

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL061621\
 Data File : VL037190.D
 Acq On : 17 Jun 2021 4:16
 Operator : SY/AP
 Sample : M2742-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

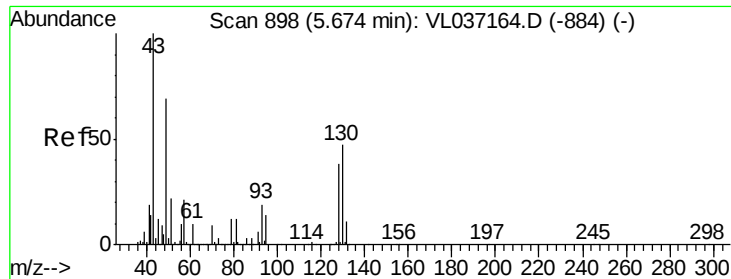
Quant Time: Jun 17 05:11:20 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL061621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 16 14:06:32 2021
 QLast Update : Wed Jun 16 14:06:32 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1504695	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4343605	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3822779	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2825606	9.75	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.50%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	53048	0.203	ppbv 92
3) Chlorodifluoromethane	2.98	51	149466	0.511	ppbv # 76
4) Chloromethane	3.14	50	45445	0.466	ppbv 95
9) Propene	3.02	41	47765	0.511	ppbv # 82
10) Heptane	8.13	43	5009	0.022	ppbv # 1
11) Trichlorofluoromethane	3.95	101	53947	0.193	ppbv 88
12) 1,1,2-Trichlorotrifluoroet	4.48	101	7020	0.036	ppbv # 13
13) Ethanol	3.61	45	377714	26.100	ppbv 51
15) Acetone	3.85	43	890661	5.249	ppbv 94
16) 1,3-Butadiene	3.32	39	2085	0.021	ppbv # 5
19) Isopropyl Alcohol	3.98	45	142939	1.391	ppbv # 78
20) Methylene Chloride	4.34	84	513798	5.058	ppbv 97
23) Vinyl Acetate	5.06	43	41671	0.171	ppbv # 56
25) Ethyl Acetate	5.68	43	321128	0.874	ppbv # 82
26) Hexane	5.68	57	419897	2.262	ppbv # 49
29) Chloroform	5.75	83	7278	0.025	ppbv 97
30) Cyclohexane	7.12	84	7284	0.047	ppbv # 1
34) 2-Butanone	5.25	43	41581	0.246	ppbv # 72
35) Carbon Tetrachloride	7.01	117	7554	0.026	ppbv # 75
36) Benzene	6.89	78	34131	0.097	ppbv 92
39) 1,2-Dichloropropane	7.18	63	1059170	8.115	ppbv # 23
44) 2,2,4-Trimethylpentane	7.87	57	47212	0.080	ppbv # 42
53) Toluene	9.81	91	314880	0.751	ppbv 99
58) Ethyl Benzene	12.71	91	39529	0.075	ppbv 97
59) m/p-Xylene	12.99	91	39402	0.088	ppbv # 30
60) o-Xylene	13.69	91	26647	0.063	ppbv # 62
74) 1,2,4-Trimethylbenzene	16.76	105	36961	0.077	ppbv # 73

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

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ClientSampleId :

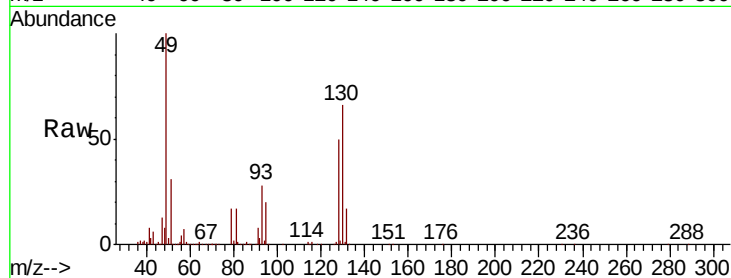
Tot Ion: 49 Resp: 1504695

Ion Ratio Lower Upper

49 100

128 54.7 29.3 88.0

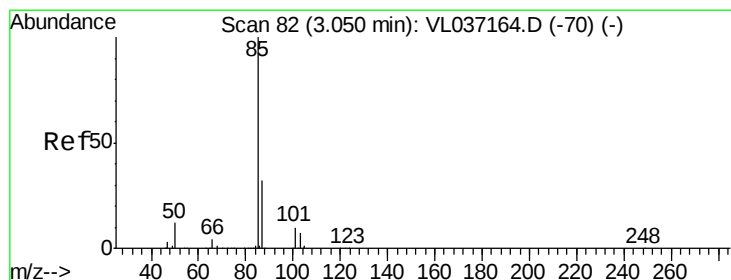
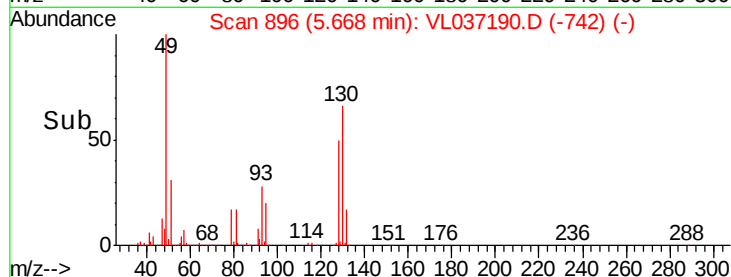
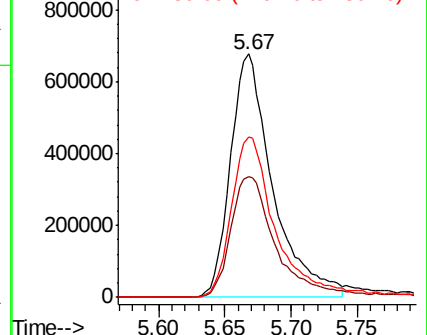
130 71.9 35.9 107.8



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



#2

Dichlorodifluoromethane

Concen: 0.203 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.00 min

Lab File: VL037190.D

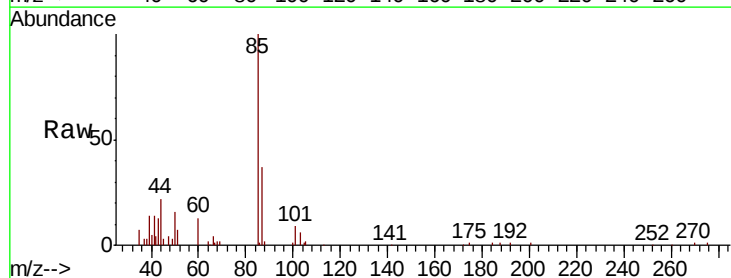
Acq: 17 Jun 2021 4:16

Tgt Ion: 85 Resp: 53048

Ion Ratio Lower Upper

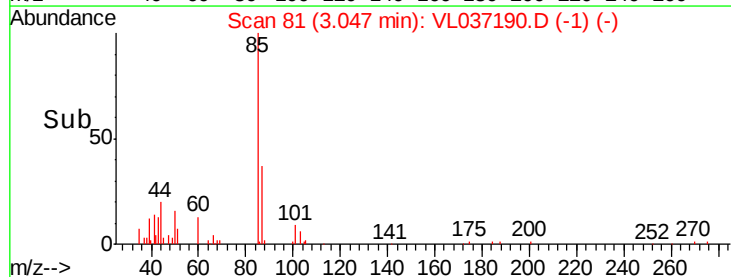
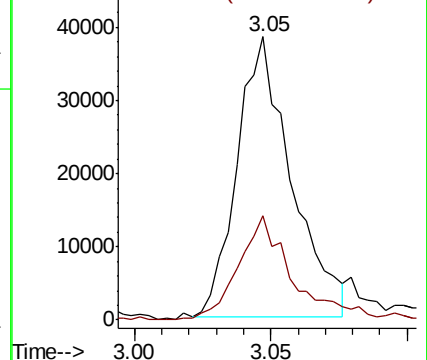
85 100

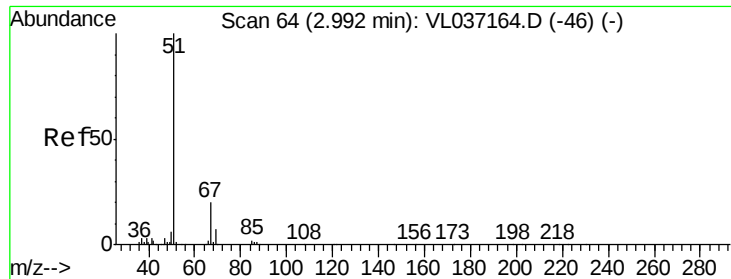
87 36.6 25.8 38.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

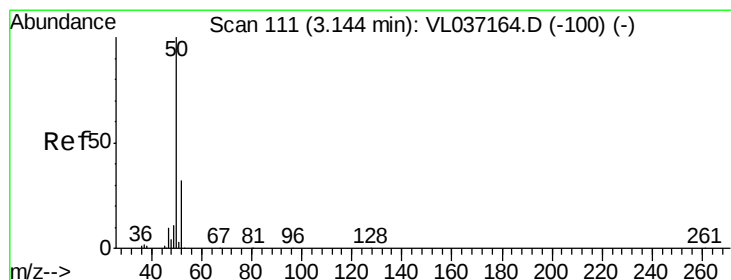
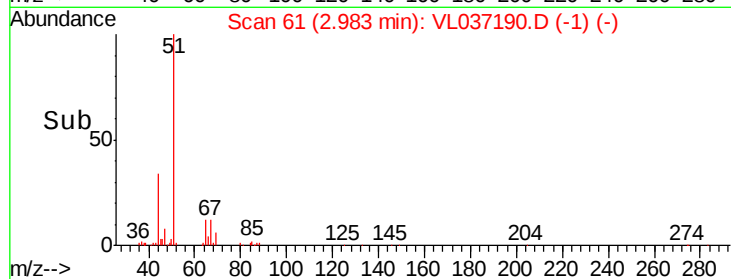
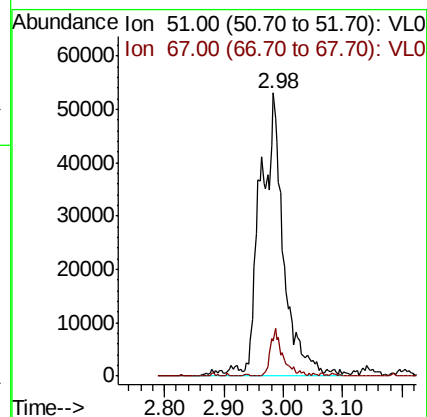
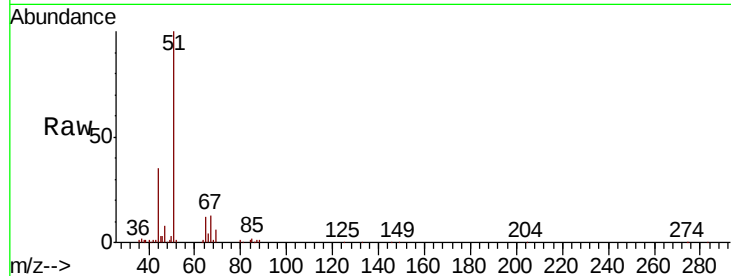




