

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL050624\
 Data File : VL041228.D
 Acq On : 6 May 2024 21:37
 Operator : SY/MD
 Sample : P2353-01 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Quant Time: May 07 05:28:40 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL042924AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue May 07 05:19:44 2024
 Response via : Initial Calibration

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

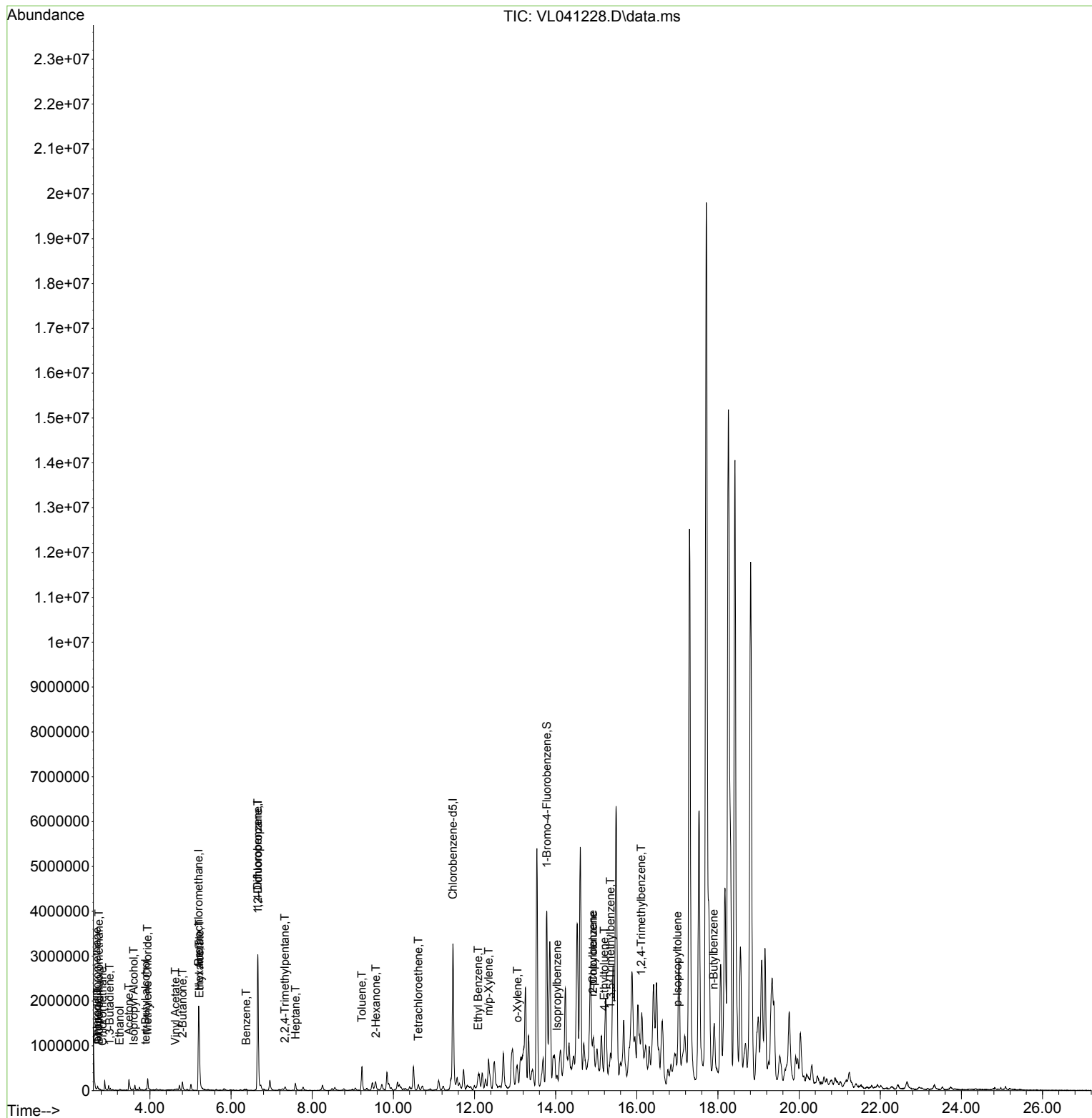
Internal Standards						
1) Bromochloromethane	5.198	49	862244	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	6.658	114	2301413	10.000	ppbv	0.00
55) Chlorobenzene-d5	11.468	117	2130863	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.783	95	1711236	10.637	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	106.400%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.745	85	19032	0.163	ppbv #	88
3) Chlorodifluoromethane	2.690	51	33502	0.256	ppbv	94
4) Chloromethane	2.828	50	3948	0.077	ppbv #	75
9) Propene	2.709	41	32117	0.627	ppbv	97
10) Heptane	7.587	43	64621	0.520	ppbv	88
13) Ethanol	3.253	45	8748	0.761	ppbv #	1
15) Acetone	3.481	43	236582	2.325	ppbv #	74
16) 1,3-Butadiene	3.005	39	2130	0.041	ppbv #	1
17) tert-Butyl alcohol	3.896	59	5921	0.054	ppbv #	8
19) Isopropyl Alcohol	3.597	45	13429	0.201	ppbv #	41
20) Methylene Chloride	3.944	84	78782	2.226	ppbv	91
23) Vinyl Acetate	4.629	43	13050	0.116	ppbv #	89
25) Ethyl Acetate	5.221	43	166408	0.819	ppbv #	78
26) Hexane	5.217	57	239388	2.641	ppbv #	40
34) 2-Butanone	4.803	43	205518	1.755	ppbv	100
36) Benzene	6.375	78	7505	0.039	ppbv #	68
39) 1,2-Dichloropropane	6.661	63	586421	7.879	ppbv #	24
44) 2,2,4-Trimethylpentane	7.327	57	25169	0.076	ppbv #	1
51) 2-Hexanone	9.568	43	187937	1.205	ppbv #	93
52) Tetrachloroethene	10.616	164	13307	0.196	ppbv	95
53) Toluene	9.224	91	401861	1.795	ppbv	100
58) Ethyl Benzene	12.089	91	111076	0.380	ppbv	93
59) m/p-Xylene	12.349	91	624569	2.543	ppbv	97
60) o-Xylene	13.056	91	298719	1.298	ppbv	100
62) Isopropylbenzene	14.034	105	41412	0.120	ppbv #	56
64) n-propylbenzene	14.915	120	23598	0.275	ppbv #	1
69) p-Isopropyltoluene	17.002	119	11693	0.033	ppbv #	18
70) n-Butylbenzene	17.892	91	36212	0.097	ppbv #	33
71) 2-Chlorotoluene	14.924	91	84943	0.324	ppbv	92
72) 4-Ethyltoluene	15.198	105	170954	0.656	ppbv #	90
73) 1,3,5-Trimethylbenzene	15.352	105	75819	0.321	ppbv	100
74) 1,2,4-Trimethylbenzene	16.111	105	444726	1.726	ppbv #	69

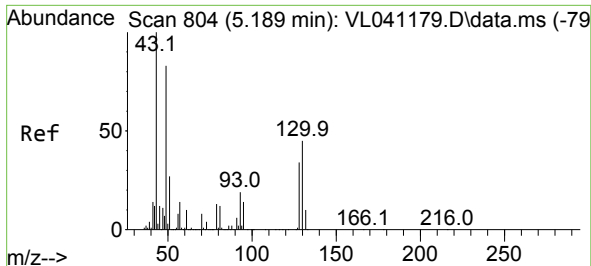
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.198 min Scan# 80

Delta R.T. 0.003 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

SV1

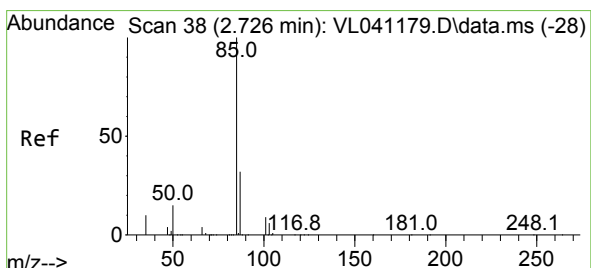
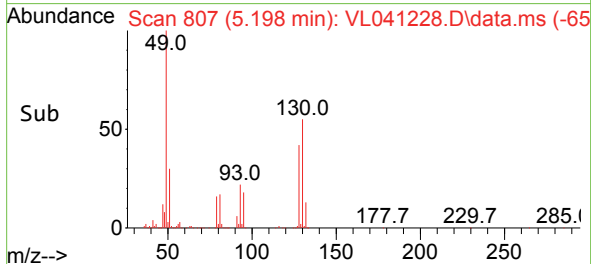
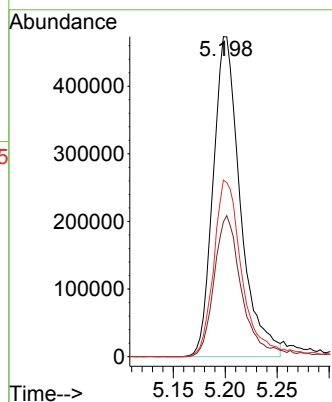
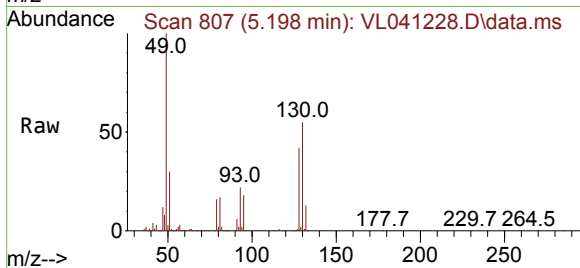
Tgt Ion: 49 Resp: 862244

Ion Ratio Lower Upper

49 100

128 46.6 21.5 64.5

130 58.7 27.2 81.6



#2

Dichlorodifluoromethane

Concen: 0.163 ppbv

RT: 2.745 min Scan# 44

Delta R.T. 0.006 min

Lab File: VL041228.D

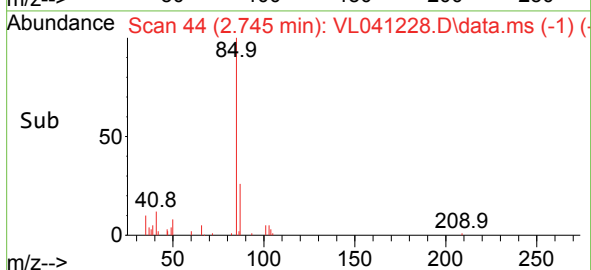
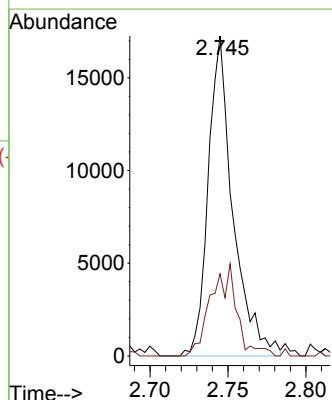
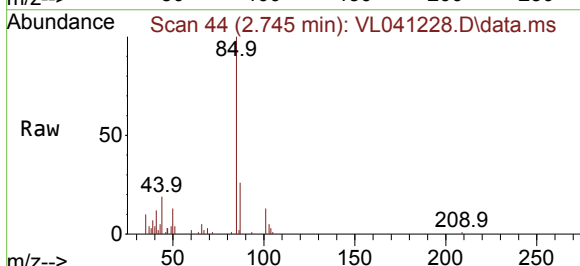
Acq: 6 May 2024 21:37

