

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122320\
 Data File : VL036201.D
 Acq On : 23 Dec 2020 20:51
 Operator : SY/AP
 Sample : L5196-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IIA2

Quant Time: Dec 24 05:26:34 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120720AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 07 16:56:49 2020
 QLast Update : Mon Dec 07 16:56:49 2020
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1382242	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.15	114	2721351	10.00	ppbv	-0.05
55) Chlorobenzene-d5	12.06	117	2409325	10.00	ppbv	-0.05

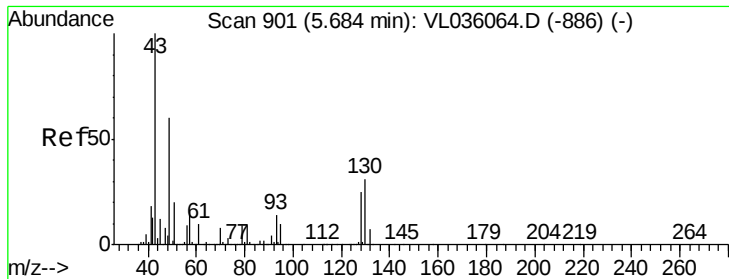
System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.39	95	2110551	11.03	ppbv	-0.05
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	25382	0.158	ppbv	90
3) Chlorodifluoromethane	2.97	51	187627	1.190	ppbv	97
4) Chloromethane	3.12	50	34058	0.440	ppbv	98
9) Propene	3.18	41	128234	1.623	ppbv	90
10) Heptane	8.10	43	27203	0.135	ppbv #	29
11) Trichlorofluoromethane	3.93	101	61146	0.323	ppbv	91
12) 1,1,2-Trichlorotrifluoroet	4.46	101	5750	0.045	ppbv #	58
13) Ethanol	3.58	45	1531162	140.591	ppbv	84
15) Acetone	3.83	43	1050814	6.325	ppbv #	85
16) 1,3-Butadiene	3.29	39	7693	0.092	ppbv #	71
19) Isopropyl Alcohol	3.95	45	588284	5.794	ppbv #	100
20) Methylene Chloride	4.32	84	119420	1.754	ppbv	97
23) Vinyl Acetate	5.03	43	15486	0.070	ppbv #	1
25) Ethyl Acetate	5.66	43	335627	1.011	ppbv #	82
26) Hexane	5.66	57	416923	2.791	ppbv #	42
30) Cyclohexane	7.10	84	4776	0.044	ppbv #	1
34) 2-Butanone	5.22	43	62496	0.346	ppbv	92
35) Carbon Tetrachloride	6.98	117	5900	0.037	ppbv #	57
36) Benzene	6.86	78	108850	0.472	ppbv #	91
39) 1,2-Dichloropropane	7.15	63	879734	9.659	ppbv #	24
44) 2,2,4-Trimethylpentane	7.84	57	99954	0.239	ppbv #	73
53) Toluene	9.77	91	145805	0.563	ppbv #	21
58) Ethyl Benzene	12.69	91	26301	0.080	ppbv	91
59) m/p-Xylene	12.96	91	18318	0.066	ppbv #	34
60) o-Xylene	13.67	91	63485	0.242	ppbv	95
61) Styrene	13.50	104	9467	0.056	ppbv #	34
74) 1,2,4-Trimethylbenzene	16.73	105	23008	0.085	ppbv #	56

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

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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 888

Delta R.T. -0.04 min

Lab File: VL036201.D

Acq: 23 Dec 2020 20:51

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MSVOA_L

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IIA2

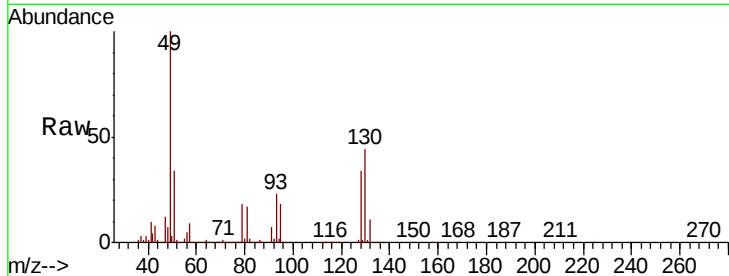
Tot Ion: 49 Resp: 1382242

Ion Ratio Lower Upper

49 100

128 35.5 21.1 63.1

130 45.3 27.1 81.3

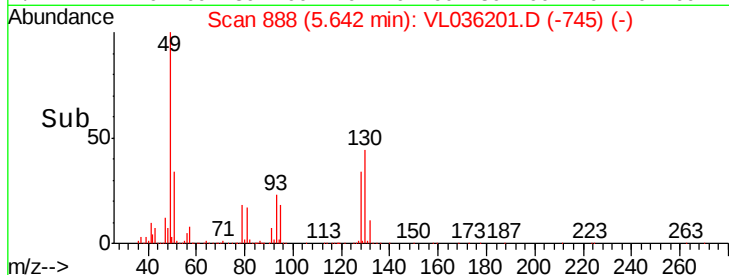
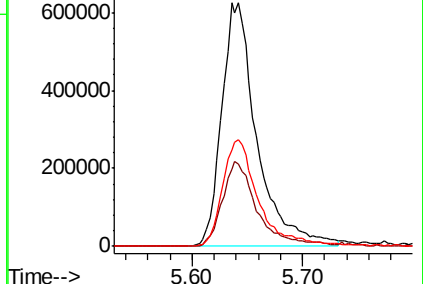


Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0

5.64



#2

Dichlorodifluoromethane

Concen: 0.158 ppbv

RT: 3.02 min Scan# 73

Delta R.T. -0.03 min

Lab File: VL036201.D

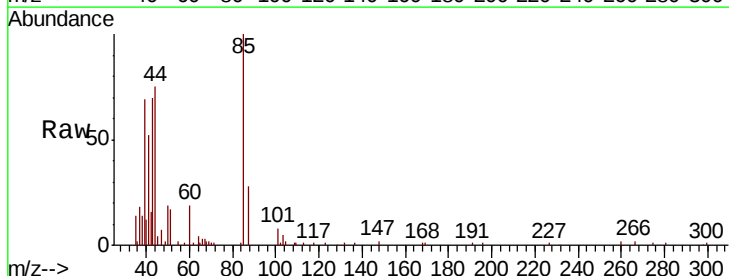
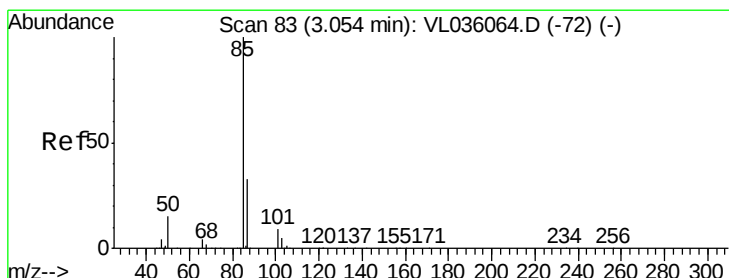
Acq: 23 Dec 2020 20:51

Tgt Ion: 85 Resp: 25382

Ion Ratio Lower Upper

85 100

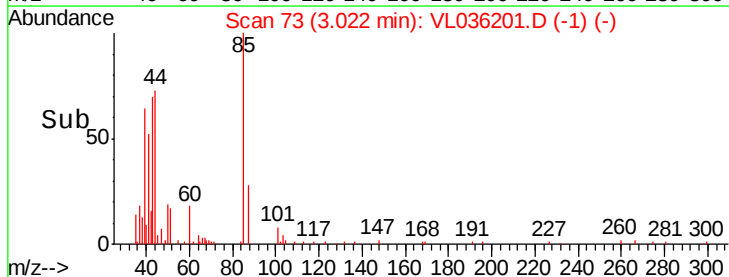
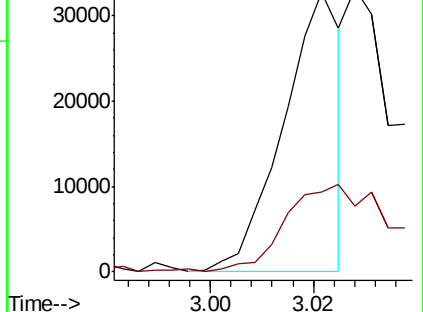
87 27.4 26.5 39.7

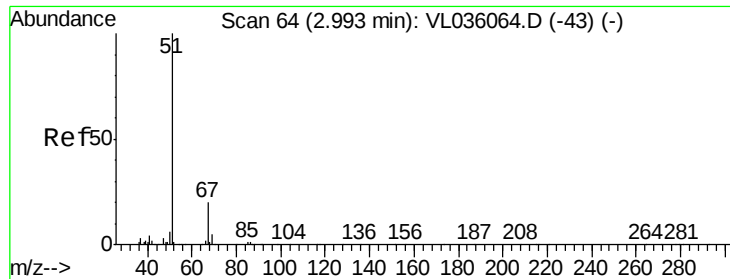


Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.02

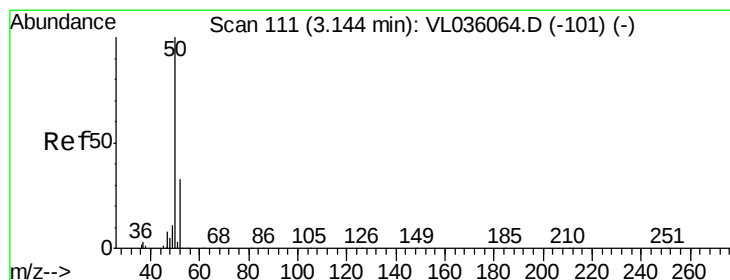
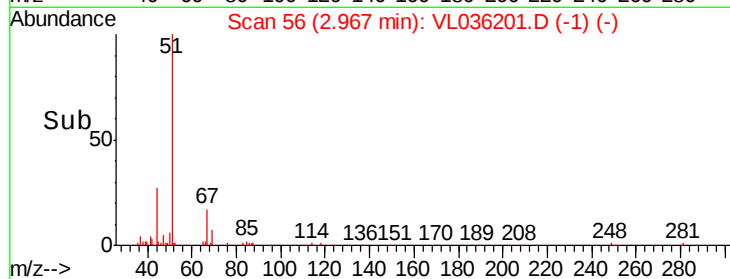
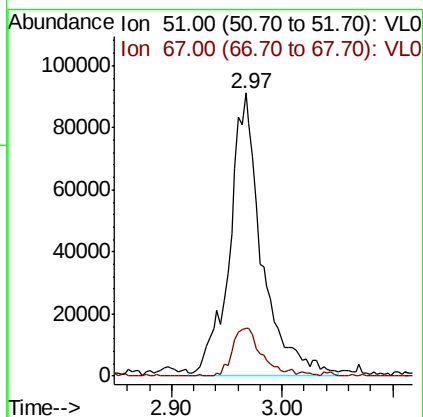
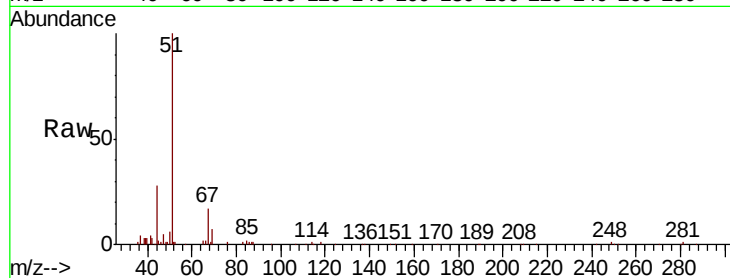




