

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL091824\
 Data File : VL041607.D
 Acq On : 18 Sep 2024 15:03
 Operator : SY/MD
 Sample : P4028-04
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Sep 19 01:33:44 2024
 Quant Method : Z:\voasrv\HPCHEM1\MSVOA_L\methods\VL091624AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Aug 26 06:05:16 2022
 QLast Update : Tue Sep 17 09:12:21 2024
 Response via : Initial Calibration

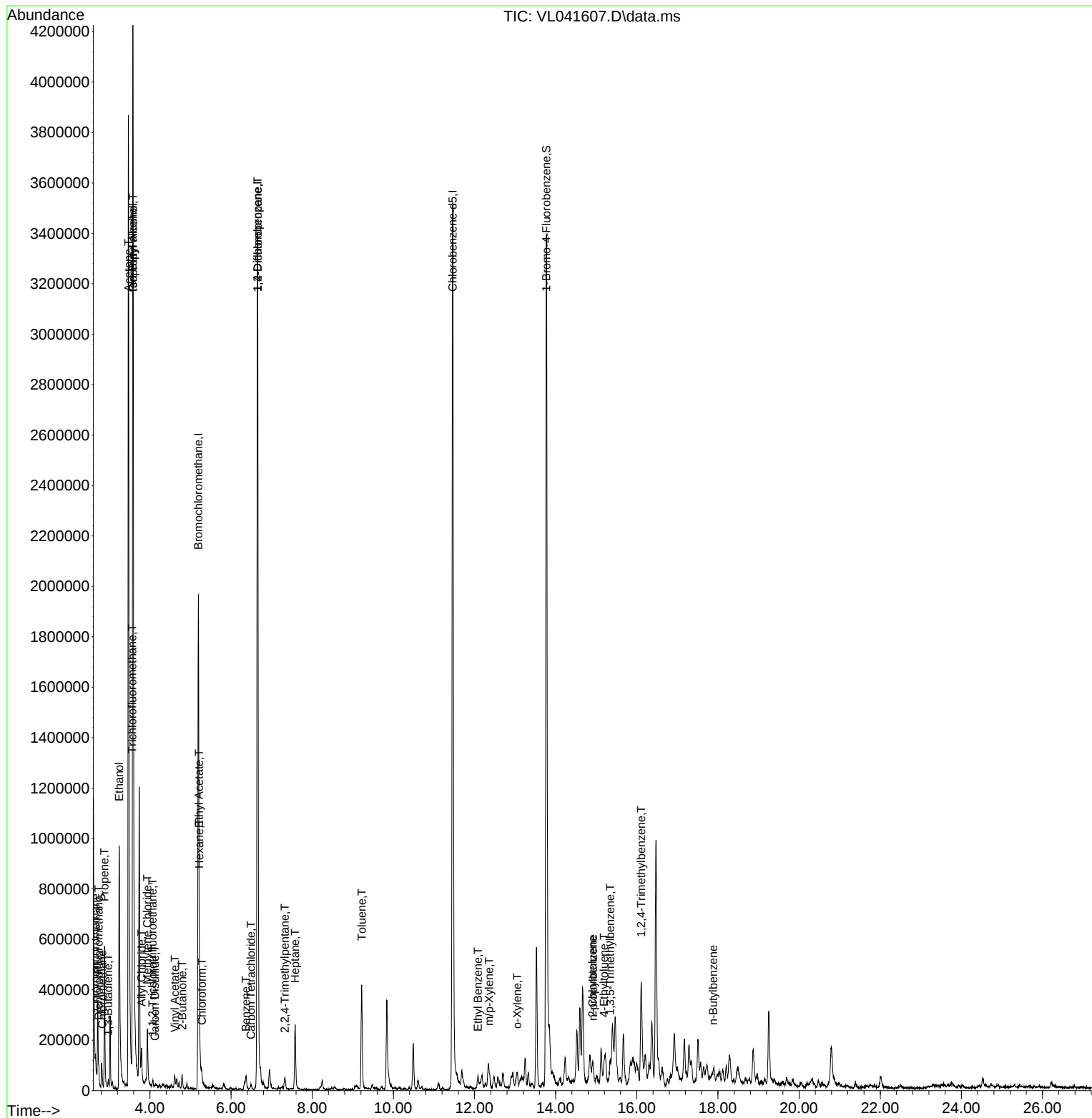
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

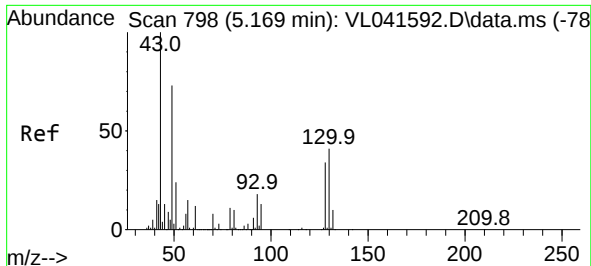
Internal Standards						
1) Bromochloromethane	5.195	49	943034	10.000	ppbv	0.03
33) 1,4-Difluorobenzene	6.652	114	2578015	10.000	ppbv	0.02
55) Chlorobenzene-d5	11.462	117	2328899	10.000	ppbv	0.02
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	13.770	95	1684243	9.824	ppbv	0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.200%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	2.739	85	39441	0.290	ppbv	89
3) Chlorodifluoromethane	2.661	51	87566	0.766	ppbv #	78
4) Chloromethane	2.825	50	35571	0.565	ppbv	100
9) Propene	2.880	41	138370	2.868	ppbv	93
10) Heptane	7.581	43	98530	0.872	ppbv	94
11) Trichlorofluoromethane	3.565	101	34490	0.238	ppbv	93
12) 1,1,2-Trichlorotrifluo...	4.066	101	3889	0.037	ppbv #	5
13) Ethanol	3.243	45	996713	274.787	ppbv	98
15) Acetone	3.468	43	4039091	34.116	ppbv	98
16) 1,3-Butadiene	2.973	39	6495	0.113	ppbv #	71
17) tert-Butyl alcohol	3.578	59	174130	1.672	ppbv	99
19) Isopropyl Alcohol	3.581	45	4780692	78.880	ppbv #	97
20) Methylene Chloride	3.938	84	70319	1.581	ppbv	93
21) Allyl Chloride	3.793	41	8777	0.128	ppbv #	1
23) Vinyl Acetate	4.616	43	19104	0.293	ppbv #	6
25) Ethyl Acetate	5.211	43	62484	0.294	ppbv #	89
26) Hexane	5.214	57	67890	0.766	ppbv #	43
27) Carbon Disulfide	4.128	76	4120	0.044	ppbv #	63
29) Chloroform	5.279	83	23194	0.160	ppbv	97
34) 2-Butanone	4.796	43	63444	0.516	ppbv	95
35) Carbon Tetrachloride	6.491	117	8896	0.070	ppbv #	67
36) Benzene	6.365	78	20464	0.114	ppbv #	91
39) 1,2-Dichloropropane	6.652	63	644669	8.851	ppbv #	24
44) 2,2,4-Trimethylpentane	7.327	57	20451	0.066	ppbv #	20
53) Toluene	9.221	91	320302	1.685	ppbv	99
58) Ethyl Benzene	12.085	91	9836	0.039	ppbv #	88
59) m/p-Xylene	12.359	91	32731	0.148	ppbv #	30
60) o-Xylene	13.053	91	38633	0.182	ppbv	97
64) n-propylbenzene	14.925	120	3931	0.047	ppbv #	1
70) n-Butylbenzene	17.883	91	11758	0.034	ppbv #	14
71) 2-Chlorotoluene	14.912	91	29866	0.126	ppbv #	42
72) 4-Ethyltoluene	15.191	105	49948	0.201	ppbv #	95
73) 1,3,5-Trimethylbenzene	15.346	105	13226	0.060	ppbv #	34
74) 1,2,4-Trimethylbenzene	16.108	105	207247	0.806	ppbv #	67

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

Instrument :
MSVOA_L
ClientSampleId :

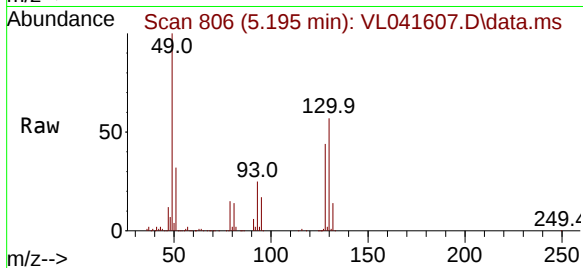
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MSVOA_L
ClientSampleId :



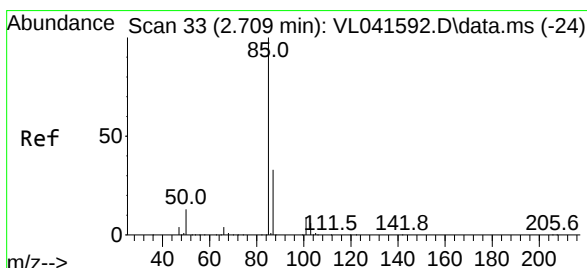
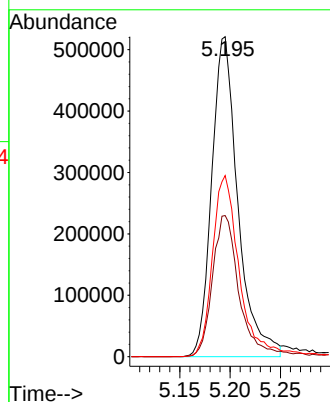
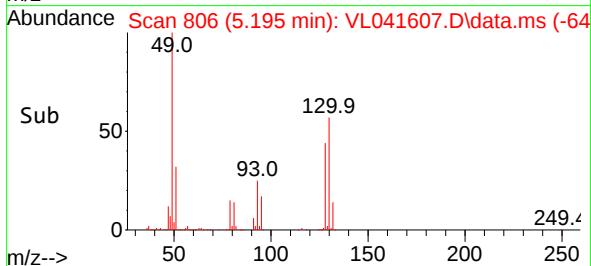


#1
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.195 min Scan# 80
Delta R.T. 0.026 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Instrument :
MSVOA_L
ClientSampleId :

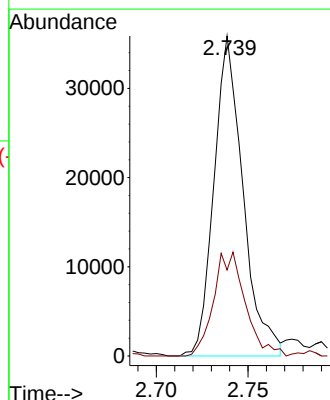
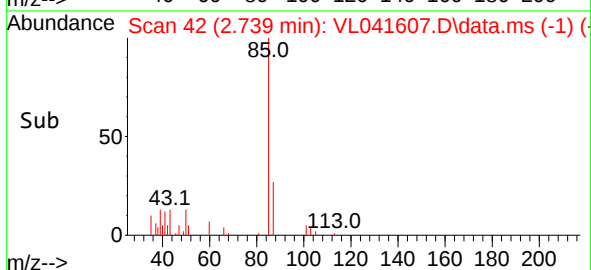
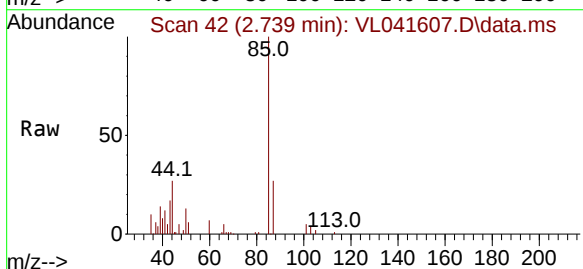


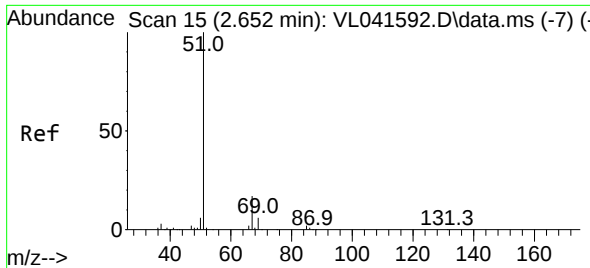
Tgt Ion: 49 Resp: 943034
Ion Ratio Lower Upper
49 100
128 46.3 23.8 71.5
130 59.4 30.4 91.3



