

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121421\
 Data File : VL038166.D
 Acq On : 14 Dec 2021 14:49
 Operator : SY/AP
 Sample : M5045-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Dec 15 04:56:36 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Nov 18 13:16:09 2021
 QLast Update : Thu Nov 18 13:16:09 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.63	49	909655	10.00	ppbv	-0.04
33) 1,4-Difluorobenzene	7.14	114	2442959	10.00	ppbv	-0.04
55) Chlorobenzene-d5	12.04	117	2085495	10.00	ppbv	-0.04

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.37	95	1560025	10.37	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.70%

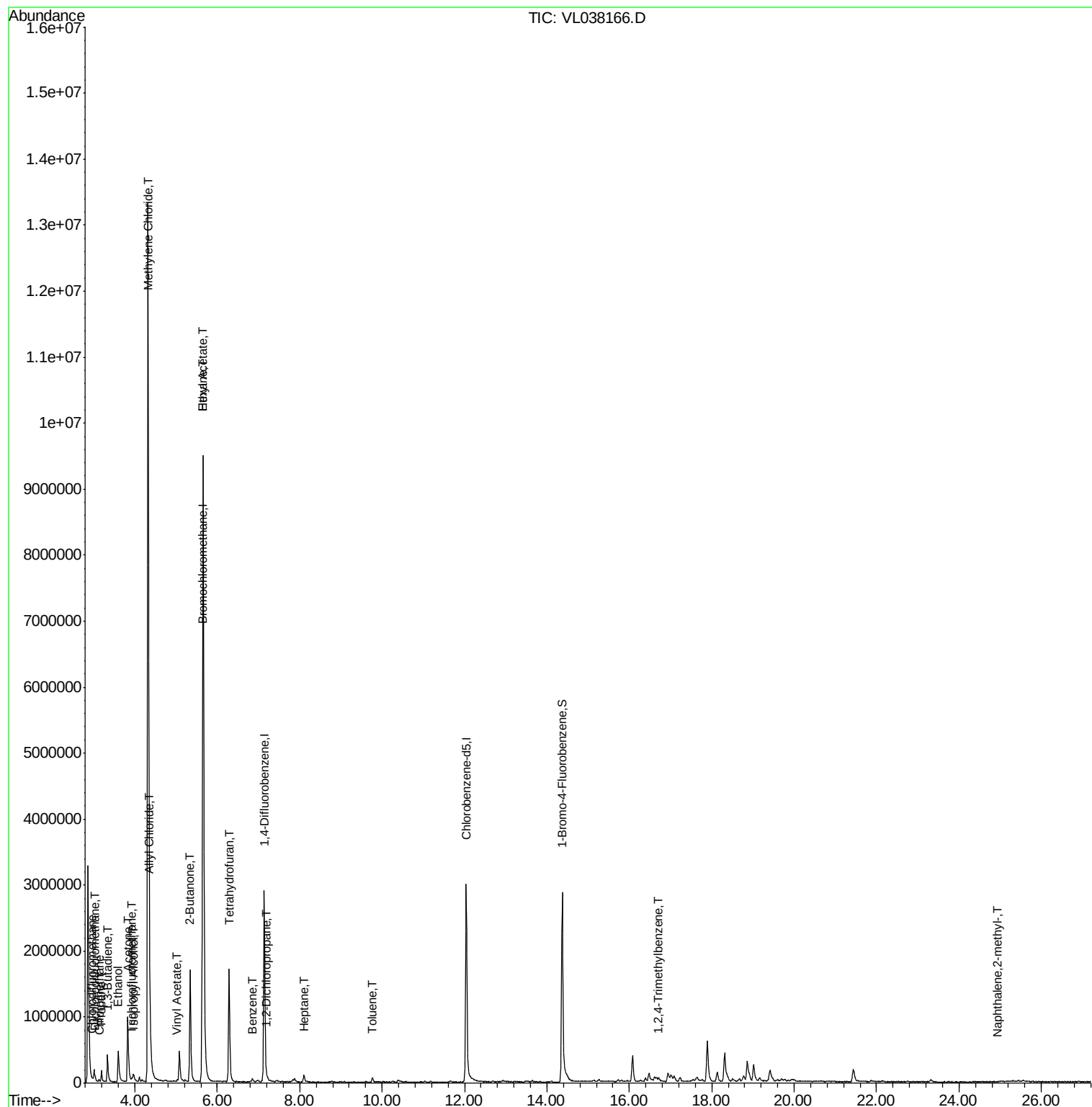
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	42815	0.285	ppbv	93
3) Chlorodifluoromethane	2.97	51	72611	0.380	ppbv #	84
4) Chloromethane	3.12	50	27200	0.418	ppbv	89
9) Propene	3.19	41	48033	0.683	ppbv	90
10) Heptane	8.09	43	6294	0.036	ppbv	90
11) Trichlorofluoromethane	3.93	101	29992	0.210	ppbv #	75
13) Ethanol	3.59	45	616697	90.707	ppbv	89
15) Acetone	3.83	43	1259970	15.976	ppbv	99
16) 1,3-Butadiene	3.34	39	55432	0.901	ppbv #	11
19) Isopropyl Alcohol	3.96	45	130303	2.287	ppbv #	1
20) Methylene Chloride	4.32	84	6625483	149.980	ppbv	90
21) Allyl Chloride	4.36	41	11214	0.154	ppbv #	24
23) Vinyl Acetate	5.03	43	11125	0.097	ppbv #	1
25) Ethyl Acetate	5.66	43	3306061	12.613	ppbv #	76
26) Hexane	5.66	57	4700529	37.205	ppbv #	44
34) 2-Butanone	5.34	43	259571	2.635	ppbv #	55
36) Benzene	6.85	78	32107	0.132	ppbv #	88
39) 1,2-Dichloropropane	7.20	63	6357	0.068	ppbv #	27
41) Tetrahydrofuran	6.28	42	235873	3.857	ppbv #	36
53) Toluene	9.76	91	46605	0.166	ppbv	97
74) 1,2,4-Trimethylbenzene	16.71	105	19718	0.067	ppbv #	79
80) Naphthalene,2-methyl-	24.94	142	2487	0.075	ppbv #	78

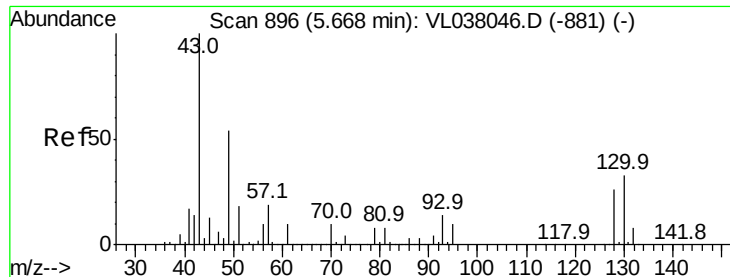
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.63 Instrument:

Delta R.T. MSVOA_L

Lab File:

ClientSampleId:

Acq: 14 Dec 2021 14:49

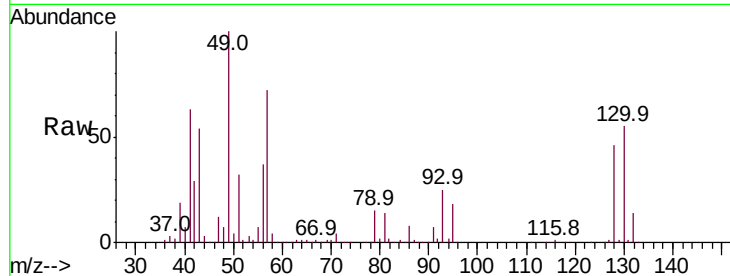
Tot Ion: 49 Resp: 909655

Ion Ratio Lower Upper

49 100

128 47.5 26.5 79.5

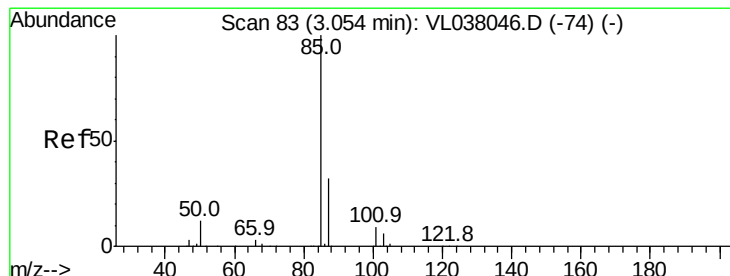
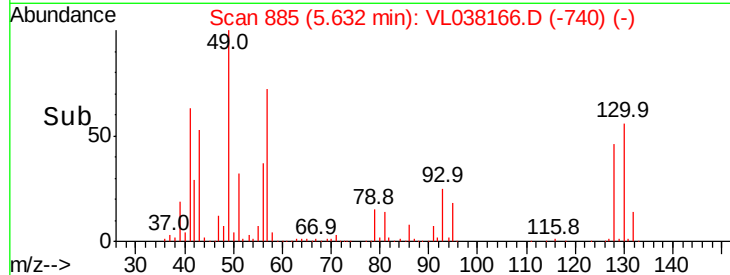
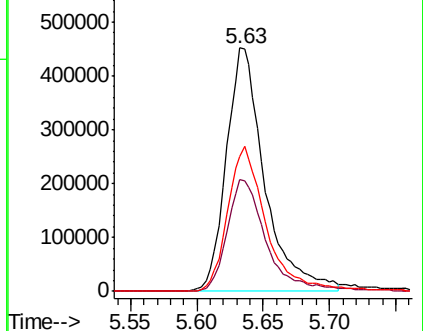
130 60.4 32.5 97.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.285 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.02 min

