

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU080819\  
 Data File : VU033630.D  
 Acq On : 08 Aug 2019 12:03  
 Operator : JC/SP  
 Sample : VSTD05033  
 Misc : 5.0mL/MSVOA U/WATER  
 ALS Vial : 5 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Quant Time: Aug 08 15:28:11 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_U\METHOD\SOMULM080819WMA.M  
 Quant Title : VOC Analysis  
 QLast Update : Thu Aug 08 15:24:56 2019  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) 1,4-Difluorobenzene     | 5.86  | 114  | 290151   | 50.00 | ug/L  | 0.00     |
| 28) Chlorobenzene-d5       | 9.07  | 117  | 288873   | 50.00 | ug/L  | 0.00     |
| 60) 1,4-Dichlorobenzene-d4 | 11.47 | 152  | 157006   | 50.00 | ug/L  | 0.00     |

## System Monitoring Compounds

|                                |       |     |        |        |      |      |
|--------------------------------|-------|-----|--------|--------|------|------|
| 4) Vinyl Chloride-d3           | 1.39  | 65  | 163934 | 76.46  | ug/L | 0.00 |
| 7) Chloroethane-d5             | 1.67  | 69  | 139838 | 60.68  | ug/L | 0.00 |
| 11) 1,1-Dichloroethene-d2      | 2.26  | 63  | 268672 | 67.75  | ug/L | 0.00 |
| 21) 2-Butanone-d5              | 4.15  | 46  | 249110 | 146.41 | ug/L | 0.00 |
| 24) Chloroform-d               | 4.62  | 84  | 271323 | 69.13  | ug/L | 0.00 |
| 26) 1,2-Dichloroethane-d4      | 5.29  | 65  | 177486 | 70.79  | ug/L | 0.00 |
| 32) Benzene-d6                 | 5.32  | 84  | 562932 | 70.91  | ug/L | 0.00 |
| 36) 1,2-Dichloropropane-d6     | 6.31  | 67  | 176225 | 69.91  | ug/L | 0.00 |
| 41) Toluene-d8                 | 7.55  | 98  | 524896 | 71.18  | ug/L | 0.00 |
| 43) trans-1,3-Dichloropropene- | 7.83  | 79  | 88450  | 70.17  | ug/L | 0.00 |
| 47) 2-Hexanone-d5              | 8.29  | 63  | 179631 | 144.76 | ug/L | 0.00 |
| 57) 1,1,2,2-Tetrachloroethane- | 10.41 | 84  | 266940 | 69.20  | ug/L | 0.00 |
| 64) 1,2-Dichlorobenzene-d4     | 11.84 | 152 | 211990 | 67.67  | ug/L | 0.00 |

## Target Compounds

|                                |      |     |        |         |      | Qvalue |
|--------------------------------|------|-----|--------|---------|------|--------|
| 2) Dichlorodifluoromethane     | 1.20 | 85  | 130293 | 52.075  | ug/L | 100    |
| 3) Chloromethane               | 1.32 | 50  | 140231 | 51.715  | ug/L | 100    |
| 5) Vinyl chloride              | 1.40 | 62  | 154526 | 51.767  | ug/L | 100    |
| 6) Bromomethane                | 1.62 | 94  | 98086  | 43.647  | ug/L | 100    |
| 8) Chloroethane                | 1.69 | 64  | 94780  | 40.568  | ug/L | 100    |
| 9) Trichlorofluoromethane      | 1.87 | 101 | 205363 | 52.904  | ug/L | 100    |
| 10) 1,1,2-Trichloro-1,2,2-trif | 2.27 | 101 | 104743 | 52.921  | ug/L | 100    |
| 12) 1,1-Dichloroethene         | 2.27 | 96  | 99069  | 51.837  | ug/L | 100    |
| 13) Acetone                    | 2.31 | 43  | 161079 | 104.484 | ug/L | 100    |
| 14) Carbon disulfide           | 2.46 | 76  | 298685 | 50.523  | ug/L | 100    |
| 15) Methyl Acetate             | 2.60 | 43  | 135421 | 54.377  | ug/L | 100    |
| 16) Methylene chloride         | 2.68 | 84  | 116447 | 52.068  | ug/L | 100    |
| 17) trans-1,2-Dichloroethene   | 2.96 | 96  | 104725 | 51.273  | ug/L | 100    |
| 18) Methyl tert-butyl Ether    | 2.98 | 73  | 331519 | 52.369  | ug/L | 100    |
| 19) 1,1-Dichloroethane         | 3.42 | 63  | 204808 | 52.949  | ug/L | 100    |
| 20) cis-1,2-Dichloroethene     | 4.20 | 96  | 119334 | 52.846  | ug/L | 100    |
| 22) 2-Butanone                 | 4.24 | 43  | 206828 | 107.986 | ug/L | 100    |
| 23) Bromochloromethane         | 4.52 | 128 | 61989  | 52.464  | ug/L | 100    |
| 25) Chloroform                 | 4.65 | 83  | 216906 | 54.055  | ug/L | 100    |
| 27) 1,2-Dichloroethane         | 5.38 | 62  | 165319 | 52.979  | ug/L | 100    |
| 29) Cyclohexane                | 4.97 | 56  | 169445 | 51.373  | ug/L | 100    |
| 30) 1,1,1-Trichloroethane      | 4.89 | 97  | 179919 | 52.302  | ug/L | 100    |
| 31) Carbon tetrachloride       | 5.11 | 117 | 160941 | 53.198  | ug/L | 100    |
| 33) Benzene                    | 5.37 | 78  | 459079 | 52.746  | ug/L | 100    |
| 34) Trichloroethene            | 6.17 | 95  | 116750 | 52.055  | ug/L | 100    |
| 35) Methylcyclohexane          | 6.40 | 83  | 184854 | 52.568  | ug/L | 100    |
| 37) 1,2-Dichloropropane        | 6.41 | 63  | 122566 | 51.510  | ug/L | 100    |
| 38) Bromodichloromethane       | 6.74 | 83  | 157483 | 52.442  | ug/L | 100    |
| 39) cis-1,3-Dichloropropene    | 7.25 | 75  | 193563 | 53.385  | ug/L | 100    |
| 40) 4-Methyl-2-pentanone       | 7.44 | 43  | 365026 | 106.851 | ug/L | 100    |

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 ALS Vial : 5 Sample Multiplier: 1

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 MSVOA\_U  
 ClientSampleId :

Quant Time: Aug 08 15:28:11 2019  
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 Quant Title : VOC Analysis  
 QLast Update : Thu Aug 08 15:24:56 2019  
 Response via : Initial Calibration

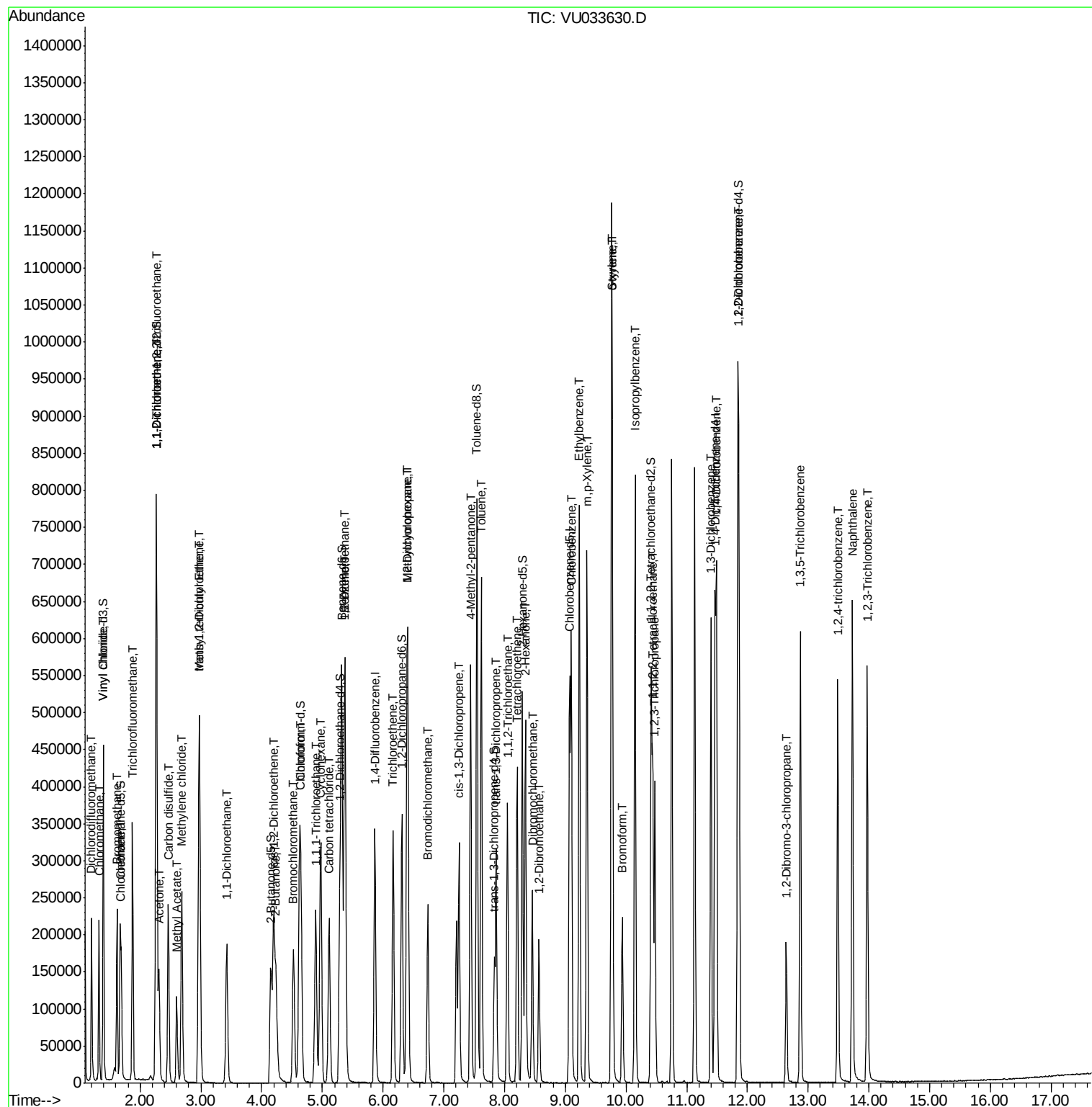
| Internal Standards             | R.T.  | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|-------|------|----------|---------|-------|----------|
| -----                          |       |      |          |         |       |          |
| 42) Toluene                    | 7.62  | 91   | 497755   | 53.531  | ug/L  | 100      |
| 44) trans-1,3-Dichloropropene  | 7.86  | 75   | 176257   | 53.838  | ug/L  | 100      |
| 45) 1,1,2-Trichloroethane      | 8.05  | 97   | 117355   | 52.548  | ug/L  | 100      |
| 46) Tetrachloroethene          | 8.21  | 164  | 94565    | 51.572  | ug/L  | 100      |
| 48) 2-Hexanone                 | 8.34  | 43   | 300439   | 109.547 | ug/L  | 100      |
| 49) Dibromochloromethane       | 8.46  | 129  | 132596   | 52.780  | ug/L  | 100      |
| 50) 1,2-Dibromoethane          | 8.57  | 107  | 128592   | 52.535  | ug/L  | 100      |
| 51) Chlorobenzene              | 9.10  | 112  | 314236   | 51.729  | ug/L  | 100      |
| 52) Ethylbenzene               | 9.23  | 91   | 532400   | 52.816  | ug/L  | 100      |
| 53) m,p-Xylene                 | 9.36  | 106  | 205291   | 53.474  | ug/L  | 100      |
| 54) o-xylene                   | 9.76  | 106  | 199990   | 53.279  | ug/L  | 100      |
| 55) Styrene                    | 9.77  | 104  | 347115   | 54.209  | ug/L  | 100      |
| 56) Isopropylbenzene           | 10.15 | 105  | 521572   | 53.753  | ug/L  | 100      |
| 58) 1,1,2,2-Tetrachloroethane  | 10.44 | 83   | 207432   | 52.129  | ug/L  | 100      |
| 59) 1,2,3-Trichloropropane     | 10.48 | 75   | 165023   | 52.742  | ug/L  | 100      |
| 61) Bromoform                  | 9.94  | 173  | 102443   | 51.755  | ug/L  | 100      |
| 62) 1,3-Dichlorobenzene        | 11.40 | 146  | 255869   | 51.362  | ug/L  | 100      |
| 63) 1,4-Dichlorobenzene        | 11.49 | 146  | 259820   | 51.028  | ug/L  | 100      |
| 65) 1,2-Dichlorobenzene        | 11.86 | 146  | 262905   | 52.670  | ug/L  | 100      |
| 66) 1,2-Dibromo-3-chloropropan | 12.64 | 75   | 49072    | 52.423  | ug/L  | 100      |
| 67) 1,3,5-Trichlorobenzene     | 12.87 | 180  | 195836   | 51.293  | ug/L  | 100      |
| 68) 1,2,4-trichlorobenzene     | 13.49 | 180  | 170059   | 52.261  | ug/L  | 100      |
| 69) Naphthalene                | 13.73 | 128  | 518070   | 54.701  | ug/L  | 100      |
| 70) 1,2,3-Trichlorobenzene     | 13.97 | 180  | 179994   | 51.915  | ug/L  | 100      |
| -----                          |       |      |          |         |       |          |

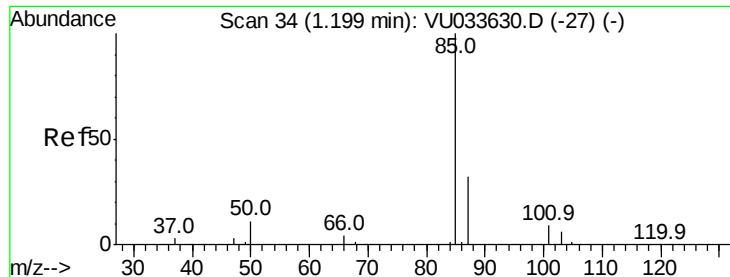
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Aug 08 15:24:56 2019  
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#2

Dichlorodifluoromethane

Concen: 52.075 ug/L

RT: 1.20 min Scan# 34

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

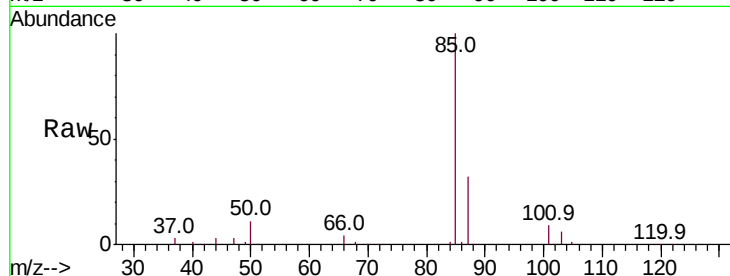
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion: 85 Resp: 130293

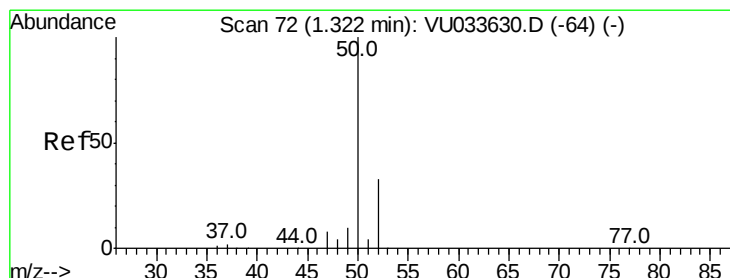
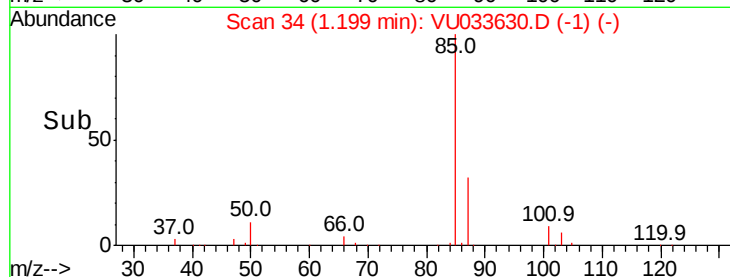
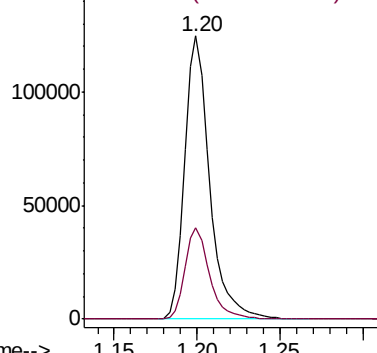
Ion Ratio Lower Upper

85 100

87 31.8 25.4 38.2



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



#3

Chloromethane

Concen: 51.715 ug/L

RT: 1.32 min Scan# 72

Delta R.T. 0.00 min

Lab File: VU033630.D

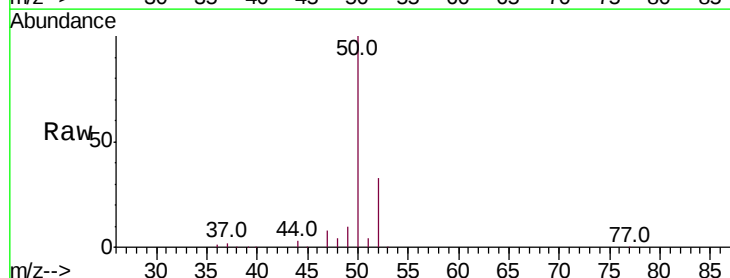
Acq: 08 Aug 2019 12:03

Tgt Ion: 50 Resp: 140231

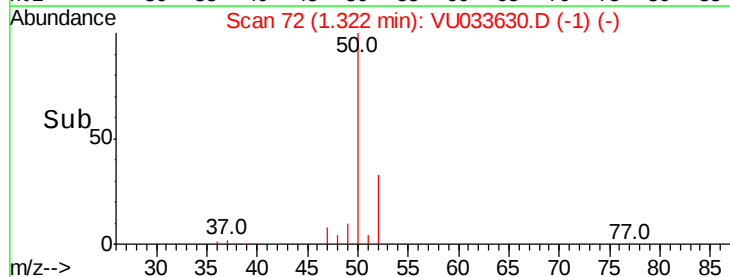
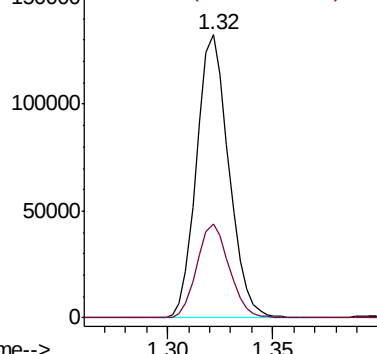
Ion Ratio Lower Upper

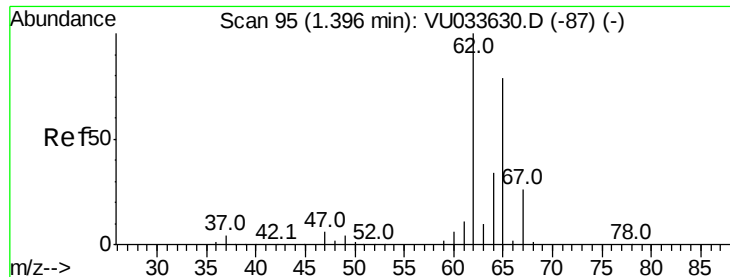
50 100

52 33.3 23.3 43.3



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





#5

Vinyl chloride

Concen: 51.767 ug/L

RT: 1.40 min Scan# 95

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

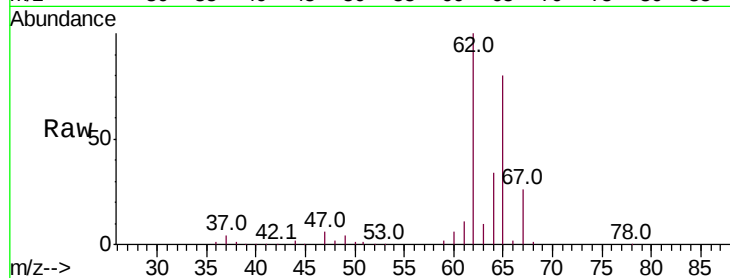
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 62 Resp: 154526

