

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU091018\  
 Data File : VU026638.D  
 Acq On : 10 Sep 2018 09:41  
 Operator : MD/SY  
 Sample : VSTD20052  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Sep 11 04:23:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Sep 11 04:12:24 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.89  | 114  | 203440   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.09  | 117  | 200821   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.48 | 152  | 115198   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |       |     |         |        |      |       |
|--------------------------------|-------|-----|---------|--------|------|-------|
| 4) Vinyl Chloride-d3           | 1.40  | 65  | 306675  | 202.28 | ug/L | 0.00  |
| 7) Chloroethane-d5             | 1.67  | 69  | 241021  | 197.29 | ug/L | -0.01 |
| 11) 1,1-Dichloroethene-d2      | 2.27  | 63  | 557741  | 205.57 | ug/L | 0.00  |
| 21) 2-Butanone-d5              | 4.18  | 46  | 399184  | 423.12 | ug/L | 0.00  |
| 24) Chloroform-d               | 4.65  | 84  | 514661  | 204.16 | ug/L | 0.00  |
| 26) 1,2-Dichloroethane-d4      | 5.31  | 65  | 327291  | 198.38 | ug/L | 0.00  |
| 32) Benzene-d6                 | 5.34  | 84  | 1038502 | 199.81 | ug/L | 0.00  |
| 36) 1,2-Dichloropropane-d6     | 6.33  | 67  | 347192  | 199.06 | ug/L | 0.00  |
| 41) Toluene-d8                 | 7.57  | 98  | 1005712 | 206.22 | ug/L | 0.00  |
| 43) trans-1,3-Dichloropropene- | 7.85  | 79  | 173774  | 214.30 | ug/L | 0.00  |
| 47) 2-Hexanone-d5              | 8.31  | 63  | 334178  | 469.59 | ug/L | 0.00  |
| 57) 1,1,2,2-Tetrachloroethane- | 10.43 | 84  | 509467  | 213.34 | ug/L | 0.00  |
| 64) 1,2-Dichlorobenzene-d4     | 11.86 | 152 | 446499  | 194.43 | ug/L | 0.00  |

## Target Compounds

|                                |      |     |         |         |      | Qvalue |
|--------------------------------|------|-----|---------|---------|------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 271112  | 211.706 | ug/L | 99     |
| 3) Chloromethane               | 1.32 | 50  | 347641  | 206.513 | ug/L | 99     |
| 5) Vinyl chloride              | 1.40 | 62  | 364070  | 209.301 | ug/L | 99     |
| 6) Bromomethane                | 1.60 | 94  | 217678  | 214.743 | ug/L | 97     |
| 8) Chloroethane                | 1.68 | 64  | 218584  | 202.619 | ug/L | 99     |
| 9) Trichlorofluoromethane      | 1.88 | 101 | 465879  | 212.400 | ug/L | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.28 | 101 | 267511  | 214.160 | ug/L | 99     |
| 12) 1,1-Dichloroethene         | 2.28 | 96  | 252604  | 210.579 | ug/L | 93     |
| 13) Acetone                    | 2.32 | 43  | 397109  | 369.566 | ug/L | 99     |
| 14) Carbon disulfide           | 2.48 | 76  | 817238  | 209.762 | ug/L | 99     |
| 15) Methyl Acetate             | 2.61 | 43  | 317980  | 207.433 | ug/L | 99     |
| 16) Methylene chloride         | 2.70 | 84  | 295169  | 208.500 | ug/L | 97     |
| 17) trans-1,2-Dichloroethene   | 2.98 | 96  | 269331  | 211.896 | ug/L | 97     |
| 18) Methyl tert-butyl Ether    | 3.00 | 73  | 866075  | 221.129 | ug/L | 100    |
| 19) 1,1-Dichloroethane         | 3.45 | 63  | 523590  | 212.403 | ug/L | 100    |
| 20) cis-1,2-Dichloroethene     | 4.22 | 96  | 311097  | 217.295 | ug/L | 100    |
| 22) 2-Butanone                 | 4.26 | 43  | 517573  | 420.690 | ug/L | 100    |
| 23) Bromochloromethane         | 4.55 | 128 | 156938  | 214.322 | ug/L | 98     |
| 25) Chloroform                 | 4.67 | 83  | 523477  | 211.276 | ug/L | 99     |
| 27) 1,2-Dichloroethane         | 5.40 | 62  | 416643  | 211.770 | ug/L | 99     |
| 29) Cyclohexane                | 5.00 | 56  | 493284  | 224.247 | ug/L | 99     |
| 30) 1,1,1-Trichloroethane      | 4.92 | 97  | 439992  | 206.816 | ug/L | 100    |
| 31) Carbon tetrachloride       | 5.14 | 117 | 404150  | 210.168 | ug/L | 98     |
| 33) Benzene                    | 5.39 | 78  | 1169725 | 207.999 | ug/L | 100    |
| 34) Trichloroethene            | 6.19 | 95  | 293981  | 210.318 | ug/L | 99     |
| 35) Methylcyclohexane          | 6.42 | 83  | 514244  | 229.836 | ug/L | 99     |
| 37) 1,2-Dichloropropane        | 6.43 | 63  | 331211  | 210.821 | ug/L | 100    |
| 38) Bromodichloromethane       | 6.76 | 83  | 407804  | 211.812 | ug/L | 99     |
| 39) cis-1,3-Dichloropropene    | 7.27 | 75  | 521616  | 224.373 | ug/L | 100    |
| 40) 4-Methyl-2-pentanone       | 7.46 | 43  | 908434  | 453.304 | ug/L | 100    |

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 Sample : VSTD20052  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 6 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Sep 11 04:23:01 2018  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Tue Sep 11 04:12:24 2018  
 Response via : Initial Calibration

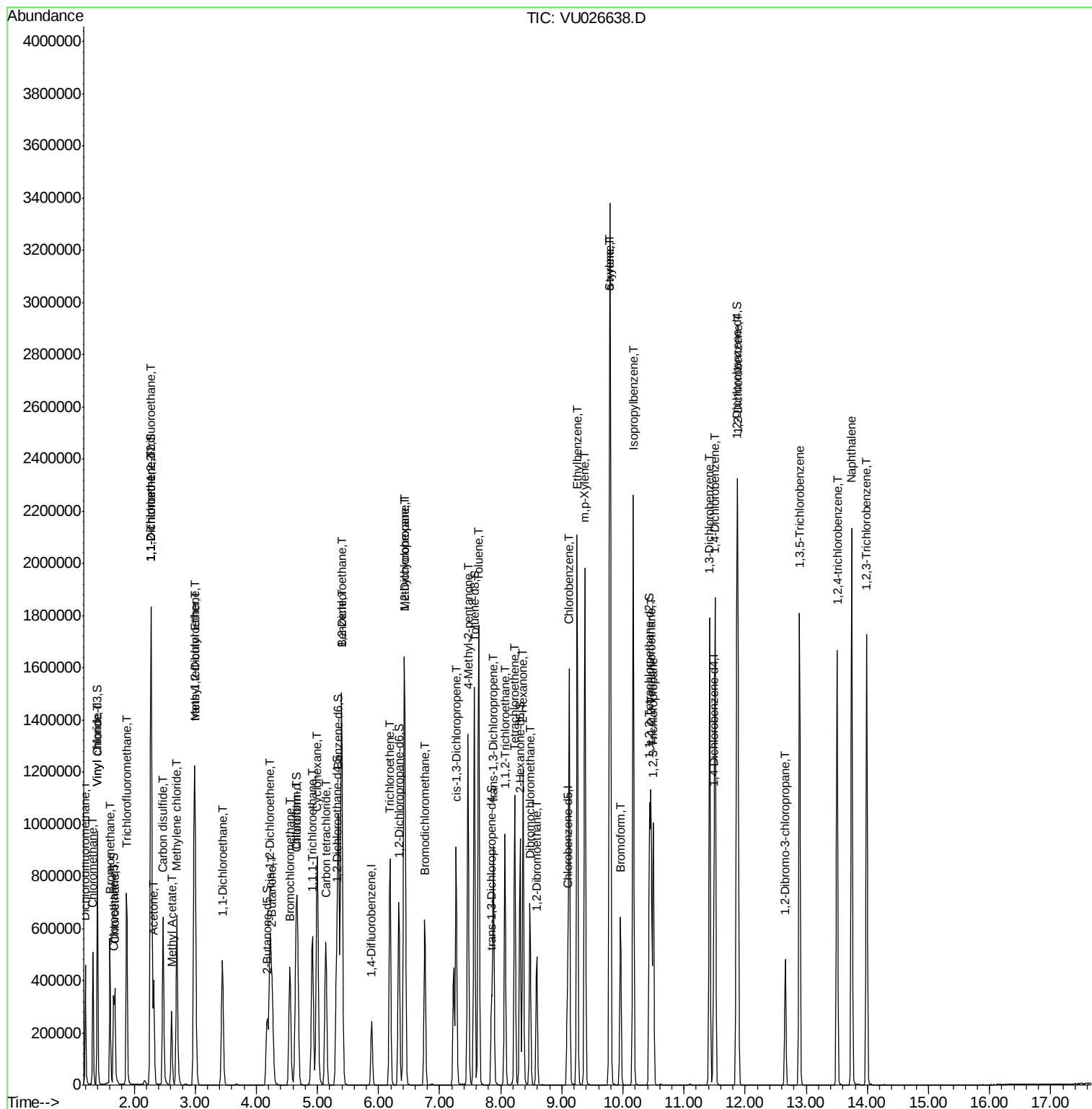
| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| 42) Toluene                    | 7.64  | 91   | 1252034  | 214.800 | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.88  | 75   | 485888   | 224.660 | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.07  | 97   | 291281   | 209.019 | ug/L  | 99       |
| 46) Tetrachloroethene          | 8.23  | 164  | 248959   | 211.925 | ug/L  | 100      |
| 48) 2-Hexanone                 | 8.37  | 43   | 761997   | 450.363 | ug/L  | 98       |
| 49) Dibromochloromethane       | 8.48  | 129  | 353511   | 219.468 | ug/L  | 97       |
| 50) 1,2-Dibromoethane          | 8.59  | 107  | 319679   | 214.441 | ug/L  | 99       |
| 51) Chlorobenzene              | 9.12  | 112  | 824206   | 215.354 | ug/L  | 100      |
| 52) Ethylbenzene               | 9.25  | 91   | 1440705  | 228.546 | ug/L  | 99       |
| 53) m,p-Xylene                 | 9.38  | 106  | 551144   | 231.875 | ug/L  | 98       |
| 54) o-xylene                   | 9.78  | 106  | 552402   | 234.168 | ug/L  | 99       |
| 55) Styrene                    | 9.79  | 104  | 963389   | 241.425 | ug/L  | 99       |
| 56) Isopropylbenzene           | 10.17 | 105  | 1438762  | 239.422 | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.46 | 83   | 540819   | 224.017 | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.49 | 75   | 410285   | 220.719 | ug/L  | 100      |
| 61) Bromoform                  | 9.96  | 173  | 291369   | 205.322 | ug/L  | 99       |
| 62) 1,3-Dichlorobenzene        | 11.42 | 146  | 705563   | 213.308 | ug/L  | 99       |
| 63) 1,4-Dichlorobenzene        | 11.51 | 146  | 719240   | 205.259 | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.88 | 146  | 726949   | 207.947 | ug/L  | 99       |
| 66) 1,2-Dibromo-3-chloropropan | 12.66 | 75   | 115513   | 204.531 | ug/L  | 98       |
| 67) 1,3,5-Trichlorobenzene     | 12.89 | 180  | 569914   | 217.215 | ug/L  | 99       |
| 68) 1,2,4-trichlorobenzene     | 13.50 | 180  | 517640   | 226.990 | ug/L  | 99       |
| 69) Naphthalene                | 13.74 | 128  | 1610362  | 230.447 | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.99 | 180  | 532252   | 215.468 | ug/L  | 100      |

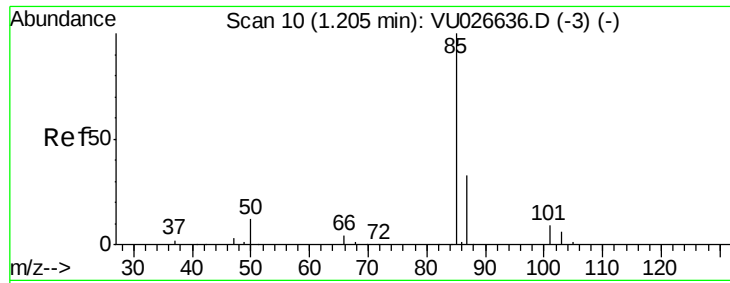
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :  
MSVOA\_U  
ClientSampleId :

Quant Time: Sep 11 04:23:01 2018  
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM091018WMA.M  
Quant Title : VOC Analysis  
QLast Update : Tue Sep 11 04:12:24 2018  
Response via : Initial Calibration





#2

Dichlorodifluoromethane

Concen: 211.706 ug/L

RT: 1.20 min Scan# 9

Delta R.T. -0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

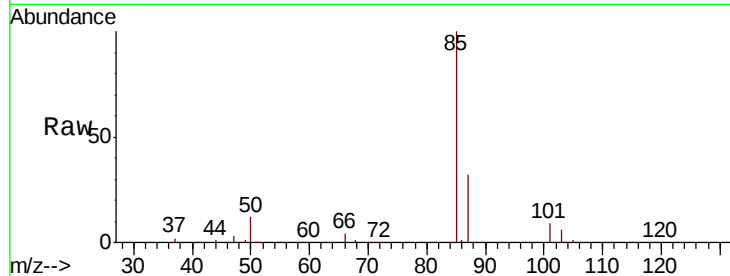
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 85 Resp: 271112

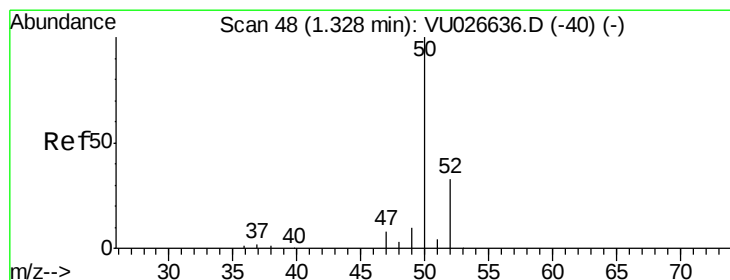
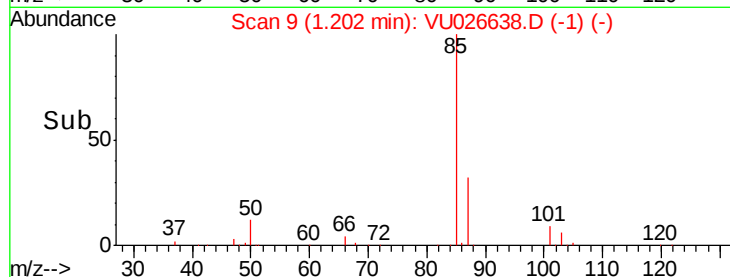
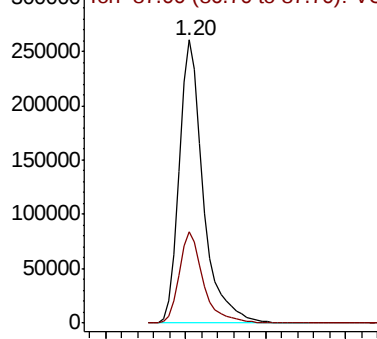
Ion Ratio Lower Upper

85 100

87 32.2 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VU0  
Ion 87.00 (86.70 to 87.70): VU0



#3

Chloromethane

Concen: 206.513 ug/L

RT: 1.32 min Scan# 47

Delta R.T. -0.00 min

Lab File: VU026638.D

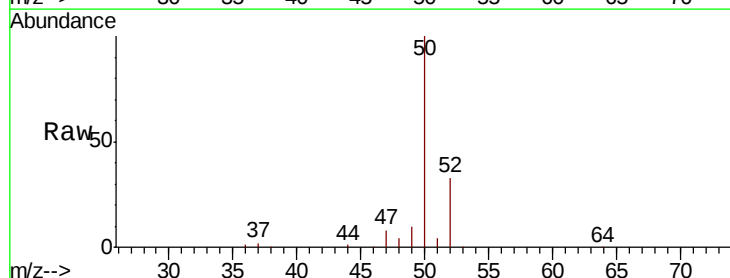
Acq: 10 Sep 2018 09:41

Tgt Ion: 50 Resp: 347641

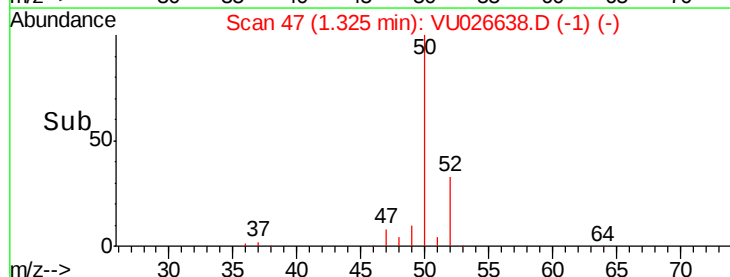
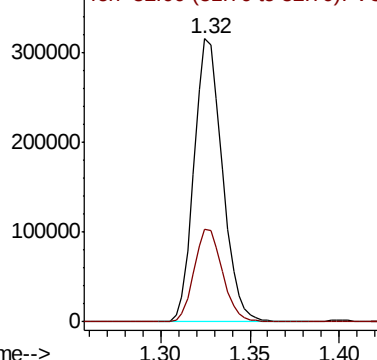
Ion Ratio Lower Upper

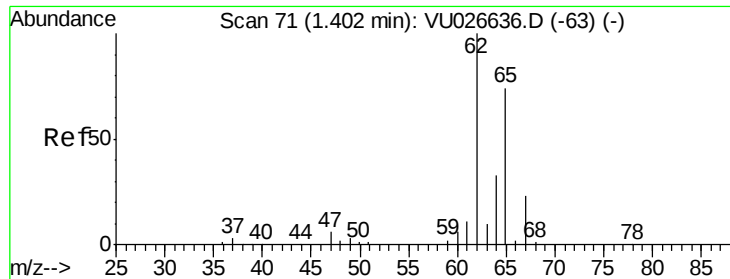
50 100

52 32.8 23.2 43.2



Abundance Ion 50.00 (49.70 to 50.70): VU0  
Ion 52.00 (51.70 to 52.70): VU0





#5

Vinyl chloride

Concen: 209.301 ug/L

RT: 1.40 min Scan# 71

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

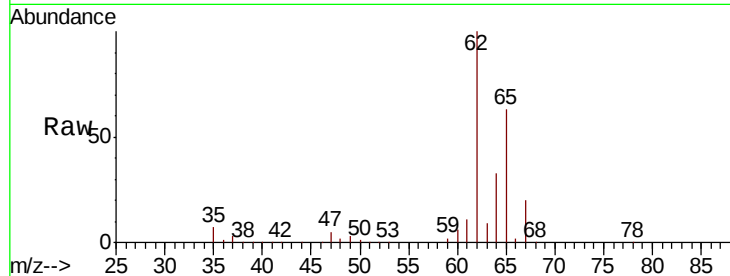
ClientSampled :

Tot Ion: 62 Resp: 364070

Ion Ratio Lower Upper

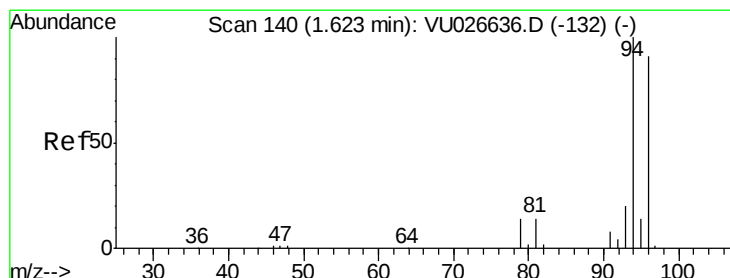
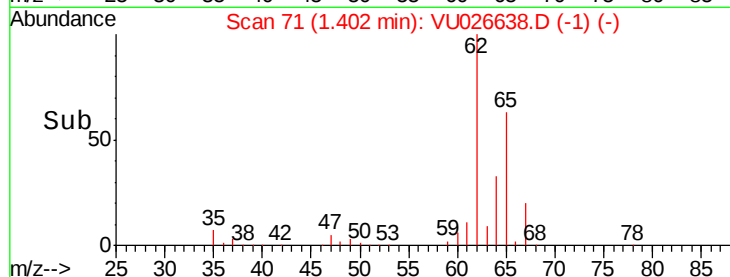
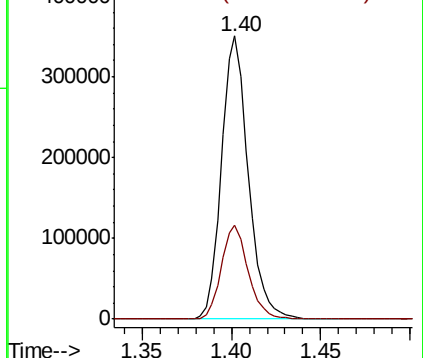
62 100

