

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL051223\
 Data File : VL040424.D
 Acq On : 12 May 2023 18:51
 Operator : SY/MD
 Sample : 02785-03
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: May 15 00:43:55 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Apr 13 14:37:02 2023
 Response via : Initial Calibration

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

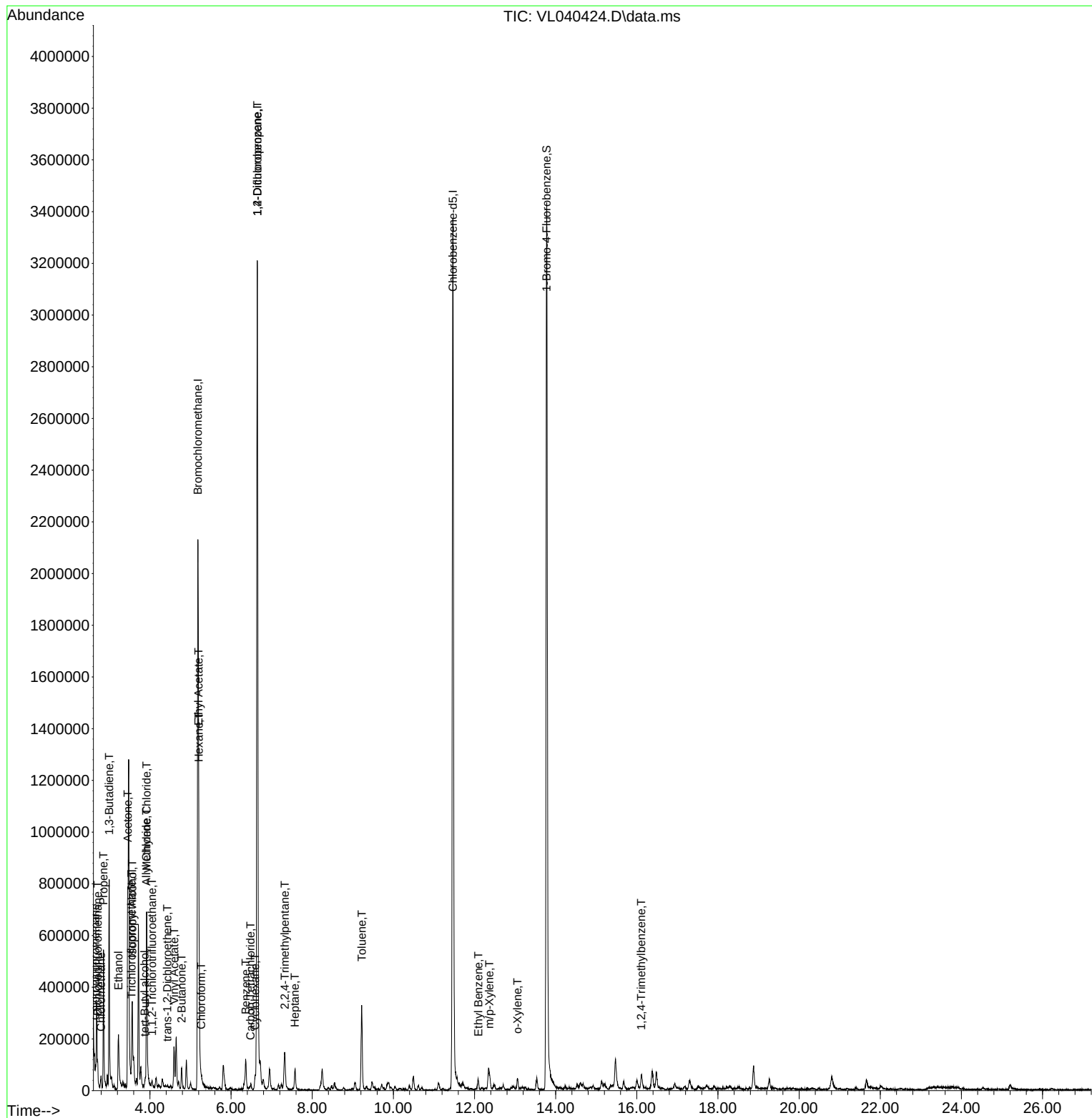
Internal Standards						
1) Bromochloromethane	5.182	49	945190	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	2340345	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.468	117	2092225	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.777	95	1680912	9.716	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.713	85	48716	0.286	ppbv	98
3) Chlorodifluoromethane	2.655	51	45479	0.368	ppbv #	91
4) Chloromethane	2.796	50	32660	0.419	ppbv	97
9) Propene	2.854	41	118496	2.428	ppbv	87
10) Heptane	7.568	43	7689	0.069	ppbv #	25
11) Trichlorofluoromethane	3.549	101	43536	0.252	ppbv	98
12) 1,1,2-Trichlorotrifluo...	4.053	101	8097	0.067	ppbv	91
13) Ethanol	3.224	45	242297	59.483	ppbv	99
15) Acetone	3.452	43	758741	5.668	ppbv	93
16) 1,3-Butadiene	2.996	39	82534	1.490	ppbv #	15
17) tert-Butyl alcohol	3.873	59	11842	0.096	ppbv #	72
19) Isopropyl Alcohol	3.565	45	315027	5.157	ppbv #	94
20) Methylene Chloride	3.922	84	224169	4.194	ppbv	96
21) Allyl Chloride	3.915	41	3679	0.048	ppbv #	59
22) trans-1,2-Dichloroethene	4.426	96	1739	0.032	ppbv #	23
23) Vinyl Acetate	4.597	43	51853	1.521	ppbv #	1
25) Ethyl Acetate	5.201	43	199363	0.885	ppbv #	82
26) Hexane	5.205	57	244497	2.575	ppbv #	42
29) Chloroform	5.262	83	5595	0.033	ppbv	92
30) Cyclohexane	6.594	84	2330	0.032	ppbv #	1
34) 2-Butanone	4.780	43	87580	0.694	ppbv	93
35) Carbon Tetrachloride	6.481	117	5762	0.035	ppbv #	87
36) Benzene	6.359	78	82130	0.430	ppbv	96
39) 1,2-Dichloropropane	6.645	63	603321	8.030	ppbv #	25
44) 2,2,4-Trimethylpentane	7.323	57	103171	0.323	ppbv #	71
53) Toluene	9.220	91	214306	1.059	ppbv	99
58) Ethyl Benzene	12.095	91	17759	0.069	ppbv	98
59) m/p-Xylene	12.365	91	28829	0.122	ppbv #	32
60) o-Xylene	13.056	91	18766	0.083	ppbv #	50
74) 1,2,4-Trimethylbenzene	16.108	105	18163	0.069	ppbv #	66

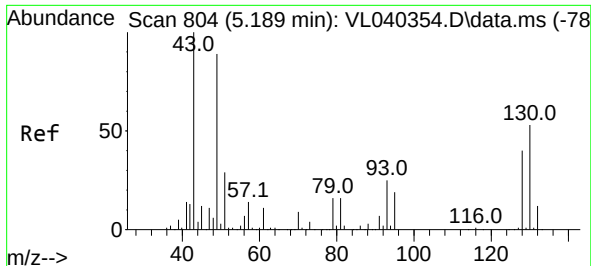
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Thu Apr 13 14:37:02 2023
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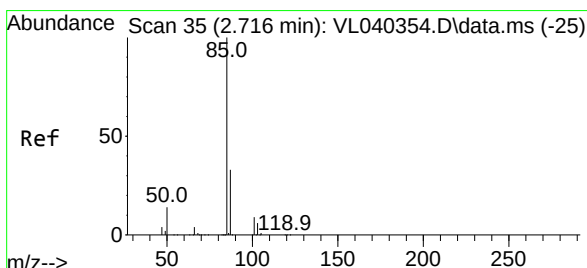
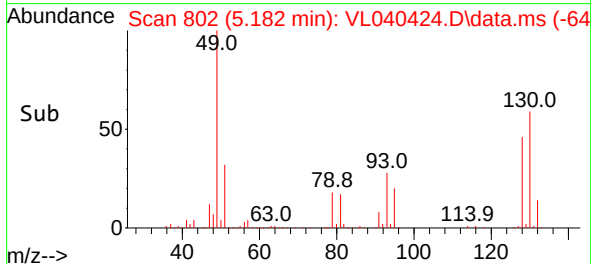
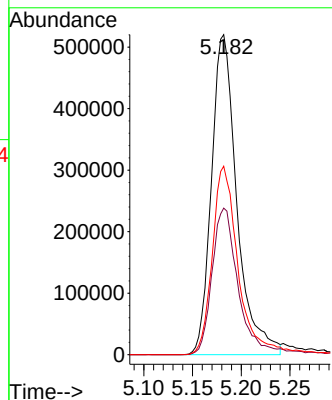
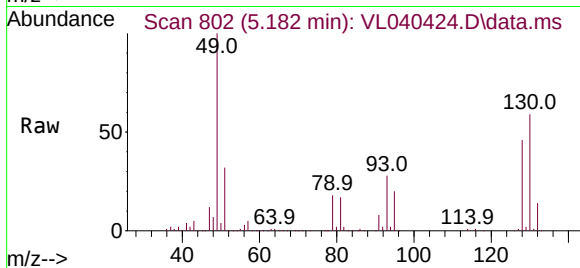




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.182 min Scan# 80
 Delta R.T. -0.007 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

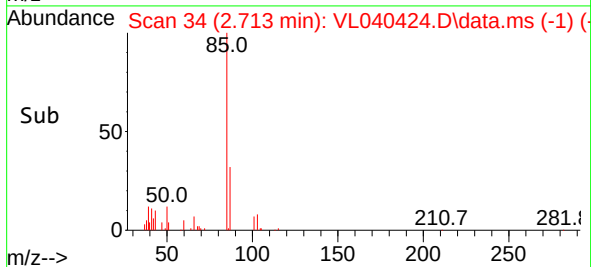
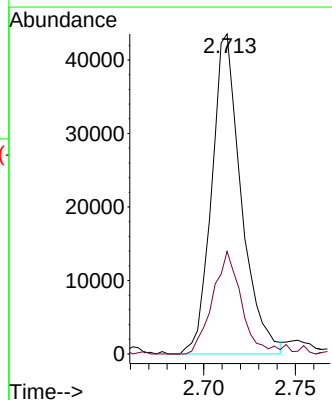
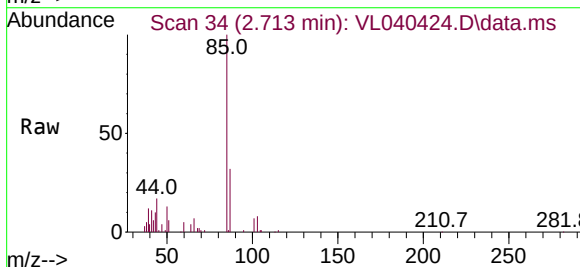
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

