

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL020924\
 Data File : VL041056.D
 Acq On : 9 Feb 2024 13:47
 Operator : SY/MD
 Sample : P1420-02
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

Quant Time: Feb 12 00:46:22 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL012324AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Mon Feb 12 00:40:04 2024
 Response via : Initial Calibration

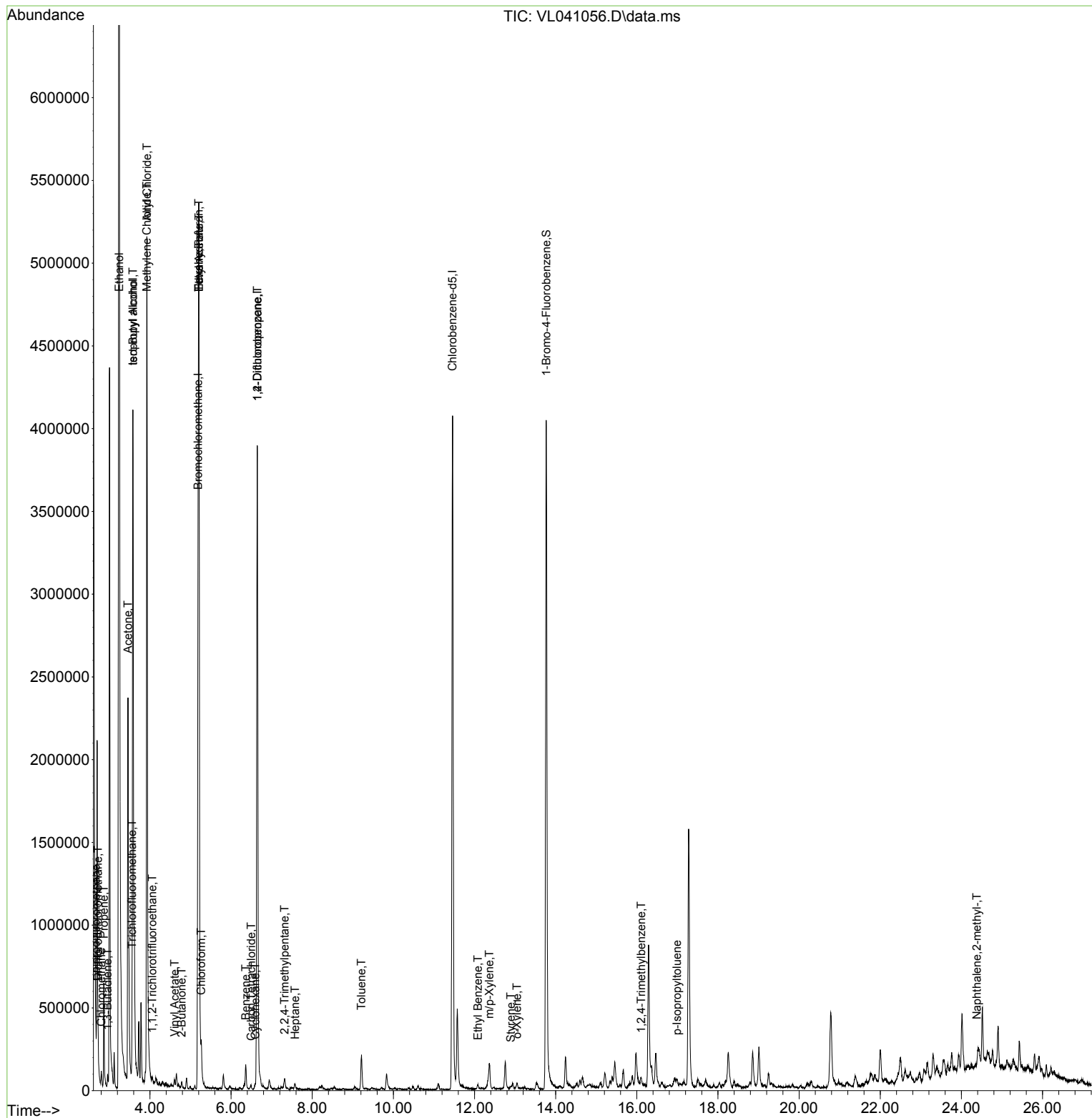
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	5.185	49	1121373	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.645	114	3126462	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.458	117	2816865	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.767	95	2107313	9.905	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.000%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.722	85	119181	0.481	ppbv	95
3) Chlorodifluoromethane	2.668	51	101146	0.536	ppbv #	80
4) Chloromethane	2.803	50	62532	0.885	ppbv	89
9) Propene	2.864	41	133071	2.151	ppbv	100
10) Heptane	7.578	43	6456	0.042	ppbv #	28
11) Trichlorofluoromethane	3.558	101	40697	0.204	ppbv	91
12) 1,1,2-Trichlorotrifluo...	4.060	101	5850	0.040	ppbv #	33
13) Ethanol	3.240	45	10328648	700.521	ppbv	97
15) Acetone	3.459	43	2368831	16.519	ppbv	98
16) 1,3-Butadiene	2.954	39	17832	0.260	ppbv #	10
17) tert-Butyl alcohol	3.581	59	150766	1.282	ppbv	95
19) Isopropyl Alcohol	3.581	45	4628087	55.754	ppbv #	96
20) Methylene Chloride	3.925	84	1761416	31.921	ppbv	97
21) Allyl Chloride	3.928	41	34193	0.392	ppbv #	17
23) Vinyl Acetate	4.610	43	9388	0.064	ppbv #	48
25) Ethyl Acetate	5.208	43	1421523	5.467	ppbv #	77
26) Hexane	5.205	57	2026899	18.288	ppbv #	38
29) Chloroform	5.266	83	117810	0.599	ppbv	94
30) Cyclohexane	6.600	84	2760	0.030	ppbv #	1
34) 2-Butanone	4.783	43	37075	0.249	ppbv	91
35) Carbon Tetrachloride	6.494	117	4395	0.021	ppbv	92
36) Benzene	6.362	78	114692	0.444	ppbv	94
39) 1,2-Dichloropropane	6.645	63	727744	7.154	ppbv #	24
41) Tetrahydrofuran	5.205	42	741858	7.335	ppbv #	52
44) 2,2,4-Trimethylpentane	7.320	57	52663	0.121	ppbv #	80
53) Toluene	9.214	91	150819	0.533	ppbv	98
58) Ethyl Benzene	12.085	91	16312	0.043	ppbv	89
59) m/p-Xylene	12.368	91	105641	0.320	ppbv #	61
60) o-Xylene	13.047	91	14010	0.044	ppbv #	31
61) Styrene	12.892	104	3592	0.025	ppbv #	66
69) p-Isopropyltoluene	16.992	119	14170	0.031	ppbv #	45
74) 1,2,4-Trimethylbenzene	16.105	105	15850	0.045	ppbv #	56
80) Naphthalene,2-methyl-	24.381	142	1053	0.030	ppbv #	19

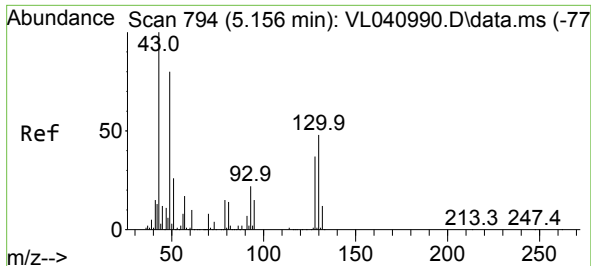
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL020924\
Data File : VL041056.D
Acq On : 9 Feb 2024 13:47
Operator : SY/MD
Sample : P1420-02
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
IA3

Quant Time: Feb 12 00:46:22 2024
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL012324AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
QLast Update : Mon Feb 12 00:40:04 2024
Response via : Initial Calibration

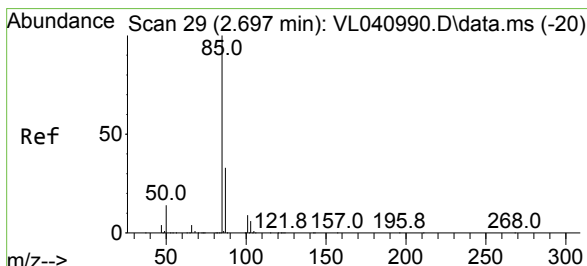
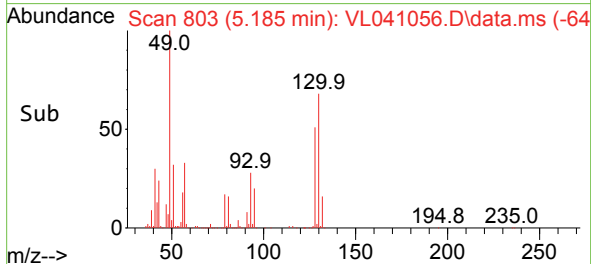
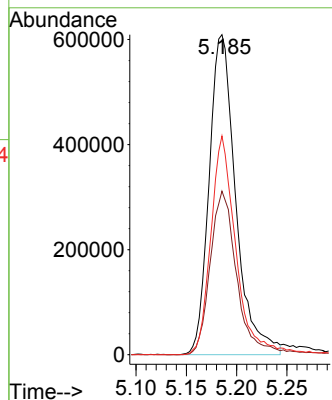
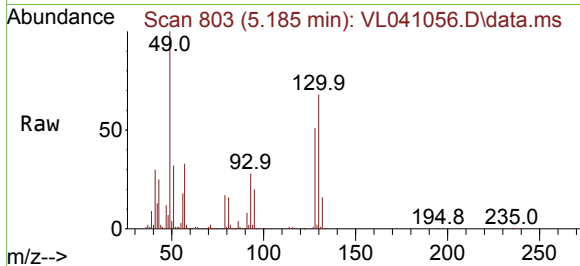




#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.185 min Scan# 80
 Delta R.T. 0.009 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

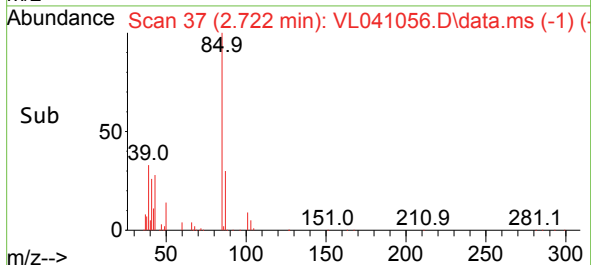
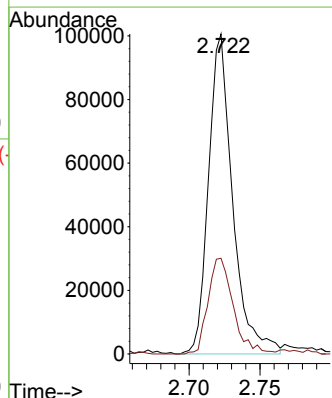
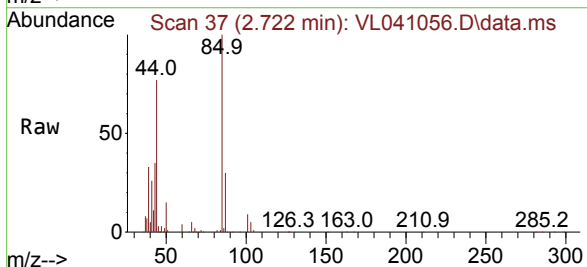
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

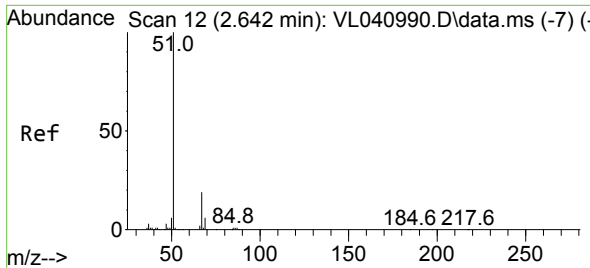
Tgt Ion: 49 Resp: 1121373
 Ion Ratio Lower Upper
 49 100
 128 52.1 23.9 71.7
 130 65.8 31.1 93.5



