

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL060221\
 Data File : VL037104.D
 Acq On : 2 Jun 2021 16:33
 Operator : SY/AP
 Sample : M2548-09DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Jun 03 03:21:21 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1367968	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3974353	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3576218	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2681825	9.98	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.80%

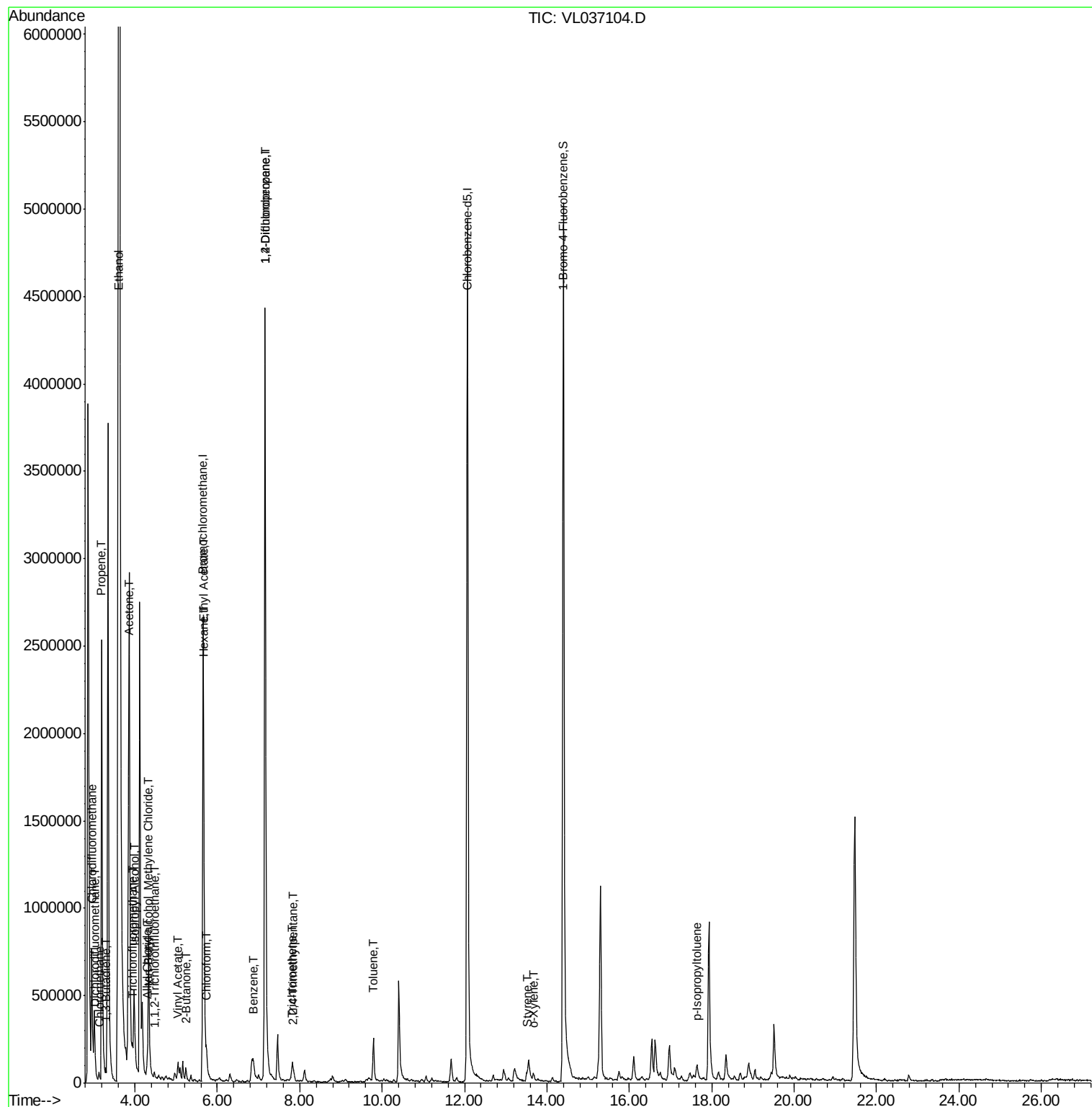
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	54957	0.237	ppbv	93
3) Chlorodifluoromethane	2.95	51	626350	2.499	ppbv #	63
4) Chloromethane	3.13	50	45577	0.534	ppbv	98
9) Propene	3.19	41	897883	10.005	ppbv	100
11) Trichlorofluoromethane	3.93	101	47552	0.221	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.47	101	6054	0.040	ppbv #	2
13) Ethanol	3.61	45	19400205	1620.249	ppbv	97
15) Acetone	3.84	43	1259708	8.990	ppbv #	83
16) 1,3-Butadiene	3.29	39	13345	0.153	ppbv #	10
17) tert-Butyl alcohol	4.30	59	81719	0.637	ppbv #	72
19) Isopropyl Alcohol	3.98	45	574803	7.632	ppbv #	38
20) Methylene Chloride	4.33	84	327935	4.366	ppbv	99
21) Allyl Chloride	4.30	41	21358	0.202	ppbv #	29
23) Vinyl Acetate	5.06	43	15268	0.069	ppbv #	82
25) Ethyl Acetate	5.67	43	204469	0.607	ppbv #	86
26) Hexane	5.67	57	223818	1.301	ppbv #	54
29) Chloroform	5.74	83	81829	0.337	ppbv	90
34) 2-Butanone	5.24	43	82639	0.571	ppbv #	86
36) Benzene	6.87	78	57237	0.167	ppbv #	90
38) Trichloroethene	7.82	130	34520	0.236	ppbv #	82
39) 1,2-Dichloropropane	7.16	63	943205	7.152	ppbv #	26
44) 2,2,4-Trimethylpentane	7.85	57	36845	0.063	ppbv #	68
53) Toluene	9.79	91	197800	0.486	ppbv	98
60) o-Xylene	13.67	91	17320	0.044	ppbv #	57
61) Styrene	13.51	104	27055	0.121	ppbv	90
69) p-Isopropyltoluene	17.64	119	23426	0.039	ppbv #	19

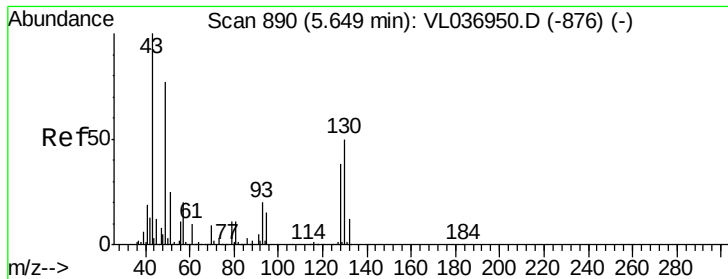
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. 0.01 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

ClientSampleId :

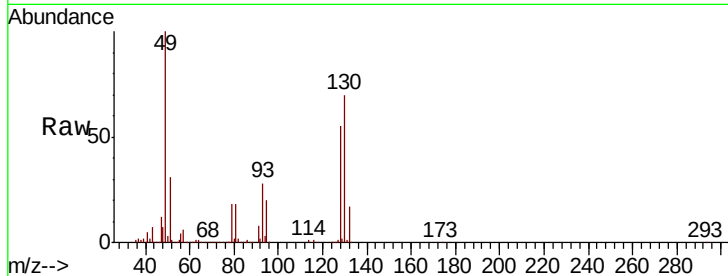
Tot Ion: 49 Resp: 1367968

Ion Ratio Lower Upper

49 100

128 57.1 26.9 80.7

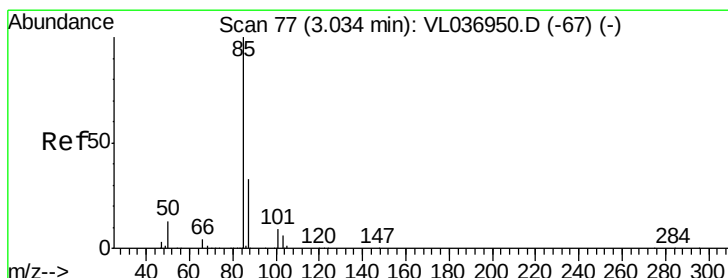
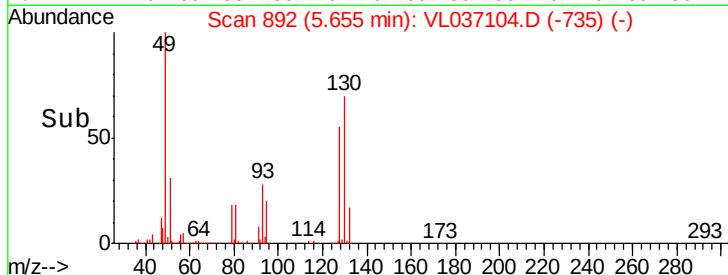
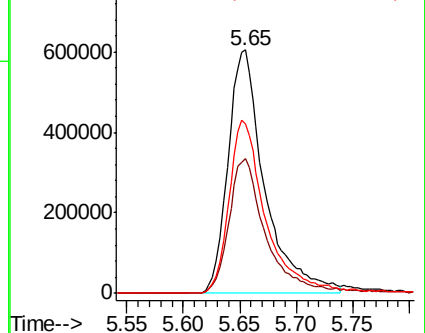
130 73.0 33.8 101.4



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: 0.237 ppbv

RT: 3.04 min Scan# 79

Delta R.T. 0.01 min

Lab File: VL037104.D

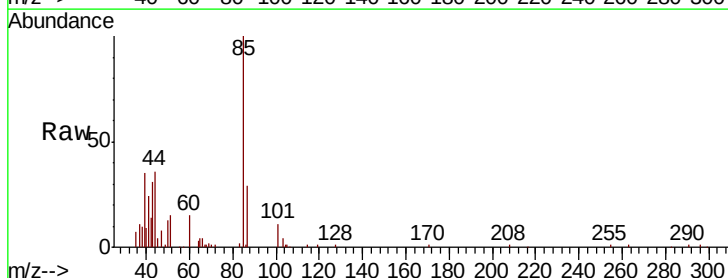
Acq: 2 Jun 2021 16:33

Tgt Ion: 85 Resp: 54957

Ion Ratio Lower Upper

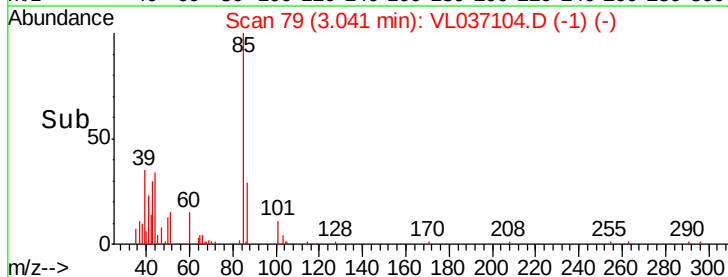
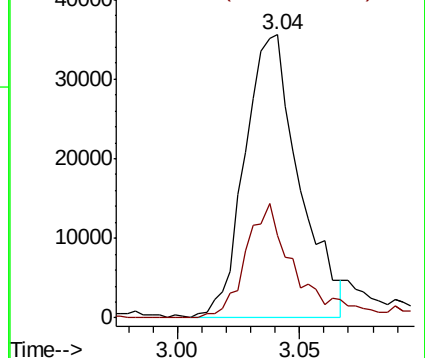
85 100

