

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL062422\
 Data File : VL039345.D
 Acq On : 24 Jun 2022 17:41
 Operator : SY/AP
 Sample : N3489-04 4X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV-3-20220622

Quant Time: Jun 27 01:50:12 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Jun 01 01:22:18 2022
 QLast Update : Wed Jun 01 01:22:18 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1233510	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3421458	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3115154	10.00	ppbv	-0.01

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	14.41	95	2307102	8.96	ppbv	0.00	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	89.60%	

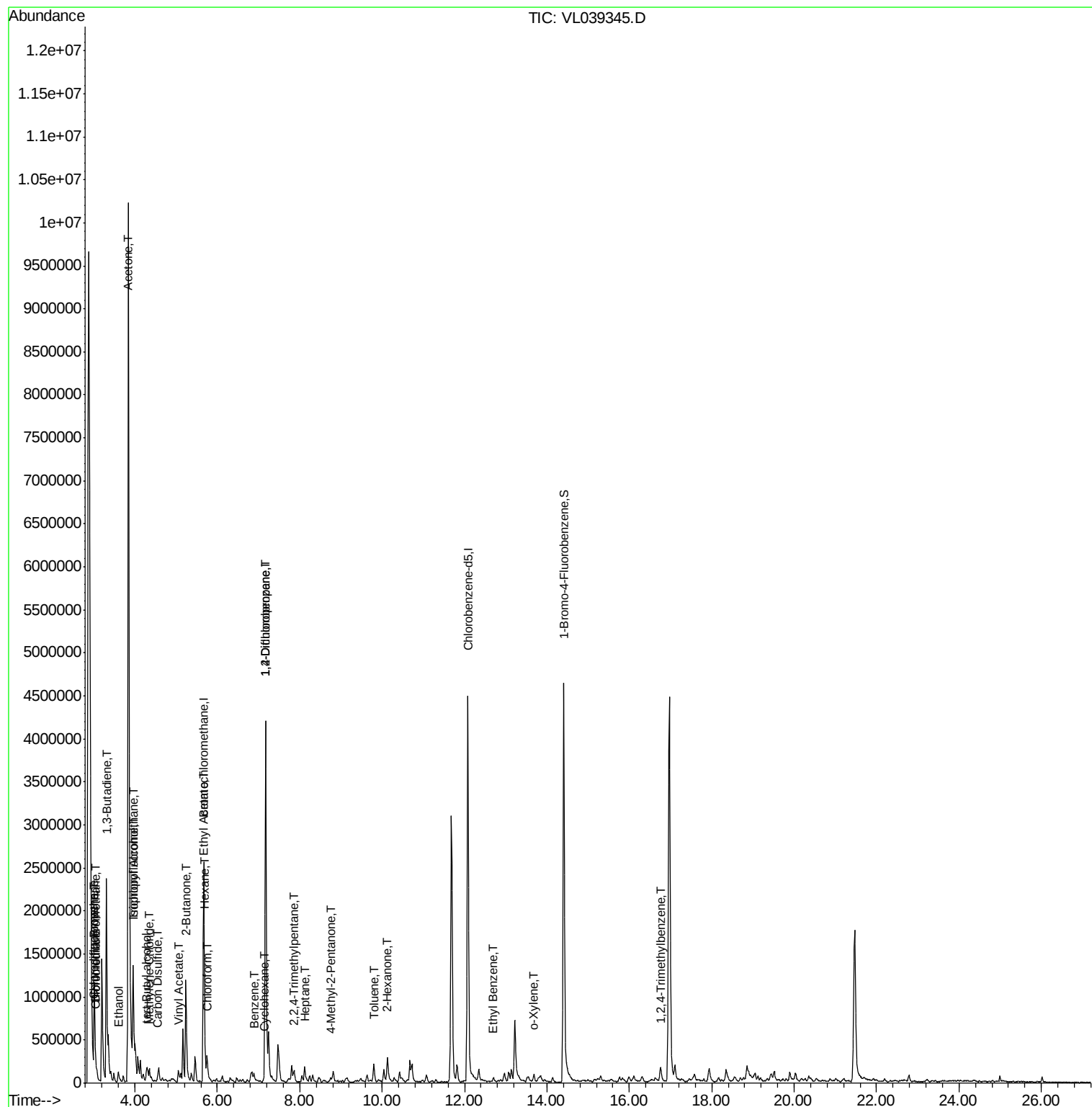
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.05	85	94146	0.435	ppbv	96
3) Chlorodifluoromethane	2.99	51	34116	0.217	ppbv	95
4) Chloromethane	3.05	50	4367	0.054	ppbv #	42
9) Propene	3.01	41	568663	8.309	ppbv	91
10) Heptane	8.11	43	44188	0.277	ppbv #	39
11) Trichlorofluoromethane	3.95	101	24152	0.123	ppbv	89
13) Ethanol	3.59	45	157359	42.163	ppbv #	100
15) Acetone	3.84	43	13766502	107.139	ppbv #	88
16) 1,3-Butadiene	3.31	39	725452	10.503	ppbv #	17
17) tert-Butyl alcohol	4.29	59	123471	1.239	ppbv	95
19) Isopropyl Alcohol	3.95	45	1550033	25.720	ppbv #	93
20) Methylene Chloride	4.34	84	46195	0.853	ppbv	87
23) Vinyl Acetate	5.06	43	35106	0.330	ppbv #	86
25) Ethyl Acetate	5.68	43	73589	0.254	ppbv #	81
26) Hexane	5.69	57	33757	0.265	ppbv #	1
27) Carbon Disulfide	4.55	76	63362	0.480	ppbv #	88
29) Chloroform	5.75	83	177730	0.830	ppbv	95
30) Cyclohexane	7.12	84	7660	0.072	ppbv #	1
34) 2-Butanone	5.24	43	1501559	8.078	ppbv	98
36) Benzene	6.89	78	55613	0.200	ppbv #	86
39) 1,2-Dichloropropane	7.17	63	837902	7.584	ppbv #	25
44) 2,2,4-Trimethylpentane	7.86	57	93066	0.192	ppbv #	70
50) 4-Methyl-2-Pentanone	8.75	43	11723	0.042	ppbv #	23
51) 2-Hexanone	10.13	43	240853	1.112	ppbv #	97
53) Toluene	9.80	91	97489	0.305	ppbv	98
58) Ethyl Benzene	12.70	91	17609	0.041	ppbv	89
60) o-Xylene	13.69	91	59585	0.168	ppbv	94
74) 1,2,4-Trimethylbenzene	16.75	105	100368	0.240	ppbv #	58

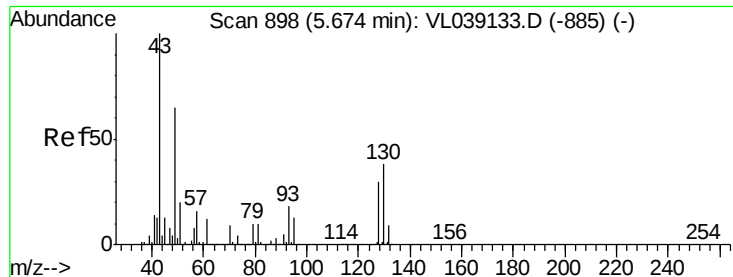
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Instrument :
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Quant Time: Jun 27 01:50:12 2022
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QLast Update : Wed Jun 01 01:22:18 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SV-3-20220622

Acq: 24 Jun 2022 17:41

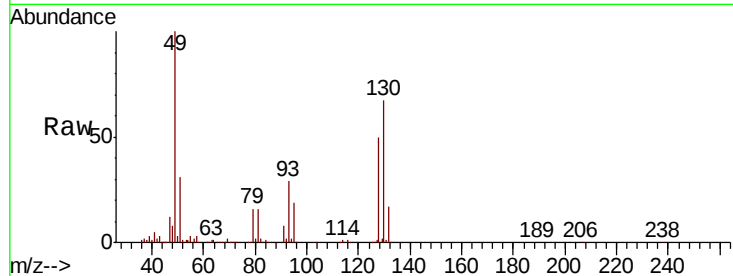
Tot Ion: 49 Resp: 1233510

Ion Ratio Lower Upper

49 100

128 53.3 24.7 74.1

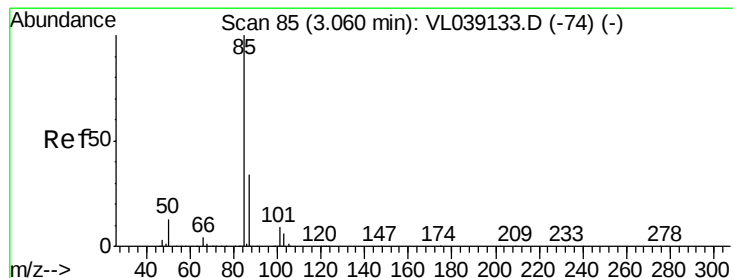
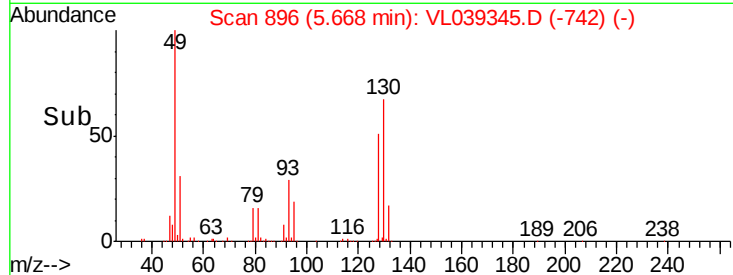
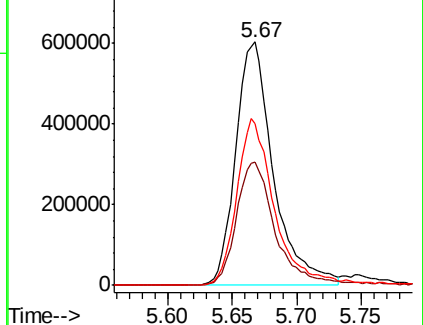
130 69.7 31.4 94.0



