

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL102721\
 Data File : VL037930.D
 Acq On : 28 Oct 2021 00:05
 Operator : SY/AP
 Sample : M4377-03DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 FIRE-PUMP-ROOM-1ADUP

Quant Time: Oct 28 05:20:31 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL100421AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Oct 04 17:43:54 2021
 QLast Update : Mon Oct 04 17:43:54 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1302863	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	3770450	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	3096587	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.42	95	2144540	9.90	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.00%

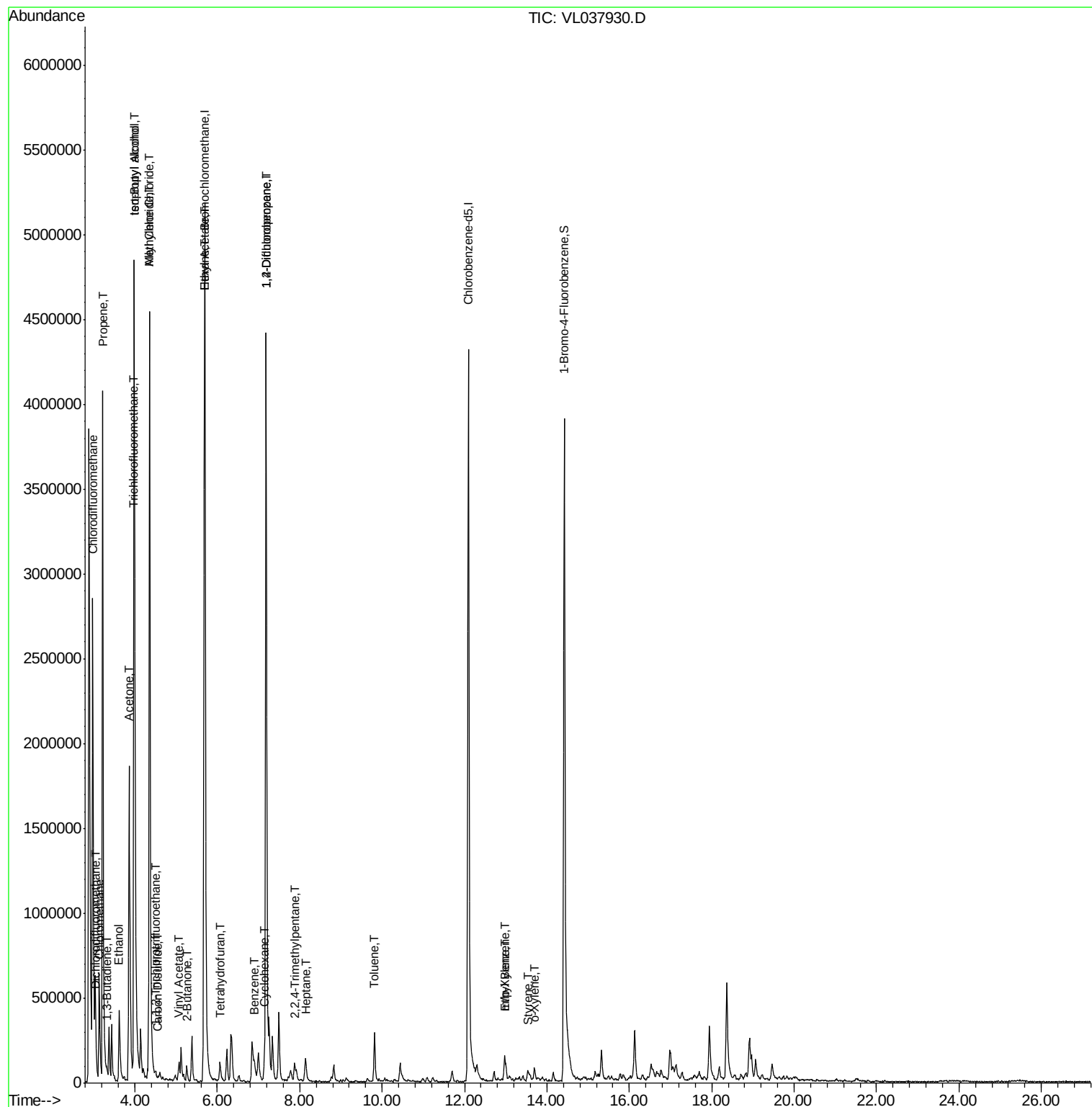
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	36226	0.174	ppbv 92
3) Chlorodifluoromethane	2.98	51	2180965	8.712	ppbv # 62
4) Chloromethane	3.15	50	27470	0.300	ppbv # 87
9) Propene	3.22	41	1483967	16.110	ppbv 99
10) Heptane	8.13	43	21080	0.101	ppbv # 21
11) Trichlorofluoromethane	3.96	101	38650	0.208	ppbv 91
12) 1,1,2-Trichlorotrifluoroet	4.50	101	7648	0.054	ppbv 83
13) Ethanol	3.62	45	538866	71.536	ppbv 81
15) Acetone	3.86	43	2447860	20.929	ppbv 97
16) 1,3-Butadiene	3.31	39	14726	0.173	ppbv # 11
17) tert-Butyl alcohol	3.98	59	224848	1.867	ppbv 97
19) Isopropyl Alcohol	3.98	45	6560326	90.161	ppbv 99
20) Methylene Chloride	4.36	84	1966268	33.273	ppbv 97
21) Allyl Chloride	4.36	41	81269	0.784	ppbv # 29
23) Vinyl Acetate	5.07	43	57011	0.325	ppbv # 8
25) Ethyl Acetate	5.70	43	1411300	4.300	ppbv # 77
26) Hexane	5.70	57	1928775	11.935	ppbv # 46
27) Carbon Disulfide	4.56	76	7162	0.050	ppbv # 86
30) Cyclohexane	7.14	84	17139	0.125	ppbv # 1
34) 2-Butanone	5.26	43	107733	0.708	ppbv 99
36) Benzene	6.91	78	23290	0.072	ppbv # 87
39) 1,2-Dichloropropane	7.19	63	874914	7.223	ppbv # 27
41) Tetrahydrofuran	6.07	42	37313	0.501	ppbv # 68
44) 2,2,4-Trimethylpentane	7.88	57	30178	0.056	ppbv # 43
53) Toluene	9.81	91	205347	0.575	ppbv 95
58) Ethyl Benzene	12.98	91	75061	0.181	ppbv 96
59) m/p-Xylene	12.99	91	66102	0.185	ppbv # 30
60) o-Xylene	13.70	91	18007	0.053	ppbv # 1
61) Styrene	13.54	104	31642	0.191	ppbv # 90

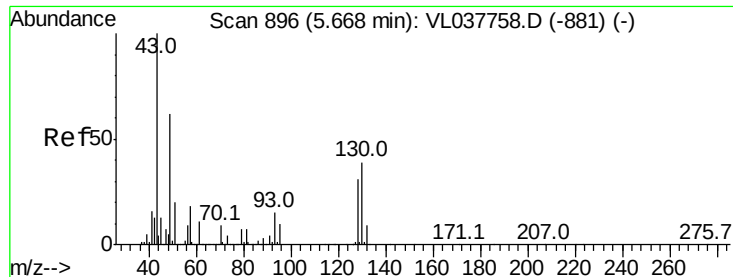
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 28 Oct 2021 00:05 FIRE-PUMP-ROOM-1ADUP

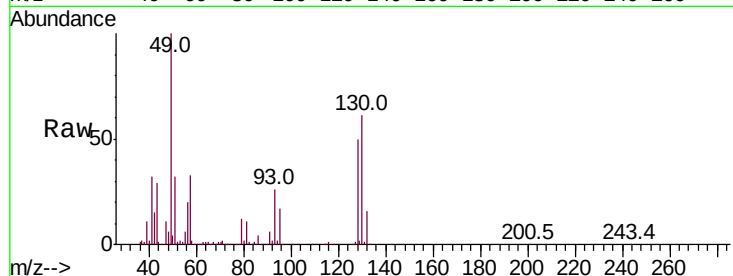
Tot Ion: 49 Resp: 1302863

Ion Ratio Lower Upper

49 100

128 53.3 27.1 81.3

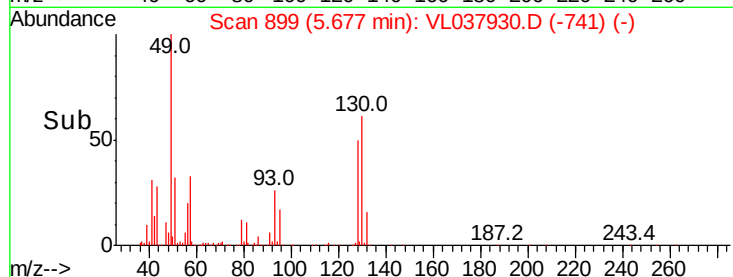
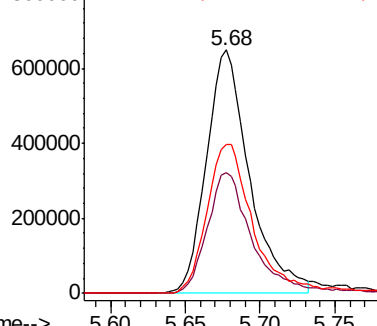
130 67.3 33.2 99.6



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: 0.174 ppbv

RT: 3.06 min Scan# 85

Delta R.T. 0.01 min

Lab File: VL037930.D

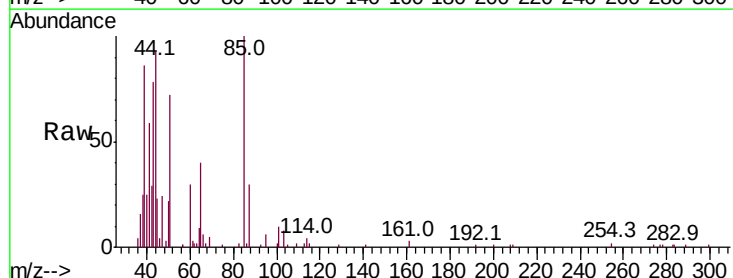
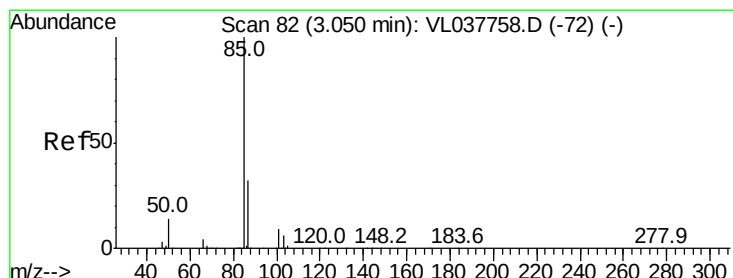
Acq: 28 Oct 2021 00:05

Tgt Ion: 85 Resp: 36226

Ion Ratio Lower Upper

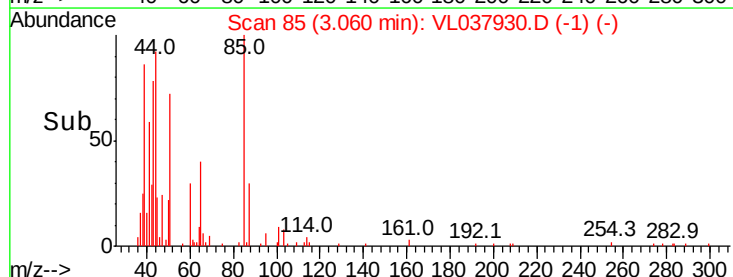
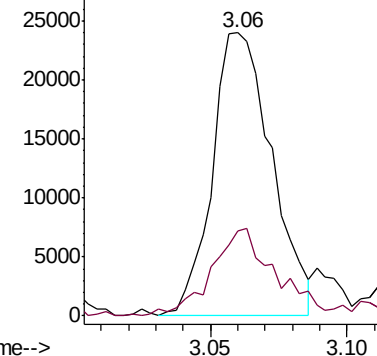
85 100

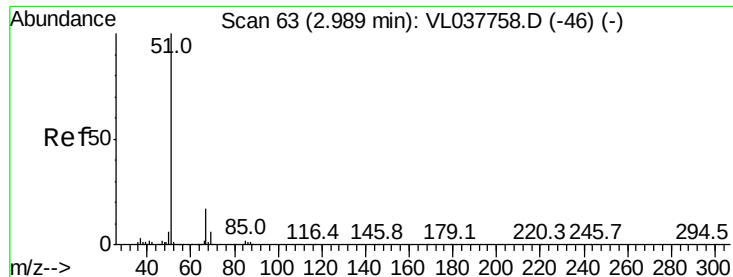
87 27.4 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 8.712 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: FIRE-PUMP-ROOM-1ADUP

