

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN081723\
 Data File : VN078931.D
 Acq On : 17 Aug 2023 17:29
 Operator : JC\MD
 Sample : 04027-02
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :

Quant Time: Aug 18 05:33:39 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N081723W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Fri Aug 18 05:21:14 2023
 Response via : Initial Calibration

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

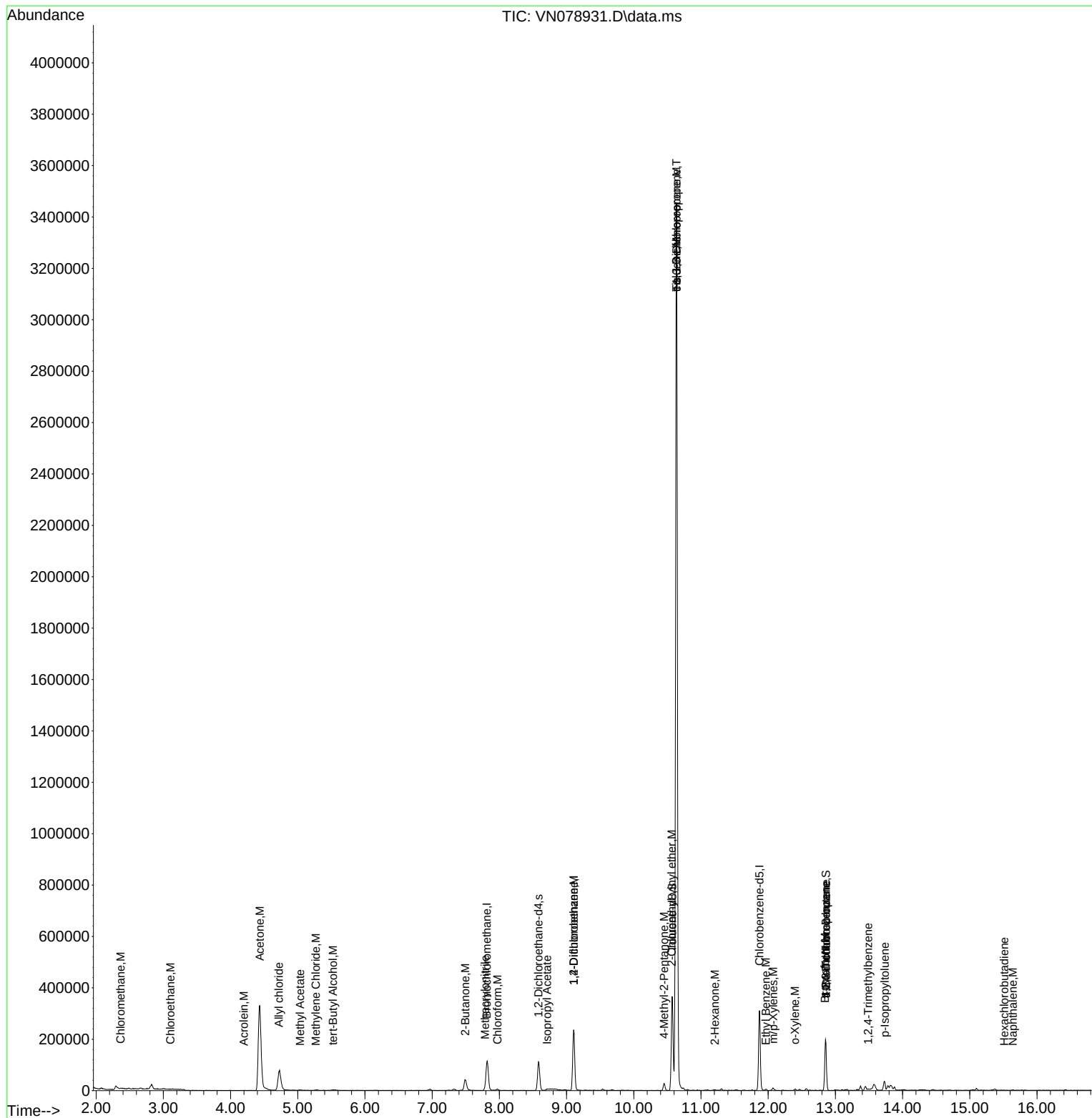
Internal Standards						
1) Bromochloromethane	7.812	128	37802	30.000	ug/l	-0.01
28) 1,4-Difluorobenzene	9.106	114	199957	30.000	ug/l	0.00
57) Chlorobenzene-d5	11.871	117	175403	30.000	ug/l	0.00
System Monitoring Compounds						
27) 1,2-Dichloroethane-d4	8.583	65	89586	29.252	ug/l	0.00
Spiked Amount	30.000	Range	91 - 110	Recovery	=	97.500%
60) 4-Bromofluorobenzene	12.859	95	65969	25.783	ug/l	0.00
Spiked Amount	30.000	Range	63 - 112	Recovery	=	85.933%
63) Toluene-d8	10.571	98	244034	29.792	ug/l	0.00
Spiked Amount	30.000	Range	91 - 112	Recovery	=	99.300%
Target Compounds						
					Qvalue	
3) Chloromethane	2.365	50	1133	0.396	ug/l #	44
6) Chloroethane	3.106	64	1005	0.547	ug/l #	44
12) Methyl Acetate	5.036	43	1235	0.263	ug/l #	54
13) Acrolein	4.200	56	224	0.685	ug/l #	54
15) Acetone	4.436	58	182957	483.427	ug/l	91
17) Allyl chloride	4.718	41	6222	1.695	ug/l	70
18) Methylene Chloride	5.271	84	601	0.251	ug/l #	28
23) tert-Butyl Alcohol	5.524	59	1454	3.159	ug/l #	100
25) Chloroform	7.971	83	4294	0.962	ug/l #	81
30) 2-Butanone	7.494	43	67863	38.110	ug/l #	94
35) Methacrylonitrile	7.788	41	876	0.462	ug/l #	26
36) 1,2-Dichloroethane	9.106	62	7507	2.199	ug/l #	73
44) Isopropyl Acetate	8.712	43	5495	0.903	ug/l #	65
48) t-1,3-Dichloropropene	10.635	75	17555	4.980	ug/l #	1
49) cis-1,3-Dichloropropene	10.635	75	17555	4.644	ug/l #	1
55) 2-Chloroethyl vinyl ether	10.565	63	362	0.228	ug/l #	1
56) Bromoform	12.847	173	470	0.274	ug/l #	1
58) 4-Methyl-2-Pentanone	10.453	43	20226	5.812	ug/l	96
59) 2-Hexanone	11.206	43	1654	0.649	ug/l #	66
62) Toluene	10.635	91	2536324	264.859	ug/l	98
66) Ethyl Benzene	11.965	91	3208	0.320	ug/l #	73
67) m/p-Xylenes	12.076	106	2959	0.792	ug/l	97
68) o-Xylene	12.400	106	1228	0.333	ug/l	84
72) 1,2,3-Trichloropropane	12.859	75	35710	13.014	ug/l	1
77) t-1,4-Dichloro-2-butene	12.859	75	35710	35.019	ug/l #	3
80) 1,2,4-Trimethylbenzene	13.488	105	4258	0.612	ug/l	79
82) p-Isopropyltoluene	13.735	119	14496	2.251	ug/l	90
90) Hexachlorobutadiene	15.511	225	254	0.329	ug/l #	20
91) Naphthalene	15.641	128	1155	0.270	ug/l #	76

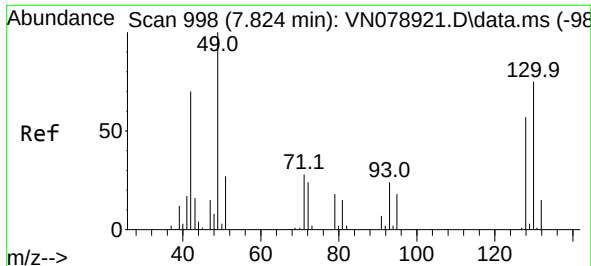
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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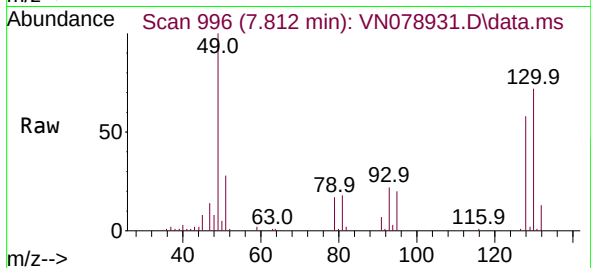
Quant Time: Aug 18 05:33:39 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\624N081723W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Fri Aug 18 05:21:14 2023
Response via : Initial Calibration



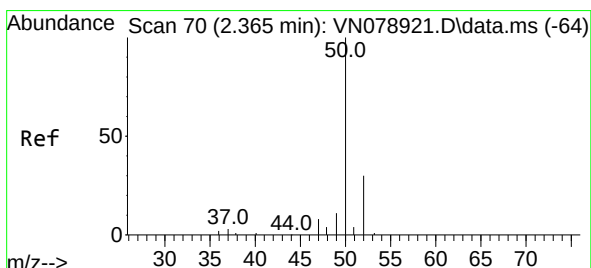
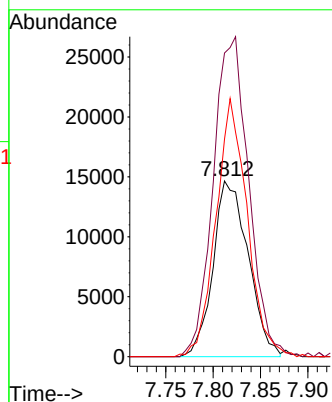
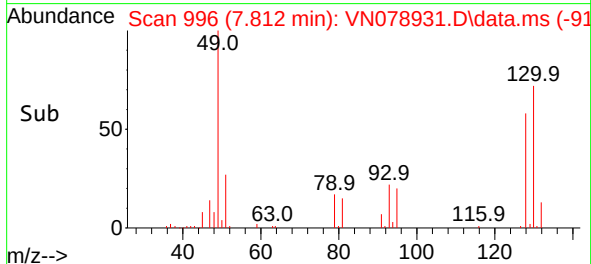


#1
Bromochloromethane
Concen: 30.000 ug/l
RT: 7.812 min Scan# 91
Delta R.T. -0.012 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Instrument :
MSVOA_N
ClientSampleId :

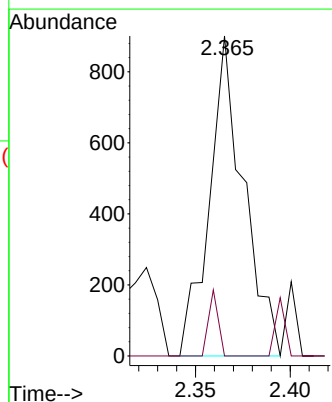
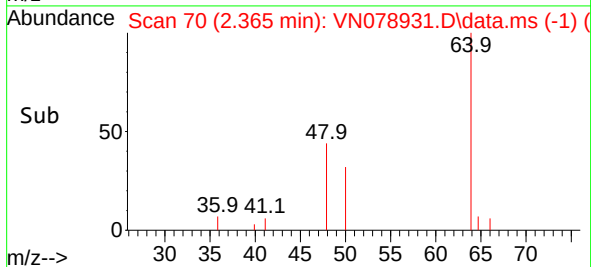
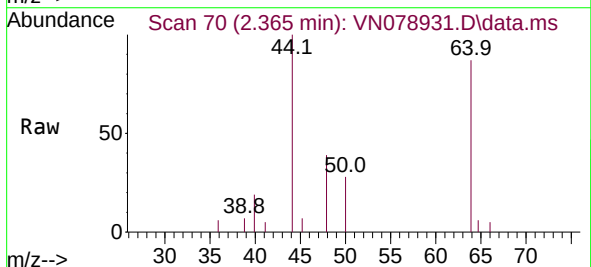


