

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111825\
 Data File : VN088312.D
 Acq On : 18 Nov 2025 12:37
 Operator : JC\MD
 Sample : Q3660-01
 Misc : 5.0mL/MSVOA_N/WATER
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_N
 ClientSampleId :
 FRAC-TANK-M21012

Quant Time: Nov 19 03:33:33 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N102325W.M
 Quant Title : SW846 8260
 QLast Update : Mon Nov 03 01:16:06 2025
 Response via : Initial Calibration

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

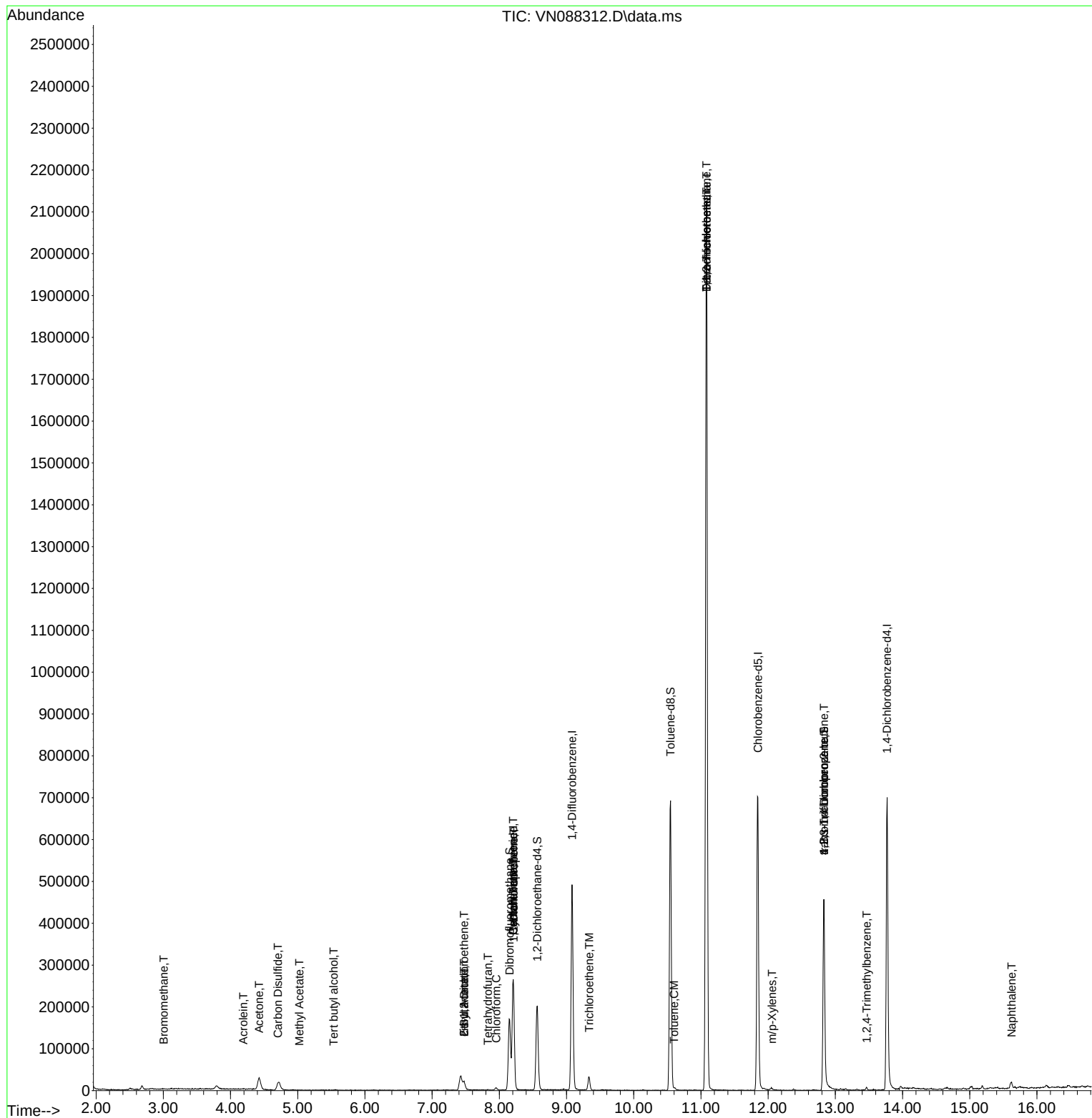
Internal Standards						
1) Pentafluorobenzene	8.206	168	177381	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	9.083	114	399223	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.847	117	393246	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.771	152	187251	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.565	65	170647	55.634	ug/l	0.00
Spiked Amount 50.000	Range 74 - 125		Recovery = 111.260%			
35) Dibromofluoromethane	8.153	113	123417	46.017	ug/l	0.00
Spiked Amount 50.000	Range 75 - 124		Recovery = 92.040%			
50) Toluene-d8	10.547	98	466984	45.188	ug/l	0.00
Spiked Amount 50.000	Range 86 - 113		Recovery = 90.380%			
62) 4-Bromofluorobenzene	12.829	95	163205	44.718	ug/l	0.00
Spiked Amount 50.000	Range 77 - 121		Recovery = 89.440%			
Target Compounds					Qvalue	
5) Bromomethane	3.007	94	491	0.320	ug/l #	3
11) Tert butyl alcohol	5.536	59	172	0.325	ug/l #	71
13) Acrolein	4.189	56	353	0.594	ug/l #	44
16) Acetone	4.424	43	55758	36.184	ug/l	90
17) Carbon Disulfide	4.706	76	12928	1.908	ug/l	97
18) Methyl Acetate	5.024	43	1041	0.330	ug/l #	54
25) 2-Butanone	7.477	43	8792	4.329	ug/l	97
27) cis-1,2-Dichloroethene	7.477	96	7922	2.812	ug/l	96
29) Tetrahydrofuran	7.830	42	375	0.283	ug/l #	46
30) Chloroform	7.953	83	4899	1.077	ug/l #	77
31) Cyclohexane	8.206	56	5375	1.252	ug/l #	36
36) 1,1-Dichloropropene	8.212	75	18276	4.667	ug/l #	48
37) Ethyl Acetate	7.477	43	8792	1.740	ug/l #	1
38) Carbon Tetrachloride	8.206	117	20842	5.153	ug/l #	17
44) Trichloroethene	9.336	130	10763	3.861	ug/l	98
52) Toluene	10.600	92	1953	0.266	ug/l	99
55) 1,1,2-Trichloroethane	11.082	97	4756	1.705	ug/l #	1
60) Dibromochloromethane	11.082	129	459389	144.884	ug/l #	10
64) Tetrachloroethene	11.082	164	451933	174.228	ug/l	97
68) m/p-Xylenes	12.059	106	1453	0.247	ug/l	75
76) 1,2,3-Trichloropropane	12.829	75	96274	22.488	ug/l #	1
81) trans-1,4-Dichloro-2-b...	12.829	75	96274	62.731	ug/l #	1
84) 1,2,4-Trimethylbenzene	13.465	105	4113	0.343	ug/l	87
95) Naphthalene	15.623	128	15746	1.266	ug/l	97

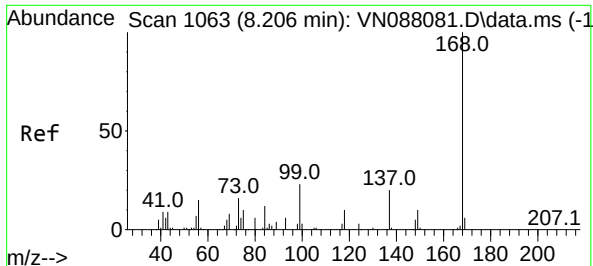
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_N\Data\VN111825\
Data File : VN088312.D
Acq On : 18 Nov 2025 12:37
Operator : JC\MD
Sample : Q3660-01
Misc : 5.0mL/MSVOA_N/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

Quant Time: Nov 19 03:33:33 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_N\methods\82N102325W.M
Quant Title : SW846 8260
QLast Update : Mon Nov 03 01:16:06 2025
Response via : Initial Calibration

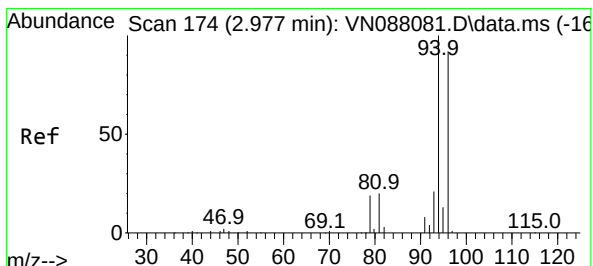
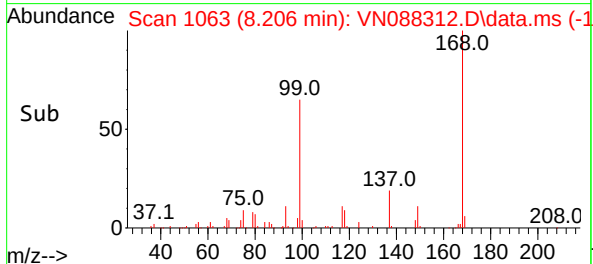
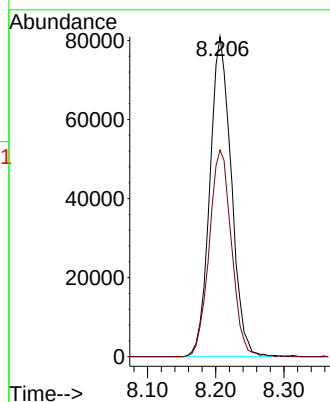
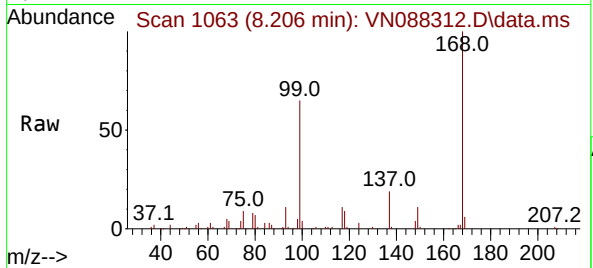




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 8.206 min Scan# 10
Delta R.T. 0.000 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

