

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL111325\
 Data File : VL043197.D
 Acq On : 13 Nov 2025 13:40
 Operator : SY/MD
 Sample : Q3627-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-East

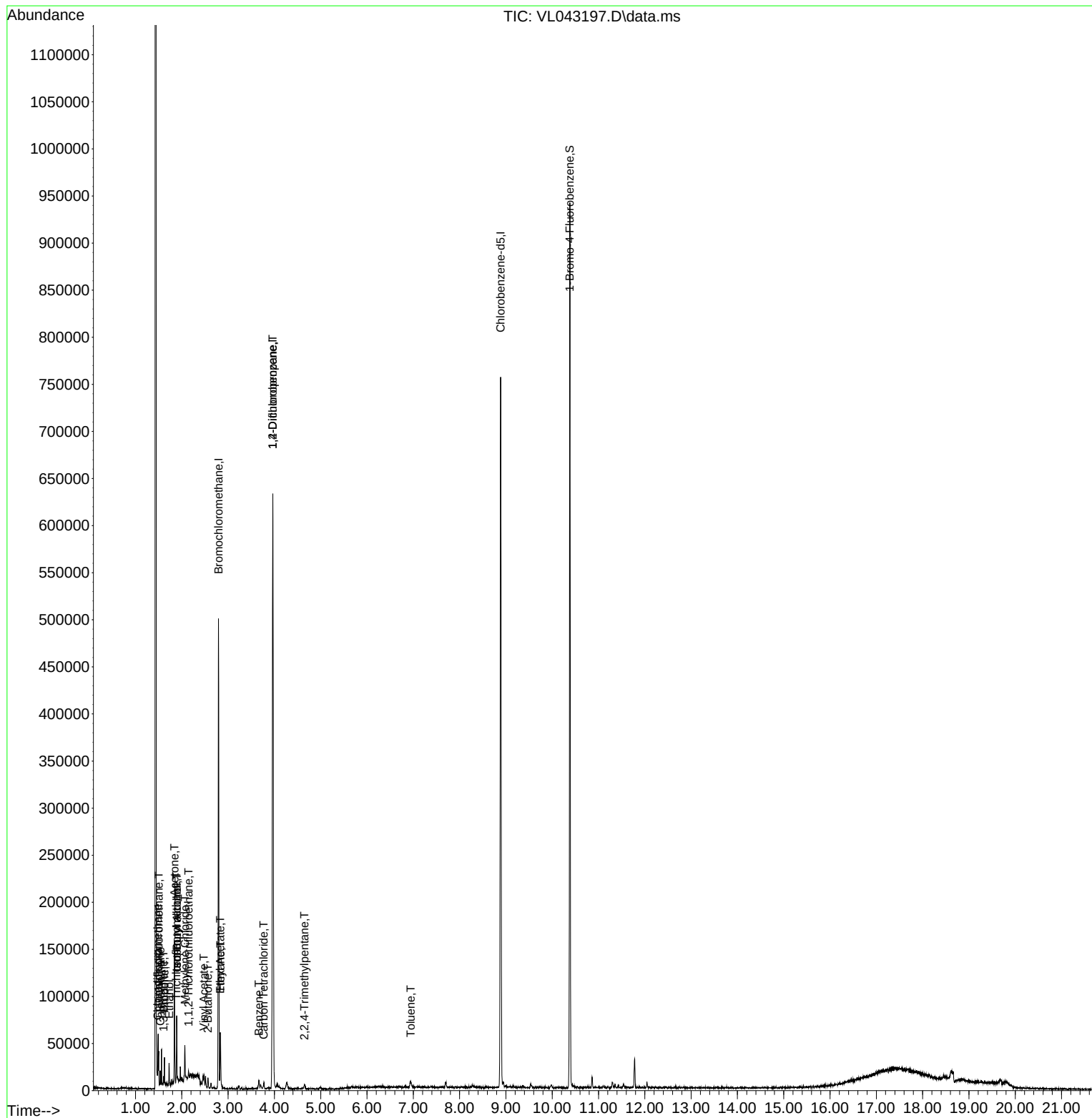
Quant Time: Nov 14 04:39:32 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Oct 15 02:12:58 2025
 Response via : Initial Calibration

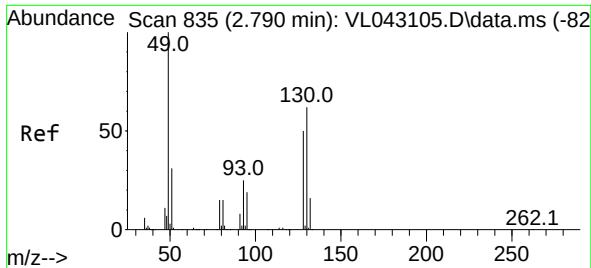
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.793	49	141257	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.965	114	362075	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.885	117	303679	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.380	95	226539	9.597	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.502	85	8904	0.443	ppbv	94
3) Chlorodifluoromethane	1.479	51	8155	0.375	ppbv #	88
4) Chloromethane	1.534	50	4432	0.557	ppbv	98
9) Propene	1.625	41	2305	0.239	ppbv	84
11) Trichlorofluoromethane	1.884	101	4396	0.224	ppbv	96
12) 1,1,2-Trichlorotrifluo...	2.146	101	1204	0.076	ppbv	90
13) Ethanol	1.725	45	7682	2.155	ppbv #	38
15) Acetone	1.839	43	66035	3.468	ppbv	99
16) 1,3-Butadiene	1.605	39	1172	0.129	ppbv #	20
17) tert-Butyl alcohol	1.890	59	1006	0.038	ppbv	97
19) Isopropyl Alcohol	1.890	45	27214	2.295	ppbv #	64
20) Methylene Chloride	2.068	84	5239	0.696	ppbv	93
23) Vinyl Acetate	2.476	43	1578	0.057	ppbv #	43
25) Ethyl Acetate	2.829	43	9604	0.203	ppbv #	83
26) Hexane	2.835	57	12272	0.564	ppbv #	40
34) 2-Butanone	2.564	43	6473	0.266	ppbv	96
35) Carbon Tetrachloride	3.768	117	860	0.033	ppbv #	52
36) Benzene	3.664	78	4088	0.120	ppbv #	94
39) 1,2-Dichloropropane	3.965	63	94223	7.558	ppbv #	23
44) 2,2,4-Trimethylpentane	4.648	57	1732	0.030	ppbv #	42
53) Toluene	6.946	91	2081	0.051	ppbv #	20

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

Quant Time: Nov 14 04:39:32 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL101425AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Oct 15 02:12:58 2025
Response via : Initial Calibration

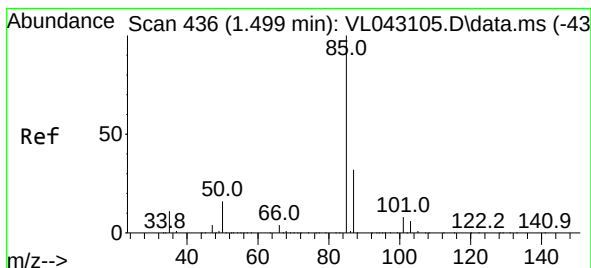
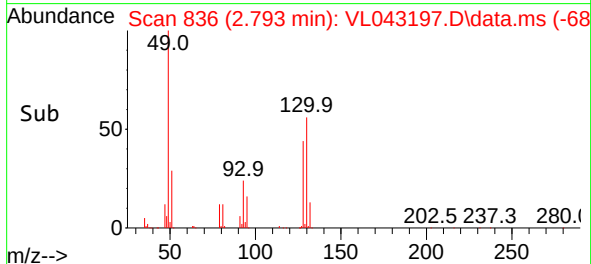
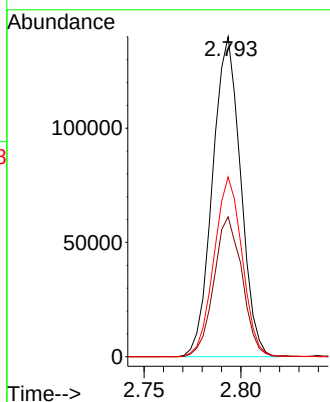
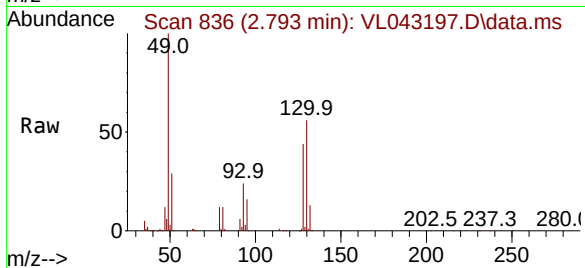




