

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN101725\
 Data File : VN088065.D
 Acq On : 17 Oct 2025 13:36
 Operator : JC\MD
 Sample : Q3362-01RE
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 VOA 251015085-01

Quant Time: Oct 18 01:29:23 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N100825W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Thu Oct 09 02:36:32 2025
 Response via : Initial Calibration

Compound	R.T. QIon		Response	Conc	Units	Dev(Min)

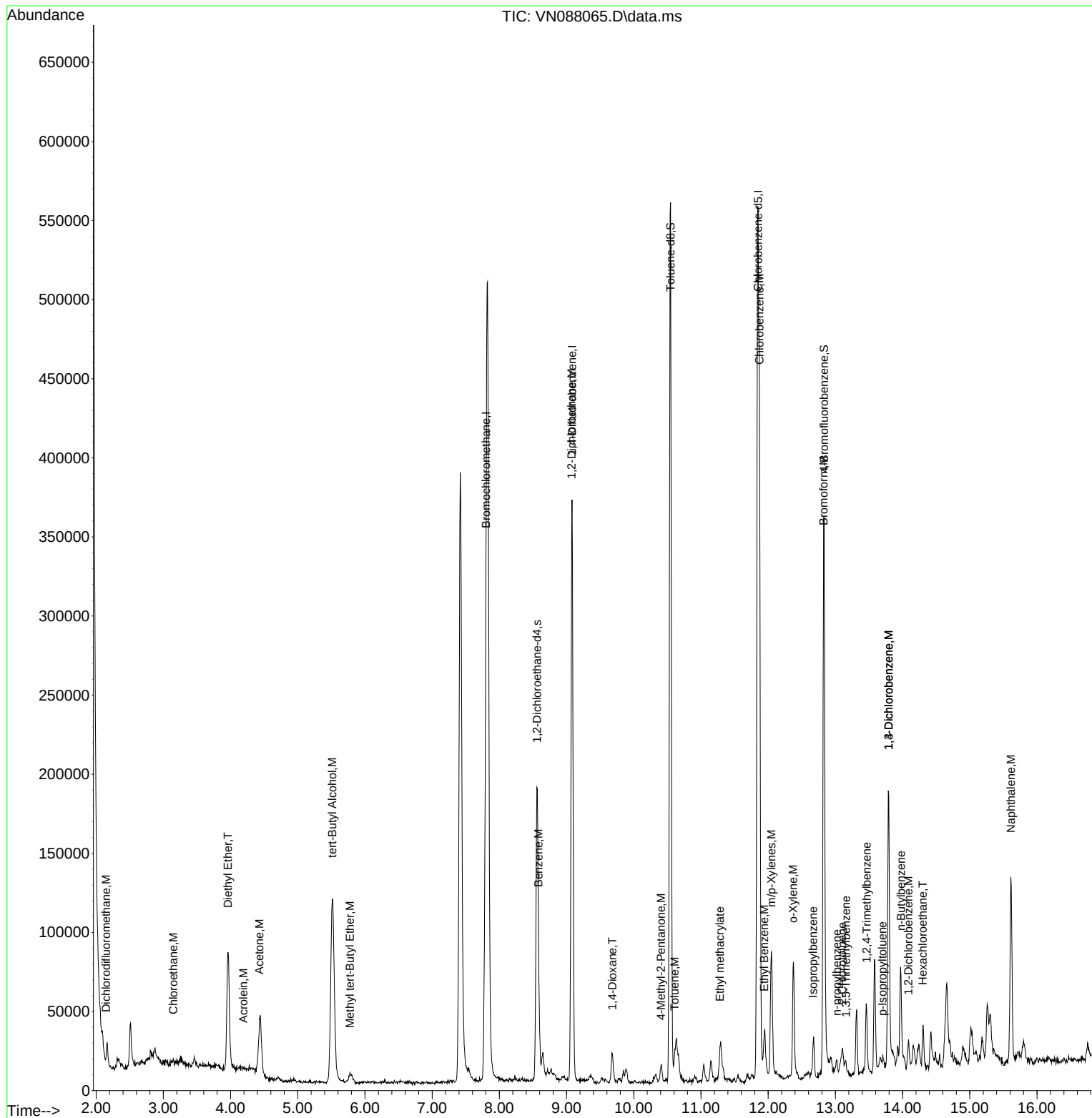
Internal Standards						
1) Bromochloromethane	7.800	128	59993	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.082	114	311111	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.847	117	282237	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.559	65	146632	31.388	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	= 104.633%	
60) 4-Bromofluorobenzene	12.829	95	134961	29.006	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	= 96.700%	
63) Toluene-d8	10.547	98	381294	30.322	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	= 101.067%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.148	85	914	0.266	ug/l	76
6) Chloroethane	3.148	64	2599	0.970	ug/l	91
8) Diethyl Ether	3.959	74	44491	17.826	ug/l	93
13) Acrolein	4.189	56	224	0.282	ug/l #	20
15) Acetone	4.430	58	573	0.791	ug/l #	1
23) tert-Butyl Alcohol	5.512	59	246221	248.079	ug/l #	100
24) Methyl tert-Butyl Ether	5.777	73	4289	0.315	ug/l	97
34) Benzene	8.583	78	32137	2.173	ug/l #	30
36) 1,2-Dichloroethane	9.077	62	12357	2.406	ug/l #	74
45) 1,4-Dioxane	9.682	88	15497	225.643	ug/l #	88
51) Ethyl methacrylate	11.282	69	1221	0.202	ug/l	89
56) Bromoform	12.823	173	793	0.274	ug/l #	1
58) 4-Methyl-2-Pentanone	10.406	43	6228	0.987	ug/l #	50
62) Toluene	10.606	91	8529	0.533	ug/l	98
64) Chlorobenzene	11.871	112	203043	19.856	ug/l	98
66) Ethyl Benzene	11.941	91	12189	0.700	ug/l	94
67) m/p-Xylenes	12.047	106	28348	4.224	ug/l	96
68) o-Xylene	12.371	106	20472	3.064	ug/l	92
70) Isopropylbenzene	12.670	105	17470	1.067	ug/l	99
74) n-propylbenzene	13.023	91	5647	0.286	ug/l	98
75) 2-Chlorotoluene	13.100	91	8603	0.712	ug/l	99
76) 1,3,5-Trimethylbenzene	13.159	105	5140	0.370	ug/l	51
80) 1,2,4-Trimethylbenzene	13.465	105	28157	2.022	ug/l	96
82) p-Isopropyltoluene	13.700	119	3359	0.232	ug/l	87
83) 1,3-Dichlorobenzene	13.794	146	66054	8.772	ug/l	99
84) 1,4-Dichlorobenzene	13.794	146	66054	8.506	ug/l	99
85) n-Butylbenzene	13.976	91	6786	0.504	ug/l	45
86) Hexachloroethane	14.300	117	2258	0.779	ug/l #	15
87) 1,2-Dichlorobenzene	14.088	146	5312	0.717	ug/l	95
91) Naphthalene	15.611	128	109504	6.780	ug/l	99

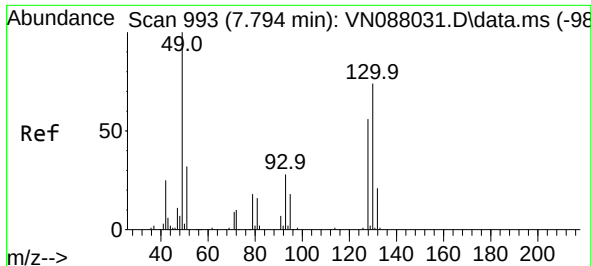
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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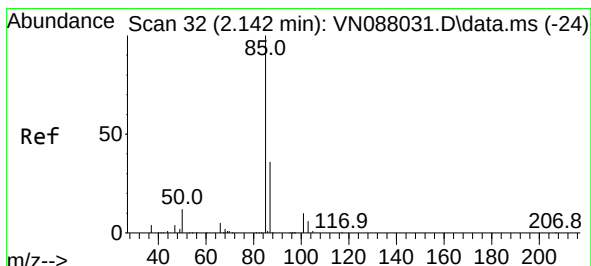
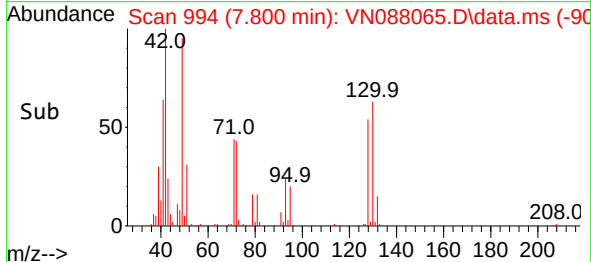
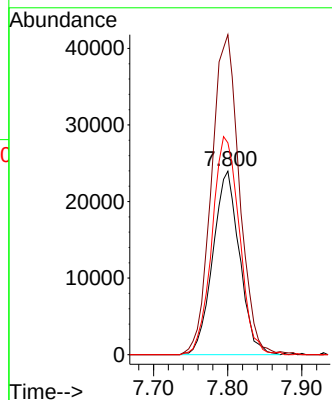
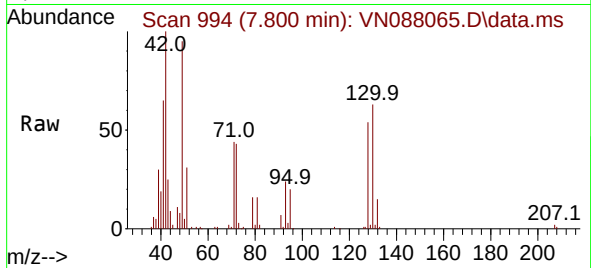




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.800 min Scan# 993
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

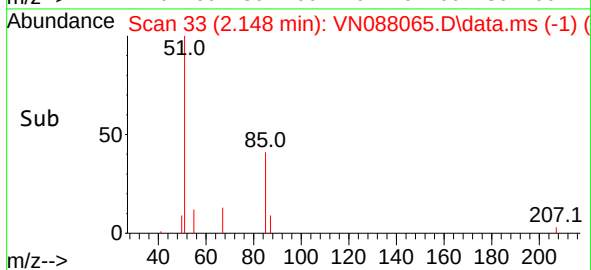
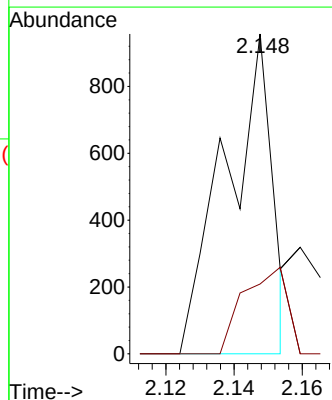
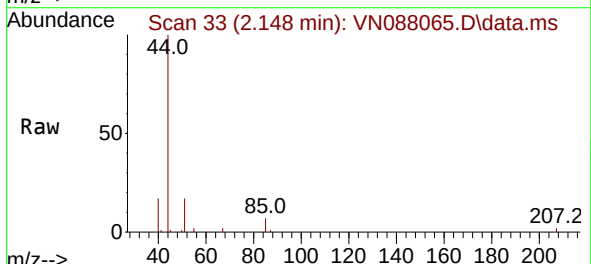
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

