

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN053025\
 Data File : VN086831.D
 Acq On : 30 May 2025 13:49
 Operator : JC\MD
 Sample : PB168191ZHE#02
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 PB168191ZHE#02

Quant Time: May 31 03:47:14 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)

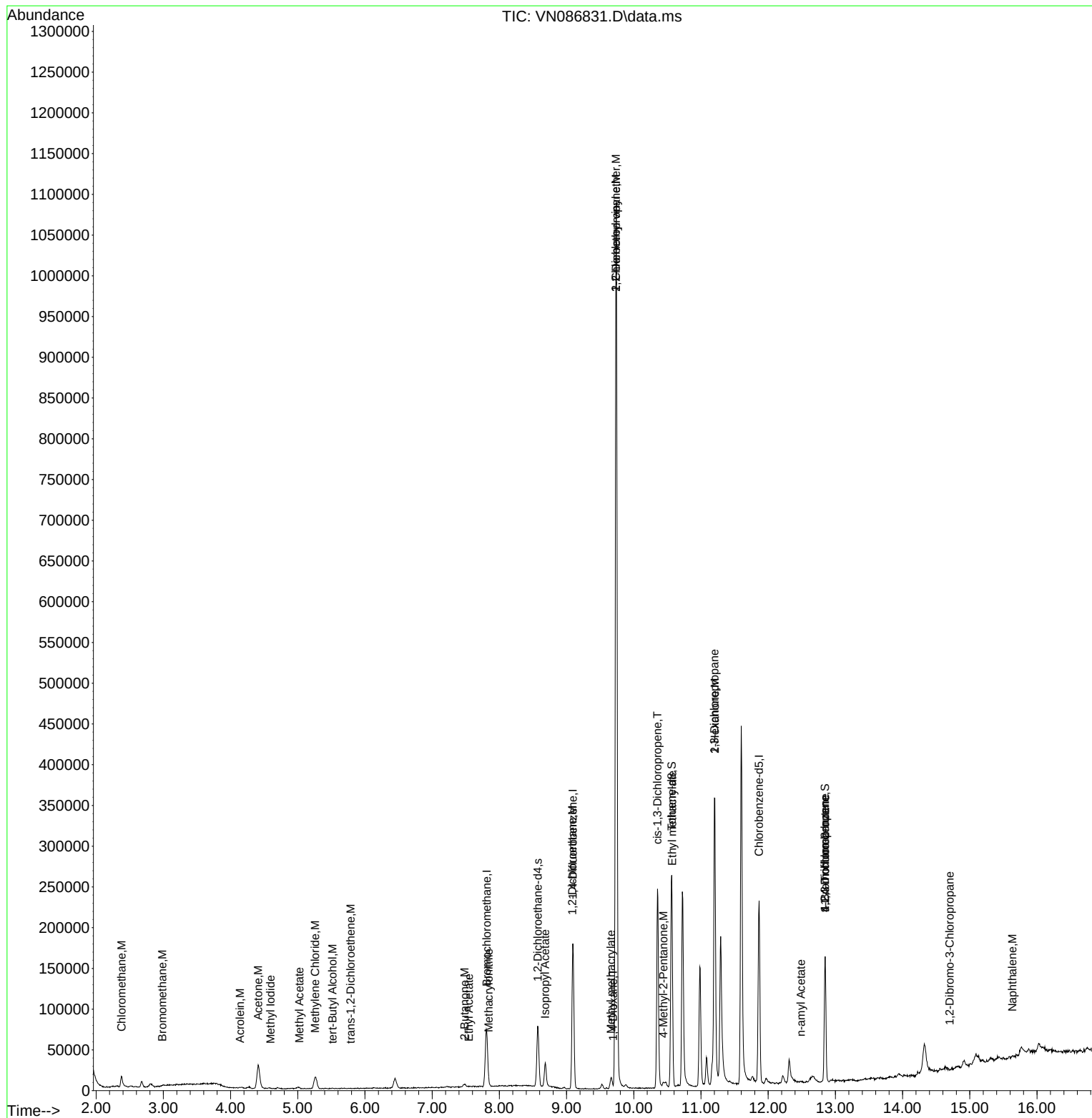
Internal Standards						
1) Bromochloromethane	7.812	128	28076	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.094	114	164131	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	137677	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.571	65	59627	30.911	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	103.033%
60) 4-Bromofluorobenzene	12.847	95	61374	28.393	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	94.633%
63) Toluene-d8	10.565	98	188063	29.761	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	99.200%
Target Compounds						Qvalue
3) Chloromethane	2.377	50	22663	9.218	ug/l	99
5) Bromomethane	2.983	94	372	0.310	ug/l	83
11) Methyl Iodide	4.594	142	620	0.318	ug/l #	44
12) Methyl Acetate	5.024	43	1723	0.937	ug/l #	66
13) Acrolein	4.142	56	249	1.311	ug/l	94
15) Acetone	4.412	58	18976	87.586	ug/l	96
18) Methylene Chloride	5.259	84	12315	6.405	ug/l	91
19) trans-1,2-Dichloroethene	5.789	96	351	0.203	ug/l #	1
23) tert-Butyl Alcohol	5.518	59	155	0.564	ug/l #	100
30) 2-Butanone	7.483	43	6544	6.189	ug/l #	56
35) Methacrylonitrile	7.841	41	591	0.487	ug/l #	25
36) 1,2-Dichloroethane	9.088	62	4840	2.104	ug/l #	72
39) 1,2-Dichloropropane	9.735	63	1563	0.827	ug/l #	44
43) Ethyl Acetate	7.547	43	1412	0.653	ug/l #	66
44) Isopropyl Acetate	8.682	43	32933	8.873	ug/l #	87
45) 1,4-Dioxane	9.694	88	971	29.435	ug/l #	69
46) Methyl methacrylate	9.659	41	2043	1.194	ug/l #	23
47) n-amyl Acetate	12.488	43	955	0.321	ug/l	90
49) cis-1,3-Dichloropropene	10.353	75	52252	17.153	ug/l #	57
51) Ethyl methacrylate	10.571	69	709	0.251	ug/l	90
52) 1,3-Dichloropropane	11.200	76	4380	1.417	ug/l #	42
55) 2-Chloroethyl vinyl ether	9.735	63	1563	1.155	ug/l #	44
58) 4-Methyl-2-Pentanone	10.441	43	3535	1.750	ug/l #	80
59) 2-Hexanone	11.206	43	54347	37.557	ug/l #	1
72) 1,2,3-Trichloropropane	12.847	75	28732	13.592	ug/l	1
77) t-1,4-Dichloro-2-butene	12.847	75	28732	33.213	ug/l #	14
88) 1,2-Dibromo-3-Chloropr...	14.700	75	290	0.764	ug/l #	3
91) Naphthalene	15.635	128	2078	0.426	ug/l #	78

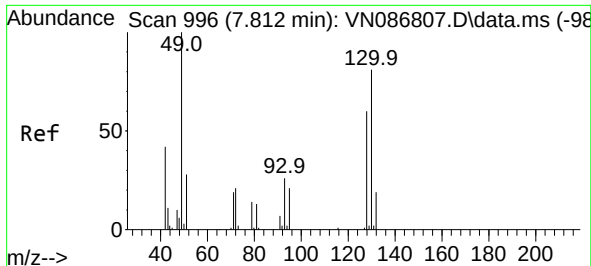
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: May 31 03:47:14 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

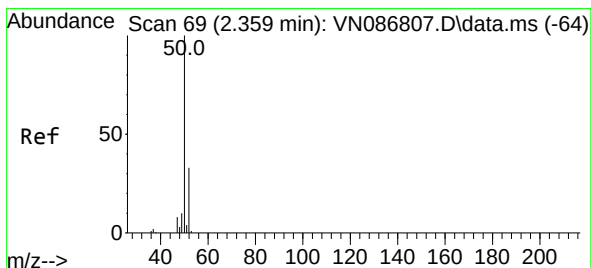
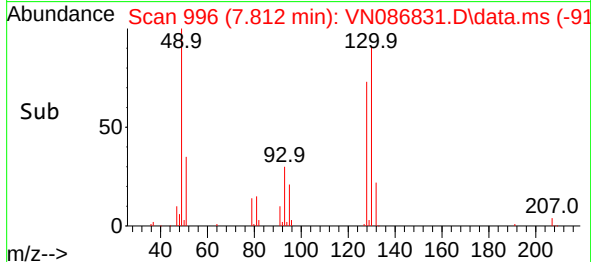
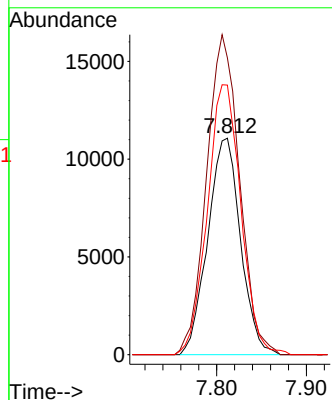
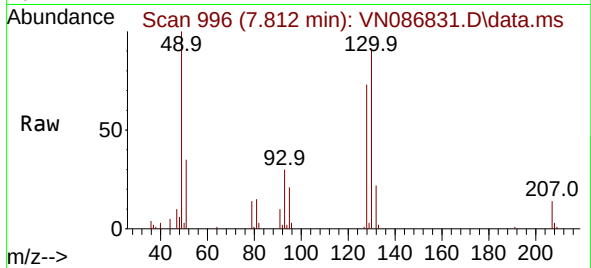




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 91
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

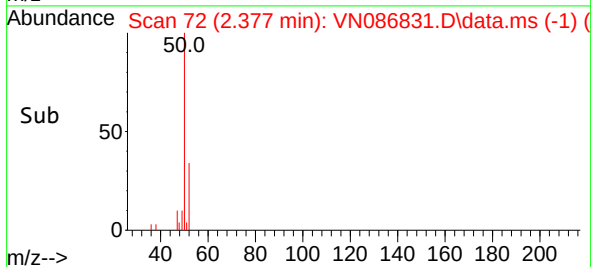
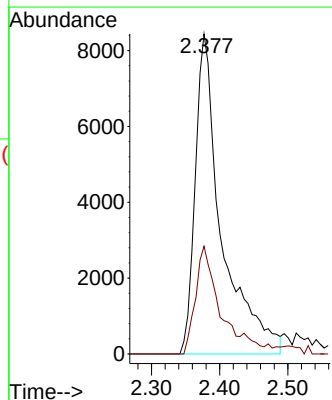
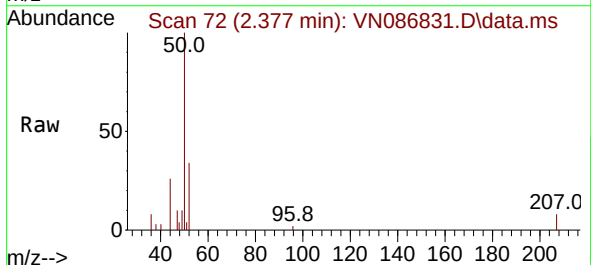
Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