#3
Chlorodifluoromethane
Concen: 0.511 ppbv
RT: 2.98 min Scan# 61
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

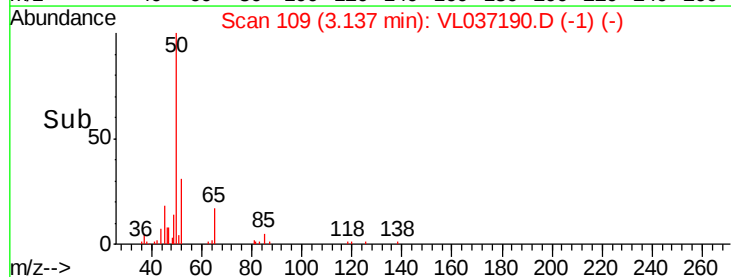
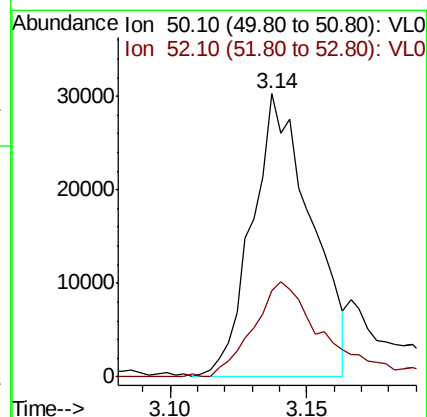
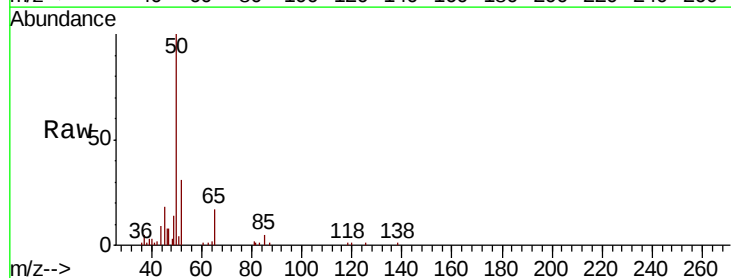
Instrument :
MSVOA_L
ClientSampleId :

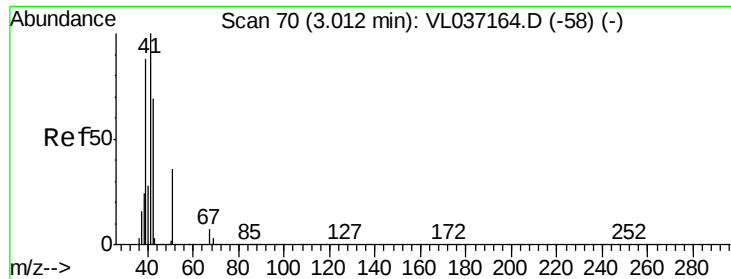
Tot Ion: 51 Resp: 149466
Ion Ratio Lower Upper
51 100
67 8.9 15.8 23.6#



#4
Chloromethane
Concen: 0.466 ppbv
RT: 3.14 min Scan# 109
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

Tgt Ion: 50 Resp: 45445
Ion Ratio Lower Upper
50 100
52 29.4 25.8 38.8





#9

Propene

Concen: 0.511 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

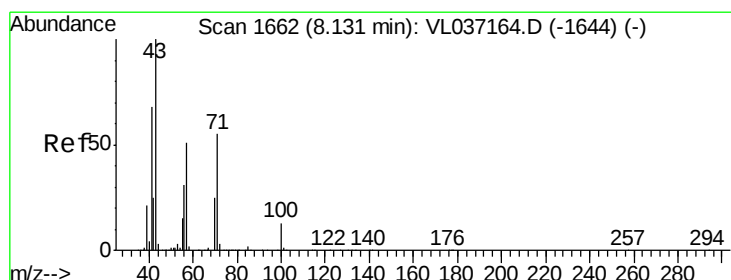
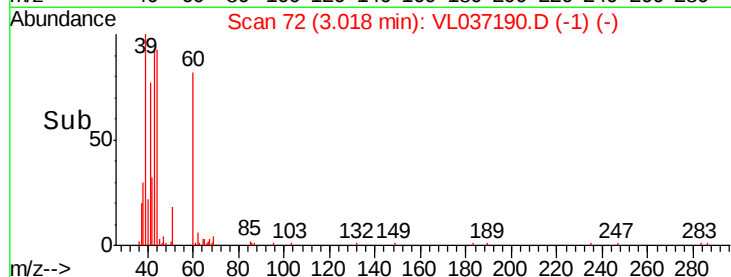
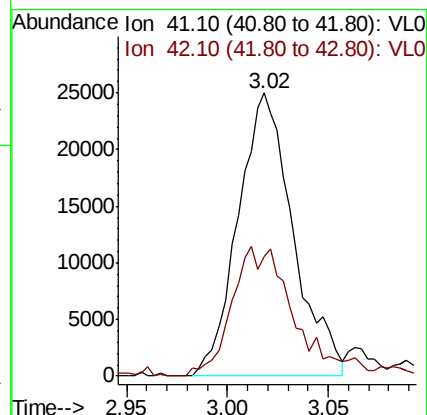
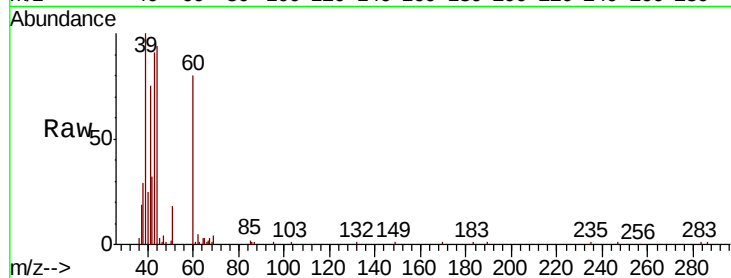
ClientSampled :

Tot Ion: 41 Resp: 47765

Ion Ratio Lower Upper

41 100

42 53.4 54.5 81.7#



#10

Heptane

Concen: 0.022 ppbv

RT: 8.13 min Scan# 1661

Delta R.T. -0.00 min

Lab File: VL037190.D

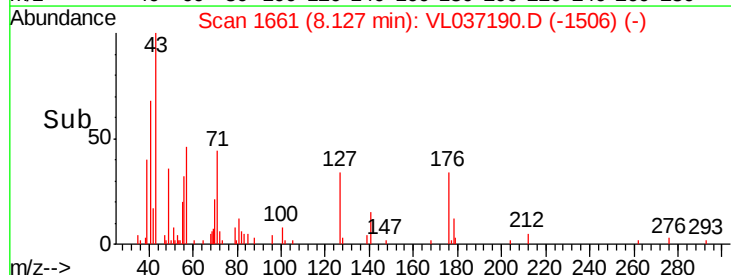
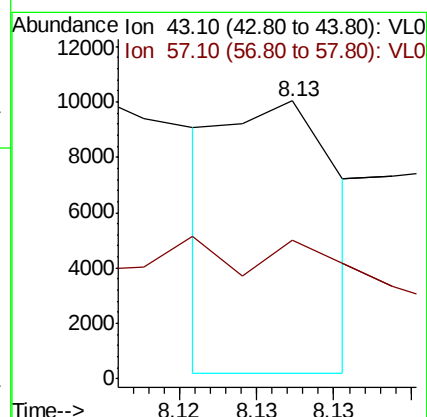
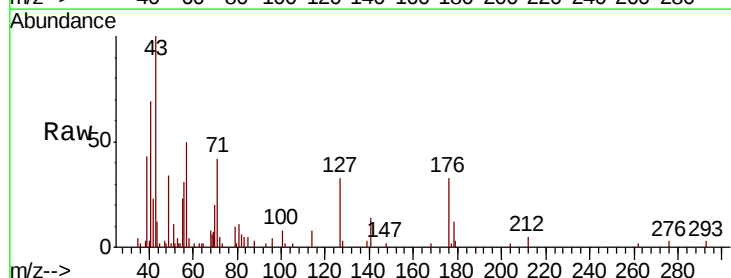
Acq: 17 Jun 2021 4:16

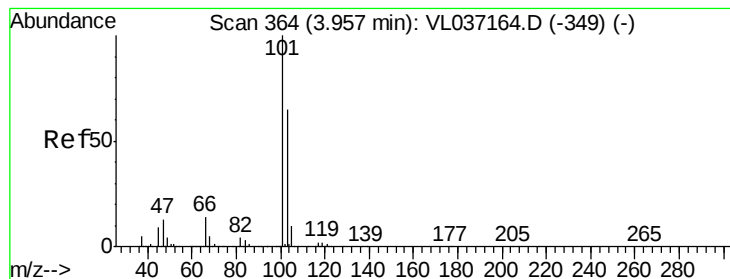
Tgt Ion: 43 Resp: 5009

Ion Ratio Lower Upper

43 100

57 231.5 40.6 61.0#





#11

Trichlorofluoromethane

Concen: 0.193 ppbv

RT: 3.95 min Scan# 361

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

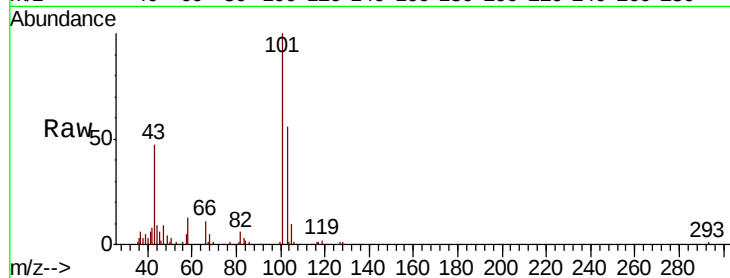
ClientSampleId :

