

Data Path : Z:\voasrv\HPCHEM1\MSVOA_Y\Data\VY061825\
 Data File : VY022736.D
 Acq On : 18 Jun 2025 13:29
 Operator : SY/MD
 Sample : Q2307-02
 Misc : 5.00g/5.0mL/MSVOA_Y/SOIL/A
 ALS Vial : 10 Sample Multiplier: 1

Instrument :
 MSVOA_Y
 ClientSampleId :
 LINDEN-SAA

Quant Time: Jun 19 04:00:31 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_Y\methods\82Y060225S.M
 Quant Title : SW846 8260
 QLast Update : Tue Jun 10 15:26:14 2025
 Response via : Initial Calibration

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

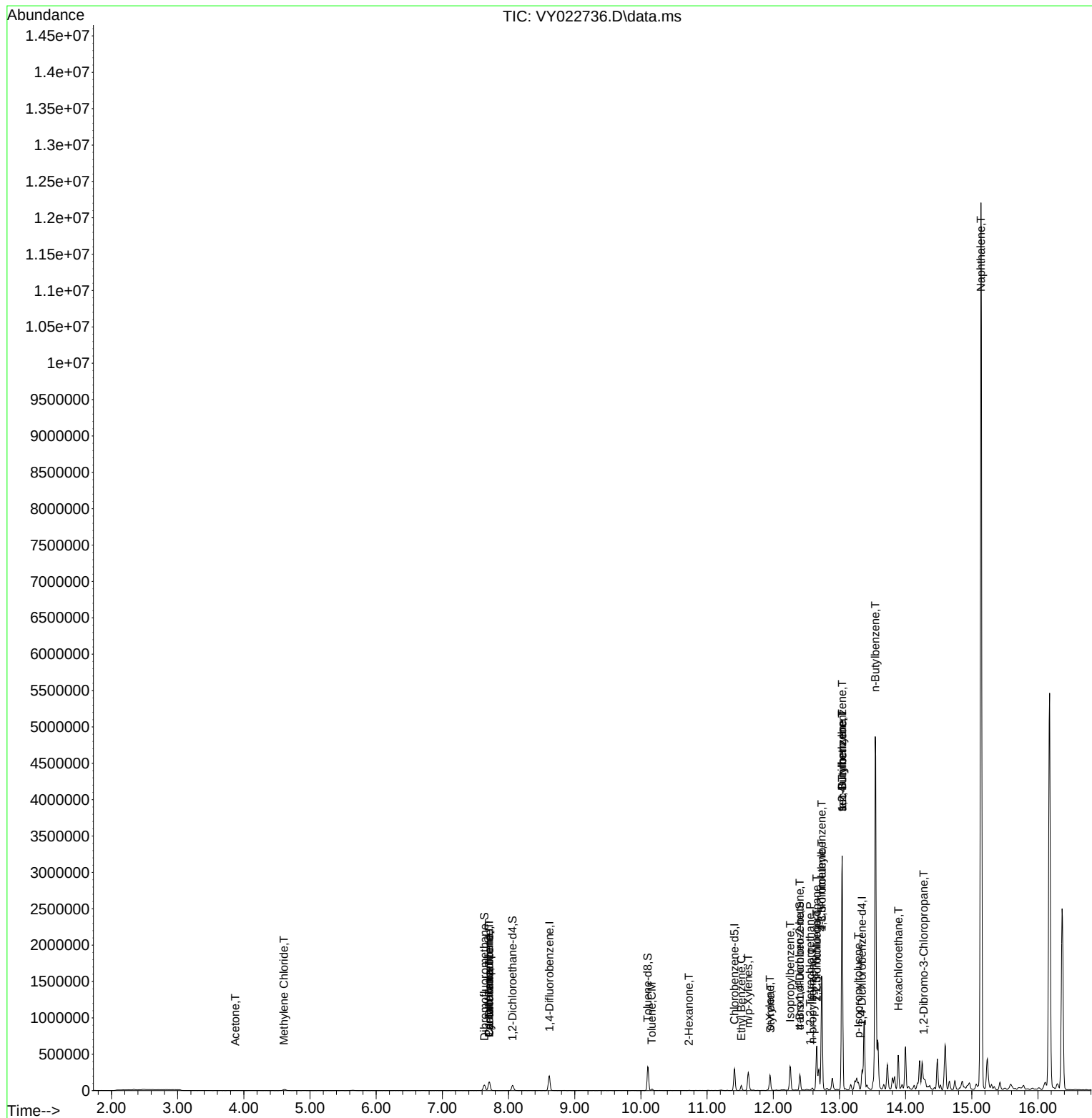
Internal Standards						
1) Pentafluorobenzene	7.707	168	86683	50.000	ug/l	0.00
34) 1,4-Difluorobenzene	8.616	114	163127	50.000	ug/l	0.00
63) Chlorobenzene-d5	11.414	117	144569	50.000	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	13.340	152	60918	50.000	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	8.061	65	53154	54.826	ug/l	0.00
Spiked Amount 50.000	Range 50 - 163		Recovery = 109.660%			
35) Dibromofluoromethane	7.634	113	52299	53.713	ug/l	0.00
Spiked Amount 50.000	Range 54 - 147		Recovery = 107.420%			
50) Toluene-d8	10.103	98	202476	51.465	ug/l	0.00
Spiked Amount 50.000	Range 58 - 134		Recovery = 102.920%			
62) 4-Bromofluorobenzene	12.402	95	57356	48.930	ug/l	0.00
Spiked Amount 50.000	Range 30 - 143		Recovery = 97.860%			
Target Compounds					Qvalue	
16) Acetone	3.873	43	1607	8.162	ug/l #	82
20) Methylene Chloride	4.604	84	11388	10.182	ug/l	98
31) Cyclohexane	7.707	56	2671	1.434	ug/l #	45
36) 1,1-Dichloropropene	7.707	75	7784	4.926	ug/l #	48
38) Carbon Tetrachloride	7.707	117	8754	5.400	ug/l #	18
52) Toluene	10.164	92	8749	2.983	ug/l	100
59) 2-Hexanone	10.725	43	1319	2.599	ug/l #	24
67) Ethyl Benzene	11.518	91	45155	7.610	ug/l	98
68) m/p-Xylenes	11.621	106	69644	30.961	ug/l	99
69) o-Xylene	11.950	106	50806	24.090	ug/l	96
70) Styrene	11.957	104	4267	1.224	ug/l #	1
73) Isopropylbenzene	12.255	105	39333	7.864	ug/l	90
75) 1,1,2,2-Tetrachloroethane	12.560	83	1038	1.265	ug/l #	25
76) 1,2,3-Trichloropropane	12.658	75	3344	4.798	ug/l #	100
78) n-propylbenzene	12.591	91	21155	3.463	ug/l #	54
79) 2-Chlorotoluene	12.658	91	46079	14.232	ug/l #	43
80) 1,3,5-Trimethylbenzene	12.731	105	737753	187.890	ug/l	98
81) trans-1,4-Dichloro-2-b...	12.402	75	34782	120.524	ug/l #	10
82) 4-Chlorotoluene	12.731	91	81942	24.534	ug/l #	41
83) tert-Butylbenzene	13.042	119	188387	53.457	ug/l #	65
84) 1,2,4-Trimethylbenzene	13.042	105	1518547	386.677	ug/l	99
85) sec-Butylbenzene	13.042	105	1518547	281.352	ug/l #	57
86) p-Isopropyltoluene	13.286	119	47393	10.653	ug/l	99
89) n-Butylbenzene	13.542	91	377293	89.386	ug/l #	47
90) Hexachloroethane	13.889	117	24039	27.755	ug/l #	16
92) 1,2-Dibromo-3-Chloropr...	14.273	75	3055	25.563	ug/l #	2
95) Naphthalene	15.139	128	7821243	4116.075	ug/l	98

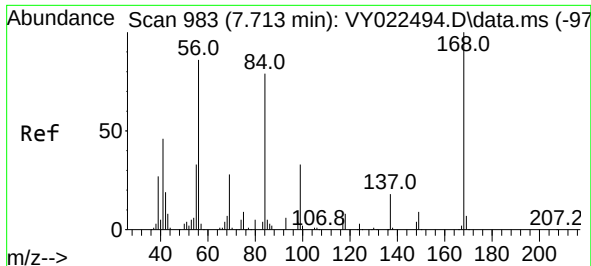
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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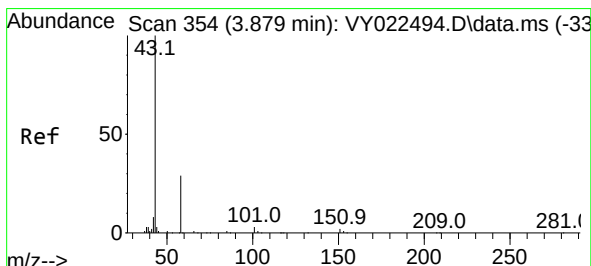
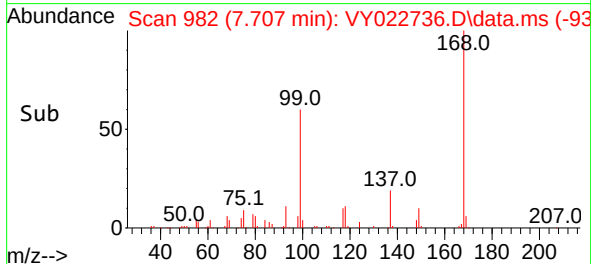
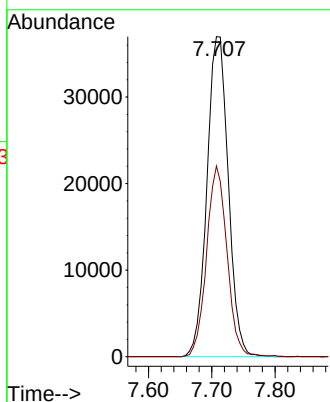
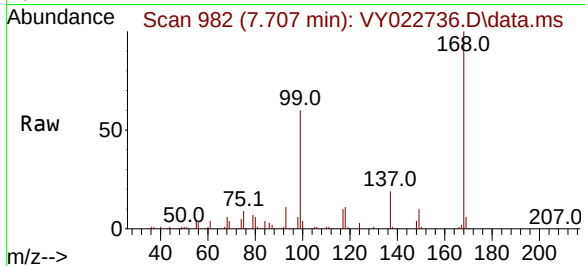




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 7.707 min Scan# 91
Delta R.T. -0.006 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

