

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL110921\
 Data File : VL037986.D
 Acq On : 9 Nov 2021 19:28
 Operator : SY/AP
 Sample : M4555-03
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :

Quant Time: Nov 10 04:48:44 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	5.66	49	1280716	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3650722	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3120465	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2183510	9.63	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	96.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.97	51	856913	3.594	ppbv #	66
4) Chloromethane	3.14	50	23763	0.262	ppbv	89
9) Propene	3.02	41	120936	1.415	ppbv	83
10) Heptane	8.12	43	6183	0.031	ppbv #	28
11) Trichlorofluoromethane	3.95	101	37318	0.208	ppbv	88
13) Ethanol	3.61	45	7446091	863.445	ppbv	92
15) Acetone	3.85	43	1892290	17.881	ppbv	95
16) 1,3-Butadiene	3.32	39	5637	0.068	ppbv #	1
19) Isopropyl Alcohol	3.97	45	367191	5.426	ppbv #	96
20) Methylene Chloride	4.34	84	849628	14.624	ppbv	91
23) Vinyl Acetate	5.06	43	59678	0.375	ppbv #	52
25) Ethyl Acetate	5.68	43	719641	2.289	ppbv #	84
26) Hexane	5.69	57	789672	5.302	ppbv #	52
29) Chloroform	5.75	83	592274	2.667	ppbv	98
34) 2-Butanone	5.25	43	79526	0.588	ppbv	94
35) Carbon Tetrachloride	7.01	117	9700	0.044	ppbv #	76
36) Benzene	6.89	78	62922	0.212	ppbv #	92
37) 1,2-Dichloroethane	6.30	62	24814	0.176	ppbv	96
39) 1,2-Dichloropropane	7.17	63	848080	7.581	ppbv #	28
41) Tetrahydrofuran	5.68	42	326222	4.929	ppbv #	49
44) 2,2,4-Trimethylpentane	7.87	57	102901	0.203	ppbv #	72
53) Toluene	9.80	91	555947	1.744	ppbv	99
58) Ethyl Benzene	12.70	91	77993	0.204	ppbv	92
59) m/p-Xylene	12.97	91	104053	0.307	ppbv #	30
60) o-Xylene	13.68	91	54006	0.169	ppbv #	35
61) Styrene	13.51	104	8010	0.055	ppbv #	1
66) Benzyl Chloride	16.97	91	1039	0.050	ppbv #	1
74) 1,2,4-Trimethylbenzene	16.75	105	23293	0.065	ppbv #	41

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

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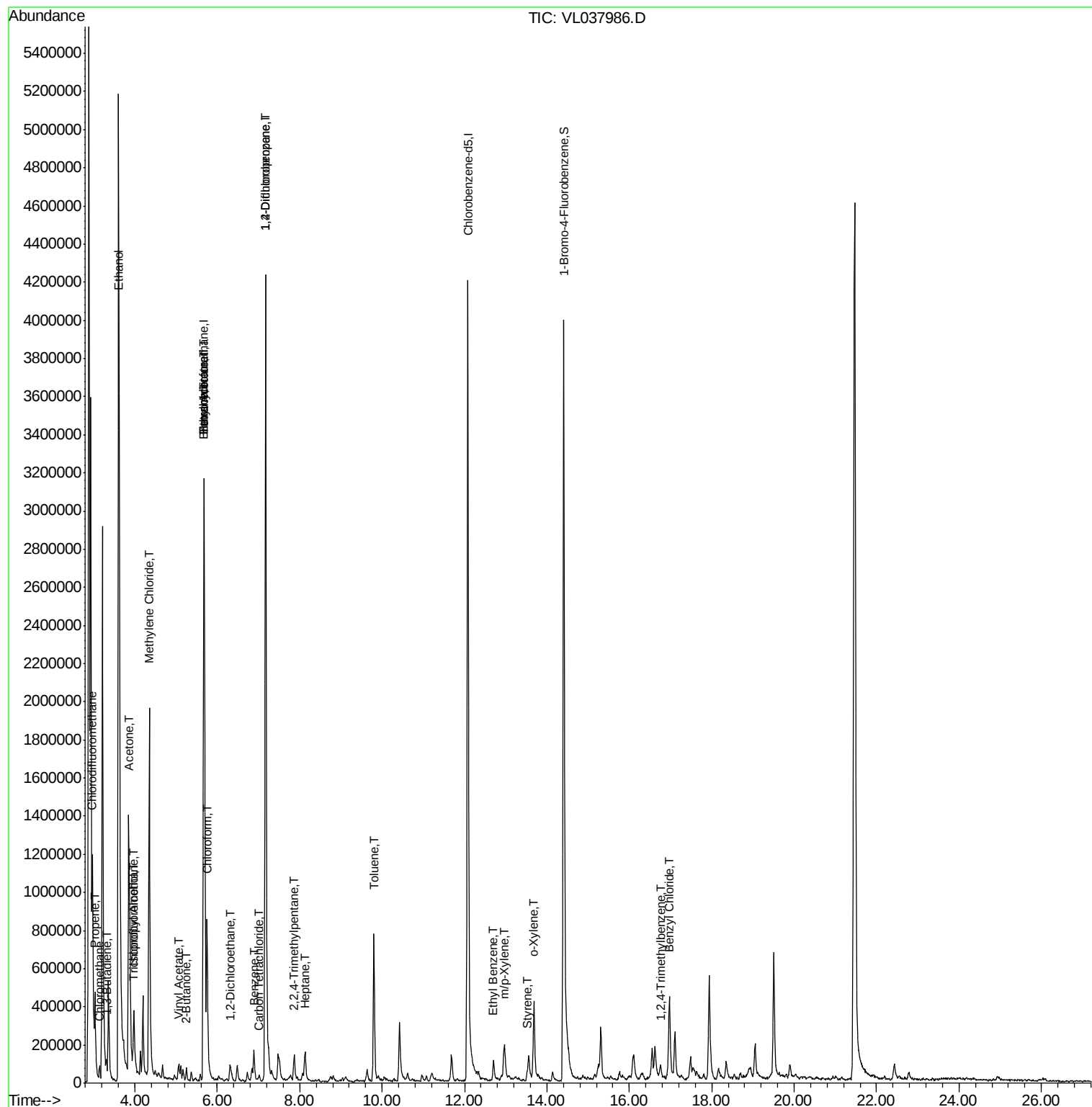
Quant Time: Nov 10 04:48:44 2021

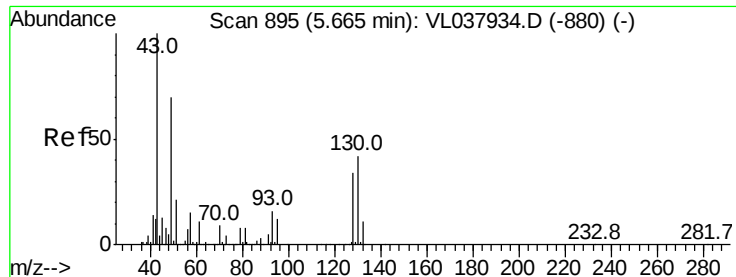
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL110121AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Nov 02 05:54:07 2021

QLast Update : Tue Nov 02 05:54:07 2021

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 9 Nov 2021 19:28

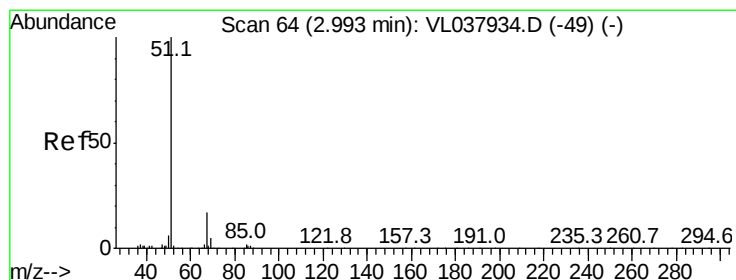
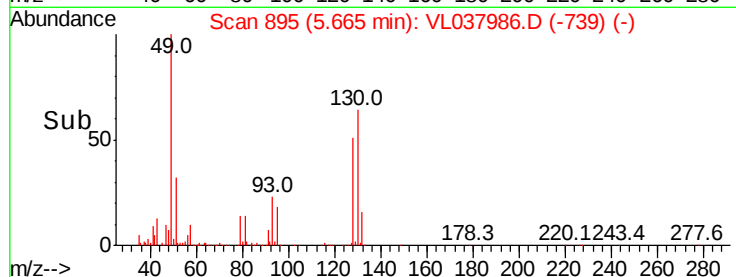
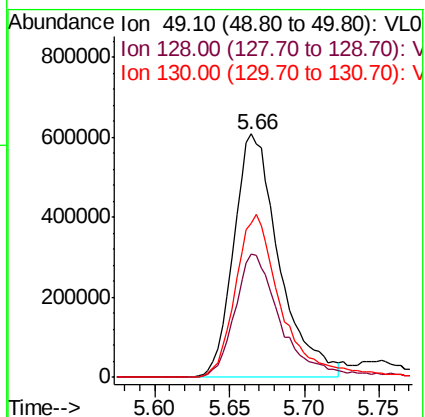
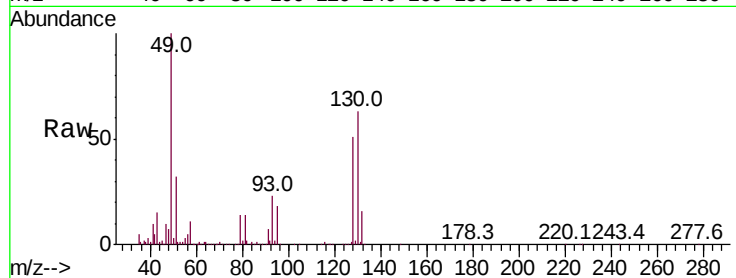
Tot Ion: 49 Resp: 1280716

Ion Ratio Lower Upper

49 100

128 52.7 27.0 81.0

130 69.4 33.4 100.2



#3

Chlorodifluoromethane

Concen: 3.594 ppbv

RT: 2.97 min Scan# 57

Delta R.T. -0.02 min

Lab File: VL037986.D

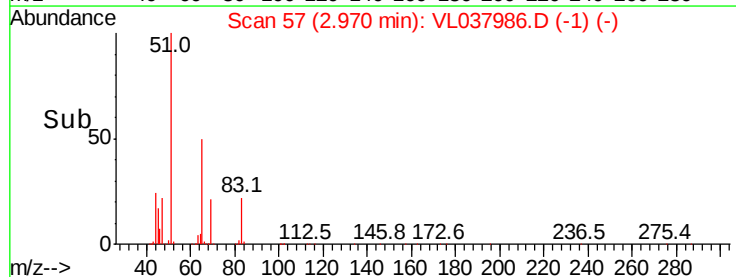
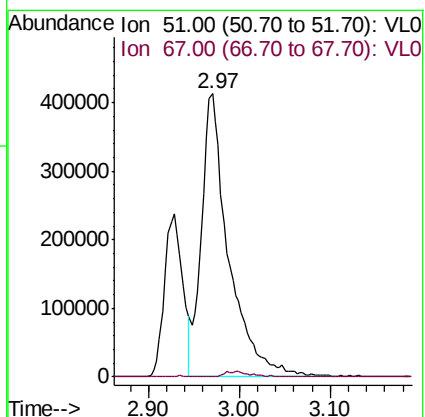
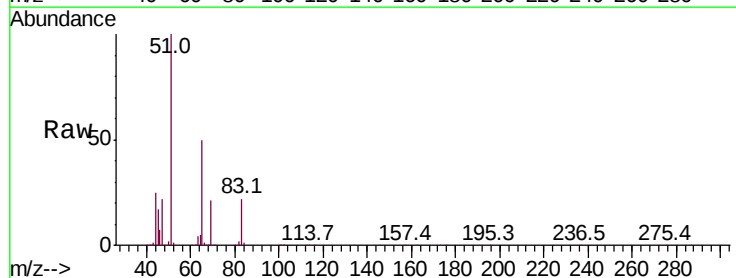
Acq: 9 Nov 2021 19:28