Tot Ion:101 Resp: 53947

Ion Ratio Lower Upper

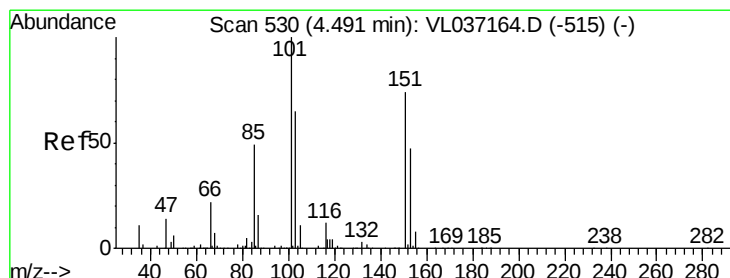
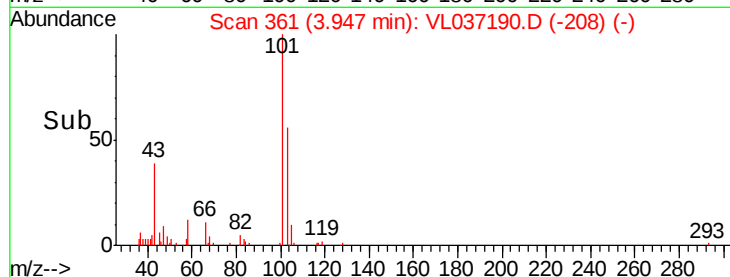
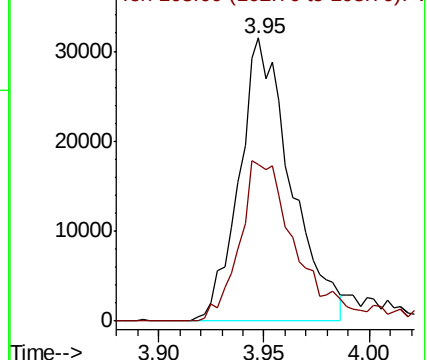
101 100

103 55.6 52.2 78.4



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.036 ppbv

RT: 4.48 min Scan# 528

Delta R.T. -0.01 min

Lab File: VL037190.D

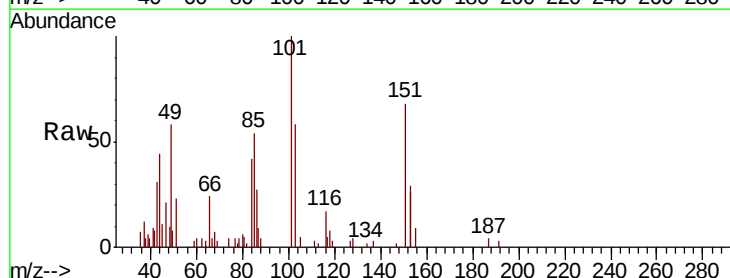
Acq: 17 Jun 2021 4:16

Tgt Ion:101 Resp: 7020

Ion Ratio Lower Upper

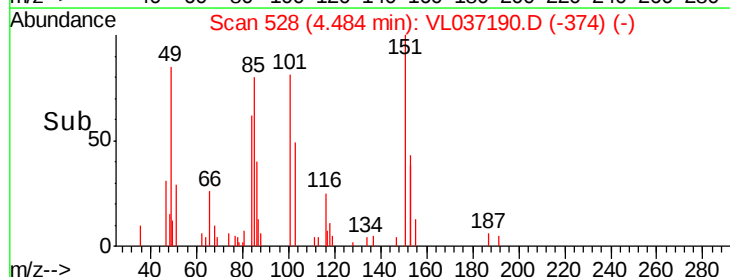
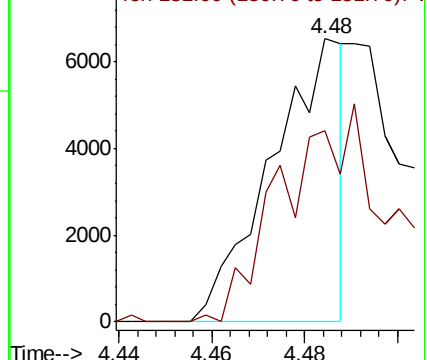
101 100

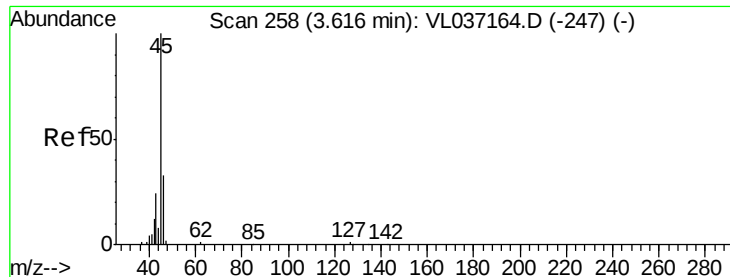
151 0.0 59.1 88.7#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V





#13

Ethanol

Concen: 26.100 ppbv

RT: 3.61 min Scan# 256

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

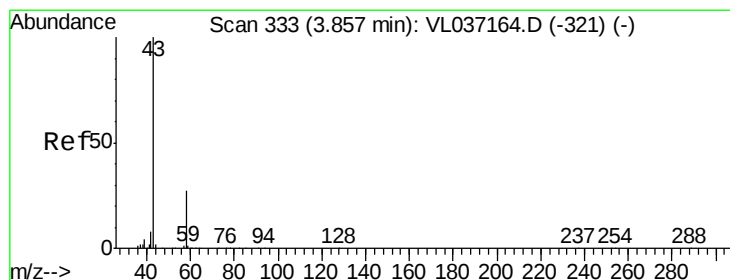
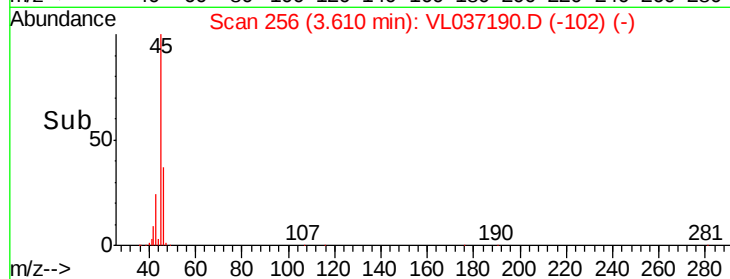
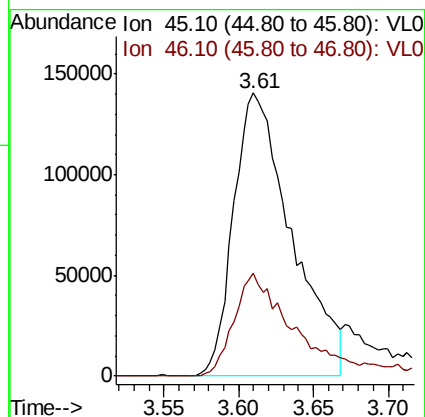
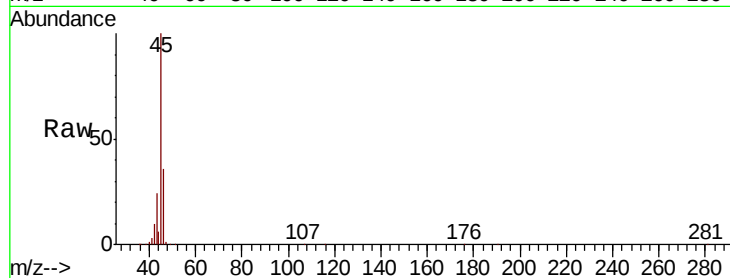
ClientSampleId :

Tot Ion: 45 Resp: 377714

Ion Ratio Lower Upper

45 100

46 41.1 34.2 137.0



#15

Acetone

Concen: 5.249 ppbv

RT: 3.85 min Scan# 331

Delta R.T. -0.01 min

Lab File: VL037190.D

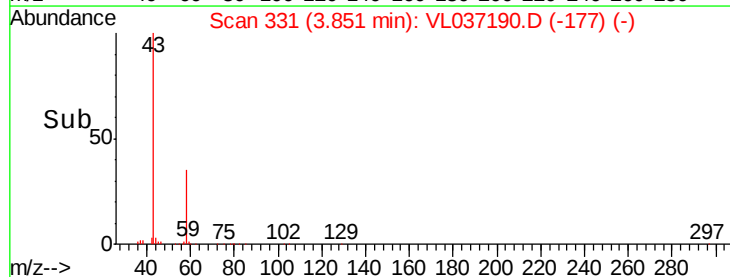
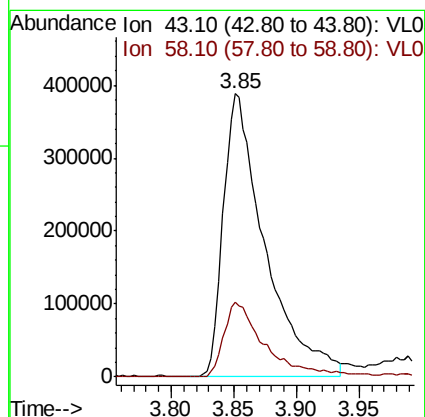
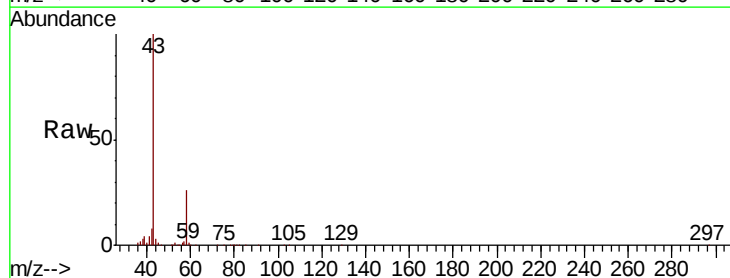
Acq: 17 Jun 2021 4:16

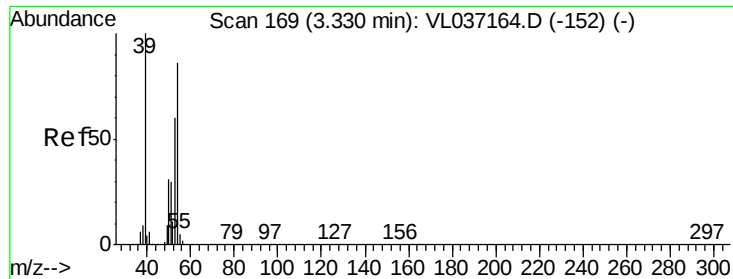
Tgt Ion: 43 Resp: 890661

Ion Ratio Lower Upper

43 100

58 26.5 23.7 35.5

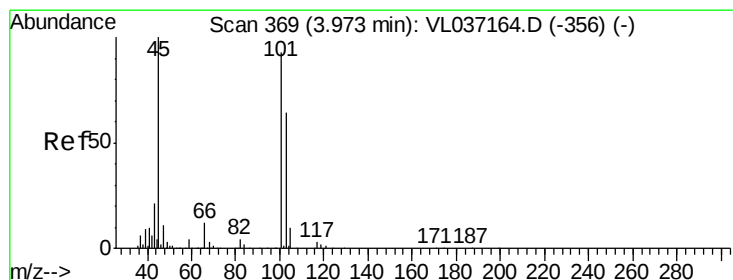
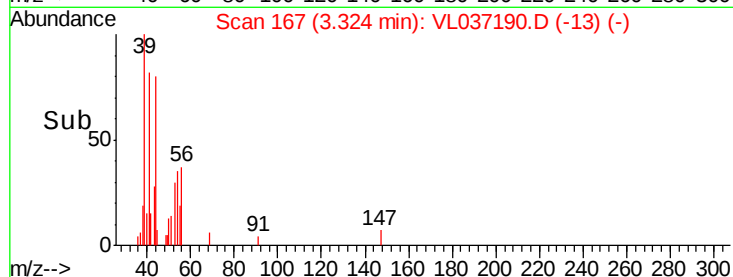
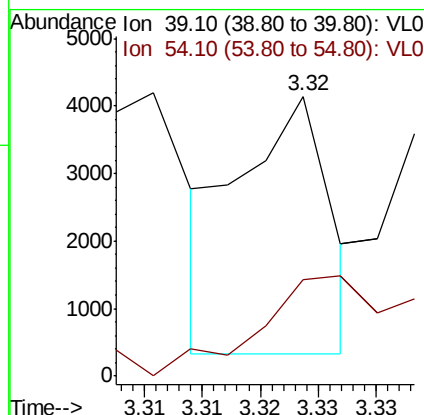
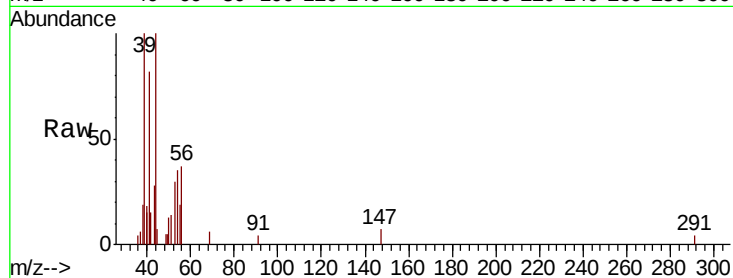