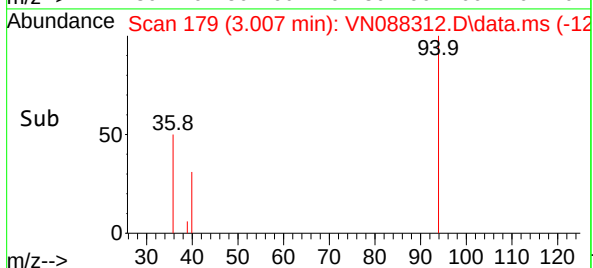
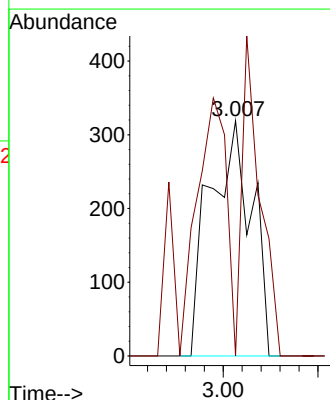
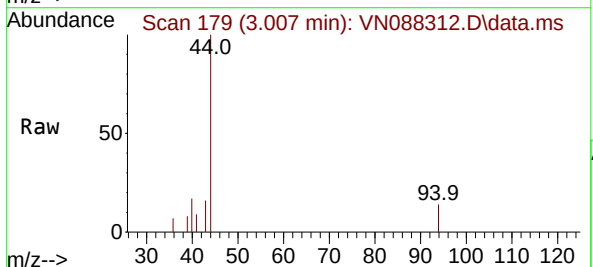
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

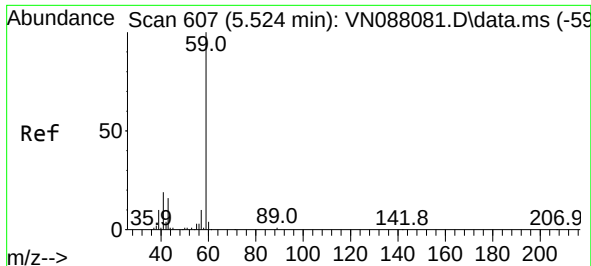
Tgt Ion:168 Resp: 177381
Ion Ratio Lower Upper
168 100
99 64.5 57.2 85.8



#5
Bromomethane
Concen: 0.320 ug/l
RT: 3.007 min Scan# 179
Delta R.T. 0.035 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 94 Resp: 491
Ion Ratio Lower Upper
94 100
96 0.0 75.4 113.2#

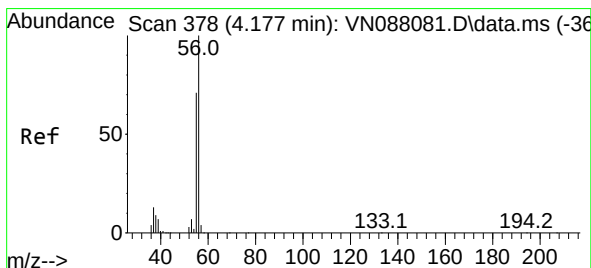
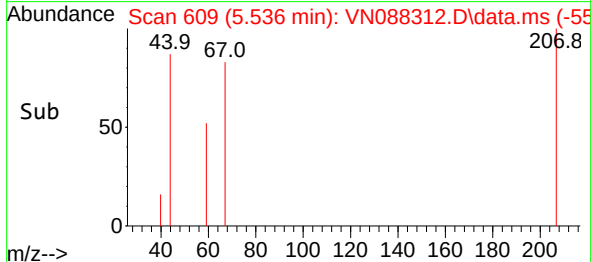
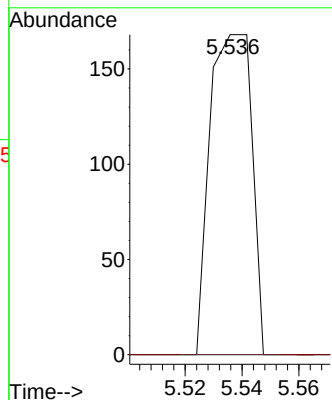
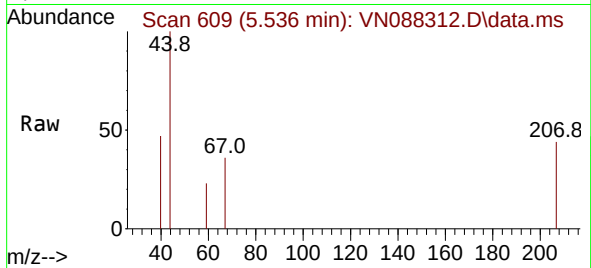




#11
Tert butyl alcohol
Concen: 0.325 ug/l
RT: 5.536 min Scan# 609
Delta R.T. 0.018 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

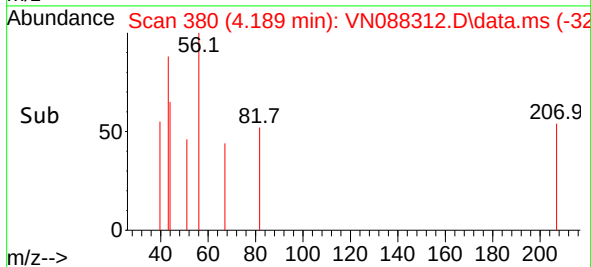
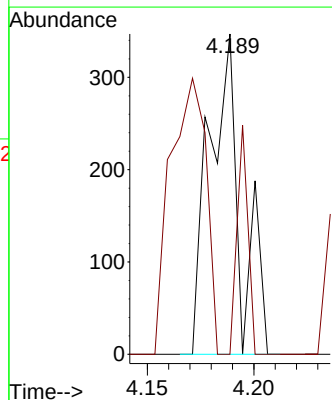
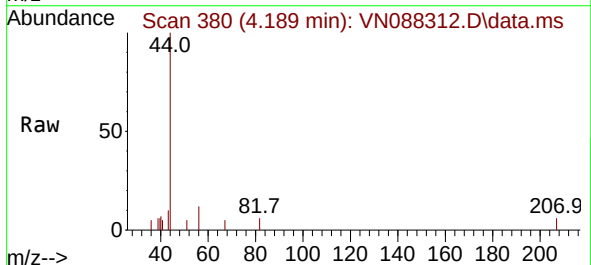
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

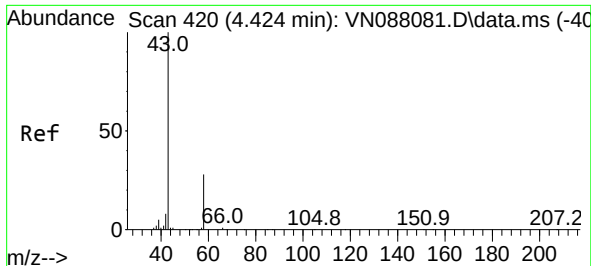
Tgt Ion: 59 Resp: 172
Ion Ratio Lower Upper
59 100
57 0.0 9.0 13.4#



#13
Acrolein
Concen: 0.594 ug/l
RT: 4.189 min Scan# 380
Delta R.T. 0.018 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 56 Resp: 353
Ion Ratio Lower Upper
56 100
55 24.9 57.3 85.9#

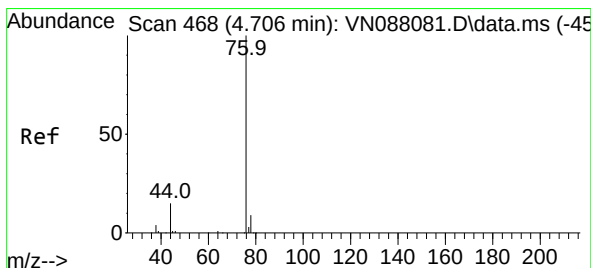
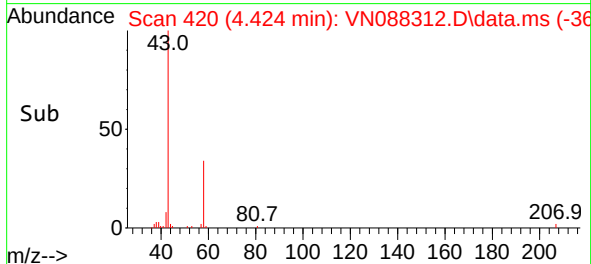
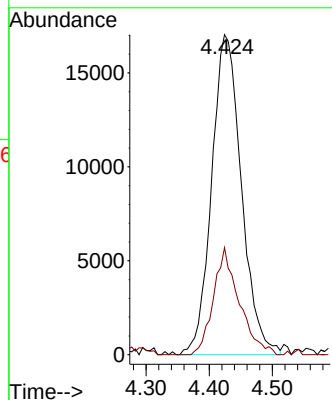
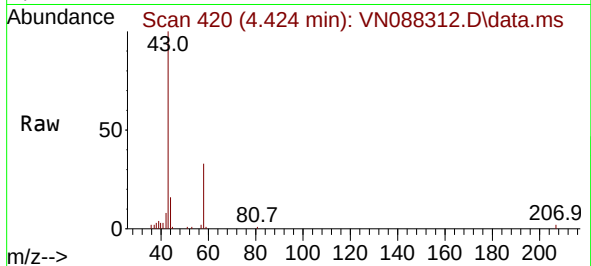




#16
Acetone
Concen: 36.184 ug/l
RT: 4.424 min Scan# 41
Delta R.T. 0.000 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

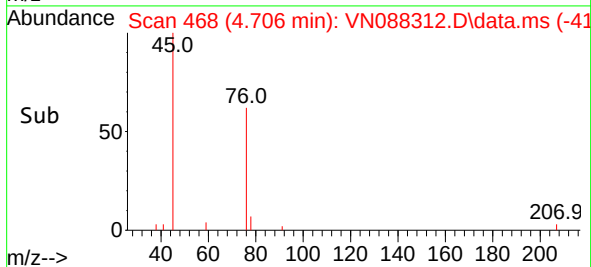
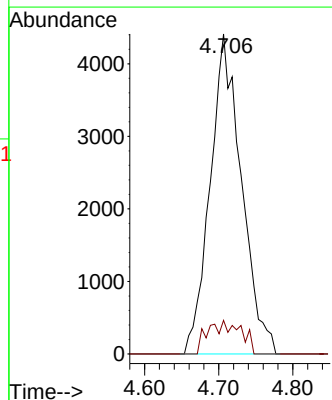
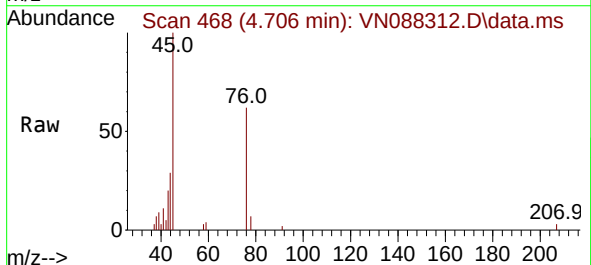
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

