

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN112025\  
 Data File : VN088326.D  
 Acq On : 20 Nov 2025 13:05  
 Operator : JC\MD  
 Sample : IBLK  
 Misc : 5.0mL/MSVOA\_N/WATER  
 ALS Vial : 12 Sample Multiplier: 1

Instrument :  
 MSVOA\_N  
 ClientSampleId :

Quant Time: Nov 21 03:00:58 2025  
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N111325W.M  
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
 QLast Update : Fri Nov 14 00:49:21 2025  
 Response via : Initial Calibration

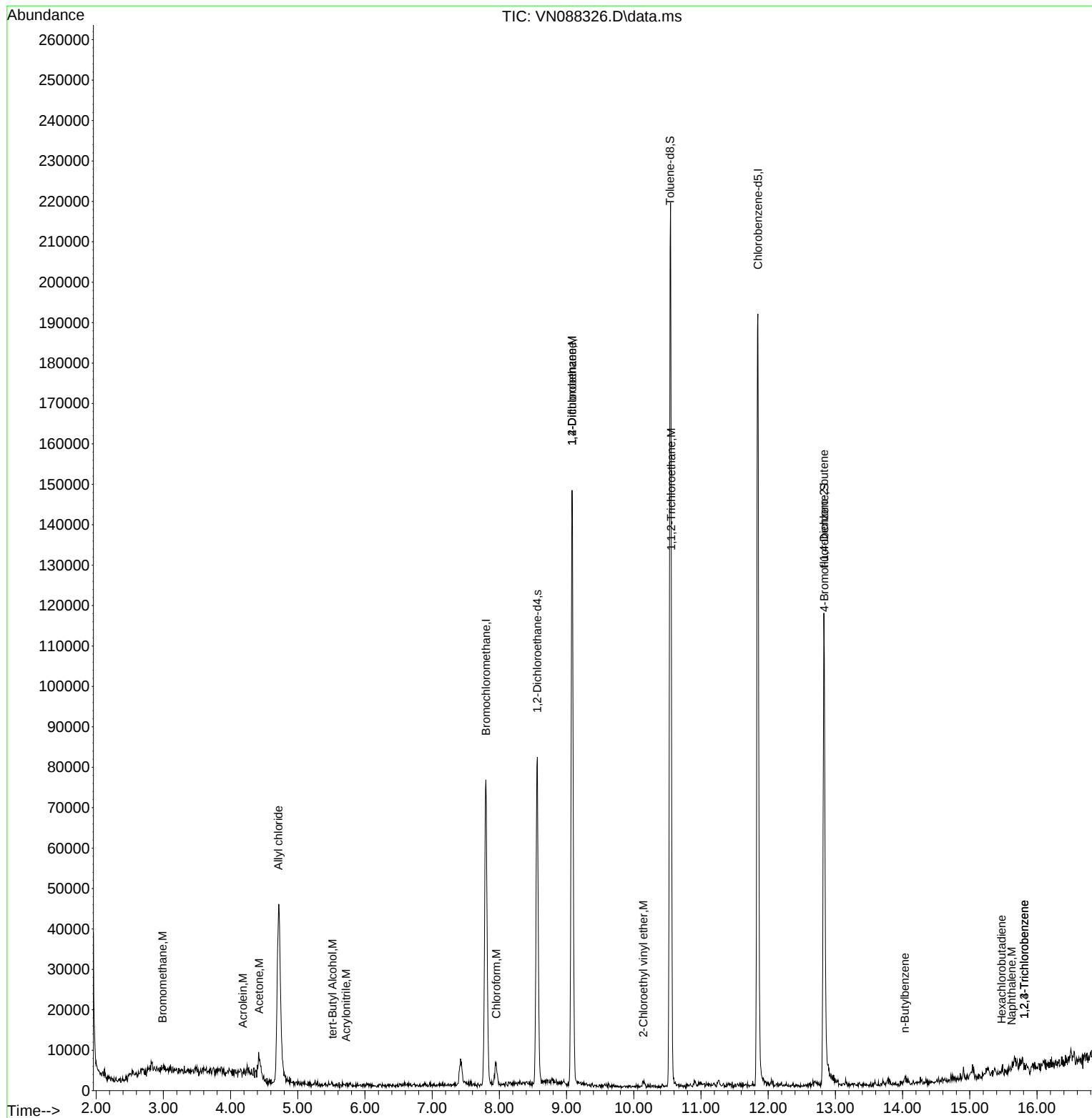
| Compound                      | R.T.   | QIon  | Response | Conc     | Units  | Dev(Min) |
|-------------------------------|--------|-------|----------|----------|--------|----------|
| -----                         |        |       |          |          |        |          |
| Internal Standards            |        |       |          |          |        |          |
| 1) Bromochloromethane         | 7.800  | 128   | 25132    | 30.000   | ug/l   | 0.00     |
| 28) 1,4-Difluorobenzene       | 9.082  | 114   | 119878   | 30.000   | ug/l   | 0.00     |
| 57) Chlorobenzene-d5          | 11.847 | 117   | 108684   | 30.000   | ug/l   | 0.00     |
| System Monitoring Compounds   |        |       |          |          |        |          |
| 27) 1,2-Dichloroethane-d4     | 8.565  | 65    | 65787    | 28.657   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 110 | Recovery | =      | 95.533%  |
| 60) 4-Bromofluorobenzene      | 12.835 | 95    | 42591    | 23.182   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 63 - 112 | Recovery | =      | 77.267%  |
| 63) Toluene-d8                | 10.541 | 98    | 150616   | 29.271   | ug/l   | 0.00     |
| Spiked Amount                 | 30.000 | Range | 91 - 112 | Recovery | =      | 97.567%  |
| Target Compounds              |        |       |          |          |        |          |
|                               |        |       |          |          | Qvalue |          |
| 5) Bromomethane               | 2.989  | 94    | 605      | 0.589    | ug/l # | 58       |
| 13) Acrolein                  | 4.183  | 56    | 244      | 0.744    | ug/l   | 83       |
| 14) Acrylonitrile             | 5.718  | 53    | 386      | 0.381    | ug/l # | 16       |
| 15) Acetone                   | 4.424  | 58    | 2163     | 7.301    | ug/l # | 50       |
| 17) Allyl chloride            | 4.712  | 41    | 4992     | 1.859    | ug/l   | 74       |
| 23) tert-Butyl Alcohol        | 5.518  | 59    | 150      | 0.403    | ug/l # | 100      |
| 25) Chloroform                | 7.953  | 83    | 5014     | 1.565    | ug/l   | 98       |
| 36) 1,2-Dichloroethane        | 9.082  | 62    | 4943     | 2.124    | ug/l # | 76       |
| 50) 1,1,2-Trichloroethane     | 10.559 | 97    | 5597     | 4.084    | ug/l # | 1        |
| 55) 2-Chloroethyl vinyl ether | 10.141 | 63    | 656      | 0.505    | ug/l # | 46       |
| 77) t-1,4-Dichloro-2-butene   | 12.829 | 75    | 25409    | 36.688   | ug/l # | 10       |
| 85) n-Butylbenzene            | 14.035 | 91    | 1277     | 0.241    | ug/l # | 50       |
| 89) 1,2,4-Trichlorobenzene    | 15.811 | 180   | 316      | 0.212    | ug/l # | 42       |
| 90) Hexachlorobutadiene       | 15.476 | 225   | 353      | 0.609    | ug/l   | 53       |
| 91) Naphthalene               | 15.623 | 128   | 1207     | 0.223    | ug/l # | 69       |
| 92) 1,2,3-Trichlorobenzene    | 15.811 | 180   | 316      | 0.212    | ug/l # | 42       |
| -----                         |        |       |          |          |        |          |

