

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN092024\  
 Data File : VN084072.D  
 Acq On : 20 Sep 2024 15:57  
 Operator : JC\MD  
 Sample : PB163512ZHE#05  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 18 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB163512ZHE#05

Quant Time: Sep 23 01:04:51 2024  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N090624W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Sep 06 23:42:47 2024  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 7.812  | 128   | 23249    | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene       | 9.100  | 114   | 127735   | 30.000   | ug/l   | # 0.00   |
| 57) Chlorobenzene-d5          | 11.865 | 117   | 119096   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4     | 8.577  | 65    | 64615    | 30.405   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 110 | Recovery | =      | 101.367% |
| 60) 4-Bromofluorobenzene      | 12.847 | 95    | 48630    | 23.692   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 63 - 112 | Recovery | =      | 78.967%  |
| 63) Toluene-d8                | 10.571 | 98    | 162988   | 29.556   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 112 | Recovery | =      | 98.533%  |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 12) Methyl Acetate            | 5.018  | 43    | 568      | 0.326    | ug/l   | # 40     |
| 15) Acetone                   | 4.436  | 58    | 13652    | 58.358   | ug/l   | 98       |
| 18) Methylene Chloride        | 5.271  | 84    | 5067     | 3.205    | ug/l   | # 85     |
| 23) tert-Butyl Alcohol        | 5.530  | 59    | 56       | 0.216    | ug/l   | # 100    |
| 30) 2-Butanone                | 7.477  | 43    | 2410     | 2.523    | ug/l   | # 51     |
| 35) Methacrylonitrile         | 7.859  | 41    | 265      | 0.247    | ug/l   | # 22     |
| 39) 1,2-Dichloropropane       | 9.741  | 63    | 1163     | 0.795    | ug/l   | # 43     |
| 43) Ethyl Acetate             | 7.565  | 43    | 2913     | 1.515    | ug/l   | # 84     |
| 44) Isopropyl Acetate         | 8.688  | 43    | 147398   | 44.332   | ug/l   | # 69     |
| 46) Methyl methacrylate       | 9.665  | 41    | 3174     | 1.972    | ug/l   | # 25     |
| 48) t-1,3-Dichloropropene     | 10.735 | 75    | 564      | 0.236    | ug/l   | # 45     |
| 49) cis-1,3-Dichloropropene   | 10.359 | 75    | 32400    | 13.020   | ug/l   | # 74     |
| 50) 1,1,2-Trichloroethane     | 10.576 | 97    | 5385     | 3.956    | ug/l   | # 1      |
| 52) 1,3-Dichloropropane       | 11.206 | 76    | 4594     | 1.869    | ug/l   | # 42     |
| 55) 2-Chloroethyl vinyl ether | 9.741  | 63    | 1163     | 1.255    | ug/l   | # 43     |
| 56) Bromoform                 | 12.847 | 173   | 224      | 0.216    | ug/l   | # 1      |
| 58) 4-Methyl-2-Pentanone      | 10.447 | 43    | 6066     | 3.212    | ug/l   | # 92     |
| 59) 2-Hexanone                | 11.200 | 43    | 63087    | 44.212   | ug/l   | # 1      |
| 72) 1,2,3-Trichloropropane    | 12.853 | 75    | 27817    | 15.880   | ug/l   | 1        |
| 77) t-1,4-Dichloro-2-butene   | 12.853 | 75    | 27817    | 37.570   | ug/l   | # 12     |
| -----                         |        |       |          |          |        |          |

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

Quant Time: Sep 23 01:04:51 2024  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N090624W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Fri Sep 06 23:42:47 2024  
Response via : Initial Calibration

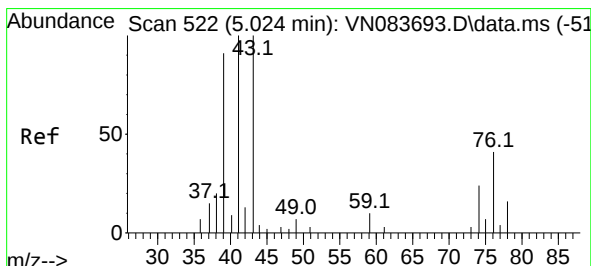
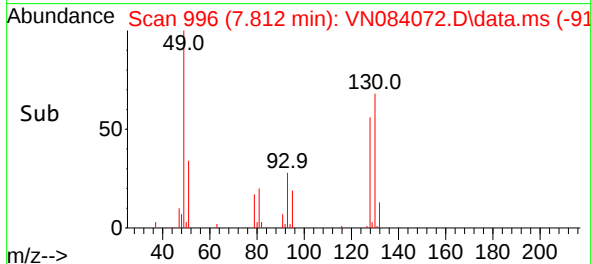
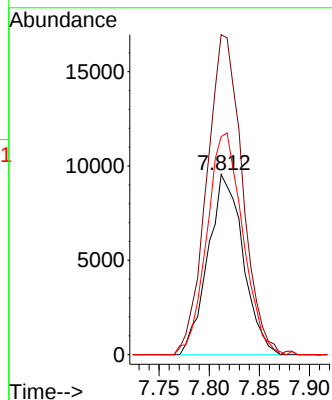
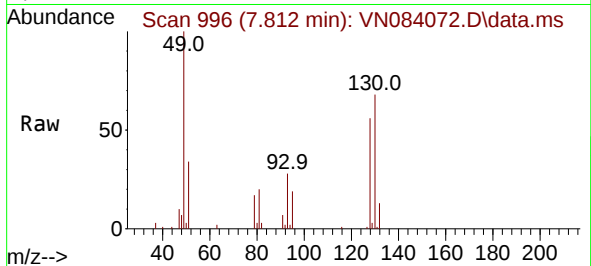




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. -0.000 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

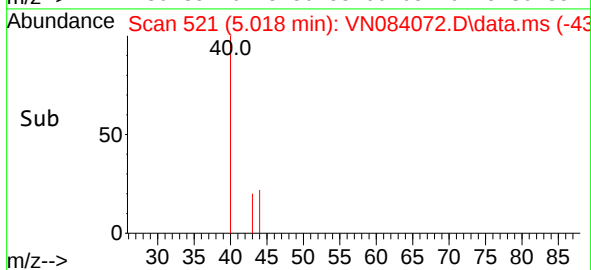
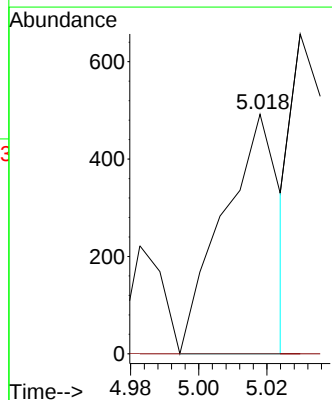
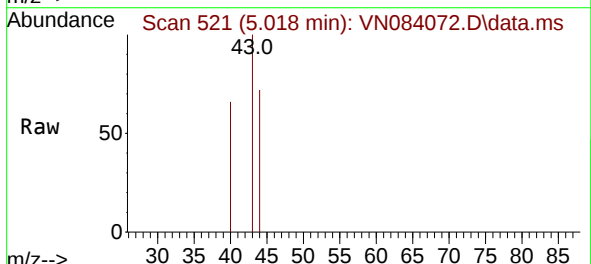
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

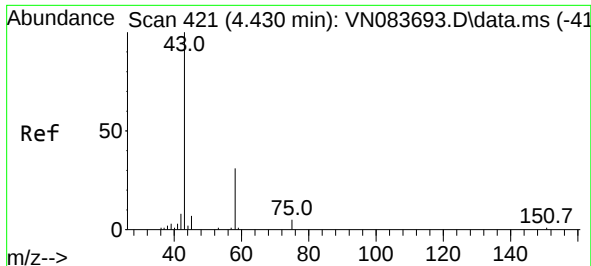
Tgt Ion:128 Resp: 23249  
Ion Ratio Lower Upper  
128 100  
49 179.8 0.0 403.7  
130 126.2 0.0 323.3