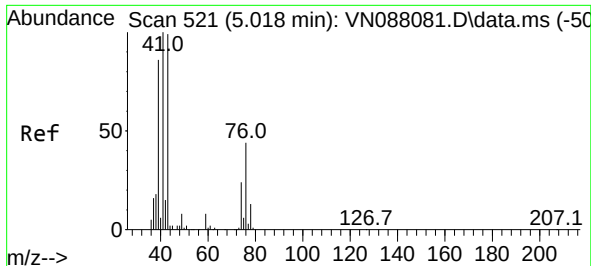
Tgt Ion: 43 Resp: 55758
Ion Ratio Lower Upper
43 100
58 33.5 22.6 33.8



#17
Carbon Disulfide
Concen: 1.908 ug/l
RT: 4.706 min Scan# 468
Delta R.T. 0.006 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 76 Resp: 12928
Ion Ratio Lower Upper
76 100
78 10.5 7.6 11.4

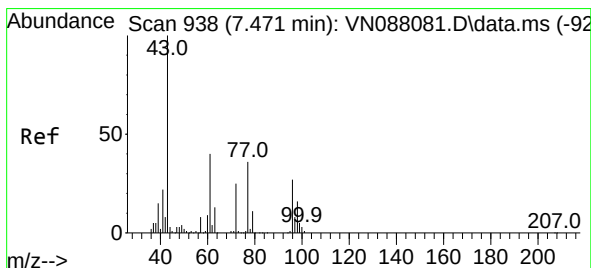
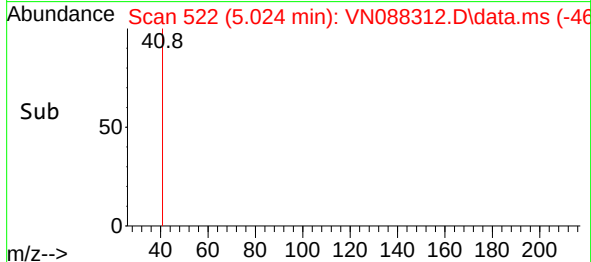
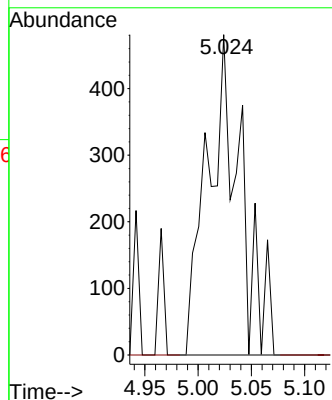
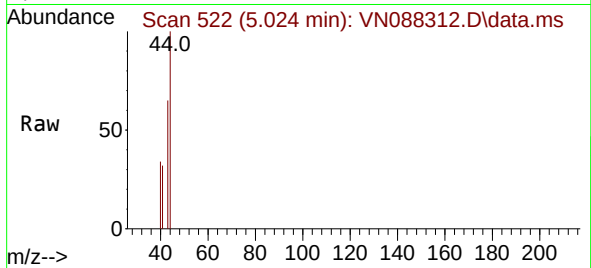




#18
Methyl Acetate
Concen: 0.330 ug/l
RT: 5.024 min Scan# 51
Delta R.T. 0.012 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

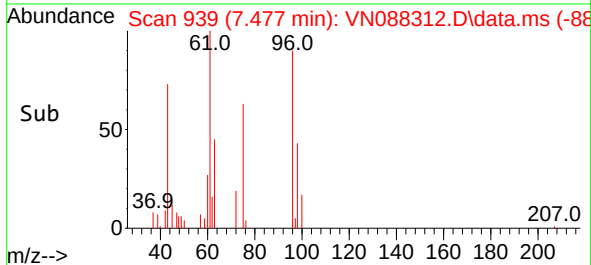
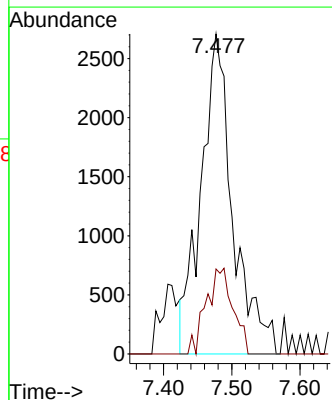
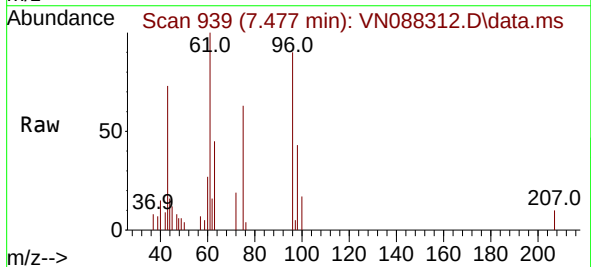
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

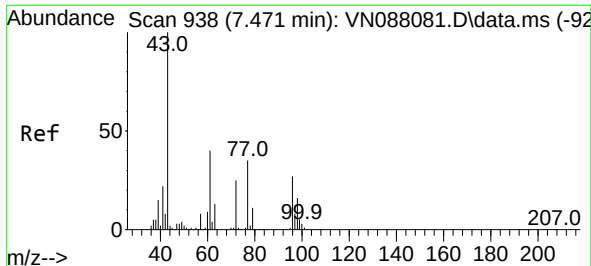
Tgt Ion: 43 Resp: 1041
Ion Ratio Lower Upper
43 100
74 0.0 17.6 26.4#



#25
2-Butanone
Concen: 4.329 ug/l
RT: 7.477 min Scan# 939
Delta R.T. 0.012 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 43 Resp: 8792
Ion Ratio Lower Upper
43 100
72 26.6 19.9 29.9



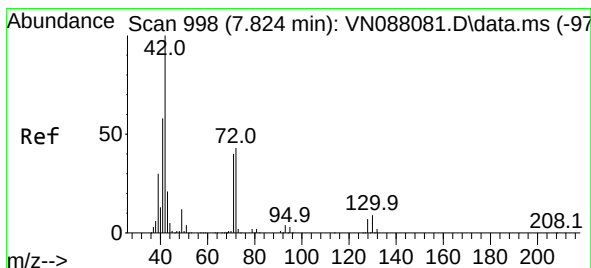
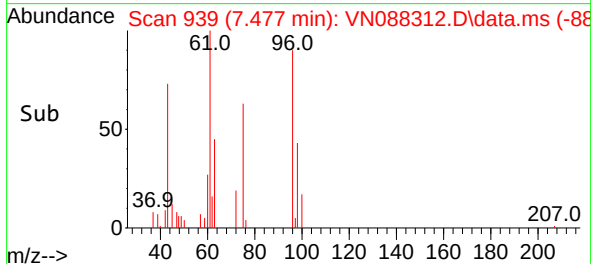
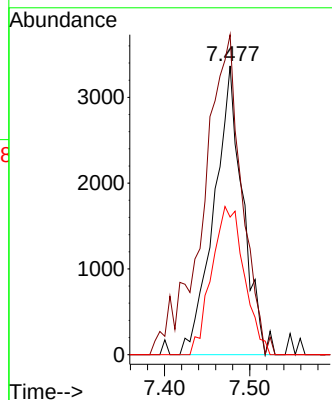
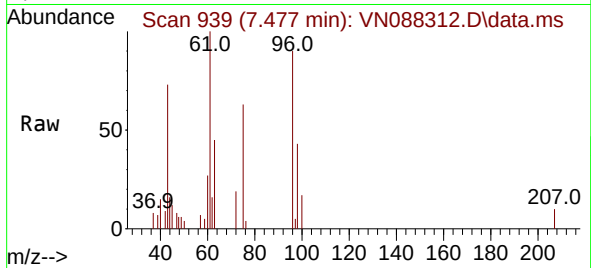


#27
 cis-1,2-Dichloroethene
 Concen: 2.812 ug/l
 RT: 7.477 min Scan# 91
 Delta R.T. 0.012 min
 Lab File: VN088312.D
 Acq: 18 Nov 2025 12:37

Instrument :
 MSVOA_N
 ClientSampleId :
 FRAC-TANK-M21012

Tgt Ion: 96 Resp: 7922

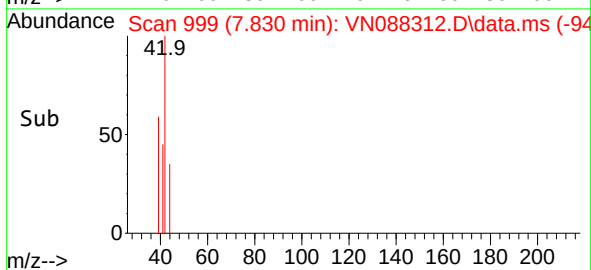
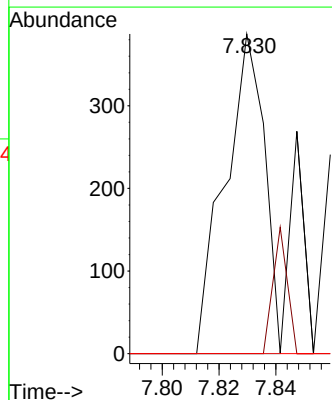
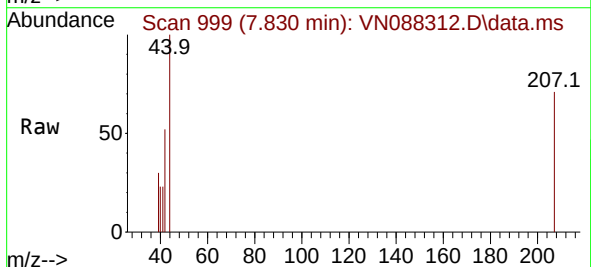
Ion	Ratio	Lower	Upper
96	100		
61	147.6	0.0	301.8
98	58.1	0.0	126.2