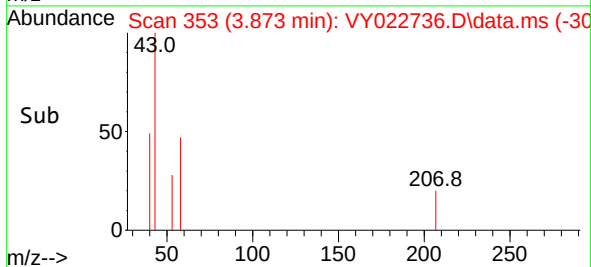
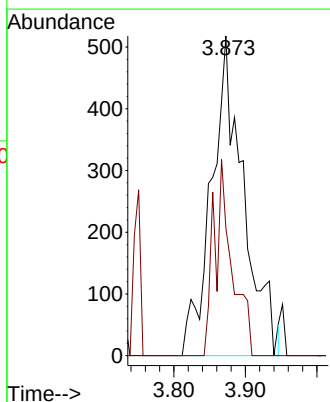
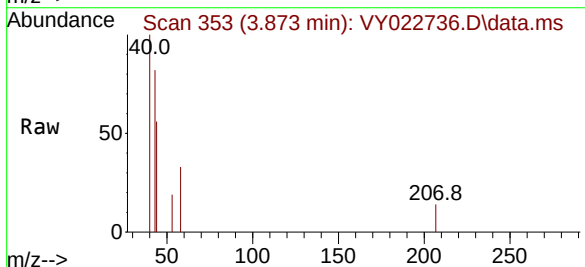
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

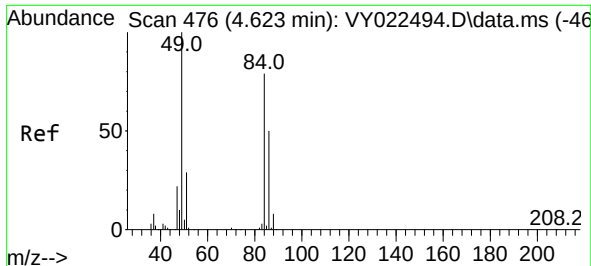
Tgt Ion:168 Resp: 86683
Ion Ratio Lower Upper
168 100
99 59.6 44.3 66.5



#16
Acetone
Concen: 8.162 ug/l
RT: 3.873 min Scan# 353
Delta R.T. -0.006 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion: 43 Resp: 1607
Ion Ratio Lower Upper
43 100
58 40.0 24.0 36.0#

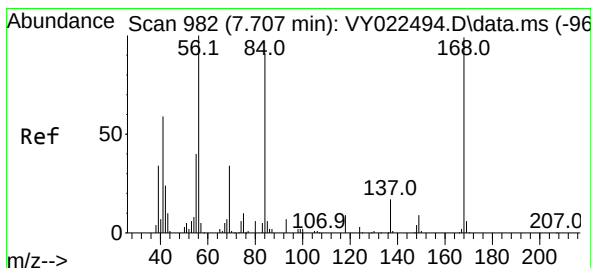
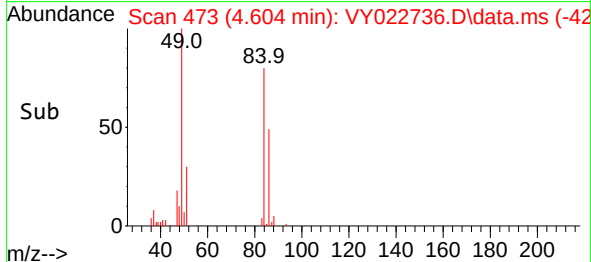
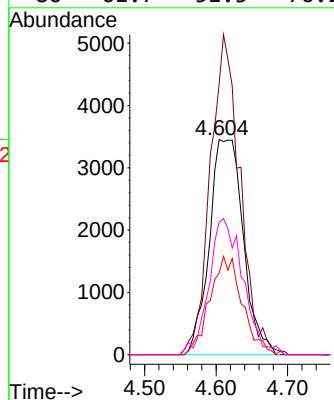
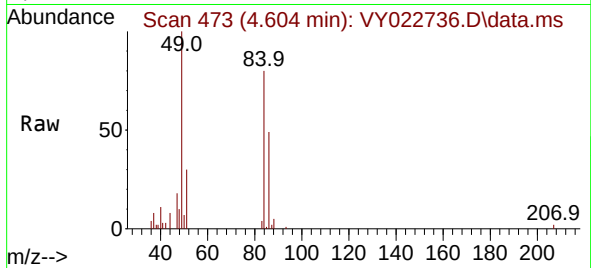




#20
Methylene Chloride
Concen: 10.182 ug/l
RT: 4.604 min Scan# 41
Delta R.T. -0.018 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

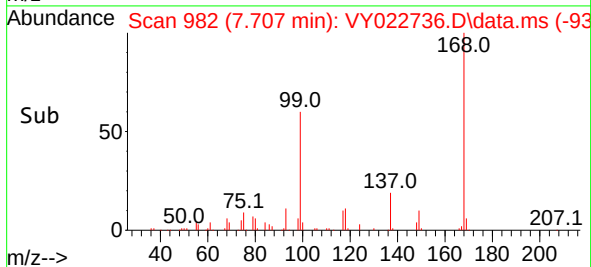
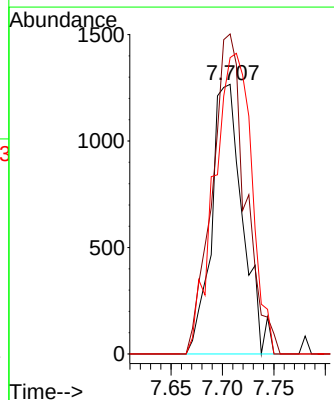
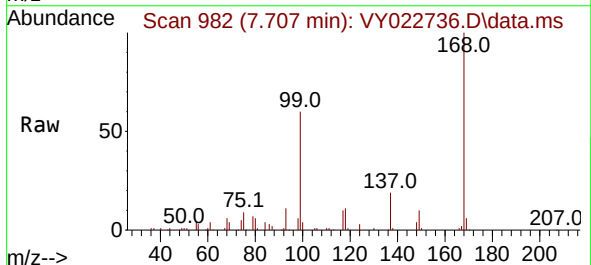
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

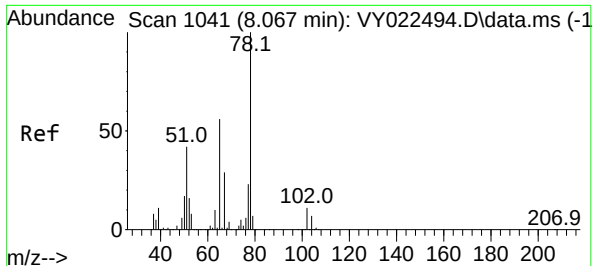
Tgt Ion:	84	Resp:	11388
Ion	Ratio	Lower	Upper
84	100		
49	125.7	101.9	152.9
51	37.9	29.8	44.8
86	61.7	51.3	76.9



#31
Cyclohexane
Concen: 1.434 ug/l
RT: 7.707 min Scan# 982
Delta R.T. 0.000 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion:	56	Resp:	2671
Ion	Ratio	Lower	Upper
56	100		
69	118.7	27.0	40.6#
84	110.0	72.6	109.0#





#33

1,2-Dichloroethane-d4

Concen: 54.826 ug/l

RT: 8.061 min Scan# 1041

Delta R.T. -0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

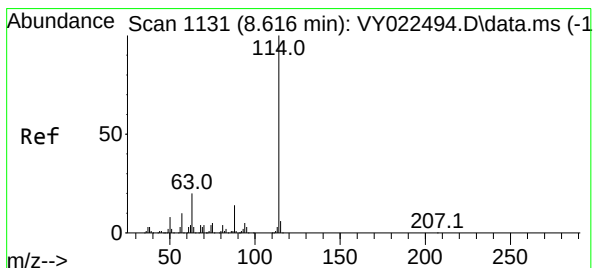
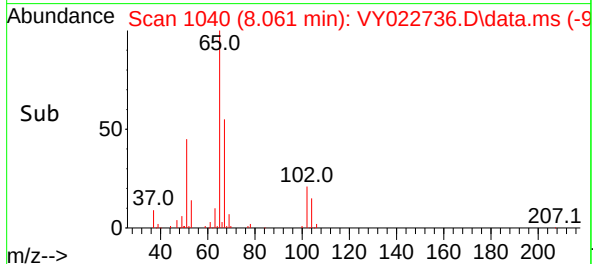
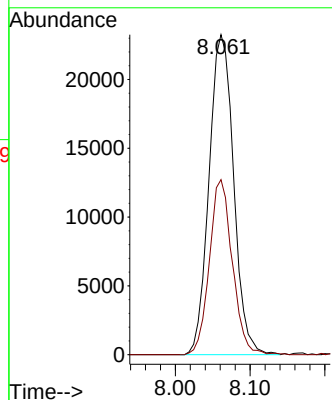
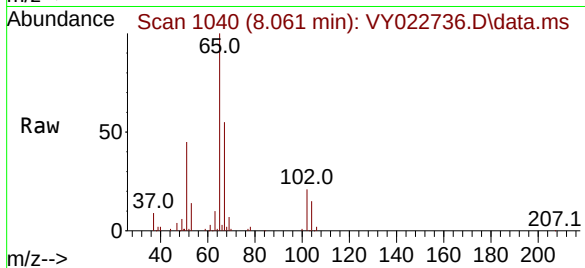
LINDEN-SAA

Tgt Ion: 65 Resp: 53154

Ion Ratio Lower Upper

65 100

67 51.1 0.0 103.4



#34

1,4-Difluorobenzene

Concen: 50.000 ug/l

RT: 8.616 min Scan# 1131

Delta R.T. 0.000 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

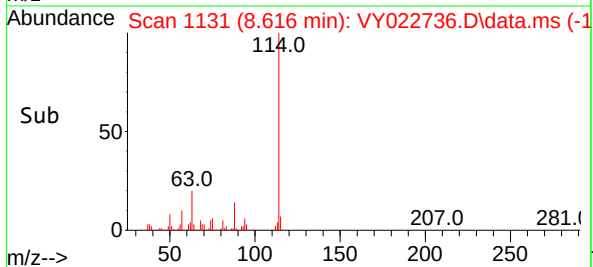
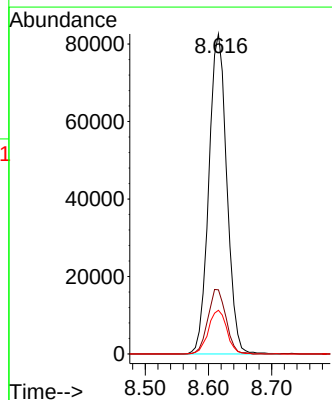
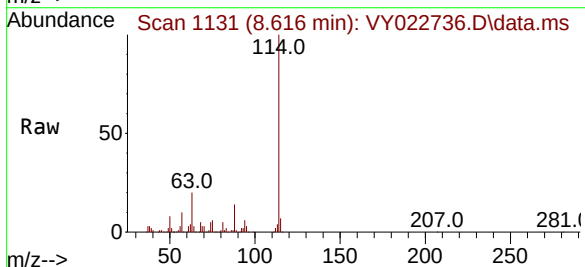
Tgt Ion:114 Resp: 163127

