

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN051625\
 Data File : VN086665.D
 Acq On : 16 May 2025 13:54
 Operator : JC\MD
 Sample : Q2006-01 5X
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 EFF-WW

Quant Time: May 16 23:03:54 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N042325W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Thu Apr 24 04:42:24 2025
 Response via : Initial Calibration

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

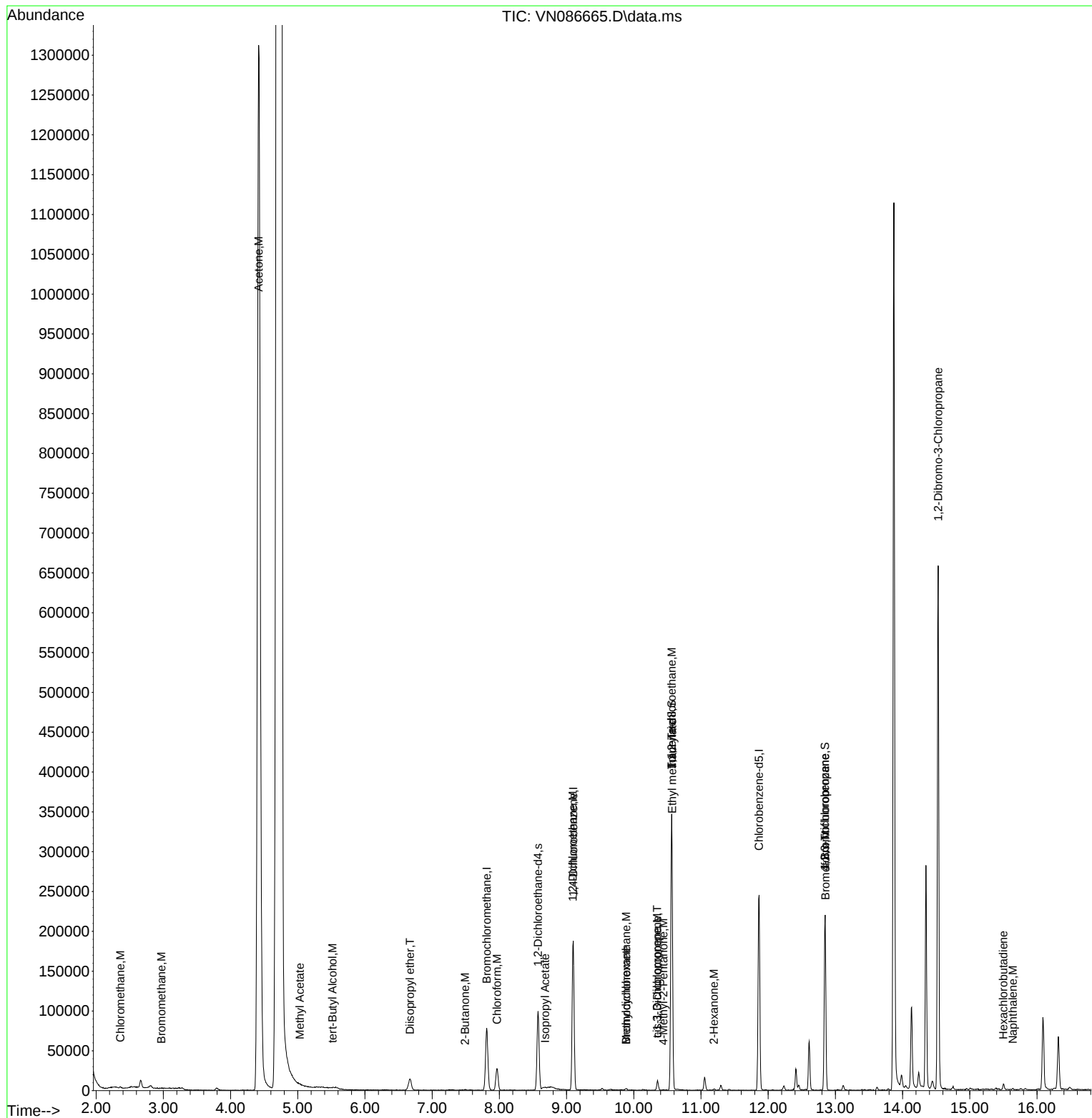
Internal Standards						
1) Bromochloromethane	7.812	128	28982	30.000	ug/l	0.00
28) 1,4-Difluorobenzene	9.100	114	166943	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.865	117	151707	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.577	65	81412	29.136	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	97.133%
60) 4-Bromofluorobenzene	12.847	95	81007	27.168	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	90.567%
63) Toluene-d8	10.565	98	246017	29.477	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	98.267%
Target Compounds						
					Qvalue	
3) Chloromethane	2.359	50	998	0.351	ug/l #	78
5) Bromomethane	2.971	94	292	0.205	ug/l	89
12) Methyl Acetate	5.030	43	803	0.280	ug/l #	49
13) Acrolein	4.400	56	62	Below Cal	#	15
15) Acetone	4.418	58	824995	2807.028	ug/l	91
20) Diisopropyl ether	6.671	45	18400	2.394	ug/l	94
23) tert-Butyl Alcohol	5.518	59	266	0.644	ug/l #	100
25) Chloroform	7.965	83	27177	6.382	ug/l	93
30) 2-Butanone	7.488	43	321	0.225	ug/l #	53
36) 1,2-Dichloroethane	9.094	62	5391	1.774	ug/l #	74
38) Methylcyclohexane	9.888	83	1805	0.531	ug/l #	19
41) Bromodichloromethane	9.888	83	1805	0.552	ug/l #	86
44) Isopropyl Acetate	8.682	43	2066	0.385	ug/l #	49
48) t-1,3-Dichloropropene	10.347	75	1956	0.535	ug/l #	44
49) cis-1,3-Dichloropropene	10.347	75	2318	0.601	ug/l #	51
50) 1,1,2-Trichloroethane	10.565	97	7801	3.611	ug/l #	1
51) Ethyl methacrylate	10.571	69	789	0.210	ug/l	79
56) Bromoform	12.853	173	524	0.333	ug/l #	1
58) 4-Methyl-2-Pentanone	10.441	43	748	0.255	ug/l #	42
59) 2-Hexanone	11.194	43	1244	0.575	ug/l #	81
72) 1,2,3-Trichloropropane	12.847	75	40350	16.582	ug/l	1
88) 1,2-Dibromo-3-Chloropr...	14.529	75	20954	36.936	ug/l #	5
90) Hexachlorobutadiene	15.500	225	347	0.431	ug/l	81
91) Naphthalene	15.641	128	2181	0.305	ug/l #	69

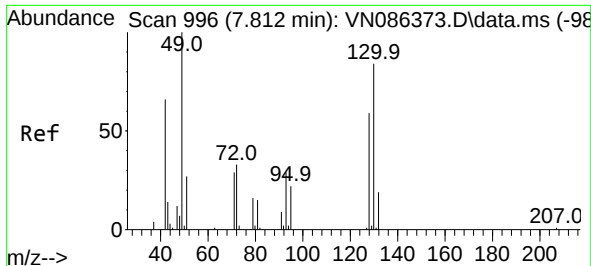
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
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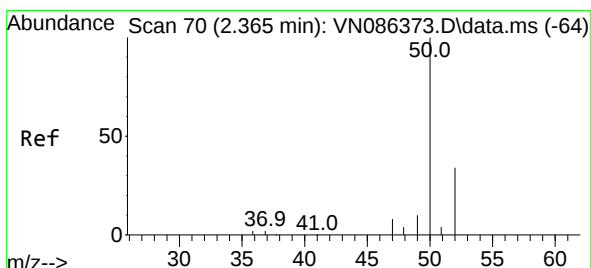
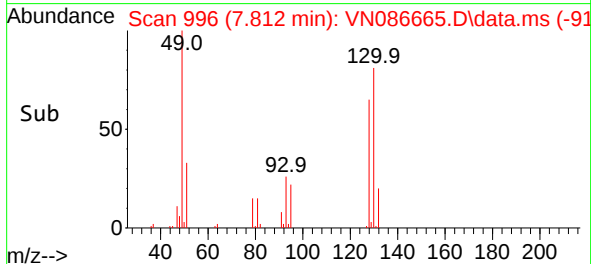
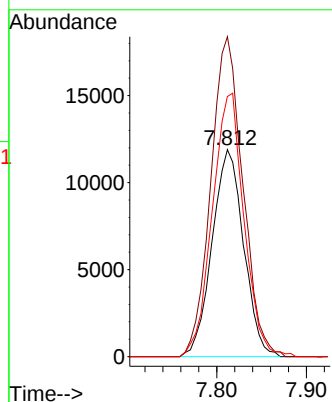
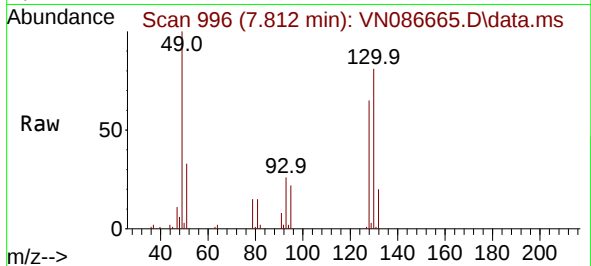




#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 996
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