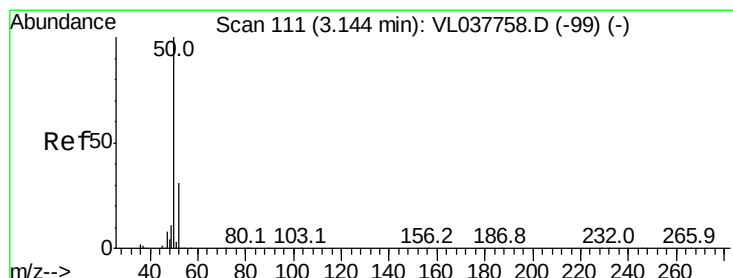
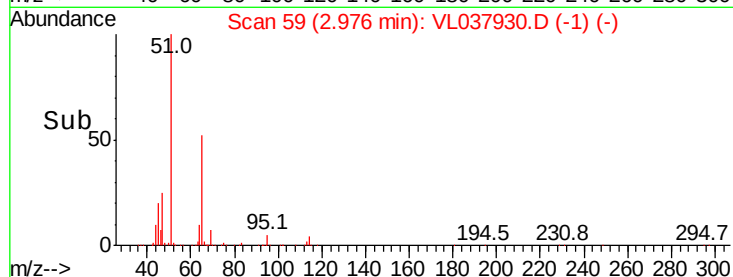
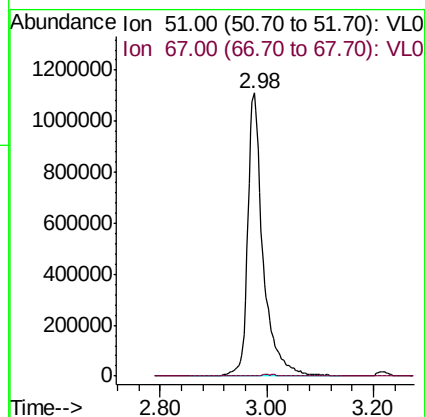
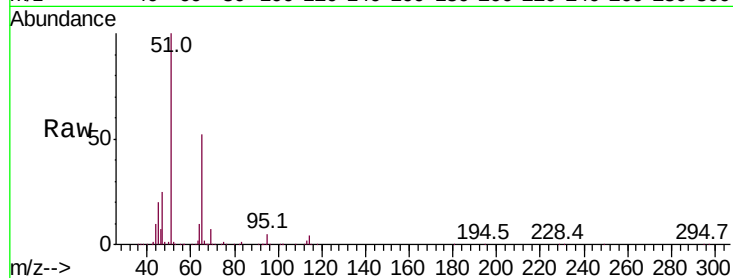
Acq: 28 Oct 2021 00:05

Tot Ion: 51 Resp: 2180965

Ion Ratio Lower Upper

51 100

67 0.6 13.5 20.3#



#4

Chloromethane

Concen: 0.300 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.01 min

Lab File: VL037930.D

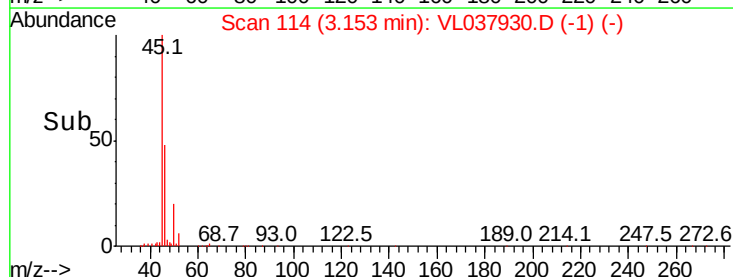
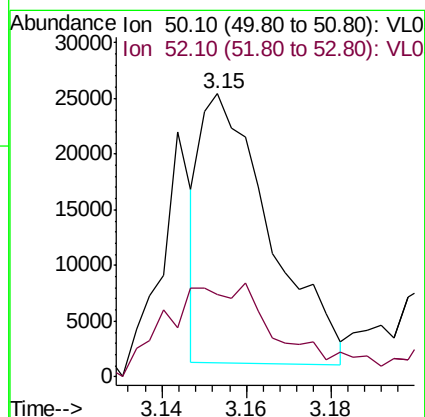
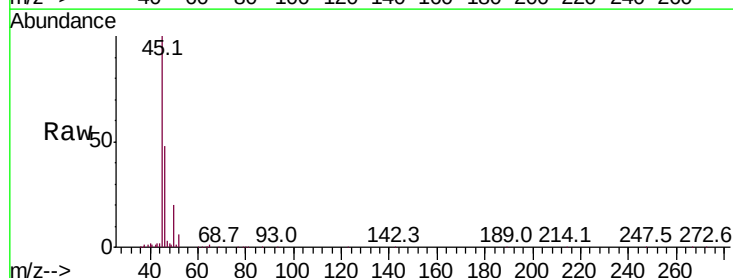
Acq: 28 Oct 2021 00:05

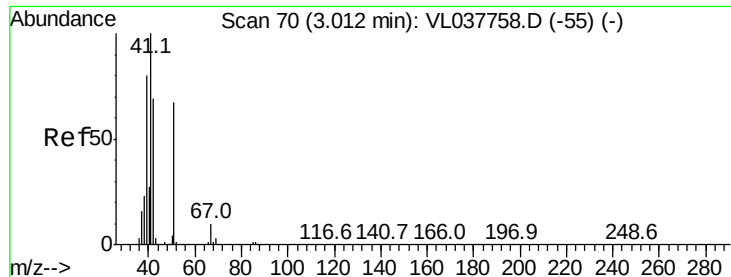
Tgt Ion: 50 Resp: 27470

Ion Ratio Lower Upper

50 100

52 23.4 24.4 36.6#





#9

Propene

Concen: 16.110 ppbv

RT: 3.22 Instrument: MSVOA_1

Delta R.T. 0.01

Lab File: ClientSampleId: FIRE-PUMP-ROOM-1ADUP

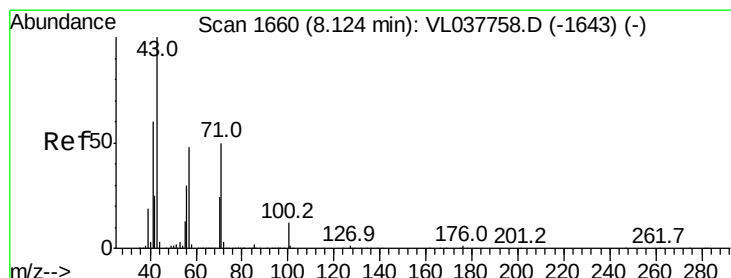
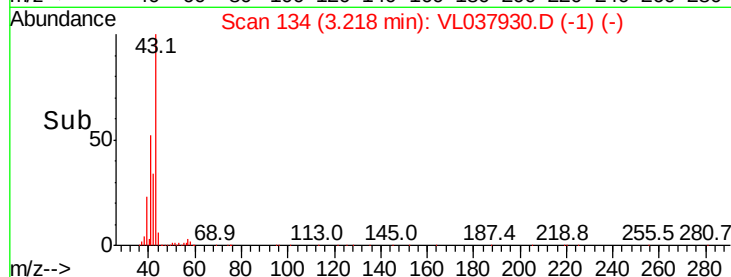
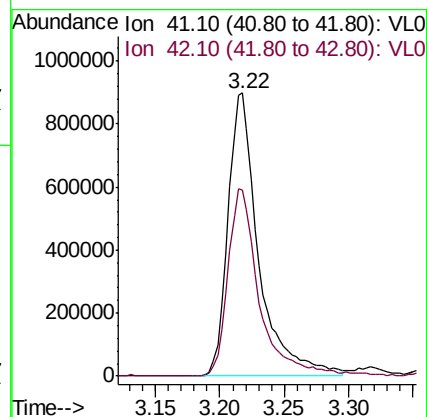
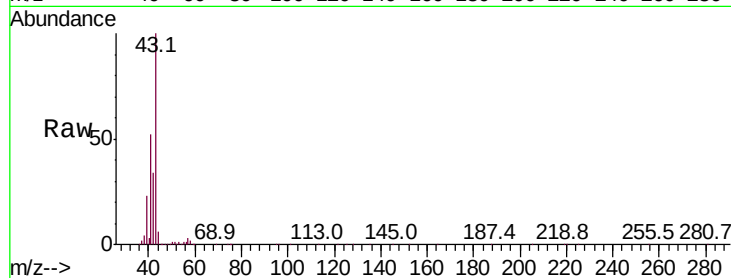
Acq: 28 Oct 2021 00:05

Tot Ion: 41 Resp: 1483967

Ion Ratio Lower Upper

41 100

42 67.3 54.2 81.2



#10

Heptane

Concen: 0.101 ppbv

RT: 8.13 min Scan# 1662

Delta R.T. 0.01 min

Lab File: VL037930.D

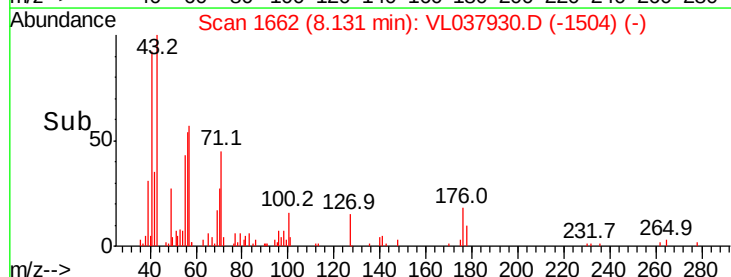
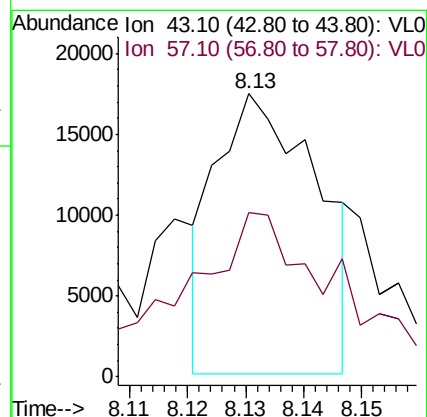
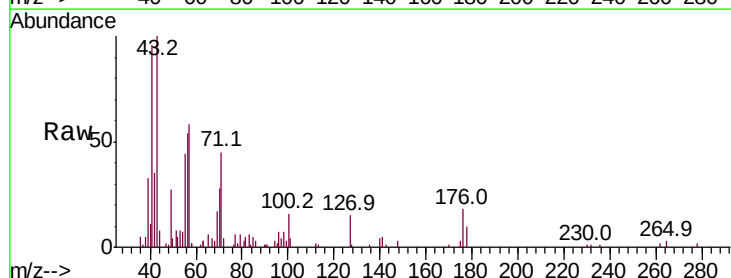
Acq: 28 Oct 2021 00:05

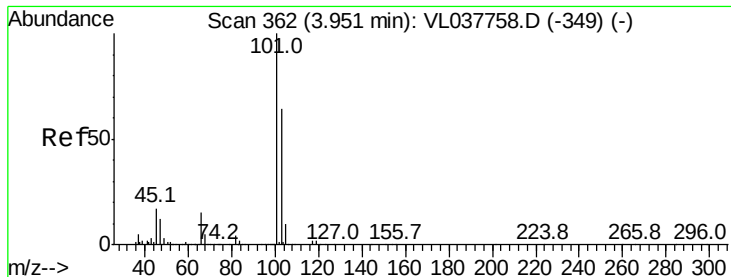
Tgt Ion: 43 Resp: 21080

Ion Ratio Lower Upper

43 100

57 104.3 40.0 60.0#





#11

Trichlorofluoromethane

Concen: 0.208 ppbv

RT: 3.96 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

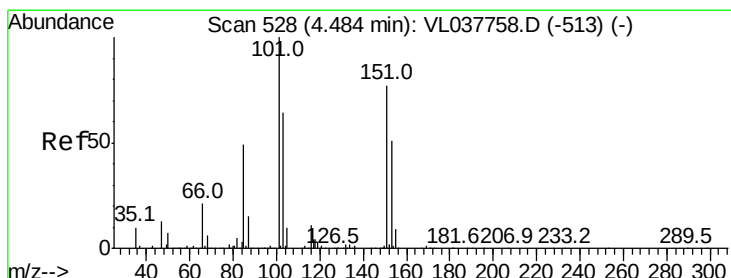
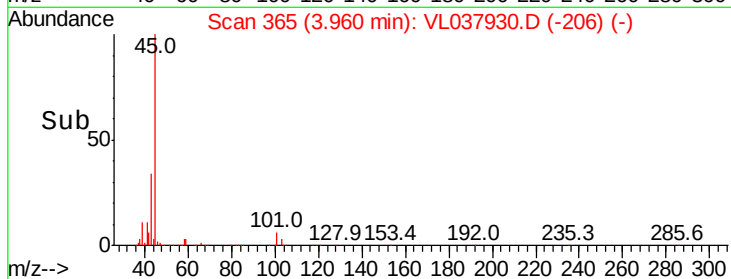
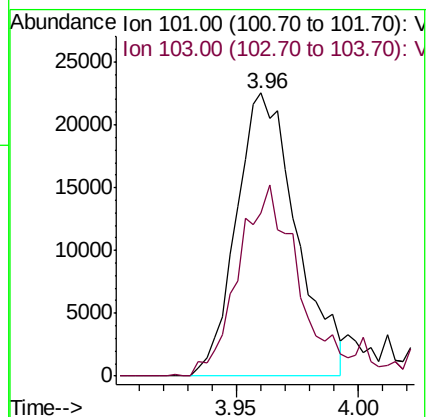
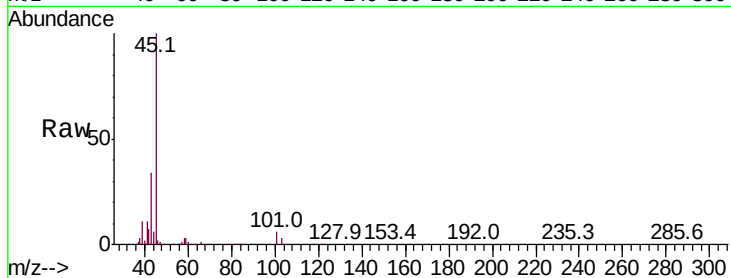
Acq: 28 Oct 2021 00:05 FIRE-PUMP-ROOM-1ADUP

