

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL041923\
 Data File : VL040393.D
 Acq On : 19 Apr 2023 23:40
 Operator : SY/MD
 Sample : 02410-02DL 20X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Apr 20 07:50:18 2023
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Thu Apr 13 14:37:02 2023
 Response via : Initial Calibration

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

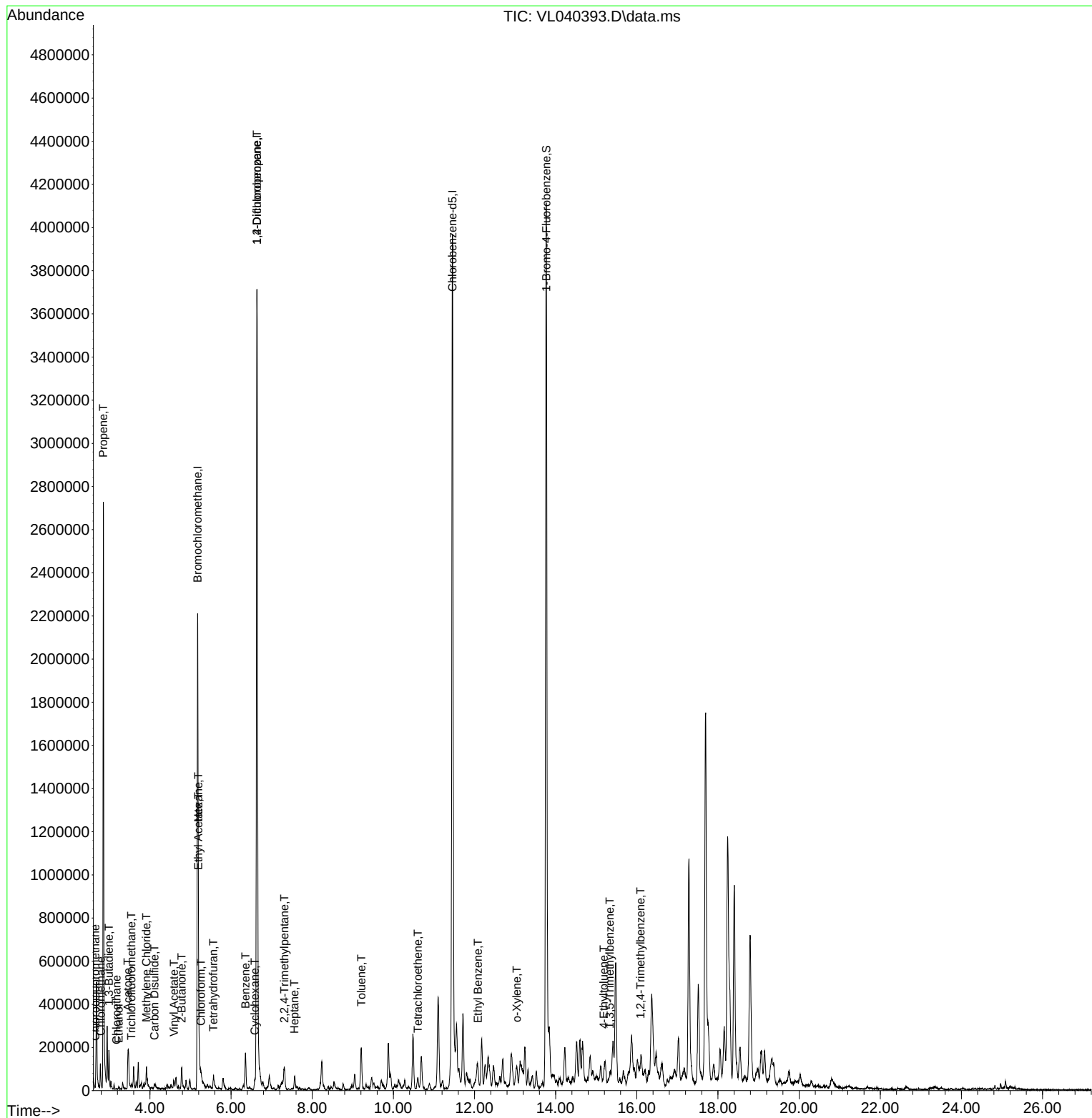
Internal Standards						
1) Bromochloromethane	5.172	49	1119962	10.000	ppbv	-0.02
33) 1,4-Difluorobenzene	6.639	114	2952754	10.000	ppbv	-0.02
55) Chlorobenzene-d5	11.455	117	2698559	10.000	ppbv	-0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.767	95	2104700	9.432	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.300%
Target Compounds						
					Qvalue	
3) Chlorodifluoromethane	2.655	51	5541	0.038	ppbv	93
4) Chloromethane	2.793	50	4017	0.043	ppbv #	88
7) Chloroethane	3.179	64	1364	0.047	ppbv	89
9) Propene	2.851	41	767262	13.271	ppbv	95
10) Heptane	7.561	43	11342	0.086	ppbv #	12
11) Trichlorofluoromethane	3.539	101	7210	0.035	ppbv #	63
13) Ethanol	3.230	45	5325	1.103	ppbv	73
15) Acetone	3.455	43	179898	1.134	ppbv #	82
16) 1,3-Butadiene	2.989	39	21722	0.331	ppbv #	58
20) Methylene Chloride	3.915	84	29811	0.471	ppbv #	78
23) Vinyl Acetate	4.594	43	6155	0.152	ppbv #	1
25) Ethyl Acetate	5.195	43	36950	0.138	ppbv #	78
26) Hexane	5.192	57	23878	0.212	ppbv #	1
27) Carbon Disulfide	4.108	76	18463	0.127	ppbv #	63
29) Chloroform	5.256	83	21056	0.105	ppbv	91
30) Cyclohexane	6.587	84	13010	0.149	ppbv #	73
34) 2-Butanone	4.783	43	119370	0.750	ppbv	98
36) Benzene	6.356	78	140633	0.584	ppbv #	96
39) 1,2-Dichloropropane	6.639	63	726278	7.662	ppbv #	24
41) Tetrahydrofuran	5.565	42	33773	0.387	ppbv	92
44) 2,2,4-Trimethylpentane	7.314	57	73944	0.184	ppbv #	71
52) Tetrachloroethene	10.603	164	2669	0.035	ppbv #	82
53) Toluene	9.214	91	93305	0.365	ppbv	100
58) Ethyl Benzene	12.085	91	20502	0.062	ppbv	94
60) o-Xylene	13.043	91	22645	0.077	ppbv #	1
72) 4-Ethyltoluene	15.182	105	10345	0.032	ppbv #	47
73) 1,3,5-Trimethylbenzene	15.333	105	12521	0.042	ppbv	94
74) 1,2,4-Trimethylbenzene	16.088	105	16406	0.048	ppbv #	71

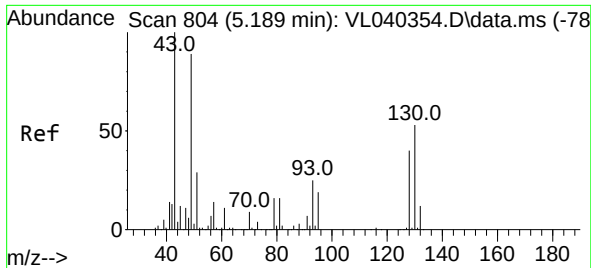
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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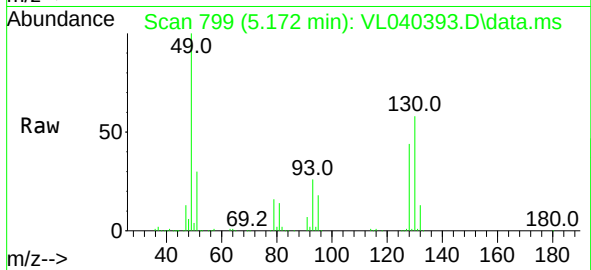
Quant Time: Apr 20 07:50:18 2023
Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041323AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
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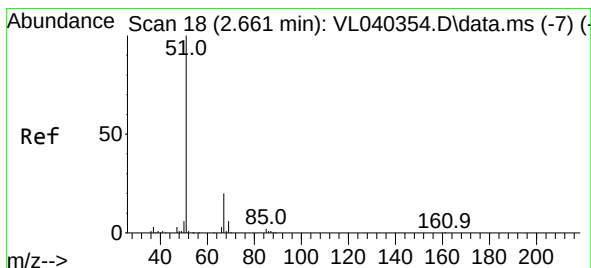
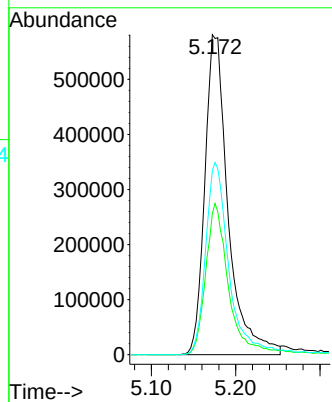
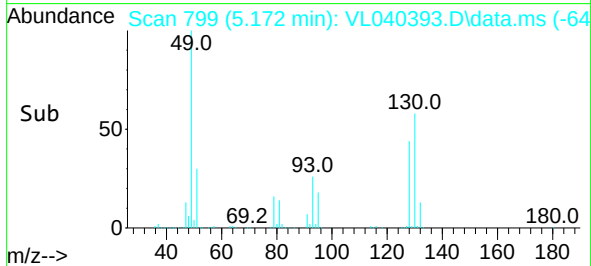


#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.172 min Scan# 79
 Delta R.T. -0.017 min
 Lab File: VL040393.D
 Acq: 19 Apr 2023 23:40

Instrument :
 MSVOA_L
 ClientSampleId :