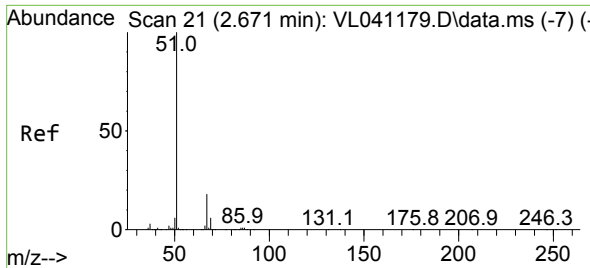
Tgt Ion: 85 Resp: 19032

Ion Ratio Lower Upper

85 100

87 25.7 25.7 38.5#

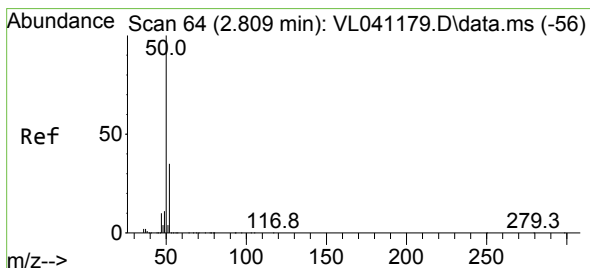
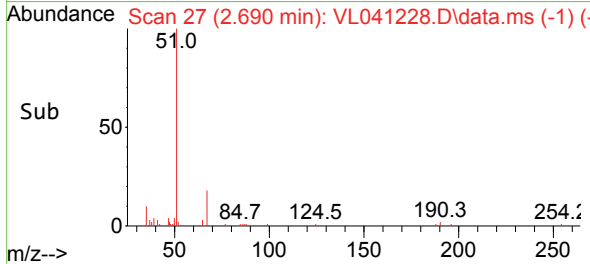
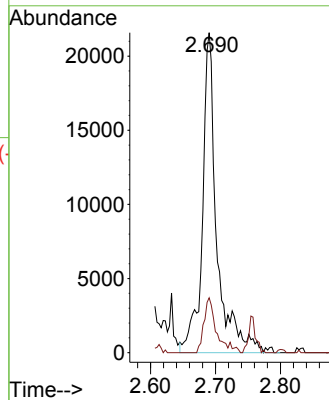
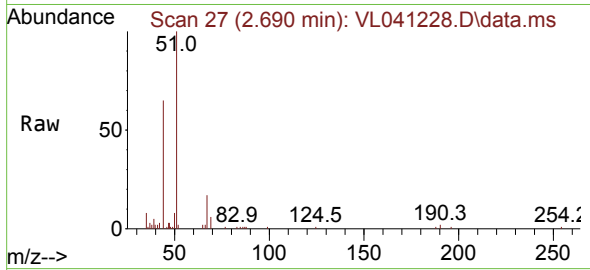




#3
Chlorodifluoromethane
Concen: 0.256 ppbv
RT: 2.690 min Scan# 21
Delta R.T. 0.006 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

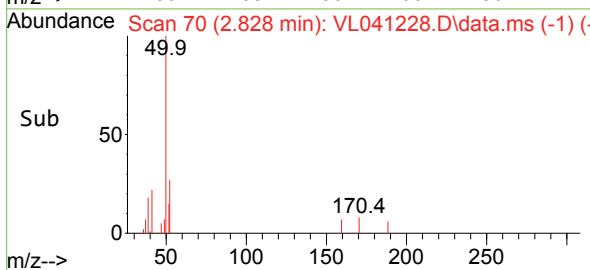
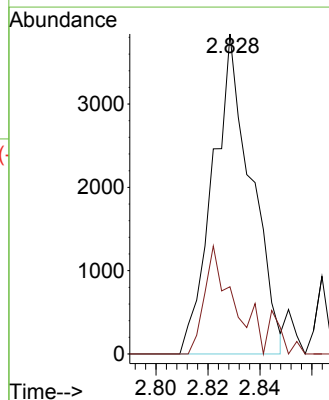
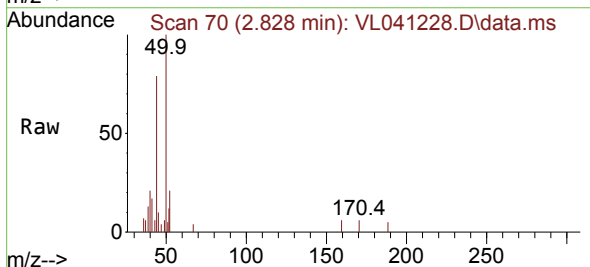
Instrument :
MSVOA_L
ClientSampleId :
SV1

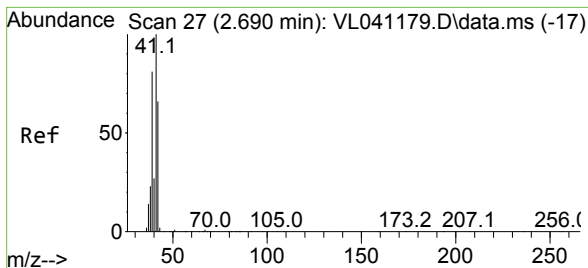
Tgt Ion: 51 Resp: 33502
Ion Ratio Lower Upper
51 100
67 14.8 14.0 21.0



#4
Chloromethane
Concen: 0.077 ppbv
RT: 2.828 min Scan# 70
Delta R.T. 0.006 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion: 50 Resp: 3948
Ion Ratio Lower Upper
50 100
52 21.0 28.3 42.5#





#9

Propene

Concen: 0.627 ppbv

RT: 2.709 min Scan# 31

Delta R.T. 0.006 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

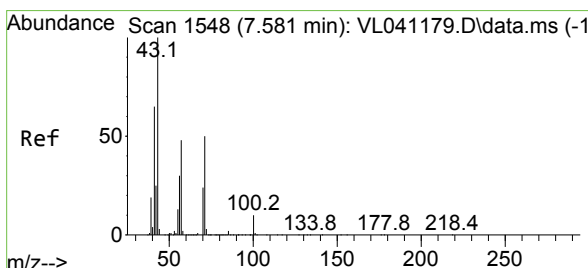
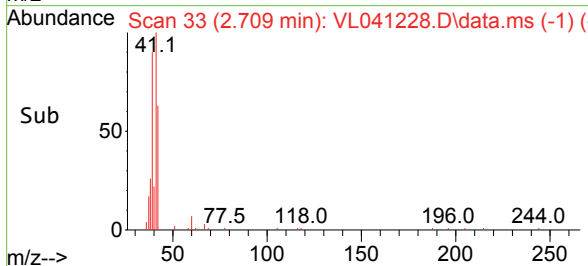
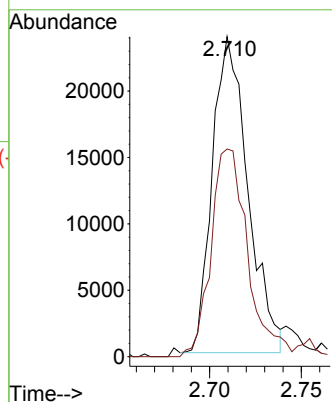
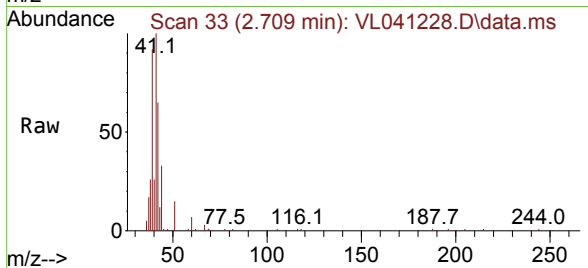
SV1

Tgt Ion: 41 Resp: 32117

Ion Ratio Lower Upper

41 100

42 71.5 55.3 82.9



#10

Heptane

Concen: 0.520 ppbv

RT: 7.587 min Scan# 1550

Delta R.T. 0.010 min

Lab File: VL041228.D

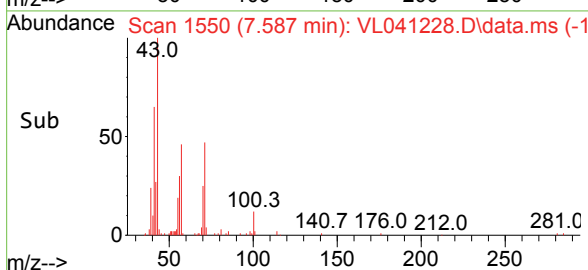
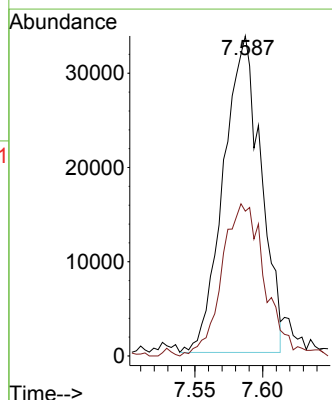
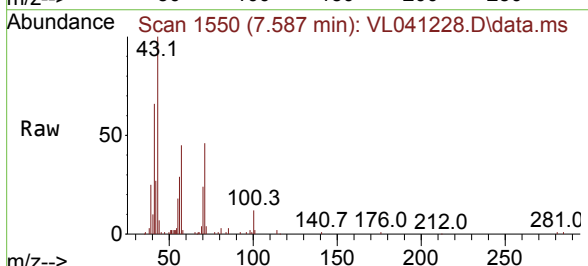
Acq: 6 May 2024 21:37

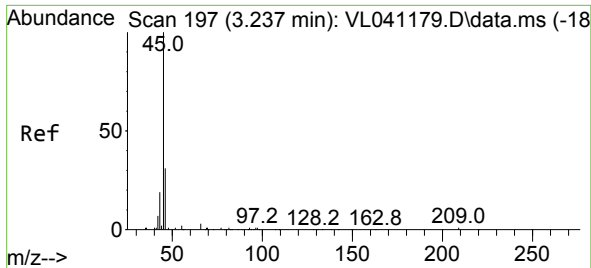
Tgt Ion: 43 Resp: 64621

Ion Ratio Lower Upper

43 100

57 56.2 38.7 58.1

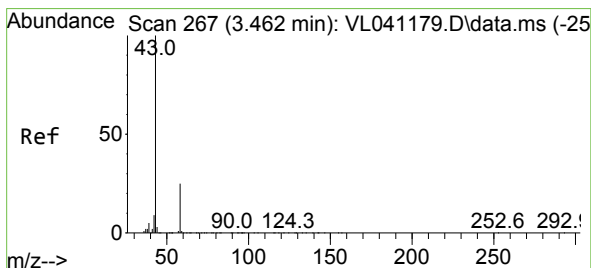
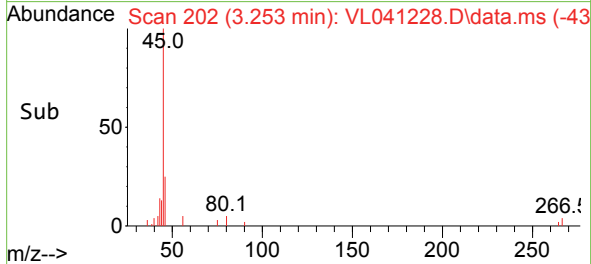
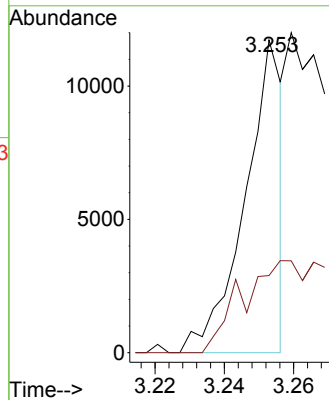
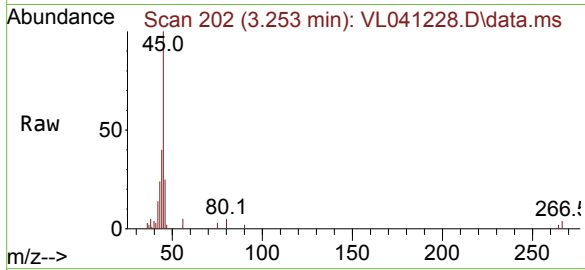