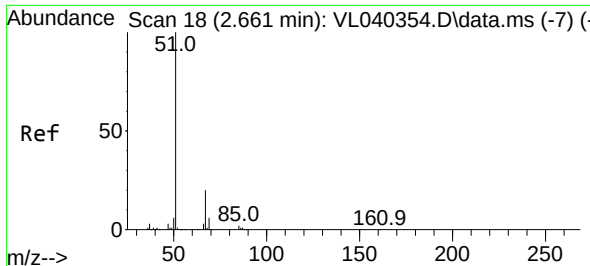
Tgt Ion: 49 Resp: 945190
 Ion Ratio Lower Upper
 49 100
 128 48.5 23.7 71.1
 130 62.1 29.9 89.8



#2
 Dichlorodifluoromethane
 Concen: 0.286 ppbv
 RT: 2.713 min Scan# 34
 Delta R.T. -0.003 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

Tgt Ion: 85 Resp: 48716
 Ion Ratio Lower Upper
 85 100
 87 32.1 26.6 40.0

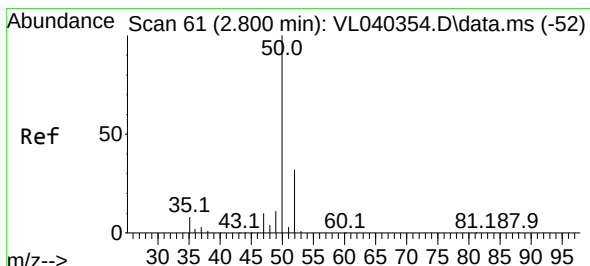
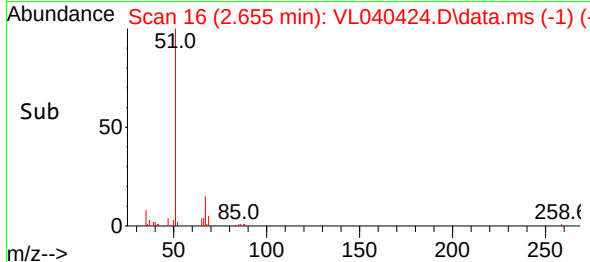
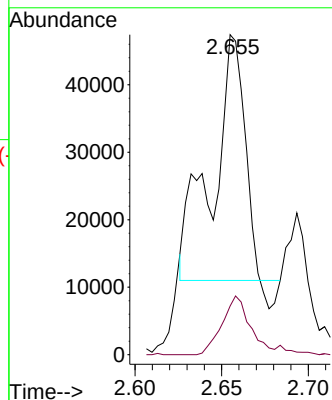
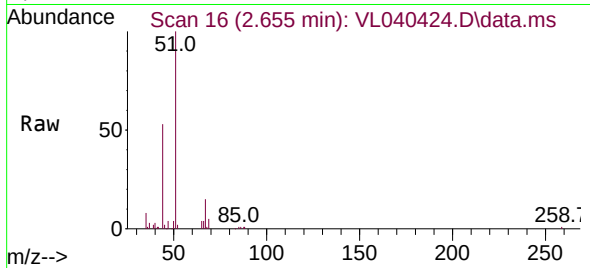




#3
Chlorodifluoromethane
Concen: 0.368 ppbv
RT: 2.655 min Scan# 11
Delta R.T. -0.006 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

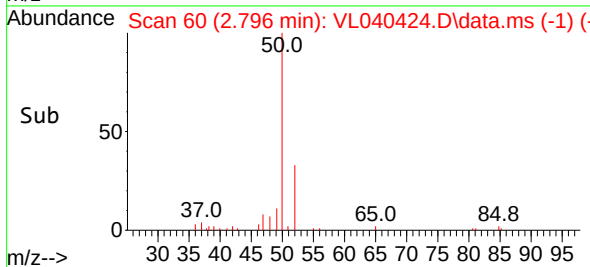
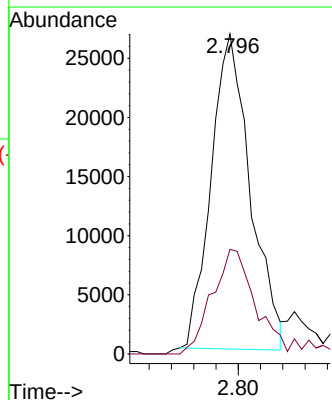
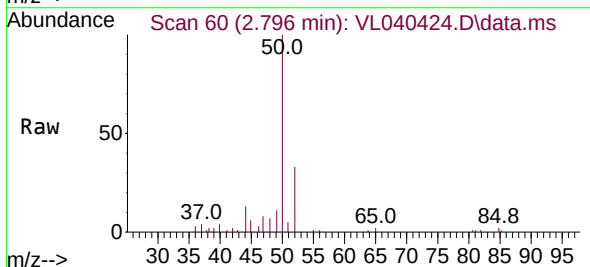
Instrument :
MSVOA_L
ClientSampleId :
OA1

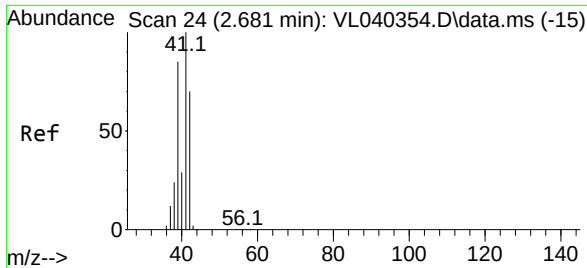
Tgt Ion: 51 Resp: 45479
Ion Ratio Lower Upper
51 100
67 23.3 15.5 23.3#



#4
Chloromethane
Concen: 0.419 ppbv
RT: 2.796 min Scan# 60
Delta R.T. -0.004 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 50 Resp: 32660
Ion Ratio Lower Upper
50 100
52 33.3 25.3 37.9





#9

Propene

Concen: 2.428 ppbv

RT: 2.854 min Scan# 71

Delta R.T. 0.173 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

Instrument :

MSVOA_L

ClientSampleId :

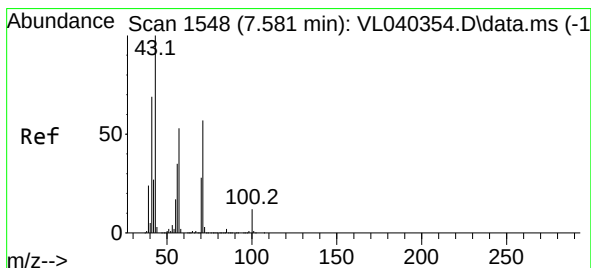
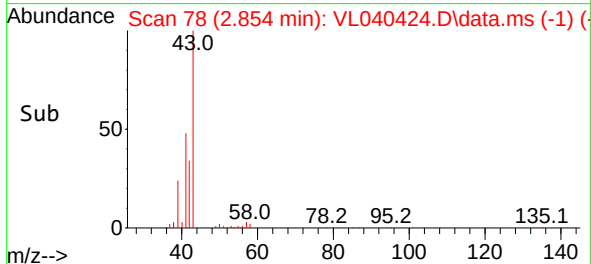
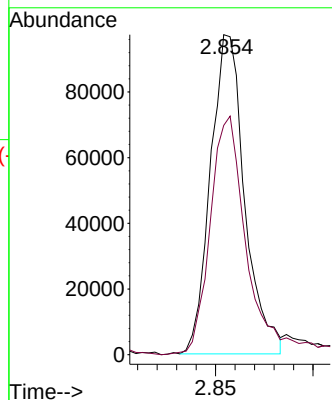
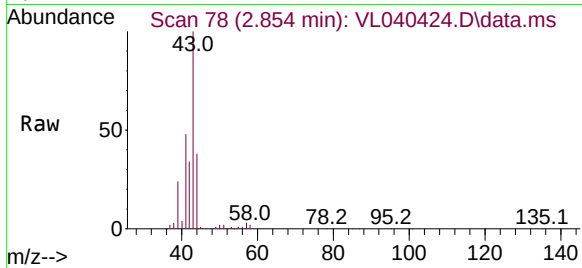
OA1

Tgt Ion: 41 Resp: 118496

Ion Ratio Lower Upper

41 100

42 80.9 56.5 84.7



#10

Heptane

Concen: 0.069 ppbv

RT: 7.568 min Scan# 1544

Delta R.T. -0.013 min

Lab File: VL040424.D

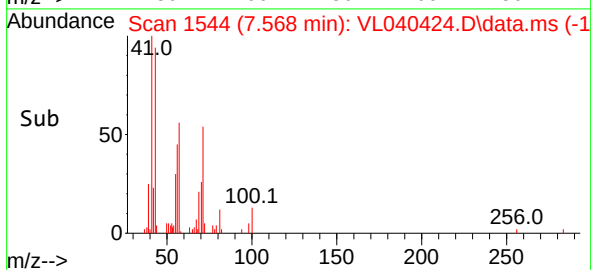
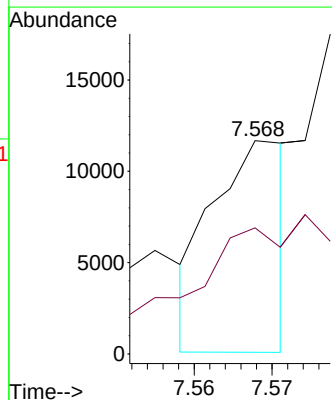
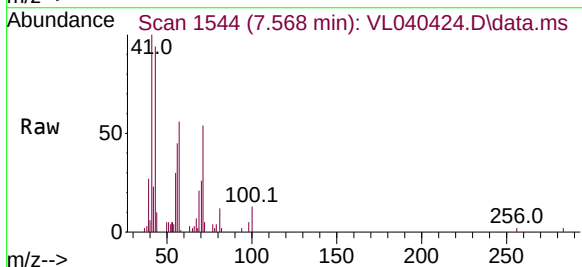
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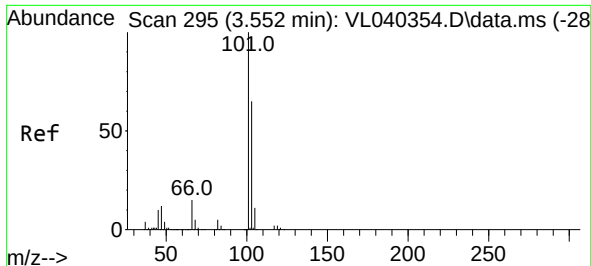
Tgt Ion: 43 Resp: 7689