64 33.1 22.9 42.5



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.00 (63.70 to 64.70): VU0



#6

Bromomethane

Concen: 214.743 ug/L

RT: 1.60 min Scan# 134

Delta R.T. -0.02 min

Lab File: VU026638.D

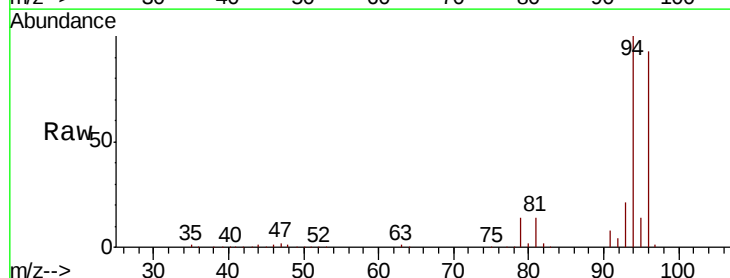
Acq: 10 Sep 2018 09:41

Tgt Ion: 94 Resp: 217678

Ion Ratio Lower Upper

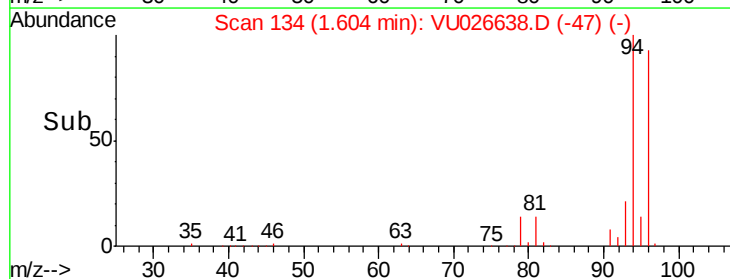
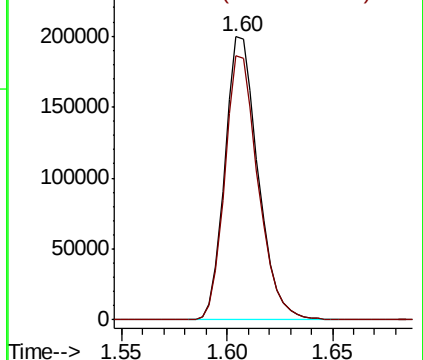
94 100

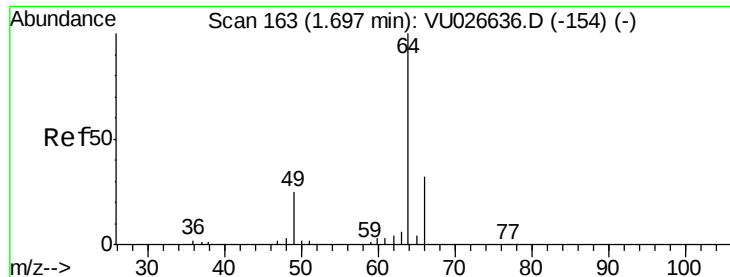
96 93.3 63.6 118.0



Abundance Ion 94.00 (93.70 to 94.70): VU0

Ion 96.00 (95.70 to 96.70): VU0





#8

Chloroethane

Concen: 202.619 ug/L

RT: 1.68 min Scan# 159

Delta R.T. -0.01 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

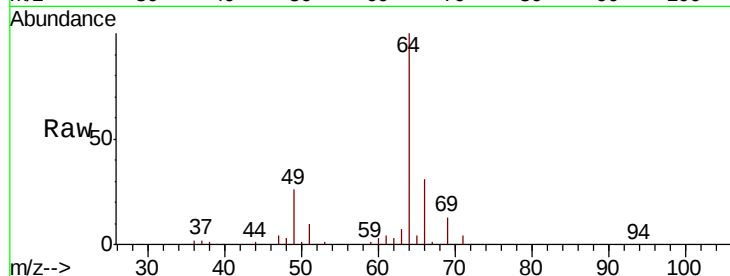
ClientSampleId :

Tot Ion: 64 Resp: 218584

Ion Ratio Lower Upper

64 100

66 31.3 22.4 41.6



Abundance Ion 64.00 (63.70 to 64.70): VU026638.D (-154) (-)

Ion 66.00 (65.70 to 66.70): VU026638.D (-154) (-)

1.68

150000

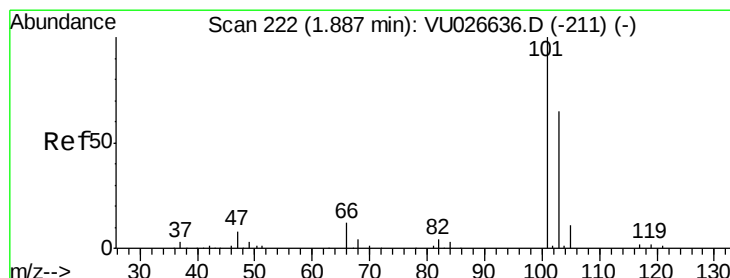
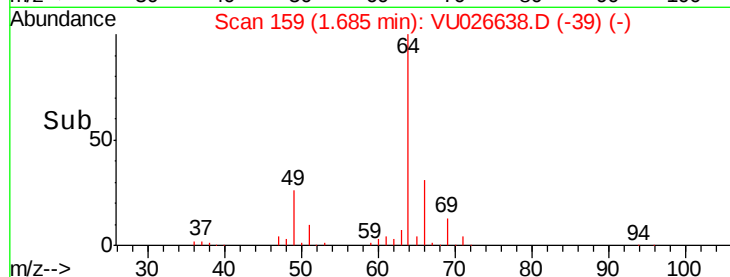
100000

50000

0

1.65 1.70 1.75

Time-->



#9

Trichlorofluoromethane

Concen: 212.400 ug/L

RT: 1.88 min Scan# 219

Delta R.T. -0.01 min

Lab File: VU026638.D

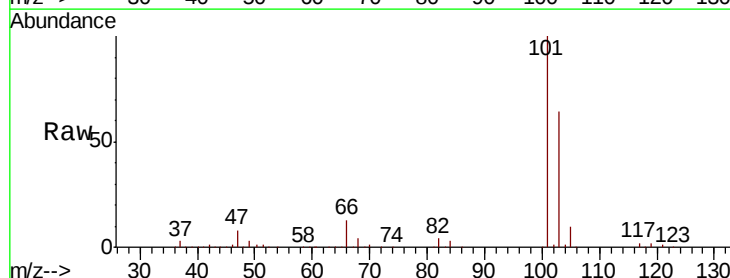
Acq: 10 Sep 2018 09:41

Tgt Ion:101 Resp: 465879

Ion Ratio Lower Upper

101 100

103 64.7 51.8 77.6



Abundance Ion 101.00 (100.70 to 101.70): VU026638.D (-98) (-)

Ion 103.00 (102.70 to 103.70): VU026638.D (-98) (-)

1.88

300000

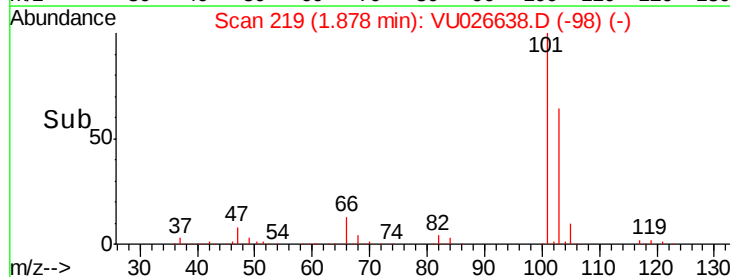
200000

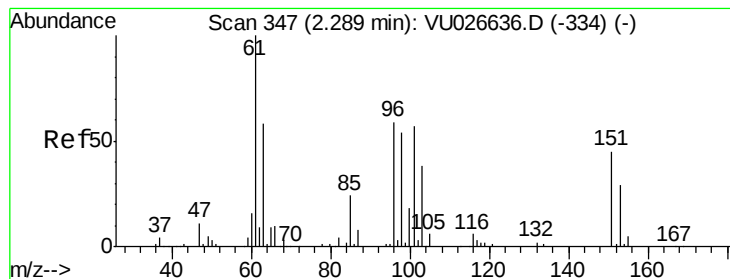
100000

0

1.80 1.85 1.90 1.95 2.00

Time-->





#10

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

Concen: 214.160 ug/L

RT: 2.28 min Scan# 345

Delta R.T. -0.01 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

ClientSampleId :

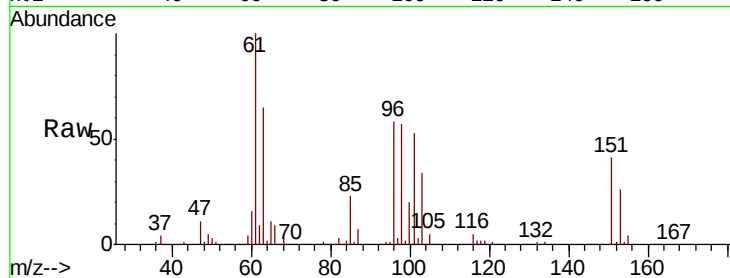
Tot Ion: 101 Resp: 267511

Ion Ratio Lower Upper

101 100

85 42.8 34.1 51.1

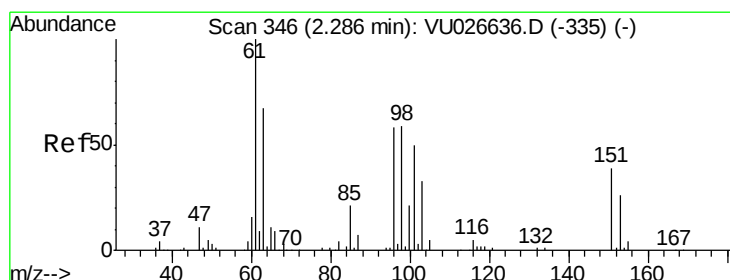
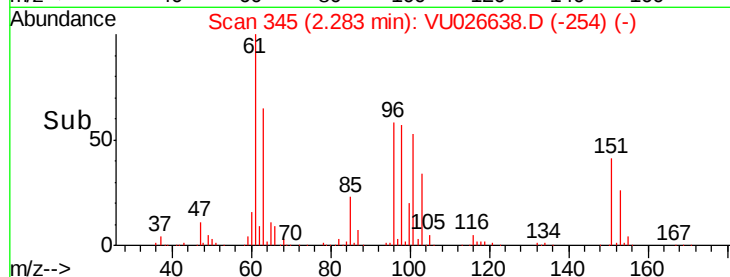
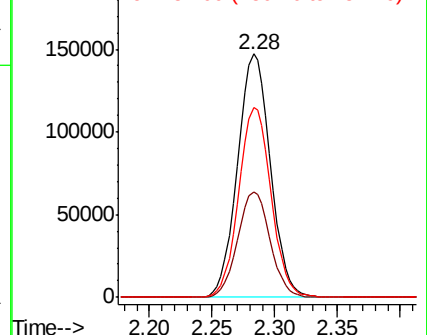
151 77.0 62.6 94.0



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: 210.579 ug/L

RT: 2.28 min Scan# 344

Delta R.T. -0.01 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

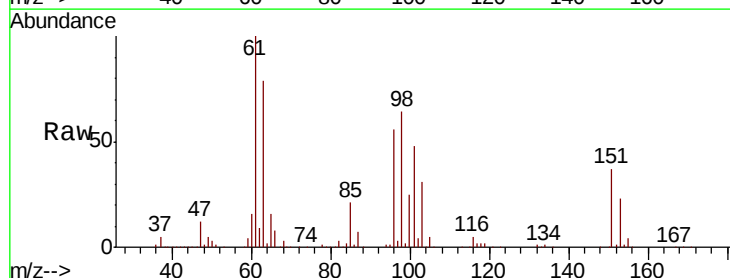
Tgt Ion: 96 Resp: 252604

Ion Ratio Lower Upper

96 100

61 178.7 121.0 224.8

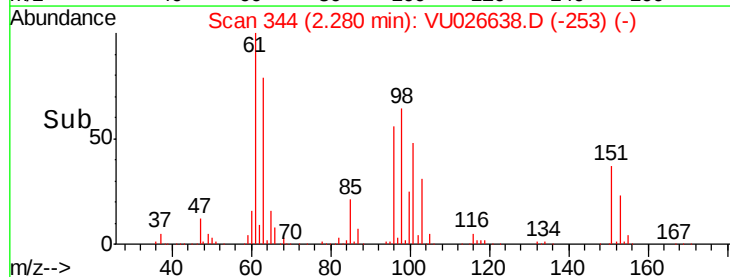
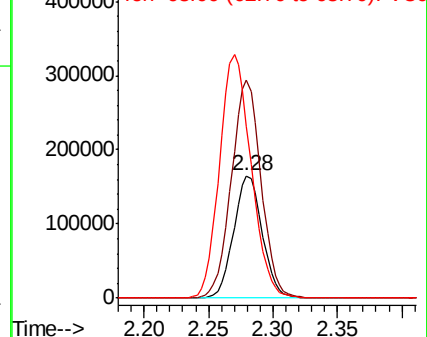
63 140.8 89.9 166.9

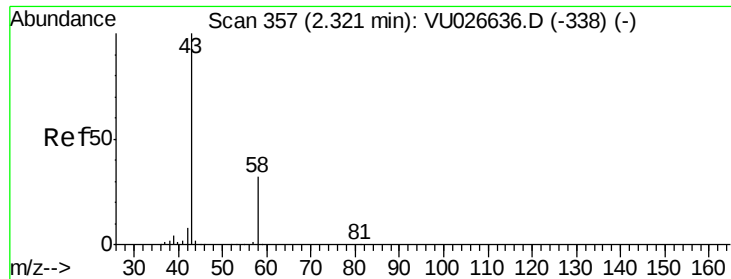


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 369.566 ug/L

RT: 2.32 min Scan# 357

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

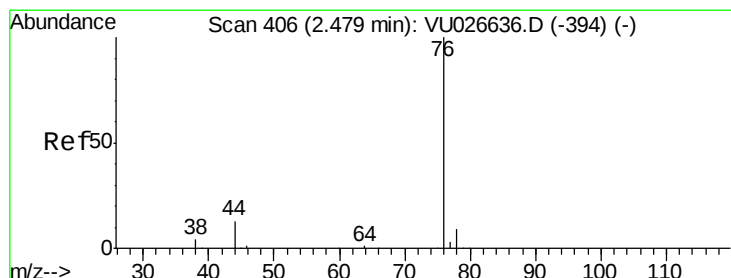
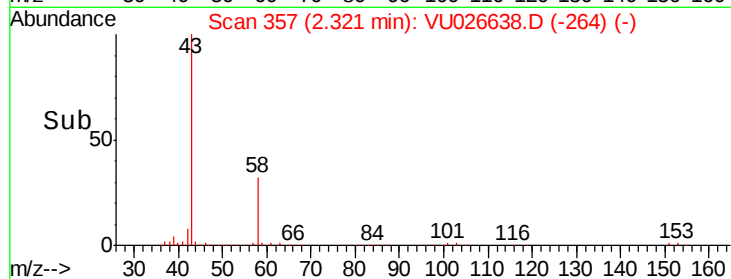
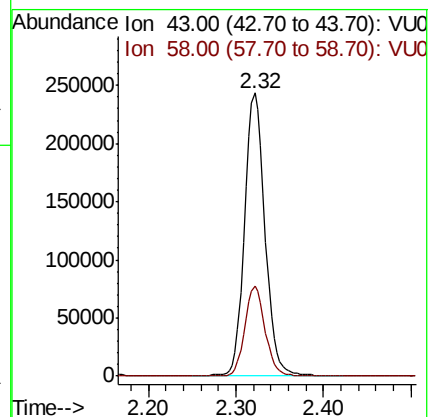
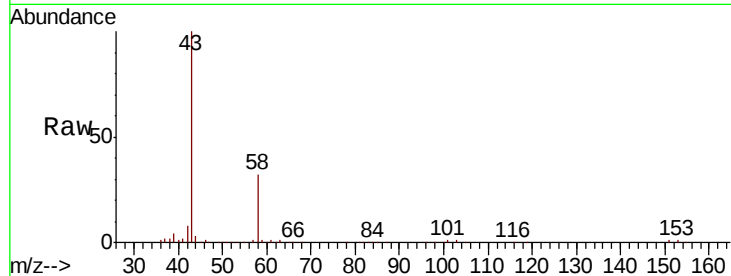
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 43 Resp: 397109

Ion Ratio Lower Upper

43 100

58 31.1 0.0 62.8



#14

Carbon disulfide

Concen: 209.762 ug/L

RT: 2.48 min Scan# 405

Delta R.T. -0.00 min

Lab File: VU026638.D

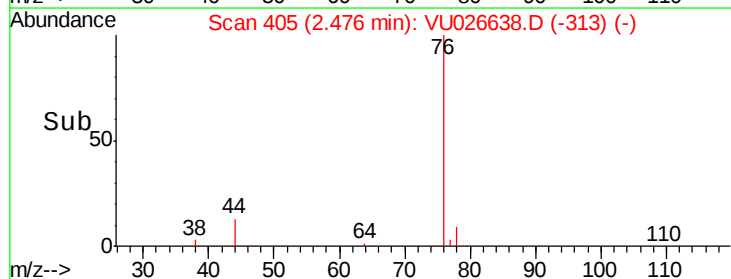
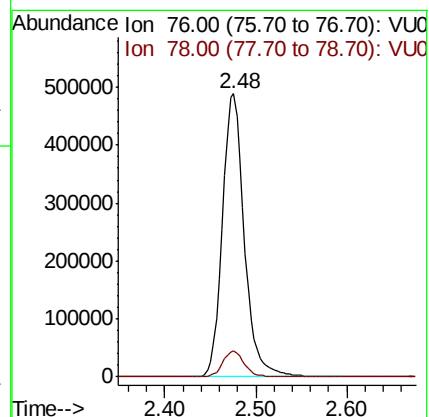
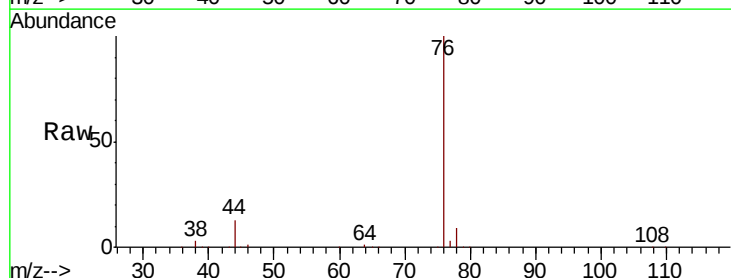
Acq: 10 Sep 2018 09:41

