

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL042524\
 Data File : VL041173.D
 Acq On : 25 Apr 2024 16:36
 Operator : SY/MD
 Sample : P2253-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Quant Time: Apr 26 03:14:49 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL040424AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 26 03:09:28 2024
 Response via : Initial Calibration

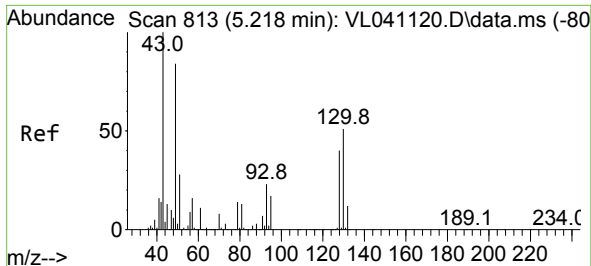
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	5.182	49	1163646	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.635	114	3023210	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.439	117	2674108	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.751	95	2040569	9.490	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.900%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.735	85	59851	0.301	ppbv	98
3) Chlorodifluoromethane	2.677	51	76233	0.425	ppbv #	88
4) Chloromethane	2.816	50	39961	0.589	ppbv	97
9) Propene	2.873	41	229452	4.024	ppbv	100
10) Heptane	7.558	43	4592	0.034	ppbv #	1
11) Trichlorofluoromethane	3.562	101	39368	0.218	ppbv	97
12) 1,1,2-Trichlorotrifluo...	4.054	101	4114	0.031	ppbv #	15
13) Ethanol	3.237	45	442219	32.609	ppbv	100
15) Acetone	3.488	43	1125917	8.936	ppbv #	75
16) 1,3-Butadiene	2.970	39	29334	0.474	ppbv #	76
19) Isopropyl Alcohol	3.578	45	197675	2.583	ppbv #	97
20) Methylene Chloride	3.928	84	180971	3.482	ppbv	94
21) Allyl Chloride	3.947	41	32699	0.426	ppbv #	45
23) Vinyl Acetate	4.600	43	42349	0.329	ppbv #	1
25) Ethyl Acetate	5.198	43	237697	1.005	ppbv #	80
26) Hexane	5.201	57	315016	2.967	ppbv #	42
27) Carbon Disulfide	4.111	76	6369	0.049	ppbv #	48
29) Chloroform	5.256	83	11899	0.066	ppbv	88
30) Cyclohexane	6.587	84	20379	0.236	ppbv #	1
34) 2-Butanone	4.783	43	38833	0.304	ppbv #	89
35) Carbon Tetrachloride	6.478	117	10009	0.058	ppbv #	73
36) Benzene	6.352	78	220088	0.991	ppbv	94
39) 1,2-Dichloropropane	6.635	63	744312	8.503	ppbv #	24
44) 2,2,4-Trimethylpentane	7.311	57	201944	0.549	ppbv #	85
52) Tetrachloroethene	10.590	164	5984	0.084	ppbv #	79
53) Toluene	9.198	91	384895	1.647	ppbv	100
58) Ethyl Benzene	12.063	91	60536	0.207	ppbv	98
59) m/p-Xylene	12.349	91	69339	0.262	ppbv #	32
60) o-Xylene	13.040	91	77686	0.310	ppbv	97
64) n-propylbenzene	14.892	120	3573	0.038	ppbv #	1
73) 1,3,5-Trimethylbenzene	15.320	105	10442	0.042	ppbv	89
74) 1,2,4-Trimethylbenzene	16.082	105	102646	0.363	ppbv #	69
80) Naphthalene,2-methyl-	24.352	142	1738	0.049	ppbv #	1

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

Quant Time: Apr 26 03:14:49 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL040424AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LFri Aug 26 06:05:16 2022
QLast Update : Fri Apr 26 03:09:28 2024
Response via : Initial Calibration

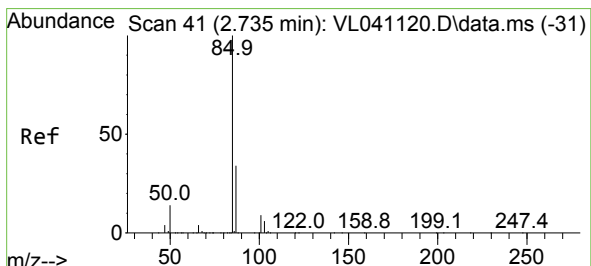
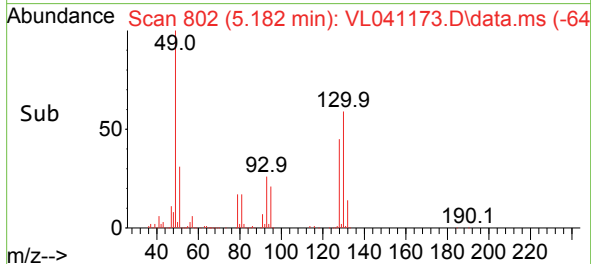
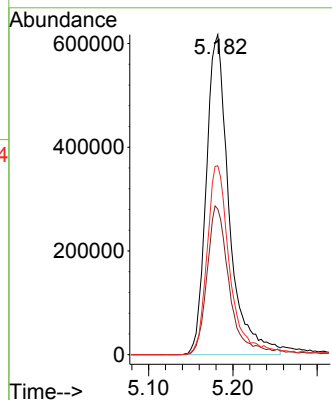
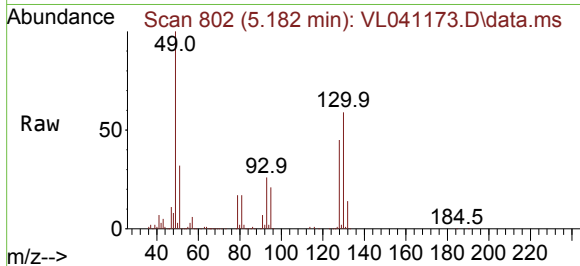




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.182 min Scan# 80
 Delta R.T. 0.003 min
 Lab File: VL041173.D
 Acq: 25 Apr 2024 16:36

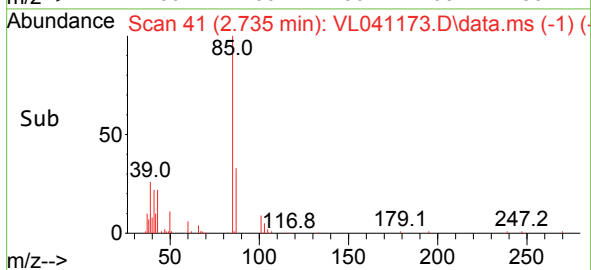
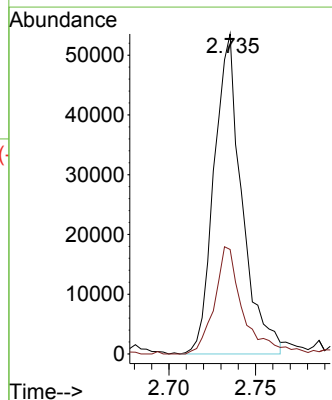
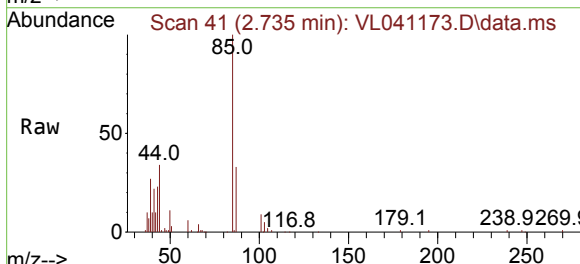
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

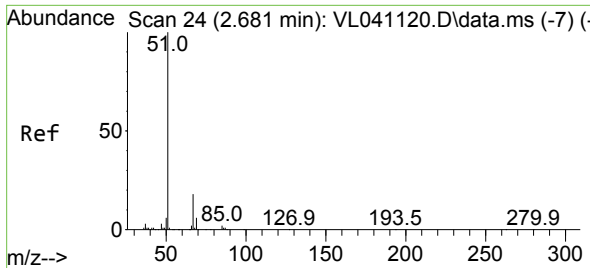
Tgt Ion: 49 Resp: 1163646
 Ion Ratio Lower Upper
 49 100
 128 46.3 23.6 71.0
 130 60.6 30.1 90.5



#2
 Dichlorodifluoromethane
 Concen: 0.301 ppbv
 RT: 2.735 min Scan# 41
 Delta R.T. 0.006 min
 Lab File: VL041173.D
 Acq: 25 Apr 2024 16:36

Tgt Ion: 85 Resp: 59851
 Ion Ratio Lower Upper
 85 100
 87 32.7 27.0 40.6

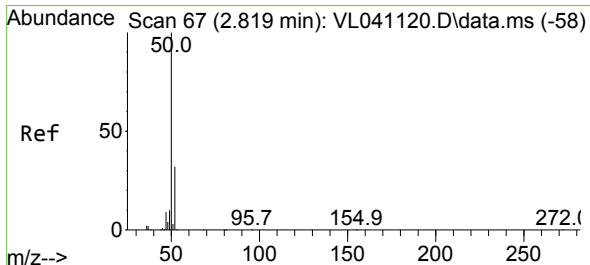
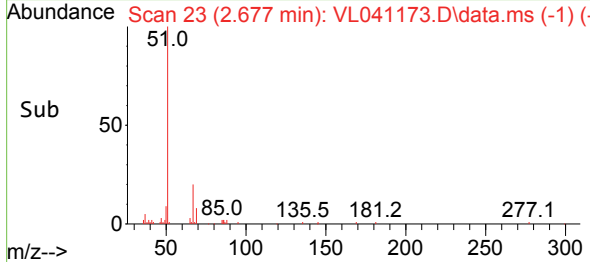
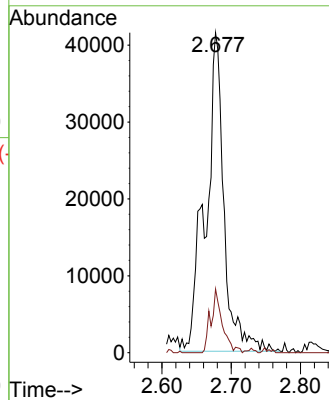
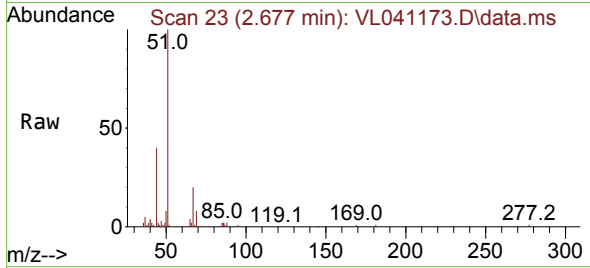




#3
Chlorodifluoromethane
Concen: 0.425 ppbv
RT: 2.677 min Scan# 21
Delta R.T. 0.003 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