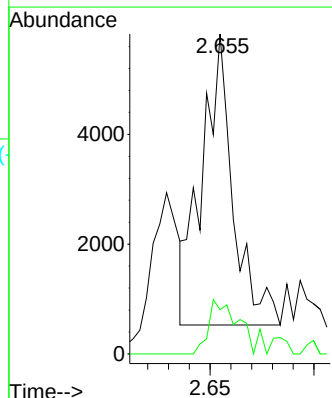
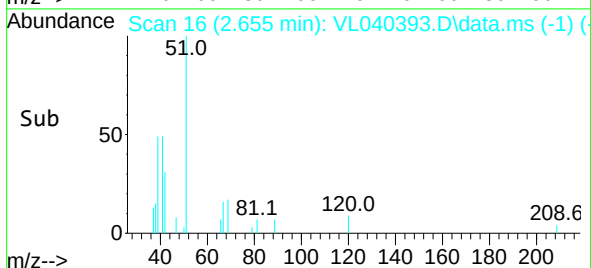
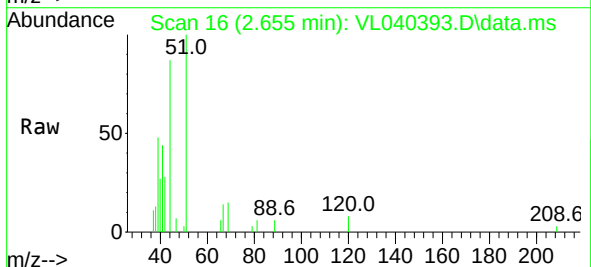


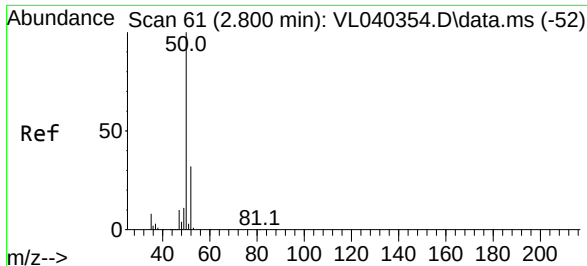
Tgt Ion: 49 Resp: 1119962
 Ion Ratio Lower Upper
 49 100
 128 48.0 23.7 71.1
 130 61.9 29.9 89.8



#3
 Chlorodifluoromethane
 Concen: 0.038 ppbv
 RT: 2.655 min Scan# 16
 Delta R.T. -0.006 min
 Lab File: VL040393.D
 Acq: 19 Apr 2023 23:40

Tgt Ion: 51 Resp: 5541
 Ion Ratio Lower Upper
 51 100
 67 22.8 15.5 23.3

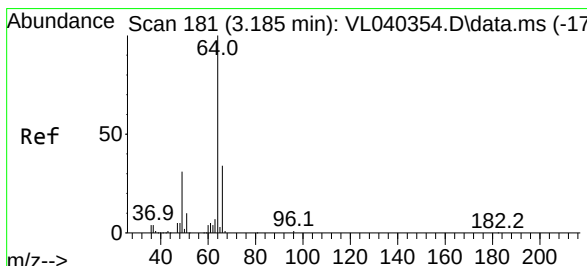
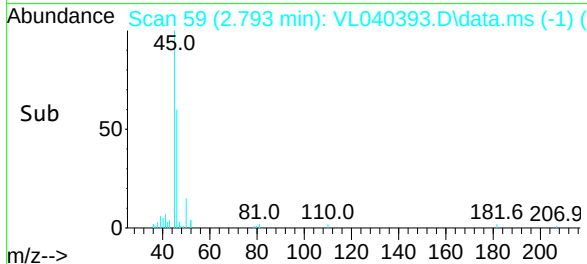
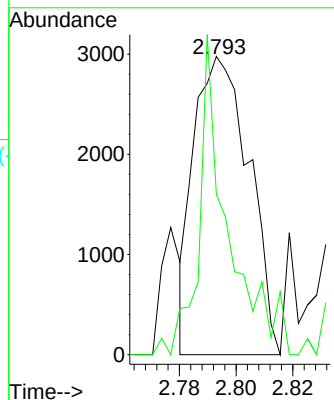
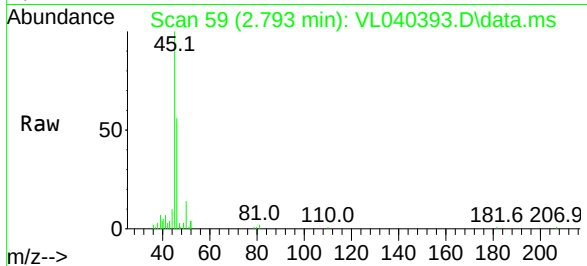




#4
Chloromethane
Concen: 0.043 ppbv
RT: 2.793 min Scan# 50
Delta R.T. -0.007 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

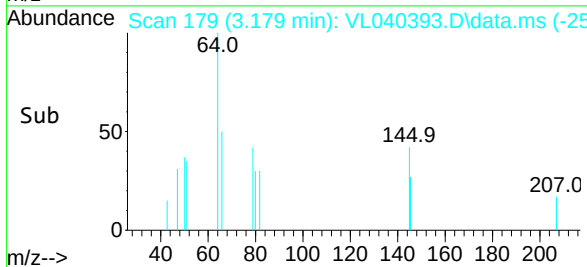
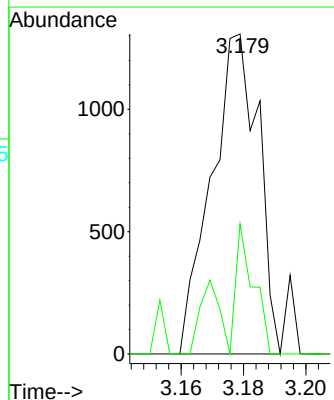
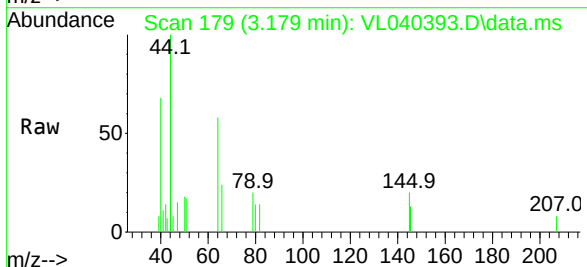
Instrument :
MSVOA_L
ClientSampleId :

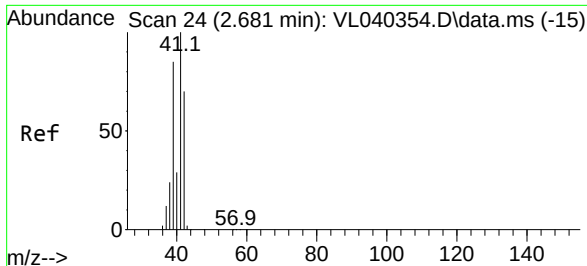
Tgt Ion: 50 Resp: 4017
Ion Ratio Lower Upper
50 100
52 38.2 25.3 37.9#



#7
Chloroethane
Concen: 0.047 ppbv
RT: 3.179 min Scan# 179
Delta R.T. -0.006 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 64 Resp: 1364
Ion Ratio Lower Upper
64 100
66 40.7 27.5 41.3

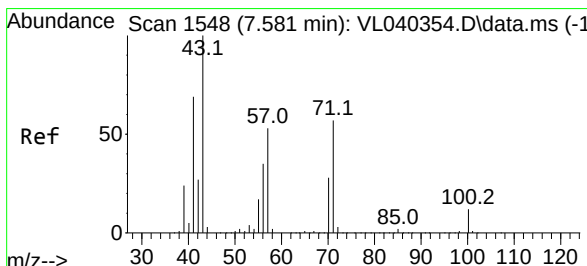
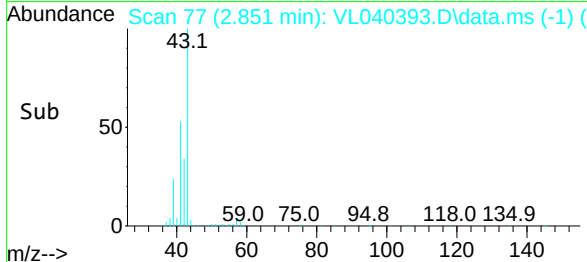
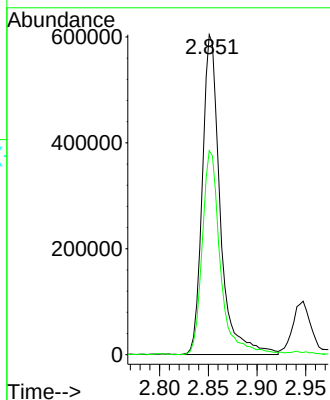
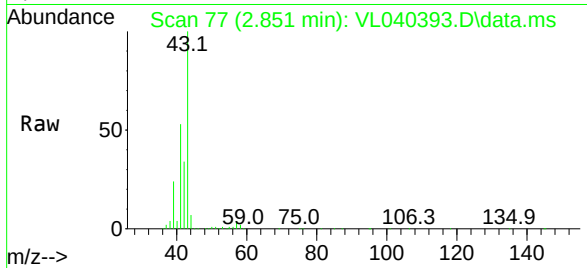




#9
 Propene
 Concen: 13.271 ppbv
 RT: 2.851 min Scan# 71
 Delta R.T. 0.170 min
 Lab File: VL040393.D
 Acq: 19 Apr 2023 23:40

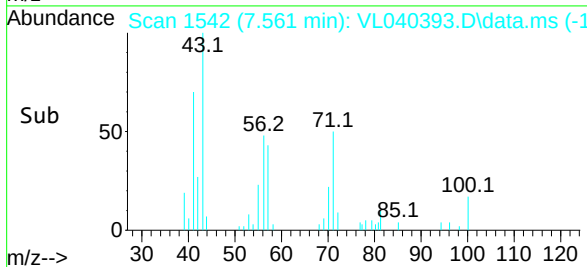
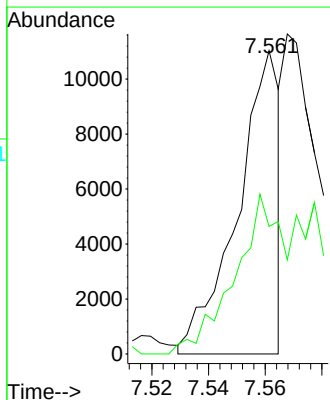
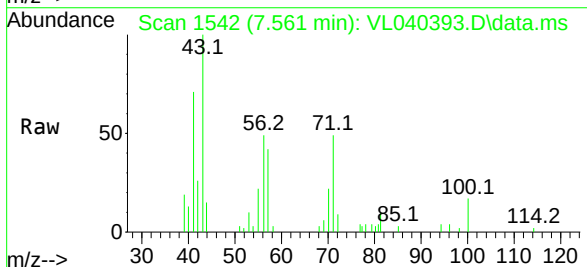
Instrument :
 MSVOA_L
 ClientSampleId :