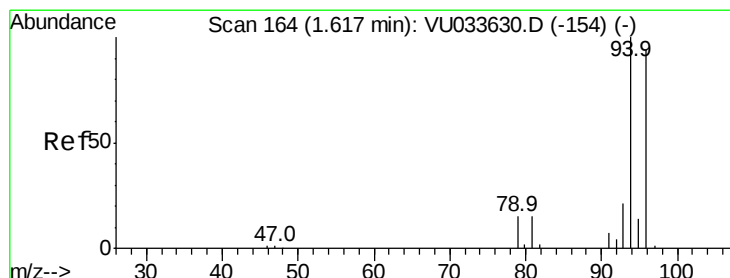
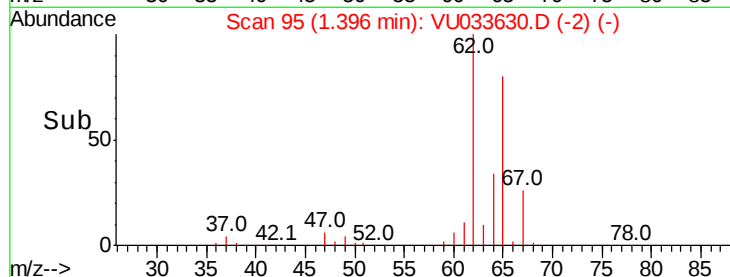
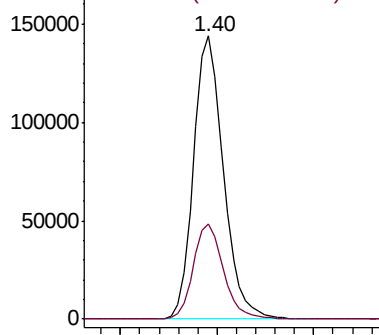
Ion Ratio Lower Upper

62 100

64 33.7 23.6 43.8



Abundance Ion 62.00 (61.70 to 62.70): VU0  
Ion 64.00 (63.70 to 64.70): VU0



#6

Bromomethane

Concen: 43.647 ug/L

RT: 1.62 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU033630.D

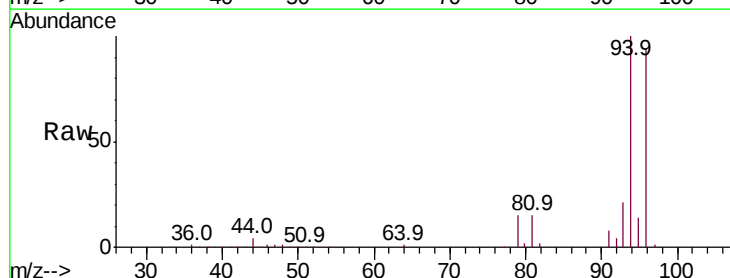
Acq: 08 Aug 2019 12:03

Tgt Ion: 94 Resp: 98086

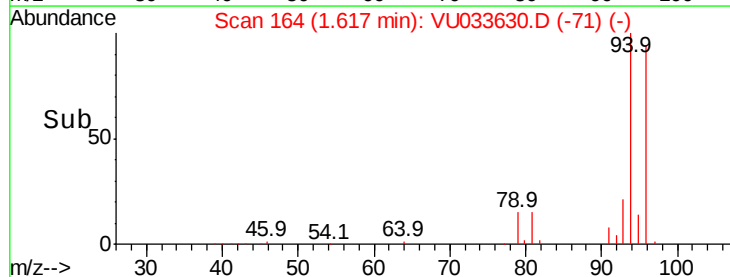
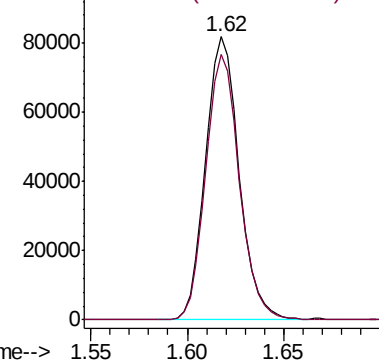
Ion Ratio Lower Upper

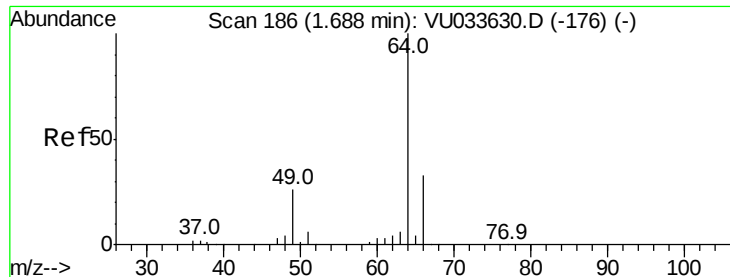
94 100

96 94.0 65.8 122.2



Abundance Ion 94.00 (93.70 to 94.70): VU0  
Ion 96.00 (95.70 to 96.70): VU0





#8

Chloroethane

Concen: 40.568 ug/L

RT: 1.69 min Scan# 186

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

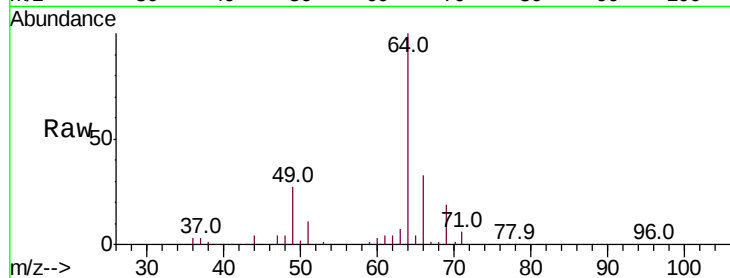
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 64 Resp: 94780

Ion Ratio Lower Upper

64 100

66 32.9 23.0 42.8



Abundance Ion 64.00 (63.70 to 64.70): VU033630.D (-176) (-)

Ion 66.00 (65.70 to 66.70): VU033630.D (-176) (-)

1.69

80000

60000

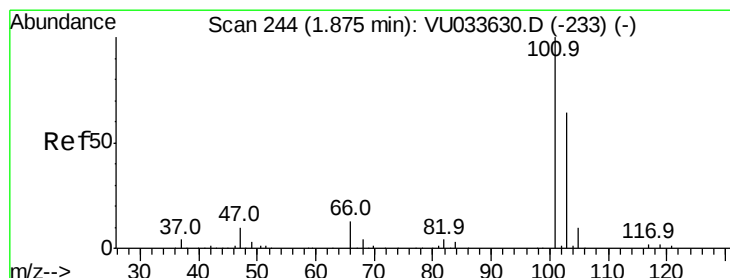
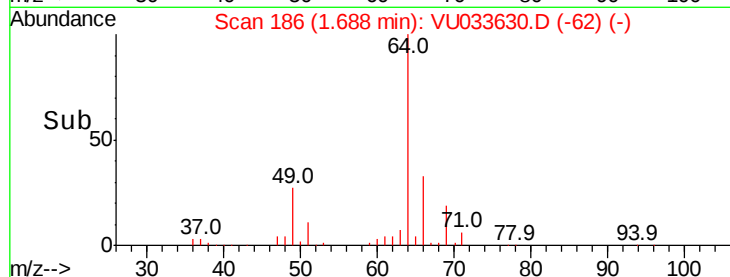
40000

20000

0

1.65 1.70 1.75

Time-->



#9

Trichlorofluoromethane

Concen: 52.904 ug/L

RT: 1.87 min Scan# 244

Delta R.T. 0.00 min

Lab File: VU033630.D

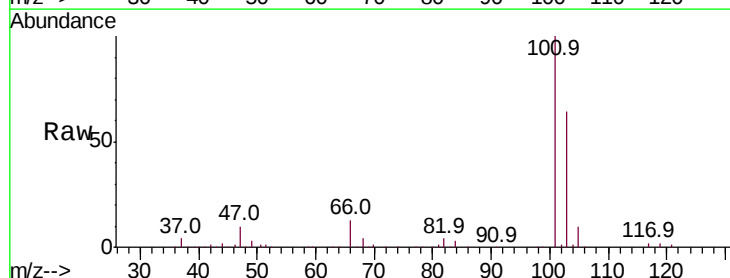
Acq: 08 Aug 2019 12:03

Tgt Ion:101 Resp: 205363

Ion Ratio Lower Upper

101 100

103 64.1 51.3 76.9



Abundance Ion 101.00 (100.70 to 101.70): VU033630.D (-233) (-)

Ion 103.00 (102.70 to 103.70): VU033630.D (-233) (-)

1.87

150000

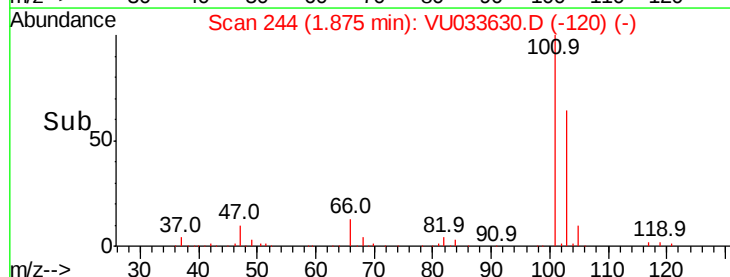
100000

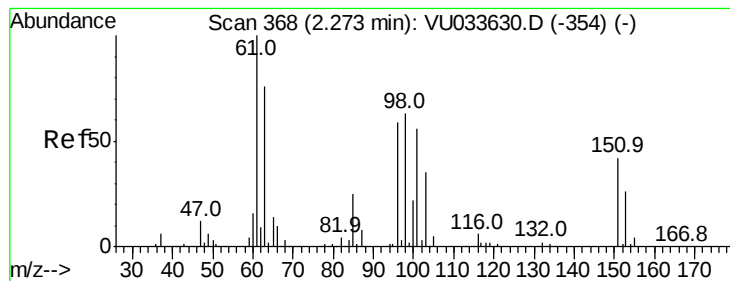
50000

0

1.80 1.85 1.90 1.95

Time-->





#10

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

Concen: 52.921 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampleId :

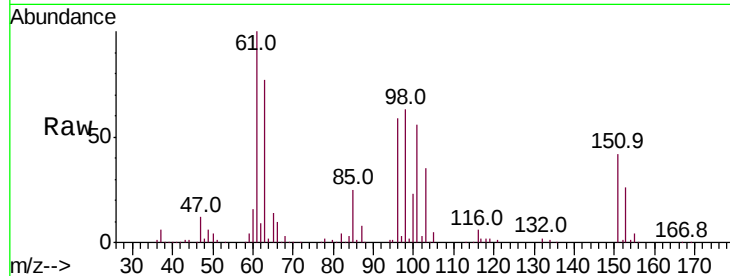
Tot Ion:101 Resp: 104743

Ion Ratio Lower Upper

101 100

85 43.5 34.8 52.2

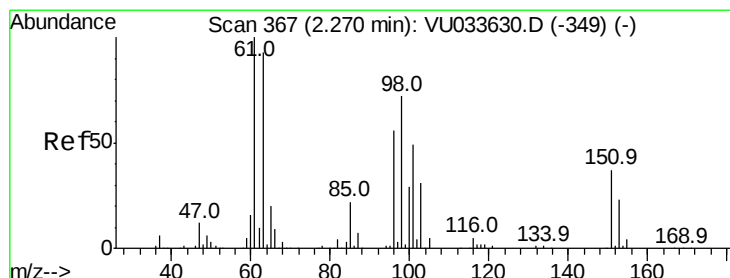
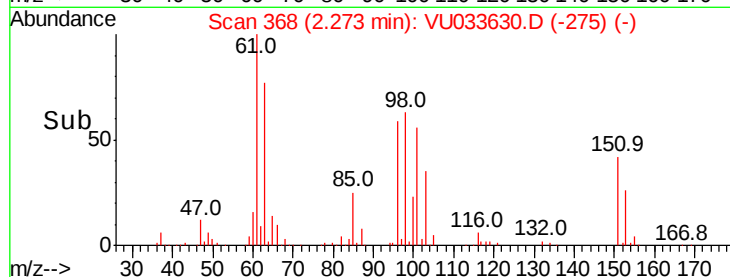
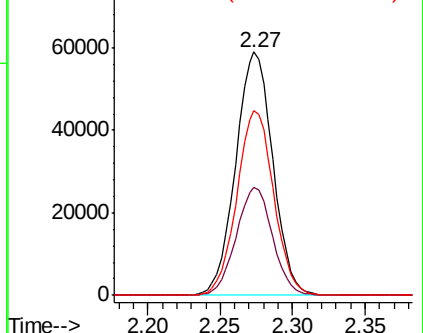
151 75.5 60.4 90.6



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: 51.837 ug/L

RT: 2.27 min Scan# 367

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

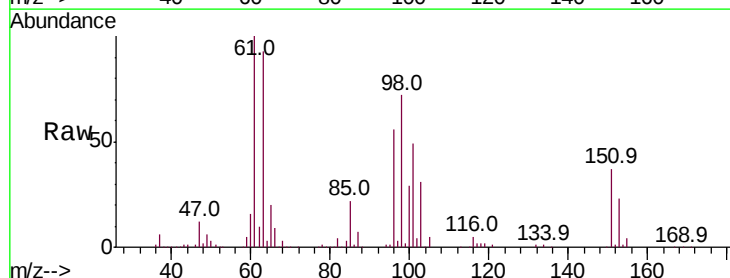
Tgt Ion: 96 Resp: 99069

Ion Ratio Lower Upper

96 100

61 177.1 124.0 230.2

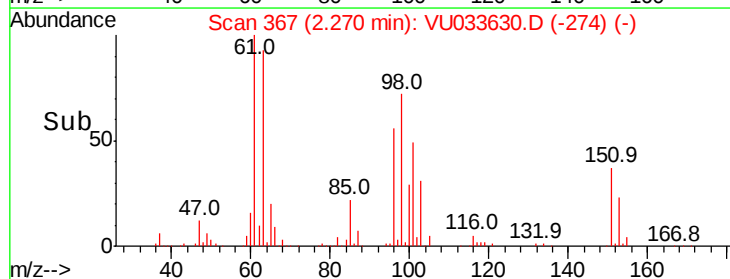
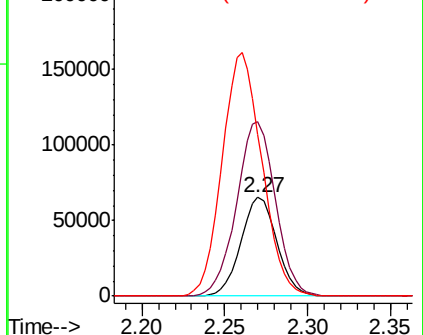
63 164.2 114.9 213.5

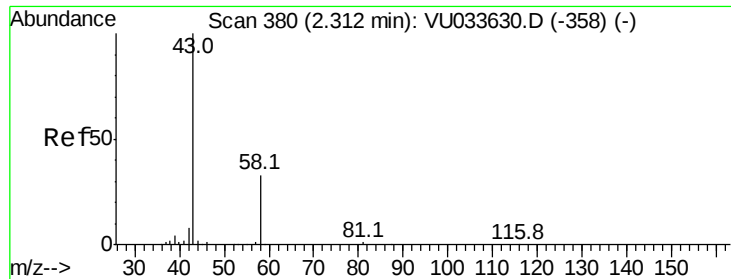


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 104.484 ug/L

RT: 2.31 min Scan# 380

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

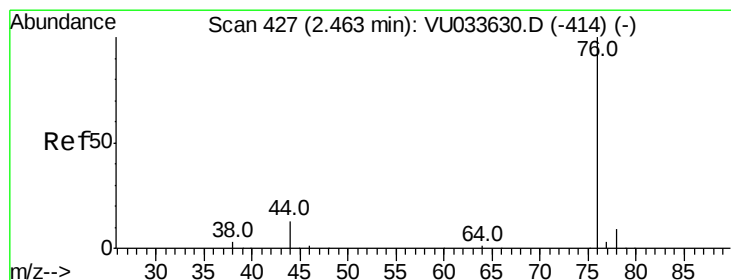
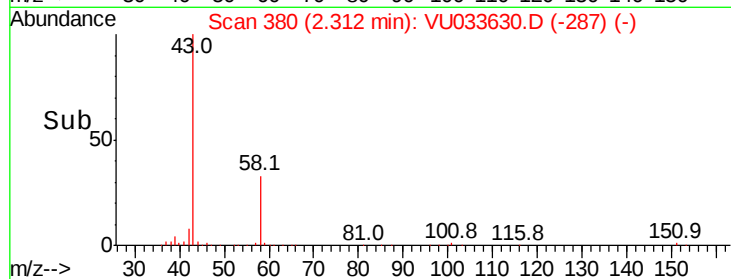
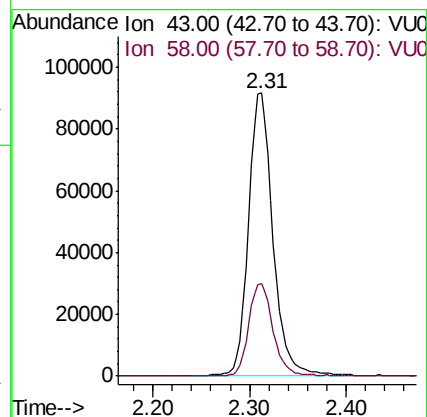
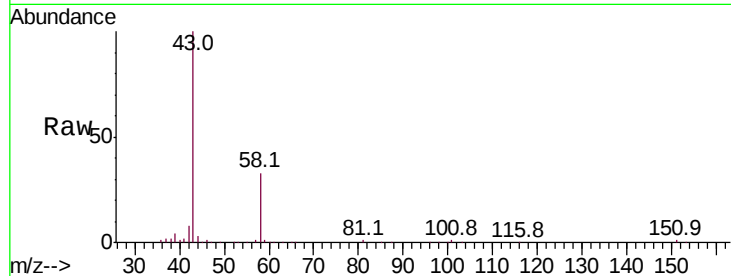
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 161079

Ion Ratio Lower Upper

43 100

58 32.5 0.0 65.0



#14

Carbon disulfide

Concen: 50.523 ug/L

RT: 2.46 min Scan# 427

Delta R.T. 0.00 min

Lab File: VU033630.D

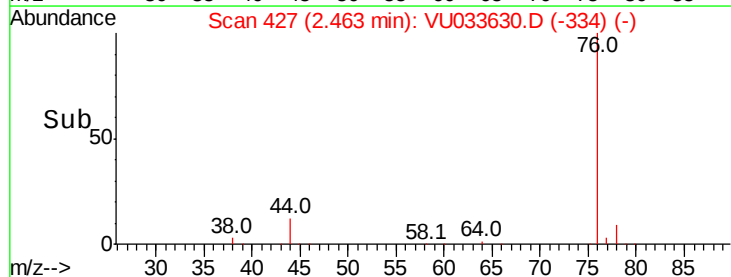
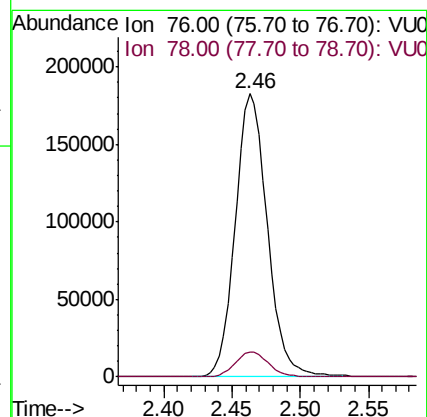
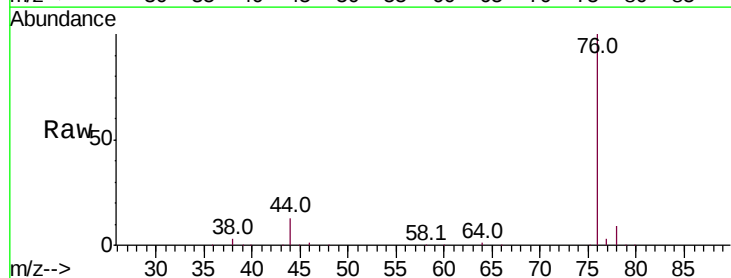
Acq: 08 Aug 2019 12:03

