

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN052925\  
 Data File : VN086819.D  
 Acq On : 29 May 2025 17:01  
 Operator : JC\MD  
 Sample : Q2098-01  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 17 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 OUTFALL-DSN-001

Quant Time: May 30 02:45:32 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N052925W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri May 30 02:22:52 2025  
 Response via : Initial Calibration

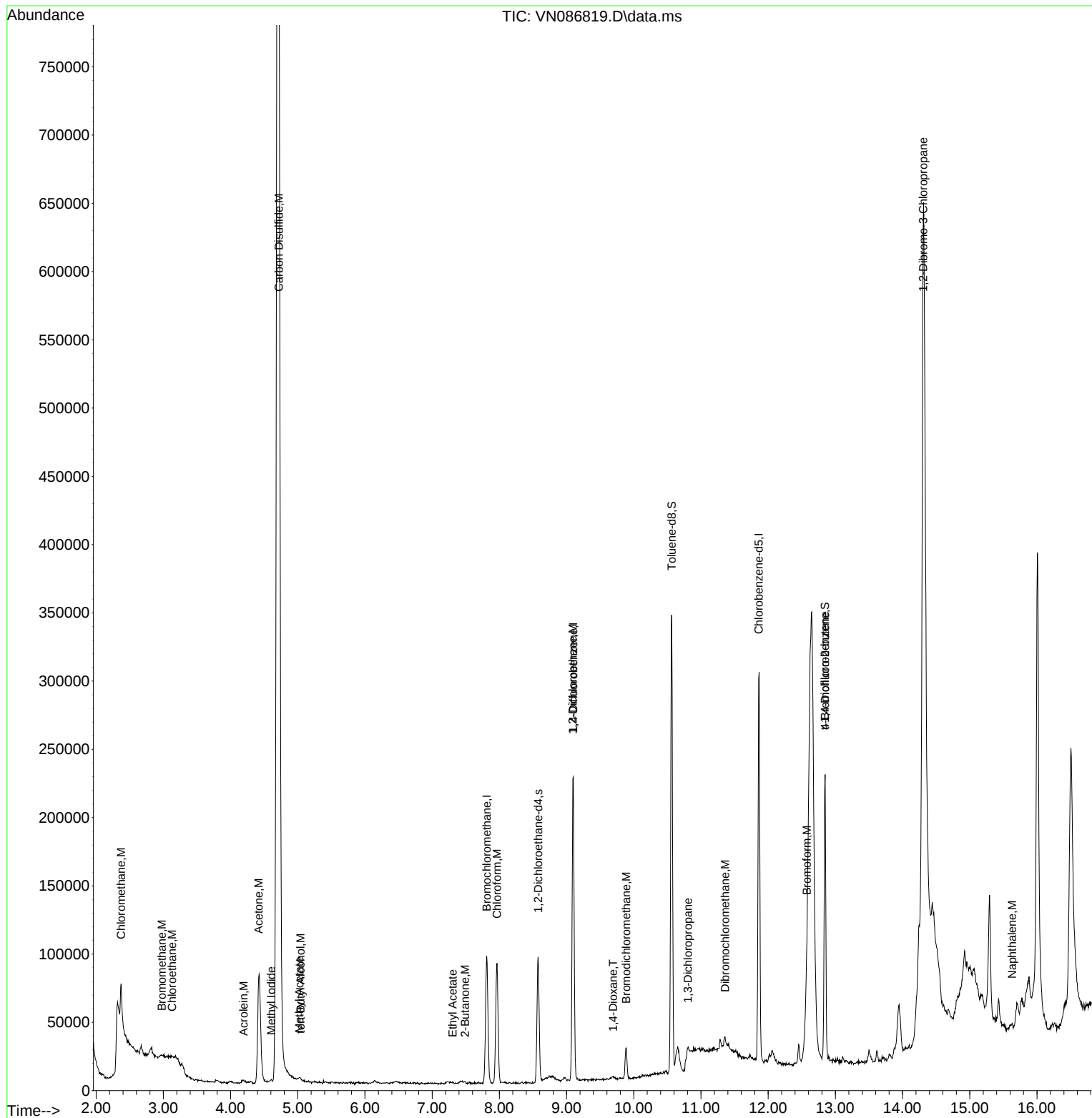
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 7.812  | 128   | 34206    | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene       | 9.100  | 114   | 199970   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5          | 11.859 | 117   | 171942   | 30.000   | ug/l   | 0.00     |
|                               |        |       |          |          |        |          |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4     | 8.577  | 65    | 76108    | 32.384   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 110 | Recovery | =      | 107.933% |
| 60) 4-Bromofluorobenzene      | 12.847 | 95    | 78966    | 29.252   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 63 - 112 | Recovery | =      | 97.500%  |
| 63) Toluene-d8                | 10.565 | 98    | 241222   | 30.566   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 112 | Recovery | =      | 101.900% |
|                               |        |       |          |          |        |          |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 3) Chloromethane              | 2.371  | 50    | 39498    | 13.186   | ug/l   | 98       |
| 5) Bromomethane               | 2.977  | 94    | 968      | 0.663    | ug/l   | 92       |
| 6) Chloroethane               | 3.130  | 64    | 499      | 0.296    | ug/l # | 40       |
| 11) Methyl Iodide             | 4.606  | 142   | 5011     | 2.107    | ug/l   | 90       |
| 12) Methyl Acetate            | 5.024  | 43    | 3162     | 1.411    | ug/l # | 74       |
| 13) Acrolein                  | 4.194  | 56    | 2992     | 12.928   | ug/l # | 55       |
| 15) Acetone                   | 4.418  | 58    | 53009    | 200.822  | ug/l   | 87       |
| 16) Carbon Disulfide          | 4.718  | 76    | 4488     | 0.762    | ug/l # | 86       |
| 23) tert-Butyl Alcohol        | 5.042  | 59    | 129      | 0.385    | ug/l # | 100      |
| 25) Chloroform                | 7.965  | 83    | 89726    | 23.015   | ug/l   | 99       |
| 30) 2-Butanone                | 7.488  | 43    | 1058     | 0.821    | ug/l # | 83       |
| 36) 1,2-Dichloroethane        | 9.094  | 62    | 6472     | 2.309    | ug/l # | 72       |
| 41) Bromodichloromethane      | 9.888  | 83    | 16482    | 5.227    | ug/l # | 97       |
| 43) Ethyl Acetate             | 7.306  | 43    | 1456     | 0.552    | ug/l   | 98       |
| 45) 1,4-Dioxane               | 9.694  | 88    | 1513     | 37.645   | ug/l # | 61       |
| 52) 1,3-Dichloropropane       | 10.806 | 76    | 1176     | 0.312    | ug/l   | 52       |
| 53) Dibromochloromethane      | 11.359 | 129   | 4738     | 1.976    | ug/l   | 100      |
| 56) Bromoform                 | 12.576 | 173   | 1281     | 0.848    | ug/l # | 82       |
| 77) t-1,4-Dichloro-2-butene   | 12.847 | 75    | 38581    | 35.711   | ug/l # | 14       |
| 88) 1,2-Dibromo-3-Chloropr... | 14.306 | 75    | 213      | 0.449    | ug/l # | 16       |
| 91) Naphthalene               | 15.629 | 128   | 2111     | 0.347    | ug/l # | 87       |
| -----                         |        |       |          |          |        |          |

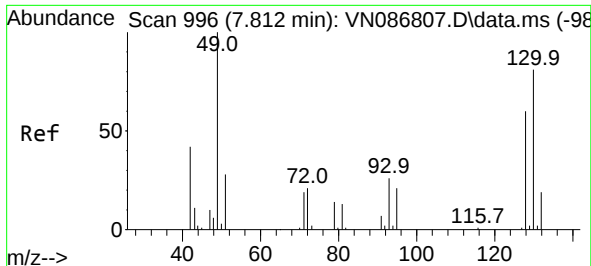
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Sample : Q2098-01  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 17 Sample Multiplier: 1

Instrument :  
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ClientSampleId :  
OUTFALL-DSN-001

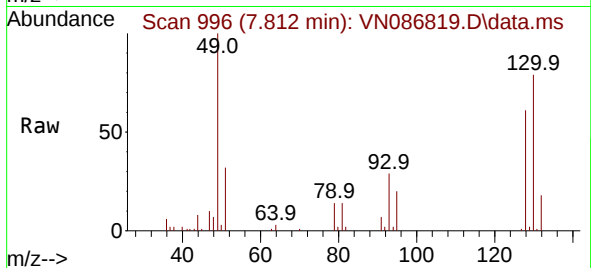
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Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N052925W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Fri May 30 02:22:52 2025  
Response via : Initial Calibration