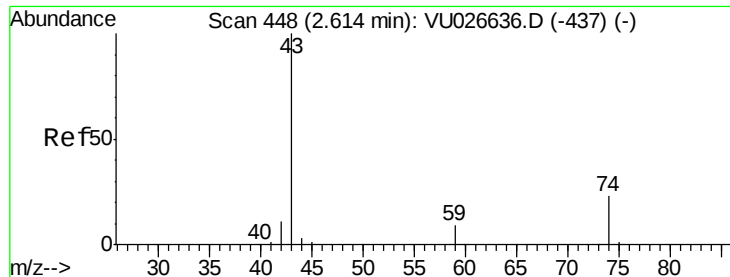
Tgt Ion: 76 Resp: 817238

Ion Ratio Lower Upper

76 100

78 9.1 7.4 11.2

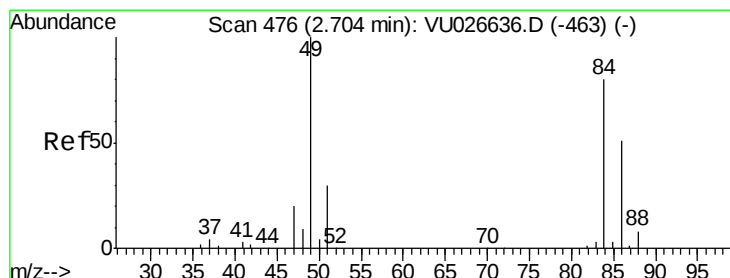
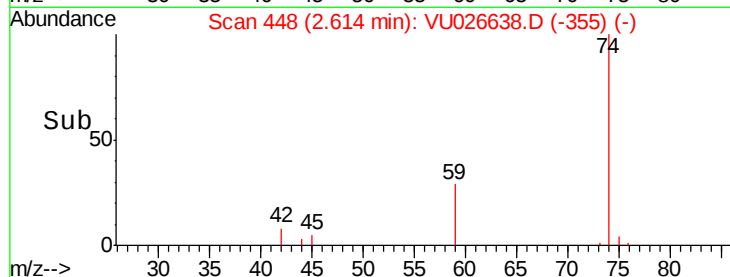
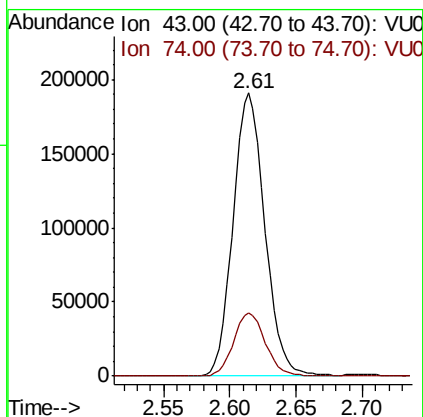
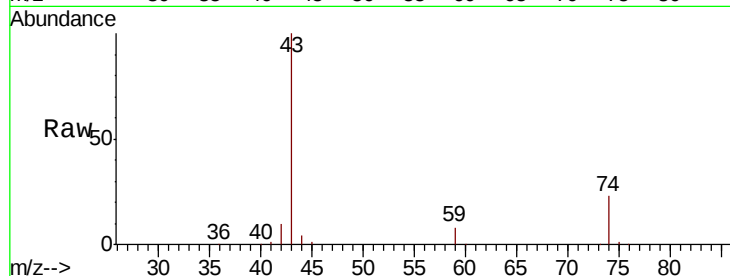




#15  
Methvl Acetate  
Concen: 207.433 ug/L  
RT: 2.61 min Scan# 448  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

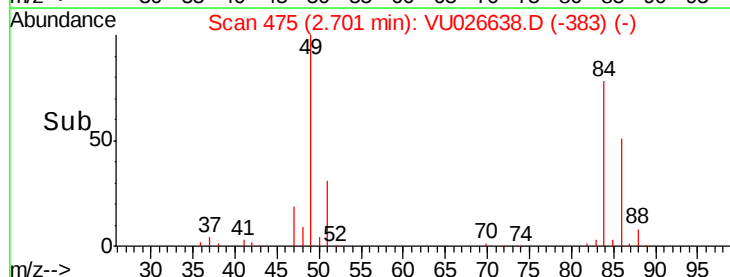
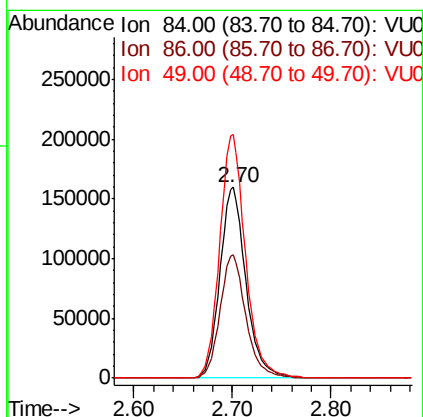
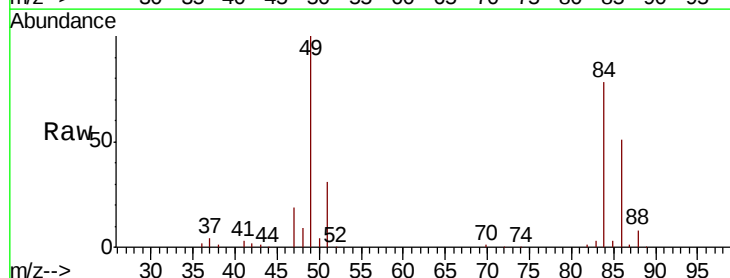
Instrument :  
MSVOA\_U  
ClientSampleId :

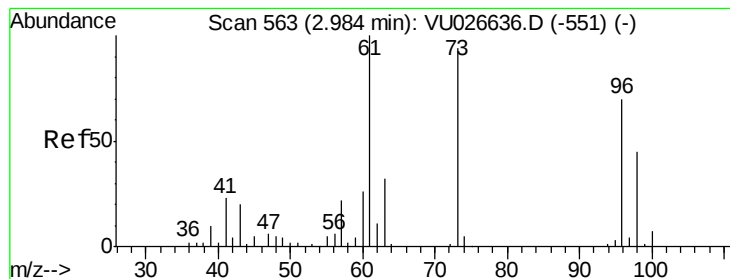
Tot Ion: 43 Resp: 317980  
Ion Ratio Lower Upper  
43 100  
74 22.4 18.5 27.7



#16  
Methylene chloride  
Concen: 208.500 ug/L  
RT: 2.70 min Scan# 475  
Delta R.T. -0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Tgt Ion: 84 Resp: 295169  
Ion Ratio Lower Upper  
84 100  
86 64.7 44.1 81.9  
49 127.7 87.2 161.9





#17

trans-1,2-Dichloroethene

Concen: 211.896 ug/L

RT: 2.98 min Scan# 562

Delta R.T. -0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

ClientSampled :

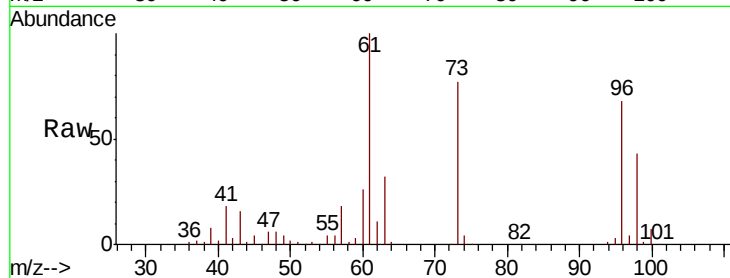
Tot Ion: 96 Resp: 269331

Ion Ratio Lower Upper

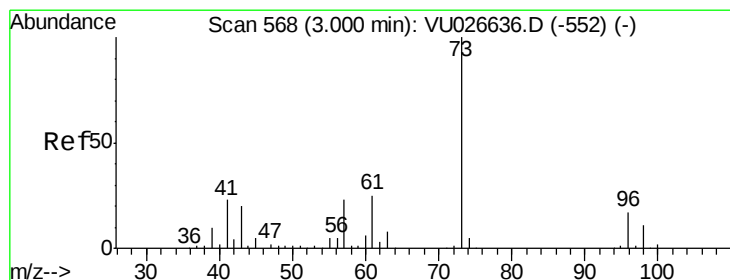
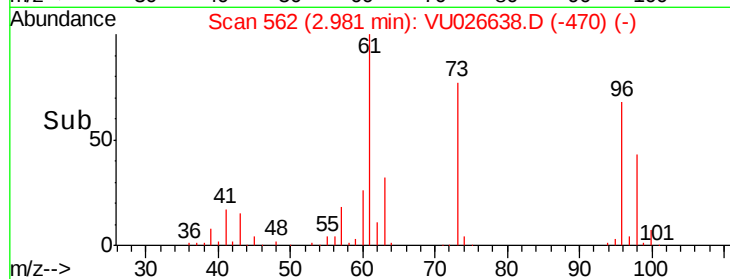
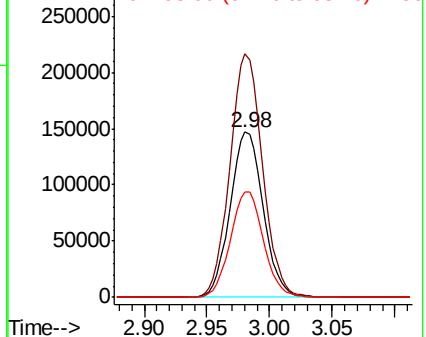
96 100

61 147.3 99.7 185.1

98 64.1 45.1 83.7



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: 221.129 ug/L

RT: 3.00 min Scan# 568

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

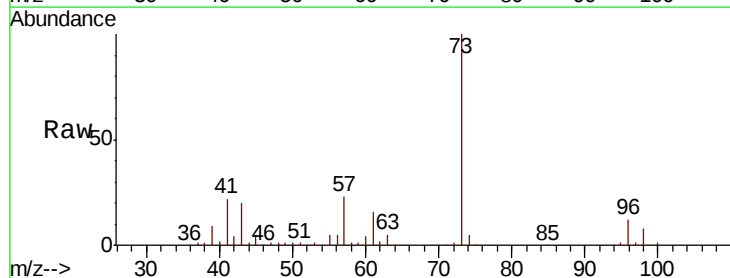
Tgt Ion: 73 Resp: 866075

Ion Ratio Lower Upper

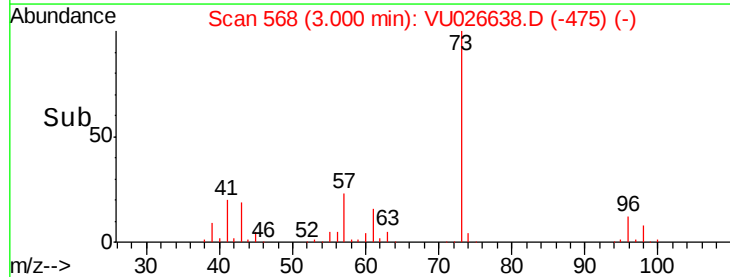
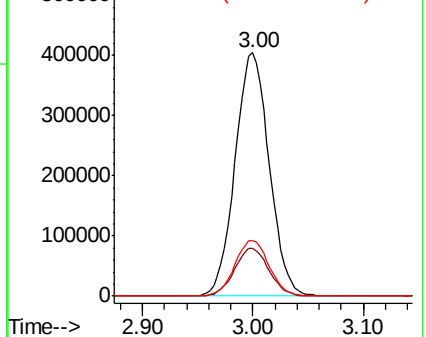
73 100

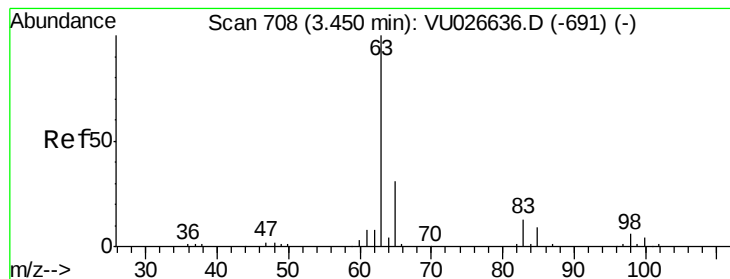
43 19.9 16.0 24.0

57 23.0 18.6 27.8



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: 212.403 ug/L

RT: 3.45 min Scan# 707

Delta R.T. -0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

ClientSampleId :

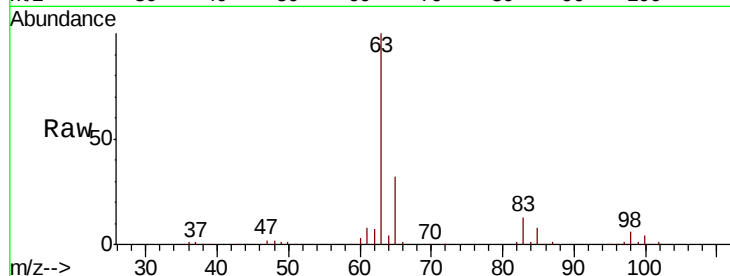
Tot Ion: 63 Resp: 523590

Ion Ratio Lower Upper

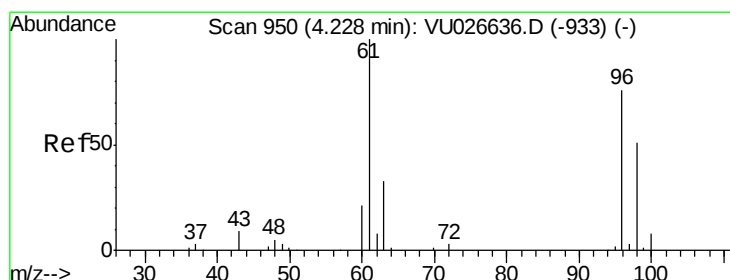
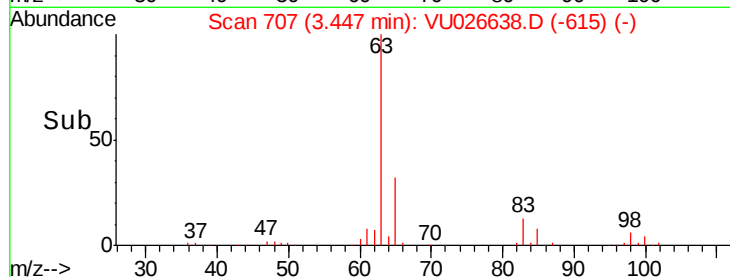
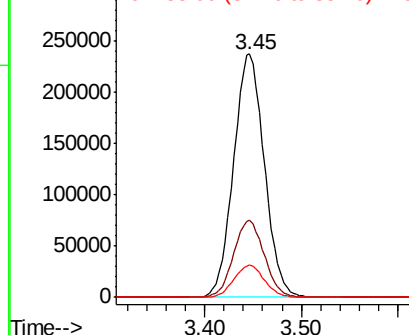
63 100

65 31.6 21.9 40.7

83 13.2 9.2 17.2



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: 217.295 ug/L

RT: 4.22 min Scan# 949

Delta R.T. -0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

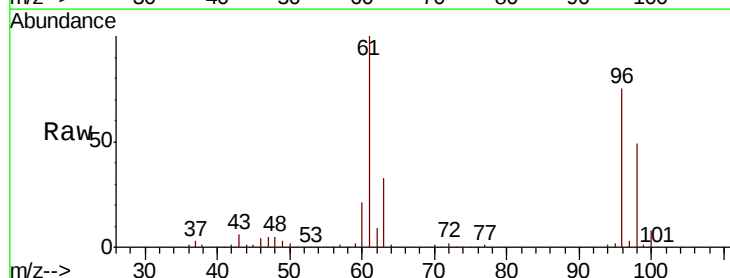
Tgt Ion: 96 Resp: 311097

Ion Ratio Lower Upper

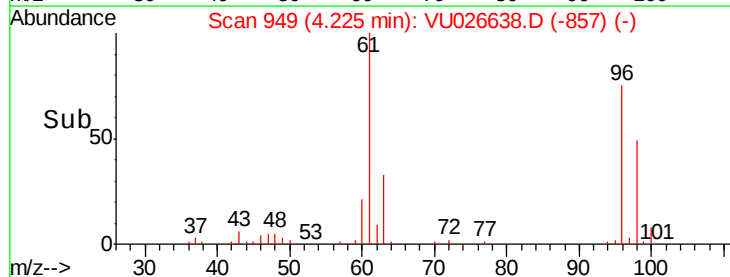
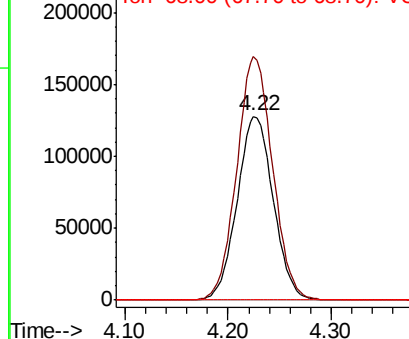
96 100

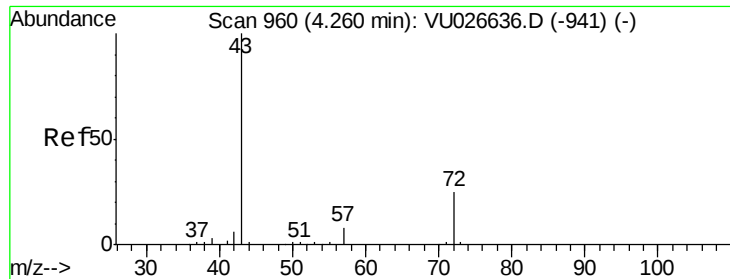
61 132.6 92.9 172.5

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: 420.690 ug/L

RT: 4.26 min Scan# 960

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

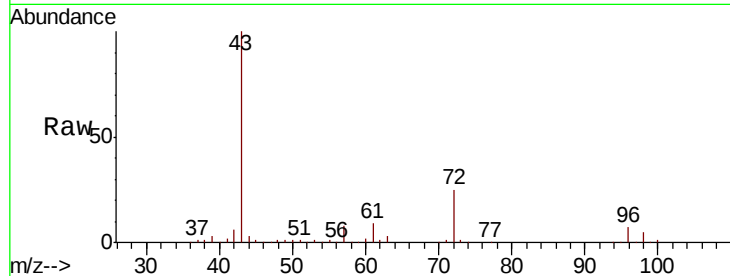
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 43 Resp: 517573

Ion Ratio Lower Upper

43 100

72 25.6 12.9 38.6



Abundance Ion 43.00 (42.70 to 43.70): VU026638.D (-941) (-)

Ion 72.00 (71.70 to 72.70): VU026638.D (-941) (-)

4.26

200000

150000

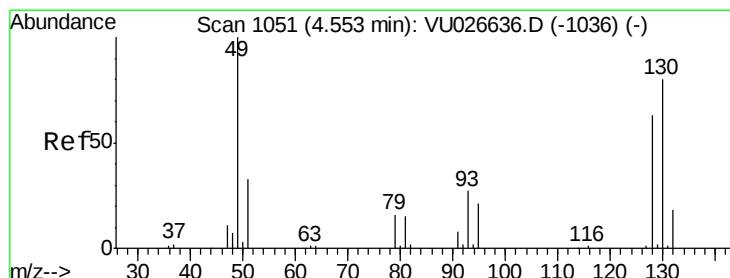
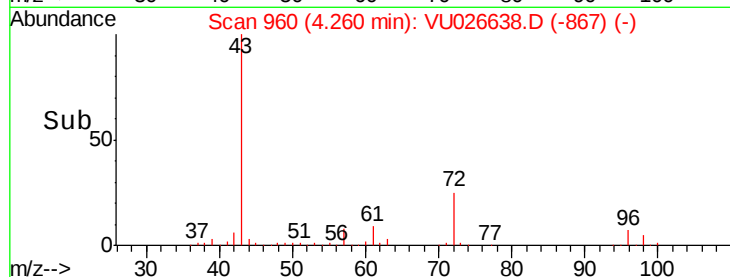
100000

50000

0

4.20 4.30 4.40

Time-->



#23

Bromochloromethane

Concen: 214.322 ug/L

RT: 4.55 min Scan# 1050

Delta R.T. -0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Tgt Ion:128 Resp: 156938

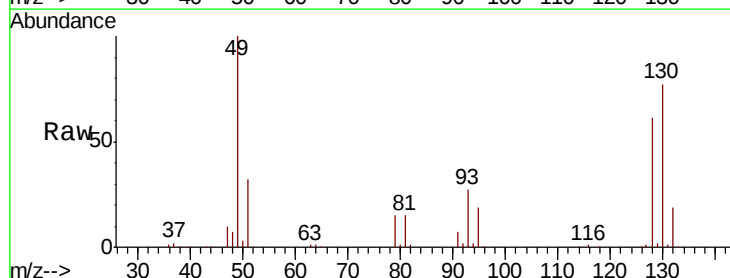
Ion Ratio Lower Upper

128 100

49 164.6 111.7 207.5

130 126.6 89.0 165.2

51 52.0 42.0 63.0



Abundance Ion 128.00 (127.70 to 128.70): VU026638.D (-958) (-)

Ion 49.00 (48.70 to 49.70): VU026638.D (-958) (-)