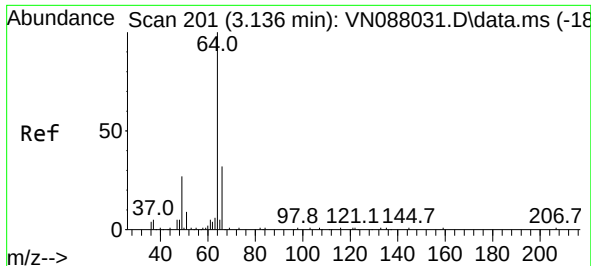
Tgt Ion:128 Resp: 59993
Ion Ratio Lower Upper
128 100
49 181.9 0.0 439.8
130 121.8 0.0 325.8



#2
Dichlorodifluoromethane
Concen: 0.266 ug/l
RT: 2.148 min Scan# 33
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 85 Resp: 914
Ion Ratio Lower Upper
85 100
87 21.8 17.9 53.8

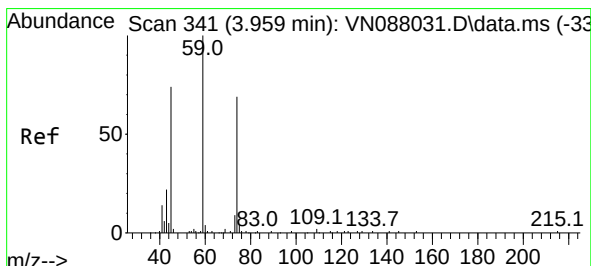
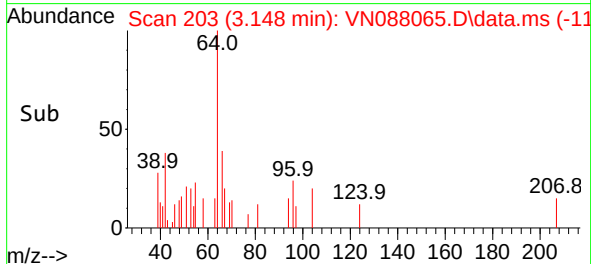
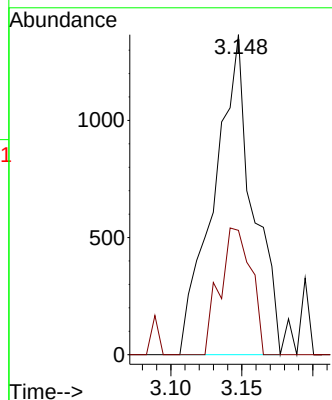
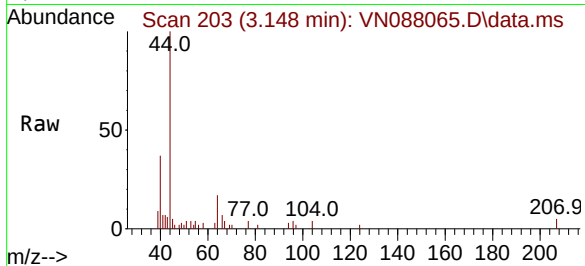




#6
Chloroethane
Concen: 0.970 ug/l
RT: 3.148 min Scan# 201
Delta R.T. 0.012 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

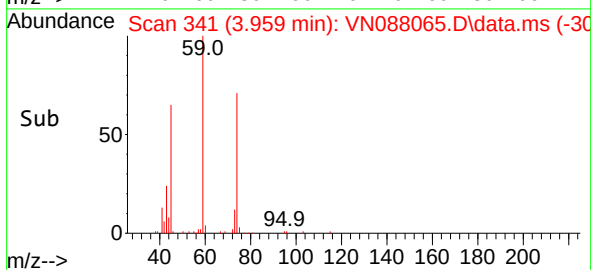
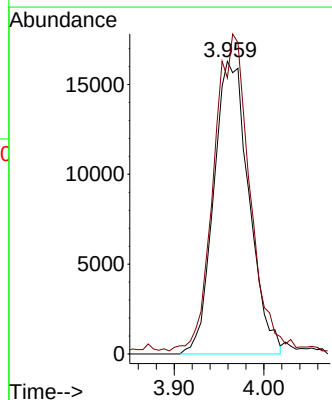
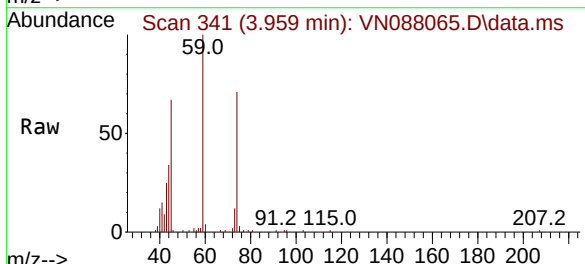
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

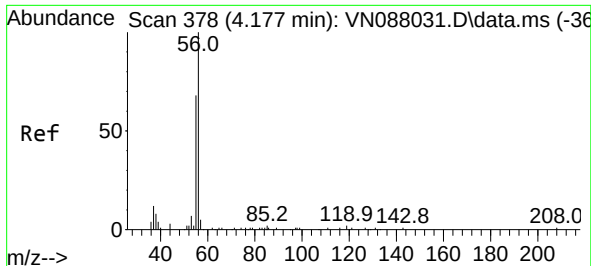
Tgt Ion: 64 Resp: 2599
Ion Ratio Lower Upper
64 100
66 38.9 26.8 40.2



#8
Diethyl Ether
Concen: 17.826 ug/l
RT: 3.959 min Scan# 341
Delta R.T. 0.000 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 74 Resp: 44491
Ion Ratio Lower Upper
74 100
45 109.5 20.4 183.8

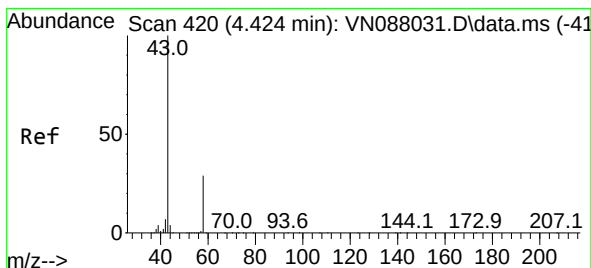
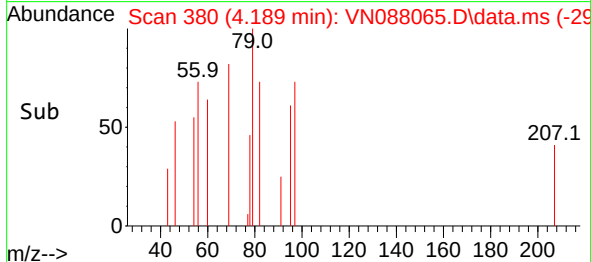
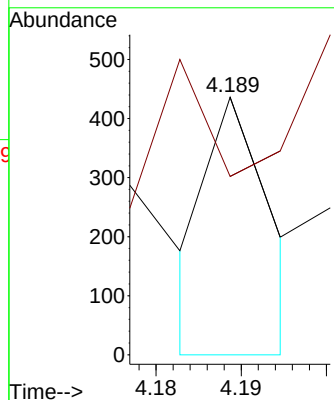
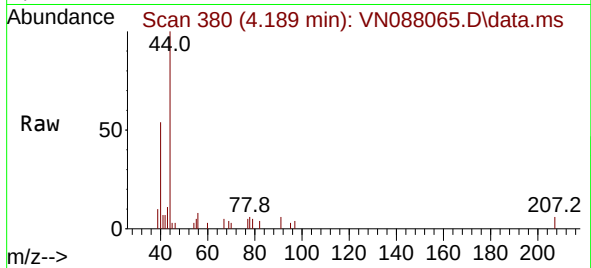




#13
Acrolein
Concen: 0.282 ug/l
RT: 4.189 min Scan# 378
Delta R.T. 0.012 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

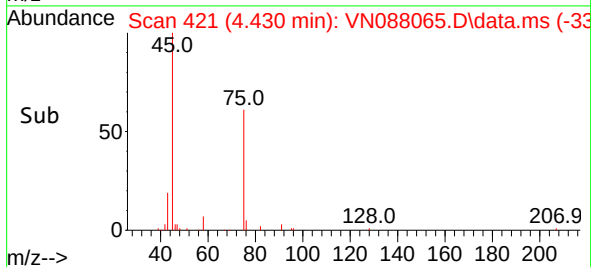
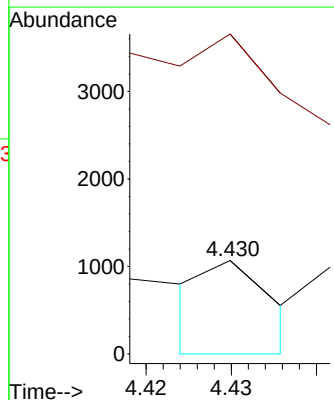
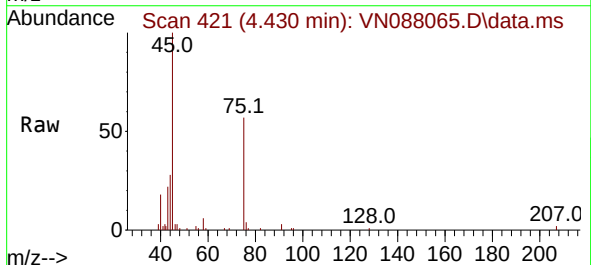
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

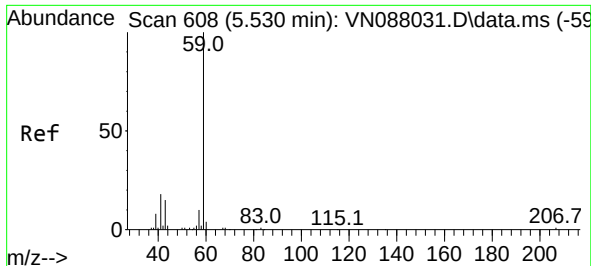
Tgt Ion: 56 Resp: 224
Ion Ratio Lower Upper
56 100
55 60.3 0.3 0.5#



#15
Acetone
Concen: 0.791 ug/l
RT: 4.430 min Scan# 421
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 58 Resp: 573
Ion Ratio Lower Upper
58 100
43 131.3 282.6 424.0#

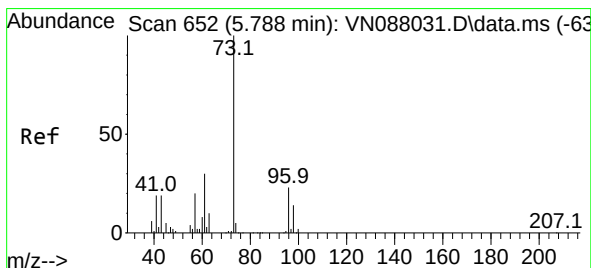
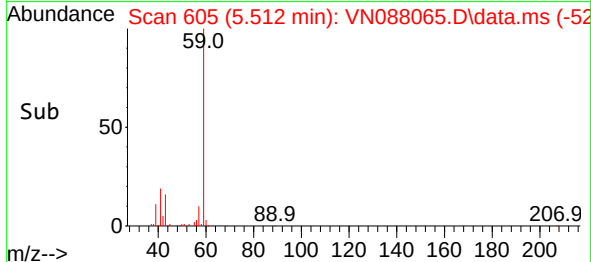
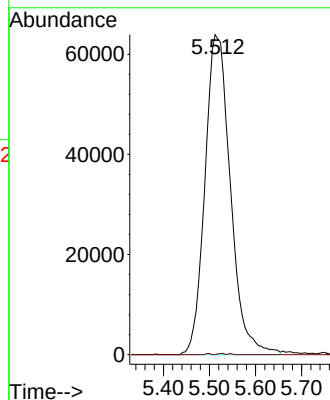
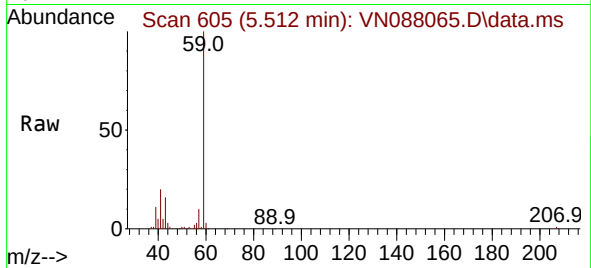