#13
Ethanol
Concen: 0.761 ppbv
RT: 3.253 min Scan# 20
Delta R.T. 0.010 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

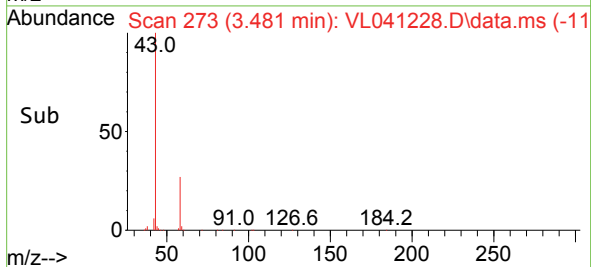
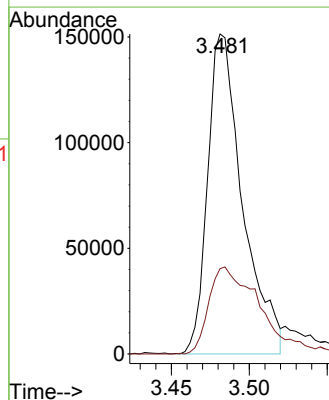
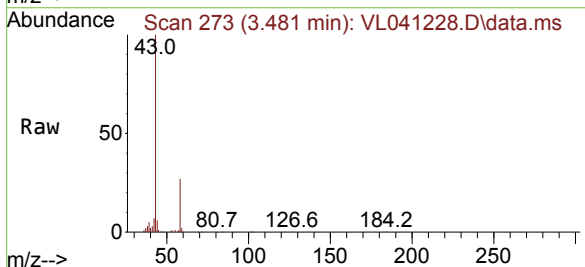
Instrument :
MSVOA_L
ClientSampleId :
SV1

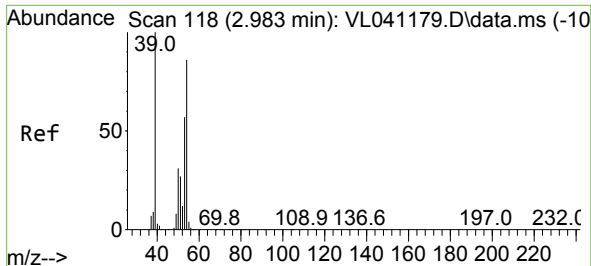
Tgt Ion: 45 Resp: 8748
Ion Ratio Lower Upper
45 100
46 114.2 14.8 59.0#



#15
Acetone
Concen: 2.325 ppbv
RT: 3.481 min Scan# 273
Delta R.T. 0.007 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion: 43 Resp: 236582
Ion Ratio Lower Upper
43 100
58 40.0 21.4 32.0#





#16

1,3-Butadiene

Concen: 0.041 ppbv

RT: 3.005 min Scan# 11

Delta R.T. 0.013 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

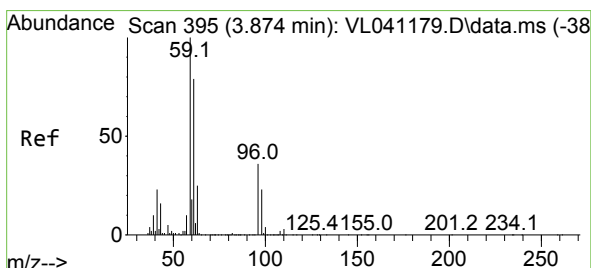
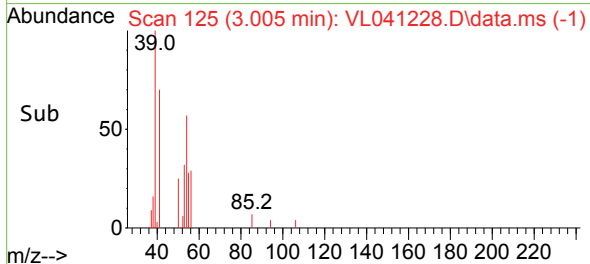
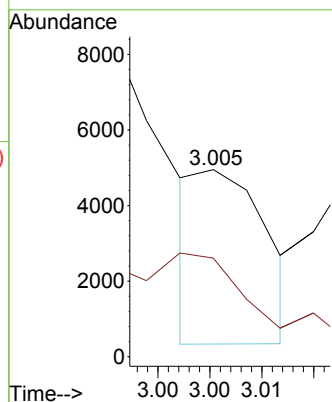
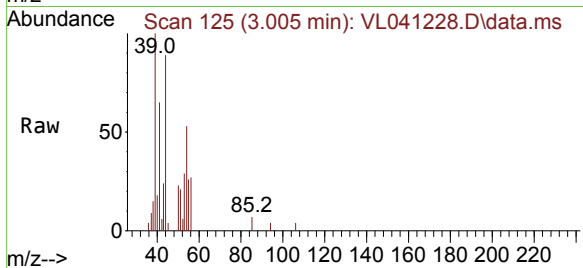
SV1

Tgt Ion: 39 Resp: 2130

Ion Ratio Lower Upper

39 100

54 244.4 62.2 93.4#



#17

tert-Butyl alcohol

Concen: 0.054 ppbv

RT: 3.896 min Scan# 402

Delta R.T. 0.013 min

Lab File: VL041228.D

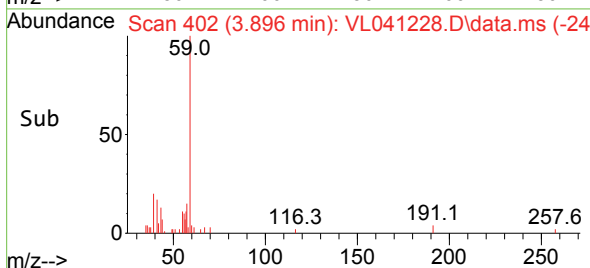
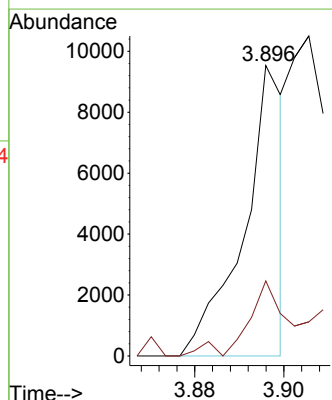
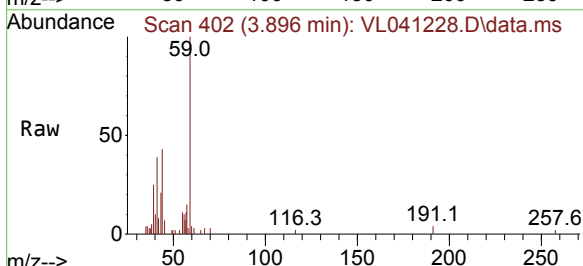
Acq: 6 May 2024 21:37

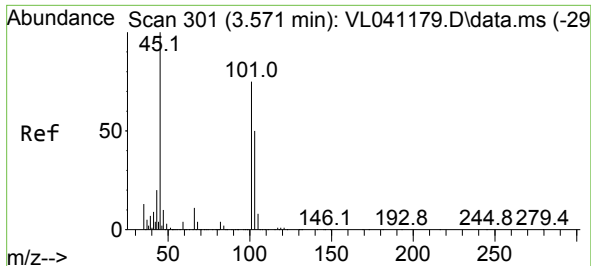
Tgt Ion: 59 Resp: 5921

Ion Ratio Lower Upper

59 100

57 45.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 0.201 ppbv

RT: 3.597 min Scan# 301

Delta R.T. 0.016 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

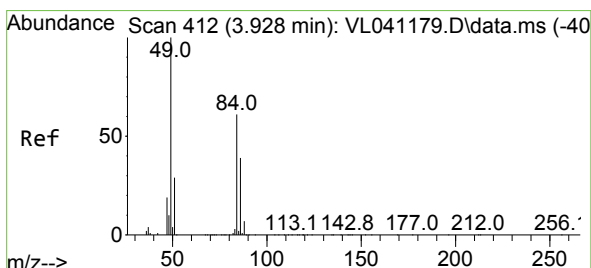
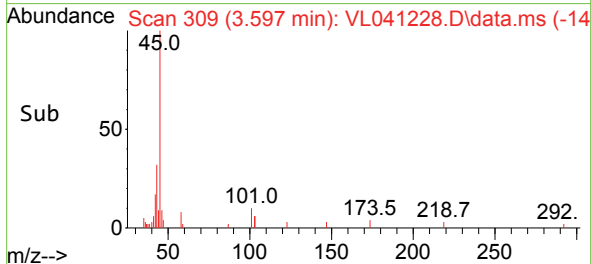
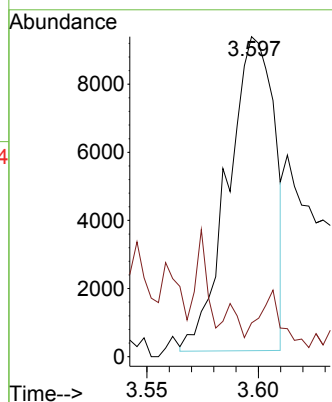
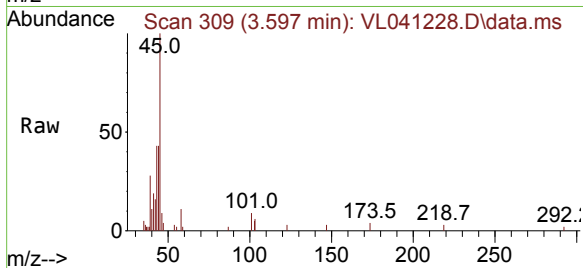
SV1

Tgt Ion: 45 Resp: 13429

Ion Ratio Lower Upper

45 100

58 0.0 26.8 40.2#



#20

Methylene Chloride

Concen: 2.226 ppbv

RT: 3.944 min Scan# 417

Delta R.T. 0.006 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Tgt Ion: 84 Resp: 78782

