

Data Path : Z:\voasrv\HPCHEM1\MSVOA_W\Data\VW071625\
 Data File : VW031871.D
 Acq On : 16 Jul 2025 12:29
 Operator : SY/MD
 Sample : Q2609-03
 Misc : 5.00g/5mL/MSVOA_W/SOIL/A
 ALS Vial : 9 Sample Multiplier: 1

Instrument :
 MSVOA_W
 ClientSampleId :
 710-C

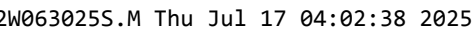
Quant Time: Jul 17 04:02:24 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_W\Method\82W063025S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jul 01 03:35:17 2025
 Response via : Initial Calibration

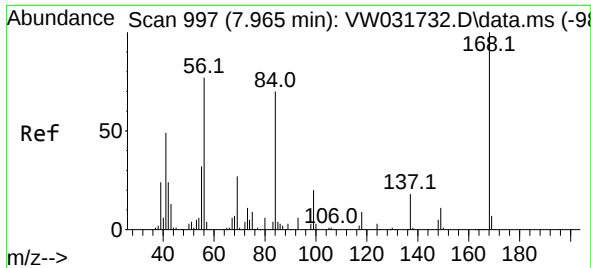
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Pentafluorobenzene	7.959	168	183784	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.855	114	383894	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.635	117	351493	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.556	152	151660	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.319	65	134501	50.996	ug/l	0.00
Spiked Amount 50.000	Range 63 - 155		Recovery = 102.000%			
35) Dibromofluoromethane	7.904	113	114327	45.638	ug/l	0.00
Spiked Amount 50.000	Range 70 - 134		Recovery = 91.280%			
50) Toluene-d8	10.331	98	423272	45.404	ug/l	0.00
Spiked Amount 50.000	Range 74 - 123		Recovery = 90.800%			
62) 4-Bromofluorobenzene	12.617	95	155073	45.202	ug/l	0.00
Spiked Amount 50.000	Range 17 - 146		Recovery = 90.400%			
Target Compounds					Qvalue	
11) Tert butyl alcohol	5.222	59	894	5.471	ug/l #	69
16) Acetone	4.173	43	7288	11.179	ug/l #	87
20) Methylene Chloride	4.960	84	8568	Below Cal		95
25) 2-Butanone	7.222	43	1619	1.909	ug/l #	46
31) Cyclohexane	7.965	56	11645	3.101	ug/l #	46
36) 1,1-Dichloropropene	7.965	75	17565	4.846	ug/l #	50
38) Carbon Tetrachloride	7.965	117	22035	5.965	ug/l #	16
39) Methylcyclohexane	9.343	83	12888	2.858	ug/l	94
40) Benzene	8.337	78	2334630	217.685	ug/l	100
42) 1,2-Dichloroethane	8.343	62	21224	5.857	ug/l	77
52) Toluene	10.392	92	2573853	374.831	ug/l	97
53) t-1,3-Dichloropropene	10.392	75	32857	8.924	ug/l #	1
67) Ethyl Benzene	11.733	91	784284	58.321	ug/l	98
68) m/p-Xylenes	11.837	106	2998354	580.007	ug/l	99
69) o-Xylene	12.166	106	2180978	455.660	ug/l	100
70) Styrene	12.184	104	1598546	193.187	ug/l #	85
73) Isopropylbenzene	12.465	105	63201	5.479	ug/l	99
76) 1,2,3-Trichloropropane	12.861	75	8758	4.469	ug/l #	1
78) n-propylbenzene	12.800	91	205120	14.848	ug/l	96
79) 2-Chlorotoluene	13.105	91	97838	11.761	ug/l	97
80) 1,3,5-Trimethylbenzene	12.940	105	2055868	215.296	ug/l	98
81) trans-1,4-Dichloro-2-b...	12.617	75	82035	97.492	ug/l #	9
82) 4-Chlorotoluene	13.105	91	97897	11.209	ug/l	97
83) tert-Butylbenzene	13.251	119	575135	70.314	ug/l #	70
84) 1,2,4-Trimethylbenzene	13.245	105	4849698	501.252	ug/l	99
85) sec-Butylbenzene	13.245	105	4849698	395.013	ug/l #	58
86) p-Isopropyltoluene	13.477	119	81334	8.038	ug/l #	56
89) n-Butylbenzene	13.757	91	278203	28.299	ug/l #	56
90) Hexachloroethane	14.031	117	90532	49.595	ug/l #	19
92) 1,2-Dibromo-3-Chloropr...	14.483	75	24364	48.720	ug/l #	8

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

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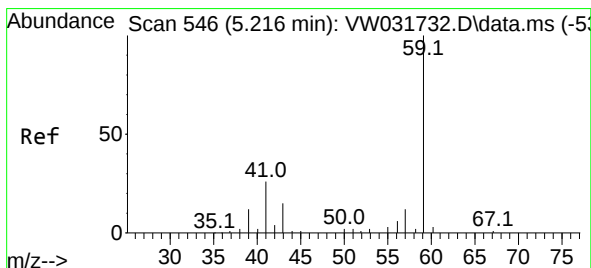
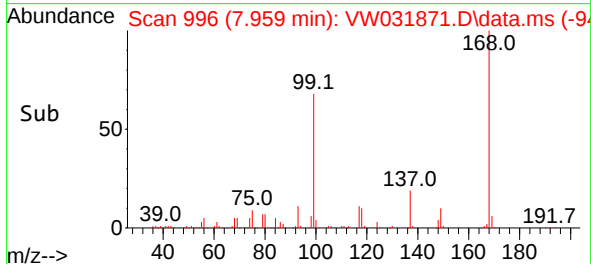
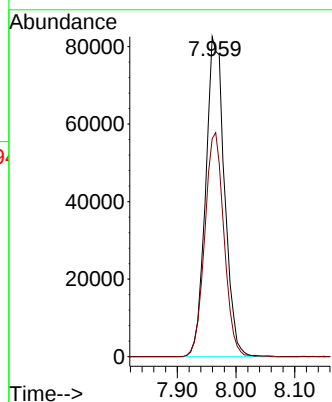
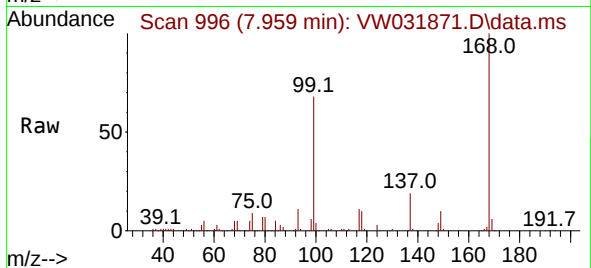




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.959 min Scan# 99
Delta R.T. -0.006 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

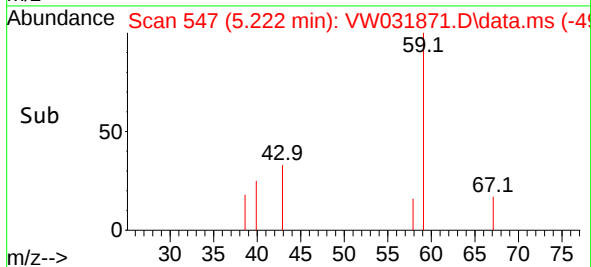
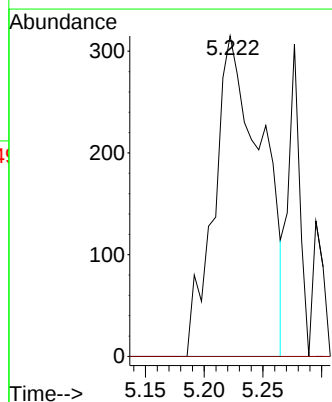
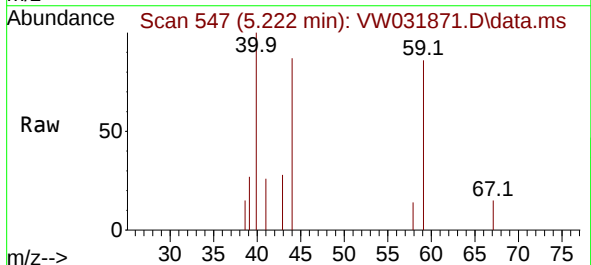
Instrument :
MSVOA_W
ClientSampleId :
710-C

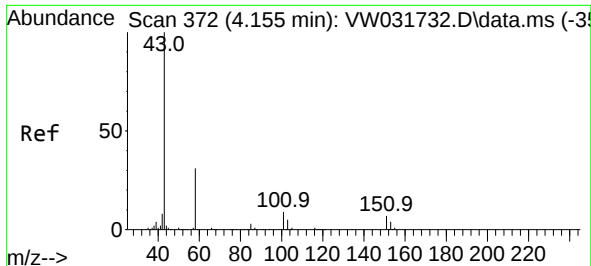
Tgt Ion:168 Resp: 183784
Ion Ratio Lower Upper
168 100
99 68.1 49.4 74.2



#11
Tert butyl alcohol
Concen: 5.471 ug/l
RT: 5.222 min Scan# 547
Delta R.T. 0.006 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion: 59 Resp: 894
Ion Ratio Lower Upper
59 100
57 0.0 9.5 14.3#

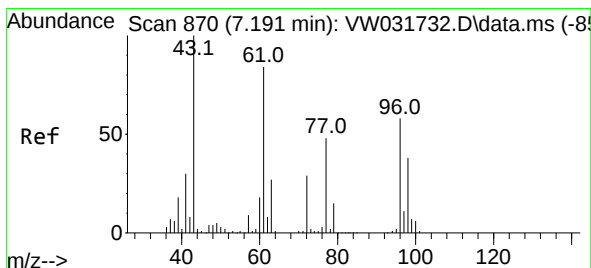
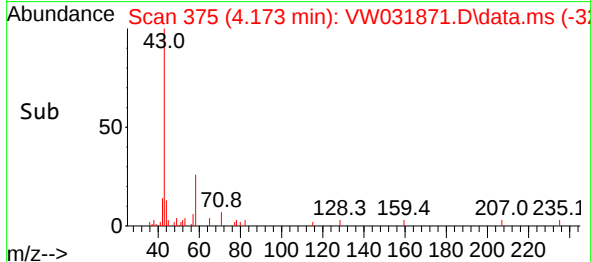
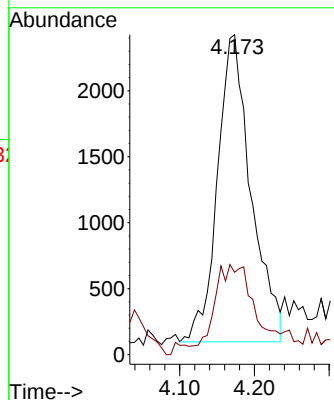
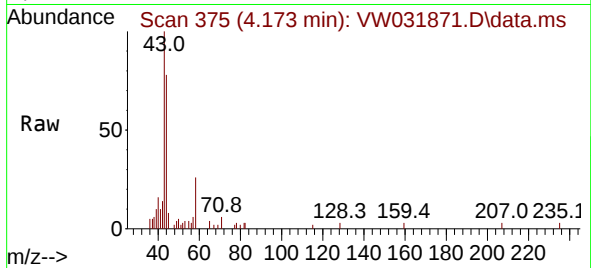




#16
Acetone
Concen: 11.179 ug/l
RT: 4.173 min Scan# 31
Delta R.T. 0.019 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