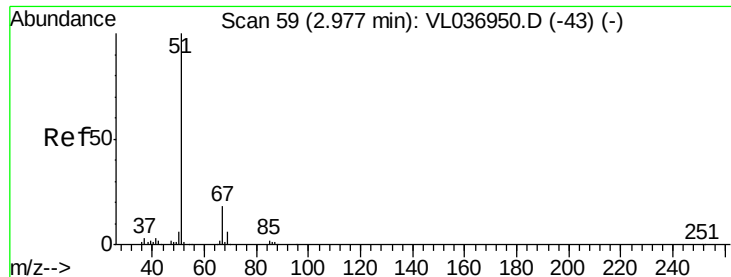
87 29.1 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 2.499 ppbv

RT: 2.95 min Scan# 51

Delta R.T. -0.03 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

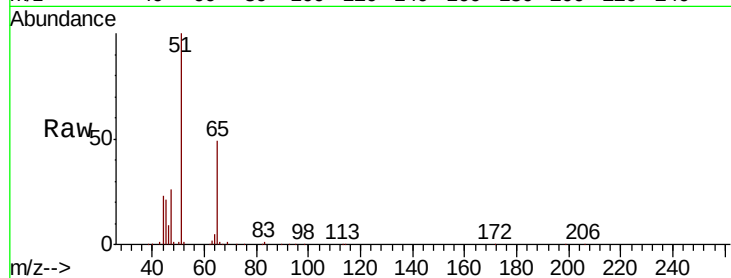
ClientSampleId :

Tot Ion: 51 Resp: 626350

Ion Ratio Lower Upper

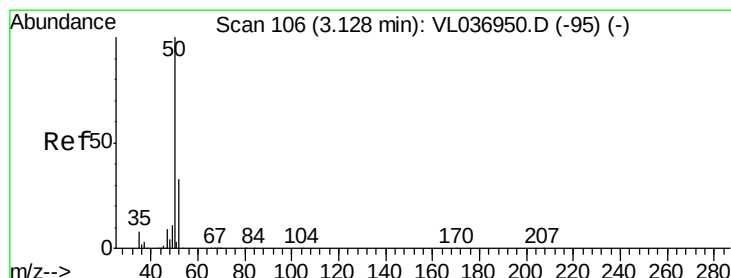
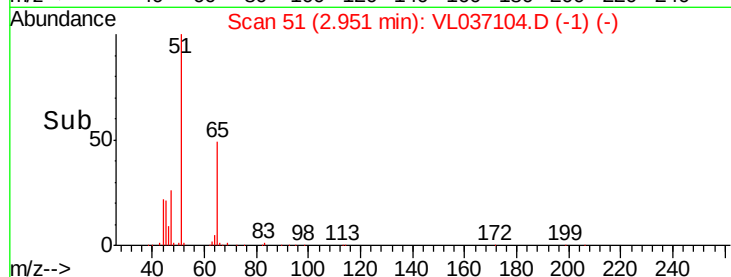
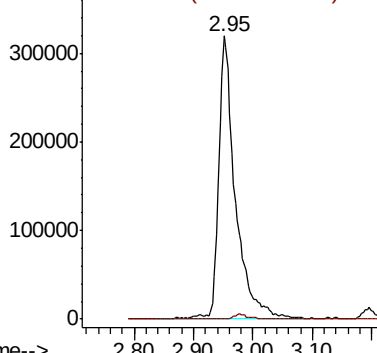
51 100

67 1.8 14.6 21.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.534 ppbv

RT: 3.13 min Scan# 106

Delta R.T. -0.00 min

Lab File: VL037104.D

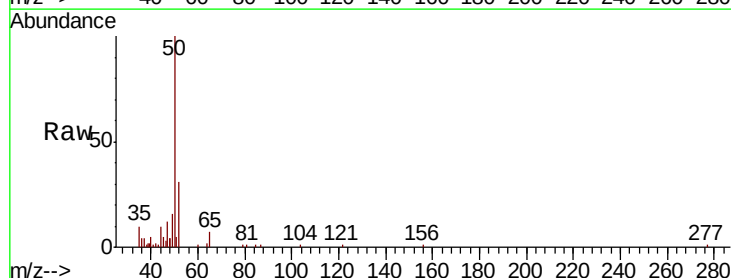
Acq: 2 Jun 2021 16:33

Tgt Ion: 50 Resp: 45577

Ion Ratio Lower Upper

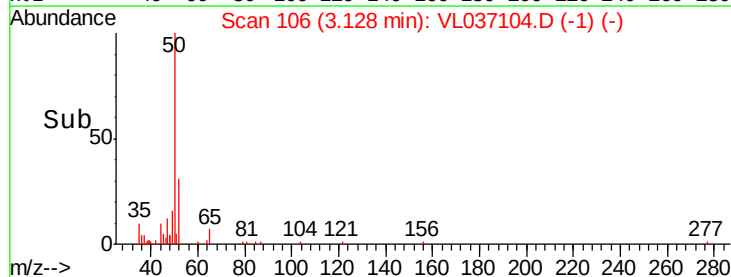
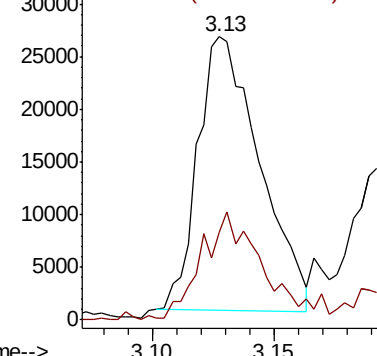
50 100

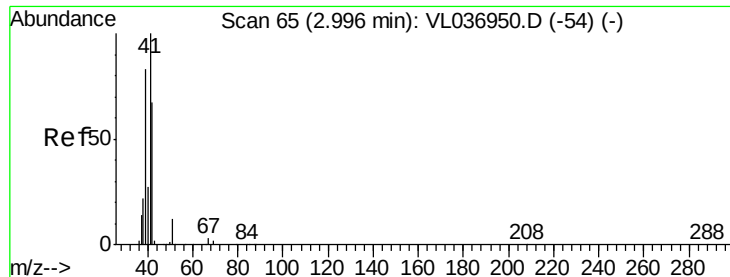
52 31.4 26.1 39.1



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 10.005 ppbv

RT: 3.19 min Scan# 126

Delta R.T. 0.20 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

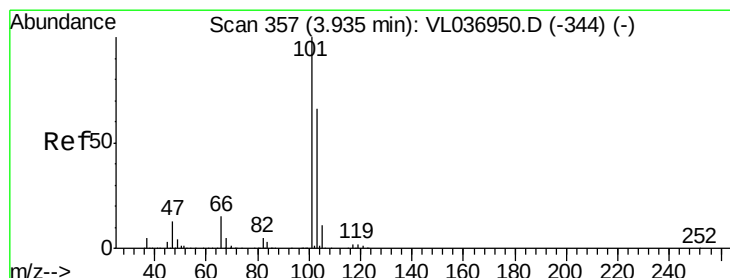
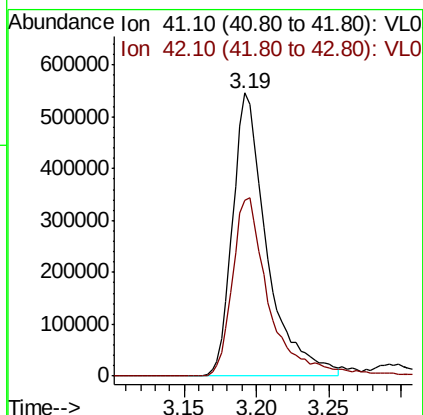
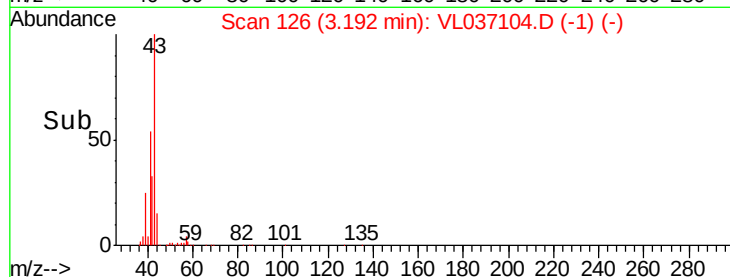
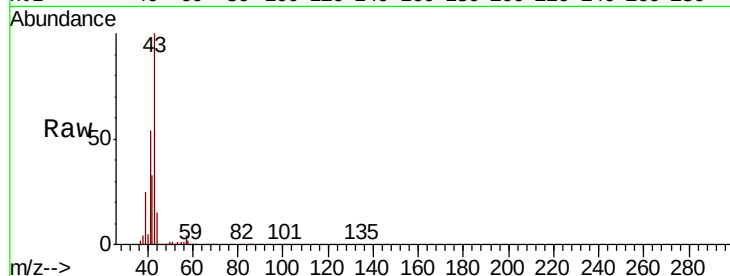
ClientSampleId :

Tot Ion: 41 Resp: 897883

Ion Ratio Lower Upper

41 100

42 67.6 53.9 80.9



#11

Trichlorofluoromethane

Concen: 0.221 ppbv

RT: 3.93 min Scan# 357

Delta R.T. -0.00 min

Lab File: VL037104.D

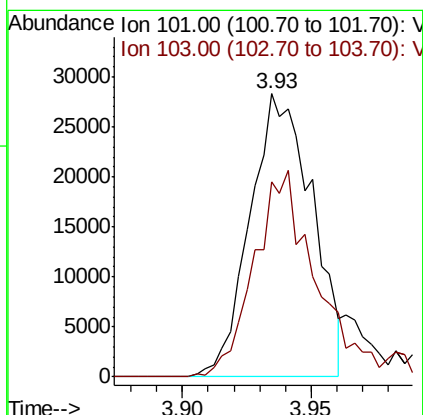
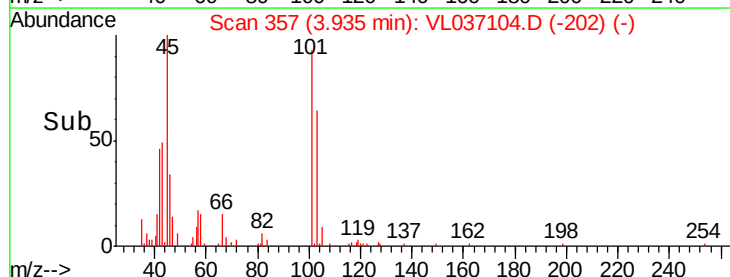
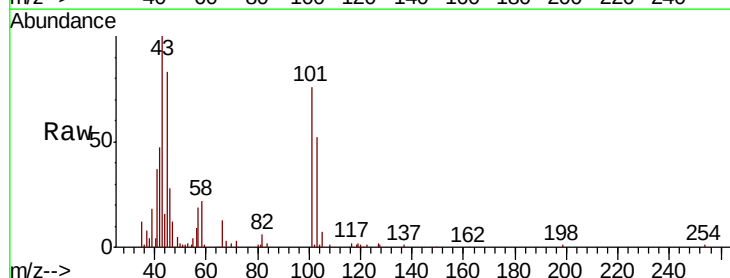
Acq: 2 Jun 2021 16:33

