

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL041725\
 Data File : VL042379.D
 Acq On : 18 Apr 2025 03:03
 Operator : SY/MD
 Sample : Q1726-04DL 20X
 Misc : 400mL/MSVOA_L
 ALS Vial : 6 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-B2-5-03312025DL

Quant Time: Apr 18 04:41:12 2025
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL041725AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Fri Apr 18 02:14:00 2025
 Response via : Initial Calibration

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

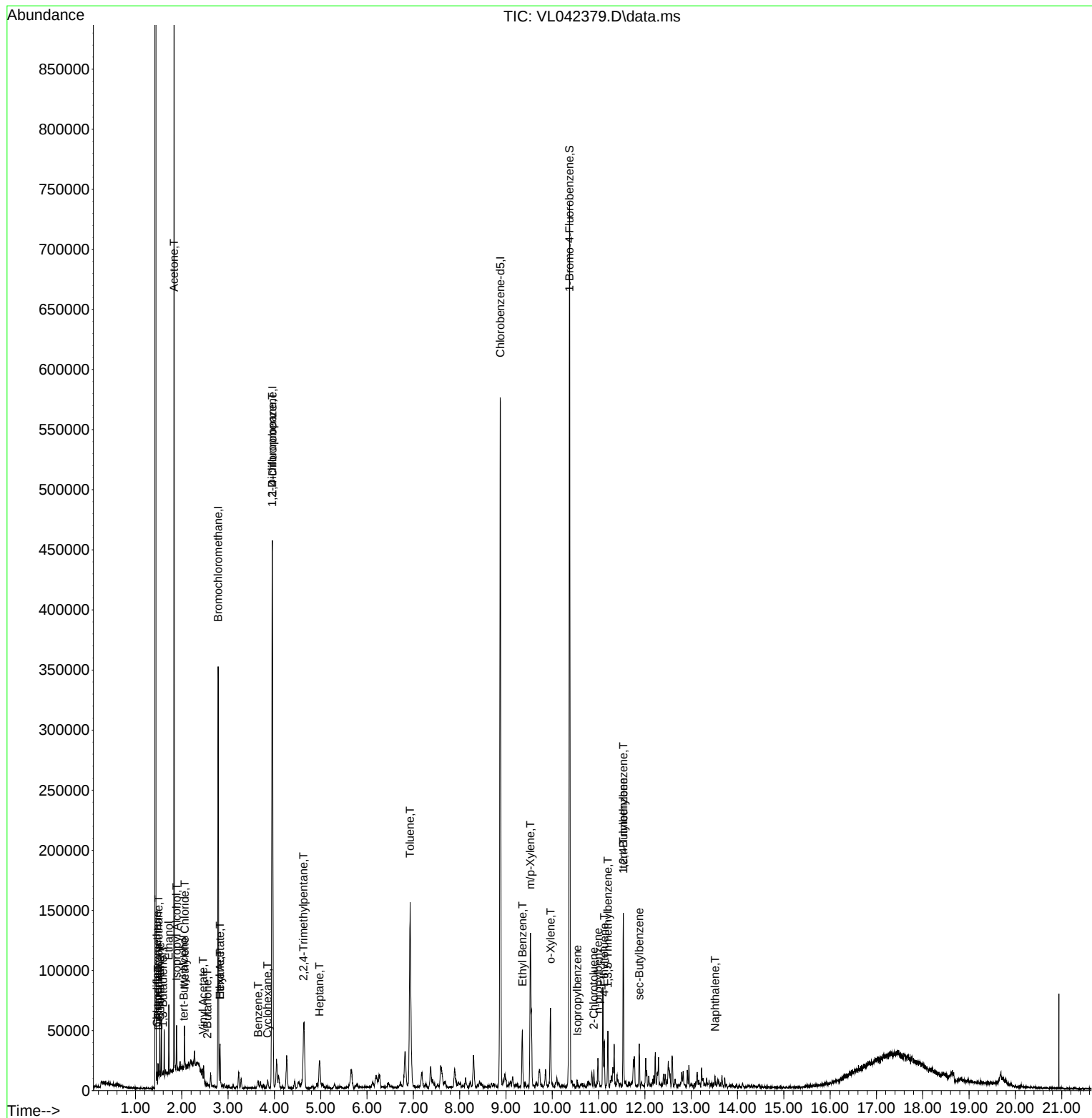
Internal Standards						
1) Bromochloromethane	2.784	49	92518	10.000	ppbv	0.00
33) 1,4-Difluorobenzene	3.956	114	260556	10.000	ppbv	0.00
55) Chlorobenzene-d5	8.878	117	221578	10.000	ppbv	0.00
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	10.371	95	188260	10.339	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.400%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	1.496	85	1002	0.061	ppbv #	59
3) Chlorodifluoromethane	1.467	51	3102	0.199	ppbv #	83
4) Chloromethane	1.531	50	420	0.065	ppbv #	75
9) Propene	1.486	41	1792	0.253	ppbv #	15
10) Heptane	4.972	43	5266	0.264	ppbv #	27
13) Ethanol	1.719	45	18982	16.847	ppbv	84
15) Acetone	1.832	43	401815	26.530	ppbv	100
16) 1,3-Butadiene	1.596	39	489	0.068	ppbv #	9
17) tert-Butyl alcohol	2.046	59	965	0.051	ppbv #	1
19) Isopropyl Alcohol	1.887	45	15229	1.810	ppbv #	1
20) Methylene Chloride	2.062	84	4584	0.773	ppbv	94
23) Vinyl Acetate	2.460	43	652	0.106	ppbv #	1
25) Ethyl Acetate	2.826	43	6315	0.169	ppbv #	86
26) Hexane	2.826	57	8415	0.557	ppbv #	35
30) Cyclohexane	3.849	84	1289	0.106	ppbv #	43
34) 2-Butanone	2.554	43	804	0.039	ppbv #	53
36) Benzene	3.651	78	3272	0.116	ppbv #	77
39) 1,2-Dichloropropane	3.952	63	70688	6.750	ppbv #	24
44) 2,2,4-Trimethylpentane	4.629	57	26285	0.542	ppbv #	29
53) Toluene	6.930	91	98263	2.914	ppbv	98
58) Ethyl Benzene	9.354	91	27028	0.616	ppbv	93
59) m/p-Xylene	9.526	91	79744	2.255	ppbv	100
60) o-Xylene	9.963	91	29832	0.838	ppbv	96
62) Isopropylbenzene	10.539	105	2709	0.052	ppbv	97
64) n-propylbenzene	10.986	120	1789	0.136	ppbv #	29
65) tert-Butylbenzene	11.532	119	6043	0.126	ppbv #	77
67) sec-Butylbenzene	11.879	105	11680	0.175	ppbv #	65
71) 2-Chlorotoluene	10.895	91	1357	0.033	ppbv	78
72) 4-Ethyltoluene	11.125	105	12986	0.298	ppbv #	63
73) 1,3,5-Trimethylbenzene	11.202	105	15149	0.394	ppbv	94
74) 1,2,4-Trimethylbenzene	11.536	105	50354	1.122	ppbv #	62
79) Naphthalene	13.513	128	3721	0.069	ppbv	98

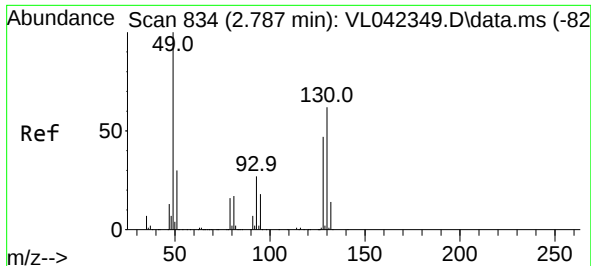
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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IA-B2-5-03312025DL

Quant Time: Apr 18 04:41:12 2025
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QLast Update : Fri Apr 18 02:14:00 2025
Response via : Initial Calibration

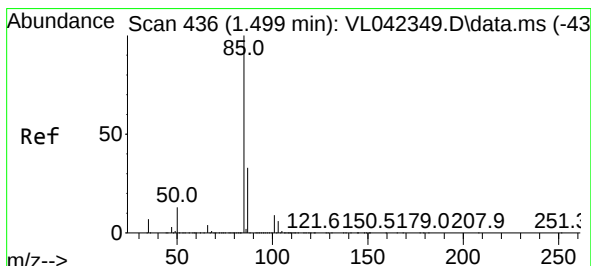
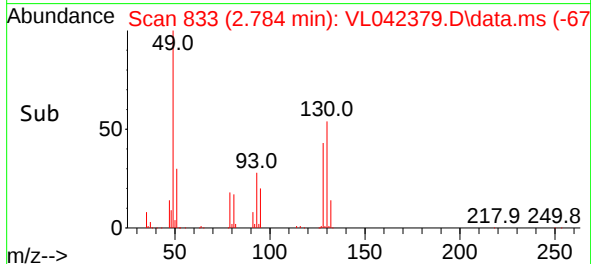
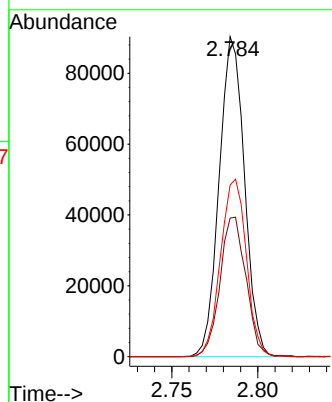
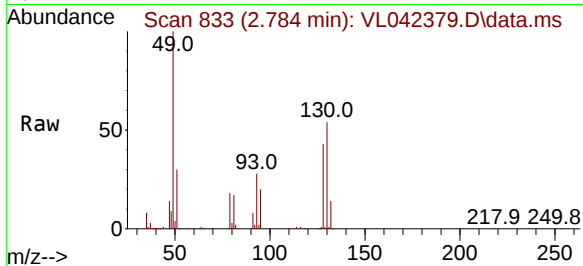




#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 2.784 min Scan# 81
Delta R.T. -0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

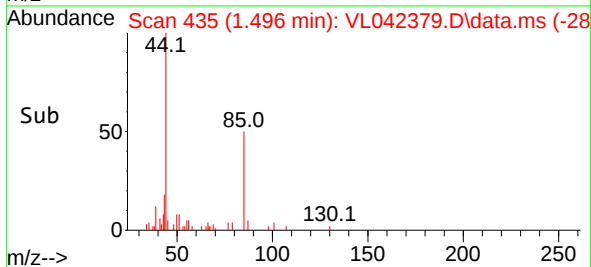
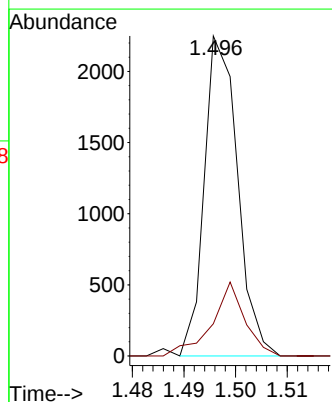
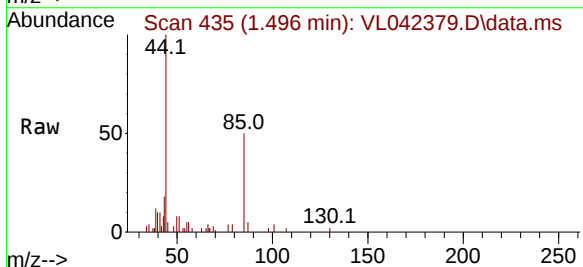
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

