

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL102521\
 Data File : VL037899.D
 Acq On : 25 Oct 2021 18:24
 Operator : SY/AP
 Sample : M4339-02DUP
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SVE-EFFLUENTDUP

Quant Time: Oct 25 23:51:49 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	1253839	10.00	ppbv	0.01
33) 1,4-Difluorobenzene	7.19	114	3707559	10.00	ppbv	0.01
55) Chlorobenzene-d5	12.10	117	3183704	10.00	ppbv	0.01

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2272710	10.21	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.10%

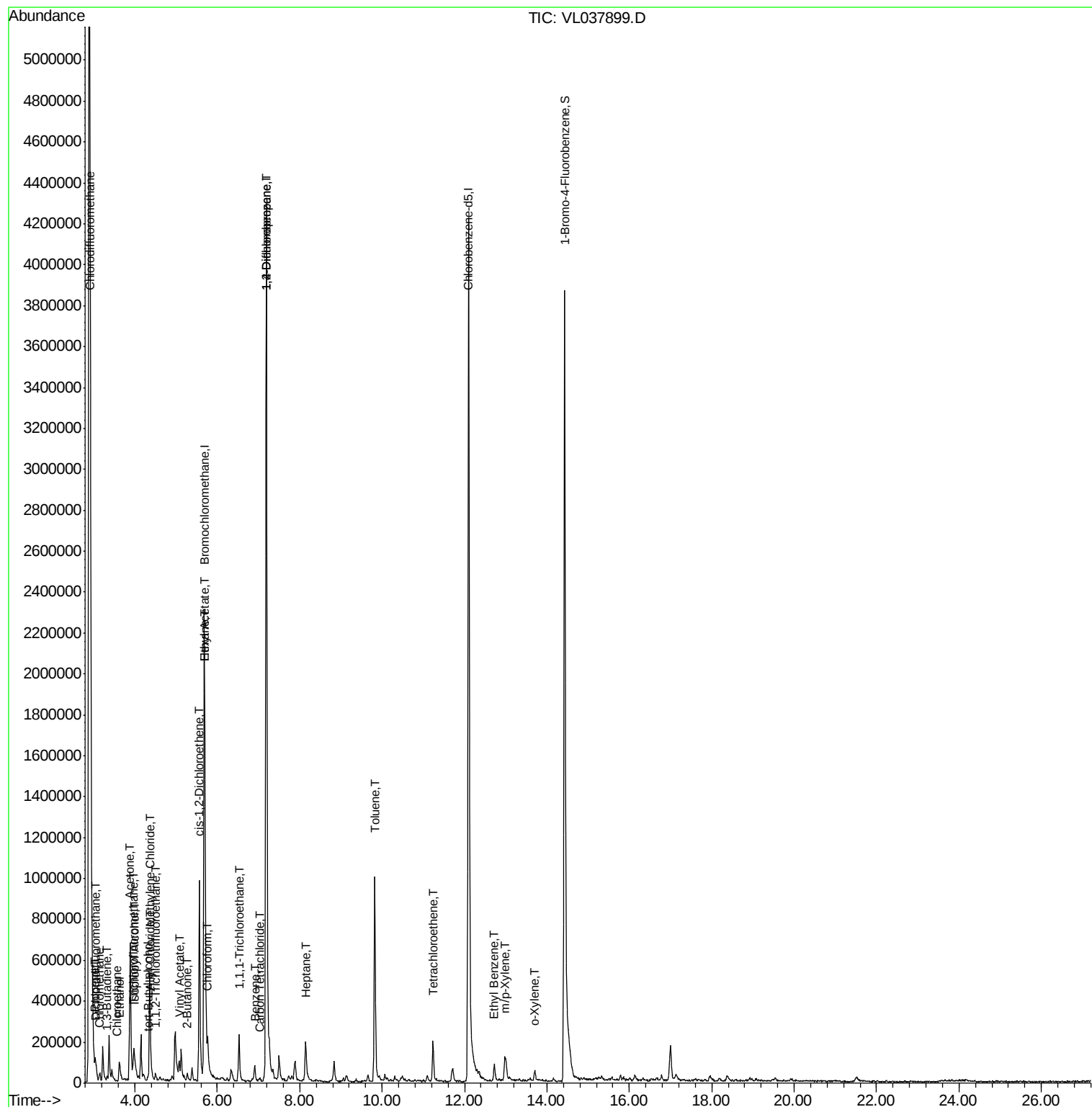
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.06	85	29284	0.146	ppbv	100
3) Chlorodifluoromethane	2.92	51	6312	0.026	ppbv	100
4) Chloromethane	3.15	50	7953	0.090	ppbv	98
7) Chloroethane	3.57	64	604	0.020	ppbv #	40
9) Propene	3.03	41	22168	0.250	ppbv	93
10) Heptane	8.15	43	22789	0.113	ppbv #	1
11) Trichlorofluoromethane	3.96	101	43562	0.244	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.50	101	8041	0.059	ppbv #	10
13) Ethanol	3.63	45	139544	19.249	ppbv	89
15) Acetone	3.88	43	499243	4.435	ppbv #	84
16) 1,3-Butadiene	3.33	39	2740	0.033	ppbv #	11
17) tert-Butyl alcohol	4.31	59	2824	0.024	ppbv #	71
19) Isopropyl Alcohol	3.99	45	89026	1.271	ppbv #	87
20) Methylene Chloride	4.36	84	203920	3.586	ppbv	93
21) Allyl Chloride	4.39	41	2320	0.023	ppbv #	23
23) Vinyl Acetate	5.09	43	7708	0.046	ppbv #	1
25) Ethyl Acetate	5.70	43	168334	0.533	ppbv #	81
26) Hexane	5.70	57	194498	1.251	ppbv #	48
29) Chloroform	5.76	83	91267	0.411	ppbv	96
31) cis-1,2-Dichloroethene	5.56	61	620849	4.397	ppbv	99
32) 1,1,1-Trichloroethane	6.53	97	138855	0.659	ppbv	95
34) 2-Butanone	5.27	43	23525	0.157	ppbv #	41
35) Carbon Tetrachloride	7.04	117	4646	0.022	ppbv #	37
36) Benzene	6.90	78	26155	0.083	ppbv #	96
39) 1,2-Dichloropropane	7.19	63	857882	7.202	ppbv #	28
52) Tetrachloroethene	11.24	164	29329	0.238	ppbv	88
53) Toluene	9.82	91	806234	2.297	ppbv	99
58) Ethyl Benzene	12.73	91	66179	0.155	ppbv #	88
59) m/p-Xylene	13.00	91	53081	0.145	ppbv #	30
60) o-Xylene	13.71	91	11832	0.034	ppbv #	1

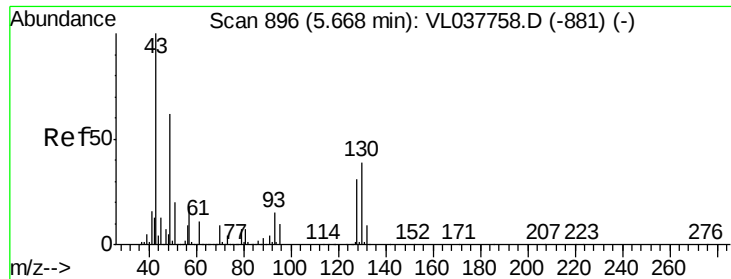
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL100421AIR.M
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QLast Update : Mon Oct 04 17:43:54 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

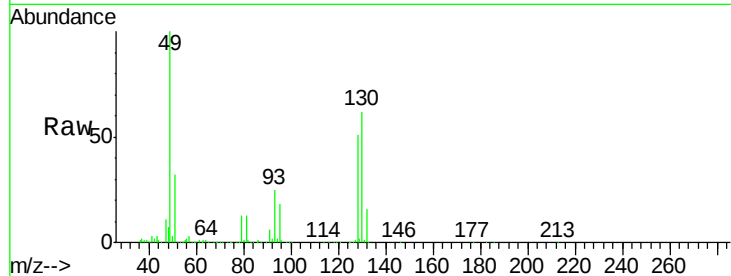
Tgt Ion: 49 Resp: 1253839

Ion Ratio Lower Upper

49 100

128 52.1 27.1 81.3

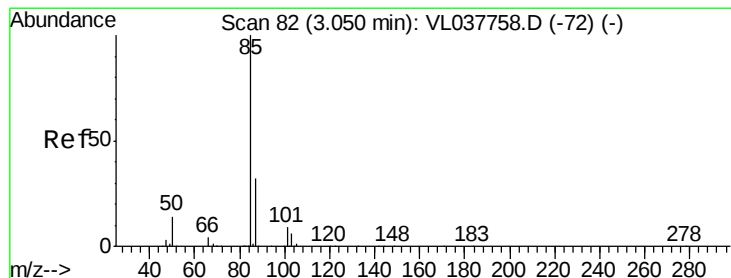
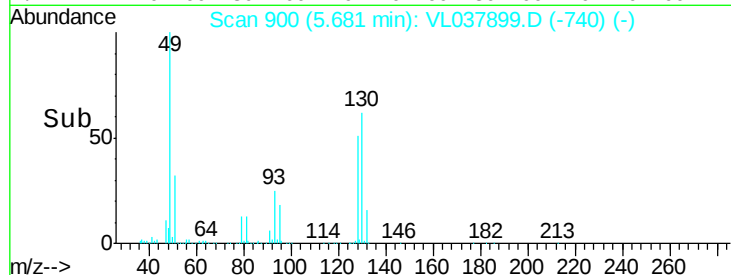
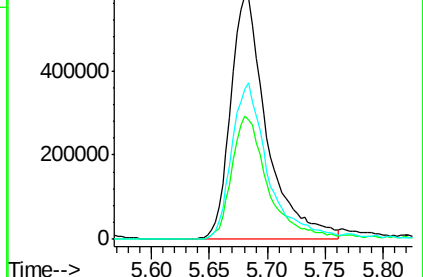
130 67.1 33.2 99.6



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.146 ppbv

RT: 3.06 min Scan# 86

Delta R.T. 0.01 min

Lab File: VL037899.D

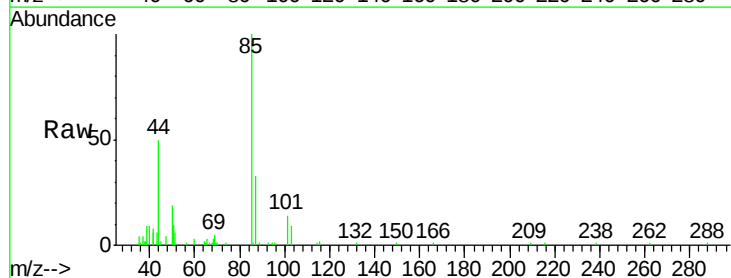
Acq: 25 Oct 2021 18:24

Tgt Ion: 85 Resp: 29284

Ion Ratio Lower Upper

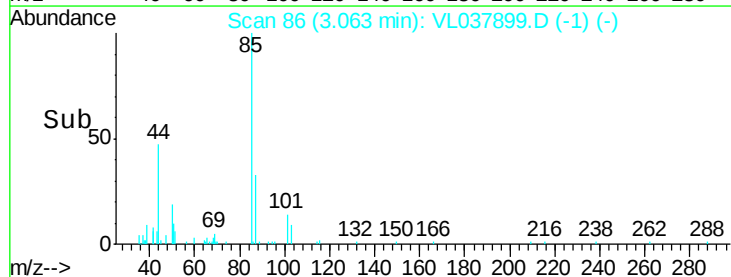
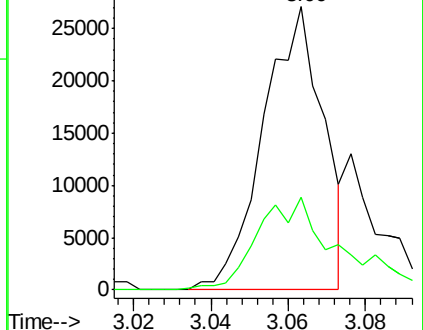
85 100