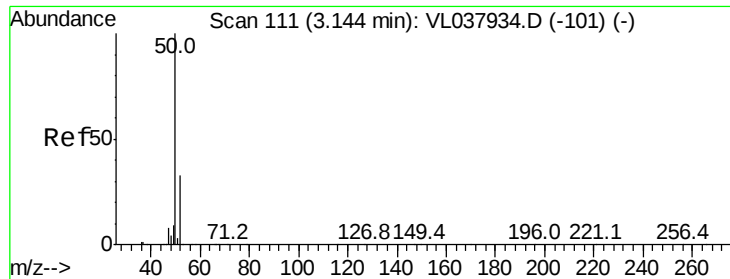
Tgt Ion: 51 Resp: 856913

Ion Ratio Lower Upper

51 100

67 2.0 13.4 20.0#





#4

Chloromethane

Concen: 0.262 ppbv

RT: 3.14 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

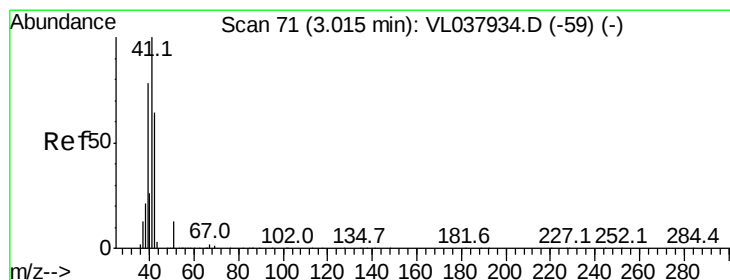
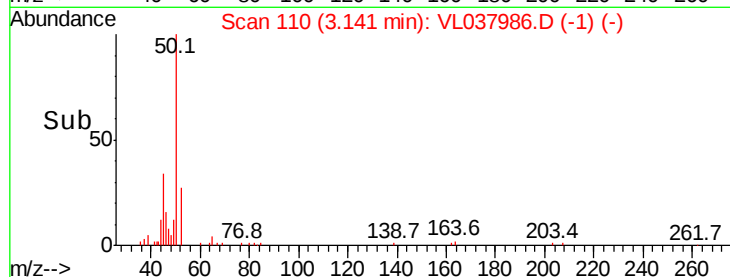
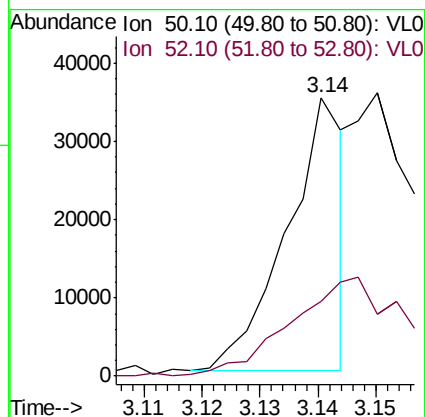
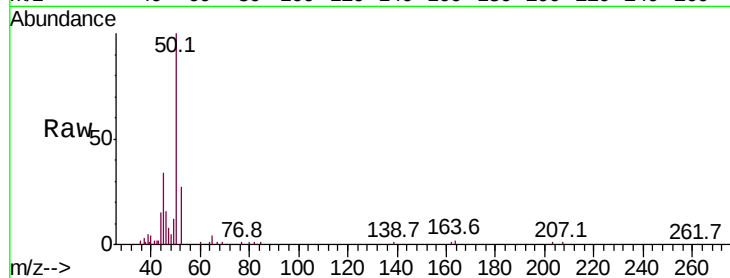
Acq: 9 Nov 2021 19:28

Tot Ion: 50 Resp: 23763

Ion Ratio Lower Upper

50 100

52 26.6 26.3 39.5



#9

Propene

Concen: 1.415 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL037986.D

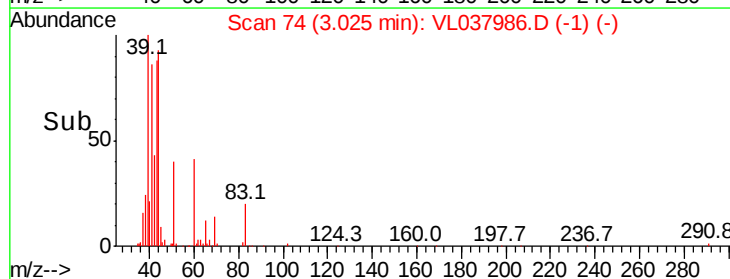
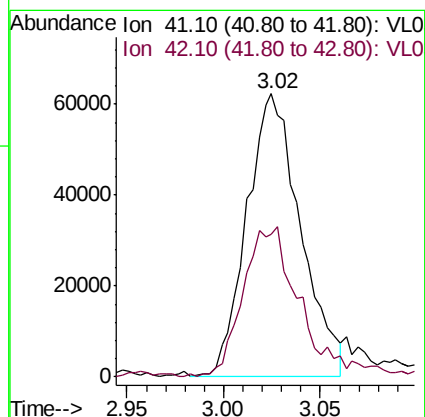
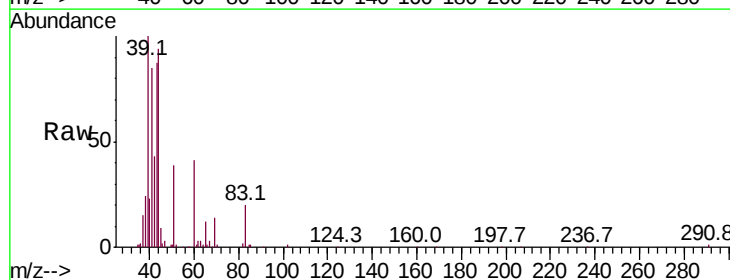
Acq: 9 Nov 2021 19:28

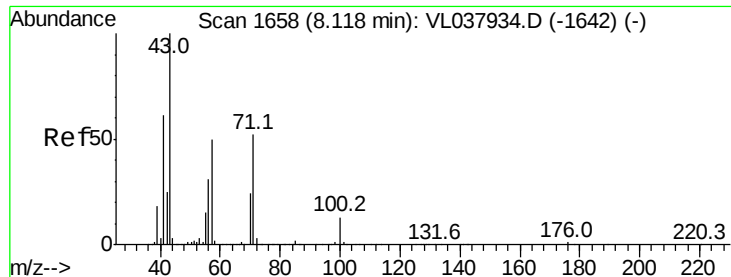
Tgt Ion: 41 Resp: 120936

Ion Ratio Lower Upper

41 100

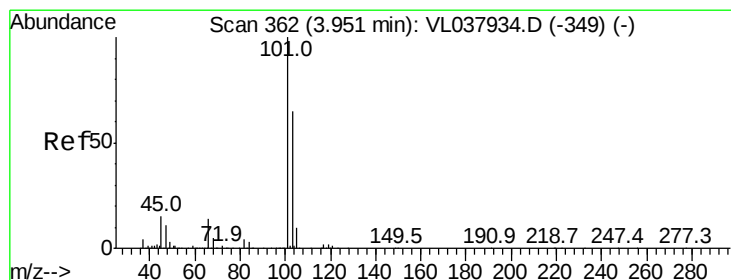
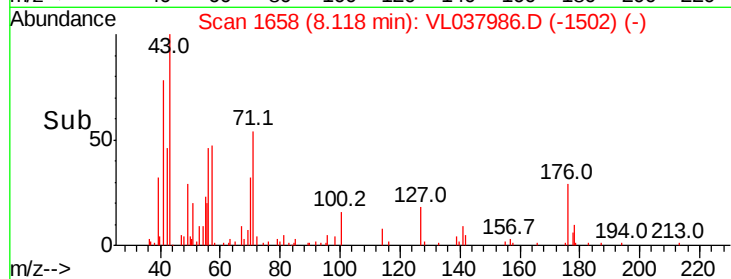
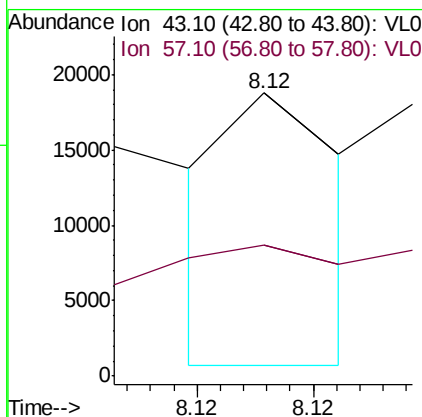
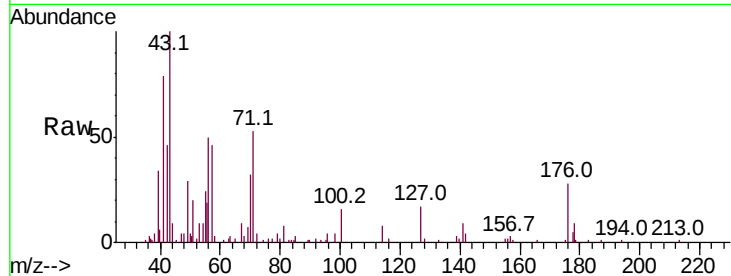
42 57.9 57.6 86.4





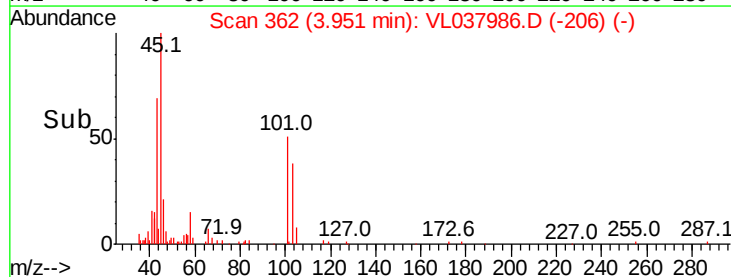
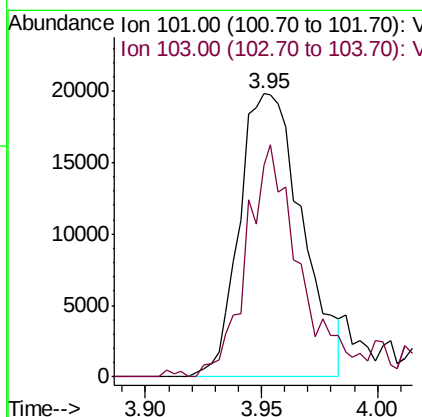
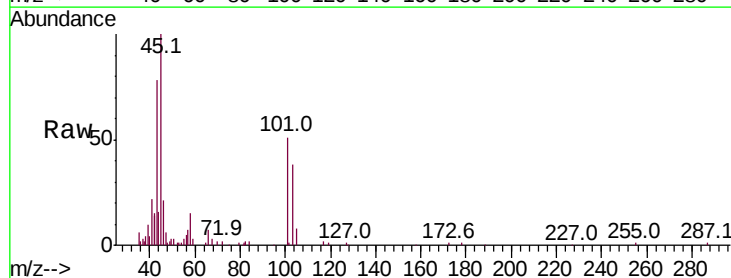
#10
 Heptane
 Concen: 0.031 ppbv
 RT: 8.12
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId:
 Acq: 9 Nov 2021 19:28

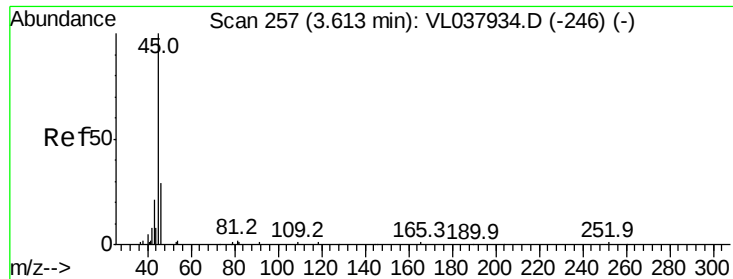
Tot Ion: 43 Resp: 6183
 Ion Ratio Lower Upper
 43 100
 57 0.0 39.8 59.8#



#11
 Trichlorofluoromethane
 Concen: 0.208 ppbv
 RT: 3.95 min Scan# 362
 Delta R.T.: 0.00 min
 Lab File: VL037986.D
 Acq: 9 Nov 2021 19:28