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.793 min Scan# 835
Delta R.T. 0.003 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

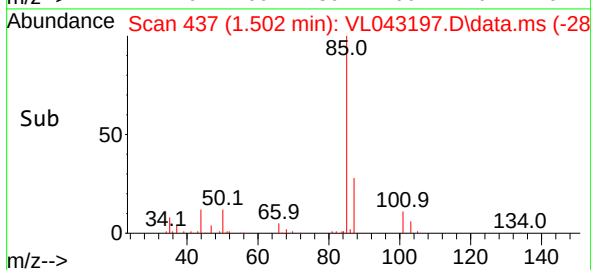
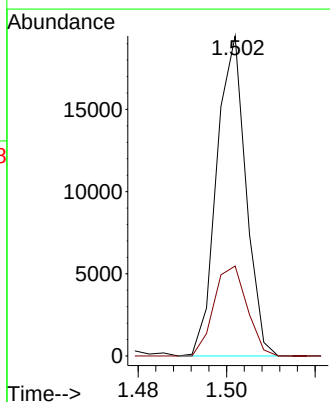
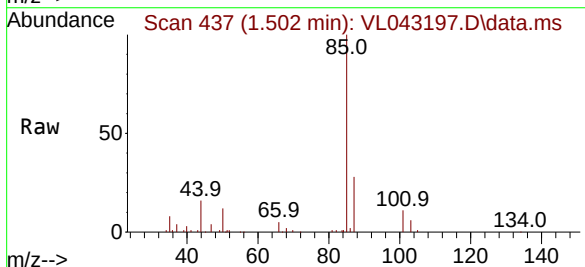
Instrument :
MSVOA_L
ClientSampleId :
AA-East

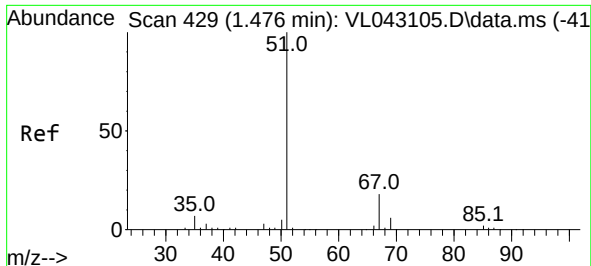
Tgt Ion: 49 Resp: 141257
Ion Ratio Lower Upper
49 100
128 43.9 24.4 73.4
130 56.5 31.0 93.0



#2
Dichlorodifluoromethane
Concen: 0.443 ppbv
RT: 1.502 min Scan# 437
Delta R.T. 0.003 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

Tgt Ion: 85 Resp: 8904
Ion Ratio Lower Upper
85 100
87 28.1 25.3 37.9





#3

Chlorodifluoromethane

Concen: 0.375 ppbv

RT: 1.479 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Instrument :

MSVOA_L

ClientSampleId :

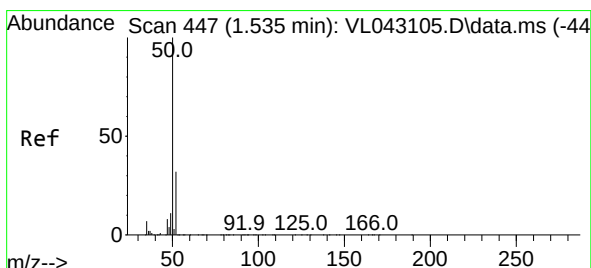
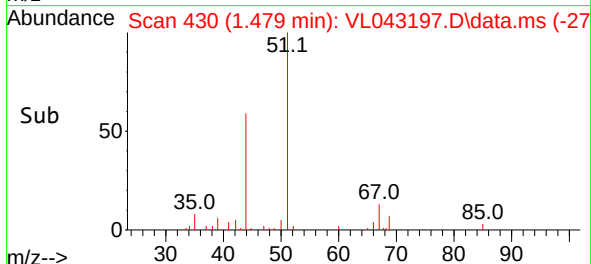
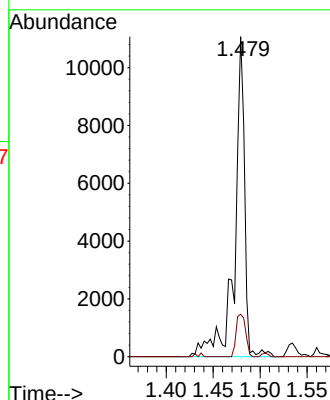
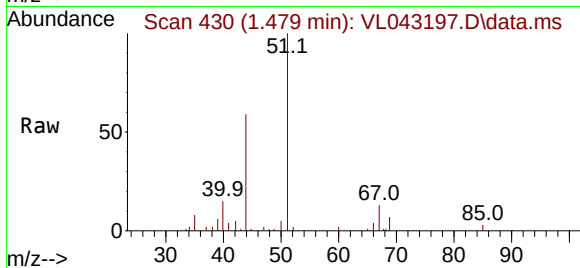
AA-East

Tgt Ion: 51 Resp: 8155

Ion Ratio Lower Upper

51 100

67 13.3 15.1 22.7#



#4

Chloromethane

Concen: 0.557 ppbv

RT: 1.534 min Scan# 447

Delta R.T. -0.000 min

Lab File: VL043197.D

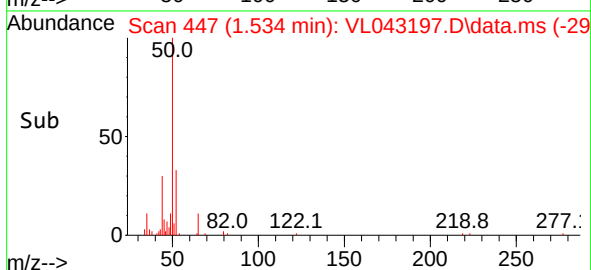
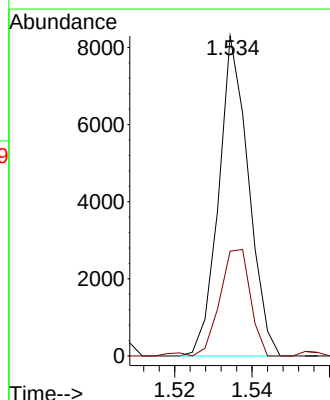
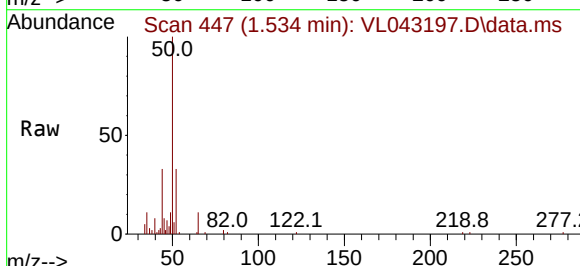
Acq: 13 Nov 2025 13:40

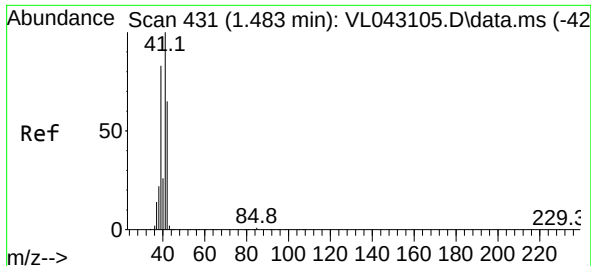
Tgt Ion: 50 Resp: 4432

Ion Ratio Lower Upper

50 100

52 32.7 25.2 37.8





#9

Propene

Concen: 0.239 ppbv

RT: 1.625 min Scan# 41

Delta R.T. 0.142 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Instrument :

MSVOA_L

ClientSampleId :