#2
 Dichlorodifluoromethane
 Concen: 0.481 ppbv
 RT: 2.722 min Scan# 37
 Delta R.T. 0.006 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

Tgt Ion: 85 Resp: 119181
 Ion Ratio Lower Upper
 85 100
 87 29.9 26.3 39.5

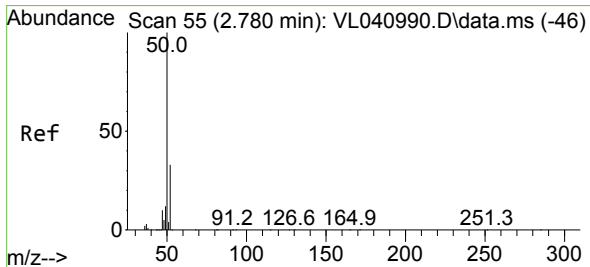
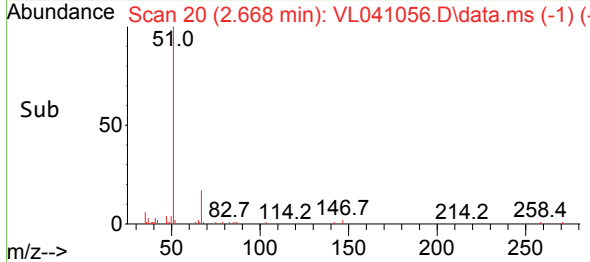
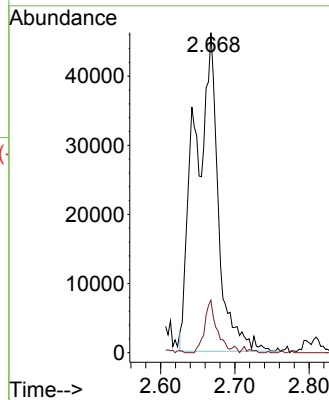
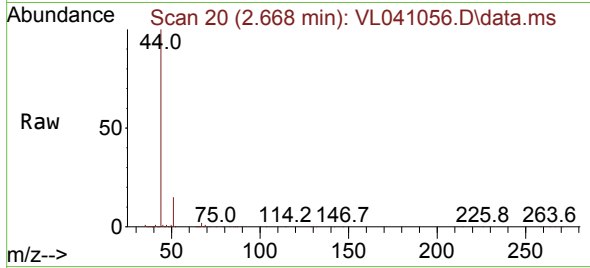




#3
Chlorodifluoromethane
Concen: 0.536 ppbv
RT: 2.668 min Scan# 20
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

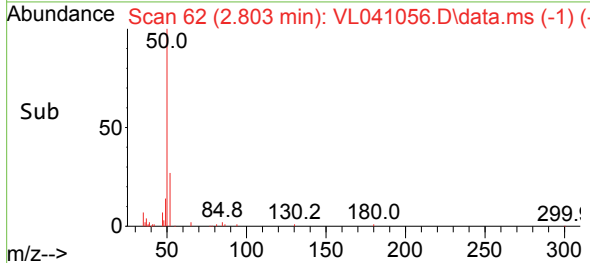
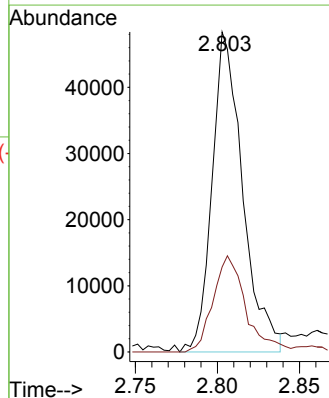
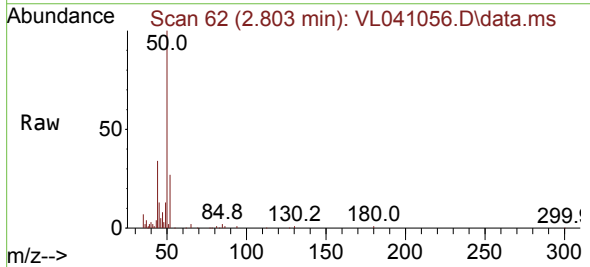
Instrument :
MSVOA_L
ClientSampleId :
IA3

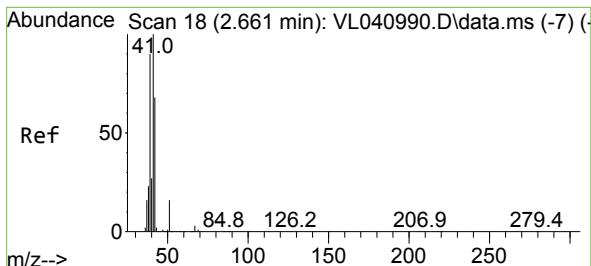
Tgt Ion: 51 Resp: 101146
Ion Ratio Lower Upper
51 100
67 9.4 14.8 22.2#



#4
Chloromethane
Concen: 0.885 ppbv
RT: 2.803 min Scan# 62
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 50 Resp: 62532
Ion Ratio Lower Upper
50 100
52 26.6 26.2 39.4





#9

Propene

Concen: 2.151 ppbv

RT: 2.864 min Scan# 81

Delta R.T. 0.186 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

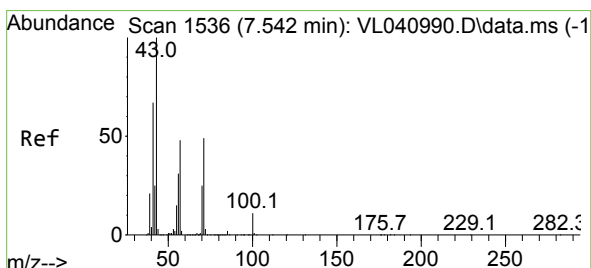
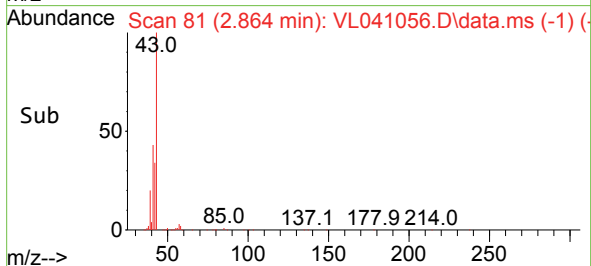
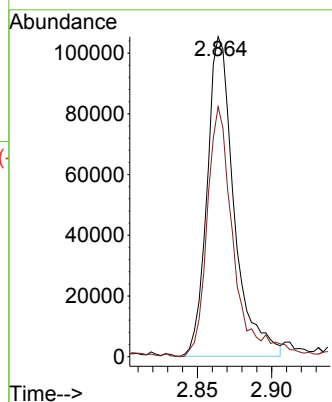
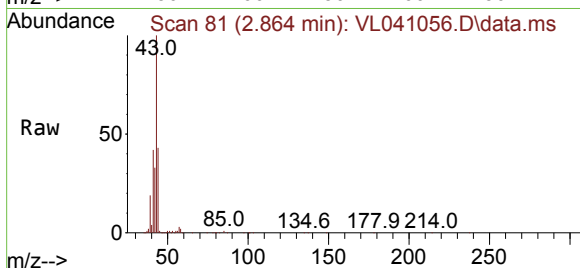
IA3

Tgt Ion: 41 Resp: 133071

Ion Ratio Lower Upper

41 100

42 73.4 59.0 88.4



#10

Heptane

Concen: 0.042 ppbv

RT: 7.578 min Scan# 1547

Delta R.T. 0.010 min

Lab File: VL041056.D

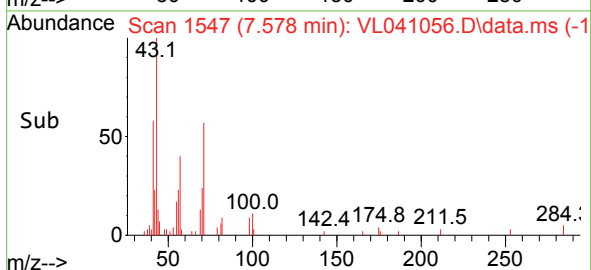
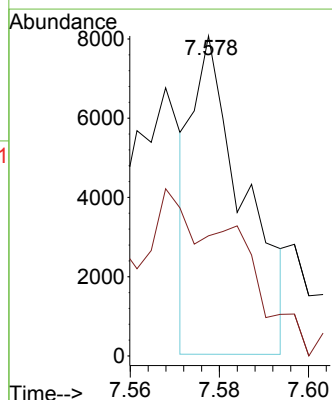
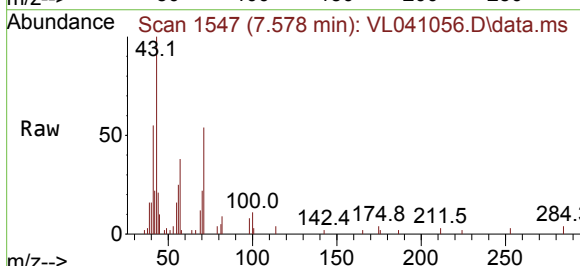
Acq: 9 Feb 2024 13:47

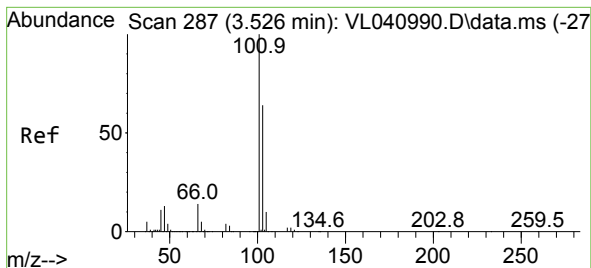
Tgt Ion: 43 Resp: 6456

Ion Ratio Lower Upper

43 100

57 0.0 39.4 59.2#





#11

Trichlorofluoromethane

Concen: 0.204 ppbv

RT: 3.558 min Scan# 24

Delta R.T. 0.010 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

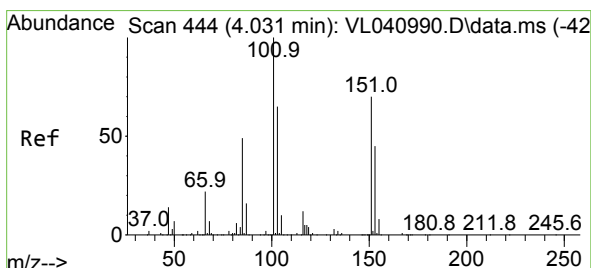
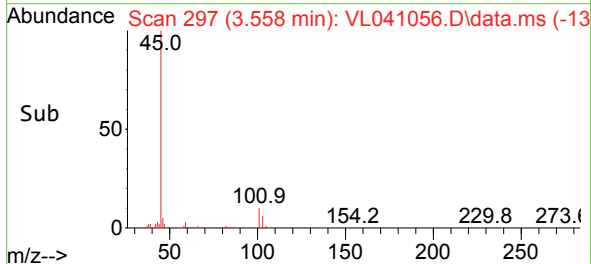
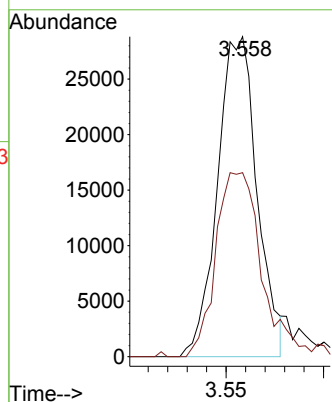
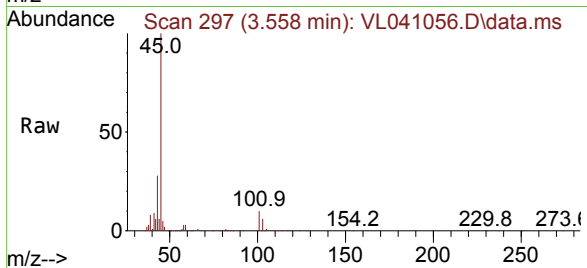
IA3