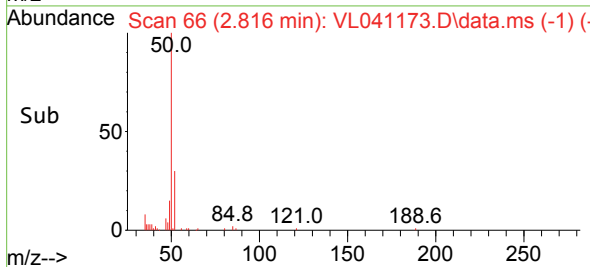
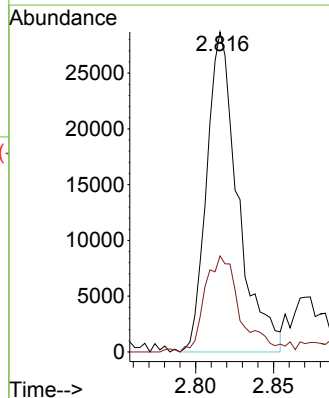
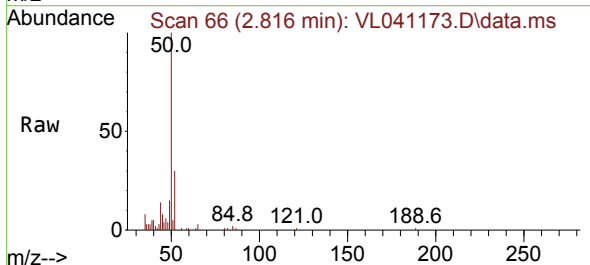
Instrument :
MSVOA_L
ClientSampleId :
IA2

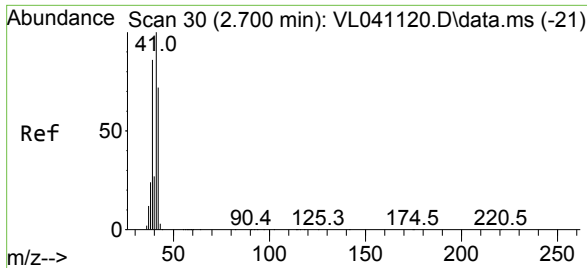
Tgt Ion: 51 Resp: 76233
Ion Ratio Lower Upper
51 100
67 13.1 14.9 22.3#



#4
Chloromethane
Concen: 0.589 ppbv
RT: 2.816 min Scan# 66
Delta R.T. 0.006 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 50 Resp: 39961
Ion Ratio Lower Upper
50 100
52 30.6 26.0 39.0





#9

Propene

Concen: 4.024 ppbv

RT: 2.873 min Scan# 84

Delta R.T. 0.180 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

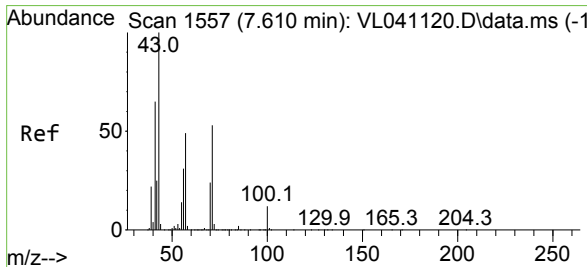
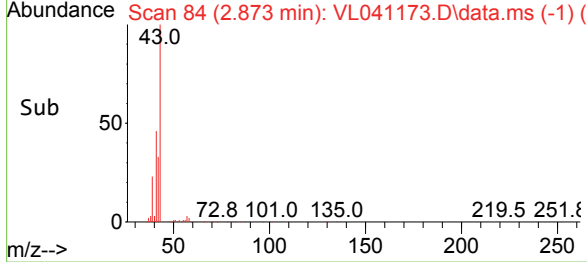
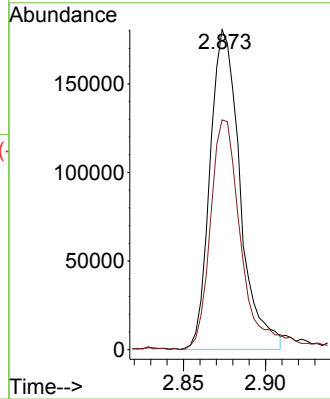
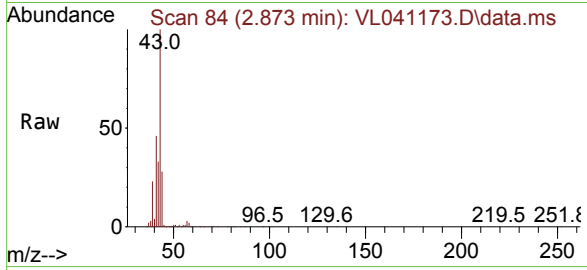
IA2

Tgt Ion: 41 Resp: 229452

Ion Ratio Lower Upper

41 100

42 75.1 60.1 90.1



#10

Heptane

Concen: 0.034 ppbv

RT: 7.558 min Scan# 1541

Delta R.T. 0.000 min

Lab File: VL041173.D

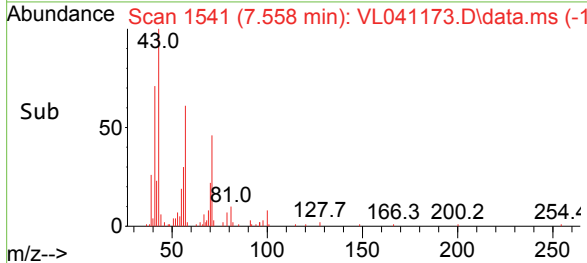
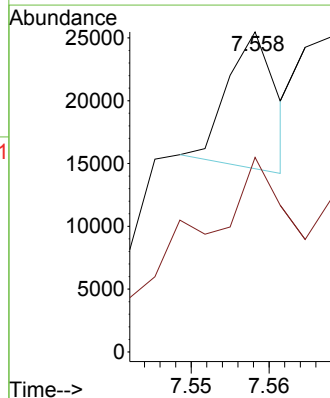
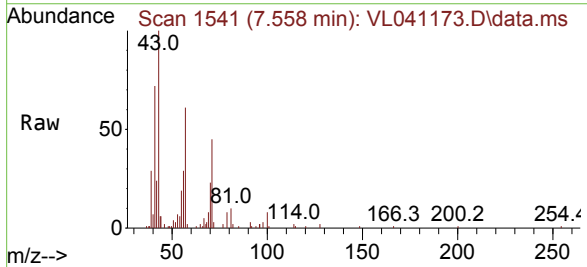
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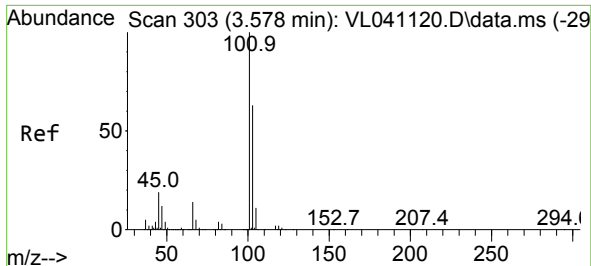
Tgt Ion: 43 Resp: 4592

Ion Ratio Lower Upper

43 100

57 597.7 39.9 59.9#

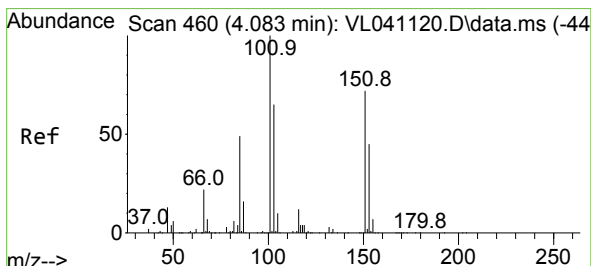
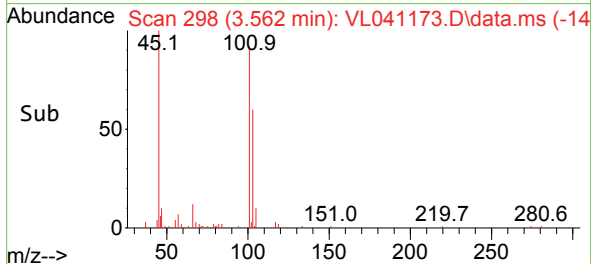
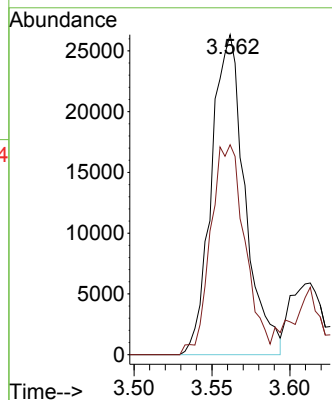
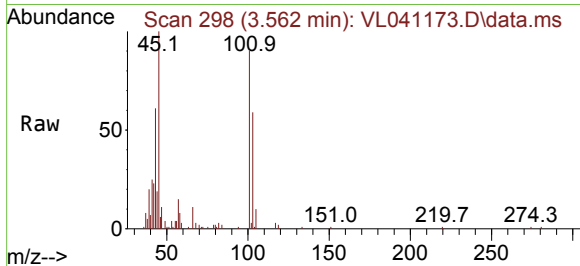




#11
 Trichlorofluoromethane
 Concen: 0.218 ppbv
 RT: 3.562 min Scan# 29
 Delta R.T. 0.006 min
 Lab File: VL041173.D
 Acq: 25 Apr 2024 16:36

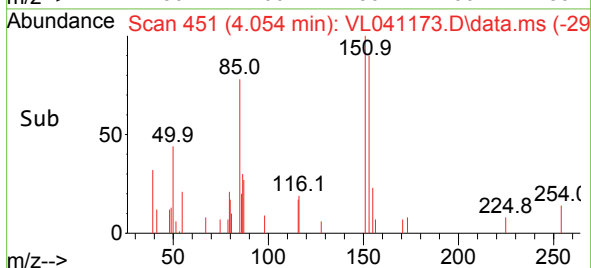
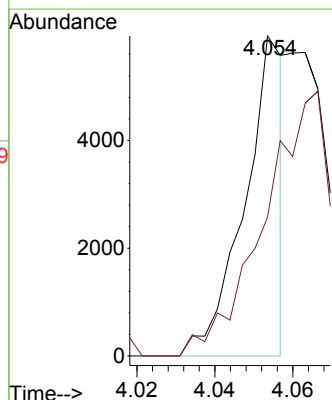
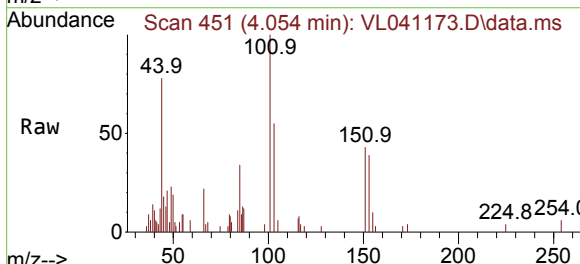
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

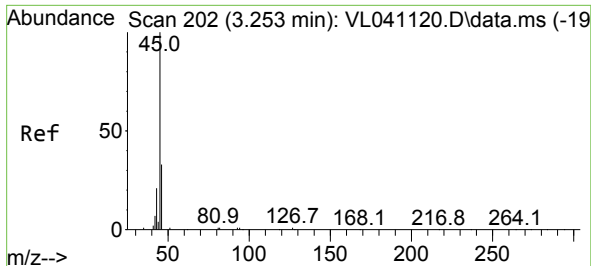
Tgt Ion:101 Resp: 39368
 Ion Ratio Lower Upper
 101 100
 103 65.6 50.6 75.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.031 ppbv
 RT: 4.054 min Scan# 451
 Delta R.T. -0.003 min
 Lab File: VL041173.D
 Acq: 25 Apr 2024 16:36

