

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL037992.D
 Acq On : 9 Nov 2021 23:26
 Operator : SY/AP
 Sample : M4555-06
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 04:49:49 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov 02 05:54:07 2021
 QLast Update : Tue Nov 02 05:54:07 2021
 Response via : Initial Calibration

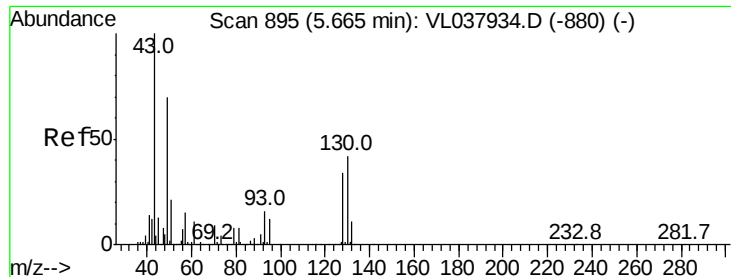
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1300110	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3735813	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3175786	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2202859	9.54	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.40%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.06	85	52688	0.288	ppbv 96
3) Chlorodifluoromethane	2.99	51	101769	0.420	ppbv # 81
4) Chloromethane	3.15	50	39070	0.425	ppbv 90
9) Propene	3.02	41	79415	0.915	ppbv 84
11) Trichlorofluoromethane	3.95	101	35970	0.197	ppbv 94
12) 1,1,2-Trichlorotrifluoroet	4.49	101	5773	0.041	ppbv # 22
13) Ethanol	3.61	45	3938421	449.885	ppbv 88
15) Acetone	3.85	43	1403764	13.067	ppbv 100
16) 1,3-Butadiene	3.31	39	64778	0.765	ppbv # 19
17) tert-Butyl alcohol	4.30	59	226148	2.025	ppbv 99
19) Isopropyl Alcohol	3.97	45	1919608	27.942	ppbv # 92
20) Methylene Chloride	4.35	84	994579	16.863	ppbv 96
21) Allyl Chloride	4.38	41	3548	0.036	ppbv # 21
23) Vinyl Acetate	5.07	43	43993	0.272	ppbv # 76
25) Ethyl Acetate	5.69	43	730757	2.290	ppbv # 80
26) Hexane	5.69	57	933420	6.174	ppbv # 48
34) 2-Butanone	5.25	43	65462	0.473	ppbv 96
35) Carbon Tetrachloride	7.01	117	7046	0.031	ppbv # 62
36) Benzene	6.88	78	18817	0.062	ppbv 93
39) 1,2-Dichloropropane	7.18	63	865101	7.557	ppbv # 27
41) Tetrahydrofuran	5.74	42	5741	0.085	ppbv # 36
44) 2,2,4-Trimethylpentane	7.86	57	15540	0.030	ppbv # 42
53) Toluene	9.80	91	157910	0.484	ppbv 96
60) o-Xylene	13.68	91	25649	0.079	ppbv 79
65) tert-Butylbenzene	16.97	119	340414	0.836	ppbv # 26
66) Benzyl Chloride	16.98	91	2503	0.118	ppbv # 1
75) 1,3-Dichlorobenzene	16.99	146	11561	0.051	ppbv # 23

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 23:26

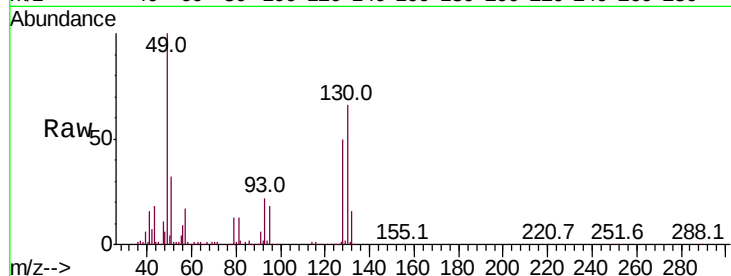
Tot Ion: 49 Resp: 1300110

Ion Ratio Lower Upper

49 100

128 52.8 27.0 81.0

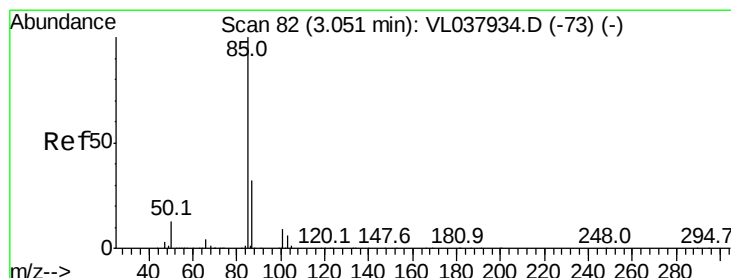
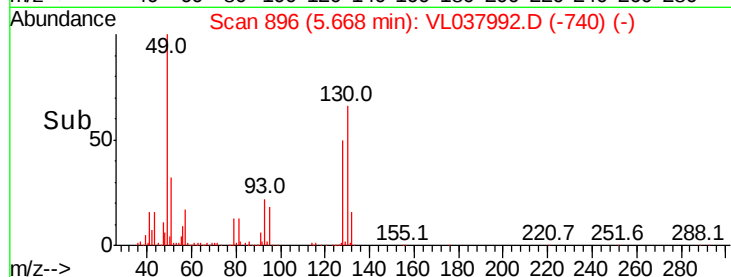
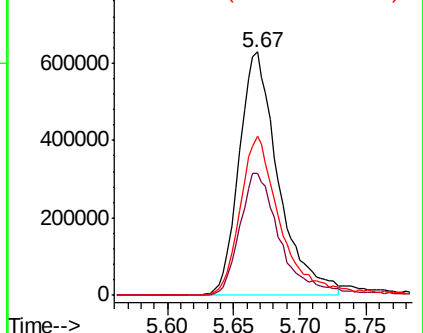
130 68.2 33.4 100.2



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: 0.288 ppbv

RT: 3.06 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL037992.D

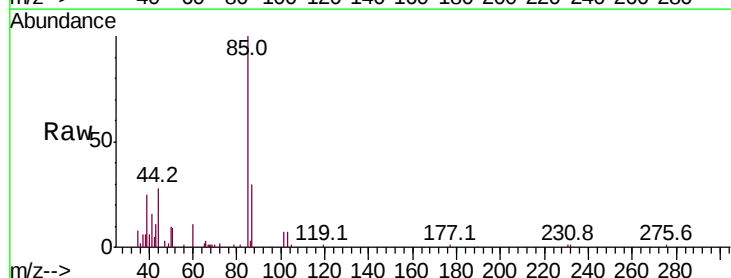
Acq: 9 Nov 2021 23:26

Tgt Ion: 85 Resp: 52688

Ion Ratio Lower Upper

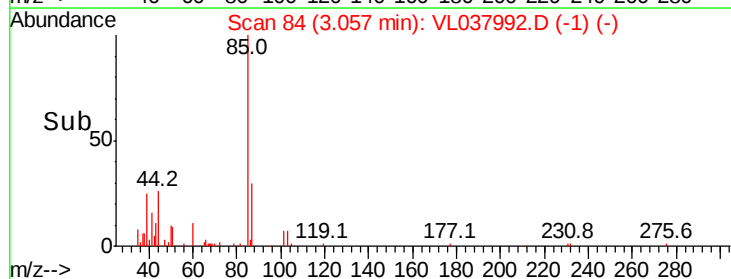
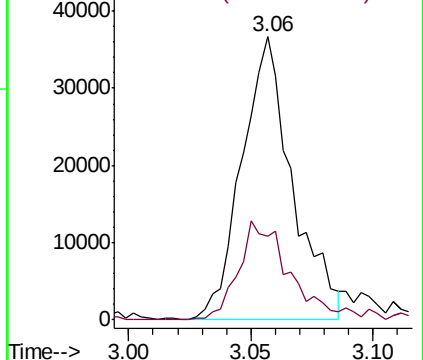
85 100

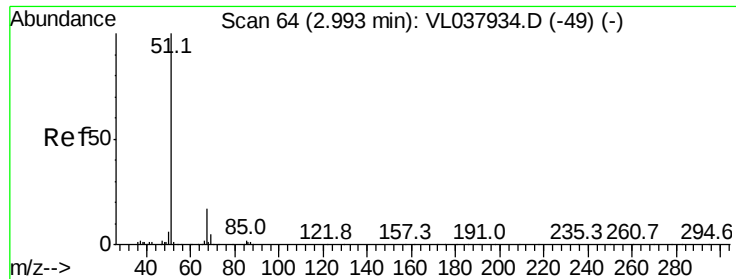
87 29.6 25.3 37.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.420 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

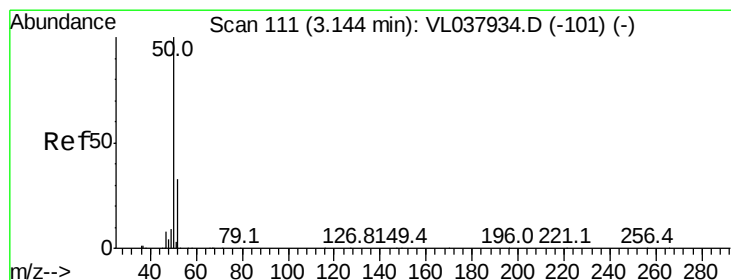
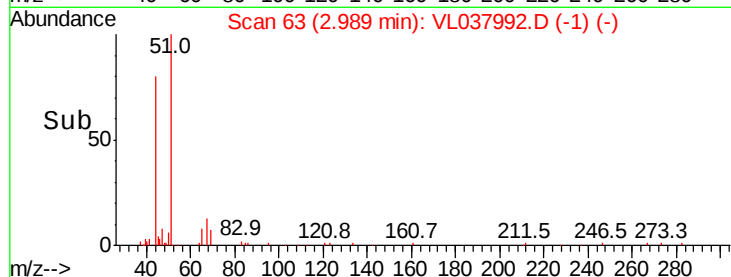
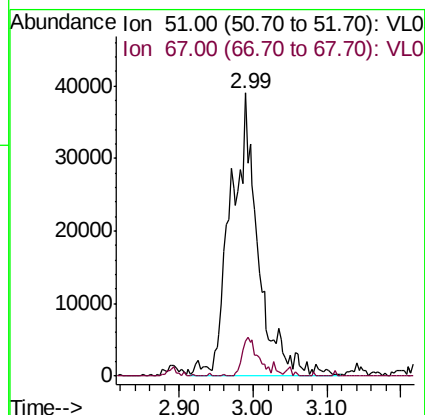
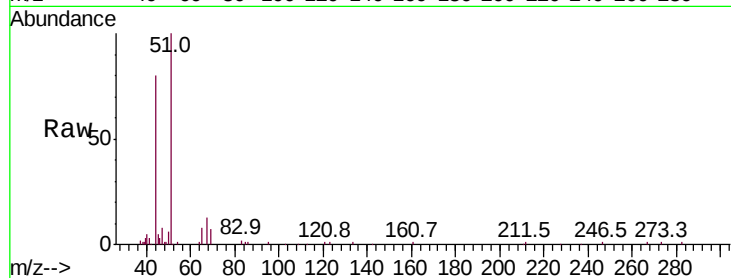
Acq: 9 Nov 2021 23:20