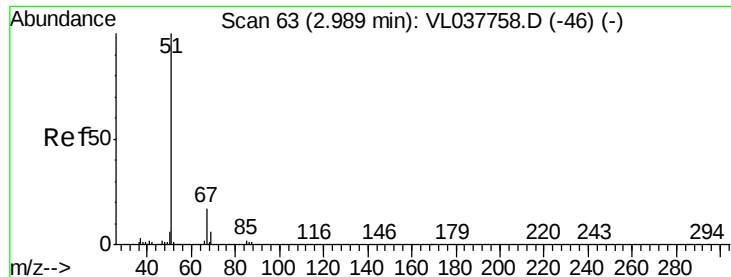
87 31.9 25.7 38.5



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.026 ppbv

RT: 2.92 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SVE-EFFLUENTDUP

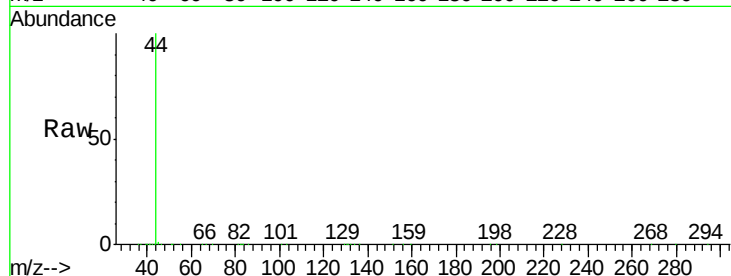
Acq: 25 Oct 2021 18:24

Tgt Ion: 51 Resp: 6312

Ion Ratio Lower Upper

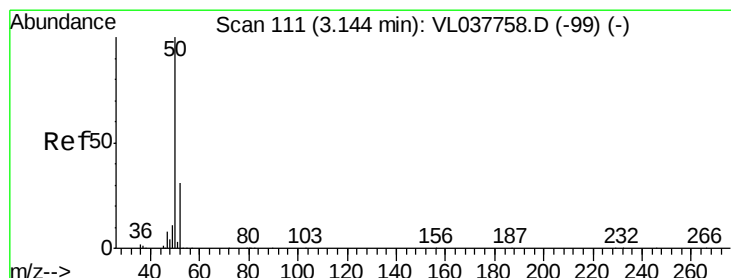
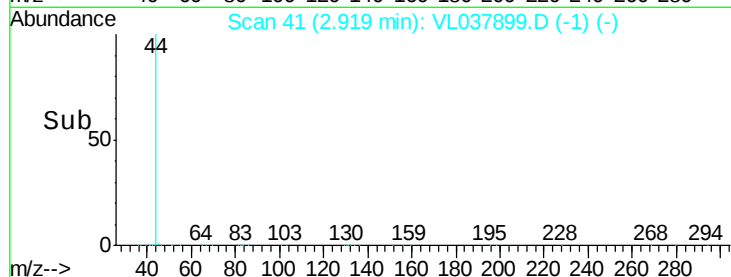
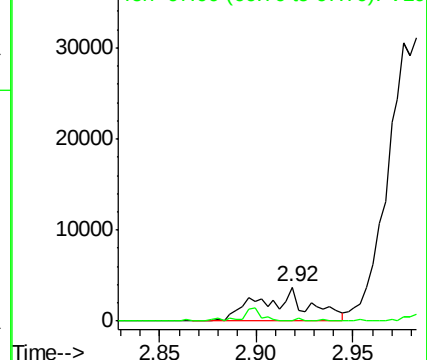
51 100

67 17.1 13.5 20.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.090 ppbv

RT: 3.15 min Scan# 113

Delta R.T. 0.01 min

Lab File: VL037899.D

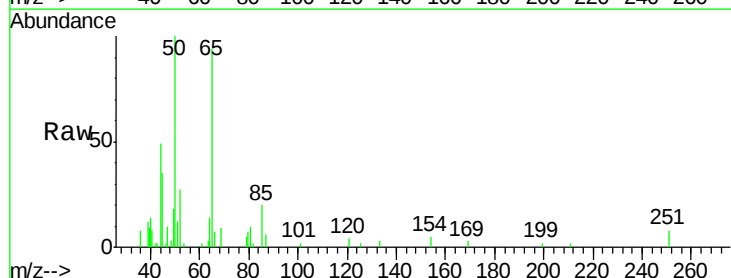
Acq: 25 Oct 2021 18:24

Tgt Ion: 50 Resp: 7953

Ion Ratio Lower Upper

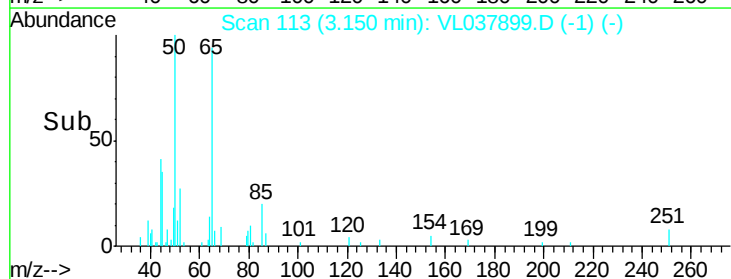
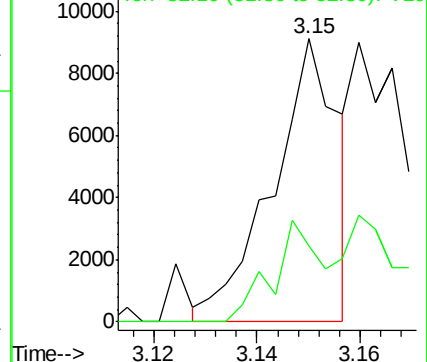
50 100

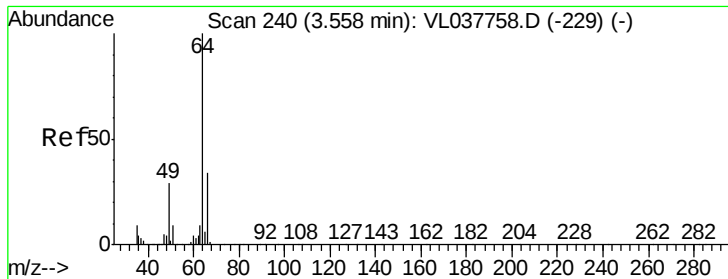
52 31.6 24.4 36.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#7

Chloroethane

Concen: 0.020 ppbv

RT: 3.57 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

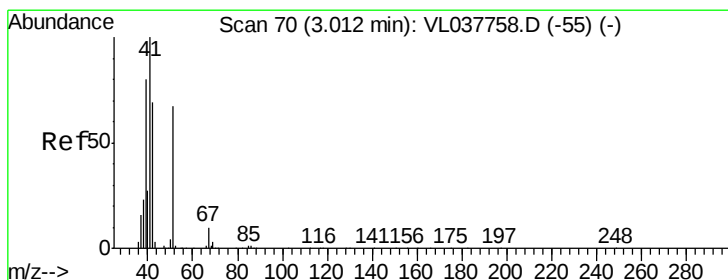
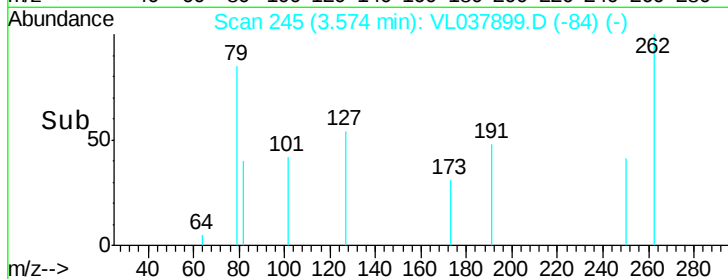
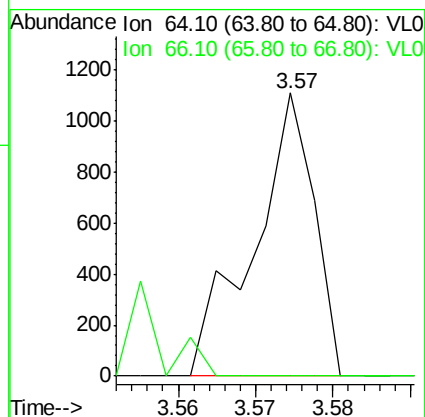
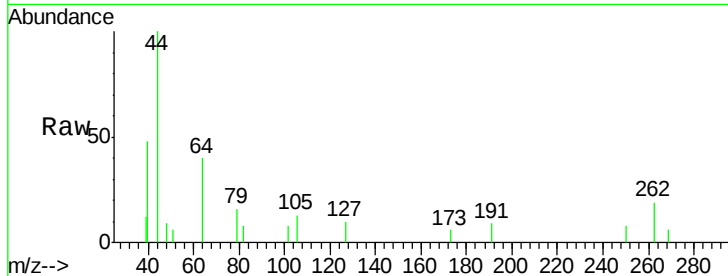
Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

Tgt Ion: 64 Resp: 604

Ion Ratio Lower Upper

64 100

66 0.0 27.5 41.3#



#9

Propene

Concen: 0.250 ppbv

RT: 3.03 min Scan# 77

Delta R.T. 0.02 min

Lab File: VL037899.D

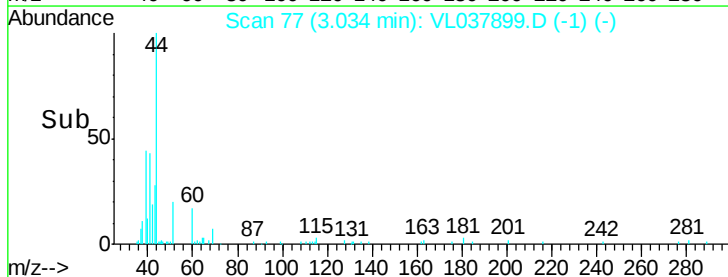
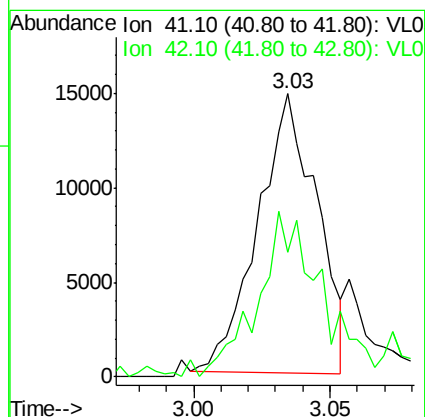
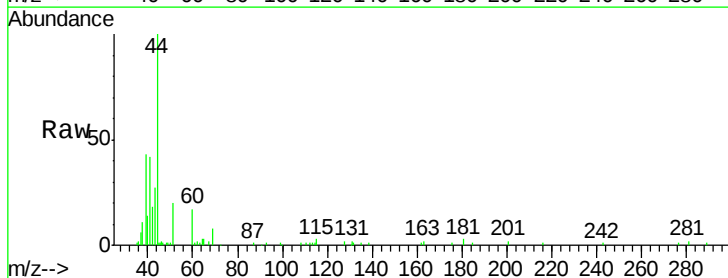
Acq: 25 Oct 2021 18:24

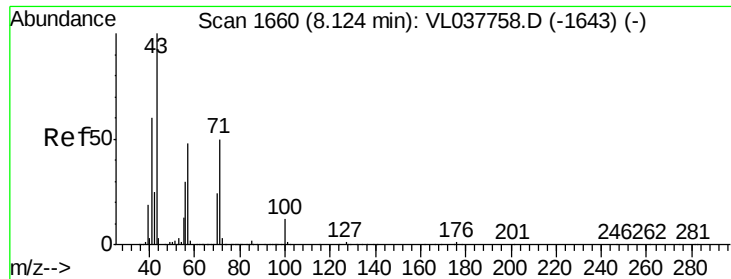
Tgt Ion: 41 Resp: 22168

Ion Ratio Lower Upper

41 100

42 73.4 54.2 81.2





#10

Heptane

Concen: 0.113 ppbv

RT: 8.15 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

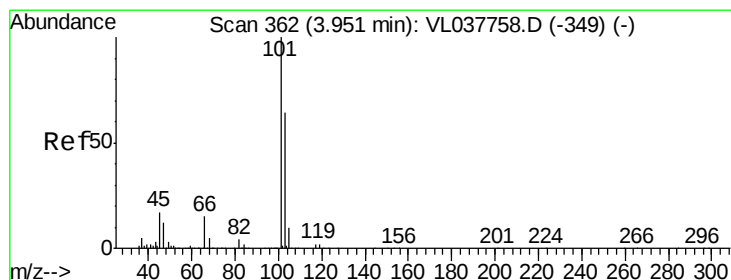
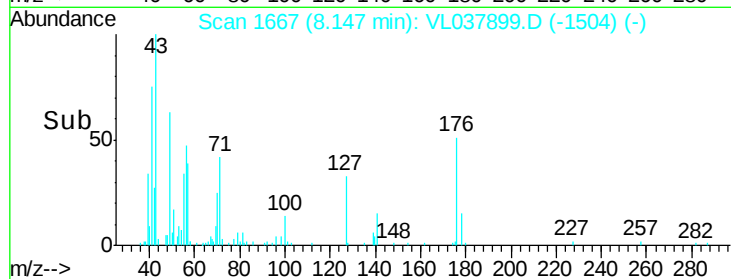
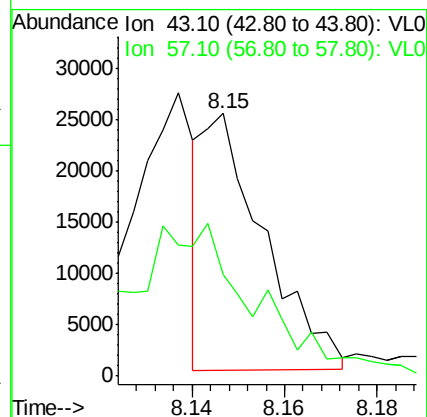
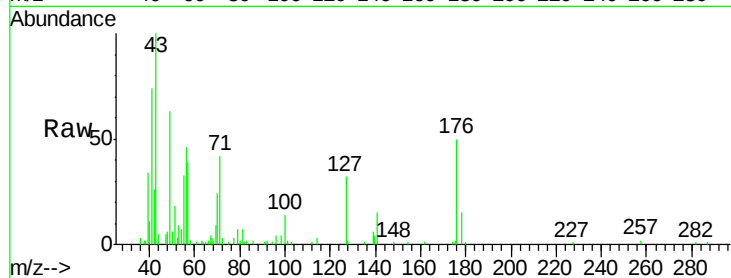
Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