#12  
Methyl Acetate  
Concen: 0.326 ug/l  
RT: 5.018 min Scan# 521  
Delta R.T. -0.006 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

Tgt Ion: 43 Resp: 568  
Ion Ratio Lower Upper  
43 100  
74 0.0 27.7 41.5#





#15

Acetone

Concen: 58.358 ug/l

RT: 4.436 min Scan# 41

Delta R.T. 0.006 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Instrument :

MSVOA\_N

ClientSampleId :

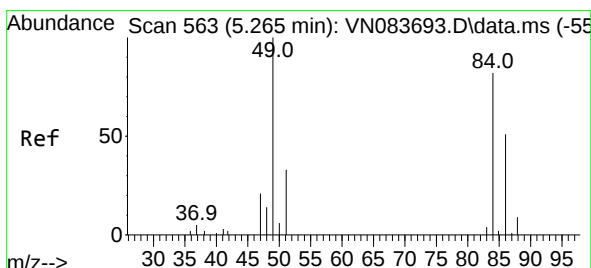
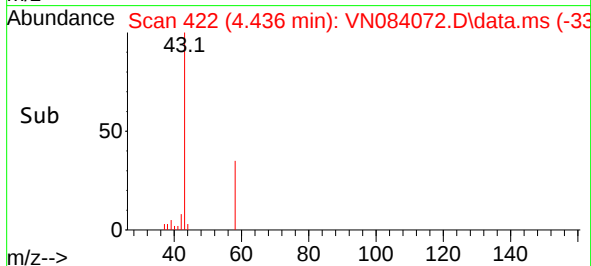
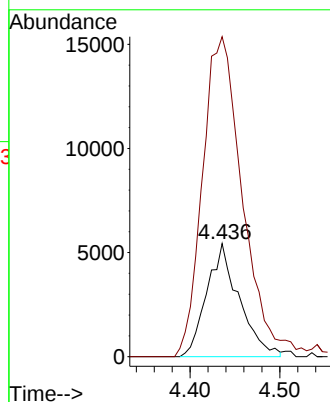
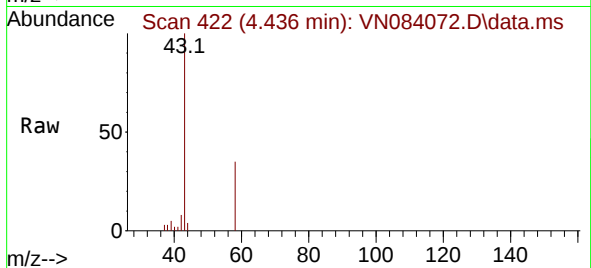
PB163512ZHE#05

Tgt Ion: 58 Resp: 13652

Ion Ratio Lower Upper

58 100

43 275.5 223.1 334.7



#18

Methylene Chloride

Concen: 3.205 ug/l

RT: 5.271 min Scan# 564

Delta R.T. 0.006 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Tgt Ion: 84 Resp: 5067

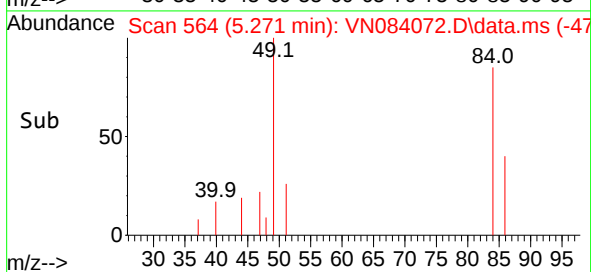
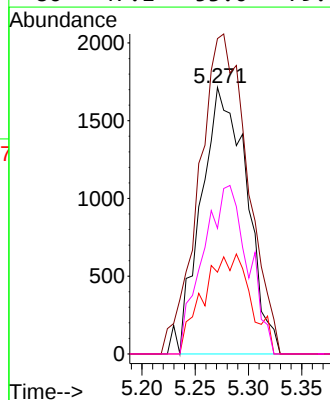
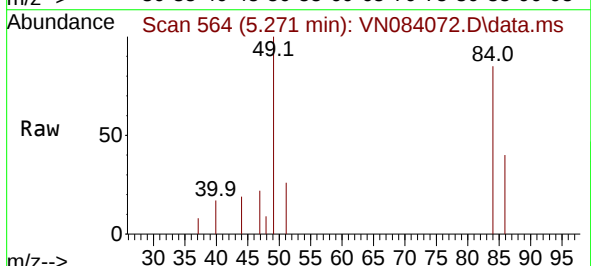
Ion Ratio Lower Upper

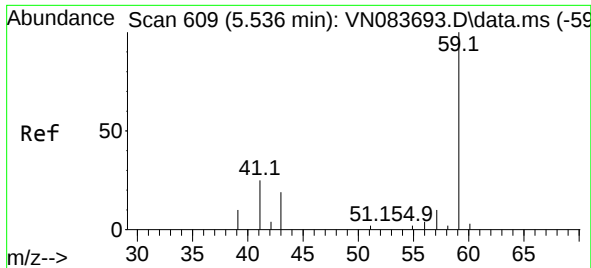
84 100

49 118.3 86.0 129.0

51 30.7 30.0 45.0

86 47.1 53.0 79.4#

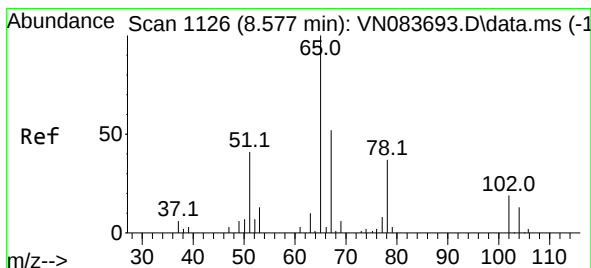
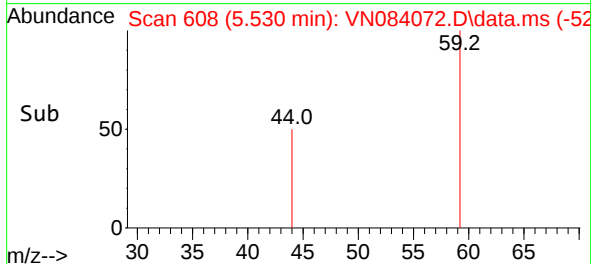
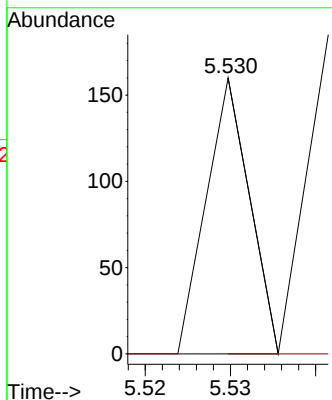
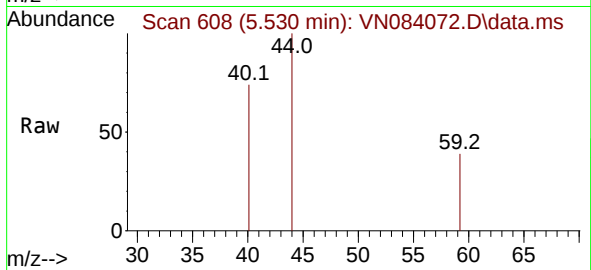




#23  
tert-Butyl Alcohol  
Concen: 0.216 ug/l  
RT: 5.530 min Scan# 609  
Delta R.T. -0.006 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

