

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_U\Data\VU081022\  
 Data File : VU050221.D  
 Acq On : 10 Aug 2022 16:04  
 Operator : SY/MD  
 Sample : N4043-04  
 Misc : 25.0mL/MSVOA\_U/WATER  
 ALS Vial : 1 Sample Multiplier: 1

Instrument :  
 MSVOA\_U  
 ClientSampleId :  
 PW-B6-L10-M-080322

Quant Time: Aug 10 16:28:33 2022  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_U\Method\524U081022DW.M  
 Quant Title : METHOD 524.2 VOLATILES DRINKING WATER  
 QLast Update : Wed Aug 10 15:54:10 2022  
 Response via : Initial Calibration

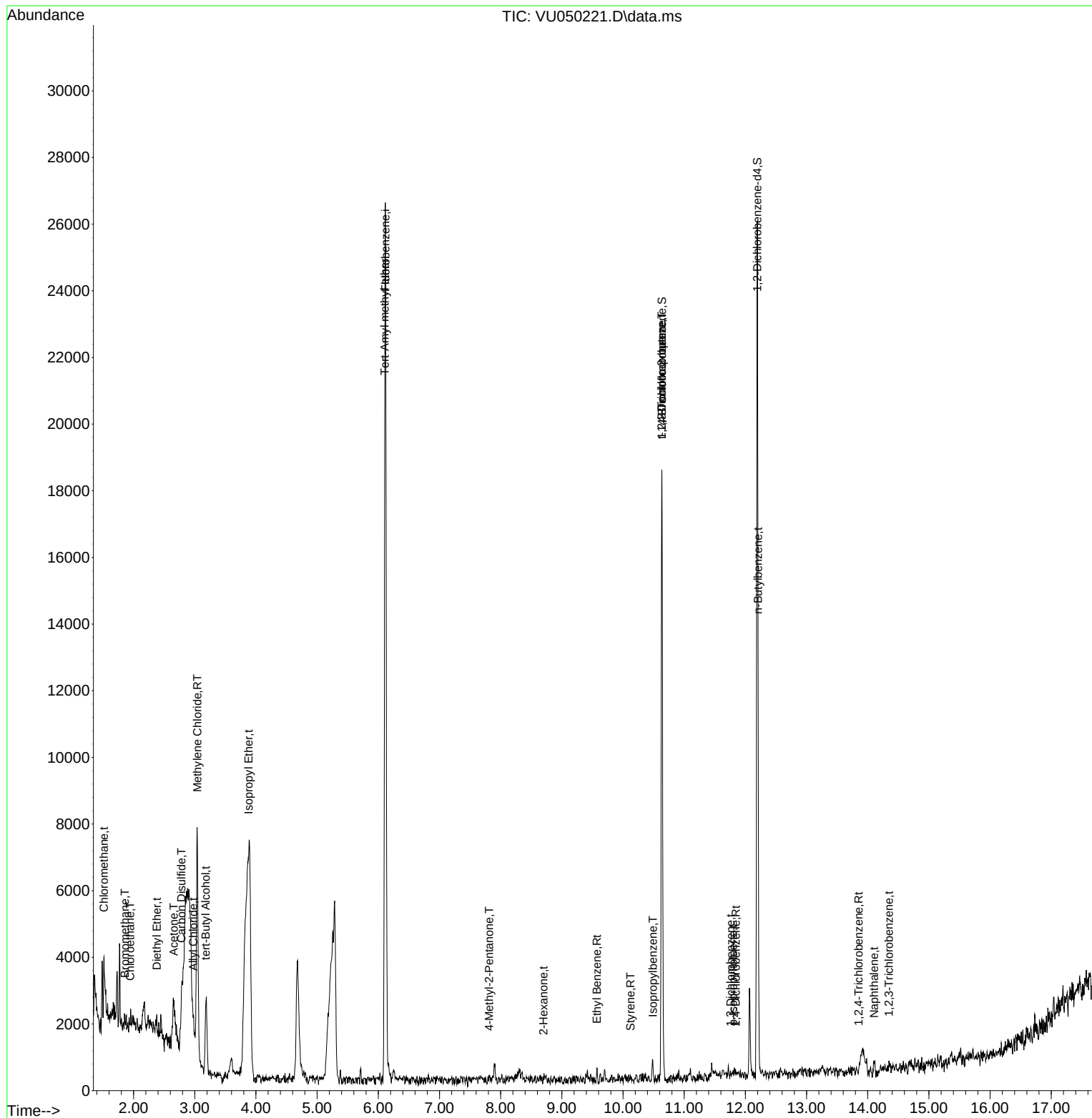
| Compound                    | R.T.   | QIon | Response | Conc  | Units   | Dev(Min) |
|-----------------------------|--------|------|----------|-------|---------|----------|
| -----                       |        |      |          |       |         |          |
| Internal Standards          |        |      |          |       |         |          |
| 1) Fluorobenzene            | 6.115  | 96   | 25735    | 1.000 | ug/l    | # 0.00   |
| System Monitoring Compounds |        |      |          |       |         |          |
| 57) 4-Bromofluorobenzene    | 10.636 | 95   | 6490     | 0.735 | ug/l    | 0.00     |
| Spiked Amount 1.000         |        |      | Recovery | =     | 74.000% |          |
| 68) 1,2-Dichlorobenzene-d4  | 12.195 | 152  | 7641     | 0.856 | ug/l    | 0.00     |
| Spiked Amount 1.000         |        |      | Recovery | =     | 86.000% |          |
| Target Compounds            |        |      |          |       |         |          |
|                             |        |      |          |       | Qvalue  |          |
| 3) Chloromethane            | 1.517  | 50   | 1950     | 0.168 | ug/l    | 96       |
| 5) Bromomethane             | 1.858  | 94   | 326      | 0.105 | ug/l #  | 68       |
| 6) Chloroethane             | 1.945  | 64   | 77       | 0.012 | ug/l #  | 42       |
| 11) Allyl Chloride          | 2.977  | 41   | 117      | 0.012 | ug/l #  | 69       |
| 13) Acetone                 | 2.658  | 43   | 2444     | 1.807 | ug/l    | 97       |
| 14) Carbon Disulfide        | 2.784  | 76   | 1671     | 0.065 | ug/l #  | 77       |
| 15) Methylene Chloride      | 3.041  | 84   | 3233     | 0.316 | ug/l    | 90       |
| 23) Diethyl Ether           | 2.379  | 59   | 85       | 0.014 | ug/l #  | 1        |
| 24) tert-Butyl Alcohol      | 3.179  | 59   | 1459     | 3.171 | ug/l #  | 73       |
| 31) Isopropyl Ether         | 3.880  | 45   | 149      | 0.008 | ug/l #  | 29       |
| 33) Tert-Amyl methyl ether  | 6.105  | 73   | 98       | 0.006 | ug/l #  | 40       |
| 45) 4-Methyl-2-Pentanone    | 7.809  | 43   | 66       | 0.013 | ug/l #  | 42       |
| 46) t-1,4-Dichloro-2-butene | 10.632 | 75   | 3099     | 1.566 | ug/l #  | 22       |
| 54) 2-Hexanone              | 8.700  | 43   | 118      | 0.033 | ug/l #  | 67       |
| 63) Ethyl Benzene           | 9.575  | 91   | 98       | 0.003 | ug/l #  | 44       |
| 66) Styrene                 | 10.121 | 104  | 20       | 0.001 | ug/l #  | 25       |
| 69) Isopropylbenzene        | 10.488 | 105  | 619      | 0.022 | ug/l    | 89       |
| 71) 1,2,3-Trichloropropane  | 10.632 | 75   | 3099     | 0.488 | ug/l #  | 34       |
| 81) p-Isopropyltoluene      | 11.800 | 119  | 21       | 0.001 | ug/l #  | 50       |
| 82) 1,3-Dichlorobenzene     | 11.758 | 146  | 99       | 0.007 | ug/l #  | 24       |
| 83) 1,4-Dichlorobenzene     | 11.845 | 146  | 62       | 0.004 | ug/l #  | 24       |
| 84) n-Butylbenzene          | 12.208 | 91   | 101      | 0.005 | ug/l #  | 33       |
| 87) 1,2,4-Trichlorobenzene  | 13.851 | 180  | 69       | 0.009 | ug/l #  | 12       |
| 89) Naphthalene             | 14.105 | 128  | 327      | 0.020 | ug/l #  | 70       |
| 90) 1,2,3-Trichlorobenzene  | 14.346 | 180  | 20       | 0.002 | ug/l #  | 12       |
| -----                       |        |      |          |       |         |          |

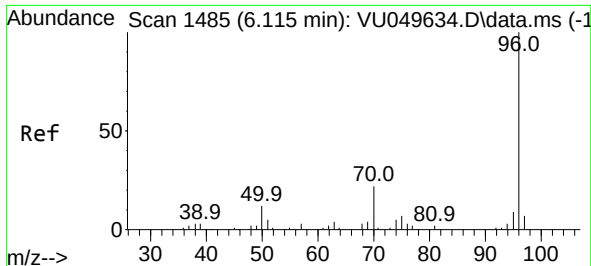
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_U\Data\VU081022\  
Data File : VU050221.D  
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PW-B6-L10-M-080322

Quant Time: Aug 10 16:28:33 2022  
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Quant Title : METHOD 524.2 VOLATILES DRINKING WATER  
QLast Update : Wed Aug 10 15:54:10 2022  
Response via : Initial Calibration

