

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030322\
 Data File : VL038518.D
 Acq On : 3 Mar 2022 17:54
 Operator : SY/AP
 Sample : N1791-01DUP
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-9CDUP

Quant Time: Mar 04 04:34:05 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL022222AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 22 19:45:51 2022
 QLast Update : Tue Feb 22 19:45:51 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	818465	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	1813785	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	1561125	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	1276655	9.88	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.80%

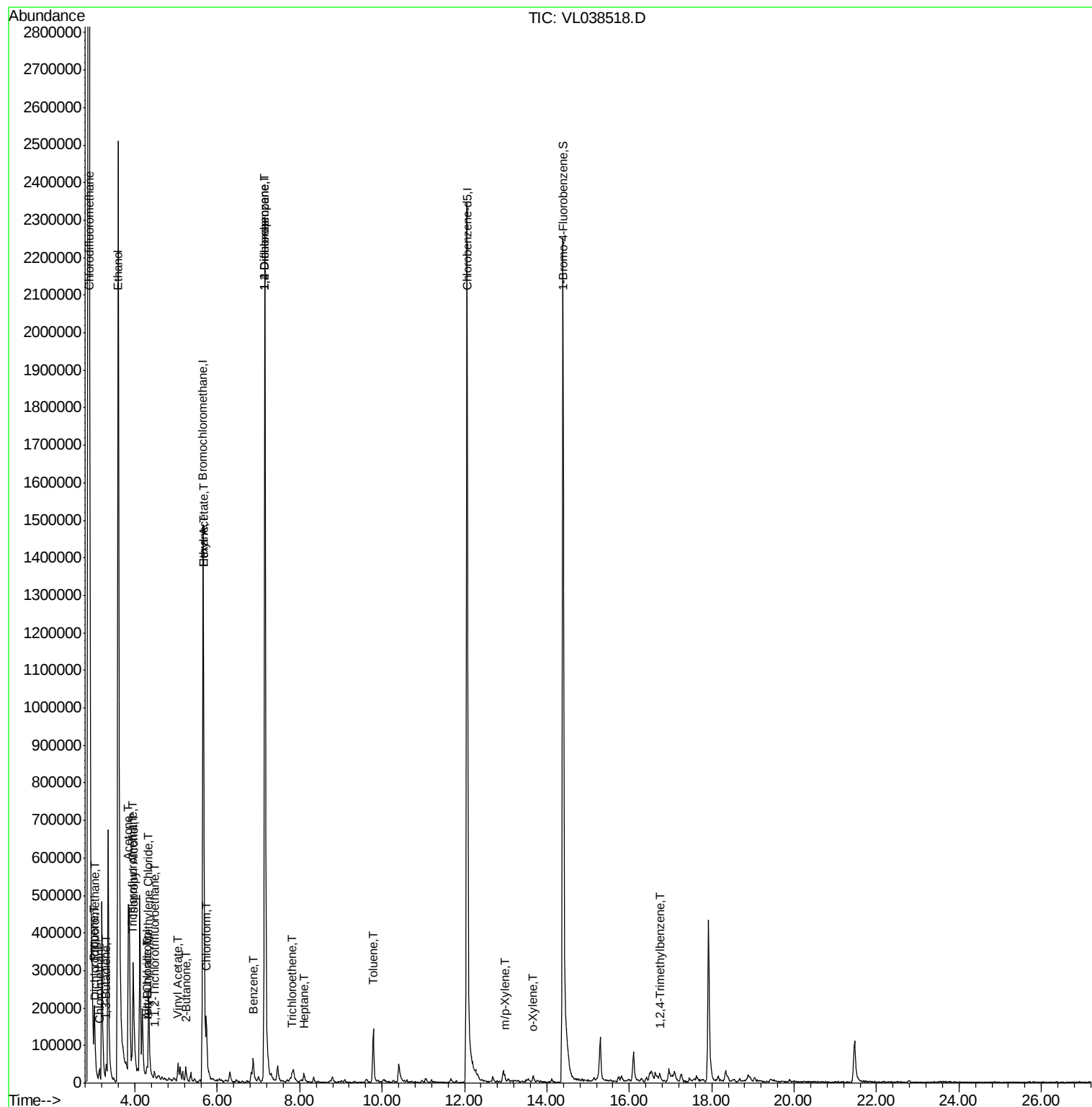
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.04	85	32750	0.253	ppbv	94
3) Chlorodifluoromethane	2.89	51	8456	0.059	ppbv	97
4) Chloromethane	3.13	50	34780	0.693	ppbv	94
9) Propene	3.01	41	64290	1.347	ppbv	85
10) Heptane	8.11	43	4875	0.042	ppbv #	28
11) Trichlorofluoromethane	3.94	101	26207	0.211	ppbv	90
12) 1,1,2-Trichlorotrifluoroet	4.47	101	5405	0.059	ppbv	87
13) Ethanol	3.59	45	3569958	749.632	ppbv	89
15) Acetone	3.84	43	651240	9.357	ppbv	95
16) 1,3-Butadiene	3.30	39	8787	0.189	ppbv	82
17) tert-Butyl alcohol	4.29	59	14039	0.202	ppbv #	72
19) Isopropyl Alcohol	3.96	45	352815	8.754	ppbv #	93
20) Methylene Chloride	4.33	84	90174	2.615	ppbv	98
21) Allyl Chloride	4.29	41	8127	0.138	ppbv #	85
23) Vinyl Acetate	5.05	43	34111	0.370	ppbv #	60
25) Ethyl Acetate	5.67	43	113386	0.606	ppbv #	84
26) Hexane	5.67	57	130528	1.541	ppbv #	46
29) Chloroform	5.73	83	97216	0.703	ppbv	98
34) 2-Butanone	5.24	43	48144	0.844	ppbv	97
36) Benzene	6.87	78	42785	0.268	ppbv #	93
38) Trichloroethene	7.81	130	5360	0.092	ppbv	94
39) 1,2-Dichloropropane	7.15	63	502793	7.906	ppbv #	25
53) Toluene	9.79	91	105503	0.609	ppbv	98
59) m/p-Xylene	12.98	91	7336	0.040	ppbv #	33
60) o-Xylene	13.67	91	8774	0.051	ppbv	82
74) 1,2,4-Trimethylbenzene	16.73	105	5843	0.032	ppbv #	58

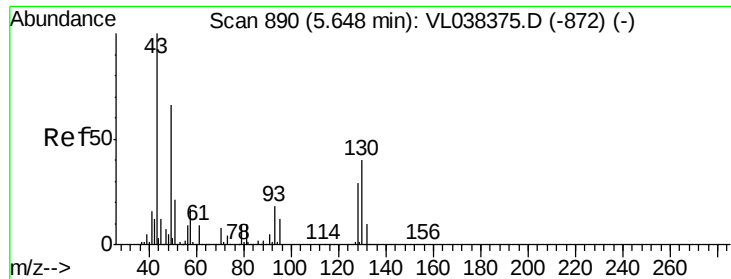
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-9CDUP

Acq: 3 Mar 2022 17:54

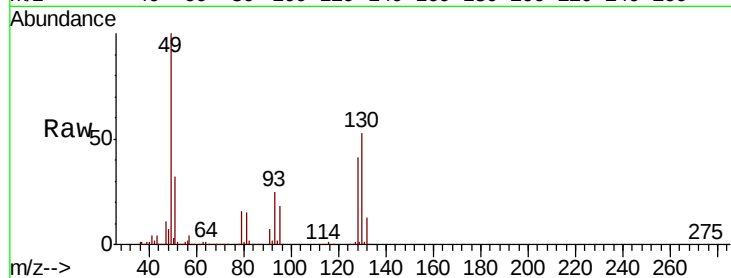
Tot Ion: 49 Resp: 818465

Ion Ratio Lower Upper

49 100

128 44.1 24.3 72.9

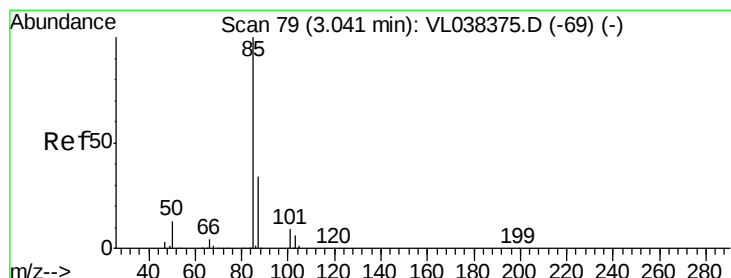
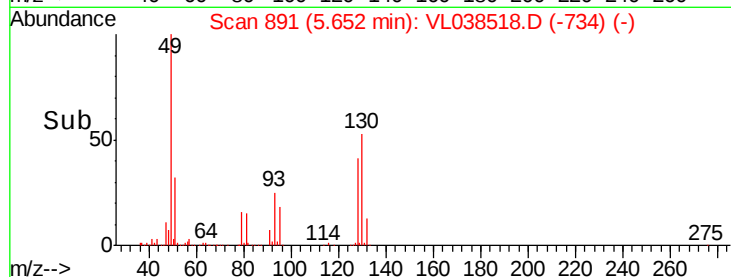
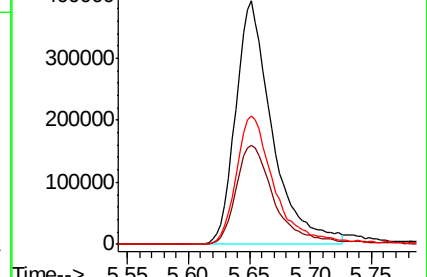
130 57.0 30.1 90.5



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: 0.253 ppbv

RT: 3.04 min Scan# 80

Delta R.T. 0.00 min

Lab File: VL038518.D

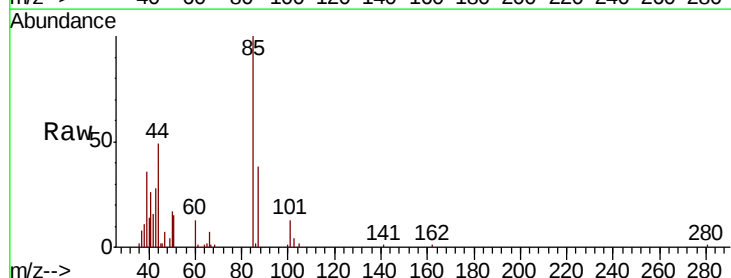
Acq: 3 Mar 2022 17:54

Tgt Ion: 85 Resp: 32750

Ion Ratio Lower Upper

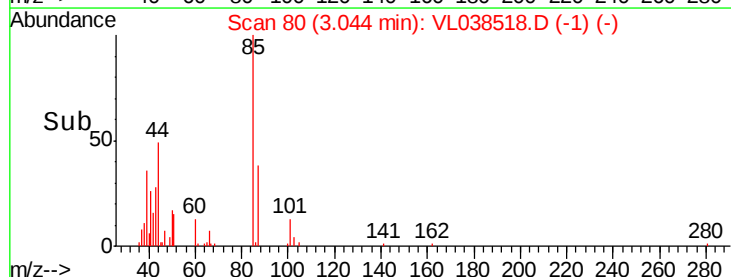
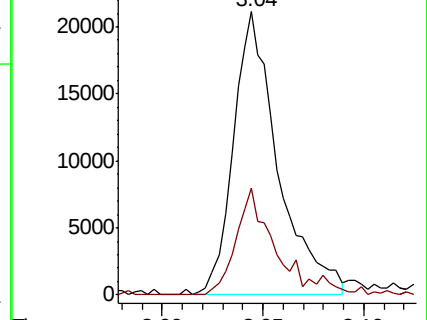
85 100