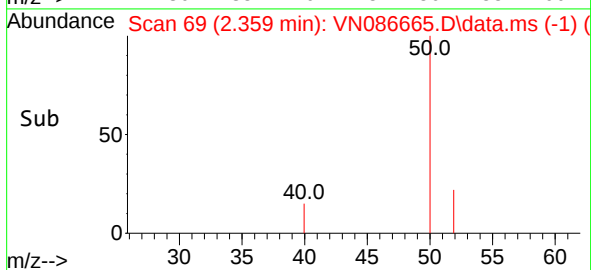
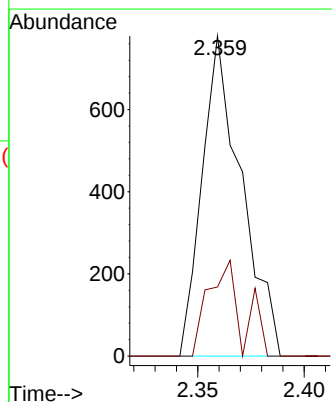
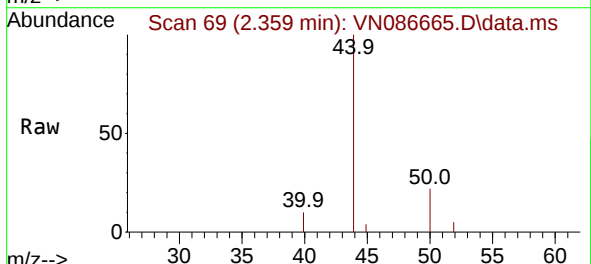
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

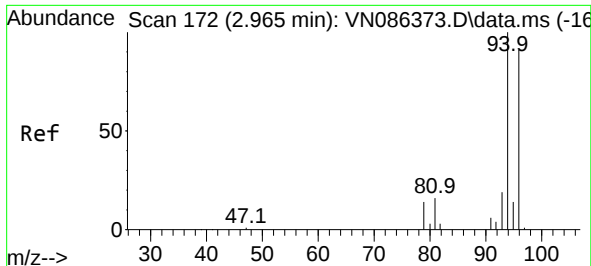
Tgt Ion:128 Resp: 28982
Ion Ratio Lower Upper
128 100
49 156.9 0.0 433.8
130 128.2 0.0 325.0



#3
Chloromethane
Concen: 0.351 ug/l
RT: 2.359 min Scan# 69
Delta R.T. -0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 50 Resp: 998
Ion Ratio Lower Upper
50 100
52 21.6 27.3 40.9#

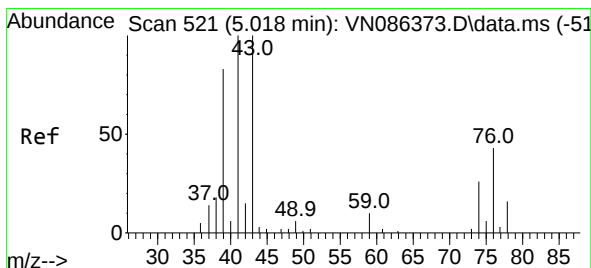
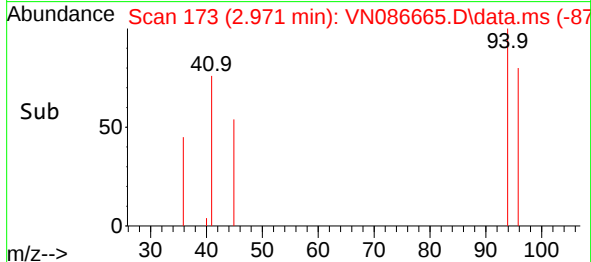
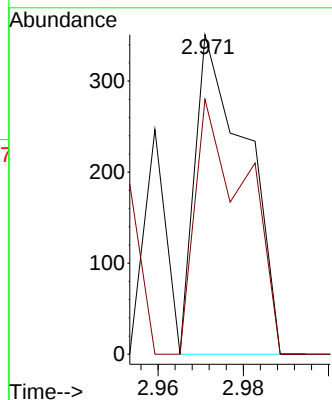
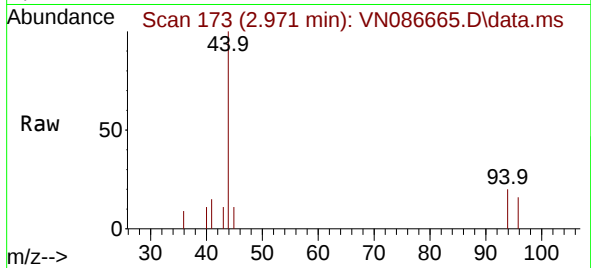




#5
Bromomethane
Concen: 0.205 ug/l
RT: 2.971 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

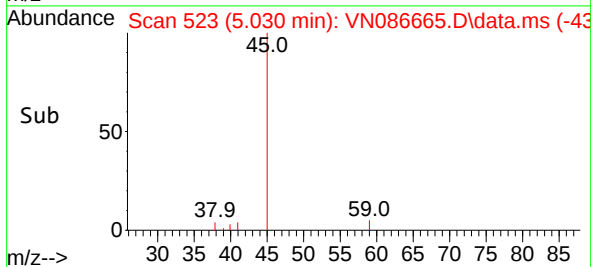
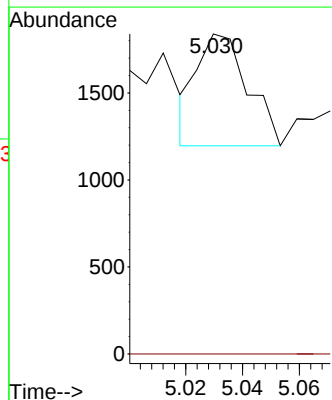
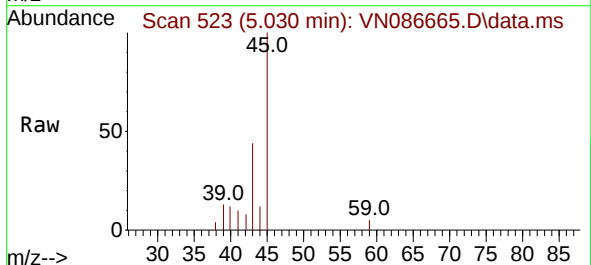
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

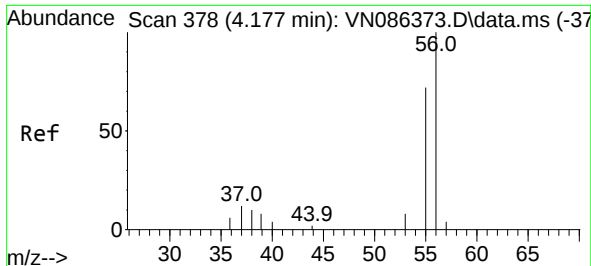
Tgt Ion: 94 Resp: 292
Ion Ratio Lower Upper
94 100
96 79.8 72.4 108.6



#12
Methyl Acetate
Concen: 0.280 ug/l
RT: 5.030 min Scan# 523
Delta R.T. 0.012 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 43 Resp: 803
Ion Ratio Lower Upper
43 100
74 0.0 20.8 31.2#





#13

Acrolein

Concen: Below Cal

RT: 4.400 min Scan# 416

Delta R.T. 0.223 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

Instrument :

MSVOA_N

ClientSampleId :

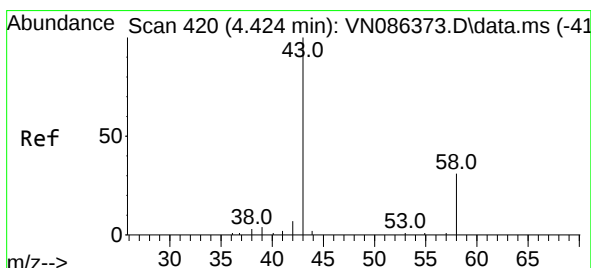
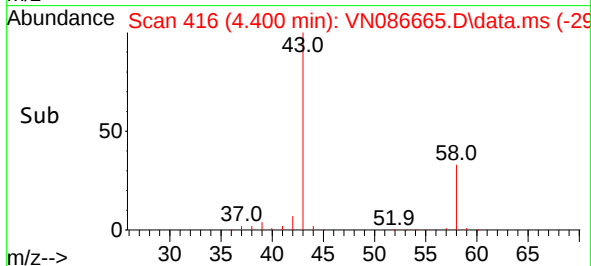
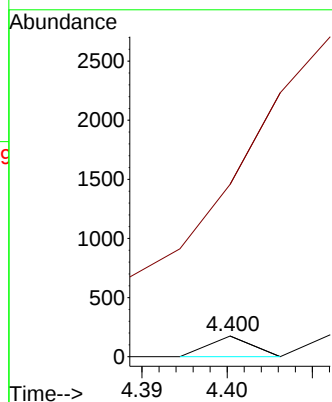
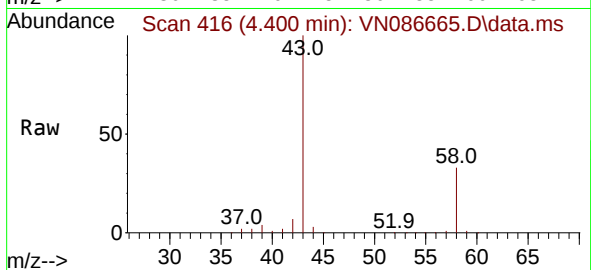
EFF-WW