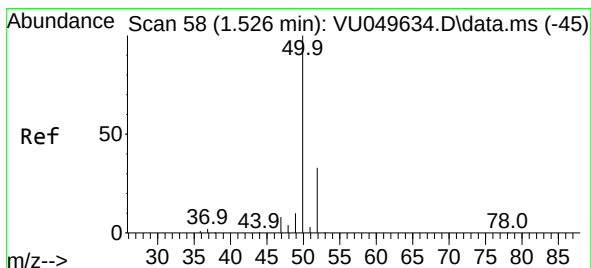
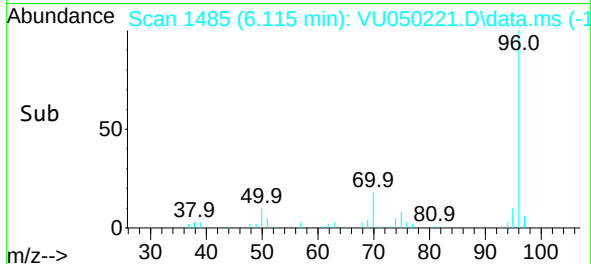
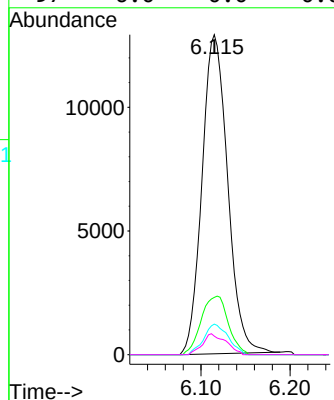
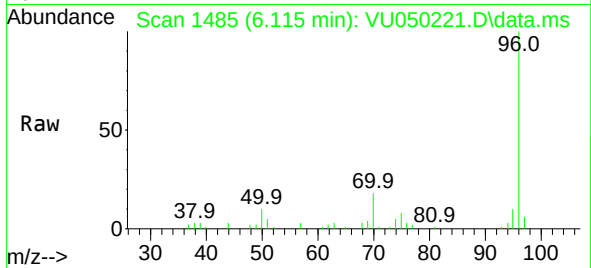




#1  
Fluorobenzene  
Concen: 1.000 ug/l  
RT: 6.115 min Scan# 14  
Delta R.T. -0.000 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

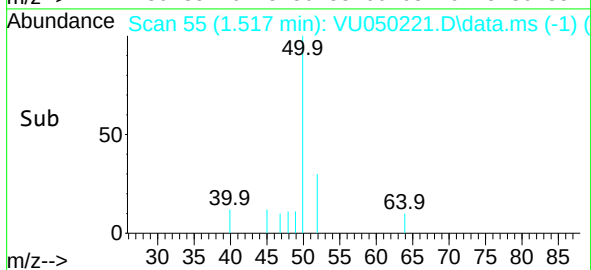
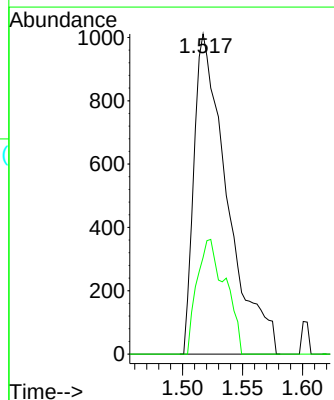
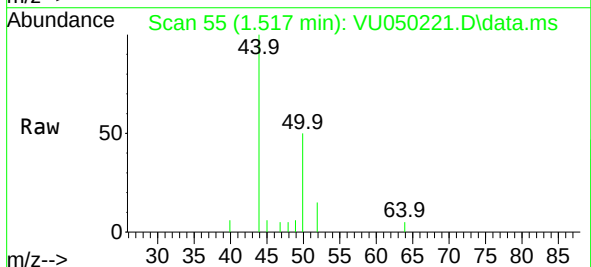
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

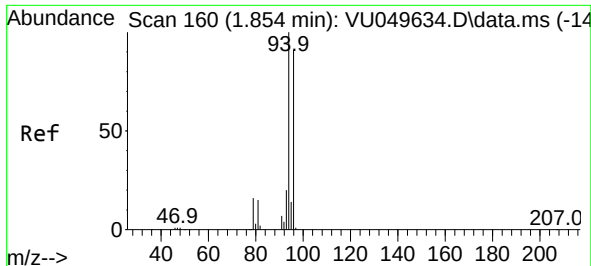
|             |             |
|-------------|-------------|
| Tgt Ion: 96 | Resp: 25735 |
| Ion Ratio   | Lower Upper |
| 96 100      |             |
| 70 19.4     | 16.7 25.1   |
| 95 9.1      | 7.4 11.0    |
| 97 6.0      | 0.0 0.0     |



#3  
Chloromethane  
Concen: 0.168 ug/l  
RT: 1.517 min Scan# 55  
Delta R.T. -0.009 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

|             |             |
|-------------|-------------|
| Tgt Ion: 50 | Resp: 1950  |
| Ion Ratio   | Lower Upper |
| 50 100      |             |
| 52 30.2     | 26.1 39.1   |

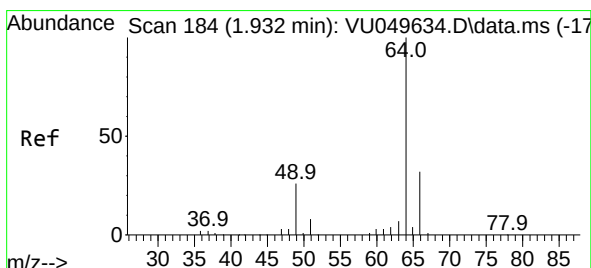
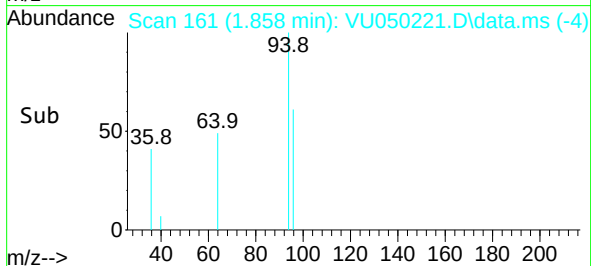
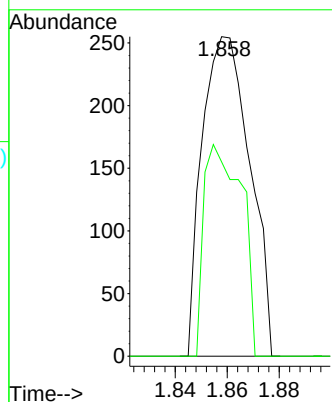
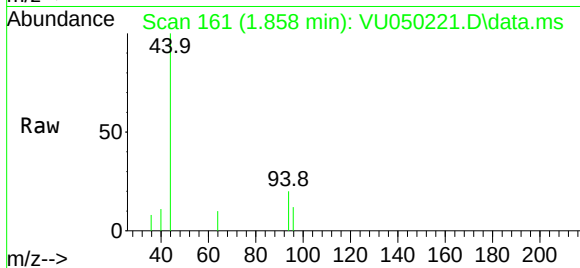




#5  
Bromomethane  
Concen: 0.105 ug/l  
RT: 1.858 min Scan# 11  
Delta R.T. 0.003 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

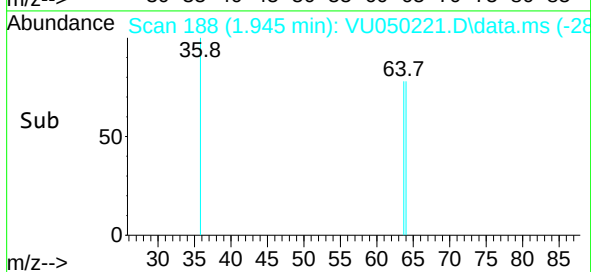
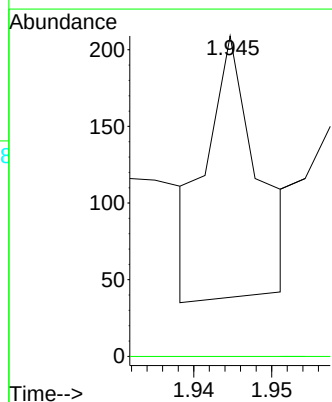
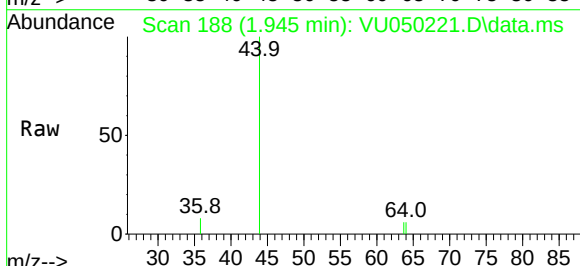
Instrument :  
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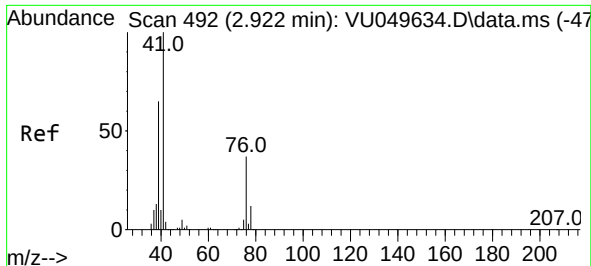
Tgt Ion: 94 Resp: 326  
Ion Ratio Lower Upper  
94 100  
96 60.8 73.0 109.6#



