

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN042325\  
 Data File : VN086377.D  
 Acq On : 23 Apr 2025 11:21  
 Operator : JC\MD  
 Sample : IBLK  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 7 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 IBLK

Quant Time: Apr 24 04:50:14 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N042325W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Thu Apr 24 04:42:24 2025  
 Response via : Initial Calibration

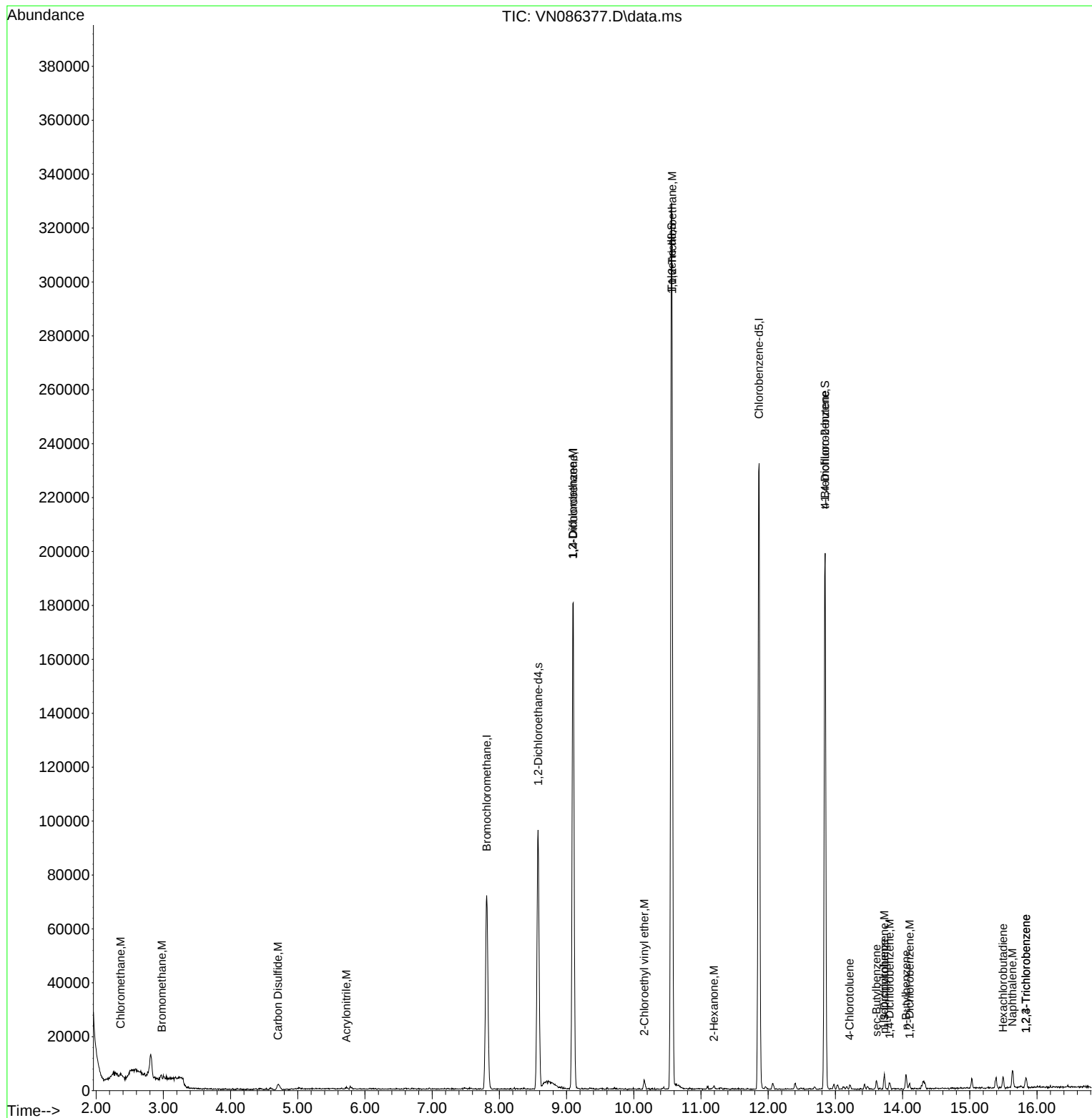
| Compound                      | R.T. QIon |       | Response | Conc     | Units | Dev(Min) |
|-------------------------------|-----------|-------|----------|----------|-------|----------|
| -----                         |           |       |          |          |       |          |
| Internal Standards            |           |       |          |          |       |          |
| 1) Bromochloromethane         | 7.812     | 128   | 26445    | 30.000   | ug/l  | 0.00     |
| 28) 1,4-Difluorobenzene       | 9.100     | 114   | 161082   | 30.000   | ug/l  | 0.00     |
| 57) Chlorobenzene-d5          | 11.865    | 117   | 138477   | 30.000   | ug/l  | 0.00     |
| System Monitoring Compounds   |           |       |          |          |       |          |
| 27) 1,2-Dichloroethane-d4     | 8.577     | 65    | 78703    | 30.868   | ug/l  | 0.00     |
| Spiked Amount                 | 30.000    | Range | 91 - 110 | Recovery | =     | 102.900% |
| 60) 4-Bromofluorobenzene      | 12.847    | 95    | 73582    | 27.036   | ug/l  | 0.00     |
| Spiked Amount                 | 30.000    | Range | 63 - 112 | Recovery | =     | 90.133%  |
| 63) Toluene-d8                | 10.565    | 98    | 237239   | 31.141   | ug/l  | 0.00     |
| Spiked Amount                 | 30.000    | Range | 91 - 112 | Recovery | =     | 103.800% |
| Target Compounds              |           |       |          |          |       |          |
|                               |           |       |          |          |       | Qvalue   |
| 3) Chloromethane              | 2.365     | 50    | 1243     | 0.479    | ug/l  | # 80     |
| 5) Bromomethane               | 2.977     | 94    | 502      | 0.387    | ug/l  | 83       |
| 14) Acrylonitrile             | 5.724     | 53    | 369      | 0.379    | ug/l  | # 49     |
| 16) Carbon Disulfide          | 4.706     | 76    | 2023     | 0.416    | ug/l  | # 75     |
| 36) 1,2-Dichloroethane        | 9.094     | 62    | 5517     | 1.881    | ug/l  | # 74     |
| 50) 1,1,2-Trichloroethane     | 10.571    | 97    | 7060     | 3.387    | ug/l  | # 1      |
| 55) 2-Chloroethyl vinyl ether | 10.159    | 63    | 1888     | 1.106    | ug/l  | # 90     |
| 59) 2-Hexanone                | 11.194    | 43    | 870      | 0.441    | ug/l  | # 81     |
| 77) t-1,4-Dichloro-2-butene   | 12.847    | 75    | 38339    | 34.012   | ug/l  | # 13     |
| 78) 4-Chlorotoluene           | 13.212    | 91    | 1536     | 0.214    | ug/l  | 94       |
| 81) sec-Butylbenzene          | 13.612    | 105   | 3083     | 0.318    | ug/l  | 100      |
| 82) p-Isopropyltoluene        | 13.723    | 119   | 2357     | 0.290    | ug/l  | 94       |
| 83) 1,3-Dichlorobenzene       | 13.729    | 146   | 1326     | 0.315    | ug/l  | 85       |
| 84) 1,4-Dichlorobenzene       | 13.806    | 146   | 1263     | 0.304    | ug/l  | 96       |
| 85) n-Butylbenzene            | 14.053    | 91    | 3763     | 0.519    | ug/l  | 97       |
| 87) 1,2-Dichlorobenzene       | 14.106    | 146   | 1061     | 0.265    | ug/l  | 93       |
| 89) 1,2,4-Trichlorobenzene    | 15.835    | 180   | 1807     | 0.991    | ug/l  | # 89     |
| 90) Hexachlorobutadiene       | 15.494    | 225   | 983      | 1.338    | ug/l  | 97       |
| 91) Naphthalene               | 15.635    | 128   | 7040     | 1.078    | ug/l  | # 87     |
| 92) 1,2,3-Trichlorobenzene    | 15.835    | 180   | 1807     | 0.991    | ug/l  | 89       |
| -----                         |           |       |          |          |       |          |

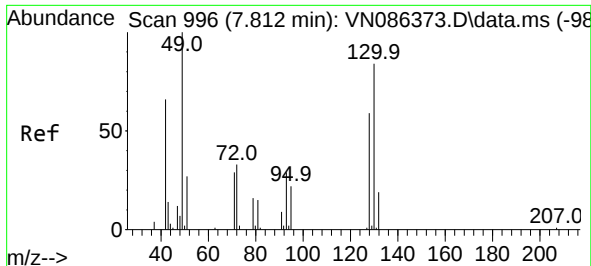
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Thu Apr 24 04:42:24 2025  
Response via : Initial Calibration