Tgt Ion: 43 Resp: 22789

Ion Ratio Lower Upper

43 100

57 130.9 40.0 60.0#



#11

Trichlorofluoromethane

Concen: 0.244 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.01 min

Lab File: VL037899.D

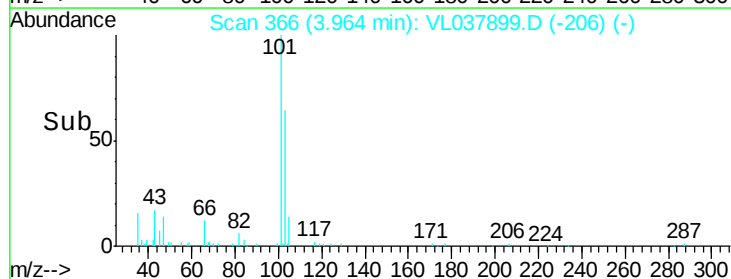
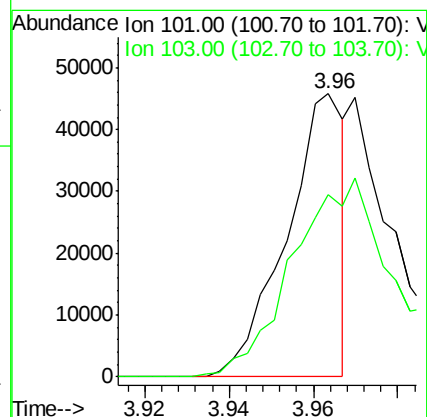
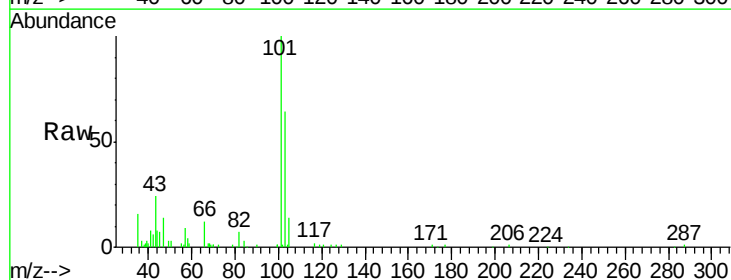
Acq: 25 Oct 2021 18:24

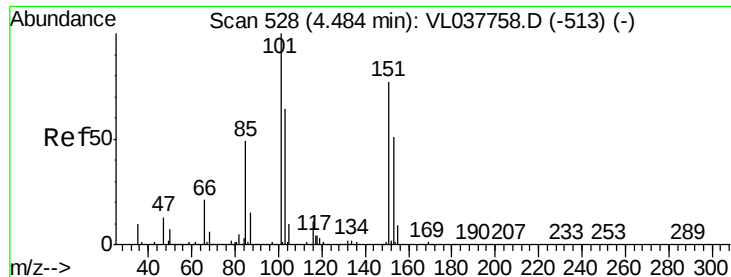
Tgt Ion: 101 Resp: 43562

Ion Ratio Lower Upper

101 100

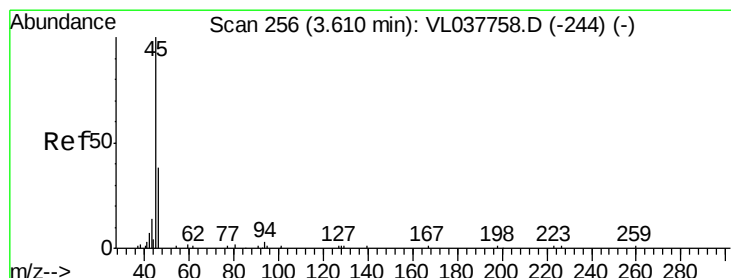
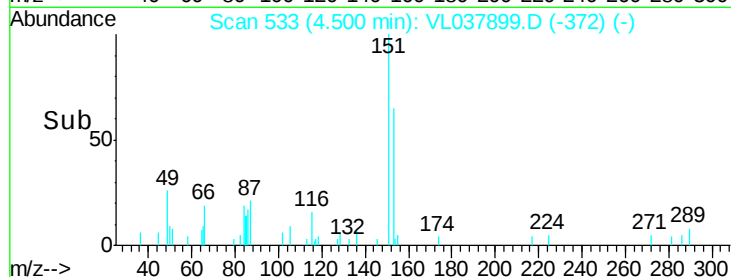
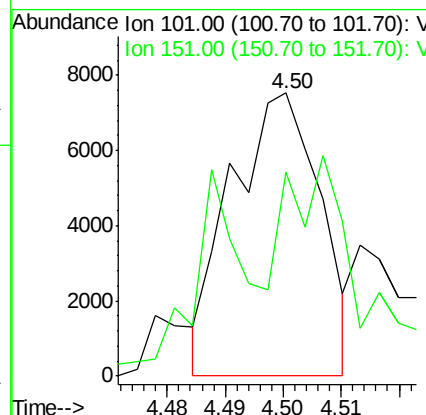
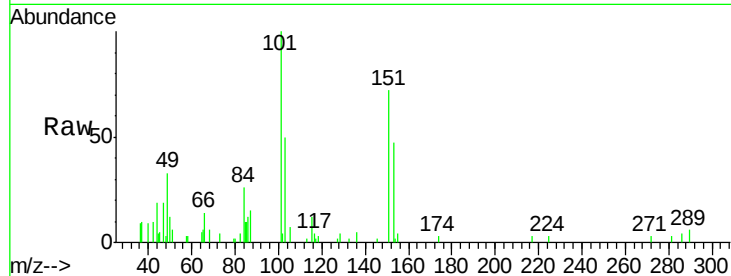
103 63.8 51.5 77.3





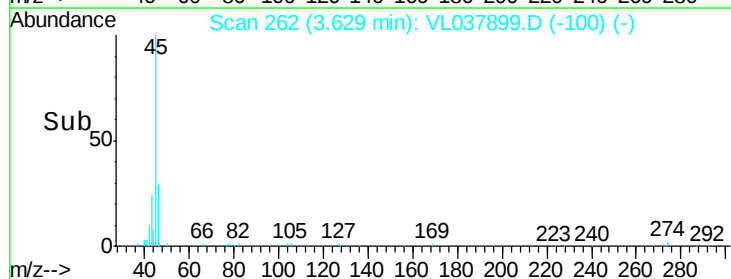
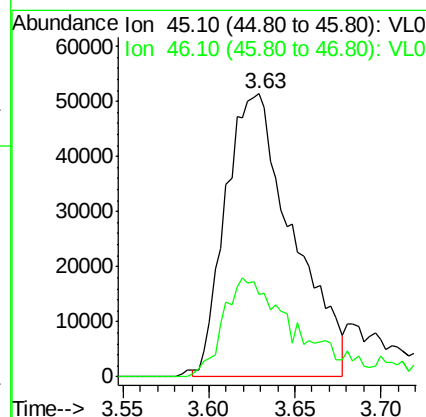
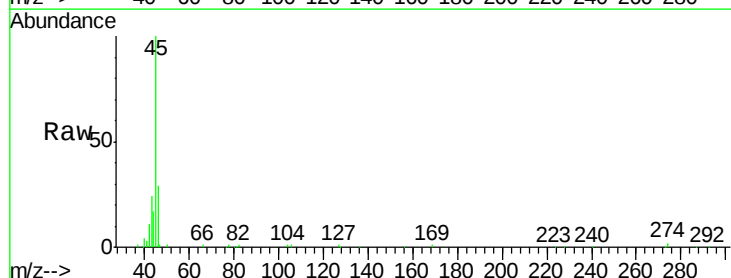
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.059 ppbv
 RT: 4.50
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 25 Oct 2021 18:24

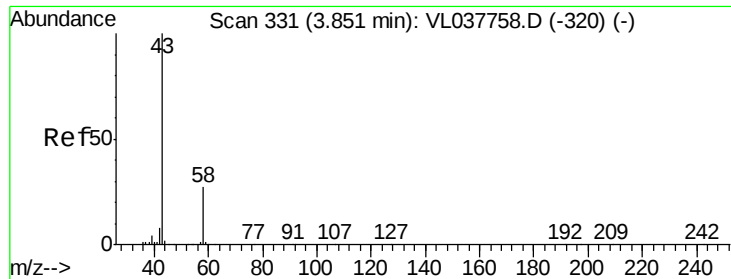
Tgt Ion: 101 Resp: 8041
 Ion Ratio Lower Upper
 101 100
 151 0.0 62.9 94.3#



#13
 Ethanol
 Concen: 19.249 ppbv
 RT: 3.63 min Scan# 262
 Delta R.T. 0.02 min
 Lab File: VL037899.D
 Acq: 25 Oct 2021 18:24

Tgt Ion: 45 Resp: 139544
 Ion Ratio Lower Upper
 45 100
 46 42.8 20.2 81.0





#15

Acetone

Concen: 4.435 ppbv

RT: 3.88 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SVE-EFFLUENTDUP

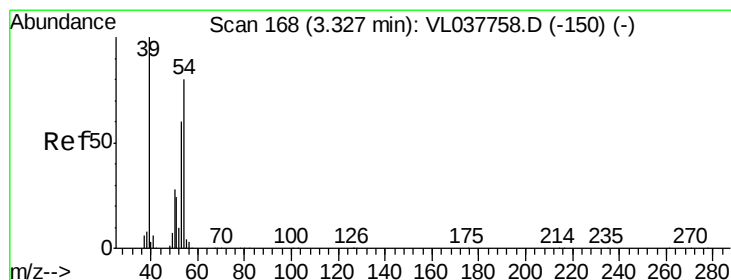
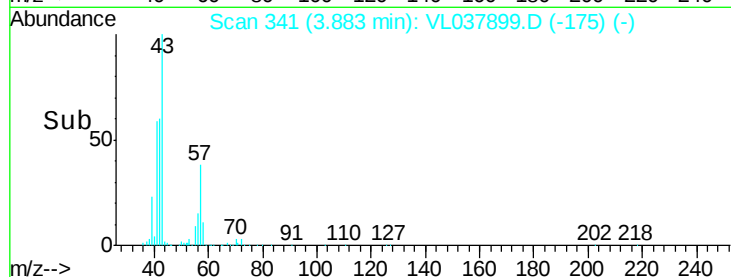
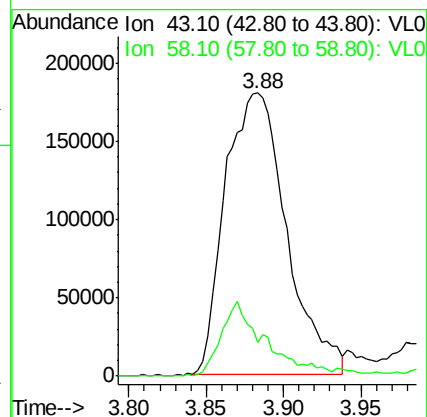
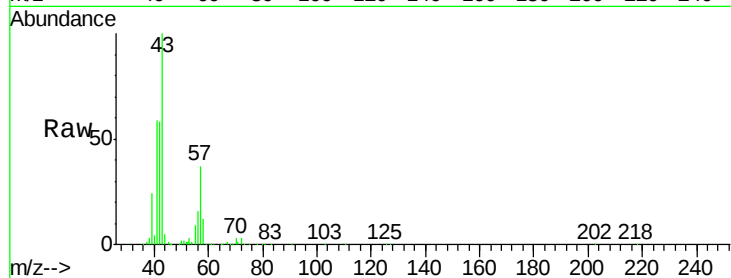
Acq: 25 Oct 2021 18:24