#23
tert-Butyl Alcohol
Concen: 248.079 ug/l
RT: 5.512 min Scan# 608
Delta R.T. -0.018 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

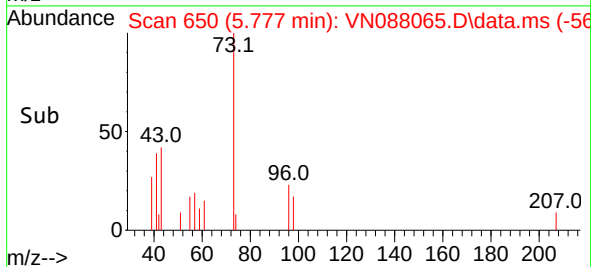
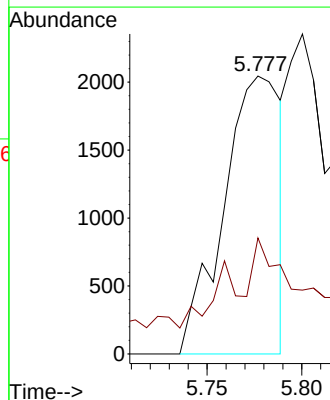
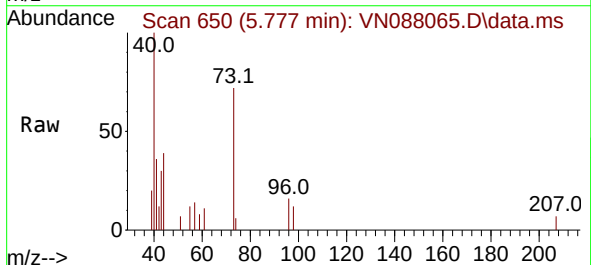
Instrument :
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VOA 251015085-01

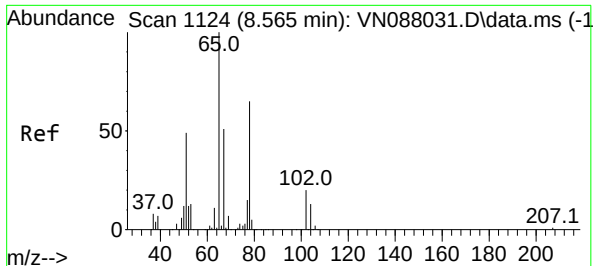
Tgt Ion: 59 Resp: 246221
Ion Ratio Lower Upper
59 100
52 0.1 0.0 0.0#



#24
Methyl tert-Butyl Ether
Concen: 0.315 ug/l
RT: 5.777 min Scan# 650
Delta R.T. -0.012 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 73 Resp: 4289
Ion Ratio Lower Upper
73 100
43 22.4 17.0 25.4





#27

1,2-Dichloroethane-d4

Concen: 31.388 ug/l

RT: 8.559 min Scan# 1123

Delta R.T. -0.006 min

Lab File: VN088065.D

Acq: 17 Oct 2025 13:36

Instrument :

MSVOA_N

ClientSampleId :

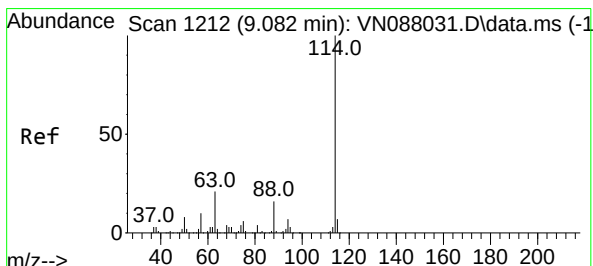
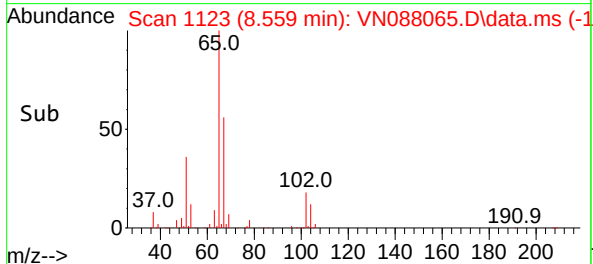
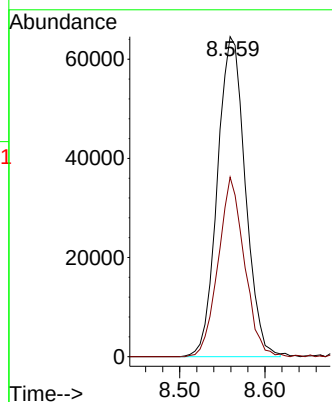
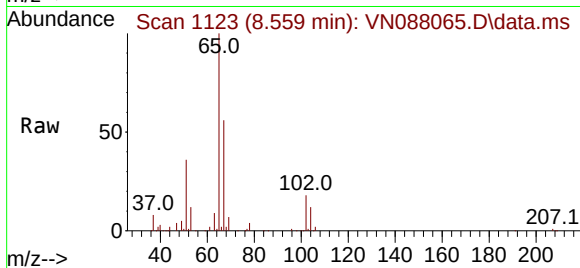
VOA 251015085-01

Tgt Ion: 65 Resp: 146632

Ion Ratio Lower Upper

65 100

67 52.7 41.9 62.9



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.082 min Scan# 1212

Delta R.T. 0.000 min

Lab File: VN088065.D

Acq: 17 Oct 2025 13:36

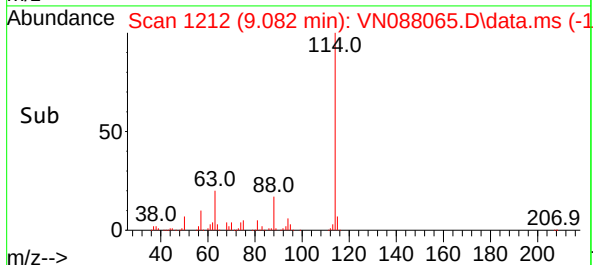
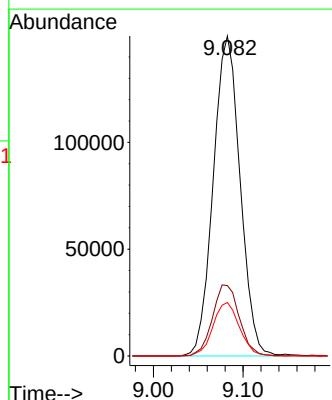
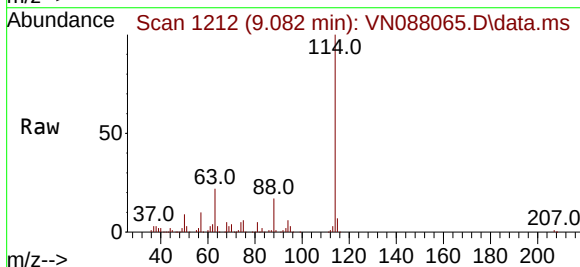
Tgt Ion: 114 Resp: 311111

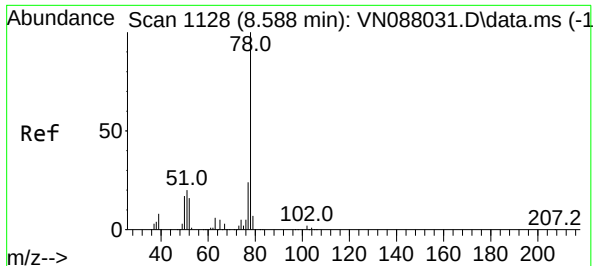
Ion Ratio Lower Upper

114 100

63 22.2 16.6 25.0

88 16.5 12.6 18.8

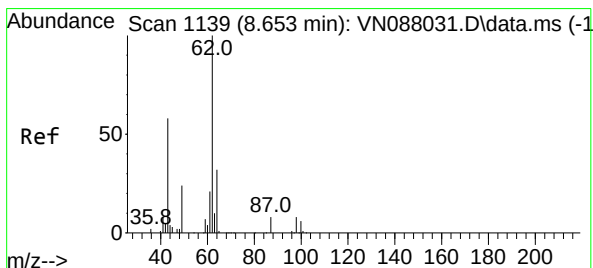
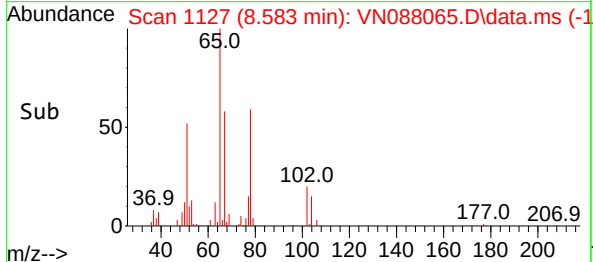
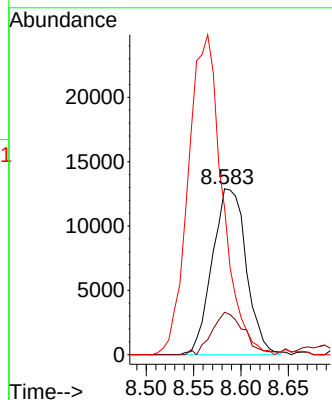
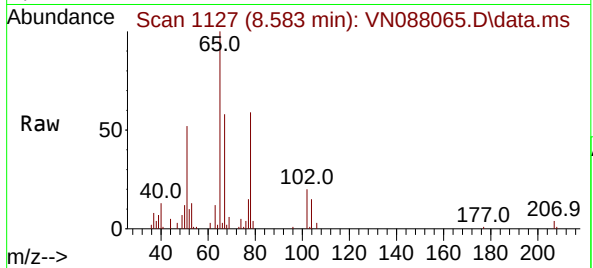




#34
Benzene
Concen: 2.173 ug/l
RT: 8.583 min Scan# 1128
Delta R.T. -0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