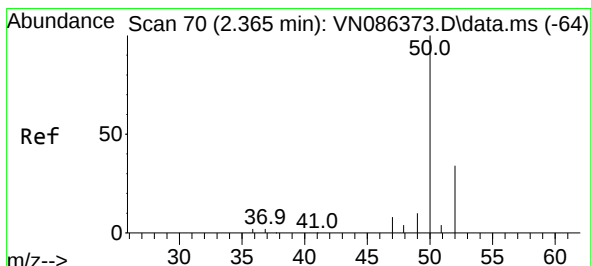
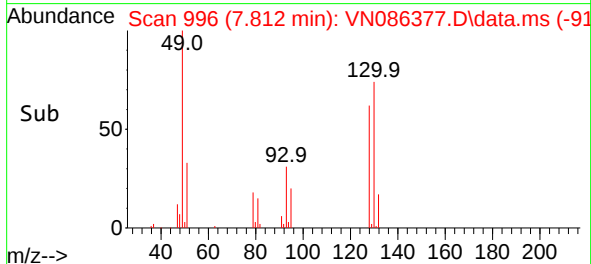
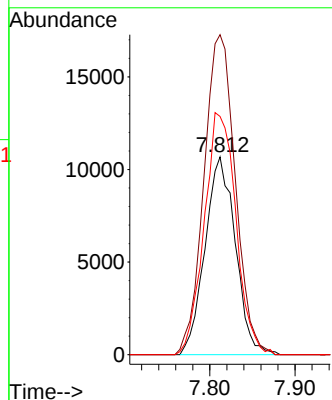
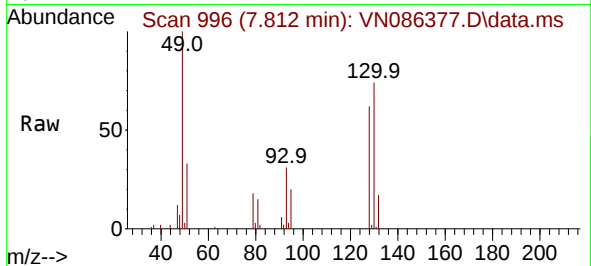




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. -0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

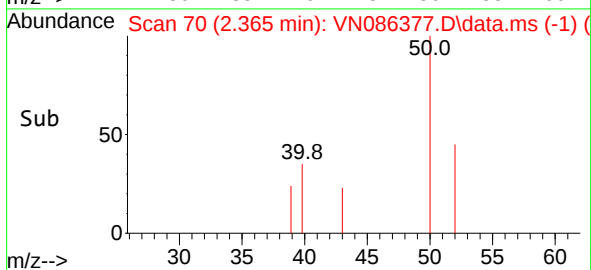
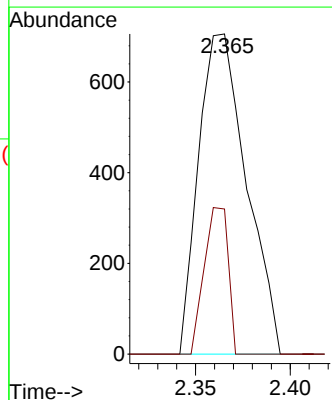
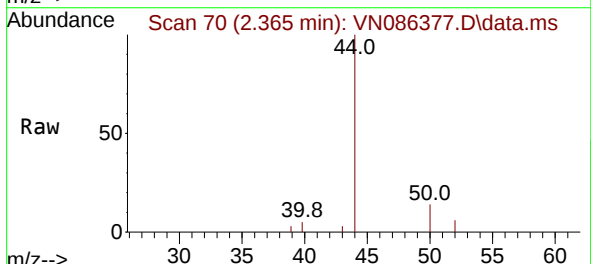
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

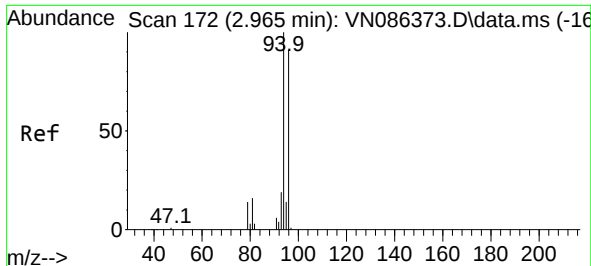
Tgt Ion:128 Resp: 26445  
Ion Ratio Lower Upper  
128 100  
49 167.0 0.0 433.8  
130 127.9 0.0 325.0



#3  
Chloromethane  
Concen: 0.479 ug/l  
RT: 2.365 min Scan# 70  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion: 50 Resp: 1243  
Ion Ratio Lower Upper  
50 100  
52 45.3 27.3 40.9#

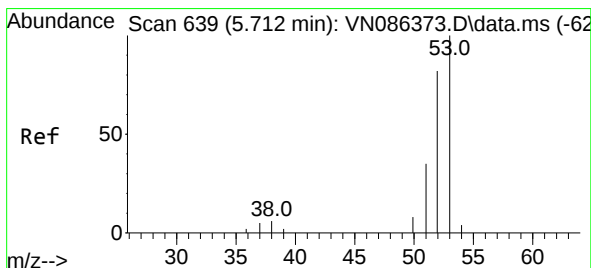
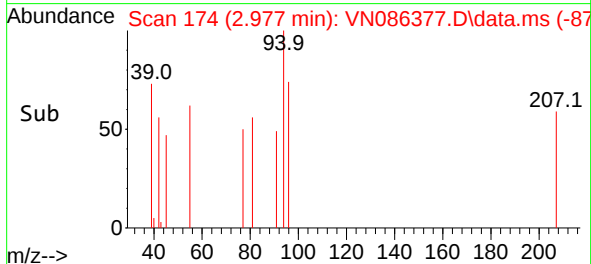
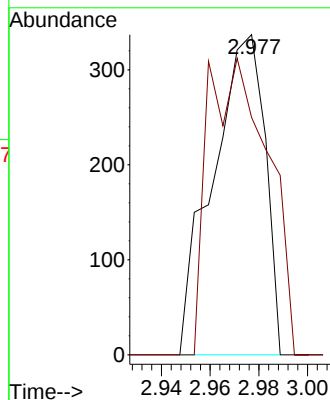
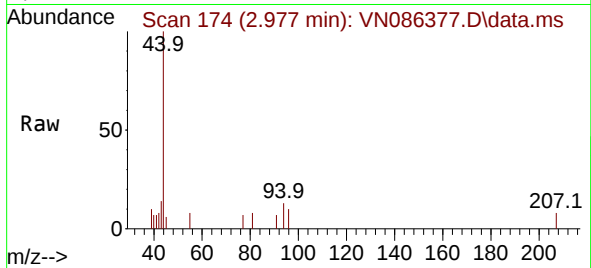




#5  
Bromomethane  
Concen: 0.387 ug/l  
RT: 2.977 min Scan# 11  
Delta R.T. 0.012 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

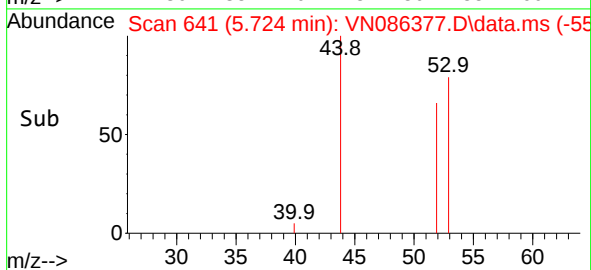
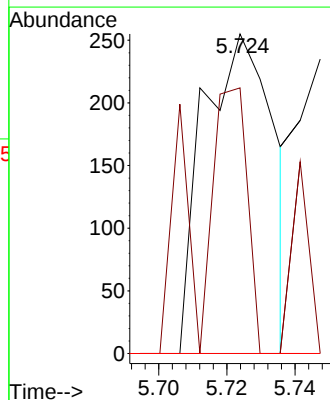
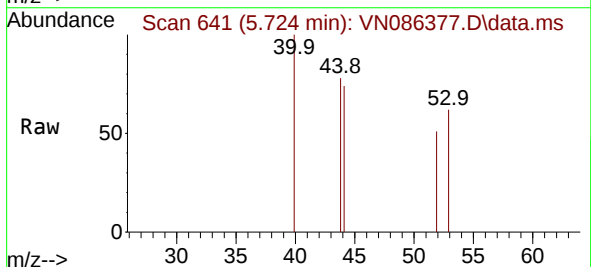
Instrument :  
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ClientSampleId :  
IBLK