Tgt Ion: 43 Resp: 499243

Ion Ratio Lower Upper

43 100

58 20.1 23.0 34.6#



#16

1,3-Butadiene

Concen: 0.033 ppbv

RT: 3.33 min Scan# 169

Delta R.T. 0.00 min

Lab File: VL037899.D

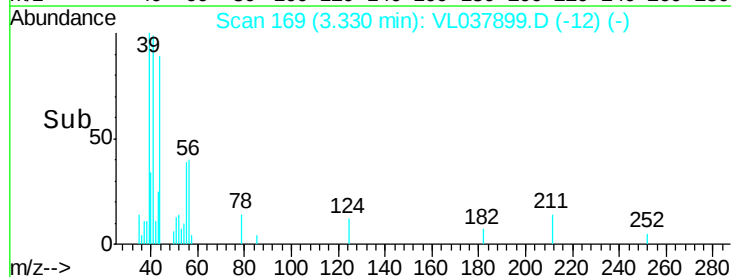
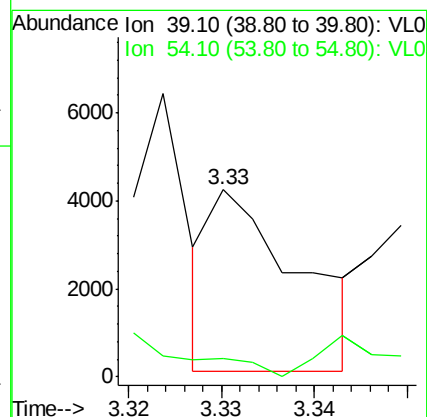
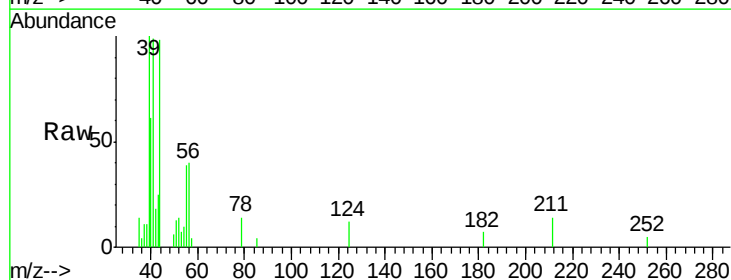
Acq: 25 Oct 2021 18:24

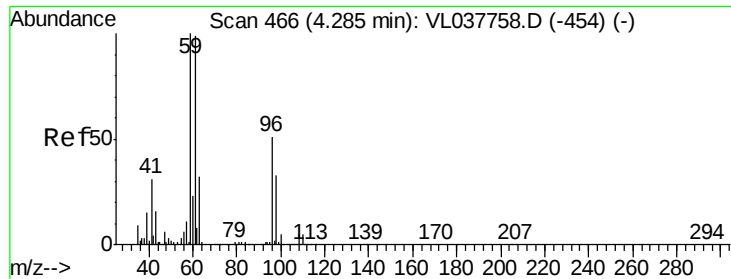
Tgt Ion: 39 Resp: 2740

Ion Ratio Lower Upper

39 100

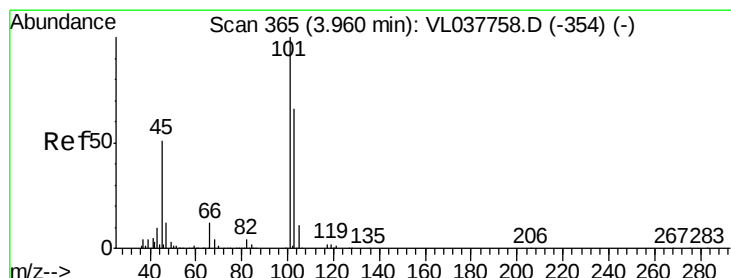
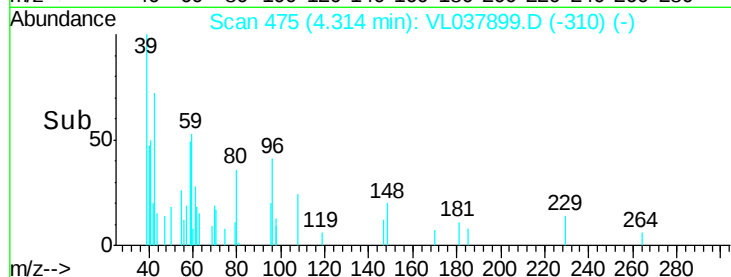
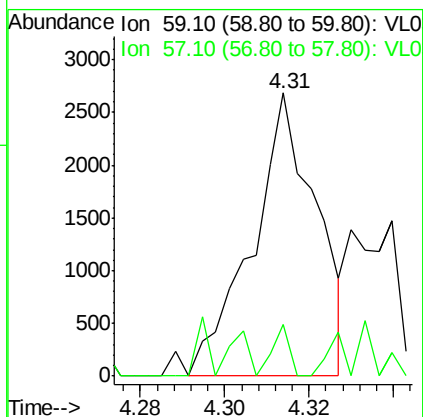
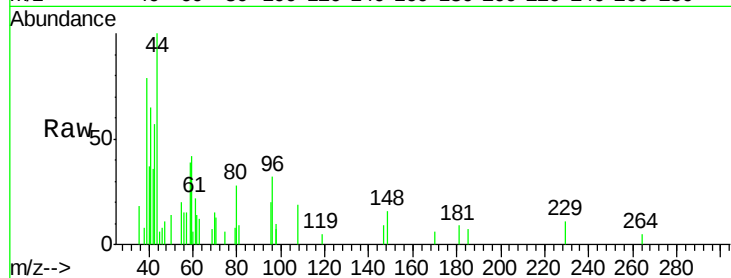
54 0.0 61.7 92.5#





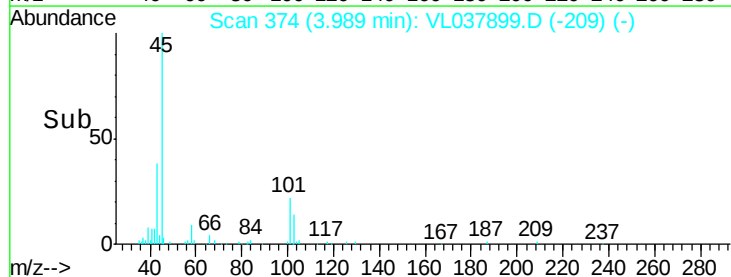
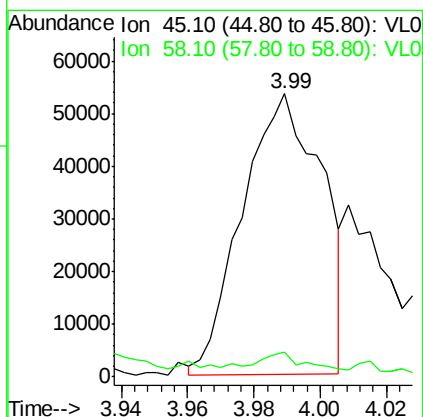
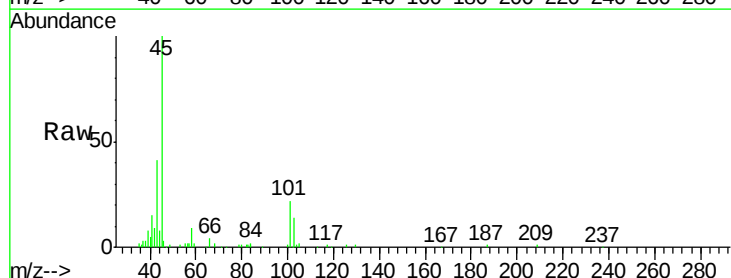
#17
 tert-Butyl alcohol
 Concen: 0.024 ppbv
 RT: 4.31
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SVE-EFFLUENTDUP
 Acq: 25 Oct 2021 18:24

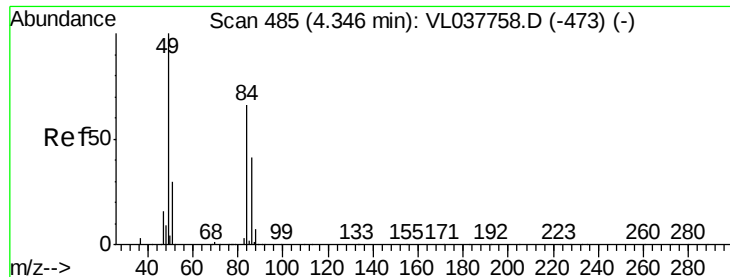
Tgt Ion: 59 Resp: 2824
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.6 13.0#



#19
 Isopropyl Alcohol
 Concen: 1.271 ppbv
 RT: 3.99 min Scan# 374
 Delta R.T. 0.03 min
 Lab File: VL037899.D
 Acq: 25 Oct 2021 18:24

Tgt Ion: 45 Resp: 89026
 Ion Ratio Lower Upper
 45 100
 58 6.5 1.1 1.7#





#20

Methylene Chloride

Concen: 3.586 ppbv

RT: 4.36 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

Tgt Ion: 84 Resp: 203920

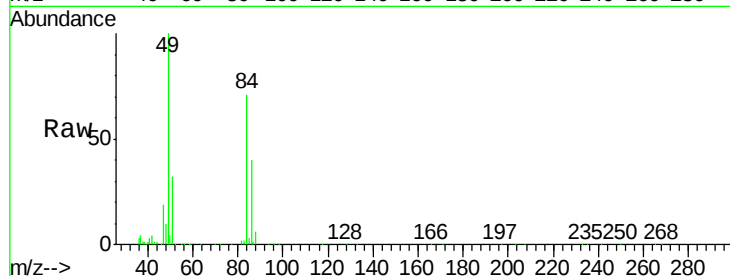
Ion Ratio Lower Upper

84 100

49 140.3 120.7 181.1

51 44.6 36.2 54.4

86 55.5 49.6 74.4

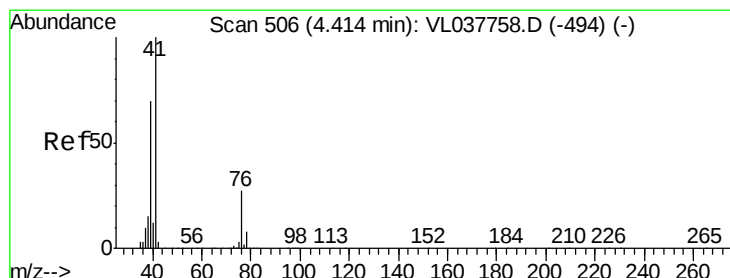
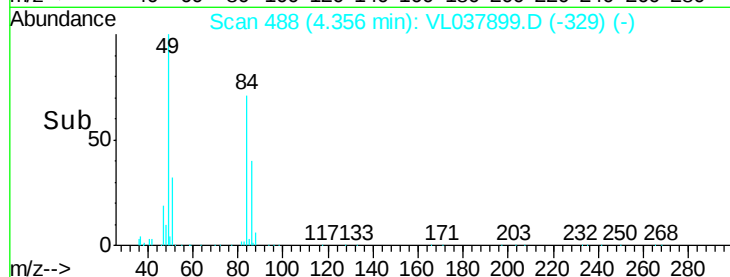
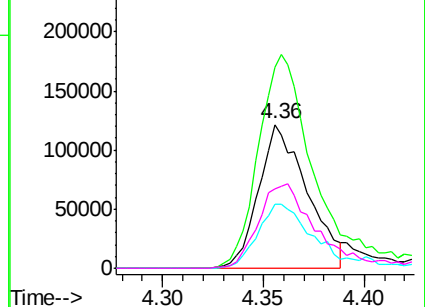


Abundance Ion 84.00 (83.70 to 84.70): VL0

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

Allyl Chloride

Concen: 0.023 ppbv

RT: 4.39 min Scan# 498

Delta R.T. -0.03 min

Lab File: VL037899.D

Acq: 25 Oct 2021 18:24

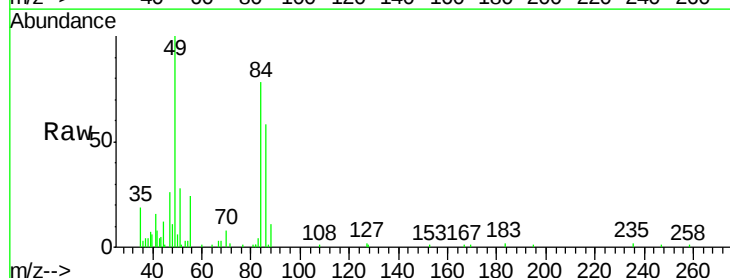
Tgt Ion: 41 Resp: 2320

Ion Ratio Lower Upper

41 100

76 0.0 22.4 33.6#

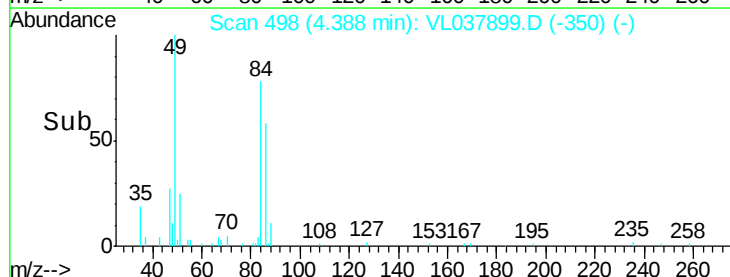
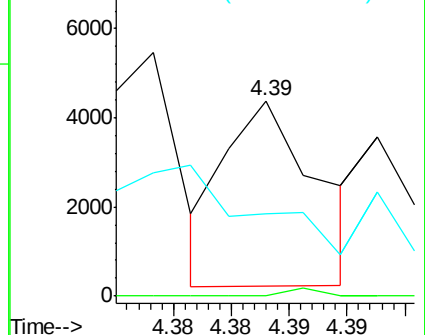
39 0.0 58.0 87.0#