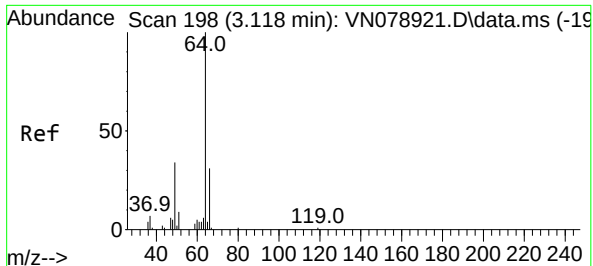
Tgt Ion:128 Resp: 37802
Ion Ratio Lower Upper
128 100
49 184.0 0.0 481.8
130 131.3 0.0 320.5



#3
Chloromethane
Concen: 0.396 ug/l
RT: 2.365 min Scan# 70
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 50 Resp: 1133
Ion Ratio Lower Upper
50 100
52 0.0 24.2 36.4#

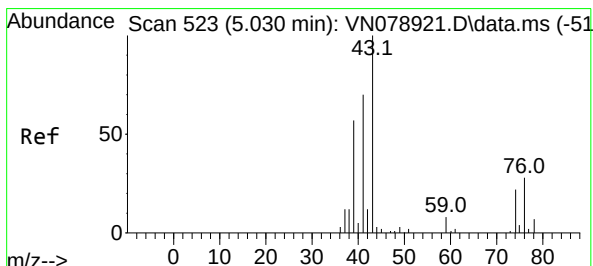
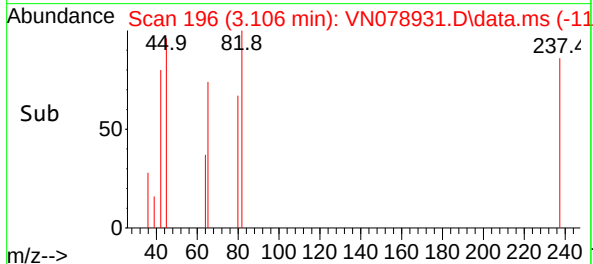
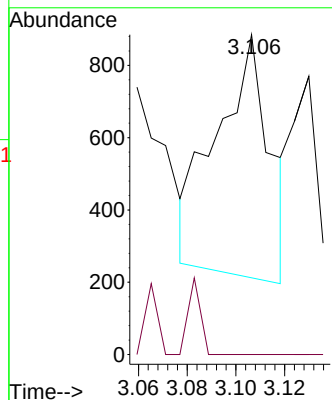
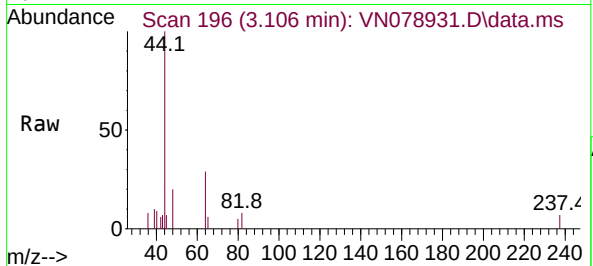




#6
Chloroethane
Concen: 0.547 ug/l
RT: 3.106 min Scan# 198
Delta R.T. -0.012 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

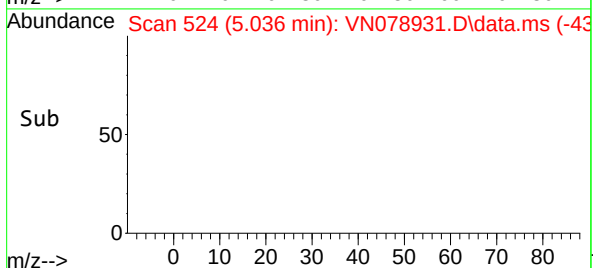
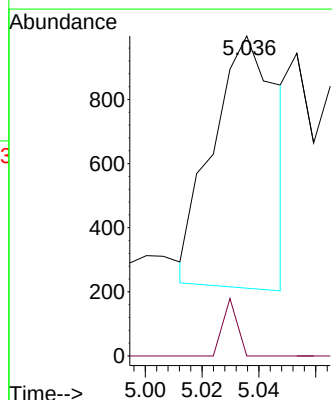
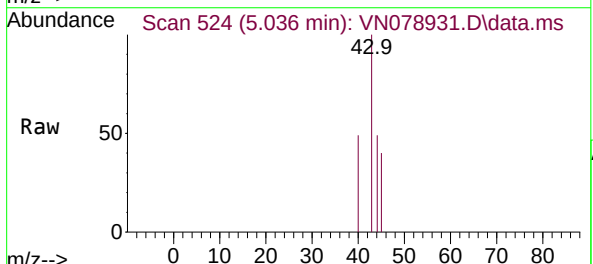
Instrument :
MSVOA_N
ClientSampleId :

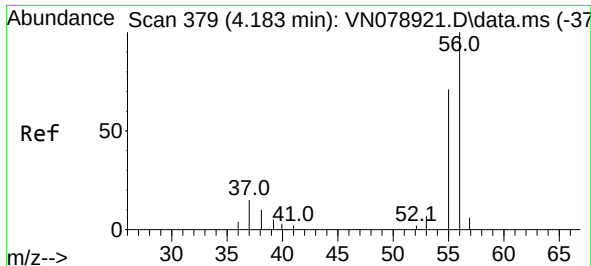
Tgt Ion: 64 Resp: 1005
Ion Ratio Lower Upper
64 100
66 0.0 24.9 37.3#



#12
Methyl Acetate
Concen: 0.263 ug/l
RT: 5.036 min Scan# 524
Delta R.T. 0.006 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

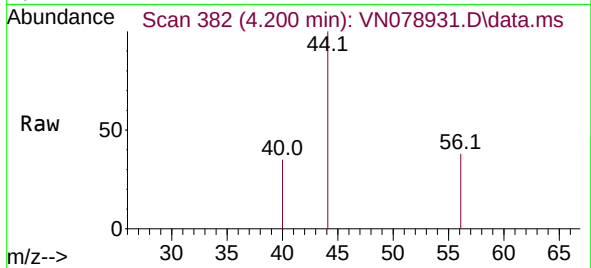
Tgt Ion: 43 Resp: 1235
Ion Ratio Lower Upper
43 100
74 0.0 17.5 26.3#



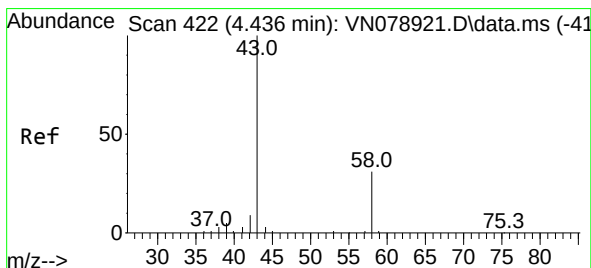
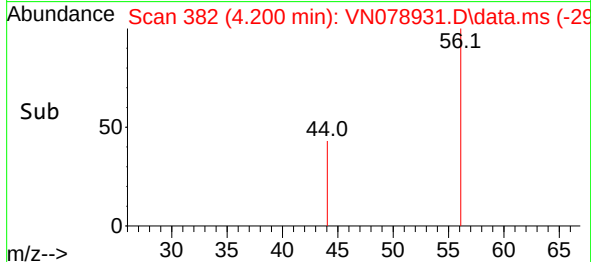
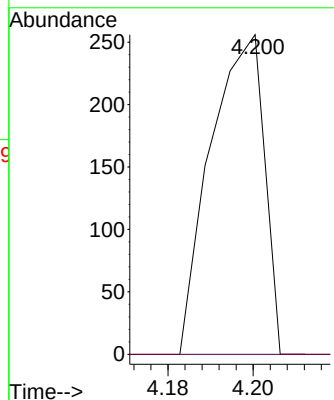


#13
Acrolein
Concen: 0.685 ug/l
RT: 4.200 min Scan# 379
Delta R.T. 0.018 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Instrument :
MSVOA_N
ClientSampleId :

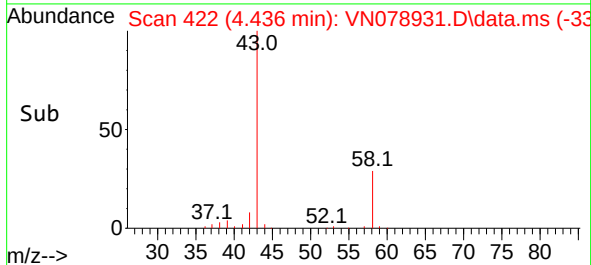
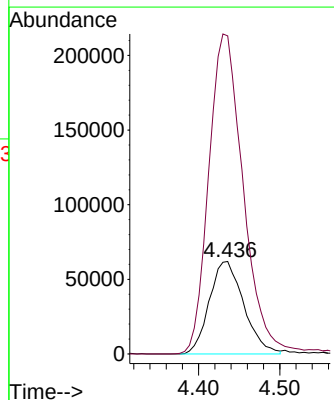
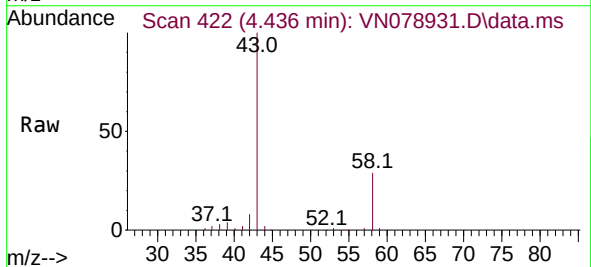


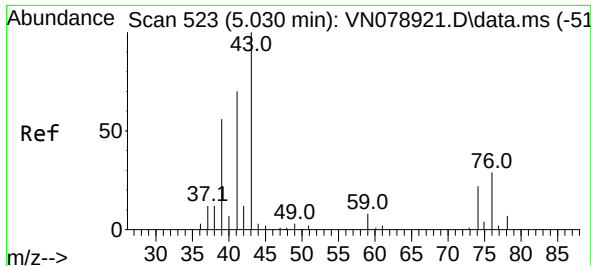
Tgt Ion: 56 Resp: 224
Ion Ratio Lower Upper
56 100
55 31.3 54.5 81.7#



#15
Acetone
Concen: 483.427 ug/l
RT: 4.436 min Scan# 422
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 58 Resp: 182957
Ion Ratio Lower Upper
58 100
43 343.4 260.6 390.8