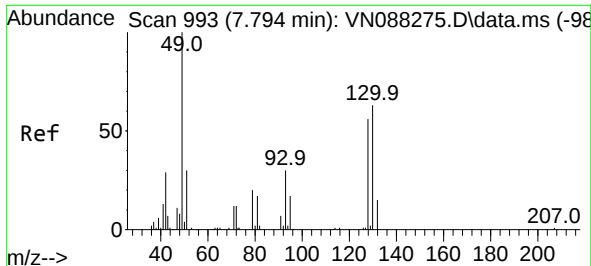
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA\_N\Data\VN112025\  
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Sample : IBLK  
Misc : 5.0mL/MSVOA\_N/WATER  
ALS Vial : 12 Sample Multiplier: 1

Instrument :  
MSVOA\_N  
ClientSampleId :

Quant Time: Nov 21 03:00:58 2025  
Quant Method : Z:\voasrv\HPCHEM1\MSVOA\_N\methods\624N111325W.M  
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS  
QLast Update : Fri Nov 14 00:49:21 2025  
Response via : Initial Calibration

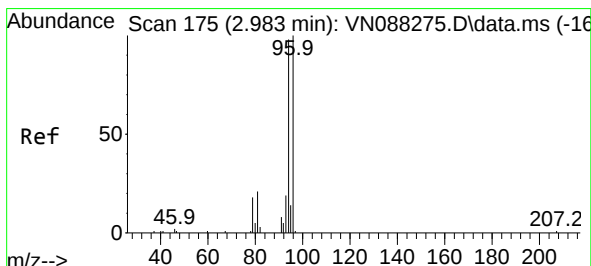
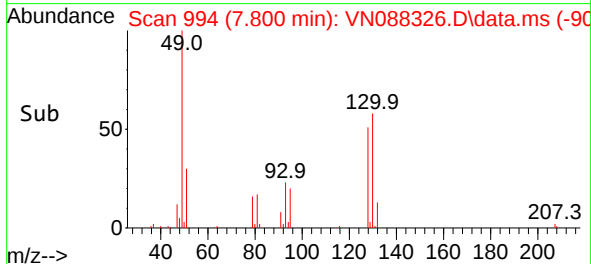
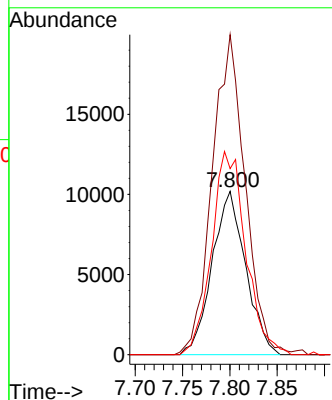
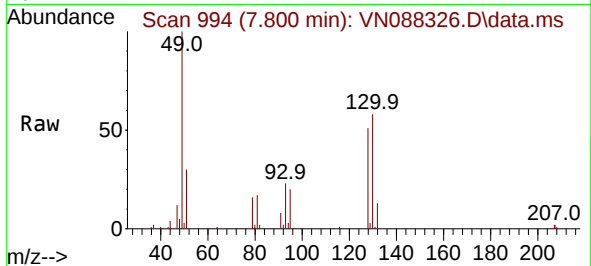




#1  
Bromochloromethane  
Concen: 30.000 ug/l  
RT: 7.800 min Scan# 994  
Delta R.T. 0.006 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

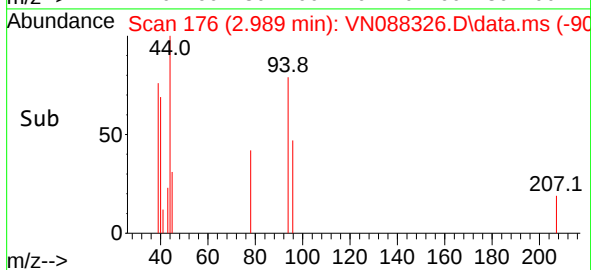
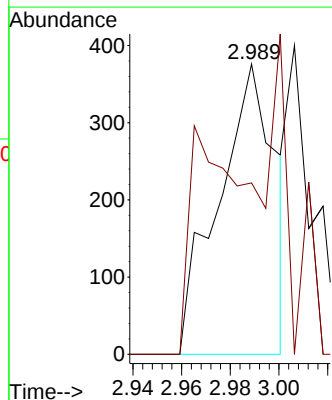
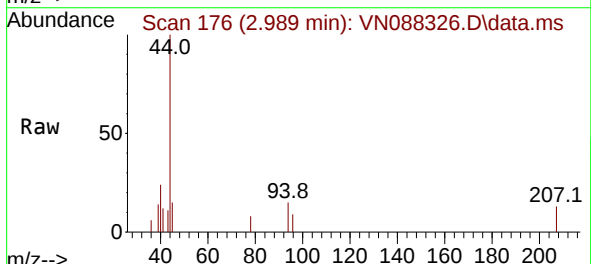
Instrument :  
MSVOA\_N  
ClientSampleId :

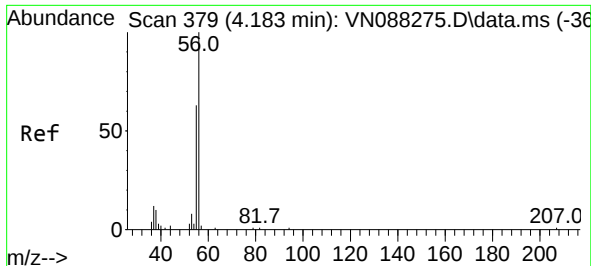
Tgt Ion:128 Resp: 25132  
Ion Ratio Lower Upper  
128 100  
49 191.7 0.0 501.2  
130 126.5 0.0 320.2



#5  
Bromomethane  
Concen: 0.589 ug/l  
RT: 2.989 min Scan# 176  
Delta R.T. 0.006 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

Tgt Ion: 94 Resp: 605  
Ion Ratio Lower Upper  
94 100  
96 59.0 81.3 121.9#





#13

Acrolein

Concen: 0.744 ug/l

RT: 4.183 min Scan# 31

Delta R.T. -0.000 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

Instrument :

MSVOA\_N

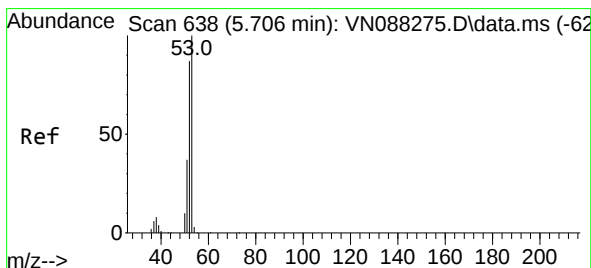
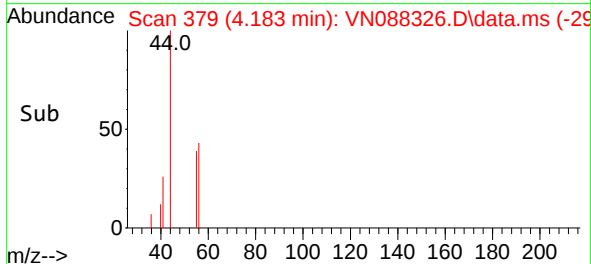
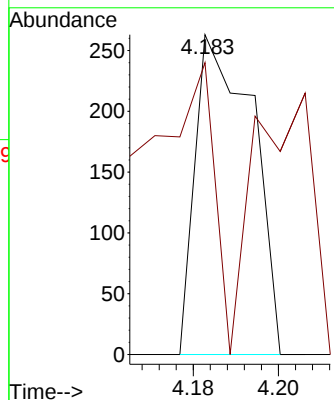
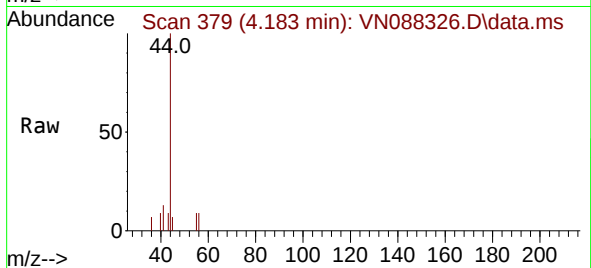
ClientSampleId :