Tot Ion: 51 Resp: 101769

Ion Ratio Lower Upper

51 100

67 8.5 13.4 20.0#



#4

Chloromethane

Concen: 0.425 ppbv

RT: 3.15 min Scan# 112

Delta R.T. 0.00 min

Lab File: VL037992.D

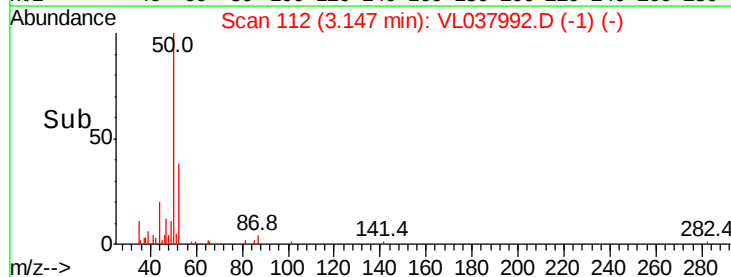
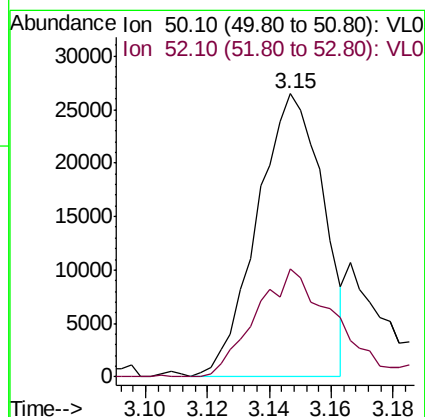
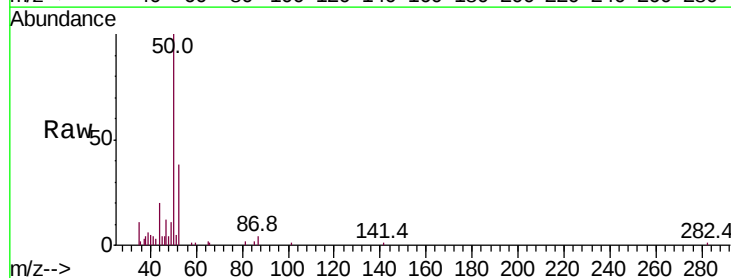
Acq: 9 Nov 2021 23:26

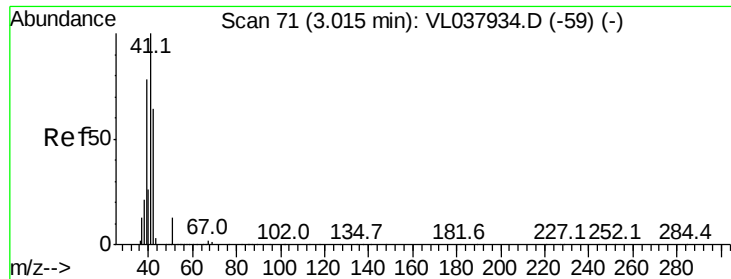
Tgt Ion: 50 Resp: 39070

Ion Ratio Lower Upper

50 100

52 38.3 26.3 39.5





#9

Propene

Concen: 0.915 ppbv

RT: 3.02 Instrument:

Delta R.T. MSVOA.L

Lab File: ClientSampleId:

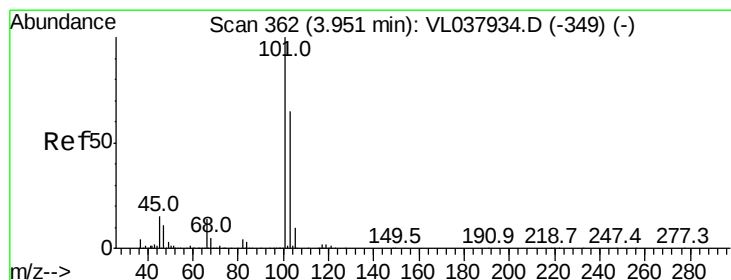
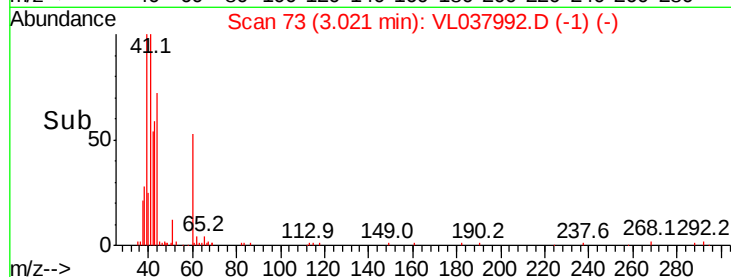
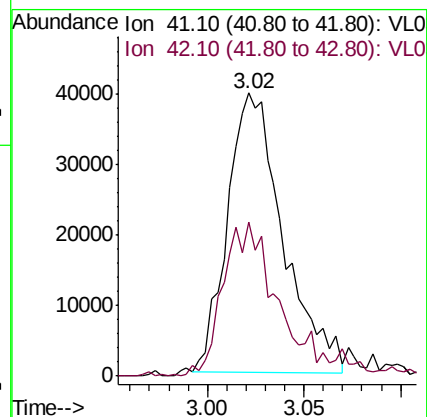
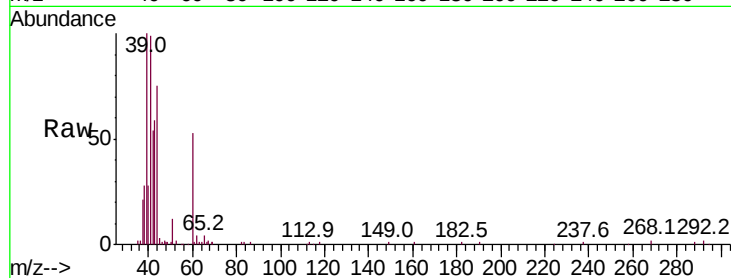
Acq: 9 Nov 2021 23:26

Tot Ion: 41 Resp: 79415

Ion Ratio Lower Upper

41 100

42 59.0 57.6 86.4



#11

Trichlorofluoromethane

Concen: 0.197 ppbv

RT: 3.95 min Scan# 363

Delta R.T. 0.00 min

Lab File: VL037992.D

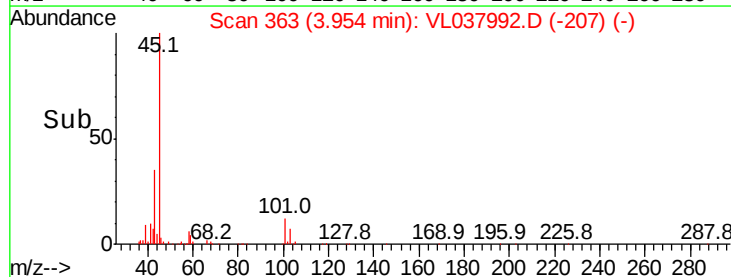
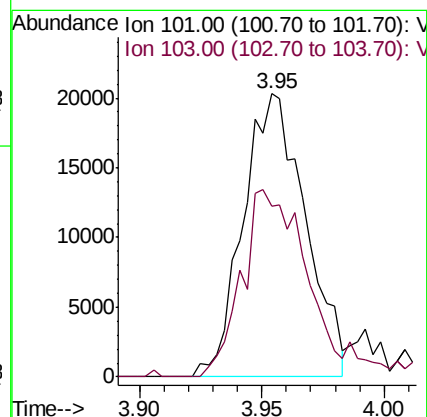
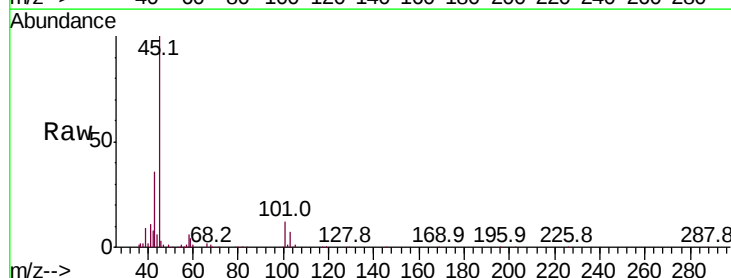
Acq: 9 Nov 2021 23:26

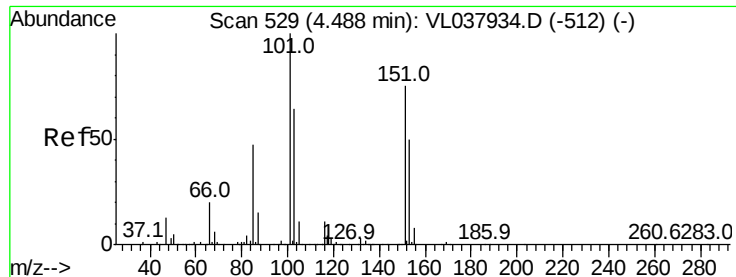
Tgt Ion: 101 Resp: 35970

Ion Ratio Lower Upper

101 100

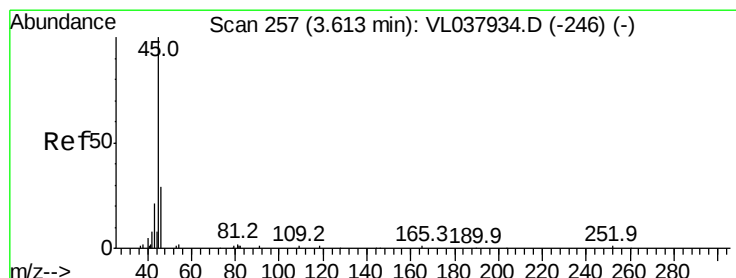
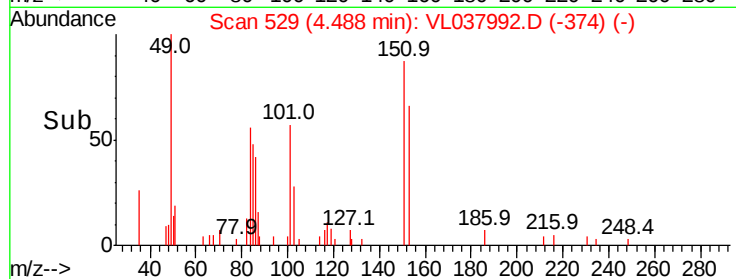
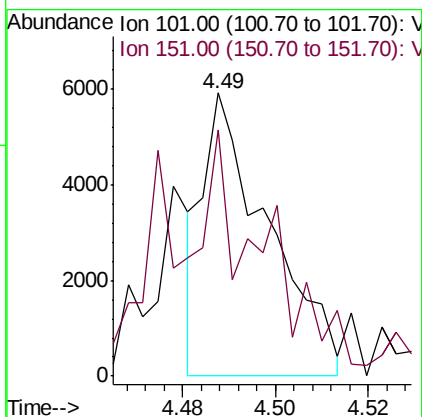
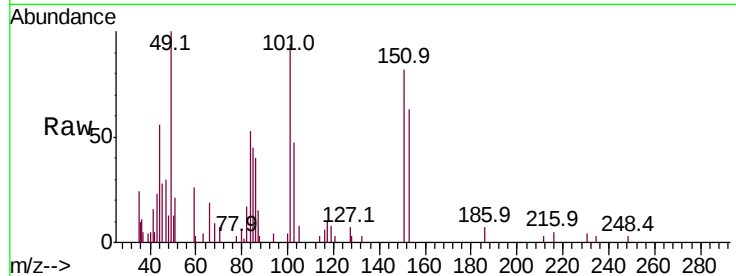
103 60.4 52.0 78.0