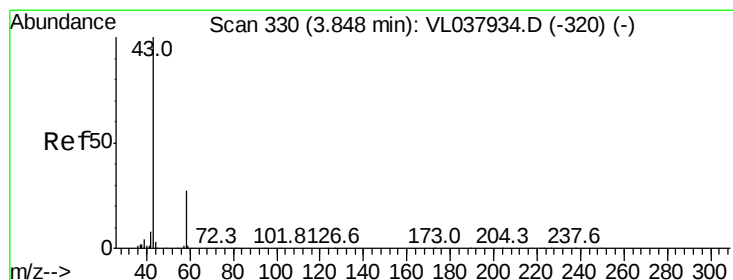
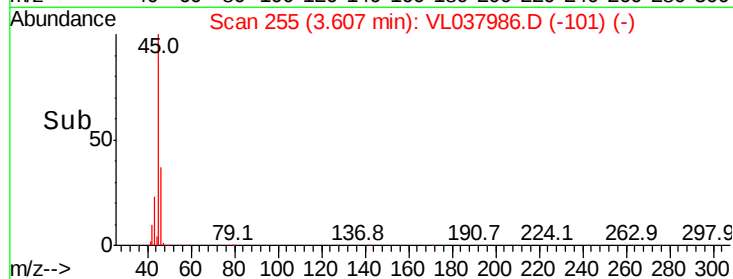
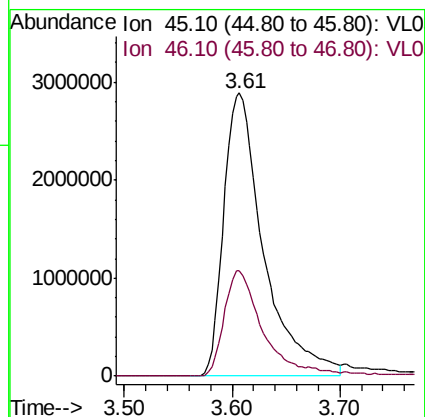
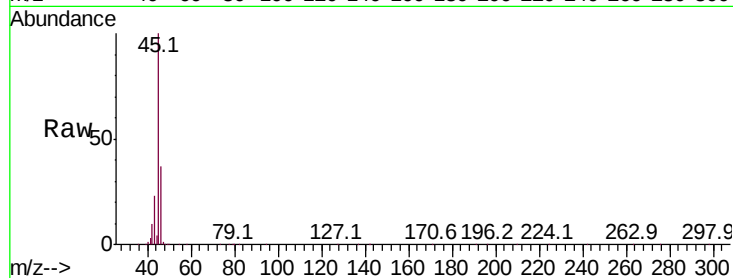
Tgt Ion: 101 Resp: 37318
 Ion Ratio Lower Upper
 101 100
 103 74.6 52.0 78.0





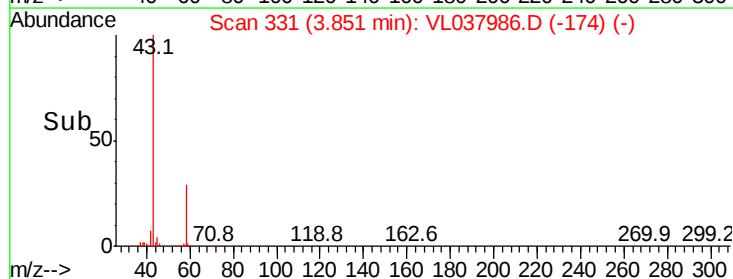
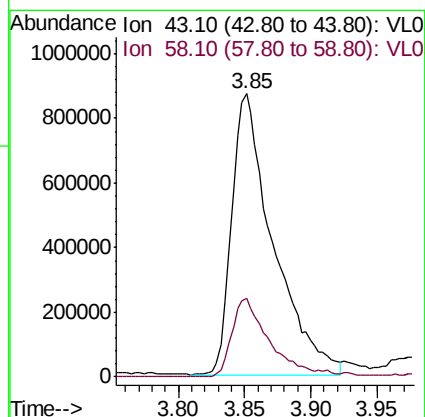
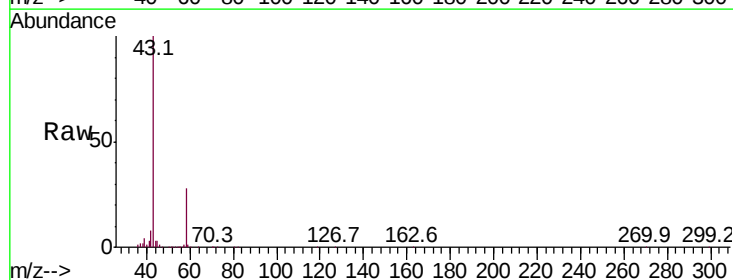
#13
 Ethanol
 Concen: 863.445 ppbv
 RT: 3.61
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 19:28

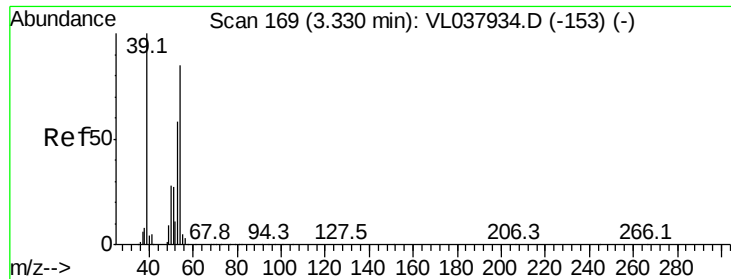
Tot Ion: 45 Resp: 7446091
 Ion Ratio Lower Upper
 45 100
 46 38.2 17.4 69.8



#15
 Acetone
 Concen: 17.881 ppbv
 RT: 3.85 min Scan# 331
 Delta R.T. 0.00 min
 Lab File: VL037986.D
 Acq: 9 Nov 2021 19:28

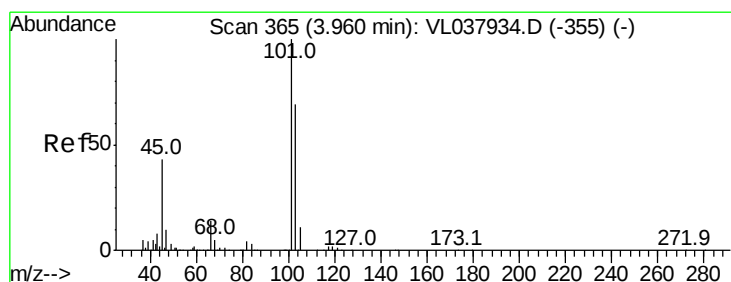
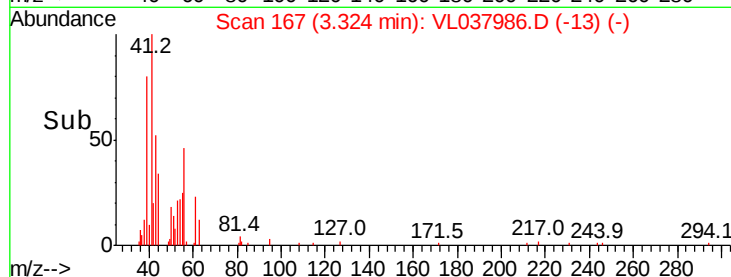
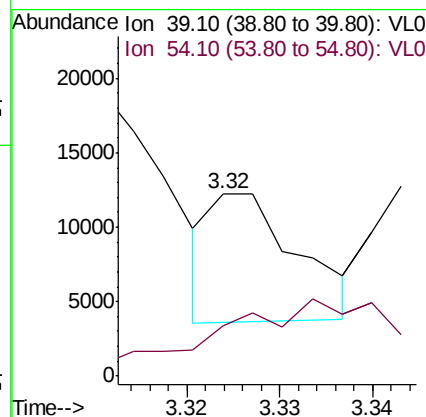
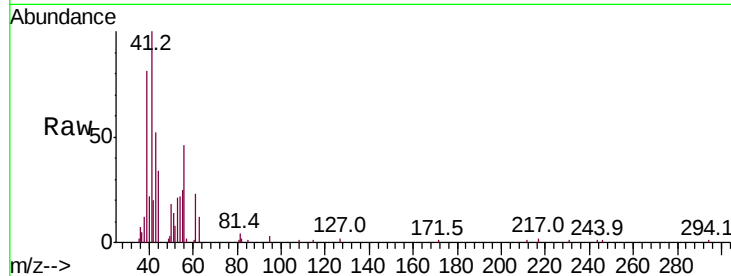
Tgt Ion: 43 Resp: 1892290
 Ion Ratio Lower Upper
 43 100
 58 26.4 23.3 34.9





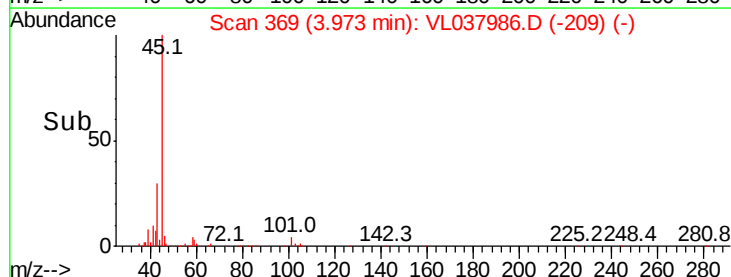
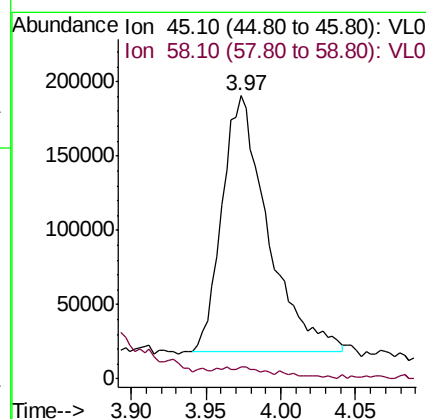
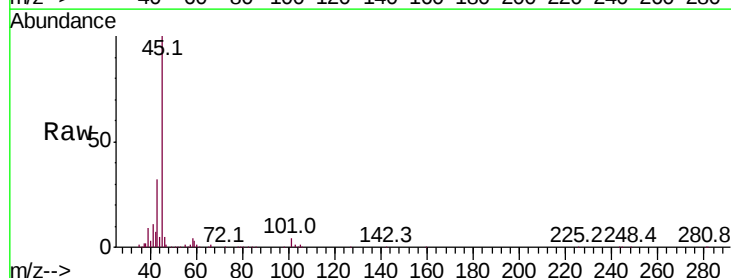
#16
 1,3-Butadiene
 Concen: 0.068 ppbv
 RT: 3.32
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 19:28

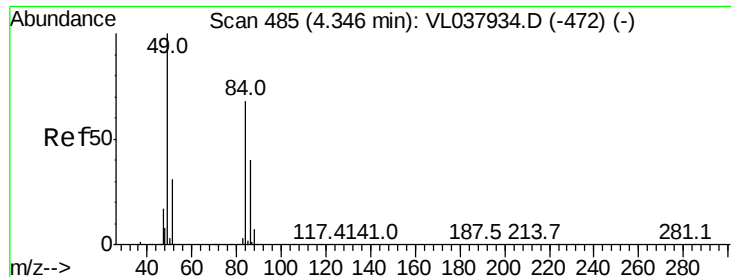
Tot Ion: 39 Resp: 5637
 Ion Ratio Lower Upper
 39 100
 54 193.9 62.6 93.8#



#19
 Isopropyl Alcohol
 Concen: 5.426 ppbv
 RT: 3.97 min Scan# 369
 Delta R.T. 0.01 min
 Lab File: VL037986.D
 Acq: 9 Nov 2021 19:28

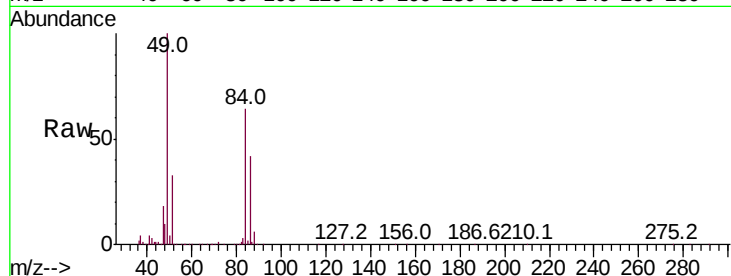
Tgt Ion: 45 Resp: 367191
 Ion Ratio Lower Upper
 45 100
 58 6.3 4.0 6.0#



