

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090821\
 Data File : VL037568.D
 Acq On : 8 Sep 2021 12:25
 Operator : SY/AP
 Sample : M3663-05DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-2DL

Quant Time: Sep 09 09:11:02 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL081621AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Aug 17 02:13:47 2021
 QLast Update : Tue Aug 17 02:13:47 2021
 Response via : Initial Calibration

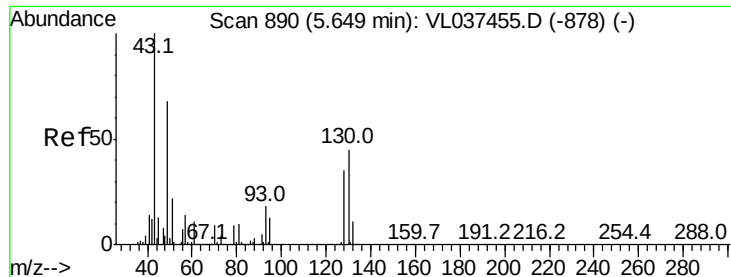
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1759938	10.00	ppbv	0.02
33) 1,4-Difluorobenzene	7.18	114	5070862	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.09	117	4515332	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	3291072	10.26	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.60%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.05	85	11628	0.041 ppbv	95
3) Chlorodifluoromethane	2.97	51	147801	0.439 ppbv #	60
9) Propene	3.02	41	323236	2.681 ppbv	86
10) Heptane	8.13	43	51421	0.185 ppbv	98
13) Ethanol	3.62	45	29999	2.557 ppbv #	36
15) Acetone	3.85	43	2389990	13.344 ppbv	97
16) 1,3-Butadiene	3.31	39	134100	1.167 ppbv #	22
17) tert-Butyl alcohol	4.30	59	198604	1.214 ppbv #	90
19) Isopropyl Alcohol	3.98	45	44728	0.436 ppbv #	95
20) Methylene Chloride	4.35	84	270306	3.014 ppbv	97
23) Vinyl Acetate	5.07	43	24819	0.094 ppbv #	35
25) Ethyl Acetate	5.69	43	214330	0.471 ppbv #	80
26) Hexane	5.69	57	307087	1.381 ppbv #	45
27) Carbon Disulfide	4.56	76	80067	0.404 ppbv #	75
30) Cyclohexane	7.14	84	5732	0.031 ppbv #	1
32) 1,1,1-Trichloroethane	6.53	97	20019	0.065 ppbv #	1
34) 2-Butanone	5.26	43	311239	1.503 ppbv #	81
36) Benzene	6.90	78	80790	0.190 ppbv #	89
38) Trichloroethene	7.84	130	1872647	10.707 ppbv	97
39) 1,2-Dichloropropane	7.18	63	1198699	7.318 ppbv #	26
51) 2-Hexanone	10.15	43	11484	0.092 ppbv #	27
52) Tetrachloroethene	11.23	164	1537482	8.802 ppbv	98
53) Toluene	9.81	91	1945510	3.997 ppbv	99
58) Ethyl Benzene	12.72	91	241281	0.385 ppbv	97
59) m/p-Xylene	12.97	91	1093746	2.013 ppbv	97
60) o-Xylene	13.70	91	356009	0.702 ppbv	100
72) 4-Ethyltoluene	15.85	105	30500	0.051 ppbv #	35
73) 1,3,5-Trimethylbenzene	16.01	105	28727	0.051 ppbv #	80
74) 1,2,4-Trimethylbenzene	16.77	105	263452	0.442 ppbv #	65

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 897

Delta R.T. 0.02 min

Lab File: VL037568.D

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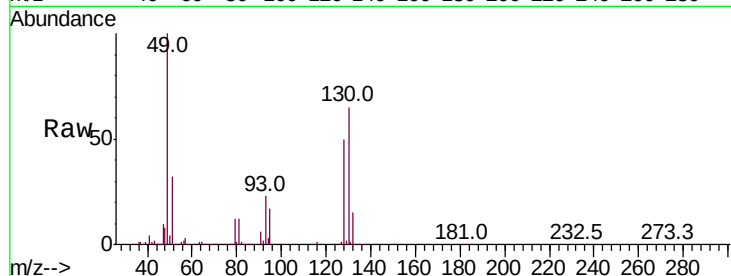
Tot Ion: 49 Resp: 1759938

Ion Ratio Lower Upper

49 100

128 52.9 27.5 82.4

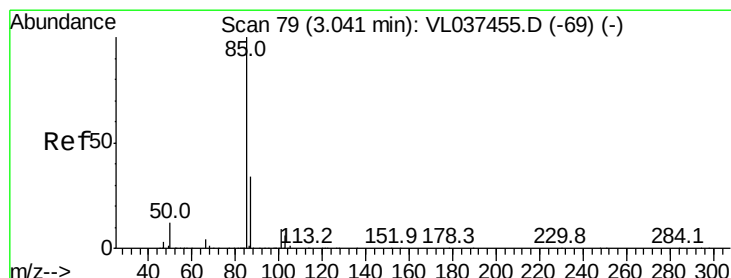
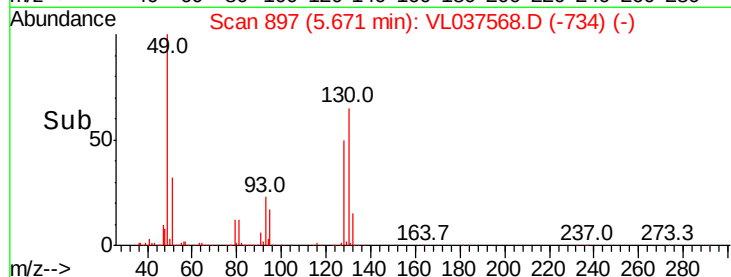
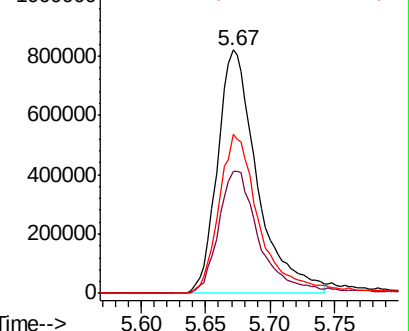
130 68.5 34.0 101.8



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: 0.041 ppbv

RT: 3.05 min Scan# 82

Delta R.T. 0.01 min

Lab File: VL037568.D

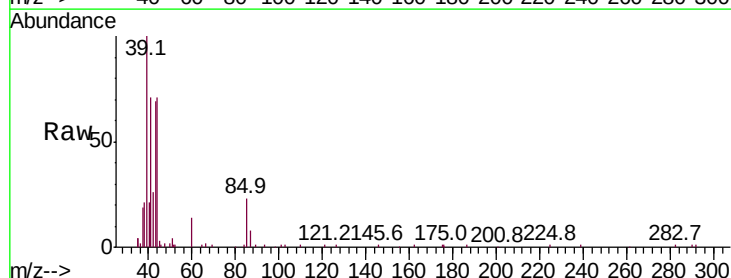
Acq: 8 Sep 2021 12:25

Tgt Ion: 85 Resp: 11628

Ion Ratio Lower Upper

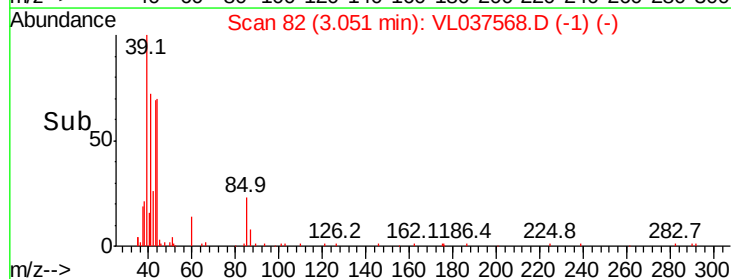
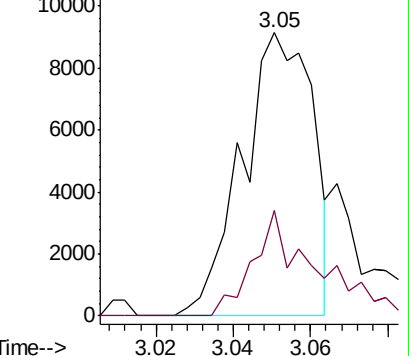
85 100

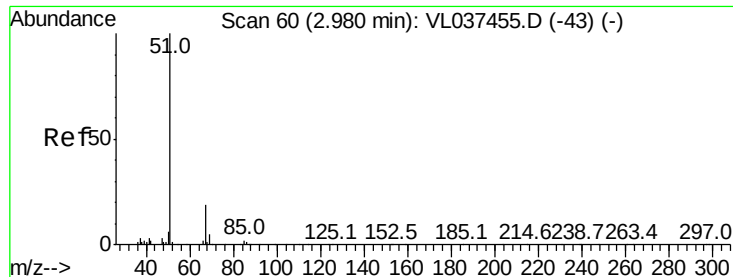
87 37.3 27.6 41.4



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

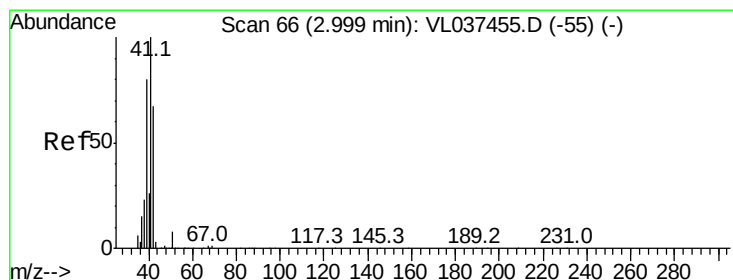
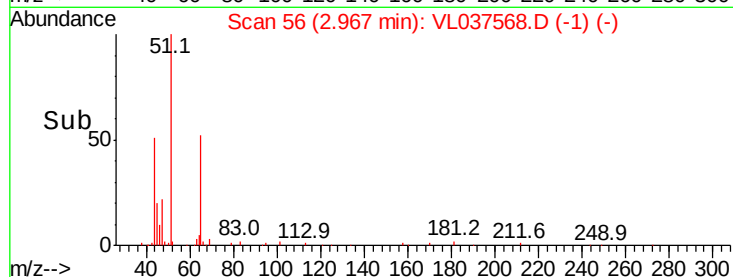
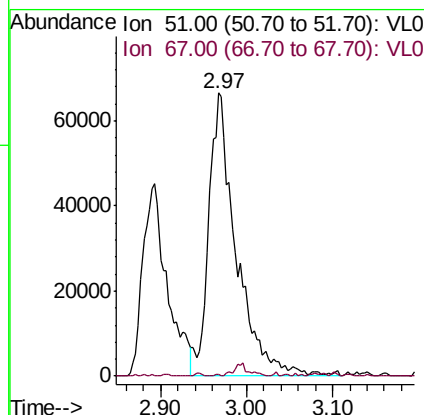
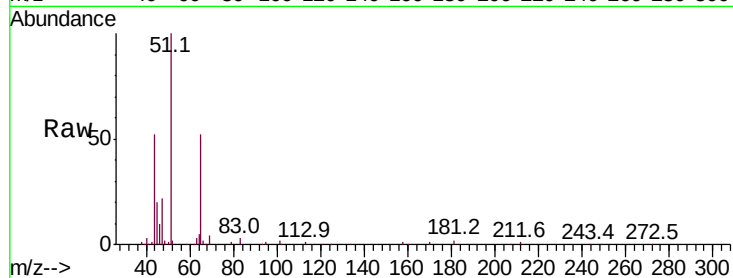




#3
 Chlorodifluoromethane
 Concen: 0.439 ppbv
 RT: 2.97 min Scan# 56
 Delta R.T. -0.01 min
 Lab File: VL037568.D
 Acq: 8 Sep 2021 12:25