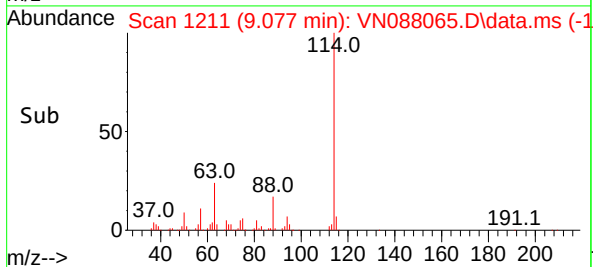
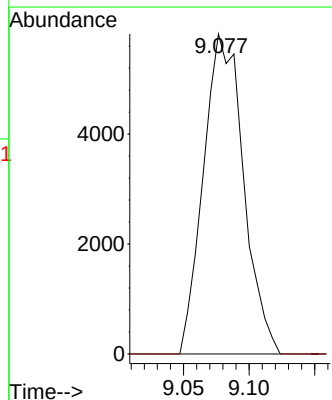
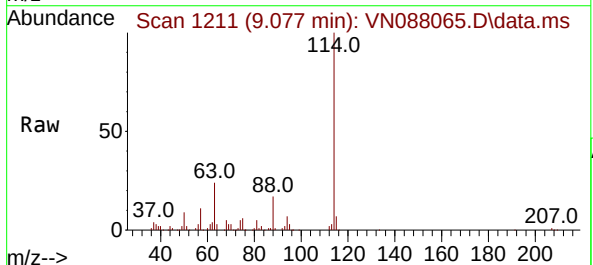
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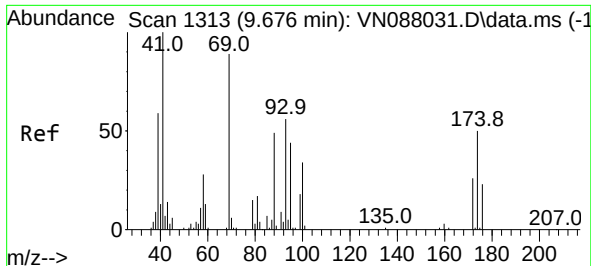
Tgt Ion: 78 Resp: 32137
Ion Ratio Lower Upper
78 100
77 25.5 18.9 28.3
51 87.4 15.6 23.4#



#36
1,2-Dichloroethane
Concen: 2.406 ug/l
RT: 9.077 min Scan# 1211
Delta R.T. 0.424 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 62 Resp: 12357
Ion Ratio Lower Upper
62 100
98 0.0 7.8 11.6#

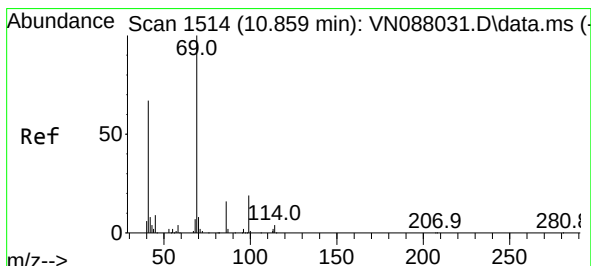
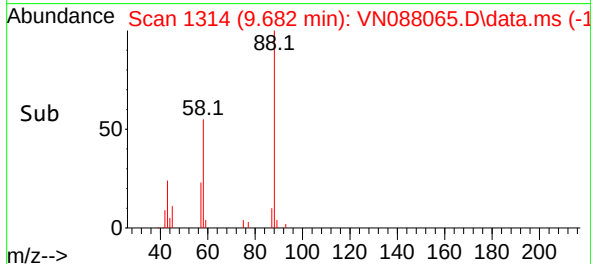
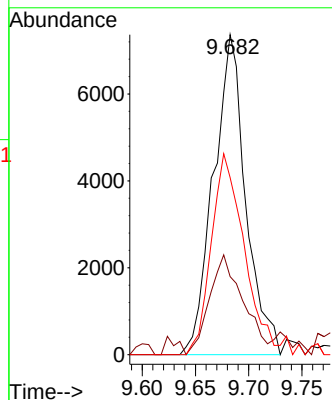
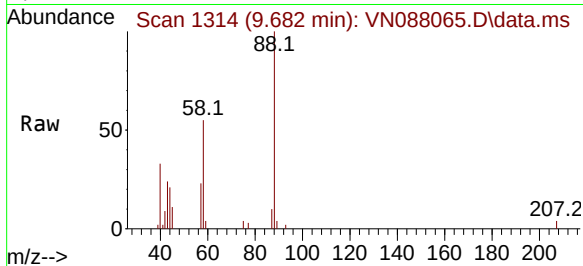




#45
1,4-Dioxane
Concen: 225.643 ug/l
RT: 9.682 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

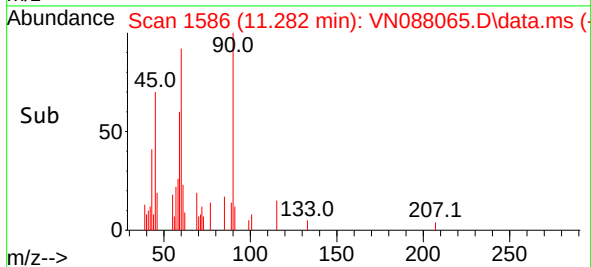
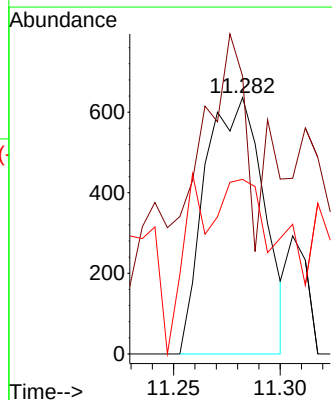
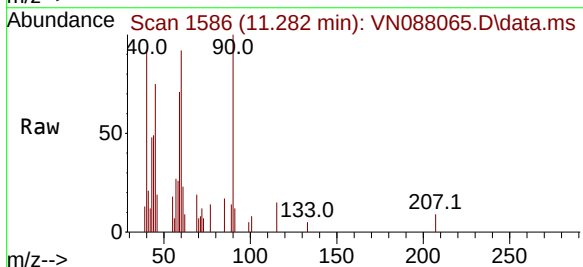
Instrument :
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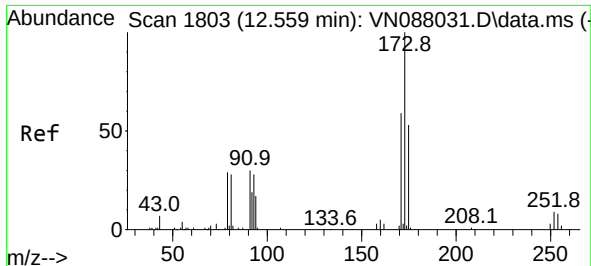
Tgt Ion: 88 Resp: 15497
Ion Ratio Lower Upper
88 100
43 32.7 18.6 27.8#
58 63.5 57.4 86.2



#51
Ethyl methacrylate
Concen: 0.202 ug/l
RT: 11.282 min Scan# 1586
Delta R.T. 0.424 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 69 Resp: 1221
Ion Ratio Lower Upper
69 100
41 54.7 33.3 99.8
39 37.1 20.3 61.0

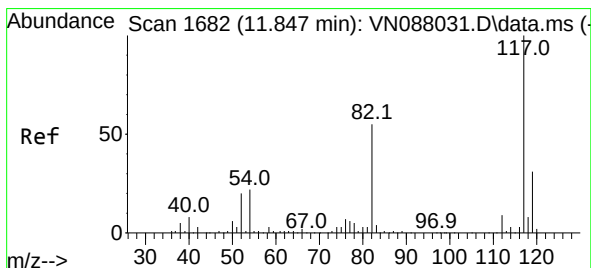
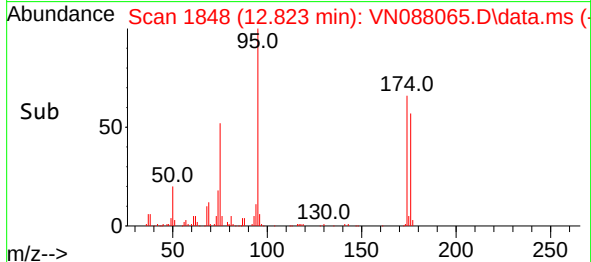
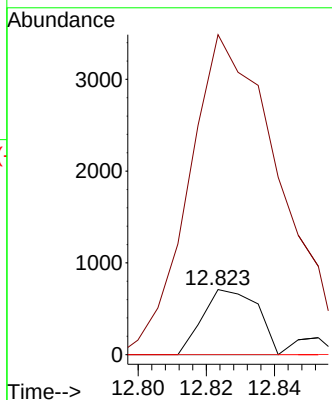
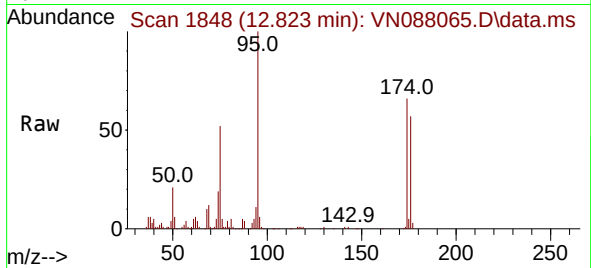




#56
Bromoform
Concen: 0.274 ug/l
RT: 12.823 min Scan# 11
Delta R.T. 0.265 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

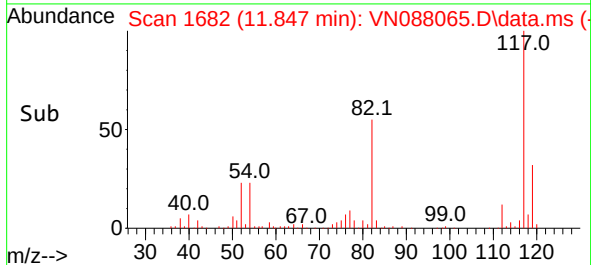
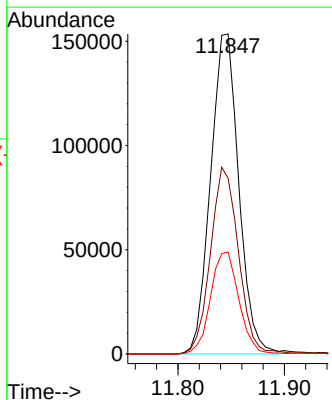
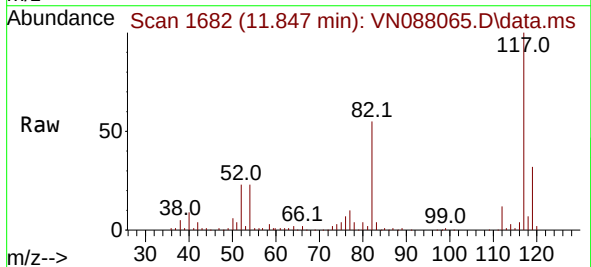
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

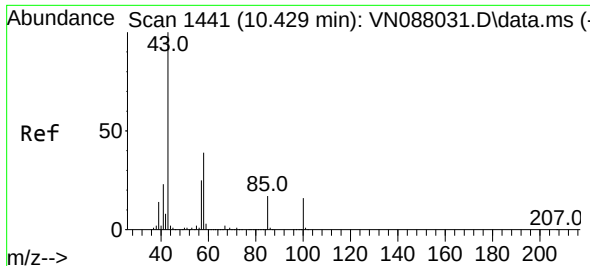
Tgt Ion:173 Resp: 793
Ion Ratio Lower Upper
173 100
175 804.2 39.6 59.4#
254 0.0 6.6 10.0#



#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.847 min Scan# 1682
Delta R.T. 0.000 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion:117 Resp: 282237
Ion Ratio Lower Upper
117 100
82 57.9 45.2 67.8
119 32.0 25.9 38.9