Ion 130.00 (129.70 to 130.70): VU026638.D (-958) (-)

Ion 51.00 (50.70 to 51.70): VU026638.D (-958) (-)

4.55

150000

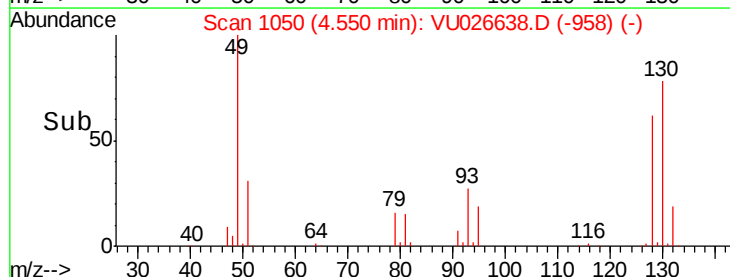
100000

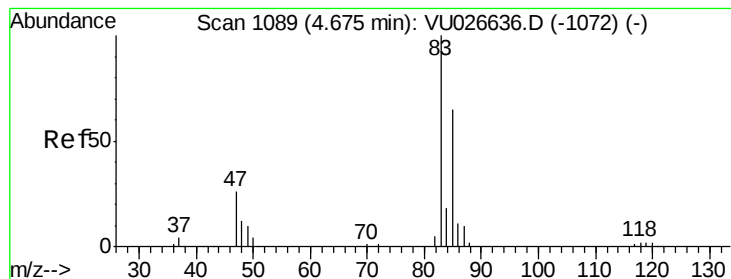
50000

0

4.50 4.60

Time-->





#25

Chloroform

Concen: 211.276 ug/L

RT: 4.67 min Scan# 1089

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

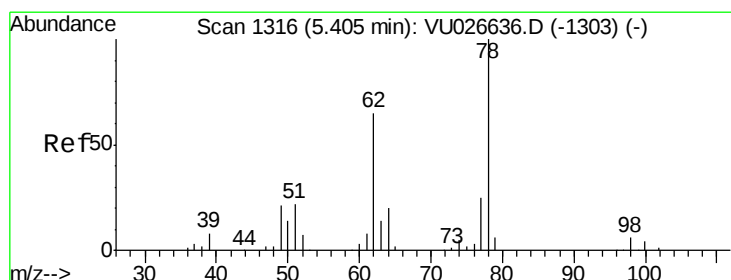
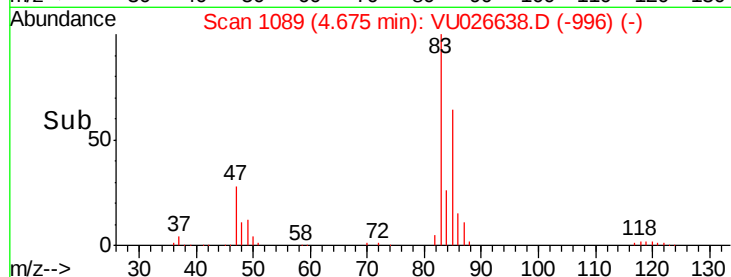
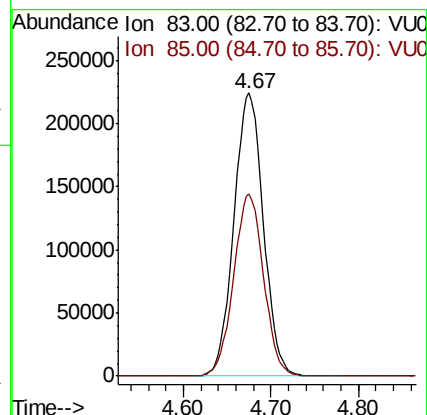
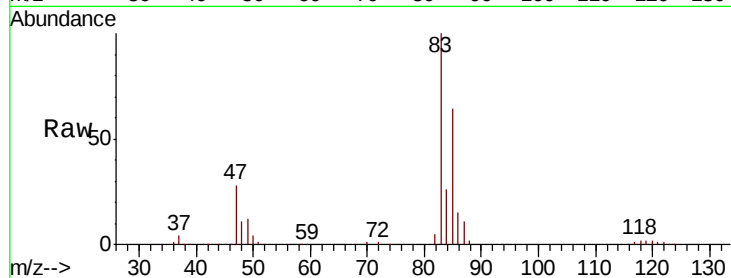
ClientSampled :

Tot Ion: 83 Resp: 523477

Ion Ratio Lower Upper

83 100

85 64.5 45.6 84.6



#27

1,2-Dichloroethane

Concen: 211.770 ug/L

RT: 5.40 min Scan# 1316

Delta R.T. 0.00 min

Lab File: VU026638.D

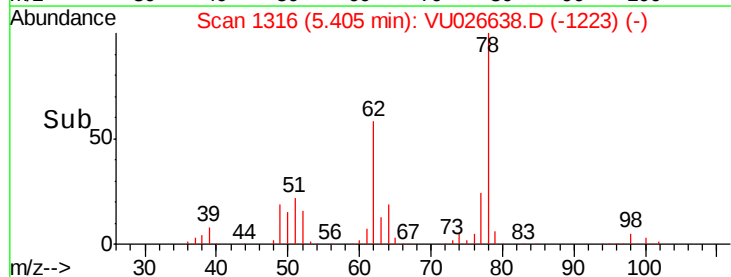
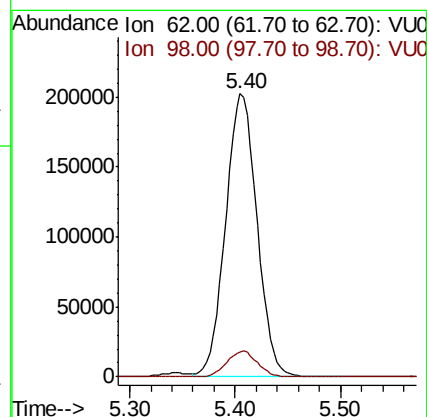
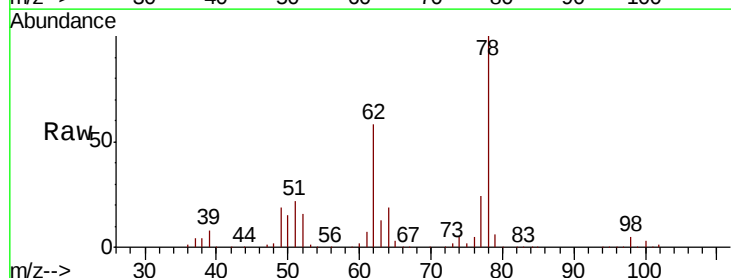
Acq: 10 Sep 2018 09:41

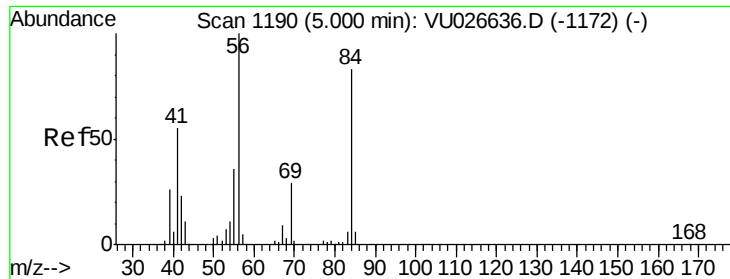
Tgt Ion: 62 Resp: 416643

Ion Ratio Lower Upper

62 100

98 8.9 7.4 11.0

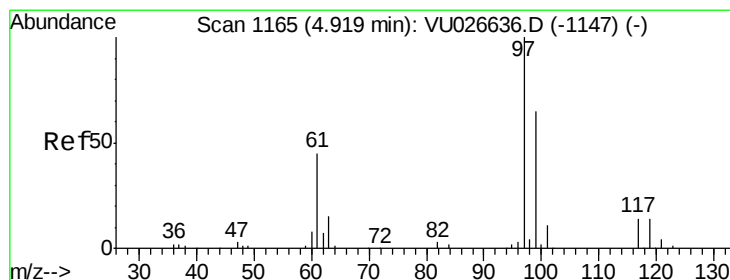
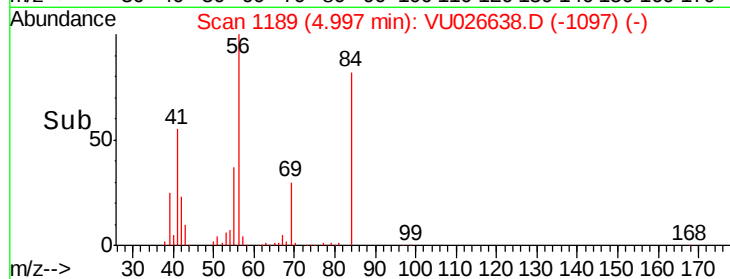
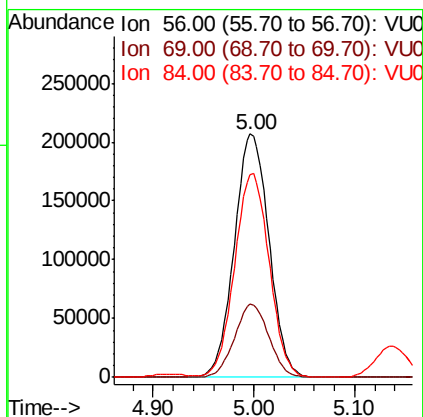
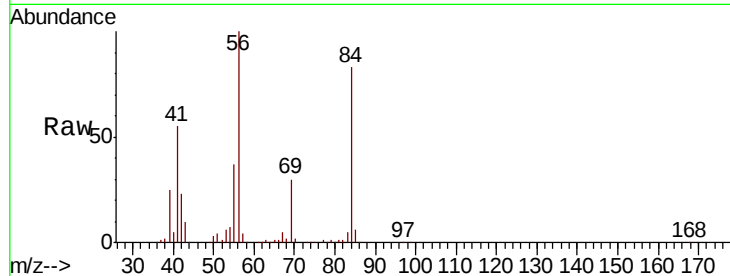




#29  
Cyclohexane  
Concen: 224.247 ug/L  
RT: 5.00 min Scan# 1189  
Delta R.T. -0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

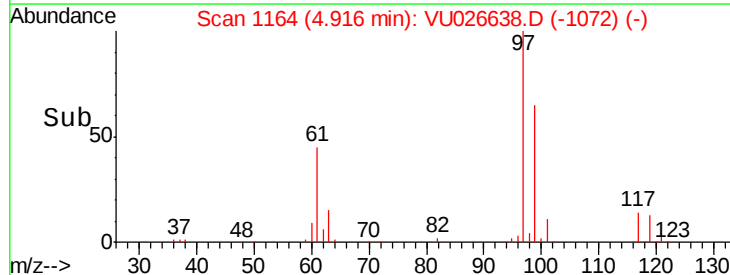
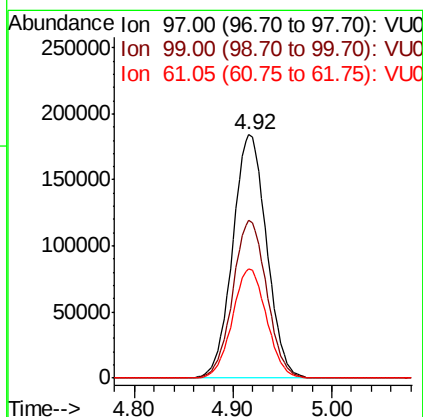
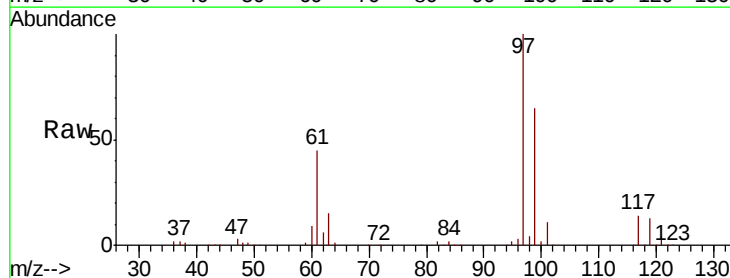
Instrument :  
MSVOA\_U  
ClientSampled :

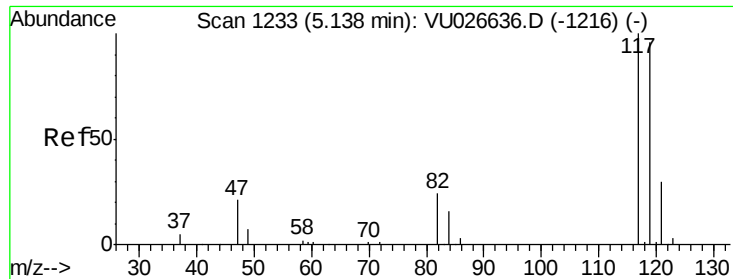
Tot Ion: 56 Resp: 493284  
Ion Ratio Lower Upper  
56 100  
69 29.7 23.0 34.6  
84 83.7 66.5 99.7



#30  
1,1,1-Trichloroethane  
Concen: 206.816 ug/L  
RT: 4.92 min Scan# 1164  
Delta R.T. -0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Tgt Ion: 97 Resp: 439992  
Ion Ratio Lower Upper  
97 100  
99 64.9 51.5 77.3  
61 45.3 36.2 54.2



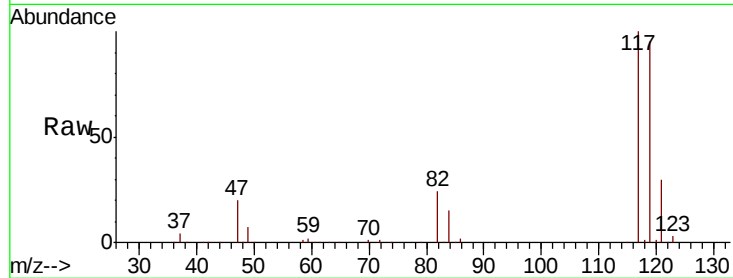


#31

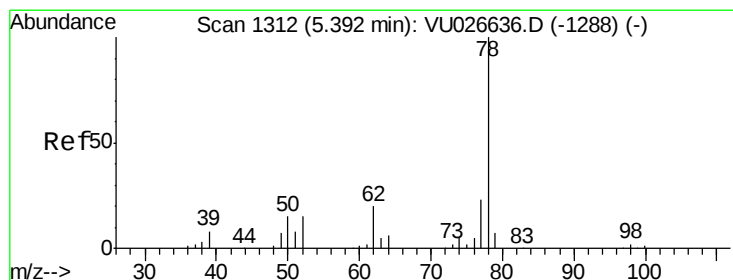
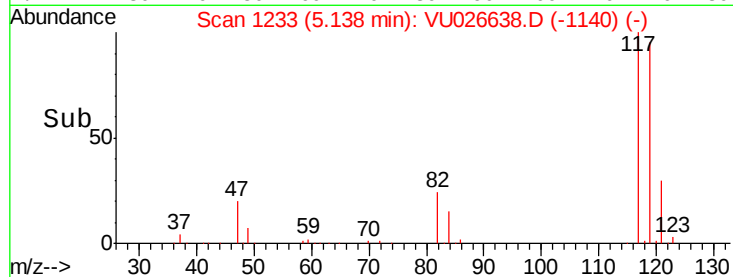
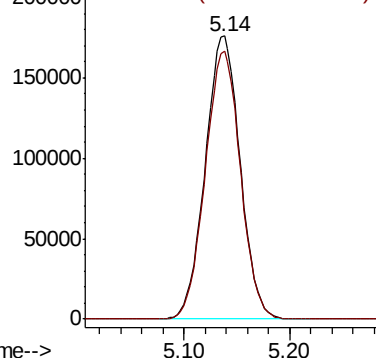
Carbon tetrachloride  
Concen: 210.168 ug/L  
RT: 5.14 min Scan# 1233  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion:117 Resp: 404150  
Ion Ratio Lower Upper  
117 100  
119 95.2 77.6 116.4



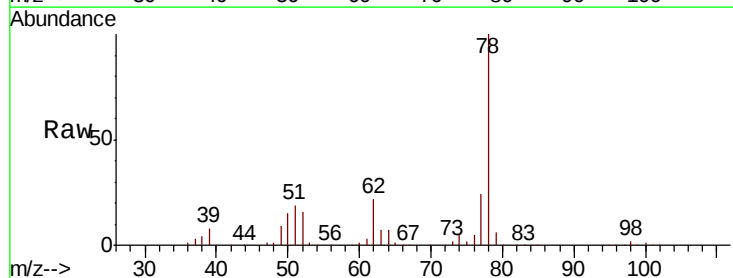
Abundance Ion 117.00 (116.70 to 117.70): V  
Ion 119.00 (118.70 to 119.70): V



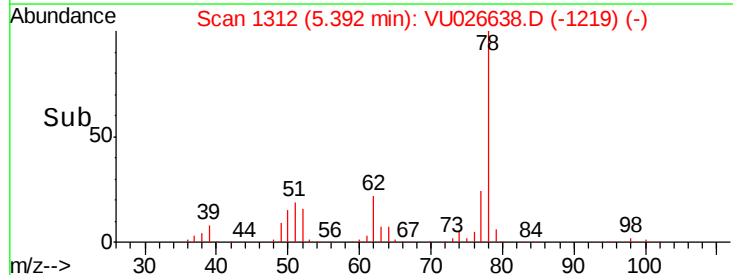
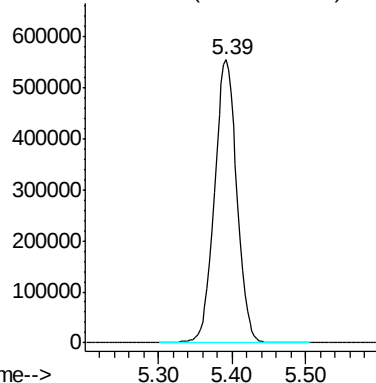
#33

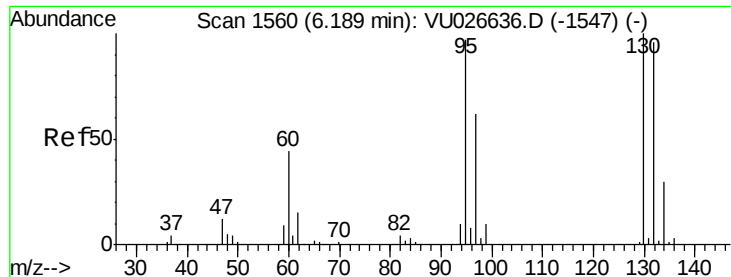
Benzene  
Concen: 207.999 ug/L  
RT: 5.39 min Scan# 1312  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Tgt Ion: 78 Resp: 1169725



Abundance Ion 78.00 (77.70 to 78.70): VU0

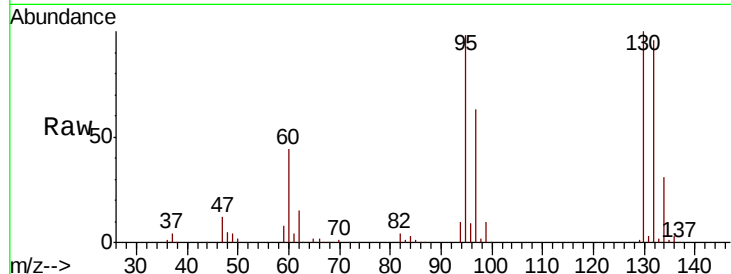




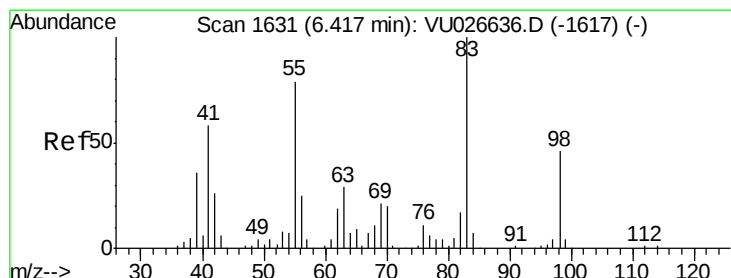
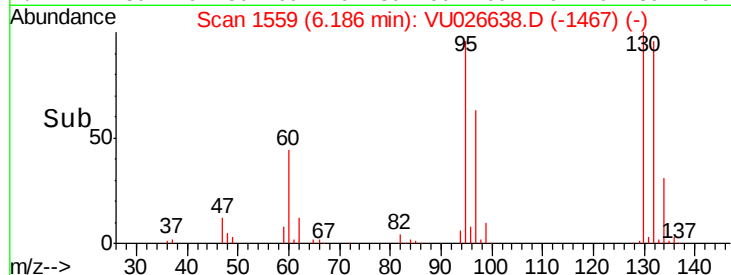
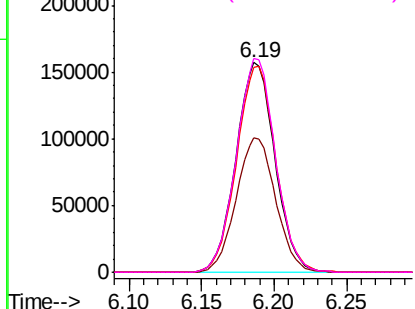
#34  
 Trichloroethene  
 Concen: 210.318 ug/L  
 RT: 6.19 min Scan# 1559  
 Delta R.T. -0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