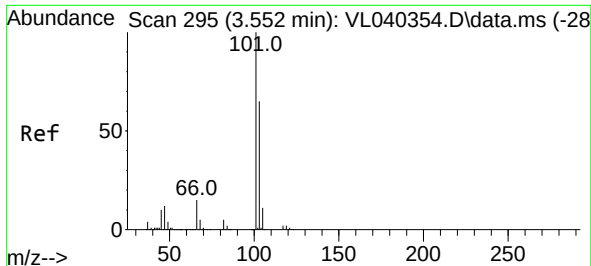
Tgt Ion: 41 Resp: 767262
 Ion Ratio Lower Upper
 41 100
 42 66.6 56.5 84.7



#10
 Heptane
 Concen: 0.086 ppbv
 RT: 7.561 min Scan# 1542
 Delta R.T. -0.020 min
 Lab File: VL040393.D
 Acq: 19 Apr 2023 23:40

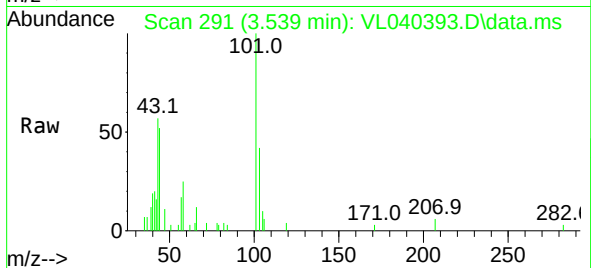
Tgt Ion: 43 Resp: 11342
 Ion Ratio Lower Upper
 43 100
 57 115.1 42.2 63.4#



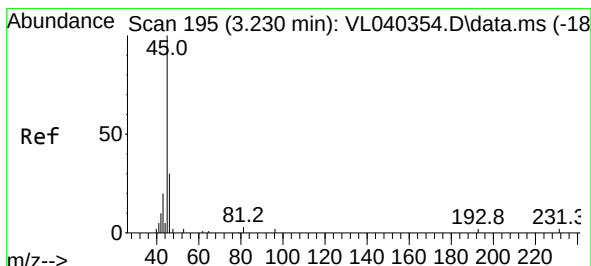
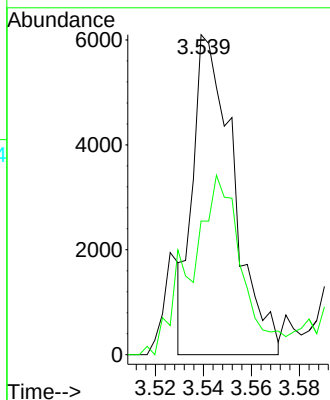
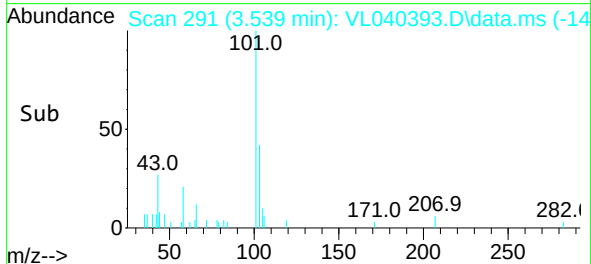


#11
Trichlorofluoromethane
Concen: 0.035 ppbv
RT: 3.539 min Scan# 291
Delta R.T. -0.013 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Instrument :
MSVOA_L
ClientSampleId :

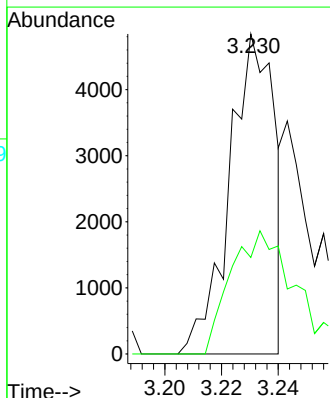
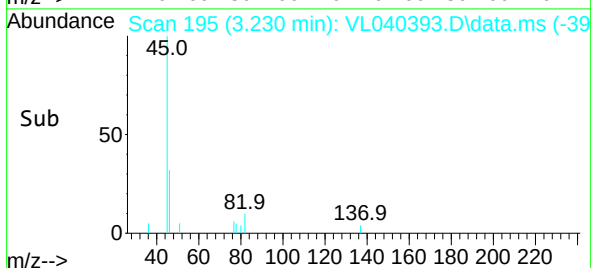
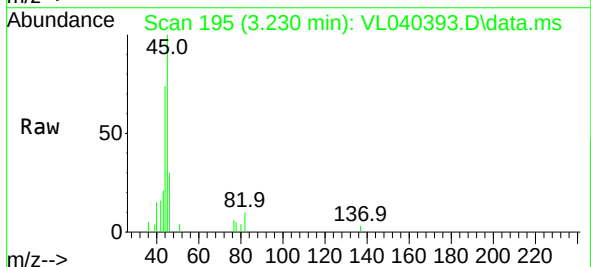


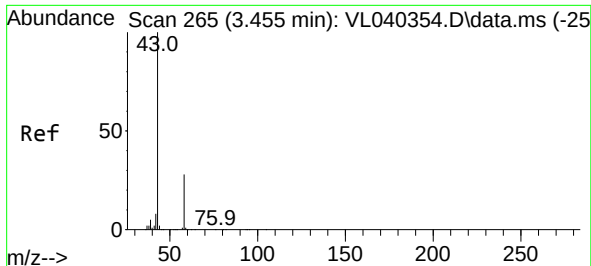
Tgt Ion:101 Resp: 7210
Ion Ratio Lower Upper
101 100
103 35.7 52.2 78.4#



#13
Ethanol
Concen: 1.103 ppbv
RT: 3.230 min Scan# 195
Delta R.T. 0.000 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 45 Resp: 5325
Ion Ratio Lower Upper
45 100
46 54.7 15.3 61.3





#15

Acetone

Concen: 1.134 ppbv

RT: 3.455 min Scan# 2

Delta R.T. 0.000 min

Lab File: VL040393.D

Acq: 19 Apr 2023 23:40

Instrument :

MSVOA_L

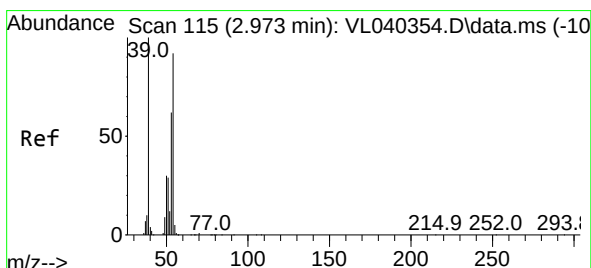
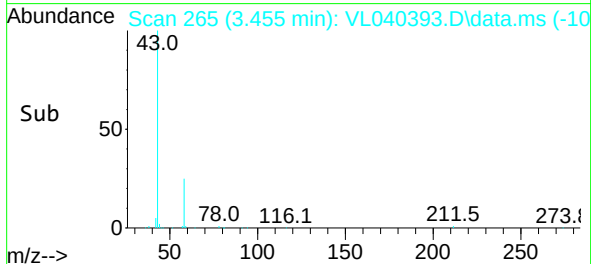
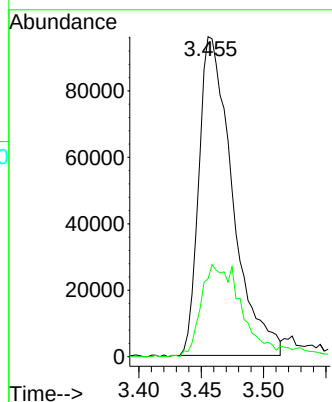
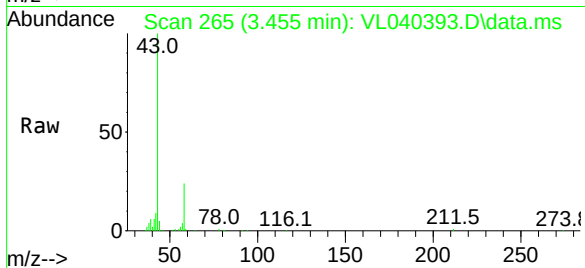
ClientSampleId :

Tgt Ion: 43 Resp: 179898

Ion Ratio Lower Upper

43 100

58 37.4 22.2 33.2#



#16

1,3-Butadiene

Concen: 0.331 ppbv

RT: 2.989 min Scan# 120

Delta R.T. 0.016 min

Lab File: VL040393.D

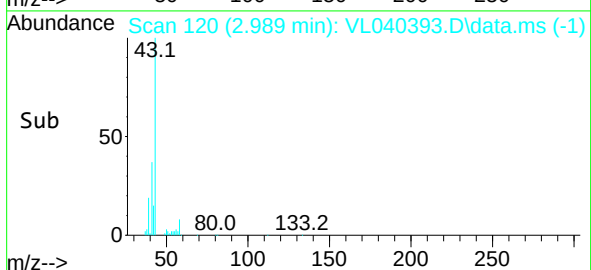
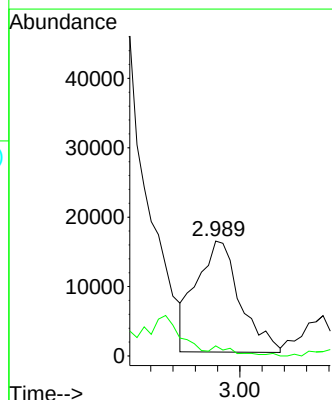
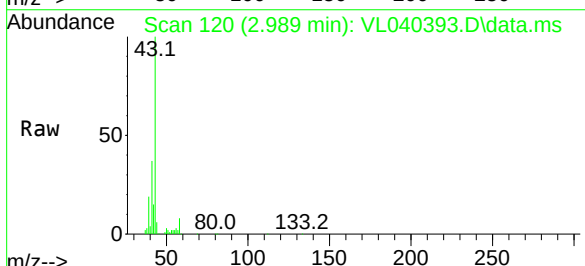
Acq: 19 Apr 2023 23:40