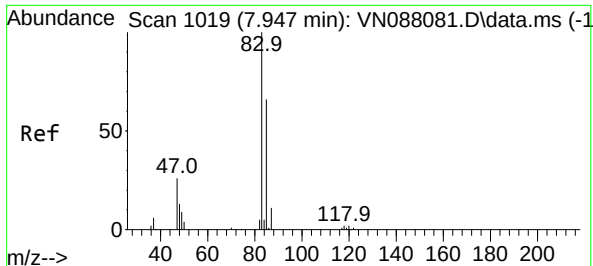


#29
 Tetrahydrofuran
 Concen: 0.283 ug/l
 RT: 7.830 min Scan# 999
 Delta R.T. 0.006 min
 Lab File: VN088312.D
 Acq: 18 Nov 2025 12:37

Tgt Ion: 42 Resp: 375

Ion	Ratio	Lower	Upper
42	100		
72	14.4	33.7	50.5#
71	0.0	31.9	47.9#





#30

Chloroform

Concen: 1.077 ug/l

RT: 7.953 min Scan# 1020

Delta R.T. 0.006 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

Instrument :

MSVOA_N

ClientSampleId :

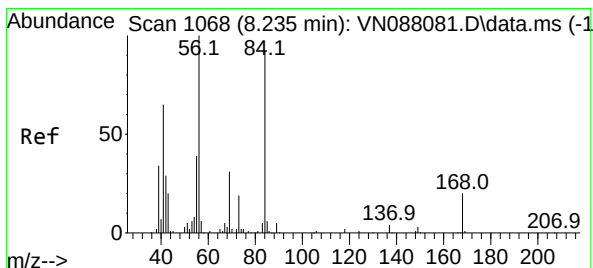
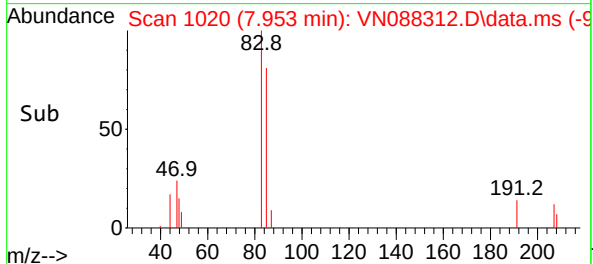
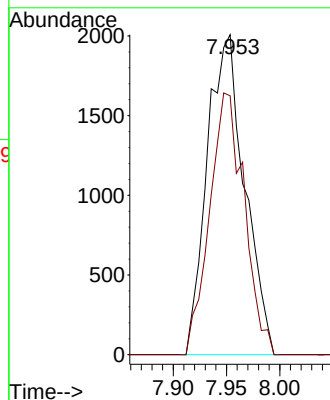
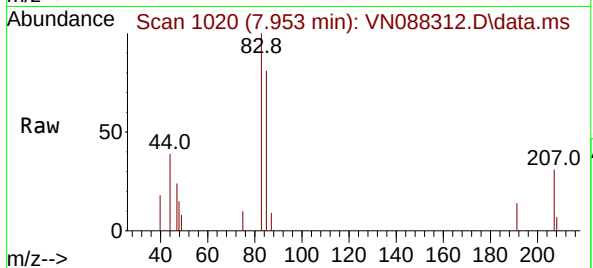
FRAC-TANK-M21012

Tgt Ion: 83 Resp: 4899

Ion Ratio Lower Upper

83 100

85 80.9 50.7 76.1#



#31

Cyclohexane

Concen: 1.252 ug/l

RT: 8.206 min Scan# 1063

Delta R.T. -0.029 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

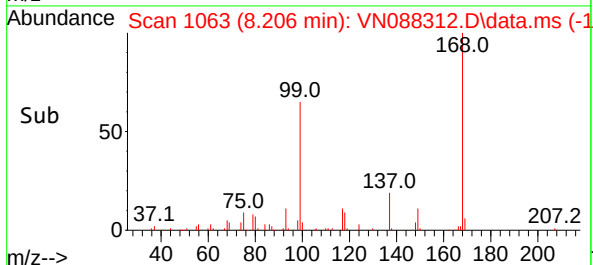
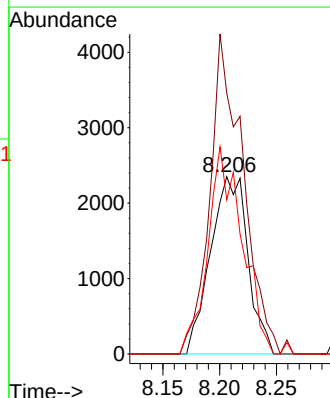
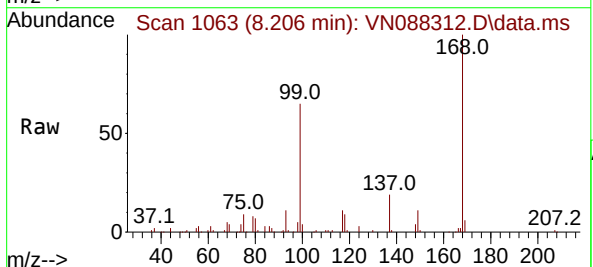
Tgt Ion: 56 Resp: 5375

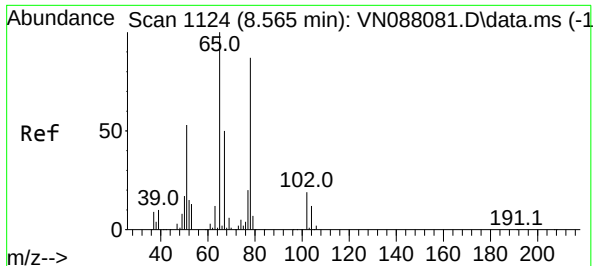
Ion Ratio Lower Upper

56 100

69 147.2 23.7 35.5#

84 87.0 64.7 97.1





#33

1,2-Dichloroethane-d4

Concen: 55.634 ug/l

RT: 8.565 min Scan# 1124

Delta R.T. 0.006 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

Instrument :

MSVOA_N

ClientSampleId :

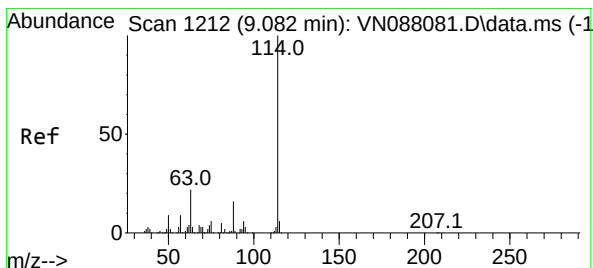
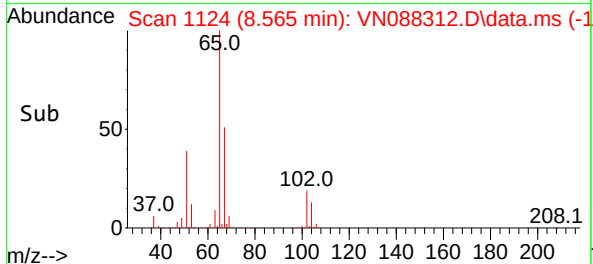
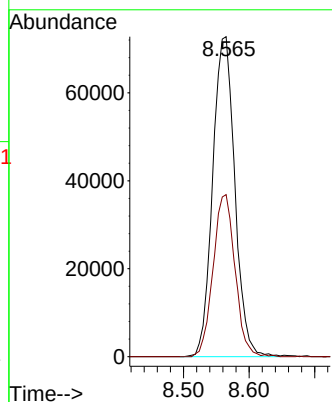
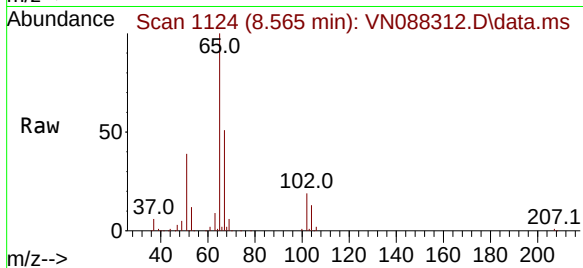
FRAC-TANK-M21012

Tgt Ion: 65 Resp: 170647

Ion Ratio Lower Upper

65 100

67 50.2 0.0 100.0



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 9.083 min Scan# 1212

Delta R.T. 0.000 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

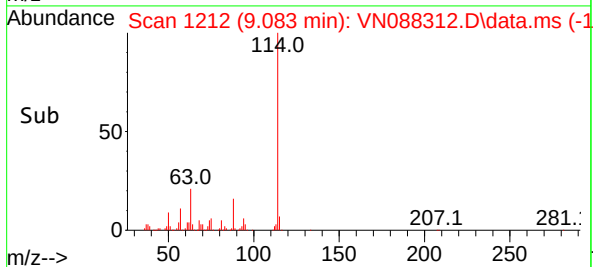
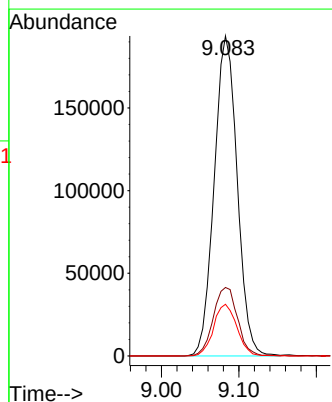
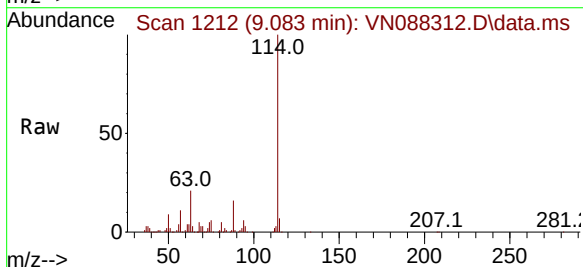
Tgt Ion: 114 Resp: 399223

