

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL041525\
 Data File : VL042335.D
 Acq On : 15 Apr 2025 16:42
 Operator : SY/MD
 Sample : Q1802-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Apr 16 01:33:59 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

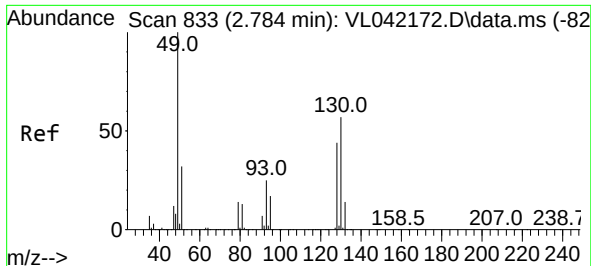
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	2.810	49	177460	10.000	ppbv	0.03
33) 1,4-Difluorobenzene	3.994	114	437650	10.000	ppbv	0.04
55) Chlorobenzene-d5	8.914	117	380537	10.000	ppbv	0.04
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.403	95	300987	9.632	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.300%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.505	85	10190	0.389	ppbv	99
3) Chlorodifluoromethane	1.486	51	12954	0.484	ppbv #	79
4) Chloromethane	1.541	50	6941	0.648	ppbv	91
9) Propene	1.492	41	12618	1.028	ppbv	90
10) Heptane	5.024	43	8885	0.272	ppbv	93
11) Trichlorofluoromethane	1.891	101	4952	0.194	ppbv	89
12) 1,1,2-Trichlorotrifluo...	2.153	101	1000	0.048	ppbv #	61
13) Ethanol	1.732	45	34874	30.069	ppbv	81
15) Acetone	1.848	43	202208	8.147	ppbv	98
16) 1,3-Butadiene	1.612	39	3680	0.304	ppbv #	53
17) tert-Butyl alcohol	2.059	59	1945	0.063	ppbv #	83
19) Isopropyl Alcohol	1.900	45	18374	1.312	ppbv #	1
20) Methylene Chloride	2.078	84	3677	0.398	ppbv #	93
21) Allyl Chloride	2.056	41	549	0.031	ppbv #	1
23) Vinyl Acetate	2.496	43	4333	0.403	ppbv #	42
25) Ethyl Acetate	2.845	43	5984	0.093	ppbv #	80
26) Hexane	2.852	57	5571	0.224	ppbv #	38
34) 2-Butanone	2.580	43	30605	0.964	ppbv	97
36) Benzene	3.690	78	7521	0.173	ppbv	92
39) 1,2-Dichloropropane	3.991	63	111809	7.076	ppbv #	22
40) 1,4-Dioxane	4.638	88	923	0.110	ppbv #	1
44) 2,2,4-Trimethylpentane	4.680	57	2480	0.034	ppbv #	13
53) Toluene	6.979	91	29789	0.579	ppbv	97

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

Quant Time: Apr 16 01:33:59 2025
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL032725AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Mar 28 02:00:52 2025
Response via : Initial Calibration

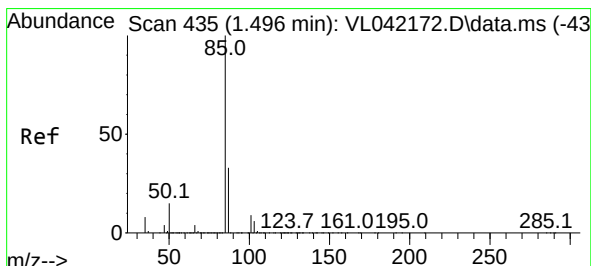
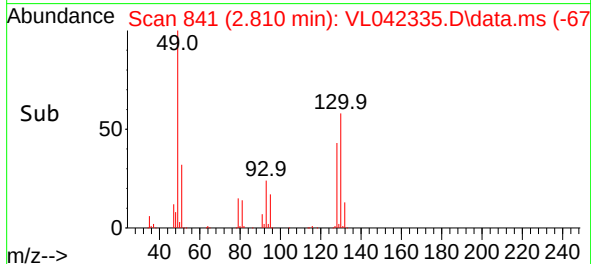
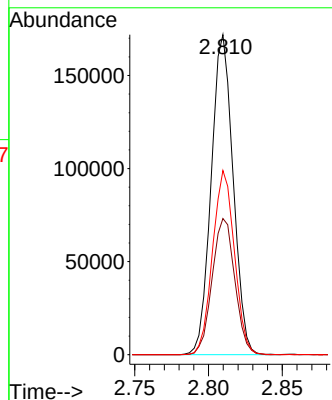
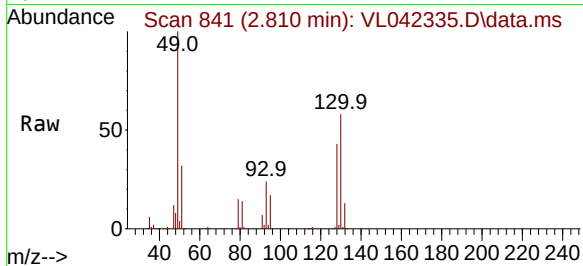




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.810 min Scan# 841
Delta R.T. 0.026 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

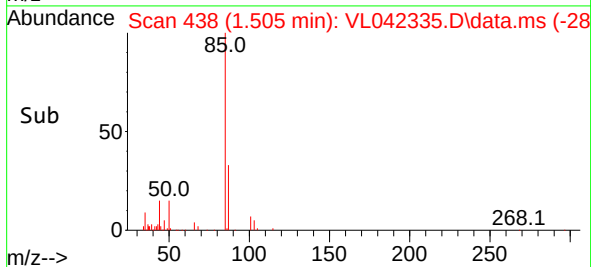
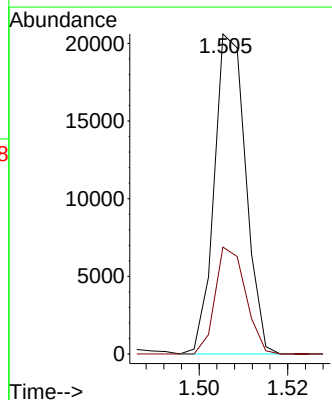
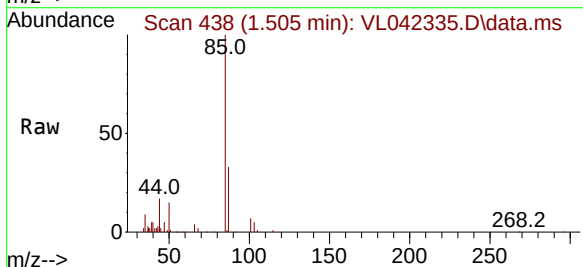
Instrument :
MSVOA_L
ClientSampleId :
OA1

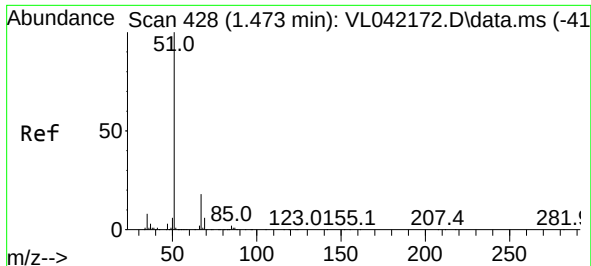
Tgt Ion: 49 Resp: 177460
Ion Ratio Lower Upper
49 100
128 44.0 22.9 68.5
130 57.4 28.8 86.4



#2
Dichlorodifluoromethane
Concen: 0.389 ppbv
RT: 1.505 min Scan# 438
Delta R.T. 0.010 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion: 85 Resp: 10190
Ion Ratio Lower Upper
85 100
87 33.4 26.1 39.1