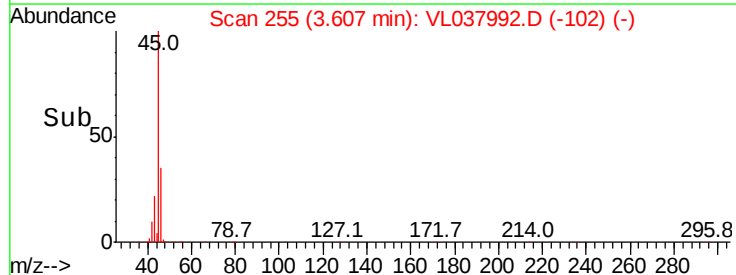
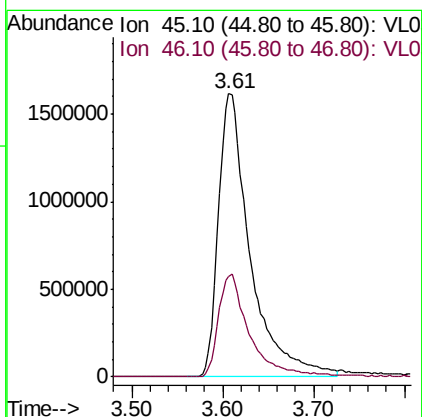
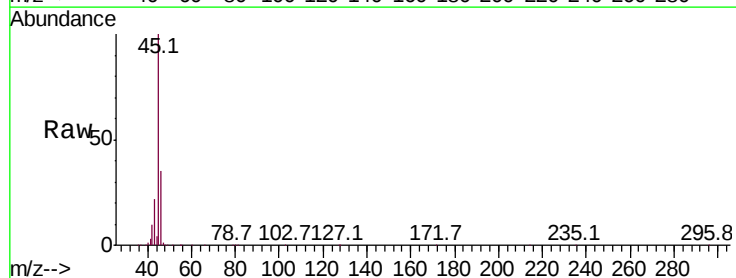
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.041 ppbv
 RT: 4.49
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 23:26

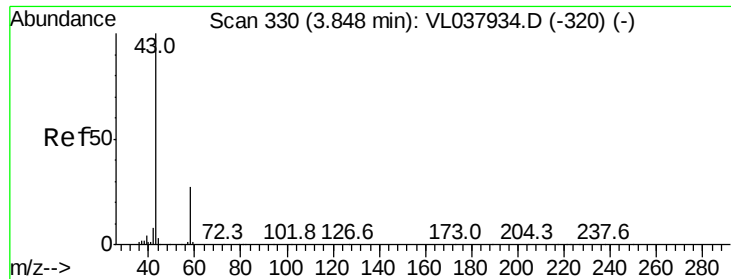
Tot Ion: 101 Resp: 5773
 Ion Ratio Lower Upper
 101 100
 151 144.4 61.8 92.8#



#13
 Ethanol
 Concen: 449.885 ppbv
 RT: 3.61 min Scan# 255
 Delta R.T. -0.01 min
 Lab File: VL037992.D
 Acq: 9 Nov 2021 23:26

Tgt Ion: 45 Resp: 3938421
 Ion Ratio Lower Upper
 45 100
 46 35.9 17.4 69.8





#15

Acetone

Concen: 13.067 ppbv

RT: 3.85 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

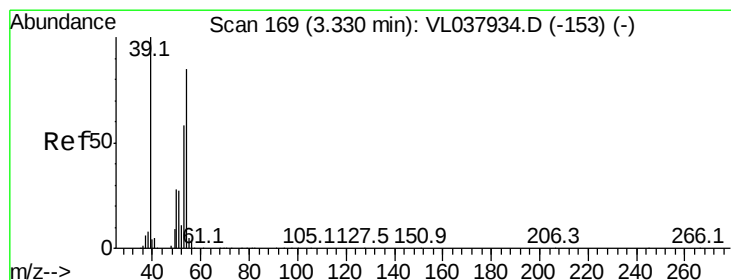
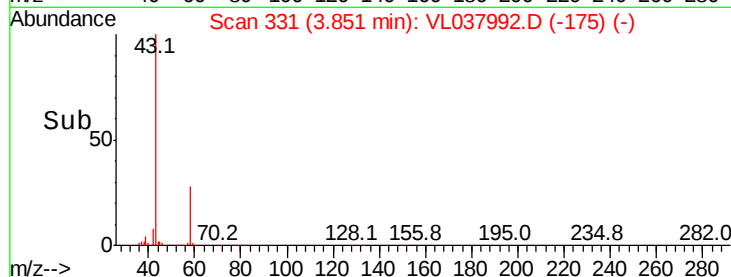
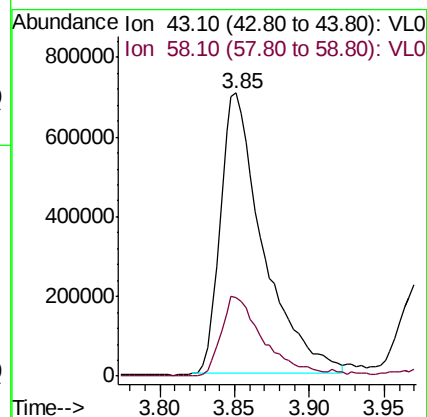
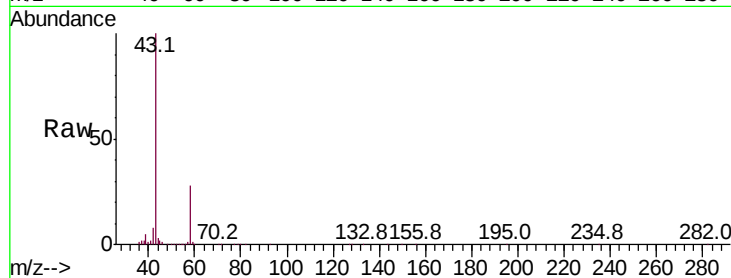
Acq: 9 Nov 2021 23:26

Tot Ion: 43 Resp: 1403764

Ion Ratio Lower Upper

43 100

58 29.1 23.3 34.9



#16

1,3-Butadiene

Concen: 0.765 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.02 min

Lab File: VL037992.D

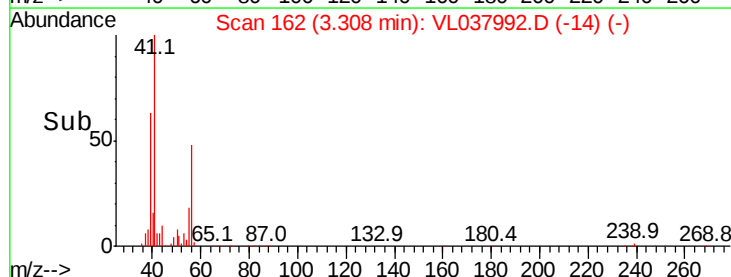
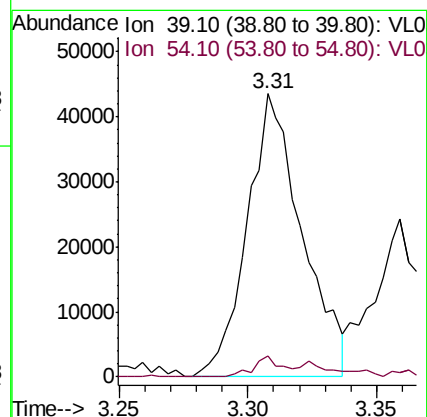
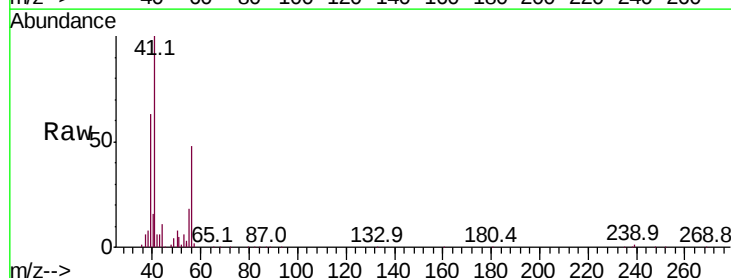
Acq: 9 Nov 2021 23:26

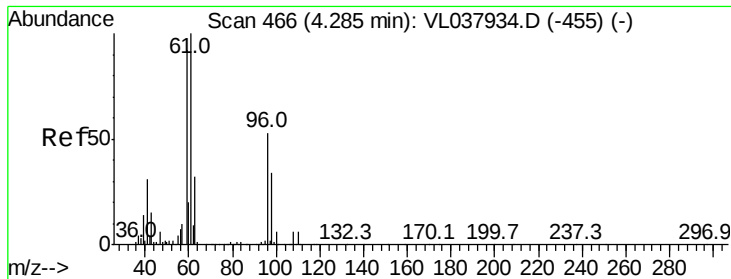
Tgt Ion: 39 Resp: 64778

Ion Ratio Lower Upper

39 100

54 7.3 62.6 93.8#





#17

tert-Butyl alcohol

Concen: 2.025 ppbv

RT: 4.30

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

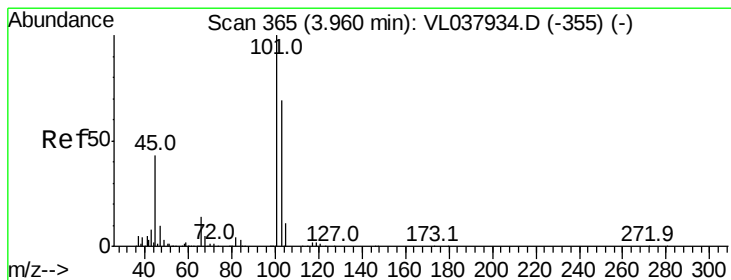
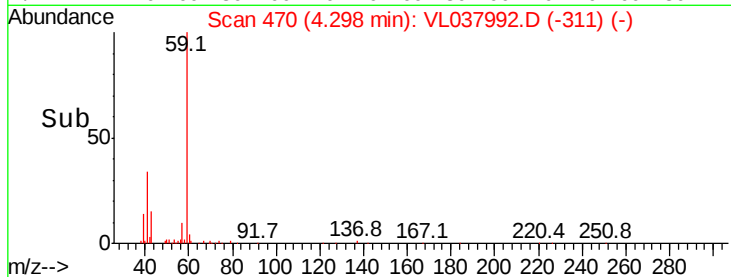
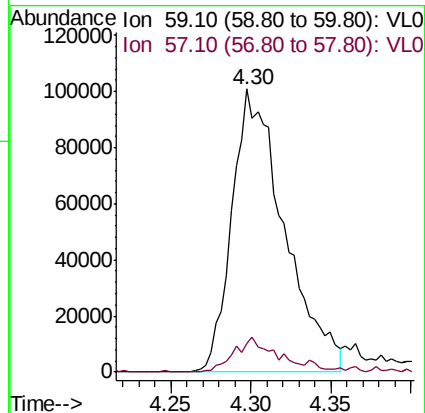
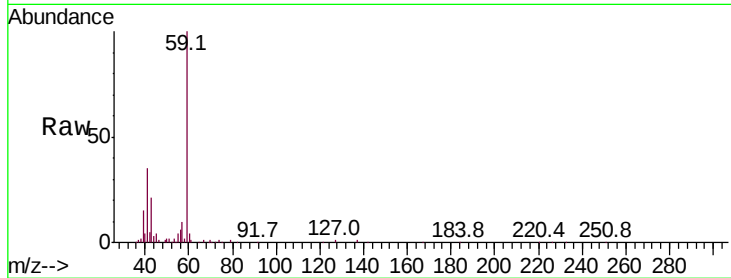
Acq: 9 Nov 2021 23:26