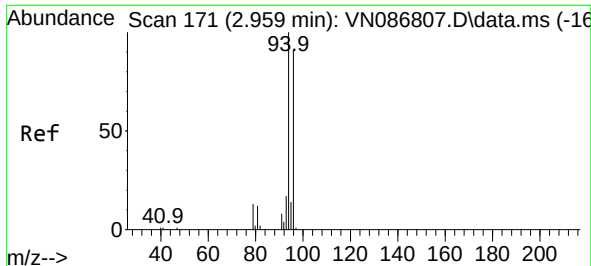
Tgt Ion:128 Resp: 28076
Ion Ratio Lower Upper
128 100
49 148.8 0.0 404.5
130 127.9 0.0 322.2



#3
Chloromethane
Concen: 9.218 ug/l
RT: 2.377 min Scan# 72
Delta R.T. 0.018 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 50 Resp: 22663
Ion Ratio Lower Upper
50 100
52 33.6 26.6 40.0

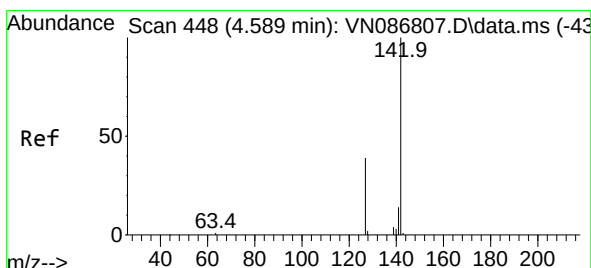
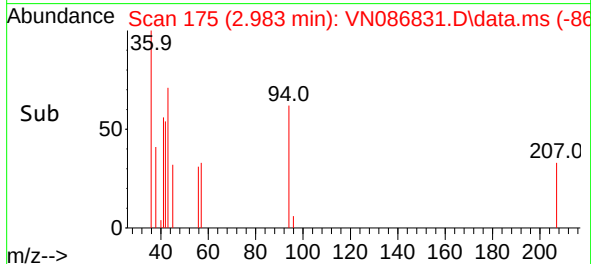
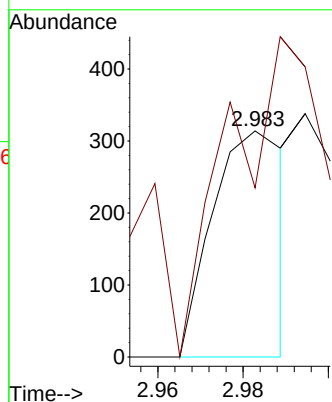
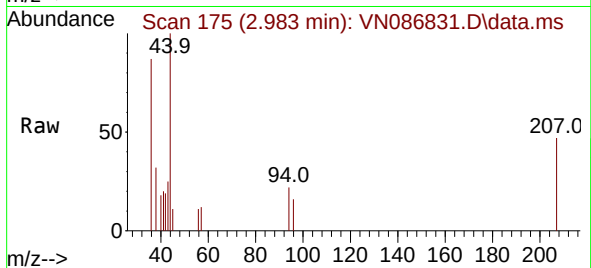




#5
Bromomethane
Concen: 0.310 ug/l
RT: 2.983 min Scan# 11
Delta R.T. 0.023 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

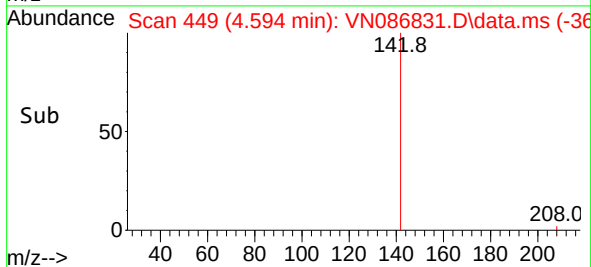
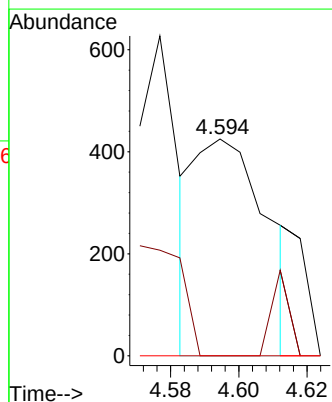
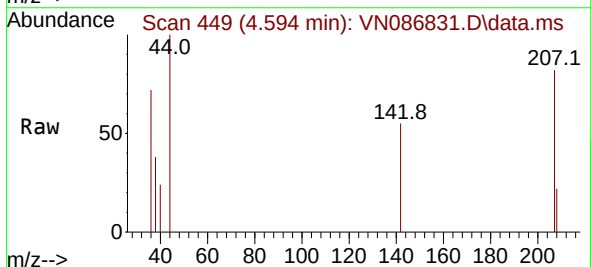
Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

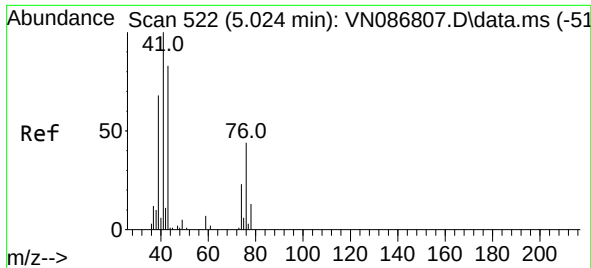
Tgt Ion: 94 Resp: 372
Ion Ratio Lower Upper
94 100
96 74.8 72.7 109.1



#11
Methyl Iodide
Concen: 0.318 ug/l
RT: 4.594 min Scan# 449
Delta R.T. 0.006 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

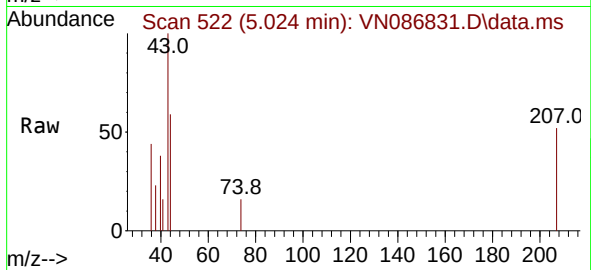
Tgt Ion:142 Resp: 620
Ion Ratio Lower Upper
142 100
127 0.0 19.5 58.5#
141 0.0 7.1 21.4#



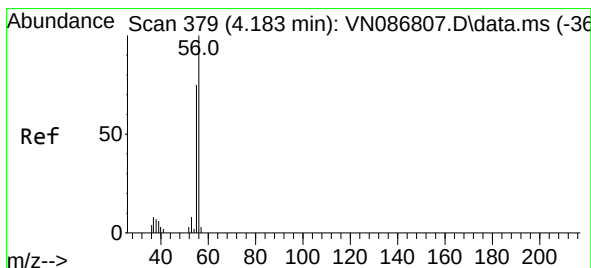
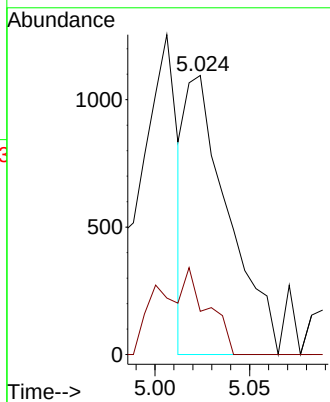
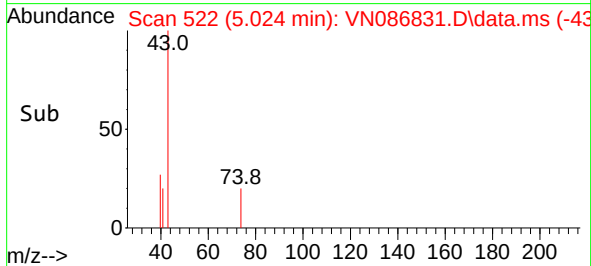


#12
Methyl Acetate
Concen: 0.937 ug/l
RT: 5.024 min Scan# 51
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

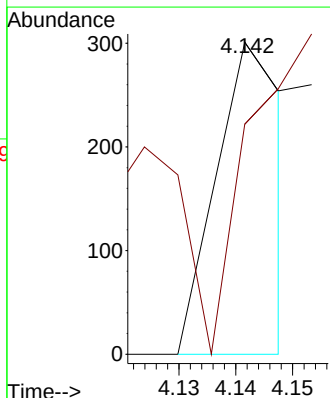
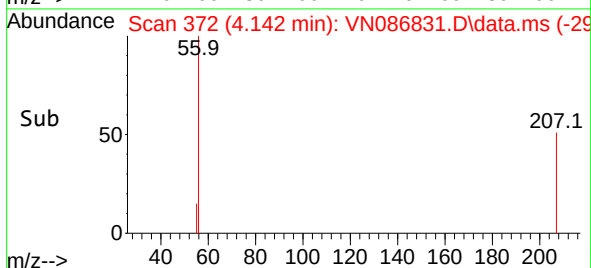
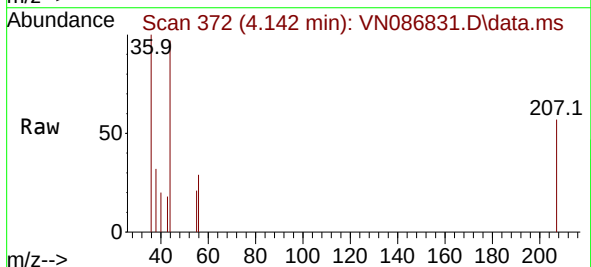


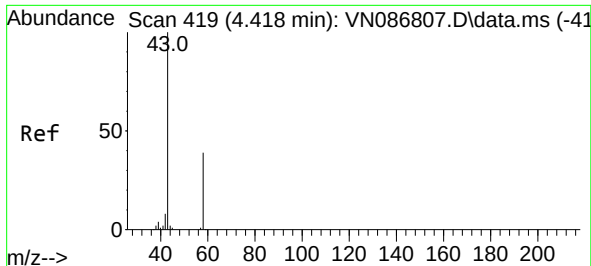
Tgt Ion: 43 Resp: 1723
Ion Ratio Lower Upper
43 100
74 10.2 22.7 34.1#



#13
Acrolein
Concen: 1.311 ug/l
RT: 4.142 min Scan# 372
Delta R.T. -0.041 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 56 Resp: 249
Ion Ratio Lower Upper
56 100
55 74.7 55.9 83.9





#15

Acetone

Concen: 87.586 ug/l

RT: 4.412 min Scan# 41

Delta R.T. -0.006 min

Lab File: VN086831.D

Acq: 30 May 2025 13:49

Instrument :

MSVOA_N

ClientSampleId :