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: 0.435 ppbv

RT: 3.05 min Scan# 81

Delta R.T. -0.01 min

Lab File: VL039345.D

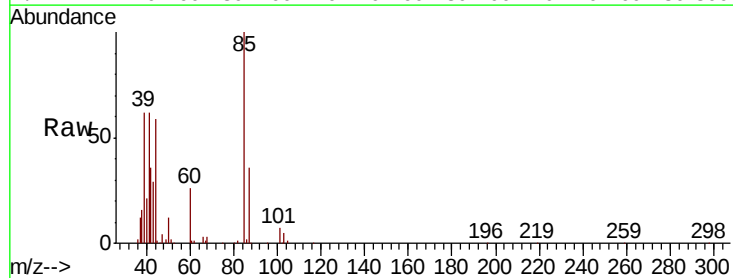
Acq: 24 Jun 2022 17:41

Tgt Ion: 85 Resp: 94146

Ion Ratio Lower Upper

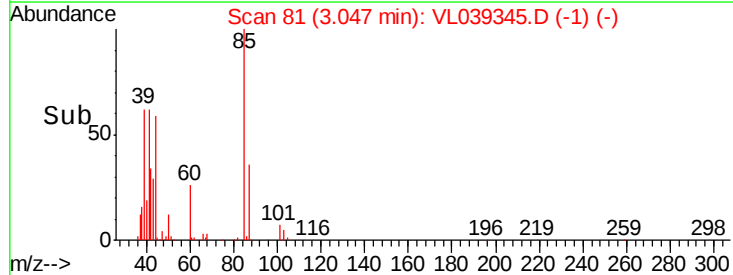
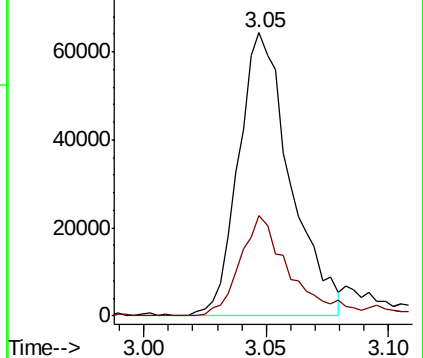
85 100

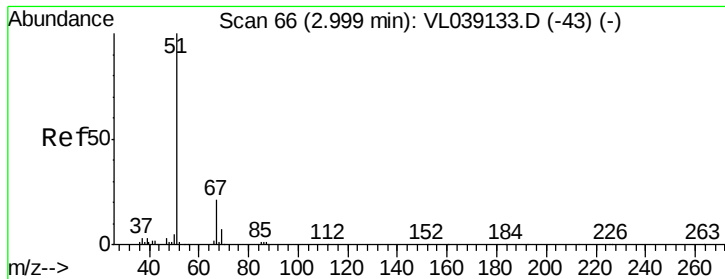
87 35.7 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.217 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

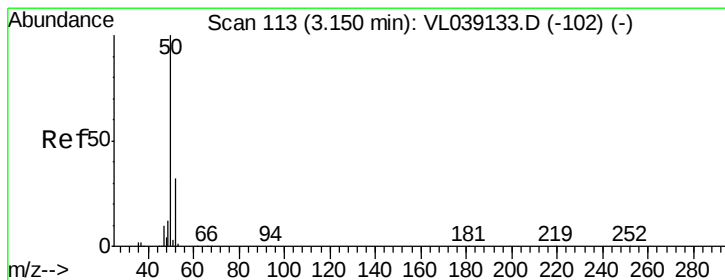
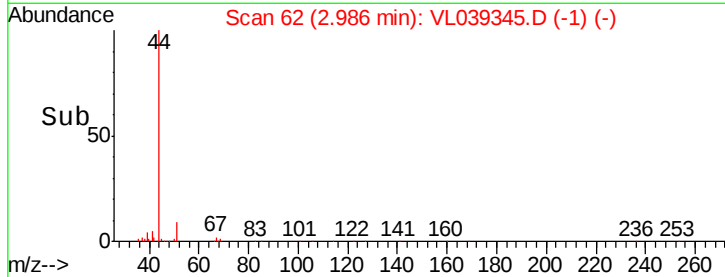
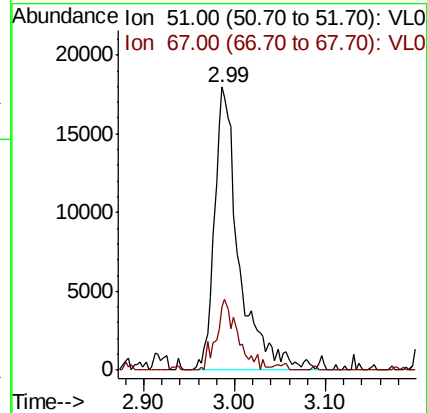
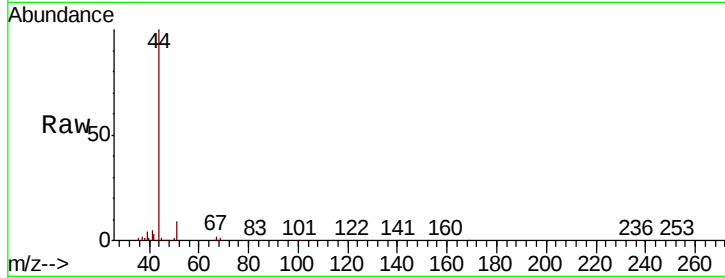
Acq: 24 Jun 2022 17:41 SV-3-20220622

Tot Ion: 51 Resp: 34116

Ion Ratio Lower Upper

51 100

67 22.8 16.2 24.4



#4

Chloromethane

Concen: 0.054 ppbv

RT: 3.05 min Scan# 83

Delta R.T. -0.10 min

Lab File: VL039345.D

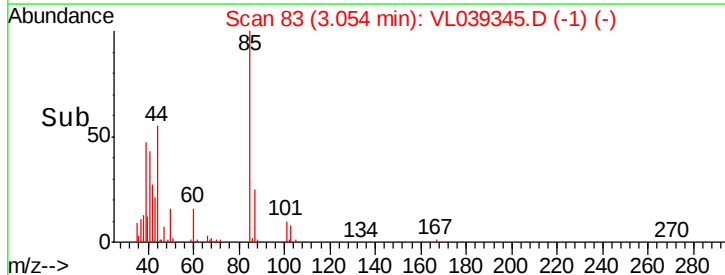
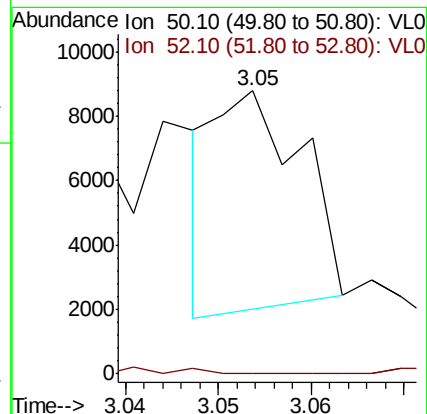
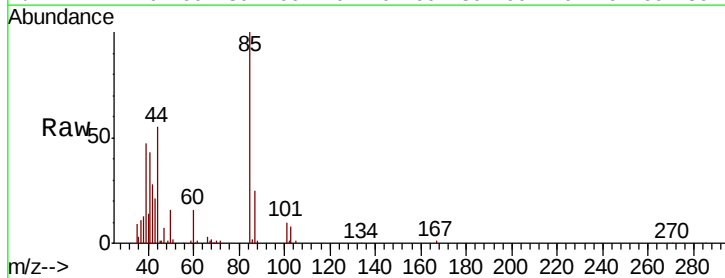
Acq: 24 Jun 2022 17:41

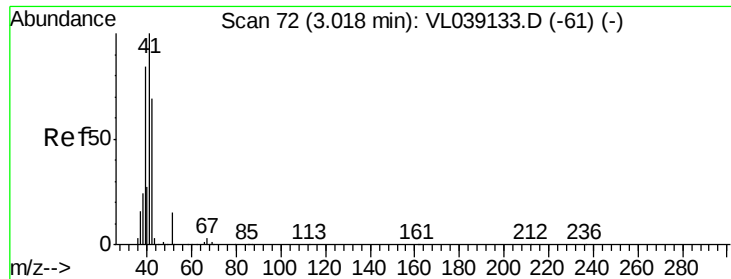
Tgt Ion: 50 Resp: 4367

Ion Ratio Lower Upper

50 100

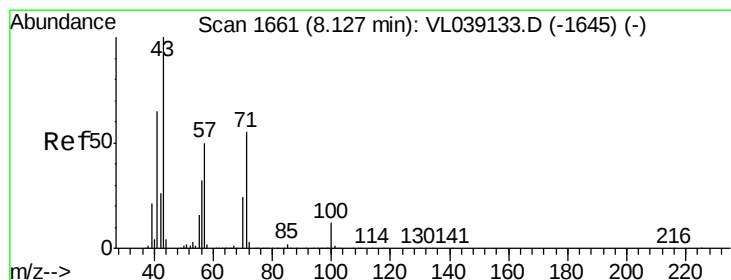
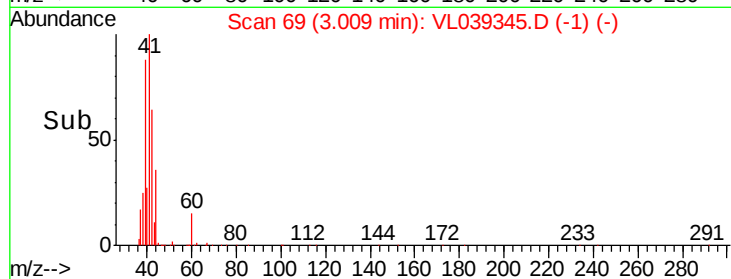
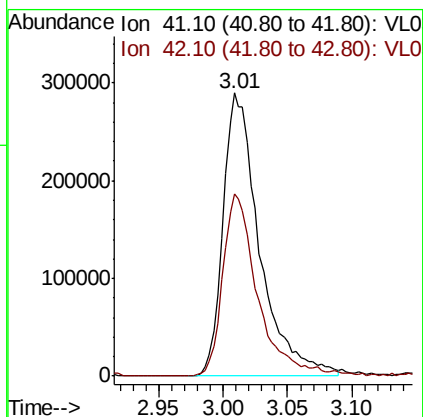
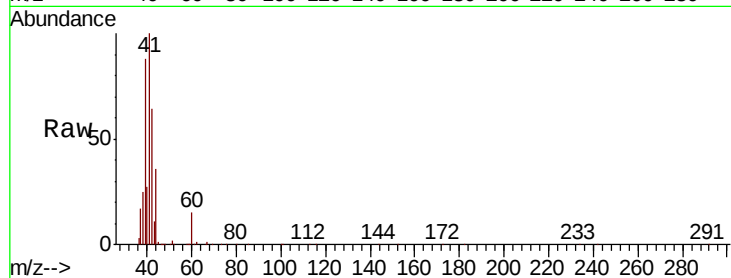
52 0.0 25.9 38.9#