Tot Ion: 59 Resp: 226148

Ion Ratio Lower Upper

59 100

57 10.8 8.9 13.3



#19

Isopropyl Alcohol

Concen: 27.942 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.01 min

Lab File: VL037992.D

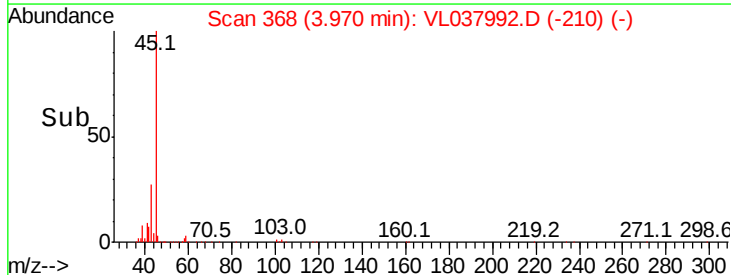
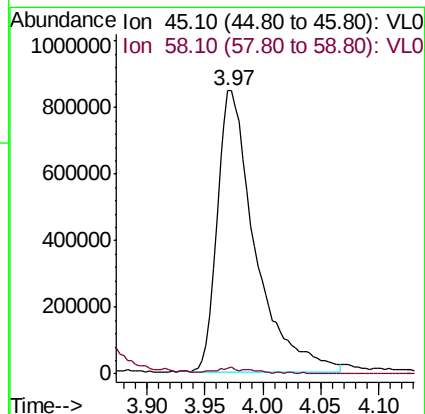
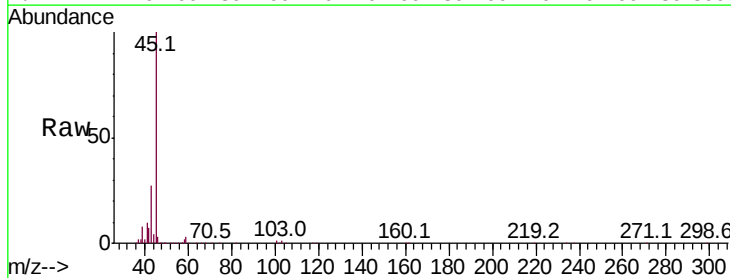
Acq: 9 Nov 2021 23:26

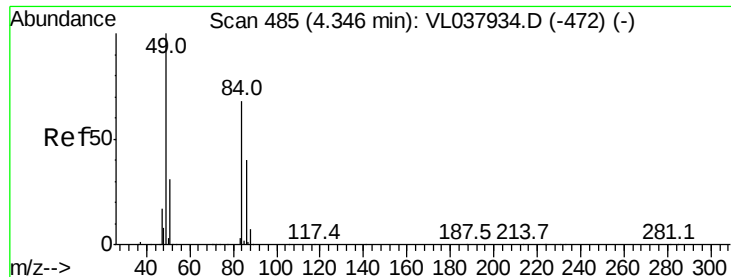
Tgt Ion: 45 Resp: 1919608

Ion Ratio Lower Upper

45 100

58 2.4 4.0 6.0#





#20

Methylene Chloride

Concen: 16.863 ppbv

RT: 4.35

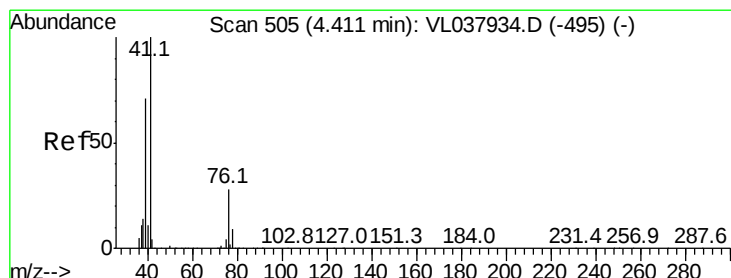
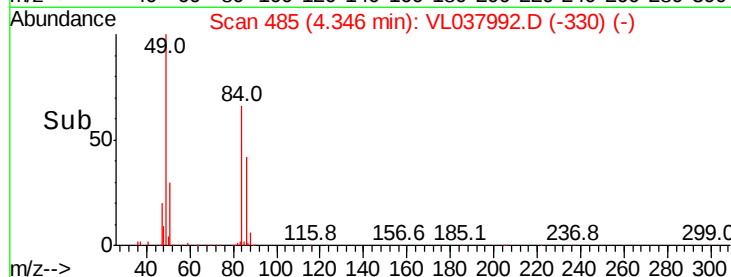
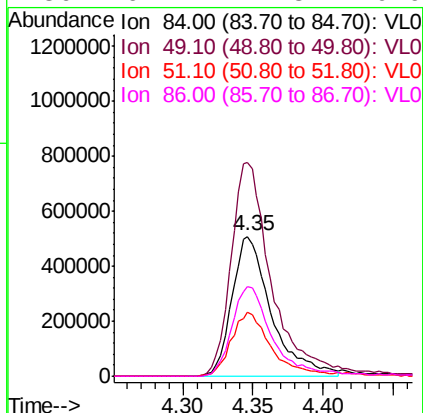
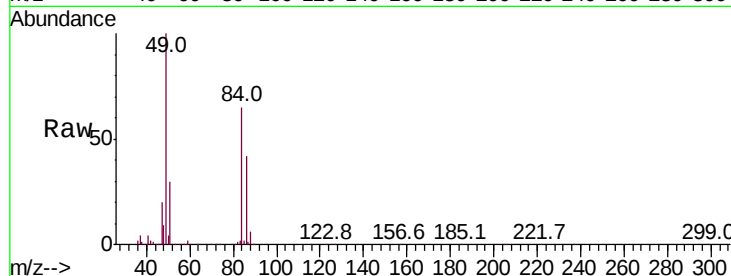
Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId :

Acq: 9 Nov 2021 23:26

Tot Ion:	84	Resp:	994579
Ion	Ratio	Lower	Upper
84	100		
49	152.6	117.5	176.3
51	45.6	35.9	53.9
86	64.1	47.3	70.9



#21

Allyl Chloride

Concen: 0.036 ppbv

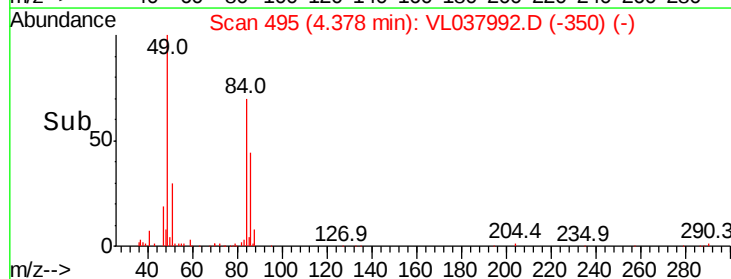
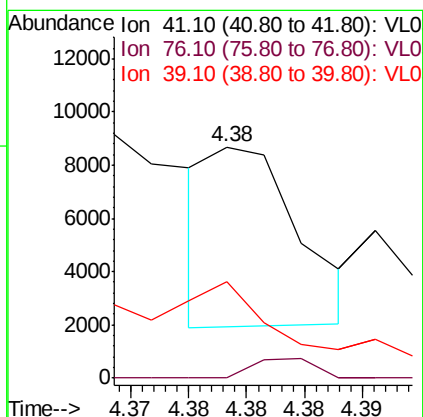
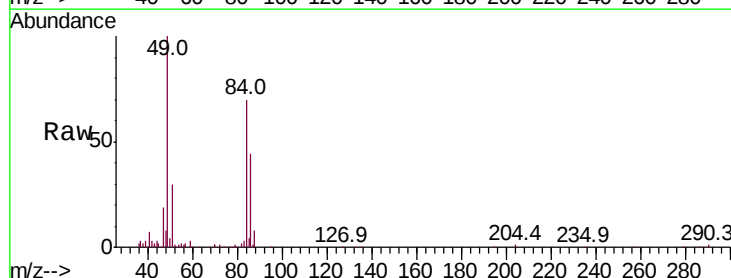
RT: 4.38 min Scan# 495

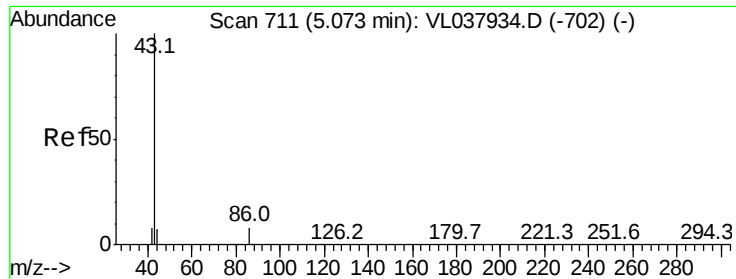
Delta R.T. -0.03 min

Lab File: VL037992.D

Acq: 9 Nov 2021 23:26

Tgt Ion:	41	Resp:	3548
Ion	Ratio	Lower	Upper
41	100		
76	7.8	23.6	35.4#
39	154.2	59.7	89.5#





#23

Vinyl Acetate

Concen: 0.272 ppbv

RT: 5.07 Instrument:

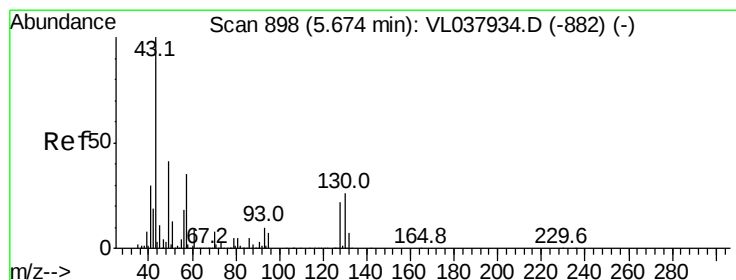
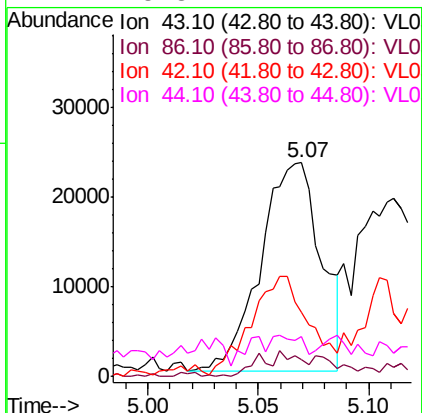
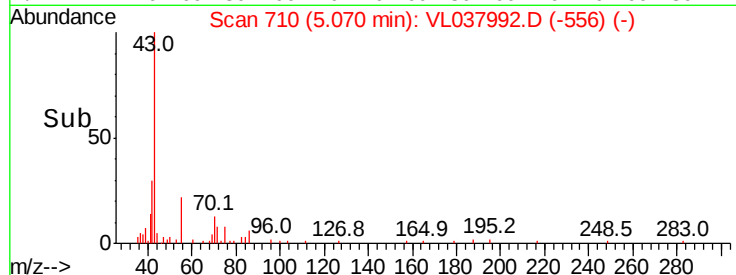
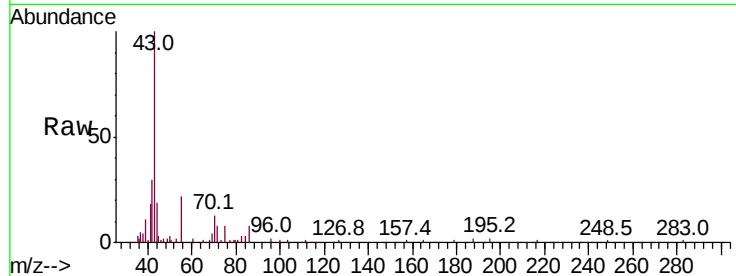
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 23:26