#17

Allyl chloride

Concen: 1.695 ug/l

RT: 4.718 min Scan# 41

Delta R.T. -0.312 min

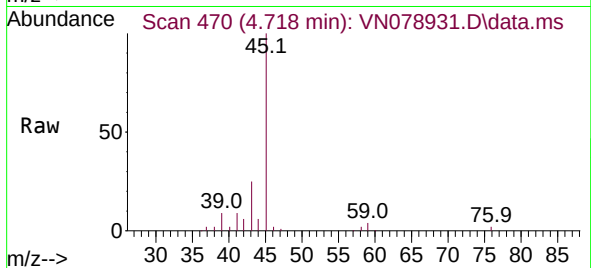
Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

Instrument :

MSVOA_N

ClientSampleId :



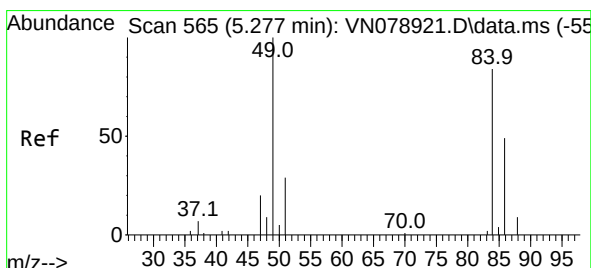
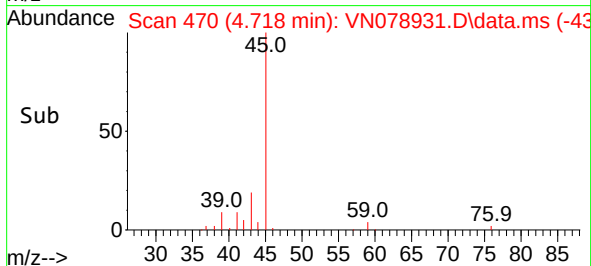
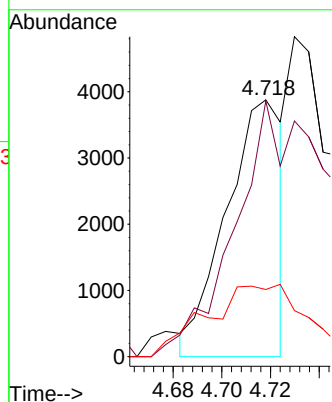
Tgt Ion: 41 Resp: 6222

Ion Ratio Lower Upper

41 100

39 100.2 36.9 110.7

76 18.6 17.3 51.9



#18

Methylene Chloride

Concen: 0.251 ug/l

RT: 5.271 min Scan# 564

Delta R.T. -0.006 min

Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

Tgt Ion: 84 Resp: 601

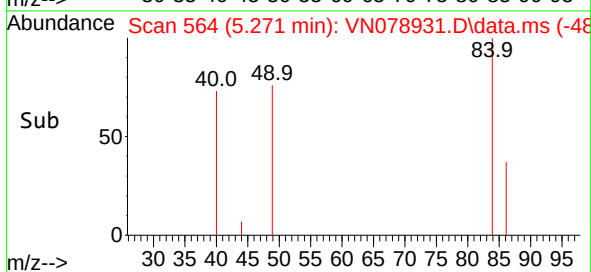
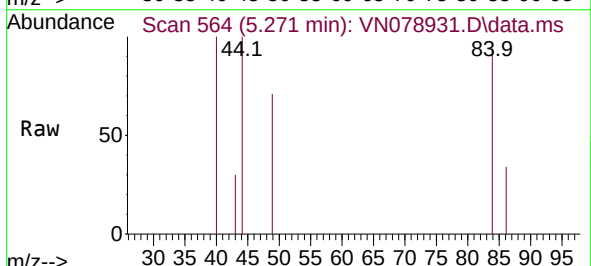
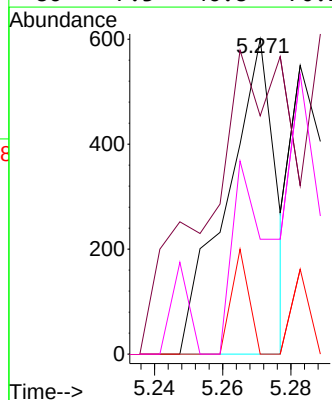
Ion Ratio Lower Upper

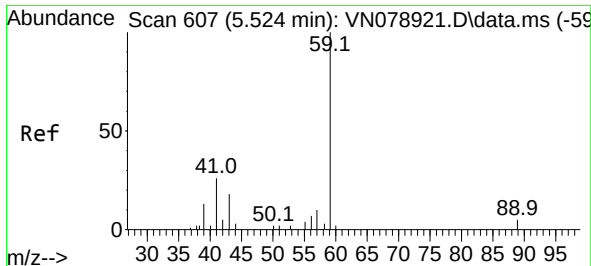
84 100

49 33.7 95.8 143.6#

51 0.0 28.6 43.0#

86 7.3 46.8 70.2#

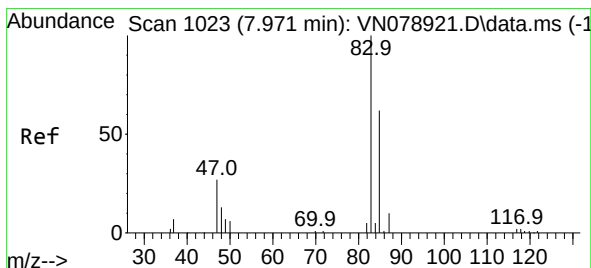
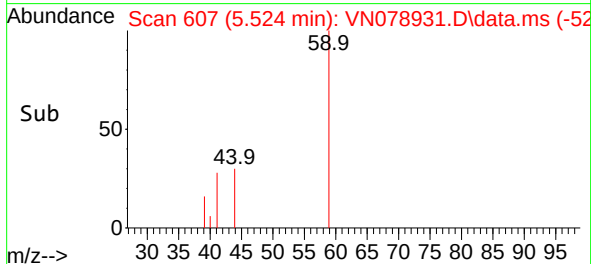
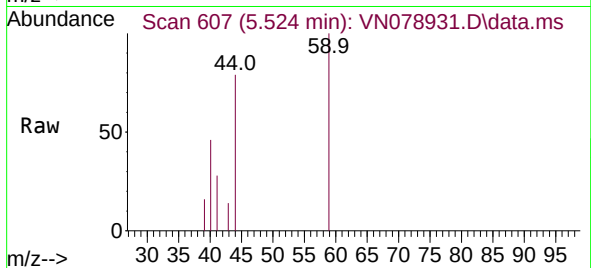




#23
tert-Butyl Alcohol
Concen: 3.159 ug/l
RT: 5.524 min Scan# 607
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

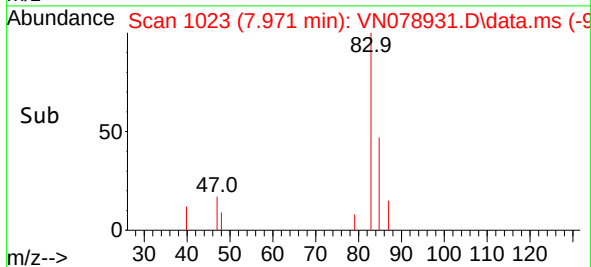
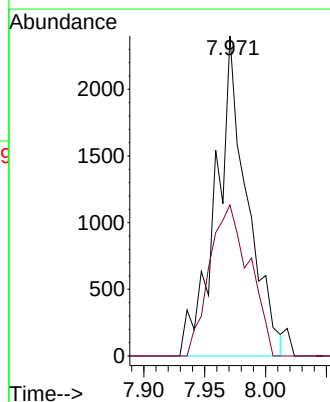
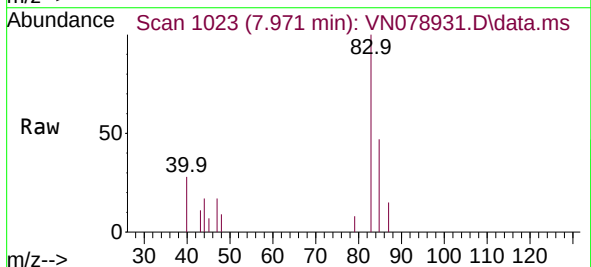
Instrument :
MSVOA_N
ClientSampleId :

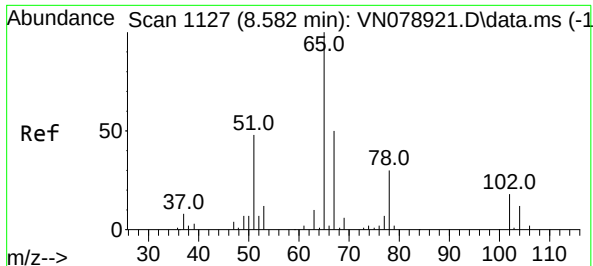
Tgt Ion: 59 Resp: 1454
Ion Ratio Lower Upper
59 100
52 0.0 0.0 0.0



#25
Chloroform
Concen: 0.962 ug/l
RT: 7.971 min Scan# 1023
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 83 Resp: 4294
Ion Ratio Lower Upper
83 100
85 47.2 49.6 74.4#





#27

1,2-Dichloroethane-d4

Concen: 29.252 ug/l

RT: 8.583 min Scan# 1127

Delta R.T. 0.000 min

Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

Instrument :

MSVOA_N

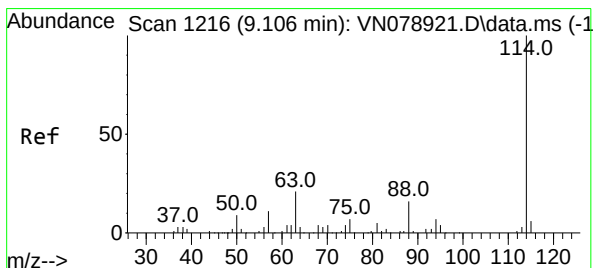
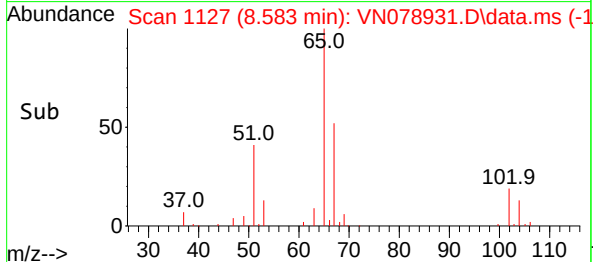
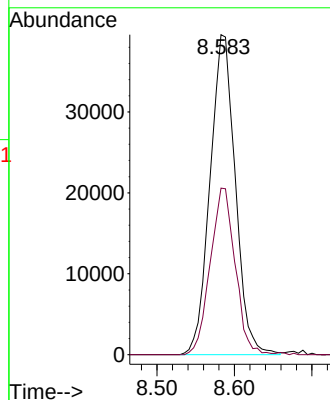
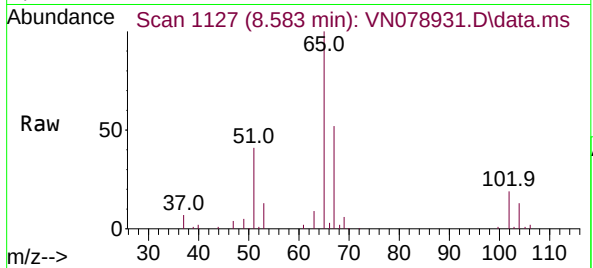
ClientSampleId :