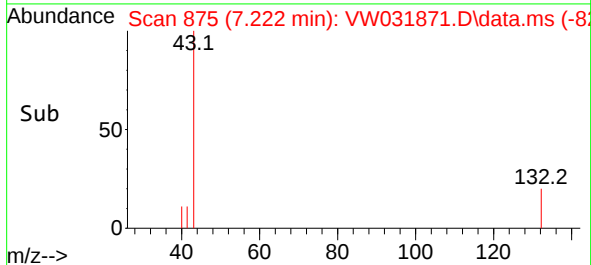
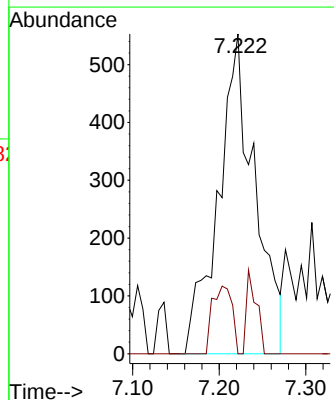
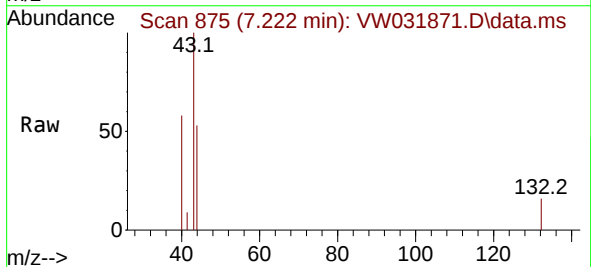
Instrument :
MSVOA_W
ClientSampleId :
710-C

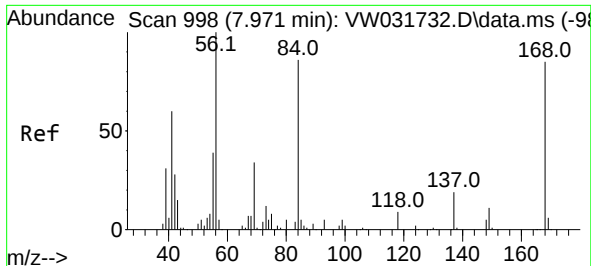
Tgt Ion: 43 Resp: 7288
Ion Ratio Lower Upper
43 100
58 23.8 24.8 37.2#



#25
2-Butanone
Concen: 1.909 ug/l
RT: 7.222 min Scan# 875
Delta R.T. 0.031 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion: 43 Resp: 1619
Ion Ratio Lower Upper
43 100
72 0.0 23.0 34.6#

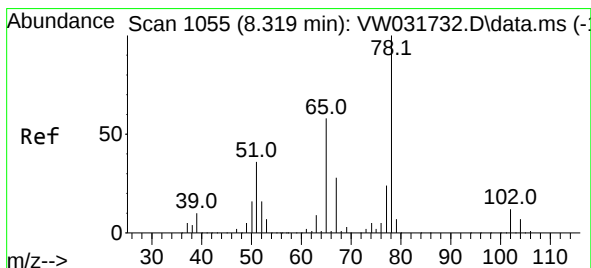
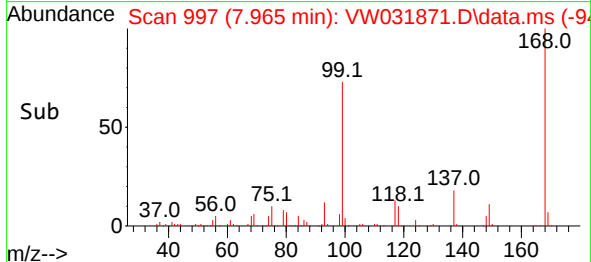
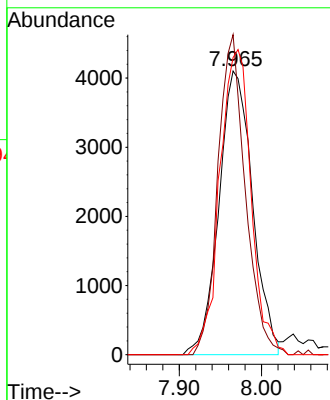
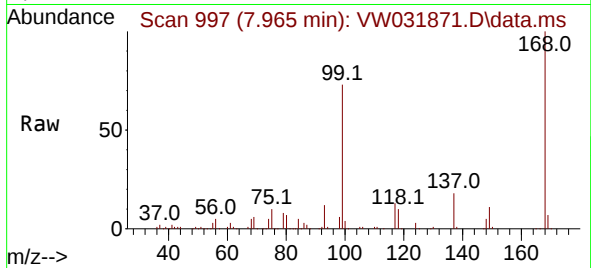




#31
Cyclohexane
Concen: 3.101 ug/l
RT: 7.965 min Scan# 998
Delta R.T. -0.006 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

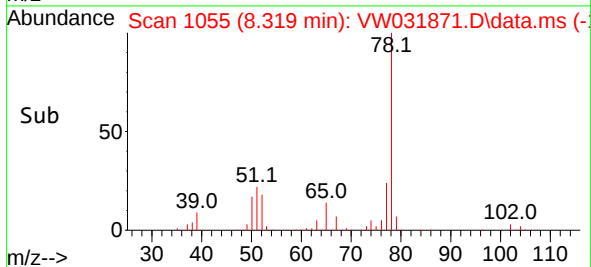
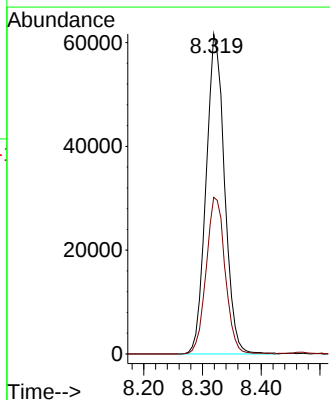
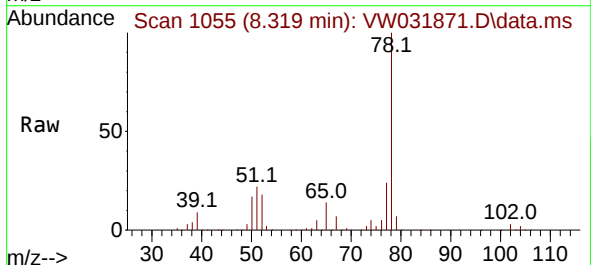
Instrument :
MSVOA_W
ClientSampleId :
710-C

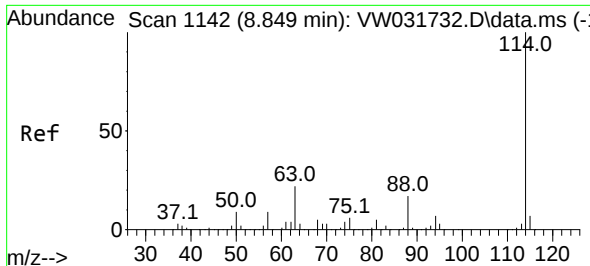
Tgt Ion: 56 Resp: 11645
Ion Ratio Lower Upper
56 100
69 112.8 27.2 40.8#
84 104.8 68.5 102.7#



#33
1,2-Dichloroethane-d4
Concen: 50.996 ug/l
RT: 8.319 min Scan# 1055
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion: 65 Resp: 134501
Ion Ratio Lower Upper
65 100
67 50.4 0.0 99.4





#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.855 min Scan# 1143

Delta R.T. 0.006 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

710-C

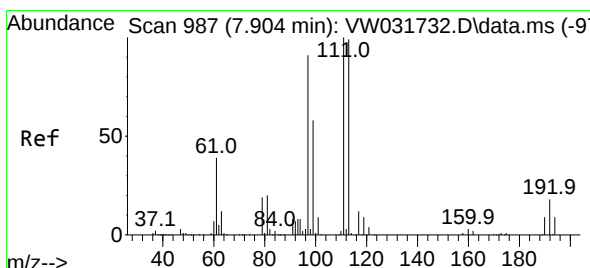
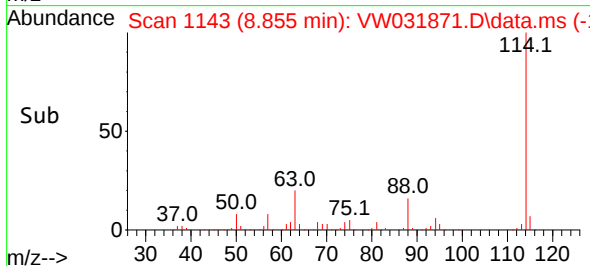
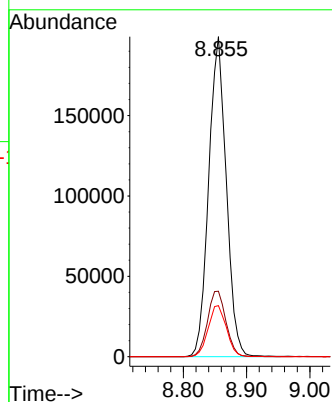
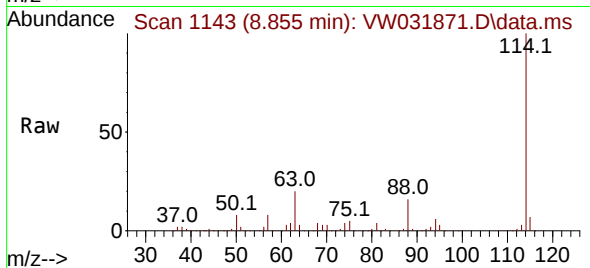
Tgt Ion:114 Resp: 383894

Ion Ratio Lower Upper

114 100

63 20.4 0.0 43.6

88 15.9 0.0 34.2



#35

Dibromofluoromethane

Concen: 45.638 ug/l

RT: 7.904 min Scan# 987

Delta R.T. 0.000 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

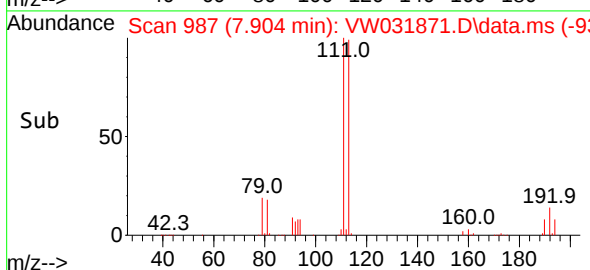
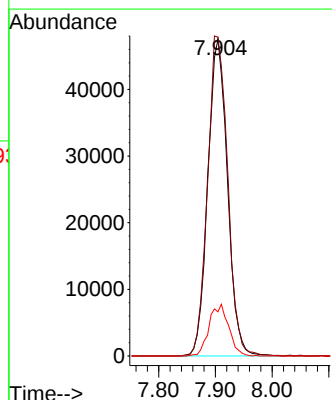
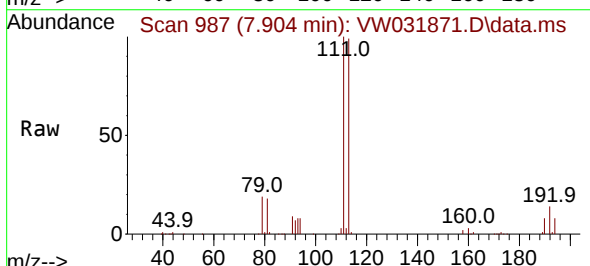
Tgt Ion:113 Resp: 114327

