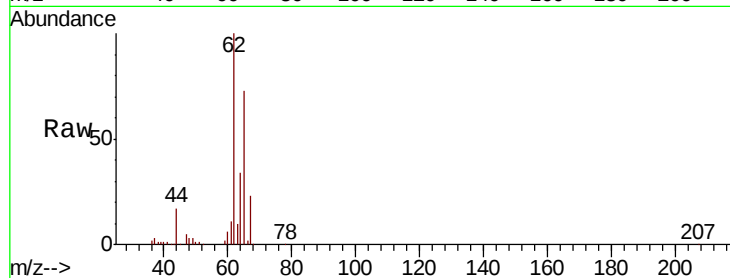
VSTD01047

Tot Ion: 62 Resp: 54241

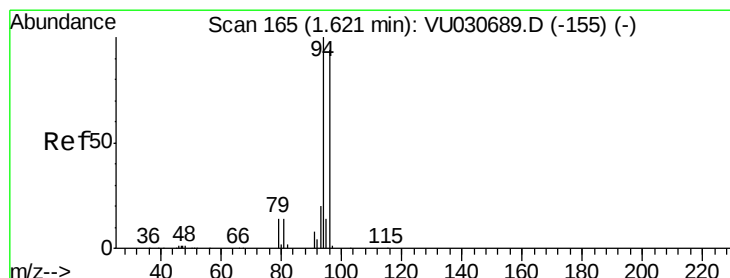
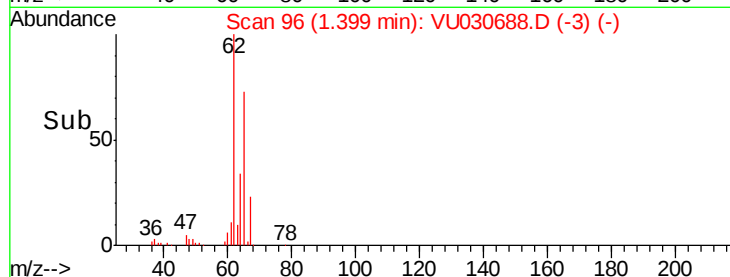
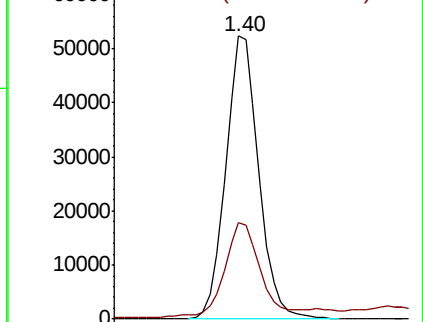
Ion Ratio Lower Upper

62 100

64 34.1 21.5 39.9



Abundance Ion 62.00 (61.70 to 62.70): VU030688.D (-88) (-)



#6

Bromomethane

Concen: 9.659 ug/L

RT: 1.63 min Scan# 167

Delta R.T. 0.01 min

Lab File: VU030688.D

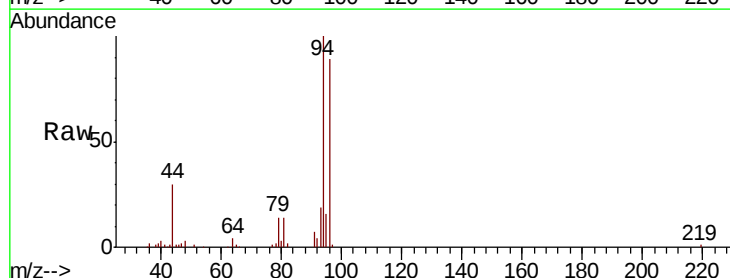
Acq: 04 Apr 2019 16:52

Tgt Ion: 94 Resp: 28214

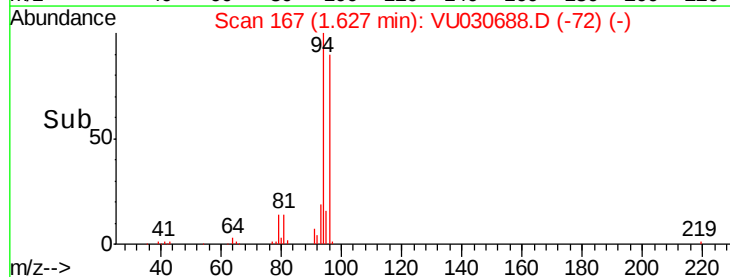
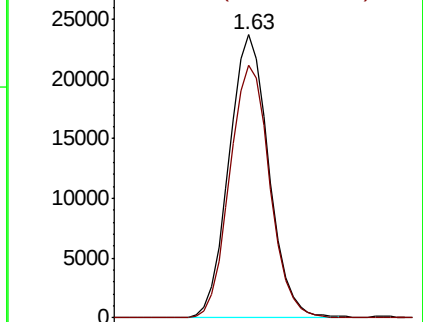
Ion Ratio Lower Upper

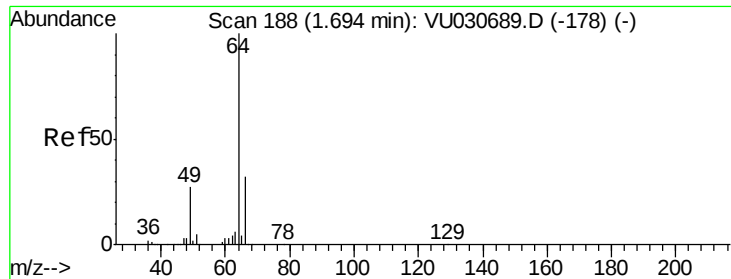
94 100

96 89.3 65.5 121.7



Abundance Ion 94.00 (93.70 to 94.70): VU030688.D (-155) (-)





#8

Chloroethane

Concen: 9.832 ug/L

RT: 1.70 min Scan# 189

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

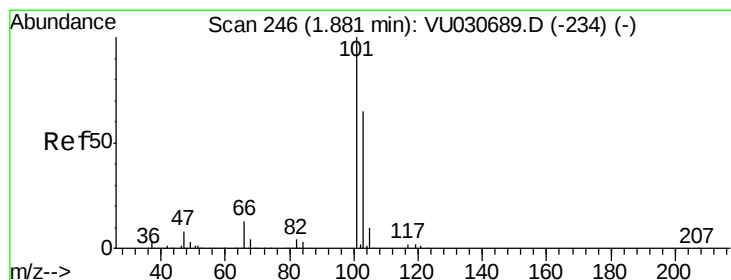
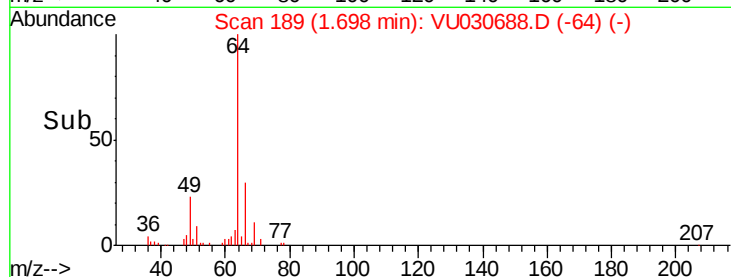
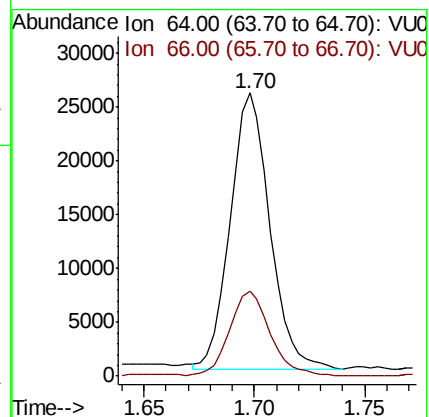
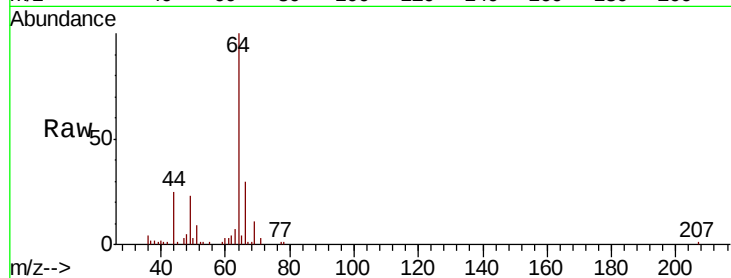
VSTD01047

Tot Ion: 64 Resp: 31799

Ion Ratio Lower Upper

64 100

66 30.1 22.4 41.6



#9

Trichlorofluoromethane

Concen: 9.412 ug/L

RT: 1.88 min Scan# 247

Delta R.T. 0.00 min

Lab File: VU030688.D

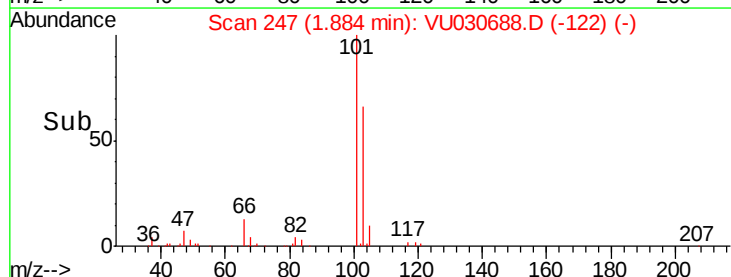
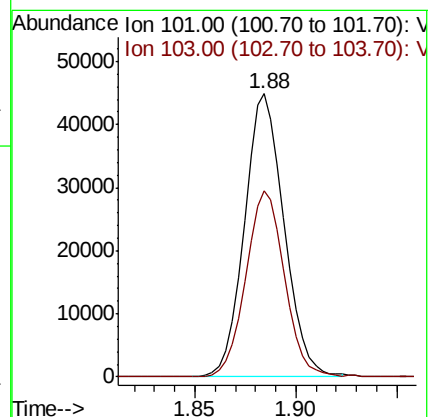
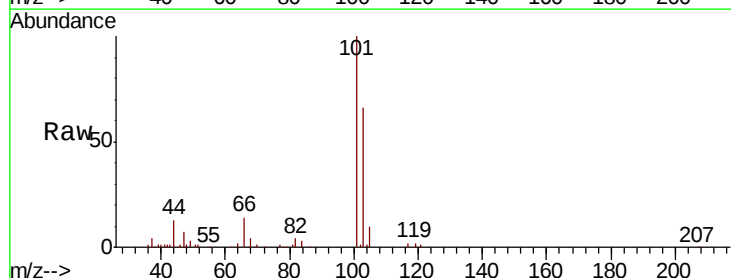
Acq: 04 Apr 2019 16:52

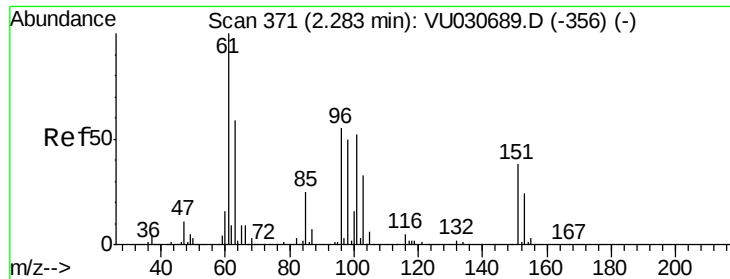
Tgt Ion: 101 Resp: 61696

Ion Ratio Lower Upper

101 100

103 64.2 51.8 77.8





#10

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

Concen: 9.234 ug/L

RT: 2.28 min Scan# 371

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

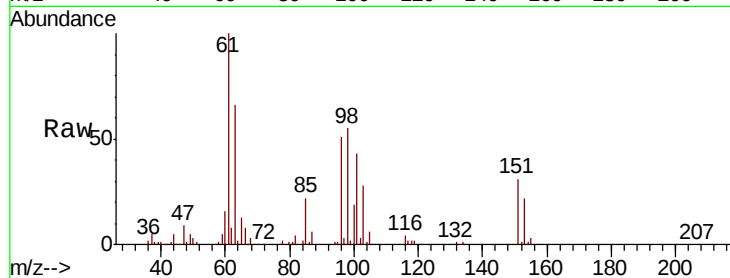
Tot Ion:101 Resp: 33973

Ion Ratio Lower Upper

101 100

85 46.2 36.8 55.2

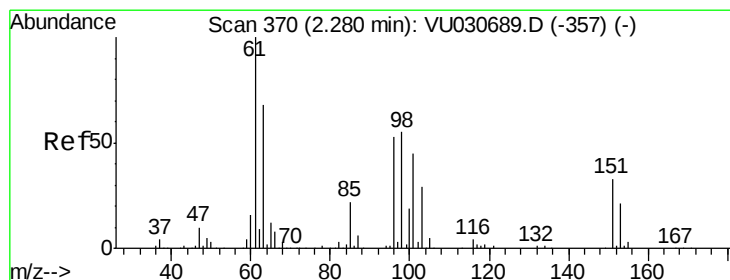
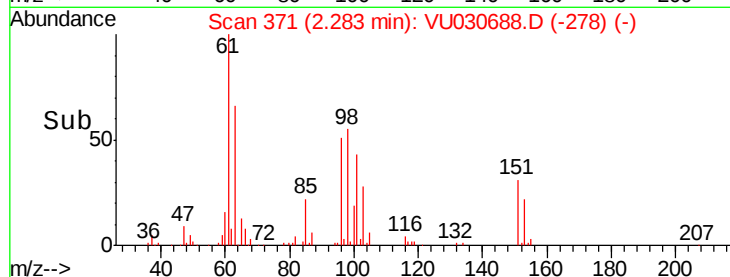
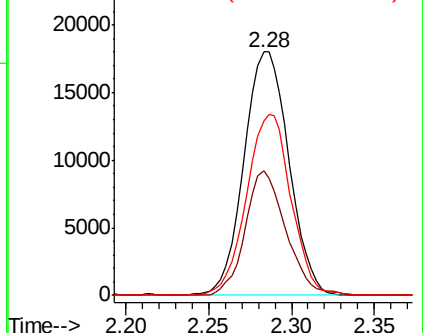
151 73.4 57.4 86.0



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 9.196 ug/L

RT: 2.28 min Scan# 370

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

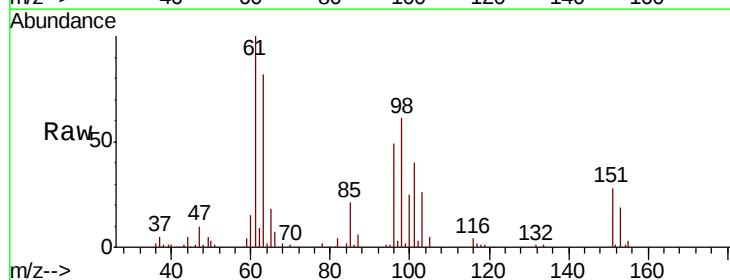
Tgt Ion: 96 Resp: 32100

Ion Ratio Lower Upper

96 100

61 202.3 132.0 245.2

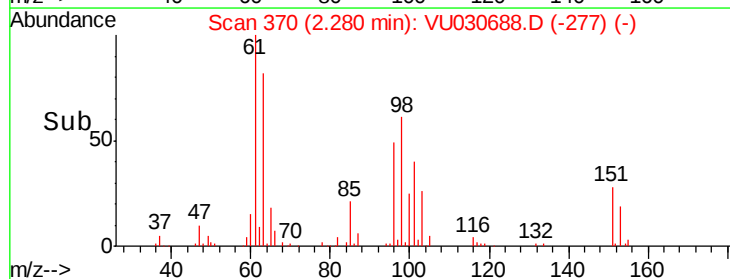
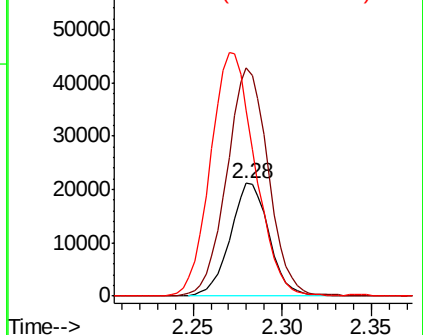
63 165.6 90.9 168.9

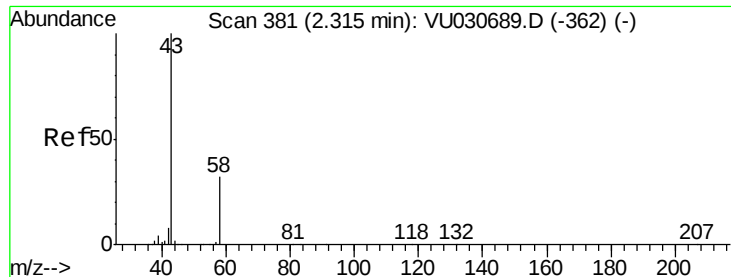


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 19.276 ug/L

RT: 2.32 min Scan# 382

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

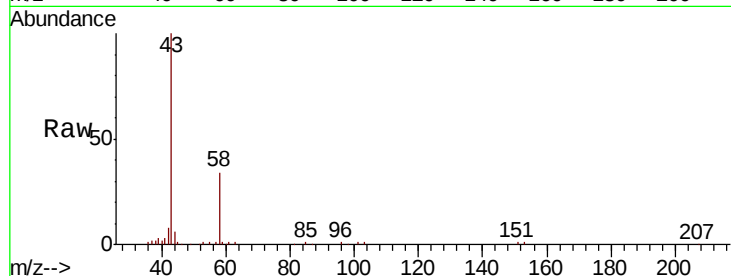
VSTD01047

Tot Ion: 43 Resp: 73788

Ion Ratio Lower Upper

43 100

58 32.5 0.0 64.0



Abundance Ion 43.00 (42.70 to 43.70): VU030688.D (-362) (-)

Ion 58.00 (57.70 to 58.70): VU030688.D (-362) (-)