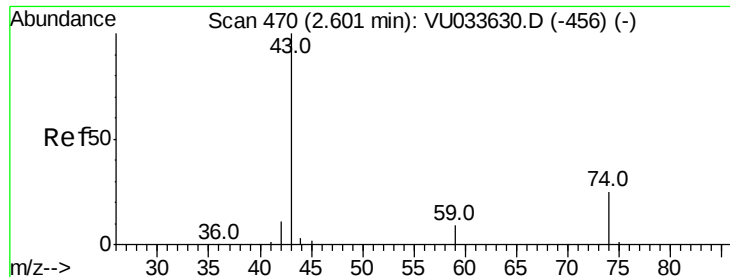
Tgt Ion: 76 Resp: 298685

Ion Ratio Lower Upper

76 100

78 8.9 7.1 10.7





#15

Methyl Acetate

Concen: 54.377 ug/L

RT: 2.60 min Scan# 470

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

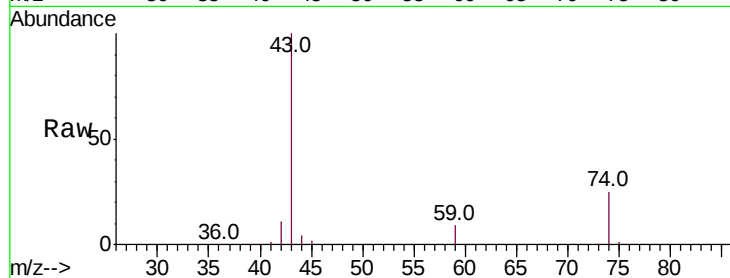
ClientSampled :

Tot Ion: 43 Resp: 135421

Ion Ratio Lower Upper

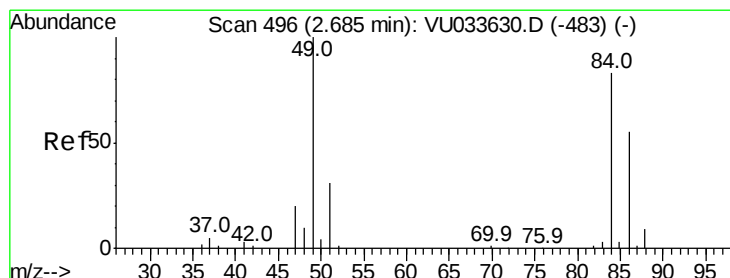
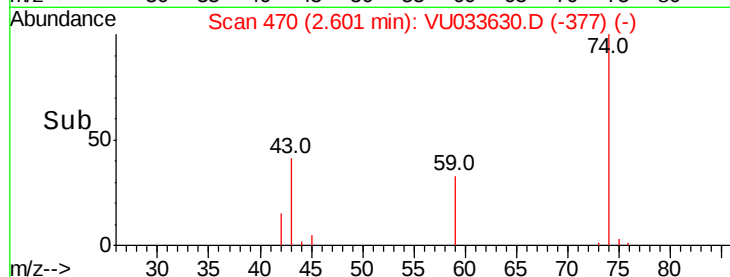
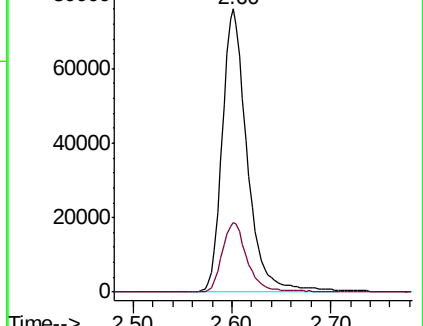
43 100

74 24.4 19.5 29.3



Abundance Ion 43.00 (42.70 to 43.70): VU033630.D (-456) (-)

Ion 74.00 (73.70 to 74.70): VU033630.D (-456) (-)



#16

Methylene chloride

Concen: 52.068 ug/L

RT: 2.68 min Scan# 496

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

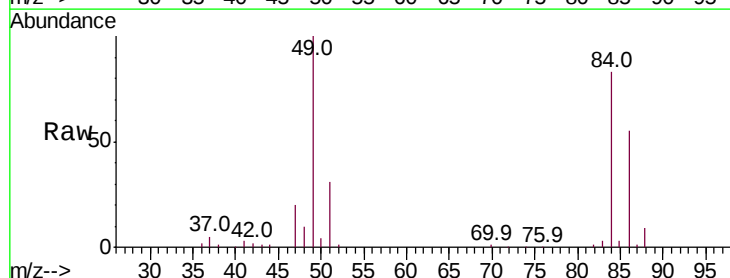
Tgt Ion: 84 Resp: 116447

Ion Ratio Lower Upper

84 100

86 65.7 46.0 85.4

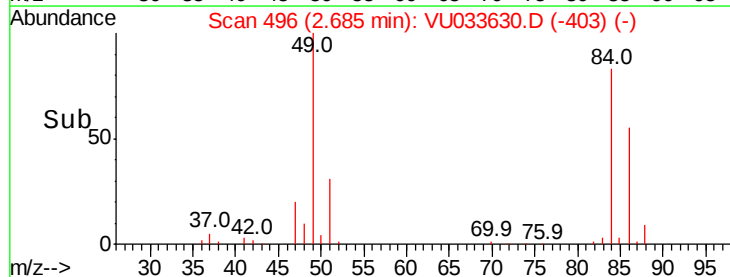
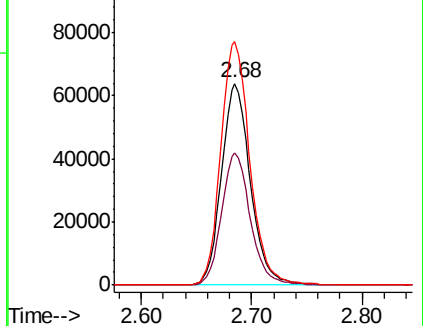
49 120.6 84.4 156.8

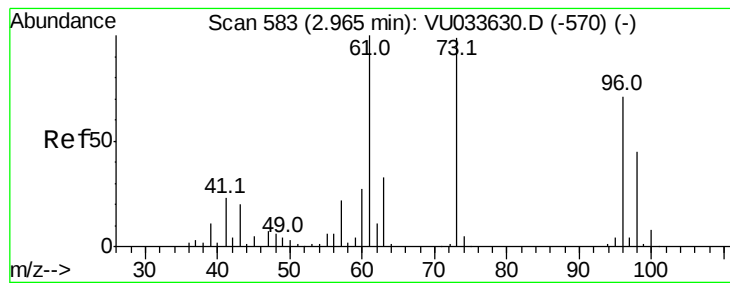


Abundance Ion 84.00 (83.70 to 84.70): VU033630.D (-483) (-)

Ion 86.00 (85.70 to 86.70): VU033630.D (-483) (-)

Ion 49.00 (48.70 to 49.70): VU033630.D (-483) (-)





#17

trans-1,2-Dichloroethene

Concen: 51.273 ug/L

RT: 2.96 min Scan# 583

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :  
MSVOA\_U  
ClientSampled :

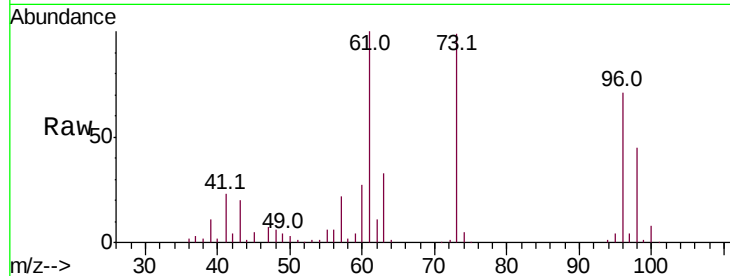
Tot Ion: 96 Resp: 104725

Ion Ratio Lower Upper

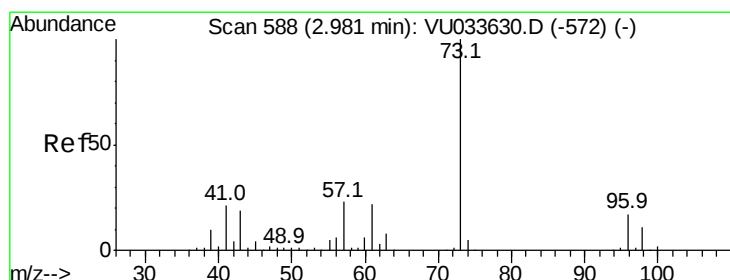
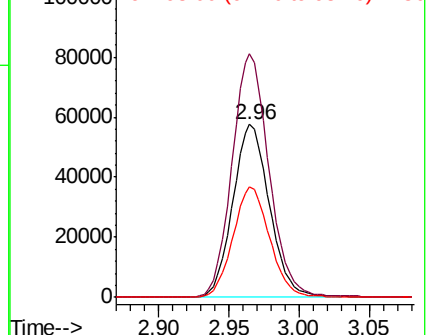
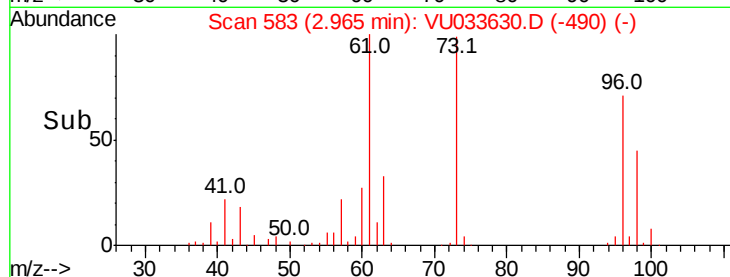
96 100

61 141.0 98.7 183.3

98 63.7 44.6 82.8



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: 52.369 ug/L

RT: 2.98 min Scan# 588

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

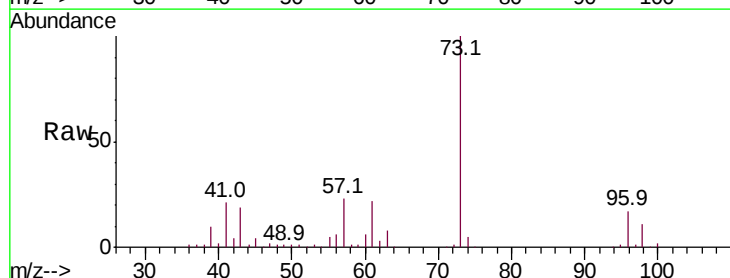
Tgt Ion: 73 Resp: 331519

Ion Ratio Lower Upper

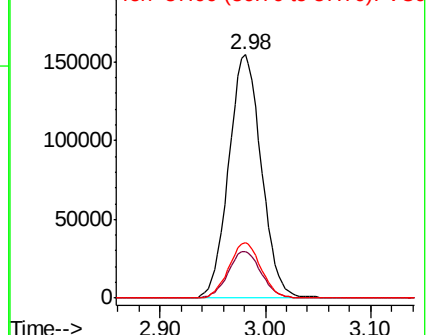
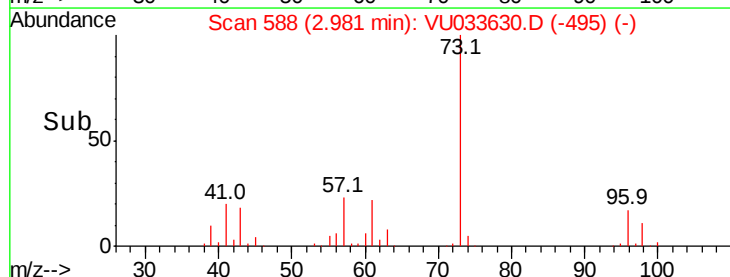
73 100

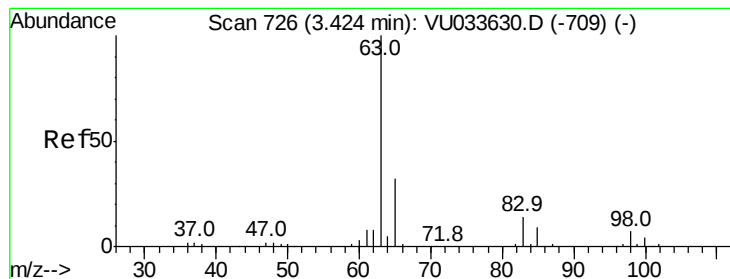
43 19.4 15.5 23.3

57 22.5 18.0 27.0



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



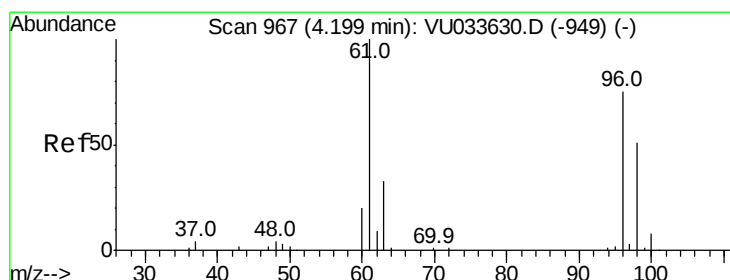
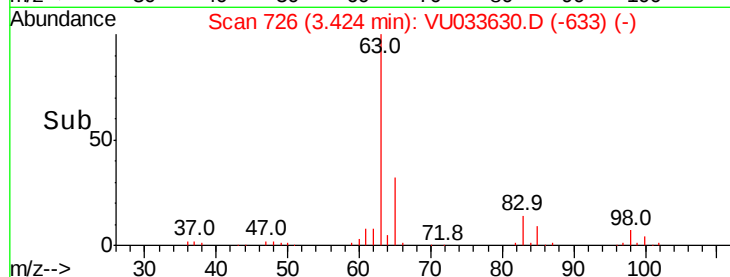
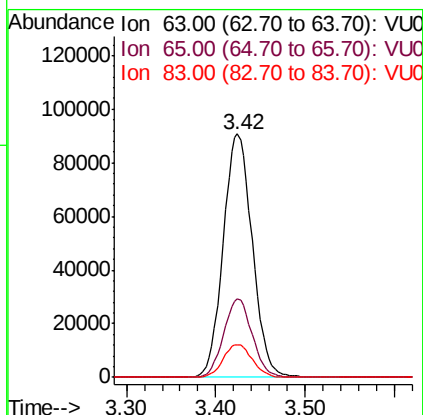
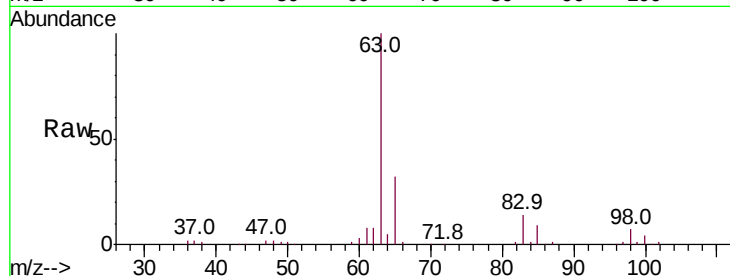


#19  
 1,1-Dichloroethane  
 Concen: 52.949 ug/L  
 RT: 3.42 min Scan# 726  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

Instrument :  
 MSVOA\_U  
 ClientSampleId :

Tot Ion: 63 Resp: 204808  

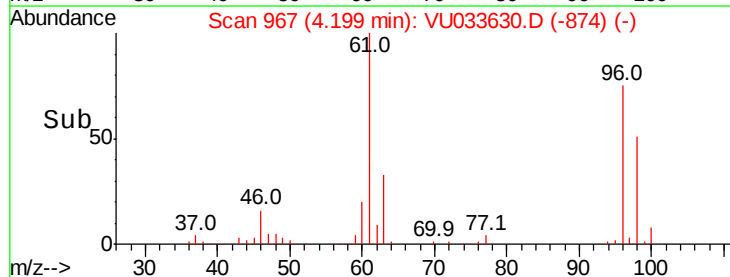
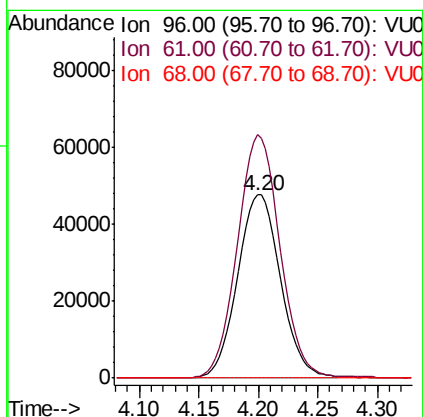
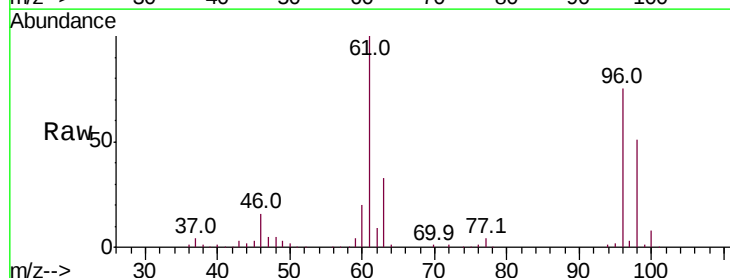
| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 63  | 100   |       |       |
| 65  | 32.2  | 22.5  | 41.9  |
| 83  | 13.5  | 9.4   | 17.6  |

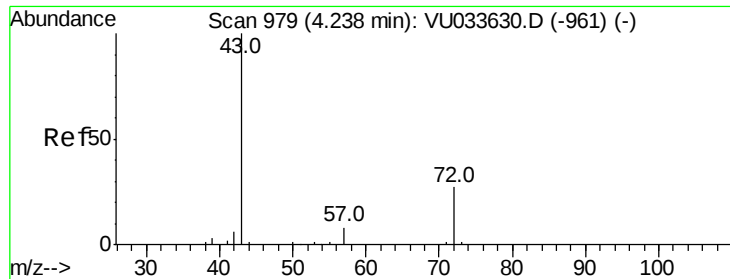


#20  
 cis-1,2-Dichloroethene  
 Concen: 52.846 ug/L  
 RT: 4.20 min Scan# 967  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

Tgt Ion: 96 Resp: 119334  

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 96  | 100   |       |       |
| 61  | 132.9 | 93.0  | 172.8 |
| 68  | 0.0   | 0.0   | 0.0   |





#22

2-Butanone

Concen: 107.986 ug/L

RT: 4.24 min Scan# 979

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

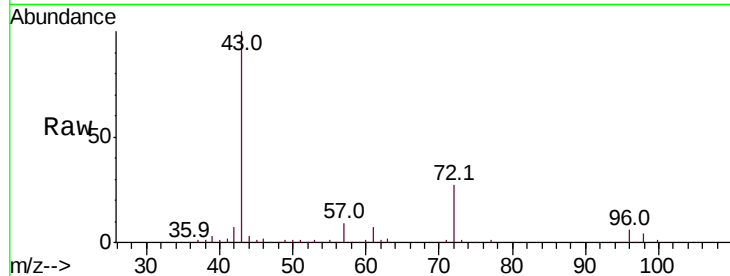
Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 43 Resp: 206828

Ion Ratio Lower Upper

43 100

72 28.9 14.4 43.4



Abundance Ion 43.00 (42.70 to 43.70): VU033630.D (-961) (-)

Ion 72.00 (71.70 to 72.70): VU033630.D (-961) (-)

4.24

80000

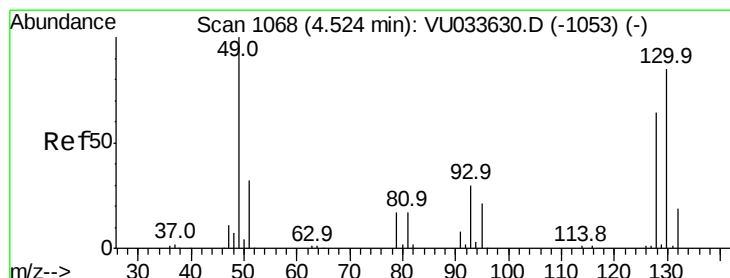
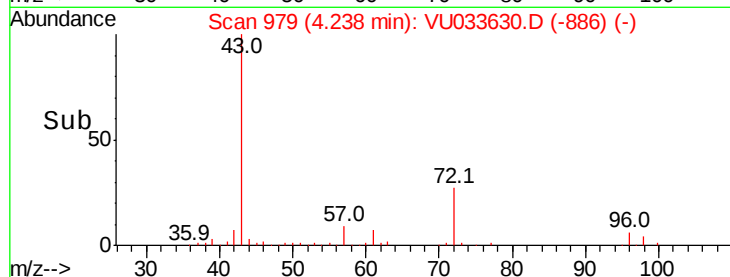
60000

40000

20000

0

Time-->



#23

Bromochloromethane

Concen: 52.464 ug/L

RT: 4.52 min Scan# 1068

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Tgt Ion:128 Resp: 61989

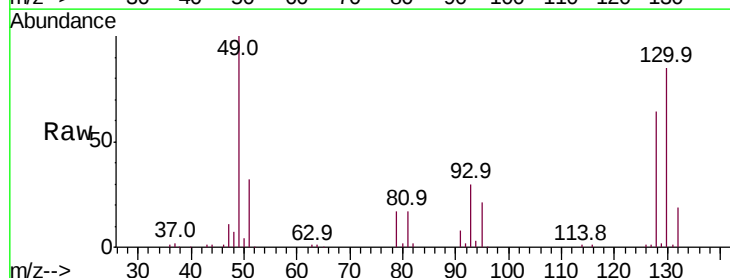
Ion Ratio Lower Upper

128 100

49 156.9 109.8 204.0

130 132.9 93.0 172.8

51 49.8 39.8 59.8



Abundance Ion 128.00 (127.70 to 128.70): VU033630.D (-1053) (-)