Lab File: VL038166.D

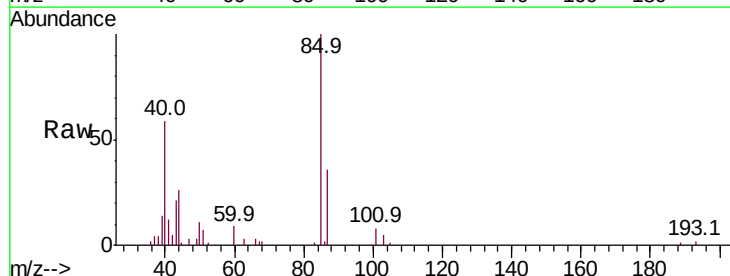
Acq: 14 Dec 2021 14:49

Tgt Ion: 85 Resp: 42815

Ion Ratio Lower Upper

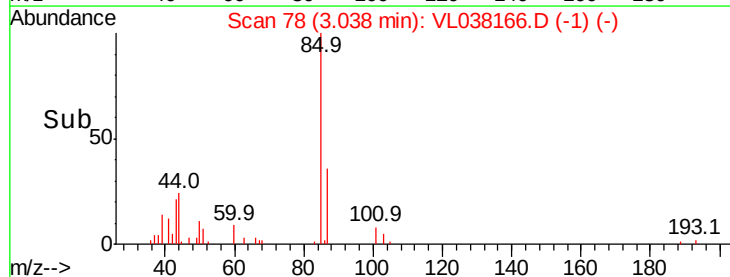
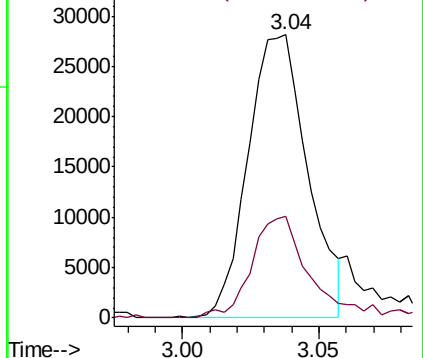
85 100

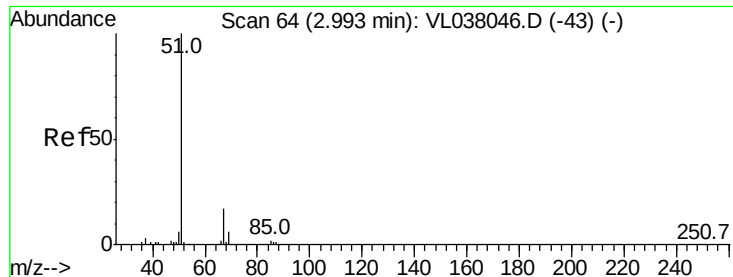
87 36.1 25.8 38.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.380 ppbv

RT: 2.97 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

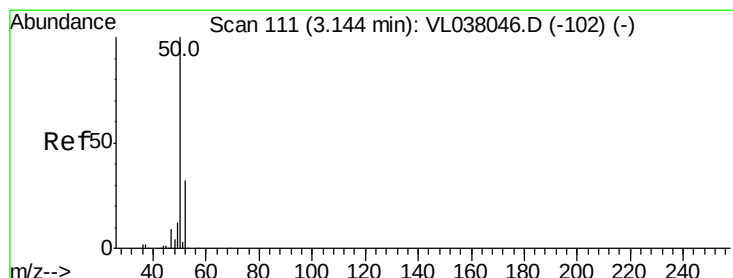
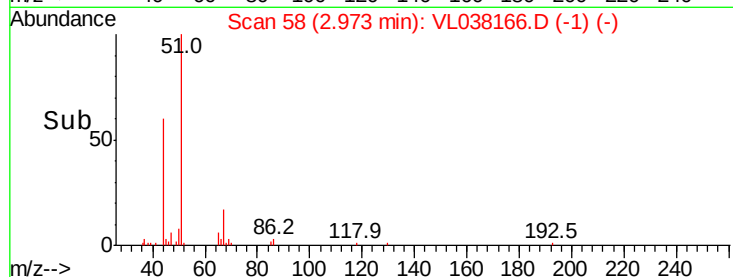
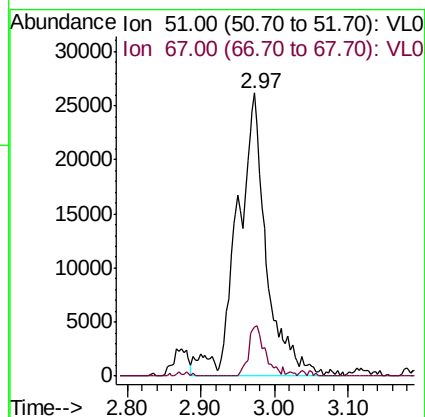
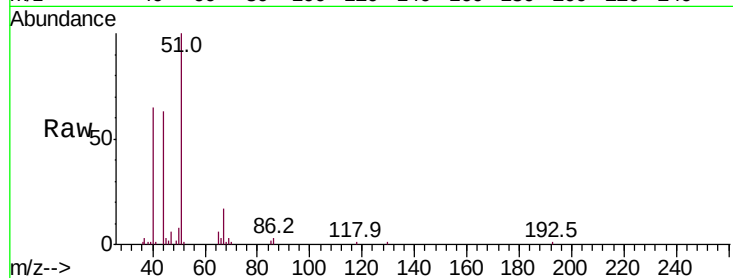
Acq: 14 Dec 2021 14:49

Tot Ion: 51 Resp: 72611

Ion Ratio Lower Upper

51 100

67 10.5 13.8 20.8#



#4

Chloromethane

Concen: 0.418 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.02 min

Lab File: VL038166.D

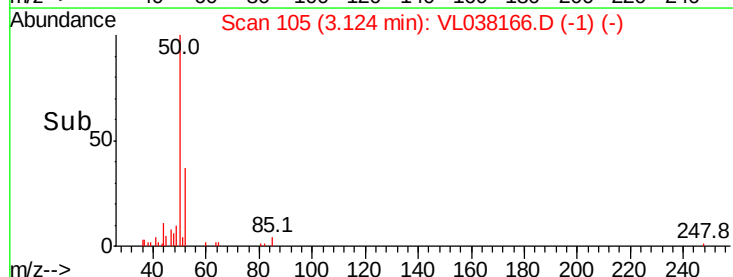
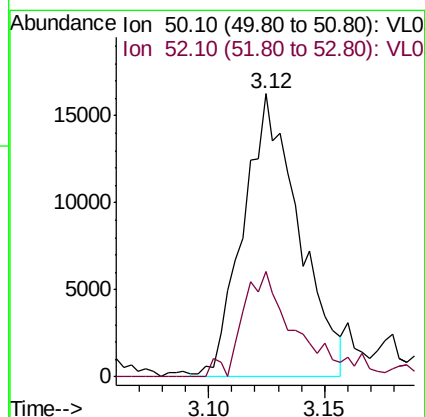
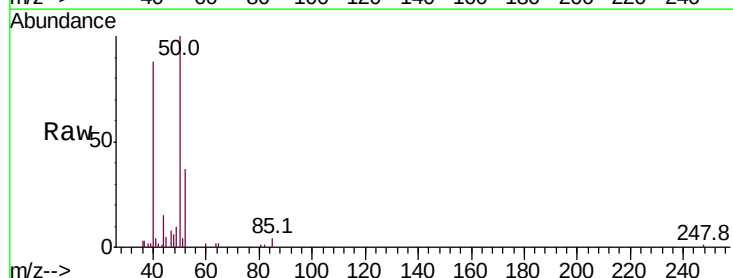
Acq: 14 Dec 2021 14:49

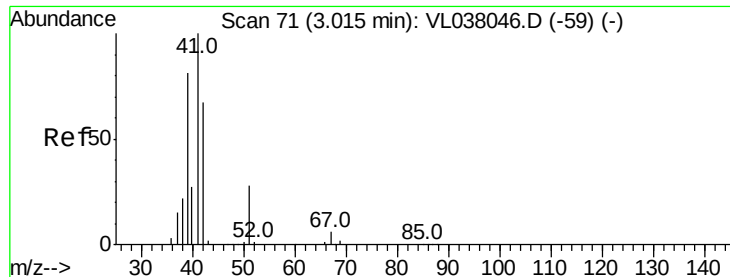
Tgt Ion: 50 Resp: 27200

Ion Ratio Lower Upper

50 100

52 37.8 25.4 38.0





#9

Propene

Concen: 0.683 ppbv

RT: 3.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

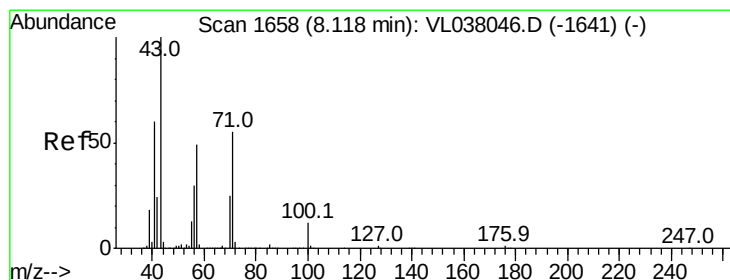
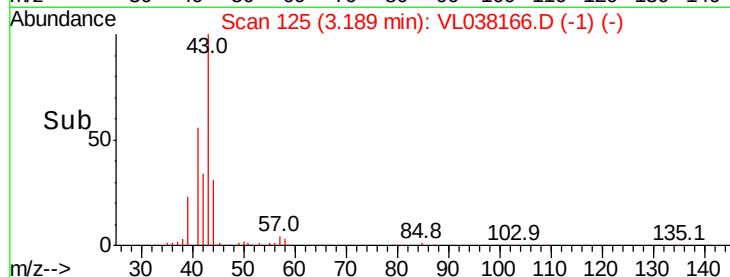
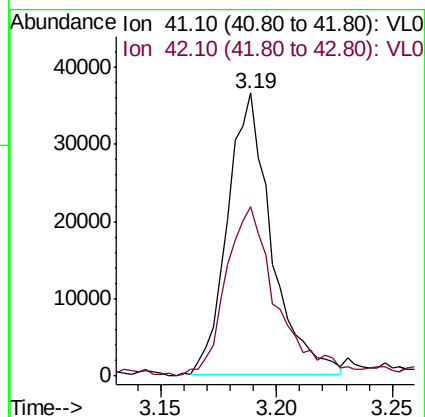
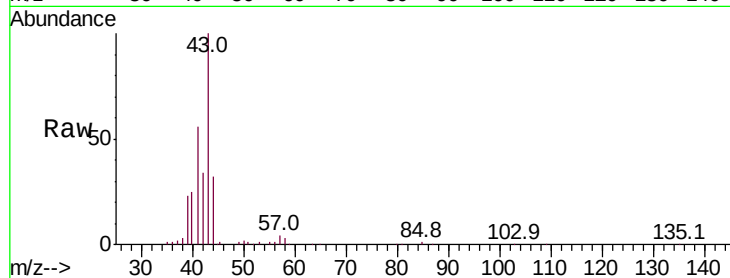
Acq: 14 Dec 2021 14:49