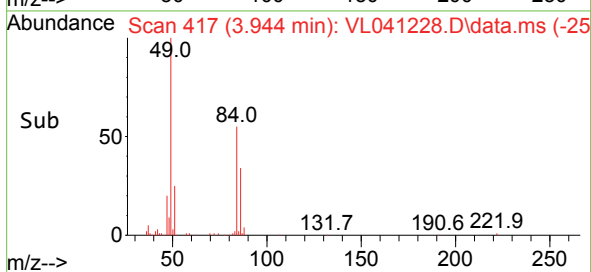
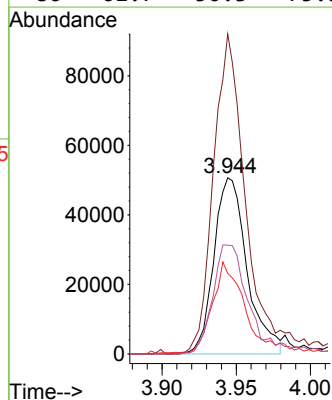
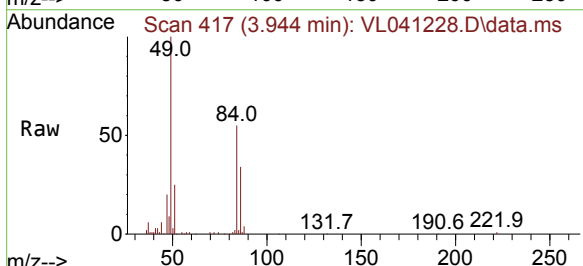
Ion Ratio Lower Upper

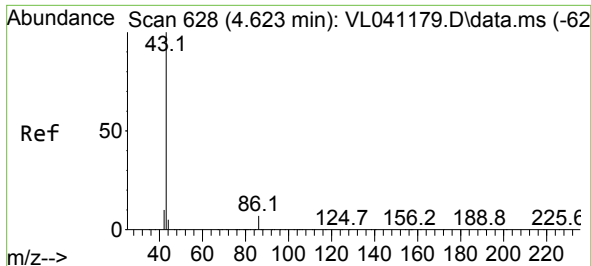
84 100

49 180.9 130.4 195.6

51 44.9 38.0 57.0

86 61.7 50.3 75.5

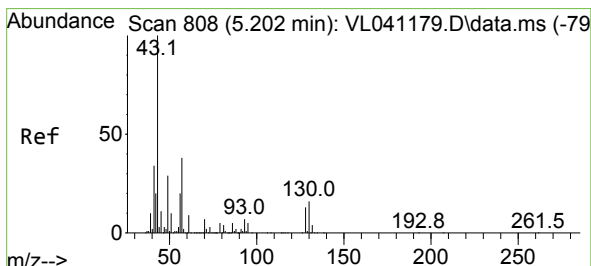
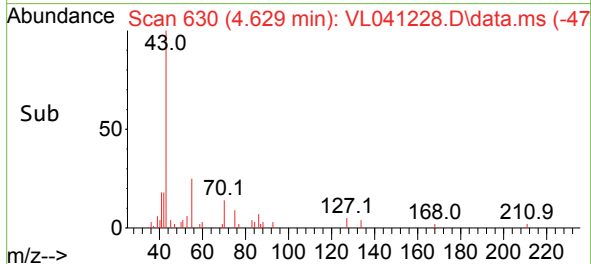
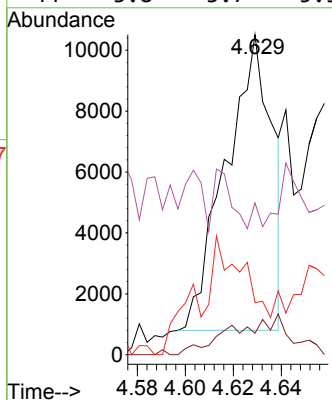
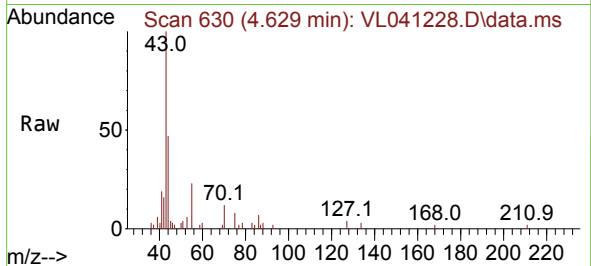




#23
Vinyl Acetate
Concen: 0.116 ppbv
RT: 4.629 min Scan# 61
Delta R.T. 0.000 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

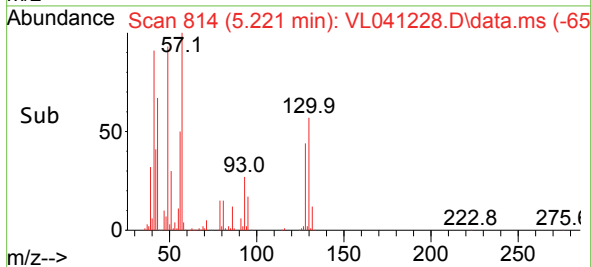
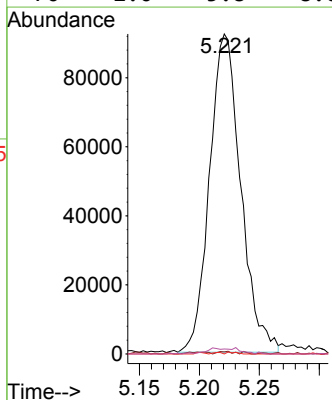
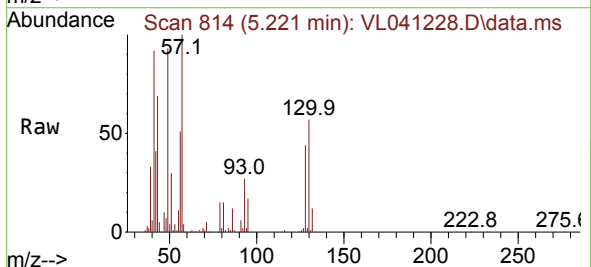
Instrument :
MSVOA_L
ClientSampleId :
SV1

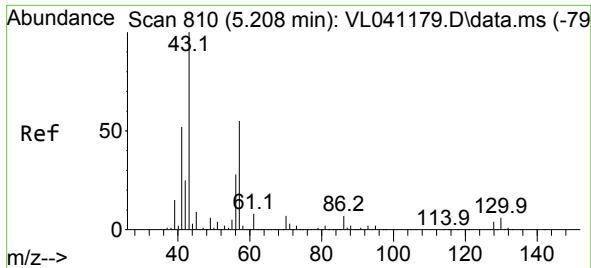
Tgt Ion:	43	Resp:	13050
Ion	Ratio	Lower	Upper
43	100		
86	7.3	4.9	7.3
42	3.1	8.0	12.0#
44	3.8	3.7	5.5



#25
Ethyl Acetate
Concen: 0.819 ppbv
RT: 5.221 min Scan# 814
Delta R.T. 0.016 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion:	43	Resp:	166408
Ion	Ratio	Lower	Upper
43	100		
45	1.0	8.2	12.2#
61	0.3	7.7	11.5#
70	2.0	5.8	8.6#

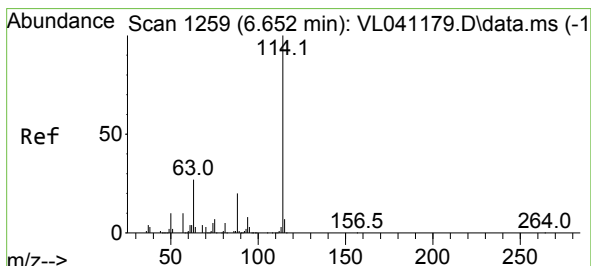
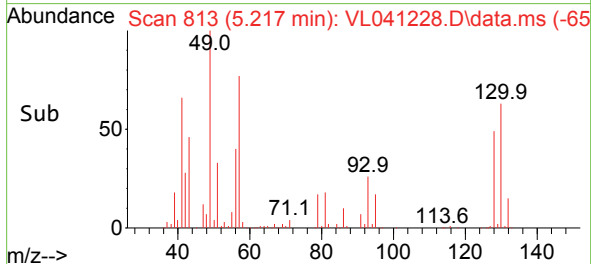
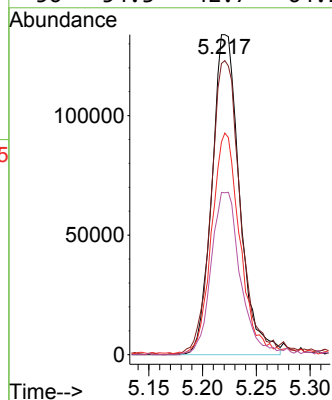
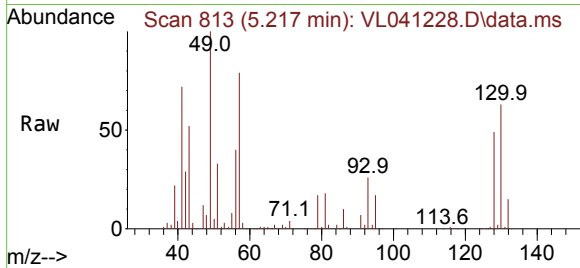




#26
Hexane
Concen: 2.641 ppbv
RT: 5.217 min Scan# 810
Delta R.T. 0.003 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

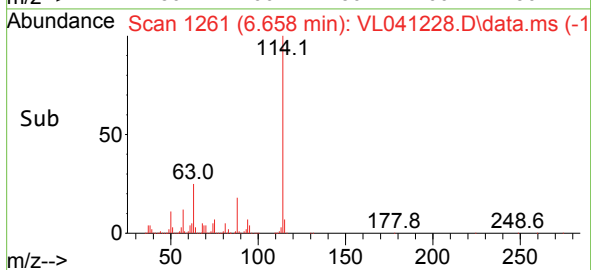
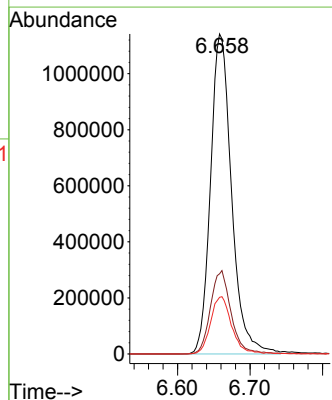
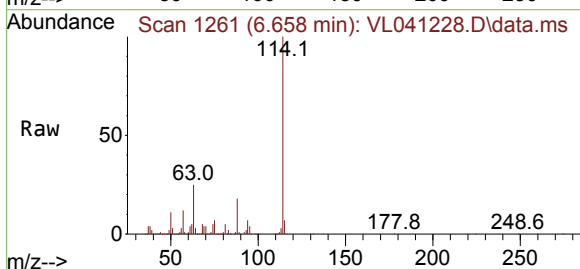
Instrument :
MSVOA_L
ClientSampleId :
SV1

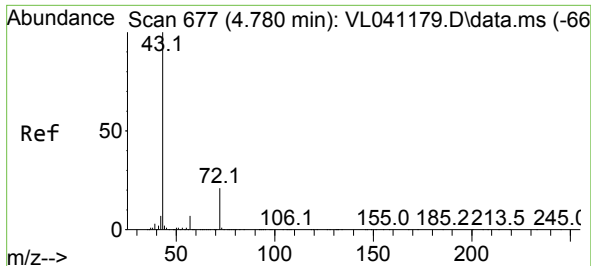
Tgt Ion: 57 Resp: 239388
Ion Ratio Lower Upper
57 100
41 99.4 75.8 113.8
43 74.2 187.0 280.4#
56 54.3 42.7 64.1



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.658 min Scan# 1261
Delta R.T. 0.003 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion:114 Resp: 2301413
Ion Ratio Lower Upper
114 100
63 25.8 21.8 32.6
88 18.2 15.2 22.8

