

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL102721\
 Data File : VL037928.D
 Acq On : 27 Oct 2021 22:44
 Operator : SY/AP
 Sample : M4068-14 0.5 LOQ
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA L
 ClientSampleId :
 LOQ-AIR-02-QT4-2021

Quant Time: Oct 28 05:20:10 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	1335198	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4052640	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.09	117	3348253	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.42	95	2391922	10.22	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.06	85	119791	0.562	ppbv	95
3) Chlorodifluoromethane	3.00	51	146401	0.571	ppbv	100
4) Chloromethane	3.15	50	36616	0.390	ppbv	97
5) Vinyl Chloride	3.27	62	45140	0.524	ppbv	94
6) Bromomethane	3.48	94	22819	0.490	ppbv	84
7) Chloroethane	3.57	64	6149	0.194	ppbv #	66
8) Dichlorotetrafluoroethane	3.20	85	123852	0.588	ppbv	98
9) Propene	3.02	41	46015	0.487	ppbv	98
10) Heptane	8.14	43	59414	0.277	ppbv #	27
11) Trichlorofluoromethane	3.96	101	110550	0.581	ppbv	99
12) 1,1,2-Trichlorotrifluoroet	4.49	101	78513	0.545	ppbv	92
13) Ethanol	3.63	45	2407	0.312	ppbv #	27
14) Bromoethene	3.75	108	32919	0.519	ppbv #	97
16) 1,3-Butadiene	3.33	39	16995	0.195	ppbv #	11
17) tert-Butyl alcohol	4.32	59	41816	0.339	ppbv #	79
18) 1,1-Dichloroethene	4.30	96	34031	0.519	ppbv	89
20) Methylene Chloride	4.36	84	22708	0.375	ppbv	96
21) Allyl Chloride	4.42	41	50591	0.476	ppbv	87
22) trans-1,2-Dichloroethene	4.90	96	28692	0.436	ppbv	81
23) Vinyl Acetate	5.09	43	72488	0.404	ppbv #	83
24) 1,1-Dichloroethane	5.02	63	44152	0.338	ppbv	99
25) Ethyl Acetate	5.70	43	151907	0.452	ppbv #	97
26) Hexane	5.70	57	71858	0.434	ppbv #	81
27) Carbon Disulfide	4.56	76	44560	0.304	ppbv #	56
28) Methyl tert-Butyl Ether	5.06	73	29558	0.214	ppbv #	25
29) Chloroform	5.76	83	125602	0.531	ppbv	98
30) Cyclohexane	7.14	84	15075	0.107	ppbv #	1
31) cis-1,2-Dichloroethene	5.56	61	34509	0.230	ppbv	95
32) 1,1,1-Trichloroethane	6.52	97	112562	0.502	ppbv	95
34) 2-Butanone	5.28	43	32390	0.198	ppbv #	32
35) Carbon Tetrachloride	7.02	117	111928	0.486	ppbv	85
36) Benzene	6.91	78	141855	0.410	ppbv	96
37) 1,2-Dichloroethane	6.31	62	39772	0.244	ppbv #	66
38) Trichloroethene	7.84	130	36814	0.269	ppbv #	81
39) 1,2-Dichloropropane	7.18	63	943761	7.248	ppbv #	28
42) Bromodichloromethane	7.80	83	111229	0.465	ppbv #	97
43) Methyl Methacrylate	8.03	69	24340	0.215	ppbv #	37
44) 2,2,4-Trimethylpentane	7.88	57	164942	0.284	ppbv #	56
45) t-1,3-Dichloropropene	9.28	75	8374	0.108	ppbv	92
47) 1,1,2-Trichloroethane	9.48	97	31452	0.222	ppbv #	82
48) Dibromochloromethane	10.31	129	76955	0.381	ppbv	87

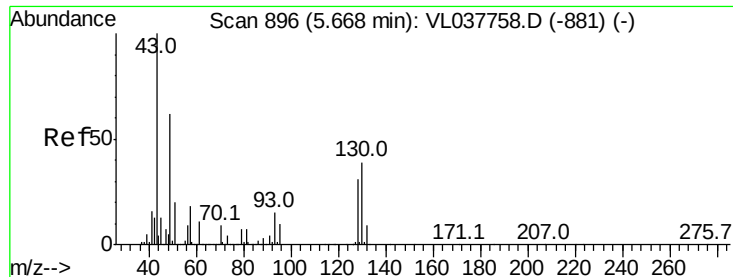
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL102721\
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Quant Time: Oct 28 05:20:10 2021
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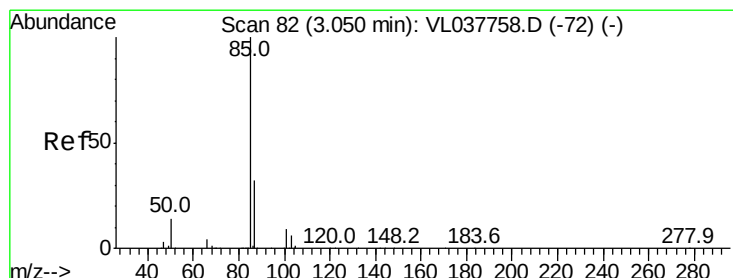
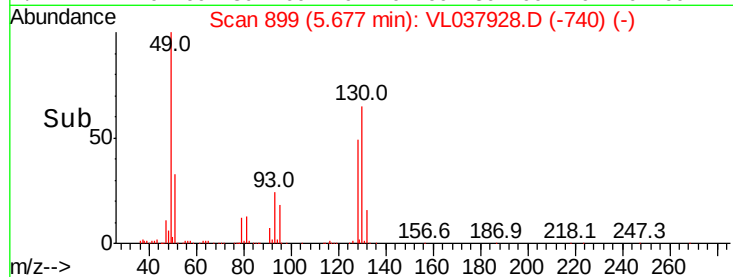
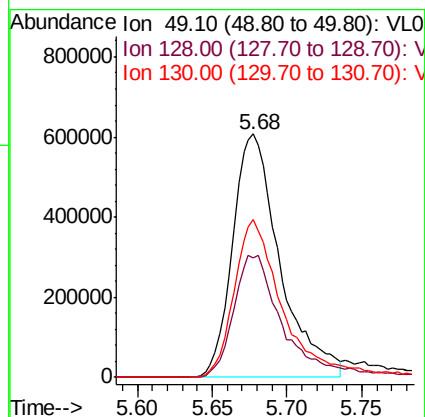
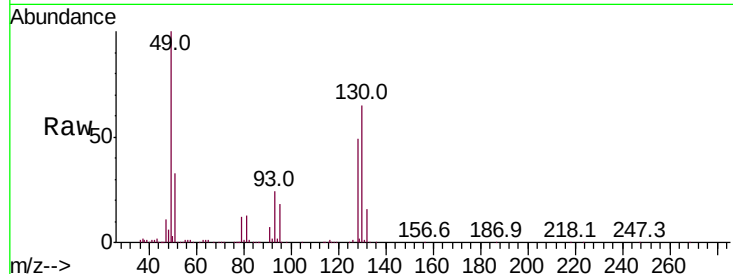
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Bromoform	13.05	173	30111	0.195	ppbv	# 26
50) 4-Methyl-2-Pentanone	8.76	43	13944	0.065	ppbv	# 38
52) Tetrachloroethene	11.23	164	31078	0.231	ppbv	92
53) Toluene	9.82	91	120411	0.314	ppbv	99
54) 1,2-Dibromoethane	10.62	107	32880	0.172	ppbv	91
56) 1,1,1,2-Tetrachloroethane	12.14	131	75843	0.547	ppbv	# 1
57) Chlorobenzene	12.15	112	150234	0.547	ppbv	# 93
58) Ethyl Benzene	12.72	91	105478	0.235	ppbv	96
59) m/p-Xylene	13.00	91	75392	0.195	ppbv	# 30
60) o-Xylene	13.70	91	142239	0.385	ppbv	97
61) Styrene	13.54	104	13404	0.075	ppbv	# 1
62) Isopropylbenzene	14.67	105	97859	0.190	ppbv	# 48
63) 1,1,2,2-Tetrachloroethane	13.69	83	65766	0.230	ppbv	# 1
64) n-propylbenzene	15.57	120	48895	0.380	ppbv	# 62
65) tert-Butylbenzene	16.75	119	103737	0.229	ppbv	# 20
66) Benzyl Chloride	16.98	91	1798	0.080	ppbv	# 96
67) sec-Butylbenzene	17.30	105	264883	0.427	ppbv	97
69) p-Isopropyltoluene	17.66	119	107095	0.213	ppbv	# 50
70) n-Butylbenzene	18.56	91	177302	0.372	ppbv	97
71) 2-Chlorotoluene	15.46	91	137662	0.378	ppbv	99
72) 4-Ethyltoluene	15.85	105	157849	0.376	ppbv	# 94
73) 1,3,5-Trimethylbenzene	16.01	105	150708	0.395	ppbv	97
74) 1,2,4-Trimethylbenzene	16.77	105	168999	0.422	ppbv	97
75) 1,3-Dichlorobenzene	17.00	146	127383	0.513	ppbv	97
76) 1,4-Dichlorobenzene	17.14	146	56906	0.240	ppbv	# 20
77) 1,2-Dichlorobenzene	17.83	146	109228	0.458	ppbv	94
78) Hexachloro-1,3-Butadiene	23.38	225	109295	0.561	ppbv	97
79) Naphthalene	22.20	128	20781	0.085	ppbv	# 86
80) Naphthalene, 2-methyl-	24.98	142	4292	0.065	ppbv	# 2
81) 1,2,4-Trichlorobenzene	21.92	180	17133	0.109	ppbv	# 12

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



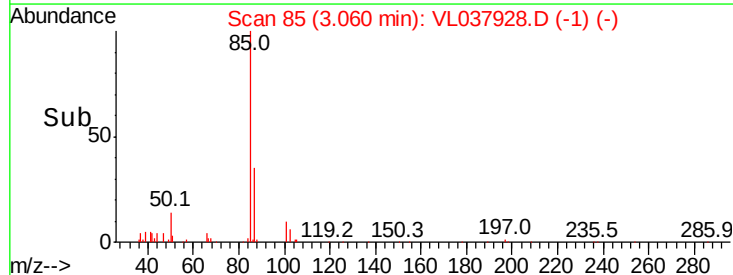
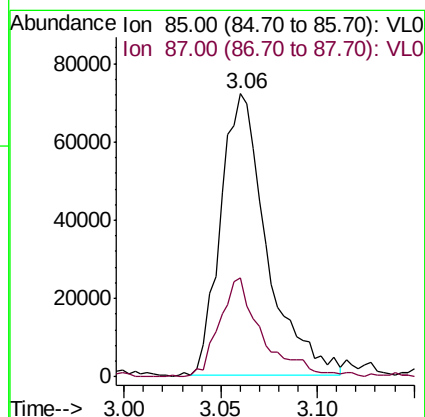
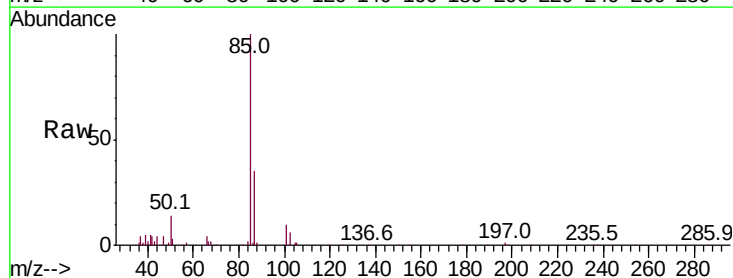
#1
 Bromochloromethane
 Concen: 10.000 ppbv
 RT: 5.68
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 27 Oct 2021 22:44

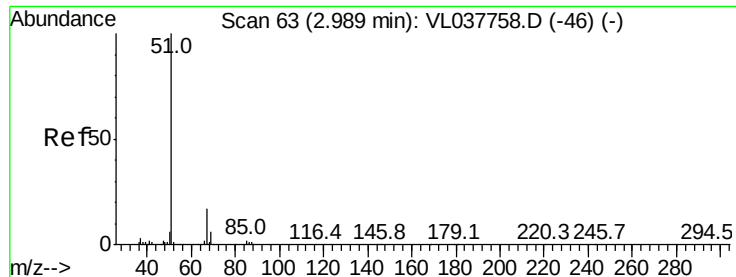
Tot Ion: 49 Resp: 1335198
 Ion Ratio Lower Upper
 49 100
 128 54.7 27.1 81.3
 130 68.9 33.2 99.6



#2
 Dichlorodifluoromethane
 Concen: 0.562 ppbv
 RT: 3.06 min Scan# 85
 Delta R.T. 0.01 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

Tgt Ion: 85 Resp: 119791
 Ion Ratio Lower Upper
 85 100
 87 34.7 25.7 38.5





#3

Chlorodifluoromethane

Concen: 0.571 ppbv

RT: 3.00 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

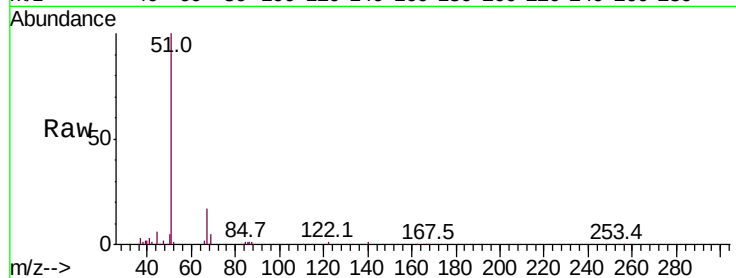
Acq: 27 Oct 2021 22:44

Tot Ion: 51 Resp: 146401

Ion Ratio Lower Upper

51 100

67 17.0 13.5 20.3



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3.00

80000

60000

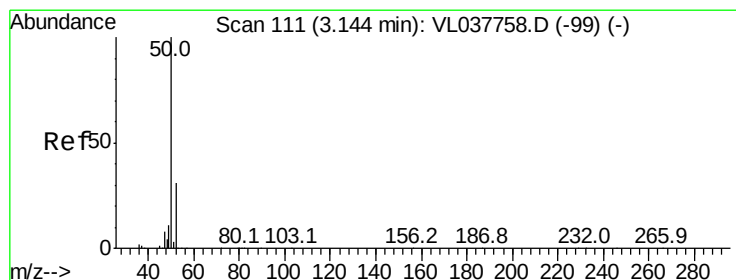
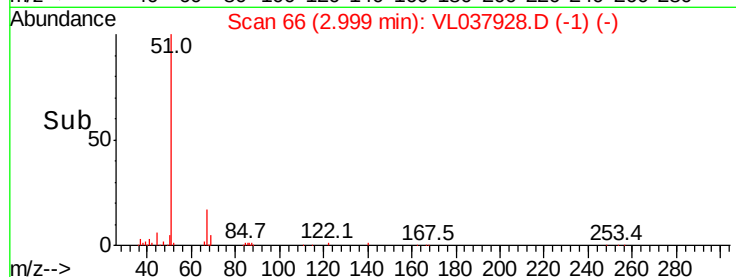
40000

20000

0

Time-->

2.90 3.00 3.10 3.20



#4

Chloromethane

Concen: 0.390 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.01 min

Lab File: VL037928.D

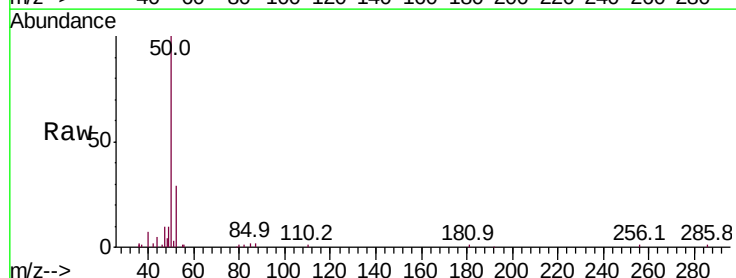
Acq: 27 Oct 2021 22:44

Tgt Ion: 50 Resp: 36616

Ion Ratio Lower Upper

50 100

52 28.8 24.4 36.6



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0

3.15

40000

30000

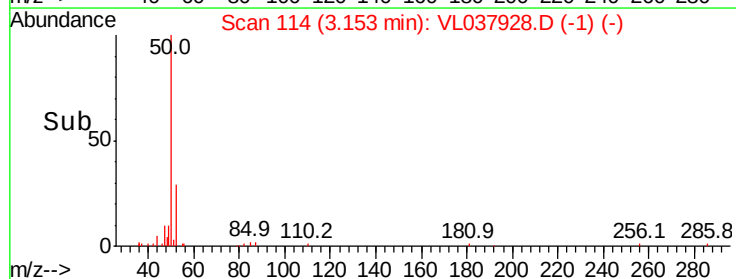
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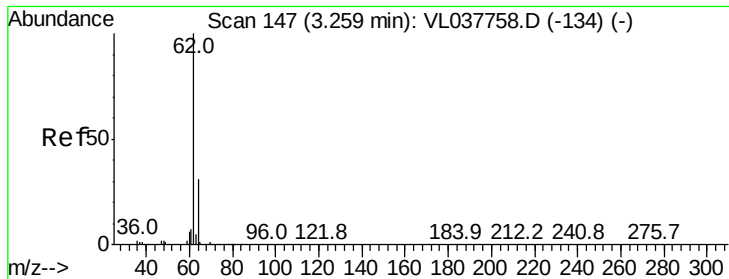
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0

Time-->

3.10 3.12 3.14 3.16





#5

Vinyl Chloride

Concen: 0.524 ppbv

RT: 3.27 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

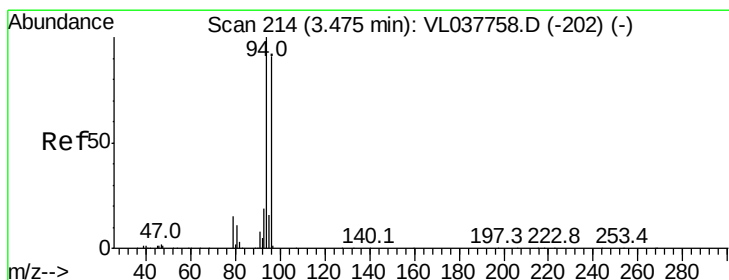
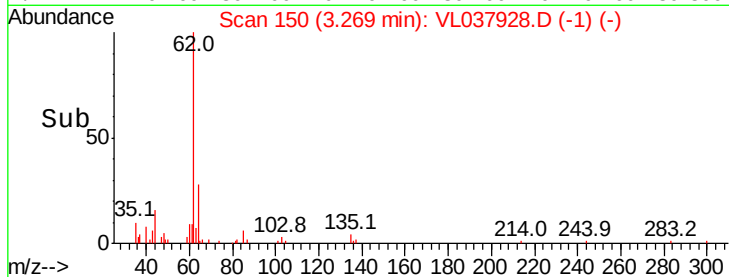
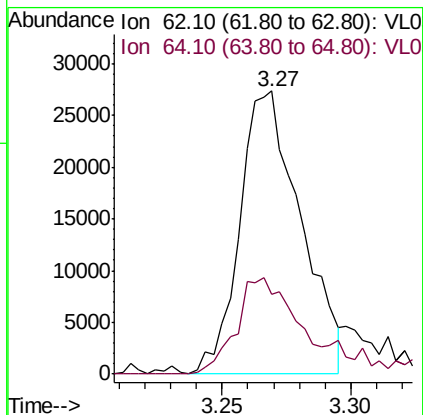
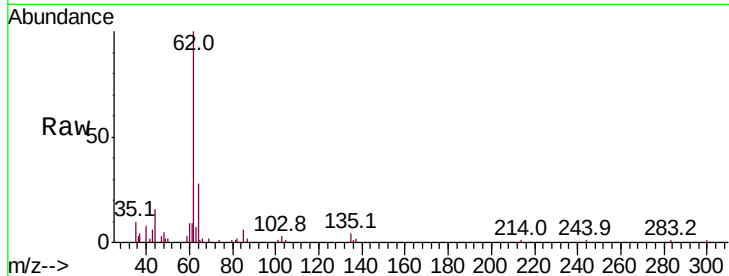
Acq: 27 Oct 2021 22:44

Tot Ion: 62 Resp: 45140

Ion Ratio Lower Upper

62 100

64 28.0 24.9 37.3



#6

Bromomethane

Concen: 0.490 ppbv

RT: 3.48 min Scan# 217

Delta R.T. 0.01 min

Lab File: VL037928.D

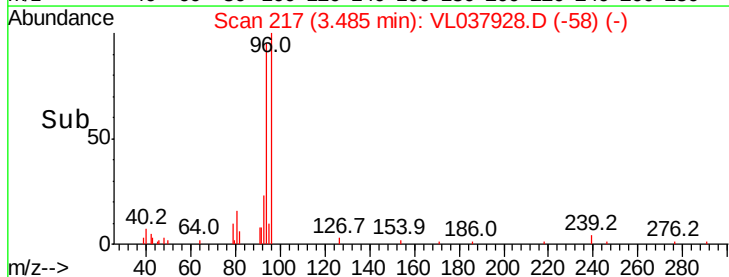
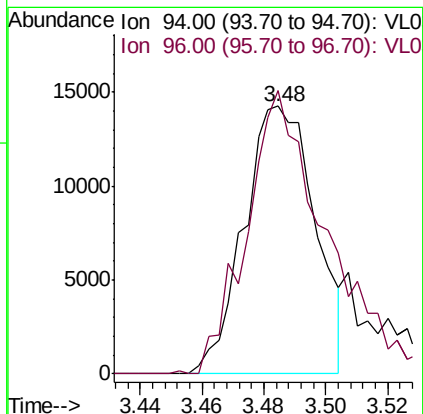
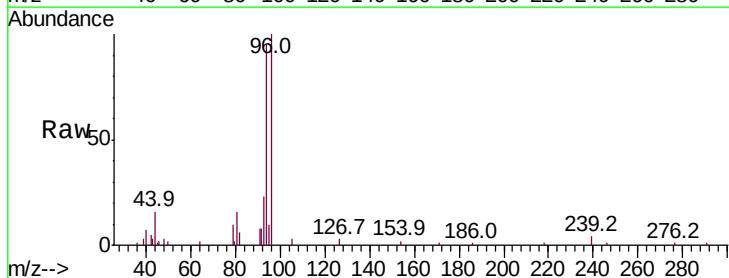
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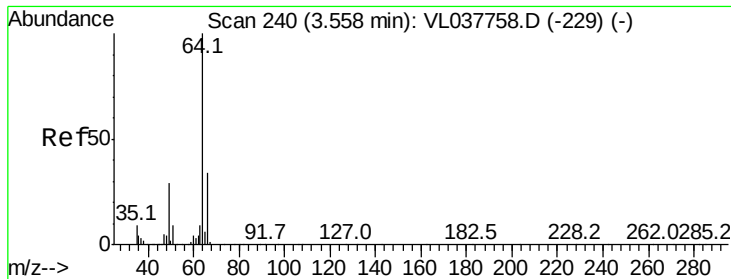
Tgt Ion: 94 Resp: 22819

Ion Ratio Lower Upper

94 100

96 105.7 72.5 108.7





#7

Chloroethane

Concen: 0.194 ppbv

RT: 3.57 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

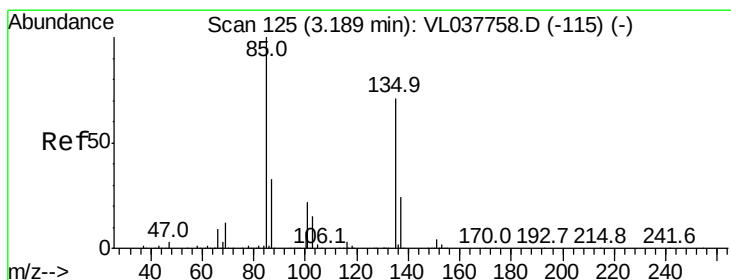
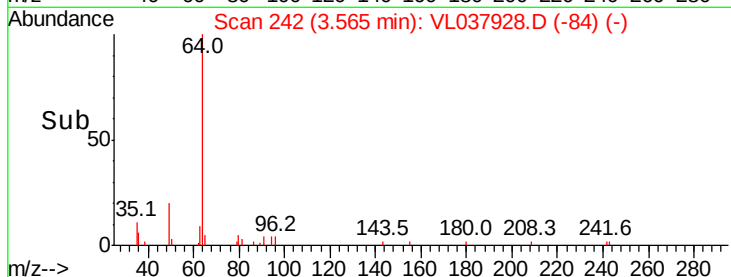
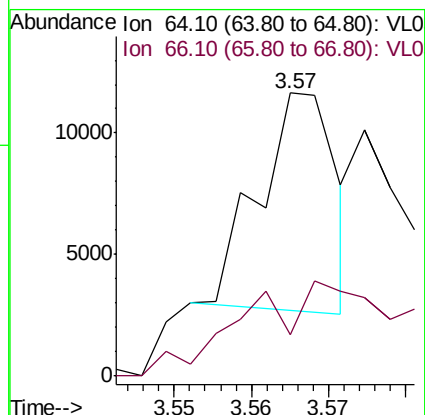
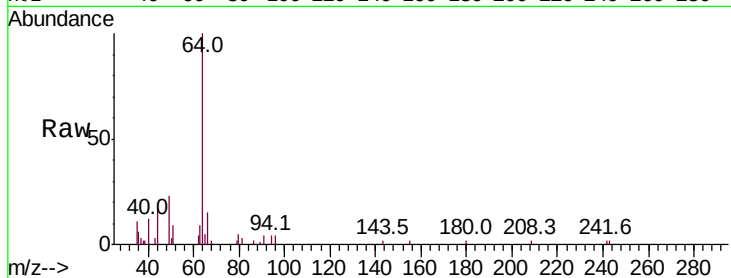
Acq: 27 Oct 2021 22:44