Tot Ion: 41 Resp: 48033

Ion Ratio Lower Upper

41 100

42 75.4 53.8 80.8



#10

Heptane

Concen: 0.036 ppbv

RT: 8.09 min Scan# 1648

Delta R.T. -0.03 min

Lab File: VL038166.D

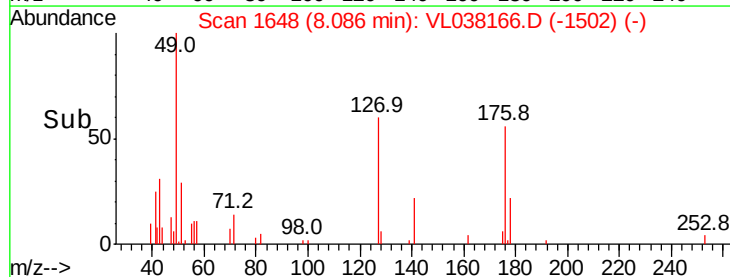
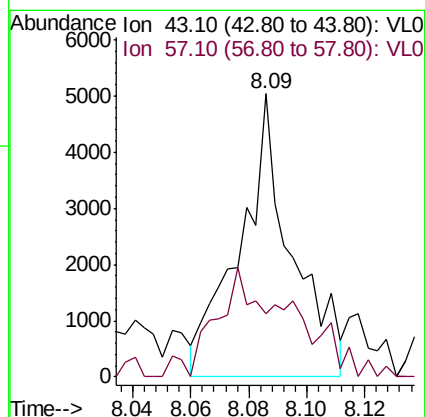
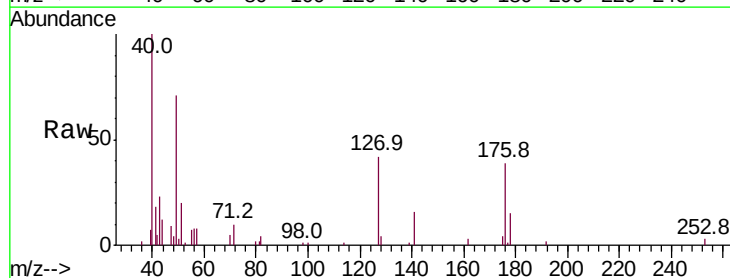
Acq: 14 Dec 2021 14:49

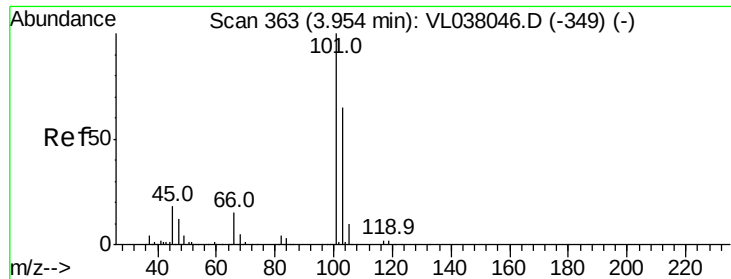
Tgt Ion: 43 Resp: 6294

Ion Ratio Lower Upper

43 100

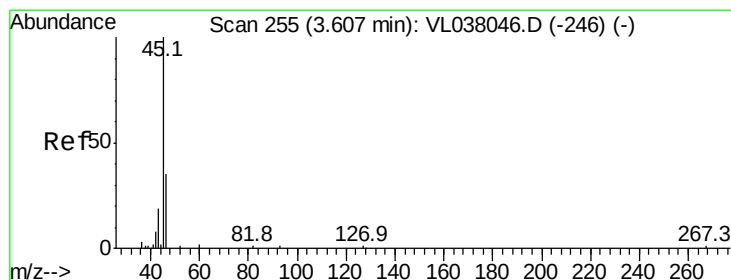
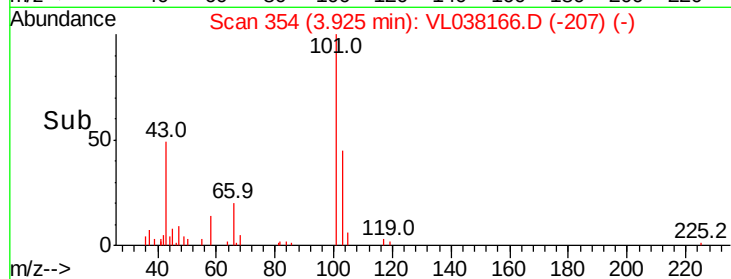
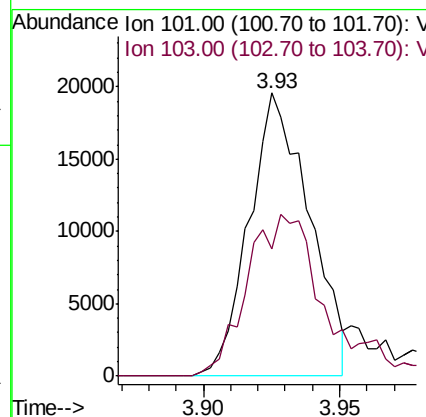
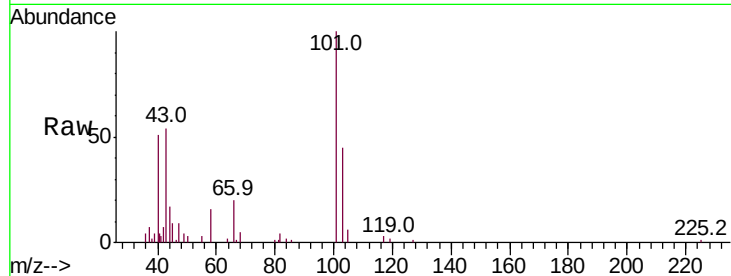
57 57.2 40.4 60.6





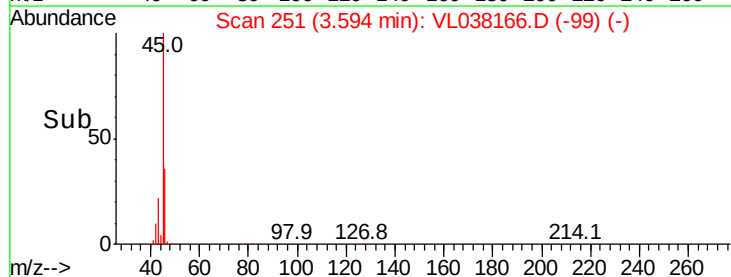
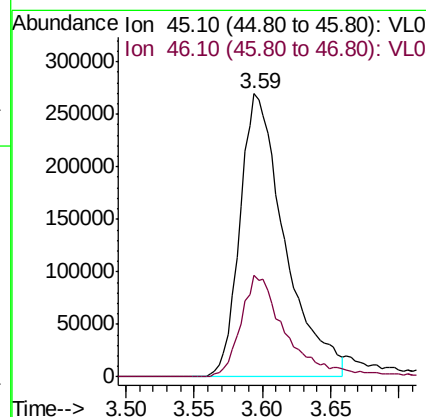
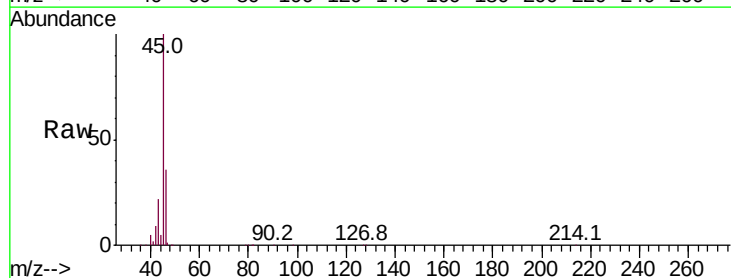
#11
 Trichlorofluoromethane
 Concen: 0.210 ppbv
 RT: 3.93
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 14 Dec 2021 14:49

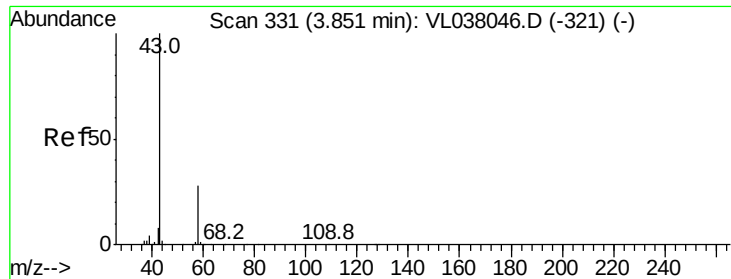
Tot Ion: 101 Resp: 29992
 Ion Ratio Lower Upper
 101 100
 103 45.0 51.8 77.6#



#13
 Ethanol
 Concen: 90.707 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.01 min
 Lab File: VL038166.D
 Acq: 14 Dec 2021 14:49

Tgt Ion: 45 Resp: 616697
 Ion Ratio Lower Upper
 45 100
 46 36.6 17.6 70.2





#15

Acetone

Concen: 15.976 ppbv

RT: 3.83

Delta R.T. MSVOA_L

Lab File:

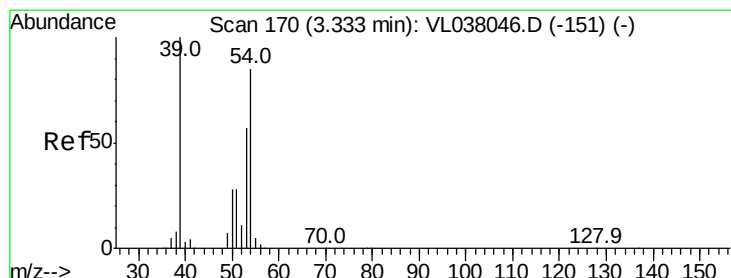
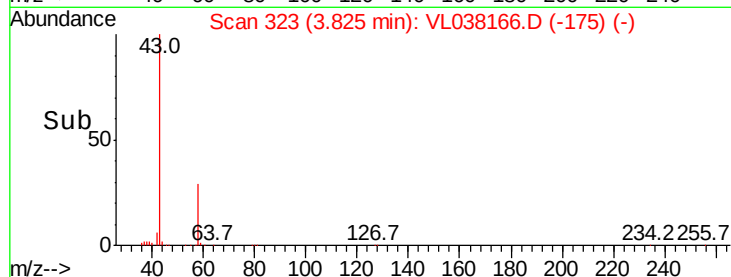
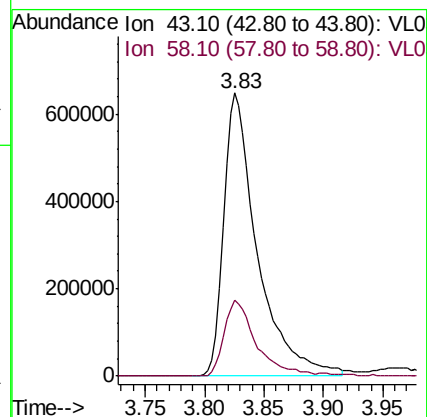
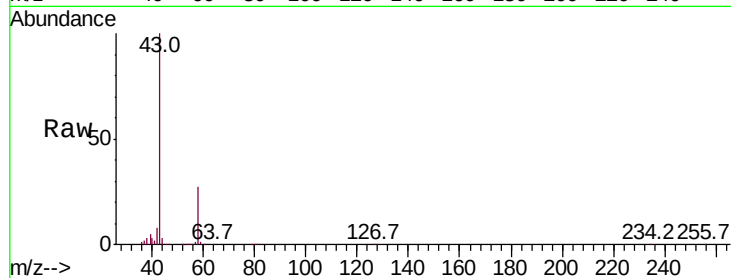
Acq: 14 Dec 2021 14:49

Tot Ion: 43 Resp: 1259970

Ion Ratio Lower Upper

43 100

58 27.2 22.4 33.6



#16

1,3-Butadiene

Concen: 0.901 ppbv

RT: 3.34 min Scan# 171

Delta R.T. 0.00 min

Lab File: VL038166.D

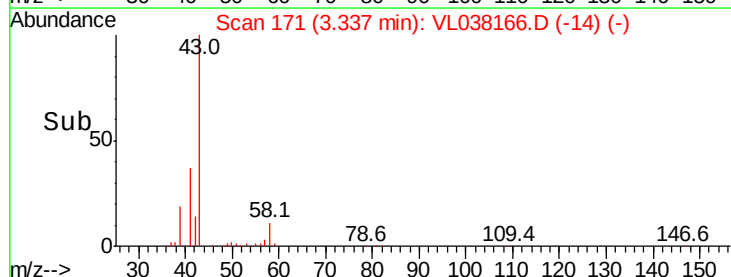
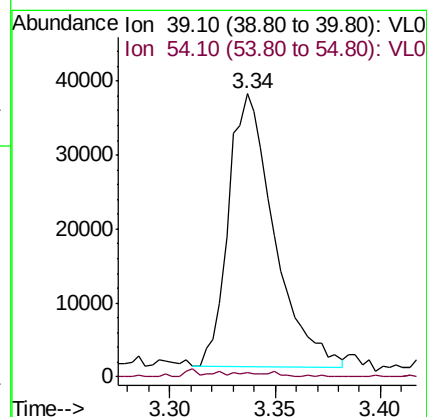
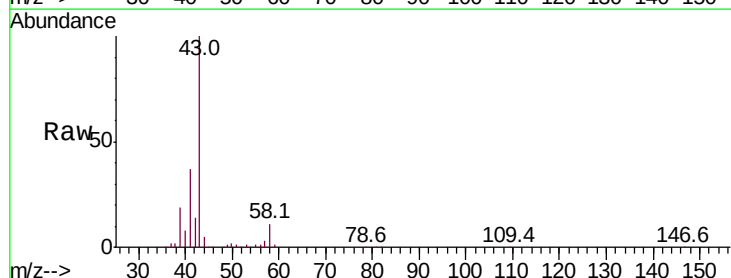
Acq: 14 Dec 2021 14:49

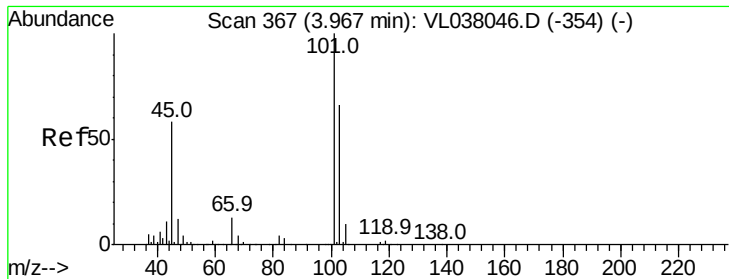
Tgt Ion: 39 Resp: 55432

Ion Ratio Lower Upper

39 100

54 1.6 64.4 96.6#





#19

Isopropyl Alcohol

Concen: 2.287 ppbv

RT: 3.96 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

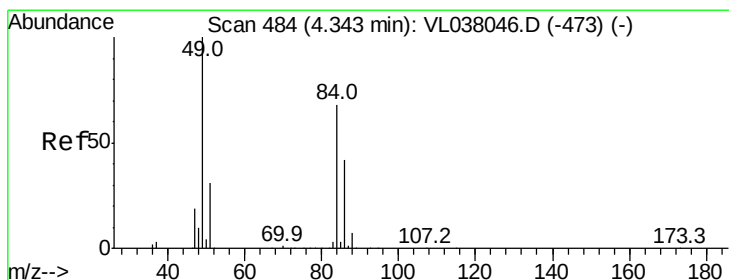
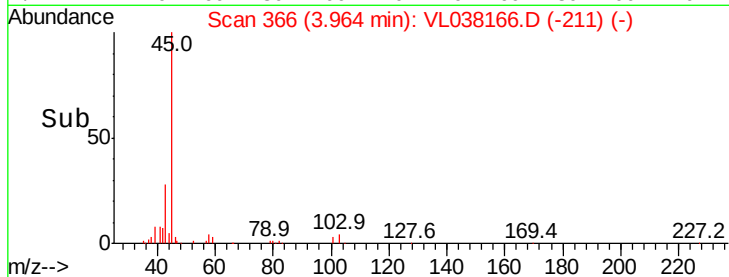
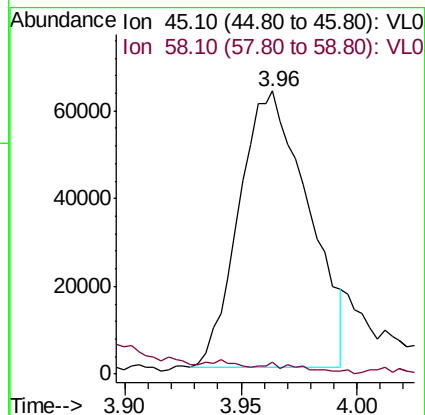
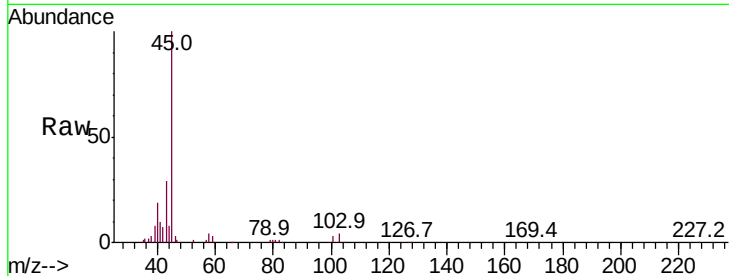
Acq: 14 Dec 2021 14:49

Tot Ion: 45 Resp: 130303

Ion Ratio Lower Upper

45 100

58 263.3 1.4 2.0#



#20

Methylene Chloride

Concen: 149.980 ppbv

RT: 4.32 min Scan# 476

Delta R.T. -0.03 min

Lab File: VL038166.D

Acq: 14 Dec 2021 14:49

Tgt Ion: 84 Resp: 6625483

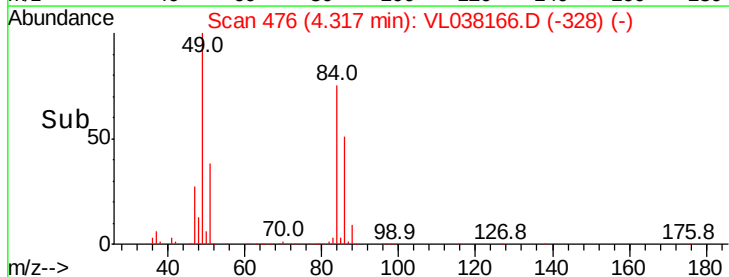
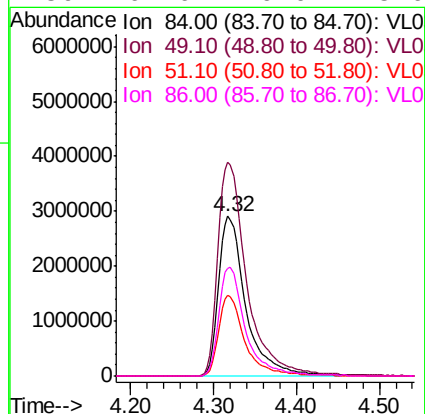
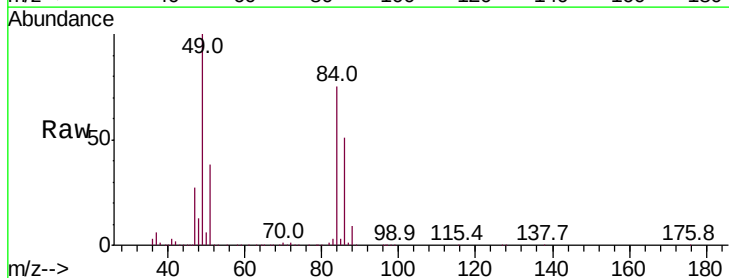
Ion Ratio Lower Upper