Ion 49.00 (48.70 to 49.70): VU033630.D (-1053) (-)

Ion 130.00 (129.70 to 130.70): VU033630.D (-1053) (-)

Ion 51.00 (50.70 to 51.70): VU033630.D (-1053) (-)

4.52

60000

50000

40000

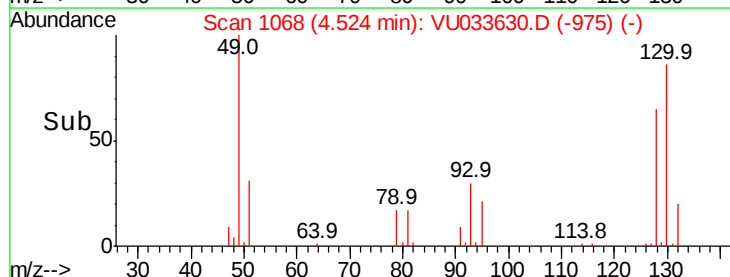
30000

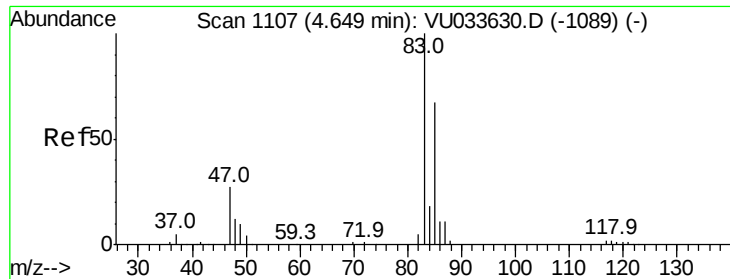
20000

10000

0

Time-->

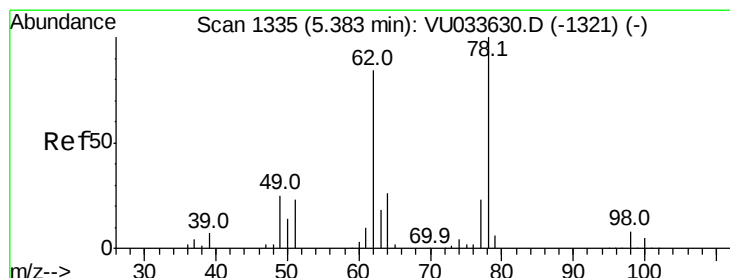
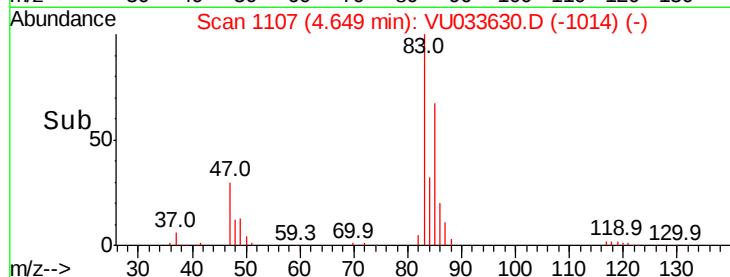
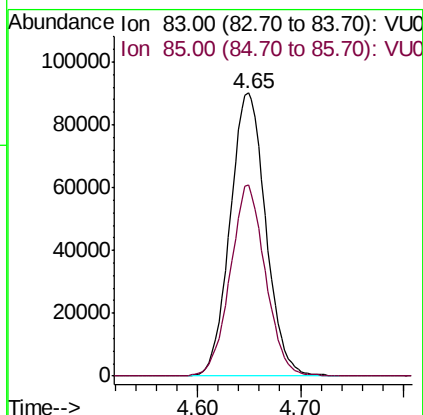
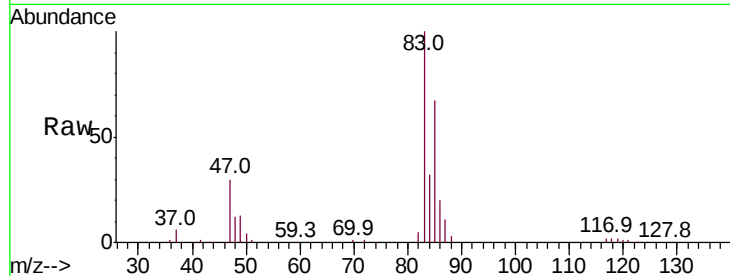




#25  
Chloroform  
Concen: 54.055 ug/L  
RT: 4.65 min Scan# 1107  
Delta R.T. 0.00 min  
Lab File: VU033630.D  
Acq: 08 Aug 2019 12:03

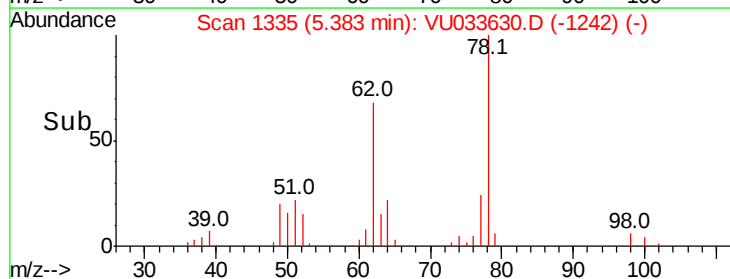
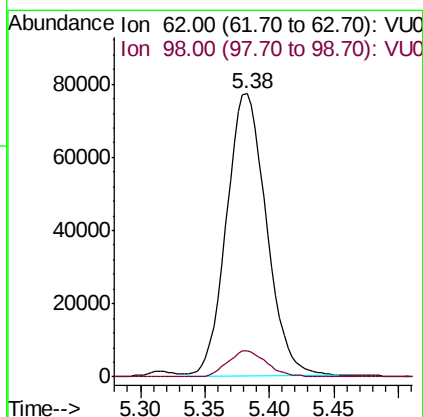
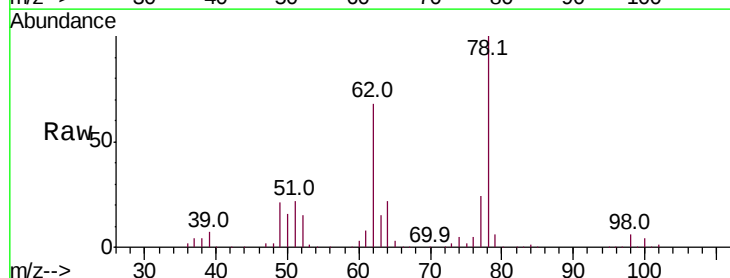
Instrument :  
MSVOA\_U  
ClientSampleId :

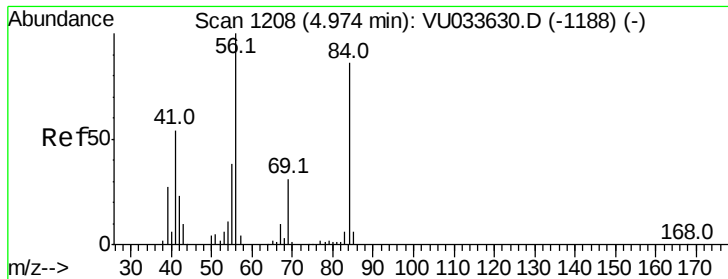
Tot Ion: 83 Resp: 216906  
Ion Ratio Lower Upper  
83 100  
85 67.4 47.2 87.6



#27  
1,2-Dichloroethane  
Concen: 52.979 ug/L  
RT: 5.38 min Scan# 1335  
Delta R.T. 0.00 min  
Lab File: VU033630.D  
Acq: 08 Aug 2019 12:03

Tgt Ion: 62 Resp: 165319  
Ion Ratio Lower Upper  
62 100  
98 9.3 7.4 11.2

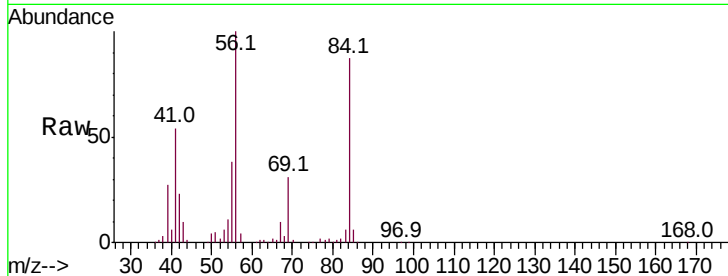




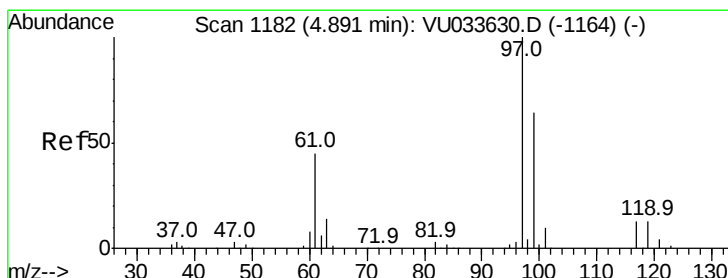
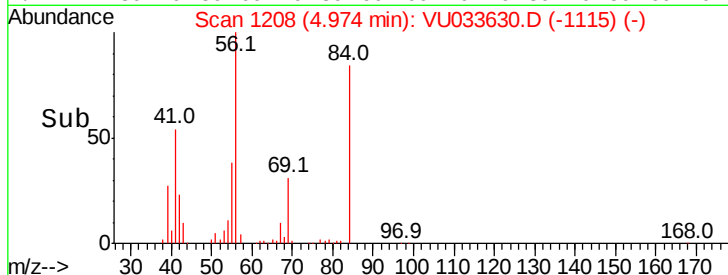
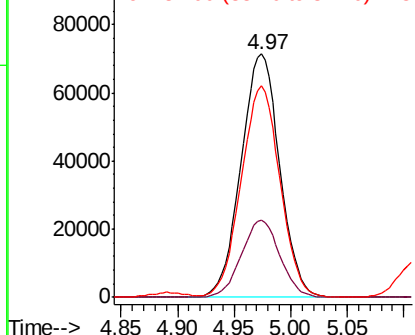
#29  
Cyclohexane  
Concen: 51.373 ug/L  
RT: 4.97 min Scan# 1208  
Delta R.T. 0.00 min  
Lab File: VU033630.D  
Acq: 08 Aug 2019 12:03

Instrument :  
MSVOA\_U  
ClientSampleId :

Tot Ion: 56 Resp: 169445  
Ion Ratio Lower Upper  
56 100  
69 31.5 25.2 37.8  
84 87.7 70.2 105.2

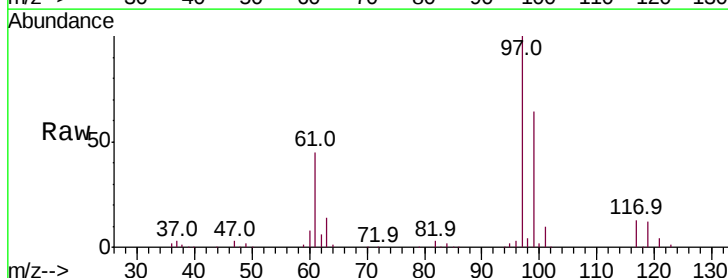


Abundance Ion 56.00 (55.70 to 56.70): VU0  
Ion 69.00 (68.70 to 69.70): VU0  
Ion 84.00 (83.70 to 84.70): VU0

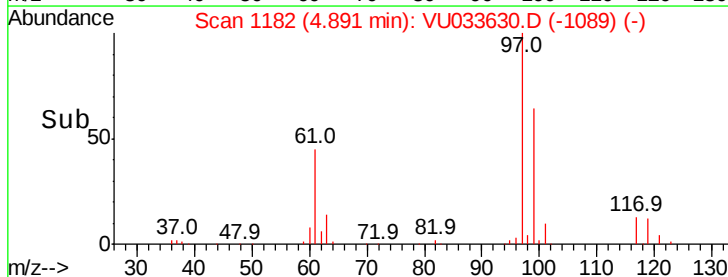
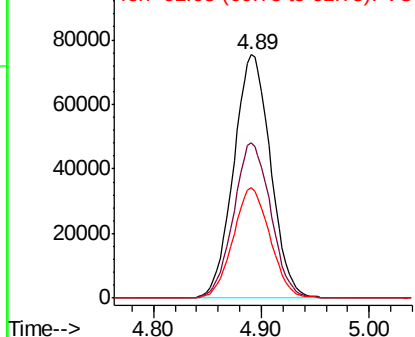


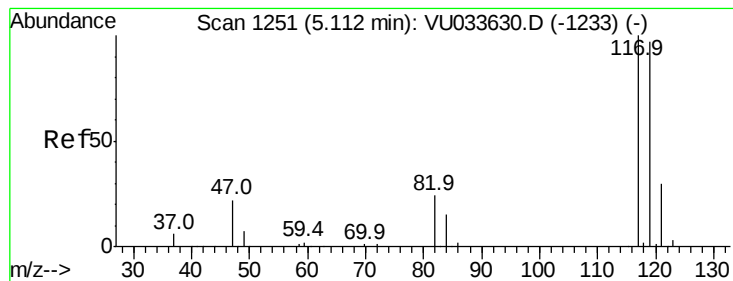
#30  
1,1,1-Trichloroethane  
Concen: 52.302 ug/L  
RT: 4.89 min Scan# 1182  
Delta R.T. 0.00 min  
Lab File: VU033630.D  
Acq: 08 Aug 2019 12:03

Tgt Ion: 97 Resp: 179919  
Ion Ratio Lower Upper  
97 100  
99 64.3 51.4 77.2  
61 45.3 36.2 54.4



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: 53.198 ug/L

RT: 5.11 min Scan# 1251

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

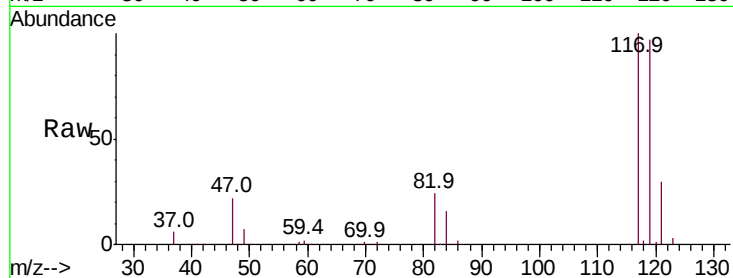
ClientSampleId :

Tot Ion:117 Resp: 160941

Ion Ratio Lower Upper

117 100

119 96.5 77.2 115.8



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

80000

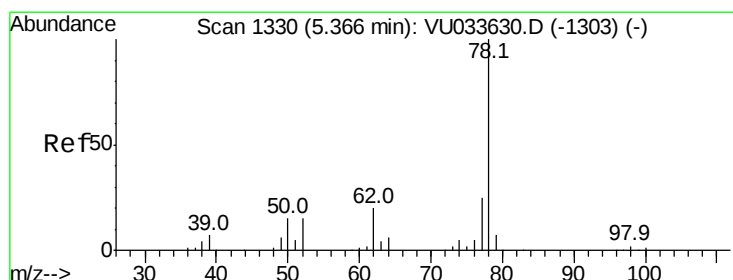
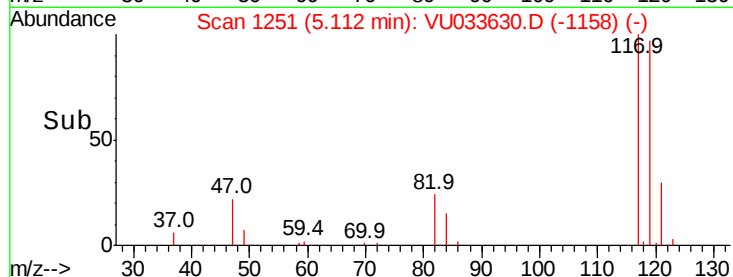
60000

40000

20000

0

5.00 5.10 5.20



#33

Benzene

Concen: 52.746 ug/L

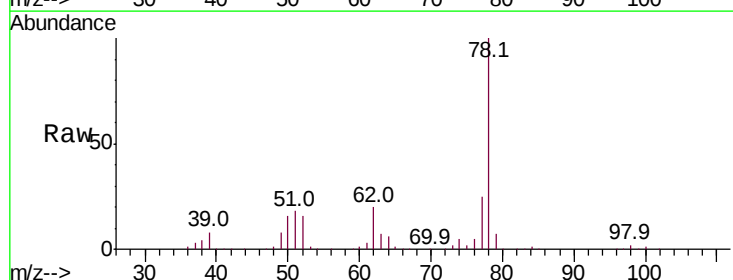
RT: 5.37 min Scan# 1330

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Tgt Ion: 78 Resp: 459079



Abundance Ion 78.00 (77.70 to 78.70): VU0

250000

200000

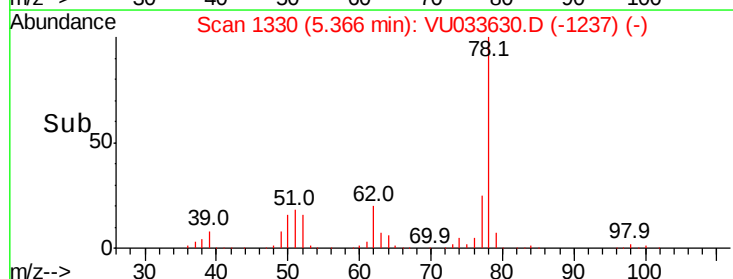
150000

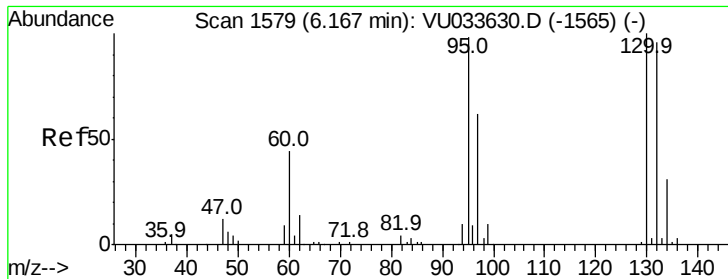
100000

50000

0

5.20 5.30 5.40 5.50





#34

Trichloroethene

Concen: 52.055 ug/L

RT: 6.17 min Scan# 1579

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampled :

Tot Ion: 95 Resp: 116750

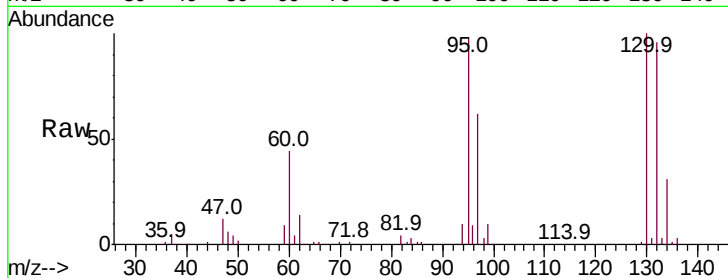
Ion Ratio Lower Upper

95 100

97 63.5 44.4 82.5

132 98.7 69.1 128.3

130 102.5 71.7 133.3

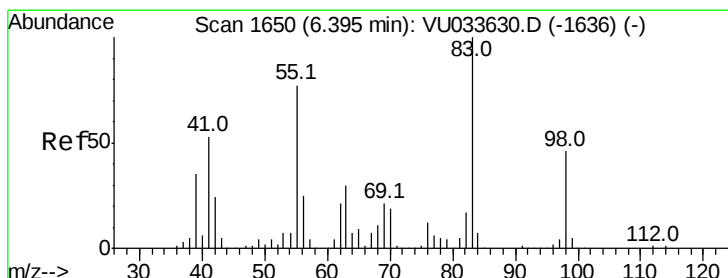
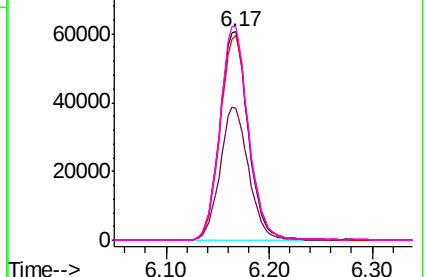
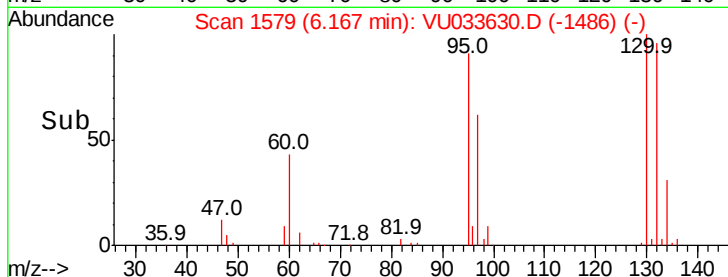