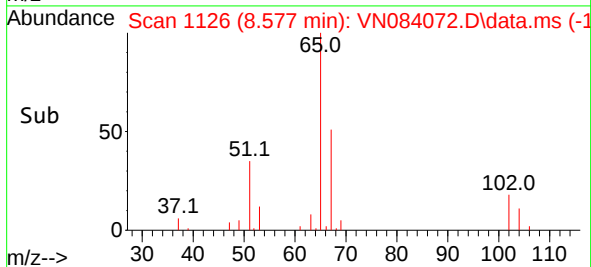
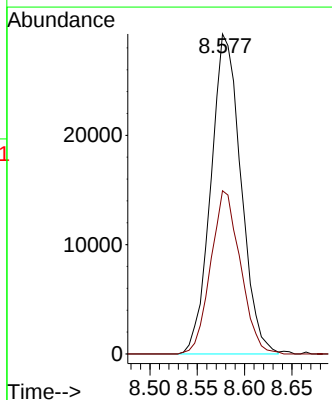
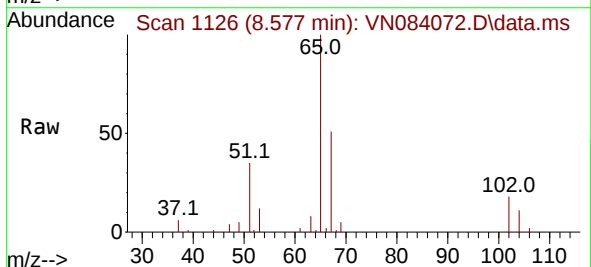
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

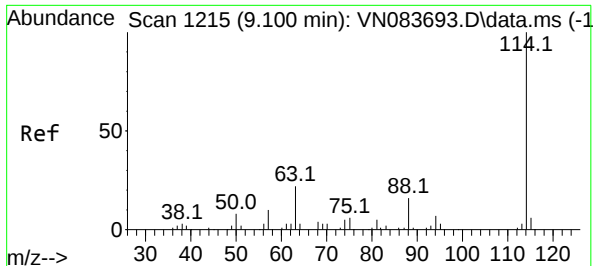
Tgt Ion: 59 Resp: 56  
Ion Ratio Lower Upper  
59 100  
52 0.0 0.0 0.0



#27  
1,2-Dichloroethane-d4  
Concen: 30.405 ug/l  
RT: 8.577 min Scan# 1126  
Delta R.T. 0.000 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

Tgt Ion: 65 Resp: 64615  
Ion Ratio Lower Upper  
65 100  
67 50.4 43.2 64.8

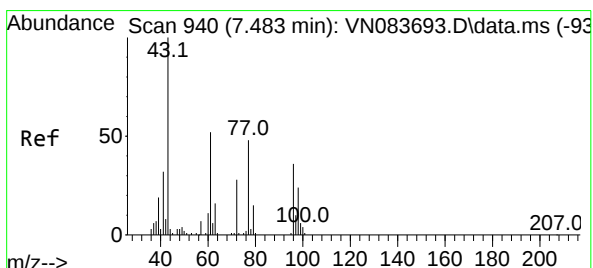
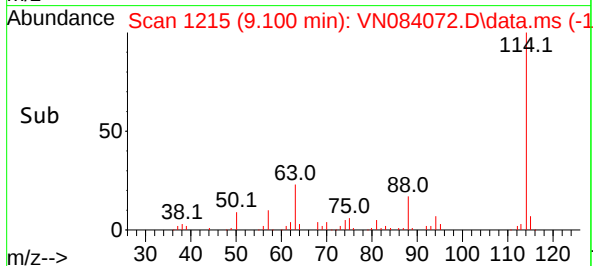
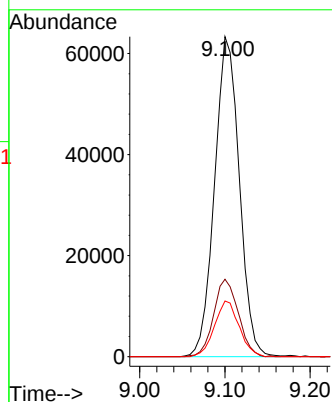
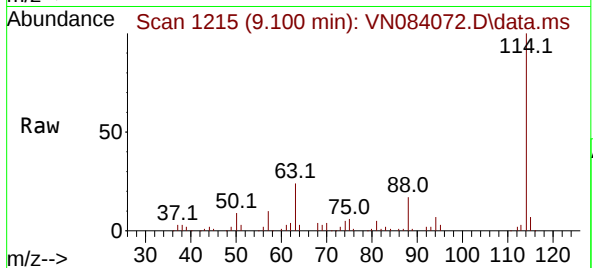




#28  
1,4-Difluorobenzene  
Concen: 30.000 ug/l  
RT: 9.100 min Scan# 114  
Delta R.T. -0.000 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

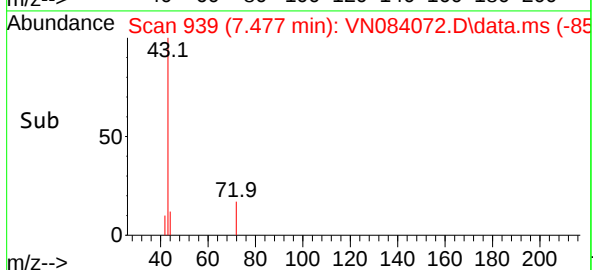
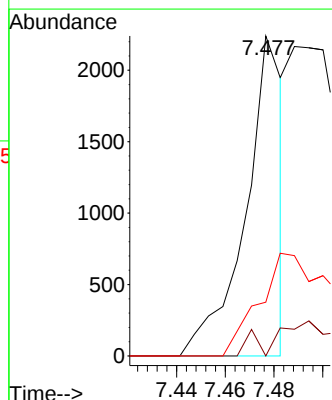
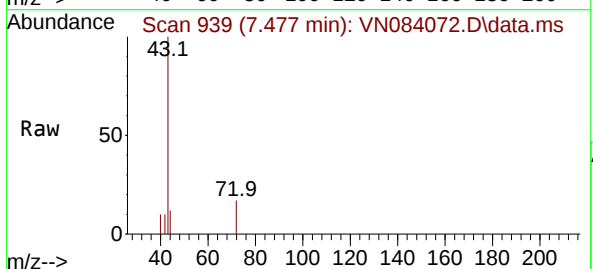
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

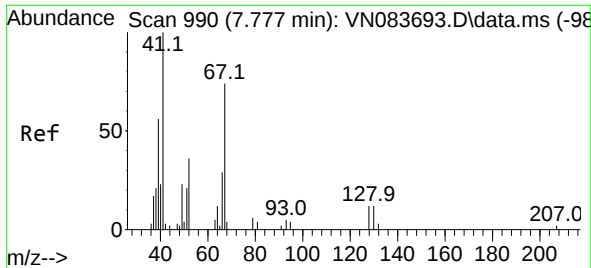
Tgt Ion:114 Resp: 127735  
Ion Ratio Lower Upper  
114 100  
63 24.1 15.9 23.9#  
88 17.4 12.7 19.1



#30  
2-Butanone  
Concen: 2.523 ug/l  
RT: 7.477 min Scan# 939  
Delta R.T. -0.006 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

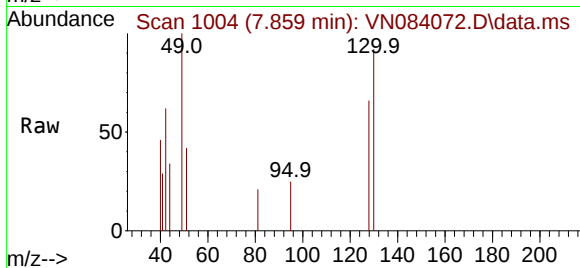
Tgt Ion: 43 Resp: 2410  
Ion Ratio Lower Upper  
43 100  
57 2.7 6.7 10.1#  
72 61.7 24.0 36.0#