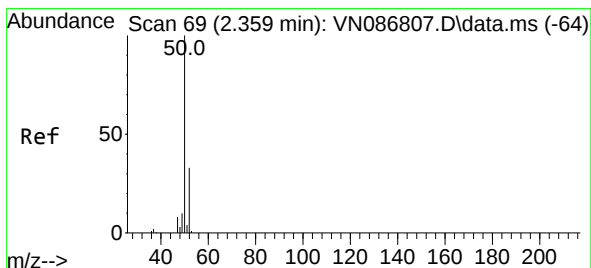
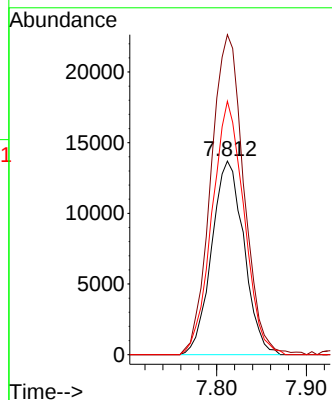
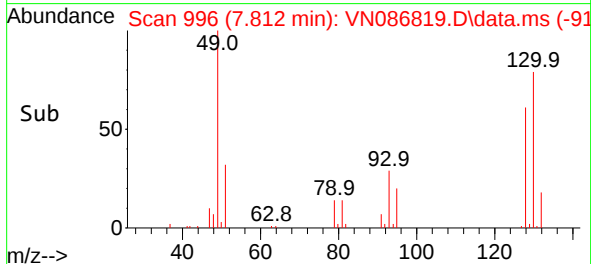


#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.812 min Scan# 996  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

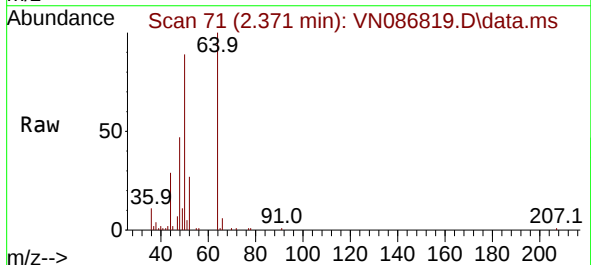
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MSVOA\_N  
ClientSampleId :  
OUTFALL-DSN-001



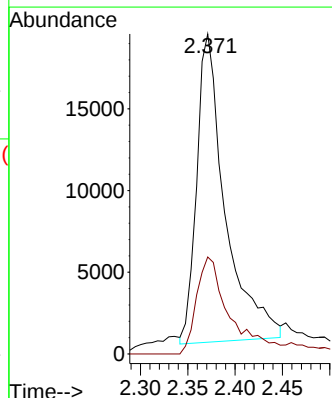
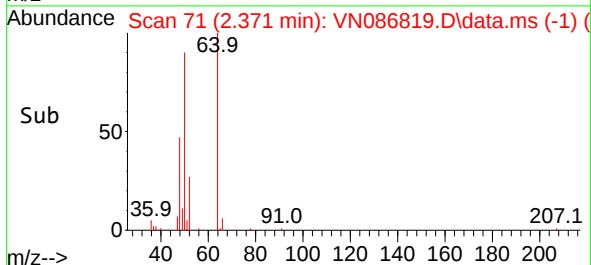
Tgt Ion:128 Resp: 34206  
Ion Ratio Lower Upper  
128 100  
49 168.5 0.0 404.5  
130 130.1 0.0 322.2

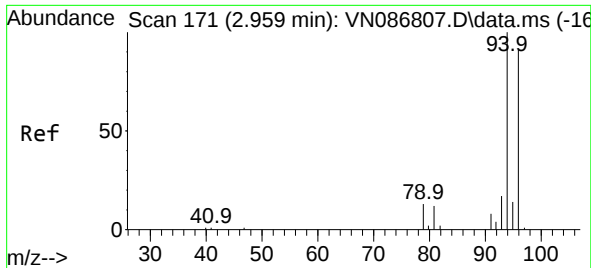


#3  
Chloromethane  
Concen: 13.186 ug/l  
RT: 2.371 min Scan# 71  
Delta R.T. 0.012 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01



Tgt Ion: 50 Resp: 39498  
Ion Ratio Lower Upper  
50 100  
52 31.9 26.6 40.0

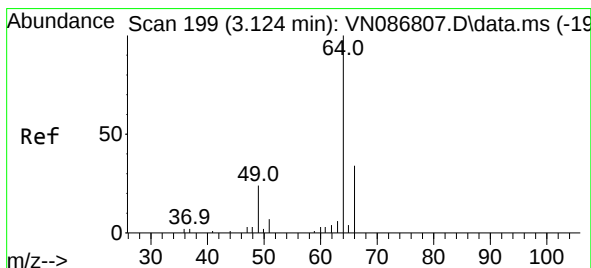
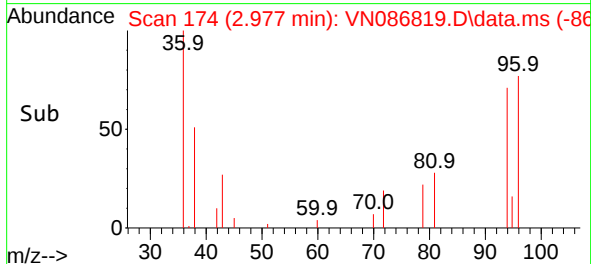
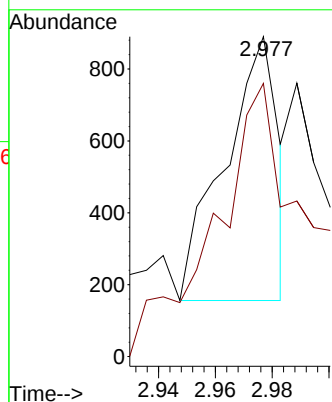
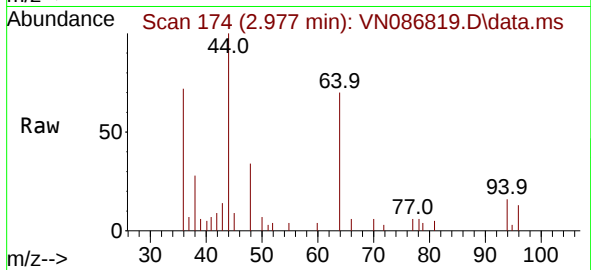




#5  
Bromomethane  
Concen: 0.663 ug/l  
RT: 2.977 min Scan# 11  
Delta R.T. 0.018 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

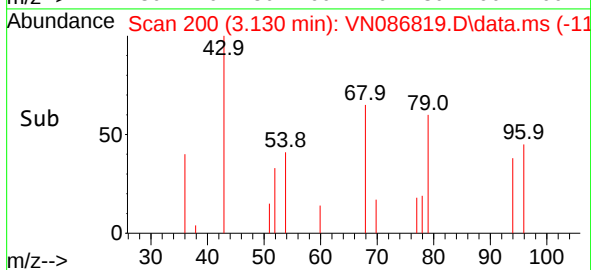
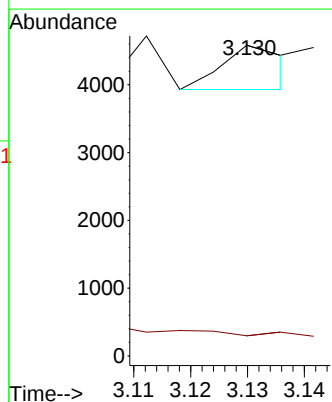
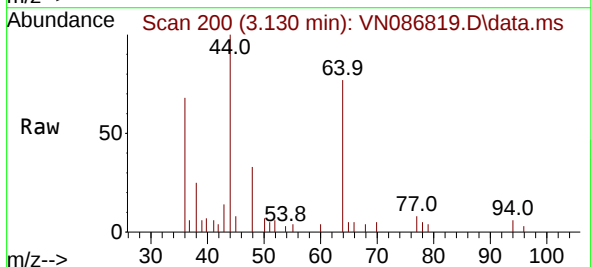
Instrument :  
MSVOA\_N  
ClientSampleId :  
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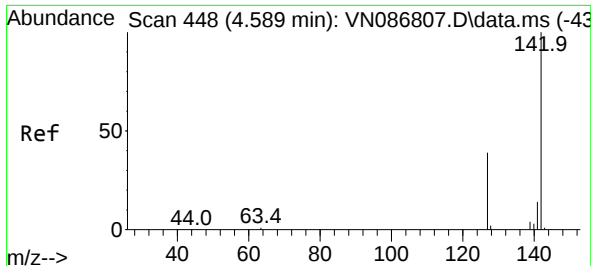
Tgt Ion: 94 Resp: 968  
Ion Ratio Lower Upper  
94 100  
96 83.1 72.7 109.1



#6  
Chloroethane  
Concen: 0.296 ug/l  
RT: 3.130 min Scan# 200  
Delta R.T. 0.006 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