Tgt Ion: 65 Resp: 89586

Ion Ratio Lower Upper

65 100

67 51.1 40.7 61.1



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 9.106 min Scan# 1216

Delta R.T. 0.000 min

Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

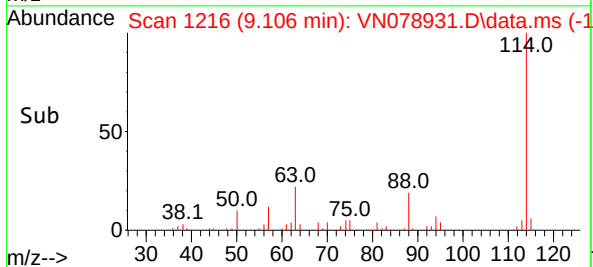
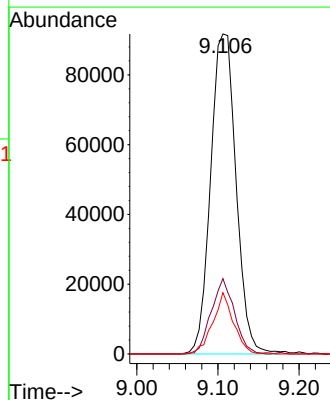
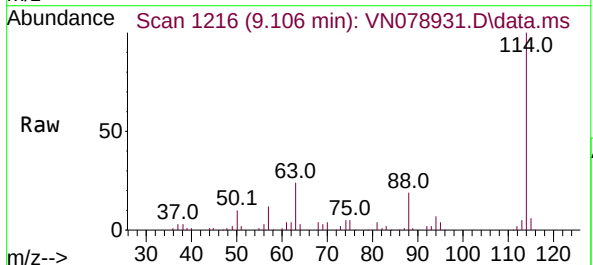
Tgt Ion: 114 Resp: 199957

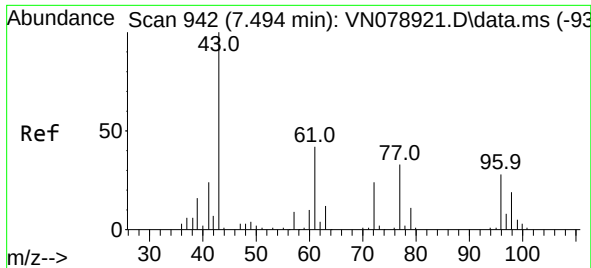
Ion Ratio Lower Upper

114 100

63 21.4 17.4 26.2

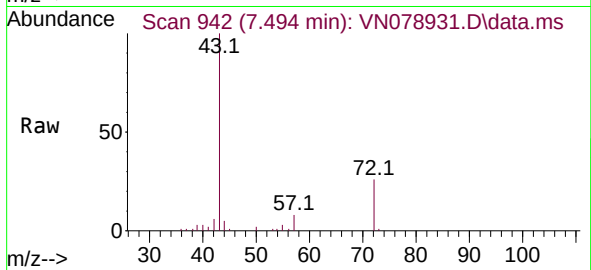
88 15.6 12.0 18.0



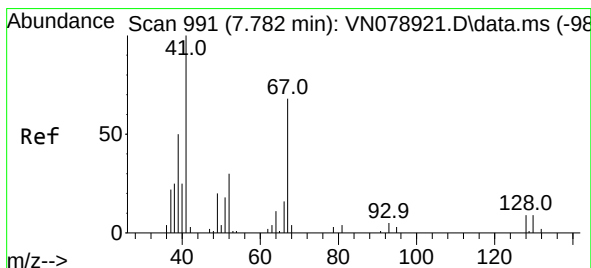
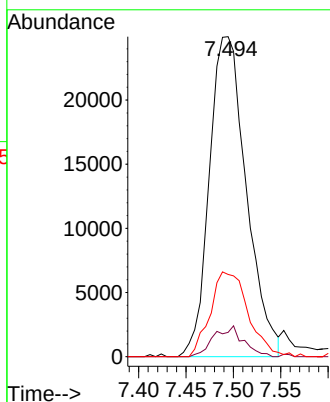
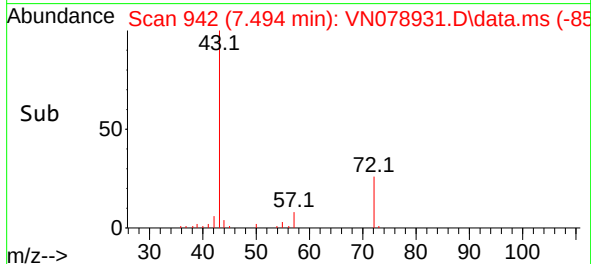


#30
2-Butanone
Concen: 38.110 ug/l
RT: 7.494 min Scan# 942
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

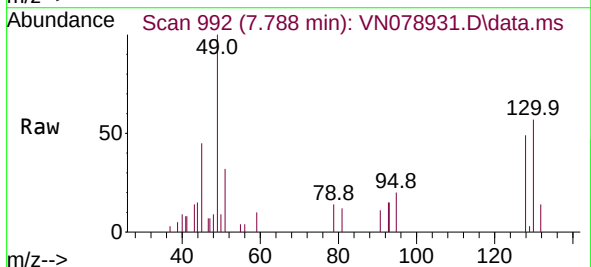
Instrument :
MSVOA_N
ClientSampleId :



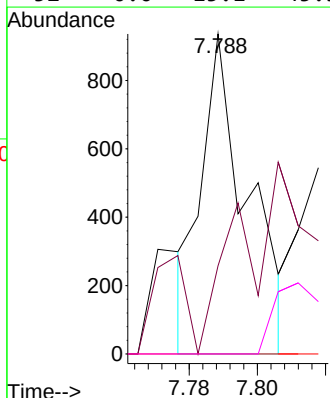
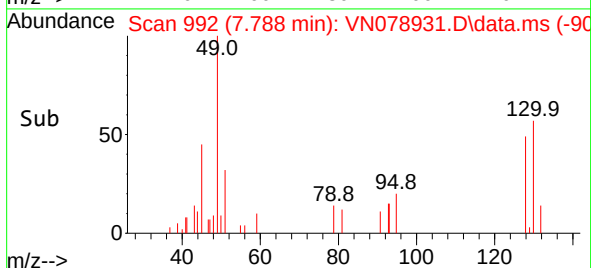
Tgt Ion: 43 Resp: 67863
Ion Ratio Lower Upper
43 100
57 4.4 6.2 9.4#
72 26.9 19.4 29.2

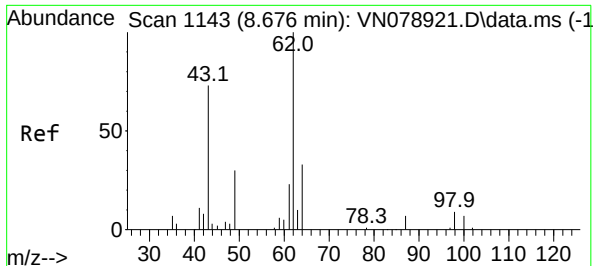


#35
Methacrylonitrile
Concen: 0.462 ug/l
RT: 7.788 min Scan# 992
Delta R.T. 0.006 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29



Tgt Ion: 41 Resp: 876
Ion Ratio Lower Upper
41 100
39 0.0 25.0 75.0#
67 0.0 34.0 102.0#
52 0.0 15.1 45.3#





#36

1,2-Dichloroethane

Concen: 2.199 ug/l

RT: 9.106 min Scan# 1149

Delta R.T. 0.430 min

Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

Instrument :

MSVOA_N

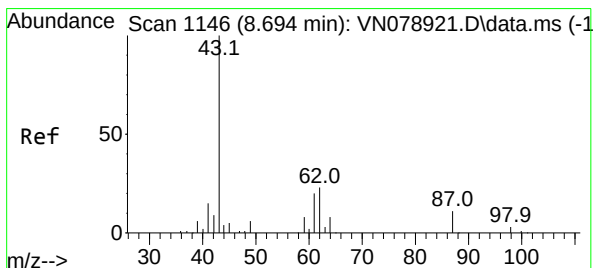
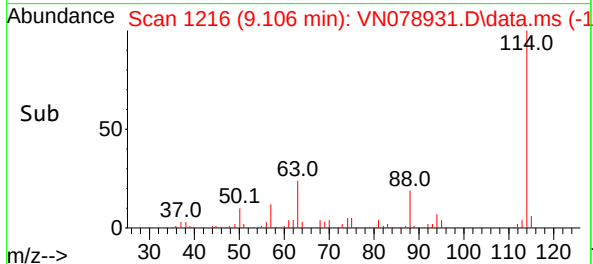
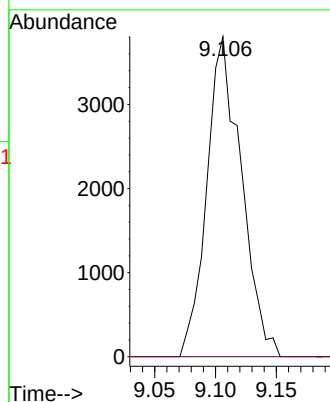
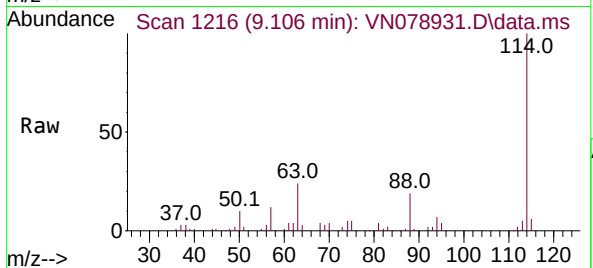
ClientSampleId :

Tgt Ion: 62 Resp: 7507

Ion Ratio Lower Upper

62 100

98 0.0 8.1 12.1#



#44

Isopropyl Acetate

Concen: 0.903 ug/l

RT: 8.712 min Scan# 1149

Delta R.T. 0.018 min

Lab File: VN078931.D

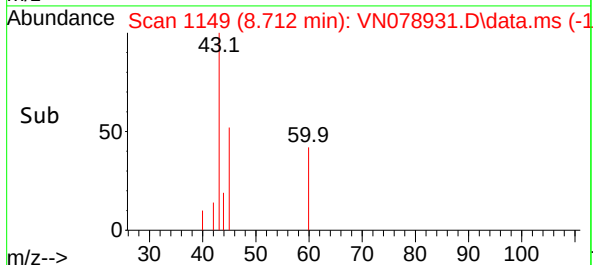
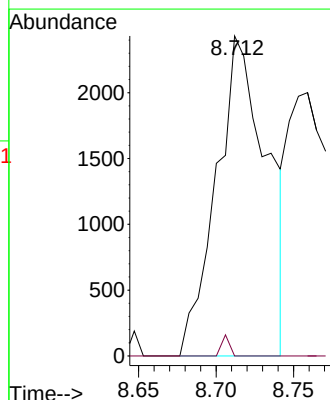
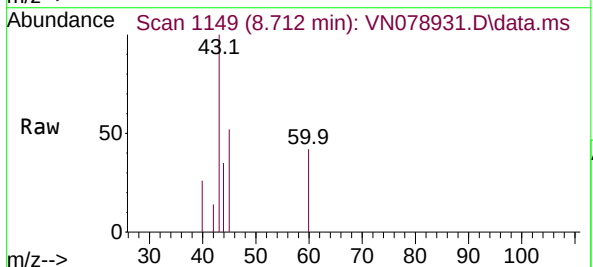
Acq: 17 Aug 2023 17:29