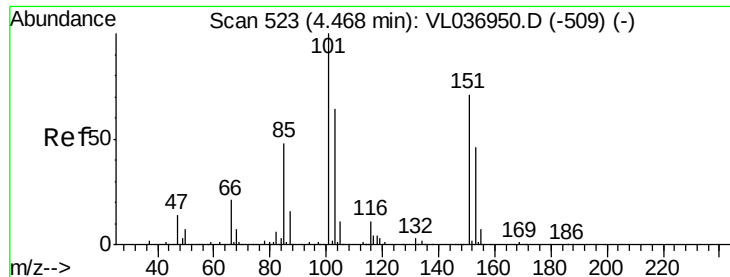
Tgt Ion: 101 Resp: 47552

Ion Ratio Lower Upper

101 100

103 69.0 52.6 79.0





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.040 ppbv

RT: 4.47 min Scan# 523

Delta R.T. -0.00 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

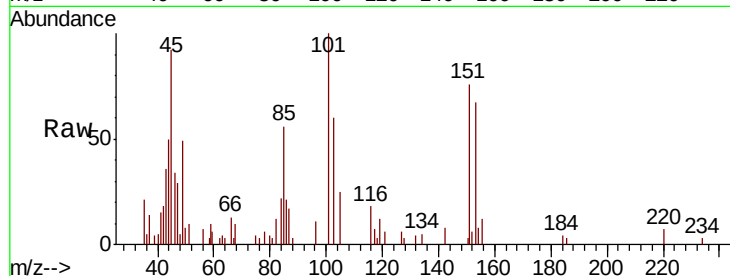
ClientSampleId :

Tot Ion:101 Resp: 6054

Ion Ratio Lower Upper

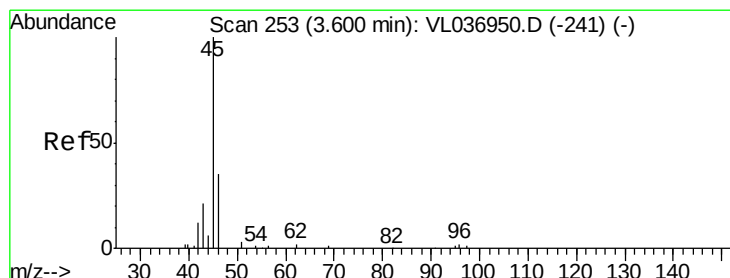
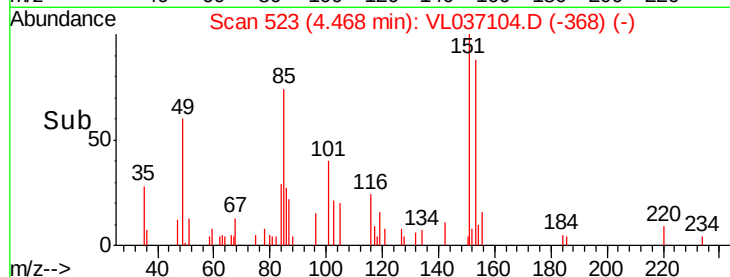
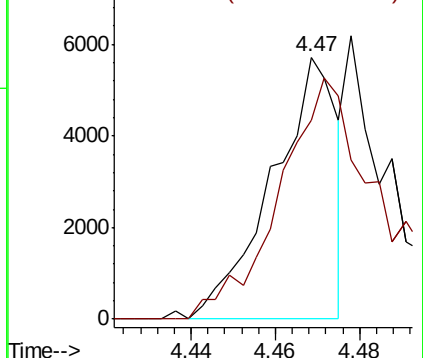
101 100

151 153.7 57.7 86.5#



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 151.00 (150.70 to 151.70): V



#13

Ethanol

Concen: 1620.249 ppbv

RT: 3.61 min Scan# 257

Delta R.T. 0.01 min

Lab File: VL037104.D

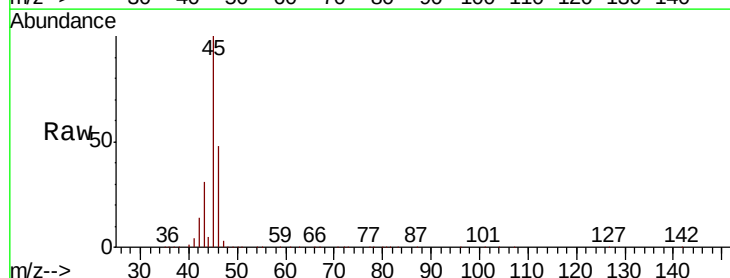
Acq: 2 Jun 2021 16:33

Tgt Ion: 45 Resp:19400205

Ion Ratio Lower Upper

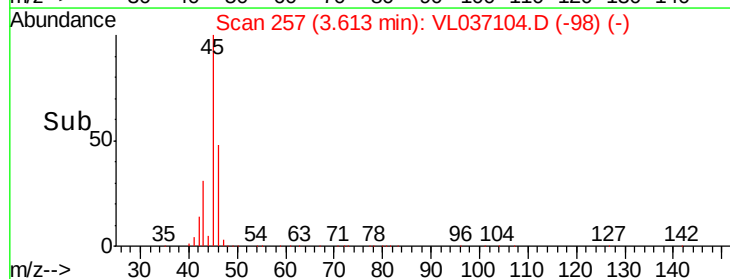
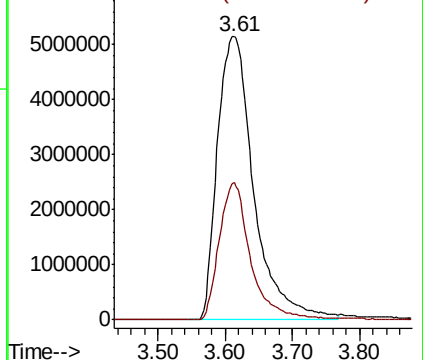
45 100

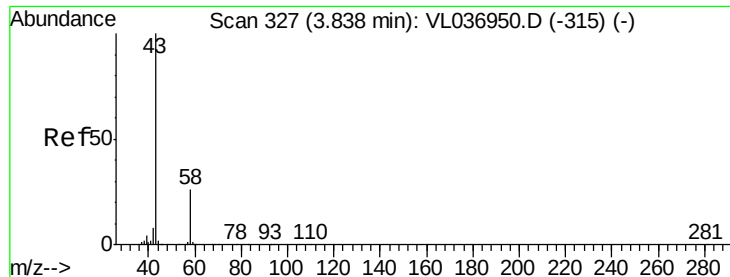
46 42.6 16.3 65.3



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 46.10 (45.80 to 46.80): VL0





#15

Acetone

Concen: 8.990 ppbv

RT: 3.84 min Scan# 328

Delta R.T. 0.00 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

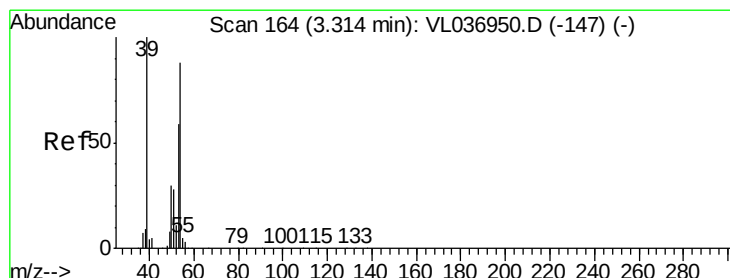
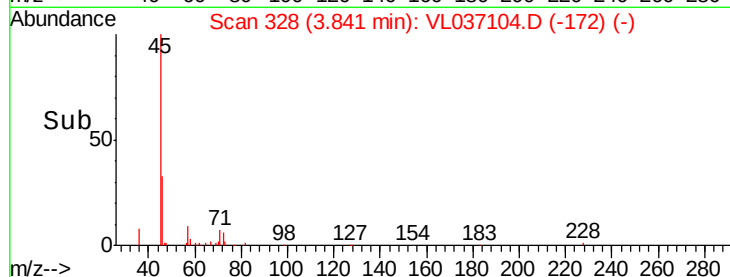
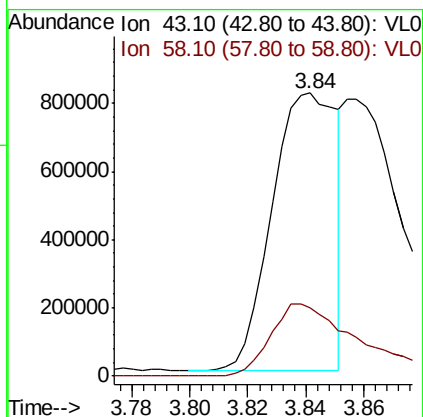
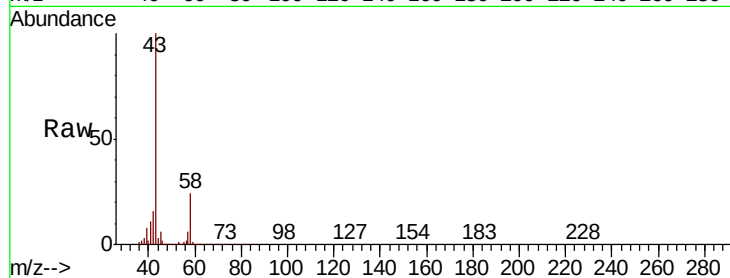
ClientSampleId :

Tot Ion: 43 Resp: 1259708

Ion Ratio Lower Upper

43 100

58 39.3 24.0 36.0#



#16

1,3-Butadiene

Concen: 0.153 ppbv

RT: 3.29 min Scan# 158

Delta R.T. -0.02 min

Lab File: VL037104.D

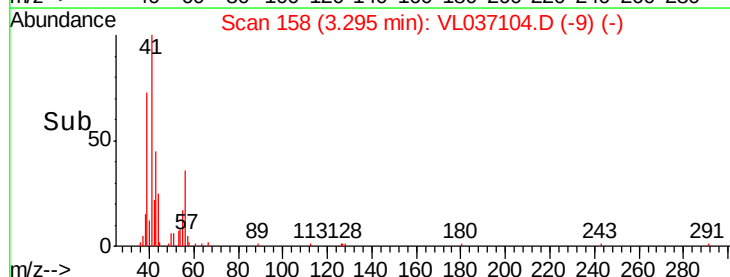
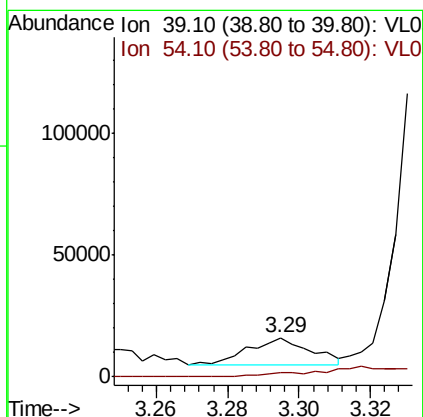
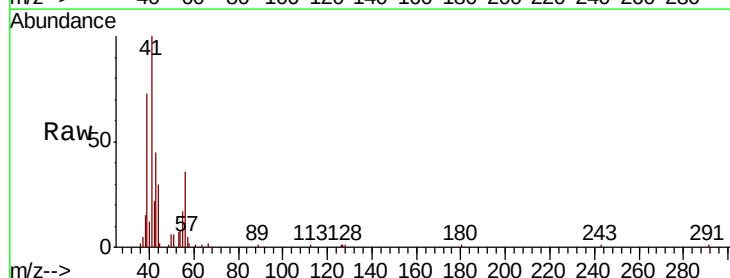
Acq: 2 Jun 2021 16:33