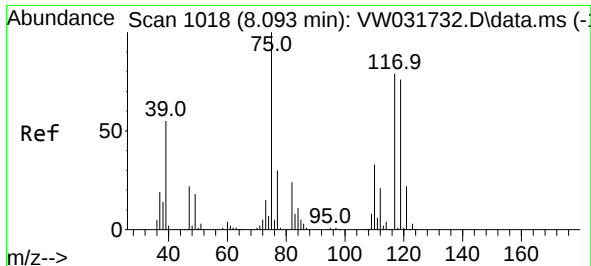
Ion Ratio Lower Upper

113 100

111 103.6 82.1 123.1

192 16.3 13.8 20.6





#36

1,1-Dichloropropene

Concen: 4.846 ug/l

RT: 7.965 min Scan# 997

Delta R.T. -0.128 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

710-C

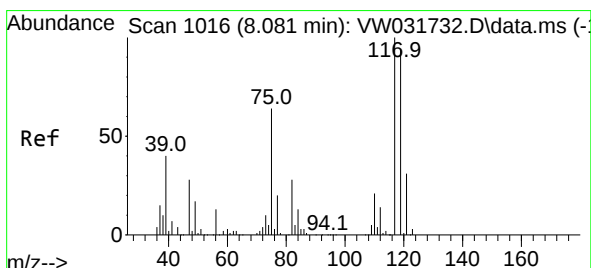
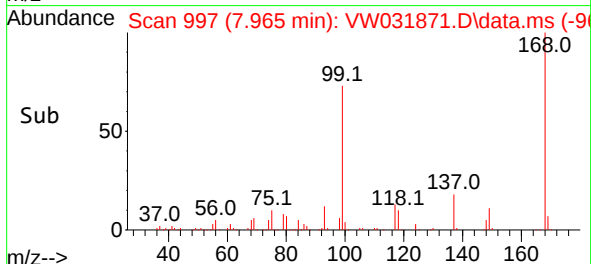
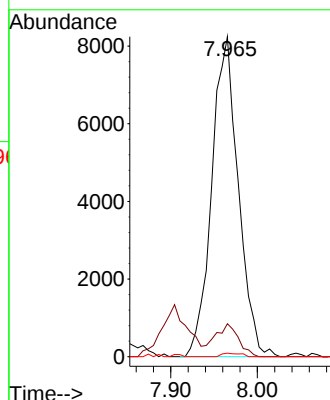
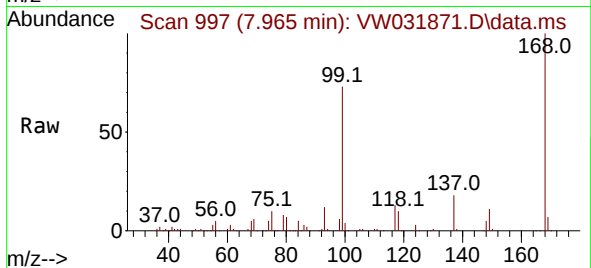
Tgt Ion: 75 Resp: 17565

Ion Ratio Lower Upper

75 100

110 8.7 16.8 50.4#

77 0.0 25.0 37.6#



#38

Carbon Tetrachloride

Concen: 5.965 ug/l

RT: 7.965 min Scan# 997

Delta R.T. -0.116 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

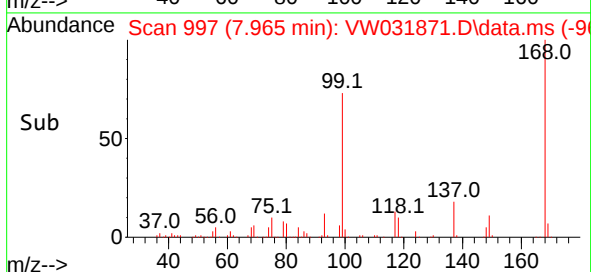
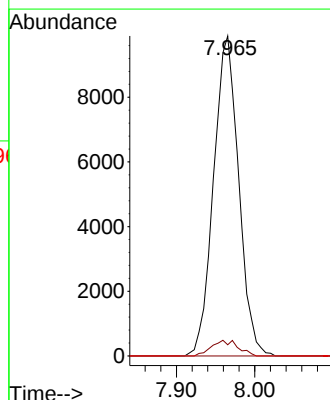
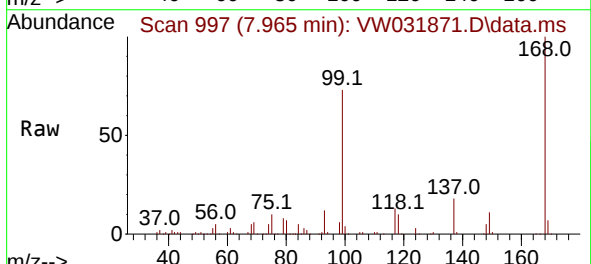
Tgt Ion: 117 Resp: 22035

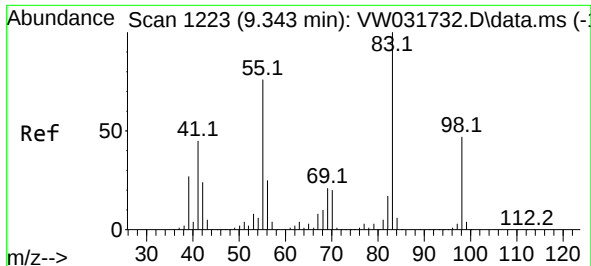
Ion Ratio Lower Upper

117 100

119 3.5 75.0 112.6#

121 0.0 24.6 37.0#





#39

Methylcyclohexane

Concen: 2.858 ug/l

RT: 9.343 min Scan# 11

Delta R.T. 0.000 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

710-C

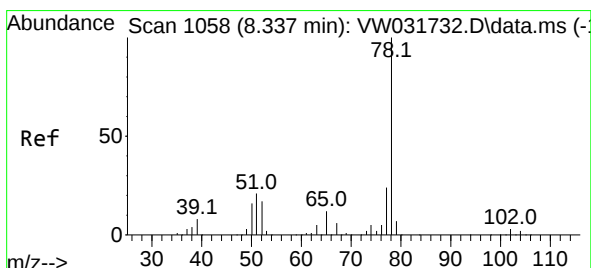
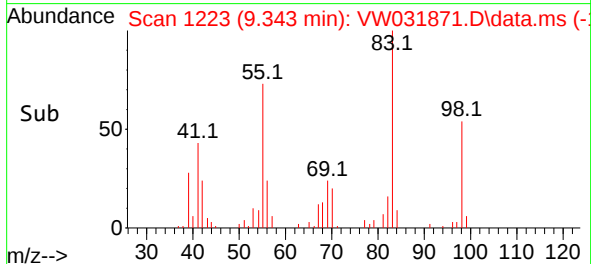
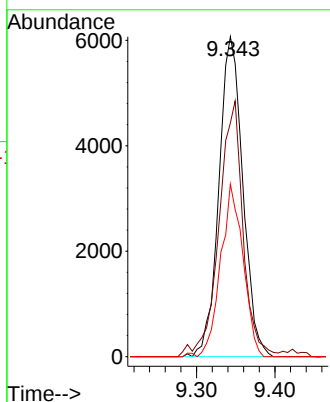
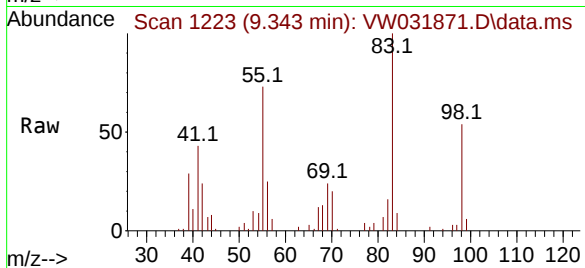
Tgt Ion: 83 Resp: 12888

Ion Ratio Lower Upper

83 100

55 73.0 61.0 91.4

98 53.9 37.9 56.9



#40

Benzene

Concen: 217.685 ug/l

RT: 8.337 min Scan# 1058

Delta R.T. 0.000 min

Lab File: VW031871.D

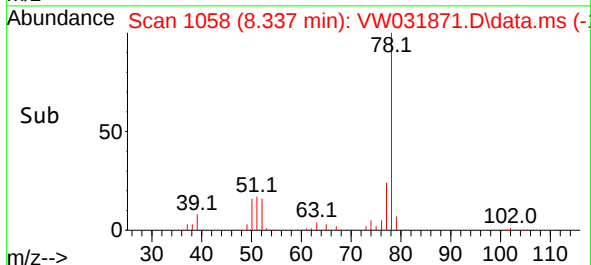
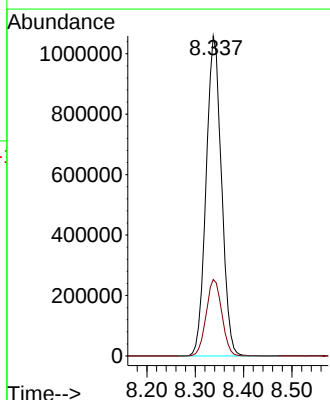
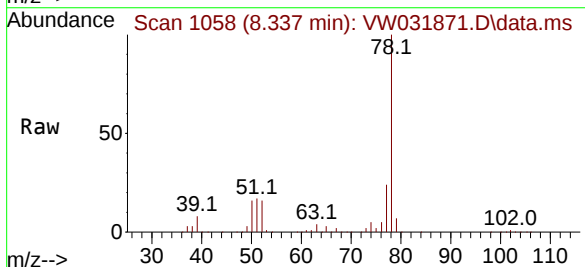
Acq: 16 Jul 2025 12:29

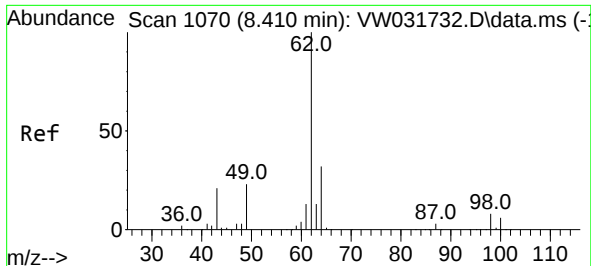
Tgt Ion: 78 Resp: 2334630

Ion Ratio Lower Upper

78 100

77 23.9 19.2 28.8





#42

1,2-Dichloroethane

Concen: 5.857 ug/l

RT: 8.343 min Scan# 1059

Delta R.T. -0.067 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

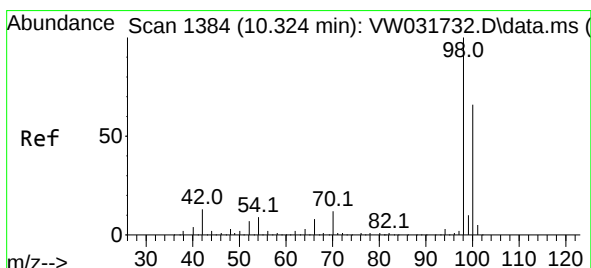
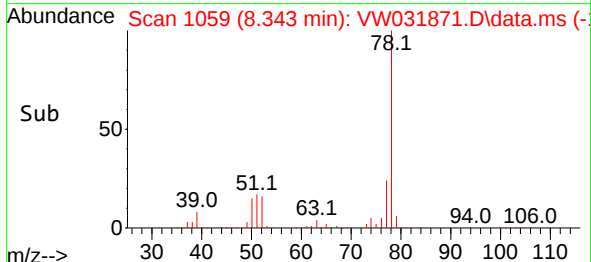
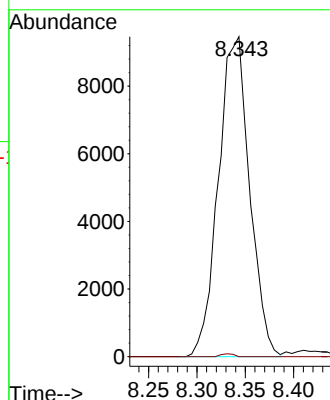
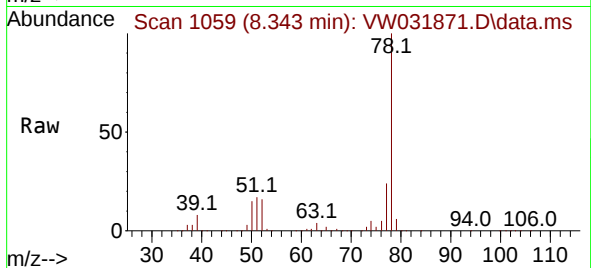
710-C