Tgt Ion:101 Resp: 4114
 Ion Ratio Lower Upper
 101 100
 151 0.0 56.2 84.4#

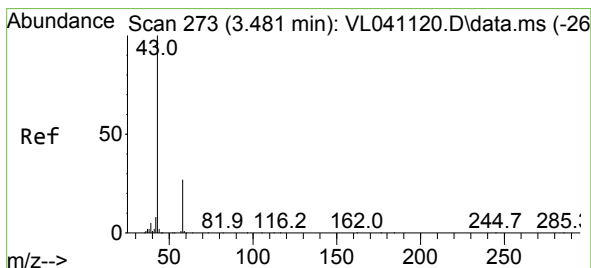
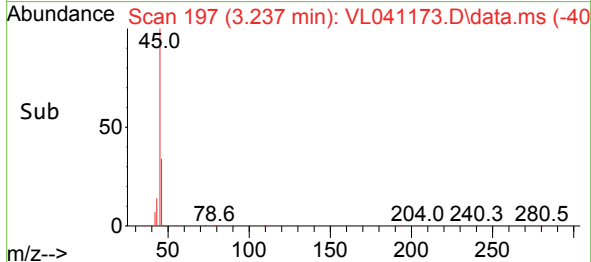
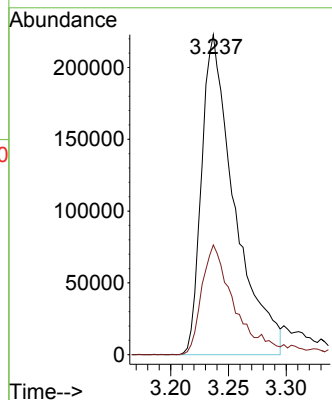
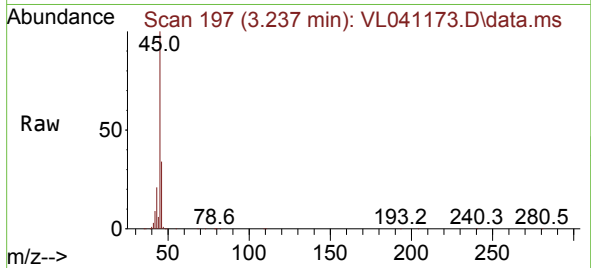




#13
Ethanol
Concen: 32.609 ppbv
RT: 3.237 min Scan# 11
Delta R.T. 0.003 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

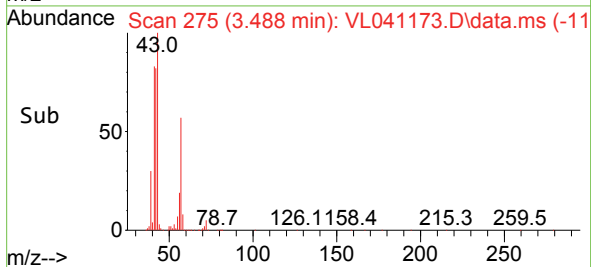
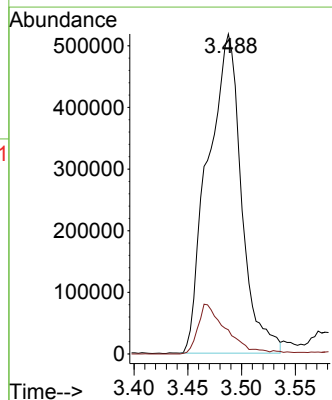
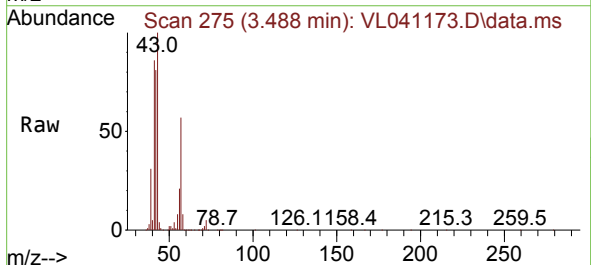
Instrument :
MSVOA_L
ClientSampleId :
IA2

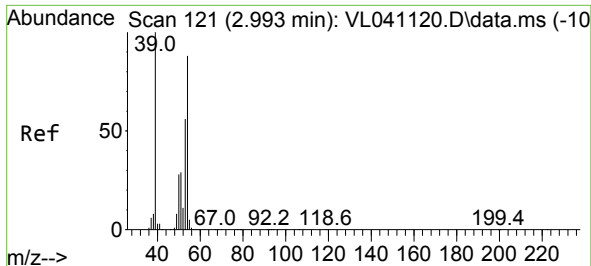
Tgt Ion: 45 Resp: 442219
Ion Ratio Lower Upper
45 100
46 37.3 15.0 59.8



#15
Acetone
Concen: 8.936 ppbv
RT: 3.488 min Scan# 275
Delta R.T. 0.029 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 43 Resp: 1125917
Ion Ratio Lower Upper
43 100
58 13.5 21.1 31.7#





#16

1,3-Butadiene

Concen: 0.474 ppbv

RT: 2.970 min Scan# 114

Delta R.T. -0.013 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

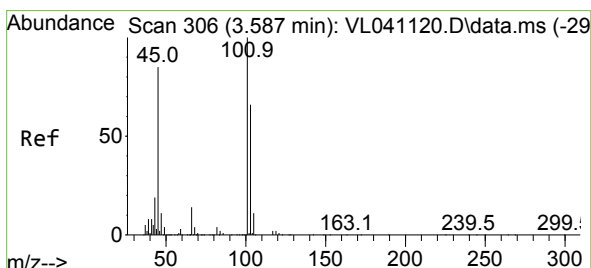
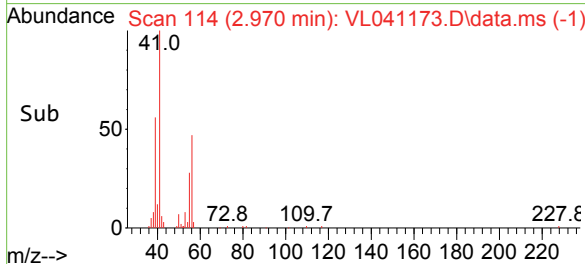
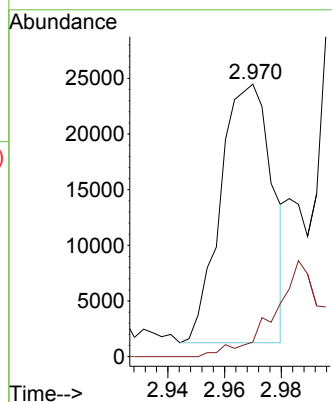
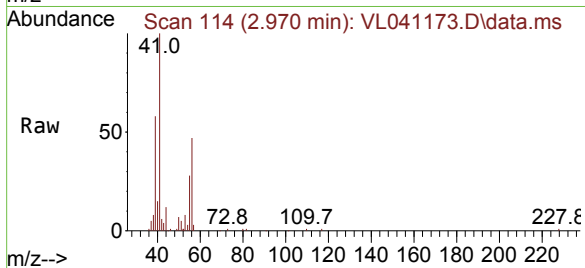
IA2

Tgt Ion: 39 Resp: 29334

Ion Ratio Lower Upper

39 100

54 58.3 63.5 95.3#



#19

Isopropyl Alcohol

Concen: 2.583 ppbv

RT: 3.578 min Scan# 303

Delta R.T. 0.010 min

Lab File: VL041173.D

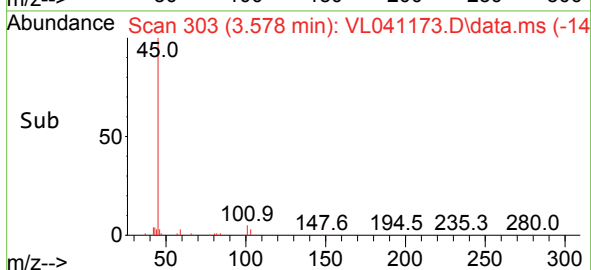
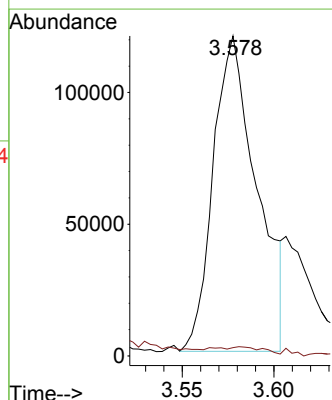
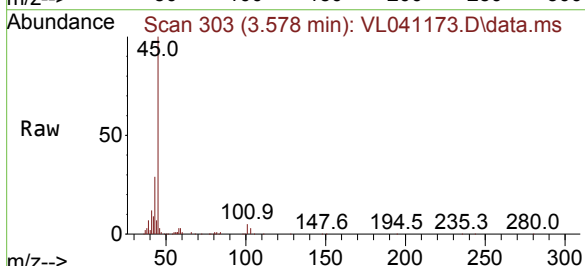
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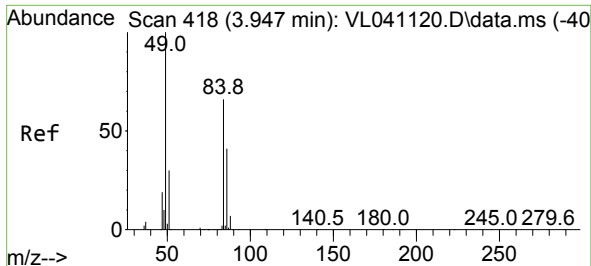
Tgt Ion: 45 Resp: 197675

Ion Ratio Lower Upper

45 100

58 4.6 2.8 4.2#

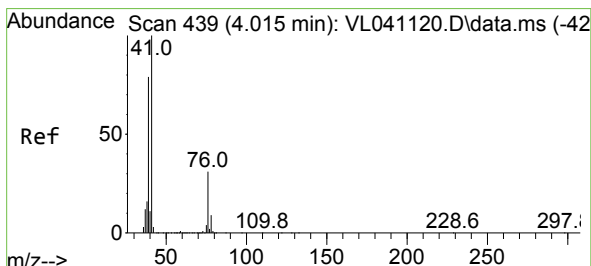
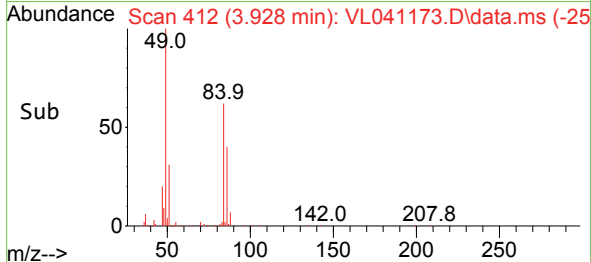
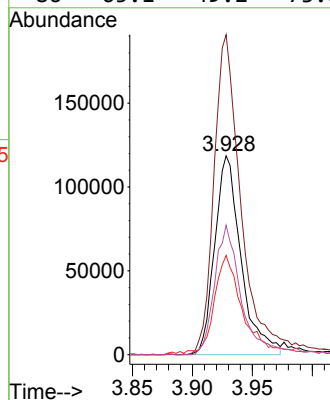
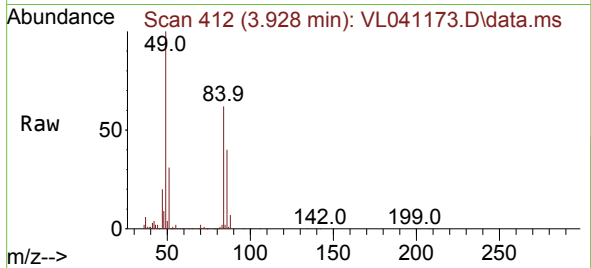