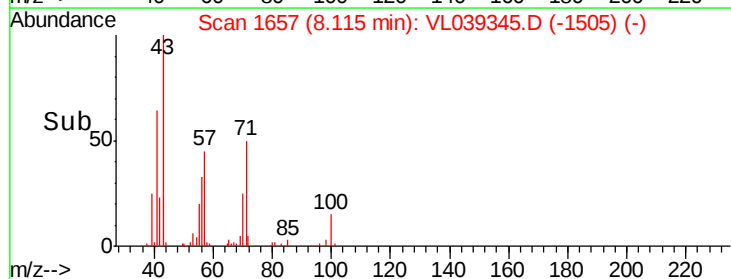
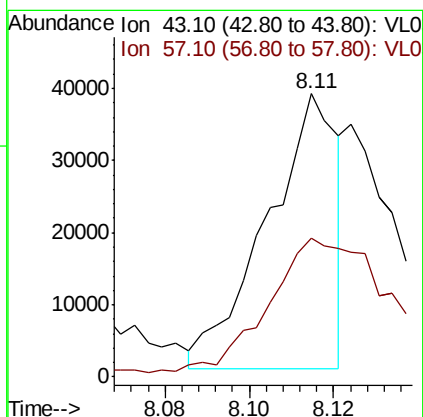
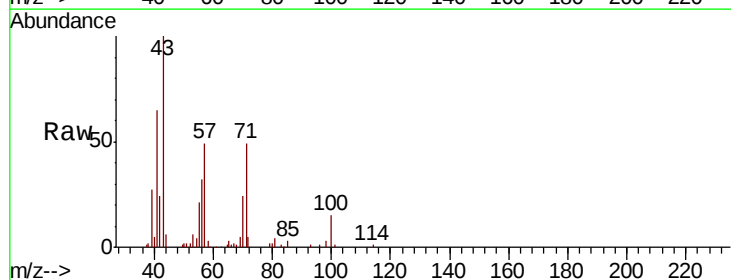
#9
 Propene
 Concen: 8.309 ppbv
 RT: 3.01
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-3-20220622
 Acq: 24 Jun 2022 17:41

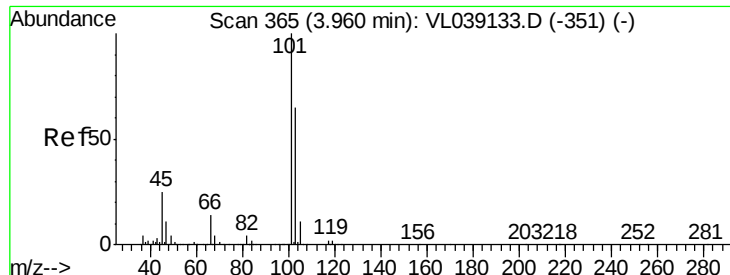
Tot Ion: 41 Resp: 568663
 Ion Ratio Lower Upper
 41 100
 42 62.3 55.4 83.2



#10
 Heptane
 Concen: 0.277 ppbv
 RT: 8.11 min Scan# 1657
 Delta R.T. -0.01 min
 Lab File: VL039345.D
 Acq: 24 Jun 2022 17:41

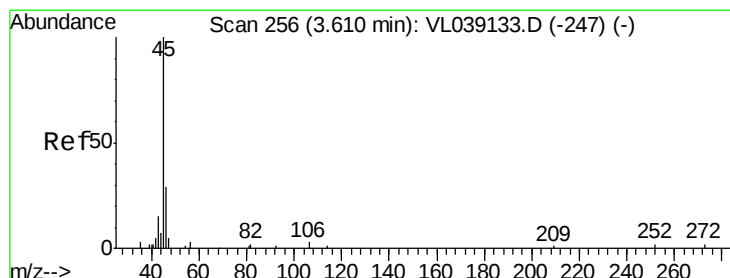
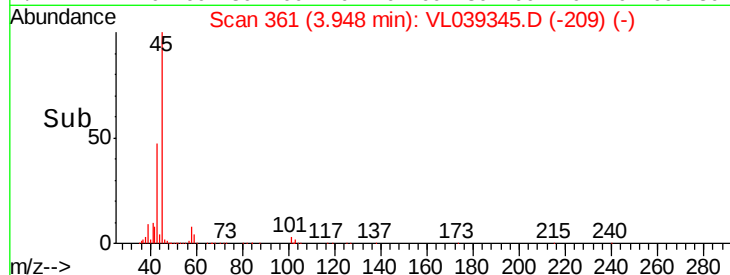
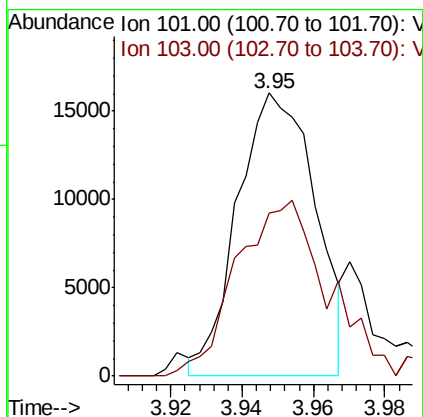
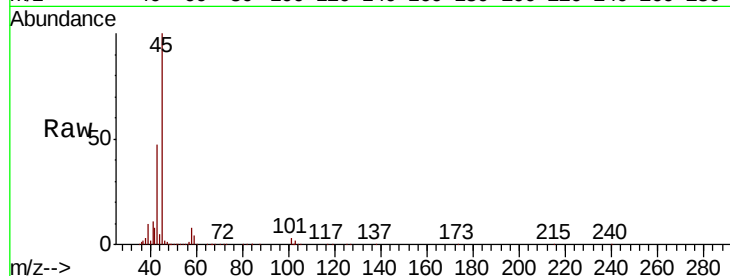
Tgt Ion: 43 Resp: 44188
 Ion Ratio Lower Upper
 43 100
 57 94.7 41.4 62.2#





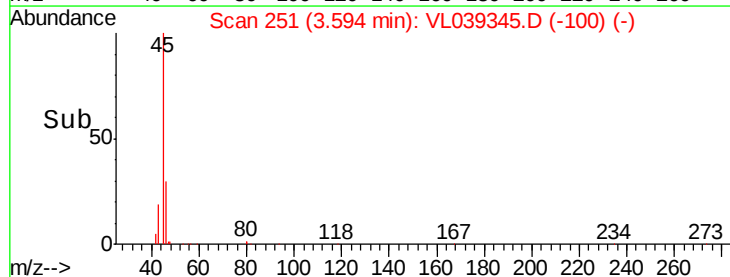
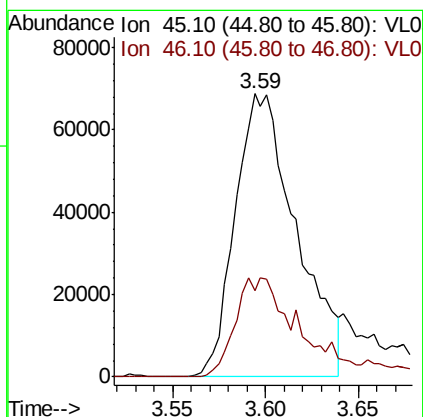
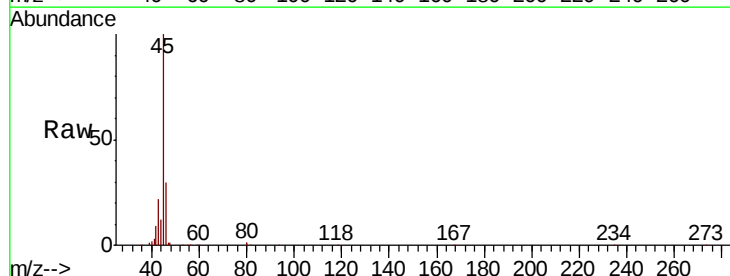
#11
 Trichlorofluoromethane
 Concen: 0.123 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-3-20220622
 Acq: 24 Jun 2022 17:41

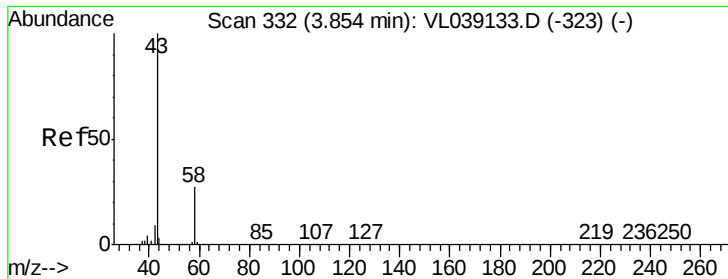
Tot Ion:101 Resp: 24152
 Ion Ratio Lower Upper
 101 100
 103 56.2 51.7 77.5



#13
 Ethanol
 Concen: 42.163 ppbv
 RT: 3.59 min Scan# 251
 Delta R.T. -0.02 min
 Lab File: VL039345.D
 Acq: 24 Jun 2022 17:41

Tgt Ion: 45 Resp: 157359
 Ion Ratio Lower Upper
 45 100
 46 41.7 0.0 0.0#





#15

Acetone

Concen: 107.139 ppbv

RT: 3.84 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

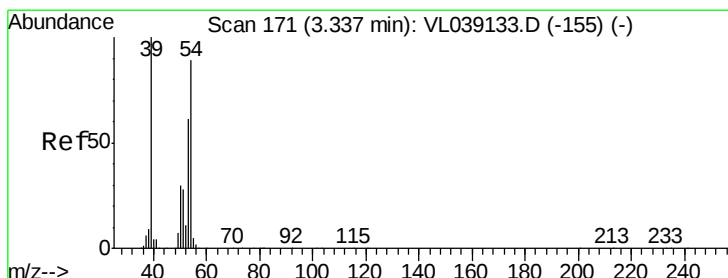
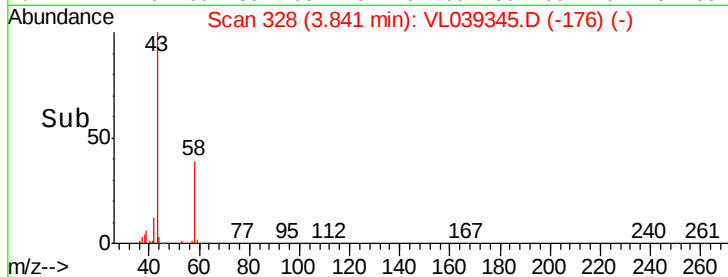
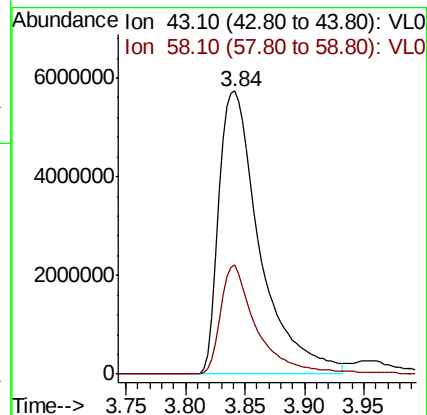
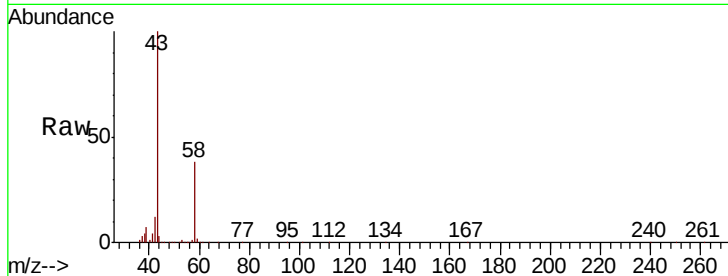
Acq: 24 Jun 2022 17:41 SV-3-20220622