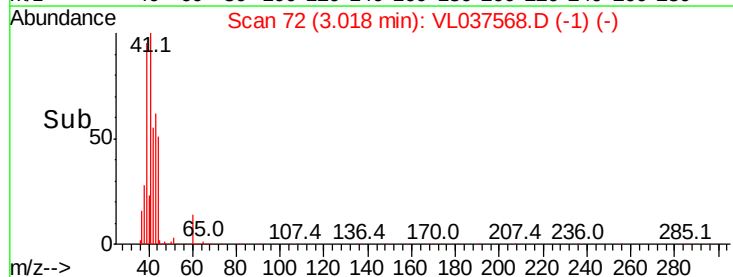
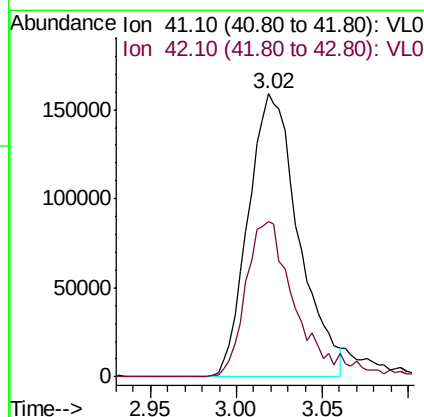
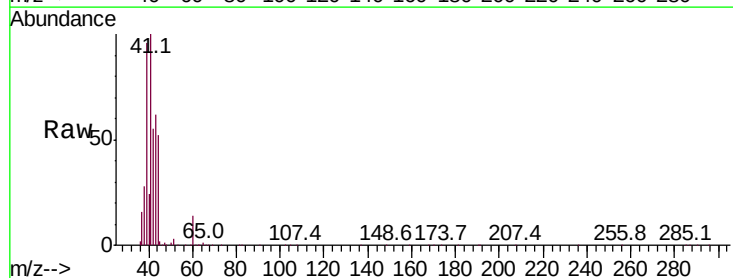
Instrument :
 MSVOA_L
 ClientSampleId :
 SV-2DL

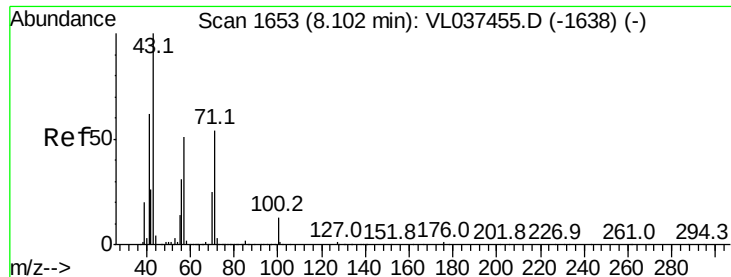
Tot Ion: 51 Resp: 147801
 Ion Ratio Lower Upper
 51 100
 67 0.3 14.2 21.2#



#9
 Propene
 Concen: 2.681 ppbv
 RT: 3.02 min Scan# 72
 Delta R.T. 0.02 min
 Lab File: VL037568.D
 Acq: 8 Sep 2021 12:25

Tgt Ion: 41 Resp: 323236
 Ion Ratio Lower Upper
 41 100
 42 55.9 53.7 80.5

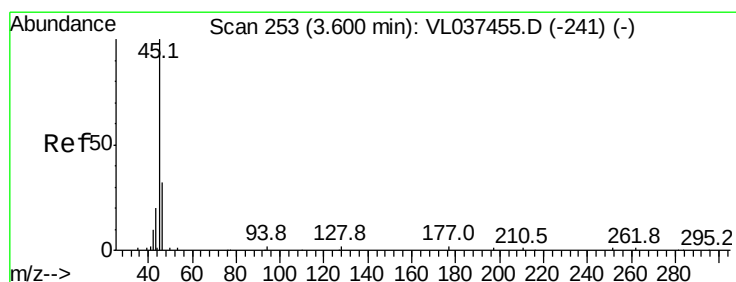
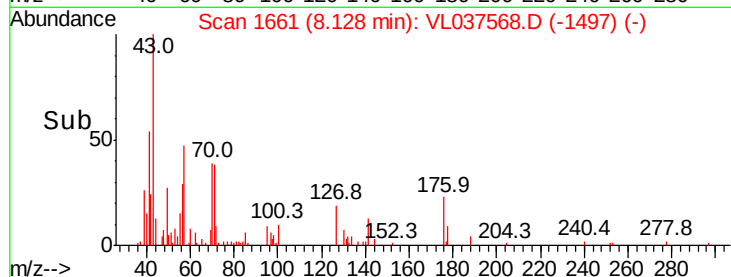
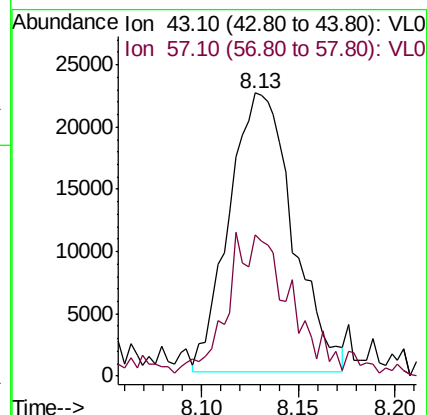
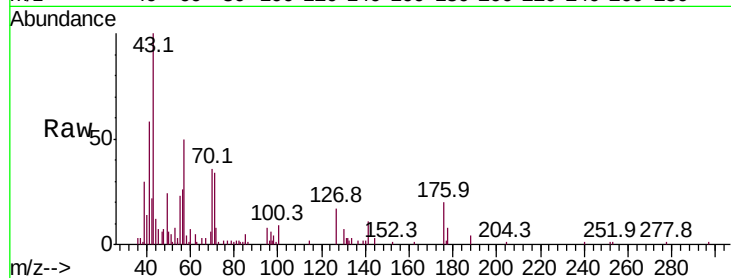




#10
Heptane
Concen: 0.185 ppbv
RT: 8.13 min Scan# 1661
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

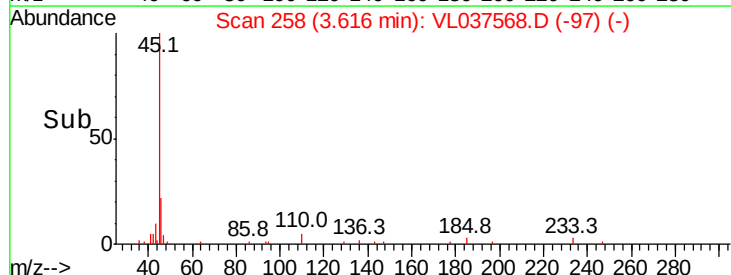
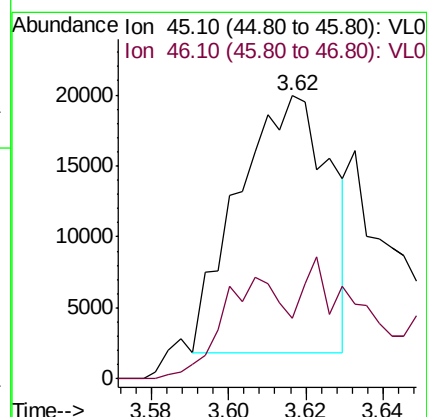
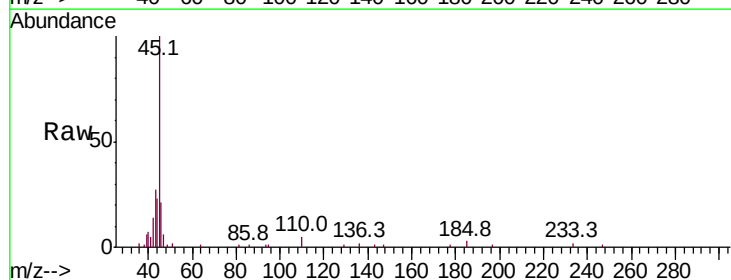
Instrument :
MSVOA_L
ClientSampleId :
SV-2DL

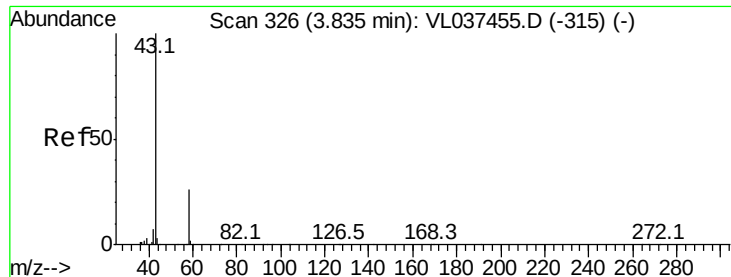
Tot Ion: 43 Resp: 51421
Ion Ratio Lower Upper
43 100
57 50.2 41.0 61.6



#13
Ethanol
Concen: 2.557 ppbv
RT: 3.62 min Scan# 258
Delta R.T. 0.02 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

Tgt Ion: 45 Resp: 29999
Ion Ratio Lower Upper
45 100
46 72.5 14.1 56.5#





#15

Acetone

Concen: 13.344 ppbv

RT: 3.85 min Scan# 331

Delta R.T. 0.02 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampleId :

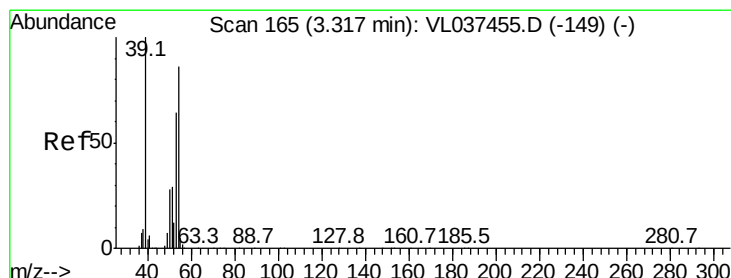
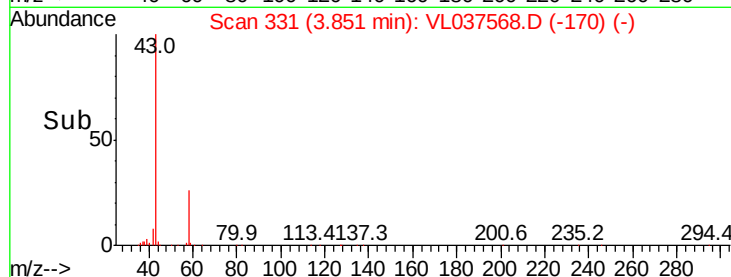
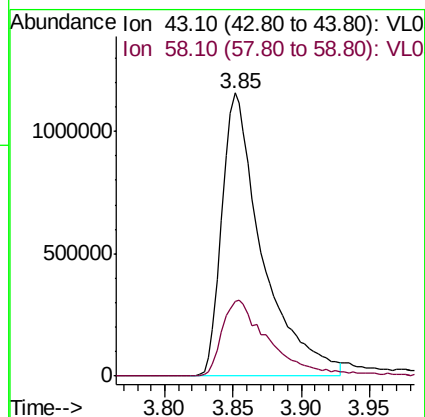
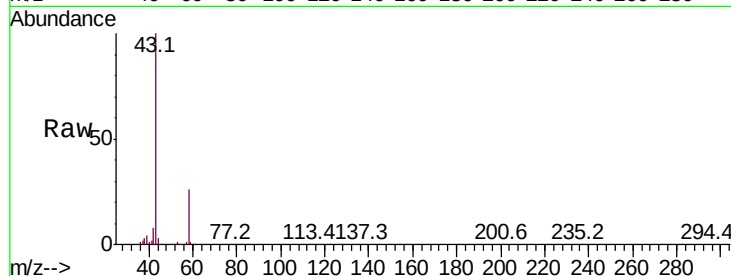
SV-2DL