Tgt Ion: 56 Resp: 244

Ion Ratio Lower Upper

56 100

55 86.5 57.9 86.9



#14

Acrylonitrile

Concen: 0.381 ug/l

RT: 5.718 min Scan# 640

Delta R.T. 0.012 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

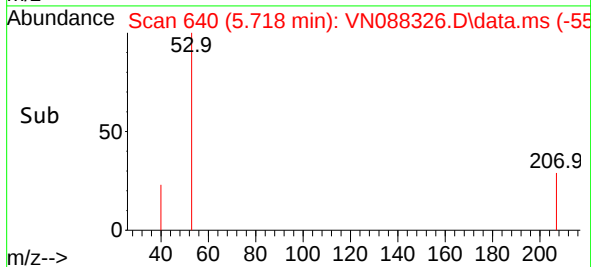
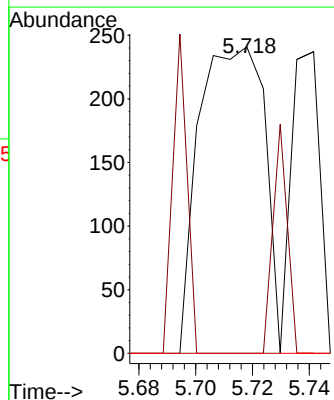
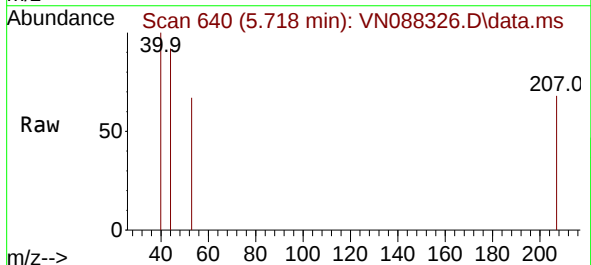
Tgt Ion: 53 Resp: 386

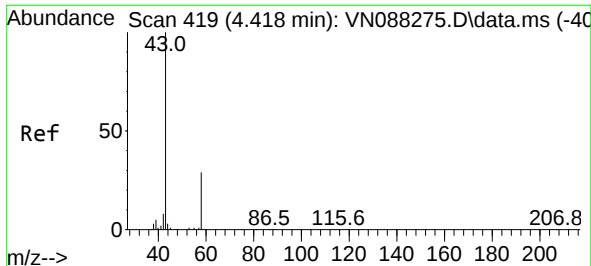
Ion Ratio Lower Upper

53 100

52 0.0 42.3 126.9#

51 0.0 18.4 55.2#

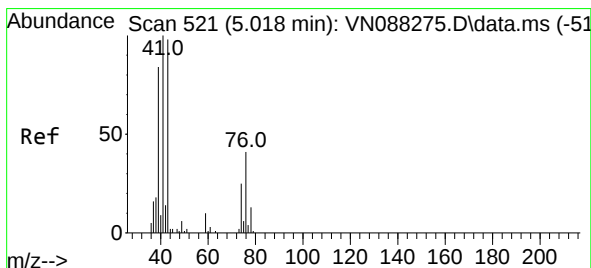
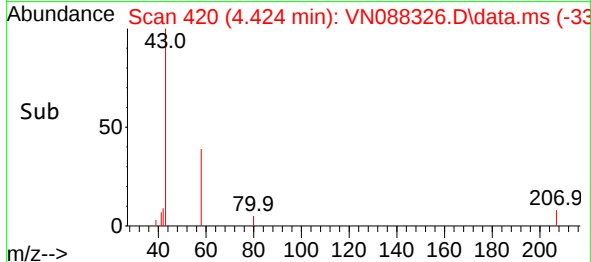
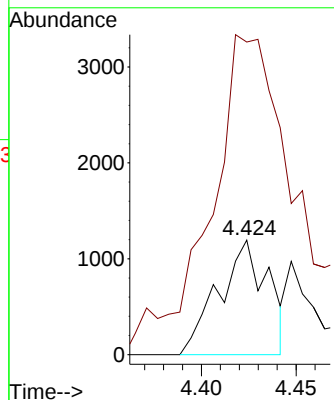
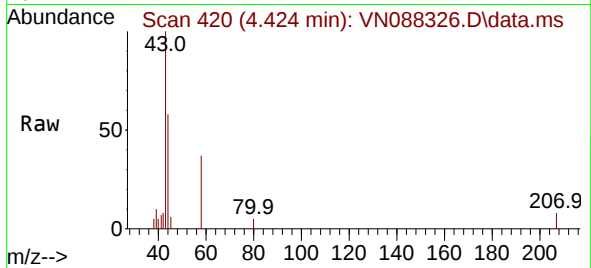




#15  
Acetone  
Concen: 7.301 ug/l  
RT: 4.424 min Scan# 41  
Delta R.T. 0.006 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

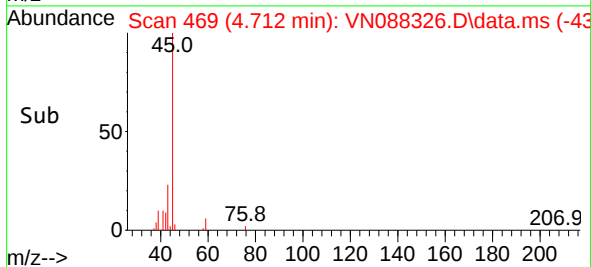
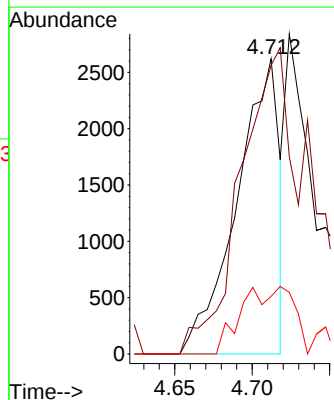
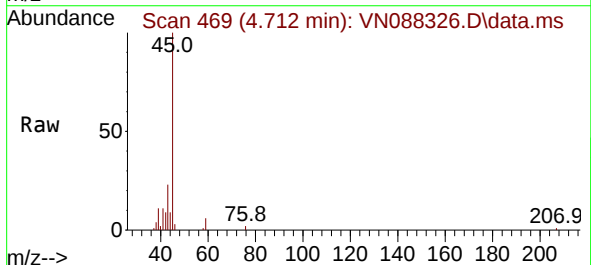
Instrument :  
MSVOA\_N  
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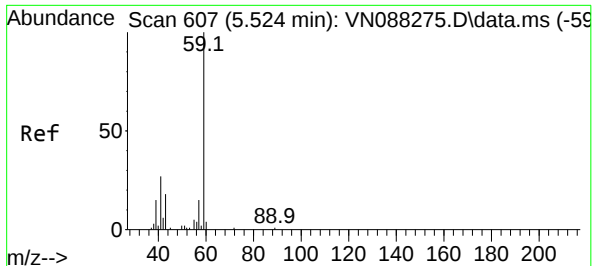
Tgt Ion: 58 Resp: 2163  
Ion Ratio Lower Upper  
58 100  
43 235.6 273.9 410.9#