Tot Ion: 43 Resp: 13766502

Ion Ratio Lower Upper

43 100

58 34.5 22.5 33.7#



#16

1,3-Butadiene

Concen: 10.503 ppbv

RT: 3.31 min Scan# 162

Delta R.T. -0.03 min

Lab File: VL039345.D

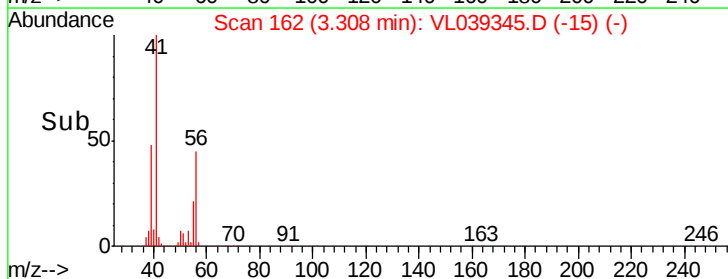
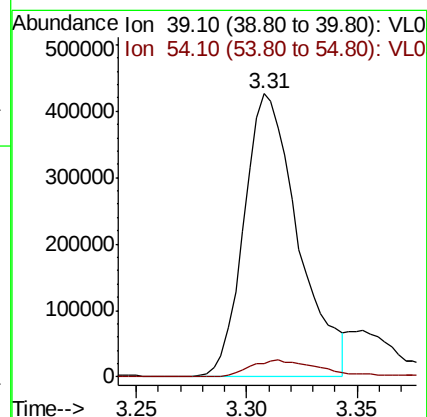
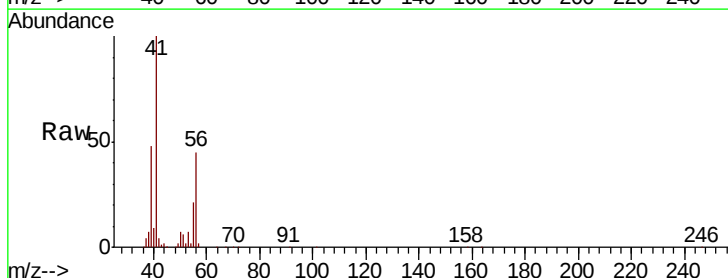
Acq: 24 Jun 2022 17:41

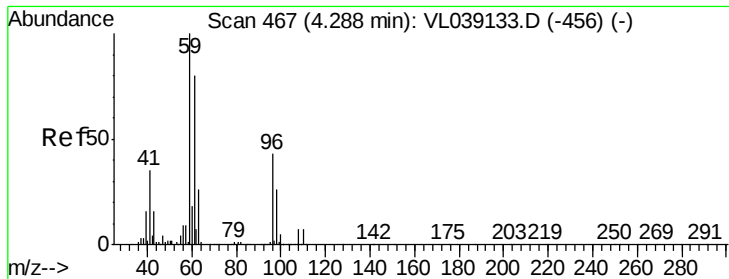
Tgt Ion: 39 Resp: 725452

Ion Ratio Lower Upper

39 100

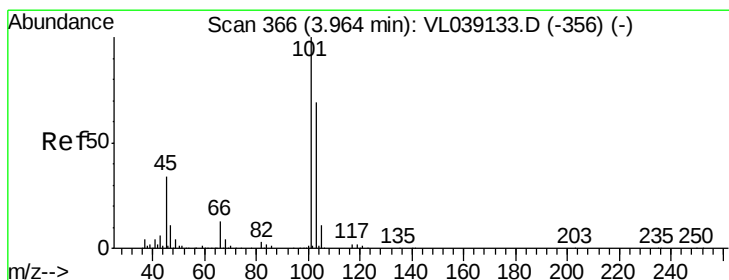
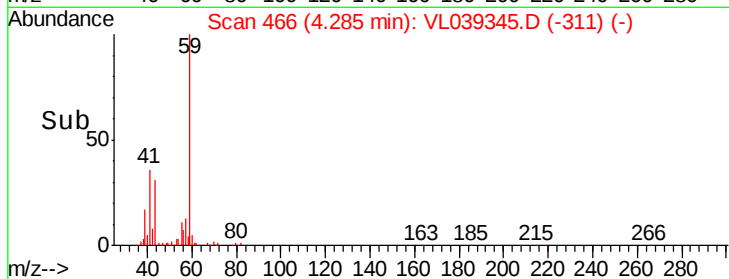
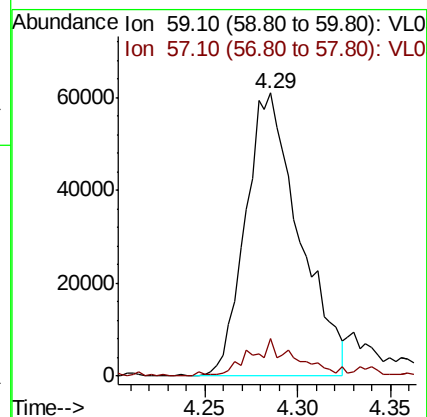
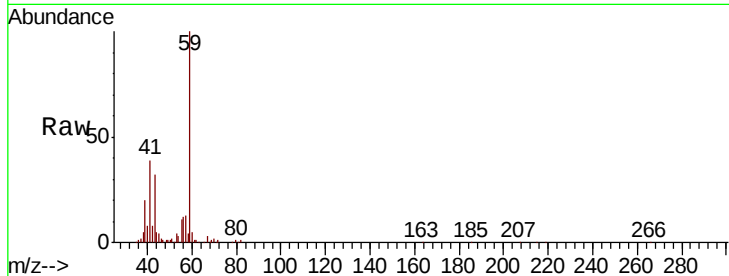
54 8.2 65.8 98.6#





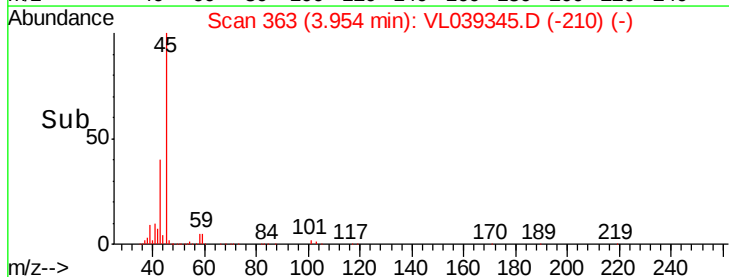
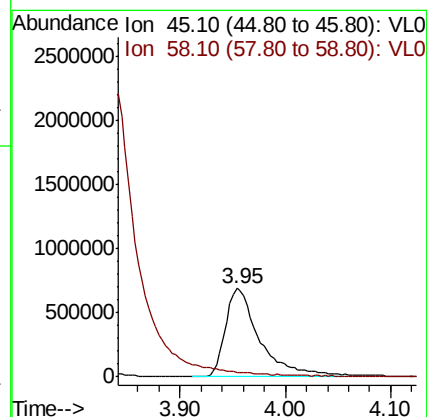
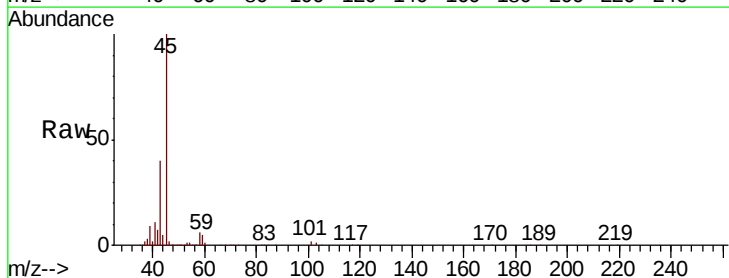
#17
tert-Butyl alcohol
Concen: 1.239 ppbv
RT: 4.29
Delta R.T. MSVOA.L
Lab File: ClientSampleId :
SV-3-20220622
Acq: 24 Jun 2022 17:41

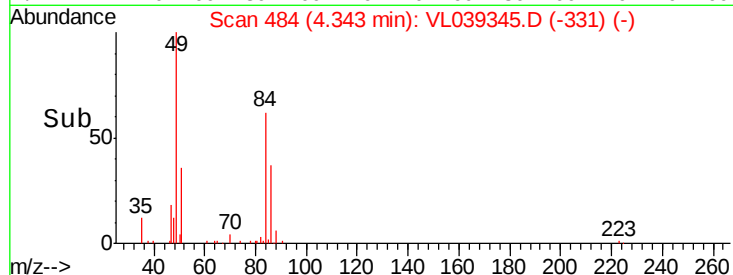
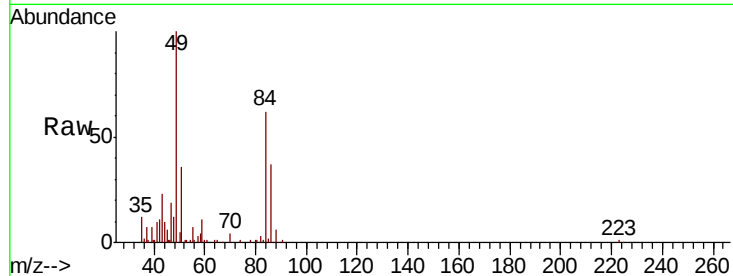
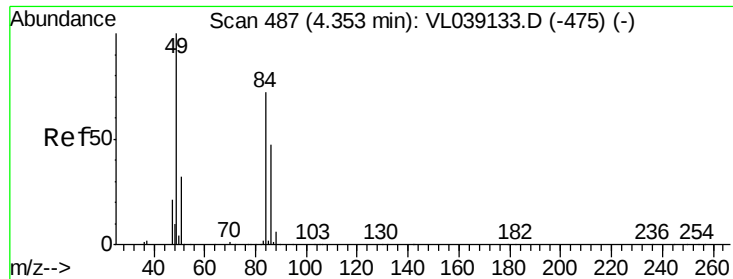
Tot Ion: 59 Resp: 123471
Ion Ratio Lower Upper
59 100
57 13.4 9.1 13.7