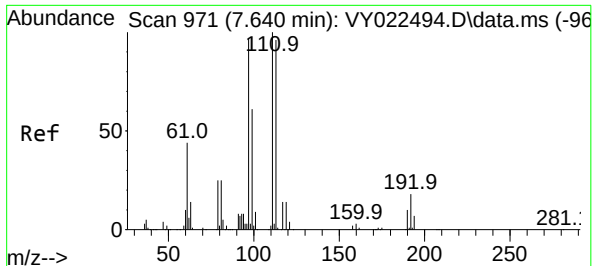
Ion Ratio Lower Upper

114 100

63 20.0 0.0 40.8

88 13.6 0.0 27.8





#35

Dibromofluoromethane

Concen: 53.713 ug/l

RT: 7.634 min Scan# 91

Delta R.T. -0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

LINDEN-SAA

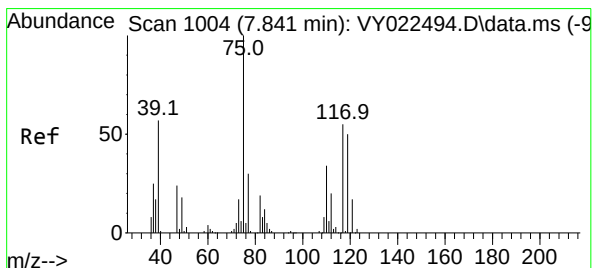
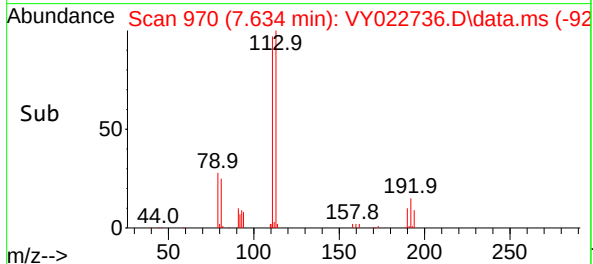
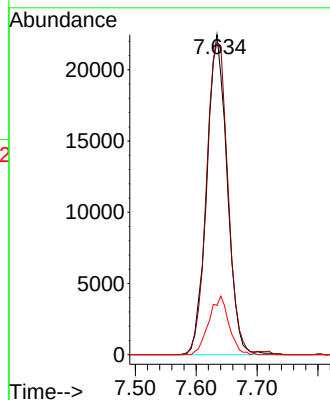
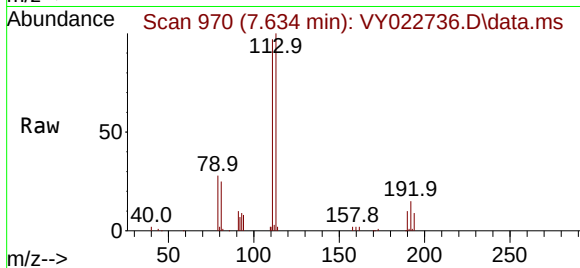
Tgt Ion:113 Resp: 52299

Ion Ratio Lower Upper

113 100

111 102.2 81.1 121.7

192 18.0 14.2 21.2



#36

1,1-Dichloropropene

Concen: 4.926 ug/l

RT: 7.707 min Scan# 982

Delta R.T. -0.134 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

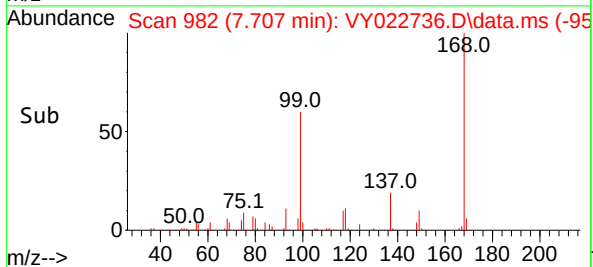
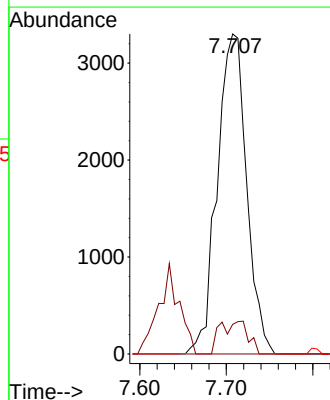
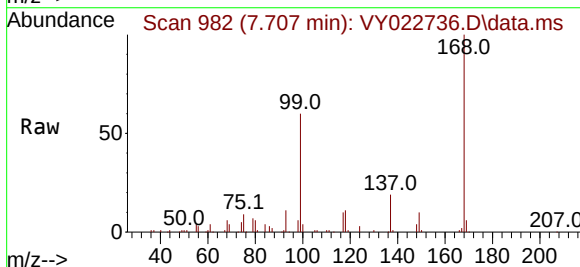
Tgt Ion: 75 Resp: 7784

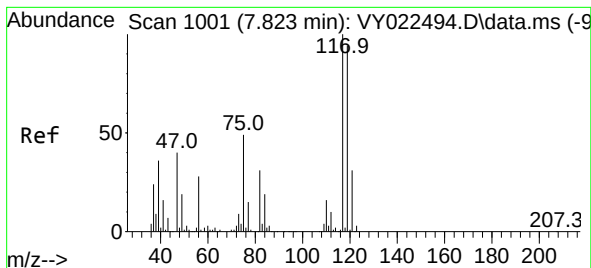
Ion Ratio Lower Upper

75 100

110 5.9 16.9 50.7#

77 0.0 24.8 37.2#





#38

Carbon Tetrachloride

Concen: 5.400 ug/l

RT: 7.707 min Scan# 91

Delta R.T. -0.116 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

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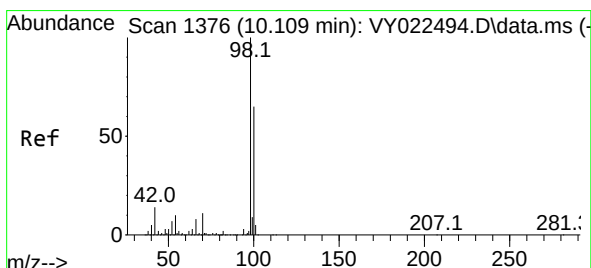
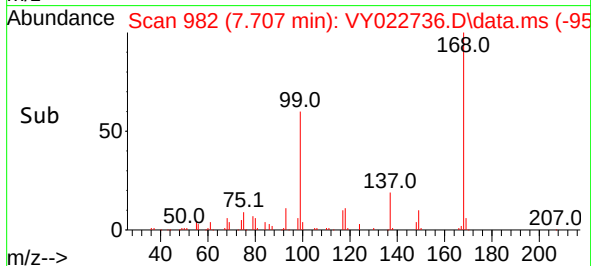
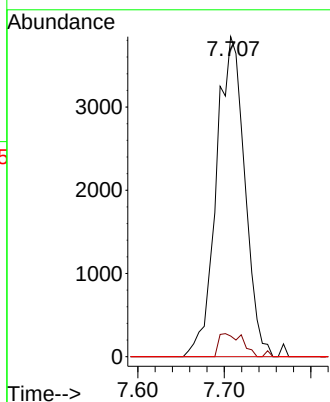
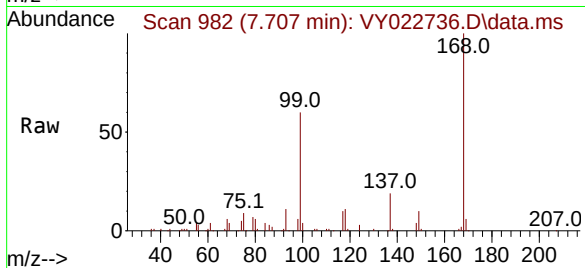
Tgt Ion:117 Resp: 8754

Ion Ratio Lower Upper

117 100

119 6.5 75.0 112.6#

121 0.0 25.0 37.4#



#50

Toluene-d8

Concen: 51.465 ug/l

RT: 10.103 min Scan# 1375

Delta R.T. -0.006 min

Lab File: VY022736.D

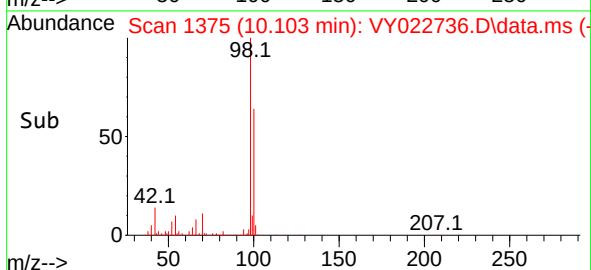
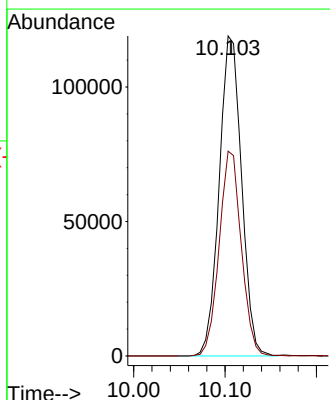
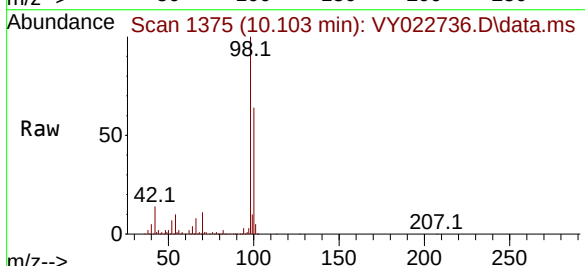
Acq: 18 Jun 2025 13:29

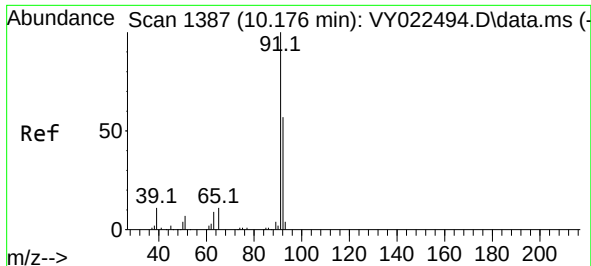
Tgt Ion: 98 Resp: 202476

Ion Ratio Lower Upper

98 100

100 63.4 51.4 77.0

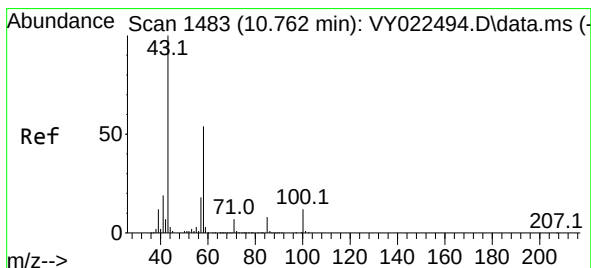
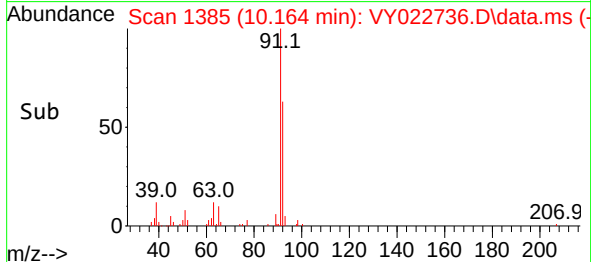
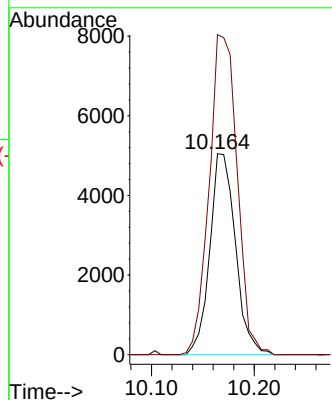
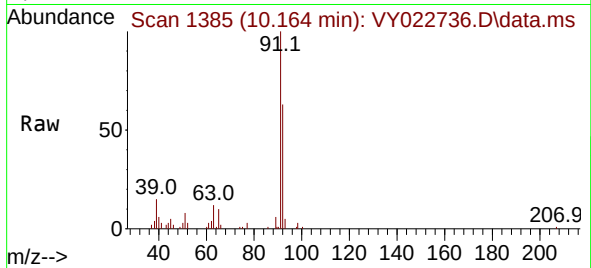