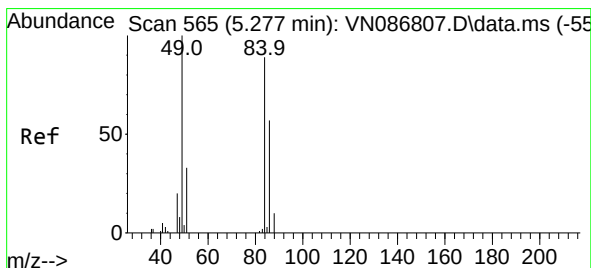
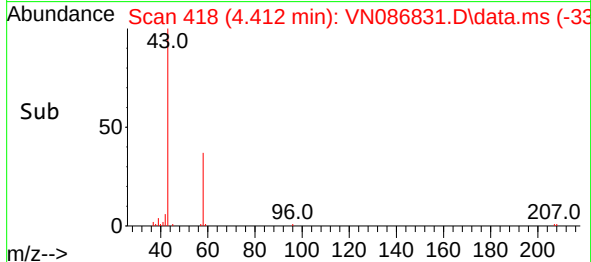
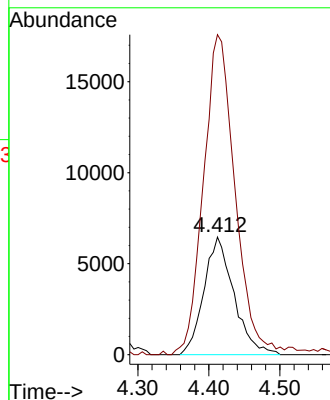
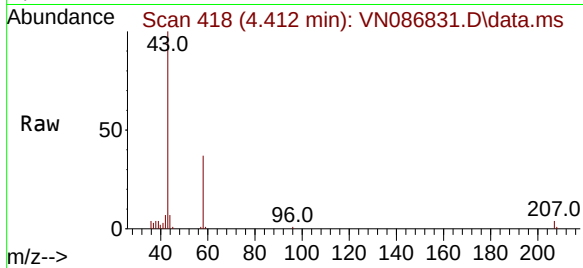
PB168191ZHE#02

Tgt Ion: 58 Resp: 18976

Ion Ratio Lower Upper

58 100

43 266.0 207.7 311.5



#18

Methylene Chloride

Concen: 6.405 ug/l

RT: 5.259 min Scan# 562

Delta R.T. -0.018 min

Lab File: VN086831.D

Acq: 30 May 2025 13:49

Tgt Ion: 84 Resp: 12315

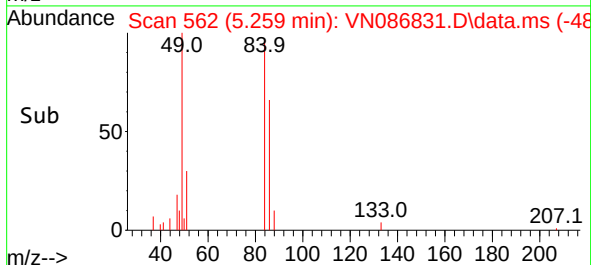
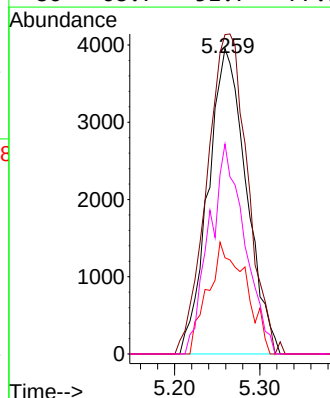
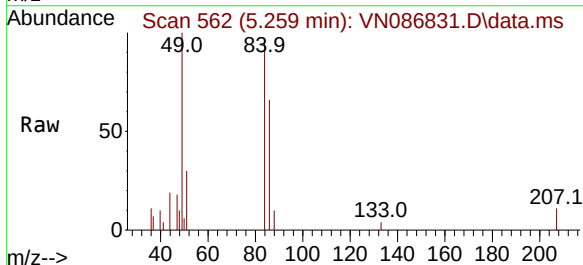
Ion Ratio Lower Upper

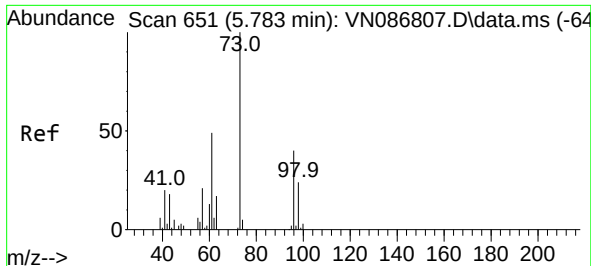
84 100

49 100.6 89.9 134.9

51 31.5 29.6 44.4

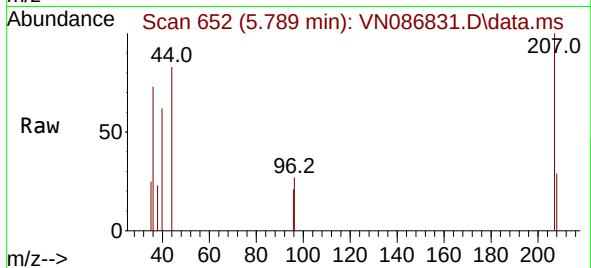
86 68.7 51.7 77.5



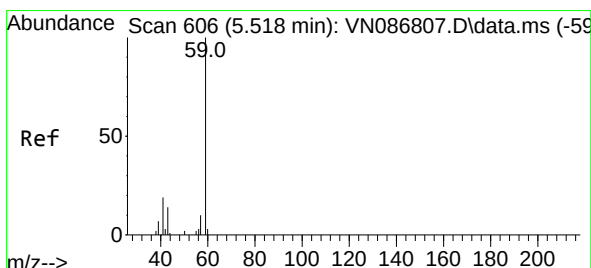
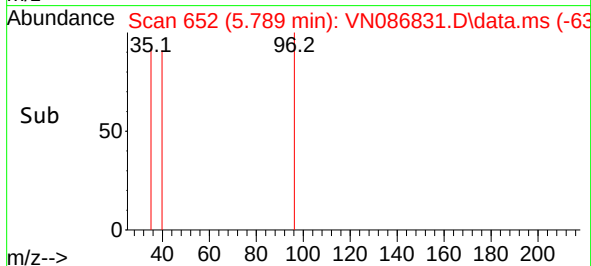
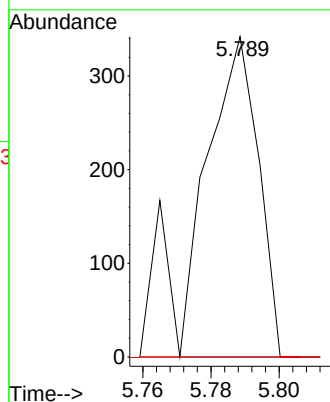


#19
trans-1,2-Dichloroethene
Concen: 0.203 ug/l
RT: 5.789 min Scan# 61
Delta R.T. 0.006 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

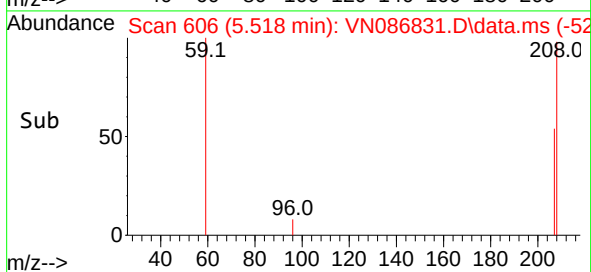
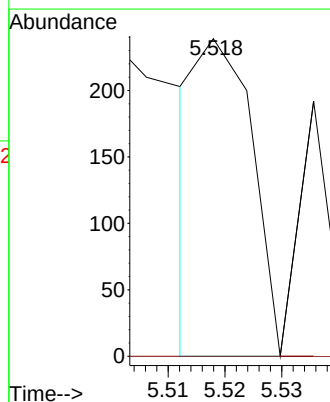
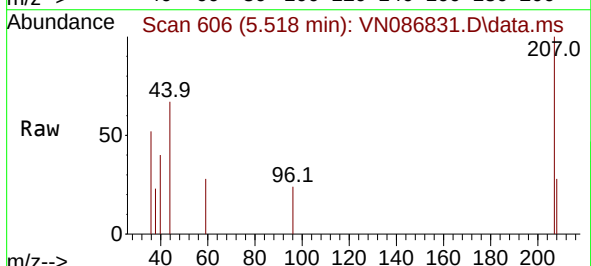


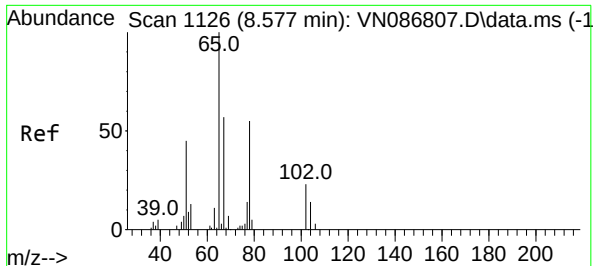
Tgt Ion: 96 Resp: 351
Ion Ratio Lower Upper
96 100
61 0.0 98.9 148.3#
98 0.0 49.0 73.4#



#23
tert-Butyl Alcohol
Concen: 0.564 ug/l
RT: 5.518 min Scan# 606
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 59 Resp: 155
Ion Ratio Lower Upper
59 100
52 0.0 0.0 0.0





#27

1,2-Dichloroethane-d4

Concen: 30.911 ug/l

RT: 8.571 min Scan# 1126

Delta R.T. -0.006 min

Lab File: VN086831.D

Acq: 30 May 2025 13:49

Instrument :

MSVOA_N

ClientSampleId :

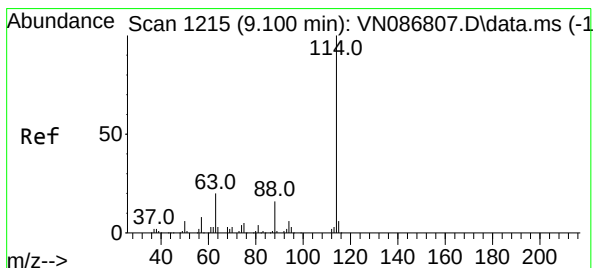
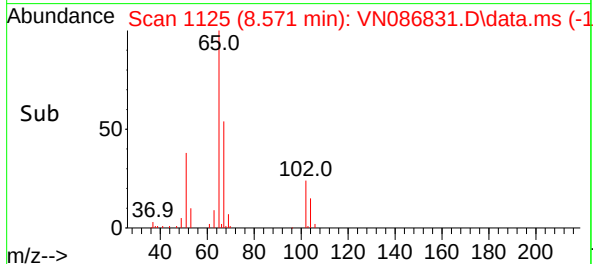
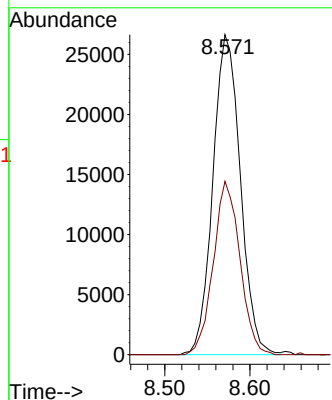
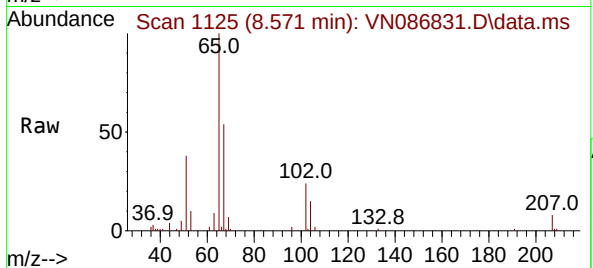
PB168191ZHE#02