Tot Ion: 43 Resp: 2389990

Ion Ratio Lower Upper

43 100

58 32.5 24.8 37.2



#16

1,3-Butadiene

Concen: 1.167 ppbv

RT: 3.31 min Scan# 163

Delta R.T. -0.01 min

Lab File: VL037568.D

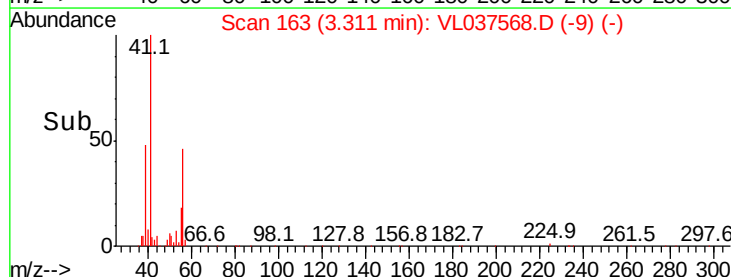
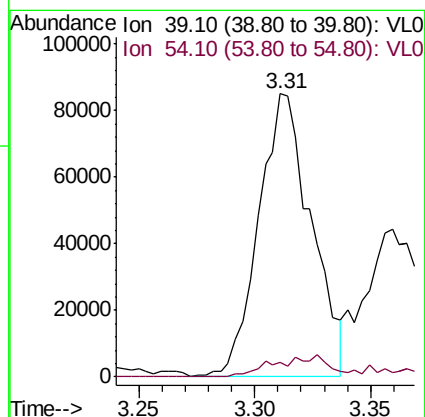
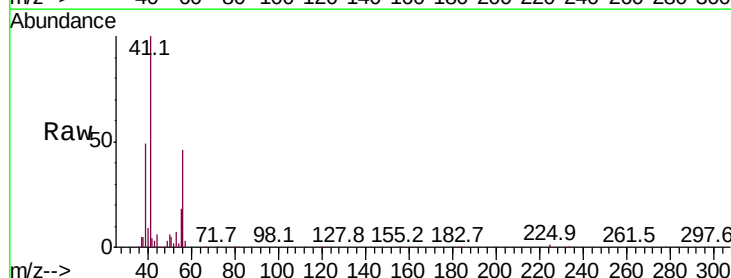
Acq: 8 Sep 2021 12:25

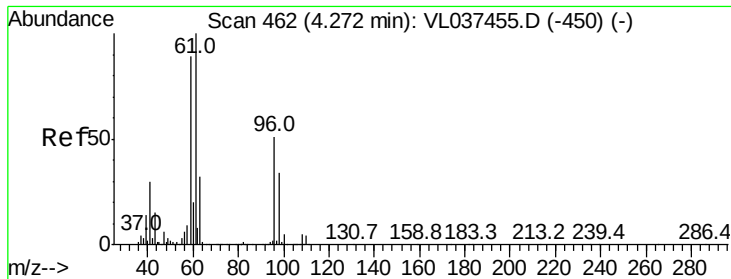
Tgt Ion: 39 Resp: 134100

Ion Ratio Lower Upper

39 100

54 11.0 63.7 95.5#



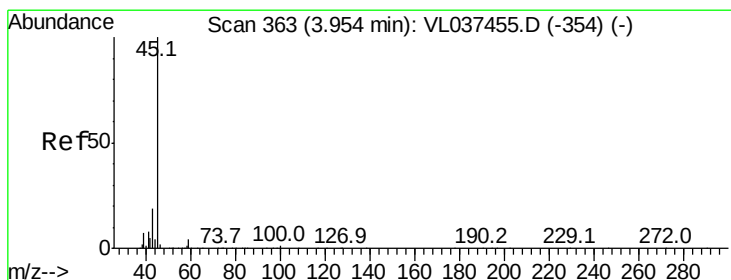
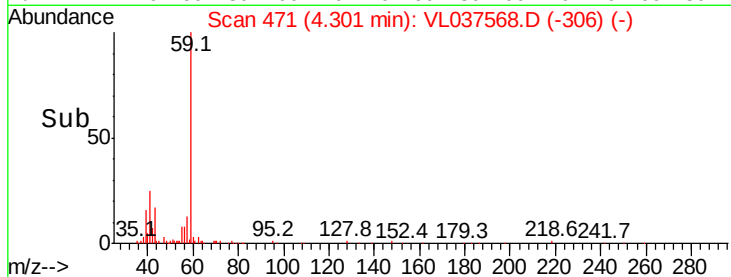
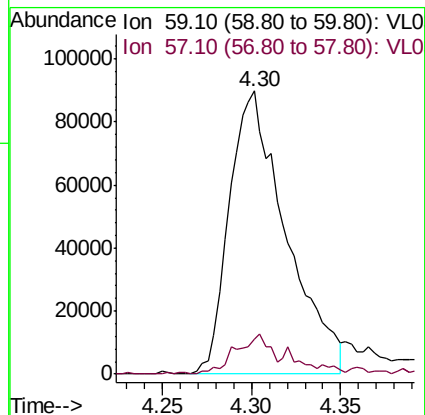
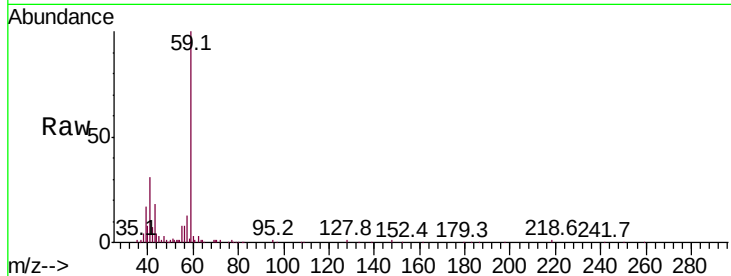


#17

tert-Butyl alcohol
Concen: 1.214 ppbv
RT: 4.30 min Scan# 471
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

Instrument :
MSVOA_L
ClientSampleId :
SV-2DL

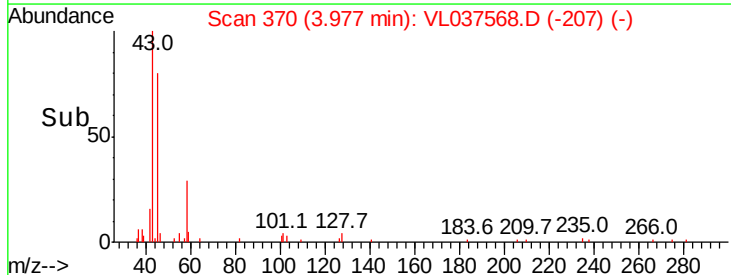
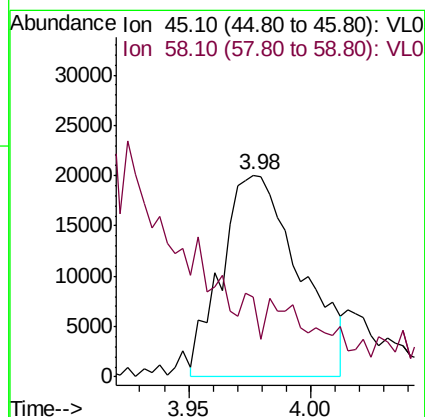
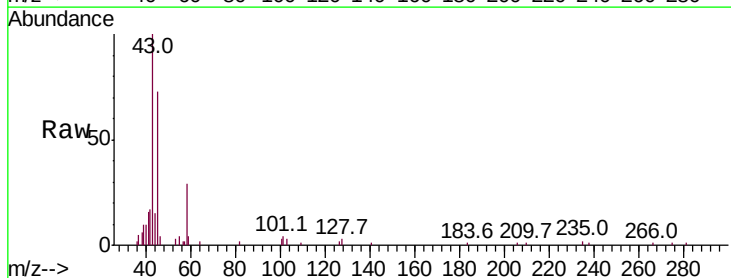
Tot Ion: 59 Resp: 198604
Ion Ratio Lower Upper
59 100
57 14.0 8.3 12.5#

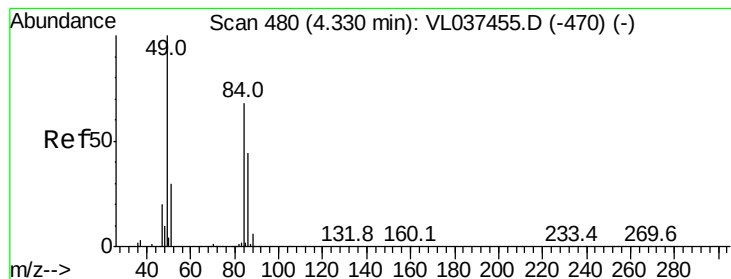


#19

Isopropyl Alcohol
Concen: 0.436 ppbv
RT: 3.98 min Scan# 370
Delta R.T. 0.02 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

Tgt Ion: 45 Resp: 44728
Ion Ratio Lower Upper
45 100
58 0.0 1.4 2.2#





#20

Methvlene Chloride

Concen: 3.014 ppbv

RT: 4.35 min Scan# 486

Delta R.T. 0.02 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampleId :

SV-2DL

Tot Ion: 84 Resp: 270306

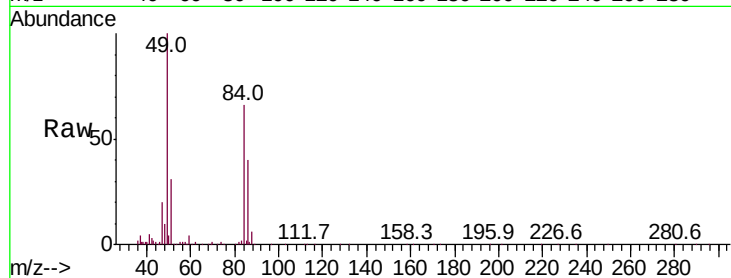
Ion Ratio Lower Upper

84 100

49 151.0 118.2 177.2

51 45.9 36.6 55.0

86 60.5 51.8 77.6

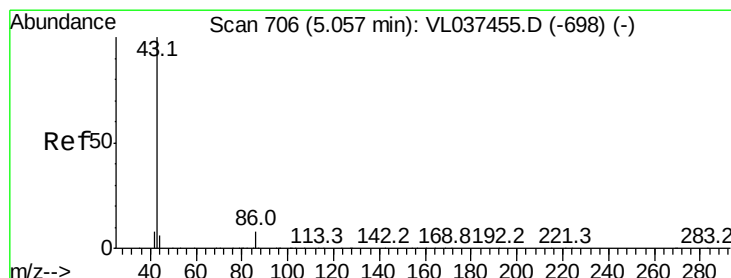
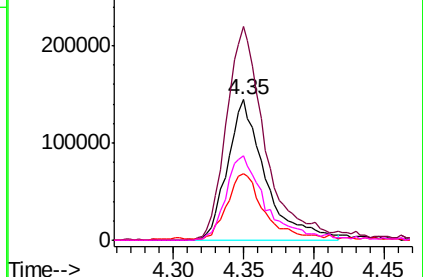
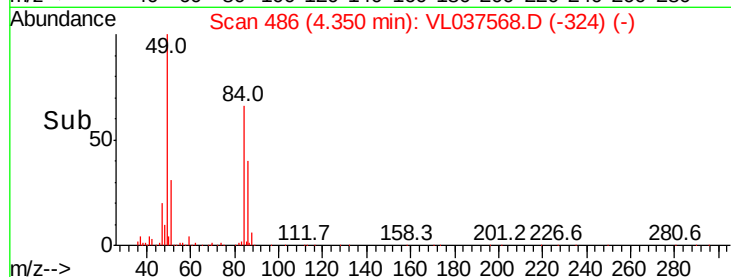


Abundance Ion 84.00 (83.70 to 84.70): VL0

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: 0.094 ppbv

RT: 5.07 min Scan# 711

Delta R.T. 0.02 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Tgt Ion: 43 Resp: 24819