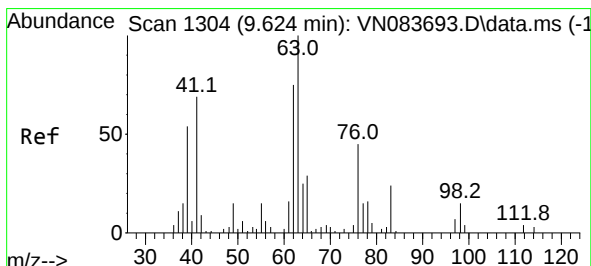
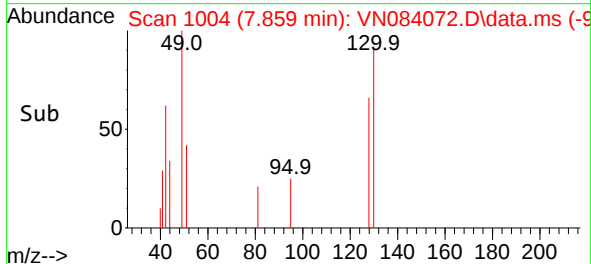
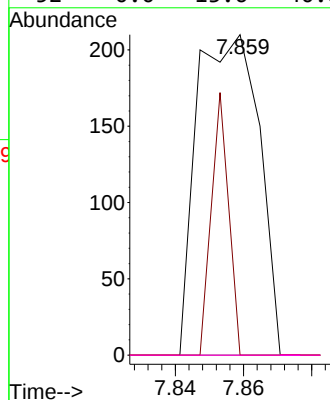


#35  
Methacrylonitrile  
Concen: 0.247 ug/l  
RT: 7.859 min Scan# 1004  
Delta R.T. 0.082 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

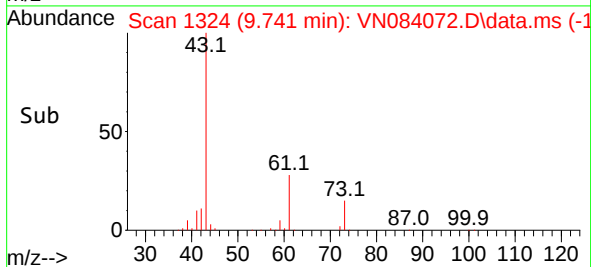
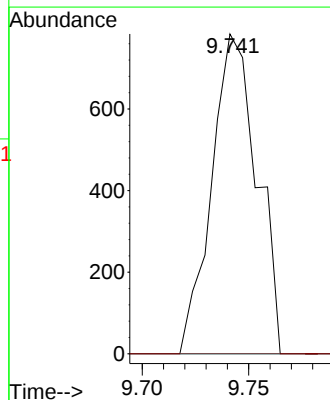
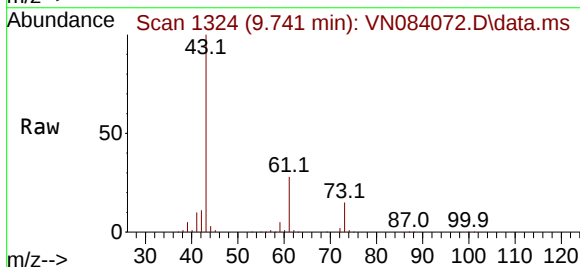


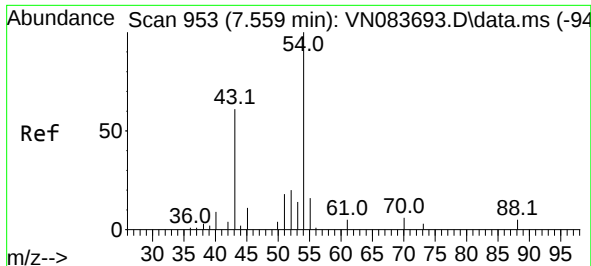
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|----------|-------|-------|--------|
| Tgt Ion: | 41    | Resp: | 265    |
| Ion      | Ratio | Lower | Upper  |
| 41       | 100   |       |        |
| 39       | 0.0   | 25.3  | 75.9#  |
| 67       | 0.0   | 38.7  | 116.1# |
| 52       | 0.0   | 13.6  | 40.8#  |



#39  
1,2-Dichloropropane  
Concen: 0.795 ug/l  
RT: 9.741 min Scan# 1324  
Delta R.T. 0.118 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

|          |       |       |       |
|----------|-------|-------|-------|
| Tgt Ion: | 63    | Resp: | 1163  |
| Ion      | Ratio | Lower | Upper |
| 63       | 100   |       |       |
| 65       | 0.0   | 25.0  | 37.4# |





#43

Ethyl Acetate

Concen: 1.515 ug/l

RT: 7.565 min Scan# 91

Delta R.T. 0.006 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Instrument :

MSVOA\_N

ClientSampleId :

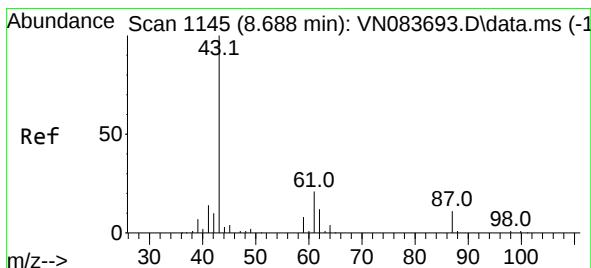
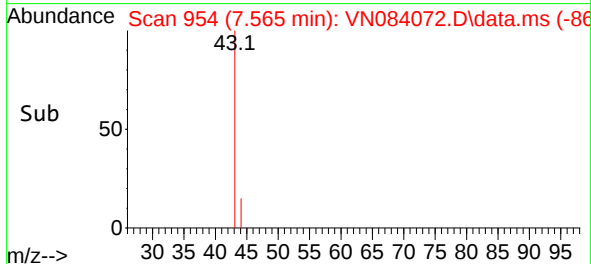
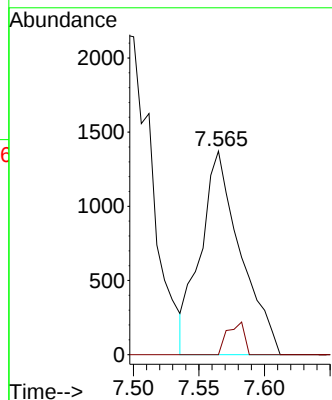
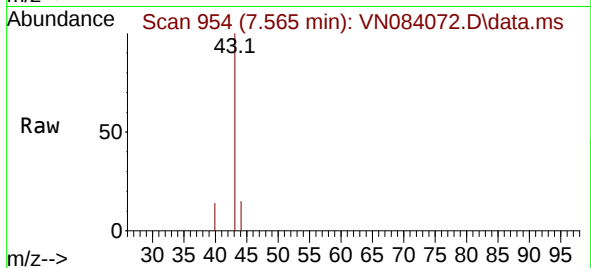
PB163512ZHE#05