2.32

40000

30000

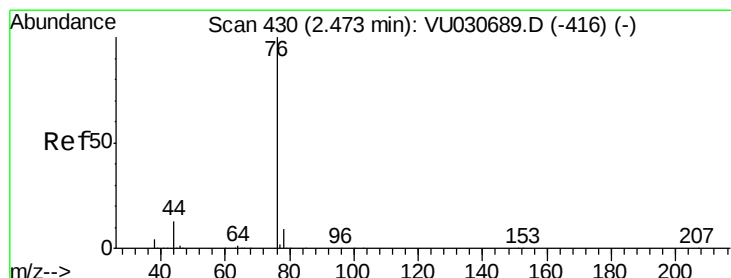
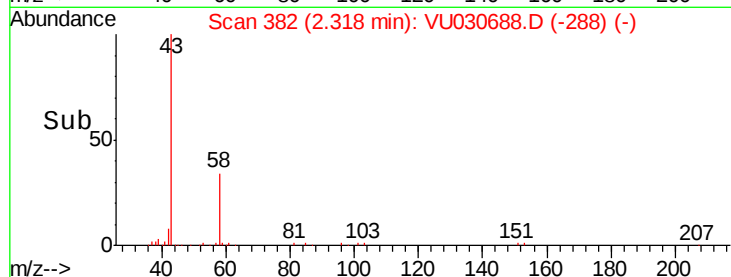
20000

10000

0

2.25 2.30 2.35 2.40

Time-->



#14

Carbon disulfide

Concen: 9.345 ug/L

RT: 2.48 min Scan# 431

Delta R.T. 0.00 min

Lab File: VU030688.D

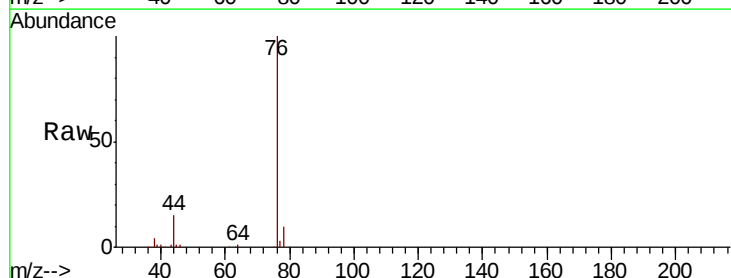
Acq: 04 Apr 2019 16:52

Tgt Ion: 76 Resp: 101660

Ion Ratio Lower Upper

76 100

78 9.5 7.0 10.4



Abundance Ion 76.00 (75.70 to 76.70): VU030688.D (-416) (-)

Ion 78.00 (77.70 to 78.70): VU030688.D (-416) (-)

2.48

60000

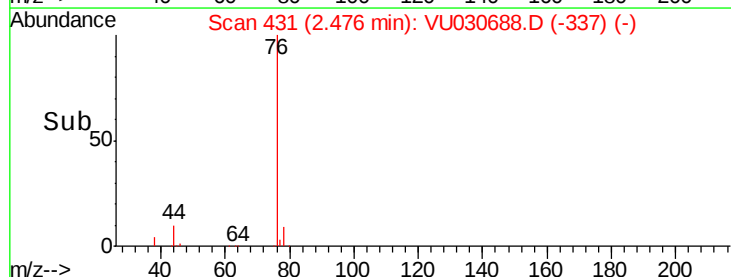
40000

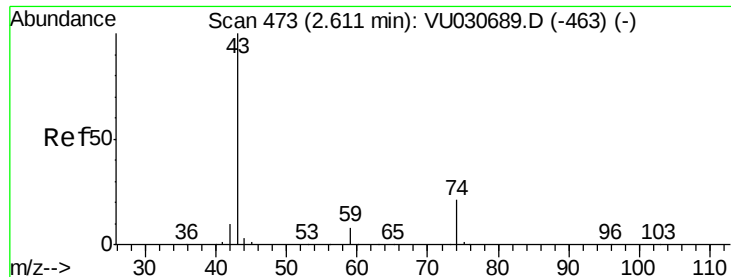
20000

0

2.40 2.45 2.50 2.55

Time-->

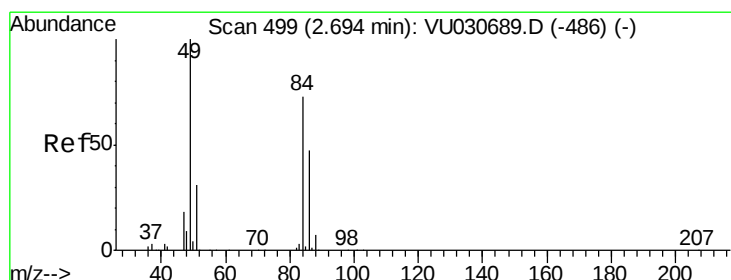
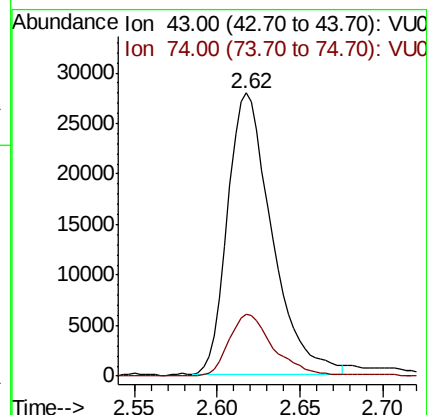
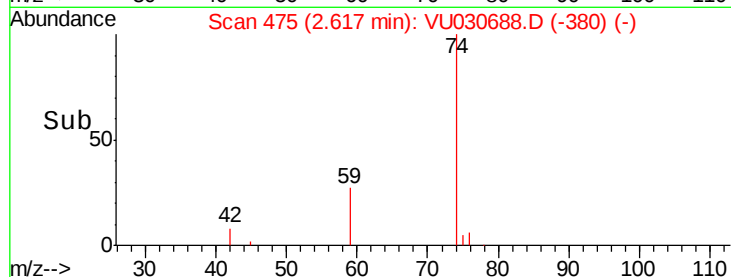
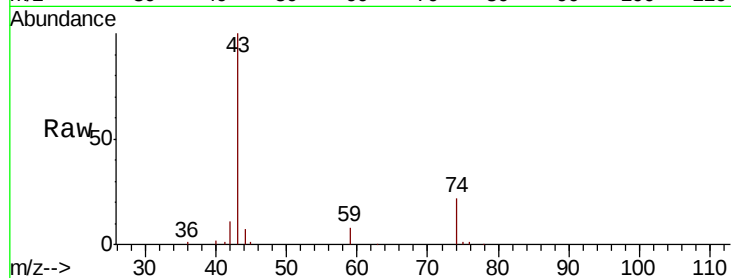




#15  
Methyl Acetate  
Concen: 9.357 ug/L  
RT: 2.62 min Scan# 475  
Delta R.T. 0.01 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

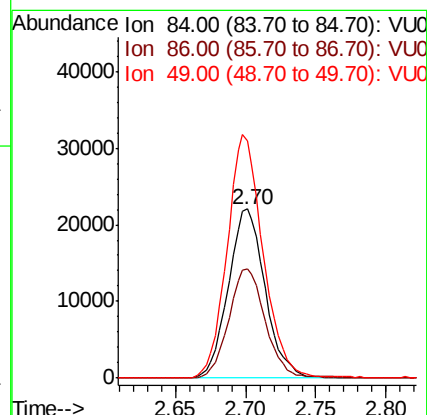
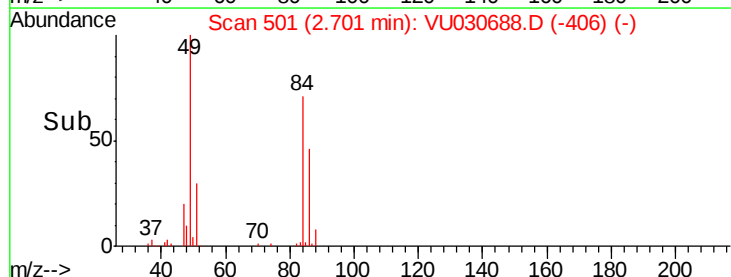
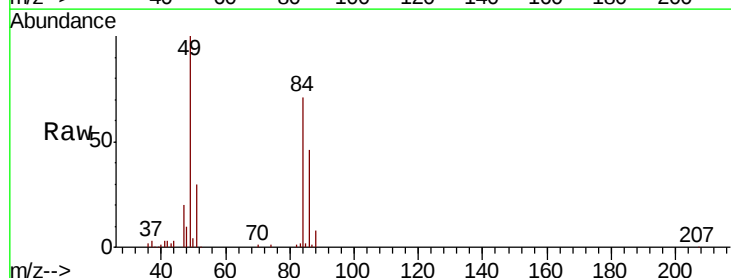
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD01047

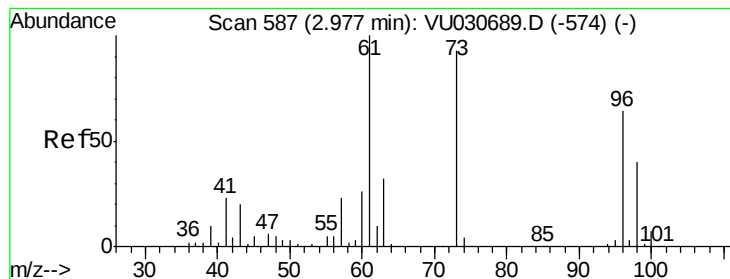
Tot Ion: 43 Resp: 51665  
Ion Ratio Lower Upper  
43 100  
74 22.1 17.1 25.7



#16  
Methylene chloride  
Concen: 9.257 ug/L  
RT: 2.70 min Scan# 501  
Delta R.T. 0.01 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

Tgt Ion: 84 Resp: 40142  
Ion Ratio Lower Upper  
84 100  
86 64.4 45.1 83.7  
49 140.2 96.5 179.1





#17

trans-1,2-Dichloroethene

Concen: 9.206 ug/L

RT: 2.98 min Scan# 589

Delta R.T. 0.01 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

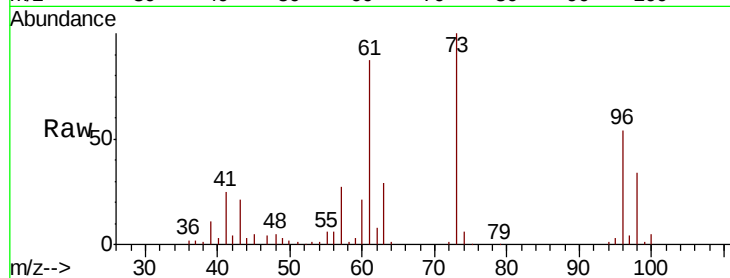
Tot Ion: 96 Resp: 34727

Ion Ratio Lower Upper

96 100

61 162.0 109.5 203.3

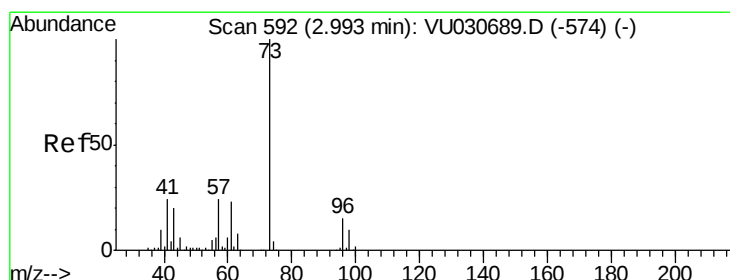
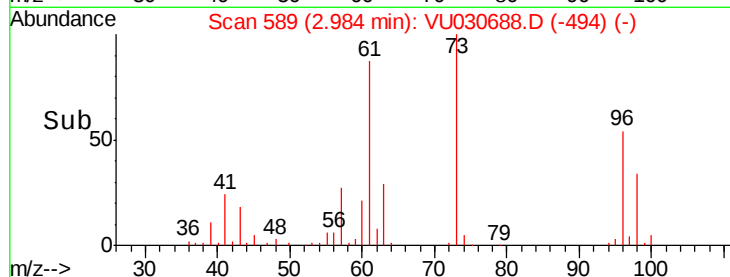
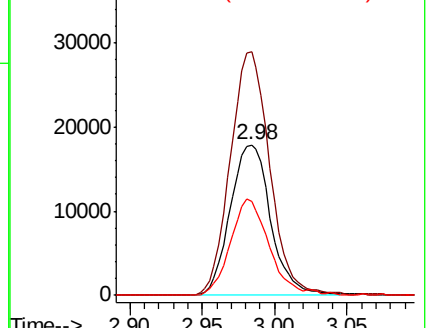
98 62.5 44.0 81.6



Abundance Ion 96.00 (95.70 to 96.70): VU030688.D (-494) (-)

Ion 61.00 (60.70 to 61.70): VU030688.D (-494) (-)

Ion 98.00 (97.70 to 98.70): VU030688.D (-494) (-)



#18

Methyl tert-butyl Ether

Concen: 9.269 ug/L

RT: 3.00 min Scan# 593

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

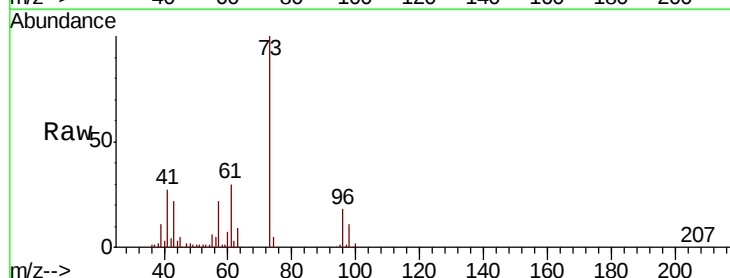
Tgt Ion: 73 Resp: 113767

Ion Ratio Lower Upper

73 100

43 21.8 16.4 24.6

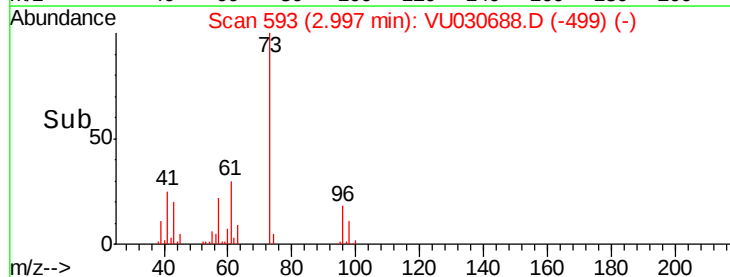
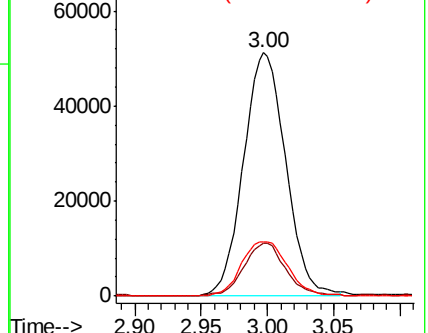
57 24.4 19.0 28.4

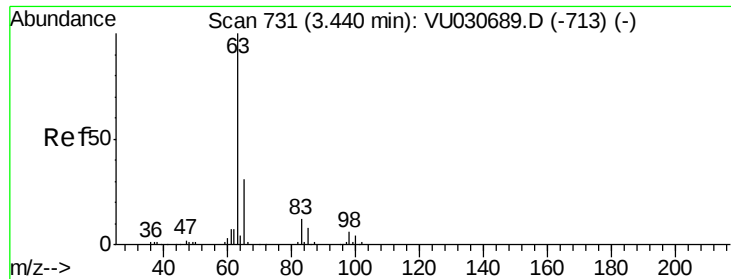


Abundance Ion 73.00 (72.70 to 73.70): VU030688.D (-499) (-)

Ion 43.00 (42.70 to 43.70): VU030688.D (-499) (-)

Ion 57.00 (56.70 to 57.70): VU030688.D (-499) (-)

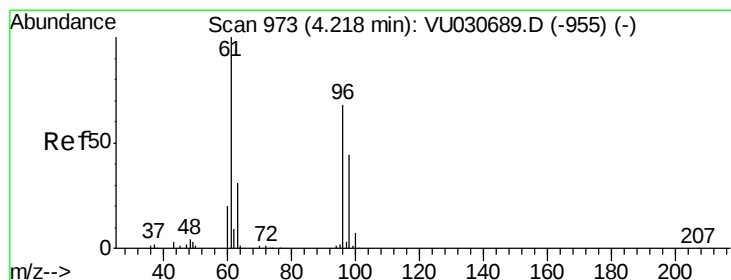
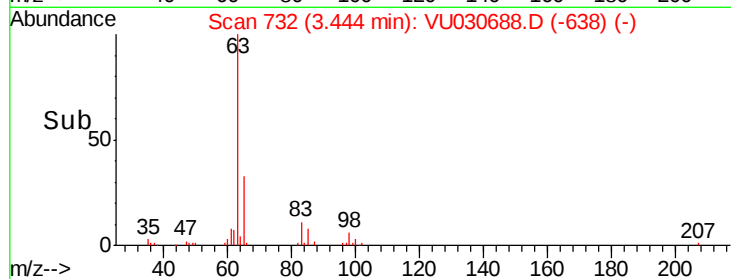
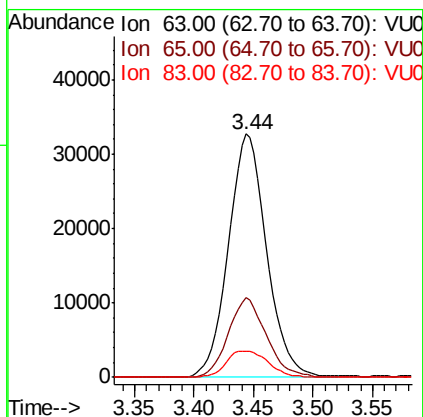
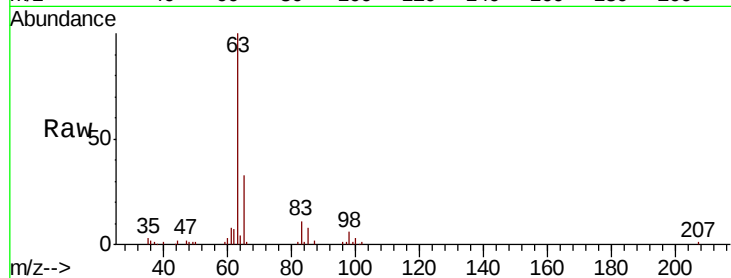




#19  
 1,1-Dichloroethane  
 Concen: 9.499 ug/L  
 RT: 3.44 min Scan# 732  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