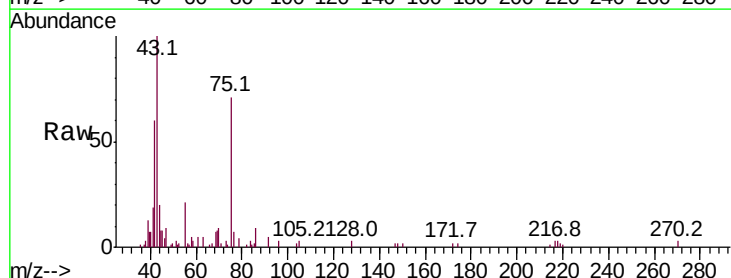
Ion Ratio Lower Upper

43 100

86 8.2 5.7 8.5

42 56.8 7.4 11.2#

44 17.3 4.3 6.5#

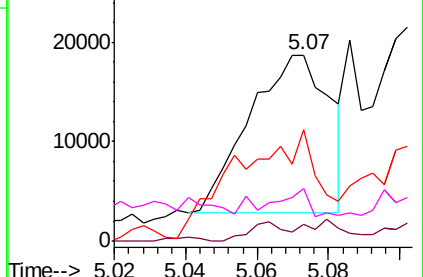
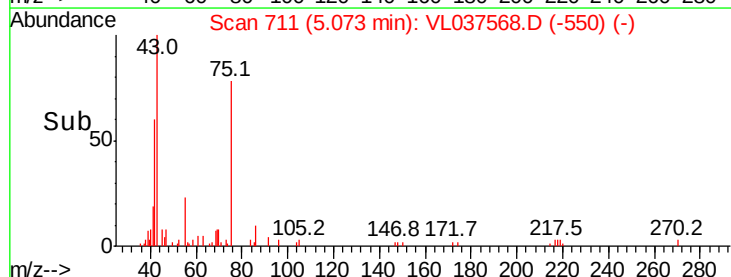


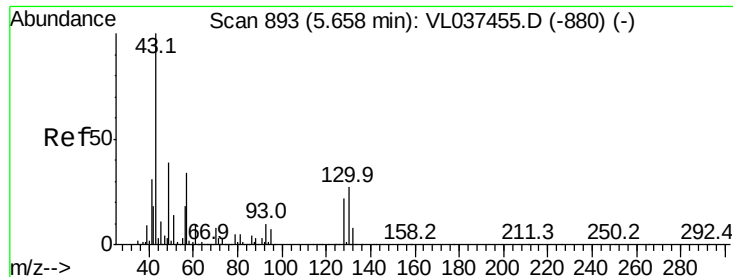
Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.471 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampleId :

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Tot Ion: 43 Resp: 214330

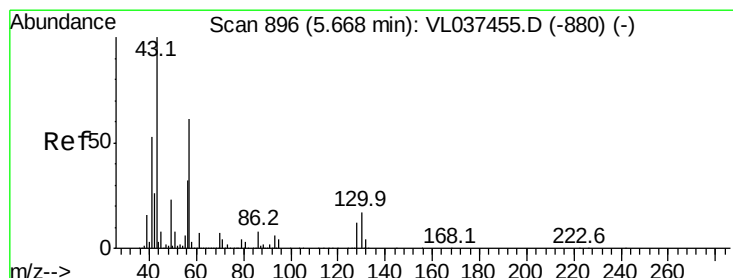
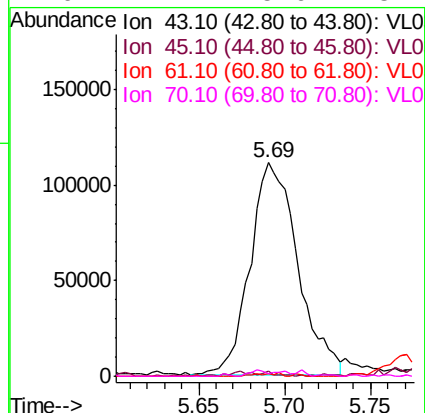
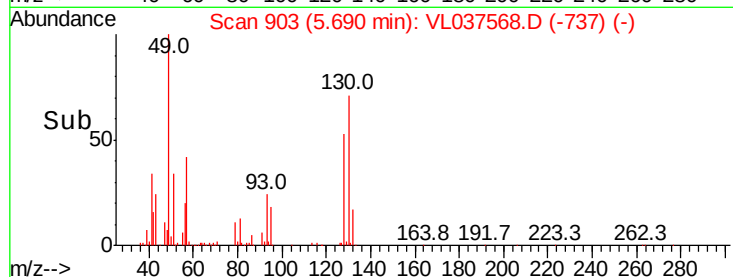
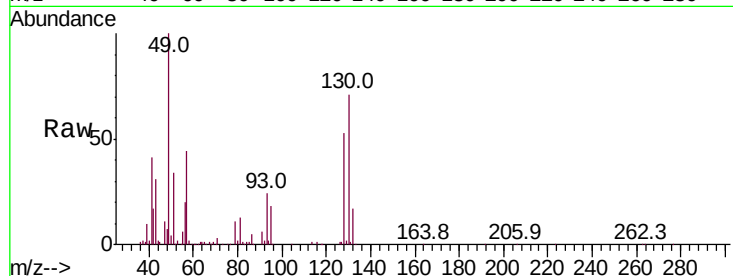
Ion Ratio Lower Upper

43 100

45 1.9 8.0 12.0#

61 1.0 8.0 12.0#

70 2.7 5.6 8.4#



#26

Hexane

Concen: 1.381 ppbv

RT: 5.69 min Scan# 903

Delta R.T. 0.02 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Tgt Ion: 57 Resp: 307087

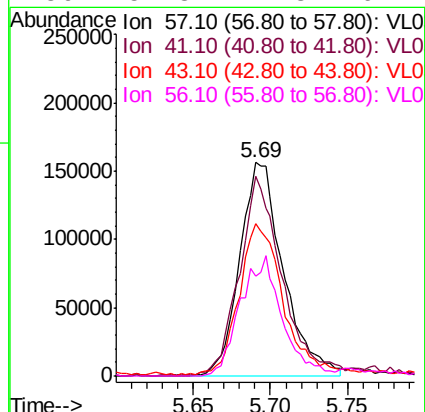
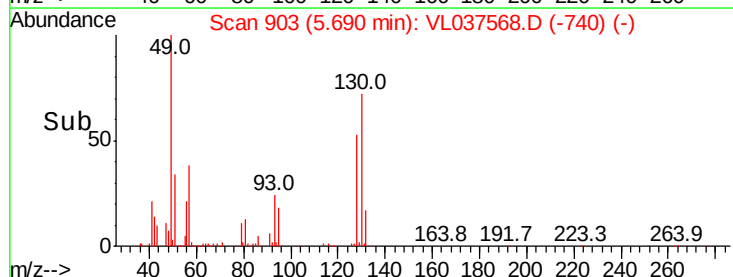
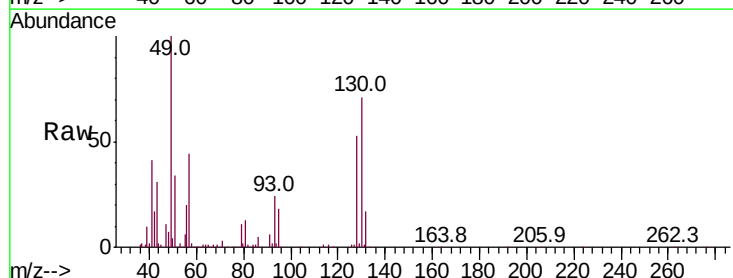
Ion Ratio Lower Upper

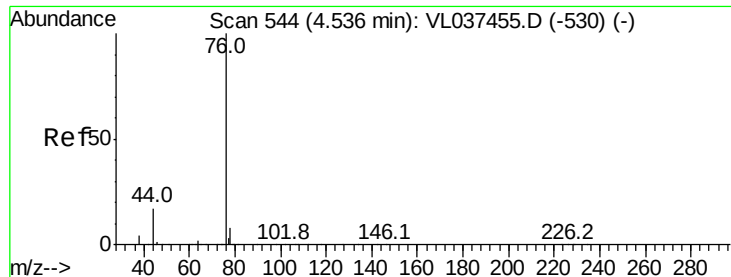
57 100

41 91.4 72.3 108.5

43 72.3 172.3 258.5#

56 57.8 42.8 64.2





#27

Carbon Disulfide

Concen: 0.404 ppbv

RT: 4.56 min Scan# 550

Delta R.T. 0.02 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

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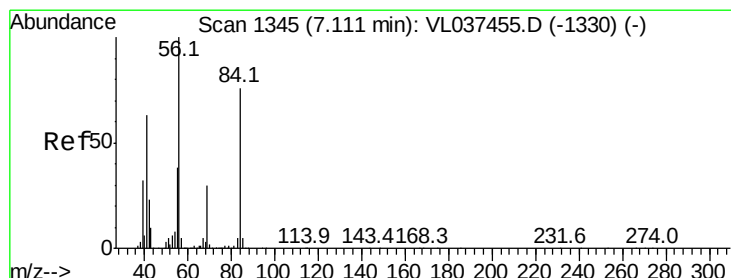
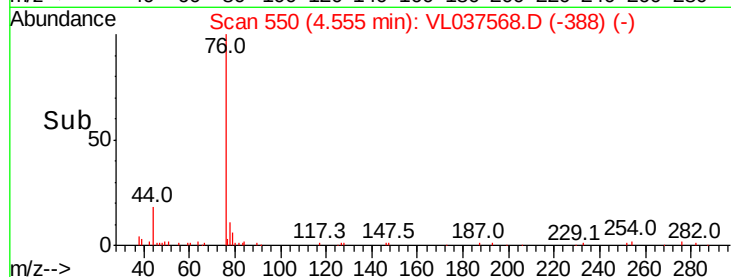
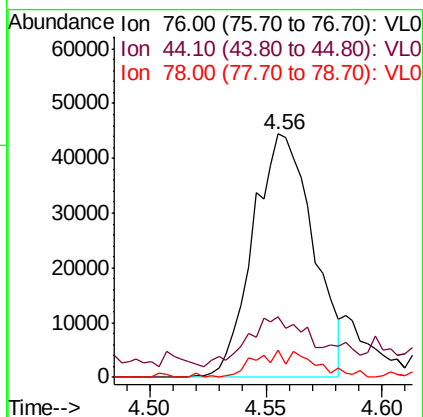
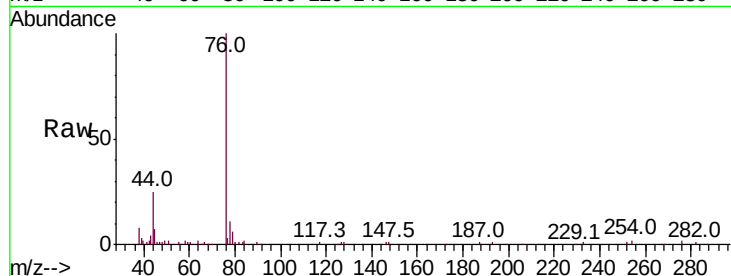
Tot Ion: 76 Resp: 80067

Ion Ratio Lower Upper

76 100

44 33.4 13.9 20.9#

78 11.5 7.9 11.9



#30

Cyclohexane

Concen: 0.031 ppbv

RT: 7.14 min Scan# 1355

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

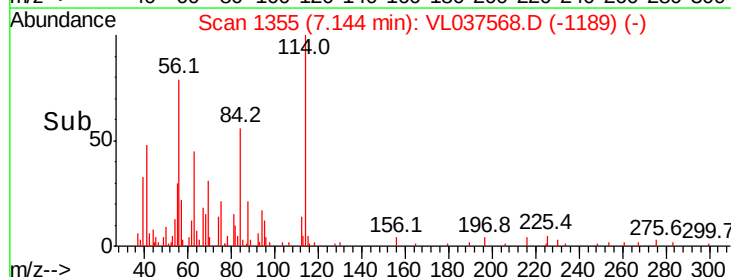
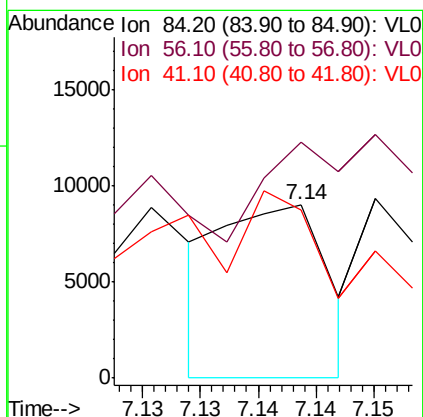
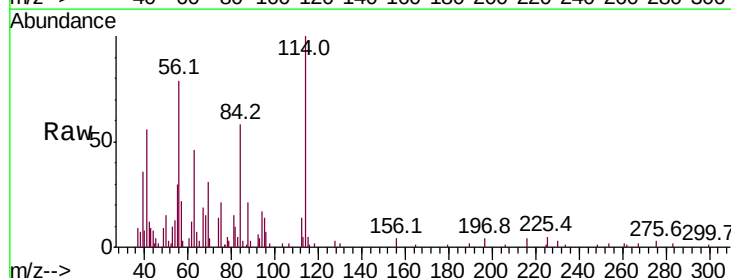
Tgt Ion: 84 Resp: 5732