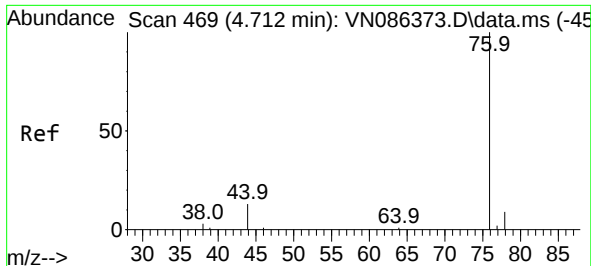
Tgt Ion: 94 Resp: 502  
Ion Ratio Lower Upper  
94 100  
96 74.2 72.4 108.6



#14  
Acrylonitrile  
Concen: 0.379 ug/l  
RT: 5.724 min Scan# 641  
Delta R.T. 0.012 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion: 53 Resp: 369  
Ion Ratio Lower Upper  
53 100  
52 40.1 41.2 123.6#  
51 0.0 17.6 52.8#

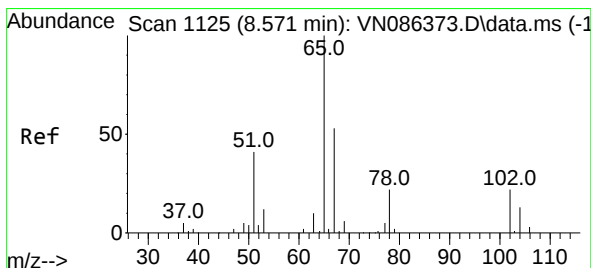
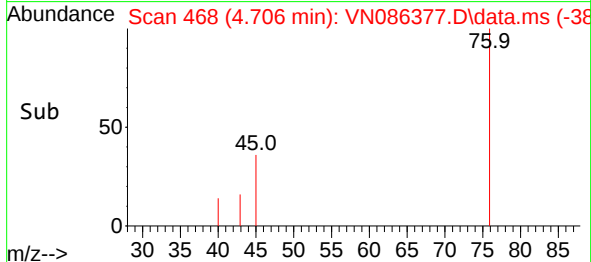
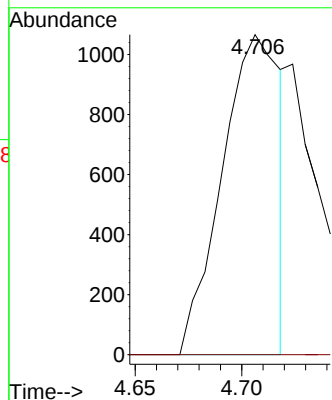
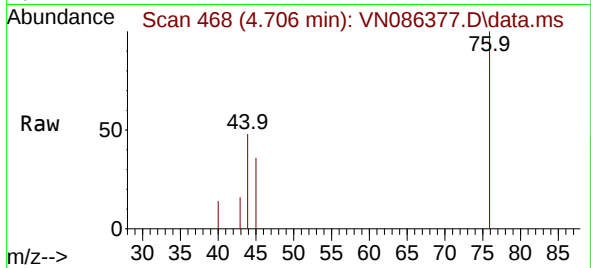




#16  
Carbon Disulfide  
Concen: 0.416 ug/l  
RT: 4.706 min Scan# 41  
Delta R.T. -0.006 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

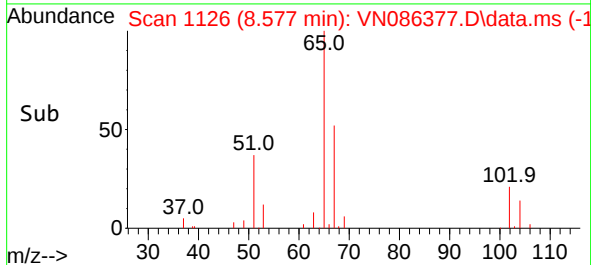
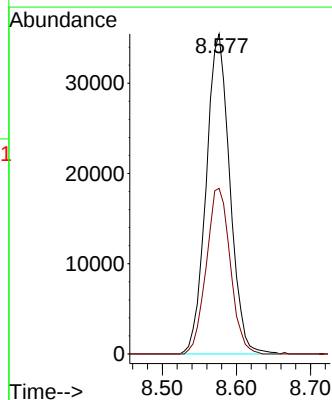
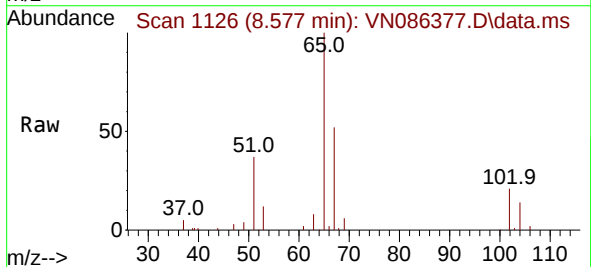
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

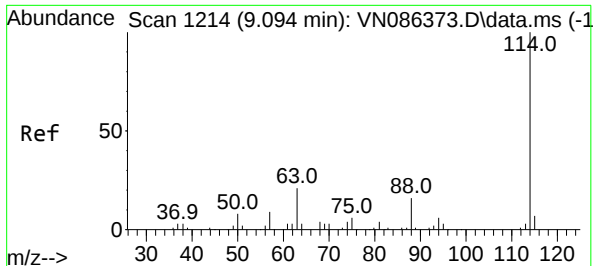
Tgt Ion: 76 Resp: 2023  
Ion Ratio Lower Upper  
76 100  
78 0.0 7.1 10.7#



#27  
1,2-Dichloroethane-d4  
Concen: 30.868 ug/l  
RT: 8.577 min Scan# 1126  
Delta R.T. 0.006 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion: 65 Resp: 78703  
Ion Ratio Lower Upper  
65 100  
67 52.4 42.5 63.7





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 11

Delta R.T. 0.006 min

Lab File: VN086377.D

Acq: 23 Apr 2025 11:21

Instrument :

MSVOA\_N

ClientSampleId :

IBLK

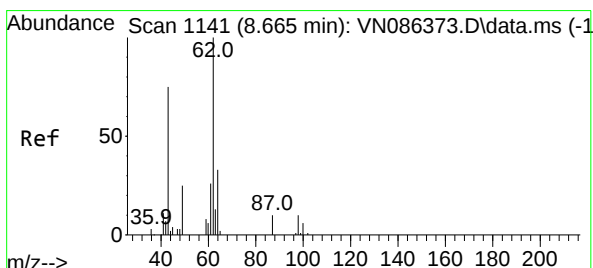
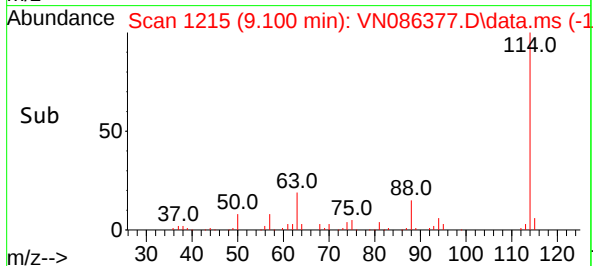
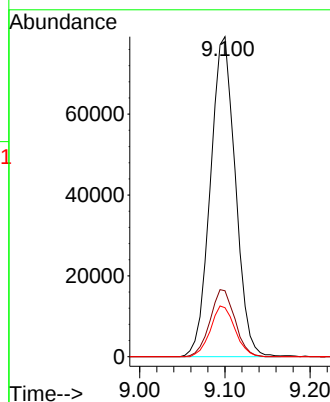
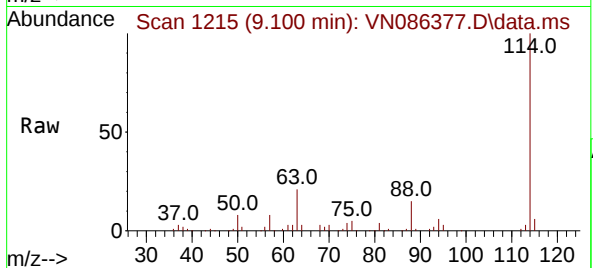
Tgt Ion:114 Resp: 161082