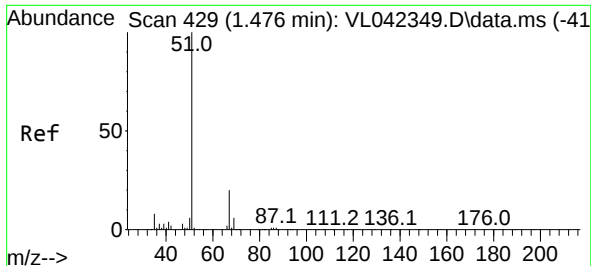
Tgt Ion: 49 Resp: 92518
Ion Ratio Lower Upper
49 100
128 44.8 22.8 68.4
130 56.6 29.3 88.0



#2
Dichlorodifluoromethane
Concen: 0.061 ppbv
RT: 1.496 min Scan# 435
Delta R.T. -0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 85 Resp: 1002
Ion Ratio Lower Upper
85 100
87 10.1 26.6 39.8

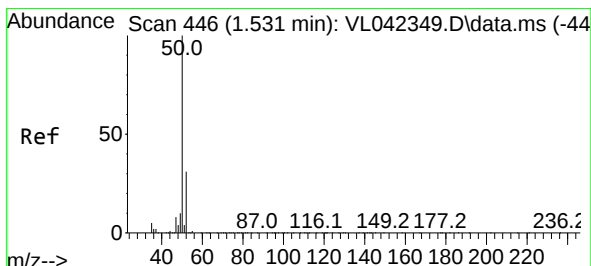
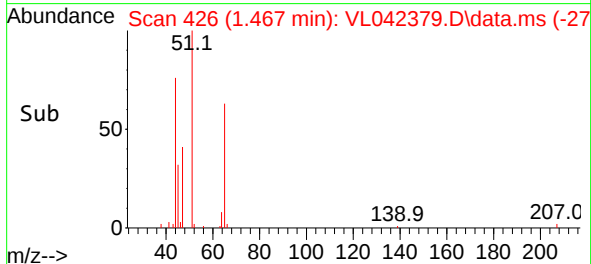
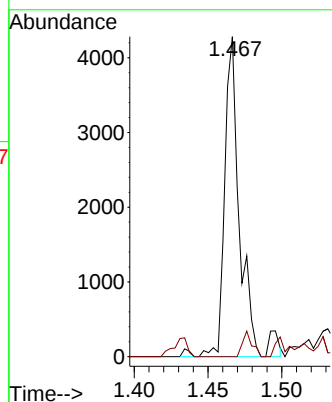
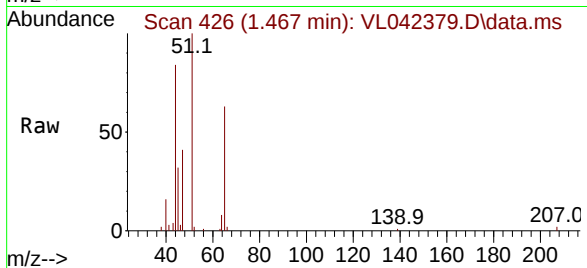




#3
Chlorodifluoromethane
Concen: 0.199 ppbv
RT: 1.467 min Scan# 41
Delta R.T. -0.010 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

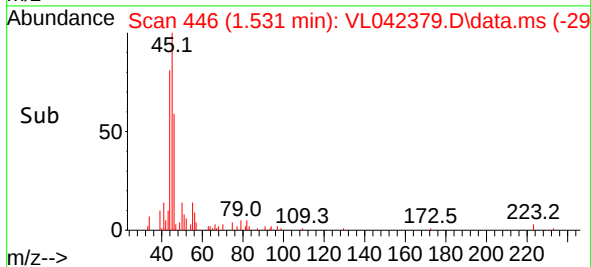
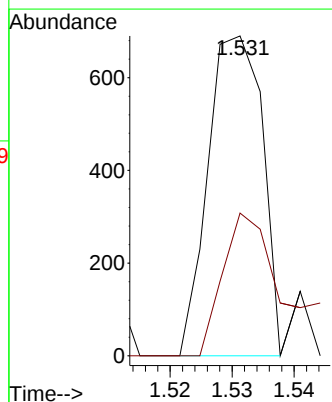
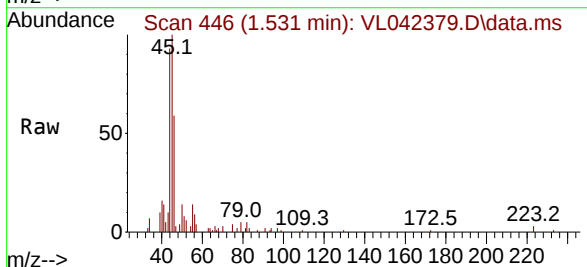
Instrument :
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ClientSampleId :
IA-B2-5-03312025DL

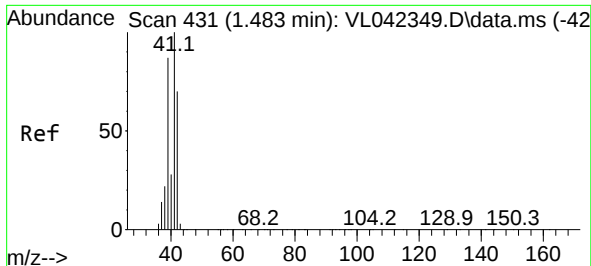
Tgt Ion: 51 Resp: 3102
Ion Ratio Lower Upper
51 100
67 12.3 16.2 24.4#



#4
Chloromethane
Concen: 0.065 ppbv
RT: 1.531 min Scan# 446
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 50 Resp: 420
Ion Ratio Lower Upper
50 100
52 44.6 24.7 37.1#





#9

Propene

Concen: 0.253 ppbv

RT: 1.486 min Scan# 41

Delta R.T. 0.003 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

Instrument :

MSVOA_L

ClientSampleId :

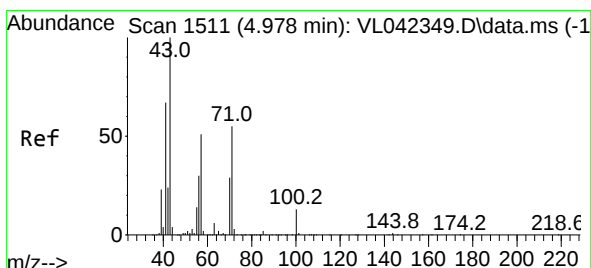
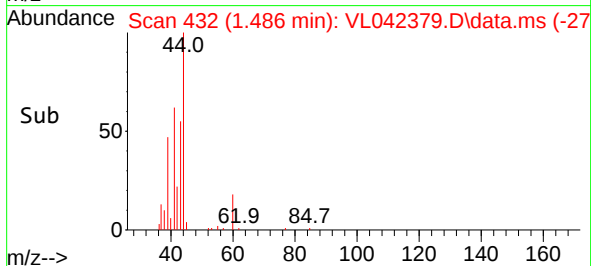
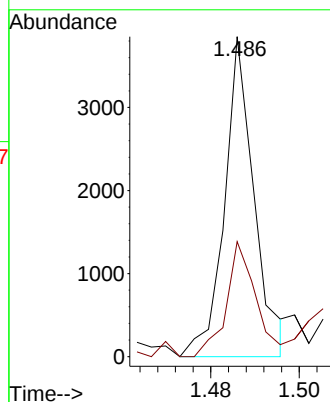
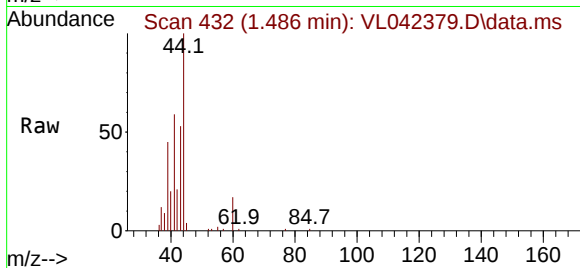
IA-B2-5-03312025DL

Tgt Ion: 41 Resp: 1792

Ion Ratio Lower Upper

41 100

42 0.0 56.2 84.4#



#10

Heptane

Concen: 0.264 ppbv

RT: 4.972 min Scan# 1509

Delta R.T. -0.006 min

Lab File: VL042379.D

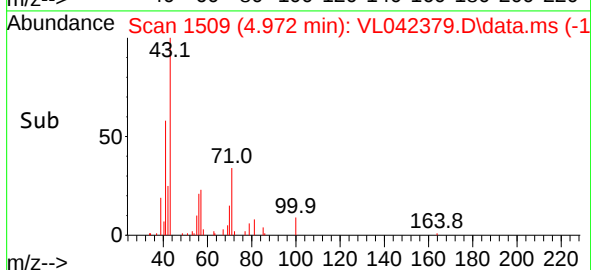
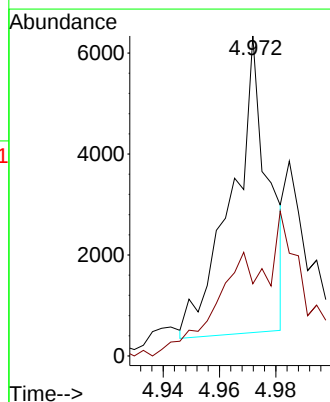
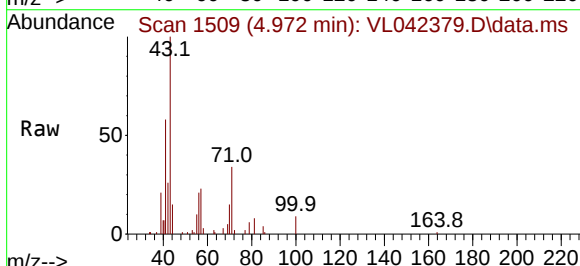
Acq: 18 Apr 2025 03:03

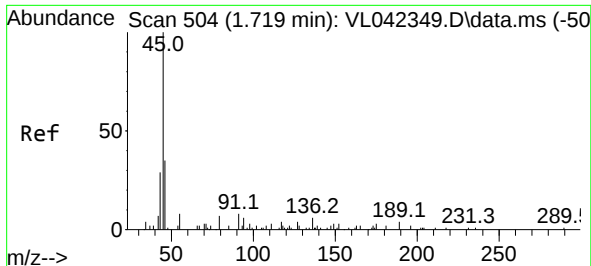
Tgt Ion: 43 Resp: 5266

Ion Ratio Lower Upper

43 100

57 0.0 39.9 59.9#

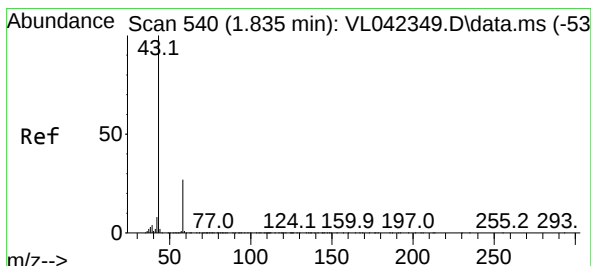
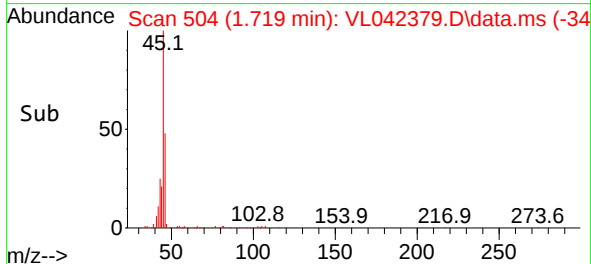
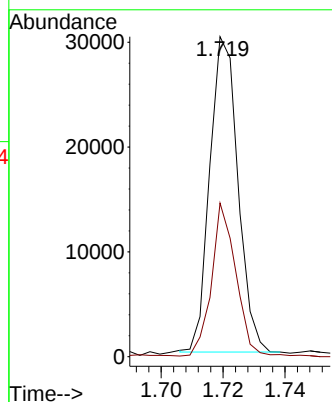
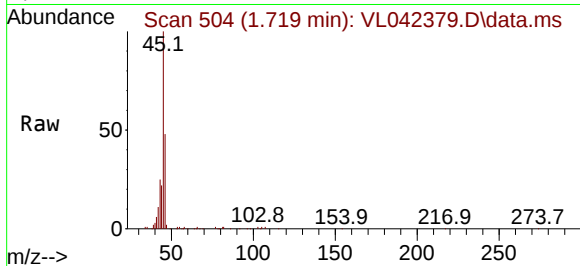