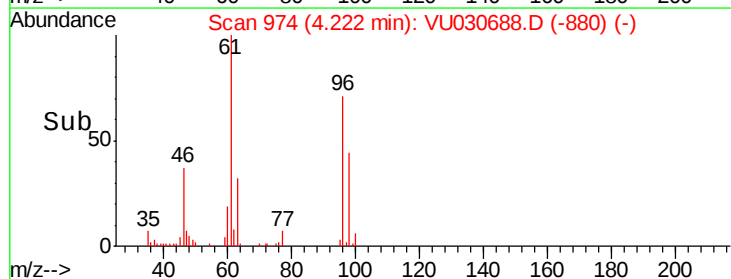
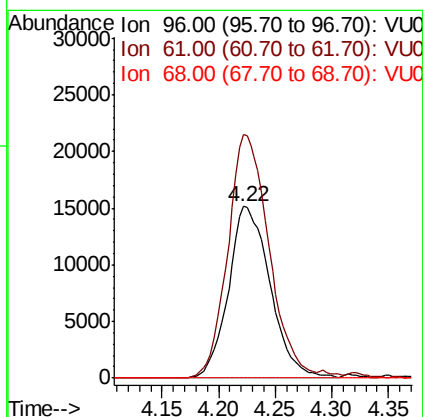
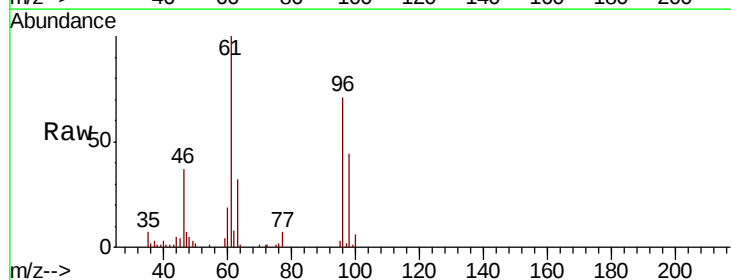
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

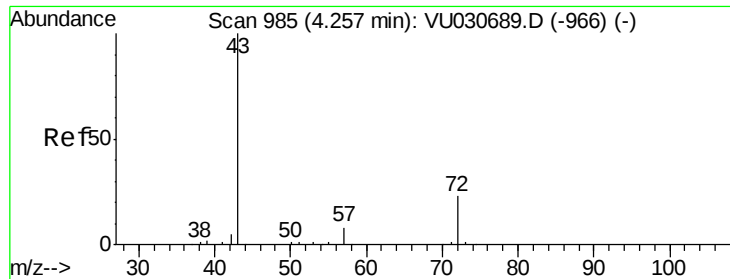
Tot Ion: 63 Resp: 72887  
 Ion Ratio Lower Upper  
 63 100  
 65 32.5 21.4 39.8  
 83 10.7 8.5 15.7



#20  
 cis-1,2-Dichloroethene  
 Concen: 9.532 ug/L  
 RT: 4.22 min Scan# 974  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

Tgt Ion: 96 Resp: 38748  
 Ion Ratio Lower Upper  
 96 100  
 61 141.8 102.9 191.1  
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 18.952 ug/L

RT: 4.27 min Scan# 989

Delta R.T. 0.01 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

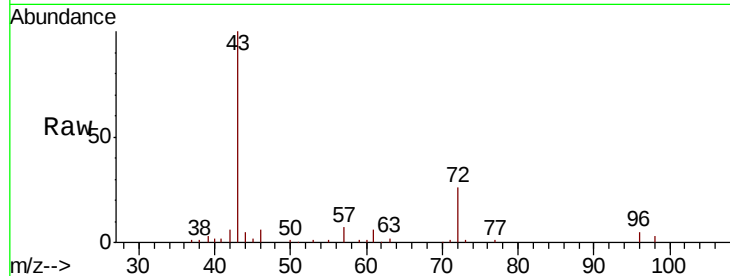
VSTD01047

Tot Ion: 43 Resp: 76872

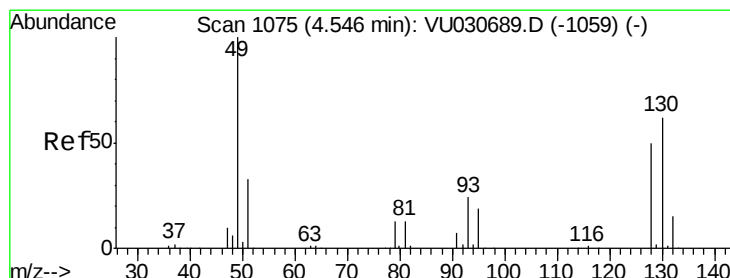
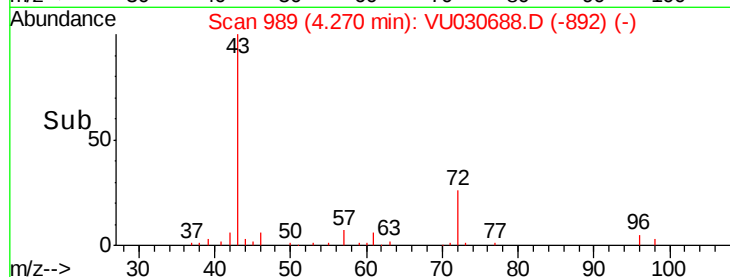
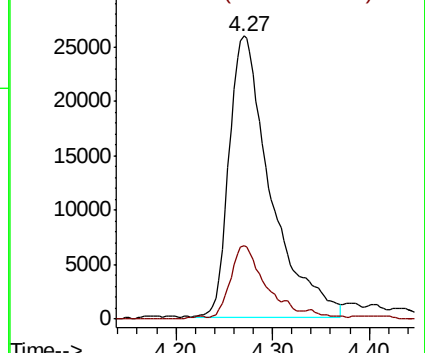
Ion Ratio Lower Upper

43 100

72 19.1 10.8 32.4



Abundance Ion 43.00 (42.70 to 43.70): VU030688.D (-989) (-)



#23

Bromochloromethane

Concen: 9.150 ug/L

RT: 4.55 min Scan# 1076

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Tgt Ion: 128 Resp: 17482

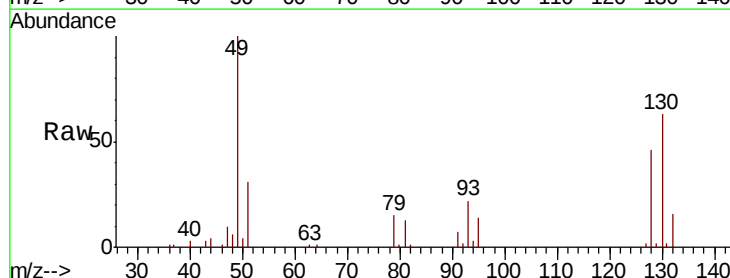
Ion Ratio Lower Upper

128 100

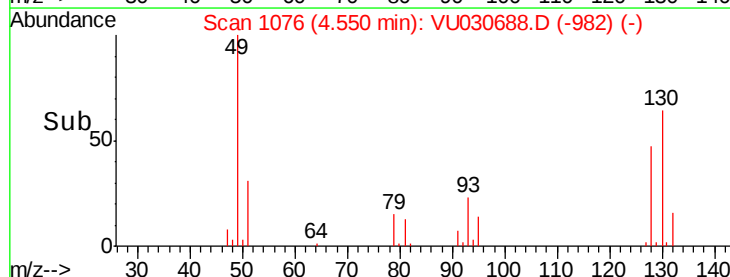
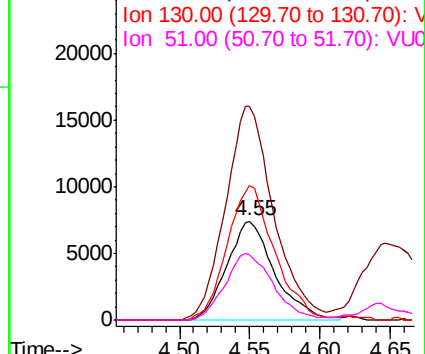
49 216.5 139.9 259.7

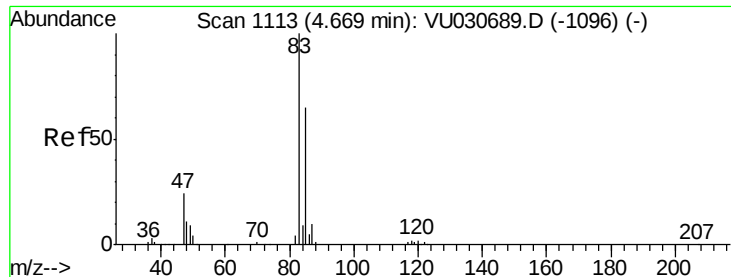
130 136.2 86.6 160.8

51 66.3 52.2 78.4



Abundance Ion 128.00 (127.70 to 128.70): VU030688.D (-982) (-)





#25

Chloroform

Concen: 9.247 ug/L

RT: 4.67 min Scan# 1113

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

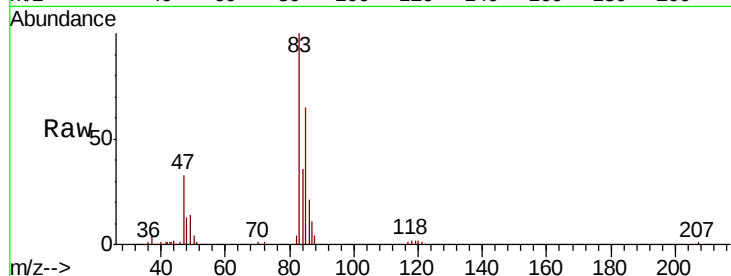
VSTD01047

Tot Ion: 83 Resp: 72612

Ion Ratio Lower Upper

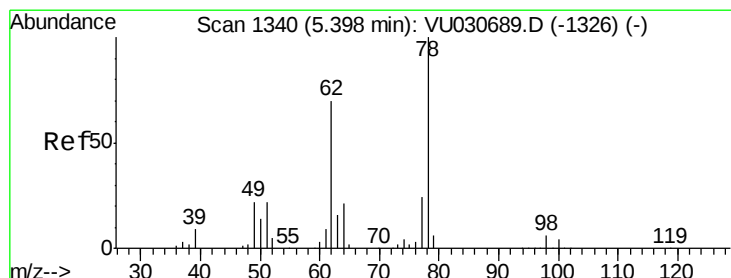
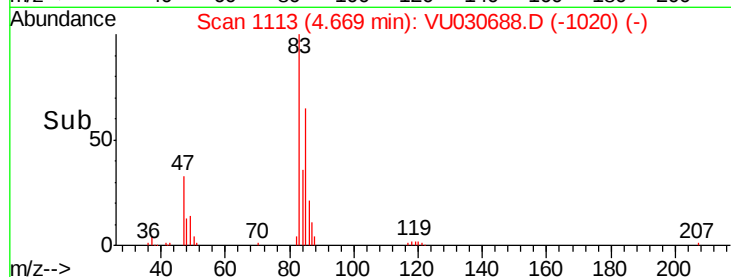
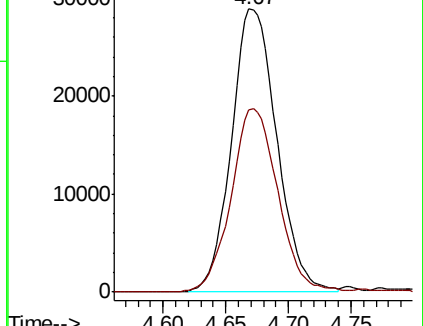
83 100

85 64.5 45.8 85.0



Abundance Ion 83.00 (82.70 to 83.70): VU030688.D (-1096) (-)

Ion 85.00 (84.70 to 85.70): VU030688.D (-1096) (-)



#27

1,2-Dichloroethane

Concen: 9.678 ug/L

RT: 5.41 min Scan# 1342

Delta R.T. 0.01 min

Lab File: VU030688.D

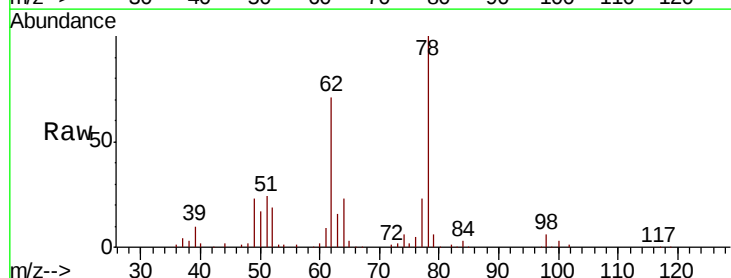
Acq: 04 Apr 2019 16:52

Tgt Ion: 62 Resp: 56948

Ion Ratio Lower Upper

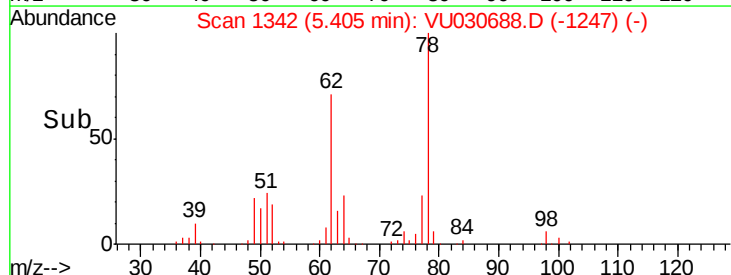
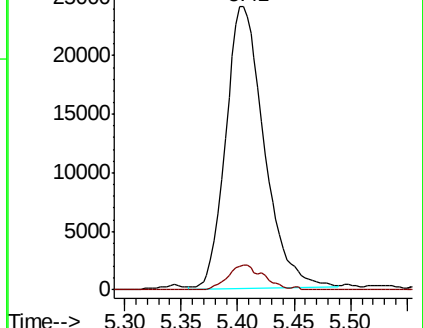
62 100

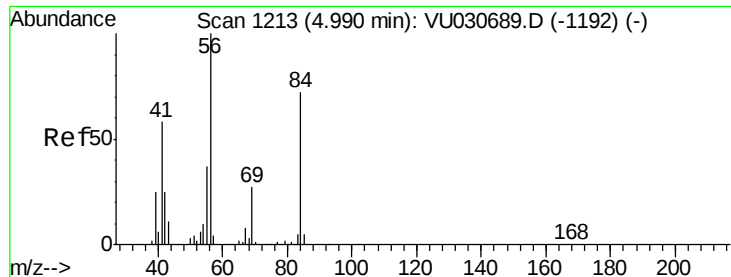
98 8.6 7.2 10.8



Abundance Ion 62.00 (61.70 to 62.70): VU030688.D (-1247) (-)

Ion 98.00 (97.70 to 98.70): VU030688.D (-1247) (-)

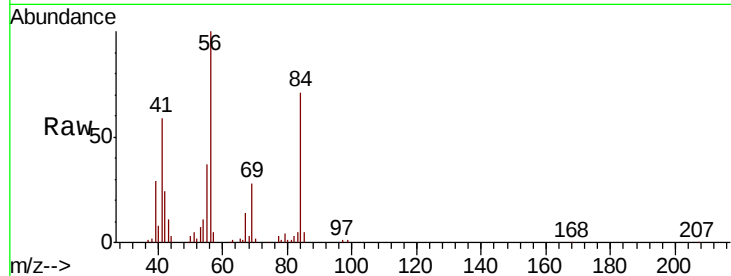




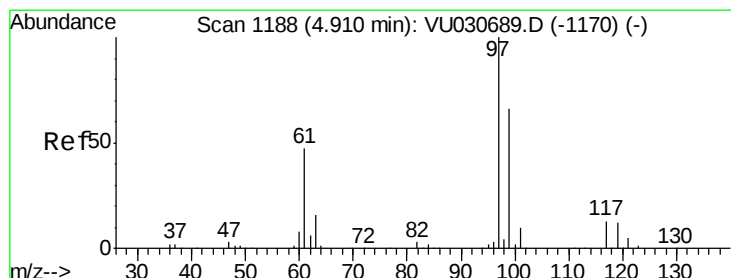
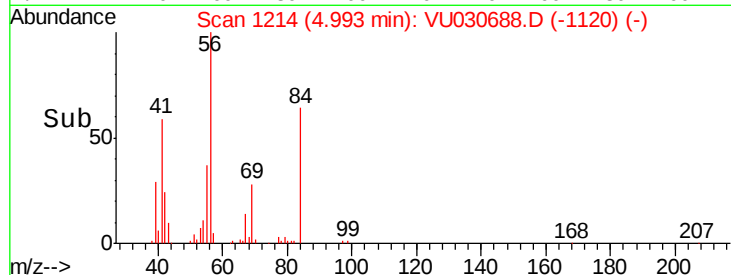
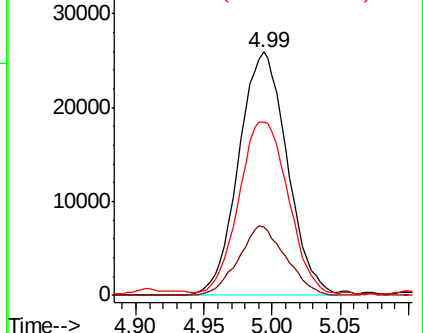
#29  
Cyclohexane  
Concen: 9.490 ug/L  
RT: 4.99 min Scan# 1214  
Delta R.T. 0.00 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD01047

Tot Ion: 56 Resp: 63879  
Ion Ratio Lower Upper  
56 100  
69 27.8 22.0 33.0  
84 72.9 58.2 87.2

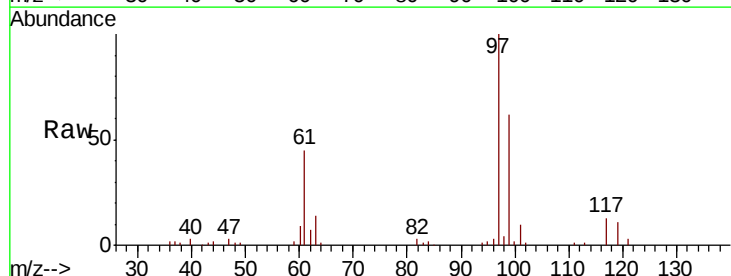


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

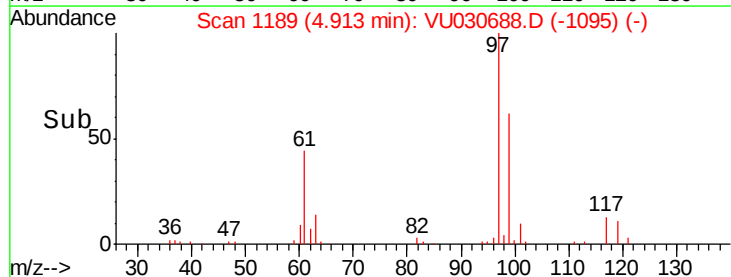
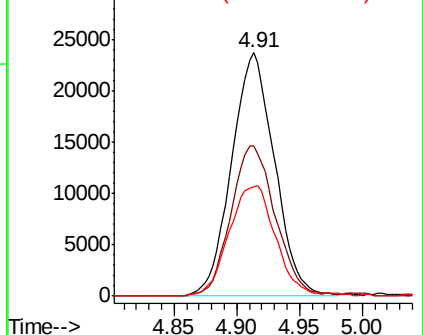