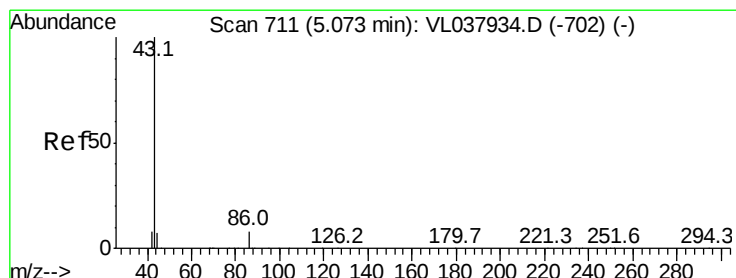
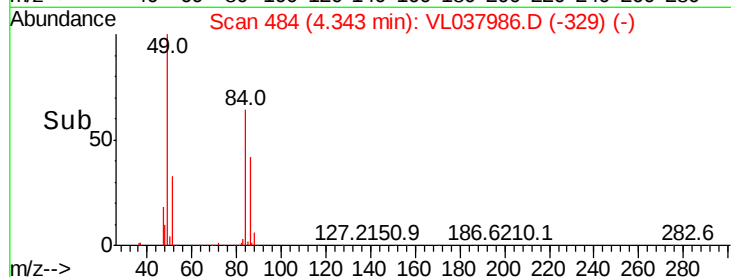
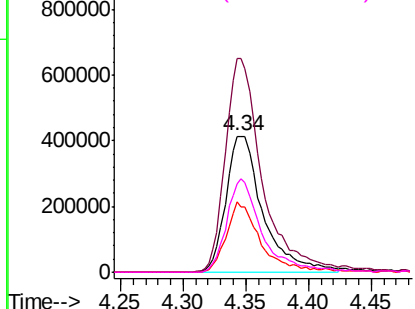


#20
Methvlene Chloride
Concen: 14.624 ppbv
RT: 4.34
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 19:28

Tot Ion:	84	Resp:	849628
Ion	Ratio	Lower	Upper
84	100		
49	157.2	117.5	176.3
51	51.5	35.9	53.9
86	65.3	47.3	70.9

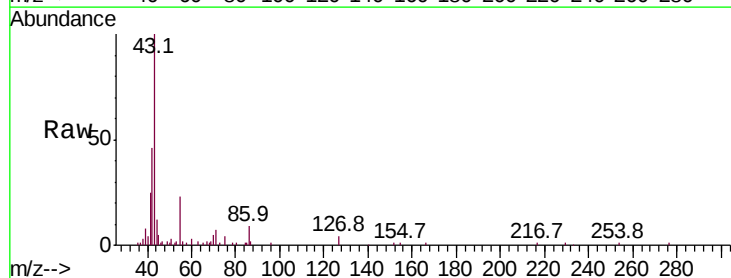


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

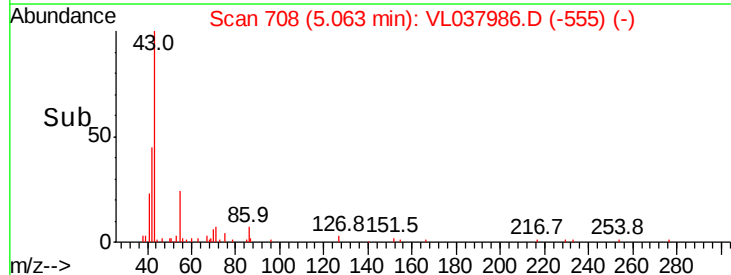
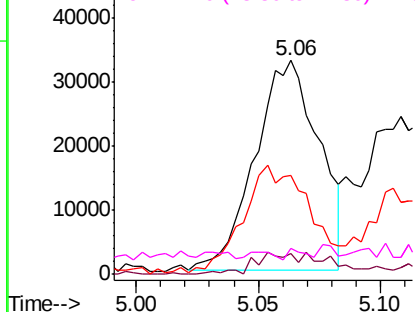


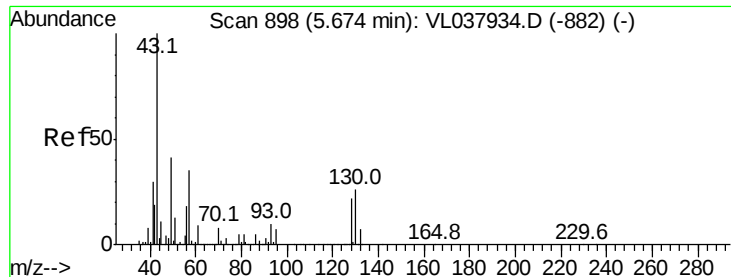
#23
Vinyl Acetate
Concen: 0.375 ppbv
RT: 5.06 min Scan# 708
Delta R.T. -0.01 min
Lab File: VL037986.D
Acq: 9 Nov 2021 19:28

Tgt Ion:	43	Resp:	59678
Ion	Ratio	Lower	Upper
43	100		
86	9.5	5.5	8.3#
42	46.8	7.4	11.2#
44	3.2	4.7	7.1#



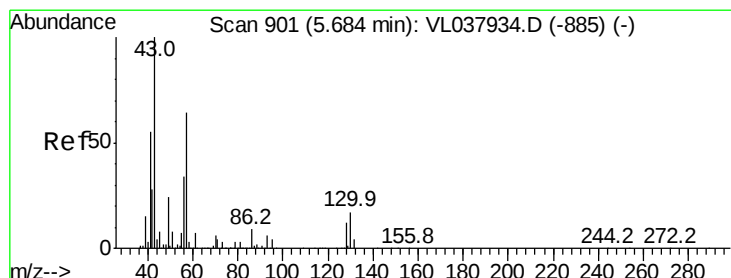
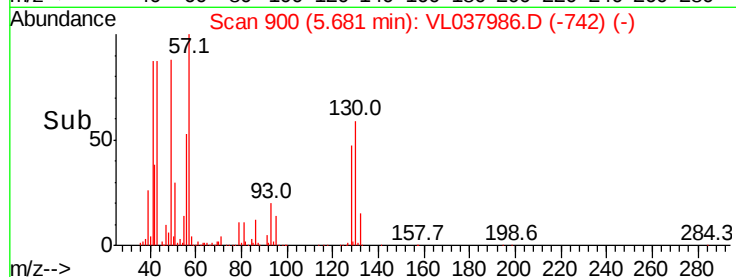
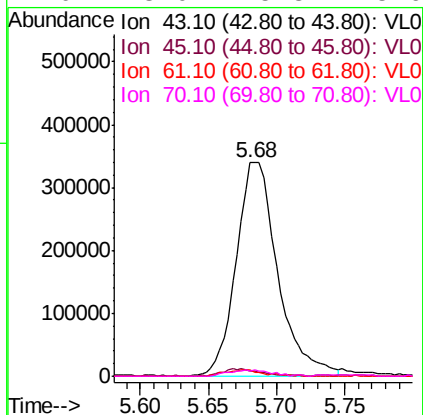
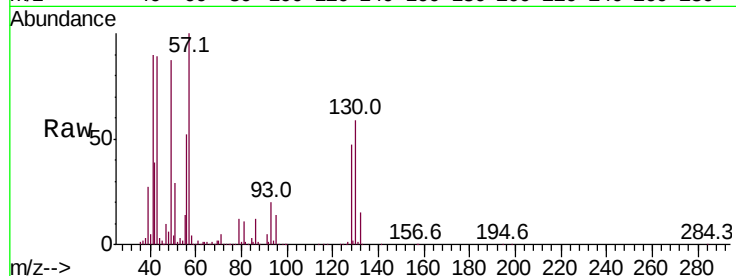
Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 86.10 (85.80 to 86.80): VL0
Ion 42.10 (41.80 to 42.80): VL0
Ion 44.10 (43.80 to 44.80): VL0





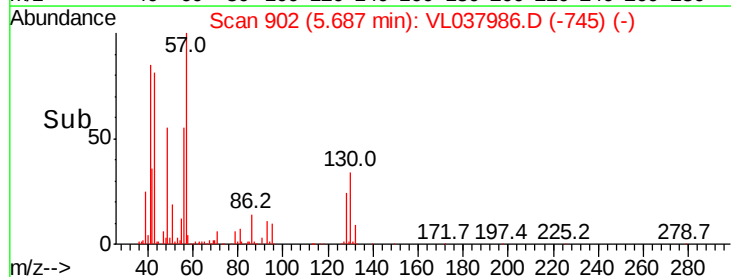
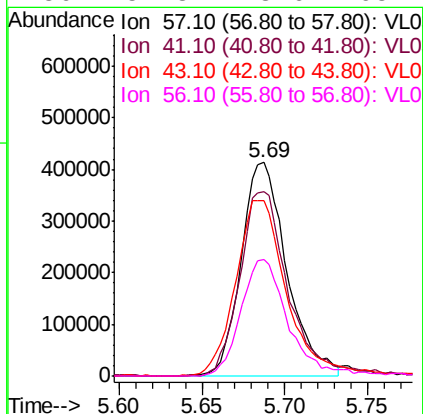
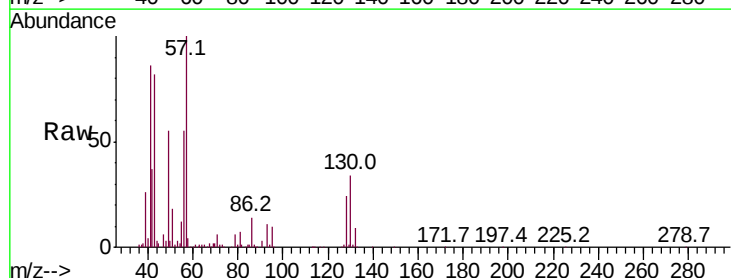
#25
Ethyl Acetate
Concen: 2.289 ppbv
RT: 5.68 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 19:28

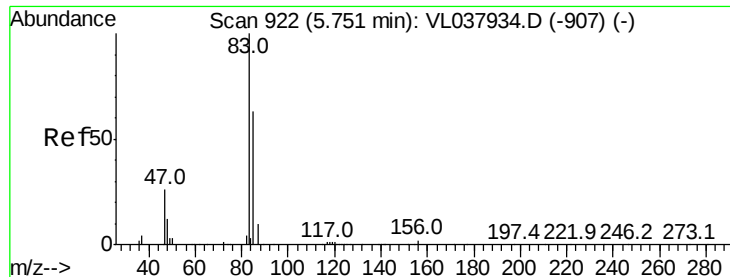
Tot Ion:	43	Resp:	719641
Ion	Ratio	Lower	Upper
43	100		
45	4.2	8.1	12.1#
61	2.9	8.1	12.1#
70	3.0	5.8	8.6#



#26
Hexane
Concen: 5.302 ppbv
RT: 5.69 min Scan# 902
Delta R.T.: 0.00 min
Lab File: VL037986.D
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Tgt Ion:	57	Resp:	789672
Ion	Ratio	Lower	Upper
57	100		
41	93.4	71.0	106.6
43	93.4	173.0	259.6#
56	57.8	43.6	65.4