Tot Ion: 64 Resp: 6149

Ion Ratio Lower Upper

64 100

66 14.8 27.5 41.3#



#8

Dichlorotetrafluoroethane

Concen: 0.588 ppbv

RT: 3.20 min Scan# 128

Delta R.T. 0.01 min

Lab File: VL037928.D

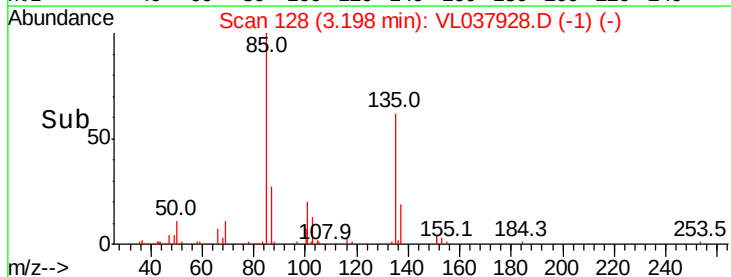
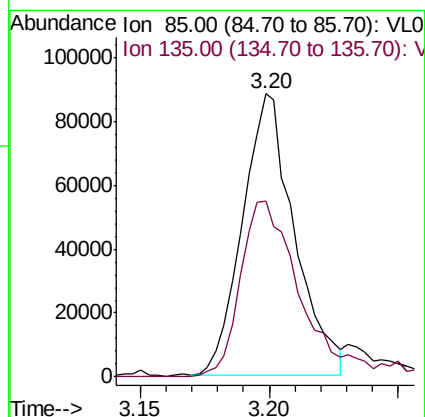
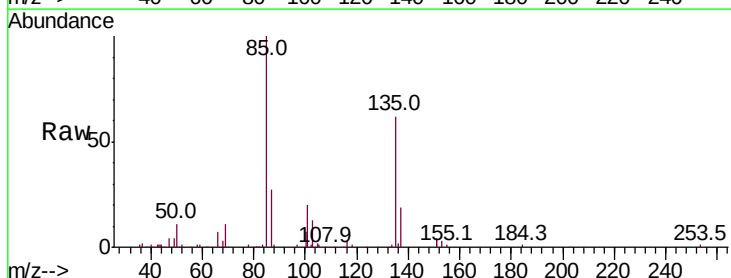
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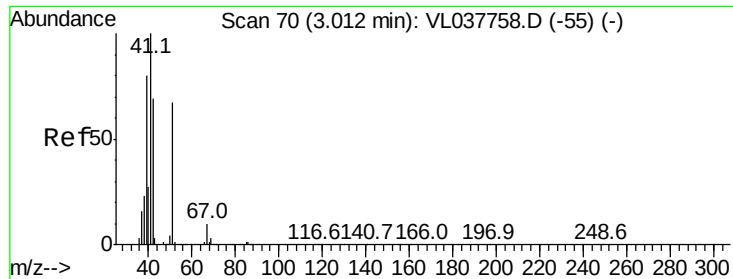
Tgt Ion: 85 Resp: 123852

Ion Ratio Lower Upper

85 100

135 76.1 59.5 89.3





#9

Propene

Concen: 0.487 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

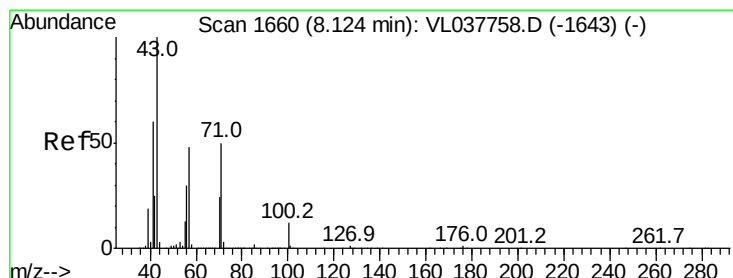
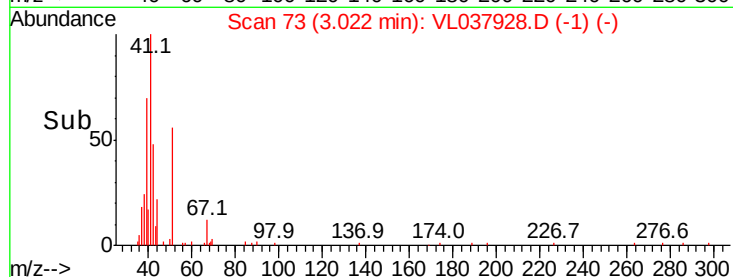
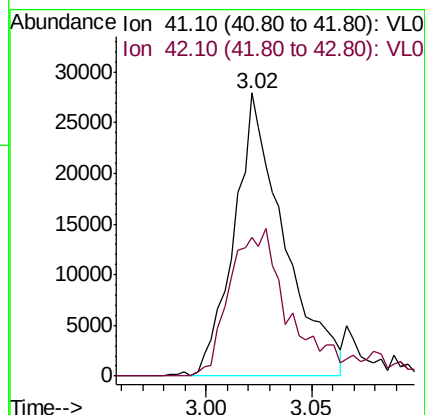
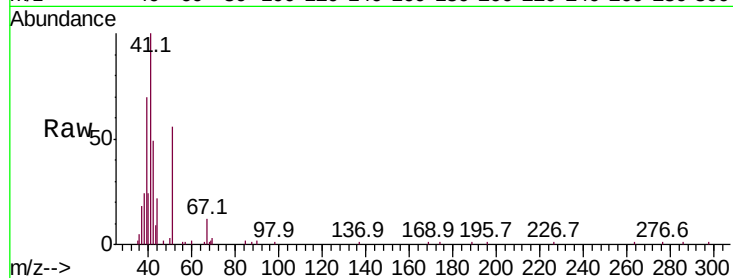
Acq: 27 Oct 2021 22:44

Tot Ion: 41 Resp: 46015

Ion Ratio Lower Upper

41 100

42 69.0 54.2 81.2



#10

Heptane

Concen: 0.277 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.01 min

Lab File: VL037928.D

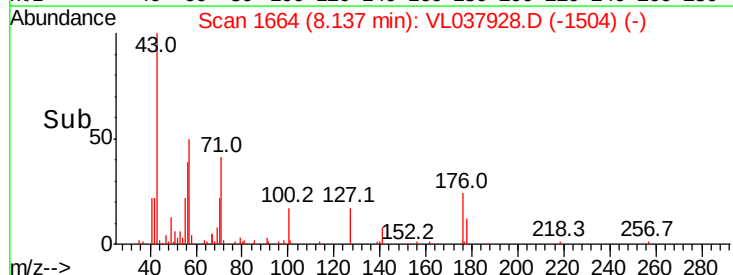
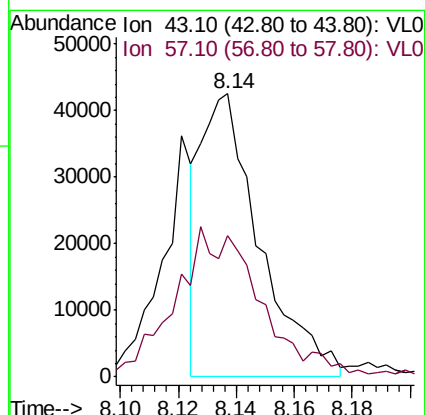
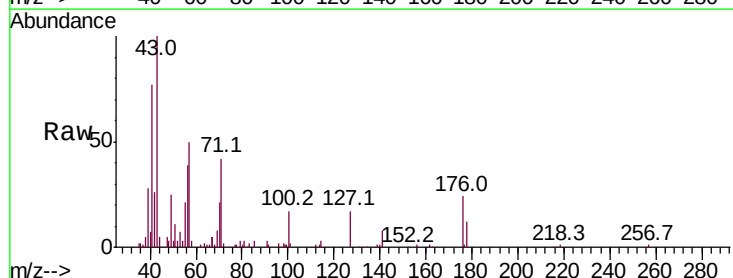
Acq: 27 Oct 2021 22:44

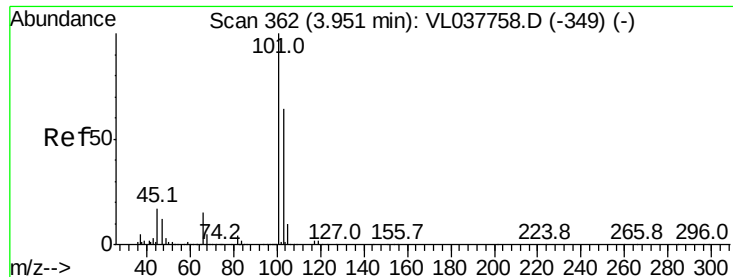
Tgt Ion: 43 Resp: 59414

Ion Ratio Lower Upper

43 100

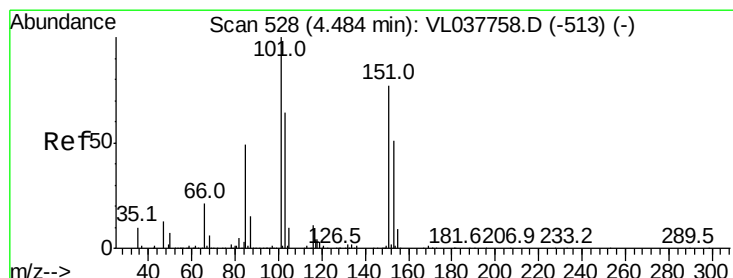
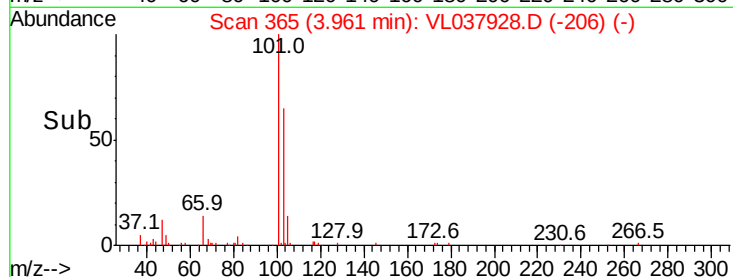
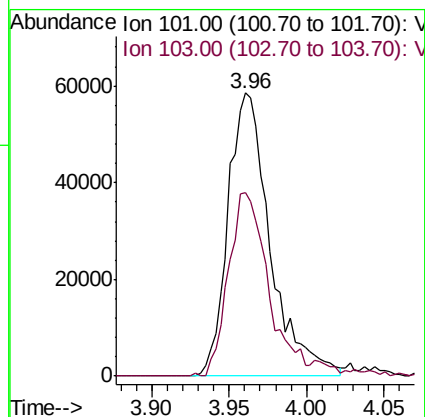
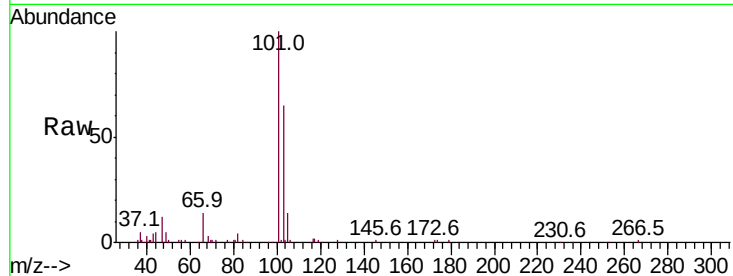
57 0.0 40.0 60.0#





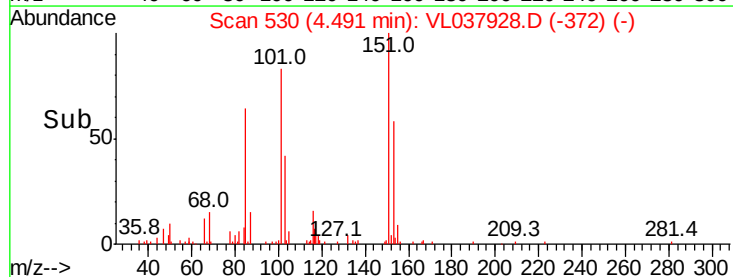
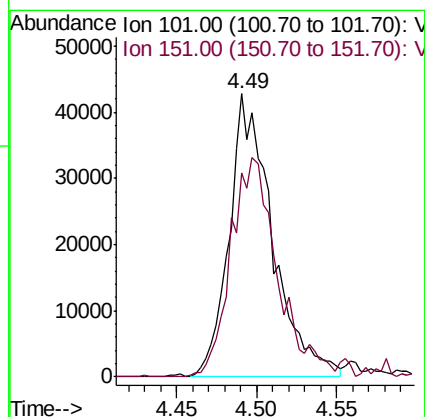
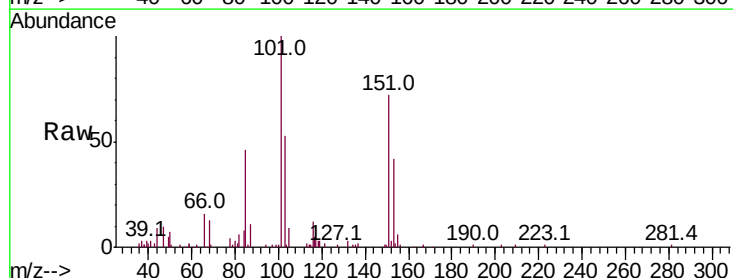
#11
 Trichlorofluoromethane
 Concen: 0.581 ppbv
 RT: 3.96
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 27 Oct 2021 22:44

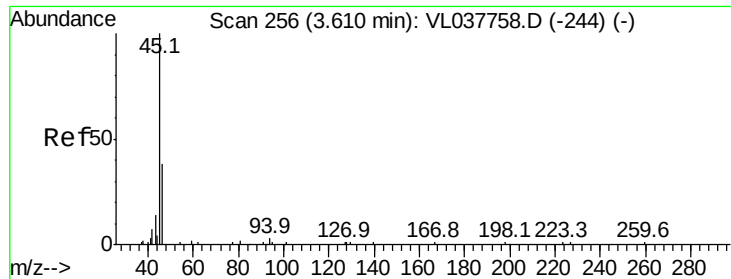
Tot Ion:101 Resp: 110550
 Ion Ratio Lower Upper
 101 100
 103 65.0 51.5 77.3



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.545 ppbv
 RT: 4.49 min Scan# 530
 Delta R.T. 0.01 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

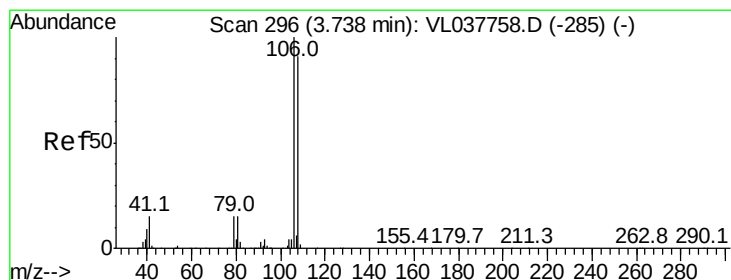
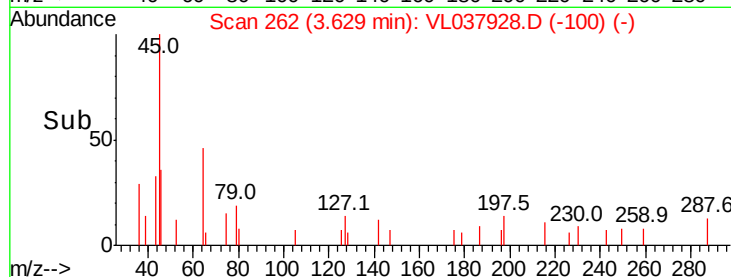
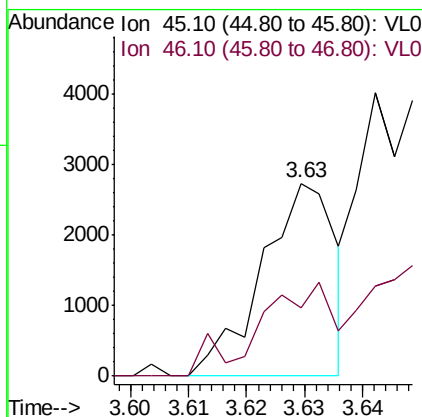
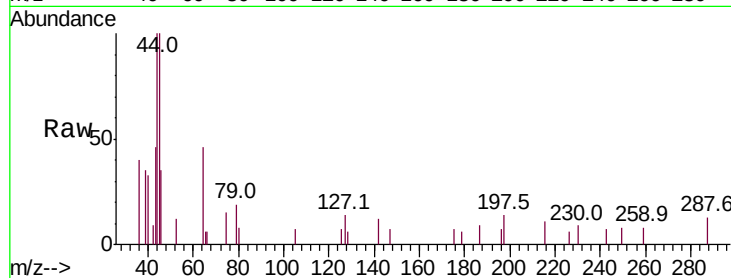
Tgt Ion:101 Resp: 78513
 Ion Ratio Lower Upper
 101 100
 151 85.2 62.9 94.3





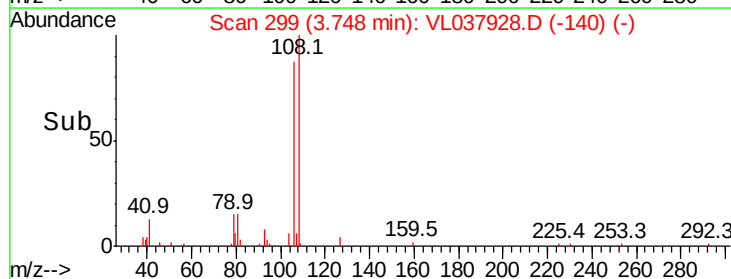
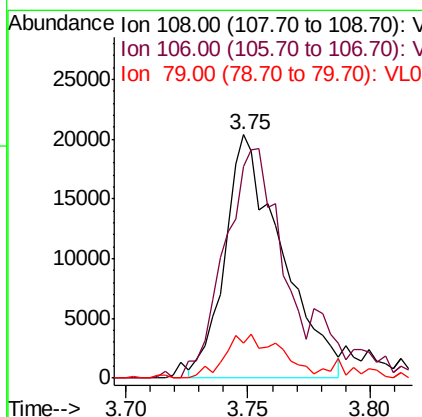
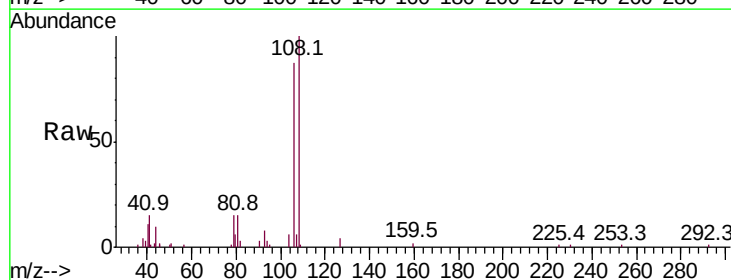
#13
Ethanol
Concen: 0.312 ppbv
RT: 3.63
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
Acq: 27 Oct 2021 22:44

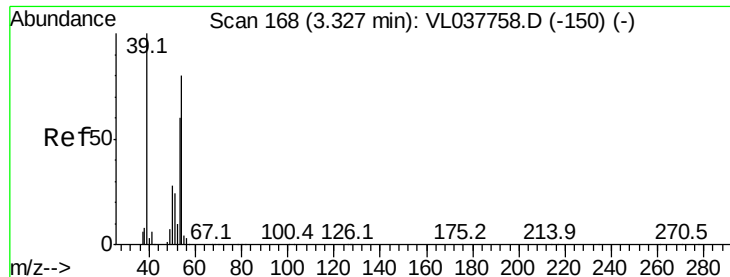
Tot Ion: 45 Resp: 2407
Ion Ratio Lower Upper
45 100
46 0.0 20.2 81.0#



#14
Bromoethene
Concen: 0.519 ppbv
RT: 3.75 min Scan# 299
Delta R.T. 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

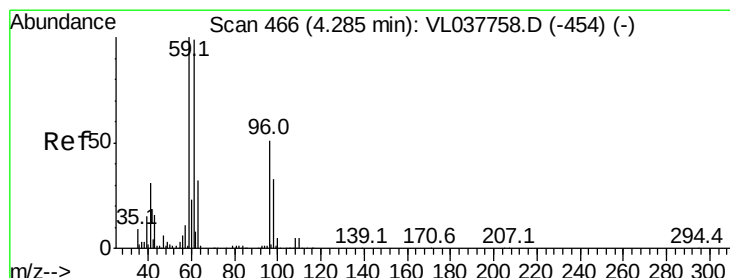
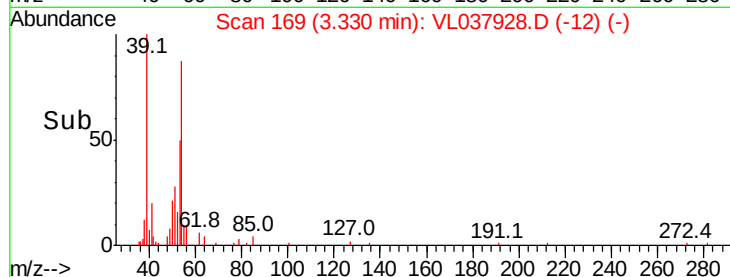
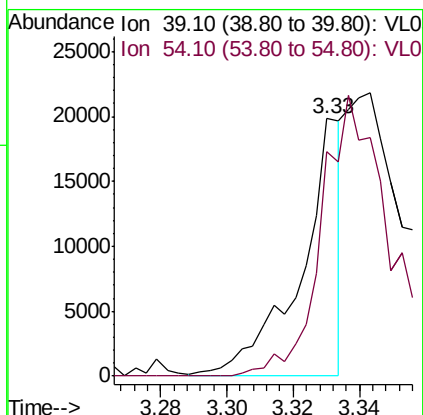
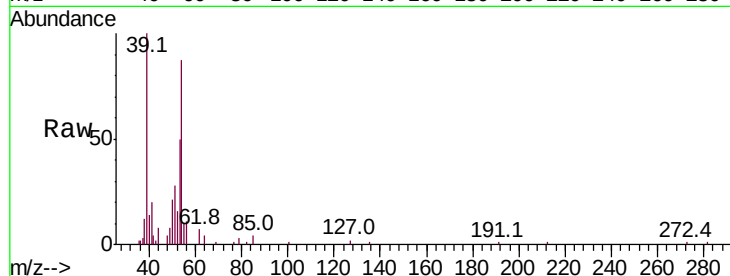
Tgt Ion: 108 Resp: 32919
Ion Ratio Lower Upper
108 100
106 112.5 91.9 137.9
79 21.8 13.9 20.9#





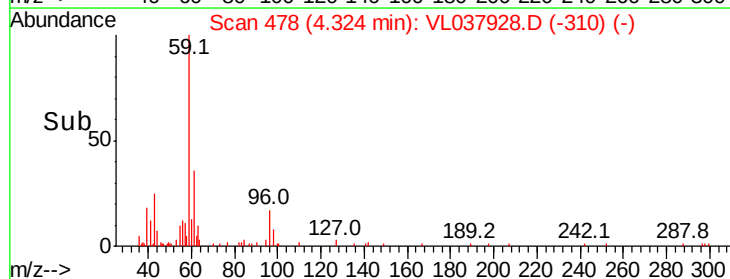
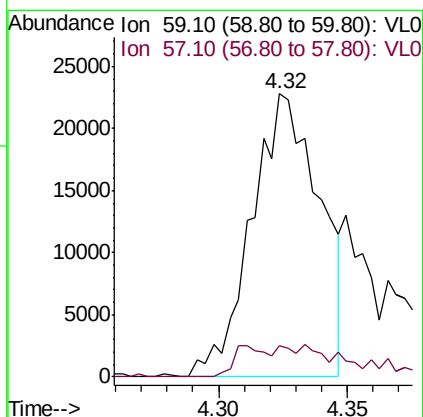
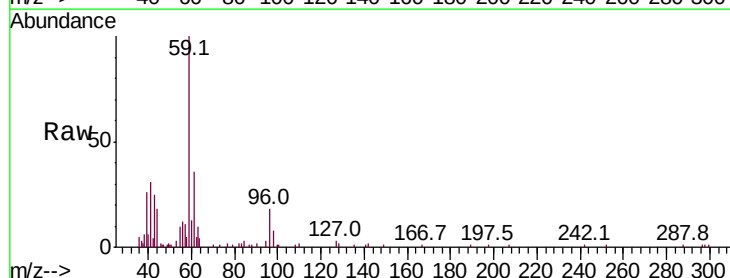
#16
 1,3-Butadiene
 Concen: 0.195 ppbv
 RT: 3.33
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 27 Oct 2021 22:44

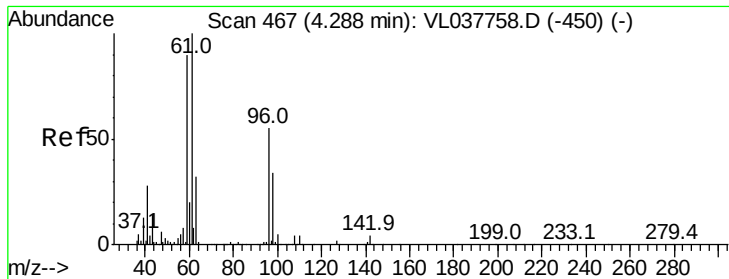
Tot Ion: 39 Resp: 16995
 Ion Ratio Lower Upper
 39 100
 54 0.0 61.7 92.5#



#17
 tert-Butyl alcohol
 Concen: 0.339 ppbv
 RT: 4.32 min Scan# 478
 Delta R.T. 0.04 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

Tgt Ion: 59 Resp: 41816
 Ion Ratio Lower Upper
 59 100
 57 18.6 8.6 13.0#

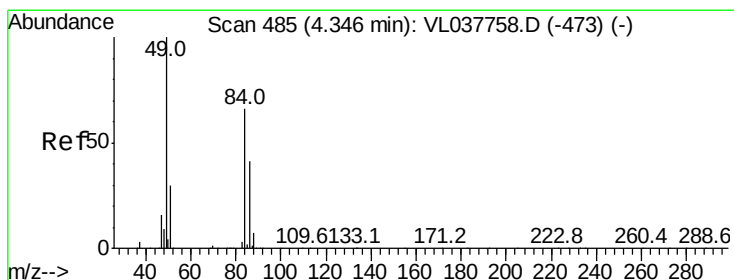
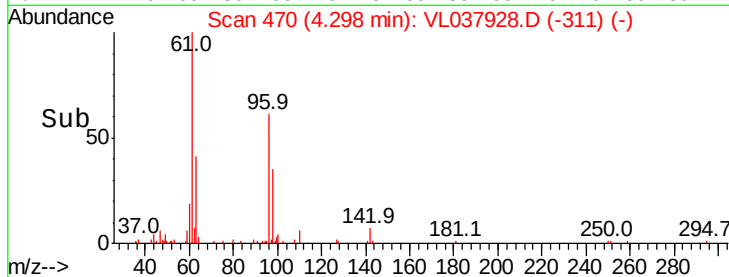
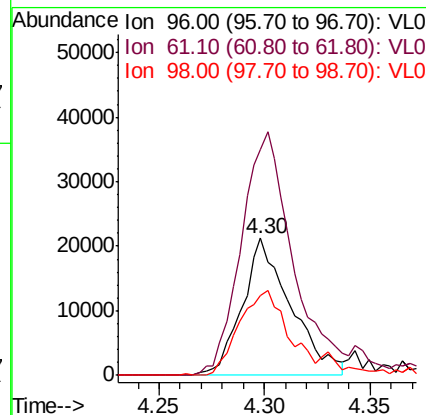
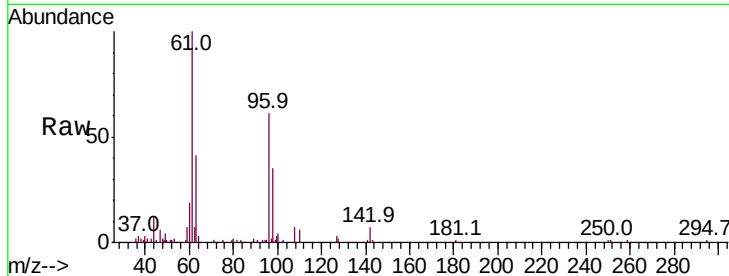




#18
 1,1-Dichloroethene
 Concen: 0.519 ppbv
 RT: 4.30 min
 Delta R.T. MSVOA_1
 Lab File: ClientSampleId :
 Acq: 27 Oct 2021 22:44