#16
1,3-Butadiene
Concen: 0.021 ppbv
RT: 3.32 min Scan# 167
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

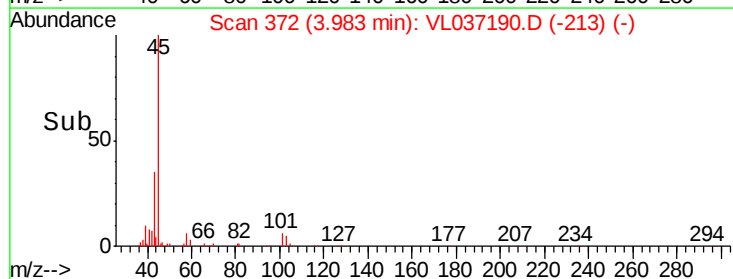
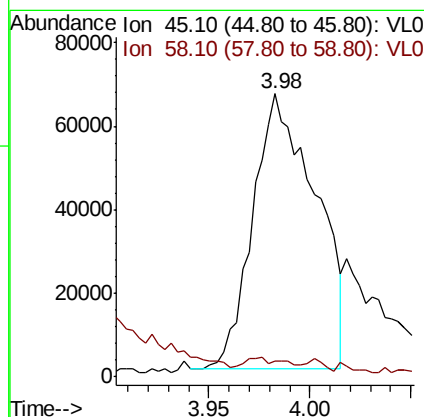
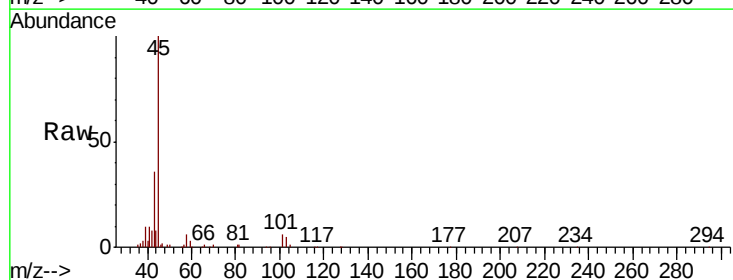
Instrument :
MSVOA_L
ClientSampled :

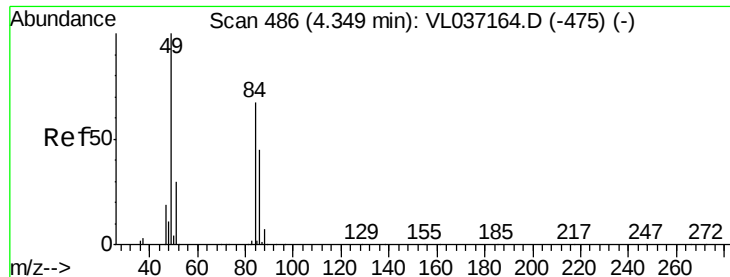
Tot Ion: 39 Resp: 2085
Ion Ratio Lower Upper
39 100
54 157.9 61.2 91.8#



#19
Isopropyl Alcohol
Concen: 1.391 ppbv
RT: 3.98 min Scan# 372
Delta R.T. 0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

Tgt Ion: 45 Resp: 142939
Ion Ratio Lower Upper
45 100
58 10.4 2.4 3.6#

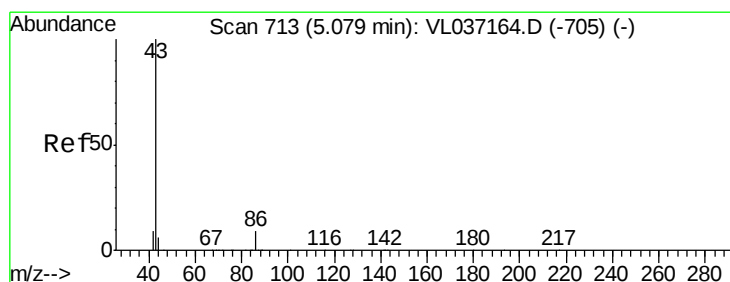
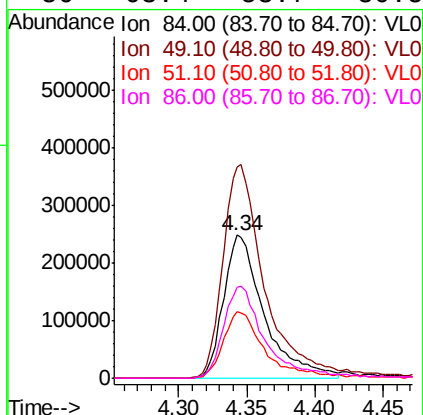
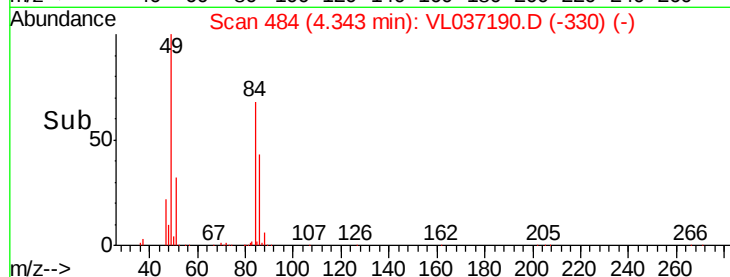
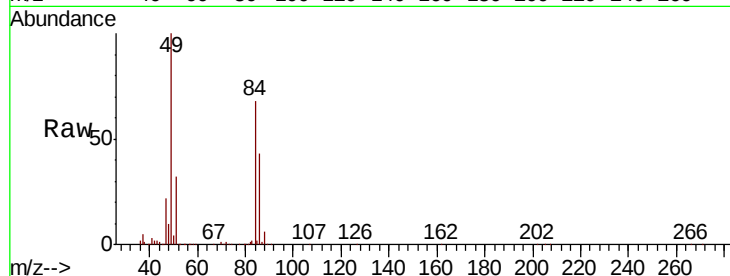




#20
Methvlene Chloride
Concen: 5.058 ppbv
RT: 4.34 min Scan# 484
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

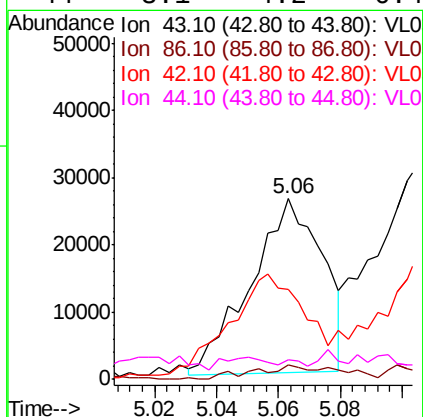
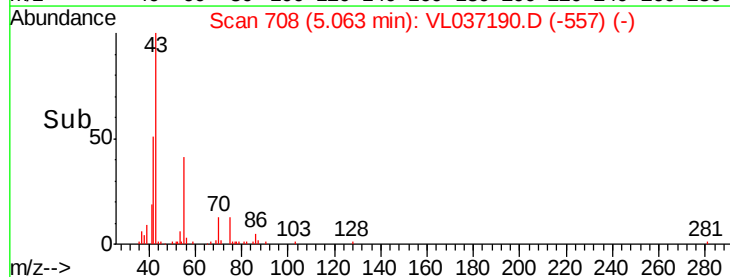
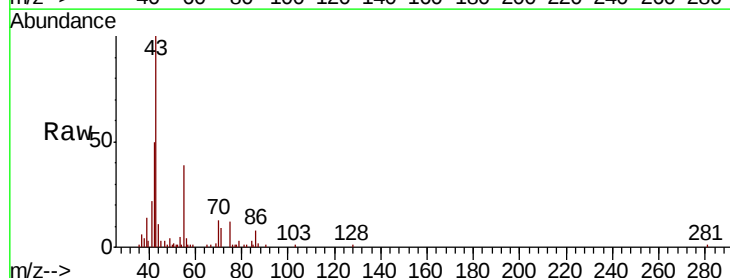
Instrument :
MSVOA_L
ClientSampleId :

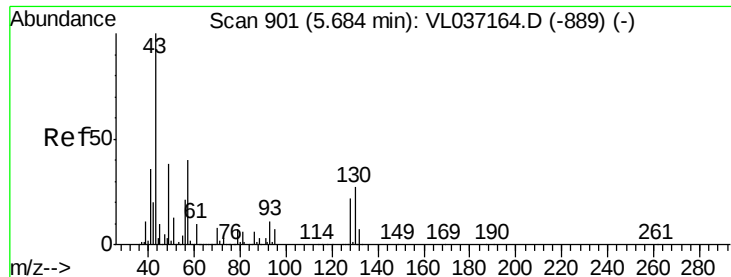
Tot Ion:	84	Resp:	513798
Ion	Ratio	Lower	Upper
84	100		
49	147.4	119.7	179.5
51	46.4	36.1	54.1
86	63.4	53.7	80.5



#23
Vinyl Acetate
Concen: 0.171 ppbv
RT: 5.06 min Scan# 708
Delta R.T. -0.02 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

Tgt Ion:	43	Resp:	41671
Ion	Ratio	Lower	Upper
43	100		
86	7.6	5.8	8.8
42	45.4	8.2	12.2#
44	3.1	4.2	6.4#