#29

Chloroform

Concen: 2.667 ppbv

RT: 5.75 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

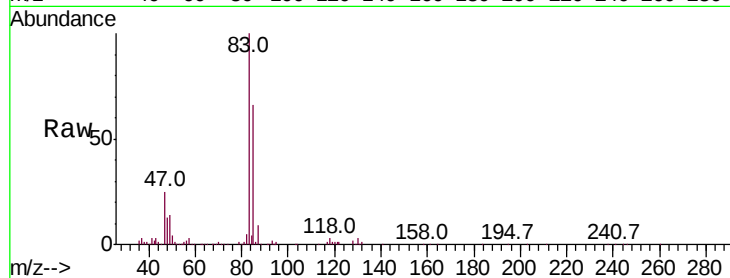
Acq: 9 Nov 2021 19:28

Tot Ion: 83 Resp: 592274

Ion Ratio Lower Upper

83 100

85 65.2 50.6 76.0



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0

300000

200000

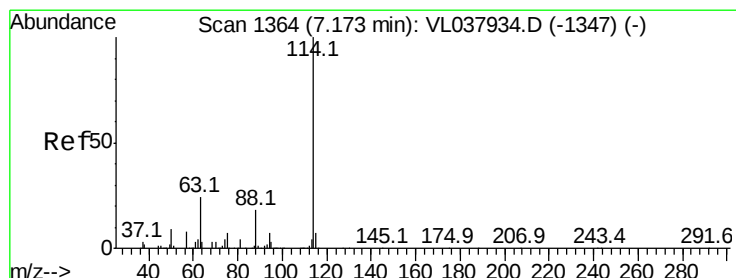
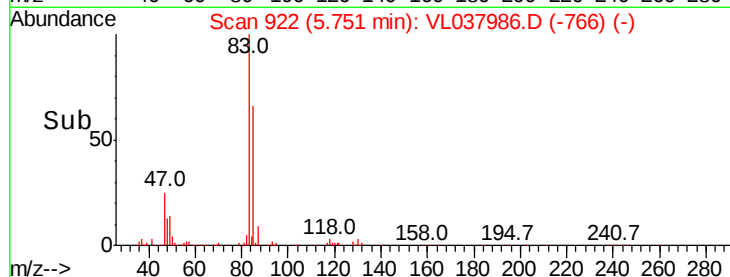
100000

0

5.75

5.70 5.75 5.80

Time-->



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.17 min Scan# 1364

Delta R.T. 0.00 min

Lab File: VL037986.D

Acq: 9 Nov 2021 19:28

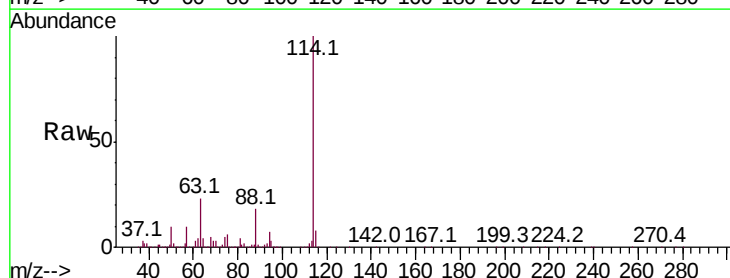
Tgt Ion: 114 Resp: 3650722

Ion Ratio Lower Upper

114 100

63 23.9 19.4 29.0

88 17.6 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

2000000

1500000

1000000

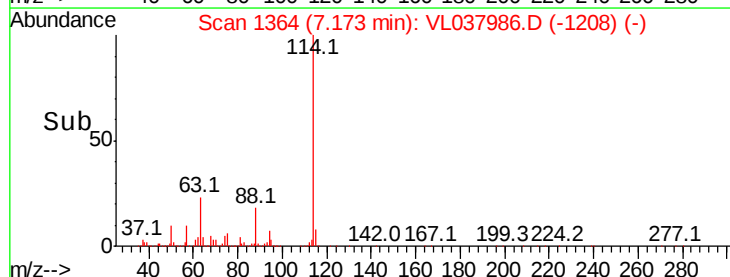
500000

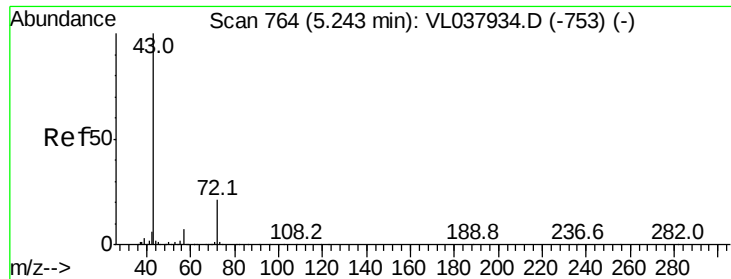
0

7.17

7.10 7.20 7.30

Time-->





#34

2-Butanone

Concen: 0.588 ppbv

RT: 5.25

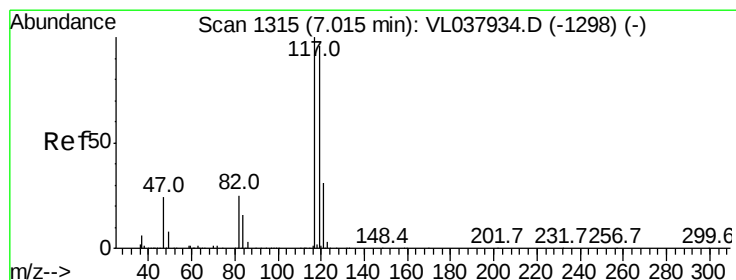
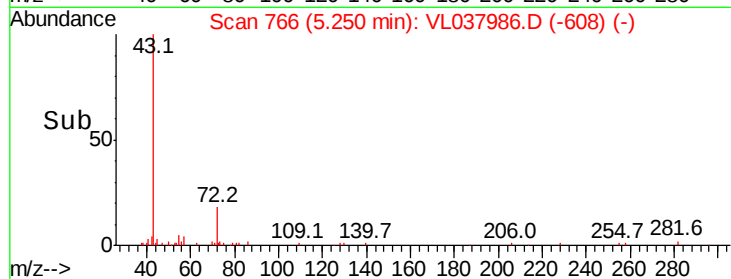
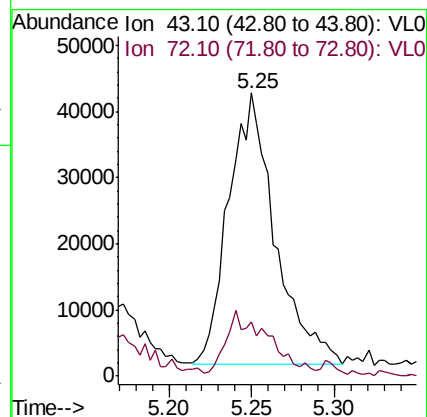
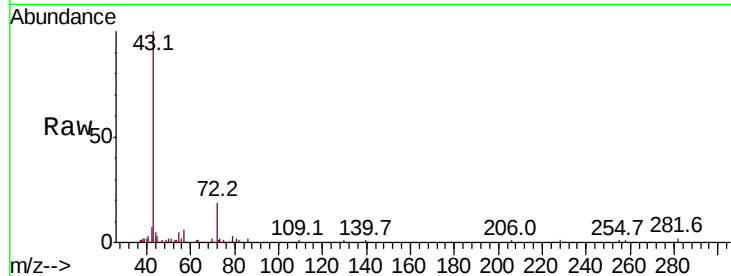
Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 9 Nov 2021 19:28

Tot Ion: 43 Resp: 79526

Ion	Ratio	Lower	Upper
43	100		
72	25.7	18.3	27.5



#35

Carbon Tetrachloride

Concen: 0.044 ppbv

RT: 7.01 min Scan# 1314

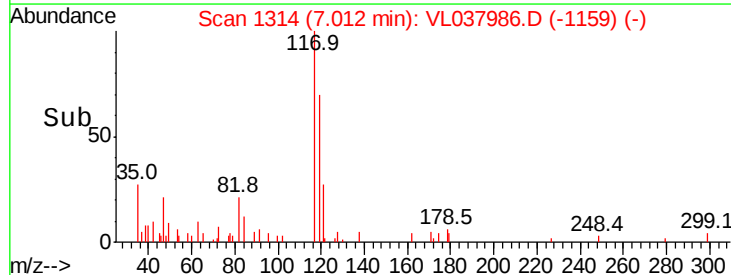
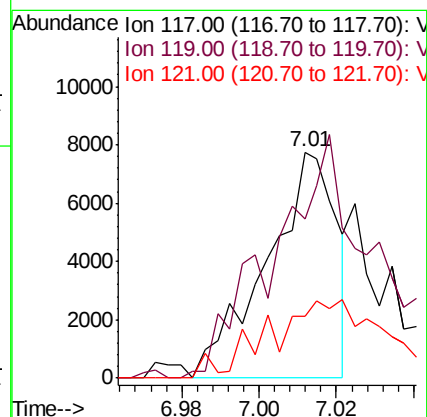
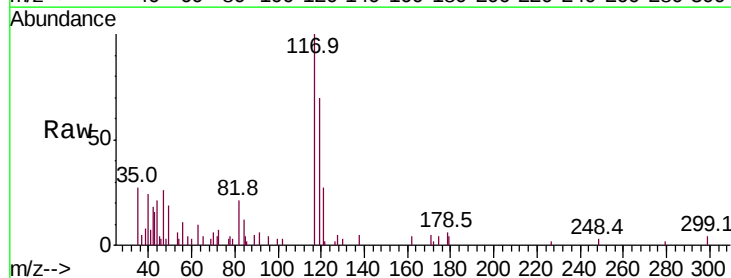
Delta R.T. -0.00 min

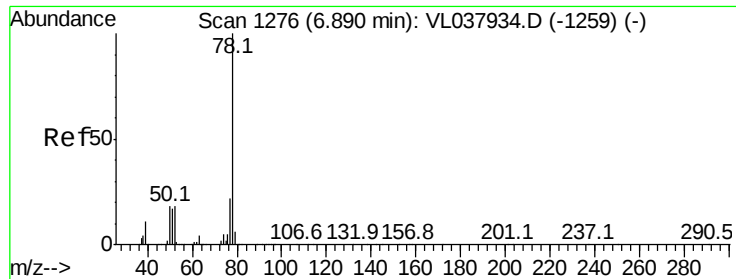
Lab File: VL037986.D

Acq: 9 Nov 2021 19:28

Tgt Ion: 117 Resp: 9700

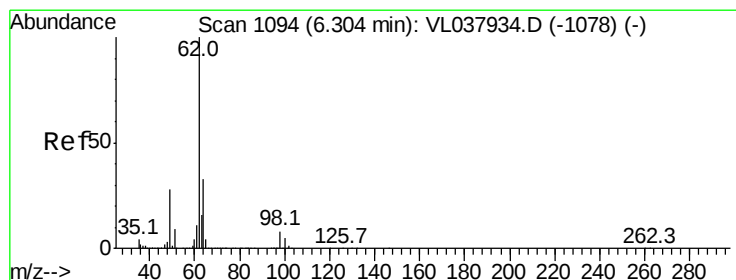
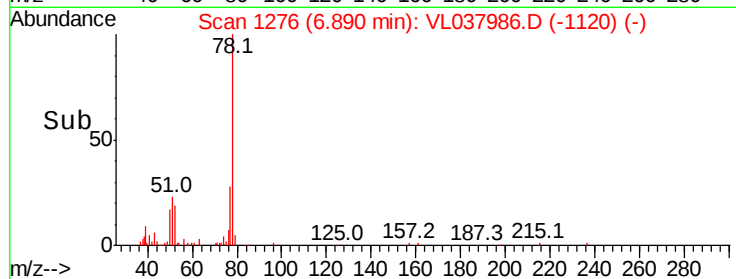
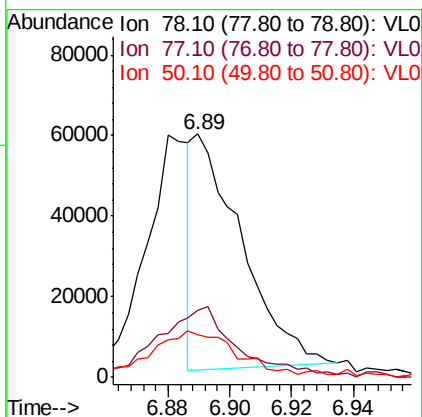
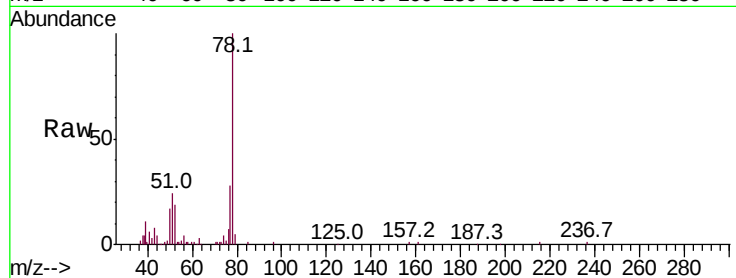
Ion	Ratio	Lower	Upper
117	100		
119	67.1	76.6	114.8#
121	27.3	25.1	37.7





