

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL112025\
 Data File : VL043271.D
 Acq On : 20 Nov 2025 18:38
 Operator : SY/MD
 Sample : Q3698-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

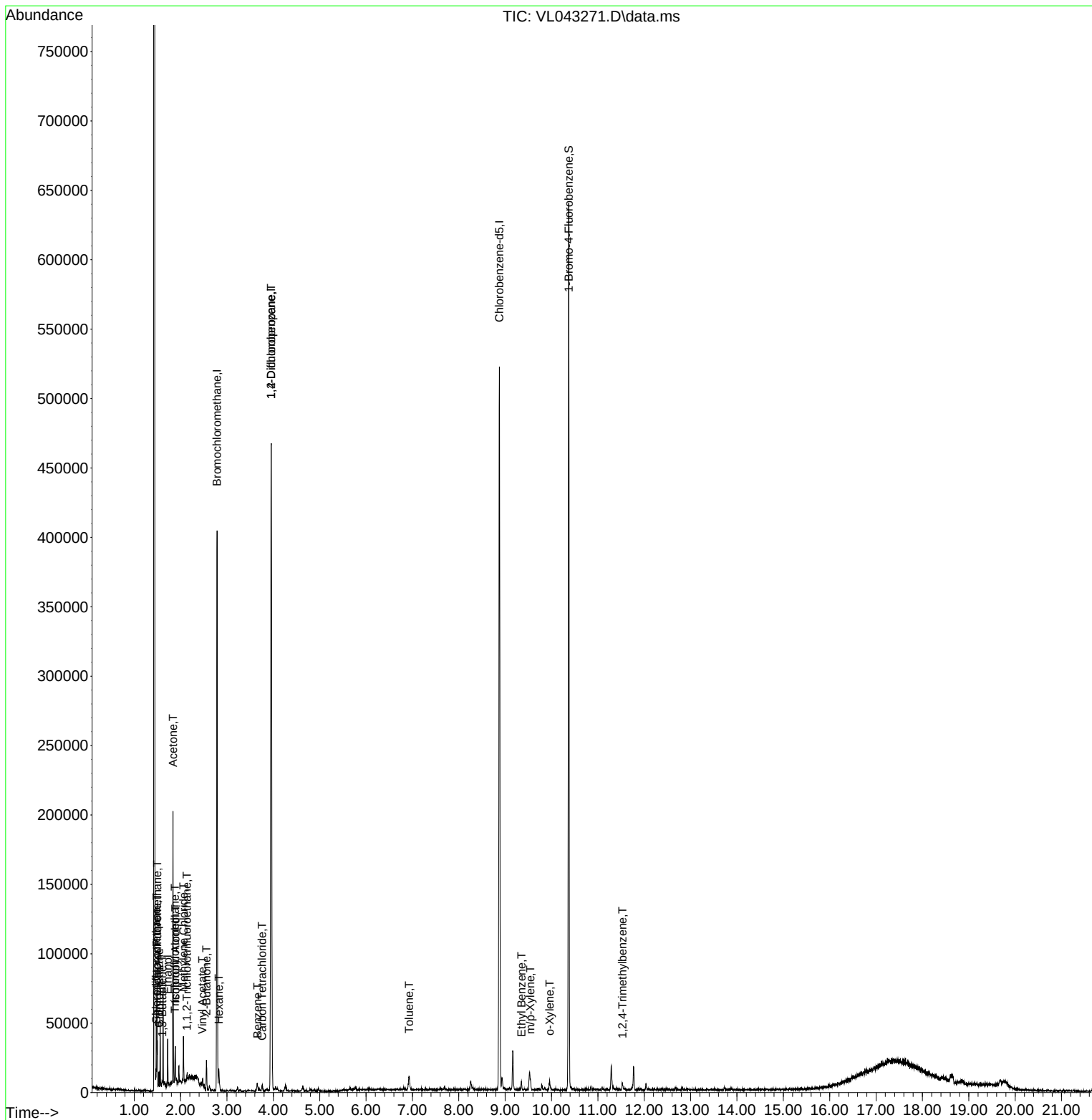
Quant Time: Nov 21 00:42:13 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Wed Nov 19 01:11:25 2025
 Response via : Initial Calibration

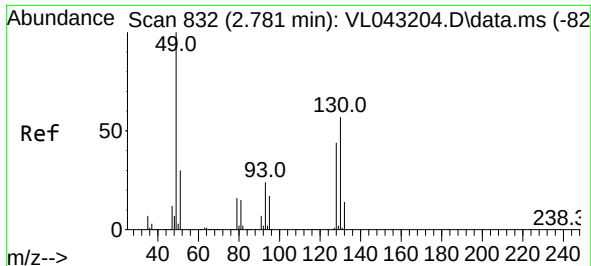
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.787	49	106528	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.955	114	274528	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.875	117	211337	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	153411	9.903	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.499	85	7605	0.506	ppbv	99
3) Chlorodifluoromethane	1.476	51	6676	0.452	ppbv #	85
4) Chloromethane	1.535	50	2676	0.476	ppbv	93
9) Propene	1.489	41	5019	0.800	ppbv #	1
11) Trichlorofluoromethane	1.878	101	3661	0.251	ppbv	93
12) 1,1,2-Trichlorotrifluo...	2.136	101	944	0.083	ppbv	98
13) Ethanol	1.722	45	11875	5.382	ppbv	97
15) Acetone	1.835	43	82758	5.592	ppbv	98
16) 1,3-Butadiene	1.602	39	598	0.091	ppbv #	73
19) Isopropyl Alcohol	1.887	45	9524	1.139	ppbv #	1
20) Methylene Chloride	2.062	84	4541	0.278	ppbv	93
23) Vinyl Acetate	2.473	43	1649	0.092	ppbv #	22
26) Hexane	2.823	57	2420	0.173	ppbv #	67
34) 2-Butanone	2.557	43	12254	0.632	ppbv	100
35) Carbon Tetrachloride	3.758	117	1414	0.068	ppbv #	78
36) Benzene	3.658	78	3264	0.124	ppbv #	96
39) 1,2-Dichloropropane	3.955	63	69508	7.224	ppbv #	23
53) Toluene	6.927	91	4466	0.143	ppbv #	52
58) Ethyl Benzene	9.351	91	2985	0.073	ppbv #	83
59) m/p-Xylene	9.542	91	2413	0.074	ppbv #	31
60) o-Xylene	9.959	91	2528	0.078	ppbv	93
74) 1,2,4-Trimethylbenzene	11.532	105	1486	0.041	ppbv #	50

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

Quant Time: Nov 21 00:42:13 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL111825AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Wed Nov 19 01:11:25 2025
Response via : Initial Calibration

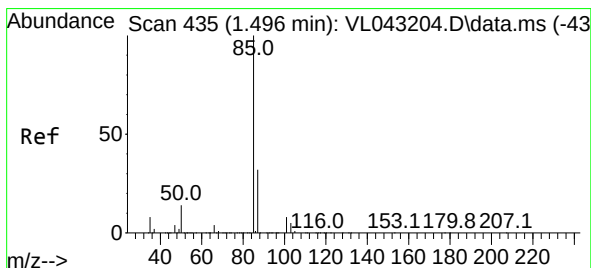
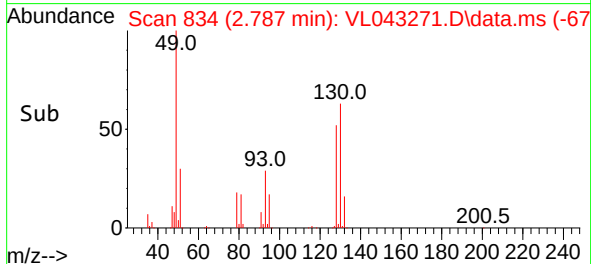
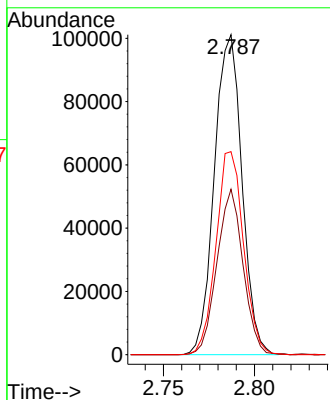
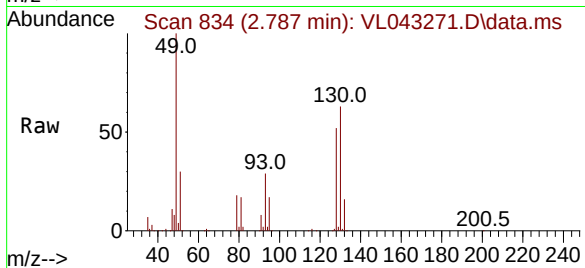




