

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL040825\
 Data File : VL042266.D
 Acq On : 08 Apr 2025 16:27
 Operator : SY/MD
 Sample : Q1728-09 10X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-B2-1-04022025

Quant Time: Apr 09 01:57:22 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Mar 28 02:00:52 2025
 Response via : Initial Calibration

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

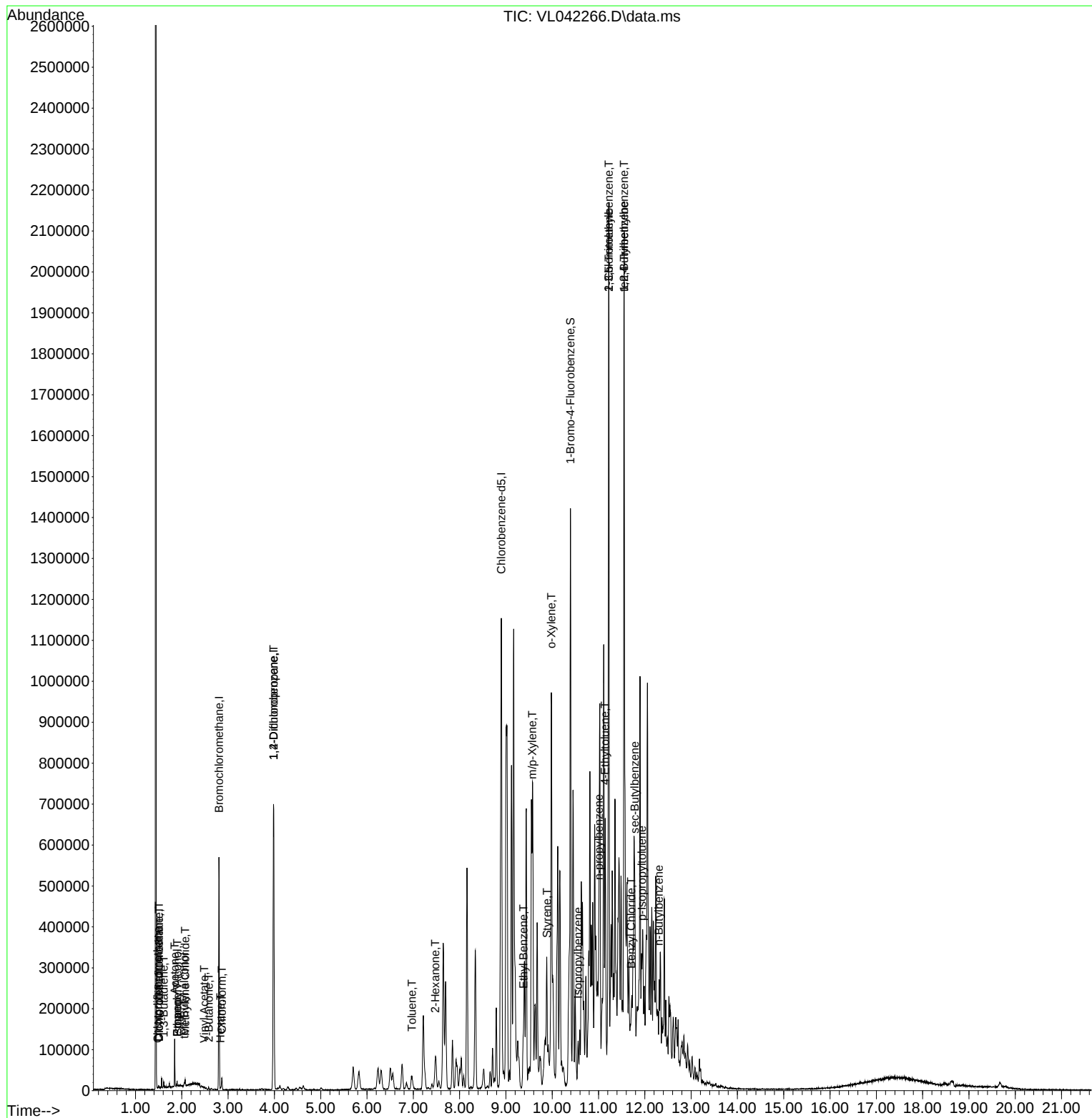
Internal Standards						
1) Bromochloromethane	2.803	49	157346	10.000	ppbv	0.02
33) 1,4-Difluorobenzene	3.981	114	411449	10.000	ppbv	0.03
55) Chlorobenzene-d5	8.901	117	406705	10.000	ppbv	0.03
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.393	95	320156	9.586	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.900%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.505	85	1345	0.058	ppbv	89
3) Chlorodifluoromethane	1.483	51	741	0.031	ppbv #	75
8) Dichlorotetrafluoroethane	1.505	85	1345	0.068	ppbv #	20
9) Propene	1.900	41	901	0.083	ppbv	94
13) Ethanol	1.900	45	5113	4.972	ppbv #	27
15) Acetone	1.845	43	47368	2.153	ppbv	98
16) 1,3-Butadiene	1.609	39	1300	0.121	ppbv #	39
17) tert-Butyl alcohol	2.055	59	2485	0.091	ppbv #	92
19) Isopropyl Alcohol	1.900	45	5113	0.412	ppbv #	1
20) Methylene Chloride	2.075	84	2047	0.250	ppbv #	76
23) Vinyl Acetate	2.486	43	755	0.079	ppbv #	30
26) Hexane	2.839	57	912	0.041	ppbv #	29
29) Chloroform	2.865	83	11335	0.351	ppbv	91
34) 2-Butanone	2.580	43	3906	0.131	ppbv	93
39) 1,2-Dichloropropane	3.981	63	106607	7.176	ppbv #	24
51) 2-Hexanone	7.477	43	22452	0.578	ppbv #	38
53) Toluene	6.969	91	8154	0.169	ppbv #	20
58) Ethyl Benzene	9.377	91	39620	0.548	ppbv	100
59) m/p-Xylene	9.568	91	164440	2.851	ppbv #	31
60) o-Xylene	9.982	91	421737	7.293	ppbv	98
61) Styrene	9.888	104	1012	0.035	ppbv #	1
62) Isopropylbenzene	10.555	105	34792	0.402	ppbv	100
64) n-propylbenzene	11.005	120	11288	0.507	ppbv	83
65) tert-Butylbenzene	11.552	119	84175	1.052	ppbv #	69
66) Benzyl Chloride	11.704	91	1300	0.153	ppbv #	87
67) sec-Butylbenzene	11.782	105	31349	0.282	ppbv #	67
69) p-Isopropyltoluene	11.940	119	38407	0.401	ppbv	98
70) n-Butylbenzene	12.306	91	13566	0.139	ppbv #	1
71) 2-Chlorotoluene	11.218	91	53058	0.791	ppbv	75
72) 4-Ethyltoluene	11.141	105	180705	2.510	ppbv #	55
73) 1,3,5-Trimethylbenzene	11.222	105	423292	6.731	ppbv	97
74) 1,2,4-Trimethylbenzene	11.552	105	713955	9.855	ppbv #	66

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

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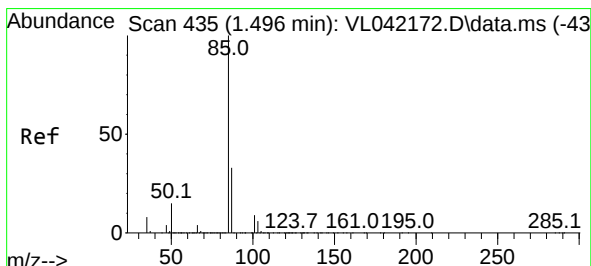
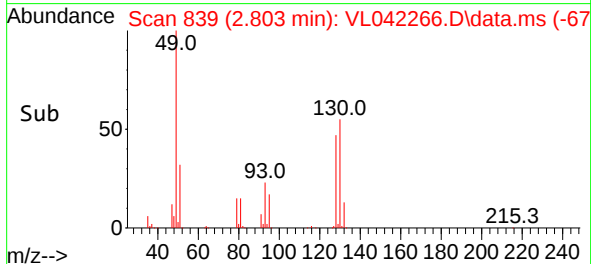
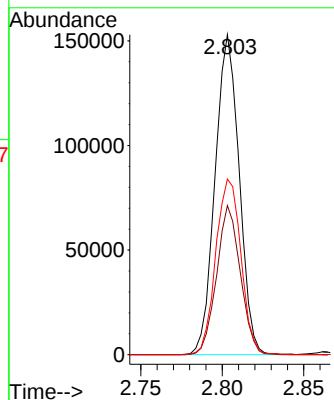
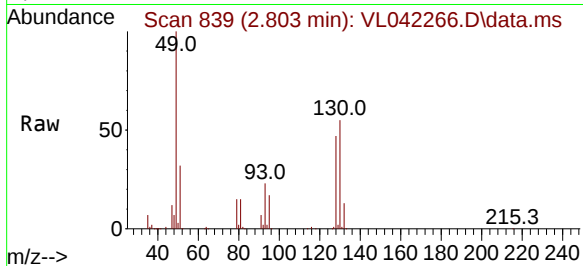




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 2.803 min Scan# 81
 Delta R.T. 0.019 min
 Lab File: VL042266.D
 Acq: 08 Apr 2025 16:27

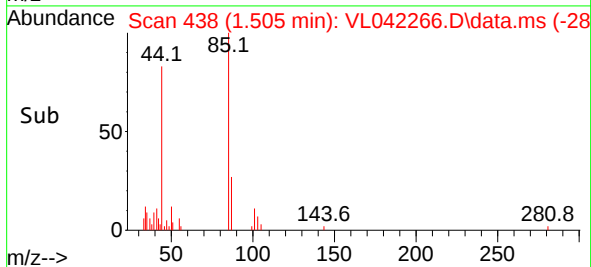
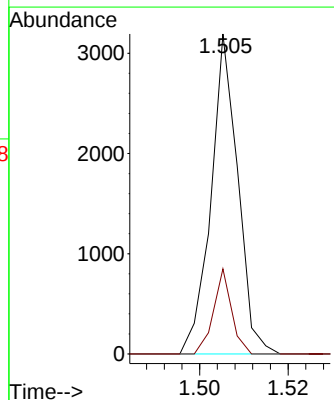
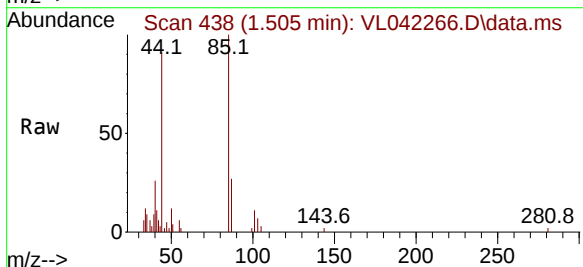
Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-B2-1-04022025

Tgt Ion: 49 Resp: 157346
 Ion Ratio Lower Upper
 49 100
 128 45.7 22.9 68.5
 130 57.2 28.8 86.4



#2
 Dichlorodifluoromethane
 Concen: 0.058 ppbv
 RT: 1.505 min Scan# 438
 Delta R.T. 0.009 min
 Lab File: VL042266.D
 Acq: 08 Apr 2025 16:27

