

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL011321\
 Data File : VL036239.D
 Acq On : 14 Jan 2021 00:27
 Operator : SY/AP
 Sample : M1070-03
 Misc : 400ml/MSVOA L
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

Quant Time: Jan 14 02:59:29 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL011321AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jan 13 07:53:51 2021
 QLast Update : Wed Jan 13 07:53:51 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1467901	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	3141063	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	2728177	10.00	ppbv	0.00

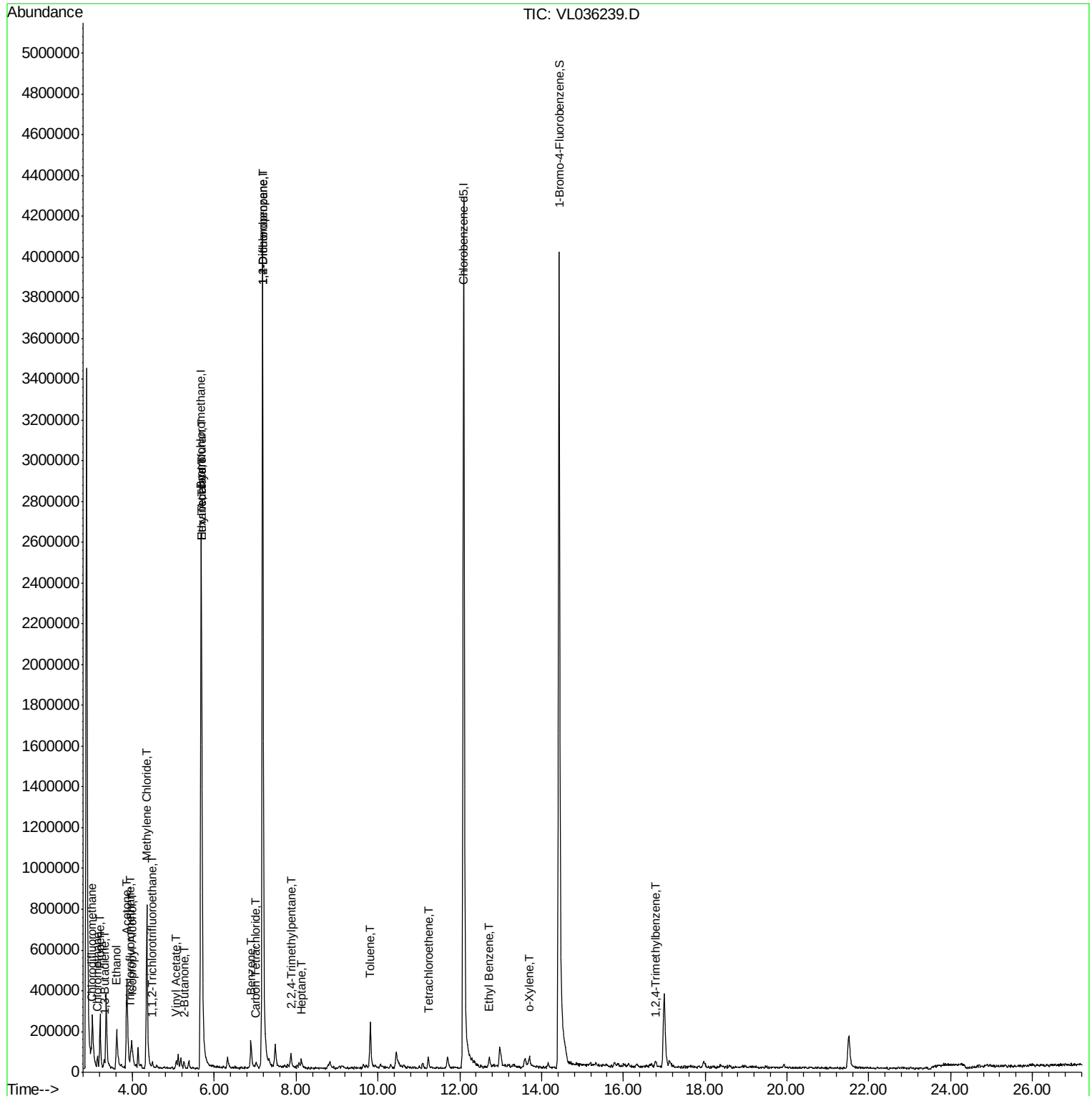
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.43	95	2197530	9.73	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.30%

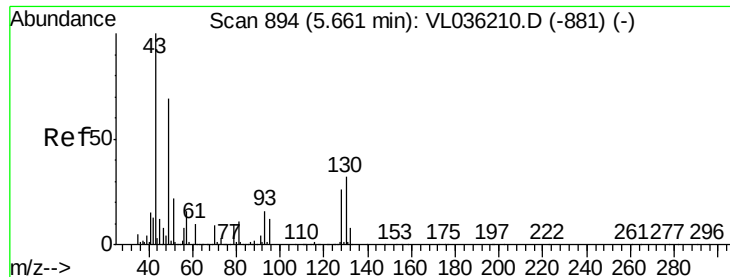
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.99	51	122813	0.674	ppbv #	87
4) Chloromethane	3.14	50	16862	0.187	ppbv	95
9) Propene	3.20	41	78697	0.907	ppbv	91
10) Heptane	8.13	43	15460	0.072	ppbv #	29
11) Trichlorofluoromethane	3.95	101	43025	0.221	ppbv	94
12) 1,1,2-Trichlorotrifluoroet	4.48	101	3752	0.031	ppbv #	1
13) Ethanol	3.61	45	213256	11.703	ppbv	99
15) Acetone	3.85	43	587255	3.368	ppbv	99
16) 1,3-Butadiene	3.32	39	3076	0.037	ppbv #	10
19) Isopropyl Alcohol	3.98	45	147162	1.460	ppbv #	97
20) Methylene Chloride	4.35	84	302253	5.662	ppbv	93
23) Vinyl Acetate	5.07	43	22879	0.104	ppbv #	55
25) Ethyl Acetate	5.69	43	309872	0.873	ppbv #	80
26) Hexane	5.69	57	396327	2.670	ppbv #	39
34) 2-Butanone	5.25	43	10566	0.053	ppbv #	56
35) Carbon Tetrachloride	7.02	117	6645	0.033	ppbv #	54
36) Benzene	6.90	78	94021	0.327	ppbv #	88
39) 1,2-Dichloropropane	7.18	63	929902	7.958	ppbv #	22
41) Tetrahydrofuran	5.69	42	164190	1.395	ppbv #	51
44) 2,2,4-Trimethylpentane	7.87	57	34601	0.065	ppbv #	26
52) Tetrachloroethene	11.23	164	8471	0.080	ppbv #	72
53) Toluene	9.82	91	166385	0.522	ppbv	99
58) Ethyl Benzene	12.72	91	19427	0.048	ppbv	89
60) o-Xylene	13.70	91	17108	0.051	ppbv #	32
74) 1,2,4-Trimethylbenzene	16.78	105	11225	0.030	ppbv #	53

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

```
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Acq On    : 14 Jan 2021   00:27  
Operator  : SY/AP  
Sample    : M1070-03  
Misc      : 400ml/MSVOA L  
ALS Vial  : 11      Sample Multiplier: 1
```

Quant Time: Jan 14 02:59:29 2021
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL011321AIR.M
Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LWed Jan 13 07:53:51 2021
QLast Update : Wed Jan 13 07:53:51 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.01 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

OA1

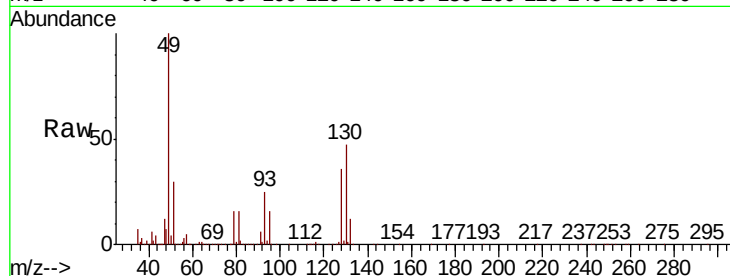
Tot Ion: 49 Resp: 1467901

Ion Ratio Lower Upper

49 100

128 40.0 20.1 60.2

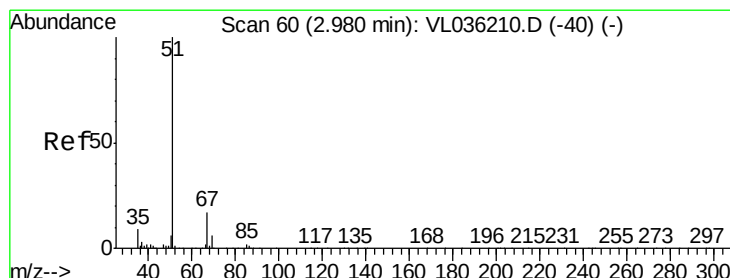
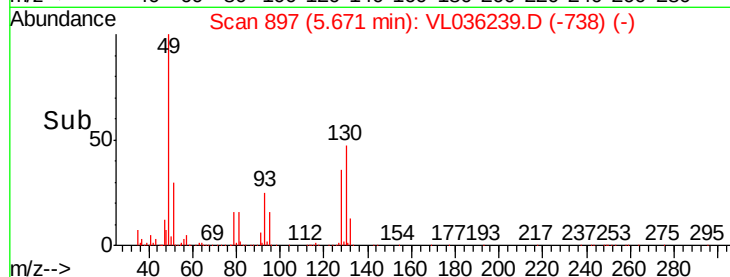
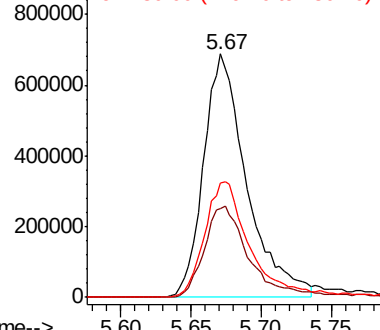
130 51.2 25.3 75.9



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 0.674 ppbv

RT: 2.99 min Scan# 63

Delta R.T. 0.01 min

Lab File: VL036239.D

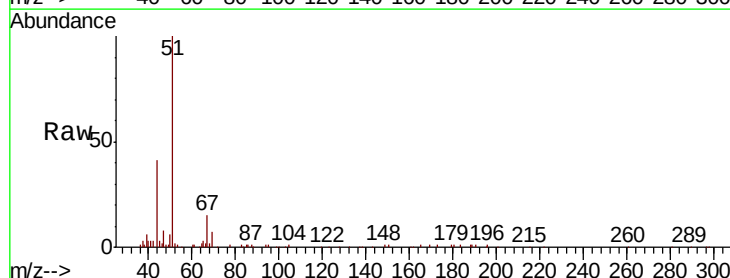
Acq: 14 Jan 2021 00:27

Tgt Ion: 51 Resp: 122813

Ion Ratio Lower Upper

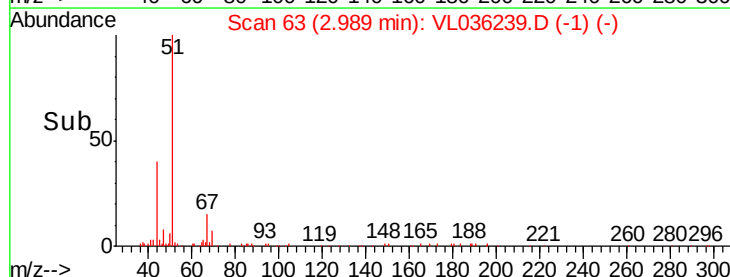
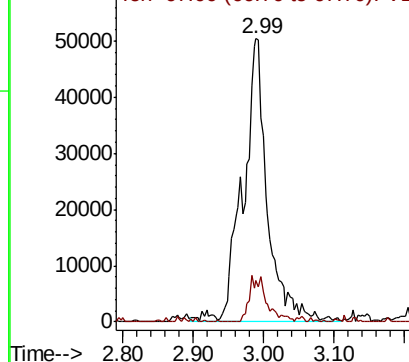
51 100