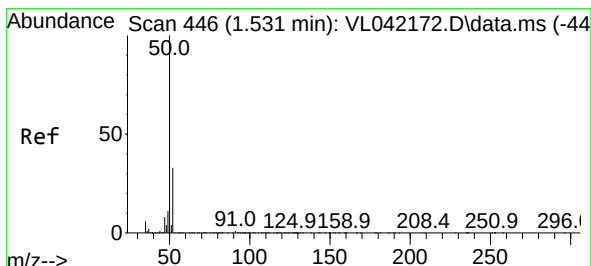
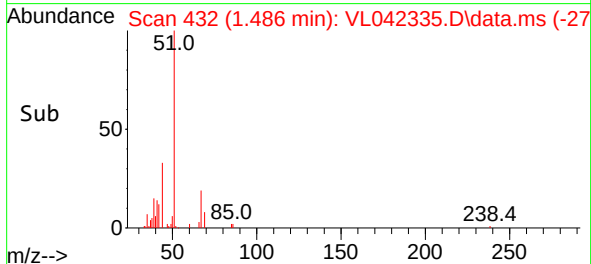
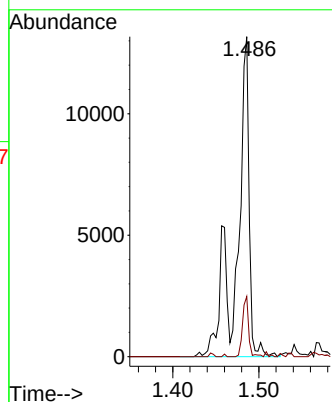
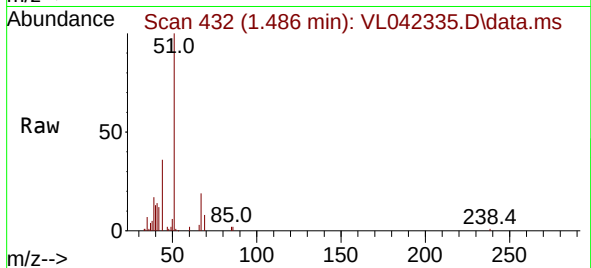




#3
Chlorodifluoromethane
Concen: 0.484 ppbv
RT: 1.486 min Scan# 41
Delta R.T. 0.013 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

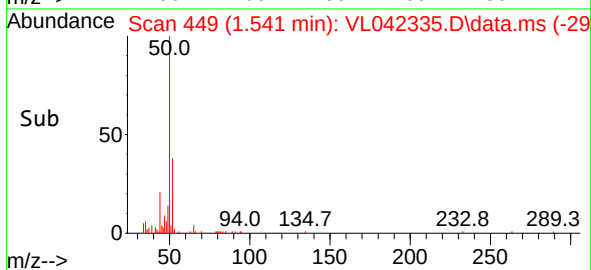
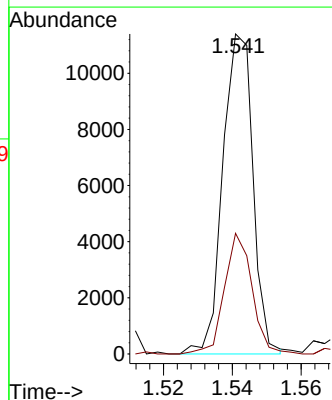
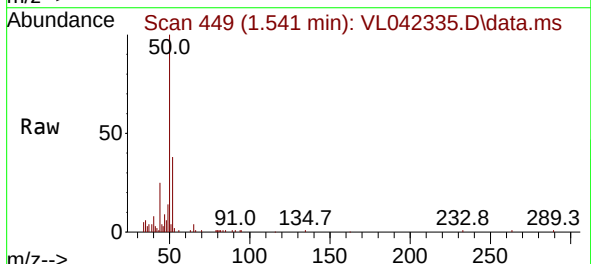
Instrument :
MSVOA_L
ClientSampleId :
OA1

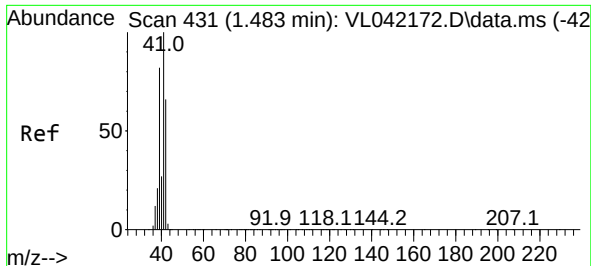
Tgt Ion: 51 Resp: 12954
Ion Ratio Lower Upper
51 100
67 9.3 15.0 22.6#



#4
Chloromethane
Concen: 0.648 ppbv
RT: 1.541 min Scan# 449
Delta R.T. 0.010 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion: 50 Resp: 6941
Ion Ratio Lower Upper
50 100
52 37.7 26.1 39.1





#9

Propene

Concen: 1.028 ppbv

RT: 1.492 min Scan# 41

Delta R.T. 0.010 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

Instrument :

MSVOA_L

ClientSampleId :

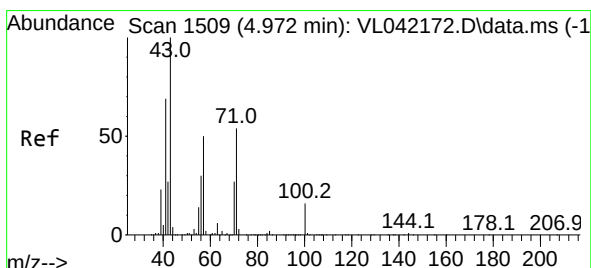
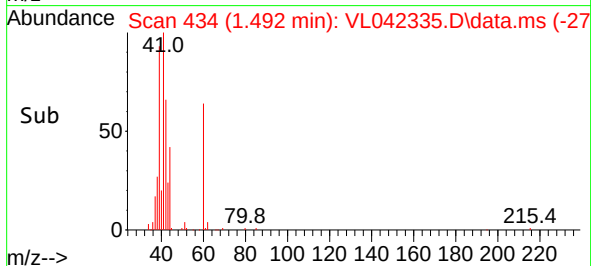
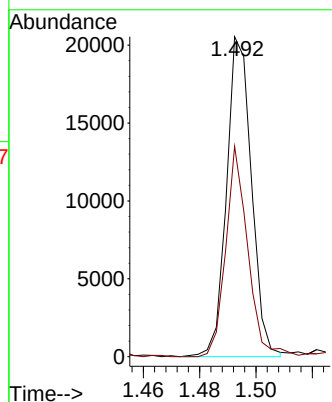
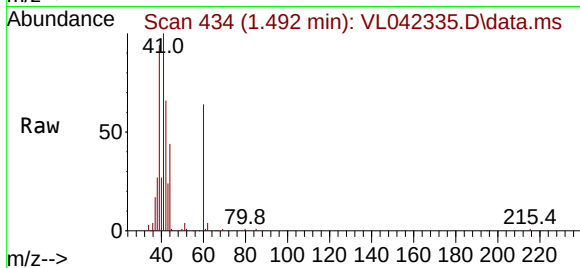
OA1

Tgt Ion: 41 Resp: 12618

Ion Ratio Lower Upper

41 100

42 61.3 55.4 83.2



#10

Heptane

Concen: 0.272 ppbv

RT: 5.024 min Scan# 1525

Delta R.T. 0.052 min

Lab File: VL042335.D

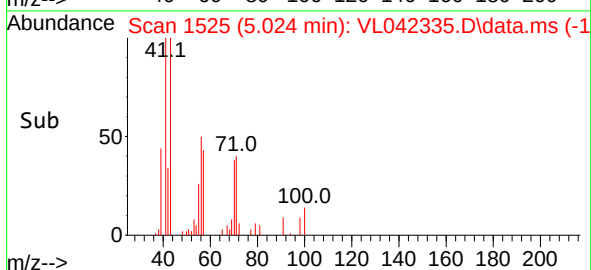
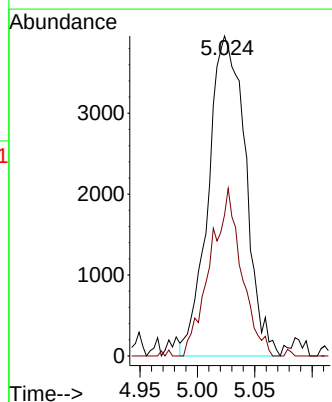
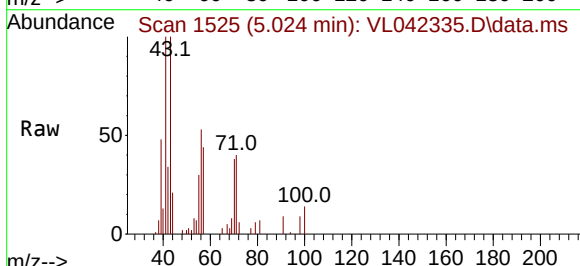
Acq: 15 Apr 2025 16:42