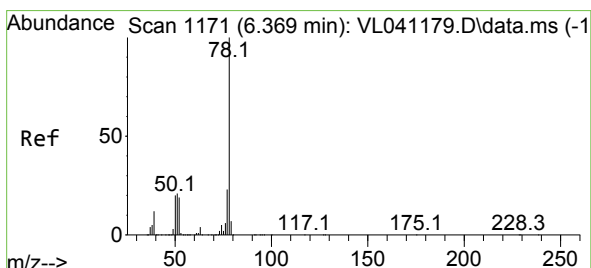
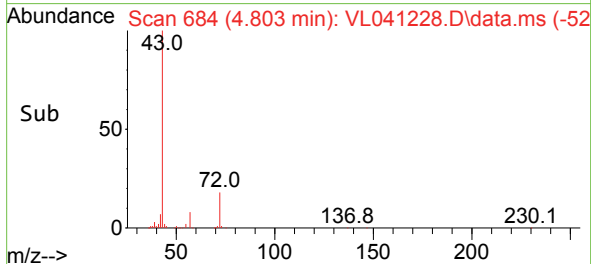
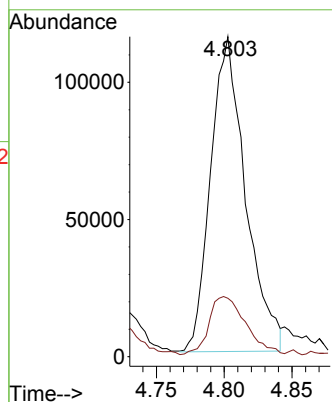
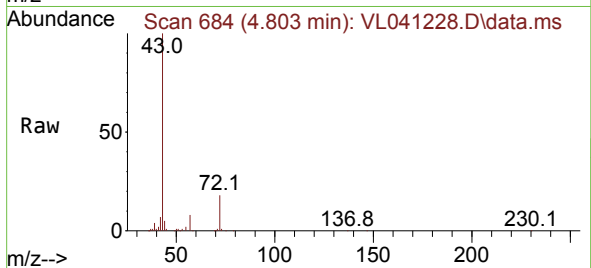




#34
2-Butanone
Concen: 1.755 ppbv
RT: 4.803 min Scan# 61
Delta R.T. 0.016 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

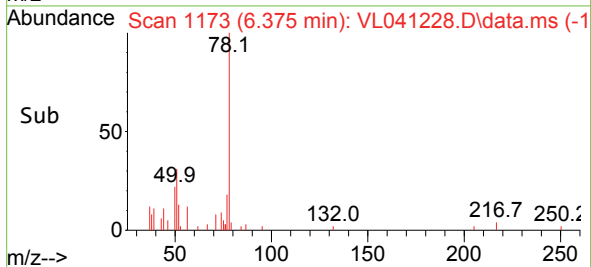
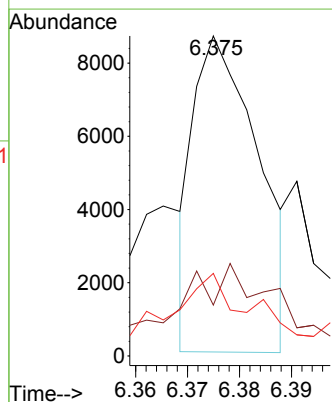
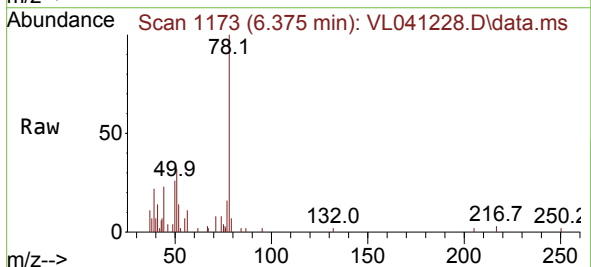
Instrument :
MSVOA_L
ClientSampleId :
SV1

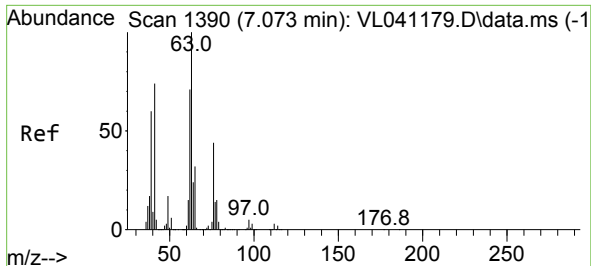
Tgt Ion: 43 Resp: 205518
Ion Ratio Lower Upper
43 100
72 21.6 17.3 25.9



#36
Benzene
Concen: 0.039 ppbv
RT: 6.375 min Scan# 1173
Delta R.T. 0.003 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion: 78 Resp: 7505
Ion Ratio Lower Upper
78 100
77 2.1 18.3 27.5#
50 28.6 15.9 23.9#





#39

1,2-Dichloropropane

Concen: 7.879 ppbv

RT: 6.661 min Scan# 11

Delta R.T. -0.412 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

SV1

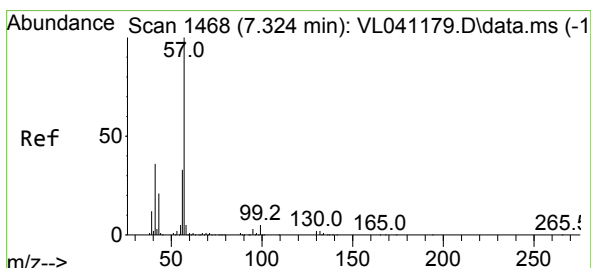
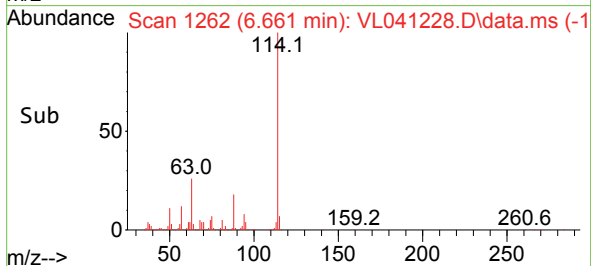
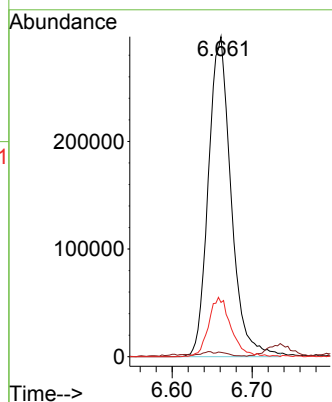
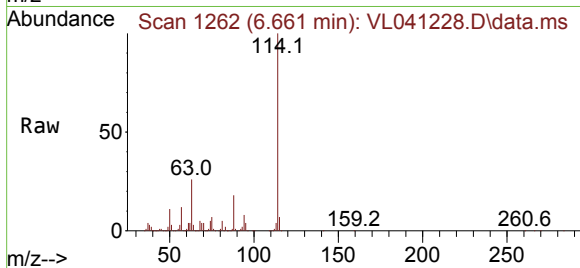
Tgt Ion: 63 Resp: 586421

Ion Ratio Lower Upper

63 100

41 0.7 59.4 89.0#

62 16.9 56.8 85.2#



#44

2,2,4-Trimethylpentane

Concen: 0.076 ppbv

RT: 7.327 min Scan# 1469

Delta R.T. 0.000 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

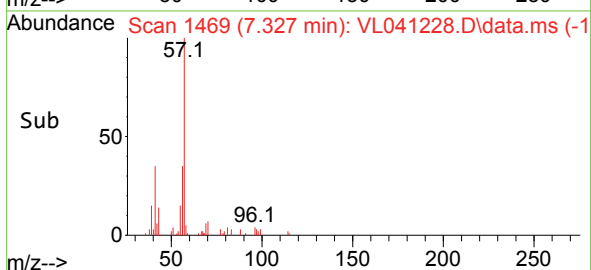
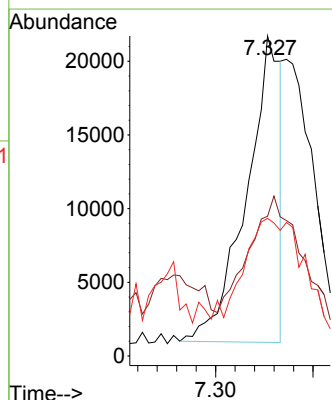
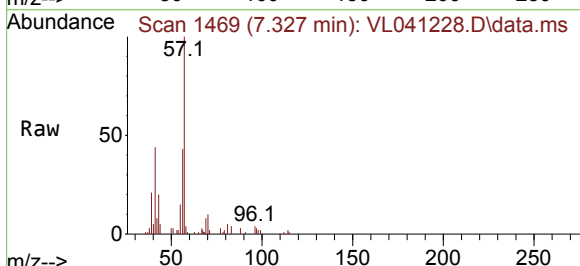
Tgt Ion: 57 Resp: 25169

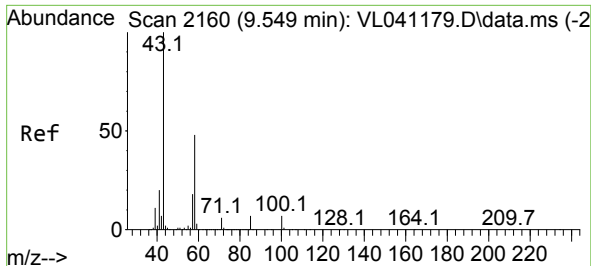
Ion Ratio Lower Upper

57 100

41 96.1 29.5 44.3#

56 91.2 25.3 37.9#

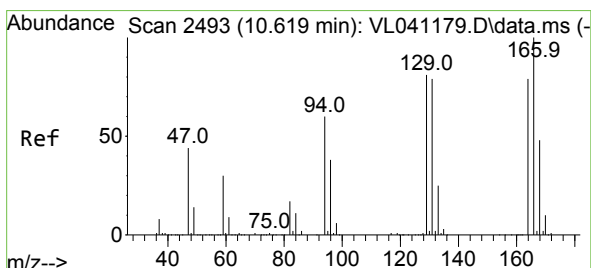
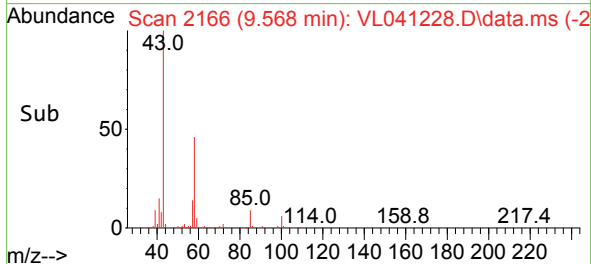
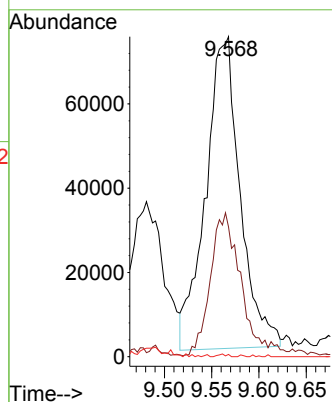
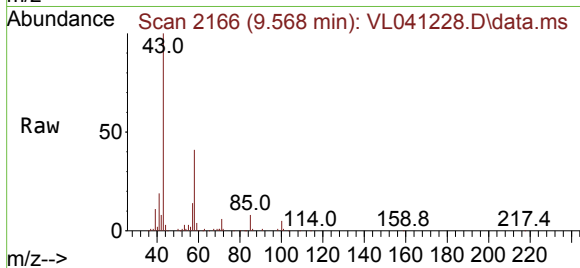