#6  
Chloroethane  
Concen: 0.012 ug/l  
RT: 1.945 min Scan# 188  
Delta R.T. 0.013 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion: 64 Resp: 77  
Ion Ratio Lower Upper  
64 100  
66 0.0 25.8 38.6#

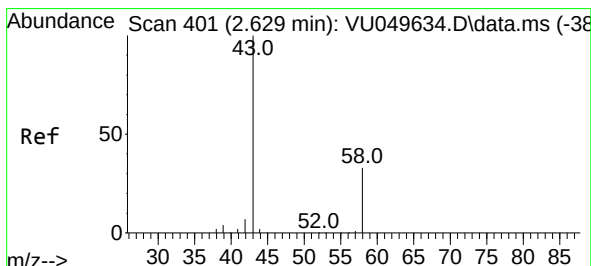
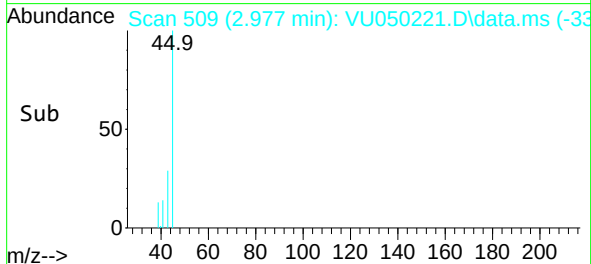
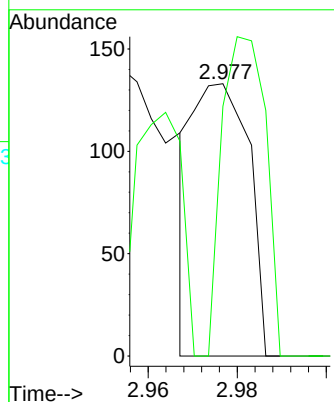
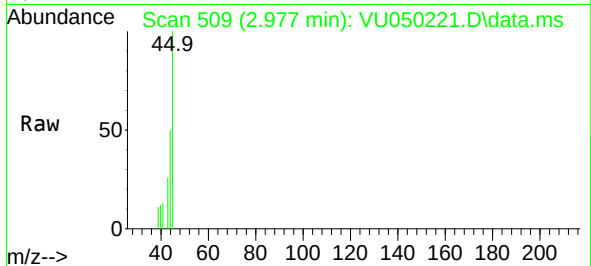




#11  
 Allyl Chloride  
 Concen: 0.012 ug/l  
 RT: 2.977 min Scan# 509  
 Delta R.T. 0.055 min  
 Lab File: VU050221.D  
 Acq: 10 Aug 2022 16:04

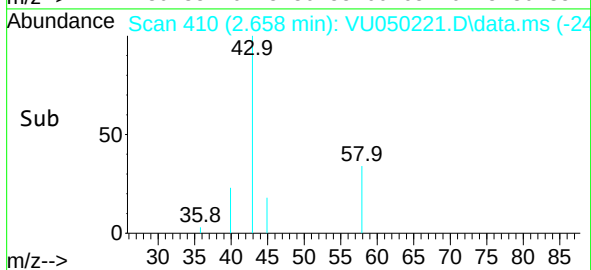
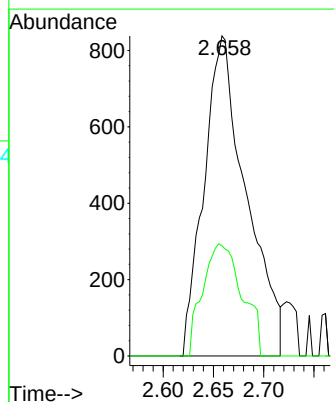
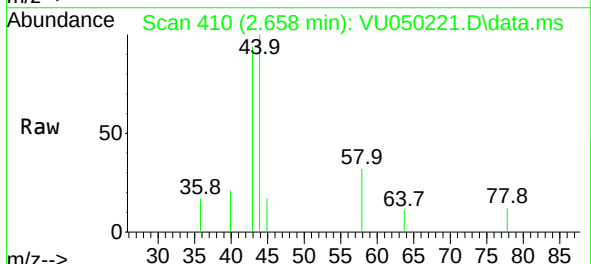
Instrument :  
 MSVOA\_U  
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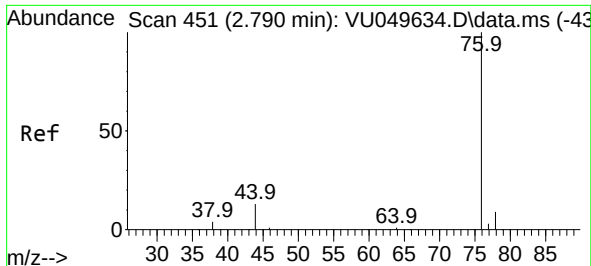
Tgt Ion: 41 Resp: 117  
 Ion Ratio Lower Upper  
 41 100  
 39 91.5 53.2 79.8#



#13  
 Acetone  
 Concen: 1.807 ug/l  
 RT: 2.658 min Scan# 410  
 Delta R.T. 0.029 min  
 Lab File: VU050221.D  
 Acq: 10 Aug 2022 16:04

Tgt Ion: 43 Resp: 2444  
 Ion Ratio Lower Upper  
 43 100  
 58 34.5 26.2 39.2

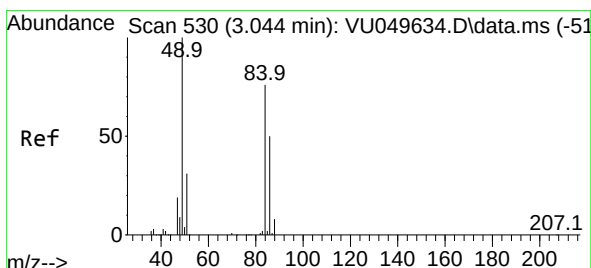
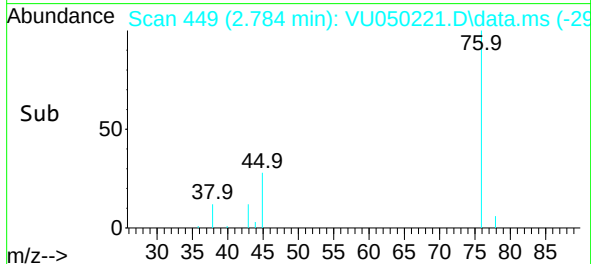
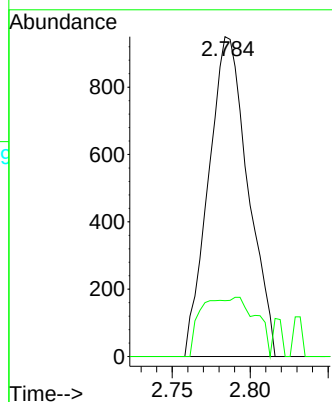
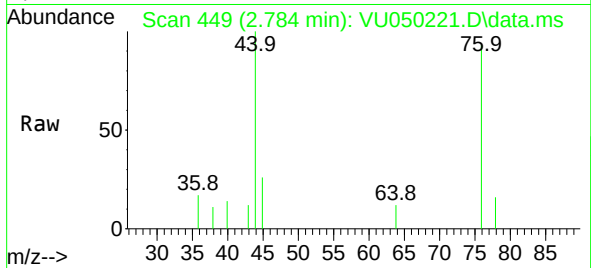




#14  
Carbon Disulfide  
Concen: 0.065 ug/l  
RT: 2.784 min Scan# 449  
Delta R.T. -0.006 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

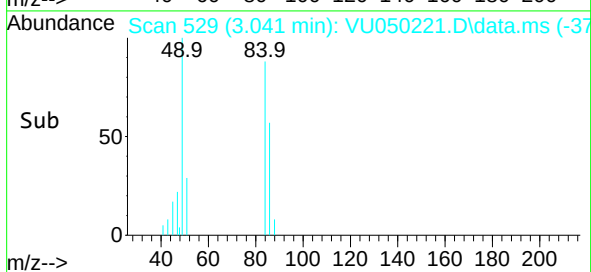
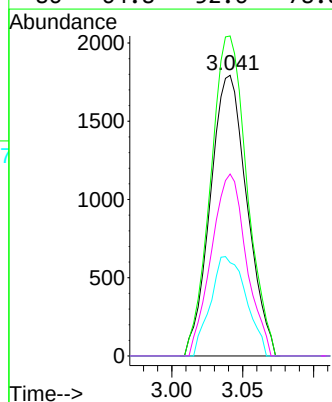
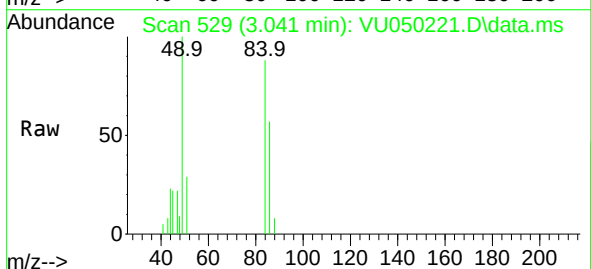
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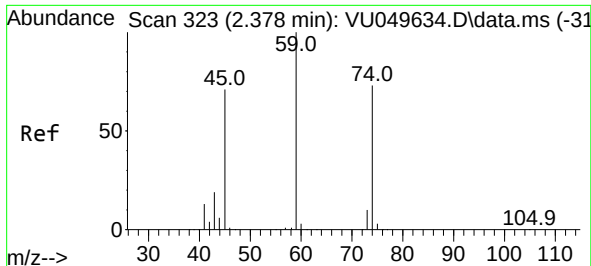
Tgt Ion: 76 Resp: 1671  
Ion Ratio Lower Upper  
76 100  
78 17.5 7.4 11.0#