Tot Ion: 96 Resp: 34031

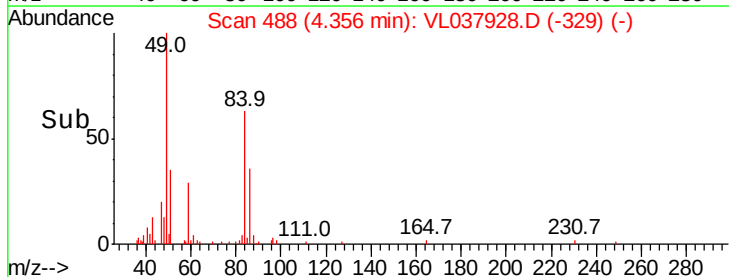
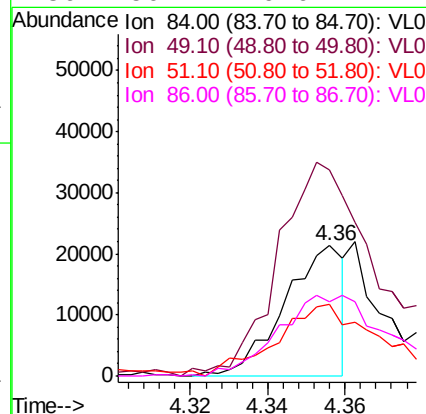
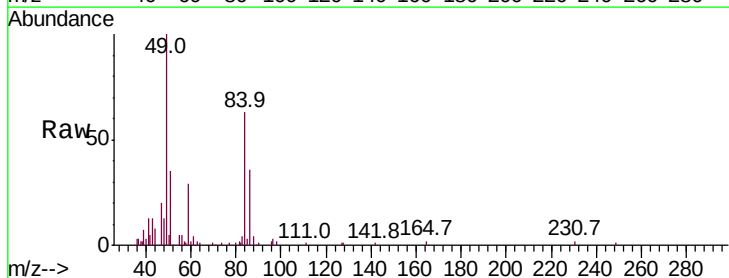
Ion	Ratio	Lower	Upper
96	100		
61	165.0	146.2	219.4
98	58.3	50.0	75.0

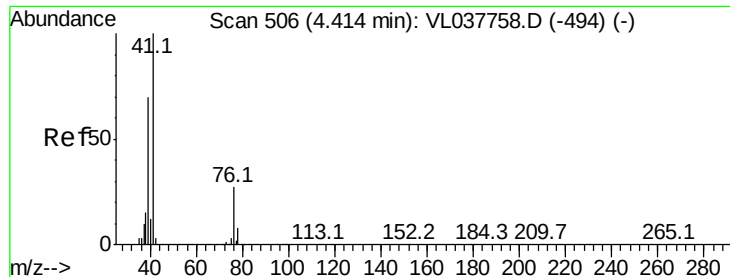


#20
 Methylene Chloride
 Concen: 0.375 ppbv
 RT: 4.36 min Scan# 488
 Delta R.T. 0.01 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

Tgt Ion: 84 Resp: 22708

Ion	Ratio	Lower	Upper
84	100		
49	153.0	120.7	181.1
51	50.7	36.2	54.4
86	56.1	49.6	74.4





#21

Allvl Chloride

Concen: 0.476 ppbv

RT: 4.42

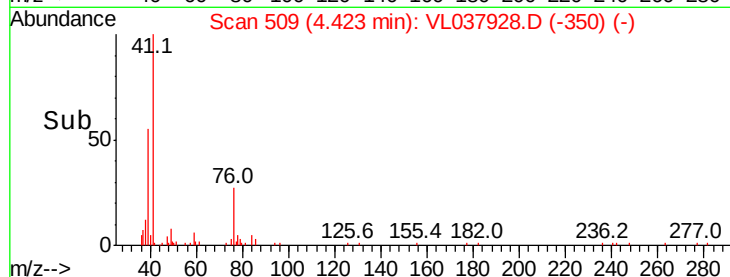
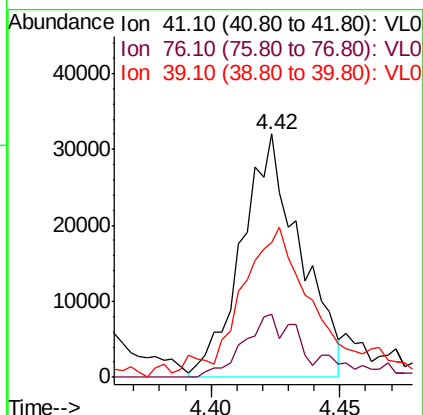
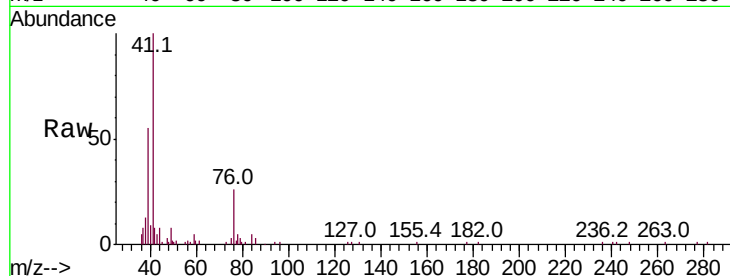
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 27 Oct 2021 22:44

Tot Ion: 41 Resp: 50591

Ion	Ratio	Lower	Upper
41	100		
76	30.2	22.4	33.6
39	85.8	58.0	87.0



#22

trans-1,2-Dichloroethene

Concen: 0.436 ppbv

RT: 4.90 min Scan# 656

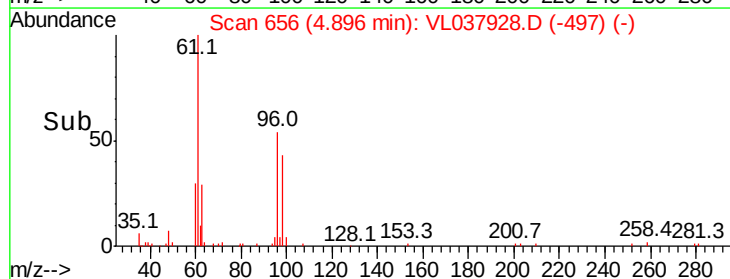
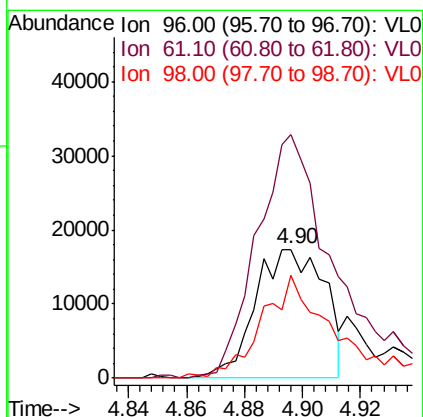
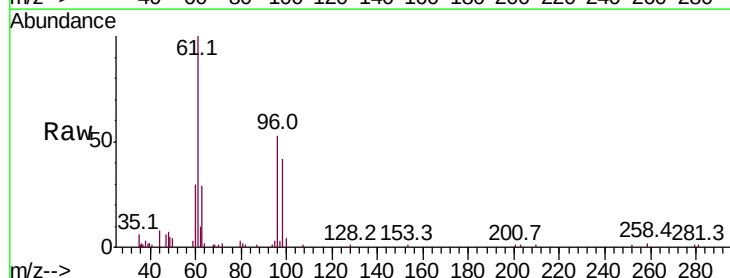
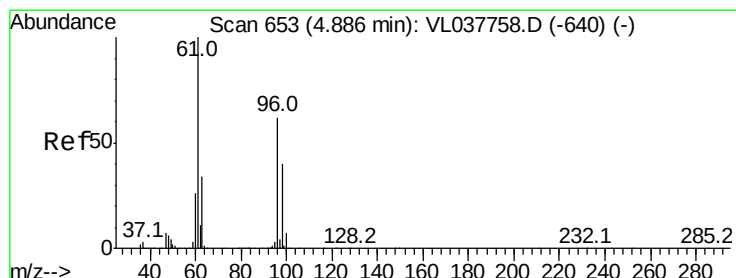
Delta R.T. 0.01 min

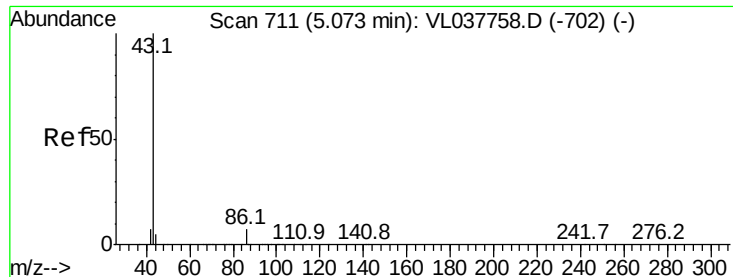
Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion: 96 Resp: 28692

Ion	Ratio	Lower	Upper
96	100		
61	188.7	129.0	193.6
98	75.8	51.7	77.5





#23

Vinyl Acetate

Concen: 0.404 ppbv

RT: 5.09 Instrument: MSVOA_1

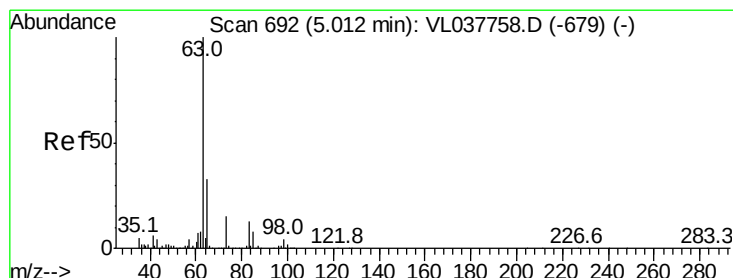
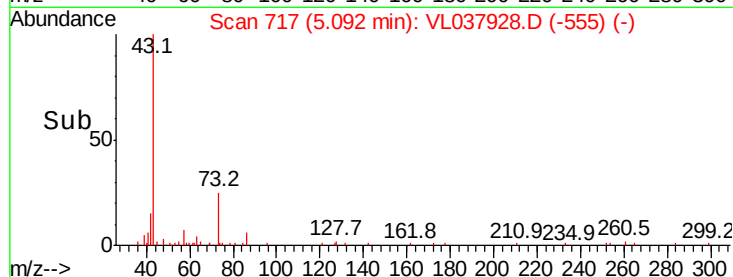
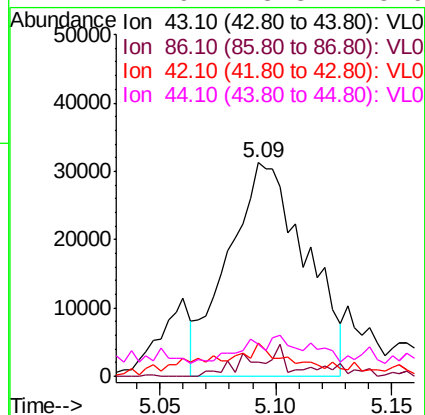
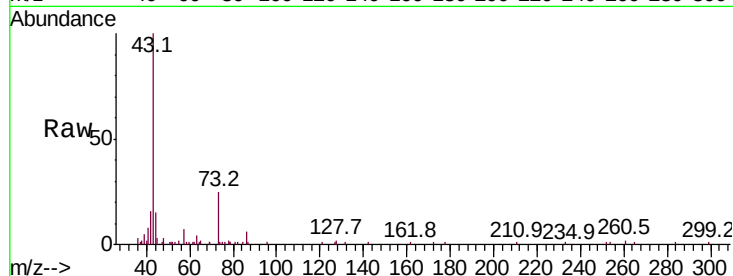
Delta R.T.

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

Tot Ion: 43 Resp: 72488

Ion	Ratio	Lower	Upper
43	100		
86	10.5	5.0	7.4#
42	15.9	7.4	11.0#
44	11.9	3.8	5.6#



#24

1,1-Dichloroethane

Concen: 0.338 ppbv

RT: 5.02 min Scan# 694

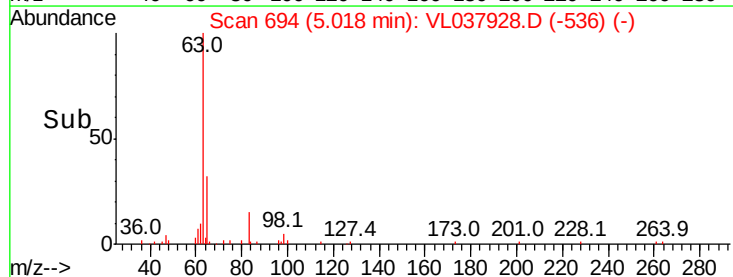
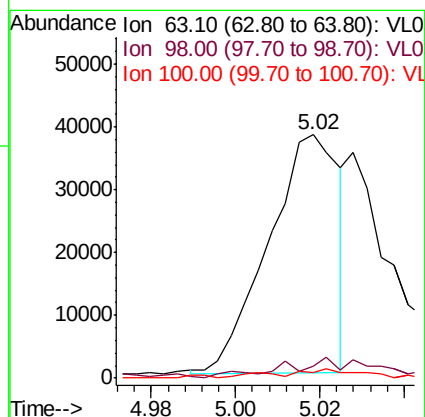
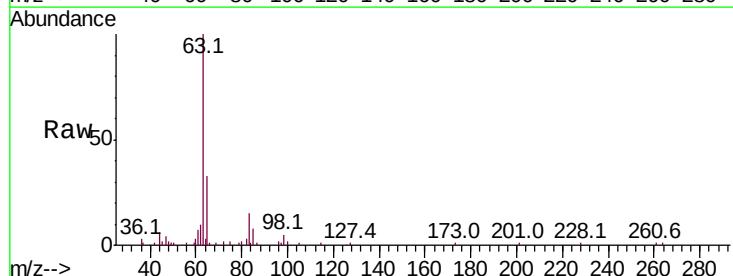
Delta R.T. 0.01 min

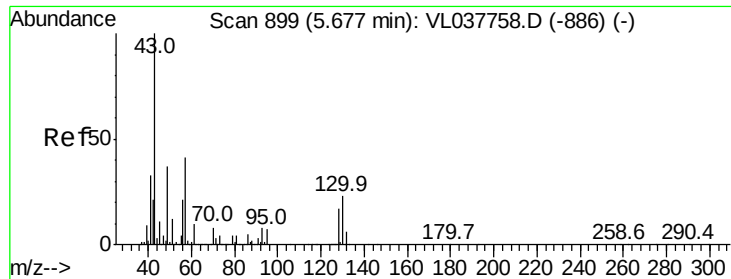
Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion: 63 Resp: 44152

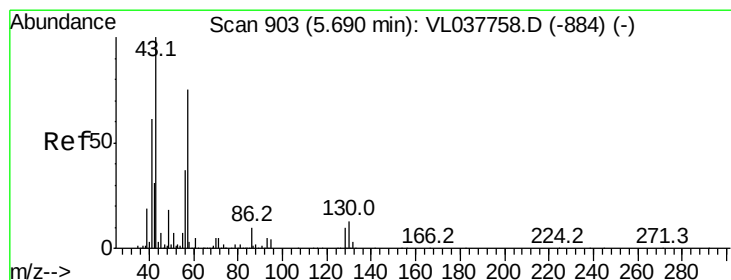
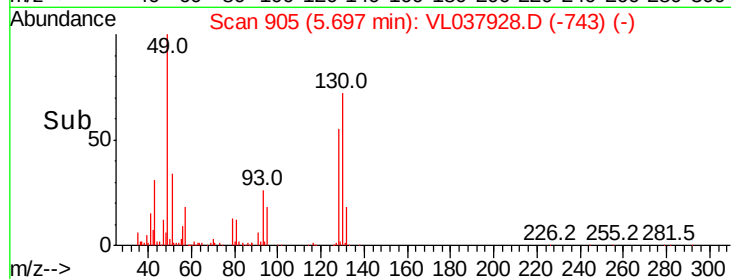
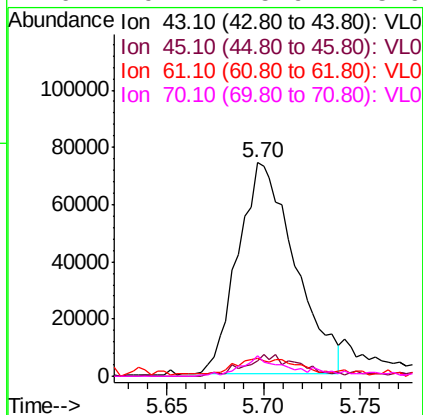
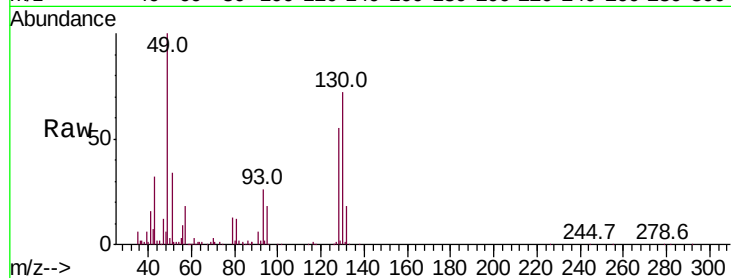
Ion	Ratio	Lower	Upper
63	100		
98	4.5	2.3	6.9
100	1.1	1.1	3.1





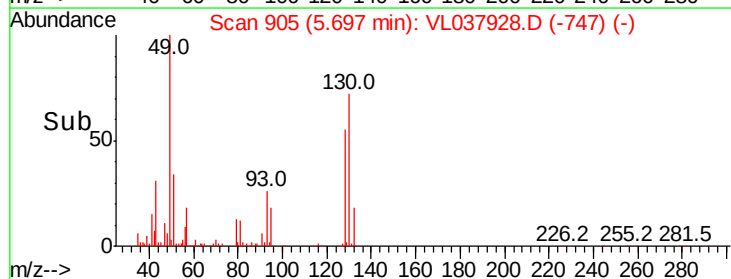
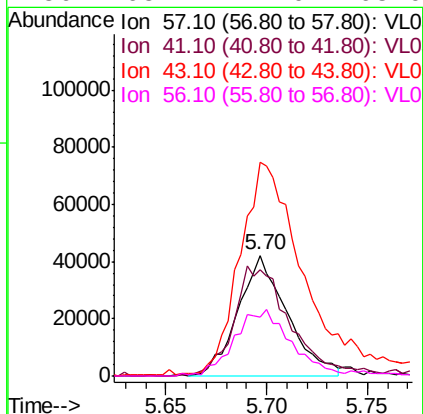
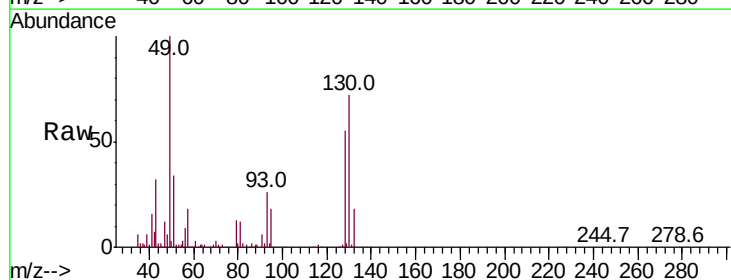
#25
Ethyl Acetate
Concen: 0.452 ppbv
RT: 5.70 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 27 Oct 2021 22:44

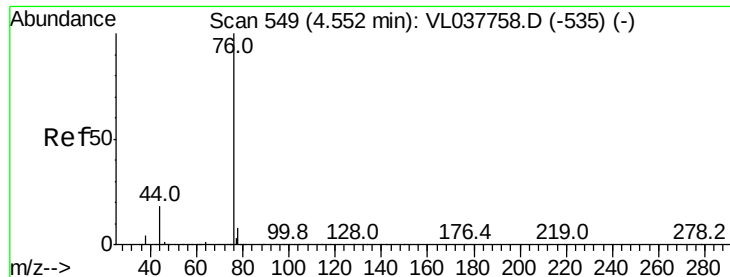
Tot Ion:	43	Resp:	151907
Ion	Ratio	Lower	Upper
43	100		
45	10.6	8.1	12.1
61	10.7	7.5	11.3
70	9.4	5.9	8.9#



#26
Hexane
Concen: 0.434 ppbv
RT: 5.70 min Scan# 905
Delta R.T. 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

Tgt Ion:	57	Resp:	71858
Ion	Ratio	Lower	Upper
57	100		
41	107.9	69.6	104.4#
43	242.3	171.4	257.0
56	65.4	42.0	63.0#





#27

Carbon Disulfide

Concen: 0.304 ppbv

RT: 4.56 Instrument:

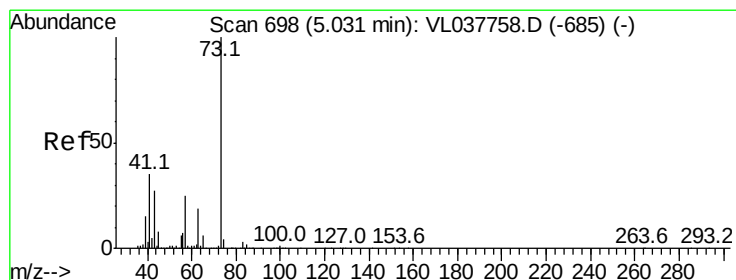
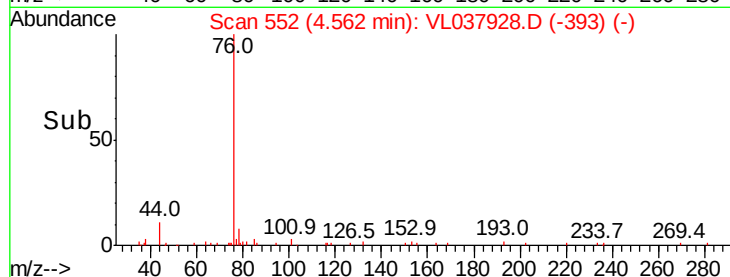
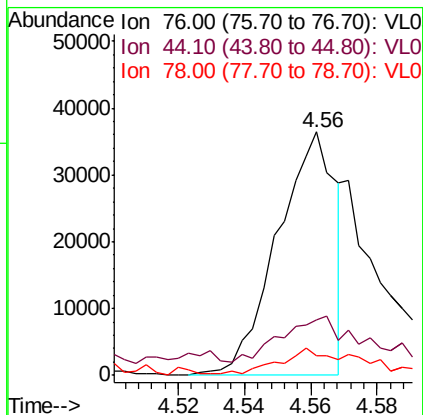
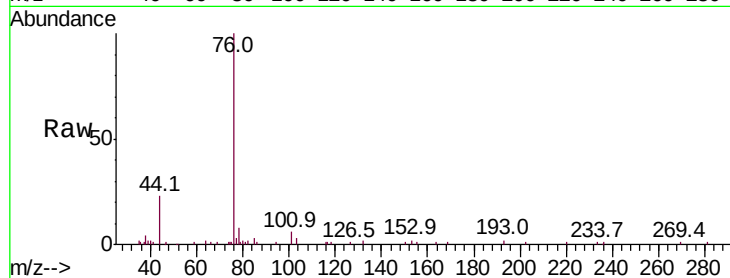
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

Tot Ion: 76 Resp: 44560

Ion	Ratio	Lower	Upper
76	100		
44	41.6	14.3	21.5#
78	19.3	7.8	11.6#



#28

Methyl tert-Butyl Ether

Concen: 0.214 ppbv

RT: 5.06 min Scan# 706

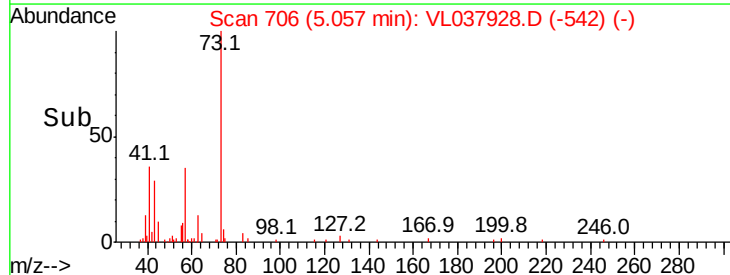
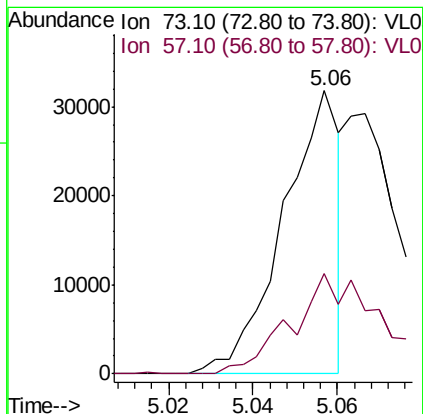
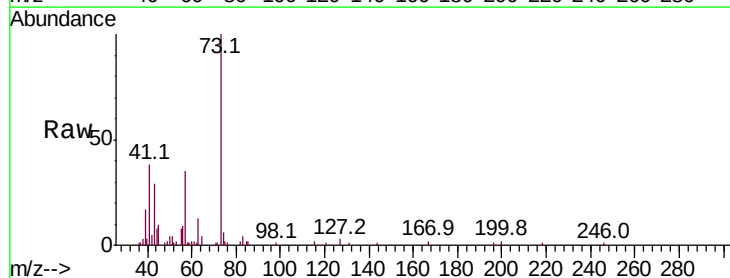
Delta R.T. 0.03 min

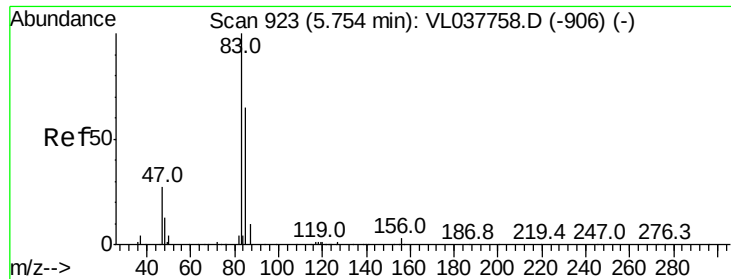
Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion: 73 Resp: 29558