#3
Chlorodifluoromethane
Concen: 1.190 ppbv
RT: 2.97 min Scan# 56
Delta R.T. -0.03 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

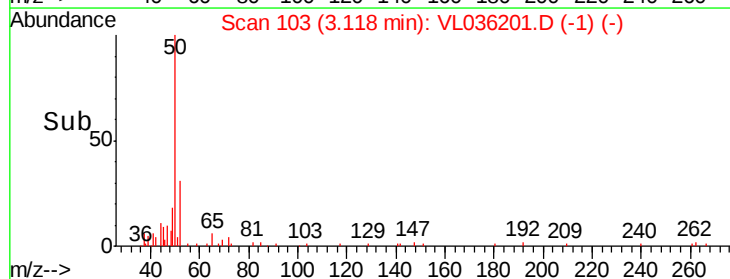
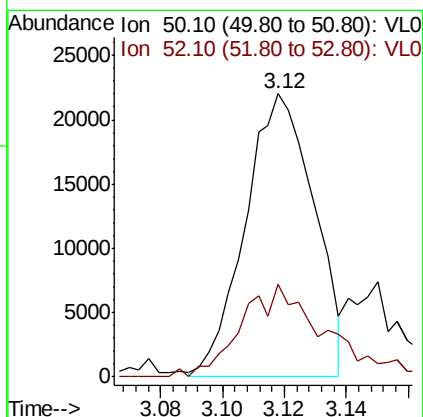
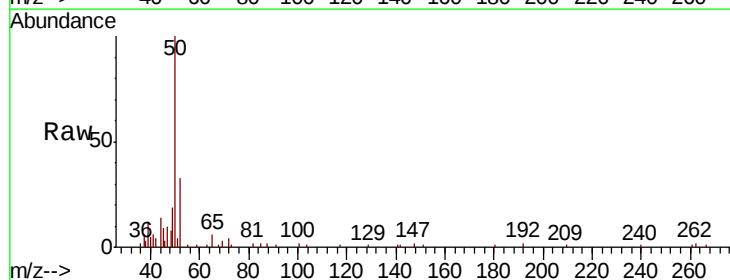
Instrument :
MSVOA_L
ClientSampleId :
IIA2

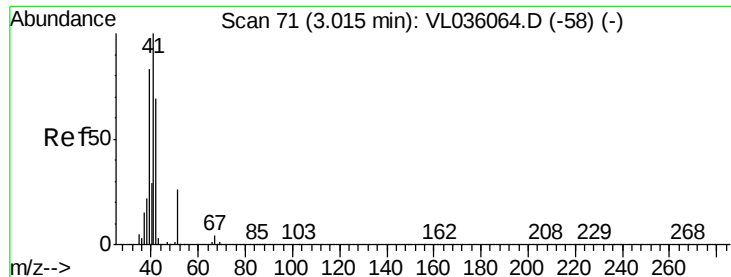
Tot Ion: 51 Resp: 187627
Ion Ratio Lower Upper
51 100
67 16.4 14.3 21.5



#4
Chloromethane
Concen: 0.440 ppbv
RT: 3.12 min Scan# 103
Delta R.T. -0.03 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 50 Resp: 34058
Ion Ratio Lower Upper
50 100
52 33.6 26.1 39.1





#9

Propene

Concen: 1.623 ppbv

RT: 3.18 min Scan# 122

Delta R.T. 0.16 min

Lab File: VL036201.D

Acq: 23 Dec 2020 20:51

Instrument :

MSVOA_L

ClientSampleId :

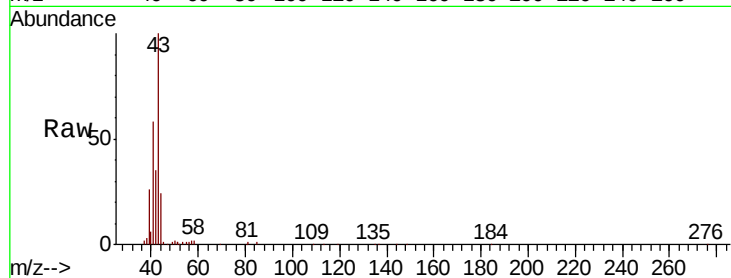
IIA2

Tot Ion: 41 Resp: 128234

Ion Ratio Lower Upper

41 100

42 79.6 57.0 85.6



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

3.18

100000

80000

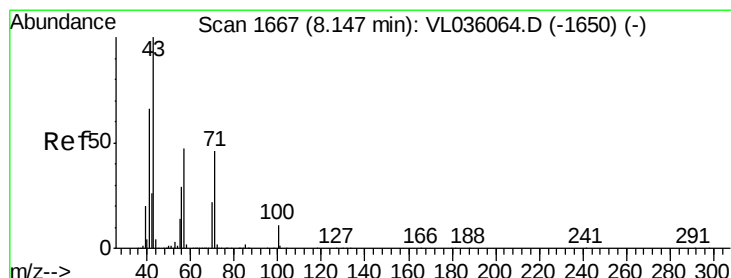
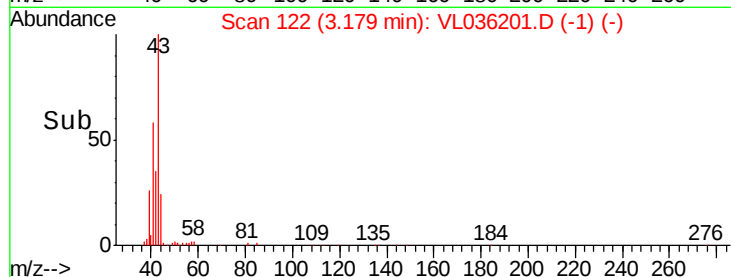
60000

40000

20000

0

Time-->



#10

Heptane

Concen: 0.135 ppbv

RT: 8.10 min Scan# 1651

Delta R.T. -0.05 min

Lab File: VL036201.D

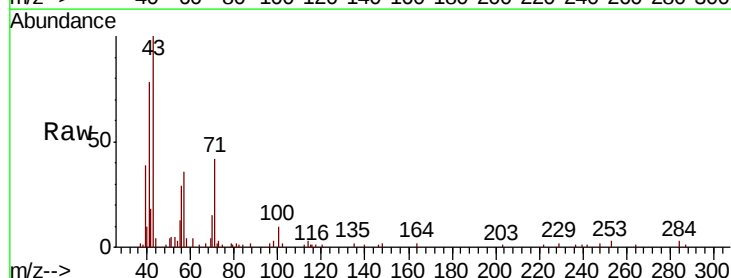
Acq: 23 Dec 2020 20:51

Tgt Ion: 43 Resp: 27203

Ion Ratio Lower Upper

43 100

57 0.0 37.9 56.9#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

25000

20000

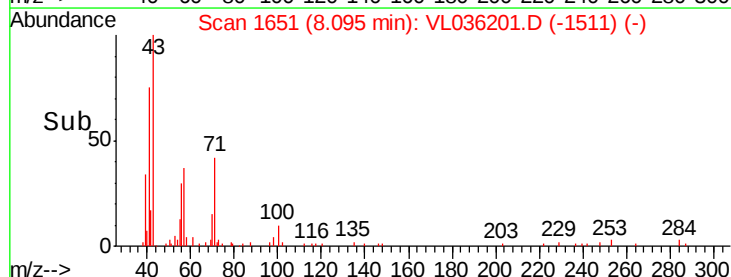
15000

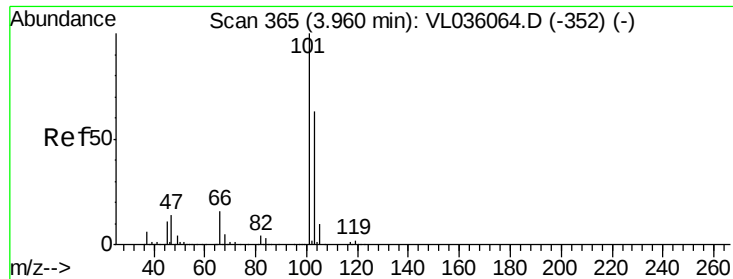
10000

5000

0

Time-->

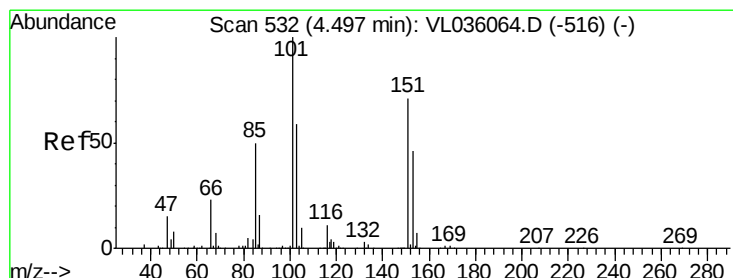
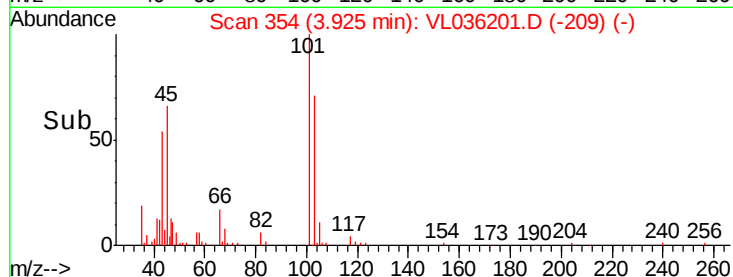
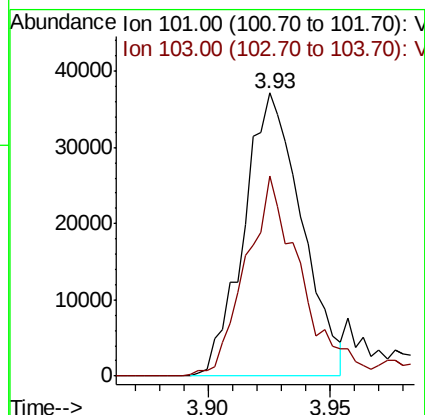
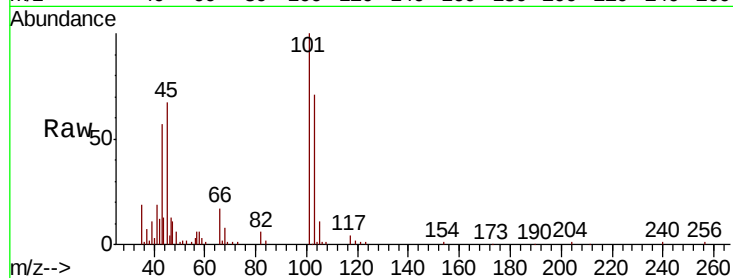




#11
 Trichlorofluoromethane
 Concen: 0.323 ppbv
 RT: 3.93 min Scan# 354
 Delta R.T. -0.04 min
 Lab File: VL036201.D
 Acq: 23 Dec 2020 20:51