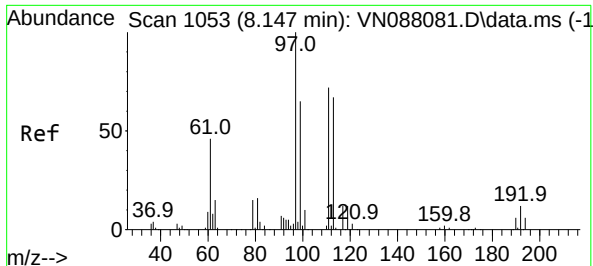
Ion Ratio Lower Upper

114 100

63 21.4 0.0 45.2

88 16.2 0.0 33.4

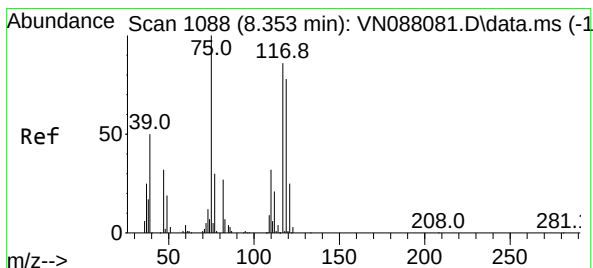
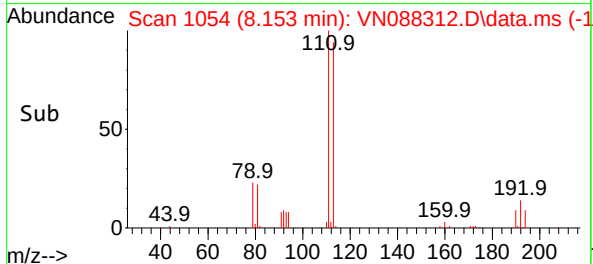
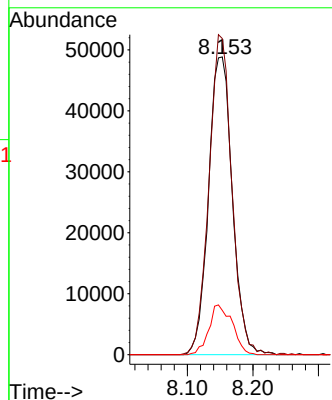
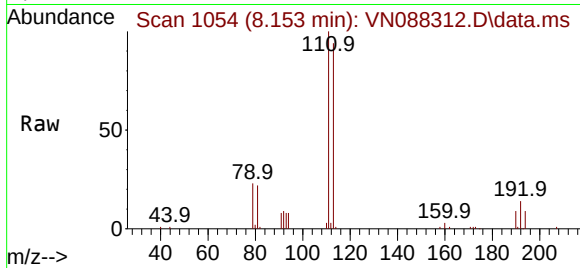




#35
Dibromofluoromethane
Concen: 46.017 ug/l
RT: 8.153 min Scan# 1054
Delta R.T. 0.000 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

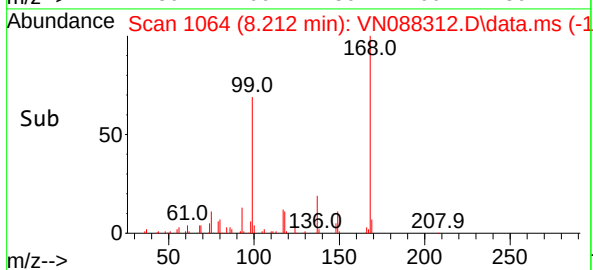
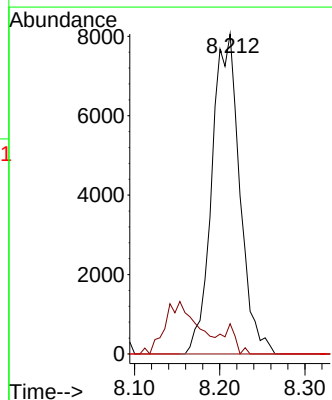
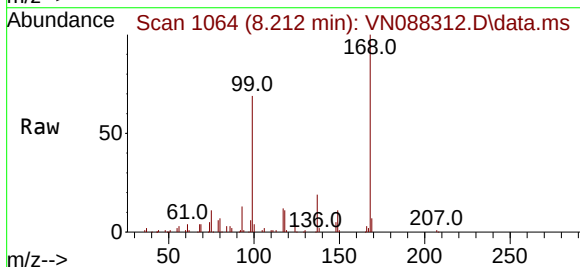
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

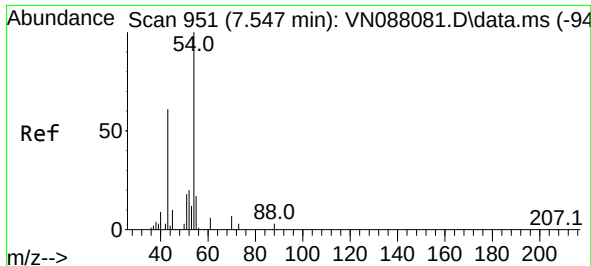
Tgt Ion:113 Resp: 123417
Ion Ratio Lower Upper
113 100
111 102.9 82.8 124.2
192 16.5 12.8 19.2



#36
1,1-Dichloropropene
Concen: 4.667 ug/l
RT: 8.212 min Scan# 1064
Delta R.T. -0.141 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 75 Resp: 18276
Ion Ratio Lower Upper
75 100
110 4.4 15.9 47.6#
77 0.0 24.4 36.6#





#37

Ethyl Acetate

Concen: 1.740 ug/l

RT: 7.477 min Scan# 91

Delta R.T. -0.071 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

Instrument :

MSVOA_N

ClientSampleId :

FRAC-TANK-M21012

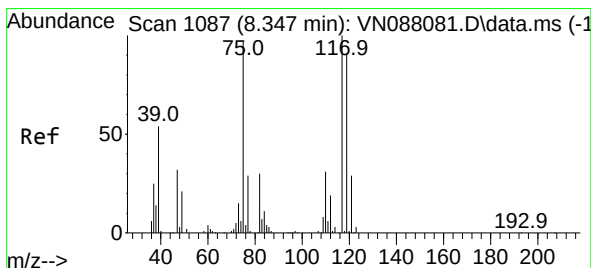
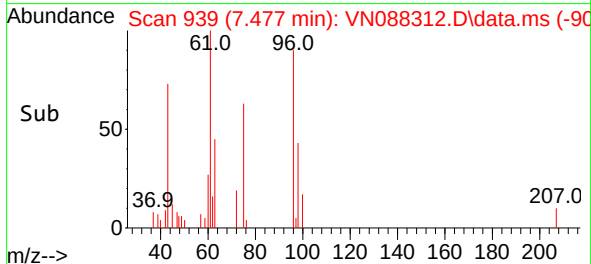
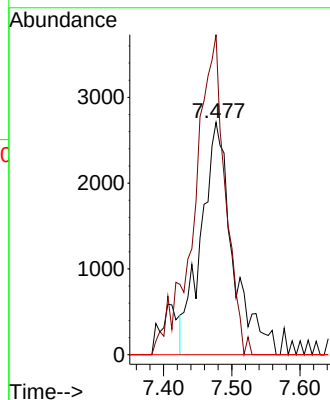
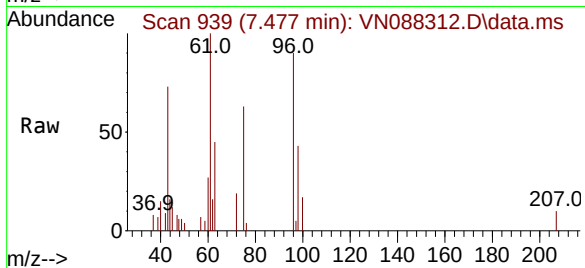
Tgt Ion: 43 Resp: 8792

Ion Ratio Lower Upper

43 100

61 133.0 9.3 13.9#

70 0.0 7.0 10.6#



#38

Carbon Tetrachloride

Concen: 5.153 ug/l

RT: 8.206 min Scan# 1063

Delta R.T. -0.135 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

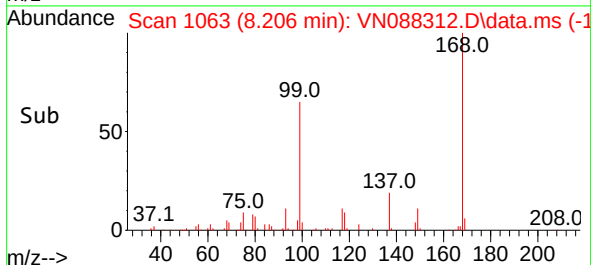
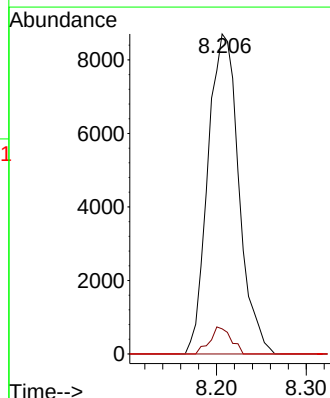
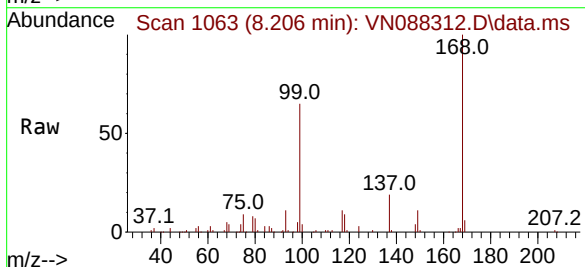
Tgt Ion: 117 Resp: 20842