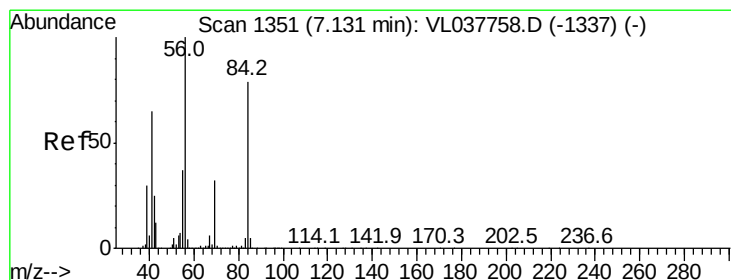
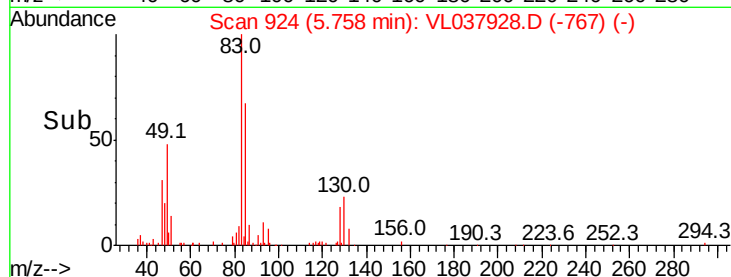
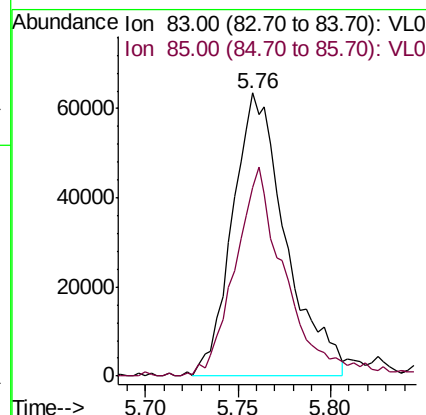
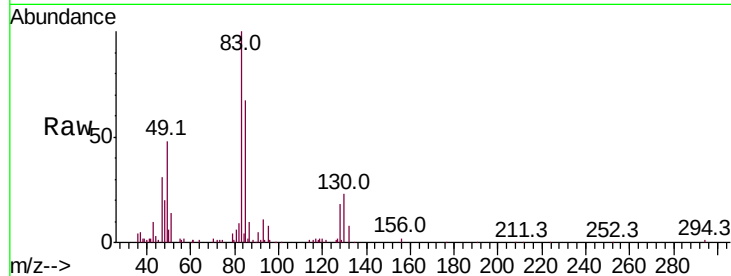
Ion	Ratio	Lower	Upper
73	100		
57	63.7	20.4	30.6#





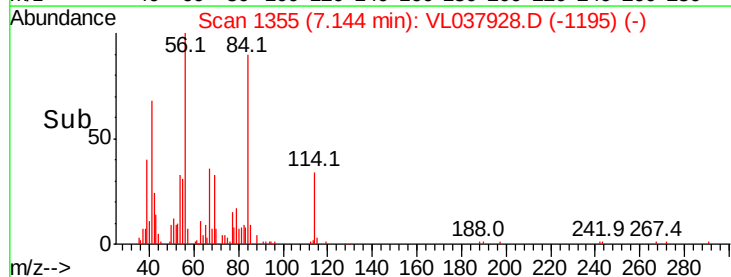
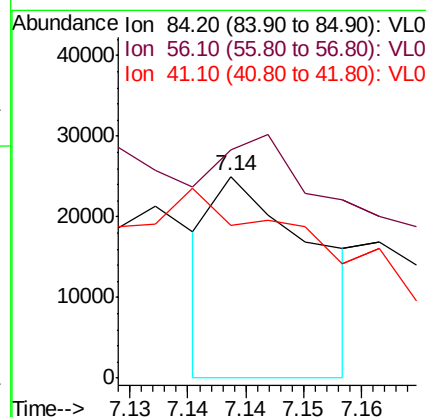
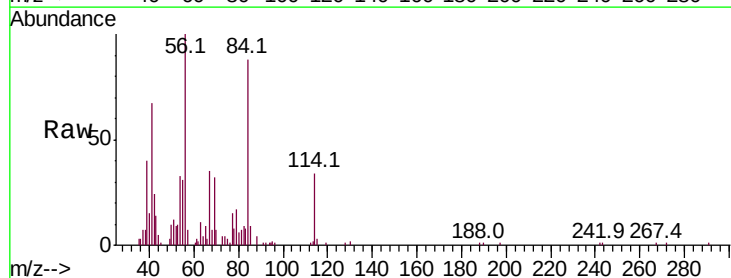
#29
Chloroform
Concen: 0.531 ppbv
RT: 5.76
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 27 Oct 2021 22:44

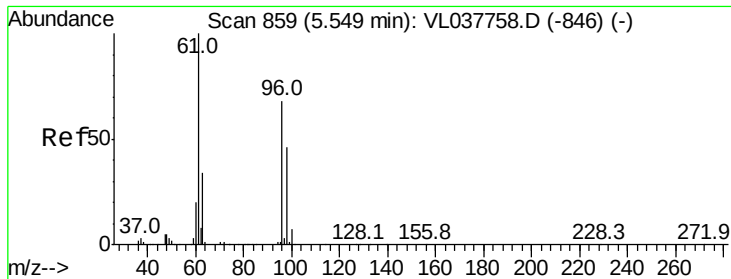
Tot Ion: 83 Resp: 125602
Ion Ratio Lower Upper
83 100
85 66.3 51.8 77.8



#30
Cyclohexane
Concen: 0.107 ppbv
RT: 7.14 min Scan# 1355
Delta R.T. 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

Tgt Ion: 84 Resp: 15075
Ion Ratio Lower Upper
84 100
56 326.1 113.0 169.4#
41 345.1 69.1 103.7#





#31

cis-1,2-Dichloroethene

Concen: 0.230 ppbv

RT: 5.56 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

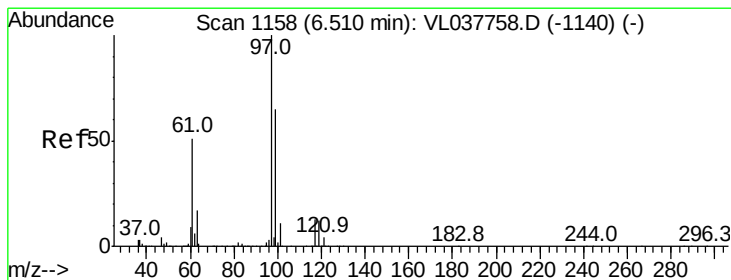
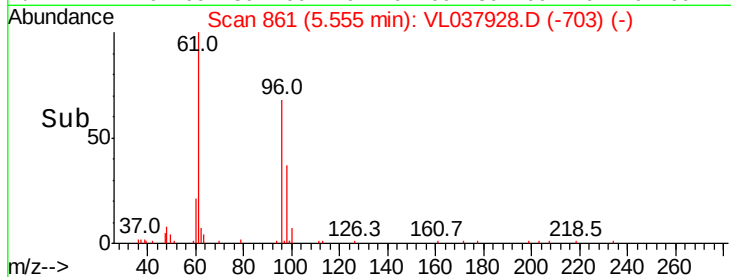
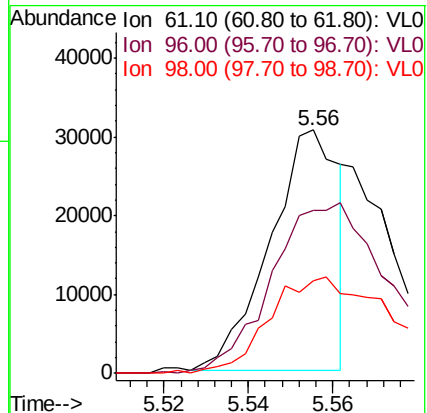
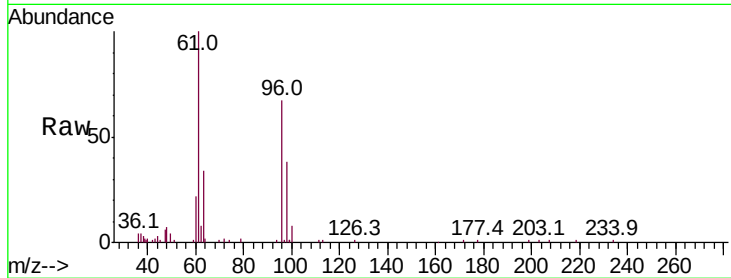
Tot Ion: 61 Resp: 34509

Ion Ratio Lower Upper

61 100

96 66.5 54.2 81.2

98 38.4 36.6 54.8



#32

1,1,1-Trichloroethane

Concen: 0.502 ppbv

RT: 6.52 min Scan# 1161

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

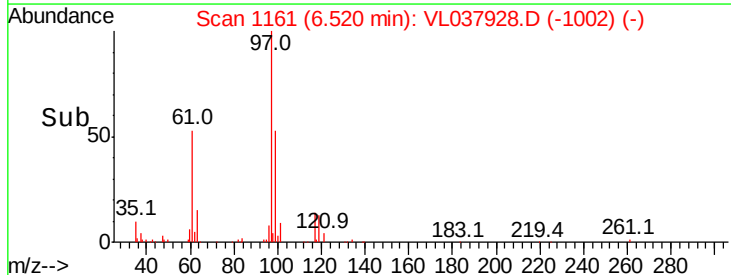
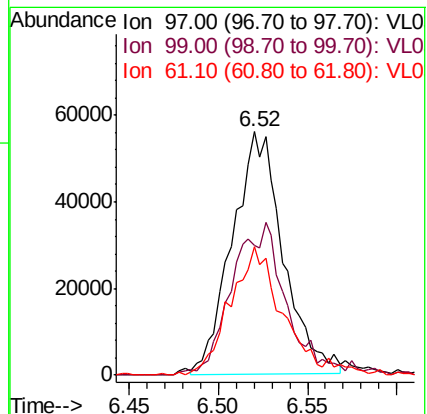
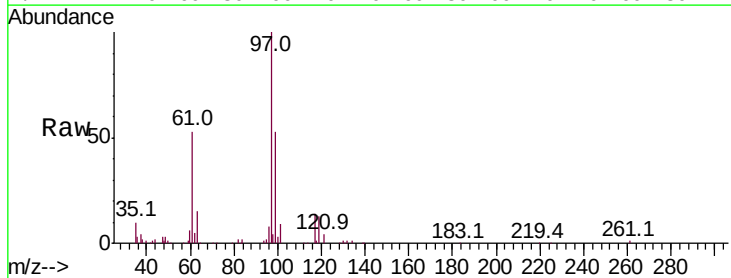
Tgt Ion: 97 Resp: 112562

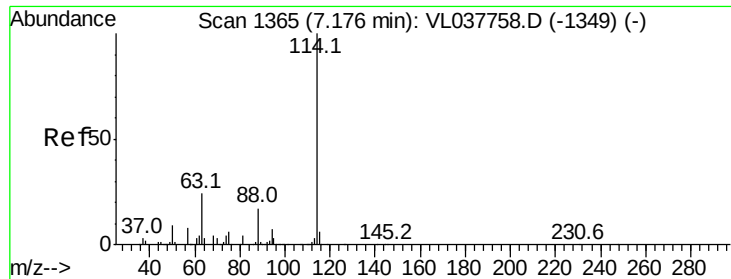
Ion Ratio Lower Upper

97 100

99 68.0 52.6 78.8

61 55.4 40.2 60.4





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.18 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

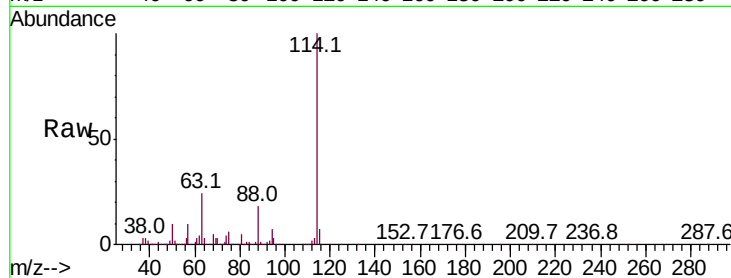
Tot Ion:114 Resp: 4052640

Ion Ratio Lower Upper

114 100

63 23.9 19.4 29.2

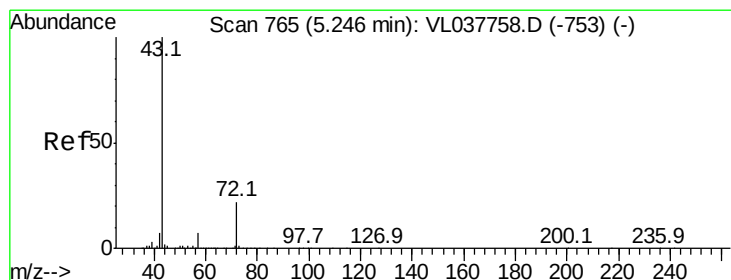
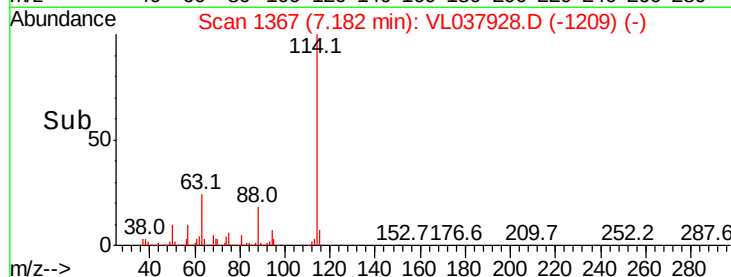
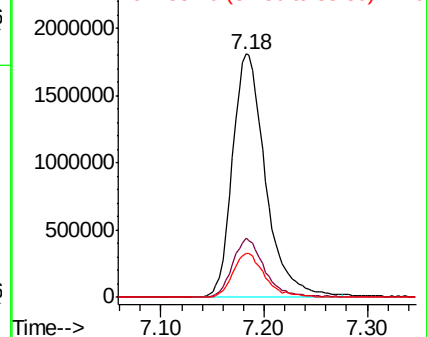
88 17.8 14.4 21.6



Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 0.198 ppbv

RT: 5.28 min Scan# 774

Delta R.T. 0.03 min

Lab File: VL037928.D

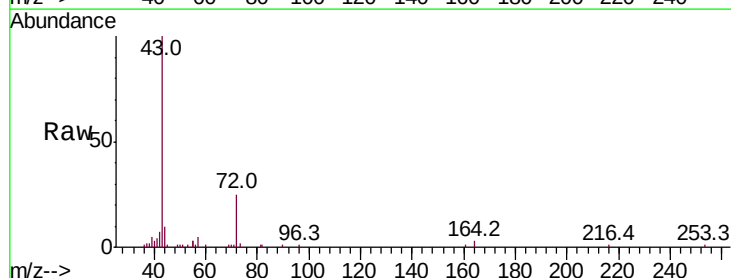
Acq: 27 Oct 2021 22:44

Tgt Ion: 43 Resp: 32390

Ion Ratio Lower Upper

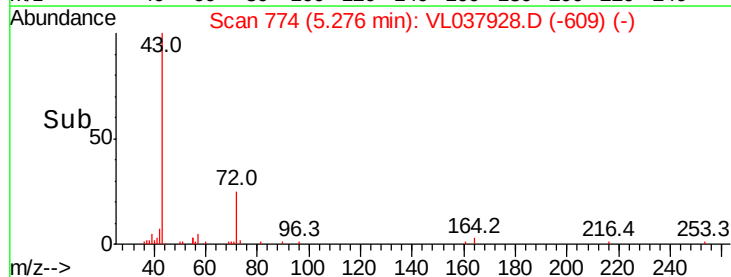
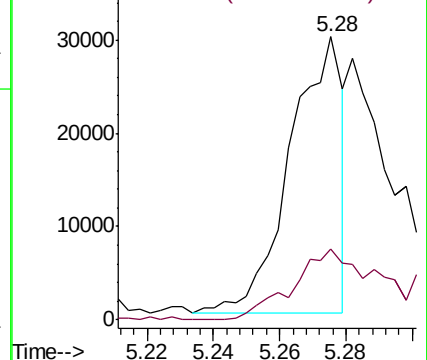
43 100

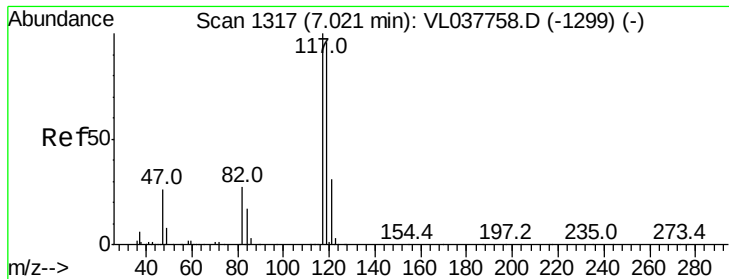
72 55.4 18.2 27.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





#35

Carbon Tetrachloride

Concen: 0.486 ppbv

RT: 7.02 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

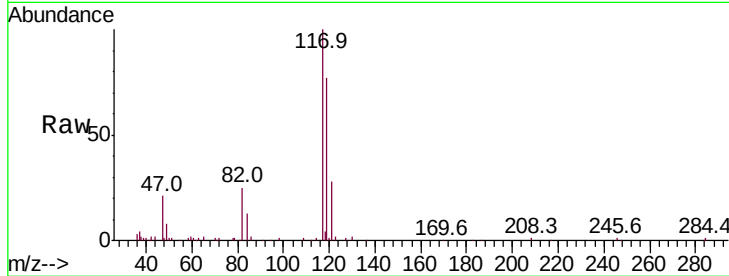
Tot Ion:117 Resp: 111928

Ion Ratio Lower Upper

117 100

119 77.4 76.5 114.7

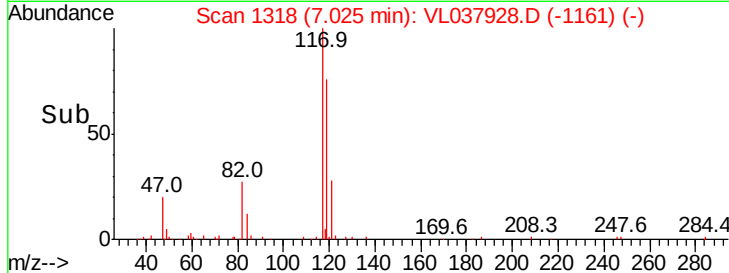
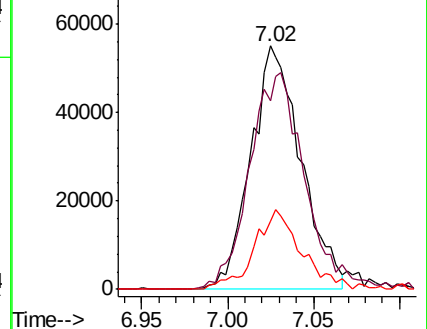
121 27.9 24.9 37.3



Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.410 ppbv

RT: 6.91 min Scan# 1281

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

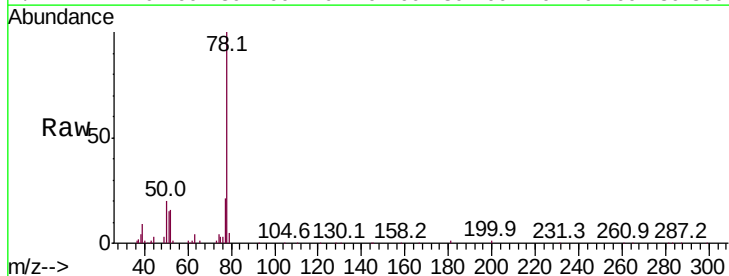
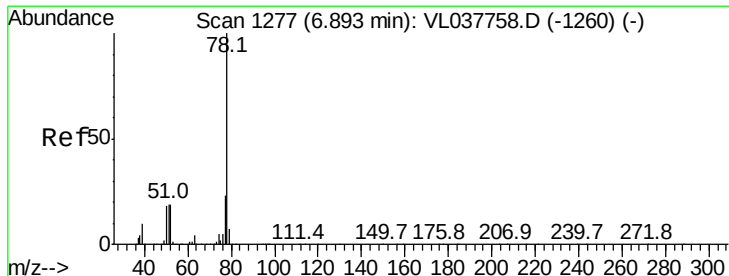
Tgt Ion: 78 Resp: 141855

Ion Ratio Lower Upper

78 100

77 21.4 18.8 28.2

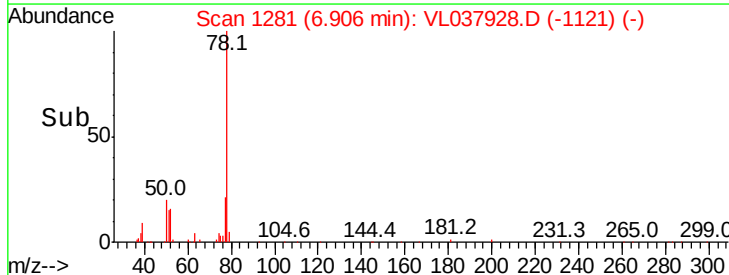
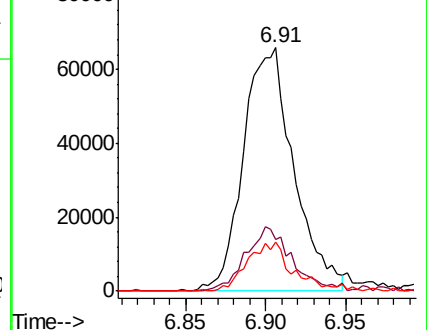
50 20.2 14.7 22.1

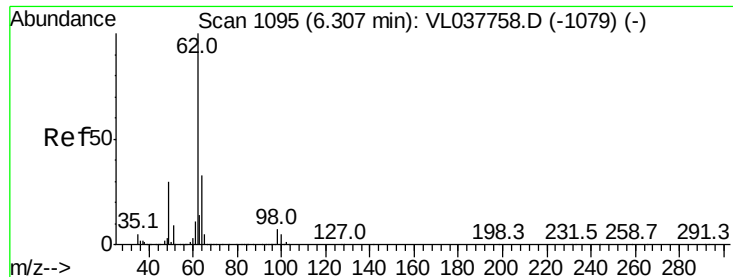


Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0





#37

1,2-Dichloroethane

Concen: 0.244 ppbv

RT: 6.31

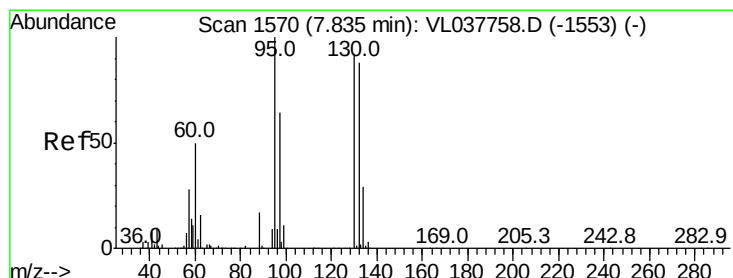
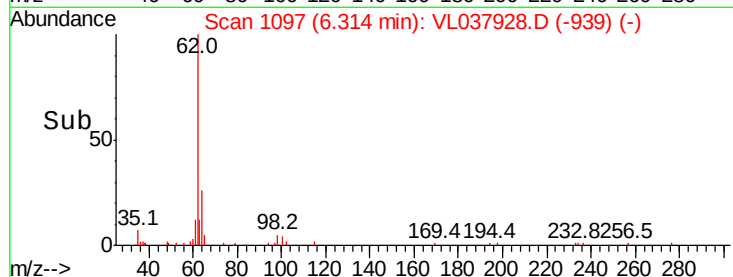
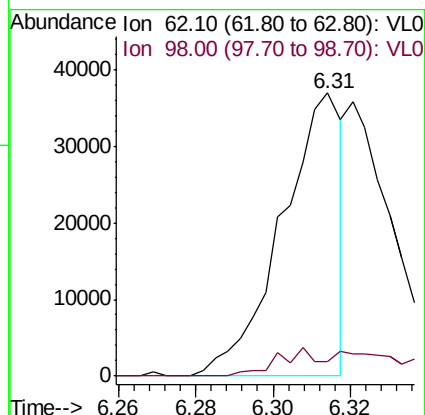
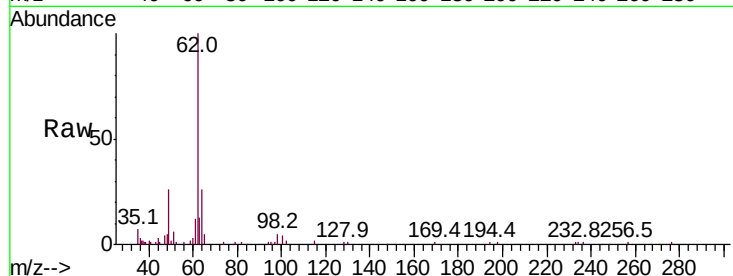
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

Tot Ion: 62 Resp: 39772

Ion	Ratio	Lower	Upper
62	100		
98	19.5	6.1	9.1#



#38

Trichloroethene

Concen: 0.269 ppbv

RT: 7.84 min Scan# 1573

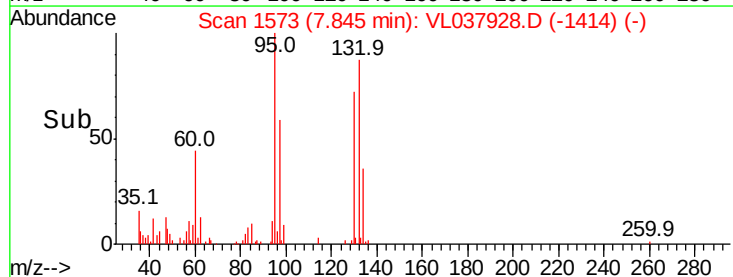
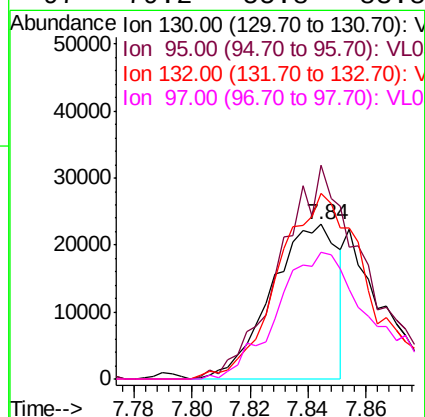
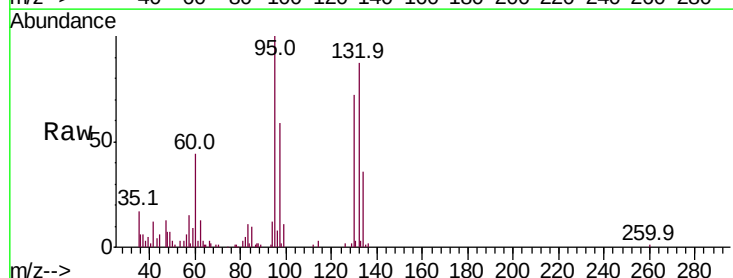
Delta R.T. 0.01 min

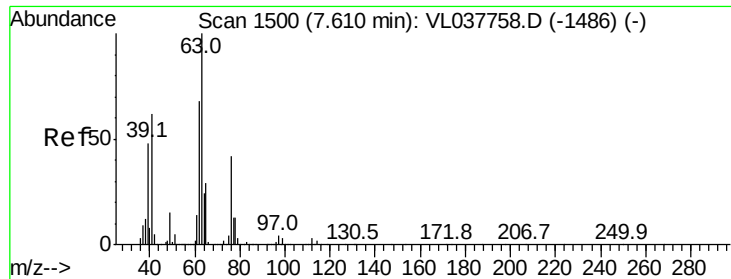
Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion: 130 Resp: 36814

Ion	Ratio	Lower	Upper
130	100		
95	133.2	87.4	131.0#
132	115.6	76.8	115.2#
97	79.2	55.8	83.8