#52
Toluene
Concen: 2.983 ug/l
RT: 10.164 min Scan# 11
Delta R.T. -0.012 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

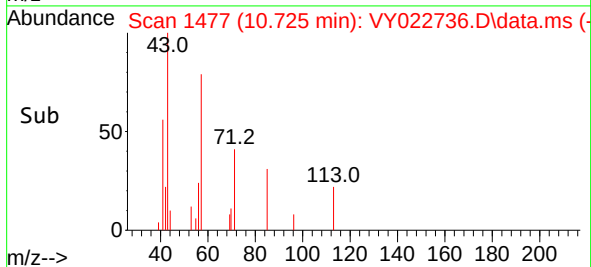
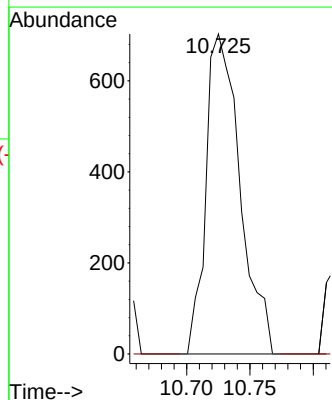
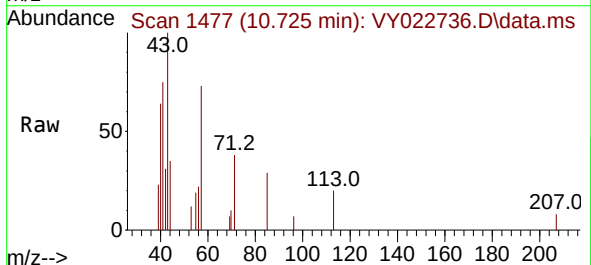
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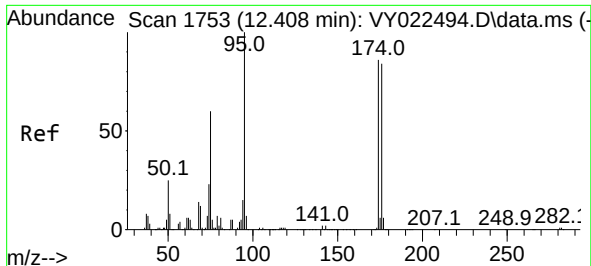
Tgt Ion: 92 Resp: 8749
Ion Ratio Lower Upper
92 100
91 174.1 139.0 208.4



#59
2-Hexanone
Concen: 2.599 ug/l
RT: 10.725 min Scan# 1477
Delta R.T. -0.037 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion: 43 Resp: 1319
Ion Ratio Lower Upper
43 100
58 0.0 27.3 81.8#

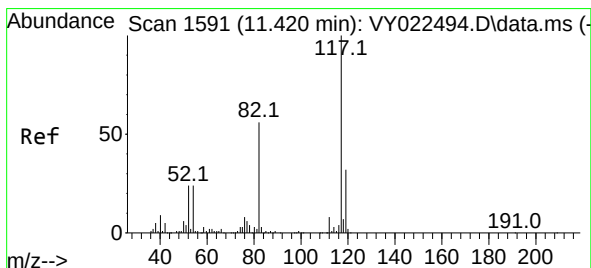
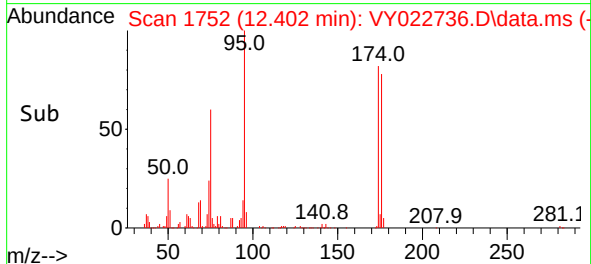
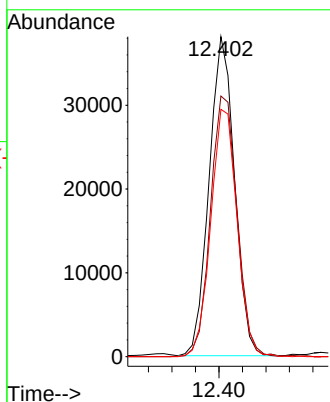
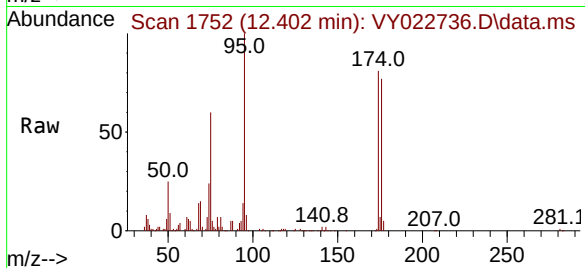




#62
4-Bromofluorobenzene
Concen: 48.930 ug/l
RT: 12.402 min Scan# 1752
Delta R.T. -0.006 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

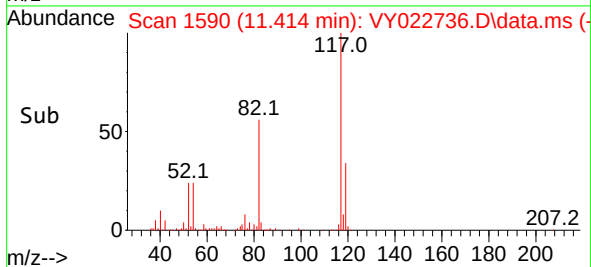
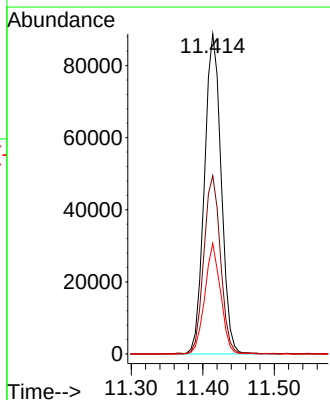
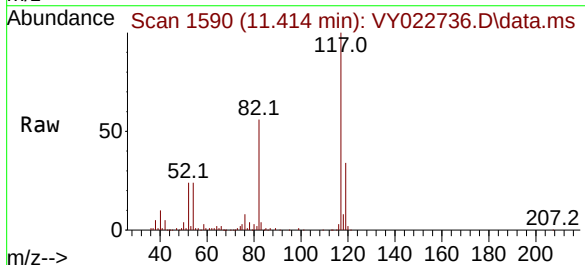
Instrument :
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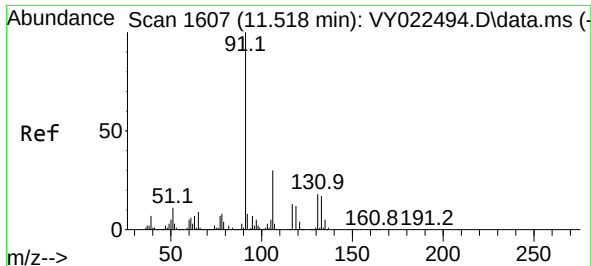
Tgt Ion:	95	Resp:	57356
Ion Ratio	Lower	Upper	
95	100		
174	85.3	0.0	170.0
176	80.2	0.0	166.2



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 11.414 min Scan# 1590
Delta R.T. -0.006 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion:	117	Resp:	144569
Ion Ratio	Lower	Upper	
117	100		
82	55.6	44.6	66.8
119	34.5	25.4	38.0

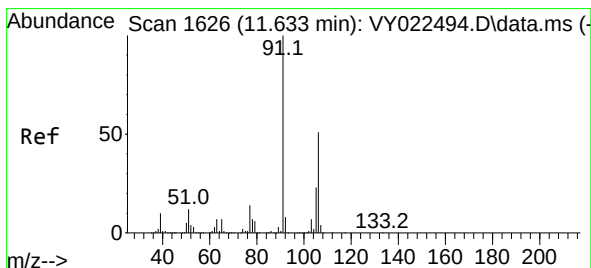
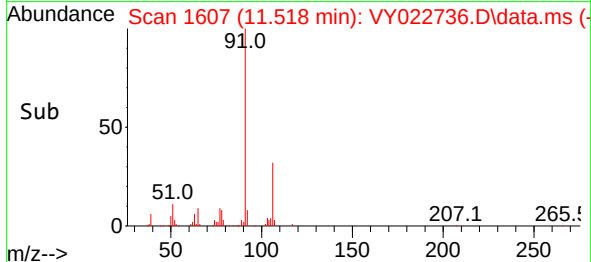
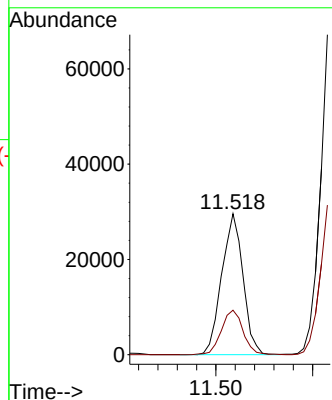
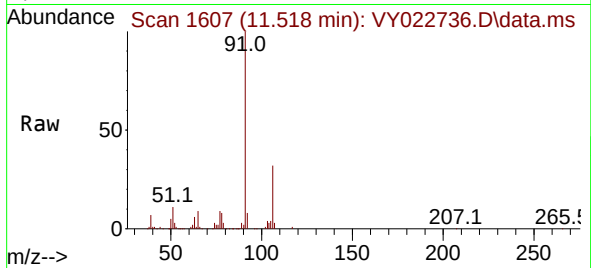




#67
Ethyl Benzene
Concen: 7.610 ug/l
RT: 11.518 min Scan# 1607
Delta R.T. 0.000 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

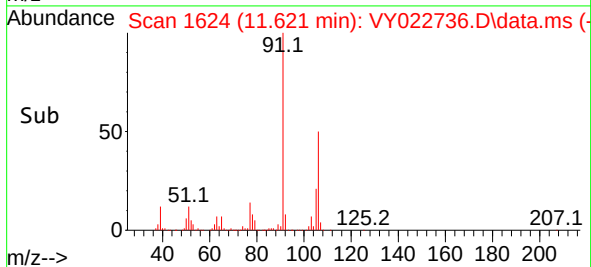
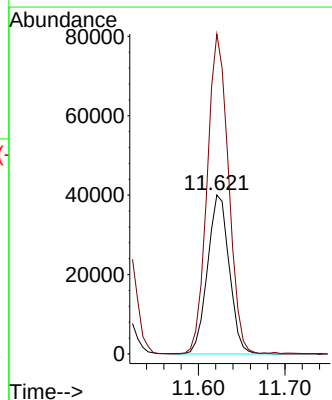
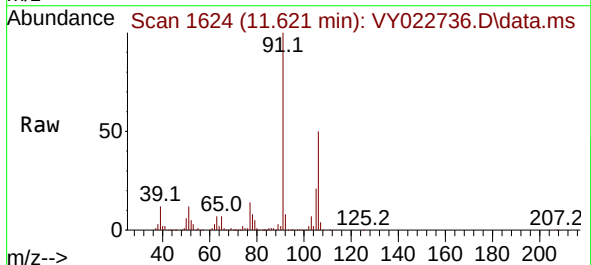
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