#15  
Methylene Chloride  
Concen: 0.316 ug/l  
RT: 3.041 min Scan# 529  
Delta R.T. -0.003 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion: 84 Resp: 3233  
Ion Ratio Lower Upper  
84 100  
49 114.0 104.6 157.0  
51 33.2 0.0 81.4  
86 64.8 52.6 78.8

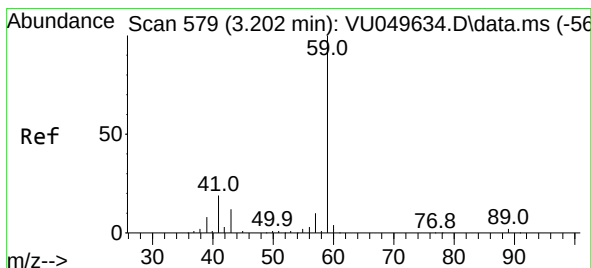
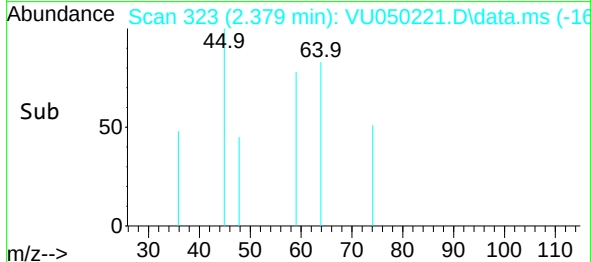
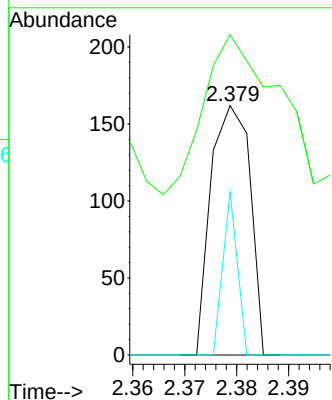
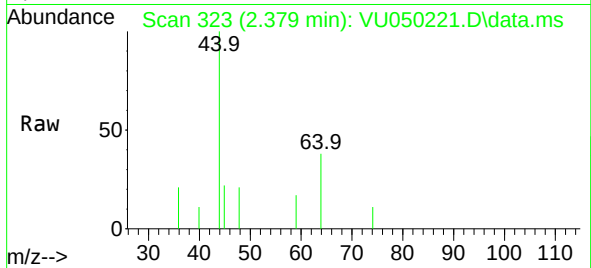




#23  
Diethyl Ether  
Concen: 0.014 ug/l  
RT: 2.379 min Scan# 31  
Delta R.T. 0.000 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

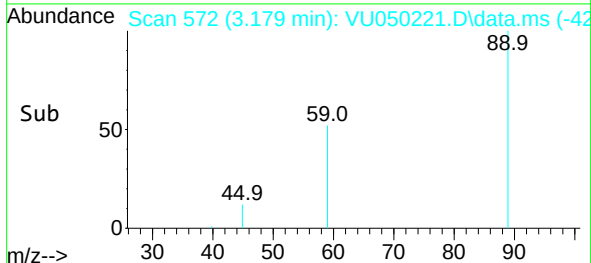
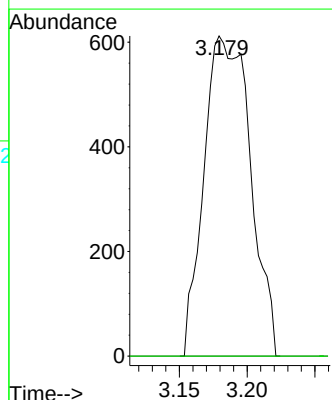
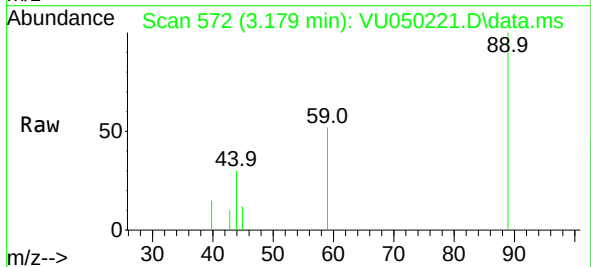
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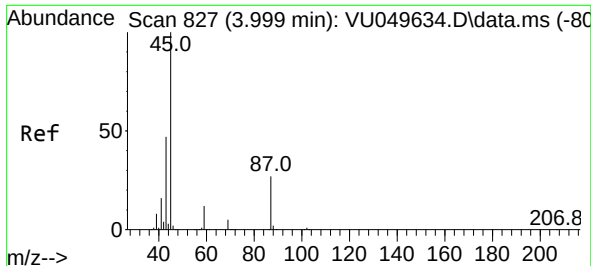
Tgt Ion: 59 Resp: 85  
Ion Ratio Lower Upper  
59 100  
45 382.4 56.0 84.0#  
74 23.5 57.6 86.4#



#24  
tert-Butyl Alcohol  
Concen: 3.171 ug/l  
RT: 3.179 min Scan# 572  
Delta R.T. -0.023 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion: 59 Resp: 1459  
Ion Ratio Lower Upper  
59 100  
57 0.0 8.2 12.2#

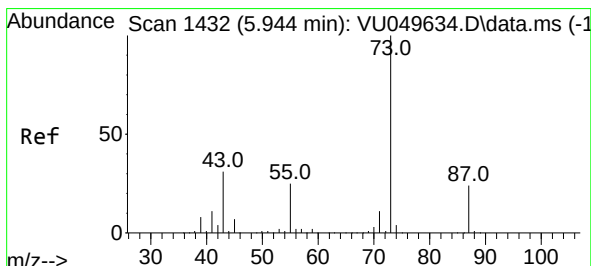
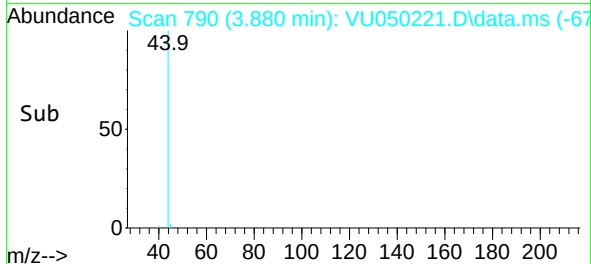
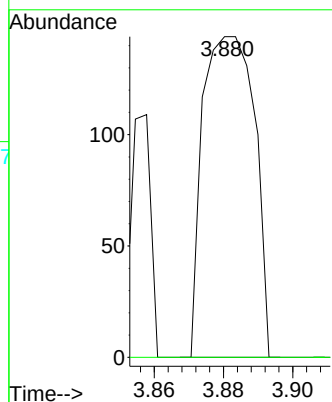
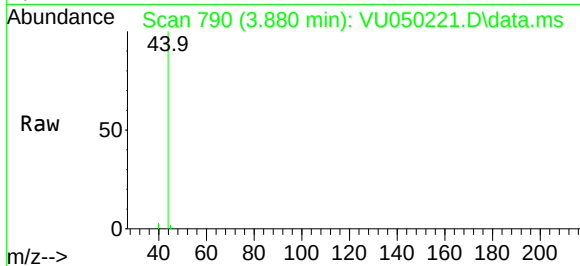




#31  
Isopropyl Ether  
Concen: 0.008 ug/l  
RT: 3.880 min Scan# 71  
Delta R.T. -0.119 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

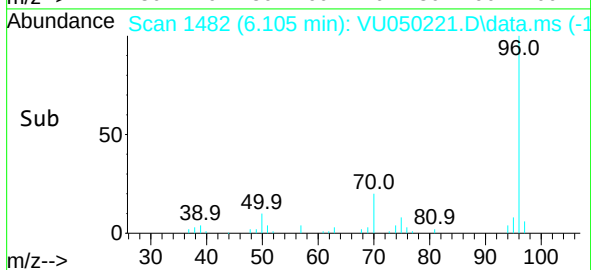
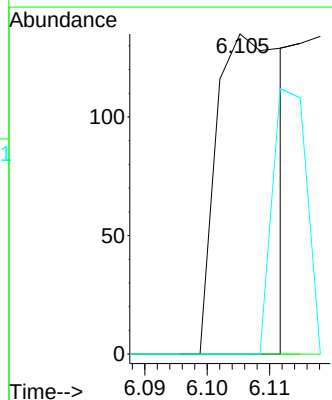
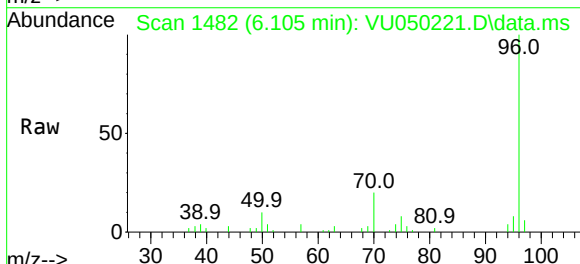
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Tgt Ion: 45 Resp: 149  
Ion Ratio Lower Upper  
45 100  
43 0.0 23.8 71.2#