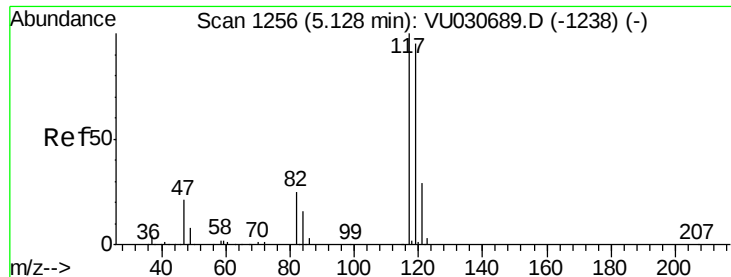
#30  
1,1,1-Trichloroethane  
Concen: 9.572 ug/L  
RT: 4.91 min Scan# 1189  
Delta R.T. 0.00 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

Tgt Ion: 97 Resp: 56520  
Ion Ratio Lower Upper  
97 100  
99 64.0 51.4 77.2  
61 48.8 37.1 55.7



Abundance Ion 97.00 (96.70 to 97.70): VU0  
Ion 99.00 (98.70 to 99.70): VU0  
Ion 61.05 (60.75 to 61.75): VU0

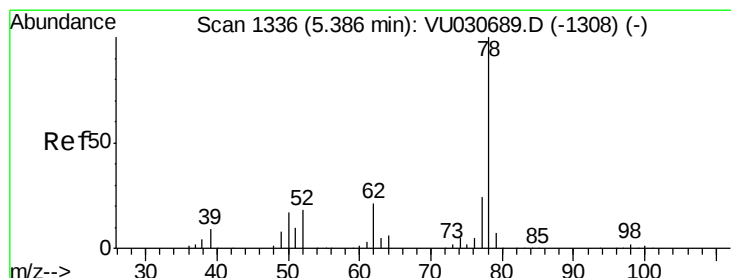
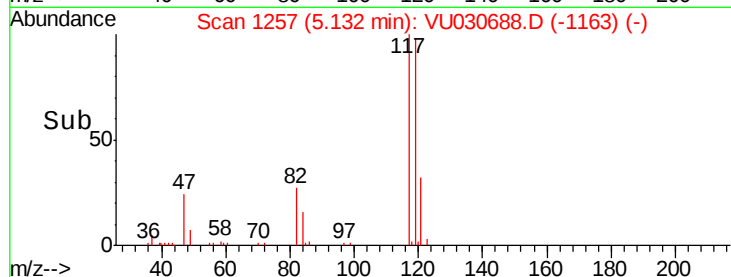
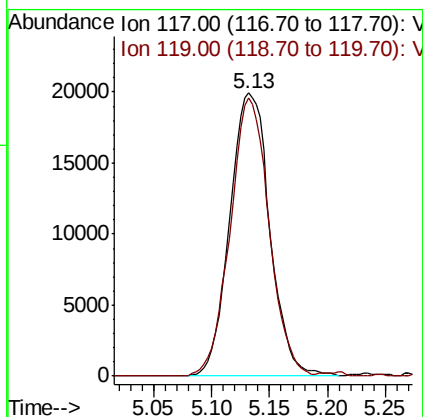
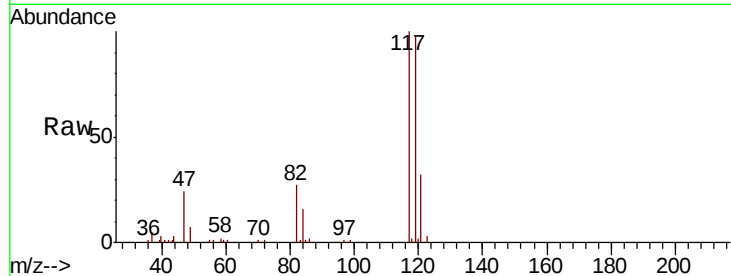




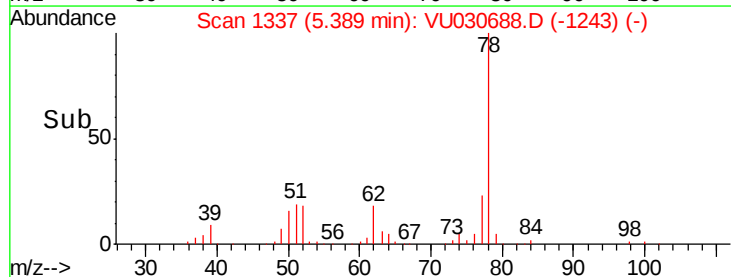
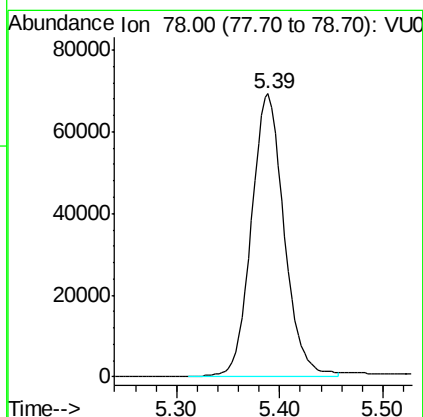
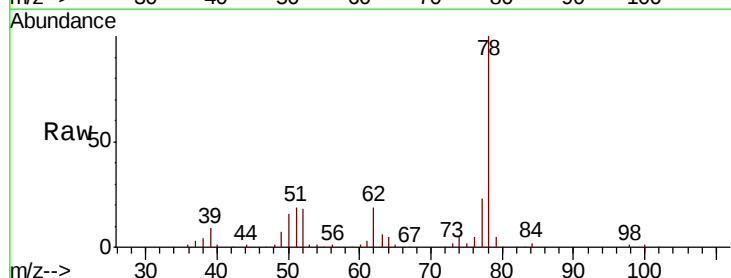
#31  
Carbon tetrachloride  
Concen: 9.401 ug/L  
RT: 5.13 min Scan# 1257  
Delta R.T. 0.00 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

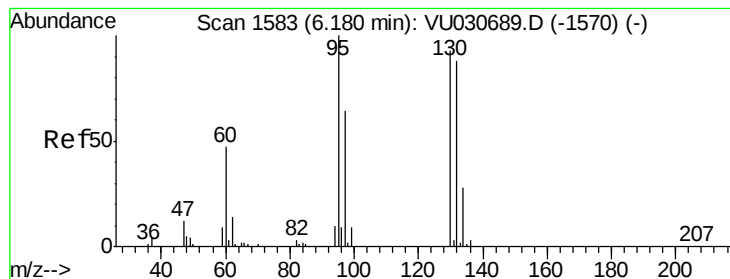
Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD01047

Tot Ion:117 Resp: 47723  
Ion Ratio Lower Upper  
117 100  
119 95.4 76.2 114.2



#33  
Benzene  
Concen: 9.741 ug/L  
RT: 5.39 min Scan# 1337  
Delta R.T. 0.00 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52  
Tgt Ion: 78 Resp: 153006





#34

Trichloroethene

Concen: 9.424 ug/L

RT: 6.19 min Scan# 1585

Delta R.T. 0.01 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

Tot Ion: 95 Resp: 36434

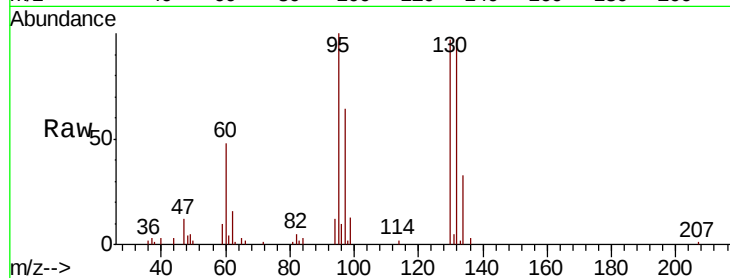
Ion Ratio Lower Upper

95 100

97 64.4 44.5 82.7

132 97.1 61.5 114.1

130 97.1 64.9 120.5

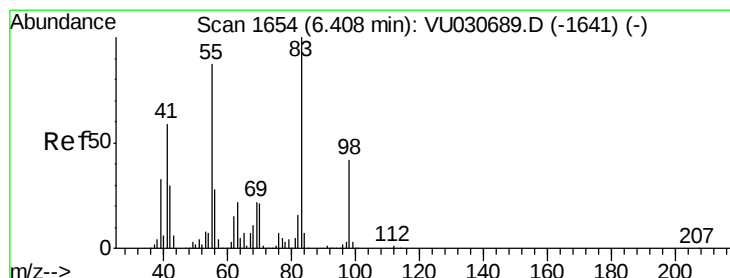
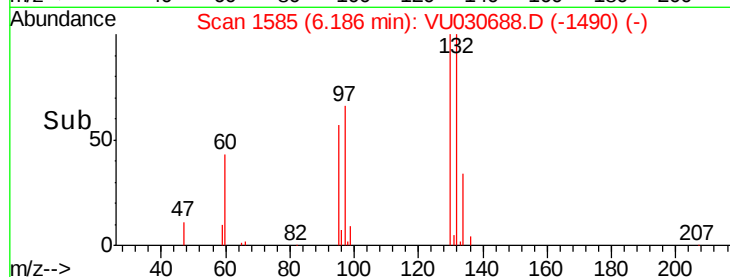
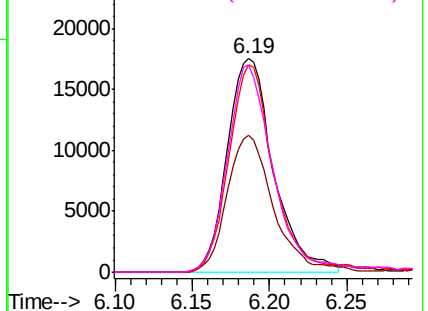


Abundance Ion 95.00 (94.70 to 95.70): VU0

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: 9.284 ug/L

RT: 6.41 min Scan# 1655

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

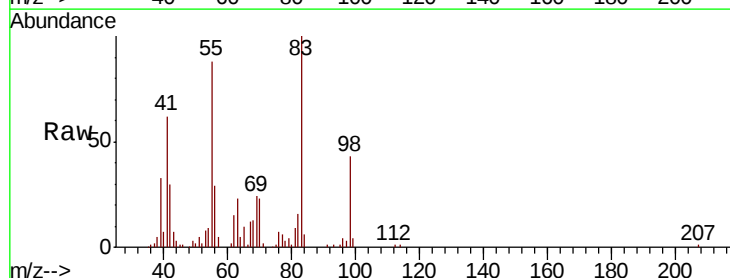
Tgt Ion: 83 Resp: 53774

Ion Ratio Lower Upper

83 100

55 95.7 71.6 107.4

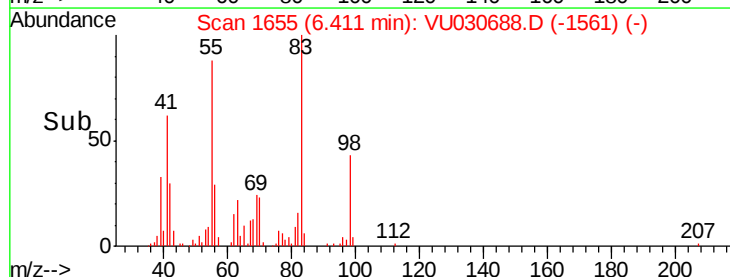
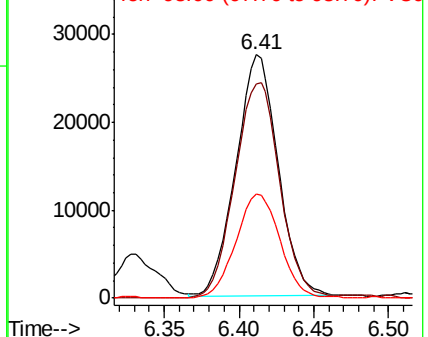
98 45.0 35.4 53.0

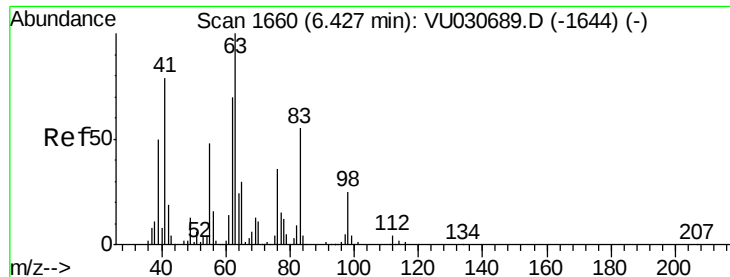


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0

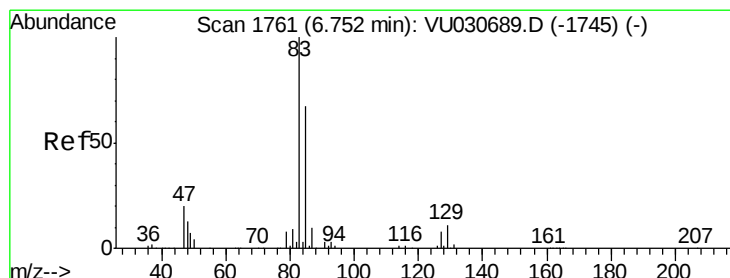
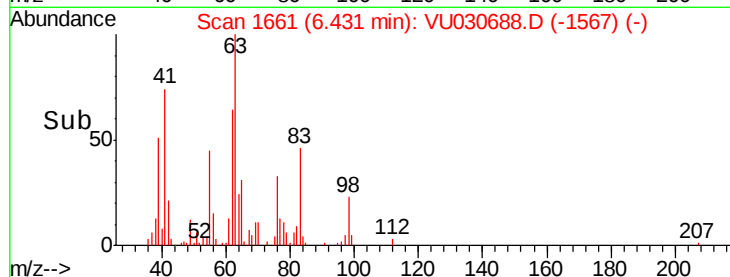
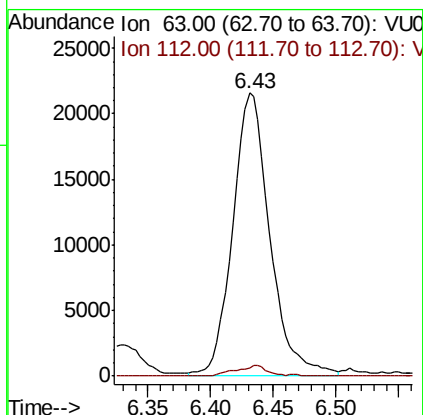
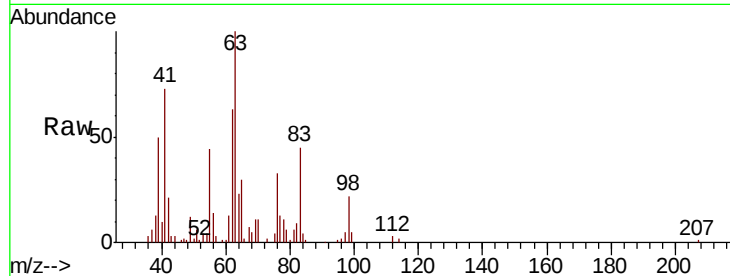




#37  
 1,2-Dichloropropane  
 Concen: 9.956 ug/L  
 RT: 6.43 min Scan# 1661  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

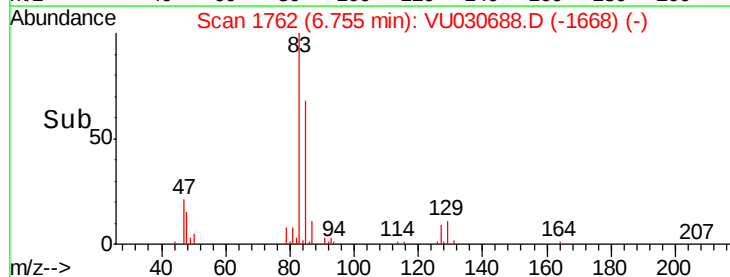
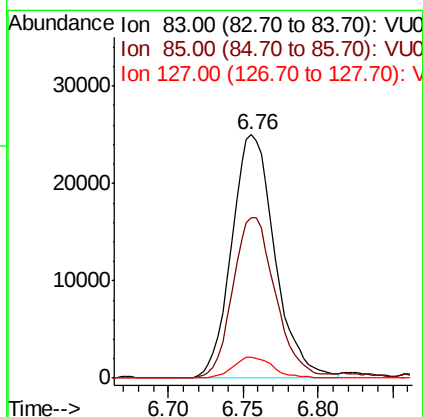
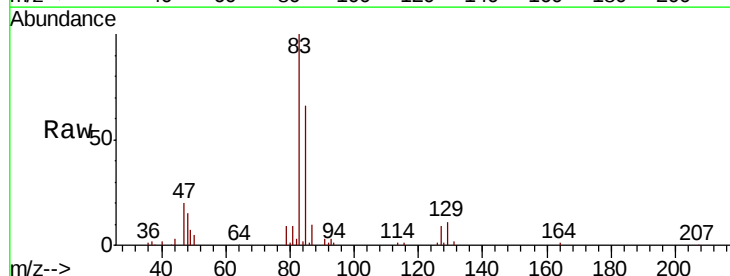
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

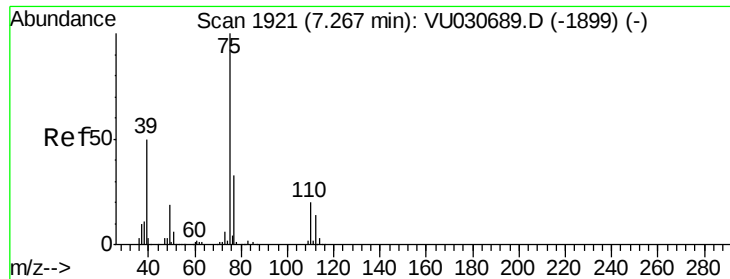
Tot Ion: 63 Resp: 44609  
 Ion Ratio Lower Upper  
 63 100  
 112 3.2 3.0 4.4