Tgt Ion: 65 Resp: 59627

Ion Ratio Lower Upper

65 100

67 52.5 44.6 67.0



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.094 min Scan# 1214

Delta R.T. -0.006 min

Lab File: VN086831.D

Acq: 30 May 2025 13:49

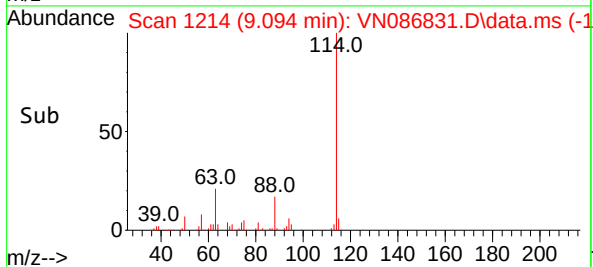
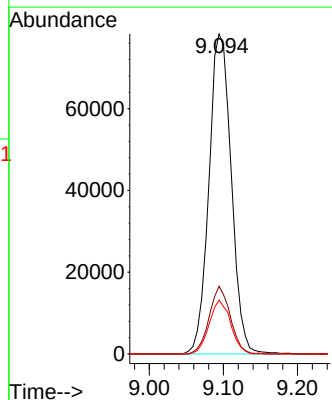
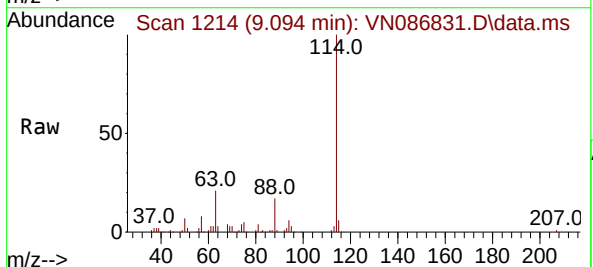
Tgt Ion: 114 Resp: 164131

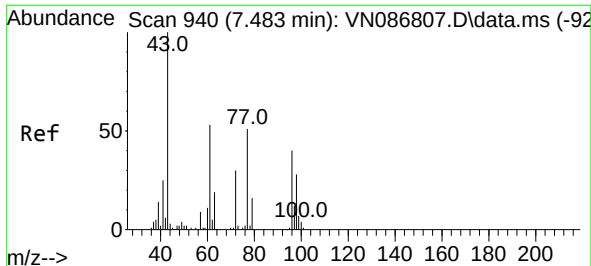
Ion Ratio Lower Upper

114 100

63 19.9 15.8 23.8

88 16.2 12.9 19.3

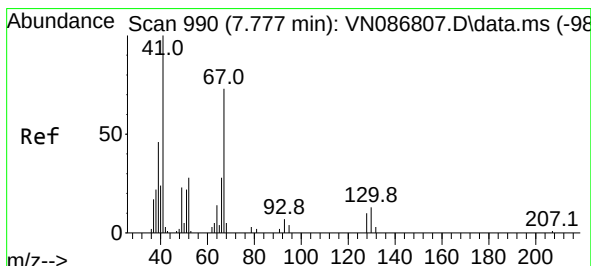
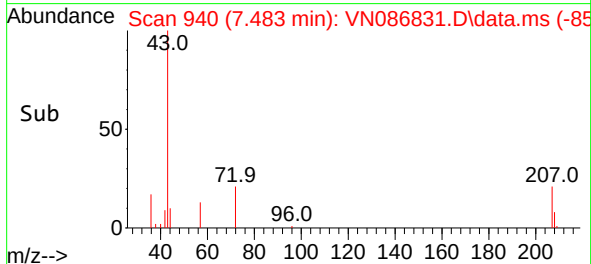
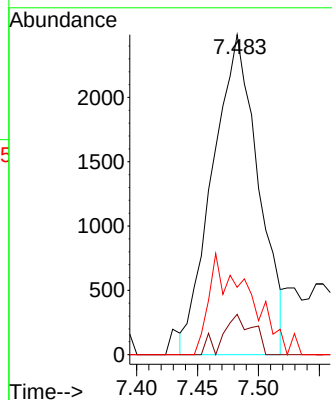
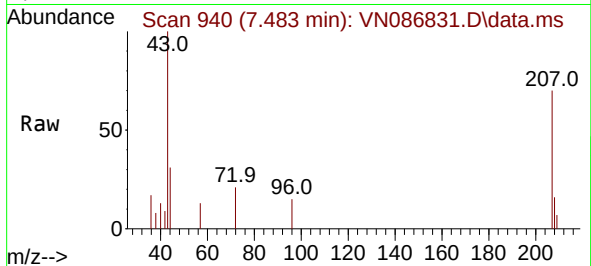




#30
2-Butanone
Concen: 6.189 ug/l
RT: 7.483 min Scan# 940
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

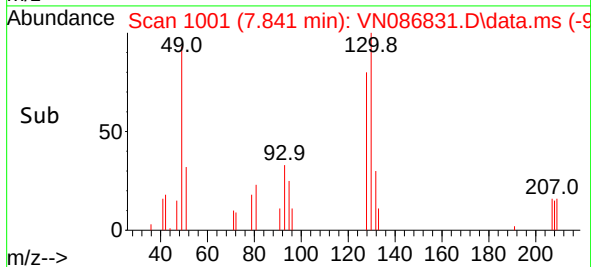
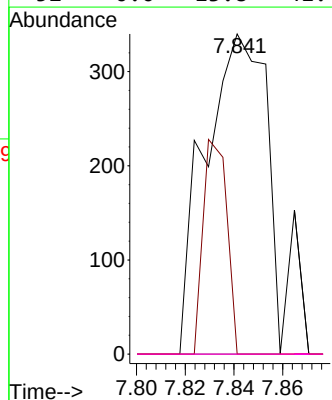
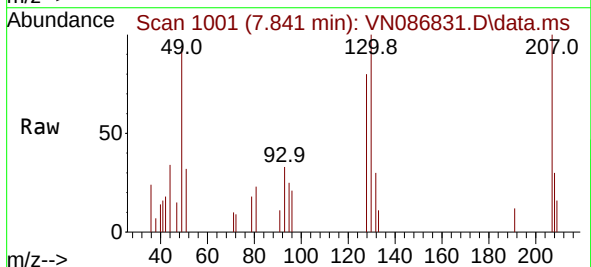
Instrument :
MSVOA_N
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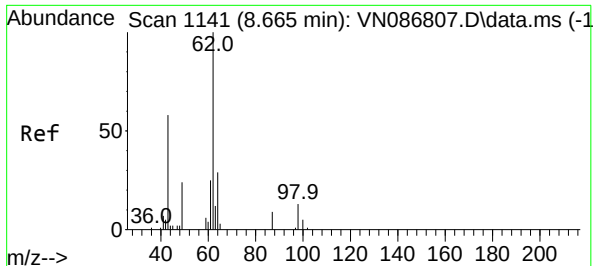
Tgt Ion: 43 Resp: 6544
Ion Ratio Lower Upper
43 100
57 4.9 6.8 10.2#
72 0.0 23.4 35.0#



#35
Methacrylonitrile
Concen: 0.487 ug/l
RT: 7.841 min Scan# 1001
Delta R.T. 0.065 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 41 Resp: 591
Ion Ratio Lower Upper
41 100
39 0.0 23.2 69.6#
67 0.0 36.5 109.7#
52 0.0 13.8 41.4#





#36

1,2-Dichloroethane

Concen: 2.104 ug/l

RT: 9.088 min Scan# 1141

Delta R.T. 0.423 min

Lab File: VN086831.D

Acq: 30 May 2025 13:49

Instrument :

MSVOA_N

ClientSampleId :

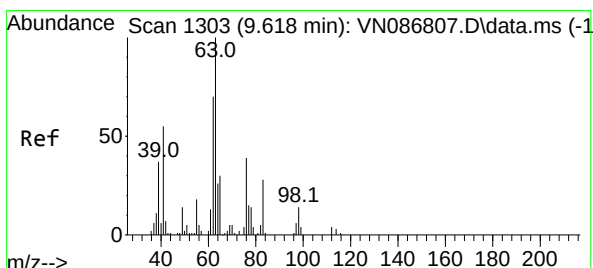
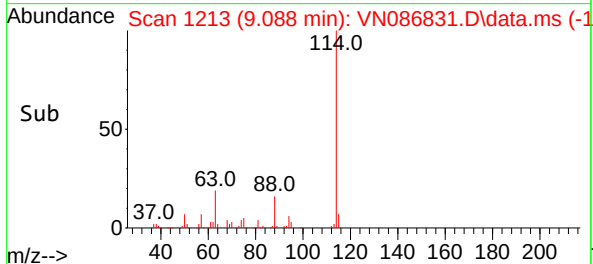
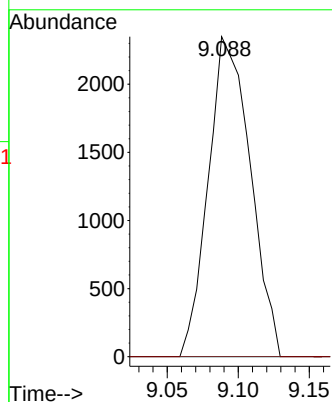
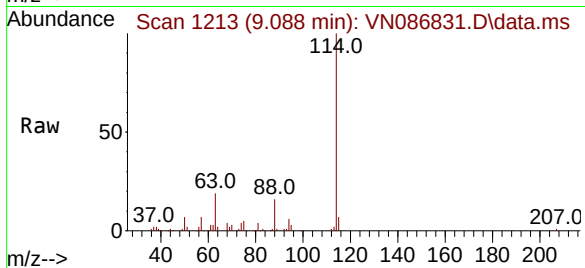
PB168191ZHE#02