#13
Ethanol
Concen: 16.847 ppbv
RT: 1.719 min Scan# 504
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

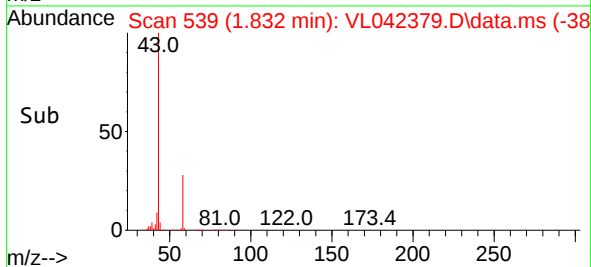
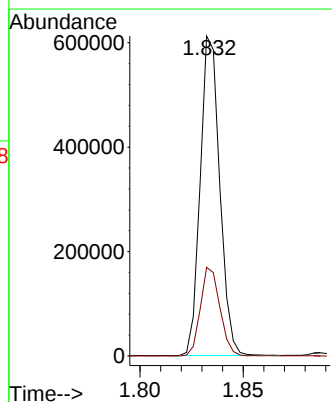
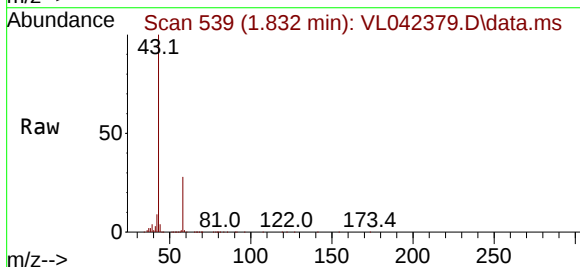
Instrument :
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ClientSampleId :
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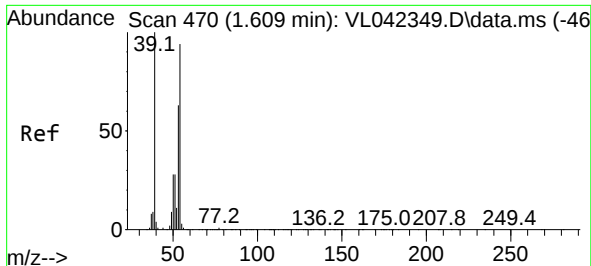
Tgt Ion: 45 Resp: 18982
Ion Ratio Lower Upper
45 100
46 43.4 21.9 87.7



#15
Acetone
Concen: 26.530 ppbv
RT: 1.832 min Scan# 539
Delta R.T. -0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 43 Resp: 401815
Ion Ratio Lower Upper
43 100
58 27.9 22.4 33.6

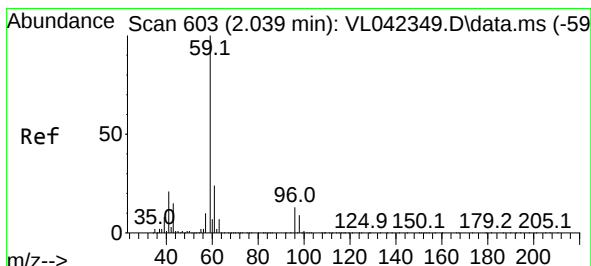
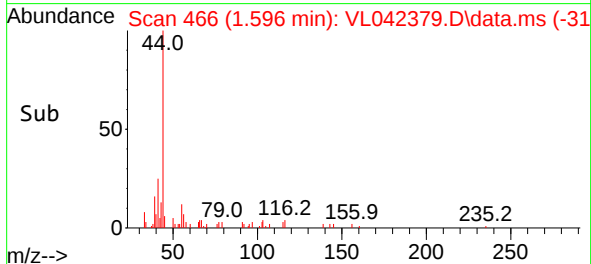
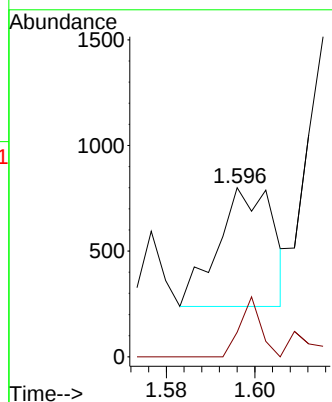
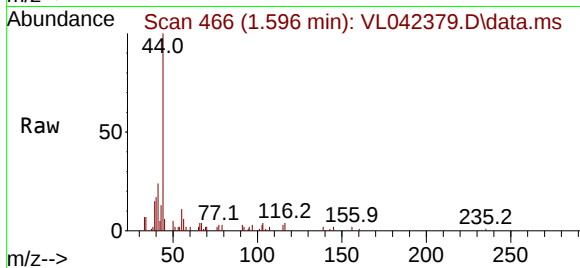




#16
1,3-Butadiene
Concen: 0.068 ppbv
RT: 1.596 min Scan# 41
Delta R.T. -0.013 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

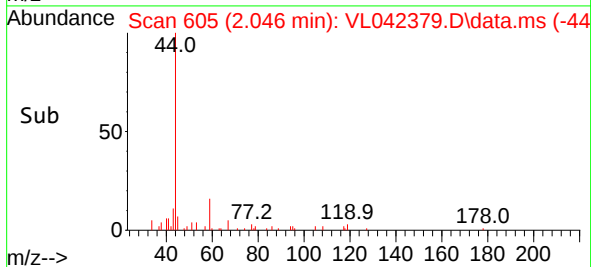
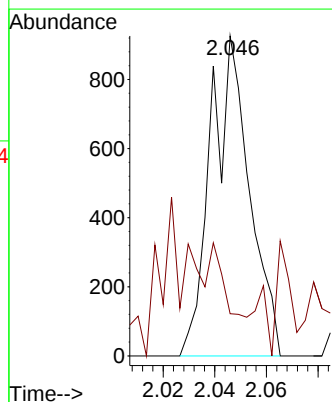
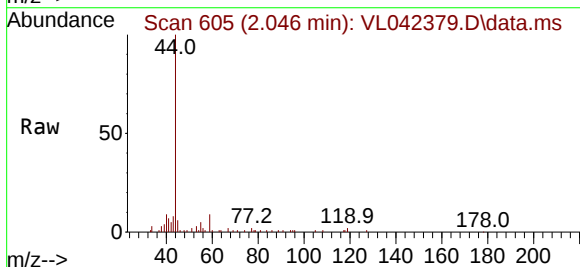
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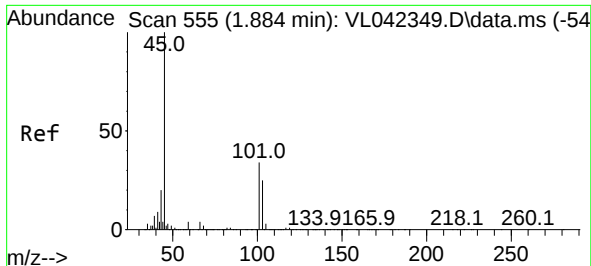
Tgt Ion: 39 Resp: 489
Ion Ratio Lower Upper
39 100
54 0.0 64.9 97.3#



#17
tert-Butyl alcohol
Concen: 0.051 ppbv
RT: 2.046 min Scan# 605
Delta R.T. 0.007 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 59 Resp: 965
Ion Ratio Lower Upper
59 100
57 62.3 8.7 13.1#

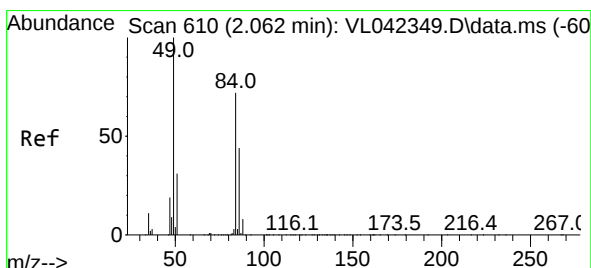
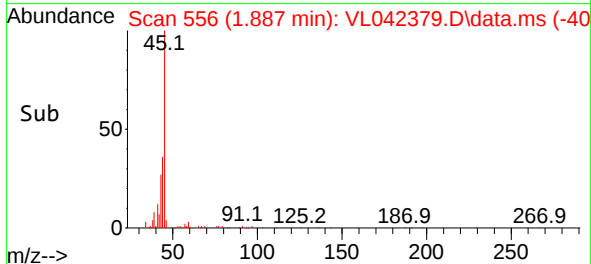
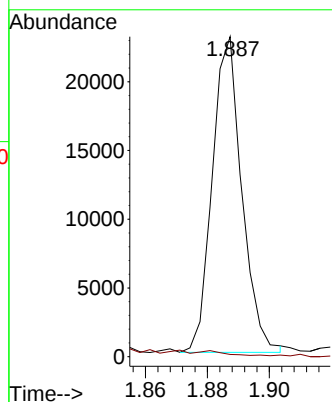
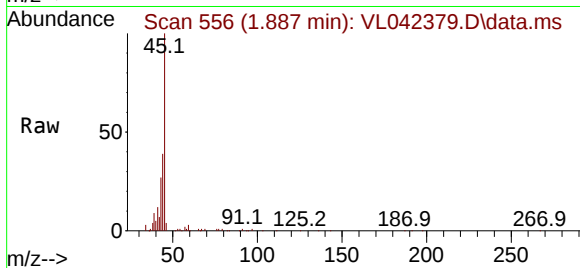




#19
Isopropyl Alcohol
Concen: 1.810 ppbv
RT: 1.887 min Scan# 511
Delta R.T. 0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