Ion Ratio Lower Upper

114 100

63 20.8 16.7 25.1

88 15.6 12.6 19.0



#36

1,2-Dichloroethane

Concen: 1.881 ug/l

RT: 9.094 min Scan# 1214

Delta R.T. 0.429 min

Lab File: VN086377.D

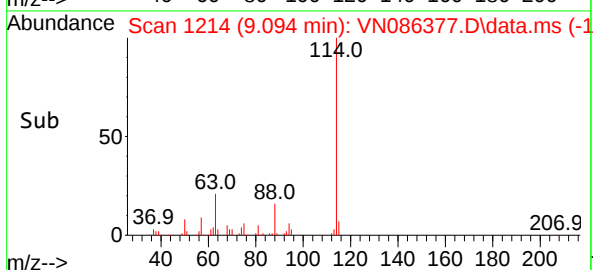
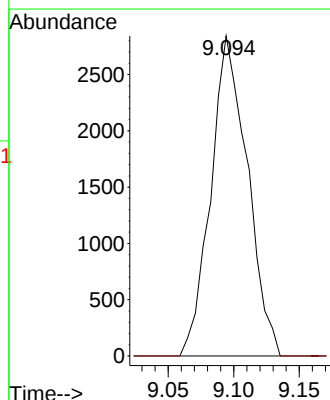
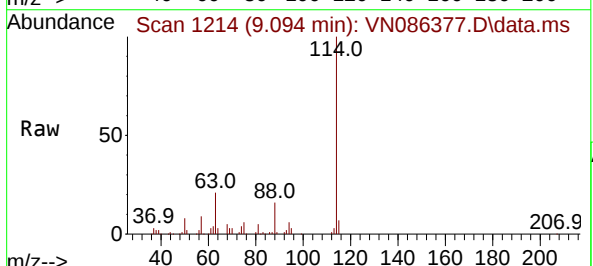
Acq: 23 Apr 2025 11:21

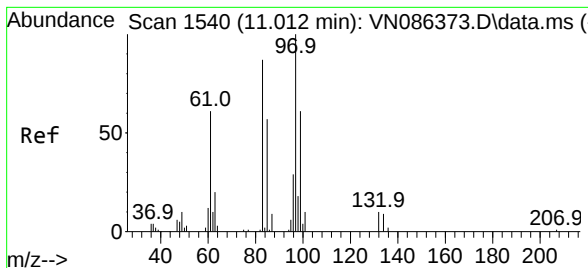
Tgt Ion: 62 Resp: 5517

Ion Ratio Lower Upper

62 100

98 0.0 7.6 11.4#

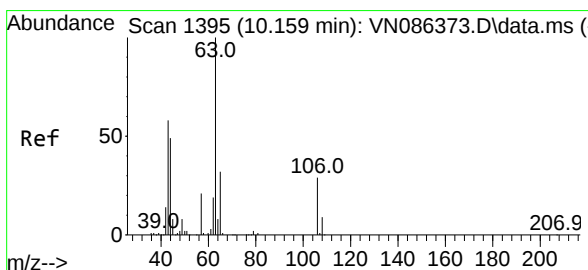
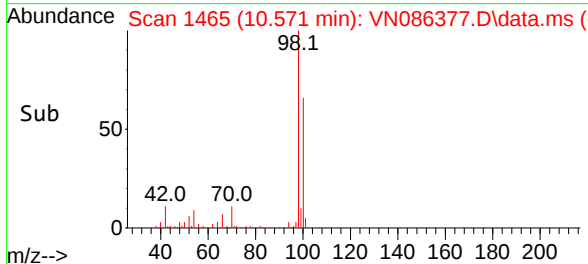
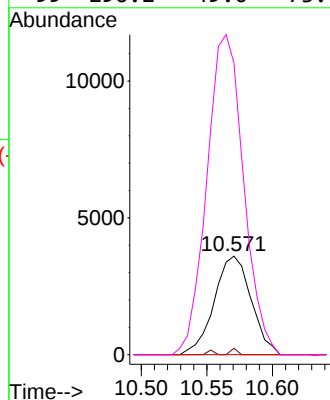
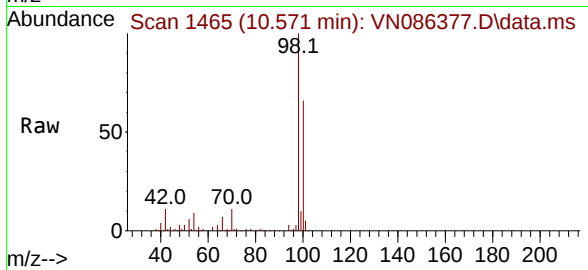




#50  
1,1,2-Trichloroethane  
Concen: 3.387 ug/l  
RT: 10.571 min Scan# 1465  
Delta R.T. -0.441 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

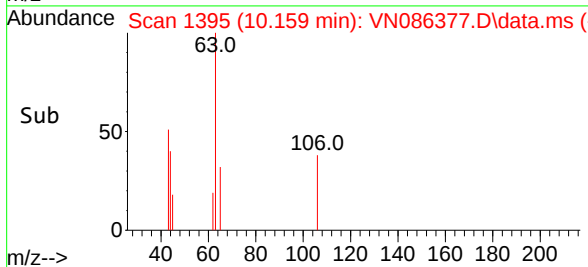
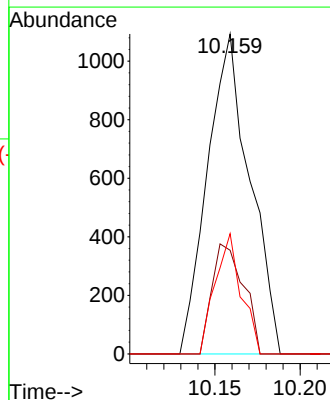
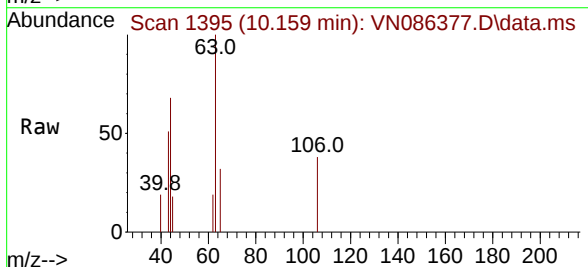
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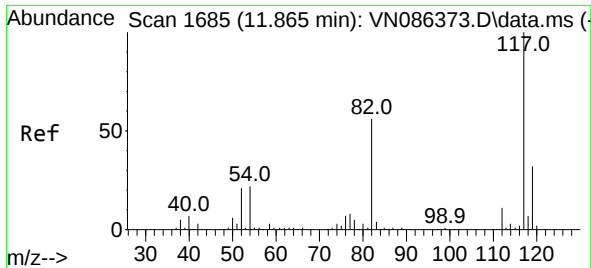
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|-------------|-------|-------------|
| Tgt Ion: 97 | Resp: | 7060        |
| Ion Ratio   | Lower | Upper       |
| 97          | 100   |             |
| 83          | 6.5   | 69.3 103.9# |
| 85          | 0.0   | 45.5 68.3#  |
| 99          | 296.2 | 49.0 73.6#  |



#55  
2-Chloroethyl vinyl ether  
Concen: 1.106 ug/l  
RT: 10.159 min Scan# 1395  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

|             |       |            |
|-------------|-------|------------|
| Tgt Ion: 63 | Resp: | 1888       |
| Ion Ratio   | Lower | Upper      |
| 63          | 100   |            |
| 65          | 25.6  | 25.7 38.5# |
| 106         | 23.2  | 22.3 33.5  |

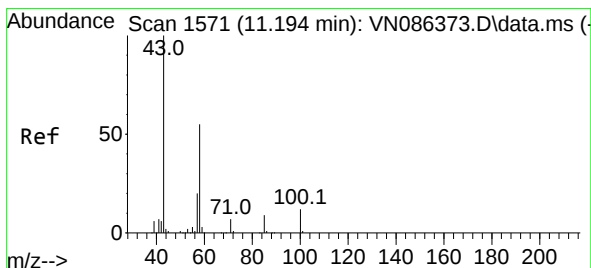
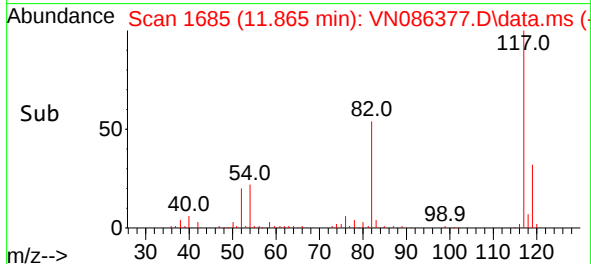
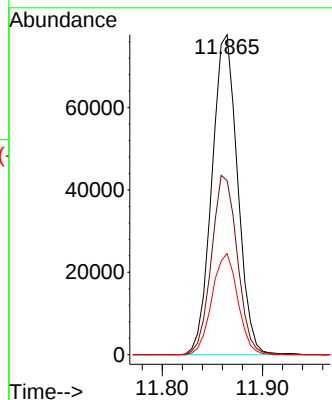
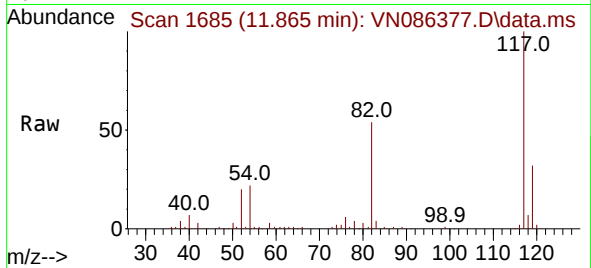