Tot Ion:101 Resp: 38650

Ion Ratio Lower Upper

101 100

103 57.4 51.5 77.3



#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.054 ppbv

RT: 4.50 min Scan# 533

Delta R.T. 0.02 min

Lab File: VL037930.D

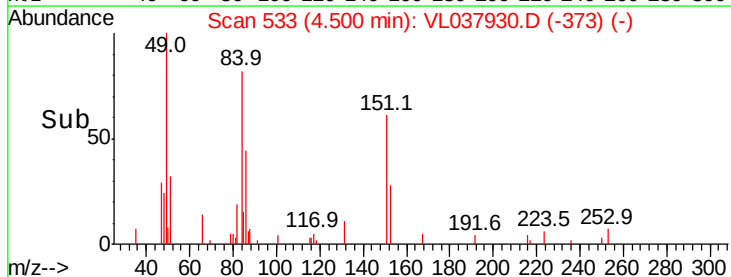
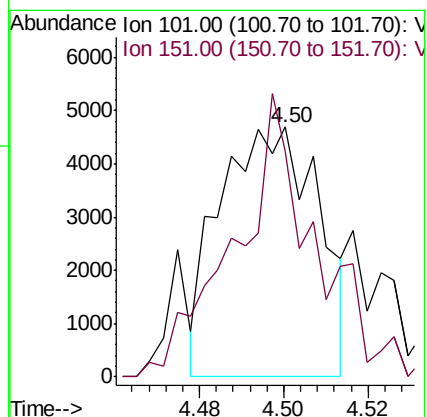
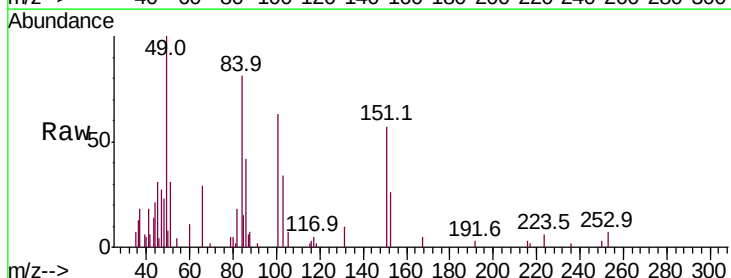
Acq: 28 Oct 2021 00:05

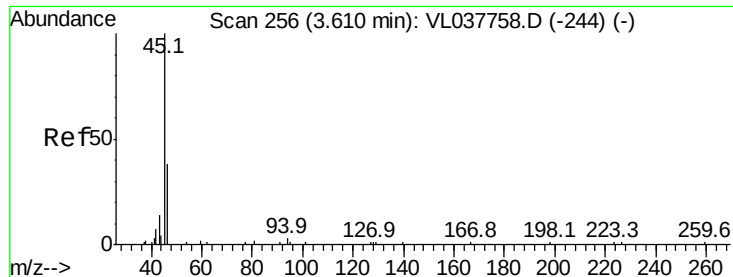
Tgt Ion:101 Resp: 7648

Ion Ratio Lower Upper

101 100

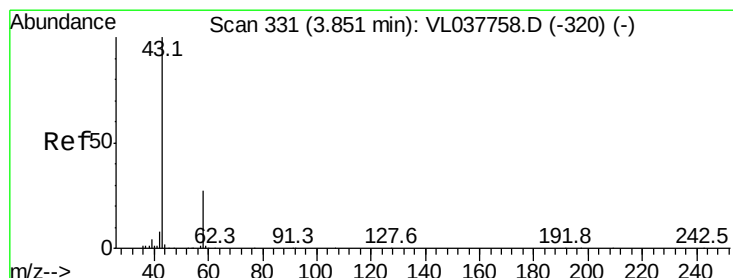
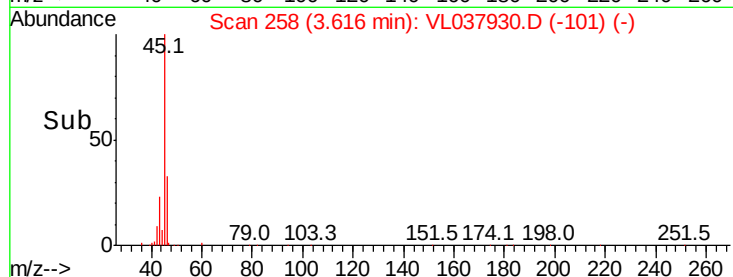
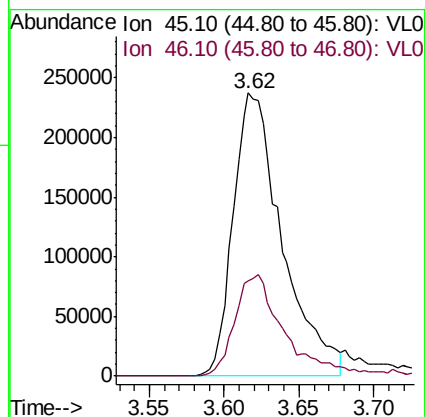
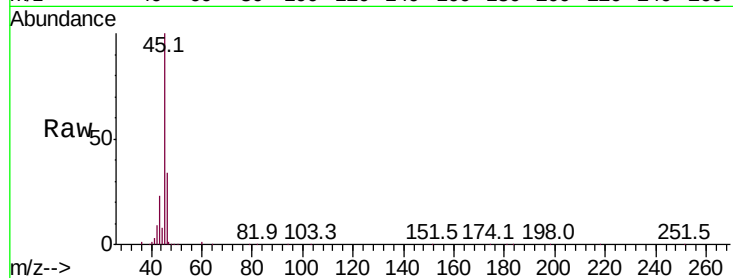
151 93.4 62.9 94.3





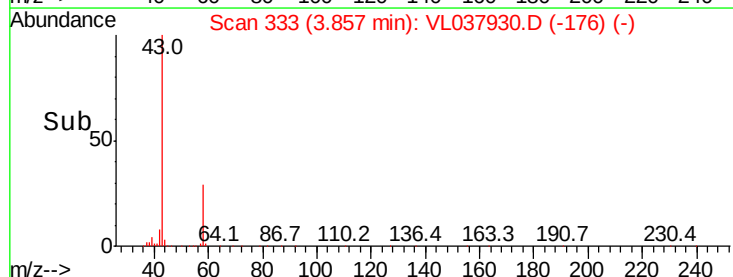
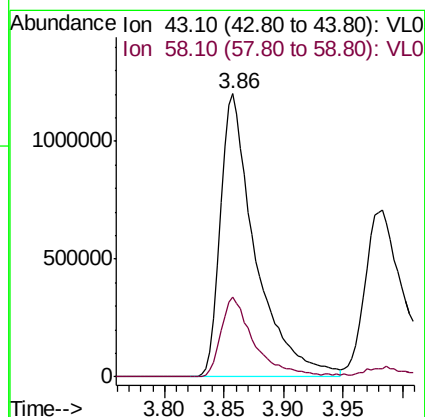
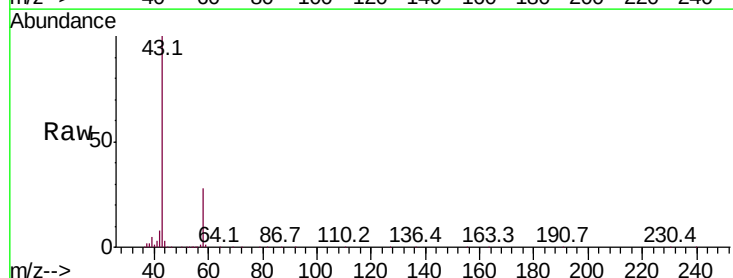
#13
 Ethanol
 Concen: 71.536 ppbv
 RT: 3.62
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId:
 Acq: 28 Oct 2021 00:05

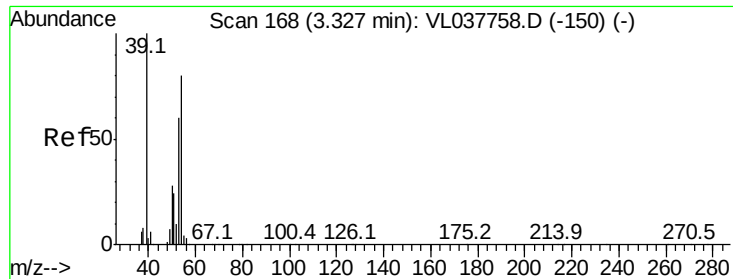
Tot Ion: 45 Resp: 538866
 Ion Ratio Lower Upper
 45 100
 46 37.3 20.2 81.0



#15
 Acetone
 Concen: 20.929 ppbv
 RT: 3.86 min Scan# 333
 Delta R.T. 0.01 min
 Lab File: VL037930.D
 Acq: 28 Oct 2021 00:05

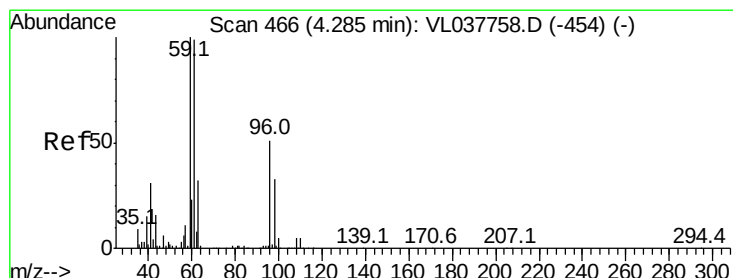
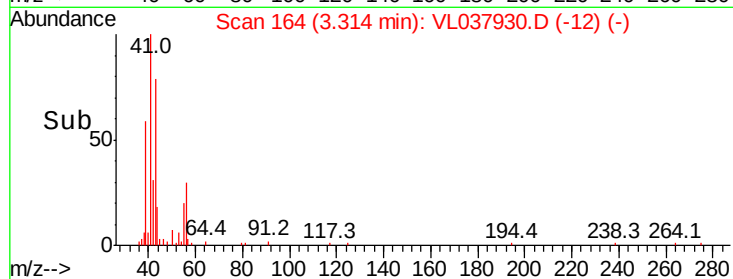
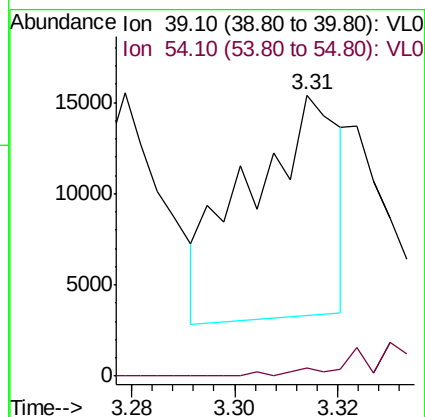
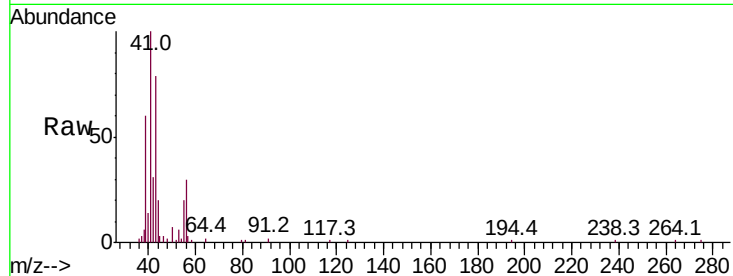
Tgt Ion: 43 Resp: 2447860
 Ion Ratio Lower Upper
 43 100
 58 27.3 23.0 34.6