#17  
Allyl chloride  
Concen: 1.859 ug/l  
RT: 4.712 min Scan# 469  
Delta R.T. -0.306 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

Tgt Ion: 41 Resp: 4992  
Ion Ratio Lower Upper  
41 100  
39 97.8 38.3 114.9  
76 19.5 18.5 55.5





#23

tert-Butyl Alcohol

Concen: 0.403 ug/l

RT: 5.518 min Scan# 607

Delta R.T. -0.006 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

Instrument :

MSVOA\_N

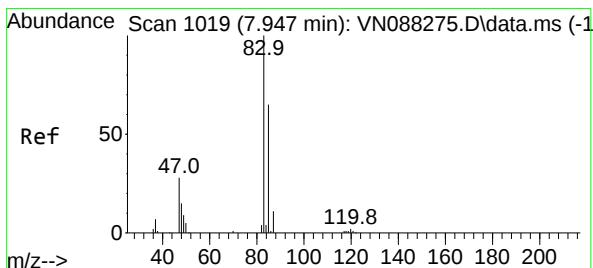
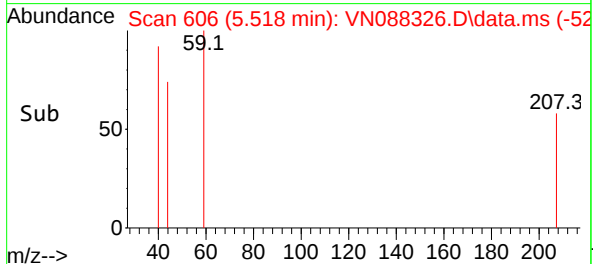
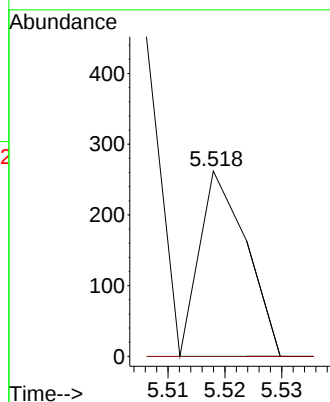
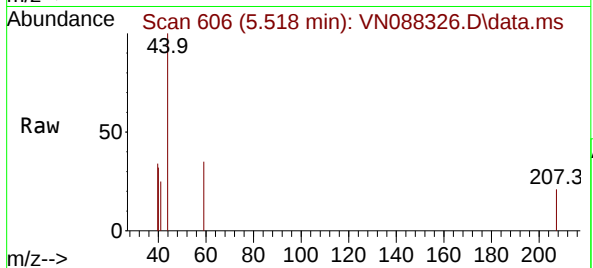
ClientSampleId :

Tgt Ion: 59 Resp: 150

Ion Ratio Lower Upper

59 100

52 0.0 0.0 0.0



#25

Chloroform

Concen: 1.565 ug/l

RT: 7.953 min Scan# 1020

Delta R.T. 0.006 min

Lab File: VN088326.D

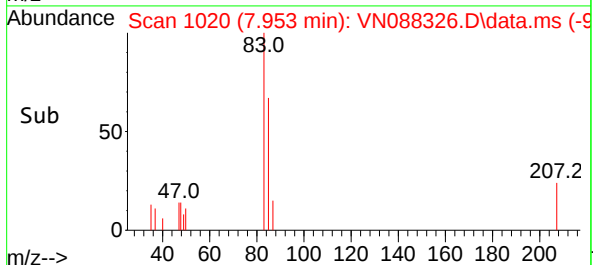
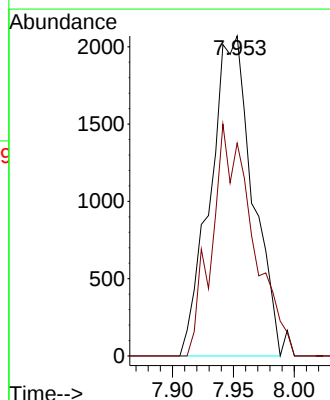
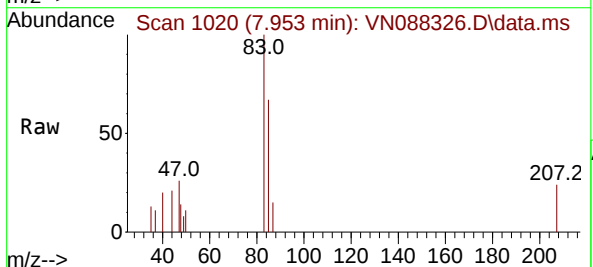
Acq: 20 Nov 2025 13:05

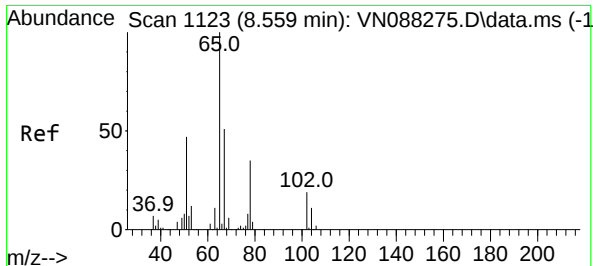
Tgt Ion: 83 Resp: 5014

Ion Ratio Lower Upper

83 100

85 66.5 52.2 78.4

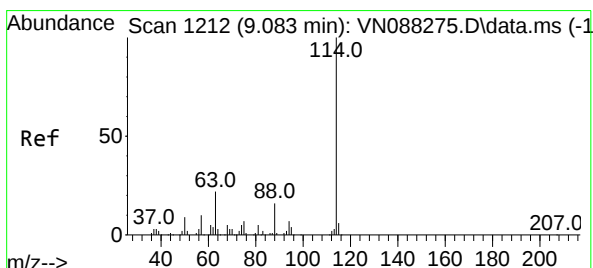
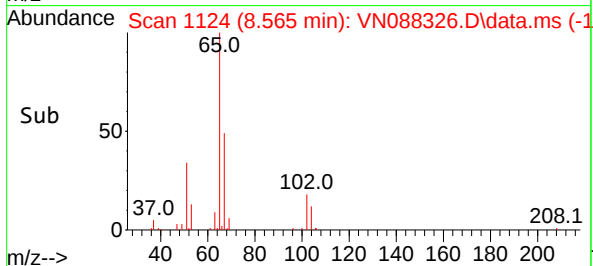
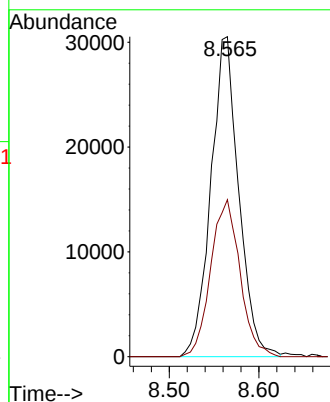
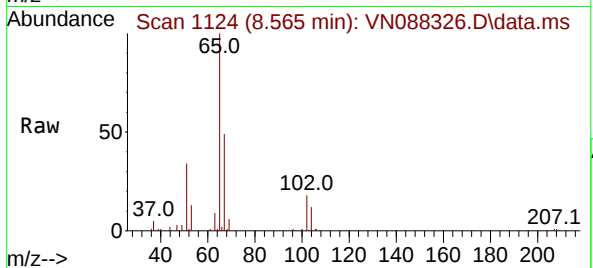




#27  
 1,2-Dichloroethane-d4  
 Concen: 28.657 ug/l  
 RT: 8.565 min Scan# 1123  
 Delta R.T. 0.006 min  
 Lab File: VN088326.D  
 Acq: 20 Nov 2025 13:05

