

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111125\
 Data File : VL043184.D
 Acq On : 11 Nov 2025 11:09
 Operator : SY/MD
 Sample : Q3594-01DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA1ADUP

Manual Integrations
 APPROVED

Reviewed By :Semsettin Yesilyurt 11/13/2025
 Supervised By :Mahesh Dadoda 11/13/2025

Quant Time: Nov 12 00:15:44 2025

Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 2025

QLast Update : Wed Oct 15 02:12:58 2025

Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	2.800	49	143981	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.975	114	398798	10.000	ppbv	0.01
55) Chlorobenzene-d5	8.895	117	340442	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.387	95	266301	10.064	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.600%
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.505	85	8544	0.417	ppbv	97
3) Chlorodifluoromethane	1.483	51	6743m	0.304	ppbv	
4) Chloromethane	1.538	50	2866	0.353	ppbv	99
9) Propene	1.489	41	35319	3.596	ppbv	93
10) Heptane	5.004	43	31474m	1.113	ppbv	
11) Trichlorofluoromethane	1.887	101	5001	0.250	ppbv	99
13) Ethanol	1.729	45	84846	23.353	ppbv	99
15) Acetone	1.848	43	78644m	4.052	ppbv	
19) Isopropyl Alcohol	1.894	45	27223	2.252	ppbv #	49
20) Methylene Chloride	2.072	84	173370	22.601	ppbv	97
26) Hexane	2.839	57	434603	19.598	ppbv #	42
30) Cyclohexane	3.871	84	10539	0.545	ppbv	85
34) 2-Butanone	2.567	43	6659	0.248	ppbv	100
35) Carbon Tetrachloride	3.771	117	2007m	0.070	ppbv	
36) Benzene	3.674	78	56958	1.516	ppbv	97
44) 2,2,4-Trimethylpentane	4.661	57	88418	1.395	ppbv #	89
52) Tetrachloroethene	8.238	164	567m	0.042	ppbv	
53) Toluene	6.953	91	169684	3.806	ppbv	99
58) Ethyl Benzene	9.367	91	42063	0.720	ppbv	97
59) m/p-Xylene	9.542	91	110065	2.362	ppbv	97
60) o-Xylene	9.976	91	40598	0.882	ppbv	98
62) Isopropylbenzene	10.552	105	16119	0.194	ppbv	100
72) 4-Ethyltoluene	11.138	105	10901m	0.193	ppbv	
73) 1,3,5-Trimethylbenzene	11.212	105	9165	0.196	ppbv	95
74) 1,2,4-Trimethylbenzene	11.545	105	37147	0.711	ppbv #	50
76) 1,4-Dichlorobenzene	11.685	146	4152	0.136	ppbv	94

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

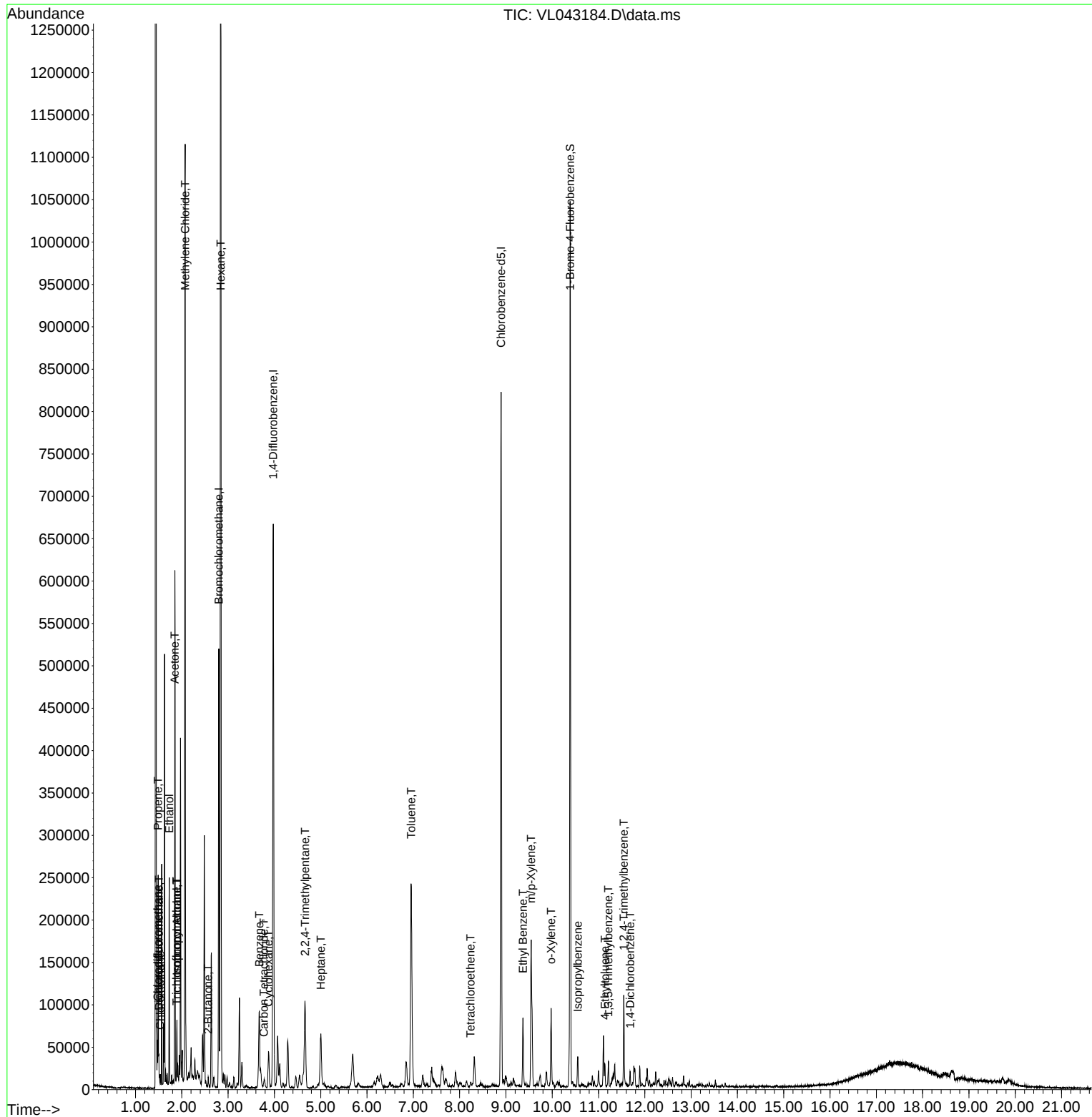
Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111125\
Data File : VL043184.D
Acq On : 11 Nov 2025 11:09
Operator : SY/MD
Sample : Q3594-01DUP
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

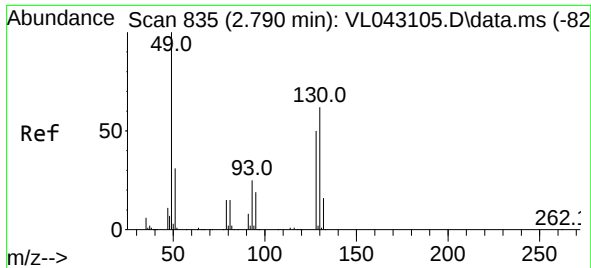
Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Quant Time: Nov 12 00:15:44 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug
QLast Update : Wed Oct 15 02:12:58 2025
Response via : Initial Calibration

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Reviewed By : Semsettin Yesilyurt 11/13/2025
Supervised By : Mahesh Dadoda 11/13/2025





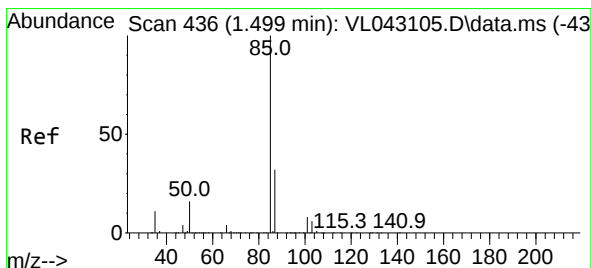
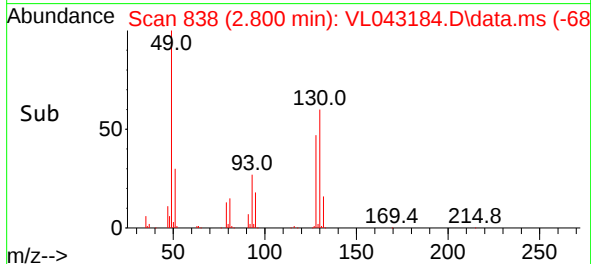
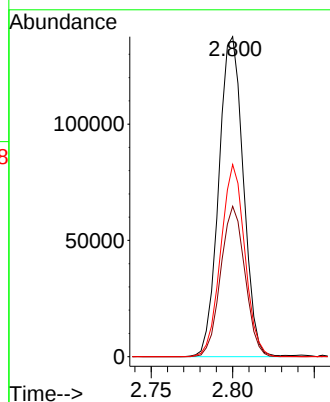
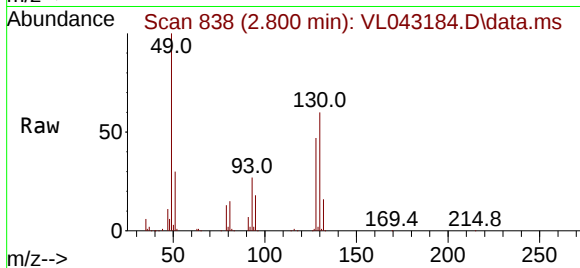
#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.800 min Scan# 835
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion: 49 Resp: 14398
Ion Ratio Lower Upper
49 100
128 46.3 24.4 73.4
130 58.8 31.0 93.0