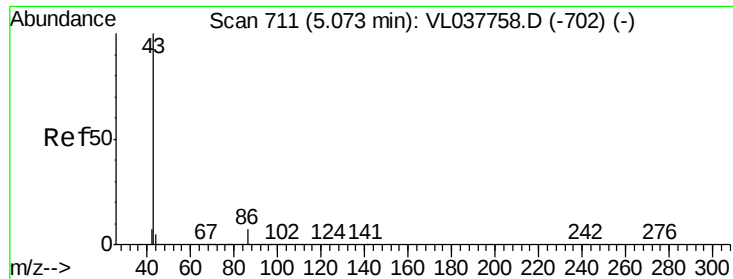


Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 76.10 (75.80 to 76.80): VL0

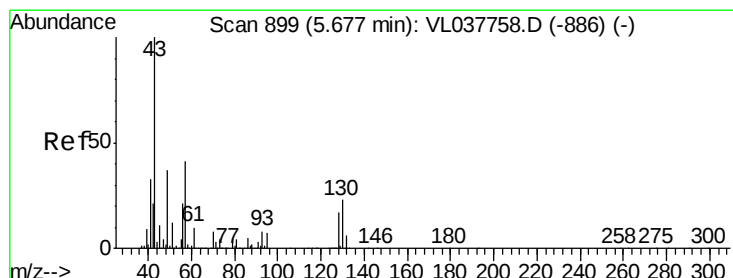
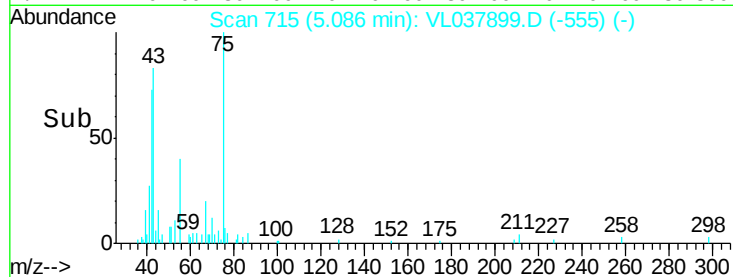
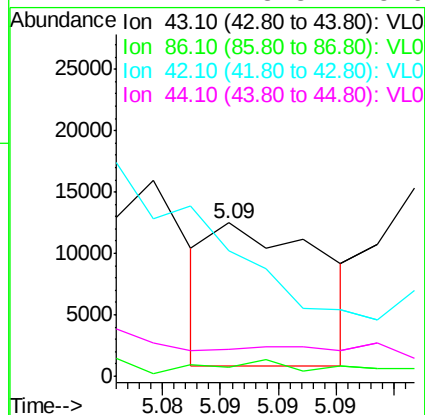
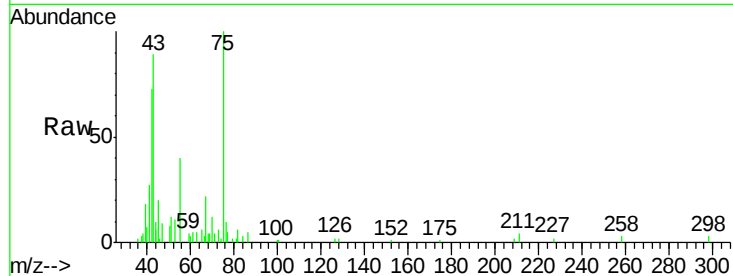
Ion 39.10 (38.80 to 39.80): VL0





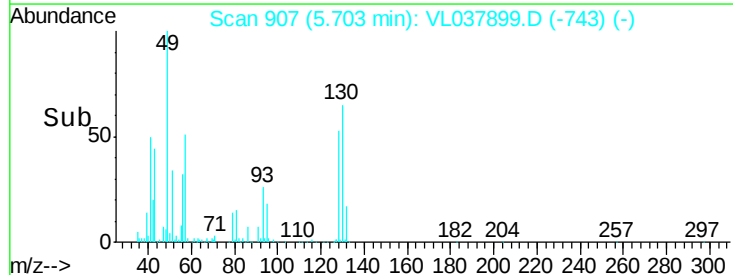
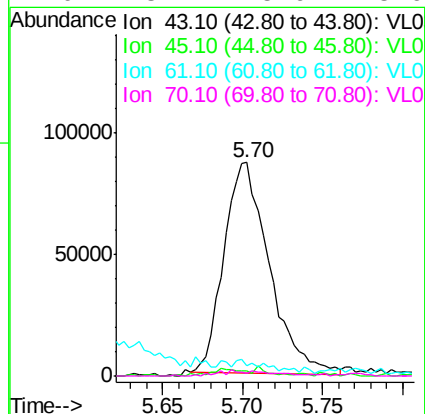
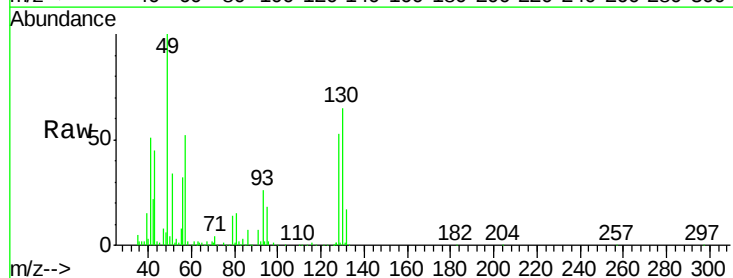
#23
 Vinyl Acetate
 Concen: 0.046 ppbv
 RT: 5.09
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SVE-EFFLUENTDUP
 Acq: 25 Oct 2021 18:24

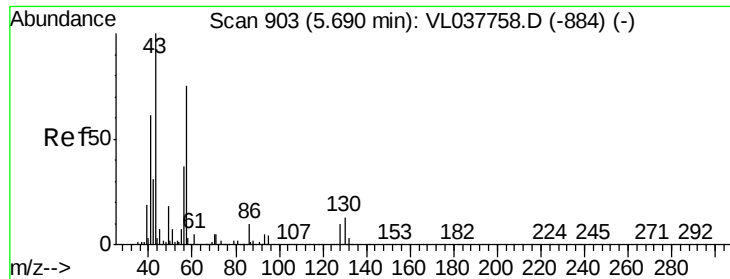
Tgt Ion:	43	Resp:	7708
Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.0	7.4#
42	103.5	7.4	11.0#
44	2.1	3.8	5.6#



#25
 Ethyl Acetate
 Concen: 0.533 ppbv
 RT: 5.70 min Scan# 907
 Delta R.T. 0.03 min
 Lab File: VL037899.D
 Acq: 25 Oct 2021 18:24

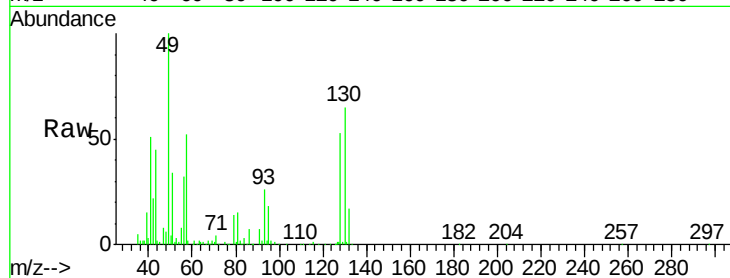
Tgt Ion:	43	Resp:	168334
Ion	Ratio	Lower	Upper
43	100		
45	3.9	8.1	12.1#
61	0.0	7.5	11.3#
70	3.2	5.9	8.9#



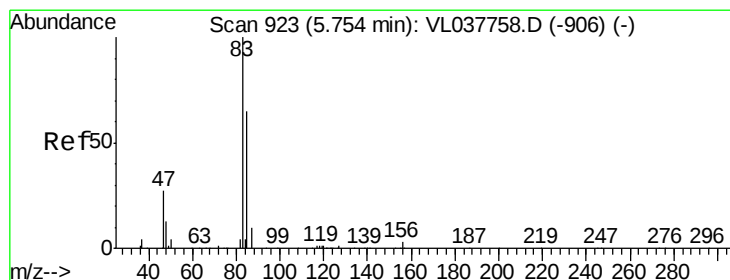
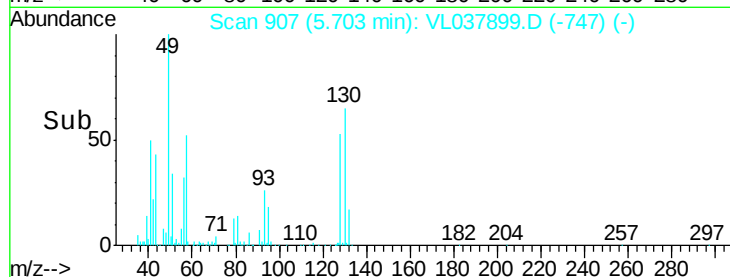
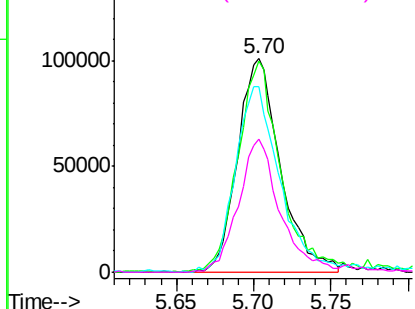


#26
Hexane
Concen: 1.251 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

Tgt Ion: 57 Resp: 194498
Ion Ratio Lower Upper
57 100
41 100.2 69.6 104.4
43 94.2 171.4 257.0#
56 62.3 42.0 63.0

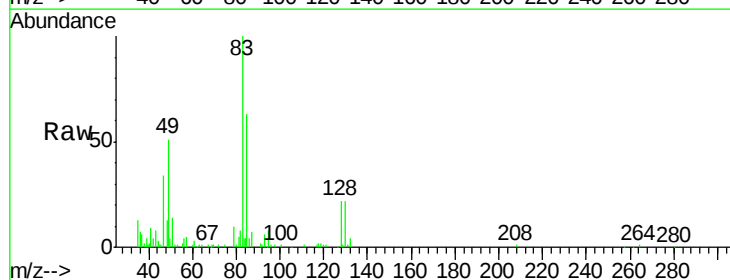


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

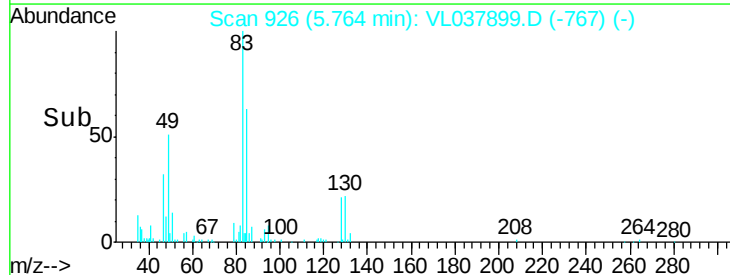
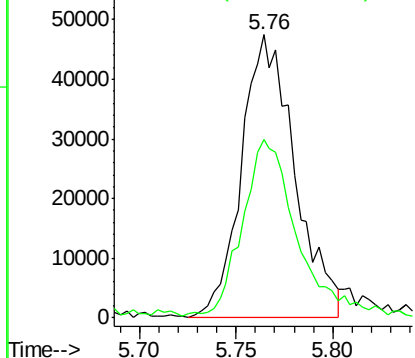


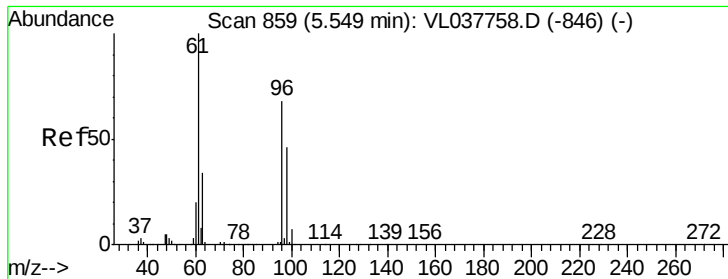
#29
Chloroform
Concen: 0.411 ppbv
RT: 5.76 min Scan# 926
Delta R.T. 0.01 min
Lab File: VL037899.D
Acq: 25 Oct 2021 18:24