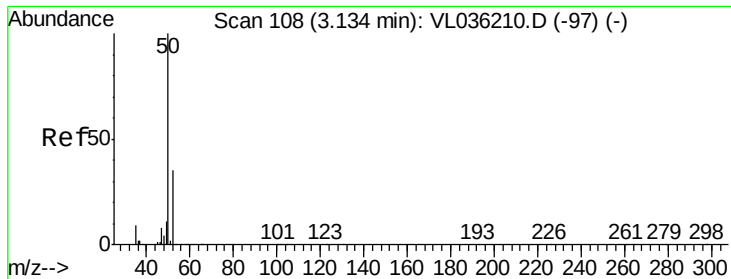
67 11.9 14.0 21.0#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.187 ppbv

RT: 3.14 min Scan# 109

Delta R.T. 0.00 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

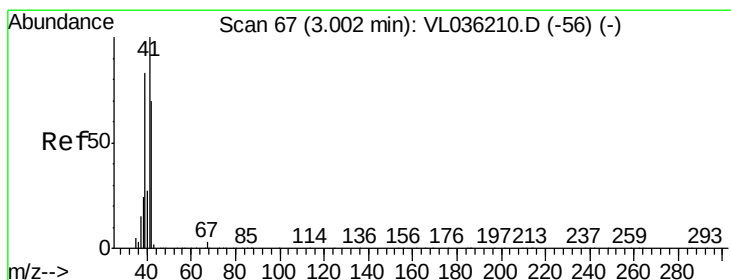
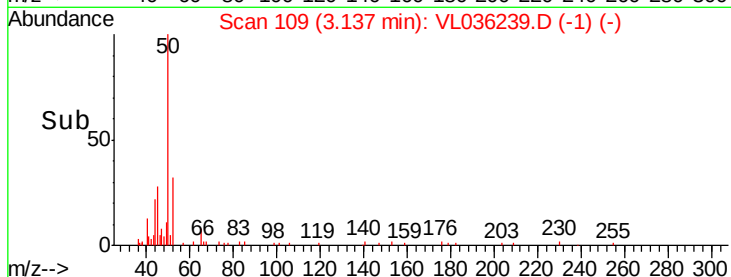
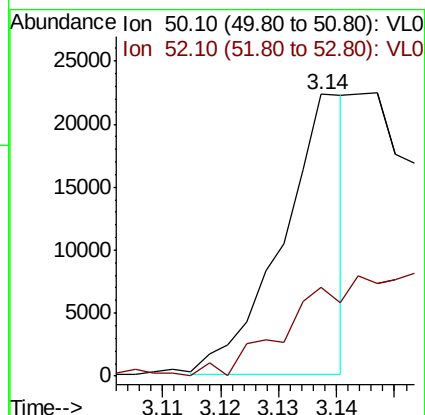
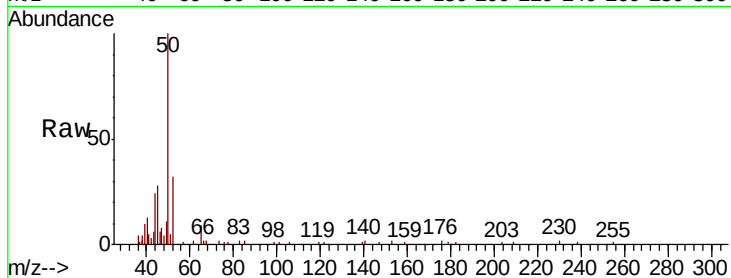
OA1

Tot Ion: 50 Resp: 16862

Ion Ratio Lower Upper

50 100

52 32.1 27.8 41.8



#9

Propene

Concen: 0.907 ppbv

RT: 3.20 min Scan# 130

Delta R.T. 0.20 min

Lab File: VL036239.D

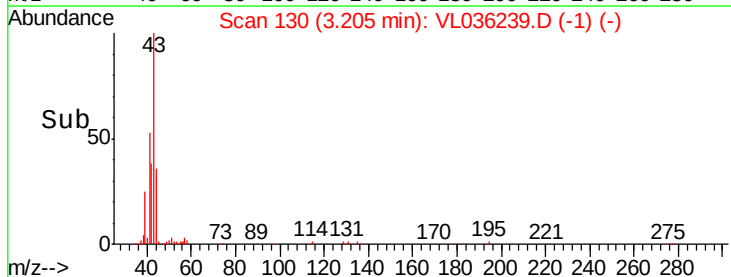
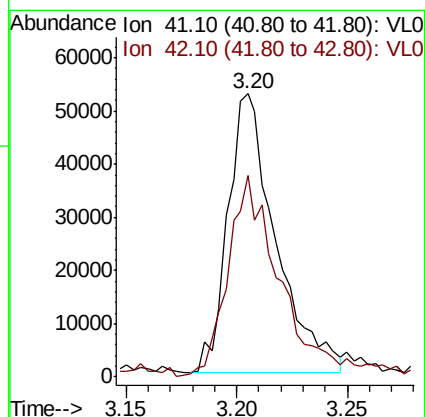
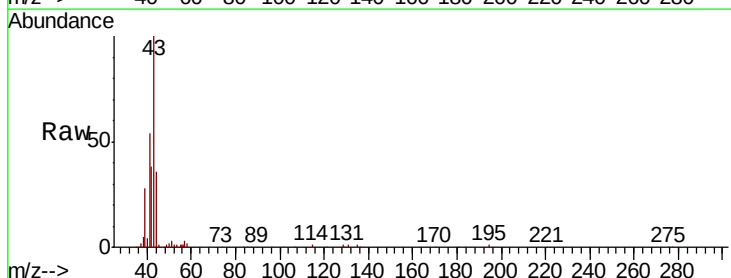
Acq: 14 Jan 2021 00:27

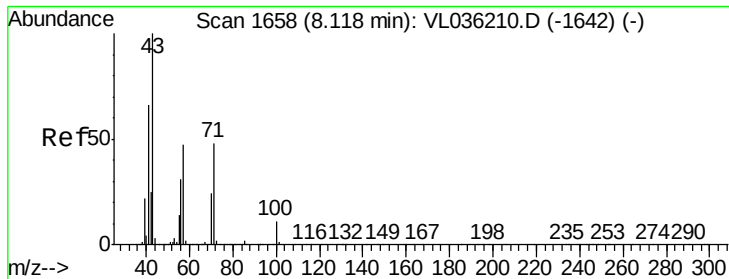
Tgt Ion: 41 Resp: 78697

Ion Ratio Lower Upper

41 100

42 78.6 57.1 85.7





#10

Heptane

Concen: 0.072 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. 0.02 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

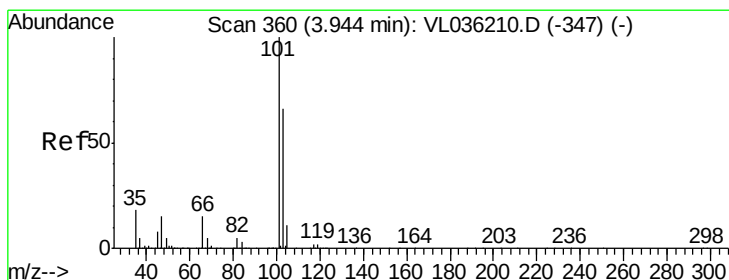
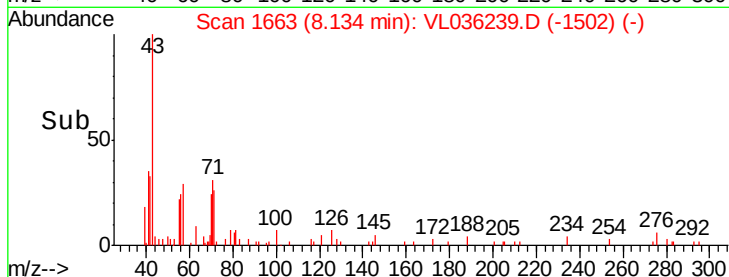
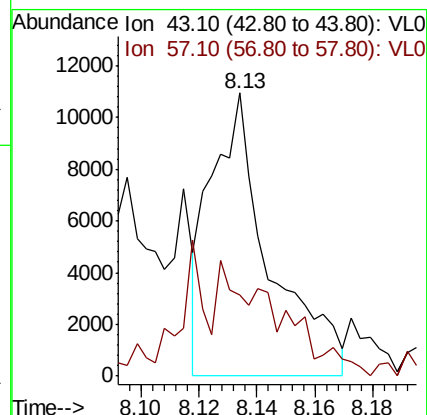
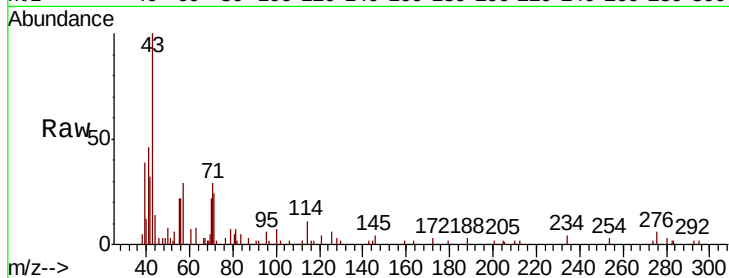
OA1