Ion Ratio Lower Upper

43 100

57 0.0 42.2 63.4#

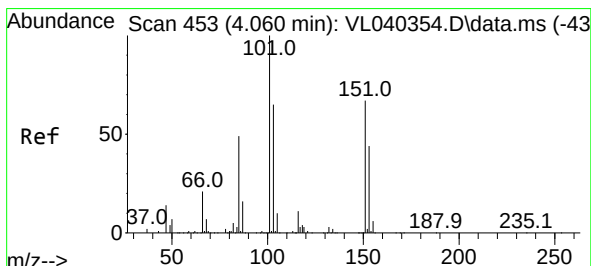
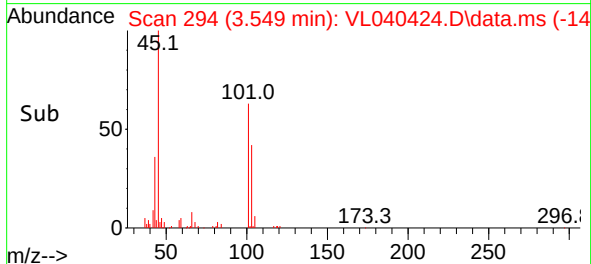
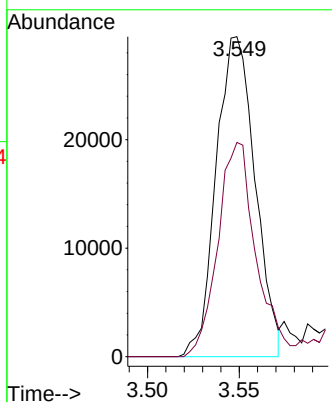
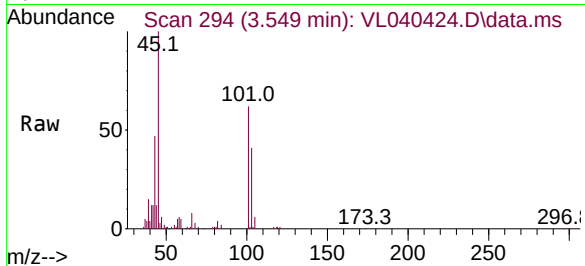




#11
 Trichlorofluoromethane
 Concen: 0.252 ppbv
 RT: 3.549 min Scan# 295
 Delta R.T. -0.003 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

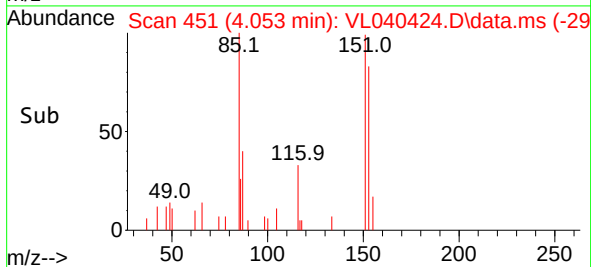
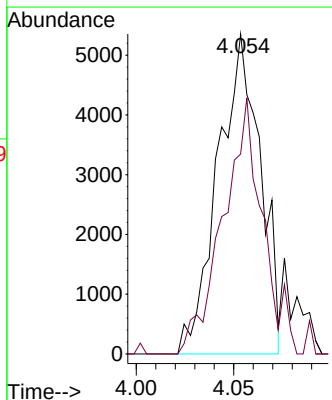
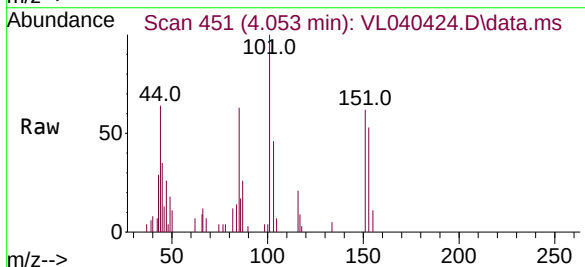
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

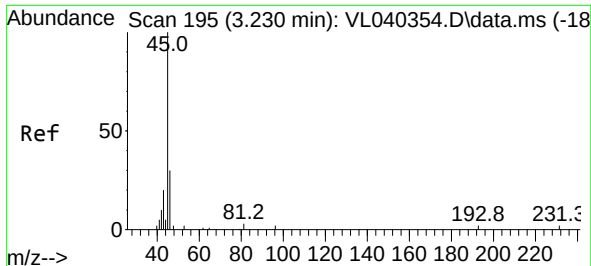
Tgt Ion:101 Resp: 43536
 Ion Ratio Lower Upper
 101 100
 103 66.9 52.2 78.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.067 ppbv
 RT: 4.053 min Scan# 451
 Delta R.T. -0.006 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

Tgt Ion:101 Resp: 8097
 Ion Ratio Lower Upper
 101 100
 151 76.0 54.7 82.1

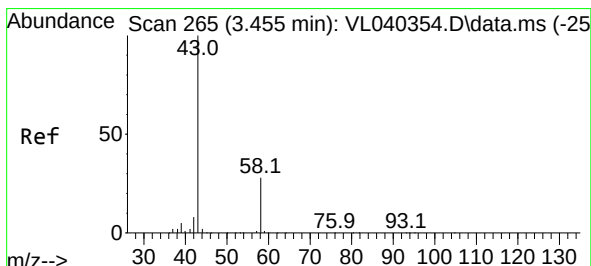
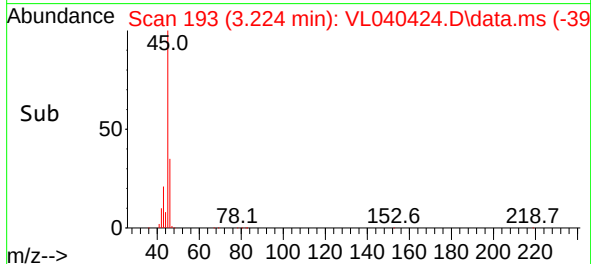
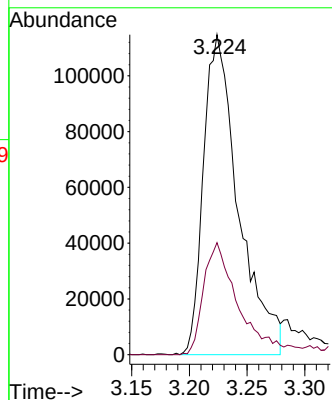
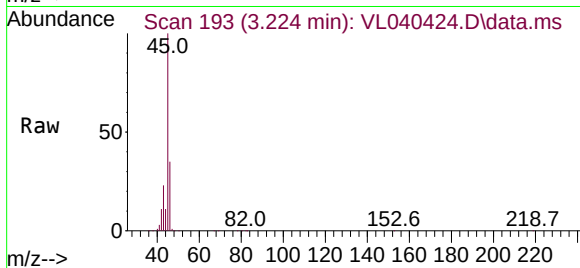




#13
Ethanol
Concen: 59.483 ppbv
RT: 3.224 min Scan# 193
Delta R.T. -0.006 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

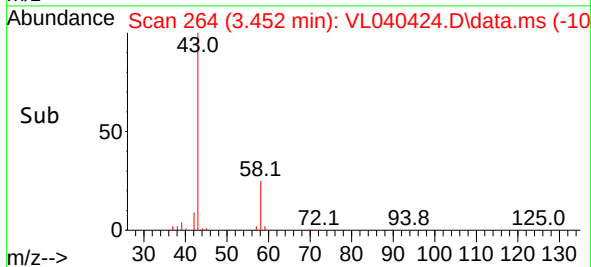
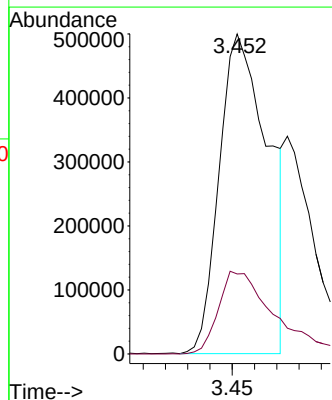
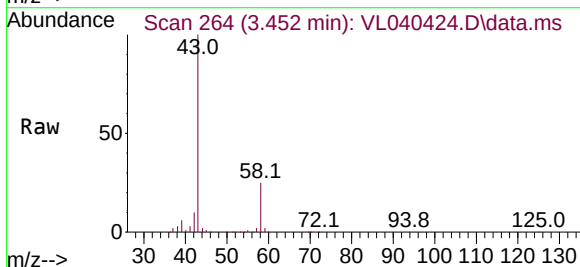
Instrument :
MSVOA_L
ClientSampleId :
OA1

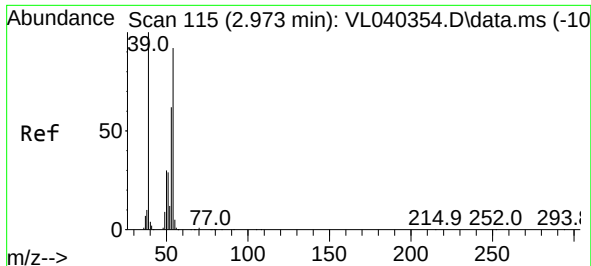
Tgt Ion: 45 Resp: 242297
Ion Ratio Lower Upper
45 100
46 37.9 15.3 61.3



#15
Acetone
Concen: 5.668 ppbv
RT: 3.452 min Scan# 264
Delta R.T. -0.003 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 43 Resp: 758741
Ion Ratio Lower Upper
43 100
58 31.5 22.2 33.2





#16

1,3-Butadiene

Concen: 1.490 ppbv

RT: 2.996 min Scan# 11

Delta R.T. 0.023 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

Instrument :

MSVOA_L

ClientSampleId :

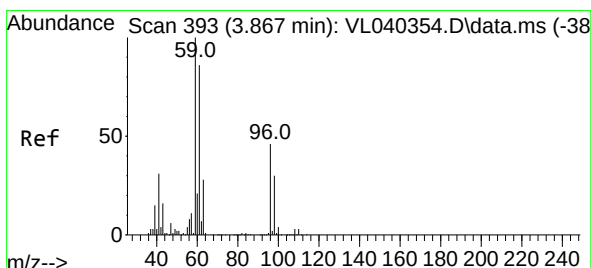
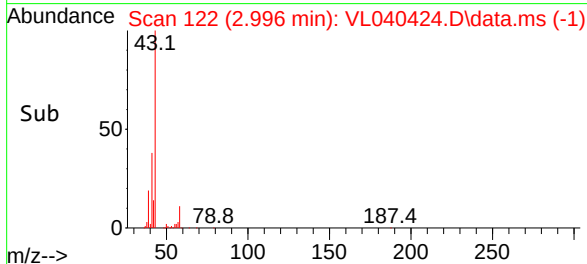
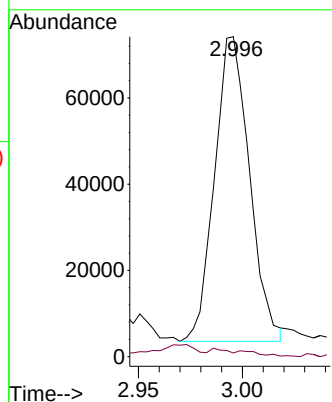
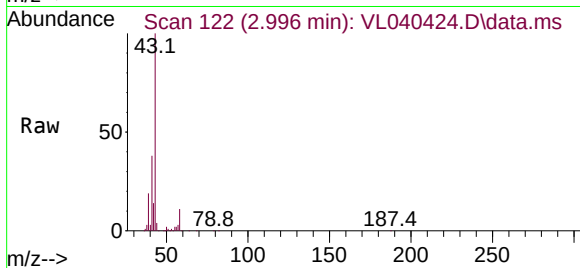
OA1