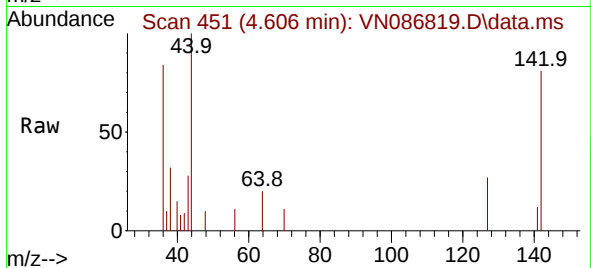
Tgt Ion: 64 Resp: 499  
Ion Ratio Lower Upper  
64 100  
66 0.0 27.5 41.3#



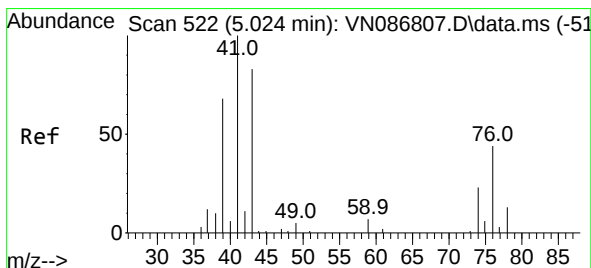
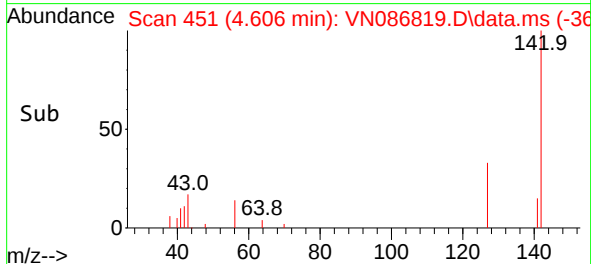
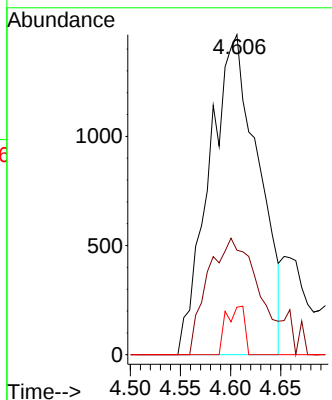


#11  
Methyl Iodide  
Concen: 2.107 ug/l  
RT: 4.606 min Scan# 411  
Delta R.T. 0.018 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Instrument :  
MSVOA\_N  
ClientSampleId :  
OUTFALL-DSN-001

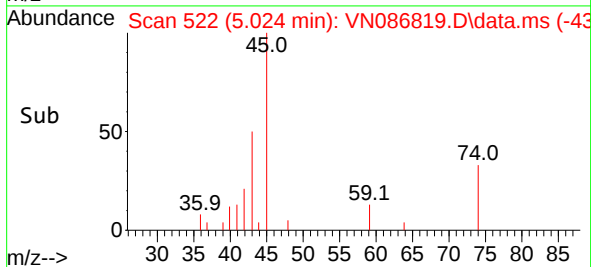
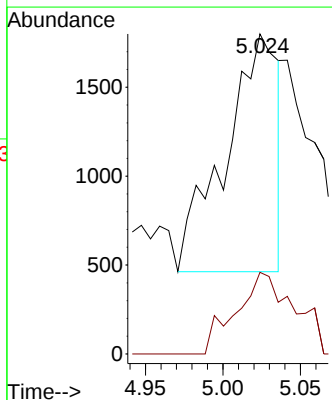
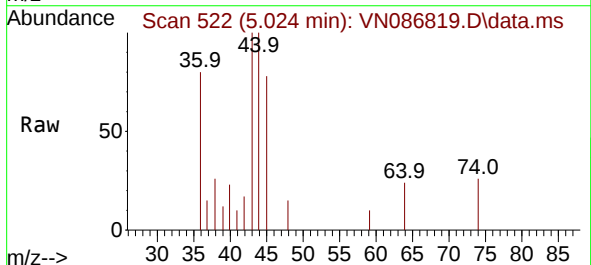


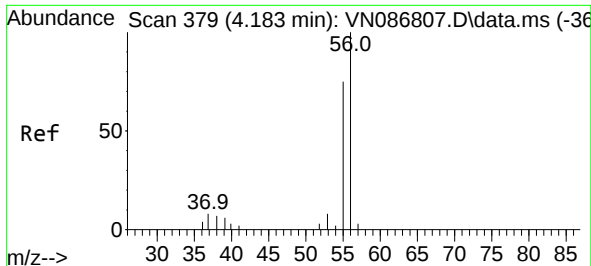
Tgt Ion:142 Resp: 5011  
Ion Ratio Lower Upper  
142 100  
127 32.0 19.5 58.5  
141 17.3 7.1 21.4



#12  
Methyl Acetate  
Concen: 1.411 ug/l  
RT: 5.024 min Scan# 522  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 43 Resp: 3162  
Ion Ratio Lower Upper  
43 100  
74 42.2 22.7 34.1#

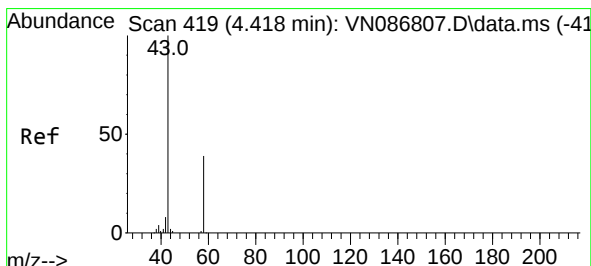
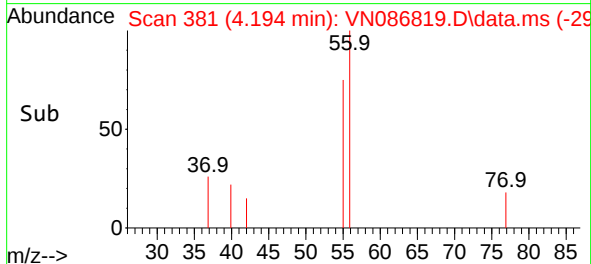
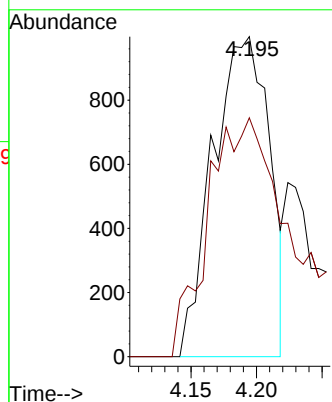
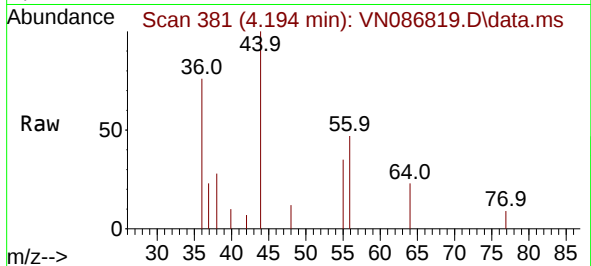




#13  
Acrolein  
Concen: 12.928 ug/l  
RT: 4.194 min Scan# 379  
Delta R.T. 0.012 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

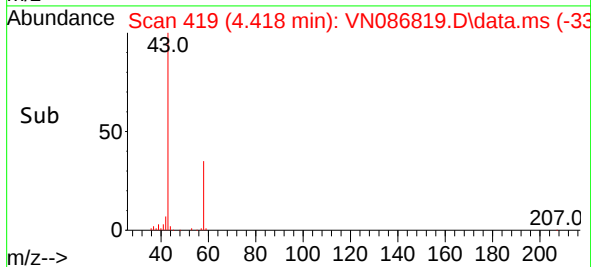
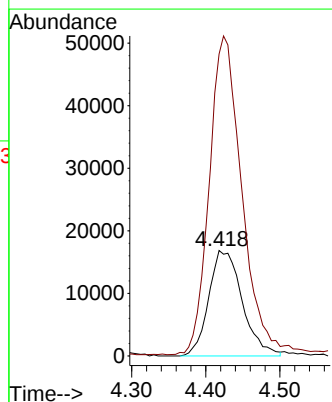
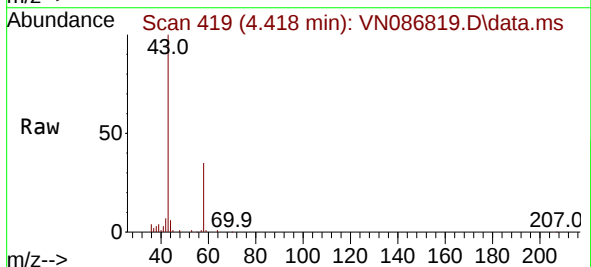
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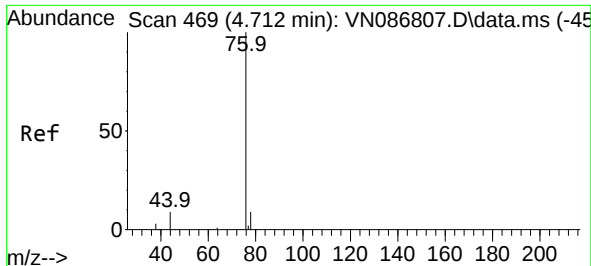
Tgt Ion: 56 Resp: 2992  
Ion Ratio Lower Upper  
56 100  
55 33.0 55.9 83.9#