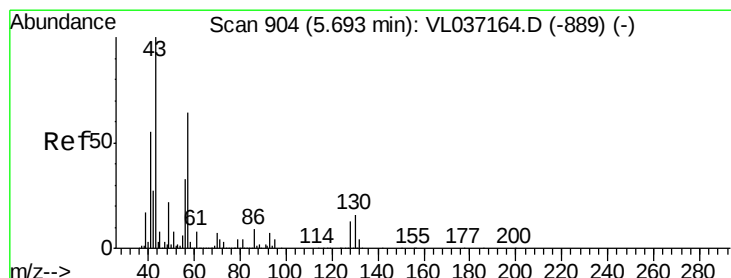
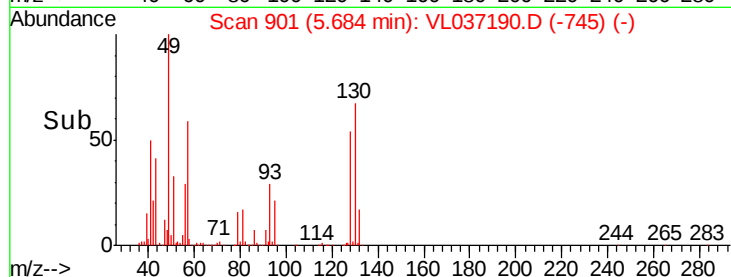
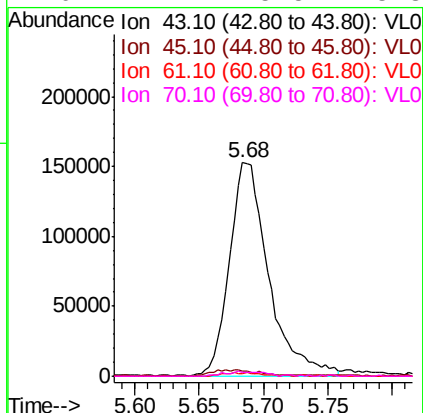
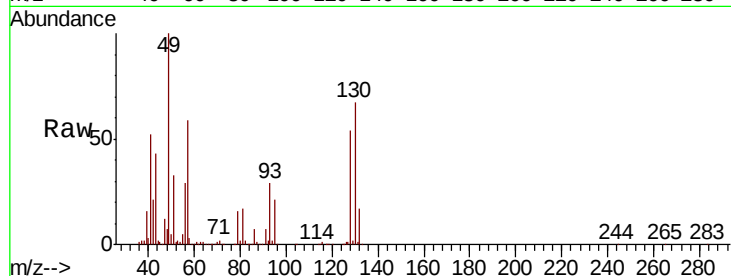




#25
Ethyl Acetate
Concen: 0.874 ppbv
RT: 5.68 min Scan# 901
Delta R.T. 0.00 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

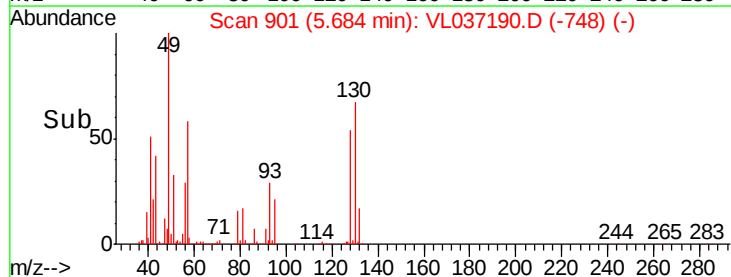
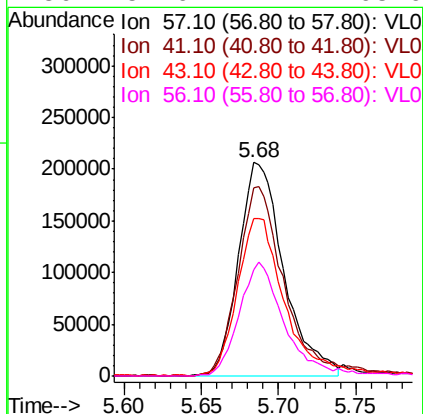
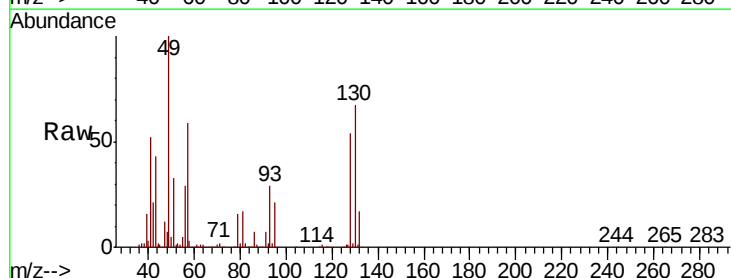
Instrument :
MSVOA_L
ClientSampleId :

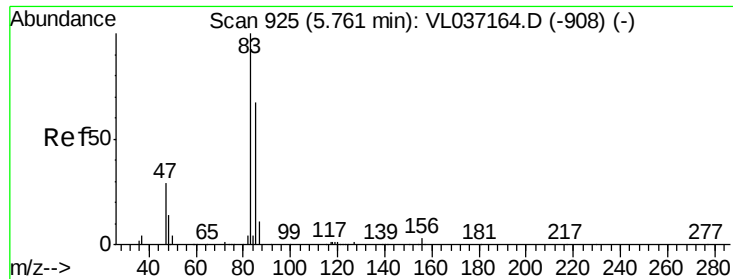
Tot Ion:	43	Resp:	321128
Ion	Ratio	Lower	Upper
43	100		
45	3.9	8.0	12.0#
61	1.7	8.1	12.1#
70	2.4	5.5	8.3#



#26
Hexane
Concen: 2.262 ppbv
RT: 5.68 min Scan# 901
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

Tgt Ion:	57	Resp:	419897
Ion	Ratio	Lower	Upper
57	100		
41	93.4	73.5	110.3
43	79.3	170.7	256.1#
56	54.6	42.4	63.6

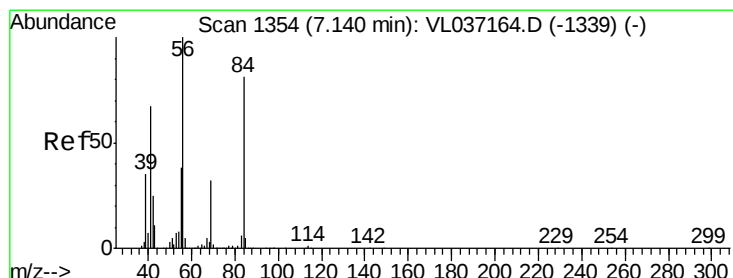
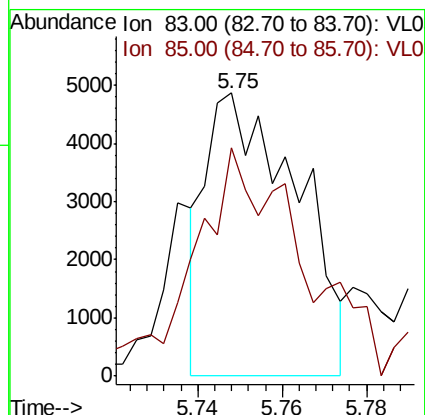
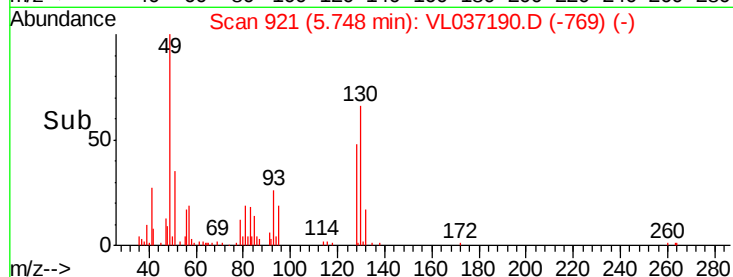
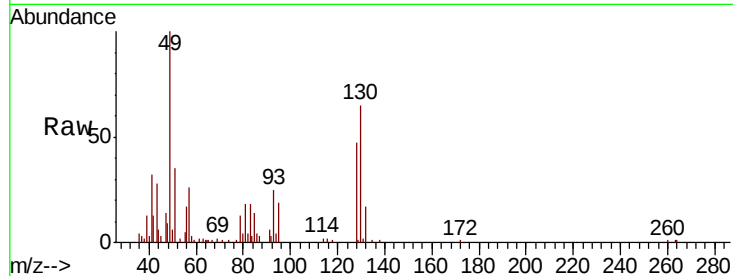




#29
Chloroform
Concen: 0.025 ppbv
RT: 5.75 min Scan# 921
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

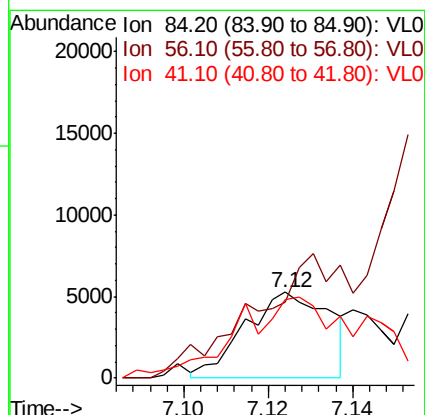
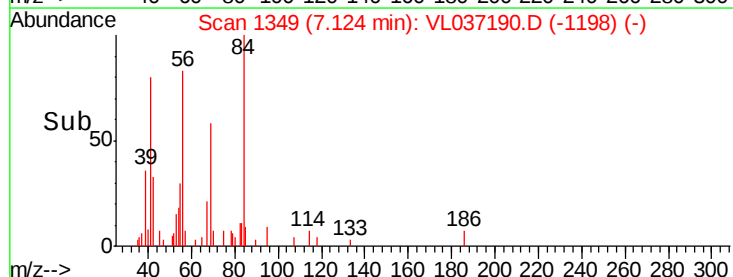
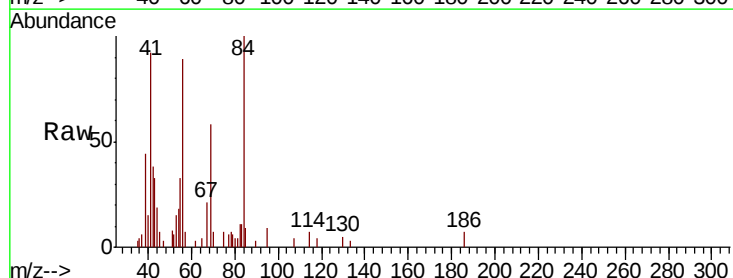
Instrument :
MSVOA_L
ClientSampleId :

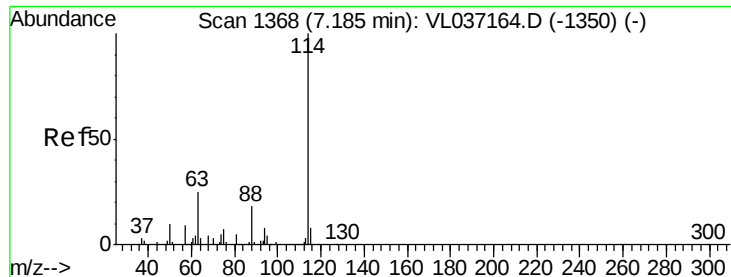
Tot Ion: 83 Resp: 7278
Ion Ratio Lower Upper
83 100
85 64.4 53.6 80.4