Tgt Ion: 56 Resp: 62

Ion Ratio Lower Upper

56 100

55 0.0 56.1 84.1#



#15

Acetone

Concen: 2807.028 ug/l

RT: 4.418 min Scan# 419

Delta R.T. -0.006 min

Lab File: VN086665.D

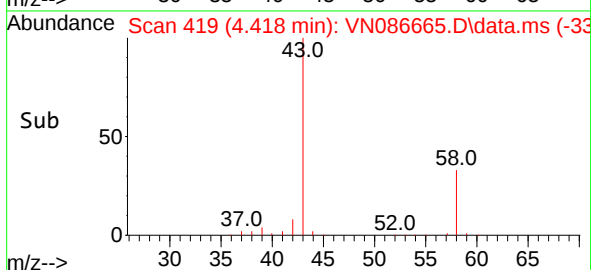
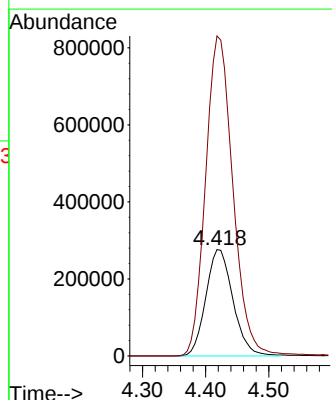
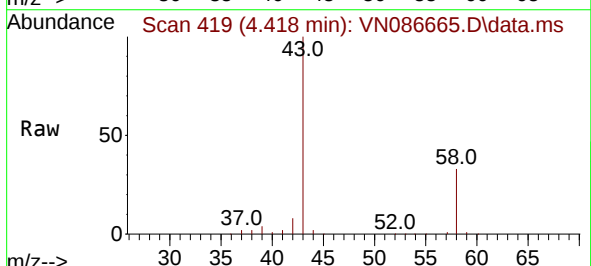
Acq: 16 May 2025 13:54

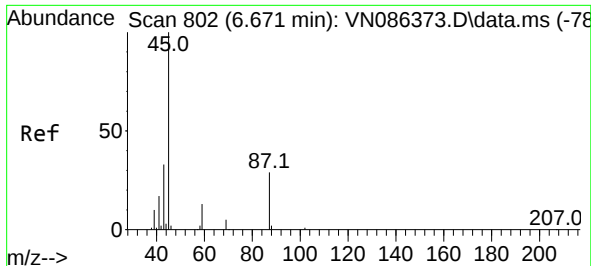
Tgt Ion: 58 Resp: 824995

Ion Ratio Lower Upper

58 100

43 300.5 255.1 382.7

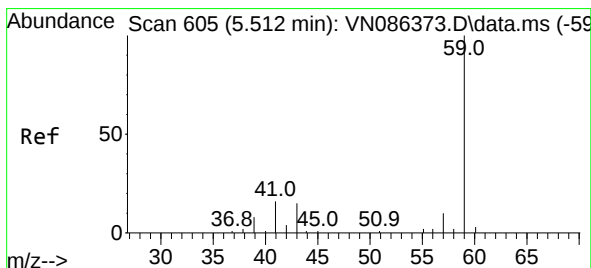
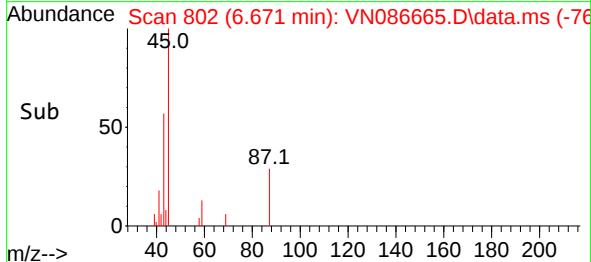
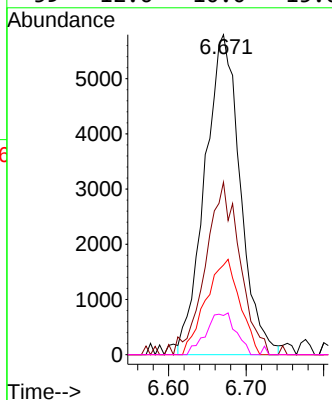
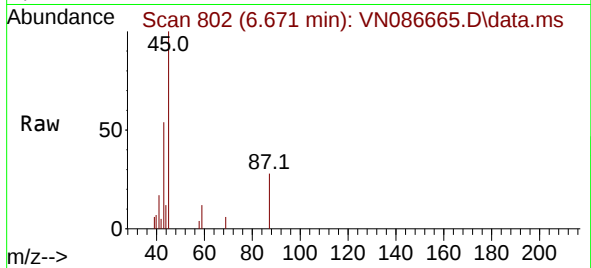




#20
Diisopropyl ether
Concen: 2.394 ug/l
RT: 6.671 min Scan# 802
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

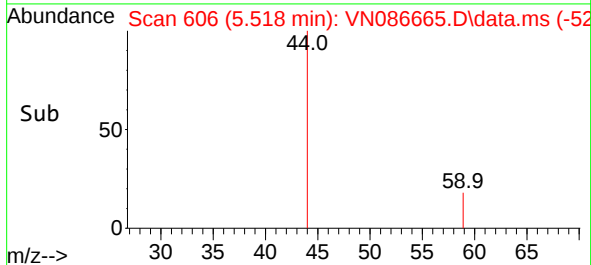
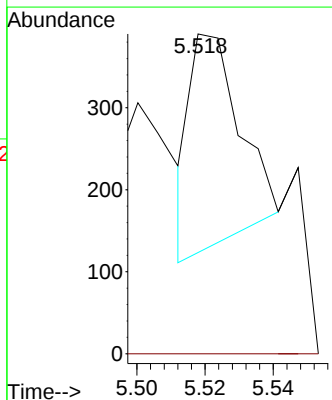
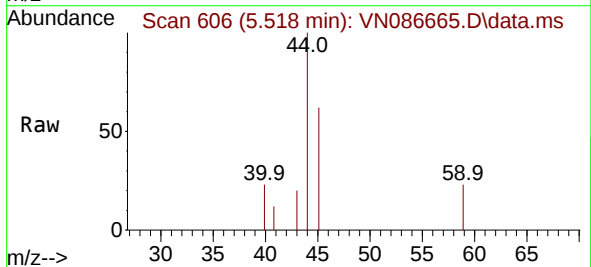
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

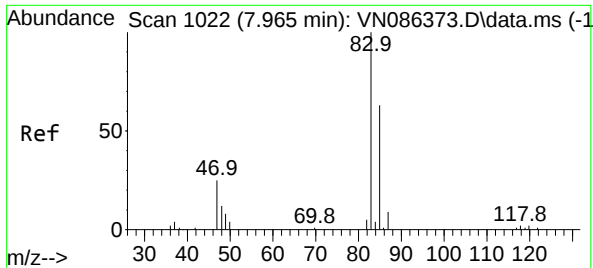
Tgt Ion: 45	Resp: 18400
Ion Ratio	Lower Upper
45 100	
43 55.4	38.8 58.2
87 28.8	23.5 35.3
59 12.6	10.0 15.0



#23
tert-Butyl Alcohol
Concen: 0.644 ug/l
RT: 5.518 min Scan# 606
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 59	Resp: 266
Ion Ratio	Lower Upper
59 100	
52 0.0	0.1 0.1#

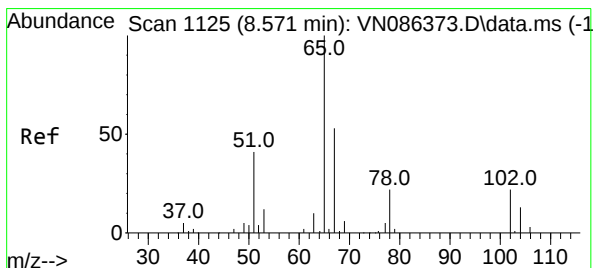
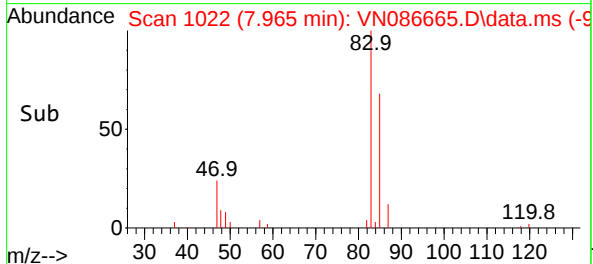
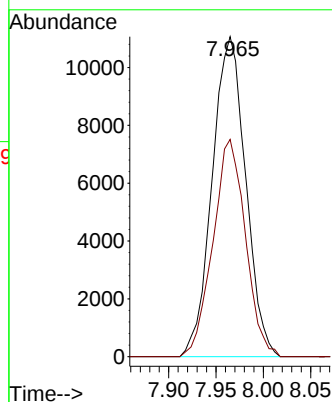
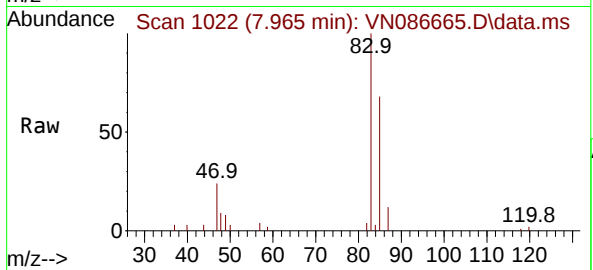




#25
Chloroform
Concen: 6.382 ug/l
RT: 7.965 min Scan# 1022
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