Tgt Ion: 43 Resp: 2913

Ion Ratio Lower Upper

43 100

45 6.7 10.6 15.8#



#44

Isopropyl Acetate

Concen: 44.332 ug/l

RT: 8.688 min Scan# 1145

Delta R.T. -0.000 min

Lab File: VN084072.D

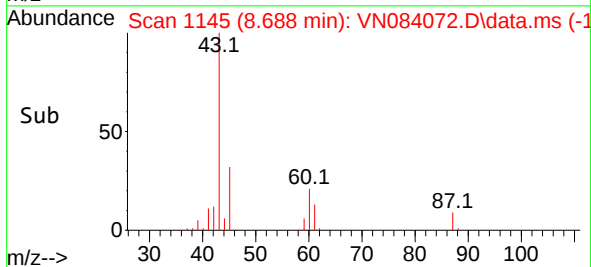
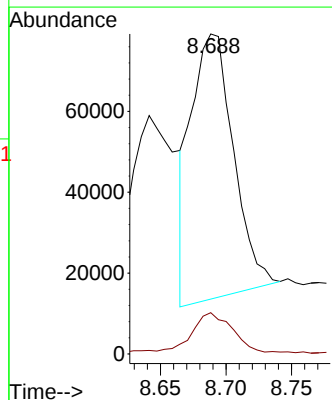
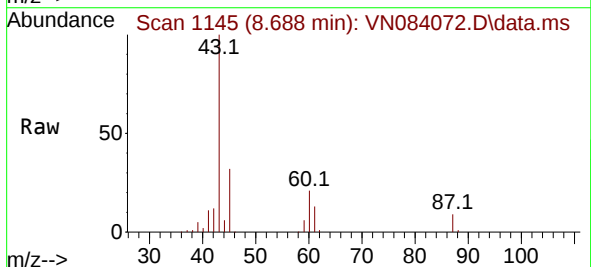
Acq: 20 Sep 2024 15:57

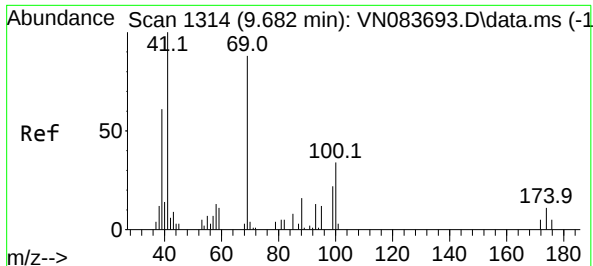
Tgt Ion: 43 Resp: 147398

Ion Ratio Lower Upper

43 100

61 14.0 25.0 37.4#

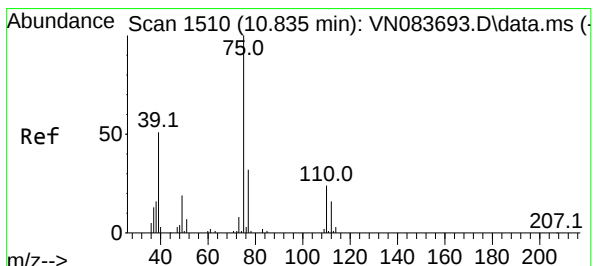
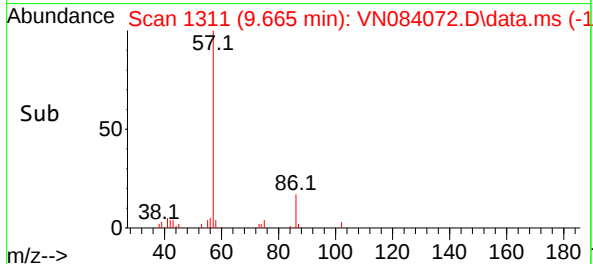
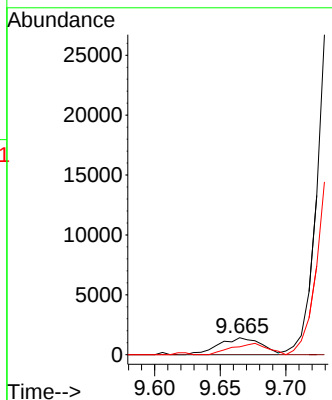
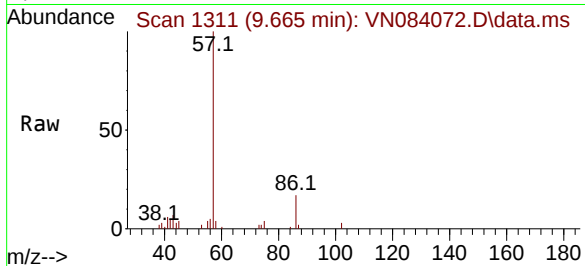




#46  
Methyl methacrylate  
Concen: 1.972 ug/l  
RT: 9.665 min Scan# 11  
Delta R.T. -0.018 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

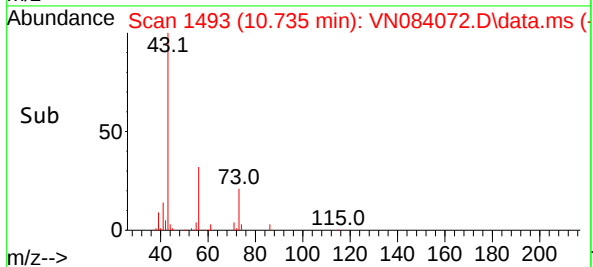
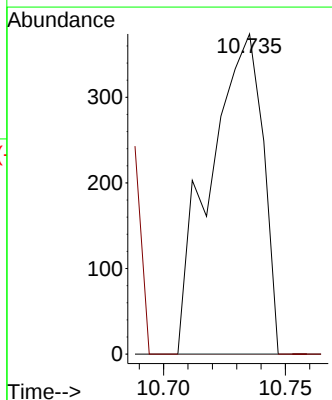
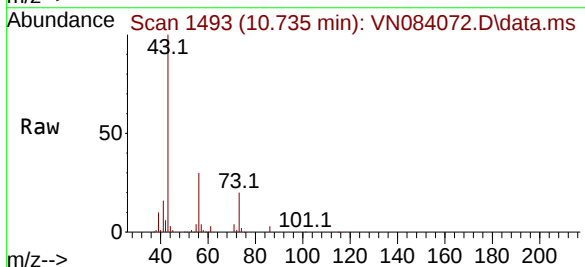
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

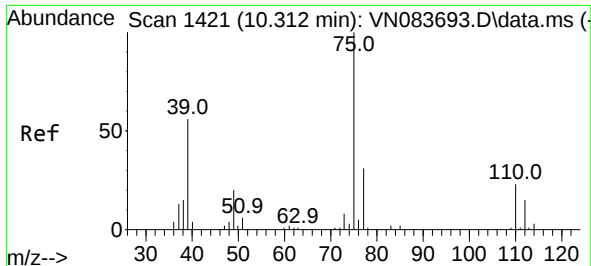
Tgt Ion: 41 Resp: 3174  
Ion Ratio Lower Upper  
41 100  
69 0.0 51.1 153.3#  
39 34.9 25.8 77.3



#48  
t-1,3-Dichloropropene  
Concen: 0.236 ug/l  
RT: 10.735 min Scan# 1493  
Delta R.T. -0.100 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

Tgt Ion: 75 Resp: 564  
Ion Ratio Lower Upper  
75 100  
77 0.0 23.8 35.6#





#49

cis-1,3-Dichloropropene

Concen: 13.020 ug/l

RT: 10.359 min Scan# 1429

Delta R.T. 0.047 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Instrument :

MSVOA\_N

ClientSampleId :