Tgt Ion: 83 Resp: 91267
Ion Ratio Lower Upper
83 100
85 61.8 51.8 77.8



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





#31

cis-1,2-Dichloroethene

Concen: 4.397 ppbv

RT: 5.56 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

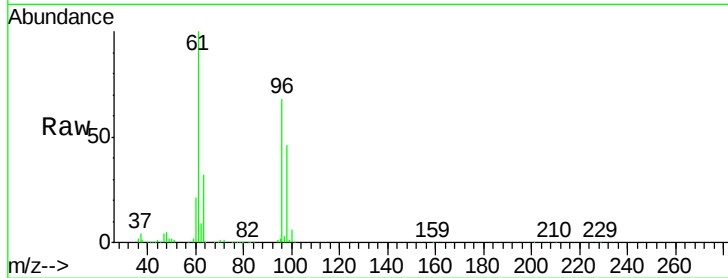
Tgt Ion: 61 Resp: 620849

Ion Ratio Lower Upper

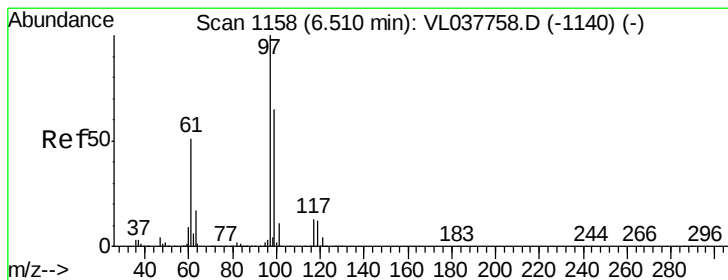
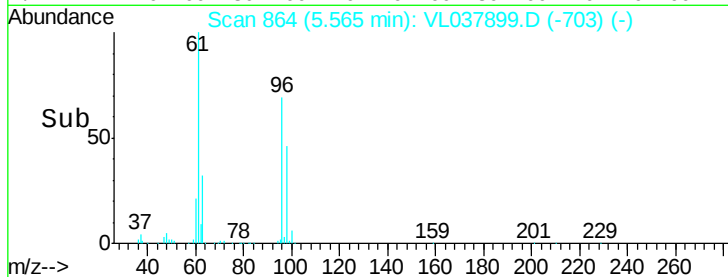
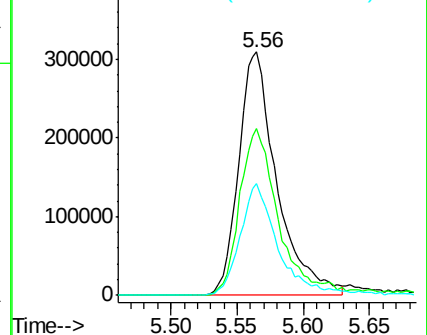
61 100

96 68.4 54.2 81.2

98 46.1 36.6 54.8



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 0.659 ppbv

RT: 6.53 min Scan# 1163

Delta R.T. 0.02 min

Lab File: VL037899.D

Acq: 25 Oct 2021 18:24

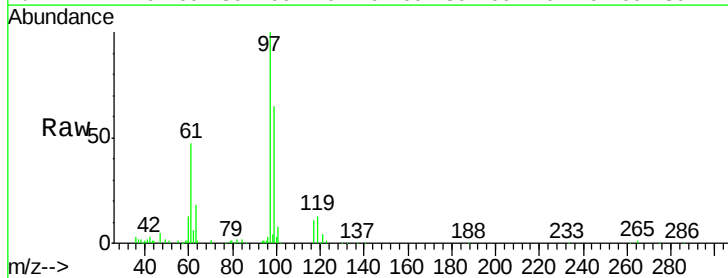
Tgt Ion: 97 Resp: 138855

Ion Ratio Lower Upper

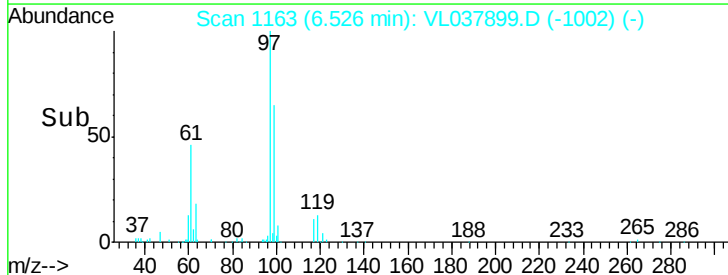
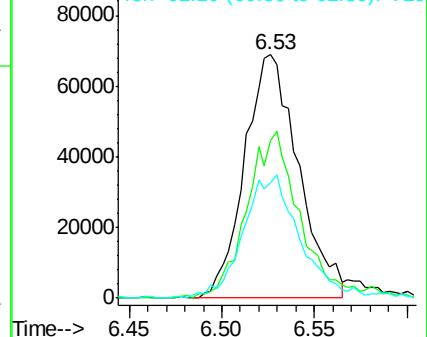
97 100

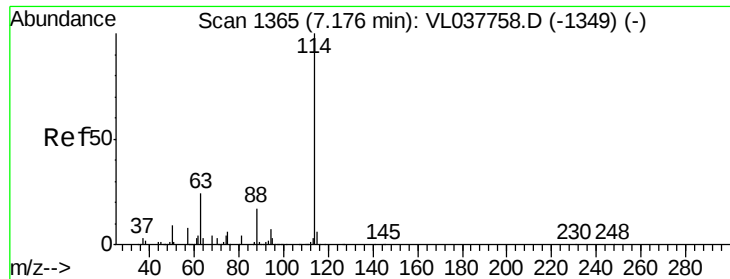
99 69.1 52.6 78.8

61 54.3 40.2 60.4



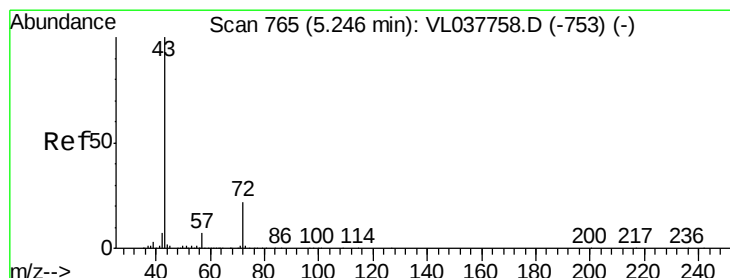
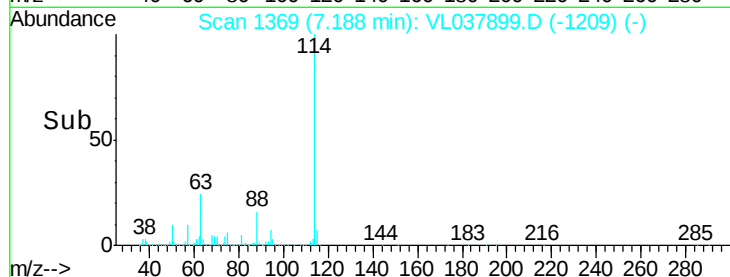
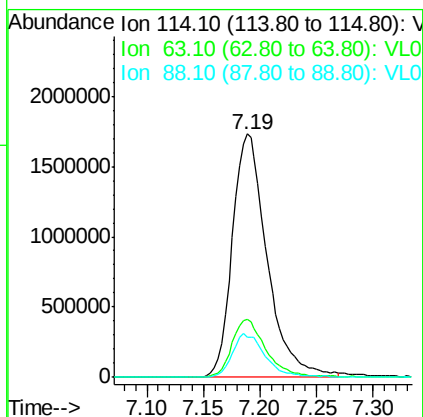
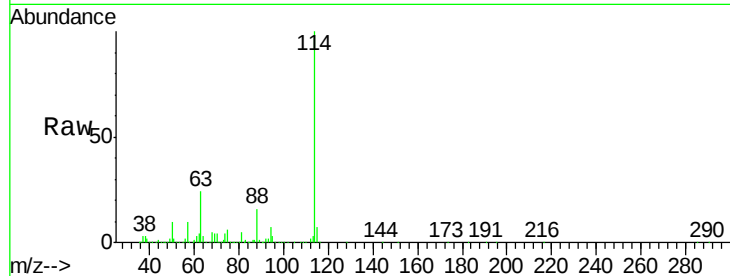
Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0





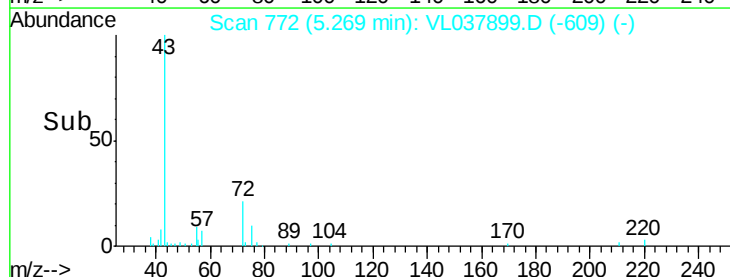
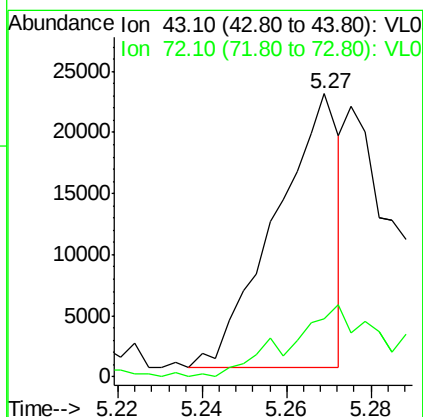
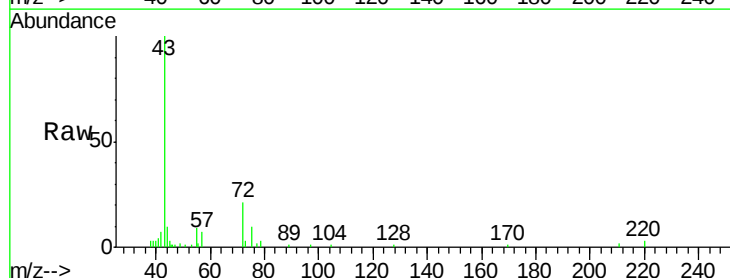
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19
 Instrument: MSVOA_L
 Delta R.T.:
 Lab File: ClientSampleId:
 SVE-EFFLUENTDUP
 Acq: 25 Oct 2021 18:24

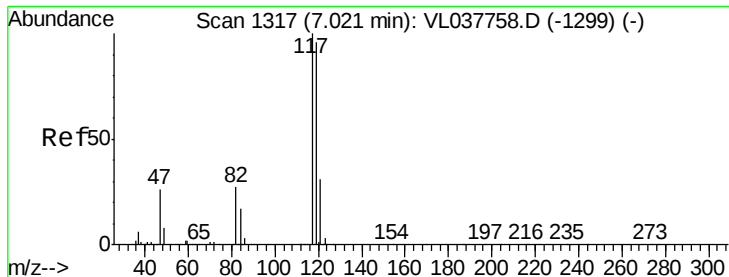
Tgt Ion: 114 Resp: 3707559
 Ion Ratio Lower Upper
 114 100
 63 23.5 19.4 29.2
 88 17.5 14.4 21.6



#34
 2-Butanone
 Concen: 0.157 ppbv
 RT: 5.27 min Scan# 772
 Delta R.T.: 0.02 min
 Lab File: VL037899.D
 Acq: 25 Oct 2021 18:24