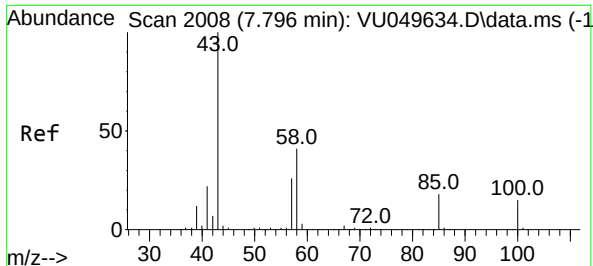


#33  
Tert-Amyl methyl ether  
Concen: 0.006 ug/l  
RT: 6.105 min Scan# 1482  
Delta R.T. 0.161 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion: 73 Resp: 98  
Ion Ratio Lower Upper  
73 100  
87 0.0 19.7 29.5#  
71 42.9 9.0 13.4#







#45

4-Methyl-2-Pentanone

Concen: 0.013 ug/l

RT: 7.809 min Scan# 20

Delta R.T. 0.013 min

Lab File: VU050221.D

Acq: 10 Aug 2022 16:04

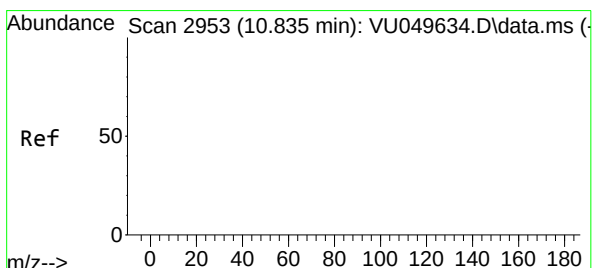
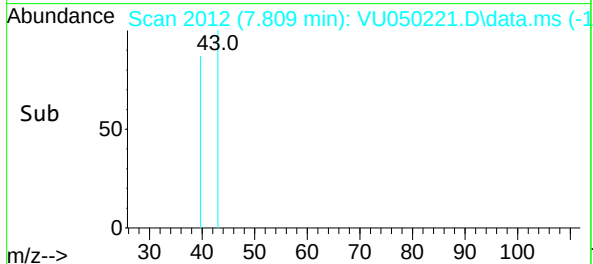
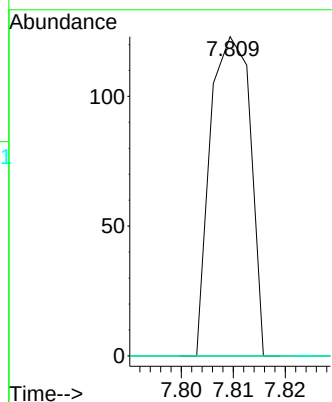
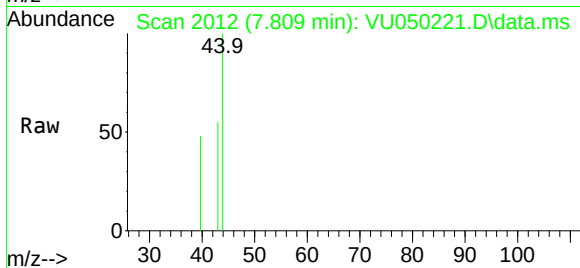
Instrument :

MSVOA\_U

ClientSampleId :

PW-B6-L10-M-080322

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 66    |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 0.0   | 20.3  | 61.0# |
| 85       | 0.0   | 14.6  | 21.8# |



#46

t-1,4-Dichloro-2-butene

Concen: 1.566 ug/l

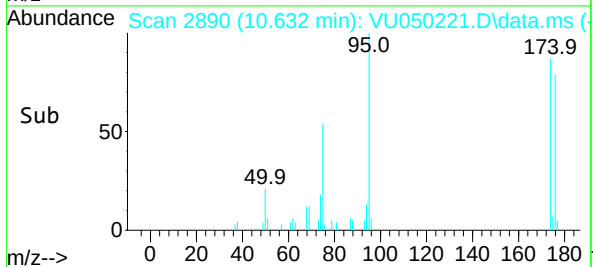
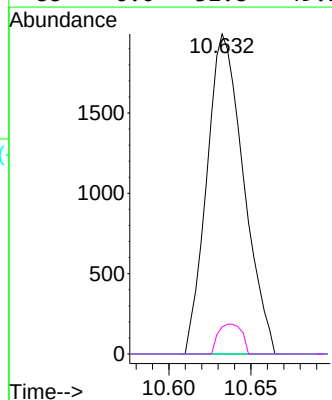
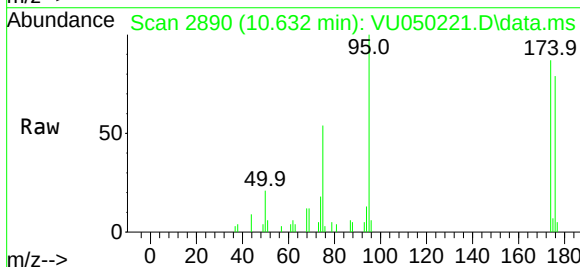
RT: 10.632 min Scan# 2890

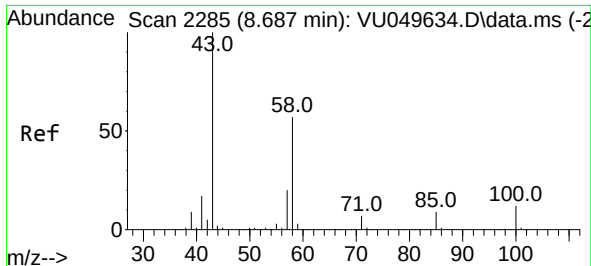
Delta R.T. -0.203 min

Lab File: VU050221.D

Acq: 10 Aug 2022 16:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 3099  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 53       | 0.0   | 64.4  | 96.6# |
| 89       | 0.0   | 44.2  | 66.2# |
| 88       | 6.0   | 32.8  | 49.2# |

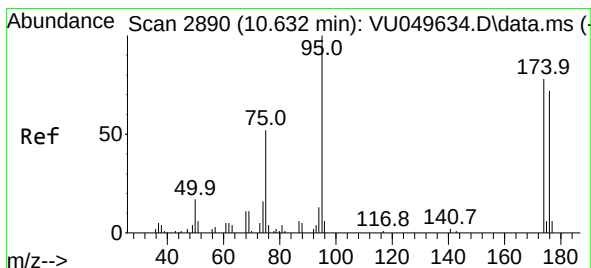
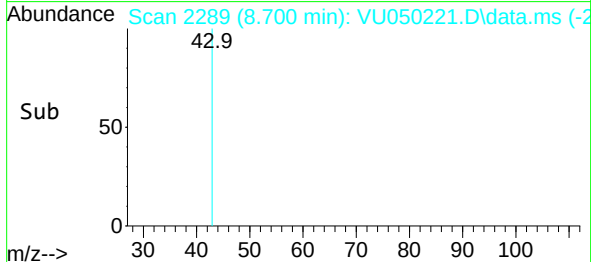
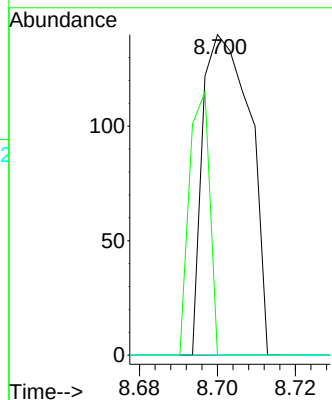
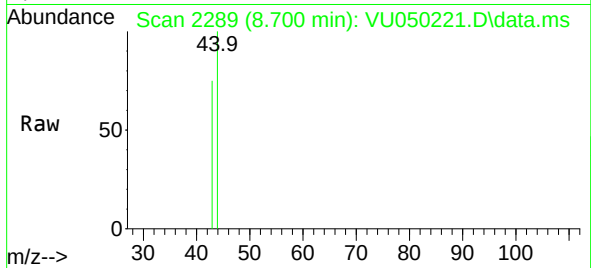




#54  
2-Hexanone  
Concen: 0.033 ug/l  
RT: 8.700 min Scan# 2118  
Delta R.T. 0.013 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

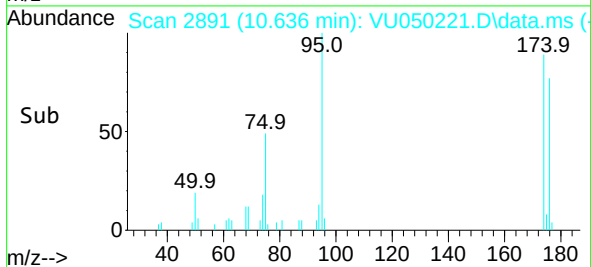
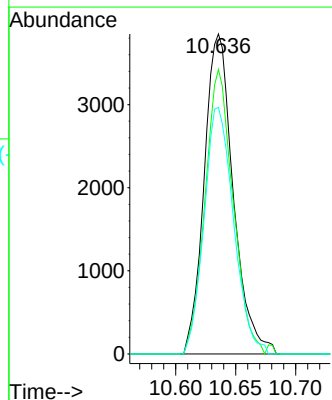
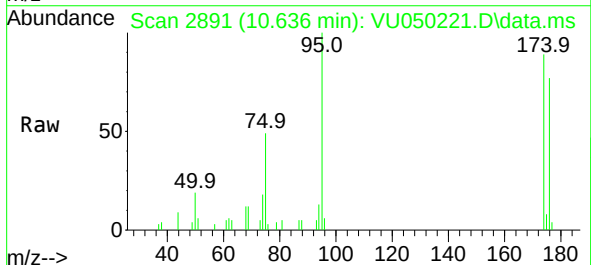
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