Tot Ion: 43 Resp: 15460

Ion Ratio Lower Upper

43 100

57 0.0 38.1 57.1#



#11

Trichlorofluoromethane

Concen: 0.221 ppbv

RT: 3.95 min Scan# 362

Delta R.T. 0.01 min

Lab File: VL036239.D

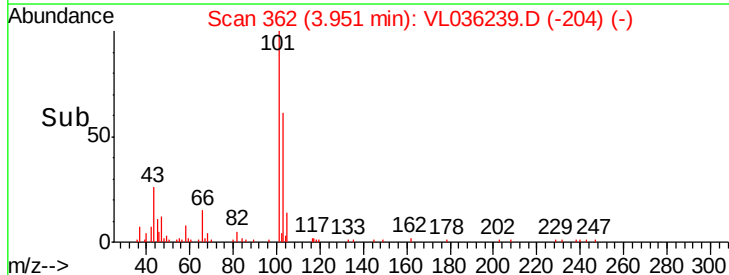
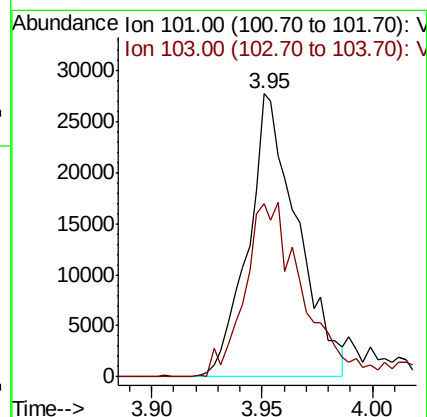
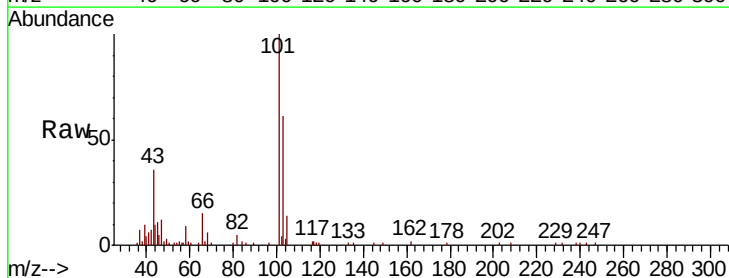
Acq: 14 Jan 2021 00:27

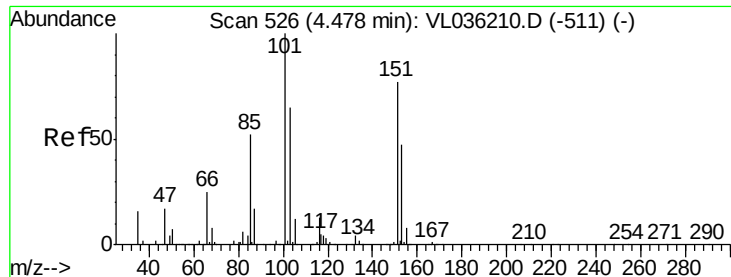
Tgt Ion: 101 Resp: 43025

Ion Ratio Lower Upper

101 100

103 61.3 52.6 78.8





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.031 ppbv

RT: 4.48 min Scan# 527

Delta R.T. 0.00 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

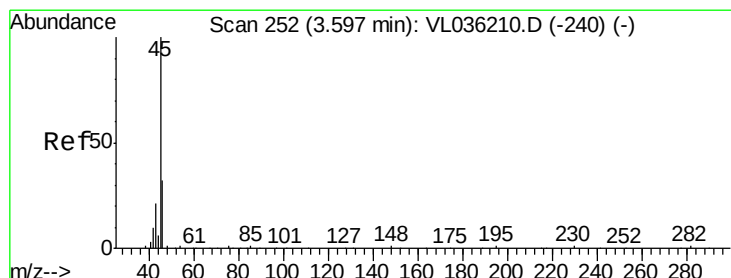
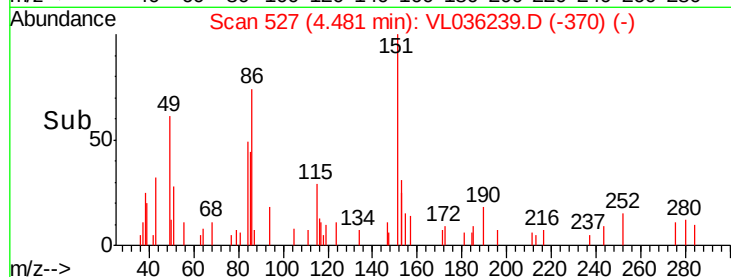
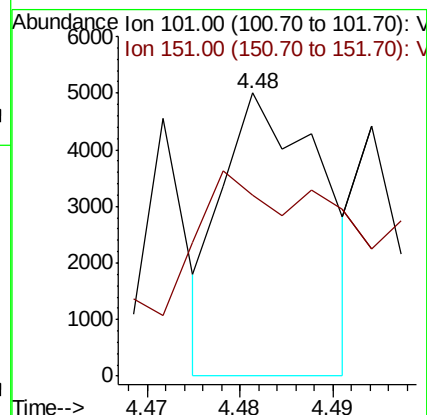
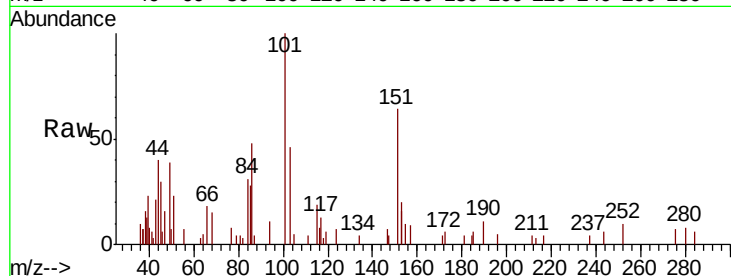
OA1

Tot Ion:101 Resp: 3752

Ion Ratio Lower Upper

101 100

151 215.6 59.8 89.6#



#13

Ethanol

Concen: 11.703 ppbv

RT: 3.61 min Scan# 256

Delta R.T. 0.01 min

Lab File: VL036239.D

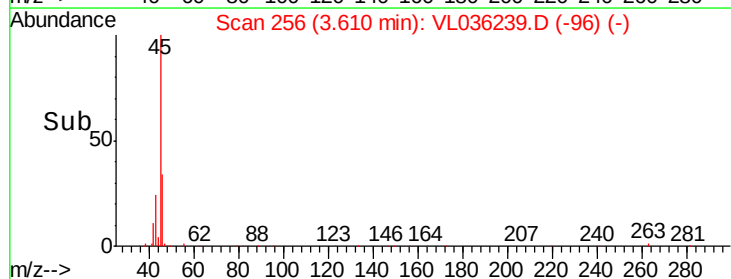
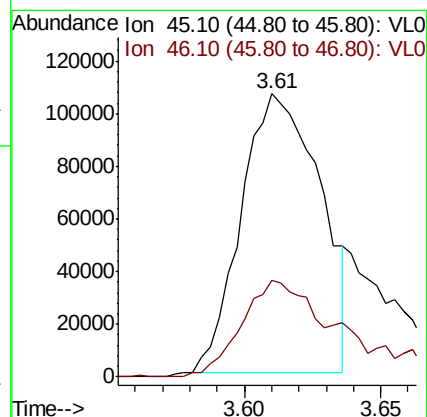
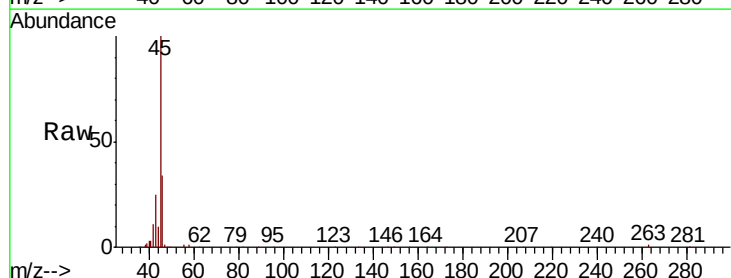
Acq: 14 Jan 2021 00:27

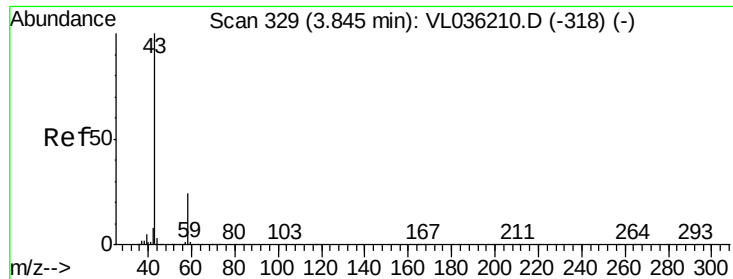
Tgt Ion: 45 Resp: 213256

Ion Ratio Lower Upper

45 100

46 48.9 19.2 77.0

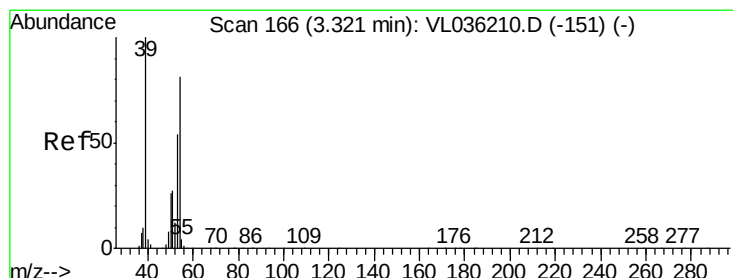
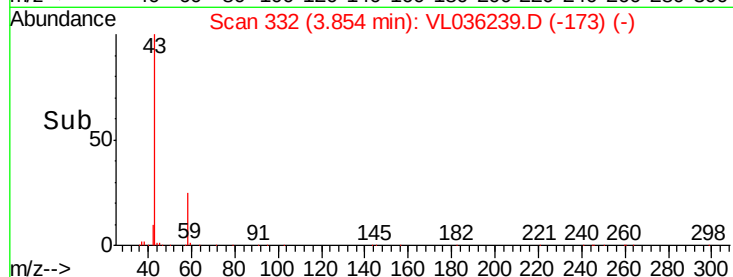
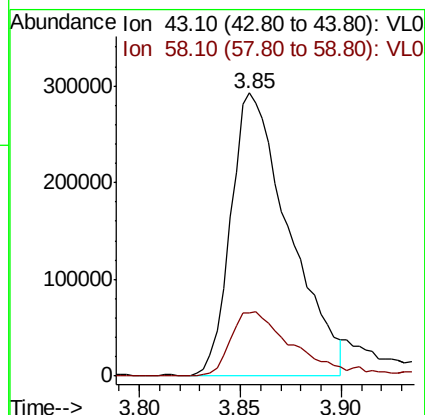
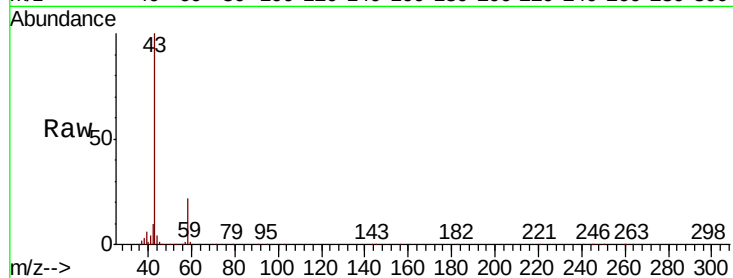




#15
Acetone
Concen: 3.368 ppbv
RT: 3.85 min Scan# 332
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