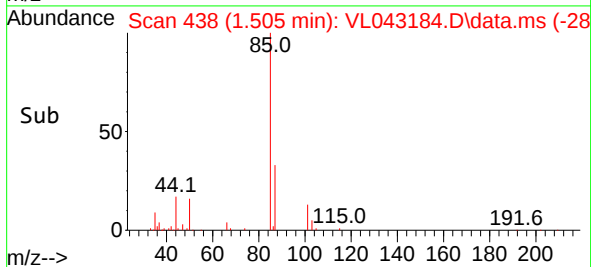
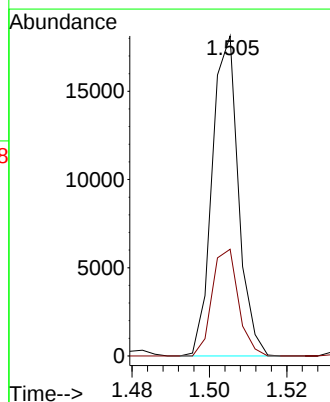
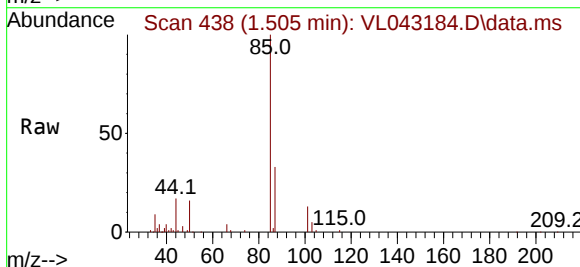
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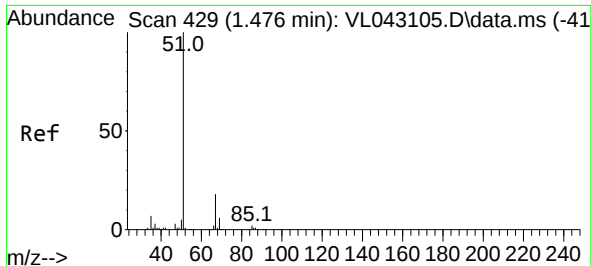
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#2
Dichlorodifluoromethane
Concen: 0.417 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion: 85 Resp: 8544
Ion Ratio Lower Upper
85 100
87 33.3 25.3 37.9





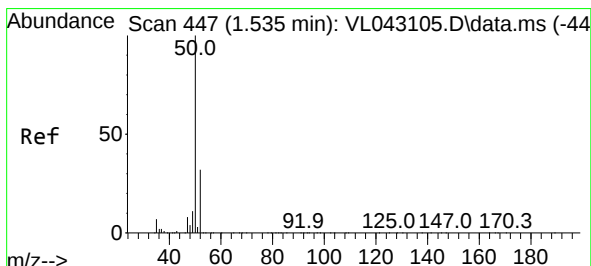
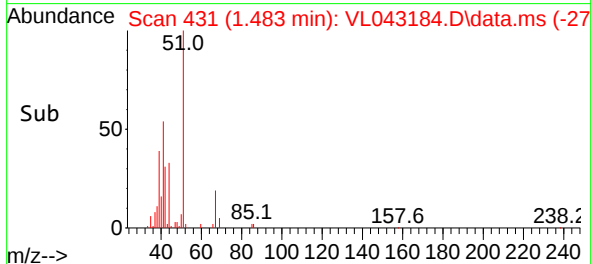
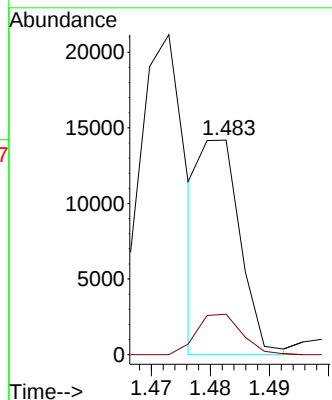
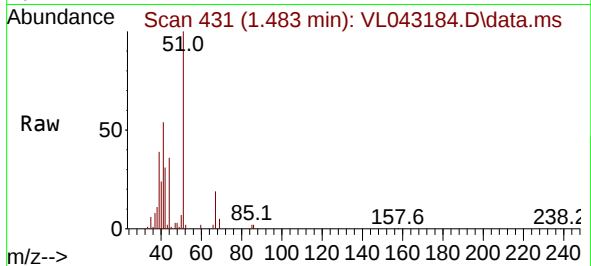
#3
Chlorodifluoromethane
Concen: 0.304 ppbv m
RT: 1.483 min Scan# 41
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion: 51 Resp: 674
Ion Ratio Lower Upper
51 100
67 21.3 15.1 22.7

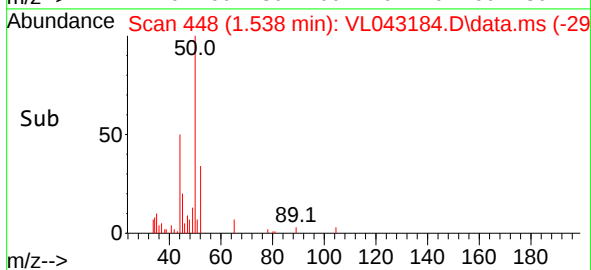
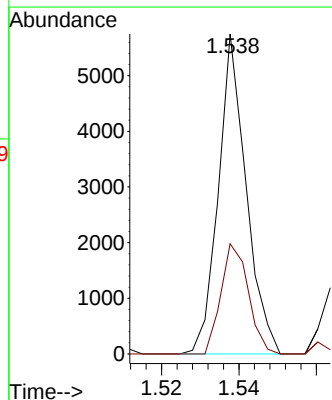
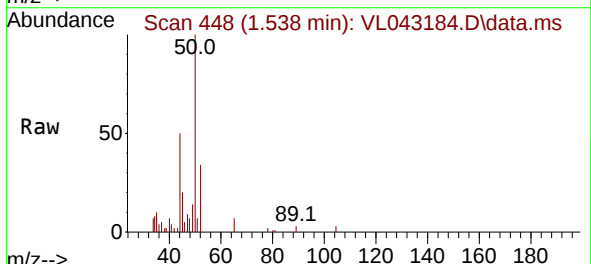
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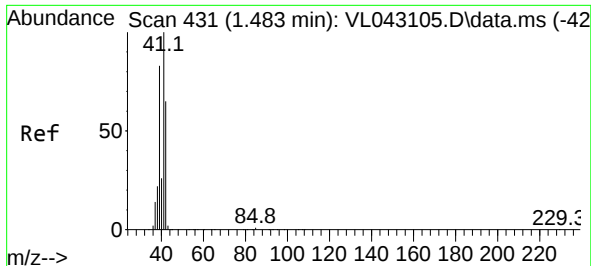
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#4
Chloromethane
Concen: 0.353 ppbv
RT: 1.538 min Scan# 448
Delta R.T. 0.003 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion: 50 Resp: 2866
Ion Ratio Lower Upper
50 100
52 32.1 25.2 37.8





#9

Propene

Concen: 3.596 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

IA1ADUP

Tgt Ion: 41 Resp: 35319

Ion Ratio Lower Upper

41 100

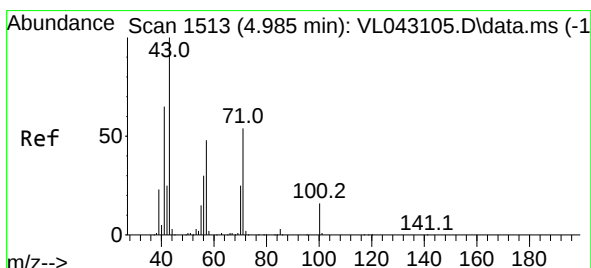
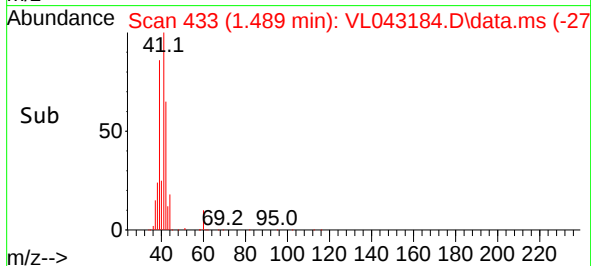
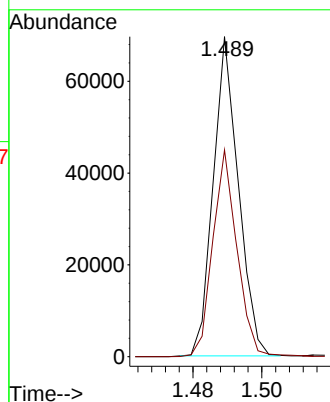
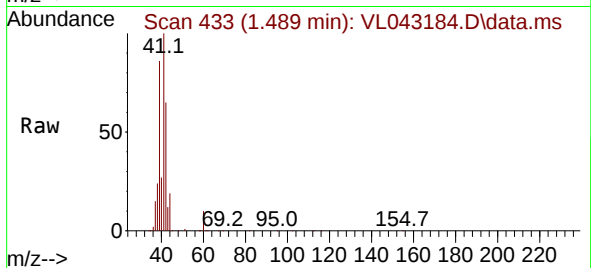
42 63.4 55.1 82.7

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Supervised By :Mahesh Dadoda 11/13/2025