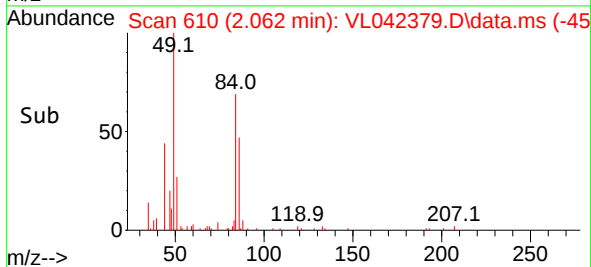
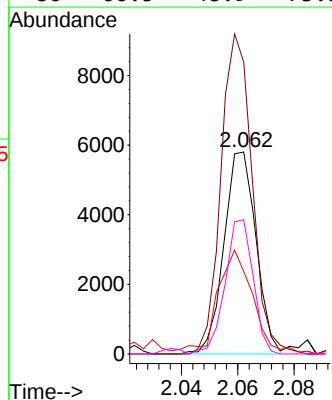
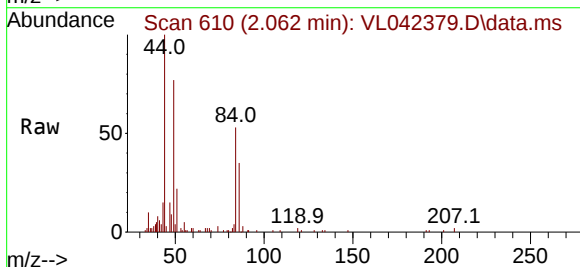
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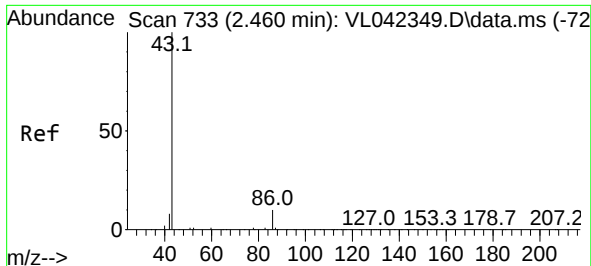
Tgt Ion: 45 Resp: 15229
Ion Ratio Lower Upper
45 100
58 737.4 34.5 51.7#



#20
Methylene Chloride
Concen: 0.773 ppbv
RT: 2.062 min Scan# 610
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 84 Resp: 4584
Ion Ratio Lower Upper
84 100
49 144.6 111.6 167.4
51 38.7 35.1 52.7
86 66.5 48.9 73.3

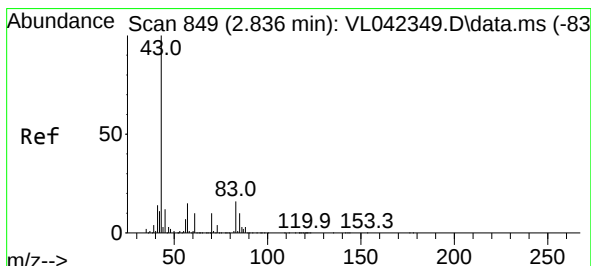
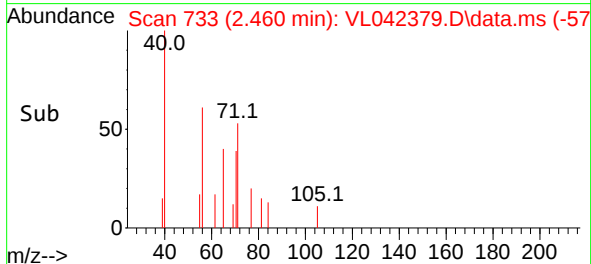
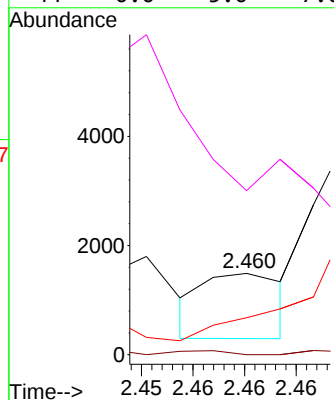
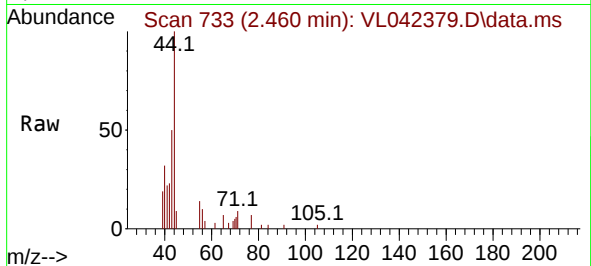




#23
 Vinyl Acetate
 Concen: 0.106 ppbv
 RT: 2.460 min Scan# 71
 Delta R.T. 0.000 min
 Lab File: VL042379.D
 Acq: 18 Apr 2025 03:03

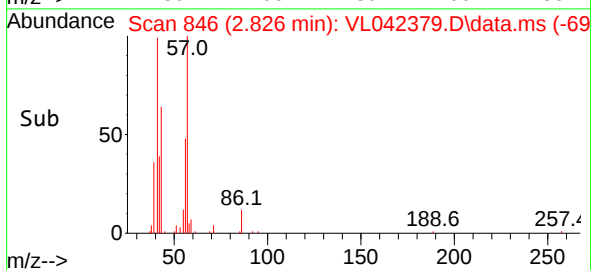
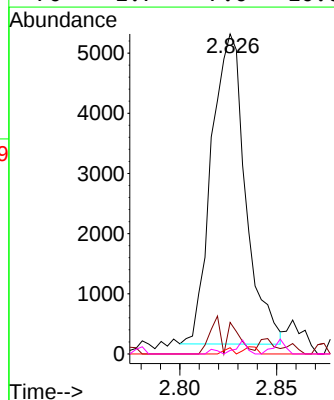
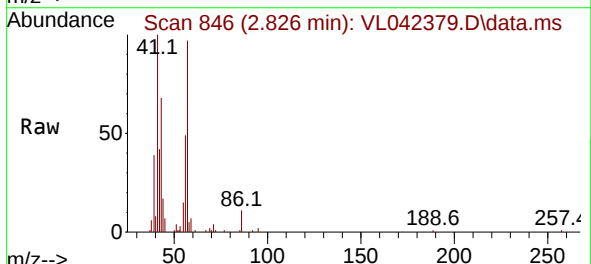
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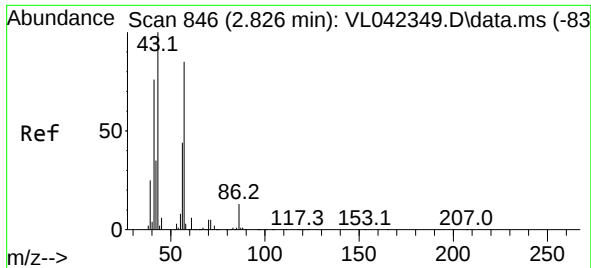
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Ion Ratio	Lower Upper
43 100	
86 0.0	6.5 9.7#
42 94.4	7.8 11.8#
44 0.0	5.0 7.6#



#25
 Ethyl Acetate
 Concen: 0.169 ppbv
 RT: 2.826 min Scan# 846
 Delta R.T. -0.010 min
 Lab File: VL042379.D
 Acq: 18 Apr 2025 03:03

Tgt	Ion: 43	Resp:	6315
Ion	Ratio	Lower	Upper
43	100		
45	11.7	8.3	12.5
61	1.4	7.3	10.9#
70	1.7	7.0	10.6#

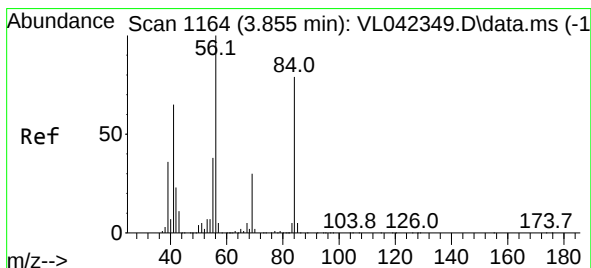
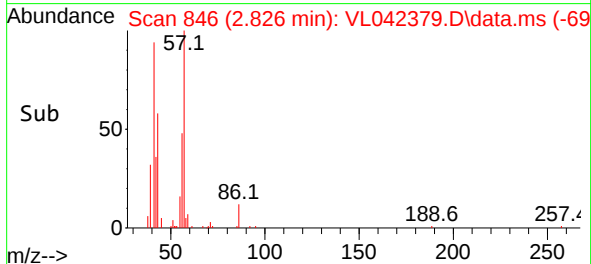
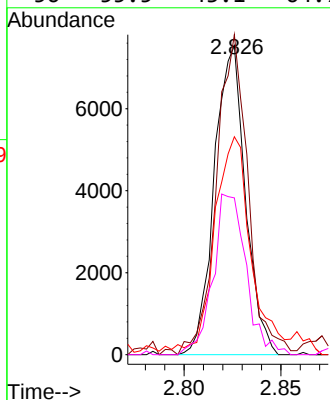
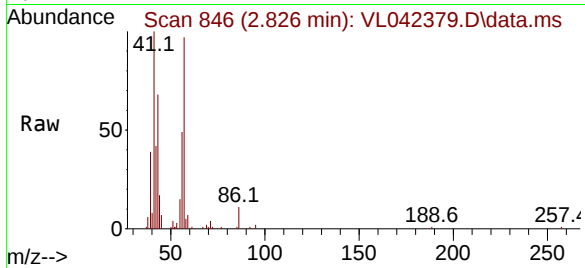




#26
Hexane
Concen: 0.557 ppbv
RT: 2.826 min Scan# 846
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

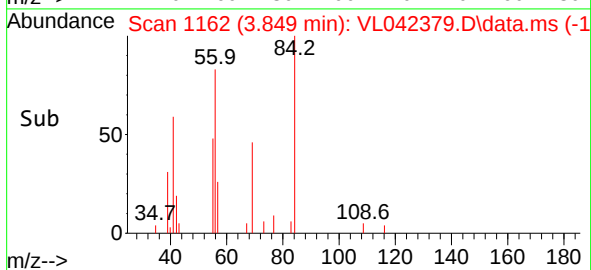
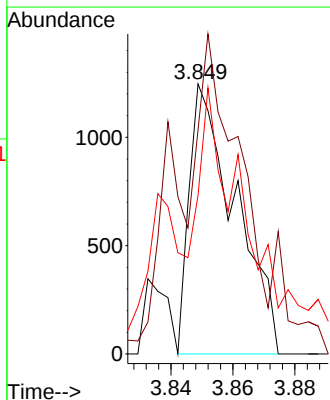
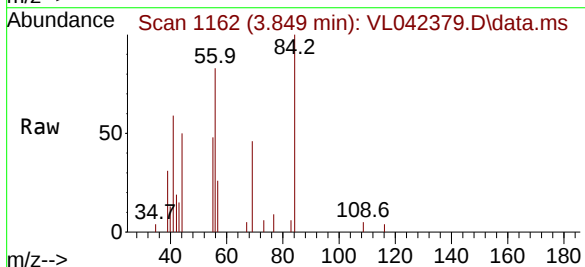
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

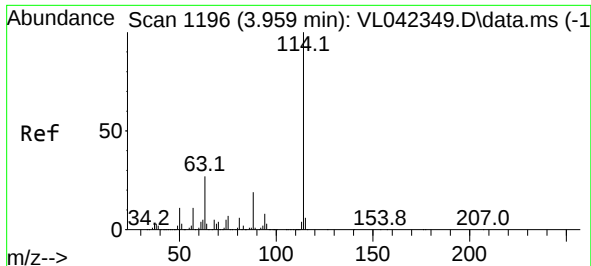
Tgt Ion:	57	Resp:	8415
Ion	Ratio	Lower	Upper
57	100		
41	107.4	77.9	116.9
43	84.9	208.4	312.6#
56	55.5	43.1	64.7



#30
Cyclohexane
Concen: 0.106 ppbv
RT: 3.849 min Scan# 1162
Delta R.T. -0.006 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion:	84	Resp:	1289
Ion	Ratio	Lower	Upper
84	100		
56	172.8	101.0	151.4#
41	157.4	67.4	101.0#