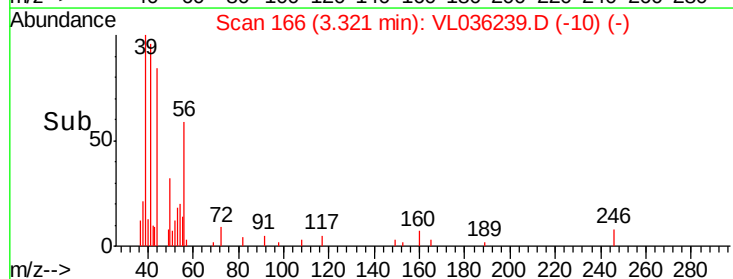
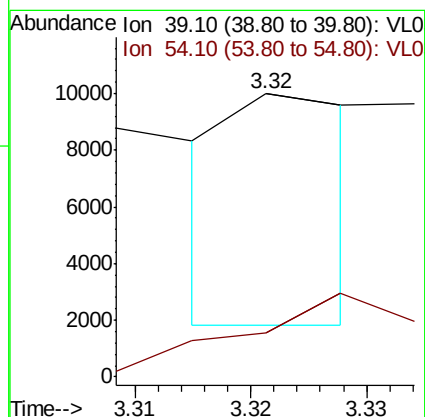
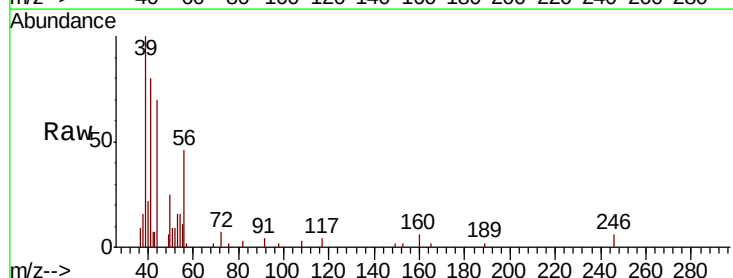
Instrument :
MSVOA_L
ClientSampleId :
OA1

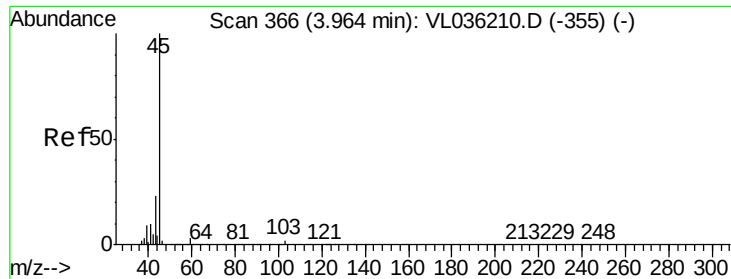
Tot Ion: 43 Resp: 587255
Ion Ratio Lower Upper
43 100
58 25.8 20.9 31.3



#16
1,3-Butadiene
Concen: 0.037 ppbv
RT: 3.32 min Scan# 166
Delta R.T. 0.00 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

Tgt Ion: 39 Resp: 3076
Ion Ratio Lower Upper
39 100
54 0.0 62.5 93.7#





#19

Isopropyl Alcohol

Concen: 1.460 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.02 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

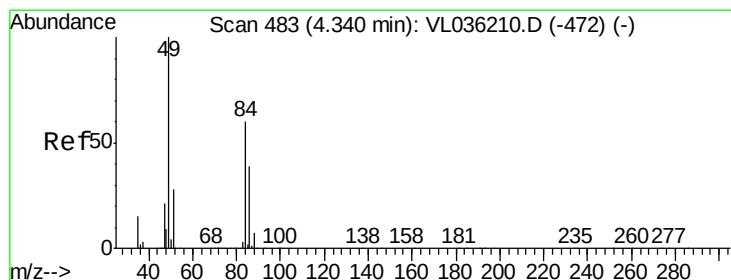
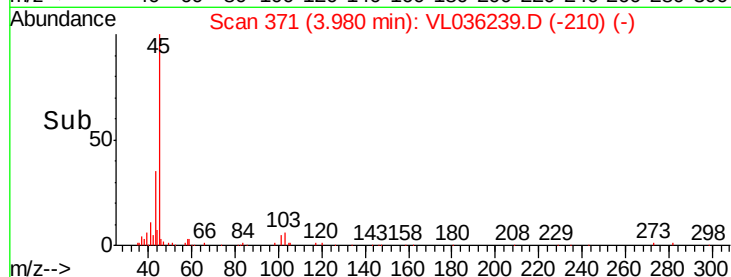
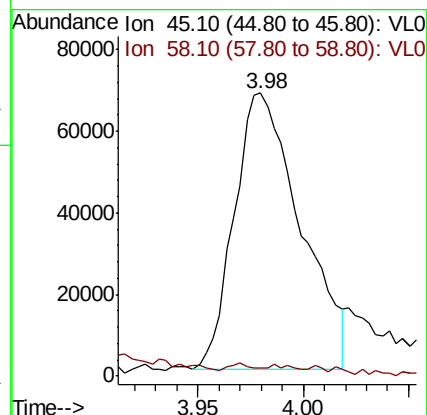
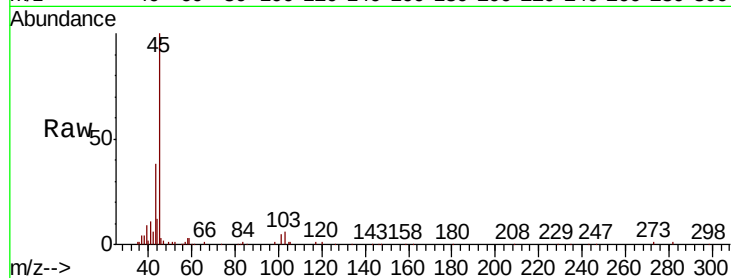
OA1

Tot Ion: 45 Resp: 147162

Ion Ratio Lower Upper

45 100

58 3.3 1.9 2.9#



#20

Methylene Chloride

Concen: 5.662 ppbv

RT: 4.35 min Scan# 485

Delta R.T. 0.01 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Tgt Ion: 84 Resp: 302253

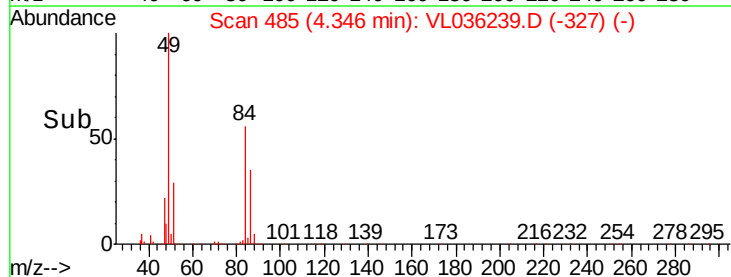
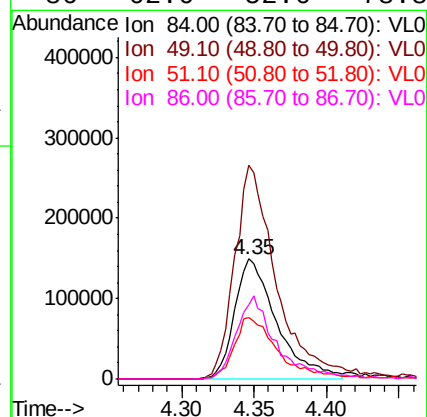
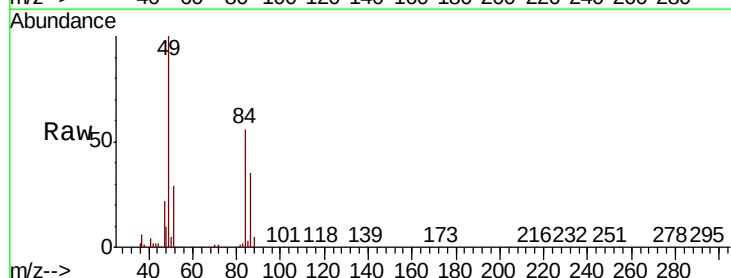
Ion Ratio Lower Upper

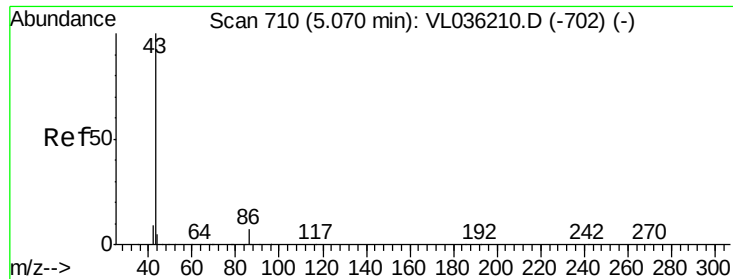
84 100

49 178.2 134.1 201.1

51 51.4 37.4 56.0

86 62.0 52.6 78.8

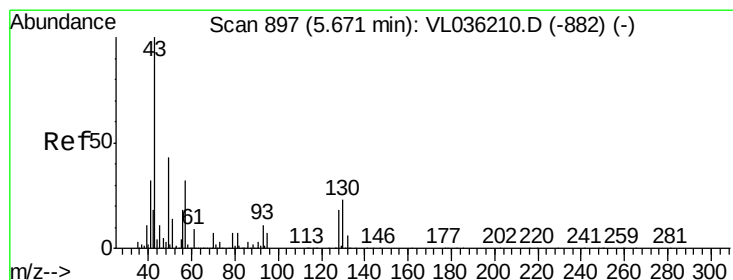
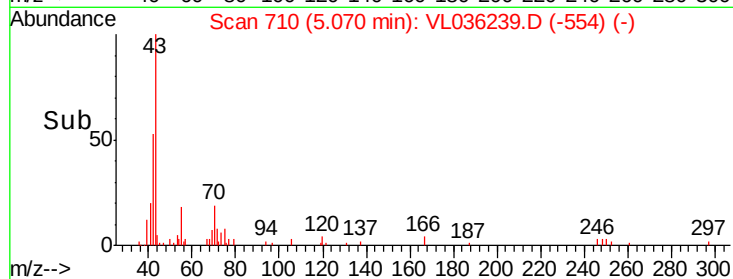
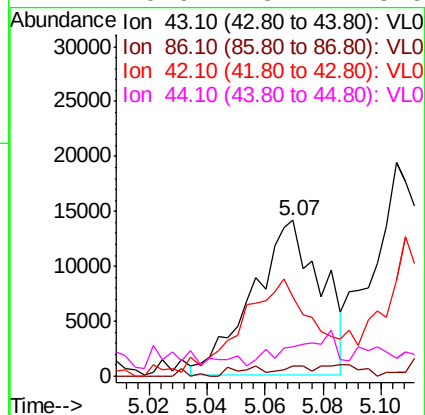
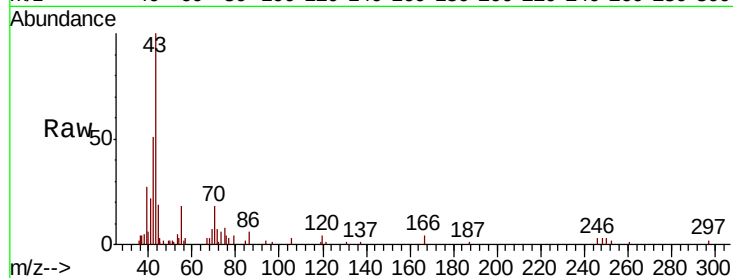