#38  
 Bromodichloromethane  
 Concen: 9.382 ug/L  
 RT: 6.76 min Scan# 1762  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

Tgt Ion: 83 Resp: 50412  
 Ion Ratio Lower Upper  
 83 100  
 85 65.7 46.5 86.3  
 127 8.6 6.6 10.0





#39

cis-1,3-Dichloropropene

Concen: 9.244 ug/L

RT: 7.27 min Scan# 1922

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

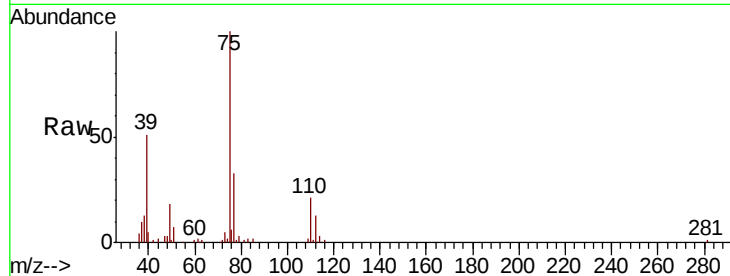
VSTD01047

Tot Ion: 75 Resp: 55104

Ion Ratio Lower Upper

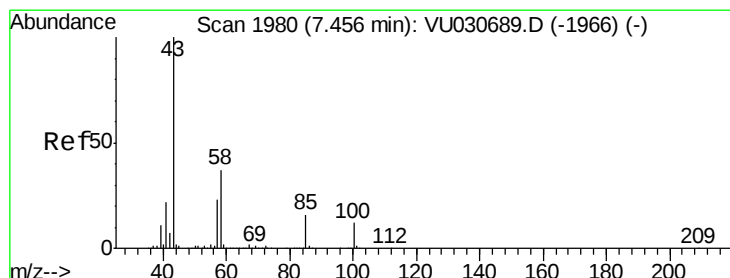
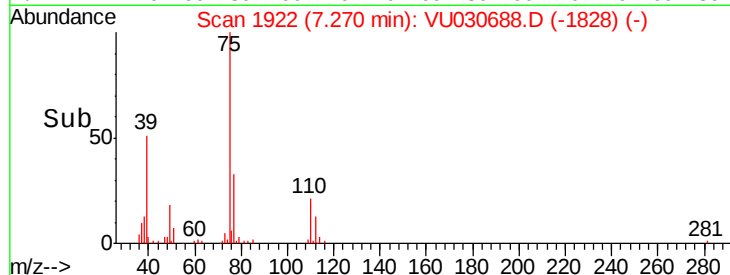
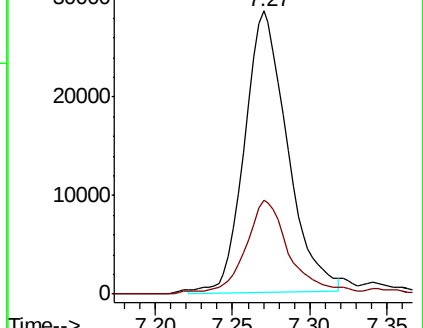
75 100

77 33.2 23.1 42.9



Abundance Ion 75.00 (74.70 to 75.70): VU030688.D (-1899) (-)

Ion 77.00 (76.70 to 77.70): VU030688.D (-1899) (-)



#40

4-Methyl-2-pentanone

Concen: 19.027 ug/L

RT: 7.46 min Scan# 1981

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

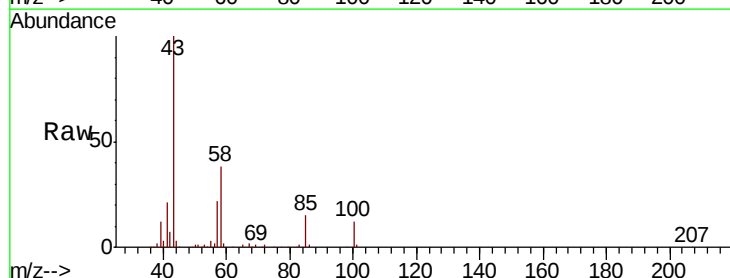
Tgt Ion: 43 Resp: 129848

Ion Ratio Lower Upper

43 100

58 36.5 29.7 44.5

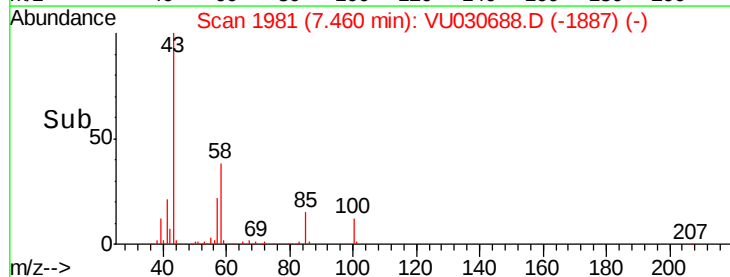
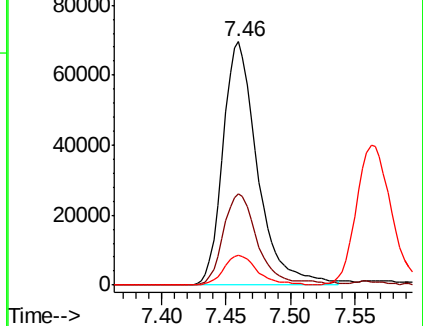
100 11.9 9.8 14.6

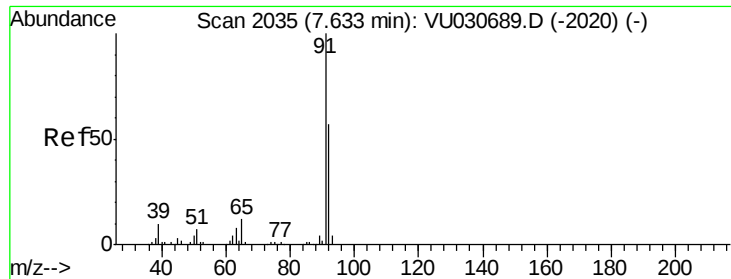


Abundance Ion 43.00 (42.70 to 43.70): VU030688.D (-1887) (-)

Ion 58.00 (57.70 to 58.70): VU030688.D (-1887) (-)

Ion 100.00 (99.70 to 100.70): VU030688.D (-1887) (-)





#42

Toluene

Concen: 9.499 ug/L

RT: 7.64 min Scan# 2036

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

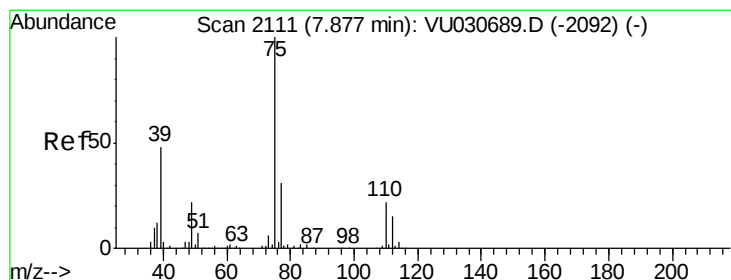
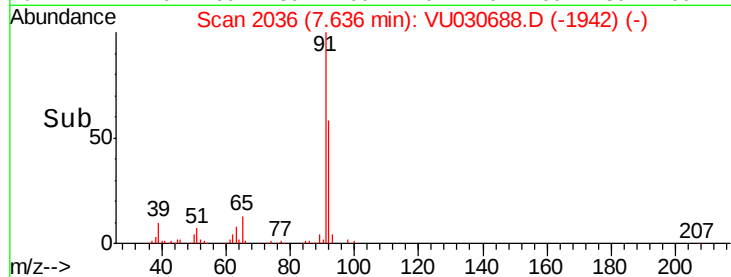
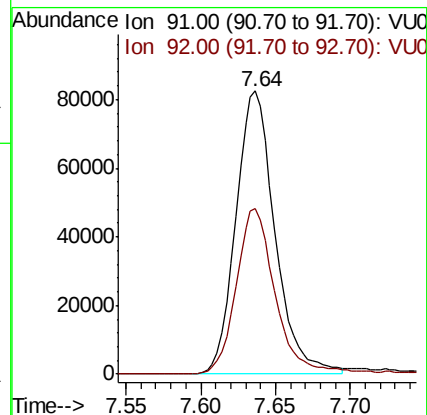
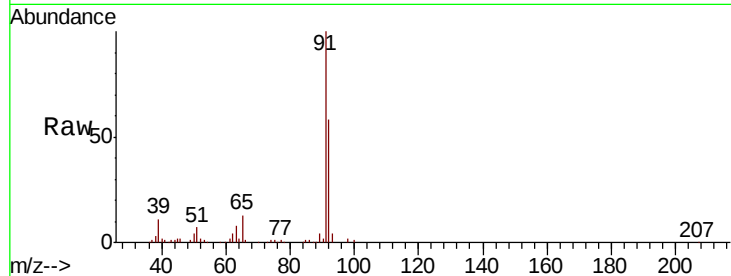
VSTD01047

Tot Ion: 91 Resp: 150472

Ion Ratio Lower Upper

91 100

92 58.3 40.0 74.4



#44

trans-1,3-Dichloropropene

Concen: 9.358 ug/L

RT: 7.88 min Scan# 2112

Delta R.T. 0.00 min

Lab File: VU030688.D

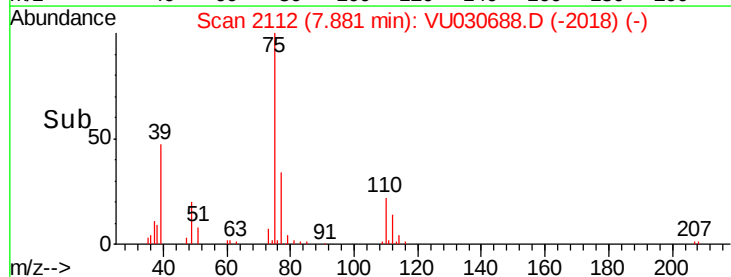
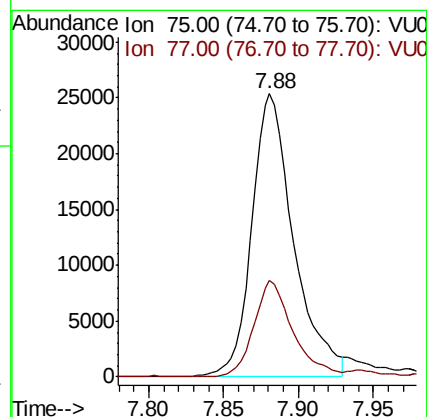
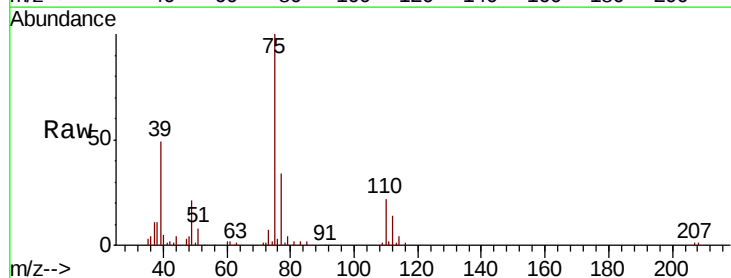
Acq: 04 Apr 2019 16:52

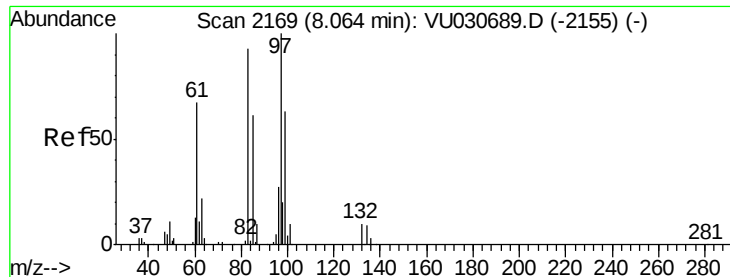
Tgt Ion: 75 Resp: 49380

Ion Ratio Lower Upper

75 100

77 34.1 21.6 40.0

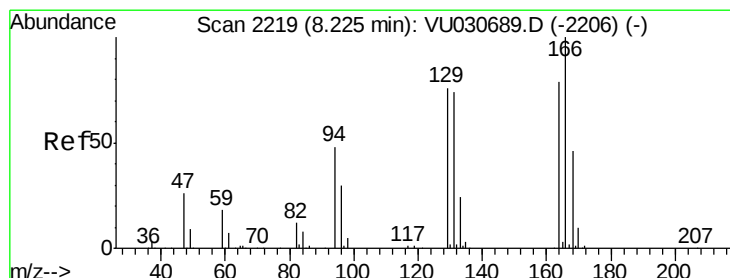
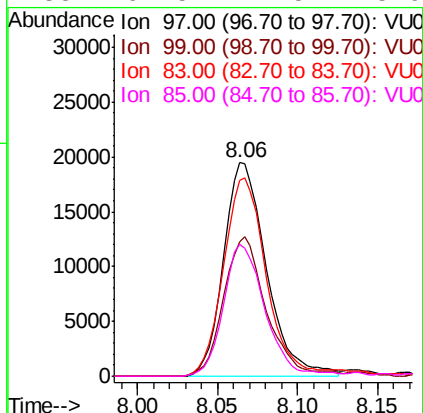
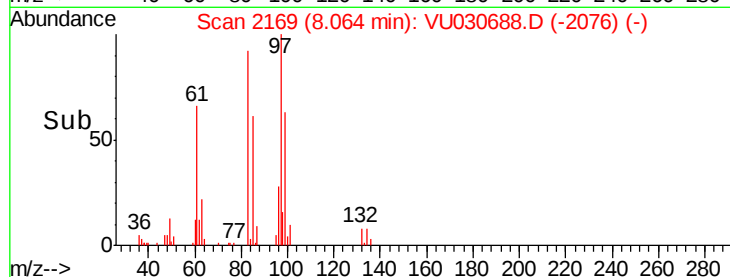
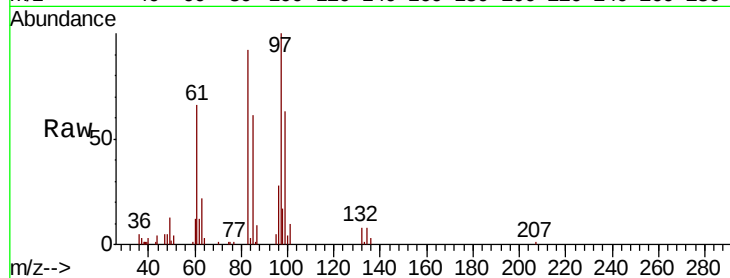




#45  
 1,1,2-Trichloroethane  
 Concen: 9.453 ug/L  
 RT: 8.06 min Scan# 2169  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

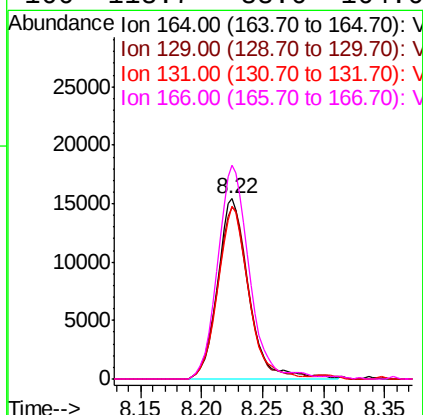
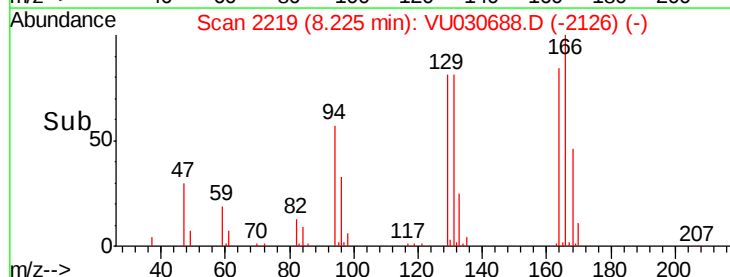
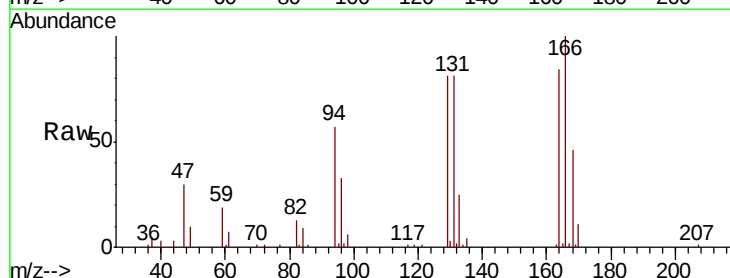
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

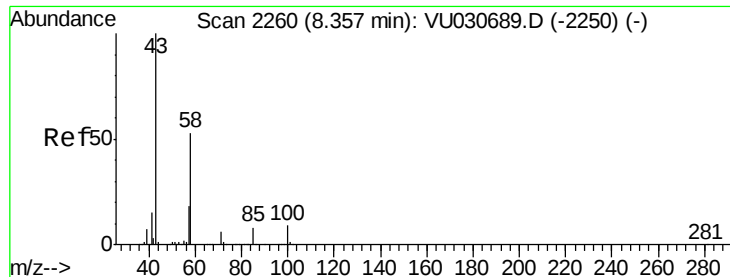
|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 97    | Resp: | 35699 |
| Ion      | Ratio | Lower | Upper |
| 97       | 100   |       |       |
| 99       | 62.7  | 44.0  | 81.8  |
| 83       | 91.9  | 65.3  | 121.3 |
| 85       | 61.5  | 42.5  | 78.9  |



#46  
 Tetrachloroethene  
 Concen: 9.650 ug/L  
 RT: 8.22 min Scan# 2219  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 164   | Resp: | 27422 |
| Ion      | Ratio | Lower | Upper |
| 164      | 100   |       |       |
| 129      | 95.7  | 67.4  | 125.2 |
| 131      | 95.8  | 65.9  | 122.5 |
| 166      | 118.7 | 88.6  | 164.6 |