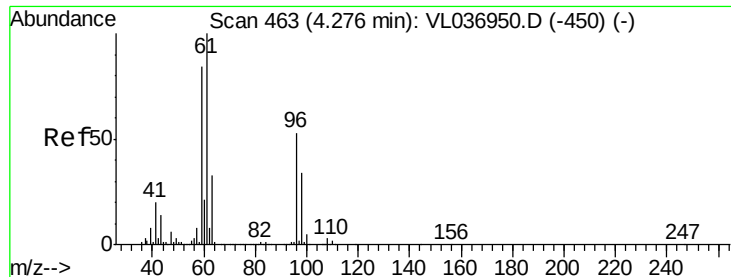
Tgt Ion: 39 Resp: 13345

Ion Ratio Lower Upper

39 100

54 0.0 63.2 94.8#





#17

tert-Butyl alcohol

Concen: 0.637 ppbv

RT: 4.30 min Scan# 472

Delta R.T. 0.03 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

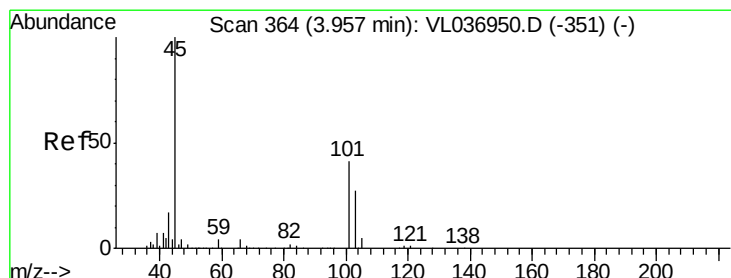
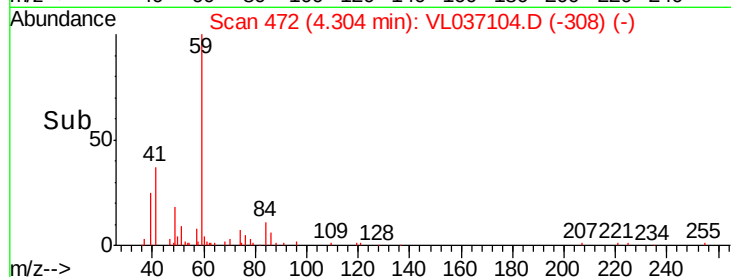
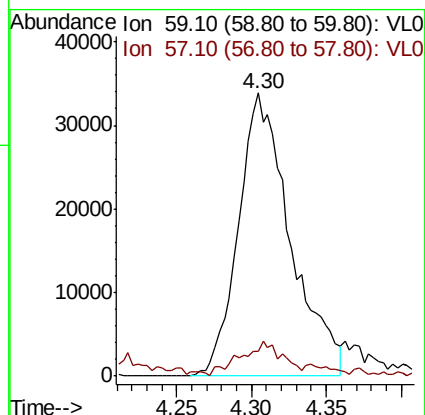
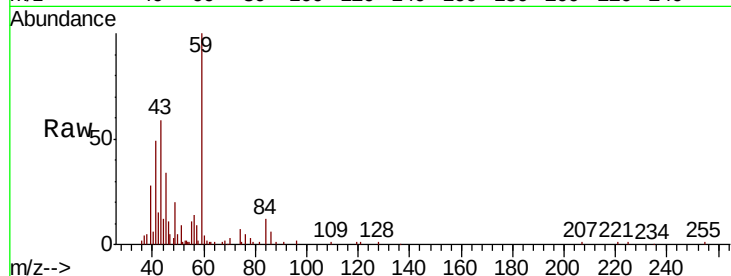
ClientSampleId :

Tot Ion: 59 Resp: 81719

Ion Ratio Lower Upper

59 100

57 0.0 8.3 12.5#



#19

Isopropyl Alcohol

Concen: 7.632 ppbv

RT: 3.98 min Scan# 371

Delta R.T. 0.02 min

Lab File: VL037104.D

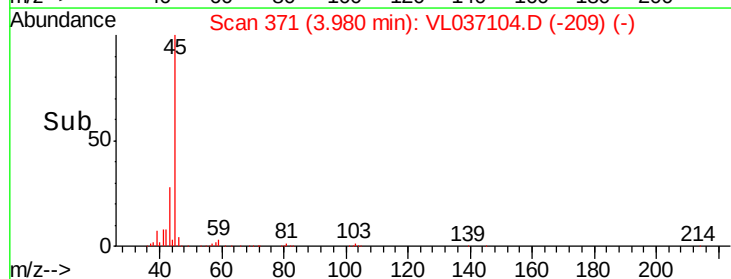
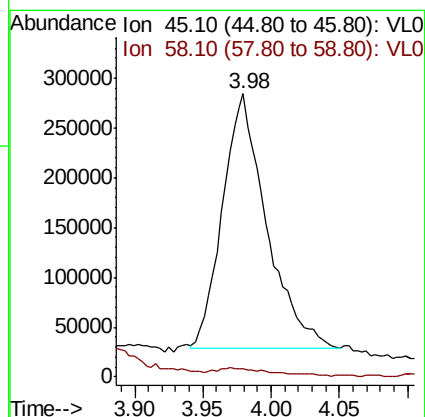
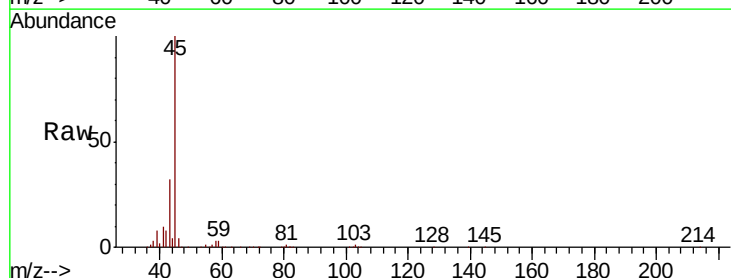
Acq: 2 Jun 2021 16:33

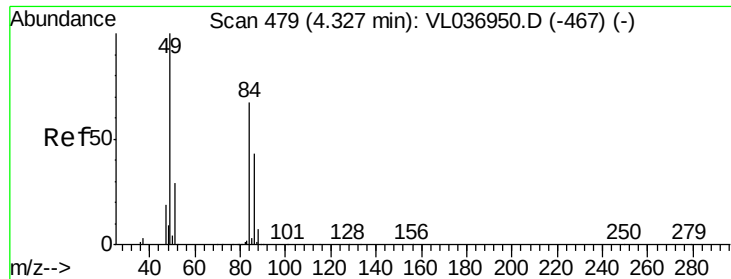
Tgt Ion: 45 Resp: 574803

Ion Ratio Lower Upper

45 100

58 5.2 37.2 55.8#

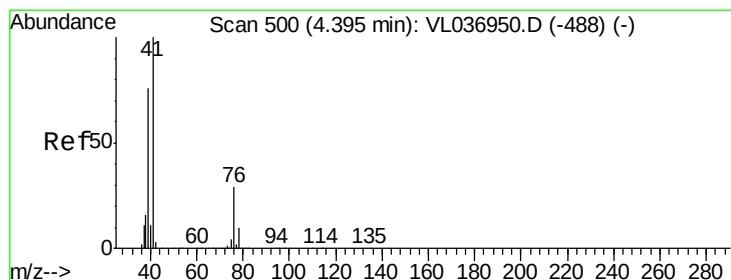
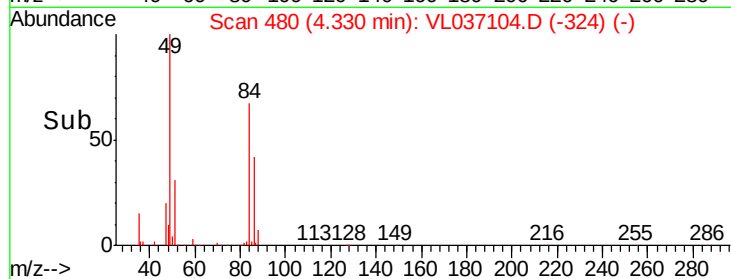
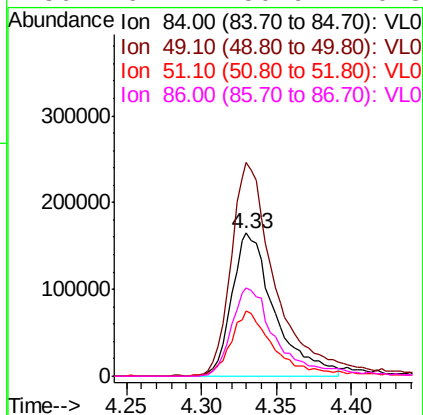
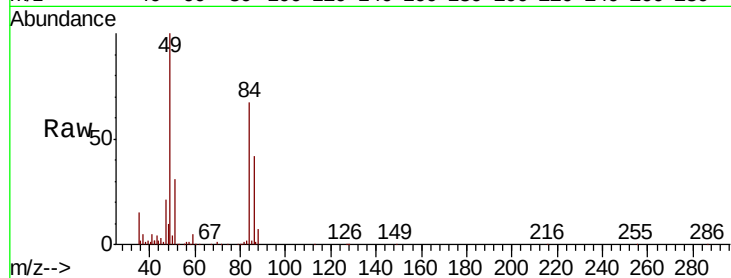




#20
Methylene Chloride
Concen: 4.366 ppbv
RT: 4.33 min Scan# 480
Delta R.T. 0.00 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

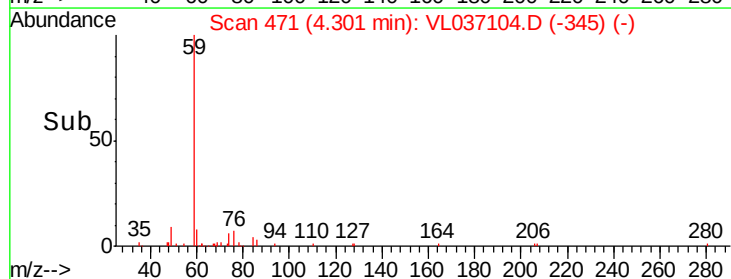
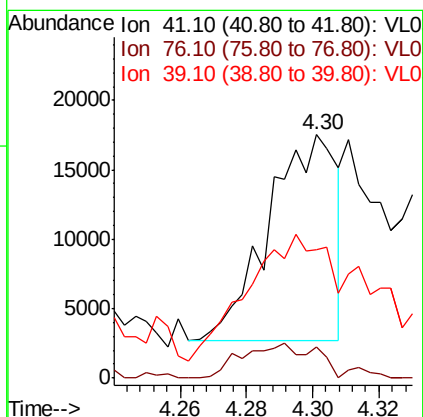
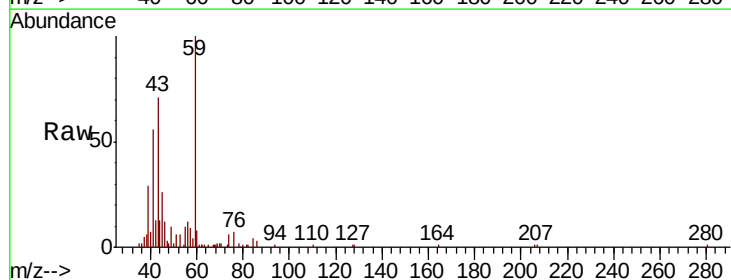
Instrument :
MSVOA_L
ClientSampleId :