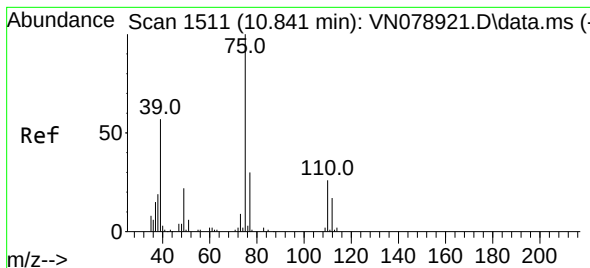
Tgt Ion: 43 Resp: 5495

Ion Ratio Lower Upper

43 100

61 6.7 19.0 28.4#





#48

t-1,3-Dichloropropene

Concen: 4.980 ug/l

RT: 10.635 min Scan# 1476

Delta R.T. -0.206 min

Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

Instrument :

MSVOA_N

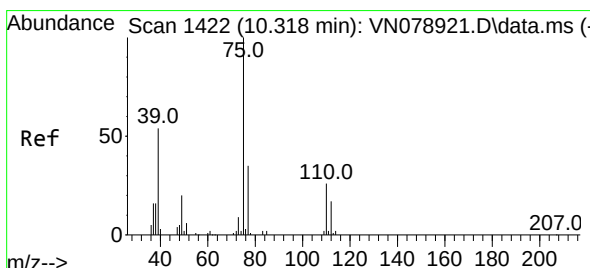
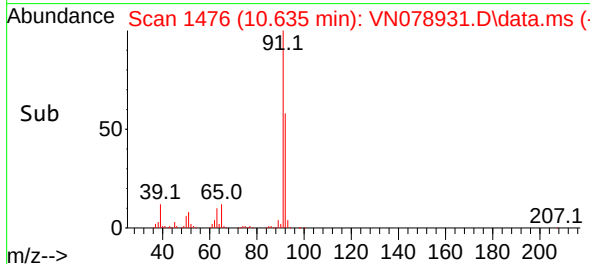
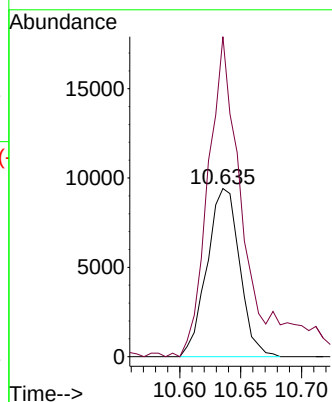
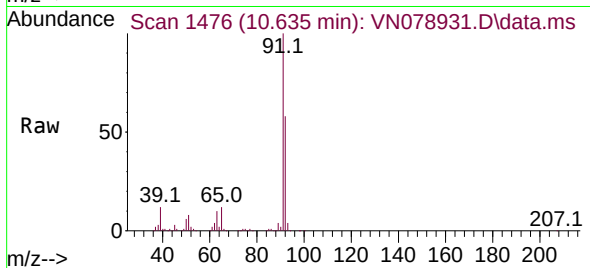
ClientSampleId :

Tgt Ion: 75 Resp: 17555

Ion Ratio Lower Upper

75 100

77 190.2 23.7 35.5#



#49

cis-1,3-Dichloropropene

Concen: 4.644 ug/l

RT: 10.635 min Scan# 1476

Delta R.T. 0.318 min

Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

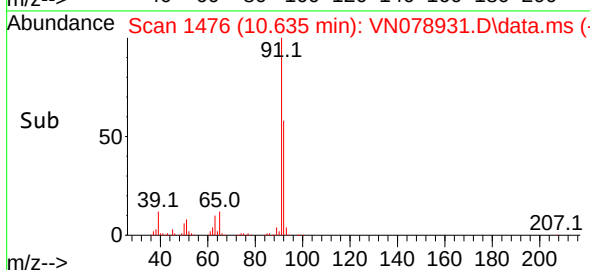
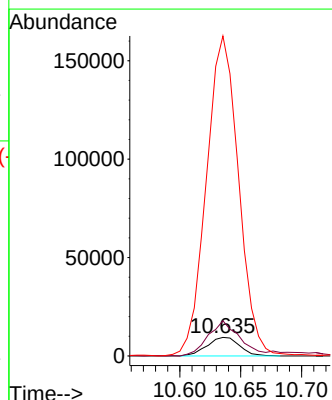
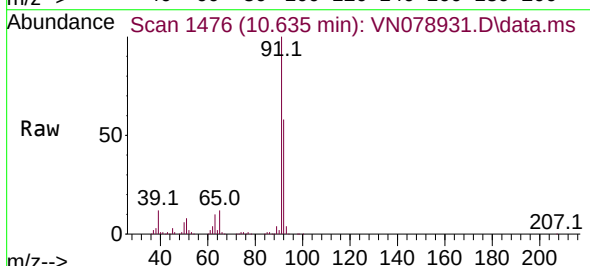
Tgt Ion: 75 Resp: 17555

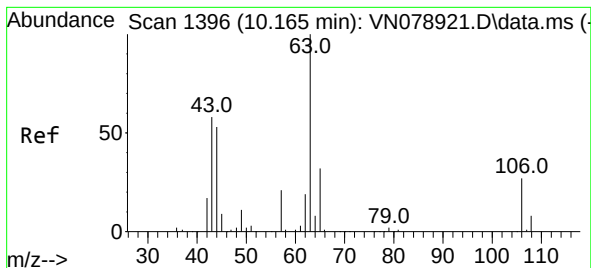
Ion Ratio Lower Upper

75 100

77 190.2 27.8 41.8#

39 1713.5 43.5 65.3#

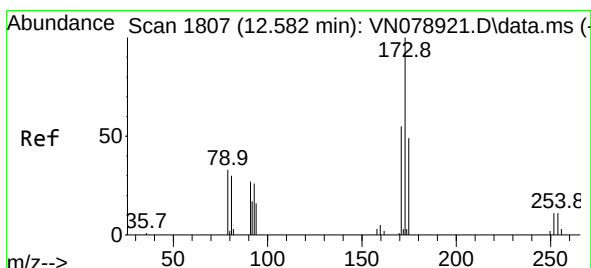
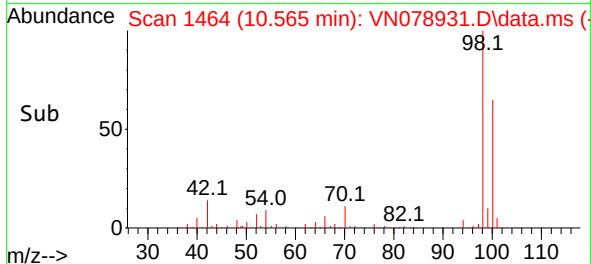
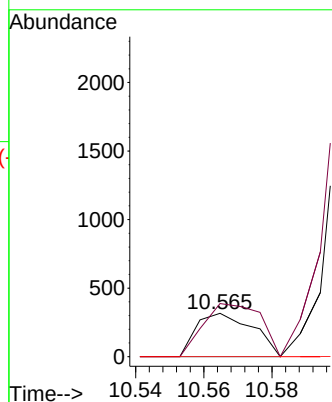
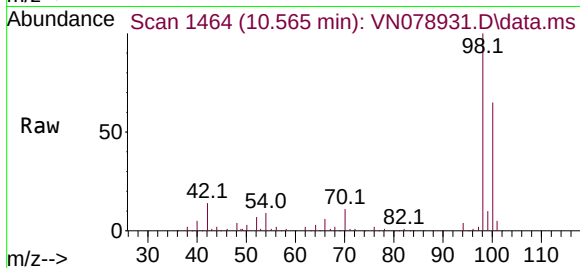




#55
2-Chloroethyl vinyl ether
Concen: 0.228 ug/l
RT: 10.565 min Scan# 1464
Delta R.T. 0.400 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

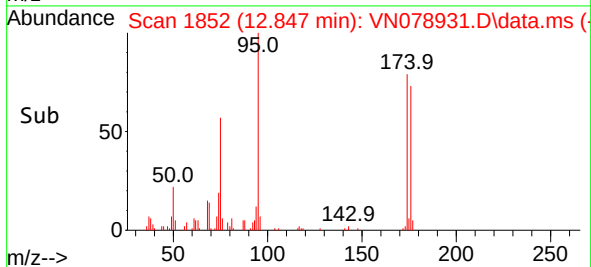
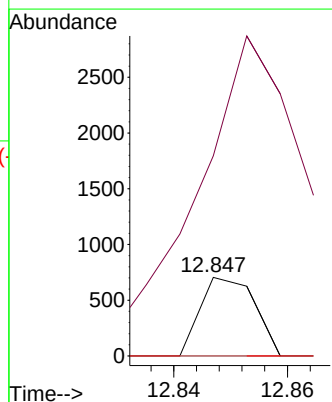
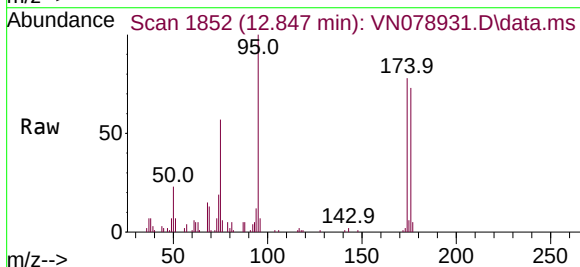
Instrument :
MSVOA_N
ClientSampleId :

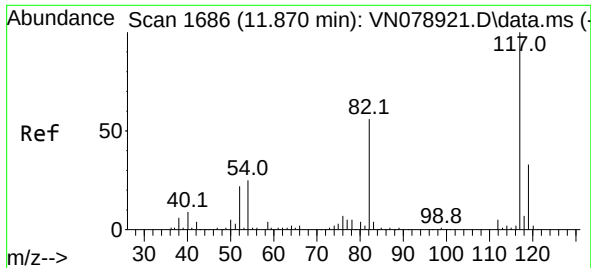
Tgt Ion: 63 Resp: 362
Ion Ratio Lower Upper
63 100
65 125.1 25.4 38.2#
106 0.0 22.3 33.5#



#56
Bromoform
Concen: 0.274 ug/l
RT: 12.847 min Scan# 1852
Delta R.T. 0.265 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

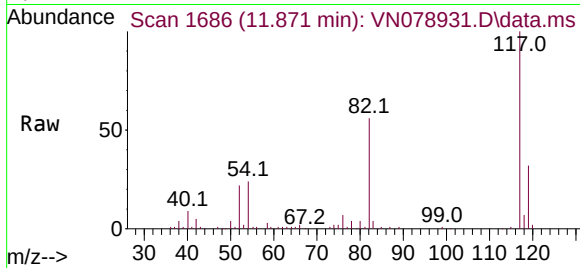
Tgt Ion: 173 Resp: 470
Ion Ratio Lower Upper
173 100
175 901.3 38.8 58.2#
254 0.0 7.6 11.4#