Instrument :  
 MSVOA\_U  
 ClientSampled :

Tot Ion: 95 Resp: 293981  
 Ion Ratio Lower Upper  
 95 100  
 97 64.2 44.9 83.5  
 132 98.1 69.7 129.5  
 130 102.0 72.4 134.4

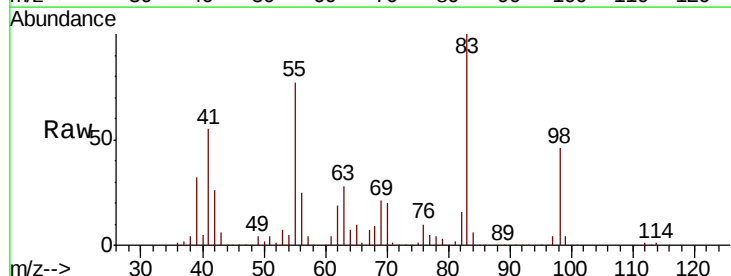


Abundance Ion 95.00 (94.70 to 95.70): VU0  
 Ion 97.00 (96.70 to 97.70): VU0  
 Ion 132.00 (131.70 to 132.70): V  
 Ion 130.00 (129.70 to 130.70): V

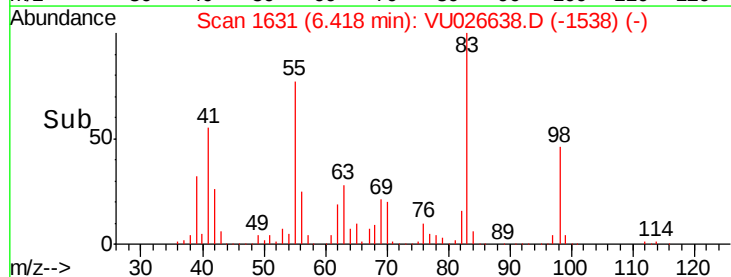
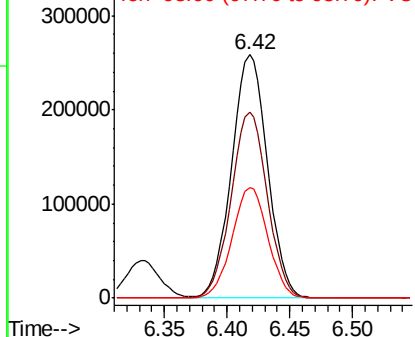


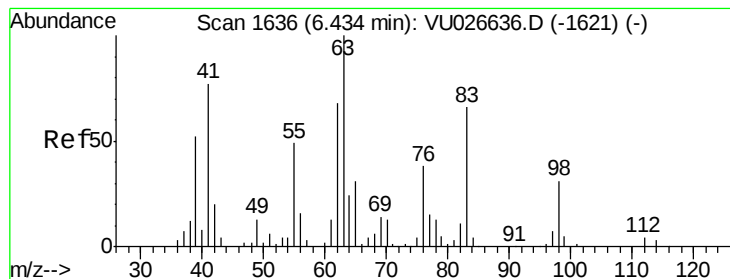
#35  
 Methylcyclohexane  
 Concen: 229.836 ug/L  
 RT: 6.42 min Scan# 1631  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

Tgt Ion: 83 Resp: 514244  
 Ion Ratio Lower Upper  
 83 100  
 55 77.1 62.9 94.3  
 98 45.5 37.0 55.4



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: 210.821 ug/L

RT: 6.43 min Scan# 1636

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

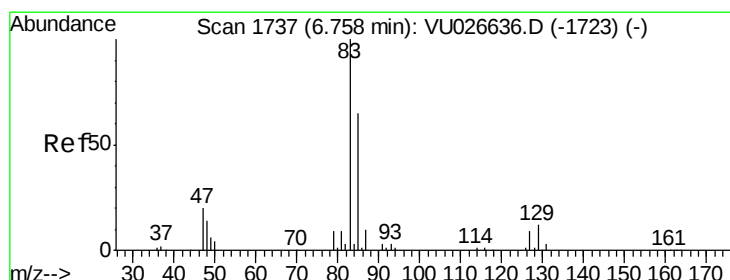
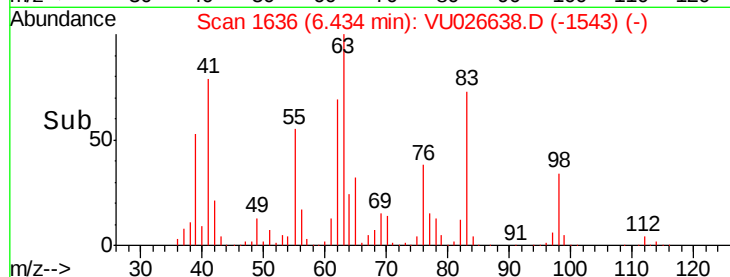
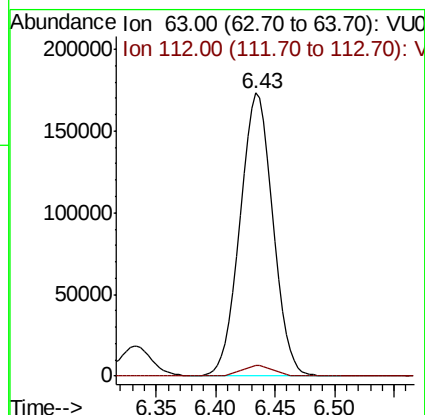
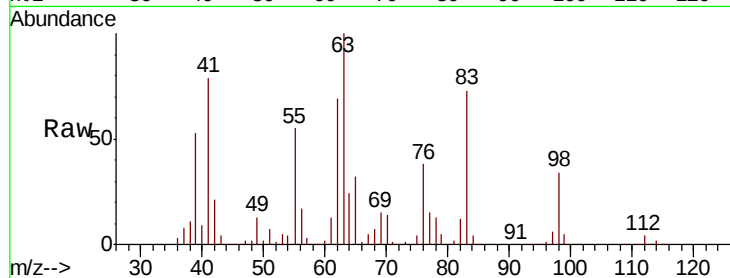
ClientSampled :

Tot Ion: 63 Resp: 331211

Ion Ratio Lower Upper

63 100

112 3.6 2.9 4.3



#38

Bromodichloromethane

Concen: 211.812 ug/L

RT: 6.76 min Scan# 1737

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

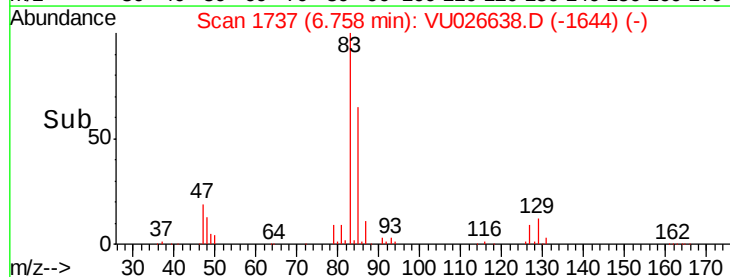
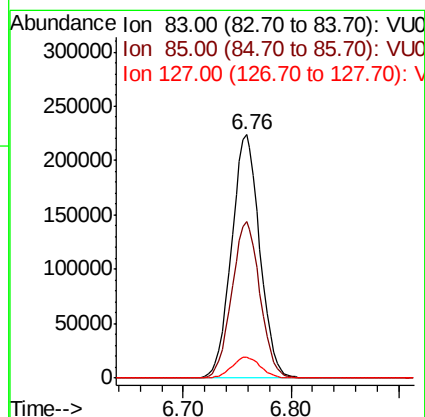
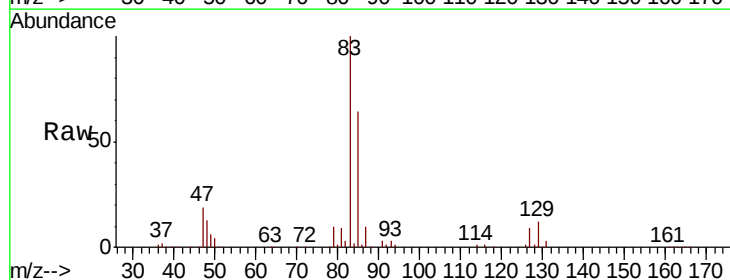
Tgt Ion: 83 Resp: 407804

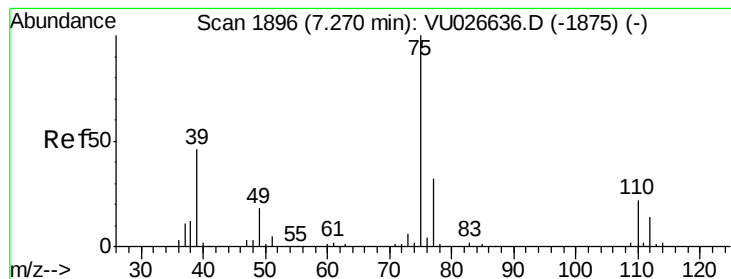
Ion Ratio Lower Upper

83 100

85 64.1 45.1 83.9

127 8.7 7.2 10.8



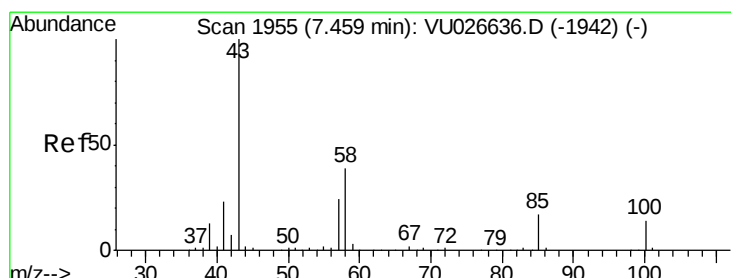
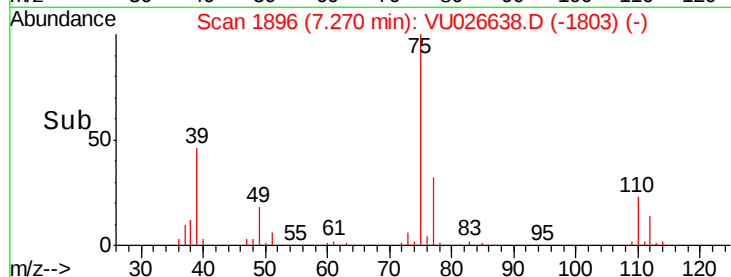
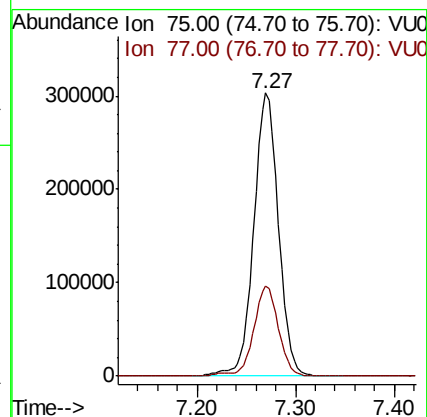
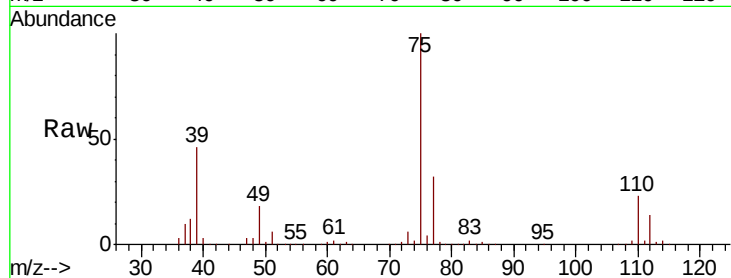


#39

cis-1,3-Dichloropropene  
 Concen: 224.373 ug/L  
 RT: 7.27 min Scan# 1896  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

Instrument :  
 MSVOA\_U  
 ClientSampleId :

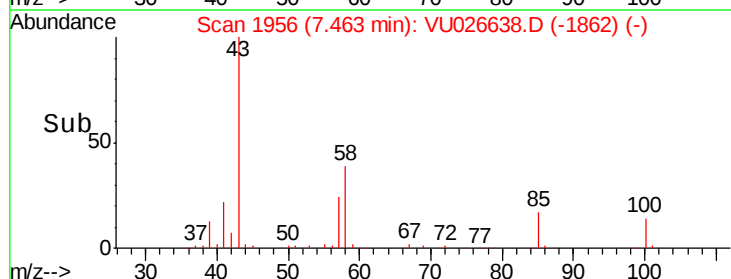
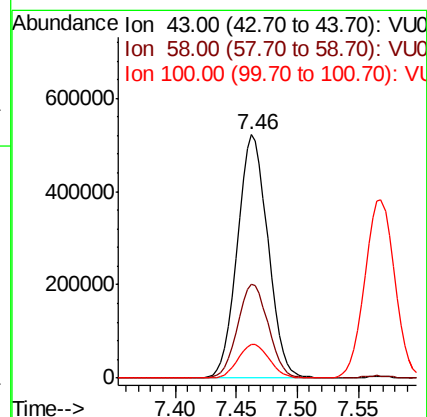
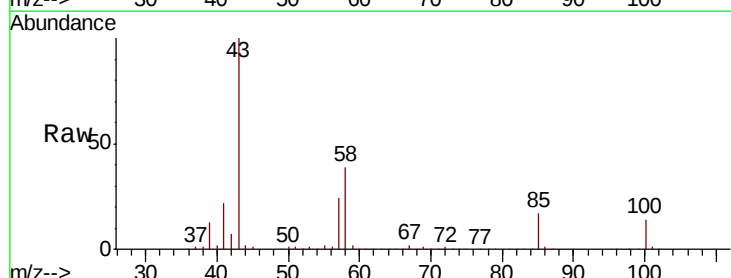
Tot Ion: 75 Resp: 521616  
 Ion Ratio Lower Upper  
 75 100  
 77 31.9 22.3 41.3

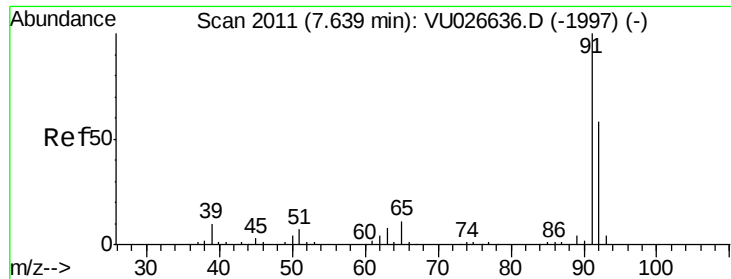


#40

4-Methyl-2-pentanone  
 Concen: 453.304 ug/L  
 RT: 7.46 min Scan# 1956  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

Tgt Ion: 43 Resp: 908434  
 Ion Ratio Lower Upper  
 43 100  
 58 38.8 31.1 46.7  
 100 14.2 11.3 16.9





#42

Toluene

Concen: 214.800 ug/L

RT: 7.64 min Scan# 2011

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

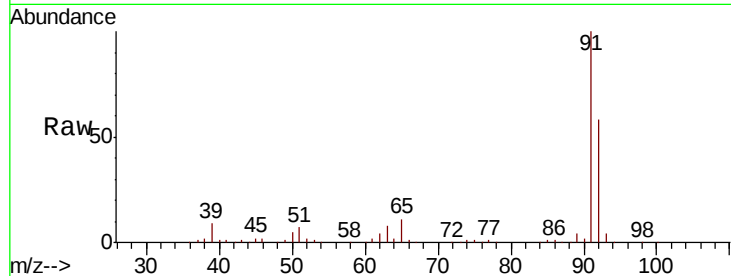
ClientSampleId :

Tot Ion: 91 Resp: 1252034

Ion Ratio Lower Upper

91 100

92 57.6 40.3 74.9



Abundance Ion 91.00 (90.70 to 91.70): VU026636.D (-1997) (-)

Ion 92.00 (91.70 to 92.70): VU026638.D (-1918) (-)

7.64

800000

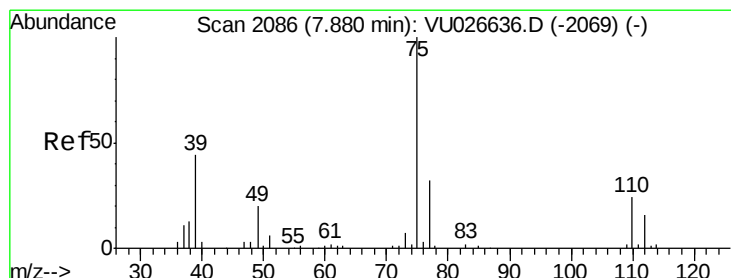
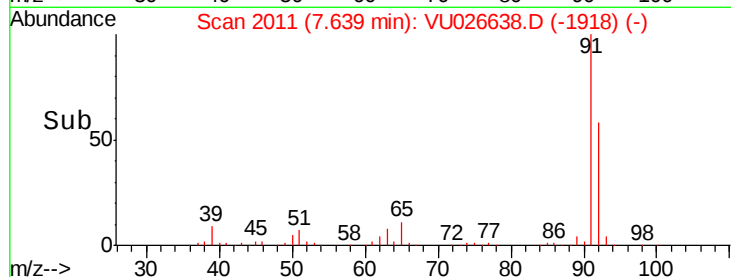
600000

400000

200000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 224.660 ug/L

RT: 7.88 min Scan# 2086

Delta R.T. 0.00 min

Lab File: VU026638.D

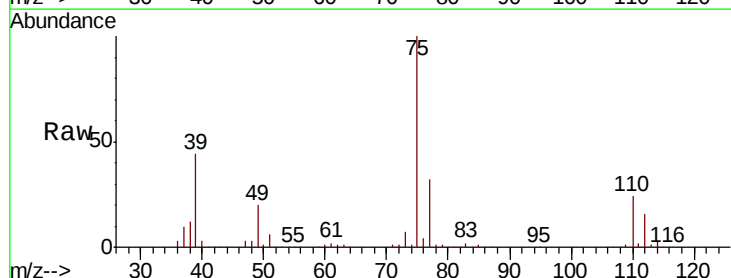
Acq: 10 Sep 2018 09:41

Tgt Ion: 75 Resp: 485888

Ion Ratio Lower Upper

75 100

77 32.0 22.4 41.6



Abundance Ion 75.00 (74.70 to 75.70): VU026636.D (-2069) (-)

Ion 77.00 (76.70 to 77.70): VU026638.D (-1993) (-)