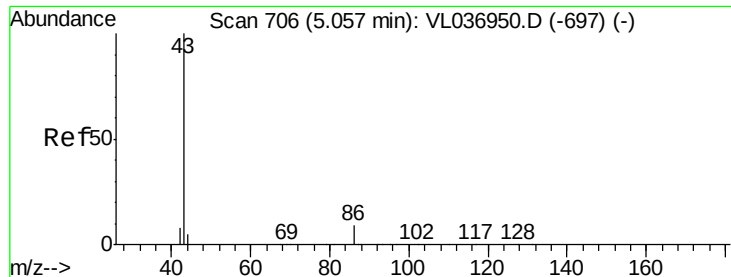
Tot Ion:	84	Resp:	327935
Ion	Ratio	Lower	Upper
84	100		
49	148.7	119.8	179.6
51	45.5	35.1	52.7
86	62.1	50.9	76.3



#21
Allyl Chloride
Concen: 0.202 ppbv
RT: 4.30 min Scan# 471
Delta R.T. -0.09 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

Tgt Ion:	41	Resp:	21358
Ion	Ratio	Lower	Upper
41	100		
76	20.6	24.9	37.3#
39	160.2	63.7	95.5#





#23

Vinyl Acetate

Concen: 0.069 ppbv

RT: 5.06 min Scan# 707

Delta R.T. 0.00 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

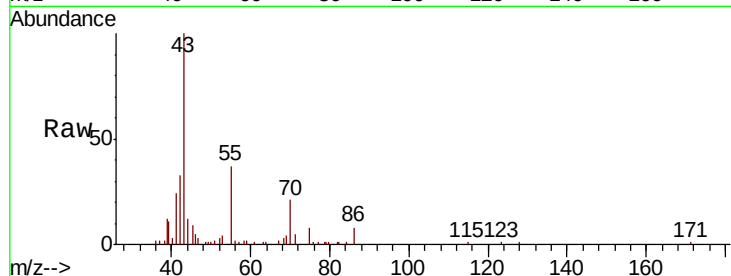
MSVOA_L

ClientSampleId :

Tot Ion: 43 Resp: 15268

Ion Ratio Lower Upper

43	100		
86	6.4	5.8	8.8
42	19.6	7.4	11.2#
44	11.7	3.3	4.9#

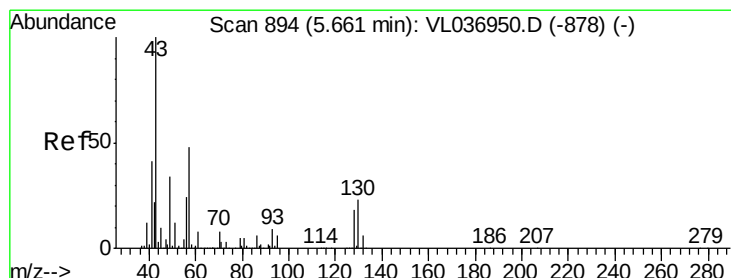
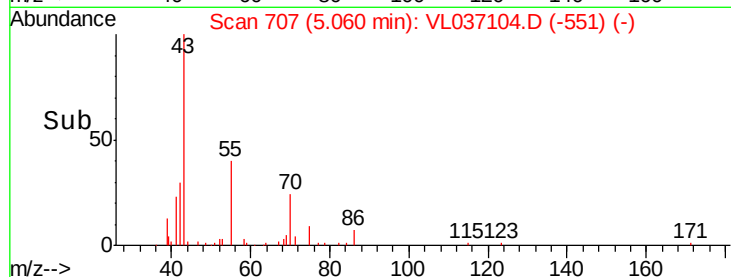
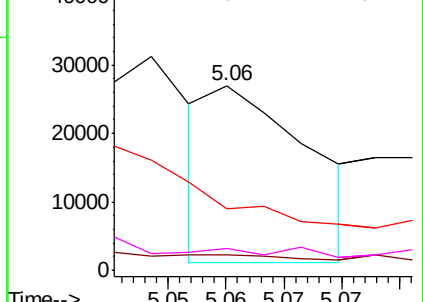


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.607 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.01 min

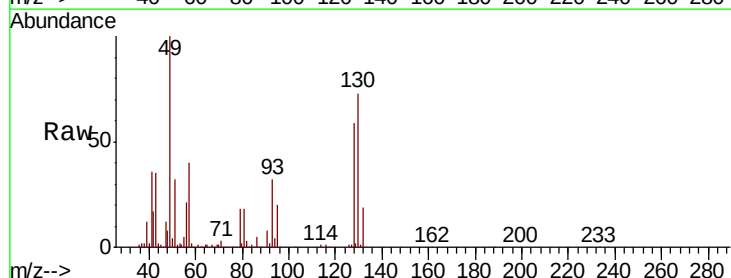
Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Tgt Ion: 43 Resp: 204469

Ion Ratio Lower Upper

43	100		
45	4.3	7.8	11.8#
61	3.7	7.8	11.8#
70	4.0	5.6	8.4#

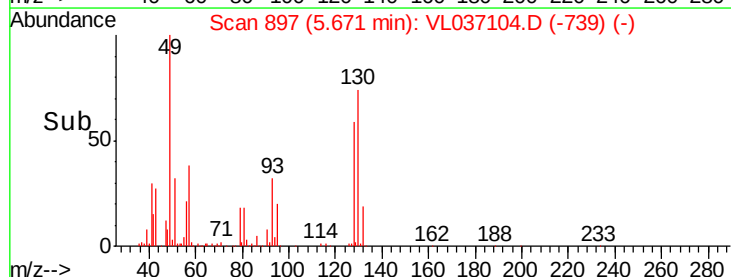
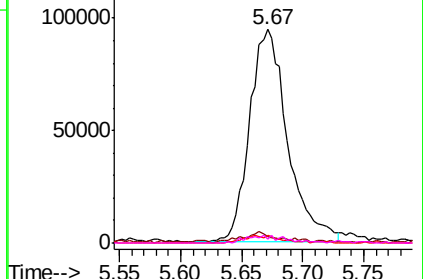


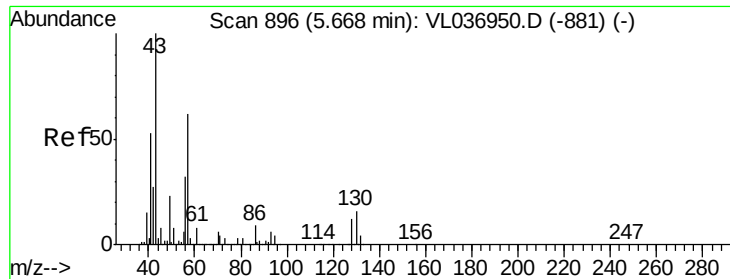
Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0

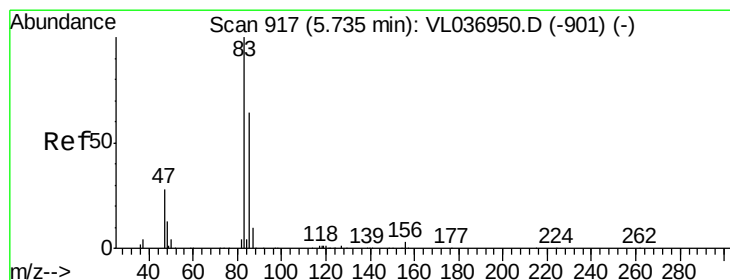
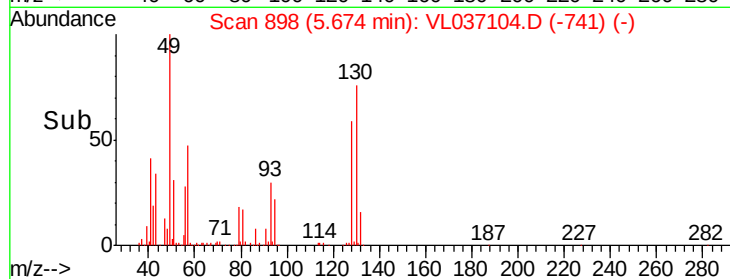
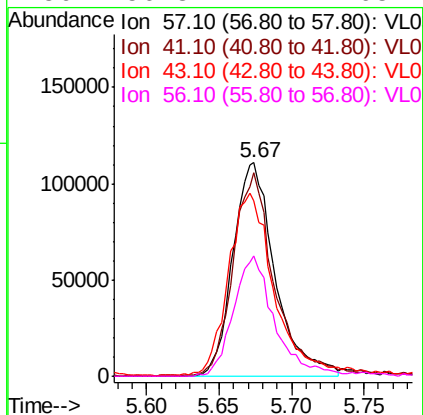
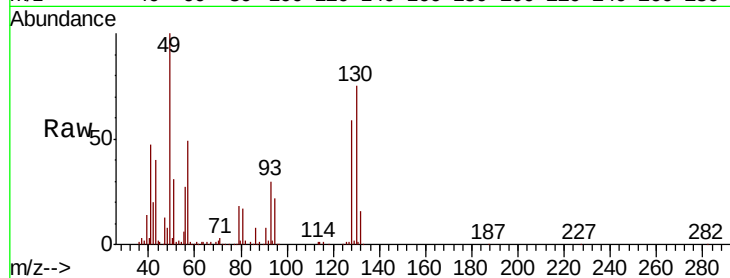




#26
Hexane
Concen: 1.301 ppbv
RT: 5.67 min Scan# 898
Delta R.T. 0.01 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