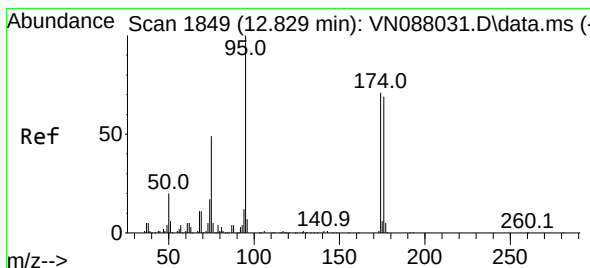
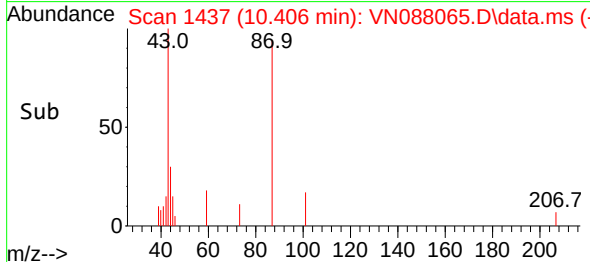
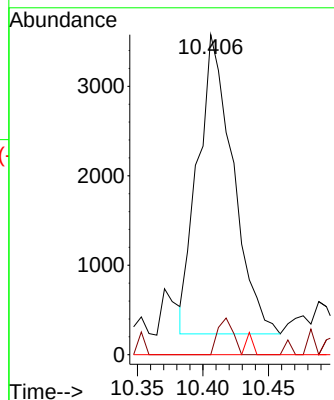
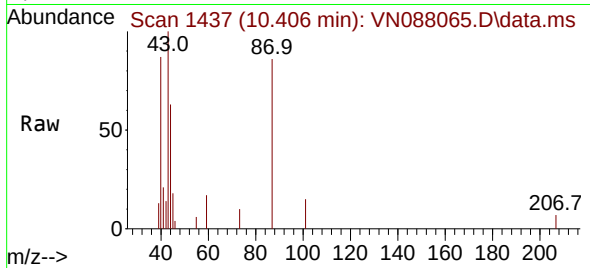




#58
 4-Methyl-2-Pentanone
 Concen: 0.987 ug/l
 RT: 10.406 min Scan# 1437
 Delta R.T. -0.023 min
 Lab File: VN088065.D
 Acq: 17 Oct 2025 13:36

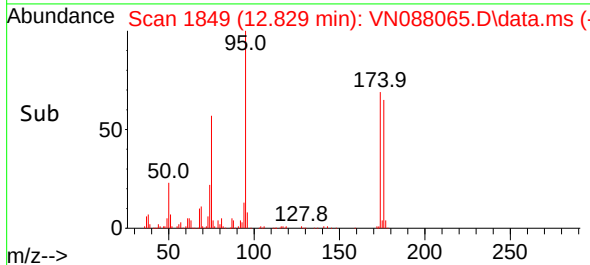
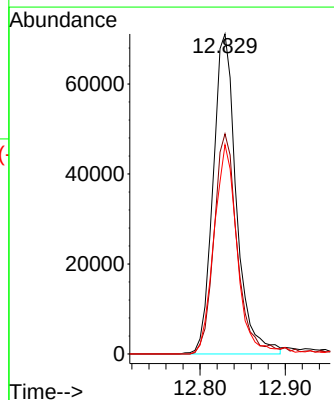
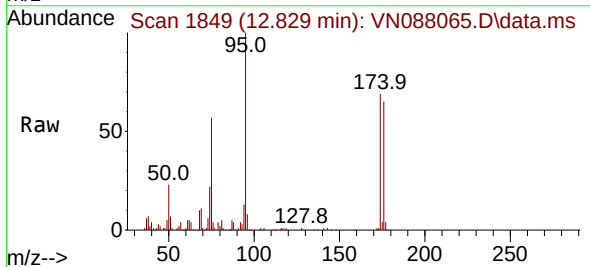
Instrument :
 MSVOA_N
 ClientSampleId :
 VOA 251015085-01

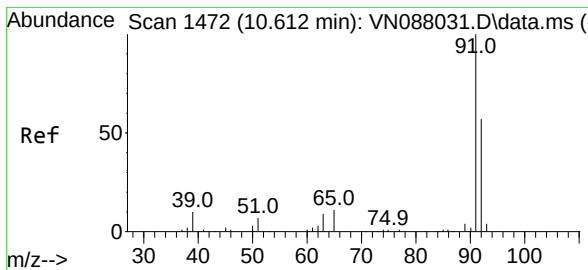
Tgt Ion:	43	Resp:	6228
Ion	Ratio	Lower	Upper
43	100		
58	5.4	31.2	46.8#
85	0.0	13.7	20.5#



#60
 4-Bromofluorobenzene
 Concen: 29.006 ug/l
 RT: 12.829 min Scan# 1849
 Delta R.T. 0.000 min
 Lab File: VN088065.D
 Acq: 17 Oct 2025 13:36

Tgt Ion:	95	Resp:	134961
Ion	Ratio	Lower	Upper
95	100		
174	67.3	57.4	86.0
176	64.5	57.0	85.4

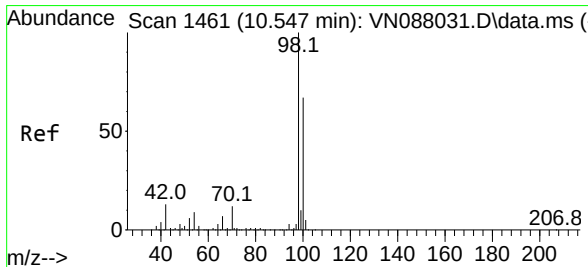
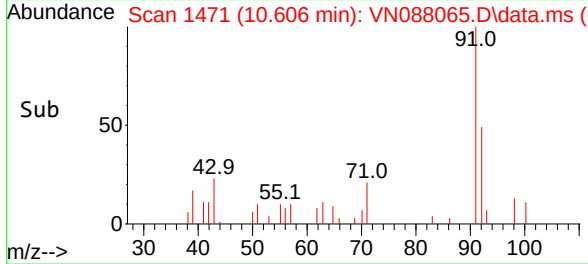
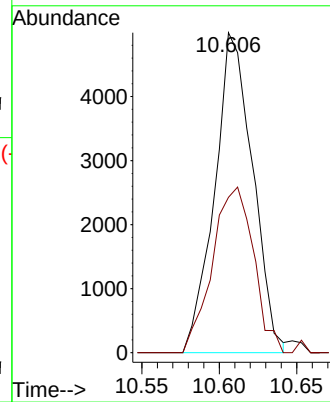
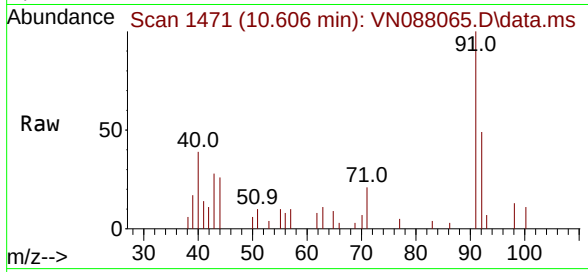




#62
Toluene
Concen: 0.533 ug/l
RT: 10.606 min Scan# 1472
Delta R.T. -0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

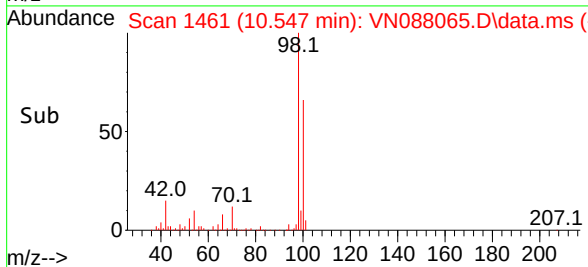
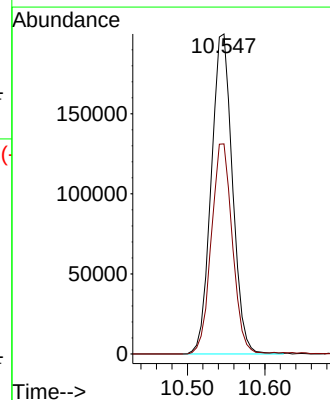
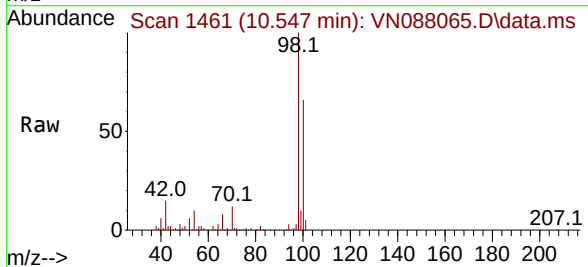
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

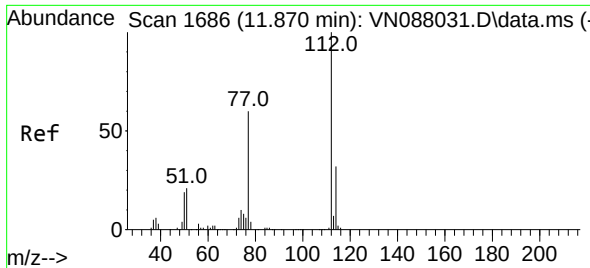
Tgt Ion: 91 Resp: 8529
Ion Ratio Lower Upper
91 100
92 56.1 45.8 68.8



#63
Toluene-d8
Concen: 30.322 ug/l
RT: 10.547 min Scan# 1461
Delta R.T. 0.000 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 98 Resp: 381294
Ion Ratio Lower Upper
98 100
100 65.0 53.1 79.7

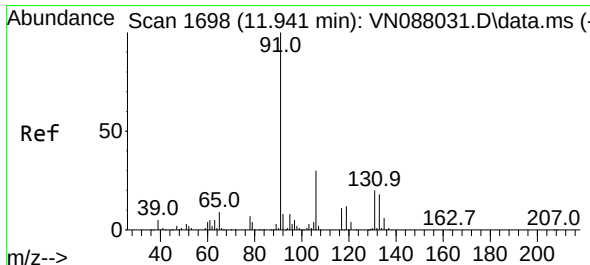
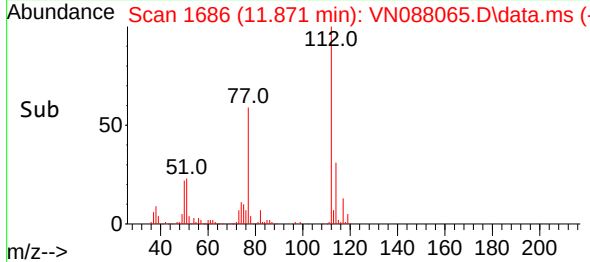
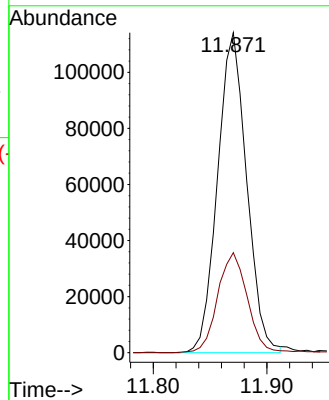
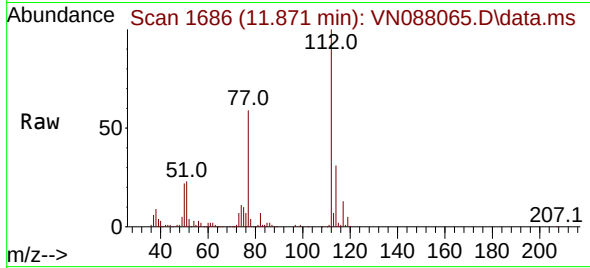