Tgt Ion:101 Resp: 40697

Ion Ratio Lower Upper

101 100

103 57.5 51.4 77.2



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.040 ppbv

RT: 4.060 min Scan# 453

Delta R.T. 0.006 min

Lab File: VL041056.D

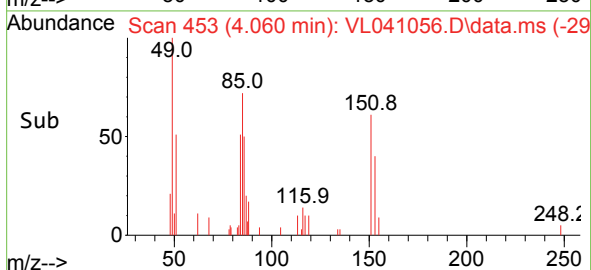
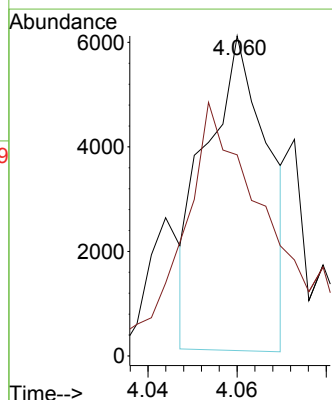
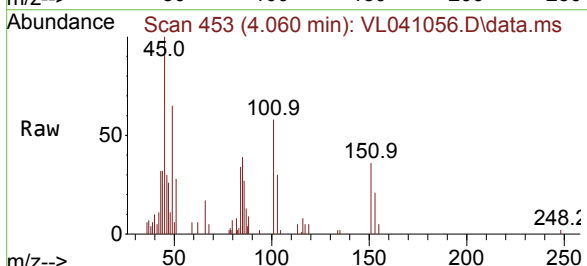
Acq: 9 Feb 2024 13:47

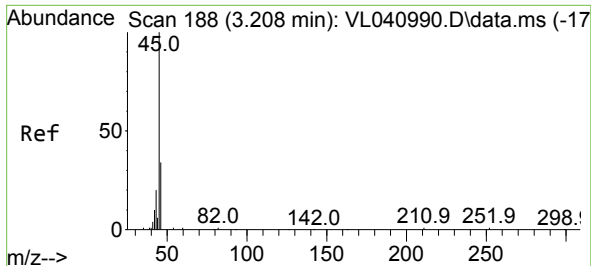
Tgt Ion:101 Resp: 5850

Ion Ratio Lower Upper

101 100

151 126.1 56.6 85.0#

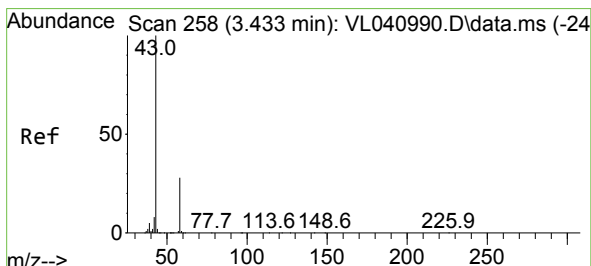
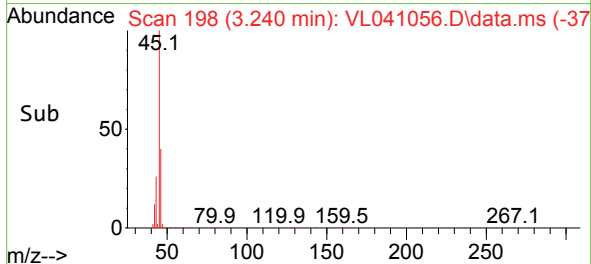
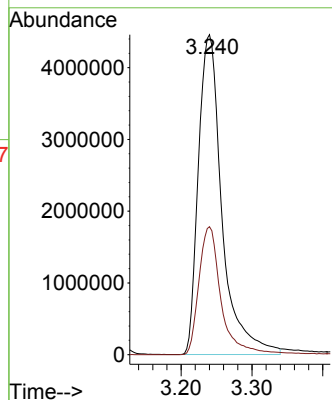
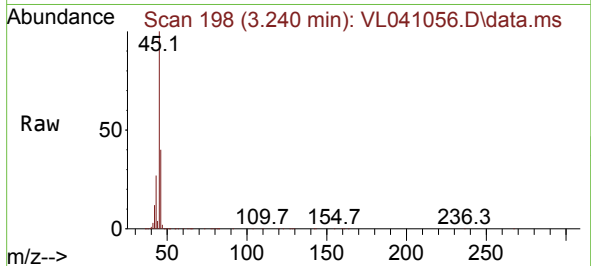




#13
Ethanol
Concen: 700.521 ppbv
RT: 3.240 min Scan# 198
Delta R.T. 0.016 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

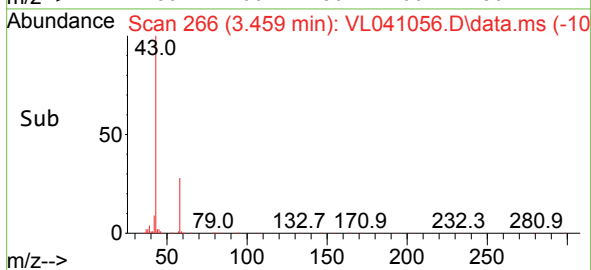
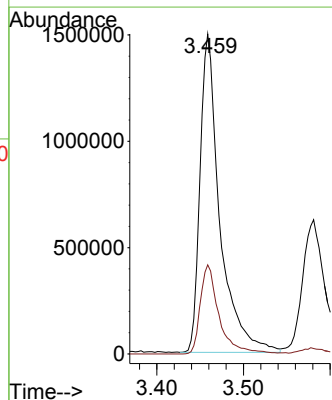
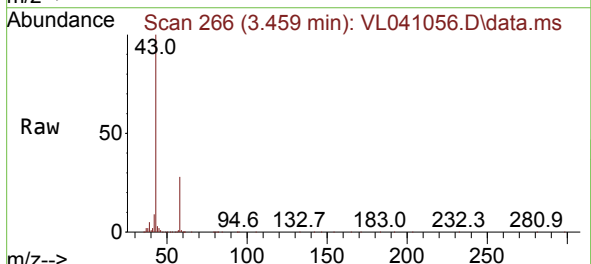
Instrument :
MSVOA_L
ClientSampleId :
IA3

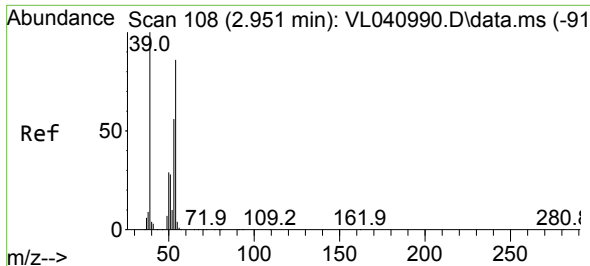
Tgt Ion: 45 Resp:10328648
Ion Ratio Lower Upper
45 100
46 38.6 16.2 64.8



#15
Acetone
Concen: 16.519 ppbv
RT: 3.459 min Scan# 266
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 43 Resp: 2368831
Ion Ratio Lower Upper
43 100
58 26.8 22.2 33.2

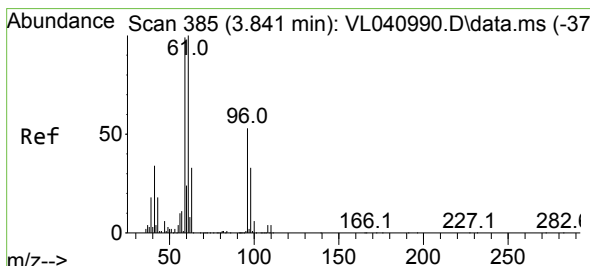
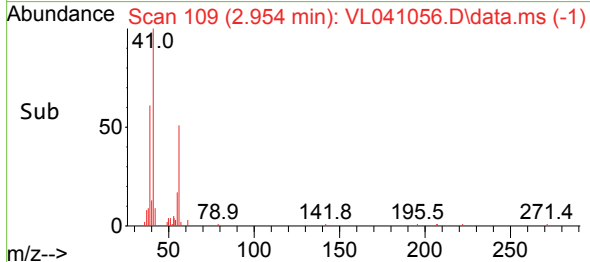
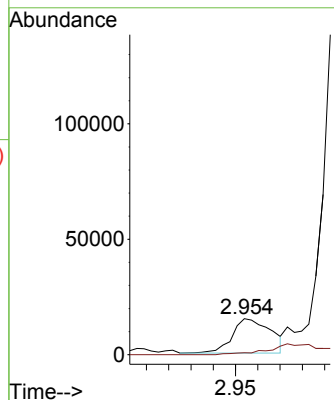
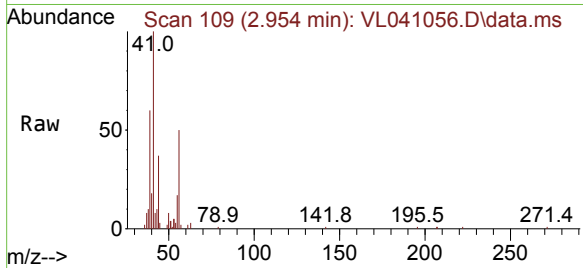




#16
1,3-Butadiene
Concen: 0.260 ppbv
RT: 2.954 min Scan# 108
Delta R.T. -0.016 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

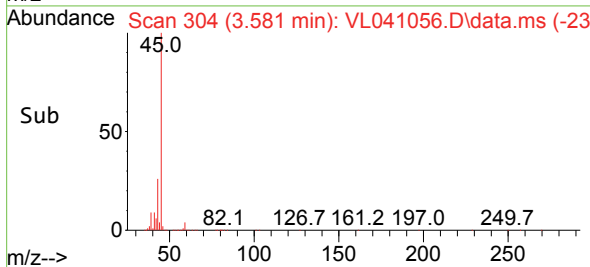
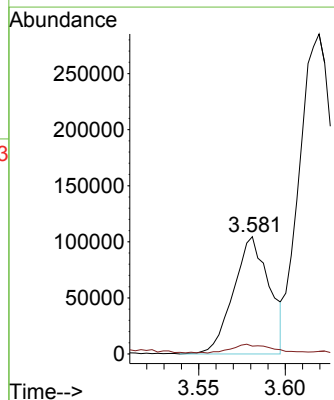
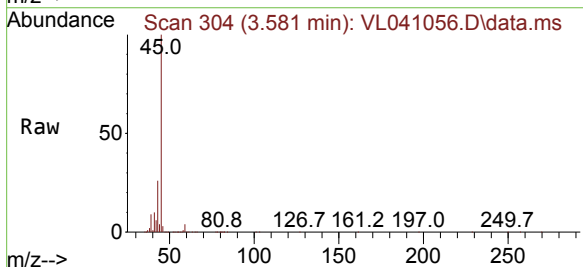
Instrument :
MSVOA_L
ClientSampleId :
IA3