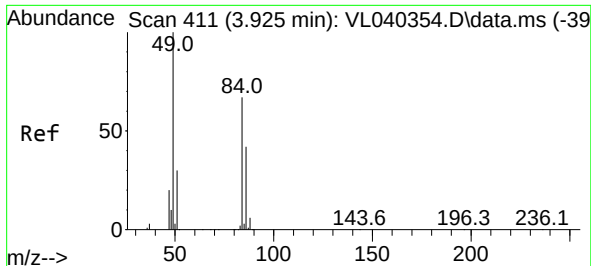
Tgt Ion: 39 Resp: 21722

Ion Ratio Lower Upper

39 100

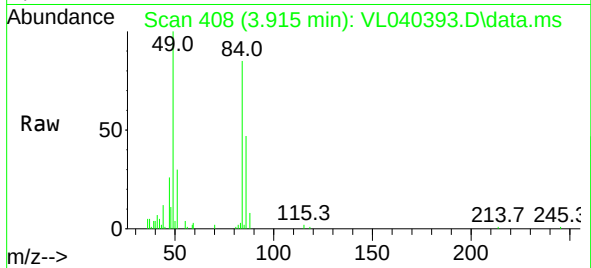
54 47.7 68.8 103.2#





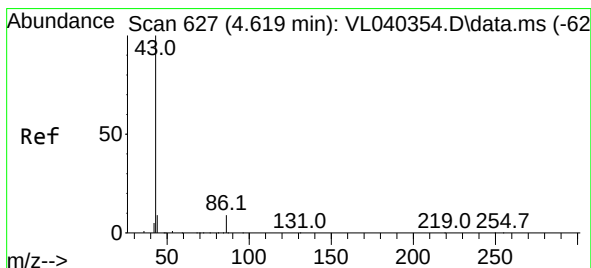
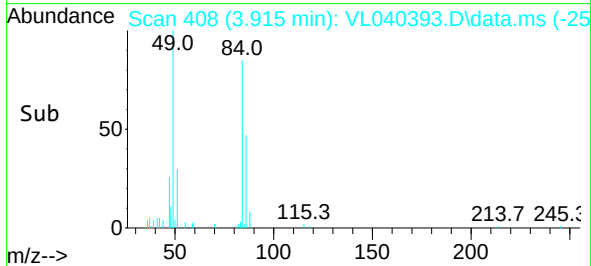
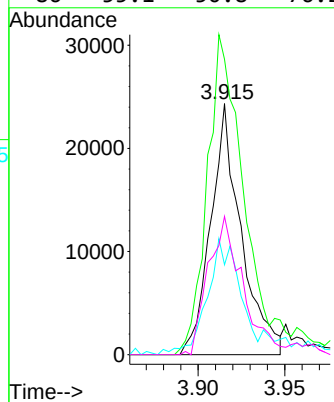
#20
Methylene Chloride
Concen: 0.471 ppbv
RT: 3.915 min Scan# 408
Delta R.T. -0.010 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Instrument :
MSVOA_L
ClientSampleId :



Tgt Ion: 84 Resp: 29811

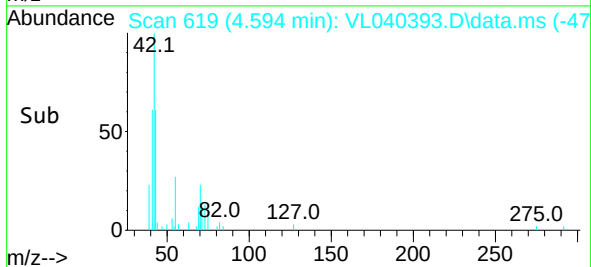
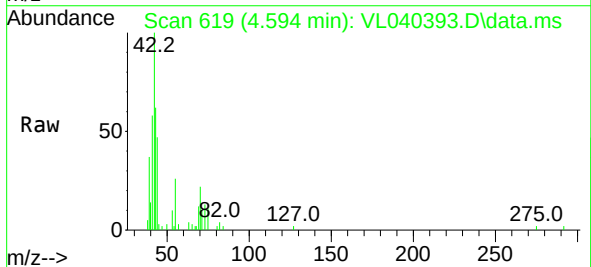
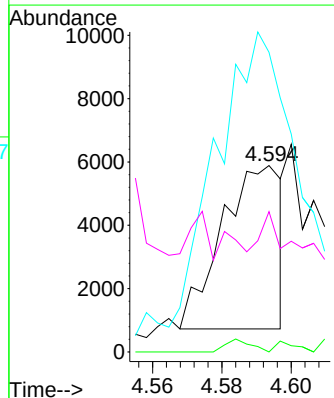
Ion	Ratio	Lower	Upper
84	100		
49	115.4	120.1	180.1#
51	33.4	36.3	54.5#
86	55.1	50.8	76.2

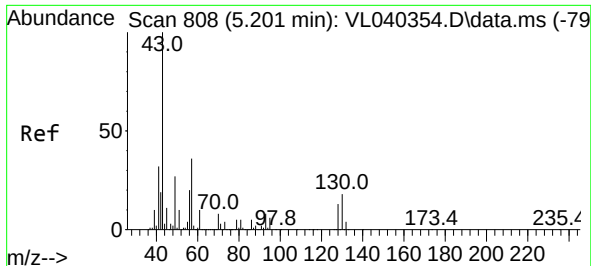


#23
Vinyl Acetate
Concen: 0.152 ppbv
RT: 4.594 min Scan# 619
Delta R.T. -0.025 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 43 Resp: 6155

Ion	Ratio	Lower	Upper
43	100		
86	0.0	6.0	9.0#
42	149.7	6.4	9.6#
44	25.8	5.6	8.4#





#25

Ethyl Acetate

Concen: 0.138 ppbv

RT: 5.195 min Scan# 806

Delta R.T. -0.006 min

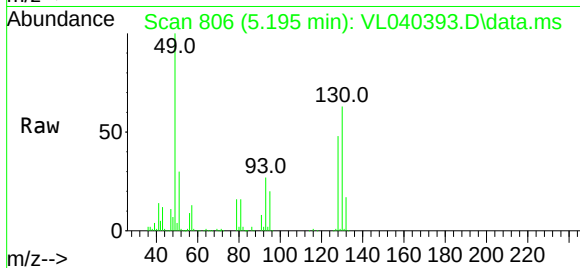
Lab File: VL040393.D

Acq: 19 Apr 2023 23:40

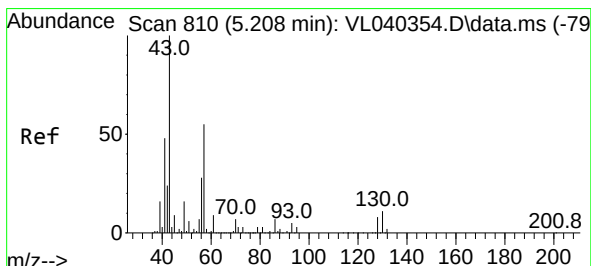
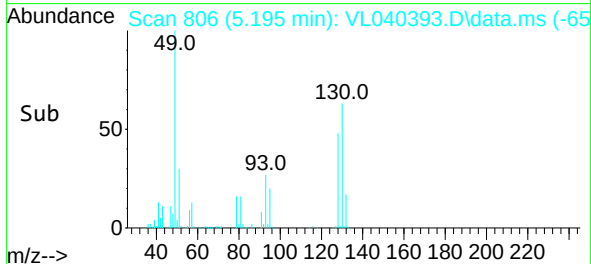
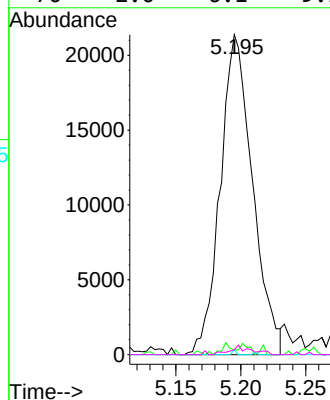
Instrument :

MSVOA_L

ClientSampleId :



Tgt Ion:	43	Resp:	36950
Ion	Ratio	Lower	Upper
43	100		
45	2.9	8.5	12.7#
61	0.0	8.5	12.7#
70	2.0	6.1	9.1#



#26

Hexane

Concen: 0.212 ppbv

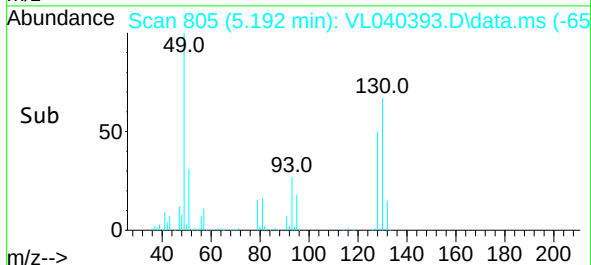
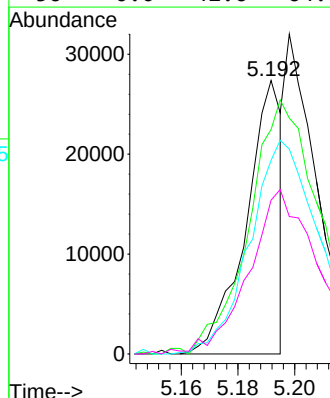
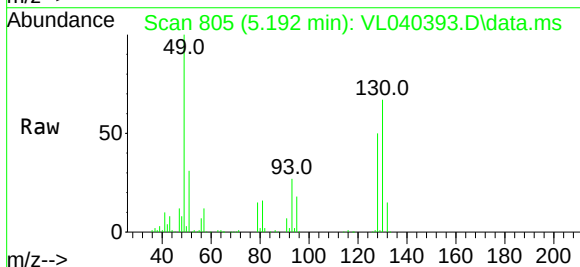
RT: 5.192 min Scan# 805

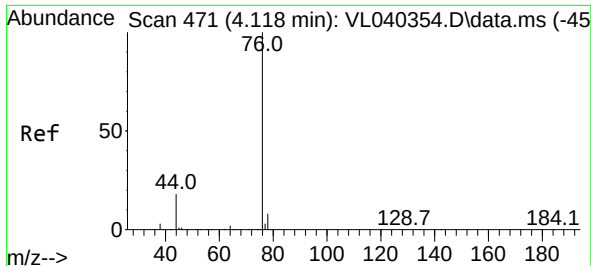
Delta R.T. -0.016 min

Lab File: VL040393.D

Acq: 19 Apr 2023 23:40

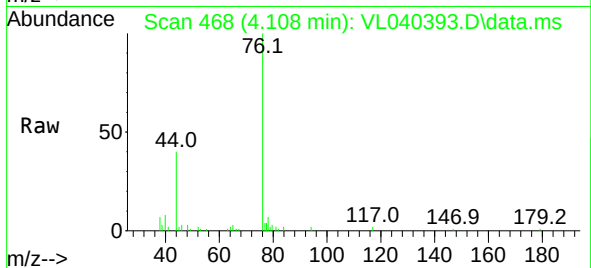
Tgt Ion:	57	Resp:	23878
Ion	Ratio	Lower	Upper
57	100		
41	0.0	74.8	112.2#
43	0.0	192.7	289.1#
56	0.0	42.6	64.0#