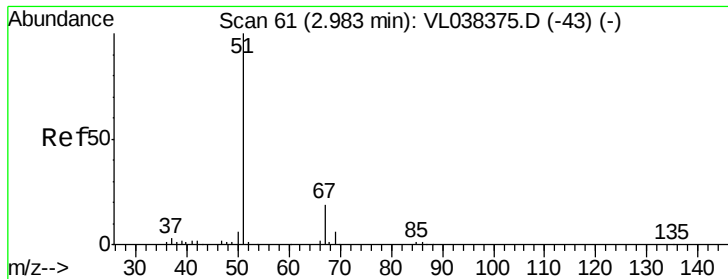
87 37.5 27.4 41.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.059 ppbv

RT: 2.89 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: IA-9CDUP

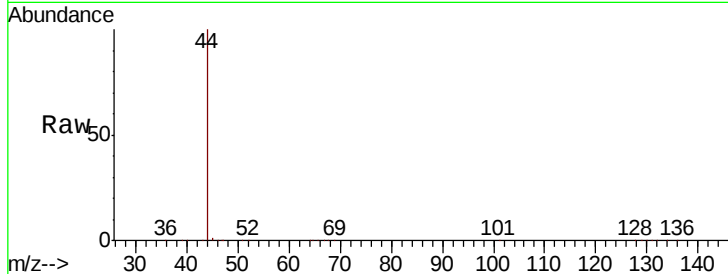
Acq: 3 Mar 2022 17:54

Tot Ion: 51 Resp: 8456

Ion Ratio Lower Upper

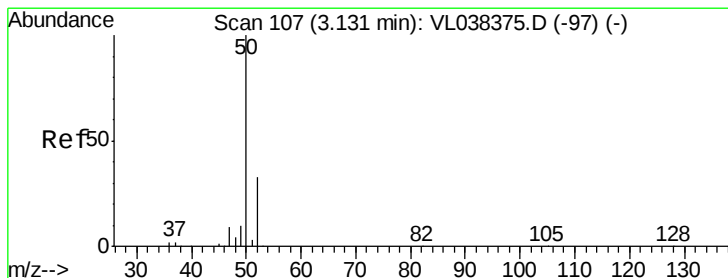
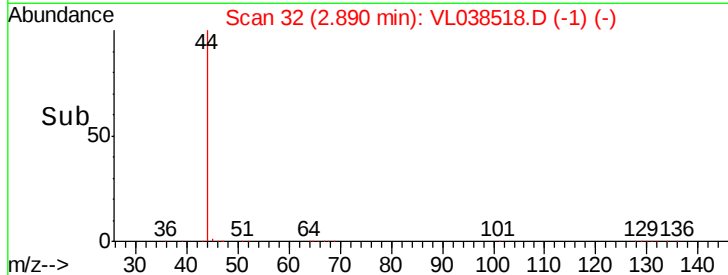
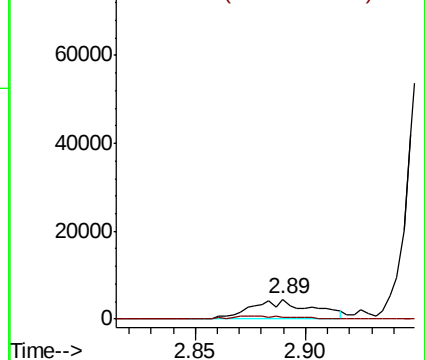
51 100

67 16.8 14.7 22.1



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.693 ppbv

RT: 3.13 min Scan# 108

Delta R.T. 0.00 min

Lab File: VL038518.D

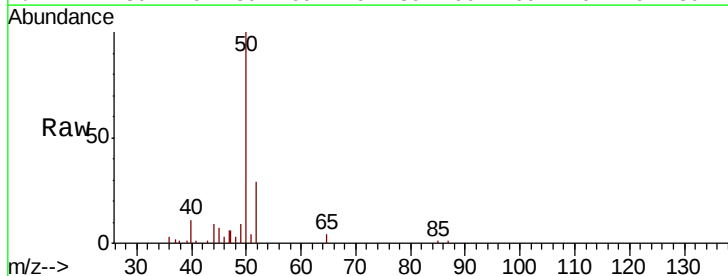
Acq: 3 Mar 2022 17:54

Tgt Ion: 50 Resp: 34780

Ion Ratio Lower Upper

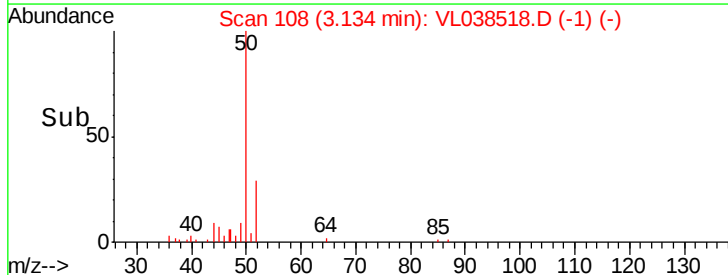
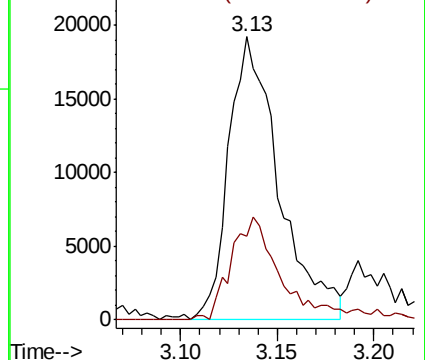
50 100

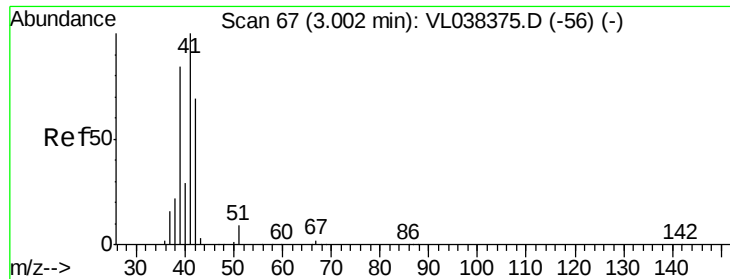
52 29.7 26.5 39.7



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.347 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

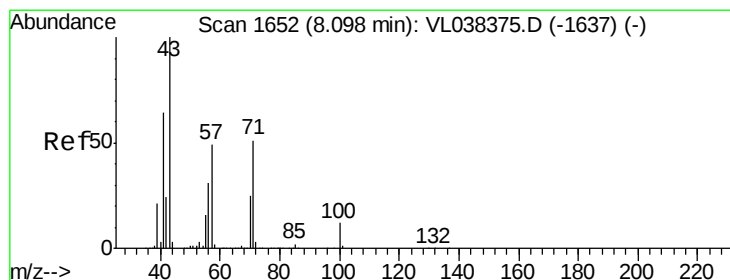
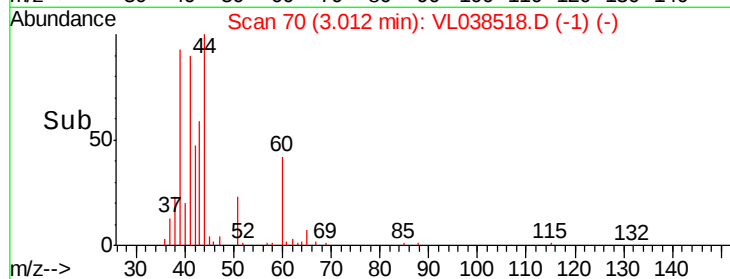
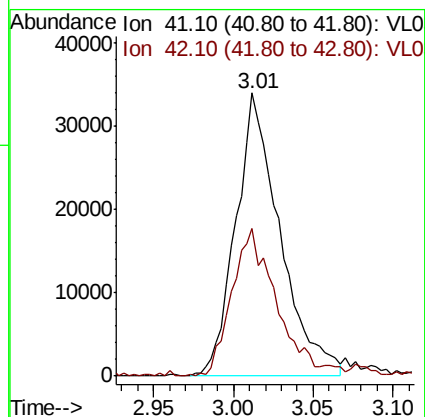
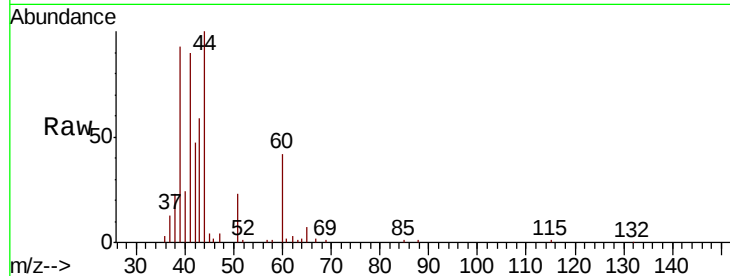
Acq: 3 Mar 2022 17:54

Tot Ion: 41 Resp: 64290

Ion Ratio Lower Upper

41 100

42 55.8 54.6 82.0



#10

Heptane

Concen: 0.042 ppbv

RT: 8.11 min Scan# 1654

Delta R.T. 0.01 min

Lab File: VL038518.D

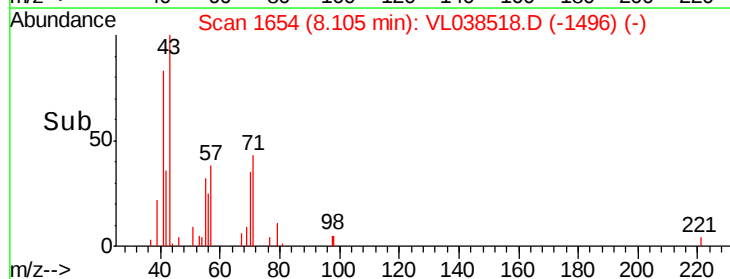
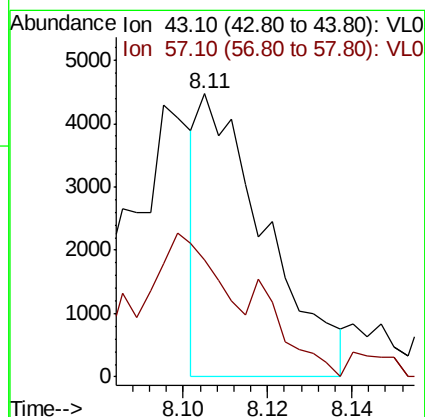
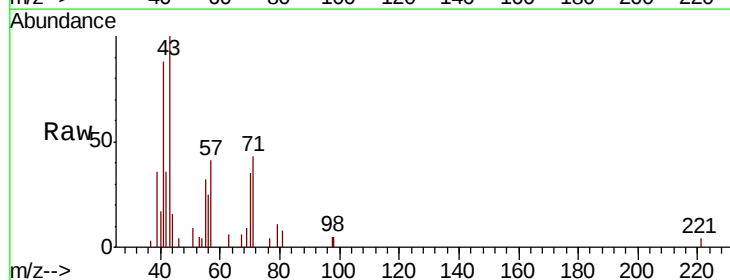
Acq: 3 Mar 2022 17:54