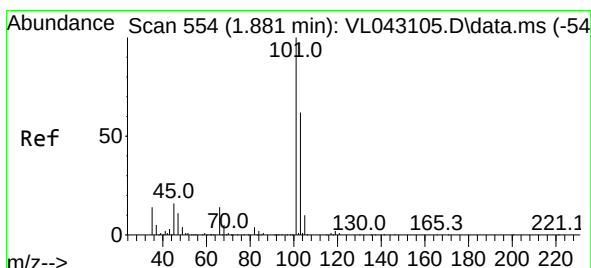
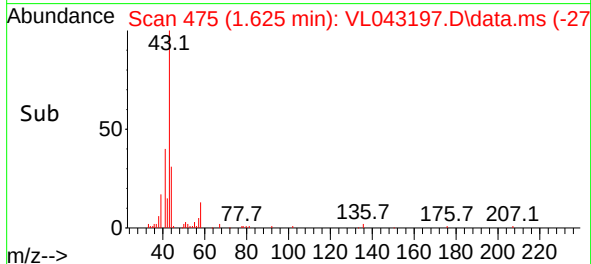
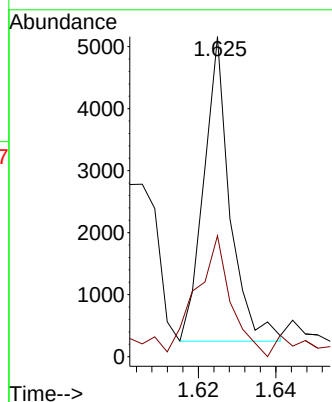
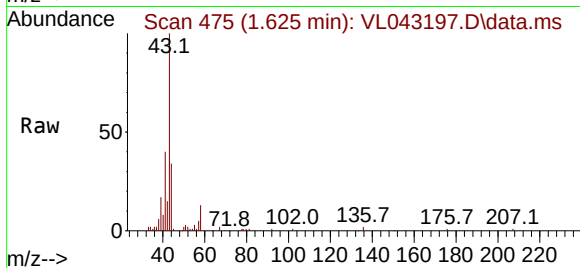
AA-East

Tgt Ion: 41 Resp: 2305

Ion Ratio Lower Upper

41 100

42 81.9 55.1 82.7



#11

Trichlorofluoromethane

Concen: 0.224 ppbv

RT: 1.884 min Scan# 555

Delta R.T. 0.003 min

Lab File: VL043197.D

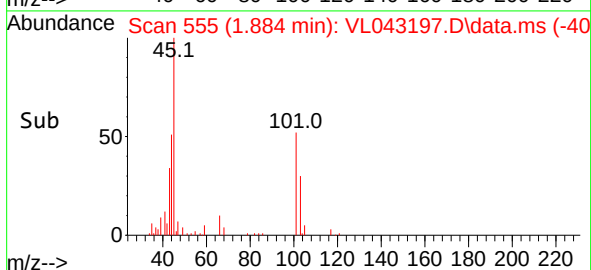
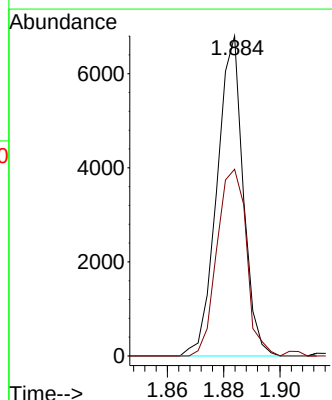
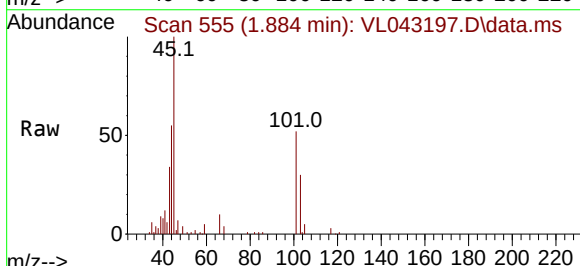
Acq: 13 Nov 2025 13:40

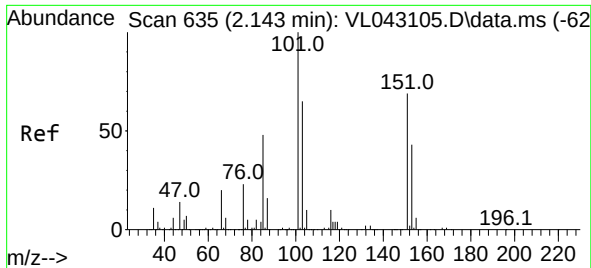
Tgt Ion: 101 Resp: 4396

Ion Ratio Lower Upper

101 100

103 58.3 49.3 73.9

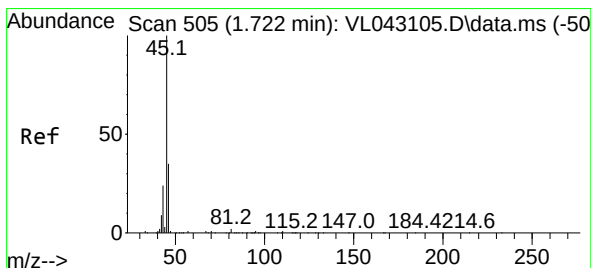
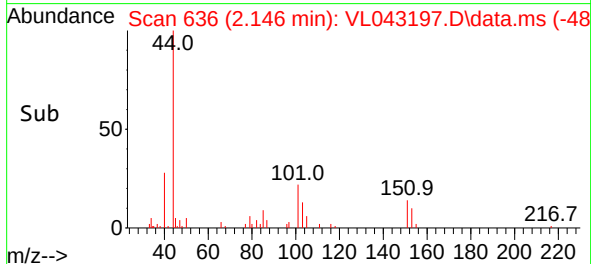
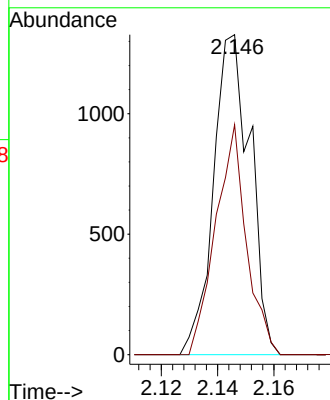
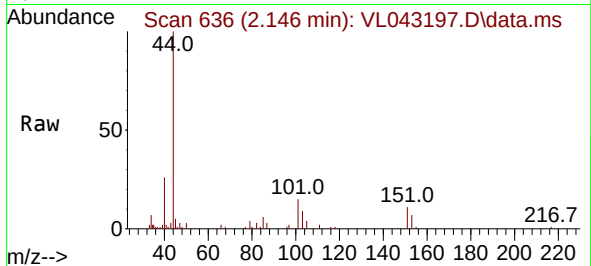




#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.076 ppbv
RT: 2.146 min Scan# 61
Delta R.T. 0.003 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

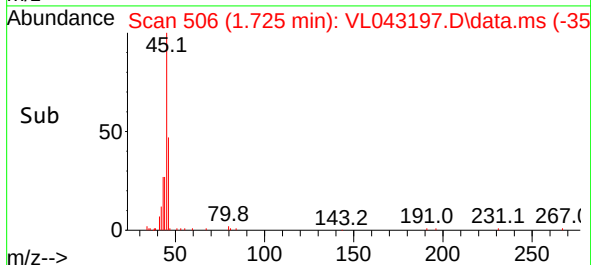
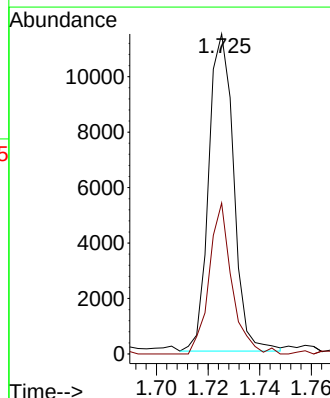
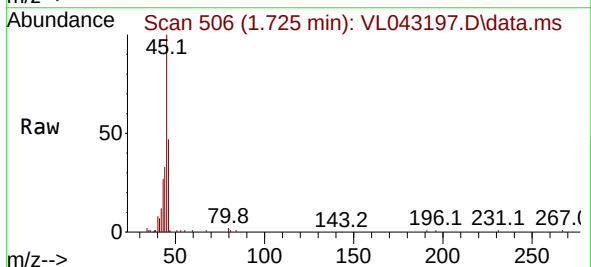
Instrument :
MSVOA_L
ClientSampleId :
AA-East