7.88

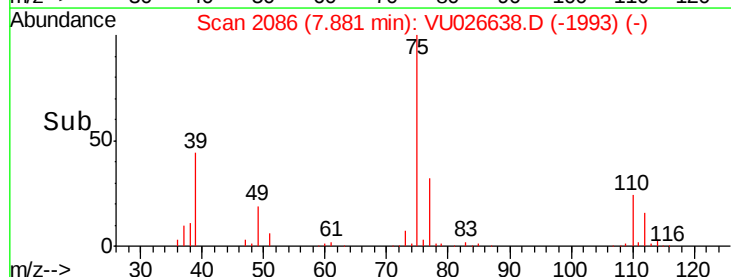
300000

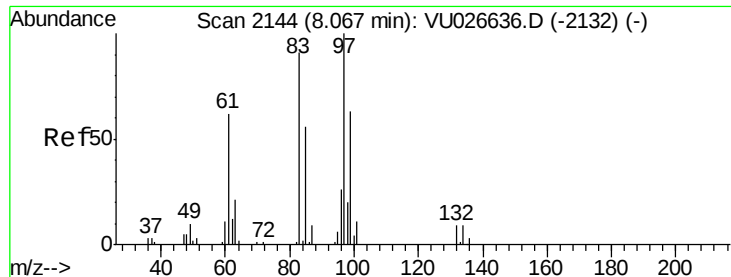
200000

100000

0

Time-->

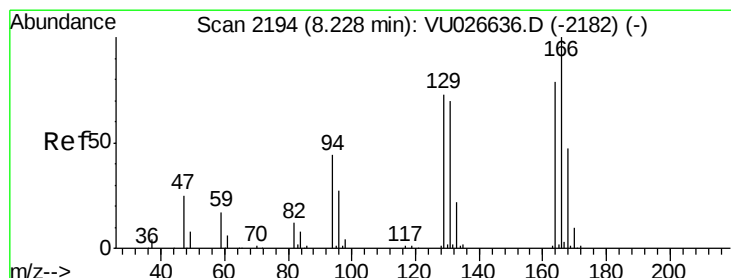
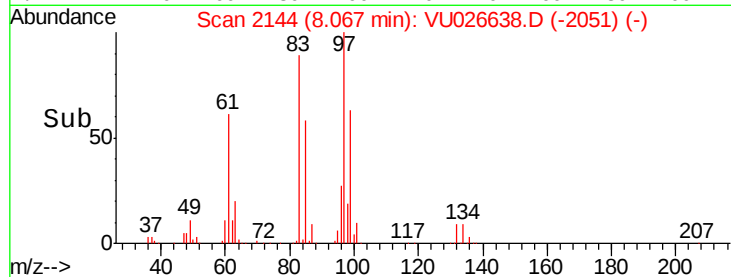
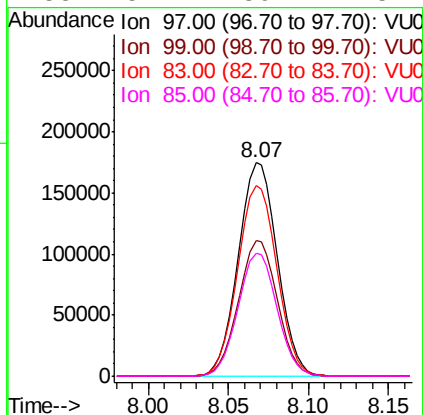
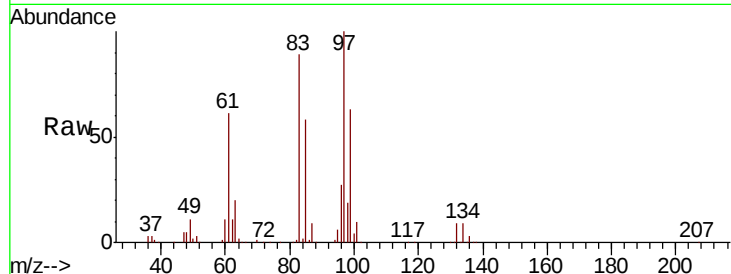




#45  
 1,1,2-Trichloroethane  
 Concen: 209.019 ug/L  
 RT: 8.07 min Scan# 2144  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

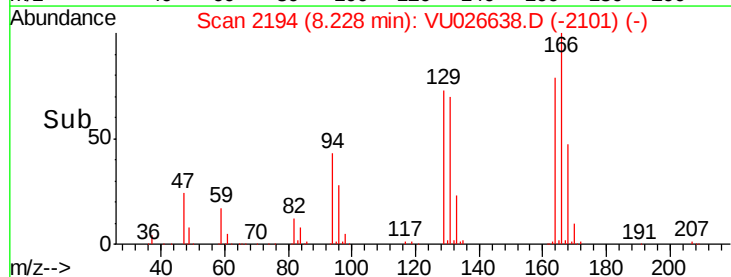
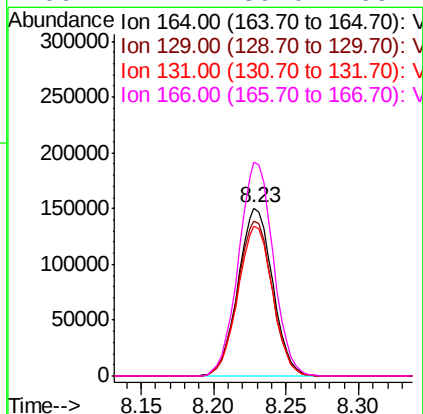
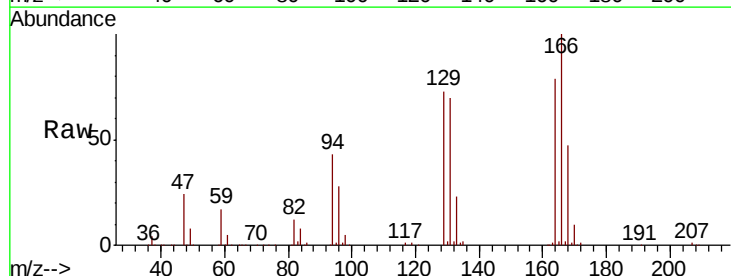
Instrument :  
 MSVOA\_U  
 ClientSampleId :

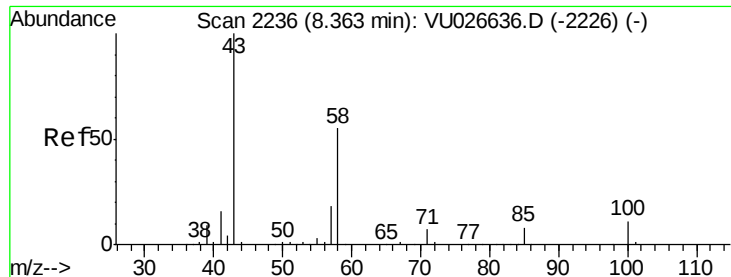
|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 97    | Resp: | 291281 |
| Ion      | Ratio | Lower | Upper  |
| 97       | 100   |       |        |
| 99       | 63.2  | 44.2  | 82.2   |
| 83       | 89.3  | 63.8  | 118.6  |
| 85       | 57.7  | 39.4  | 73.2   |



#46  
 Tetrachloroethene  
 Concen: 211.925 ug/L  
 RT: 8.23 min Scan# 2194  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 164   | Resp: | 248959 |
| Ion      | Ratio | Lower | Upper  |
| 164      | 100   |       |        |
| 129      | 92.6  | 65.0  | 120.8  |
| 131      | 89.5  | 62.5  | 116.1  |
| 166      | 127.2 | 89.0  | 165.2  |

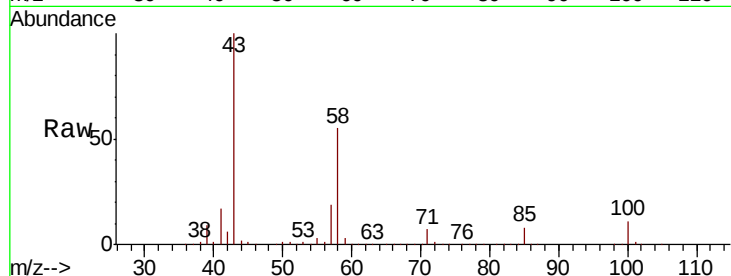




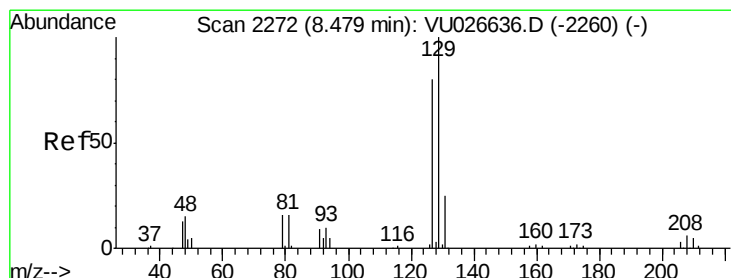
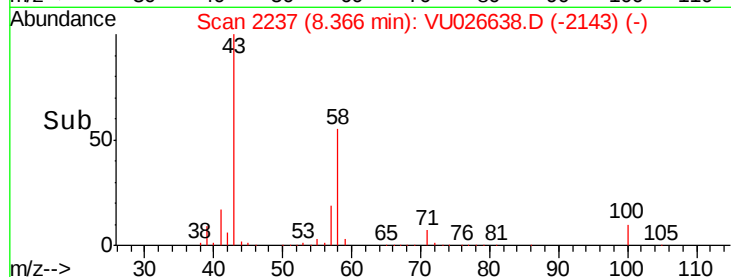
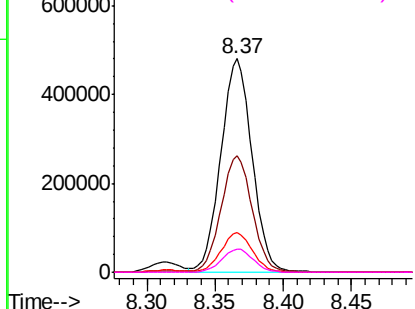
#48  
2-Hexanone  
Concen: 450.363 ug/L  
RT: 8.37 min Scan# 2237  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Instrument :  
MSVOA\_U  
ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 43    | Resp: | 761997 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 54.6  | 42.2  | 63.4   |
| 57       | 18.4  | 14.4  | 21.6   |
| 100      | 10.9  | 8.7   | 13.1   |

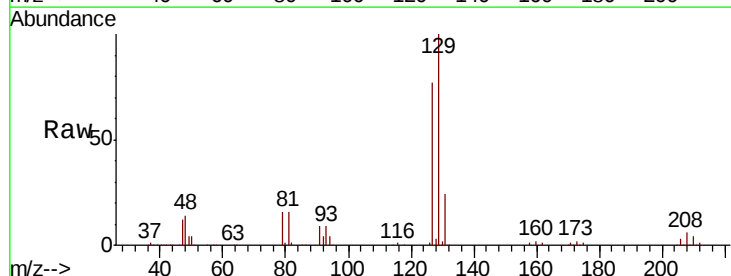


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

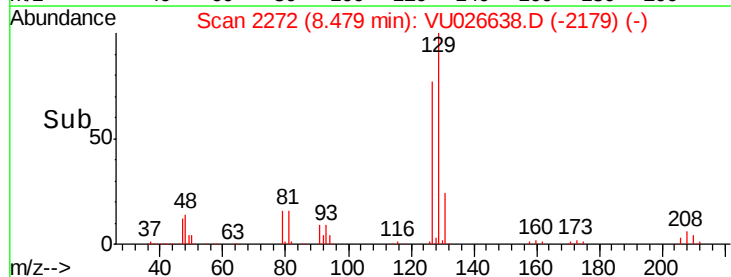
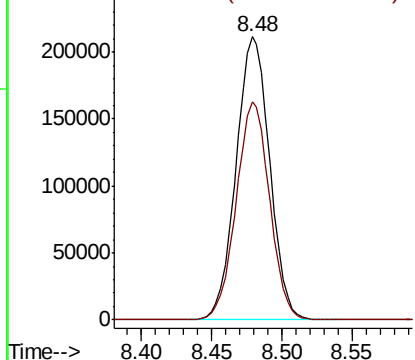


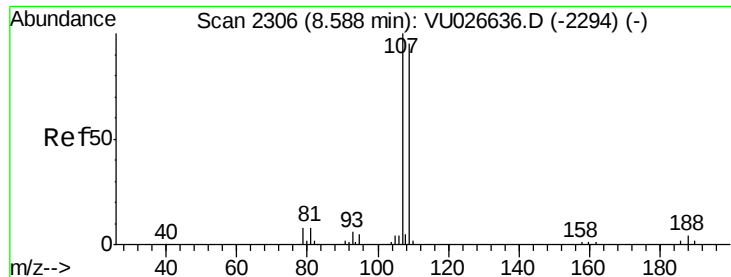
#49  
Dibromochloromethane  
Concen: 219.468 ug/L  
RT: 8.48 min Scan# 2272  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 353511 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 76.8  | 55.8  | 103.6  |



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

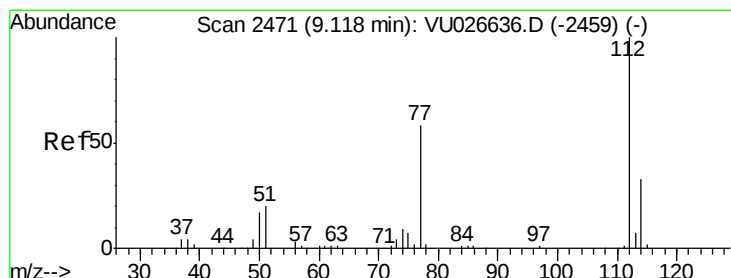
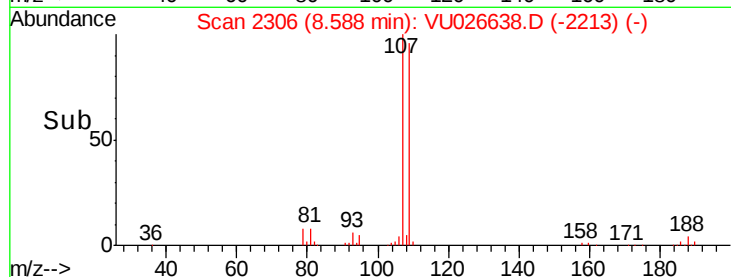
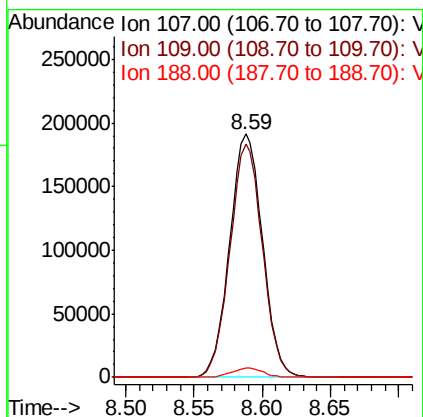
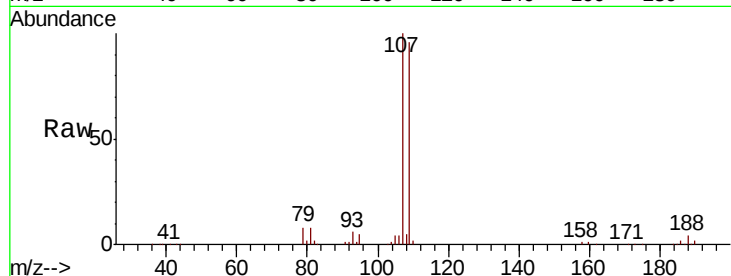




#50  
1,2-Dibromoethane  
Concen: 214.441 ug/L  
RT: 8.59 min Scan# 2306  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

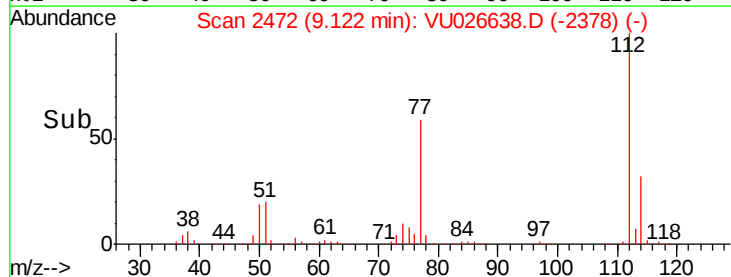
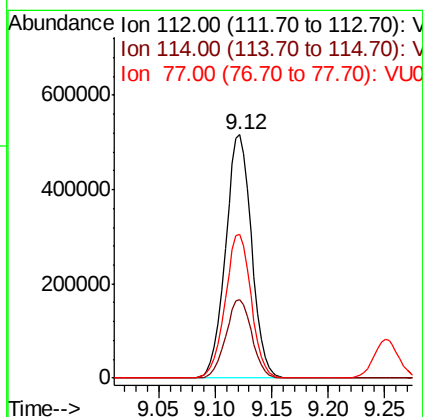
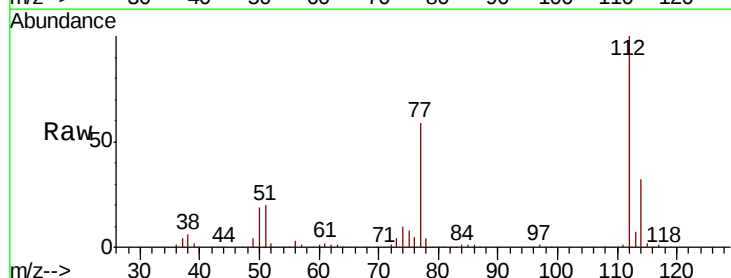
Instrument :  
MSVOA\_U  
ClientSampleId :

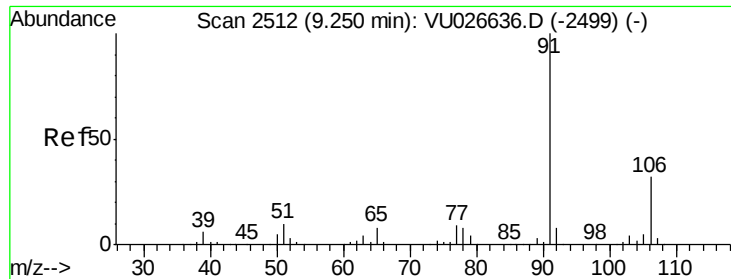
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 96.0  | 66.4  | 123.4 |
| 188     | 3.9   | 3.0   | 4.4   |



#51  
Chlorobenzene  
Concen: 215.354 ug/L  
RT: 9.12 min Scan# 2472  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 32.4  | 22.9  | 42.5  |
| 77      | 59.1  | 47.2  | 70.8  |





#52

Ethylbenzene

Concen: 228.546 ug/L

RT: 9.25 min Scan# 2512

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

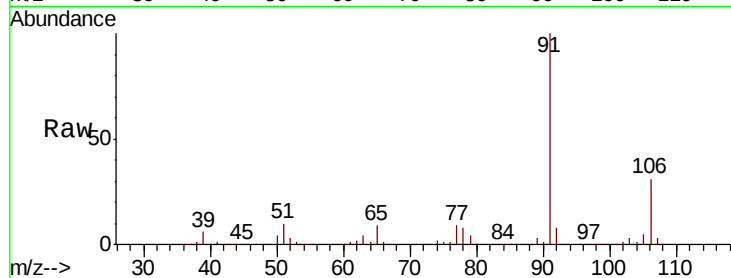
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 91 Resp: 1440705

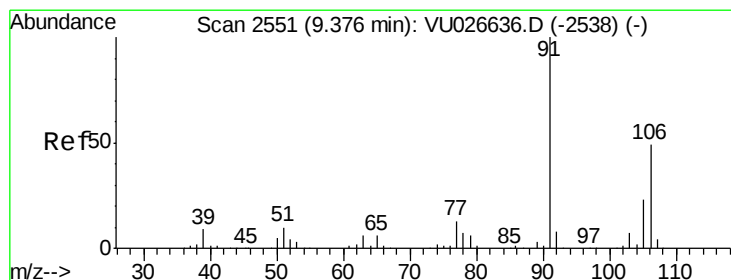
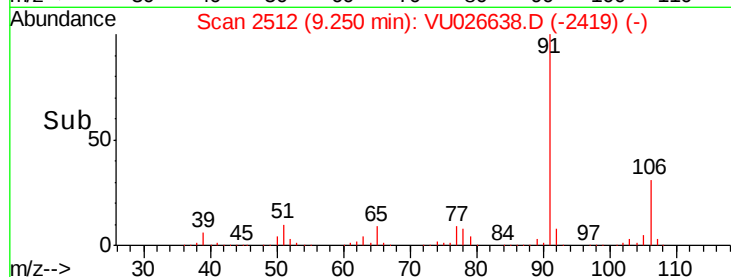
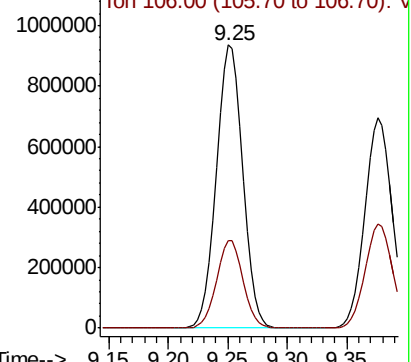
Ion Ratio Lower Upper