#39

1,2-Dichloropropane

Concen: 7.248 ppbv

RT: 7.18 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

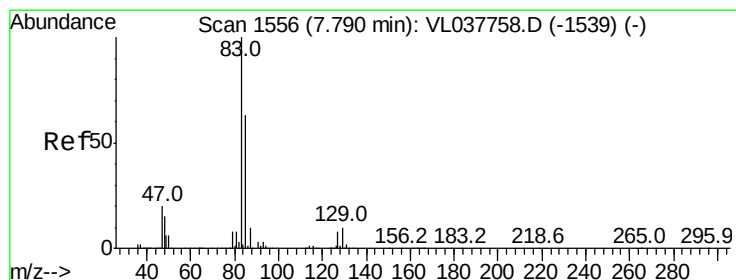
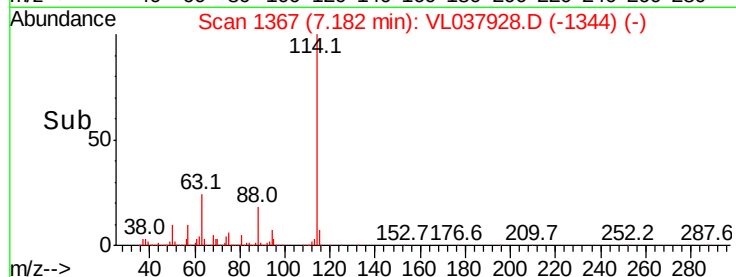
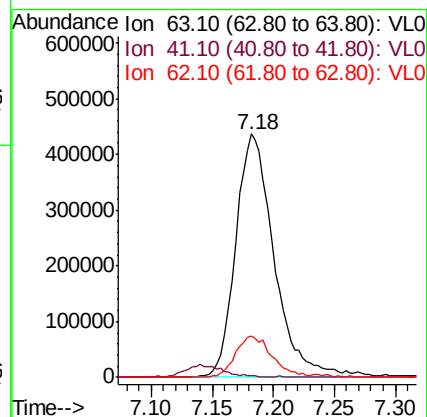
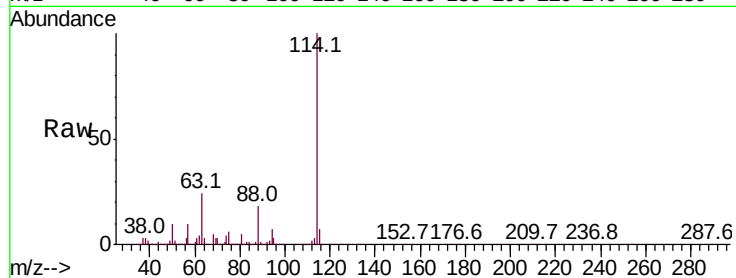
Tot Ion: 63 Resp: 943761

Ion Ratio Lower Upper

63 100

41 0.5 49.8 74.6#

62 16.5 54.6 82.0#



#42

Bromodichloromethane

Concen: 0.465 ppbv

RT: 7.80 min Scan# 1560

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

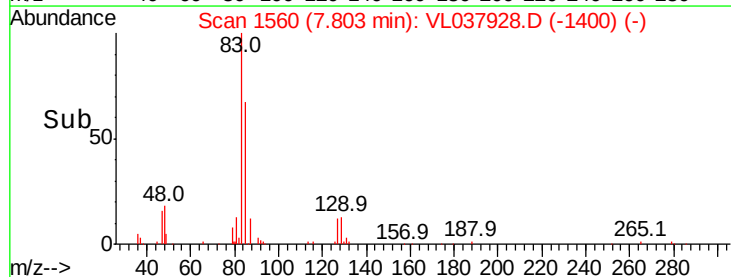
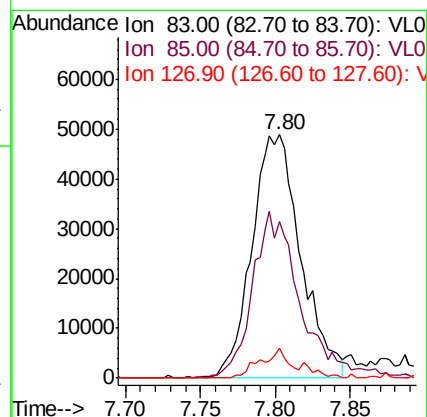
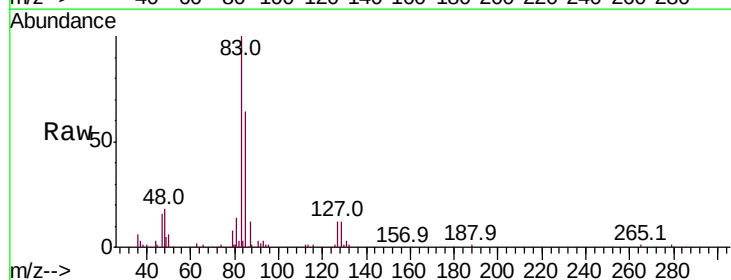
Tgt Ion: 83 Resp: 111229

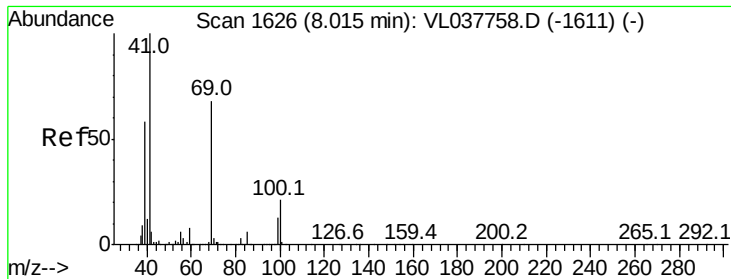
Ion Ratio Lower Upper

83 100

85 64.3 50.6 75.8

127 12.5 6.2 9.4#





#43

Methyl Methacrylate

Concen: 0.215 ppbv

RT: 8.03

Instrument: MSVOA_1

Delta R.T.

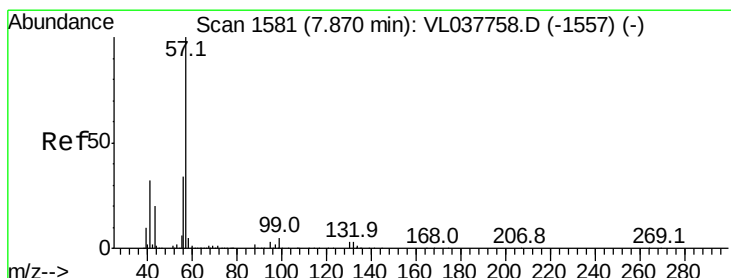
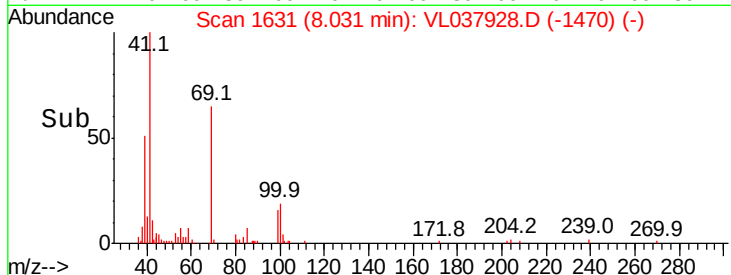
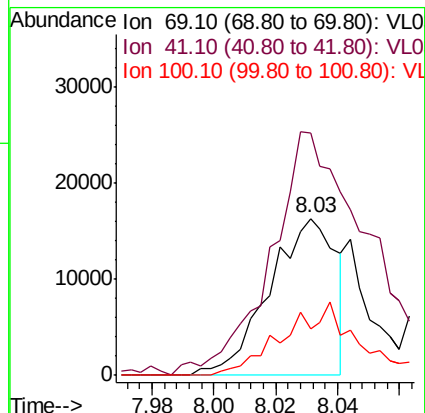
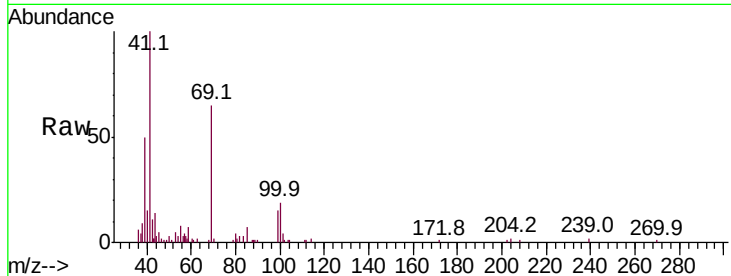
Client Sample Id:

Lab File: LOQ-AIR-02-OT4-2021

Acq: 27 Oct 2021 22:44

Tot Ion: 69 Resp: 24340

Ion	Ratio	Lower	Upper
69	100		
41	233.2	121.0	181.4#
100	0.0	27.7	41.5#



#44

2,2,4-Trimethylpentane

Concen: 0.284 ppbv

RT: 7.88 min Scan# 1584

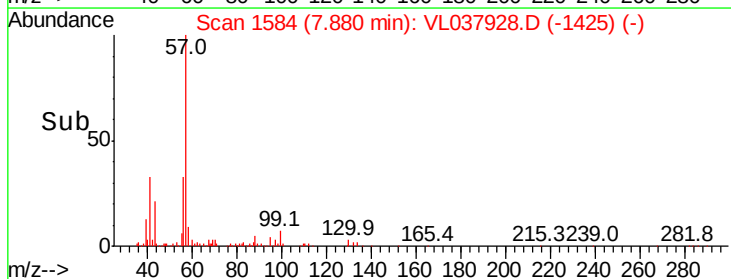
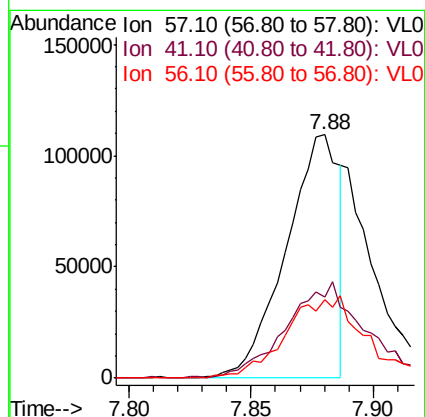
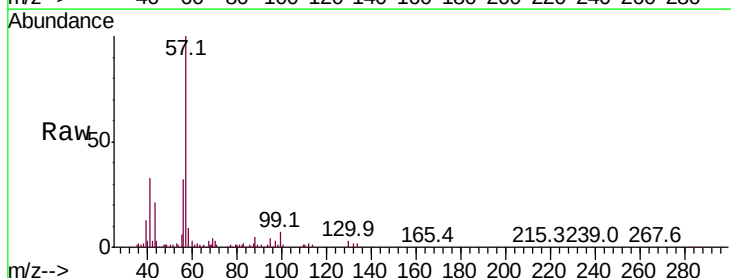
Delta R.T. 0.01 min

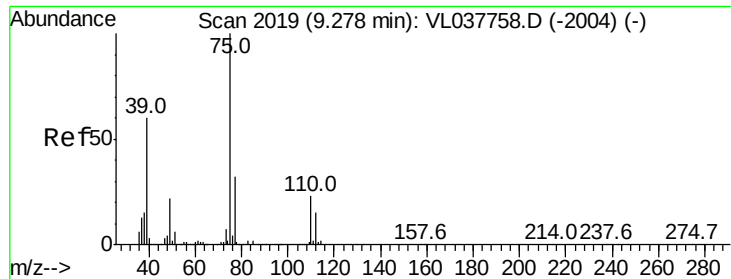
Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion: 57 Resp: 164942

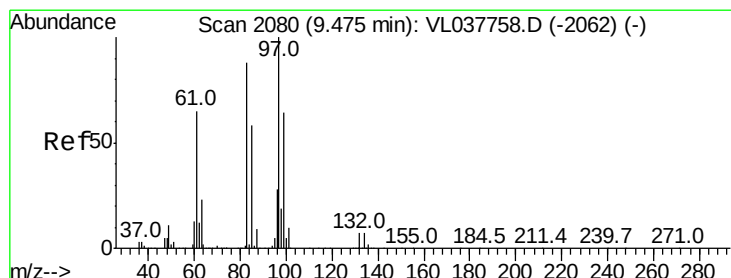
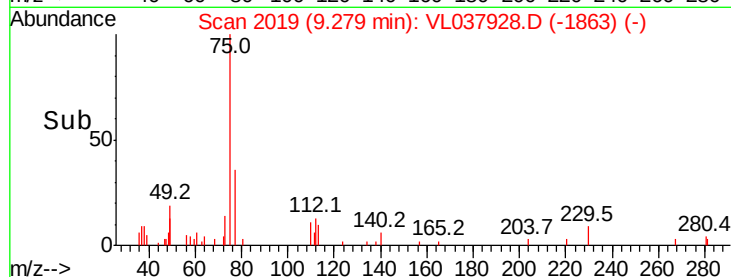
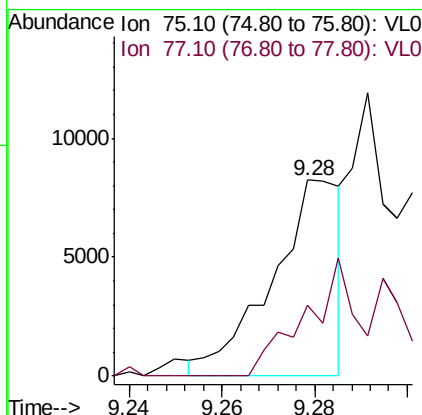
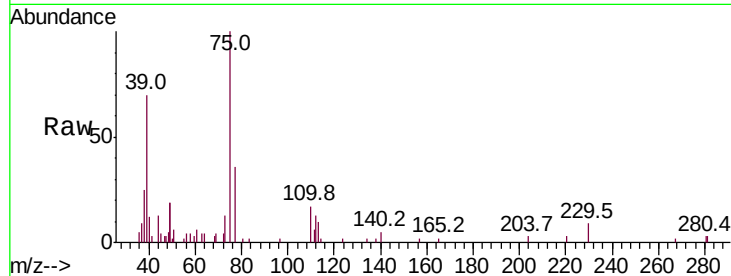
Ion	Ratio	Lower	Upper
57	100		
41	60.8	25.6	38.4#
56	52.2	25.5	38.3#





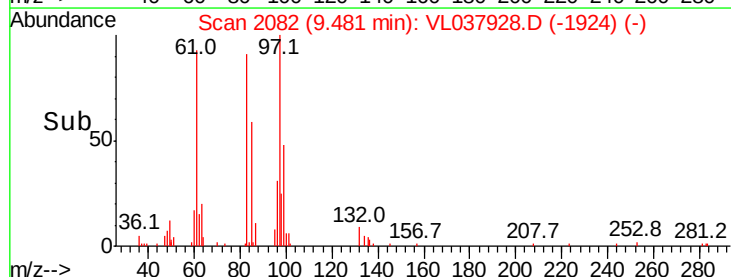
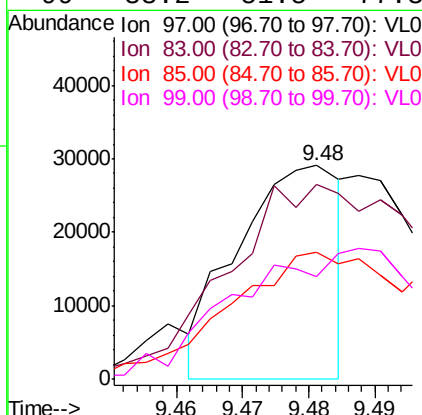
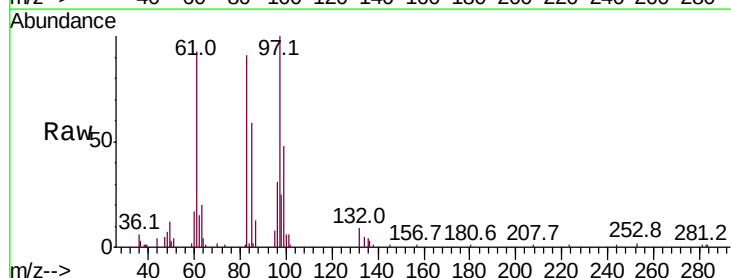
#45
 t-1,3-Dichloropropene
 Concen: 0.108 ppbv
 RT: 9.28 Instrument: MSVOA_1
 Delta R.T. ClientSampleId:
 Lab File: LOQ-AIR-02-OT4-2021
 Acq: 27 Oct 2021 22:44

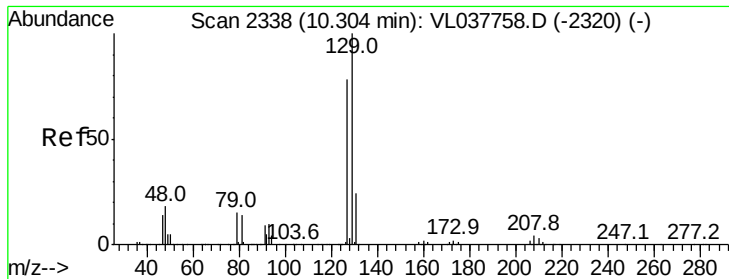
Tot Ion: 75 Resp: 8374
 Ion Ratio Lower Upper
 75 100
 77 36.2 25.2 37.8



#47
 1,1,2-Trichloroethane
 Concen: 0.222 ppbv
 RT: 9.48 min Scan# 2082
 Delta R.T. 0.01 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

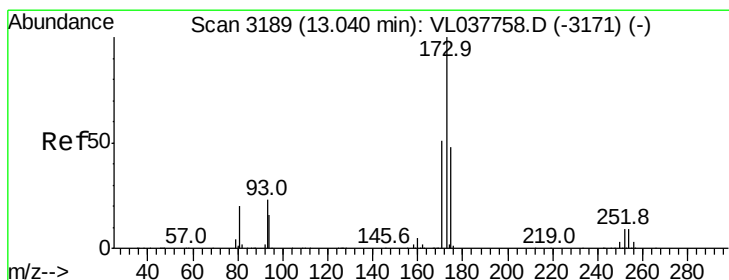
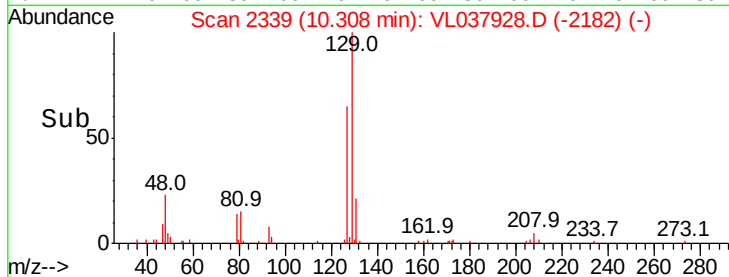
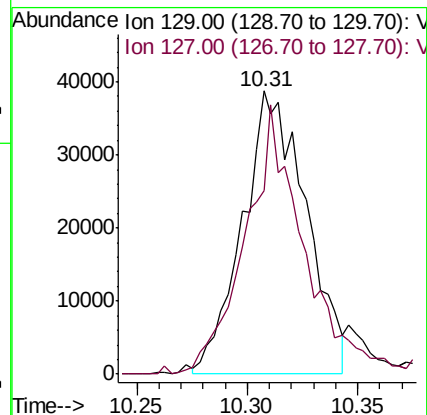
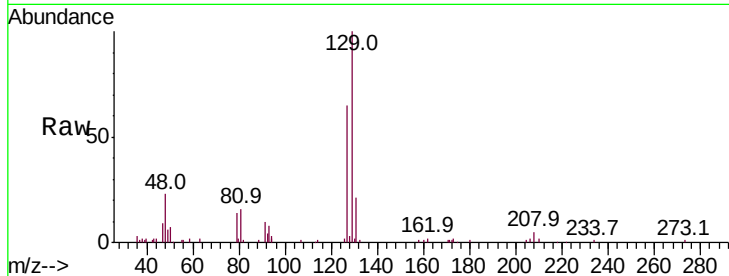
Tgt Ion: 97 Resp: 31452
 Ion Ratio Lower Upper
 97 100
 83 76.9 70.6 105.8
 85 54.2 45.9 68.9
 99 33.2 51.5 77.3#





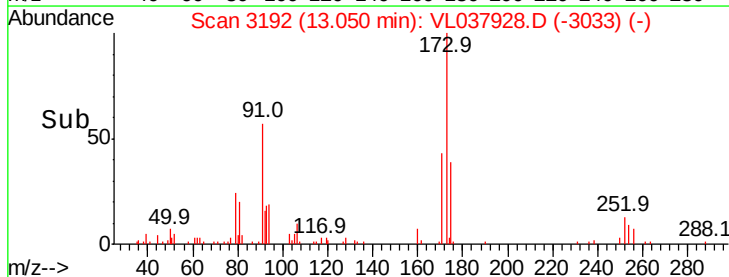
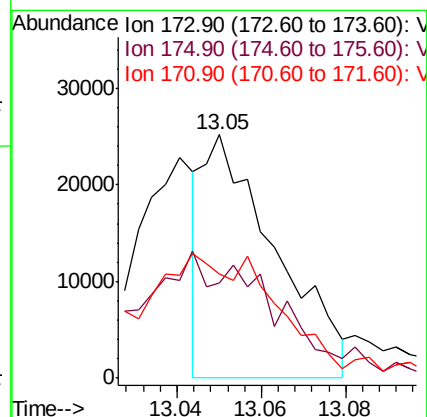
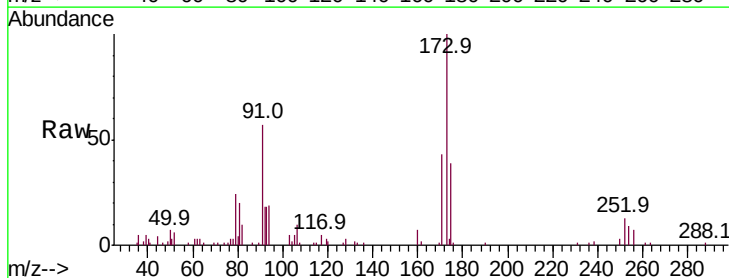
#48
 Dibromochloromethane
 Concen: 0.381 ppbv
 RT: 10.31 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 27 Oct 2021 22:44

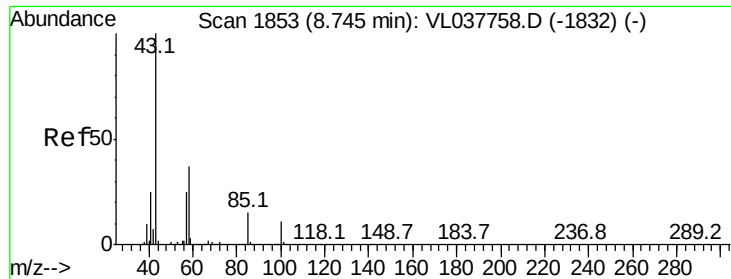
Tot Ion:129 Resp: 76955
 Ion Ratio Lower Upper
 129 100
 127 90.2 39.5 118.5



#49
 Bromoform
 Concen: 0.195 ppbv
 RT: 13.05 min Scan# 3192
 Delta R.T. 0.01 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

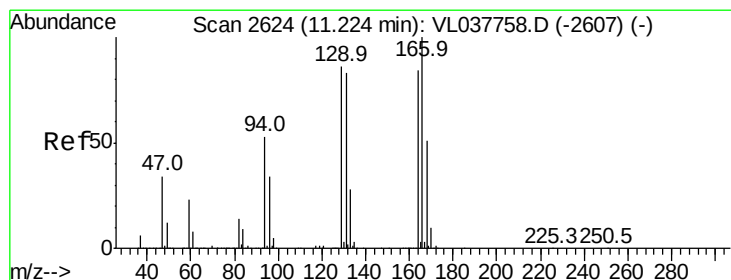
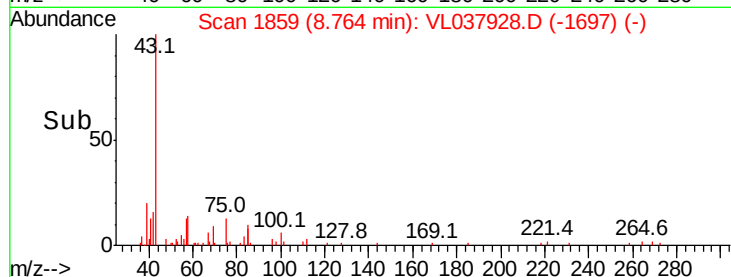
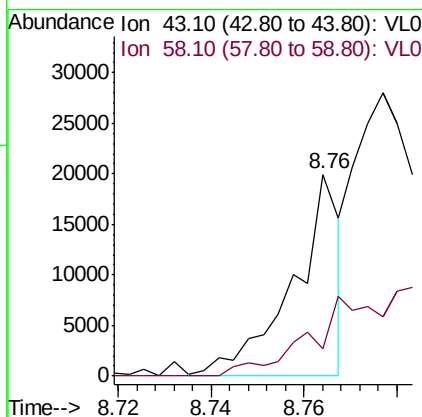
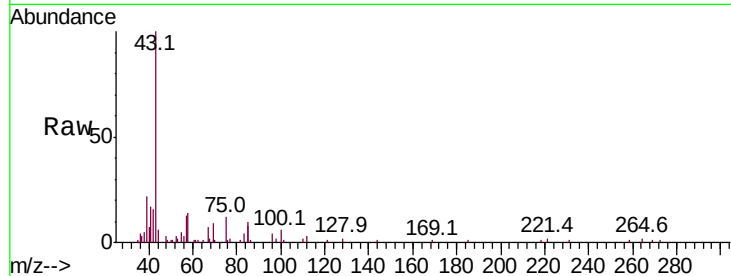
Tgt Ion:173 Resp: 30111
 Ion Ratio Lower Upper
 173 100
 175 0.0 39.9 59.9#
 171 0.0 43.4 65.2#





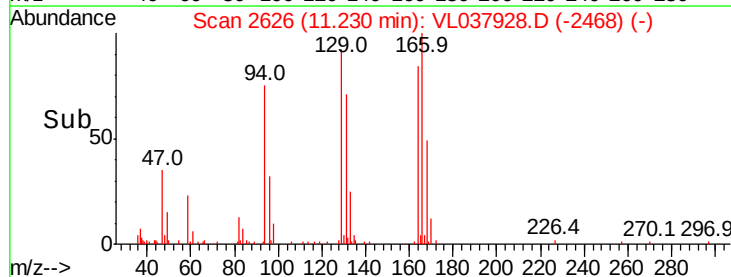
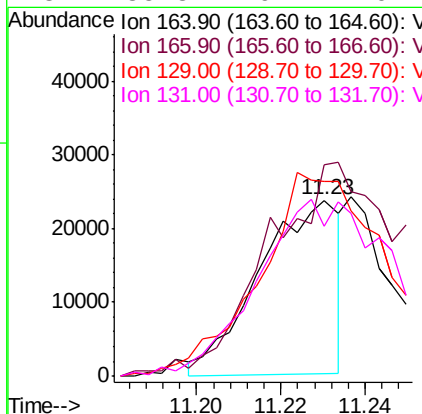
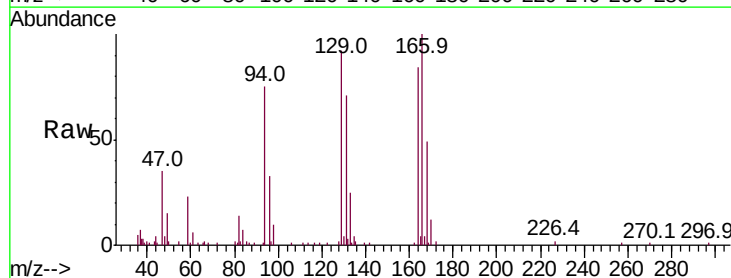
#50
4-Methyl-2-Pentanone
Concen: 0.065 ppbv
RT: 8.76
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
Acq: 27 Oct 2021 22:44