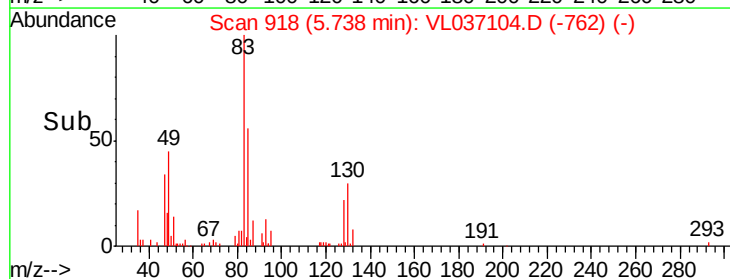
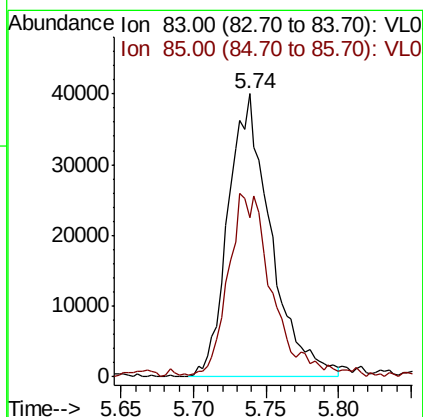
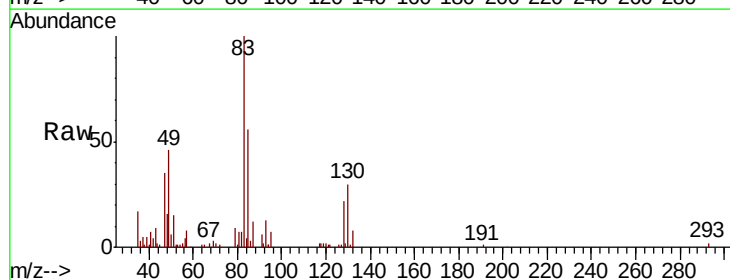
Instrument :
MSVOA_L
ClientSampleId :

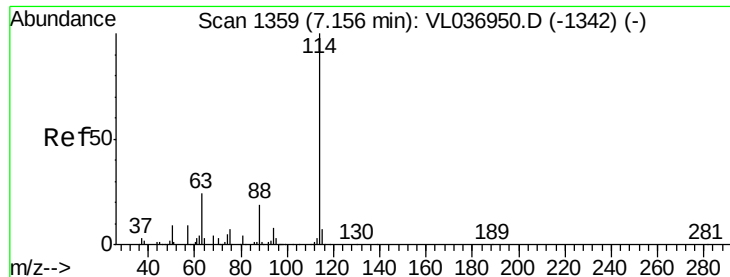
Tot Ion: 57 Resp: 223818
Ion Ratio Lower Upper
57 100
41 97.5 70.5 105.7
43 95.3 165.8 248.8#
56 56.3 42.2 63.4



#29
Chloroform
Concen: 0.337 ppbv
RT: 5.74 min Scan# 918
Delta R.T. 0.00 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

Tgt Ion: 83 Resp: 81829
Ion Ratio Lower Upper
83 100
85 56.0 51.1 76.7

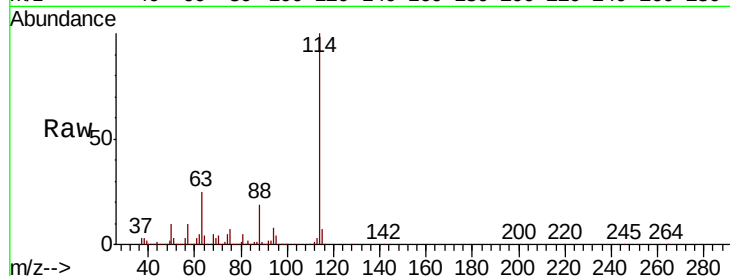




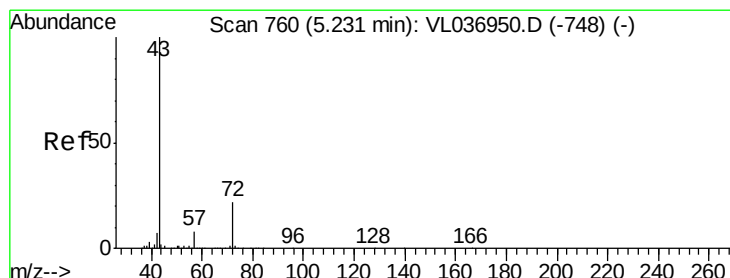
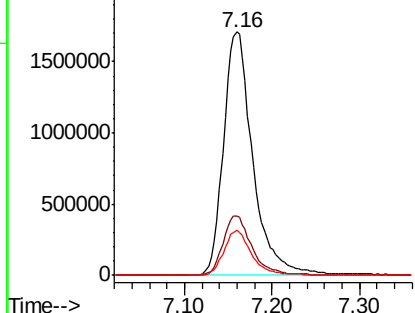
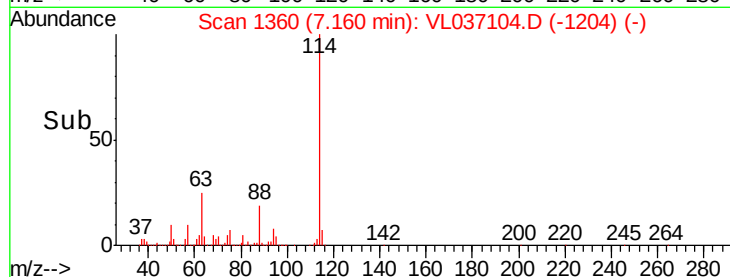
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. 0.00 min
 Lab File: VL037104.D
 Acq: 2 Jun 2021 16:33

Instrument :
 MSVOA_L
 ClientSampleId :

Tot Ion:114 Resp: 3974353
 Ion Ratio Lower Upper
 114 100
 63 24.6 19.6 29.4
 88 17.8 14.6 21.8

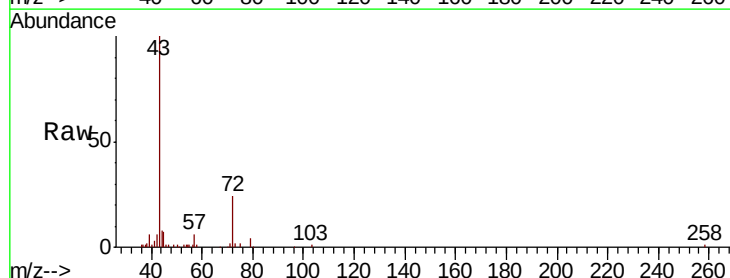


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

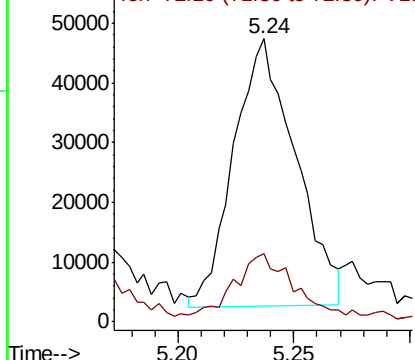
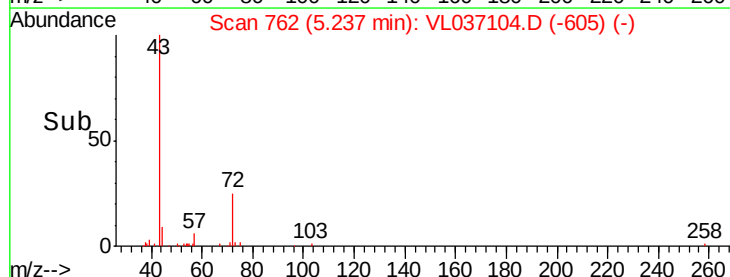


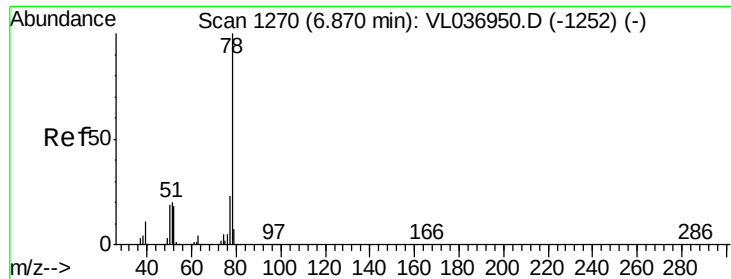
#34
 2-Butanone
 Concen: 0.571 ppbv
 RT: 5.24 min Scan# 762
 Delta R.T. 0.01 min
 Lab File: VL037104.D
 Acq: 2 Jun 2021 16:33

Tgt Ion: 43 Resp: 82639
 Ion Ratio Lower Upper
 43 100
 72 30.3 19.0 28.4#



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

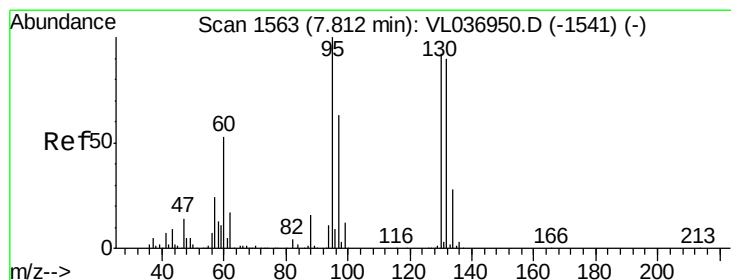
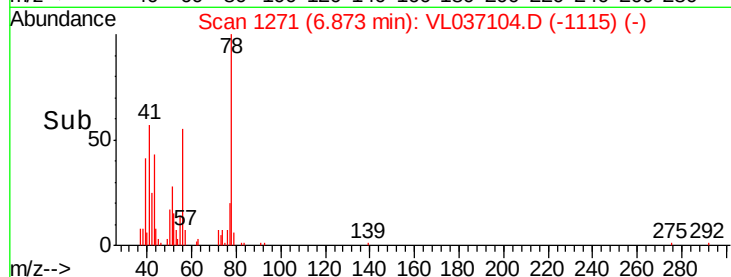
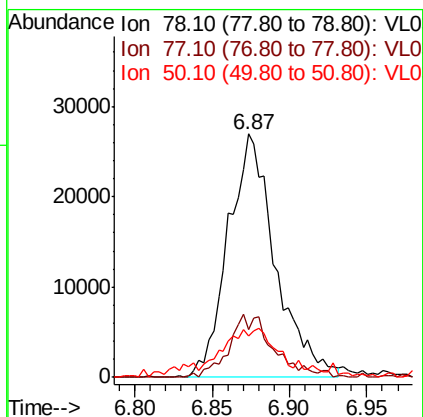
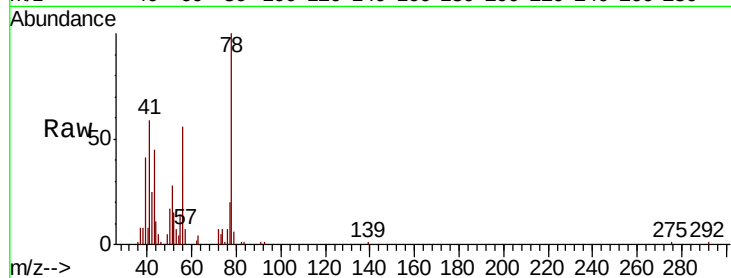




#36
Benzene
Concen: 0.167 ppbv
RT: 6.87 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