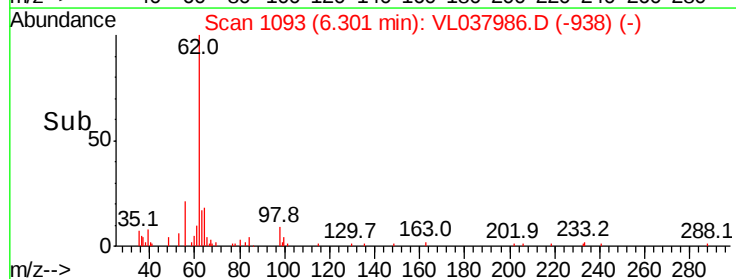
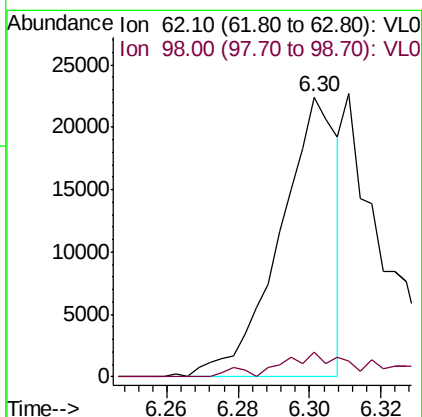
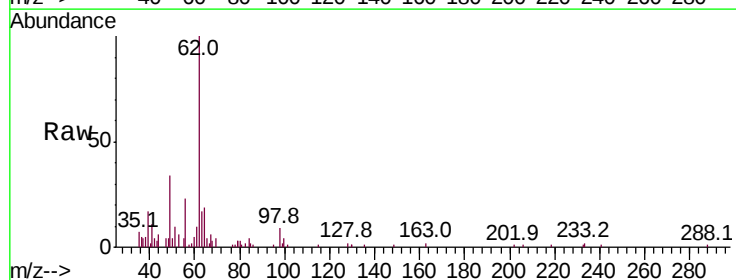
#36
Benzene
Concen: 0.212 ppbv
RT: 6.89 Instrument :
Delta R.T. MSVOA_1
Lab File: ClientSampleId :
Acq: 9 Nov 2021 19:28

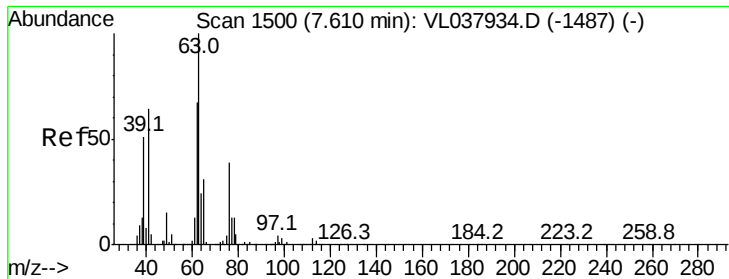
Tot Ion: 78 Resp: 62922
Ion Ratio Lower Upper
78 100
77 28.3 17.9 26.9#
50 17.1 14.4 21.6



#37
1,2-Dichloroethane
Concen: 0.176 ppbv
RT: 6.30 min Scan# 1093
Delta R.T. -0.00 min
Lab File: VL037986.D
Acq: 9 Nov 2021 19:28

Tgt Ion: 62 Resp: 24814
Ion Ratio Lower Upper
62 100
98 9.6 6.5 9.7





#39

1,2-Dichloropropane

Concen: 7.581 ppbv

RT: 7.17 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

Acq: 9 Nov 2021 19:28

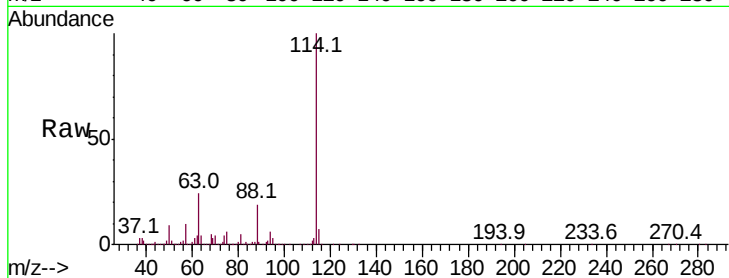
Tot Ion: 63 Resp: 848080

Ion Ratio Lower Upper

63 100

41 0.0 51.6 77.4#

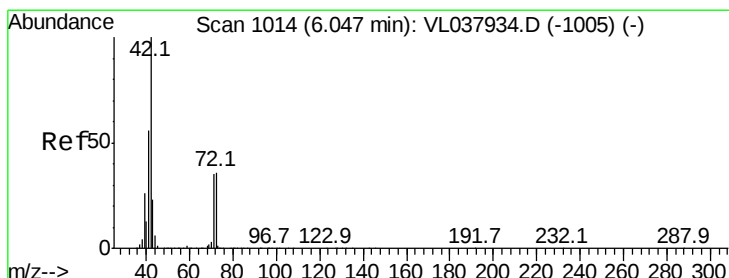
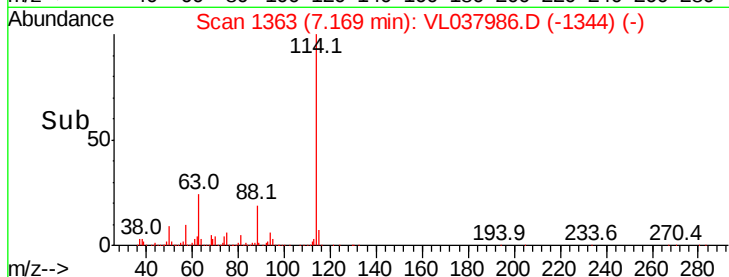
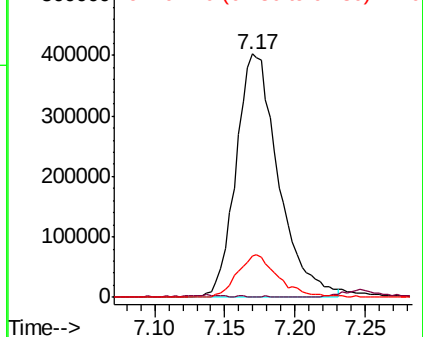
62 17.0 53.5 80.3#



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0



#41

Tetrahydrofuran

Concen: 4.929 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.36 min

Lab File: VL037986.D

Acq: 9 Nov 2021 19:28

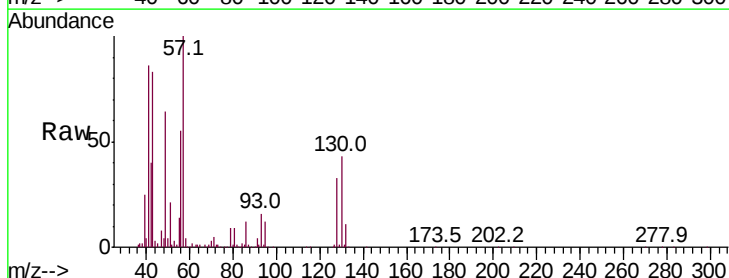
Tgt Ion: 42 Resp: 326222

Ion Ratio Lower Upper

42 100

72 1.3 31.5 47.3#

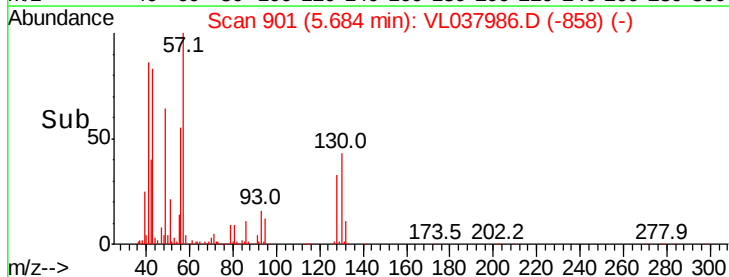
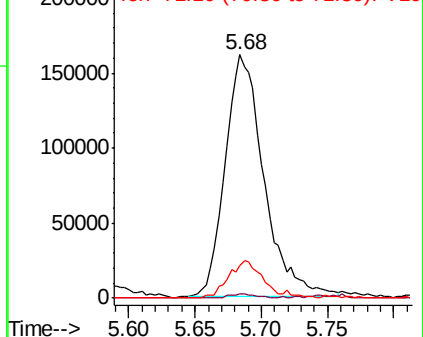
71 14.3 30.5 45.7#

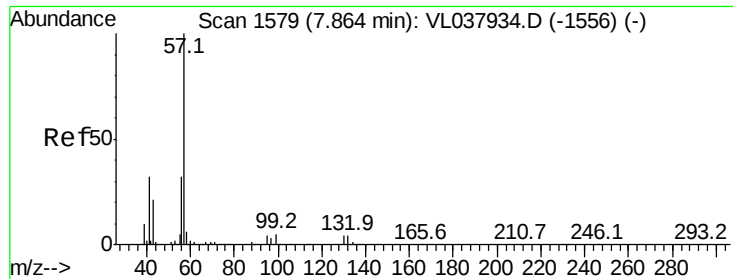


Abundance Ion 42.10 (41.80 to 42.80): VL0

Ion 72.10 (71.80 to 72.80): VL0

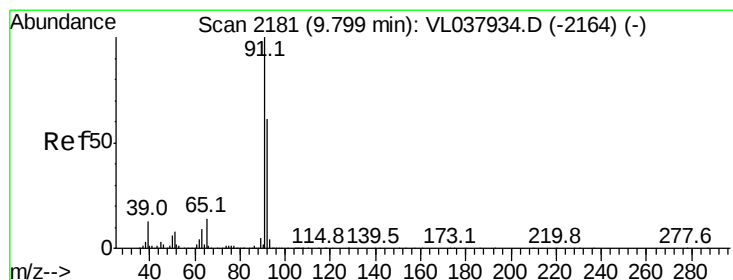
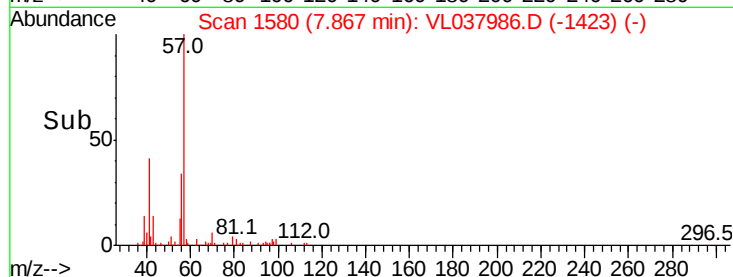
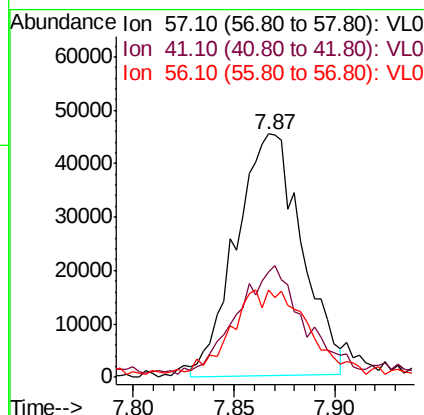
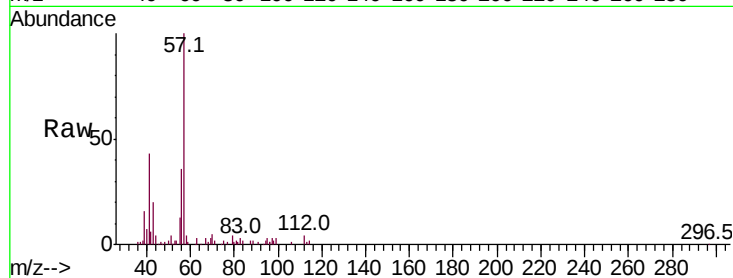
Ion 71.10 (70.80 to 71.80): VL0