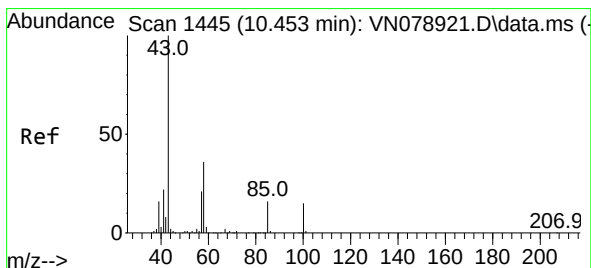
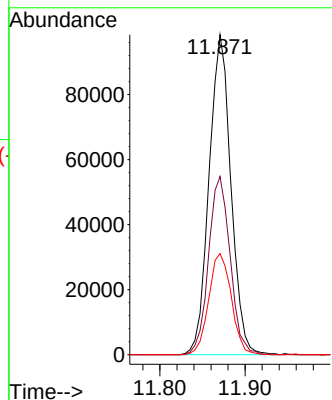
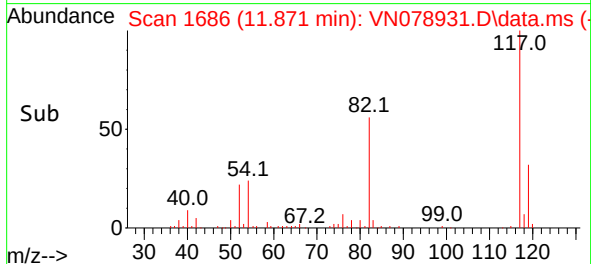


#57
Chlorobenzene-d5
Concen: 30.000 ug/l
RT: 11.871 min Scan# 117
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

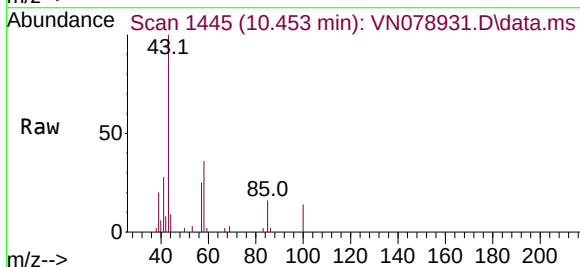
Instrument :
MSVOA_N
ClientSampleId :



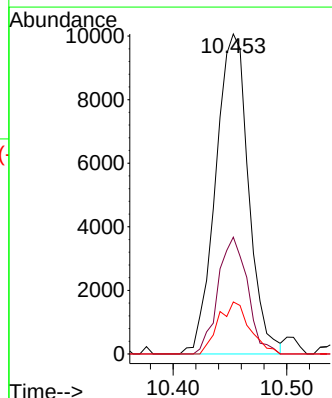
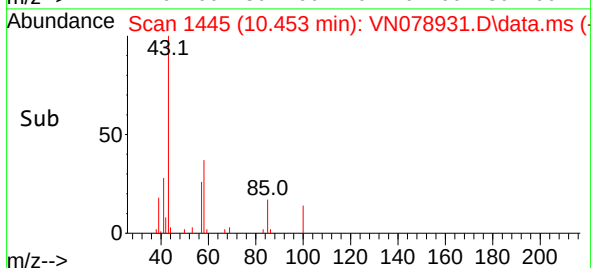
Tgt Ion:117 Resp: 175403
Ion Ratio Lower Upper
117 100
82 55.0 43.4 65.0
119 32.6 25.5 38.3

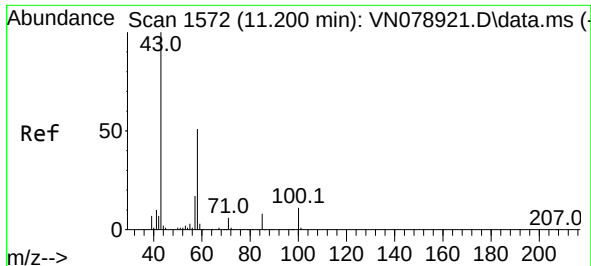


#58
4-Methyl-2-Pentanone
Concen: 5.812 ug/l
RT: 10.453 min Scan# 1445
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29



Tgt Ion: 43 Resp: 20226
Ion Ratio Lower Upper
43 100
58 32.8 28.8 43.2
85 15.5 12.7 19.1

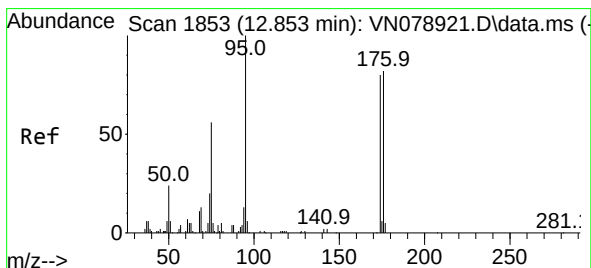
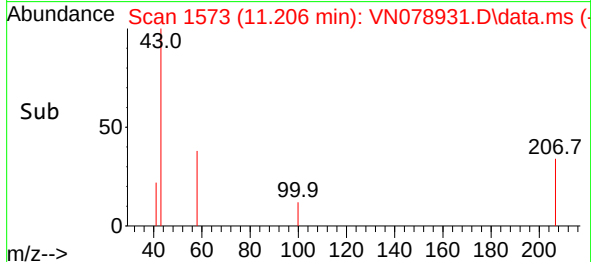
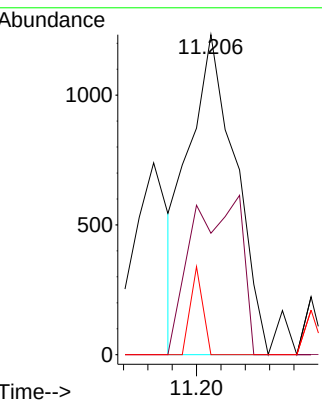
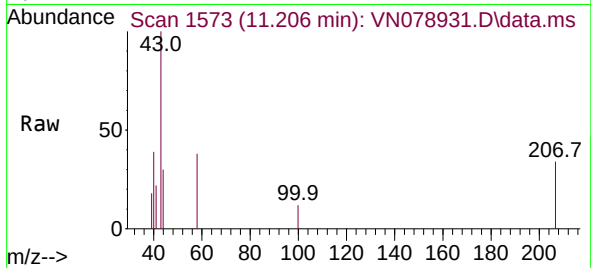




#59
2-Hexanone
Concen: 0.649 ug/l
RT: 11.206 min Scan# 11
Delta R.T. 0.006 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

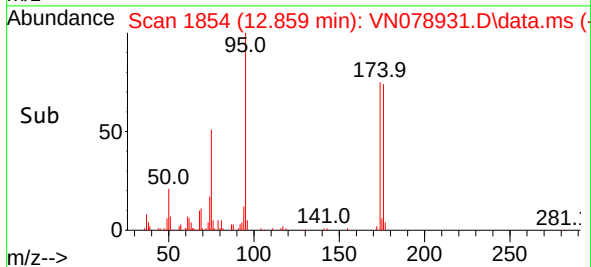
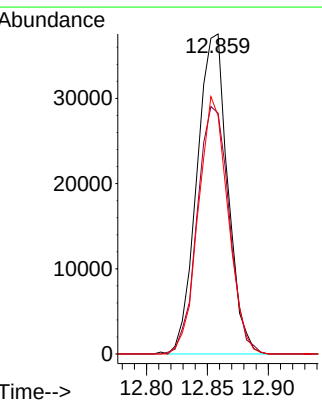
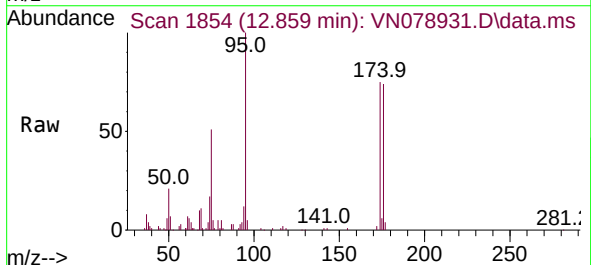
Instrument :
MSVOA_N
ClientSampleId :

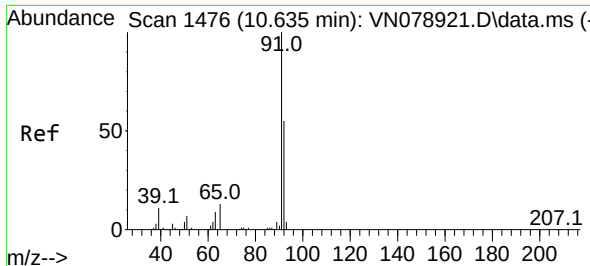
Tgt Ion: 43 Resp: 1654
Ion Ratio Lower Upper
43 100
58 28.4 40.6 60.8#
57 0.0 13.6 20.4#



#60
4-Bromofluorobenzene
Concen: 25.783 ug/l
RT: 12.859 min Scan# 1854
Delta R.T. 0.006 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 95 Resp: 65969
Ion Ratio Lower Upper
95 100
174 80.3 64.8 97.2
176 77.6 63.0 94.6

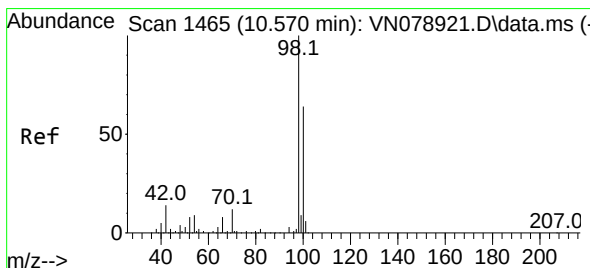
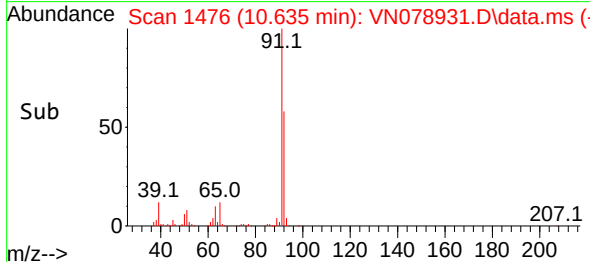
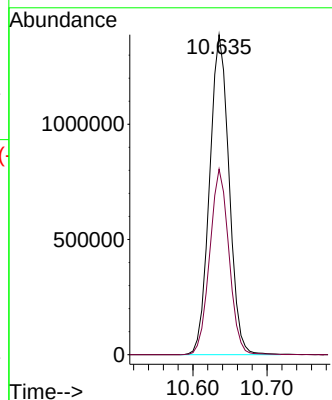
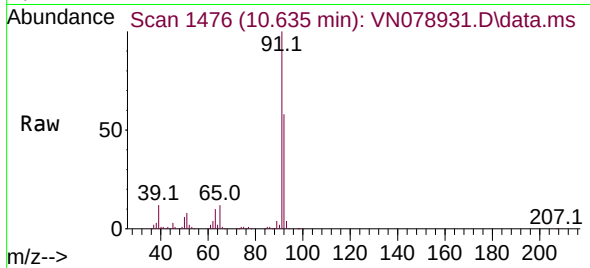




#62
Toluene
Concen: 264.859 ug/l
RT: 10.635 min Scan# 1476
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