#20
Methylene Chloride
Concen: 3.482 ppbv
RT: 3.928 min Scan# 41
Delta R.T. 0.003 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

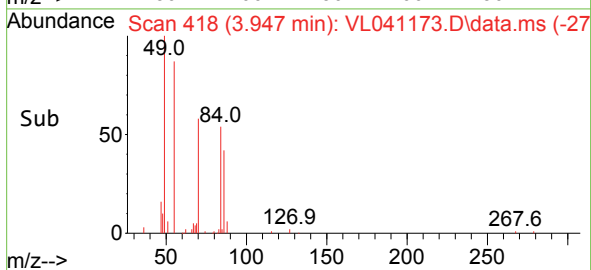
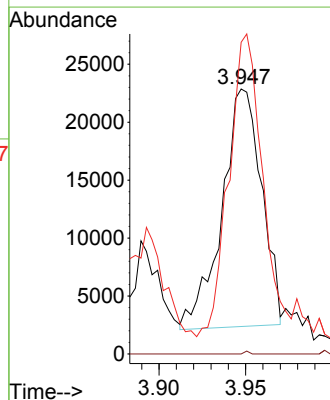
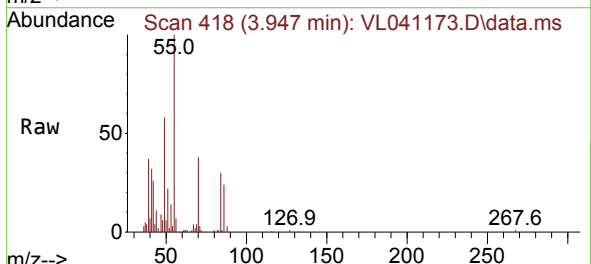
Instrument :
MSVOA_L
ClientSampleId :
IA2

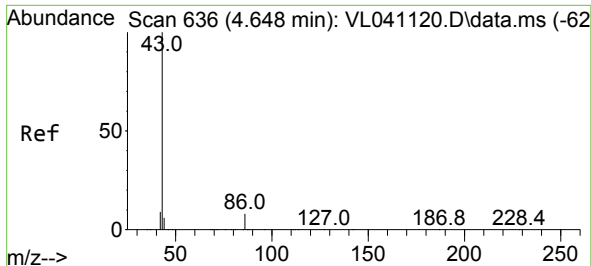
Tgt Ion: 84 Resp: 180971
Ion Ratio Lower Upper
84 100
49 160.9 120.7 181.1
51 48.3 36.6 54.8
86 65.1 49.2 73.8



#21
Allyl Chloride
Concen: 0.426 ppbv
RT: 3.947 min Scan# 418
Delta R.T. -0.039 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 41 Resp: 32699
Ion Ratio Lower Upper
41 100
76 45.8 25.7 38.5#
39 142.0 65.7 98.5#

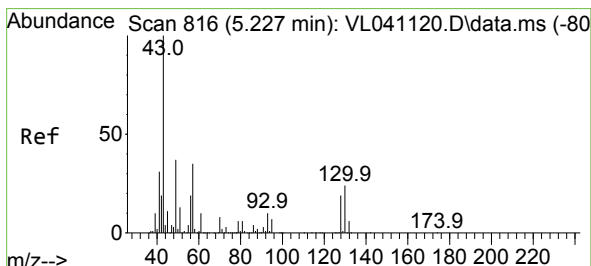
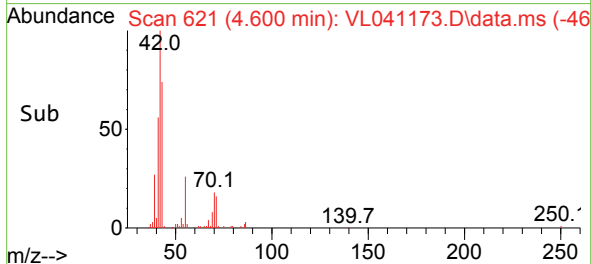
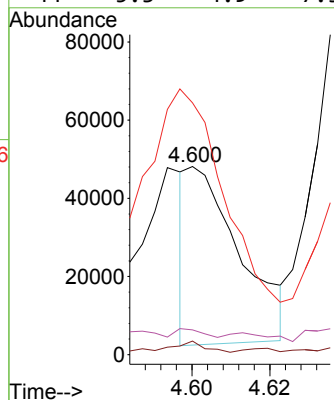
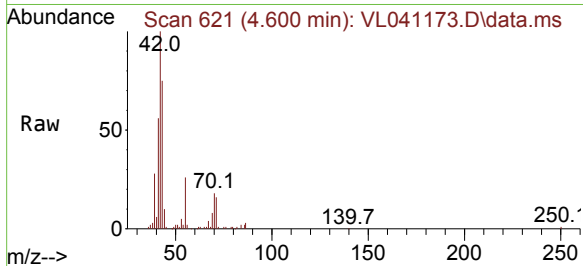




#23
 Vinyl Acetate
 Concen: 0.329 ppbv
 RT: 4.600 min Scan# 61
 Delta R.T. -0.013 min
 Lab File: VL041173.D
 Acq: 25 Apr 2024 16:36

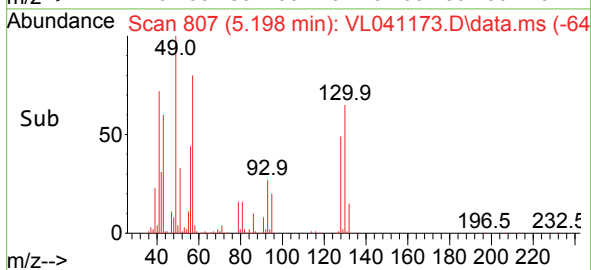
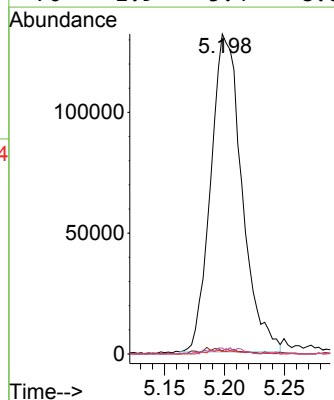
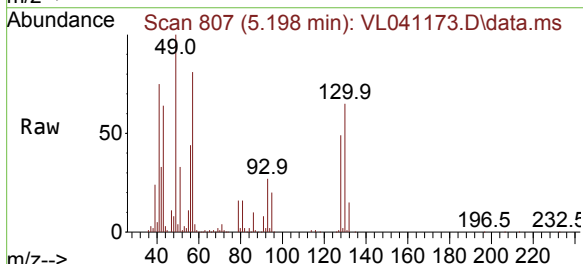
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

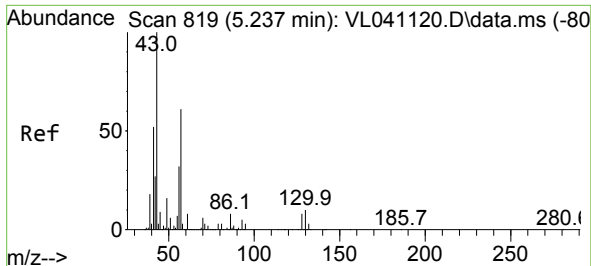
Tgt Ion: 43	Resp: 42349
Ion Ratio	Lower Upper
43 100	
86 8.9	6.2 9.4
42 167.8	7.7 11.5#
44 5.3	4.9 7.3



#25
 Ethyl Acetate
 Concen: 1.005 ppbv
 RT: 5.198 min Scan# 807
 Delta R.T. 0.010 min
 Lab File: VL041173.D
 Acq: 25 Apr 2024 16:36

Tgt	Ion: 43	Resp:	237697
Ion	Ratio	Lower	Upper
43	100		
45	2.3	8.0	12.0#
61	1.3	7.8	11.6#
70	1.9	5.4	8.0#

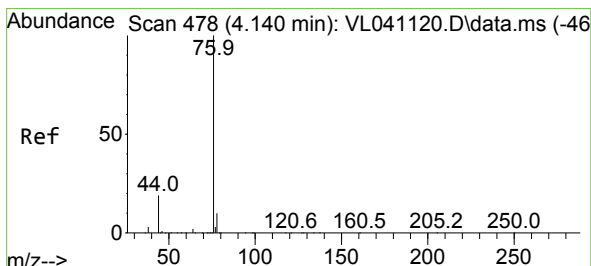
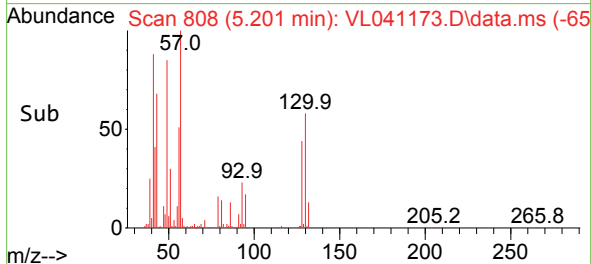
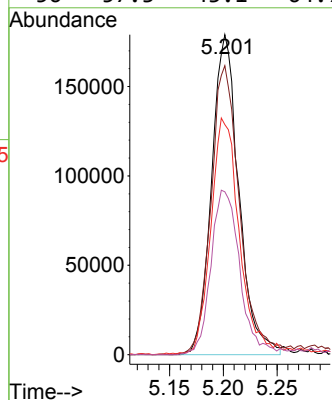
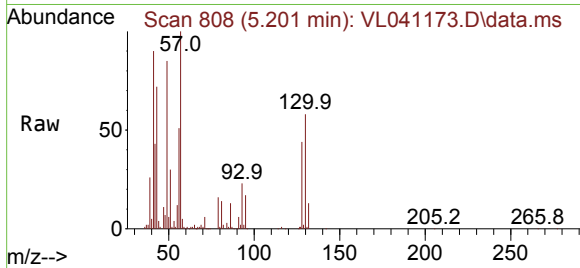




#26
Hexane
Concen: 2.967 ppbv
RT: 5.201 min Scan# 80
Delta R.T. 0.006 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

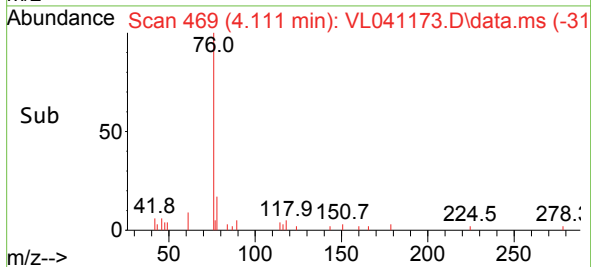
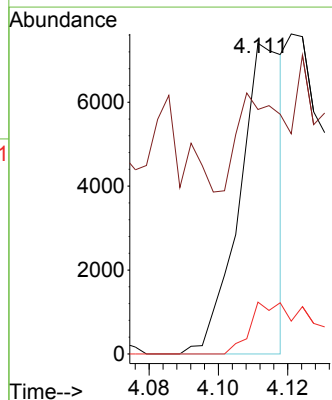
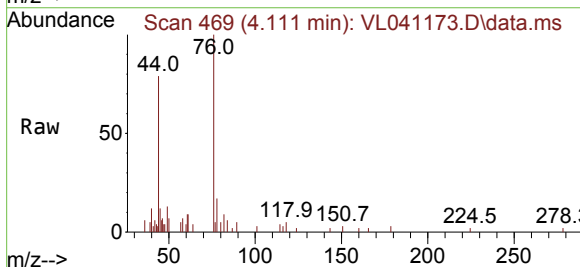
Instrument :
MSVOA_L
ClientSampleId :
IA2