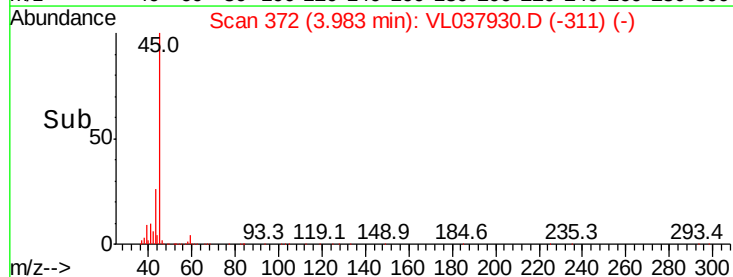
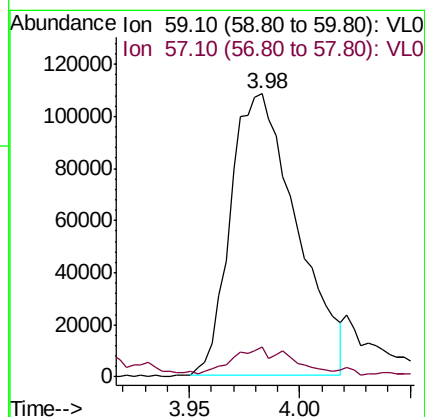
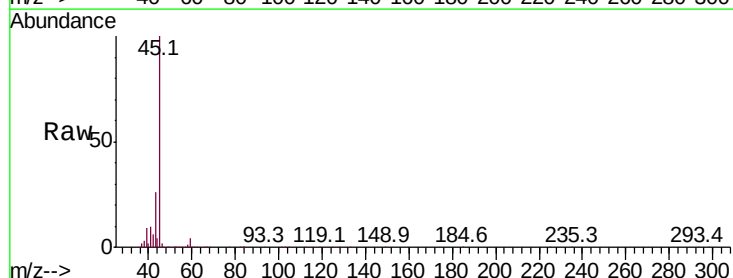
#16
 1,3-Butadiene
 Concen: 0.173 ppbv
 RT: 3.31
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 28 Oct 2021 00:05
 FIRE-PUMP-ROOM-1ADUP

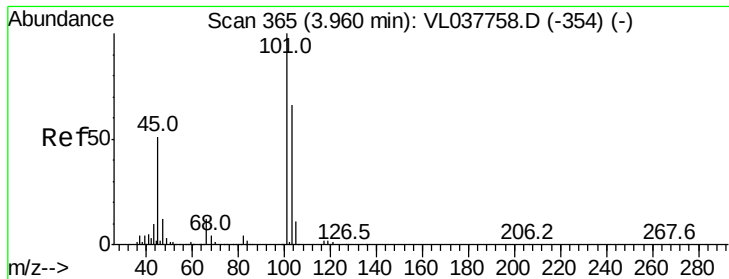
Tot Ion: 39 Resp: 14726
 Ion Ratio Lower Upper
 39 100
 54 0.0 61.7 92.5#



#17
 tert-Butyl alcohol
 Concen: 1.867 ppbv
 RT: 3.98 min Scan# 372
 Delta R.T. -0.30 min
 Lab File: VL037930.D
 Acq: 28 Oct 2021 00:05

Tgt Ion: 59 Resp: 224848
 Ion Ratio Lower Upper
 59 100
 57 12.0 8.6 13.0





#19

Isopropyl Alcohol

Concen: 90.161 ppbv

RT: 3.98

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

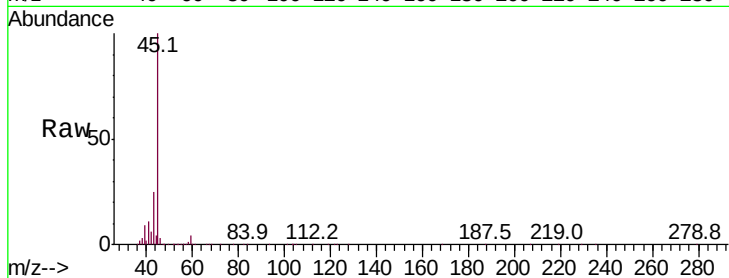
Acq: 28 Oct 2021 00:05 FIRE-PUMP-ROOM-1ADUP

Tot Ion: 45 Resp: 6560326

Ion Ratio Lower Upper

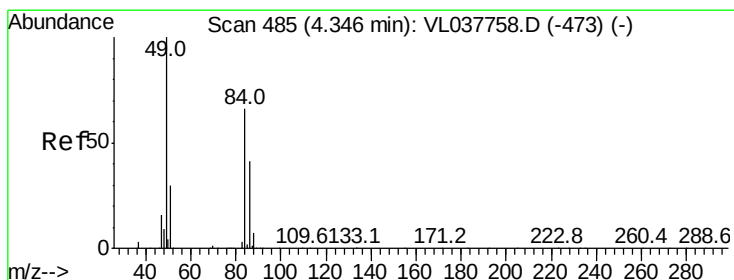
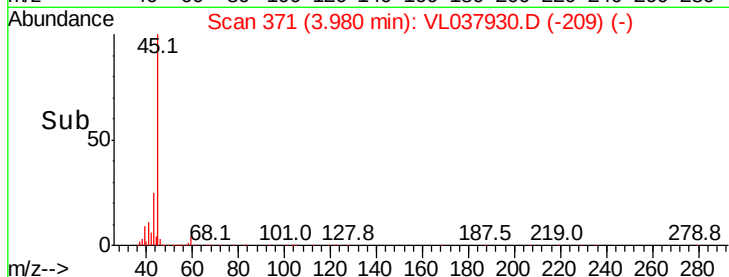
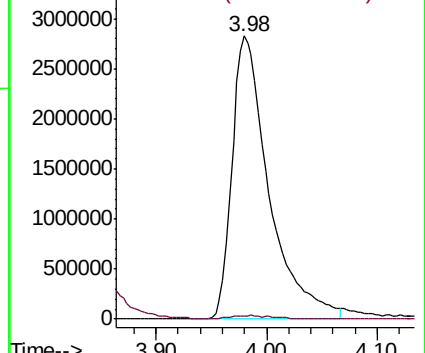
45 100

58 1.7 1.1 1.7



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#20

Methylene Chloride

Concen: 33.273 ppbv

RT: 4.36 min Scan# 488

Delta R.T. 0.01 min

Lab File: VL037930.D

Acq: 28 Oct 2021 00:05

Tgt Ion: 84 Resp: 1966268

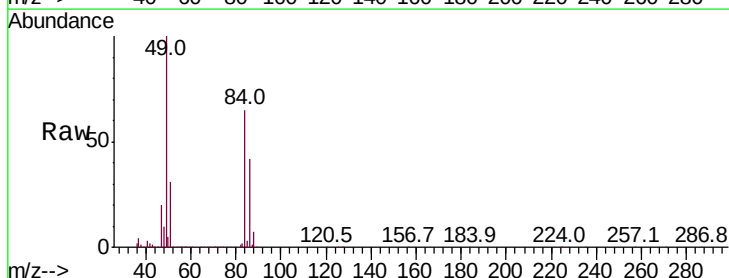
Ion Ratio Lower Upper

84 100

49 154.7 120.7 181.1

51 47.2 36.2 54.4

86 64.6 49.6 74.4

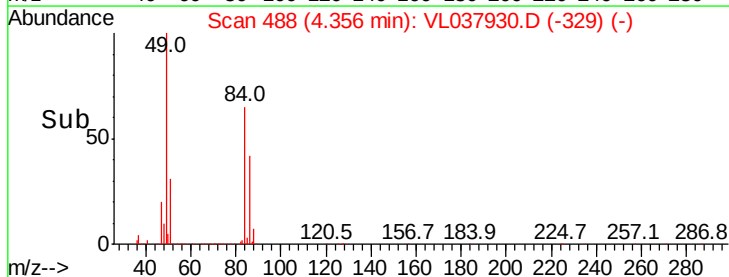
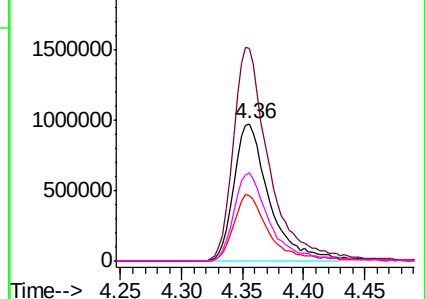


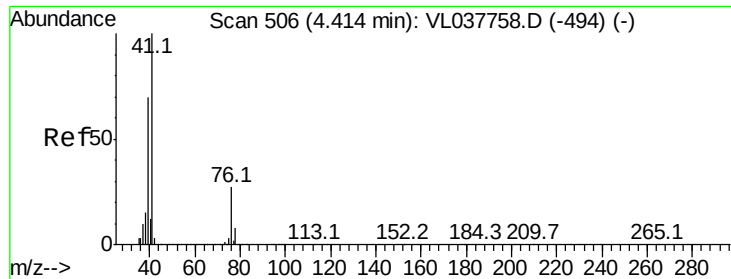
Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

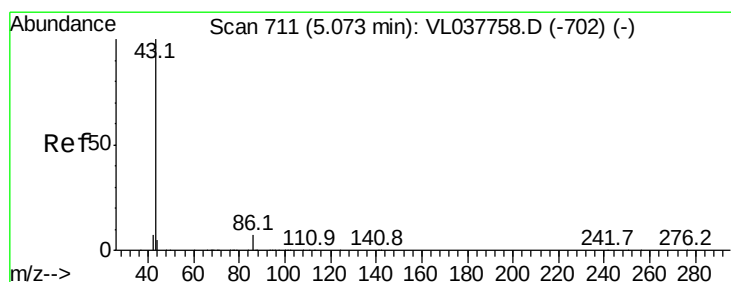
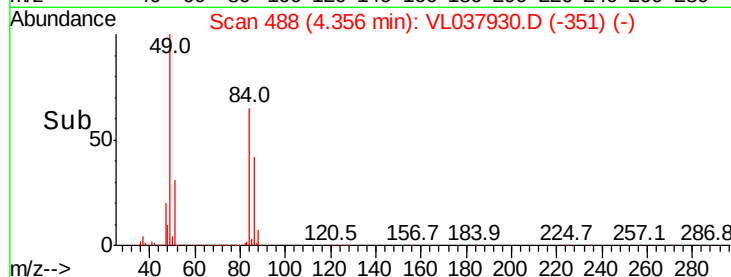
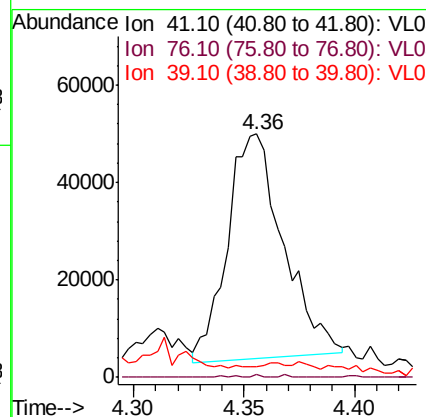
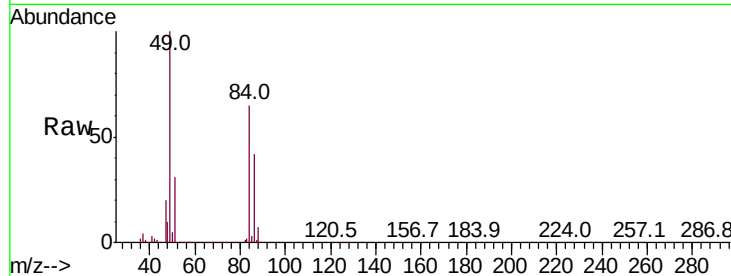
Ion 86.00 (85.70 to 86.70): VL0