#2
Dichlorodifluoromethane
Concen: 0.290 ppbv
RT: 2.739 min Scan# 42
Delta R.T. 0.029 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 85 Resp: 39441
Ion Ratio Lower Upper
85 100
87 26.8 26.3 39.5

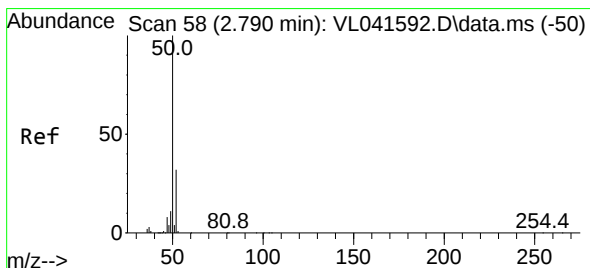
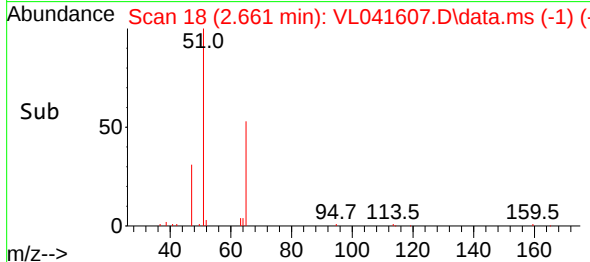
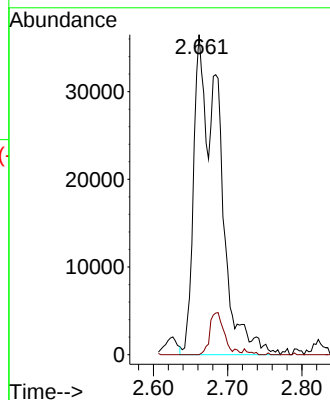
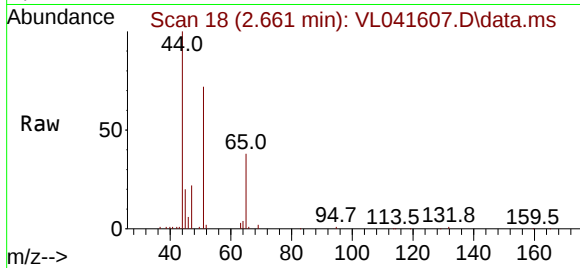




#3
Chlorodifluoromethane
Concen: 0.766 ppbv
RT: 2.661 min Scan# 18
Delta R.T. 0.010 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

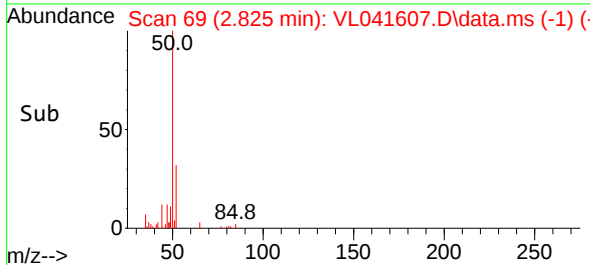
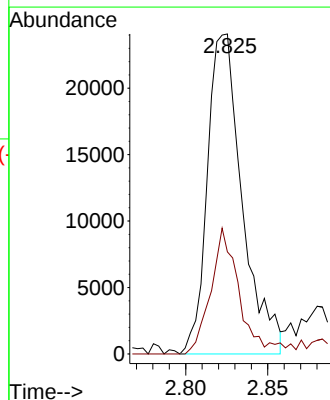
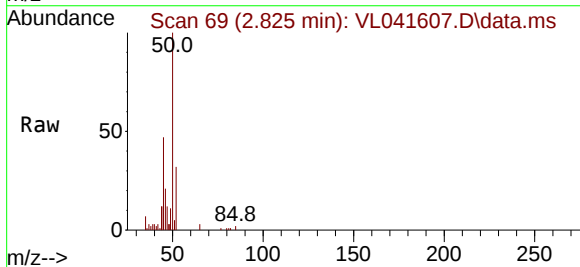
Instrument :
MSVOA_L
ClientSampleId :

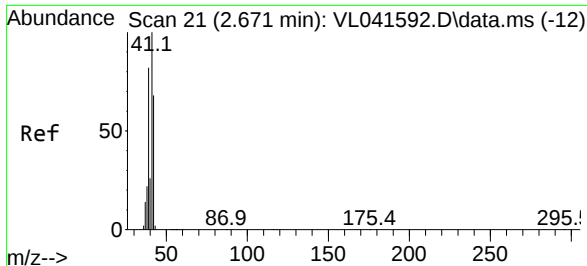
Tgt Ion: 51 Resp: 87566
Ion Ratio Lower Upper
51 100
67 7.9 14.1 21.1#



#4
Chloromethane
Concen: 0.565 ppbv
RT: 2.825 min Scan# 69
Delta R.T. 0.036 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 50 Resp: 35571
Ion Ratio Lower Upper
50 100
52 31.9 25.4 38.2

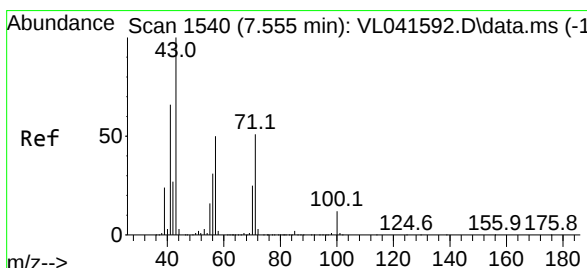
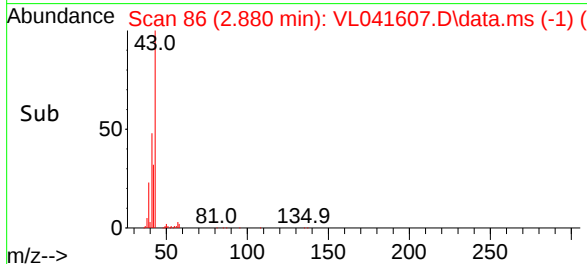
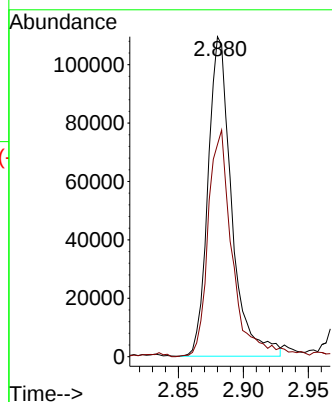
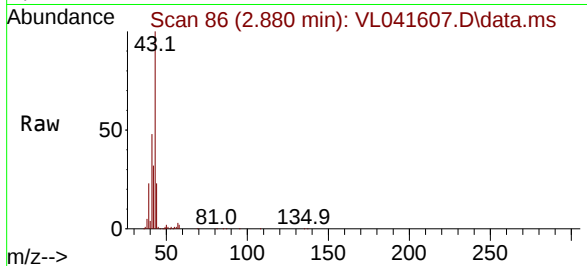




#9
 Propene
 Concen: 2.868 ppbv
 RT: 2.880 min Scan# 80
 Delta R.T. 0.209 min
 Lab File: VL041607.D
 Acq: 18 Sep 2024 15:03

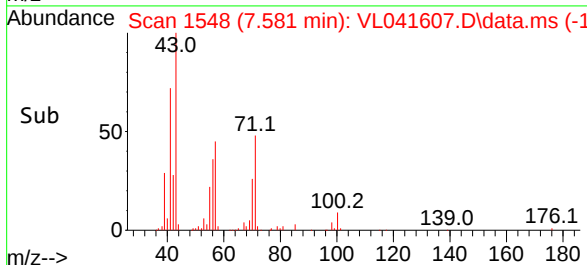
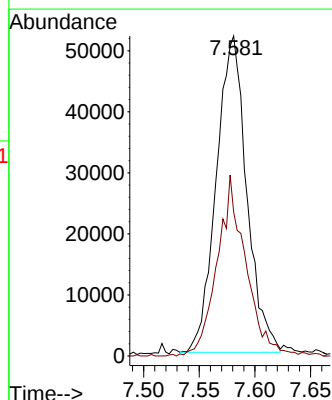
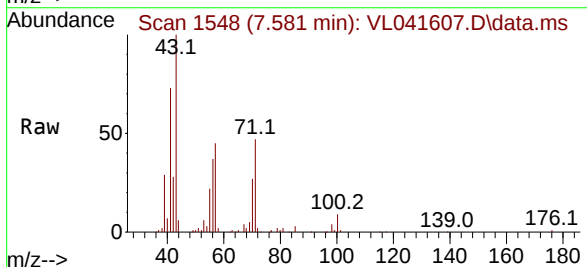
Instrument :
 MSVOA_L
 ClientSampleId :

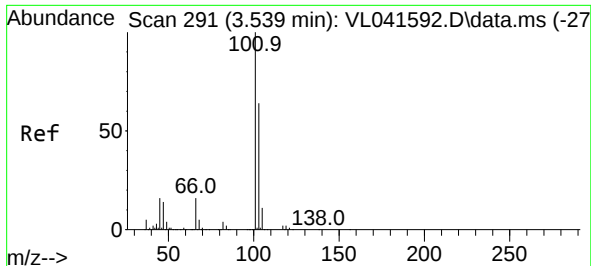
Tgt Ion: 41 Resp: 138370
 Ion Ratio Lower Upper
 41 100
 42 74.7 55.2 82.8



#10
 Heptane
 Concen: 0.872 ppbv
 RT: 7.581 min Scan# 1548
 Delta R.T. 0.026 min
 Lab File: VL041607.D
 Acq: 18 Sep 2024 15:03

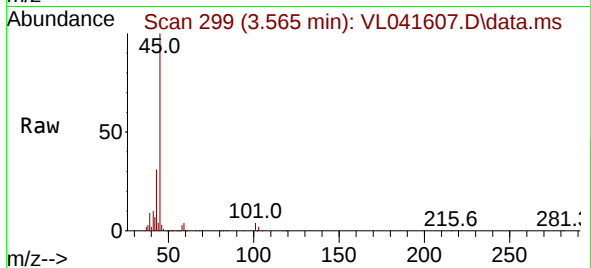
Tgt Ion: 43 Resp: 98530
 Ion Ratio Lower Upper
 43 100
 57 54.0 39.8 59.8



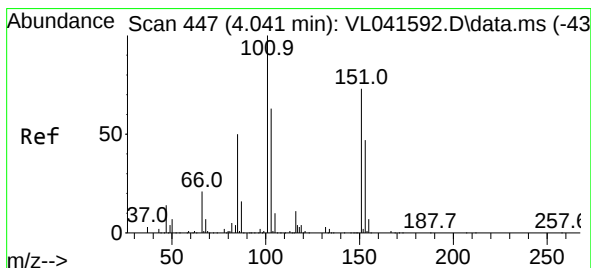
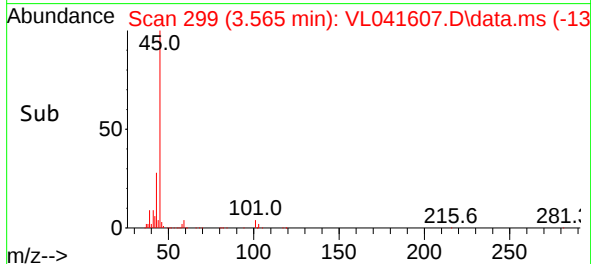
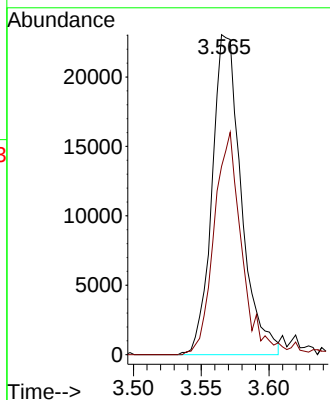