#23
 Vinyl Acetate
 Concen: 0.104 ppbv
 RT: 5.07 min Scan# 710
 Delta R.T. 0.00 min
 Lab File: VL036239.D
 Acq: 14 Jan 2021 00:27

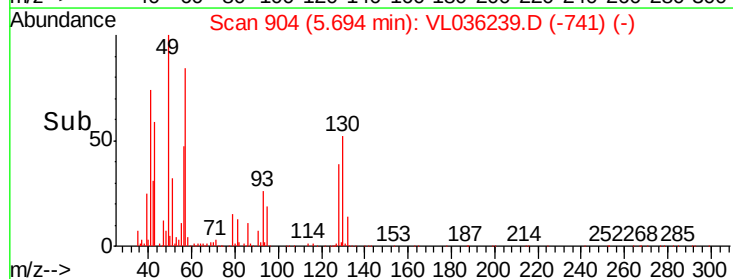
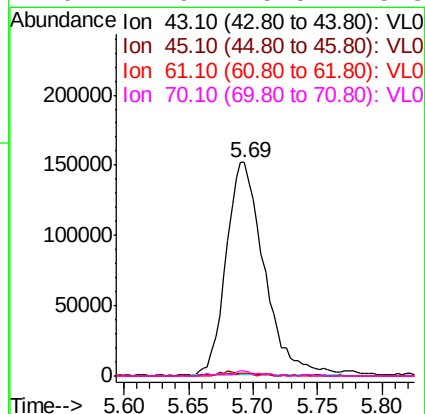
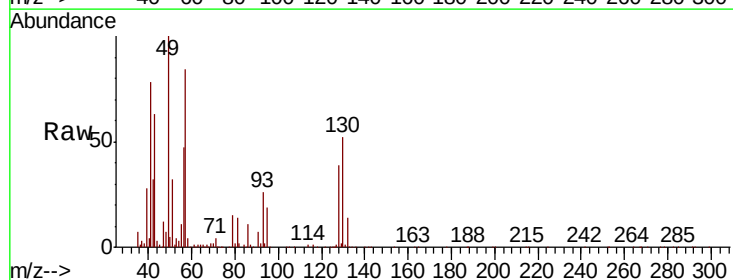
Instrument :
 MSVOA_L
 ClientSampleId :
 OA1

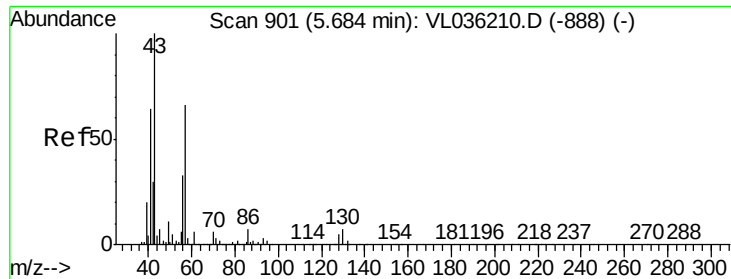
Tot Ion:	43	Resp:	22879
Ion	Ratio	Lower	Upper
43	100		
86	6.8	4.9	7.3
42	41.3	7.8	11.6#
44	9.9	3.7	5.5#



#25
 Ethyl Acetate
 Concen: 0.873 ppbv
 RT: 5.69 min Scan# 904
 Delta R.T. 0.02 min
 Lab File: VL036239.D
 Acq: 14 Jan 2021 00:27

Tgt Ion:	43	Resp:	309872
Ion	Ratio	Lower	Upper
43	100		
45	2.0	8.3	12.5#
61	1.1	7.4	11.2#
70	1.9	5.5	8.3#

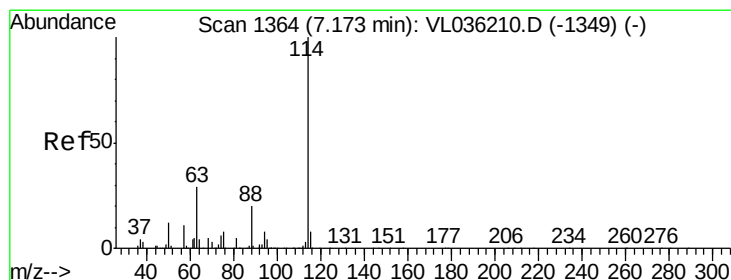
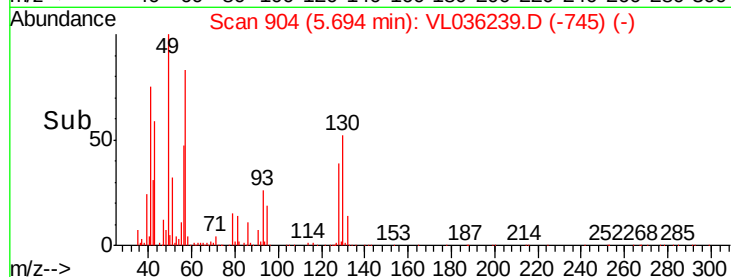
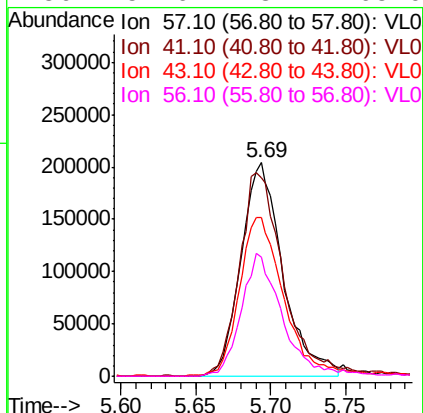
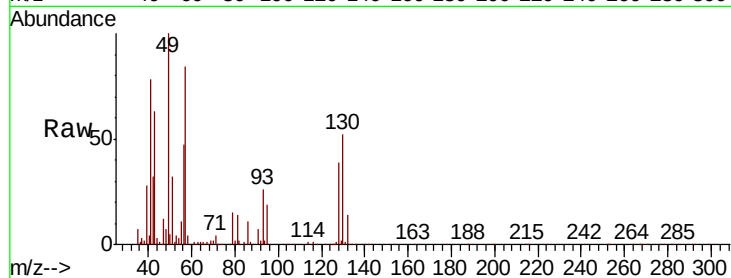




#26
Hexane
Concen: 2.670 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

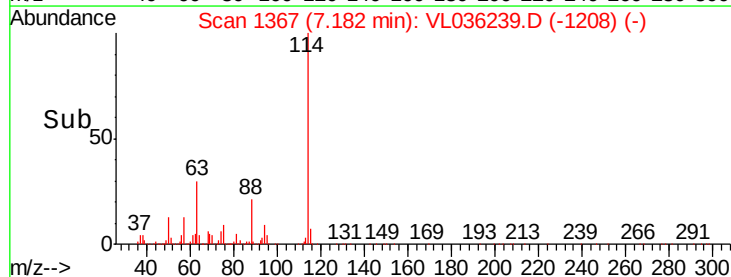
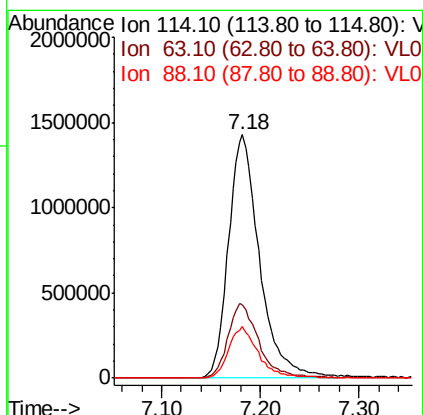
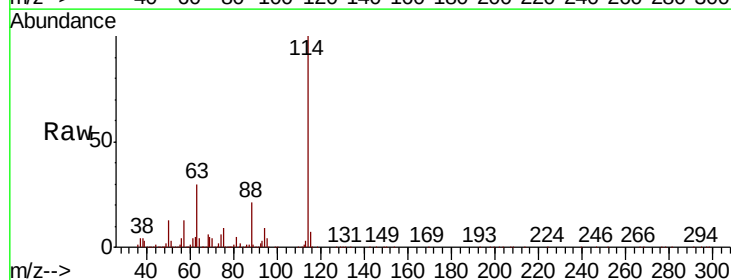
Instrument :
MSVOA_L
ClientSampleId :
OA1

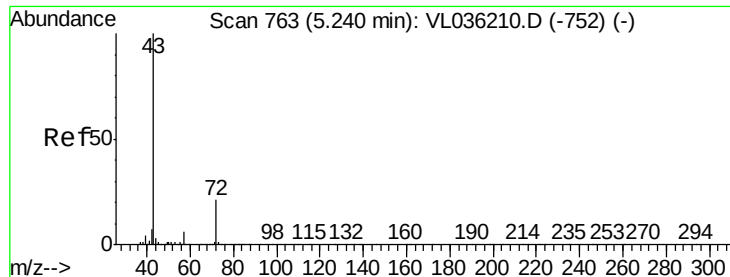
Tot Ion:	57	Resp:	396327
Ion	Ratio	Lower	Upper
57	100		
41	103.7	83.0	124.6
43	81.3	202.4	303.6#
56	57.6	43.4	65.0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1367
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

Tgt Ion:	114	Resp:	3141063
Ion	Ratio	Lower	Upper
114	100		
63	30.7	24.7	37.1
88	20.4	16.6	24.8

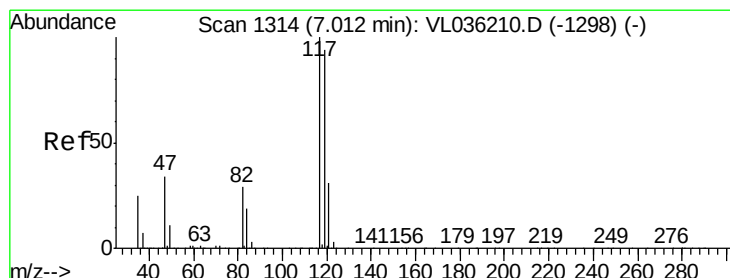
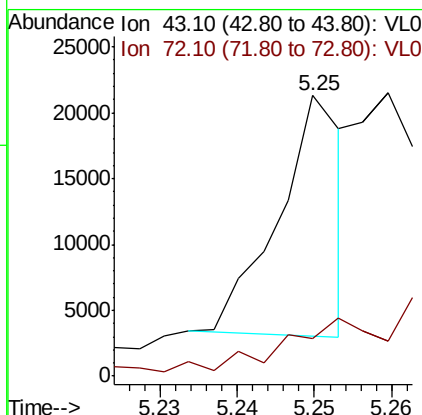
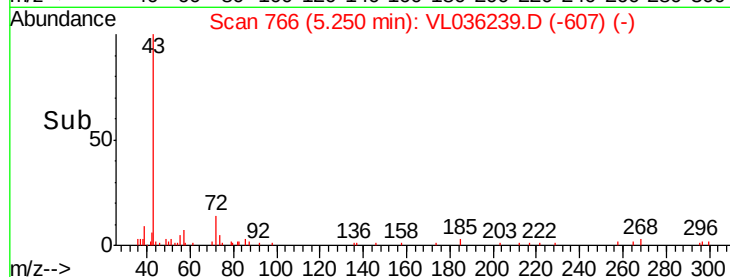
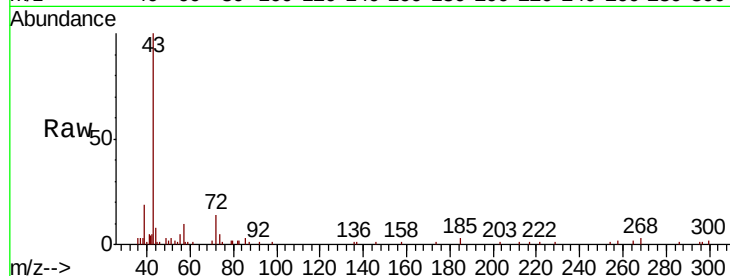