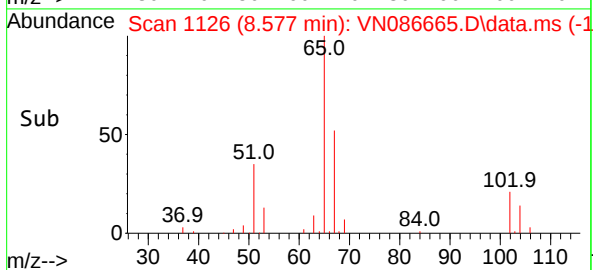
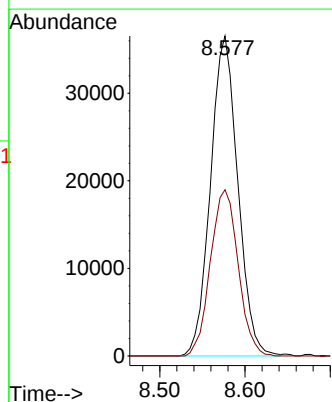
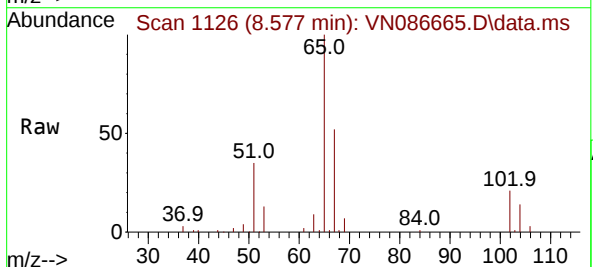
Instrument :
MSVOA_N
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EFF-WW

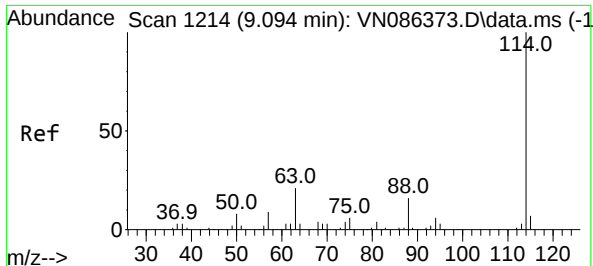
Tgt Ion: 83 Resp: 27177
Ion Ratio Lower Upper
83 100
85 67.9 50.2 75.2



#27
1,2-Dichloroethane-d4
Concen: 29.136 ug/l
RT: 8.577 min Scan# 1126
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 65 Resp: 81412
Ion Ratio Lower Upper
65 100
67 52.8 42.5 63.7





#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.100 min Scan# 1

Delta R.T. 0.006 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

Instrument :

MSVOA_N

ClientSampleId :

EFF-WW

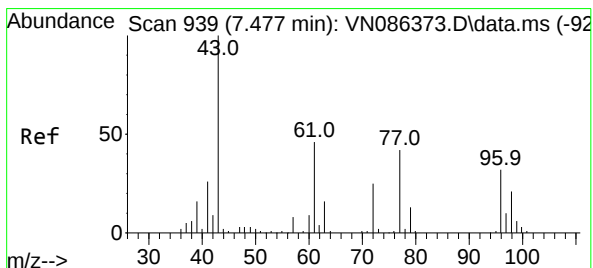
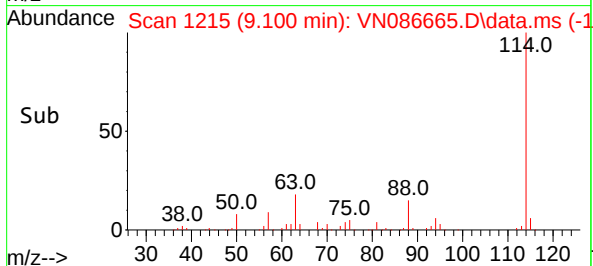
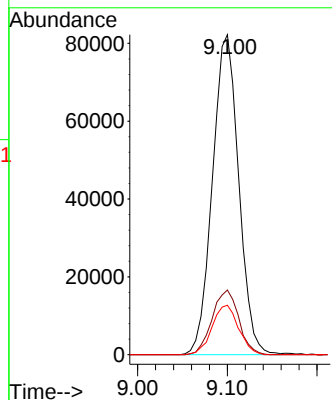
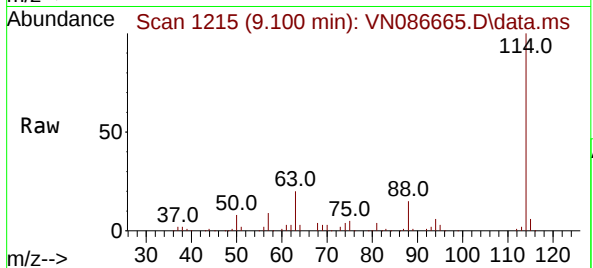
Tgt Ion:114 Resp: 166943

Ion Ratio Lower Upper

114 100

63 20.4 16.7 25.1

88 15.6 12.6 19.0



#30

2-Butanone

Concen: 0.225 ug/l

RT: 7.488 min Scan# 941

Delta R.T. 0.012 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

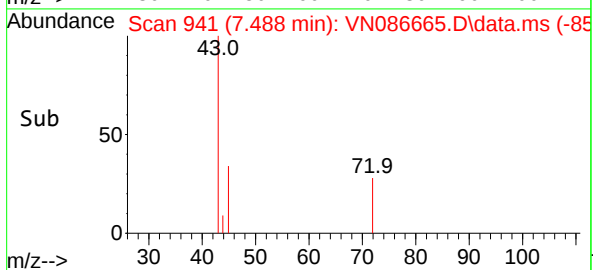
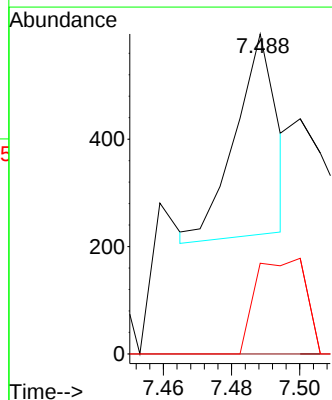
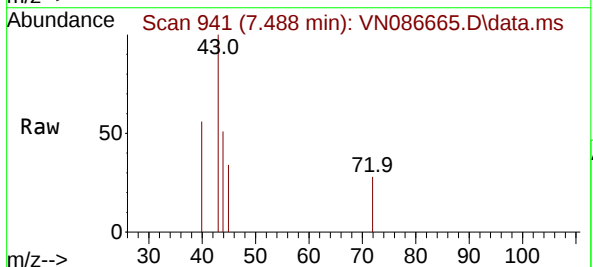
Tgt Ion: 43 Resp: 321

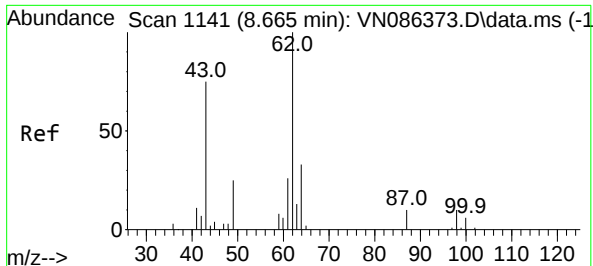
Ion Ratio Lower Upper

43 100

57 0.0 6.6 10.0#

72 56.1 22.2 33.4#





#36

1,2-Dichloroethane

Concen: 1.774 ug/l

RT: 9.094 min Scan# 1

Delta R.T. 0.429 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

Instrument :

MSVOA_N

ClientSampleId :

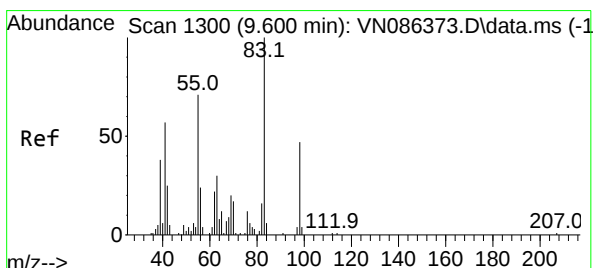
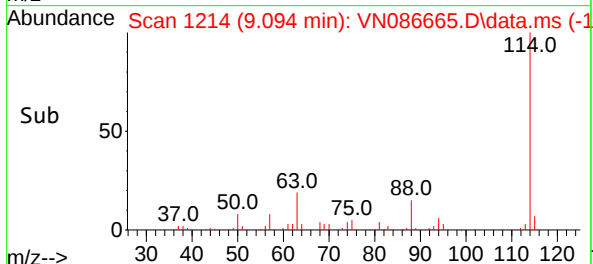
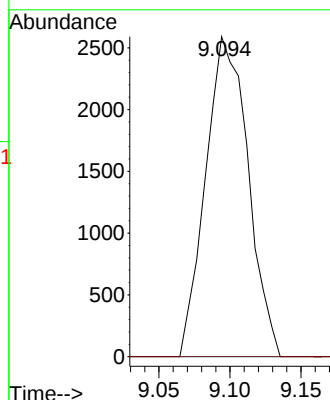
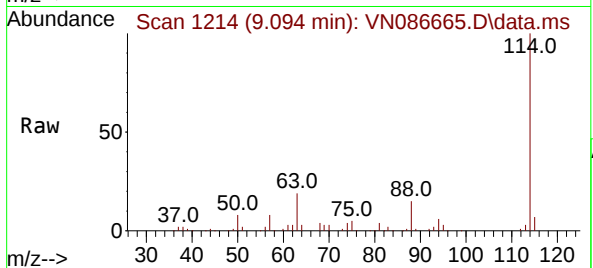
EFF-WW