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.787 min Scan# 81
Delta R.T. 0.006 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

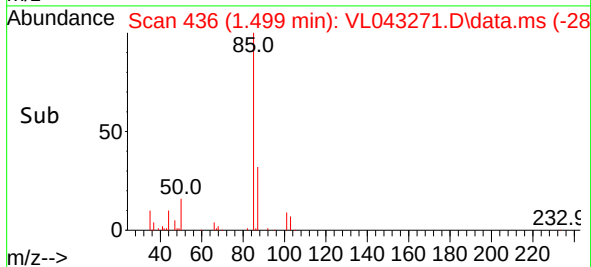
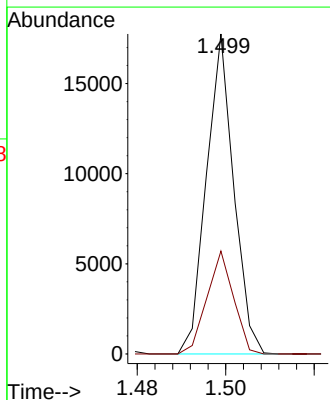
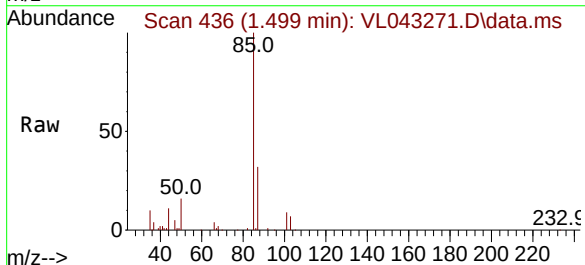
Instrument :
MSVOA_L
ClientSampleId :
OA1

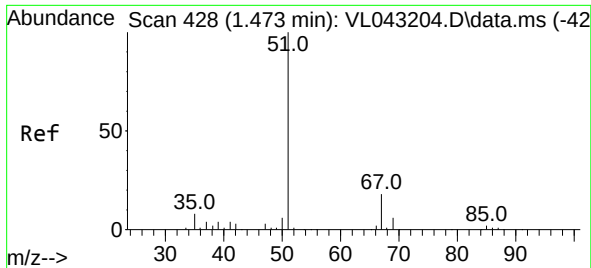
Tgt Ion: 49 Resp: 106528
Ion Ratio Lower Upper
49 100
128 49.0 23.0 69.0
130 63.4 29.9 89.7



#2
Dichlorodifluoromethane
Concen: 0.506 ppbv
RT: 1.499 min Scan# 436
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 85 Resp: 7605
Ion Ratio Lower Upper
85 100
87 32.2 25.4 38.2





#3

Chlorodifluoromethane

Concen: 0.452 ppbv

RT: 1.476 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL043271.D

Acq: 20 Nov 2025 18:38

Instrument :

MSVOA_1

ClientSampleId :

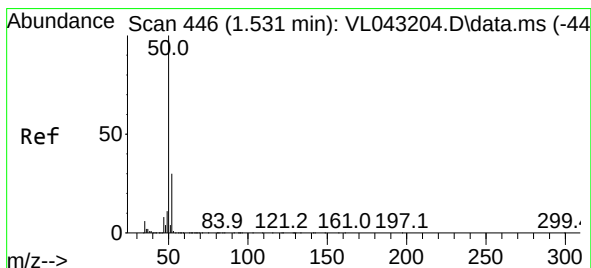
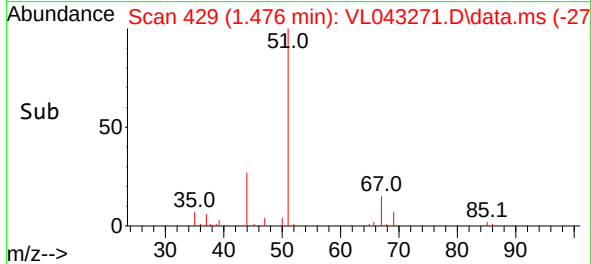
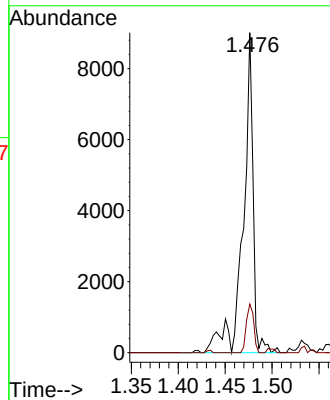
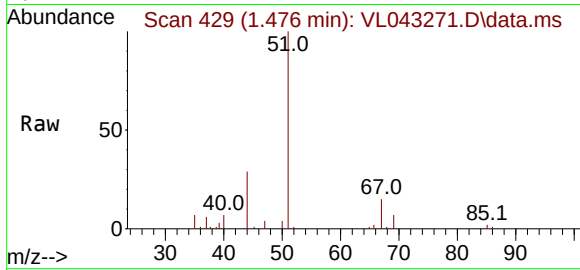
OA1

Tgt Ion: 51 Resp: 6676

Ion Ratio Lower Upper

51 100

67 12.1 14.9 22.3#



#4

Chloromethane

Concen: 0.476 ppbv

RT: 1.535 min Scan# 447

Delta R.T. 0.003 min

Lab File: VL043271.D

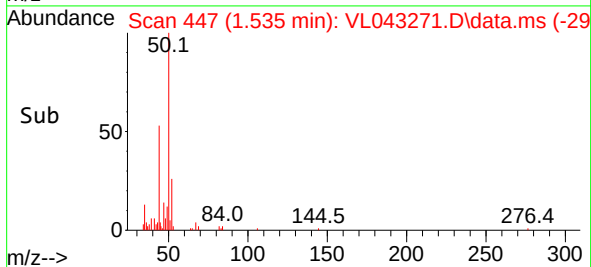
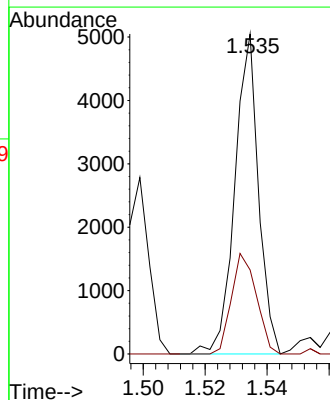
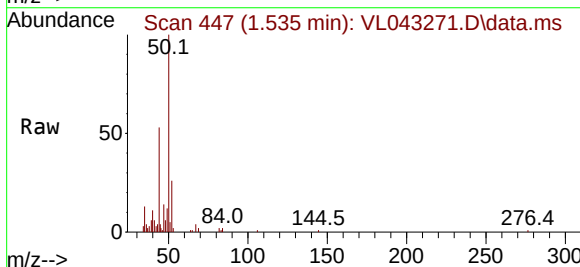
Acq: 20 Nov 2025 18:38

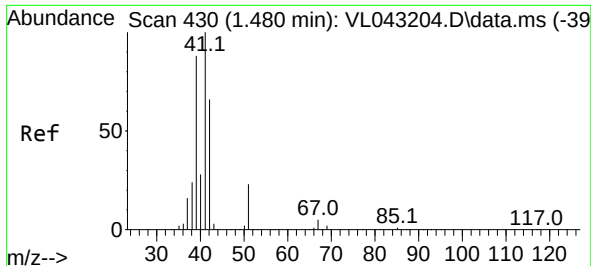
Tgt Ion: 50 Resp: 2676

Ion Ratio Lower Upper

50 100

52 26.3 24.1 36.1





#9

Propene

Concen: 0.800 ppbv

RT: 1.489 min Scan# 41

Delta R.T. 0.010 min

Lab File: VL043271.D

Acq: 20 Nov 2025 18:38

Instrument :

MSVOA_L

ClientSampleId :