#34
2-Butanone
Concen: 0.053 ppbv
RT: 5.25 min Scan# 766
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

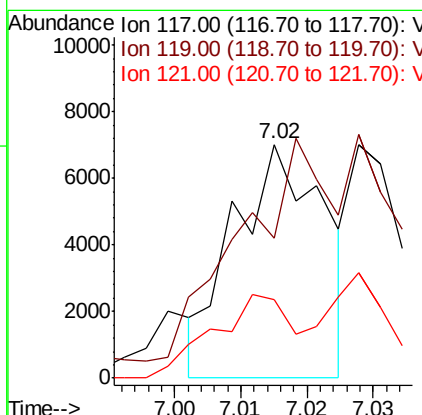
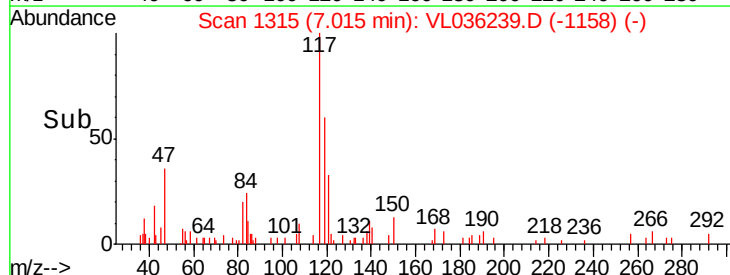
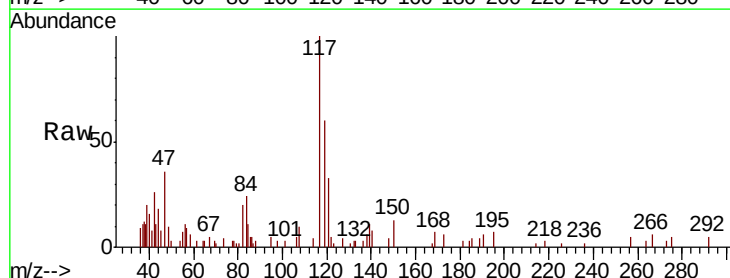
Instrument :
MSVOA_L
ClientSampleId :
OA1

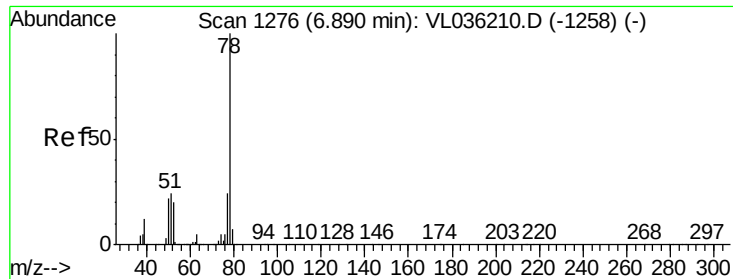
Tot Ion: 43 Resp: 10566
Ion Ratio Lower Upper
43 100
72 0.0 16.1 24.1#



#35
Carbon Tetrachloride
Concen: 0.033 ppbv
RT: 7.02 min Scan# 1315
Delta R.T. 0.00 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

Tgt Ion: 117 Resp: 6645
Ion Ratio Lower Upper
117 100
119 36.7 74.9 112.3#
121 28.2 25.0 37.6





#36

Benzene

Concen: 0.327 ppbv

RT: 6.90 min Scan# 1278

Delta R.T. 0.01 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

QA1

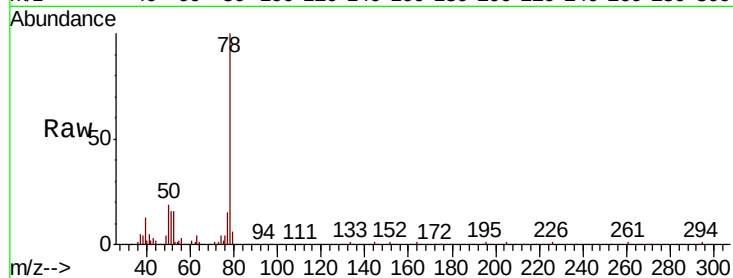
Tot Ion: 78 Resp: 94021

Ion Ratio Lower Upper

78 100

77 14.8 19.4 29.0#

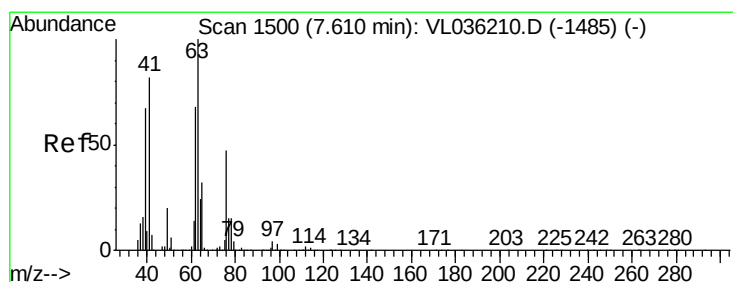
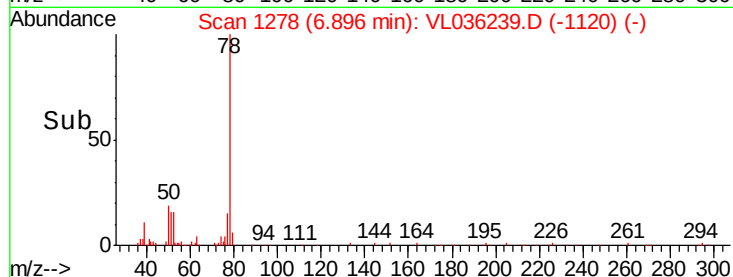
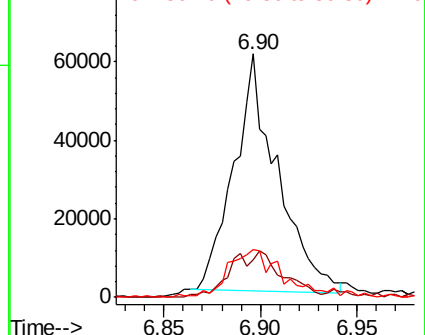
50 19.6 17.4 26.2



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 7.958 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.43 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

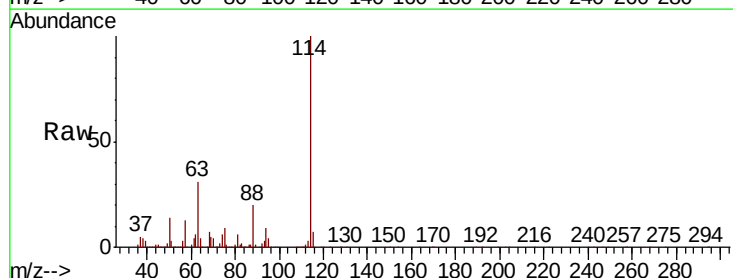
Tgt Ion: 63 Resp: 929902

Ion Ratio Lower Upper

63 100

41 0.0 66.1 99.1#

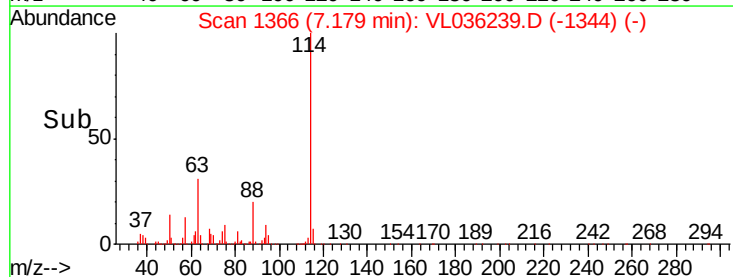
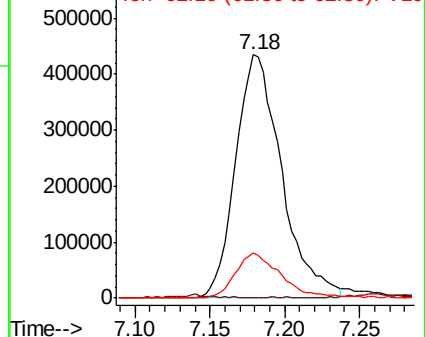
62 18.8 54.8 82.2#

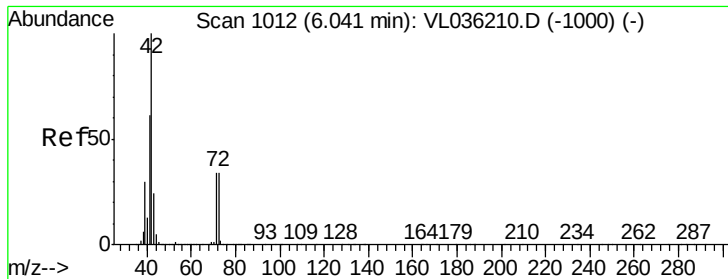


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

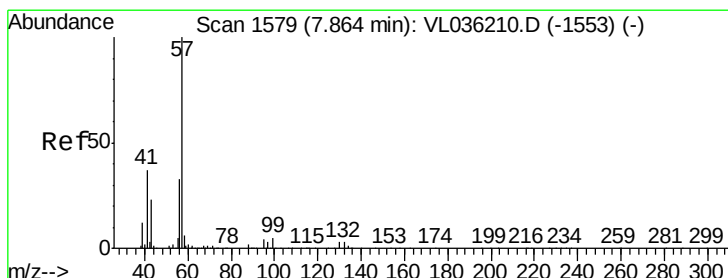
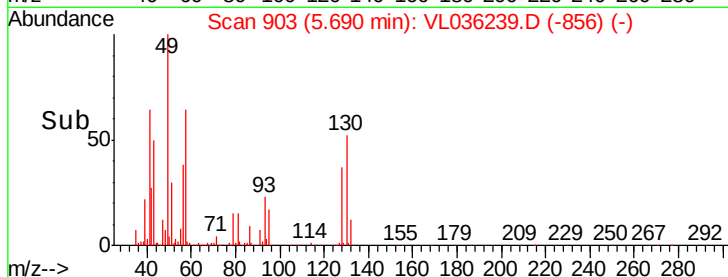
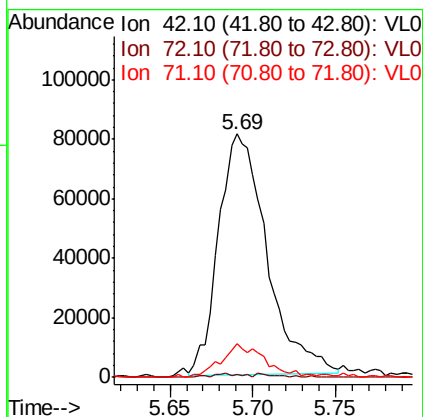
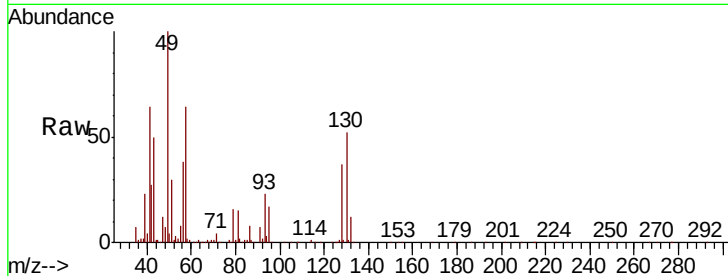