Tgt Ion: 62 Resp: 21224

Ion Ratio Lower Upper

62 100

98 0.4 0.0 17.2



#50

Toluene-d8

Concen: 45.404 ug/l

RT: 10.331 min Scan# 1385

Delta R.T. 0.006 min

Lab File: VW031871.D

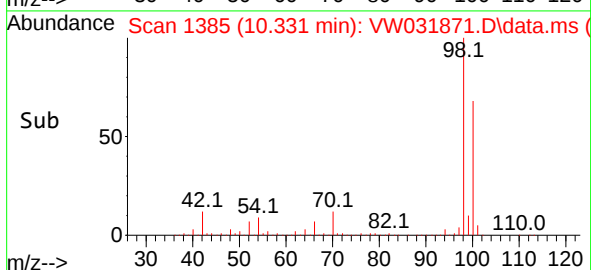
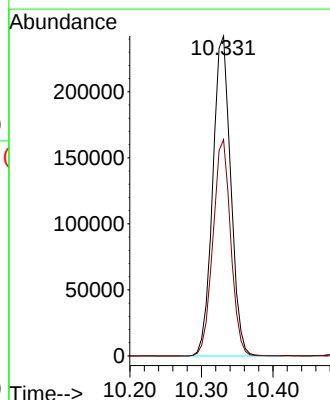
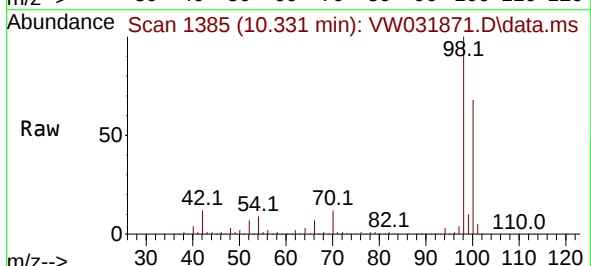
Acq: 16 Jul 2025 12:29

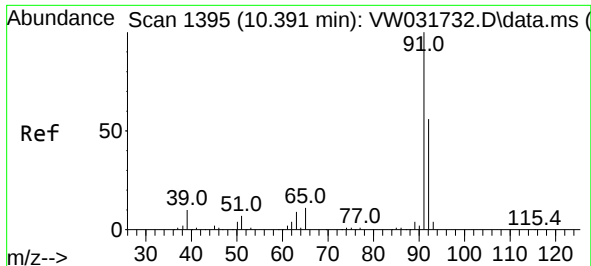
Tgt Ion: 98 Resp: 423272

Ion Ratio Lower Upper

98 100

100 66.8 53.0 79.4

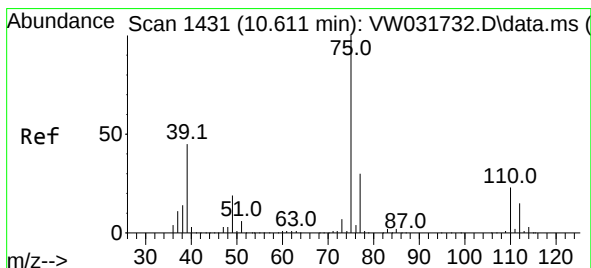
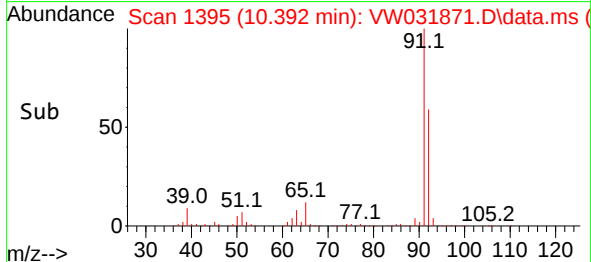
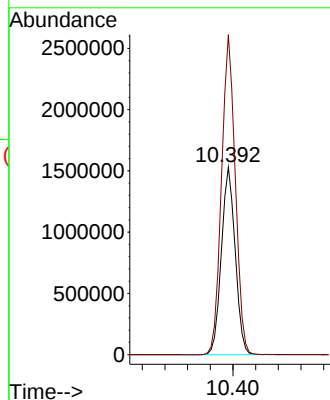
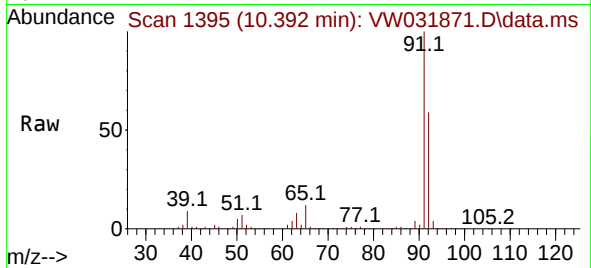




#52
Toluene
Concen: 374.831 ug/l
RT: 10.392 min Scan# 1395
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

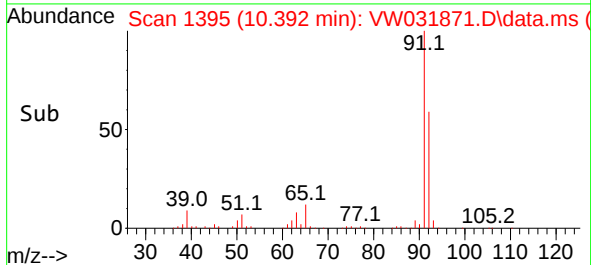
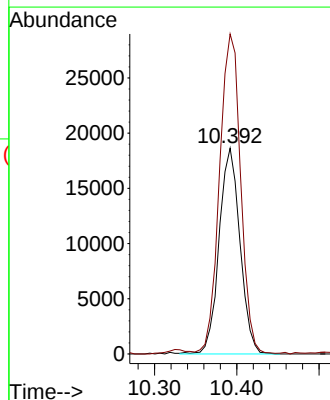
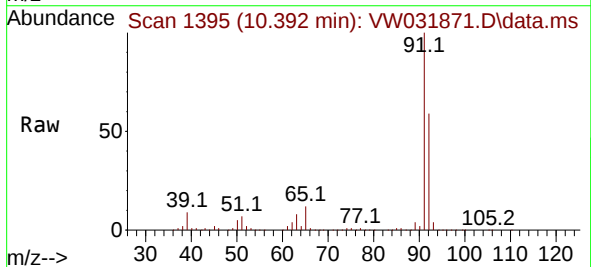
Instrument :
MSVOA_W
ClientSampleId :
710-C

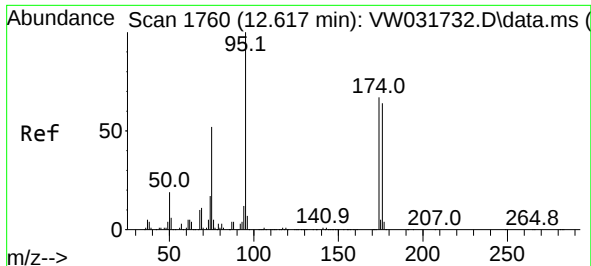
Tgt Ion: 92 Resp: 2573853
Ion Ratio Lower Upper
92 100
91 170.6 139.5 209.3



#53
t-1,3-Dichloropropene
Concen: 8.924 ug/l
RT: 10.392 min Scan# 1395
Delta R.T. -0.219 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion: 75 Resp: 32857
Ion Ratio Lower Upper
75 100
77 155.1 24.3 36.5#

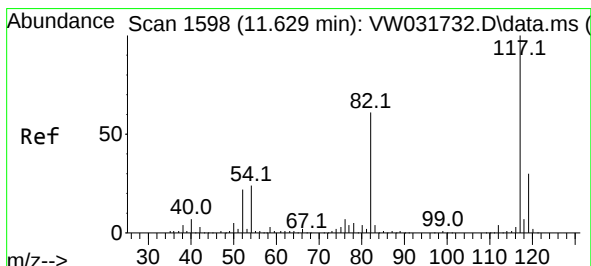
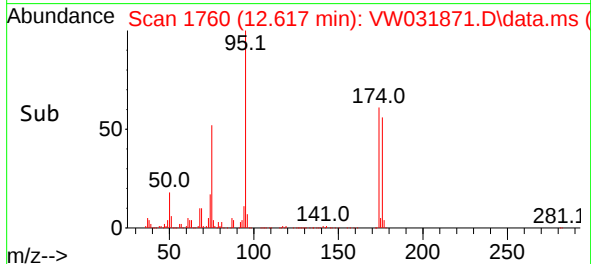
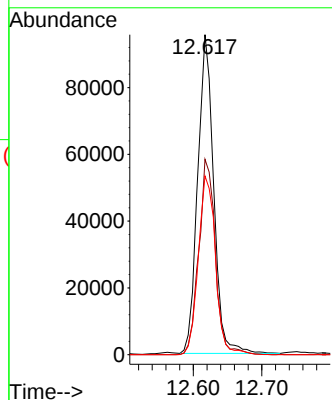
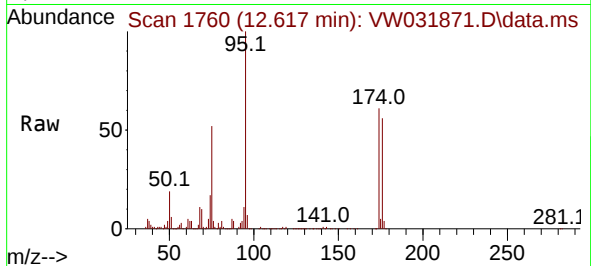




#62
4-Bromofluorobenzene
Concen: 45.202 ug/l
RT: 12.617 min Scan# 11
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