PB163512ZHE#05

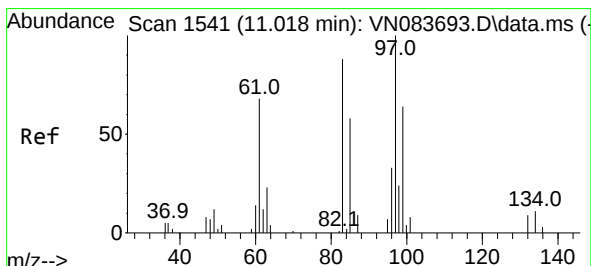
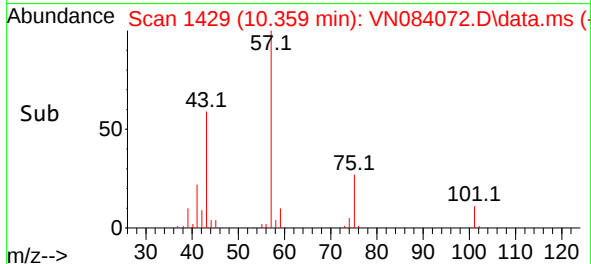
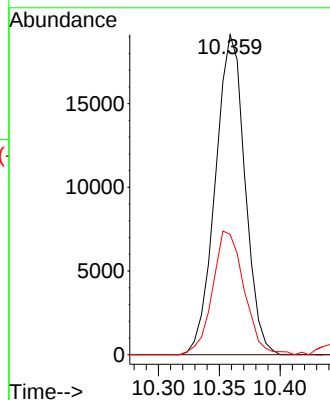
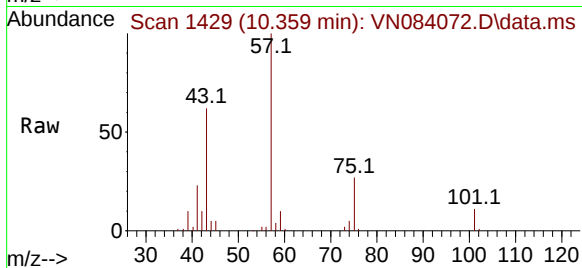
Tgt Ion: 75 Resp: 32400

Ion Ratio Lower Upper

75 100

77 0.0 24.9 37.3#

39 37.6 31.0 46.6



#50

1,1,2-Trichloroethane

Concen: 3.956 ug/l

RT: 10.576 min Scan# 1466

Delta R.T. -0.441 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Tgt Ion: 97 Resp: 5385

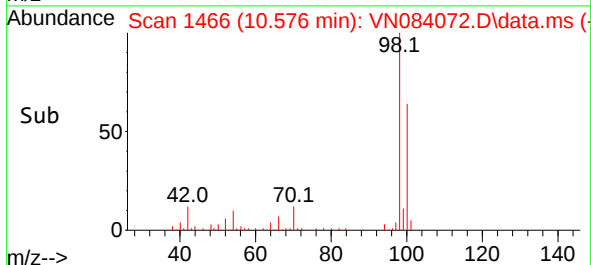
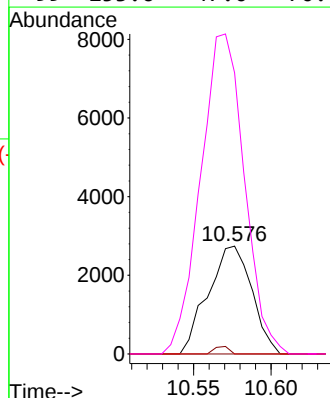
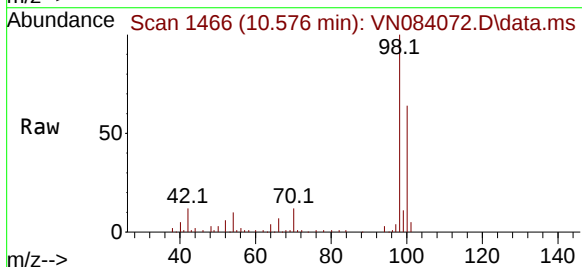
Ion Ratio Lower Upper

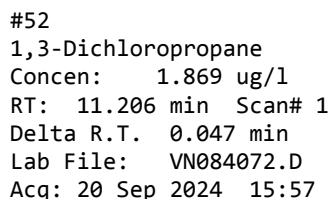
97 100

83 0.0 68.1 102.1#

85 0.0 41.8 62.6#

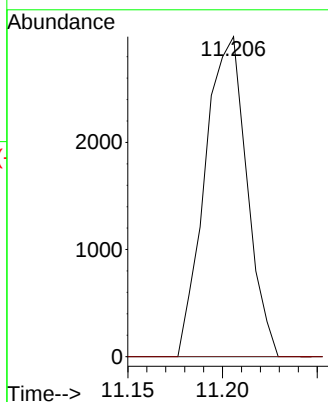
99 253.6 47.0 70.4#



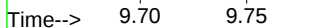
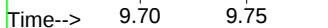
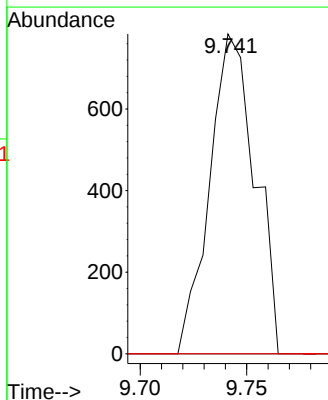


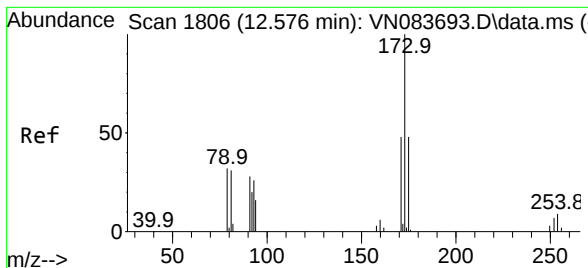
**Instrument :**  
MSVOA\_N  
**ClientSampleId :**  
PB163512ZHE#05

|     |         |       |       |
|-----|---------|-------|-------|
| Tgt | Ion: 76 | Resp: | 4594  |
| Ion | Ratio   | Lower | Upper |
| 76  | 100     |       |       |
| 78  | 0.0     | 0.0   | 65.8  |



|             |       |       |       |
|-------------|-------|-------|-------|
| Tgt Ion: 63 | Resp: | 1163  |       |
| Ion Ratio   | Lower | Upper |       |
| 63 100      |       |       |       |
| 65          | 0.0   | 26.2  | 39.2# |
| 106         | 0.0   | 23.8  | 35.8# |





#56

Bromoform

Concen: 0.216 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.271 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

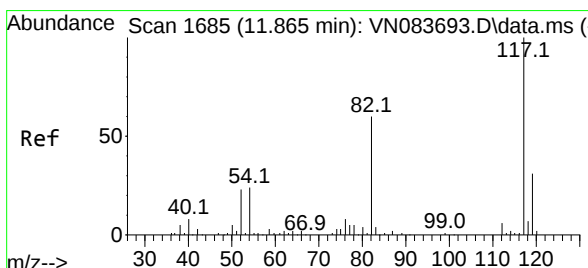
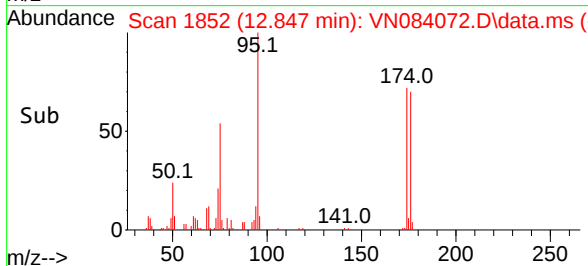
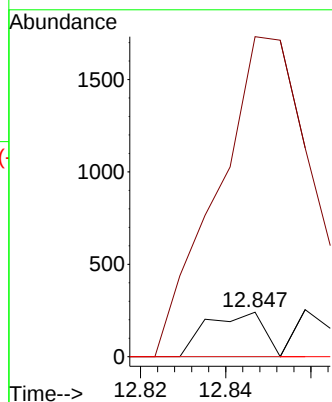
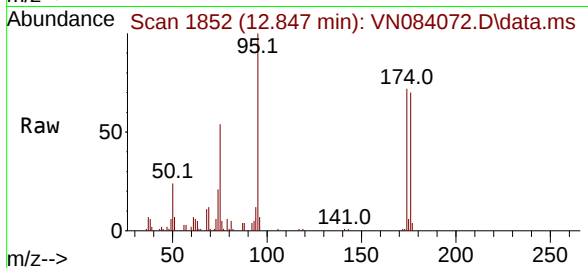
Instrument :