Tgt Ion: 85 Resp: 1345
 Ion Ratio Lower Upper
 85 100
 87 26.6 26.1 39.1

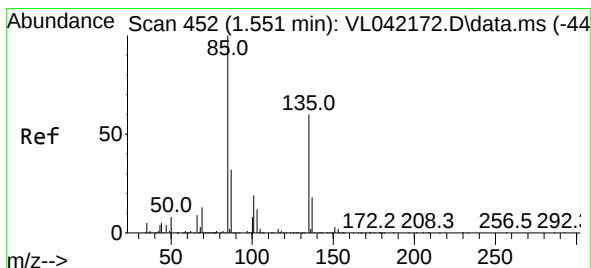
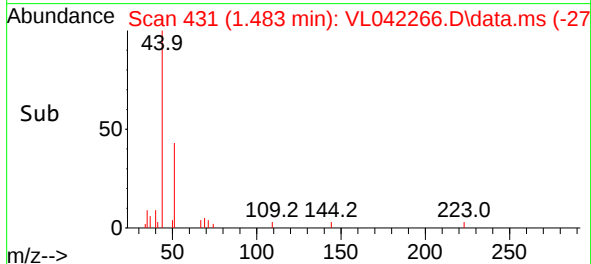
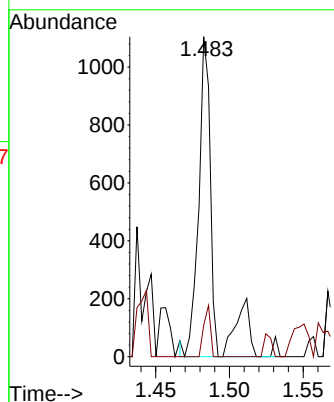
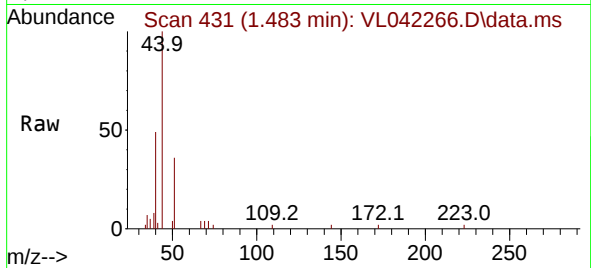




#3
Chlorodifluoromethane
Concen: 0.031 ppbv
RT: 1.483 min Scan# 41
Delta R.T. 0.009 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

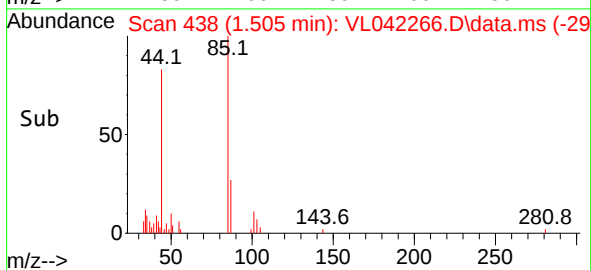
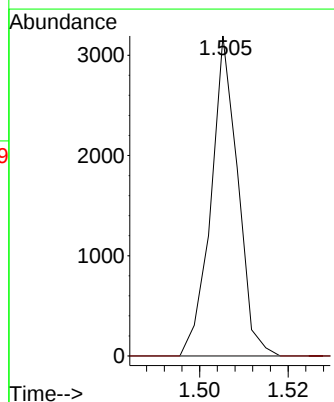
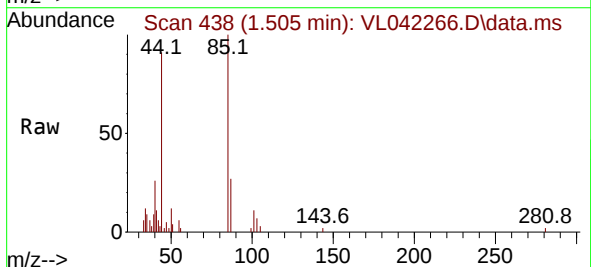
Instrument :
MSVOA_L
ClientSampleId :
SSSG-B2-1-04022025

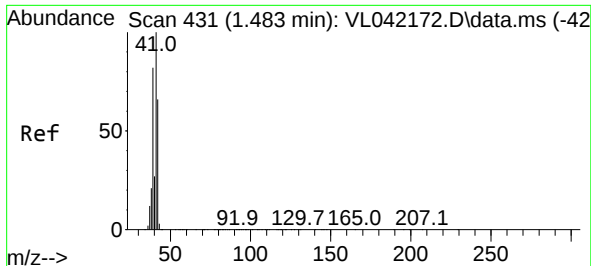
Tgt Ion: 51 Resp: 741
Ion Ratio Lower Upper
51 100
67 7.6 15.0 22.6#



#8
Dichlorotetrafluoroethane
Concen: 0.068 ppbv
RT: 1.505 min Scan# 438
Delta R.T. -0.046 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

Tgt Ion: 85 Resp: 1345
Ion Ratio Lower Upper
85 100
135 2.1 52.4 78.6#





#9

Propene

Concen: 0.083 ppbv

RT: 1.900 min Scan# 501

Delta R.T. 0.417 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

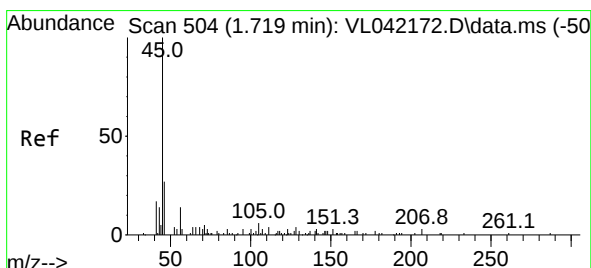
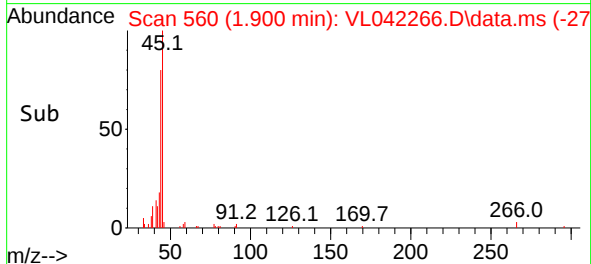
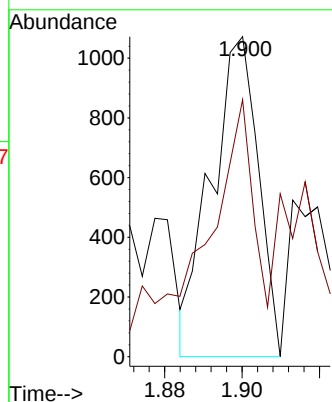
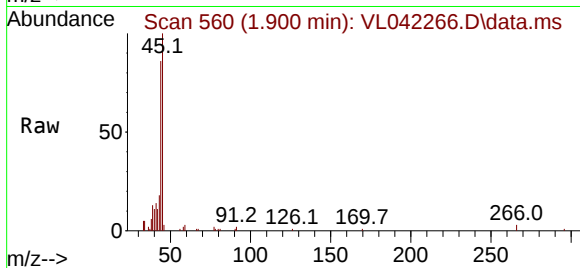
SSSG-B2-1-04022025

Tgt Ion: 41 Resp: 901

Ion Ratio Lower Upper

41 100

42 64.6 55.4 83.2



#13

Ethanol

Concen: 4.972 ppbv

RT: 1.900 min Scan# 560

Delta R.T. 0.181 min

Lab File: VL042266.D

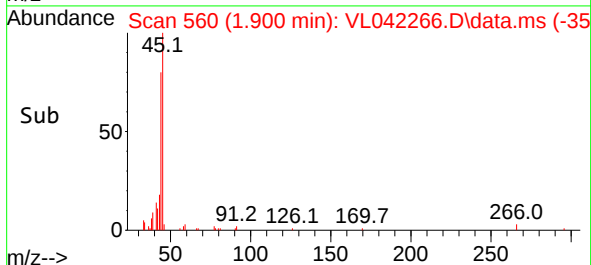
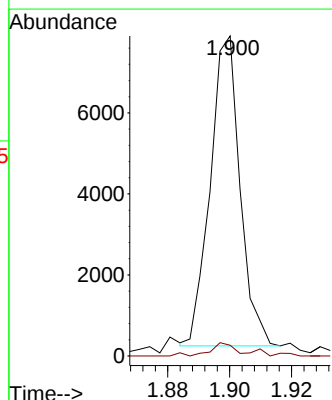
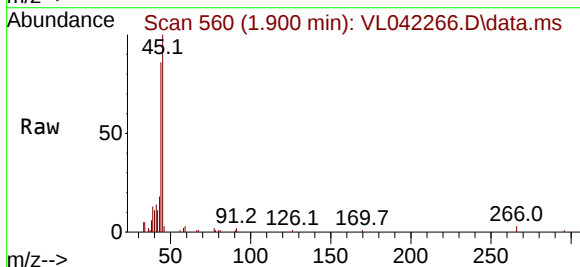
Acq: 08 Apr 2025 16:27

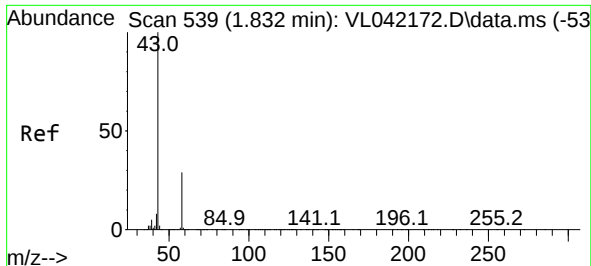
Tgt Ion: 45 Resp: 5113

Ion Ratio Lower Upper

45 100

46 0.0 20.2 80.8#





#15

Acetone

Concen: 2.153 ppbv

RT: 1.845 min Scan# 54

Delta R.T. 0.013 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

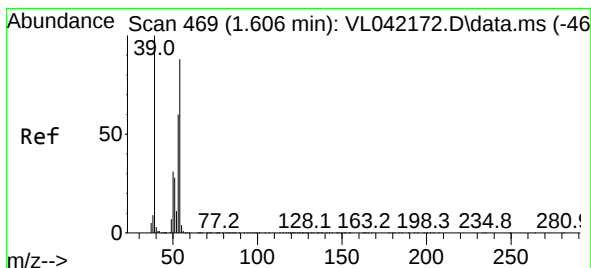
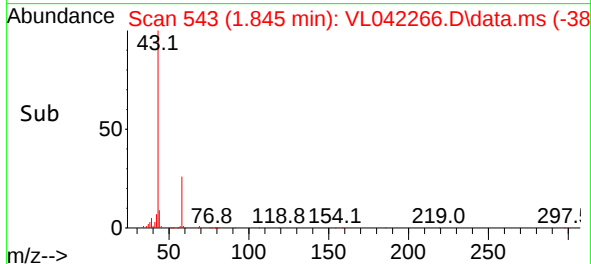
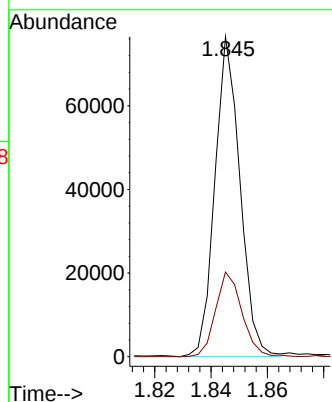
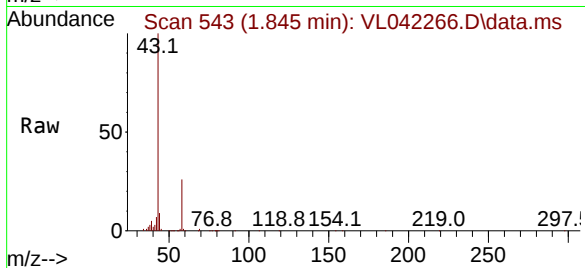
SSSG-B2-1-04022025