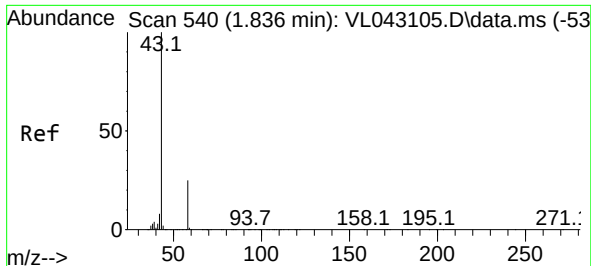
Tgt Ion:101 Resp: 1204
Ion Ratio Lower Upper
101 100
151 60.4 54.7 82.1



#13
Ethanol
Concen: 2.155 ppbv
RT: 1.725 min Scan# 506
Delta R.T. 0.003 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

Tgt Ion: 45 Resp: 7682
Ion Ratio Lower Upper
45 100
46 0.0 14.7 58.9#





#15

Acetone

Concen: 3.468 ppbv

RT: 1.839 min Scan# 54

Delta R.T. 0.003 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Instrument :

MSVOA_L

ClientSampleId :

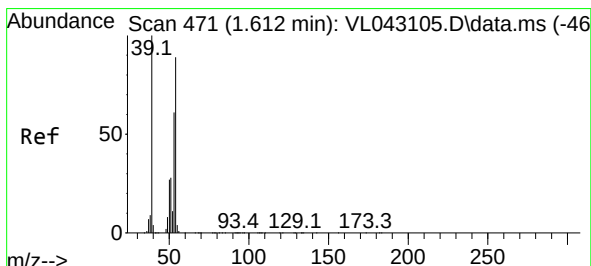
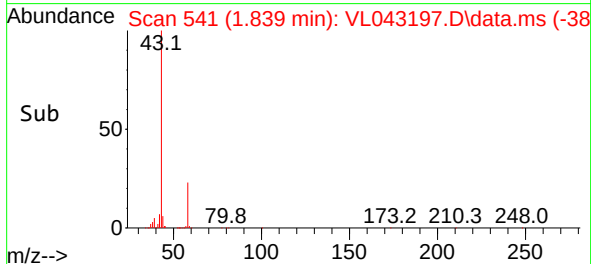
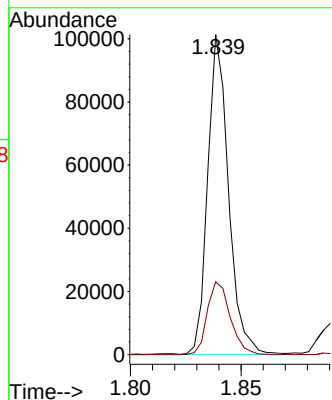
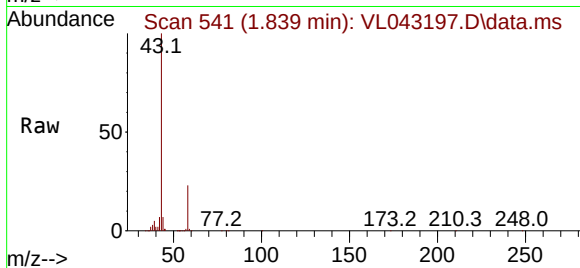
AA-East

Tgt Ion: 43 Resp: 66035

Ion Ratio Lower Upper

43 100

58 25.3 20.8 31.2



#16

1,3-Butadiene

Concen: 0.129 ppbv

RT: 1.605 min Scan# 469

Delta R.T. -0.007 min

Lab File: VL043197.D

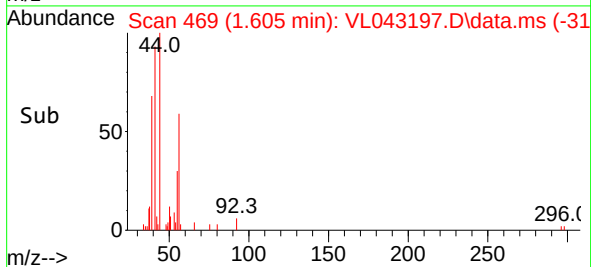
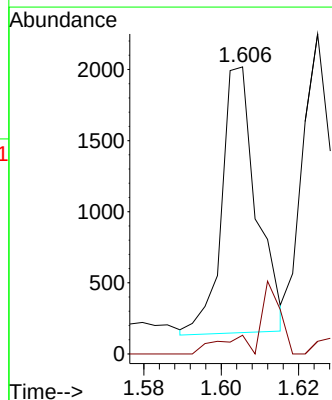
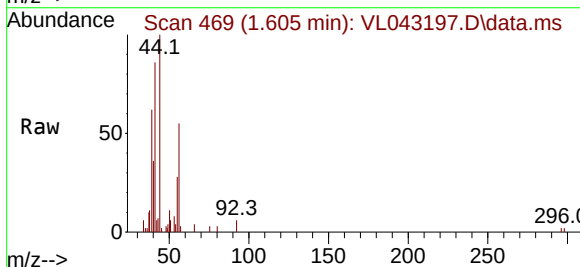
Acq: 13 Nov 2025 13:40

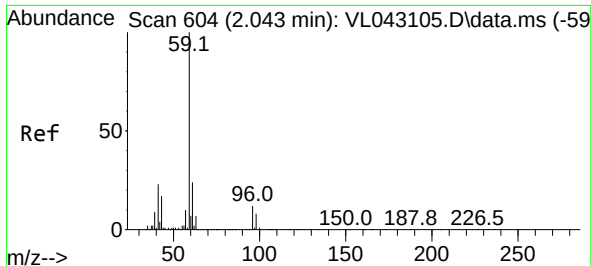
Tgt Ion: 39 Resp: 1172

Ion Ratio Lower Upper

39 100

54 6.2 59.0 88.4#





#17

tert-Butyl alcohol

Concen: 0.038 ppbv

RT: 1.890 min Scan# 557

Delta R.T. -0.152 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Instrument :

MSVOA_L

ClientSampleId :

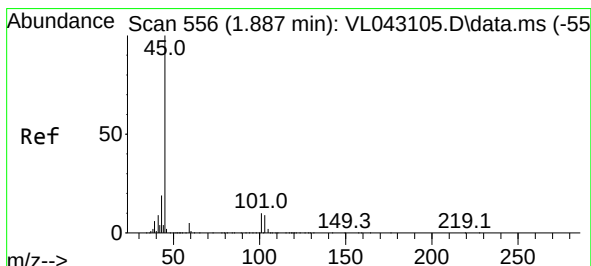
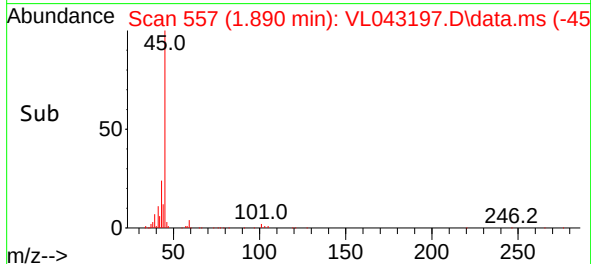
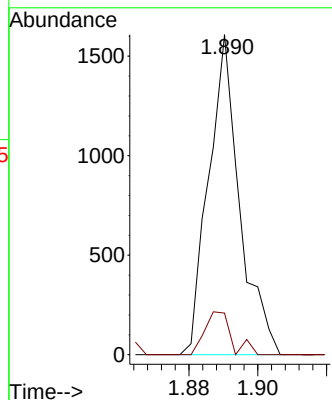
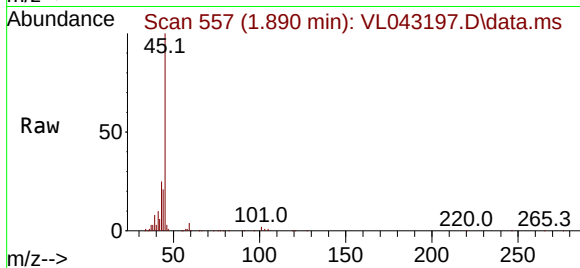
AA-East