91 100

106 31.0 22.1 41.1



Abundance Ion 91.00 (90.70 to 91.70): VU026638.D (-2499) (-)



#53

m,p-Xylene

Concen: 231.875 ug/L

RT: 9.38 min Scan# 2551

Delta R.T. 0.00 min

Lab File: VU026638.D

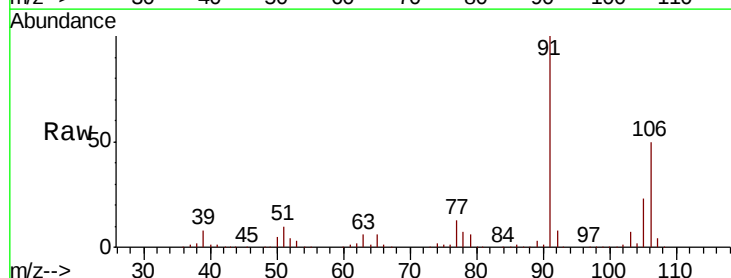
Acq: 10 Sep 2018 09:41

Tgt Ion: 106 Resp: 551144

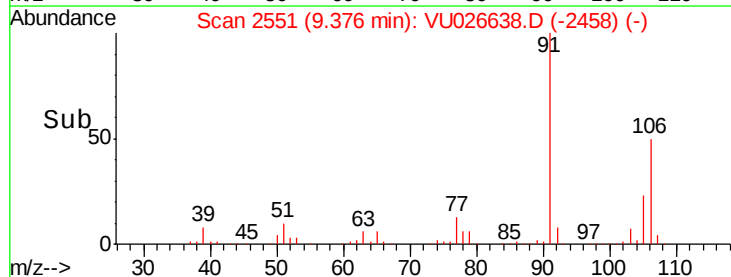
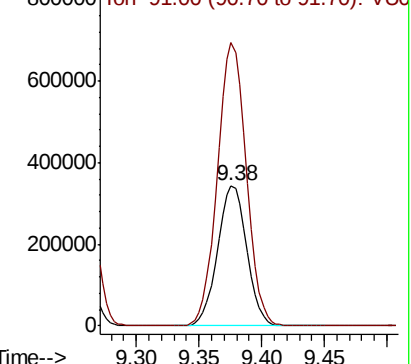
Ion Ratio Lower Upper

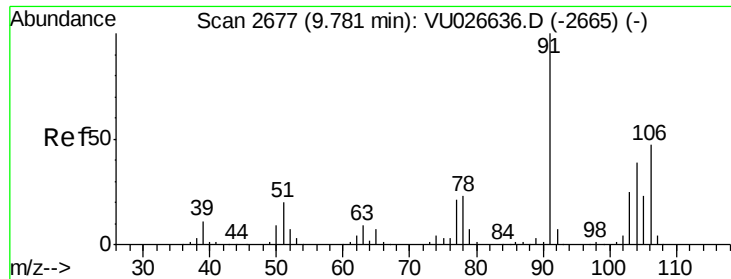
106 100

91 201.6 142.9 265.5



Abundance Ion 106.00 (105.70 to 106.70): VU026638.D (-2538) (-)

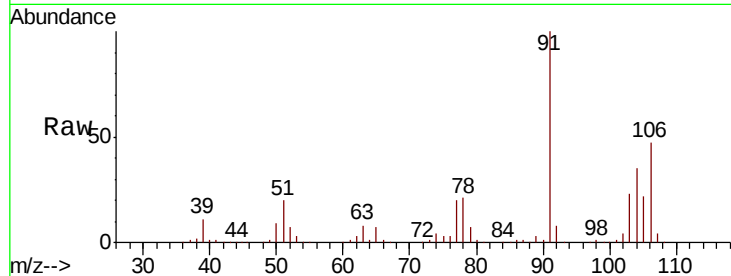




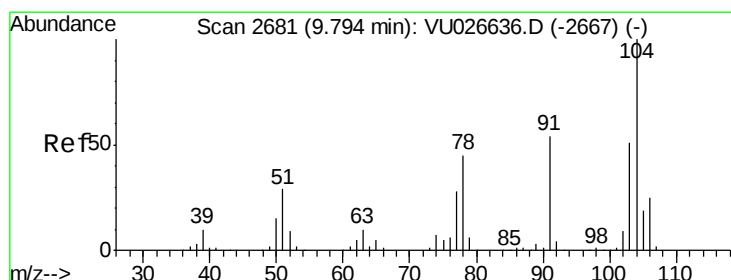
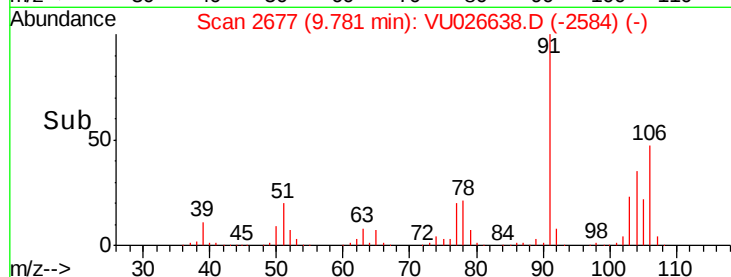
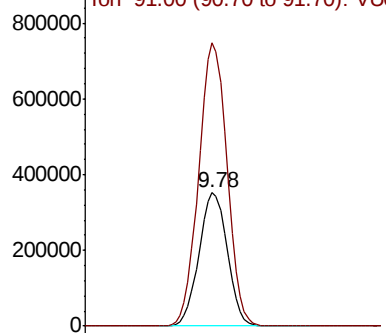
#54  
o-xylene  
Concen: 234.168 ug/L  
RT: 9.78 min Scan# 2677  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:106 Resp: 552402  
Ion Ratio Lower Upper  
106 100  
91 212.2 149.4 277.4

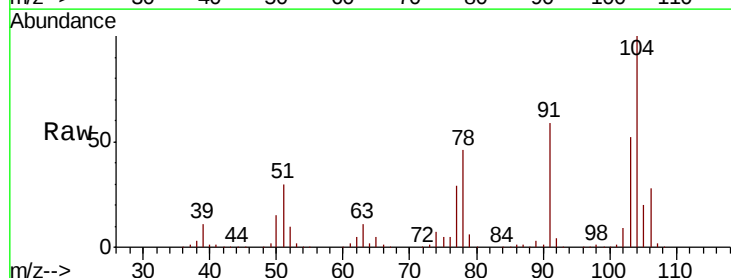


Abundance Ion 106.00 (105.70 to 106.70): V  
Ion 91.00 (90.70 to 91.70): VU0

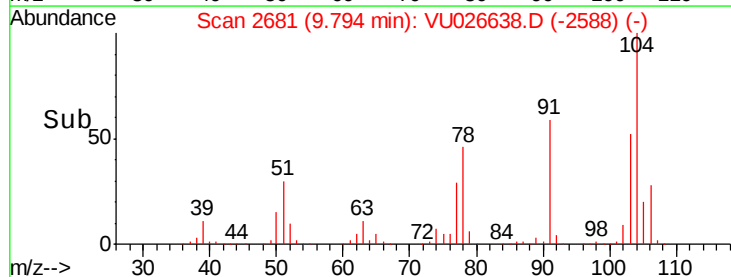
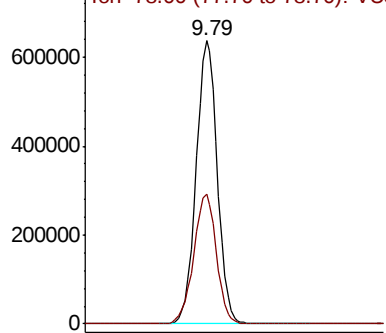


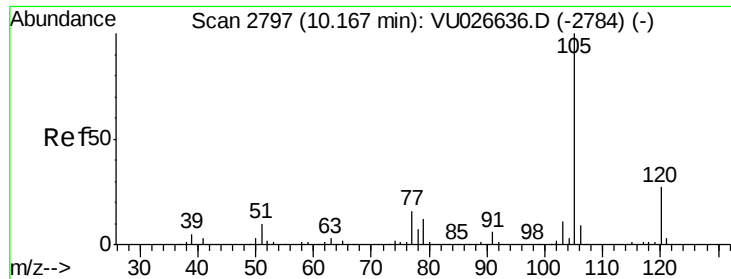
#55  
Styrene  
Concen: 241.425 ug/L  
RT: 9.79 min Scan# 2681  
Delta R.T. 0.00 min  
Lab File: VU026638.D  
Acq: 10 Sep 2018 09:41

Tgt Ion:104 Resp: 963389  
Ion Ratio Lower Upper  
104 100  
78 45.6 31.7 58.9



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





#56

Isopropylbenzene

Concen: 239.422 ug/L

RT: 10.17 min Scan# 2797

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

ClientSampled :

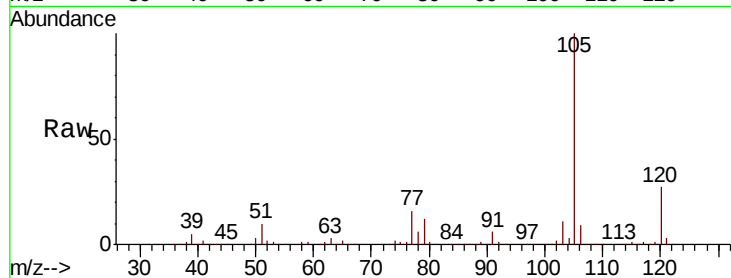
Tot Ion:105 Resp: 1438762

Ion Ratio Lower Upper

105 100

120 26.8 21.5 32.3

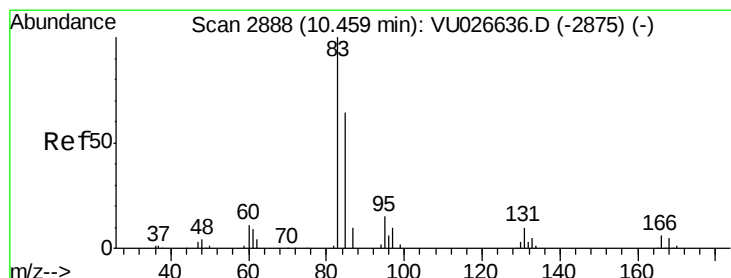
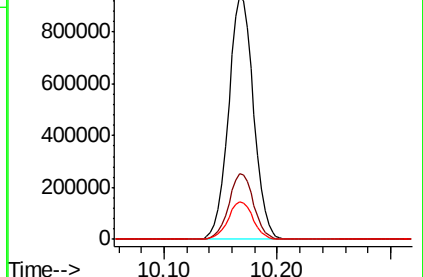
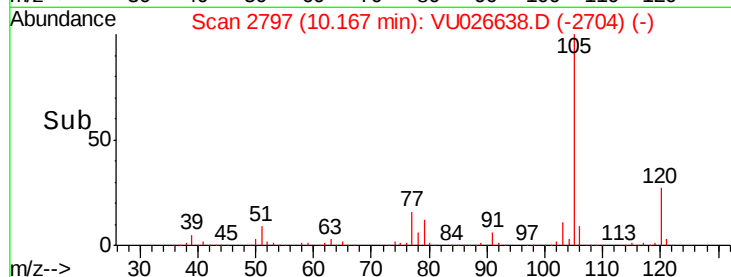
77 15.5 12.6 18.8



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: 224.017 ug/L

RT: 10.46 min Scan# 2888

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

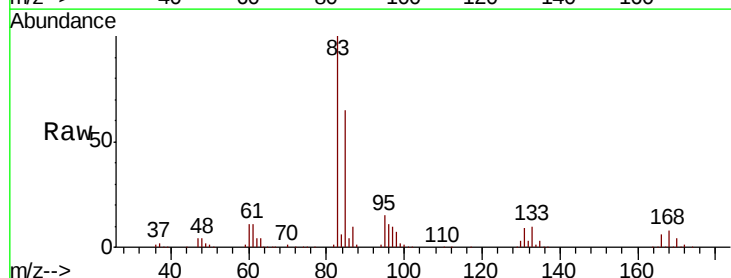
Tgt Ion: 83 Resp: 540819

Ion Ratio Lower Upper

83 100

85 64.9 45.4 84.2

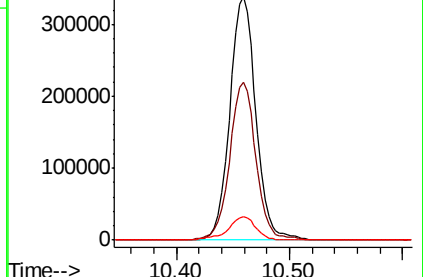
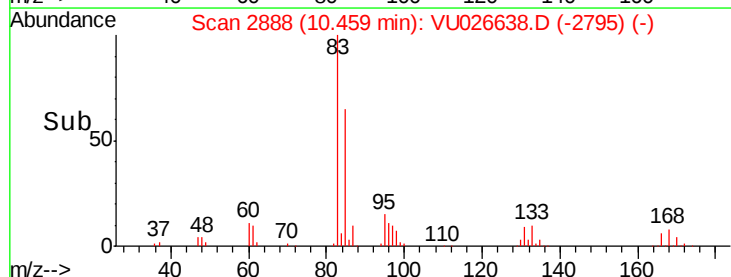
131 9.4 8.0 12.0

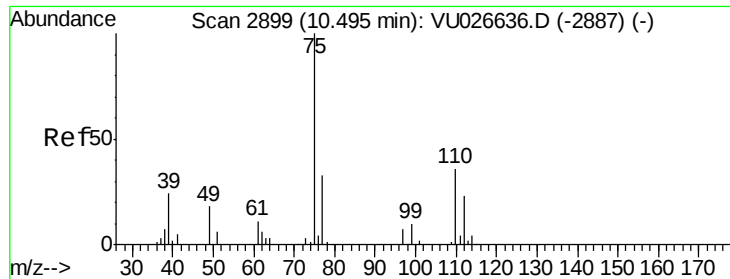


Abundance Ion 83.00 (82.70 to 83.70): V

Ion 85.00 (84.70 to 85.70): V

Ion 131.00 (130.70 to 131.70): V





#59

1,2,3-Trichloropropane

Concen: 220.719 ug/L

RT: 10.49 min Scan# 2899

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

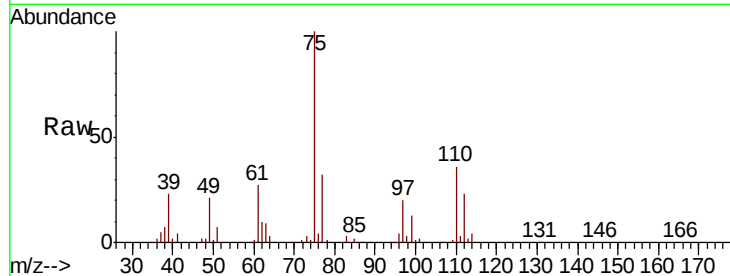
ClientSampleId :

Tot Ion: 75 Resp: 410285

Ion Ratio Lower Upper

75 100

77 32.3 25.8 38.6



Abundance Ion 75.00 (74.70 to 75.70): VU026636.D (-2887) (-)

Ion 77.00 (76.70 to 77.70): VU026636.D (-2887) (-)

10.49

250000

200000

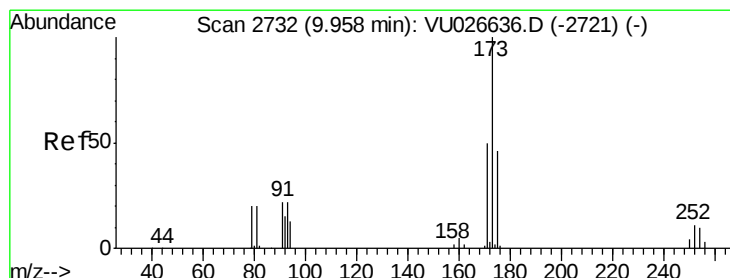
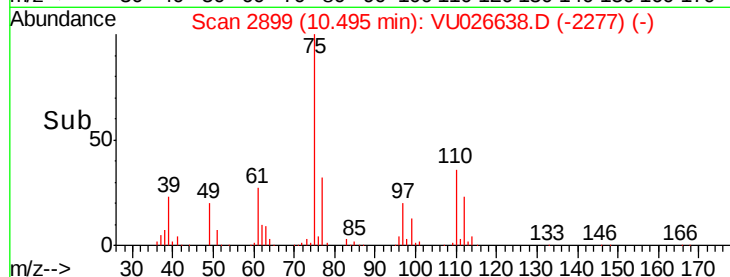
150000

100000

50000

0

Time-->



#61

Bromoform

Concen: 205.322 ug/L

RT: 9.96 min Scan# 2733

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

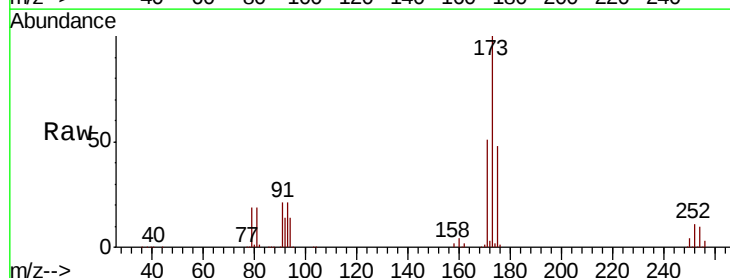
Tgt Ion: 173 Resp: 291369

Ion Ratio Lower Upper

173 100

175 48.6 38.2 57.4

254 10.4 8.2 12.4



Abundance Ion 173.00 (172.70 to 173.70): VU026636.D (-2721) (-)

Ion 175.00 (174.70 to 175.70): VU026636.D (-2721) (-)

Ion 254.00 (253.70 to 254.70): VU026636.D (-2721) (-)

9.96

250000

200000

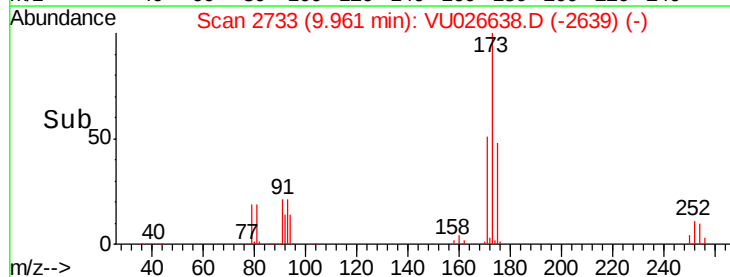
150000

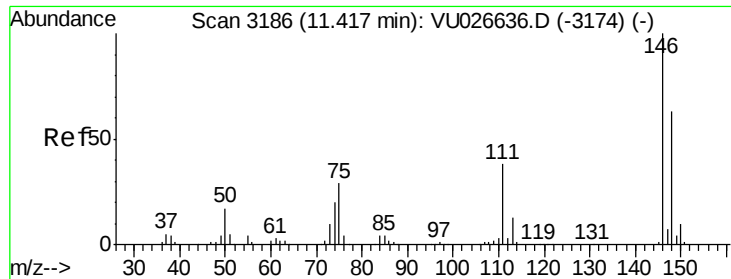
100000

50000

0

Time-->





#62

1,3-Dichlorobenzene

Concen: 213.308 ug/L

RT: 11.42 min Scan# 3186

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

ClientSampleId :