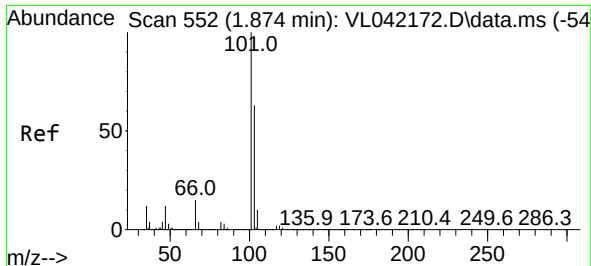
Tgt Ion: 43 Resp: 8885

Ion Ratio Lower Upper

43 100

57 44.7 39.4 59.2

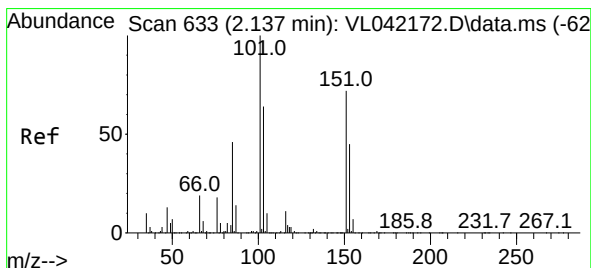
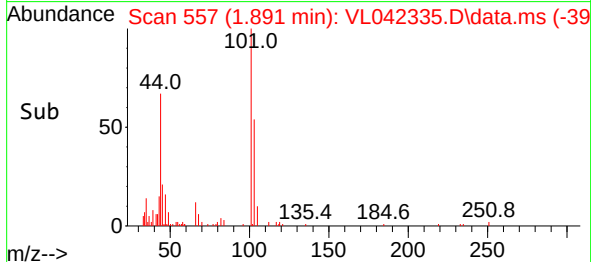
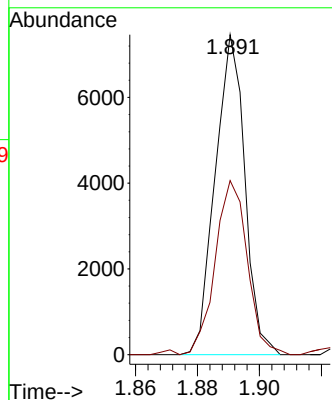
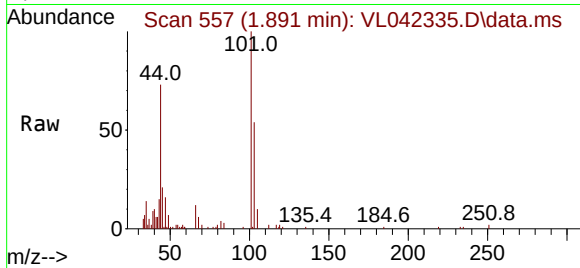




#11
Trichlorofluoromethane
Concen: 0.194 ppbv
RT: 1.891 min Scan# 51
Delta R.T. 0.016 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

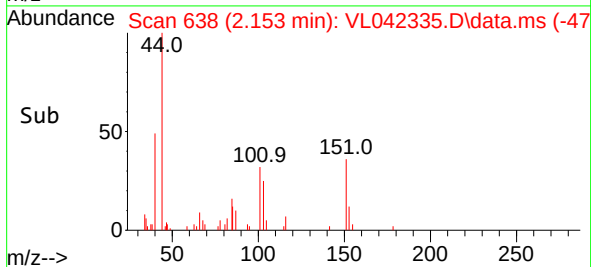
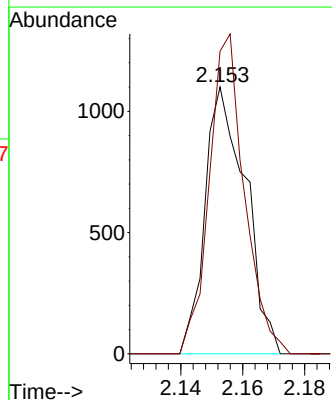
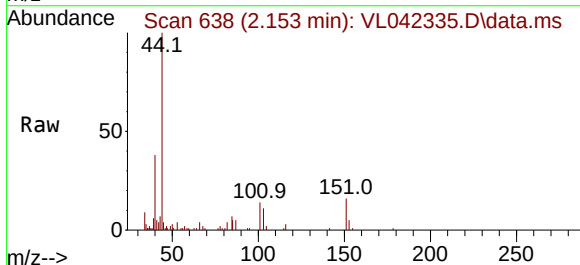
Instrument :
MSVOA_L
ClientSampleId :
OA1

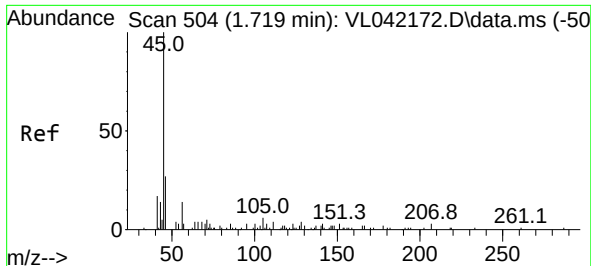
Tgt Ion:101 Resp: 4952
Ion Ratio Lower Upper
101 100
103 54.4 50.2 75.2



#12
1,1,2-Trichlorotrifluoroethane
Concen: 0.048 ppbv
RT: 2.153 min Scan# 638
Delta R.T. 0.016 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion:101 Resp: 1000
Ion Ratio Lower Upper
101 100
151 104.0 57.1 85.7#

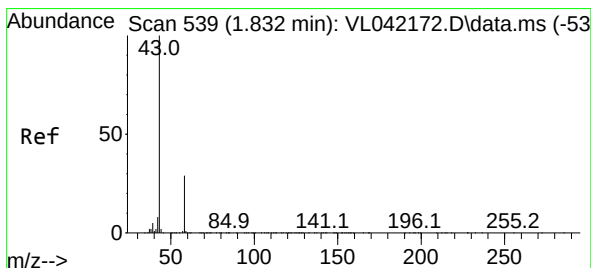
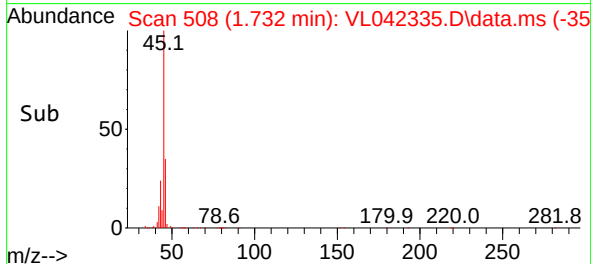
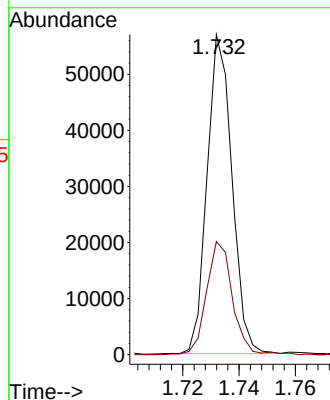
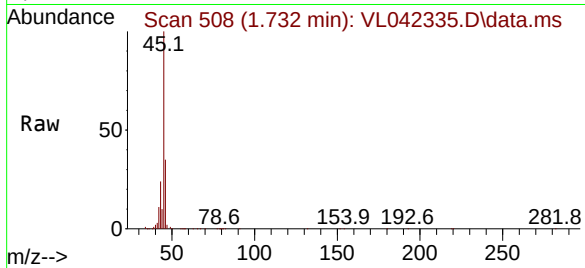




#13
Ethanol
Concen: 30.069 ppbv
RT: 1.732 min Scan# 508
Delta R.T. 0.013 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