#51
2-Hexanone
Concen: 1.205 ppbv
RT: 9.568 min Scan# 2166
Delta R.T. 0.019 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

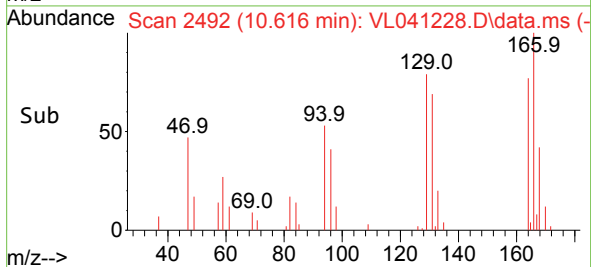
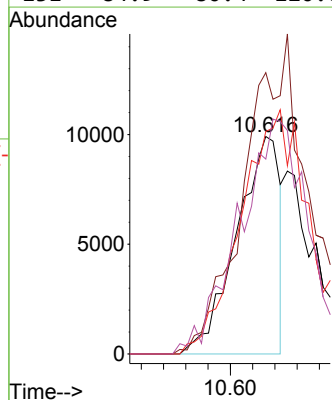
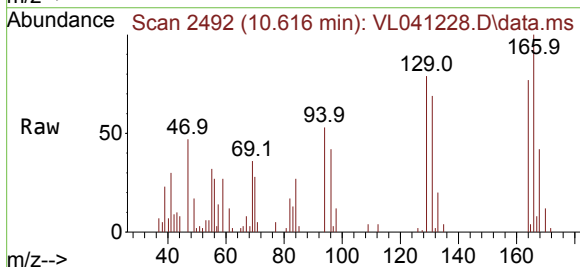
Instrument :
MSVOA_L
ClientSampleId :
SV1

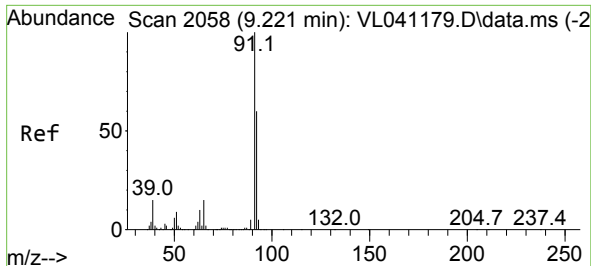
Tgt Ion: 43 Resp: 187937
Ion Ratio Lower Upper
43 100
58 43.3 38.4 57.6
98 0.4 0.0 0.0#



#52
Tetrachloroethene
Concen: 0.196 ppbv
RT: 10.616 min Scan# 2492
Delta R.T. 0.003 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion: 164 Resp: 13307
Ion Ratio Lower Upper
164 100
166 127.3 101.1 151.7
129 102.4 81.7 122.5
131 84.9 80.4 120.6





#53

Toluene

Concen: 1.795 ppbv

RT: 9.224 min Scan# 2058

Delta R.T. 0.003 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

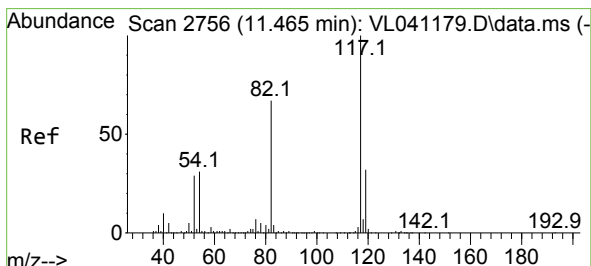
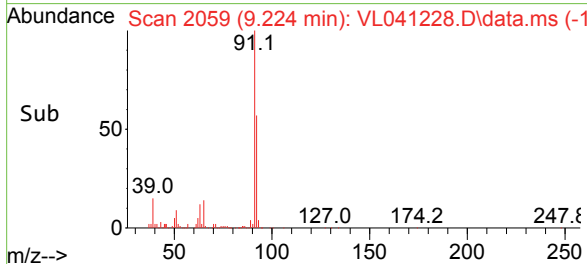
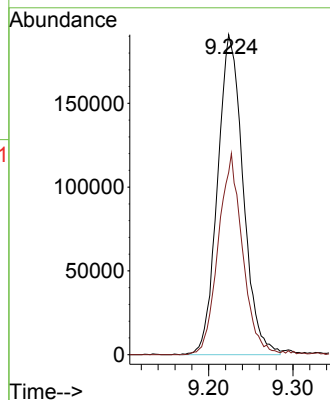
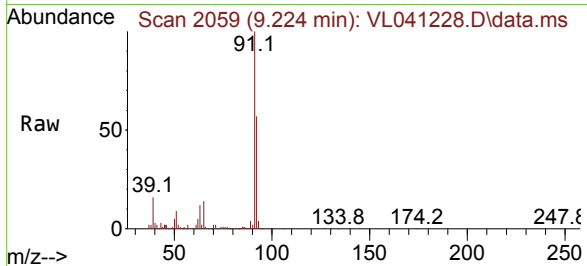
SV1

Tgt Ion: 91 Resp: 401861

Ion Ratio Lower Upper

91 100

92 60.6 48.2 72.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 11.468 min Scan# 2757

Delta R.T. 0.003 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

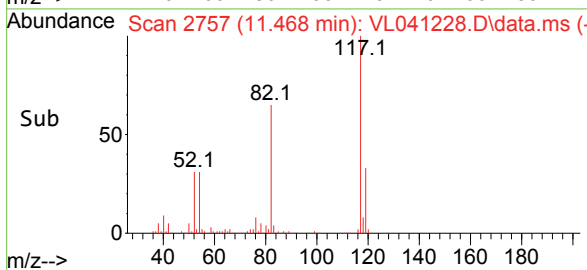
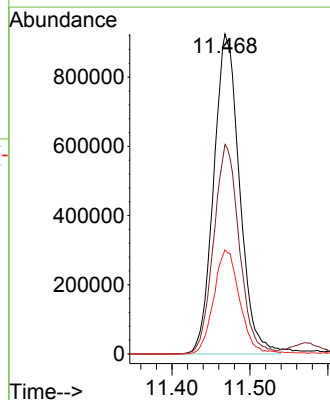
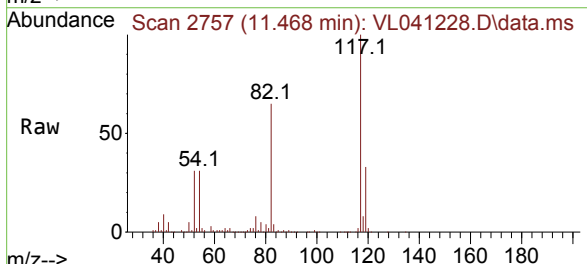
Tgt Ion: 117 Resp: 2130863

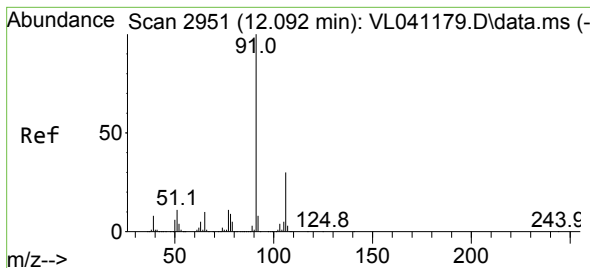
Ion Ratio Lower Upper

117 100

82 64.9 53.6 80.4

119 33.5 27.2 40.8





#58

Ethyl Benzene

Concen: 0.380 ppbv

RT: 12.089 min Scan# 2951

Delta R.T. 0.003 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

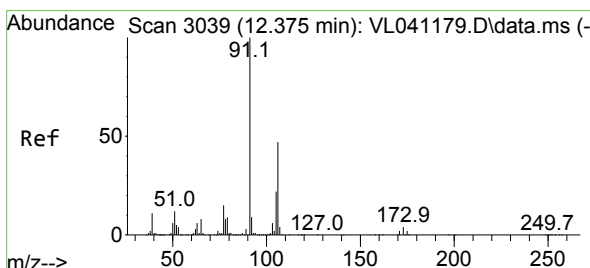
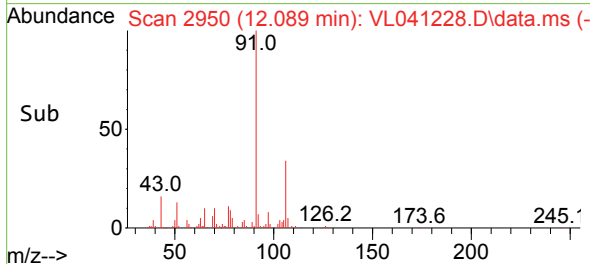
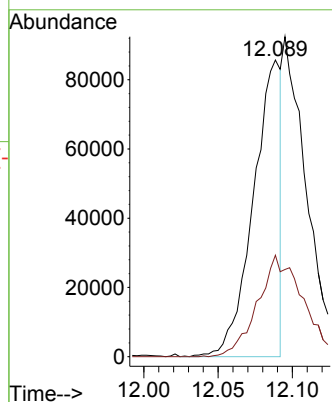
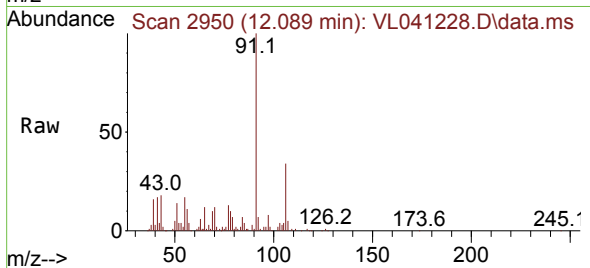
SV1

Tgt Ion: 91 Resp: 111076

Ion Ratio Lower Upper

91 100

106 34.2 24.3 36.5



#59

m/p-Xylene

Concen: 2.543 ppbv

RT: 12.349 min Scan# 3031

Delta R.T. -0.019 min

Lab File: VL041228.D

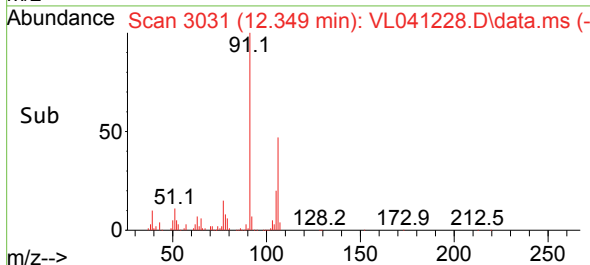
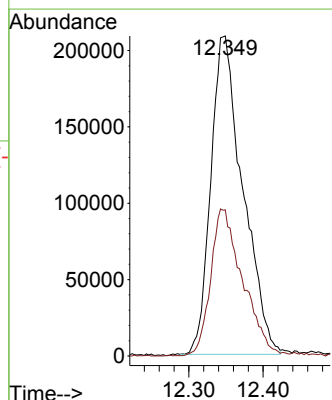
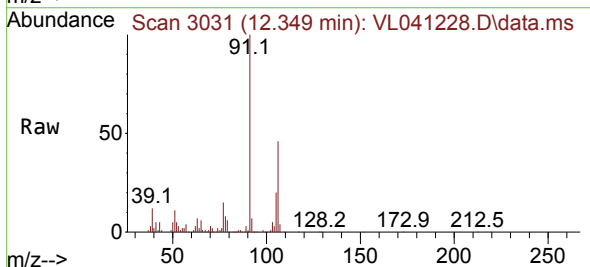
Acq: 6 May 2024 21:37