Tgt Ion: 62 Resp: 4840

Ion Ratio Lower Upper

62 100

98 0.0 8.5 12.7#



#39

1,2-Dichloropropane

Concen: 0.827 ug/l

RT: 9.735 min Scan# 1323

Delta R.T. 0.118 min

Lab File: VN086831.D

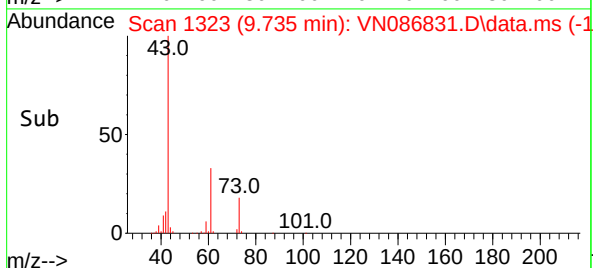
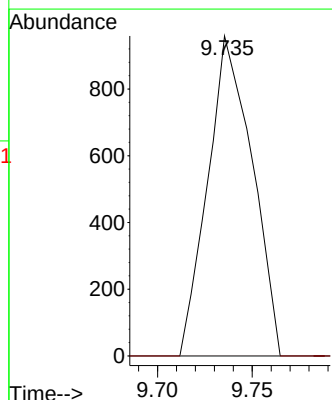
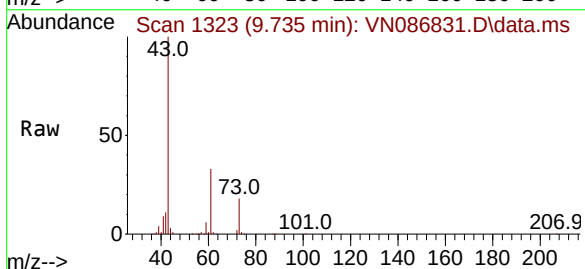
Acq: 30 May 2025 13:49

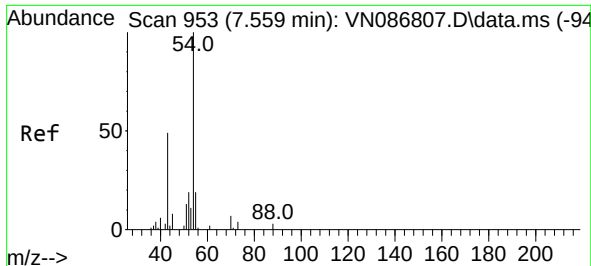
Tgt Ion: 63 Resp: 1563

Ion Ratio Lower Upper

63 100

65 0.0 24.2 36.4#

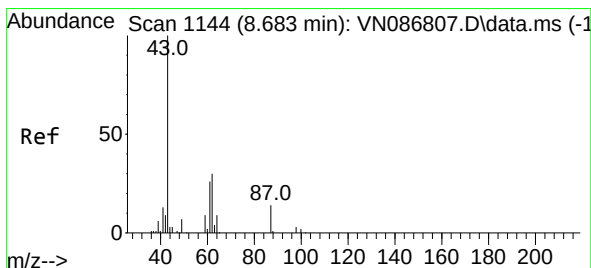
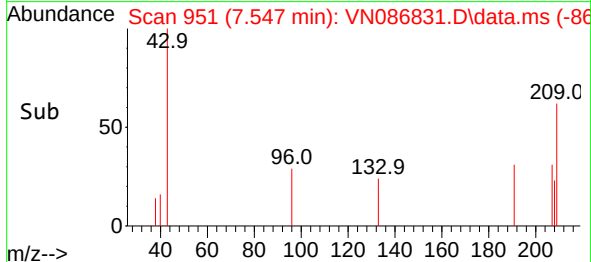
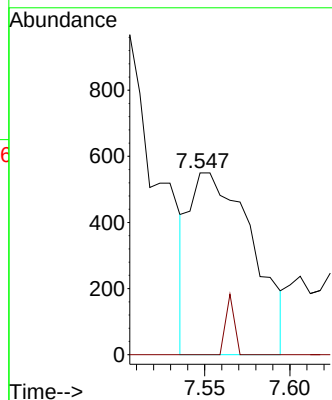
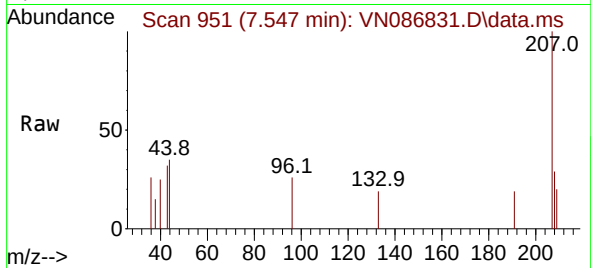




#43
Ethyl Acetate
Concen: 0.653 ug/l
RT: 7.547 min Scan# 91
Delta R.T. -0.012 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

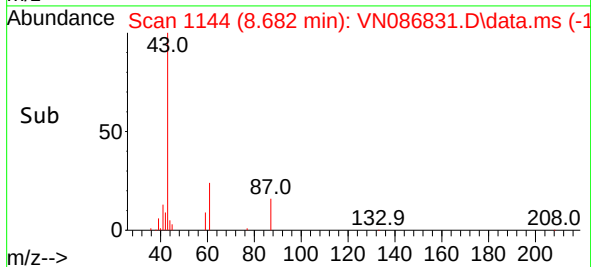
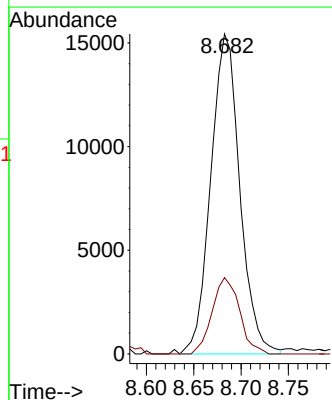
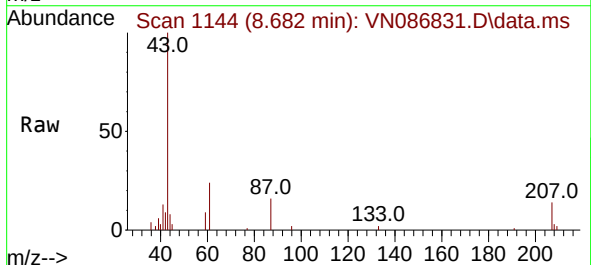
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MSVOA_N
ClientSampleId :
PB168191ZHE#02

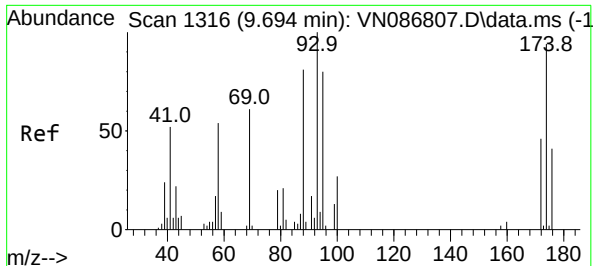
Tgt Ion: 43 Resp: 1412
Ion Ratio Lower Upper
43 100
45 0.0 11.1 16.7#



#44
Isopropyl Acetate
Concen: 8.873 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 43 Resp: 32933
Ion Ratio Lower Upper
43 100
61 22.5 23.8 35.6#

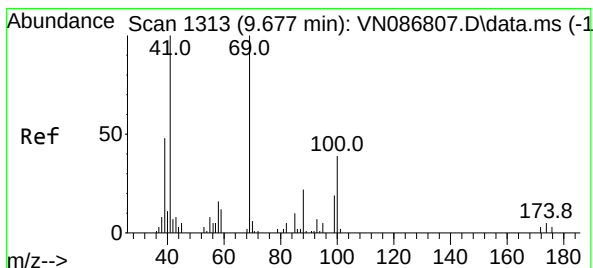
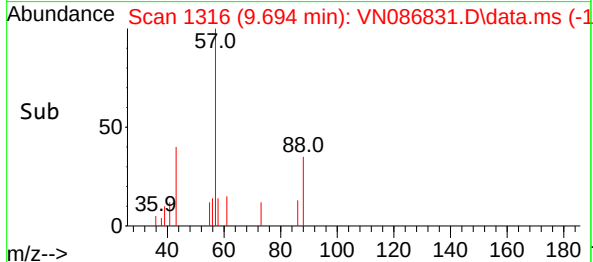
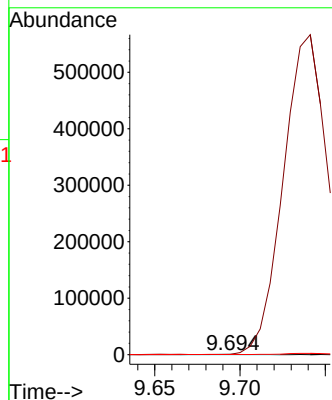
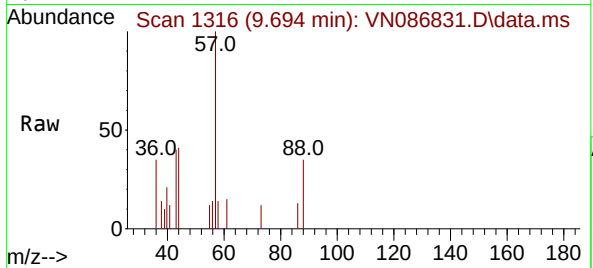




#45
 1,4-Dioxane
 Concen: 29.435 ug/l
 RT: 9.694 min Scan# 1316
 Delta R.T. -0.000 min
 Lab File: VN086831.D
 Acq: 30 May 2025 13:49

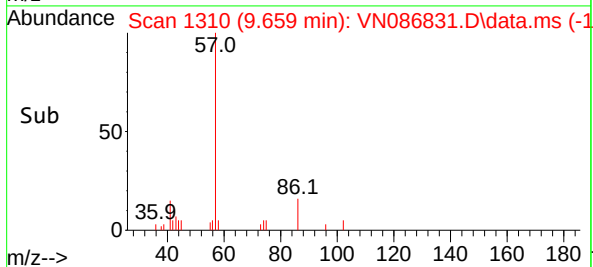
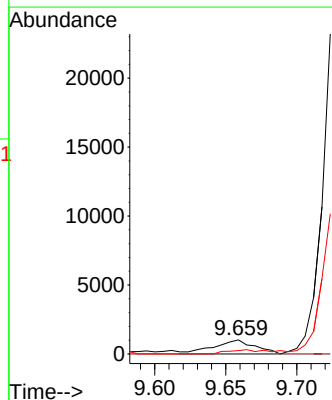
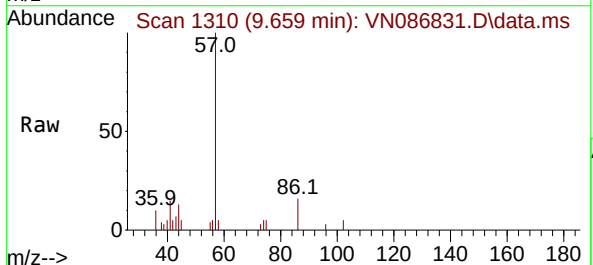
Instrument :
 MSVOA_N
 ClientSampleId :
 PB168191ZHE#02