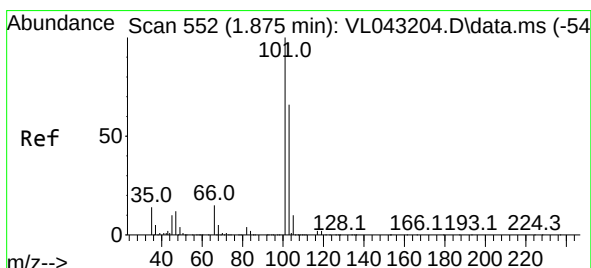
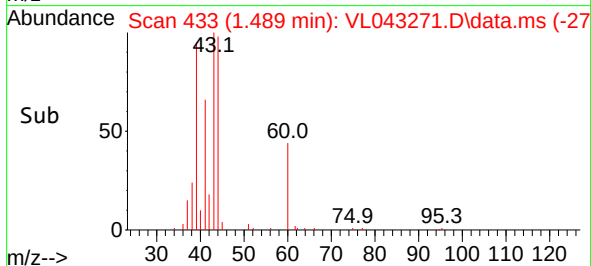
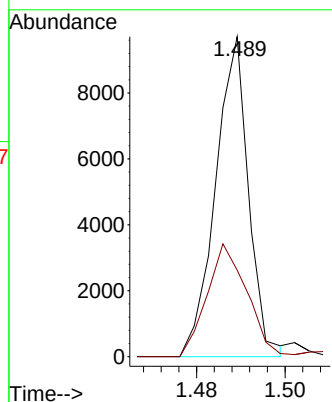
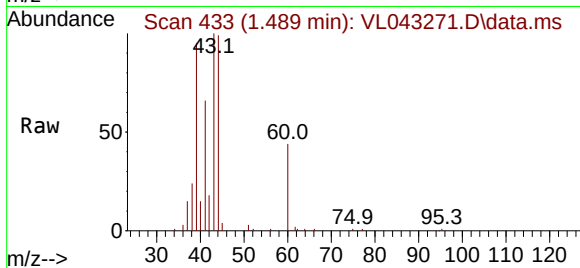
OA1

Tgt Ion: 41 Resp: 5019

Ion Ratio Lower Upper

41 100

42 44.8 3.7 5.5#



#11

Trichlorofluoromethane

Concen: 0.251 ppbv

RT: 1.878 min Scan# 553

Delta R.T. 0.003 min

Lab File: VL043271.D

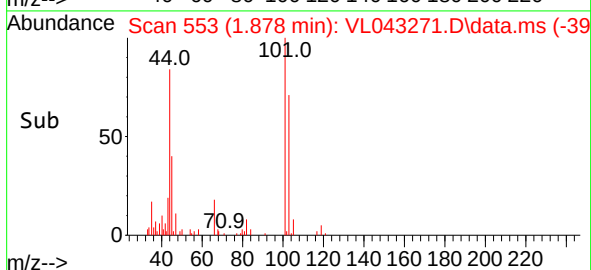
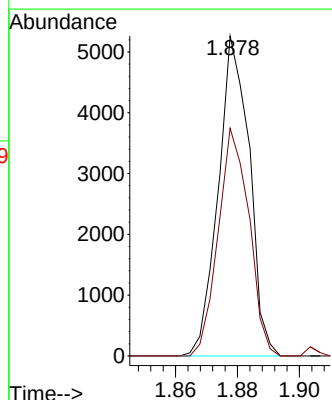
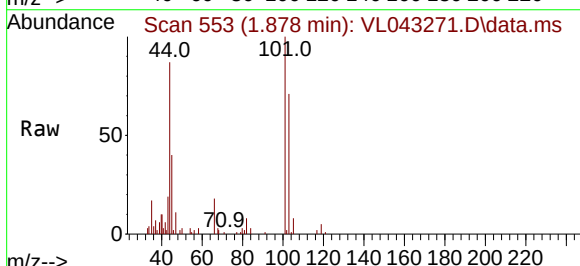
Acq: 20 Nov 2025 18:38

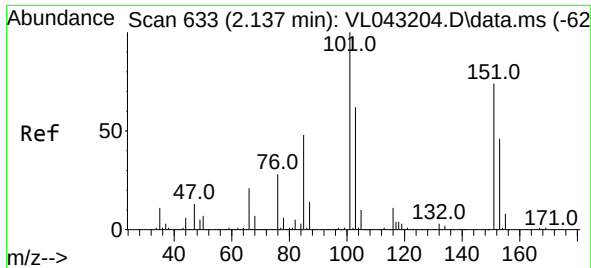
Tgt Ion: 101 Resp: 3661

Ion Ratio Lower Upper

101 100

103 71.2 52.6 79.0

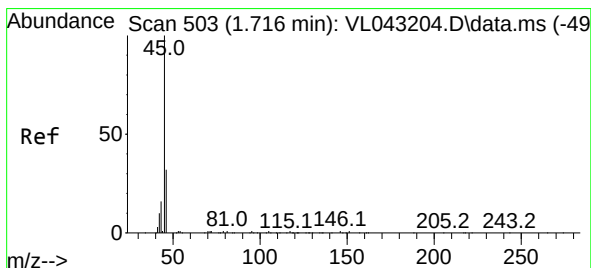
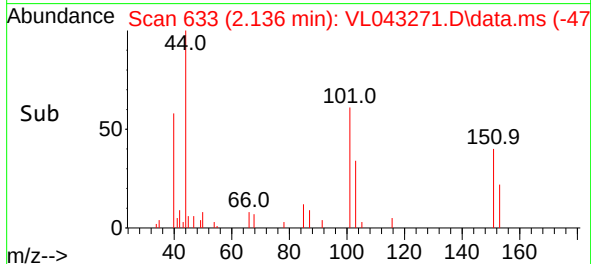
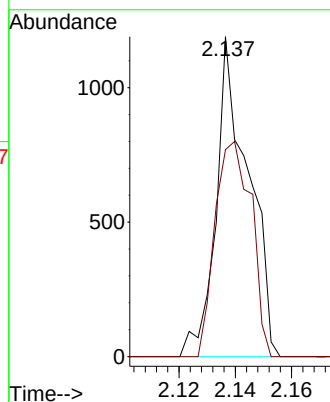
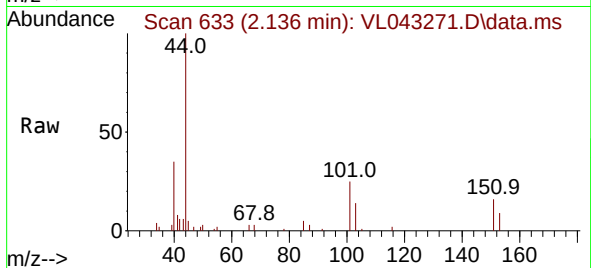




#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.083 ppbv
 RT: 2.136 min Scan# 61
 Delta R.T. -0.000 min
 Lab File: VL043271.D
 Acq: 20 Nov 2025 18:38

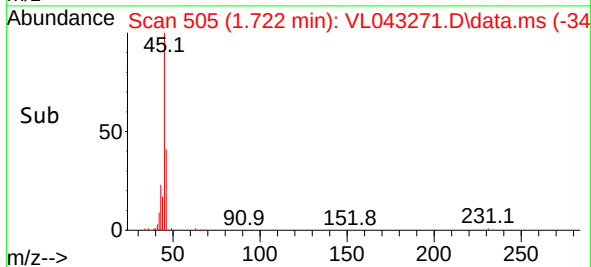
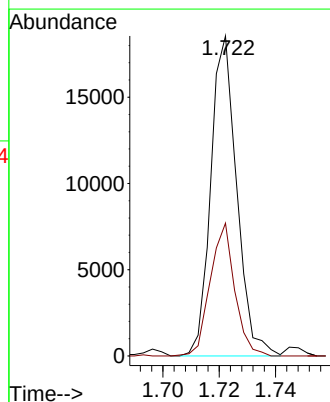
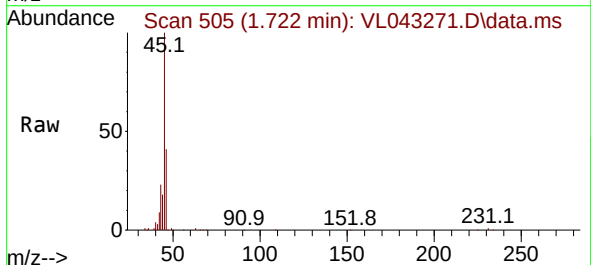
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

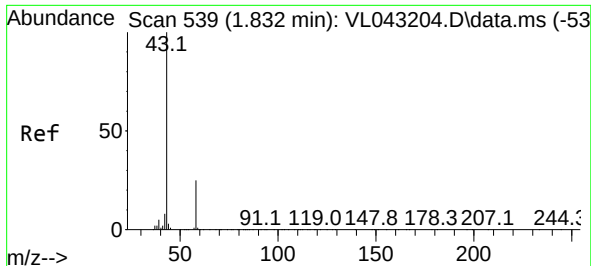
Tgt Ion:101 Resp: 944
 Ion Ratio Lower Upper
 101 100
 151 75.8 59.2 88.8