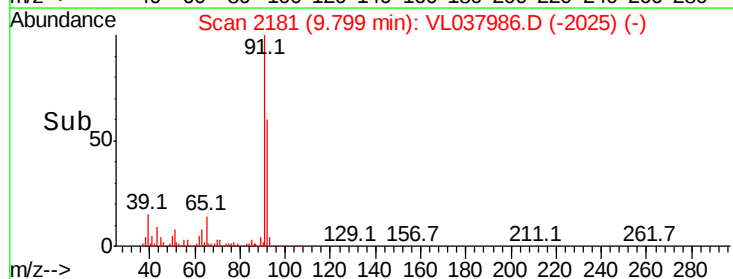
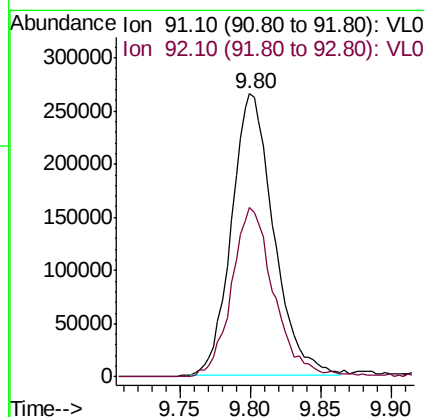
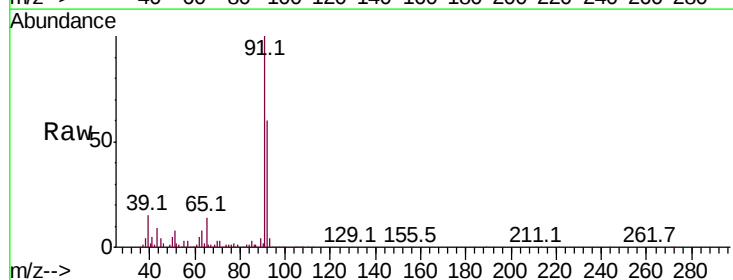
#44
 2,2,4-Trimethylpentane
 Concen: 0.203 ppbv
 RT: 7.87
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 9 Nov 2021 19:28

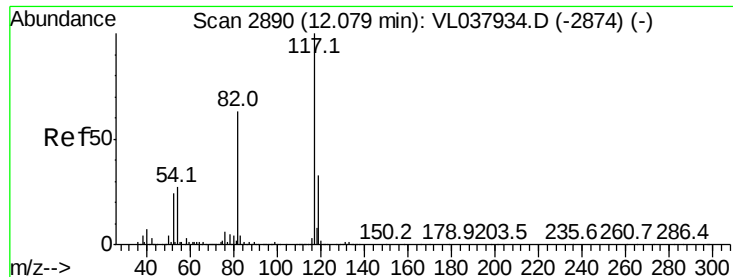
Tot Ion:	57	Resp:	102901
Ion	Ratio	Lower	Upper
57	100		
41	48.8	25.8	38.8#
56	46.8	25.9	38.9#



#53
 Toluene
 Concen: 1.744 ppbv
 RT: 9.80 min Scan# 2181
 Delta R.T. 0.00 min
 Lab File: VL037986.D
 Acq: 9 Nov 2021 19:28

Tgt Ion:	91	Resp:	555947
Ion	Ratio	Lower	Upper
91	100		
92	61.4	48.2	72.4

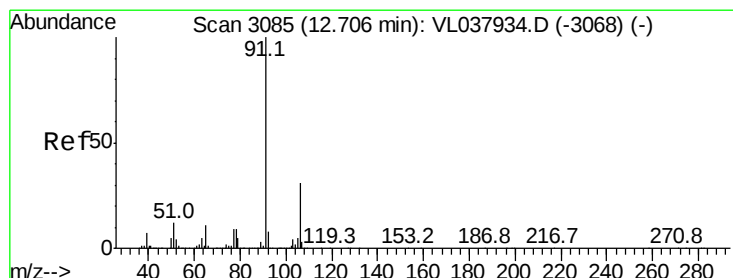
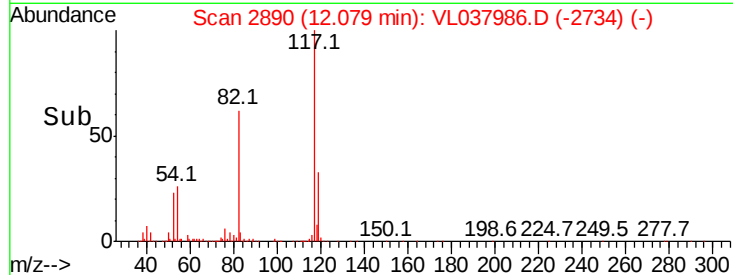
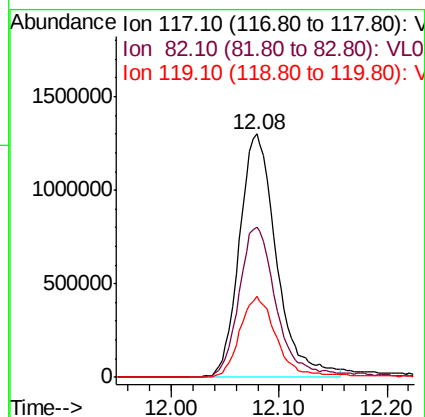
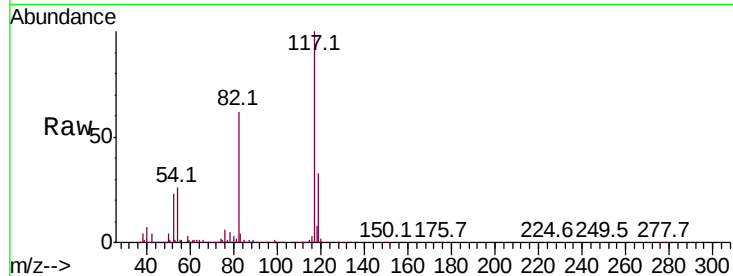




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId:
Acq: 9 Nov 2021 19:28

Tot Ion: 117 Resp: 3120465

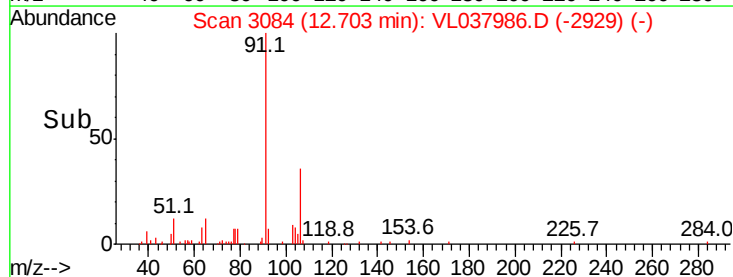
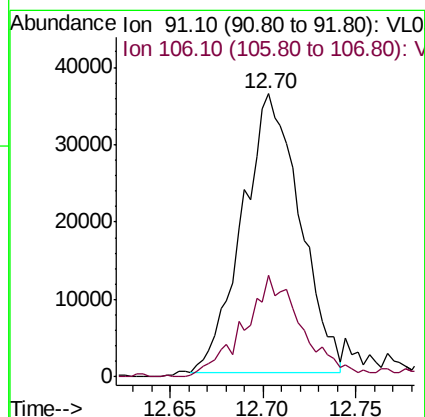
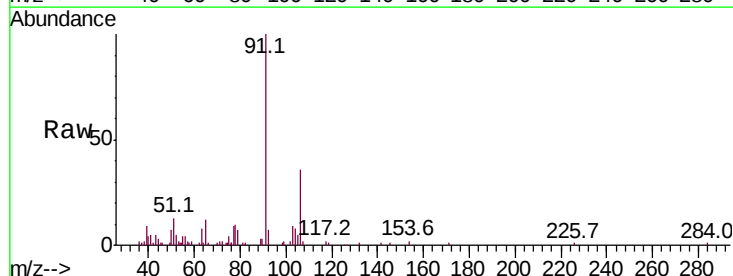
Ion	Ratio	Lower	Upper
117	100		
82	65.5	51.0	76.6
119	33.3	26.9	40.3

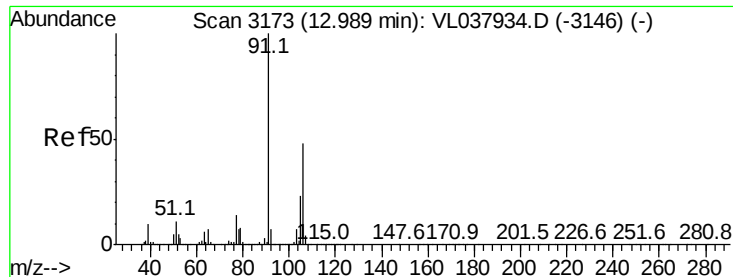


#58
Ethyl Benzene
Concen: 0.204 ppbv
RT: 12.70 min Scan# 3084
Delta R.T.: -0.00 min
Lab File: VL037986.D
Acq: 9 Nov 2021 19:28

Tgt Ion: 91 Resp: 77993

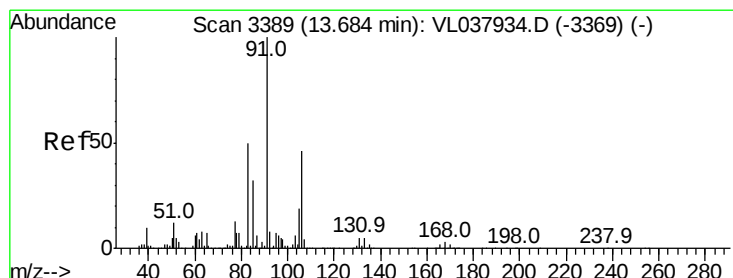
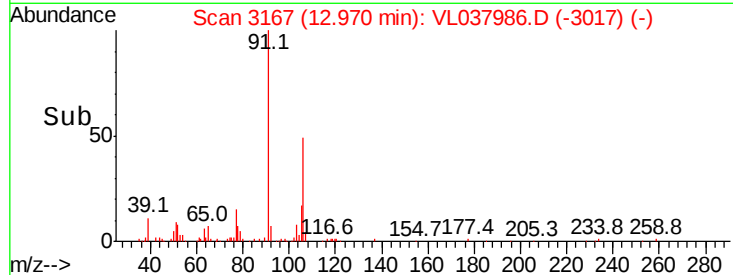
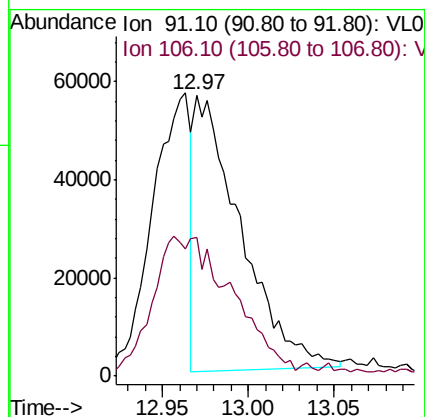
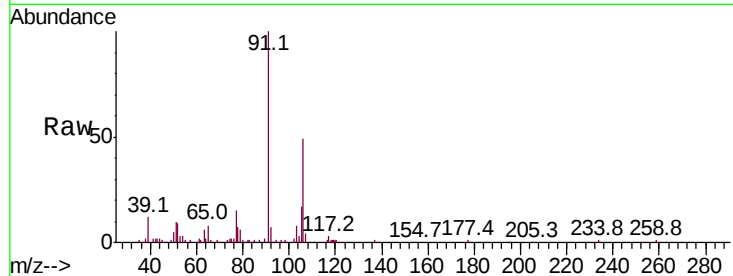
Ion	Ratio	Lower	Upper
91	100		
106	36.0	25.1	37.7