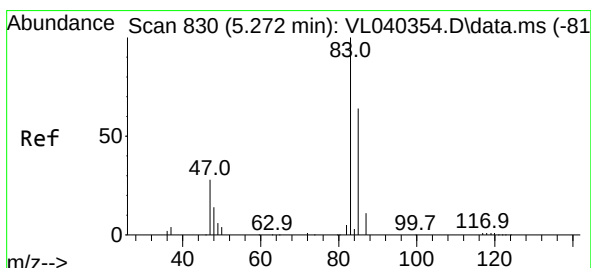
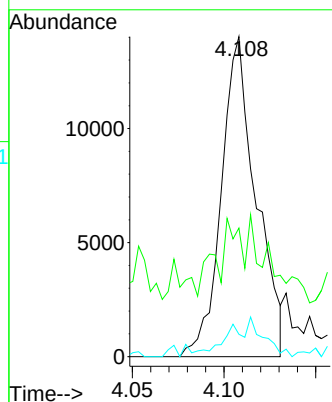
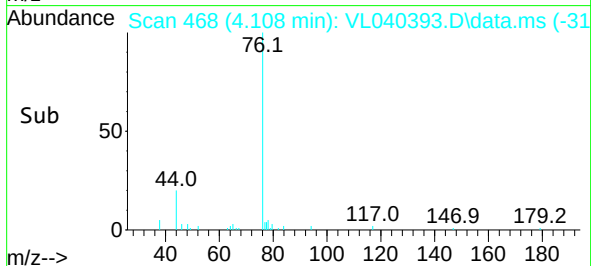


#27
Carbon Disulfide
Concen: 0.127 ppbv
RT: 4.108 min Scan# 41
Delta R.T. -0.010 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Instrument :
MSVOA_L
ClientSampleId :

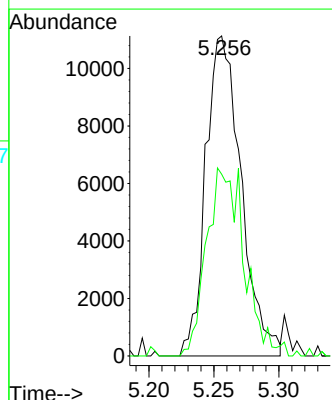
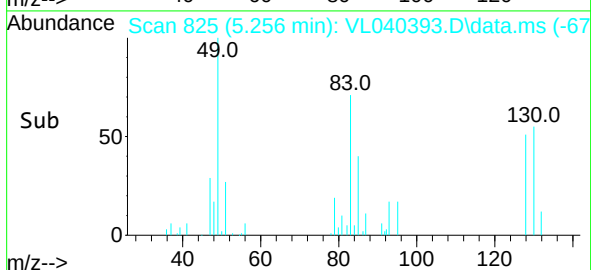
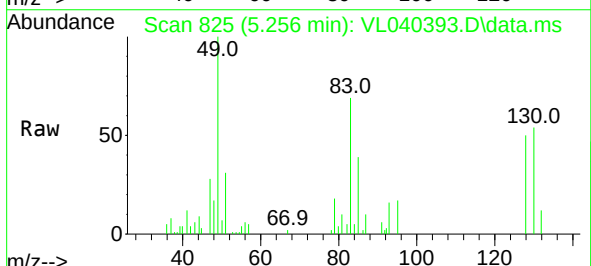


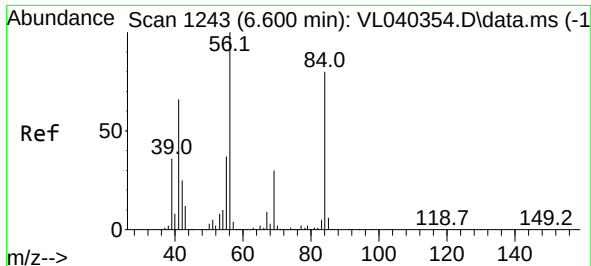
Tgt Ion: 76 Resp: 18463
Ion Ratio Lower Upper
76 100
44 40.9 14.7 22.1#
78 13.9 7.7 11.5#



#29
Chloroform
Concen: 0.105 ppbv
RT: 5.256 min Scan# 825
Delta R.T. -0.016 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 83 Resp: 21056
Ion Ratio Lower Upper
83 100
85 56.8 51.0 76.4

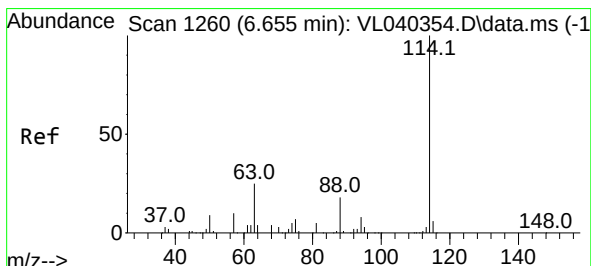
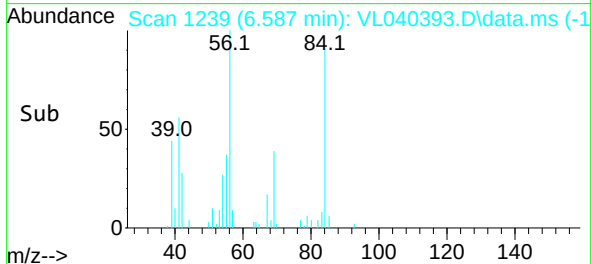
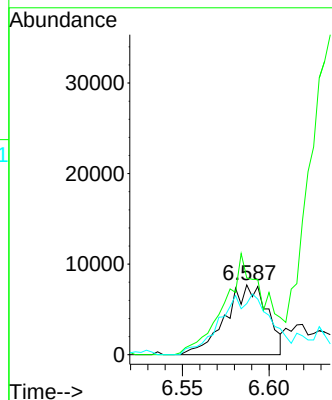
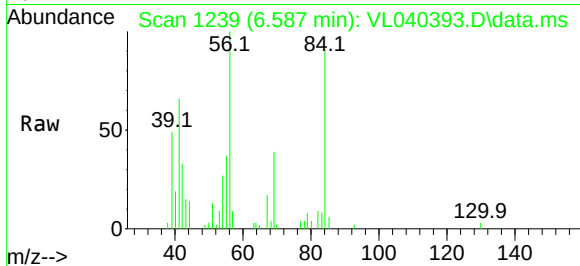




#30
Cyclohexane
Concen: 0.149 ppbv
RT: 6.587 min Scan# 11
Delta R.T. -0.013 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

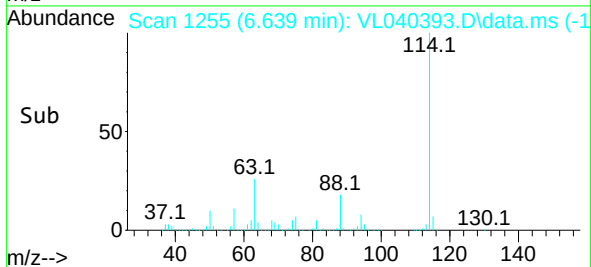
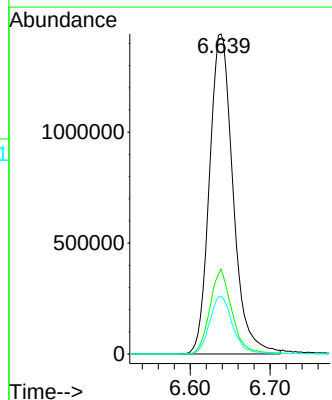
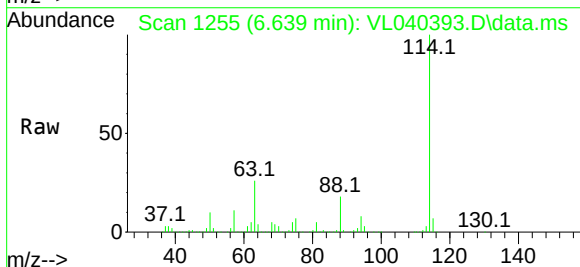
Instrument :
MSVOA_L
ClientSampleId :

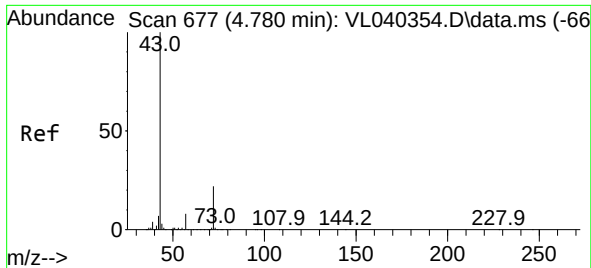
Tgt Ion: 84 Resp: 13010
Ion Ratio Lower Upper
84 100
56 142.1 107.0 160.6
41 136.1 66.7 100.1#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 6.639 min Scan# 1255
Delta R.T. -0.016 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 114 Resp: 2952754
Ion Ratio Lower Upper
114 100
63 24.9 21.4 32.0
88 17.8 14.6 22.0