Tot Ion: 43 Resp: 43993

Ion	Ratio	Lower	Upper
43	100		
86	6.8	5.5	8.3
42	28.3	7.4	11.2#
44	8.3	4.7	7.1#



#25

Ethyl Acetate

Concen: 2.290 ppbv

RT: 5.69 min Scan# 902

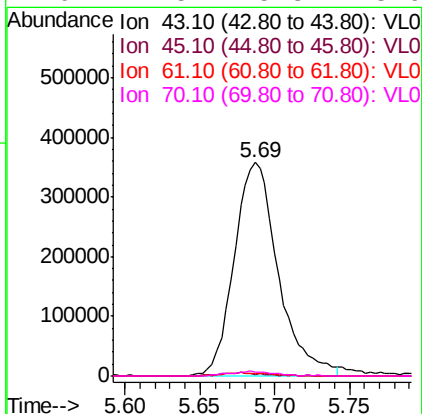
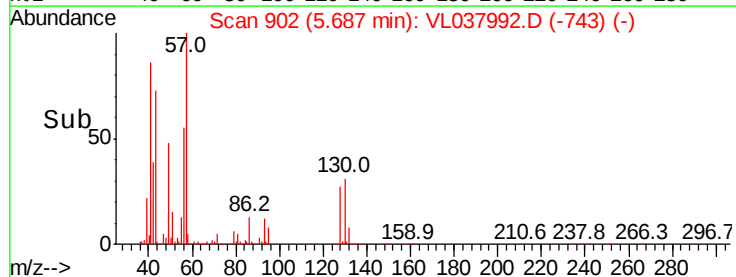
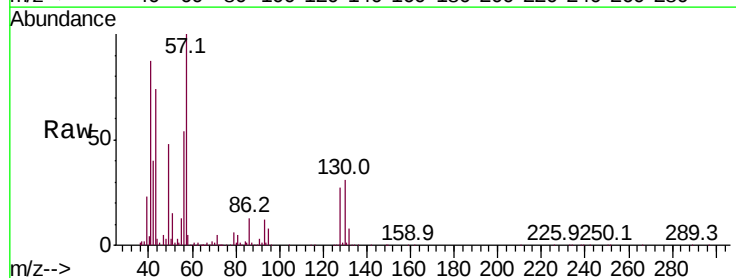
Delta R.T. 0.01 min

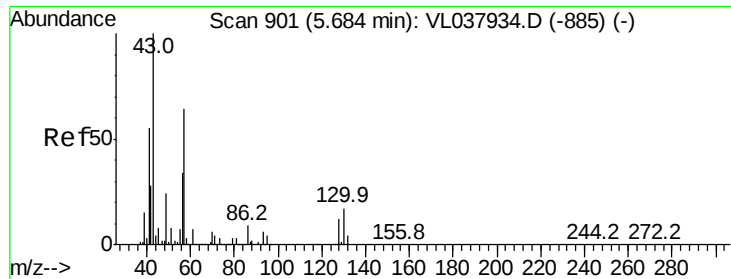
Lab File: VL037992.D

Acq: 9 Nov 2021 23:26

Tgt Ion: 43 Resp: 730757

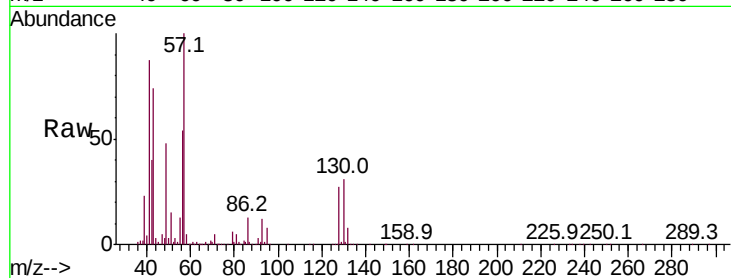
Ion	Ratio	Lower	Upper
43	100		
45	1.9	8.1	12.1#
61	1.6	8.1	12.1#
70	2.5	5.8	8.6#



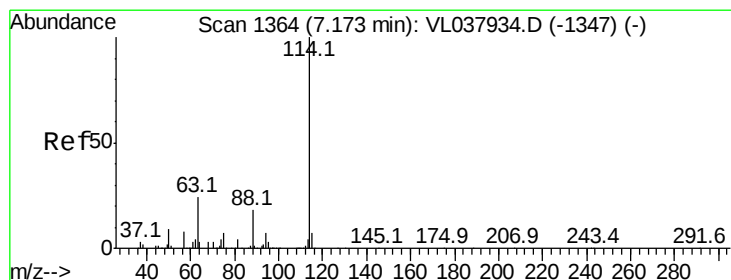
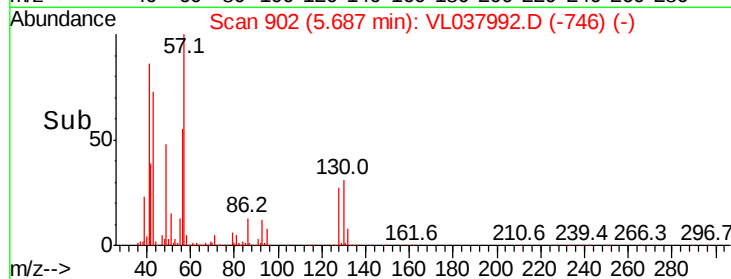
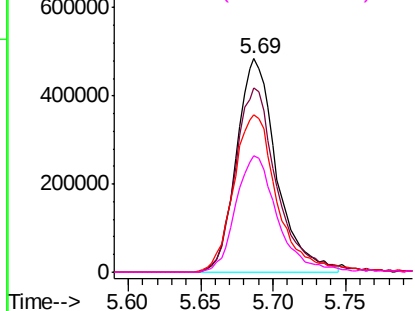


#26
Hexane
Concen: 6.174 ppbv
RT: 5.69
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 23:26

Tot Ion:	57	Resp:	933420
Ion	Ratio	Lower	Upper
57	100		
41	91.6	71.0	106.6
43	81.2	173.0	259.6#
56	57.6	43.6	65.4

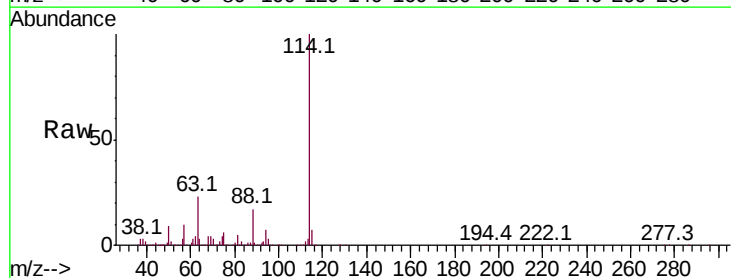


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

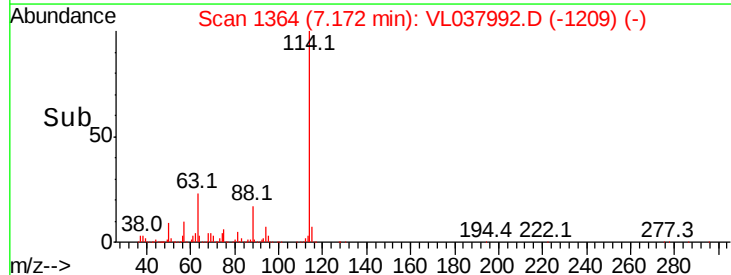
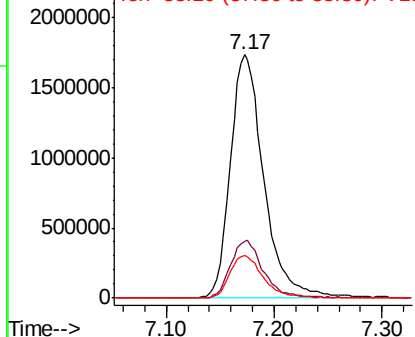


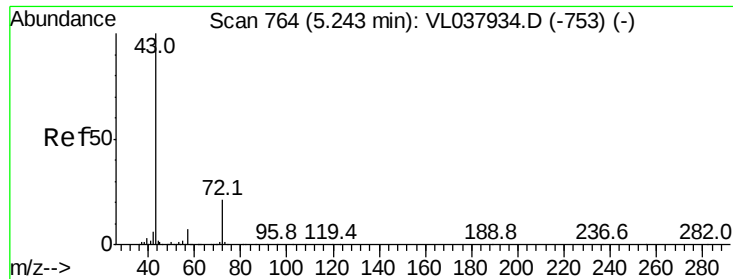
#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1364
Delta R.T. -0.00 min
Lab File: VL037992.D
Acq: 9 Nov 2021 23:26

Tgt Ion:	114	Resp:	3735813
Ion	Ratio	Lower	Upper
114	100		
63	23.7	19.4	29.0
88	17.9	14.2	21.4



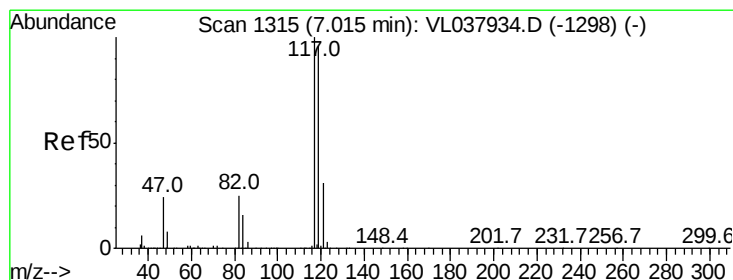
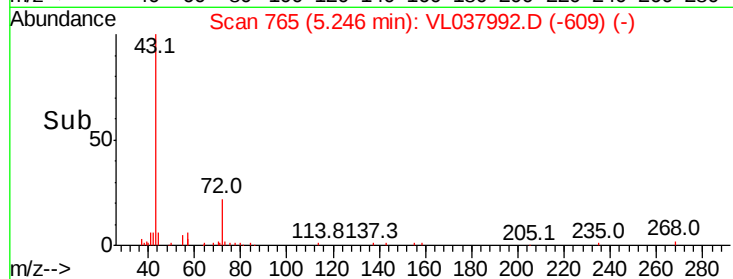
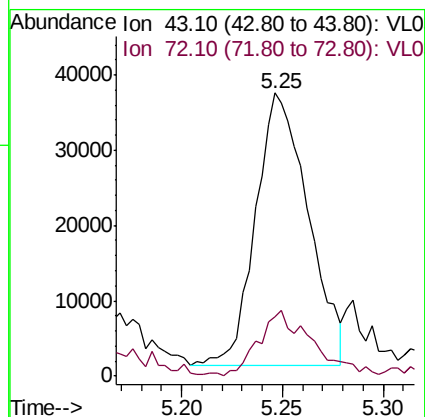
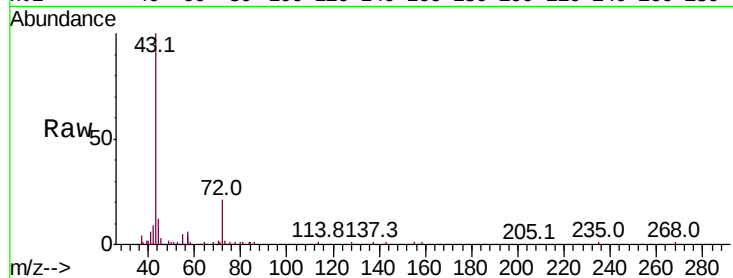
Abundance Ion 114.10 (113.80 to 114.80): V
Ion 63.10 (62.80 to 63.80): VL0
Ion 88.10 (87.80 to 88.80): VL0