Tgt Ion: 39 Resp: 82534

Ion Ratio Lower Upper

39 100

54 7.8 68.8 103.2#



#17

tert-Butyl alcohol

Concen: 0.096 ppbv

RT: 3.873 min Scan# 395

Delta R.T. 0.006 min

Lab File: VL040424.D

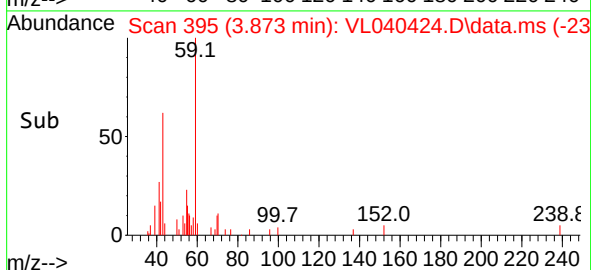
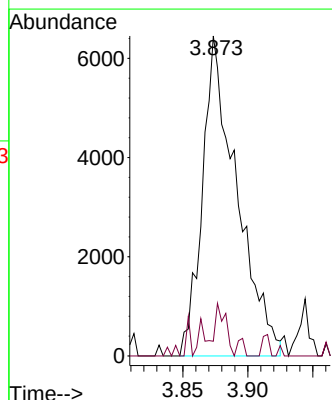
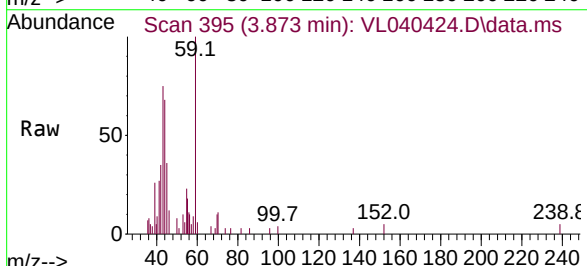
Acq: 12 May 2023 18:51

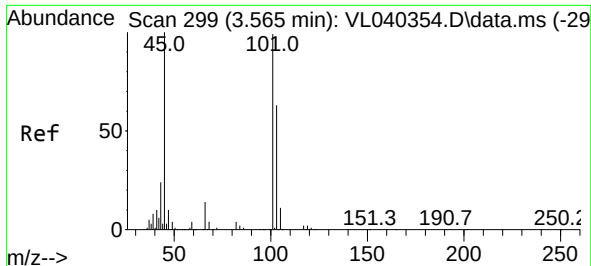
Tgt Ion: 59 Resp: 11842

Ion Ratio Lower Upper

59 100

57 0.0 8.5 12.7#





#19

Isopropyl Alcohol

Concen: 5.157 ppbv

RT: 3.565 min Scan# 299

Delta R.T. -0.000 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

Instrument :

MSVOA_L

ClientSampleId :

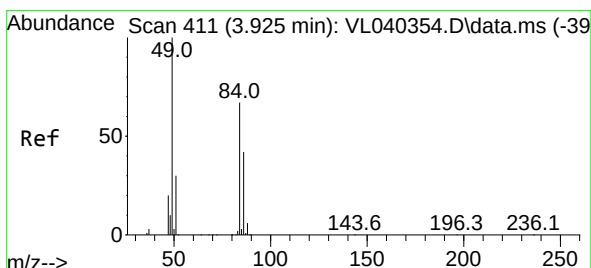
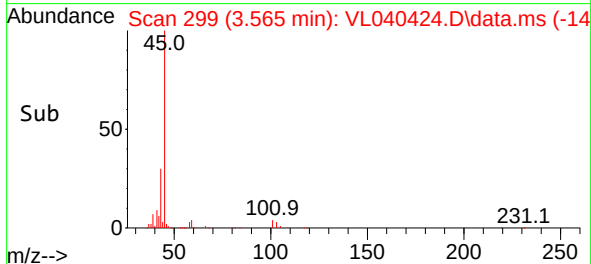
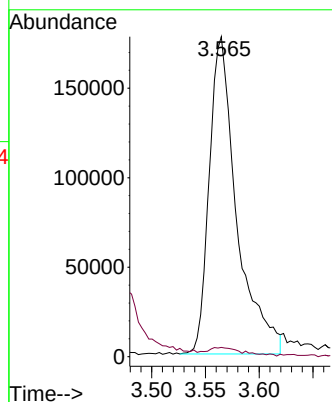
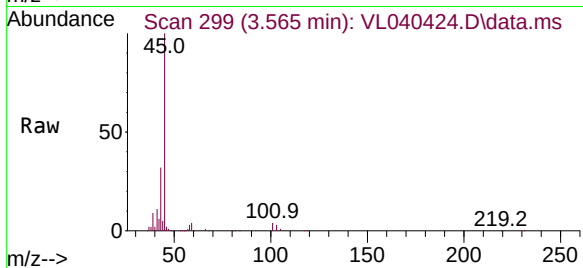
OA1

Tgt Ion: 45 Resp: 315027

Ion Ratio Lower Upper

45 100

58 5.2 2.6 4.0#



#20

Methylene Chloride

Concen: 4.194 ppbv

RT: 3.922 min Scan# 410

Delta R.T. -0.003 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

Tgt Ion: 84 Resp: 224169

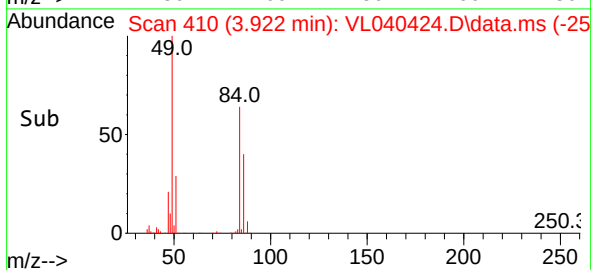
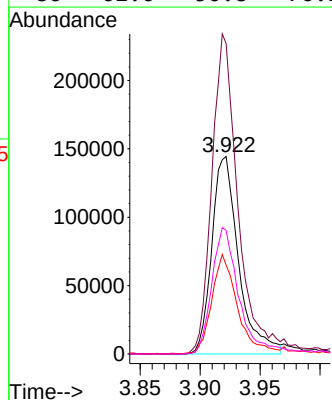
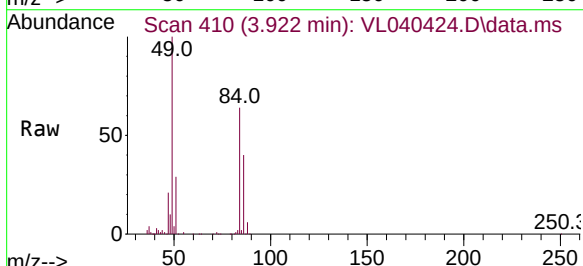
Ion Ratio Lower Upper

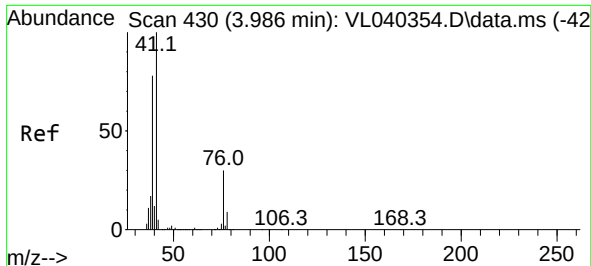
84 100

49 157.3 120.1 180.1

51 44.8 36.3 54.5

86 62.6 50.8 76.2

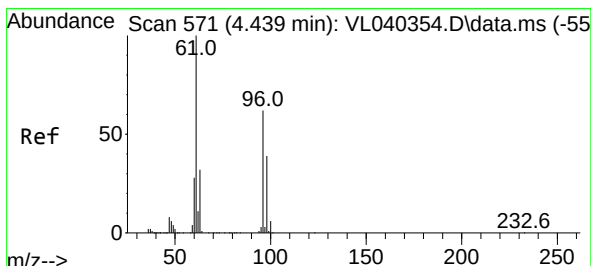
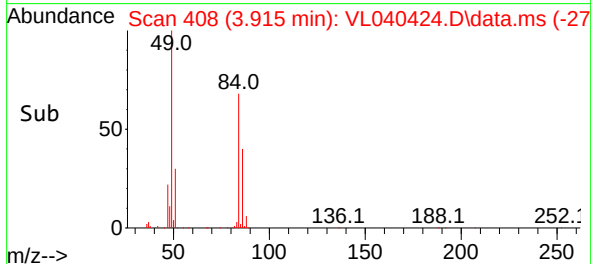
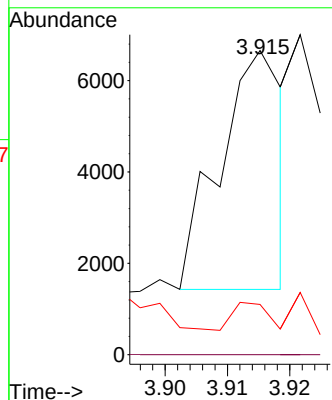
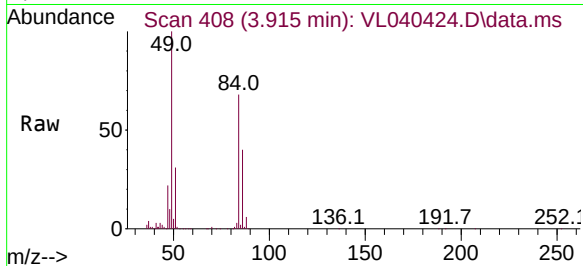




#21
 Allyl Chloride
 Concen: 0.048 ppbv
 RT: 3.915 min Scan# 408
 Delta R.T. -0.071 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