#13
 Ethanol
 Concen: 5.382 ppbv
 RT: 1.722 min Scan# 505
 Delta R.T. 0.006 min
 Lab File: VL043271.D
 Acq: 20 Nov 2025 18:38

Tgt Ion: 45 Resp: 11875
 Ion Ratio Lower Upper
 45 100
 46 39.3 15.0 59.8

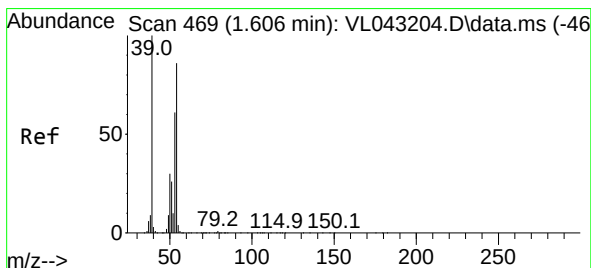
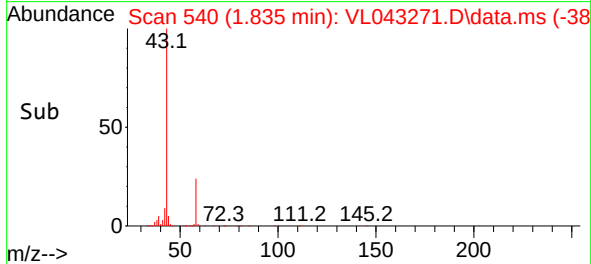
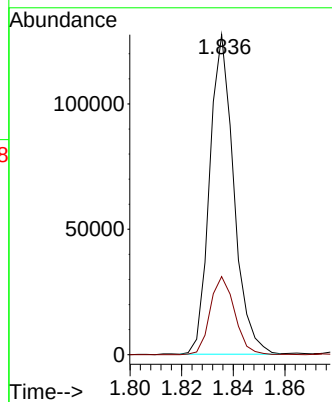
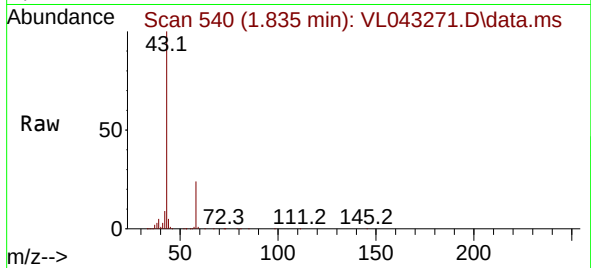




#15
Acetone
Concen: 5.592 ppbv
RT: 1.835 min Scan# 54
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

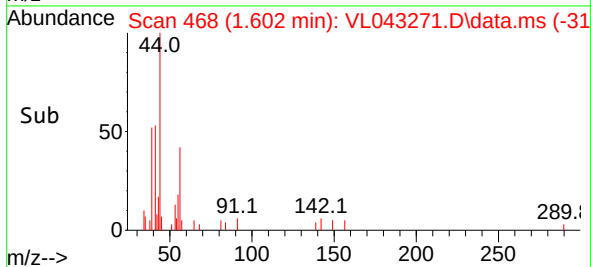
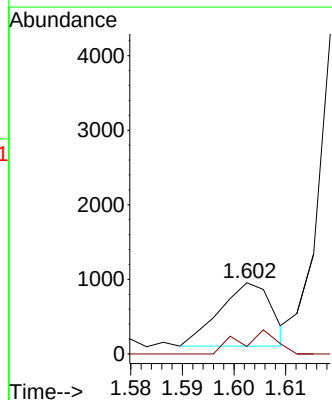
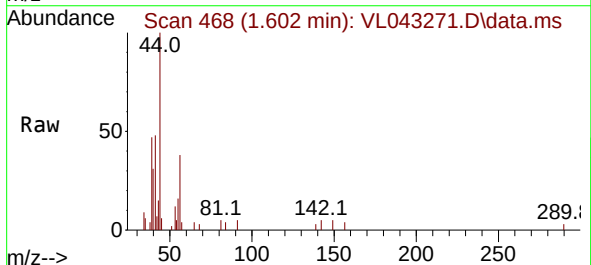
Instrument :
MSVOA_L
ClientSampleId :
OA1

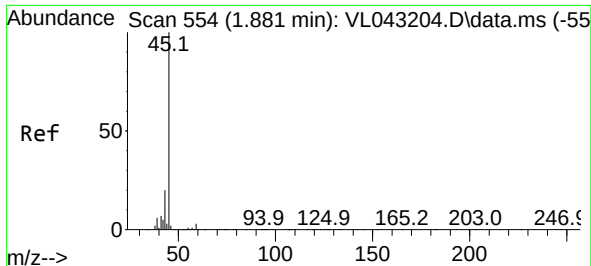
Tgt Ion: 43 Resp: 82758
Ion Ratio Lower Upper
43 100
58 24.8 20.7 31.1



#16
1,3-Butadiene
Concen: 0.091 ppbv
RT: 1.602 min Scan# 468
Delta R.T. -0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 39 Resp: 598
Ion Ratio Lower Upper
39 100
54 51.3 59.4 89.2#

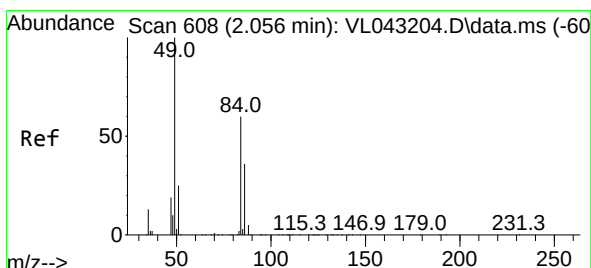
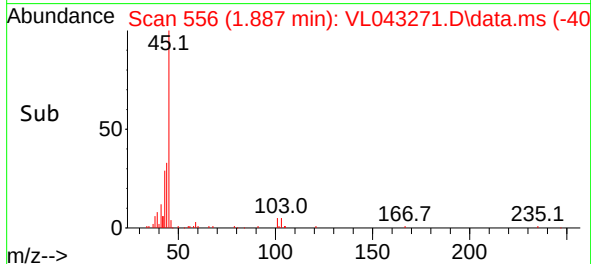
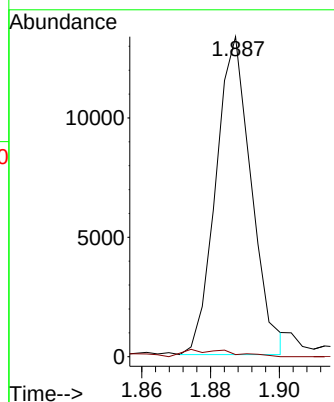
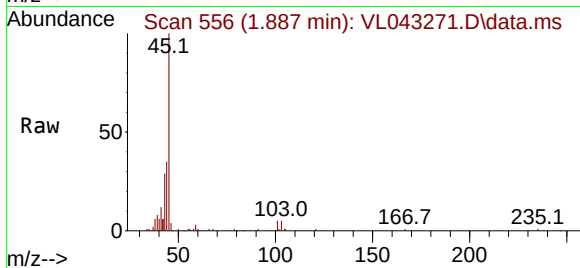




#19
Isopropyl Alcohol
Concen: 1.139 ppbv
RT: 1.887 min Scan# 51
Delta R.T. 0.006 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

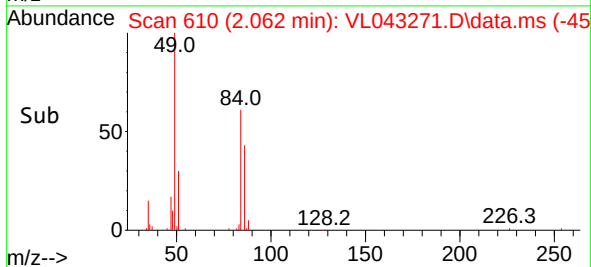
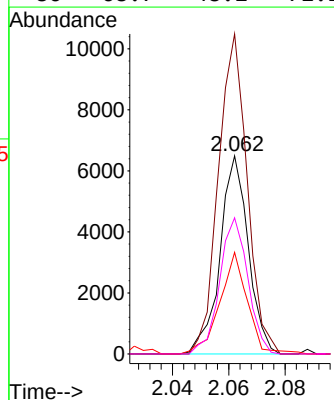
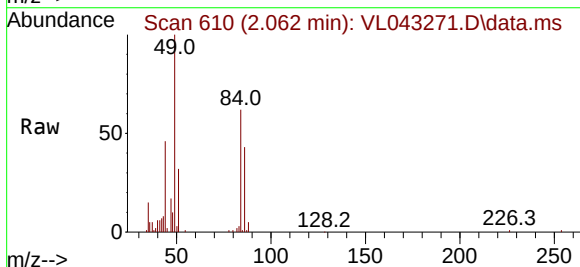
Instrument :
MSVOA_1
ClientSampleId :
OA1