#64
Chlorobenzene
Concen: 19.856 ug/l
RT: 11.871 min Scan# 1686
Delta R.T. 0.000 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

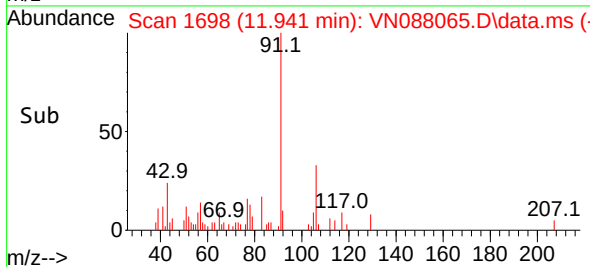
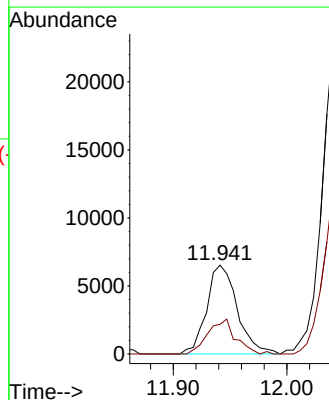
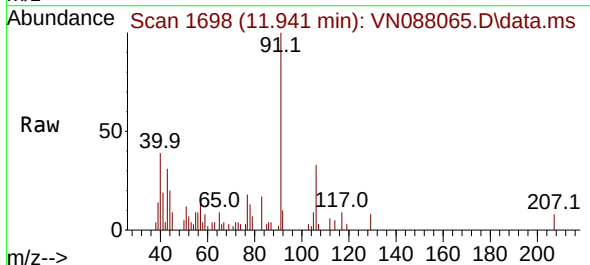
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

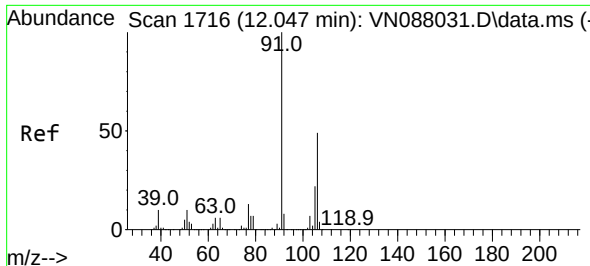
Tgt Ion:112 Resp: 203043
Ion Ratio Lower Upper
112 100
114 31.1 25.7 38.5



#66
Ethyl Benzene
Concen: 0.700 ug/l
RT: 11.941 min Scan# 1698
Delta R.T. 0.000 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 91 Resp: 12189
Ion Ratio Lower Upper
91 100
106 33.3 24.0 36.0

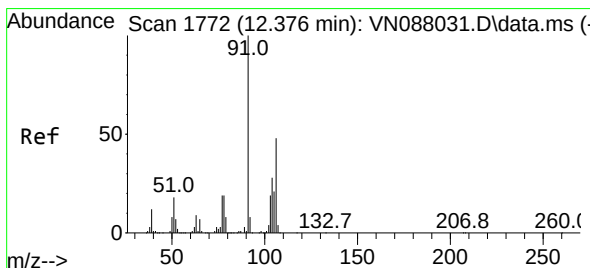
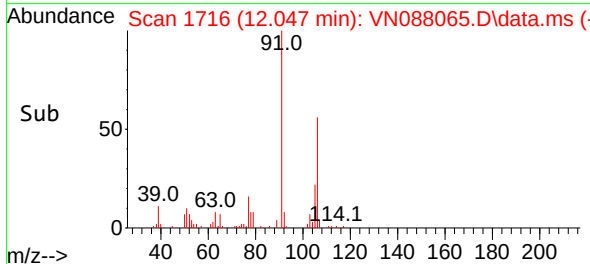
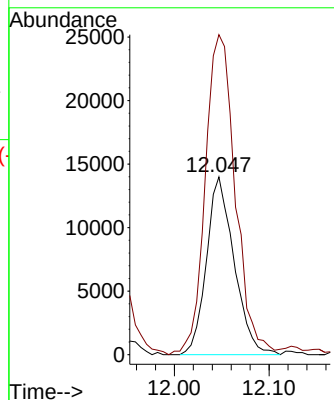
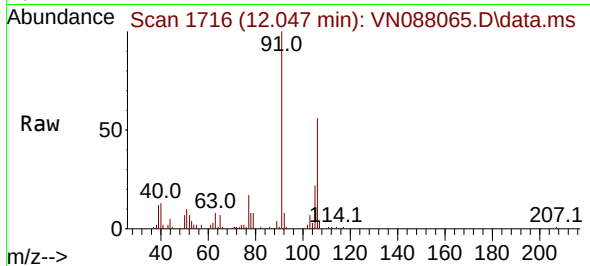




#67
m/p-Xylenes
Concen: 4.224 ug/l
RT: 12.047 min Scan# 1716
Delta R.T. 0.000 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

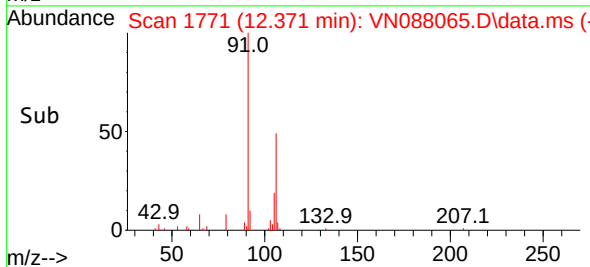
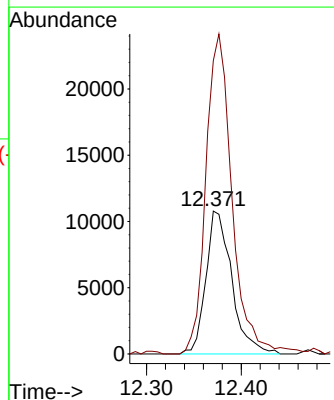
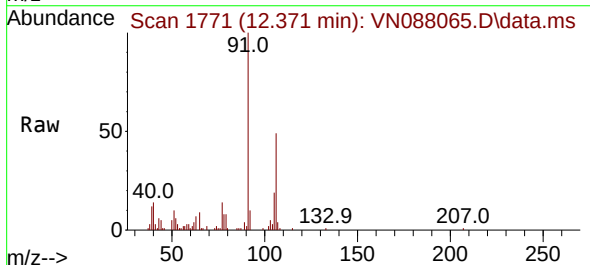
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

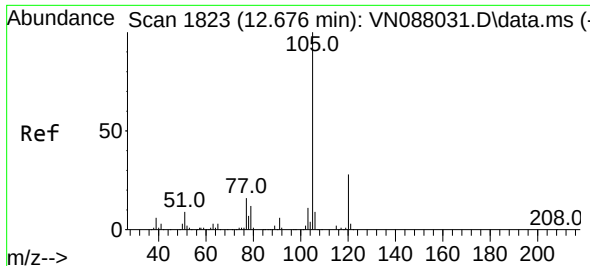
Tgt Ion:106 Resp: 28348
Ion Ratio Lower Upper
106 100
91 195.7 161.4 242.0



#68
o-Xylene
Concen: 3.064 ug/l
RT: 12.371 min Scan# 1771
Delta R.T. -0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion:106 Resp: 20472
Ion Ratio Lower Upper
106 100
91 223.5 105.2 315.6

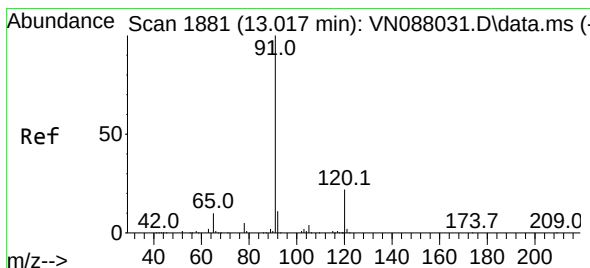
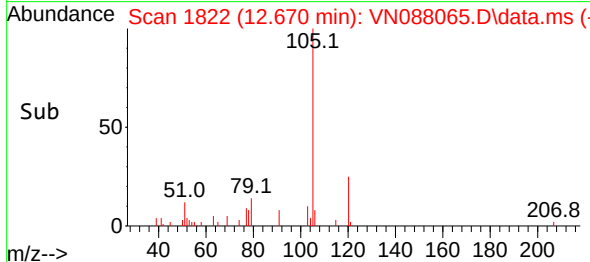
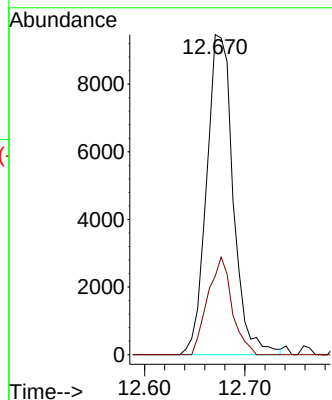
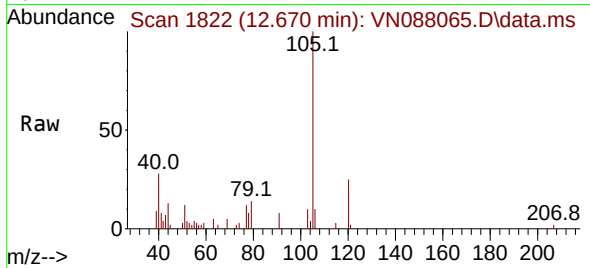




#70
Isopropylbenzene
Concen: 1.067 ug/l
RT: 12.670 min Scan# 1822
Delta R.T. -0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

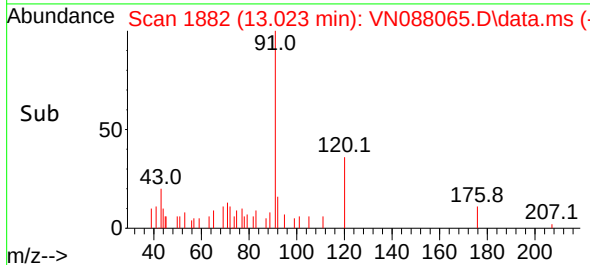
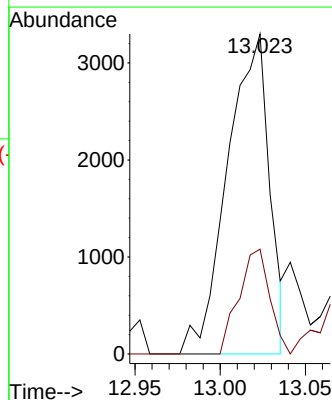
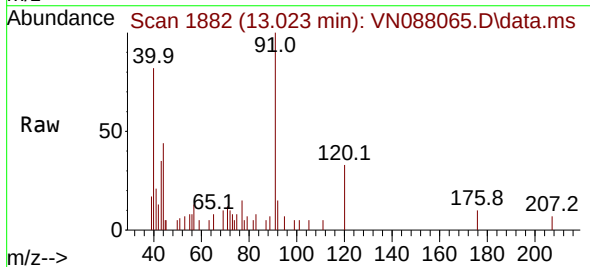
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