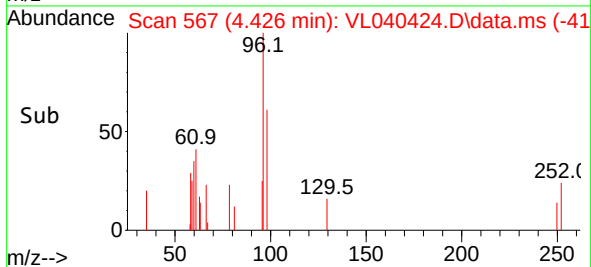
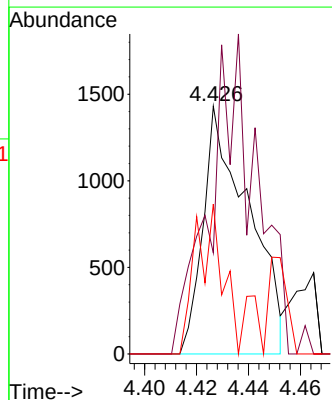
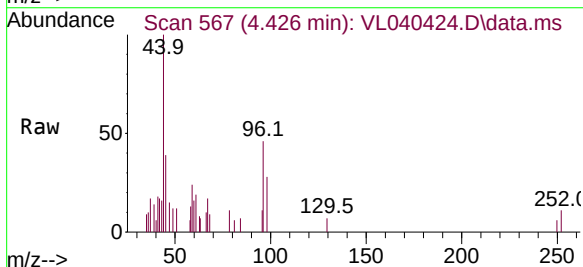
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

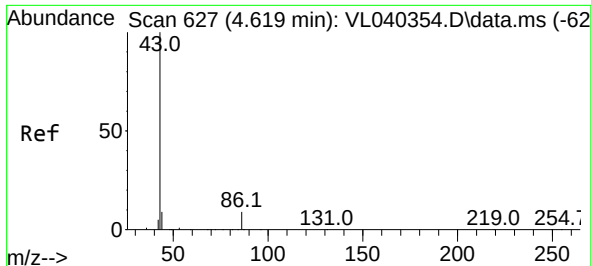
Tgt Ion: 41 Resp: 3679
 Ion Ratio Lower Upper
 41 100
 76 1.0 25.5 38.3#
 39 111.0 64.0 96.0#



#22
 trans-1,2-Dichloroethene
 Concen: 0.032 ppbv
 RT: 4.426 min Scan# 567
 Delta R.T. -0.013 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

Tgt Ion: 96 Resp: 1739
 Ion Ratio Lower Upper
 96 100
 61 20.5 129.4 194.2#
 98 60.5 51.0 76.4

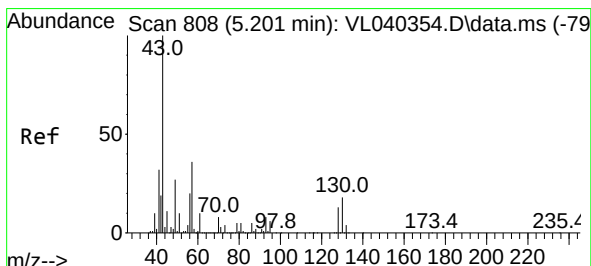
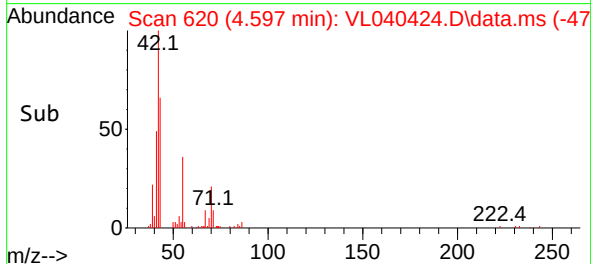
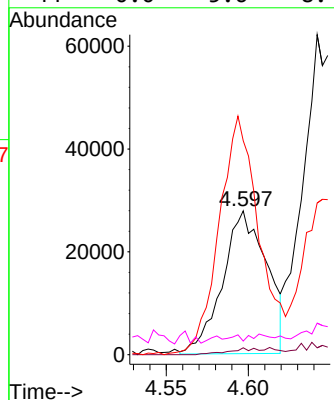
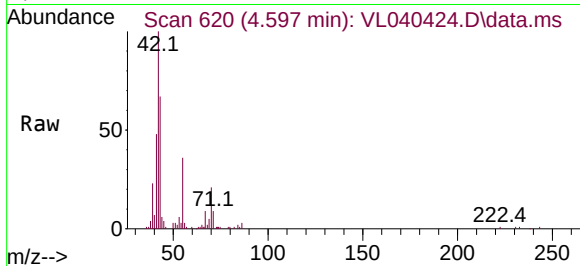




#23
 Vinyl Acetate
 Concen: 1.521 ppbv
 RT: 4.597 min Scan# 61
 Delta R.T. -0.022 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

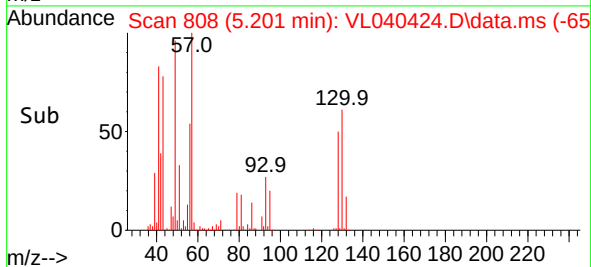
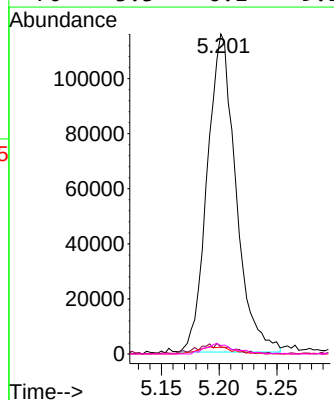
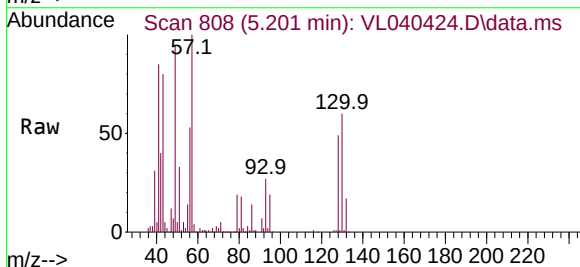
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

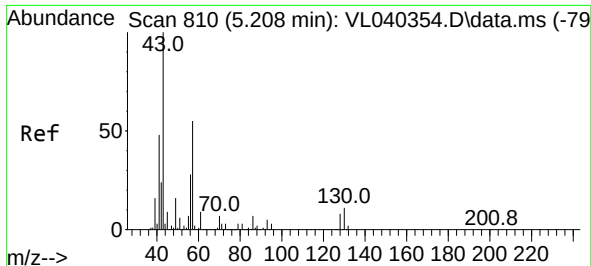
Tgt Ion:	43	Resp:	51853
Ion	Ratio	Lower	Upper
43	100		
86	4.9	6.0	9.0#
42	149.5	6.4	9.6#
44	0.0	5.6	8.4#



#25
 Ethyl Acetate
 Concen: 0.885 ppbv
 RT: 5.201 min Scan# 808
 Delta R.T. 0.000 min
 Lab File: VL040424.D
 Acq: 12 May 2023 18:51

Tgt Ion:	43	Resp:	199363
Ion	Ratio	Lower	Upper
43	100		
45	3.8	8.5	12.7#
61	2.7	8.5	12.7#
70	3.3	6.1	9.1#

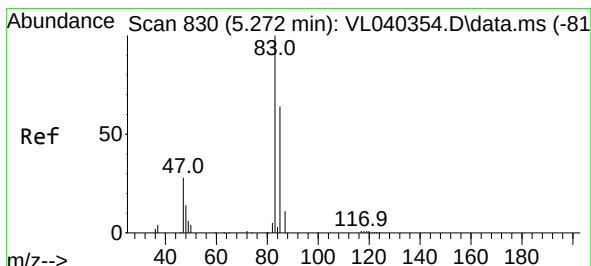
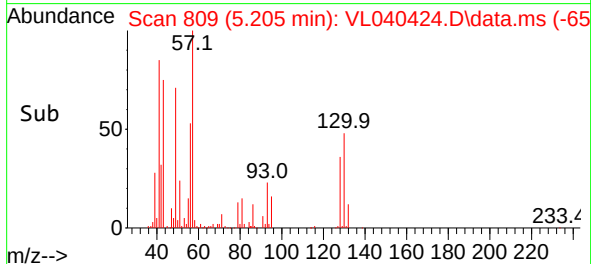
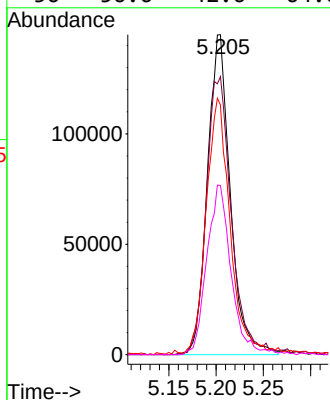
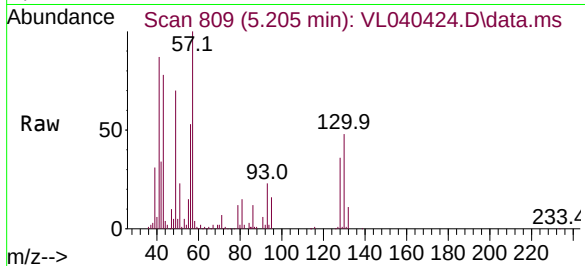




#26
Hexane
Concen: 2.575 ppbv
RT: 5.205 min Scan# 809
Delta R.T. -0.003 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

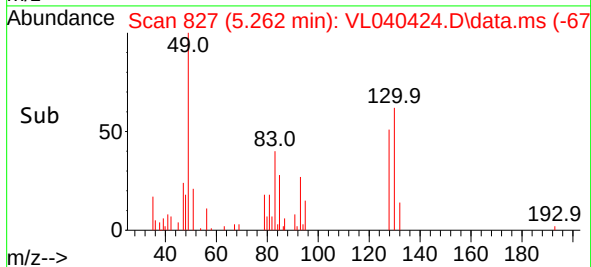
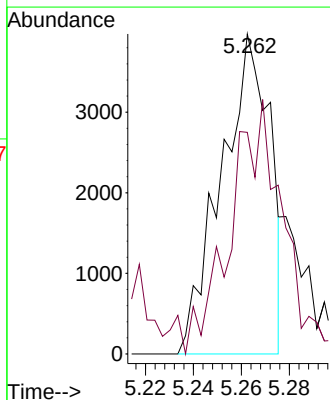
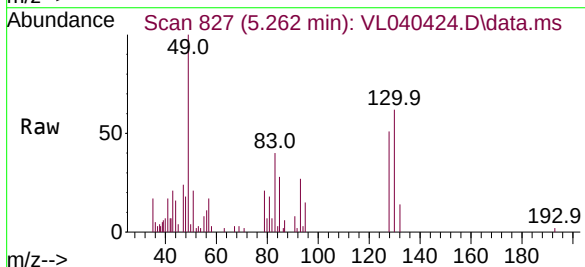
Instrument :
MSVOA_L
ClientSampleId :
OA1