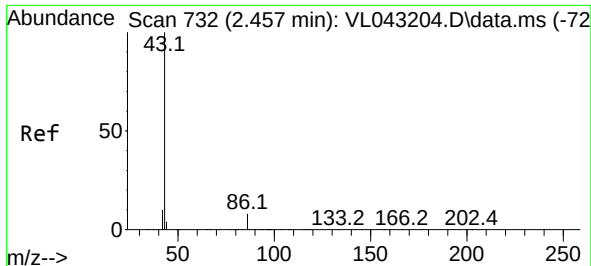
Tgt Ion: 45 Resp: 9524
Ion Ratio Lower Upper
45 100
58 215.6 31.3 46.9#



#20
Methylene Chloride
Concen: 0.278 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.006 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 84 Resp: 4541
Ion Ratio Lower Upper
84 100
49 161.5 132.9 199.3
51 51.3 34.8 52.2
86 68.7 48.2 72.2



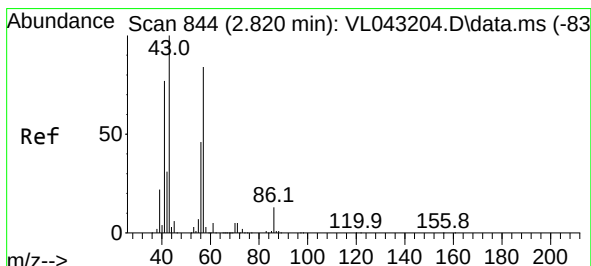
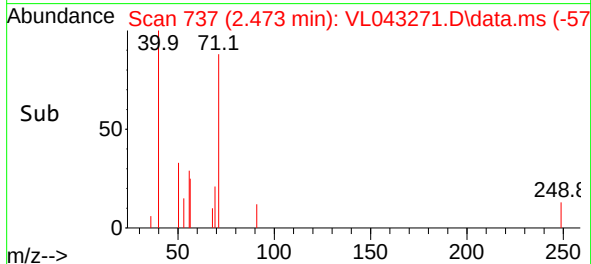
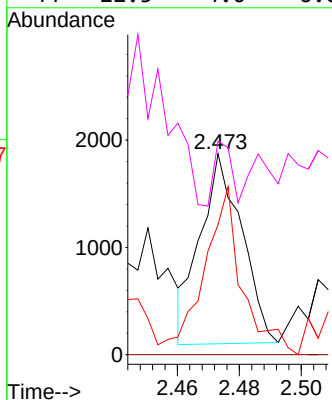
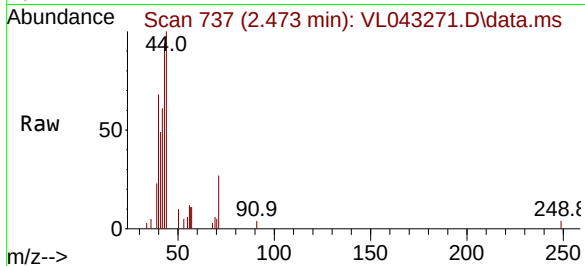


#23
 Vinyl Acetate
 Concen: 0.092 ppbv
 RT: 2.473 min Scan# 71
 Delta R.T. 0.016 min
 Lab File: VL043271.D
 Acq: 20 Nov 2025 18:38

Instrument :
 MSVOA_1
 ClientSampleId :
 OA1

Tgt Ion: 43 Resp: 1649

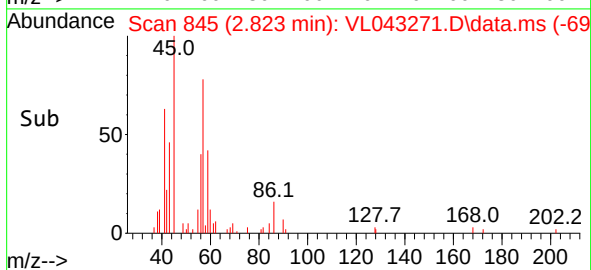
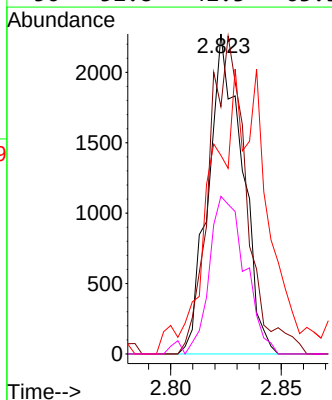
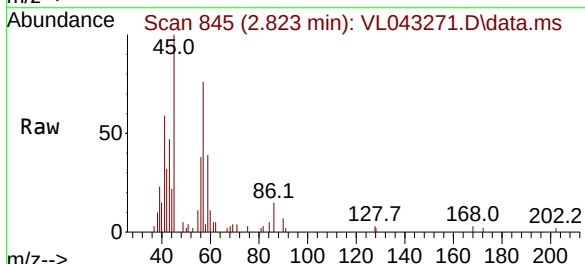
Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.2	9.2#
42	59.6	8.0	12.0#
44	22.5	4.0	6.0#

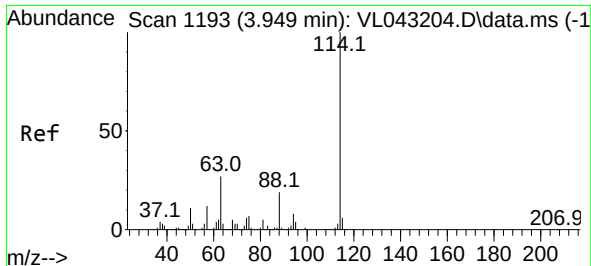


#26
 Hexane
 Concen: 0.173 ppbv
 RT: 2.823 min Scan# 845
 Delta R.T. 0.003 min
 Lab File: VL043271.D
 Acq: 20 Nov 2025 18:38

Tgt Ion: 57 Resp: 2420

Ion	Ratio	Lower	Upper
57	100		
41	109.6	74.6	111.8
43	146.2	179.0	268.4#
56	52.8	42.3	63.5





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.955 min Scan# 1193

Delta R.T. 0.006 min

Lab File: VL043271.D

Acq: 20 Nov 2025 18:38

Instrument :

MSVOA_L

ClientSampleId :

OA1

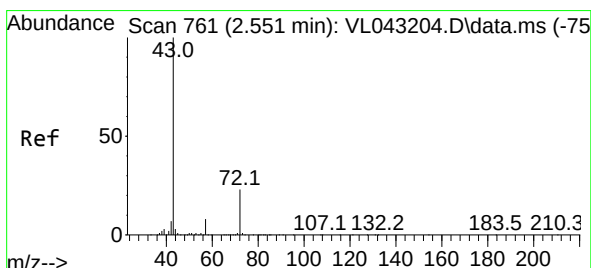
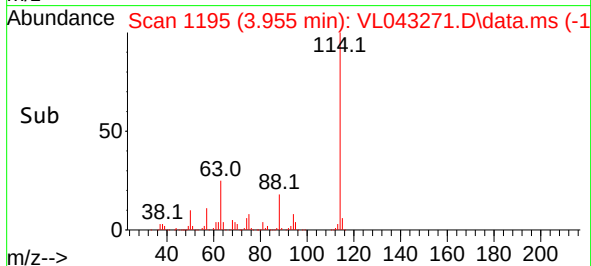
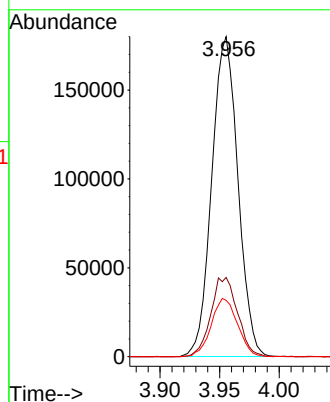
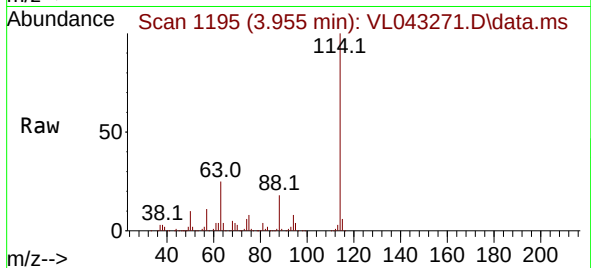
Tgt Ion:114 Resp: 274528