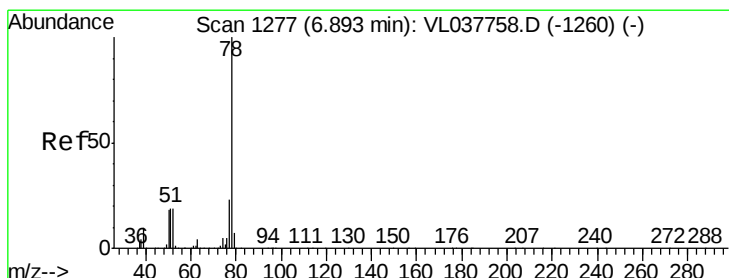
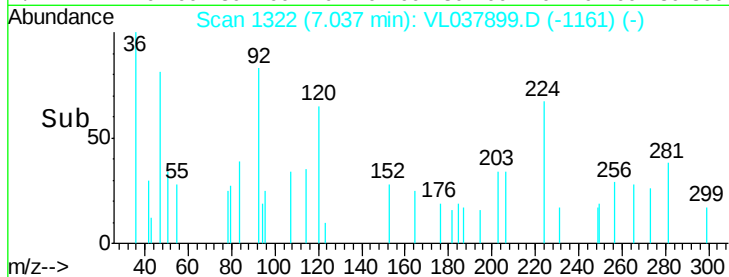
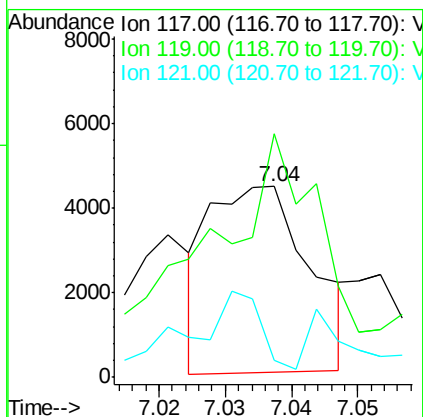
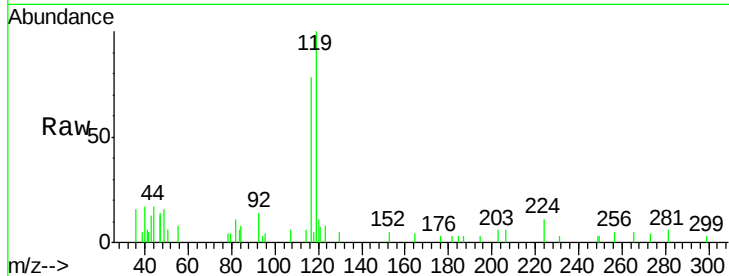
Tgt Ion: 43 Resp: 23525
 Ion Ratio Lower Upper
 43 100
 72 51.2 18.2 27.2#





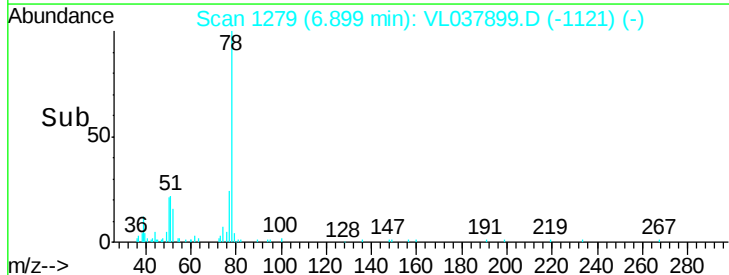
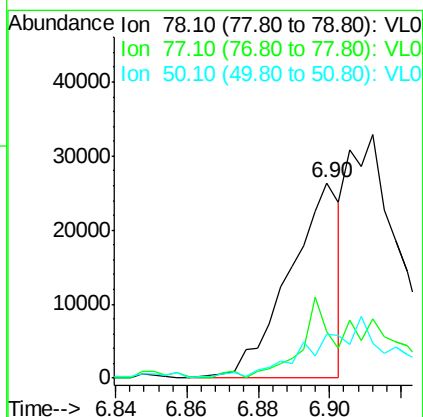
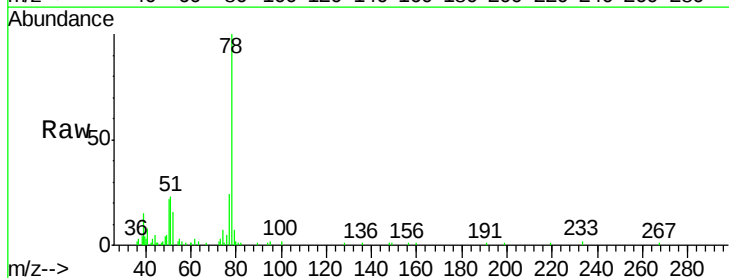
#35
Carbon Tetrachloride
Concen: 0.022 ppbv
RT: 7.04
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
SVE-EFFLUENTDUP
Acq: 25 Oct 2021 18:24

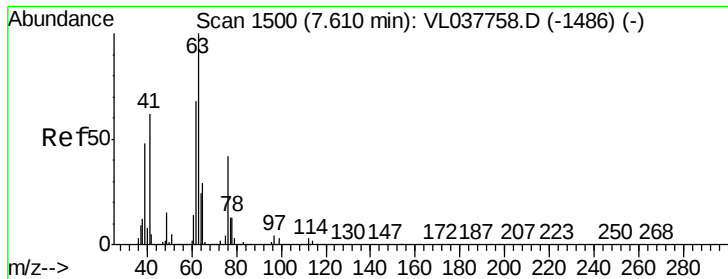
Tgt Ion: 117 Resp: 4646
Ion Ratio Lower Upper
117 100
119 158.9 76.5 114.7#
121 0.0 24.9 37.3#



#36
Benzene
Concen: 0.083 ppbv
RT: 6.90 min Scan# 1279
Delta R.T. 0.01 min
Lab File: VL037899.D
Acq: 25 Oct 2021 18:24

Tgt Ion: 78 Resp: 26155
Ion Ratio Lower Upper
78 100
77 23.3 18.8 28.2
50 22.4 14.7 22.1#





#39

1,2-Dichloropropane

Concen: 7.202 ppbv

RT: 7.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

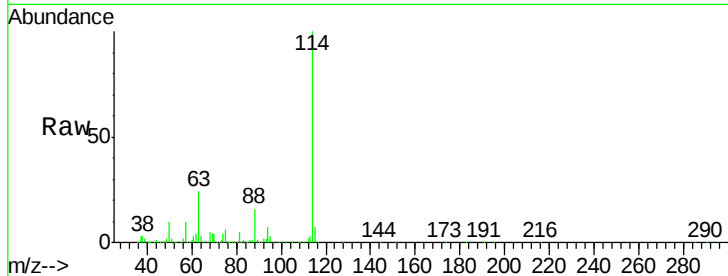
Tgt Ion: 63 Resp: 857882

Ion Ratio Lower Upper

63 100

41 0.0 49.8 74.6#

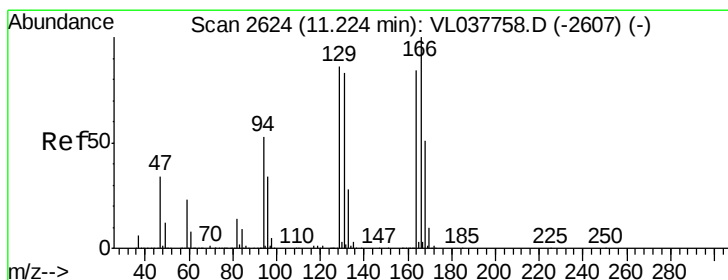
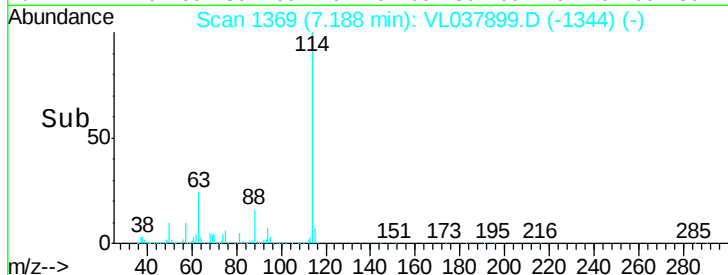
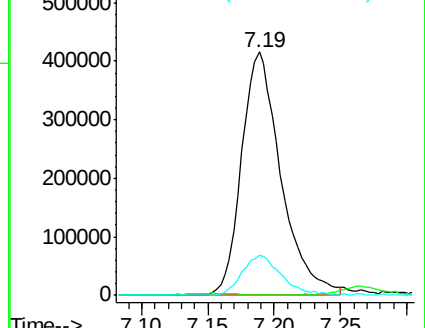
62 16.2 54.6 82.0#



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



#52

Tetrachloroethene

Concen: 0.238 ppbv

RT: 11.24 min Scan# 2629

Delta R.T. 0.02 min

Lab File: VL037899.D

Acq: 25 Oct 2021 18:24

Tgt Ion: 164 Resp: 29329

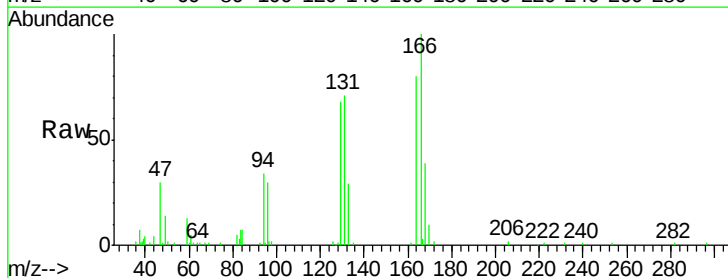
Ion Ratio Lower Upper

164 100

166 125.2 95.4 143.2

129 83.5 82.2 123.4

131 87.9 79.4 119.2

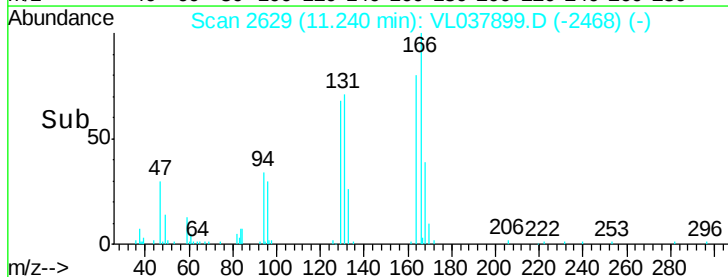
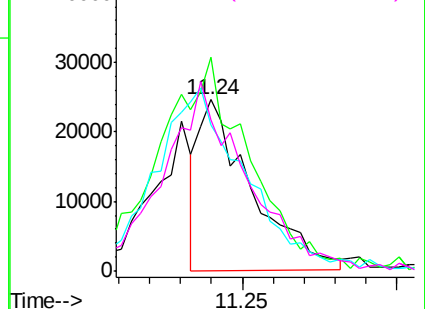


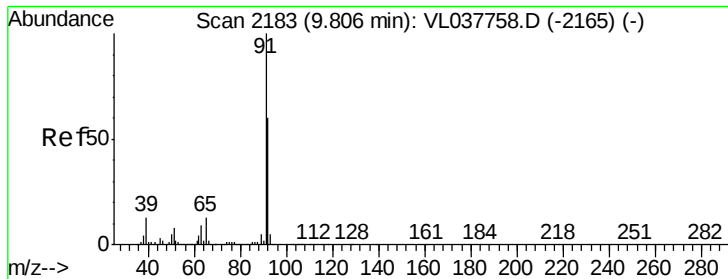
Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V





#53

Toluene

Concen: 2.297 ppbv

RT: 9.82 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

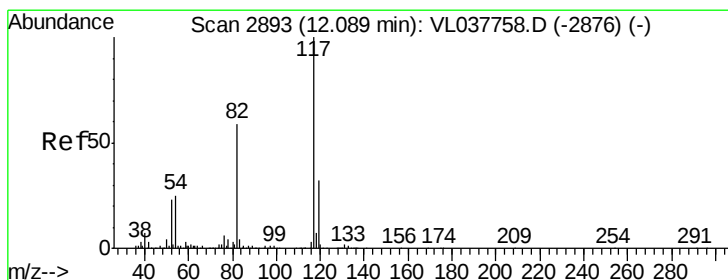
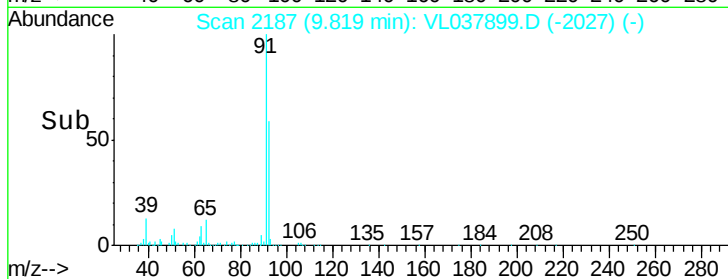
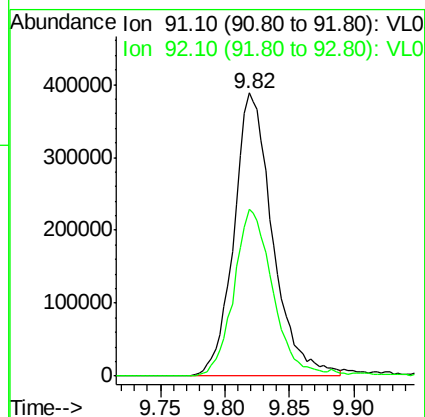
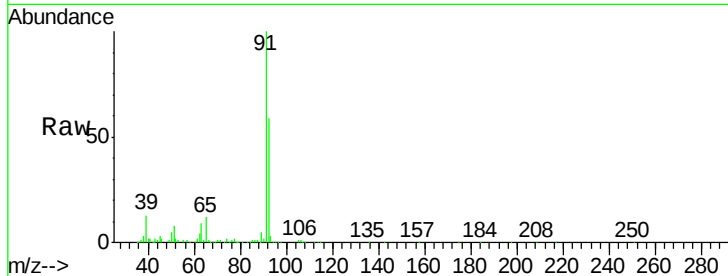
Acq: 25 Oct 2021 18:24 SVE-EFFLUENTDUP