Tgt Ion: 62 Resp: 5391

Ion Ratio Lower Upper

62 100

98 0.0 7.6 11.4#



#38

Methylcyclohexane

Concen: 0.531 ug/l

RT: 9.888 min Scan# 1349

Delta R.T. 0.288 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

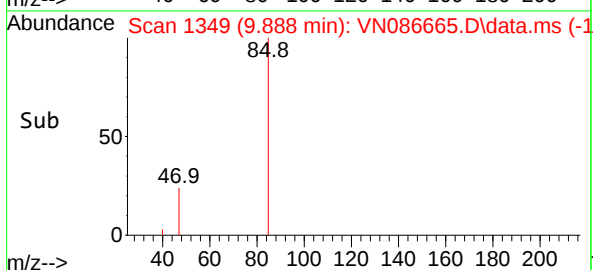
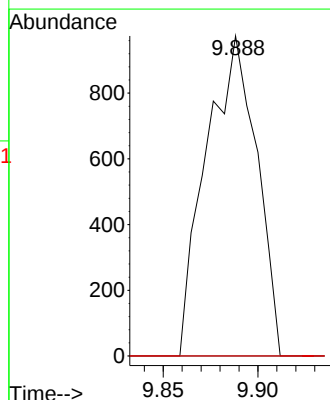
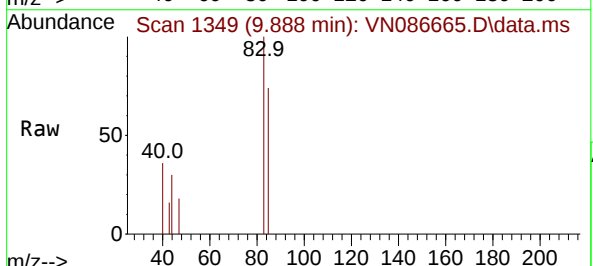
Tgt Ion: 83 Resp: 1805

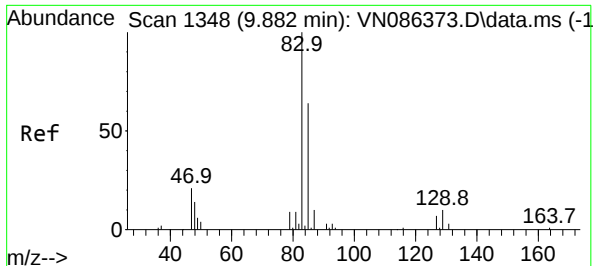
Ion Ratio Lower Upper

83 100

55 0.0 37.3 111.9#

98 0.0 23.8 71.5#

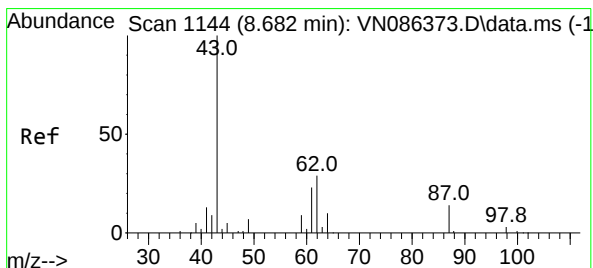
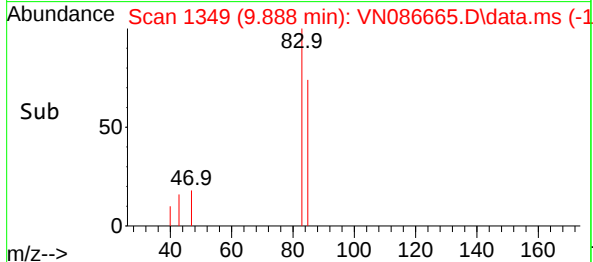
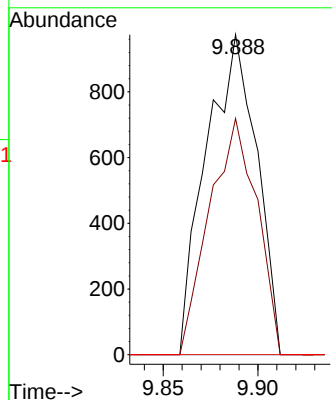
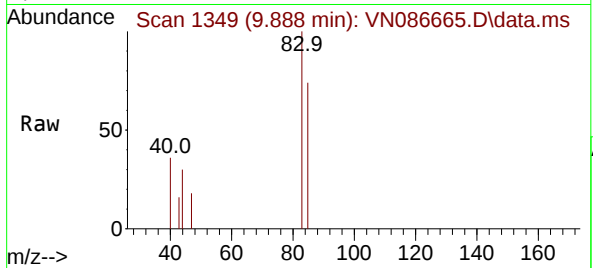




#41
Bromodichloromethane
Concen: 0.552 ug/l
RT: 9.888 min Scan# 1144
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

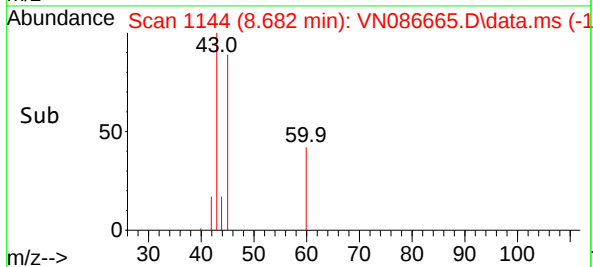
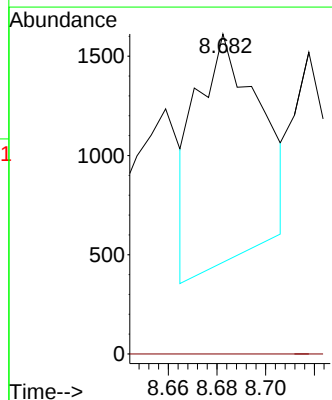
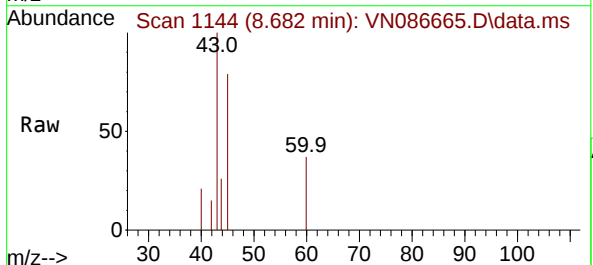
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

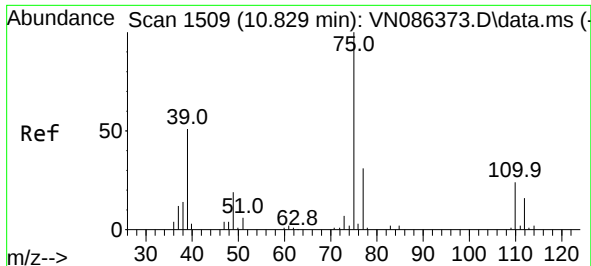
Tgt Ion: 83 Resp: 1805
Ion Ratio Lower Upper
83 100
85 73.8 51.1 76.7
127 0.0 5.9 8.9#



#44
Isopropyl Acetate
Concen: 0.385 ug/l
RT: 8.682 min Scan# 1144
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 43 Resp: 2066
Ion Ratio Lower Upper
43 100
61 0.0 21.0 31.4#

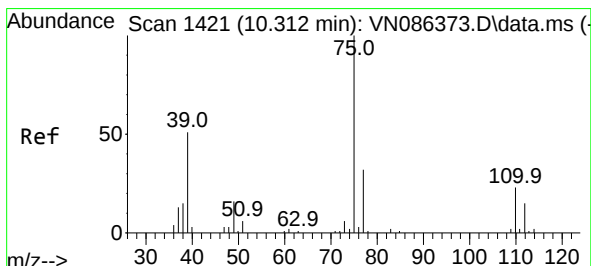
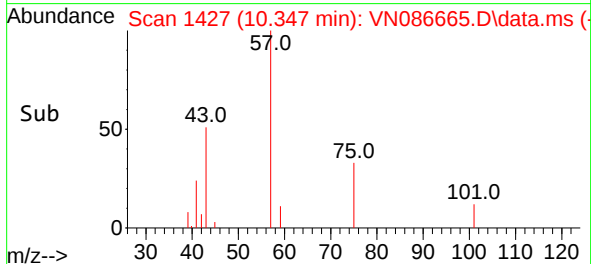
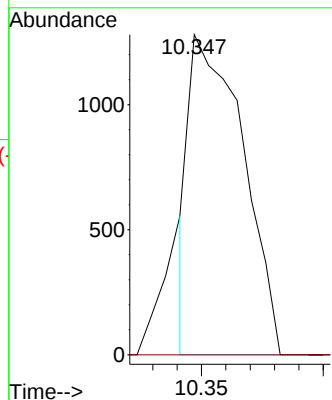
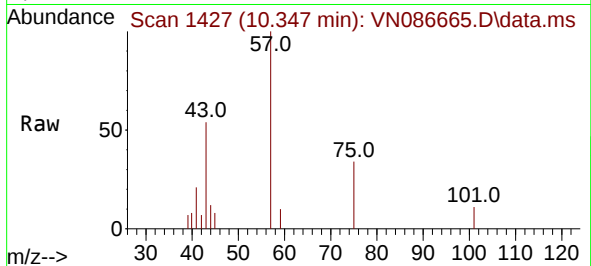




#48
t-1,3-Dichloropropene
Concen: 0.535 ug/l
RT: 10.347 min Scan# 1427
Delta R.T. -0.482 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