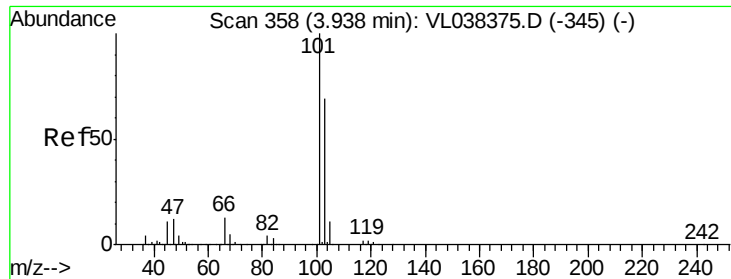
Tgt Ion: 43 Resp: 4875

Ion Ratio Lower Upper

43 100

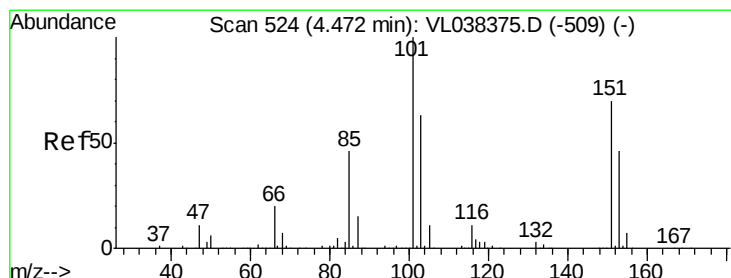
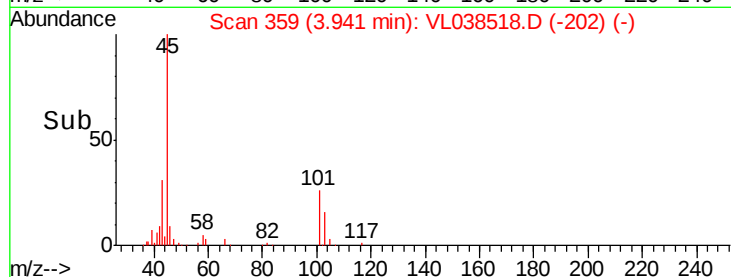
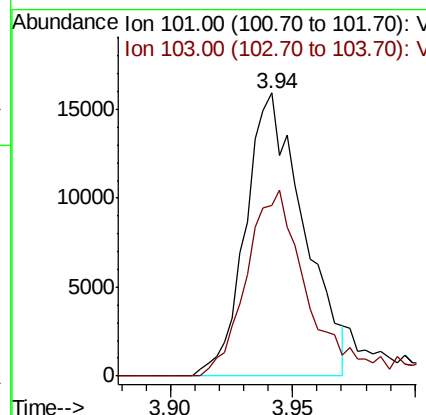
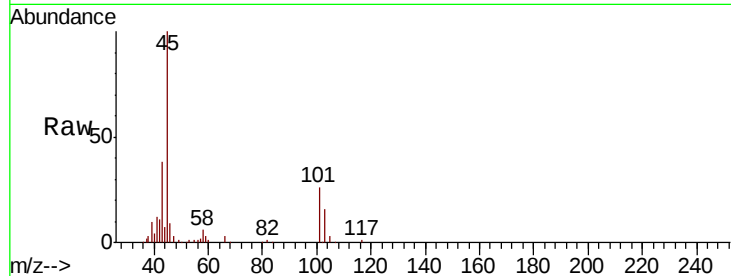
57 0.0 39.8 59.8#





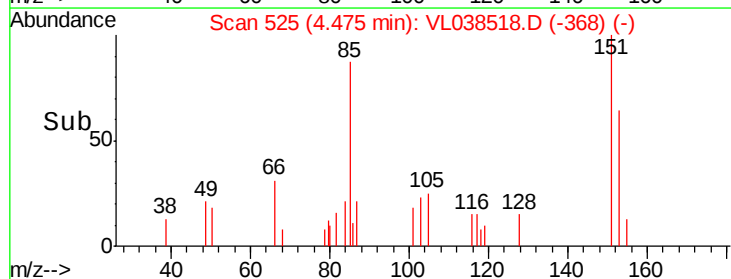
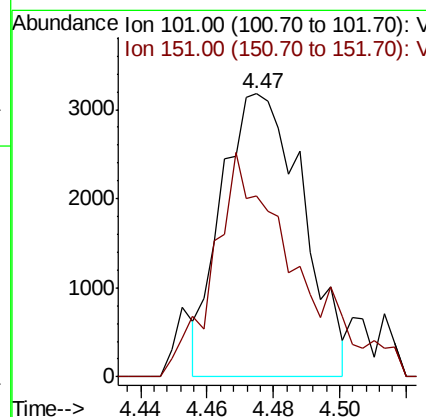
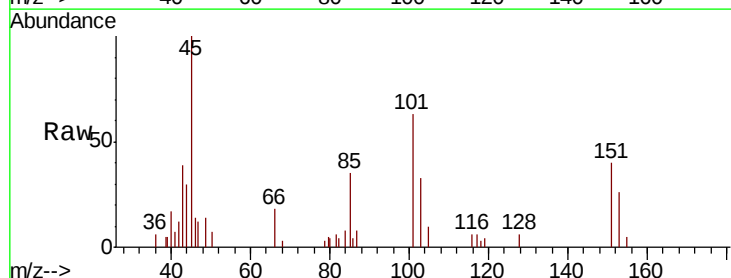
#11
 Trichlorofluoromethane
 Concen: 0.211 ppbv
 RT: 3.94
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 17:54

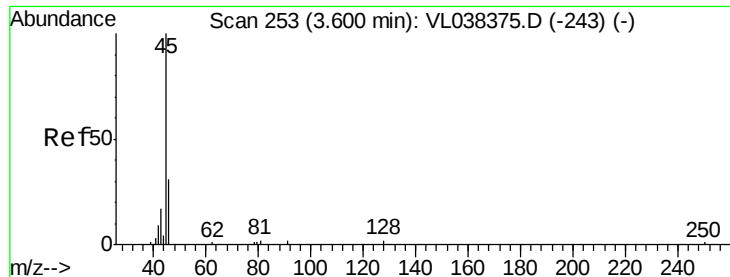
Tot Ion:101 Resp: 26207
 Ion Ratio Lower Upper
 101 100
 103 60.5 55.0 82.4



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.059 ppbv
 RT: 4.47 min Scan# 525
 Delta R.T. 0.00 min
 Lab File: VL038518.D
 Acq: 3 Mar 2022 17:54

Tgt Ion:101 Resp: 5405
 Ion Ratio Lower Upper
 101 100
 151 80.9 55.9 83.9





#13

Ethanol

Concen: 749.632 ppbv

RT: 3.59 Instrument :

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

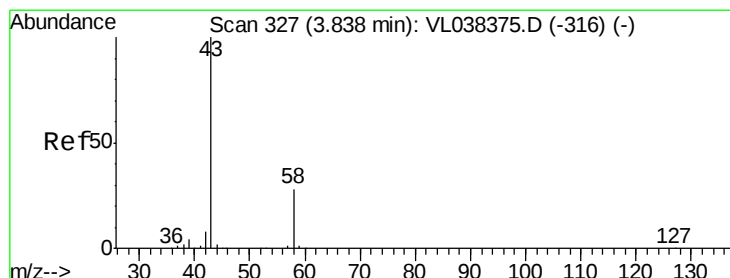
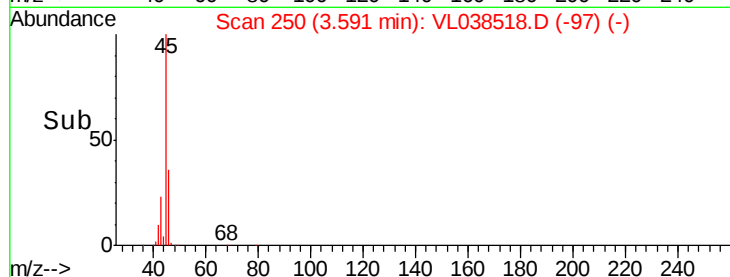
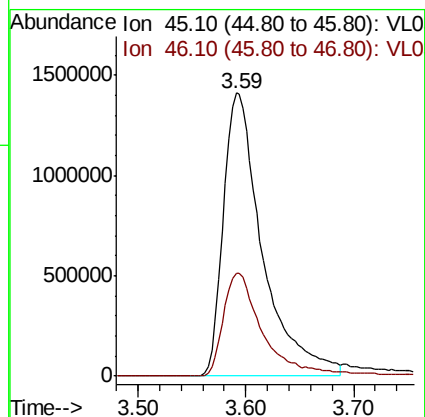
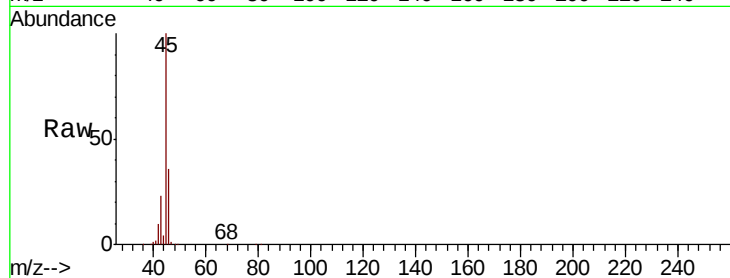
Acq: 3 Mar 2022 17:54

Tot Ion: 45 Resp: 3569958

Ion Ratio Lower Upper

45 100

46 38.4 18.2 72.8



#15

Acetone

Concen: 9.357 ppbv

RT: 3.84 min Scan# 327

Delta R.T. 0.00 min

Lab File: VL038518.D

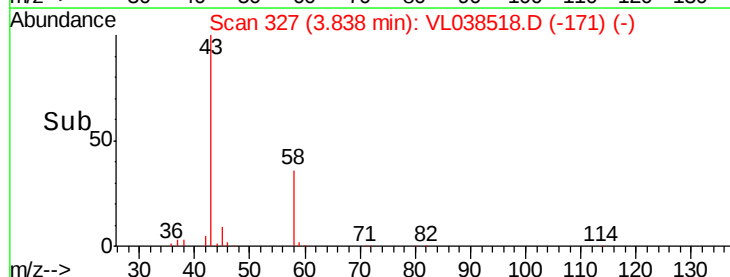
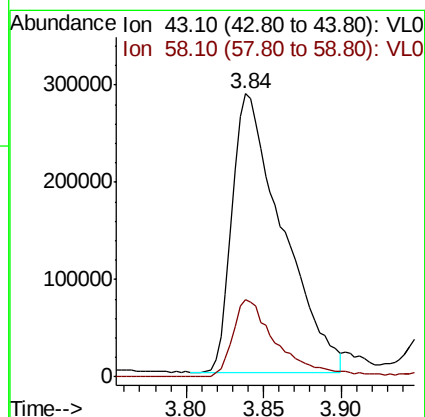
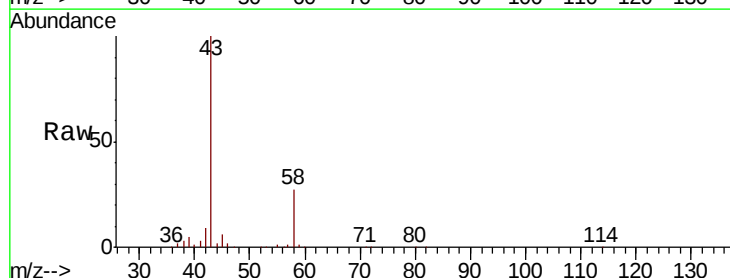
Acq: 3 Mar 2022 17:54