Ion Ratio Lower Upper

114 100

63 25.4 21.0 31.6

88 18.3 14.9 22.3



#34

2-Butanone

Concen: 0.632 ppbv

RT: 2.557 min Scan# 763

Delta R.T. 0.006 min

Lab File: VL043271.D

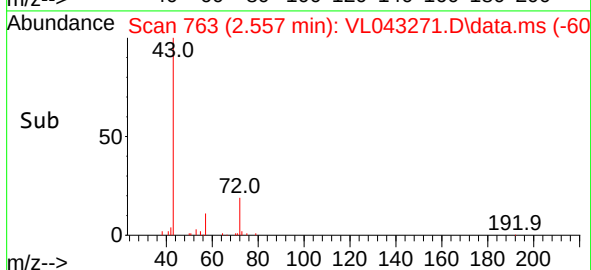
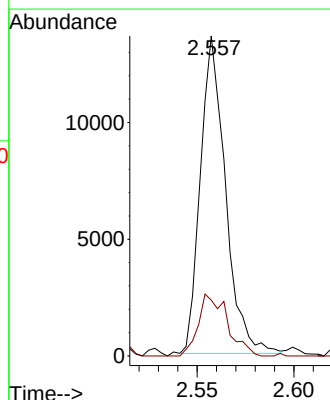
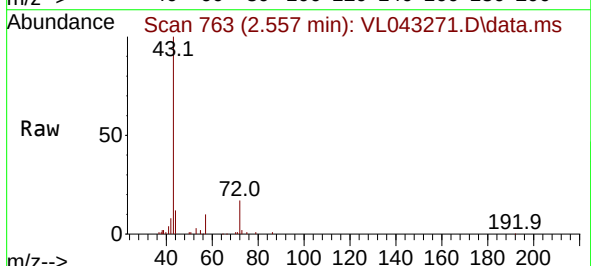
Acq: 20 Nov 2025 18:38

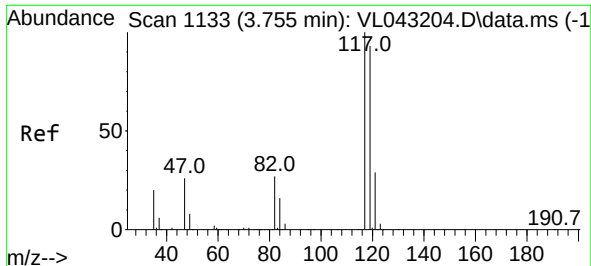
Tgt Ion: 43 Resp: 12254

Ion Ratio Lower Upper

43 100

72 22.7 18.1 27.1

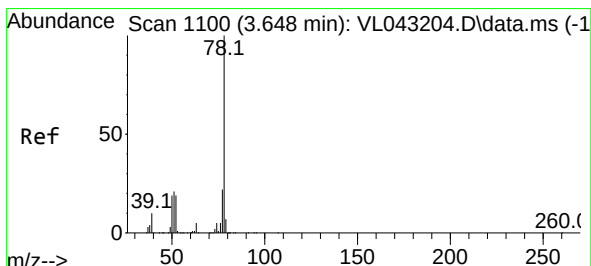
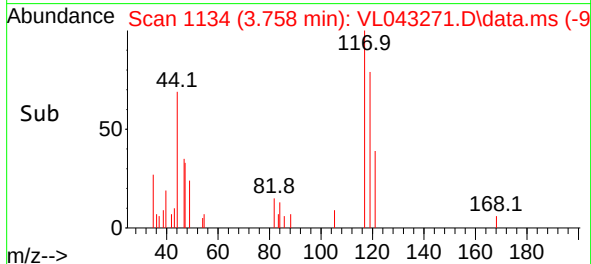
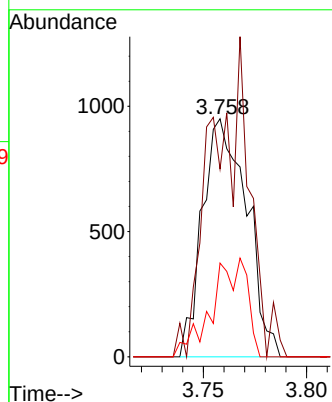
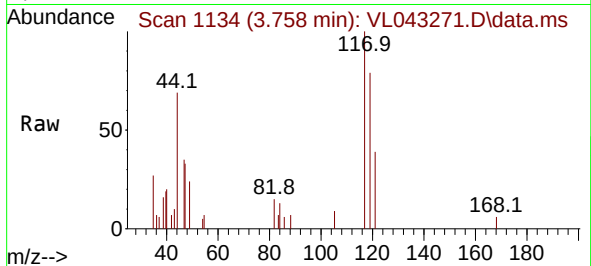




#35
Carbon Tetrachloride
Concen: 0.068 ppbv
RT: 3.758 min Scan# 1133
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

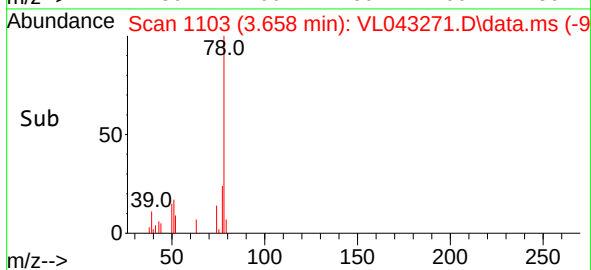
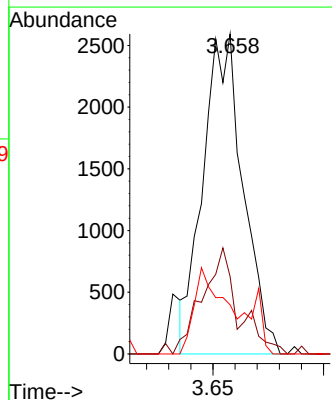
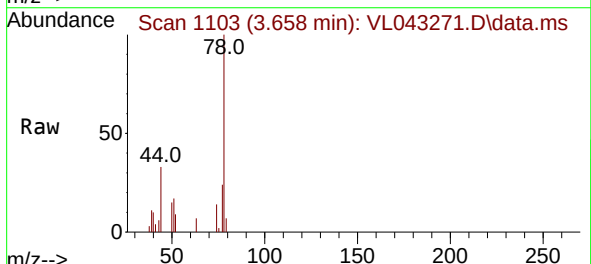
Instrument :
MSVOA_L
ClientSampleId :
OA1

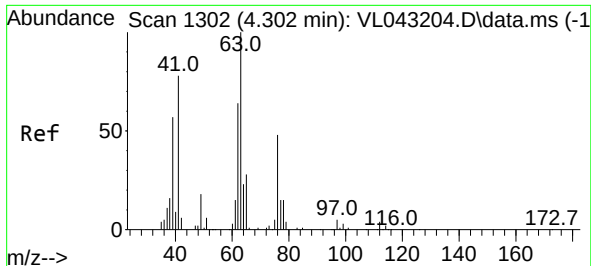
Tgt Ion:117 Resp: 1414
Ion Ratio Lower Upper
117 100
119 71.9 74.6 112.0#
121 39.4 23.2 34.8#



#36
Benzene
Concen: 0.124 ppbv
RT: 3.658 min Scan# 1103
Delta R.T. 0.010 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 78 Resp: 3264
Ion Ratio Lower Upper
78 100
77 21.9 17.5 26.3
50 15.3 15.5 23.3#





#39

1,2-Dichloropropane

Concen: 7.224 ppbv

RT: 3.955 min Scan# 1195

Delta R.T. -0.346 min

Lab File: VL043271.D

Acq: 20 Nov 2025 18:38

Instrument :

MSVOA_1

ClientSampleId :