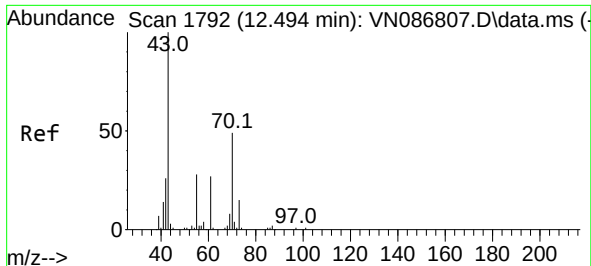
Tgt Ion: 88 Resp: 971
 Ion Ratio Lower Upper
 88 100
 43 0.0 23.0 34.6#
 58 53.5 57.6 86.4#



#46
 Methyl methacrylate
 Concen: 1.194 ug/l
 RT: 9.659 min Scan# 1310
 Delta R.T. -0.018 min
 Lab File: VN086831.D
 Acq: 30 May 2025 13:49

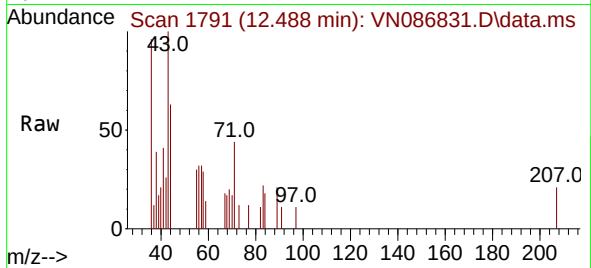
Tgt Ion: 41 Resp: 2043
 Ion Ratio Lower Upper
 41 100
 69 0.0 48.0 144.2#
 39 24.0 23.8 71.2



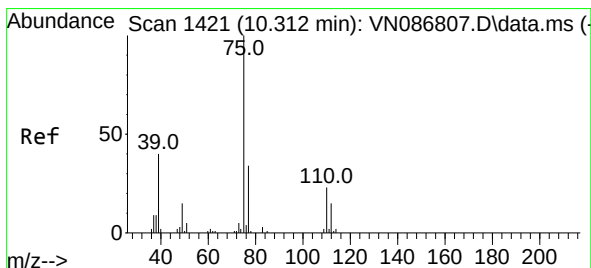
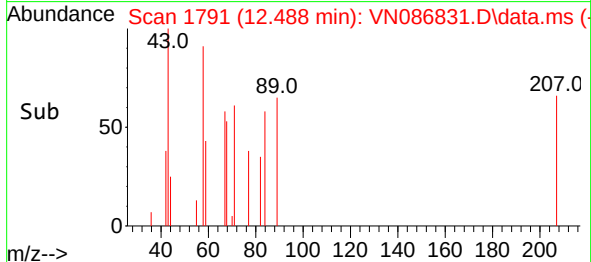
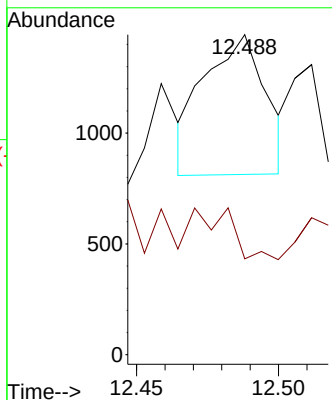


#47
n-amy1 Acetate
Concen: 0.321 ug/l
RT: 12.488 min Scan# 1791
Delta R.T. -0.006 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

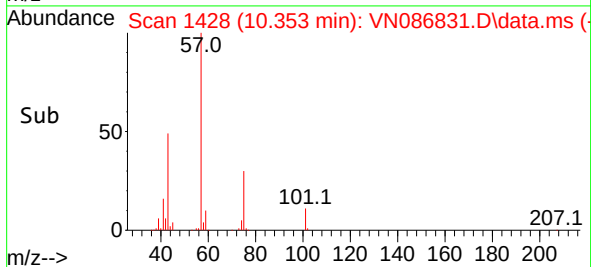
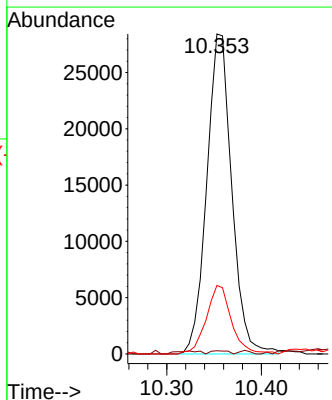
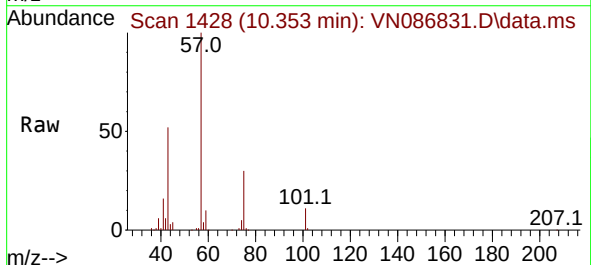


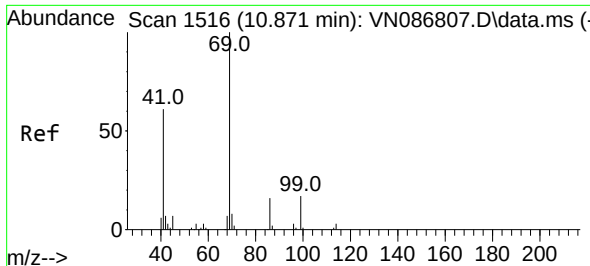
Tgt Ion: 43 Resp: 955
Ion Ratio Lower Upper
43 100
55 21.8 21.7 32.5



#49
cis-1,3-Dichloropropene
Concen: 17.153 ug/l
RT: 10.353 min Scan# 1428
Delta R.T. 0.041 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 75 Resp: 52252
Ion Ratio Lower Upper
75 100
77 0.3 26.9 40.3#
39 21.4 31.8 47.6#

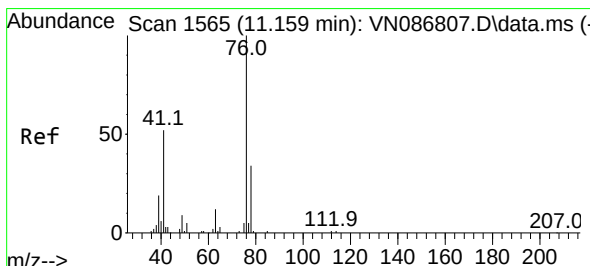
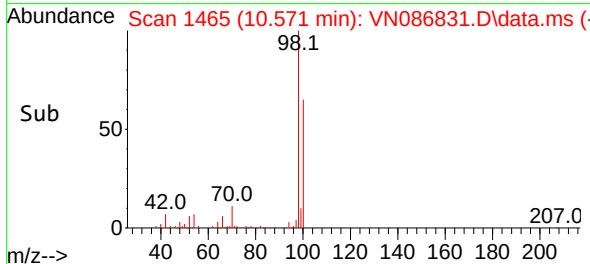
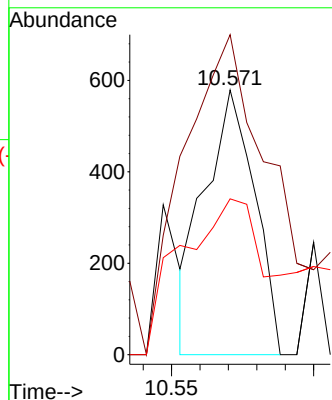
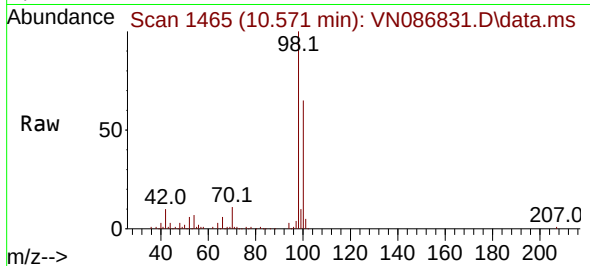




#51
Ethyl methacrylate
Concen: 0.251 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.300 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

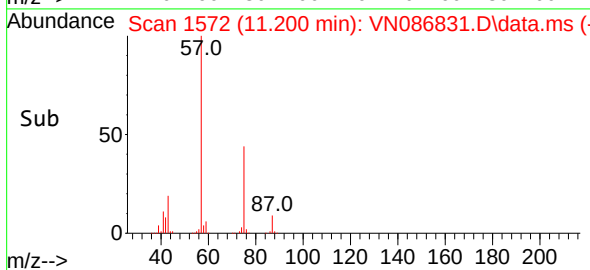
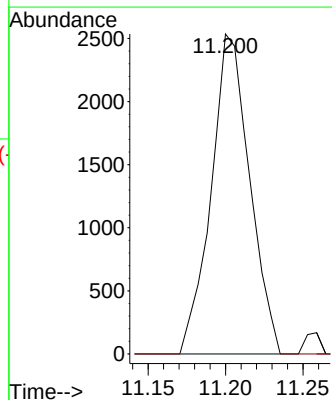
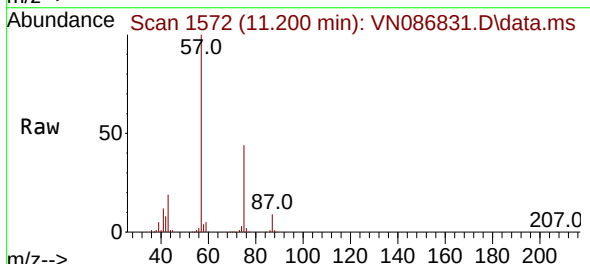
Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

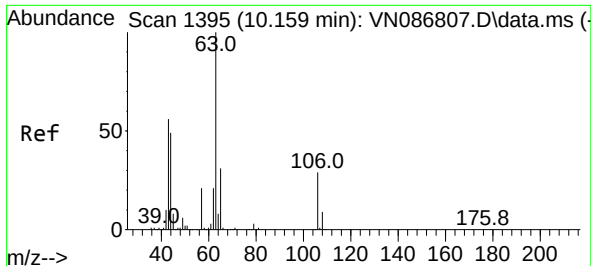
Tgt Ion: 69 Resp: 709
Ion Ratio Lower Upper
69 100
41 49.6 30.5 91.5
39 28.8 14.3 42.9



#52
1,3-Dichloropropane
Concen: 1.417 ug/l
RT: 11.200 min Scan# 1572
Delta R.T. 0.041 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 76 Resp: 4380
Ion Ratio Lower Upper
76 100
78 0.0 0.0 64.6