#10

Heptane

Concen: 1.113 ppbv m

RT: 5.004 min Scan# 1519

Delta R.T. 0.019 min

Lab File: VL043184.D

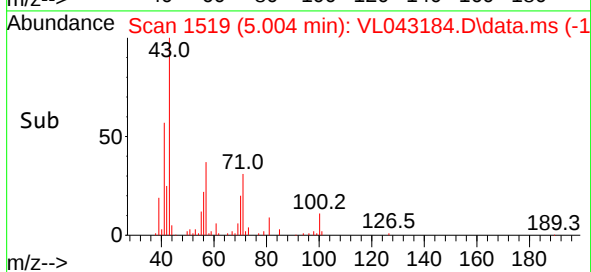
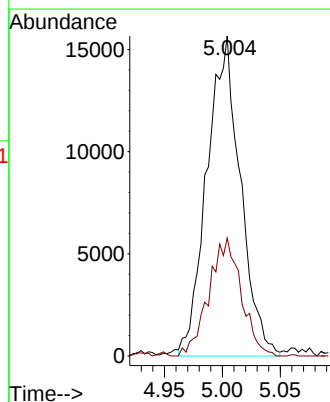
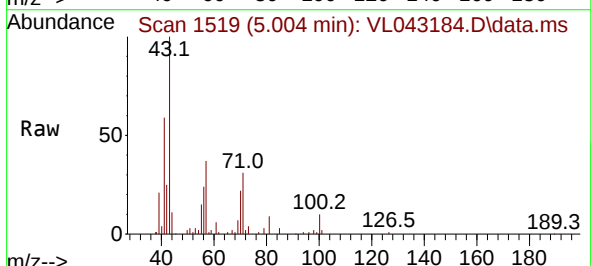
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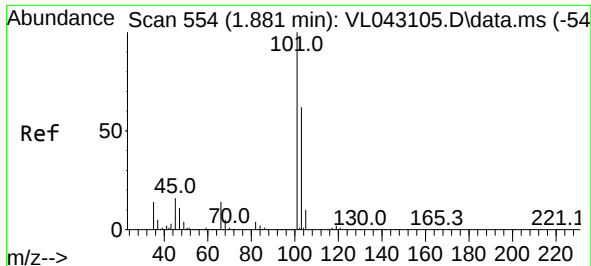
Tgt Ion: 43 Resp: 31474

Ion Ratio Lower Upper

43 100

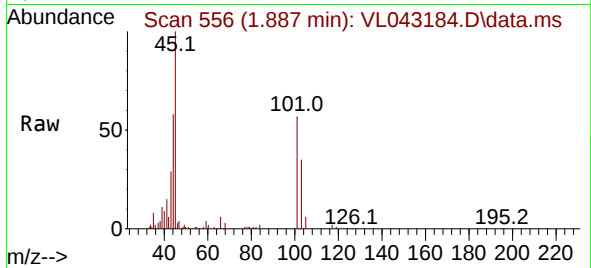
57 36.0 40.8 61.2#





#11
 Trichlorofluoromethane
 Concen: 0.250 ppbv
 RT: 1.887 min Scan# 500
 Delta R.T. 0.006 min
 Lab File: VL043184.D
 Acq: 11 Nov 2025 11:09

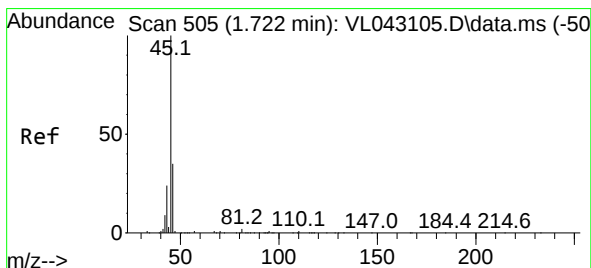
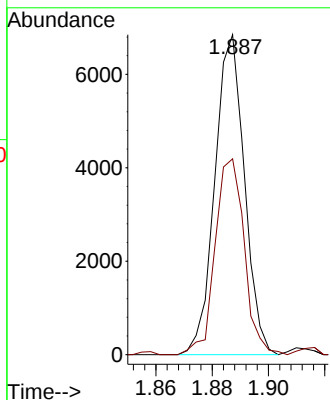
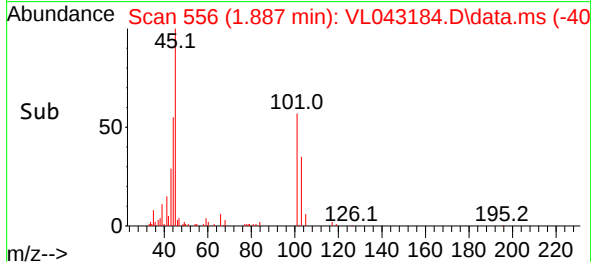
Instrument :
 MSVOA_L
 ClientSampleId :
 IA1ADUP



Tgt Ion:101 Resp: 500
 Ion Ratio Lower Upper
 101 100
 103 61.2 49.3 73.9

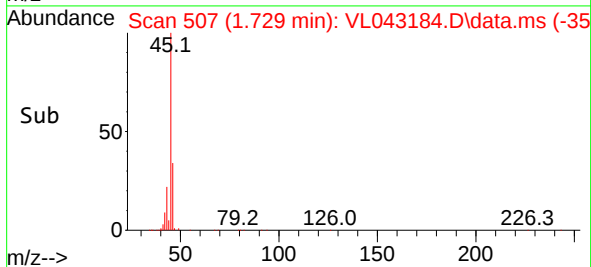
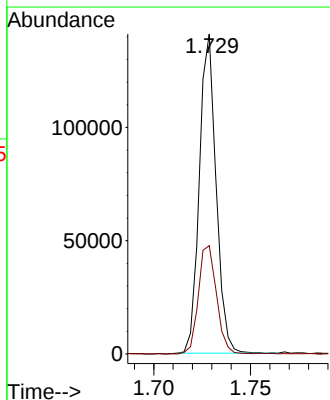
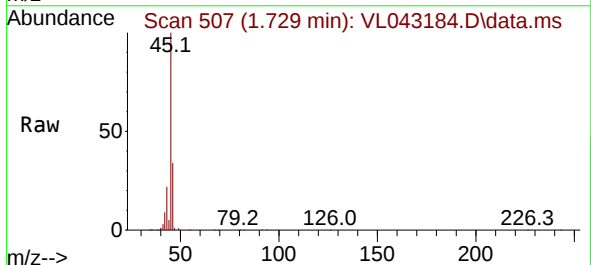
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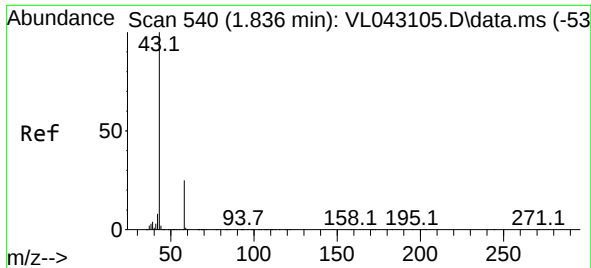
Reviewed By :Semsettin Yesilyurt 11/13/2025
 Supervised By :Mahesh Dadoda 11/13/2025



#13
 Ethanol
 Concen: 23.353 ppbv
 RT: 1.729 min Scan# 507
 Delta R.T. 0.006 min
 Lab File: VL043184.D
 Acq: 11 Nov 2025 11:09

Tgt Ion: 45 Resp: 84846
 Ion Ratio Lower Upper
 45 100
 46 37.4 14.7 58.9





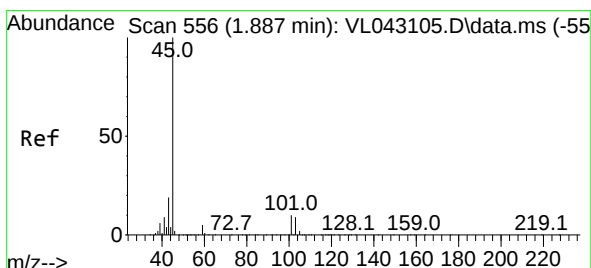
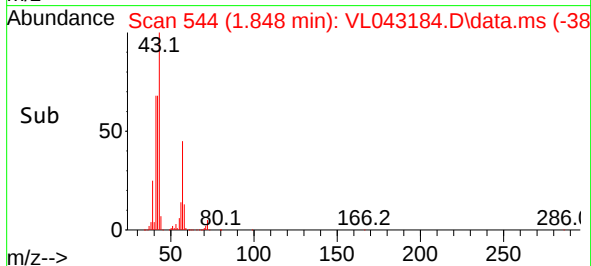
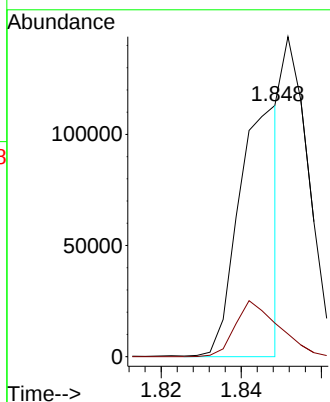
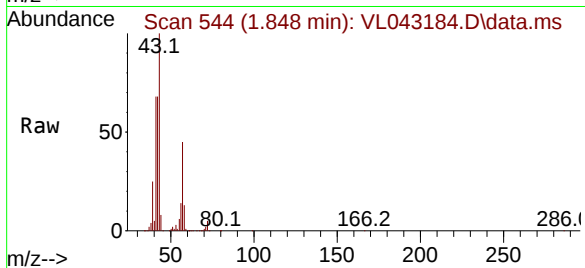
#15
Acetone
Concen: 4.052 ppbv m
RT: 1.848 min Scan# 540
Delta R.T. 0.013 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion: 43 Resp: 78644
Ion Ratio Lower Upper
43 100
58 24.3 20.8 31.2