#19
Isopropyl Alcohol
Concen: 25.720 ppbv
RT: 3.95 min Scan# 363
Delta R.T. -0.01 min
Lab File: VL039345.D
Acq: 24 Jun 2022 17:41

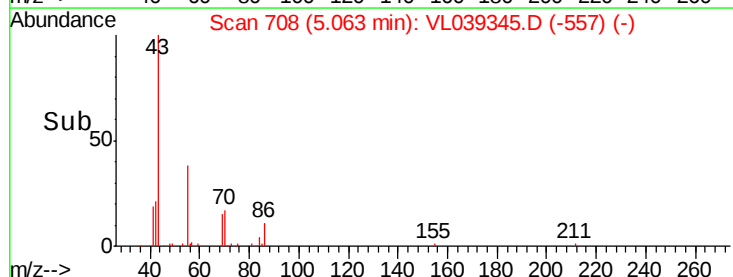
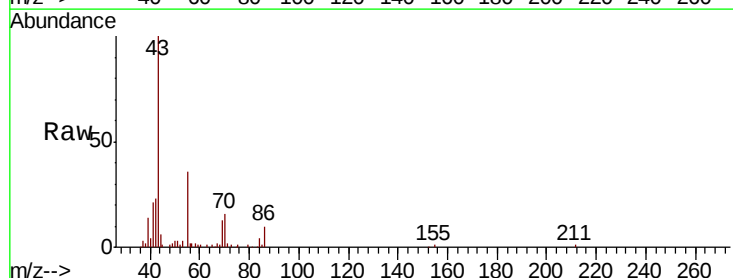
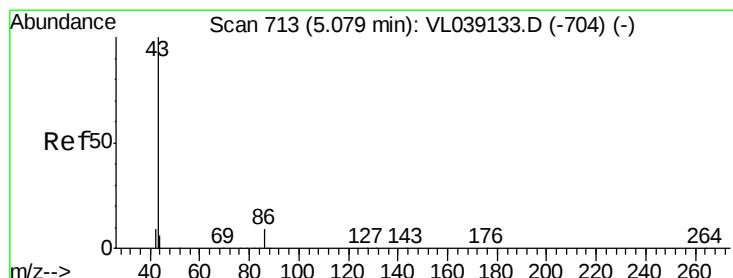
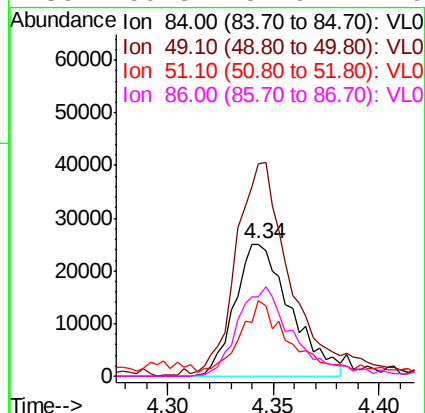
Tgt Ion: 45 Resp: 1550033
Ion Ratio Lower Upper
45 100
58 0.0 1.8 2.8#





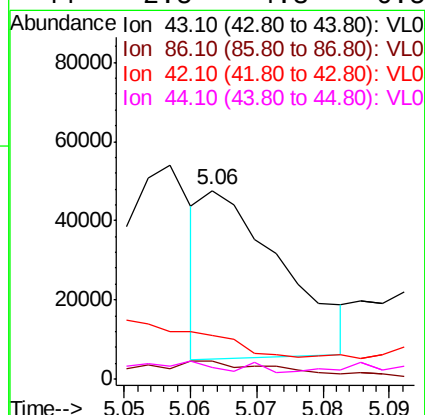
#20
Methvlene Chloride
Concen: 0.853 ppbv
RT: 4.34
Instrument: MSVOA_L
Delta R.T.
Lab File: ClientSampleId : SV-3-20220622
Acq: 24 Jun 2022 17:41

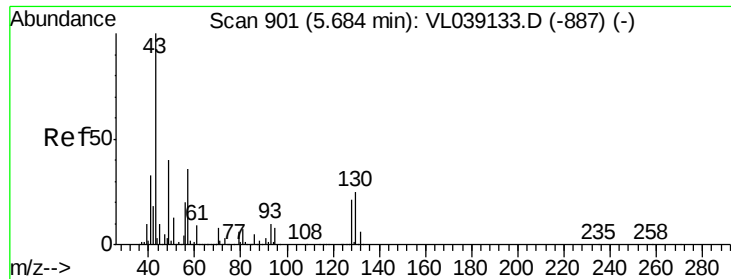
Tot Ion:	84	Resp:	46195
Ion	Ratio	Lower	Upper
84	100		
49	159.6	111.1	166.7
51	48.8	35.3	52.9
86	59.8	51.9	77.9



#23
Vinyl Acetate
Concen: 0.330 ppbv
RT: 5.06 min Scan# 708
Delta R.T. -0.02 min
Lab File: VL039345.D
Acq: 24 Jun 2022 17:41

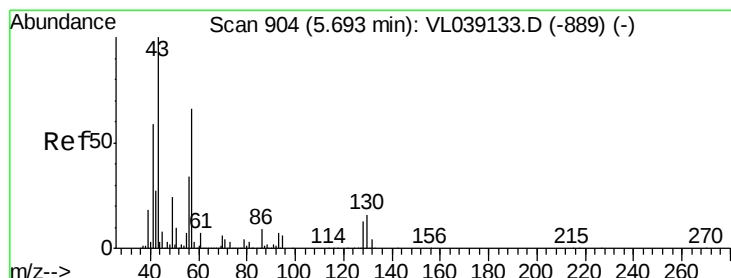
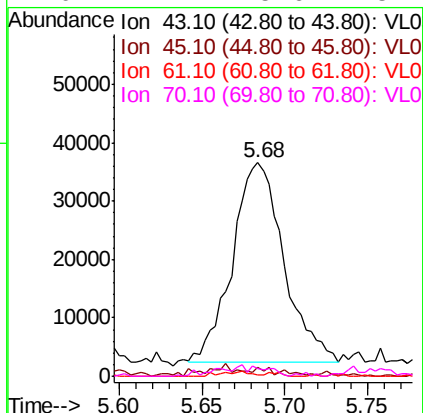
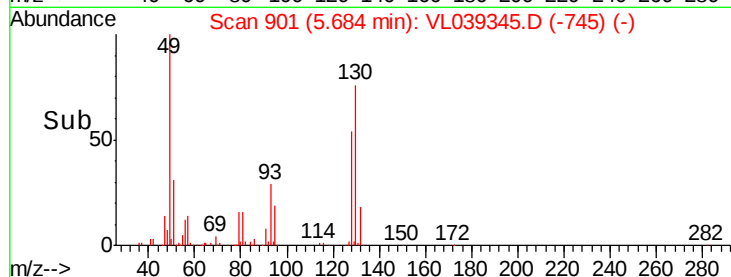
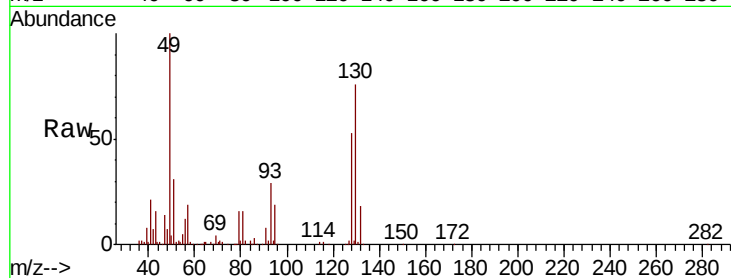
Tgt Ion:	43	Resp:	35106
Ion	Ratio	Lower	Upper
43	100		
86	11.8	6.0	9.0#
42	16.7	8.2	12.4#
44	2.5	4.3	6.5#





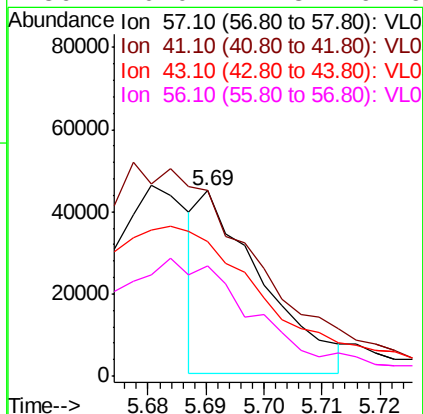
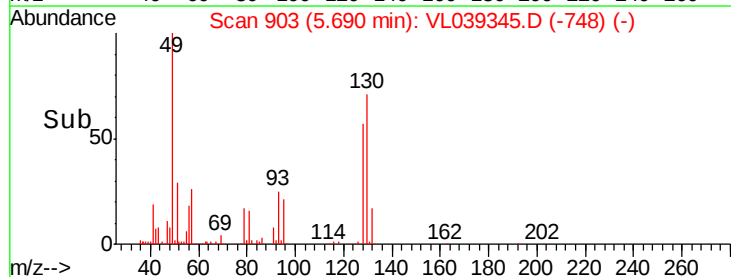
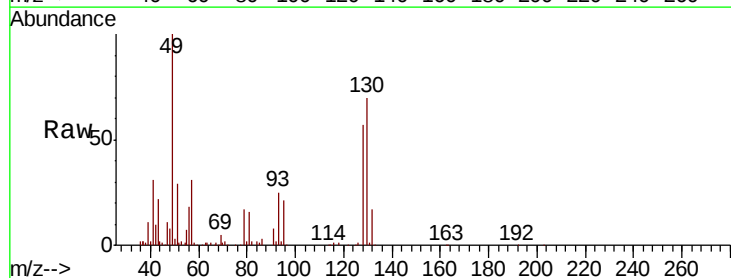
#25
Ethyl Acetate
Concen: 0.254 ppbv
RT: 5.68 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-3-20220622
Acq: 24 Jun 2022 17:41