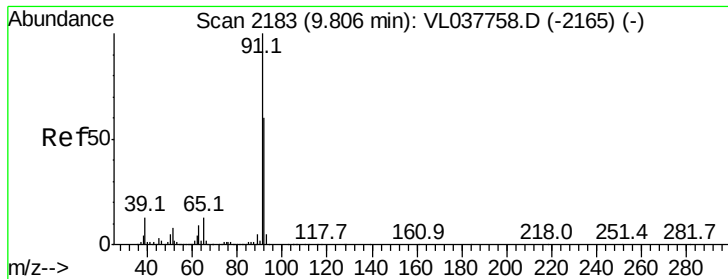
Tot Ion: 43 Resp: 13944
Ion Ratio Lower Upper
43 100
58 0.0 29.4 44.0#



#52
Tetrachloroethene
Concen: 0.231 ppbv
RT: 11.23 min Scan# 2626
Delta R.T. 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

Tgt Ion: 164 Resp: 31078
Ion Ratio Lower Upper
164 100
166 125.2 95.4 143.2
129 109.1 82.2 123.4
131 85.3 79.4 119.2





#53

Toluene

Concen: 0.314 ppbv

RT: 9.82 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

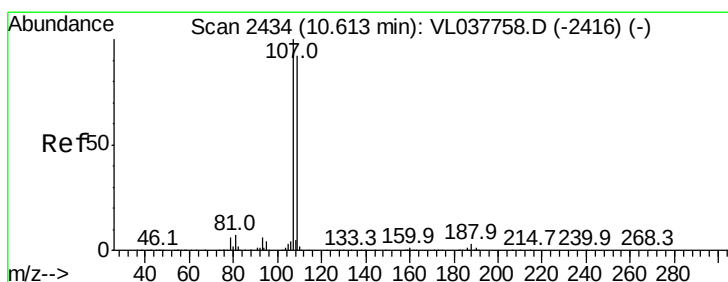
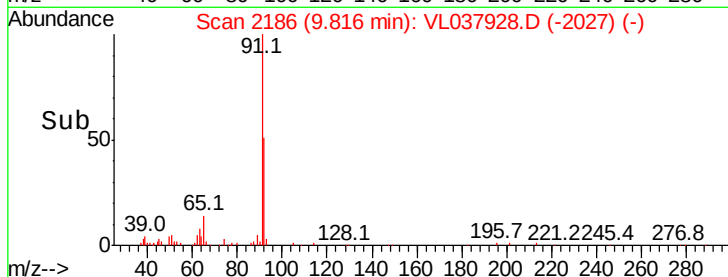
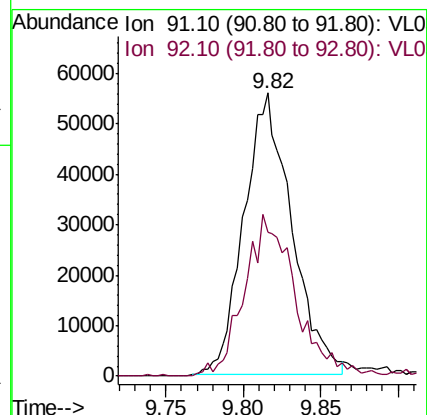
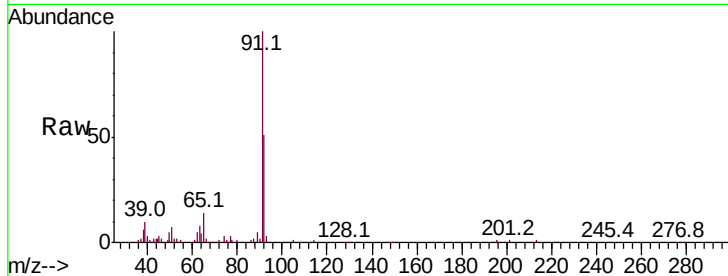
Acq: 27 Oct 2021 22:44

Tot Ion: 91 Resp: 120411

Ion Ratio Lower Upper

91 100

92 61.1 48.4 72.6



#54

1,2-Dibromoethane

Concen: 0.172 ppbv

RT: 10.62 min Scan# 2437

Delta R.T. 0.01 min

Lab File: VL037928.D

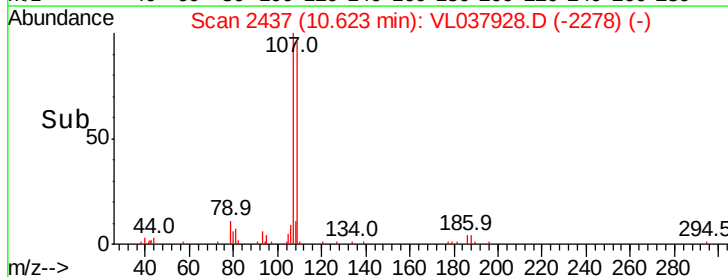
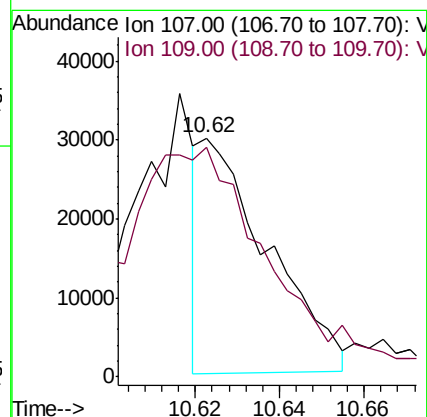
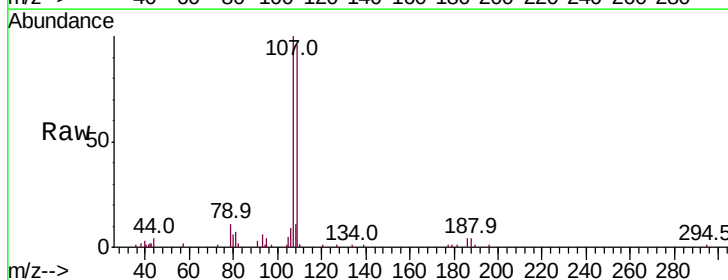
Acq: 27 Oct 2021 22:44

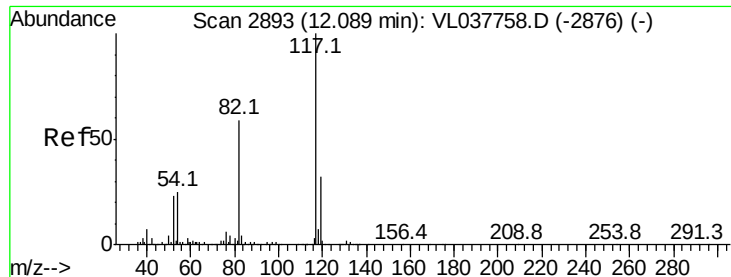
Tgt Ion: 107 Resp: 32880

Ion Ratio Lower Upper

107 100

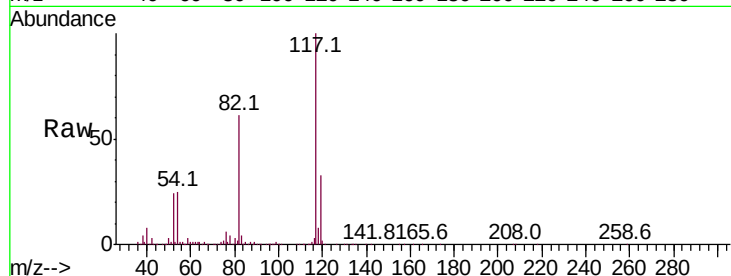
109 83.5 73.8 110.6



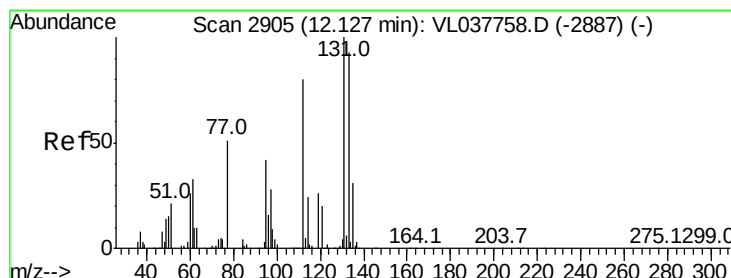
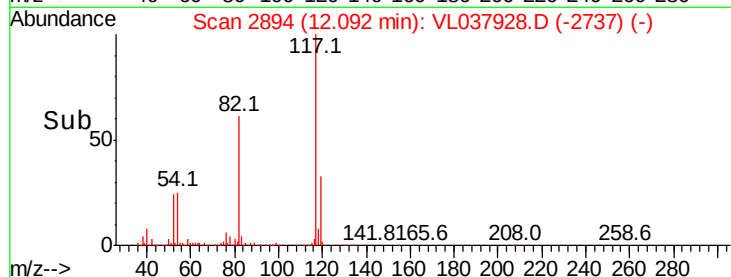
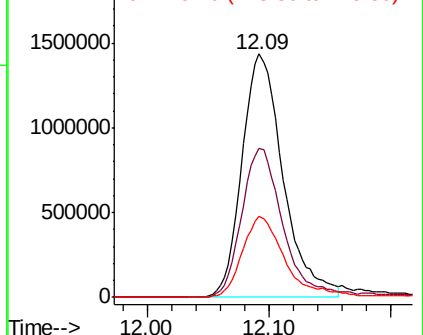


#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.09 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 27 Oct 2021 22:44

Tot Ion:117 Resp: 3348253
Ion Ratio Lower Upper
117 100
82 64.4 52.2 78.2
119 35.4 26.0 39.0

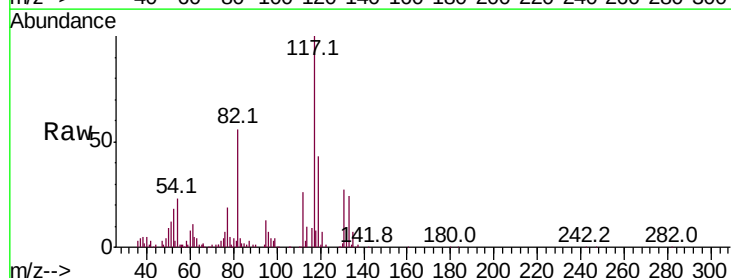


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): V
Ion 119.10 (118.80 to 119.80): V

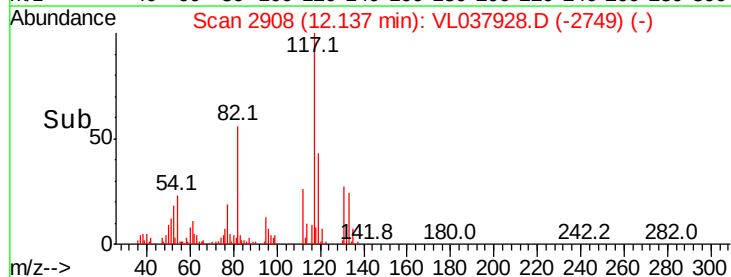
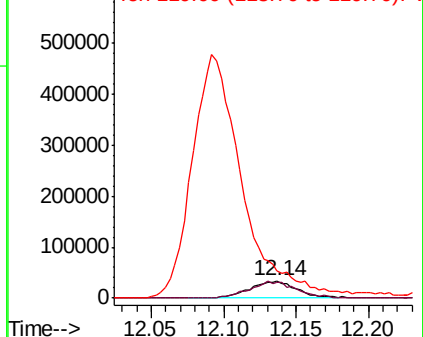


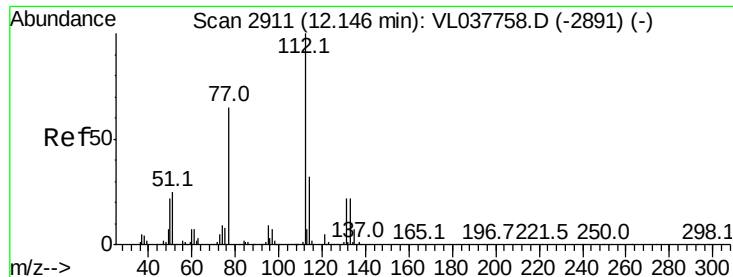
#56
1,1,1,2-Tetrachloroethane
Concen: 0.547 ppbv
RT: 12.14 min Scan# 2908
Delta R.T.: 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

Tgt Ion:131 Resp: 75843
Ion Ratio Lower Upper
131 100
133 102.5 78.5 117.7
119 1561.5 51.7 77.5#



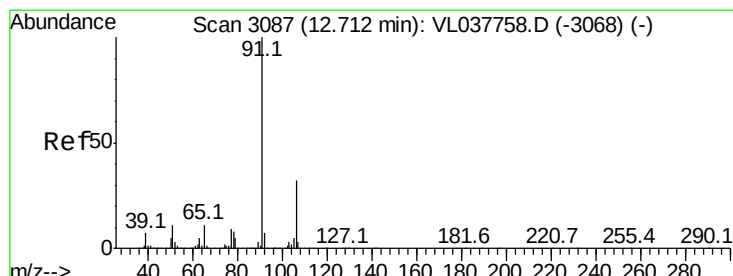
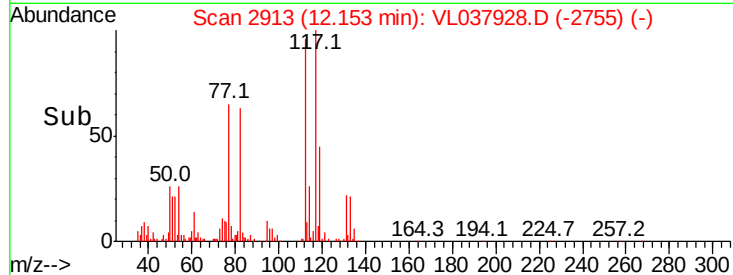
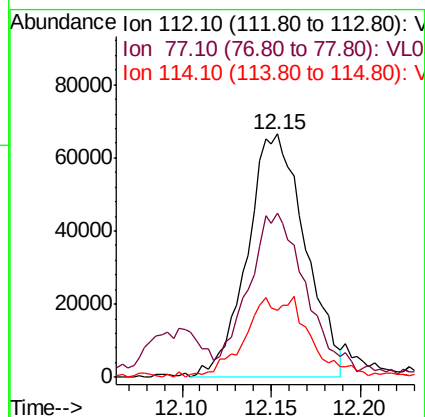
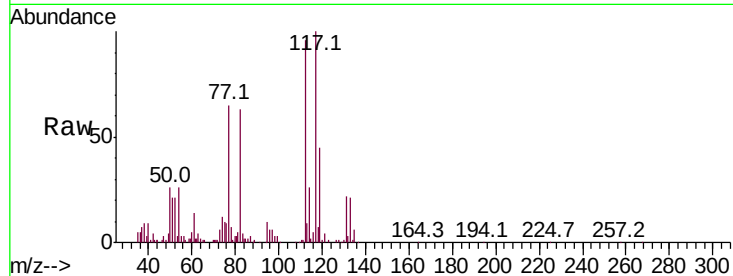
Abundance Ion 131.00 (130.70 to 131.70): V
Ion 133.00 (132.70 to 133.70): V
Ion 119.00 (118.70 to 119.70): V





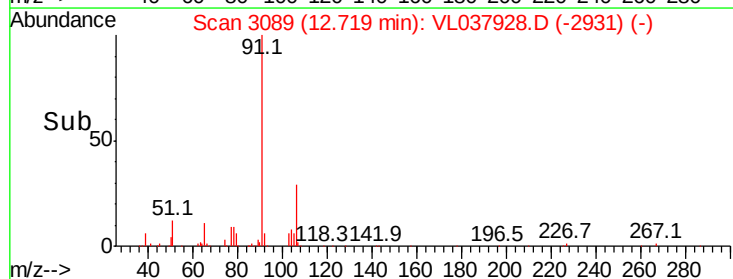
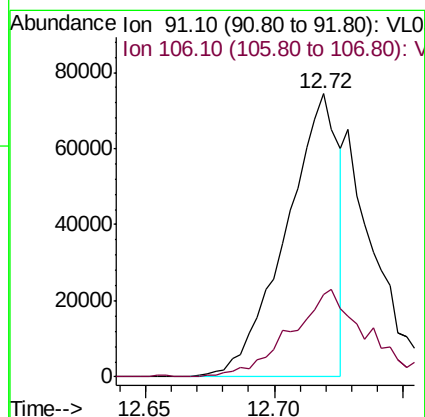
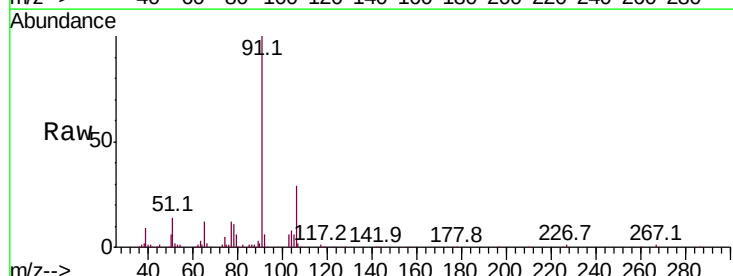
#57
Chlorobenzene
Concen: 0.547 ppbv
RT: 12.15 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 27 Oct 2021 22:44
LOQ-AIR-02-OT4-2021

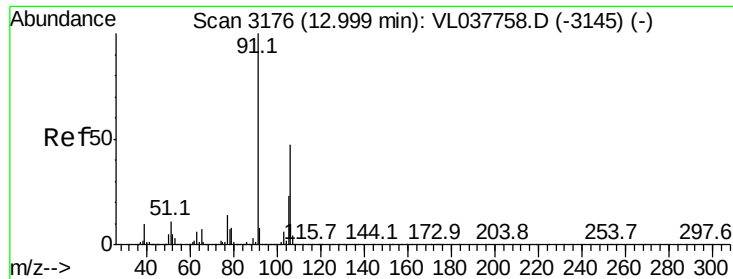
Tot Ion	Ratio	Lower	Upper
112	100		
77	60.0	51.8	77.8
114	26.9	28.8	35.2#



#58
Ethyl Benzene
Concen: 0.235 ppbv
RT: 12.72 min Scan# 3089
Delta R.T. 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

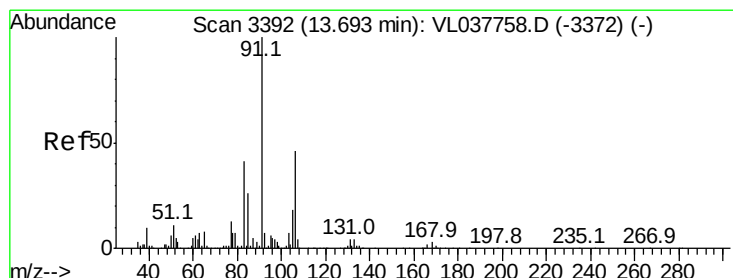
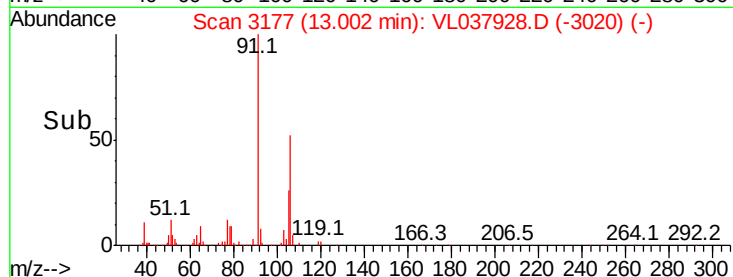
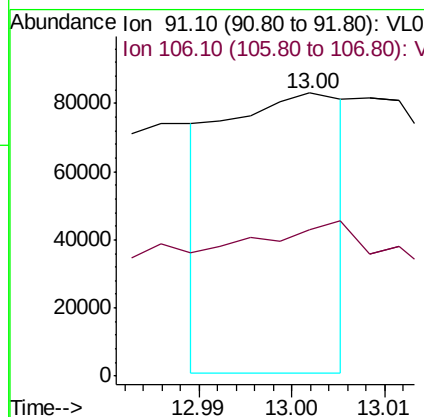
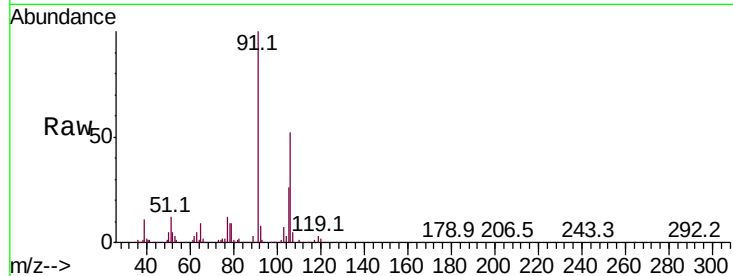
Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.3	25.3	37.9





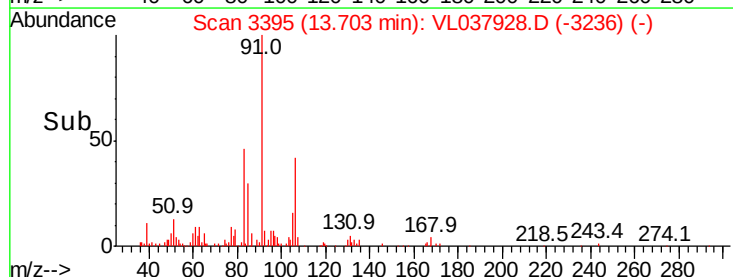
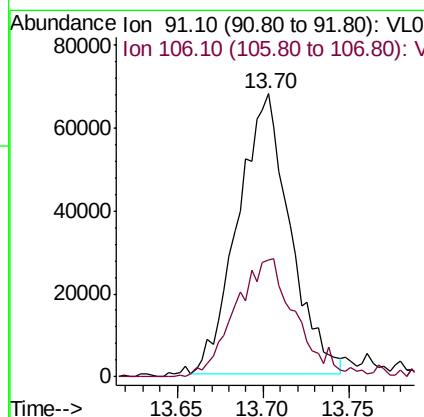
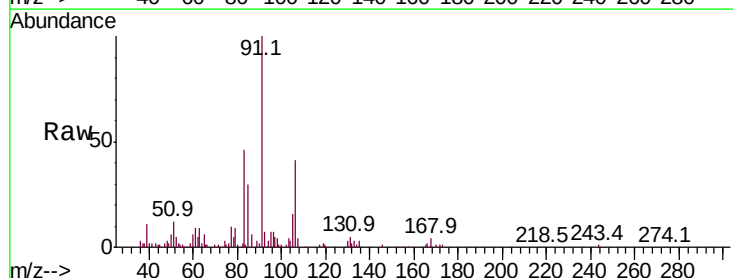
#59
m/p-Xylene
Concen: 0.195 ppbv
RT: 13.00 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 27 Oct 2021 22:44

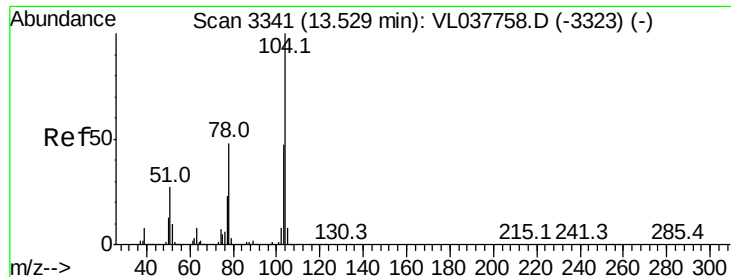
Tot Ion: 91 Resp: 75392
Ion Ratio Lower Upper
91 100
106 0.0 36.7 55.1#



#60
o-Xylene
Concen: 0.385 ppbv
RT: 13.70 min Scan# 3395
Delta R.T. 0.01 min
Lab File: VL037928.D
Acq: 27 Oct 2021 22:44

Tgt Ion: 91 Resp: 142239
Ion Ratio Lower Upper
91 100
106 48.9 23.5 70.5





#61

Stvrene

Concen: 0.075 ppbv

RT: 13.54 Instrument: MSVOA_1

Delta R.T. 0.00 min

Lab File: ClientSampleId: LOQ-AIR-02-OT4-2021

Acq: 27 Oct 2021 22:44

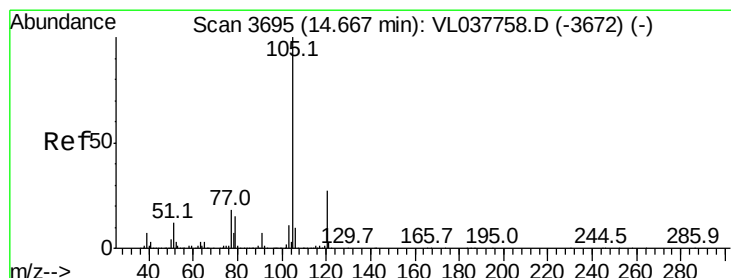
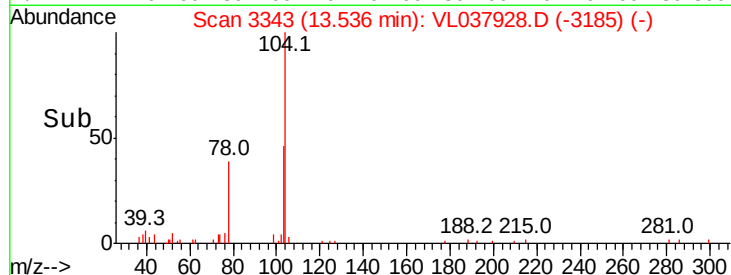
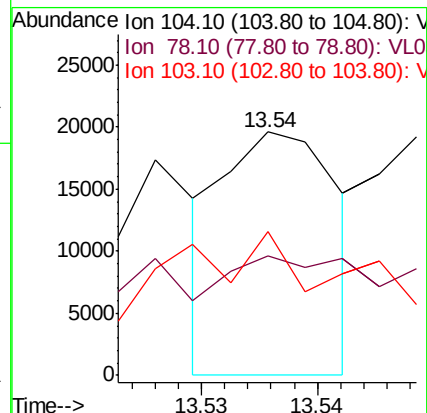
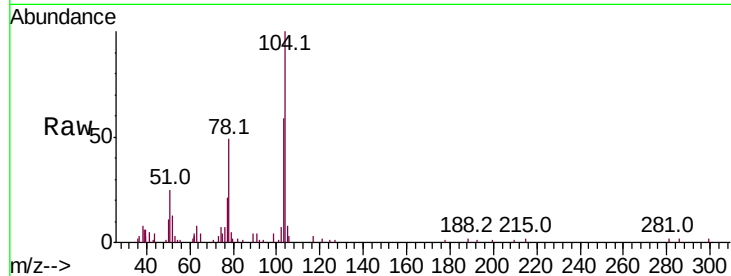
Tot Ion:104 Resp: 13404