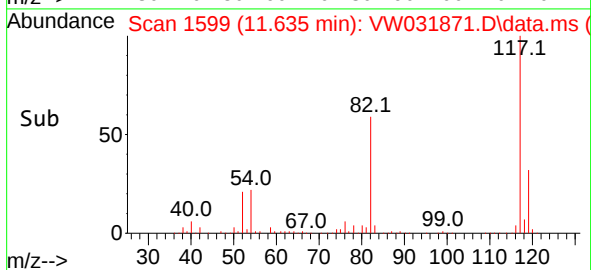
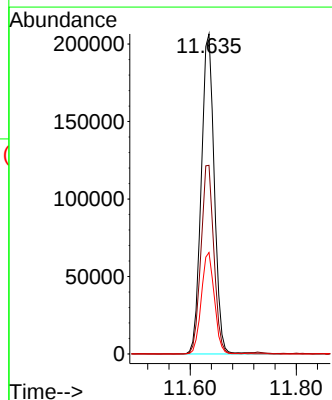
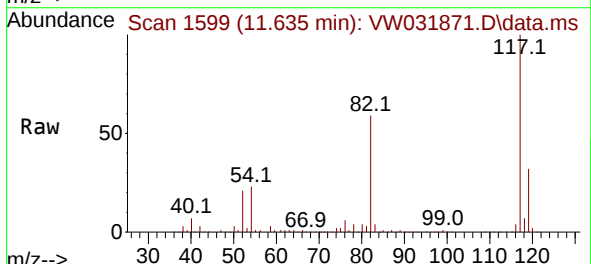
Instrument :
MSVOA_W
ClientSampleId :
710-C

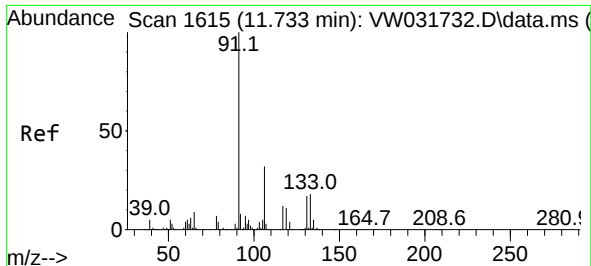
Tgt Ion: 95 Resp: 155073
Ion Ratio Lower Upper
95 100
174 63.7 0.0 133.8
176 60.3 0.0 126.0



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.635 min Scan# 1599
Delta R.T. 0.006 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion: 117 Resp: 351493
Ion Ratio Lower Upper
117 100
82 58.9 48.6 72.8
119 31.7 23.9 35.9





#67

Ethyl Benzene

Concen: 58.321 ug/l

RT: 11.733 min Scan# 1615

Delta R.T. 0.000 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

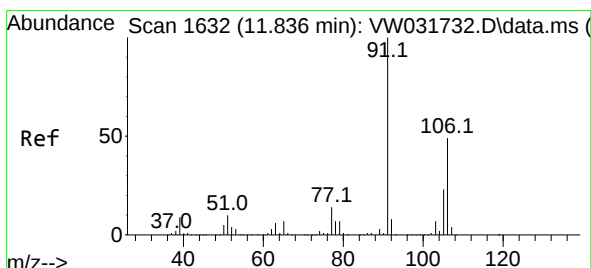
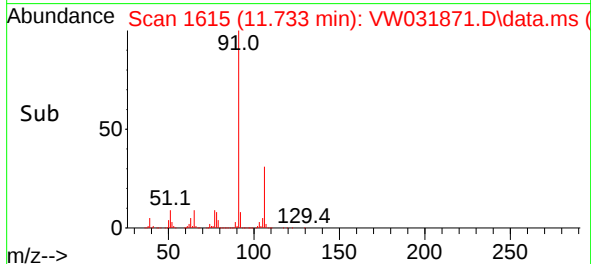
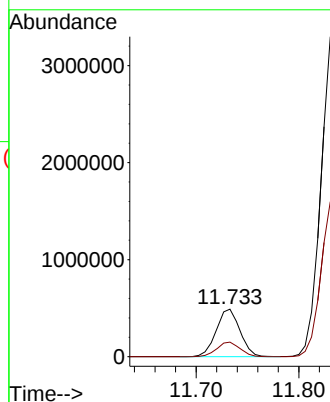
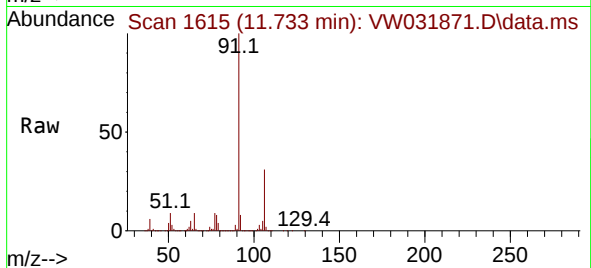
710-C

Tgt Ion: 91 Resp: 784284

Ion Ratio Lower Upper

91 100

106 30.7 25.4 38.2



#68

m/p-Xylenes

Concen: 580.007 ug/l

RT: 11.837 min Scan# 1632

Delta R.T. 0.000 min

Lab File: VW031871.D

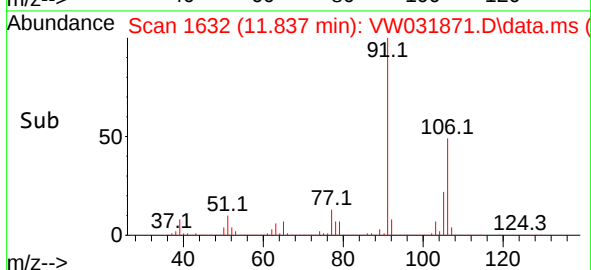
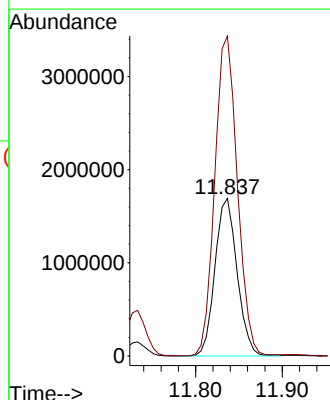
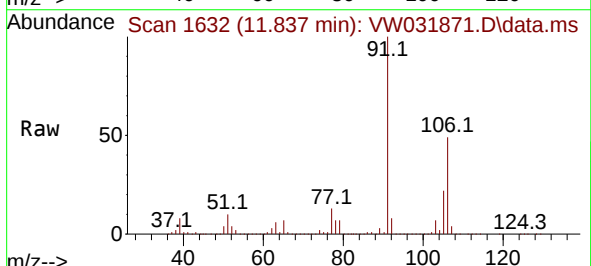
Acq: 16 Jul 2025 12:29

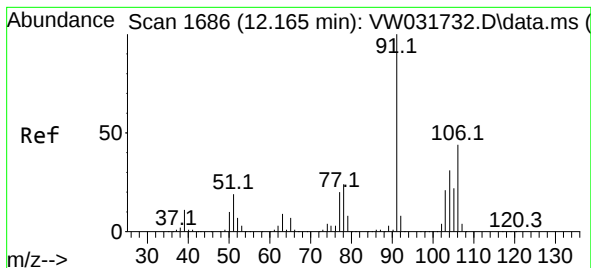
Tgt Ion: 106 Resp: 2998354

Ion Ratio Lower Upper

106 100

91 207.2 166.4 249.6

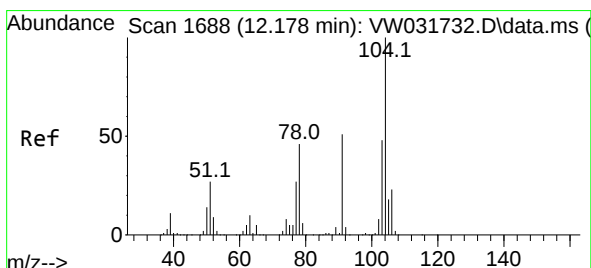
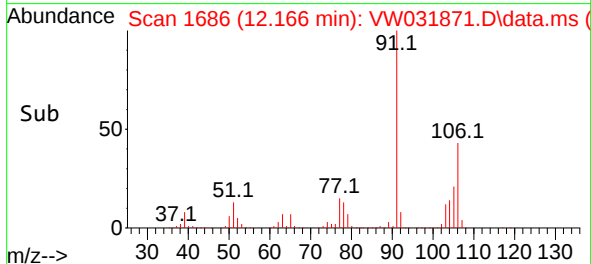
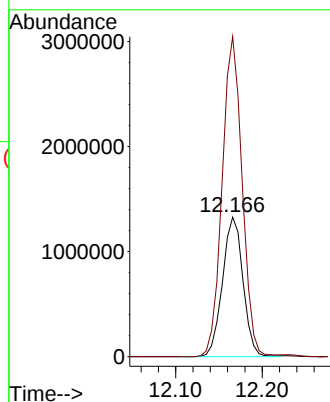
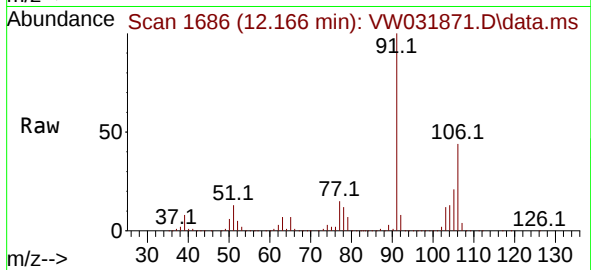




#69
o-Xylene
Concen: 455.660 ug/l
RT: 12.166 min Scan# 1686
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

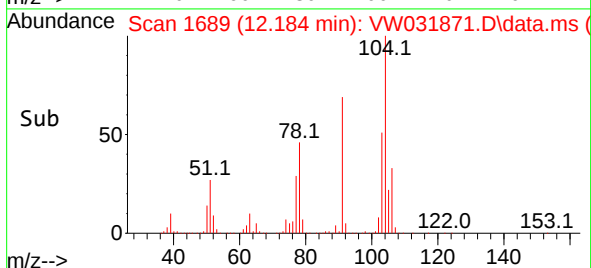
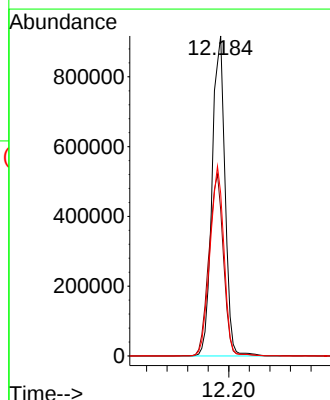
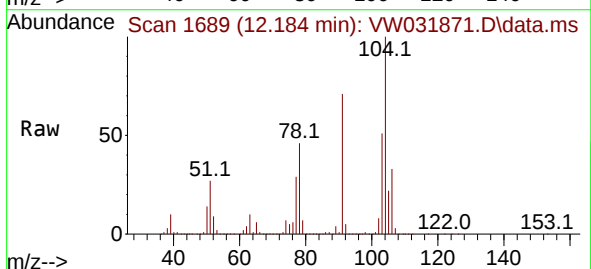
Instrument :
MSVOA_W
ClientSampleId :
710-C

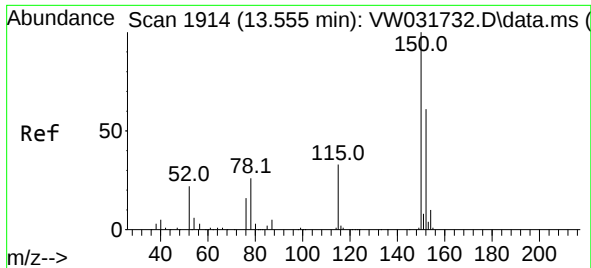
Tgt Ion:106 Resp: 2180978
Ion Ratio Lower Upper
106 100
91 223.6 111.5 334.4



#70
Styrene
Concen: 193.187 ug/l
RT: 12.184 min Scan# 1689
Delta R.T. 0.006 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion:104 Resp: 1598546
Ion Ratio Lower Upper
104 100
78 63.8 42.1 63.1#
103 64.6 43.0 64.6