#11
 Trichlorofluoromethane
 Concen: 0.238 ppbv
 RT: 3.565 min Scan# 291
 Delta R.T. 0.026 min
 Lab File: VL041607.D
 Acq: 18 Sep 2024 15:03

Instrument :
 MSVOA_L
 ClientSampleId :

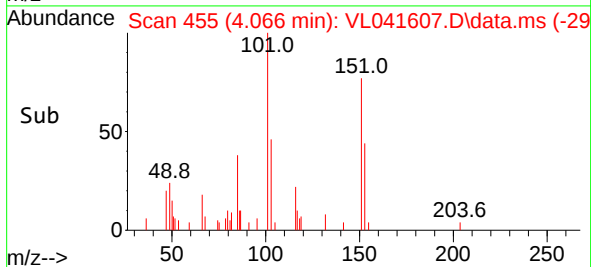
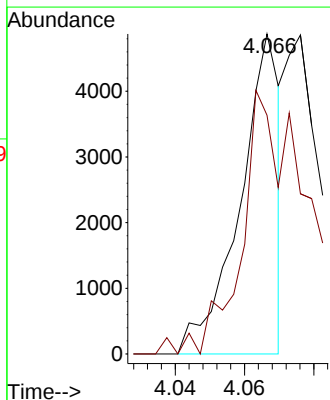
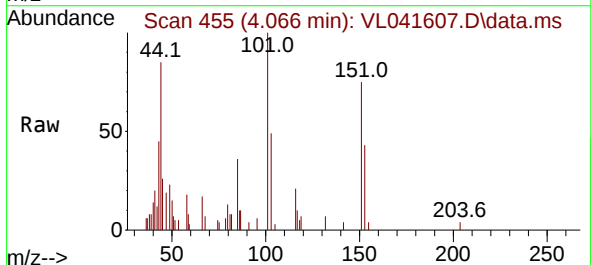


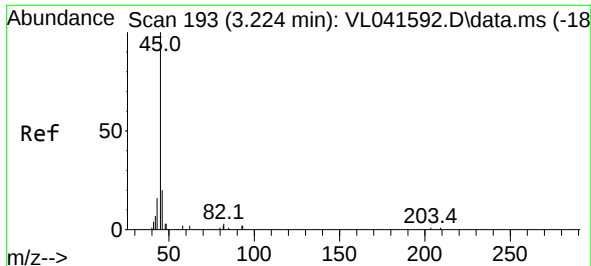
Tgt Ion:101 Resp: 34490
 Ion Ratio Lower Upper
 101 100
 103 58.8 51.2 76.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.037 ppbv
 RT: 4.066 min Scan# 455
 Delta R.T. 0.026 min
 Lab File: VL041607.D
 Acq: 18 Sep 2024 15:03

Tgt Ion:101 Resp: 3889
 Ion Ratio Lower Upper
 101 100
 151 154.7 59.4 89.2#

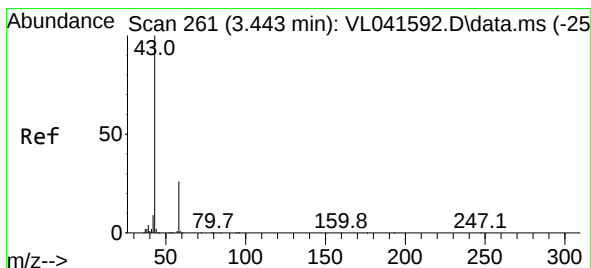
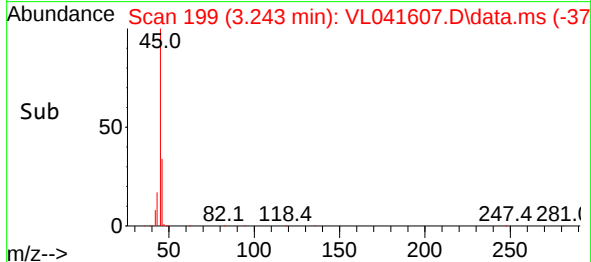
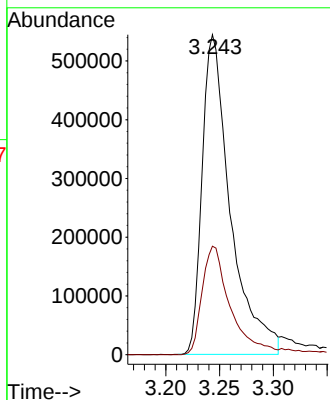
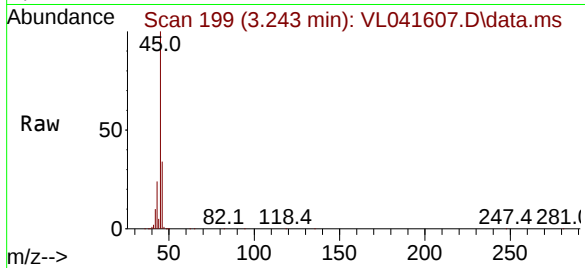




#13
Ethanol
Concen: 274.787 ppbv
RT: 3.243 min Scan# 199
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

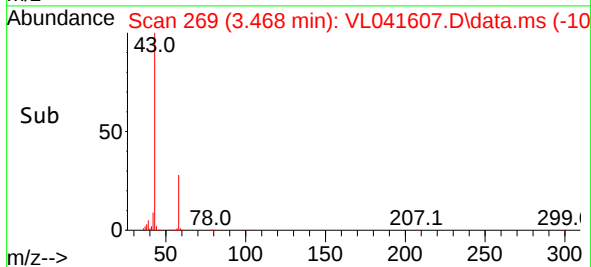
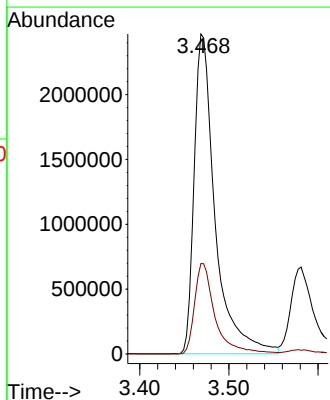
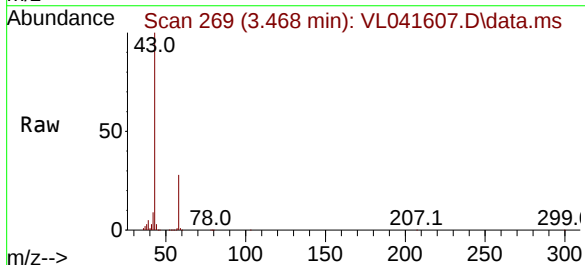
Instrument :
MSVOA_L
ClientSampleId :

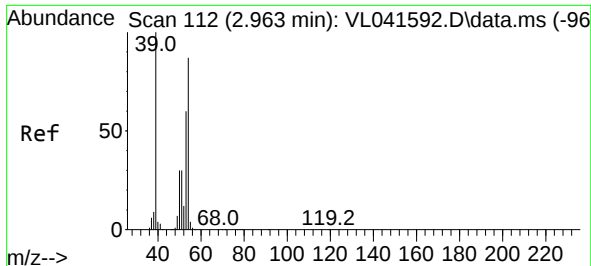
Tgt Ion: 45 Resp: 996713
Ion Ratio Lower Upper
45 100
46 36.8 15.2 60.8



#15
Acetone
Concen: 34.116 ppbv
RT: 3.468 min Scan# 269
Delta R.T. 0.026 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 43 Resp: 4039091
Ion Ratio Lower Upper
43 100
58 27.7 21.5 32.3

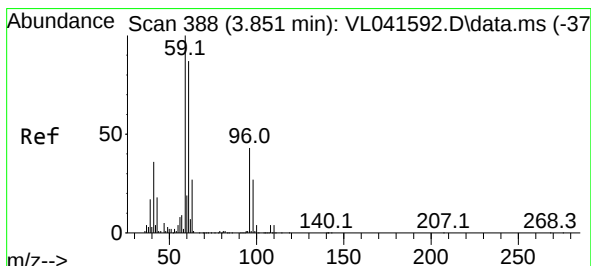
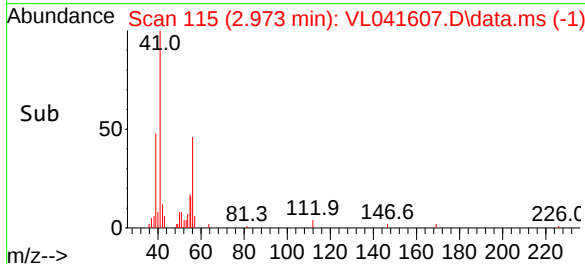
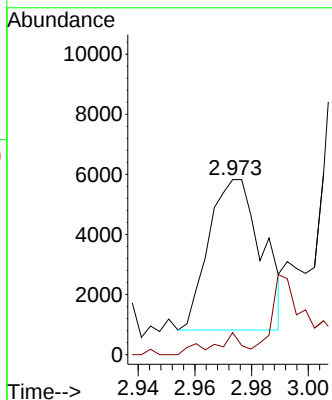
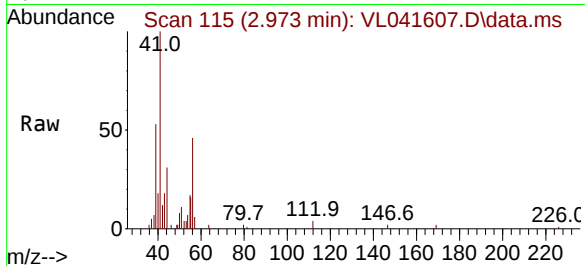




#16
1,3-Butadiene
Concen: 0.113 ppbv
RT: 2.973 min Scan# 11
Delta R.T. 0.010 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

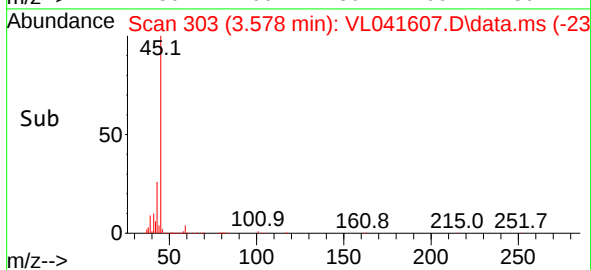
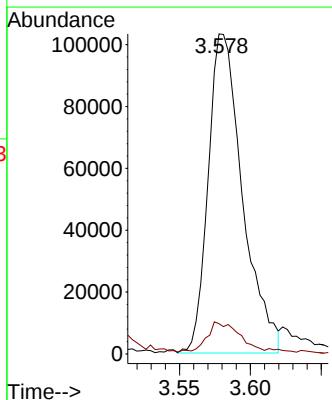
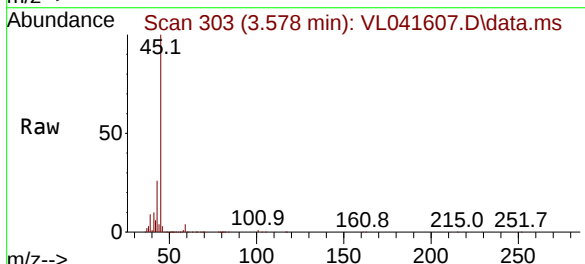
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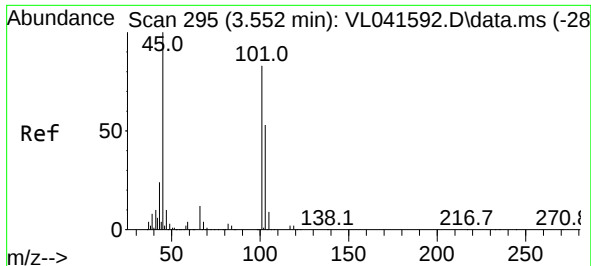
Tgt Ion: 39 Resp: 6495
Ion Ratio Lower Upper
39 100
54 53.1 62.9 94.3#



#17
tert-Butyl alcohol
Concen: 1.672 ppbv
RT: 3.578 min Scan# 303
Delta R.T. -0.273 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 59 Resp: 174130
Ion Ratio Lower Upper
59 100
57 10.4 8.7 13.1