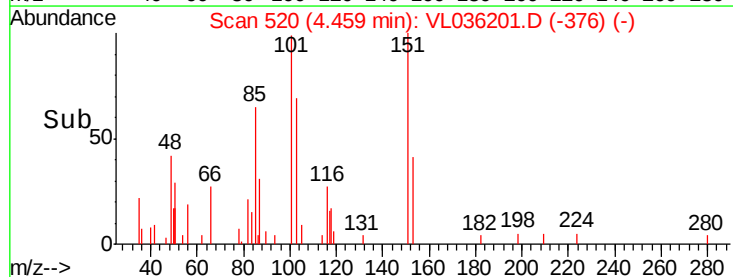
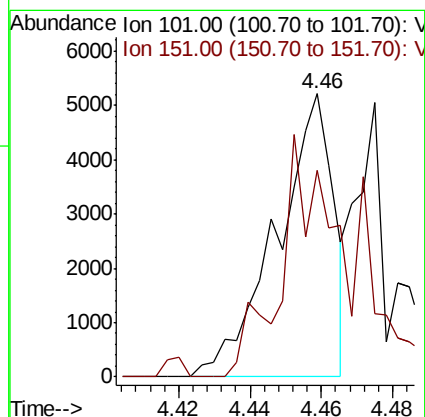
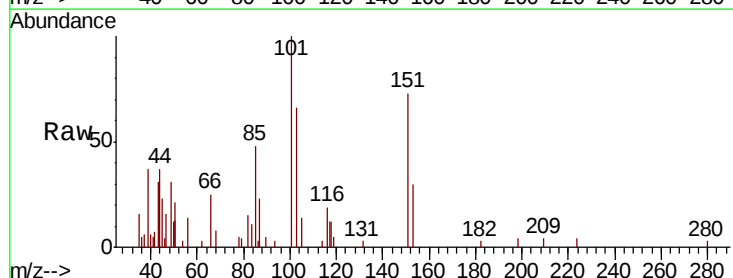
Instrument :
 MSVOA_L
 ClientSampleId :
 IIA2

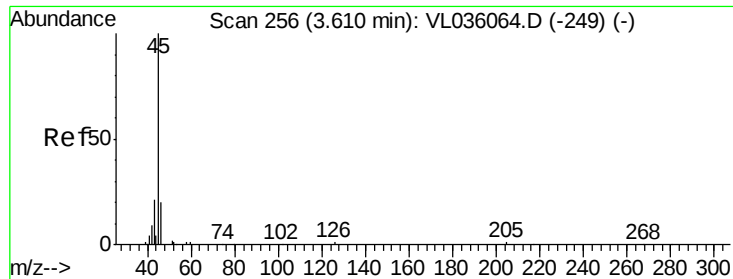
Tot Ion:101 Resp: 61146
 Ion Ratio Lower Upper
 101 100
 103 70.0 50.3 75.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.045 ppbv
 RT: 4.46 min Scan# 520
 Delta R.T. -0.04 min
 Lab File: VL036201.D
 Acq: 23 Dec 2020 20:51

Tgt Ion:101 Resp: 5750
 Ion Ratio Lower Upper
 101 100
 151 109.7 59.3 88.9#

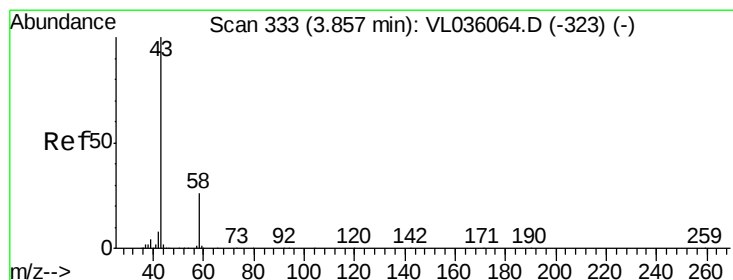
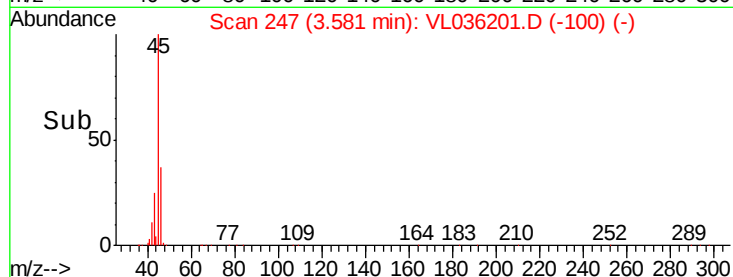
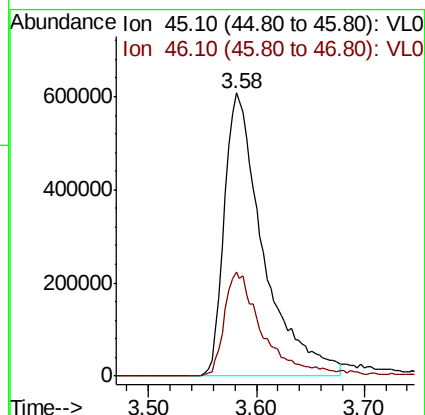
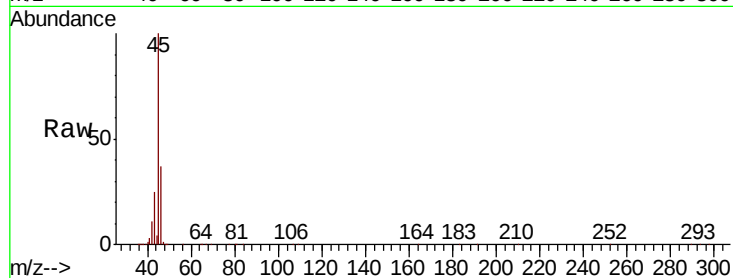




#13
Ethanol
Concen: 140.591 ppbv
RT: 3.58 min Scan# 247
Delta R.T. -0.03 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

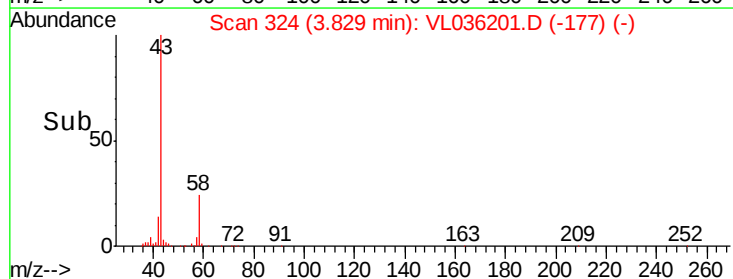
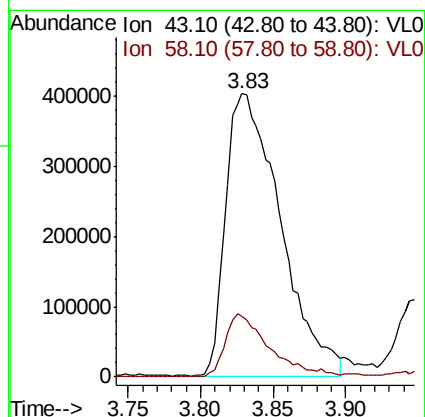
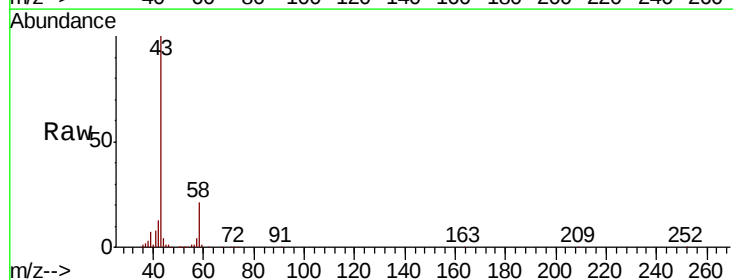
Instrument :
MSVOA_L
ClientSampleId :
IIA2

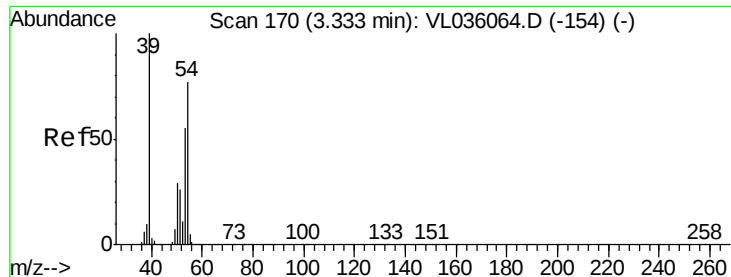
Tot Ion: 45 Resp: 1531162
Ion Ratio Lower Upper
45 100
46 36.8 19.0 75.8



#15
Acetone
Concen: 6.325 ppbv
RT: 3.83 min Scan# 324
Delta R.T. -0.03 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 43 Resp: 1050814
Ion Ratio Lower Upper
43 100
58 18.5 20.9 31.3#

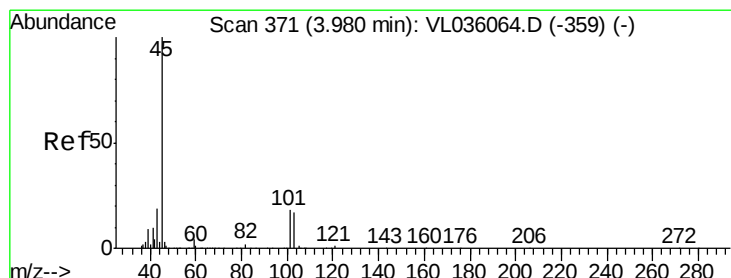
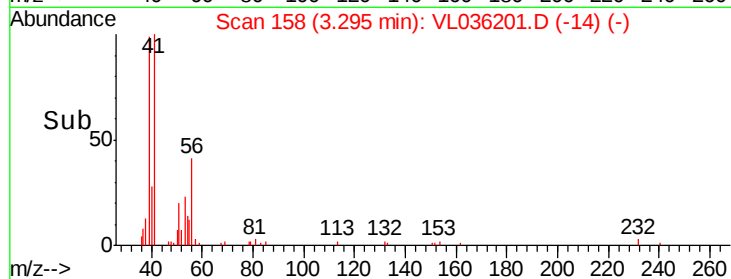
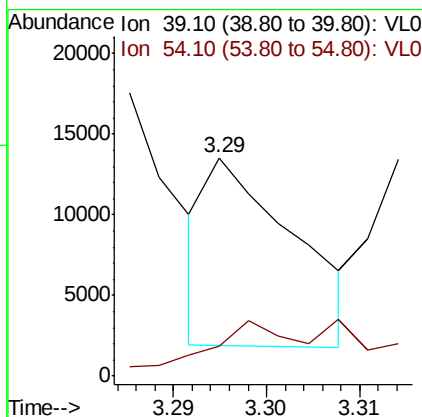
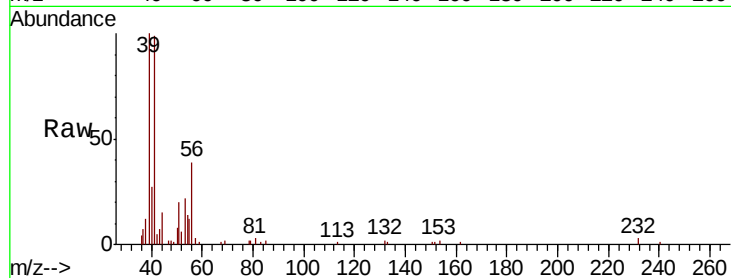