Abundance Ion 95.00 (94.70 to 95.70): VU0

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: 52.568 ug/L

RT: 6.40 min Scan# 1650

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

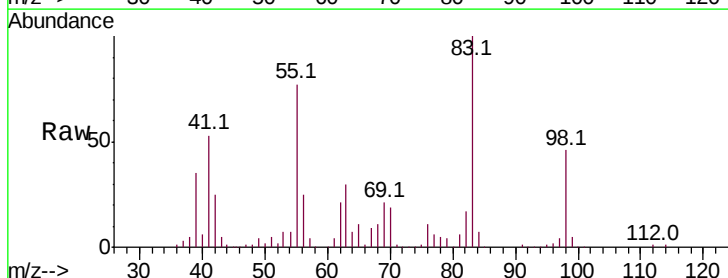
Tgt Ion: 83 Resp: 184854

Ion Ratio Lower Upper

83 100

55 76.6 61.3 91.9

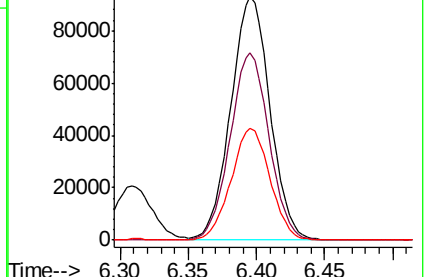
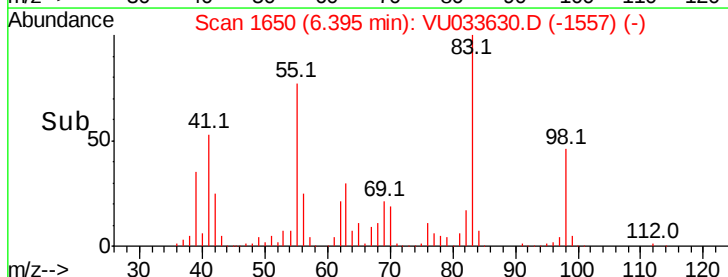
98 45.9 36.7 55.1

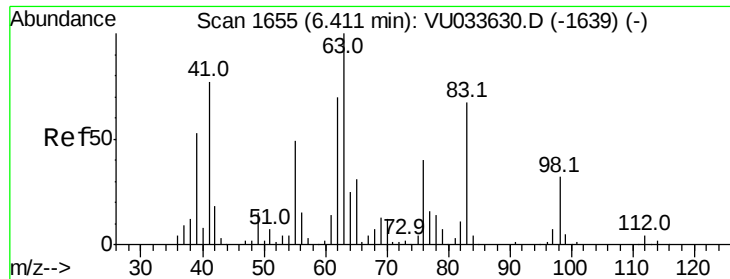


Abundance Ion 83.00 (82.70 to 83.70): VU0

Ion 55.00 (54.70 to 55.70): VU0

Ion 98.00 (97.70 to 98.70): VU0





#37

1,2-Dichloropropane

Concen: 51.510 ug/L

RT: 6.41 min Scan# 1655

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

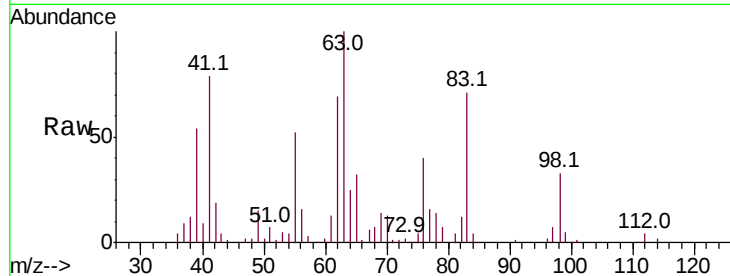
ClientSampleId :

Tot Ion: 63 Resp: 122566

Ion Ratio Lower Upper

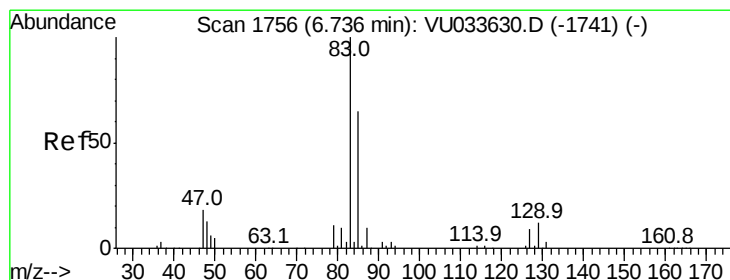
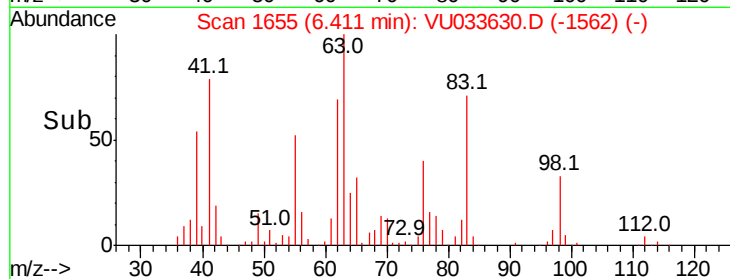
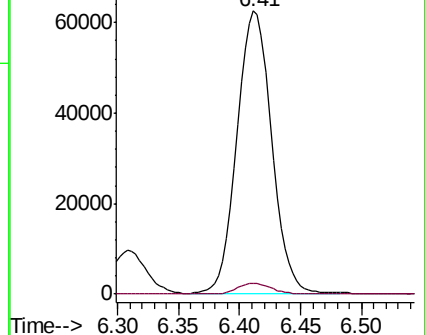
63 100

112 3.8 3.0 4.6



Abundance Ion 63.00 (62.70 to 63.70): VU033630.D (-1639) (-)

Ion 112.00 (111.70 to 112.70): VU033630.D (-1639) (-)



#38

Bromodichloromethane

Concen: 52.442 ug/L

RT: 6.74 min Scan# 1756

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

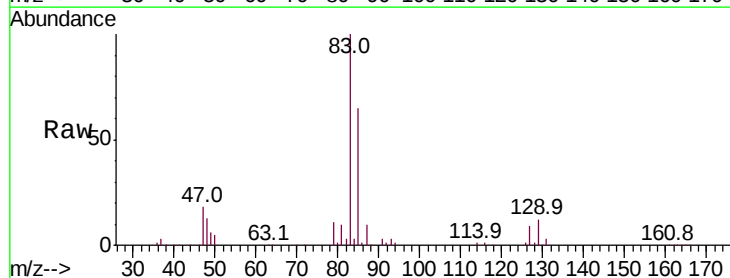
Tgt Ion: 83 Resp: 157483

Ion Ratio Lower Upper

83 100

85 65.1 45.6 84.6

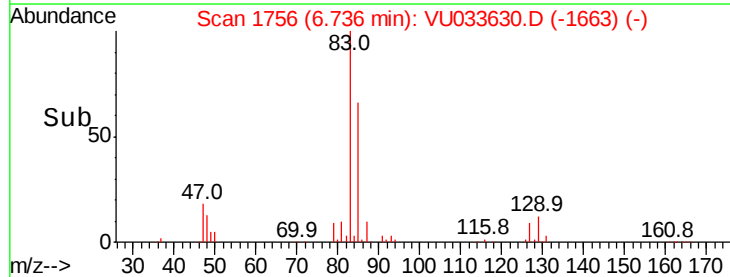
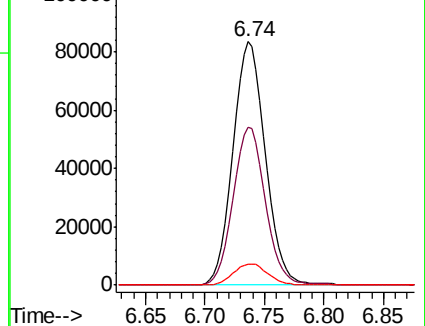
127 8.7 7.0 10.4

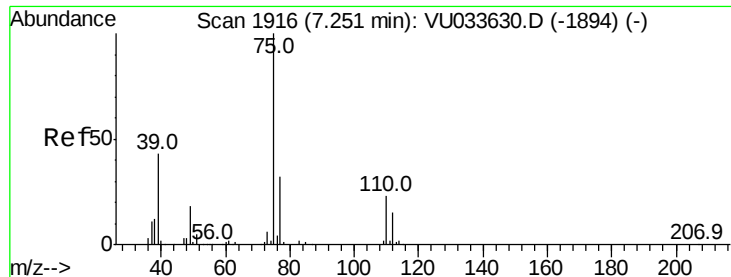


Abundance Ion 83.00 (82.70 to 83.70): VU033630.D (-1741) (-)

Ion 85.00 (84.70 to 85.70): VU033630.D (-1741) (-)

Ion 127.00 (126.70 to 127.70): VU033630.D (-1741) (-)



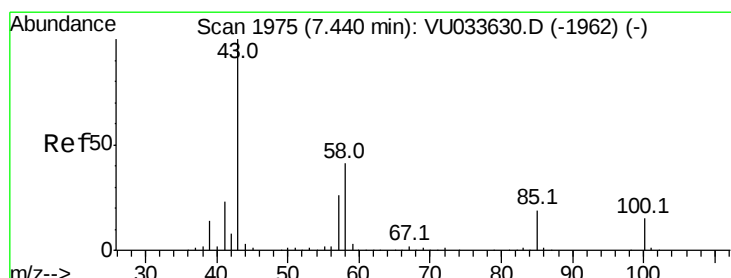
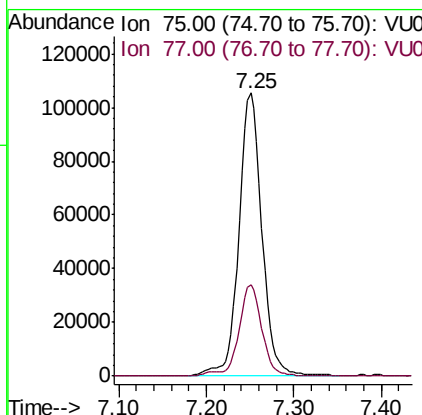
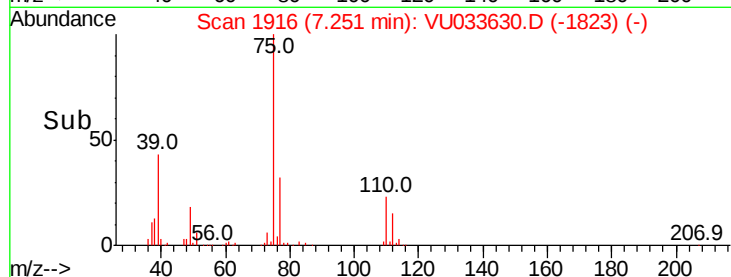
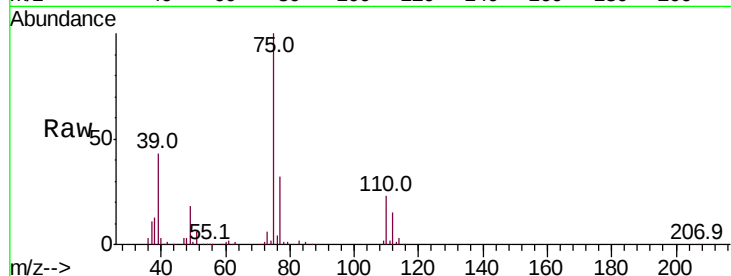


#39

cis-1,3-Dichloropropene  
 Concen: 53.385 ug/L  
 RT: 7.25 min Scan# 1916  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

Instrument :  
 MSVOA\_U  
 ClientSampleId :

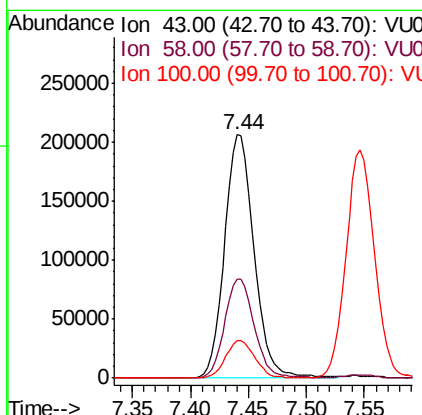
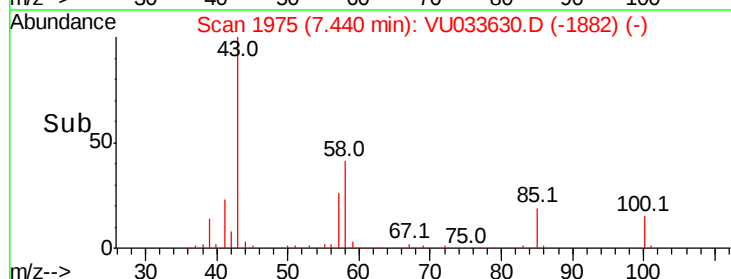
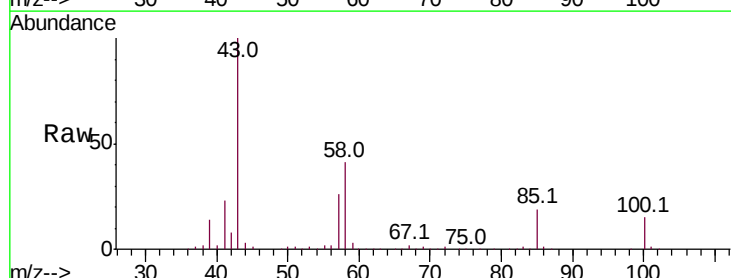
Tot Ion: 75 Resp: 193563  
 Ion Ratio Lower Upper  
 75 100  
 77 32.2 22.5 41.9

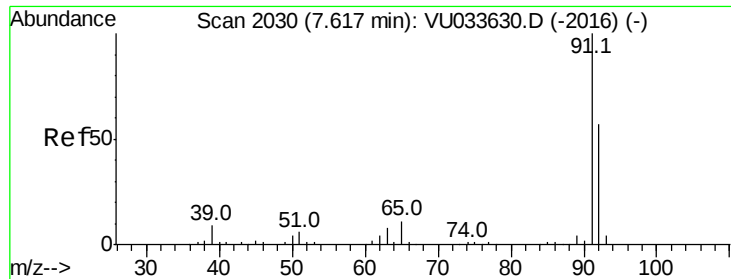


#40

4-Methyl-2-pentanone  
 Concen: 106.851 ug/L  
 RT: 7.44 min Scan# 1975  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

Tgt Ion: 43 Resp: 365026  
 Ion Ratio Lower Upper  
 43 100  
 58 40.9 32.7 49.1  
 100 15.3 12.2 18.4





#42

Toluene

Concen: 53.531 ug/L

RT: 7.62 min Scan# 2030

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

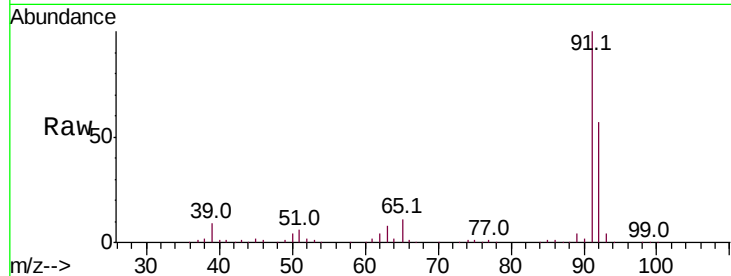
ClientSampleId :

Tot Ion: 91 Resp: 497755

Ion Ratio Lower Upper

91 100

92 56.6 39.6 73.6



Abundance Ion 91.00 (90.70 to 91.70): VU033630.D (-2016) (-)

Ion 92.00 (91.70 to 92.70): VU033630.D (-2016) (-)

7.62

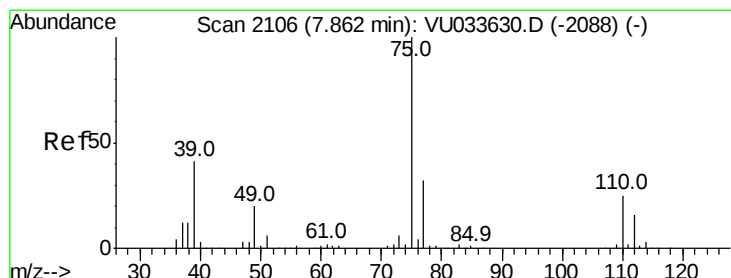
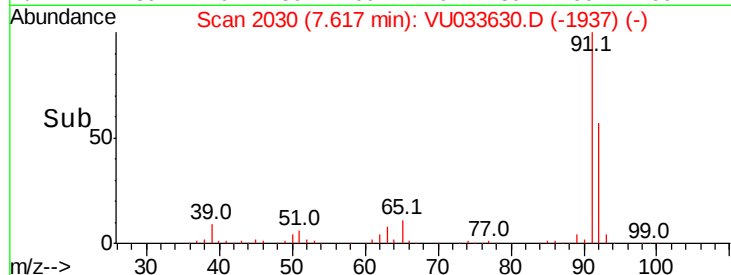
300000

200000

100000

0

Time-->



#44

trans-1,3-Dichloropropene

Concen: 53.838 ug/L

RT: 7.86 min Scan# 2106

Delta R.T. 0.00 min

Lab File: VU033630.D

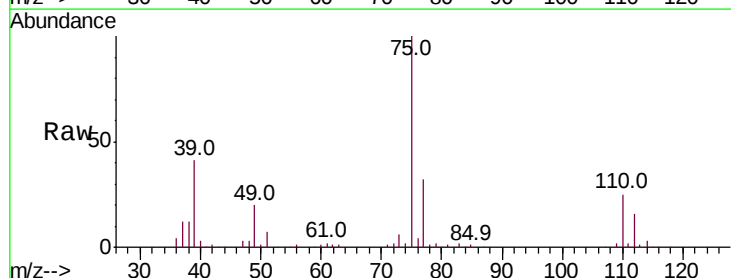
Acq: 08 Aug 2019 12:03

Tgt Ion: 75 Resp: 176257

Ion Ratio Lower Upper

75 100

77 31.8 22.3 41.3



Abundance Ion 75.00 (74.70 to 75.70): VU033630.D (-2088) (-)

Ion 77.00 (76.70 to 77.70): VU033630.D (-2088) (-)

7.86

120000

100000

80000

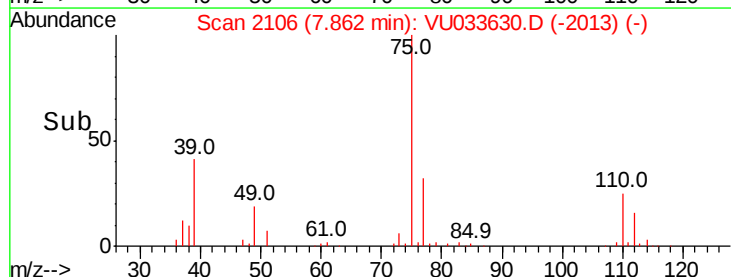
60000

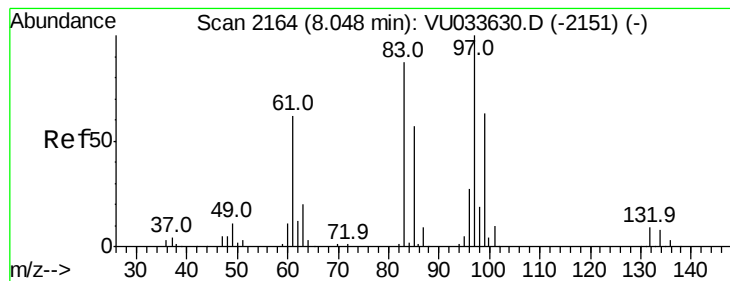
40000

20000

0

Time-->





#45

1,1,2-Trichloroethane

Concen: 52.548 ug/L

RT: 8.05 min Scan# 2164

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampleId :