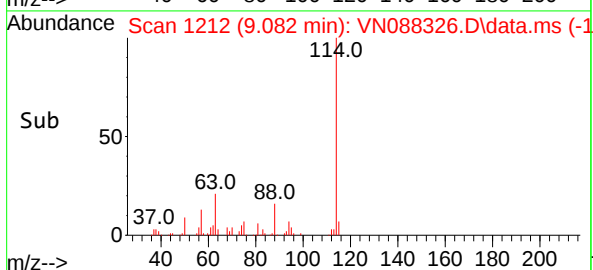
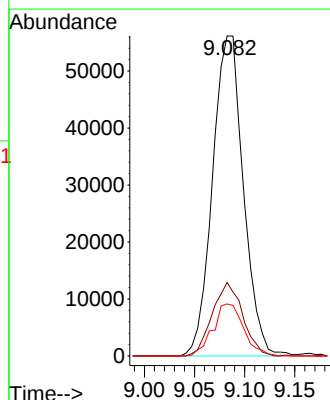
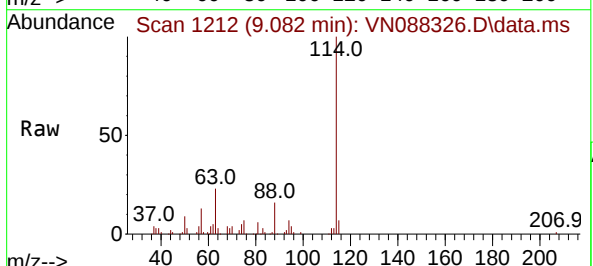
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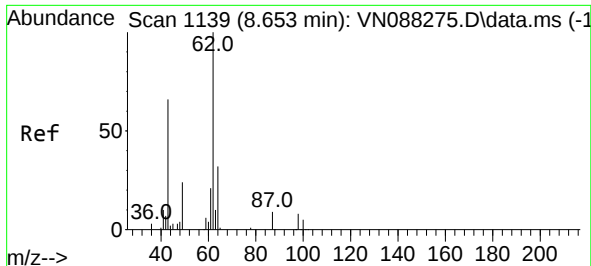
Tgt Ion: 65 Resp: 65787  
 Ion Ratio Lower Upper  
 65 100  
 67 51.5 40.2 60.2



#28  
 1,4-Difluorobenzene  
 Concen: 30.000 ug/l  
 RT: 9.082 min Scan# 1212  
 Delta R.T. -0.000 min  
 Lab File: VN088326.D  
 Acq: 20 Nov 2025 13:05

Tgt Ion: 114 Resp: 119878  
 Ion Ratio Lower Upper  
 114 100  
 63 22.6 18.9 28.3  
 88 16.2 12.8 19.2





#36

1,2-Dichloroethane

Concen: 2.124 ug/l

RT: 9.082 min Scan# 11

Delta R.T. 0.429 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

Instrument :

MSVOA\_N

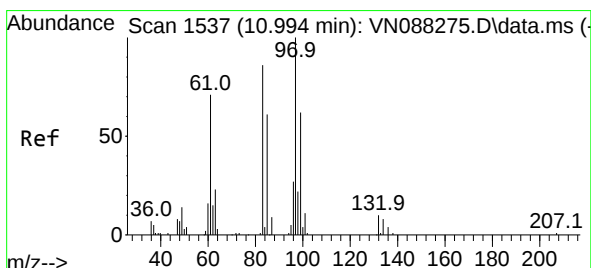
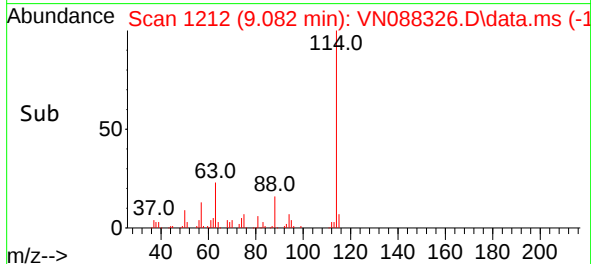
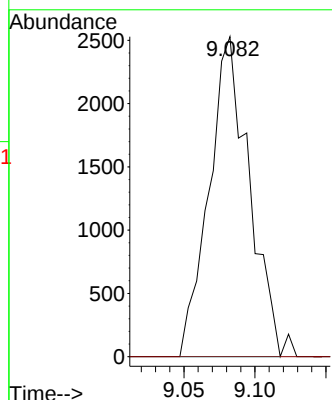
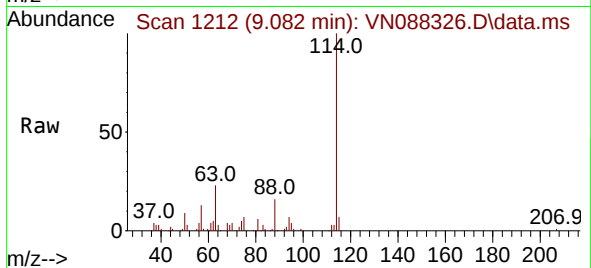
ClientSampleId :

Tgt Ion: 62 Resp: 4943

Ion Ratio Lower Upper

62 100

98 0.0 6.8 10.2#



#50

1,1,2-Trichloroethane

Concen: 4.084 ug/l

RT: 10.559 min Scan# 1463

Delta R.T. -0.435 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

Tgt Ion: 97 Resp: 5597

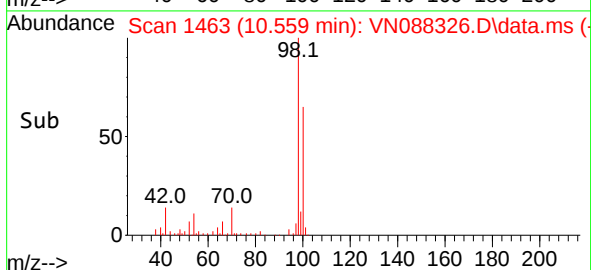
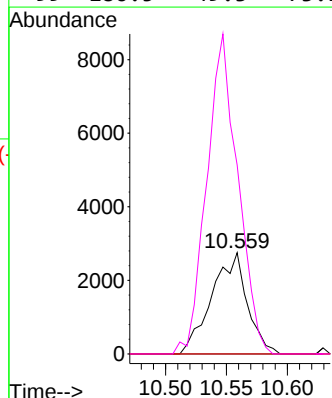
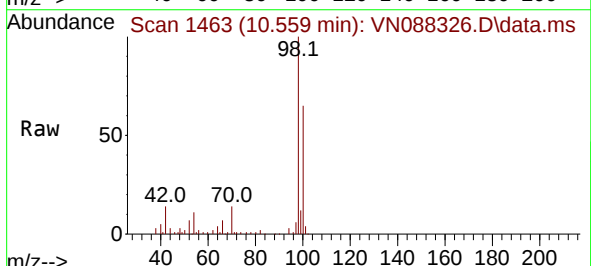
Ion Ratio Lower Upper