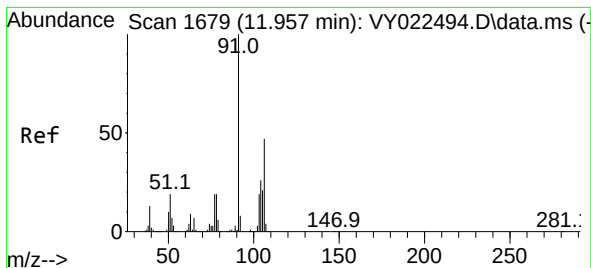
Tgt Ion: 91 Resp: 45155
Ion Ratio Lower Upper
91 100
106 31.6 24.2 36.4



#68
m/p-Xylenes
Concen: 30.961 ug/l
RT: 11.621 min Scan# 1624
Delta R.T. -0.012 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion:106 Resp: 69644
Ion Ratio Lower Upper
106 100
91 198.0 159.4 239.0





#69

o-Xylene

Concen: 24.090 ug/l

RT: 11.950 min Scan# 1

Delta R.T. -0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

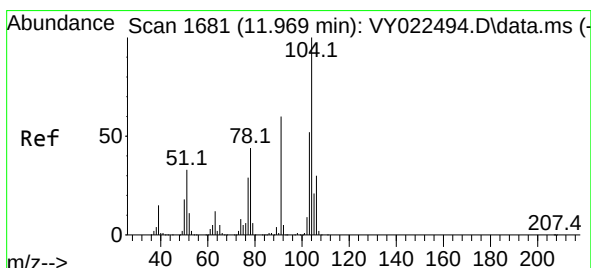
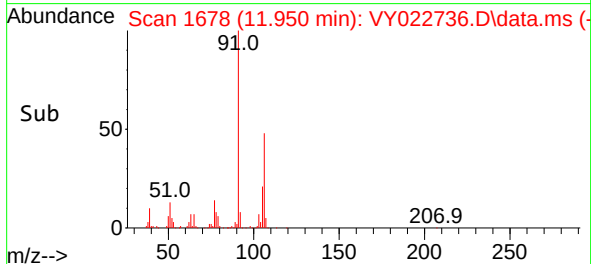
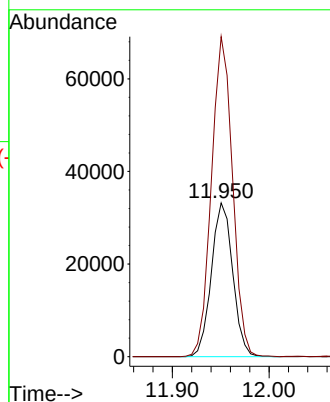
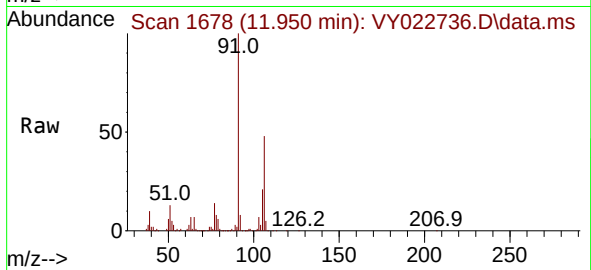
LINDEN-SAA

Tgt Ion:106 Resp: 50806

Ion Ratio Lower Upper

106 100

91 205.8 105.8 317.3



#70

Styrene

Concen: 1.224 ug/l

RT: 11.957 min Scan# 1679

Delta R.T. -0.012 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

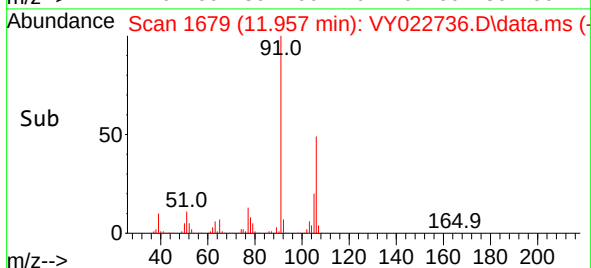
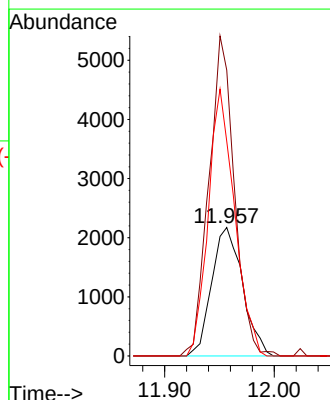
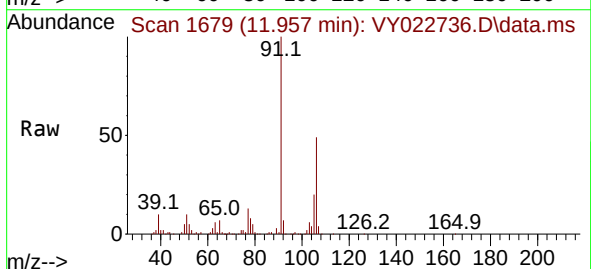
Tgt Ion:104 Resp: 4267

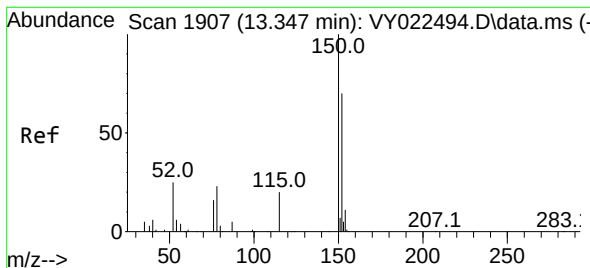
Ion Ratio Lower Upper

104 100

78 206.0 39.5 59.3#

103 176.8 44.1 66.1#





#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.340 min Scan# 1907

Delta R.T. -0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

LINDEN-SAA

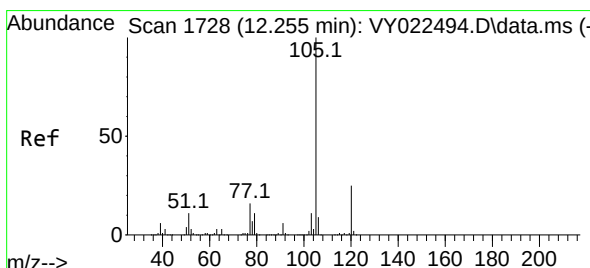
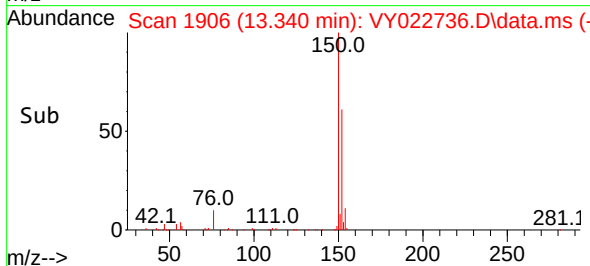
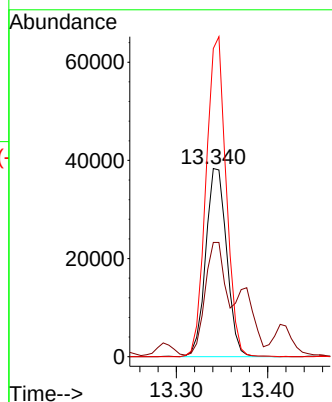
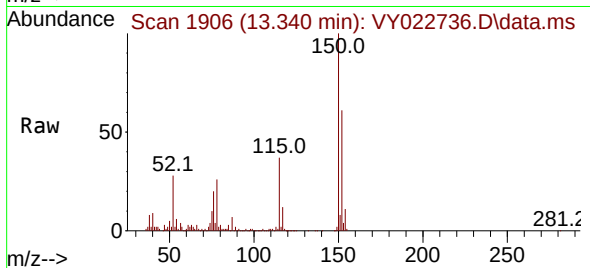
Tgt Ion:152 Resp: 60918

Ion Ratio Lower Upper

152 100

115 59.0 28.9 86.7

150 163.2 0.0 349.6



#73

Isopropylbenzene

Concen: 7.864 ug/l

RT: 12.255 min Scan# 1728

Delta R.T. -0.000 min

Lab File: VY022736.D

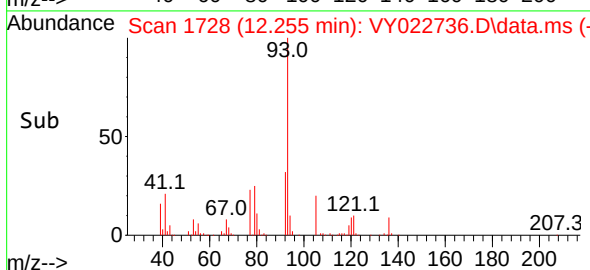
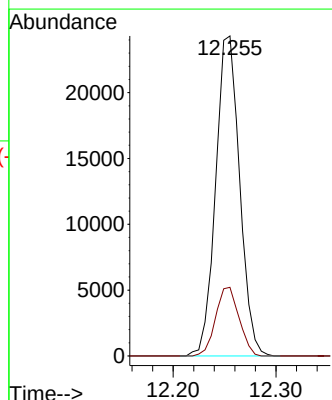
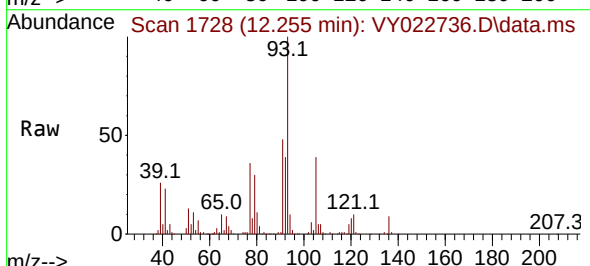
Acq: 18 Jun 2025 13:29