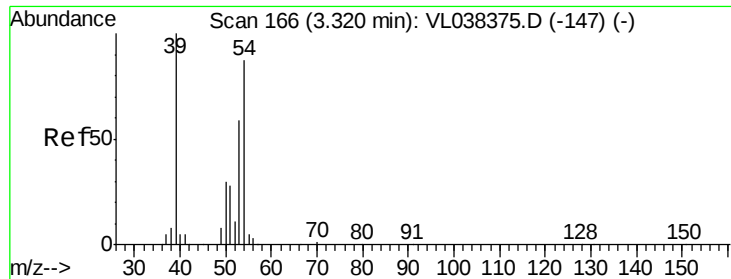
Tgt Ion: 43 Resp: 651240

Ion Ratio Lower Upper

43 100

58 24.6 21.7 32.5





#16

1,3-Butadiene

Concen: 0.189 ppbv

RT: 3.30 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

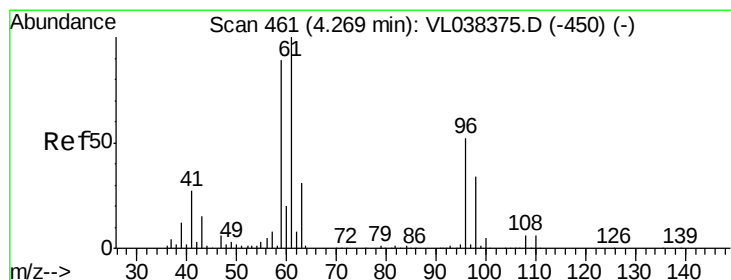
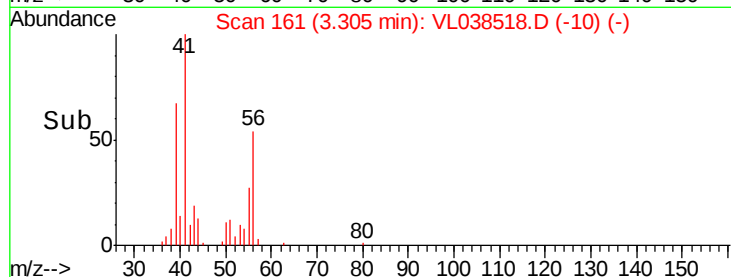
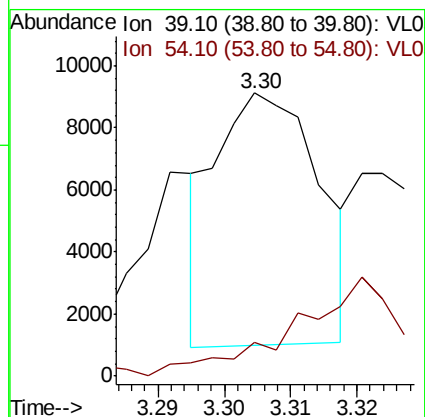
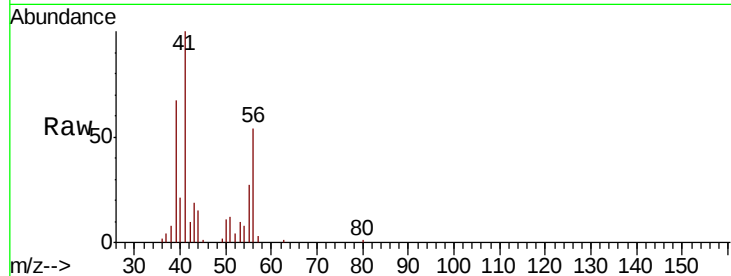
Acq: 3 Mar 2022 17:54

Tot Ion: 39 Resp: 8787

Ion Ratio Lower Upper

39 100

54 90.4 60.3 90.5



#17

tert-Butyl alcohol

Concen: 0.202 ppbv

RT: 4.29 min Scan# 468

Delta R.T. 0.02 min

Lab File: VL038518.D

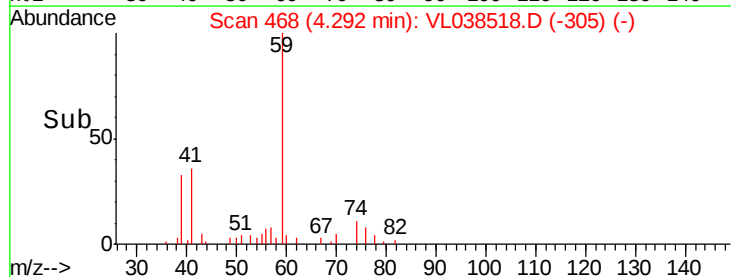
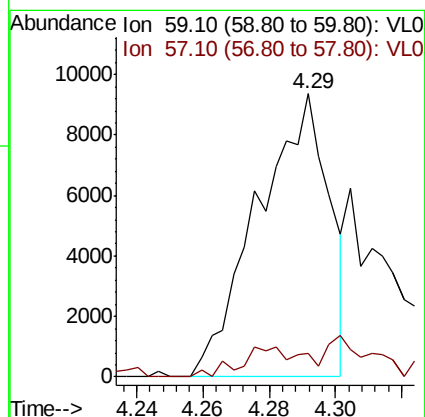
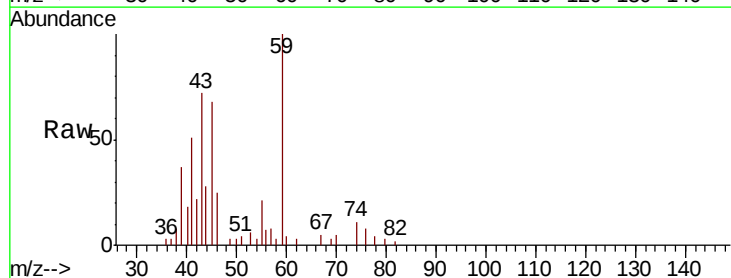
Acq: 3 Mar 2022 17:54

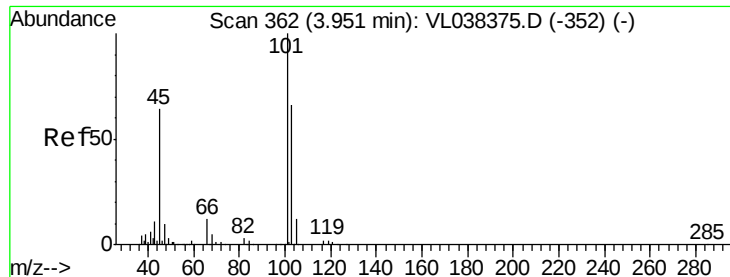
Tgt Ion: 59 Resp: 14039

Ion Ratio Lower Upper

59 100

57 0.0 8.4 12.6#





#19

Isopropyl Alcohol

Concen: 8.754 ppbv

RT: 3.96

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

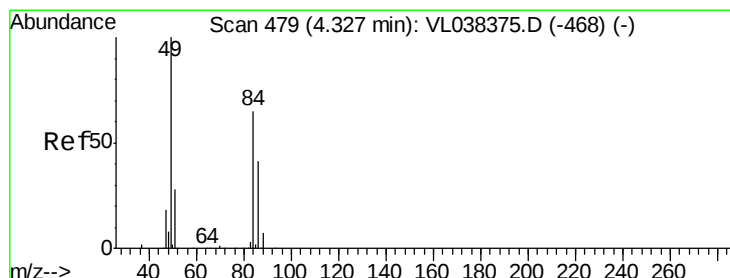
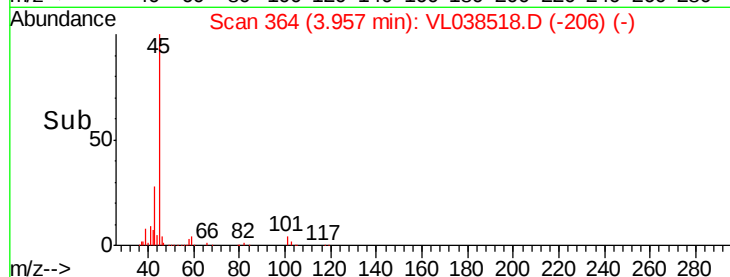
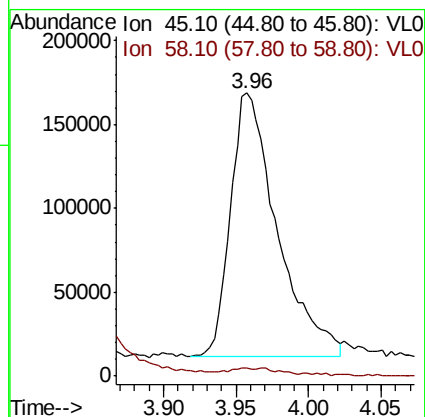
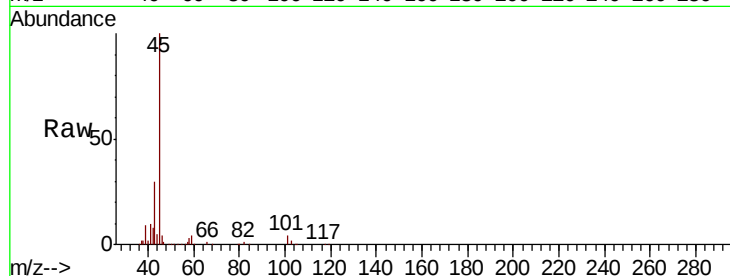
Acq: 3 Mar 2022 17:54

Tot Ion: 45 Resp: 352815

Ion Ratio Lower Upper

45 100

58 4.6 1.8 2.8#



#20

Methylene Chloride

Concen: 2.615 ppbv

RT: 4.33 min Scan# 481

Delta R.T. 0.01 min

Lab File: VL038518.D

Acq: 3 Mar 2022 17:54

Tgt Ion: 84 Resp: 90174

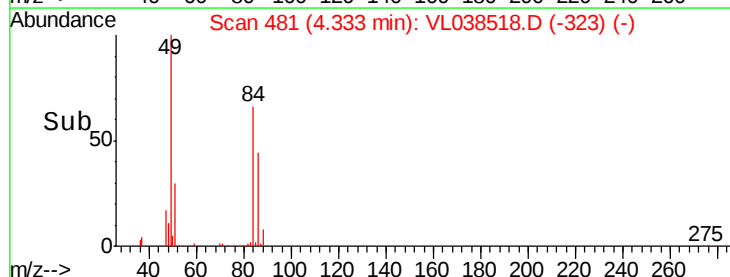
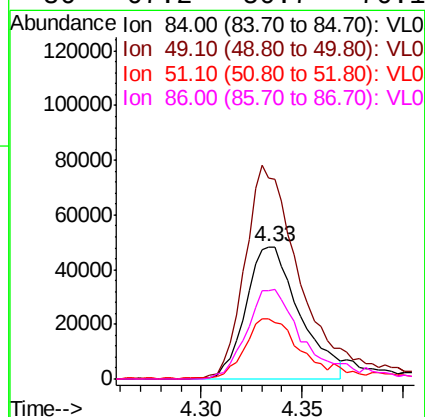
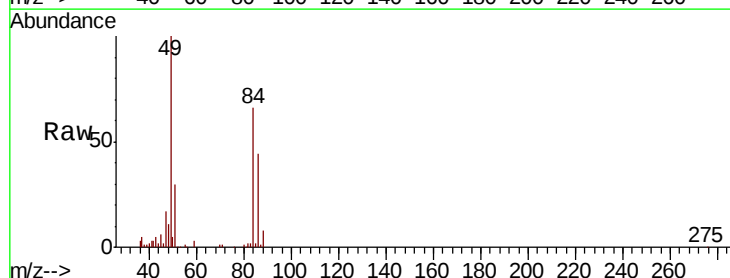
Ion Ratio Lower Upper