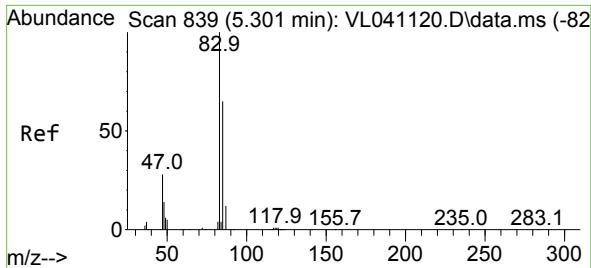
Tgt Ion: 57 Resp: 315016
Ion Ratio Lower Upper
57 100
41 95.4 73.8 110.8
43 79.7 186.2 279.2#
56 57.3 43.1 64.7



#27
Carbon Disulfide
Concen: 0.049 ppbv
RT: 4.111 min Scan# 469
Delta R.T. -0.003 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 76 Resp: 6369
Ion Ratio Lower Upper
76 100
44 0.0 16.3 24.5#
78 35.3 7.9 11.9#





#29

Chloroform

Concen: 0.066 ppbv

RT: 5.256 min Scan# 81

Delta R.T. -0.003 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

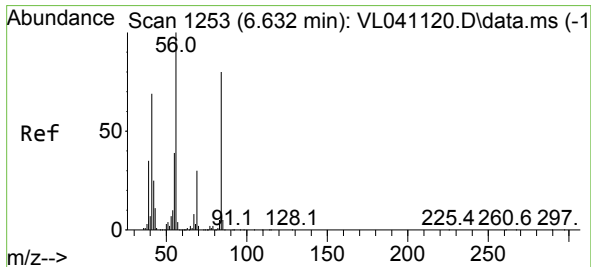
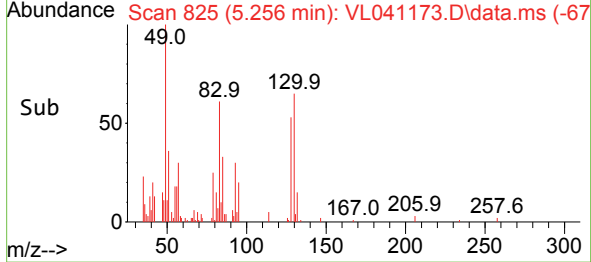
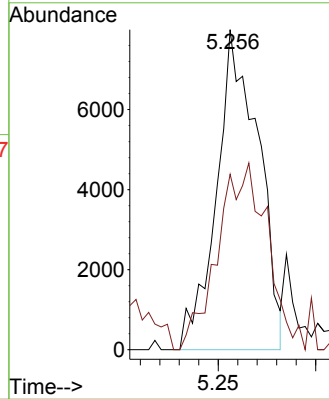
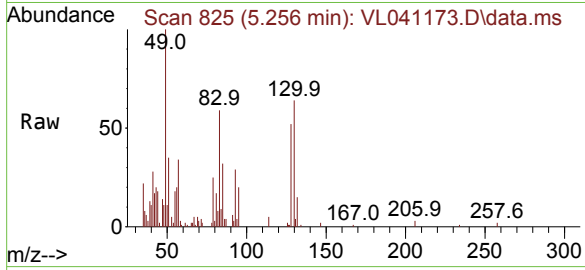
IA2

Tgt Ion: 83 Resp: 11899

Ion Ratio Lower Upper

83 100

85 54.8 51.5 77.3



#30

Cyclohexane

Concen: 0.236 ppbv

RT: 6.587 min Scan# 1239

Delta R.T. 0.006 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

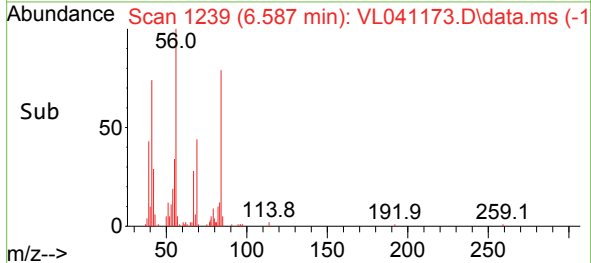
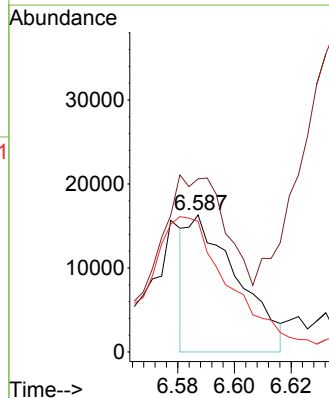
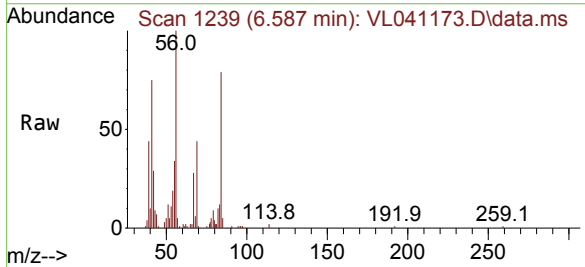
Tgt Ion: 84 Resp: 20379

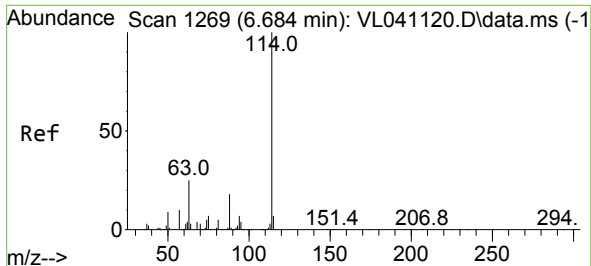
Ion Ratio Lower Upper

84 100

56 0.0 111.9 167.9#

41 0.0 71.0 106.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.635 min Scan# 1

Delta R.T. 0.000 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

IA2

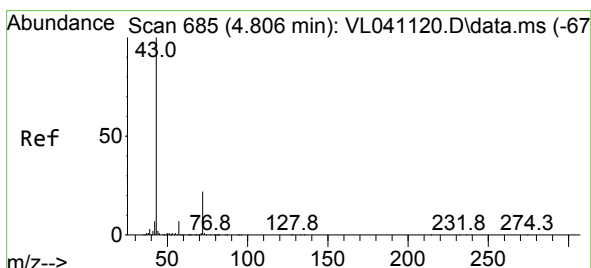
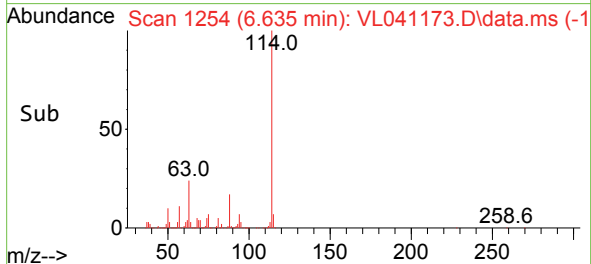
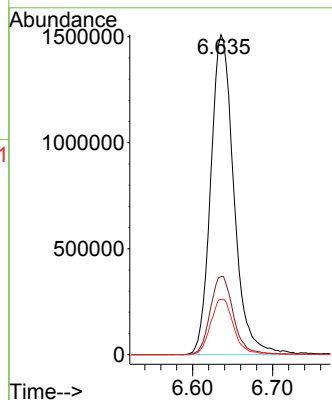
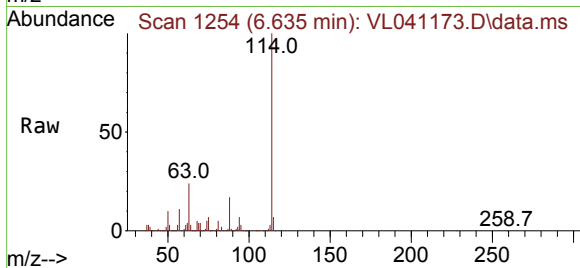
Tgt Ion:114 Resp: 3023210

Ion Ratio Lower Upper

114 100

63 25.1 20.9 31.3

88 17.6 14.5 21.7



#34

2-Butanone

Concen: 0.304 ppbv

RT: 4.783 min Scan# 678

Delta R.T. 0.013 min

Lab File: VL041173.D

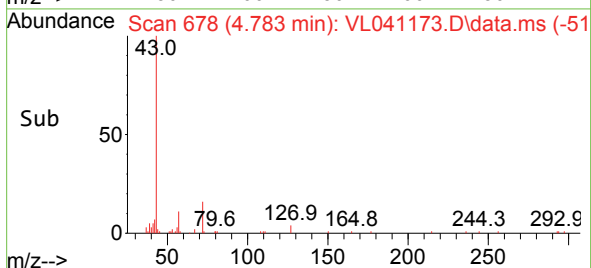
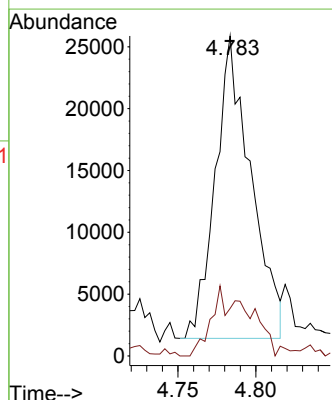
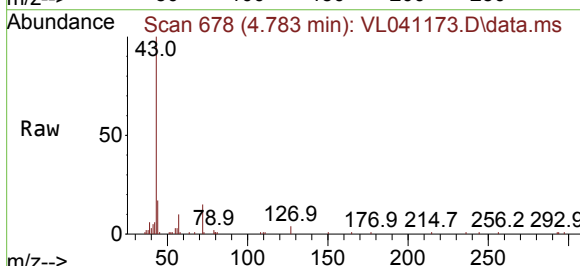
Acq: 25 Apr 2024 16:36