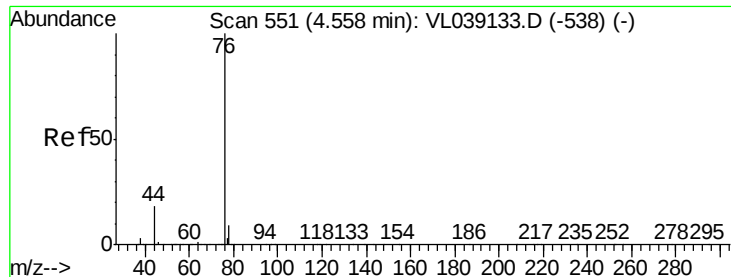
Tot Ion:	43	Resp:	73589
Ion	Ratio	Lower	Upper
43	100		
45	3.1	8.2	12.2#
61	0.4	8.4	12.6#
70	4.2	5.6	8.4#



#26
Hexane
Concen: 0.265 ppbv
RT: 5.69 min Scan# 903
Delta R.T. -0.00 min
Lab File: VL039345.D
Acq: 24 Jun 2022 17:41

Tgt Ion:	57	Resp:	33757
Ion	Ratio	Lower	Upper
57	100		
41	0.0	72.4	108.6#
43	0.0	187.0	280.6#
56	0.0	41.8	62.6#





#27

Carbon Disulfide

Concen: 0.480 ppbv

RT: 4.55 Instrument: MSVOA_L

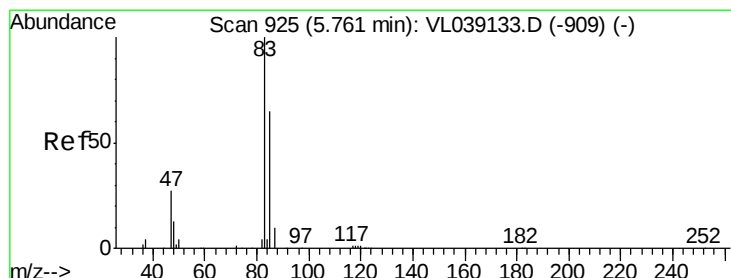
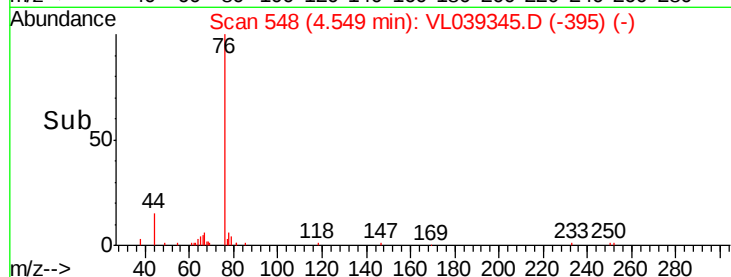
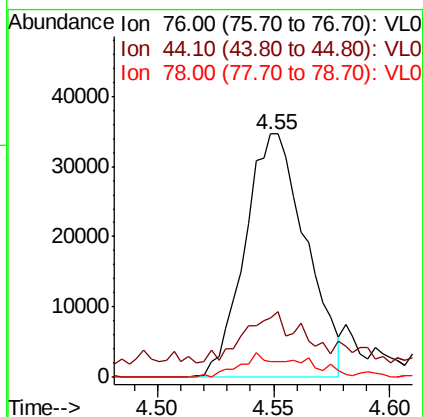
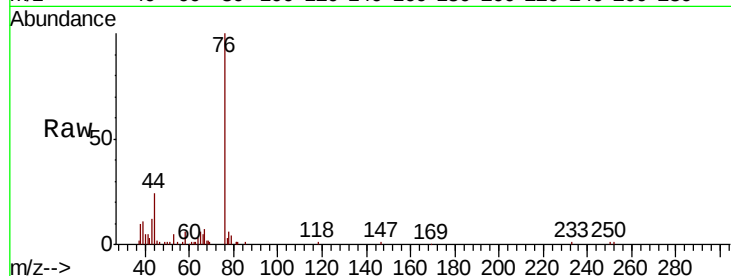
Delta R.T. ClientSampleId:

Lab File: SV-3-20220622

Acq: 24 Jun 2022 17:41

Tot Ion: 76 Resp: 63362

Ion	Ratio	Lower	Upper
76	100		
44	25.3	14.4	21.6#
78	10.9	7.7	11.5



#29

Chloroform

Concen: 0.830 ppbv

RT: 5.75 min Scan# 922

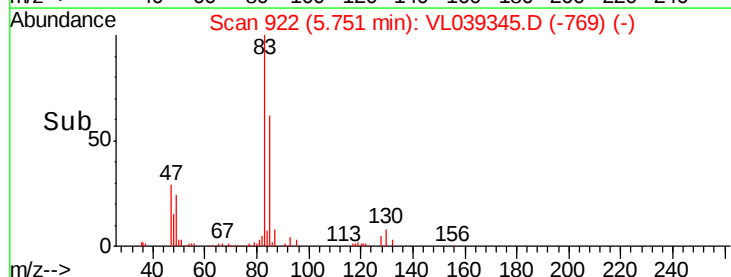
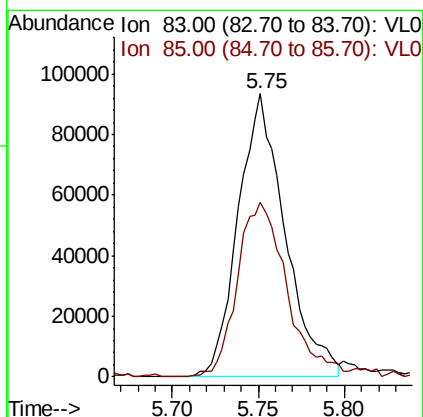
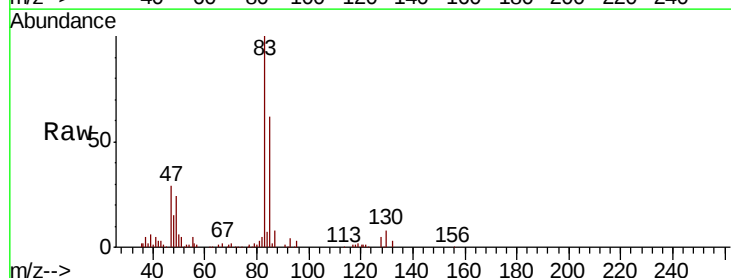
Delta R.T. -0.01 min

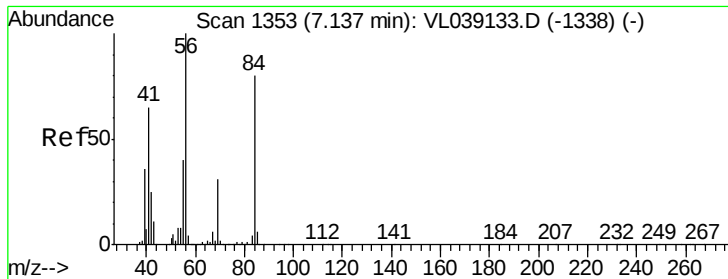
Lab File: VL039345.D

Acq: 24 Jun 2022 17:41

Tgt Ion: 83 Resp: 177730

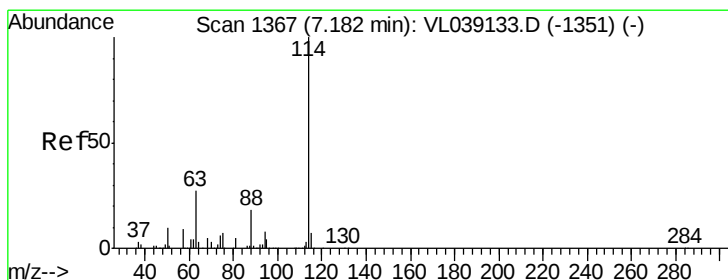
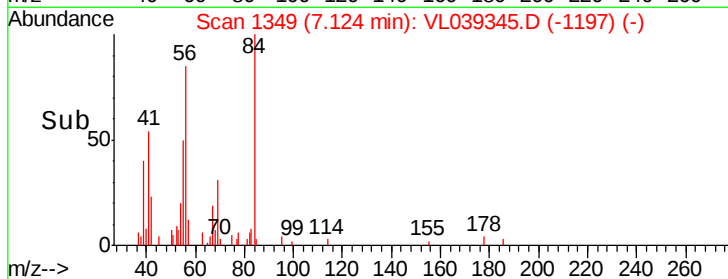
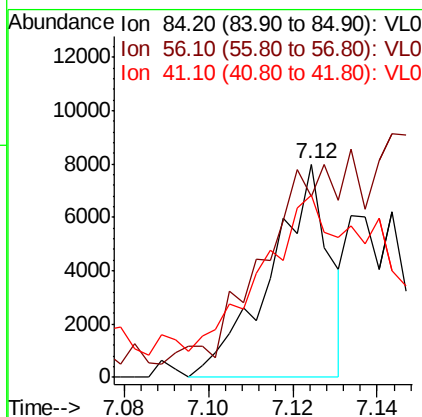
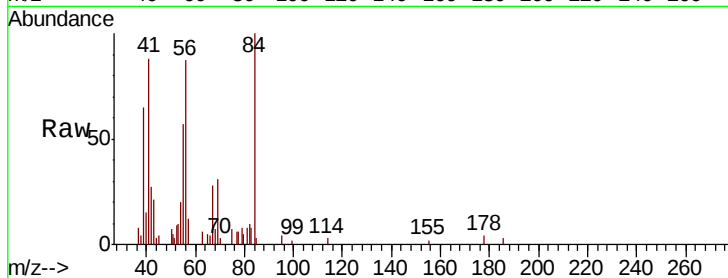
Ion	Ratio	Lower	Upper
83	100		
85	61.7	52.4	78.6