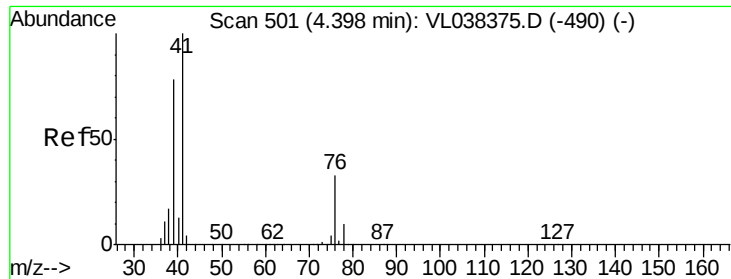
84 100

49 151.9 122.4 183.6

51 44.4 33.3 49.9

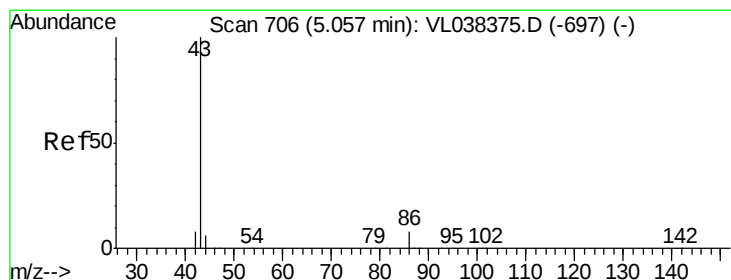
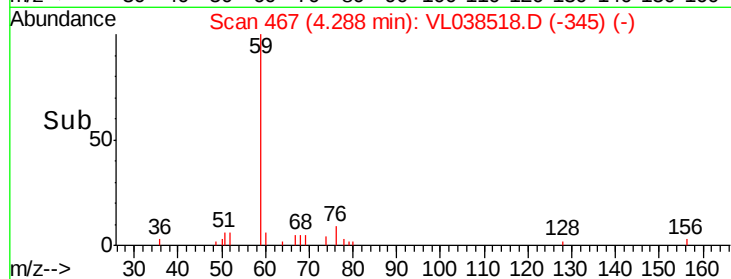
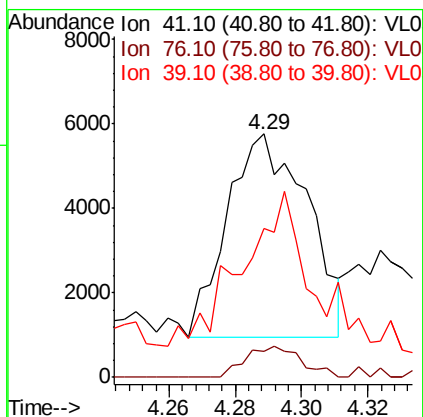
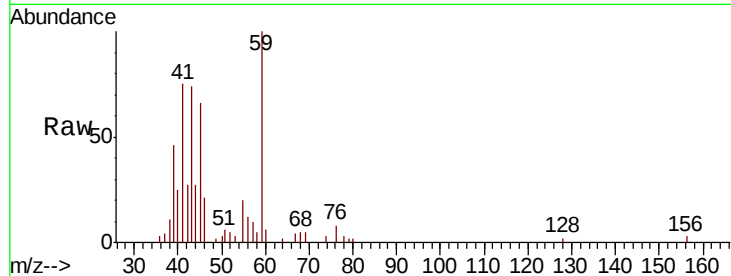
86 67.2 50.7 76.1





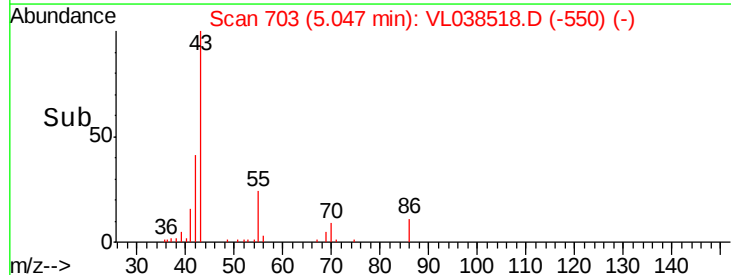
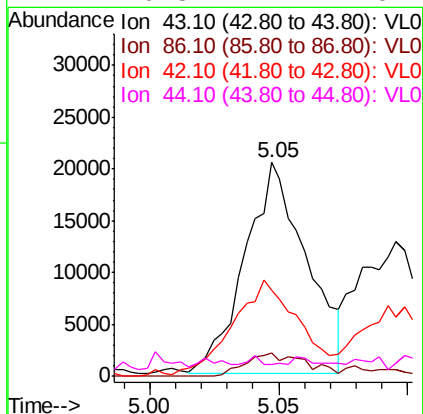
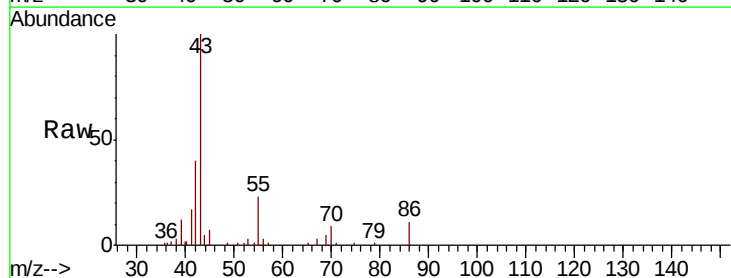
#21
 Allvl Chloride
 Concen: 0.138 ppbv
 RT: 4.29
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 17:54

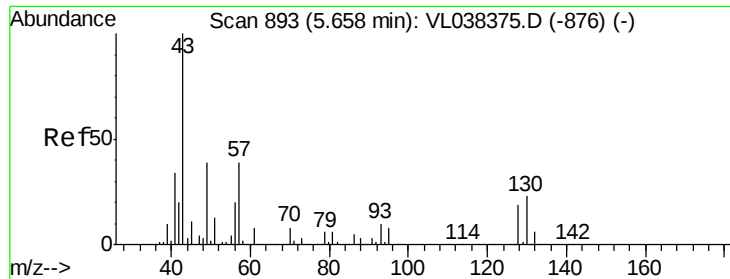
Tot Ion	Ratio	Lower	Upper
41	100		
76	10.6	25.4	38.0#
39	73.7	63.0	94.6



#23
 Vinyl Acetate
 Concen: 0.370 ppbv
 RT: 5.05 min Scan# 703
 Delta R.T. -0.01 min
 Lab File: VL038518.D
 Acq: 3 Mar 2022 17:54

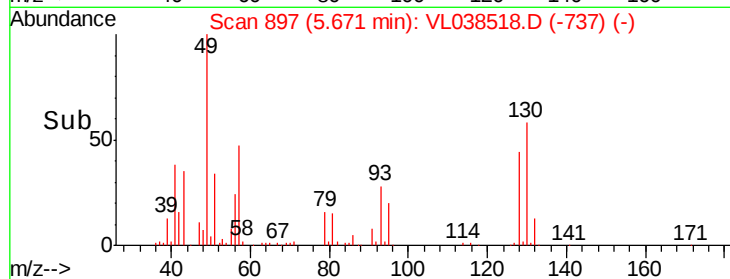
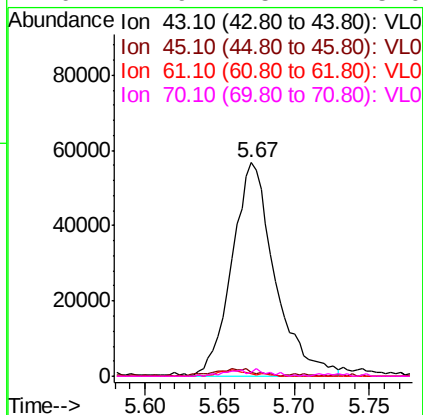
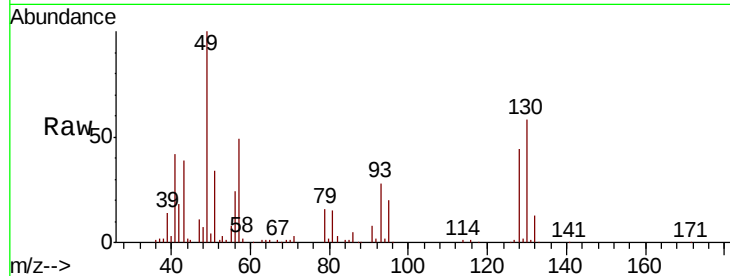
Tgt Ion	Ratio	Lower	Upper
43	100		
86	10.8	5.8	8.6#
42	37.4	7.4	11.0#
44	0.8	4.2	6.2#





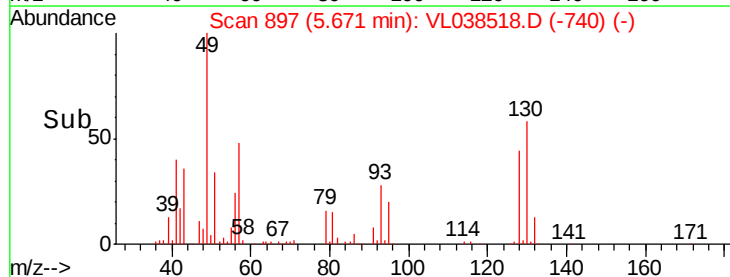
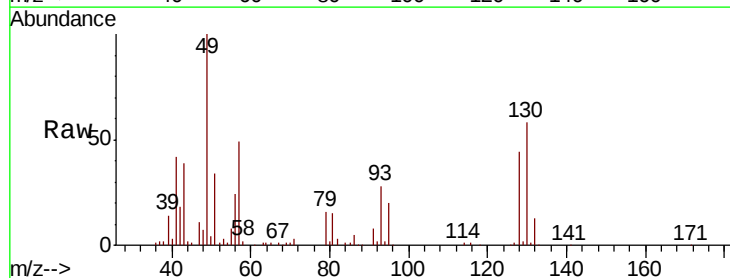
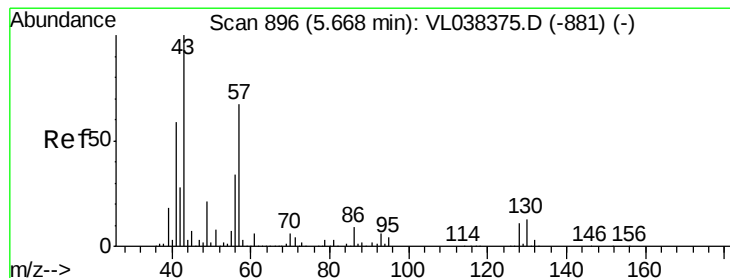
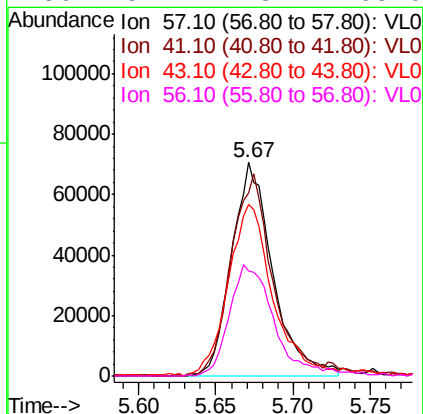
#25
Ethyl Acetate
Concen: 0.606 ppbv
RT: 5.67 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 3 Mar 2022 17:54