#30
Cyclohexane
Concen: 0.047 ppbv
RT: 7.12 min Scan# 1349
Delta R.T. -0.02 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

Tgt Ion: 84 Resp: 7284
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 159.6 69.0 103.6#

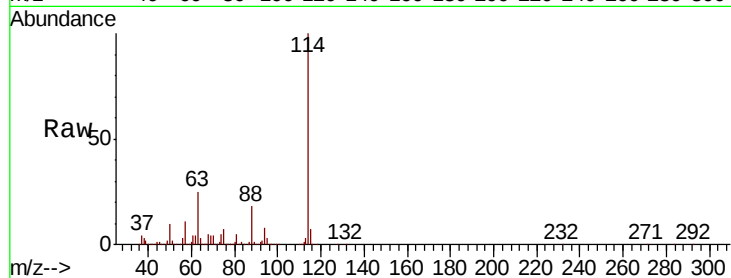




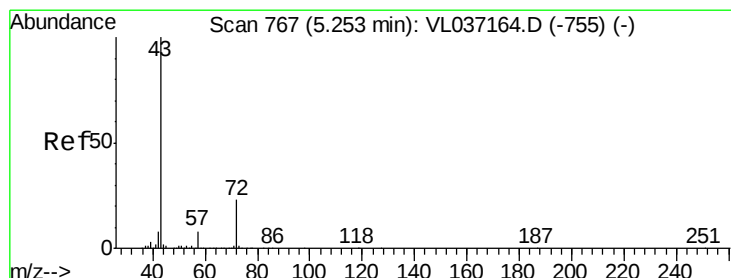
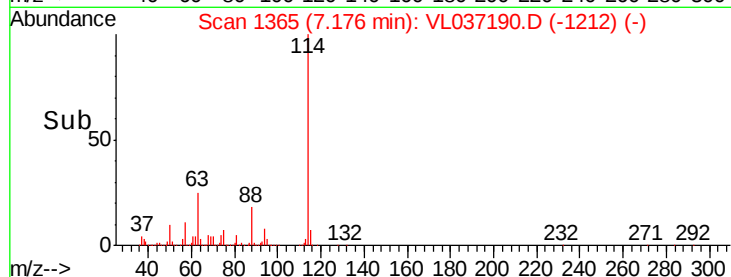
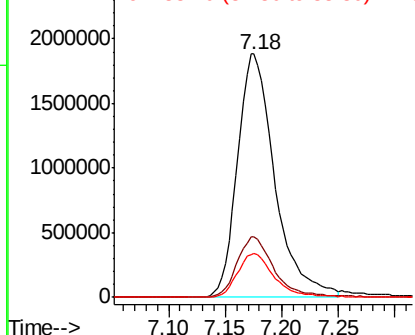
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.18 min Scan# 1365
 Delta R.T. -0.01 min
 Lab File: VL037190.D
 Acq: 17 Jun 2021 4:16

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 4343605
 Ion Ratio Lower Upper
 114 100
 63 24.9 19.6 29.4
 88 18.2 14.2 21.2

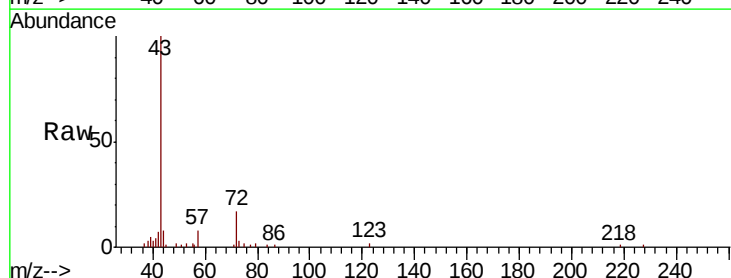


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

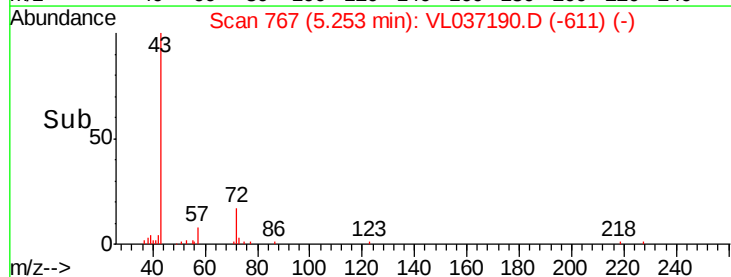
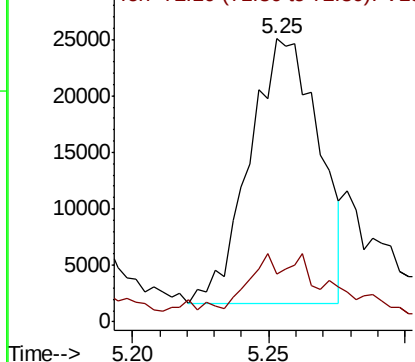


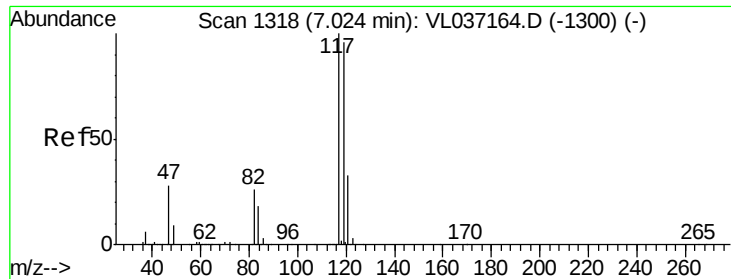
#34
 2-Butanone
 Concen: 0.246 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.00 min
 Lab File: VL037190.D
 Acq: 17 Jun 2021 4:16

Tgt Ion: 43 Resp: 41581
 Ion Ratio Lower Upper
 43 100
 72 37.4 18.9 28.3#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.026 ppbv

RT: 7.01 min Scan# 1315

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

ClientSampleId :

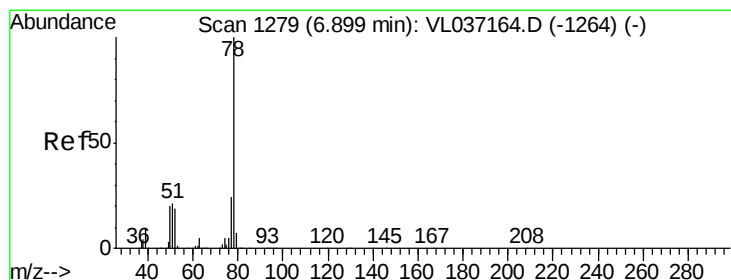
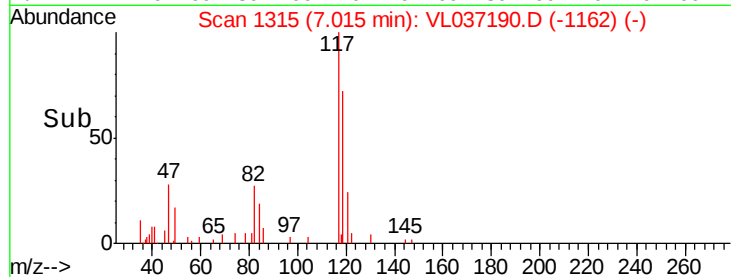
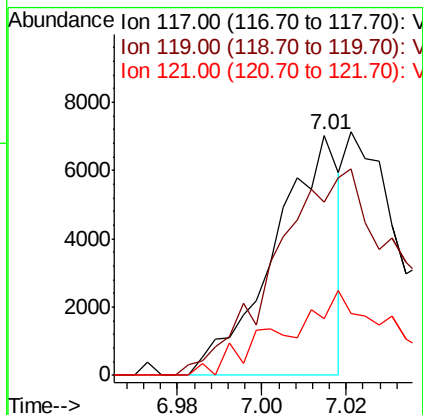
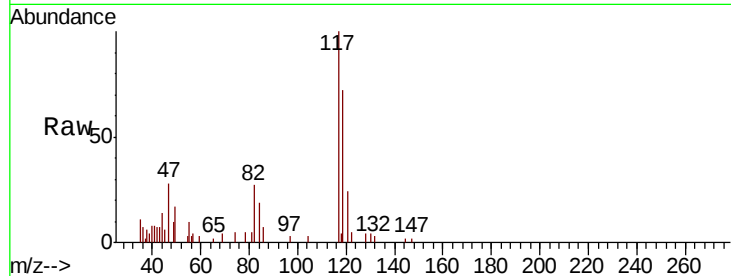
Tot Ion:117 Resp: 7554

Ion Ratio Lower Upper

117 100

119 68.2 76.6 114.8#

121 23.8 26.4 39.6#



#36

Benzene

Concen: 0.097 ppbv

RT: 6.89 min Scan# 1276

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

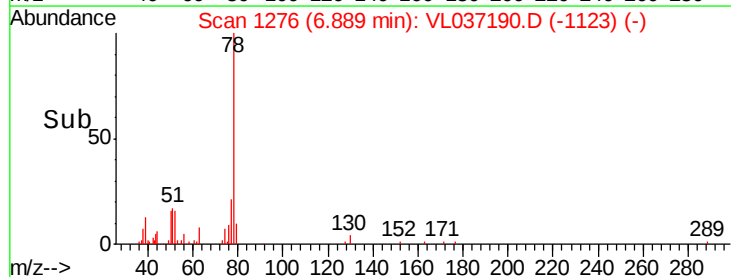
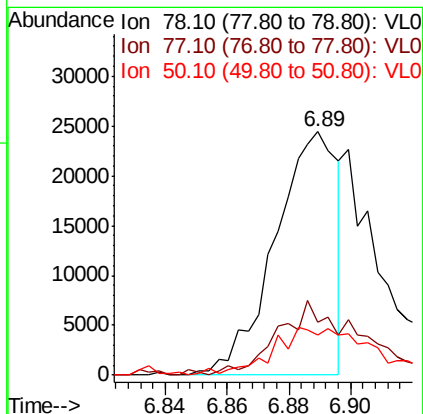
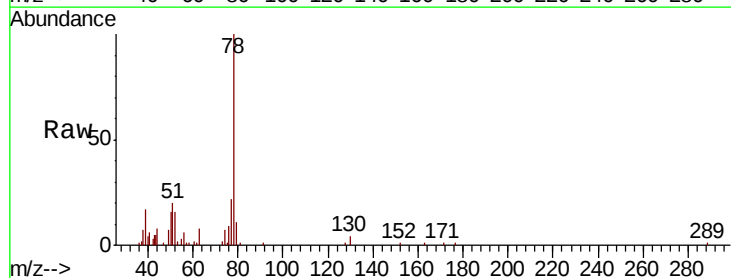
Tgt Ion: 78 Resp: 34131