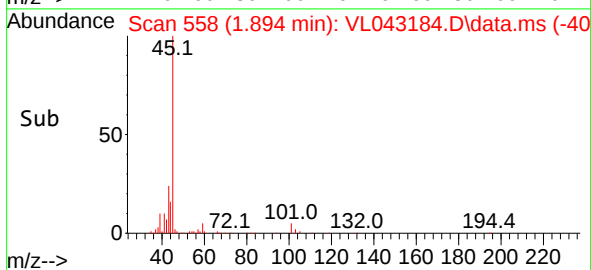
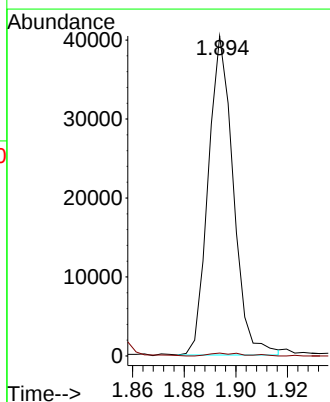
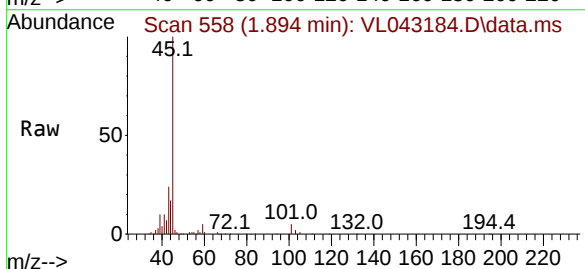
Manual Integrations
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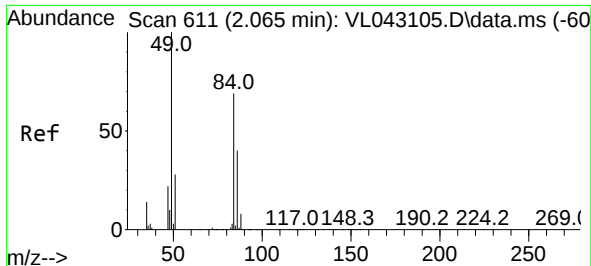
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#19
Isopropyl Alcohol
Concen: 2.252 ppbv
RT: 1.894 min Scan# 558
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

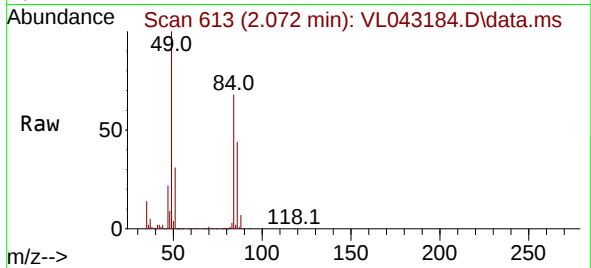
Tgt Ion: 45 Resp: 27223
Ion Ratio Lower Upper
45 100
58 70.3 31.3 46.9#





#20
Methylene Chloride
Concen: 22.601 ppbv
RT: 2.072 min Scan# 611
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

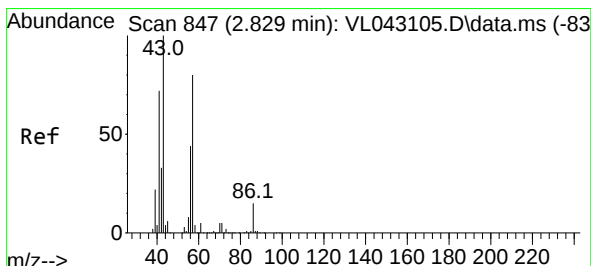
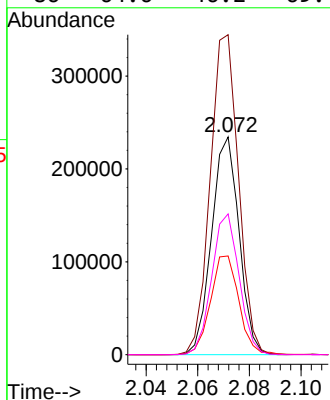
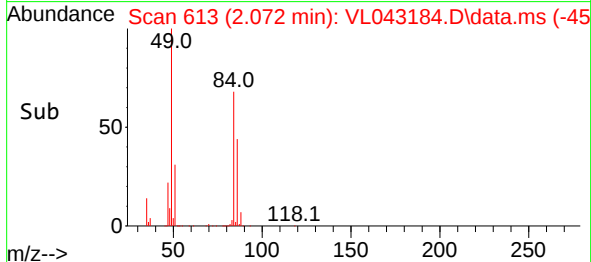
Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP



Tgt Ion: 84 Resp: 173370
Ion Ratio Lower Upper
84 100
49 146.8 116.6 175.0
51 45.2 34.8 52.2
86 64.6 46.2 69.4

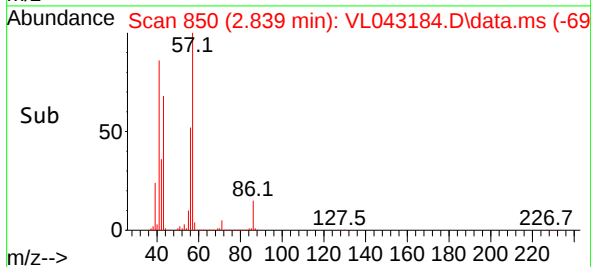
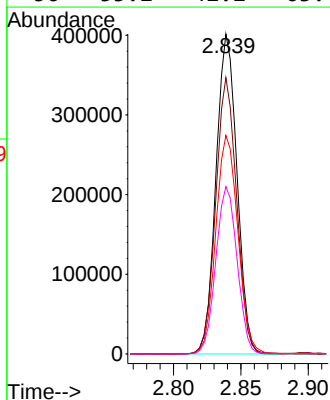
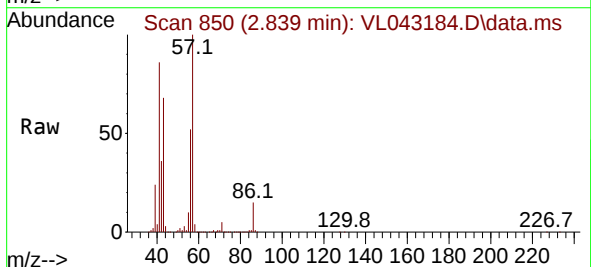
Manual Integrations
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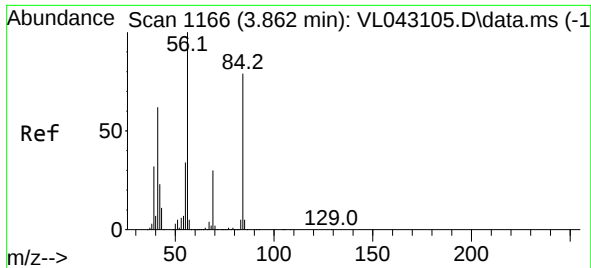
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#26
Hexane
Concen: 19.598 ppbv
RT: 2.839 min Scan# 850
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion: 57 Resp: 434603
Ion Ratio Lower Upper
57 100
41 86.5 71.4 107.0
43 72.2 178.5 267.7#
56 53.2 42.2 63.4





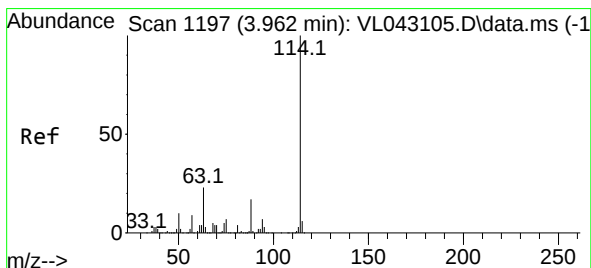
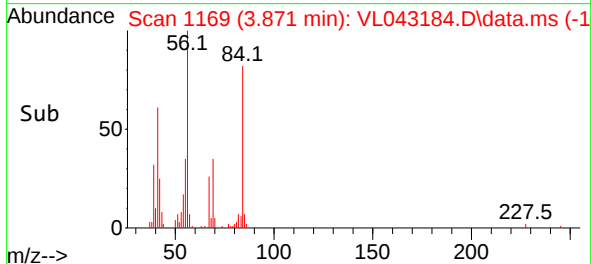
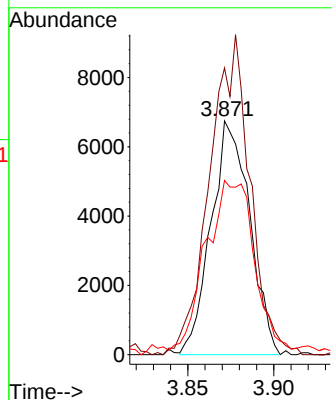
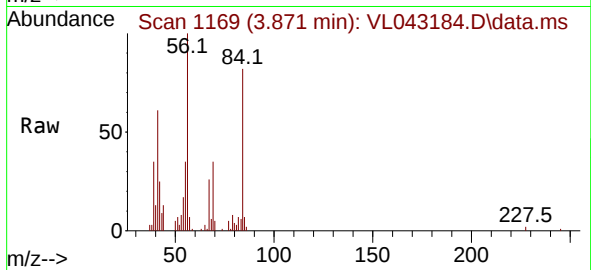
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Cyclohexane
Concen: 0.545 ppbv
RT: 3.871 min Scan# 1166
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion: 84 Resp: 10539
Ion Ratio Lower Upper
84 100
56 142.2 100.9 151.3
41 94.5 63.8 95.6