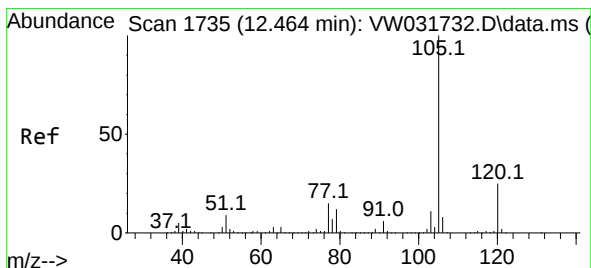
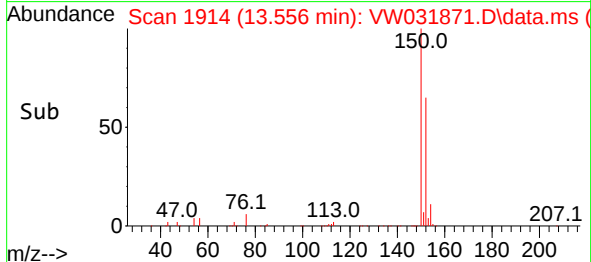
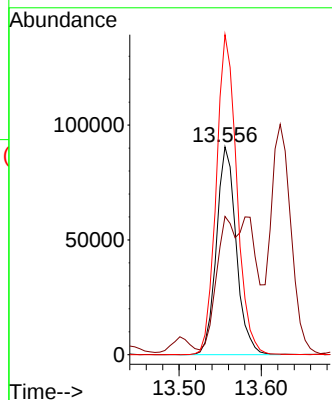
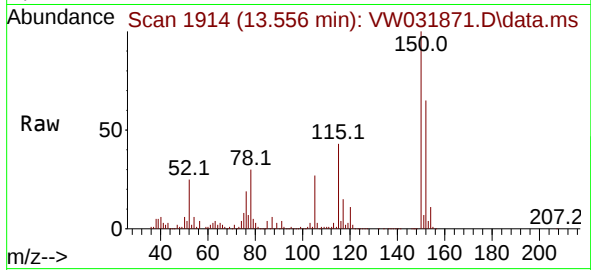




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 13.556 min Scan# 1914
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

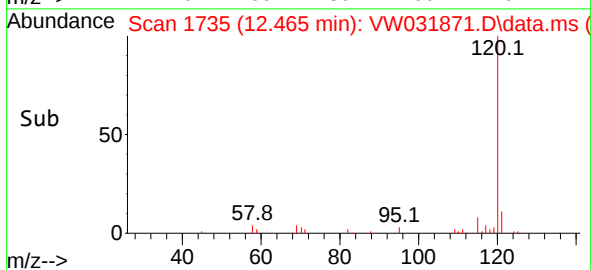
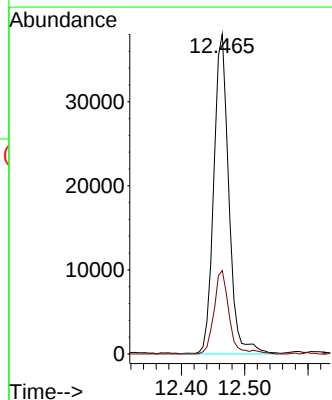
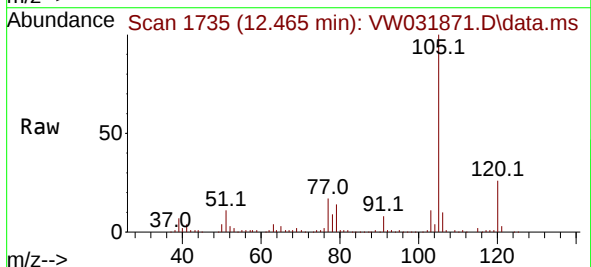
Instrument :
MSVOA_W
ClientSampleId :
710-C

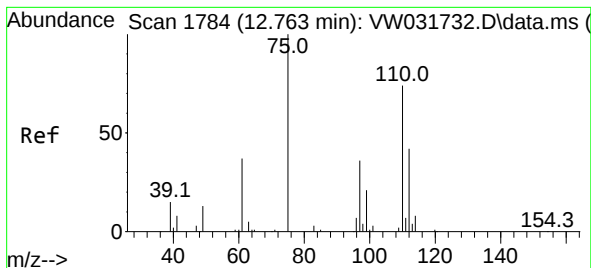
Tgt Ion:152 Resp: 151660
Ion Ratio Lower Upper
152 100
115 59.9 31.9 95.7
150 159.7 0.0 356.4



#73
Isopropylbenzene
Concen: 5.479 ug/l
RT: 12.465 min Scan# 1735
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion:105 Resp: 63201
Ion Ratio Lower Upper
105 100
120 25.2 12.8 38.4





#76

1,2,3-Trichloropropane

Concen: 4.469 ug/l

RT: 12.861 min Scan# 1784

Delta R.T. 0.098 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

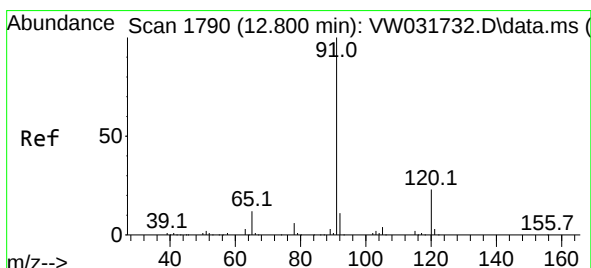
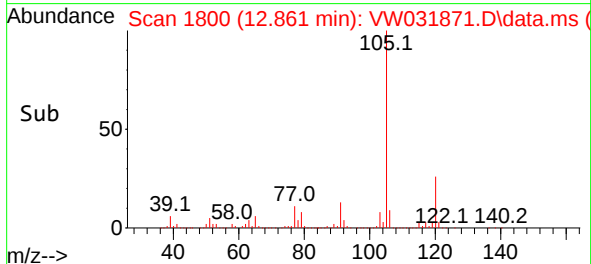
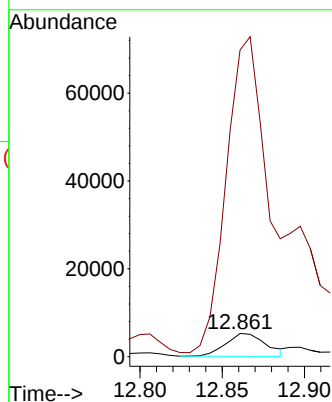
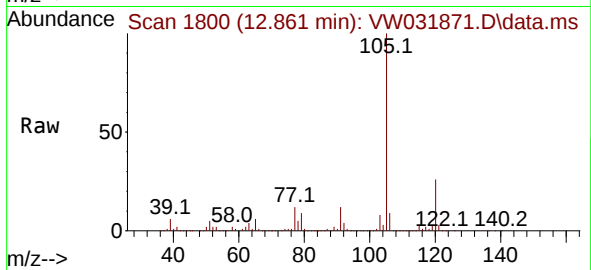
710-C

Tgt Ion: 75 Resp: 8758

Ion Ratio Lower Upper

75 100

77 1878.9 141.2 423.6#



#78

n-propylbenzene

Concen: 14.848 ug/l

RT: 12.800 min Scan# 1790

Delta R.T. 0.000 min

Lab File: VW031871.D

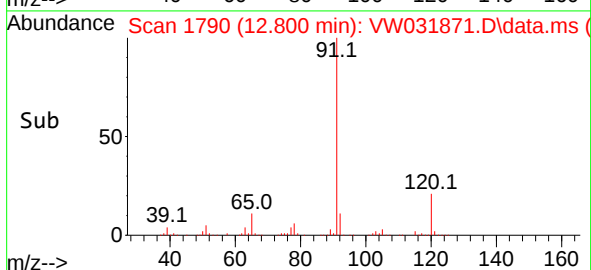
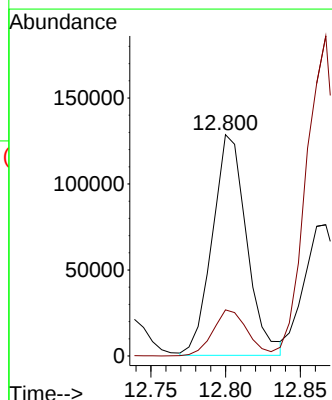
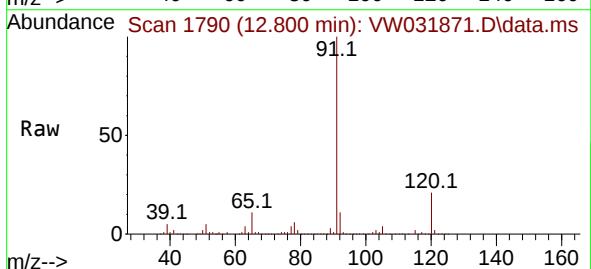
Acq: 16 Jul 2025 12:29

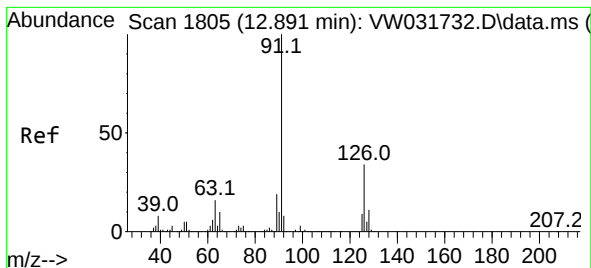
Tgt Ion: 91 Resp: 205120

Ion Ratio Lower Upper

91 100

120 21.0 11.5 34.4

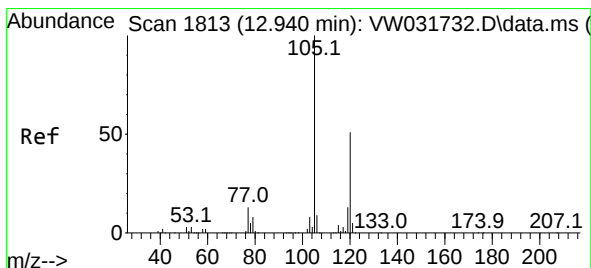
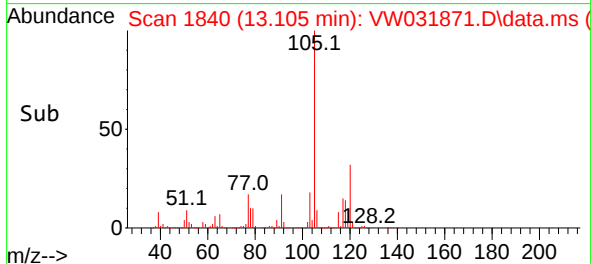
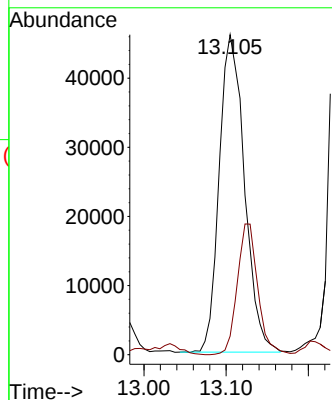
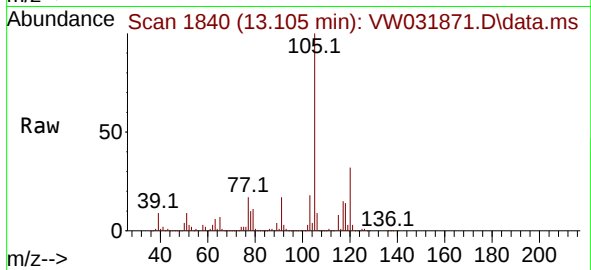