#16
1,3-Butadiene
Concen: 0.092 ppbv
RT: 3.29 min Scan# 158
Delta R.T. -0.04 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

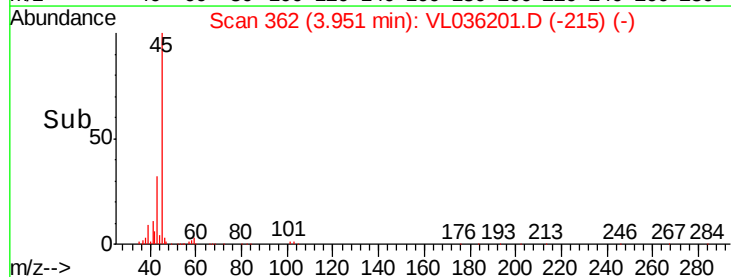
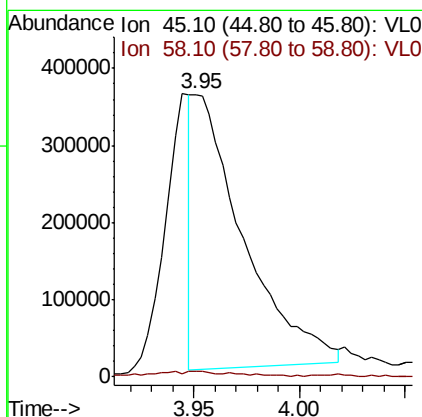
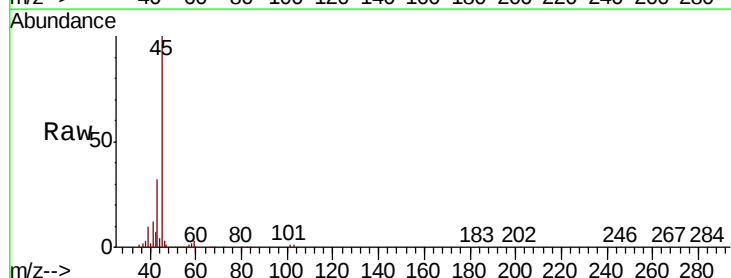
Instrument :
MSVOA_L
ClientSampleId :
IIA2

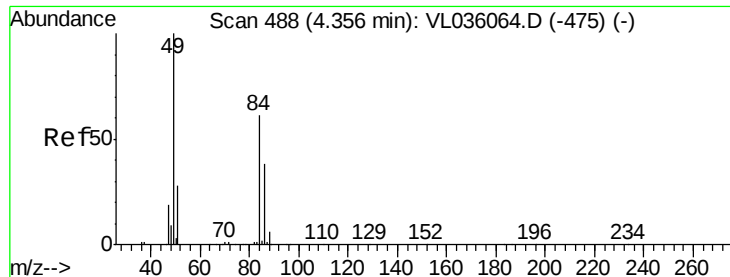
Tot Ion: 39 Resp: 7693
Ion Ratio Lower Upper
39 100
54 102.8 62.1 93.1#



#19
Isopropyl Alcohol
Concen: 5.794 ppbv
RT: 3.95 min Scan# 362
Delta R.T. -0.03 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 45 Resp: 588284
Ion Ratio Lower Upper
45 100
58 0.0 0.0 0.0

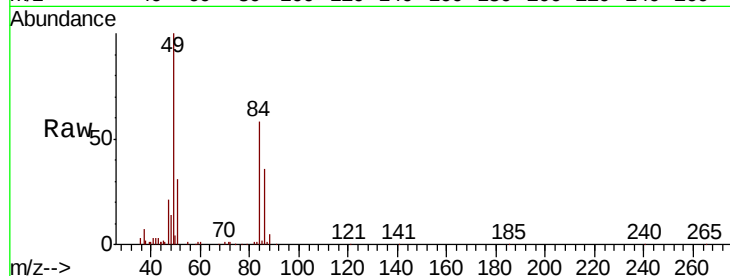




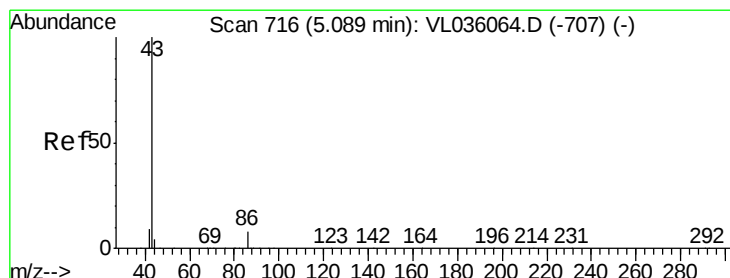
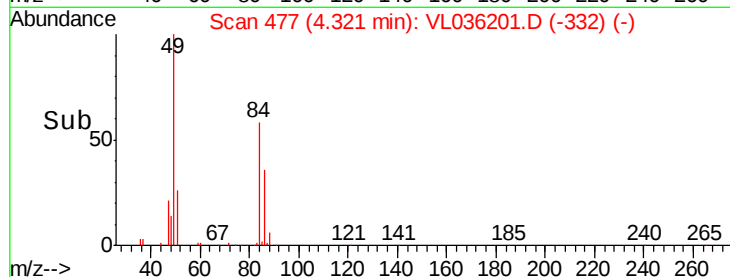
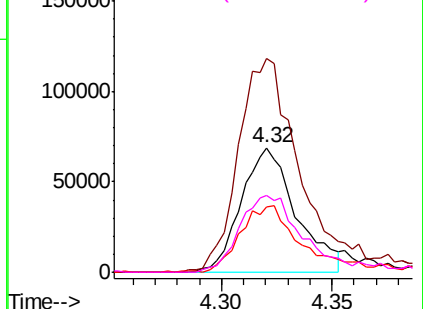
#20
Methvlene Chloride
Concen: 1.754 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.04 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Instrument :
MSVOA_L
ClientSampleId :
IIA2

Tot Ion:	84	Resp:	119420
Ion	Ratio	Lower	Upper
84	100		
49	169.8	133.0	199.4
51	51.5	38.9	58.3
86	61.9	48.8	73.2

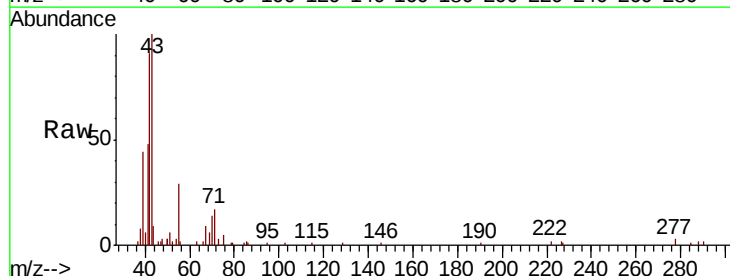


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

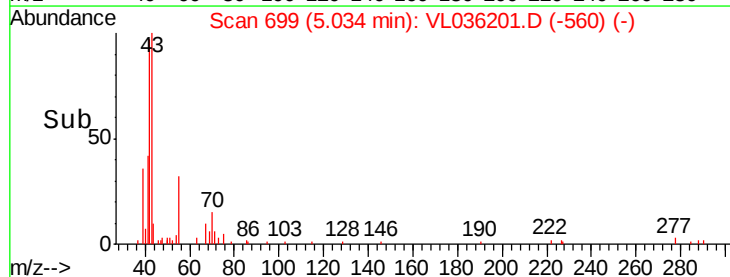
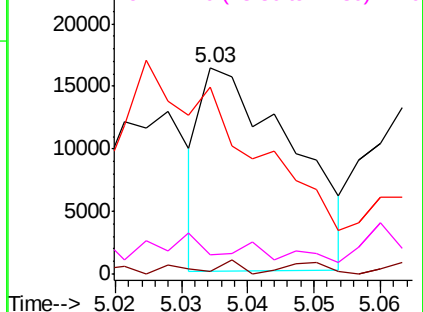


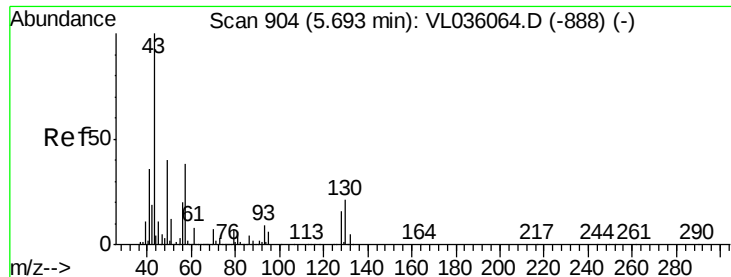
#23
Vinyl Acetate
Concen: 0.070 ppbv
RT: 5.03 min Scan# 699
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion:	43	Resp:	15486
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.0	7.4#
42	111.9	7.8	11.6#
44	5.7	3.2	4.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0

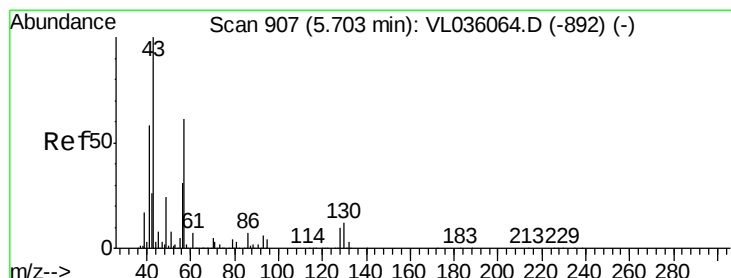
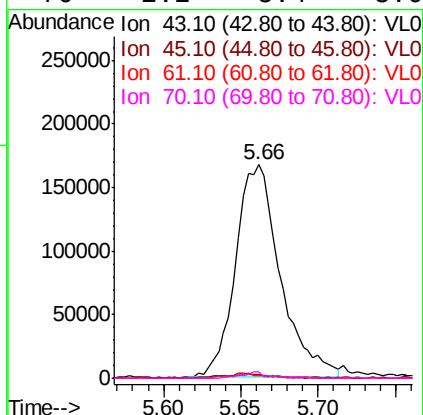
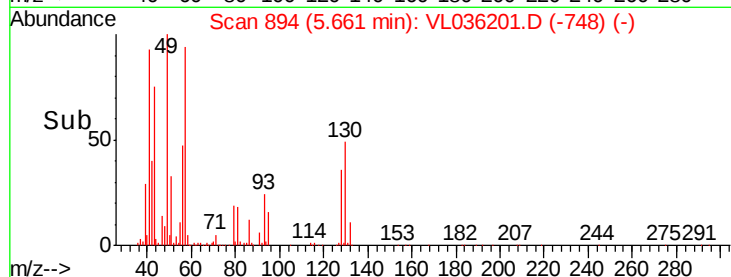
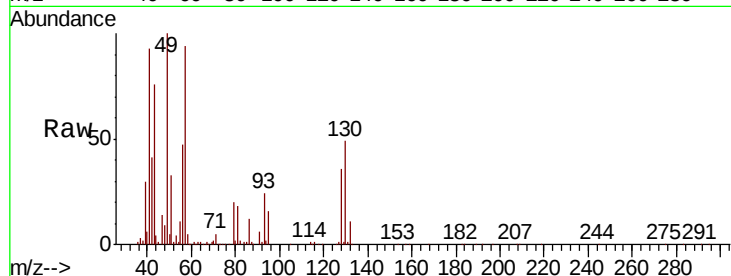