#19

Isopropyl Alcohol

Concen: 78.880 ppbv

RT: 3.581 min Scan# 304

Delta R.T. 0.029 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Instrument :

MSVOA_L

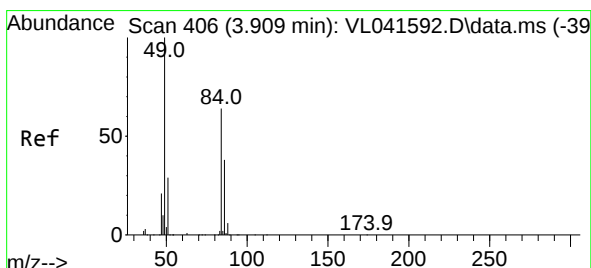
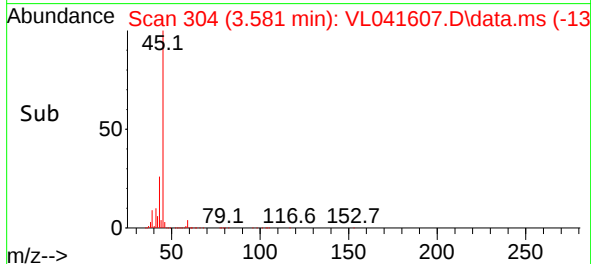
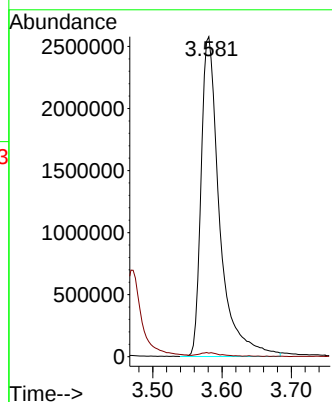
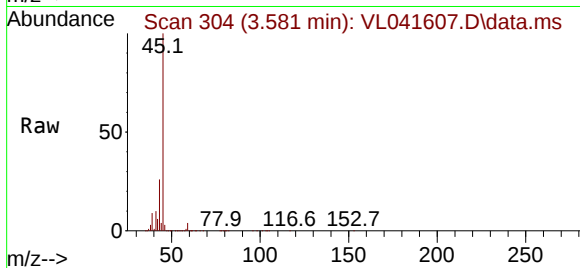
ClientSampleId :

Tgt Ion: 45 Resp: 4780692

Ion Ratio Lower Upper

45 100

58 1.6 2.1 3.1#



#20

Methylene Chloride

Concen: 1.581 ppbv

RT: 3.938 min Scan# 415

Delta R.T. 0.029 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Tgt Ion: 84 Resp: 70319

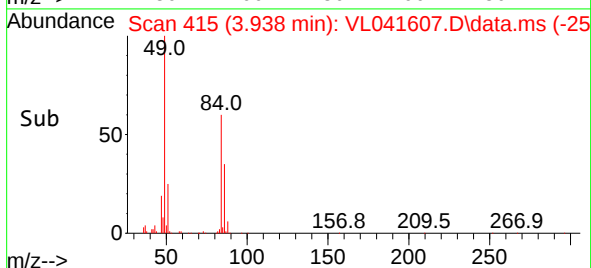
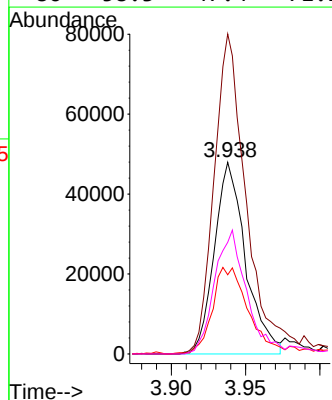
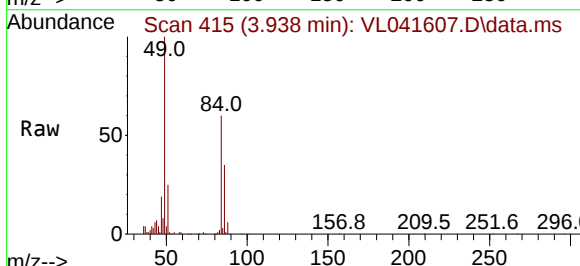
Ion Ratio Lower Upper

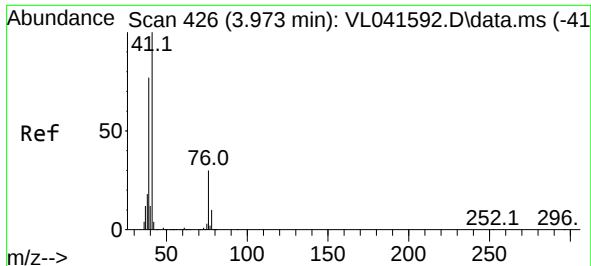
84 100

49 166.9 124.3 186.5

51 40.7 36.3 54.5

86 58.3 47.4 71.2





#21

Allyl Chloride

Concen: 0.128 ppbv

RT: 3.793 min Scan# 31

Delta R.T. -0.180 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Instrument :

MSVOA_L

ClientSampleId :

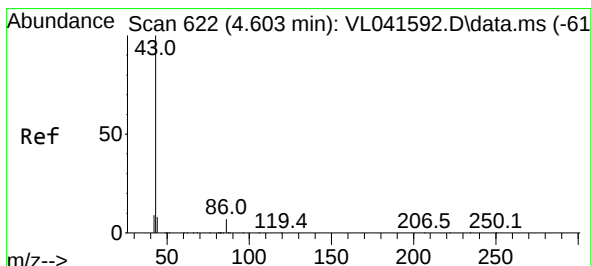
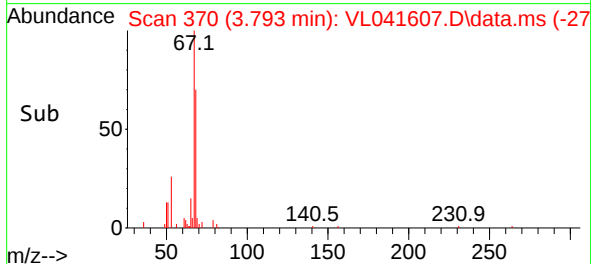
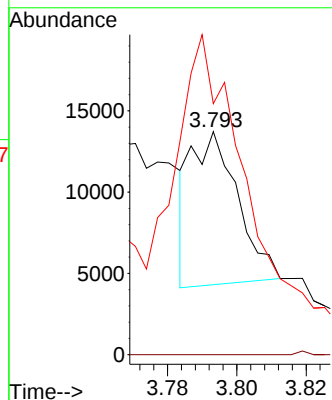
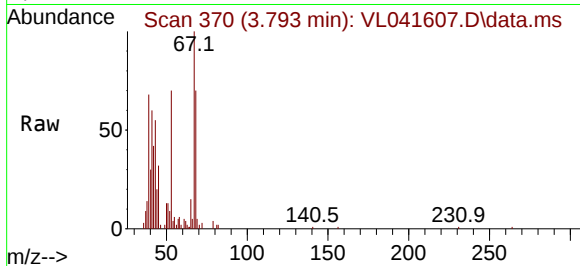
Tgt Ion: 41 Resp: 8777

Ion Ratio Lower Upper

41 100

76 0.0 23.8 35.6#

39 320.7 63.9 95.9#



#23

Vinyl Acetate

Concen: 0.293 ppbv

RT: 4.616 min Scan# 626

Delta R.T. 0.013 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Tgt Ion: 43 Resp: 19104

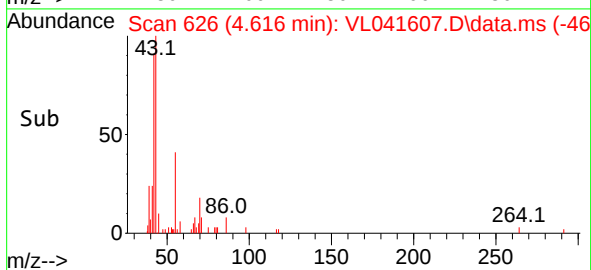
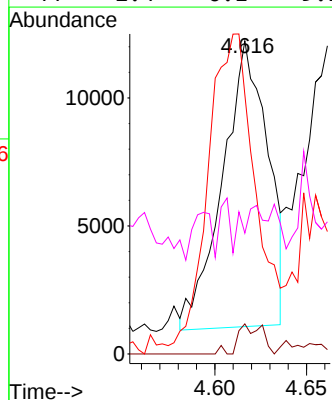
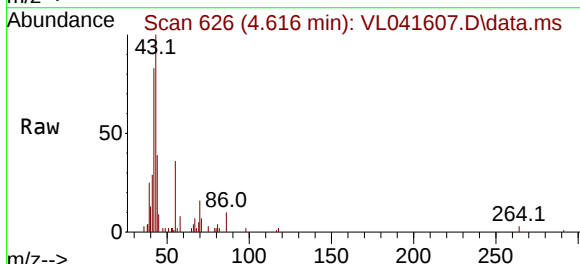
Ion Ratio Lower Upper

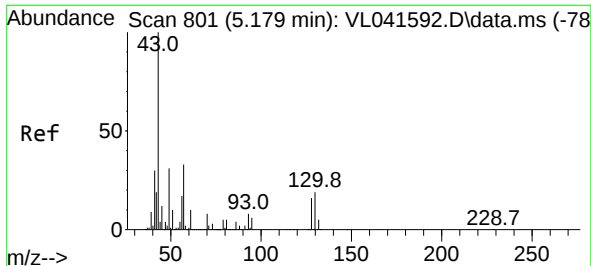
43 100

86 10.8 4.9 7.3#

42 85.2 8.0 12.0#

44 2.4 6.1 9.1#

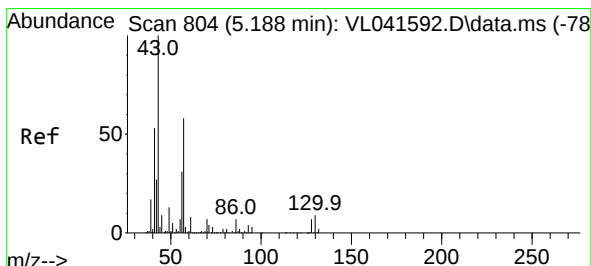
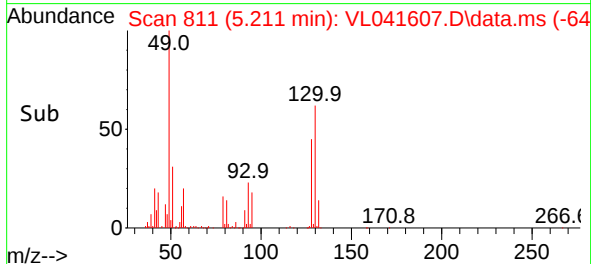
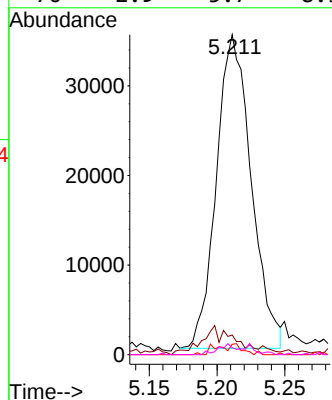
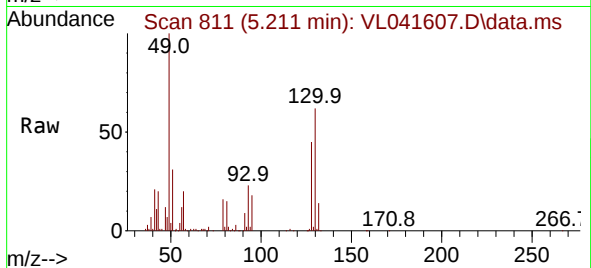




#25
Ethyl Acetate
Concen: 0.294 ppbv
RT: 5.211 min Scan# 811
Delta R.T. 0.032 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