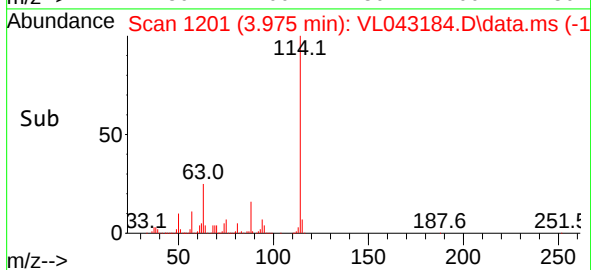
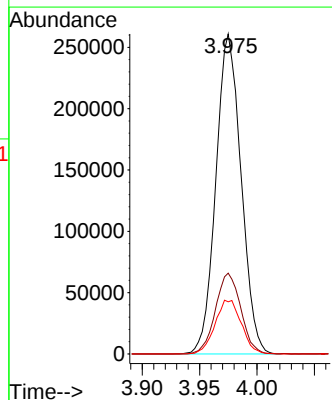
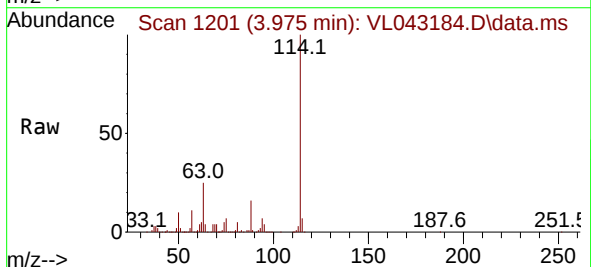
Manual Integrations
APPROVED

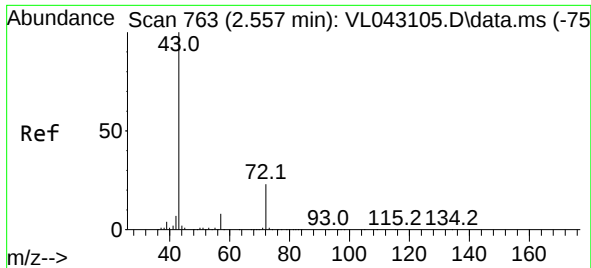
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 3.975 min Scan# 1201
Delta R.T. 0.013 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion:114 Resp: 398798
Ion Ratio Lower Upper
114 100
63 25.4 19.3 28.9
88 17.6 13.9 20.9





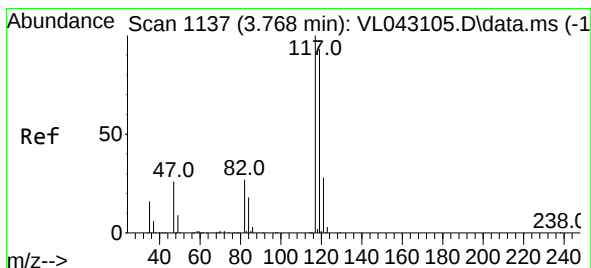
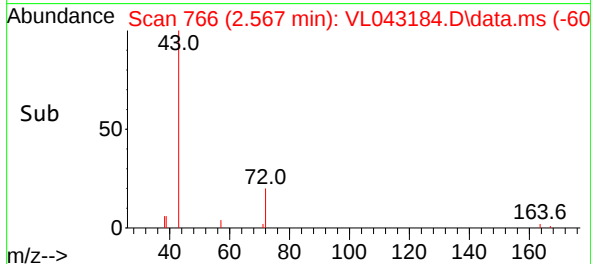
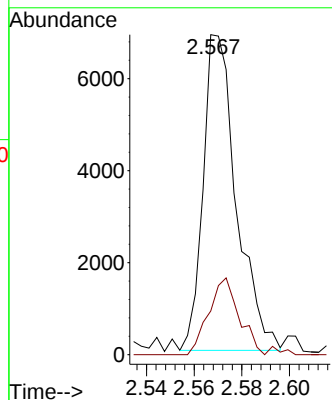
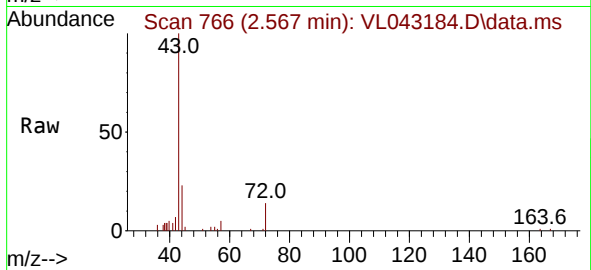
#34
2-Butanone
Concen: 0.248 ppbv
RT: 2.567 min Scan# 766
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion: 43 Resp: 6659
Ion Ratio Lower Upper
43 100
72 23.2 18.4 27.6

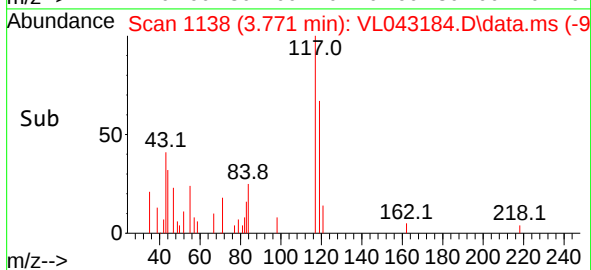
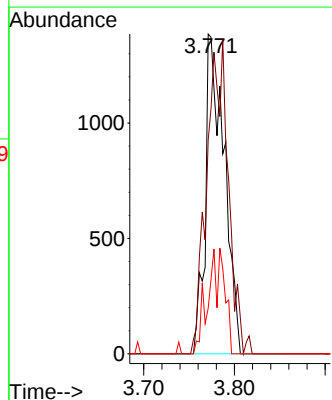
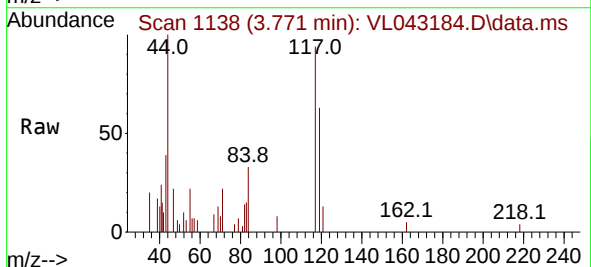
Manual Integrations
APPROVED

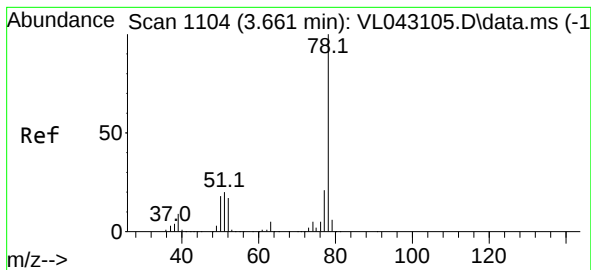
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#35
Carbon Tetrachloride
Concen: 0.070 ppbv m
RT: 3.771 min Scan# 1138
Delta R.T. 0.003 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion:117 Resp: 2007
Ion Ratio Lower Upper
117 100
119 66.9 74.1 111.1#
121 14.3 22.2 33.2#





#36

Benzene

Concen: 1.516 ppbv

RT: 3.674 min Scan# 1104

Delta R.T. 0.013 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

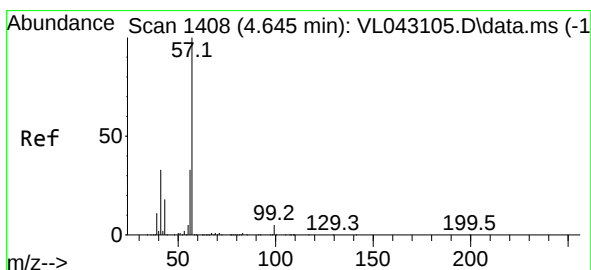
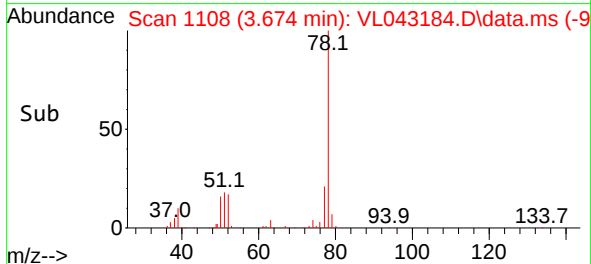
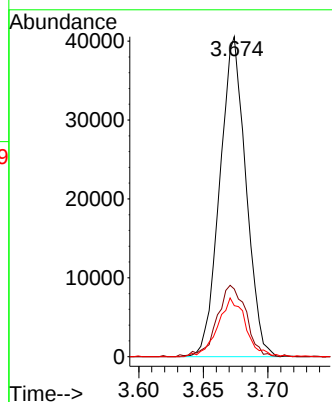
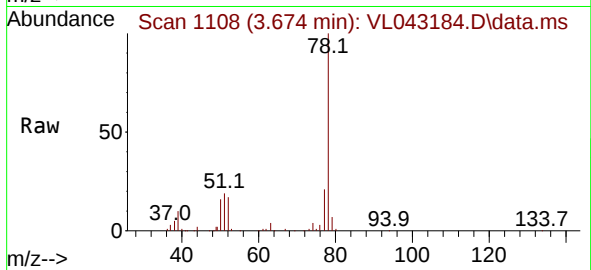
IA1ADUP

Tgt Ion: 78	Resp: 5695
Ion Ratio	Lower Upper
78 100	
77 21.1	17.0 25.6
50 15.9	14.6 22.0