#25
Ethyl Acetate
Concen: 1.011 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.03 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

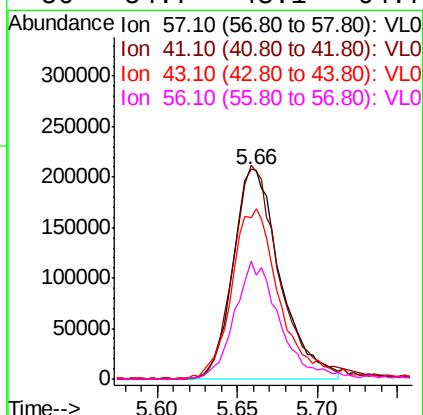
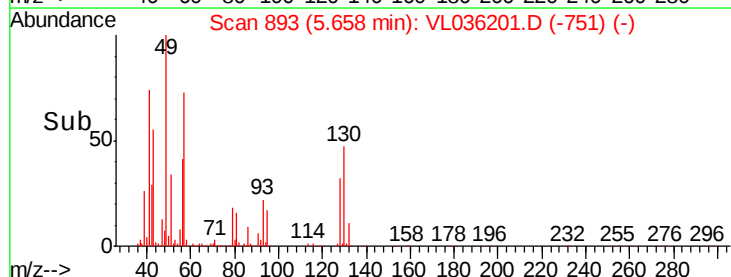
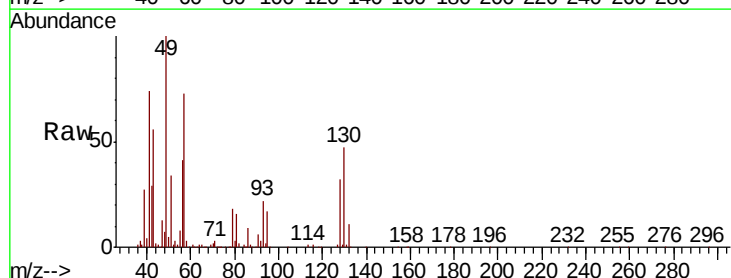
Instrument :
MSVOA_L
ClientSampleID :
IIA2

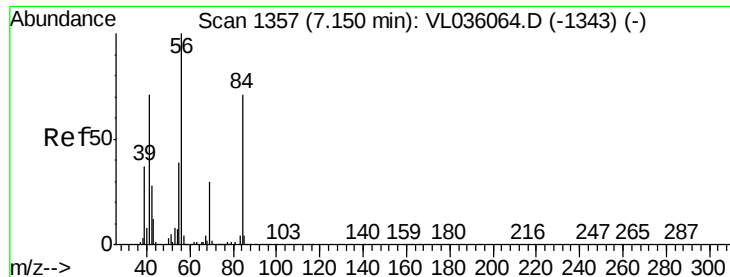
Tot Ion:	43	Resp:	335627
Ion	Ratio	Lower	Upper
43	100		
45	2.8	8.2	12.4#
61	1.9	7.4	11.2#
70	2.2	5.4	8.0#



#26
Hexane
Concen: 2.791 ppbv
RT: 5.66 min Scan# 893
Delta R.T. -0.04 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion:	57	Resp:	416923
Ion	Ratio	Lower	Upper
57	100		
41	103.6	82.9	124.3
43	85.1	199.9	299.9#
56	54.7	43.1	64.7

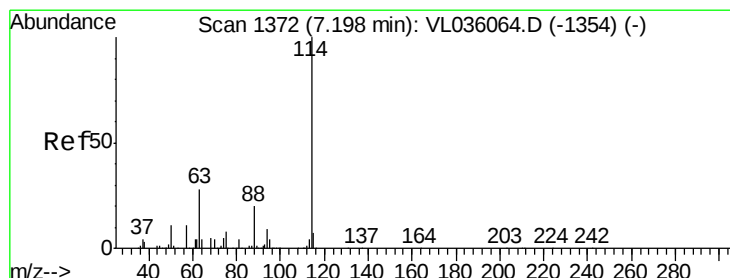
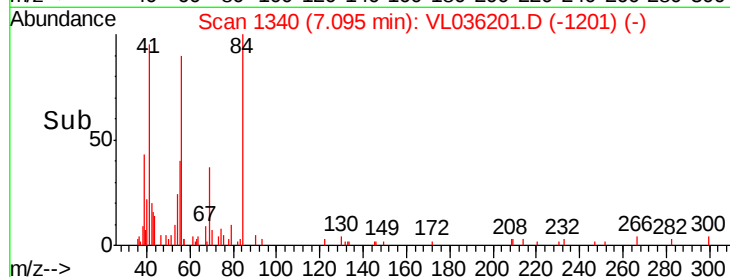
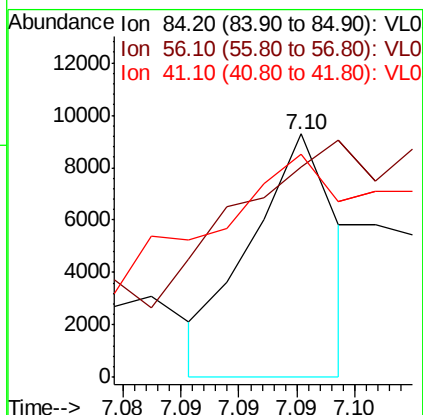
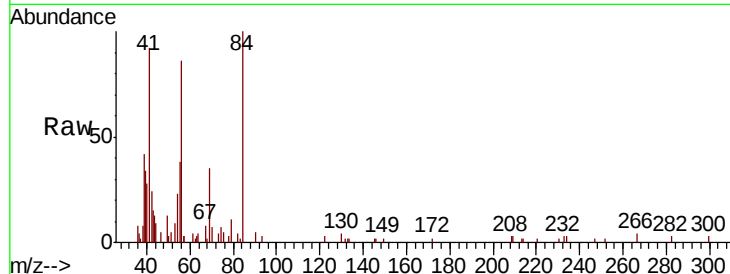




#30
Cyclohexane
Concen: 0.044 ppbv
RT: 7.10 min Scan# 1340
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

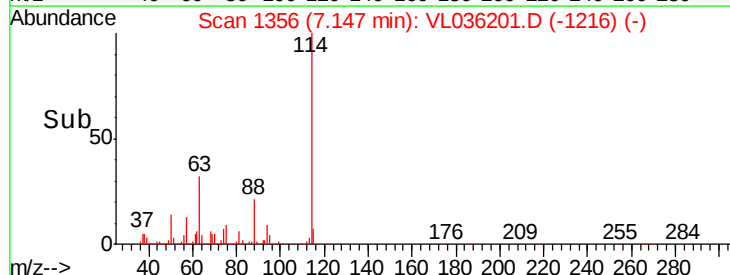
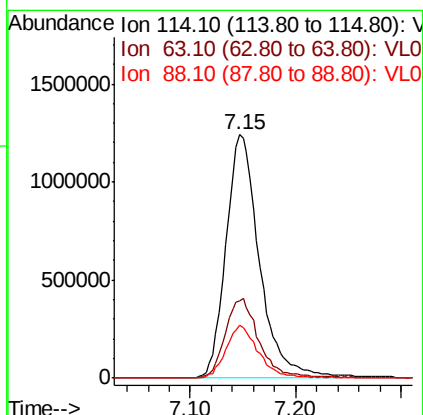
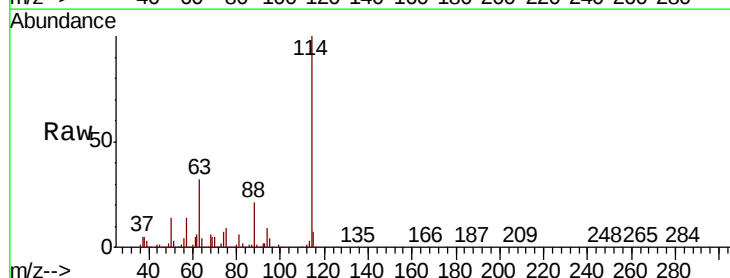
Instrument :
MSVOA_L
ClientSampleId :
IIA2

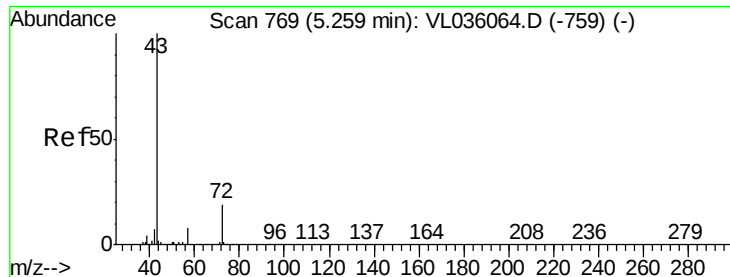
Tot Ion: 84 Resp: 4776
Ion Ratio Lower Upper
84 100
56 0.0 128.0 192.0#
41 452.3 81.3 121.9#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.15 min Scan# 1356
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 114 Resp: 2721351
Ion Ratio Lower Upper
114 100
63 33.3 23.6 35.4
88 21.3 15.8 23.6

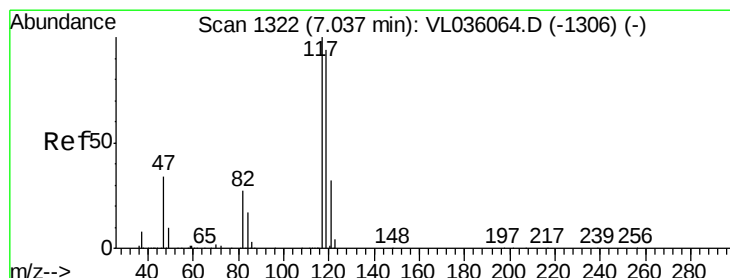
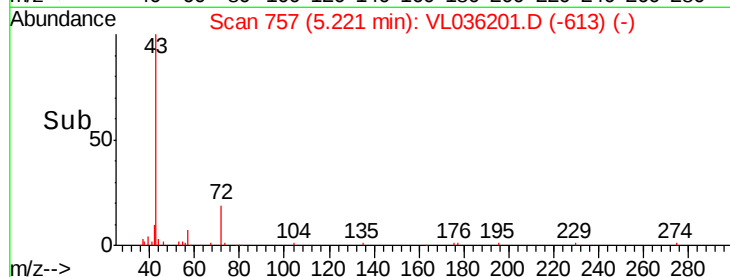
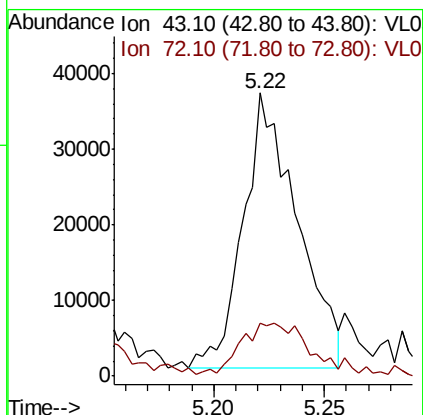
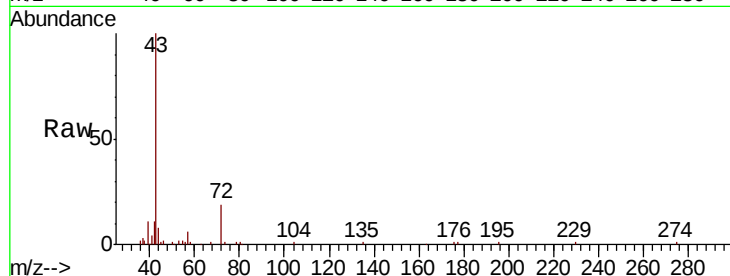