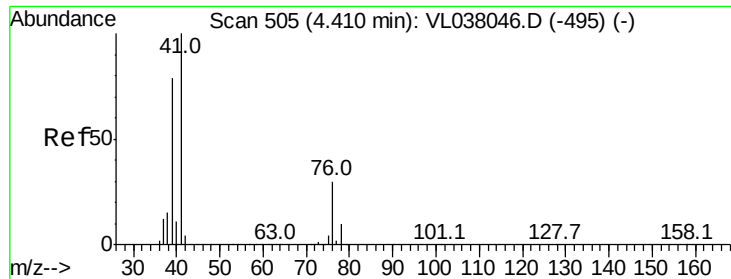
84 100

49 133.7 118.2 177.2

51 50.7 36.8 55.2

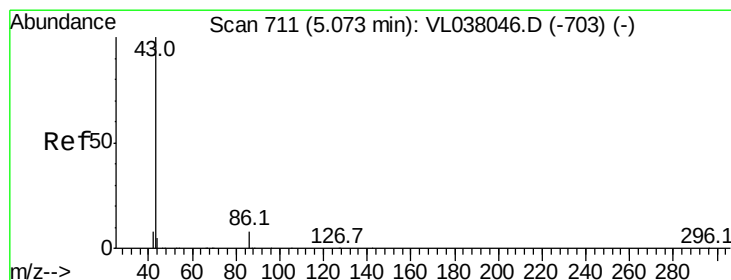
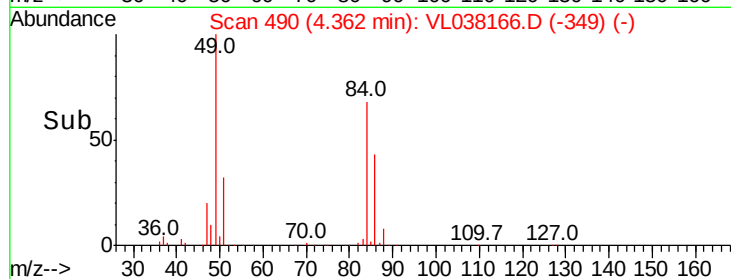
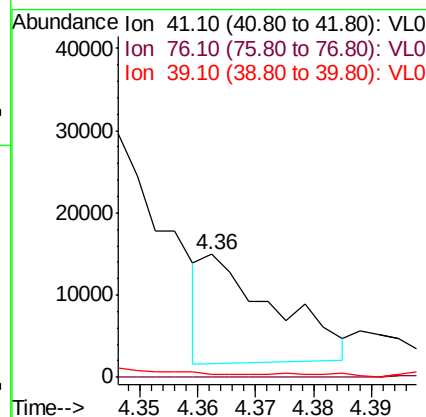
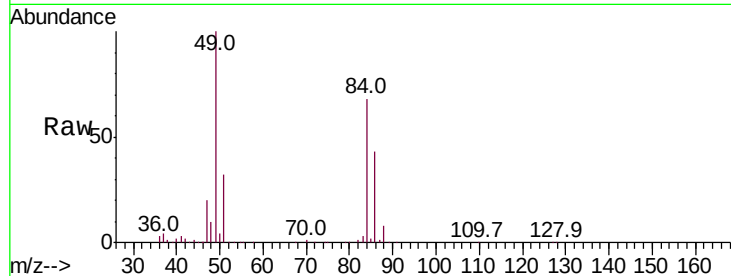
86 67.6 49.0 73.6





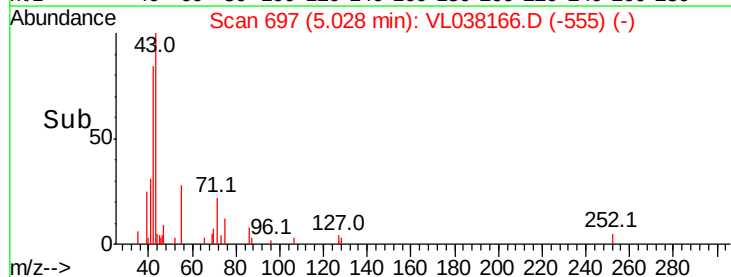
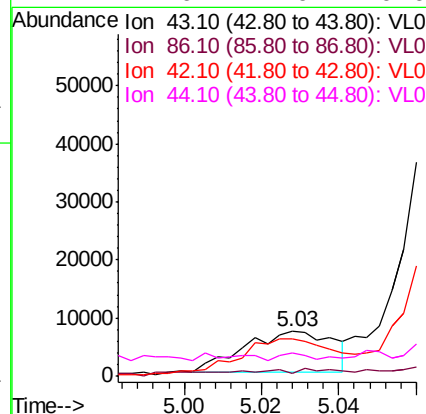
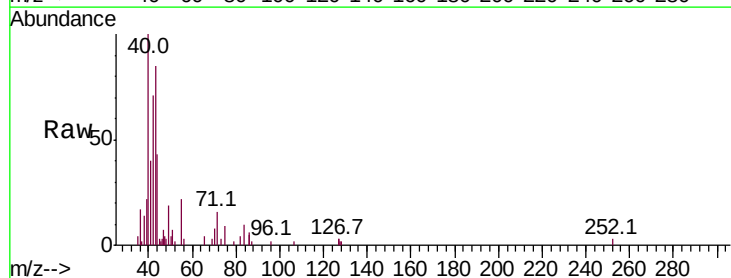
#21
 Allvl Chloride
 Concen: 0.154 ppbv
 RT: 4.36
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 14 Dec 2021 14:49

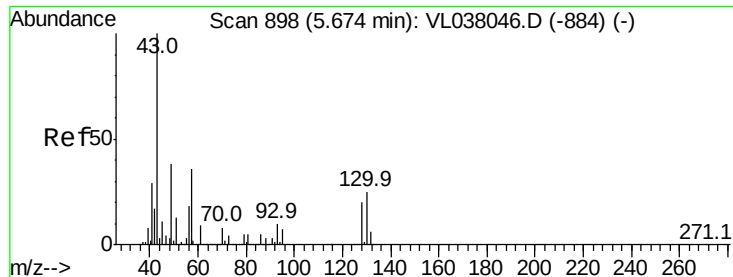
Tot Ion	Ratio	Lower	Upper
41	100		
76	0.0	24.6	36.8#
39	5.8	63.4	95.0#



#23
 Vinyl Acetate
 Concen: 0.097 ppbv
 RT: 5.03 min Scan# 697
 Delta R.T.: -0.04 min
 Lab File: VL038166.D
 Acq: 14 Dec 2021 14:49

Tgt Ion	Ratio	Lower	Upper
43	100		
86	0.0	5.3	7.9#
42	78.2	7.0	10.6#
44	17.6	4.0	6.0#





#25

Ethyl Acetate

Concen: 12.613 ppbv

RT: 5.66 Instrument:

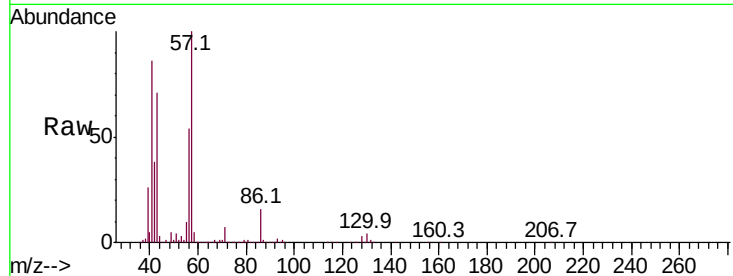
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 Dec 2021 14:49

Tot Ion: 43 Resp: 3306061

Ion	Ratio	Lower	Upper
43	100		
45	0.2	7.9	11.9#
61	0.2	7.8	11.6#
70	1.4	5.8	8.8#



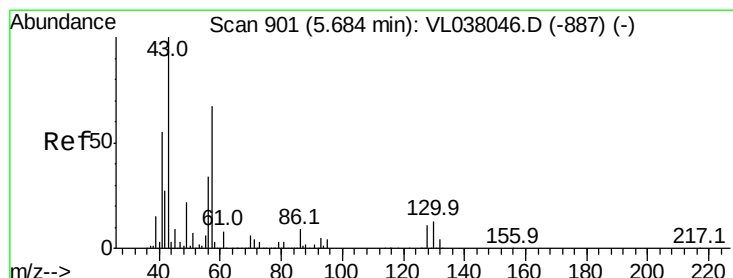
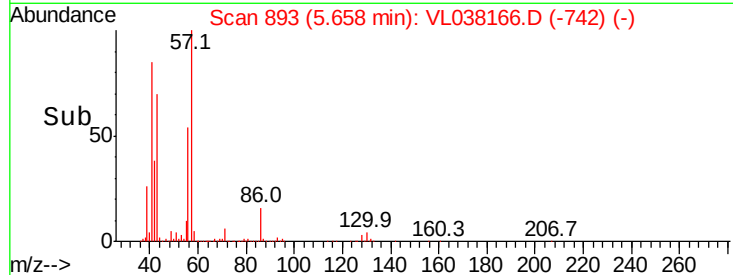
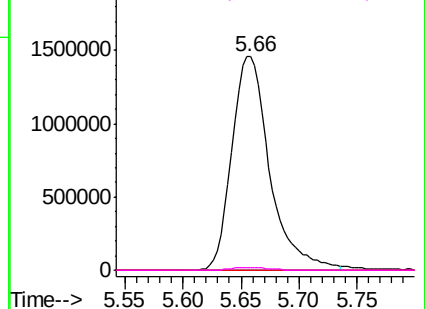
Abundance

Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 37.205 ppbv

RT: 5.66 min Scan# 893

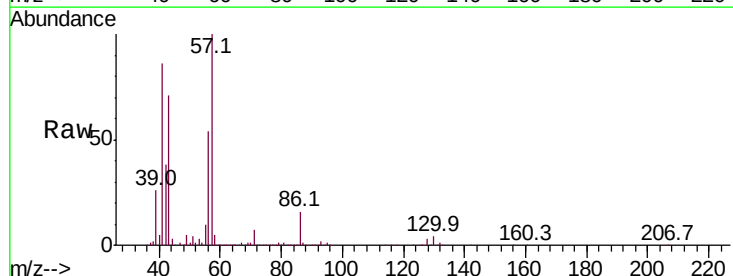
Delta R.T. -0.03 min

Lab File: VL038166.D

Acq: 14 Dec 2021 14:49

Tgt Ion: 57 Resp: 4700529

Ion	Ratio	Lower	Upper
57	100		
41	87.3	71.4	107.2
43	71.5	174.6	261.8#
56	52.8	43.2	64.8



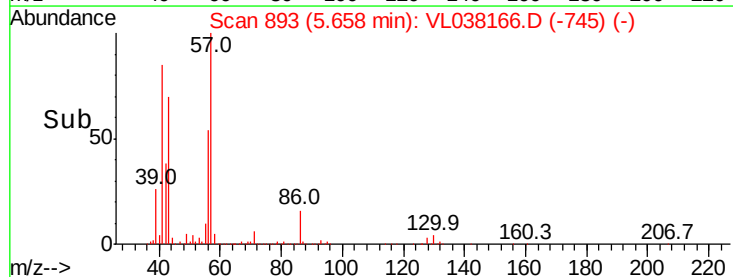
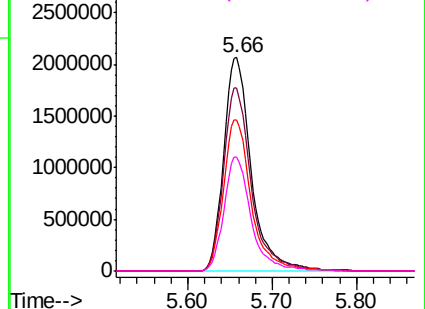
Abundance

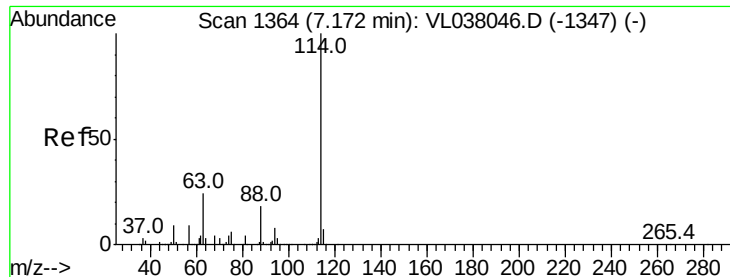
Ion 57.10 (56.80 to 57.80): VL0

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





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.14 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 Dec 2021 14:49

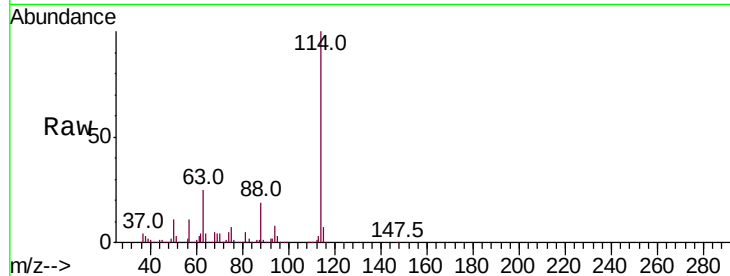
Tot Ion:114 Resp: 2442959

Ion Ratio Lower Upper

114 100

63 26.9 19.7 29.5

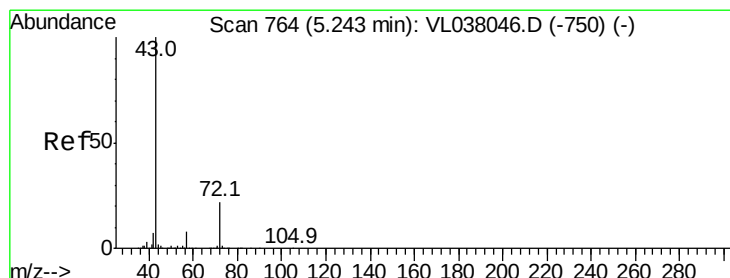
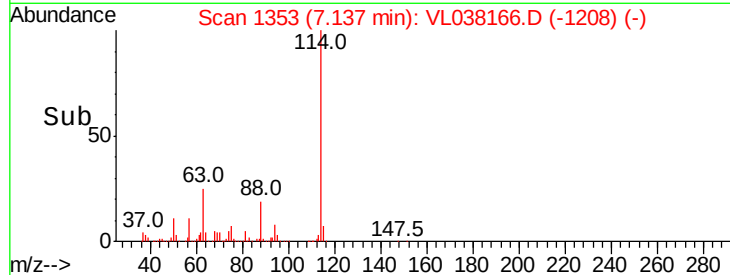
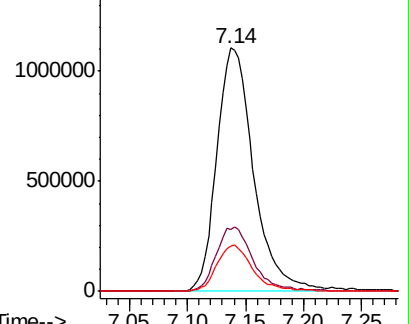
88 18.9 14.4 21.6



Abundance Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0



#34

2-Butanone

Concen: 2.635 ppbv

RT: 5.34 min Scan# 795

Delta R.T. 0.10 min

Lab File: VL038166.D

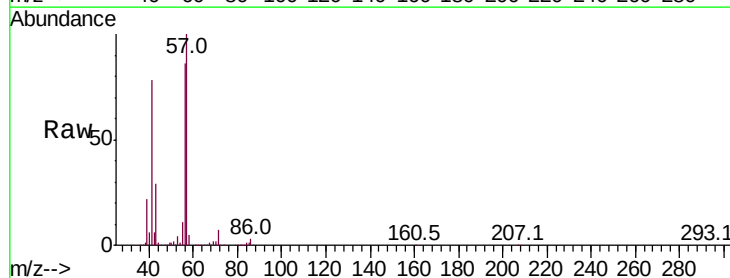
Acq: 14 Dec 2021 14:49

Tgt Ion: 43 Resp: 259571

Ion Ratio Lower Upper

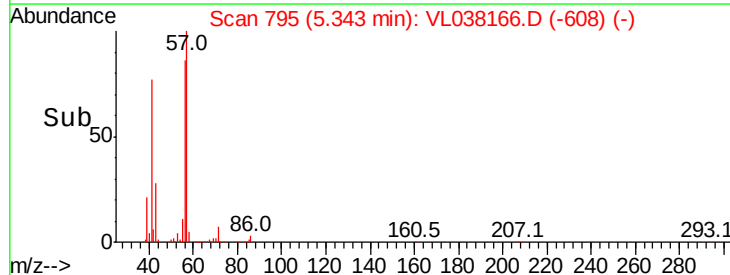
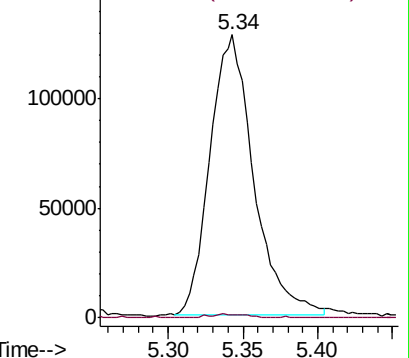
43 100

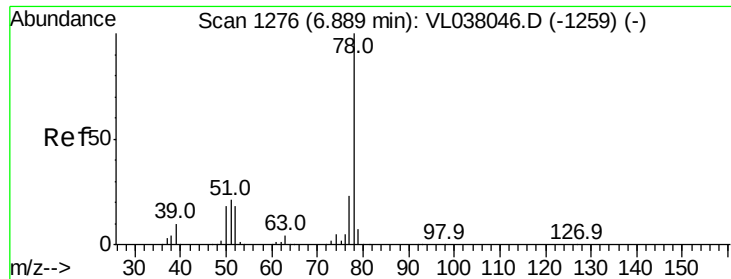
72 1.3 18.8 28.2#



Abundance Ion 43.10 (42.80 to 43.80): VL0

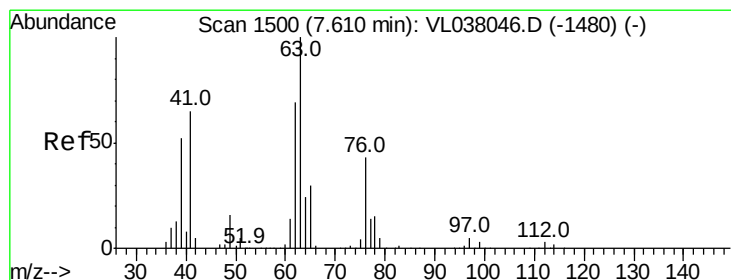
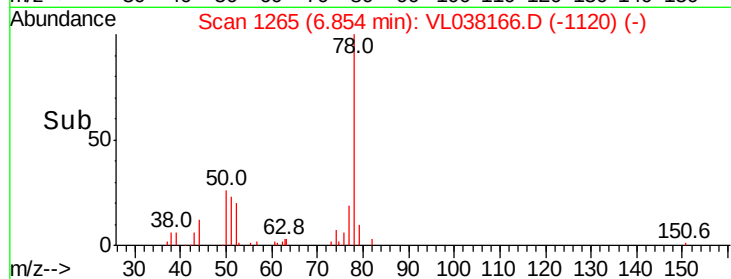
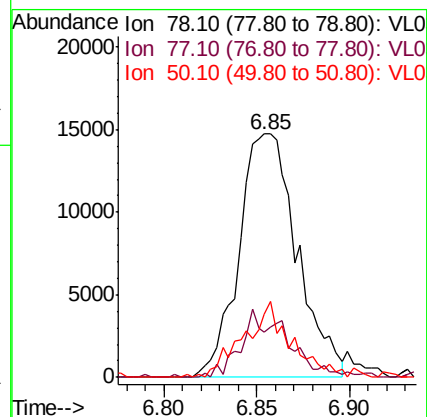
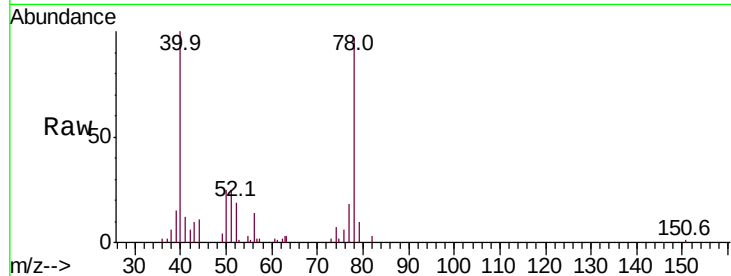
Ion 72.10 (71.80 to 72.80): VL0