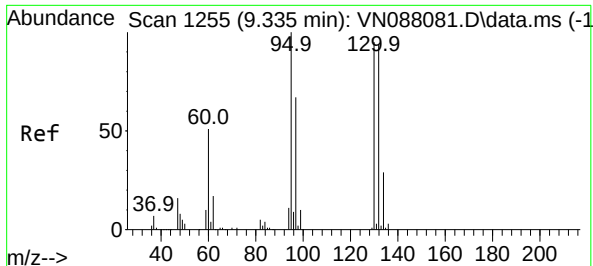
Ion Ratio Lower Upper

117 100

119 7.9 79.0 118.6#

121 0.0 25.0 37.6#

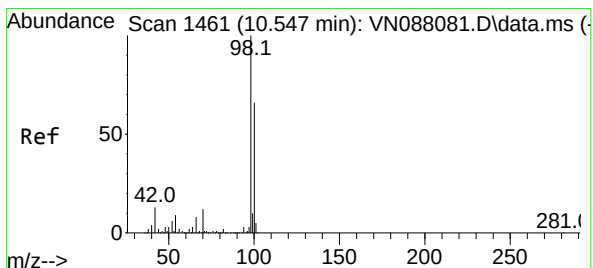
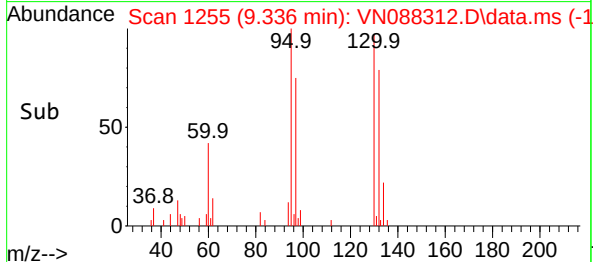
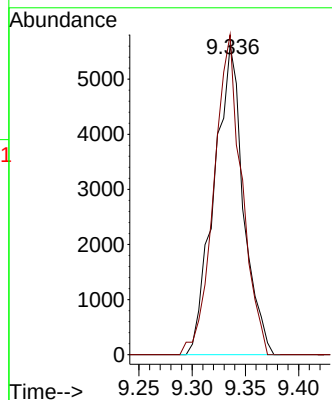
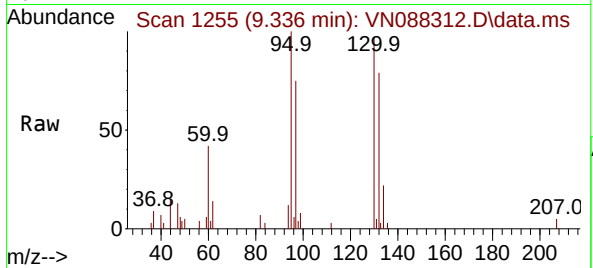




#44
 Trichloroethene
 Concen: 3.861 ug/l
 RT: 9.336 min Scan# 11
 Delta R.T. 0.006 min
 Lab File: VN088312.D
 Acq: 18 Nov 2025 12:37

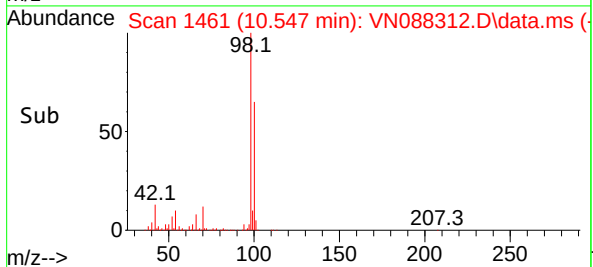
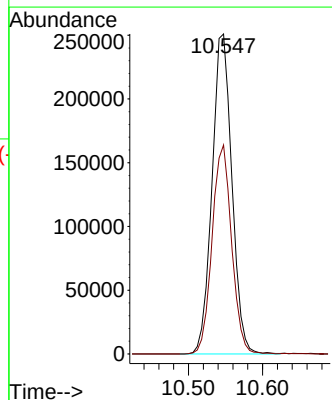
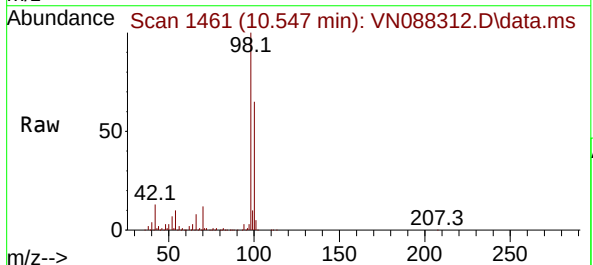
Instrument :
 MSVOA_N
 ClientSampleId :
 FRAC-TANK-M21012

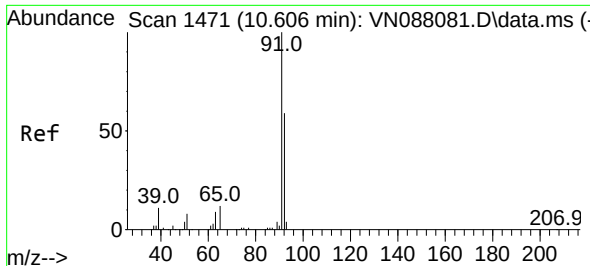
Tgt Ion:130 Resp: 10763
 Ion Ratio Lower Upper
 130 100
 95 103.4 0.0 212.0



#50
 Toluene-d8
 Concen: 45.188 ug/l
 RT: 10.547 min Scan# 1461
 Delta R.T. 0.000 min
 Lab File: VN088312.D
 Acq: 18 Nov 2025 12:37

Tgt Ion: 98 Resp: 466984
 Ion Ratio Lower Upper
 98 100
 100 64.2 52.8 79.2

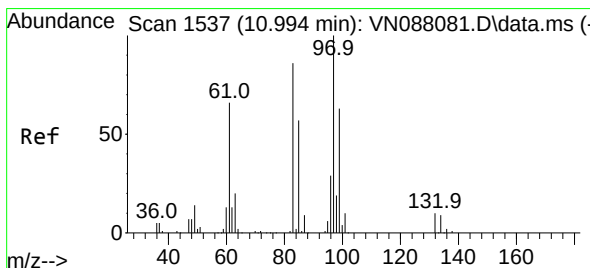
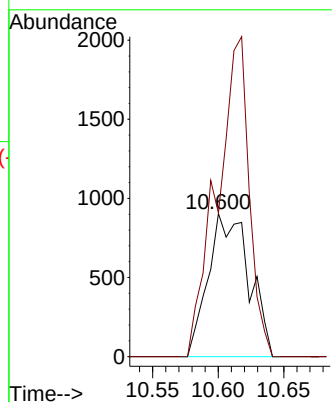
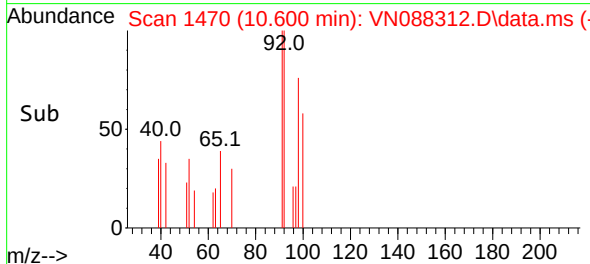
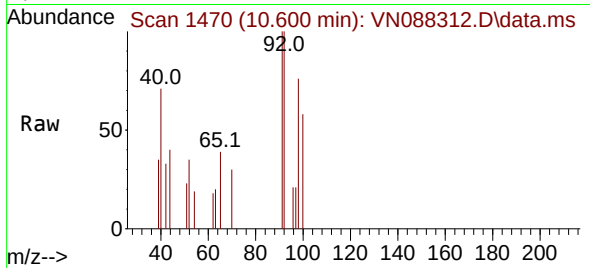




#52
Toluene
Concen: 0.266 ug/l
RT: 10.600 min Scan# 1471
Delta R.T. -0.006 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

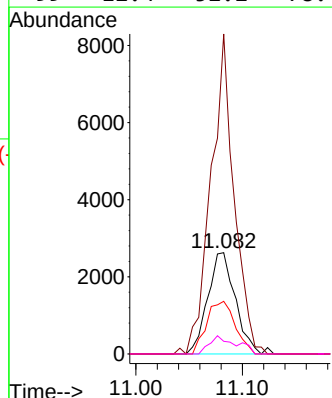
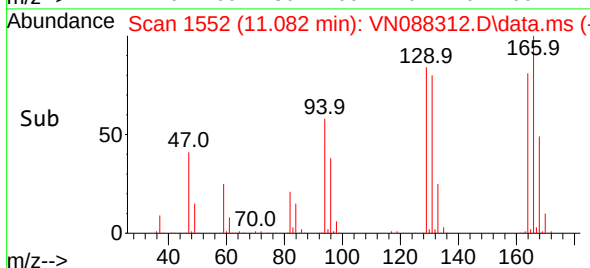
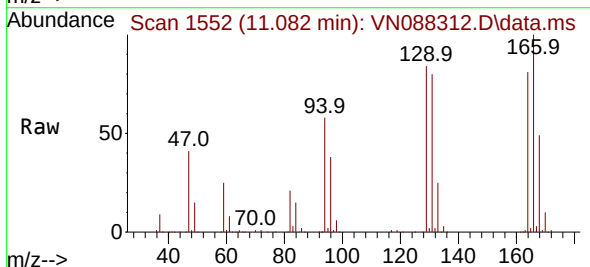
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

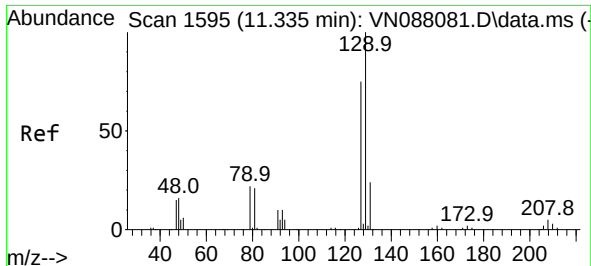
Tgt Ion: 92 Resp: 1953
Ion Ratio Lower Upper
92 100
91 176.5 140.4 210.6



#55
1,1,2-Trichloroethane
Concen: 1.705 ug/l
RT: 11.082 min Scan# 1552
Delta R.T. 0.088 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 97 Resp: 4756
Ion Ratio Lower Upper
97 100
83 310.0 68.2 102.4#
85 51.9 45.5 68.3
99 12.4 52.2 78.4#

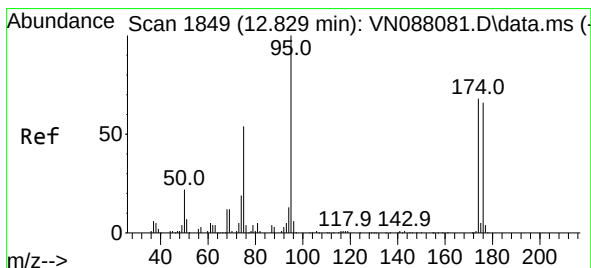
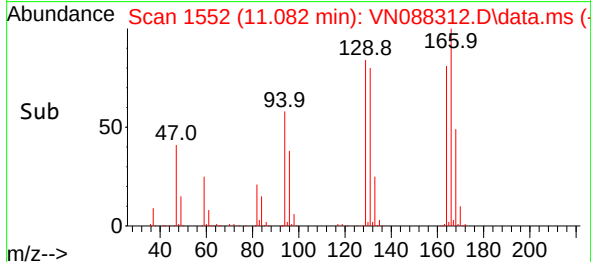
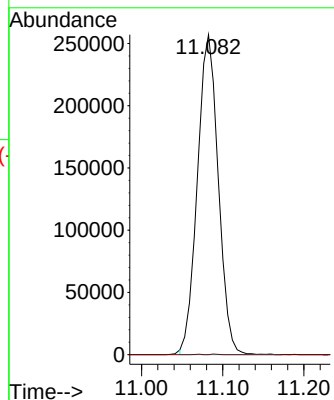
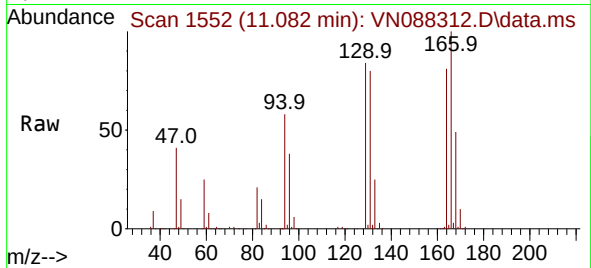