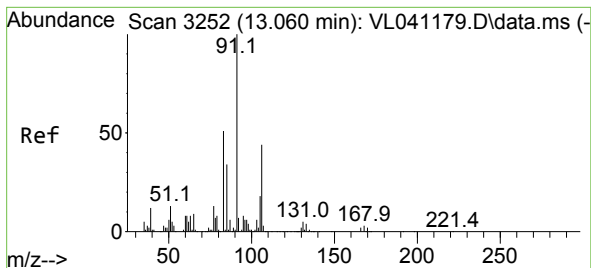
Tgt Ion: 91 Resp: 624569

Ion Ratio Lower Upper

91 100

106 46.3 35.7 53.5





#60

o-Xylene

Concen: 1.298 ppbv

RT: 13.056 min Scan# 31

Delta R.T. 0.000 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

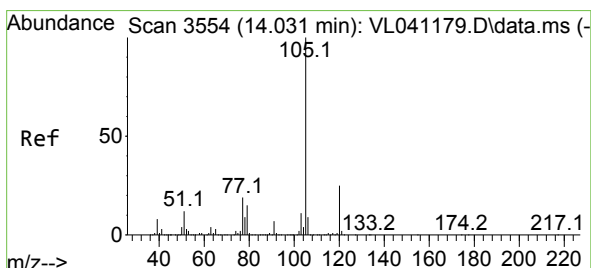
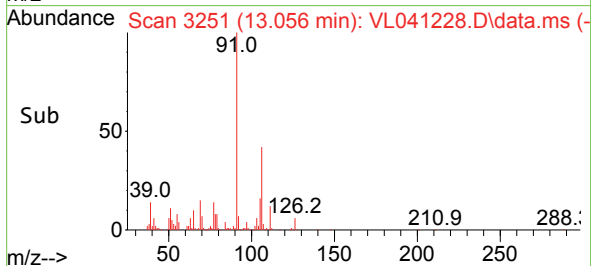
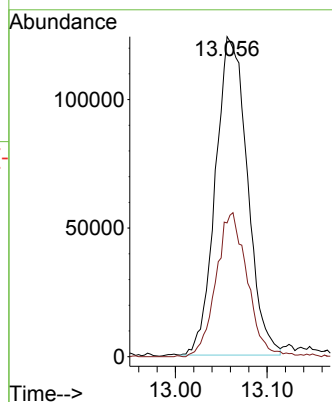
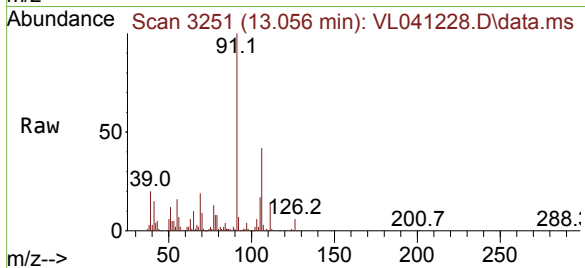
SV1

Tgt Ion: 91 Resp: 298719

Ion Ratio Lower Upper

91 100

106 44.8 22.4 67.3



#62

Isopropylbenzene

Concen: 0.120 ppbv

RT: 14.034 min Scan# 3555

Delta R.T. 0.006 min

Lab File: VL041228.D

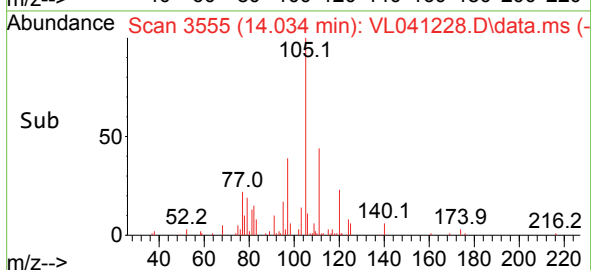
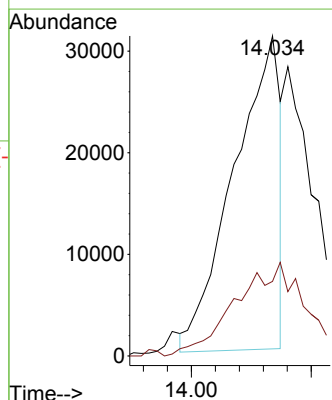
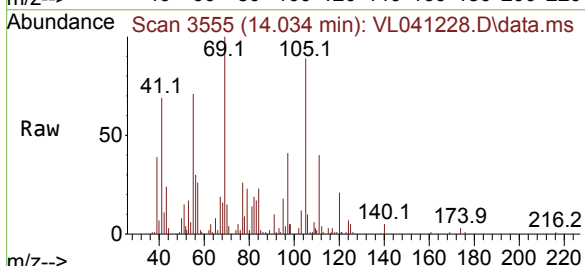
Acq: 6 May 2024 21:37

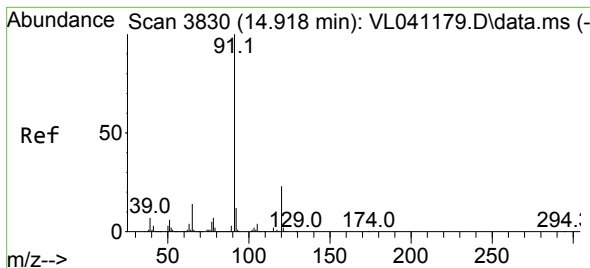
Tgt Ion: 105 Resp: 41412

Ion Ratio Lower Upper

105 100

120 47.4 20.2 30.2#





#64

n-propylbenzene

Concen: 0.275 ppbv

RT: 14.915 min Scan# 3829

Delta R.T. 0.003 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

Instrument :

MSVOA_L

ClientSampleId :

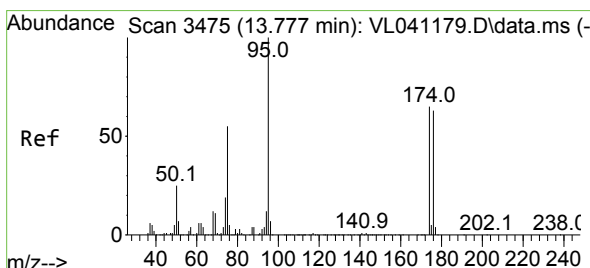
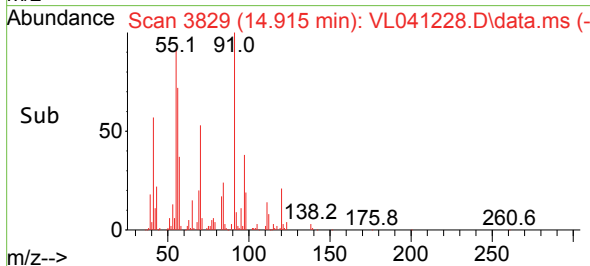
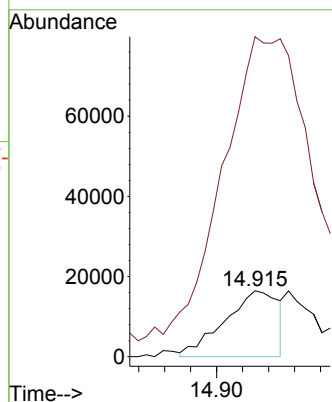
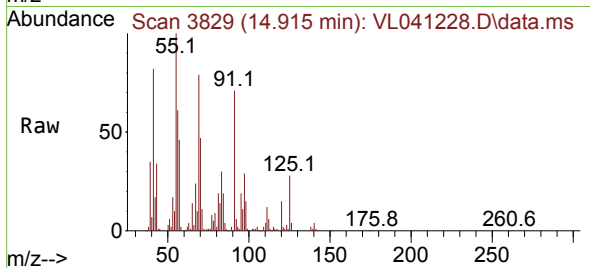
SV1

Tgt Ion:120 Resp: 23598

Ion Ratio Lower Upper

120 100

91 851.4 384.8 577.2#



#68

1-Bromo-4-Fluorobenzene

Concen: 10.637 ppbv

RT: 13.783 min Scan# 3477

Delta R.T. 0.010 min

Lab File: VL041228.D

Acq: 6 May 2024 21:37

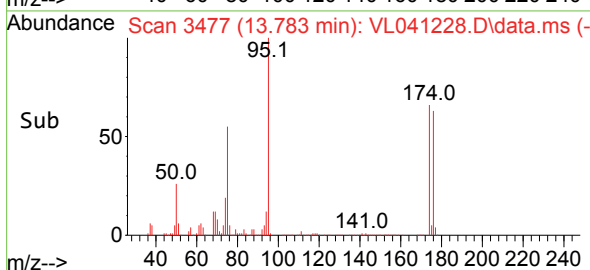
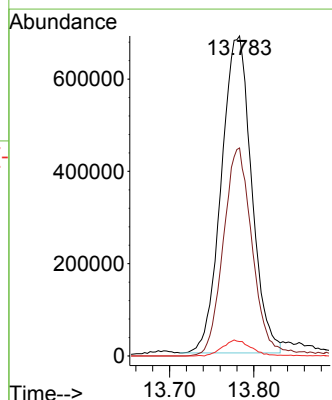
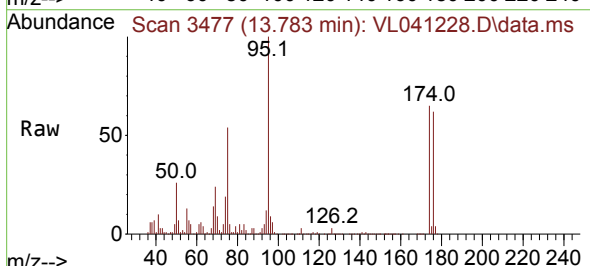
Tgt Ion: 95 Resp: 1711236

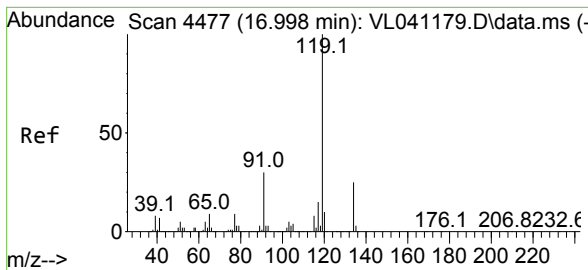
Ion Ratio Lower Upper

95 100

174 65.2 53.6 80.4

175 4.9 4.2 6.4

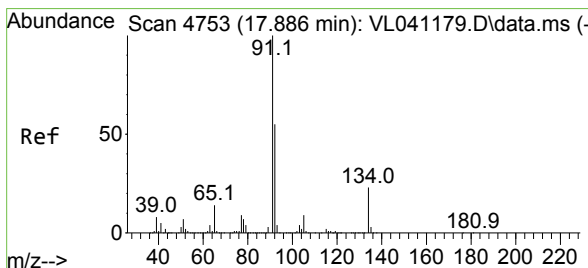
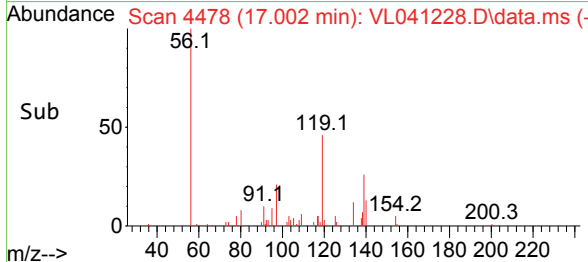
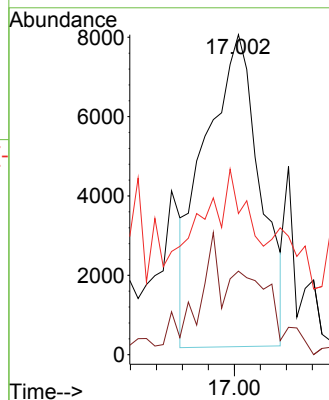
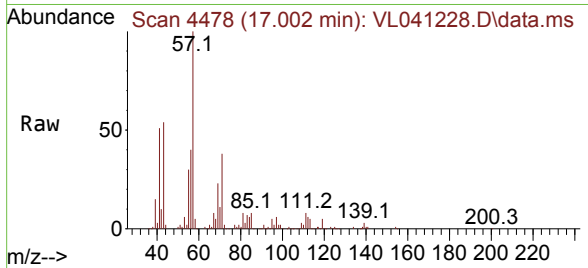