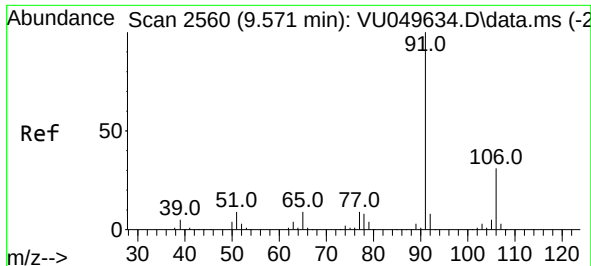
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 43    | Resp: | 118   |
| Ion      | Ratio | Lower | Upper |
| 43       | 100   |       |       |
| 58       | 35.6  | 37.1  | 77.1# |
| 57       | 0.0   | 0.0   | 39.5  |



#57  
4-Bromofluorobenzene  
Concen: 0.735 ug/l  
RT: 10.636 min Scan# 2891  
Delta R.T. 0.004 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 95    | Resp: | 6490  |
| Ion      | Ratio | Lower | Upper |
| 95       | 100   |       |       |
| 174      | 85.6  | 62.4  | 93.6  |
| 176      | 78.2  | 56.2  | 84.2  |

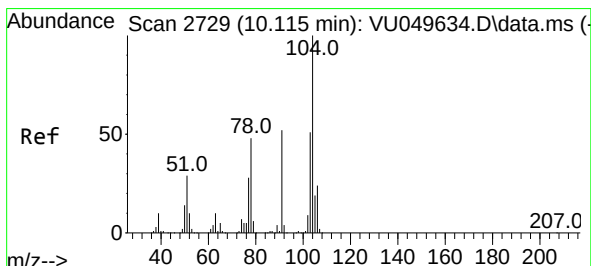
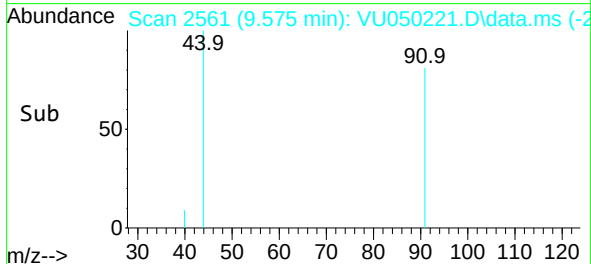
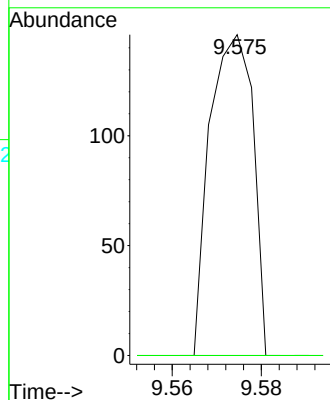
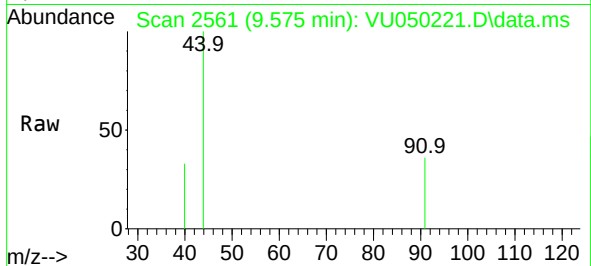




#63  
Ethyl Benzene  
Concen: 0.003 ug/l  
RT: 9.575 min Scan# 21  
Delta R.T. 0.004 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

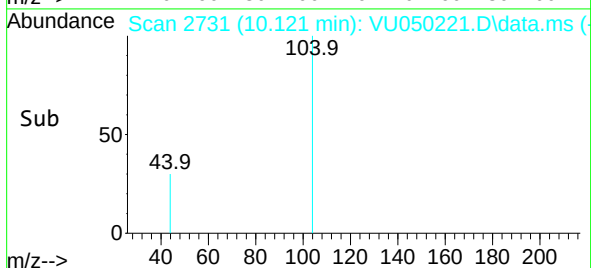
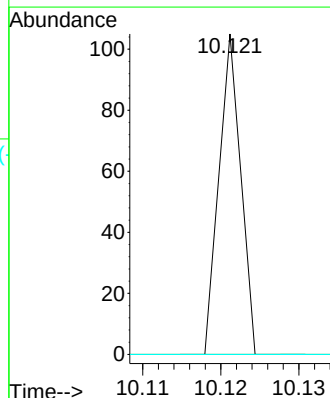
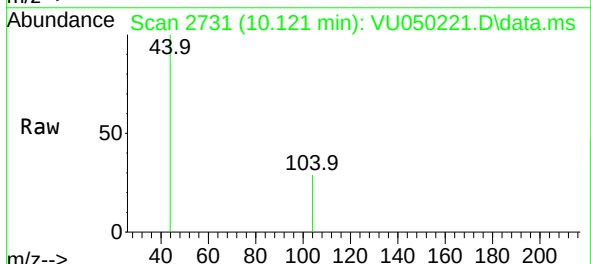
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

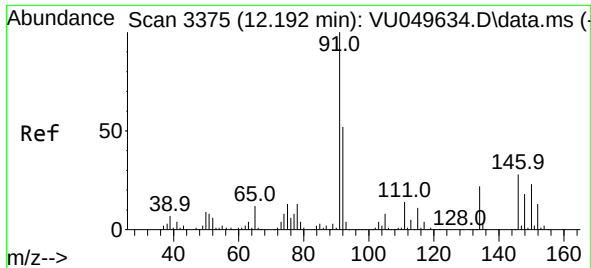
Tgt Ion: 91 Resp: 98  
Ion Ratio Lower Upper  
91 100  
106 0.0 24.4 36.6#



#66  
Styrene  
Concen: 0.001 ug/l  
RT: 10.121 min Scan# 2731  
Delta R.T. 0.006 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion: 104 Resp: 20  
Ion Ratio Lower Upper  
104 100  
78 0.0 42.1 63.1#  
103 0.0 44.5 66.7#

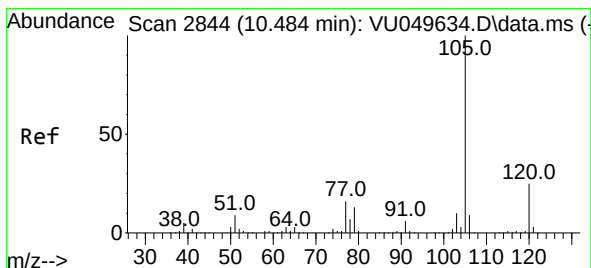
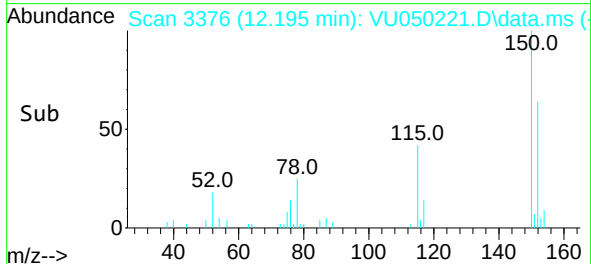
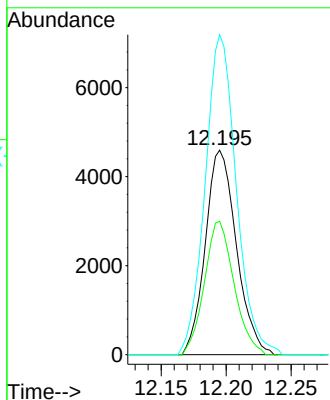
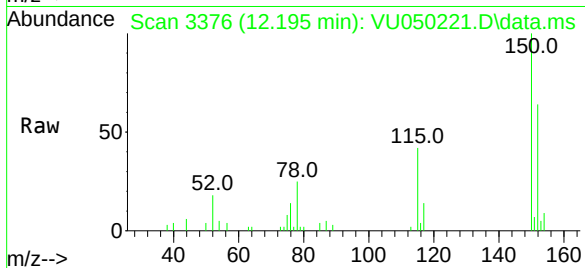




#68  
1,2-Dichlorobenzene-d4  
Concen: 0.856 ug/l  
RT: 12.195 min Scan# 31  
Delta R.T. 0.003 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

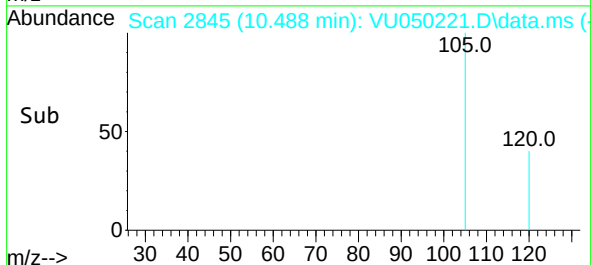
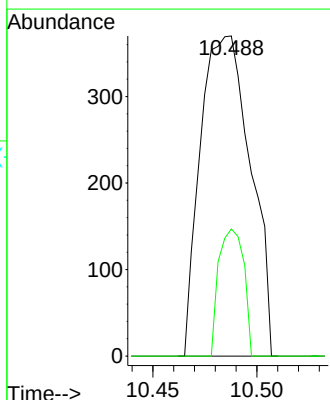
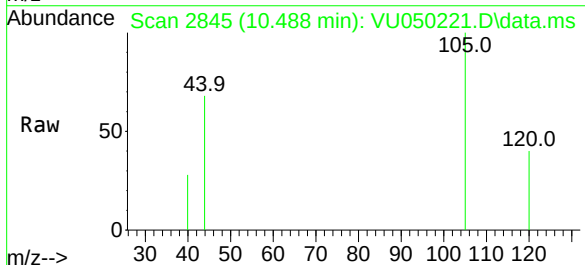
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