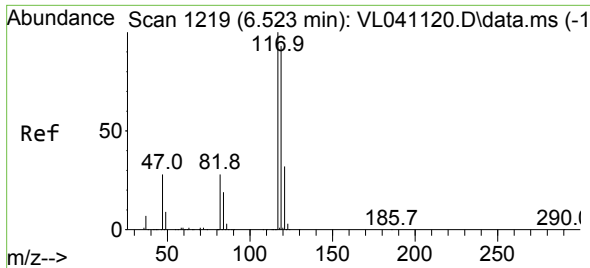
Tgt Ion: 43 Resp: 38833

Ion Ratio Lower Upper

43 100

72 27.5 17.6 26.4#

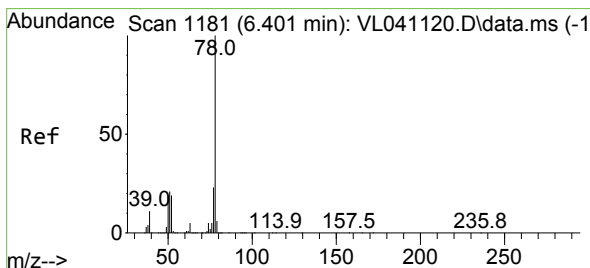
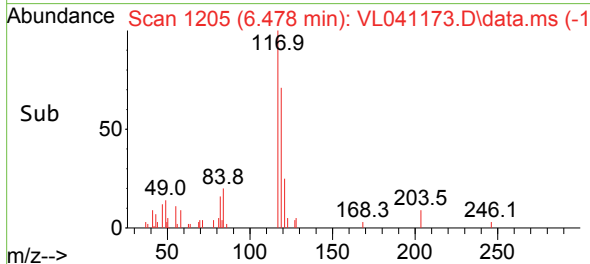
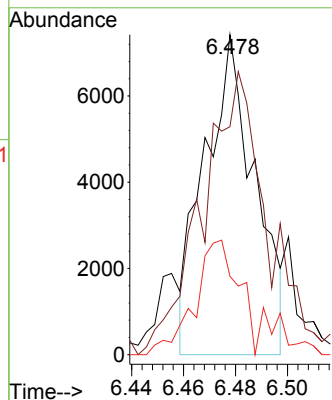
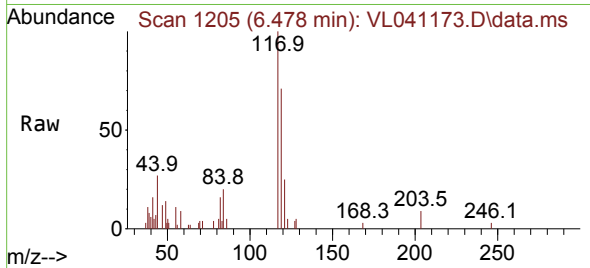




#35
Carbon Tetrachloride
Concen: 0.058 ppbv
RT: 6.478 min Scan# 1166
Delta R.T. 0.003 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

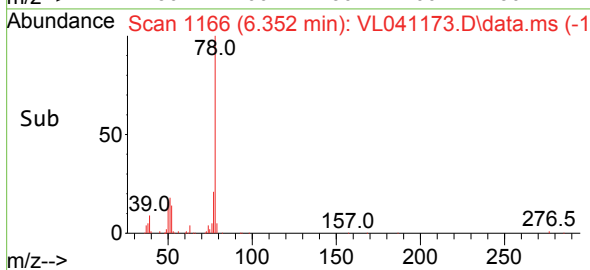
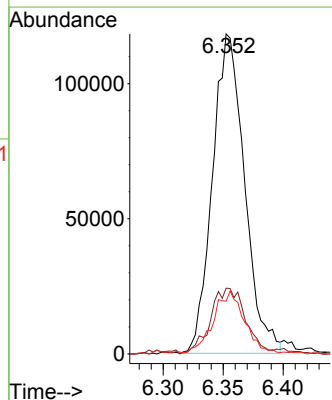
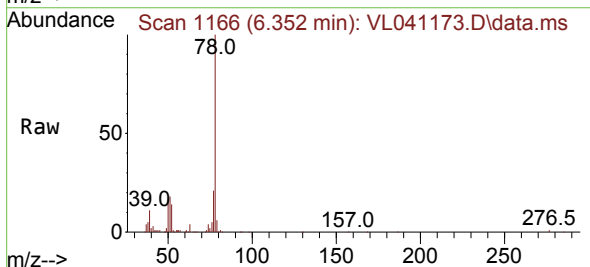
Instrument :
MSVOA_L
ClientSampleId :
IA2

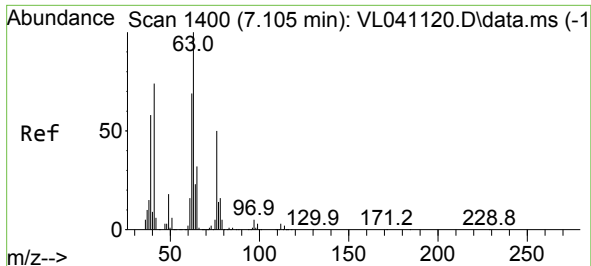
Tgt Ion:117 Resp: 10009
Ion Ratio Lower Upper
117 100
119 66.1 74.2 111.4#
121 19.1 25.4 38.2#



#36
Benzene
Concen: 0.991 ppbv
RT: 6.352 min Scan# 1166
Delta R.T. 0.000 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 78 Resp: 220088
Ion Ratio Lower Upper
78 100
77 20.4 18.2 27.4
50 16.1 15.4 23.2





#39

1,2-Dichloropropane

Concen: 8.503 ppbv

RT: 6.635 min Scan# 11

Delta R.T. -0.421 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

IA2

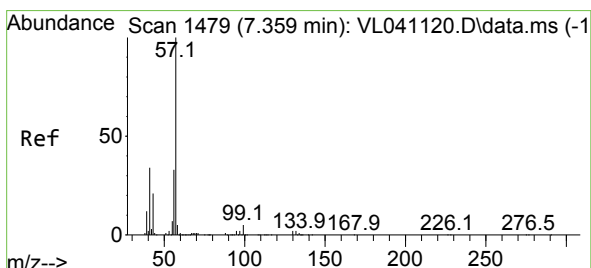
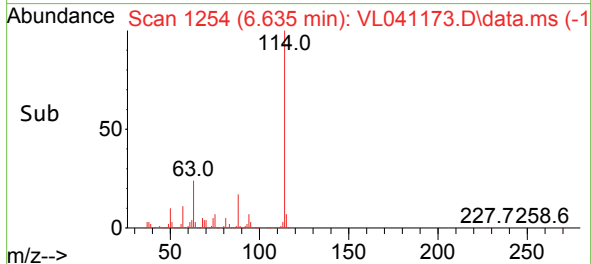
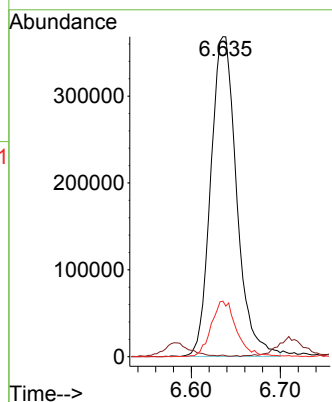
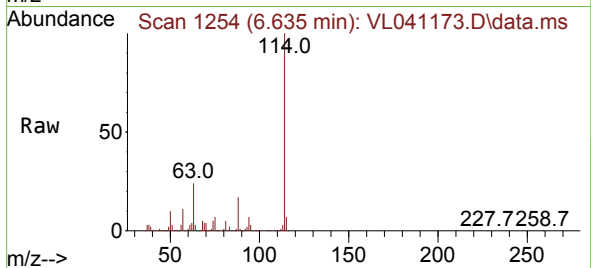
Tgt Ion: 63 Resp: 744312

Ion Ratio Lower Upper

63 100

41 0.0 58.7 88.1#

62 17.3 55.5 83.3#



#44

2,2,4-Trimethylpentane

Concen: 0.549 ppbv

RT: 7.311 min Scan# 1464

Delta R.T. 0.006 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

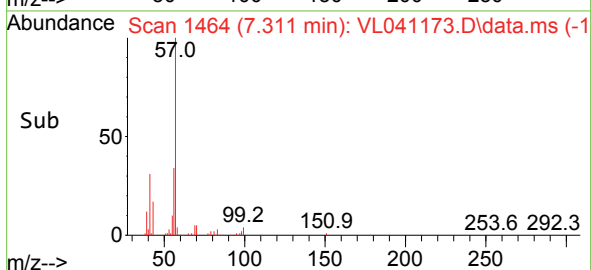
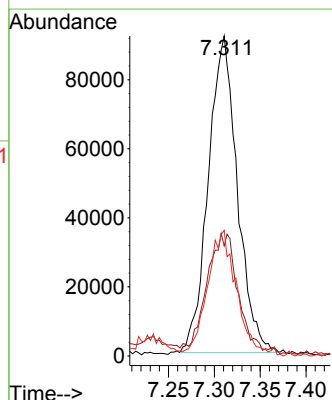
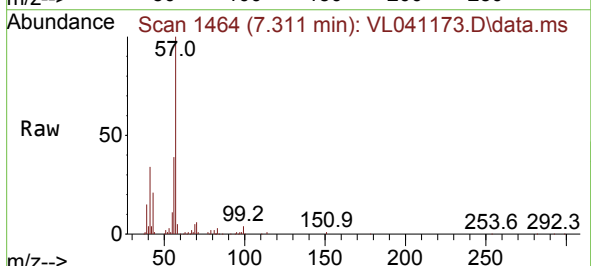
Tgt Ion: 57 Resp: 201944

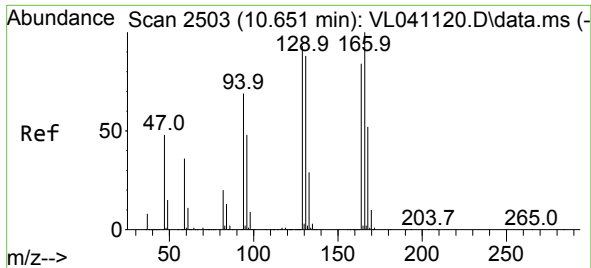
Ion Ratio Lower Upper

57 100

41 42.5 28.2 42.2#

56 40.9 25.2 37.8#

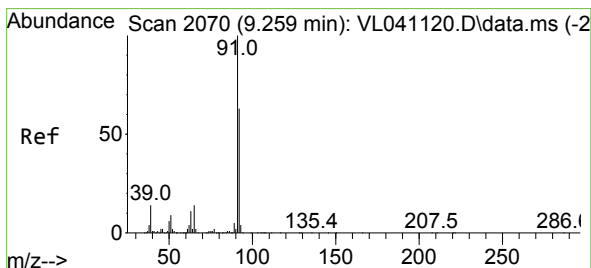
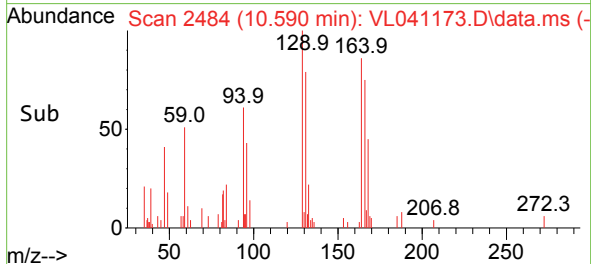
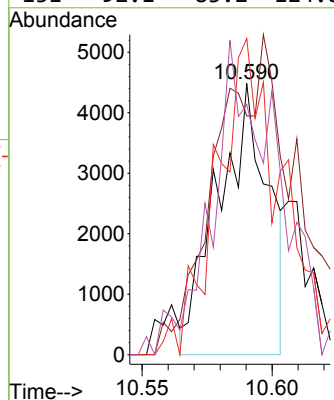
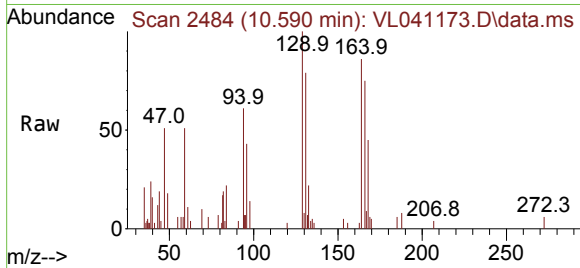




#52
Tetrachloroethene
Concen: 0.084 ppbv
RT: 10.590 min Scan# 2484
Delta R.T. 0.000 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