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#44

2,2,4-Trimethylpentane

Concen: 1.395 ppbv

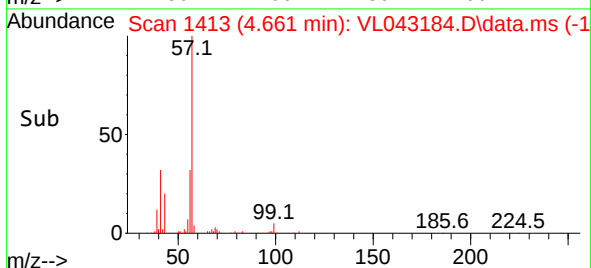
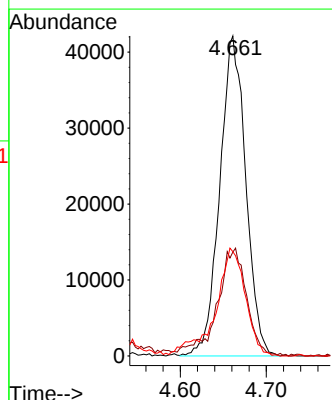
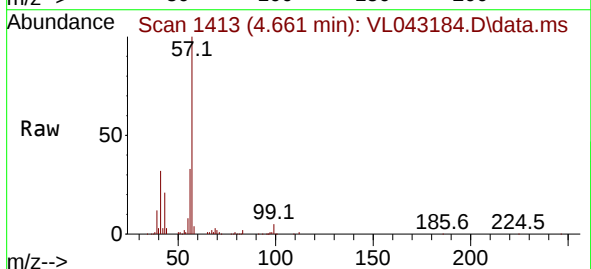
RT: 4.661 min Scan# 1413

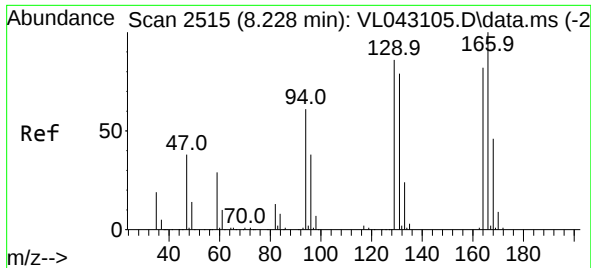
Delta R.T. 0.016 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

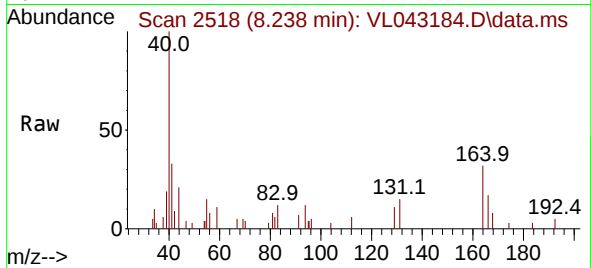
Tgt Ion: 57	Resp: 88418
Ion Ratio	Lower Upper
57 100	
41 38.8	26.3 39.5
56 38.9	25.9 38.9





#52
Tetrachloroethene
Concen: 0.042 ppbv m
RT: 8.238 min Scan# 2117
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

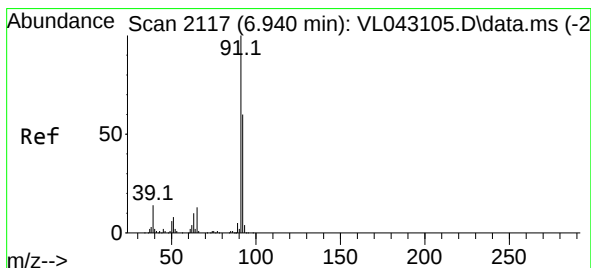
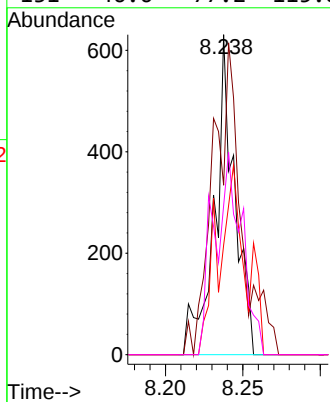
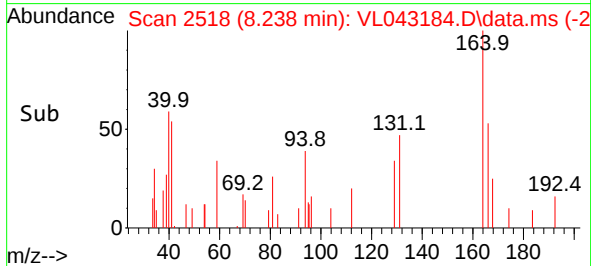
Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP



Tgt Ion:164 Resp: 561
Ion Ratio Lower Upper
164 100
166 52.9 97.6 146.4
129 34.2 84.5 126.7
131 46.6 77.2 115.8

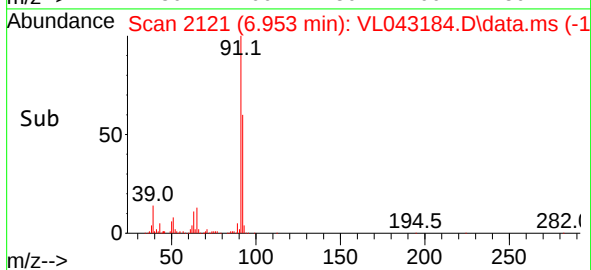
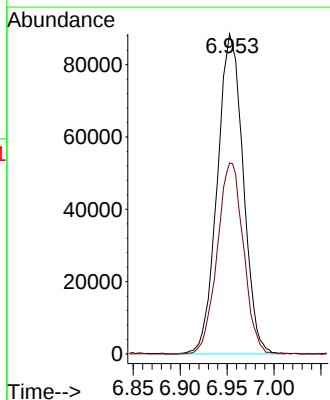
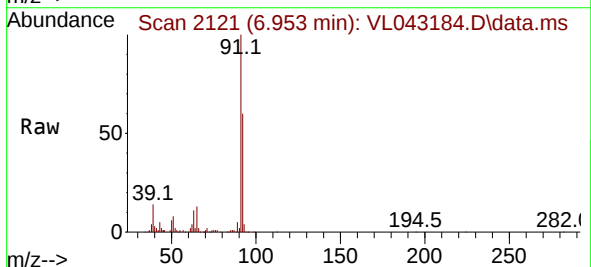
Manual Integrations
APPROVED

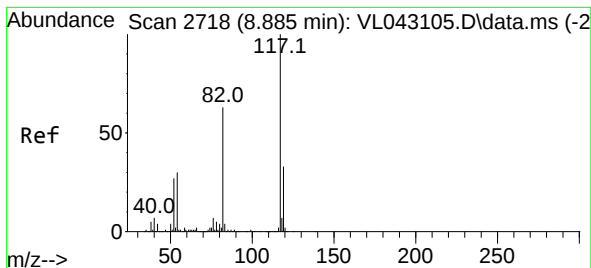
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#53
Toluene
Concen: 3.806 ppbv
RT: 6.953 min Scan# 2121
Delta R.T. 0.013 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion: 91 Resp: 169684
Ion Ratio Lower Upper
91 100
92 60.6 48.8 73.2





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 8.895 min Scan# 2718

Delta R.T. 0.010 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

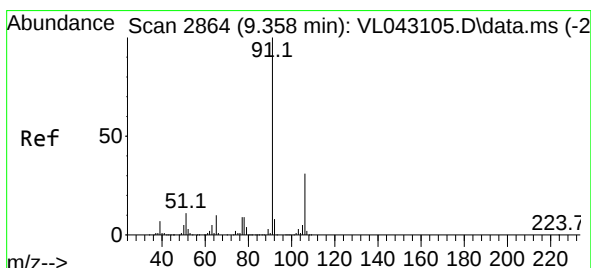
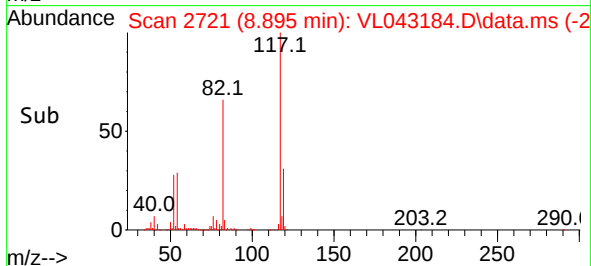
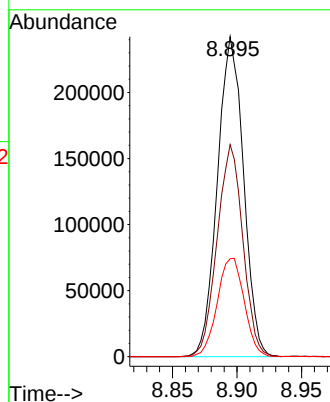
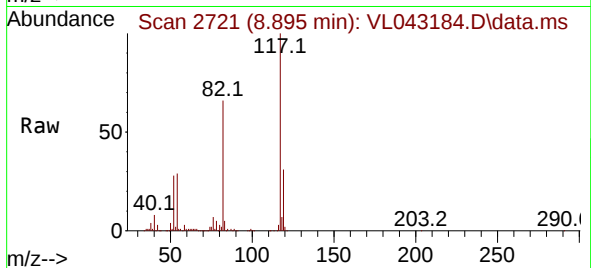
IA1ADUP

Tgt Ion:117 Resp: 34044
 Ion Ratio Lower Upper
 117 100
 82 65.4 53.8 80.8
 119 31.8 25.4 38.0

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/13/2025
 Supervised By :Mahesh Dadoda 11/13/2025