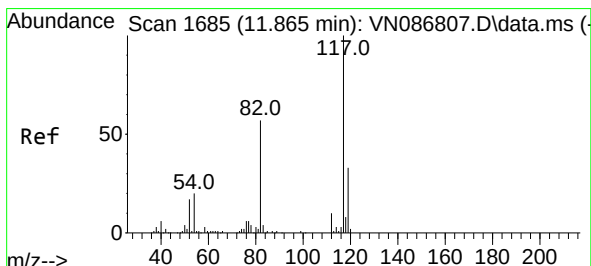
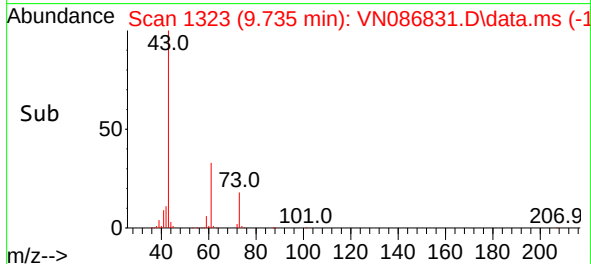
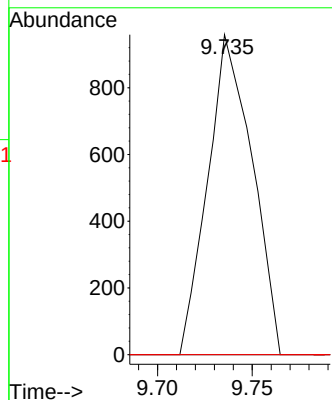
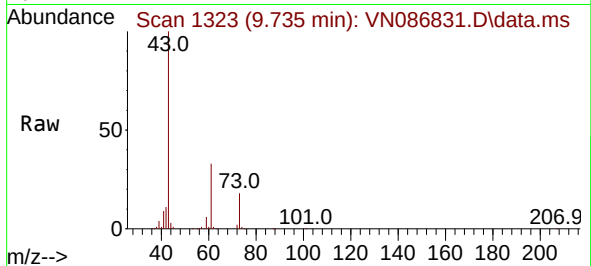




#55
2-Chloroethyl vinyl ether
Concen: 1.155 ug/l
RT: 9.735 min Scan# 1323
Delta R.T. -0.424 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

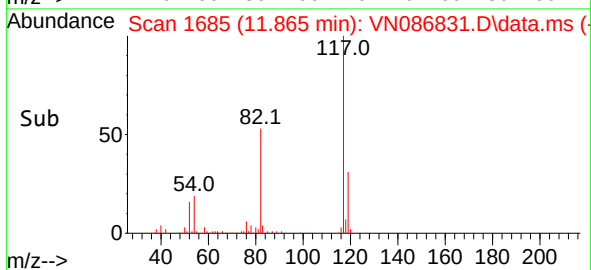
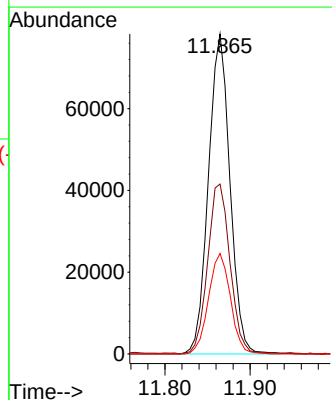
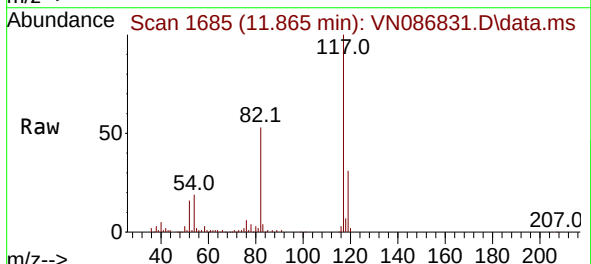
Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

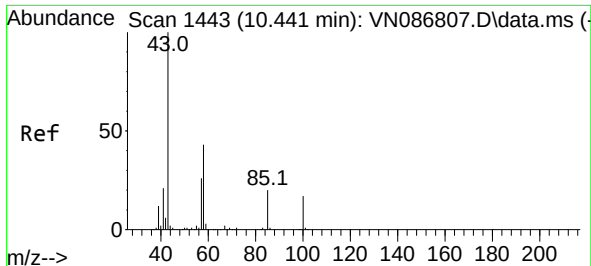
Tgt Ion: 63 Resp: 1563
Ion Ratio Lower Upper
63 100
65 0.0 25.7 38.5#
106 0.0 22.7 34.1#



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.865 min Scan# 1685
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 117 Resp: 137677
Ion Ratio Lower Upper
117 100
82 55.4 44.7 67.1
119 32.0 25.6 38.4

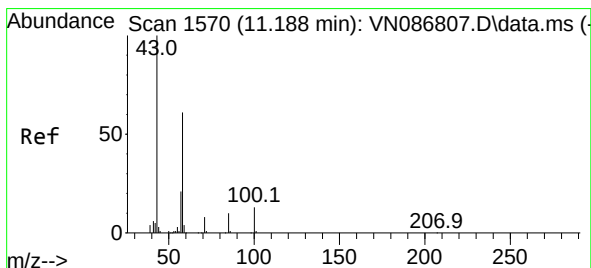
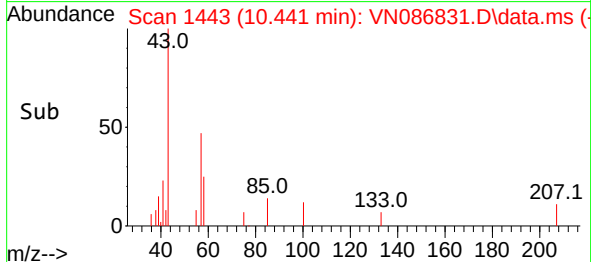
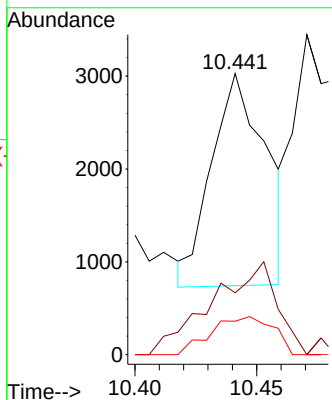
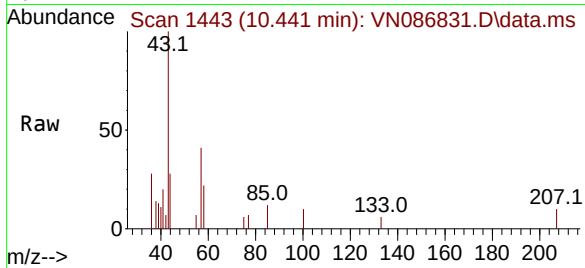




#58
4-Methyl-2-Pentanone
Concen: 1.750 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

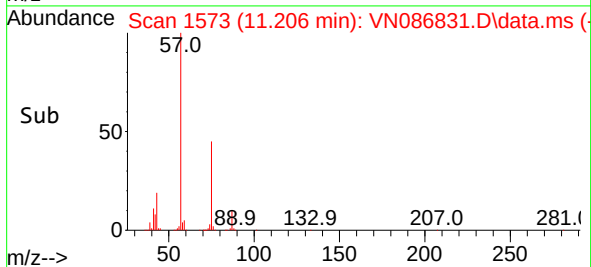
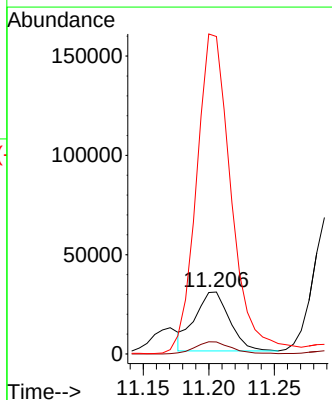
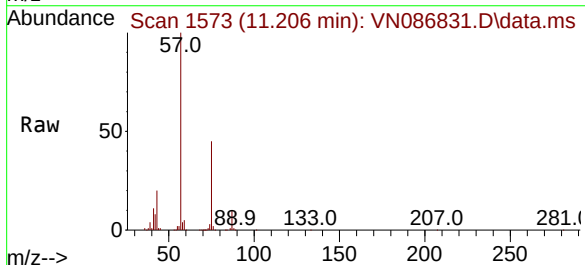
Instrument : MSVOA_N
ClientSampleId : PB168191ZHE#02

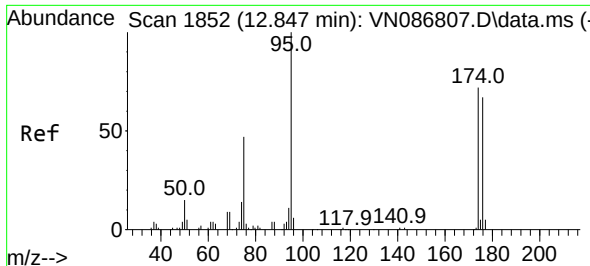
Tgt Ion: 43 Resp: 3535
Ion Ratio Lower Upper
43 100
58 25.4 34.5 51.7#
85 20.6 15.8 23.8



#59
2-Hexanone
Concen: 37.557 ug/l
RT: 11.206 min Scan# 1573
Delta R.T. 0.018 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 43 Resp: 54347
Ion Ratio Lower Upper
43 100
58 21.9 49.1 73.7#
57 551.2 16.6 25.0#

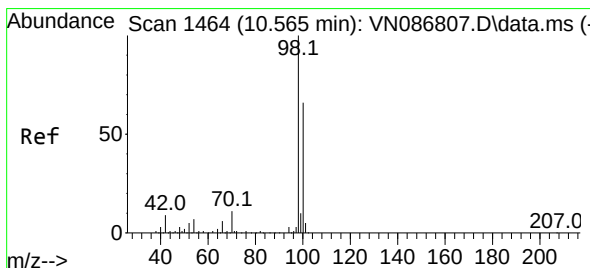
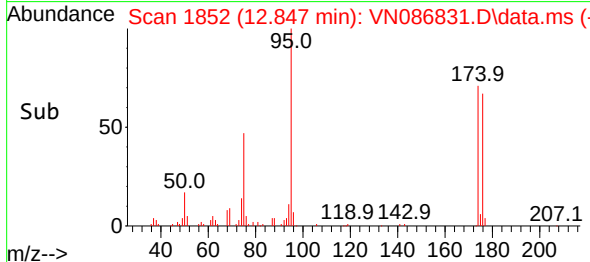
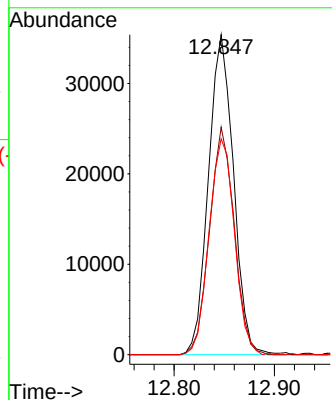
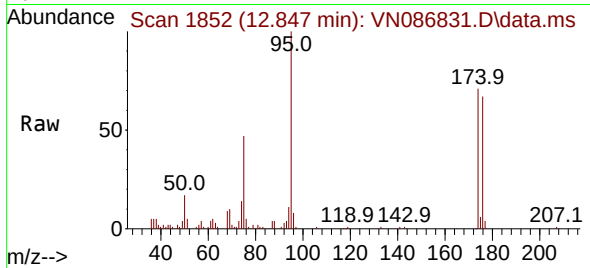