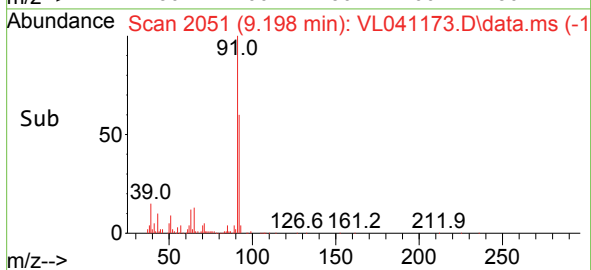
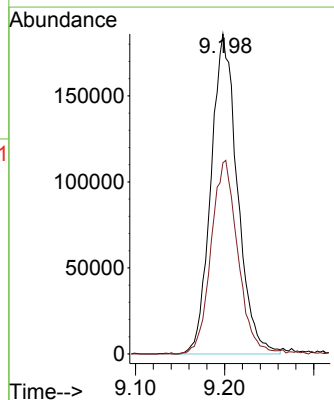
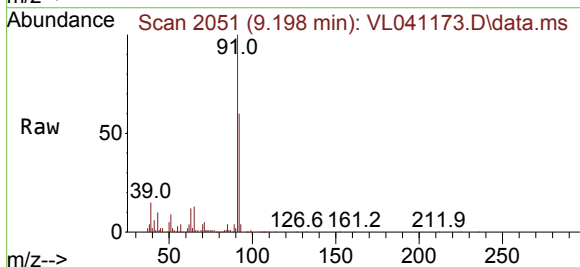
Instrument :
MSVOA_L
ClientSampleId :
IA2

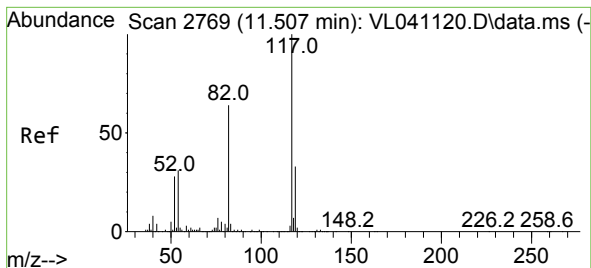
Tgt Ion:	164	Resp:	5984
Ion	Ratio	Lower	Upper
164	100		
166	83.1	95.0	142.6#
129	129.2	88.7	133.1
131	92.1	83.2	124.8



#53
Toluene
Concen: 1.647 ppbv
RT: 9.198 min Scan# 2051
Delta R.T. 0.000 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion:	91	Resp:	384895
Ion	Ratio	Lower	Upper
91	100		
92	61.5	49.0	73.4





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.439 min Scan# 21

Delta R.T. -0.003 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

IA2

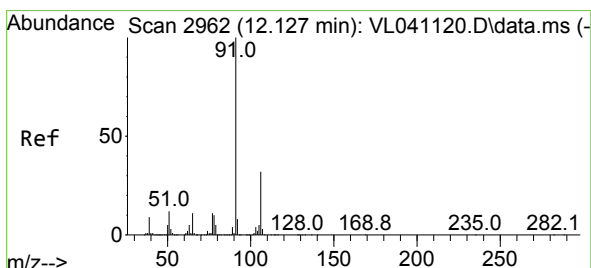
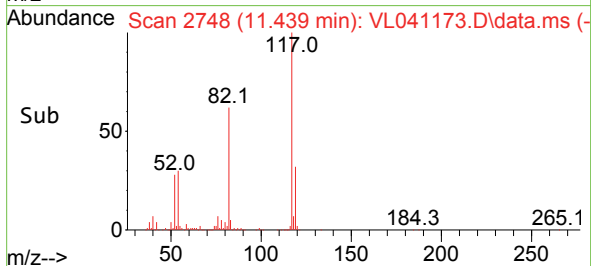
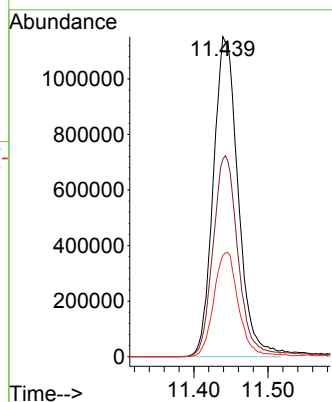
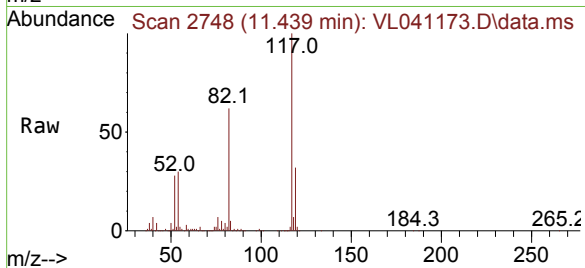
Tgt Ion:117 Resp: 2674108

Ion Ratio Lower Upper

117 100

82 65.3 51.0 76.6

119 32.9 25.2 37.8



#58

Ethyl Benzene

Concen: 0.207 ppbv

RT: 12.063 min Scan# 2942

Delta R.T. 0.000 min

Lab File: VL041173.D

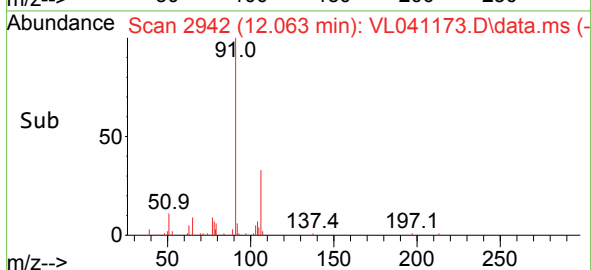
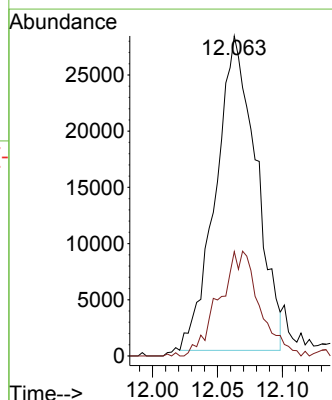
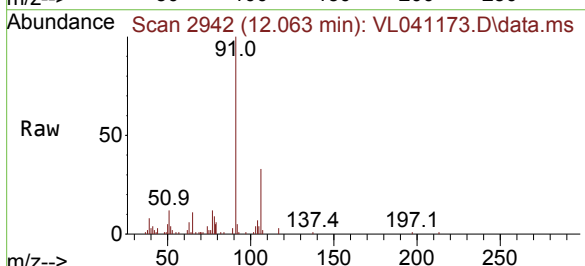
Acq: 25 Apr 2024 16:36

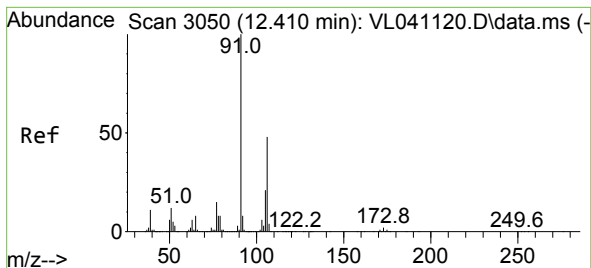
Tgt Ion: 91 Resp: 60536

Ion Ratio Lower Upper

91 100

106 33.2 25.6 38.4

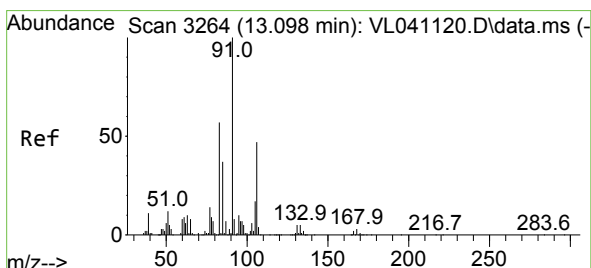
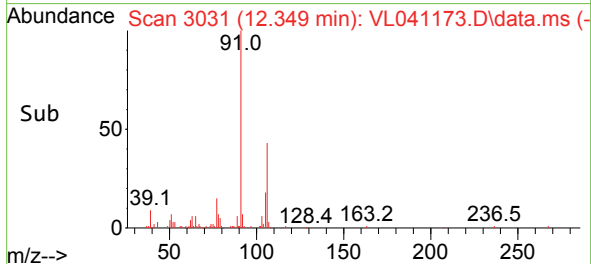
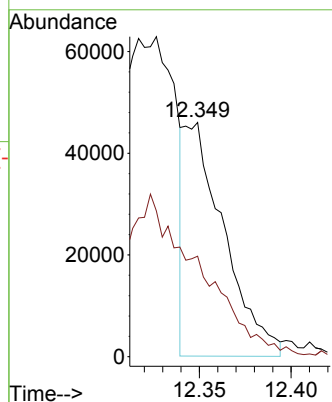
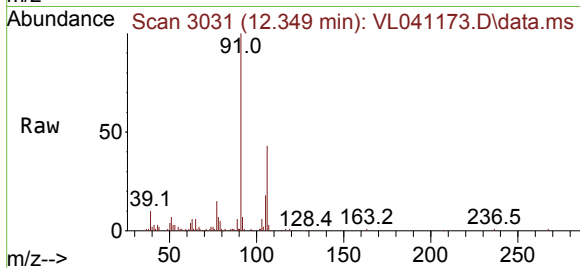




#59
m/p-Xylene
Concen: 0.262 ppbv
RT: 12.349 min Scan# 3050
Delta R.T. 0.000 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

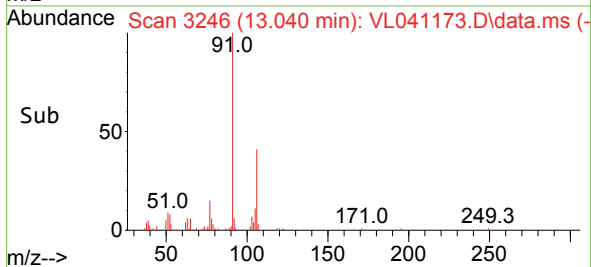
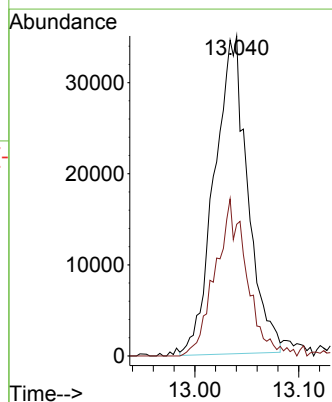
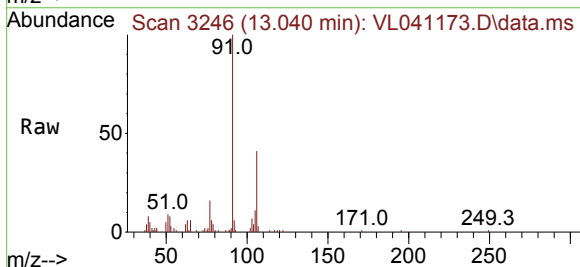
Instrument :
MSVOA_L
ClientSampleId :
IA2