Tgt Ion: 43 Resp: 47368

Ion Ratio Lower Upper

43 100

58 28.0 23.2 34.8



#16

1,3-Butadiene

Concen: 0.121 ppbv

RT: 1.609 min Scan# 470

Delta R.T. 0.003 min

Lab File: VL042266.D

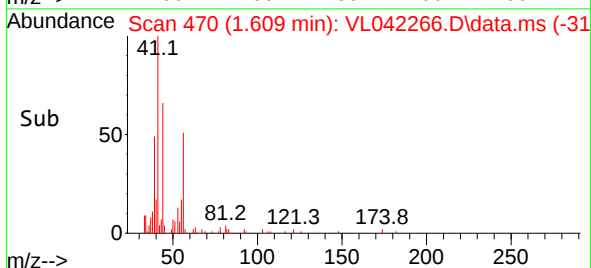
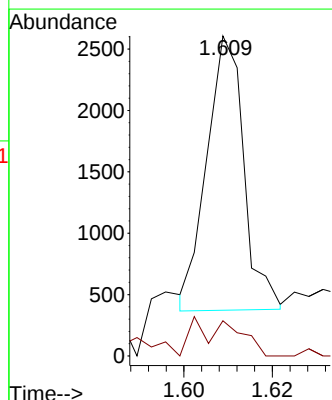
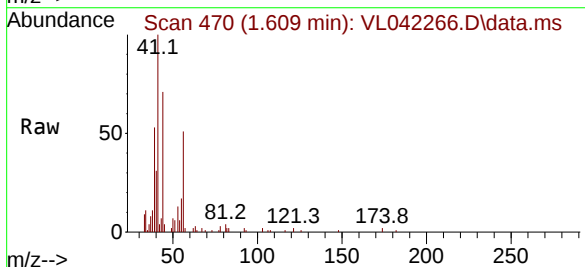
Acq: 08 Apr 2025 16:27

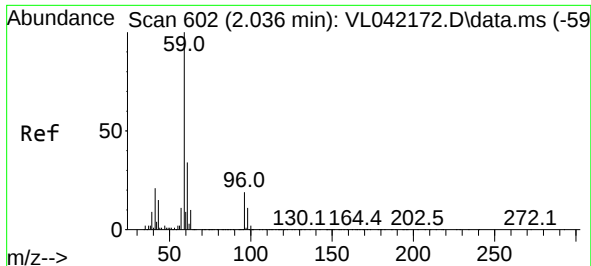
Tgt Ion: 39 Resp: 1300

Ion Ratio Lower Upper

39 100

54 23.3 60.7 91.1#





#17

tert-Butyl alcohol

Concen: 0.091 ppbv

RT: 2.055 min Scan# 602

Delta R.T. 0.019 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

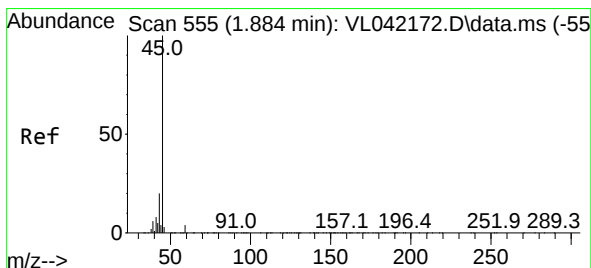
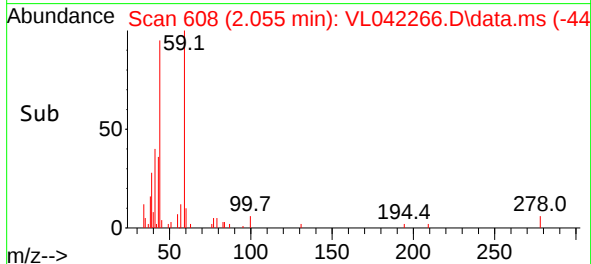
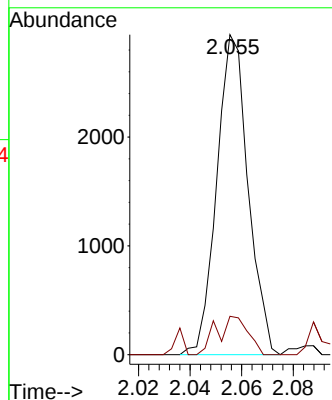
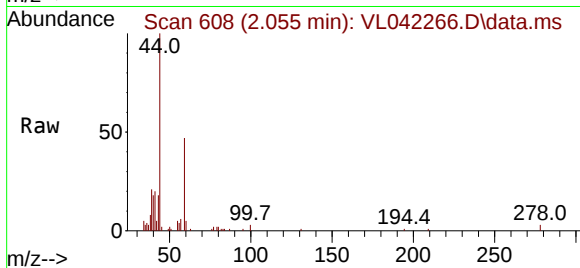
SSSG-B2-1-04022025

Tgt Ion: 59 Resp: 2485

Ion Ratio Lower Upper

59 100

57 14.3 8.9 13.3#



#19

Isopropyl Alcohol

Concen: 0.412 ppbv

RT: 1.900 min Scan# 560

Delta R.T. 0.016 min

Lab File: VL042266.D

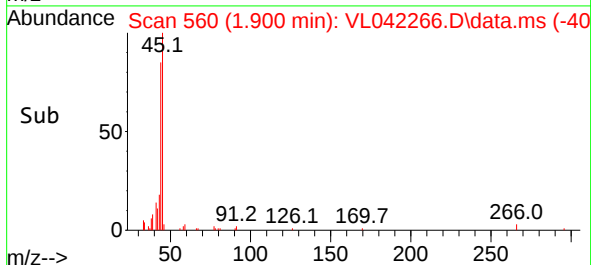
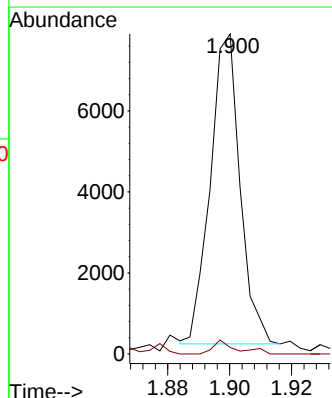
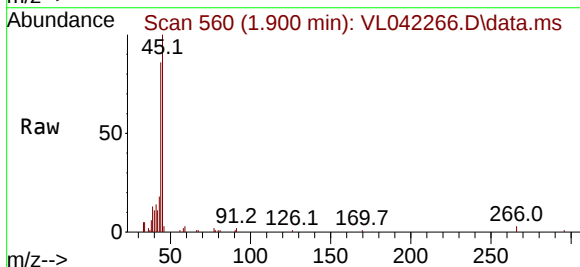
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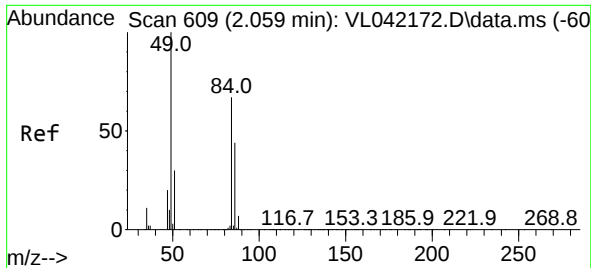
Tgt Ion: 45 Resp: 5113

Ion Ratio Lower Upper

45 100

58 259.3 36.9 55.3#

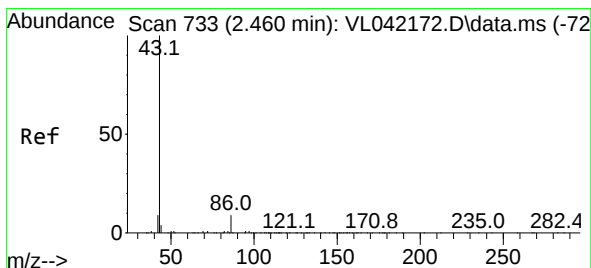
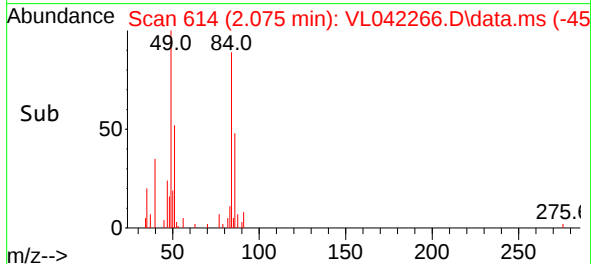
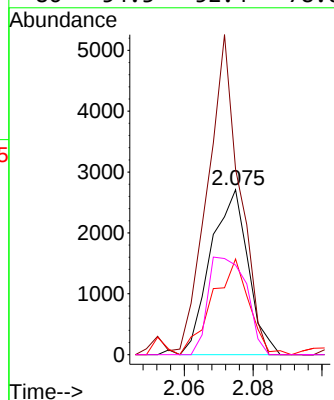
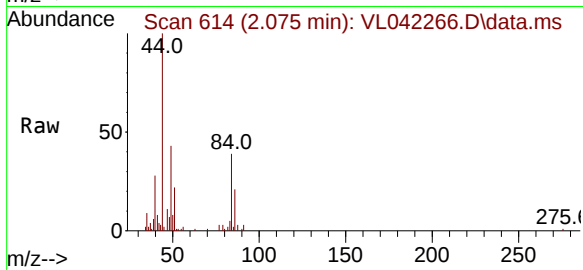




#20
Methylene Chloride
Concen: 0.250 ppbv
RT: 2.075 min Scan# 614
Delta R.T. 0.016 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

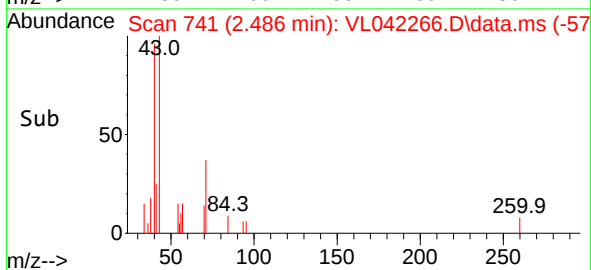
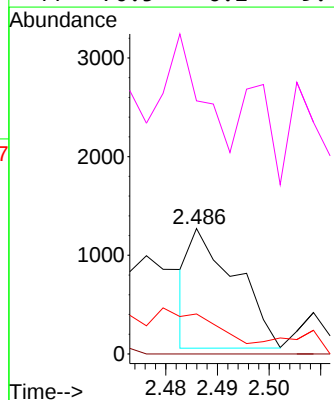
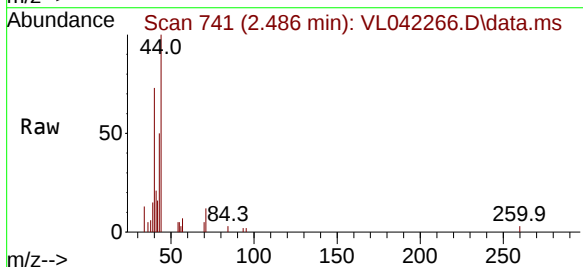
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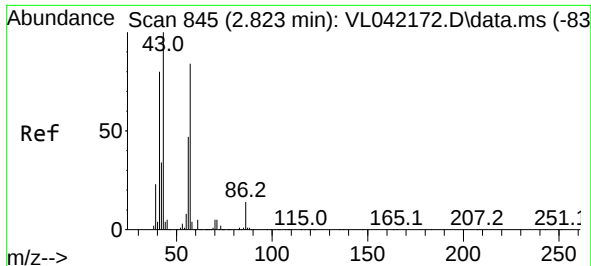
Tgt Ion:	84	Resp:	2047
Ion	Ratio	Lower	Upper
84	100		
49	112.5	120.2	180.4#
51	58.0	37.4	56.0#
86	54.3	52.4	78.6