#79
2-Chlorotoluene
Concen: 11.761 ug/l
RT: 13.105 min Scan# 1840
Delta R.T. 0.214 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

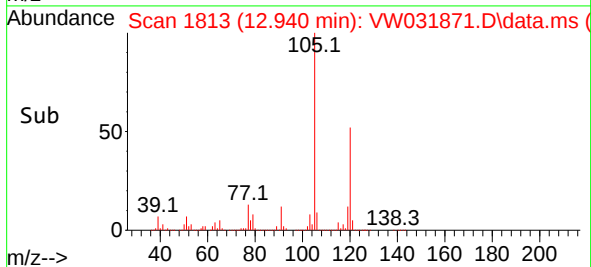
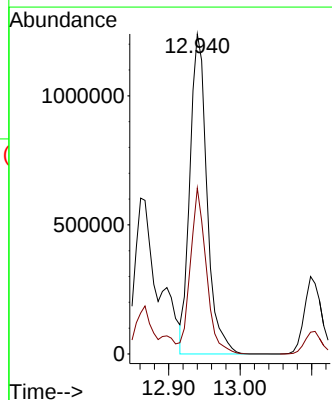
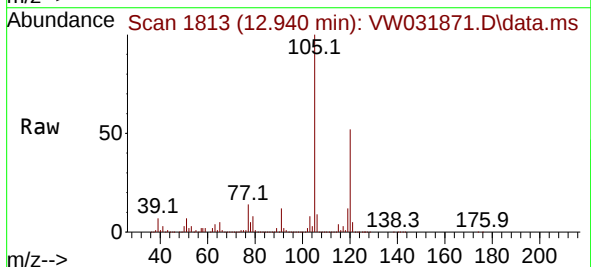
Instrument :
MSVOA_W
ClientSampleId :
710-C

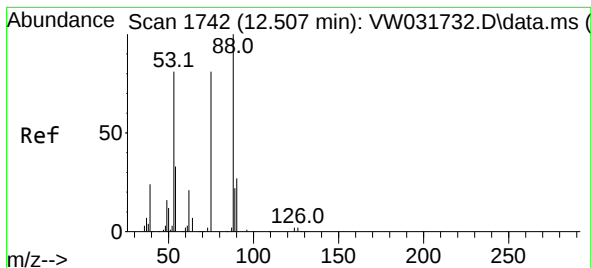
Tgt Ion: 91 Resp: 97838
Ion Ratio Lower Upper
91 100
126 33.4 15.8 47.4



#80
1,3,5-Trimethylbenzene
Concen: 215.296 ug/l
RT: 12.940 min Scan# 1813
Delta R.T. 0.000 min
Lab File: VW031871.D
Acq: 16 Jul 2025 12:29

Tgt Ion: 105 Resp: 2055868
Ion Ratio Lower Upper
105 100
120 49.0 23.8 71.2





#81

trans-1,4-Dichloro-2-butene

Concen: 97.492 ug/l

RT: 12.617 min Scan# 11

Delta R.T. 0.110 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

710-C

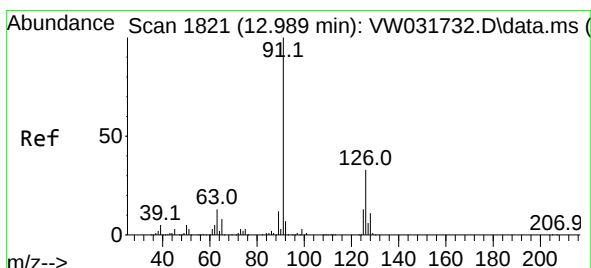
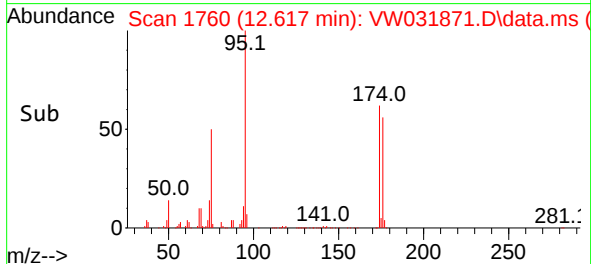
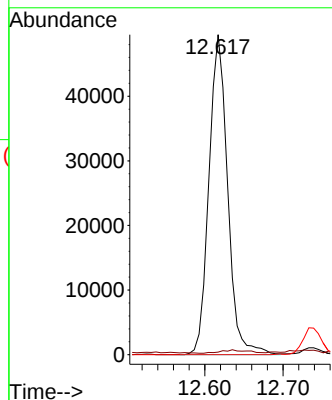
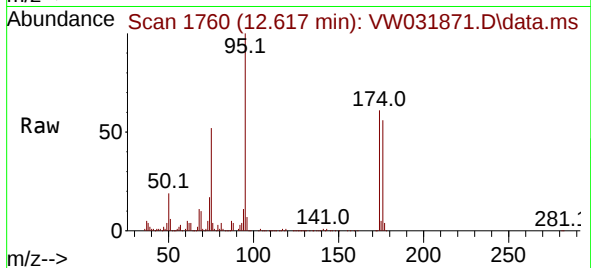
Tgt Ion: 75 Resp: 82035

Ion Ratio Lower Upper

75 100

53 1.4 83.5 125.3#

89 0.0 38.3 57.5#



#82

4-Chlorotoluene

Concen: 11.209 ug/l

RT: 13.105 min Scan# 1840

Delta R.T. 0.116 min

Lab File: VW031871.D

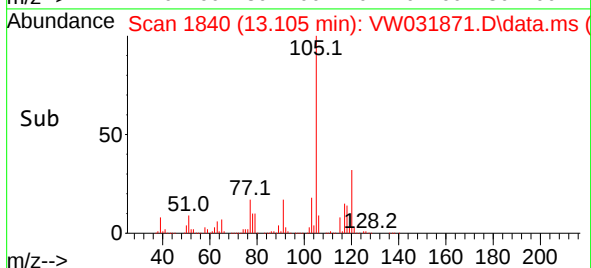
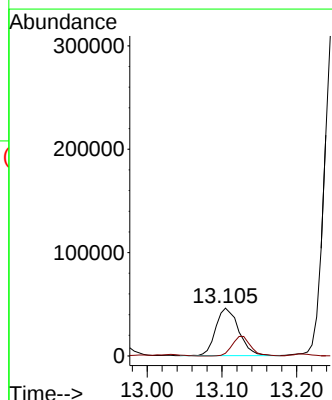
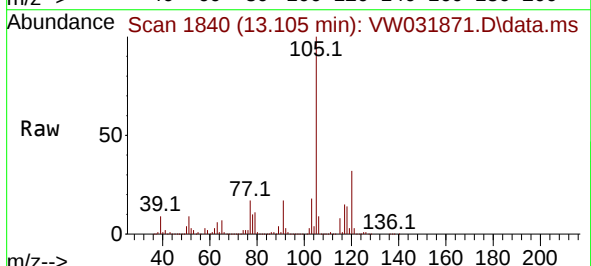
Acq: 16 Jul 2025 12:29

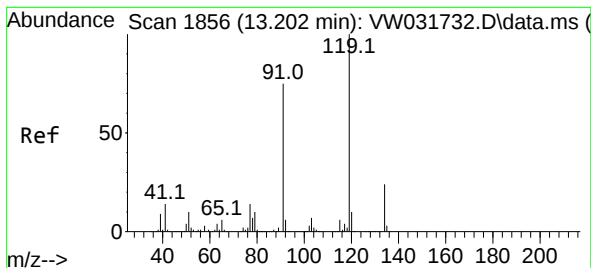
Tgt Ion: 91 Resp: 97897

Ion Ratio Lower Upper

91 100

126 33.6 16.0 47.9





#83

tert-Butylbenzene

Concen: 70.314 ug/l

RT: 13.251 min Scan# 1864

Delta R.T. 0.049 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

710-C

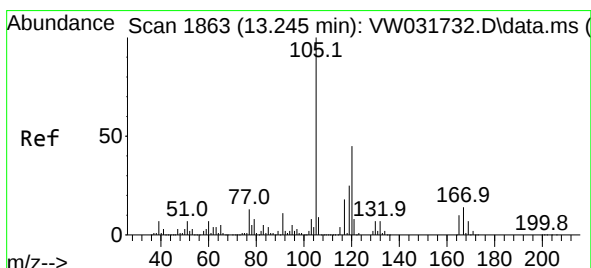
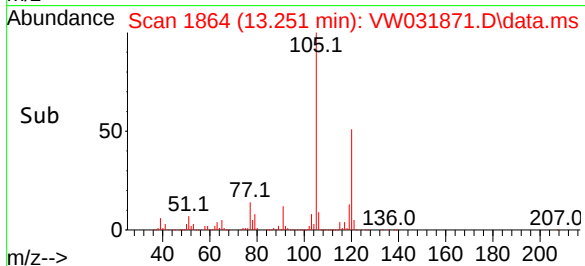
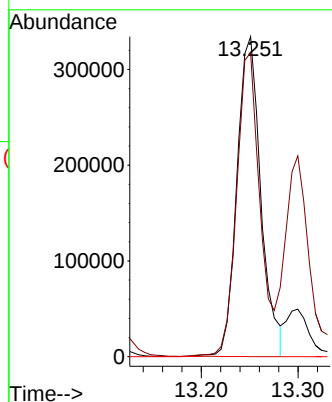
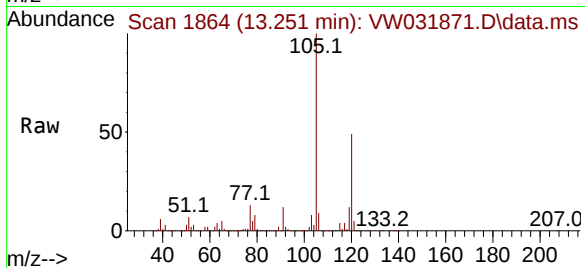
Tgt Ion:119 Resp: 575135

Ion Ratio Lower Upper

119 100

91 91.9 36.0 108.1

134 0.0 12.4 37.2#



#84

1,2,4-Trimethylbenzene

Concen: 501.252 ug/l

RT: 13.245 min Scan# 1863

Delta R.T. 0.000 min

Lab File: VW031871.D

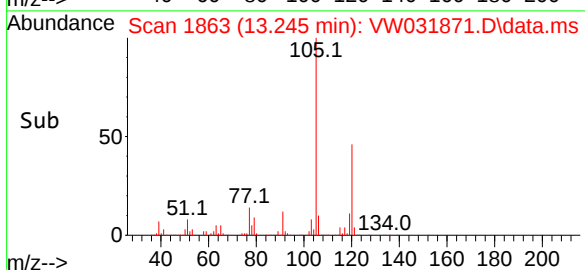
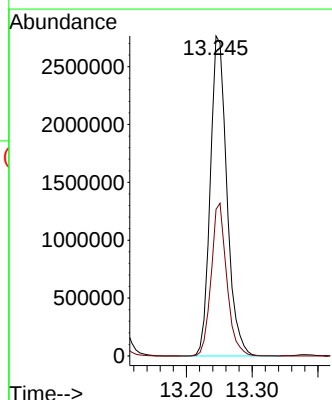
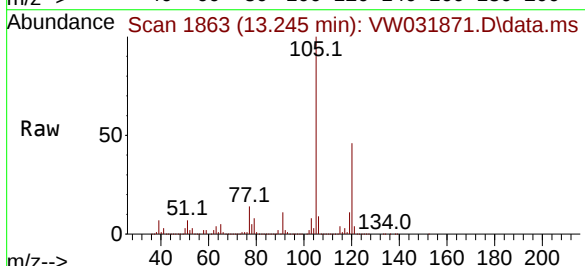
Acq: 16 Jul 2025 12:29