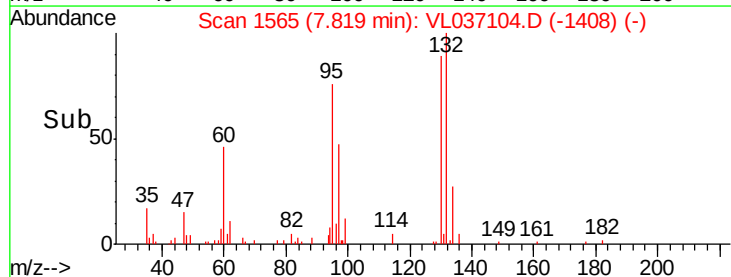
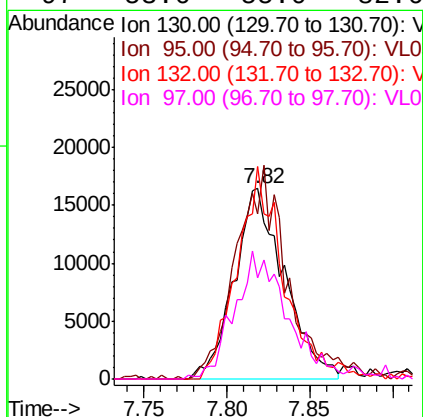
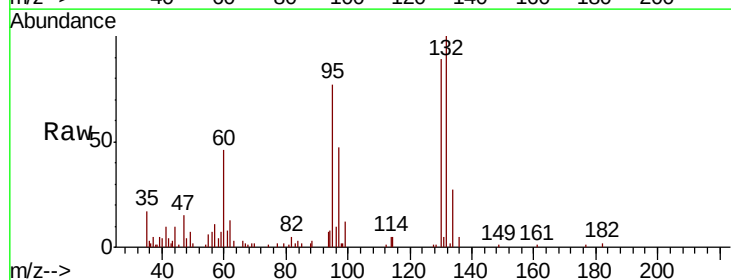
Instrument :
MSVOA_L
ClientSampleId :

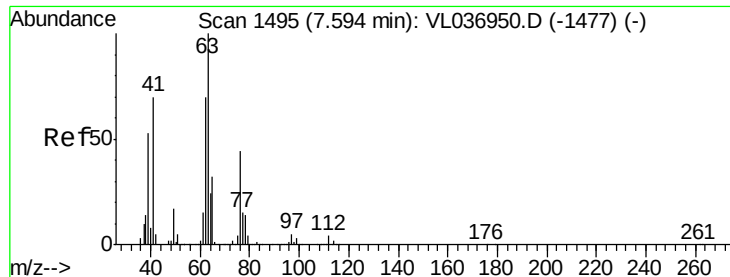
Tot Ion: 78 Resp: 57237
Ion Ratio Lower Upper
78 100
77 19.1 18.6 28.0
50 14.0 15.0 22.4#



#38
Trichloroethene
Concen: 0.236 ppbv
RT: 7.82 min Scan# 1565
Delta R.T. 0.01 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

Tgt Ion: 130 Resp: 34520
Ion Ratio Lower Upper
130 100
95 86.7 86.9 130.3#
132 112.0 78.4 117.6
97 53.6 55.0 82.6#





#39

1,2-Dichloropropane

Concen: 7.152 ppbv

RT: 7.16 min Scan# 1360

Delta R.T. -0.43 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

ClientSampled :

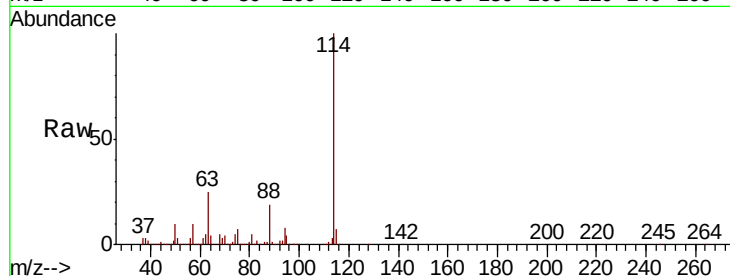
Tot Ion: 63 Resp: 943205

Ion Ratio Lower Upper

63 100

41 0.0 55.7 83.5#

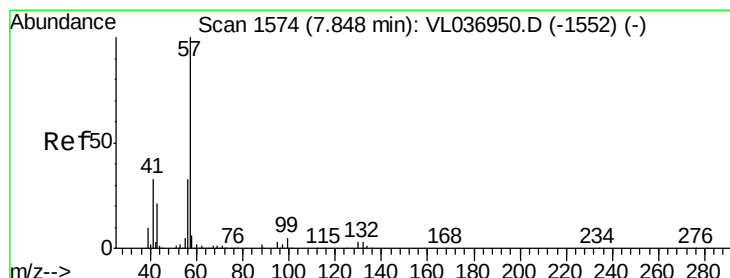
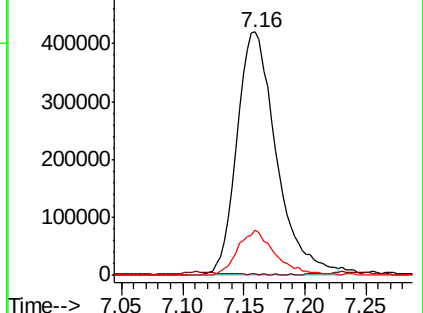
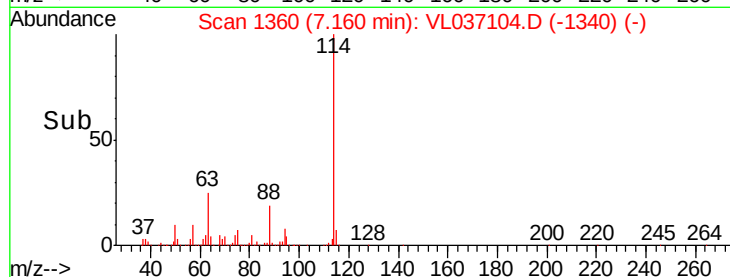
62 18.4 56.2 84.4#



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: 0.063 ppbv

RT: 7.85 min Scan# 1576

Delta R.T. 0.01 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

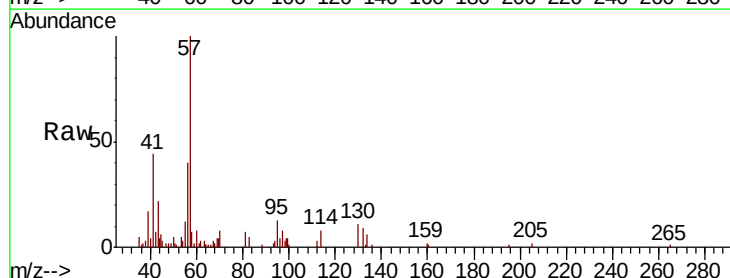
Tgt Ion: 57 Resp: 36845

Ion Ratio Lower Upper

57 100

41 51.1 27.0 40.4#

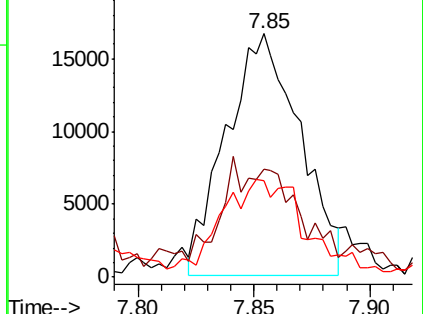
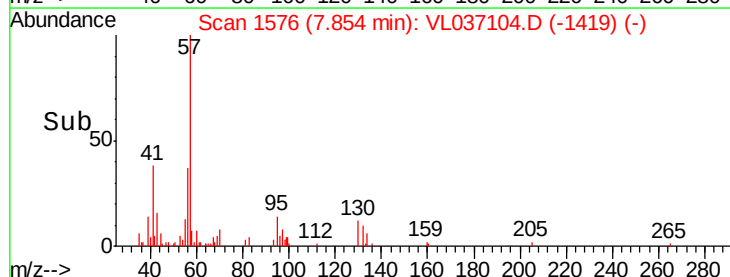
56 50.6 25.4 38.2#

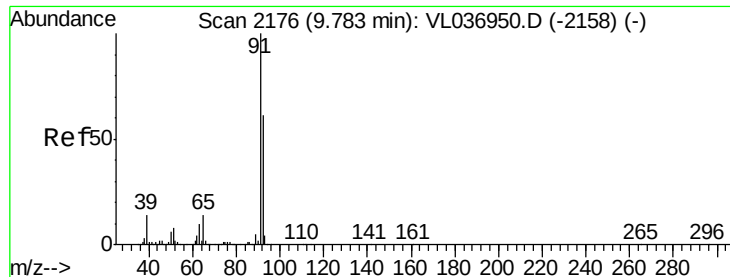


Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#53

Toluene

Concen: 0.486 ppbv

RT: 9.79 min Scan# 2178

Delta R.T. 0.01 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

Instrument :

MSVOA_L

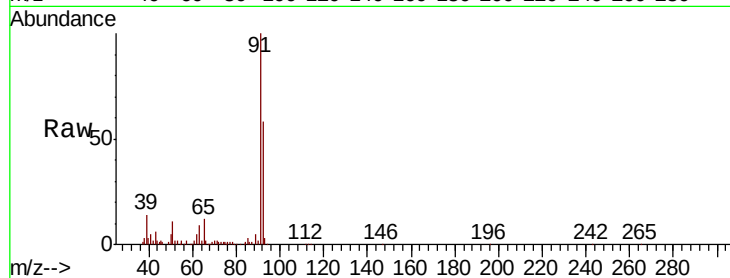
ClientSampleId :

Tot Ion: 91 Resp: 197800

Ion Ratio Lower Upper

91 100

92 60.3 49.5 74.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.79

100000

80000

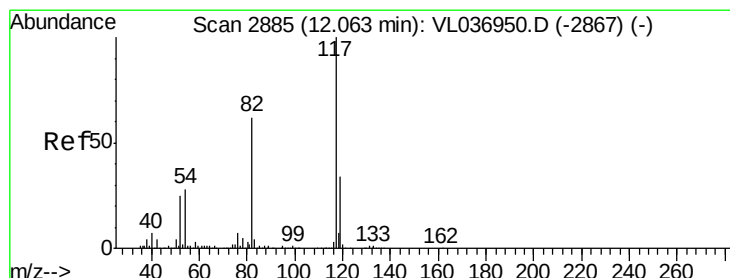
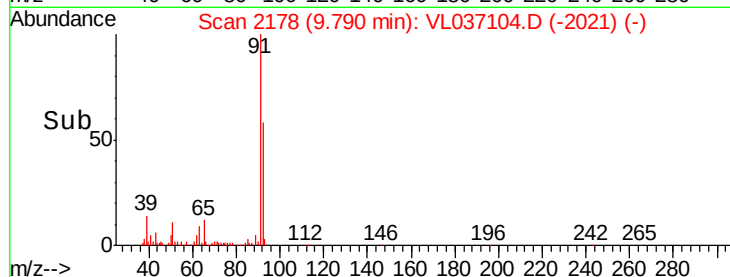
60000