#23
Vinyl Acetate
Concen: 0.079 ppbv
RT: 2.486 min Scan# 741
Delta R.T. 0.026 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

Tgt Ion:	43	Resp:	755
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.5	8.3#
42	20.0	8.6	13.0#
44	70.5	6.2	9.4#

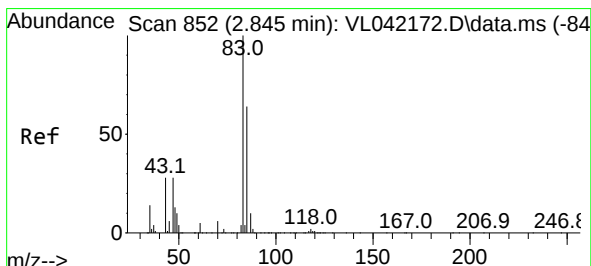
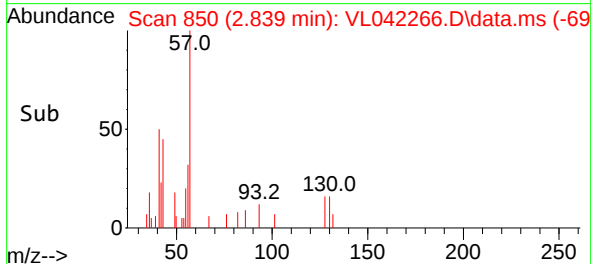
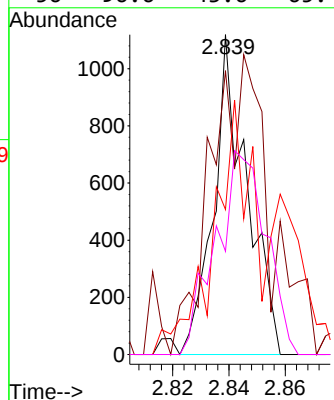
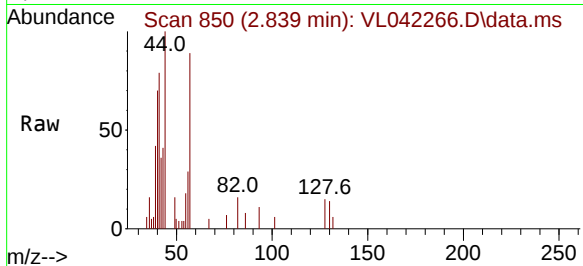




#26
Hexane
Concen: 0.041 ppbv
RT: 2.839 min Scan# 81
Delta R.T. 0.016 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

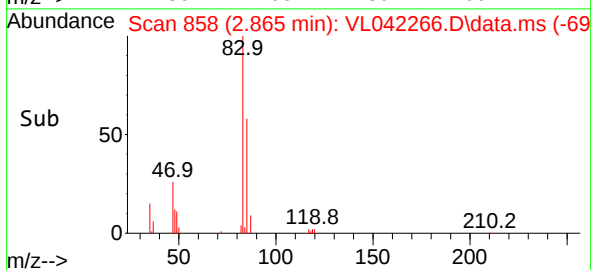
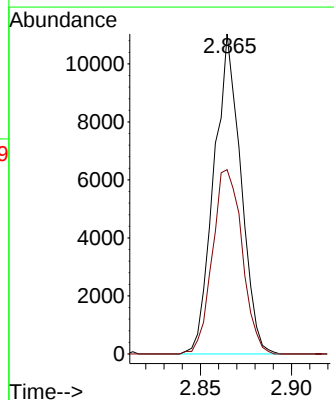
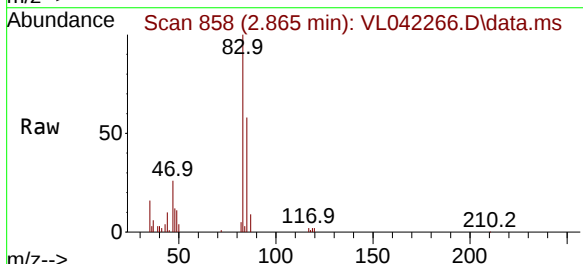
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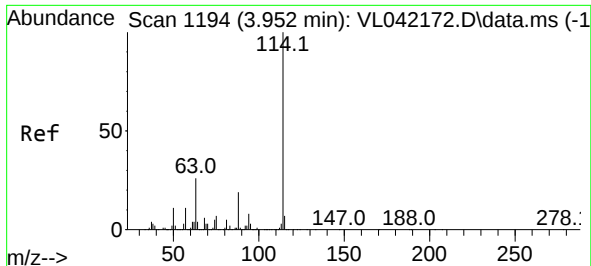
Tgt Ion:	57	Resp:	912
Ion	Ratio	Lower	Upper
57	100		
41	195.7	76.6	114.8#
43	147.7	207.8	311.8#
56	96.6	43.6	65.4#



#29
Chloroform
Concen: 0.351 ppbv
RT: 2.865 min Scan# 858
Delta R.T. 0.019 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

Tgt Ion:	83	Resp:	11335
Ion	Ratio	Lower	Upper
83	100		
85	57.6	51.4	77.2





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.981 min Scan# 11

Delta R.T. 0.029 min

Lab File: VL042266.D

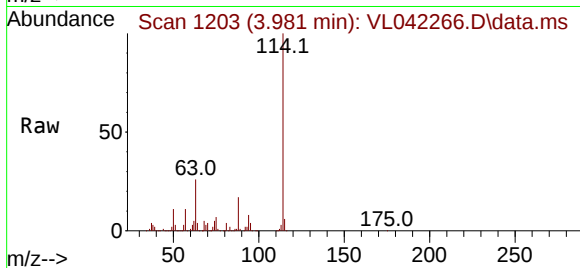
Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

SSSG-B2-1-04022025



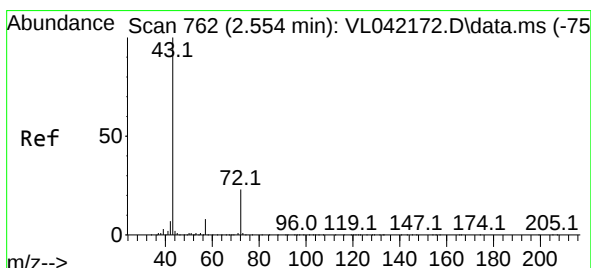
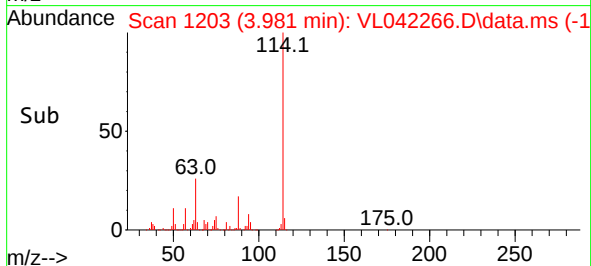
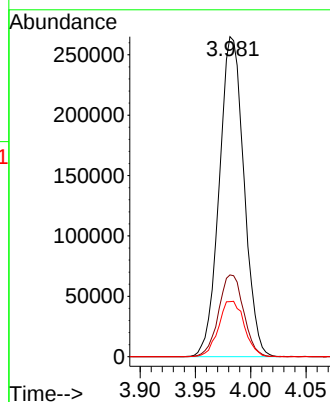
Tgt Ion:114 Resp: 411449

Ion Ratio Lower Upper

114 100

63 25.9 20.7 31.1

88 18.1 15.0 22.4



#34

2-Butanone

Concen: 0.131 ppbv

RT: 2.580 min Scan# 770

Delta R.T. 0.026 min

Lab File: VL042266.D

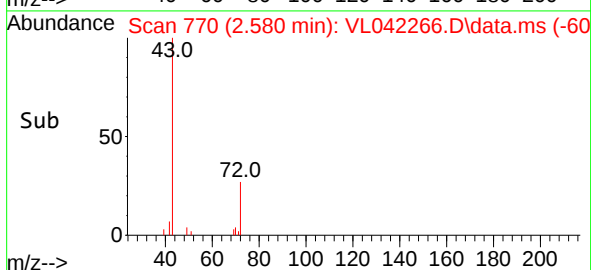
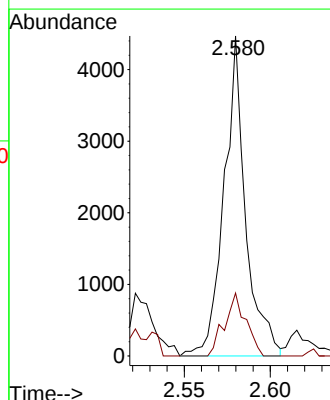
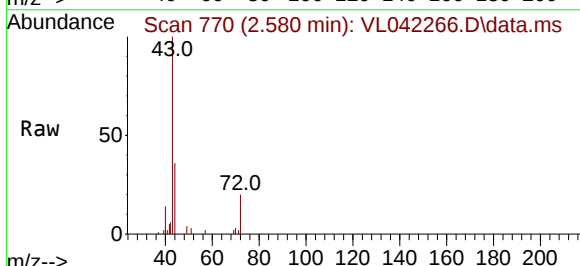
Acq: 08 Apr 2025 16:27

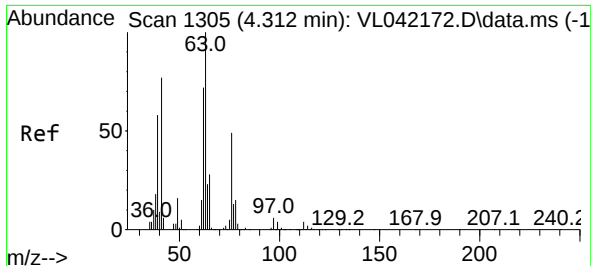
Tgt Ion: 43 Resp: 3906

Ion Ratio Lower Upper

43 100

72 19.3 18.2 27.2





#39

1,2-Dichloropropane

Concen: 7.176 ppbv

RT: 3.981 min Scan# 11

Delta R.T. -0.330 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

SSSG-B2-1-04022025

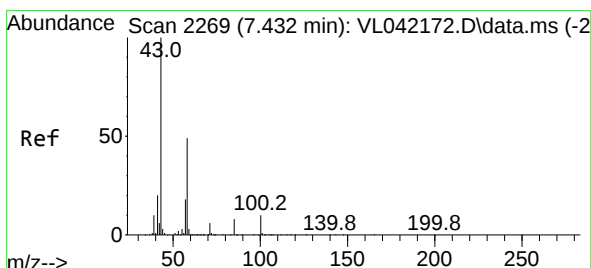
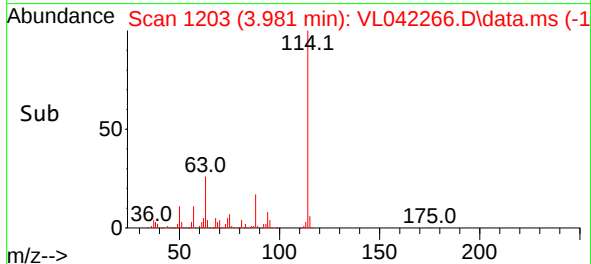
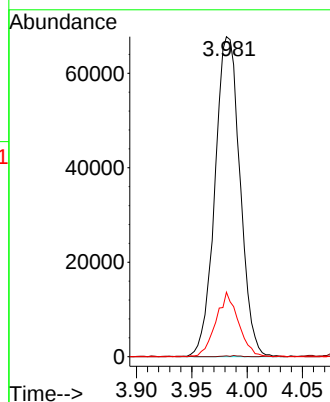
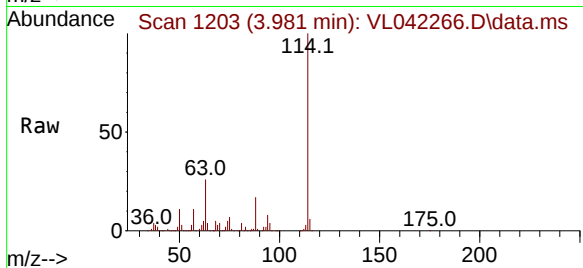
Tgt Ion: 63 Resp: 106607