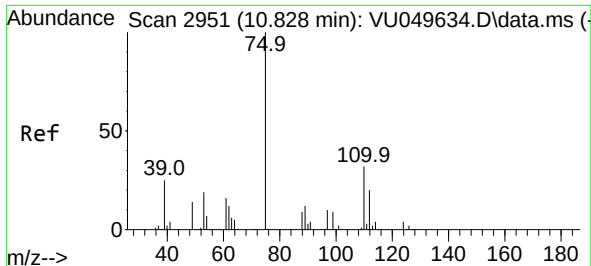
Tgt Ion:152 Resp: 7641  
Ion Ratio Lower Upper  
152 100  
115 62.2 0.0 254.6  
150 156.8 0.0 623.6



#69  
Isopropylbenzene  
Concen: 0.022 ug/l  
RT: 10.488 min Scan# 2845  
Delta R.T. 0.004 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion:105 Resp: 619  
Ion Ratio Lower Upper  
105 100  
120 19.9 12.6 37.8

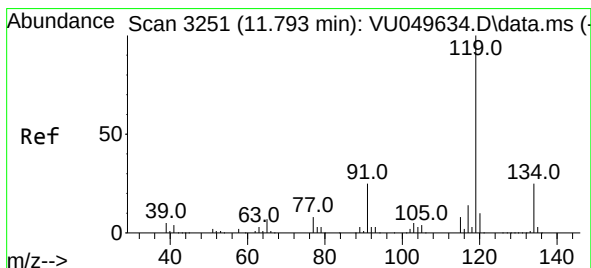
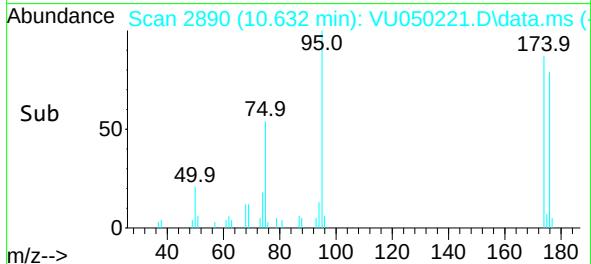
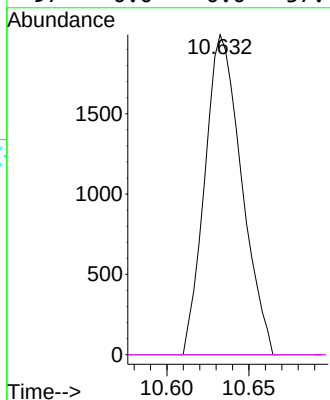
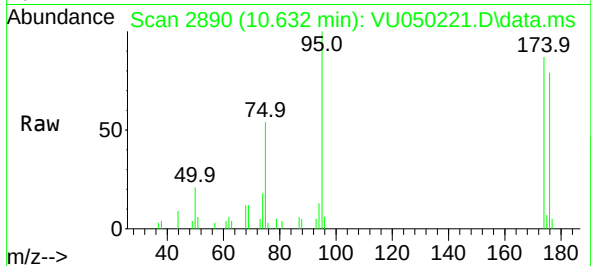




#71  
1,2,3-Trichloropropane  
Concen: 0.488 ug/l  
RT: 10.632 min Scan# 21  
Delta R.T. -0.196 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

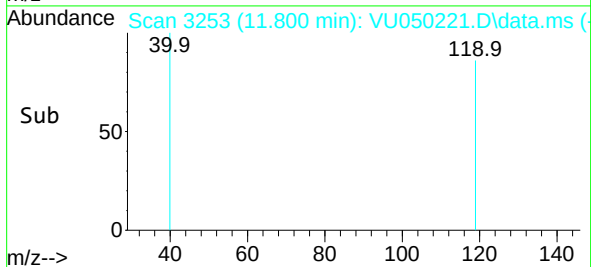
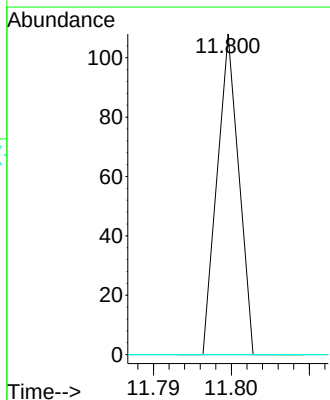
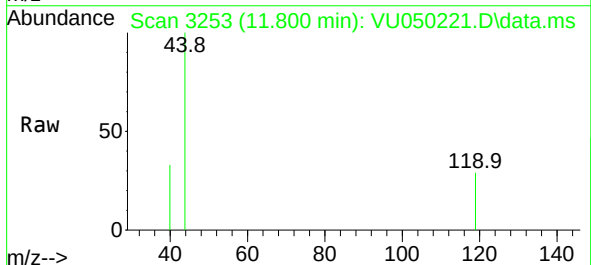
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

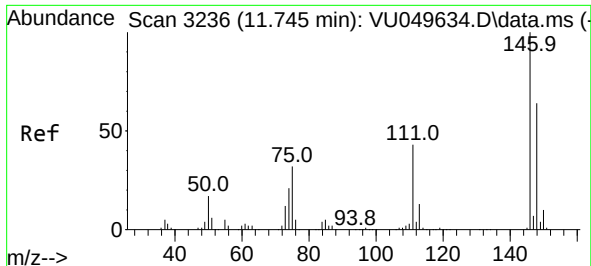
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 75    | Resp: | 3099  |
| Ion      | Ratio | Lower | Upper |
| 75       | 100   |       |       |
| 77       | 0.0   | 0.0   | 112.4 |
| 110      | 0.0   | 0.0   | 70.6  |
| 97       | 0.0   | 0.0   | 37.4  |



#81  
p-Isopropyltoluene  
Concen: 0.001 ug/l  
RT: 11.800 min Scan# 3253  
Delta R.T. 0.007 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 119   | Resp: | 21    |
| Ion      | Ratio | Lower | Upper |
| 119      | 100   |       |       |
| 134      | 0.0   | 20.5  | 30.7# |
| 91       | 0.0   | 19.8  | 29.6# |

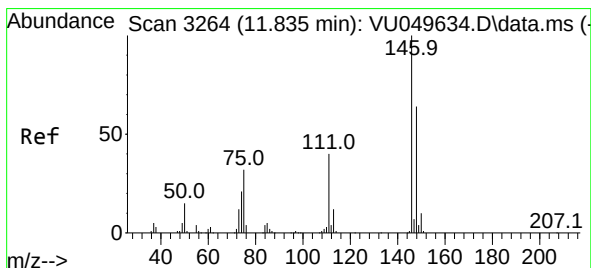
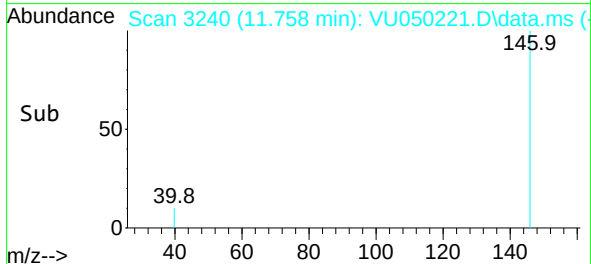
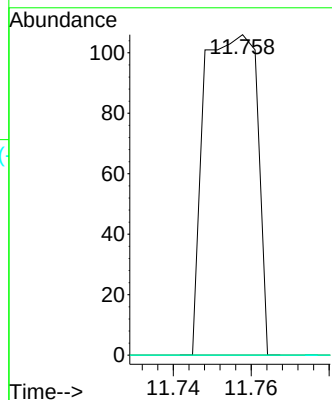
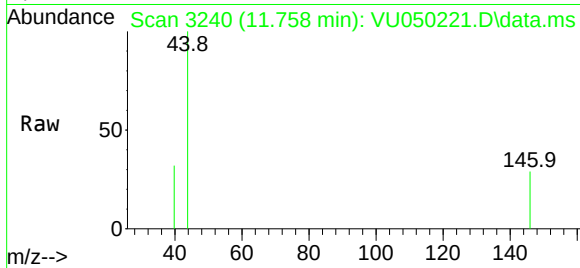




#82  
1,3-Dichlorobenzene  
Concen: 0.007 ug/l  
RT: 11.758 min Scan# 311  
Delta R.T. 0.013 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

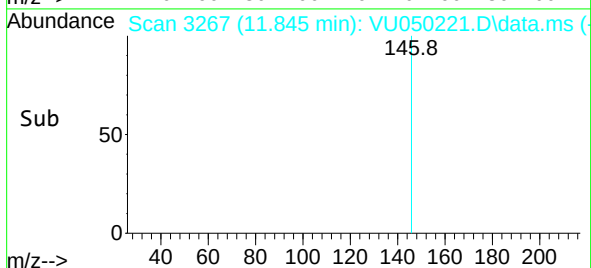
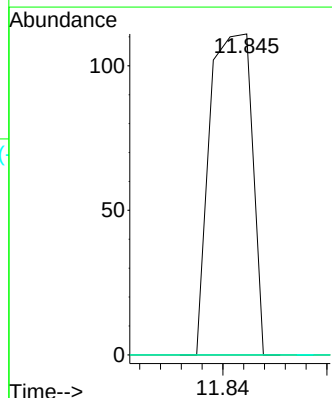
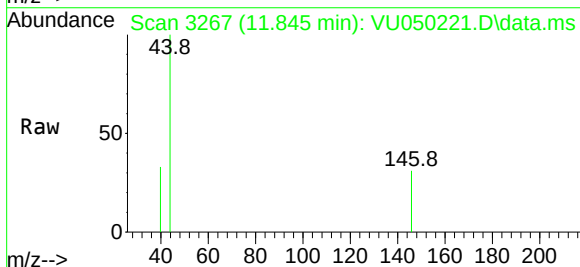
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