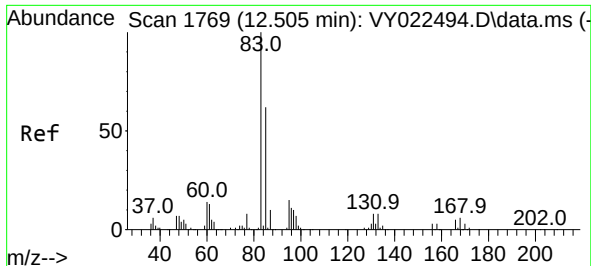
Tgt Ion:105 Resp: 39333

Ion Ratio Lower Upper

105 100

120 20.9 13.0 38.9

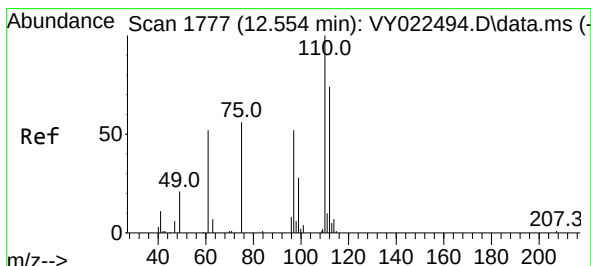
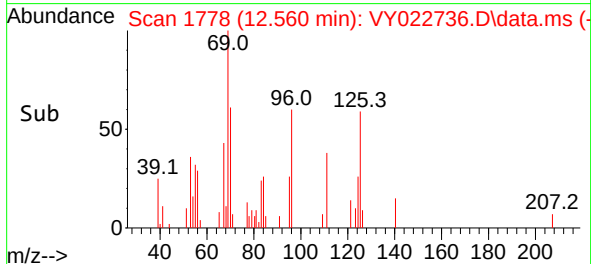
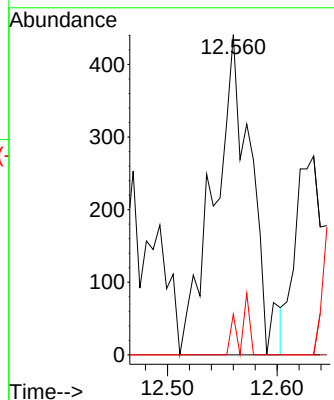
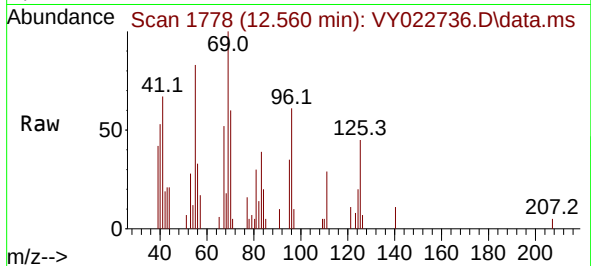




#75
1,1,2,2-Tetrachloroethane
Concen: 1.265 ug/l
RT: 12.560 min Scan# 1794
Delta R.T. 0.055 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

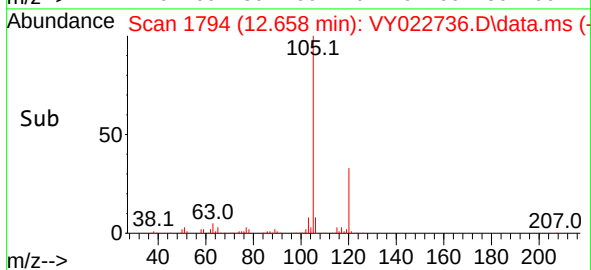
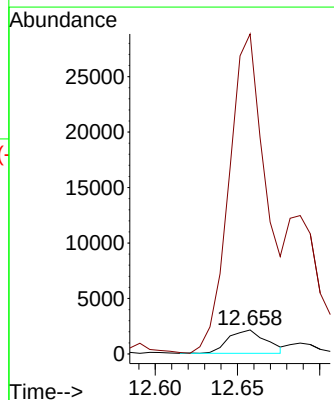
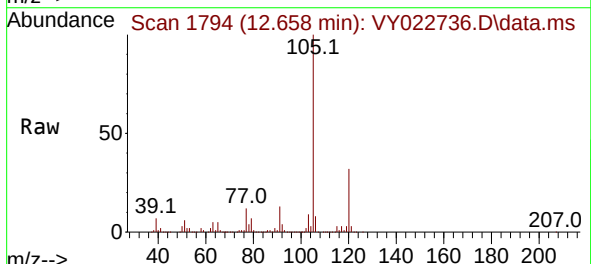
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

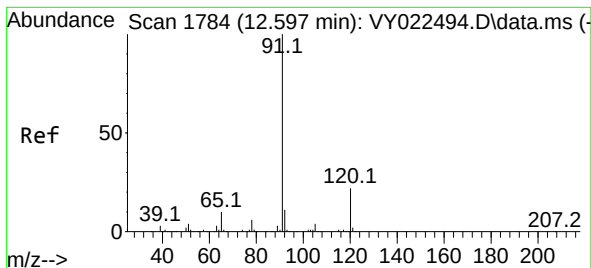
Tgt Ion: 83 Resp: 1038
Ion Ratio Lower Upper
83 100
131 0.0 4.9 14.7#
85 0.0 32.6 97.8#



#76
1,2,3-Trichloropropane
Concen: 4.798 ug/l
RT: 12.658 min Scan# 1794
Delta R.T. 0.104 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion: 75 Resp: 3344
Ion Ratio Lower Upper
75 100
77 1339.6 0.0 0.0#





#78

n-propylbenzene

Concen: 3.463 ug/l

RT: 12.591 min Scan# 1783

Delta R.T. -0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

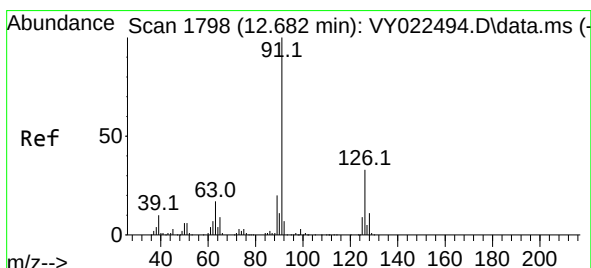
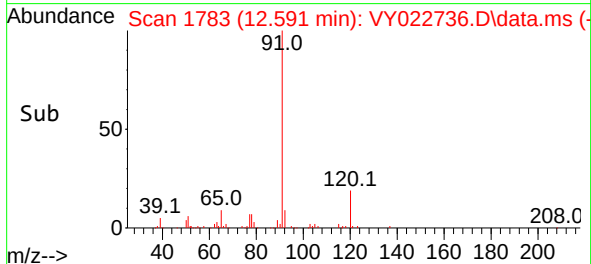
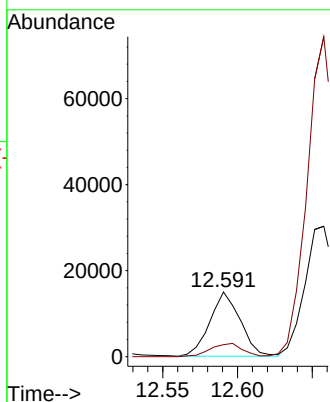
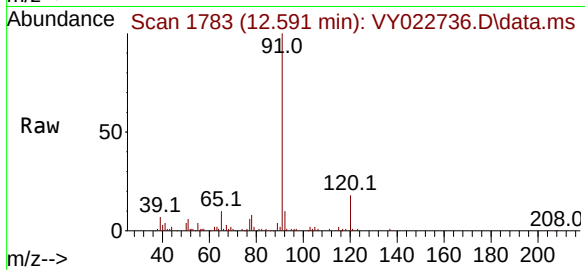
LINDEN-SAA

Tgt Ion: 91 Resp: 21155

Ion Ratio Lower Upper

91 100

120 0.0 10.8 32.4#



#79

2-Chlorotoluene

Concen: 14.232 ug/l

RT: 12.658 min Scan# 1794

Delta R.T. -0.024 min

Lab File: VY022736.D

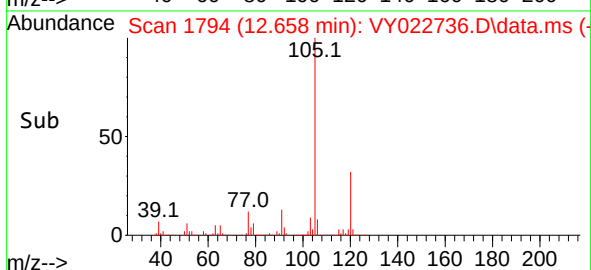
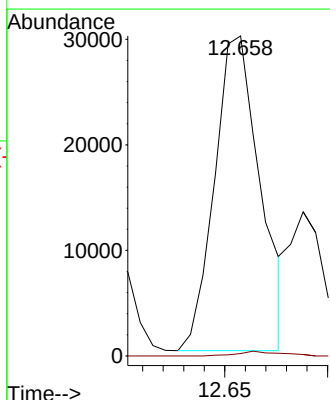
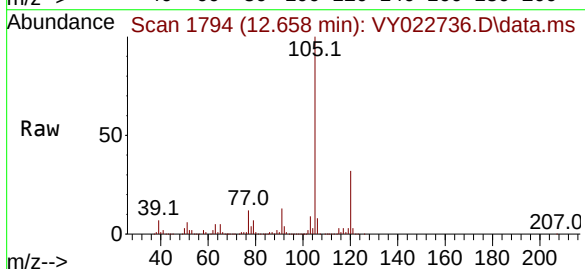
Acq: 18 Jun 2025 13:29

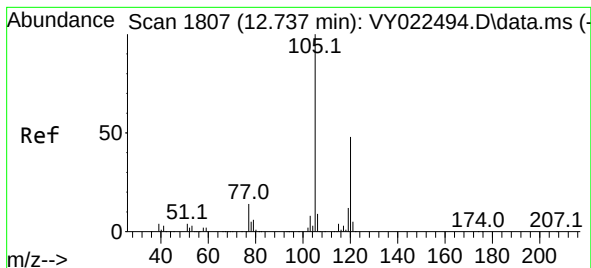
Tgt Ion: 91 Resp: 46079

Ion Ratio Lower Upper

91 100

126 1.4 17.0 51.0#





#80

1,3,5-Trimethylbenzene

Concen: 187.890 ug/l

RT: 12.731 min Scan# 11

Delta R.T. -0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

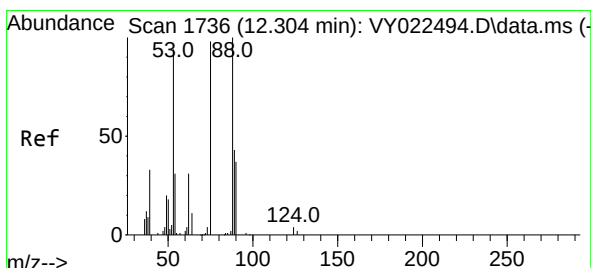
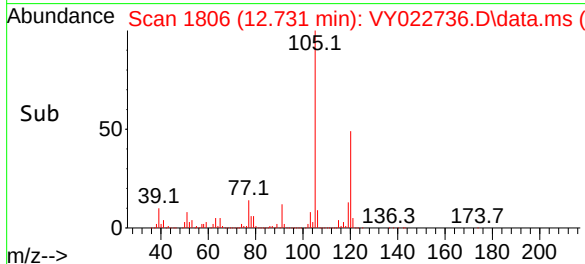
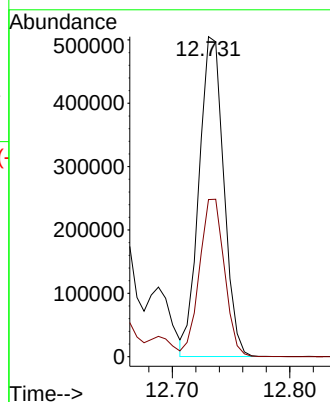
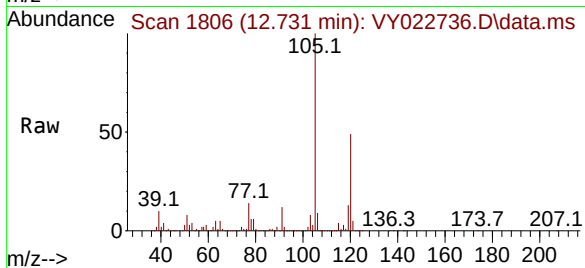
LINDEN-SAA