OA1

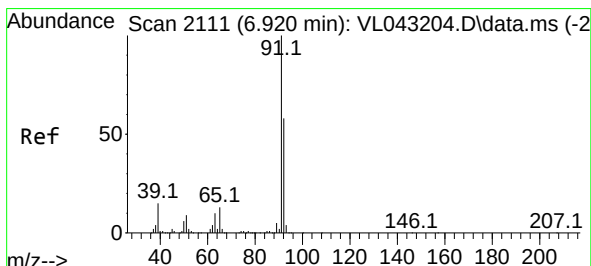
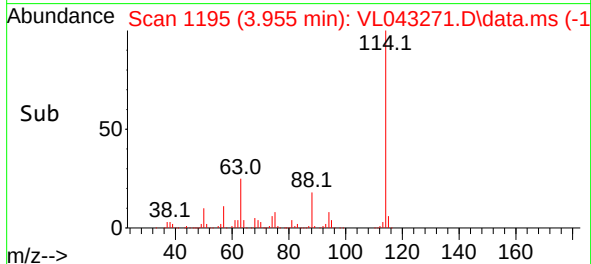
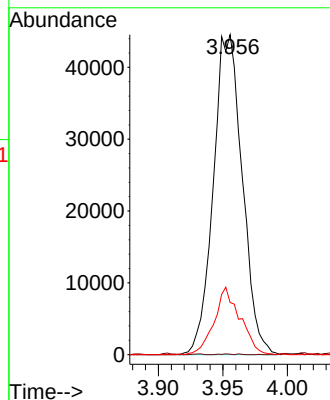
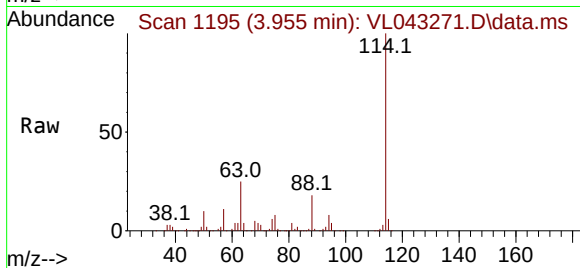
Tgt Ion: 63 Resp: 69508

Ion Ratio Lower Upper

63 100

41 0.1 62.6 93.8#

62 16.0 51.0 76.6#



#53

Toluene

Concen: 0.143 ppbv

RT: 6.927 min Scan# 2113

Delta R.T. 0.006 min

Lab File: VL043271.D

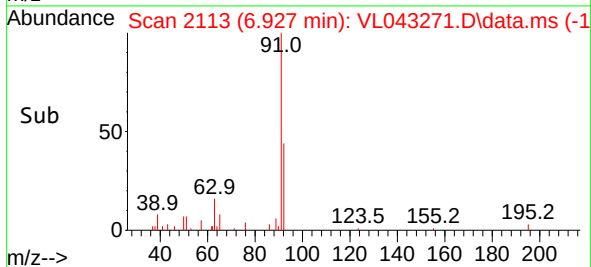
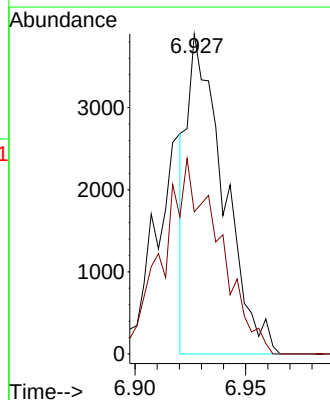
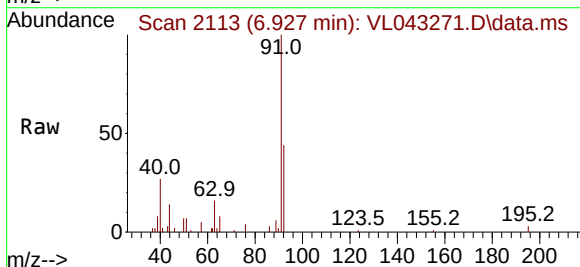
Acq: 20 Nov 2025 18:38

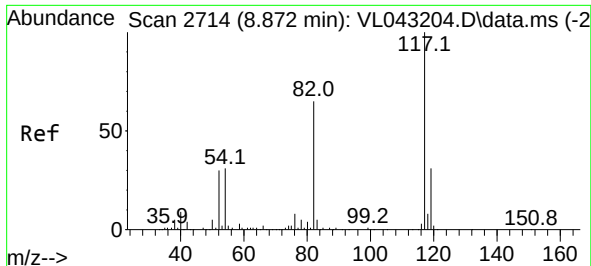
Tgt Ion: 91 Resp: 4466

Ion Ratio Lower Upper

91 100

92 95.2 47.4 71.0#

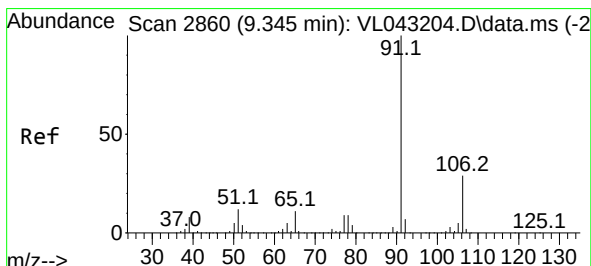
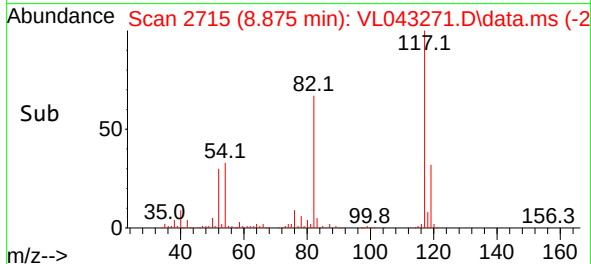
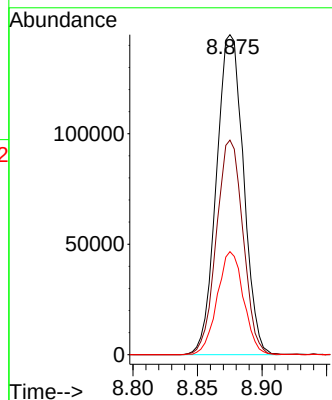
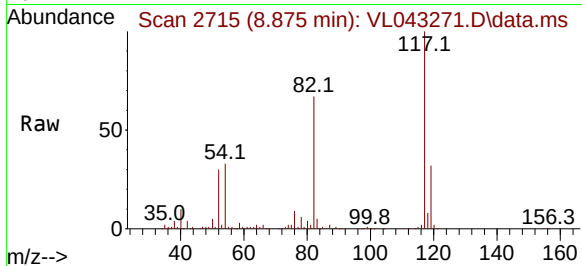




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.875 min Scan# 2113
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

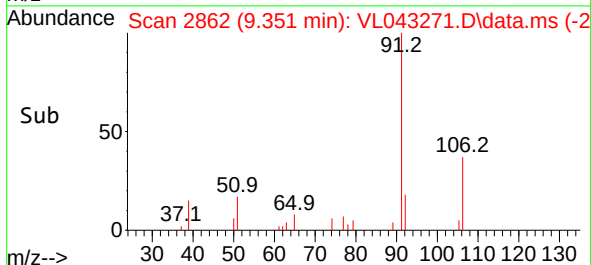
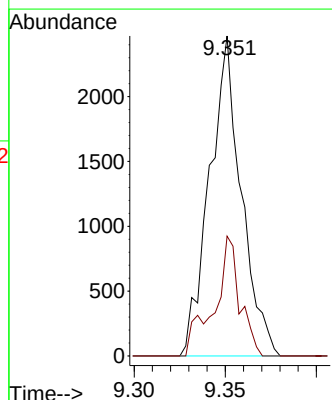
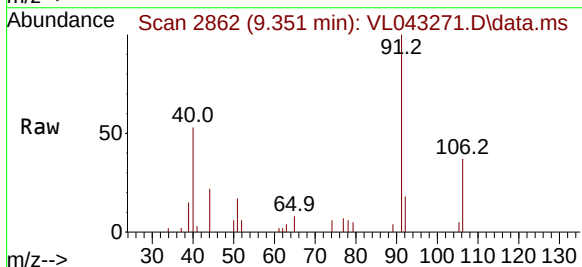
Instrument :
MSVOA_L
ClientSampleId :
OA1