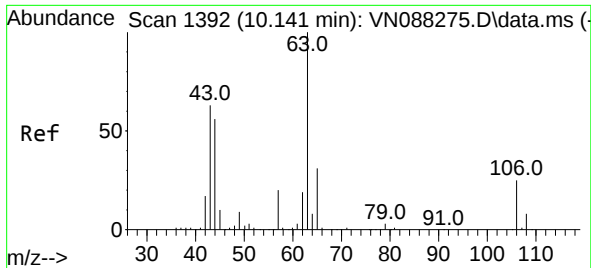
97 100

83 0.0 68.6 102.8#

85 0.0 49.0 73.6#

99 186.5 49.3 73.9#

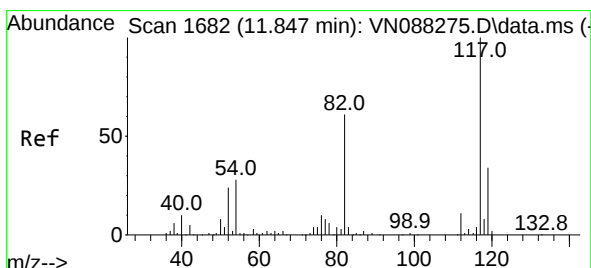
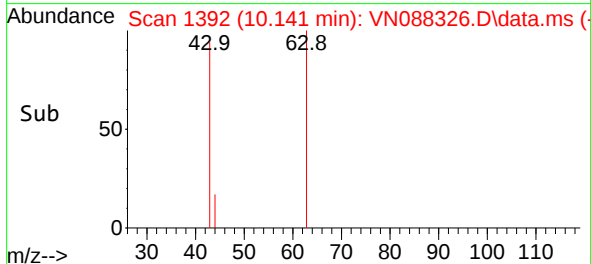
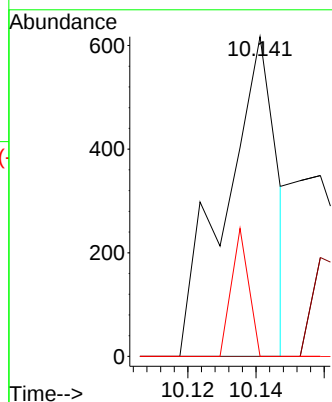
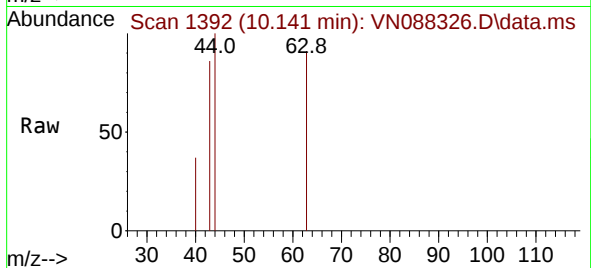




#55  
2-Chloroethyl vinyl ether  
Concen: 0.505 ug/l  
RT: 10.141 min Scan# 1392  
Delta R.T. -0.000 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

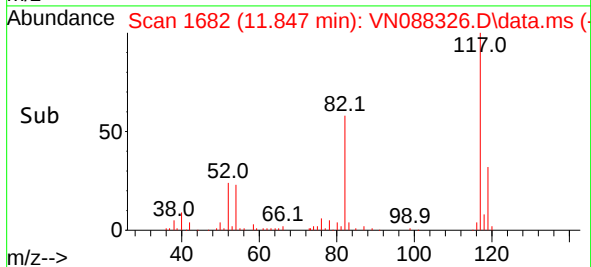
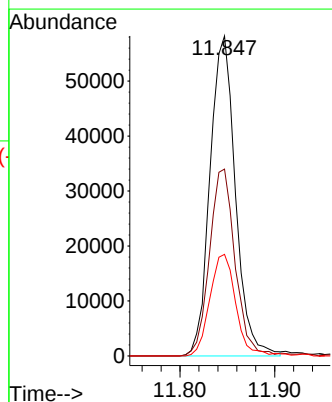
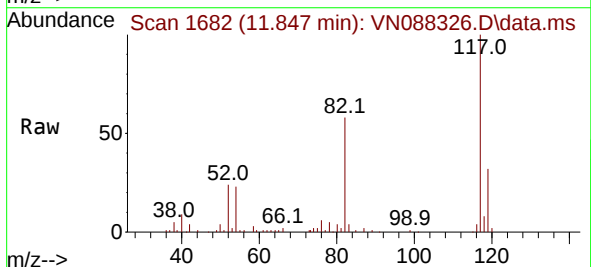
Instrument :  
MSVOA\_N  
ClientSampleId :

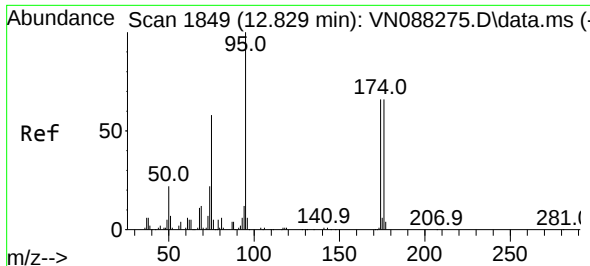
Tgt Ion: 63 Resp: 656  
Ion Ratio Lower Upper  
63 100  
65 0.0 24.9 37.3#  
106 0.0 20.3 30.5#



#57  
Chlorobenzene-d5  
Concen: 30.000 ug/l  
RT: 11.847 min Scan# 1682  
Delta R.T. -0.000 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

Tgt Ion: 117 Resp: 108684  
Ion Ratio Lower Upper  
117 100  
82 58.2 49.3 73.9  
119 32.1 26.4 39.6

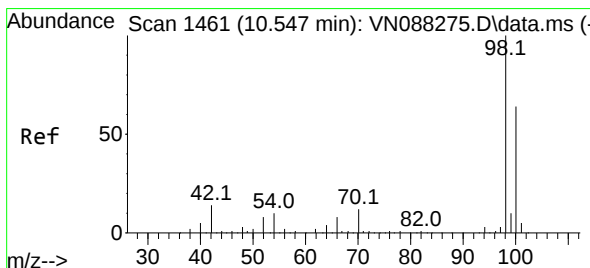
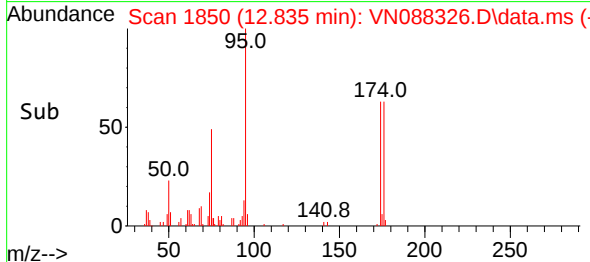
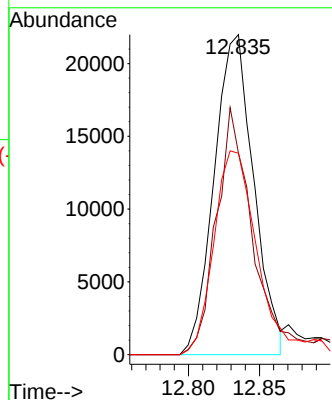
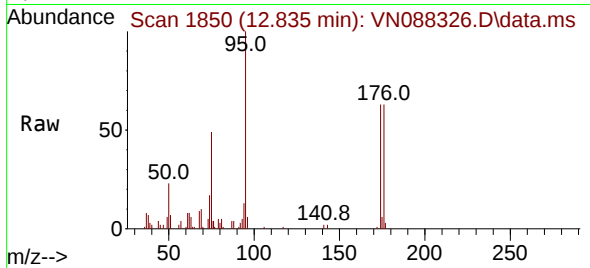




#60  
4-Bromofluorobenzene  
Concen: 23.182 ug/l  
RT: 12.835 min Scan# 1849  
Delta R.T. 0.006 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