#60
Dibromochloromethane
Concen: 144.884 ug/l
RT: 11.082 min Scan# 11
Delta R.T. -0.253 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

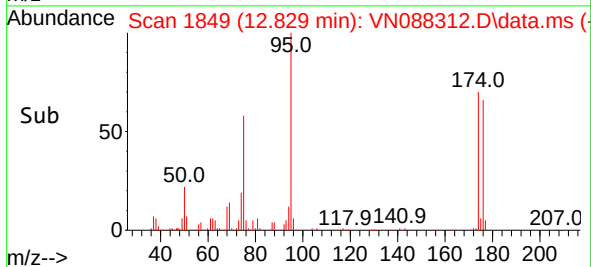
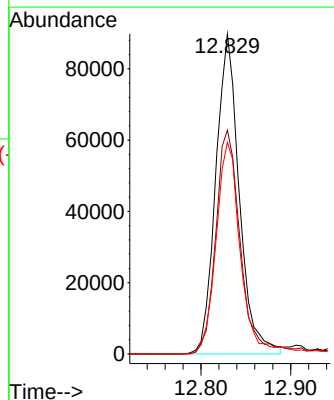
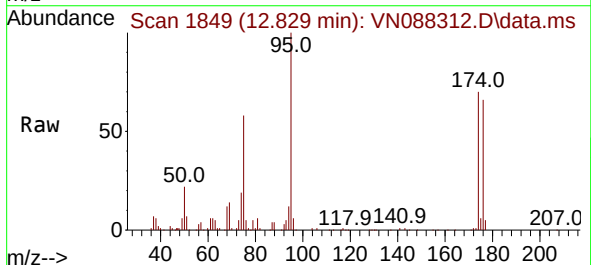
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

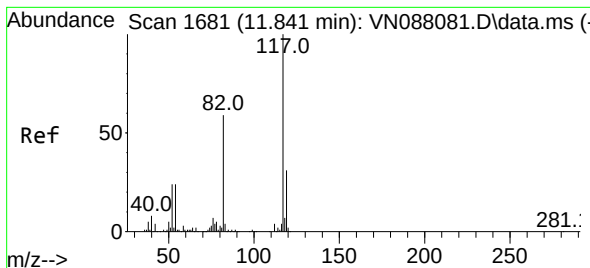
Tgt Ion:129 Resp: 459389
Ion Ratio Lower Upper
129 100
127 0.1 39.1 117.3#



#62
4-Bromofluorobenzene
Concen: 44.718 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.006 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 95 Resp: 163205
Ion Ratio Lower Upper
95 100
174 74.3 0.0 138.4
176 70.0 0.0 132.6





#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.847 min Scan# 1

Delta R.T. 0.006 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

Instrument :

MSVOA_N

ClientSampleId :

FRAC-TANK-M21012

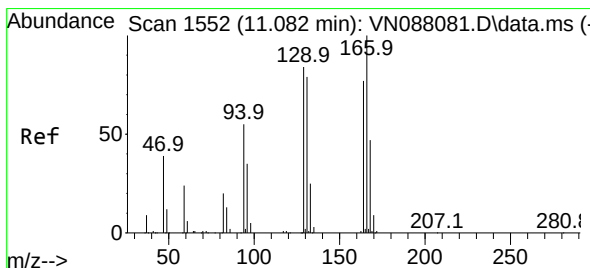
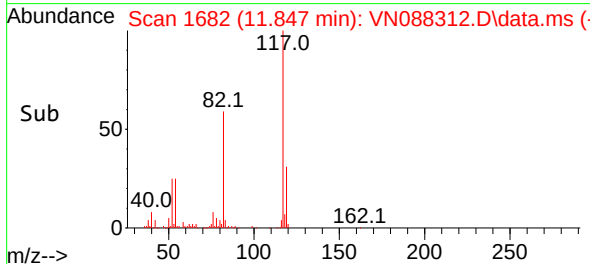
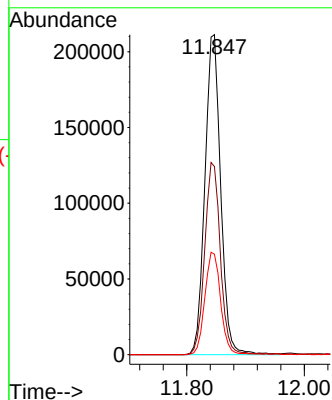
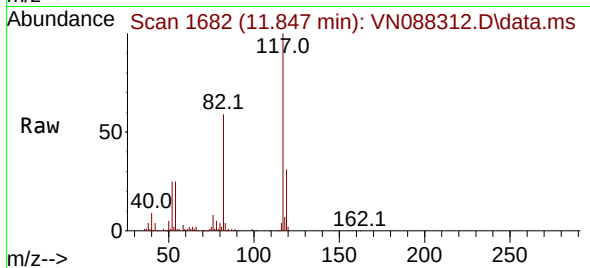
Tgt Ion:117 Resp: 393246

Ion Ratio Lower Upper

117 100

82 58.8 47.4 71.2

119 31.4 24.3 36.5



#64

Tetrachloroethene

Concen: 174.228 ug/l

RT: 11.082 min Scan# 1552

Delta R.T. 0.000 min

Lab File: VN088312.D

Acq: 18 Nov 2025 12:37

Tgt Ion:164 Resp: 451933

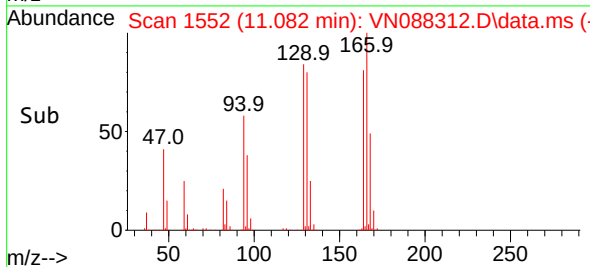
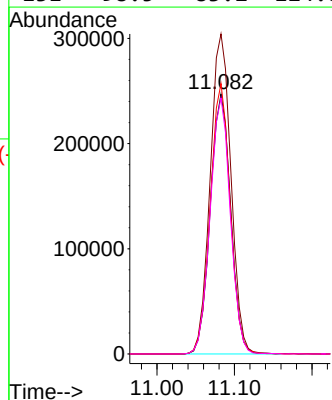
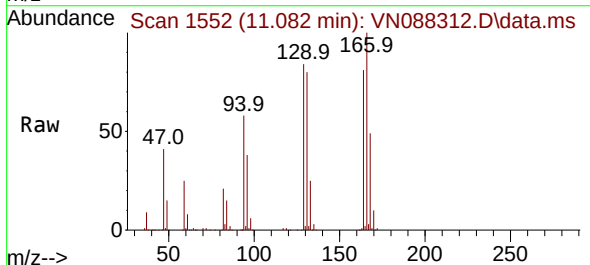
Ion Ratio Lower Upper

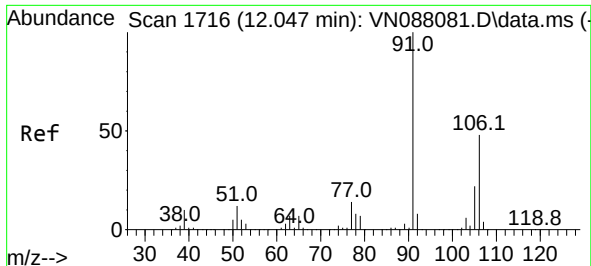
164 100

166 123.2 97.7 146.5

129 104.1 85.9 128.9

131 98.5 83.2 124.8

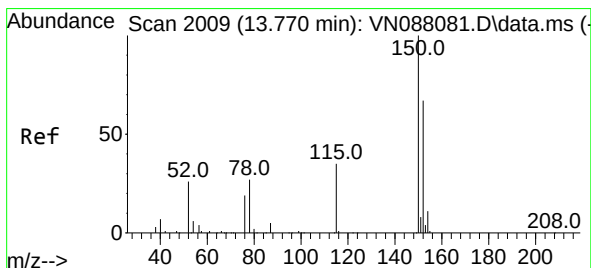
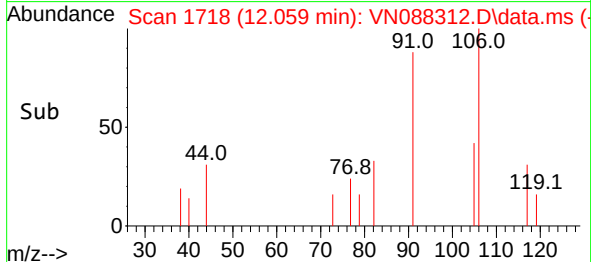
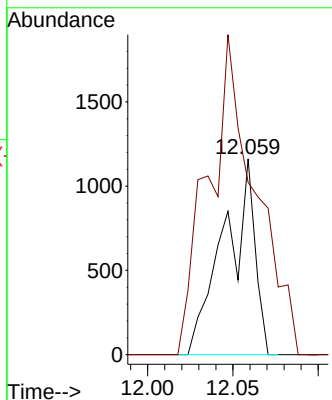
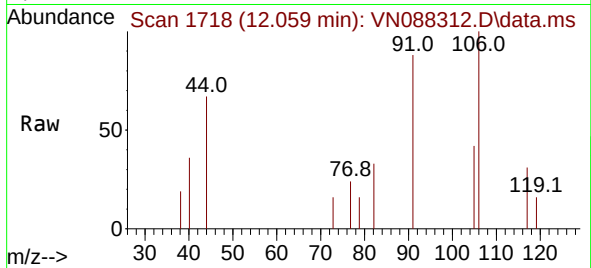