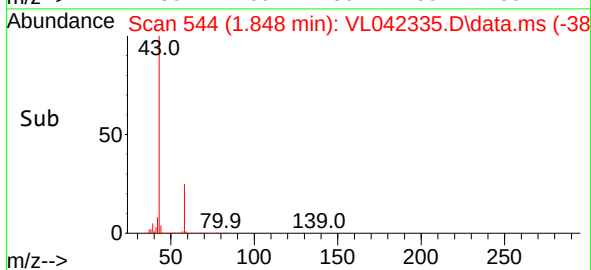
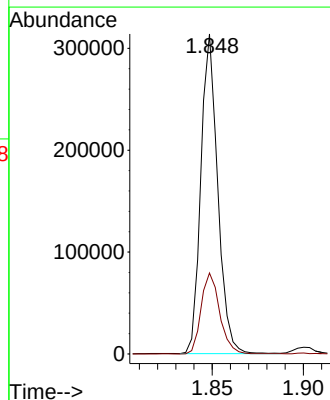
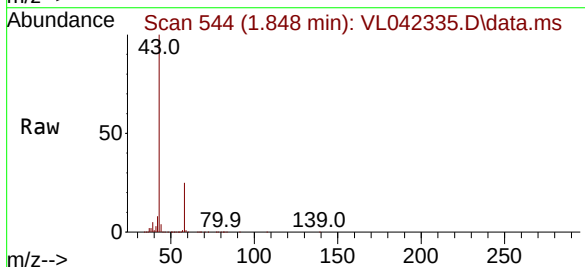
Instrument :
MSVOA_L
ClientSampleId :
OA1

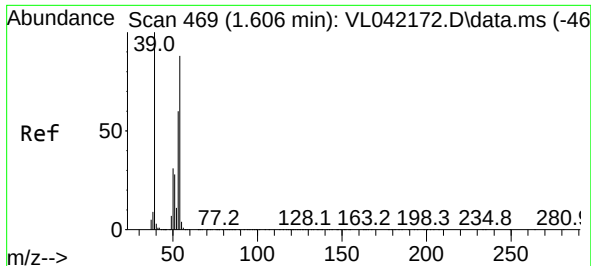
Tgt Ion: 45 Resp: 34874
Ion Ratio Lower Upper
45 100
46 37.5 20.2 80.8



#15
Acetone
Concen: 8.147 ppbv
RT: 1.848 min Scan# 544
Delta R.T. 0.016 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion: 43 Resp: 202208
Ion Ratio Lower Upper
43 100
58 27.9 23.2 34.8





#16

1,3-Butadiene

Concen: 0.304 ppbv

RT: 1.612 min Scan# 41

Delta R.T. 0.006 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

Instrument :

MSVOA_L

ClientSampleId :

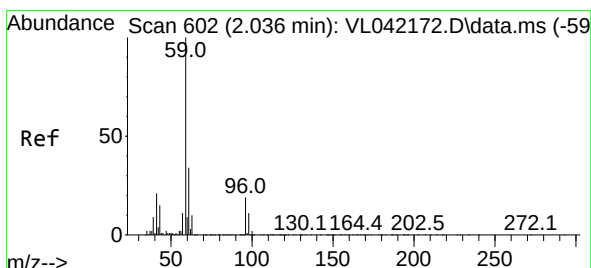
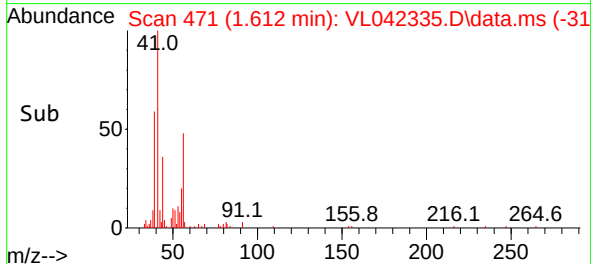
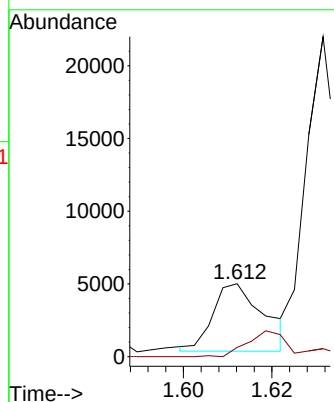
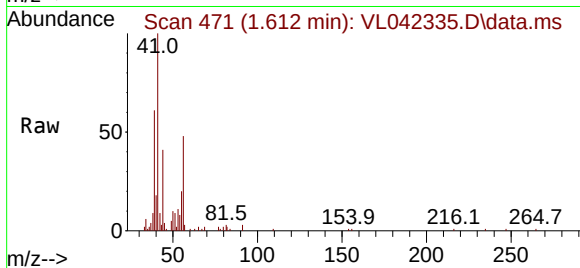
OA1

Tgt Ion: 39 Resp: 3680

Ion Ratio Lower Upper

39 100

54 35.9 60.7 91.1#



#17

tert-Butyl alcohol

Concen: 0.063 ppbv

RT: 2.059 min Scan# 609

Delta R.T. 0.023 min

Lab File: VL042335.D

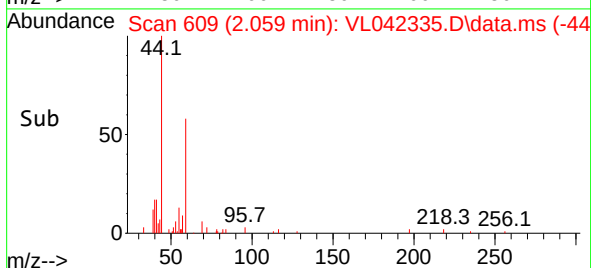
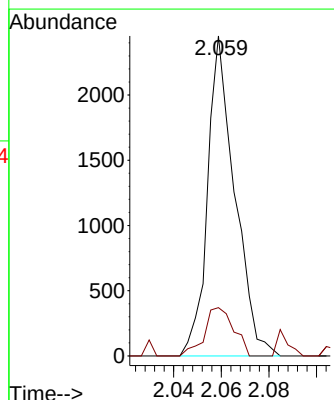
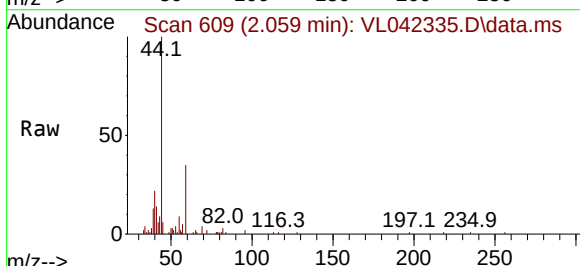
Acq: 15 Apr 2025 16:42

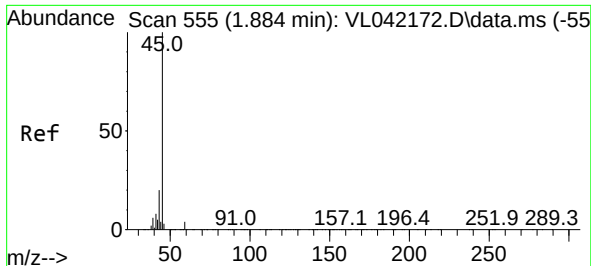
Tgt Ion: 59 Resp: 1945

Ion Ratio Lower Upper

59 100

57 17.4 8.9 13.3#





#19

Isopropyl Alcohol

Concen: 1.312 ppbv

RT: 1.900 min Scan# 5

Delta R.T. 0.016 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

Instrument :

MSVOA_L

ClientSampleId :

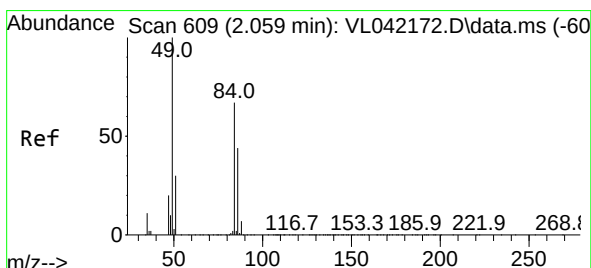
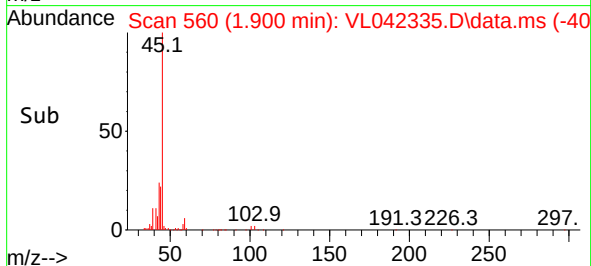
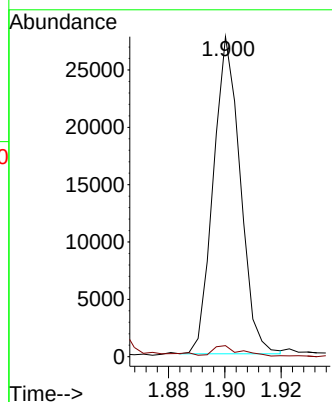
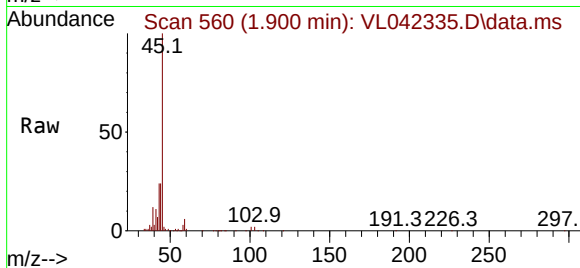
OA1