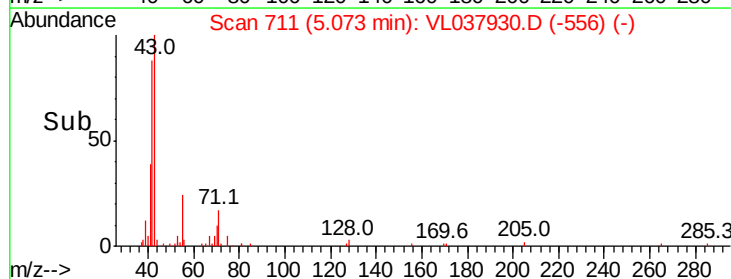
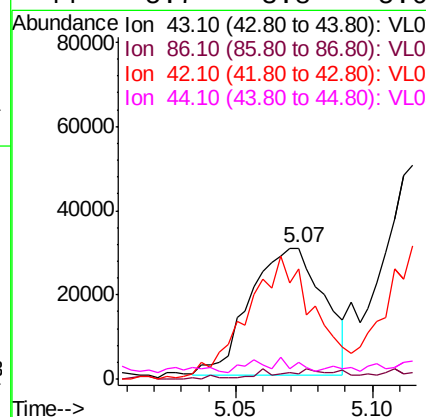
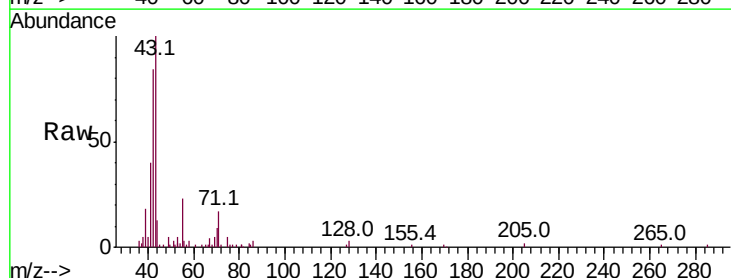
#21
 Allvl Chloride
 Concen: 0.784 ppbv
 RT: 4.36
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 Acq: 28 Oct 2021 00:05
 FIRE-PUMP-ROOM-1ADUP

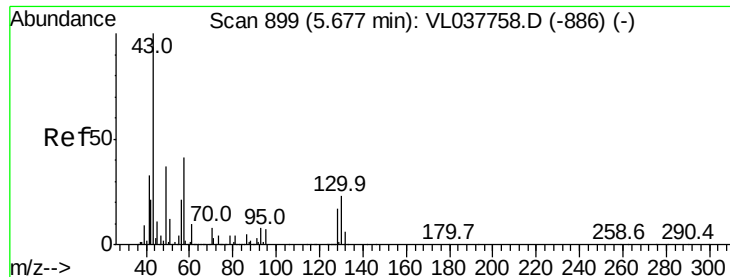
Tot Ion: 41 Resp: 81269
 Ion Ratio Lower Upper
 41 100
 76 12.3 22.4 33.6#
 39 0.0 58.0 87.0#



#23
 Vinyl Acetate
 Concen: 0.325 ppbv
 RT: 5.07 min Scan# 711
 Delta R.T. -0.00 min
 Lab File: VL037930.D
 Acq: 28 Oct 2021 00:05

Tgt Ion: 43 Resp: 57011
 Ion Ratio Lower Upper
 43 100
 86 2.9 5.0 7.4#
 42 79.4 7.4 11.0#
 44 5.7 3.8 5.6#

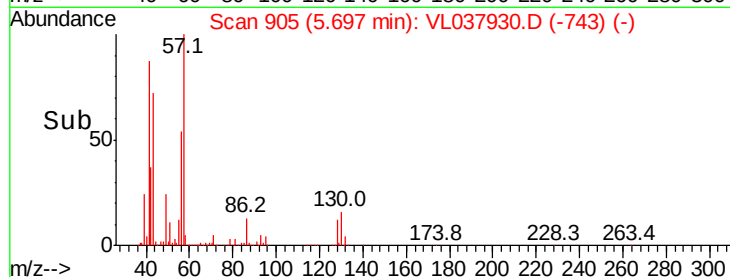
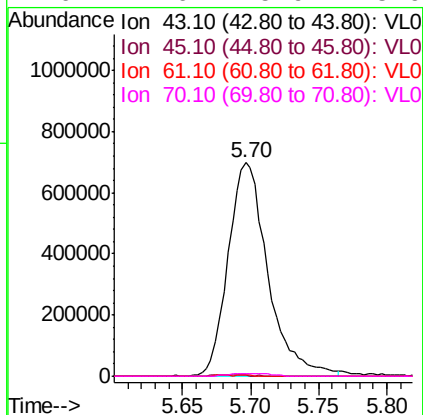
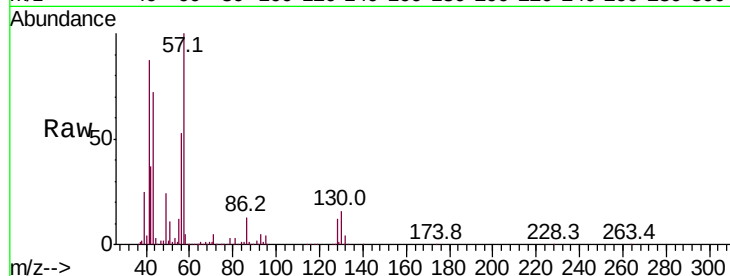




#25
Ethyl Acetate
Concen: 4.300 ppbv
RT: 5.70 min
Instrument: MSVOA_1
Delta R.T.: 0.01 min
Lab File: VL037758.D
Acq: 28 Oct 2021 00:05
ClientSampleId: FIRE-PUMP-ROOM-1ADUP

Tot Ion: 43 Resp: 1411300

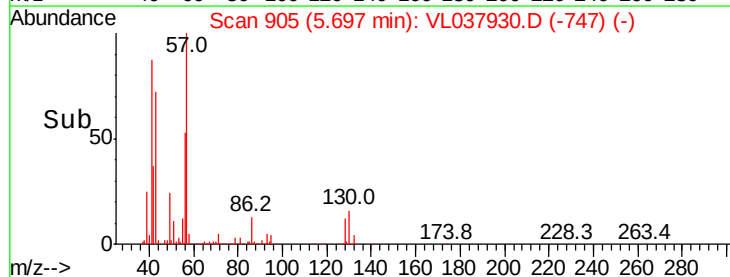
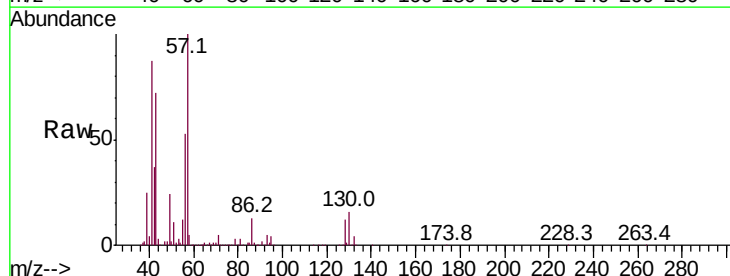
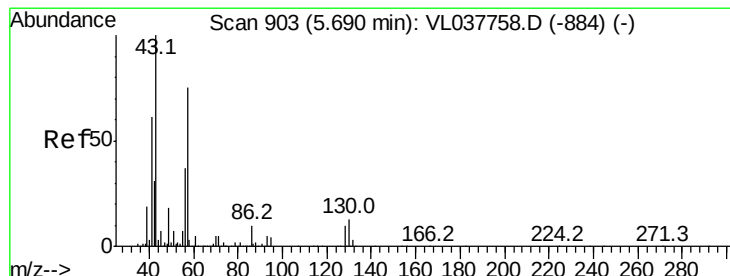
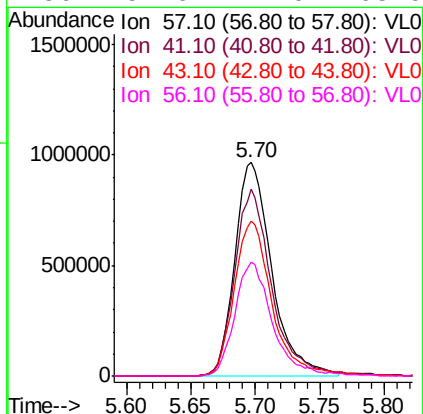
Ion	Ratio	Lower	Upper
43	100		
45	0.7	8.1	12.1#
61	0.6	7.5	11.3#
70	1.6	5.9	8.9#

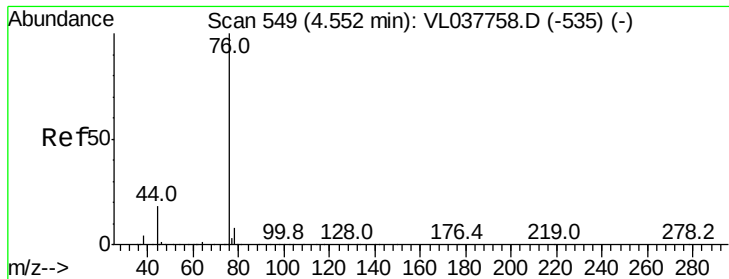


#26
Hexane
Concen: 11.935 ppbv
RT: 5.70 min Scan# 905
Delta R.T.: 0.01 min
Lab File: VL037930.D
Acq: 28 Oct 2021 00:05

Tgt Ion: 57 Resp: 1928775

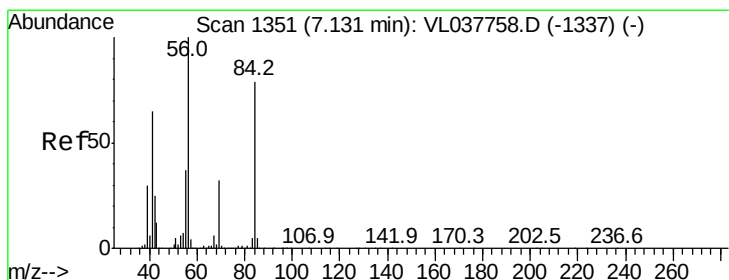
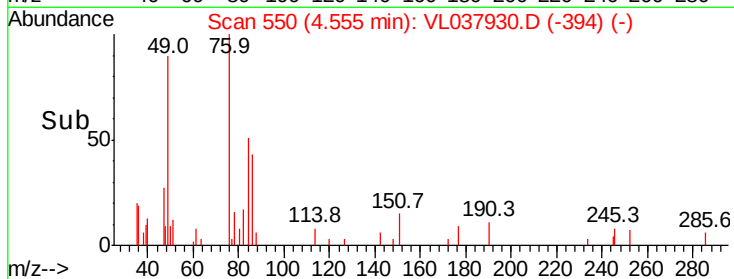
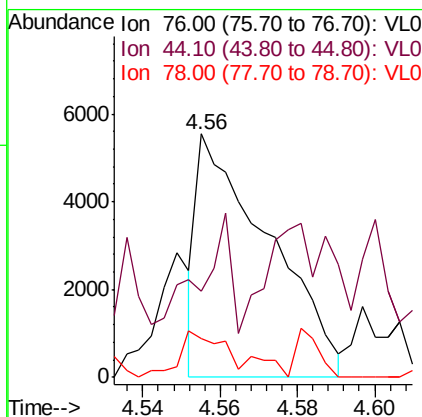
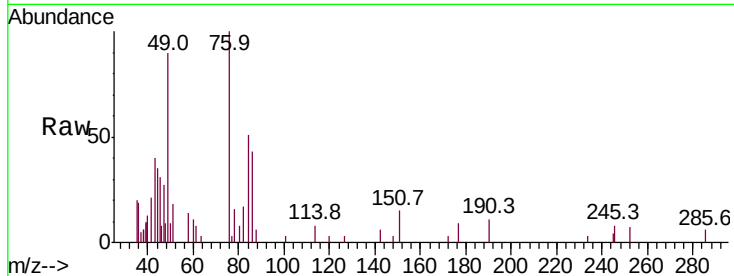
Ion	Ratio	Lower	Upper
57	100		
41	89.0	69.6	104.4
43	75.0	171.4	257.0#
56	54.6	42.0	63.0