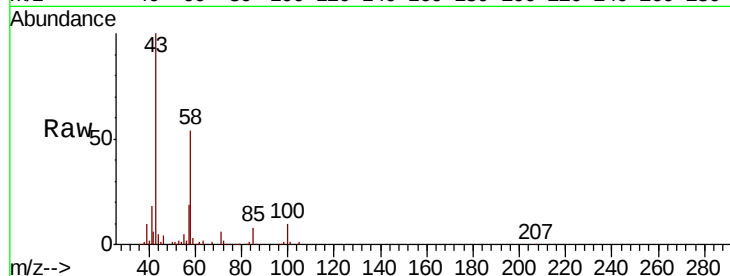




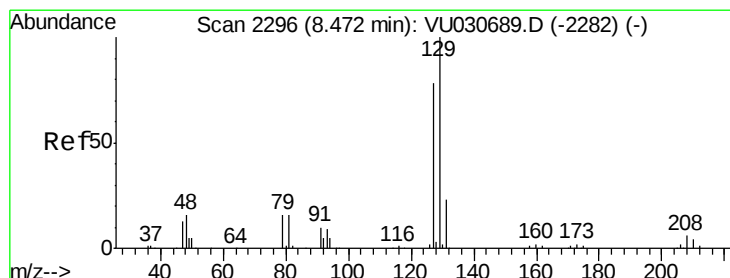
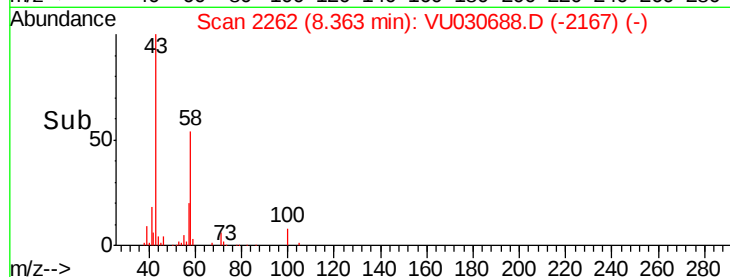
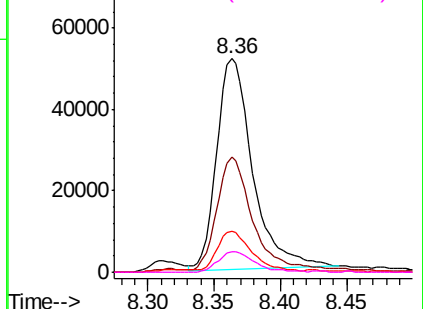
#48  
2-Hexanone  
Concen: 18.692 ug/L  
RT: 8.36 min Scan# 2262  
Delta R.T. 0.01 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

Instrument :  
MSVOA\_U  
ClientSampleId :  
VSTD01047

|          |       |       |       |
|----------|-------|-------|-------|
| Tot Ion: | 43    | Resp: | 98048 |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 53.1  | 41.9  | 62.9  |
| 57       | 19.1  | 14.3  | 21.5  |
| 100      | 9.9   | 7.1   | 10.7  |

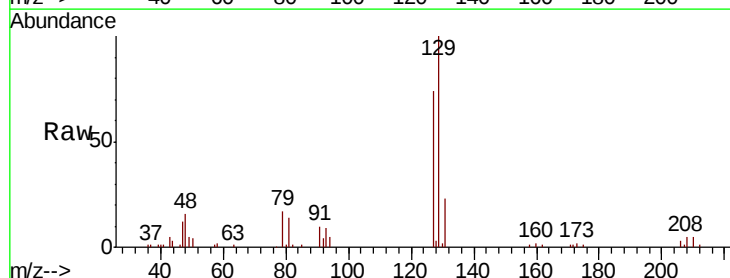


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

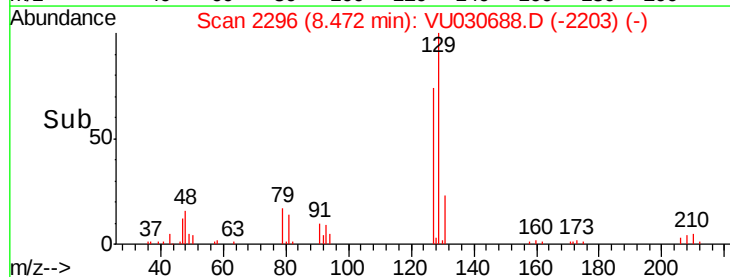
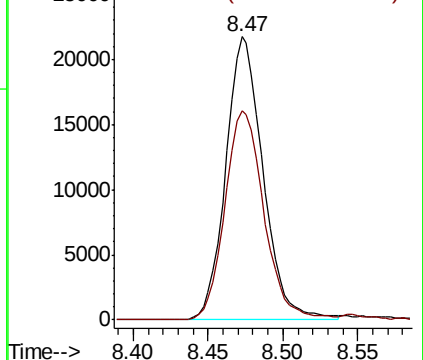


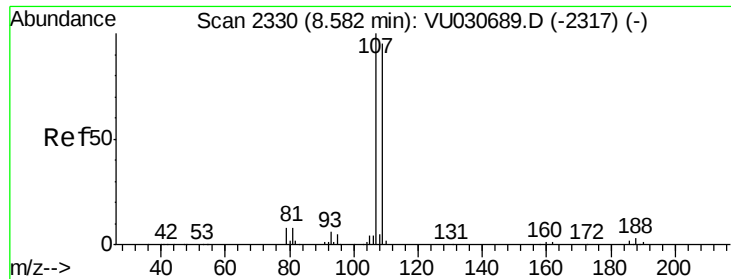
#49  
Dibromochloromethane  
Concen: 9.527 ug/L  
RT: 8.47 min Scan# 2296  
Delta R.T. 0.00 min  
Lab File: VU030688.D  
Acq: 04 Apr 2019 16:52

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 129   | Resp: | 37785 |
| Ion      | Ratio | Lower | Upper |
| 129      | 100   |       |       |
| 127      | 73.9  | 54.5  | 101.3 |



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





#50

1,2-Dibromoethane

Concen: 9.489 ug/L

RT: 8.58 min Scan# 2331

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

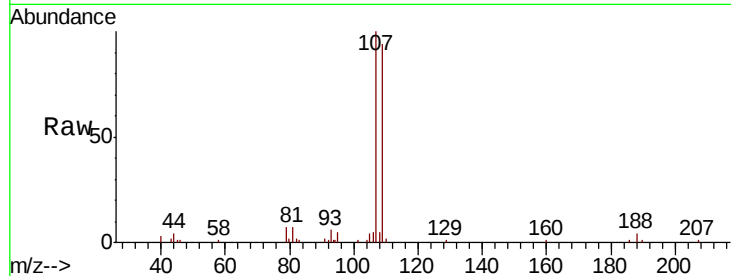
Tot Ion:107 Resp: 38528

Ion Ratio Lower Upper

107 100

109 94.0 66.4 123.2

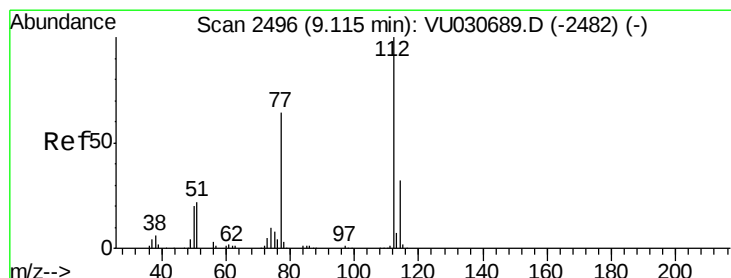
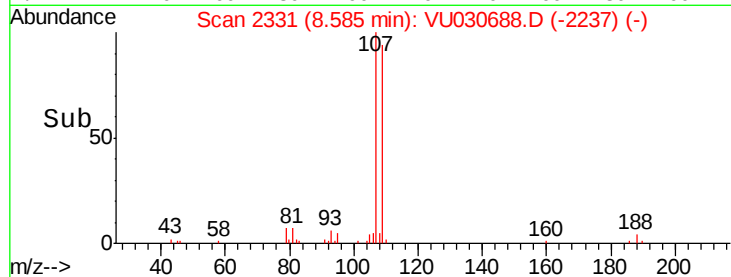
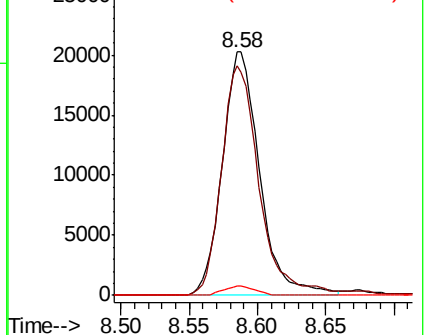
188 3.8 2.6 4.0



Abundance Ion 107.00 (106.70 to 107.70): V

Ion 109.00 (108.70 to 109.70): V

Ion 188.00 (187.70 to 188.70): V



#51

Chlorobenzene

Concen: 9.338 ug/L

RT: 9.12 min Scan# 2496

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

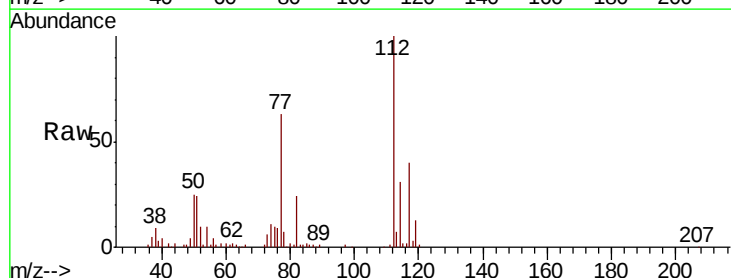
Tgt Ion:112 Resp: 92155

Ion Ratio Lower Upper

112 100

114 31.4 22.2 41.2

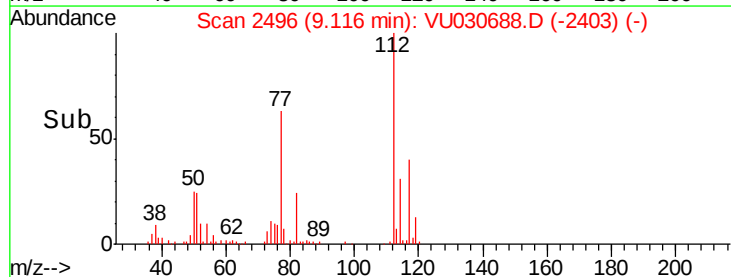
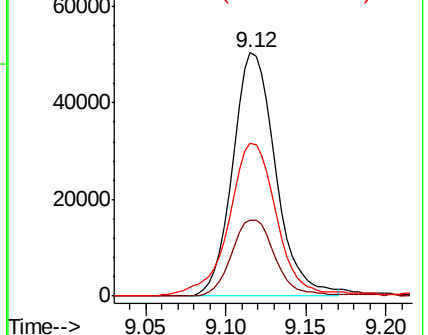
77 62.9 51.7 77.5

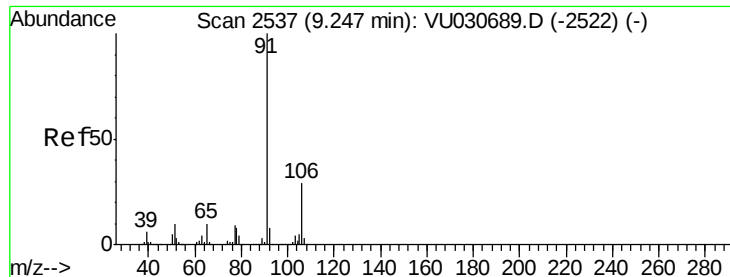


Abundance Ion 112.00 (111.70 to 112.70): V

Ion 114.00 (113.70 to 114.70): V

Ion 77.00 (76.70 to 77.70): VU





#52

Ethylbenzene

Concen: 9.368 ug/L

RT: 9.25 min Scan# 2537

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampled :

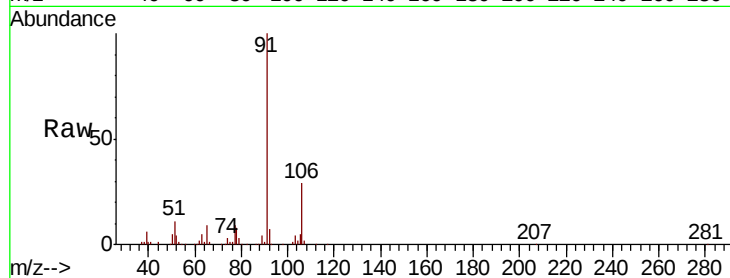
VSTD01047

Tot Ion: 91 Resp: 160946

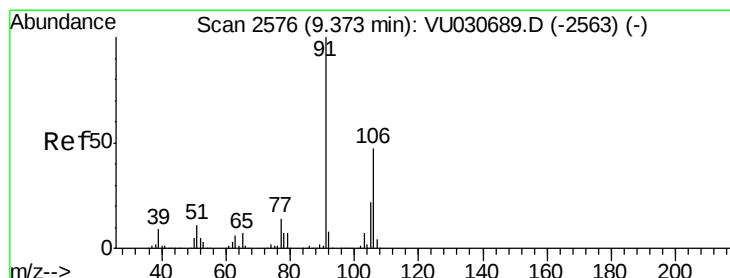
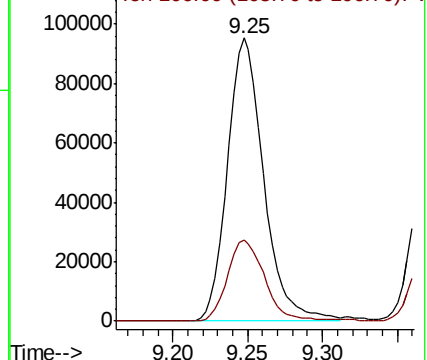
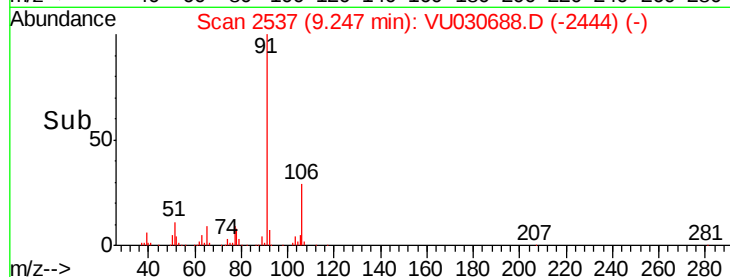
Ion Ratio Lower Upper

91 100

106 28.9 20.4 37.8



Abundance Ion 91.00 (90.70 to 91.70): VU030688.D (-2444) (-)



#53

m,p-Xylene

Concen: 9.412 ug/L

RT: 9.37 min Scan# 2576

Delta R.T. 0.00 min

Lab File: VU030688.D

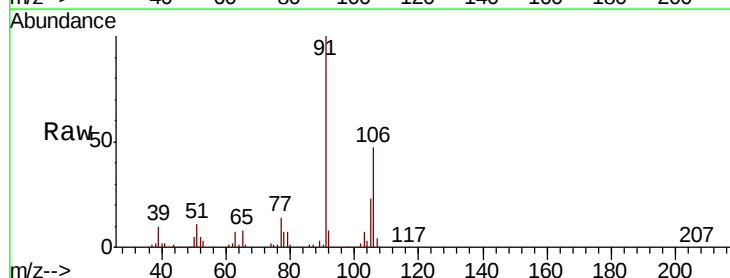
Acq: 04 Apr 2019 16:52

Tgt Ion: 106 Resp: 55187

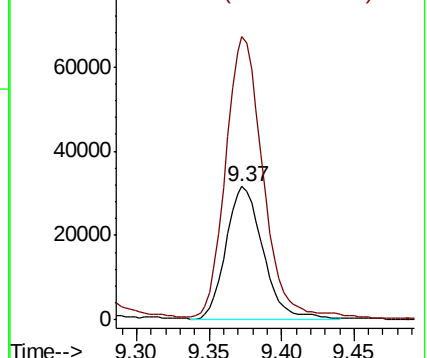
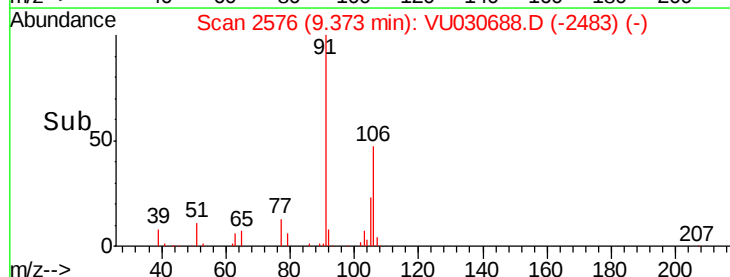
Ion Ratio Lower Upper

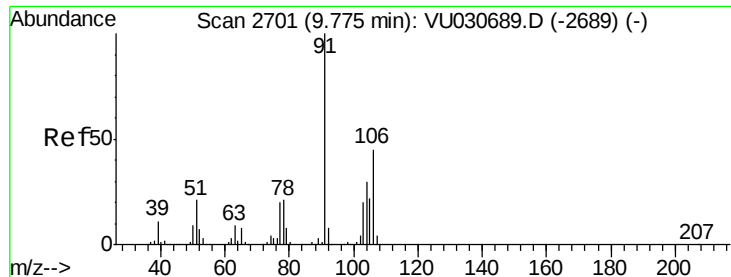
106 100

91 212.7 148.0 274.8



Abundance Ion 106.00 (105.70 to 106.70): VU030688.D (-2483) (-)