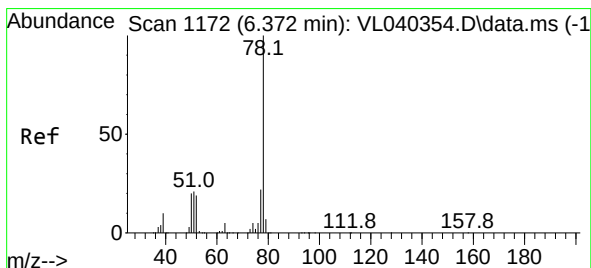
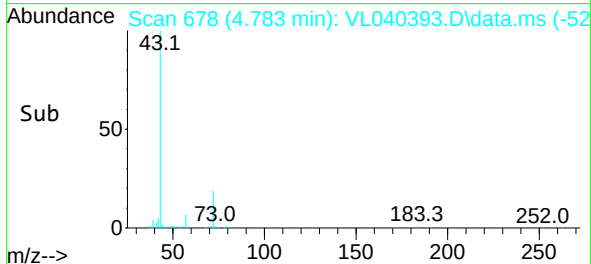
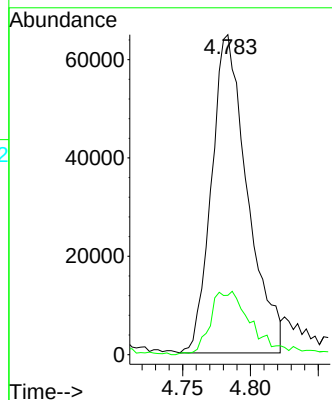
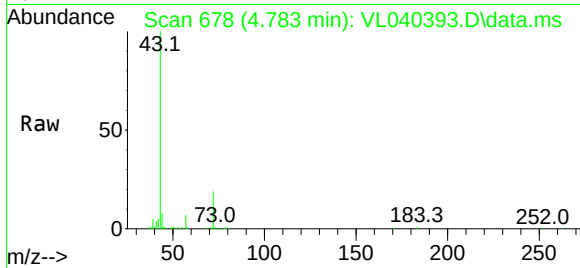




#34
2-Butanone
Concen: 0.750 ppbv
RT: 4.783 min Scan# 61
Delta R.T. 0.003 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

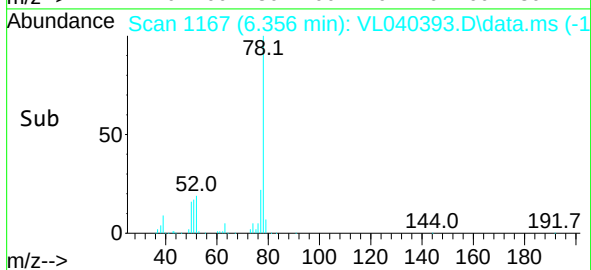
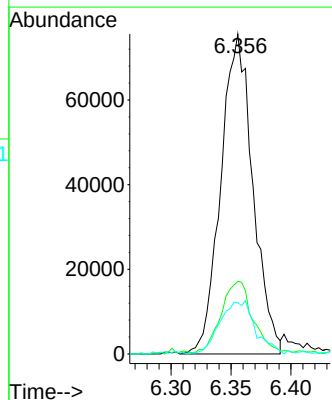
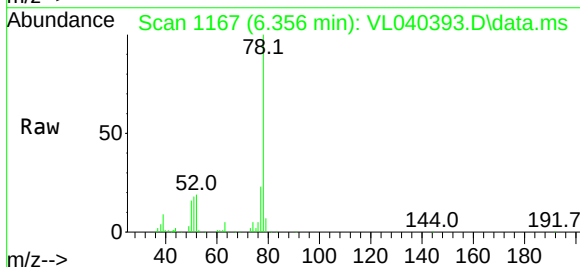
Instrument :
MSVOA_L
ClientSampleId :

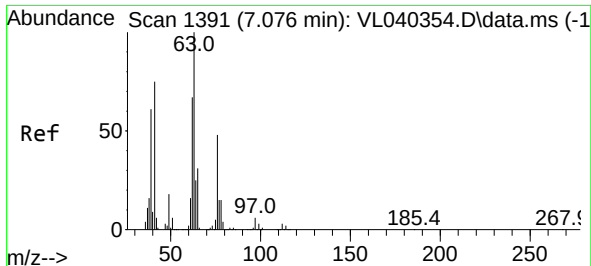
Tgt Ion: 43 Resp: 119370
Ion Ratio Lower Upper
43 100
72 24.1 18.4 27.6



#36
Benzene
Concen: 0.584 ppbv
RT: 6.356 min Scan# 1167
Delta R.T. -0.016 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 78 Resp: 140633
Ion Ratio Lower Upper
78 100
77 22.1 17.8 26.8
50 15.4 15.6 23.4#





#39

1,2-Dichloropropane

Concen: 7.662 ppbv

RT: 6.639 min Scan# 11

Delta R.T. -0.437 min

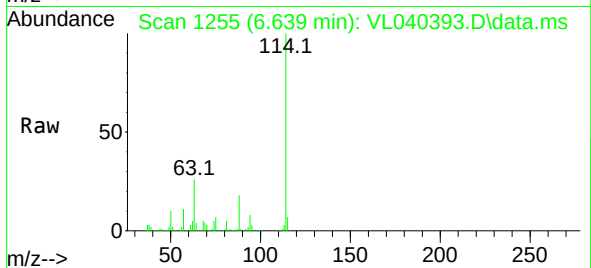
Lab File: VL040393.D

Acq: 19 Apr 2023 23:40

Instrument :

MSVOA_L

ClientSampleId :



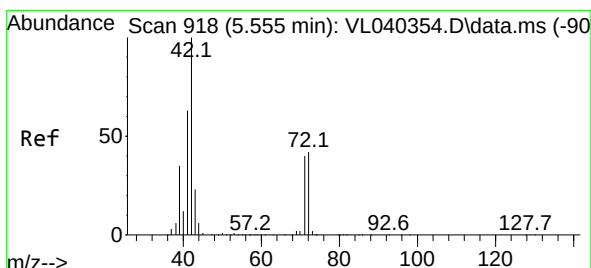
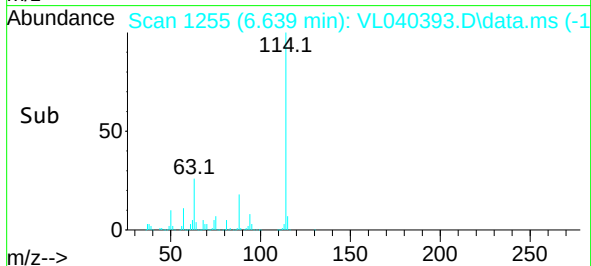
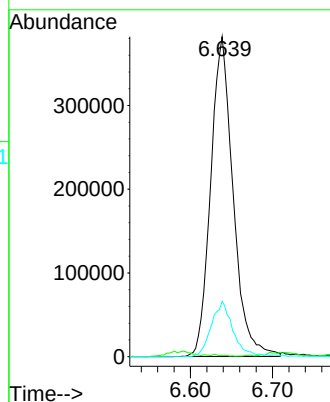
Tgt Ion: 63 Resp: 726278

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 17.3 53.9 80.9#



#41

Tetrahydrofuran

Concen: 0.387 ppbv

RT: 5.565 min Scan# 921

Delta R.T. 0.010 min

Lab File: VL040393.D

Acq: 19 Apr 2023 23:40

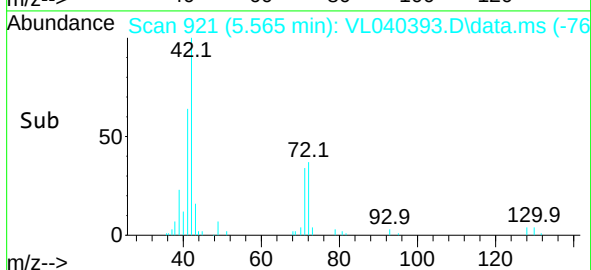
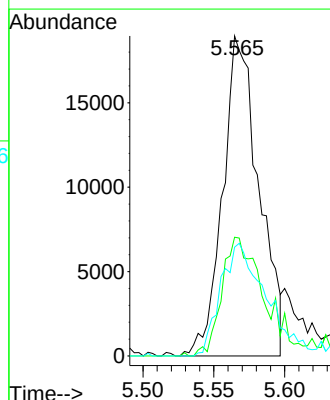
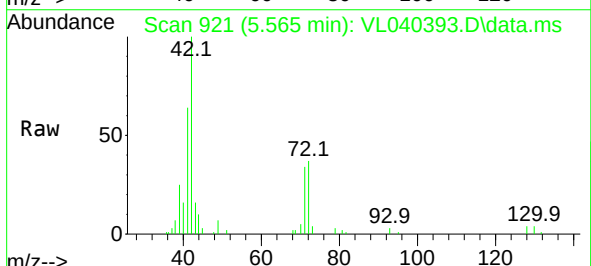
Tgt Ion: 42 Resp: 33773

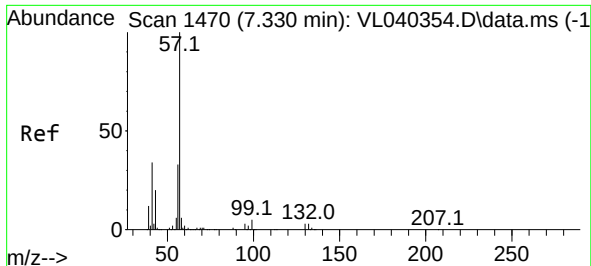
Ion Ratio Lower Upper

42 100

72 46.9 33.7 50.5

71 45.6 32.2 48.2

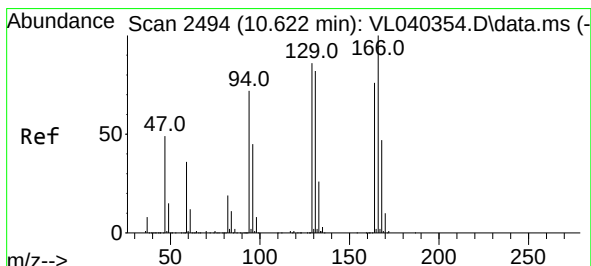
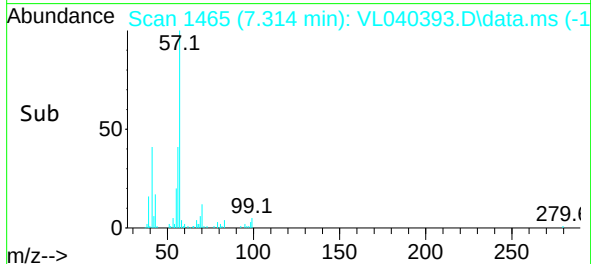
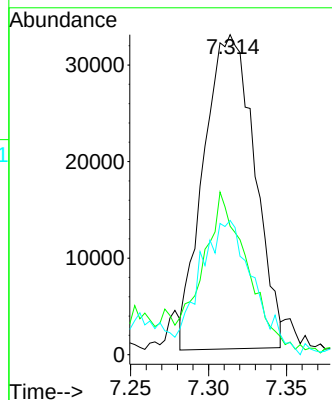
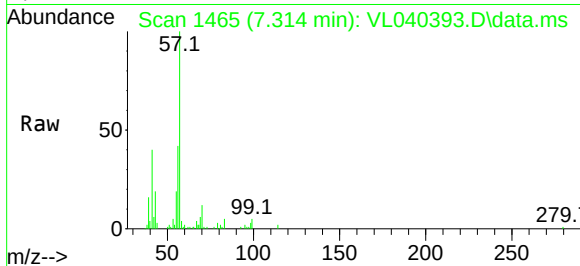