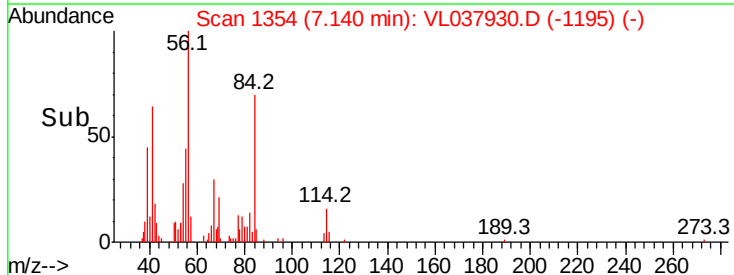
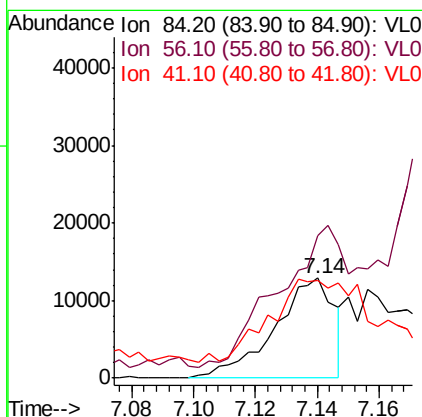
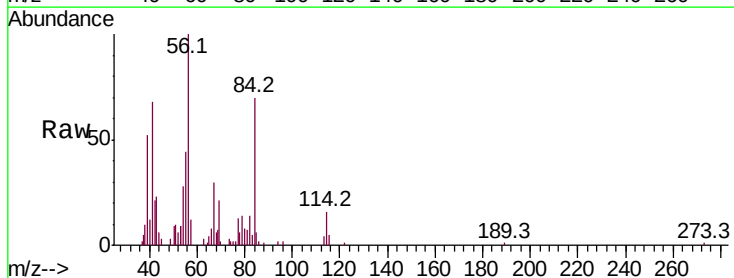
#27
Carbon Disulfide
Concen: 0.050 ppbv
RT: 4.56
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
Acq: 28 Oct 2021 00:05
FIRE-PUMP-ROOM-1ADUP

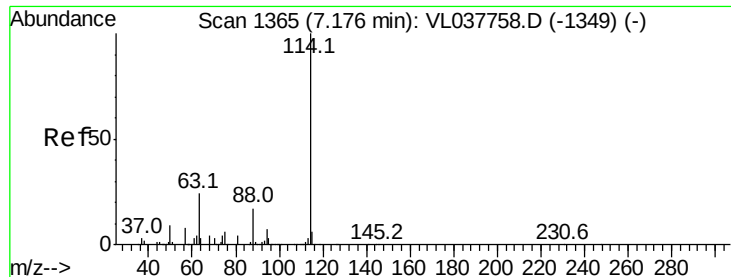
Tot Ion: 76 Resp: 7162
Ion Ratio Lower Upper
76 100
44 21.1 14.3 21.5
78 0.0 7.8 11.6#



#30
Cyclohexane
Concen: 0.125 ppbv
RT: 7.14 min Scan# 1354
Delta R.T. 0.01 min
Lab File: VL037930.D
Acq: 28 Oct 2021 00:05

Tgt Ion: 84 Resp: 17139
Ion Ratio Lower Upper
84 100
56 0.0 113.0 169.4#
41 209.5 69.1 103.7#

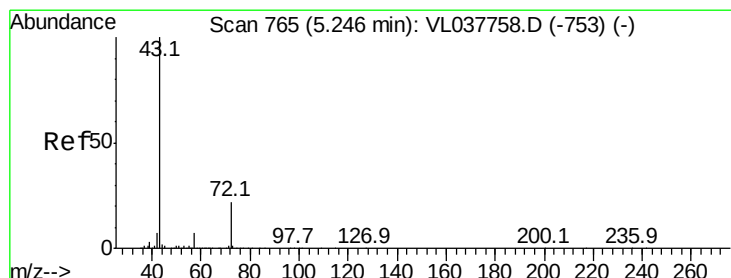
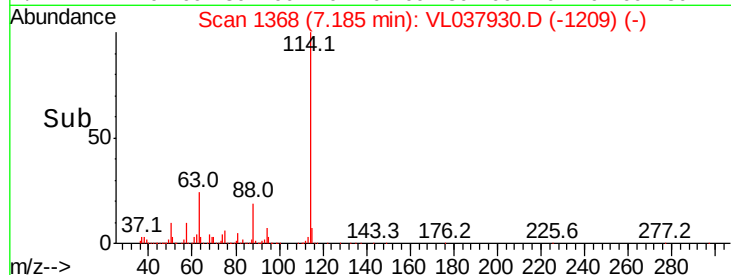
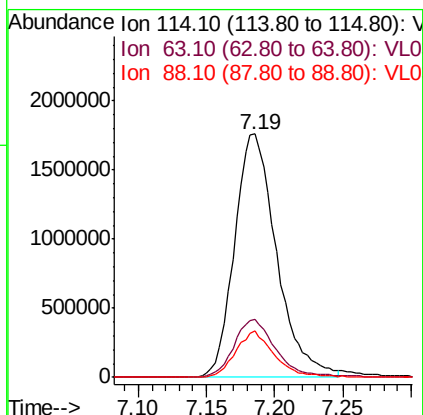
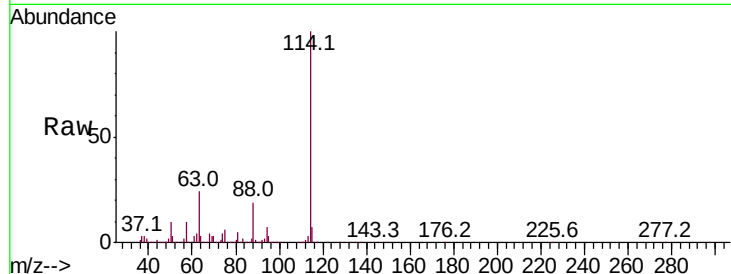




#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19
 Instrument: MSVOA_1
 Delta R.T.:
 Client Sample ID:
 Lab File: FIRE-PUMP-ROOM-1ADUP
 Acq: 28 Oct 2021 00:05

Tot Ion: 114 Resp: 3770450

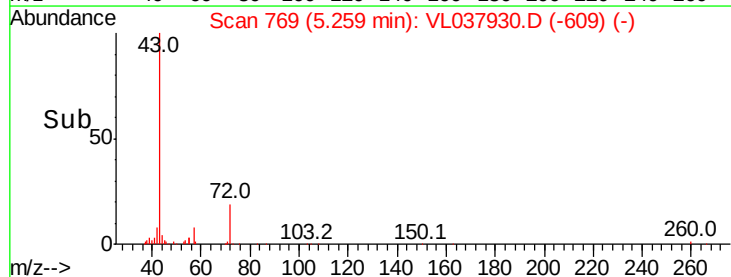
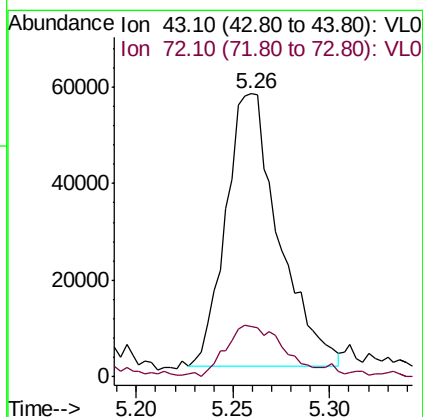
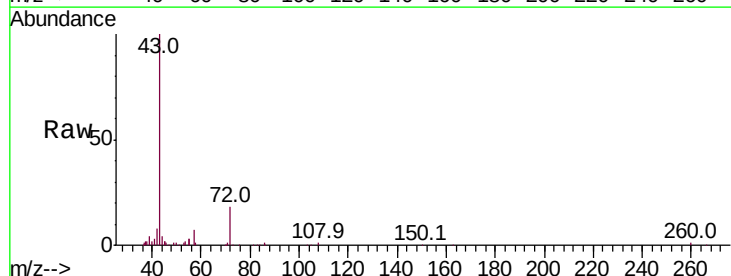
Ion	Ratio	Lower	Upper
114	100		
63	24.0	19.4	29.2
88	17.8	14.4	21.6

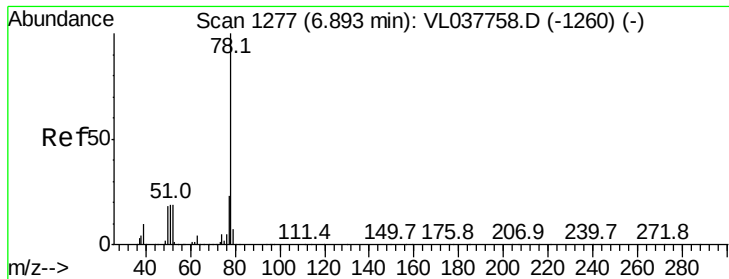


#34
 2-Butanone
 Concen: 0.708 ppbv
 RT: 5.26 min Scan# 769
 Delta R.T.: 0.01 min
 Lab File: VL037930.D
 Acq: 28 Oct 2021 00:05

Tgt Ion: 43 Resp: 107733

Ion	Ratio	Lower	Upper
43	100		
72	22.3	18.2	27.2





#36

Benzene

Concen: 0.072 ppbv

RT: 6.91 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 28 Oct 2021 00:05 FIRE-PUMP-ROOM-1ADUP

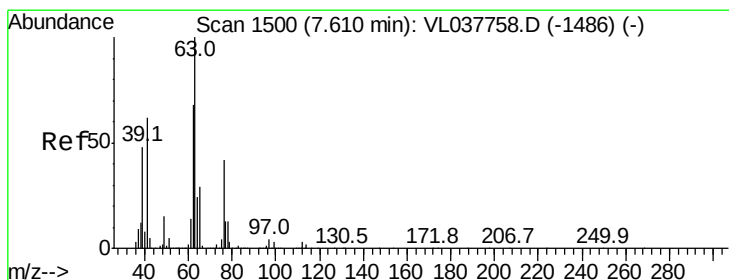
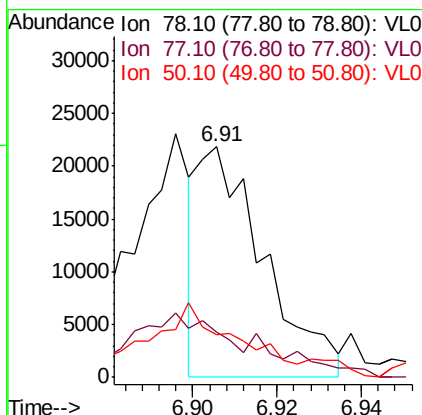
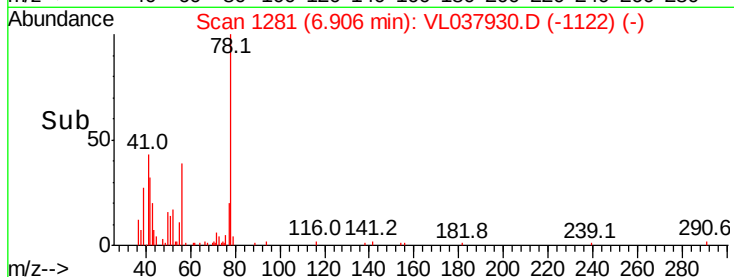
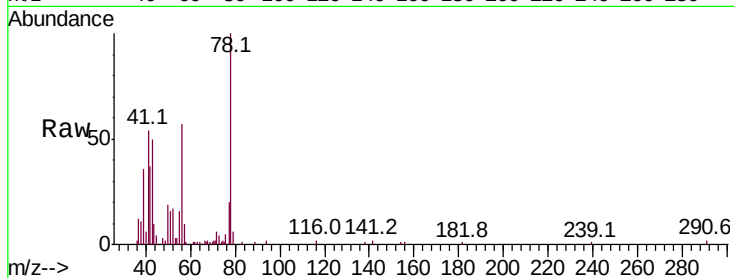
Tot Ion: 78 Resp: 23290

Ion Ratio Lower Upper

78 100

77 17.4 18.8 28.2#

50 12.5 14.7 22.1#



#39

1,2-Dichloropropane

Concen: 7.223 ppbv

RT: 7.19 min Scan# 1368

Delta R.T. -0.42 min

Lab File: VL037930.D

Acq: 28 Oct 2021 00:05

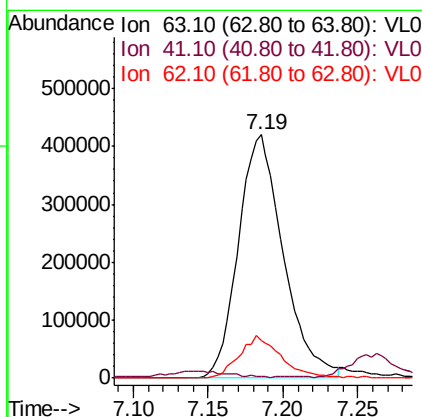
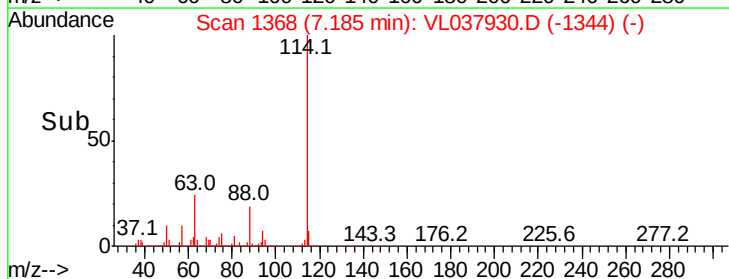
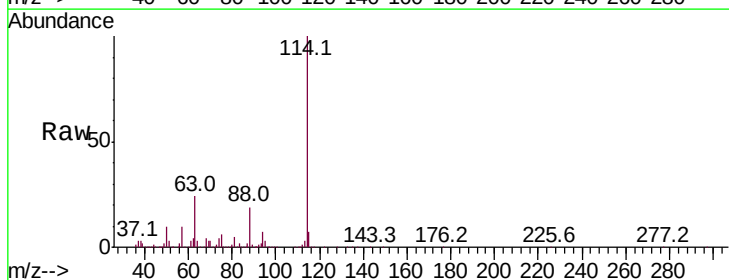
Tgt Ion: 63 Resp: 874914