#41
Tetrahydrofuran
Concen: 1.395 ppbv
RT: 5.69 min Scan# 903
Delta R.T. -0.35 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

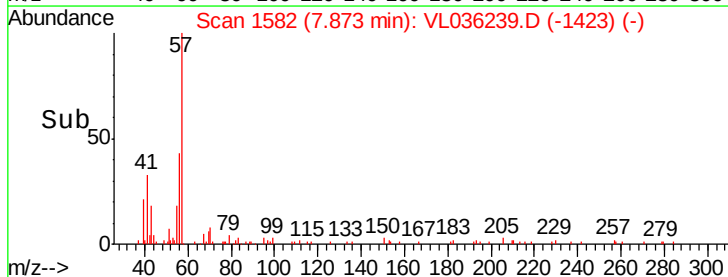
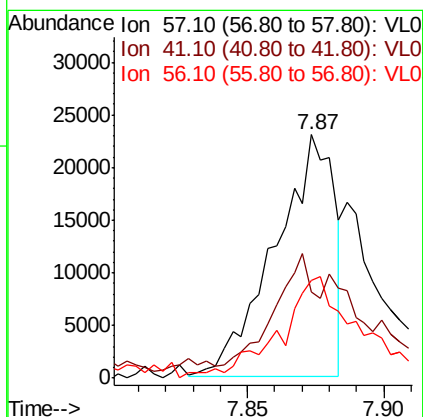
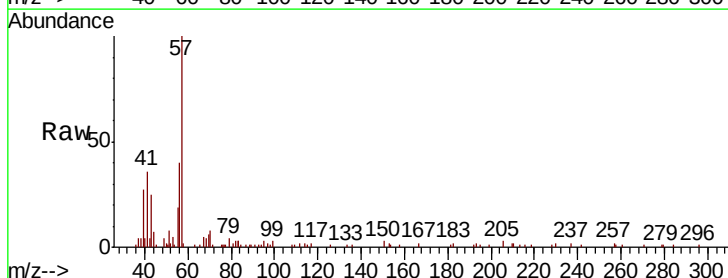
Instrument :
MSVOA_L
ClientSampleId :
OA1

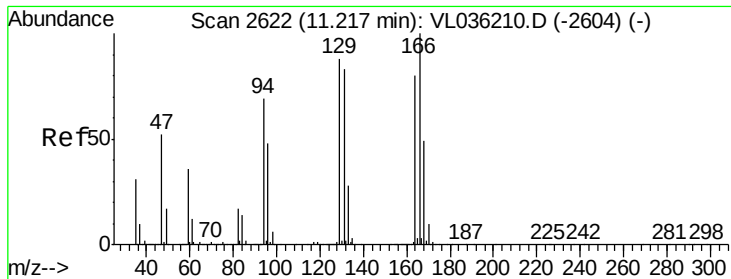
Tot Ion	Ratio	Lower	Upper
42	100		
72	1.6	29.5	44.3#
71	13.7	29.1	43.7#



#44
2,2,4-Trimethylpentane
Concen: 0.065 ppbv
RT: 7.87 min Scan# 1582
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

Tgt Ion	Ratio	Lower	Upper
57	100		
41	88.0	28.5	42.7#
56	63.4	25.5	38.3#





#52

Tetrachloroethene

Concen: 0.080 ppbv

RT: 11.23 min Scan# 2625

Delta R.T. 0.01 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

OA1

Tot Ion:164 Resp: 8471

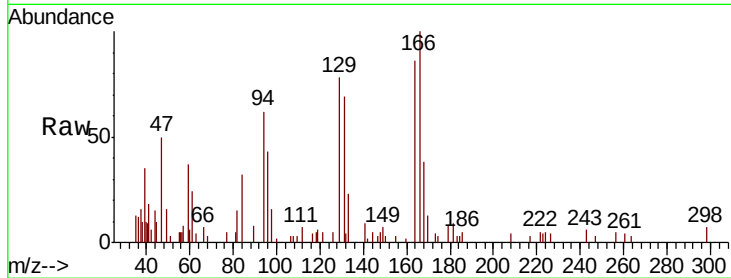
Ion Ratio Lower Upper

164 100

166 99.7 99.9 149.9#

129 77.9 88.2 132.4#

131 72.2 83.0 124.6#

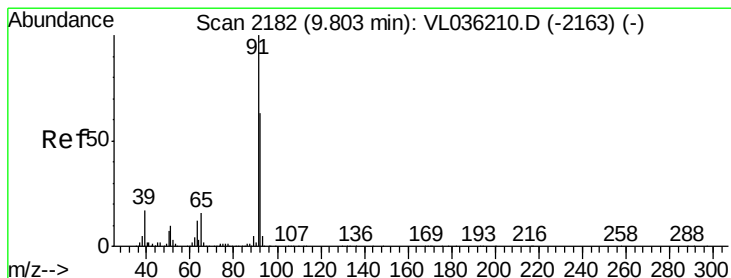
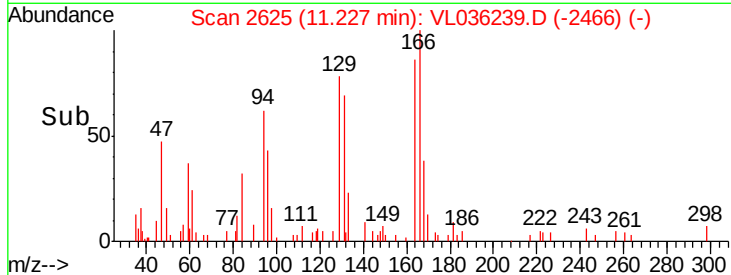
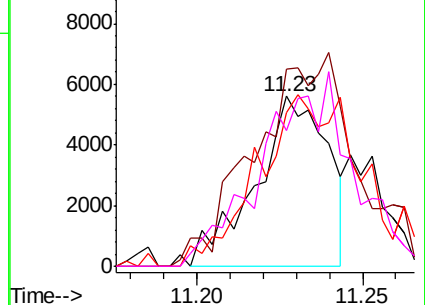


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.522 ppbv

RT: 9.82 min Scan# 2186

Delta R.T. 0.01 min

Lab File: VL036239.D

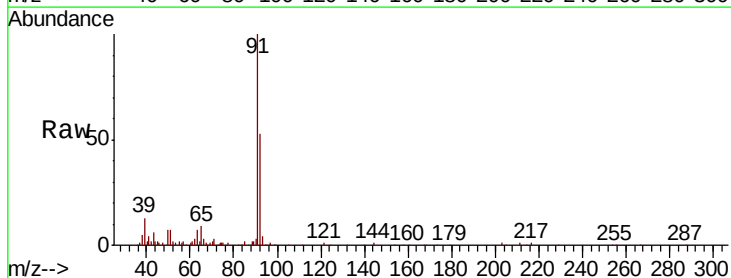
Acq: 14 Jan 2021 00:27

Tgt Ion: 91 Resp: 166385

Ion Ratio Lower Upper

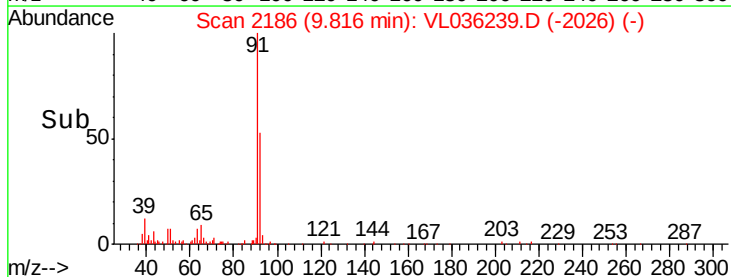
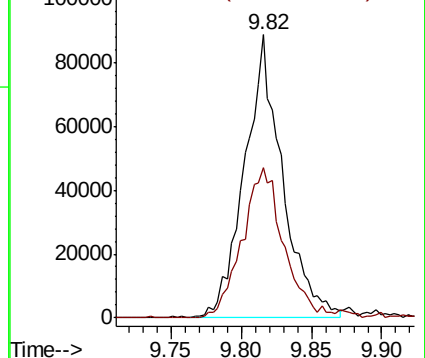
91 100

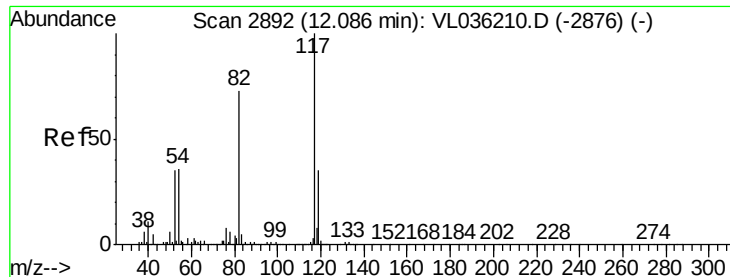
92 59.5 48.5 72.7



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2895

Delta R.T. 0.01 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

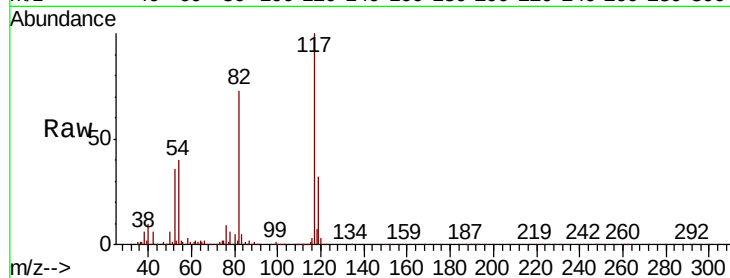
MSVOA_L

ClientSampled :