#15  
Acetone  
Concen: 200.822 ug/l  
RT: 4.418 min Scan# 419  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 58 Resp: 53009  
Ion Ratio Lower Upper  
58 100  
43 282.8 207.7 311.5

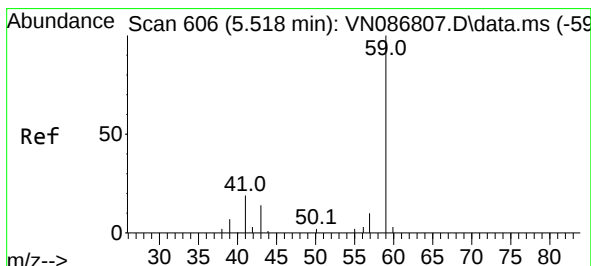
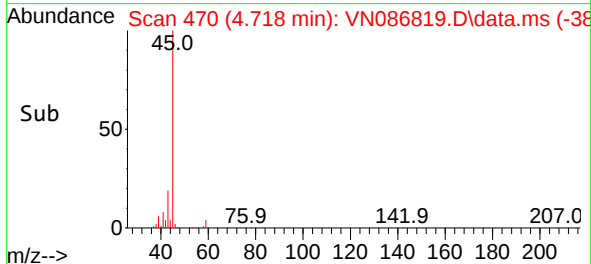
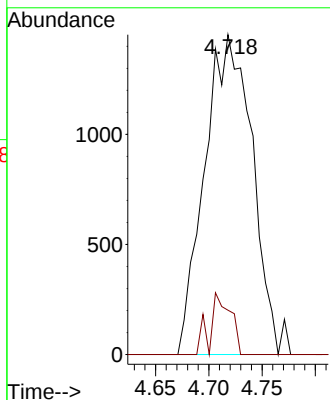
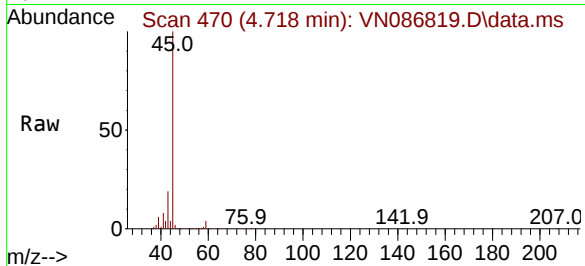




#16  
Carbon Disulfide  
Concen: 0.762 ug/l  
RT: 4.718 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

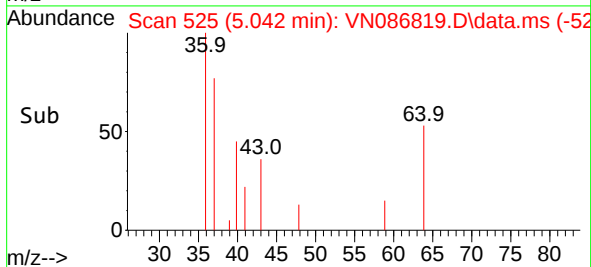
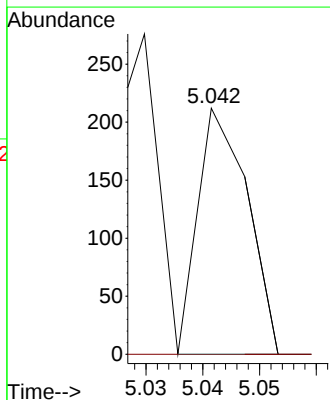
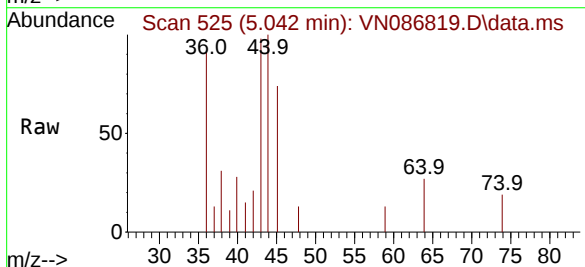
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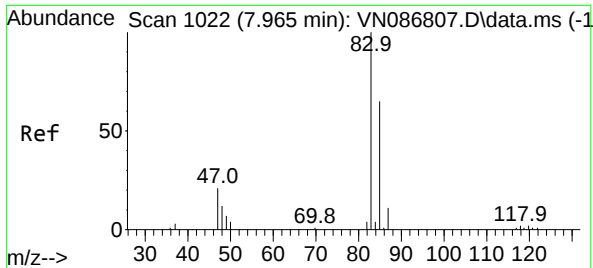
Tgt Ion: 76 Resp: 4488  
Ion Ratio Lower Upper  
76 100  
78 13.9 7.2 10.8#



#23  
tert-Butyl Alcohol  
Concen: 0.385 ug/l  
RT: 5.042 min Scan# 525  
Delta R.T. -0.477 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 59 Resp: 129  
Ion Ratio Lower Upper  
59 100  
52 0.0 0.0 0.0

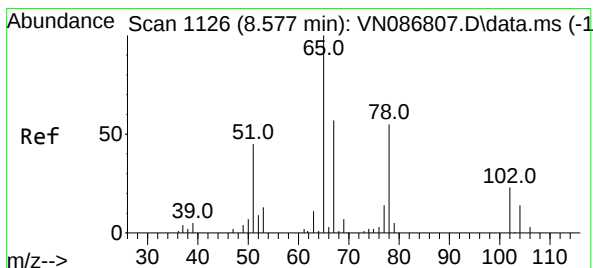
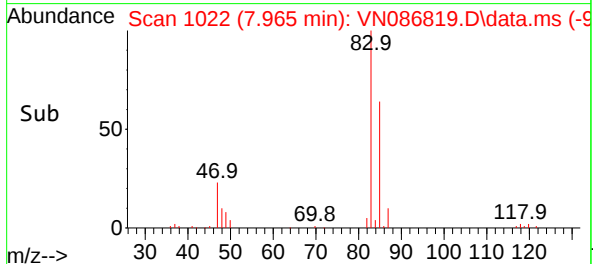
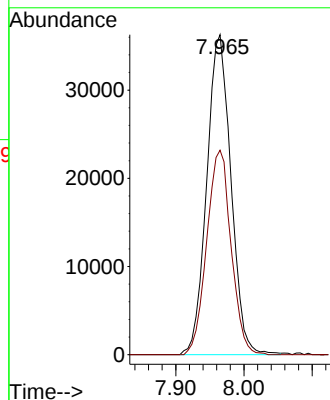
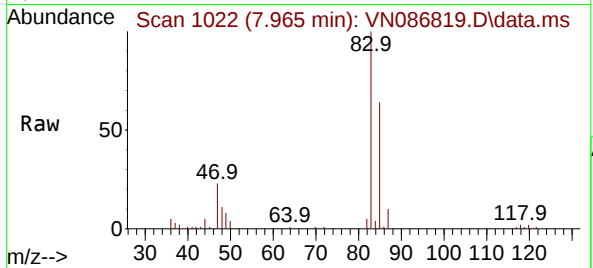




#25  
Chloroform  
Concen: 23.015 ug/l  
RT: 7.965 min Scan# 1022  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

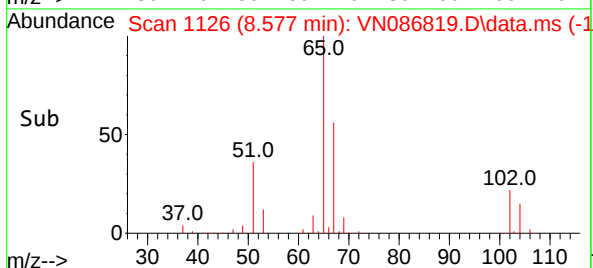
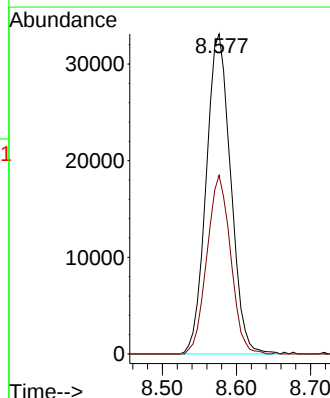
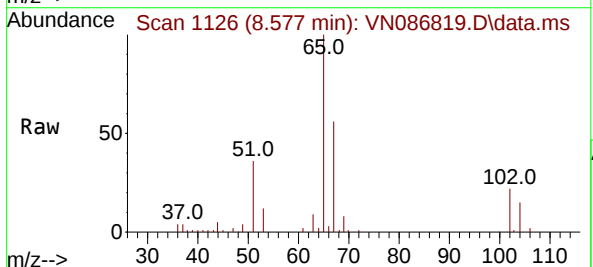
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MSVOA\_N  
ClientSampleId :  
OUTFALL-DSN-001