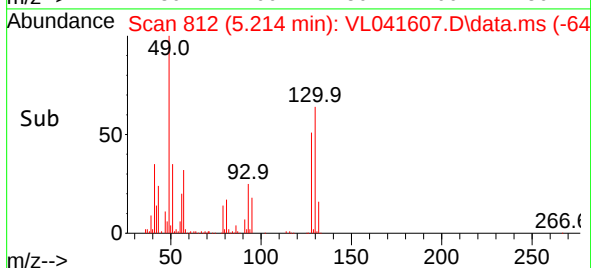
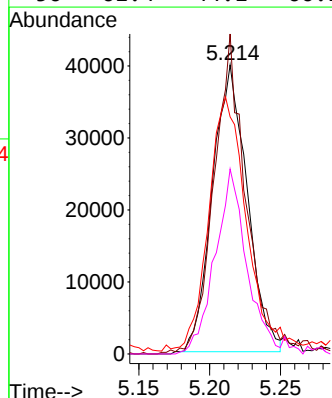
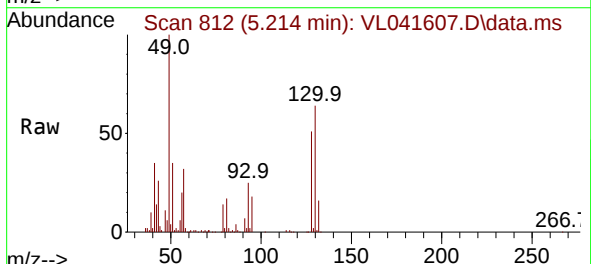
Instrument :
MSVOA_L
ClientSampleId :

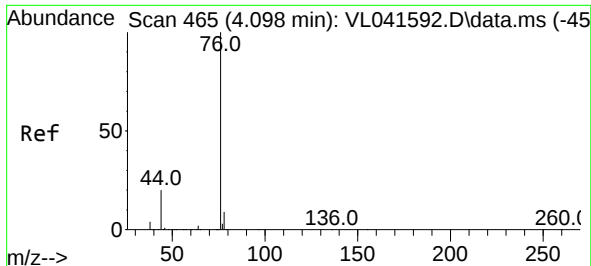
Tgt Ion: 43	Resp: 62484
Ion Ratio	Lower Upper
43 100	
45 10.3	8.2 12.2
61 2.5	8.0 12.0#
70 2.9	5.7 8.5#



#26
Hexane
Concen: 0.766 ppbv
RT: 5.214 min Scan# 812
Delta R.T. 0.026 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt	Ion: 57	Resp:	67890
Ion	Ratio	Lower	Upper
57	100		
41	107.1	75.7	113.5
43	102.4	198.5	297.7#
56	61.4	44.1	66.1

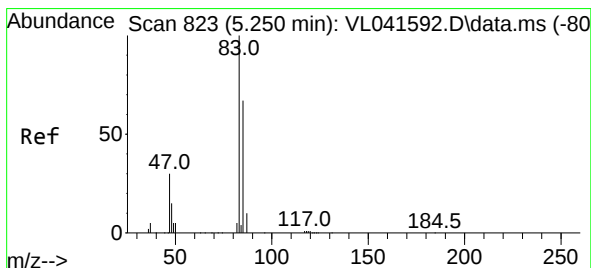
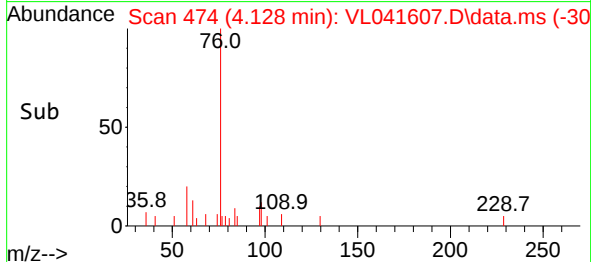
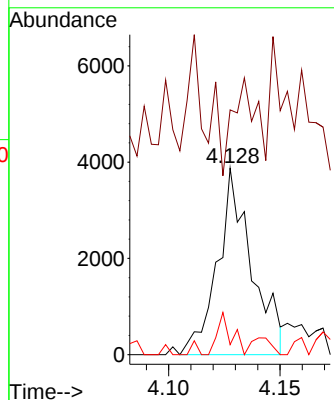
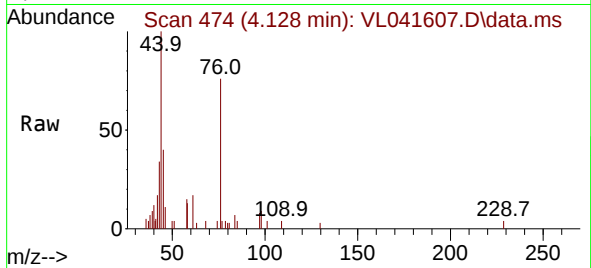




#27
Carbon Disulfide
Concen: 0.044 ppbv
RT: 4.128 min Scan# 41
Delta R.T. 0.029 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

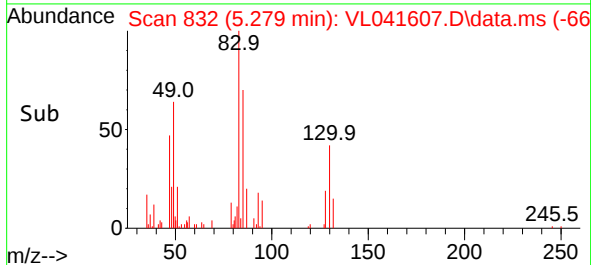
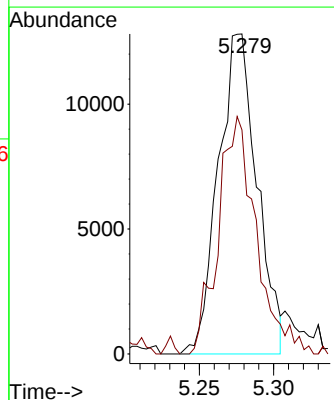
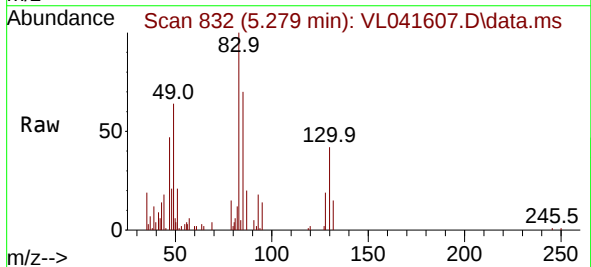
Instrument :
MSVOA_L
ClientSampleId :

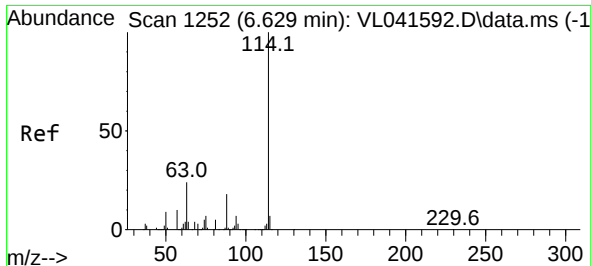
Tgt Ion: 76 Resp: 4120
Ion Ratio Lower Upper
76 100
44 41.9 15.8 23.8#
78 14.5 7.5 11.3#



#29
Chloroform
Concen: 0.160 ppbv
RT: 5.279 min Scan# 832
Delta R.T. 0.029 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 83 Resp: 23194
Ion Ratio Lower Upper
83 100
85 70.0 53.8 80.6





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 6.652 min Scan# 11

Delta R.T. 0.023 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Instrument :

MSVOA_L

ClientSampleId :

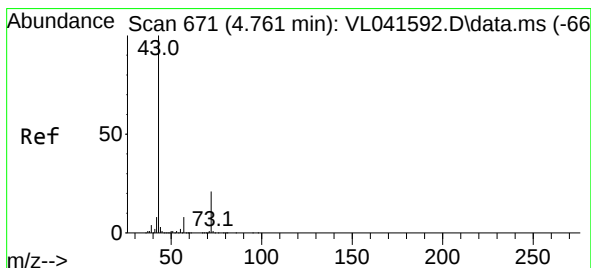
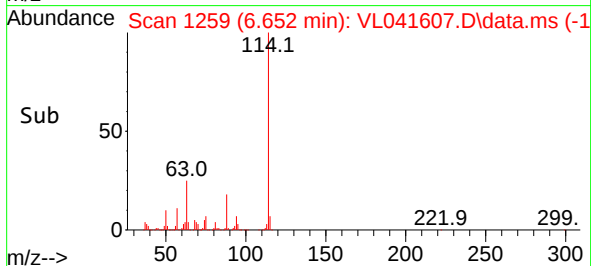
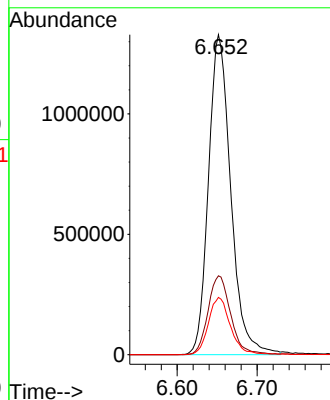
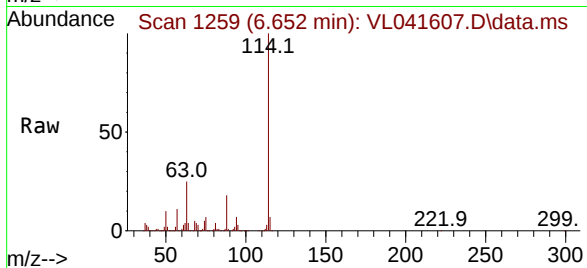
Tgt Ion:114 Resp: 2578015

Ion Ratio Lower Upper

114 100

63 25.3 20.2 30.2

88 17.9 14.2 21.4



#34

2-Butanone

Concen: 0.516 ppbv

RT: 4.796 min Scan# 682

Delta R.T. 0.036 min

Lab File: VL041607.D

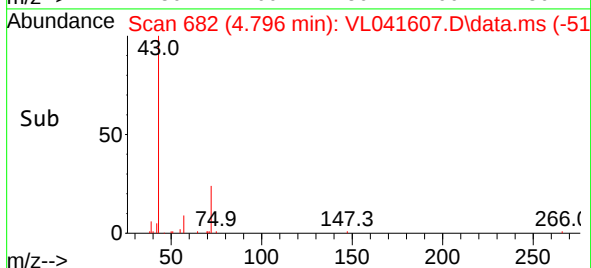
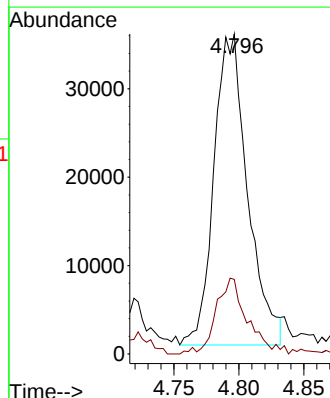
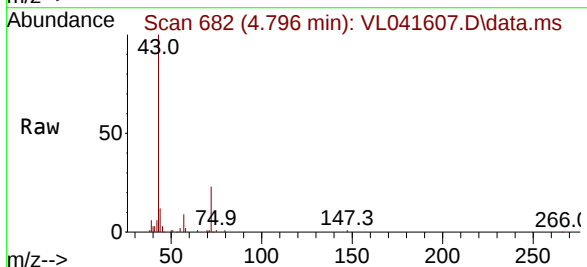
Acq: 18 Sep 2024 15:03