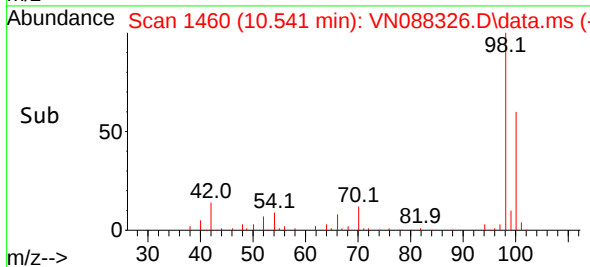
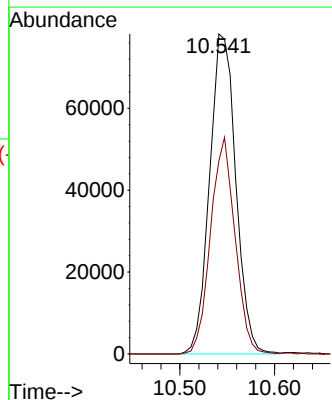
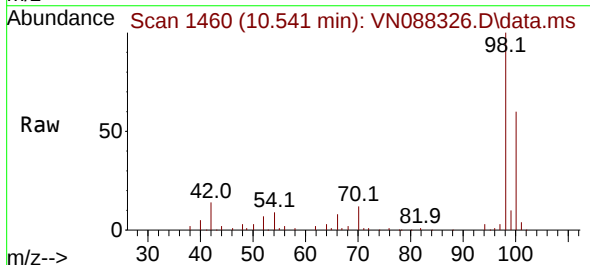
Instrument :  
MSVOA\_N  
ClientSampleId :

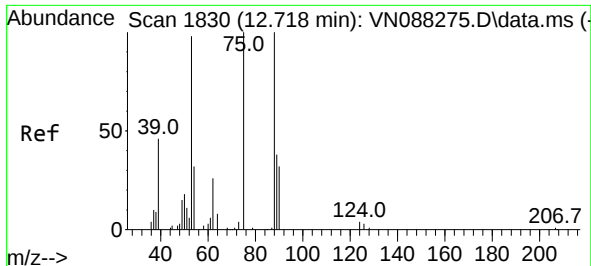
Tgt Ion: 95 Resp: 42591  
Ion Ratio Lower Upper  
95 100  
174 71.5 54.5 81.7  
176 69.1 53.8 80.6



#63  
Toluene-d8  
Concen: 29.271 ug/l  
RT: 10.541 min Scan# 1460  
Delta R.T. -0.006 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

Tgt Ion: 98 Resp: 150616  
Ion Ratio Lower Upper  
98 100  
100 63.0 51.6 77.4

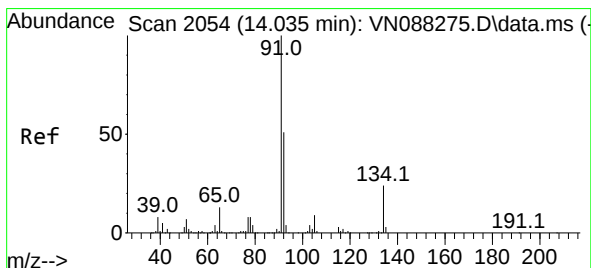
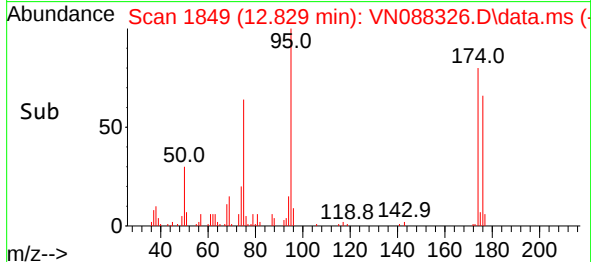
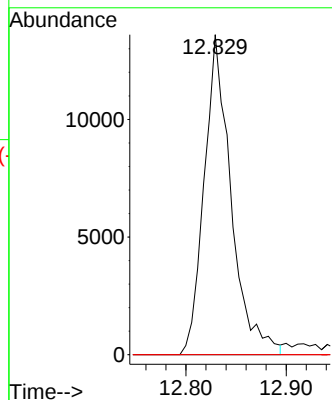
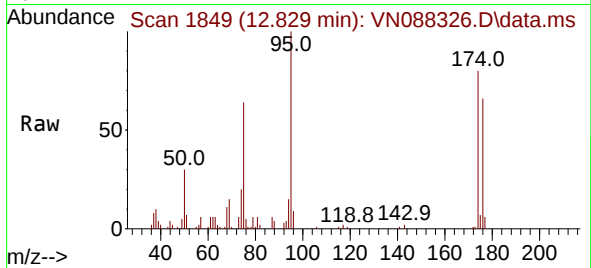




#77  
t-1,4-Dichloro-2-butene  
Concen: 36.688 ug/l  
RT: 12.829 min Scan# 1849  
Delta R.T. 0.112 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

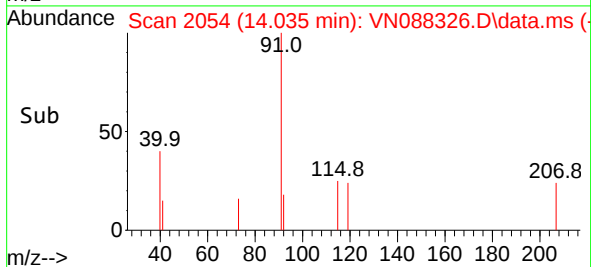
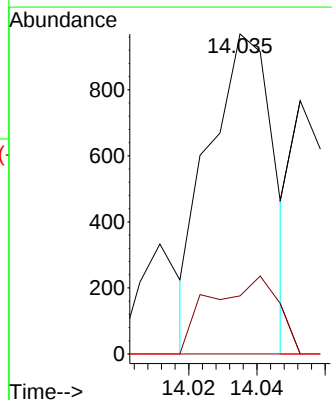
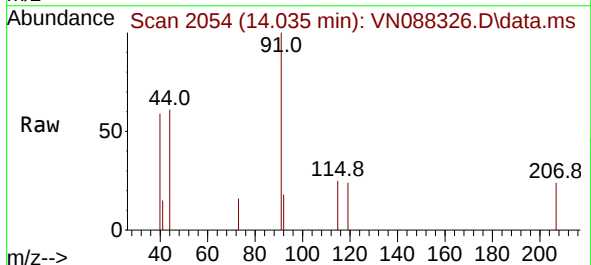
Instrument :  
MSVOA\_N  
ClientSampleId :

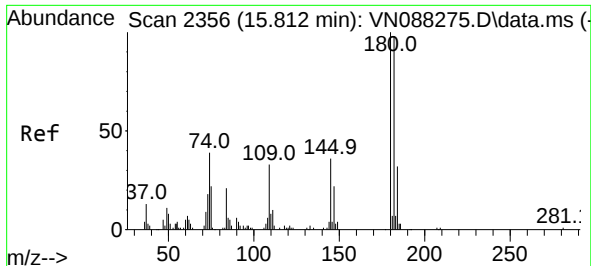
Tgt Ion: 75 Resp: 25409  
Ion Ratio Lower Upper  
75 100  
53 0.0 50.0 150.0#  
89 0.0 22.3 66.9#



#85  
n-Butylbenzene  
Concen: 0.241 ug/l  
RT: 14.035 min Scan# 2054  
Delta R.T. -0.000 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

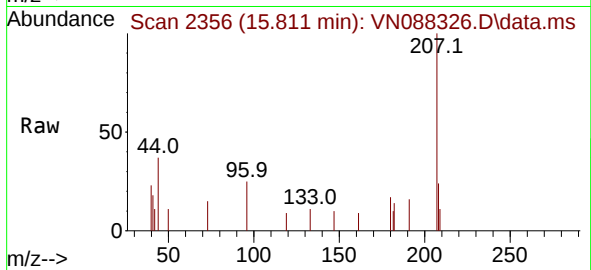
Tgt Ion: 91 Resp: 1277  
Ion Ratio Lower Upper  
91 100  
92 15.6 0.0 102.4  
134 0.0 0.0 45.8