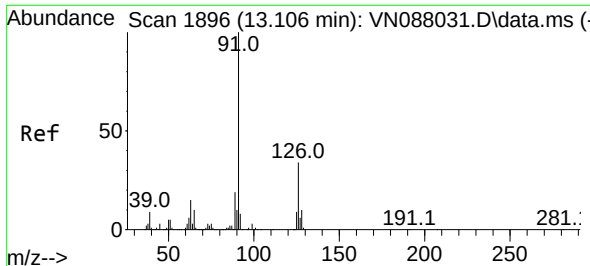
Tgt Ion:105 Resp: 17470
Ion Ratio Lower Upper
105 100
120 27.7 19.1 35.5



#74
n-propylbenzene
Concen: 0.286 ug/l
RT: 13.023 min Scan# 1882
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 91 Resp: 5647
Ion Ratio Lower Upper
91 100
120 24.1 0.0 46.2

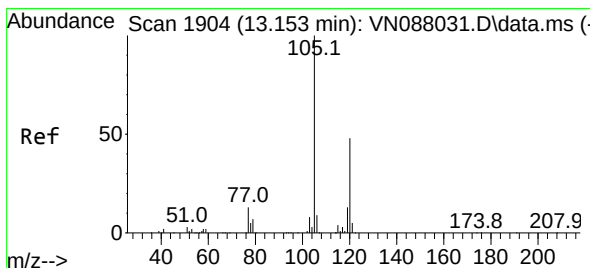
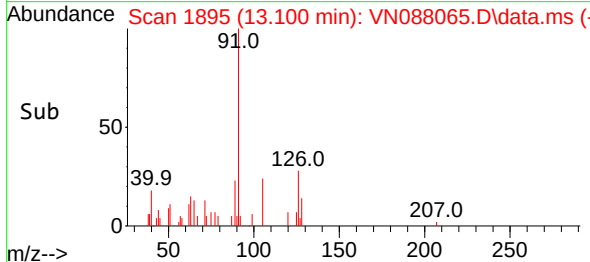
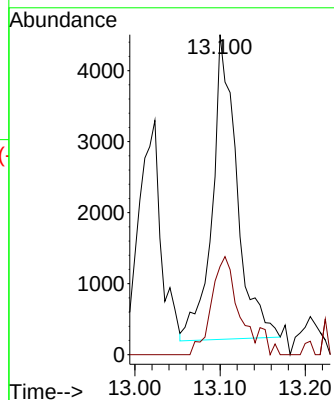
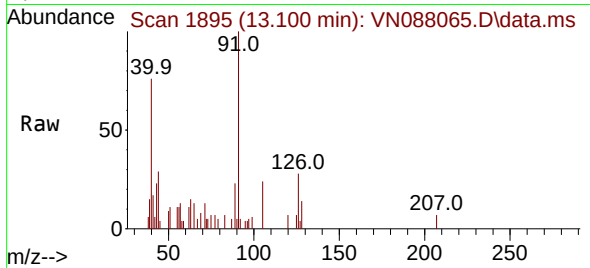




#75
2-Chlorotoluene
Concen: 0.712 ug/l
RT: 13.100 min Scan# 11
Delta R.T. -0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

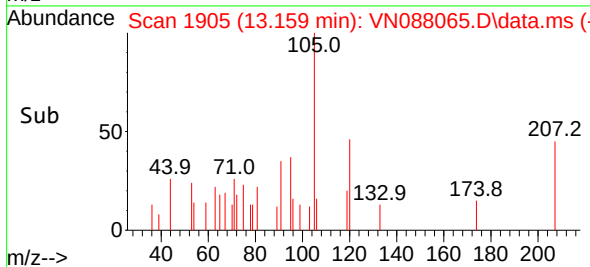
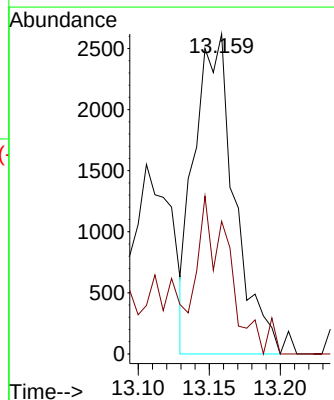
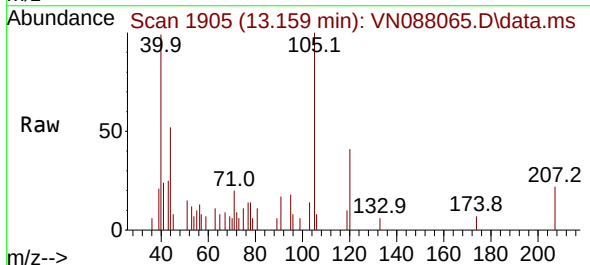
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

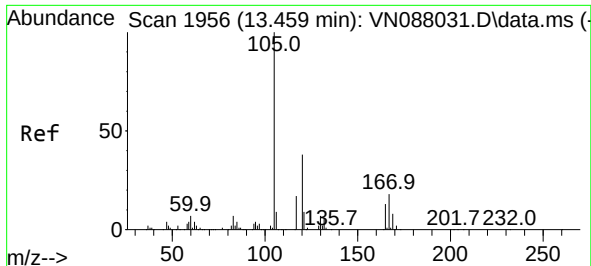
Tgt Ion: 91 Resp: 8603
Ion Ratio Lower Upper
91 100
126 32.7 0.0 66.6



#76
1,3,5-Trimethylbenzene
Concen: 0.370 ug/l
RT: 13.159 min Scan# 1905
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 105 Resp: 5140
Ion Ratio Lower Upper
105 100
120 16.4 0.0 100.6

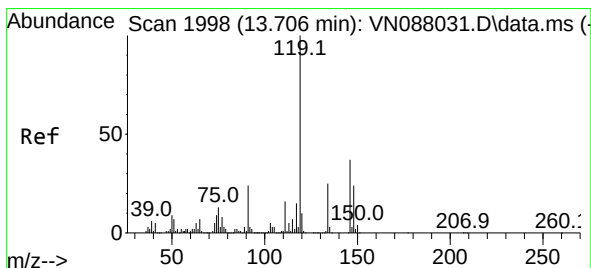
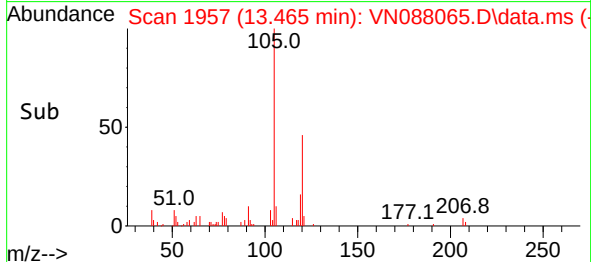
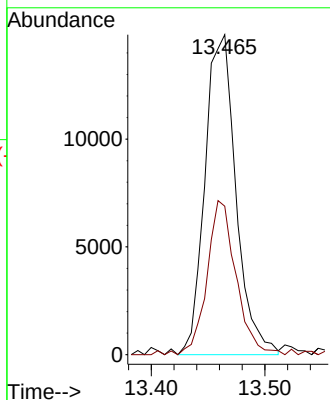
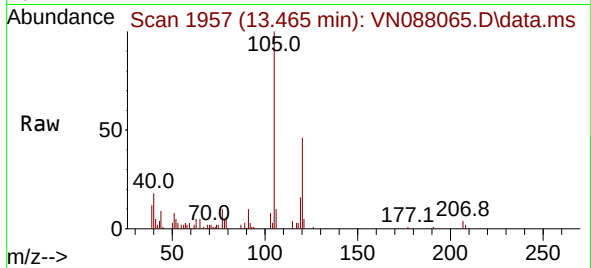




#80
1,2,4-Trimethylbenzene
Concen: 2.022 ug/l
RT: 13.465 min Scan# 1956
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

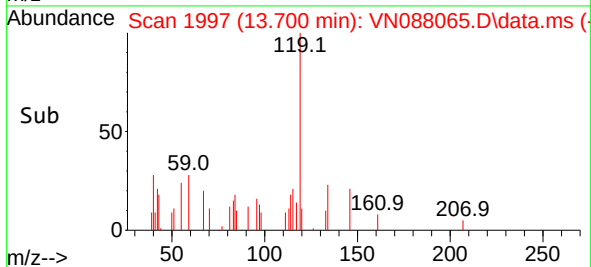
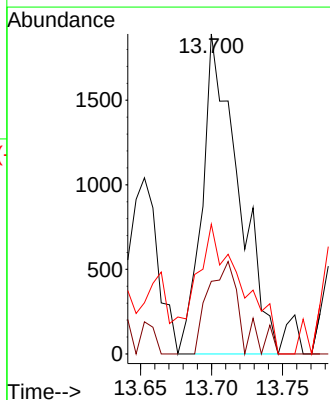
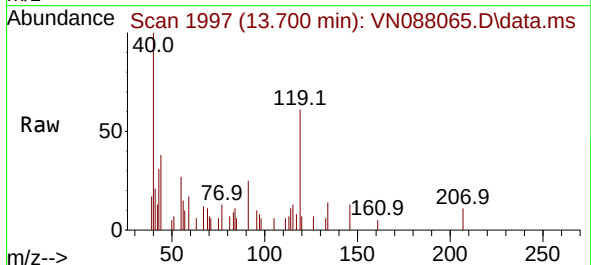
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

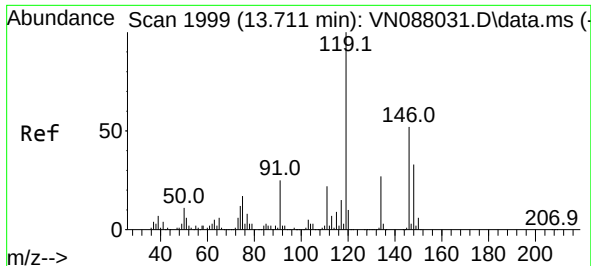
Tgt Ion:105 Resp: 28157
Ion Ratio Lower Upper
105 100
120 44.5 0.0 93.8



#82
p-Isopropyltoluene
Concen: 0.232 ug/l
RT: 13.700 min Scan# 1997
Delta R.T. -0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion:119 Resp: 3359
Ion Ratio Lower Upper
119 100
134 22.0 0.0 52.6
91 15.1 0.0 48.2

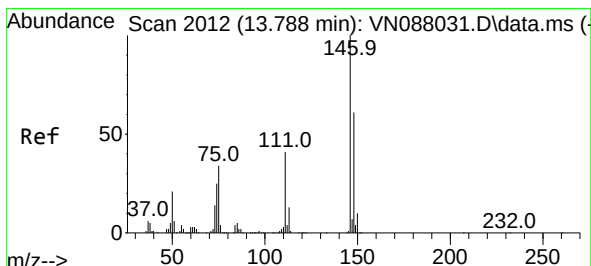
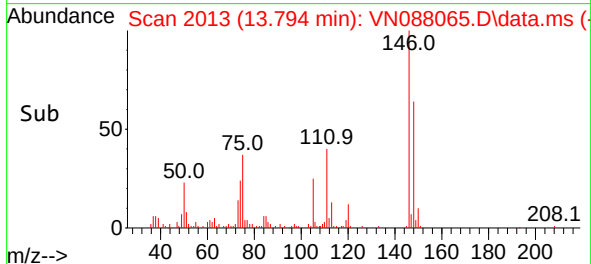
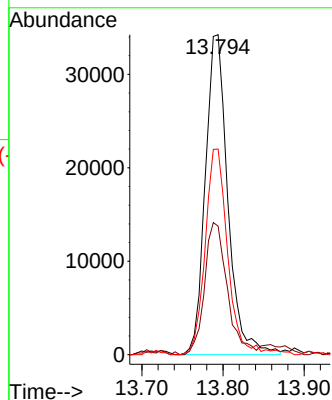
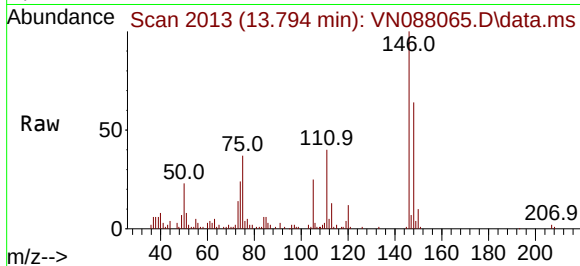