#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.865 min Scan# 117  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

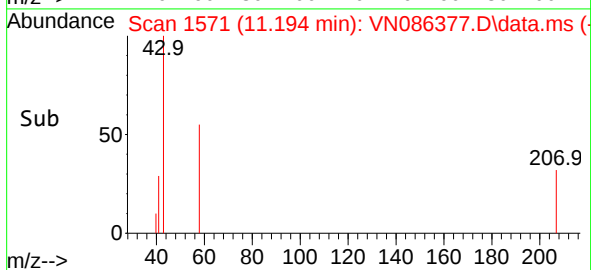
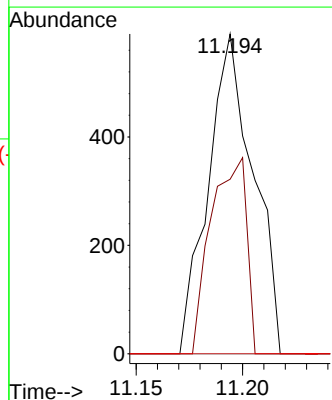
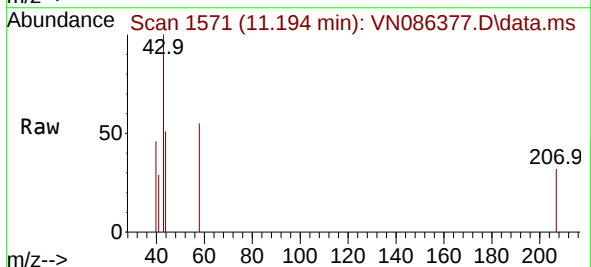
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

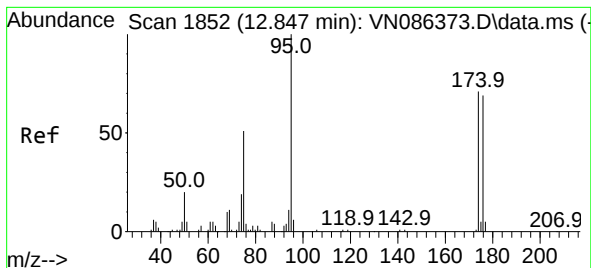
Tgt Ion:117 Resp: 138477  
Ion Ratio Lower Upper  
117 100  
82 56.3 45.5 68.3  
119 31.7 25.9 38.9



#59  
2-Hexanone  
Concen: 0.441 ug/l  
RT: 11.194 min Scan# 1571  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion: 43 Resp: 870  
Ion Ratio Lower Upper  
43 100  
58 48.4 45.0 67.6  
57 0.0 15.5 23.3#

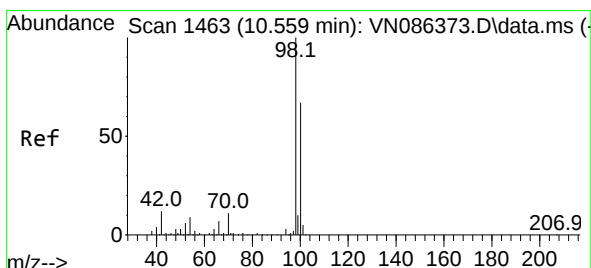
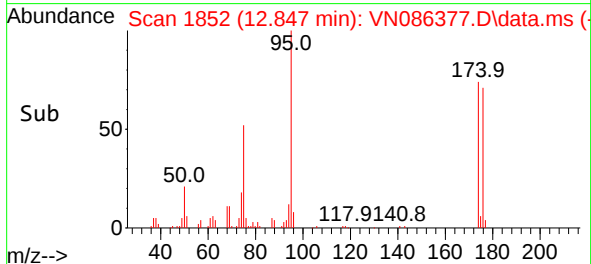
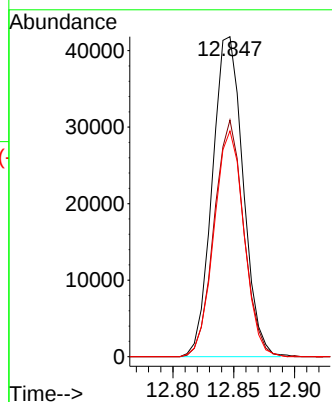
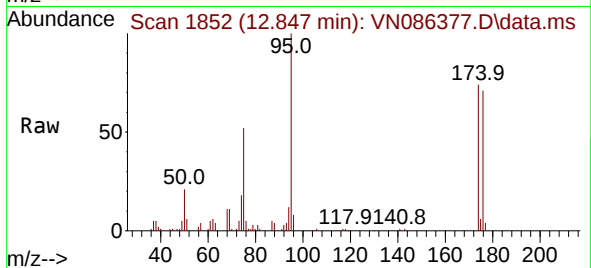




#60  
4-Bromofluorobenzene  
Concen: 27.036 ug/l  
RT: 12.847 min Scan# 11  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

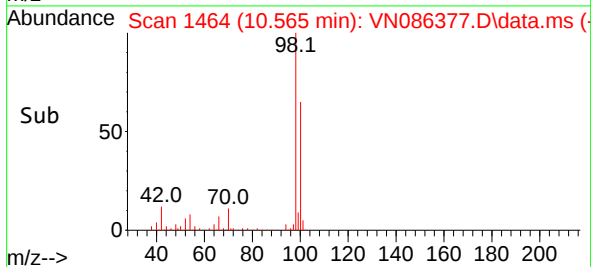
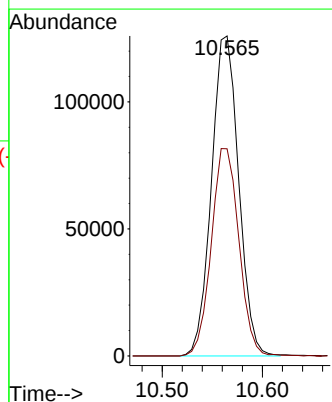
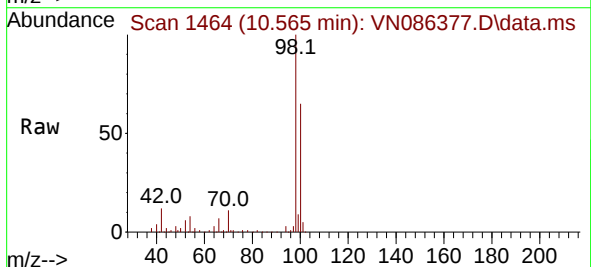
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

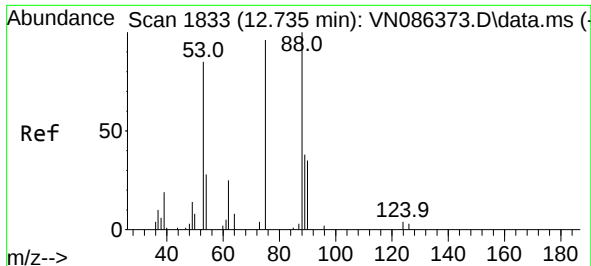
Tgt Ion: 95 Resp: 73582  
Ion Ratio Lower Upper  
95 100  
174 71.1 56.6 84.8  
176 68.8 53.3 79.9



#63  
Toluene-d8  
Concen: 31.141 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. 0.006 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion: 98 Resp: 237239  
Ion Ratio Lower Upper  
98 100  
100 65.7 53.1 79.7





#77

t-1,4-Dichloro-2-butene

Concen: 34.012 ug/l

RT: 12.847 min Scan# 1852

Delta R.T. 0.112 min

Lab File: VN086377.D

Acq: 23 Apr 2025 11:21

Instrument :

MSVOA\_N

ClientSampleId :