Ion Ratio Lower Upper

63 100

41 0.1 61.7 92.5#

62 20.2 57.6 86.4#



#51

2-Hexanone

Concen: 0.578 ppbv

RT: 7.477 min Scan# 2283

Delta R.T. 0.045 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

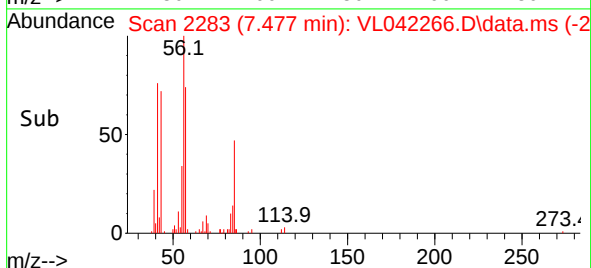
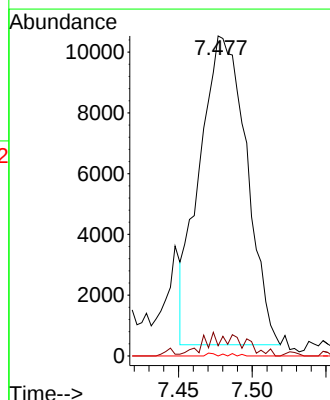
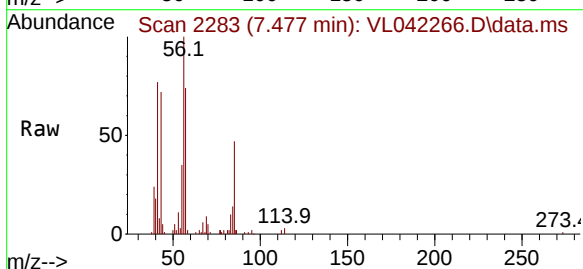
Tgt Ion: 43 Resp: 22452

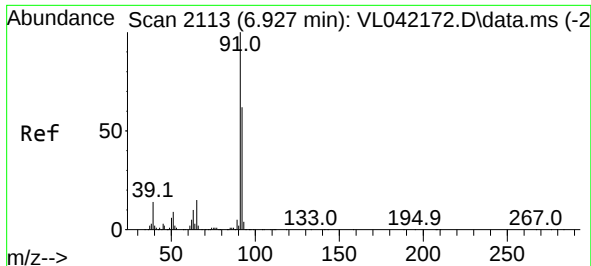
Ion Ratio Lower Upper

43 100

58 6.9 39.7 59.5#

98 0.0 0.1 0.1#

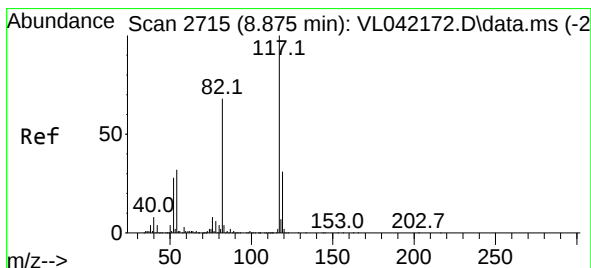
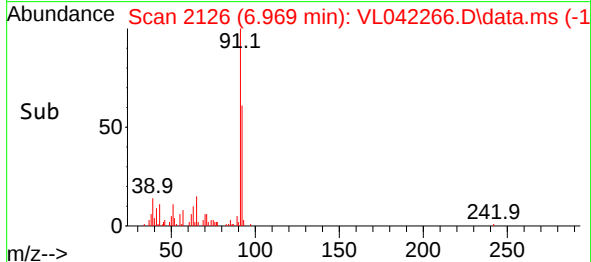
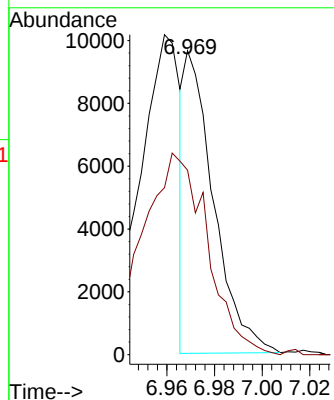
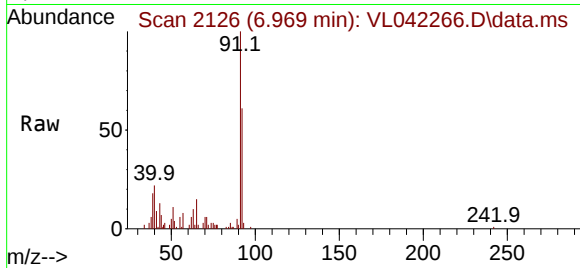




#53
Toluene
Concen: 0.169 ppbv
RT: 6.969 min Scan# 2113
Delta R.T. 0.042 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

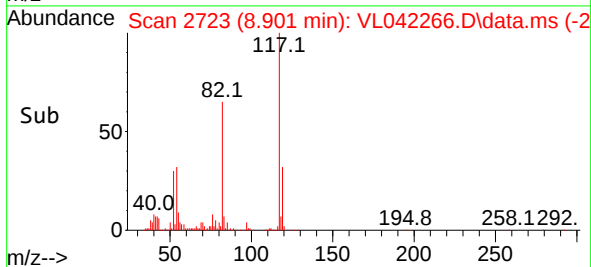
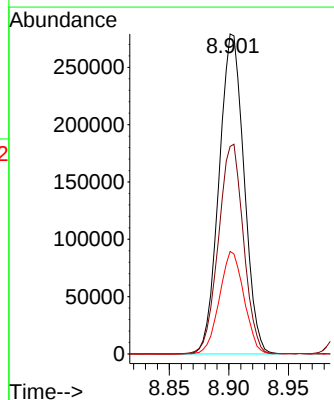
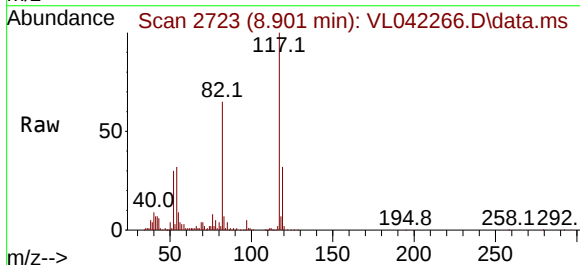
Instrument :
MSVOA_L
ClientSampleId :
SSSG-B2-1-04022025

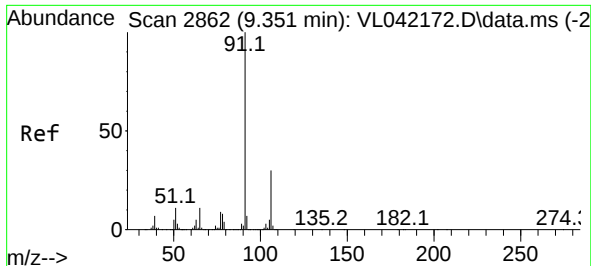
Tgt Ion: 91 Resp: 8154
Ion Ratio Lower Upper
91 100
92 0.0 48.4 72.6#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.901 min Scan# 2723
Delta R.T. 0.026 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

Tgt Ion: 117 Resp: 406705
Ion Ratio Lower Upper
117 100
82 65.9 55.8 83.6
119 31.7 25.5 38.3





#58

Ethyl Benzene

Concen: 0.548 ppbv

RT: 9.377 min Scan# 21

Delta R.T. 0.026 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_1

ClientSampleId :

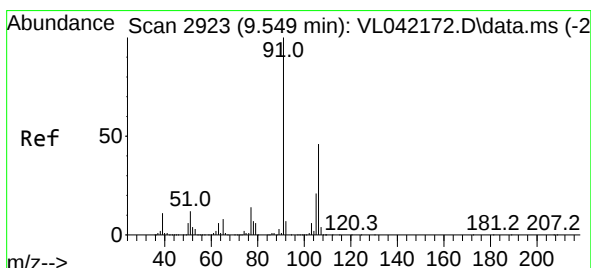
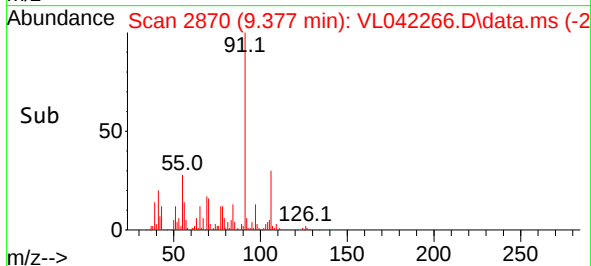
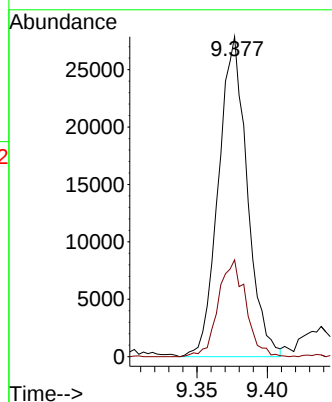
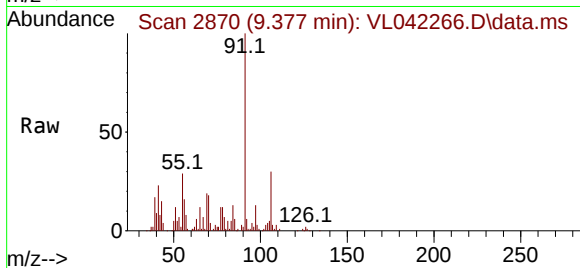
SSSG-B2-1-04022025