#34
2-Butanone
Concen: 0.346 ppbv
RT: 5.22 min Scan# 757
Delta R.T. -0.04 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

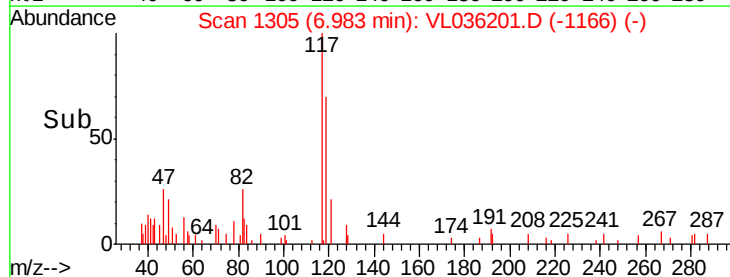
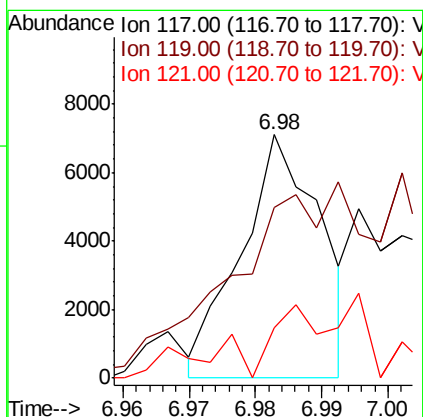
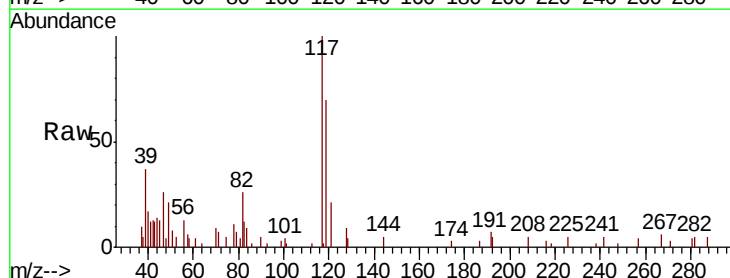
Instrument :
MSVOA_L
ClientSampleId :
IIA2

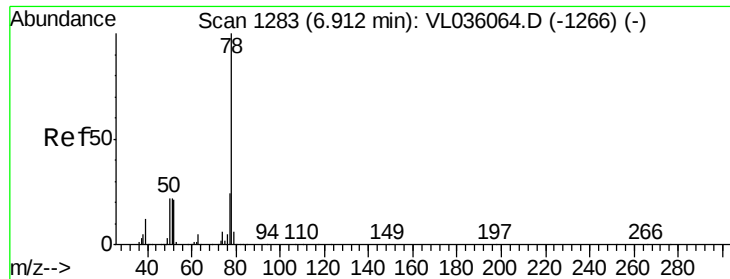
Tot Ion: 43 Resp: 62496
Ion Ratio Lower Upper
43 100
72 24.3 16.5 24.7



#35
Carbon Tetrachloride
Concen: 0.037 ppbv
RT: 6.98 min Scan# 1305
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 117 Resp: 5900
Ion Ratio Lower Upper
117 100
119 48.6 75.1 112.7#
121 13.5 25.6 38.4#





#36

Benzene

Concen: 0.472 ppbv

RT: 6.86 min Scan# 1267

Delta R.T. -0.05 min

Lab File: VL036201.D

Acq: 23 Dec 2020 20:51

Instrument :

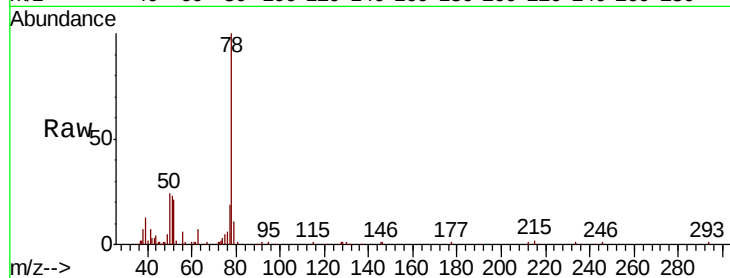
MSVOA_L

ClientSampleId :

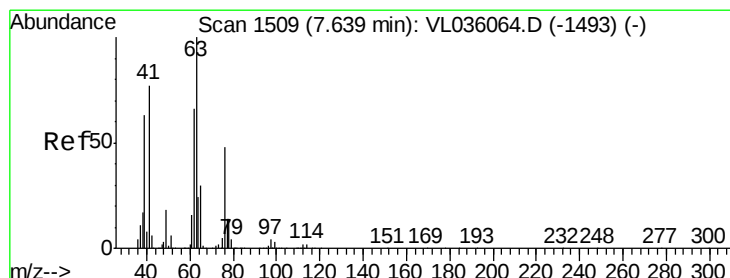
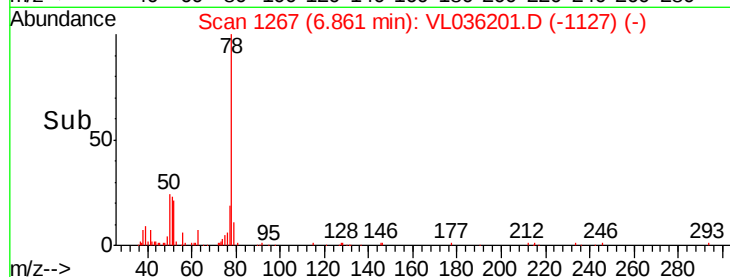
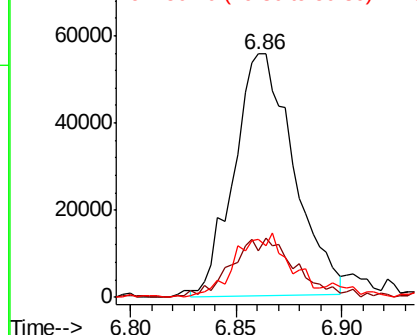
IIA2

Tot Ion: 78 Resp: 108850

Ion	Ratio	Lower	Upper
78	100		
77	17.6	19.4	29.2#
50	24.0	17.8	26.8



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: 9.659 ppbv

RT: 7.15 min Scan# 1357

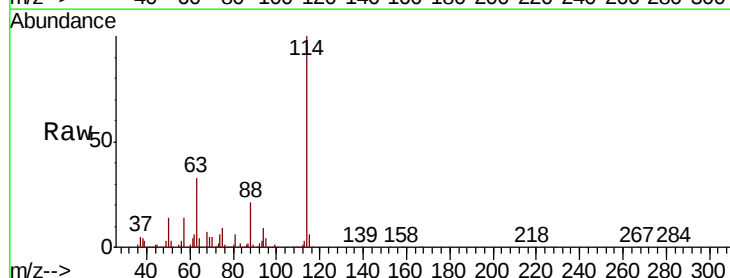
Delta R.T. -0.49 min

Lab File: VL036201.D

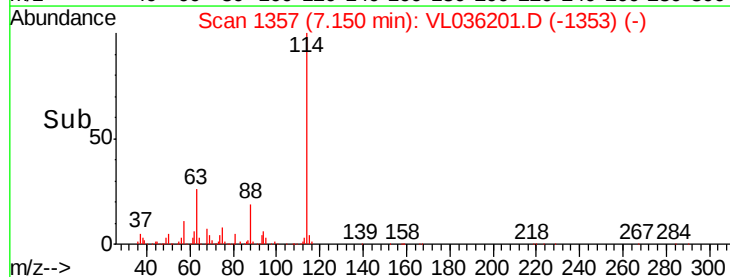
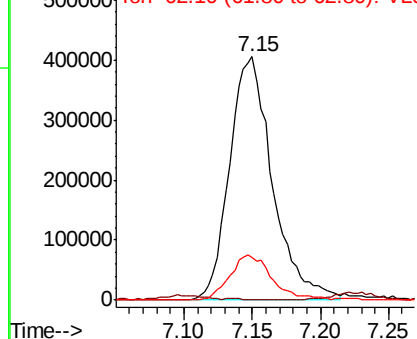
Acq: 23 Dec 2020 20:51

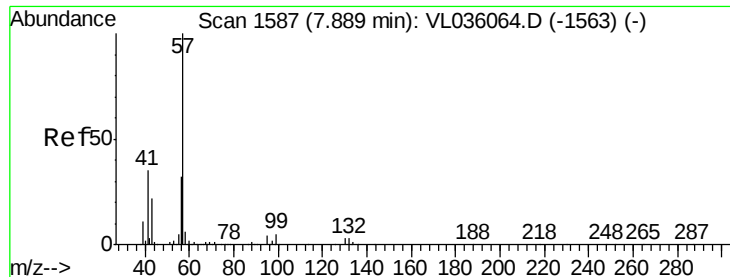
Tgt Ion: 63 Resp: 879734

Ion	Ratio	Lower	Upper
63	100		
41	0.0	61.9	92.9#
62	17.3	52.5	78.7#



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





#44

2,2,4-Trimethylpentane

Concen: 0.239 ppbv

RT: 7.84 min Scan# 1571

Delta R.T. -0.05 min

Lab File: VL036201.D

Acq: 23 Dec 2020 20:51

Instrument :

MSVOA_L

ClientSampleId :

IIA2

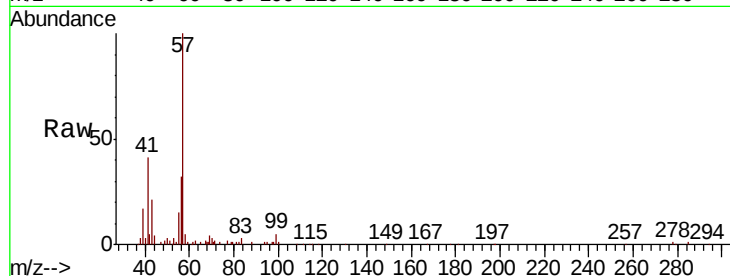
Tot Ion: 57 Resp: 99954

Ion Ratio Lower Upper

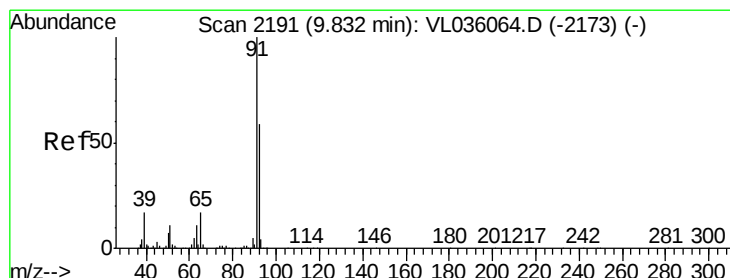
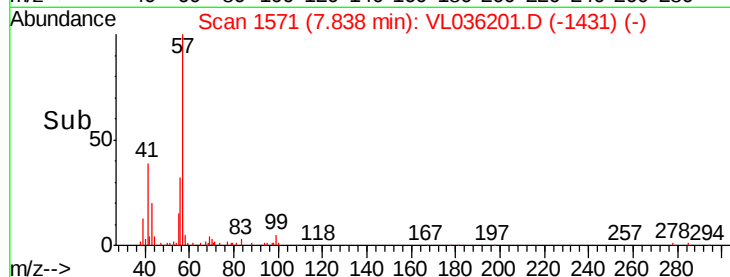
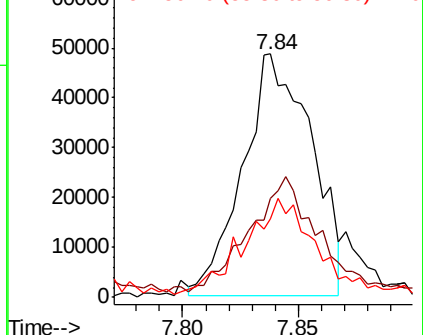
57 100