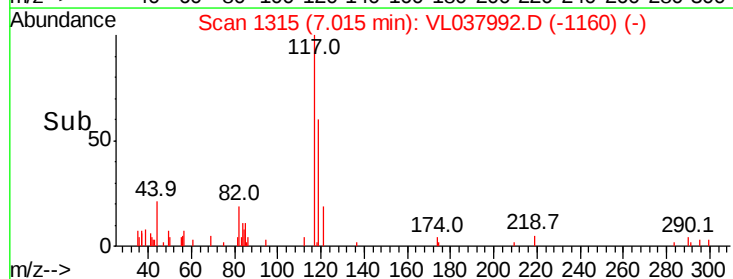
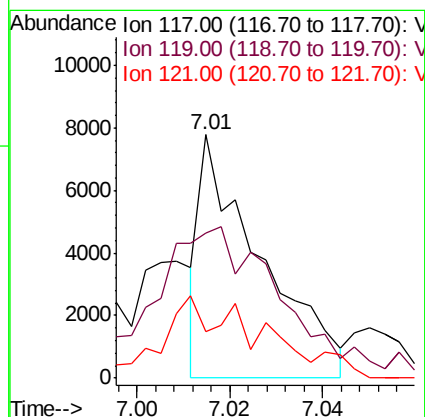
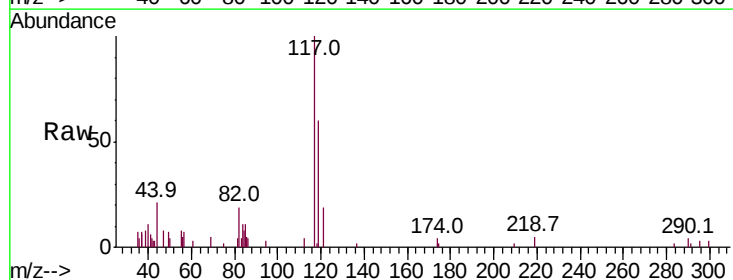
#34
2-Butanone
Concen: 0.473 ppbv
RT: 5.25
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 23:26

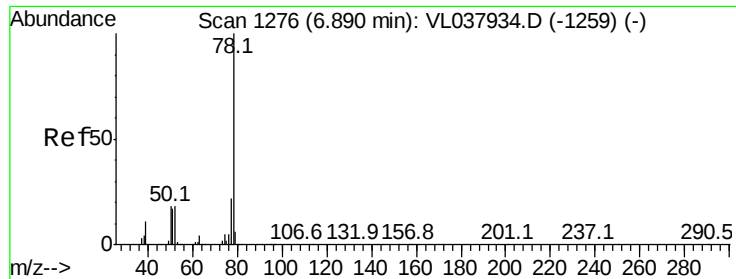
Tot Ion: 43 Resp: 65462
Ion Ratio Lower Upper
43 100
72 24.9 18.3 27.5



#35
Carbon Tetrachloride
Concen: 0.031 ppbv
RT: 7.01 min Scan# 1315
Delta R.T. -0.00 min
Lab File: VL037992.D
Acq: 9 Nov 2021 23:26

Tgt Ion: 117 Resp: 7046
Ion Ratio Lower Upper
117 100
119 58.6 76.6 114.8#
121 10.9 25.1 37.7#





#36

Benzene

Concen: 0.062 ppbv

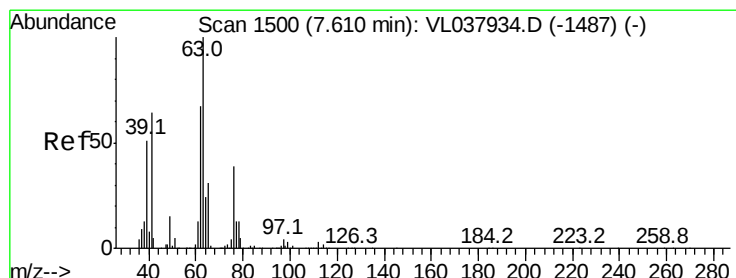
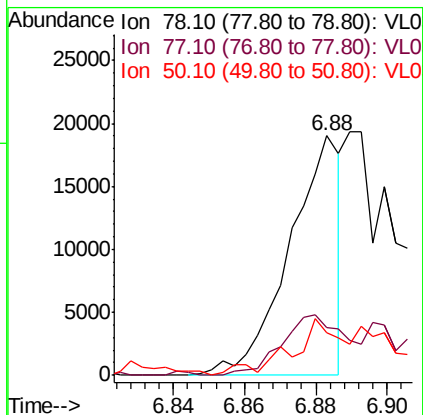
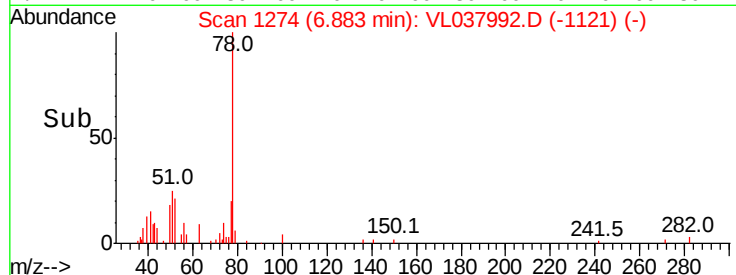
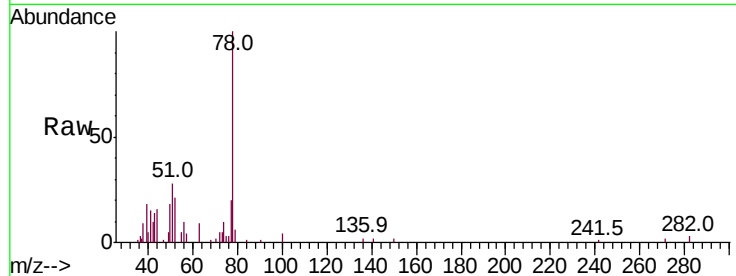
RT: 6.88 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 9 Nov 2021 23:26

Tot Ion:	78	Resp:	18817
Ion	Ratio	Lower	Upper
78	100		
77	18.7	17.9	26.9
50	15.7	14.4	21.6



#39

1,2-Dichloropropane

Concen: 7.557 ppbv

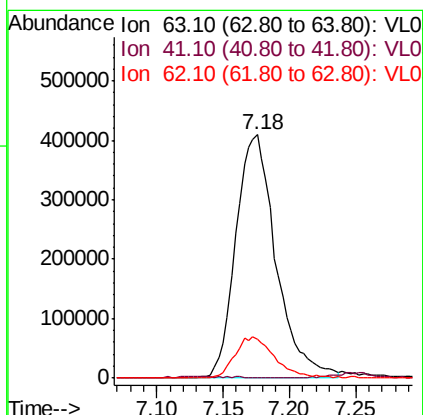
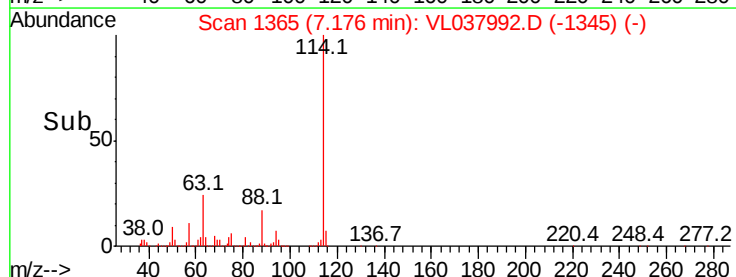
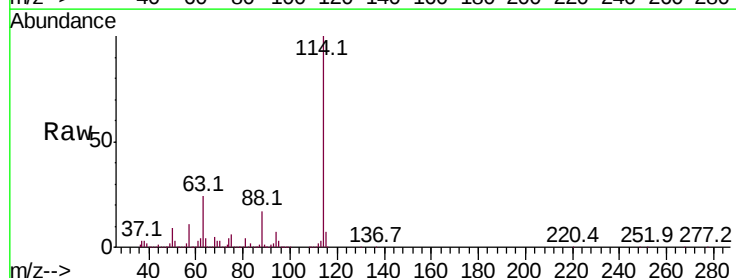
RT: 7.18 min Scan# 1365

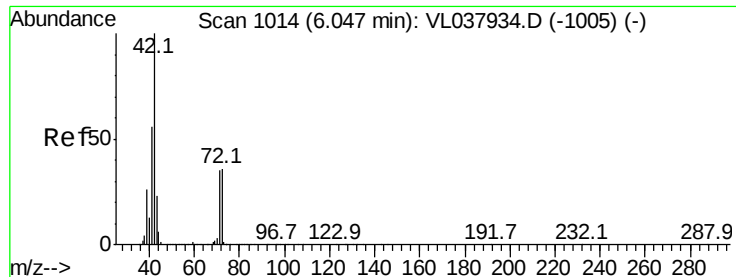
Delta R.T. -0.43 min

Lab File: VL037992.D

Acq: 9 Nov 2021 23:26

Tgt Ion:	63	Resp:	865101
Ion	Ratio	Lower	Upper
63	100		
41	0.0	51.6	77.4#
62	15.8	53.5	80.3#





#41

Tetrahydrofuran

Concen: 0.085 ppbv

RT: 5.74 Instrument:

Delta R.T. MSVOA_1

Lab File:

Acq: 9 Nov 2021 23:26

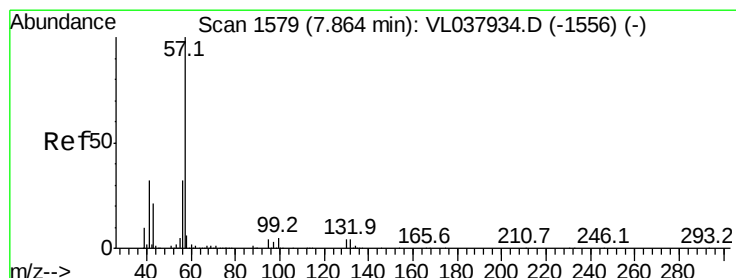
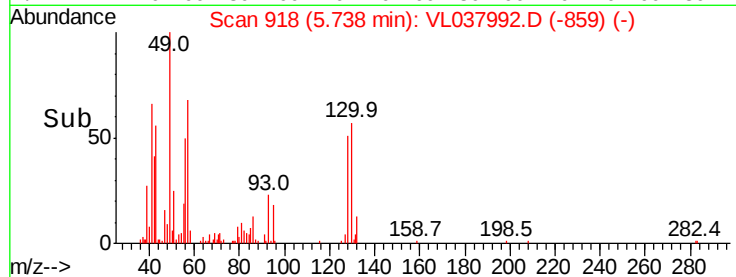
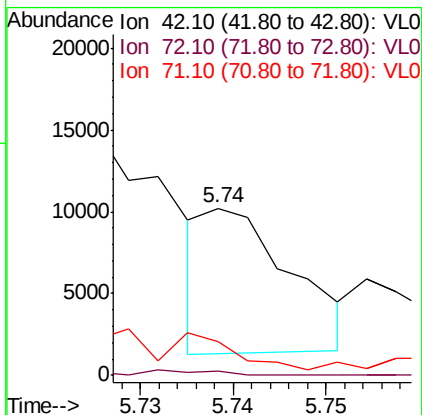
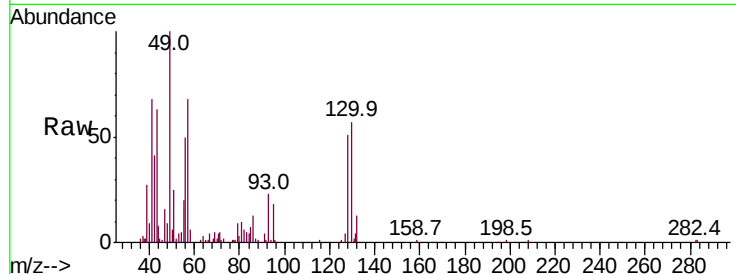
Tot Ion: 42 Resp: 5741