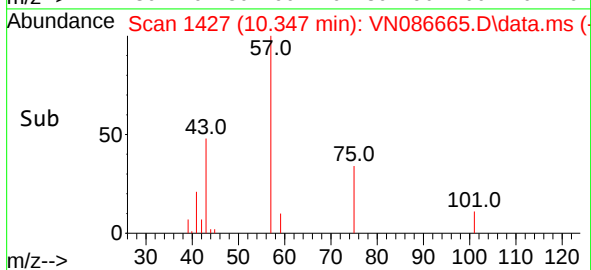
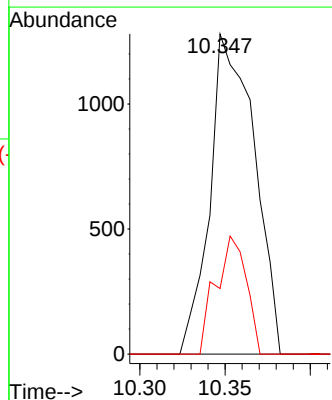
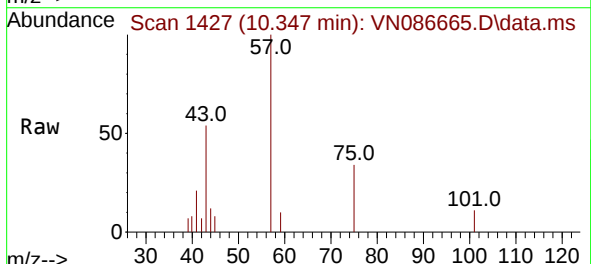
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

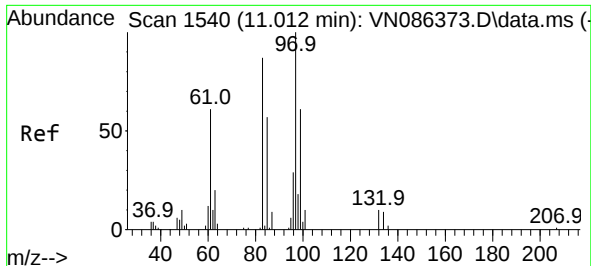
Tgt Ion: 75 Resp: 1956
Ion Ratio Lower Upper
75 100
77 0.0 24.4 36.6#



#49
cis-1,3-Dichloropropene
Concen: 0.601 ug/l
RT: 10.347 min Scan# 1427
Delta R.T. 0.035 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 75 Resp: 2318
Ion Ratio Lower Upper
75 100
77 0.0 25.6 38.4#
39 20.5 40.6 60.8#

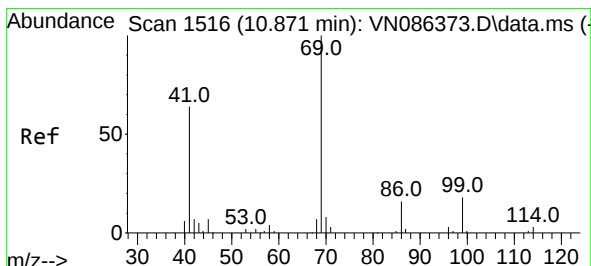
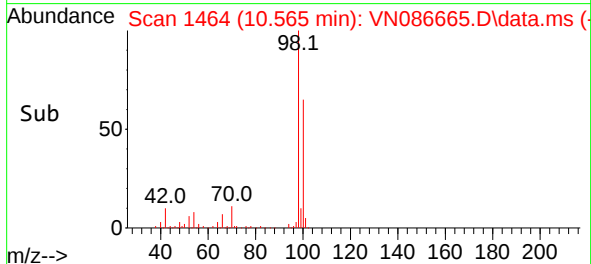
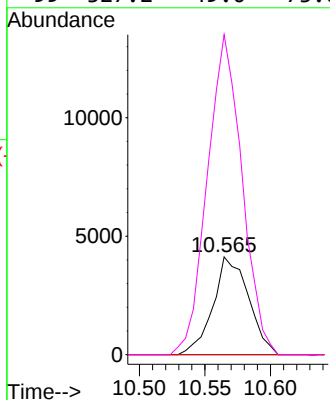
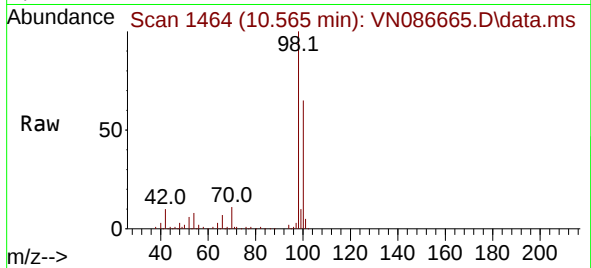




#50
1,1,2-Trichloroethane
Concen: 3.611 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. -0.447 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

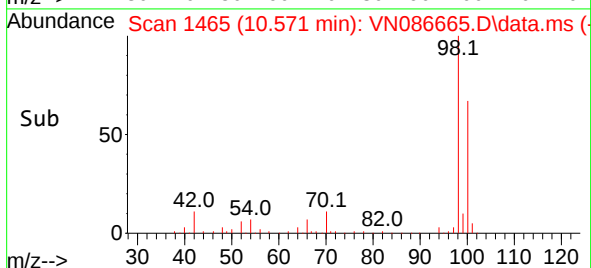
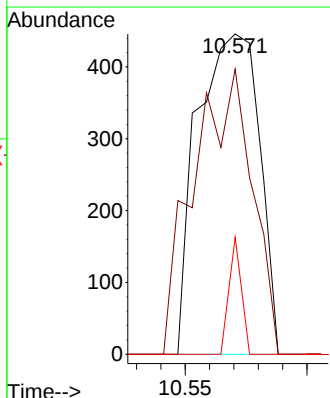
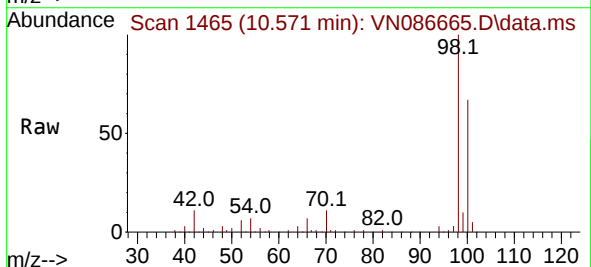
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

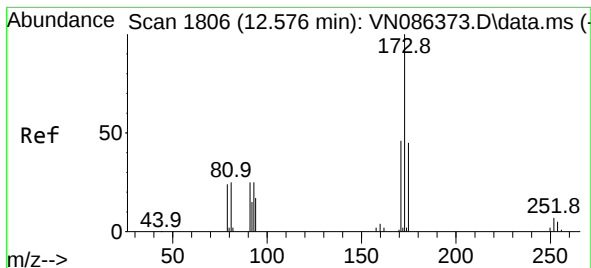
Tgt Ion: 97 Resp: 7801
Ion Ratio Lower Upper
97 100
83 0.0 69.3 103.9#
85 0.0 45.5 68.3#
99 327.2 49.0 73.6#



#51
Ethyl methacrylate
Concen: 0.210 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. -0.300 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 69 Resp: 789
Ion Ratio Lower Upper
69 100
41 89.0 32.3 96.8
39 36.5 19.1 57.1





#56

Bromoform

Concen: 0.333 ug/l

RT: 12.853 min Scan# 1853

Delta R.T. 0.276 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

Instrument :

MSVOA_N

ClientSampleId :

EFF-WW

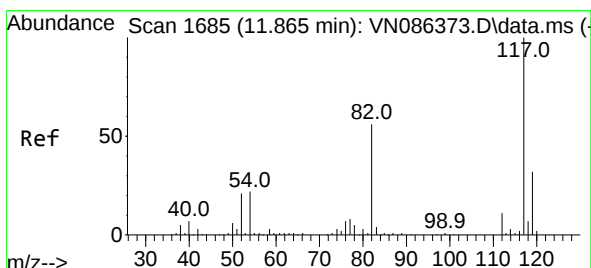
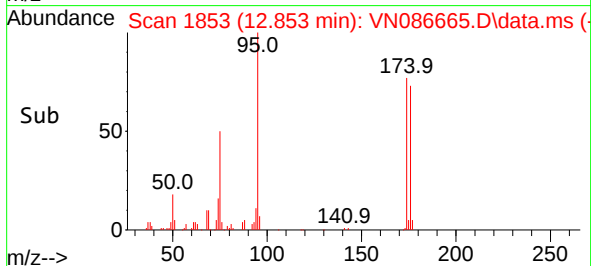
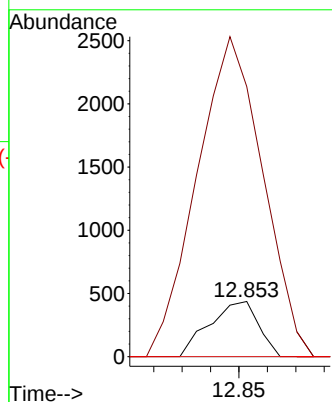
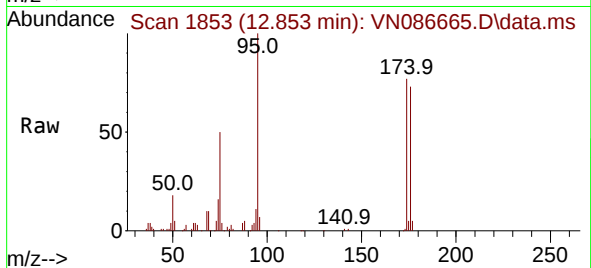
Tgt Ion:173 Resp: 524