41 53.0 28.9 43.3#

56 46.0 25.3 37.9#



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#53

Toluene

Concen: 0.563 ppbv

RT: 9.77 min Scan# 2173

Delta R.T. -0.06 min

Lab File: VL036201.D

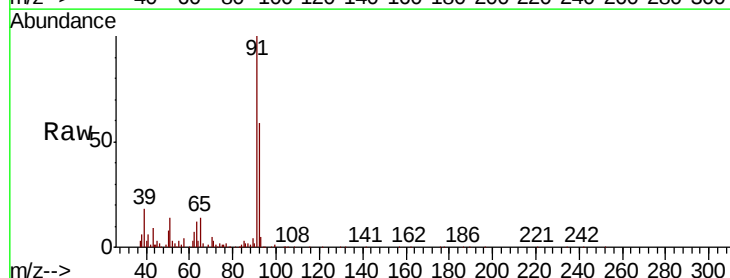
Acq: 23 Dec 2020 20:51

Tgt Ion: 91 Resp: 145805

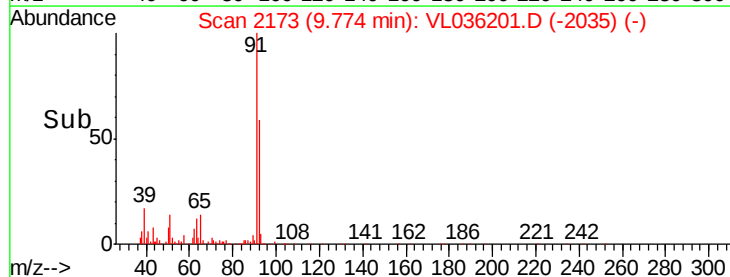
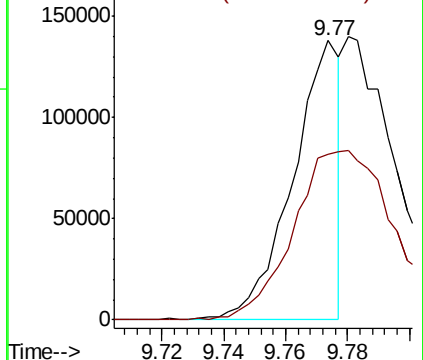
Ion Ratio Lower Upper

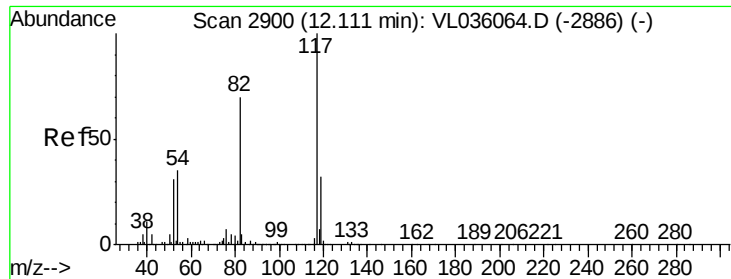
91 100

92 0.0 48.2 72.2#



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0

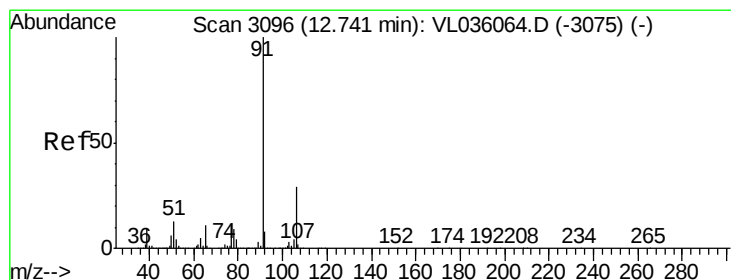
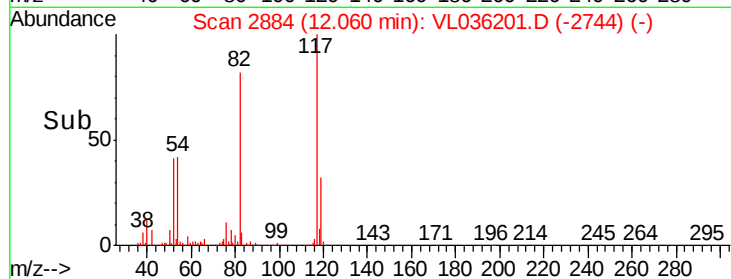
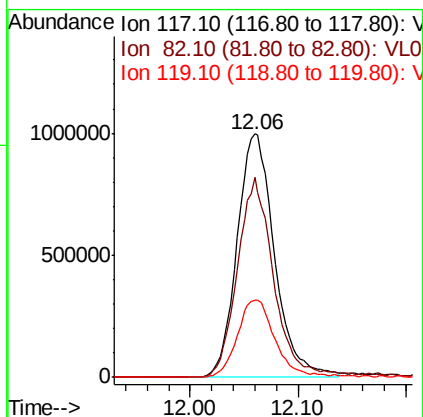
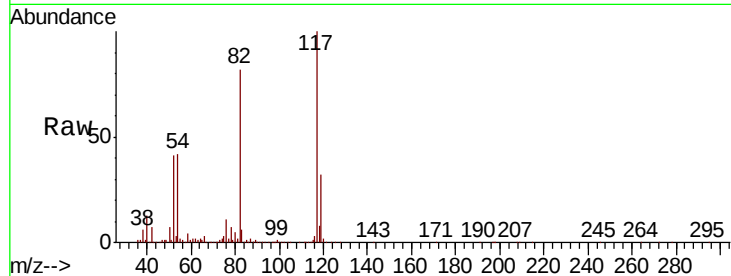




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min Scan# 2884
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

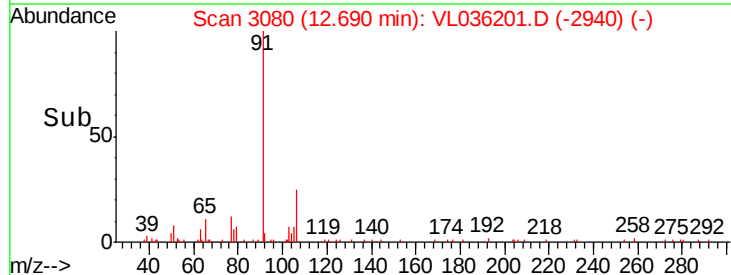
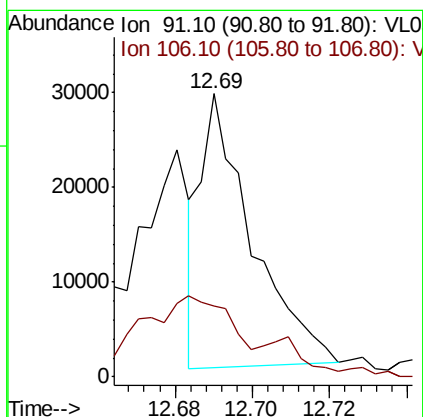
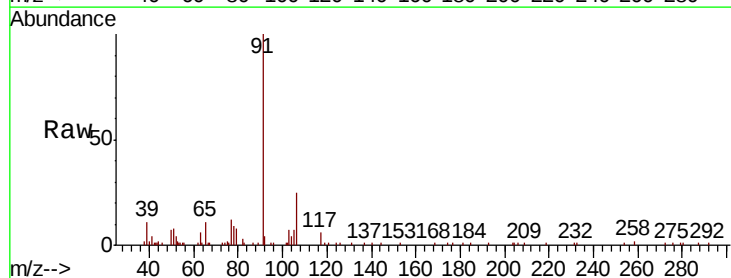
Instrument :
MSVOA_L
ClientSampleId :
IIA2

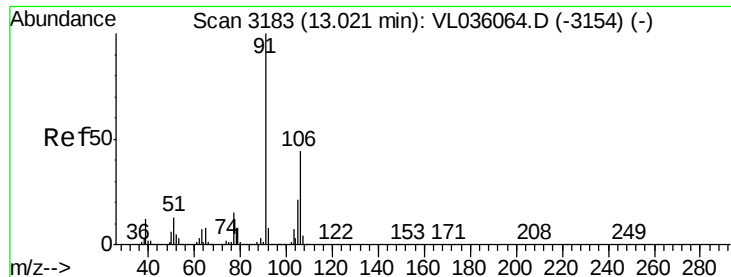
Tot Ion:117 Resp: 2409325
Ion Ratio Lower Upper
117 100
82 81.3 0.0 0.0#
119 32.2 0.0 0.0#



#58
Ethyl Benzene
Concen: 0.080 ppbv
RT: 12.69 min Scan# 3080
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 91 Resp: 26301
Ion Ratio Lower Upper
91 100
106 24.2 23.0 34.4

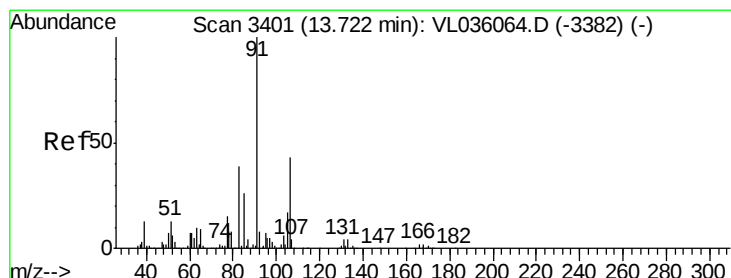
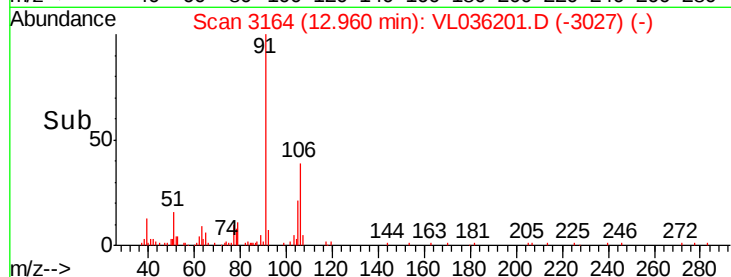
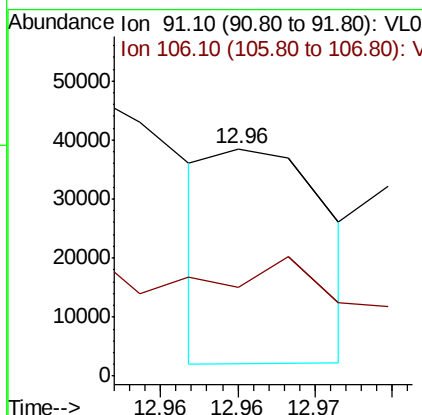
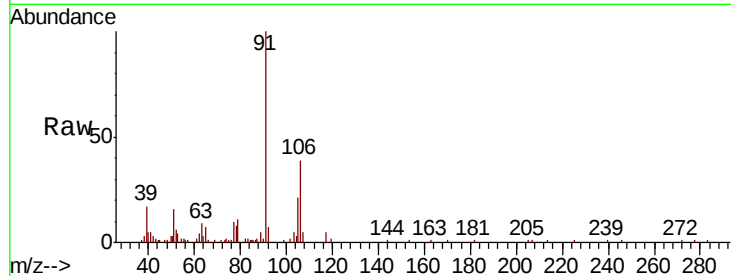