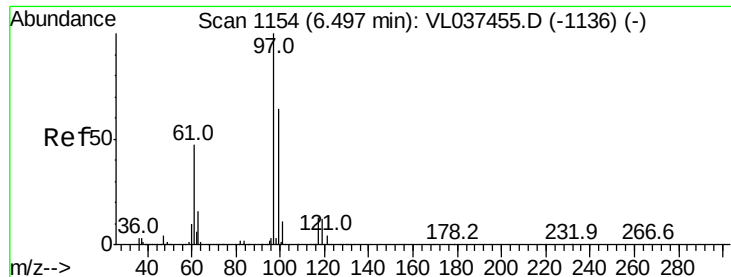
Ion Ratio Lower Upper

84 100

56 0.0 110.6 165.8#

41 302.5 67.0 100.6#





#32

1,1,1-Trichloroethane

Concen: 0.065 ppbv

RT: 6.53 min Scan# 1163

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampleId :

SV-2DL

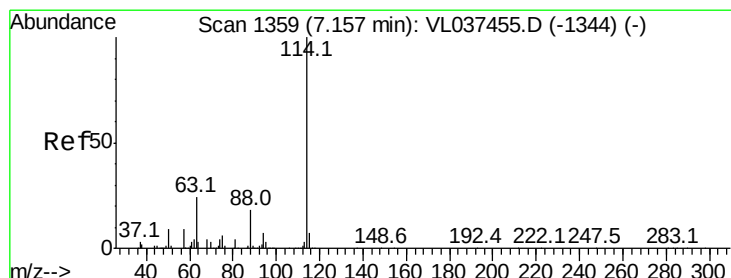
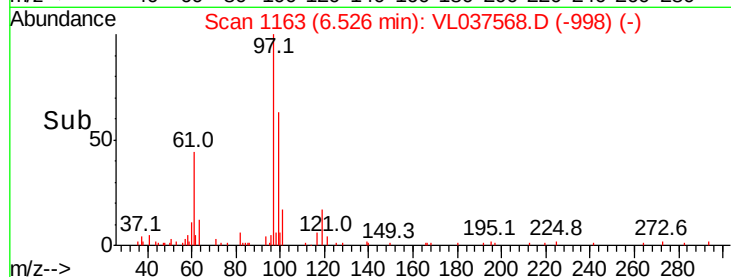
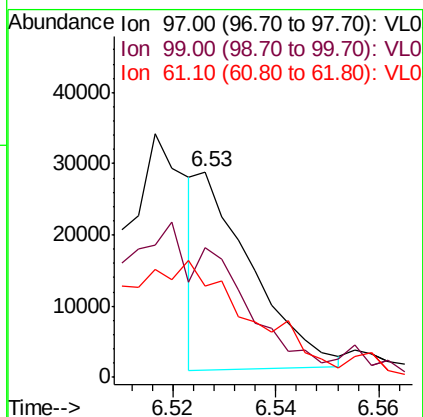
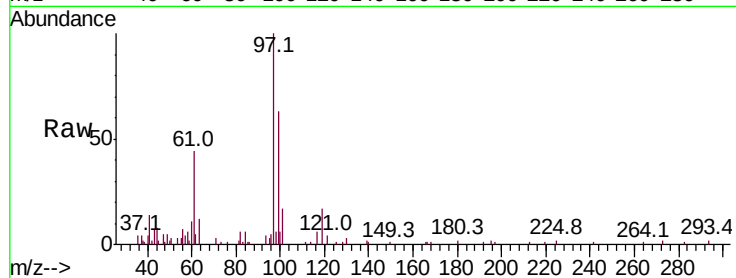
Tot Ion: 97 Resp: 20019

Ion Ratio Lower Upper

97 100

99 221.7 51.8 77.6#

61 183.6 39.6 59.4#



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 min Scan# 1367

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

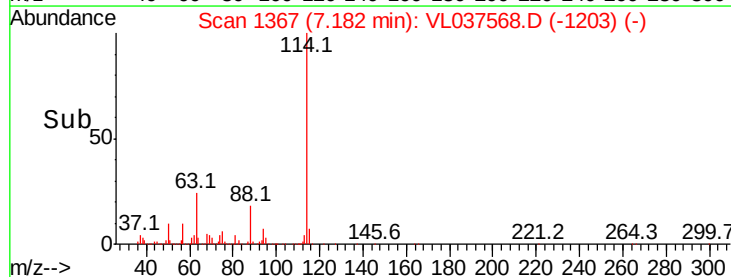
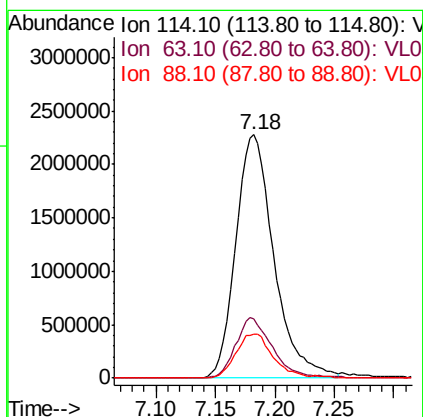
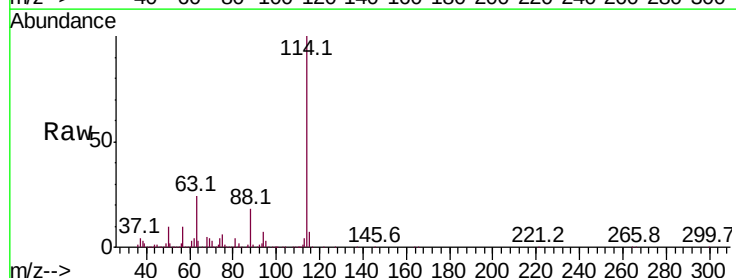
Tgt Ion: 114 Resp: 5070862

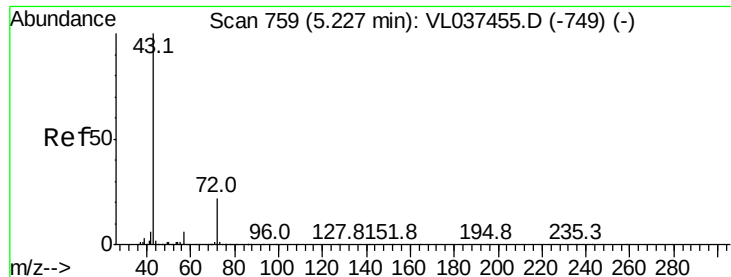
Ion Ratio Lower Upper

114 100

63 24.1 19.3 28.9

88 18.1 14.2 21.4

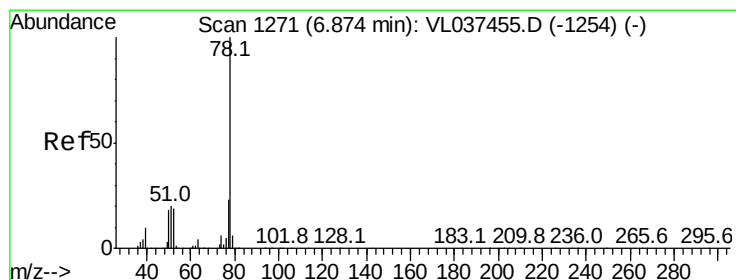
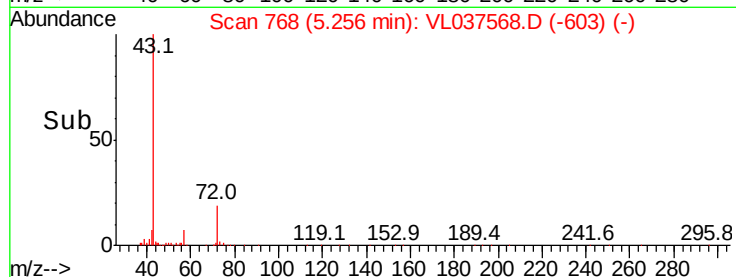
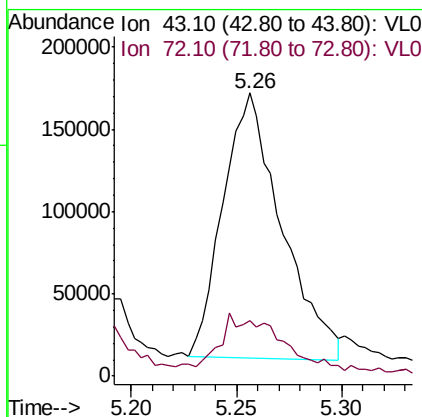
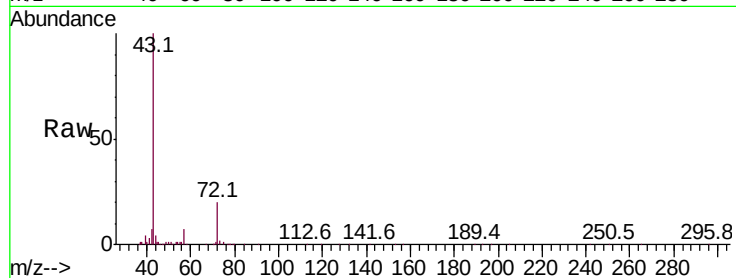




#34
2-Butanone
Concen: 1.503 ppbv
RT: 5.26 min Scan# 768
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

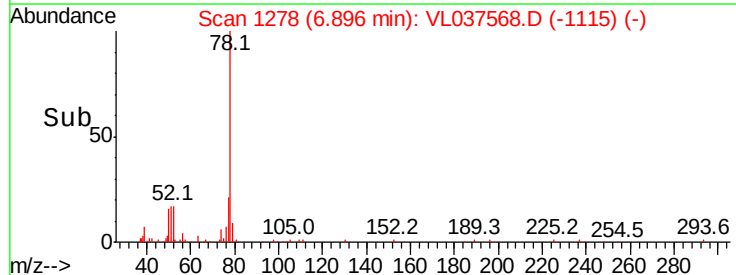
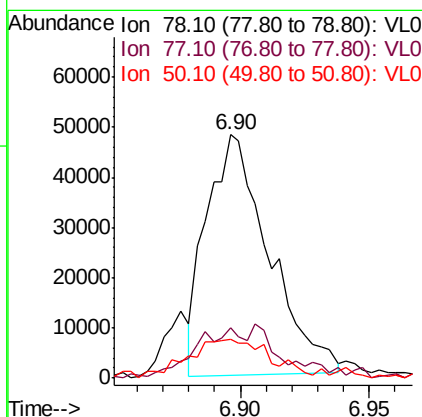
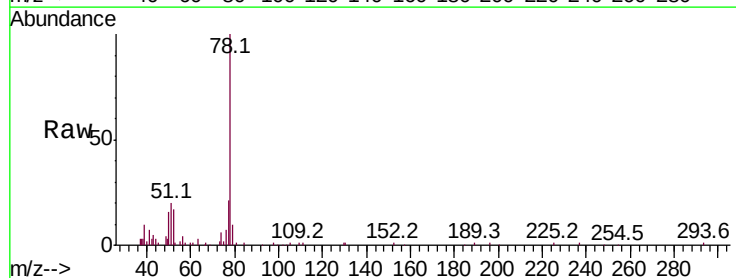
Instrument :
MSVOA_L
ClientSampleId :
SV-2DL