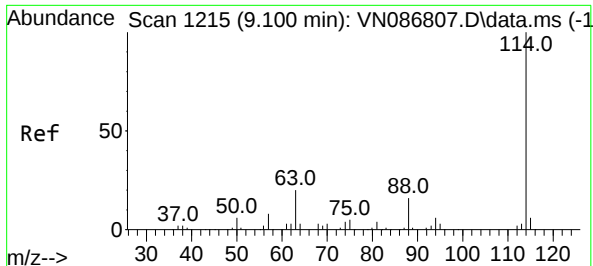
Tgt Ion: 83 Resp: 89726  
Ion Ratio Lower Upper  
83 100  
85 63.9 51.8 77.8



#27  
1,2-Dichloroethane-d4  
Concen: 32.384 ug/l  
RT: 8.577 min Scan# 1126  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 65 Resp: 76108  
Ion Ratio Lower Upper  
65 100  
67 53.9 44.6 67.0

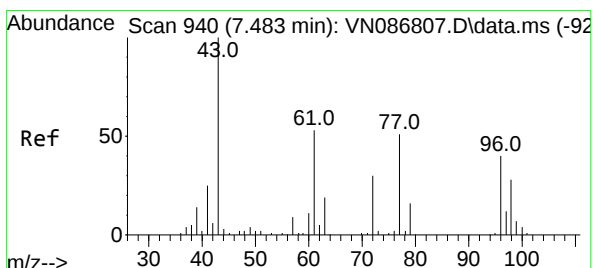
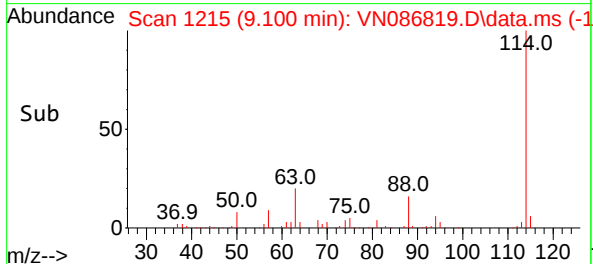
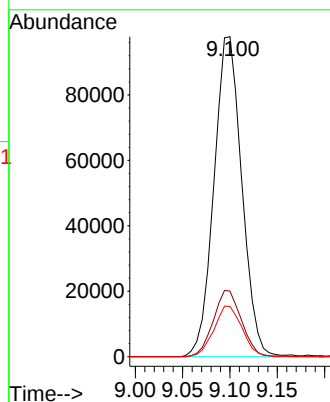
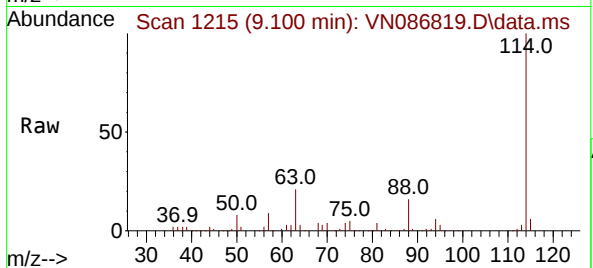




#28  
1,4-Difluorobenzene  
Concen: 30.000 ug/l  
RT: 9.100 min Scan# 114  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

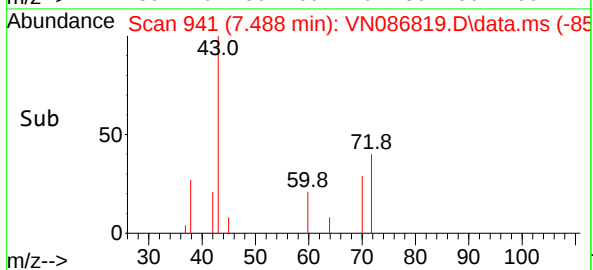
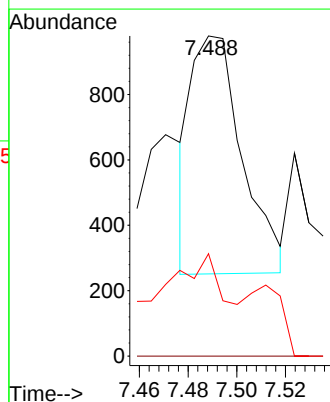
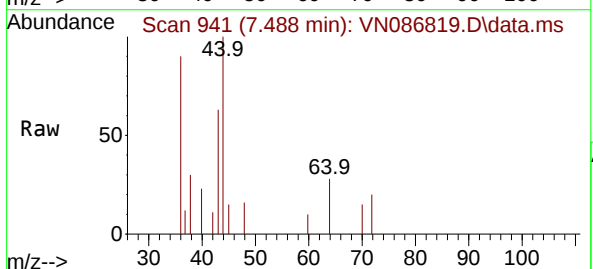
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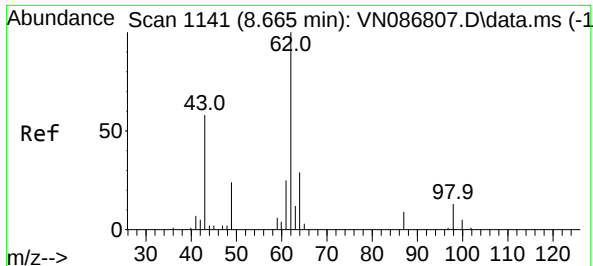
Tgt Ion:114 Resp: 199970  
Ion Ratio Lower Upper  
114 100  
63 20.9 15.8 23.8  
88 16.0 12.9 19.3



#30  
2-Butanone  
Concen: 0.821 ug/l  
RT: 7.488 min Scan# 941  
Delta R.T. 0.006 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 43 Resp: 1058  
Ion Ratio Lower Upper  
43 100  
57 0.0 6.8 10.2#  
72 21.4 23.4 35.0#





#36

1,2-Dichloroethane

Concen: 2.309 ug/l

RT: 9.094 min Scan# 1141

Delta R.T. 0.429 min

Lab File: VN086819.D

Acq: 29 May 2025 17:01

Instrument :

MSVOA\_N

ClientSampleId :

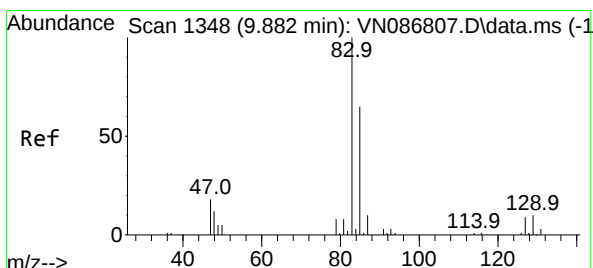
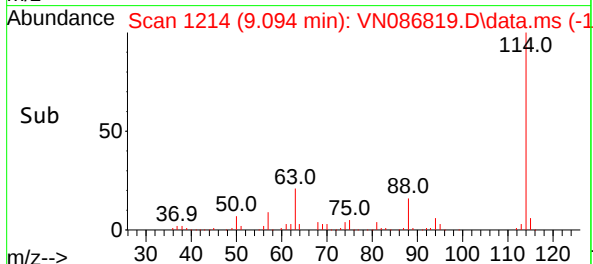
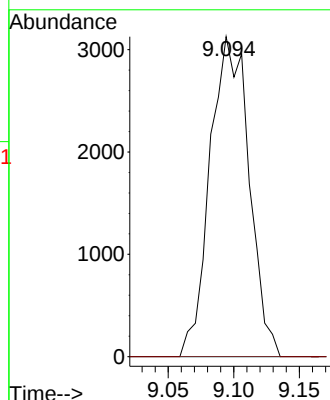
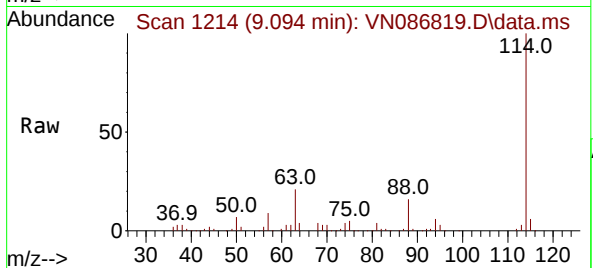
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Tgt Ion: 62 Resp: 6472