Tgt Ion: 45 Resp: 18374

Ion Ratio Lower Upper

45 100

58 308.6 36.9 55.3#



#20

Methylene Chloride

Concen: 0.398 ppbv

RT: 2.078 min Scan# 615

Delta R.T. 0.019 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

Tgt Ion: 84 Resp: 3677

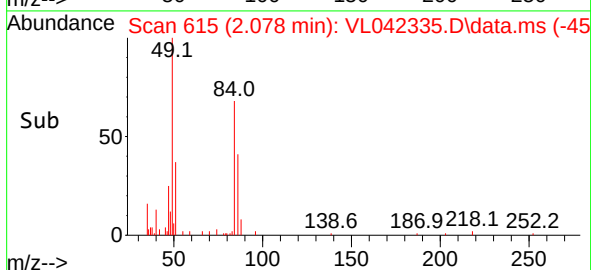
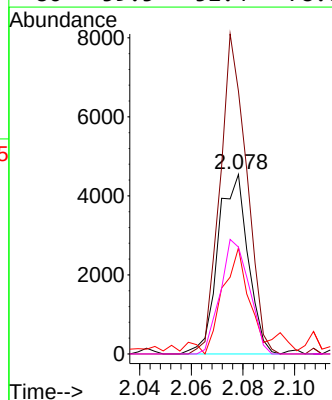
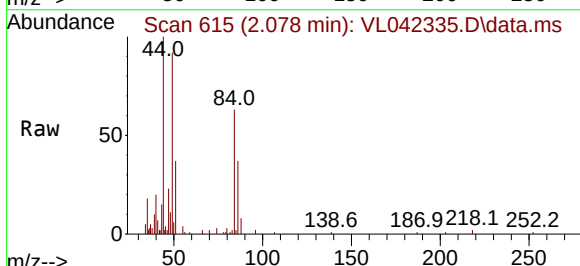
Ion Ratio Lower Upper

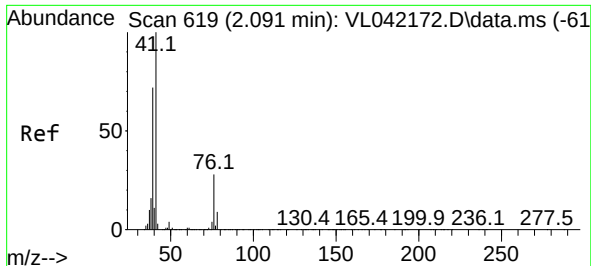
84 100

49 146.4 120.2 180.4

51 57.6 37.4 56.0#

86 59.5 52.4 78.6

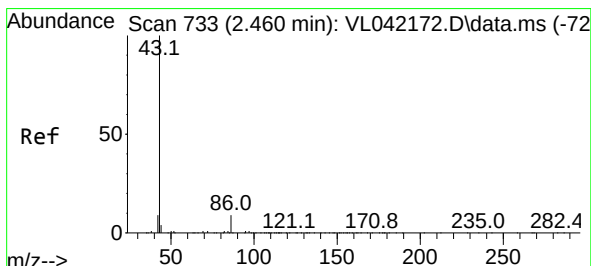
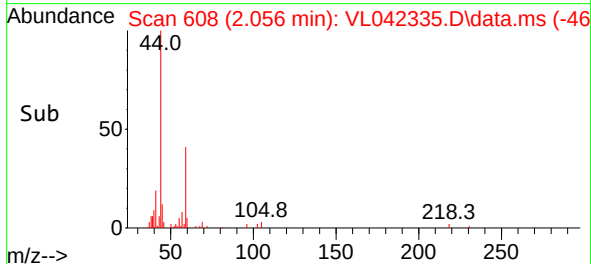
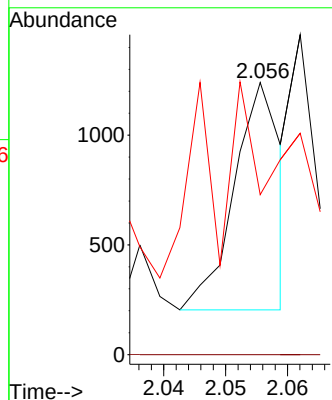
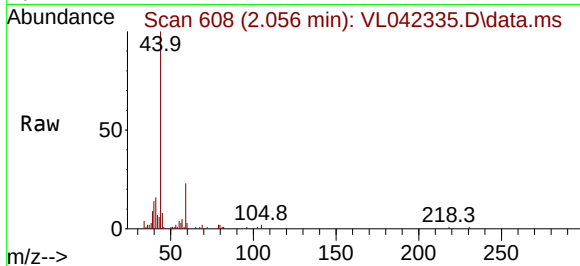




#21
Allyl Chloride
Concen: 0.031 ppbv
RT: 2.056 min Scan# 608
Delta R.T. -0.036 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

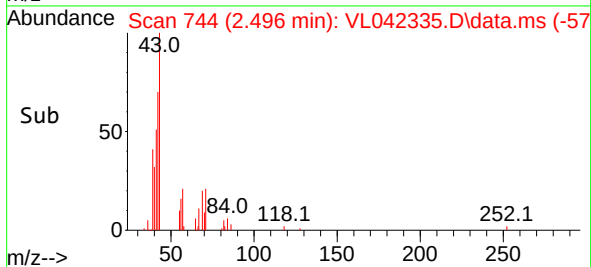
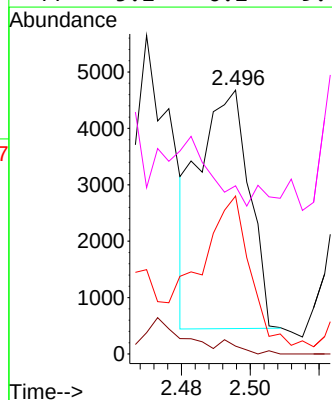
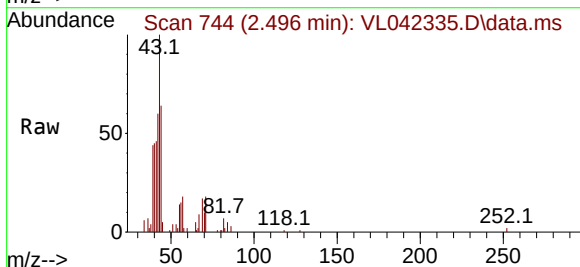
Instrument :
MSVOA_1
ClientSampleId :
OA1

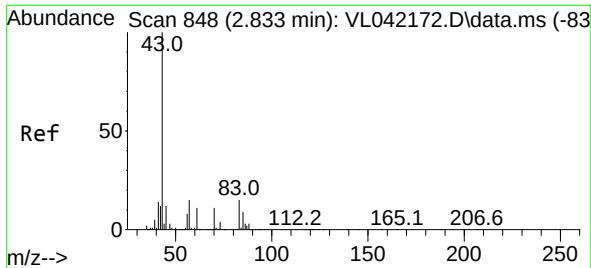
Tgt Ion: 41 Resp: 549
Ion Ratio Lower Upper
41 100
76 0.0 24.1 36.1#
39 216.4 61.1 91.7#



#23
Vinyl Acetate
Concen: 0.403 ppbv
RT: 2.496 min Scan# 744
Delta R.T. 0.035 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion: 43 Resp: 4333
Ion Ratio Lower Upper
43 100
86 3.3 5.5 8.3#
42 58.1 8.6 13.0#
44 5.2 6.2 9.4#