#69
p-Isopropyltoluene
Concen: 0.033 ppbv
RT: 17.002 min Scan# 4478
Delta R.T. 0.010 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

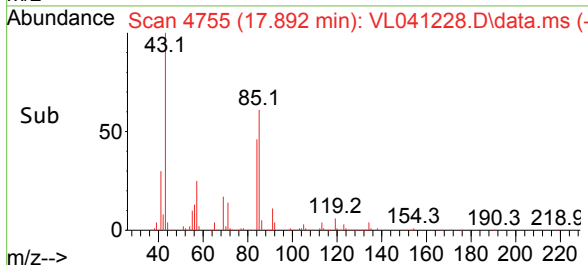
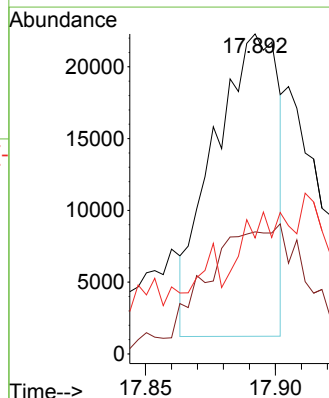
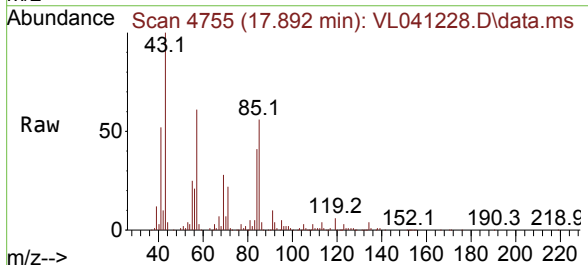
Instrument :
MSVOA_L
ClientSampleId :
SV1

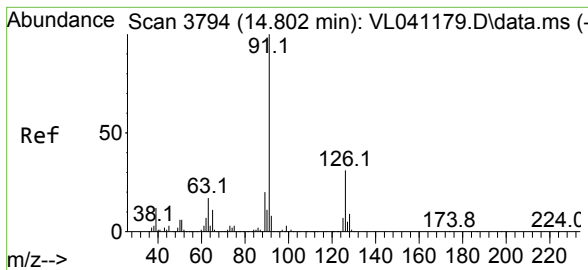
Tgt Ion:119 Resp: 11693
Ion Ratio Lower Upper
119 100
134 43.6 20.1 30.1#
91 95.7 24.2 36.2#



#70
n-Butylbenzene
Concen: 0.097 ppbv
RT: 17.892 min Scan# 4755
Delta R.T. 0.010 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion: 91 Resp: 36212
Ion Ratio Lower Upper
91 100
92 0.0 43.3 64.9#
134 0.0 17.8 26.8#

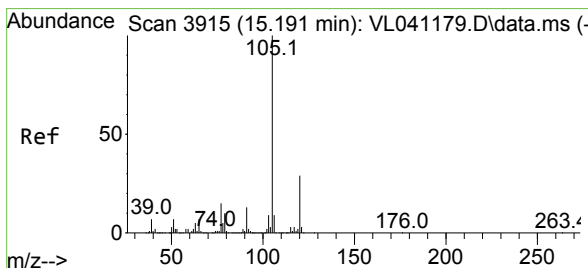
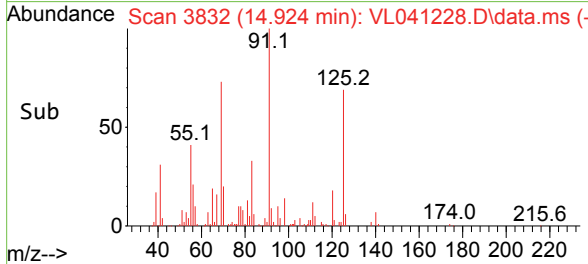
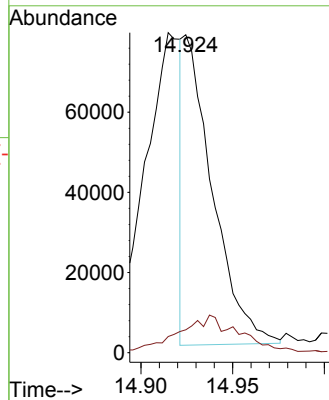
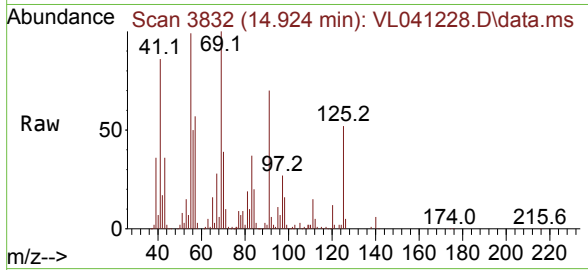




#71
2-Chlorotoluene
Concen: 0.324 ppbv
RT: 14.924 min Scan# 3832
Delta R.T. 0.129 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

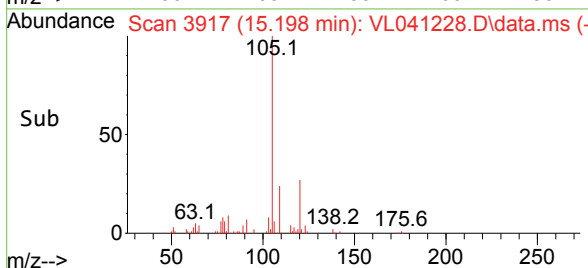
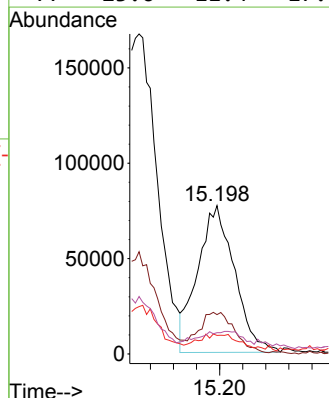
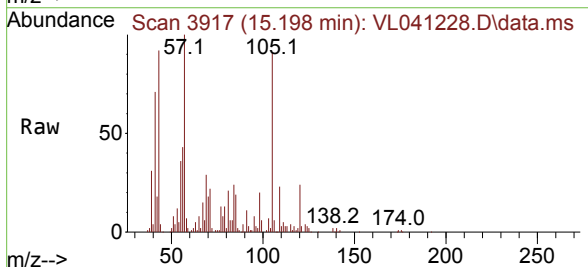
Instrument :
MSVOA_L
ClientSampleId :
SV1

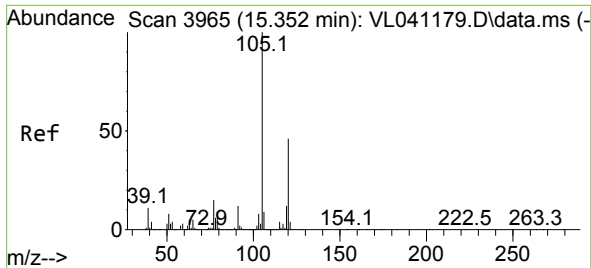
Tgt Ion: 91 Resp: 84943
Ion Ratio Lower Upper
91 100
126 26.2 12.2 48.8



#72
4-Ethyltoluene
Concen: 0.656 ppbv
RT: 15.198 min Scan# 3917
Delta R.T. 0.010 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion: 105 Resp: 170954
Ion Ratio Lower Upper
105 100
120 30.0 24.7 37.1
91 19.4 10.3 15.5#
77 23.6 11.4 17.0#

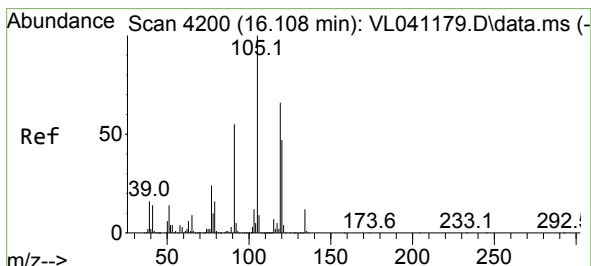
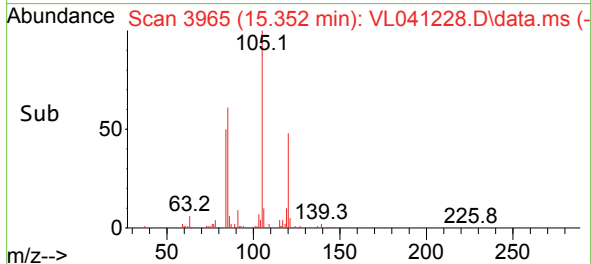
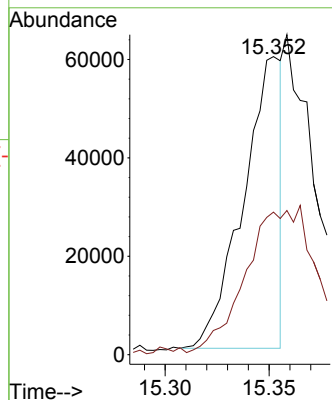
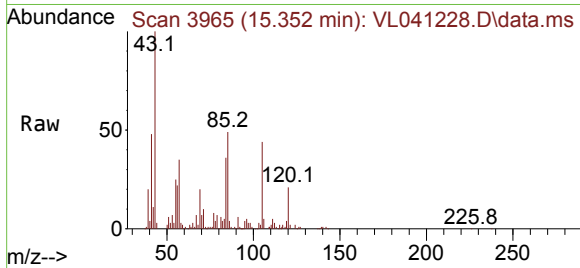




#73
1,3,5-Trimethylbenzene
Concen: 0.321 ppbv
RT: 15.352 min Scan# 3965
Delta R.T. 0.003 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tgt Ion:105 Resp: 75819
Ion Ratio Lower Upper
105 100
120 46.5 37.0 55.4



#74
1,2,4-Trimethylbenzene
Concen: 1.726 ppbv
RT: 16.111 min Scan# 4201
Delta R.T. 0.007 min
Lab File: VL041228.D
Acq: 6 May 2024 21:37

Tgt Ion:105 Resp: 444726
Ion Ratio Lower Upper
105 100
120 44.4 37.8 56.6
91 11.6 44.3 66.5#
77 16.3 19.0 28.4#