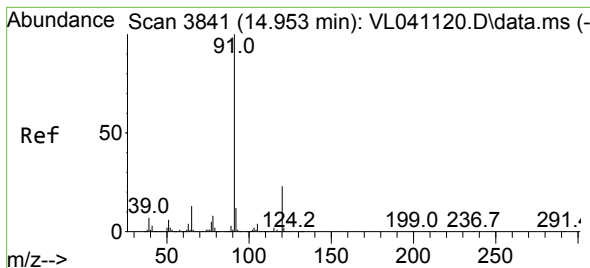
Tgt Ion: 91 Resp: 69339
Ion Ratio Lower Upper
91 100
106 0.0 35.4 53.2#



#60
o-Xylene
Concen: 0.310 ppbv
RT: 13.040 min Scan# 3246
Delta R.T. 0.006 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 91 Resp: 77686
Ion Ratio Lower Upper
91 100
106 47.6 22.9 68.5

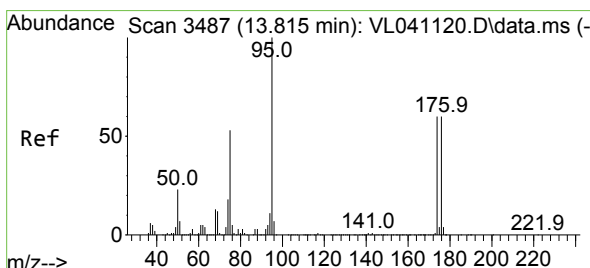
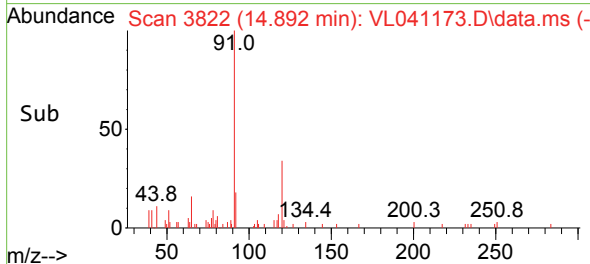
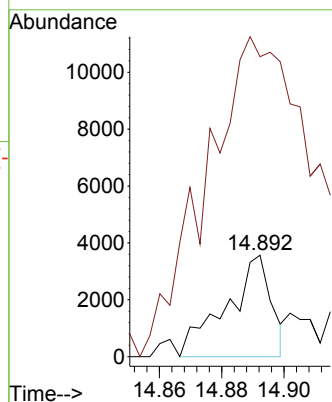
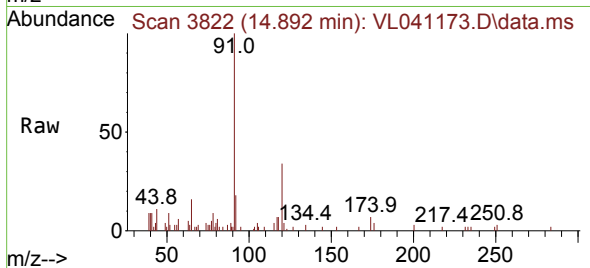




#64
n-propylbenzene
Concen: 0.038 ppbv
RT: 14.892 min Scan# 3822
Delta R.T. 0.006 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

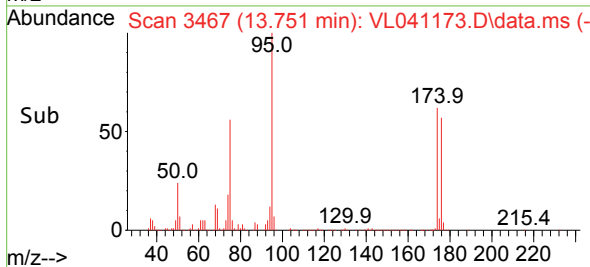
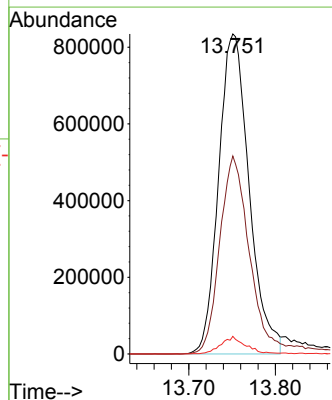
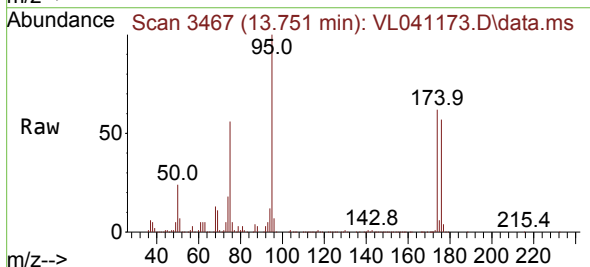
Instrument :
MSVOA_L
ClientSampleId :
IA2

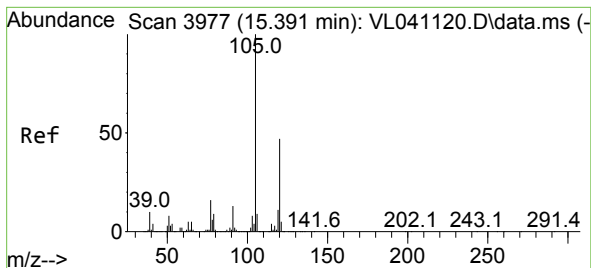
Tgt Ion:120 Resp: 3573
Ion Ratio Lower Upper
120 100
91 795.5 395.0 592.6#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.490 ppbv
RT: 13.751 min Scan# 3467
Delta R.T. 0.003 min
Lab File: VL041173.D
Acq: 25 Apr 2024 16:36

Tgt Ion: 95 Resp: 2040569
Ion Ratio Lower Upper
95 100
174 63.8 49.3 73.9
175 4.7 3.6 5.4





#73

1,3,5-Trimethylbenzene

Concen: 0.042 ppbv

RT: 15.320 min Scan# 3977

Delta R.T. -0.006 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

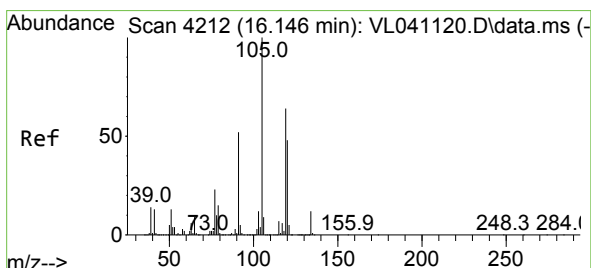
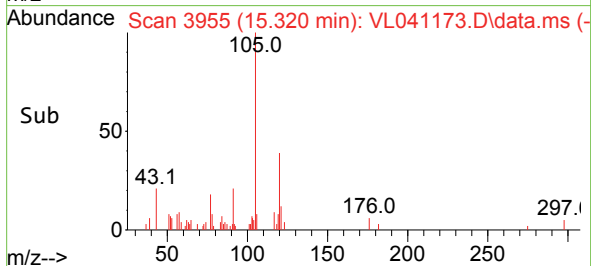
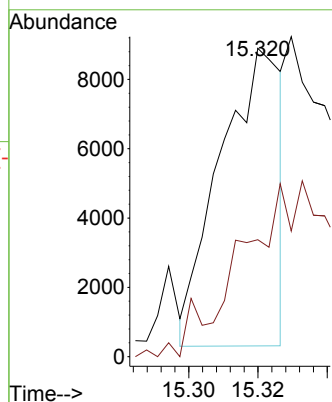
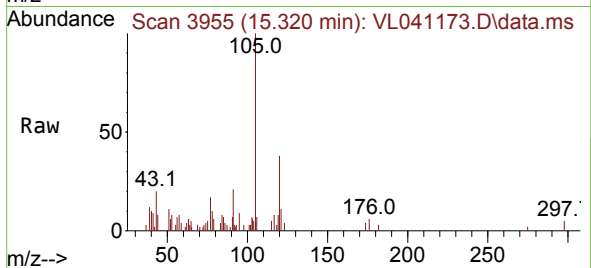
IA2

Tgt Ion:105 Resp: 10442

Ion Ratio Lower Upper

105 100

120 39.8 37.8 56.8



#74

1,2,4-Trimethylbenzene

Concen: 0.363 ppbv

RT: 16.082 min Scan# 4192

Delta R.T. 0.000 min

Lab File: VL041173.D

Acq: 25 Apr 2024 16:36

Tgt Ion:105 Resp: 102646

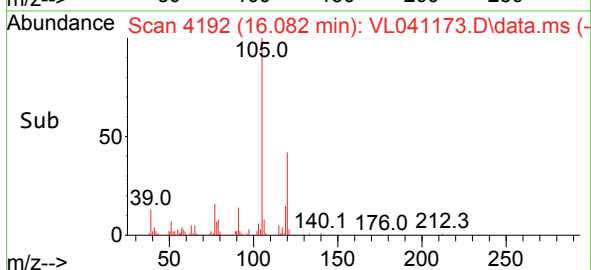
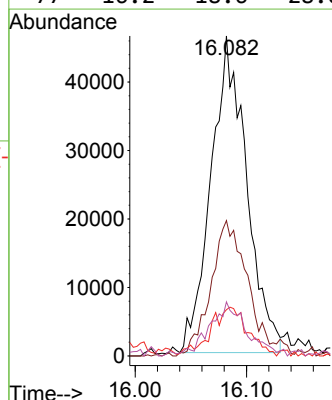
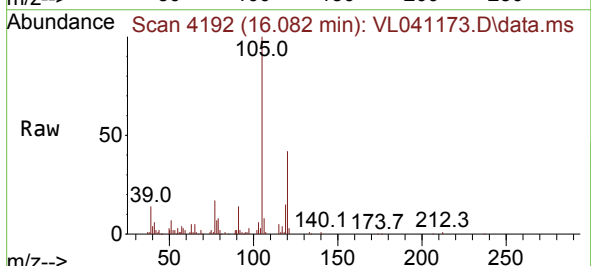
Ion Ratio Lower Upper

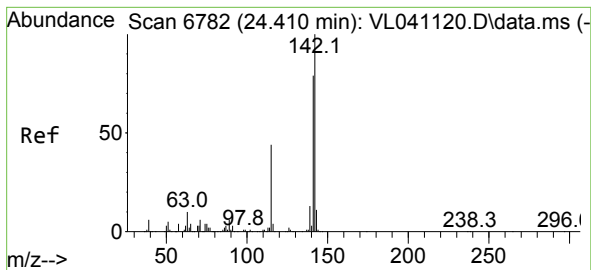
105 100

120 41.6 38.9 58.3

91 13.8 43.0 64.6#

77 16.2 18.6 28.0#





#80

Naphthalene, 2-methyl-

Concen: 0.049 ppbv

RT: 24.352 min Scan# 61

Delta R.T. -0.003 min

Lab File: VL041173.D

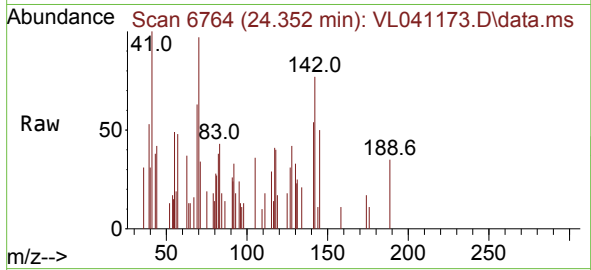
Acq: 25 Apr 2024 16:36

Instrument :

MSVOA_L

ClientSampleId :

IA2



Tgt Ion: 142 Resp: 1738

Ion Ratio Lower Upper

142 100

141 151.7 64.4 96.6#

115 227.0 33.5 50.3#