MSVOA\_N

ClientSampleId :

PB163512ZHE#05

|             |        |            |
|-------------|--------|------------|
| Tgt Ion:173 | Resp:  | 224        |
| Ion Ratio   | Lower  | Upper      |
| 173         | 100    |            |
| 175         | 1258.0 | 40.0 60.0# |
| 254         | 0.0    | 8.3 12.5#  |



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

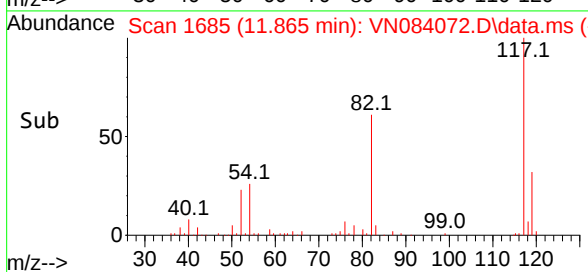
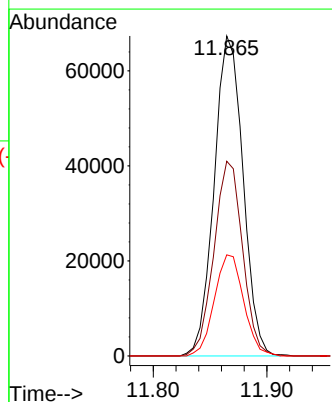
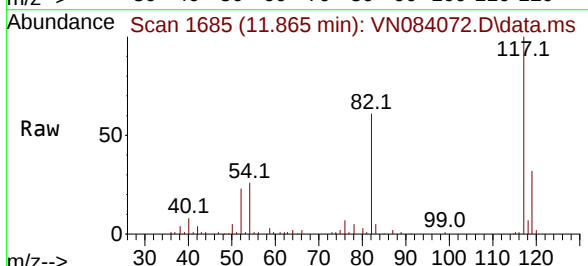
RT: 11.865 min Scan# 1685

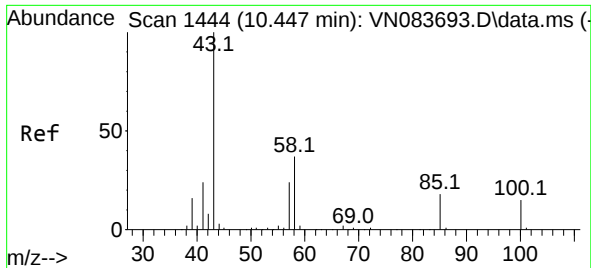
Delta R.T. -0.000 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion:117 | Resp: | 119096    |
| Ion Ratio   | Lower | Upper     |
| 117         | 100   |           |
| 82          | 60.3  | 46.6 69.8 |
| 119         | 32.1  | 25.4 38.2 |

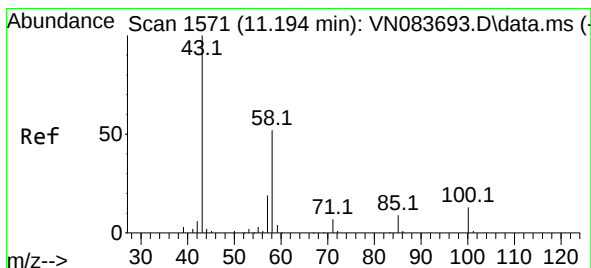
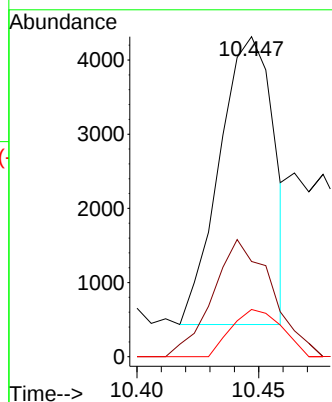
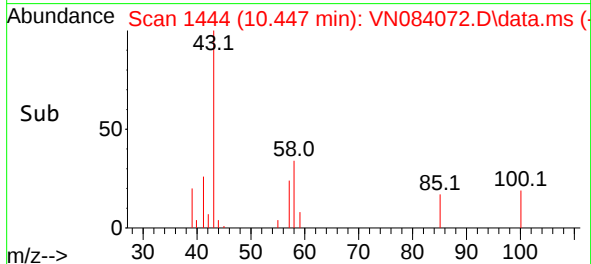
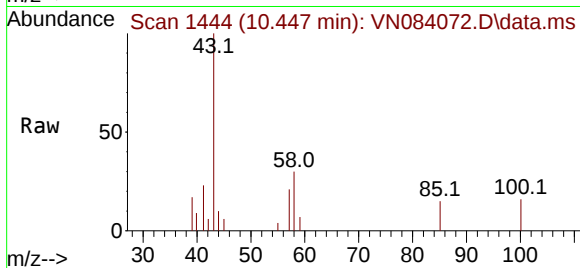




#58  
4-Methyl-2-Pentanone  
Concen: 3.212 ug/l  
RT: 10.447 min Scan# 1444  
Delta R.T. 0.000 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

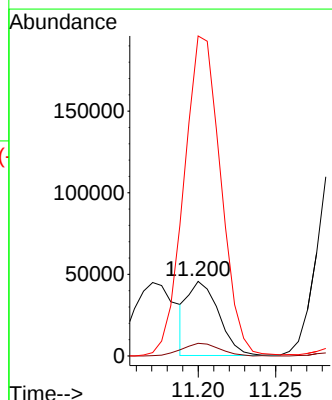
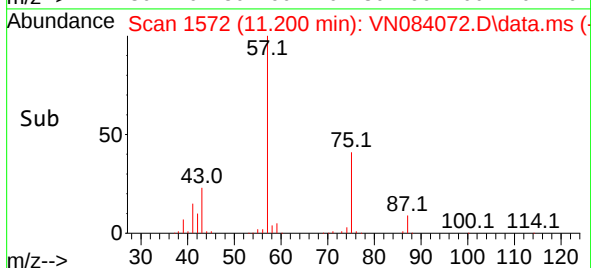
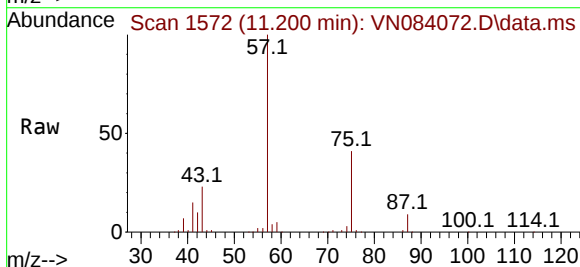
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

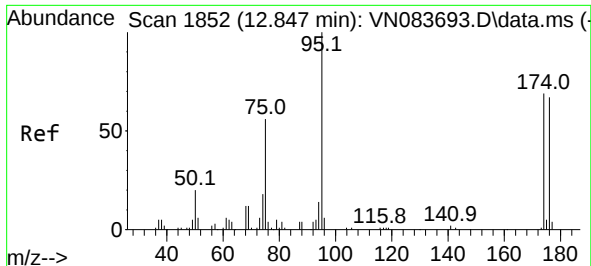
Tgt Ion: 43 Resp: 6066  
Ion Ratio Lower Upper  
43 100  
58 44.2 36.5 54.7  
85 15.2 19.5 29.3#



#59  
2-Hexanone  
Concen: 44.212 ug/l  
RT: 11.200 min Scan# 1572  
Delta R.T. 0.006 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

Tgt Ion: 43 Resp: 63087  
Ion Ratio Lower Upper  
43 100  
58 20.8 50.4 75.6#  
57 515.0 18.6 27.8#