Tgt Ion: 91 Resp: 39620

Ion Ratio Lower Upper

91 100

106 30.2 24.2 36.2



#59

m/p-Xylene

Concen: 2.851 ppbv

RT: 9.568 min Scan# 2929

Delta R.T. 0.019 min

Lab File: VL042266.D

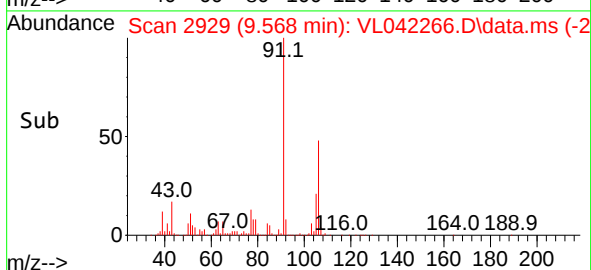
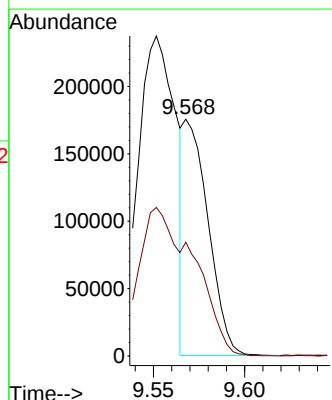
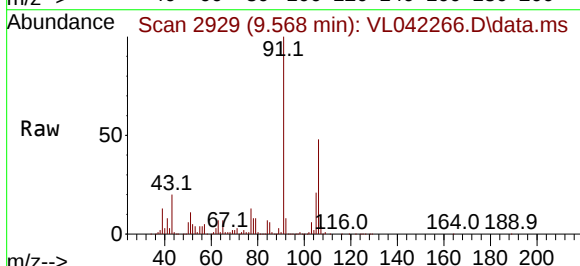
Acq: 08 Apr 2025 16:27

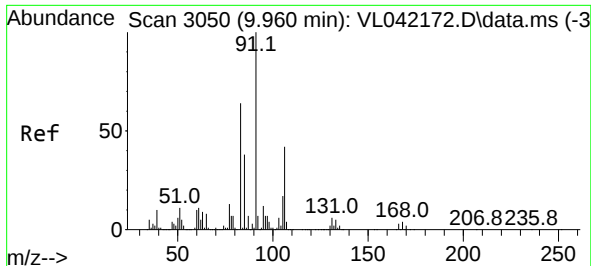
Tgt Ion: 91 Resp: 164440

Ion Ratio Lower Upper

91 100

106 0.0 36.4 54.6#

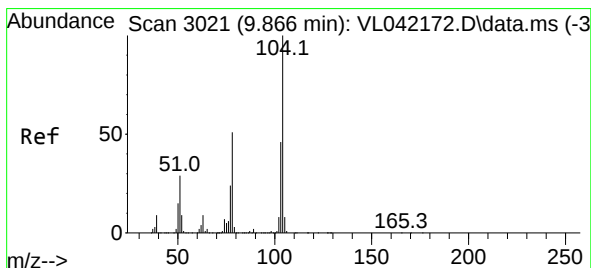
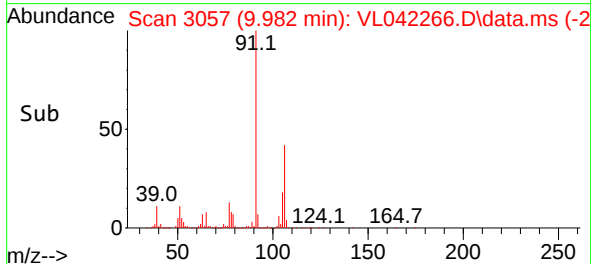
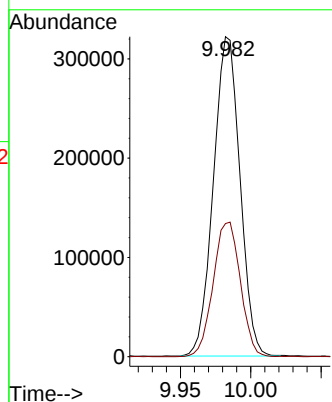
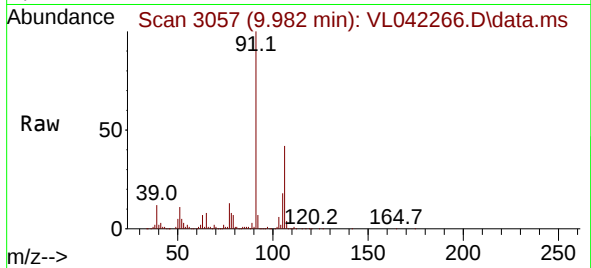




#60
o-Xylene
Concen: 7.293 ppbv
RT: 9.982 min Scan# 3050
Delta R.T. 0.022 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

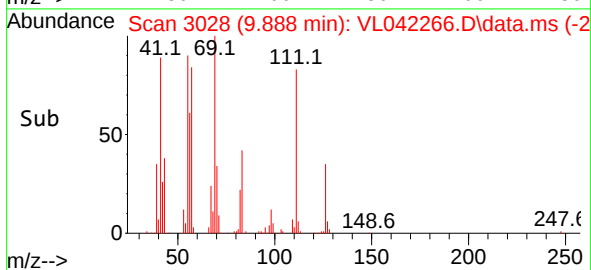
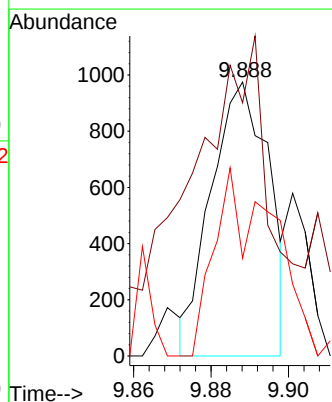
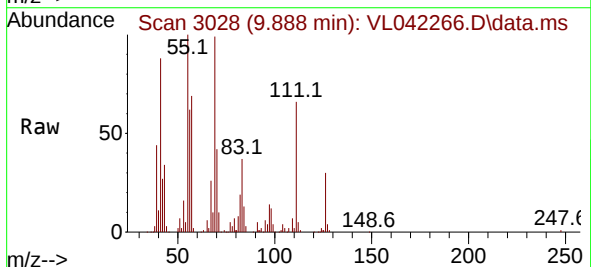
Instrument :
MSVOA_L
ClientSampleId :
SSSG-B2-1-04022025

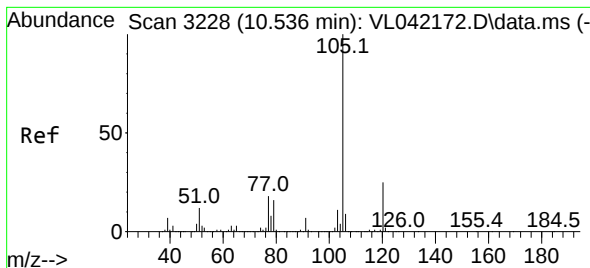
Tgt Ion: 91 Resp: 421737
Ion Ratio Lower Upper
91 100
106 43.2 20.8 62.5



#61
Styrene
Concen: 0.035 ppbv
RT: 9.888 min Scan# 3028
Delta R.T. 0.022 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

Tgt Ion: 104 Resp: 1012
Ion Ratio Lower Upper
104 100
78 206.7 41.8 62.6#
103 0.0 37.0 55.4#





#62

Isopropylbenzene

Concen: 0.402 ppbv

RT: 10.555 min Scan# 31

Delta R.T. 0.019 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

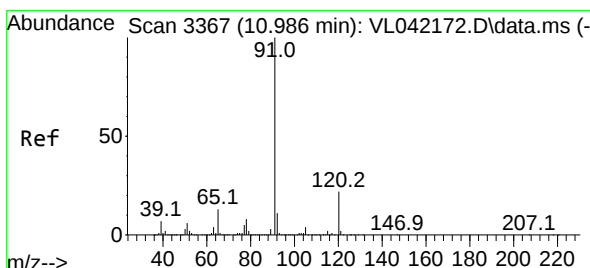
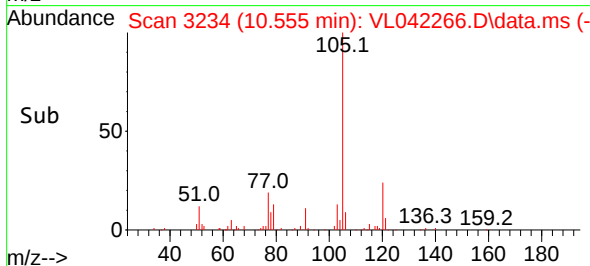
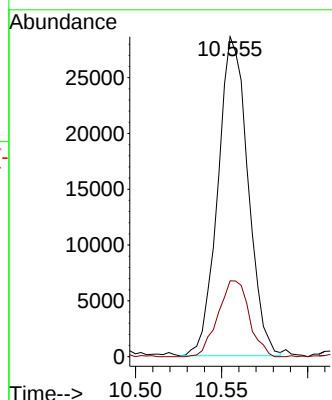
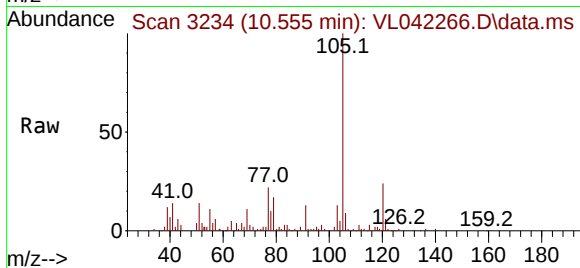
SSSG-B2-1-04022025

Tgt Ion:105 Resp: 34792

Ion Ratio Lower Upper

105 100

120 24.7 19.9 29.9



#64

n-propylbenzene

Concen: 0.507 ppbv

RT: 11.005 min Scan# 3373

Delta R.T. 0.019 min

Lab File: VL042266.D

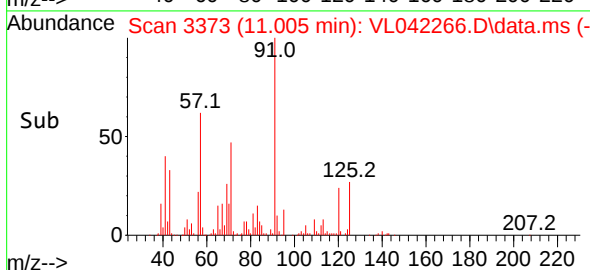
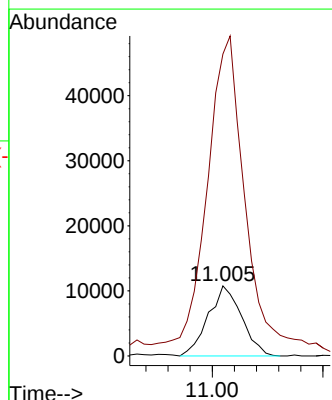
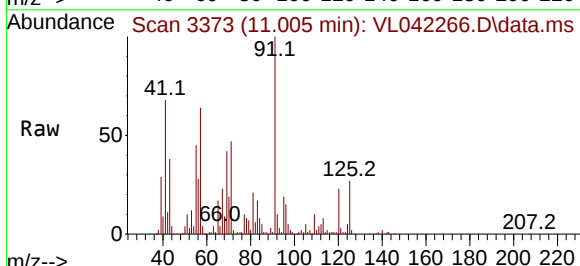
Acq: 08 Apr 2025 16:27

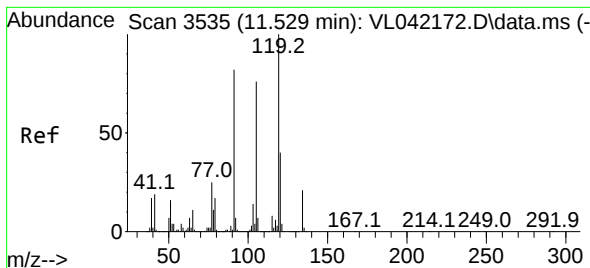
Tgt Ion:120 Resp: 11288

Ion Ratio Lower Upper

120 100

91 516.6 376.9 565.3





#65

tert-Butylbenzene

Concen: 1.052 ppbv

RT: 11.552 min Scan# 3542

Delta R.T. 0.022 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_1

ClientSampleId :