Ion Ratio Lower Upper

62 100

98 0.0 8.5 12.7#



#41

Bromodichloromethane

Concen: 5.227 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. 0.006 min

Lab File: VN086819.D

Acq: 29 May 2025 17:01

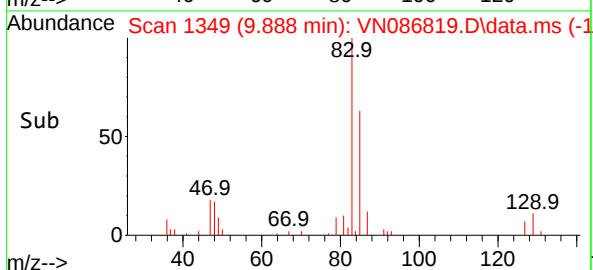
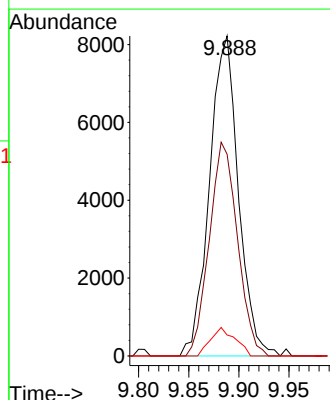
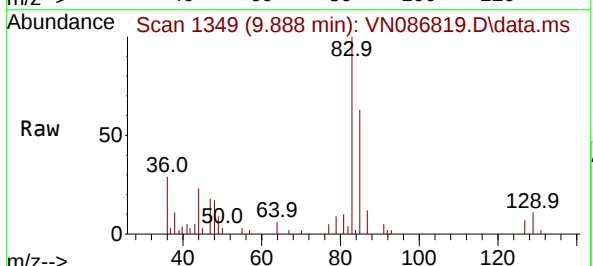
Tgt Ion: 83 Resp: 16482

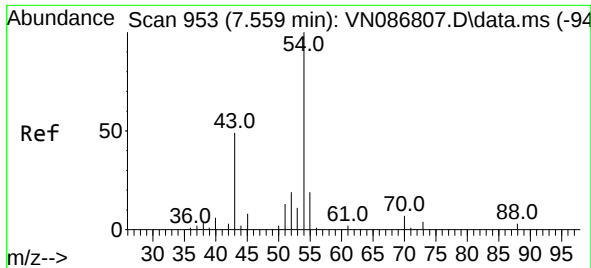
Ion Ratio Lower Upper

83 100

85 63.1 51.8 77.8

127 6.5 6.8 10.2#

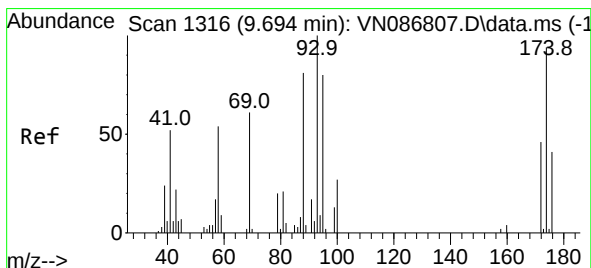
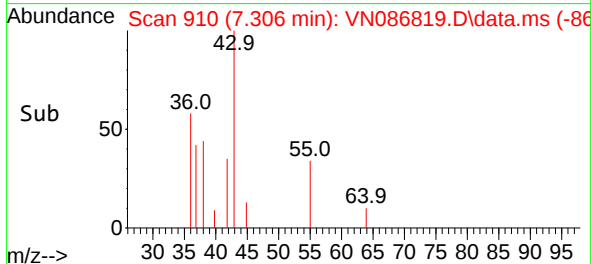
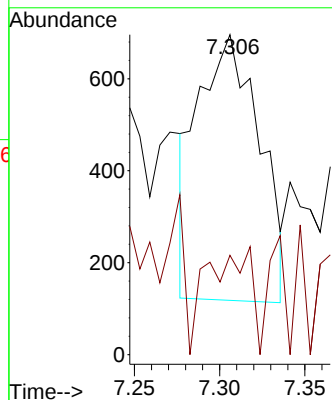
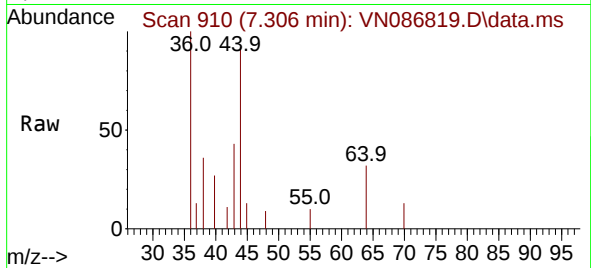




#43  
Ethyl Acetate  
Concen: 0.552 ug/l  
RT: 7.306 min Scan# 910  
Delta R.T. -0.253 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

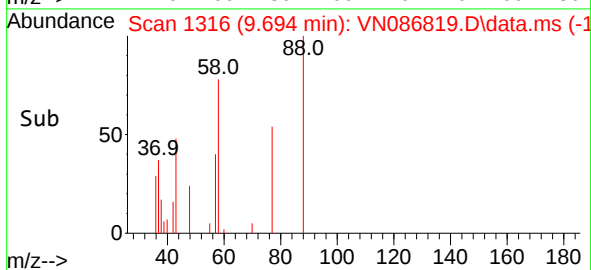
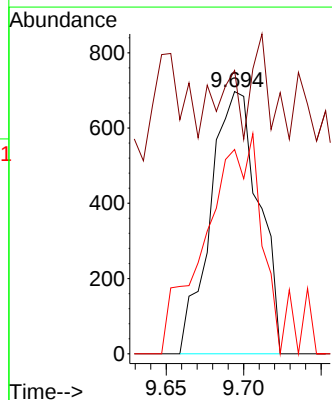
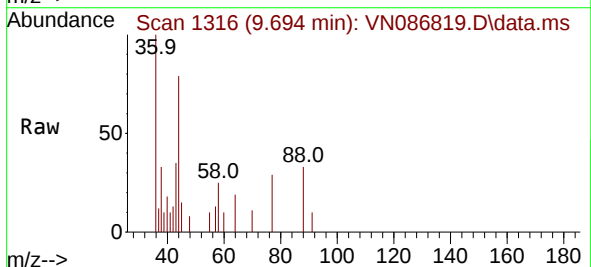
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MSVOA\_N  
ClientSampleId :  
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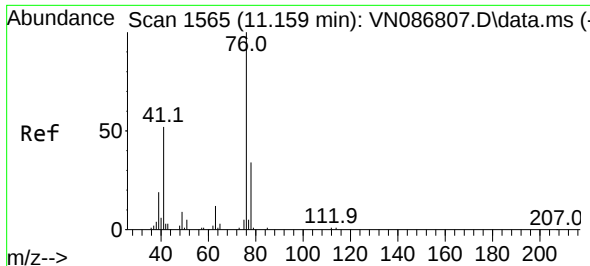
Tgt Ion: 43 Resp: 1456  
Ion Ratio Lower Upper  
43 100  
45 13.2 11.1 16.7



#45  
1,4-Dioxane  
Concen: 37.645 ug/l  
RT: 9.694 min Scan# 1316  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 88 Resp: 1513  
Ion Ratio Lower Upper  
88 100  
43 7.6 23.0 34.6#  
58 39.7 57.6 86.4#

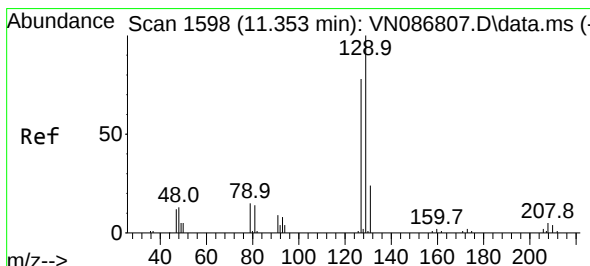
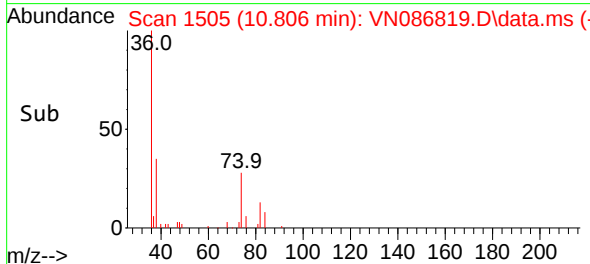
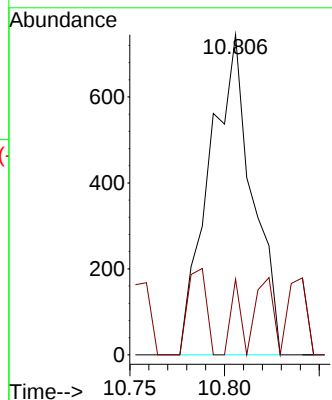
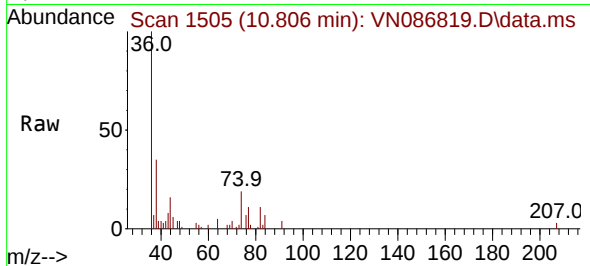




#52  
1,3-Dichloropropane  
Concen: 0.312 ug/l  
RT: 10.806 min Scan# 1505  
Delta R.T. -0.353 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