Tgt Ion: 91 Resp: 806234

Ion Ratio Lower Upper

91 100

92 61.1 48.4 72.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2897

Delta R.T. 0.01 min

Lab File: VL037899.D

Acq: 25 Oct 2021 18:24

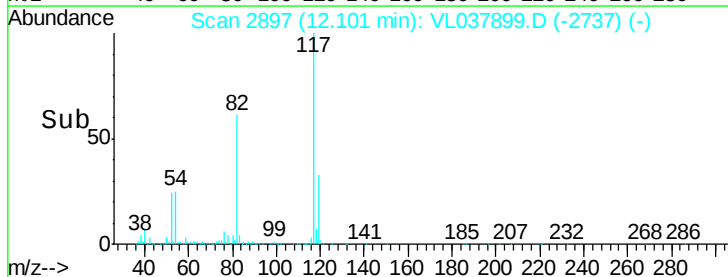
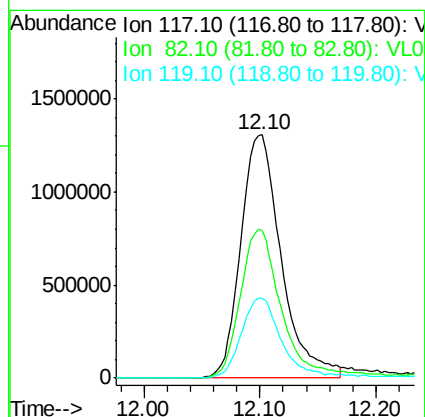
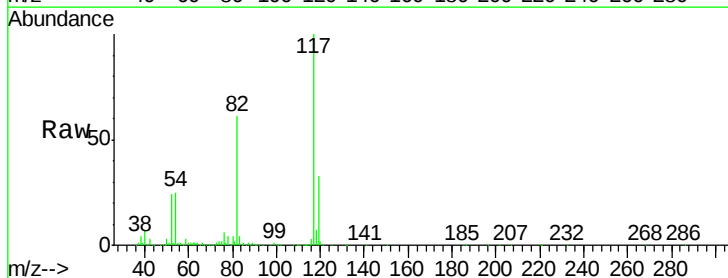
Tgt Ion: 117 Resp: 3183704

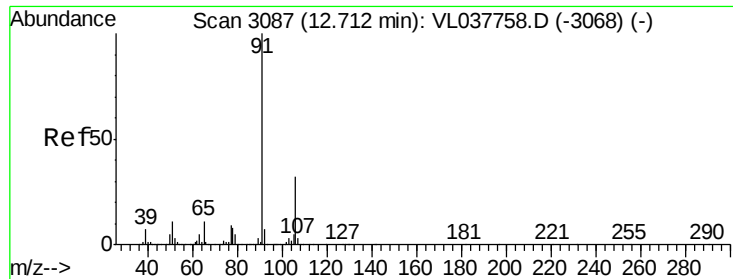
Ion Ratio Lower Upper

117 100

82 65.1 52.2 78.2

119 34.3 26.0 39.0





#58

Ethyl Benzene

Concen: 0.155 ppbv

RT: 12.73

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

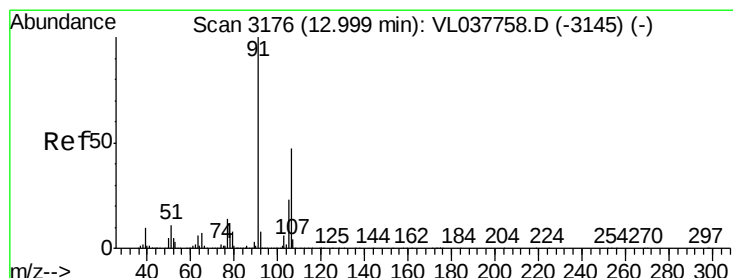
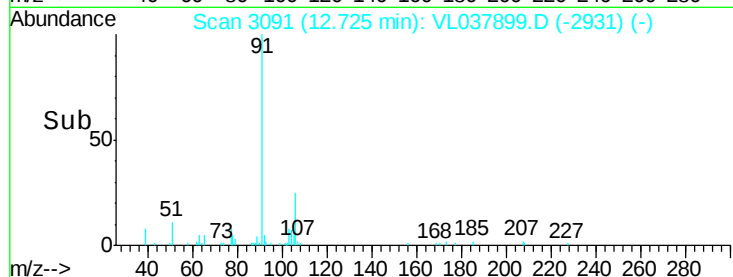
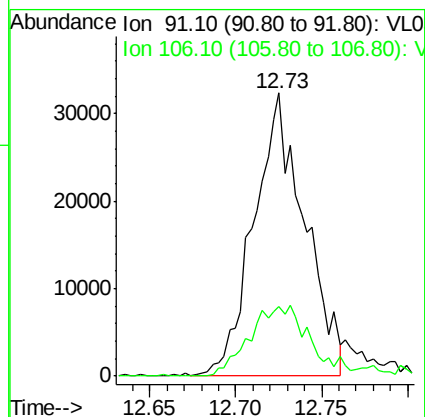
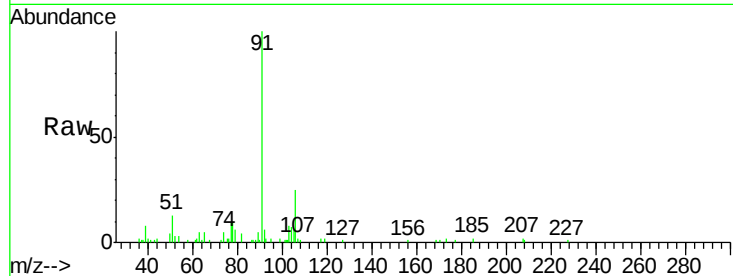
Acq: 25 Oct 2021 18:24

Tgt Ion: 91 Resp: 66179

Ion Ratio Lower Upper

91 100

106 24.7 25.3 37.9#



#59

m/p-Xylene

Concen: 0.145 ppbv

RT: 13.00 min Scan# 3177

Delta R.T. 0.00 min

Lab File: VL037899.D

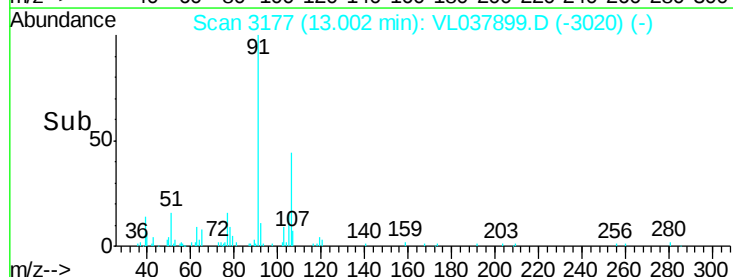
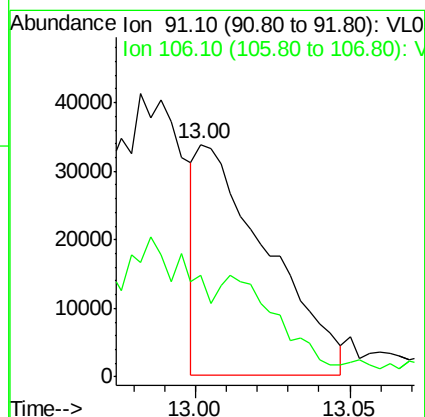
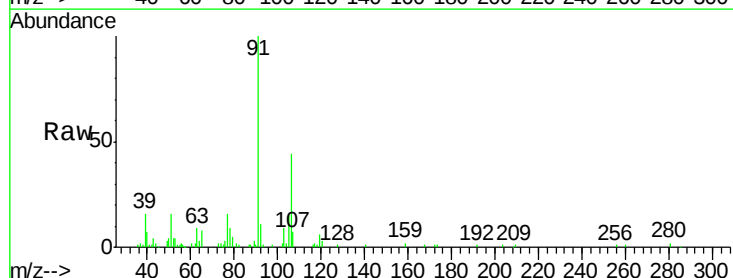
Acq: 25 Oct 2021 18:24

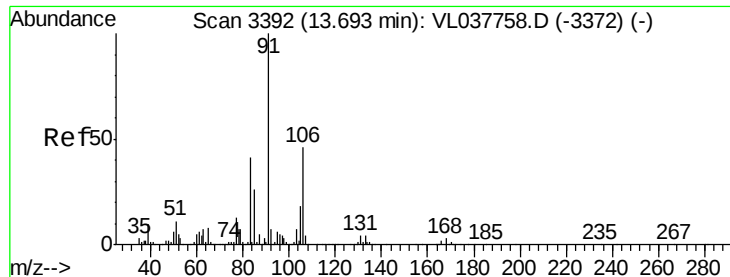
Tgt Ion: 91 Resp: 53081

Ion Ratio Lower Upper

91 100

106 0.0 36.7 55.1#





#60

o-Xylene

Concen: 0.034 ppbv

RT: 13.71

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

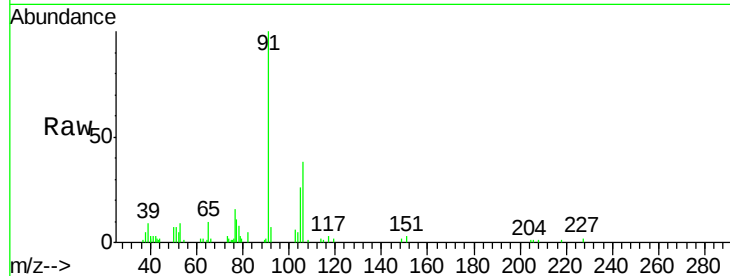
Acq: 25 Oct 2021 18:24

Tgt Ion: 91 Resp: 11832

Ion Ratio Lower Upper

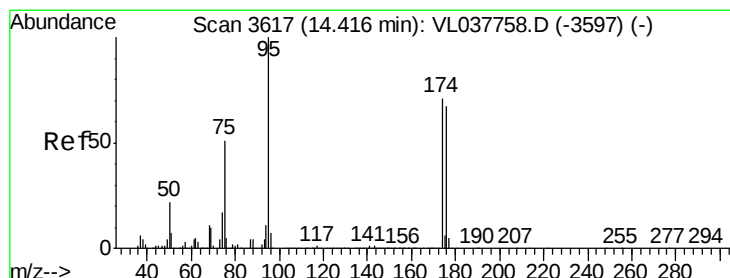
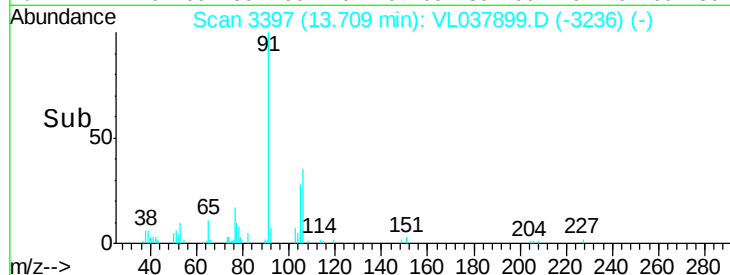
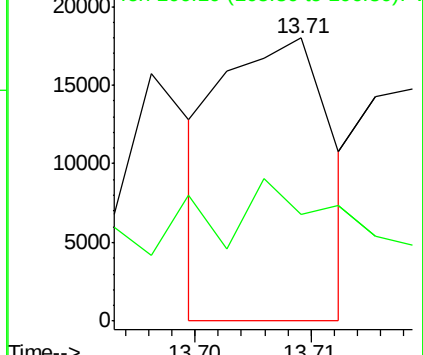
91 100

106 146.6 23.5 70.5#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.208 ppbv

RT: 14.43 min Scan# 3621

Delta R.T. 0.01 min

Lab File: VL037899.D

Acq: 25 Oct 2021 18:24

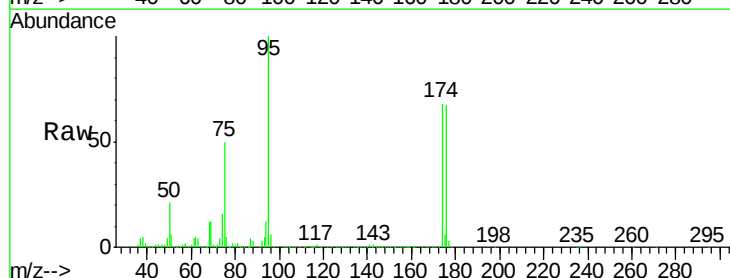
Tgt Ion: 95 Resp: 2272710

Ion Ratio Lower Upper

95 100

174 74.7 57.8 86.6

175 5.4 4.7 7.1



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