Tgt Ion:105 Resp: 737753

Ion Ratio Lower Upper

105 100

120 49.8 24.1 72.4



#81

trans-1,4-Dichloro-2-butene

Concen: 120.524 ug/l

RT: 12.402 min Scan# 1752

Delta R.T. 0.098 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

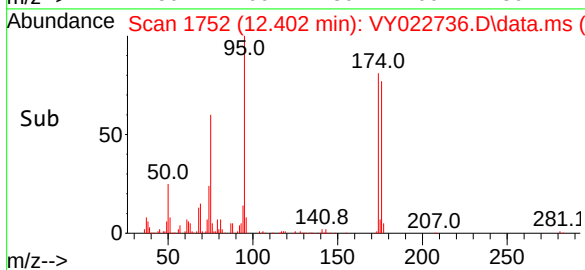
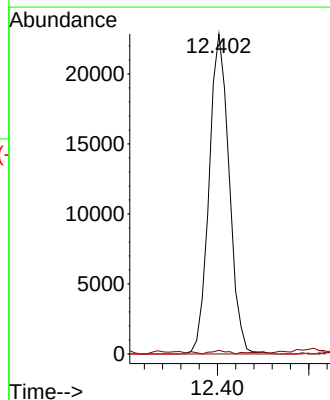
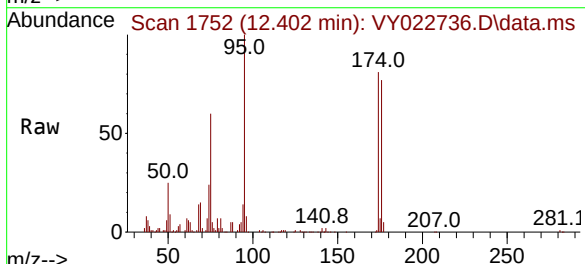
Tgt Ion: 75 Resp: 34782

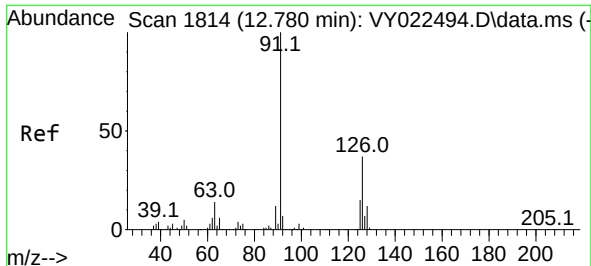
Ion Ratio Lower Upper

75 100

53 0.0 78.5 117.7#

89 0.0 35.7 53.5#

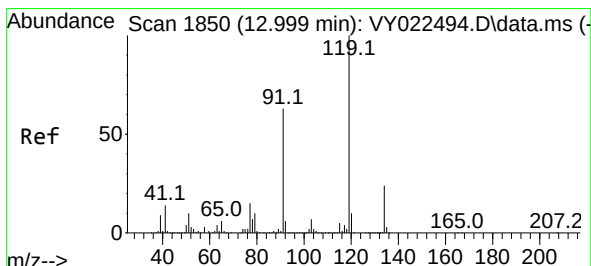
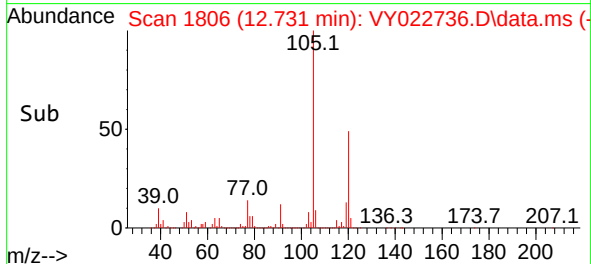
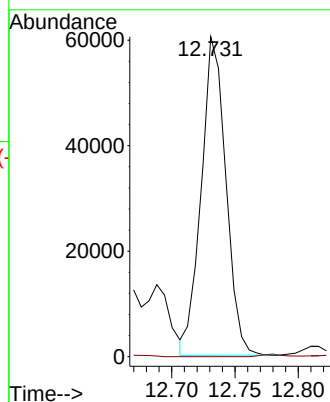
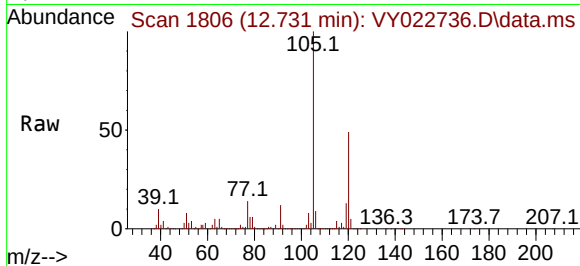




#82
4-Chlorotoluene
Concen: 24.534 ug/l
RT: 12.731 min Scan# 1806
Delta R.T. -0.049 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

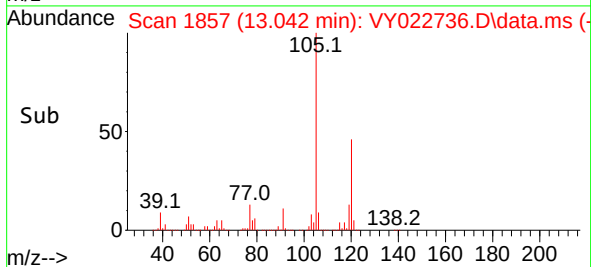
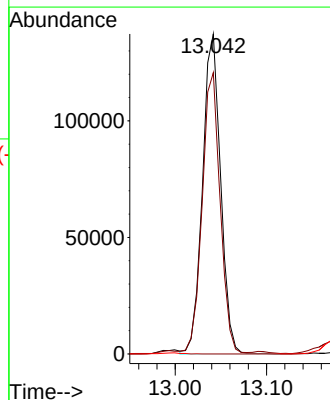
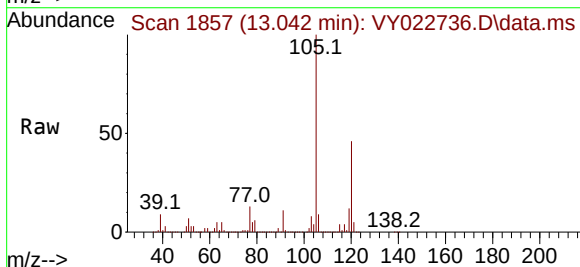
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

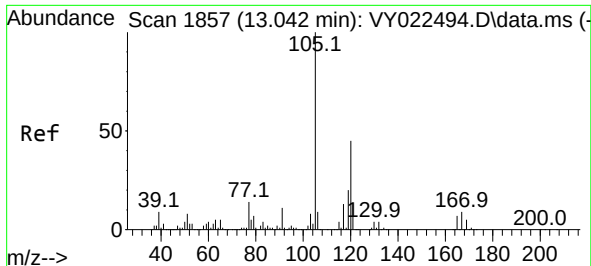
Tgt Ion: 91 Resp: 81942
Ion Ratio Lower Upper
91 100
126 0.0 17.0 50.9#



#83
tert-Butylbenzene
Concen: 53.457 ug/l
RT: 13.042 min Scan# 1857
Delta R.T. 0.043 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion: 119 Resp: 188387
Ion Ratio Lower Upper
119 100
91 86.4 32.1 96.3
134 0.0 13.0 38.9#

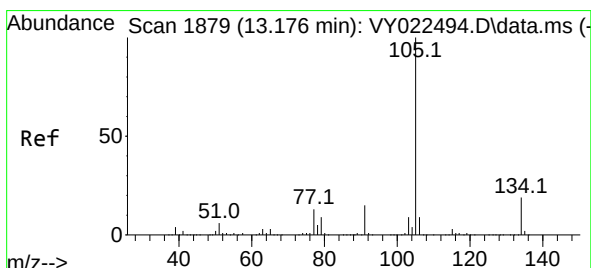
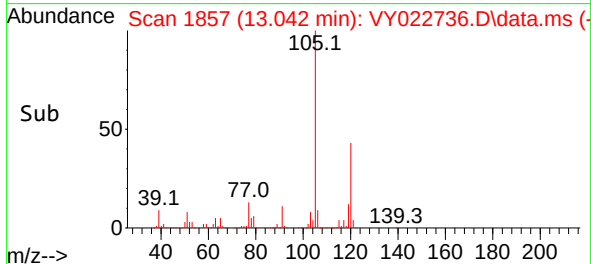
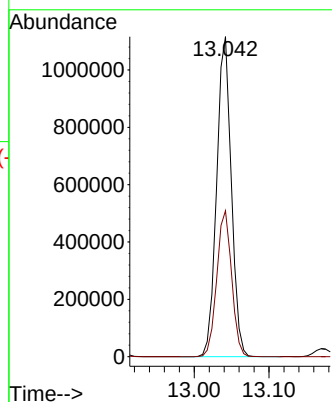
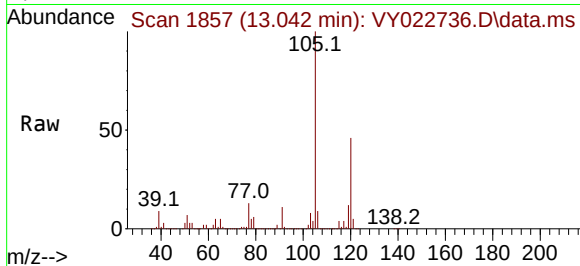




#84
1,2,4-Trimethylbenzene
Concen: 386.677 ug/l
RT: 13.042 min Scan# 1857
Delta R.T. 0.000 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

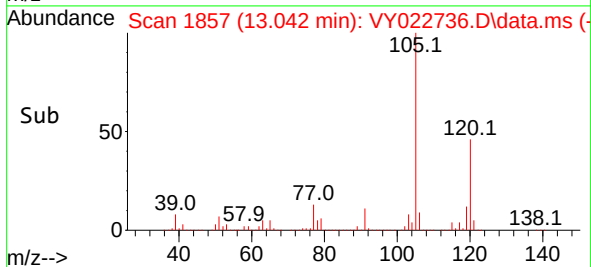
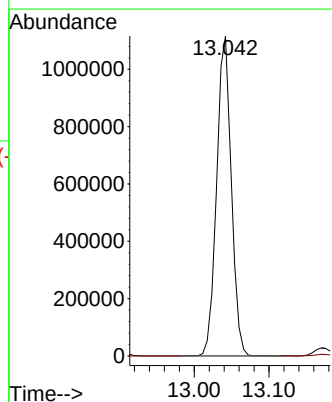
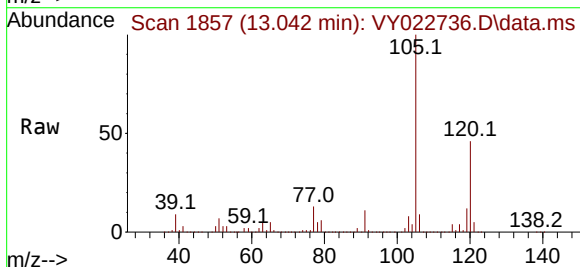
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