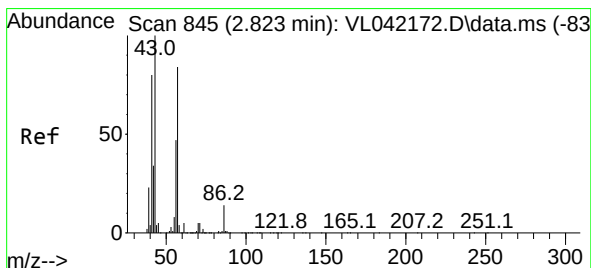
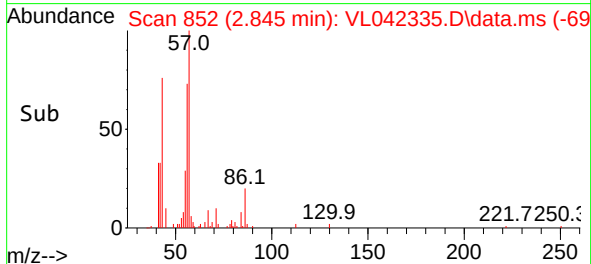
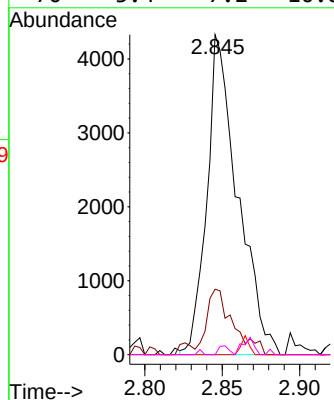
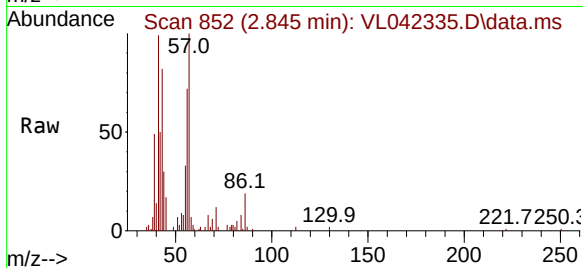




#25
Ethyl Acetate
Concen: 0.093 ppbv
RT: 2.845 min Scan# 81
Delta R.T. 0.013 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

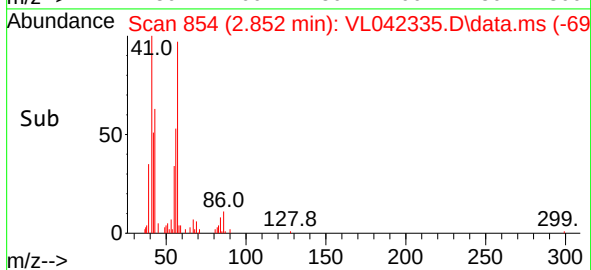
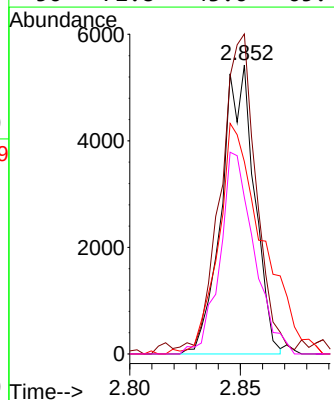
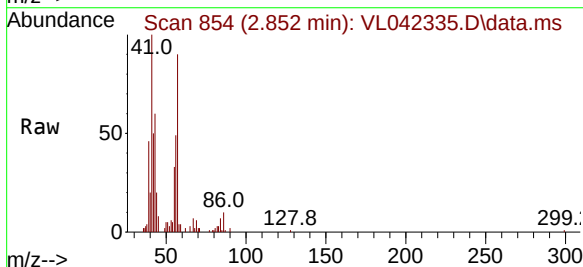
Instrument :
MSVOA_L
ClientSampleId :
OA1

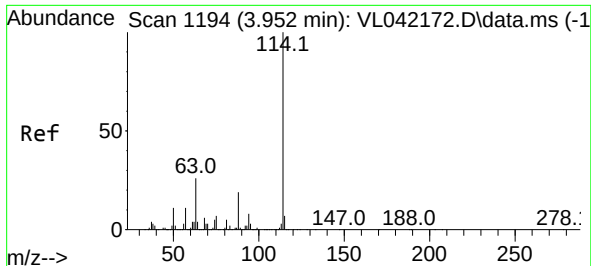
Tgt Ion: 43 Resp: 5984
Ion Ratio Lower Upper
43 100
45 19.1 8.2 12.2#
61 1.5 7.3 10.9#
70 3.4 7.2 10.8#



#26
Hexane
Concen: 0.224 ppbv
RT: 2.852 min Scan# 854
Delta R.T. 0.029 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion: 57 Resp: 5571
Ion Ratio Lower Upper
57 100
41 126.3 76.6 114.8#
43 114.3 207.8 311.8#
56 72.8 43.6 65.4#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 3.994 min Scan# 11

Delta R.T. 0.042 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

Instrument :

MSVOA_L

ClientSampleId :

OA1

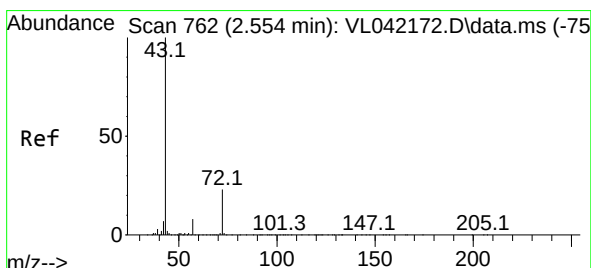
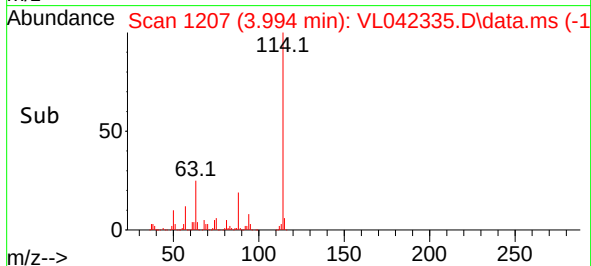
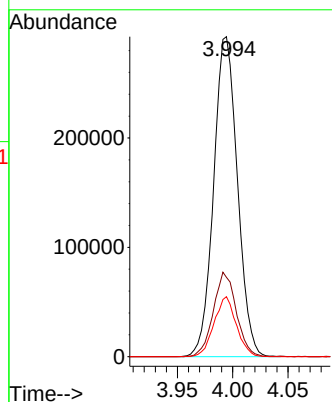
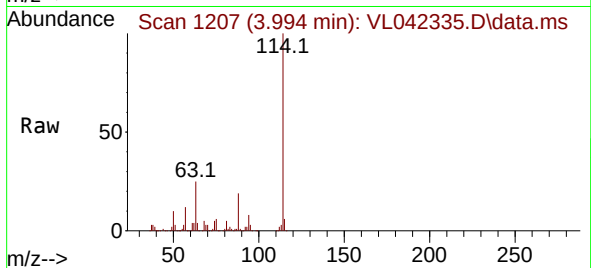
Tgt Ion:114 Resp: 437650

Ion Ratio Lower Upper

114 100

63 25.6 20.7 31.1

88 17.6 15.0 22.4



#34

2-Butanone

Concen: 0.964 ppbv

RT: 2.580 min Scan# 770

Delta R.T. 0.026 min

Lab File: VL042335.D

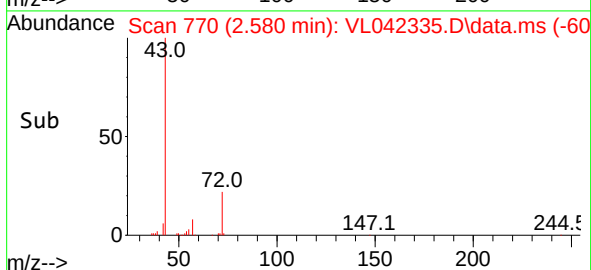
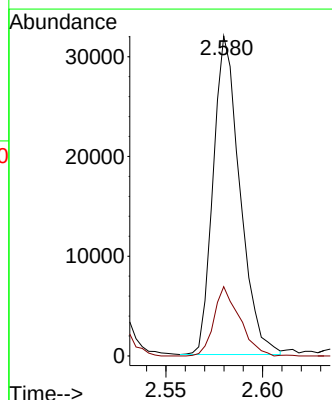
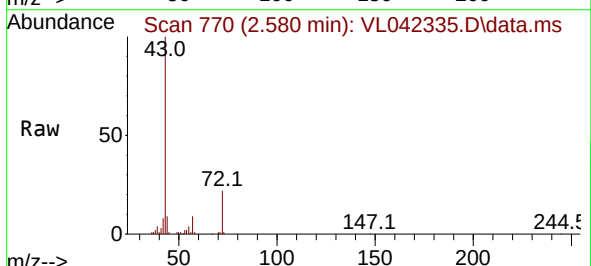
Acq: 15 Apr 2025 16:42