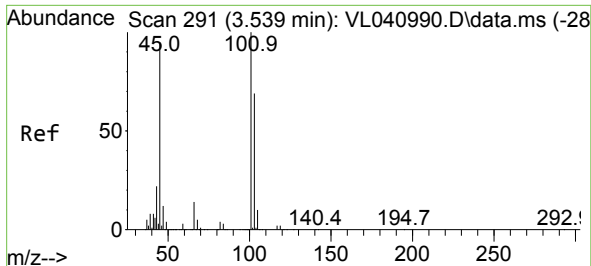
Tgt Ion: 39 Resp: 17832
Ion Ratio Lower Upper
39 100
54 0.0 62.7 94.1#



#17
tert-Butyl alcohol
Concen: 1.282 ppbv
RT: 3.581 min Scan# 304
Delta R.T. -0.283 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 59 Resp: 150766
Ion Ratio Lower Upper
59 100
57 12.9 8.7 13.1





#19

Isopropyl Alcohol

Concen: 55.754 ppbv

RT: 3.581 min Scan# 304

Delta R.T. 0.019 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

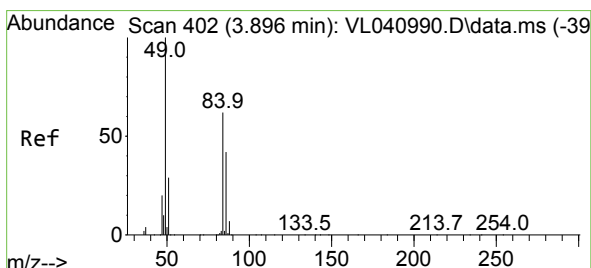
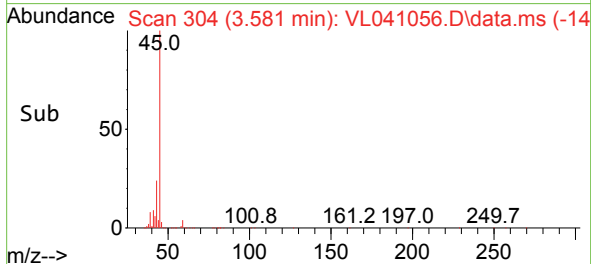
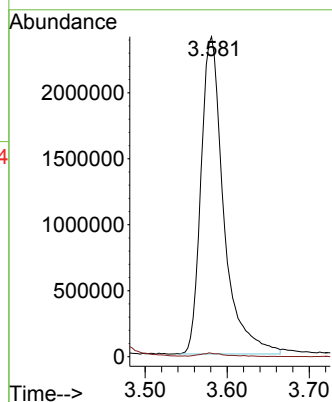
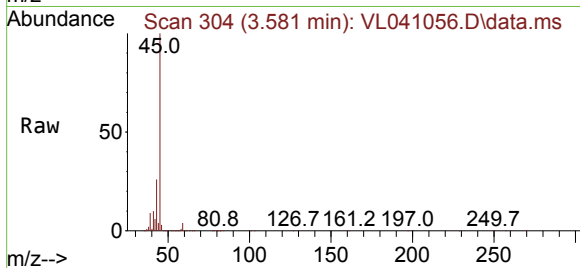
IA3

Tgt Ion: 45 Resp: 4628087

Ion Ratio Lower Upper

45 100

58 1.6 2.2 3.4#



#20

Methylene Chloride

Concen: 31.921 ppbv

RT: 3.925 min Scan# 411

Delta R.T. 0.006 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Tgt Ion: 84 Resp: 1761416

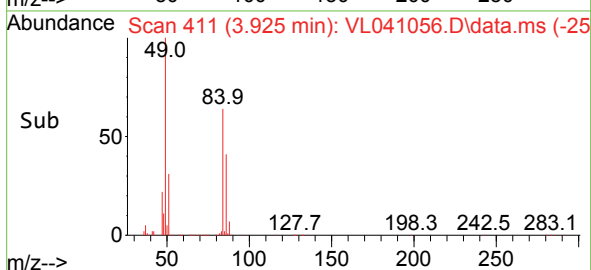
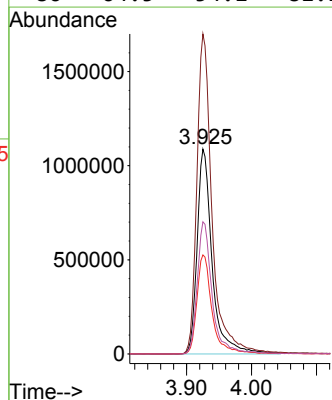
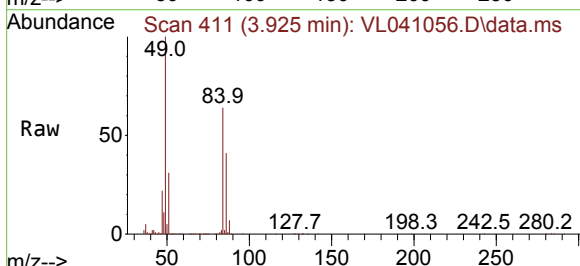
Ion Ratio Lower Upper

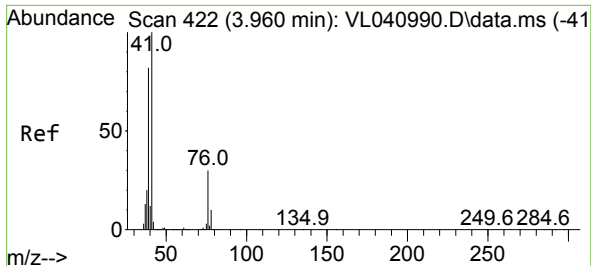
84 100

49 156.2 128.1 192.1

51 48.3 36.5 54.7

86 64.5 54.1 81.1

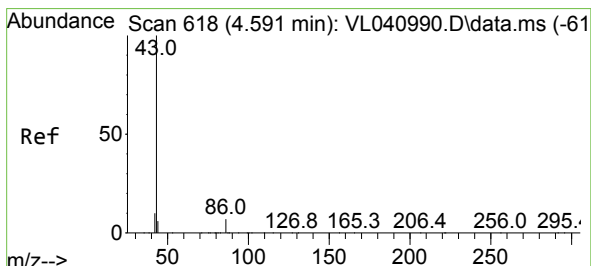
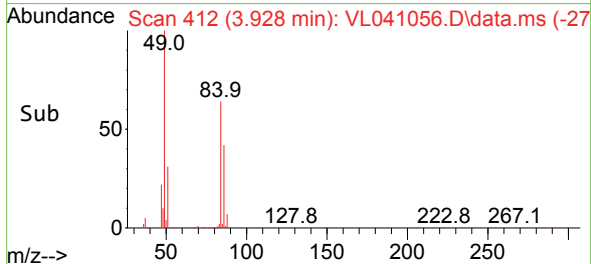
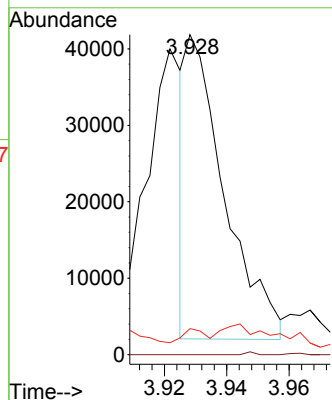
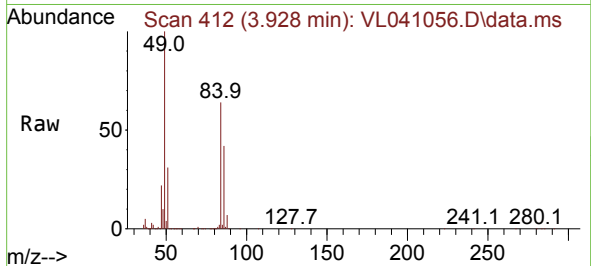




#21
 Allyl Chloride
 Concen: 0.392 ppbv
 RT: 3.928 min Scan# 41
 Delta R.T. -0.051 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

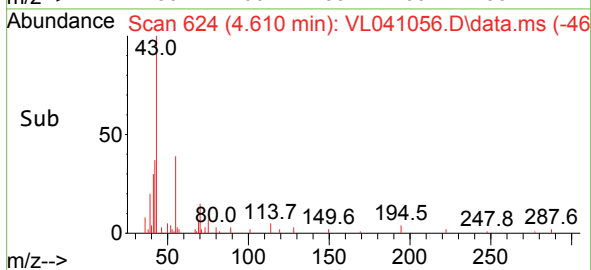
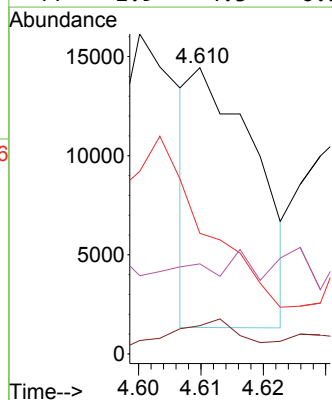
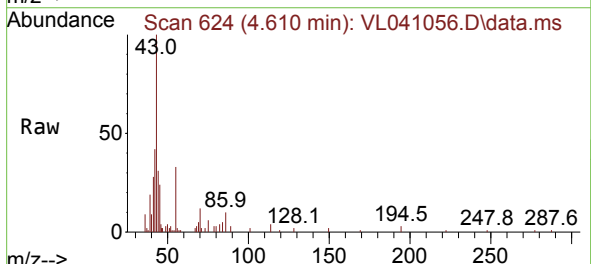
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

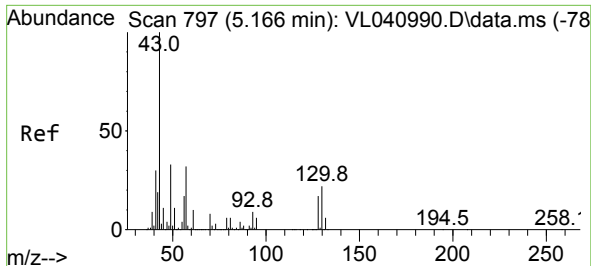
Tgt Ion: 41 Resp: 34193
 Ion Ratio Lower Upper
 41 100
 76 0.4 25.0 37.4#
 39 0.0 67.0 100.6#



#23
 Vinyl Acetate
 Concen: 0.064 ppbv
 RT: 4.610 min Scan# 624
 Delta R.T. -0.003 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

Tgt Ion: 43 Resp: 9388
 Ion Ratio Lower Upper
 43 100
 86 10.2 5.4 8.0#
 42 48.1 8.6 13.0#
 44 1.9 4.3 6.5#



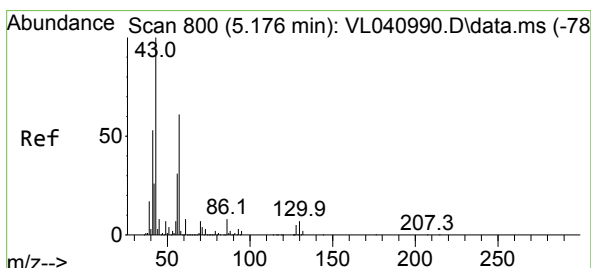
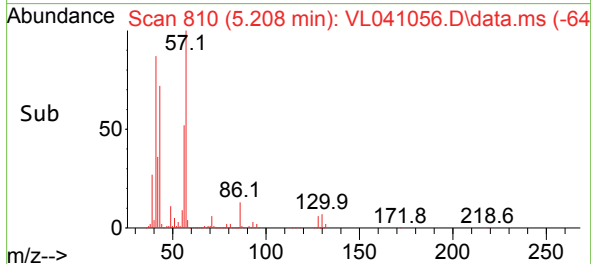
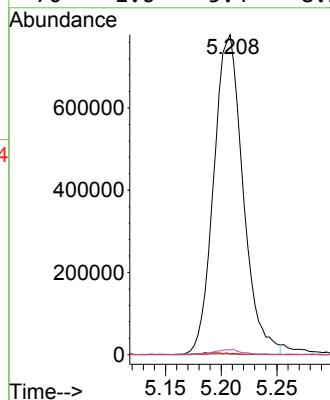
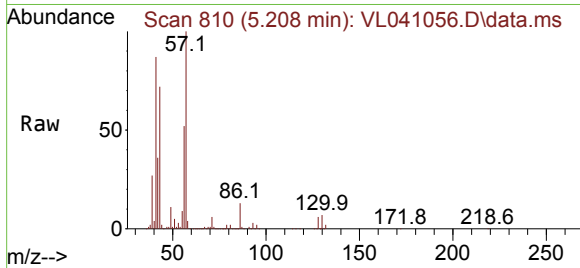