Tot Ion: 97 Resp: 117355

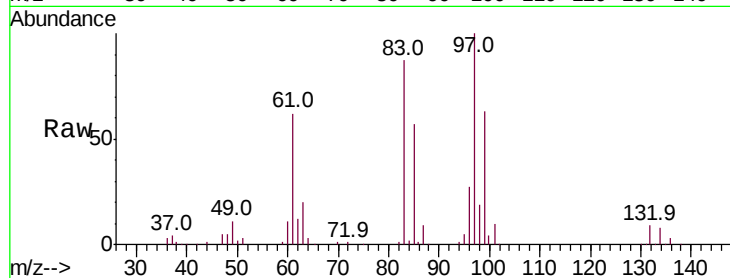
Ion Ratio Lower Upper

97 100

99 62.8 44.0 81.6

83 86.6 60.6 112.6

85 57.0 39.9 74.1

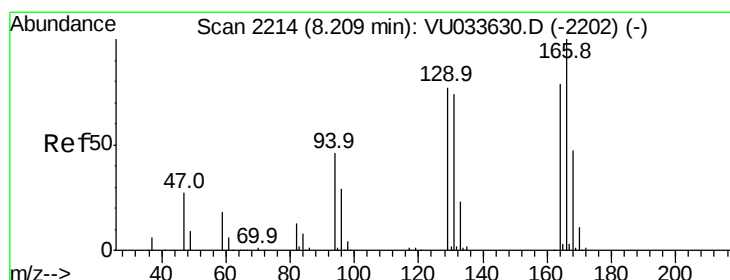
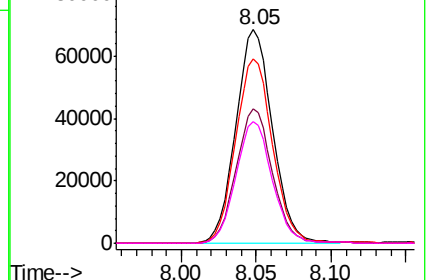
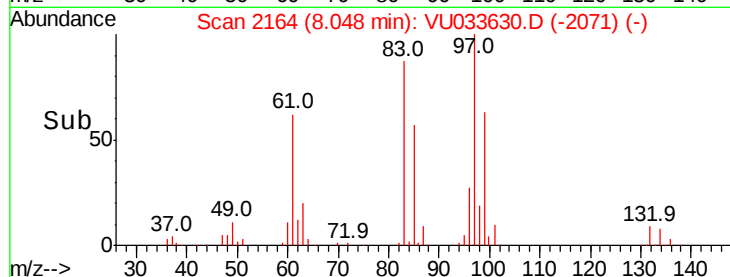


Abundance Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#46

Tetrachloroethene

Concen: 51.572 ug/L

RT: 8.21 min Scan# 2214

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Tgt Ion:164 Resp: 94565

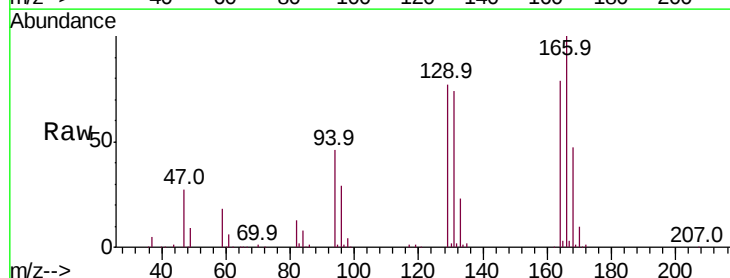
Ion Ratio Lower Upper

164 100

129 97.3 68.1 126.5

131 93.5 65.5 121.6

166 126.4 88.5 164.3

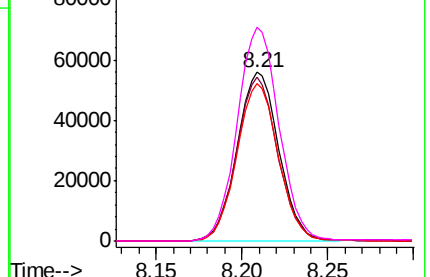
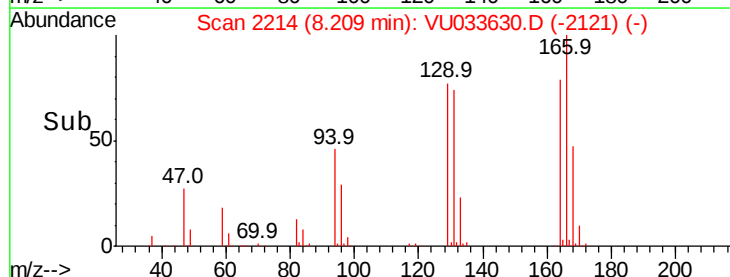


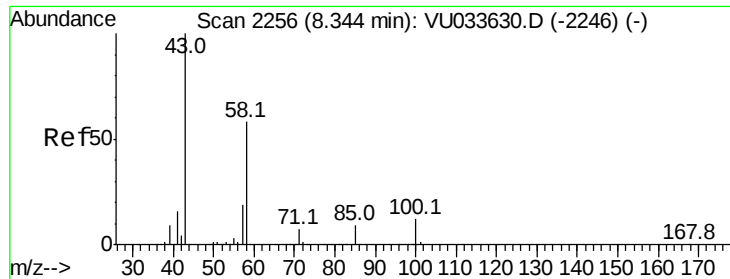
Abundance Ion 164.00 (163.70 to 164.70): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V

Ion 166.00 (165.70 to 166.70): V

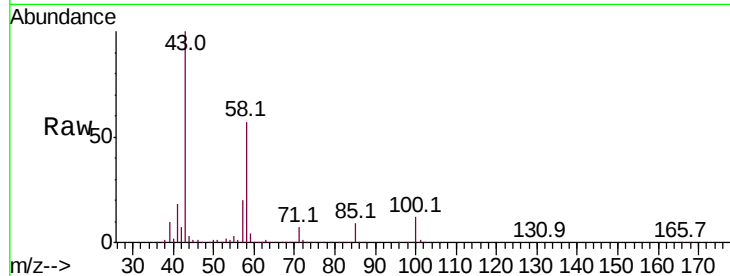




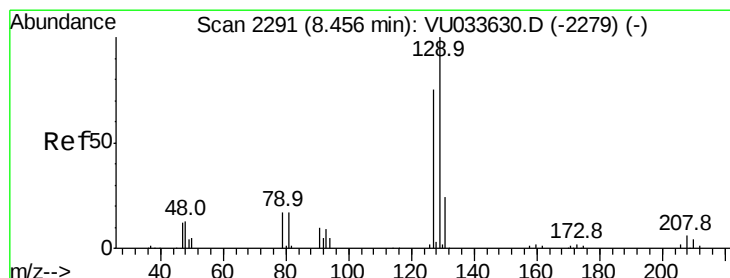
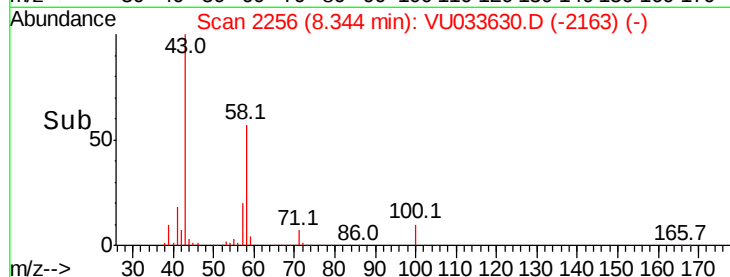
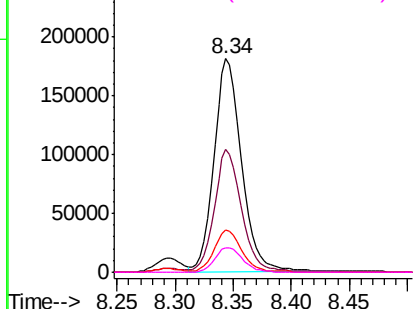
#48  
2-Hexanone  
Concen: 109.547 ug/L  
RT: 8.34 min Scan# 2256  
Delta R.T. 0.00 min  
Lab File: VU033630.D  
Acq: 08 Aug 2019 12:03

Instrument :  
MSVOA\_U  
ClientSampled :

|          |       |       |        |
|----------|-------|-------|--------|
| Tot Ion: | 43    | Resp: | 300439 |
| Ion      | Ratio | Lower | Upper  |
| 43       | 100   |       |        |
| 58       | 56.0  | 44.8  | 67.2   |
| 57       | 19.4  | 15.5  | 23.3   |
| 100      | 11.8  | 9.4   | 14.2   |

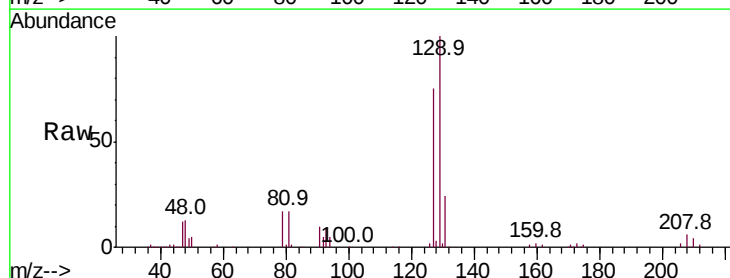


Abundance Ion 43.00 (42.70 to 43.70): VU0  
Ion 58.00 (57.70 to 58.70): VU0  
Ion 57.00 (56.70 to 57.70): VU0  
Ion 100.00 (99.70 to 100.70): VU0

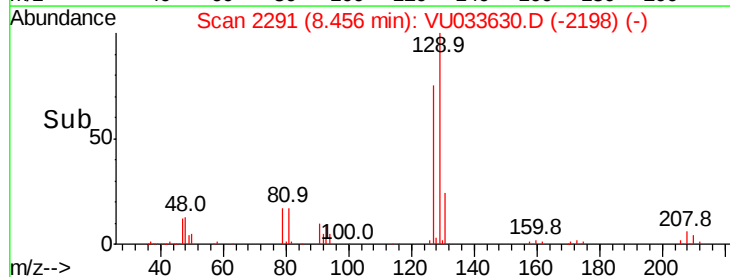
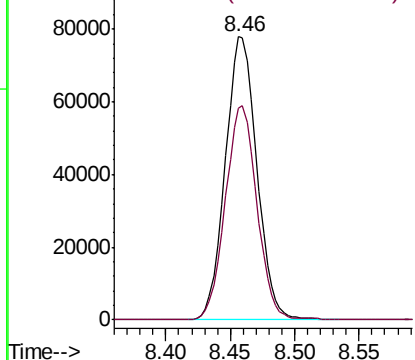


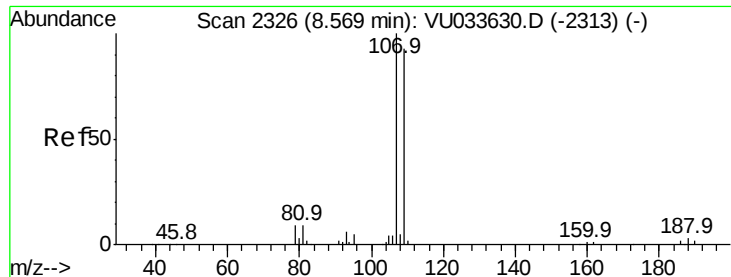
#49  
Dibromochloromethane  
Concen: 52.780 ug/L  
RT: 8.46 min Scan# 2291  
Delta R.T. 0.00 min  
Lab File: VU033630.D  
Acq: 08 Aug 2019 12:03

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 129   | Resp: | 132596 |
| Ion      | Ratio | Lower | Upper  |
| 129      | 100   |       |        |
| 127      | 75.0  | 52.5  | 97.5   |



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

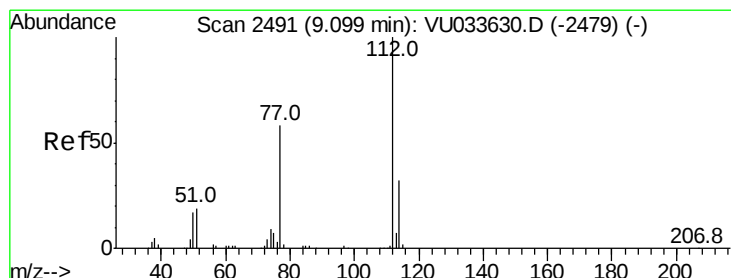
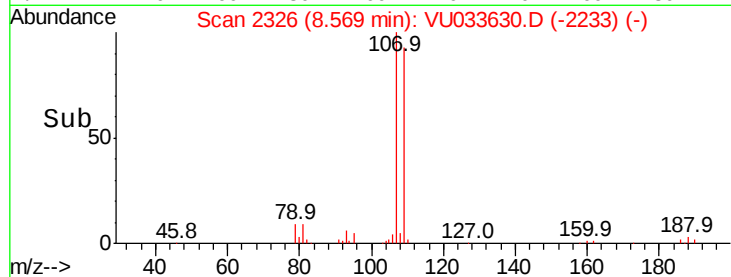
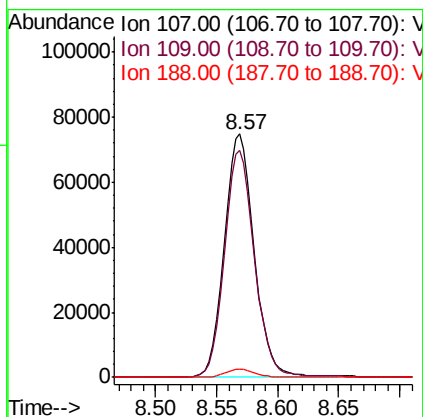
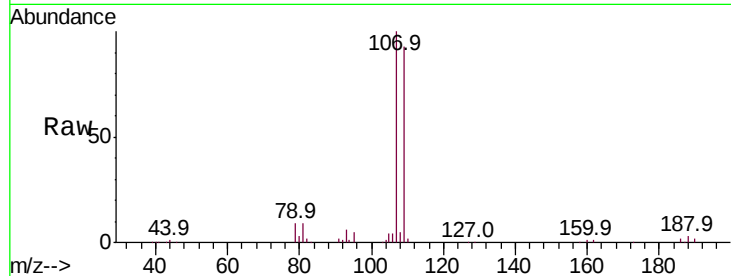




#50  
 1,2-Dibromoethane  
 Concen: 52.535 ug/L  
 RT: 8.57 min Scan# 2326  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

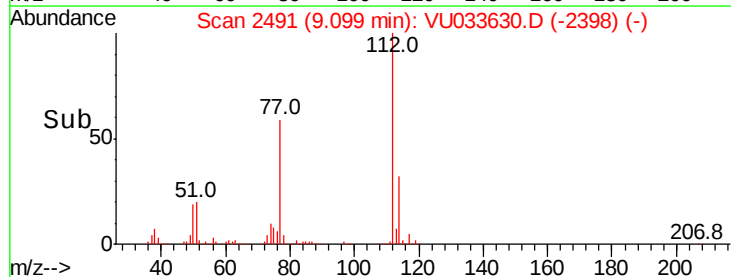
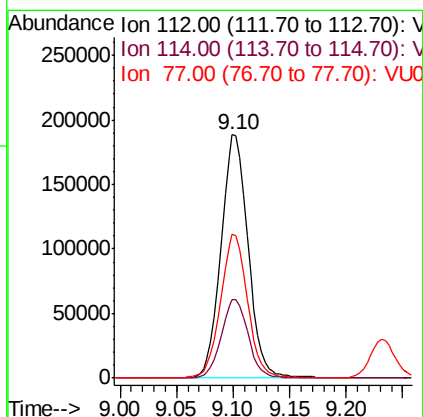
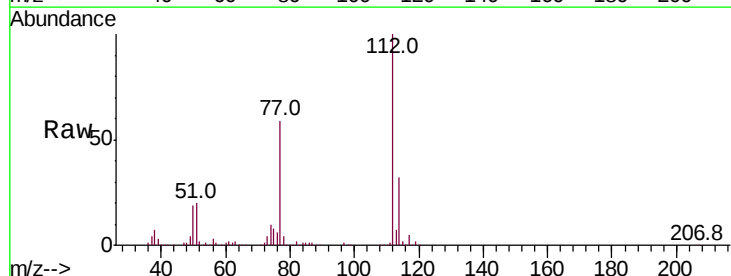
Instrument :  
 MSVOA\_U  
 ClientSampleId :

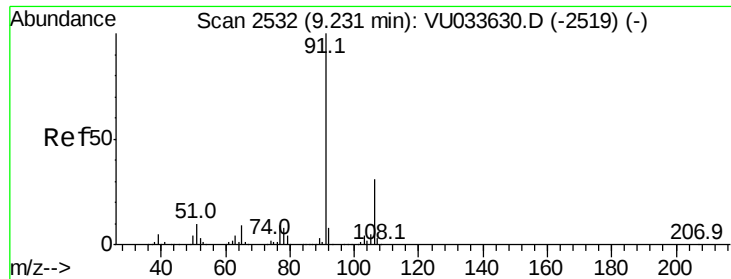
| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 107     | 100   |       |       |
| 109     | 93.4  | 65.4  | 121.4 |
| 188     | 3.3   | 2.6   | 4.0   |



#51  
 Chlorobenzene  
 Concen: 51.729 ug/L  
 RT: 9.10 min Scan# 2491  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 112     | 100   |       |       |
| 114     | 32.4  | 22.7  | 42.1  |
| 77      | 59.0  | 47.2  | 70.8  |





#52

Ethylbenzene

Concen: 52.816 ug/L

RT: 9.23 min Scan# 2532

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

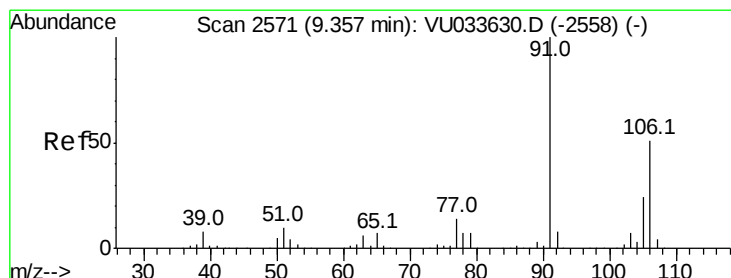
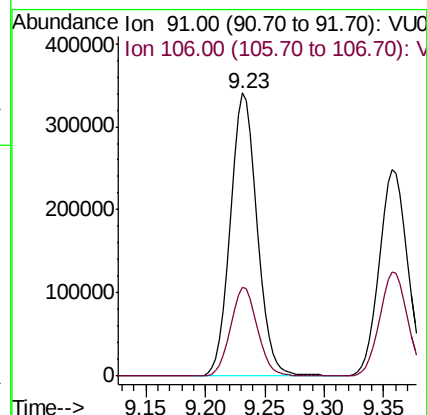
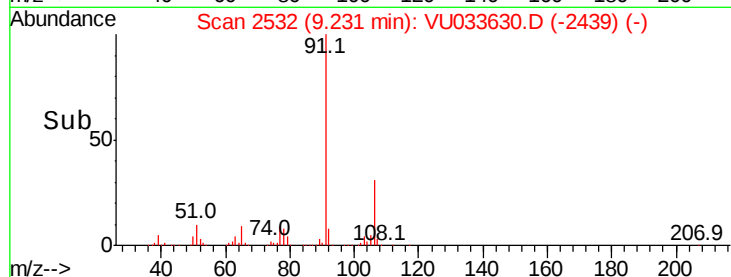
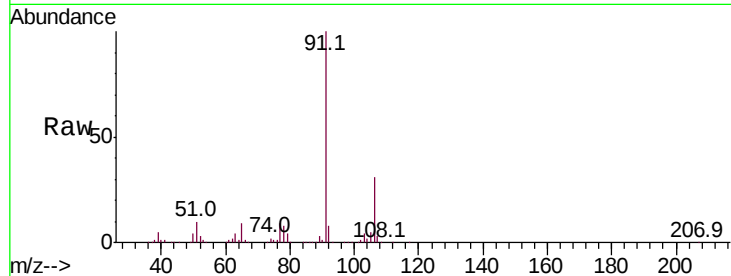
ClientSampleId :