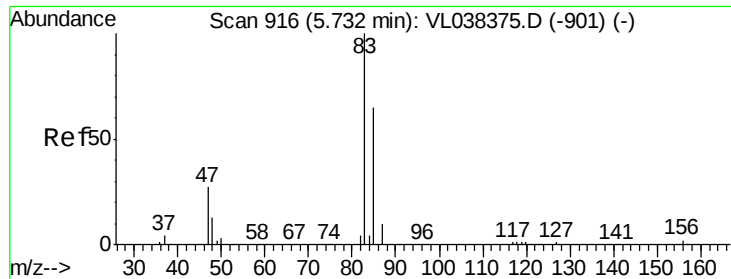
Tot Ion:	43	Resp:	113386
Ion	Ratio	Lower	Upper
43	100		
45	3.6	7.8	11.6#
61	2.2	7.5	11.3#
70	2.9	5.4	8.0#



#26
Hexane
Concen: 1.541 ppbv
RT: 5.67 min Scan# 897
Delta R.T. 0.00 min
Lab File: VL038518.D
Acq: 3 Mar 2022 17:54

Tgt Ion:	57	Resp:	130528
Ion	Ratio	Lower	Upper
57	100		
41	100.2	73.1	109.7
43	88.9	181.0	271.4#
56	57.7	43.4	65.0





#29

Chloroform

Concen: 0.703 ppbv

RT: 5.73 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

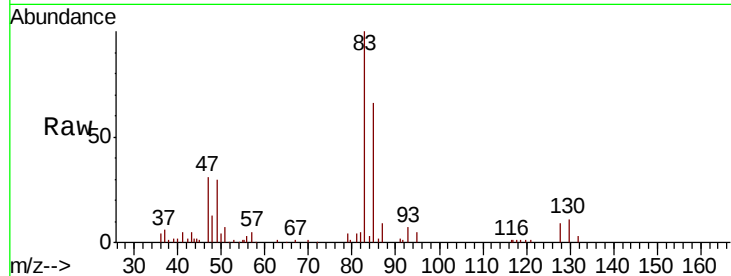
Acq: 3 Mar 2022 17:54

Tot Ion: 83 Resp: 97216

Ion Ratio Lower Upper

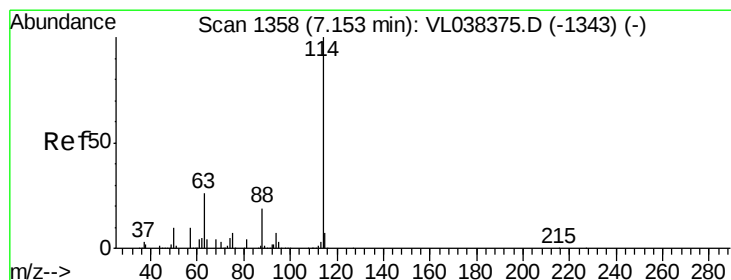
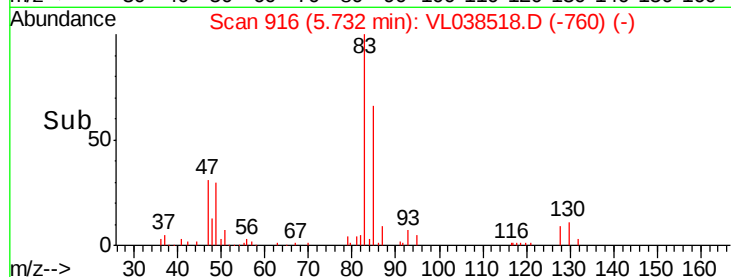
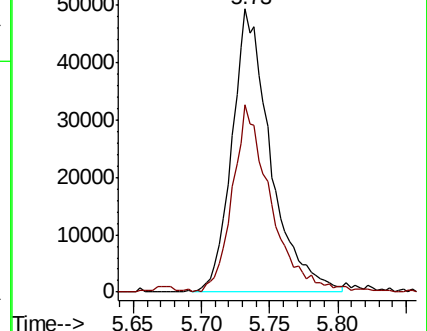
83 100

85 66.1 51.6 77.4



Abundance Ion 83.00 (82.70 to 83.70): VL0

Ion 85.00 (84.70 to 85.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.16 min Scan# 1359

Delta R.T. 0.00 min

Lab File: VL038518.D

Acq: 3 Mar 2022 17:54

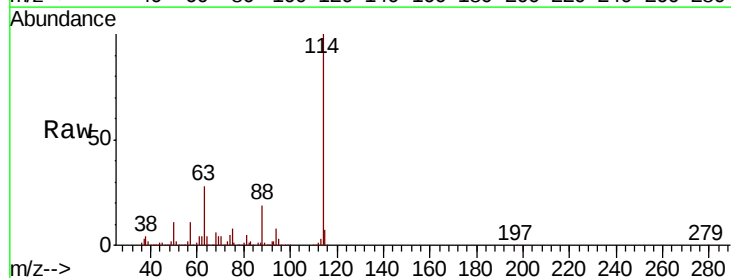
Tgt Ion: 114 Resp: 1813785

Ion Ratio Lower Upper

114 100

63 28.3 22.2 33.2

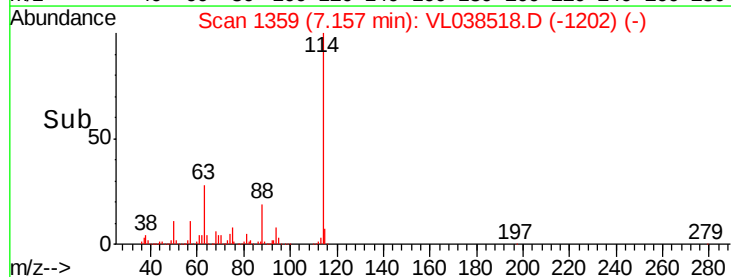
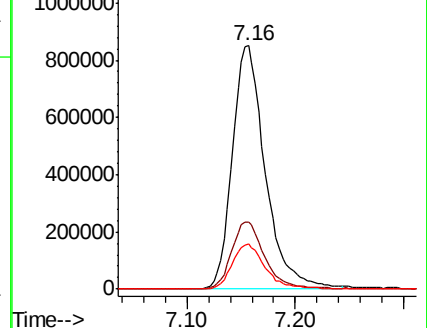
88 18.8 15.2 22.8

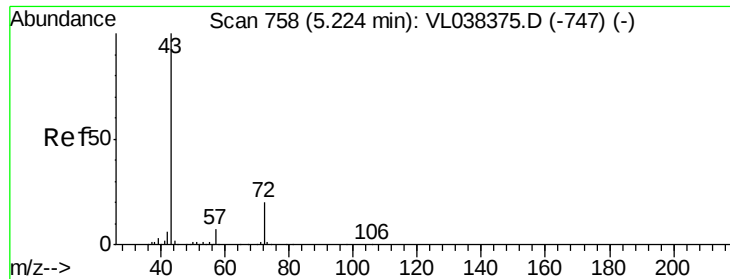


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

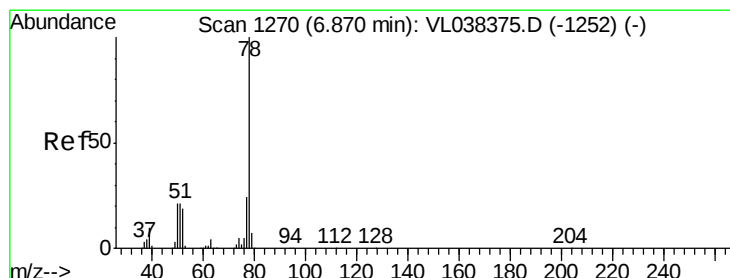
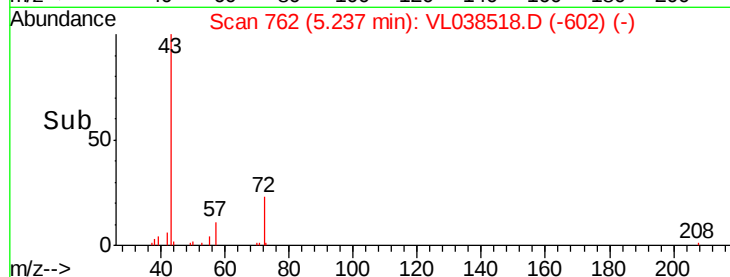
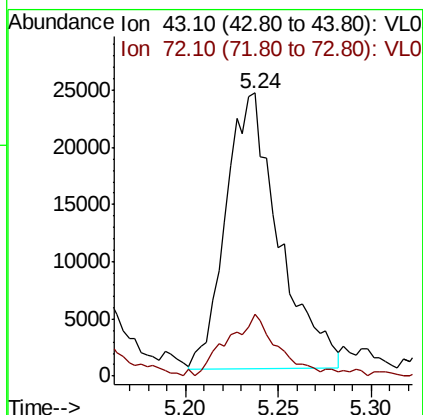
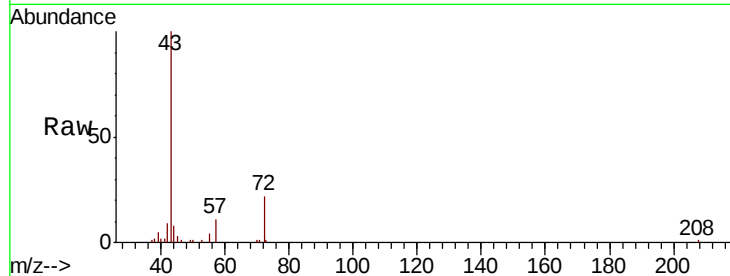
Ion 88.10 (87.80 to 88.80): VL0