SSSG-B2-1-04022025

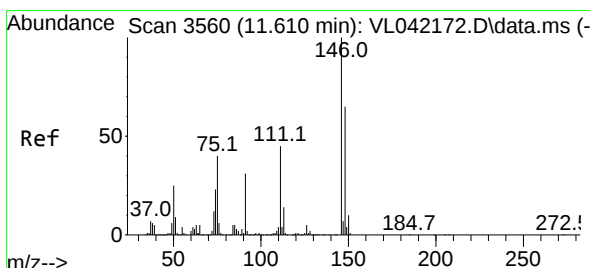
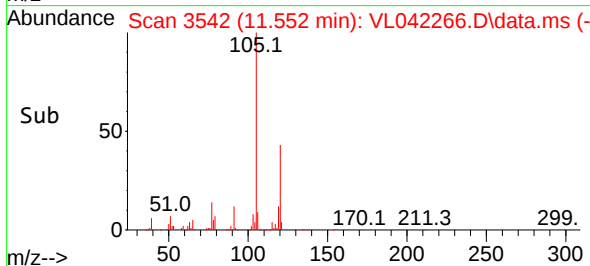
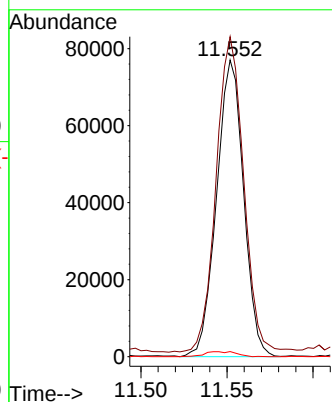
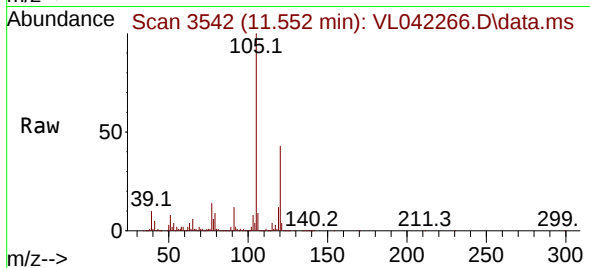
Tgt Ion:119 Resp: 84175

Ion Ratio Lower Upper

119 100

91 108.5 66.0 99.0#

134 2.0 16.7 25.1#



#66

Benzyl Chloride

Concen: 0.153 ppbv

RT: 11.704 min Scan# 3589

Delta R.T. 0.094 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

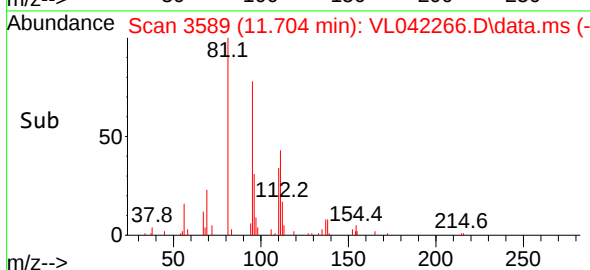
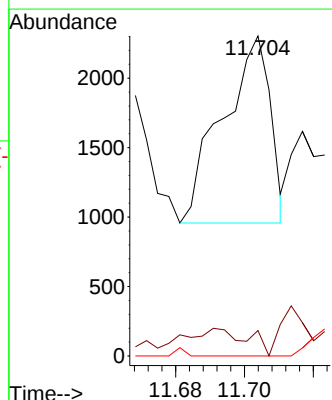
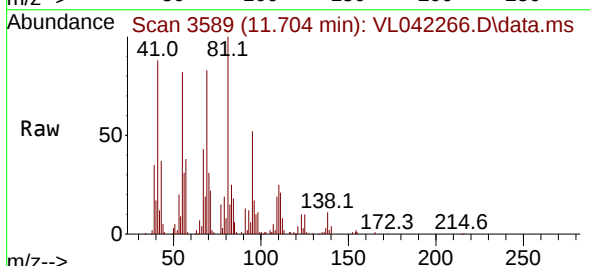
Tgt Ion: 91 Resp: 1300

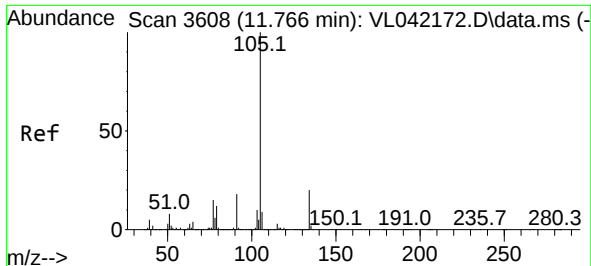
Ion Ratio Lower Upper

91 100

126 22.1 13.8 20.6#

128 0.0 4.5 6.7#

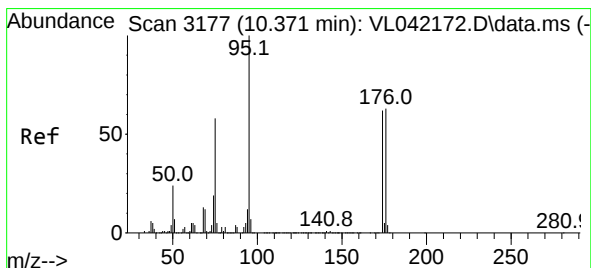
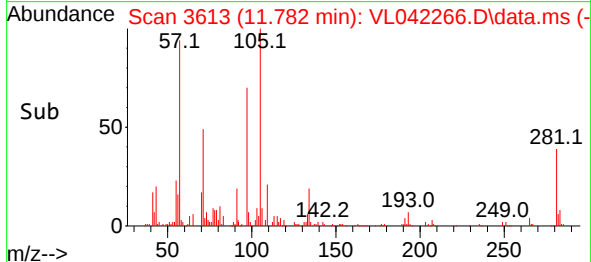
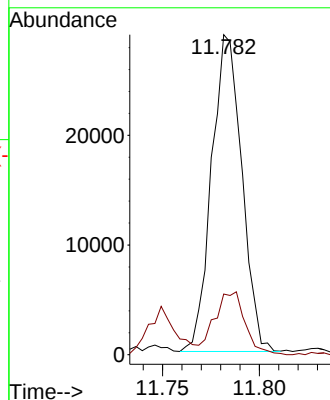
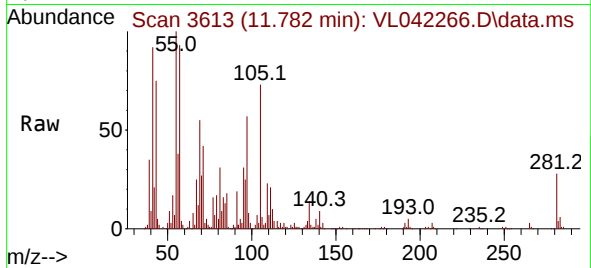




#67
 sec-Butylbenzene
 Concen: 0.282 ppbv
 RT: 11.782 min Scan# 3184
 Delta R.T. 0.016 min
 Lab File: VL042266.D
 Acq: 08 Apr 2025 16:27

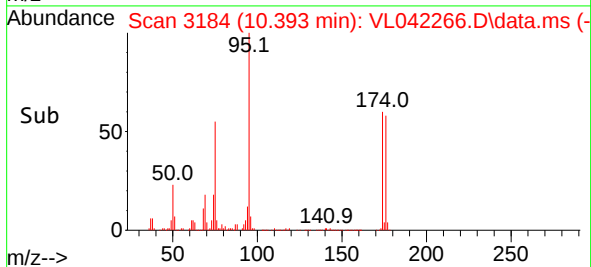
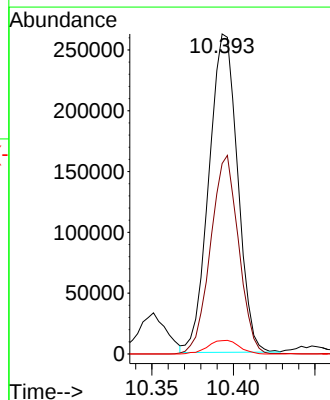
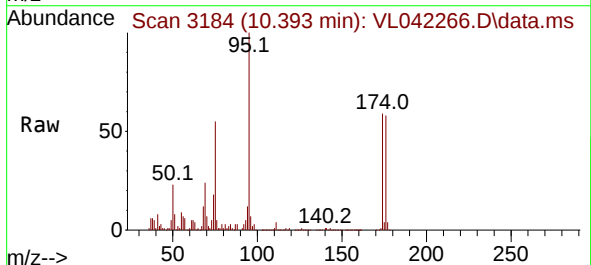
Instrument :
 MSVOA_L
 ClientSampleId :
 SSSG-B2-1-04022025

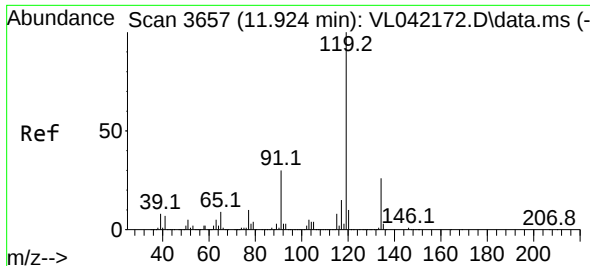
Tgt Ion:105 Resp: 31349
 Ion Ratio Lower Upper
 105 100
 134 34.2 15.5 23.3#



#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.586 ppbv
 RT: 10.393 min Scan# 3184
 Delta R.T. 0.022 min
 Lab File: VL042266.D
 Acq: 08 Apr 2025 16:27

Tgt Ion: 95 Resp: 320156
 Ion Ratio Lower Upper
 95 100
 174 60.9 50.6 76.0
 175 4.6 3.8 5.6

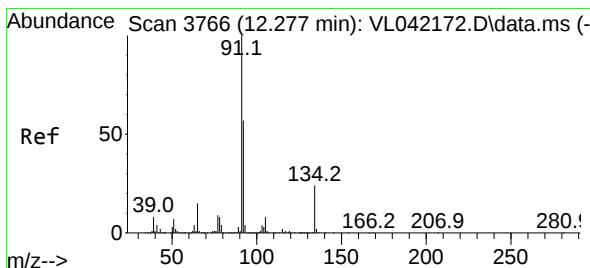
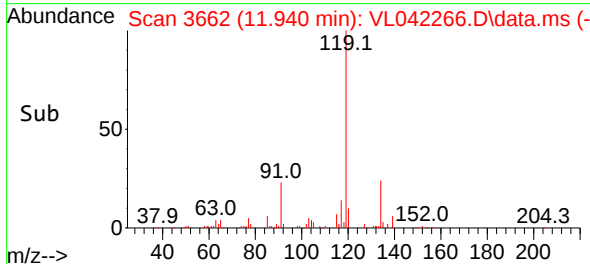
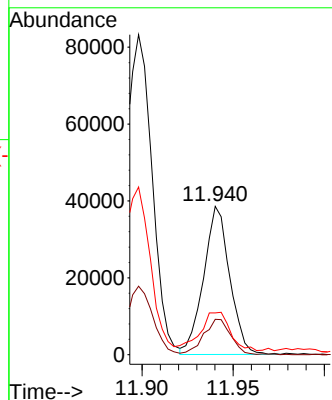
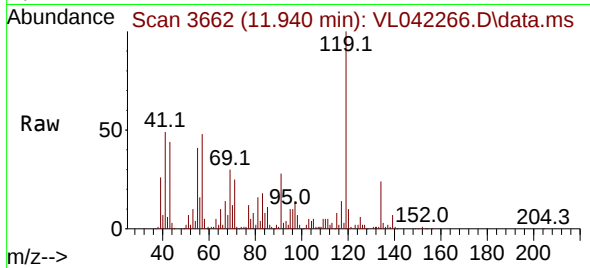