40000

20000

0

Time--> 9.70 9.75 9.80 9.85



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. 0.01 min

Lab File: VL037104.D

Acq: 2 Jun 2021 16:33

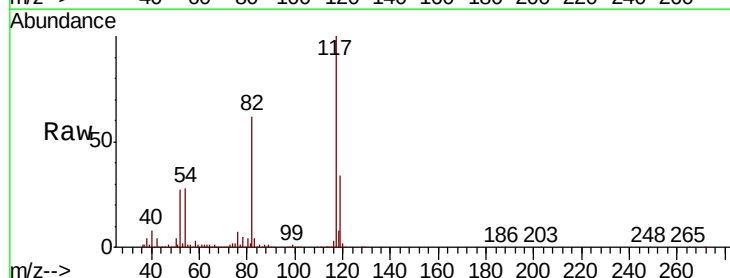
Tgt Ion: 117 Resp: 3576218

Ion Ratio Lower Upper

117 100

82 63.3 52.6 79.0

119 33.8 46.6 70.0#



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

2000000

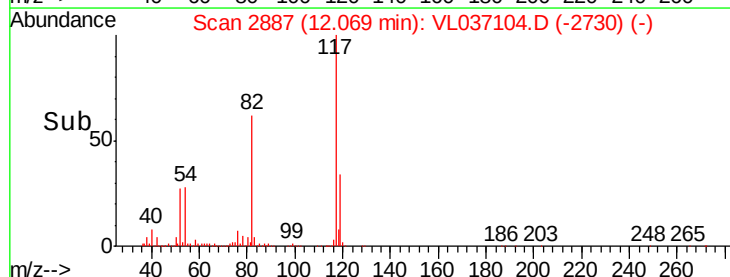
1500000

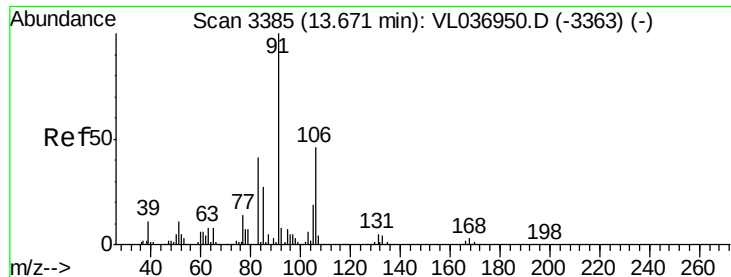
1000000

500000

0

Time--> 12.00 12.10 12.20

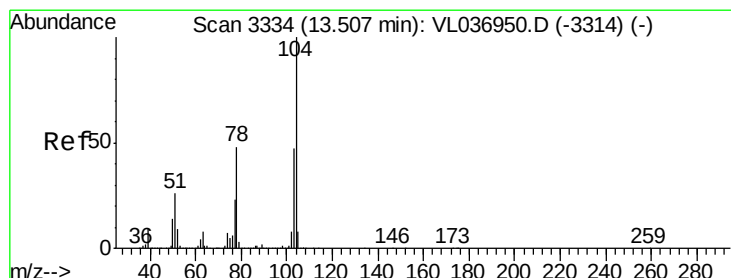
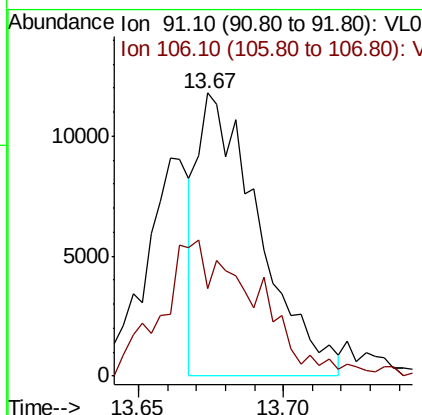
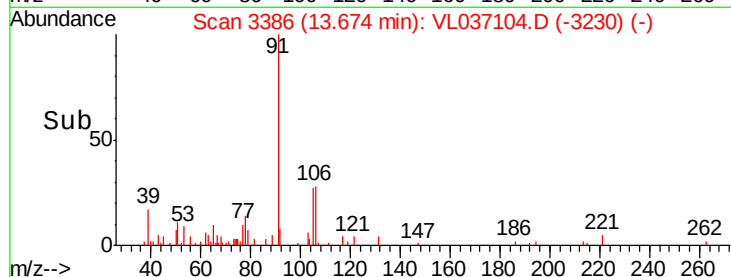
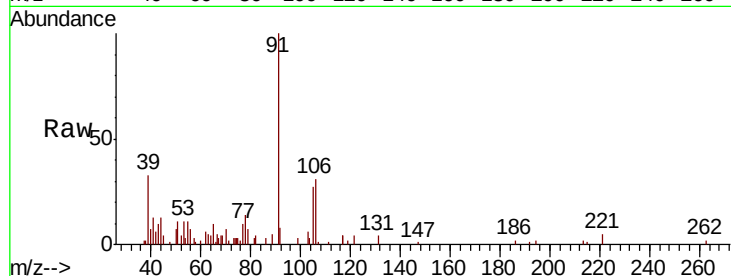




#60
o-Xylene
Concen: 0.044 ppbv
RT: 13.67 min Scan# 3386
Delta R.T. 0.00 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

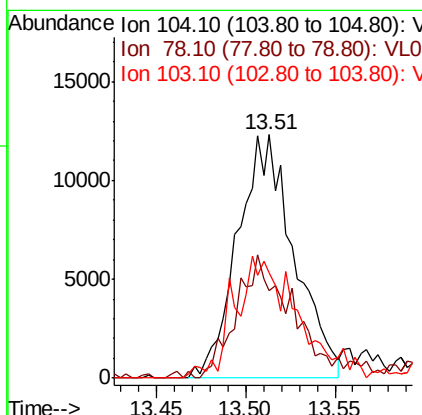
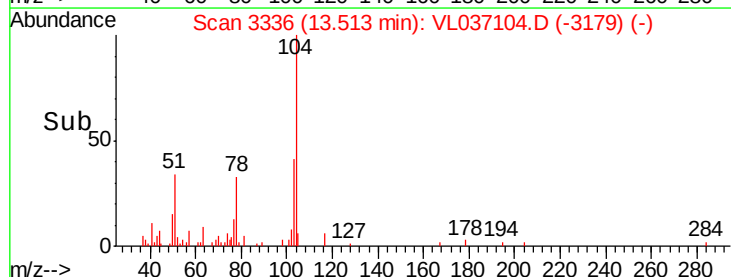
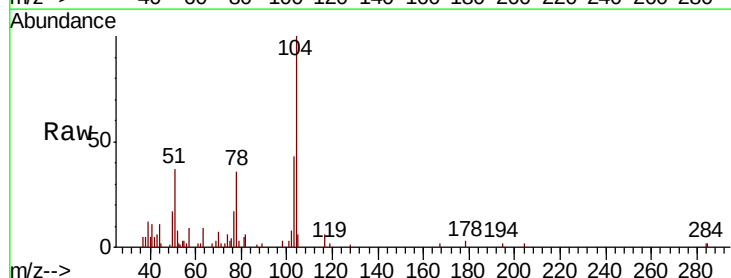
Instrument :
MSVOA_L
ClientSampleId :

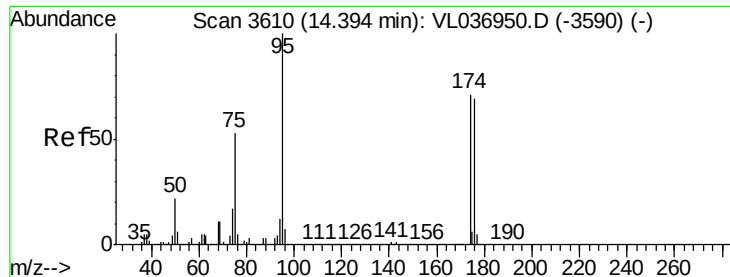
Tot Ion: 91 Resp: 17320
Ion Ratio Lower Upper
91 100
106 75.3 23.4 70.3#



#61
Styrene
Concen: 0.121 ppbv
RT: 13.51 min Scan# 3336
Delta R.T. 0.01 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

Tgt Ion:104 Resp: 27055
Ion Ratio Lower Upper
104 100
78 52.8 39.0 58.6
103 57.0 38.0 57.0

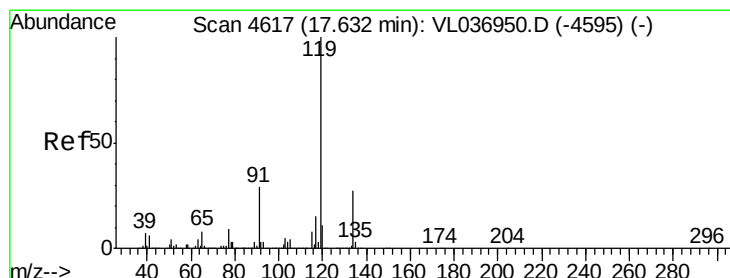
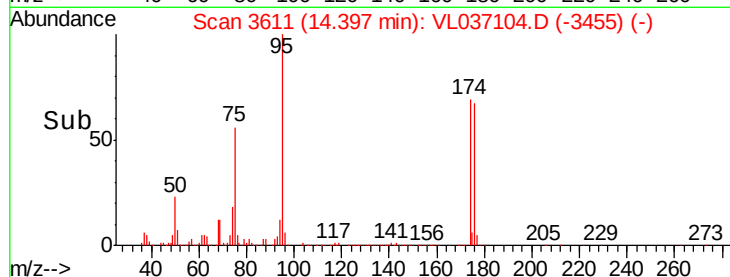
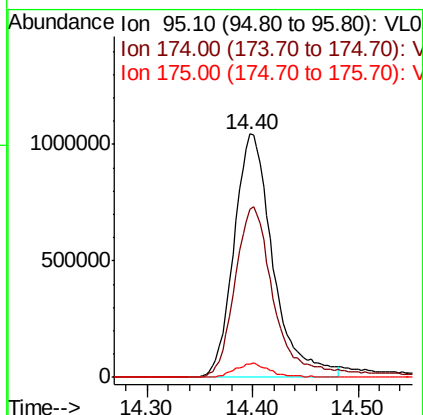
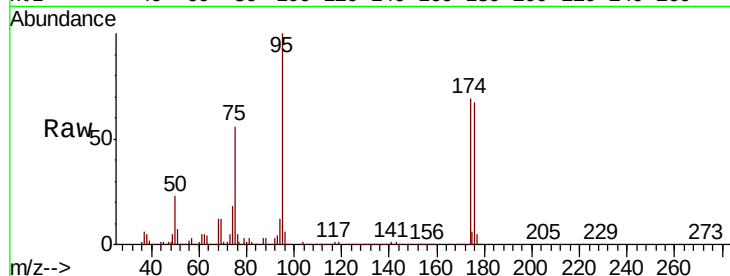




#68
1-Bromo-4-Fluorobenzene
Concen: 9.982 ppbv
RT: 14.40 min Scan# 3611
Delta R.T. 0.00 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

Instrument :
MSVOA_L
ClientSampleId :

Tot Ion: 95 Resp: 2681825
Ion Ratio Lower Upper
95 100
174 73.6 58.4 87.6
175 5.5 4.4 6.6



#69
p-Isopropyltoluene
Concen: 0.039 ppbv
RT: 17.64 min Scan# 4621
Delta R.T. 0.01 min
Lab File: VL037104.D
Acq: 2 Jun 2021 16:33

Tgt Ion: 119 Resp: 23426
Ion Ratio Lower Upper
119 100
134 0.0 21.2 31.8#
91 84.5 22.2 33.4#