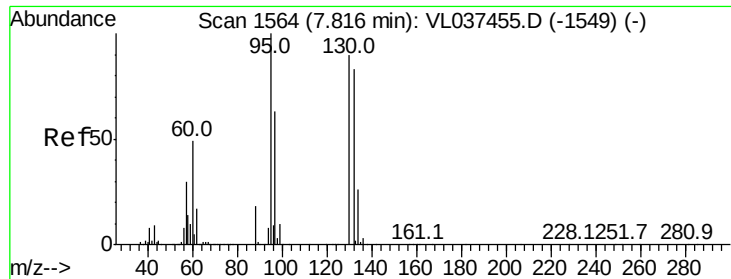
Tot Ion: 43 Resp: 311239
Ion Ratio Lower Upper
43 100
72 30.5 17.4 26.0#



#36
Benzene
Concen: 0.190 ppbv
RT: 6.90 min Scan# 1278
Delta R.T. 0.02 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

Tgt Ion: 78 Resp: 80790
Ion Ratio Lower Upper
78 100
77 17.2 18.2 27.4#
50 14.1 14.6 21.8#





#38

Trichloroethene

Concen: 10.707 ppbv

RT: 7.84 min Scan# 1572

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampled :

SV-2DL

Tot Ion:130 Resp: 1872647

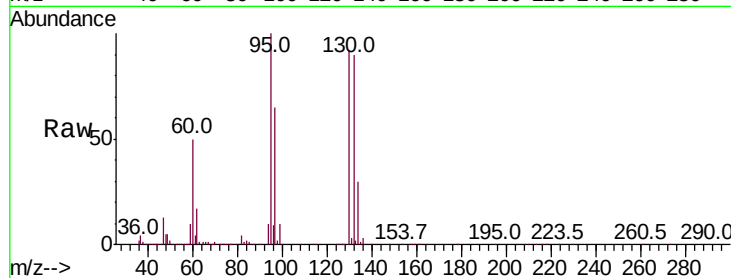
Ion Ratio Lower Upper

130 100

95 108.5 89.2 133.8

132 97.5 74.0 111.0

97 70.5 56.6 84.8

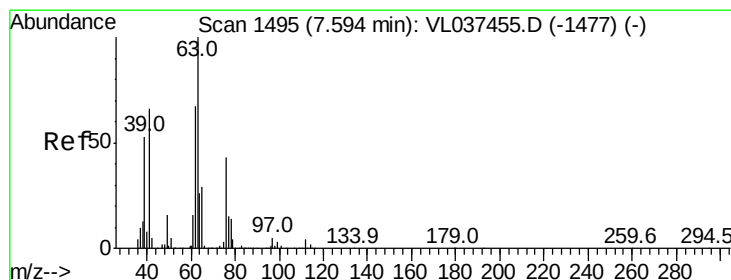
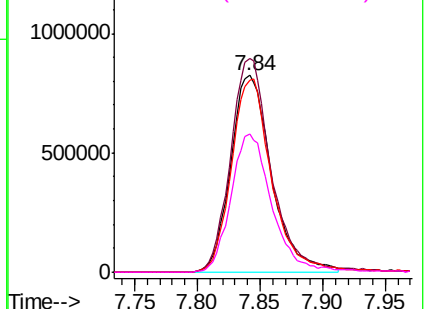
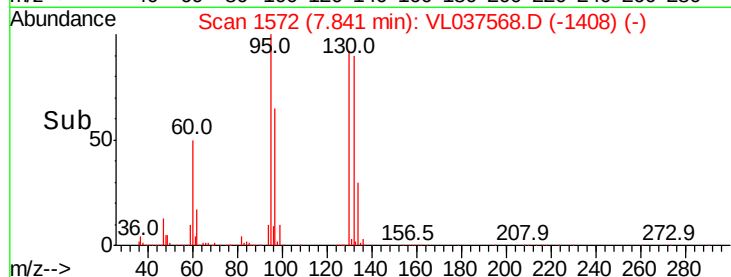


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 7.318 ppbv

RT: 7.18 min Scan# 1366

Delta R.T. -0.41 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

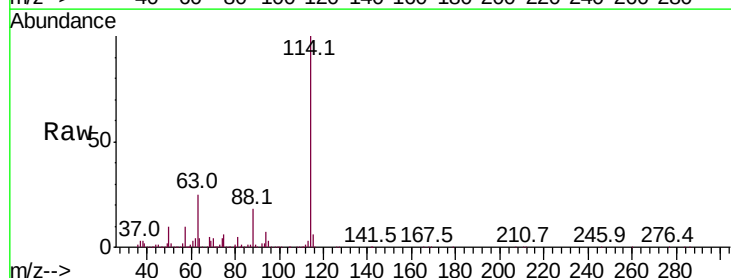
Tgt Ion: 63 Resp: 1198699

Ion Ratio Lower Upper

63 100

41 0.0 52.4 78.6#

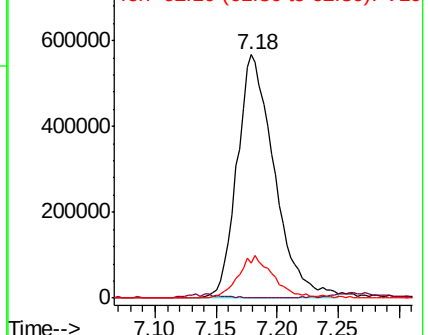
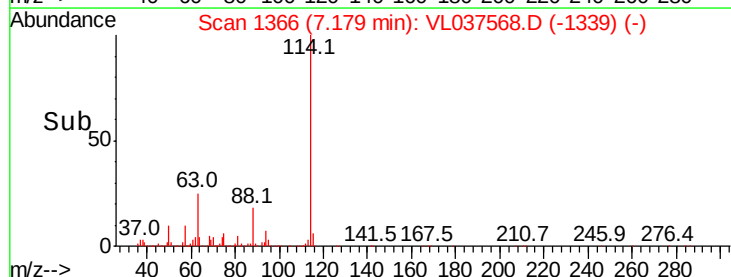
62 14.2 53.6 80.4#

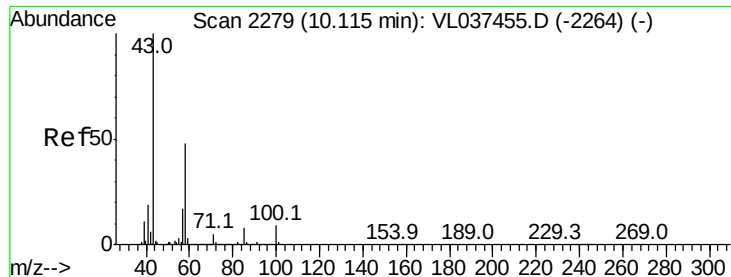


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0

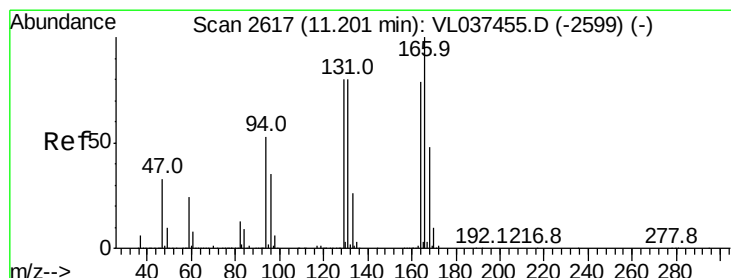
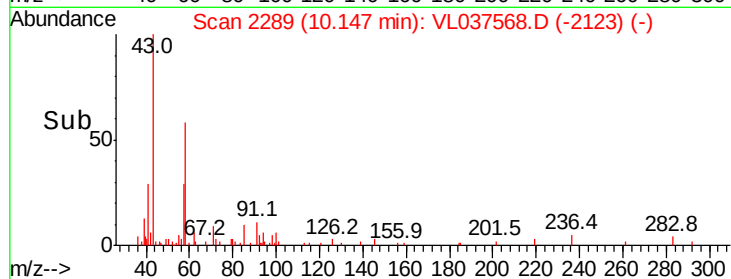
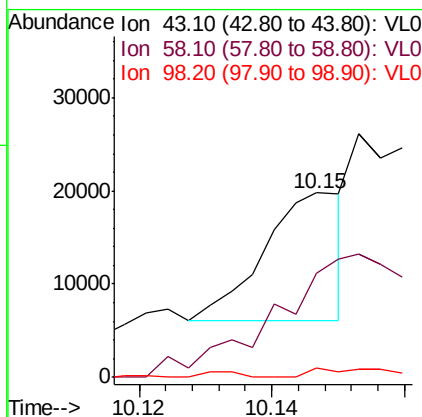
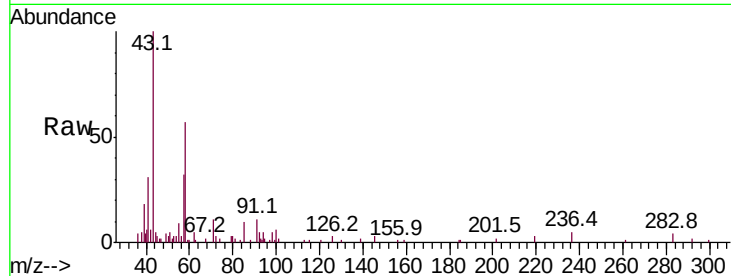




#51
2-Hexanone
Concen: 0.092 ppbv
RT: 10.15 min Scan# 2289
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

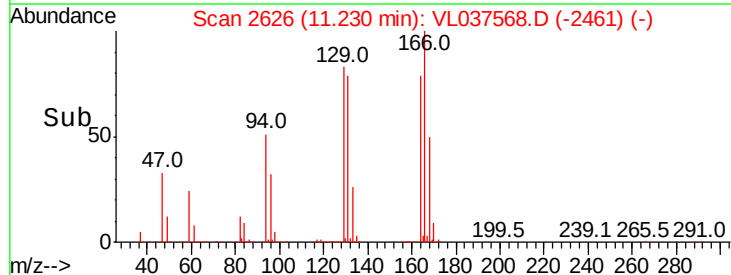
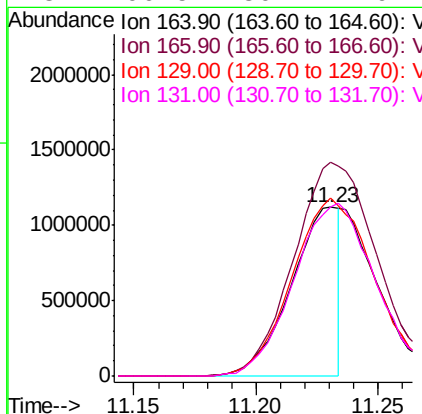
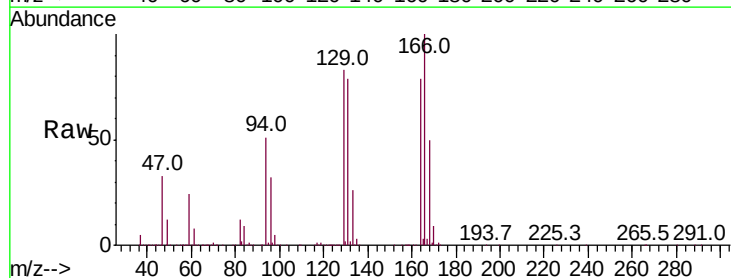
Instrument :
MSVOA_L
ClientSampleId :
SV-2DL

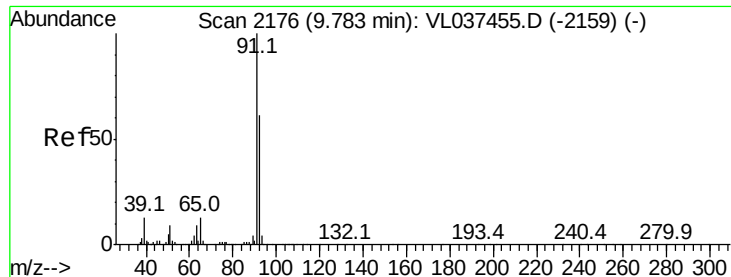
Tot Ion: 43 Resp: 11484
Ion Ratio Lower Upper
43 100
58 0.0 41.0 61.6#
98 0.0 0.3 0.5#