OA1

Tot Ion:117 Resp: 2728177

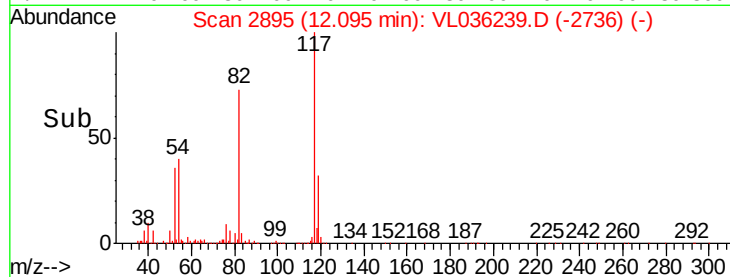
Ion	Ratio	Lower	Upper
117	100		
82	77.6	59.7	89.5
119	33.1	28.6	43.0



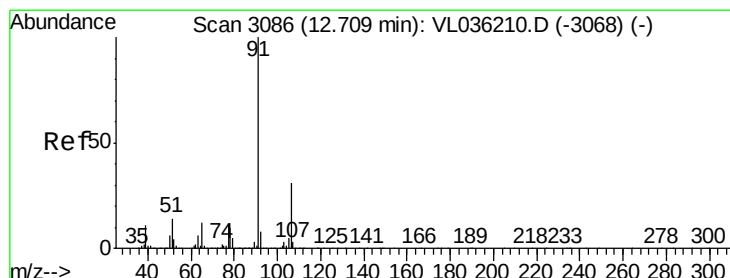
Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



Time-->



#58

Ethyl Benzene

Concen: 0.048 ppbv

RT: 12.72 min Scan# 3088

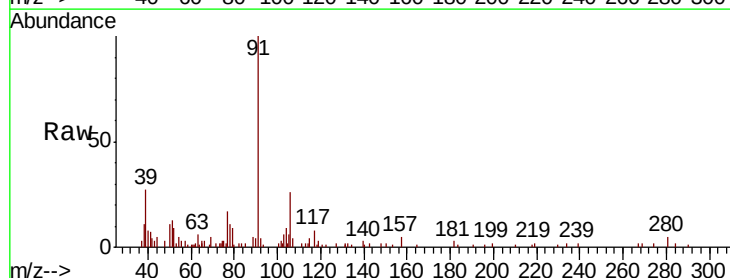
Delta R.T. 0.01 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

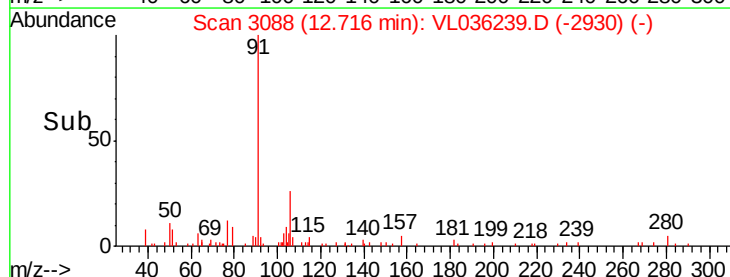
Tgt Ion: 91 Resp: 19427

Ion	Ratio	Lower	Upper
91	100		
106	25.1	24.8	37.2

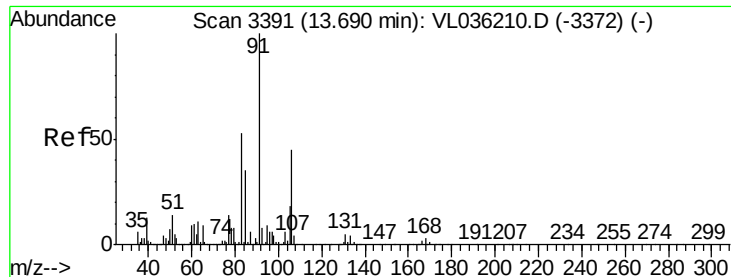


Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



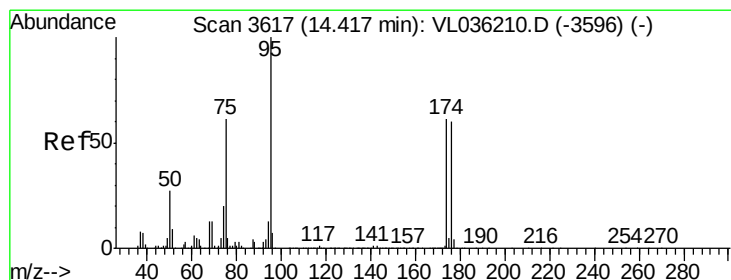
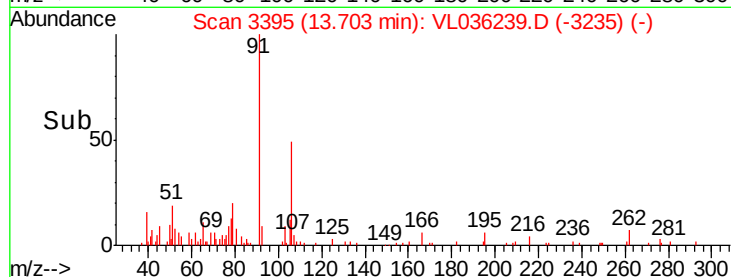
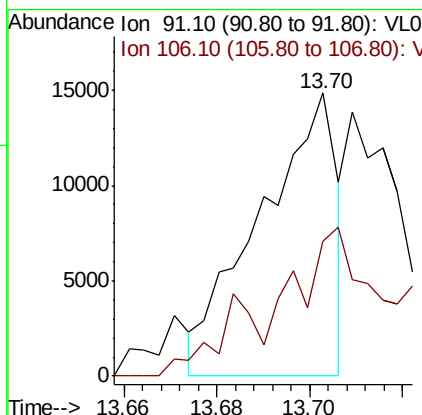
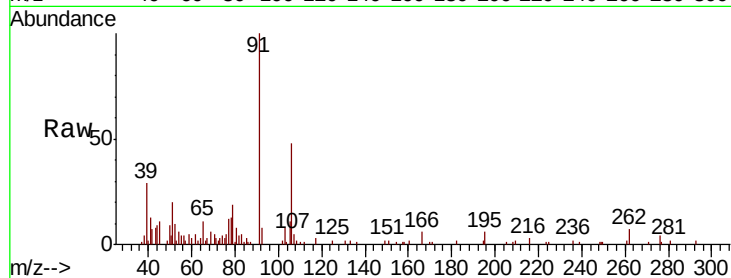
Time-->



#60
o-Xylene
Concen: 0.051 ppbv
RT: 13.70 min Scan# 3395
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

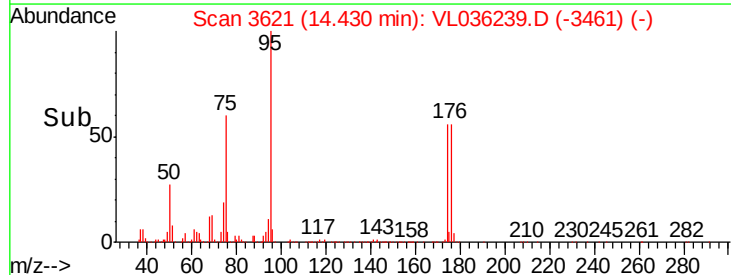
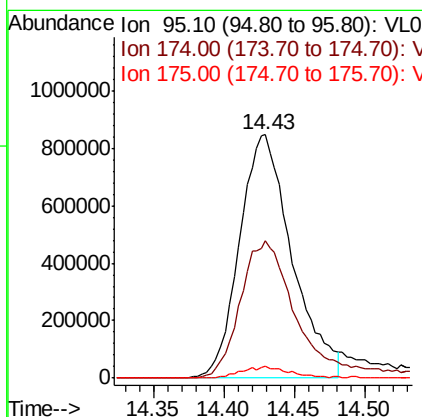
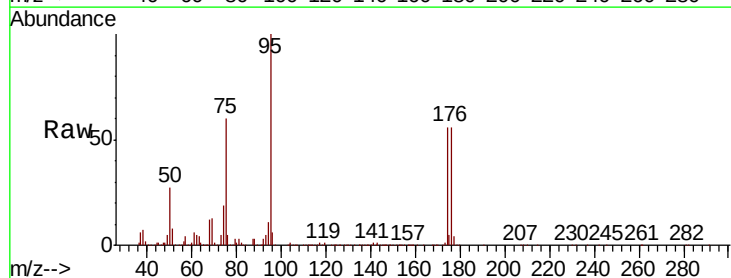
Instrument :
MSVOA_L
ClientSampleId :
OA1

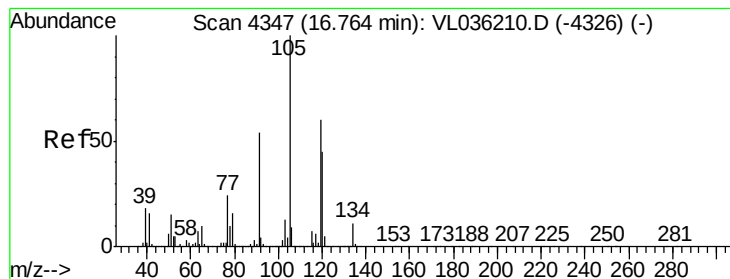
Tot Ion: 91 Resp: 17108
Ion Ratio Lower Upper
91 100
106 0.0 21.9 65.8#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.731 ppbv
RT: 14.43 min Scan# 3621
Delta R.T. 0.01 min
Lab File: VL036239.D
Acq: 14 Jan 2021 00:27

Tgt Ion: 95 Resp: 2197530
Ion Ratio Lower Upper
95 100
174 64.7 49.4 74.0
175 4.6 3.8 5.8





#74

1,2,4-Trimethylbenzene

Concen: 0.030 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. 0.02 min

Lab File: VL036239.D

Acq: 14 Jan 2021 00:27

Instrument :

MSVOA_L

ClientSampleId :

OA1

Tot Ion:105 Resp: 11225

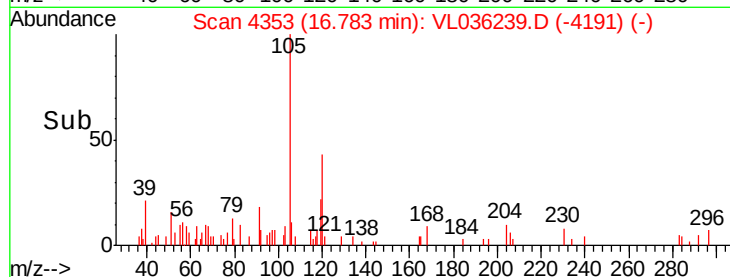
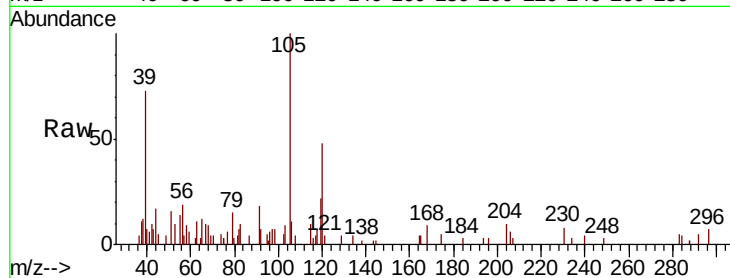
Ion Ratio Lower Upper

105 100

120 20.2 36.2 54.2#

91 15.0 43.3 64.9#

77 0.0 19.1 28.7#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