#44
 2,2,4-Trimethylpentane
 Concen: 0.184 ppbv
 RT: 7.314 min Scan# 1470
 Delta R.T. -0.016 min
 Lab File: VL040393.D
 Acq: 19 Apr 2023 23:40

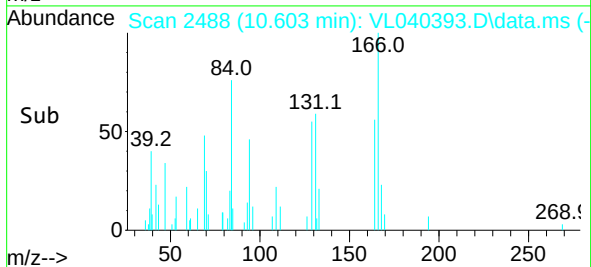
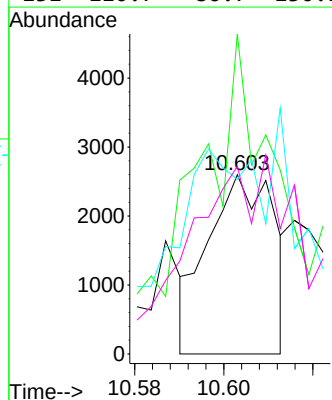
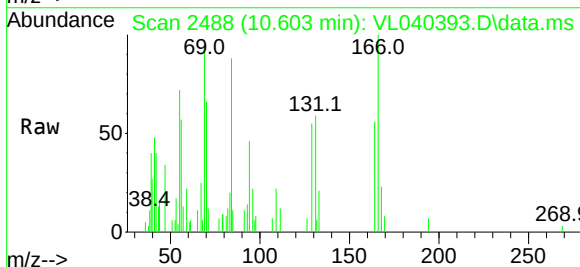
Instrument :
 MSVOA_L
 ClientSampleId :

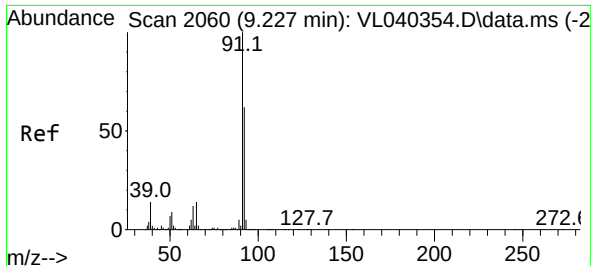
Tgt Ion: 57 Resp: 73944
 Ion Ratio Lower Upper
 57 100
 41 51.4 26.9 40.3#
 56 46.2 25.1 37.7#



#52
 Tetrachloroethene
 Concen: 0.035 ppbv
 RT: 10.603 min Scan# 2488
 Delta R.T. -0.019 min
 Lab File: VL040393.D
 Acq: 19 Apr 2023 23:40

Tgt Ion: 164 Resp: 2669
 Ion Ratio Lower Upper
 164 100
 166 143.6 105.2 157.8
 129 67.3 90.3 135.5#
 131 110.7 86.7 130.1

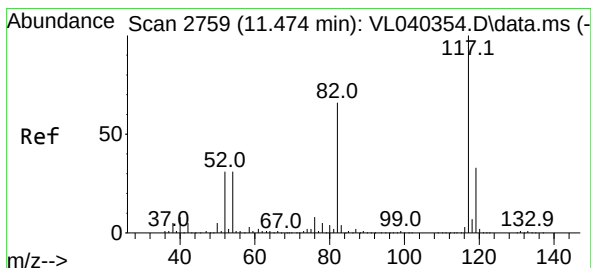
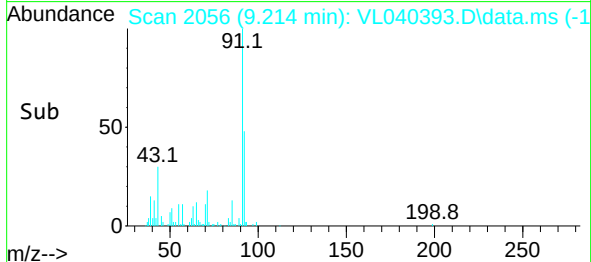
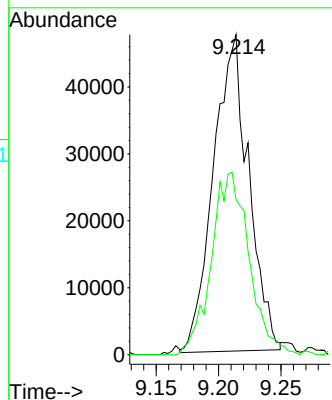
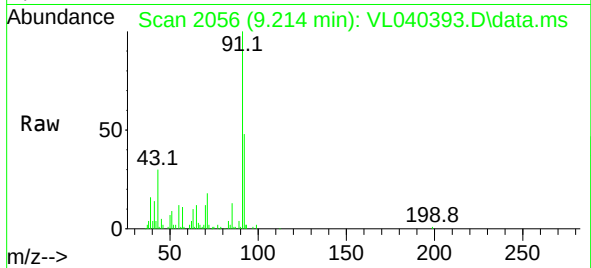




#53
Toluene
Concen: 0.365 ppbv
RT: 9.214 min Scan# 2060
Delta R.T. -0.013 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

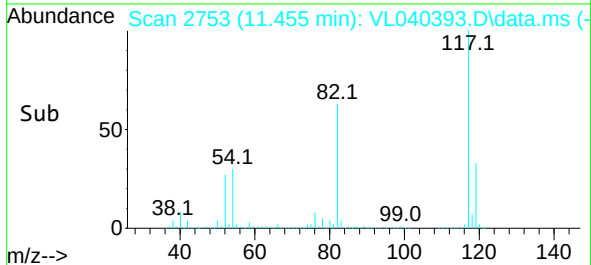
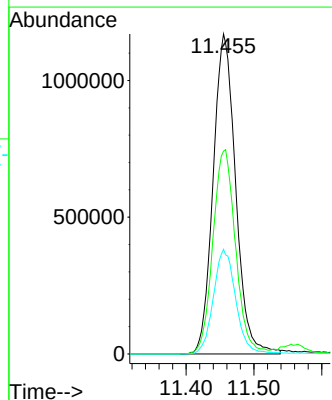
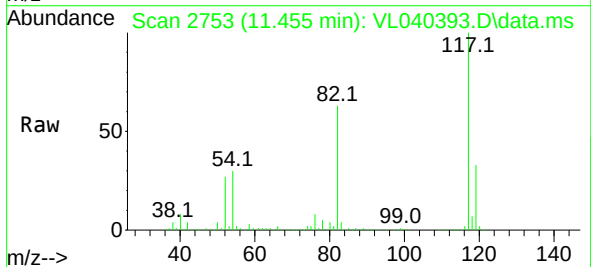
Instrument :
MSVOA_L
ClientSampleId :

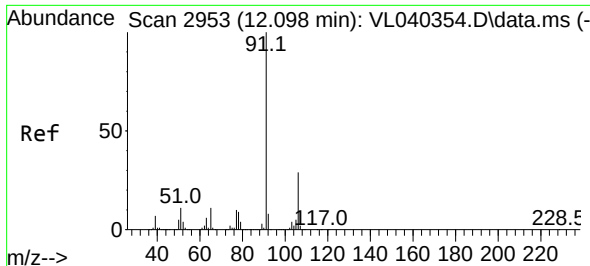
Tgt Ion: 91 Resp: 93305
Ion Ratio Lower Upper
91 100
92 61.5 48.9 73.3



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.455 min Scan# 2753
Delta R.T. -0.019 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

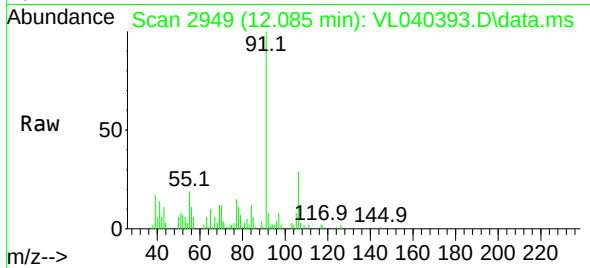
Tgt Ion: 117 Resp: 2698559
Ion Ratio Lower Upper
117 100
82 64.4 52.5 78.7
119 33.0 24.3 36.5



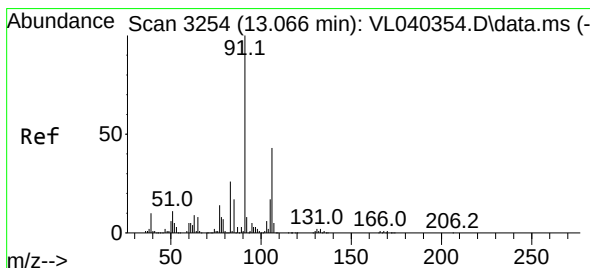
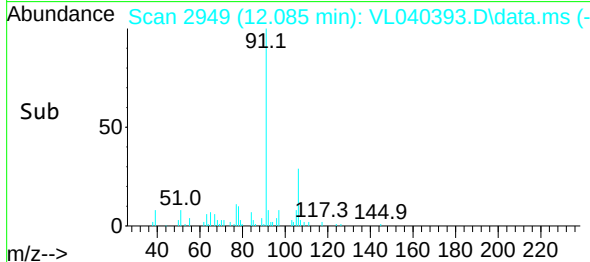
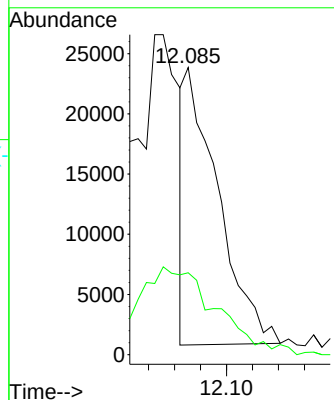