#52
Tetrachloroethene
Concen: 8.802 ppbv
RT: 11.23 min Scan# 2626
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

Tgt Ion: 164 Resp: 1537482
Ion Ratio Lower Upper
164 100
166 126.5 100.7 151.1
129 105.5 80.9 121.3
131 100.5 80.2 120.4





#53

Toluene

Concen: 3.997 ppbv

RT: 9.81 min Scan# 2185

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampleId :

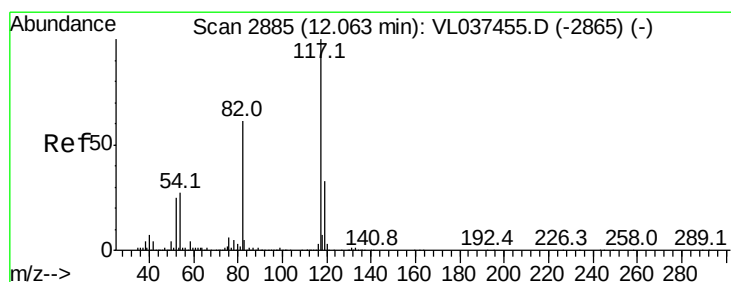
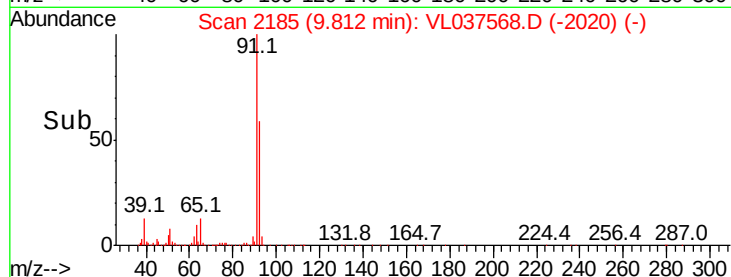
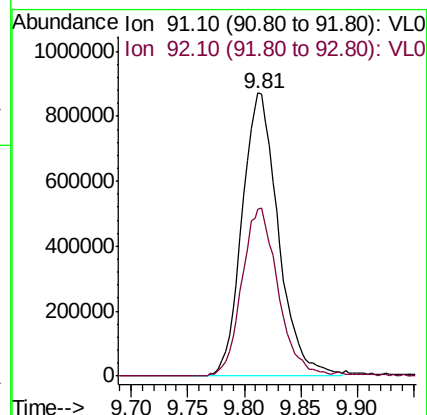
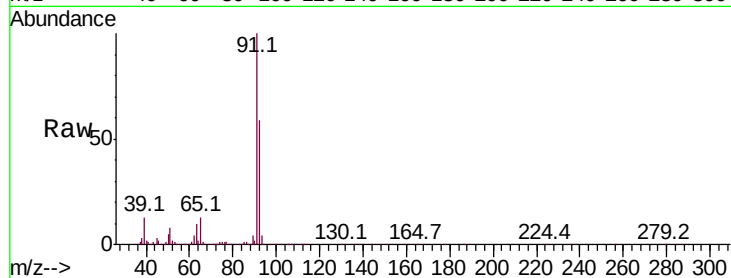
SV-2DL

Tot Ion: 91 Resp: 1945510

Ion Ratio Lower Upper

91 100

92 60.3 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.09 min Scan# 2894

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

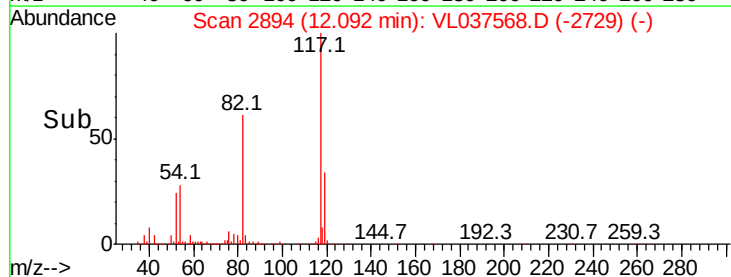
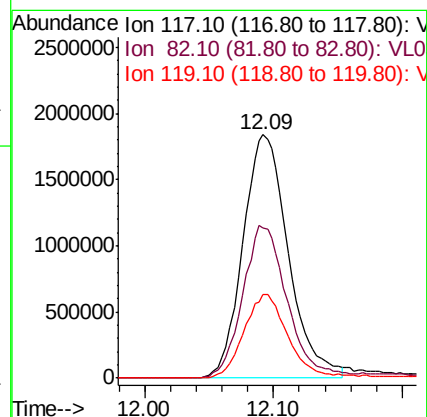
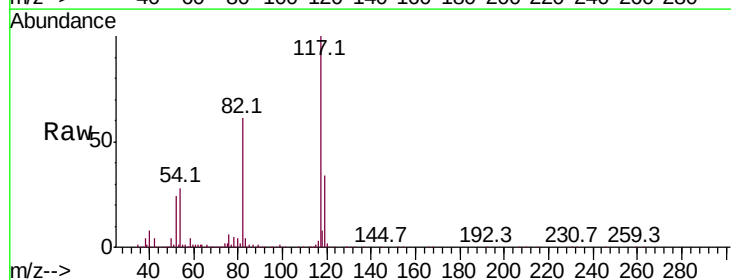
Tgt Ion: 117 Resp: 4515332

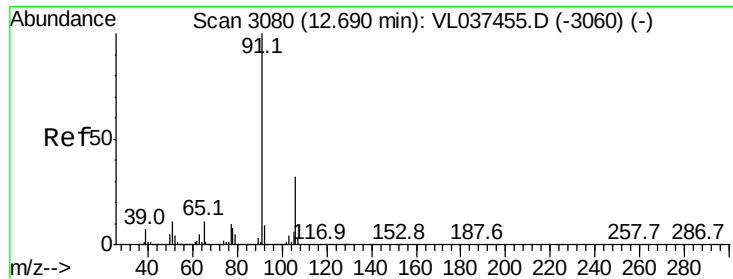
Ion Ratio Lower Upper

117 100

82 64.2 52.9 79.3

119 34.6 24.8 37.2





#58

Ethyl Benzene

Concen: 0.385 ppbv

RT: 12.72 min Scan# 3088

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampled :

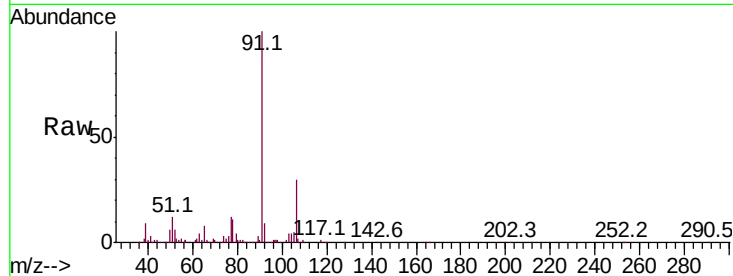
SV-2DL

Tot Ion: 91 Resp: 241281

Ion Ratio Lower Upper

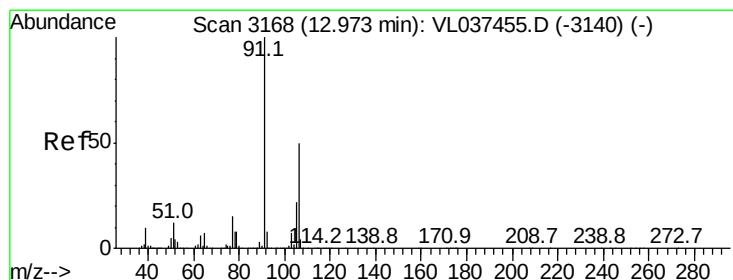
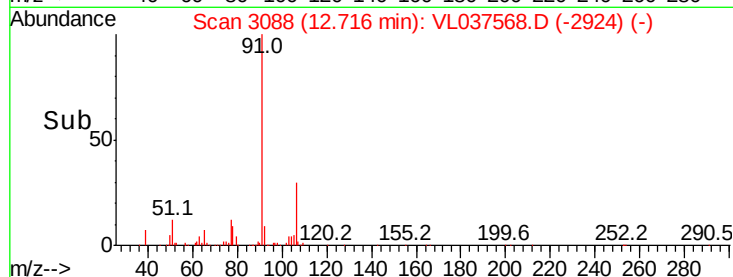
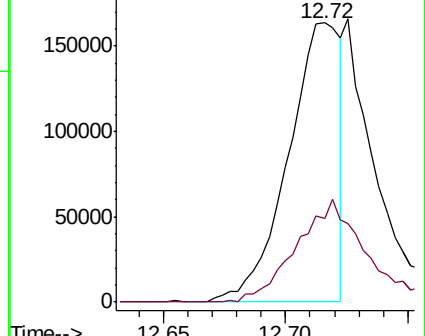
91 100

106 30.2 25.7 38.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 2.013 ppbv

RT: 12.97 min Scan# 3168

Delta R.T. 0.00 min

Lab File: VL037568.D

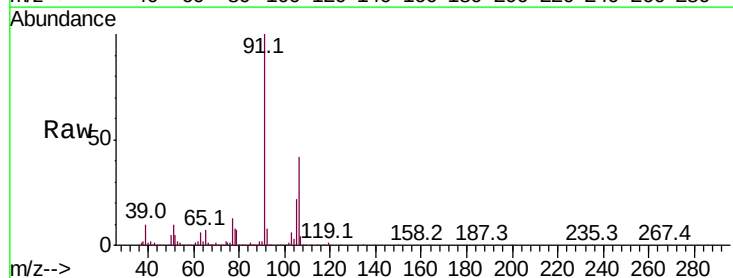
Acq: 8 Sep 2021 12:25

Tgt Ion: 91 Resp: 1093746

Ion Ratio Lower Upper

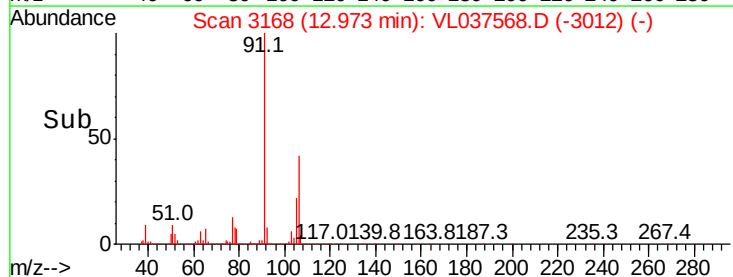
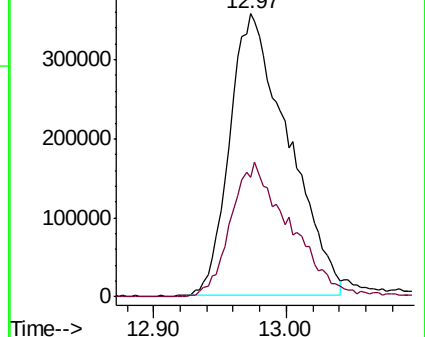
91 100

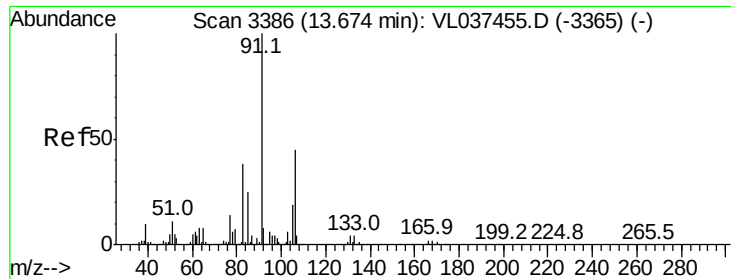
106 48.3 36.9 55.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