#54

o-xylene

Concen: 9.325 ug/L

RT: 9.78 min Scan# 2702

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

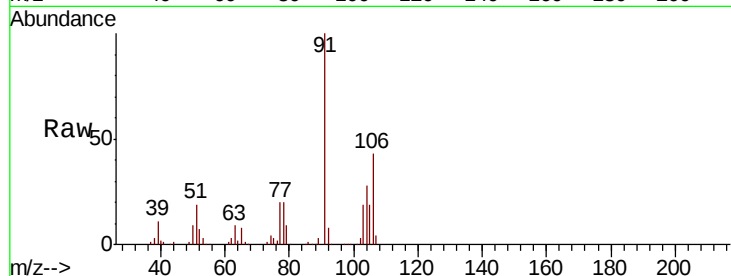
VSTD01047

Tot Ion:106 Resp: 54949

Ion Ratio Lower Upper

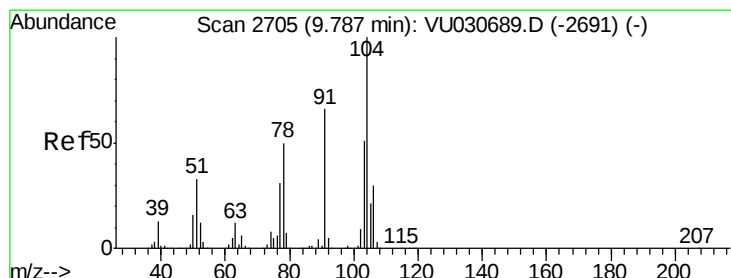
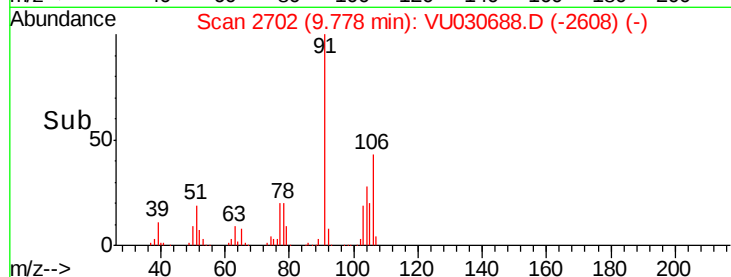
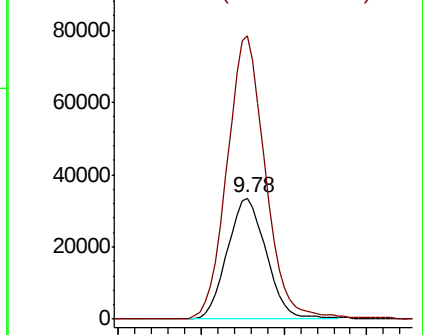
106 100

91 233.5 156.7 290.9



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VU0



#55

Styrene

Concen: 9.106 ug/L

RT: 9.79 min Scan# 2706

Delta R.T. 0.00 min

Lab File: VU030688.D

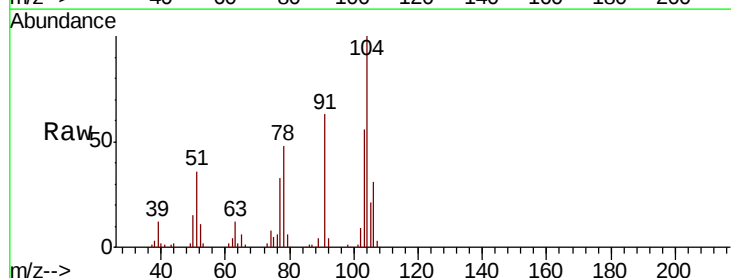
Acq: 04 Apr 2019 16:52

Tgt Ion:104 Resp: 90388

Ion Ratio Lower Upper

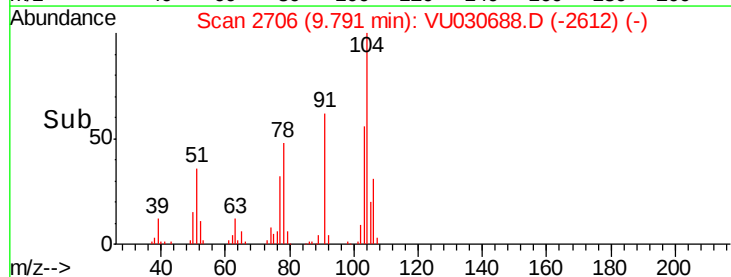
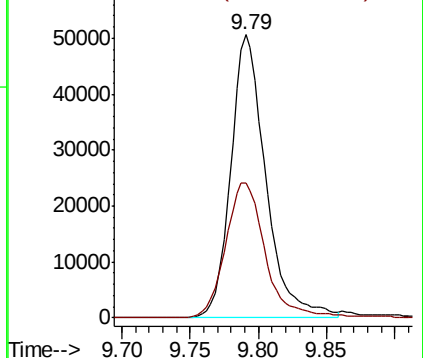
104 100

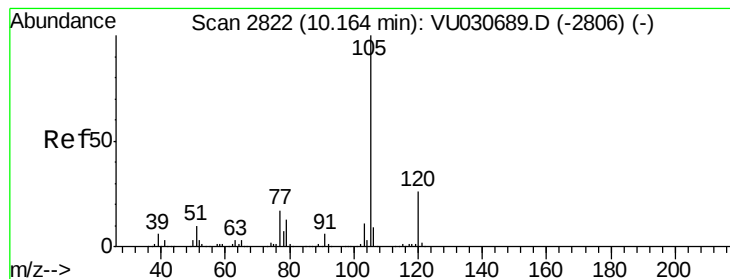
78 47.9 35.1 65.1



Abundance Ion 104.00 (103.70 to 104.70): V

Ion 78.00 (77.70 to 78.70): VU0





#56

Isopropylbenzene

Concen: 9.235 ug/L

RT: 10.16 min Scan# 2822

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampled :

VSTD01047

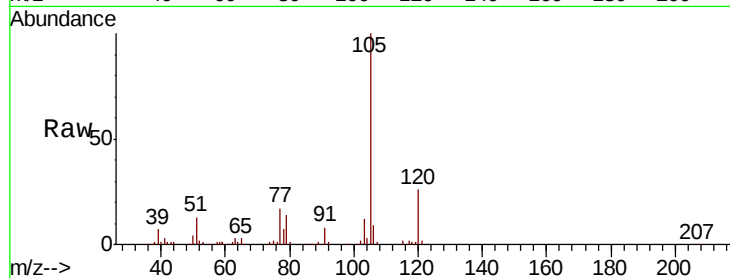
Tot Ion:105 Resp: 142934

Ion Ratio Lower Upper

105 100

120 26.0 20.4 30.6

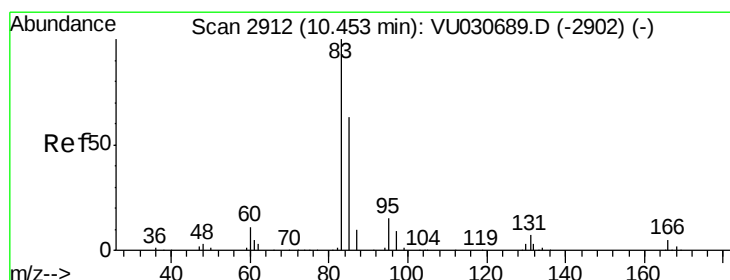
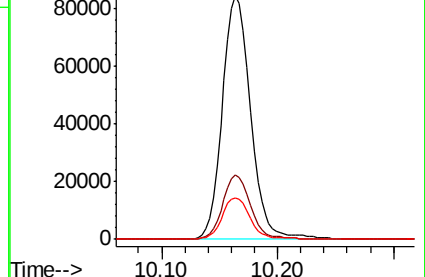
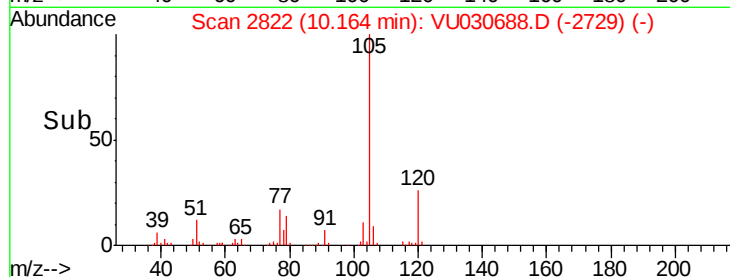
77 17.1 13.4 20.2



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: 9.577 ug/L

RT: 10.45 min Scan# 2912

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

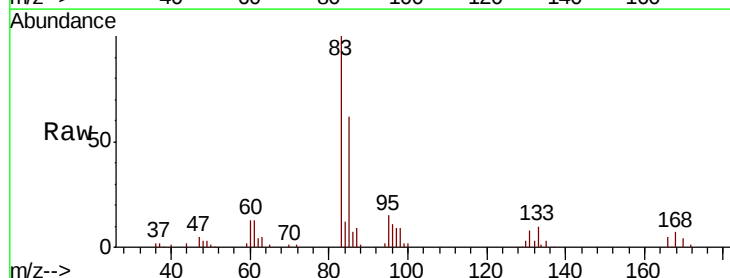
Tgt Ion: 83 Resp: 65364

Ion Ratio Lower Upper

83 100

85 62.3 45.3 84.1

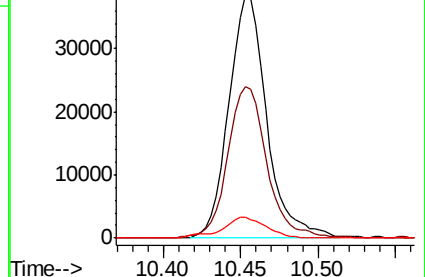
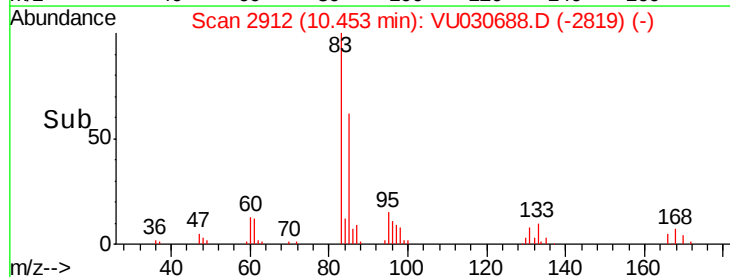
131 8.4 6.7 10.1

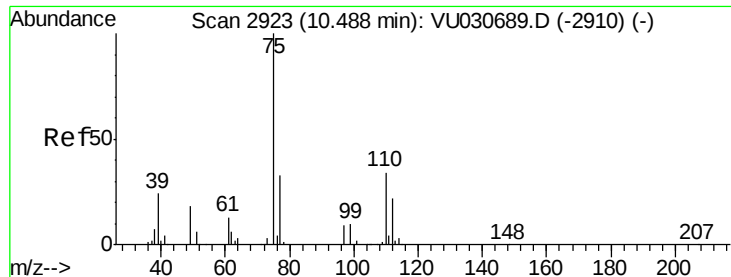


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V

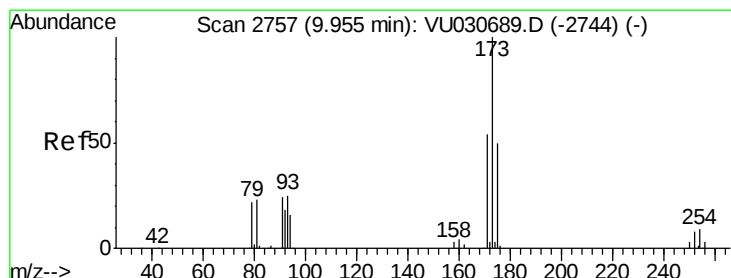
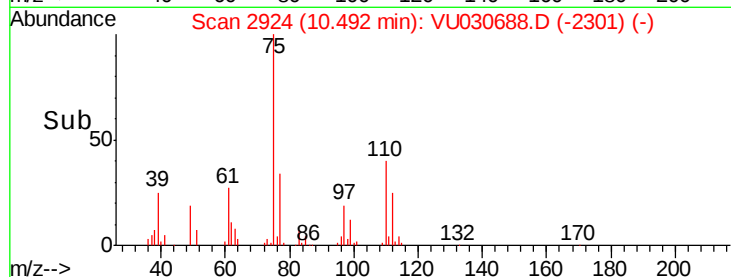
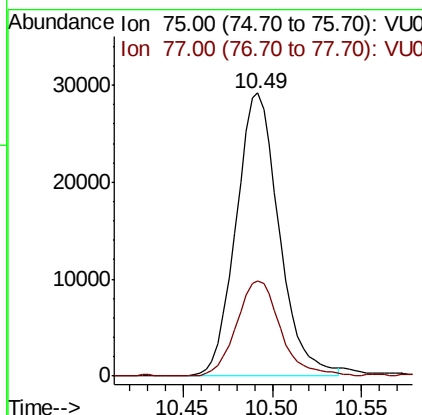
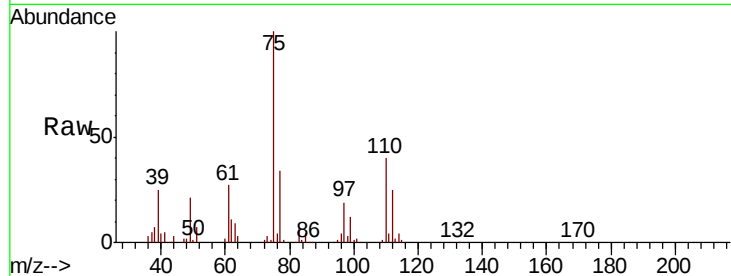




#59  
 1,2,3-Trichloropropane  
 Concen: 9.303 ug/L  
 RT: 10.49 min Scan# 2924  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

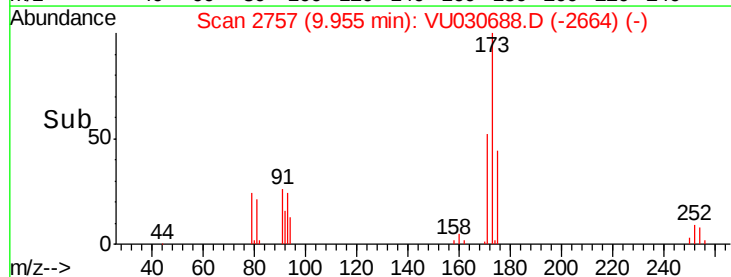
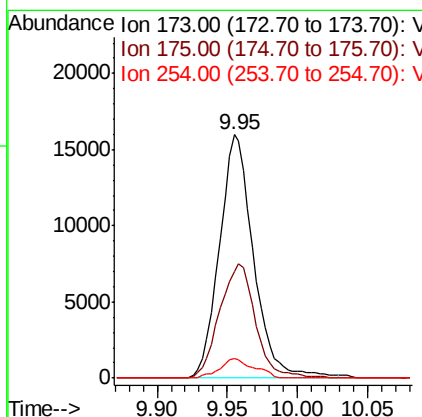
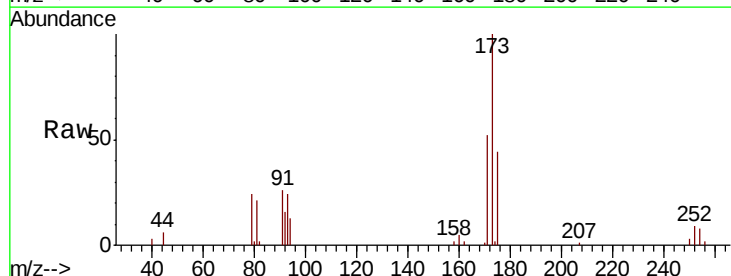
Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

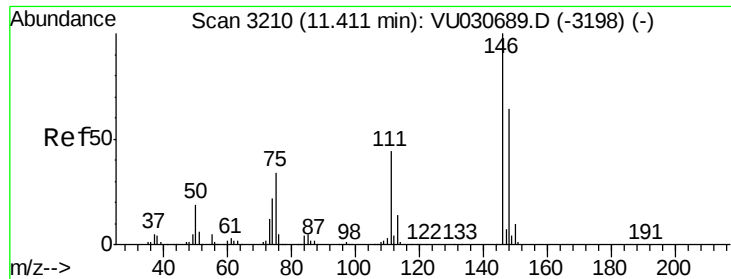
Tot Ion: 75 Resp: 49361  
 Ion Ratio Lower Upper  
 75 100  
 77 34.2 26.1 39.1



#61  
 Bromoform  
 Concen: 9.581 ug/L  
 RT: 9.95 min Scan# 2757  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

Tgt Ion: 173 Resp: 26919  
 Ion Ratio Lower Upper  
 173 100  
 175 49.0 39.1 58.7  
 254 8.0 7.3 10.9





#62

1,3-Dichlorobenzene

Concen: 9.784 ug/L

RT: 11.41 min Scan# 3211

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

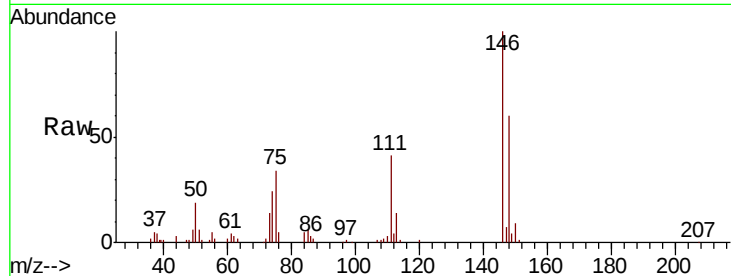
Tot Ion:146 Resp: 66171

Ion Ratio Lower Upper

146 100

111 40.8 30.9 57.5

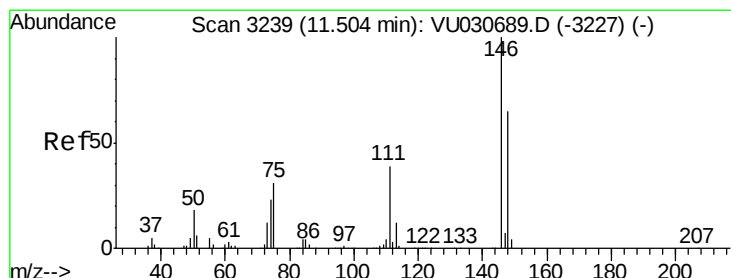
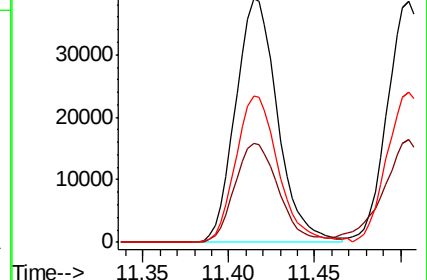
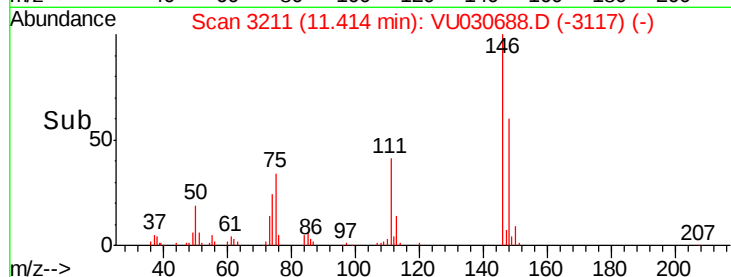
148 60.0 44.7 82.9