IBLK

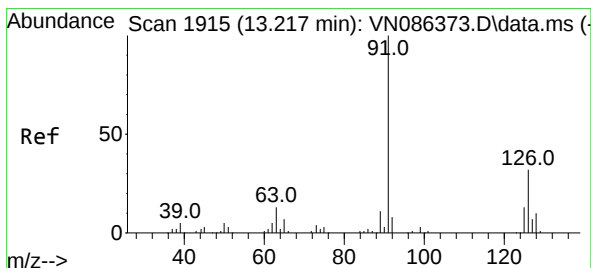
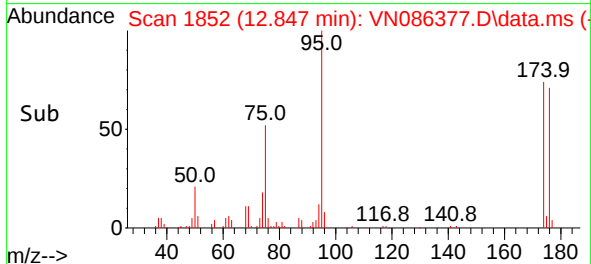
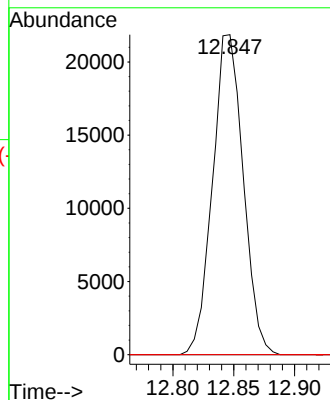
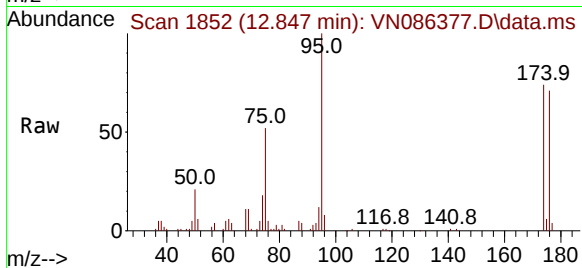
Tgt Ion: 75 Resp: 38339

Ion Ratio Lower Upper

75 100

53 0.0 46.0 138.0#

89 0.0 21.6 64.6#



#78

4-Chlorotoluene

Concen: 0.214 ug/l

RT: 13.212 min Scan# 1914

Delta R.T. -0.006 min

Lab File: VN086377.D

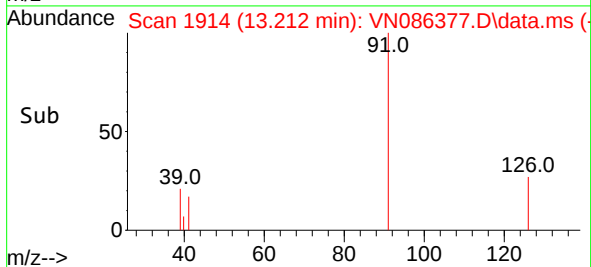
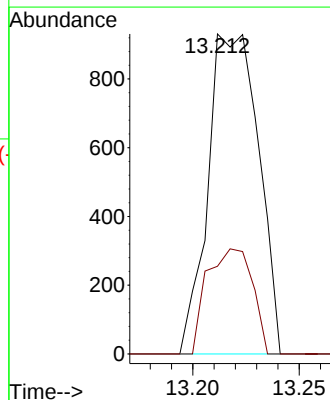
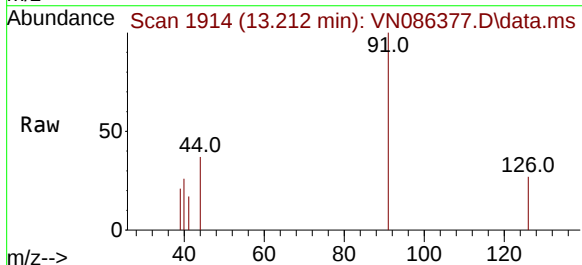
Acq: 23 Apr 2025 11:21

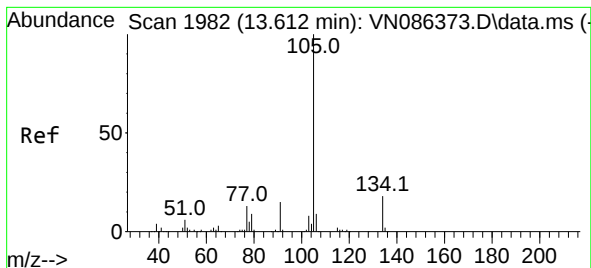
Tgt Ion: 91 Resp: 1536

Ion Ratio Lower Upper

91 100

126 29.6 0.0 65.4





#81

sec-Butylbenzene

Concen: 0.318 ug/l

RT: 13.612 min Scan# 1982

Delta R.T. 0.000 min

Lab File: VN086377.D

Acq: 23 Apr 2025 11:21

Instrument :

MSVOA\_N

ClientSampleId :

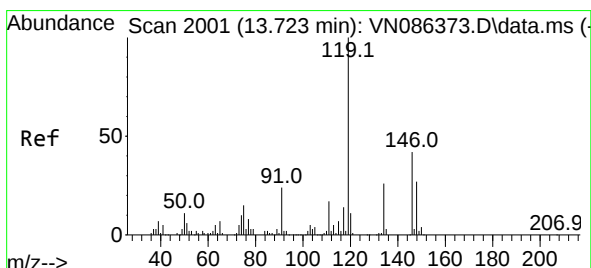
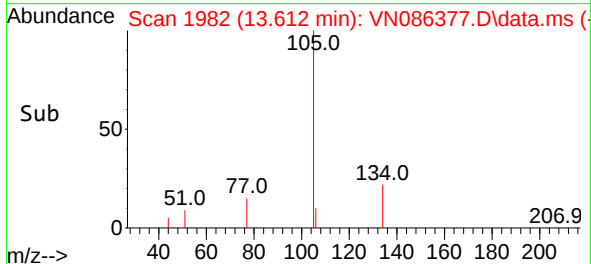
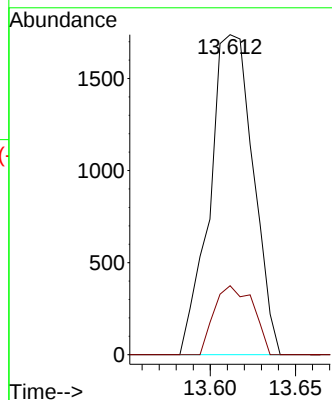
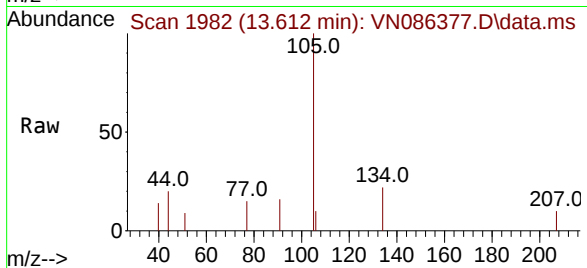
IBLK

Tgt Ion:105 Resp: 3083

Ion Ratio Lower Upper

105 100

134 19.3 0.0 38.4



#82

p-Isopropyltoluene

Concen: 0.290 ug/l

RT: 13.723 min Scan# 2001

Delta R.T. 0.000 min

Lab File: VN086377.D

Acq: 23 Apr 2025 11:21

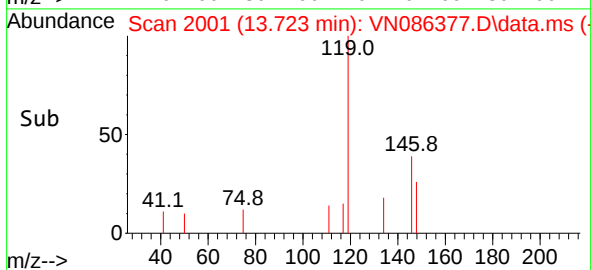
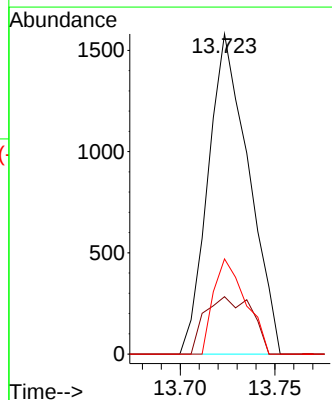
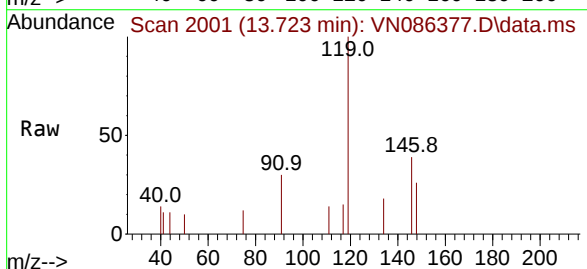
Tgt Ion:119 Resp: 2357