Tot Ion: 91 Resp: 532400

Ion Ratio Lower Upper

91 100

106 31.3 21.9 40.7



#53

m,p-Xylene

Concen: 53.474 ug/L

RT: 9.36 min Scan# 2571

Delta R.T. 0.00 min

Lab File: VU033630.D

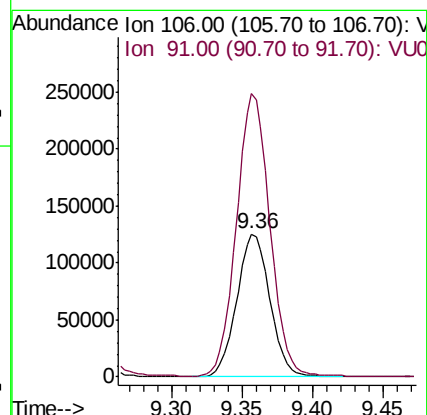
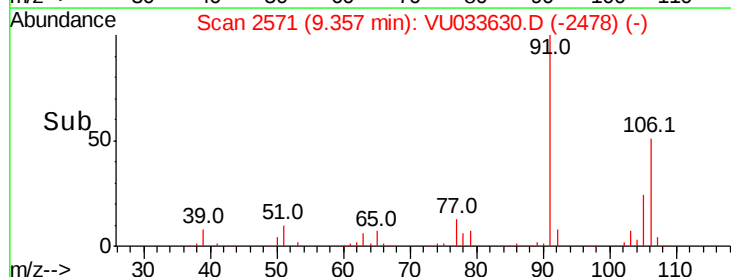
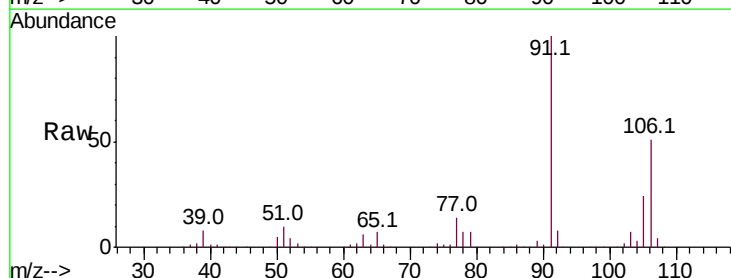
Acq: 08 Aug 2019 12:03

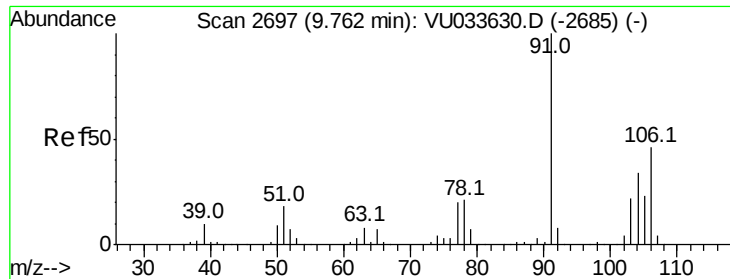
Tgt Ion: 106 Resp: 205291

Ion Ratio Lower Upper

106 100

91 197.9 138.5 257.3





#54

o-xylene

Concen: 53.279 ug/L

RT: 9.76 min Scan# 2697

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

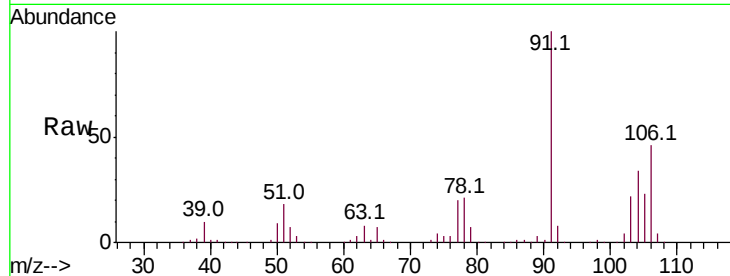
Instrument :  
MSVOA\_U  
ClientSampled :

Tot Ion:106 Resp: 199990

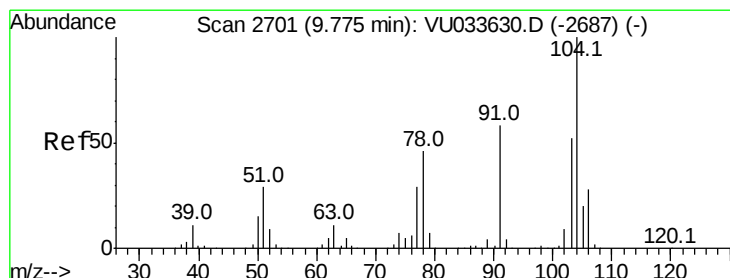
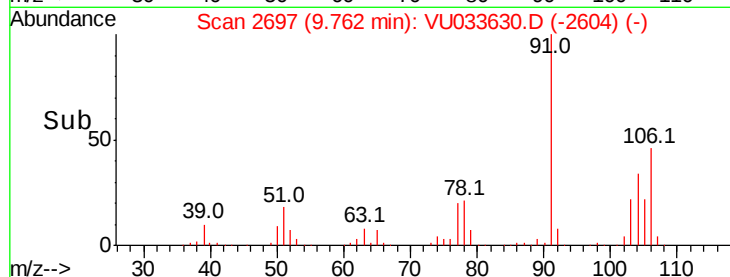
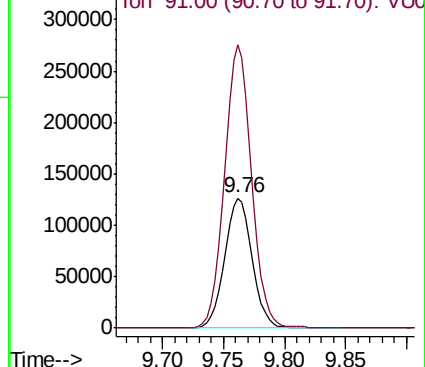
Ion Ratio Lower Upper

106 100

91 217.3 152.1 282.5



Abundance Ion 106.00 (105.70 to 106.70): V



#55

Styrene

Concen: 54.209 ug/L

RT: 9.77 min Scan# 2701

Delta R.T. 0.00 min

Lab File: VU033630.D

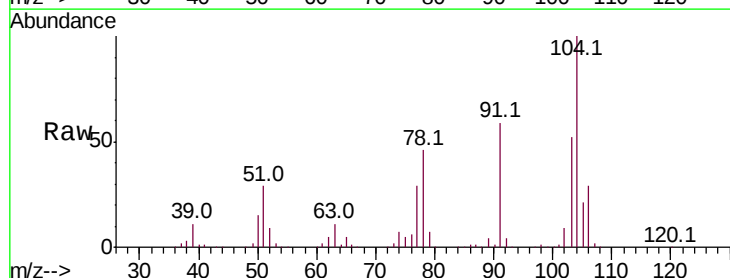
Acq: 08 Aug 2019 12:03

Tgt Ion:104 Resp: 347115

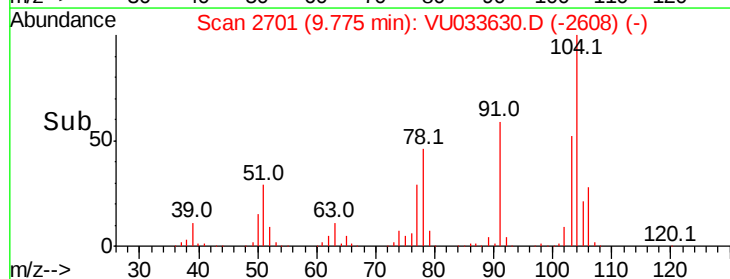
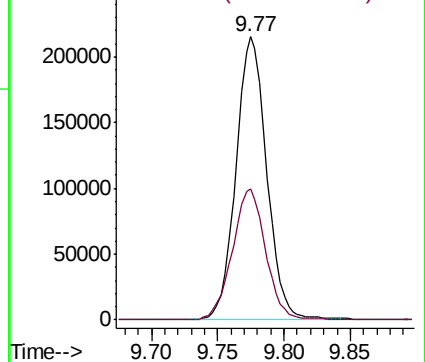
Ion Ratio Lower Upper

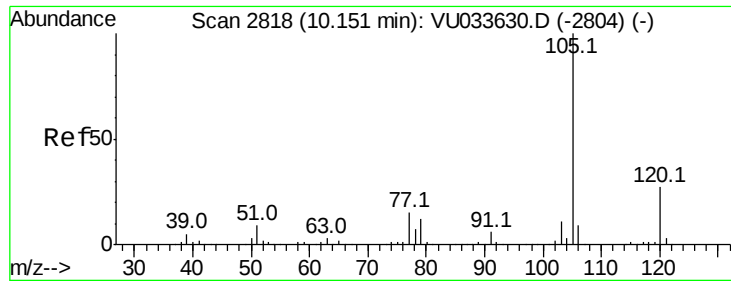
104 100

78 46.2 32.3 60.1



Abundance Ion 104.00 (103.70 to 104.70): V





#56

Isopropylbenzene

Concen: 53.753 ug/L

RT: 10.15 min Scan# 2818

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampled :

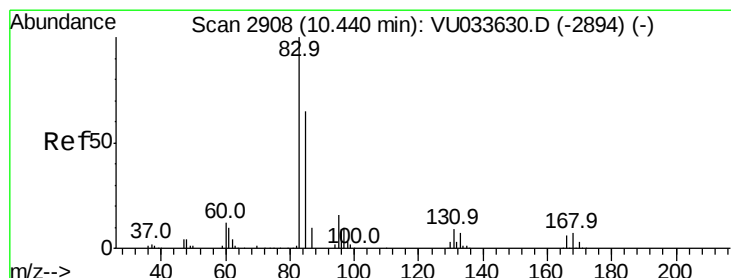
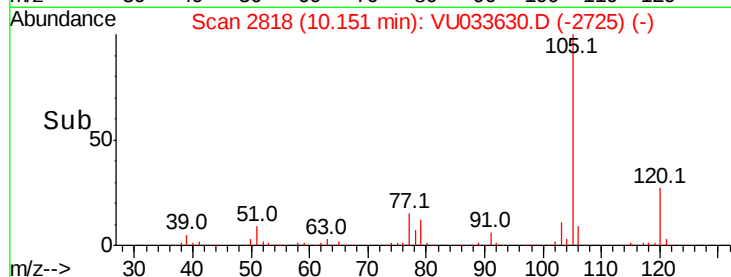
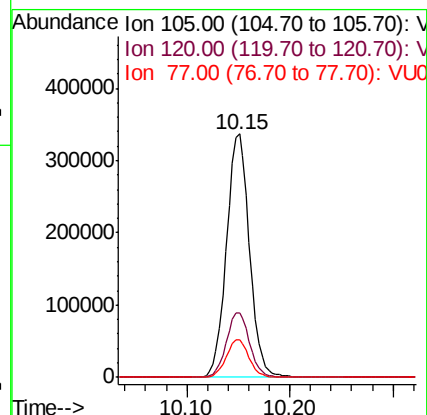
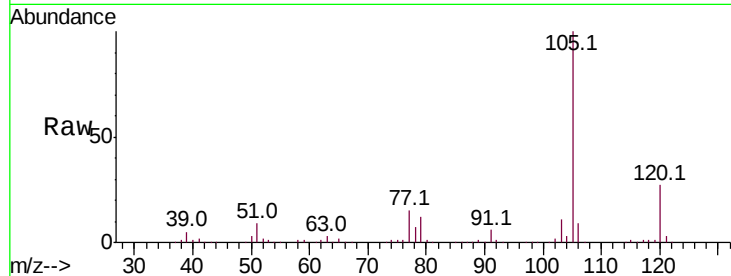
Tot Ion:105 Resp: 521572

Ion Ratio Lower Upper

105 100

120 26.9 21.5 32.3

77 15.5 12.4 18.6



#58

1,1,2,2-Tetrachloroethane

Concen: 52.129 ug/L

RT: 10.44 min Scan# 2908

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

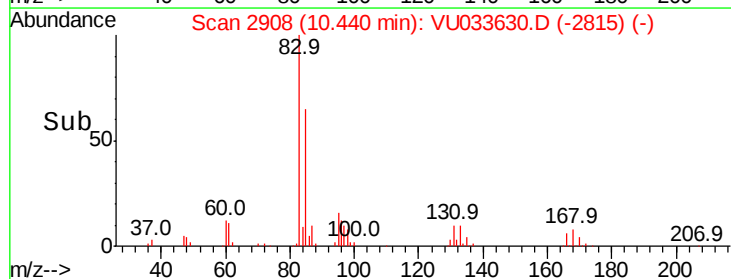
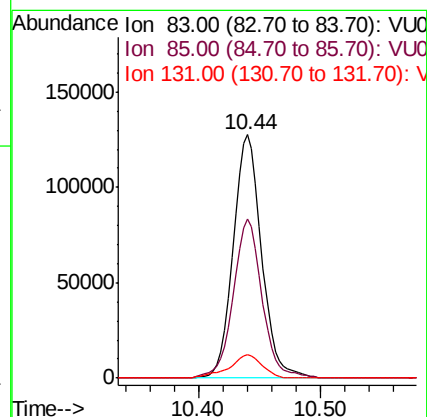
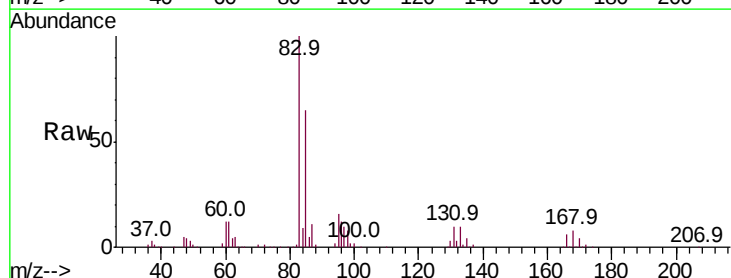
Tgt Ion: 83 Resp: 207432

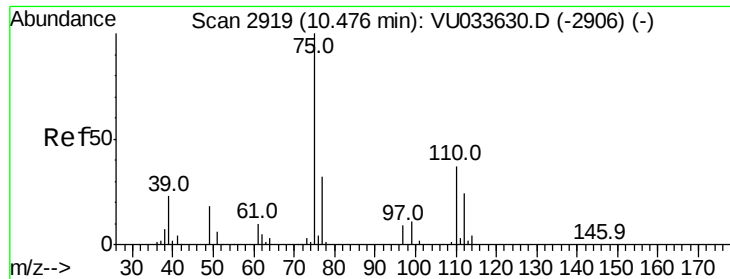
Ion Ratio Lower Upper

83 100

85 65.3 45.7 84.9

131 9.6 7.7 11.5





#59

1,2,3-Trichloropropane

Concen: 52.742 ug/L

RT: 10.48 min Scan# 2919

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

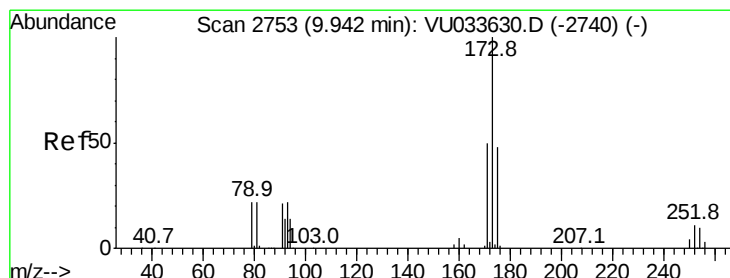
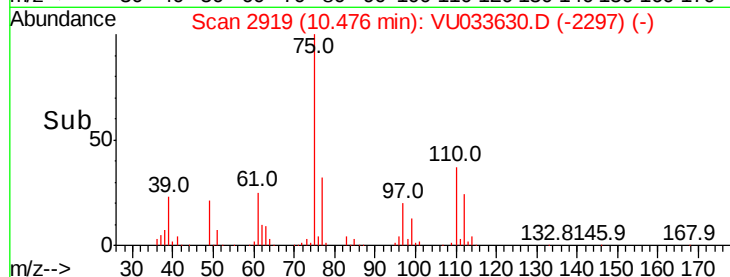
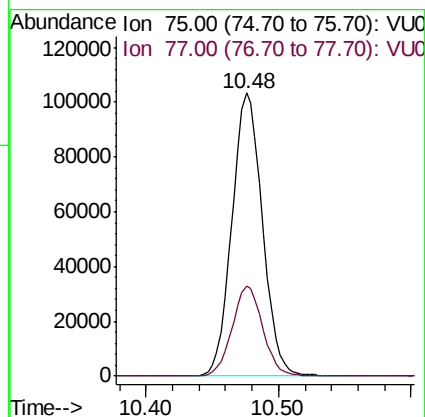
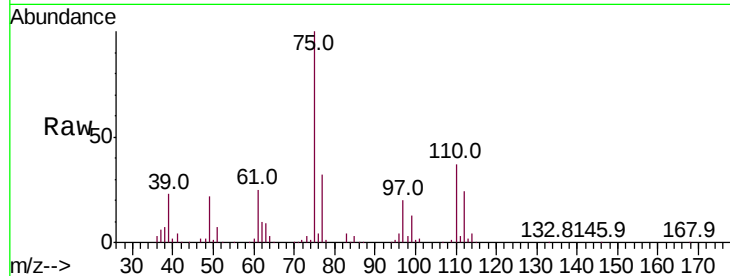
ClientSampleId :

Tot Ion: 75 Resp: 165023

Ion Ratio Lower Upper

75 100

77 31.9 25.5 38.3



#61

Bromoform

Concen: 51.755 ug/L

RT: 9.94 min Scan# 2753

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

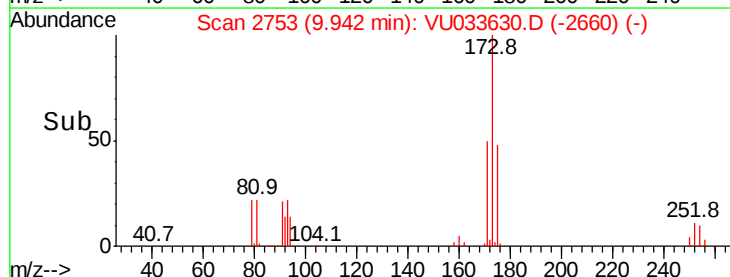
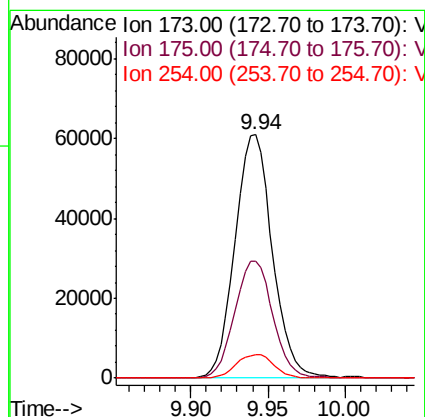
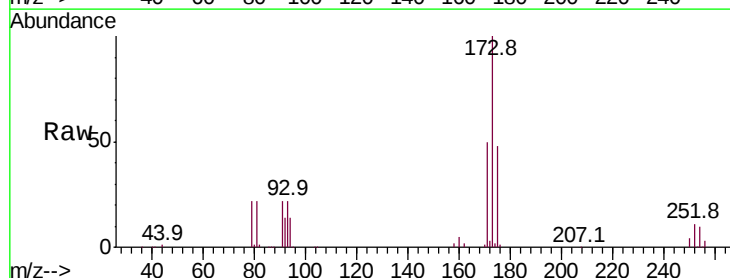
Tgt Ion:173 Resp: 102443

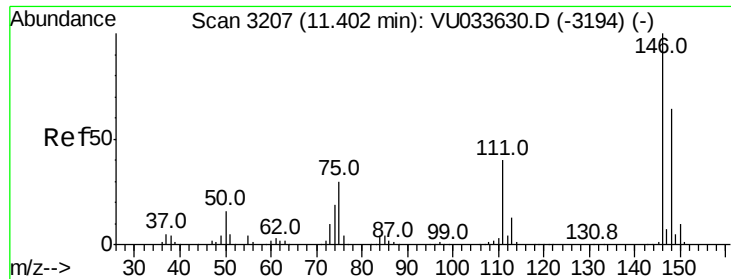
Ion Ratio Lower Upper

173 100

175 49.1 39.3 58.9

254 9.8 7.8 11.8





#62

1,3-Dichlorobenzene

Concen: 51.362 ug/L

RT: 11.40 min Scan# 3207

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampled :