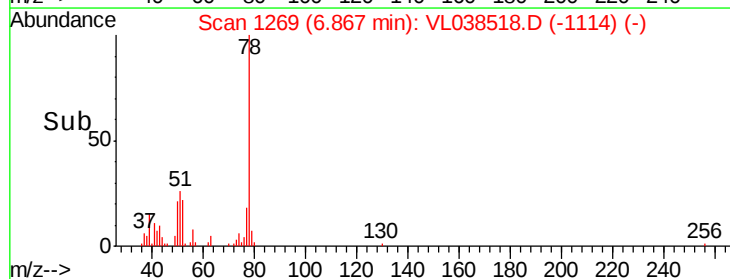
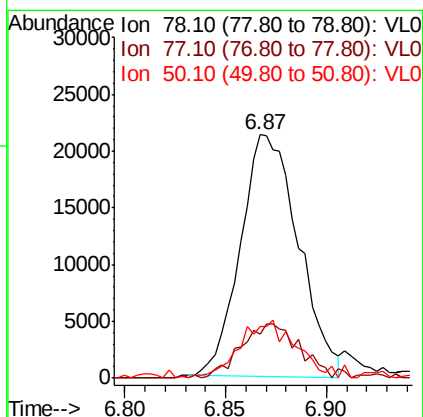
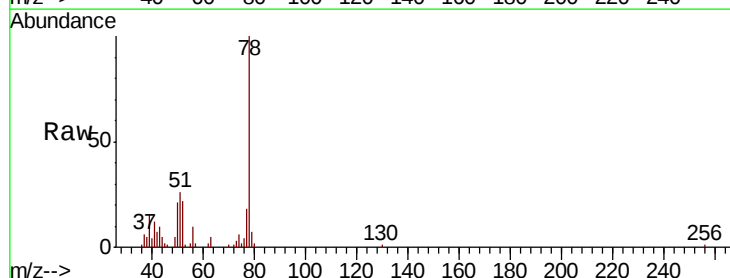
#34
 2-Butanone
 Concen: 0.844 ppbv
 RT: 5.24
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 17:54

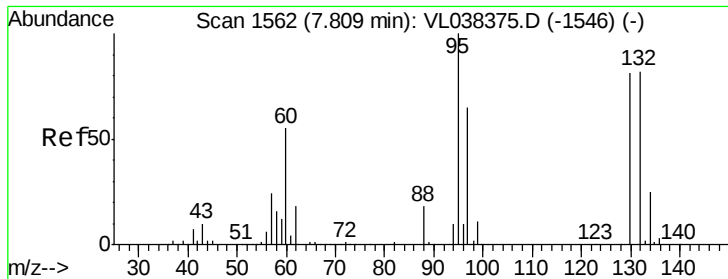
Tot Ion: 43 Resp: 48144
 Ion Ratio Lower Upper
 43 100
 72 23.4 17.4 26.2



#36
 Benzene
 Concen: 0.268 ppbv
 RT: 6.87 min Scan# 1269
 Delta R.T. -0.00 min
 Lab File: VL038518.D
 Acq: 3 Mar 2022 17:54

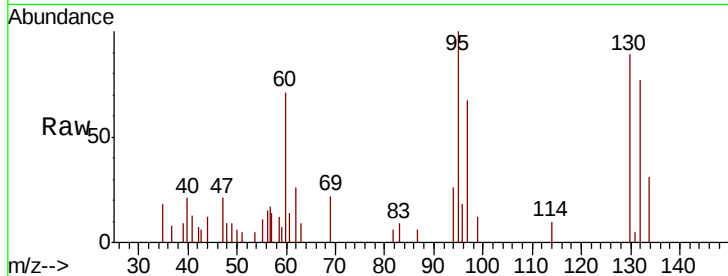
Tgt Ion: 78 Resp: 42785
 Ion Ratio Lower Upper
 78 100
 77 18.4 19.0 28.6#
 50 21.4 16.6 24.8



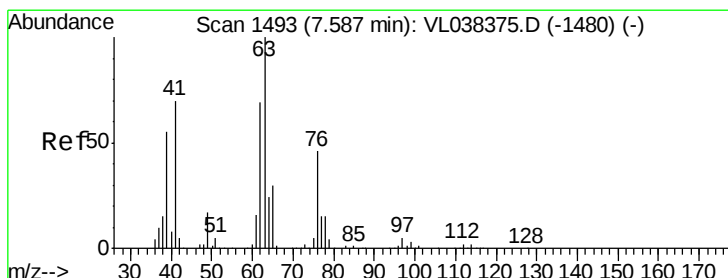
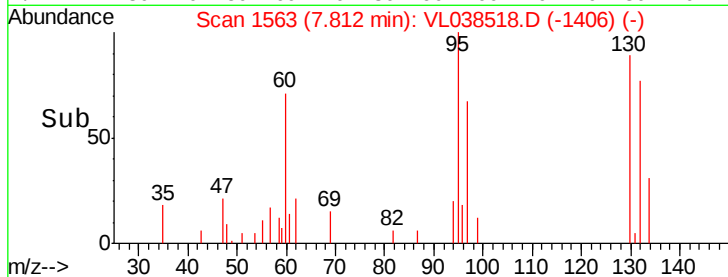
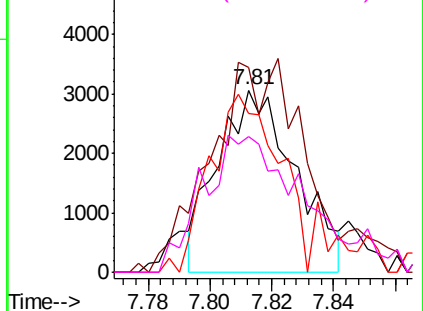


#38
 Trichloroethene
 Concen: 0.092 ppbv
 RT: 7.81
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 17:54

Tot Ion:	130	Resp:	5360
Ion	Ratio	Lower	Upper
130	100		
95	122.1	98.1	147.1
132	89.3	80.3	120.5
97	72.7	63.5	95.3

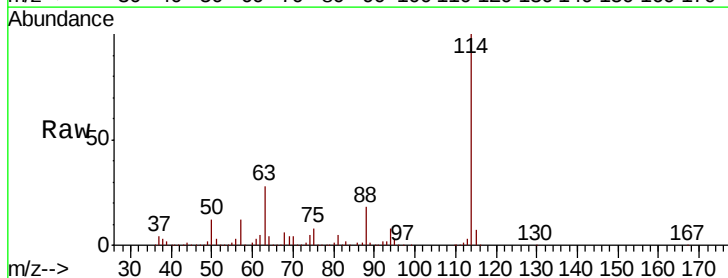


Abundance Ion 130.00 (129.70 to 130.70): V
 Ion 95.00 (94.70 to 95.70): VL0
 Ion 132.00 (131.70 to 132.70): V
 Ion 97.00 (96.70 to 97.70): VL0

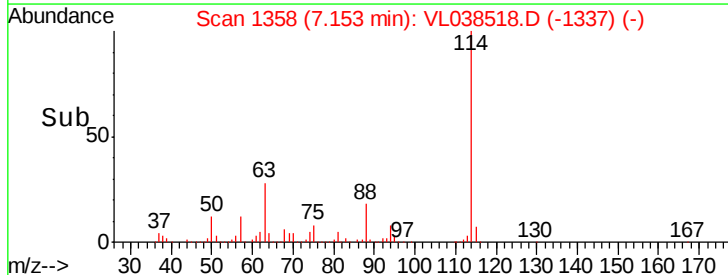
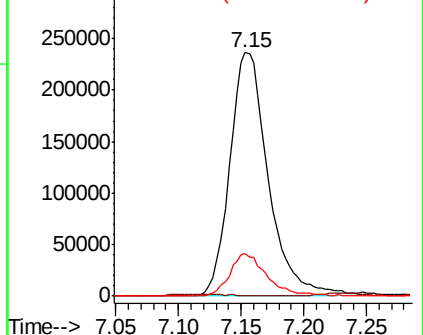


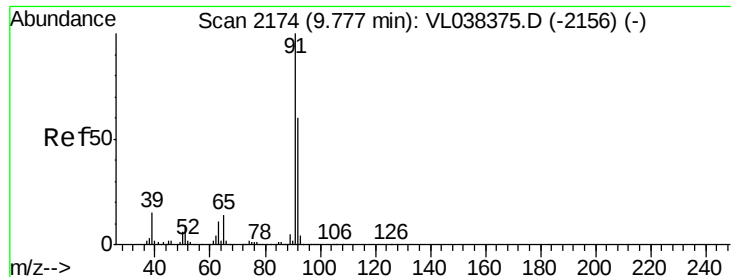
#39
 1,2-Dichloropropane
 Concen: 7.906 ppbv
 RT: 7.15 min Scan# 1358
 Delta R.T. -0.43 min
 Lab File: VL038518.D
 Acq: 3 Mar 2022 17:54

Tgt Ion:	63	Resp:	502793
Ion	Ratio	Lower	Upper
63	100		
41	0.0	56.1	84.1#
62	17.4	55.5	83.3#



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





#53

Toluene

Concen: 0.609 ppbv

RT: 9.79 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

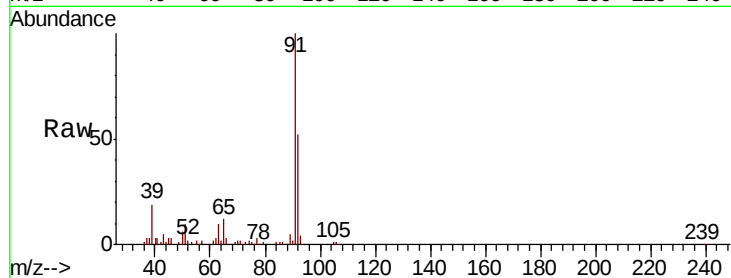
Acq: 3 Mar 2022 17:54

Tot Ion: 91 Resp: 105503

Ion Ratio Lower Upper

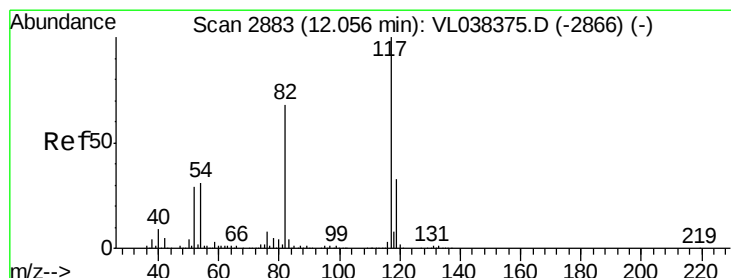
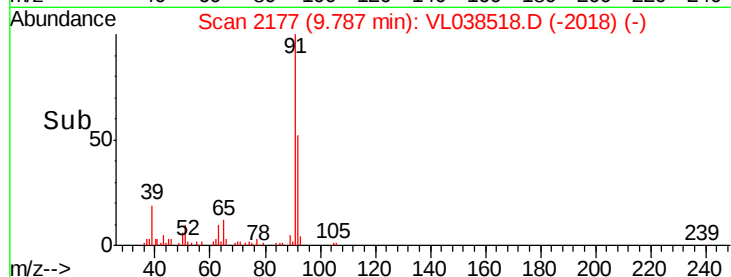
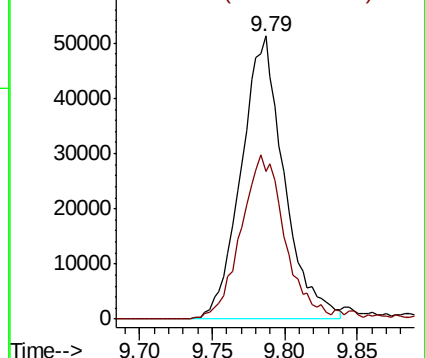
91 100