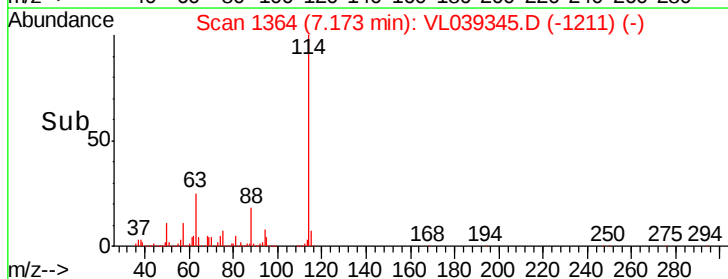
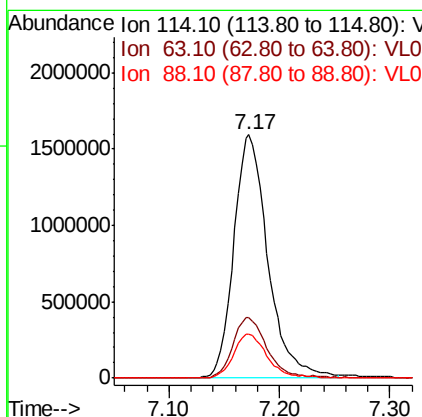
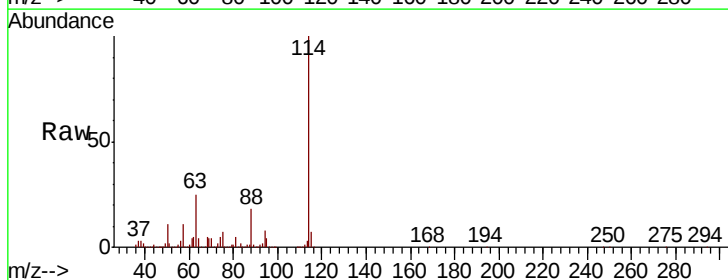
#30
Cvclohexane
Concen: 0.072 ppbv
RT: 7.12
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
SV-3-20220622
Acq: 24 Jun 2022 17:41

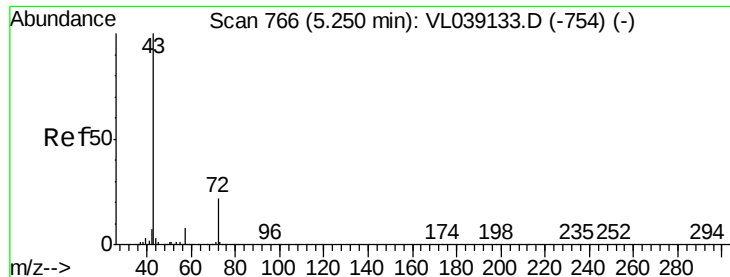
Tot Ion: 84 Resp: 7660
Ion Ratio Lower Upper
84 100
56 0.0 110.6 165.8#
41 0.0 68.9 103.3#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1364
Delta R.T. -0.01 min
Lab File: VL039345.D
Acq: 24 Jun 2022 17:41

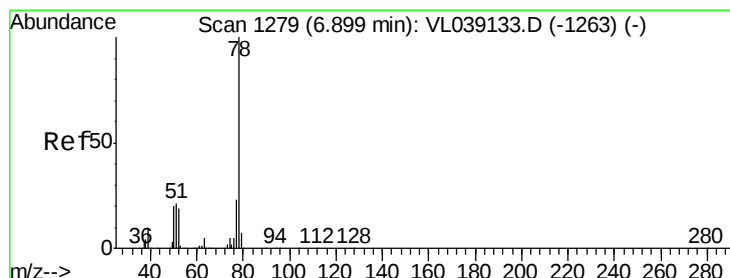
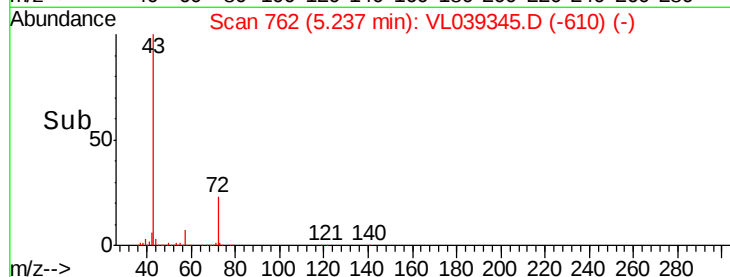
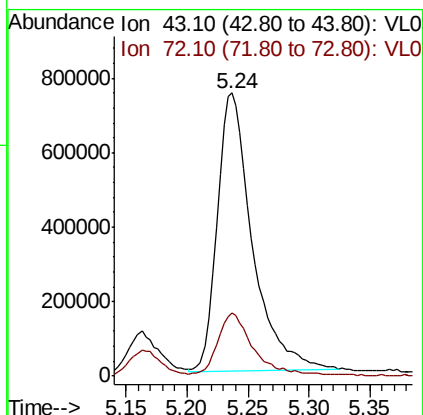
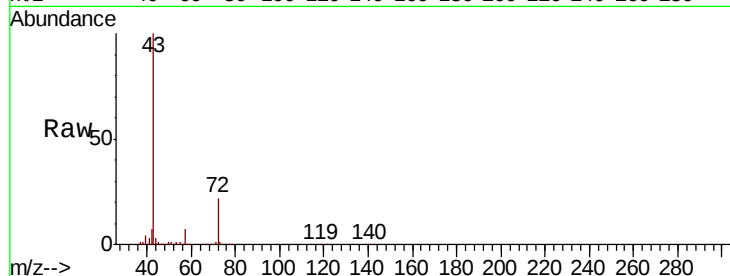
Tgt Ion: 114 Resp: 3421458
Ion Ratio Lower Upper
114 100
63 25.1 21.7 32.5
88 18.0 14.8 22.2





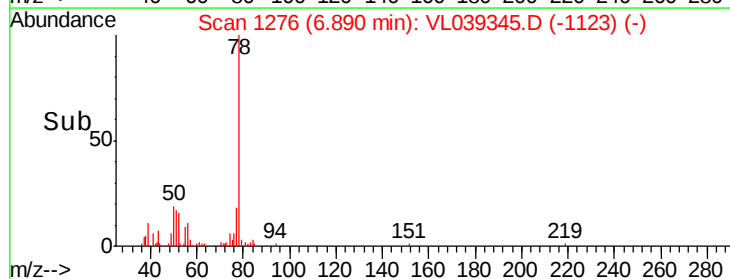
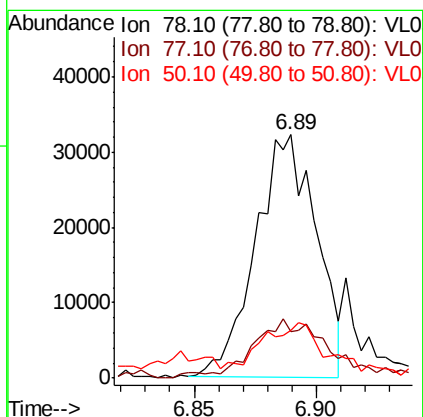
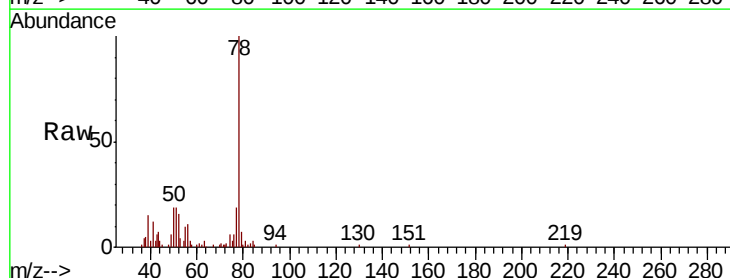
#34
 2-Butanone
 Concen: 8.078 ppbv
 RT: 5.24
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-3-20220622
 Acq: 24 Jun 2022 17:41

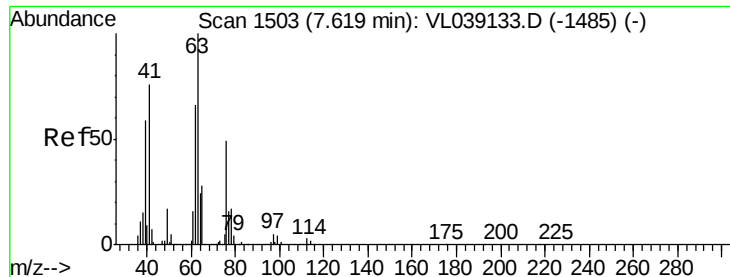
Tot Ion: 43 Resp: 1501559
 Ion Ratio Lower Upper
 43 100
 72 23.9 18.2 27.2



#36
 Benzene
 Concen: 0.200 ppbv
 RT: 6.89 min Scan# 1276
 Delta R.T. -0.01 min
 Lab File: VL039345.D
 Acq: 24 Jun 2022 17:41

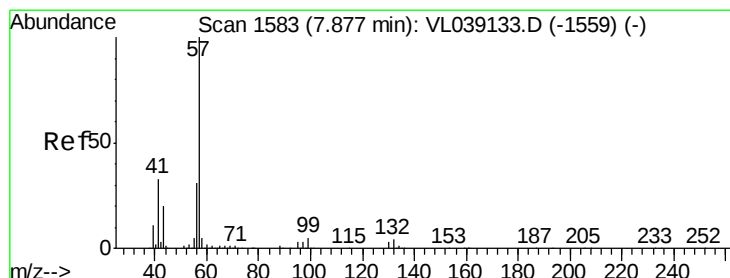
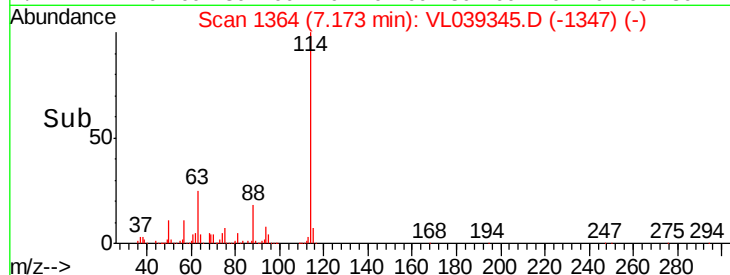
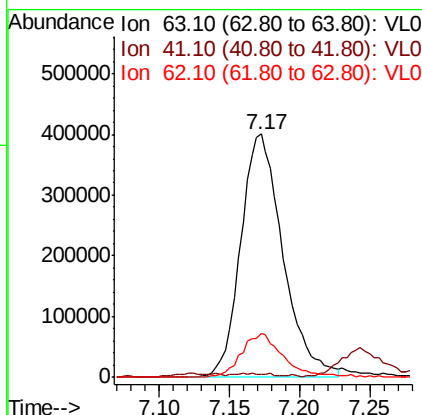
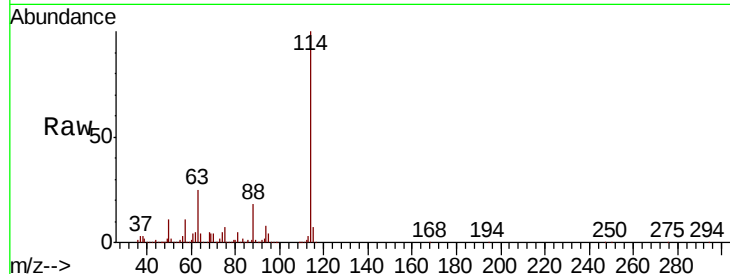
Tgt Ion: 78 Resp: 55613
 Ion Ratio Lower Upper
 78 100
 77 16.8 18.6 27.8#
 50 12.5 15.8 23.8#