#58

Ethyl Benzene

Concen: 0.720 ppbv

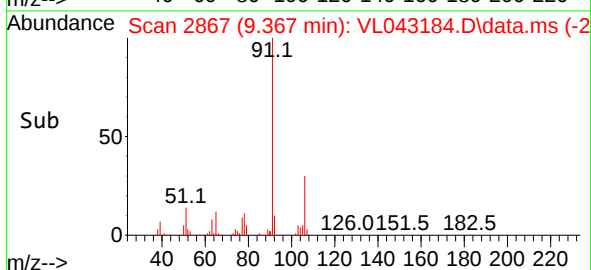
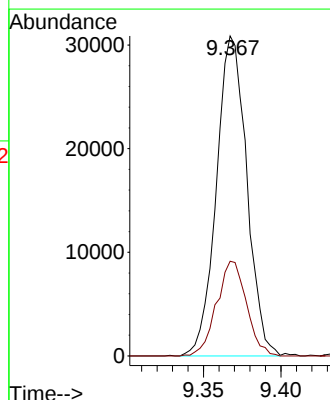
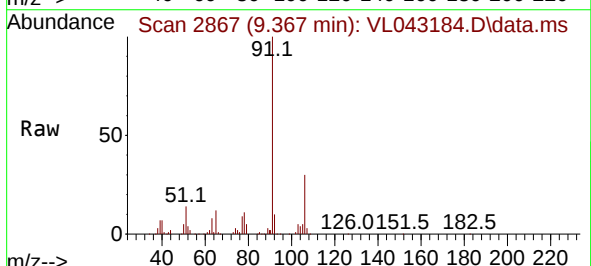
RT: 9.367 min Scan# 2867

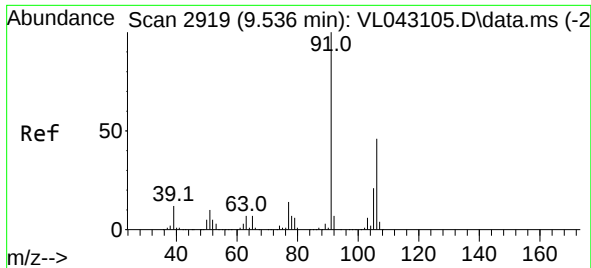
Delta R.T. 0.010 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

Tgt Ion: 91 Resp: 42063
 Ion Ratio Lower Upper
 91 100
 106 29.6 24.8 37.2





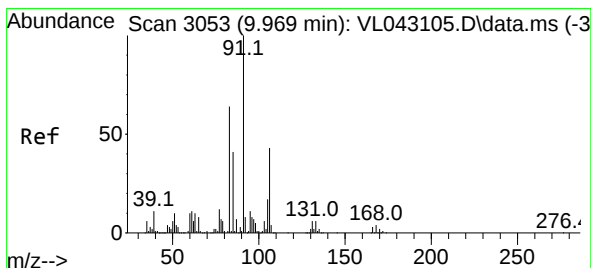
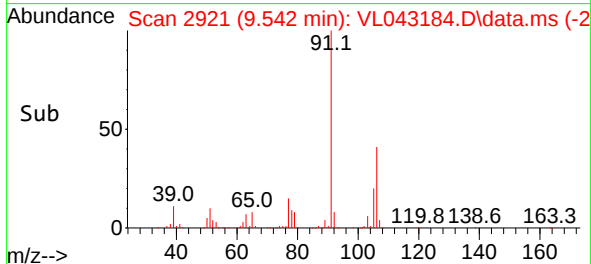
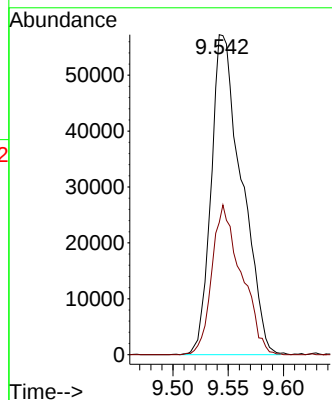
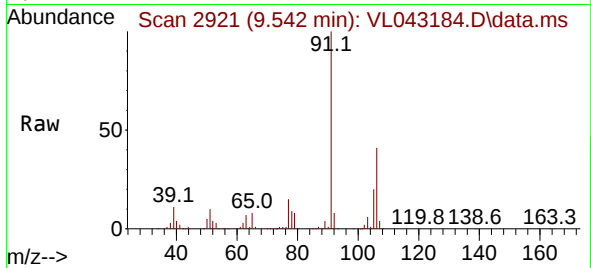
#59
m/p-Xylene
Concen: 2.362 ppbv
RT: 9.542 min Scan# 2919
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion: 91 Resp: 11006
Ion Ratio Lower Upper
91 100
106 45.2 38.0 57.0

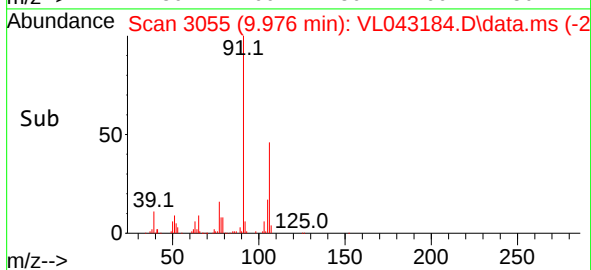
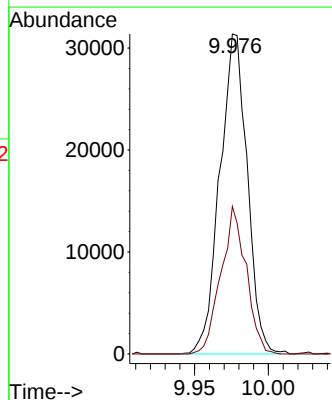
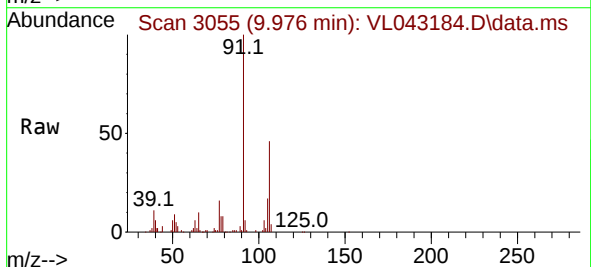
Manual Integrations
APPROVED

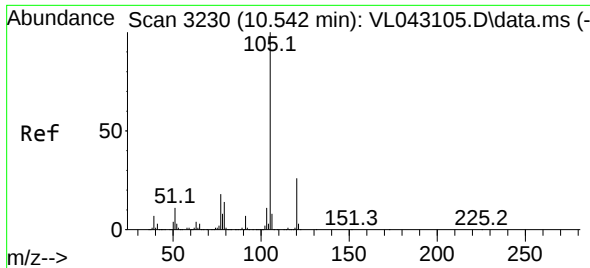
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#60
o-Xylene
Concen: 0.882 ppbv
RT: 9.976 min Scan# 3055
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion: 91 Resp: 40598
Ion Ratio Lower Upper
91 100
106 42.4 21.9 65.8





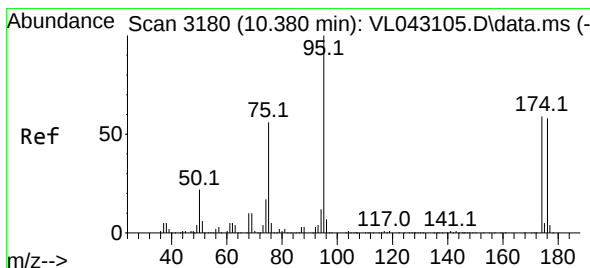
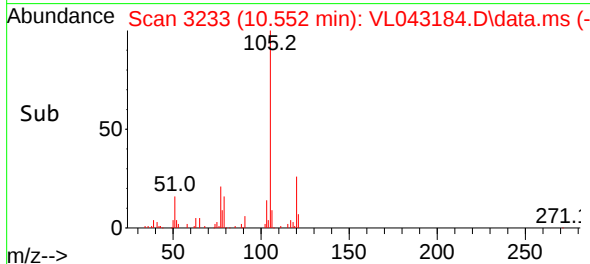
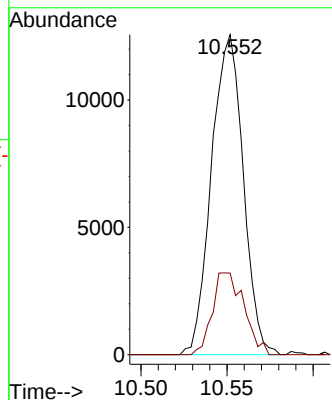
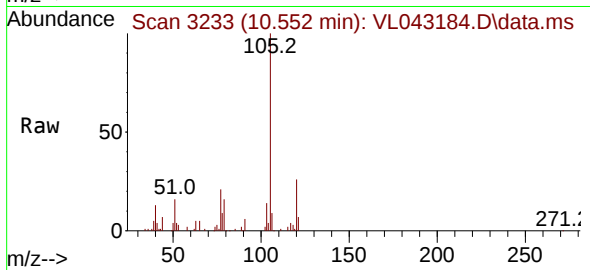
#62
Isopropylbenzene
Concen: 0.194 ppbv
RT: 10.552 min Scan# 3119
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion:105 Resp: 16119
Ion Ratio Lower Upper
105 100
120 25.4 20.2 30.4

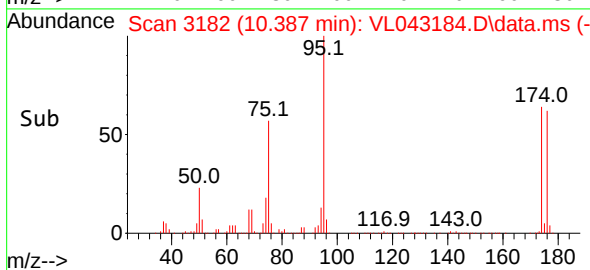
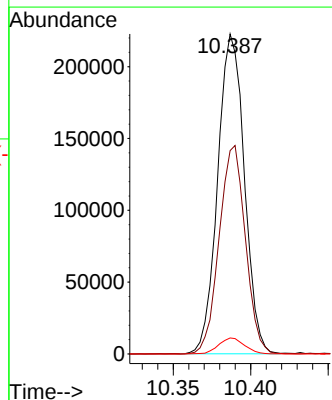
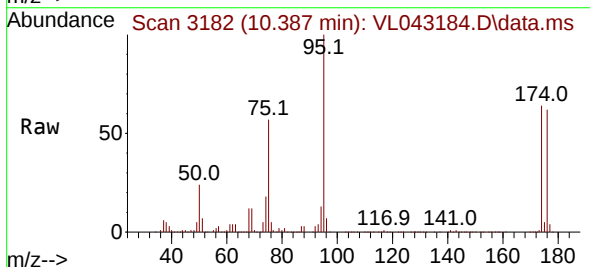
Manual Integrations
APPROVED