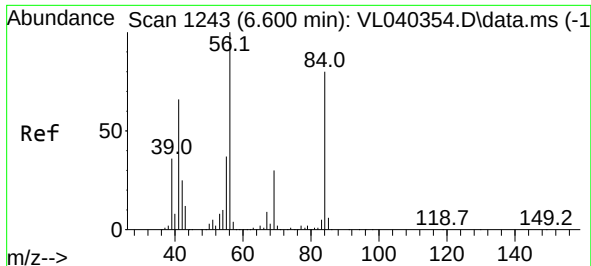
Tgt Ion: 57 Resp: 244497
Ion Ratio Lower Upper
57 100
41 96.9 74.8 112.2
43 86.4 192.7 289.1#
56 56.6 42.6 64.0



#29
Chloroform
Concen: 0.033 ppbv
RT: 5.262 min Scan# 827
Delta R.T. -0.010 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 83 Resp: 5595
Ion Ratio Lower Upper
83 100
85 57.2 51.0 76.4





#30

Cyclohexane

Concen: 0.032 ppbv

RT: 6.594 min Scan# 11

Delta R.T. -0.006 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

Instrument :

MSVOA_L

ClientSampleId :

OA1

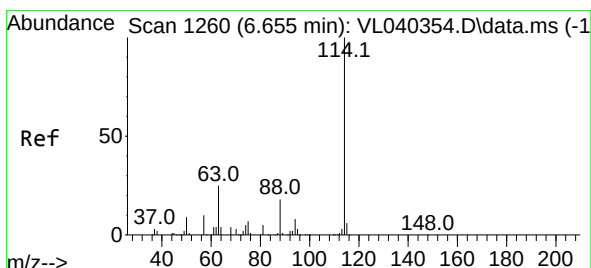
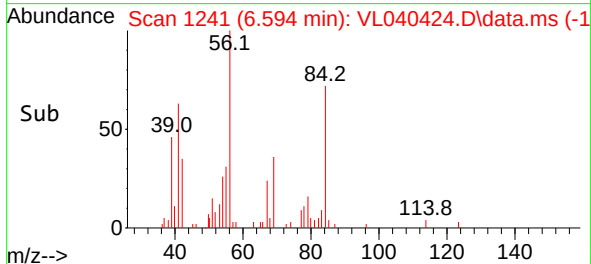
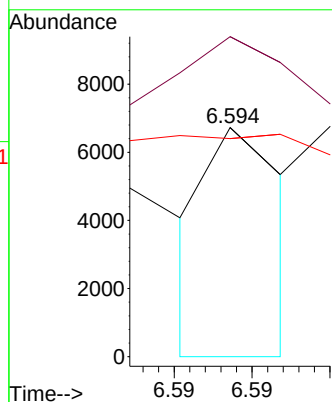
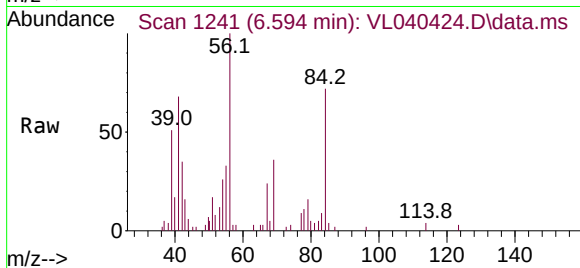
Tgt Ion: 84 Resp: 2330

Ion Ratio Lower Upper

84 100

56 740.0 107.0 160.6#

41 0.0 66.7 100.1#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.645 min Scan# 1257

Delta R.T. -0.010 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

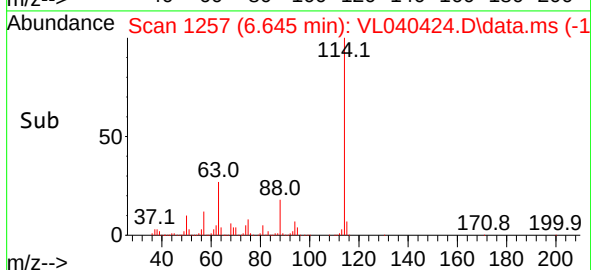
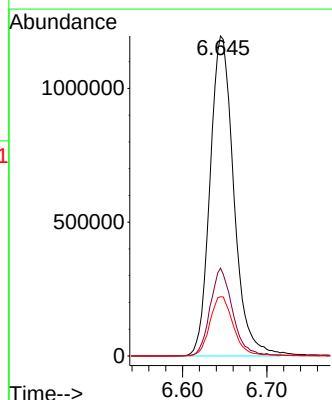
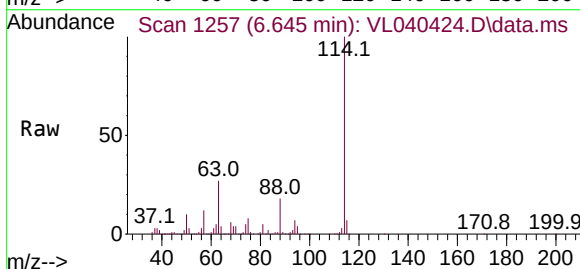
Tgt Ion: 114 Resp: 2340345

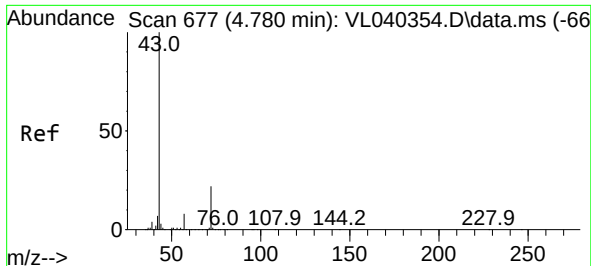
Ion Ratio Lower Upper

114 100

63 26.3 21.4 32.0

88 18.5 14.6 22.0

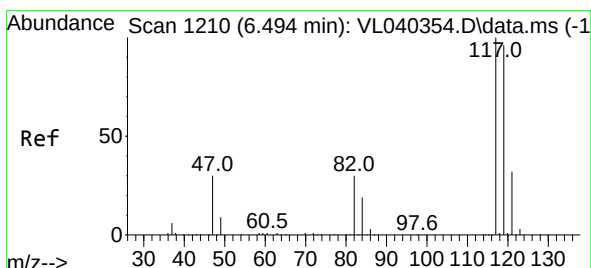
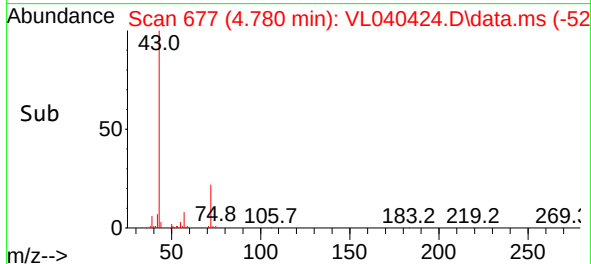
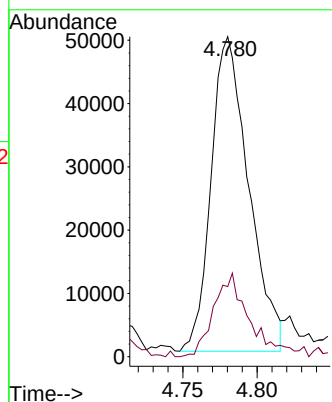
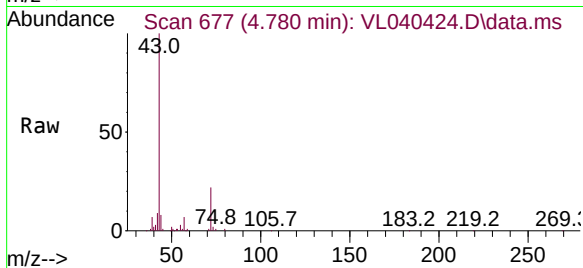




#34
2-Butanone
Concen: 0.694 ppbv
RT: 4.780 min Scan# 61
Delta R.T. 0.000 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

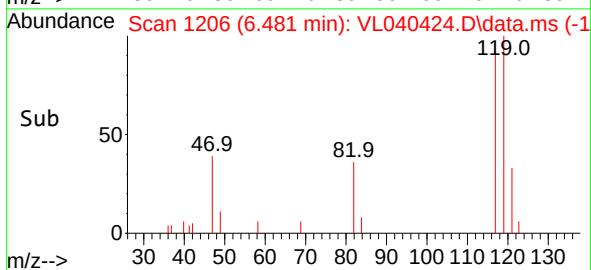
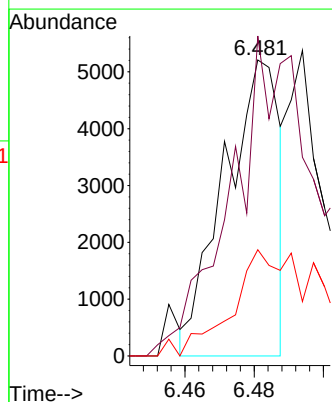
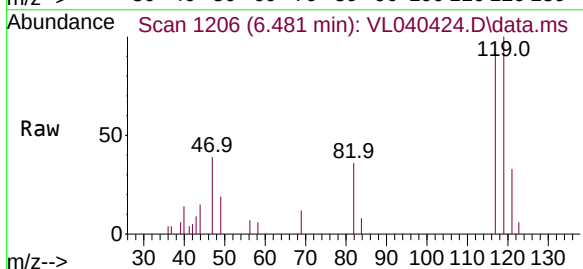
Instrument :
MSVOA_L
ClientSampleId :
OA1

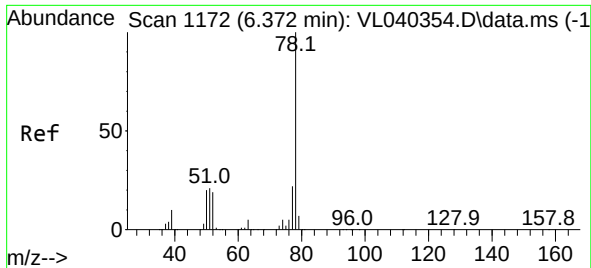
Tgt Ion: 43 Resp: 87580
Ion Ratio Lower Upper
43 100
72 26.5 18.4 27.6



#35
Carbon Tetrachloride
Concen: 0.035 ppbv
RT: 6.481 min Scan# 1206
Delta R.T. -0.013 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 117 Resp: 5762
Ion Ratio Lower Upper
117 100
119 108.2 76.6 114.8
121 39.4 25.3 37.9#