Tgt Ion: 59 Resp: 1006

Ion Ratio Lower Upper

59 100

57 11.5 8.2 12.4



#19

Isopropyl Alcohol

Concen: 2.295 ppbv

RT: 1.890 min Scan# 557

Delta R.T. 0.003 min

Lab File: VL043197.D

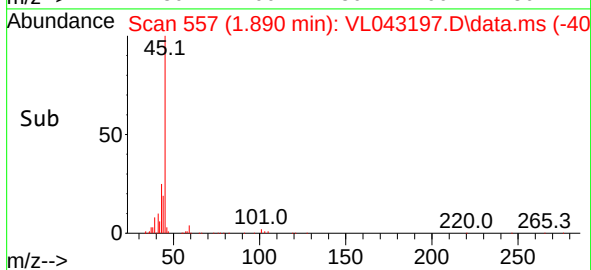
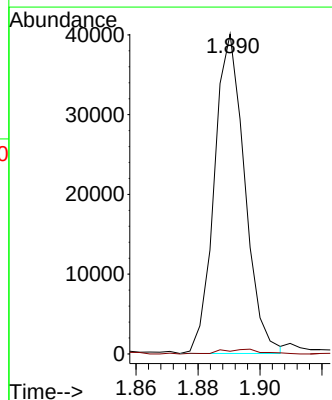
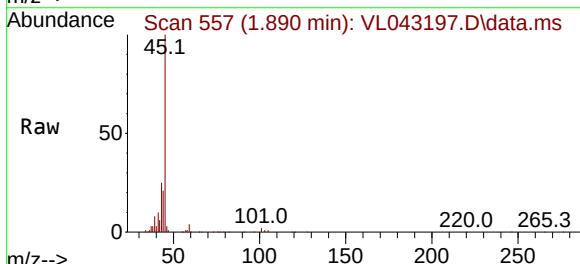
Acq: 13 Nov 2025 13:40

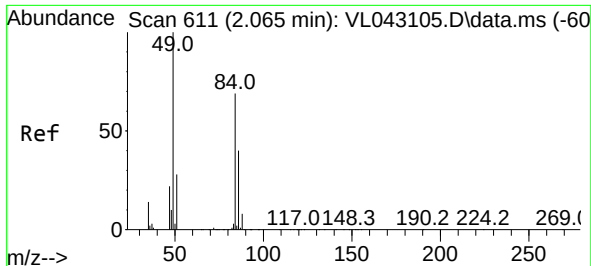
Tgt Ion: 45 Resp: 27214

Ion Ratio Lower Upper

45 100

58 61.3 31.3 46.9#





#20

Methylene Chloride

Concen: 0.696 ppbv

RT: 2.068 min Scan# 611

Delta R.T. 0.003 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Instrument :

MSVOA_L

ClientSampleId :

AA-East

Tgt Ion: 84 Resp: 5239

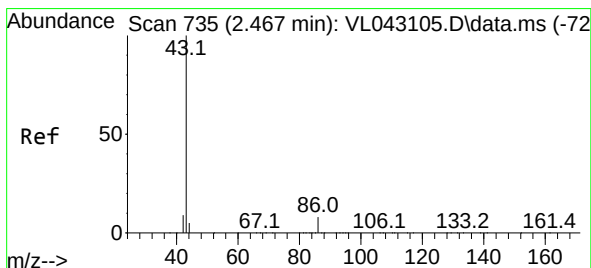
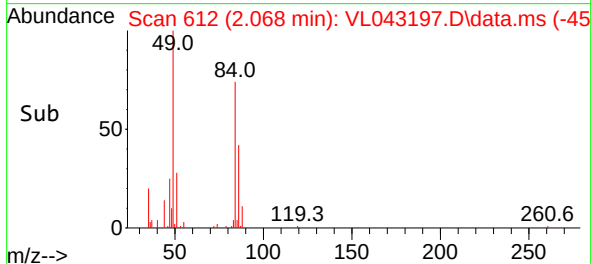
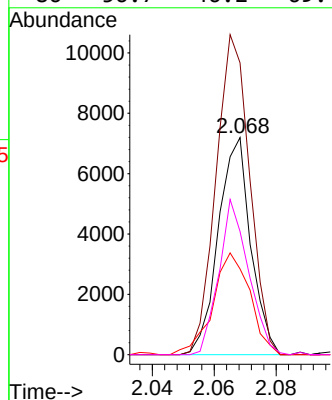
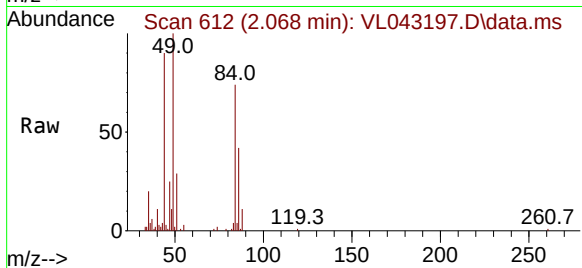
Ion Ratio Lower Upper

84 100

49 134.4 116.6 175.0

51 39.5 34.8 52.2

86 56.7 46.2 69.4



#23

Vinyl Acetate

Concen: 0.057 ppbv

RT: 2.476 min Scan# 738

Delta R.T. 0.009 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Tgt Ion: 43 Resp: 1578

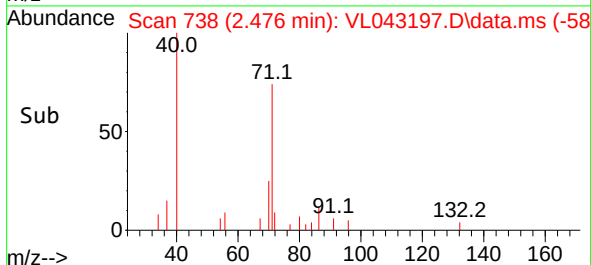
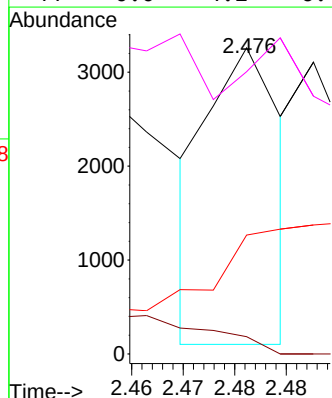
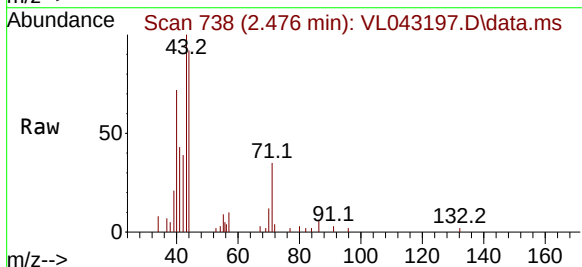
Ion Ratio Lower Upper