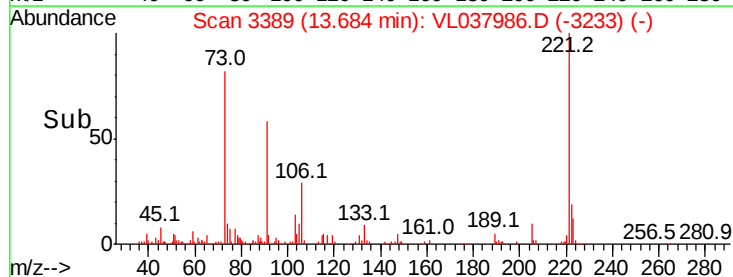
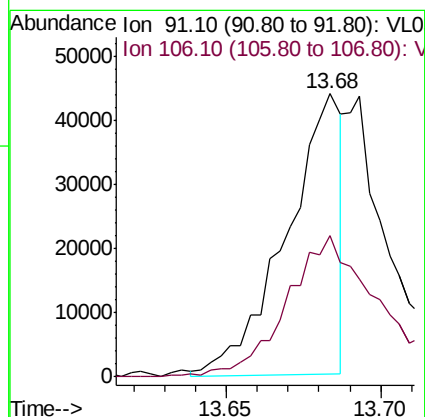
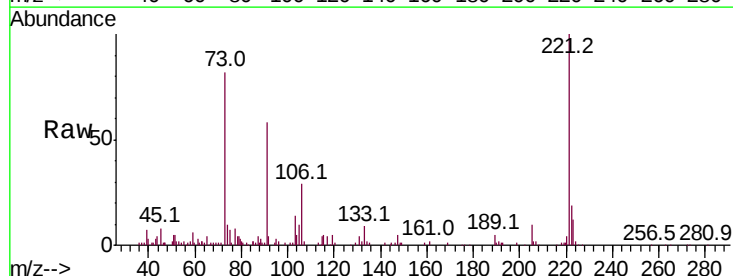
#59
m/p-Xylene
Concen: 0.307 ppbv
RT: 12.97 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 9 Nov 2021 19:28

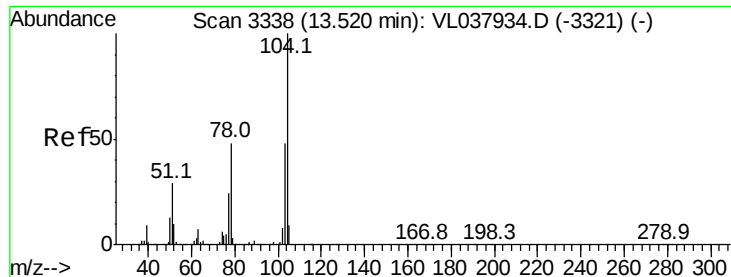
Tot Ion: 91 Resp: 104053
Ion Ratio Lower Upper
91 100
106 0.0 37.1 55.7#



#60
o-Xylene
Concen: 0.169 ppbv
RT: 13.68 min Scan# 3389
Delta R.T. 0.00 min
Lab File: VL037986.D
Acq: 9 Nov 2021 19:28

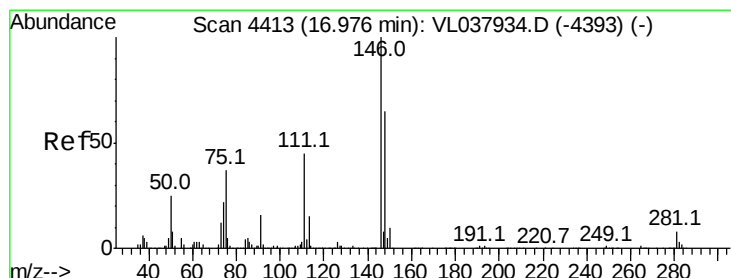
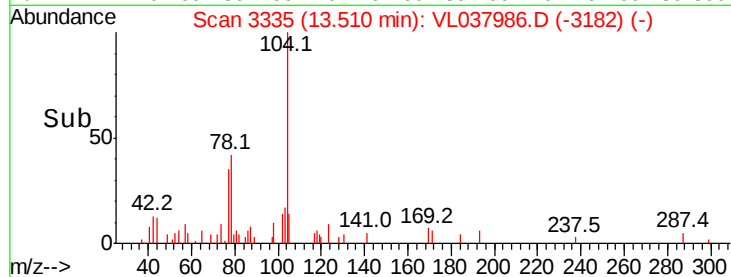
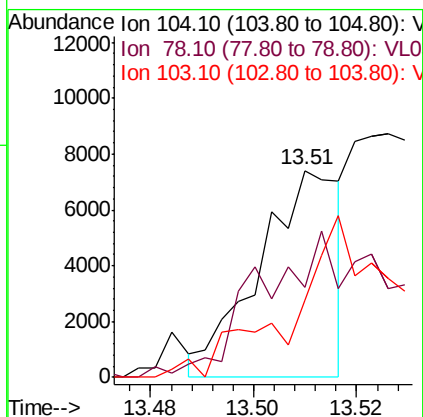
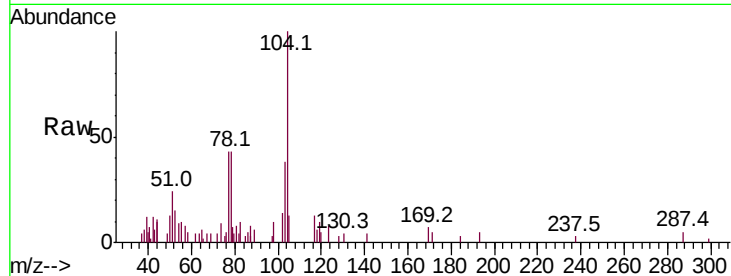
Tgt Ion: 91 Resp: 54006
Ion Ratio Lower Upper
91 100
106 90.7 23.5 70.6#





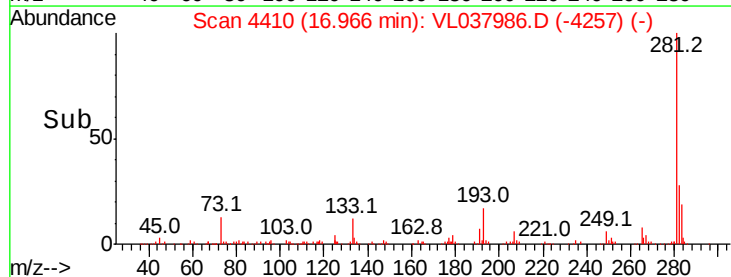
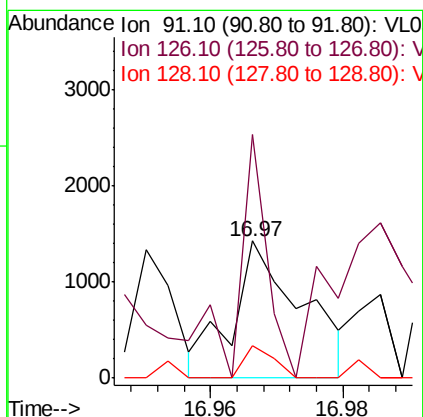
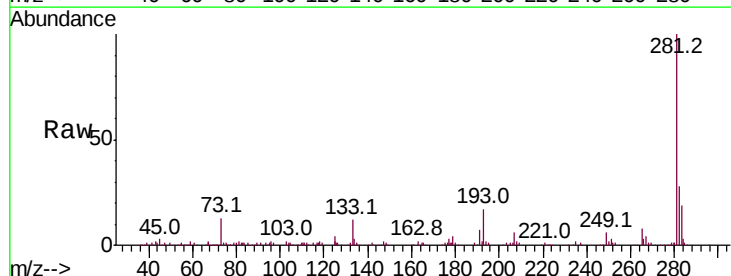
#61
Stvrene
Concen: 0.055 ppbv
RT: 13.51
Delta R.T. MSVOA_L
Lab File: ClientSampleId:
Acq: 9 Nov 2021 19:28

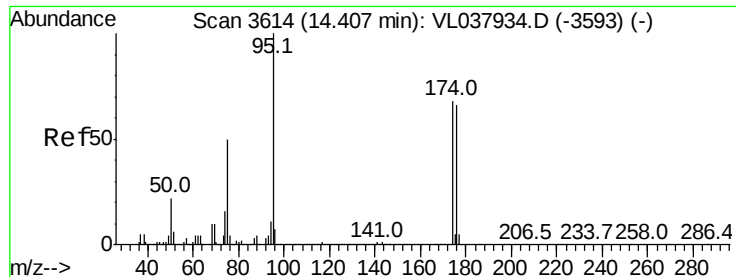
Tot Ion: 104 Resp: 8010
Ion Ratio Lower Upper
104 100
78 165.1 39.3 58.9#
103 125.5 39.6 59.4#



#66
Benzyl Chloride
Concen: 0.050 ppbv
RT: 16.97 min Scan# 4410
Delta R.T. -0.01 min
Lab File: VL037986.D
Acq: 9 Nov 2021 19:28

Tgt Ion: 91 Resp: 1039
Ion Ratio Lower Upper
91 100
126 309.5 13.8 20.6#
128 17.0 5.1 7.7#





#68

1-Bromo-4-Fluorobenzene

Concen: 9.626 ppbv

RT: 14.41

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 9 Nov 2021 19:28

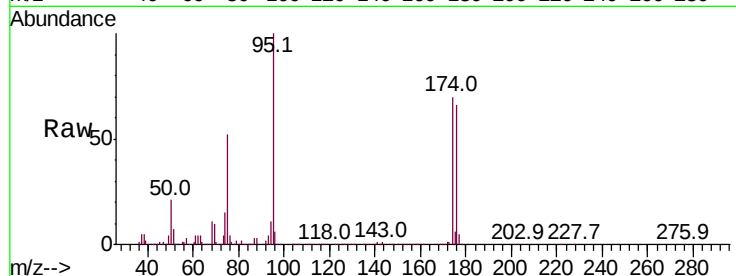
Tot Ion: 95 Resp: 2183510

Ion Ratio Lower Upper

95 100

174 76.0 58.3 87.5

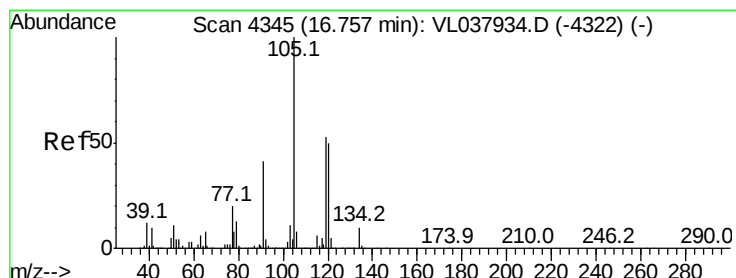
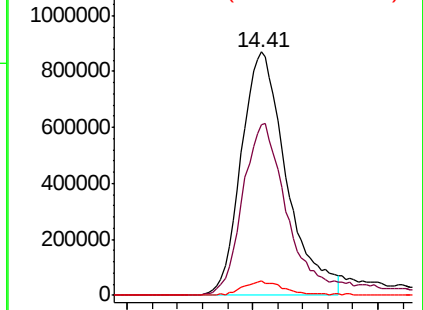
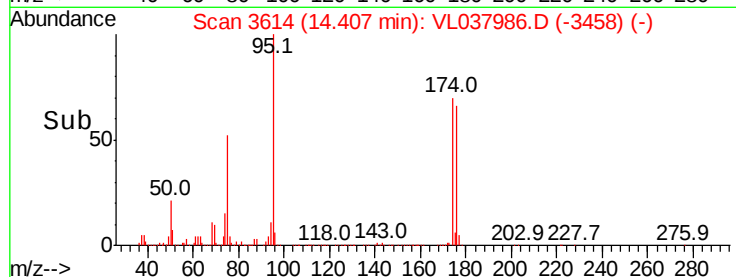
175 5.8 4.6 6.8



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



#74

1,2,4-Trimethylbenzene

Concen: 0.065 ppbv

RT: 16.75 min Scan# 4343

Delta R.T. -0.01 min

Lab File: VL037986.D

Acq: 9 Nov 2021 19:28

Tgt Ion: 105 Resp: 23293

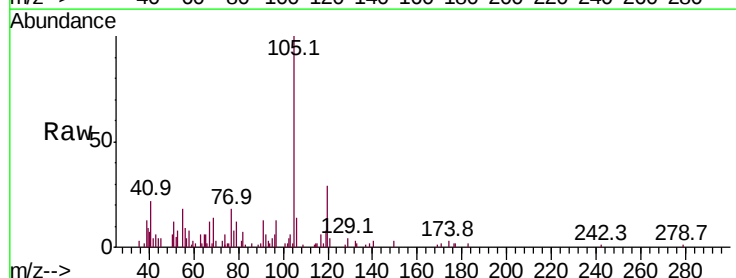
Ion Ratio Lower Upper

105 100

120 0.0 40.0 60.0#

91 0.0 32.6 49.0#

77 24.8 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