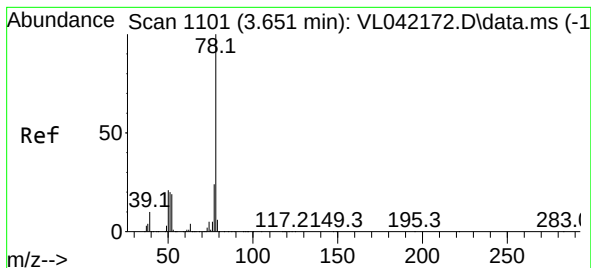
Tgt Ion: 43 Resp: 30605

Ion Ratio Lower Upper

43 100

72 21.0 18.2 27.2





#36

Benzene

Concen: 0.173 ppbv

RT: 3.690 min Scan# 1113

Delta R.T. 0.039 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

Instrument :

MSVOA_L

ClientSampleId :

OA1

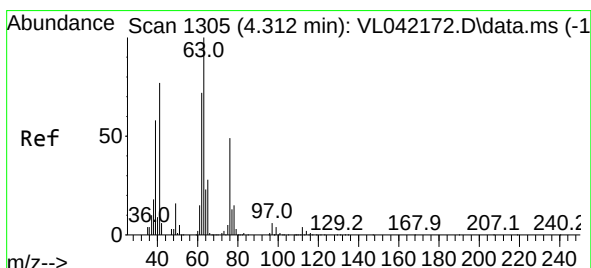
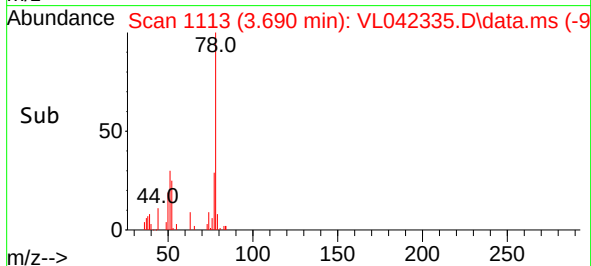
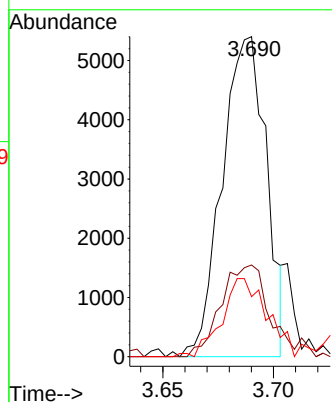
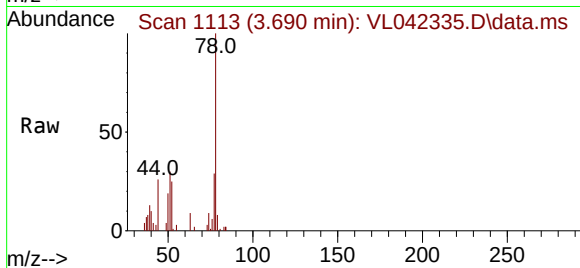
Tgt Ion: 78 Resp: 7521

Ion Ratio Lower Upper

78 100

77 28.6 19.1 28.7

50 17.7 16.6 24.8



#39

1,2-Dichloropropane

Concen: 7.076 ppbv

RT: 3.991 min Scan# 1206

Delta R.T. -0.321 min

Lab File: VL042335.D

Acq: 15 Apr 2025 16:42

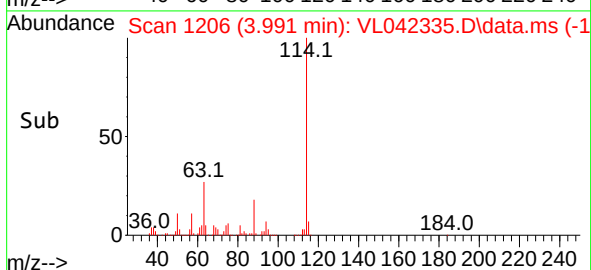
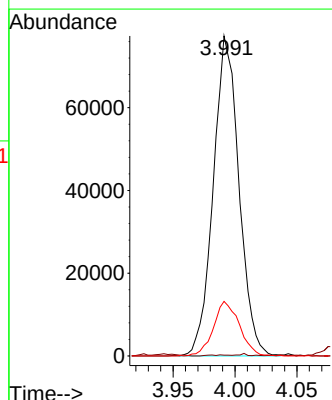
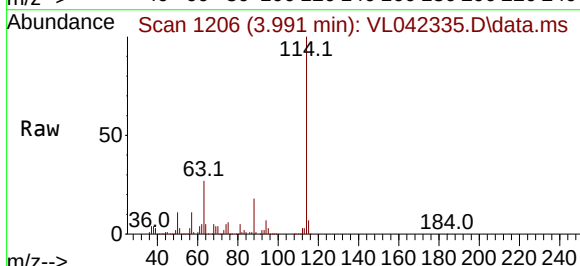
Tgt Ion: 63 Resp: 111809

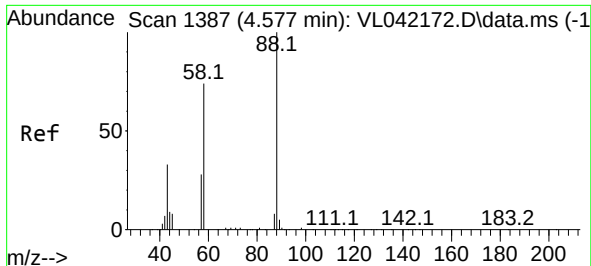
Ion Ratio Lower Upper

63 100

41 0.0 61.7 92.5#

62 16.9 57.6 86.4#

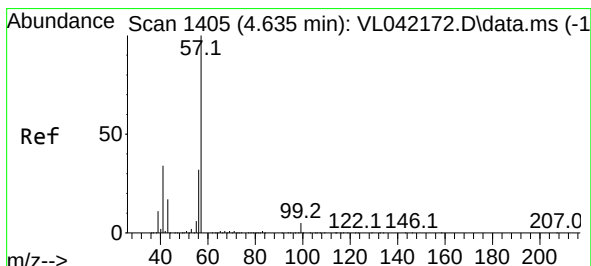
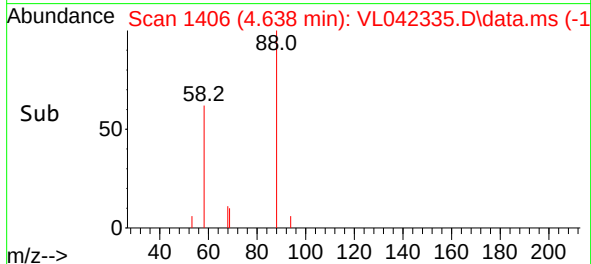
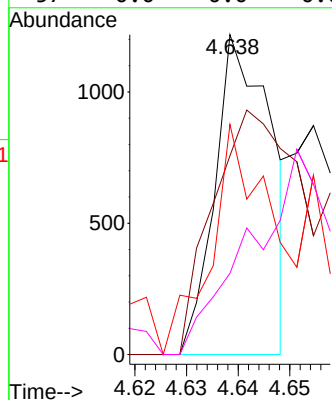
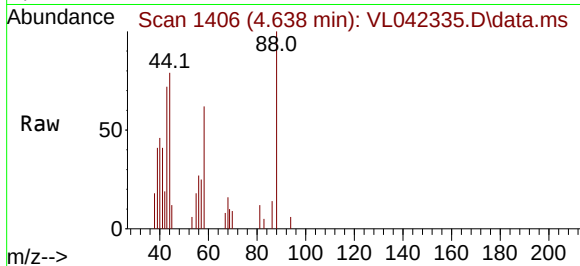