Ion Ratio Lower Upper

173 100

175 779.0 39.0 58.6#

254 0.0 3.8 5.6#



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 11.865 min Scan# 1685

Delta R.T. -0.000 min

Lab File: VN086665.D

Acq: 16 May 2025 13:54

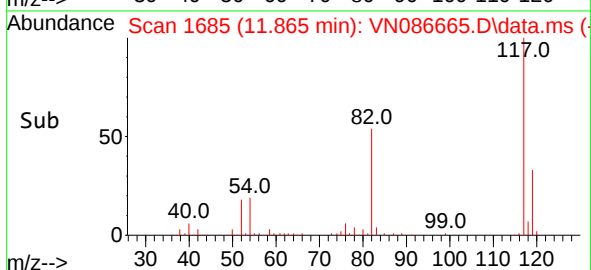
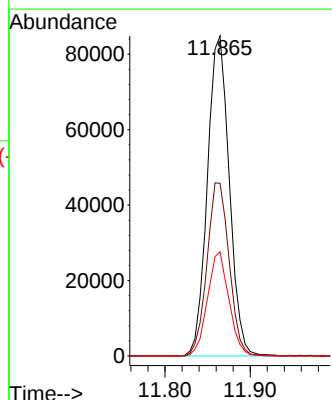
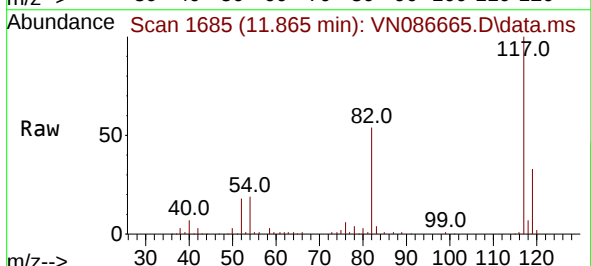
Tgt Ion:117 Resp: 151707

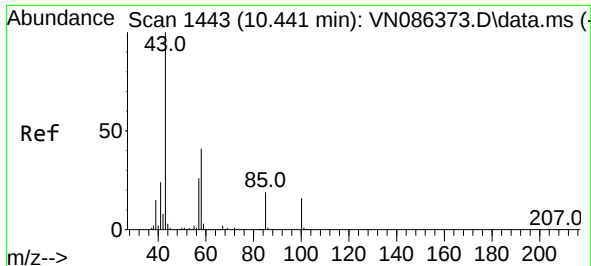
Ion Ratio Lower Upper

117 100

82 54.6 45.5 68.3

119 31.8 25.9 38.9

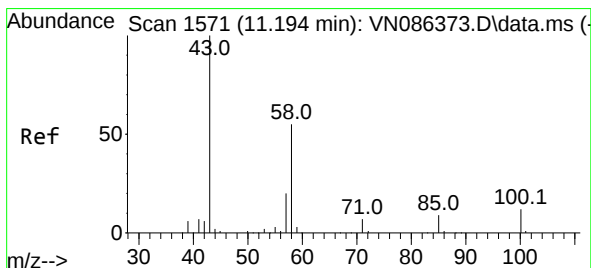
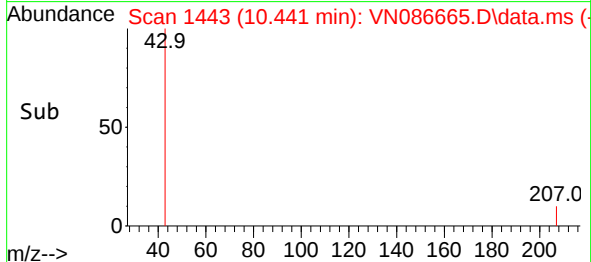
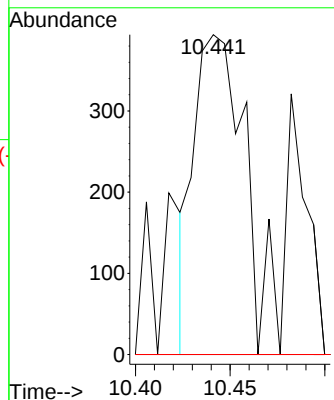
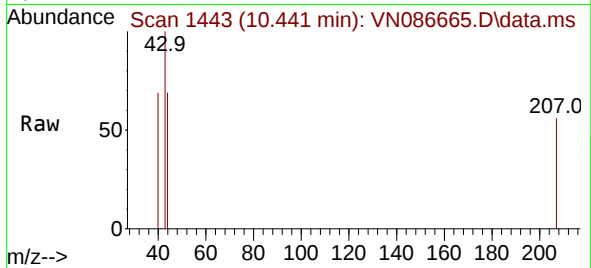




#58
4-Methyl-2-Pentanone
Concen: 0.255 ug/l
RT: 10.441 min Scan# 1443
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

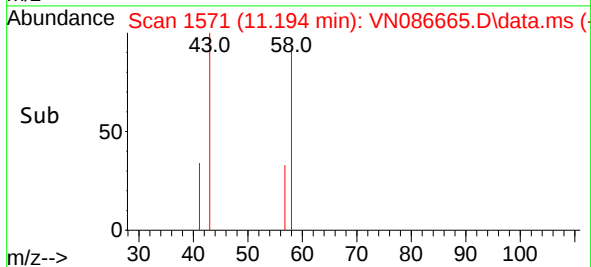
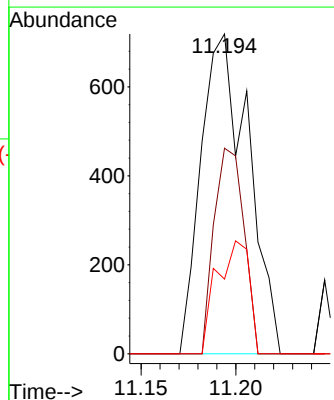
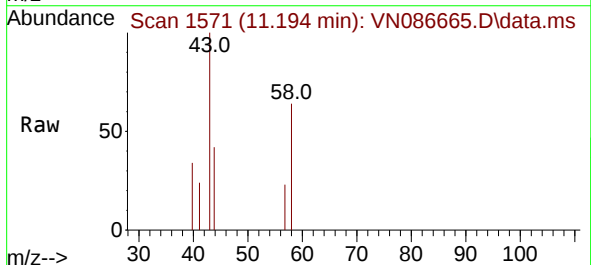
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

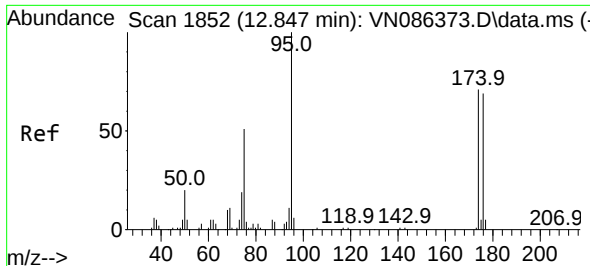
Tgt Ion: 43 Resp: 748
Ion Ratio Lower Upper
43 100
58 0.0 33.0 49.6#
85 0.0 14.9 22.3#



#59
2-Hexanone
Concen: 0.575 ug/l
RT: 11.194 min Scan# 1571
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 43 Resp: 1244
Ion Ratio Lower Upper
43 100
58 40.6 45.0 67.6#
57 24.1 15.5 23.3#

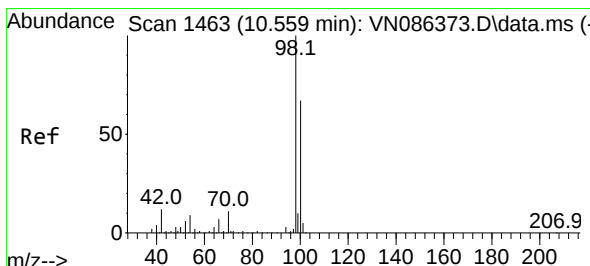
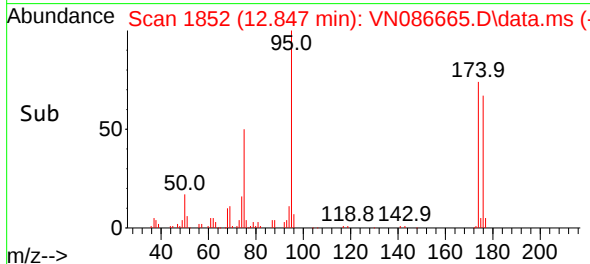
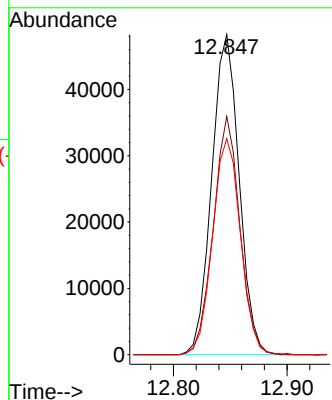
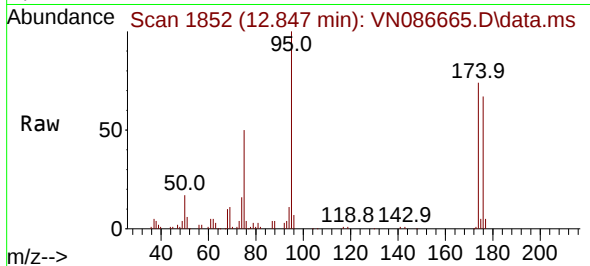




#60
4-Bromofluorobenzene
Concen: 27.168 ug/l
RT: 12.847 min Scan# 11
Delta R.T. -0.000 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