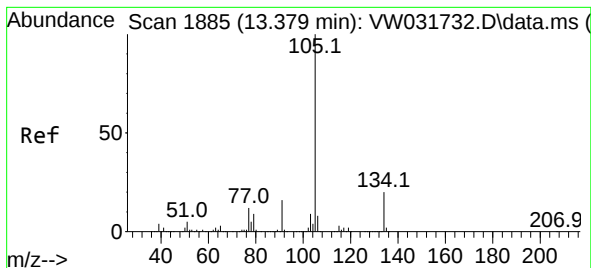
Tgt Ion:105 Resp: 4849698

Ion Ratio Lower Upper

105 100

120 44.8 22.1 66.1





#85

sec-Butylbenzene

Concen: 395.013 ug/l

RT: 13.245 min Scan# 1885

Delta R.T. -0.134 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

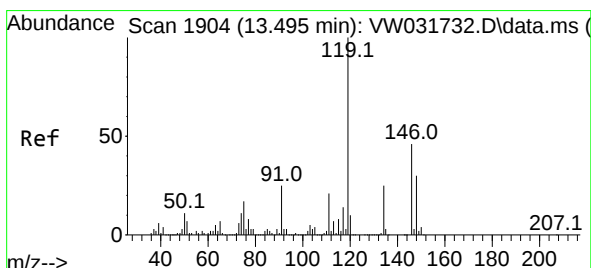
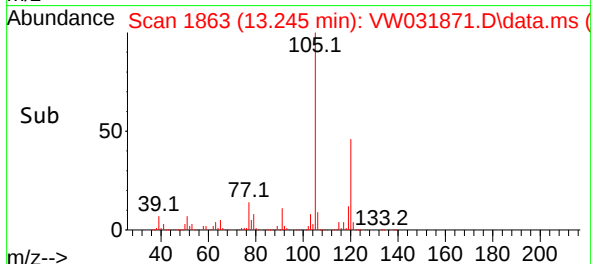
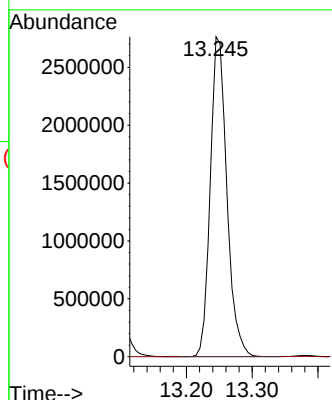
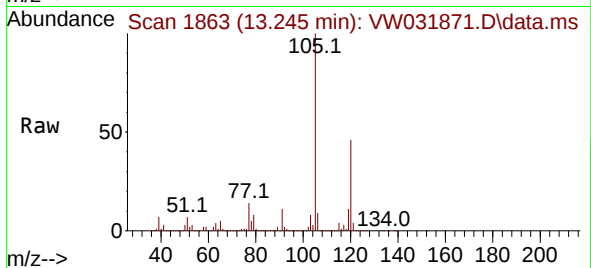
710-C

Tgt Ion:105 Resp: 4849698

Ion Ratio Lower Upper

105 100

134 0.0 9.6 28.8#



#86

p-Isopropyltoluene

Concen: 8.038 ug/l

RT: 13.477 min Scan# 1901

Delta R.T. -0.018 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

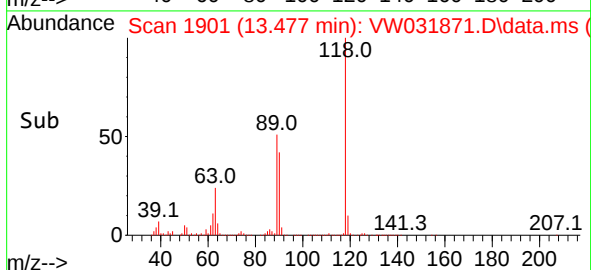
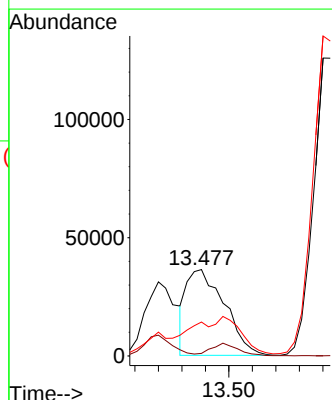
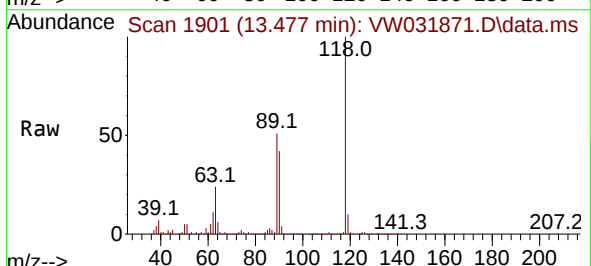
Tgt Ion:119 Resp: 81334

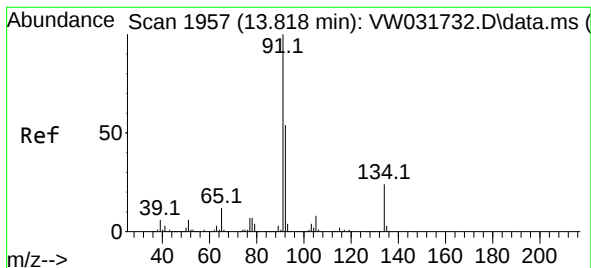
Ion Ratio Lower Upper

119 100

134 10.4 12.9 38.7#

91 54.9 12.7 38.0#





#89

n-Butylbenzene

Concen: 28.299 ug/l

RT: 13.757 min Scan# 1947

Delta R.T. -0.061 min

Lab File: VW031871.D

Acq: 16 Jul 2025 12:29

Instrument :

MSVOA_W

ClientSampleId :

710-C

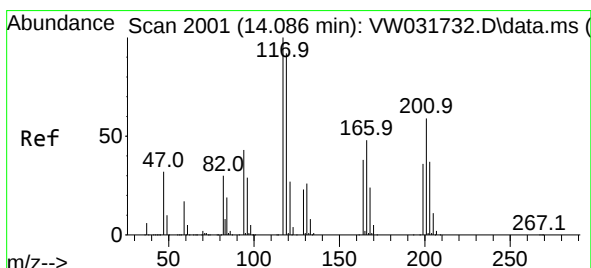
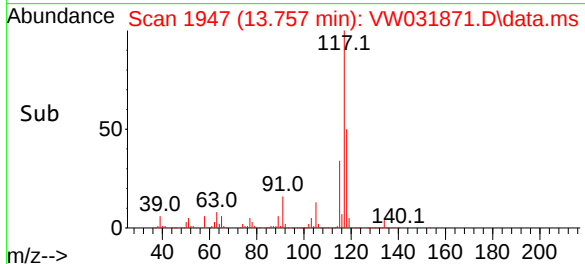
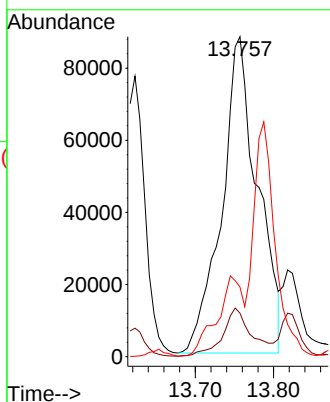
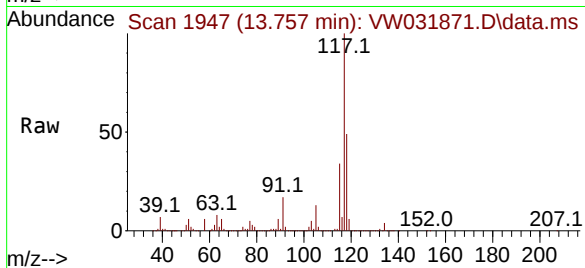
Tgt Ion: 91 Resp: 278203

Ion Ratio Lower Upper

91 100

92 12.0 27.2 81.5#

134 18.4 12.2 36.6



#90

Hexachloroethane

Concen: 49.595 ug/l

RT: 14.031 min Scan# 1992

Delta R.T. -0.055 min

Lab File: VW031871.D

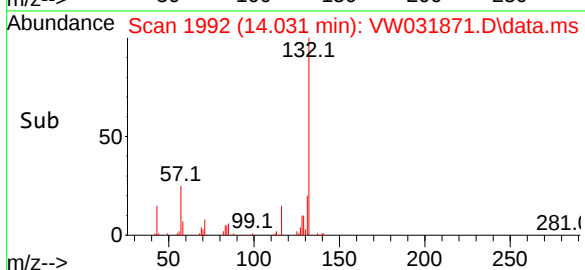
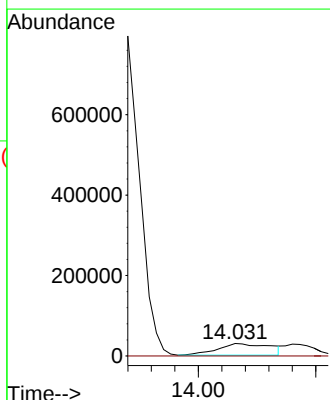
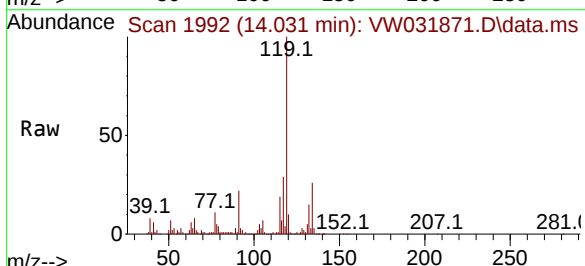
Acq: 16 Jul 2025 12:29

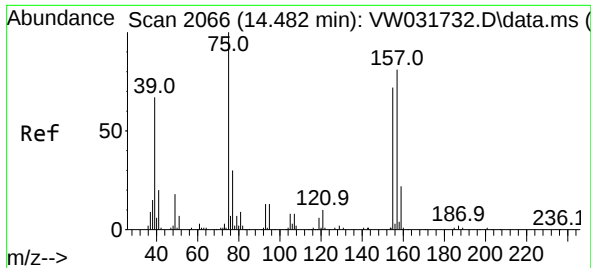
Tgt Ion: 117 Resp: 90532

Ion Ratio Lower Upper

117 100

201 0.0 31.1 93.3#





#92
 1,2-Dibromo-3-Chloropropane
 Concen: 48.720 ug/l
 RT: 14.483 min Scan# 2066
 Delta R.T. 0.000 min
 Lab File: VW031871.D
 Acq: 16 Jul 2025 12:29

Instrument :
 MSVOA_W
 ClientSampleId :
 710-C

Tgt Ion: 75 Resp: 24364
 Ion Ratio Lower Upper
 75 100
 155 0.1 37.2 111.6#
 157 0.0 45.6 136.9#