Ion Ratio Lower Upper

104 100

78 191.5 40.6 61.0#

103 174.6 39.6 59.4#



#62

Isopropylbenzene

Concen: 0.190 ppbv

RT: 14.67 min Scan# 3695

Delta R.T. 0.00 min

Lab File: VL037928.D

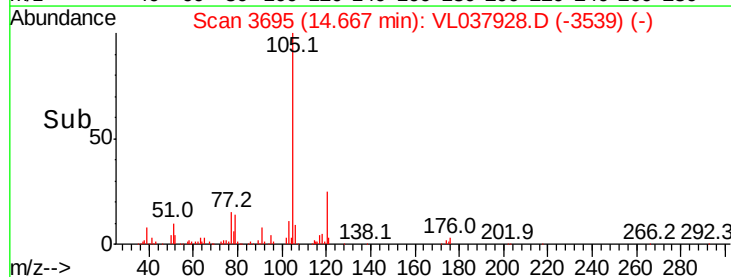
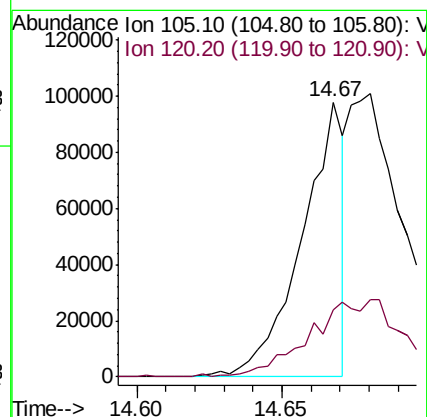
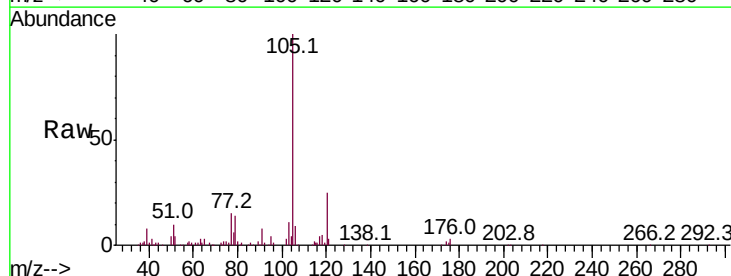
Acq: 27 Oct 2021 22:44

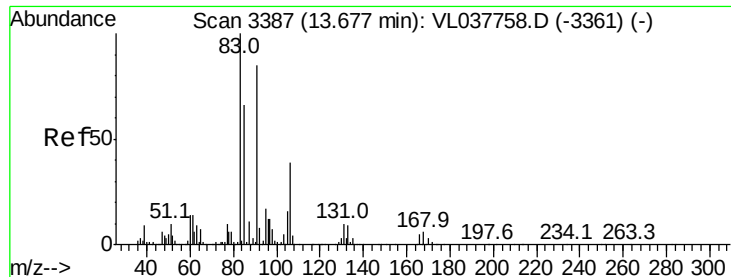
Tgt Ion:105 Resp: 97859

Ion Ratio Lower Upper

105 100

120 0.0 21.3 31.9#





#63

1,1,2,2-Tetrachloroethane

Concen: 0.230 ppbv

RT: 13.69

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

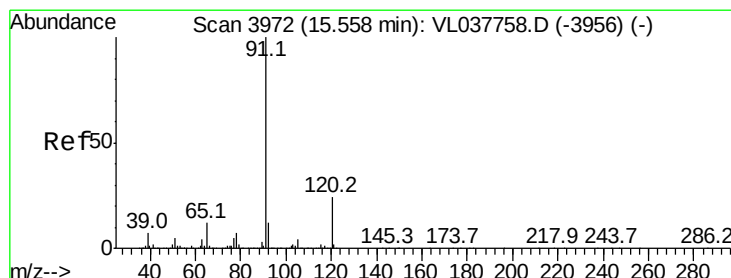
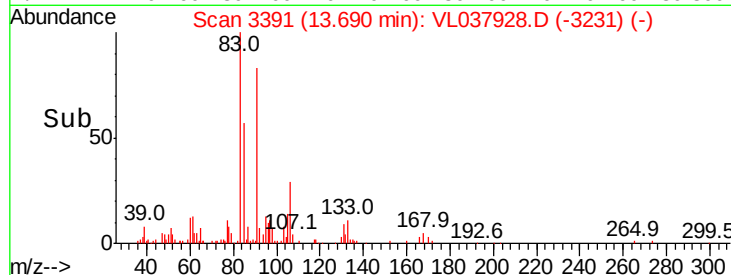
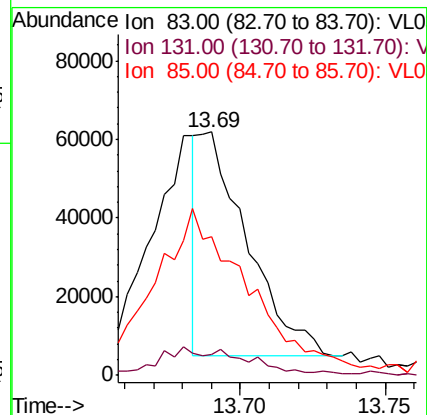
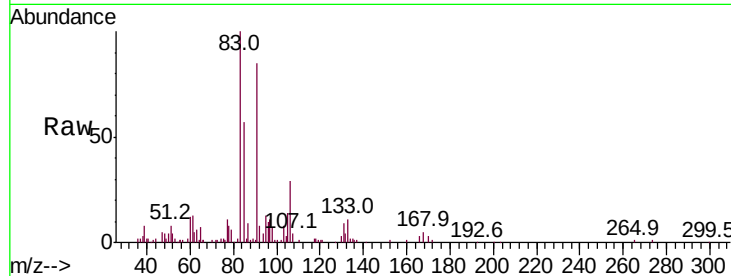
Tot Ion: 83 Resp: 65766

Ion Ratio Lower Upper

83 100

131 24.3 5.0 15.0#

85 157.5 33.1 99.5#



#64

n-propylbenzene

Concen: 0.380 ppbv

RT: 15.57 min Scan# 3975

Delta R.T. 0.01 min

Lab File: VL037928.D

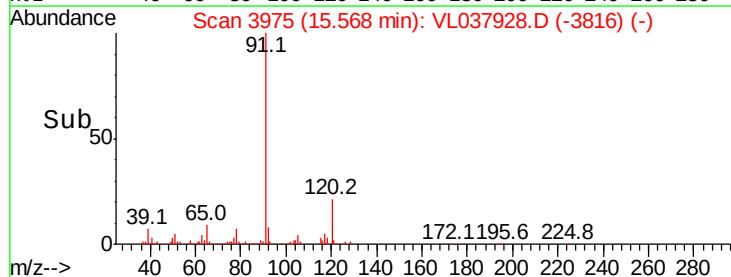
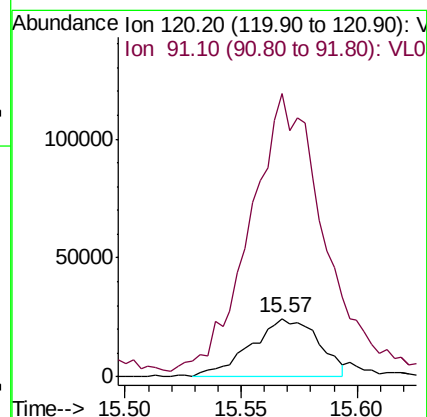
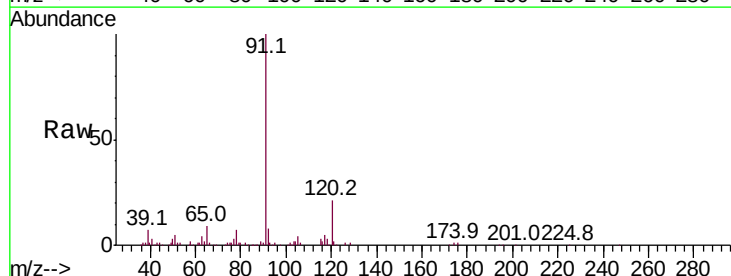
Acq: 27 Oct 2021 22:44

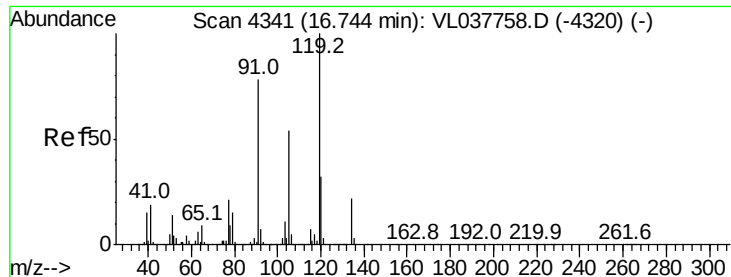
Tgt Ion:120 Resp: 48895

Ion Ratio Lower Upper

120 100

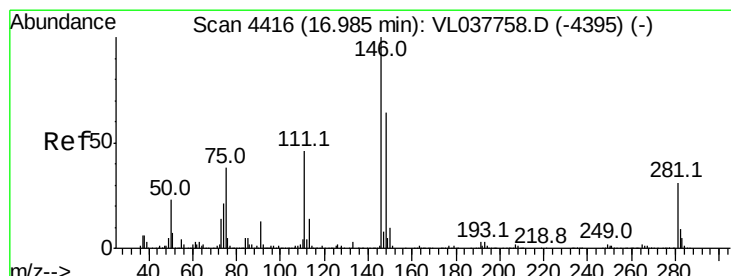
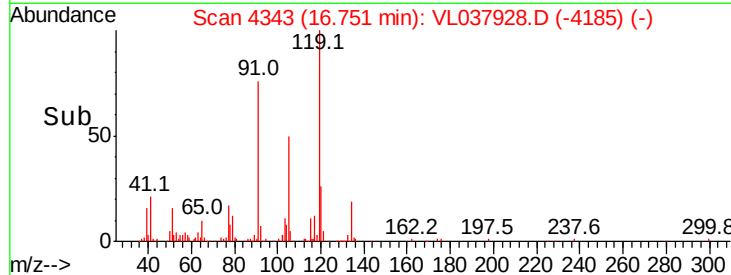
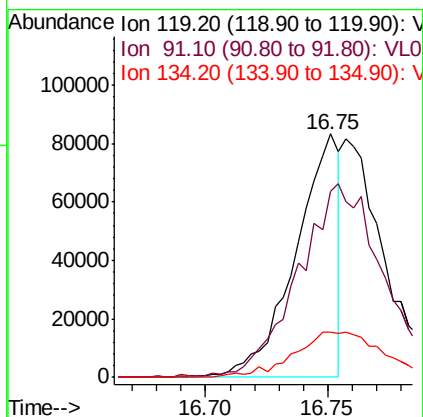
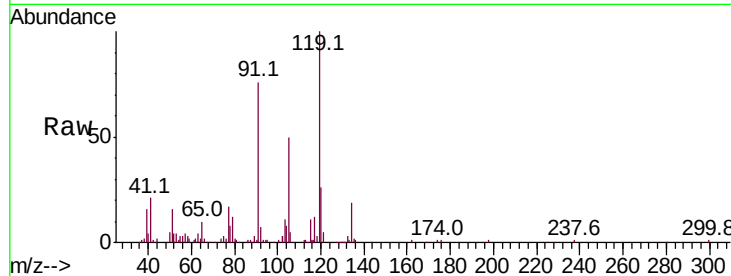
91 568.0 375.0 562.6#





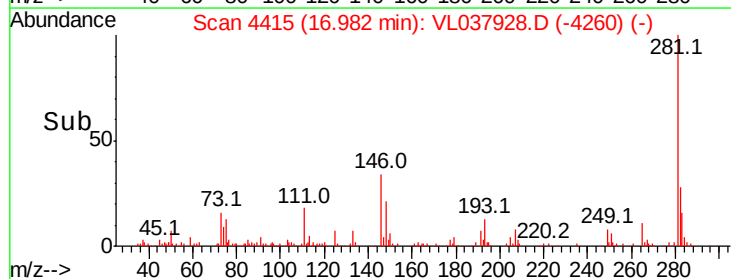
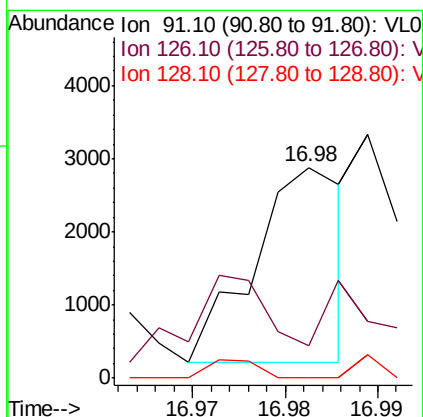
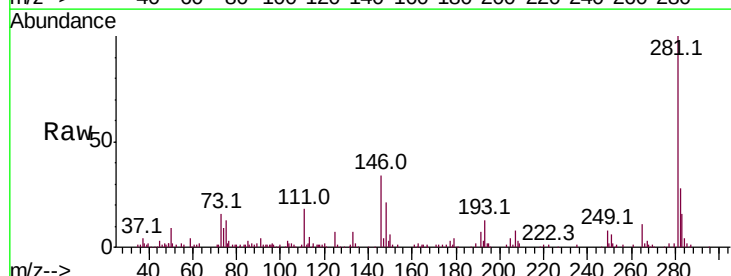
#65
 tert-Butylbenzene
 Concen: 0.229 ppbv
 RT: 16.75 min
 Delta R.T.: 0.00 min
 Lab File: VL037758.D
 Acq: 27 Oct 2021 22:44

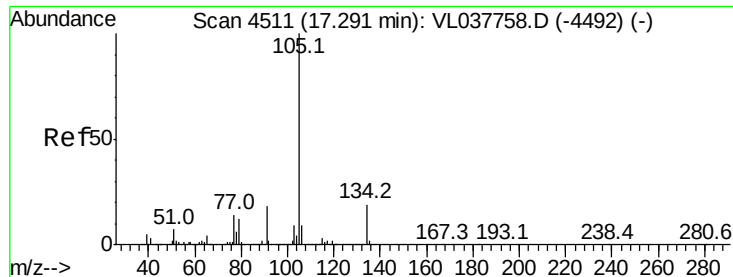
Tot Ion: 119 Resp: 103737
 Ion Ratio Lower Upper
 119 100
 91 0.0 62.6 94.0#
 134 40.2 16.3 24.5#



#66
 Benzyl Chloride
 Concen: 0.080 ppbv
 RT: 16.98 min Scan# 4415
 Delta R.T.: -0.00 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

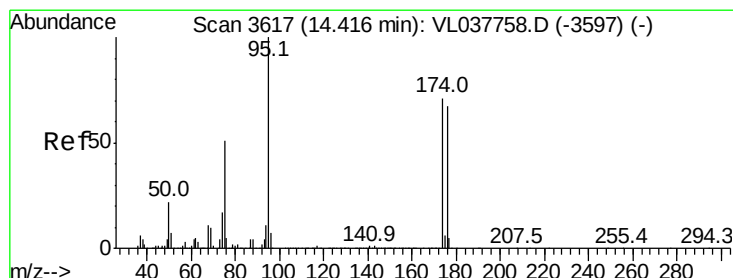
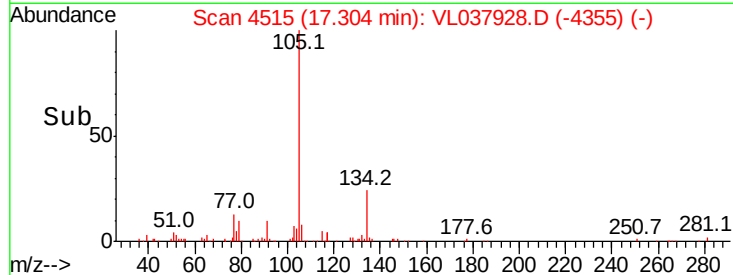
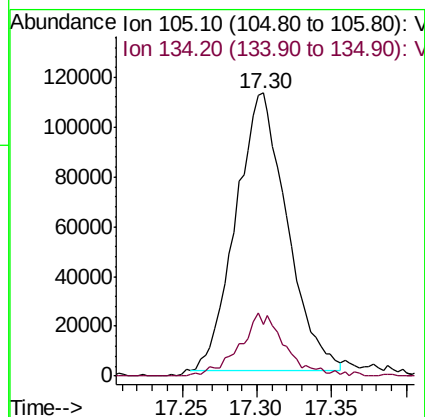
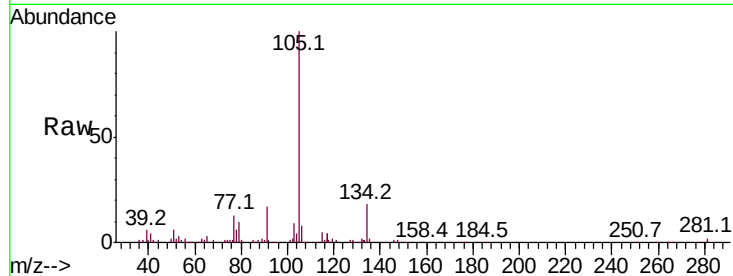
Tgt Ion: 91 Resp: 1798
 Ion Ratio Lower Upper
 91 100
 126 79.9 0.0 0.0#
 128 5.2 5.3 7.9#





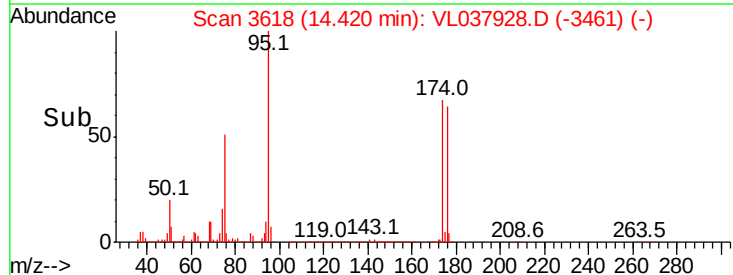
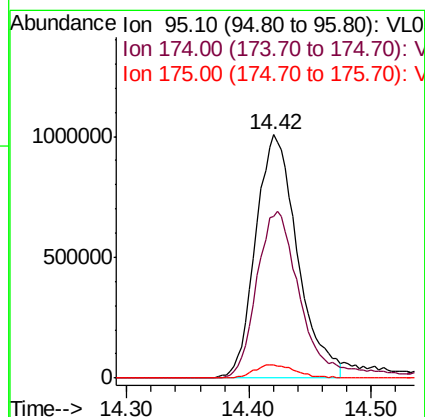
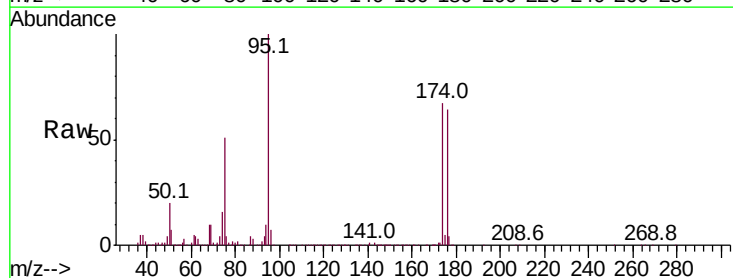
#67
 sec-Butylbenzene
 Concen: 0.427 ppbv
 RT: 17.30 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 27 Oct 2021 22:44

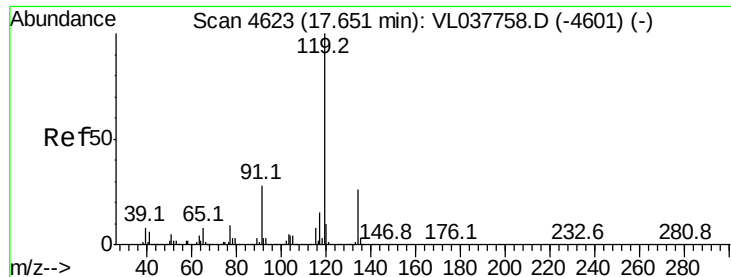
Tot Ion: 105 Resp: 264883
 Ion Ratio Lower Upper
 105 100
 134 20.7 15.4 23.0



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.216 ppbv
 RT: 14.42 min Scan# 3618
 Delta R.T.: 0.00 min
 Lab File: VL037928.D
 Acq: 27 Oct 2021 22:44

Tgt Ion: 95 Resp: 2391922
 Ion Ratio Lower Upper
 95 100
 174 75.4 57.8 86.6
 175 5.6 4.7 7.1





#69

p-Isopropyltoluene

Concen: 0.213 ppbv

RT: 17.66

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

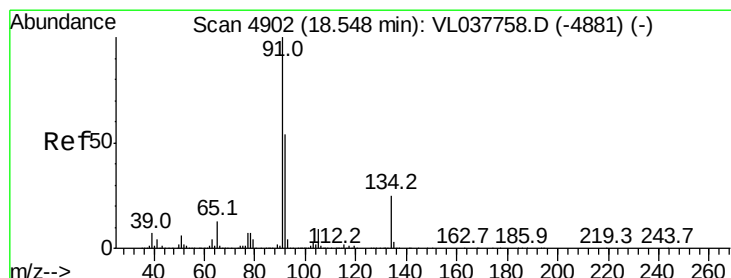
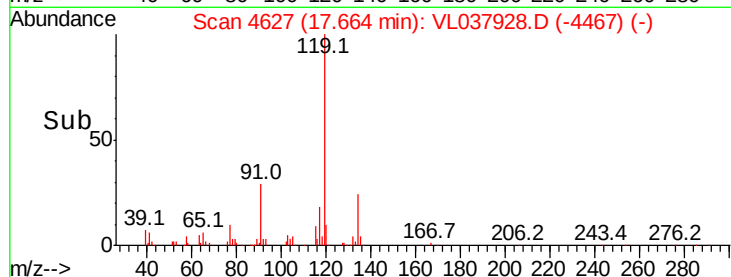
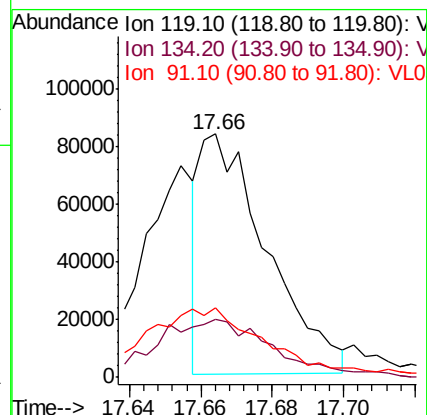
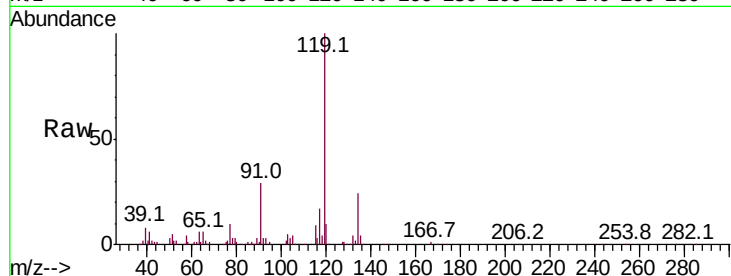
Tot Ion: 119 Resp: 107095

Ion Ratio Lower Upper

119 100

134 46.4 21.2 31.8#

91 59.3 22.2 33.4#



#70

n-Butylbenzene

Concen: 0.372 ppbv

RT: 18.56 min Scan# 4906

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

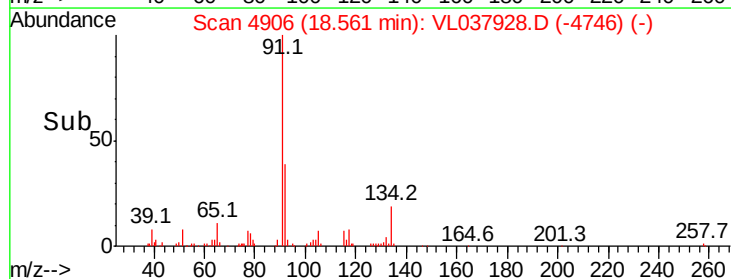
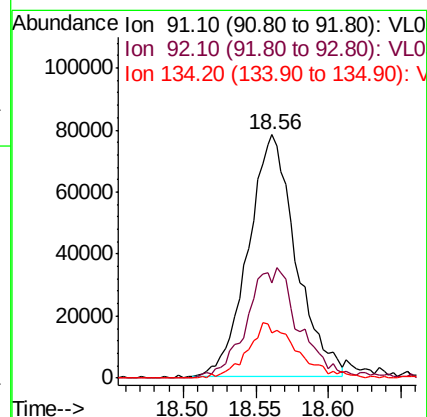
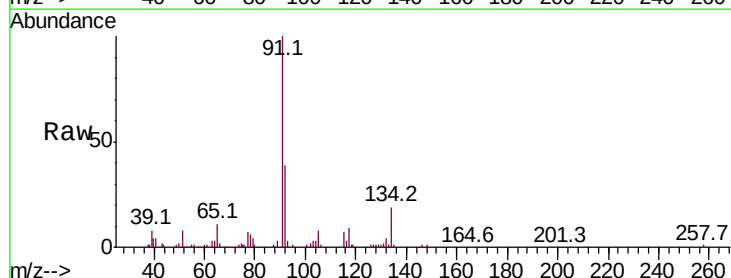
Tgt Ion: 91 Resp: 177302