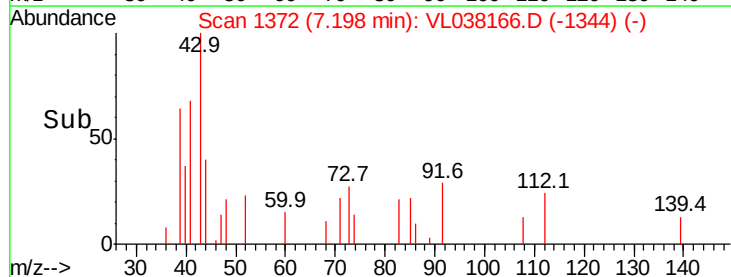
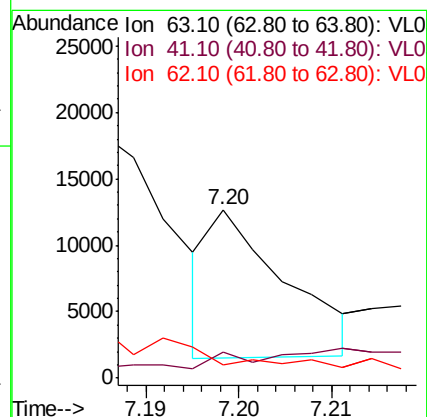
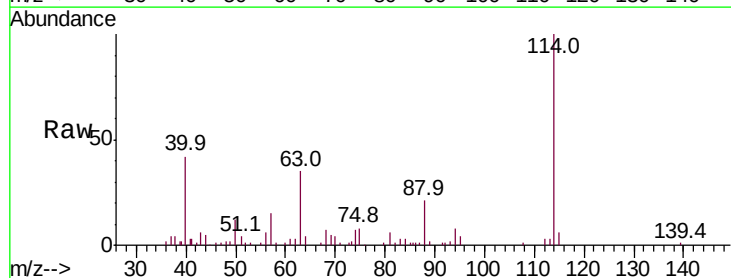
#36
Benzene
Concen: 0.132 ppbv
RT: 6.85
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 14 Dec 2021 14:49

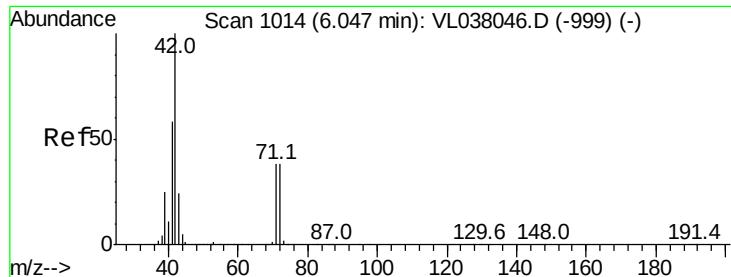
Tot Ion	78	Resp	32107
Ion Ratio	Lower	Upper	
78	100		
77	18.7	18.2	27.4
50	25.7	14.7	22.1#



#39
1,2-Dichloropropane
Concen: 0.068 ppbv
RT: 7.20 min Scan# 1372
Delta R.T. -0.41 min
Lab File: VL038166.D
Acq: 14 Dec 2021 14:49

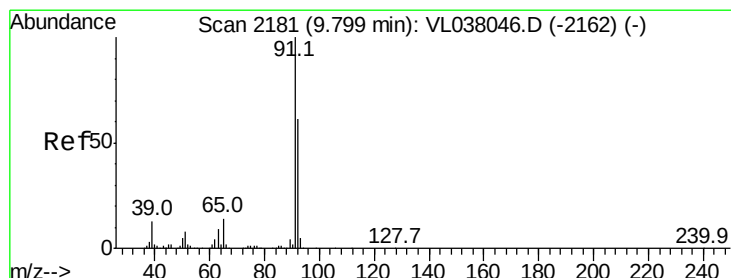
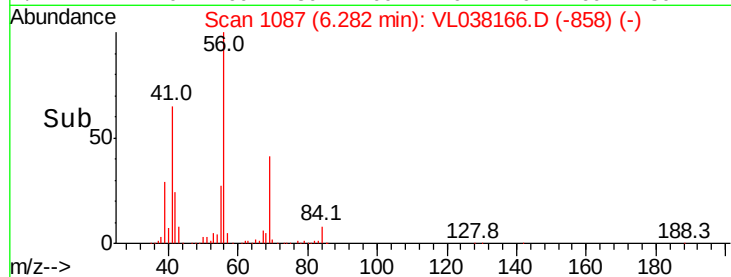
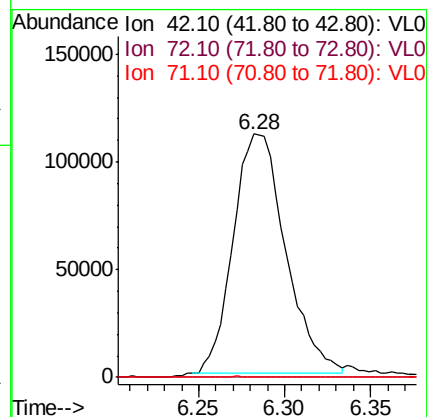
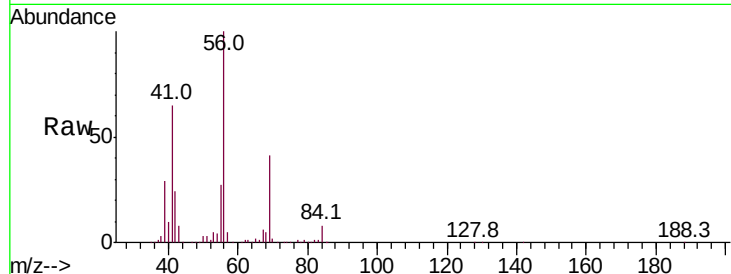
Tgt Ion	63	Resp	6357
Ion Ratio	Lower	Upper	
63	100		
41	15.7	52.3	78.5#
62	2.0	55.1	82.7#





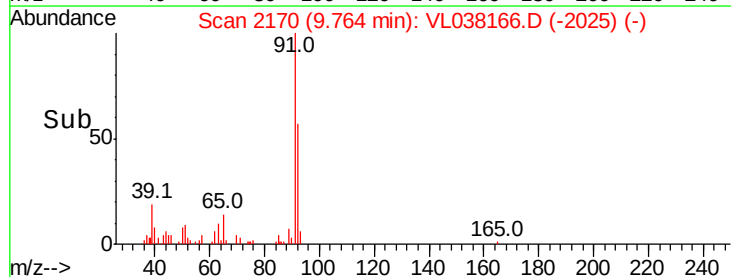
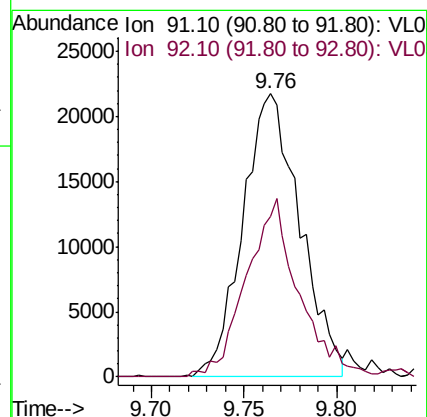
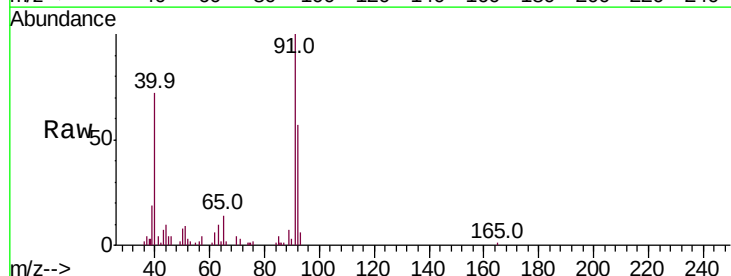
#41
Tetrahydrofuran
Concen: 3.857 ppbv
RT: 6.28
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 14 Dec 2021 14:49

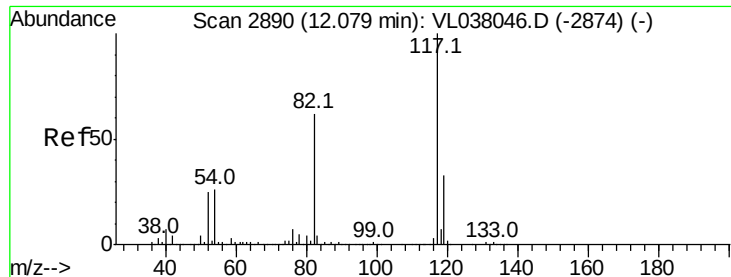
Tot Ion	Ratio	Lower	Upper
42	100		
72	0.0	31.7	47.5#
71	0.0	30.6	46.0#



#53
Toluene
Concen: 0.166 ppbv
RT: 9.76 min Scan# 2170
Delta R.T.: -0.04 min
Lab File: VL038166.D
Acq: 14 Dec 2021 14:49