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: 9.339 ug/L

RT: 11.50 min Scan# 3239

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

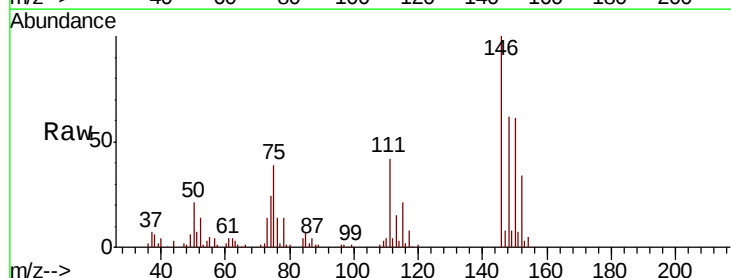
Tgt Ion:146 Resp: 64427

Ion Ratio Lower Upper

146 100

111 42.4 27.7 51.5

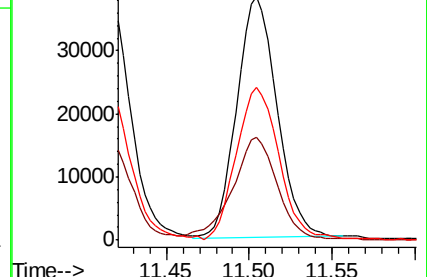
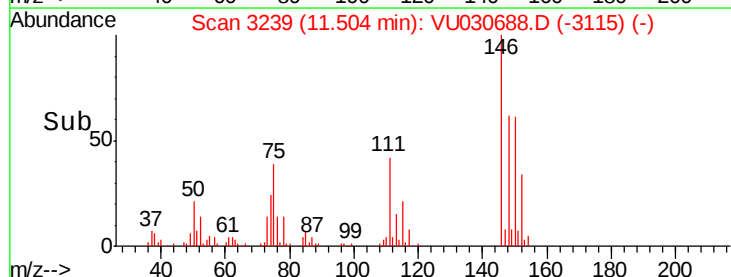
148 62.5 45.4 84.4

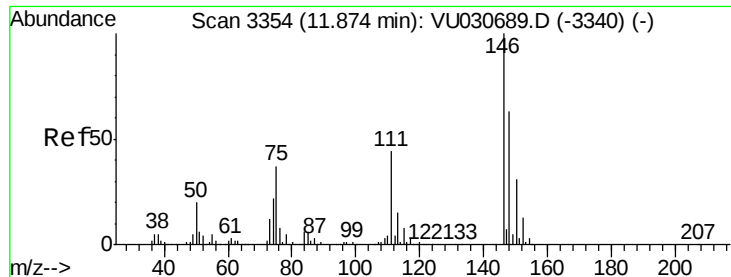


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V





#65

1,2-Dichlorobenzene

Concen: 9.485 ug/L

RT: 11.88 min Scan# 3355

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

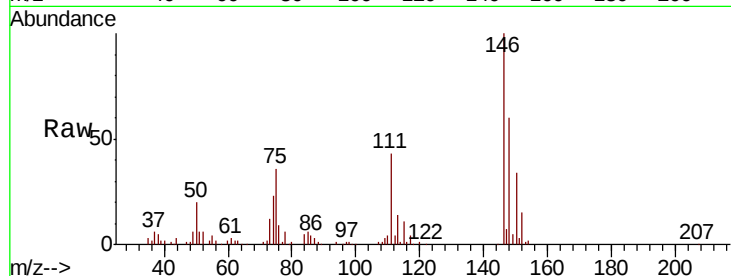
Tot Ion:146 Resp: 64892

Ion Ratio Lower Upper

146 100

111 42.9 34.9 52.3

148 59.6 50.4 75.6

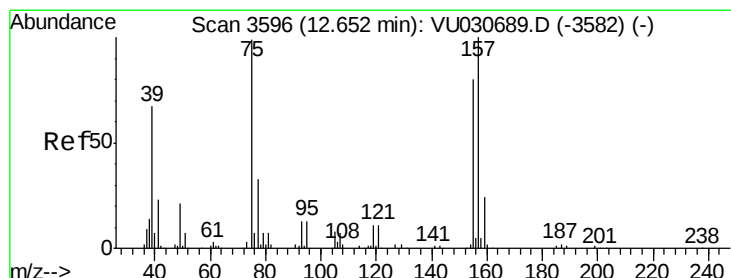
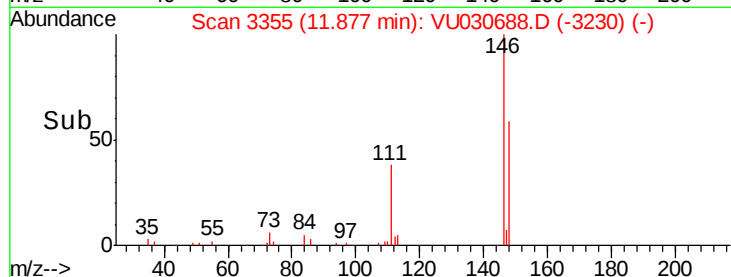
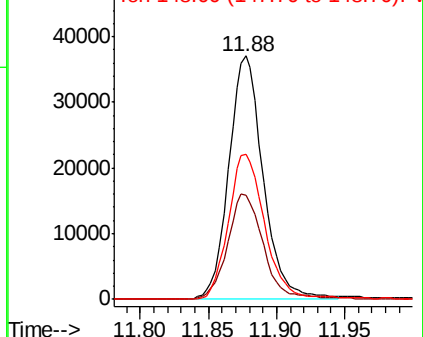


Abundance

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: 9.716 ug/L

RT: 12.66 min Scan# 3597

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

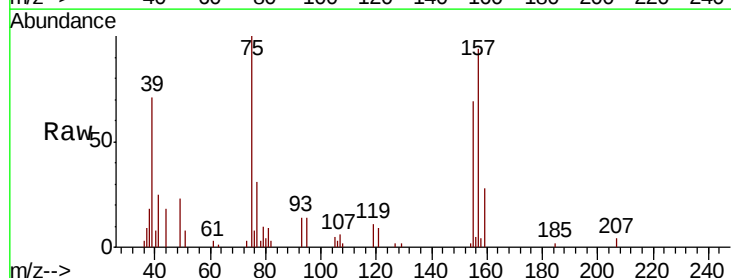
Tgt Ion: 75 Resp: 13690

Ion Ratio Lower Upper

75 100

155 68.5 64.1 96.1

157 94.3 80.6 120.8

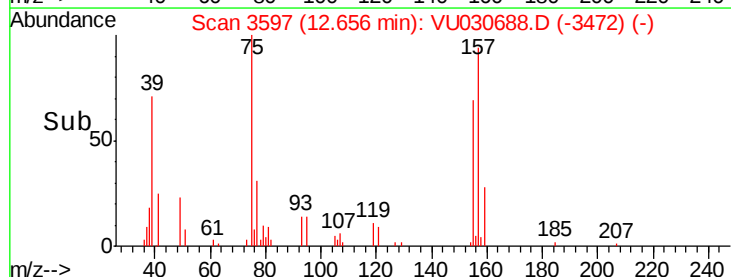
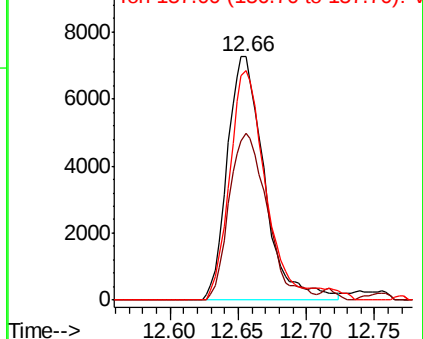


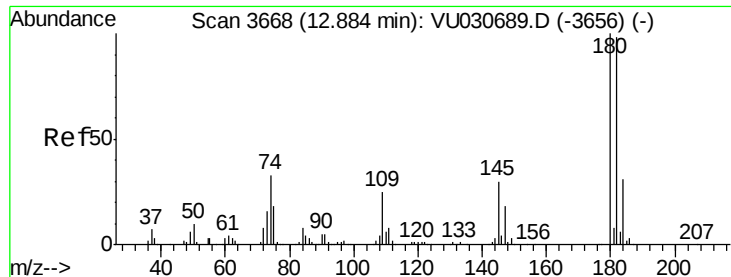
Abundance

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

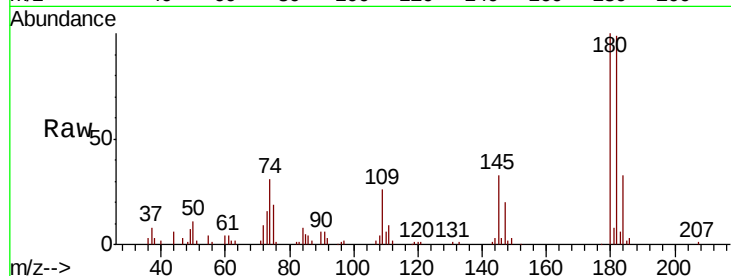




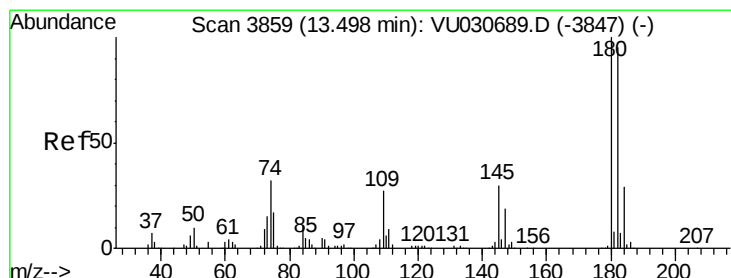
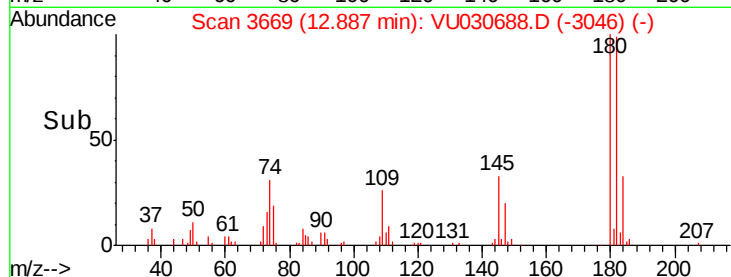
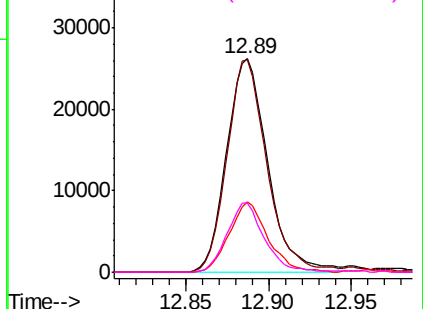
#67  
 1,3,5-Trichlorobenzene  
 Concen: 9.271 ug/L  
 RT: 12.89 min Scan# 3669  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 VSTD01047

| Tot Ion:180 | Resp: | 45203       |
|-------------|-------|-------------|
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 96.7  | 78.3 117.5  |
| 184         | 30.8  | 24.7 37.1   |
| 145         | 29.3  | 24.2 36.4   |

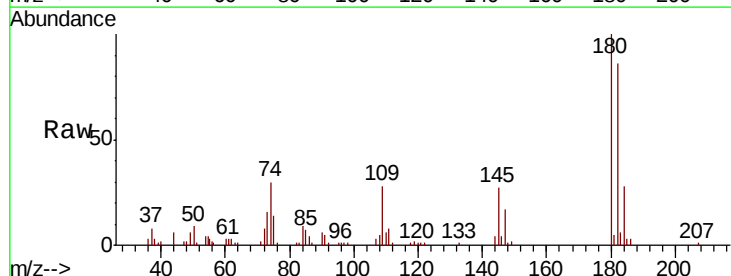


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

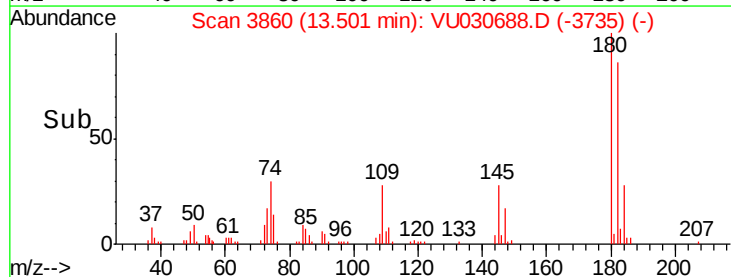
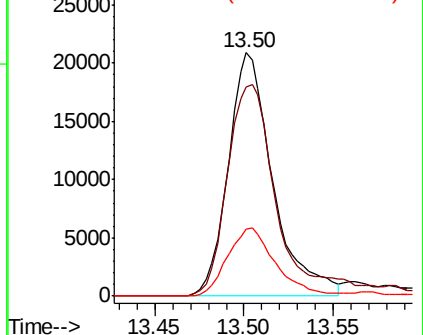


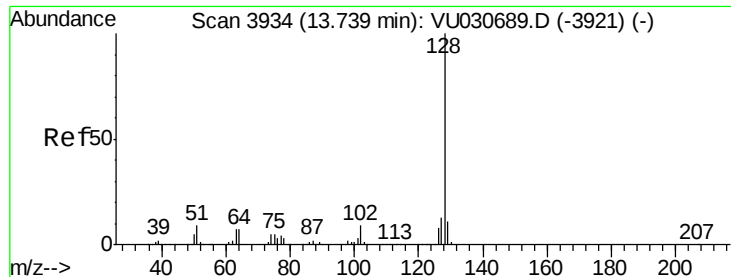
#68  
 1,2,4-trichlorobenzene  
 Concen: 9.144 ug/L  
 RT: 13.50 min Scan# 3860  
 Delta R.T. 0.00 min  
 Lab File: VU030688.D  
 Acq: 04 Apr 2019 16:52

| Tgt Ion:180 | Resp: | 36241       |
|-------------|-------|-------------|
| Ion         | Ratio | Lower Upper |
| 180         | 100   |             |
| 182         | 95.7  | 76.7 115.1  |
| 145         | 29.8  | 24.4 36.6   |



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: 9.357 ug/L

RT: 13.74 min Scan# 3935

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

Instrument :

MSVOA\_U

ClientSampleId :

VSTD01047

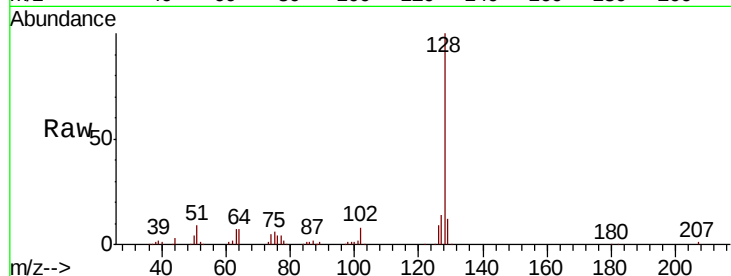
Tot Ion:128 Resp: 113869

Ion Ratio Lower Upper

128 100

127 11.8 10.4 15.6

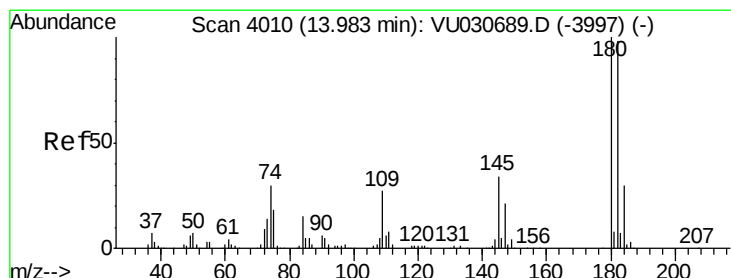
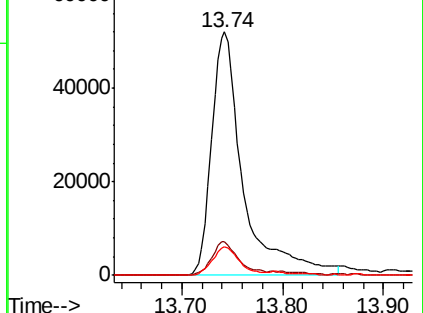
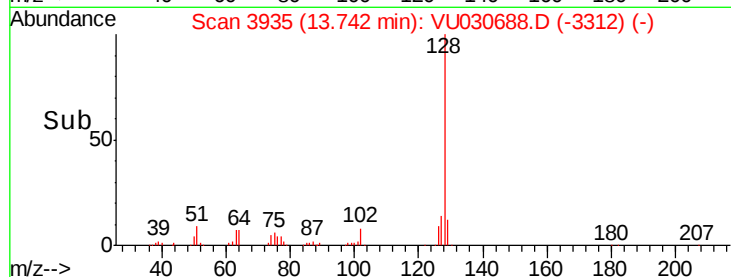
129 9.9 8.6 12.8



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: 9.115 ug/L

RT: 13.99 min Scan# 4011

Delta R.T. 0.00 min

Lab File: VU030688.D

Acq: 04 Apr 2019 16:52

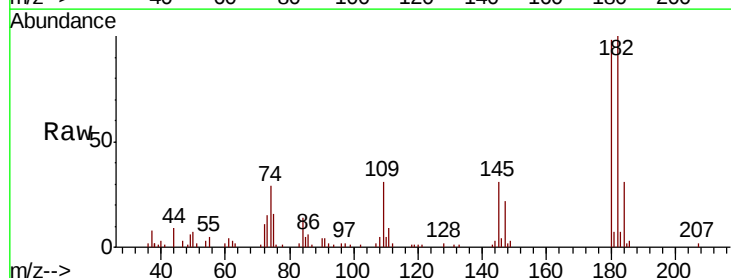
Tgt Ion:180 Resp: 38512

Ion Ratio Lower Upper

180 100

182 99.5 78.1 117.1

145 30.9 26.6 40.0



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