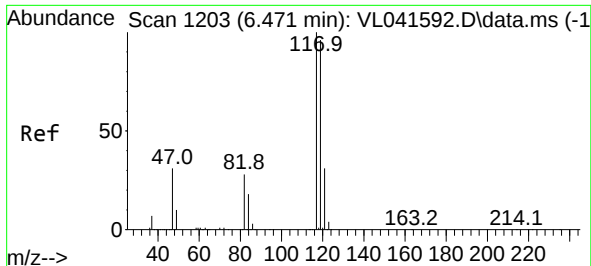
Tgt Ion: 43 Resp: 63444

Ion Ratio Lower Upper

43 100

72 23.4 16.8 25.2

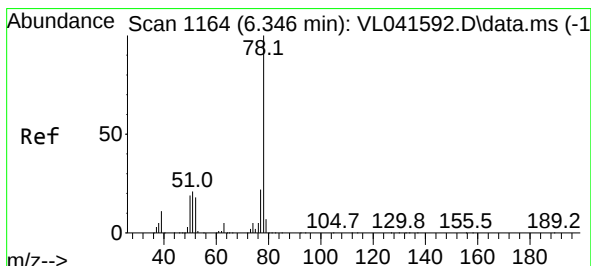
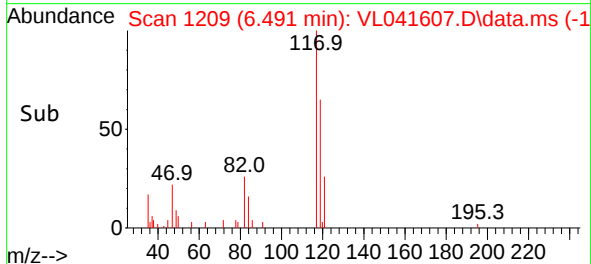
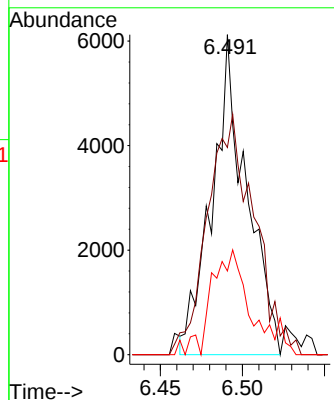
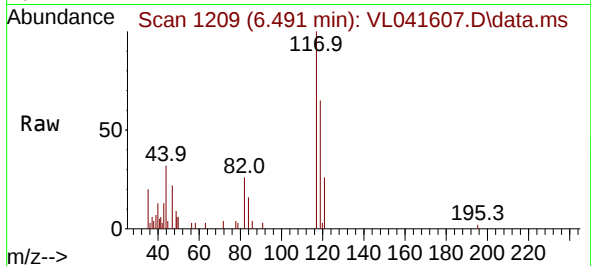




#35
Carbon Tetrachloride
Concen: 0.070 ppbv
RT: 6.491 min Scan# 1170
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

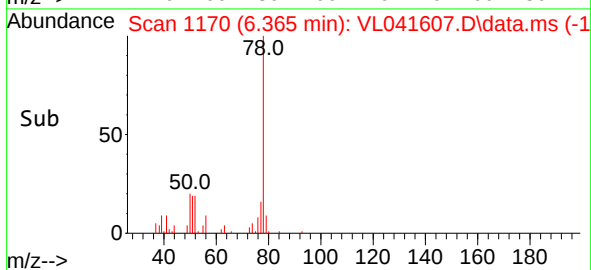
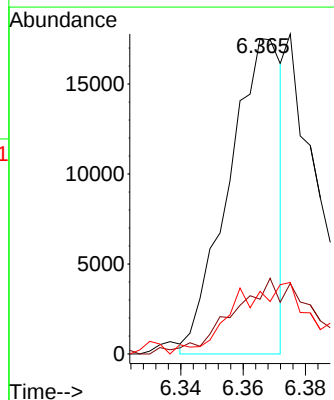
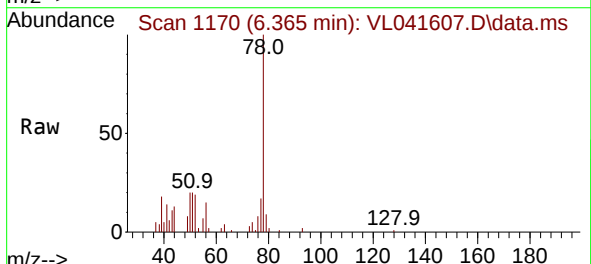
Instrument :
MSVOA_L
ClientSampleId :

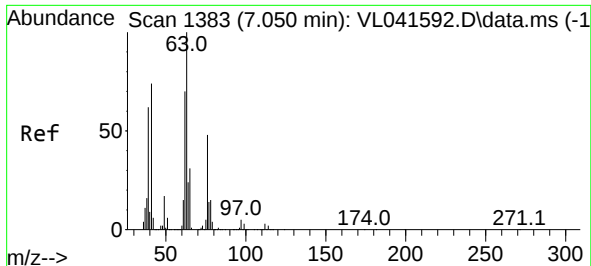
Tgt Ion:117 Resp: 8896
Ion Ratio Lower Upper
117 100
119 58.9 76.8 115.2#
121 21.6 25.0 37.6#



#36
Benzene
Concen: 0.114 ppbv
RT: 6.365 min Scan# 1170
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 78 Resp: 20464
Ion Ratio Lower Upper
78 100
77 15.9 17.8 26.6#
50 17.4 15.4 23.0





#39

1,2-Dichloropropane

Concen: 8.851 ppbv

RT: 6.652 min Scan# 1

Delta R.T. -0.398 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Instrument :

MSVOA_L

ClientSampleId :

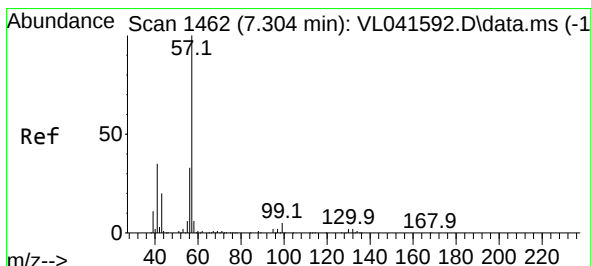
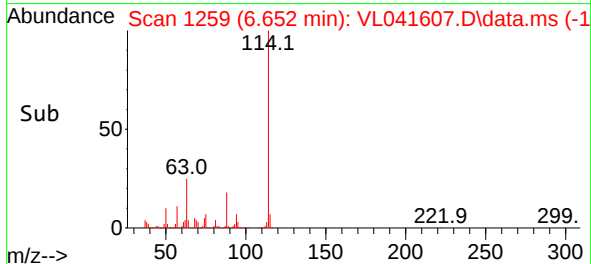
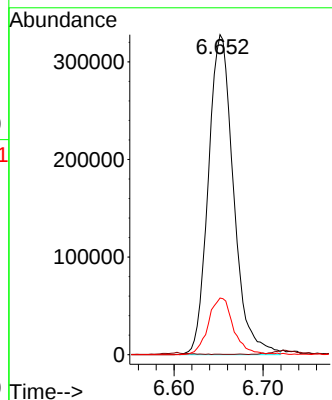
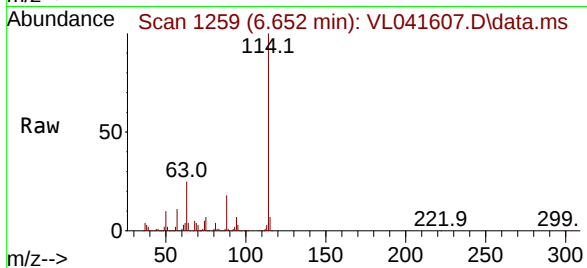
Tgt Ion: 63 Resp: 644669

Ion Ratio Lower Upper

63 100

41 0.0 59.5 89.3#

62 17.7 56.2 84.2#



#44

2,2,4-Trimethylpentane

Concen: 0.066 ppbv

RT: 7.327 min Scan# 1469

Delta R.T. 0.023 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

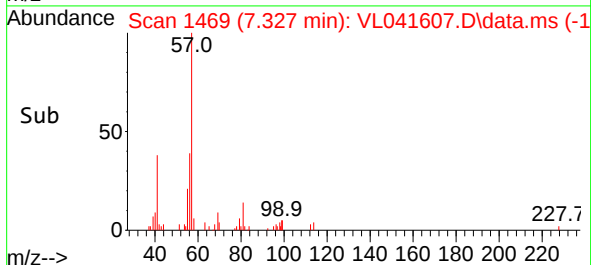
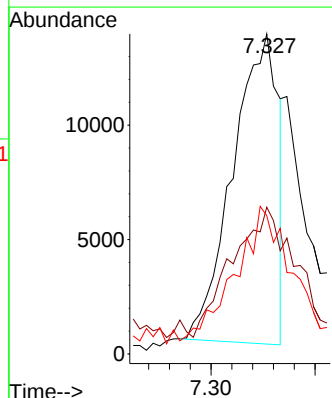
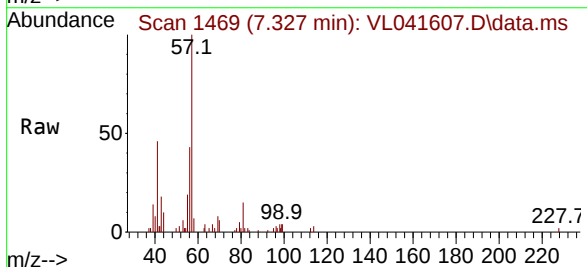
Tgt Ion: 57 Resp: 20451

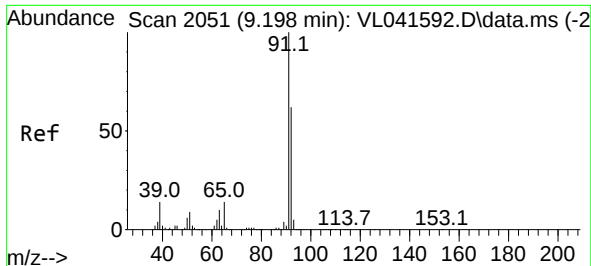
Ion Ratio Lower Upper

57 100

41 70.1 27.0 40.6#

56 86.3 25.5 38.3#

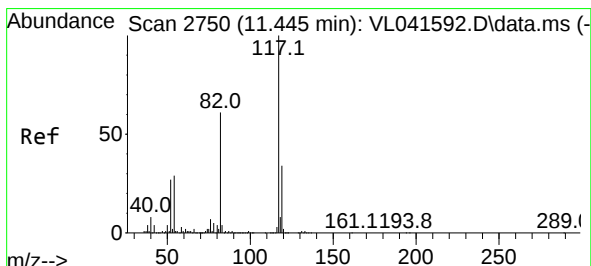
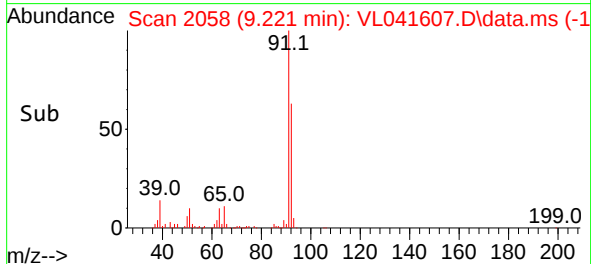
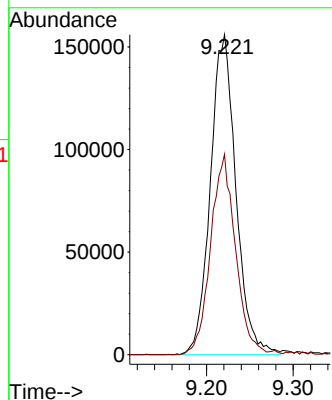
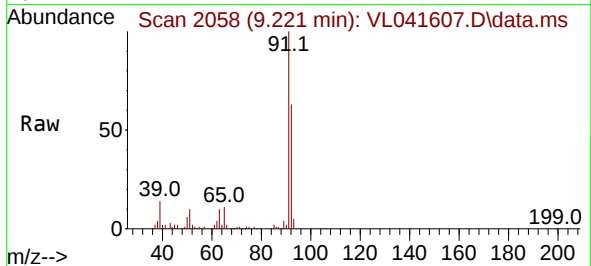




#53
Toluene
Concen: 1.685 ppbv
RT: 9.221 min Scan# 2051
Delta R.T. 0.023 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