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.7	49.7	74.5

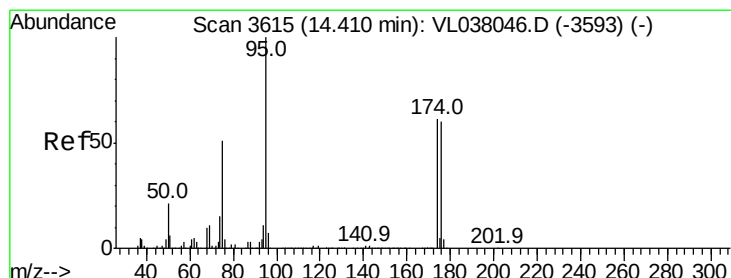
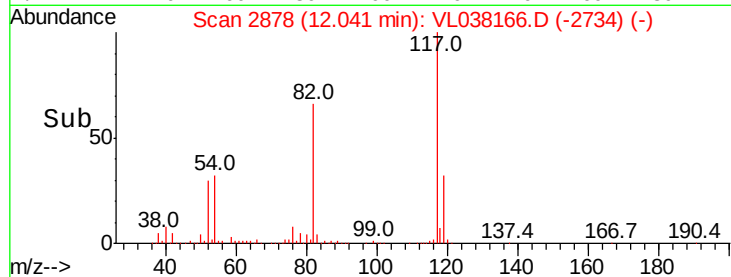
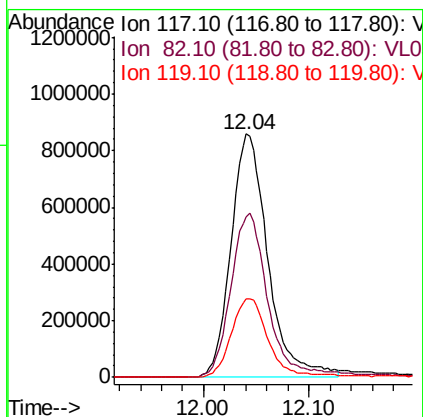
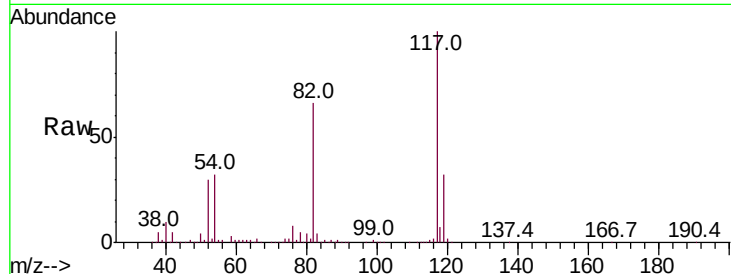




#55
 Chlorobenzene-d5
 Concen: 10.000 ppbv
 RT: 12.04 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 14 Dec 2021 14:49

Tot Ion: 117 Resp: 2085495

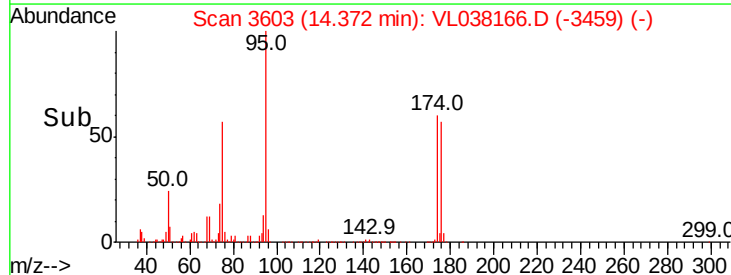
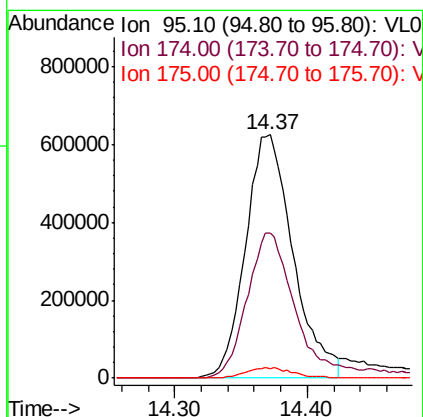
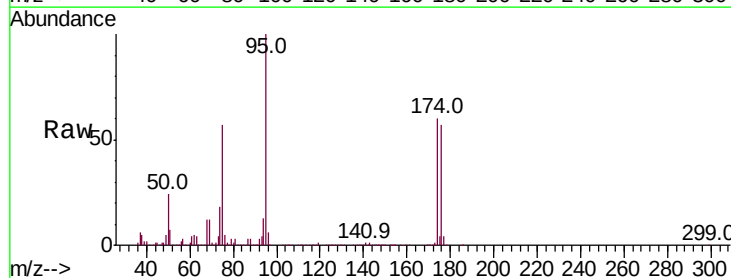
Ion	Ratio	Lower	Upper
117	100		
82	70.7	52.8	79.2
119	33.2	26.8	40.2

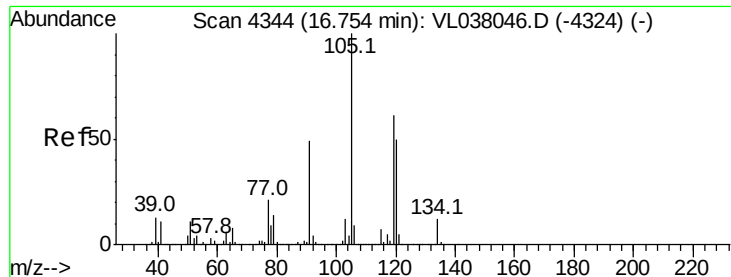


#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.370 ppbv
 RT: 14.37 min Scan# 3603
 Delta R.T.: -0.04 min
 Lab File: VL038166.D
 Acq: 14 Dec 2021 14:49

Tgt Ion: 95 Resp: 1560025

Ion	Ratio	Lower	Upper
95	100		
174	66.2	53.1	79.7
175	4.5	4.0	6.0





#74

1,2,4-Trimethylbenzene

Concen: 0.067 ppbv

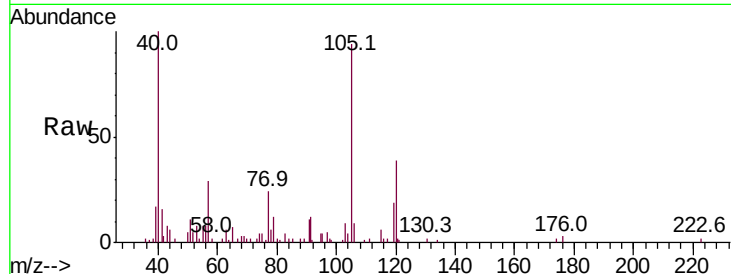
RT: 16.71 min

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 14 Dec 2021 14:49

Tot Ion:	105	Resp:	19718
Ion Ratio	Lower	Upper	
105	100		
120	42.4	40.1	60.1
91	23.5	39.8	59.8#
77	21.6	16.6	25.0

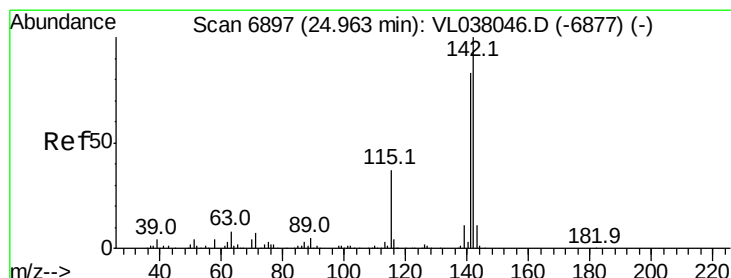
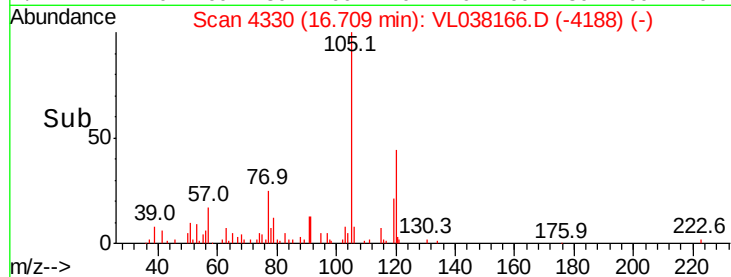
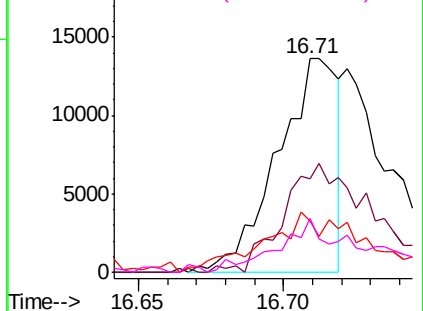


Abundance Ion 105.10 (104.80 to 105.80): V

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



#80

Naphthalene, 2-methyl-

Concen: 0.075 ppbv

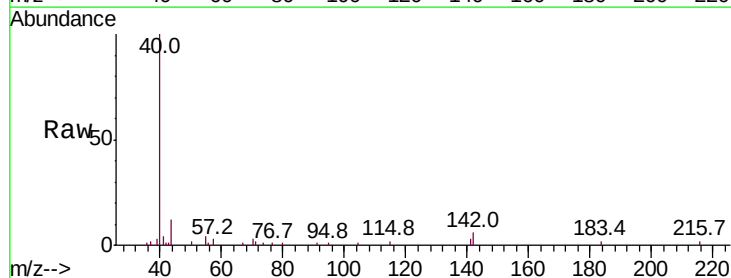
RT: 24.94 min Scan# 6889

Delta R.T. -0.03 min

Lab File: VL038166.D

Acq: 14 Dec 2021 14:49

Tgt Ion:	142	Resp:	2487
Ion Ratio	Lower	Upper	
142	100		
141	68.3	67.3	100.9
115	16.2	28.9	43.3#



Abundance Ion 142.00 (141.70 to 142.70): V

Ion 141.00 (140.70 to 141.70): V

Ion 115.00 (114.70 to 115.70): V