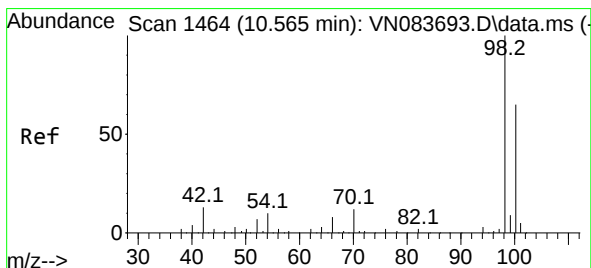
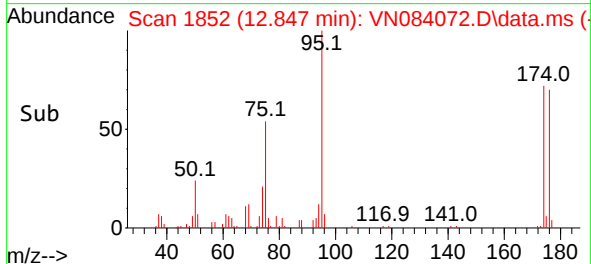
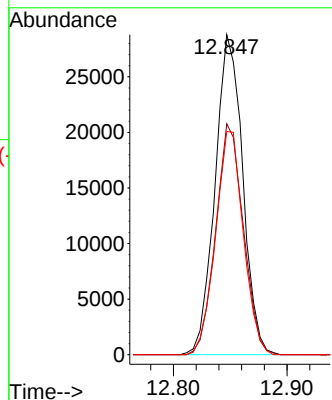
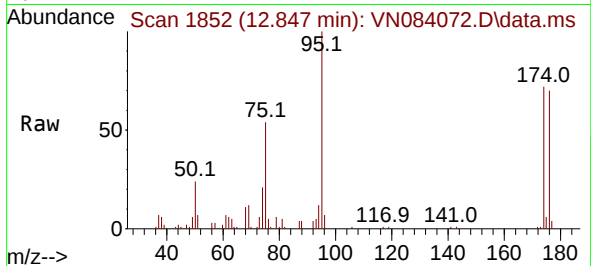




#60  
4-Bromofluorobenzene  
Concen: 23.692 ug/l  
RT: 12.847 min Scan# 1852  
Delta R.T. -0.000 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

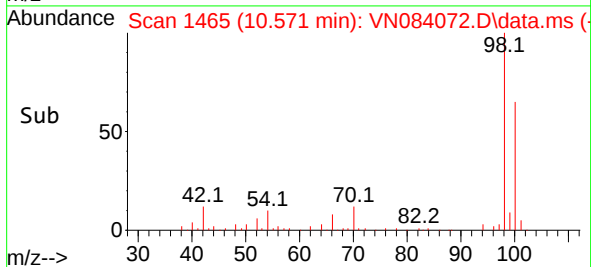
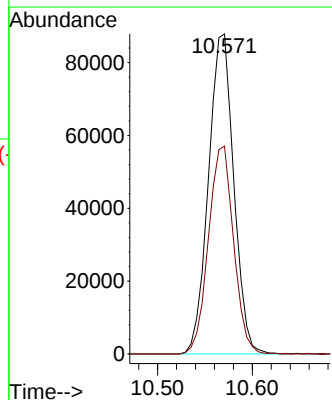
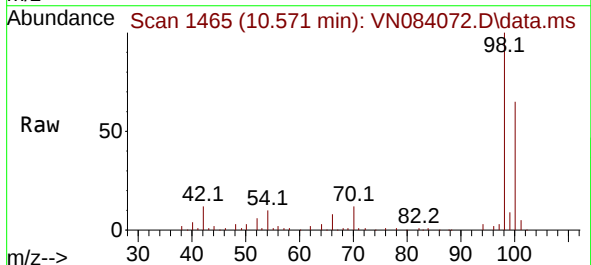
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB163512ZHE#05

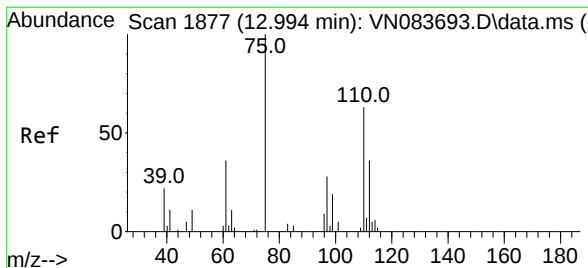
Tgt Ion: 95 Resp: 48630  
Ion Ratio Lower Upper  
95 100  
174 72.2 60.5 90.7  
176 70.2 57.8 86.6



#63  
Toluene-d8  
Concen: 29.556 ug/l  
RT: 10.571 min Scan# 1465  
Delta R.T. 0.006 min  
Lab File: VN084072.D  
Acq: 20 Sep 2024 15:57

Tgt Ion: 98 Resp: 162988  
Ion Ratio Lower Upper  
98 100  
100 64.5 52.7 79.1





#72

1,2,3-Trichloropropane

Concen: 15.880 ug/l

RT: 12.853 min Scan# 1853

Delta R.T. -0.141 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Instrument :

MSVOA\_N

ClientSampleId :

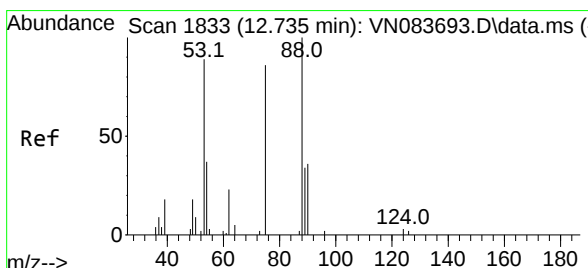
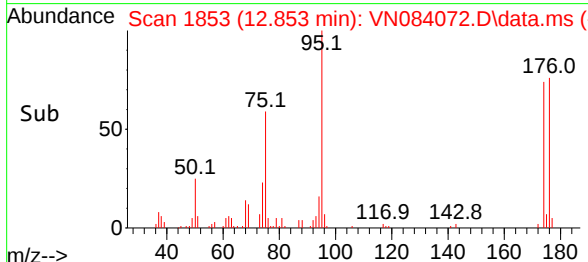
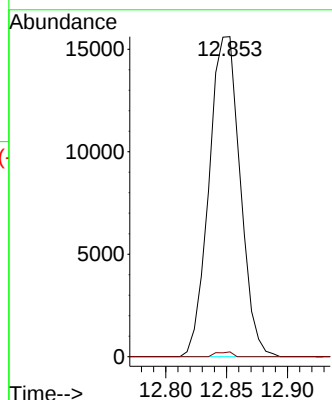
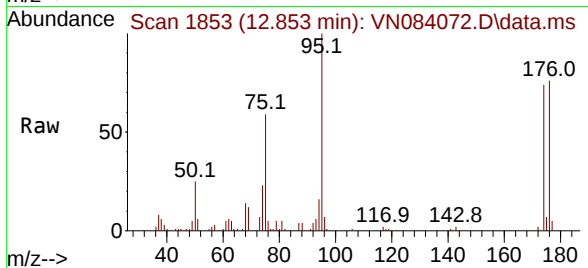
PB163512ZHE#05

Tgt Ion: 75 Resp: 27817

Ion Ratio Lower Upper

75 100

77 0.8 0.0 367.6



#77

t-1,4-Dichloro-2-butene

Concen: 37.570 ug/l

RT: 12.853 min Scan# 1853

Delta R.T. 0.118 min

Lab File: VN084072.D

Acq: 20 Sep 2024 15:57

Tgt Ion: 75 Resp: 27817

Ion Ratio Lower Upper

75 100

53 0.0 45.9 137.7#

89 0.0 25.9 77.7#