Ion Ratio Lower Upper

42 100

72 0.0 31.5 47.3#

71 0.0 30.5 45.7#



#44

2,2,4-Trimethylpentane

Concen: 0.030 ppbv

RT: 7.86 min Scan# 1579

Delta R.T. -0.00 min

Lab File: VL037992.D

Acq: 9 Nov 2021 23:26

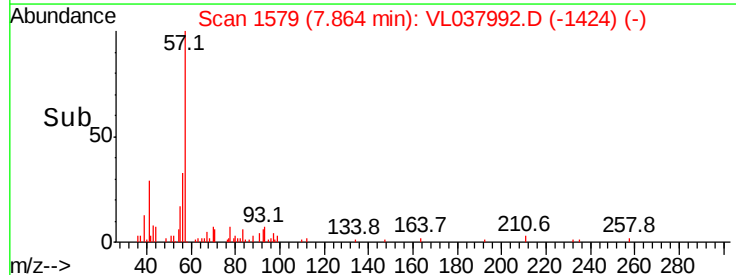
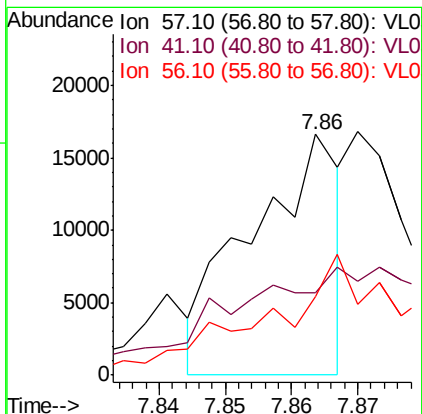
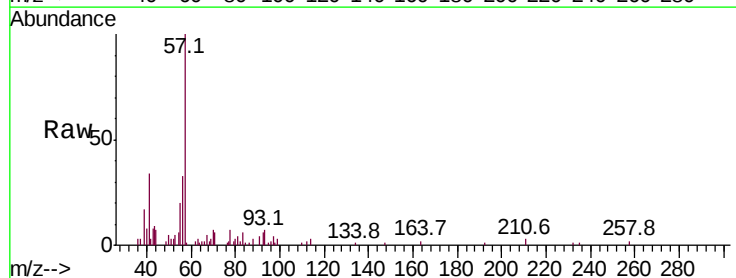
Tgt Ion: 57 Resp: 15540

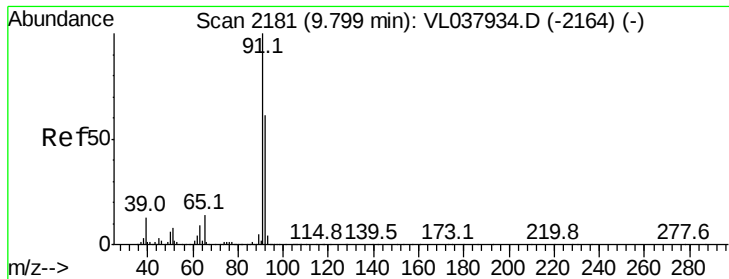
Ion Ratio Lower Upper

57 100

41 0.0 25.8 38.8#

56 0.0 25.9 38.9#





#53

Toluene

Concen: 0.484 ppbv

RT: 9.80 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

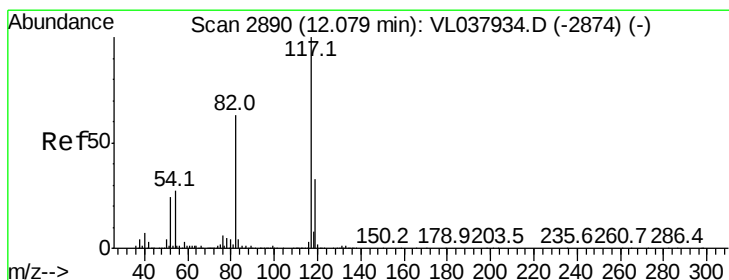
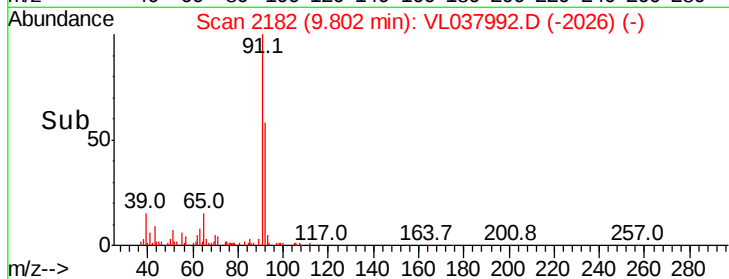
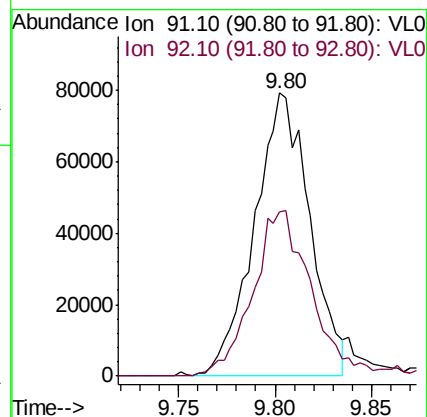
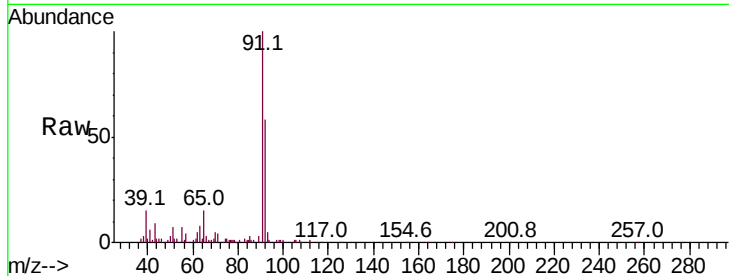
Acq: 9 Nov 2021 23:26

Tot Ion: 91 Resp: 157910

Ion Ratio Lower Upper

91 100

92 63.6 48.2 72.4



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2890

Delta R.T. -0.00 min

Lab File: VL037992.D

Acq: 9 Nov 2021 23:26

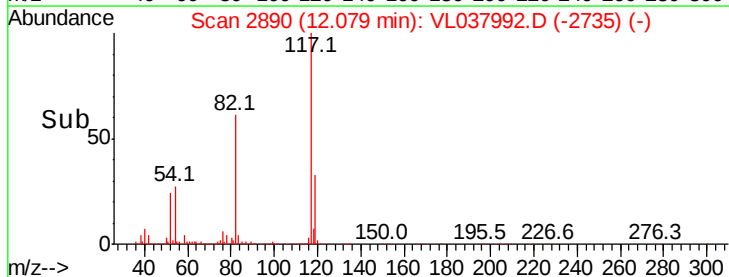
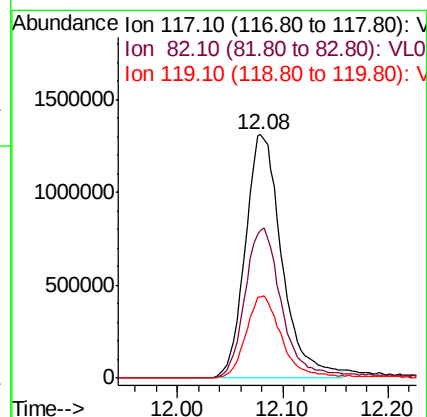
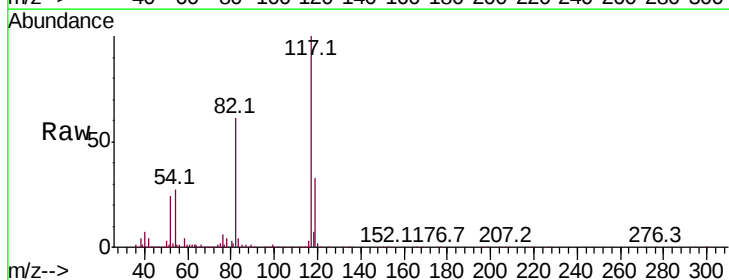
Tgt Ion: 117 Resp: 3175786

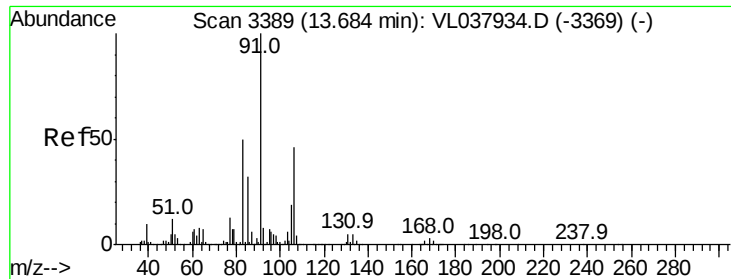
Ion Ratio Lower Upper

117 100

82 64.2 51.0 76.6

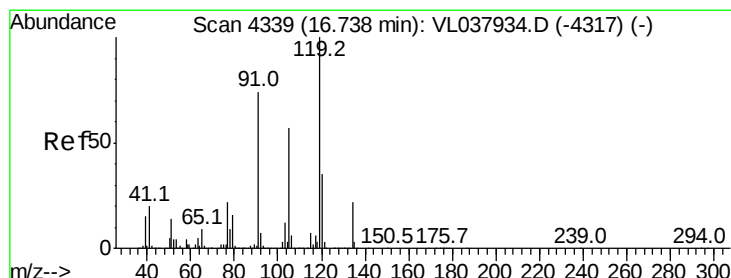
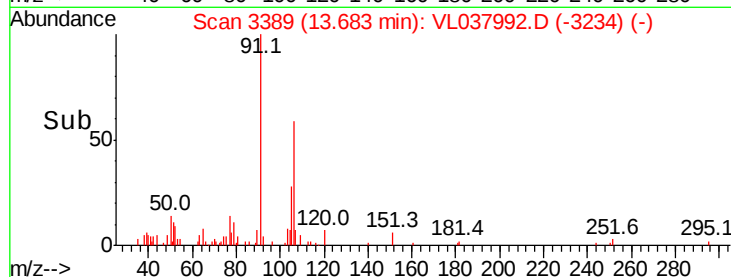
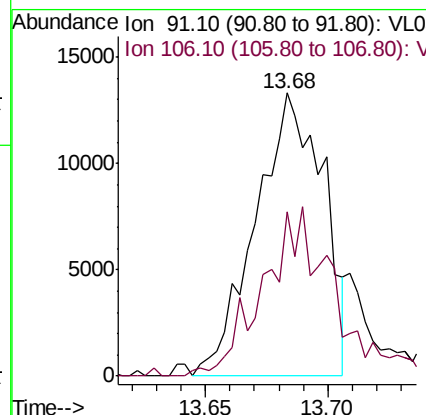
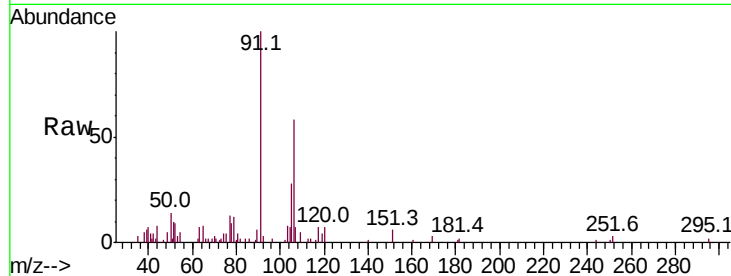
119 34.0 26.9 40.3