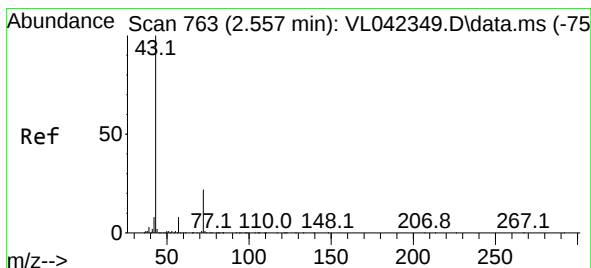
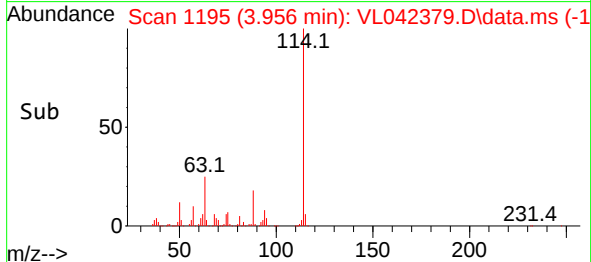
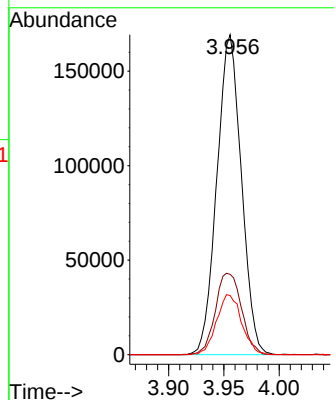
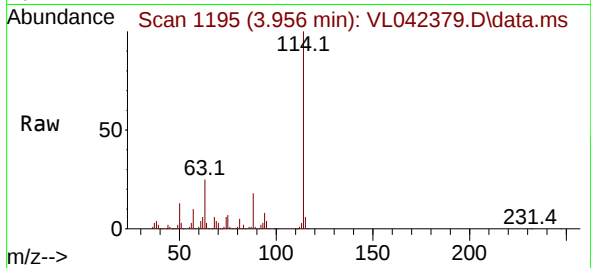




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 3.956 min Scan# 1195
 Delta R.T. -0.003 min
 Lab File: VL042379.D
 Acq: 18 Apr 2025 03:03

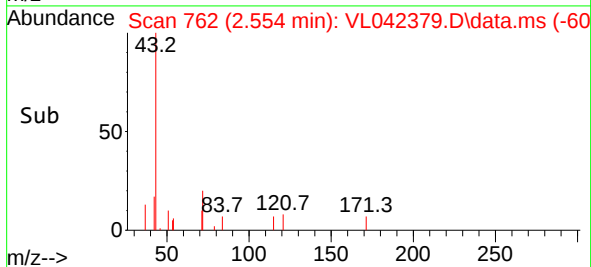
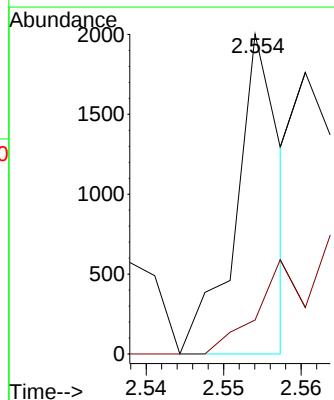
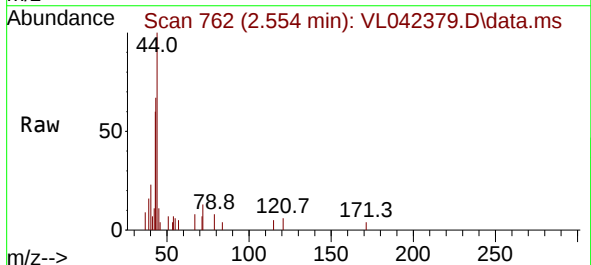
Instrument :
 MSVOA_L
 ClientSampleId :
 IA-B2-5-03312025DL

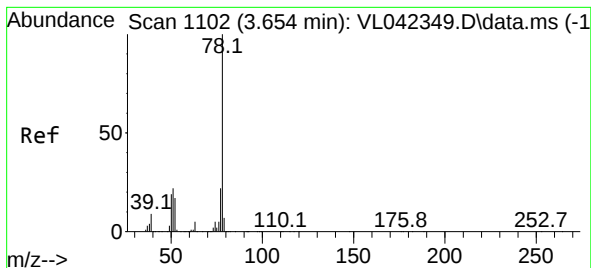
Tgt Ion:114 Resp: 260556
 Ion Ratio Lower Upper
 114 100
 63 27.2 21.8 32.6
 88 19.2 15.5 23.3



#34
 2-Butanone
 Concen: 0.039 ppbv
 RT: 2.554 min Scan# 762
 Delta R.T. -0.003 min
 Lab File: VL042379.D
 Acq: 18 Apr 2025 03:03

Tgt Ion: 43 Resp: 804
 Ion Ratio Lower Upper
 43 100
 72 0.0 18.2 27.2#





#36

Benzene

Concen: 0.116 ppbv

RT: 3.651 min Scan# 1102

Delta R.T. -0.003 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

Instrument :

MSVOA_L

ClientSampleId :

IA-B2-5-03312025DL

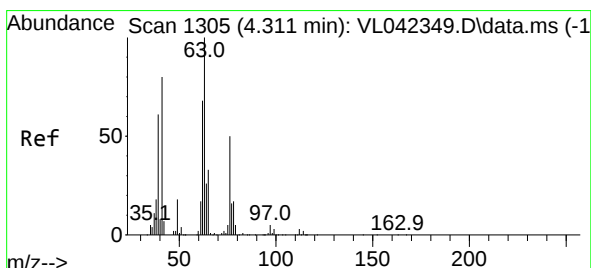
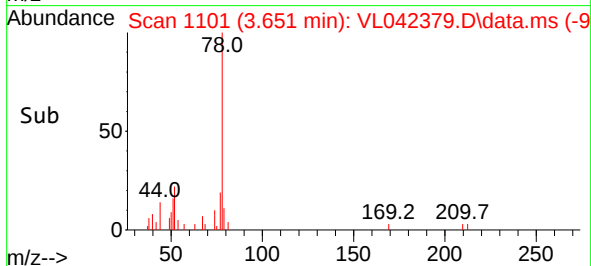
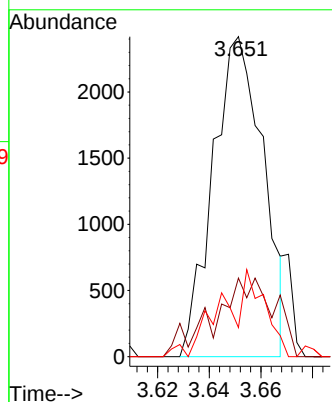
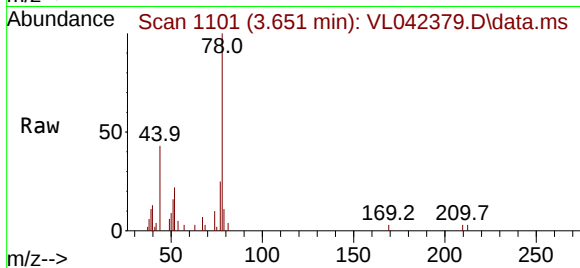
Tgt Ion: 78 Resp: 3272

Ion Ratio Lower Upper

78 100

77 14.1 17.4 26.0#

50 5.3 15.5 23.3#



#39

1,2-Dichloropropane

Concen: 6.750 ppbv

RT: 3.952 min Scan# 1194

Delta R.T. -0.359 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

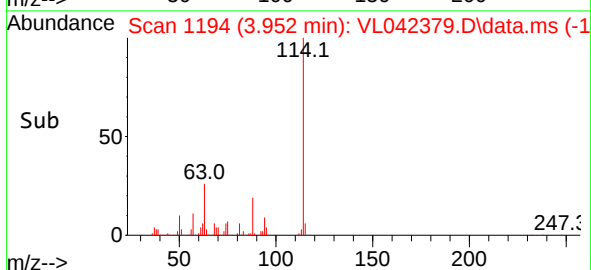
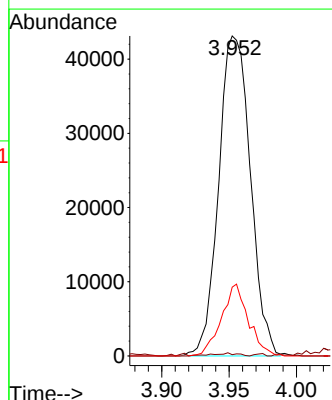
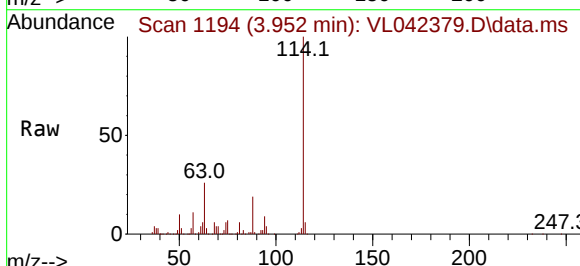
Tgt Ion: 63 Resp: 70688

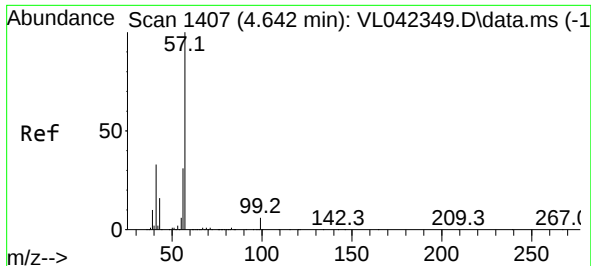
Ion Ratio Lower Upper

63 100

41 0.0 64.2 96.2#

62 21.5 54.3 81.5#

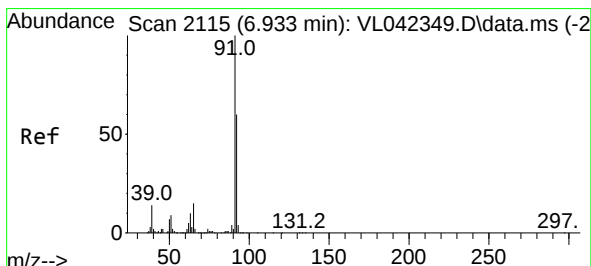
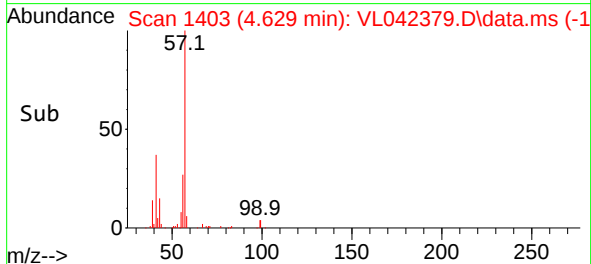
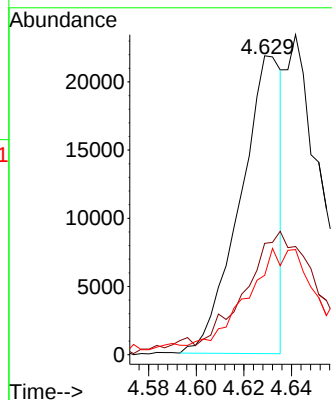
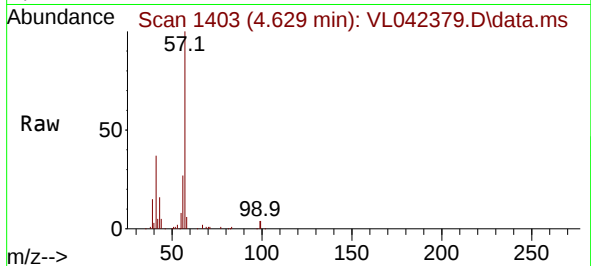