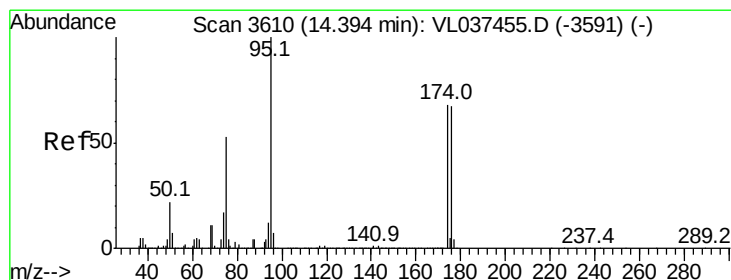
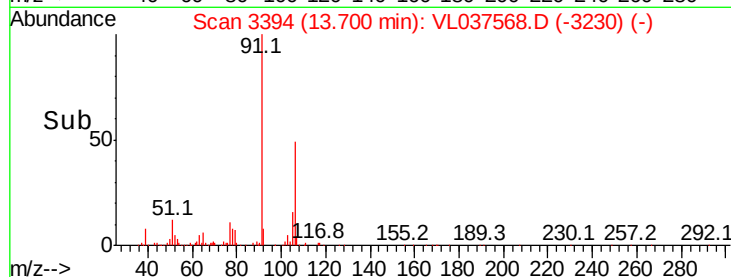
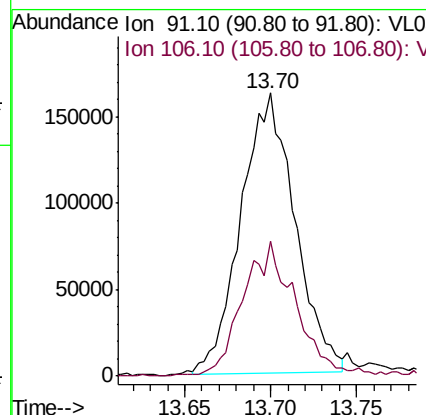
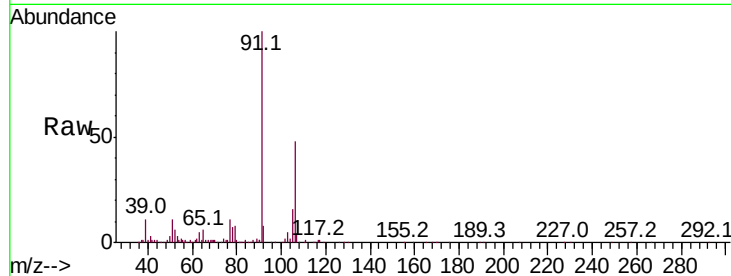




#60
o-Xylene
Concen: 0.702 ppbv
RT: 13.70 min Scan# 3394
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

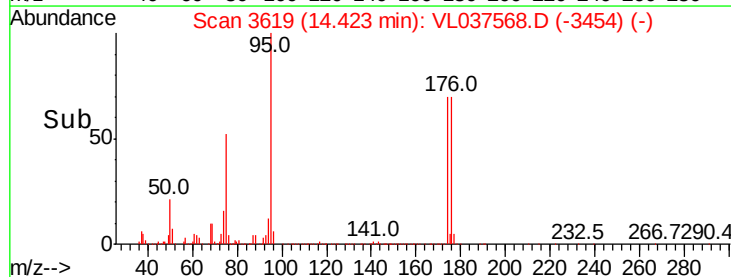
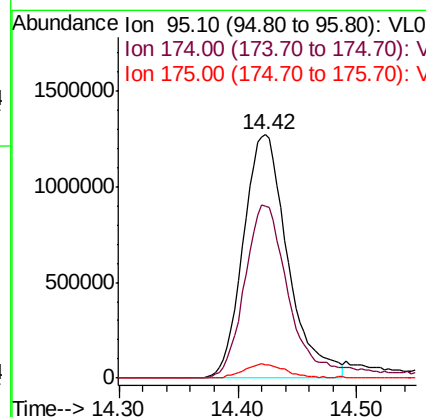
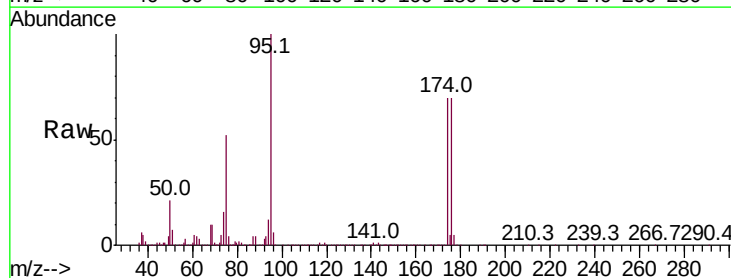
Instrument :
MSVOA_L
ClientSampled :
SV-2DL

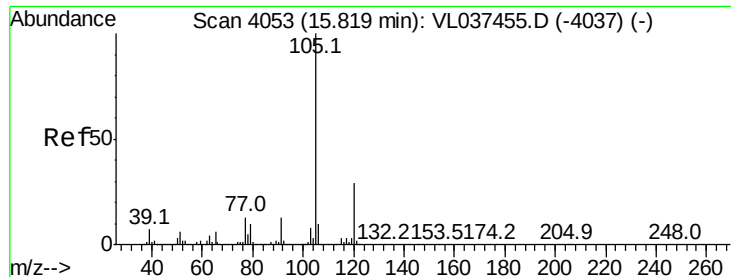
Tot Ion: 91 Resp: 356009
Ion Ratio Lower Upper
91 100
106 47.1 23.7 71.1



#68
1-Bromo-4-Fluorobenzene
Concen: 10.259 ppbv
RT: 14.42 min Scan# 3619
Delta R.T. 0.03 min
Lab File: VL037568.D
Acq: 8 Sep 2021 12:25

Tgt Ion: 95 Resp: 3291072
Ion Ratio Lower Upper
95 100
174 76.1 59.6 89.4
175 5.6 4.6 7.0





#72

4-Ethyltoluene

Concen: 0.051 ppbv

RT: 15.85 min Scan# 4063

Delta R.T. 0.03 min

Lab File: VL037568.D

Acq: 8 Sep 2021 12:25

Instrument :

MSVOA_L

ClientSampleId :

SV-2DL

Tot Ion:105 Resp: 30500

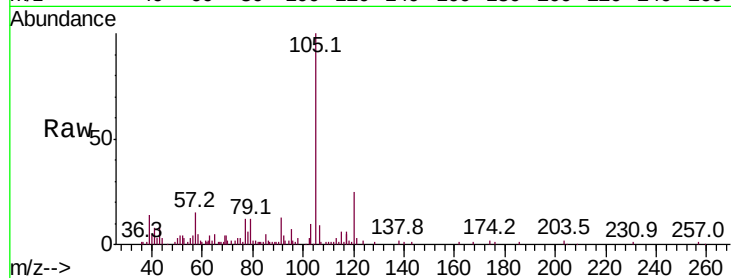
Ion Ratio Lower Upper

105 100

120 0.0 24.7 37.1#

91 55.6 9.8 14.8#

77 29.7 10.6 15.8#

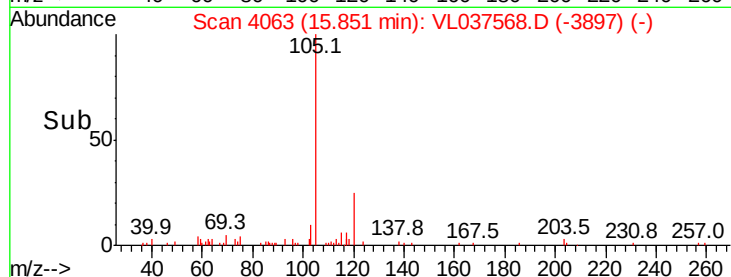
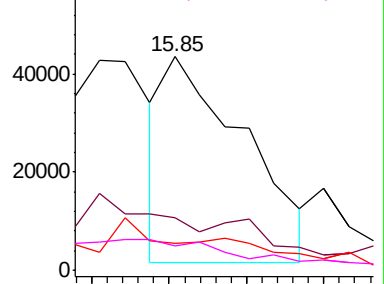


Abundance Ion 105.10 (104.80 to 105.80): V

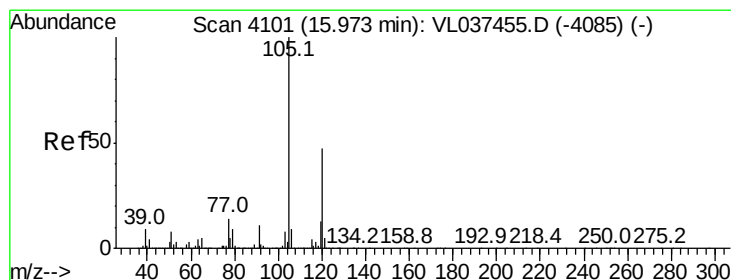
Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0



Time-->



#73

1,3,5-Trimethylbenzene

Concen: 0.051 ppbv

RT: 16.01 min Scan# 4112

Delta R.T. 0.04 min

Lab File: VL037568.D

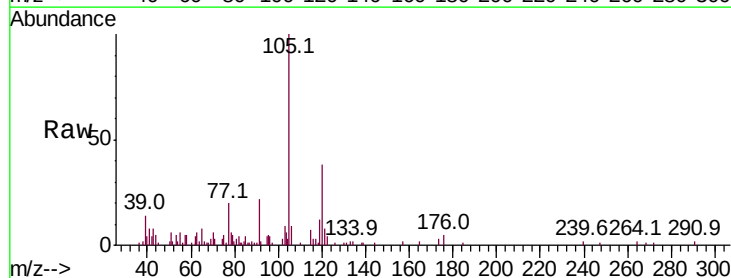
Acq: 8 Sep 2021 12:25

Tgt Ion:105 Resp: 28727

Ion Ratio Lower Upper

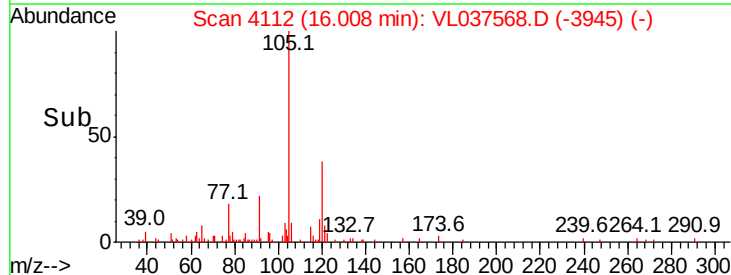
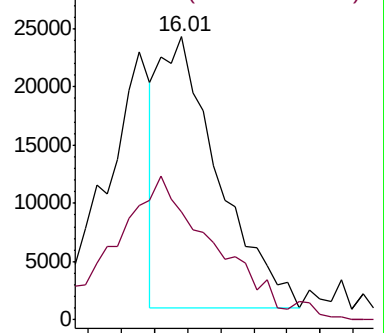
105 100

120 33.4 37.6 56.4#

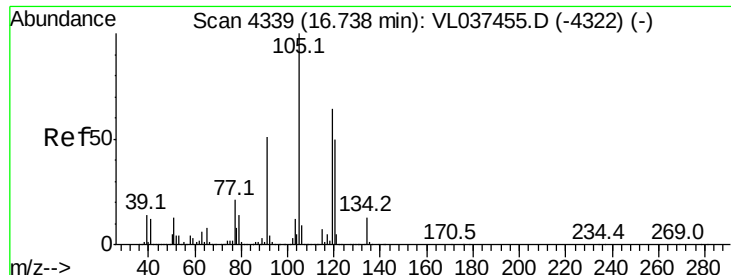


Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



Time-->



#74
 1,2,4-Trimethylbenzene
 Concen: 0.442 ppbv
 RT: 16.77 min Scan# 4348
 Delta R.T. 0.03 min
 Lab File: VL037568.D
 Acq: 8 Sep 2021 12:25

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-2DL

Tot Ion:105	Resp:	263452
Ion Ratio	Lower	Upper
105	100	
120	40.9	40.4 60.6
91	10.4	44.6 67.0#
77	15.0	17.8 26.6#