#69
p-Isopropyltoluene
Concen: 0.401 ppbv
RT: 11.940 min Scan# 3662
Delta R.T. 0.016 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

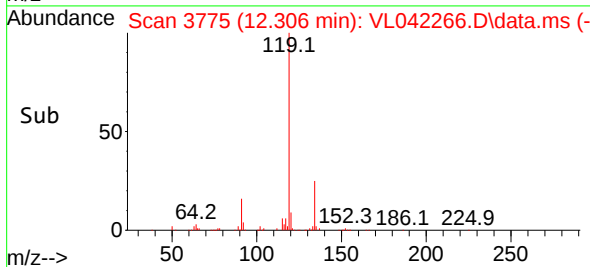
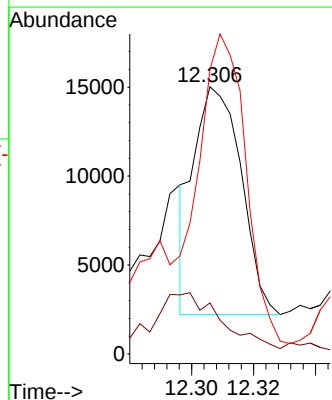
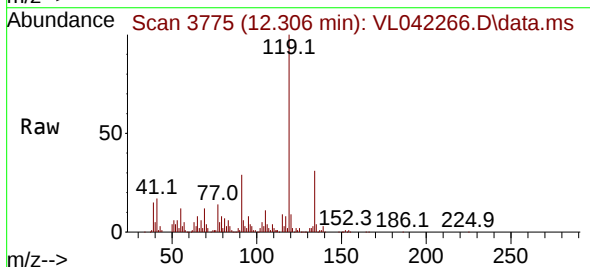
Instrument :
MSVOA_L
ClientSampleId :
SSSG-B2-1-04022025

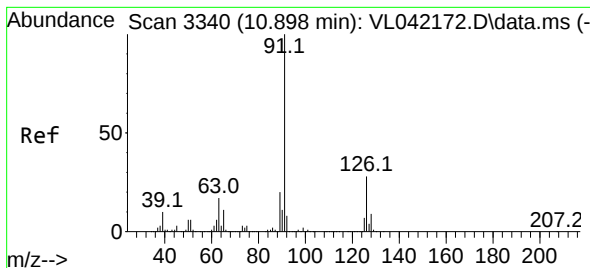
Tgt Ion:119 Resp: 38407
Ion Ratio Lower Upper
119 100
134 24.6 20.4 30.6
91 28.3 23.7 35.5



#70
n-Butylbenzene
Concen: 0.139 ppbv
RT: 12.306 min Scan# 3775
Delta R.T. 0.029 min
Lab File: VL042266.D
Acq: 08 Apr 2025 16:27

Tgt Ion: 91 Resp: 13566
Ion Ratio Lower Upper
91 100
92 46.8 44.9 67.3
134 195.6 19.2 28.8#





#71

2-Chlorotoluene

Concen: 0.791 ppbv

RT: 11.218 min Scan# 3415

Delta R.T. 0.320 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Instrument :

MSVOA_L

ClientSampleId :

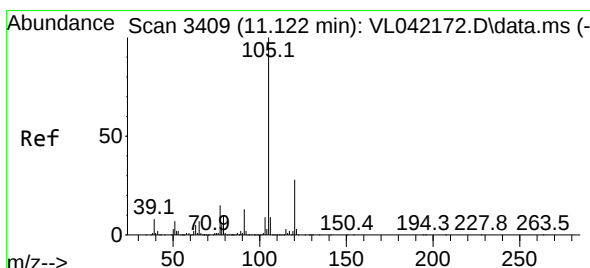
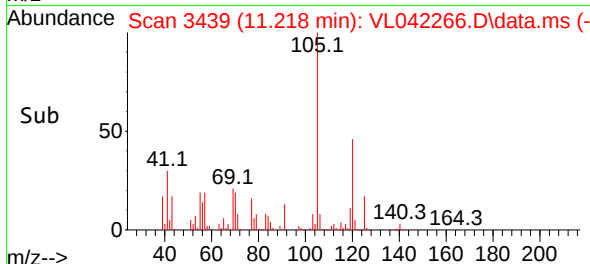
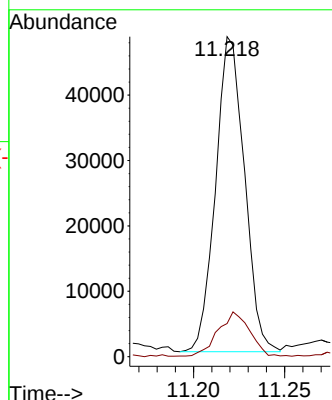
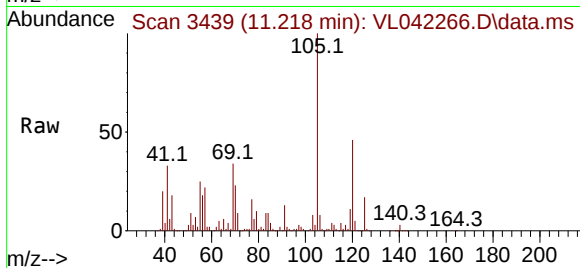
SSSG-B2-1-04022025

Tgt Ion: 91 Resp: 53058

Ion Ratio Lower Upper

91 100

126 15.7 11.6 46.4



#72

4-Ethyltoluene

Concen: 2.510 ppbv

RT: 11.141 min Scan# 3415

Delta R.T. 0.019 min

Lab File: VL042266.D

Acq: 08 Apr 2025 16:27

Tgt Ion: 105 Resp: 180705

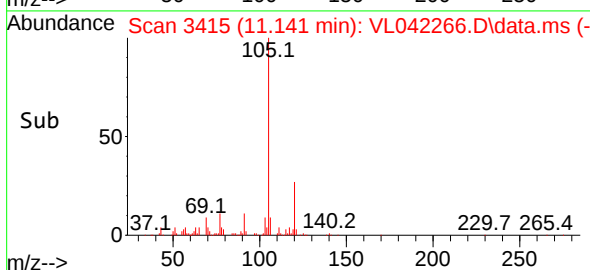
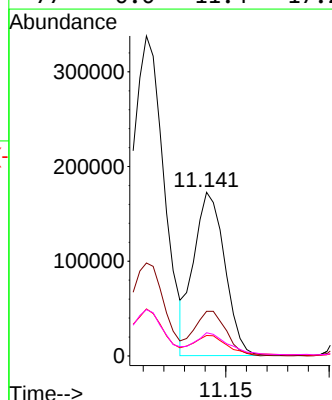
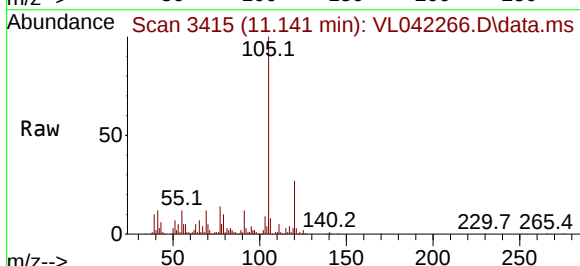
Ion Ratio Lower Upper

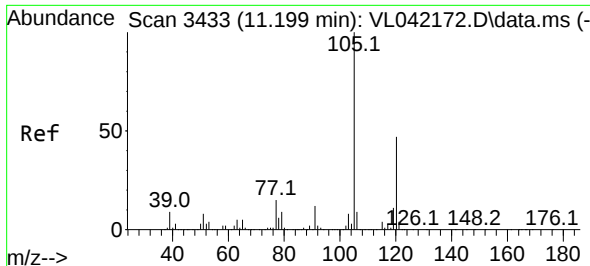
105 100

120 0.0 23.4 35.0#

91 0.0 10.3 15.5#

77 0.0 11.4 17.2#

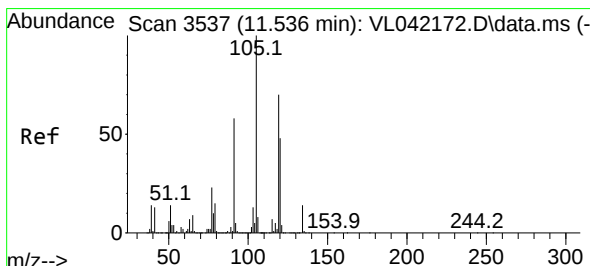
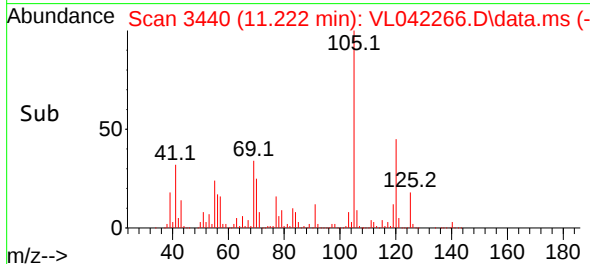
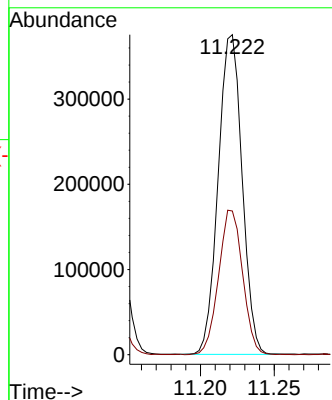
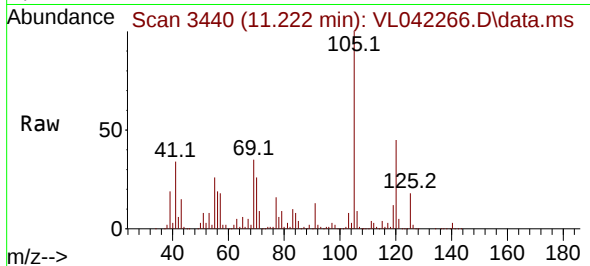




#73
 1,3,5-Trimethylbenzene
 Concen: 6.731 ppbv
 RT: 11.222 min Scan# 3433
 Delta R.T. 0.022 min
 Lab File: VL042266.D
 Acq: 08 Apr 2025 16:27

Instrument : MSVOA_1
 ClientSampleId : SSSG-B2-1-04022025

Tgt Ion:105 Resp: 423292
 Ion Ratio Lower Upper
 105 100
 120 44.8 37.4 56.0



#74
 1,2,4-Trimethylbenzene
 Concen: 9.855 ppbv
 RT: 11.552 min Scan# 3542
 Delta R.T. 0.016 min
 Lab File: VL042266.D
 Acq: 08 Apr 2025 16:27

Tgt Ion:105 Resp: 713955
 Ion Ratio Lower Upper
 105 100
 120 43.0 38.6 58.0
 91 12.2 46.2 69.2#
 77 14.1 18.6 27.8#