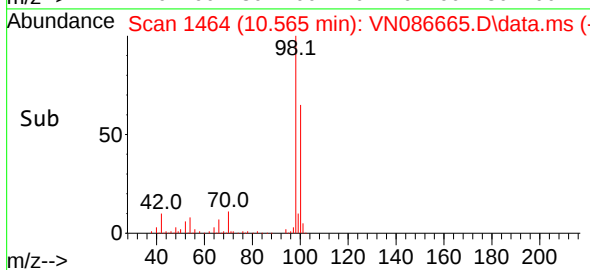
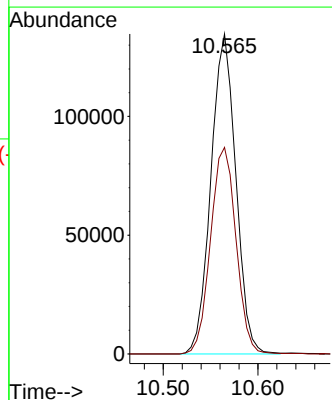
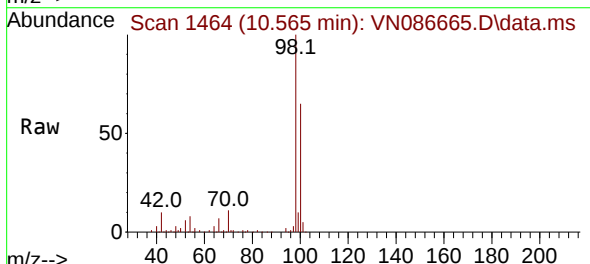
Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

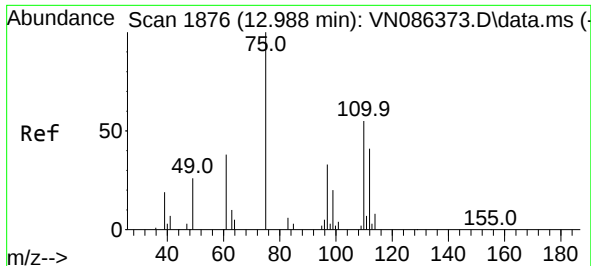
Tgt Ion: 95 Resp: 81007
Ion Ratio Lower Upper
95 100
174 71.9 56.6 84.8
176 68.8 53.3 79.9



#63
Toluene-d8
Concen: 29.477 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion: 98 Resp: 246017
Ion Ratio Lower Upper
98 100
100 66.0 53.1 79.7

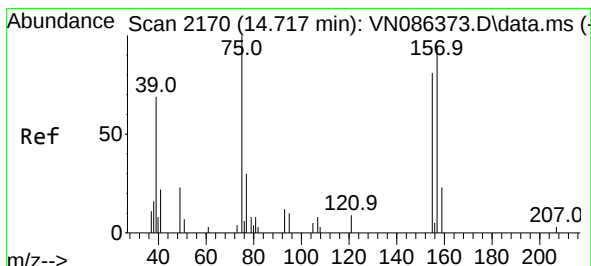
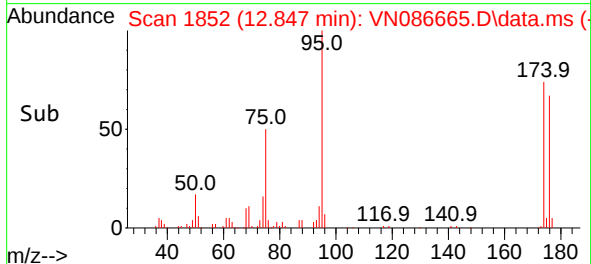
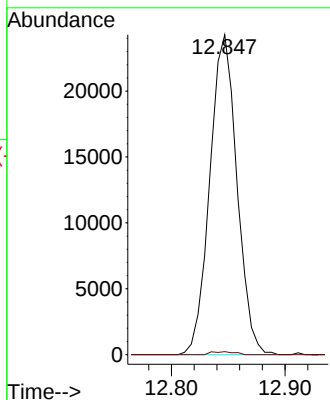
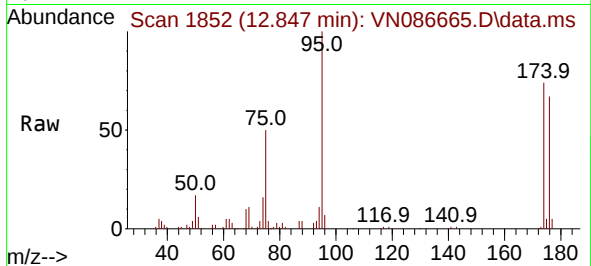




#72
 1,2,3-Trichloropropane
 Concen: 16.582 ug/l
 RT: 12.847 min Scan# 11
 Delta R.T. -0.141 min
 Lab File: VN086665.D
 Acq: 16 May 2025 13:54

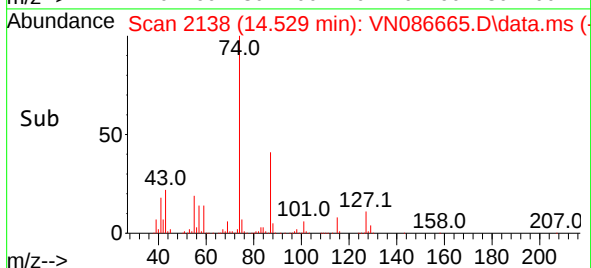
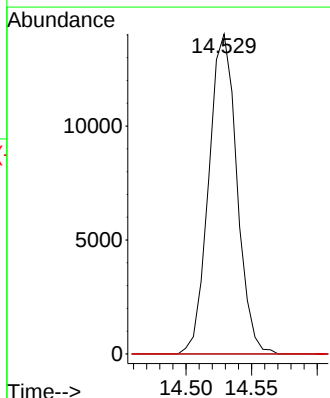
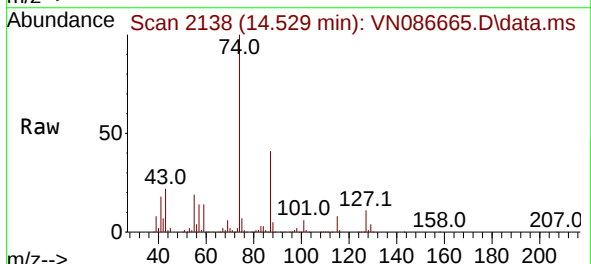
Instrument :
 MSVOA_N
 ClientSampleId :
 EFF-WW

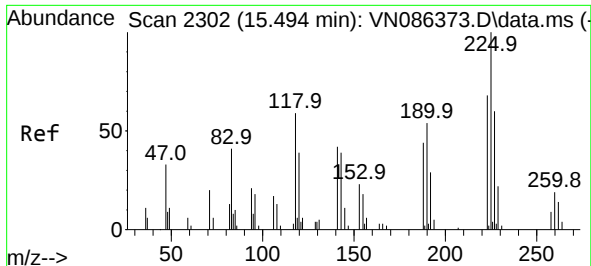
Tgt Ion: 75 Resp: 40350
 Ion Ratio Lower Upper
 75 100
 77 0.8 0.0 464.4



#88
 1,2-Dibromo-3-Chloropropane
 Concen: 36.936 ug/l
 RT: 14.529 min Scan# 2138
 Delta R.T. -0.188 min
 Lab File: VN086665.D
 Acq: 16 May 2025 13:54

Tgt Ion: 75 Resp: 20954
 Ion Ratio Lower Upper
 75 100
 155 0.0 64.0 96.0#
 157 0.0 78.2 117.4#

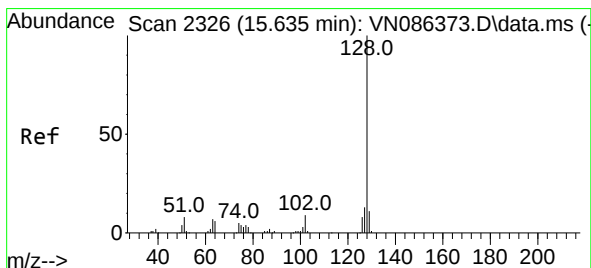
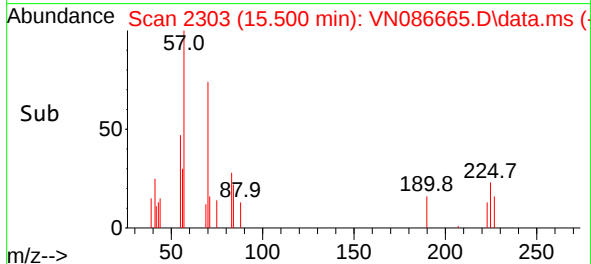
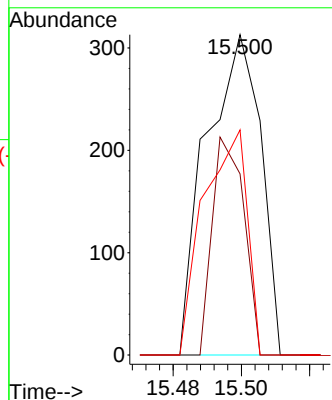
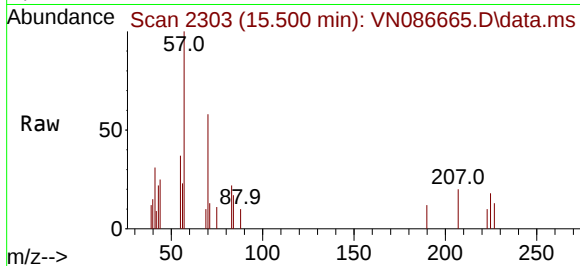




#90
Hexachlorobutadiene
Concen: 0.431 ug/l
RT: 15.500 min Scan# 21
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Instrument :
MSVOA_N
ClientSampleId :
EFF-WW

Tgt Ion:	225	Resp:	347
Ion	Ratio	Lower	Upper
225	100		
223	39.8	0.0	128.8
227	56.2	0.0	120.2



#91
Naphthalene
Concen: 0.305 ug/l
RT: 15.641 min Scan# 2327
Delta R.T. 0.006 min
Lab File: VN086665.D
Acq: 16 May 2025 13:54

Tgt Ion:	128	Resp:	2181
Ion	Ratio	Lower	Upper
128	100		
127	0.0	10.6	15.8#
129	0.0	8.7	13.1#