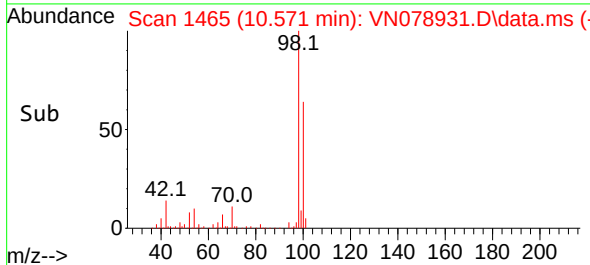
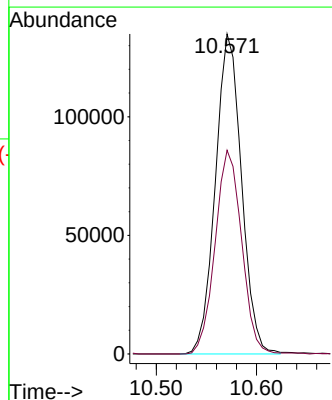
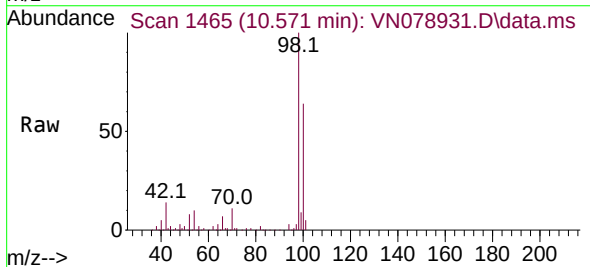
Instrument :
MSVOA_N
ClientSampleId :

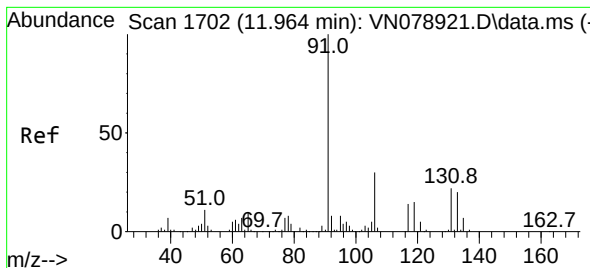
Tgt Ion: 91 Resp: 2536324
Ion Ratio Lower Upper
91 100
92 57.3 44.7 67.1



#63
Toluene-d8
Concen: 29.792 ug/l
RT: 10.571 min Scan# 1465
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 98 Resp: 244034
Ion Ratio Lower Upper
98 100
100 64.5 51.1 76.7

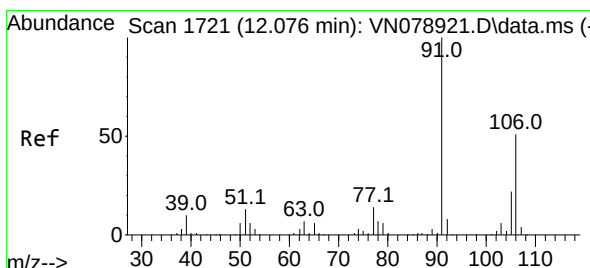
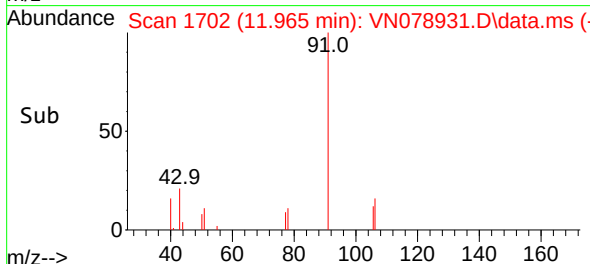
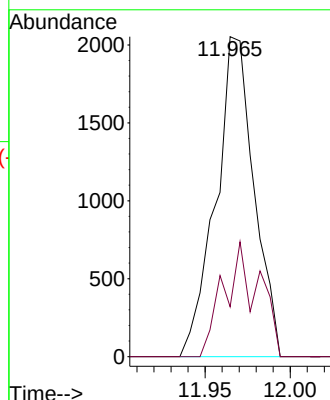
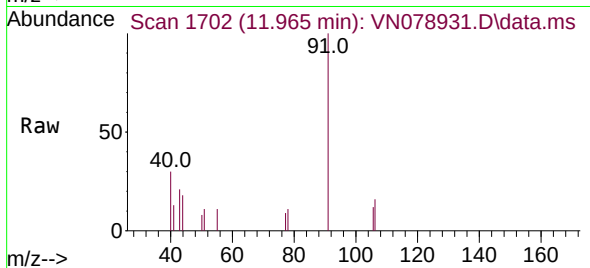




#66
Ethyl Benzene
Concen: 0.320 ug/l
RT: 11.965 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

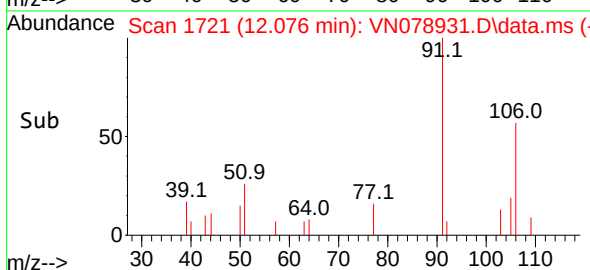
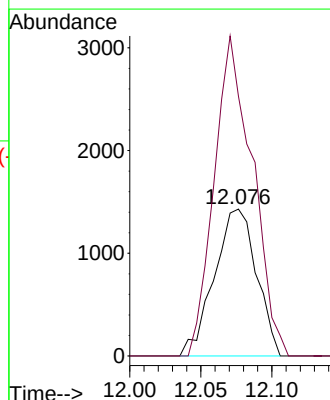
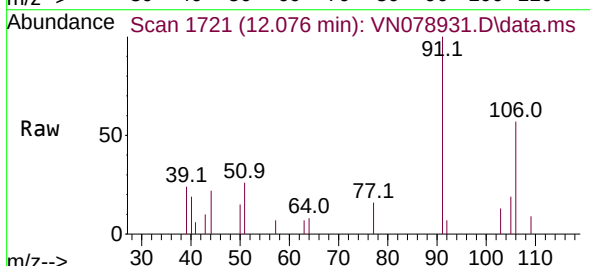
Instrument :
MSVOA_N
ClientSampleId :

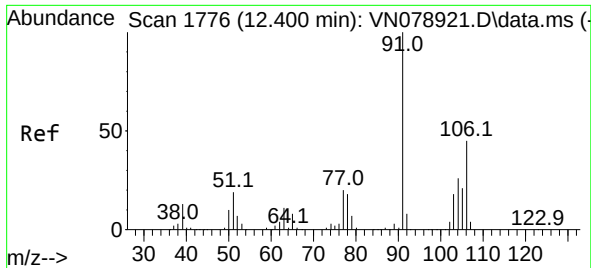
Tgt Ion: 91 Resp: 3208
Ion Ratio Lower Upper
91 100
106 15.6 24.1 36.1#



#67
m/p-Xylenes
Concen: 0.792 ug/l
RT: 12.076 min Scan# 1721
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 106 Resp: 2959
Ion Ratio Lower Upper
106 100
91 197.4 161.2 241.8

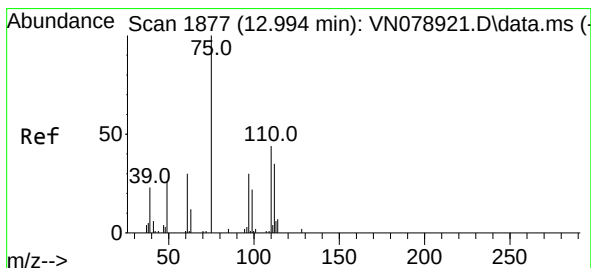
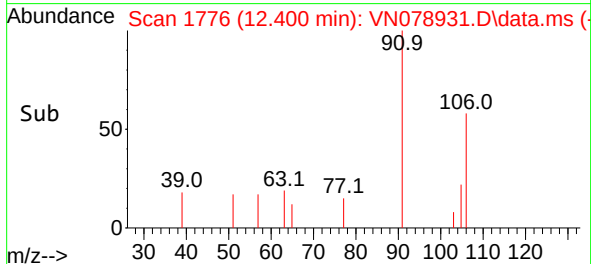
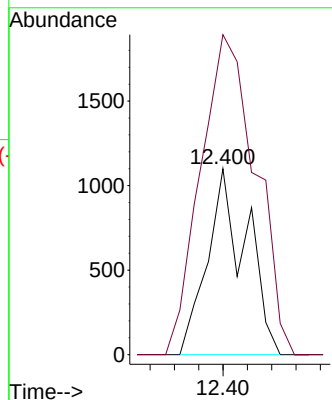
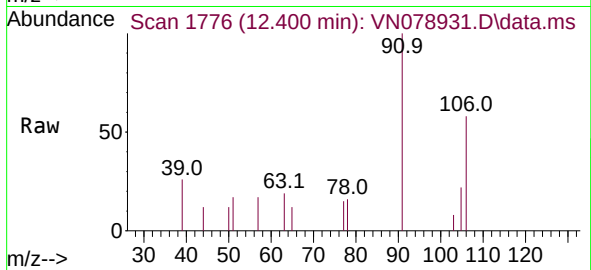




#68
o-Xylene
Concen: 0.333 ug/l
RT: 12.400 min Scan# 11
Delta R.T. 0.000 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

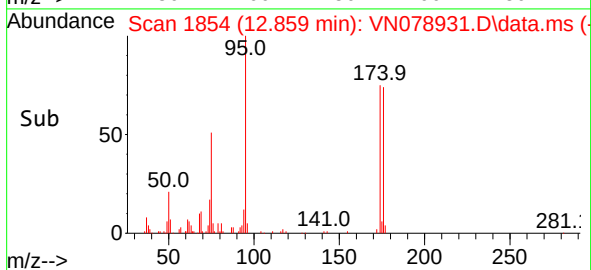
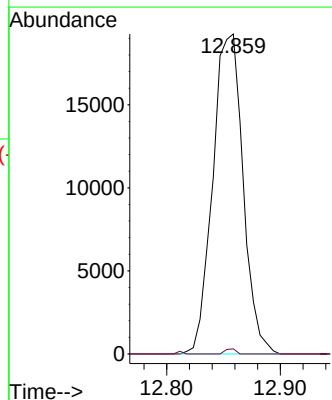
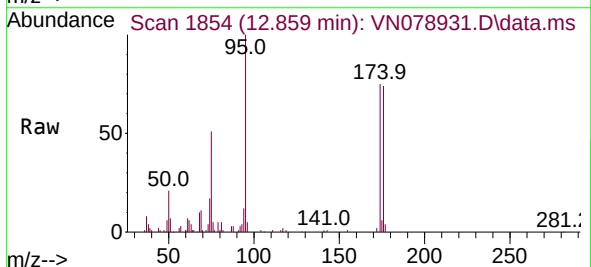
Instrument :
MSVOA_N
ClientSampleId :

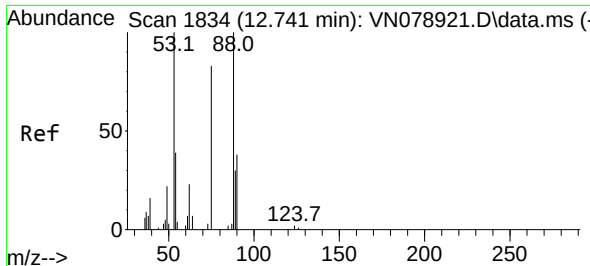
Tgt Ion:106 Resp: 1228
Ion Ratio Lower Upper
106 100
91 242.8 109.0 327.0