#40
 1,4-Dioxane
 Concen: 0.110 ppbv
 RT: 4.638 min Scan# 1406
 Delta R.T. 0.061 min
 Lab File: VL042335.D
 Acq: 15 Apr 2025 16:42

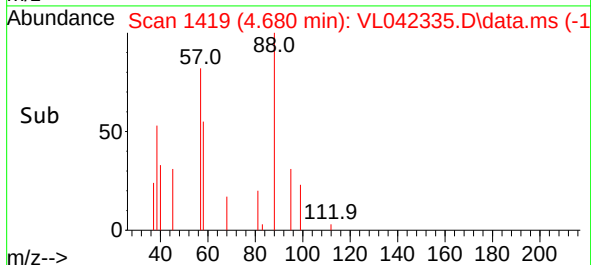
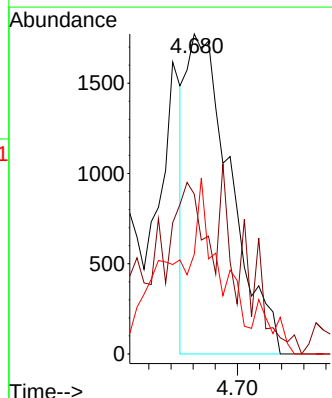
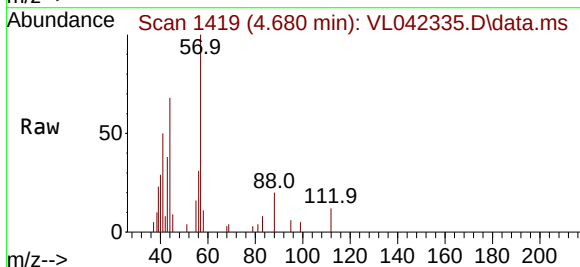
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

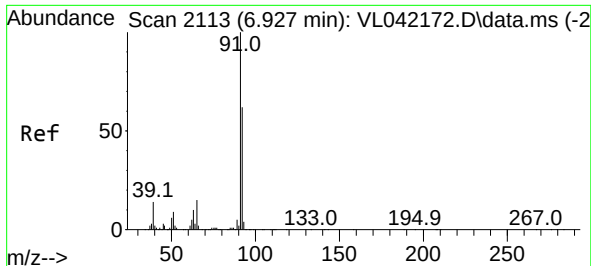
Tgt Ion:	88	Resp:	923
Ion	Ratio	Lower	Upper
88	100		
58	197.3	62.7	94.1#
43	113.7	23.0	34.4#
57	0.0	0.0	0.0



#44
 2,2,4-Trimethylpentane
 Concen: 0.034 ppbv
 RT: 4.680 min Scan# 1419
 Delta R.T. 0.045 min
 Lab File: VL042335.D
 Acq: 15 Apr 2025 16:42

Tgt Ion:	57	Resp:	2480
Ion	Ratio	Lower	Upper
57	100		
41	95.2	26.8	40.2#
56	68.3	25.6	38.4#

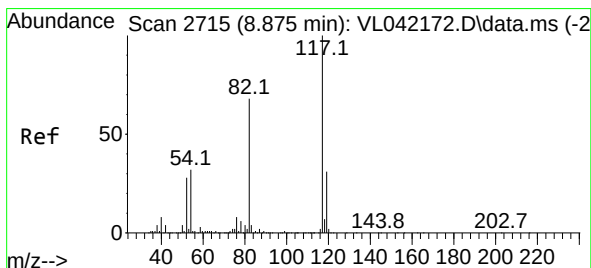
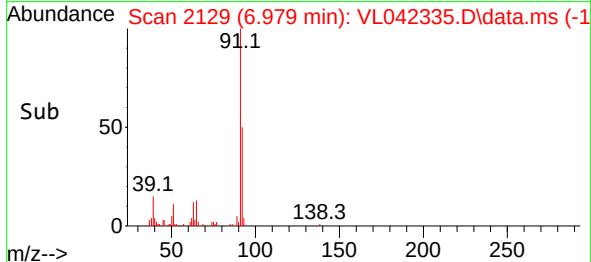
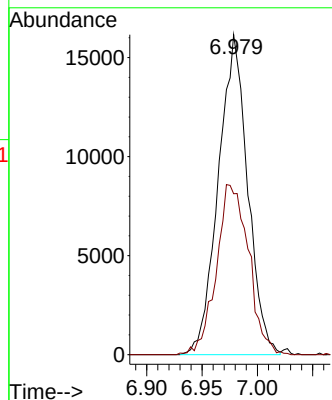
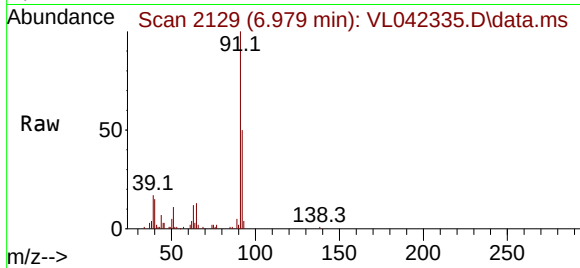




#53
Toluene
Concen: 0.579 ppbv
RT: 6.979 min Scan# 2113
Delta R.T. 0.052 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

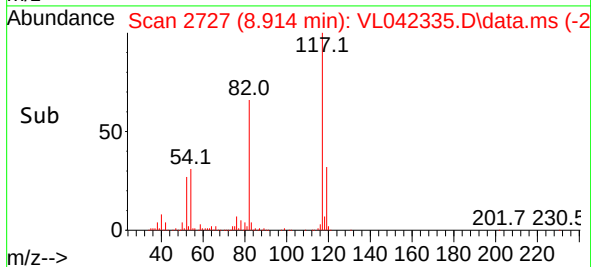
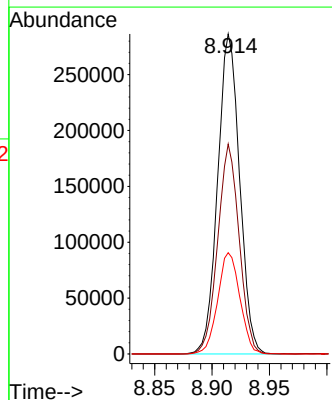
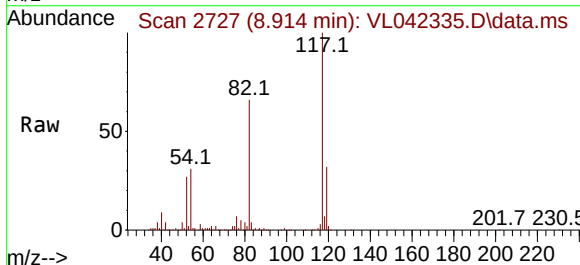
Instrument :
MSVOA_L
ClientSampleId :
OA1

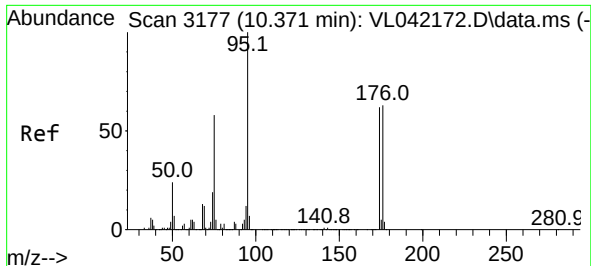
Tgt Ion: 91 Resp: 29789
Ion Ratio Lower Upper
91 100
92 58.5 48.4 72.6



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.914 min Scan# 2727
Delta R.T. 0.039 min
Lab File: VL042335.D
Acq: 15 Apr 2025 16:42

Tgt Ion: 117 Resp: 380537
Ion Ratio Lower Upper
117 100
82 64.1 55.8 83.6
119 32.1 25.5 38.3





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.632 ppbv
 RT: 10.403 min Scan# 3177
 Delta R.T. 0.032 min
 Lab File: VL042335.D
 Acq: 15 Apr 2025 16:42

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Tgt Ion: 95 Resp: 300987

Ion	Ratio	Lower	Upper
95	100		
174	63.9	50.6	76.0
175	4.8	3.8	5.6