#44
2,2,4-Trimethylpentane
Concen: 0.542 ppbv
RT: 4.629 min Scan# 1403
Delta R.T. -0.013 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

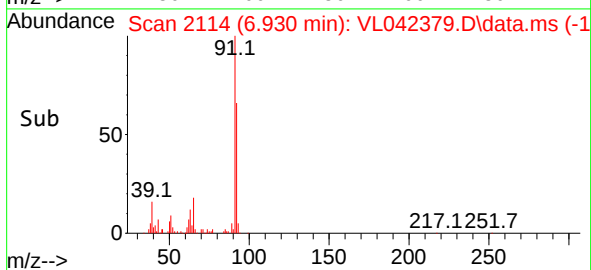
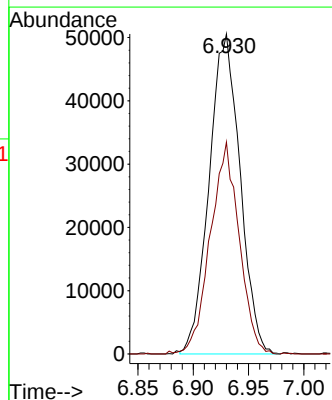
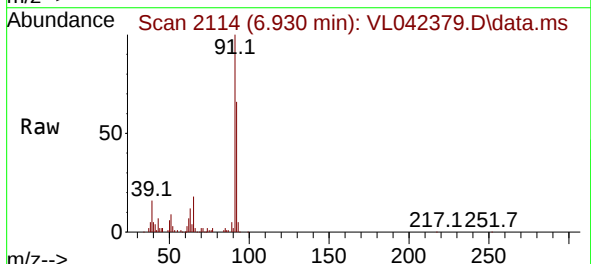
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

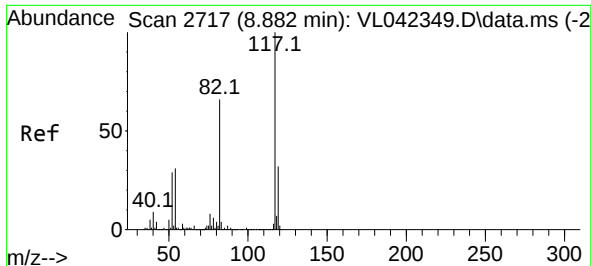
Tgt Ion: 57 Resp: 26285
Ion Ratio Lower Upper
57 100
41 78.0 27.2 40.8#
56 68.2 25.7 38.5#



#53
Toluene
Concen: 2.914 ppbv
RT: 6.930 min Scan# 2114
Delta R.T. -0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 91 Resp: 98263
Ion Ratio Lower Upper
91 100
92 61.9 48.2 72.4

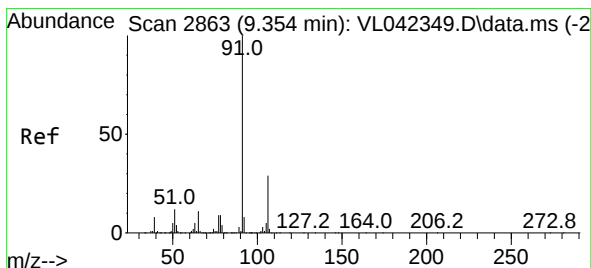
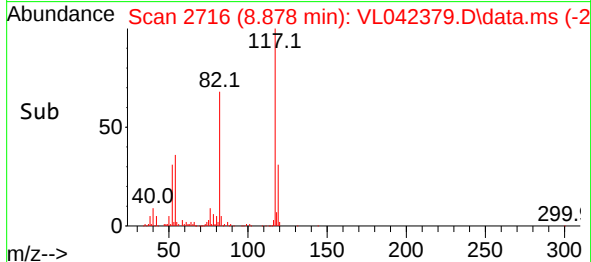
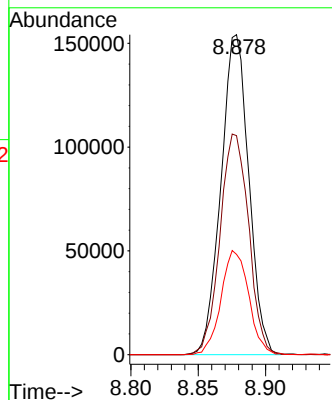
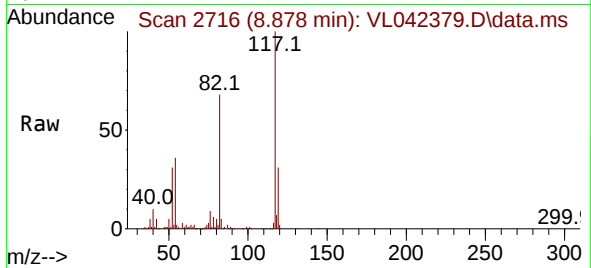




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 8.878 min Scan# 21
Delta R.T. -0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

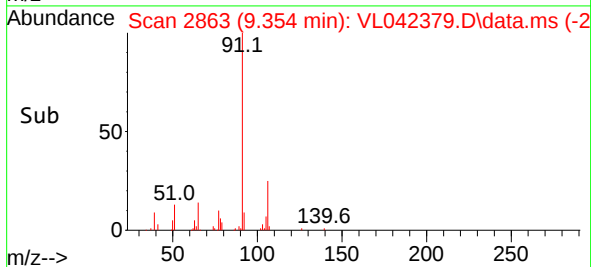
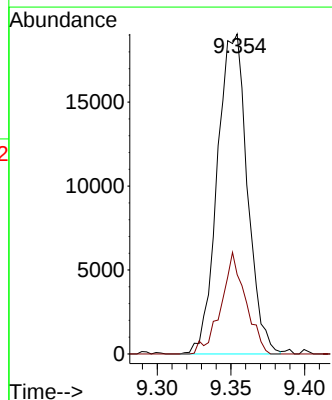
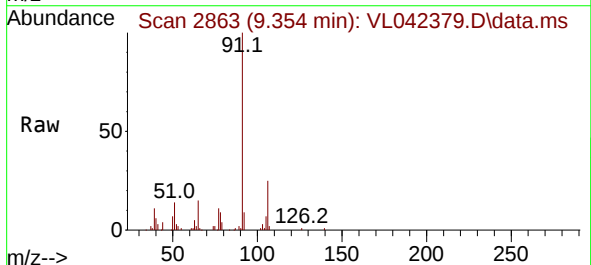
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

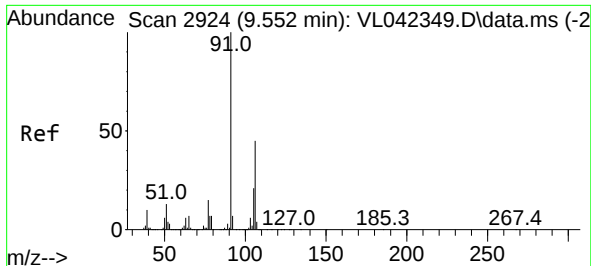
Tgt Ion:117 Resp: 221578
Ion Ratio Lower Upper
117 100
82 70.9 57.8 86.6
119 32.4 25.2 37.8



#58
Ethyl Benzene
Concen: 0.616 ppbv
RT: 9.354 min Scan# 2863
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 91 Resp: 27028
Ion Ratio Lower Upper
91 100
106 24.8 23.0 34.4





#59

m/p-Xylene

Concen: 2.255 ppbv

RT: 9.526 min Scan# 2916

Delta R.T. -0.026 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

Instrument :

MSVOA_L

ClientSampleId :

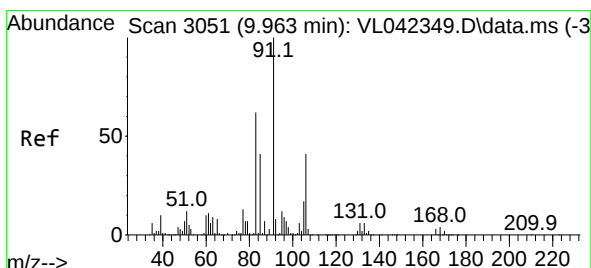
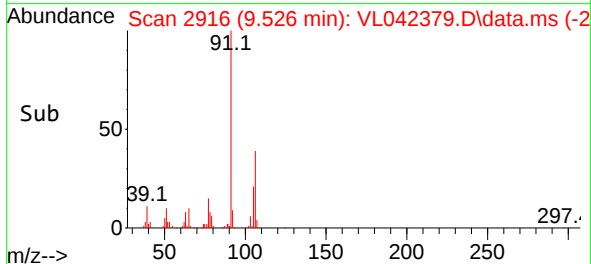
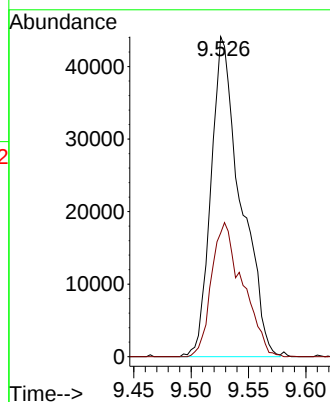
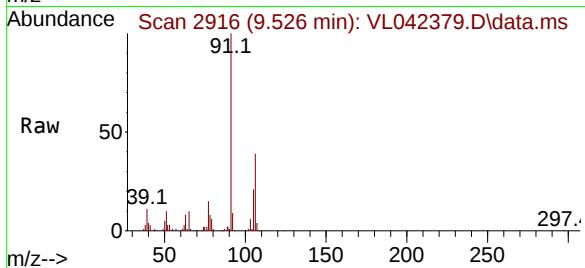
IA-B2-5-03312025DL

Tgt Ion: 91 Resp: 79744

Ion Ratio Lower Upper

91 100

106 44.0 35.4 53.2



#60

o-Xylene

Concen: 0.838 ppbv

RT: 9.963 min Scan# 3051

Delta R.T. 0.000 min

Lab File: VL042379.D

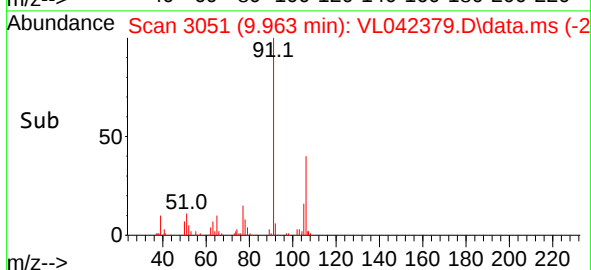
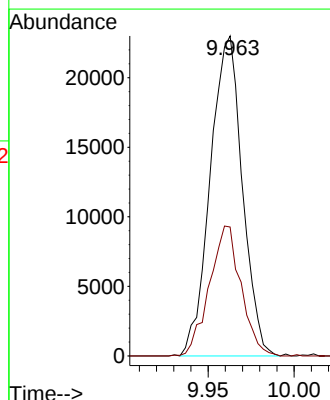
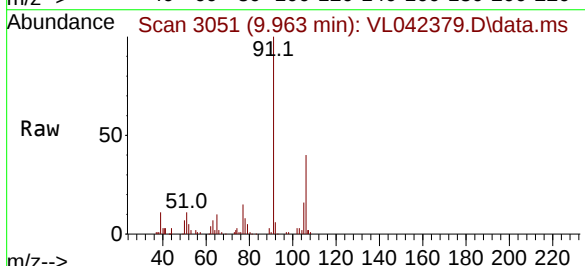
Acq: 18 Apr 2025 03:03