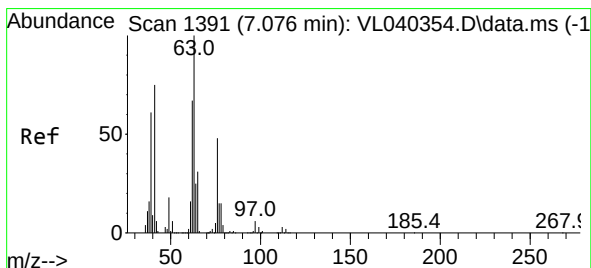
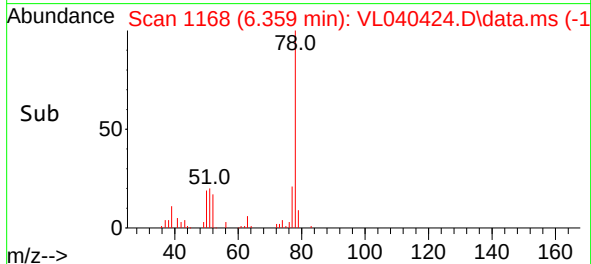
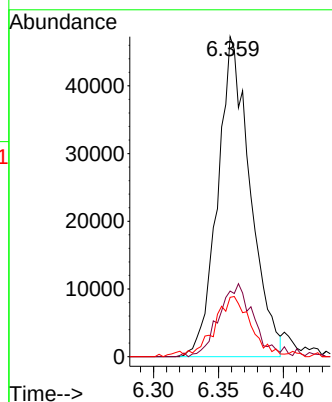
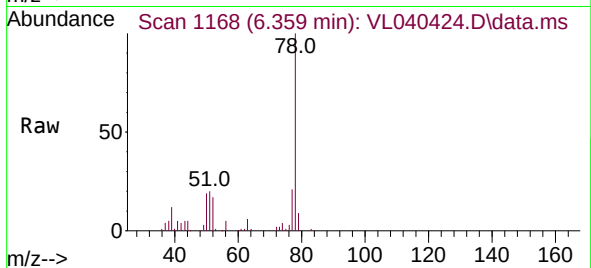




#36
Benzene
Concen: 0.430 ppbv
RT: 6.359 min Scan# 1172
Delta R.T. -0.013 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

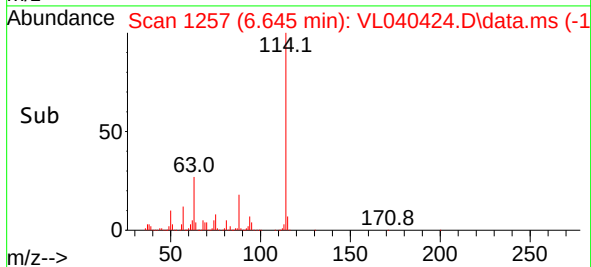
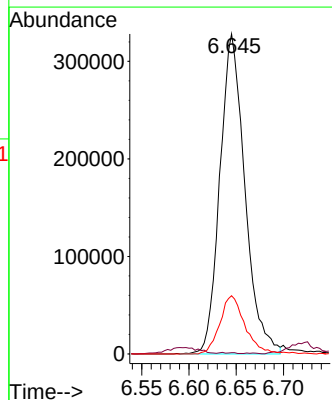
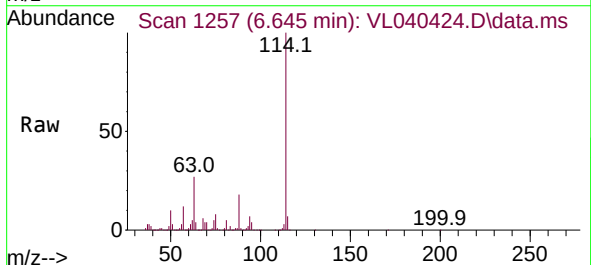
Instrument :
MSVOA_L
ClientSampleId :
OA1

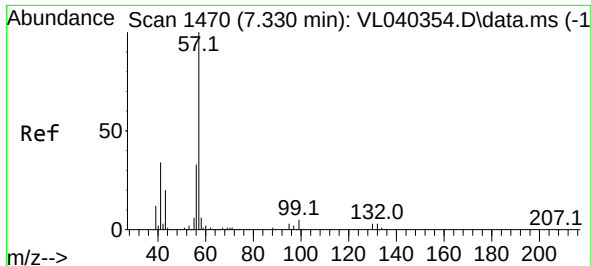
Tgt Ion: 78 Resp: 82130
Ion Ratio Lower Upper
78 100
77 20.1 17.8 26.8
50 17.7 15.6 23.4



#39
1,2-Dichloropropane
Concen: 8.030 ppbv
RT: 6.645 min Scan# 1257
Delta R.T. -0.431 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 63 Resp: 603321
Ion Ratio Lower Upper
63 100
41 0.0 59.6 89.4#
62 18.2 53.9 80.9#

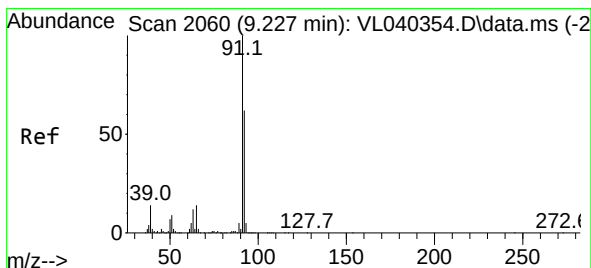
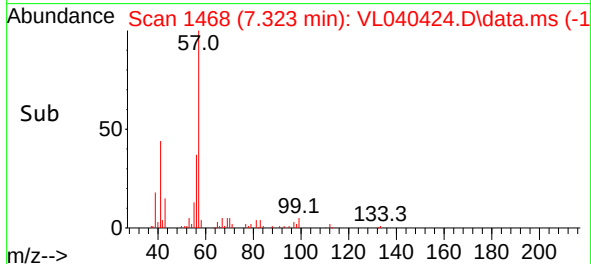
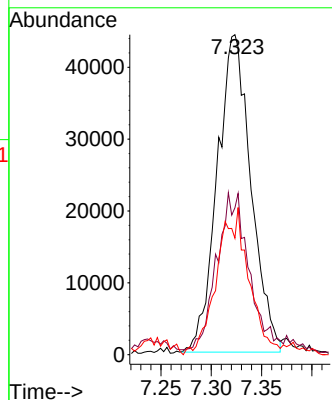
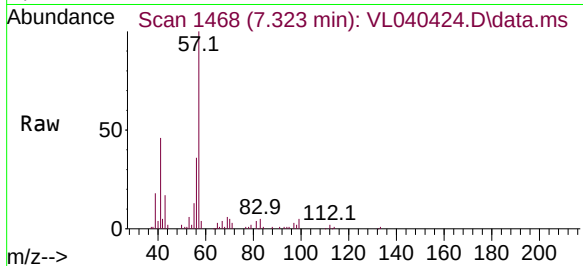




#44
2,2,4-Trimethylpentane
Concen: 0.323 ppbv
RT: 7.323 min Scan# 1470
Delta R.T. -0.007 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

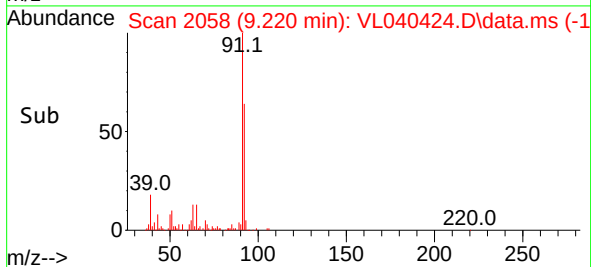
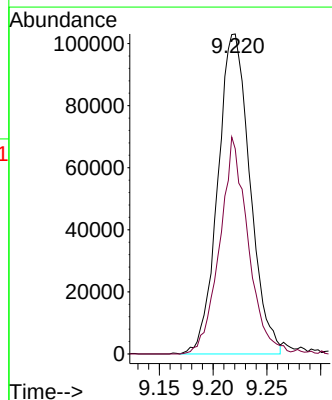
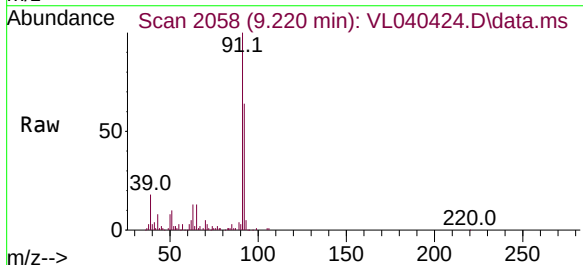
Instrument :
MSVOA_1
ClientSampleId :
OA1

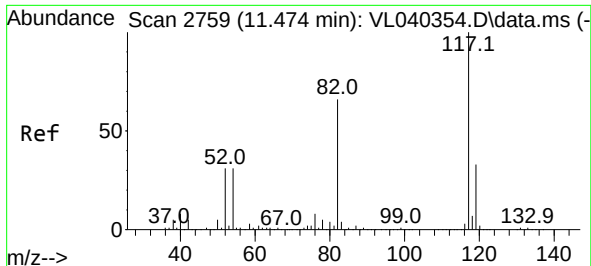
Tgt Ion: 57 Resp: 103171
Ion Ratio Lower Upper
57 100
41 51.3 26.9 40.3#
56 46.0 25.1 37.7#



#53
Toluene
Concen: 1.059 ppbv
RT: 9.220 min Scan# 2058
Delta R.T. -0.007 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 91 Resp: 214306
Ion Ratio Lower Upper
91 100
92 60.6 48.9 73.3

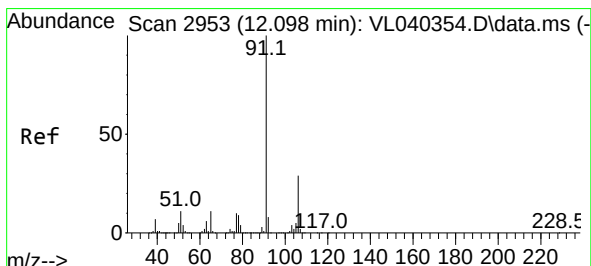
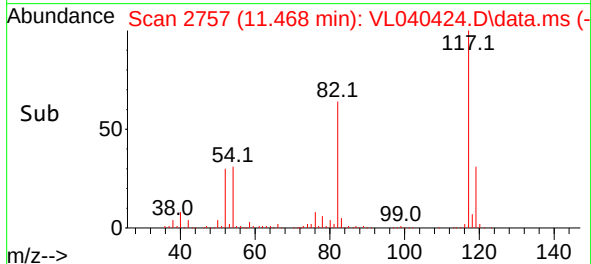
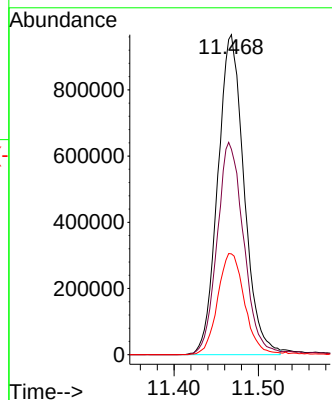
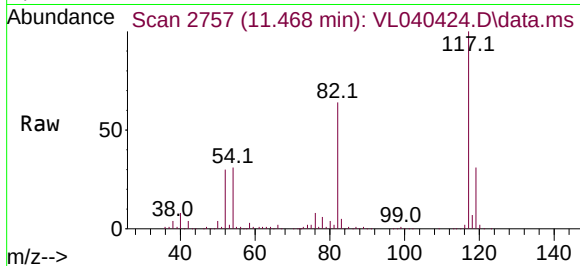