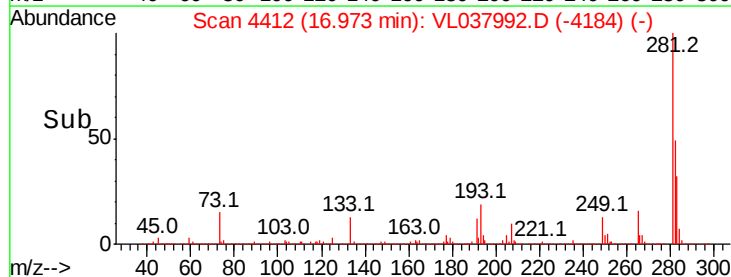
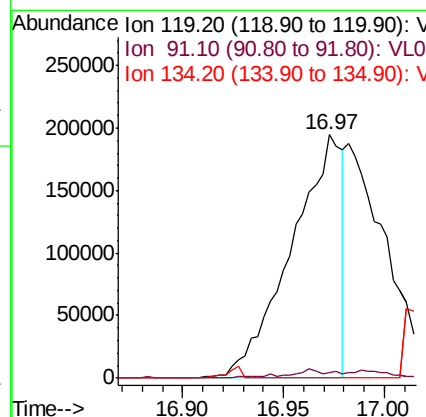
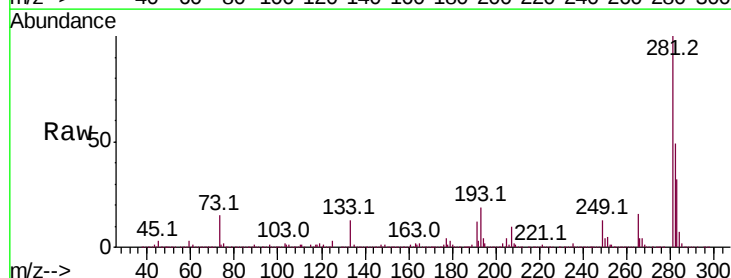
#60
o-Xylene
Concen: 0.079 ppbv
RT: 13.68 min
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 9 Nov 2021 23:26

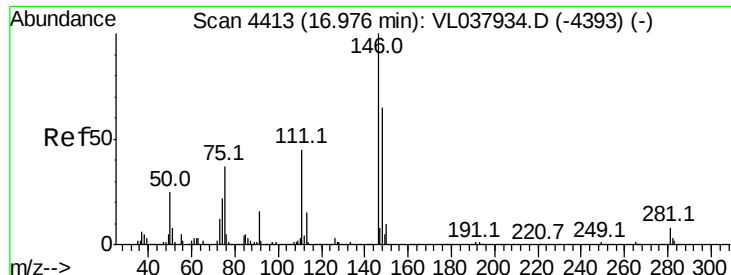
Tot Ion: 91 Resp: 25649
Ion Ratio Lower Upper
91 100
106 61.2 23.5 70.6



#65
tert-Butylbenzene
Concen: 0.836 ppbv
RT: 16.97 min Scan# 4412
Delta R.T. 0.23 min
Lab File: VL037992.D
Acq: 9 Nov 2021 23:26

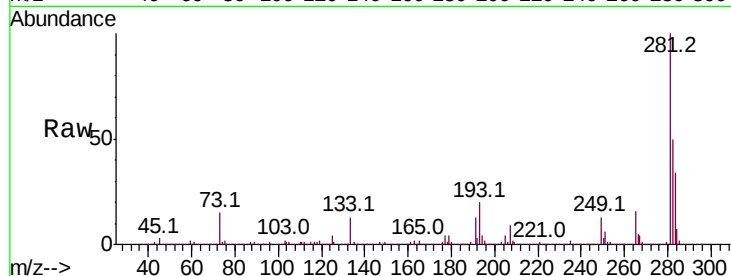
Tgt Ion: 119 Resp: 340414
Ion Ratio Lower Upper
119 100
91 5.5 61.8 92.6#
134 1.3 16.6 25.0#



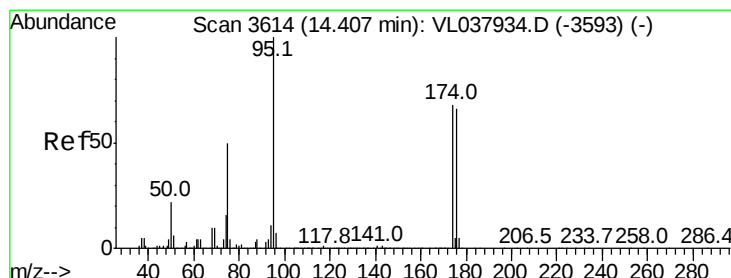
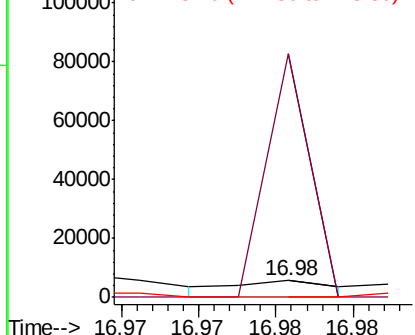
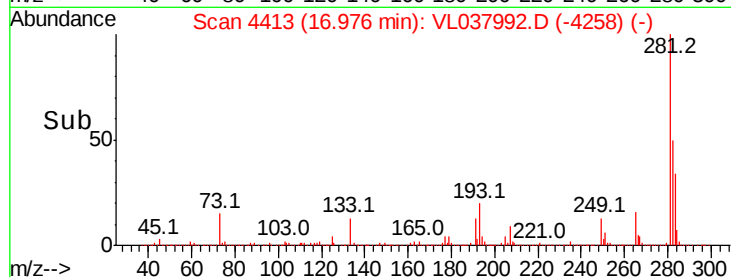


#66
Benzyl Chloride
Concen: 0.118 ppbv
RT: 16.98 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 23:26

Tot Ion	Ratio	Lower	Upper
91	100		
126	1172.8	13.8	20.6#
128	0.0	5.1	7.7#

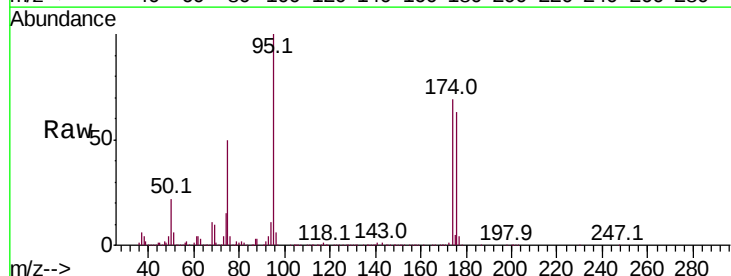


Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 126.10 (125.80 to 126.80): V
Ion 128.10 (127.80 to 128.80): V

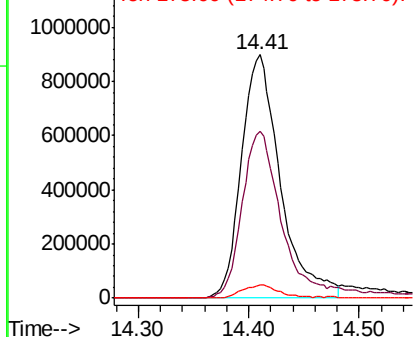
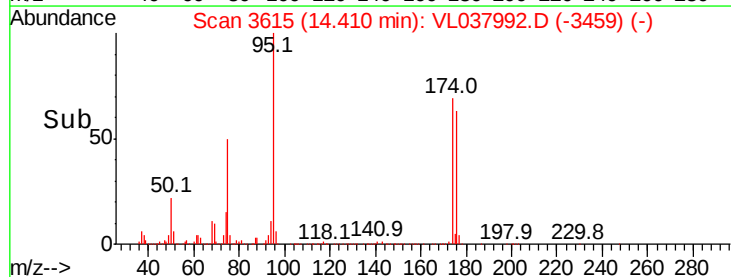


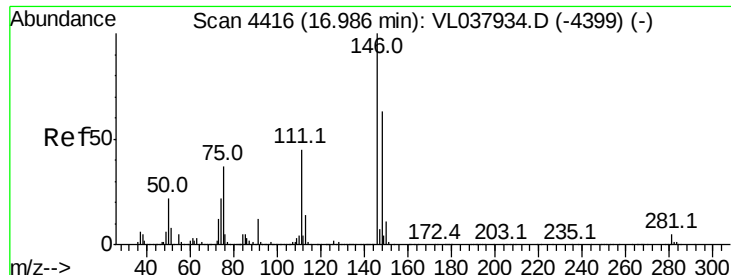
#68
1-Bromo-4-Fluorobenzene
Concen: 9.543 ppbv
RT: 14.41 min Scan# 3615
Delta R.T.: 0.00 min
Lab File: VL037992.D
Acq: 9 Nov 2021 23:26

Tgt Ion	Ratio	Lower	Upper
95	100		
174	74.3	58.3	87.5
175	5.7	4.6	6.8



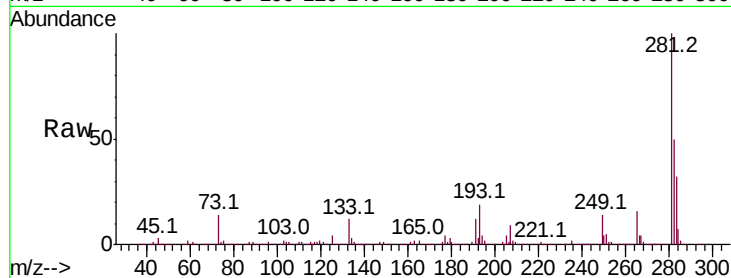
Abundance Ion 95.10 (94.80 to 95.80): VL0
Ion 174.00 (173.70 to 174.70): V
Ion 175.00 (174.70 to 175.70): V





#75
 1,3-Dichlorobenzene
 Concen: 0.051 ppbv
 RT: 16.99
 Delta R.T: MSVOA_1
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 23:28

Tot Ion:	146	Resp:	11561
Ion Ratio	Lower	Upper	
146	100		
111	0.0	22.7	68.1#
148	0.0	32.4	97.0#



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