#83
1,3-Dichlorobenzene
Concen: 8.772 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. 0.082 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

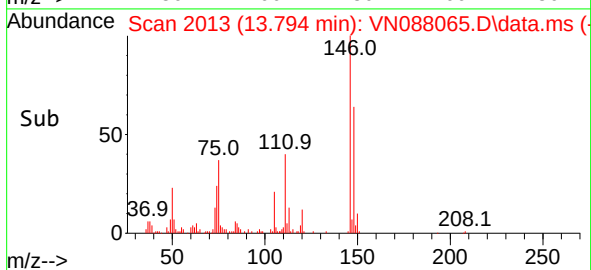
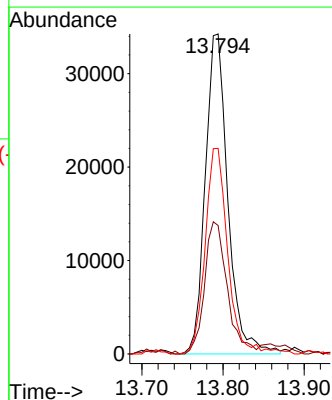
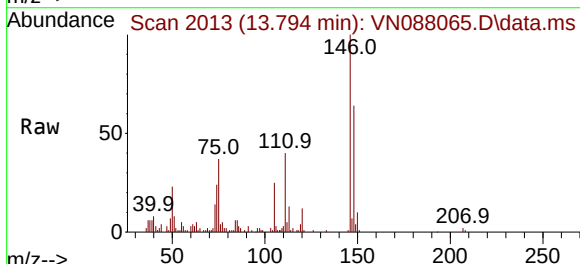
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

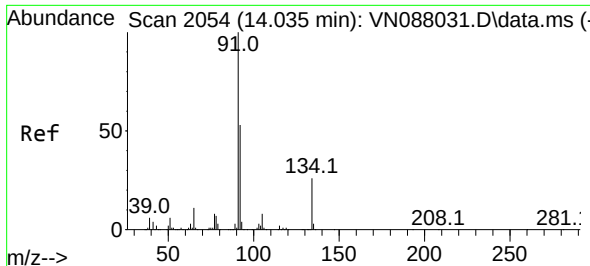
Tgt Ion:146 Resp: 66054
Ion Ratio Lower Upper
146 100
111 41.5 21.1 63.1
148 62.6 31.5 94.5



#84
1,4-Dichlorobenzene
Concen: 8.506 ug/l
RT: 13.794 min Scan# 2013
Delta R.T. 0.006 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion:146 Resp: 66054
Ion Ratio Lower Upper
146 100
111 41.5 20.5 61.6
148 62.6 31.9 95.9

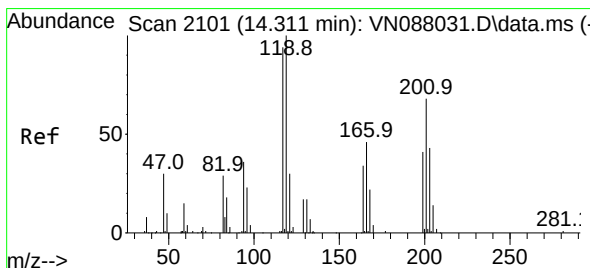
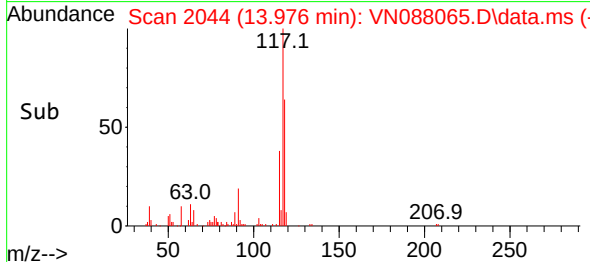
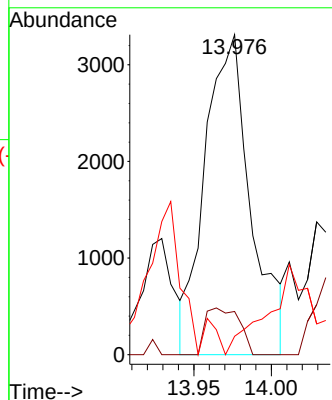
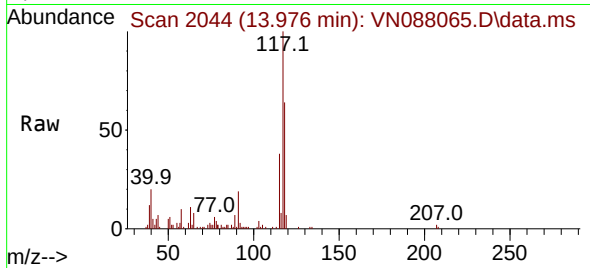




#85
n-Butylbenzene
Concen: 0.504 ug/l
RT: 13.976 min Scan# 2054
Delta R.T. -0.059 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

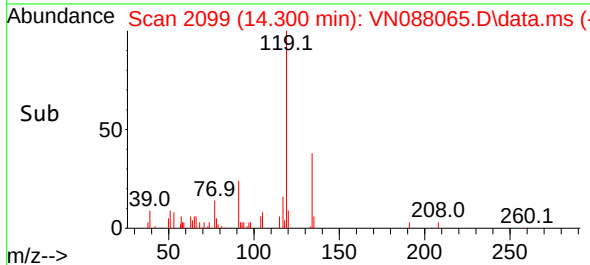
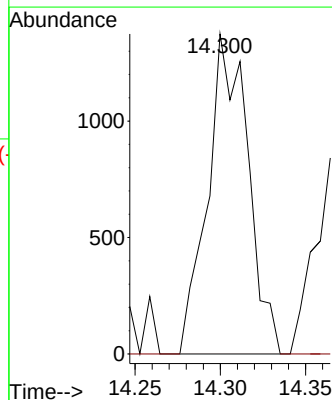
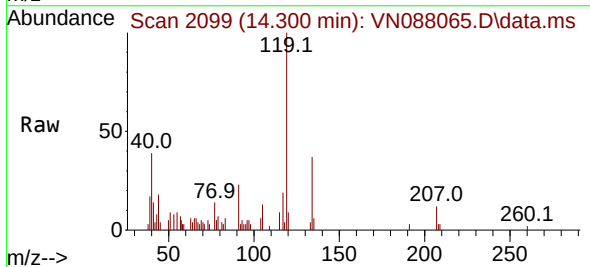
Instrument :
MSVOA_N
ClientSampleId :
VOA 251015085-01

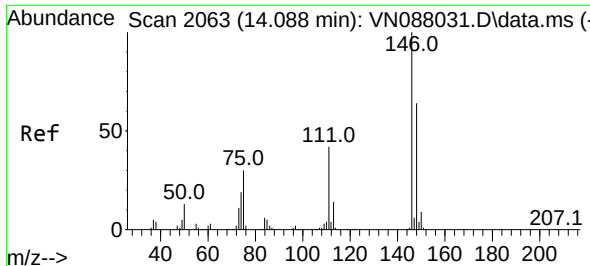
Tgt Ion: 91 Resp: 6786
Ion Ratio Lower Upper
91 100
92 10.8 0.0 107.6
134 3.3 0.0 52.6



#86
Hexachloroethane
Concen: 0.779 ug/l
RT: 14.300 min Scan# 2099
Delta R.T. -0.012 min
Lab File: VN088065.D
Acq: 17 Oct 2025 13:36

Tgt Ion: 117 Resp: 2258
Ion Ratio Lower Upper
117 100
201 0.0 34.8 104.3#





#87

1,2-Dichlorobenzene

Concen: 0.717 ug/l

RT: 14.088 min Scan# 2063

Delta R.T. 0.000 min

Lab File: VN088065.D

Acq: 17 Oct 2025 13:36

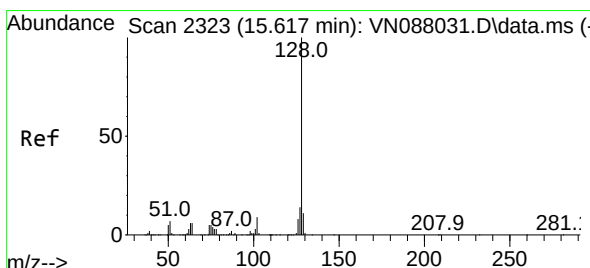
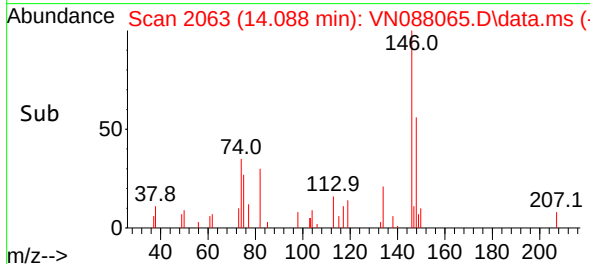
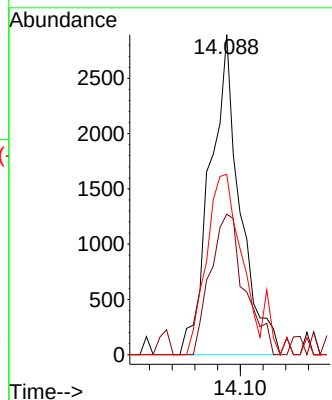
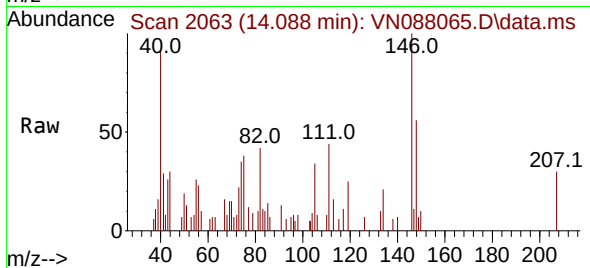
Instrument :

MSVOA_N

ClientSampleId :

VOA 251015085-01

Tgt Ion:146	Resp:	5312
Ion Ratio	Lower	Upper
146	100	
111	50.3	22.3 66.8
148	64.7	31.4 94.3



#91

Naphthalene

Concen: 6.780 ug/l

RT: 15.611 min Scan# 2322

Delta R.T. -0.006 min

Lab File: VN088065.D

Acq: 17 Oct 2025 13:36

Tgt Ion:128	Resp:	109504
Ion Ratio	Lower	Upper
128	100	
127	13.5	10.3 15.5
129	10.9	8.6 13.0