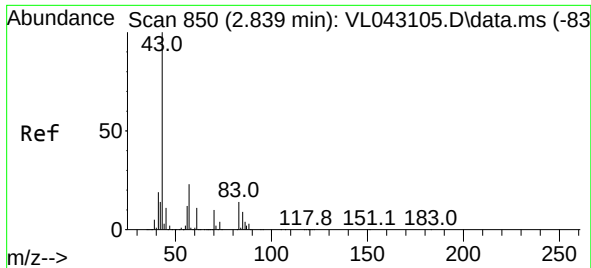
43 100

86 15.6 6.2 9.2#

42 49.3 7.6 11.4#

44 0.0 4.2 6.4#

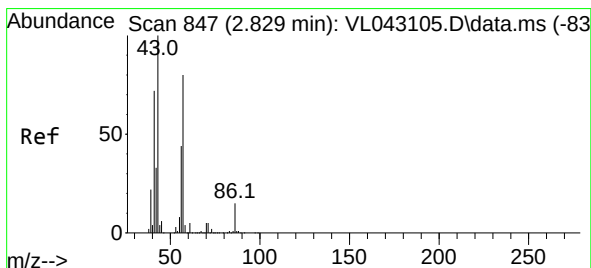
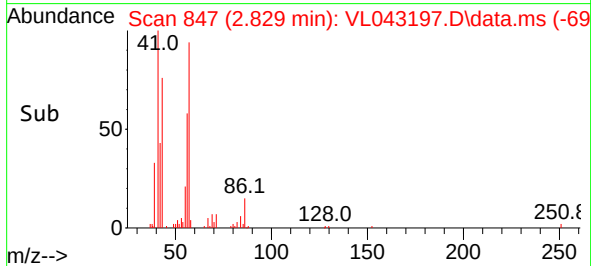
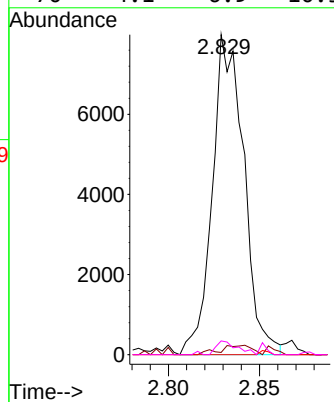
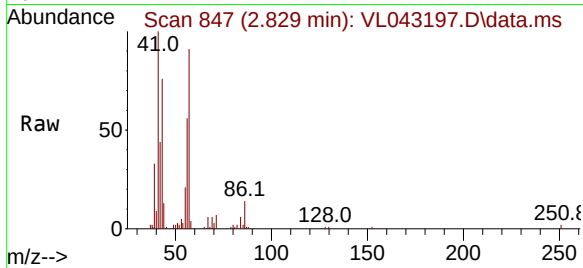




#25
Ethyl Acetate
Concen: 0.203 ppbv
RT: 2.829 min Scan# 847
Delta R.T. -0.010 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

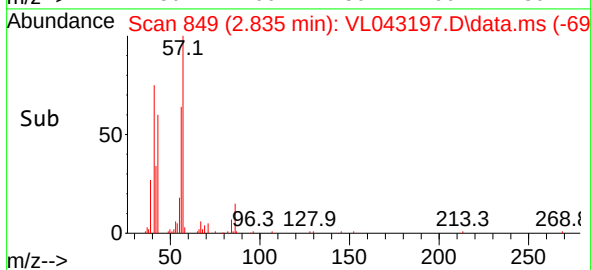
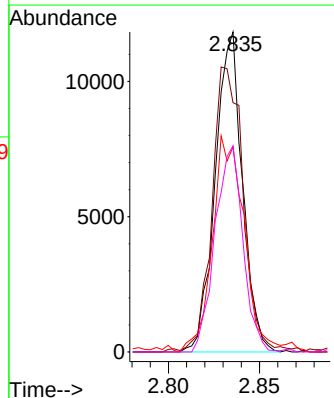
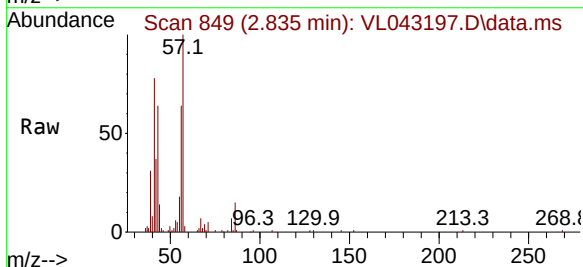
Instrument :
MSVOA_L
ClientSampleId :
AA-East

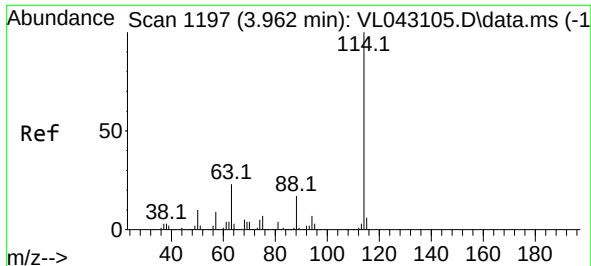
Tgt Ion: 43	Resp: 9604
Ion Ratio	Lower Upper
43 100	
45 3.8	7.8 11.8#
61 0.4	7.0 10.6#
70 4.1	6.9 10.3#



#26
Hexane
Concen: 0.564 ppbv
RT: 2.835 min Scan# 849
Delta R.T. 0.006 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

Tgt Ion: 57	Resp:	12272	
Ion	Ratio	Lower	Upper
57	100		
41	101.7	71.4	107.0
43	80.1	178.5	267.7#
56	66.5	42.2	63.4#

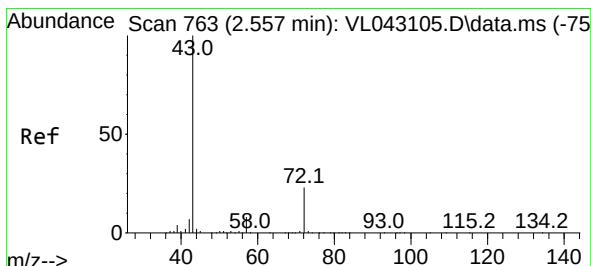
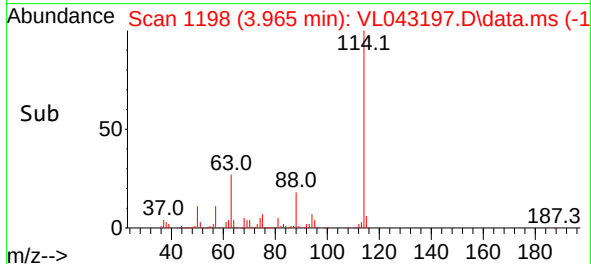
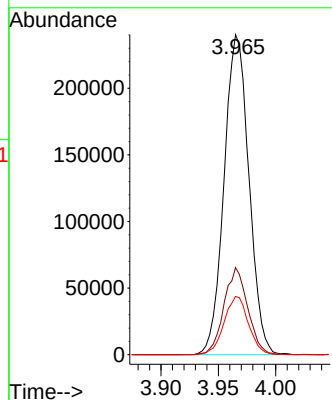
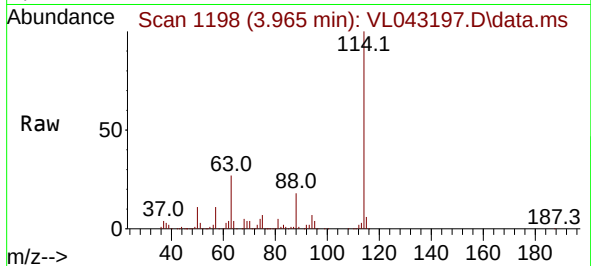




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.965 min Scan# 1198
 Delta R.T. 0.003 min
 Lab File: VL043197.D
 Acq: 13 Nov 2025 13:40

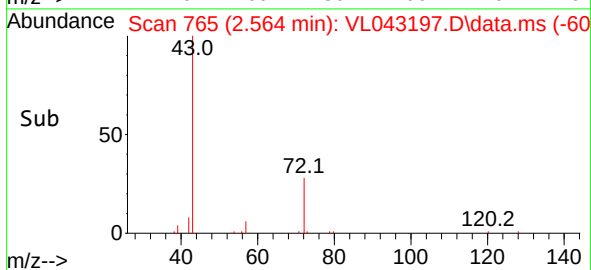
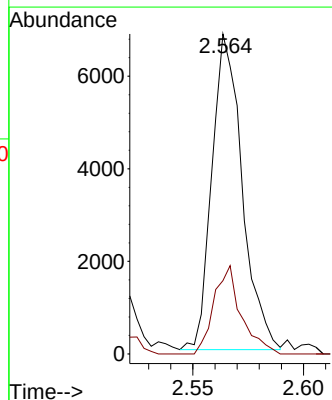
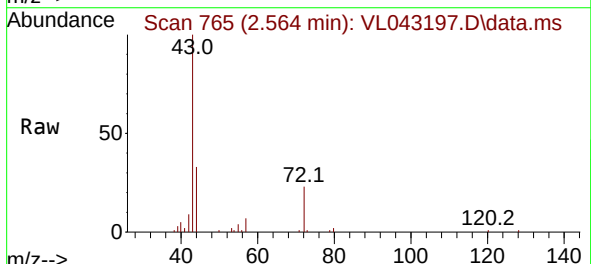
Instrument :
 MSVOA_L
 ClientSampleId :
 AA-East