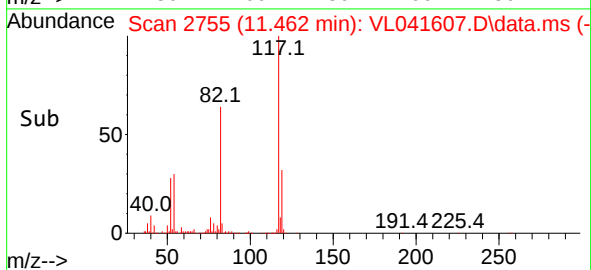
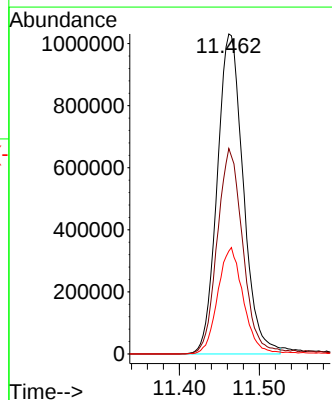
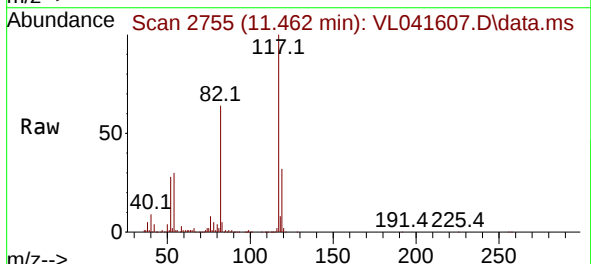
Instrument :
MSVOA_L
ClientSampleId :

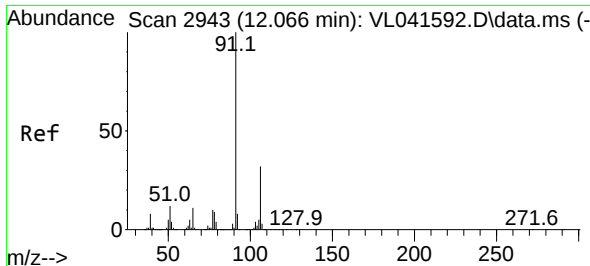
Tgt Ion: 91 Resp: 320302
Ion Ratio Lower Upper
91 100
92 61.8 48.9 73.3



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 11.462 min Scan# 2755
Delta R.T. 0.016 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 117 Resp: 2328899
Ion Ratio Lower Upper
117 100
82 65.0 49.4 74.2
119 33.3 24.4 36.6

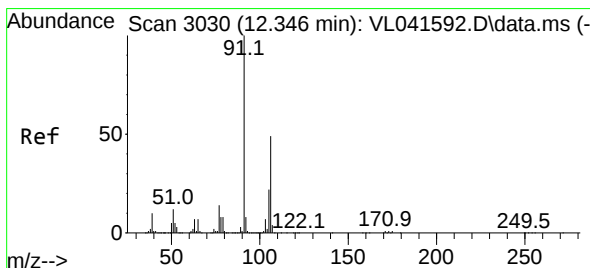
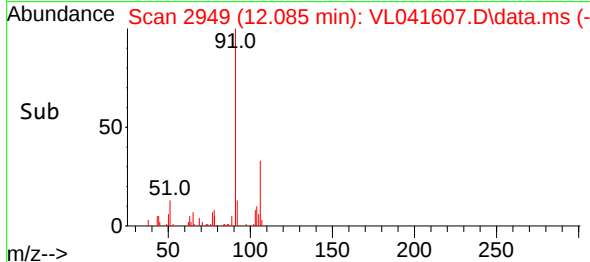
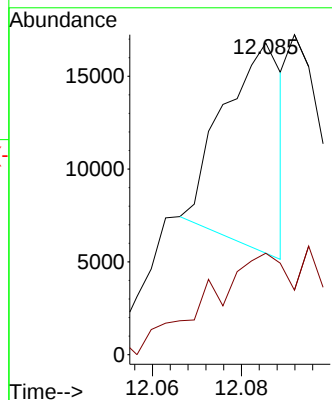
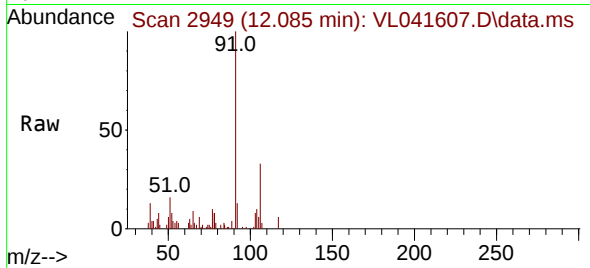




#58
Ethyl Benzene
Concen: 0.039 ppbv
RT: 12.085 min Scan# 2949
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

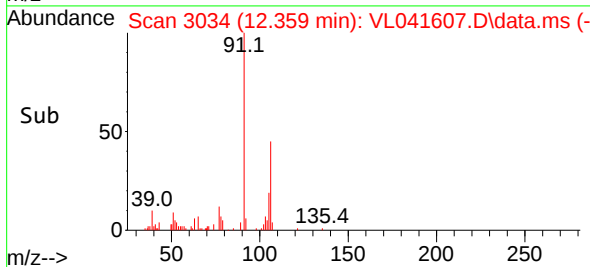
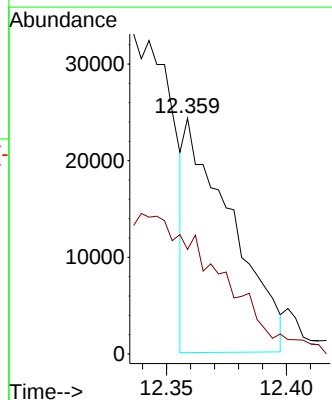
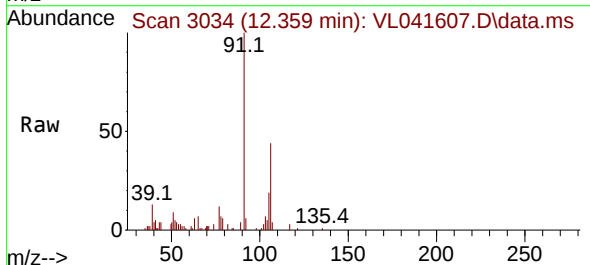
Instrument :
MSVOA_L
ClientSampleId :

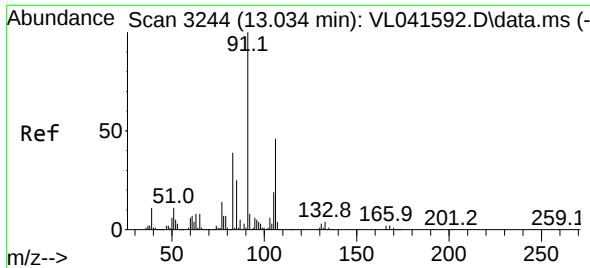
Tgt Ion: 91 Resp: 9836
Ion Ratio Lower Upper
91 100
106 39.0 25.8 38.6#



#59
m/p-Xylene
Concen: 0.148 ppbv
RT: 12.359 min Scan# 3034
Delta R.T. 0.013 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 91 Resp: 32731
Ion Ratio Lower Upper
91 100
106 0.0 36.8 55.2#

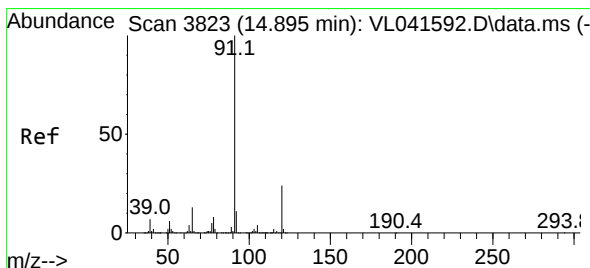
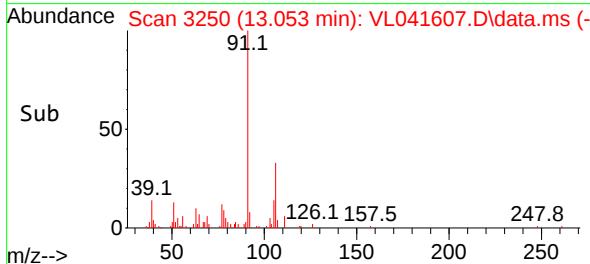
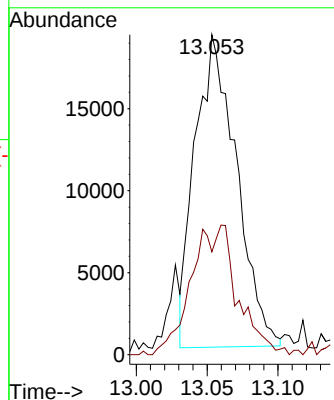
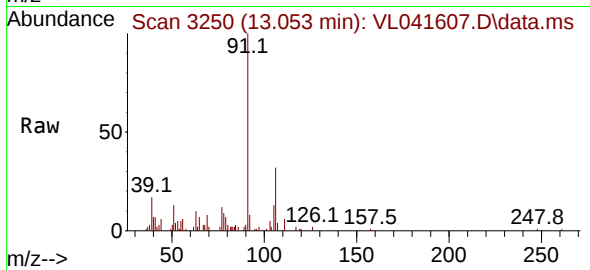




#60
o-Xylene
Concen: 0.182 ppbv
RT: 13.053 min Scan# 31
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

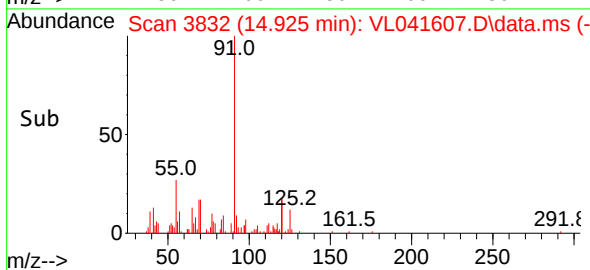
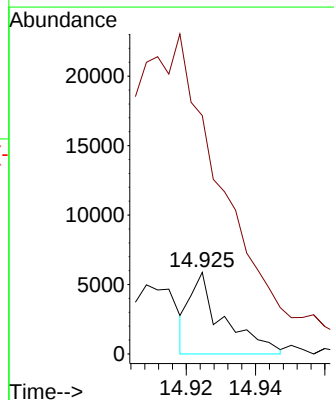
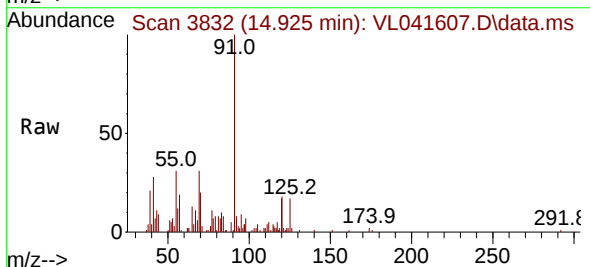
Instrument :
MSVOA_L
ClientSampleId :

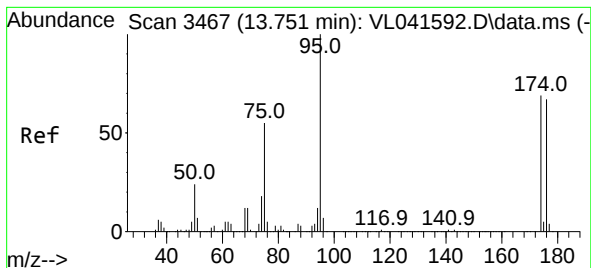
Tgt Ion: 91 Resp: 38633
Ion Ratio Lower Upper
91 100
106 48.0 23.1 69.3



#64
n-propylbenzene
Concen: 0.047 ppbv
RT: 14.925 min Scan# 3832
Delta R.T. 0.029 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 120 Resp: 3931
Ion Ratio Lower Upper
120 100
91 1488.6 366.4 549.6#