#68
m/p-Xylenes
Concen: 0.247 ug/l
RT: 12.059 min Scan# 11
Delta R.T. 0.012 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

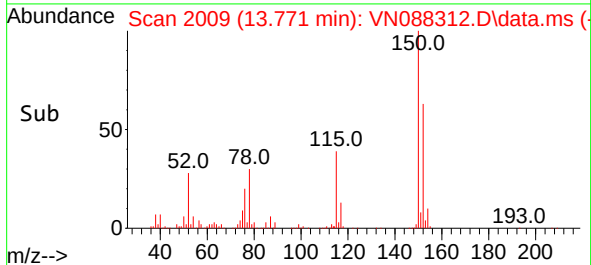
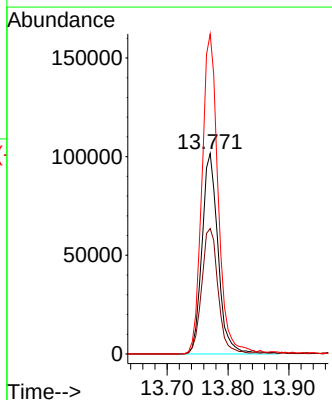
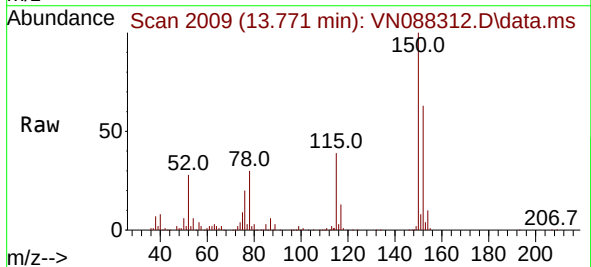
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

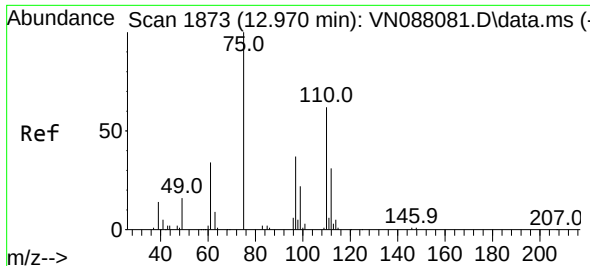
Tgt Ion:106 Resp: 1453
Ion Ratio Lower Upper
106 100
91 250.3 169.3 253.9



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.771 min Scan# 2009
Delta R.T. 0.006 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion:152 Resp: 187251
Ion Ratio Lower Upper
152 100
115 63.7 32.3 96.8
150 160.0 0.0 351.0

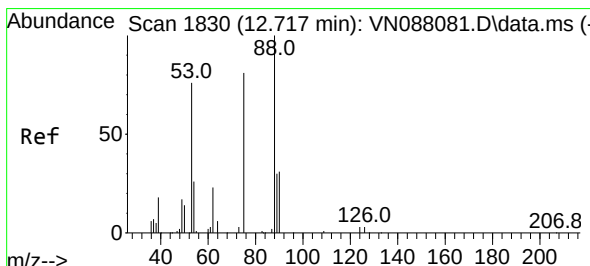
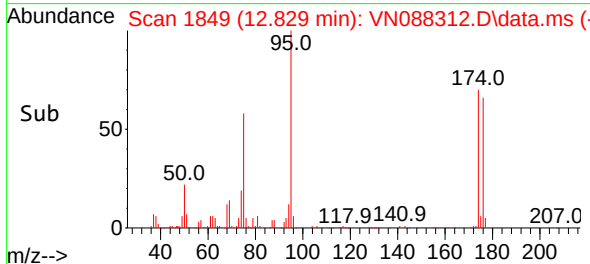
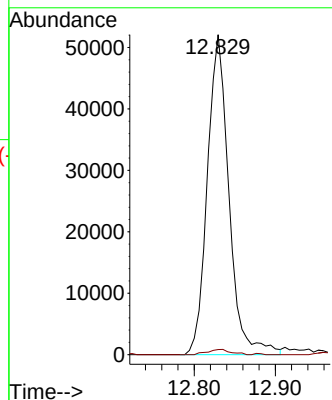
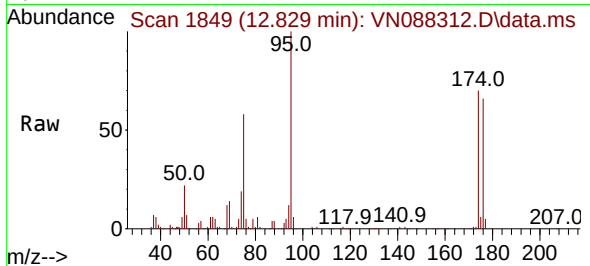




#76
1,2,3-Trichloropropane
Concen: 22.488 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. -0.141 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

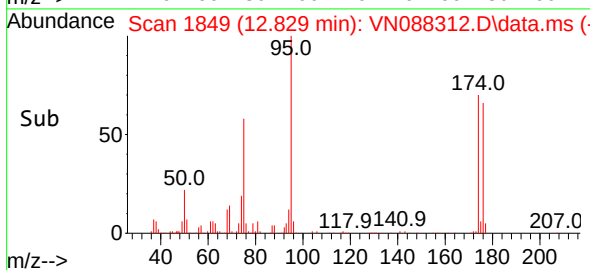
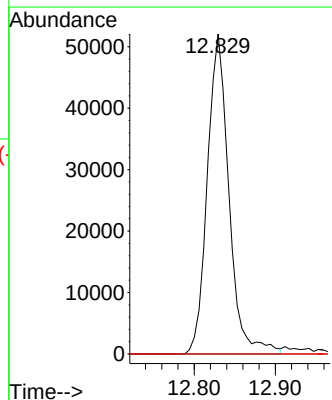
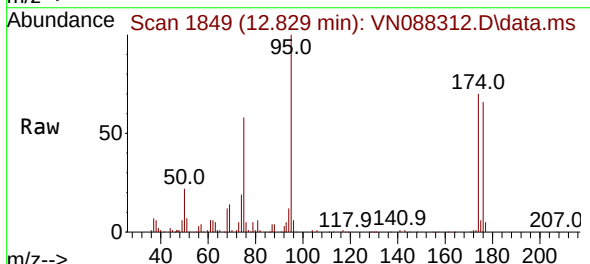
Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

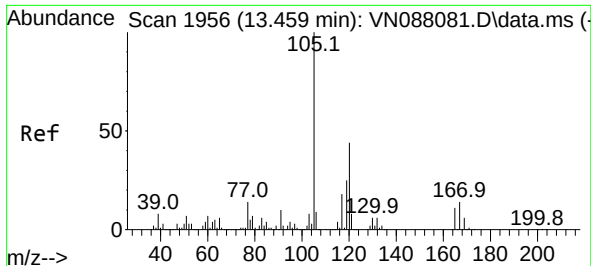
Tgt Ion: 75 Resp: 96274
Ion Ratio Lower Upper
75 100
77 1.8 89.1 267.4#



#81
trans-1,4-Dichloro-2-butene
Concen: 62.731 ug/l
RT: 12.829 min Scan# 1849
Delta R.T. 0.112 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion: 75 Resp: 96274
Ion Ratio Lower Upper
75 100
53 0.0 101.8 152.6#
89 0.0 35.6 53.4#

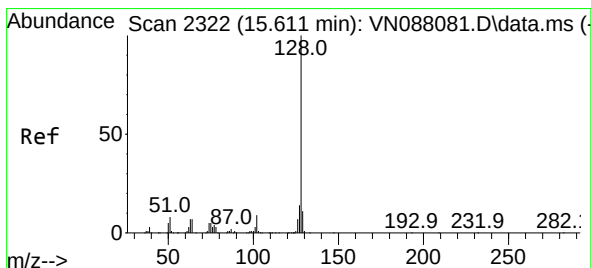
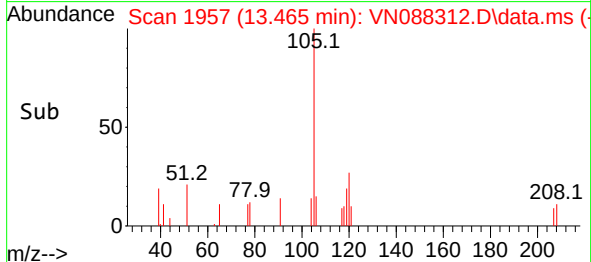
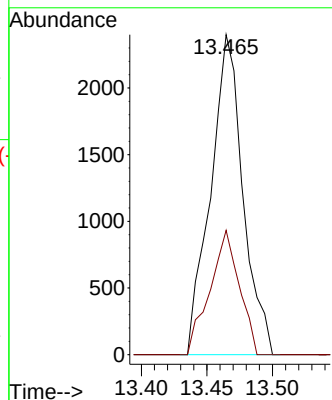
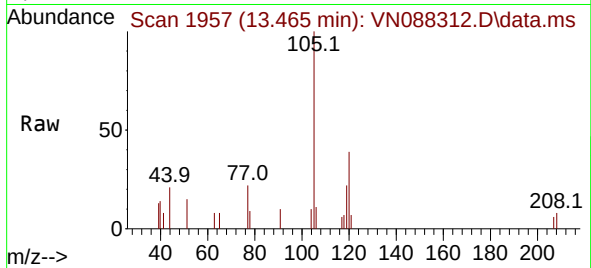




#84
1,2,4-Trimethylbenzene
Concen: 0.343 ug/l
RT: 13.465 min Scan# 1956
Delta R.T. 0.006 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Instrument :
MSVOA_N
ClientSampleId :
FRAC-TANK-M21012

Tgt Ion:105 Resp: 4113
Ion Ratio Lower Upper
105 100
120 35.4 22.0 66.0



#95
Naphthalene
Concen: 1.266 ug/l
RT: 15.623 min Scan# 2324
Delta R.T. 0.012 min
Lab File: VN088312.D
Acq: 18 Nov 2025 12:37

Tgt Ion:128 Resp: 15746
Ion Ratio Lower Upper
128 100
127 15.1 10.6 15.8
129 10.6 8.6 12.8