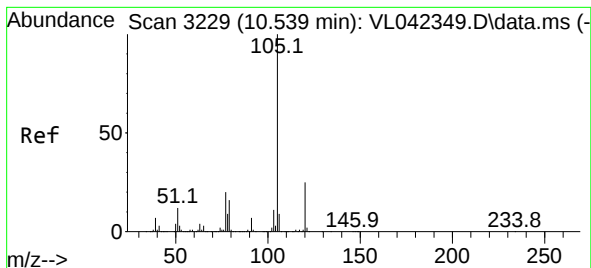
Tgt Ion: 91 Resp: 29832

Ion Ratio Lower Upper

91 100

106 40.0 21.1 63.4





#62

Isopropylbenzene

Concen: 0.052 ppbv

RT: 10.539 min Scan# 31

Delta R.T. 0.000 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

Instrument :

MSVOA_L

ClientSampleId :

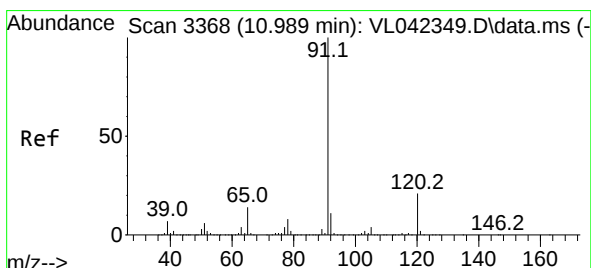
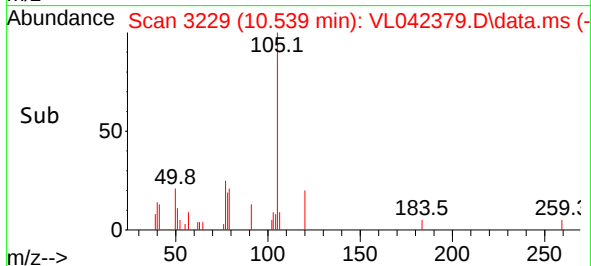
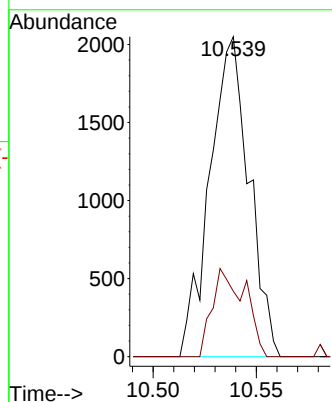
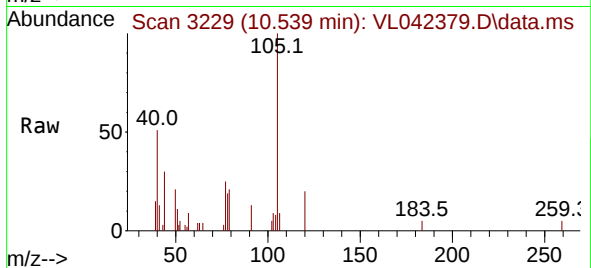
IA-B2-5-03312025DL

Tgt Ion:105 Resp: 2709

Ion Ratio Lower Upper

105 100

120 23.1 19.8 29.8



#64

n-propylbenzene

Concen: 0.136 ppbv

RT: 10.986 min Scan# 3367

Delta R.T. -0.003 min

Lab File: VL042379.D

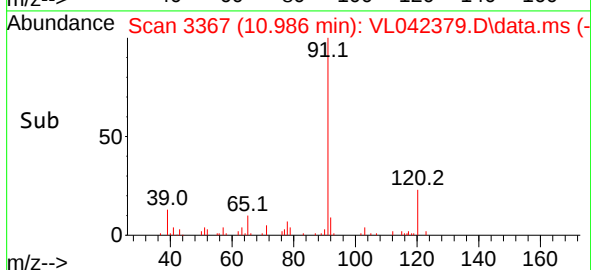
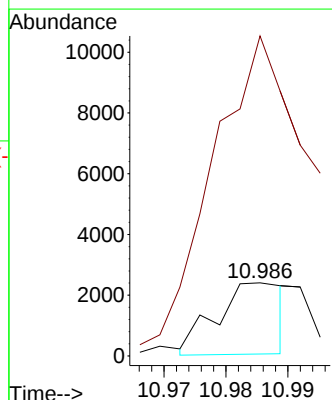
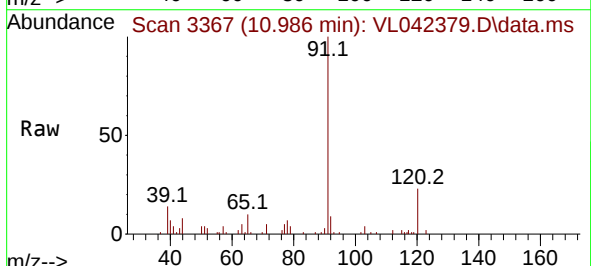
Acq: 18 Apr 2025 03:03

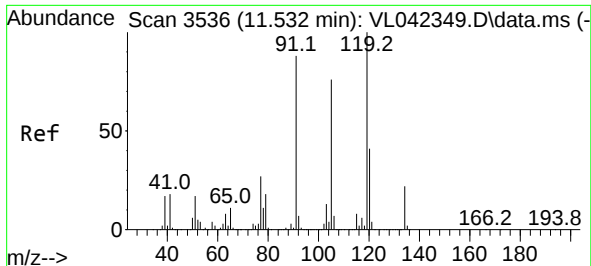
Tgt Ion:120 Resp: 1789

Ion Ratio Lower Upper

120 100

91 682.3 392.4 588.6#

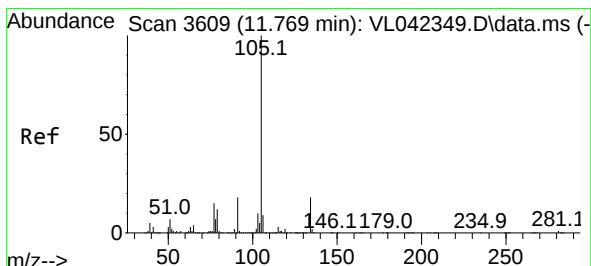
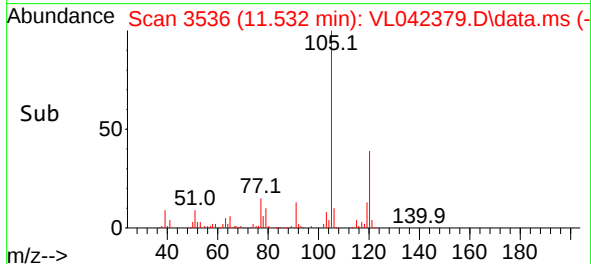
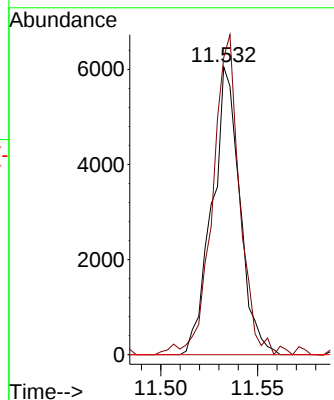
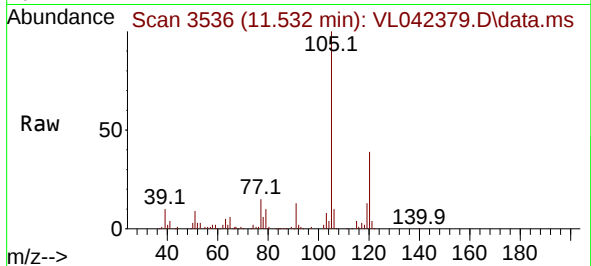




#65
tert-Butylbenzene
Concen: 0.126 ppbv
RT: 11.532 min Scan# 311
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

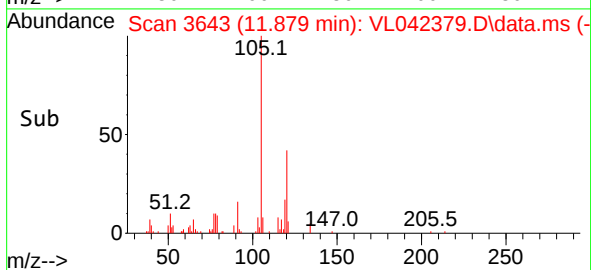
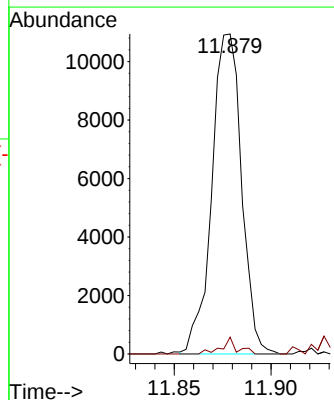
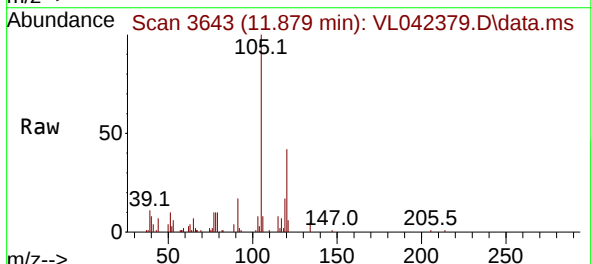
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

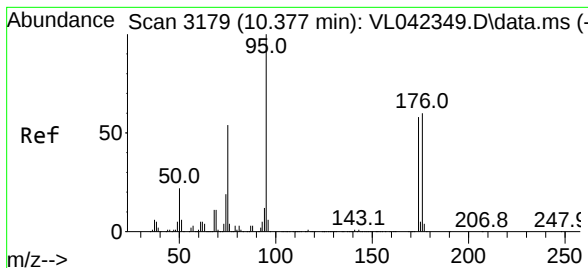
Tgt Ion:119 Resp: 6043
Ion Ratio Lower Upper
119 100
91 109.8 74.6 111.8
134 0.0 18.8 28.2#



#67
sec-Butylbenzene
Concen: 0.175 ppbv
RT: 11.879 min Scan# 3643
Delta R.T. 0.110 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion:105 Resp: 11680
Ion Ratio Lower Upper
105 100
134 2.6 14.6 21.8#

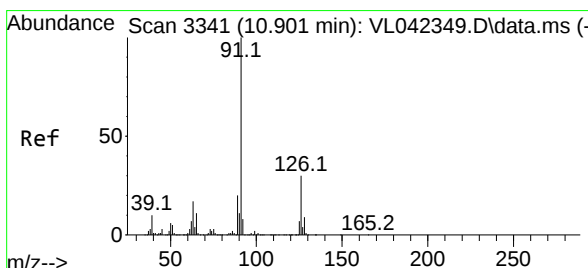
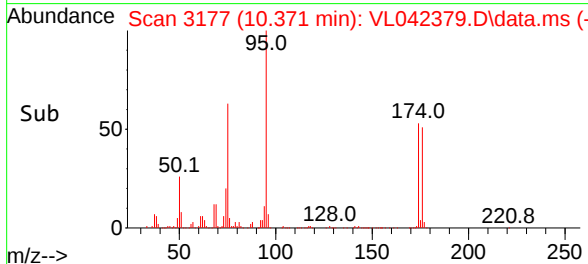
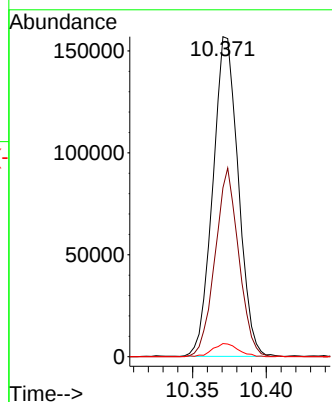
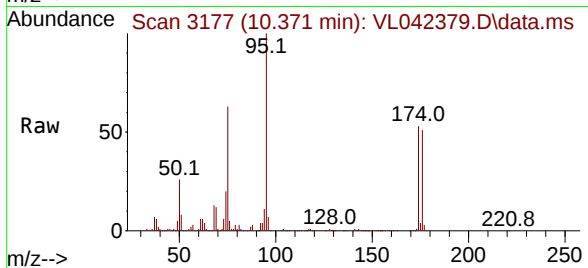