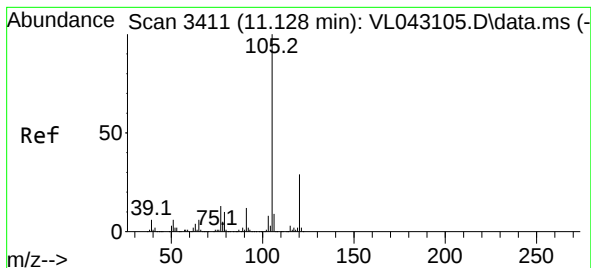
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#68
1-Bromo-4-Fluorobenzene
Concen: 10.064 ppbv
RT: 10.387 min Scan# 3182
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion: 95 Resp: 266301
Ion Ratio Lower Upper
95 100
174 64.3 48.3 72.5
175 4.9 3.8 5.8





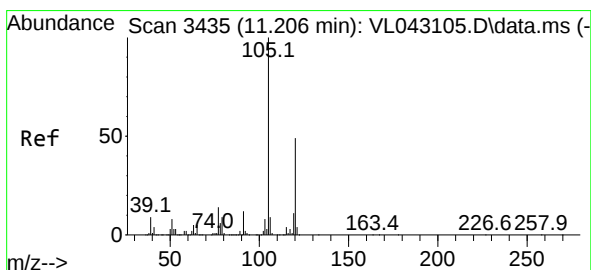
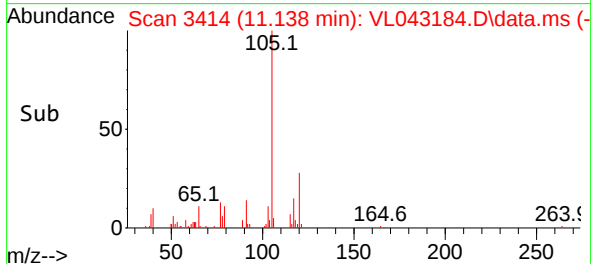
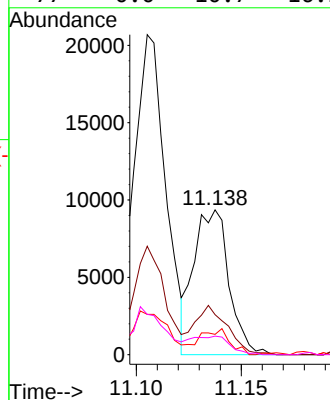
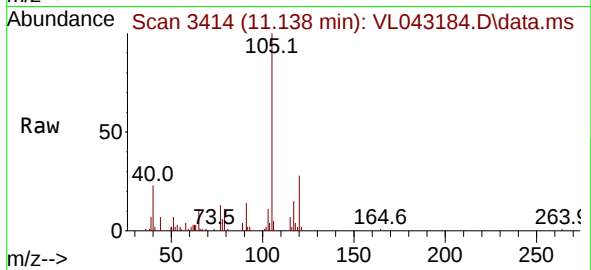
#72
4-Ethyltoluene
Concen: 0.193 ppbv m
RT: 11.138 min Scan# 3411
Delta R.T. 0.010 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Instrument :
MSVOA_L
ClientSampleId :
IA1ADUP

Tgt Ion:105 Resp: 1090
Ion Ratio Lower Upper
105 100
120 0.0 24.2 36.4
91 0.0 10.0 15.0
77 0.0 10.7 16.1

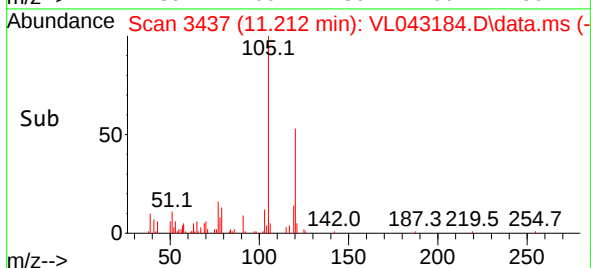
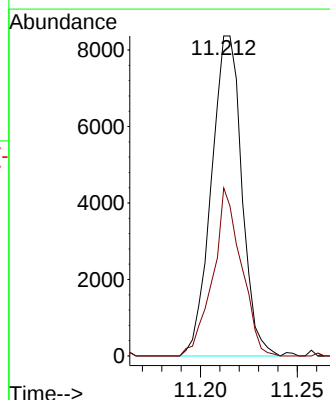
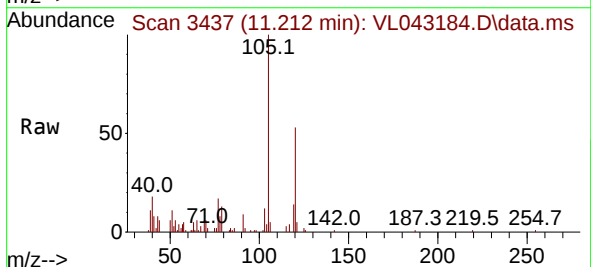
Manual Integrations
APPROVED

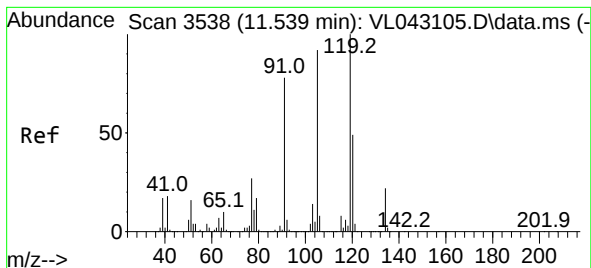
Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#73
1,3,5-Trimethylbenzene
Concen: 0.196 ppbv
RT: 11.212 min Scan# 3437
Delta R.T. 0.006 min
Lab File: VL043184.D
Acq: 11 Nov 2025 11:09

Tgt Ion:105 Resp: 9165
Ion Ratio Lower Upper
105 100
120 52.5 39.0 58.6





#74

1,2,4-Trimethylbenzene

Concen: 0.711 ppbv

RT: 11.545 min Scan# 3538

Delta R.T. 0.006 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

Instrument :

MSVOA_L

ClientSampleId :

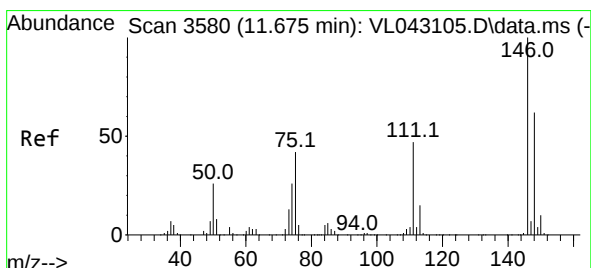
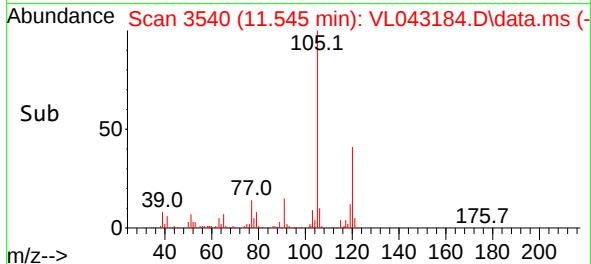
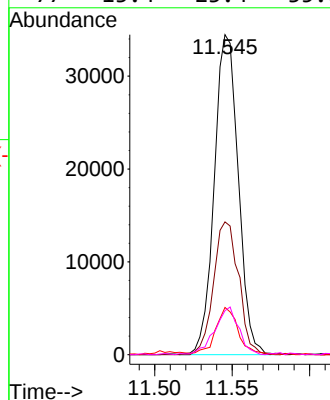
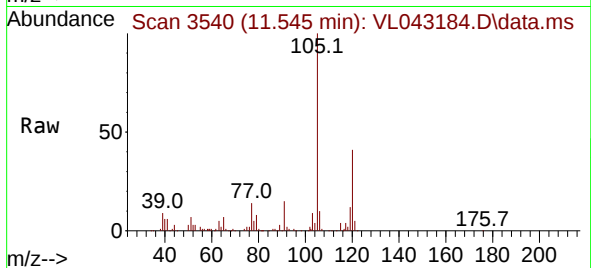
IA1ADUP

Tgt Ion:105	Resp:	3714
Ion Ratio	Lower	Upper
105	100	
120	41.5	42.8 64.2
91	14.7	68.3 102.5
77	13.4	23.4 35.0

Manual Integrations

APPROVED

Reviewed By :Semsettin Yesilyurt 11/13/2025
Supervised By :Mahesh Dadoda 11/13/2025



#76

1,4-Dichlorobenzene

Concen: 0.136 ppbv

RT: 11.685 min Scan# 3583

Delta R.T. 0.010 min

Lab File: VL043184.D

Acq: 11 Nov 2025 11:09

Tgt Ion:146	Resp:	4152
Ion Ratio	Lower	Upper
146	100	
111	51.7	22.4 67.0
148	61.7	31.6 94.7