#58
Ethyl Benzene
Concen: 0.062 ppbv
RT: 12.085 min Scan# 2949
Delta R.T. -0.013 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Instrument :
MSVOA_L
ClientSampleId :

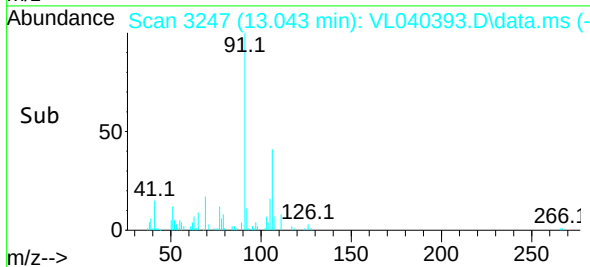
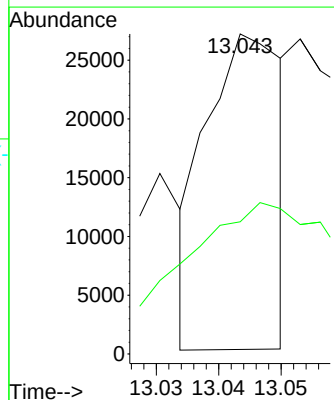
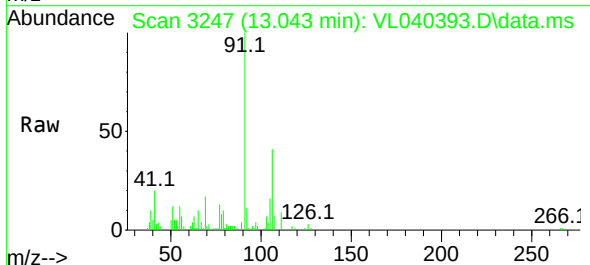


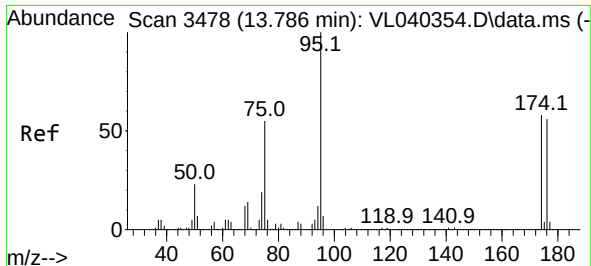
Tgt Ion: 91 Resp: 20502
Ion Ratio Lower Upper
91 100
106 26.1 23.5 35.3



#60
o-Xylene
Concen: 0.077 ppbv
RT: 13.043 min Scan# 3247
Delta R.T. -0.023 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 91 Resp: 22645
Ion Ratio Lower Upper
91 100
106 135.1 21.9 65.8#

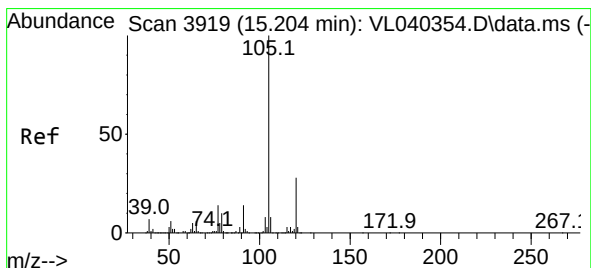
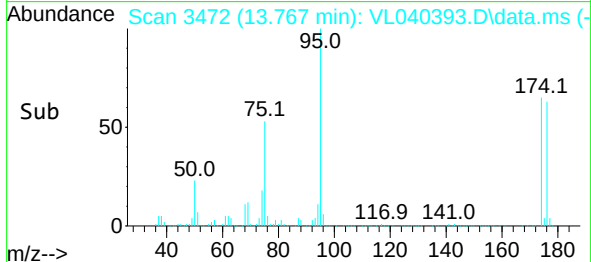
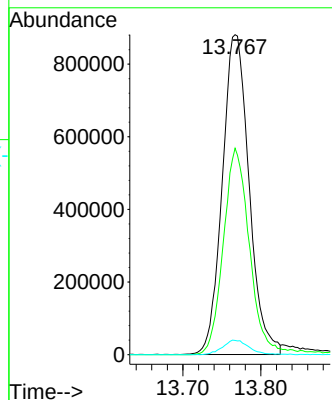
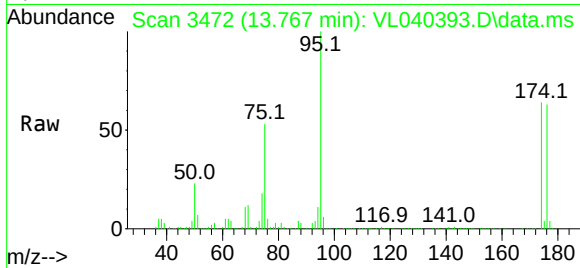




#68
1-Bromo-4-Fluorobenzene
Concen: 9.432 ppbv
RT: 13.767 min Scan# 3478
Delta R.T. -0.019 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

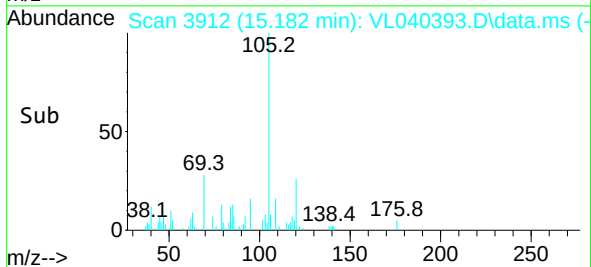
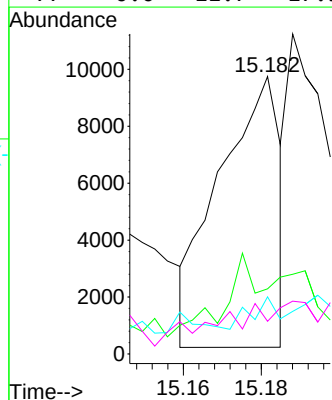
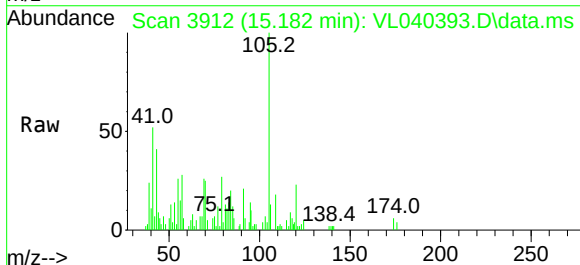
Instrument :
MSVOA_L
ClientSampleId :

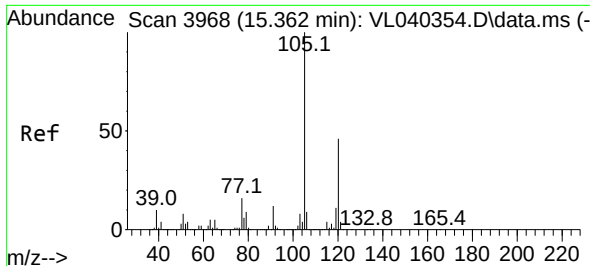
Tgt Ion: 95 Resp: 2104700
Ion Ratio Lower Upper
95 100
174 64.7 47.2 70.8
175 4.5 3.5 5.3



#72
4-Ethyltoluene
Concen: 0.032 ppbv
RT: 15.182 min Scan# 3912
Delta R.T. -0.022 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion: 105 Resp: 10345
Ion Ratio Lower Upper
105 100
120 66.0 23.0 34.6#
91 0.0 11.3 16.9#
77 0.0 11.7 17.5#

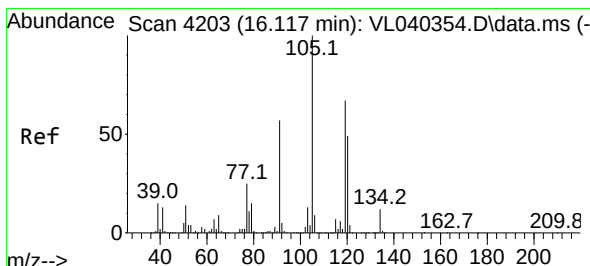
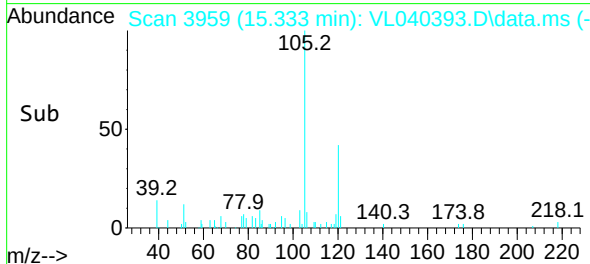
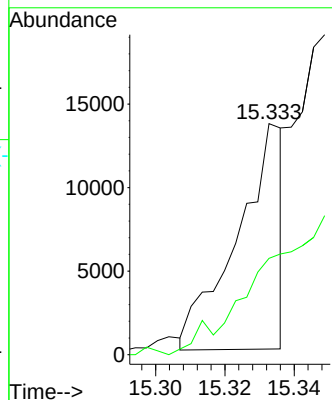
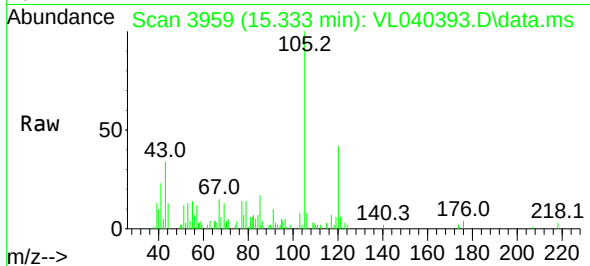




#73
1,3,5-Trimethylbenzene
Concen: 0.042 ppbv
RT: 15.333 min Scan# 3968
Delta R.T. -0.029 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Instrument :
MSVOA_L
ClientSampleId :

Tgt Ion:105 Resp: 12521
Ion Ratio Lower Upper
105 100
120 42.3 36.9 55.3



#74
1,2,4-Trimethylbenzene
Concen: 0.048 ppbv
RT: 16.088 min Scan# 4194
Delta R.T. -0.029 min
Lab File: VL040393.D
Acq: 19 Apr 2023 23:40

Tgt Ion:105 Resp: 16406
Ion Ratio Lower Upper
105 100
120 40.9 38.9 58.3
91 25.3 46.0 69.0#
77 10.3 20.0 30.0#