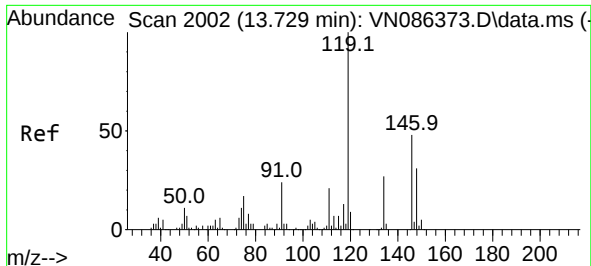
Ion Ratio Lower Upper

119 100

134 20.7 0.0 52.2

91 23.6 0.0 47.6

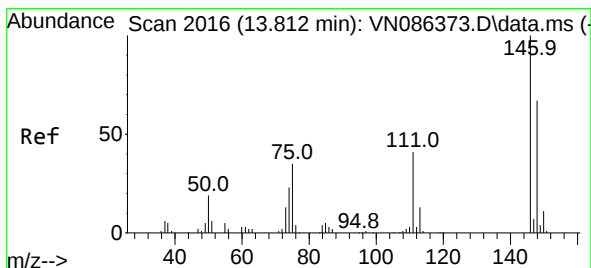
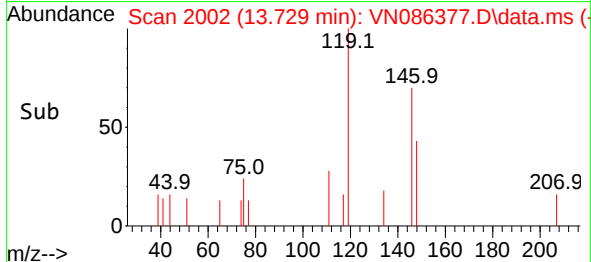
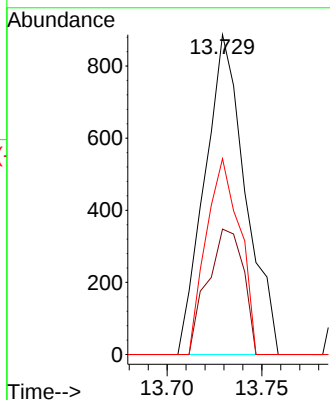
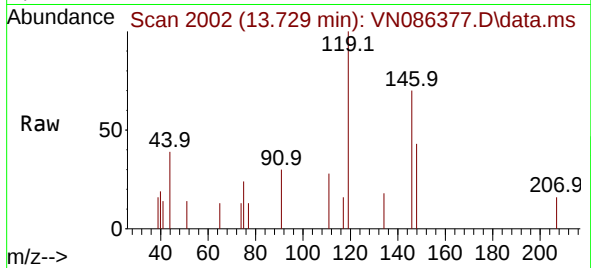




#83  
1,3-Dichlorobenzene  
Concen: 0.315 ug/l  
RT: 13.729 min Scan# 2002  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

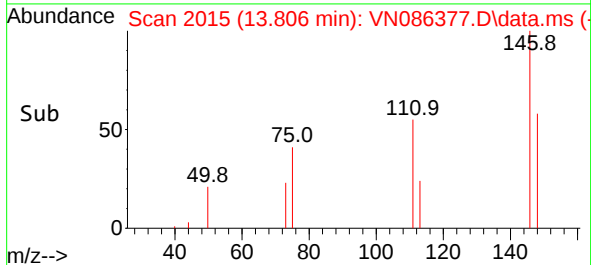
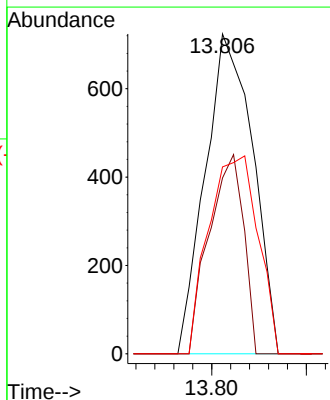
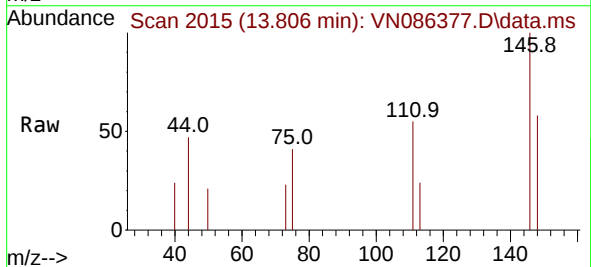
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

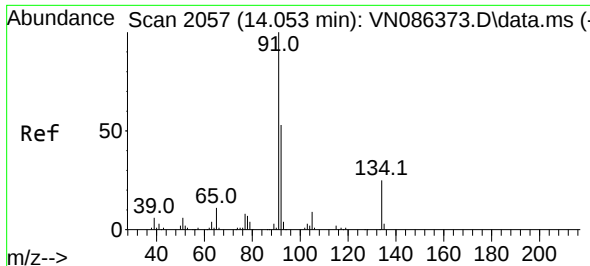
Tgt Ion:146 Resp: 1326  
Ion Ratio Lower Upper  
146 100  
111 34.6 20.7 62.1  
148 50.8 32.3 96.8



#84  
1,4-Dichlorobenzene  
Concen: 0.304 ug/l  
RT: 13.806 min Scan# 2015  
Delta R.T. -0.006 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion:146 Resp: 1263  
Ion Ratio Lower Upper  
146 100  
111 45.3 20.3 60.8  
148 64.1 32.4 97.2

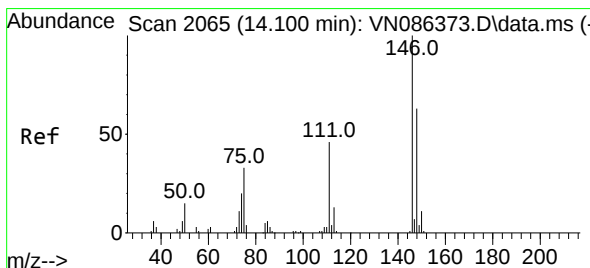
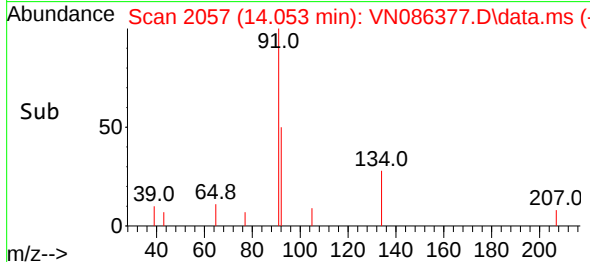
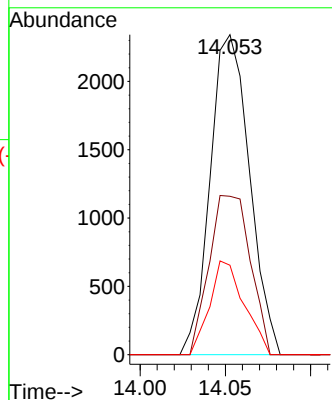
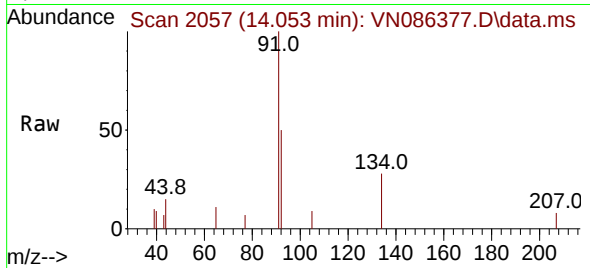




#85  
n-Butylbenzene  
Concen: 0.519 ug/l  
RT: 14.053 min Scan# 2057  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

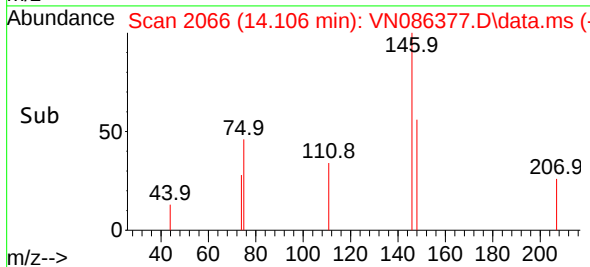
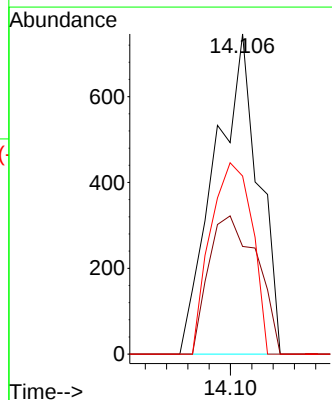
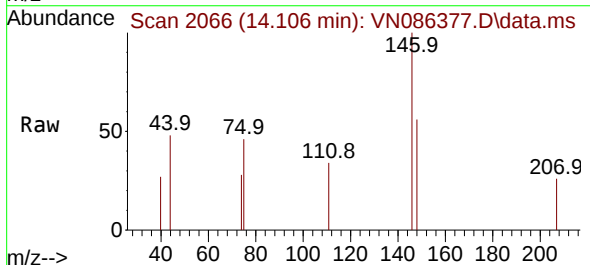
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