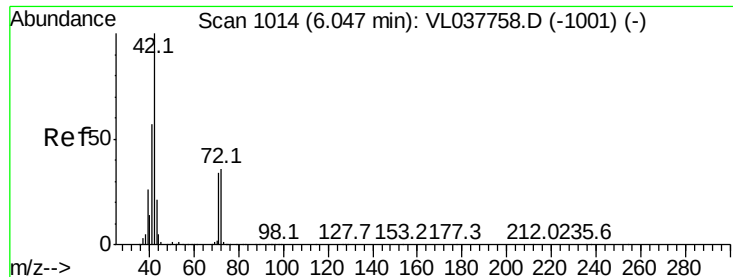
Ion Ratio Lower Upper

63 100

41 0.0 49.8 74.6#

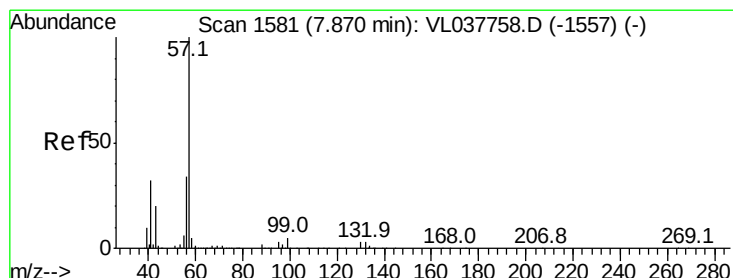
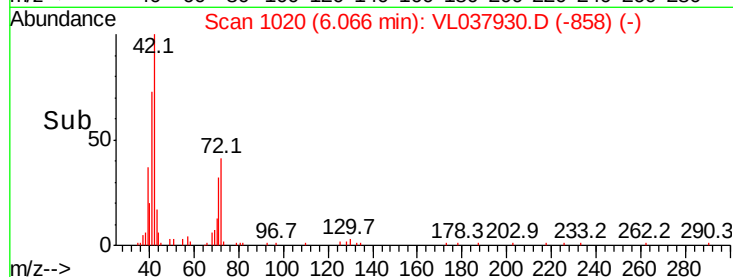
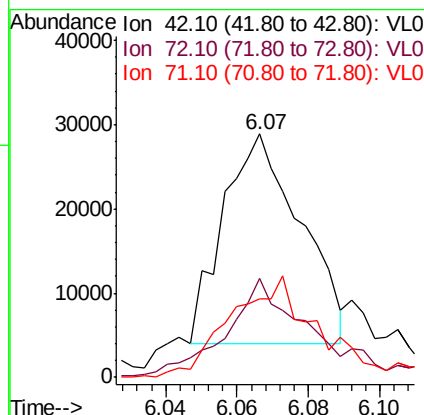
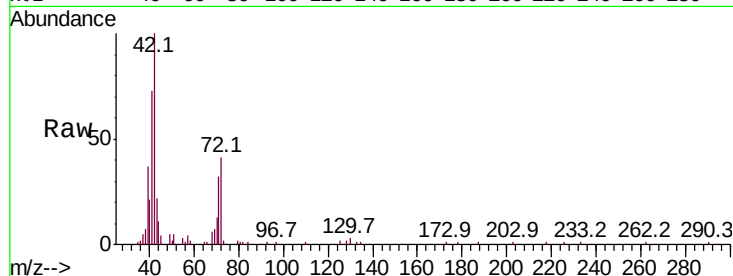
62 15.6 54.6 82.0#





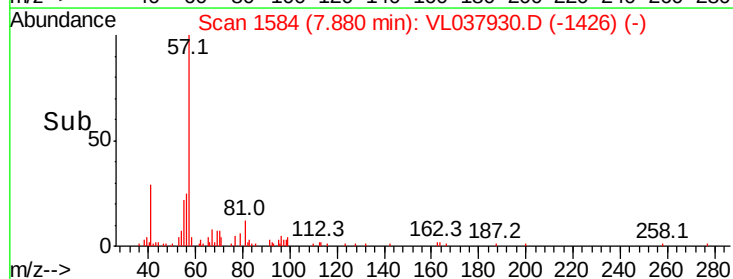
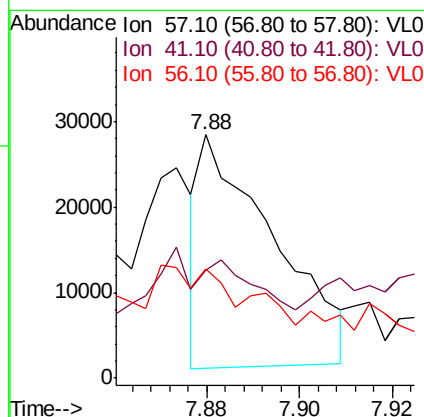
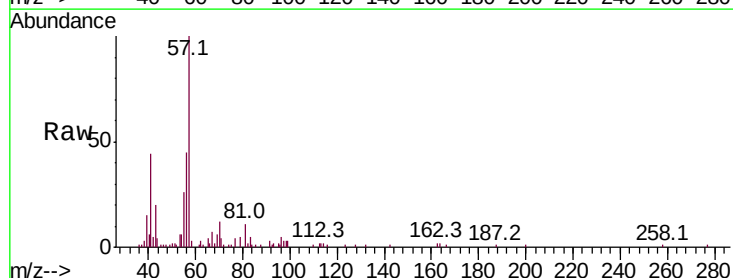
#41
Tetrahydrofuran
Concen: 0.501 ppbv
RT: 6.07
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 28 Oct 2021 00:05
FIRE-PUMP-ROOM-1ADUP

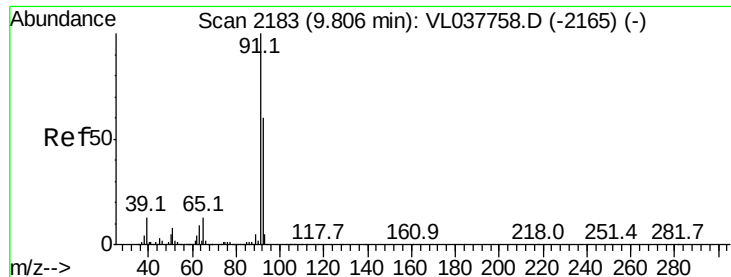
Tot Ion: 42 Resp: 37313
Ion Ratio Lower Upper
42 100
72 56.8 31.9 47.9#
71 59.8 30.3 45.5#



#44
2,2,4-Trimethylpentane
Concen: 0.056 ppbv
RT: 7.88 min Scan# 1584
Delta R.T.: 0.01 min
Lab File: VL037930.D
Acq: 28 Oct 2021 00:05

Tgt Ion: 57 Resp: 30178
Ion Ratio Lower Upper
57 100
41 0.0 25.6 38.4#
56 0.0 25.5 38.3#





#53

Toluene

Concen: 0.575 ppbv

RT: 9.81 Instrument: MSVOA_1

Delta R.T.

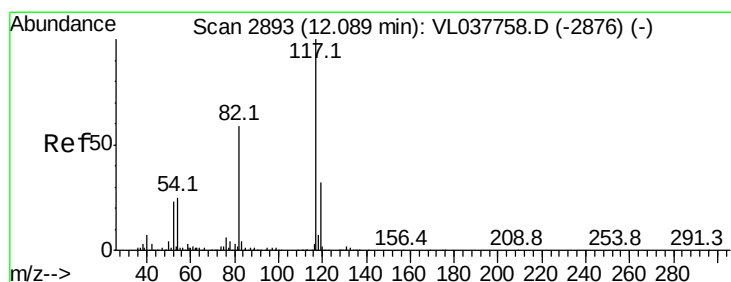
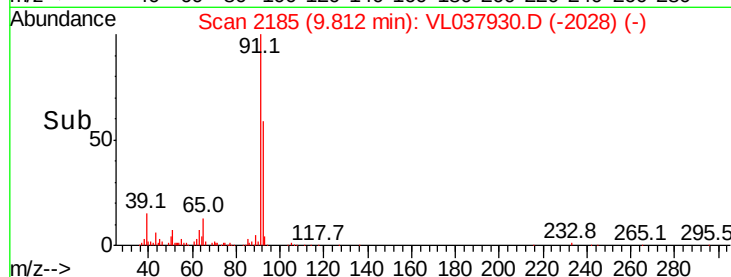
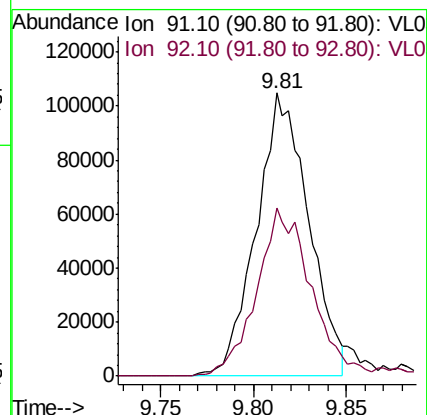
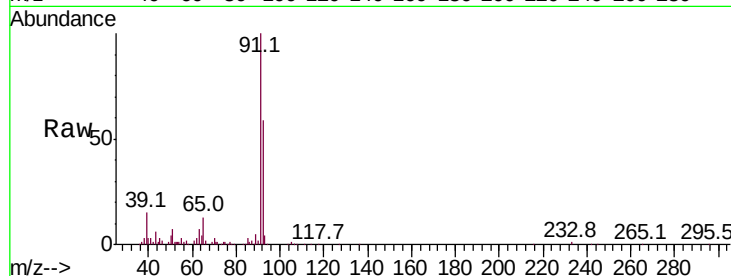
Lab File: ClientSampleId: FIRE-PUMP-ROOM-1ADUP

Tot Ion: 91 Resp: 205347

Ion Ratio Lower Upper

91 100

92 64.0 48.4 72.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2895

Delta R.T. 0.01 min

Lab File: VL037930.D

Acq: 28 Oct 2021 00:05

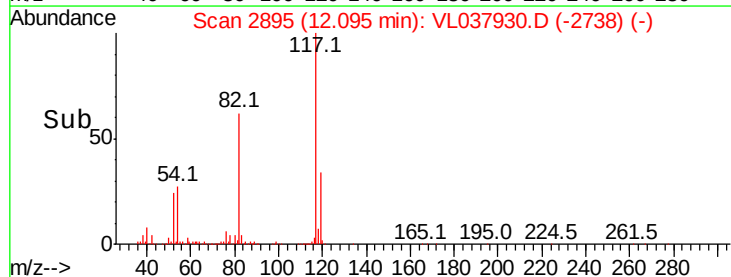
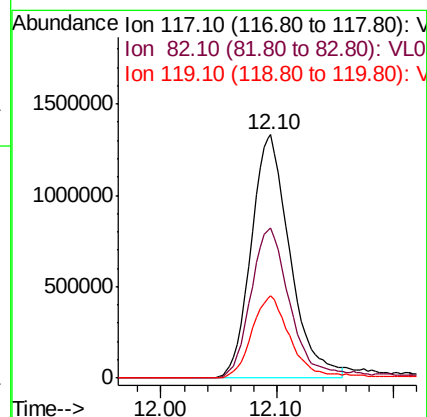
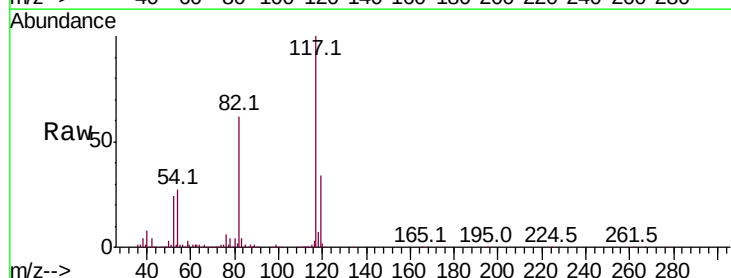
Tgt Ion: 117 Resp: 3096587