92 61.9 48.2 72.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2884

Delta R.T. 0.00 min

Lab File: VL038518.D

Acq: 3 Mar 2022 17:54

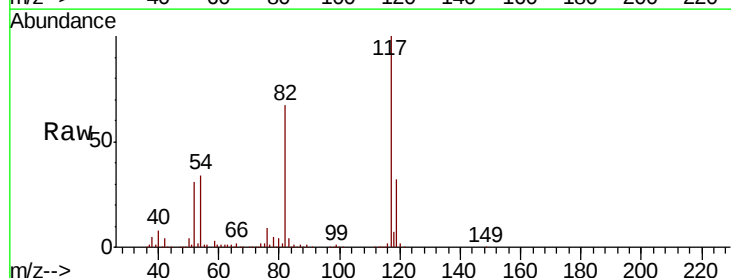
Tgt Ion: 117 Resp: 1561125

Ion Ratio Lower Upper

117 100

82 74.8 54.9 82.3

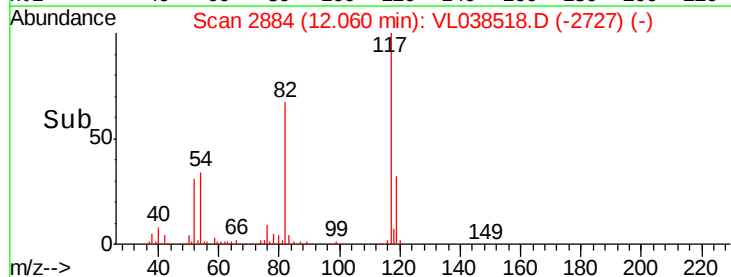
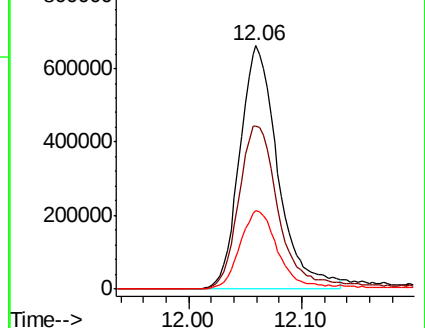
119 34.6 46.1 69.1#

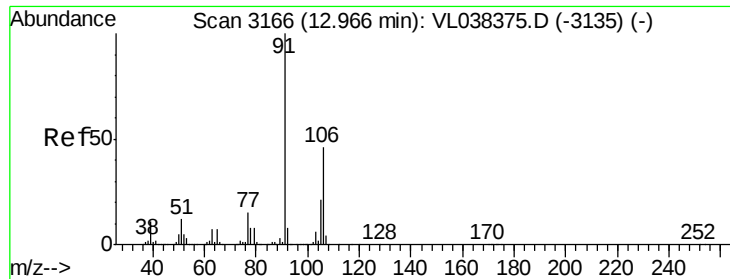


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





#59

m/p-Xylene

Concen: 0.040 ppbv

RT: 12.98

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

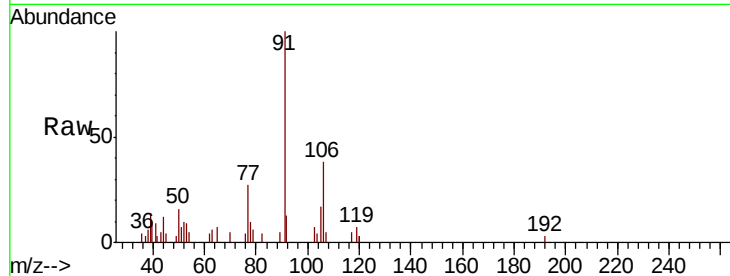
Acq: 3 Mar 2022 17:54

Tot Ion: 91 Resp: 7336

Ion Ratio Lower Upper

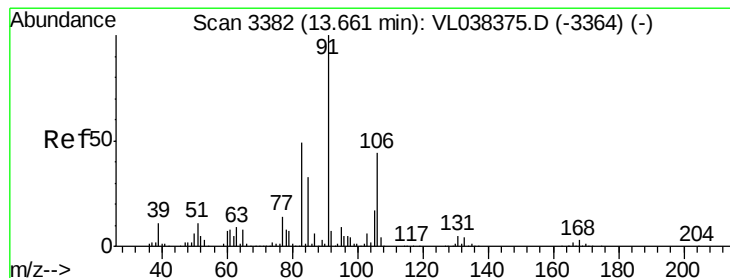
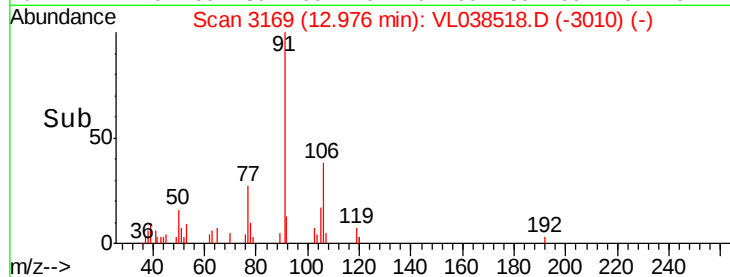
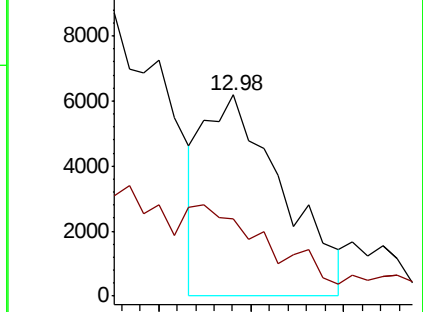
91 100

106 0.0 34.4 51.6#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.051 ppbv

RT: 13.67 min Scan# 3384

Delta R.T. 0.01 min

Lab File: VL038518.D

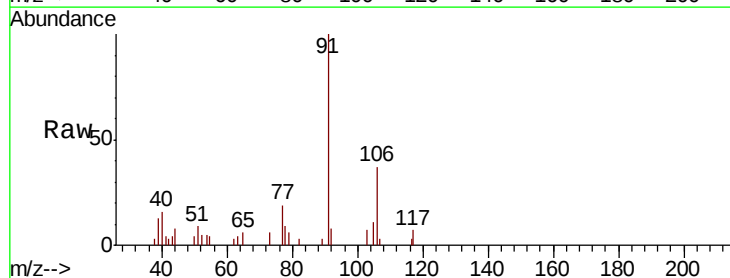
Acq: 3 Mar 2022 17:54

Tgt Ion: 91 Resp: 8774

Ion Ratio Lower Upper

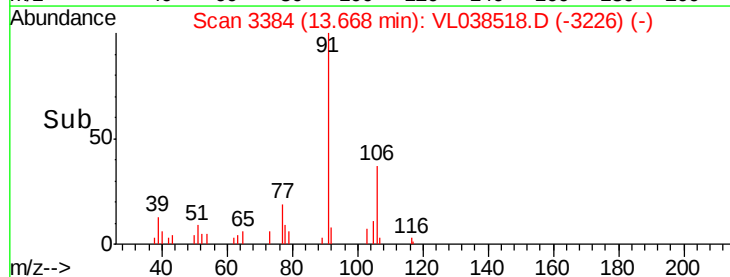
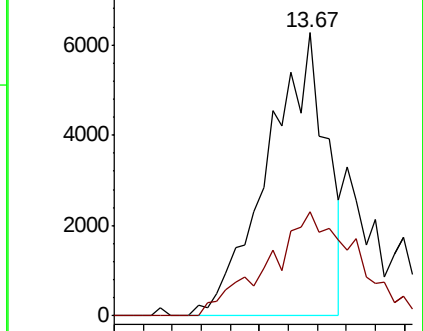
91 100

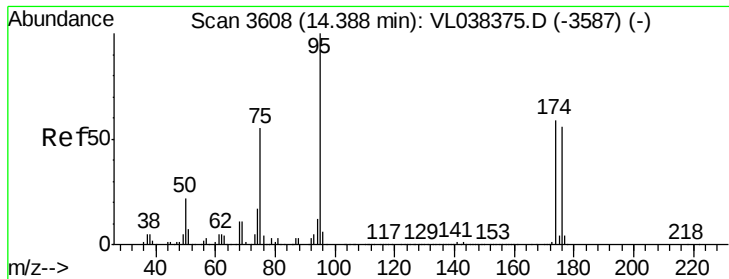
106 55.3 21.9 65.5



Abundance Ion 91.10 (90.80 to 91.80): VL0

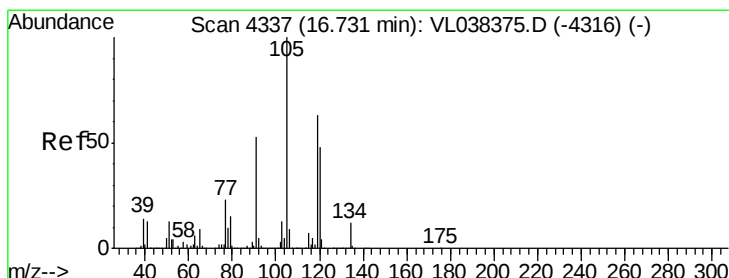
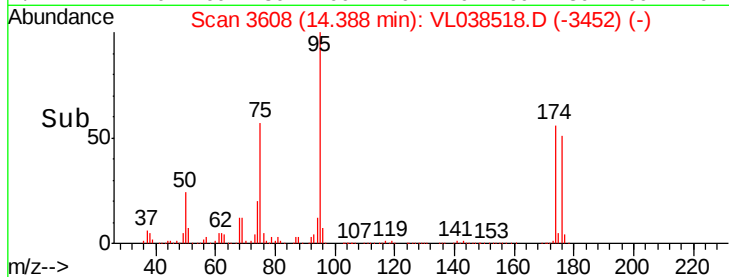
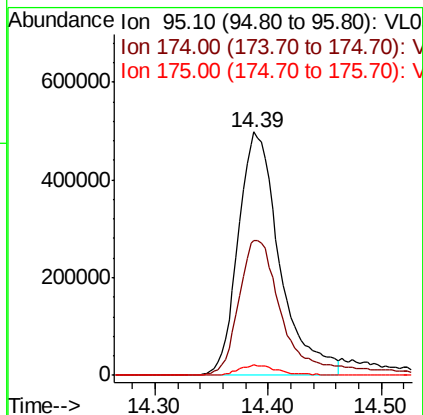
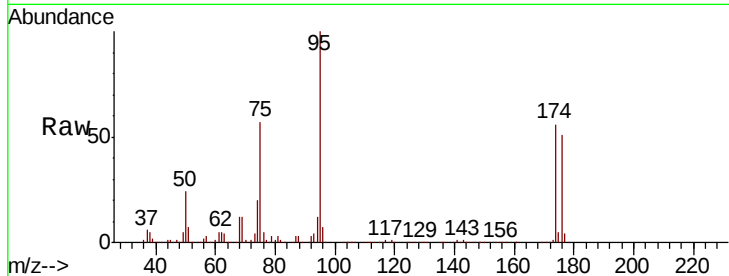
Ion 106.10 (105.80 to 106.80): V





#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.884 ppbv
 RT: 14.39 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 3 Mar 2022 17:54

Tot Ion: 95 Resp: 1276655
 Ion Ratio Lower Upper
 95 100
 174 61.4 49.0 73.4
 175 4.6 3.6 5.4



#74
 1,2,4-Trimethylbenzene
 Concen: 0.032 ppbv
 RT: 16.73 min Scan# 4338
 Delta R.T. 0.00 min
 Lab File: VL038518.D
 Acq: 3 Mar 2022 17:54

Tgt Ion: 105 Resp: 5843
 Ion Ratio Lower Upper
 105 100
 120 40.3 38.2 57.4
 91 0.0 42.7 64.1#
 77 7.5 18.5 27.7#