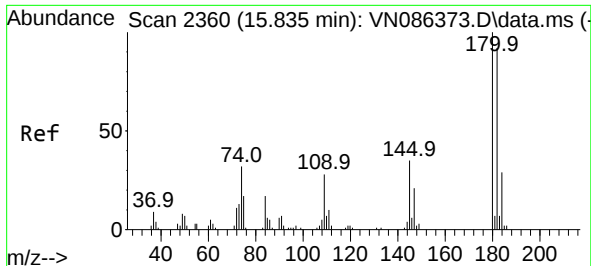
Tgt Ion: 91 Resp: 3763  
Ion Ratio Lower Upper  
91 100  
92 52.0 0.0 107.2  
134 25.7 0.0 48.2



#87  
1,2-Dichlorobenzene  
Concen: 0.265 ug/l  
RT: 14.106 min Scan# 2066  
Delta R.T. 0.006 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion:146 Resp: 1061  
Ion Ratio Lower Upper  
146 100  
111 47.9 22.1 66.3  
148 57.4 32.0 96.0

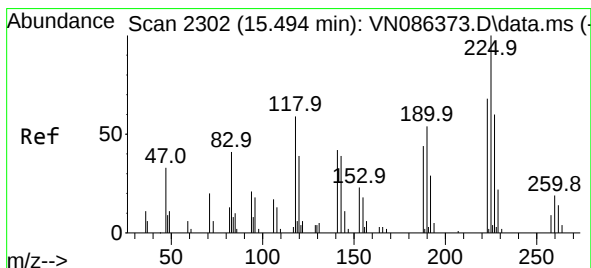
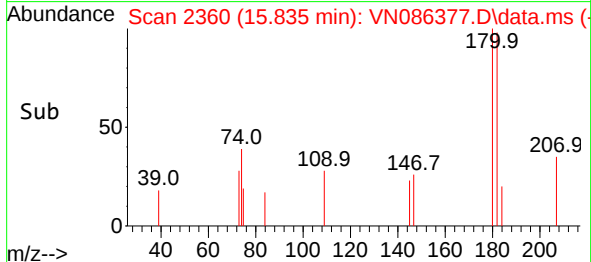
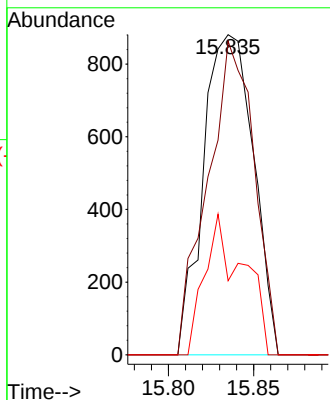
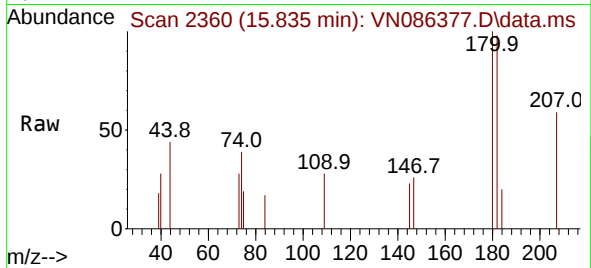




#89  
1,2,4-Trichlorobenzene  
Concen: 0.991 ug/l  
RT: 15.835 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

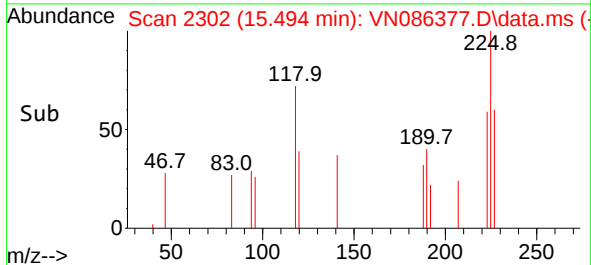
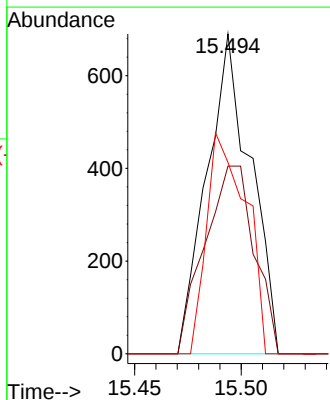
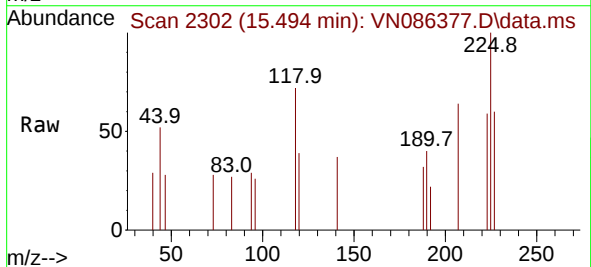
Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

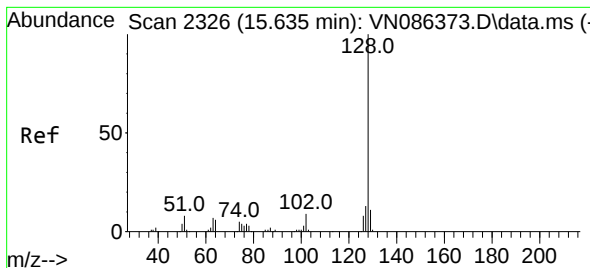
Tgt Ion:180 Resp: 1807  
Ion Ratio Lower Upper  
180 100  
182 91.2 74.8 112.2  
145 14.0 26.9 40.3#



#90  
Hexachlorobutadiene  
Concen: 1.338 ug/l  
RT: 15.494 min Scan# 2302  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion:225 Resp: 983  
Ion Ratio Lower Upper  
225 100  
223 66.9 0.0 128.8  
227 62.4 0.0 120.2

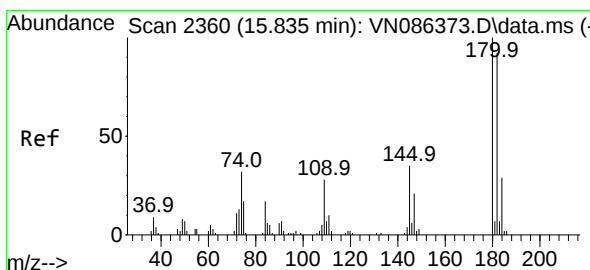
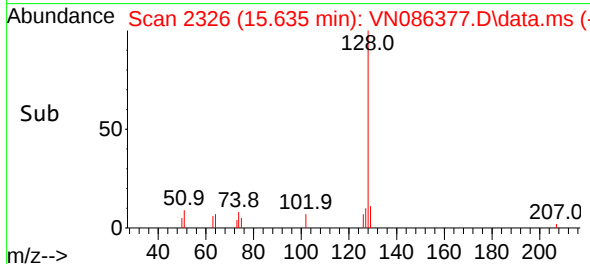
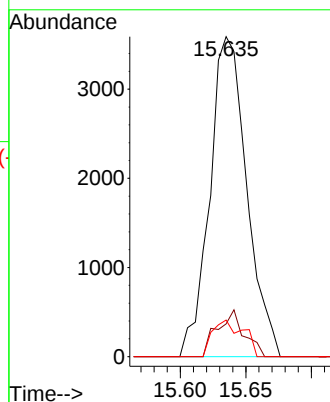
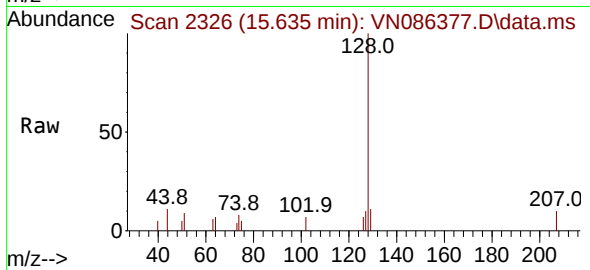




#91  
Naphthalene  
Concen: 1.078 ug/l  
RT: 15.635 min Scan# 21  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Instrument :  
MSVOA\_N  
ClientSampleId :  
IBLK

Tgt Ion:128 Resp: 7040  
Ion Ratio Lower Upper  
128 100  
127 7.5 10.6 15.8#  
129 6.5 8.7 13.1#



#92  
1,2,3-Trichlorobenzene  
Concen: 0.991 ug/l  
RT: 15.835 min Scan# 2360  
Delta R.T. 0.000 min  
Lab File: VN086377.D  
Acq: 23 Apr 2025 11:21

Tgt Ion:180 Resp: 1807  
Ion Ratio Lower Upper  
180 100  
182 91.2 0.0 187.0  
145 14.0 0.0 67.2