#25
Ethyl Acetate
Concen: 5.467 ppbv
RT: 5.208 min Scan# 810
Delta R.T. 0.016 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion: 43 Resp: 1421523

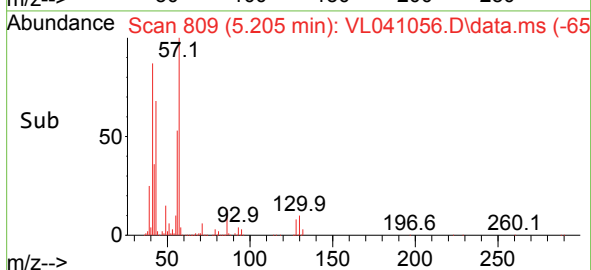
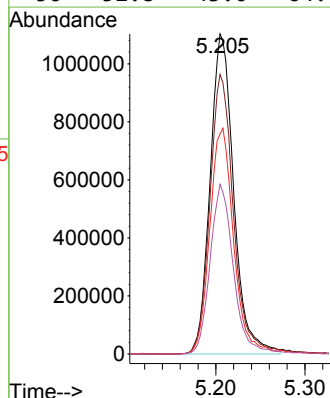
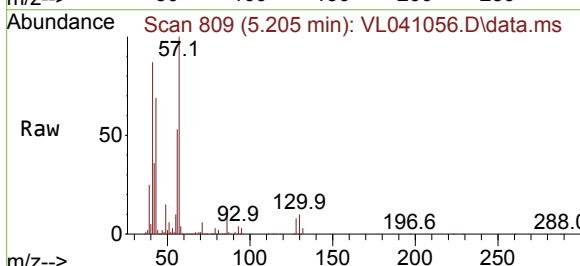
Ion	Ratio	Lower	Upper
43	100		
45	0.7	8.2	12.4#
61	0.4	7.9	11.9#
70	1.6	5.4	8.2#

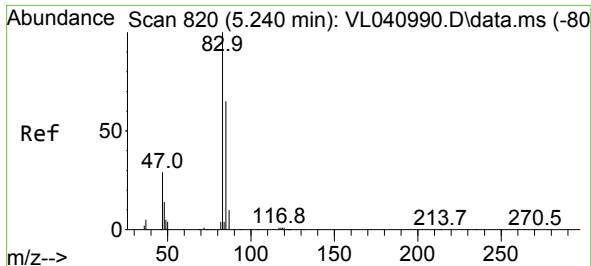


#26
Hexane
Concen: 18.288 ppbv
RT: 5.205 min Scan# 809
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 57 Resp: 2026899

Ion	Ratio	Lower	Upper
57	100		
41	88.2	74.4	111.6
43	72.1	190.6	285.8#
56	52.8	43.0	64.4





#29

Chloroform

Concen: 0.599 ppbv

RT: 5.266 min Scan# 81

Delta R.T. 0.006 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

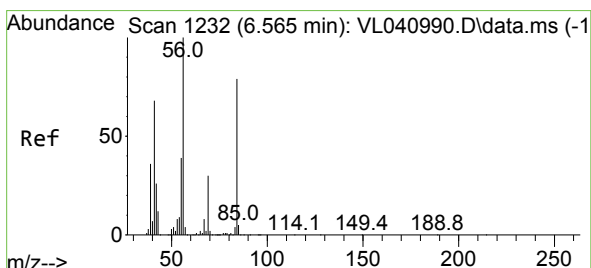
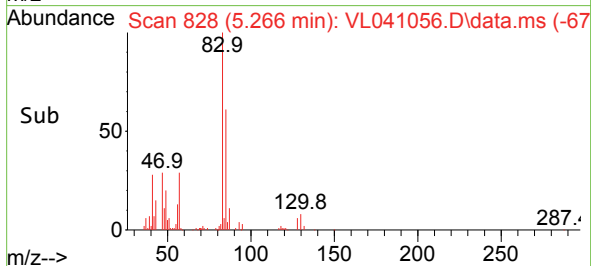
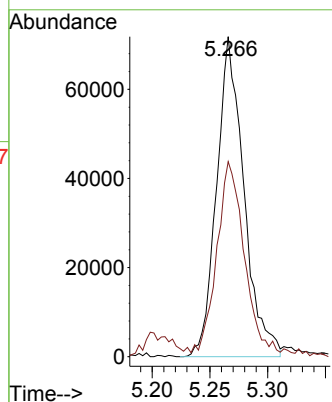
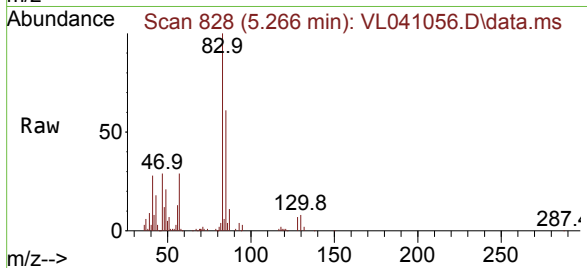
IA3

Tgt Ion: 83 Resp: 117810

Ion Ratio Lower Upper

83 100

85 59.6 51.6 77.4



#30

Cyclohexane

Concen: 0.030 ppbv

RT: 6.600 min Scan# 1243

Delta R.T. 0.013 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

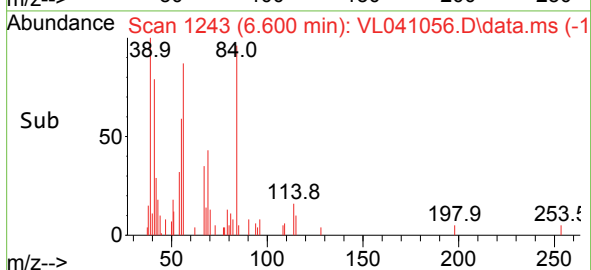
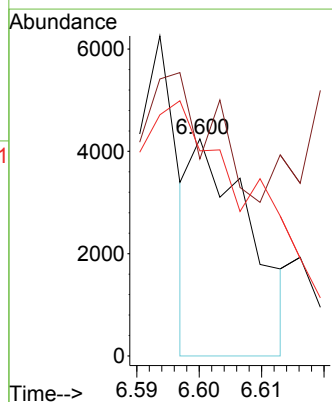
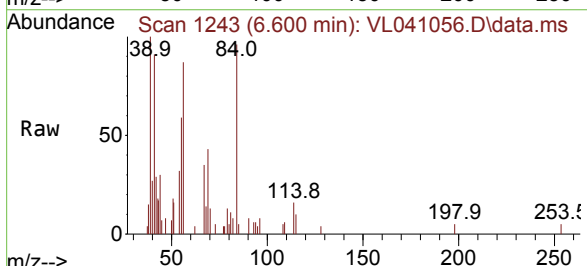
Tgt Ion: 84 Resp: 2760

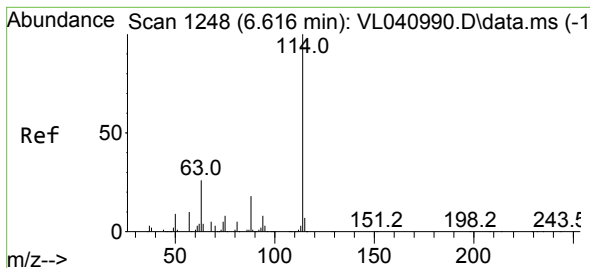
Ion Ratio Lower Upper

84 100

56 378.0 111.7 167.5#

41 402.1 71.0 106.6#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.645 min Scan# 1

Delta R.T. 0.003 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

IA3

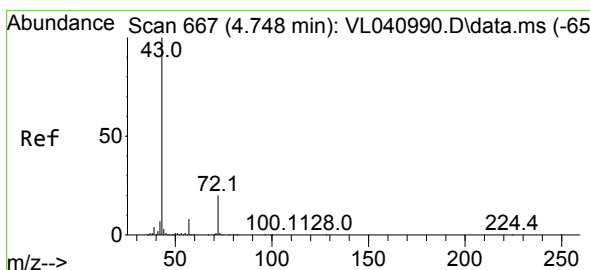
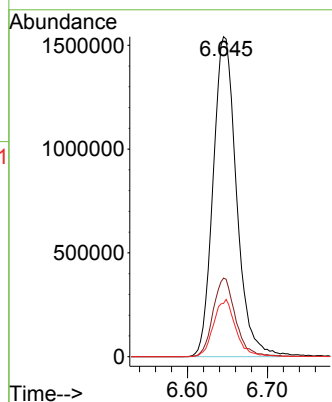
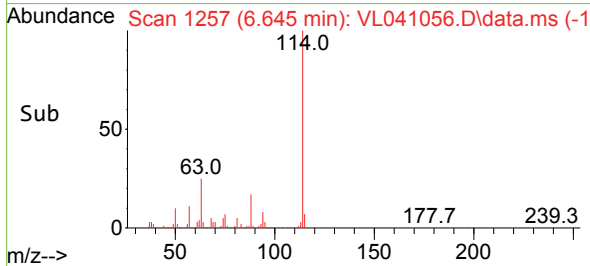
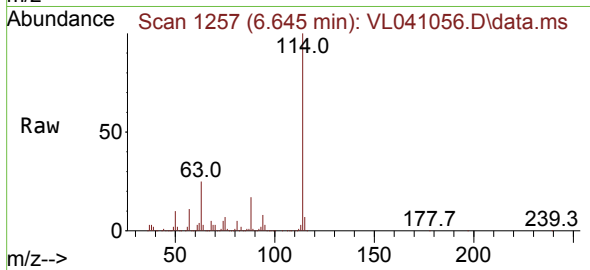
Tgt Ion:114 Resp: 3126462

Ion Ratio Lower Upper

114 100

63 23.9 20.8 31.2

88 17.1 14.3 21.5



#34

2-Butanone

Concen: 0.249 ppbv

RT: 4.783 min Scan# 678

Delta R.T. 0.013 min

Lab File: VL041056.D

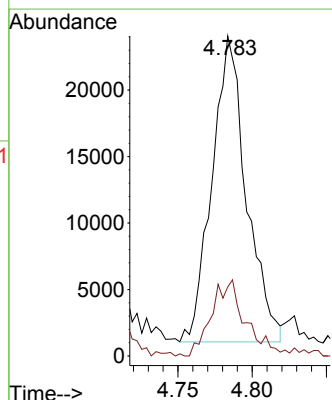
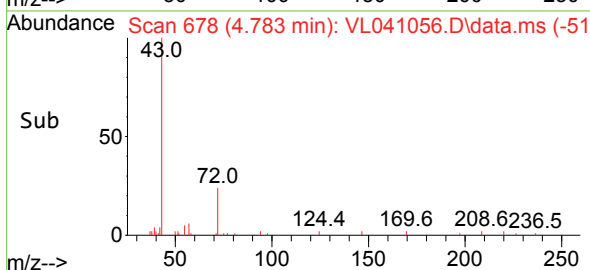
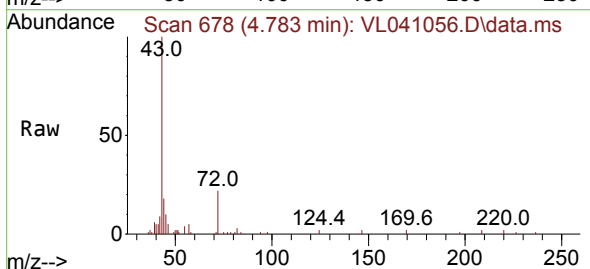
Acq: 9 Feb 2024 13:47