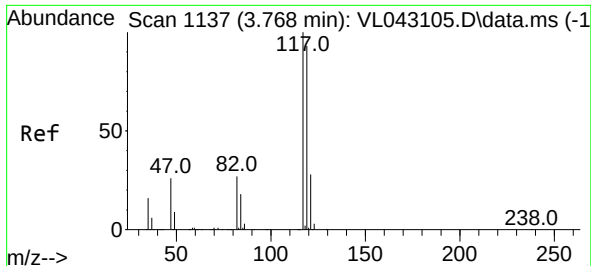
Tgt Ion:114 Resp: 362075
 Ion Ratio Lower Upper
 114 100
 63 26.1 19.3 28.9
 88 17.8 13.9 20.9



#34
 2-Butanone
 Concen: 0.266 ppbv
 RT: 2.564 min Scan# 765
 Delta R.T. 0.006 min
 Lab File: VL043197.D
 Acq: 13 Nov 2025 13:40

Tgt Ion: 43 Resp: 6473
 Ion Ratio Lower Upper
 43 100
 72 25.2 18.4 27.6

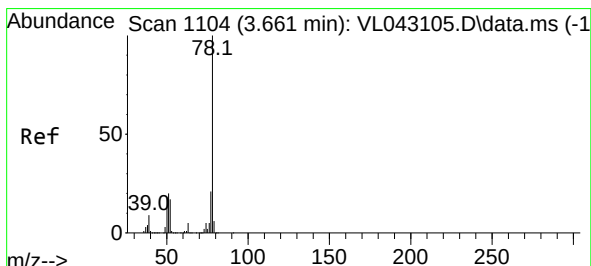
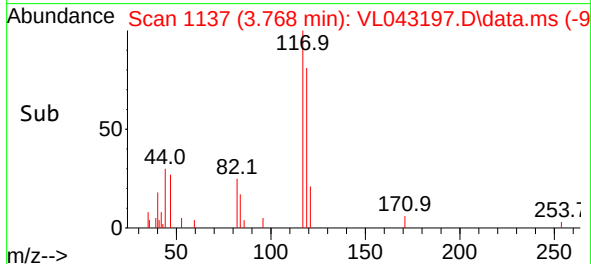
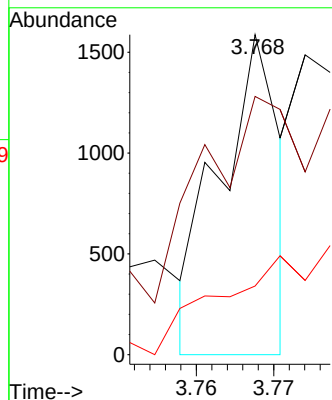
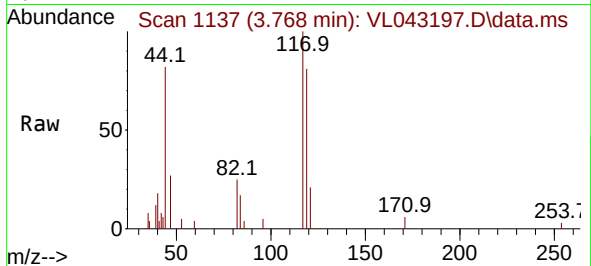




#35
Carbon Tetrachloride
Concen: 0.033 ppbv
RT: 3.768 min Scan# 1137
Delta R.T. -0.000 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

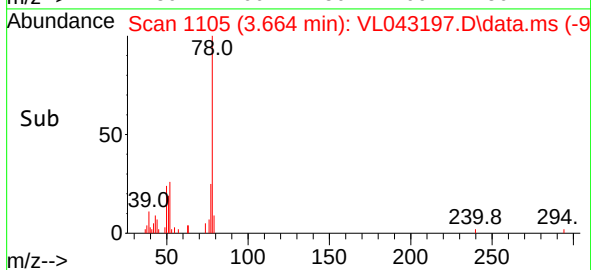
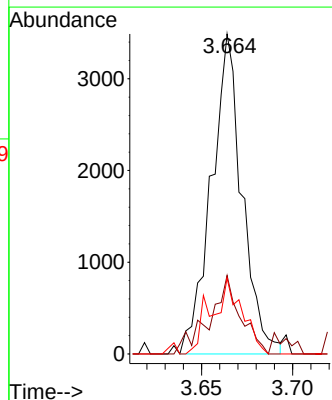
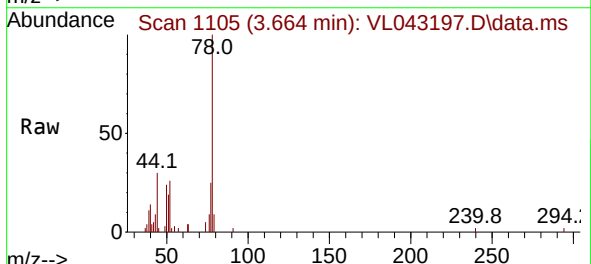
Instrument :
MSVOA_L
ClientSampleId :
AA-East

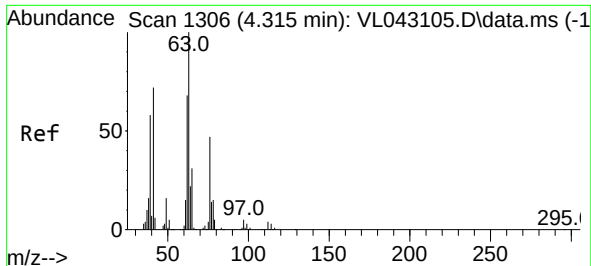
Tgt Ion:117 Resp: 860
Ion Ratio Lower Upper
117 100
119 43.4 74.1 111.1#
121 9.1 22.2 33.2#



#36
Benzene
Concen: 0.120 ppbv
RT: 3.664 min Scan# 1105
Delta R.T. 0.003 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

Tgt Ion: 78 Resp: 4088
Ion Ratio Lower Upper
78 100
77 21.5 17.0 25.6
50 23.7 14.6 22.0#





#39

1,2-Dichloropropane

Concen: 7.558 ppbv

RT: 3.965 min Scan# 1198

Delta R.T. -0.350 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

Instrument :

MSVOA_L

ClientSampleId :

AA-East

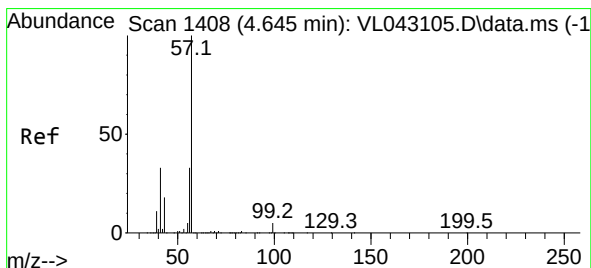
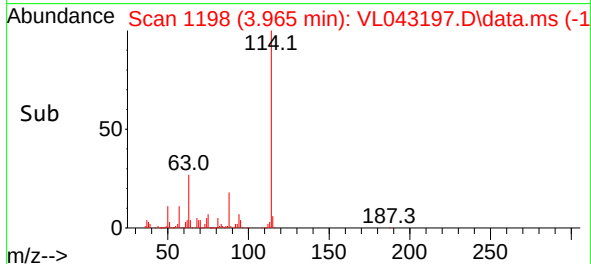
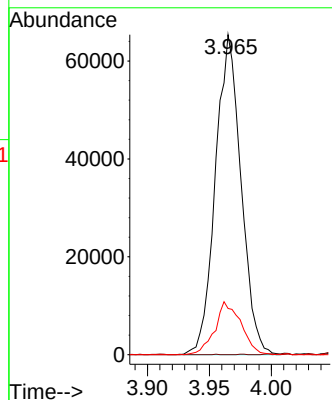
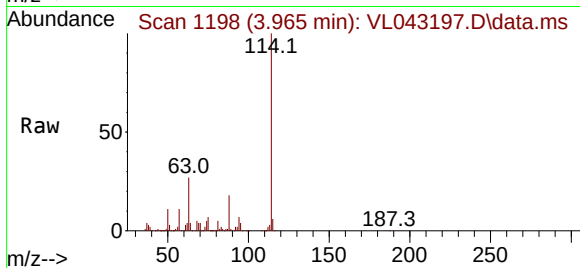
Tgt Ion: 63 Resp: 94223