#60
4-Bromofluorobenzene
Concen: 28.393 ug/l
RT: 12.847 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

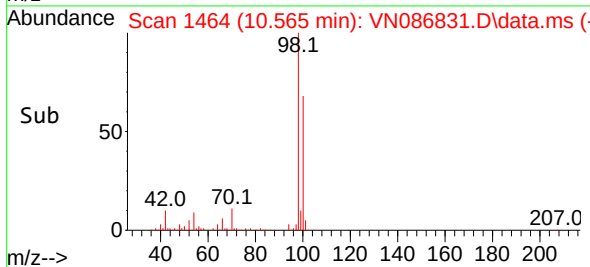
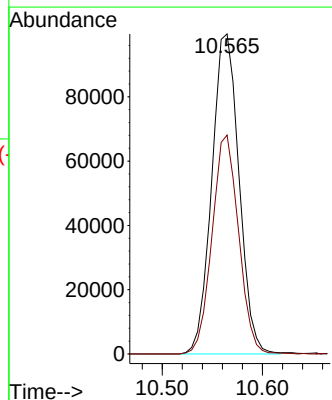
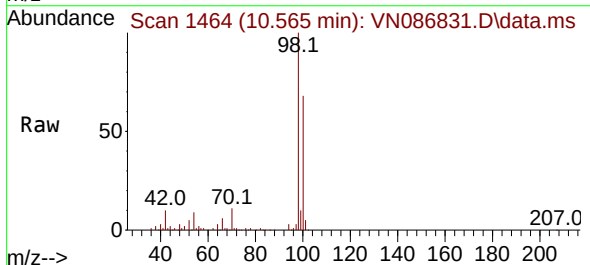
Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

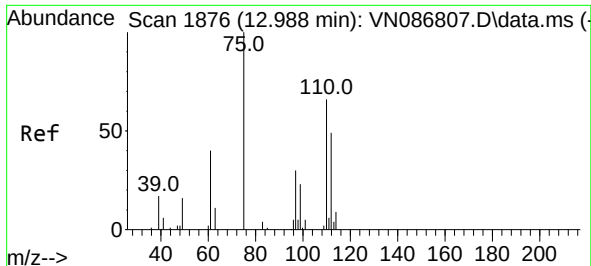
Tgt Ion: 95 Resp: 61374
Ion Ratio Lower Upper
95 100
174 70.0 56.2 84.4
176 68.4 53.4 80.0



#63
Toluene-d8
Concen: 29.761 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.000 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 98 Resp: 188063
Ion Ratio Lower Upper
98 100
100 66.6 52.7 79.1

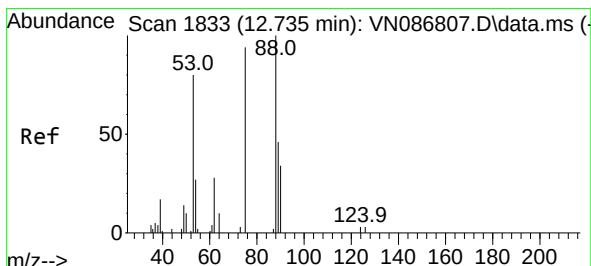
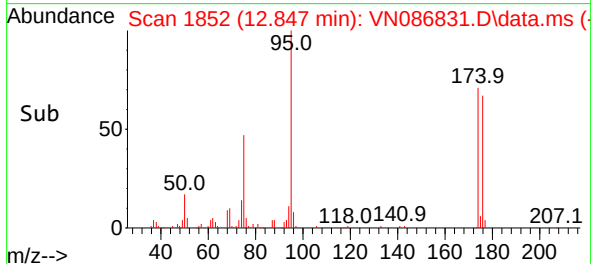
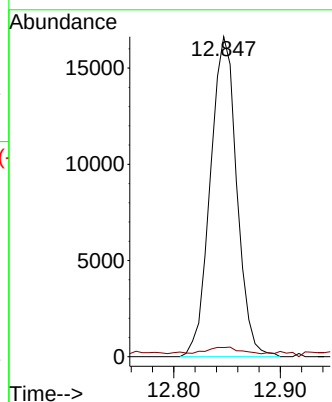
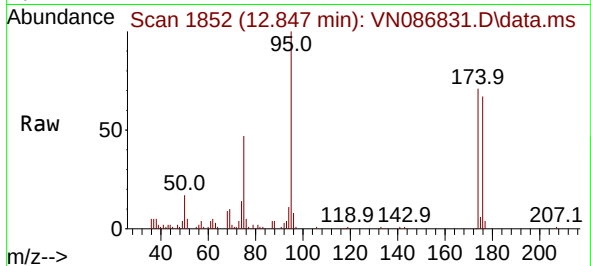




#72
1,2,3-Trichloropropane
Concen: 13.592 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. -0.141 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

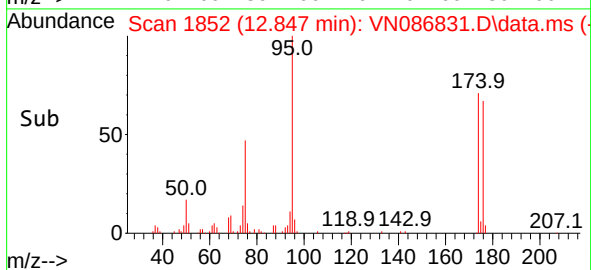
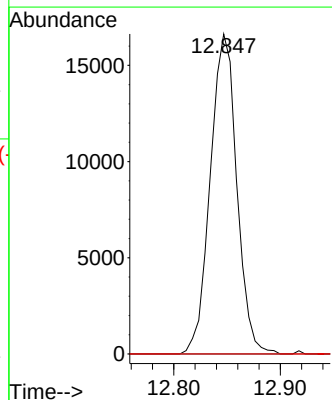
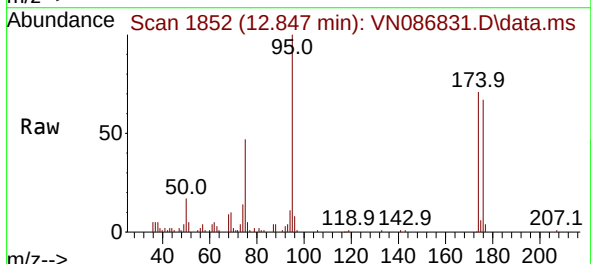
Instrument :
MSVOA_N
ClientSampleId :
PB168191ZHE#02

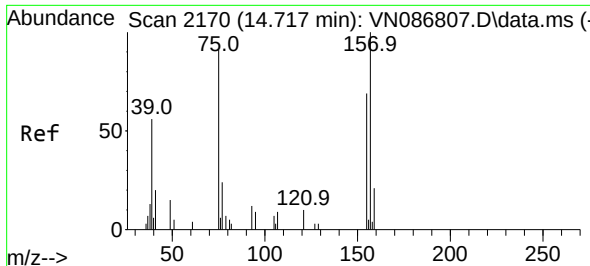
Tgt Ion: 75 Resp: 28732
Ion Ratio Lower Upper
75 100
77 3.4 0.0 390.6



#77
t-1,4-Dichloro-2-butene
Concen: 33.213 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.112 min
Lab File: VN086831.D
Acq: 30 May 2025 13:49

Tgt Ion: 75 Resp: 28732
Ion Ratio Lower Upper
75 100
53 0.0 43.0 128.8#
89 0.0 25.4 76.2#

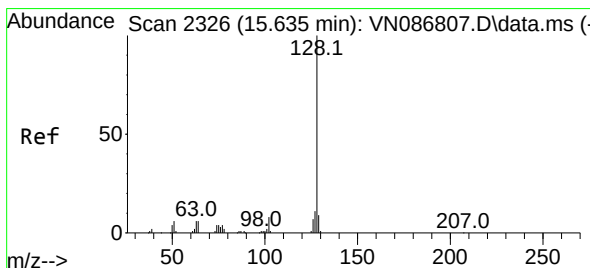
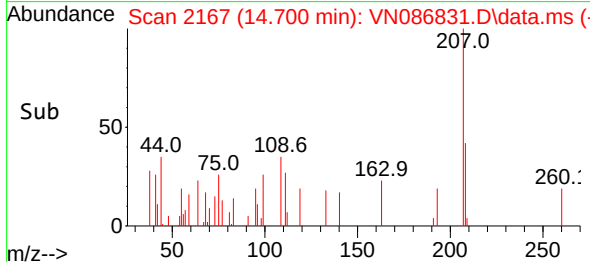
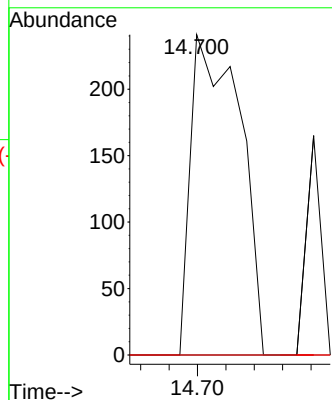
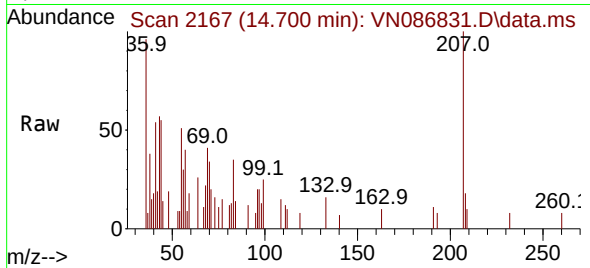




#88
 1,2-Dibromo-3-Chloropropane
 Concen: 0.764 ug/l
 RT: 14.700 min Scan# 2170
 Delta R.T. -0.018 min
 Lab File: VN086831.D
 Acq: 30 May 2025 13:49

Instrument :
 MSVOA_N
 ClientSampleId :
 PB168191ZHE#02

Tgt Ion: 75 Resp: 290
 Ion Ratio Lower Upper
 75 100
 155 0.0 62.9 94.3#
 157 0.0 84.0 126.0#



#91
 Naphthalene
 Concen: 0.426 ug/l
 RT: 15.635 min Scan# 2326
 Delta R.T. -0.000 min
 Lab File: VN086831.D
 Acq: 30 May 2025 13:49

Tgt Ion: 128 Resp: 2078
 Ion Ratio Lower Upper
 128 100
 127 6.2 9.8 14.6#
 129 0.0 8.6 13.0#