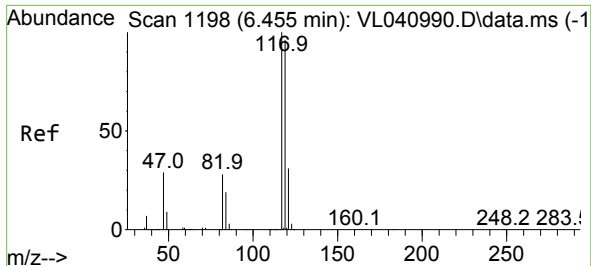
Tgt Ion: 43 Resp: 37075

Ion Ratio Lower Upper

43 100

72 26.2 17.5 26.3

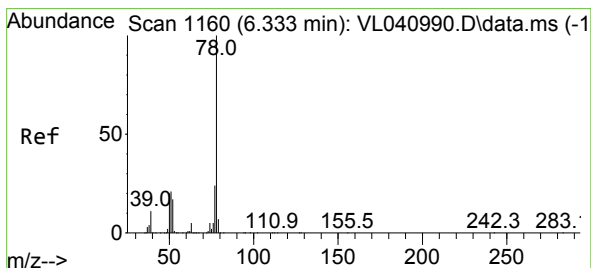
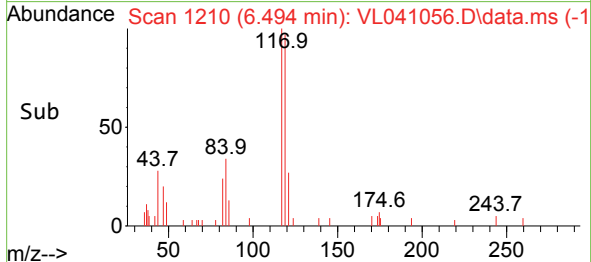
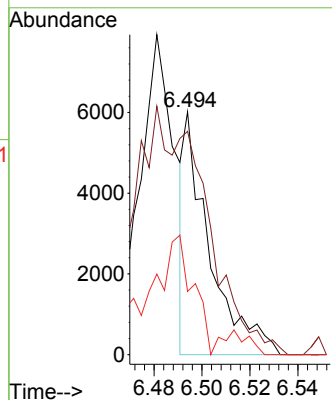
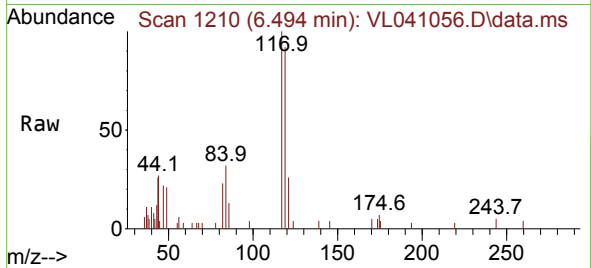




#35
Carbon Tetrachloride
Concen: 0.021 ppbv
RT: 6.494 min Scan# 1198
Delta R.T. 0.013 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

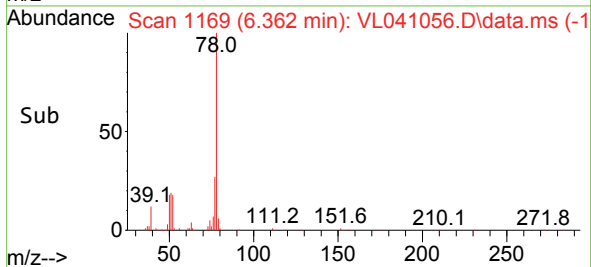
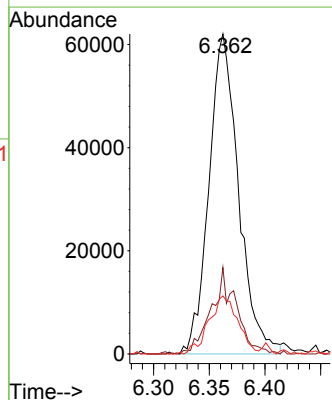
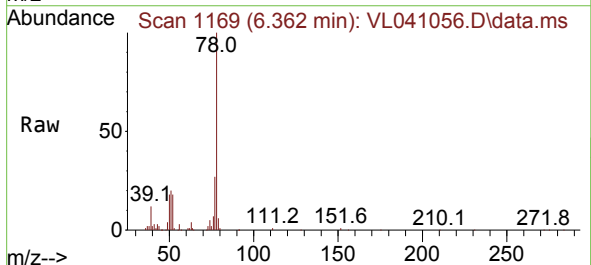
Instrument :
MSVOA_L
ClientSampleId :
IA3

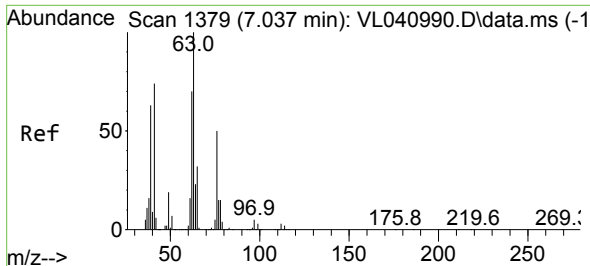
Tgt Ion:117 Resp: 4395
Ion Ratio Lower Upper
117 100
119 89.1 76.9 115.3
121 26.0 24.7 37.1



#36
Benzene
Concen: 0.444 ppbv
RT: 6.362 min Scan# 1169
Delta R.T. 0.003 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 78 Resp: 114692
Ion Ratio Lower Upper
78 100
77 27.0 19.0 28.4
50 17.6 15.8 23.6





#39

1,2-Dichloropropane

Concen: 7.154 ppbv

RT: 6.645 min Scan# 1

Delta R.T. -0.412 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

IA3

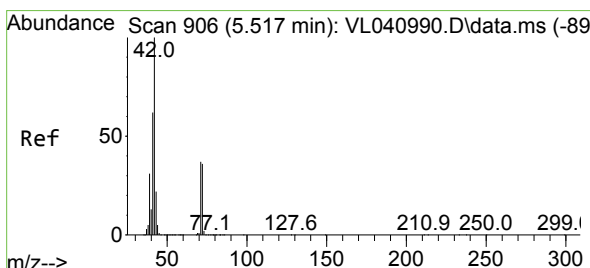
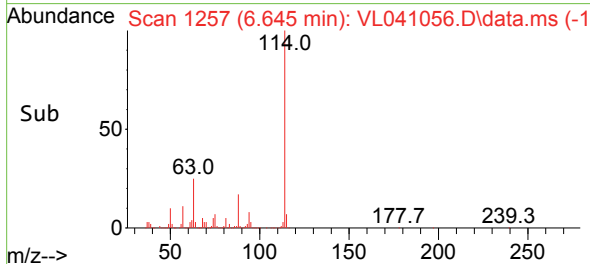
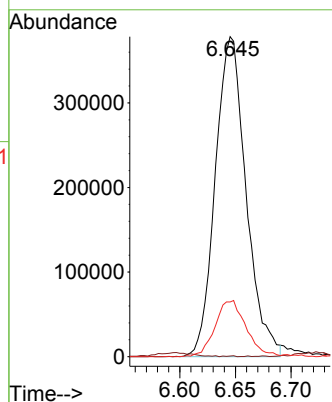
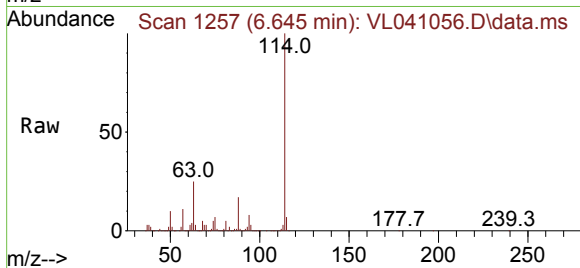
Tgt Ion: 63 Resp: 727744

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 17.0 55.6 83.4#



#41

Tetrahydrofuran

Concen: 7.335 ppbv

RT: 5.205 min Scan# 809

Delta R.T. -0.334 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

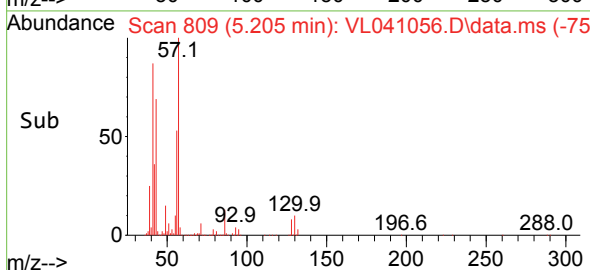
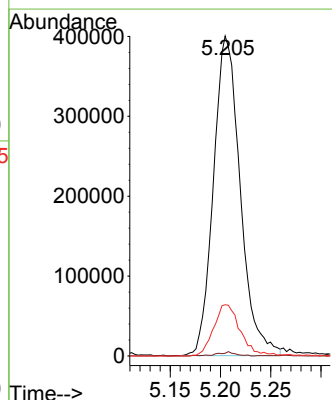
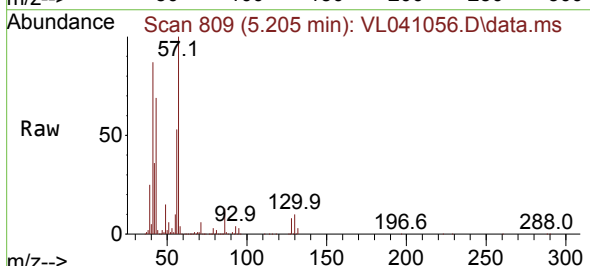
Tgt Ion: 42 Resp: 741858

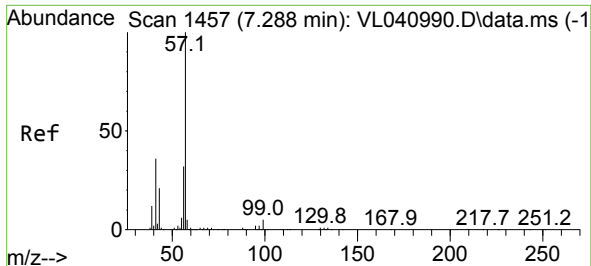
Ion Ratio Lower Upper

42 100

72 0.9 30.0 45.0#

71 16.3 29.5 44.3#

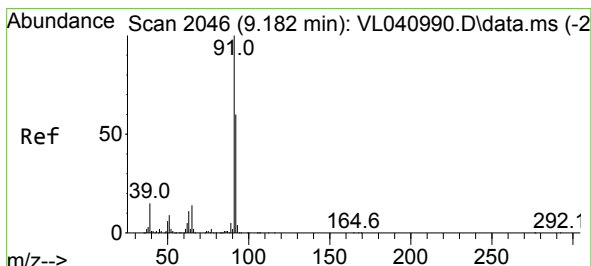
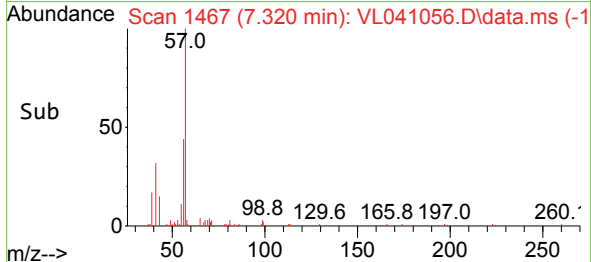
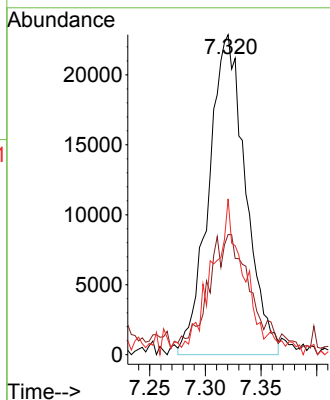
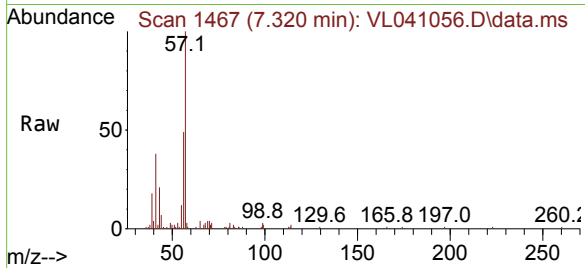