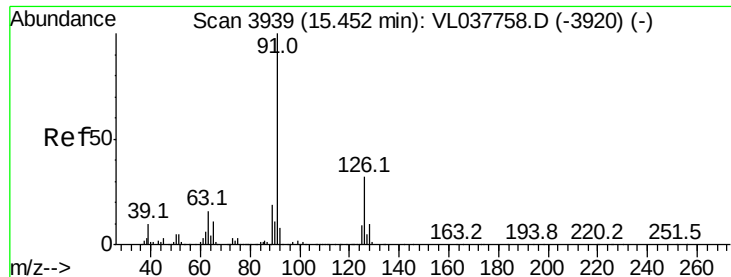
Ion Ratio Lower Upper

91 100

92 51.6 43.4 65.0

134 23.9 19.8 29.6





#71

2-Chlorotoluene

Concen: 0.378 ppbv

RT: 15.46

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

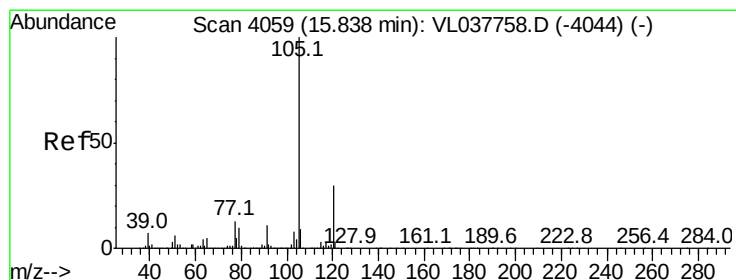
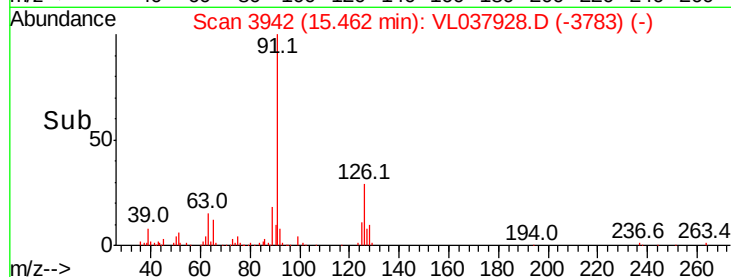
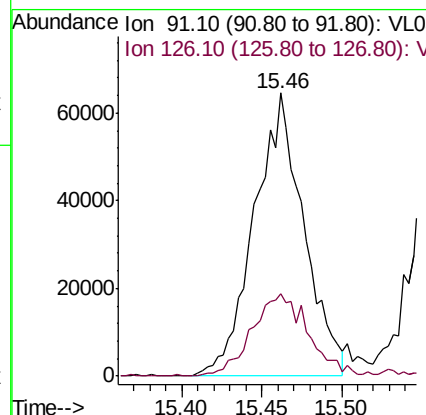
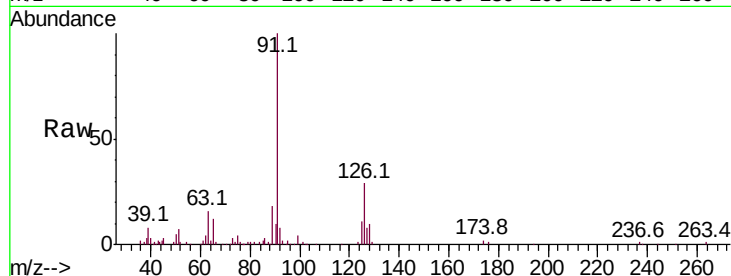
Acq: 27 Oct 2021 22:44

Tot Ion: 91 Resp: 137662

Ion Ratio Lower Upper

91 100

126 33.7 13.6 54.6



#72

4-Ethyltoluene

Concen: 0.376 ppbv

RT: 15.85 min Scan# 4062

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion:105 Resp: 157849

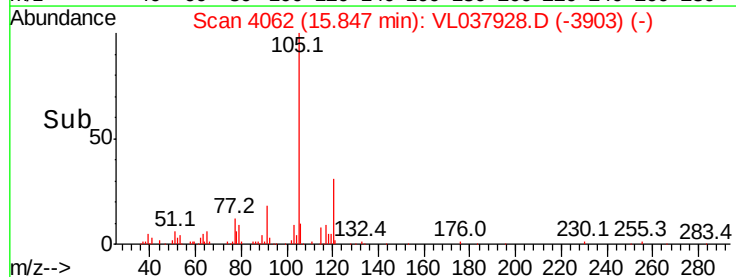
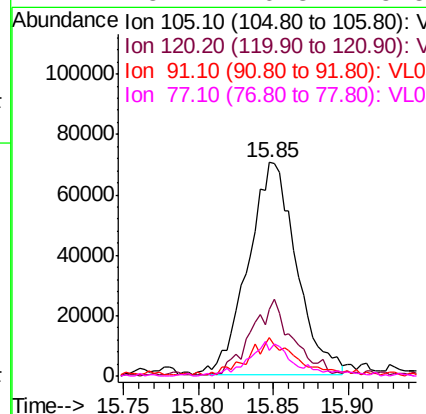
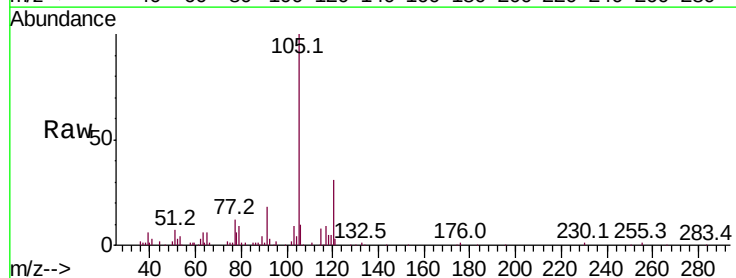
Ion Ratio Lower Upper

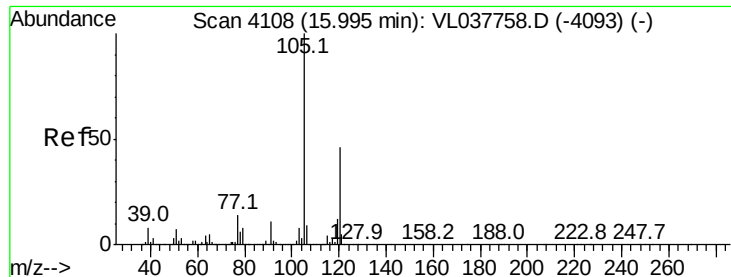
105 100

120 32.2 24.2 36.2

91 17.4 10.4 15.6#

77 15.7 10.3 15.5#





#73

1,3,5-Trimethylbenzene

Concen: 0.395 ppbv

RT: 16.01

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

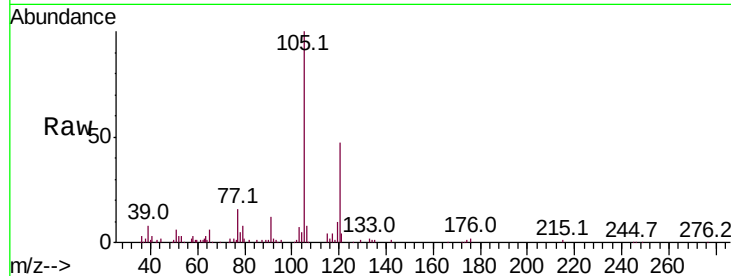
Acq: 27 Oct 2021 22:44

Tot Ion:105 Resp: 150708

Ion Ratio Lower Upper

105 100

120 47.5 36.6 54.8



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

80000

60000

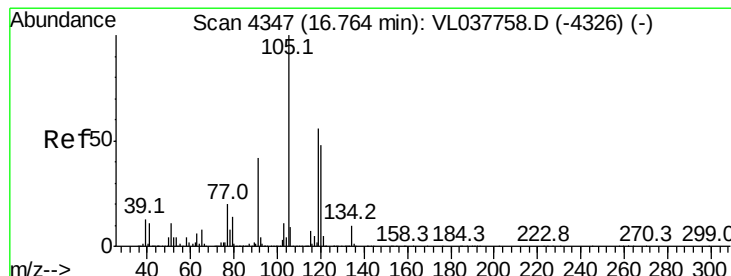
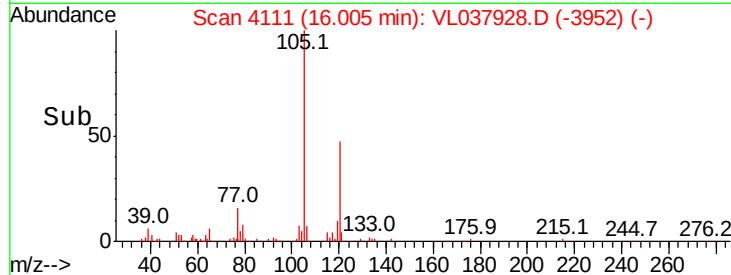
40000

20000

0

15.95 16.00 16.05

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 0.422 ppbv

RT: 16.77 min Scan# 4348

Delta R.T. 0.00 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion:105 Resp: 168999

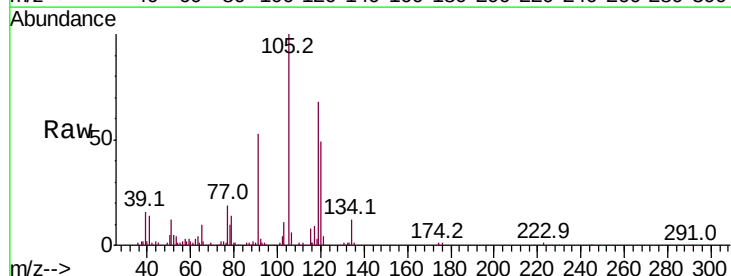
Ion Ratio Lower Upper

105 100

120 47.6 38.4 57.6

91 45.9 34.2 51.2

77 16.7 15.8 23.8



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

120000

100000

80000

60000

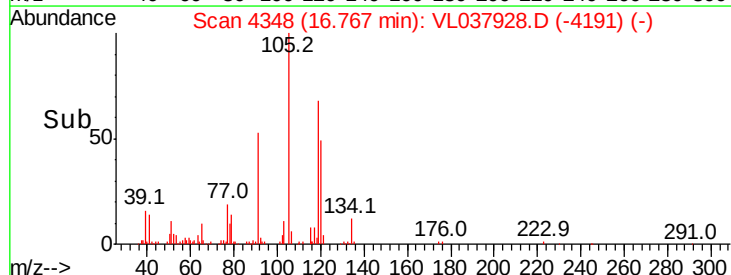
40000

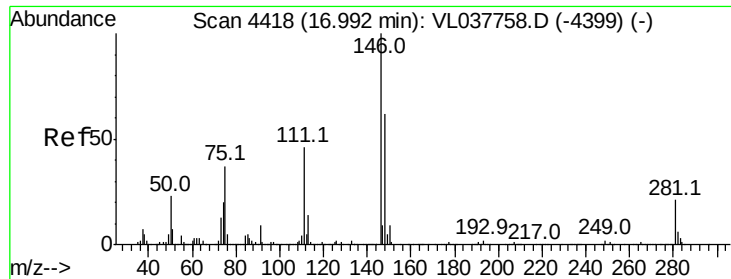
20000

0

16.70 16.75 16.80

Time-->





#75

1,3-Dichlorobenzene

Concen: 0.513 ppbv

RT: 17.00

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

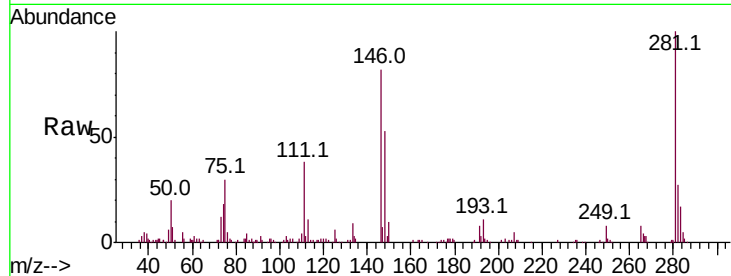
Tot Ion:146 Resp: 127383

Ion Ratio Lower Upper

146 100

111 50.0 22.8 68.4

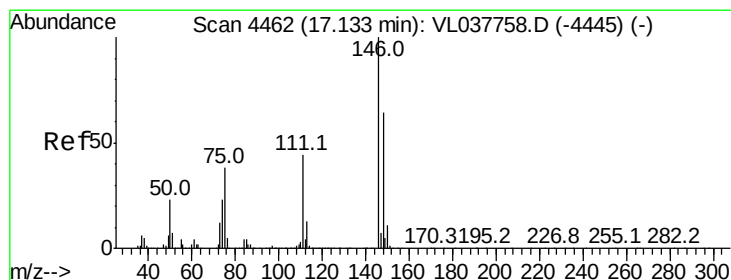
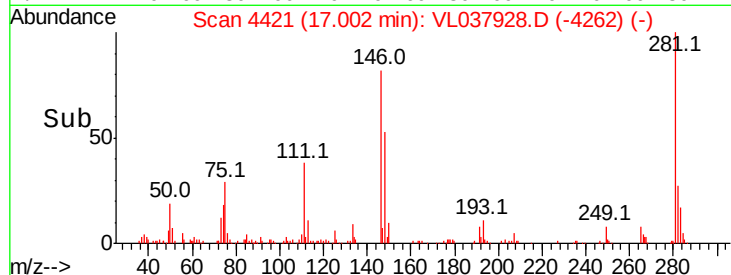
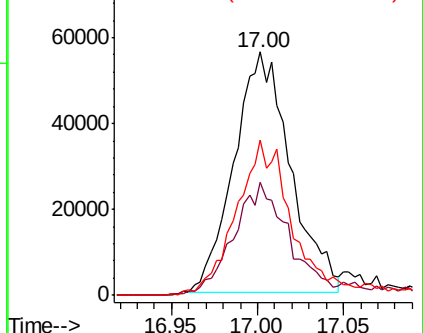
148 65.9 32.8 98.3



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V



#76

1,4-Dichlorobenzene

Concen: 0.240 ppbv

RT: 17.14 min Scan# 4465

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

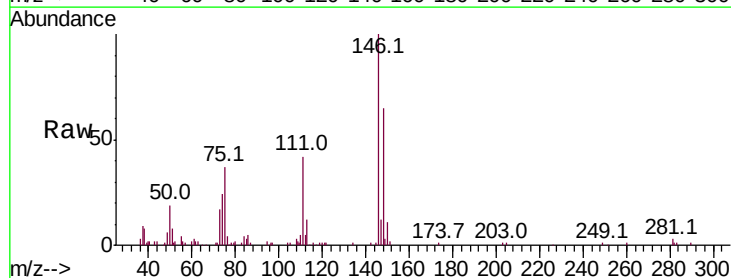
Tgt Ion:146 Resp: 56906

Ion Ratio Lower Upper

146 100

111 86.0 22.4 67.3#

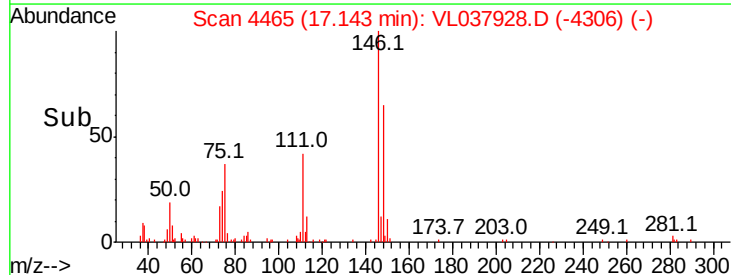
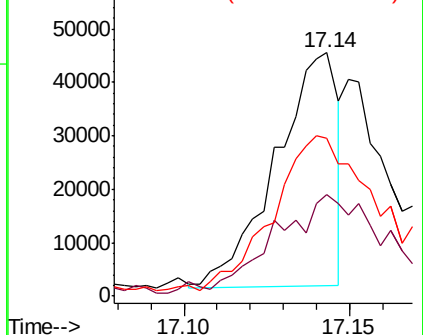
148 140.0 33.3 99.9#

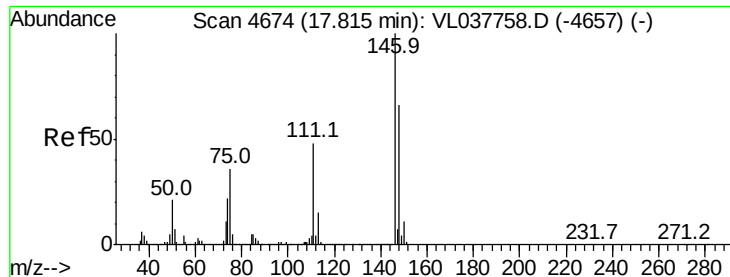


Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.10 (110.80 to 111.80): V

Ion 148.00 (147.70 to 148.70): V





#77

1,2-Dichlorobenzene

Concen: 0.458 ppbv

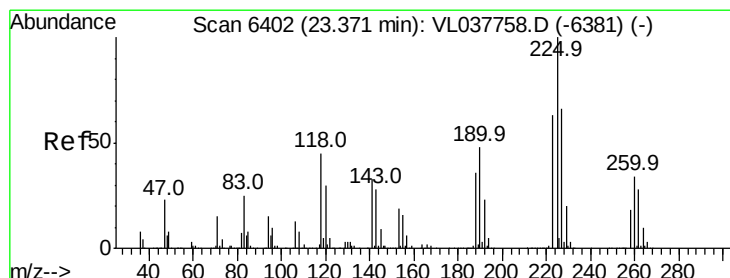
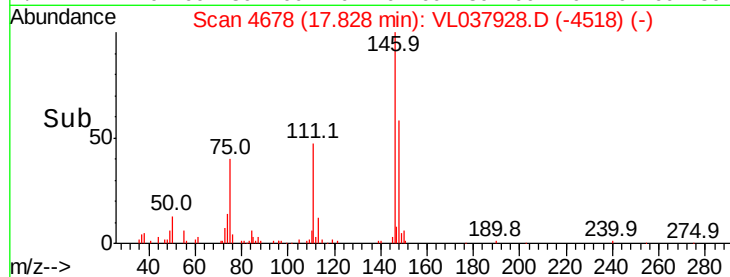
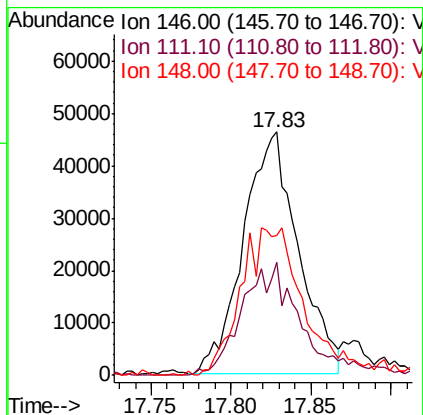
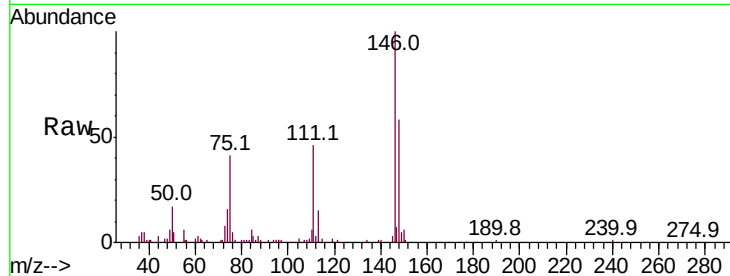
RT: 17.83 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId : LOQ-AIR-02-OT4-2021

Acq: 27 Oct 2021 22:44

Tot Ion	Ratio	Lower	Upper
146	100		
111	50.8	23.6	70.8
148	70.8	32.9	98.6



#78

Hexachloro-1,3-Butadiene

Concen: 0.561 ppbv

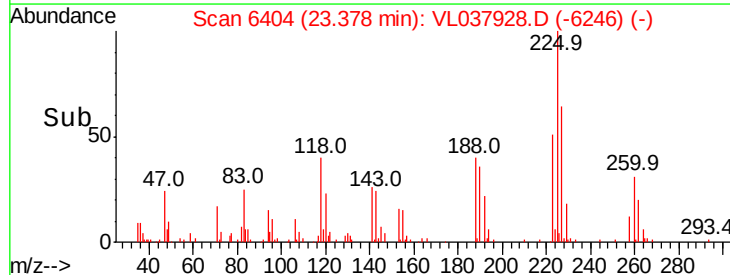
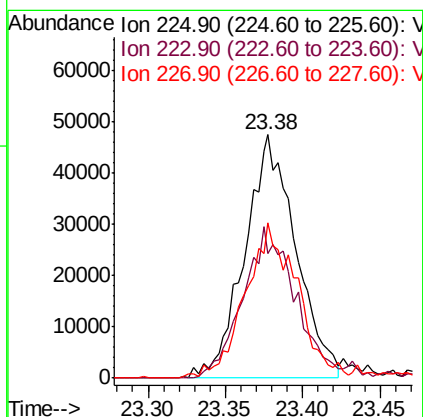
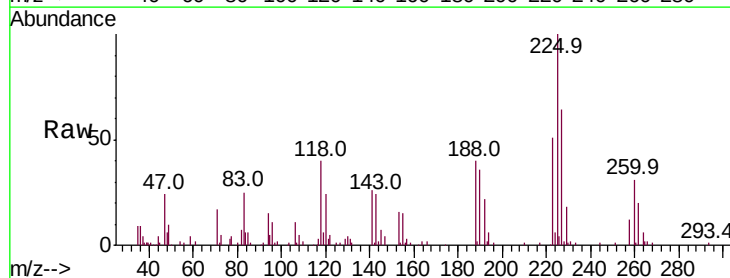
RT: 23.38 min Scan# 6404

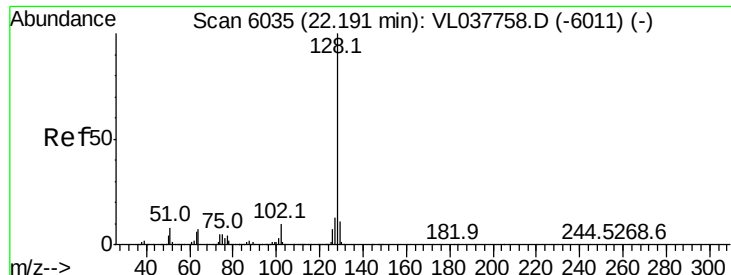
Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

Tgt Ion	Ratio	Lower	Upper
225	100		
223	65.7	51.2	76.8
227	66.9	51.1	76.7





#79

Naphthalene

Concen: 0.085 ppbv

RT: 22.20

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 27 Oct 2021 22:44

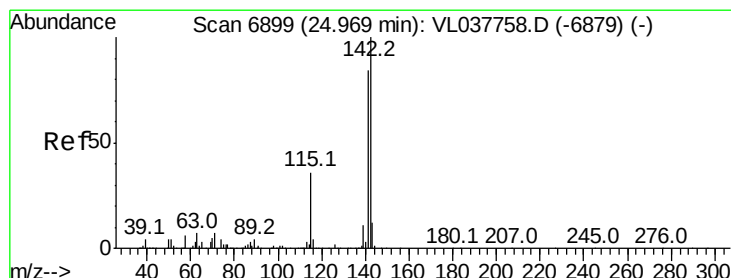
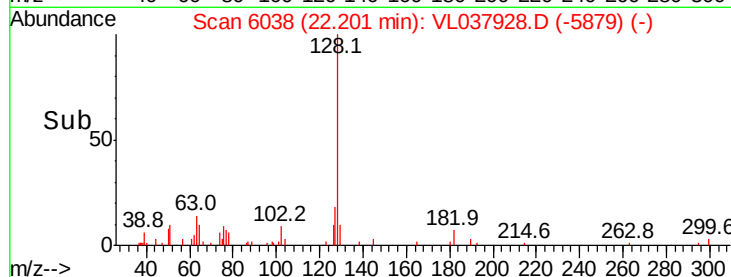
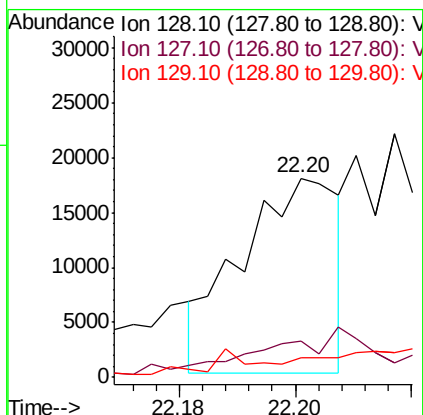
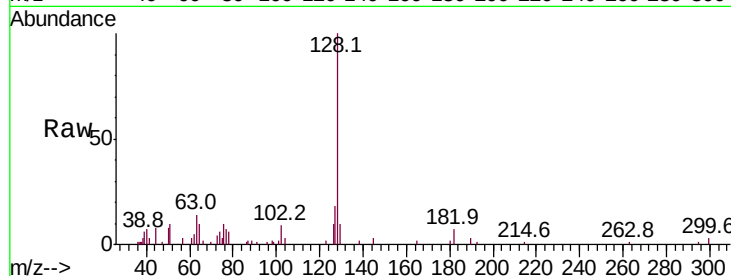
Tot Ion:128 Resp: 20781

Ion Ratio Lower Upper

128 100

127 19.4 10.1 15.1#

129 7.6 9.1 13.7#



#80

Naphthalene, 2-methyl-

Concen: 0.065 ppbv

RT: 24.98 min Scan# 6902

Delta R.T. 0.01 min

Lab File: VL037928.D

Acq: 27 Oct 2021 22:44

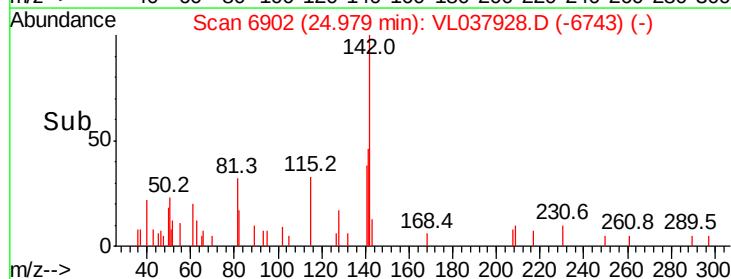
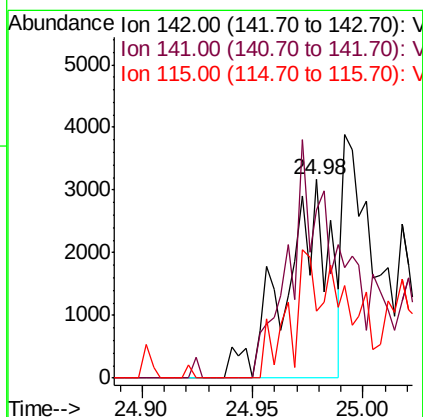
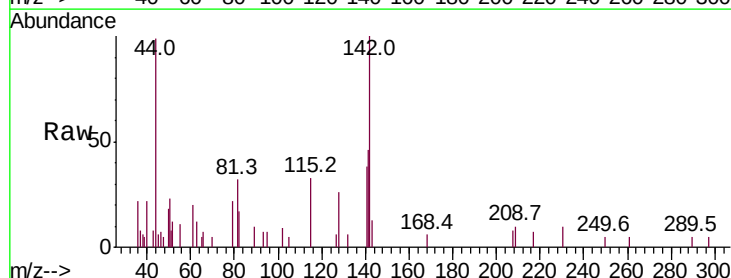
Tgt Ion:142 Resp: 4292

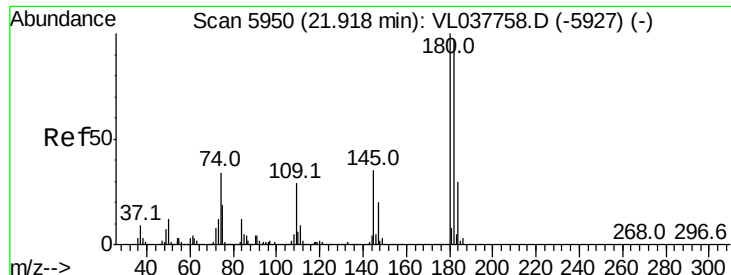
Ion Ratio Lower Upper

142 100

141 183.9 68.6 102.8#

115 81.8 29.0 43.6#





#81
 1,2,4-Trichlorobenzene
 Concen: 0.109 ppbv
 RT: 21.92
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 27 Oct 2021 22:44

Tot Ion:180 Resp: 17133
 Ion Ratio Lower Upper
 180 100
 182 0.0 77.6 116.4#
 184 0.0 25.0 37.4#