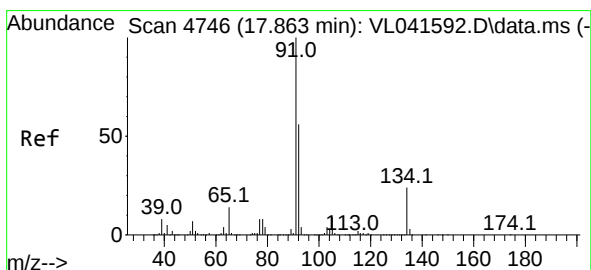
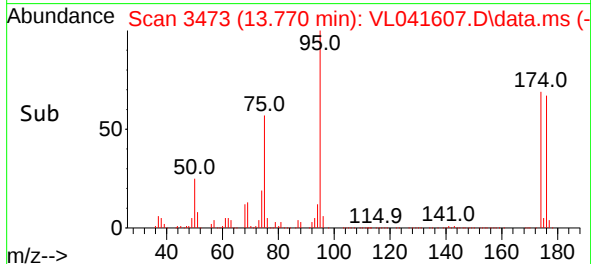
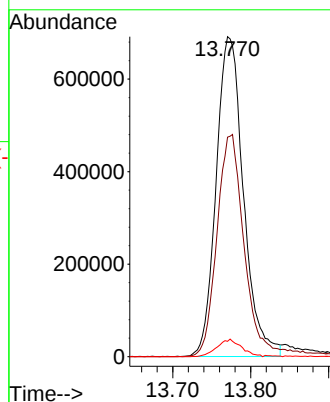
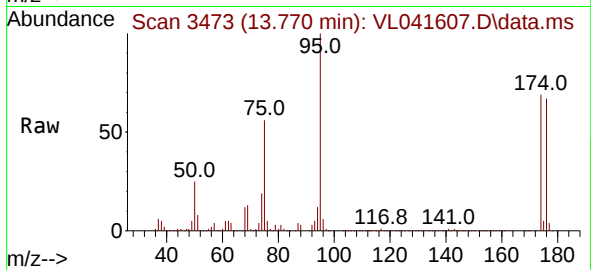




#68
1-Bromo-4-Fluorobenzene
Concen: 9.824 ppbv
RT: 13.770 min Scan# 3467
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

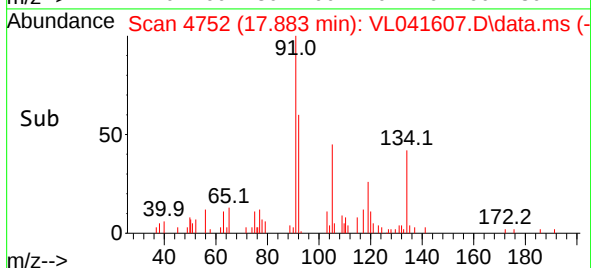
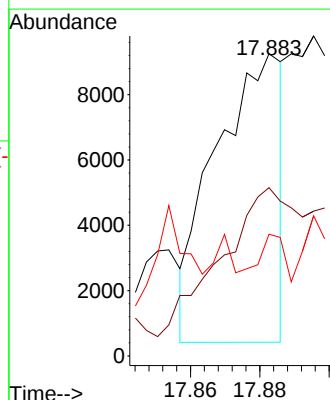
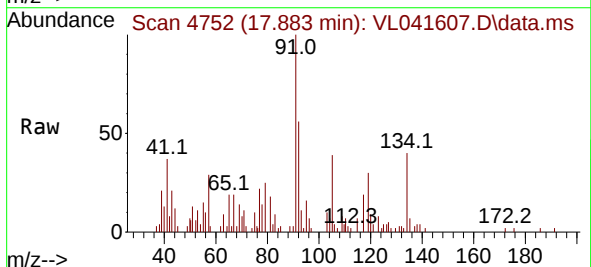
Instrument :
MSVOA_L
ClientSampleId :

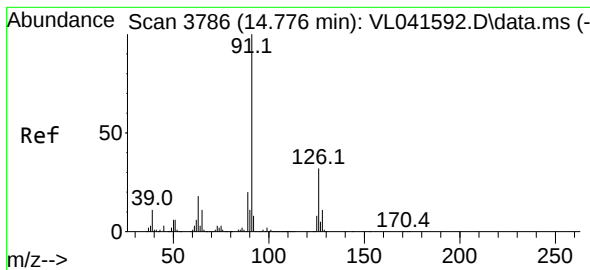
Tgt Ion: 95 Resp: 1684243
Ion Ratio Lower Upper
95 100
174 71.9 55.8 83.8
175 5.2 4.1 6.1



#70
n-Butylbenzene
Concen: 0.034 ppbv
RT: 17.883 min Scan# 4752
Delta R.T. 0.019 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 91 Resp: 11758
Ion Ratio Lower Upper
91 100
92 127.5 43.2 64.8#
134 0.0 18.6 27.8#

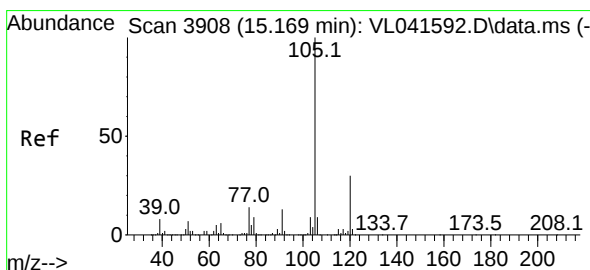
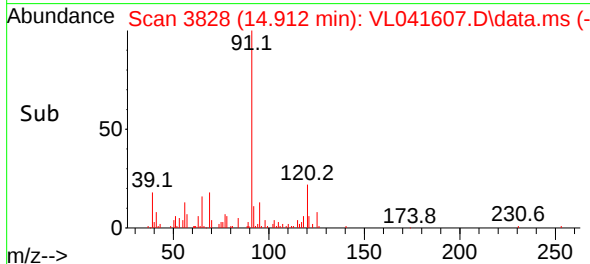
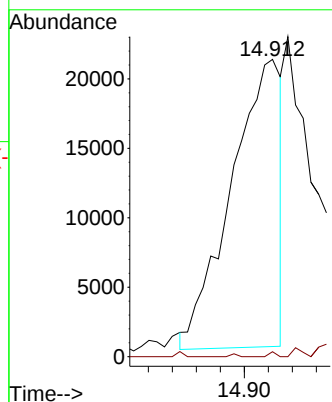
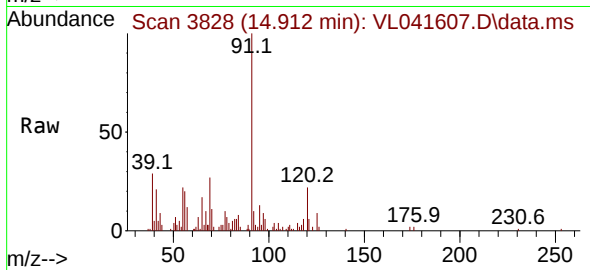




#71
2-Chlorotoluene
Concen: 0.126 ppbv
RT: 14.912 min Scan# 3915
Delta R.T. 0.135 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

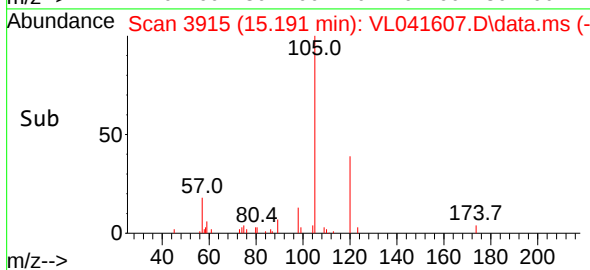
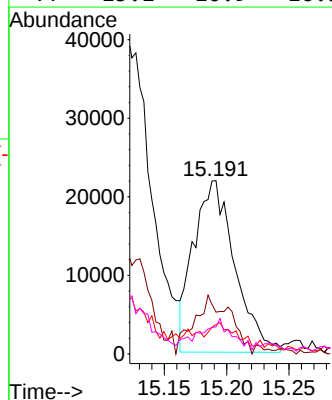
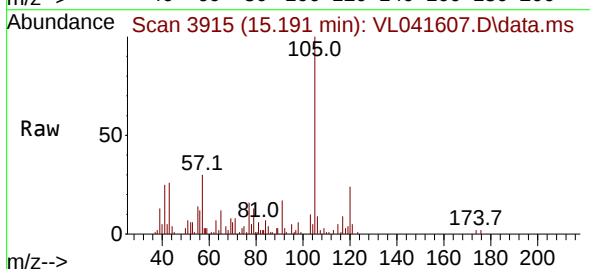
Instrument :
MSVOA_L
ClientSampleId :

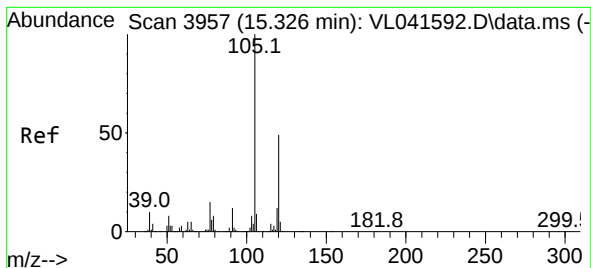
Tgt Ion: 91 Resp: 29866
Ion Ratio Lower Upper
91 100
126 0.0 12.9 51.5#



#72
4-Ethyltoluene
Concen: 0.201 ppbv
RT: 15.191 min Scan# 3915
Delta R.T. 0.023 min
Lab File: VL041607.D
Acq: 18 Sep 2024 15:03

Tgt Ion: 105 Resp: 49948
Ion Ratio Lower Upper
105 100
120 28.8 24.1 36.1
91 18.4 10.2 15.2#
77 15.1 10.9 16.3





#73

1,3,5-Trimethylbenzene

Concen: 0.060 ppbv

RT: 15.346 min Scan# 3957

Delta R.T. 0.019 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Instrument :

MSVOA_L

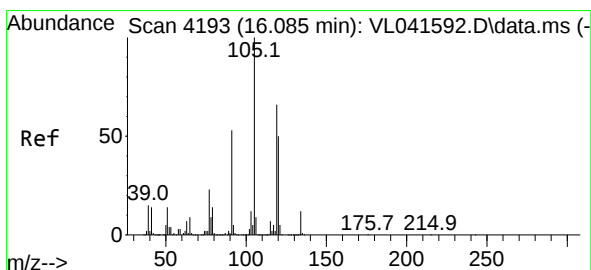
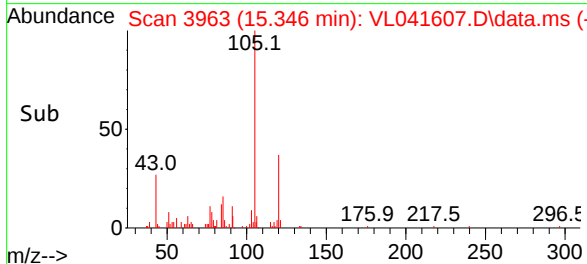
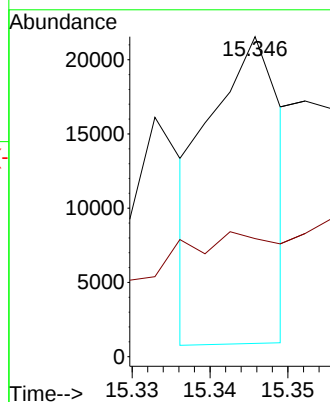
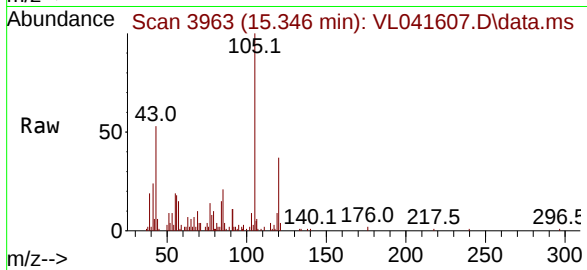
ClientSampleId :

Tgt Ion:105 Resp: 13226

Ion Ratio Lower Upper

105 100

120 4.4 39.4 59.0#



#74

1,2,4-Trimethylbenzene

Concen: 0.806 ppbv

RT: 16.108 min Scan# 4200

Delta R.T. 0.023 min

Lab File: VL041607.D

Acq: 18 Sep 2024 15:03

Tgt Ion:105 Resp: 207247

Ion Ratio Lower Upper

105 100

120 44.2 39.9 59.9

91 8.7 42.6 63.8#

77 14.7 18.2 27.2#