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.468 min Scan# 21
Delta R.T. -0.006 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

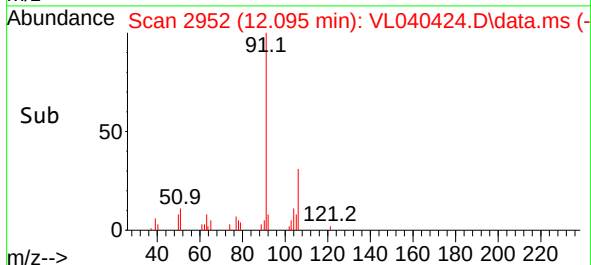
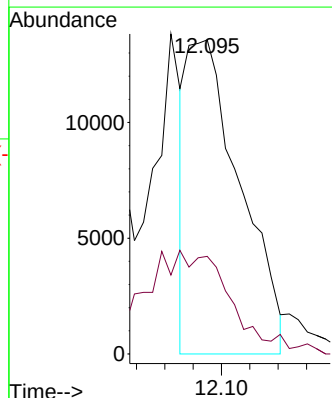
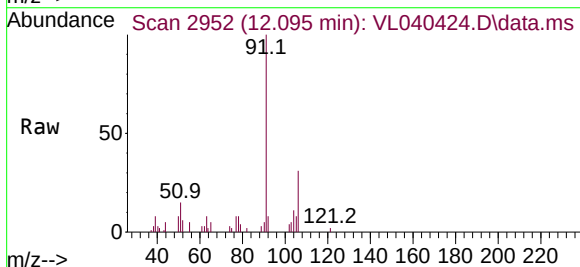
Instrument :
MSVOA_L
ClientSampleId :
OA1

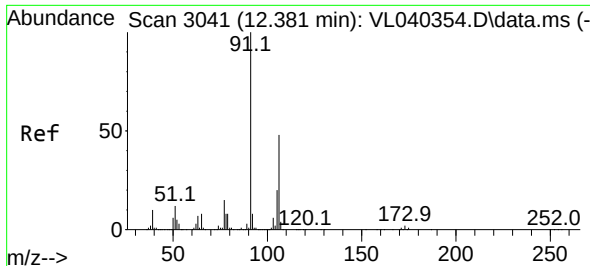
Tgt Ion:117 Resp: 2092225
Ion Ratio Lower Upper
117 100
82 68.8 52.5 78.7
119 32.8 24.3 36.5



#58
Ethyl Benzene
Concen: 0.069 ppbv
RT: 12.095 min Scan# 2952
Delta R.T. -0.003 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 91 Resp: 17759
Ion Ratio Lower Upper
91 100
106 28.4 23.5 35.3





#59

m/p-Xylene

Concen: 0.122 ppbv

RT: 12.365 min Scan# 3041

Delta R.T. -0.016 min

Lab File: VL040424.D

Acq: 12 May 2023 18:51

Instrument :

MSVOA_1

ClientSampleId :

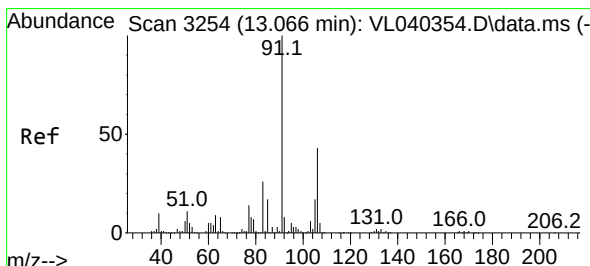
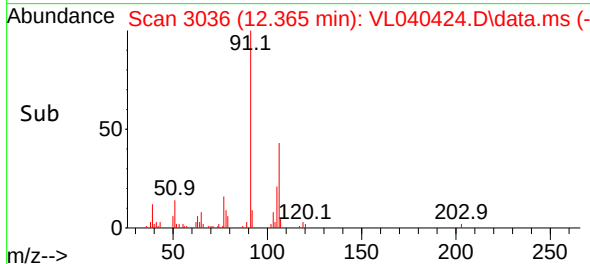
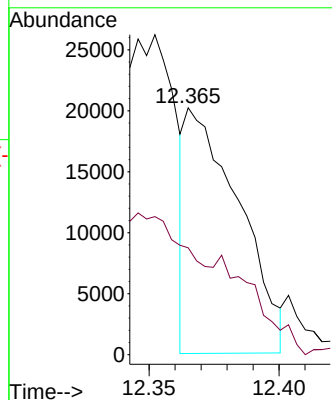
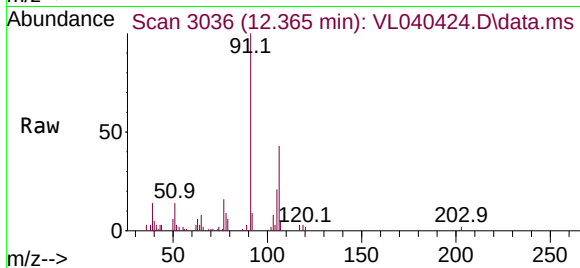
OA1

Tgt Ion: 91 Resp: 28829

Ion Ratio Lower Upper

91 100

106 0.0 34.7 52.1#



#60

o-Xylene

Concen: 0.083 ppbv

RT: 13.056 min Scan# 3251

Delta R.T. -0.010 min

Lab File: VL040424.D

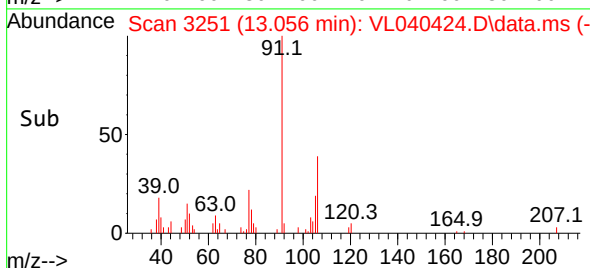
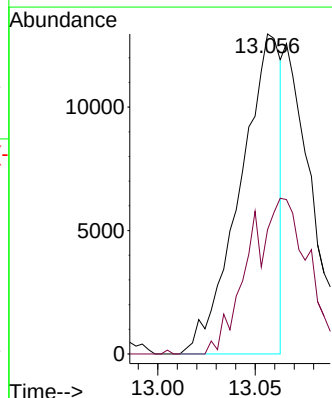
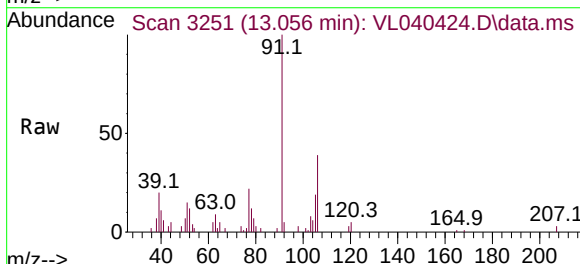
Acq: 12 May 2023 18:51

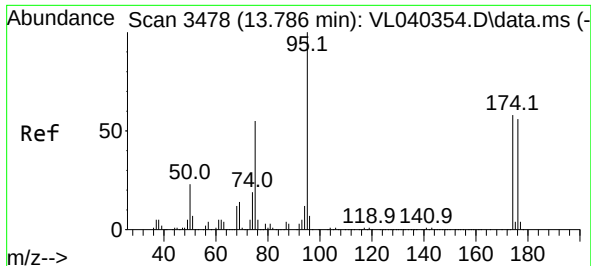
Tgt Ion: 91 Resp: 18766

Ion Ratio Lower Upper

91 100

106 76.2 21.9 65.8#

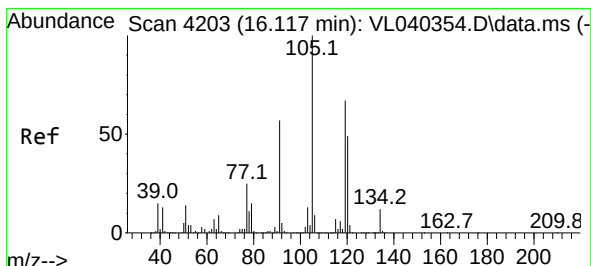
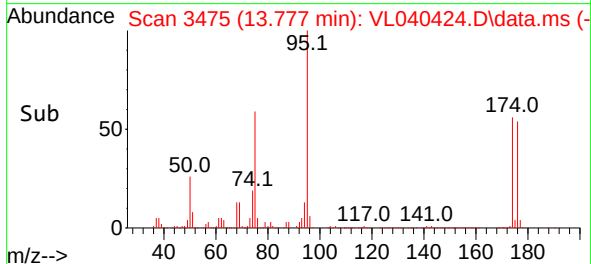
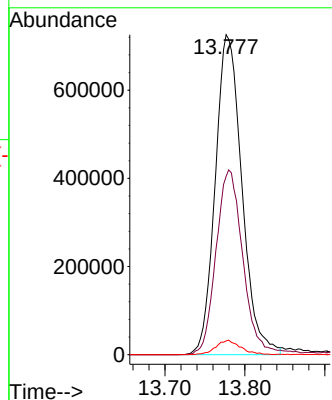
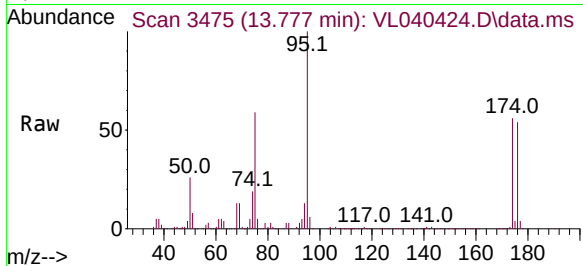




#68
1-Bromo-4-Fluorobenzene
Concen: 9.716 ppbv
RT: 13.777 min Scan# 3478
Delta R.T. -0.009 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Instrument :
MSVOA_1
ClientSampleId :
OA1

Tgt Ion: 95 Resp: 1680912
Ion Ratio Lower Upper
95 100
174 59.3 47.2 70.8
175 4.3 3.5 5.3



#74
1,2,4-Trimethylbenzene
Concen: 0.069 ppbv
RT: 16.108 min Scan# 4200
Delta R.T. -0.009 min
Lab File: VL040424.D
Acq: 12 May 2023 18:51

Tgt Ion: 105 Resp: 18163
Ion Ratio Lower Upper
105 100
120 43.1 38.9 58.3
91 11.9 46.0 69.0#
77 15.1 20.0 30.0#