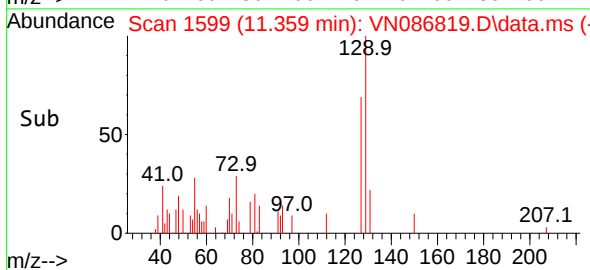
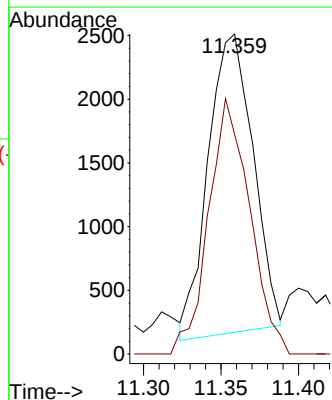
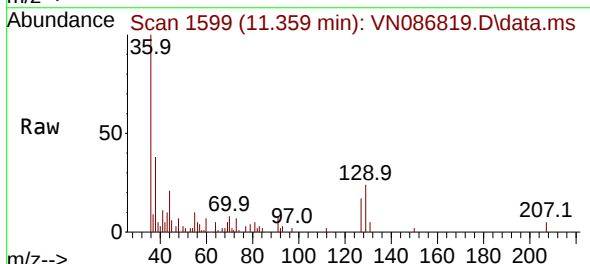
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ClientSampleId :  
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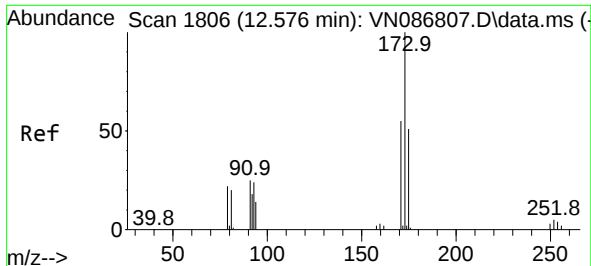
Tgt Ion: 76 Resp: 1176  
Ion Ratio Lower Upper  
76 100  
78 5.3 0.0 64.6



#53  
Dibromochloromethane  
Concen: 1.976 ug/l  
RT: 11.359 min Scan# 1599  
Delta R.T. 0.006 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 129 Resp: 4738  
Ion Ratio Lower Upper  
129 100  
127 78.1 39.1 117.3

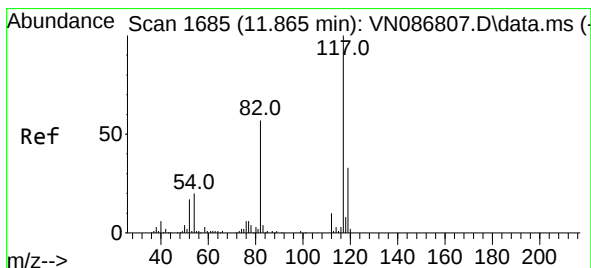
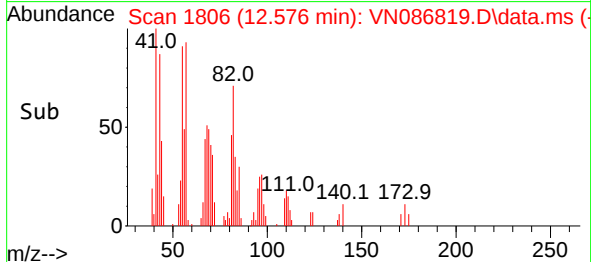
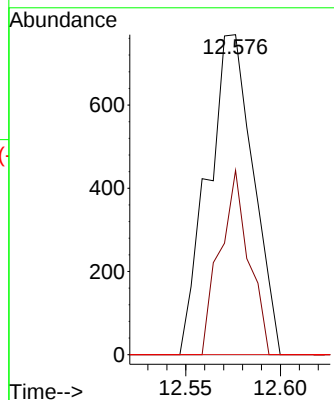
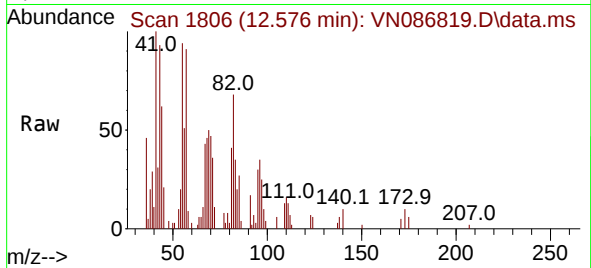




#56  
Bromoform  
Concen: 0.848 ug/l  
RT: 12.576 min Scan# 11  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

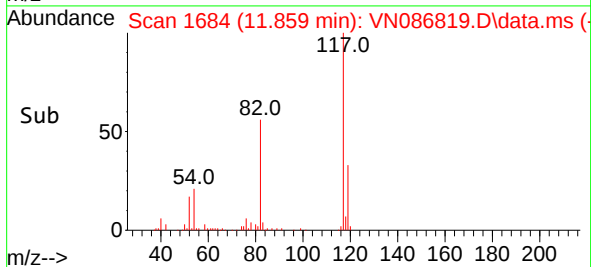
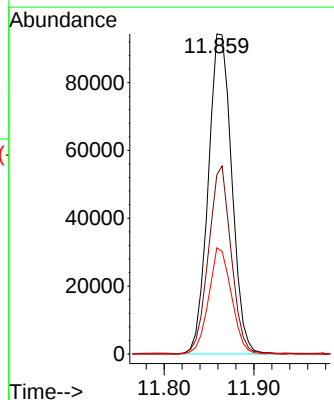
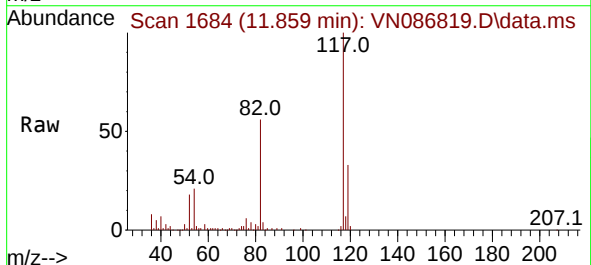
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ClientSampleId :  
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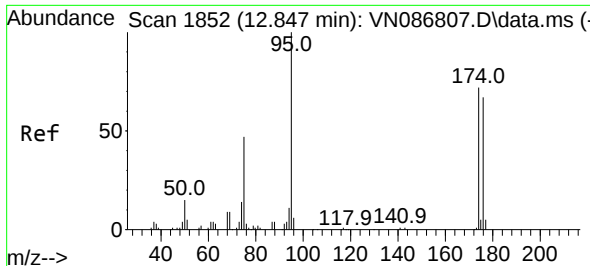
Tgt Ion:173 Resp: 1281  
Ion Ratio Lower Upper  
173 100  
175 36.8 39.7 59.5#  
254 0.0 3.5 5.3#



#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.859 min Scan# 1684  
Delta R.T. -0.006 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion:117 Resp: 171942  
Ion Ratio Lower Upper  
117 100  
82 56.7 44.7 67.1  
119 32.0 25.6 38.4

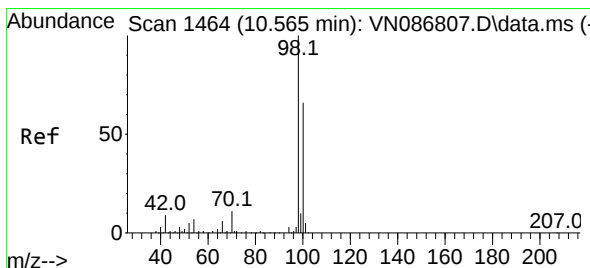
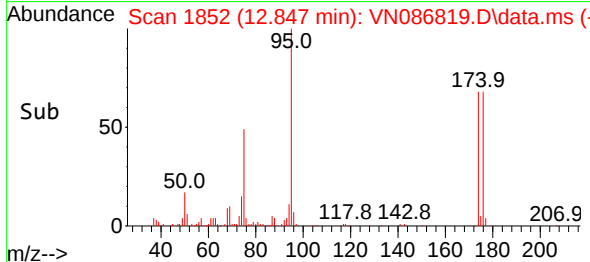
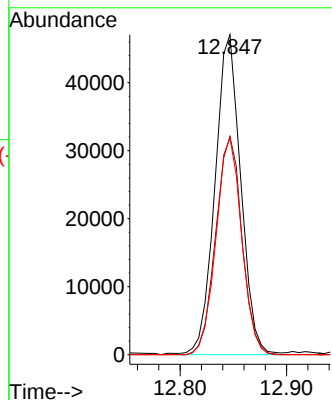
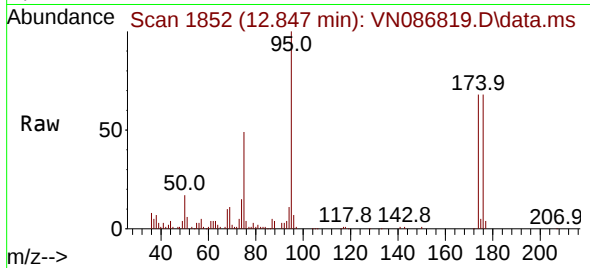