#72
1,2,3-Trichloropropane
Concen: 13.014 ug/l
RT: 12.859 min Scan# 1854
Delta R.T. -0.135 min
Lab File: VN078931.D
Acq: 17 Aug 2023 17:29

Tgt Ion: 75 Resp: 35710
Ion Ratio Lower Upper
75 100
77 0.6 0.0 367.4

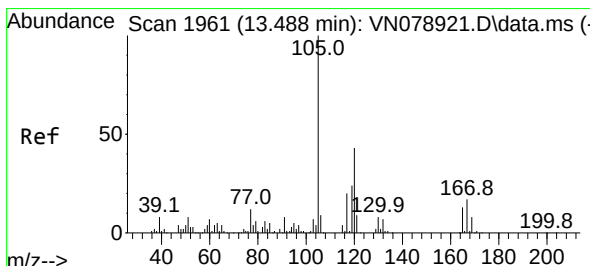
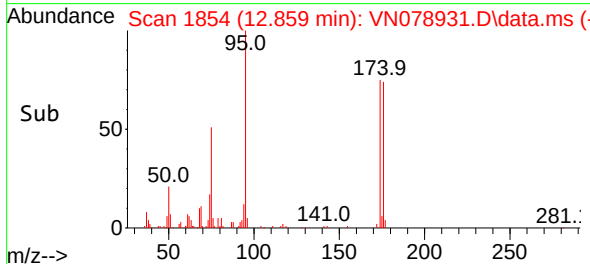
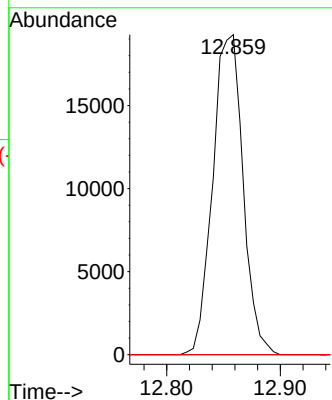
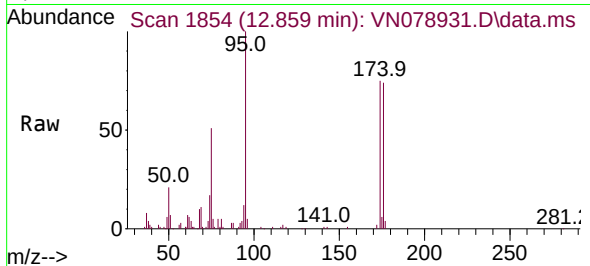




#77
 t-1,4-Dichloro-2-butene
 Concen: 35.019 ug/l
 RT: 12.859 min Scan# 1854
 Delta R.T. 0.118 min
 Lab File: VN078931.D
 Acq: 17 Aug 2023 17:29

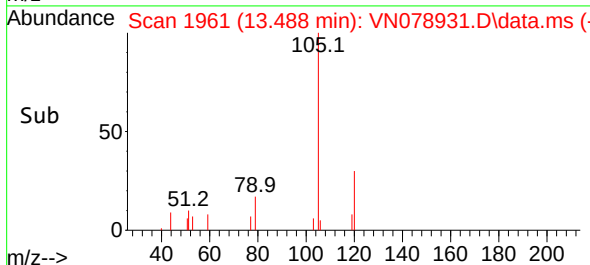
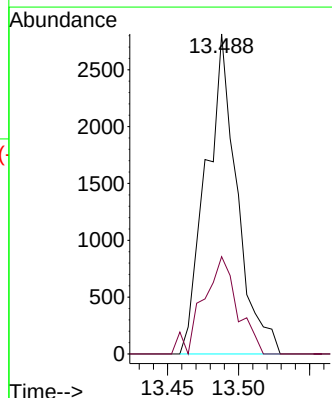
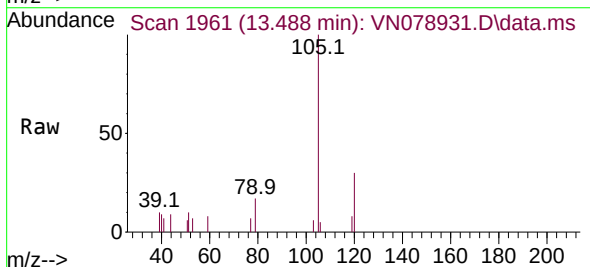
Instrument :
 MSVOA_N
 ClientSampleId :

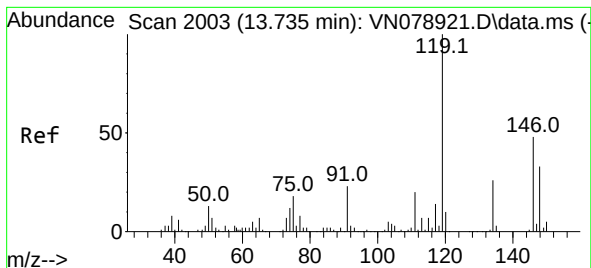
Tgt Ion: 75 Resp: 35710
 Ion Ratio Lower Upper
 75 100
 53 0.0 60.1 180.3#
 89 0.0 22.9 68.8#



#80
 1,2,4-Trimethylbenzene
 Concen: 0.612 ug/l
 RT: 13.488 min Scan# 1961
 Delta R.T. 0.000 min
 Lab File: VN078931.D
 Acq: 17 Aug 2023 17:29

Tgt Ion: 105 Resp: 4258
 Ion Ratio Lower Upper
 105 100
 120 32.1 0.0 91.6

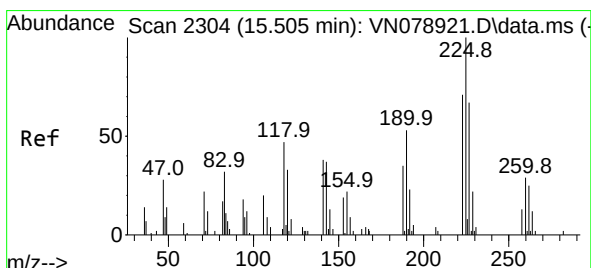
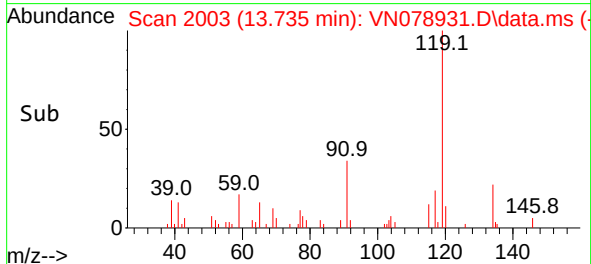
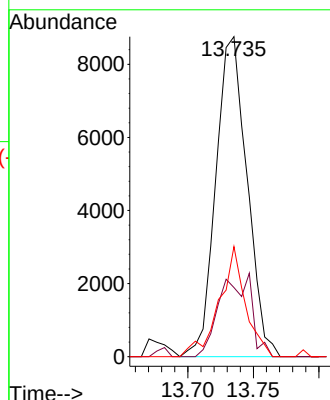
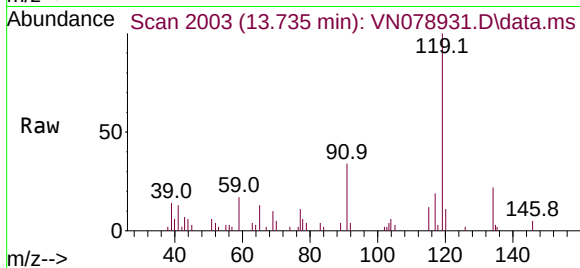




#82
 p-Isopropyltoluene
 Concen: 2.251 ug/l
 RT: 13.735 min Scan# 2003
 Delta R.T. 0.000 min
 Lab File: VN078931.D
 Acq: 17 Aug 2023 17:29

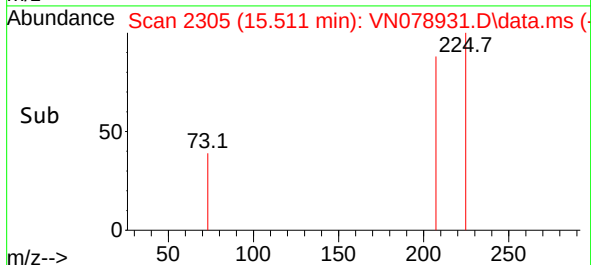
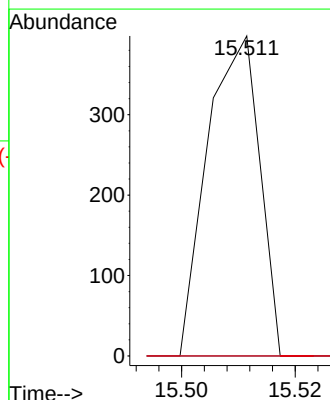
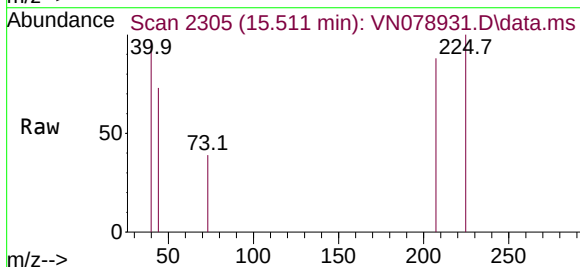
Instrument :
 MSVOA_N
 ClientSampleId :

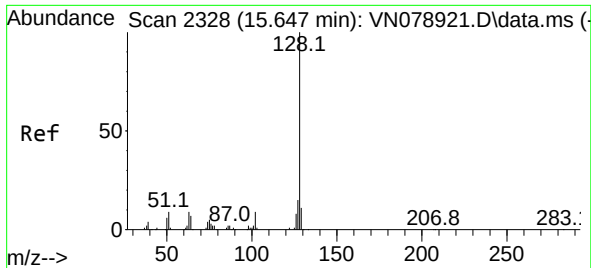
Tgt Ion:	119	Resp:	14496
Ion	Ratio	Lower	Upper
119	100		
134	19.3	0.0	52.4
91	26.6	0.0	47.4



#90
 Hexachlorobutadiene
 Concen: 0.329 ug/l
 RT: 15.511 min Scan# 2305
 Delta R.T. 0.006 min
 Lab File: VN078931.D
 Acq: 17 Aug 2023 17:29

Tgt Ion:	225	Resp:	254
Ion	Ratio	Lower	Upper
225	100		
223	0.0	0.0	124.0
227	0.0	0.0	117.4





#91

Naphthalene

Concen: 0.270 ug/l

RT: 15.641 min Scan# 21

Delta R.T. -0.006 min

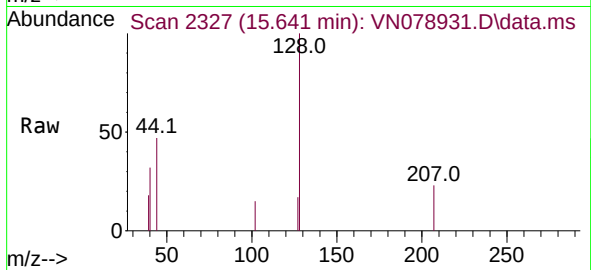
Lab File: VN078931.D

Acq: 17 Aug 2023 17:29

Instrument :

MSVOA_N

ClientSampleId :



Tgt Ion:128 Resp: 1155

Ion Ratio Lower Upper

128 100

127 5.6 11.1 16.7#

129 0.0 8.6 13.0#