#68
1-Bromo-4-Fluorobenzene
Concen: 10.339 ppbv
RT: 10.371 min Scan# 3177
Delta R.T. -0.006 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

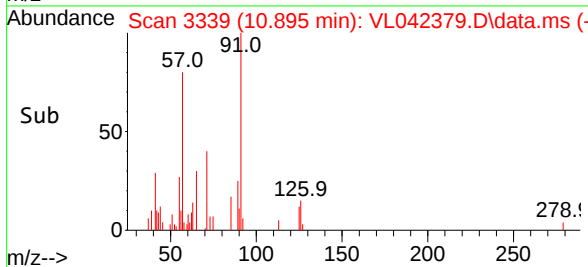
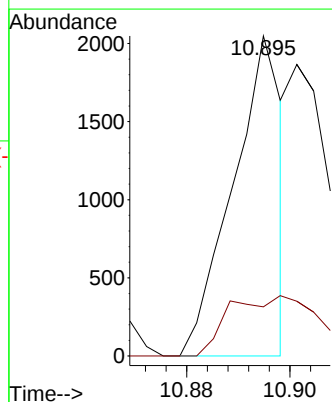
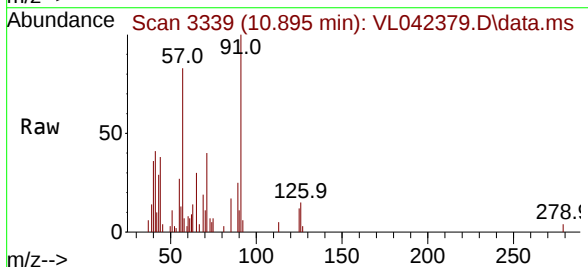
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

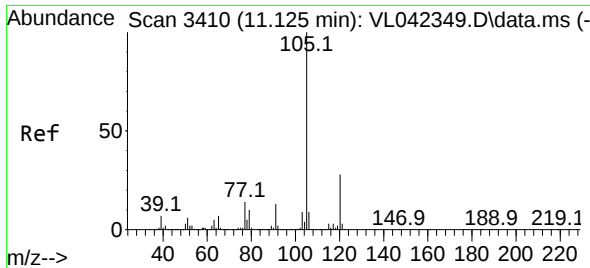
Tgt Ion: 95 Resp: 188260
Ion Ratio Lower Upper
95 100
174 54.8 48.5 72.7
175 4.2 3.7 5.5



#71
2-Chlorotoluene
Concen: 0.033 ppbv
RT: 10.895 min Scan# 3339
Delta R.T. -0.006 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion: 91 Resp: 1357
Ion Ratio Lower Upper
91 100
126 40.2 11.4 45.4

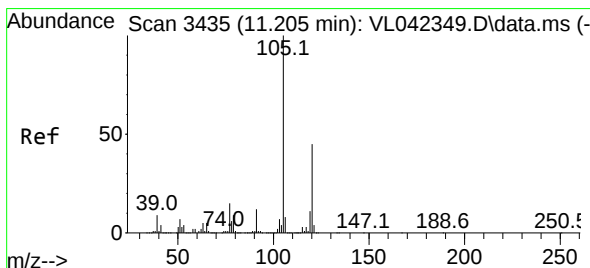
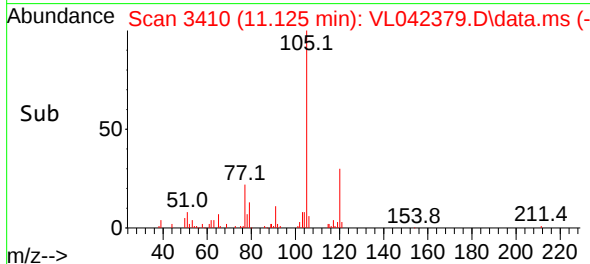
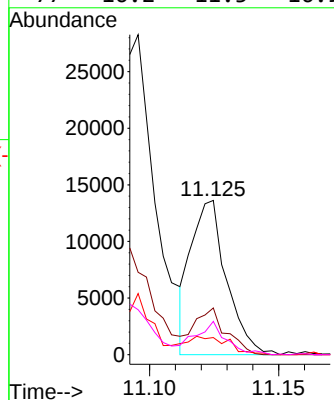
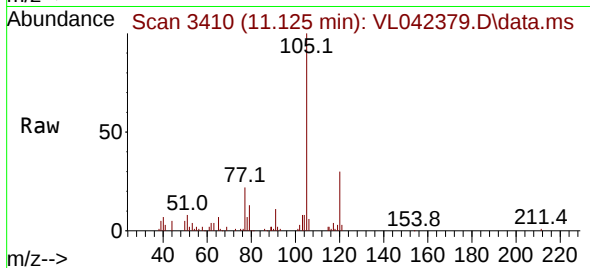




#72
4-Ethyltoluene
Concen: 0.298 ppbv
RT: 11.125 min Scan# 3410
Delta R.T. 0.000 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

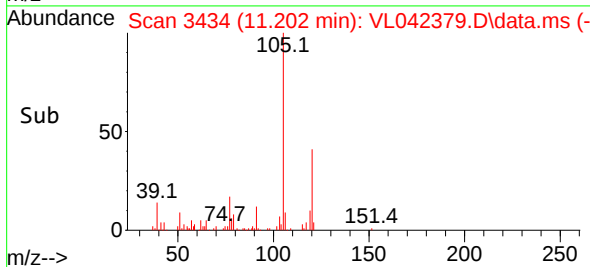
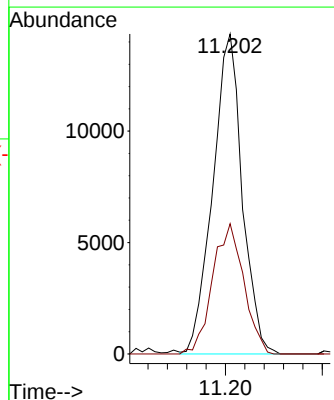
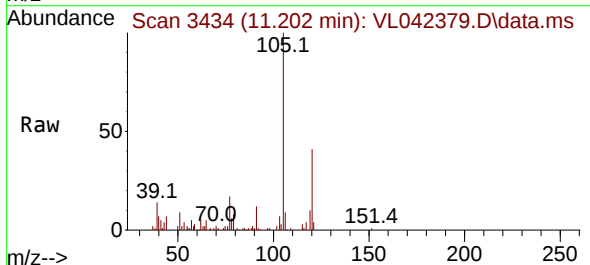
Instrument :
MSVOA_L
ClientSampleId :
IA-B2-5-03312025DL

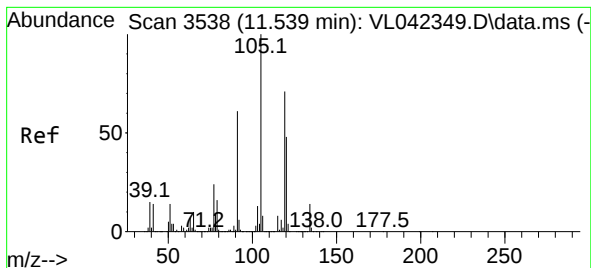
Tgt Ion:105	Resp:	12986
Ion Ratio	Lower	Upper
105	100	
120	0.0	23.2 34.8#
91	0.0	10.4 15.6#
77	16.2	11.3 16.9



#73
1,3,5-Trimethylbenzene
Concen: 0.394 ppbv
RT: 11.202 min Scan# 3434
Delta R.T. -0.003 min
Lab File: VL042379.D
Acq: 18 Apr 2025 03:03

Tgt Ion:105	Resp:	15149
Ion Ratio	Lower	Upper
105	100	
120	40.7	35.6 53.4





#74

1,2,4-Trimethylbenzene

Concen: 1.122 ppbv

RT: 11.536 min Scan# 3537

Delta R.T. -0.003 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

Instrument :

MSVOA_L

ClientSampleId :

IA-B2-5-03312025DL

Tgt Ion:105 Resp: 50354

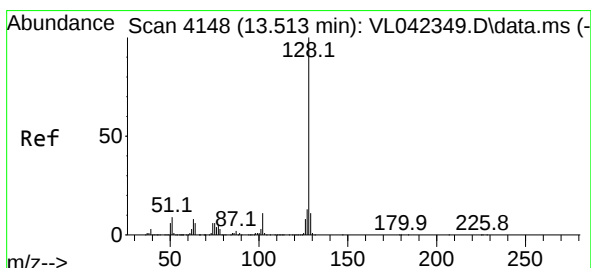
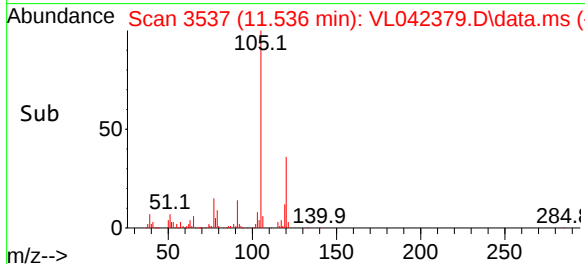
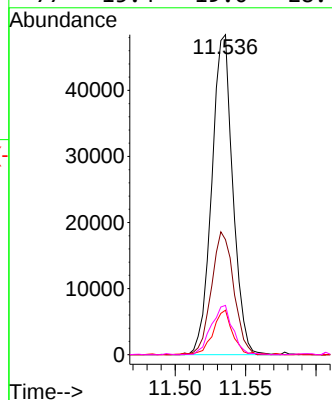
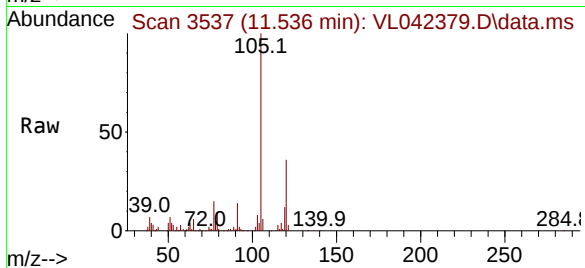
Ion Ratio Lower Upper

105 100

120 35.9 38.1 57.1#

91 13.7 48.8 73.2#

77 15.4 19.0 28.4#



#79

Naphthalene

Concen: 0.069 ppbv

RT: 13.513 min Scan# 4148

Delta R.T. 0.000 min

Lab File: VL042379.D

Acq: 18 Apr 2025 03:03

Tgt Ion:128 Resp: 3721

Ion Ratio Lower Upper

128 100

127 12.0 10.6 15.8

129 11.1 8.6 12.8