#44
 2,2,4-Trimethylpentane
 Concen: 0.121 ppbv
 RT: 7.320 min Scan# 14
 Delta R.T. 0.006 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

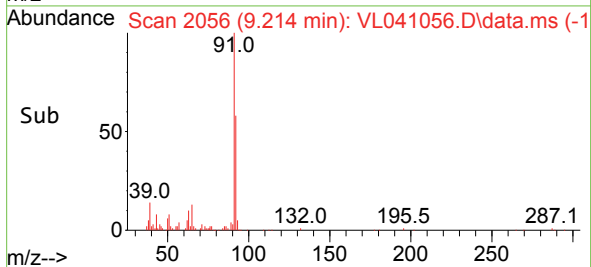
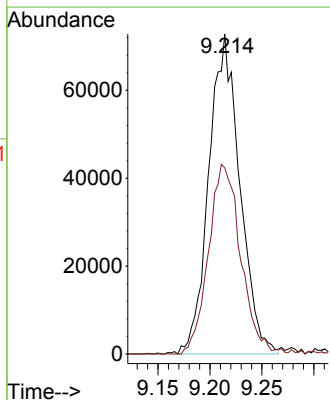
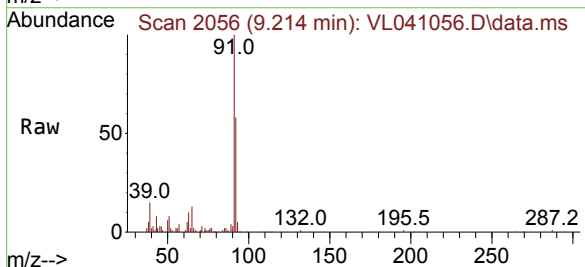
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

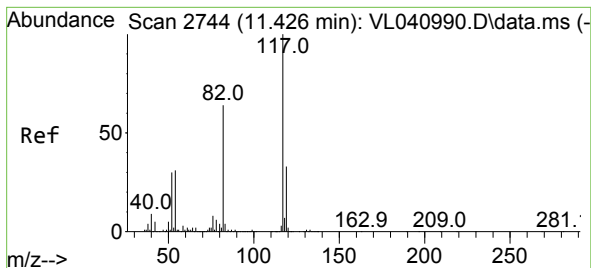
Tgt Ion: 57 Resp: 52663
 Ion Ratio Lower Upper
 57 100
 41 45.1 28.6 43.0#
 56 45.8 25.2 37.8#



#53
 Toluene
 Concen: 0.533 ppbv
 RT: 9.214 min Scan# 2056
 Delta R.T. 0.006 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

Tgt Ion: 91 Resp: 150819
 Ion Ratio Lower Upper
 91 100
 92 61.8 48.6 72.8

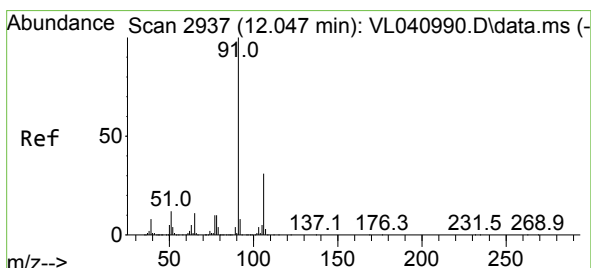
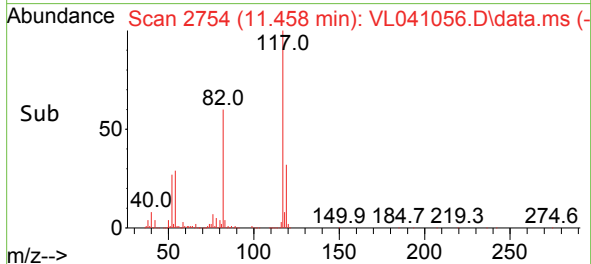
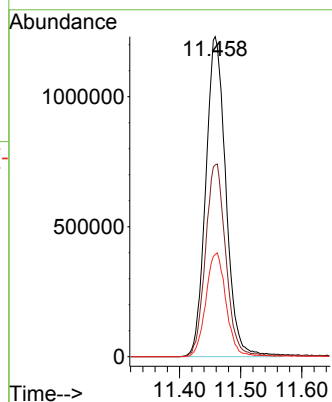
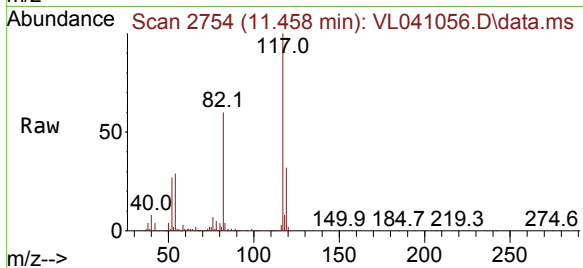




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.458 min Scan# 211
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

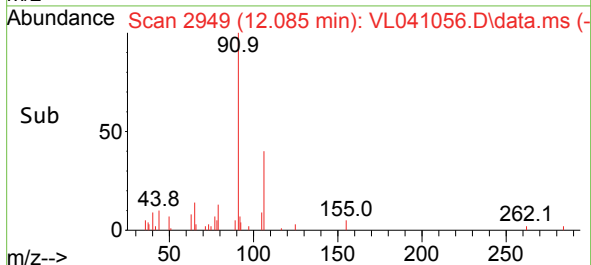
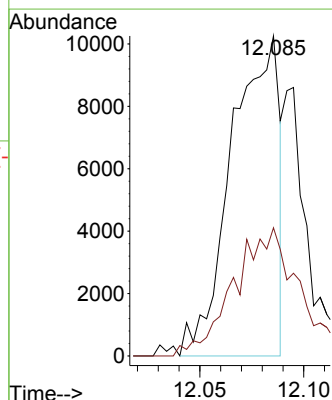
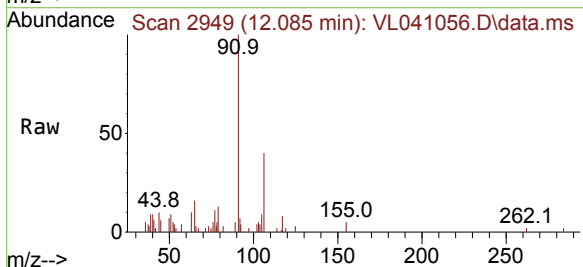
Instrument :
MSVOA_L
ClientSampleId :
IA3

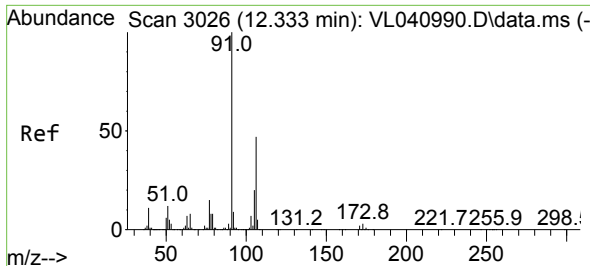
Tgt Ion:117 Resp: 2816865
Ion Ratio Lower Upper
117 100
82 61.1 51.7 77.5
119 32.8 23.8 35.6



#58
Ethyl Benzene
Concen: 0.043 ppbv
RT: 12.085 min Scan# 2949
Delta R.T. 0.010 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 91 Resp: 16312
Ion Ratio Lower Upper
91 100
106 36.8 24.8 37.2





#59

m/p-Xylene

Concen: 0.320 ppbv

RT: 12.368 min Scan# 3026

Delta R.T. 0.013 min

Lab File: VL041056.D

Acq: 9 Feb 2024 13:47

Instrument :

MSVOA_L

ClientSampleId :

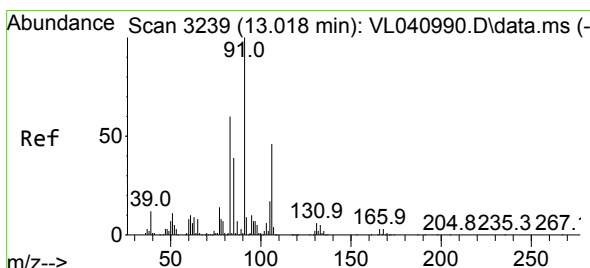
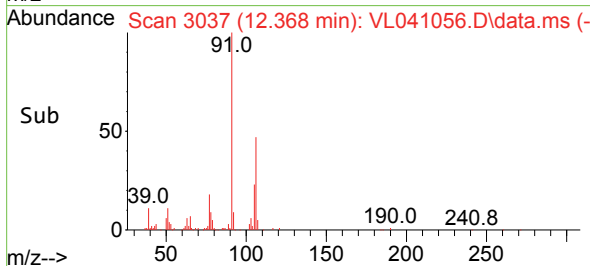
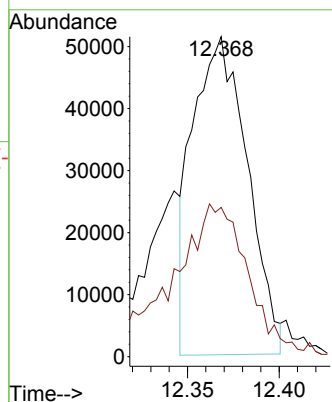
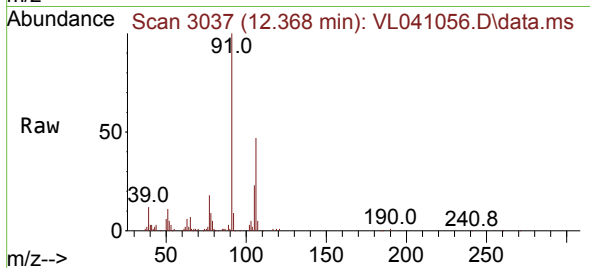
IA3

Tgt Ion: 91 Resp: 105641

Ion Ratio Lower Upper

91 100

106 68.7 34.9 52.3#



#60

o-Xylene

Concen: 0.044 ppbv

RT: 13.047 min Scan# 3248

Delta R.T. 0.006 min

Lab File: VL041056.D

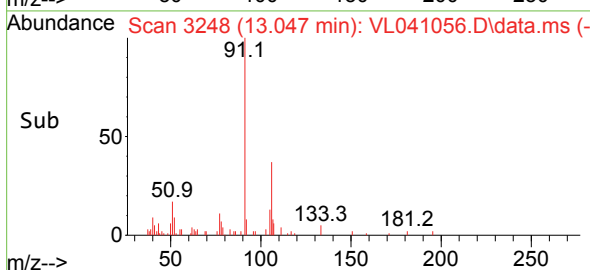
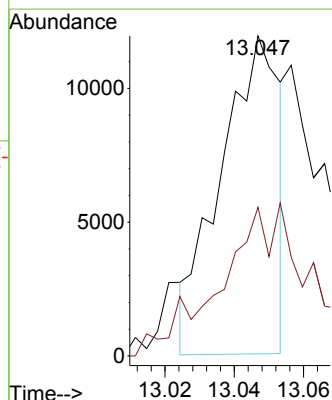
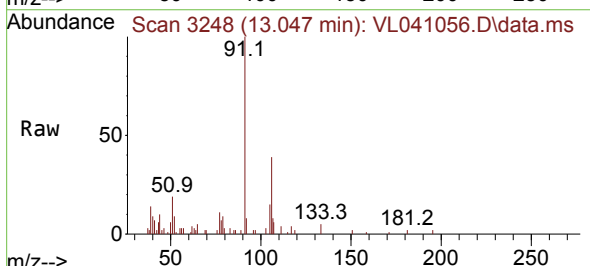
Acq: 9 Feb 2024 13:47