Ion Ratio Lower Upper

63 100

41 0.0 58.0 87.0#

62 14.5 54.7 82.1#



#44

2,2,4-Trimethylpentane

Concen: 0.030 ppbv

RT: 4.648 min Scan# 1409

Delta R.T. 0.003 min

Lab File: VL043197.D

Acq: 13 Nov 2025 13:40

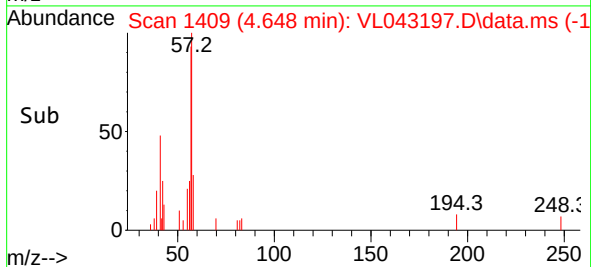
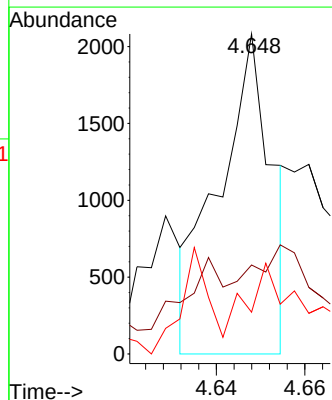
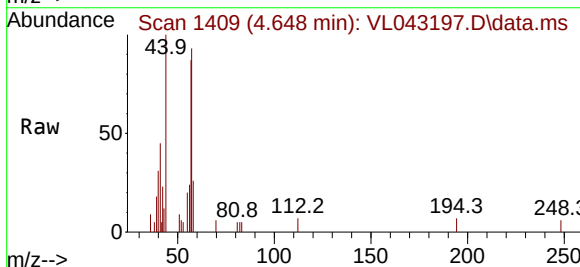
Tgt Ion: 57 Resp: 1732

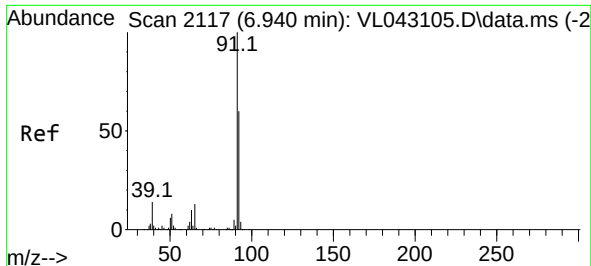
Ion Ratio Lower Upper

57 100

41 0.0 26.3 39.5#

56 0.0 25.9 38.9#

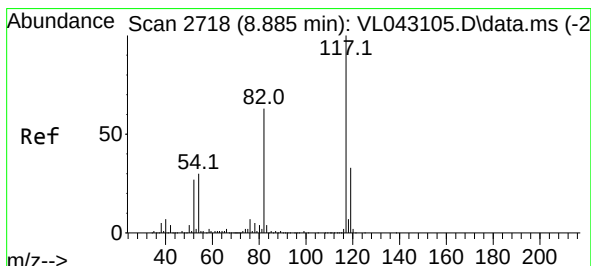
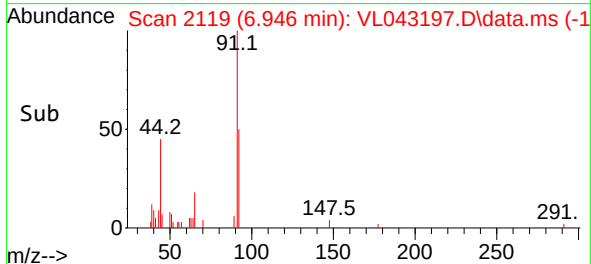
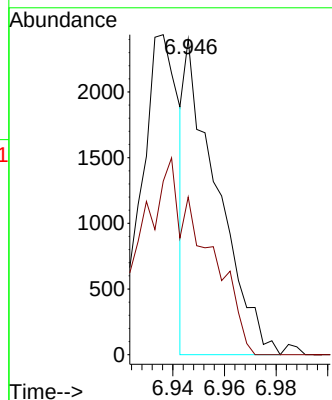
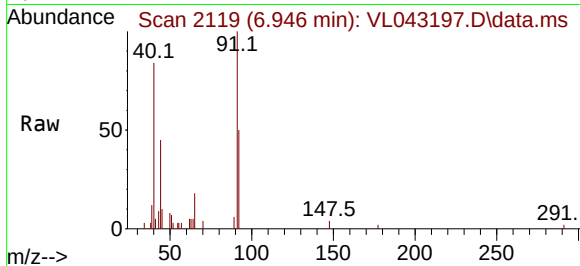




#53
Toluene
Concen: 0.051 ppbv
RT: 6.946 min Scan# 2119
Delta R.T. 0.006 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

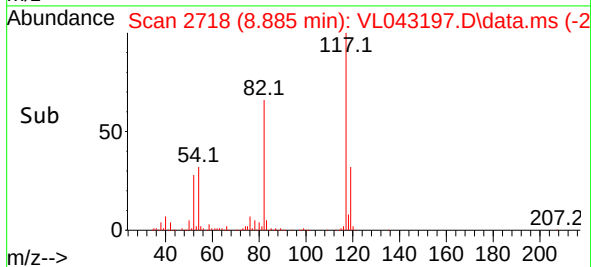
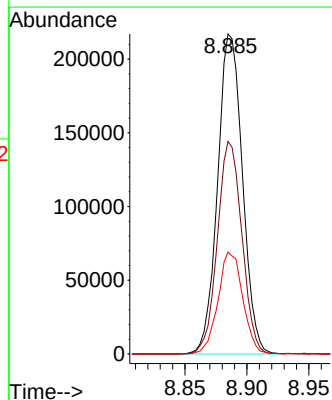
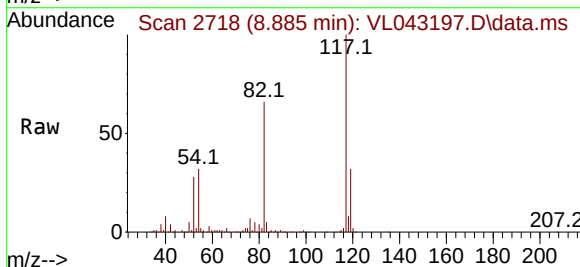
Instrument :
MSVOA_L
ClientSampleId :
AA-East

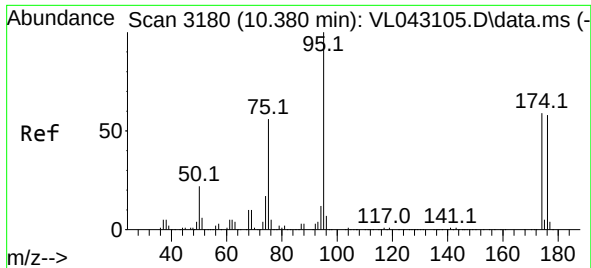
Tgt Ion: 91 Resp: 2081
Ion Ratio Lower Upper
91 100
92 0.0 48.8 73.2#



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.885 min Scan# 2718
Delta R.T. -0.000 min
Lab File: VL043197.D
Acq: 13 Nov 2025 13:40

Tgt Ion: 117 Resp: 303679
Ion Ratio Lower Upper
117 100
82 65.4 53.8 80.8
119 31.8 25.4 38.0





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.597 ppbv
 RT: 10.380 min Scan# 31
 Delta R.T. -0.000 min
 Lab File: VL043197.D
 Acq: 13 Nov 2025 13:40

Instrument :
 MSVOA_L
 ClientSampleId :
 AA-East

Tgt Ion: 95 Resp: 226539
 Ion Ratio Lower Upper
 95 100
 174 62.7 48.3 72.5
 175 4.8 3.8 5.8