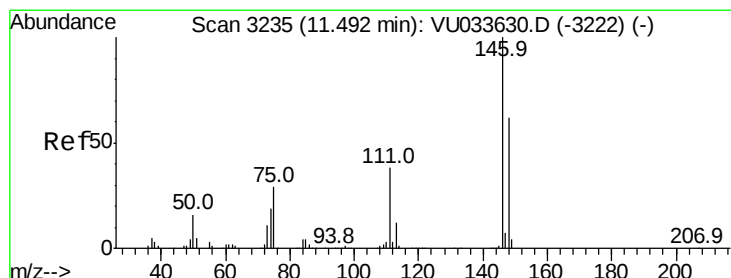
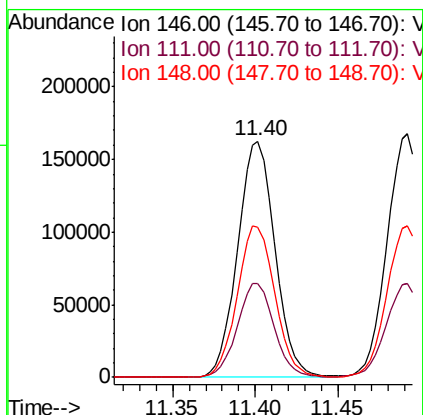
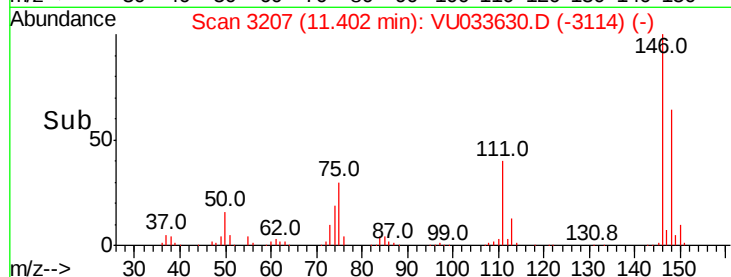
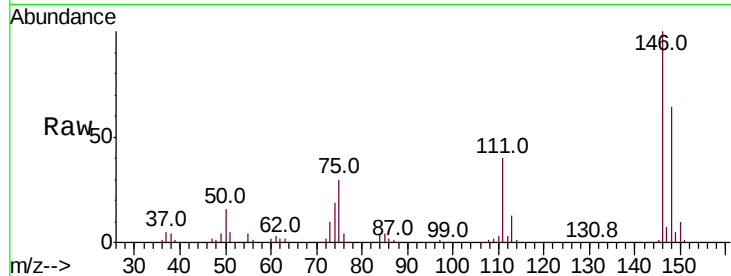
Tot Ion:146 Resp: 255869

Ion Ratio Lower Upper

146 100

111 39.9 27.9 51.9

148 63.8 44.7 82.9



#63

1,4-Dichlorobenzene

Concen: 51.028 ug/L

RT: 11.49 min Scan# 3235

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

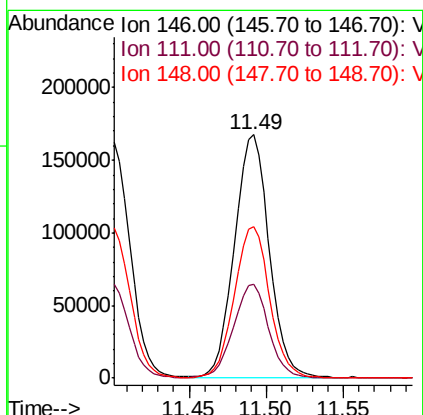
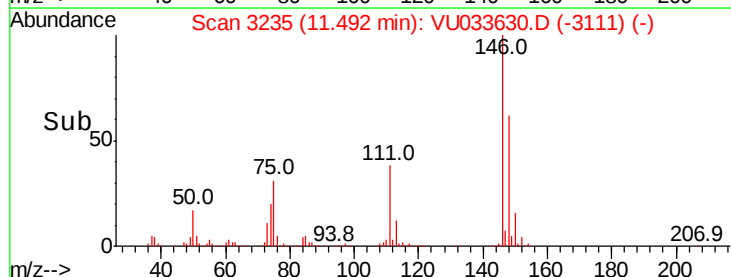
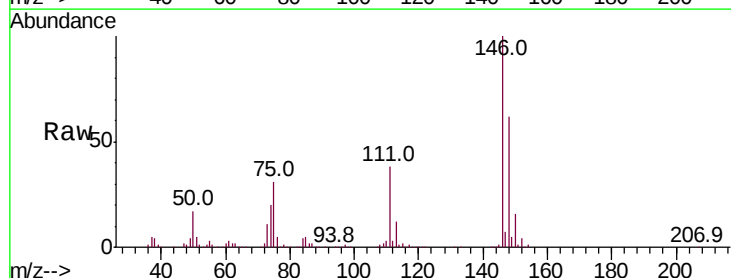
Tgt Ion:146 Resp: 259820

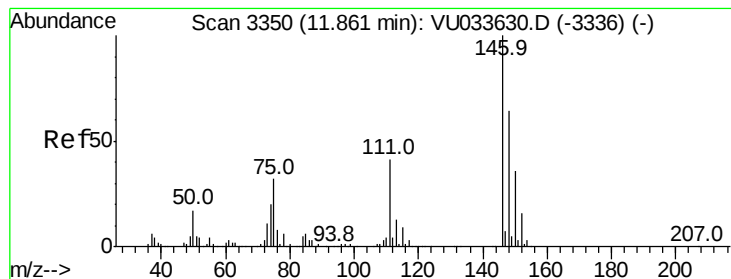
Ion Ratio Lower Upper

146 100

111 38.3 26.8 49.8

148 62.5 43.8 81.3





#65

1,2-Dichlorobenzene

Concen: 52.670 ug/L

RT: 11.86 min Scan# 3350

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampleId :

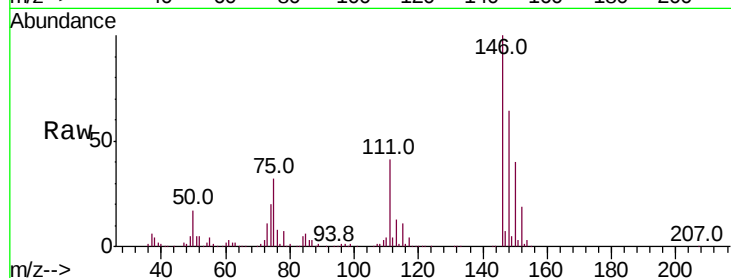
Tot Ion:146 Resp: 262905

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 146 | 100   |       |       |
| 111 | 41.2  | 33.0  | 49.4  |
| 148 | 63.7  | 51.0  | 76.4  |

146 100

111 41.2 33.0 49.4

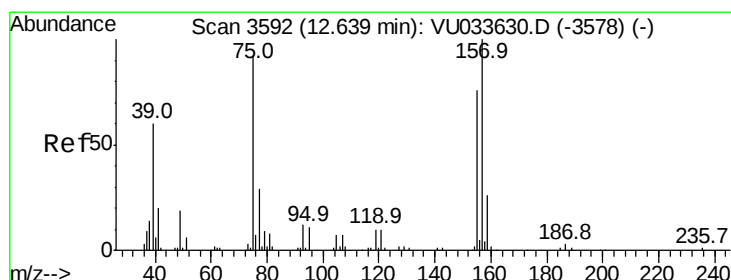
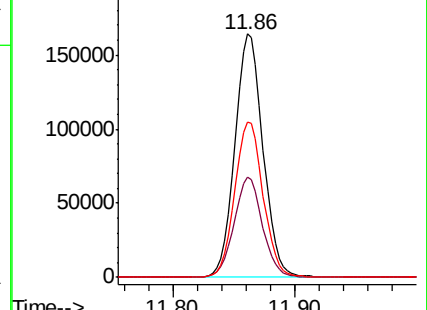
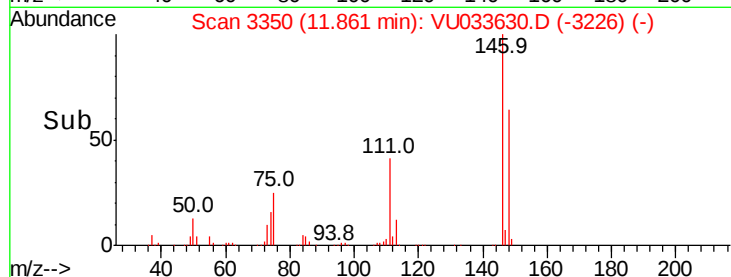
148 63.7 51.0 76.4



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



#66

1,2-Dibromo-3-chloropropane

Concen: 52.423 ug/L

RT: 12.64 min Scan# 3592

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

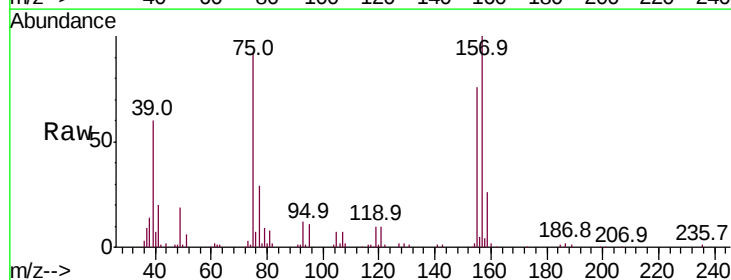
Tgt Ion: 75 Resp: 49072

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 75  | 100   |       |       |
| 155 | 82.3  | 65.8  | 98.8  |
| 157 | 108.6 | 86.9  | 130.3 |

75 100

155 82.3 65.8 98.8

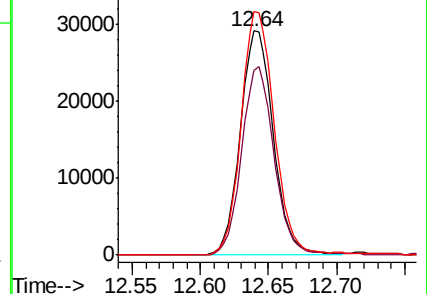
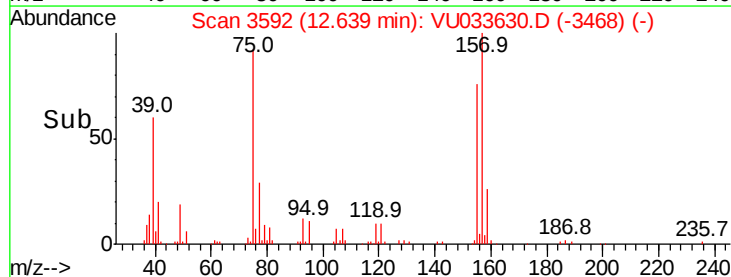
157 108.6 86.9 130.3

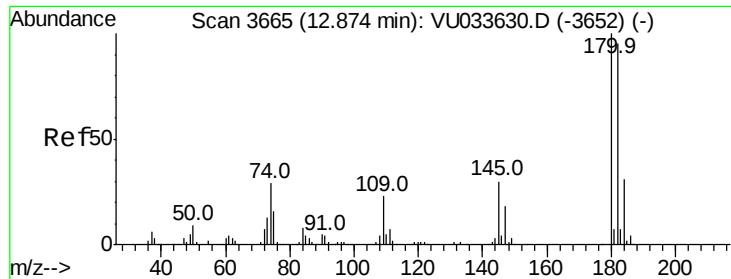


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 155.00 (154.70 to 155.70): V

Ion 157.00 (156.70 to 157.70): V

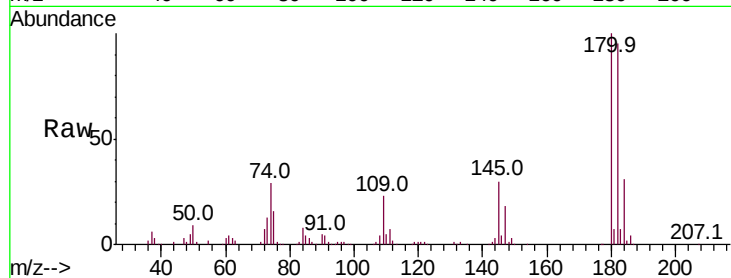




#67  
 1,3,5-Trichlorobenzene  
 Concen: 51.293 ug/L  
 RT: 12.87 min Scan# 3665  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

Instrument :  
 MSVOA\_U  
 ClientSampleId :

| Tot Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 95.4  | 76.3  | 114.5 |
| 184     | 30.3  | 24.2  | 36.4  |
| 145     | 29.4  | 23.5  | 35.3  |



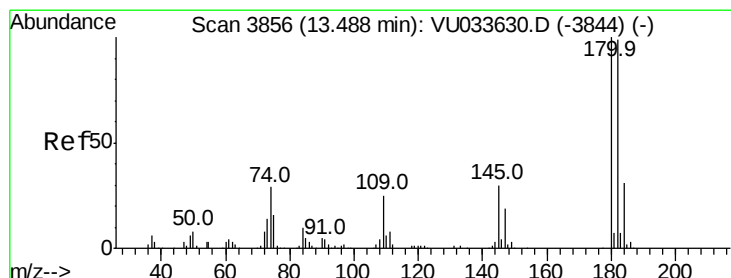
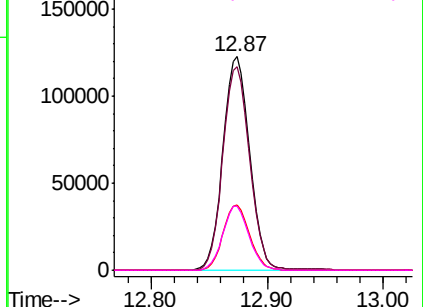
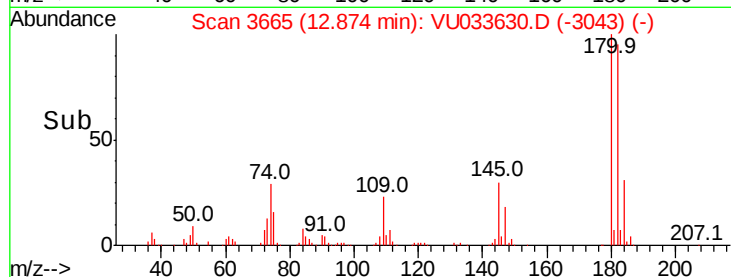
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

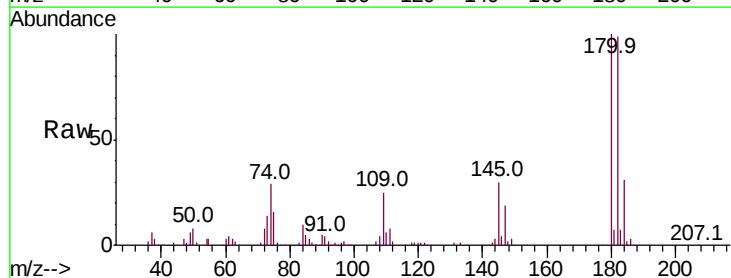
Ion 184.00 (183.70 to 184.70): V

Ion 145.00 (144.70 to 145.70): V



#68  
 1,2,4-trichlorobenzene  
 Concen: 52.261 ug/L  
 RT: 13.49 min Scan# 3856  
 Delta R.T. 0.00 min  
 Lab File: VU033630.D  
 Acq: 08 Aug 2019 12:03

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 180     | 100   |       |       |
| 182     | 98.1  | 78.5  | 117.7 |
| 145     | 29.5  | 23.6  | 35.4  |

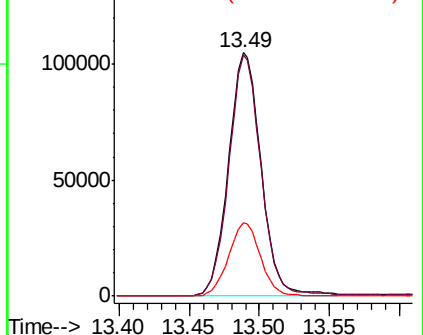
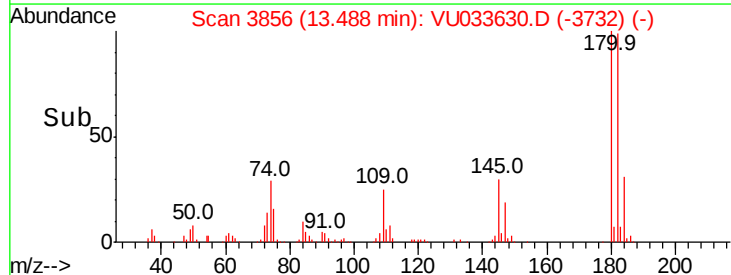


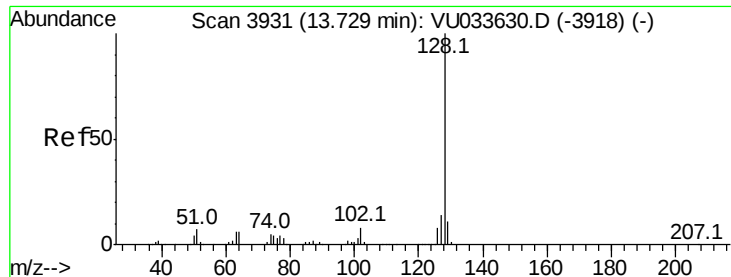
Abundance

Ion 180.00 (179.70 to 180.70): V

Ion 182.00 (181.70 to 182.70): V

Ion 145.00 (144.70 to 145.70): V





#69

Naphthalene

Concen: 54.701 ug/L

RT: 13.73 min Scan# 3931

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

Instrument :

MSVOA\_U

ClientSampleId :

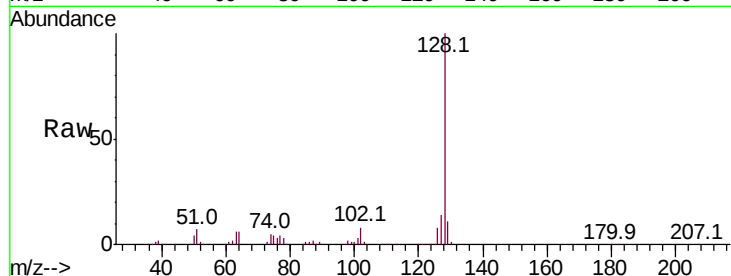
Tot Ion:128 Resp: 518070

Ion Ratio Lower Upper

128 100

127 13.3 10.6 16.0

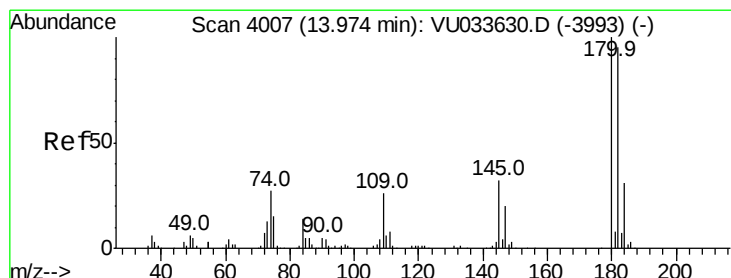
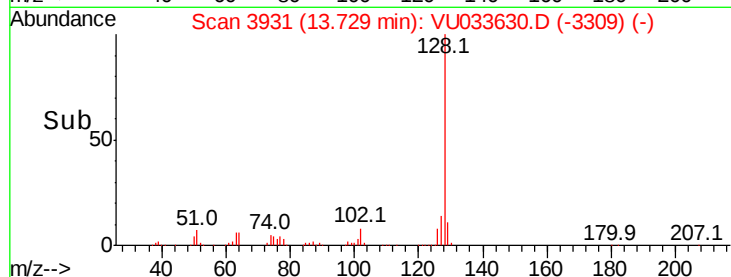
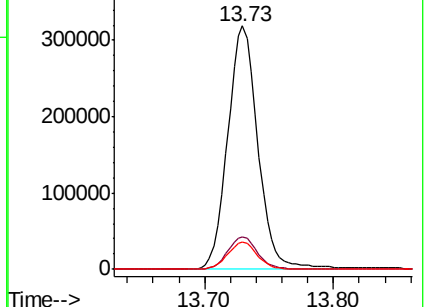
129 11.0 8.8 13.2



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: 51.915 ug/L

RT: 13.97 min Scan# 4007

Delta R.T. 0.00 min

Lab File: VU033630.D

Acq: 08 Aug 2019 12:03

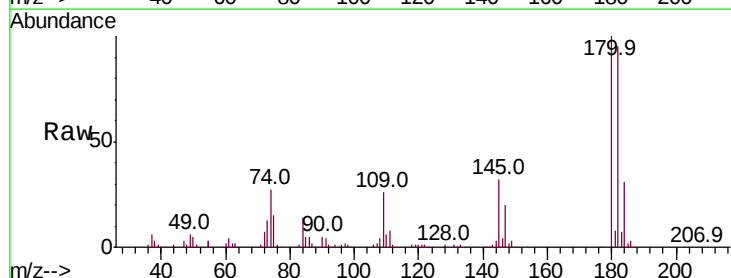
Tgt Ion:180 Resp: 179994

Ion Ratio Lower Upper

180 100

182 95.8 76.6 115.0

145 31.4 25.1 37.7



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