#60  
4-Bromofluorobenzene  
Concen: 29.252 ug/l  
RT: 12.847 min Scan# 11  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

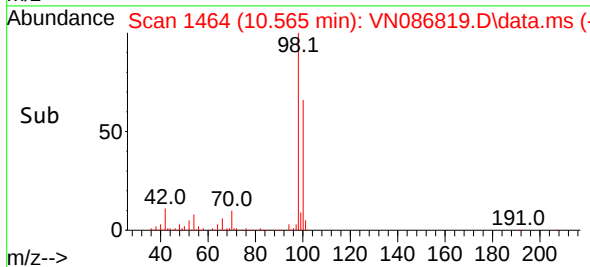
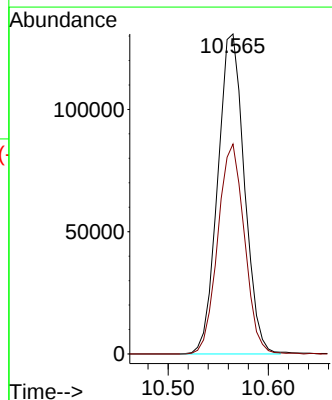
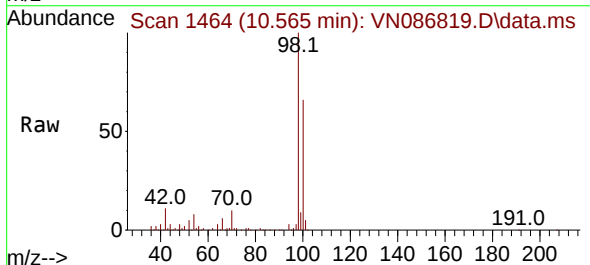
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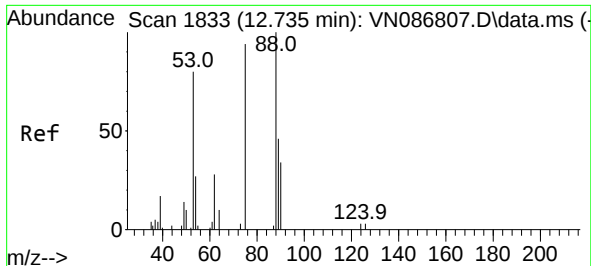
Tgt Ion: 95 Resp: 78966  
Ion Ratio Lower Upper  
95 100  
174 69.0 56.2 84.4  
176 67.4 53.4 80.0



#63  
Toluene-d8  
Concen: 30.566 ug/l  
RT: 10.565 min Scan# 1464  
Delta R.T. -0.000 min  
Lab File: VN086819.D  
Acq: 29 May 2025 17:01

Tgt Ion: 98 Resp: 241222  
Ion Ratio Lower Upper  
98 100  
100 65.4 52.7 79.1





#77

t-1,4-Dichloro-2-butene

Concen: 35.711 ug/l

RT: 12.847 min Scan# 11

Delta R.T. 0.112 min

Lab File: VN086819.D

Acq: 29 May 2025 17:01

Instrument :

MSVOA\_N

ClientSampleId :

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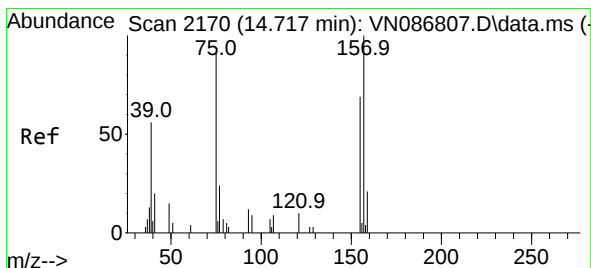
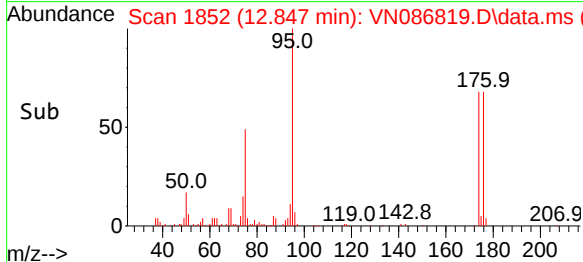
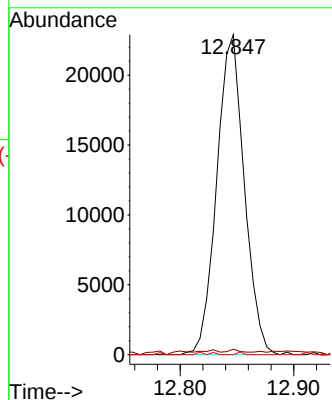
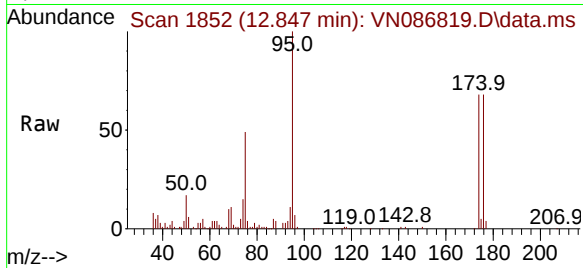
Tgt Ion: 75 Resp: 38581

Ion Ratio Lower Upper

75 100

53 0.7 43.0 128.8#

89 0.0 25.4 76.2#



#88

1,2-Dibromo-3-Chloropropane

Concen: 0.449 ug/l

RT: 14.306 min Scan# 2100

Delta R.T. -0.412 min

Lab File: VN086819.D

Acq: 29 May 2025 17:01

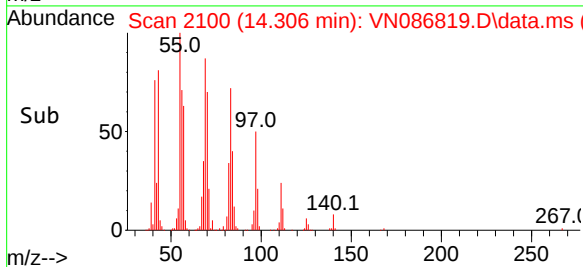
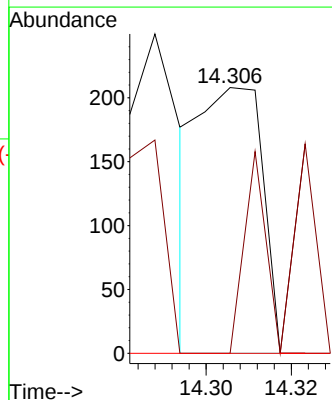
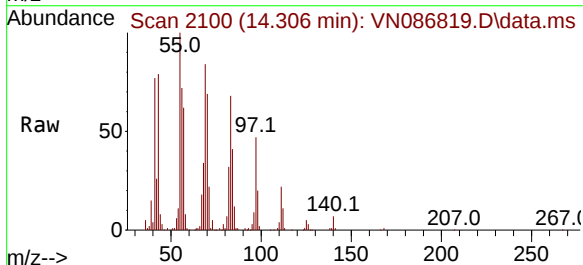
Tgt Ion: 75 Resp: 213

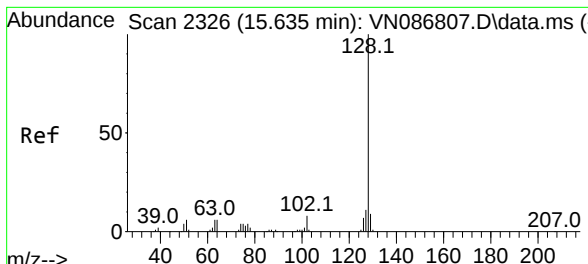
Ion Ratio Lower Upper

75 100

155 26.3 62.9 94.3#

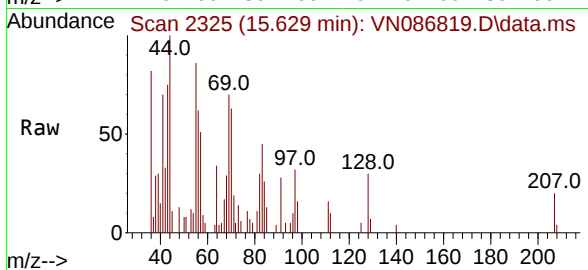
157 0.0 84.0 126.0#





#91  
 Naphthalene  
 Concen: 0.347 ug/l  
 RT: 15.629 min Scan# 21  
 Delta R.T. -0.006 min  
 Lab File: VN086819.D  
 Acq: 29 May 2025 17:01

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 ClientSampleId :  
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|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 128   | Resp: | 2111  |
| Ion Ratio | Lower | Upper |       |
| 128       | 100   |       |       |
| 127       | 5.6   | 9.8   | 14.6# |
| 129       | 7.7   | 8.6   | 13.0# |