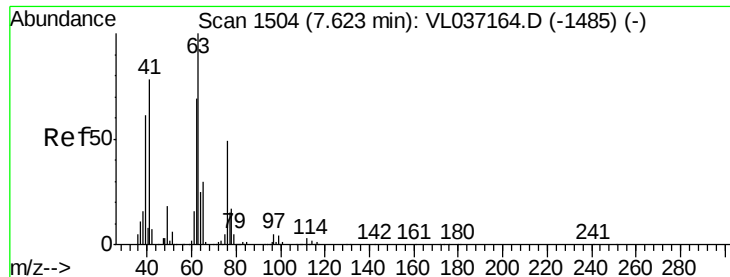
Ion Ratio Lower Upper

78 100

77 19.5 19.0 28.6

50 16.3 15.7 23.5





#39

1,2-Dichloropropane

Concen: 8.115 ppbv

RT: 7.18 min Scan# 1365

Delta R.T. -0.45 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

ClientSampleId :

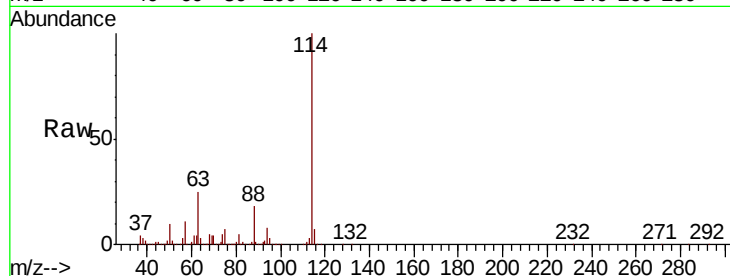
Tot Ion: 63 Resp: 1059170

Ion Ratio Lower Upper

63 100

41 0.0 62.0 93.0#

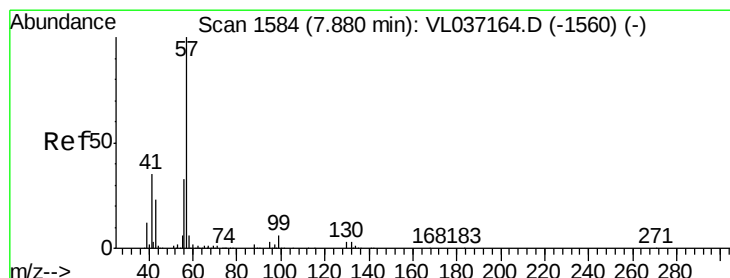
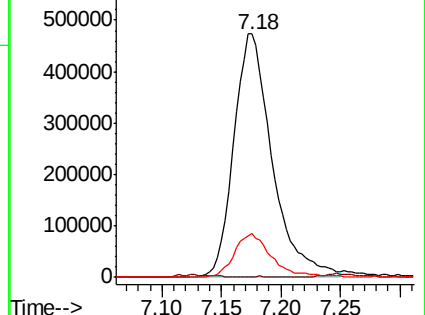
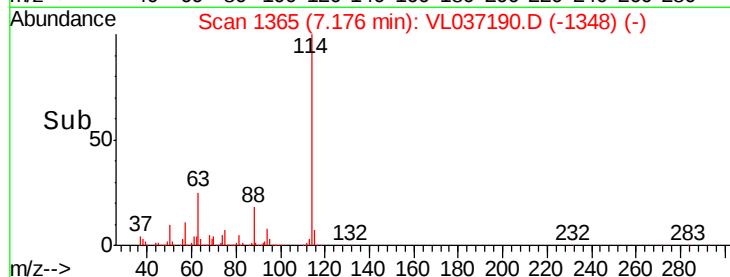
62 17.8 54.9 82.3#



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: 0.080 ppbv

RT: 7.87 min Scan# 1580

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

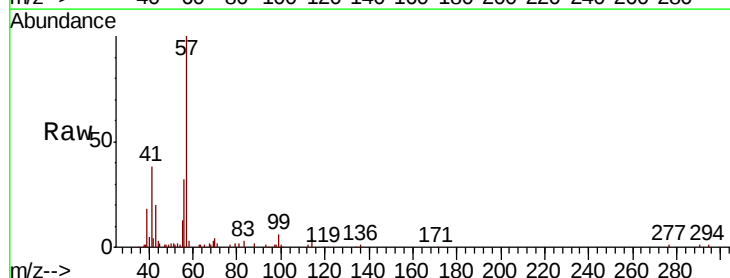
Tgt Ion: 57 Resp: 47212

Ion Ratio Lower Upper

57 100

41 0.0 27.6 41.4#

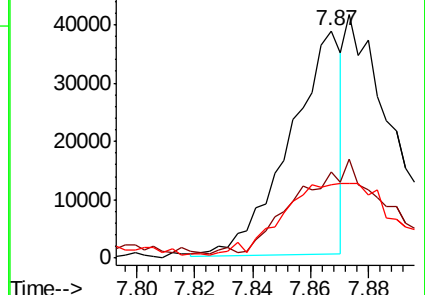
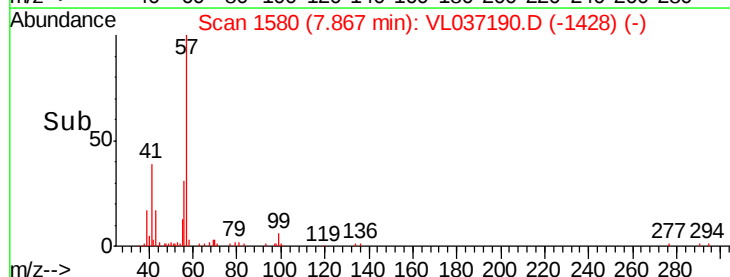
56 0.0 25.3 37.9#

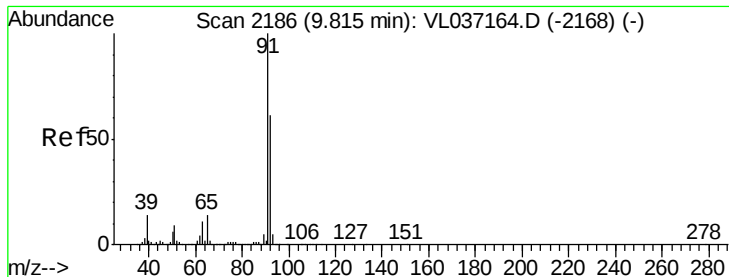


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.751 ppbv

RT: 9.81 min Scan# 2184

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

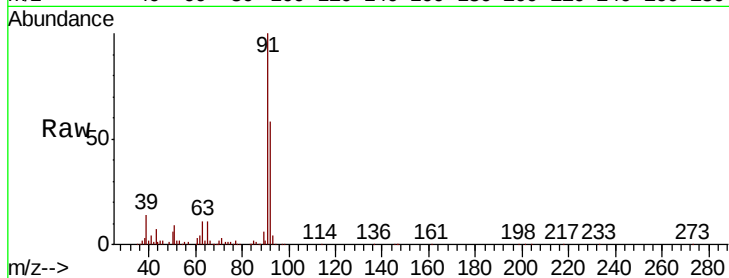
ClientSampleId :

Tot Ion: 91 Resp: 314880

Ion Ratio Lower Upper

91 100

92 61.3 48.3 72.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.81

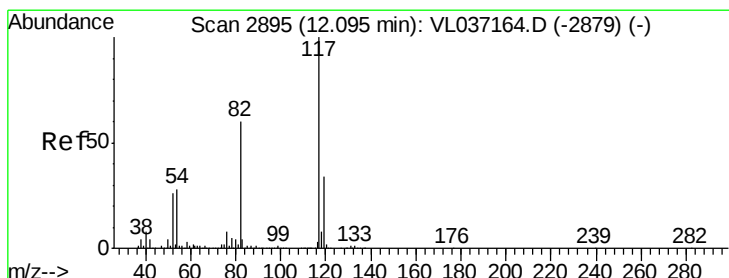
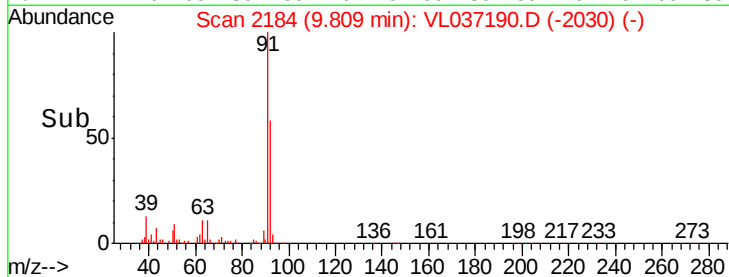
150000

100000

50000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2893

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

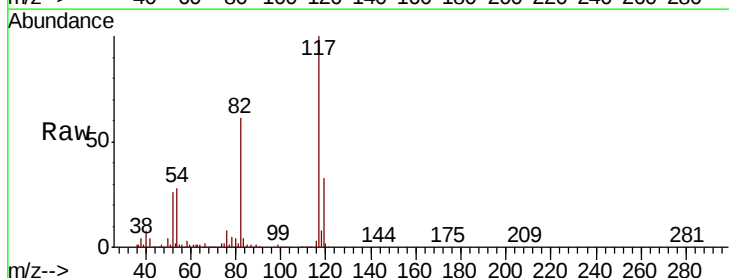
Tgt Ion: 117 Resp: 3822779

Ion Ratio Lower Upper

117 100

82 64.8 51.7 77.5

119 34.4 47.6 71.4#



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

2000000

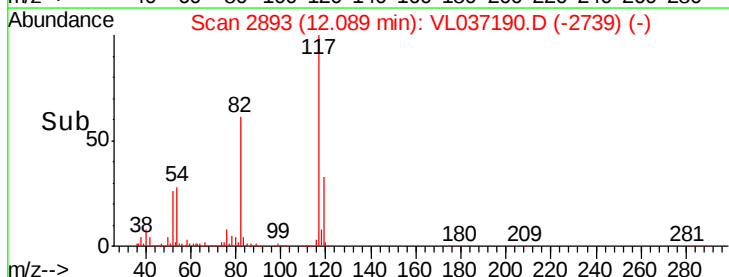
1500000

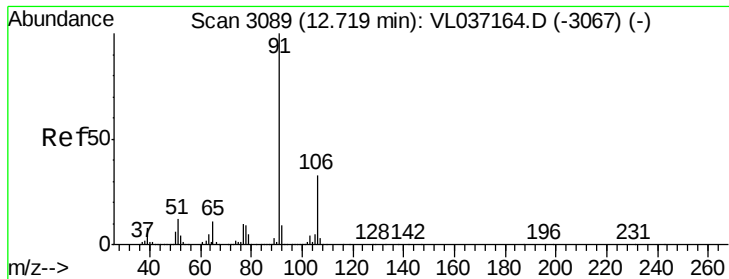
1000000

500000

0

Time-->





#58

Ethyl Benzene

Concen: 0.075 ppbv

RT: 12.71 min Scan# 3087

Delta R.T. -0.01 min

Lab File: VL037190.D

Acq: 17 Jun 2021 4:16

Instrument :