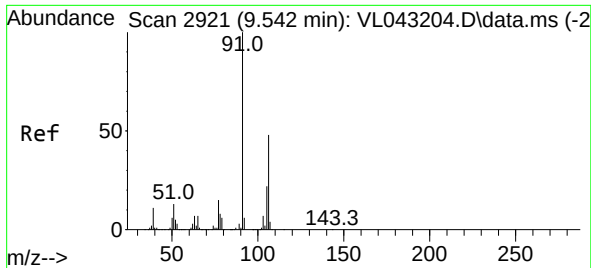
Tgt Ion:117 Resp: 211337
Ion Ratio Lower Upper
117 100
82 66.1 56.1 84.1
119 31.4 25.0 37.6



#58
Ethyl Benzene
Concen: 0.073 ppbv
RT: 9.351 min Scan# 2862
Delta R.T. 0.006 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 91 Resp: 2985
Ion Ratio Lower Upper
91 100
106 37.4 22.8 34.2#

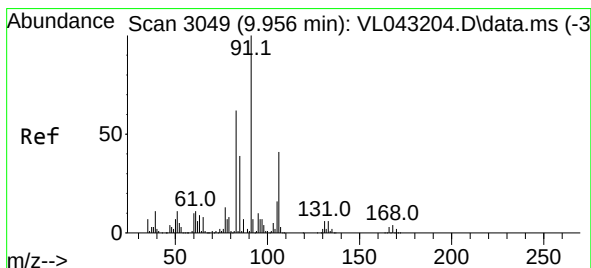
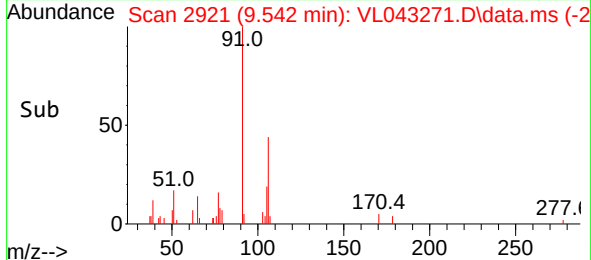
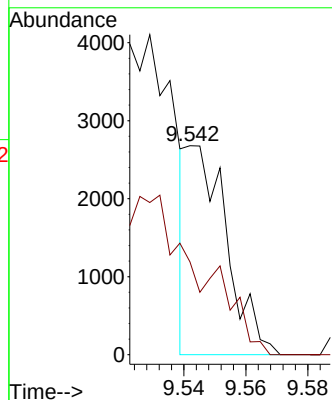
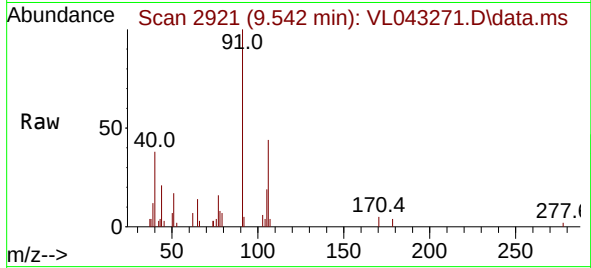




#59
m/p-Xylene
Concen: 0.074 ppbv
RT: 9.542 min Scan# 2921
Delta R.T. -0.000 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

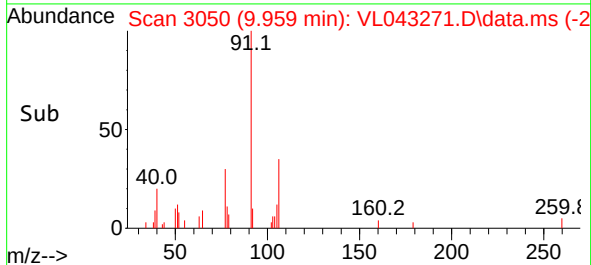
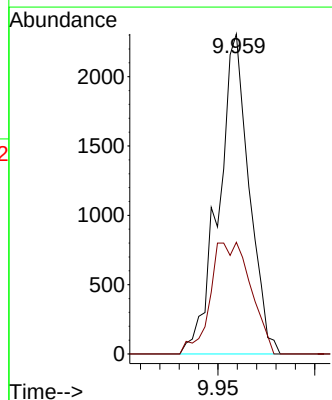
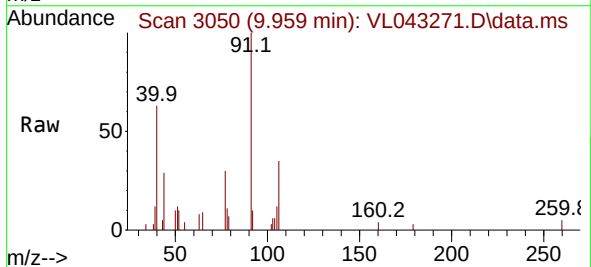
Instrument :
MSVOA_1
ClientSampleId :
OA1

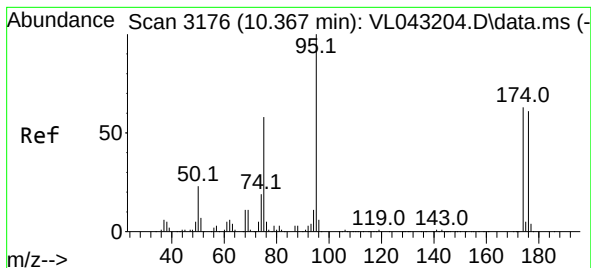
Tgt Ion: 91 Resp: 2413
Ion Ratio Lower Upper
91 100
106 0.0 36.1 54.1#



#60
o-Xylene
Concen: 0.078 ppbv
RT: 9.959 min Scan# 3050
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 91 Resp: 2528
Ion Ratio Lower Upper
91 100
106 46.3 20.9 62.8

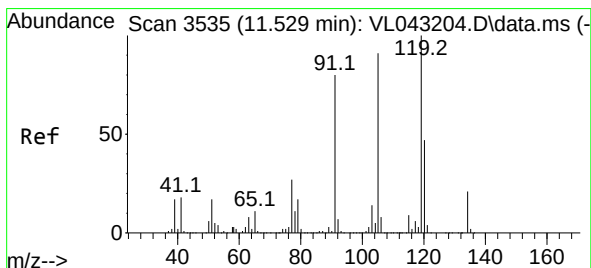
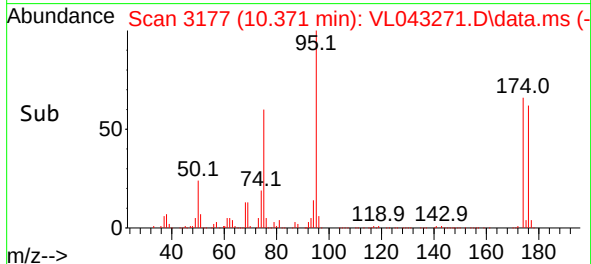
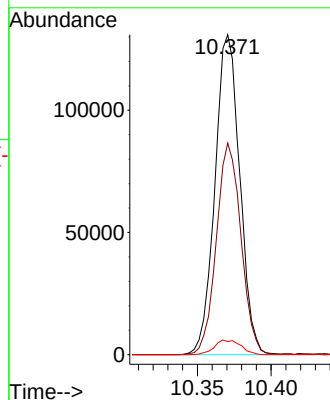
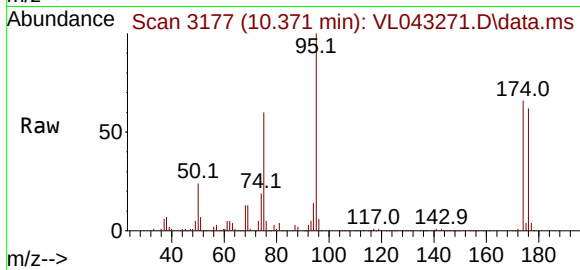




#68
1-Bromo-4-Fluorobenzene
Concen: 9.903 ppbv
RT: 10.371 min Scan# 3176
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Instrument :
MSVOA_1
ClientSampleId :
OA1

Tgt Ion: 95 Resp: 153411
Ion Ratio Lower Upper
95 100
174 65.6 50.2 75.2
175 4.9 4.1 6.1



#74
1,2,4-Trimethylbenzene
Concen: 0.041 ppbv
RT: 11.532 min Scan# 3536
Delta R.T. 0.003 min
Lab File: VL043271.D
Acq: 20 Nov 2025 18:38

Tgt Ion: 105 Resp: 1486
Ion Ratio Lower Upper
105 100
120 42.4 41.7 62.5
91 16.7 70.0 105.0#
77 11.2 23.8 35.8#