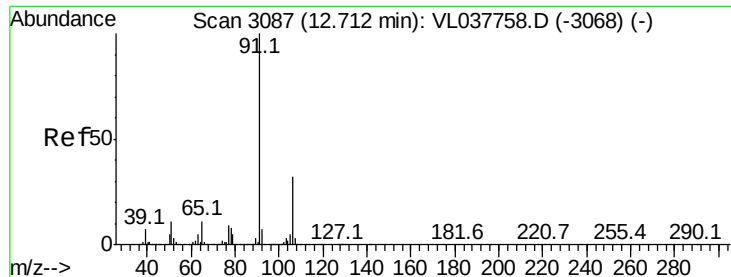
Ion Ratio Lower Upper

117 100

82 66.2 52.2 78.2

119 35.0 26.0 39.0





#58

Ethyl Benzene

Concen: 0.181 ppbv

RT: 12.98

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

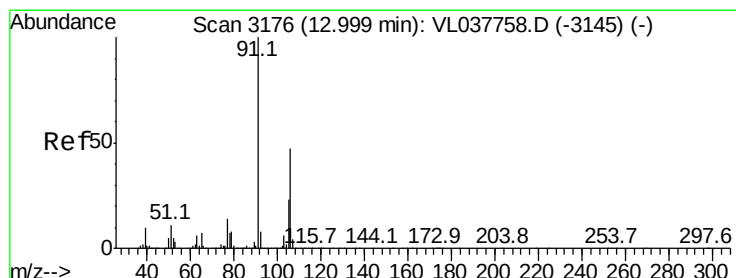
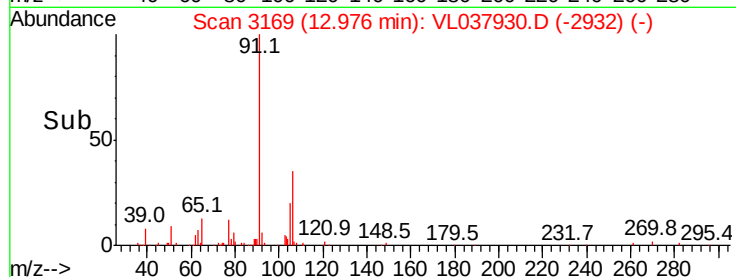
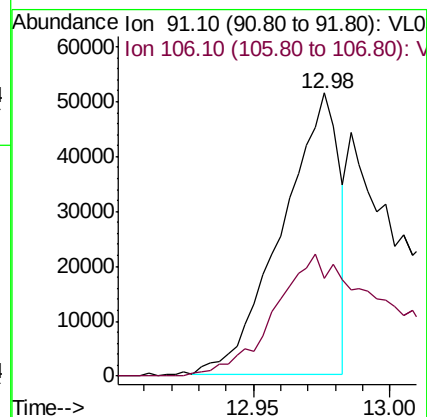
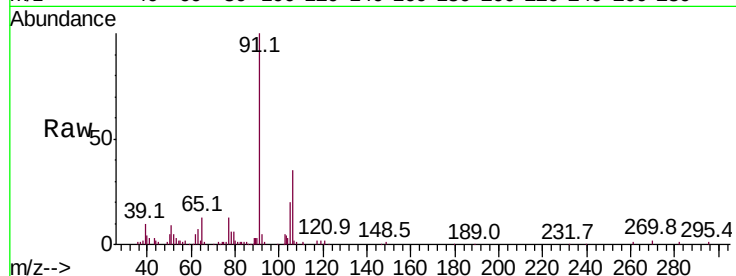
Acq: 28 Oct 2021 00:05 FIRE-PUMP-ROOM-1ADUP

Tot Ion: 91 Resp: 75061

Ion Ratio Lower Upper

91 100

106 33.9 25.3 37.9



#59

m/p-Xylene

Concen: 0.185 ppbv

RT: 12.99 min Scan# 3172

Delta R.T. -0.01 min

Lab File: VL037930.D

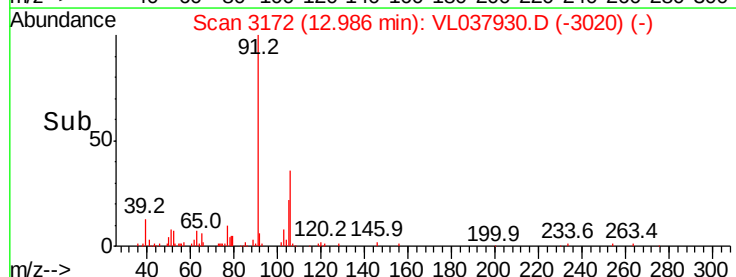
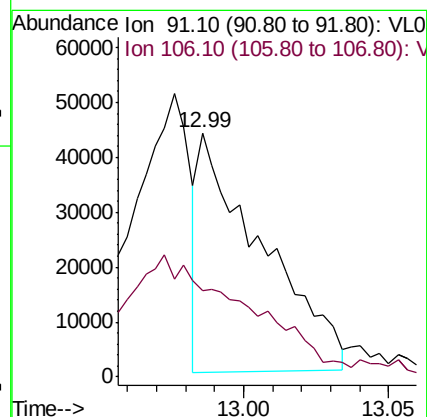
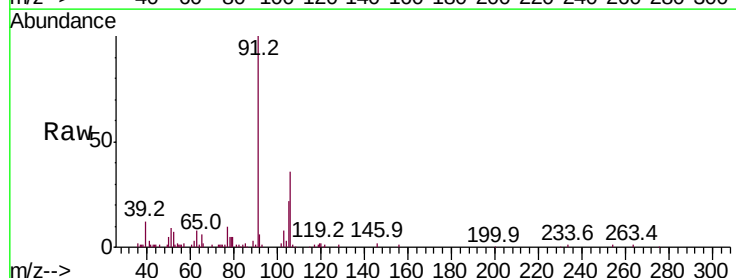
Acq: 28 Oct 2021 00:05

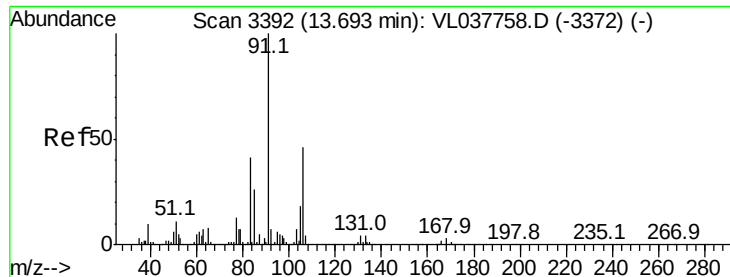
Tgt Ion: 91 Resp: 66102

Ion Ratio Lower Upper

91 100

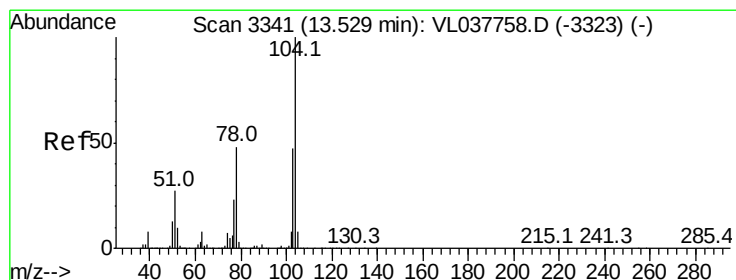
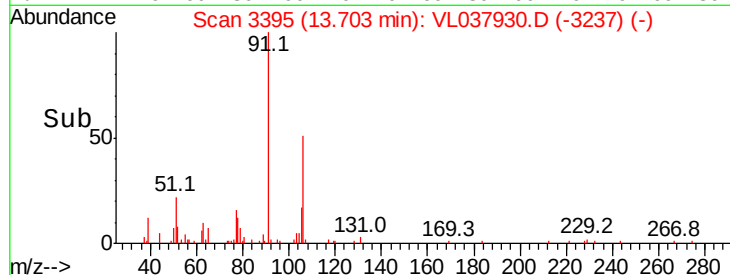
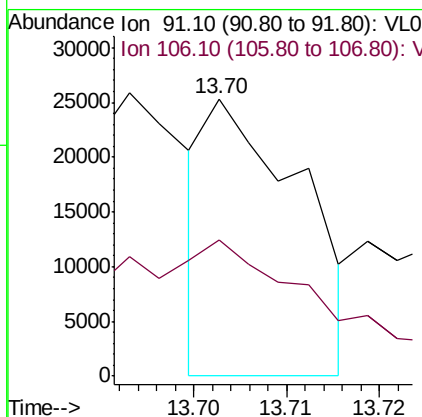
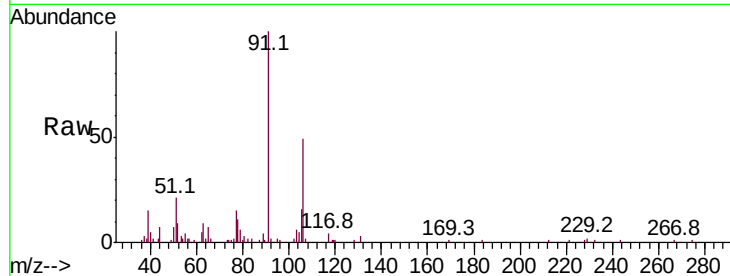
106 0.0 36.7 55.1#





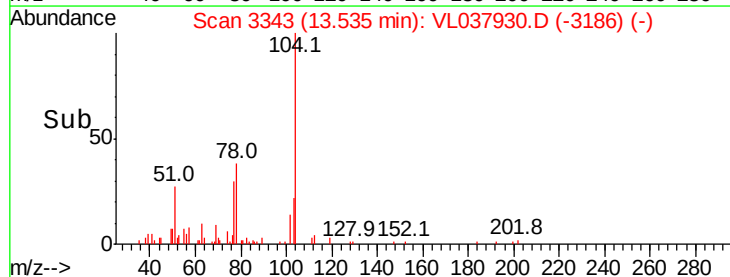
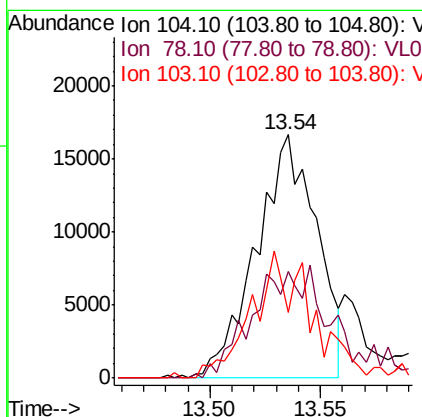
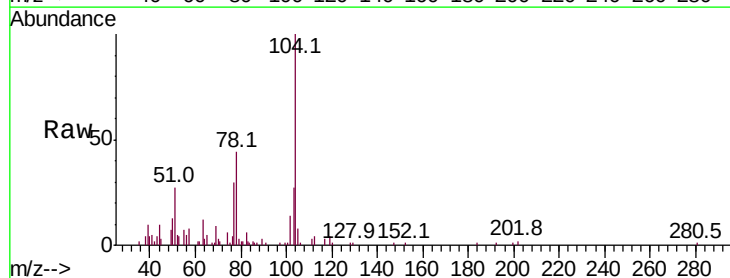
#60
o-Xylene
Concen: 0.053 ppbv
RT: 13.70
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 28 Oct 2021 00:05 FIRE-PUMP-ROOM-1ADUP

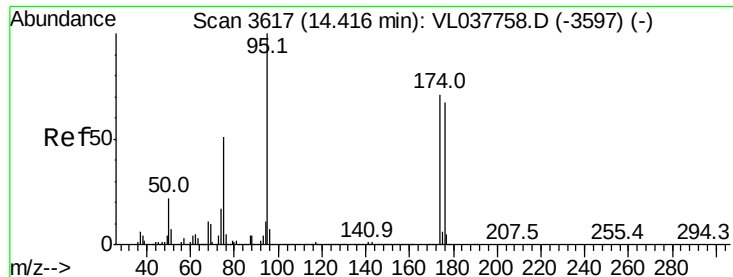
Tot Ion: 91 Resp: 18007
Ion Ratio Lower Upper
91 100
106 154.9 23.5 70.5#



#61
Styrene
Concen: 0.191 ppbv
RT: 13.54 min Scan# 3343
Delta R.T. 0.01 min
Lab File: VL037930.D
Acq: 28 Oct 2021 00:05

Tgt Ion: 104 Resp: 31642
Ion Ratio Lower Upper
104 100
78 62.1 40.6 61.0#
103 51.5 39.6 59.4





#68

1-Bromo-4-Fluorobenzene

Concen: 9.903 ppbv

RT: 14.42

Delta R.T: MSVOA_L

Lab File: ClientSampleId :

Acq: 28 Oct 2021 09:05

Tot Ion: 95 Resp: 2144540

Ion Ratio Lower Upper

95 100

174 77.2 57.8 86.6

175 5.1 4.7 7.1