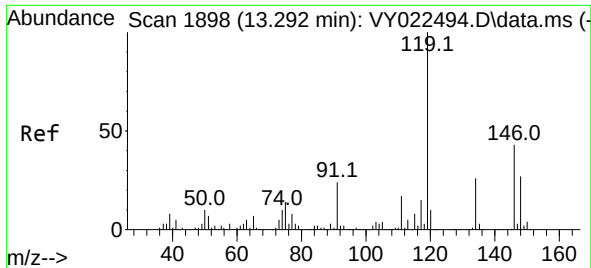
Tgt Ion:105 Resp: 1518547
Ion Ratio Lower Upper
105 100
120 46.2 22.7 68.1



#85
sec-Butylbenzene
Concen: 281.352 ug/l
RT: 13.042 min Scan# 1857
Delta R.T. -0.134 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion:105 Resp: 1518547
Ion Ratio Lower Upper
105 100
134 0.0 9.7 28.9#

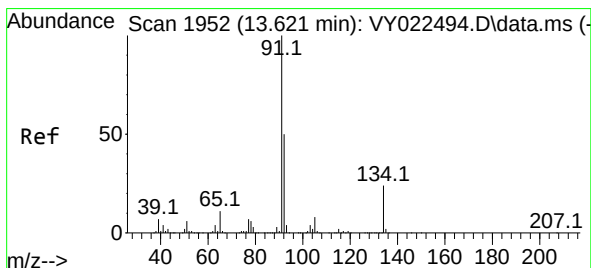
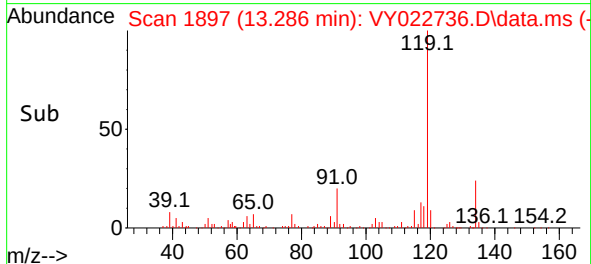
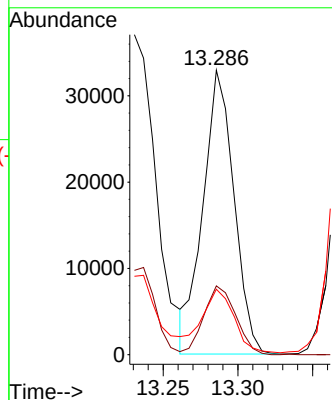
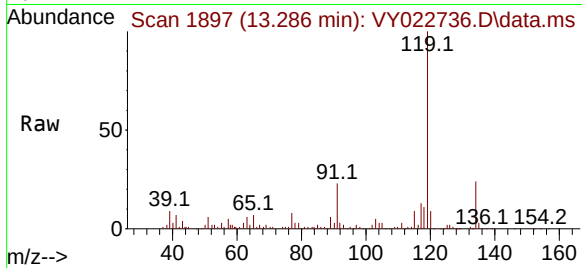




#86
p-Isopropyltoluene
Concen: 10.653 ug/l
RT: 13.286 min Scan# 1199
Delta R.T. -0.006 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

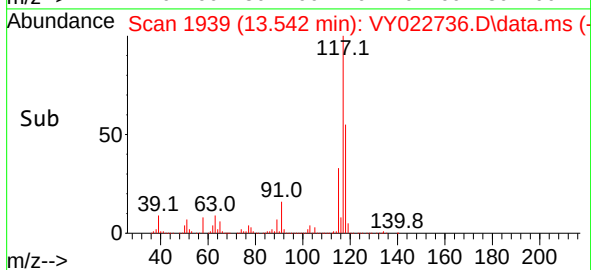
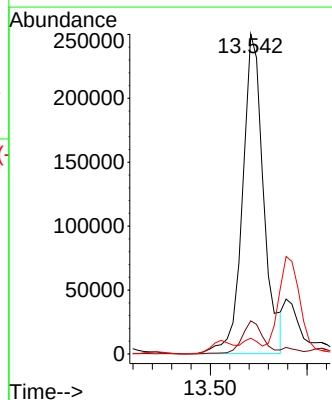
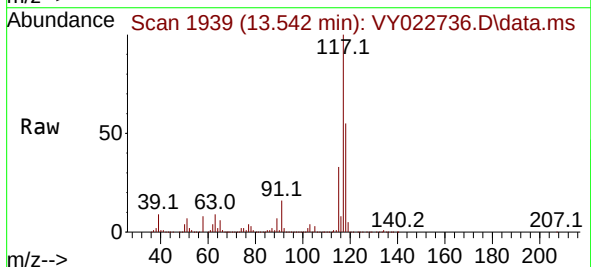
Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

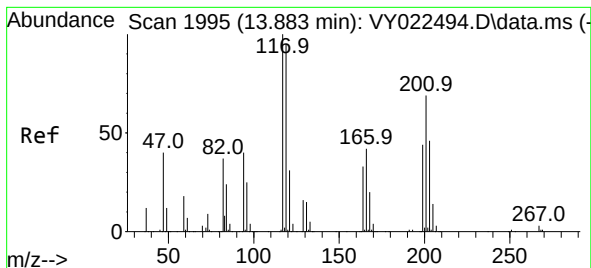
Tgt Ion:119 Resp: 47393
Ion Ratio Lower Upper
119 100
134 25.0 13.1 39.1
91 23.5 11.6 34.8



#89
n-Butylbenzene
Concen: 89.386 ug/l
RT: 13.542 min Scan# 1939
Delta R.T. -0.079 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Tgt Ion: 91 Resp: 377293
Ion Ratio Lower Upper
91 100
92 10.5 25.9 77.8#
134 3.7 12.0 36.1#





#90

Hexachloroethane

Concen: 27.755 ug/l

RT: 13.889 min Scan# 1995

Delta R.T. 0.006 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

Instrument :

MSVOA_Y

ClientSampleId :

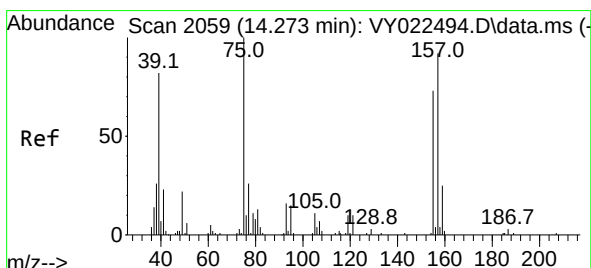
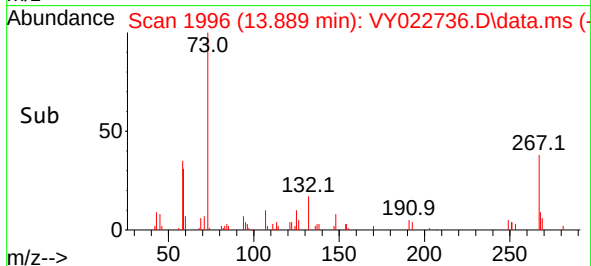
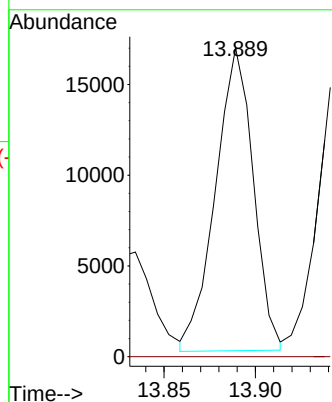
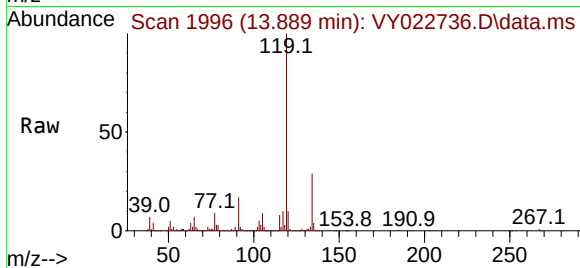
LINDEN-SAA

Tgt Ion:117 Resp: 24039

Ion Ratio Lower Upper

117 100

201 0.0 34.0 102.0#



#92

1,2-Dibromo-3-Chloropropane

Concen: 25.563 ug/l

RT: 14.273 min Scan# 2059

Delta R.T. 0.000 min

Lab File: VY022736.D

Acq: 18 Jun 2025 13:29

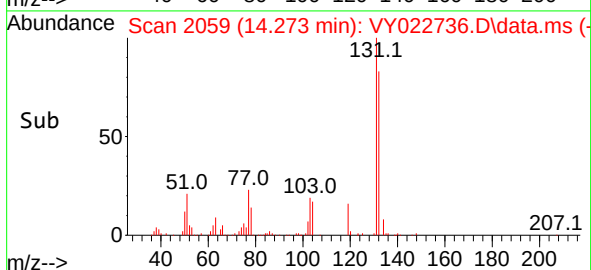
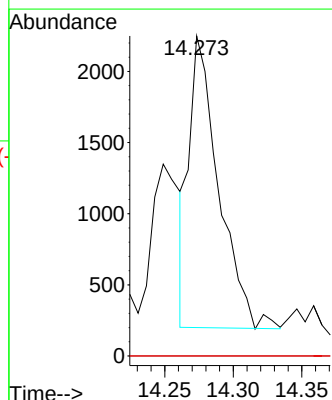
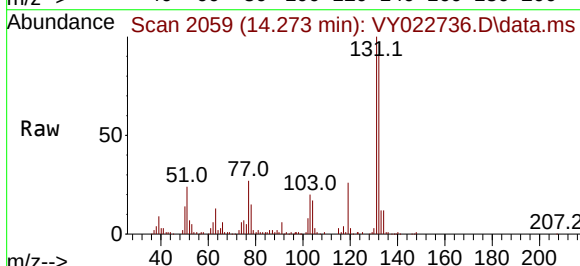
Tgt Ion: 75 Resp: 3055

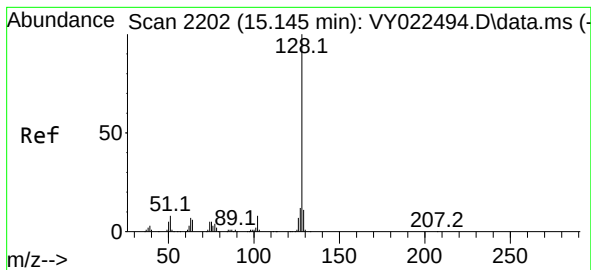
Ion Ratio Lower Upper

75 100

155 0.0 39.9 119.6#

157 0.0 54.0 162.0#





#95
Naphthalene
Concen: 4116.075 ug/l
RT: 15.139 min Scan# 21
Delta R.T. -0.006 min
Lab File: VY022736.D
Acq: 18 Jun 2025 13:29

Instrument :
MSVOA_Y
ClientSampleId :
LINDEN-SAA

Tgt Ion:128 Resp: 7821243
Ion Ratio Lower Upper
128 100
127 13.9 10.4 15.6
129 11.6 8.9 13.3