MSVOA_L

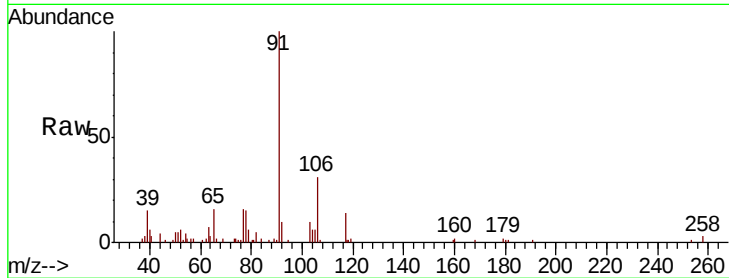
ClientSampleId :

Tot Ion: 91 Resp: 39529

Ion Ratio Lower Upper

91 100

106 31.0 26.3 39.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

12.71

20000

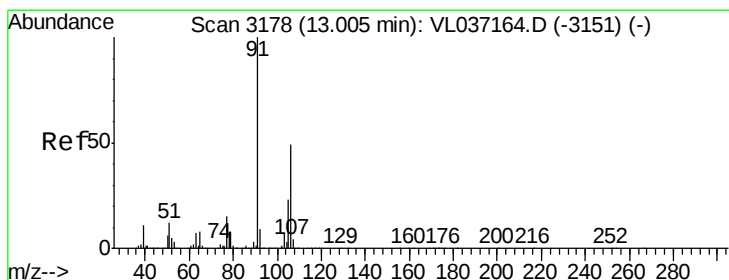
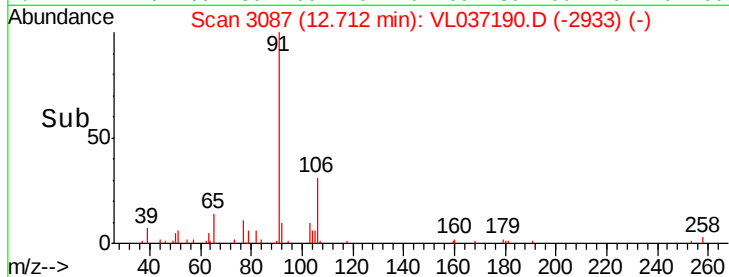
15000

10000

5000

0

Time-->



#59

m/p-Xylene

Concen: 0.088 ppbv

RT: 12.99 min Scan# 3174

Delta R.T. -0.01 min

Lab File: VL037190.D

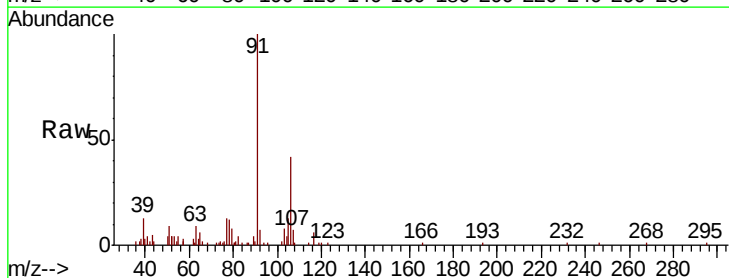
Acq: 17 Jun 2021 4:16

Tgt Ion: 91 Resp: 39402

Ion Ratio Lower Upper

91 100

106 0.0 37.0 55.4#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

40000

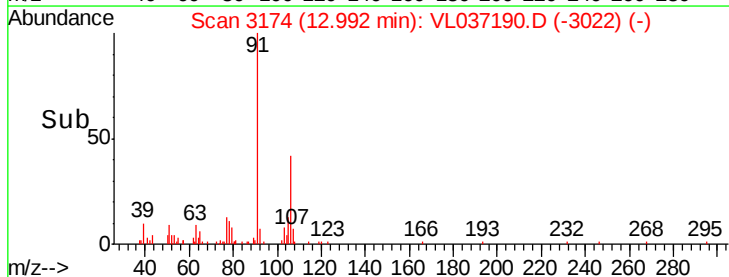
30000

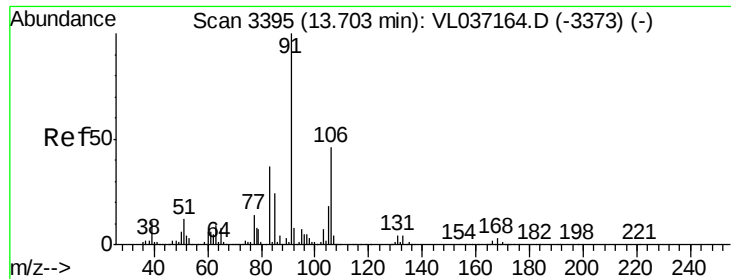
20000

10000

0

Time-->

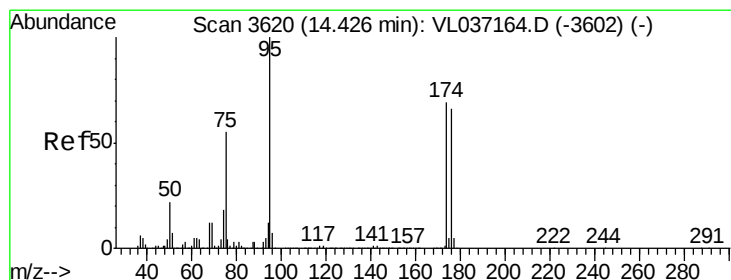
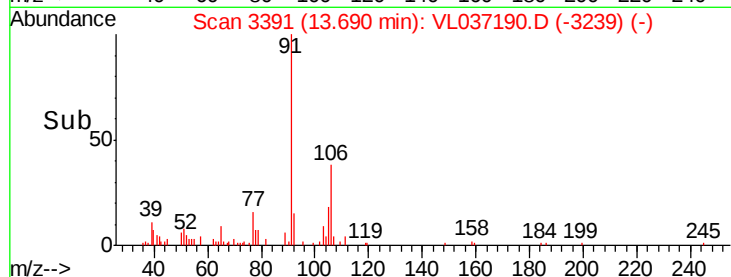
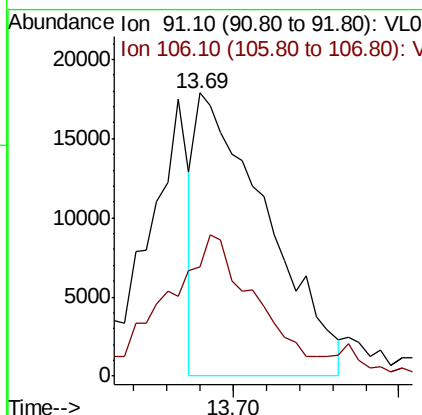
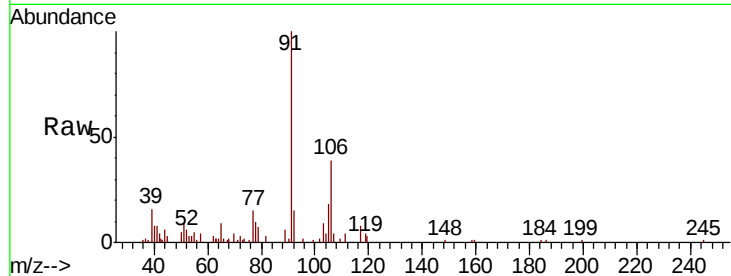




#60
o-Xylene
Concen: 0.063 ppbv
RT: 13.69 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

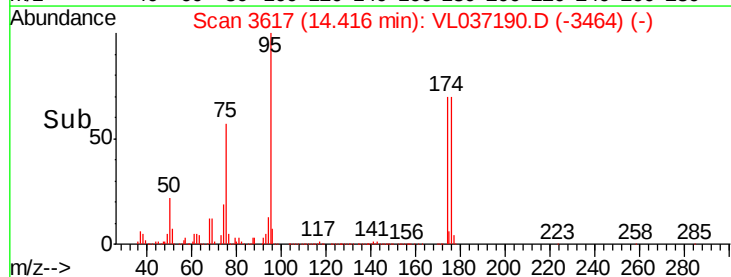
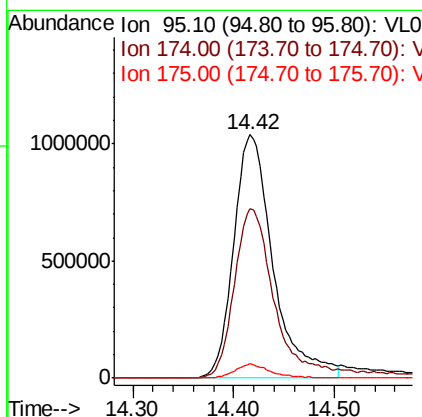
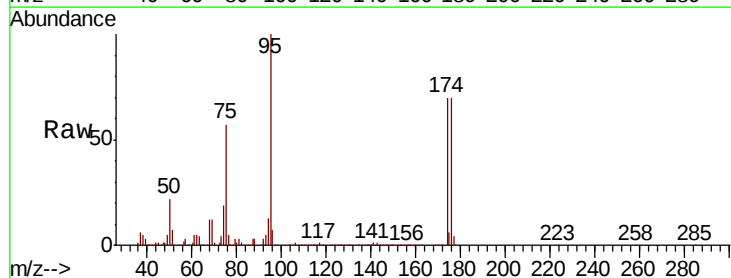
Instrument :
MSVOA_L
ClientSampled :

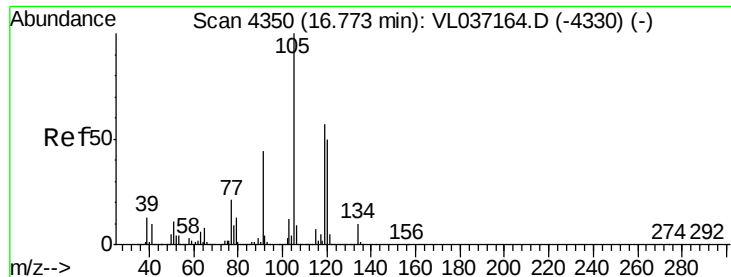
Tot Ion: 91 Resp: 26647
Ion Ratio Lower Upper
91 100
106 71.1 23.0 69.0#



#68
1-Bromo-4-Fluorobenzene
Concen: 9.754 ppbv
RT: 14.42 min Scan# 3617
Delta R.T. -0.01 min
Lab File: VL037190.D
Acq: 17 Jun 2021 4:16

Tgt Ion: 95 Resp: 2825606
Ion Ratio Lower Upper
95 100
174 75.6 57.0 85.4
175 5.4 4.4 6.6





#74
 1,2,4-Trimethylbenzene
 Concen: 0.077 ppbv
 RT: 16.76 min Scan# 4347
 Delta R.T. -0.01 min
 Lab File: VL037190.D
 Acq: 17 Jun 2021 4:16

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:	105	Resp:	36961
Ion Ratio	Lower	Upper	
105	100		
120	45.3	39.8	59.8
91	11.2	37.0	55.4#
77	12.1	17.0	25.4#