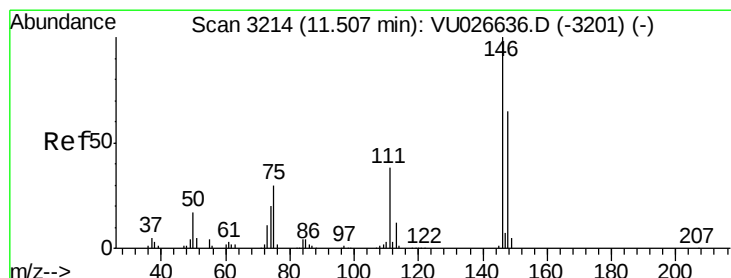
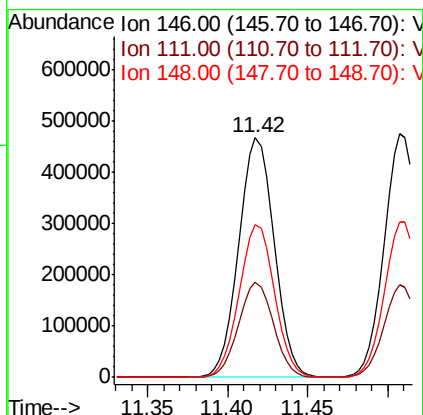
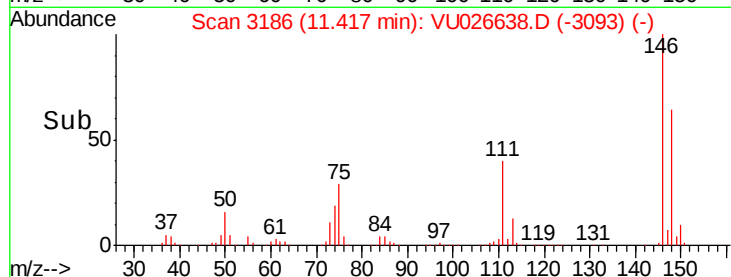
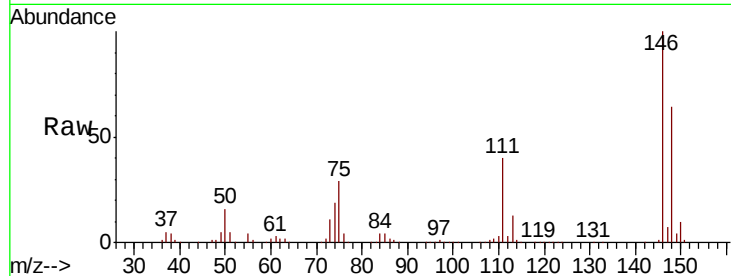
Tot Ion:146 Resp: 705563

Ion Ratio Lower Upper

146 100

111 39.5 26.7 49.5

148 63.6 44.2 82.2



#63

1,4-Dichlorobenzene

Concen: 205.259 ug/L

RT: 11.51 min Scan# 3214

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

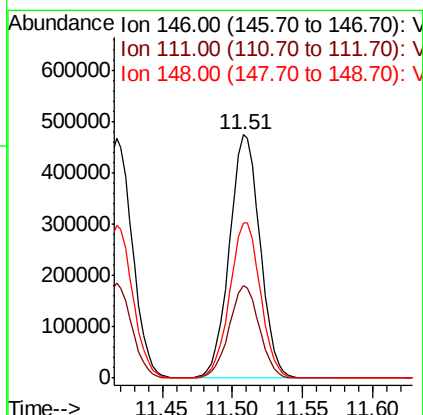
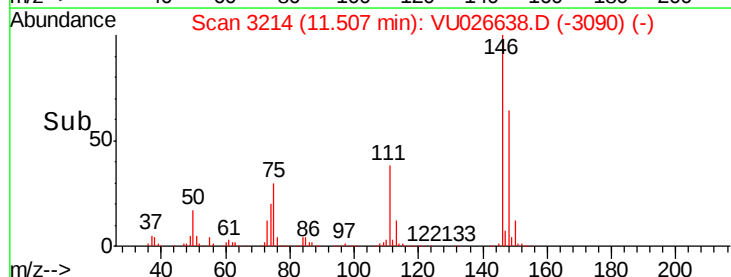
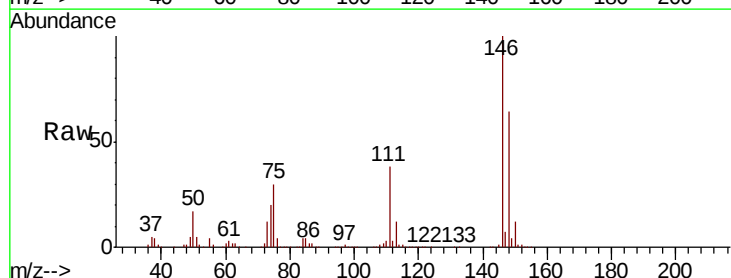
Tgt Ion:146 Resp: 719240

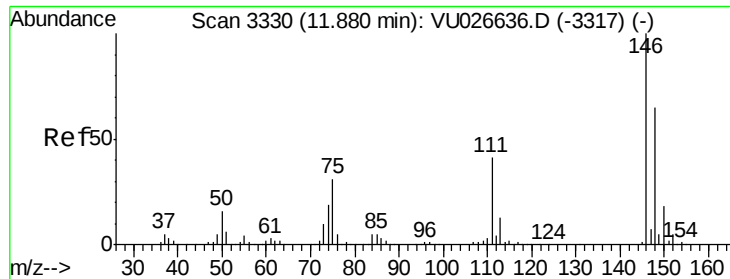
Ion Ratio Lower Upper

146 100

111 37.9 26.5 49.3

148 64.0 45.2 84.0

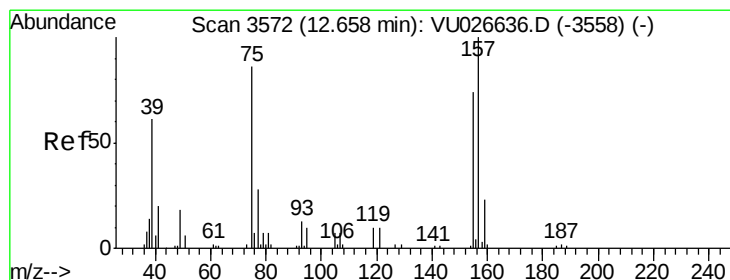
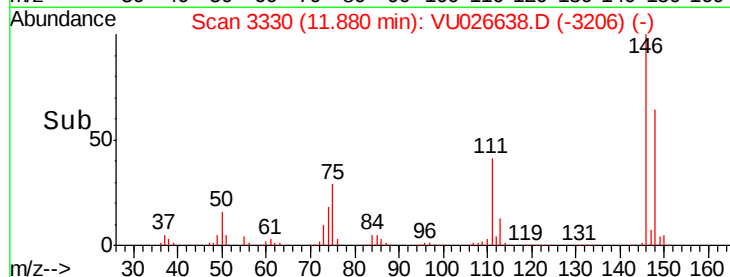
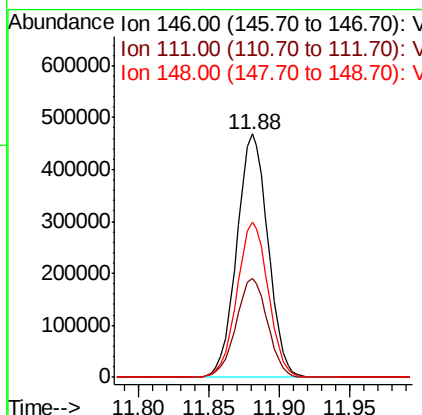
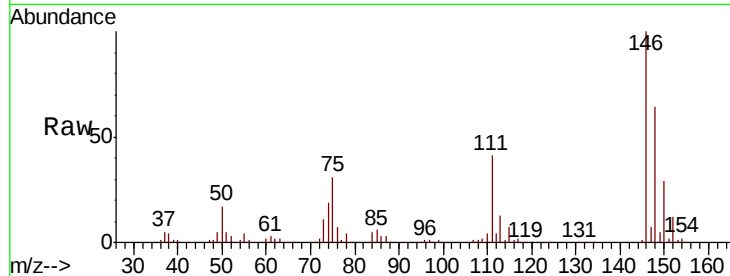




#65  
 1,2-Dichlorobenzene  
 Concen: 207.947 ug/L  
 RT: 11.88 min Scan# 3330  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

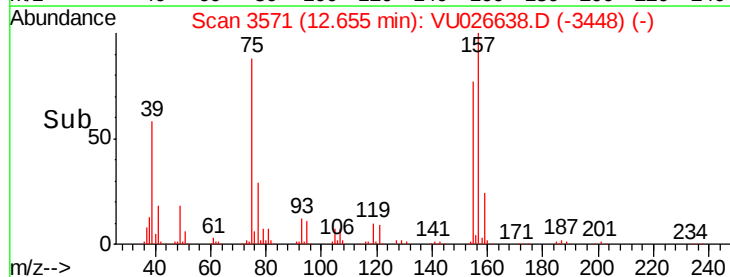
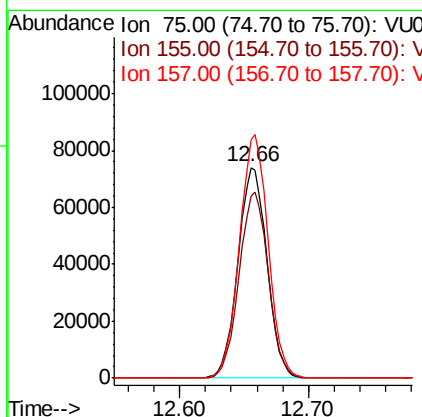
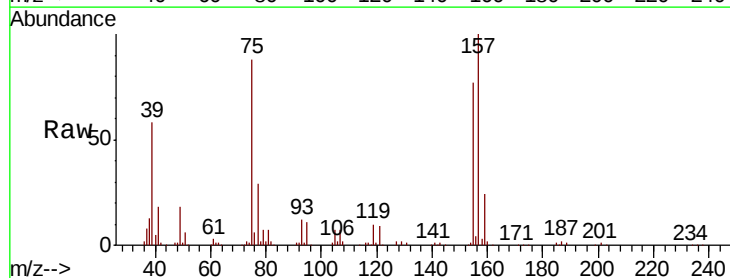
Instrument :  
 MSVOA\_U  
 ClientSampleId :

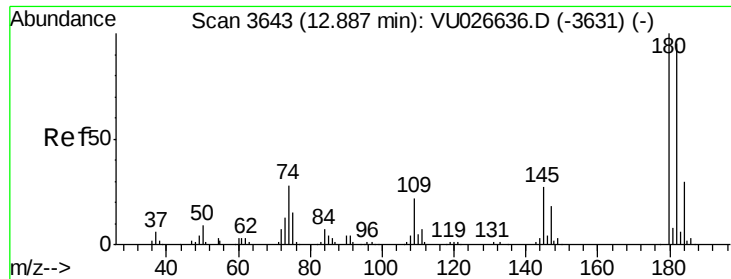
Tot Ion:146 Resp: 726949  
 Ion Ratio Lower Upper  
 146 100  
 111 40.8 32.8 49.2  
 148 63.8 52.2 78.4



#66  
 1,2-Dibromo-3-chloropropane  
 Concen: 204.531 ug/L  
 RT: 12.66 min Scan# 3571  
 Delta R.T. -0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

Tgt Ion: 75 Resp: 115513  
 Ion Ratio Lower Upper  
 75 100  
 155 86.7 69.3 103.9  
 157 113.2 93.4 140.0

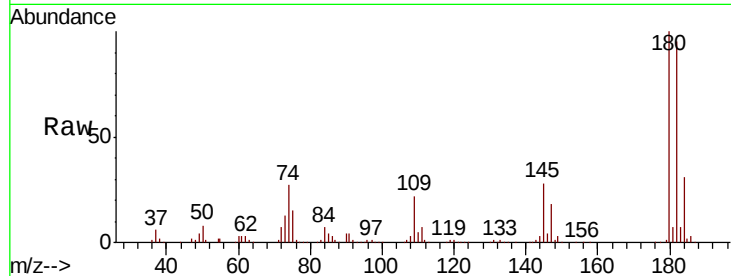




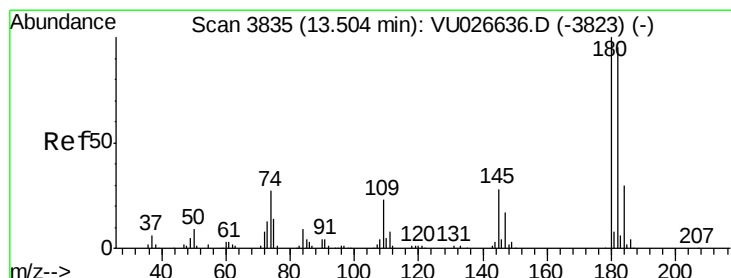
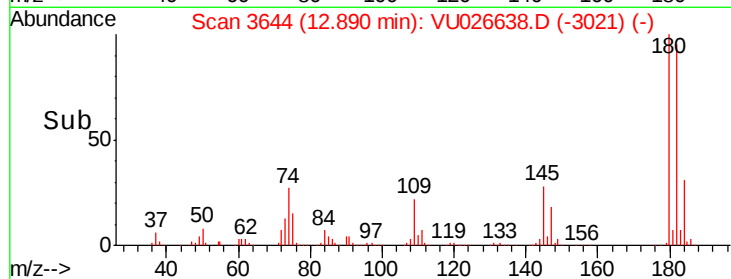
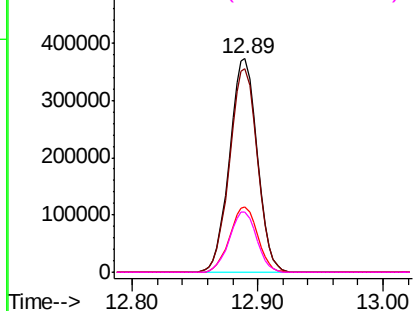
#67  
 1,3,5-Trichlorobenzene  
 Concen: 217.215 ug/L  
 RT: 12.89 min Scan# 3644  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

Instrument :  
 MSVOA\_U  
 ClientSampleId :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 180   | Resp: | 569914 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 96.0  | 76.8  | 115.2  |
| 184      | 30.7  | 24.2  | 36.2   |
| 145      | 27.9  | 21.4  | 32.2   |

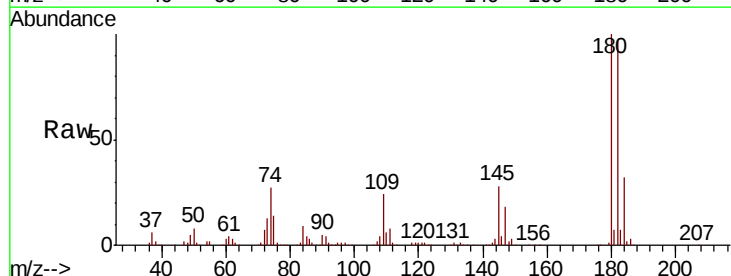


Abundance Ion 180.00 (179.70 to 180.70): V  
 Ion 182.00 (181.70 to 182.70): V  
 Ion 184.00 (183.70 to 184.70): V  
 Ion 145.00 (144.70 to 145.70): V

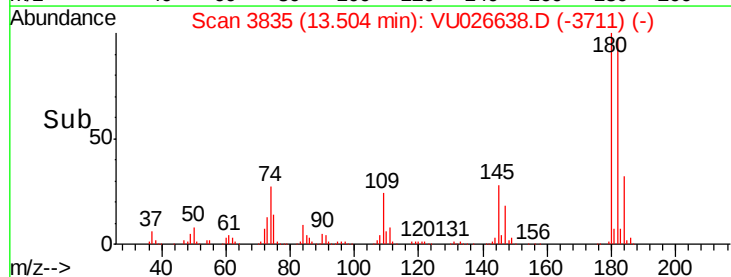
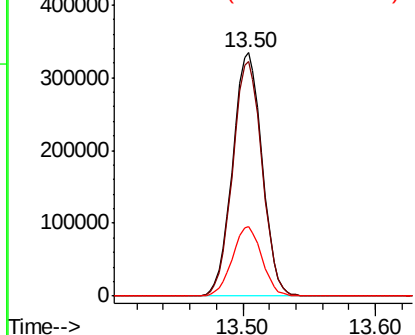


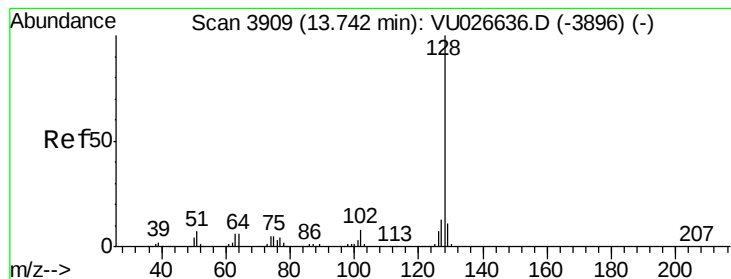
#68  
 1,2,4-trichlorobenzene  
 Concen: 226.990 ug/L  
 RT: 13.50 min Scan# 3835  
 Delta R.T. 0.00 min  
 Lab File: VU026638.D  
 Acq: 10 Sep 2018 09:41

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 517640 |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 96.3  | 76.0  | 114.0  |
| 145      | 28.4  | 23.4  | 35.0   |



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





#69

Naphthalene

Concen: 230.447 ug/L

RT: 13.74 min Scan# 3909

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

Instrument :

MSVOA\_U

ClientSampled :

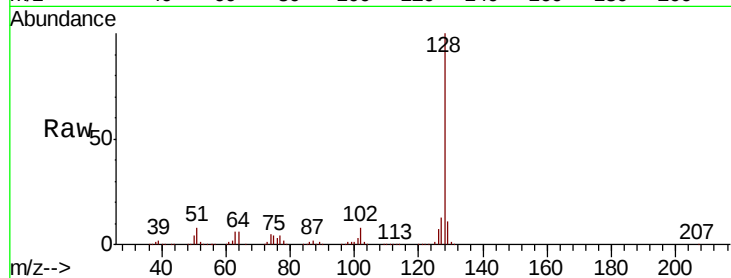
Tot Ion:128 Resp: 1610362

Ion Ratio Lower Upper

128 100

127 13.1 10.3 15.5

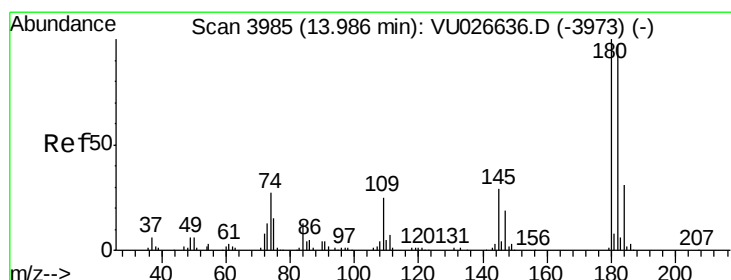
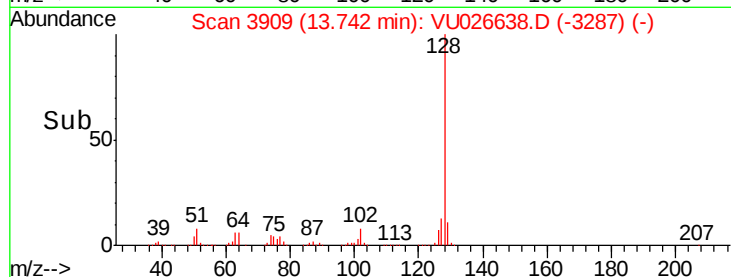
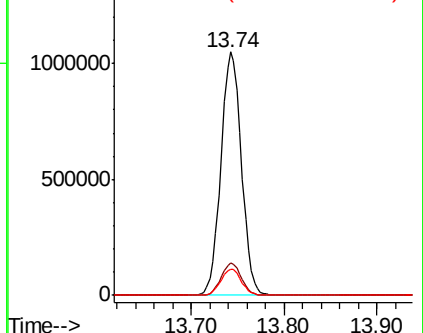
129 10.8 8.6 13.0



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 127.00 (126.70 to 127.70): V

Ion 129.00 (128.70 to 129.70): V



#70

1,2,3-Trichlorobenzene

Concen: 215.468 ug/L

RT: 13.99 min Scan# 3985

Delta R.T. 0.00 min

Lab File: VU026638.D

Acq: 10 Sep 2018 09:41

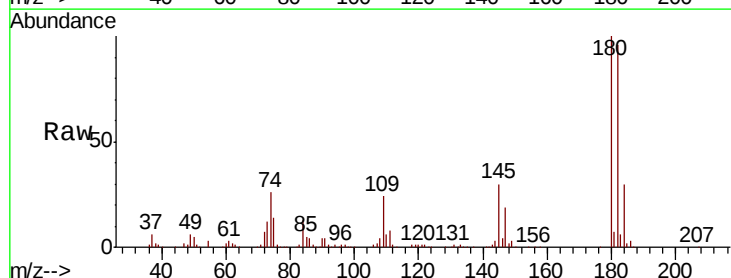
Tgt Ion:180 Resp: 532252

Ion Ratio Lower Upper

180 100

182 96.0 76.7 115.1

145 29.7 23.0 34.6



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