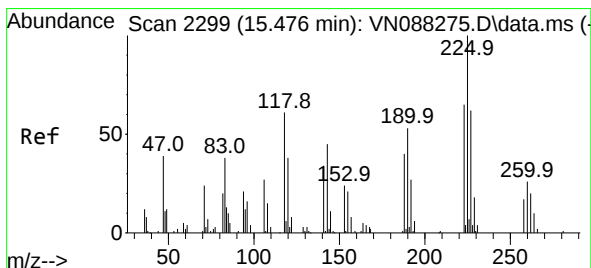
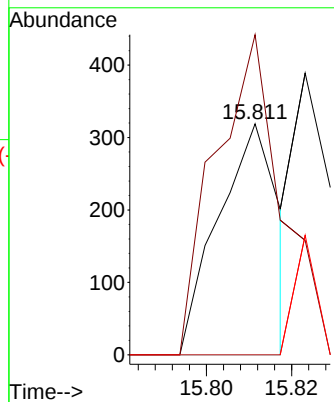
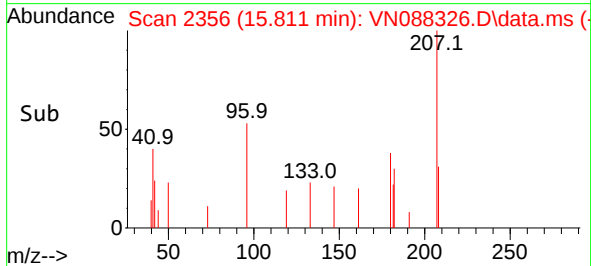


#89  
1,2,4-Trichlorobenzene  
Concen: 0.212 ug/l  
RT: 15.811 min Scan# 21  
Delta R.T. -0.000 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

Instrument :  
MSVOA\_N  
ClientSampleId :

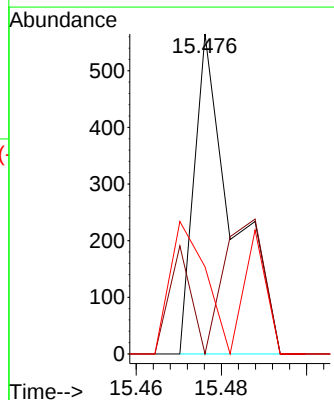
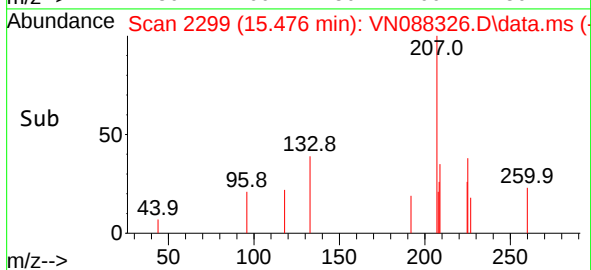
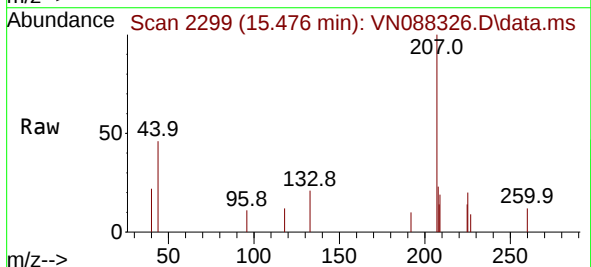


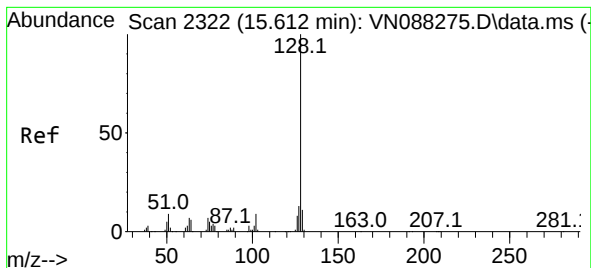
Tgt Ion:180 Resp: 316  
Ion Ratio Lower Upper  
180 100  
182 150.9 77.3 115.9#  
145 0.0 30.2 45.4#



#90  
Hexachlorobutadiene  
Concen: 0.609 ug/l  
RT: 15.476 min Scan# 2299  
Delta R.T. -0.000 min  
Lab File: VN088326.D  
Acq: 20 Nov 2025 13:05

Tgt Ion:225 Resp: 353  
Ion Ratio Lower Upper  
225 100  
223 19.0 0.0 132.0  
227 38.8 0.0 132.6





#91

Naphthalene

Concen: 0.223 ug/l

RT: 15.623 min Scan# 21

Delta R.T. 0.012 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

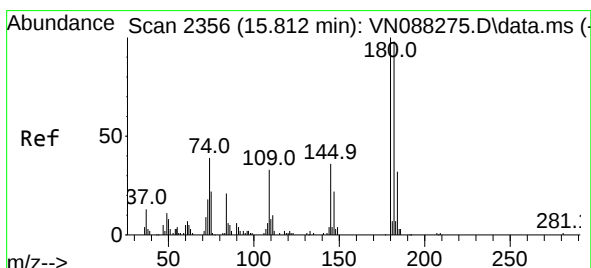
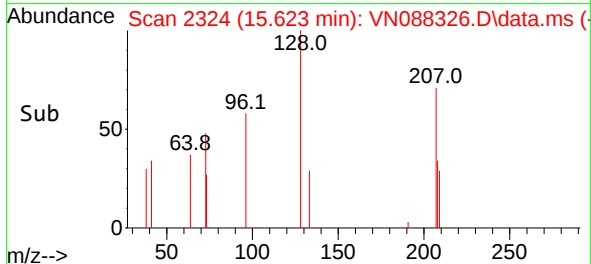
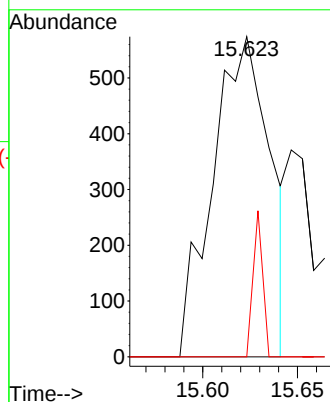
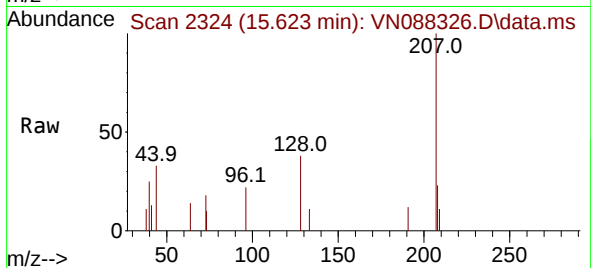
Instrument :

MSVOA\_N

ClientSampleId :

Tgt Ion:128 Resp: 1207

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 128 | 100   |       |       |
| 127 | 0.0   | 10.6  | 16.0# |
| 129 | 0.0   | 8.8   | 13.2# |



#92

1,2,3-Trichlorobenzene

Concen: 0.212 ug/l

RT: 15.811 min Scan# 2356

Delta R.T. -0.000 min

Lab File: VN088326.D

Acq: 20 Nov 2025 13:05

Tgt Ion:180 Resp: 316

| Ion | Ratio | Lower | Upper |
|-----|-------|-------|-------|
| 180 | 100   |       |       |
| 182 | 150.9 | 0.0   | 193.2 |
| 145 | 0.0   | 0.0   | 75.6  |