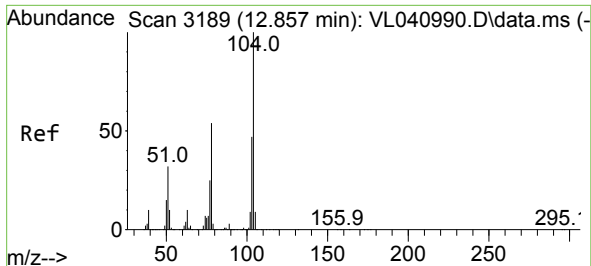
Tgt Ion: 91 Resp: 14010

Ion Ratio Lower Upper

91 100

106 0.0 22.6 67.7#

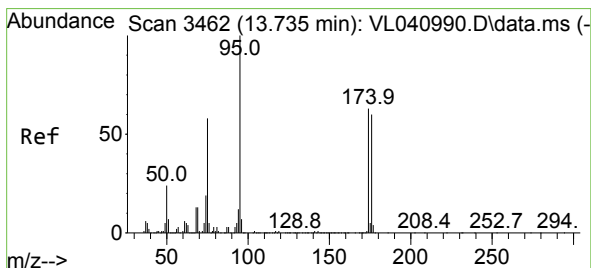
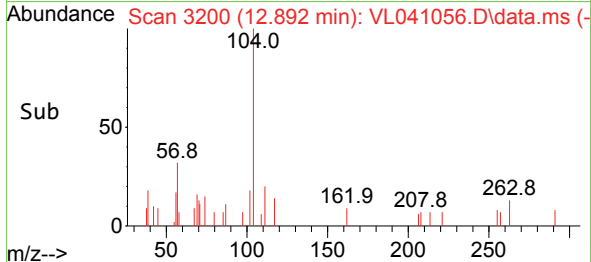
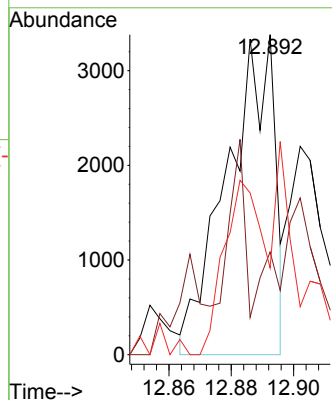
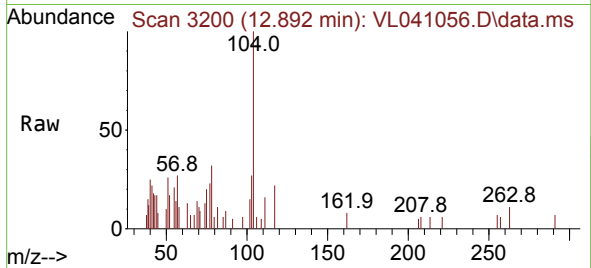




#61
Styrene
Concen: 0.025 ppbv
RT: 12.892 min Scan# 3189
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

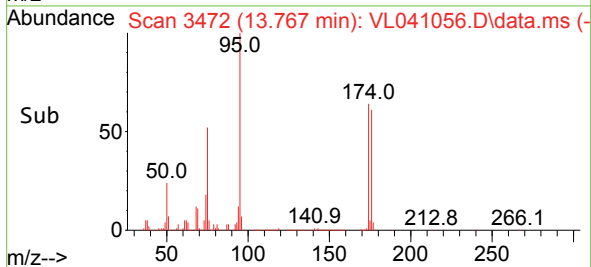
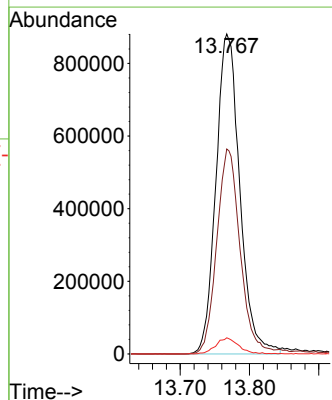
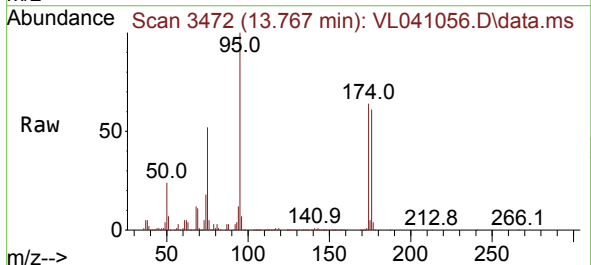
Instrument :
MSVOA_L
ClientSampleId :
IA3

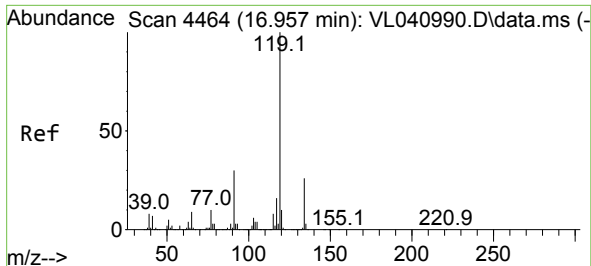
Tgt Ion:104 Resp: 3592
Ion Ratio Lower Upper
104 100
78 43.5 42.7 64.1
103 85.1 37.6 56.4#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.905 ppbv
RT: 13.767 min Scan# 3472
Delta R.T. 0.006 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Tgt Ion: 95 Resp: 2107313
Ion Ratio Lower Upper
95 100
174 64.7 49.1 73.7
175 4.9 3.7 5.5

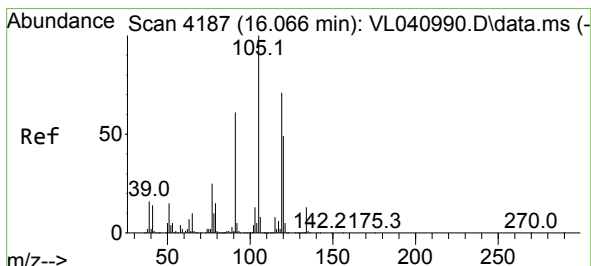
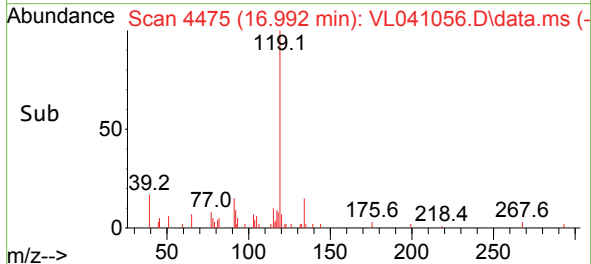
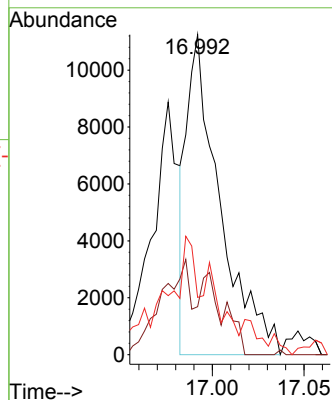
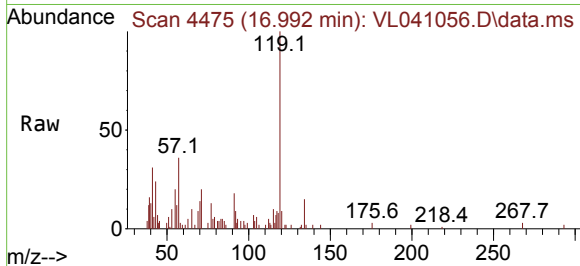




#69
 p-Isopropyltoluene
 Concen: 0.031 ppbv
 RT: 16.992 min Scan# 4464
 Delta R.T. 0.010 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

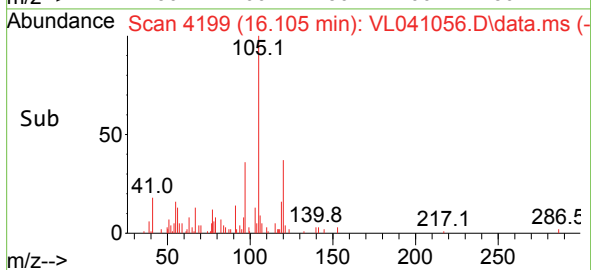
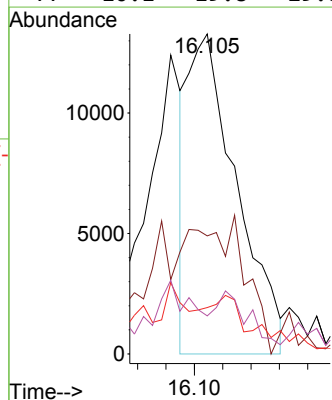
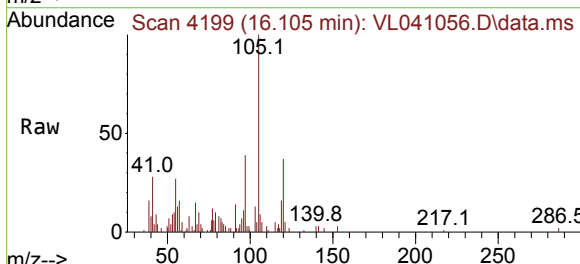
Instrument :
 MSVOA_L
 ClientSampleId :
 IA3

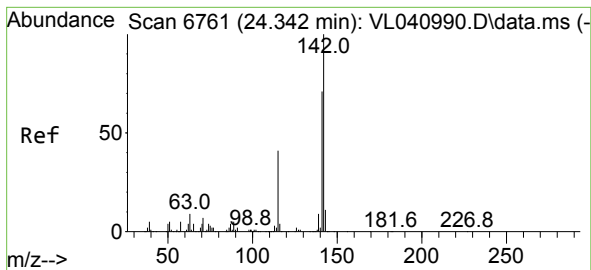
Tgt Ion:119 Resp: 14170
 Ion Ratio Lower Upper
 119 100
 134 45.3 20.6 30.8#
 91 68.3 24.5 36.7#



#74
 1,2,4-Trimethylbenzene
 Concen: 0.045 ppbv
 RT: 16.105 min Scan# 4199
 Delta R.T. 0.010 min
 Lab File: VL041056.D
 Acq: 9 Feb 2024 13:47

Tgt Ion:105 Resp: 15850
 Ion Ratio Lower Upper
 105 100
 120 34.3 39.3 58.9#
 91 9.9 48.7 73.1#
 77 10.1 19.8 29.8#





#80
Naphthalene, 2-methyl-
Concen: 0.030 ppbv
RT: 24.381 min Scan# 61
Delta R.T. 0.016 min
Lab File: VL041056.D
Acq: 9 Feb 2024 13:47

Instrument :
MSVOA_L
ClientSampleId :
IA3

Tgt Ion:142 Resp: 1053
Ion Ratio Lower Upper
142 100
141 26.3 62.7 94.1#
115 118.5 34.0 51.0#