#59
m/p-Xylene
Concen: 0.066 ppbv
RT: 12.96 min Scan# 3164
Delta R.T. -0.06 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

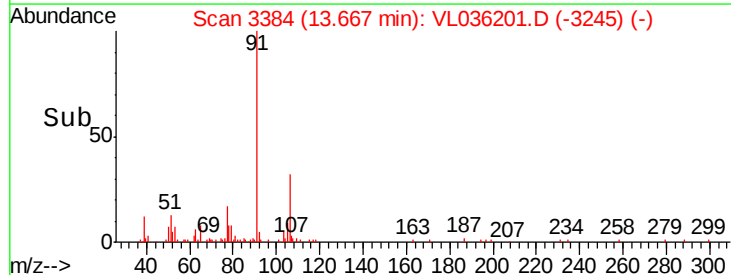
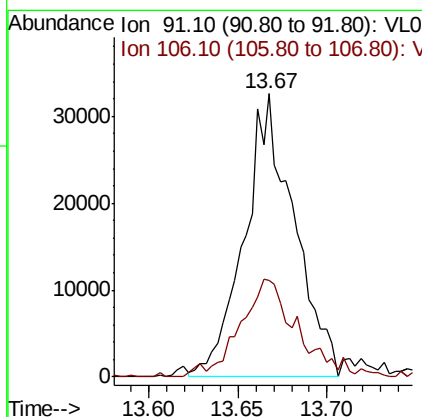
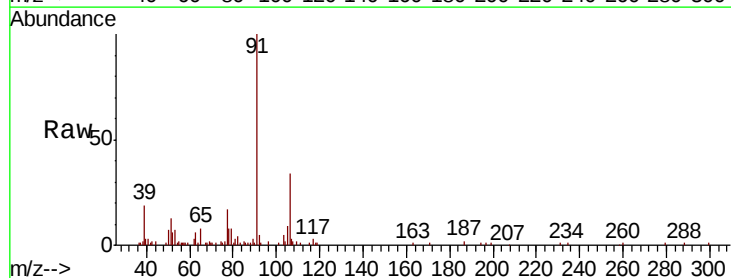
Instrument :
MSVOA_L
ClientSampleId :
IIA2

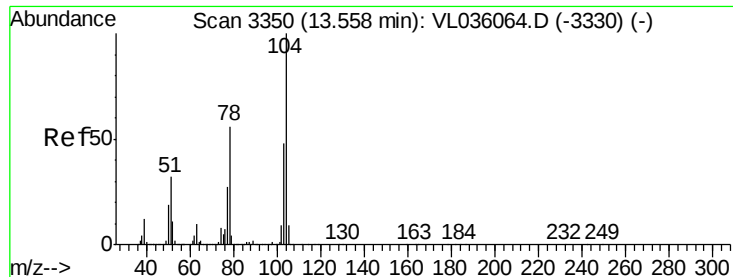
Tot Ion: 91 Resp: 18318
Ion Ratio Lower Upper
91 100
106 0.0 33.6 50.4#



#60
o-Xylene
Concen: 0.242 ppbv
RT: 13.67 min Scan# 3384
Delta R.T. -0.05 min
Lab File: VL036201.D
Acq: 23 Dec 2020 20:51

Tgt Ion: 91 Resp: 63485
Ion Ratio Lower Upper
91 100
106 40.0 21.6 64.6





#61

Stvrene

Concen: 0.056 ppbv

RT: 13.50 min Scan# 3331

Delta R.T. -0.06 min

Lab File: VL036201.D

Acq: 23 Dec 2020 20:51

Instrument :

MSVOA_L

ClientSampled :

IIA2

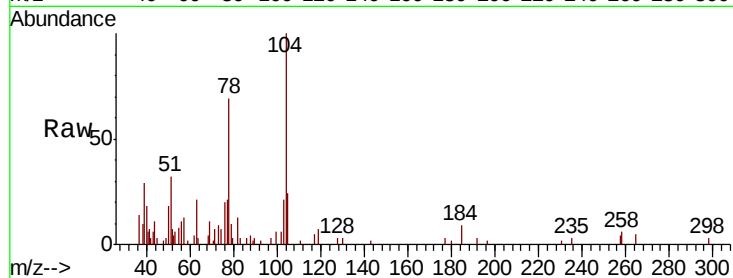
Tot Ion:104 Resp: 9467

Ion Ratio Lower Upper

104 100

78 0.0 45.8 68.8#

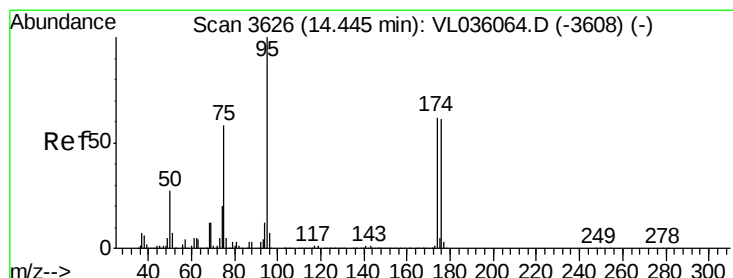
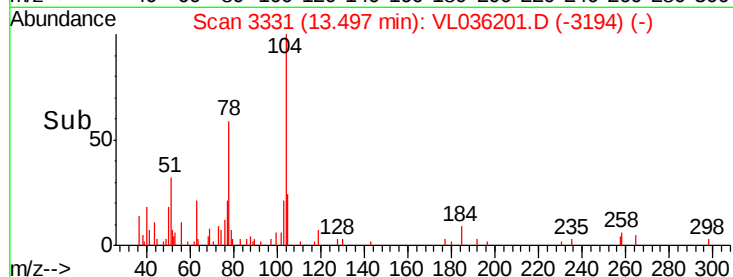
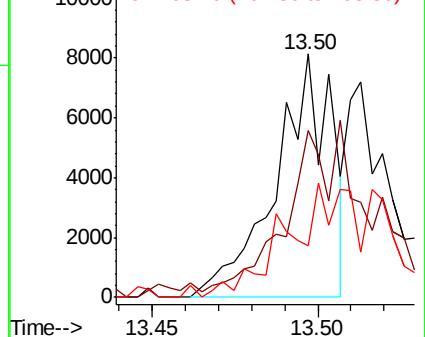
103 84.1 38.6 57.8#



Abundance Ion 104.10 (103.80 to 104.80): V

Ion 78.10 (77.80 to 78.80): VL0

Ion 103.10 (102.80 to 103.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 11.032 ppbv

RT: 14.39 min Scan# 3609

Delta R.T. -0.05 min

Lab File: VL036201.D

Acq: 23 Dec 2020 20:51

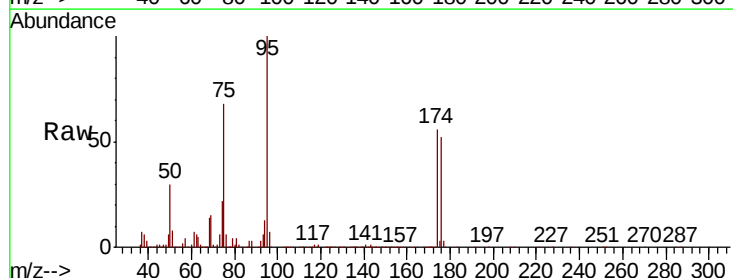
Tgt Ion: 95 Resp: 2110551

Ion Ratio Lower Upper

95 100

174 55.6 50.7 76.1

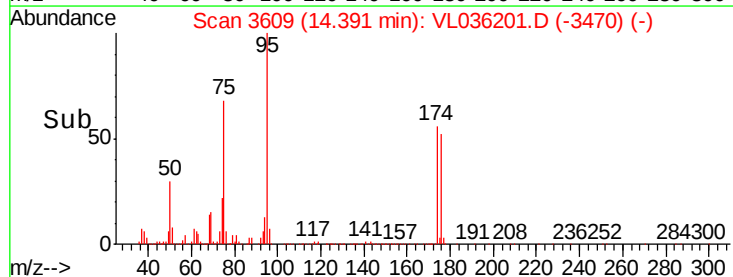
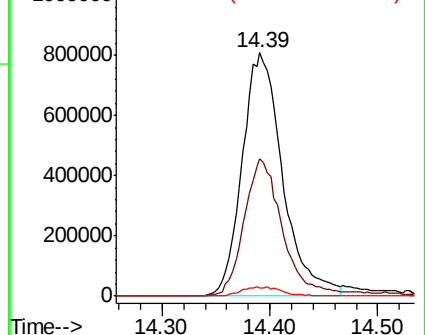
175 3.9 4.0 6.0#

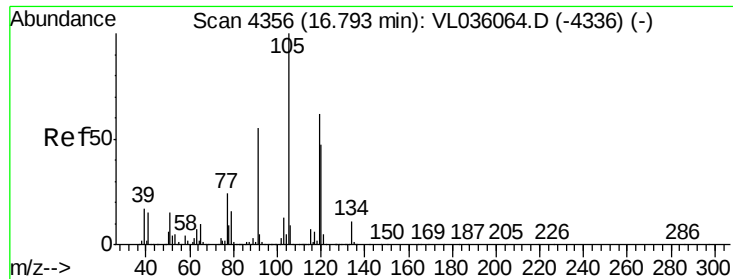


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

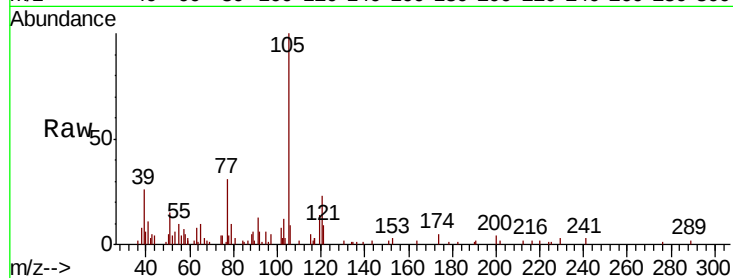




#74
 1,2,4-Trimethylbenzene
 Concen: 0.085 ppbv
 RT: 16.73 min Scan# 4337
 Delta R.T. -0.06 min
 Lab File: VL036201.D
 Acq: 23 Dec 2020 20:51

Instrument :
 MSVOA_L
 ClientSampleId :
 IIA2

Tot Ion:	105	Resp:	23008
Ion	Ratio	Lower	Upper
105	100		
120	22.6	37.4	56.0#
91	8.6	45.6	68.4#
77	28.9	19.4	29.2



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