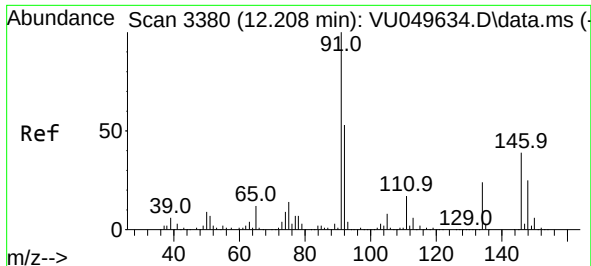
Tgt Ion:146 Resp: 99  
Ion Ratio Lower Upper  
146 100  
111 0.0 33.4 50.2#  
148 0.0 51.2 76.8#



#83  
1,4-Dichlorobenzene  
Concen: 0.004 ug/l  
RT: 11.845 min Scan# 3267  
Delta R.T. 0.010 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion:146 Resp: 62  
Ion Ratio Lower Upper  
146 100  
111 0.0 32.6 49.0#  
148 0.0 51.6 77.4#

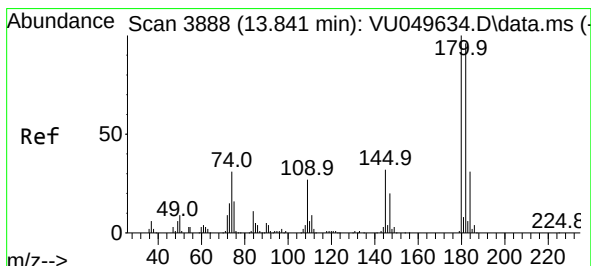
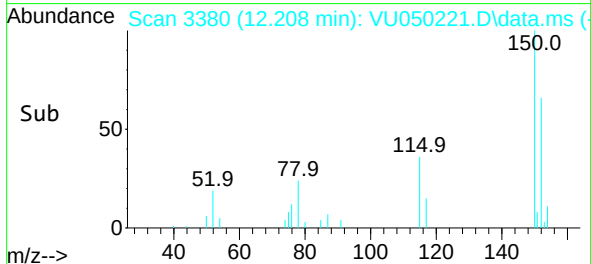
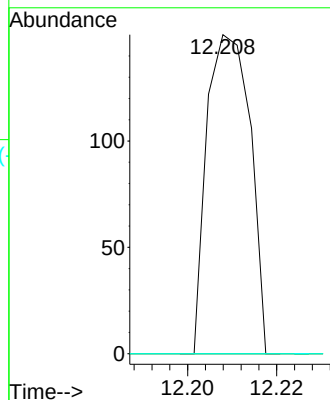
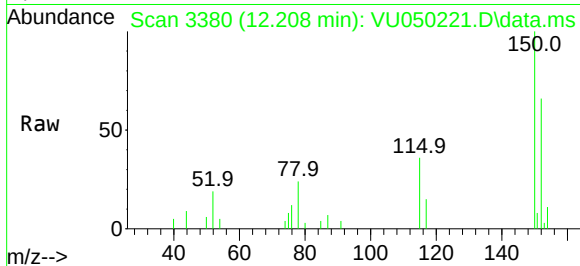




#84  
n-Butylbenzene  
Concen: 0.005 ug/l  
RT: 12.208 min Scan# 31  
Delta R.T. -0.000 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

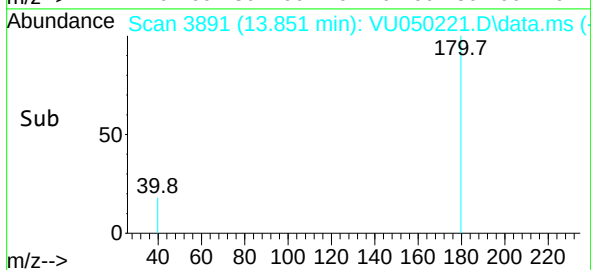
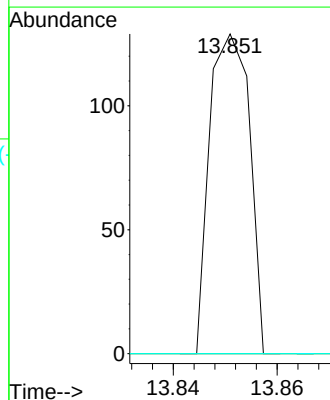
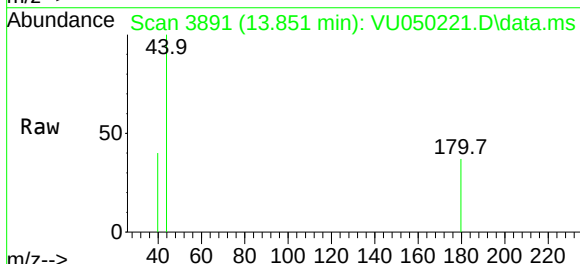
Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

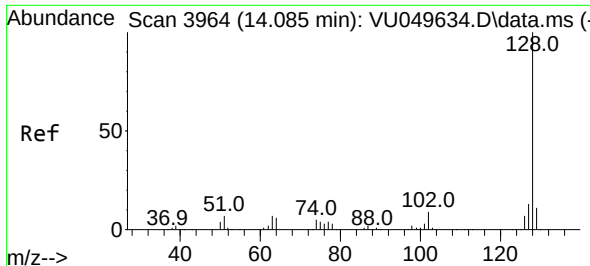
|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 91    | Resp: | 101   |
| Ion      | Ratio | Lower | Upper |
| 91       | 100   |       |       |
| 92       | 0.0   | 42.3  | 63.5# |
| 134      | 0.0   | 19.6  | 29.4# |



#87  
1,2,4-Trichlorobenzene  
Concen: 0.009 ug/l  
RT: 13.851 min Scan# 3891  
Delta R.T. 0.010 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

|          |       |       |        |
|----------|-------|-------|--------|
| Tgt Ion: | 180   | Resp: | 69     |
| Ion      | Ratio | Lower | Upper  |
| 180      | 100   |       |        |
| 182      | 0.0   | 77.0  | 115.6# |
| 145      | 0.0   | 25.7  | 38.5#  |

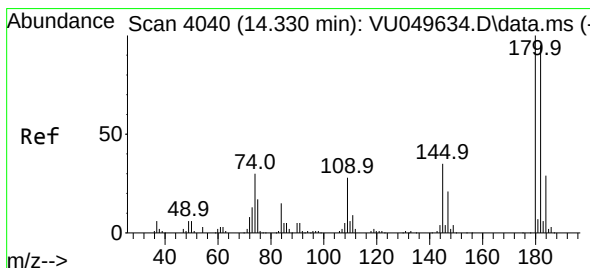
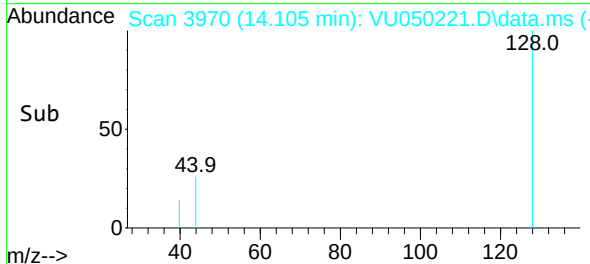
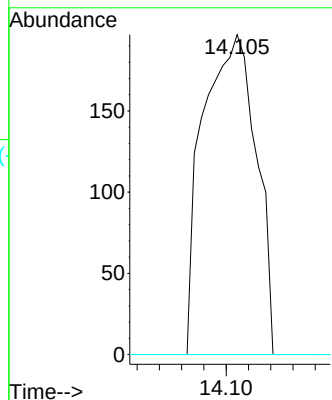
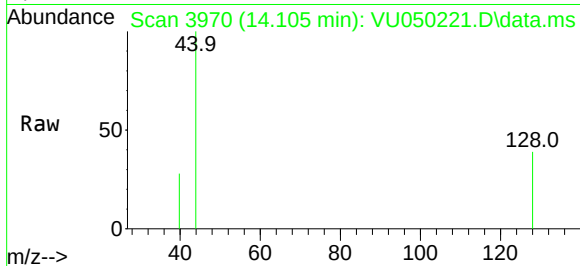




#89  
Naphthalene  
Concen: 0.020 ug/l  
RT: 14.105 min Scan# 3964  
Delta R.T. 0.020 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Instrument :  
MSVOA\_U  
ClientSampleId :  
PW-B6-L10-M-080322

Tgt Ion:128 Resp: 327  
Ion Ratio Lower Upper  
128 100  
127 0.0 10.1 15.1#  
129 0.0 8.6 12.8#



#90  
1,2,3-Trichlorobenzene  
Concen: 0.002 ug/l  
RT: 14.346 min Scan# 4045  
Delta R.T. 0.016 min  
Lab File: VU050221.D  
Acq: 10 Aug 2022 16:04

Tgt Ion:180 Resp: 20  
Ion Ratio Lower Upper  
180 100  
182 0.0 76.6 114.8#  
145 0.0 27.3 40.9#