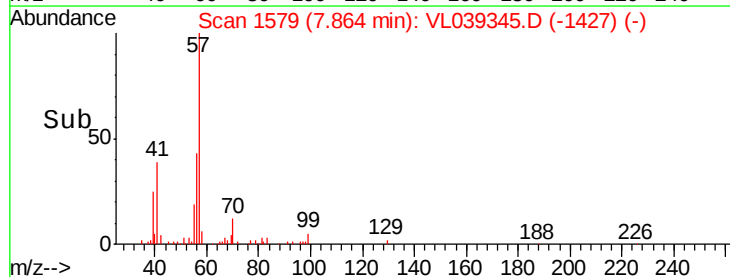
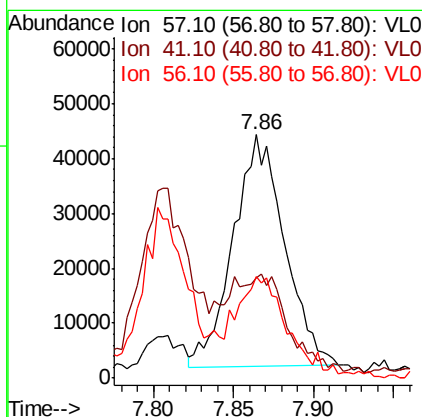
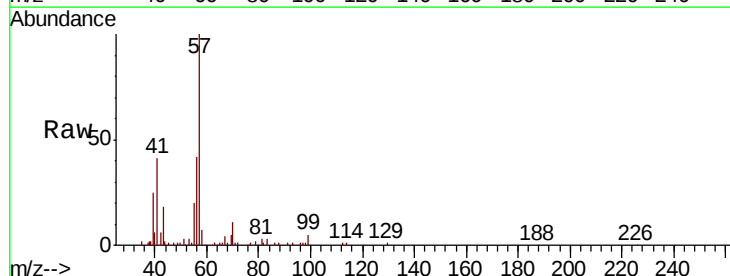
#39
 1,2-Dichloropropane
 Concen: 7.584 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-3-20220622
 Acq: 24 Jun 2022 17:41

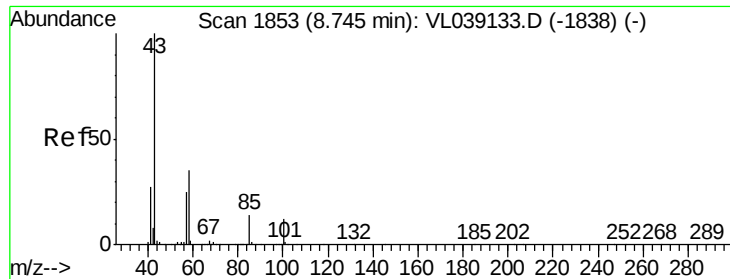
Tot Ion	63	Resp	837902
Ion	Ratio	Lower	Upper
63	100		
41	0.0	60.8	91.2#
62	18.2	52.9	79.3#



#44
 2,2,4-Trimethylpentane
 Concen: 0.192 ppbv
 RT: 7.86 min Scan# 1579
 Delta R.T. -0.01 min
 Lab File: VL039345.D
 Acq: 24 Jun 2022 17:41

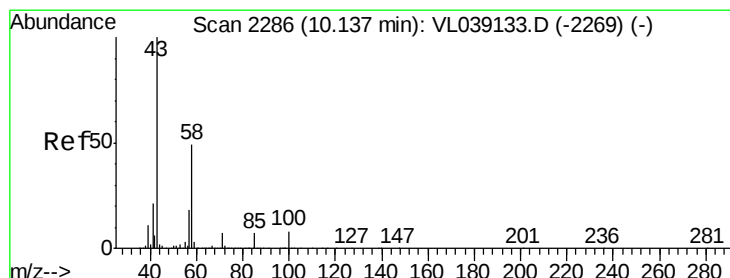
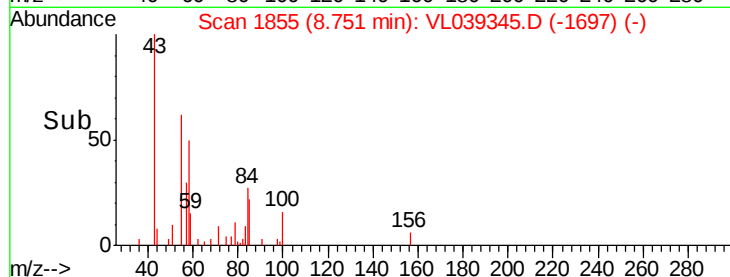
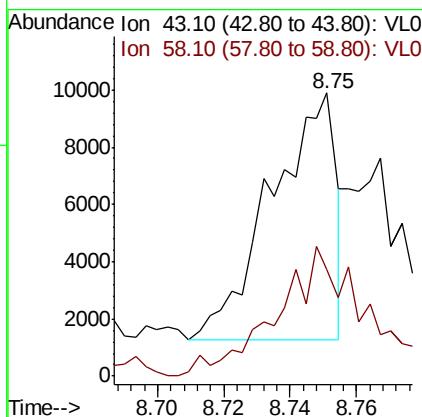
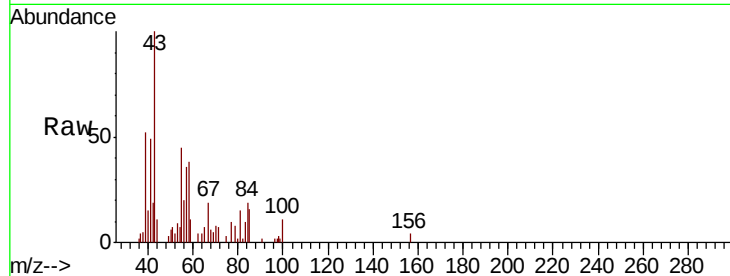
Tgt Ion	57	Resp	93066
Ion	Ratio	Lower	Upper
57	100		
41	50.4	26.2	39.4#
56	46.7	24.7	37.1#





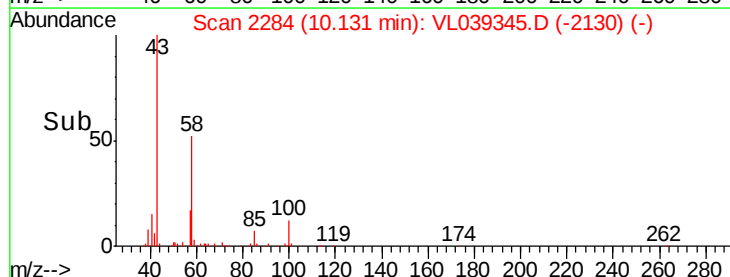
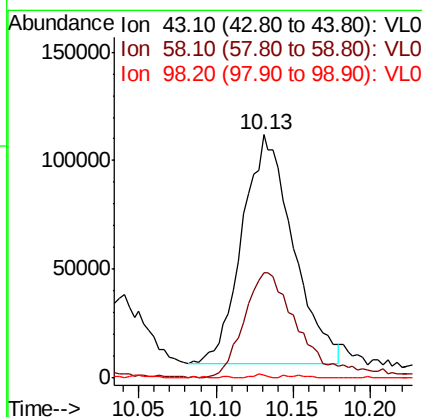
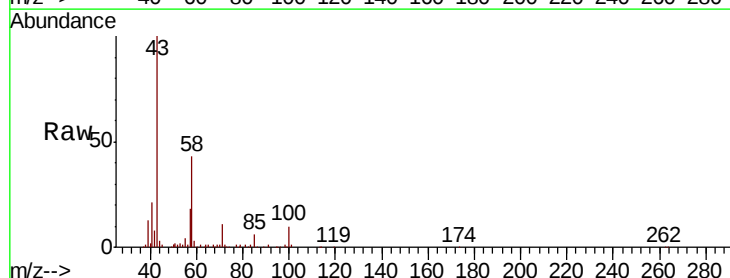
#50
 4-Methyl-2-Pentanone
 Concen: 0.042 ppbv
 RT: 8.75
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId:
 SV-3-20220622
 Acq: 24 Jun 2022 17:41

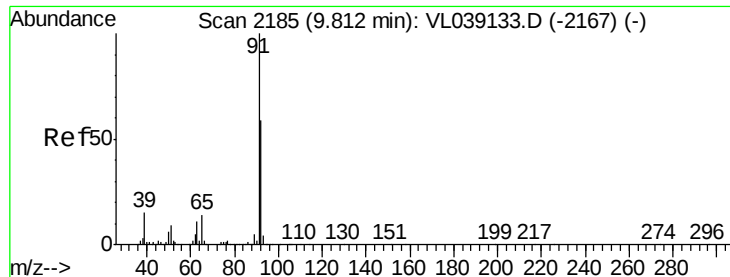
Tot Ion: 43 Resp: 11723
 Ion Ratio Lower Upper
 43 100
 58 81.2 28.7 43.1#



#51
 2-Hexanone
 Concen: 1.112 ppbv
 RT: 10.13 min Scan# 2284
 Delta R.T. -0.01 min
 Lab File: VL039345.D
 Acq: 24 Jun 2022 17:41

Tgt Ion: 43 Resp: 240853
 Ion Ratio Lower Upper
 43 100
 58 52.3 40.0 60.0
 98 1.3 0.1 0.1#





#53

Toluene

Concen: 0.305 ppbv

RT: 9.80 Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId:

SV-3-20220622

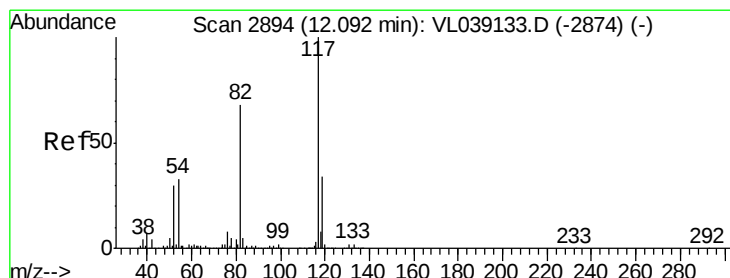
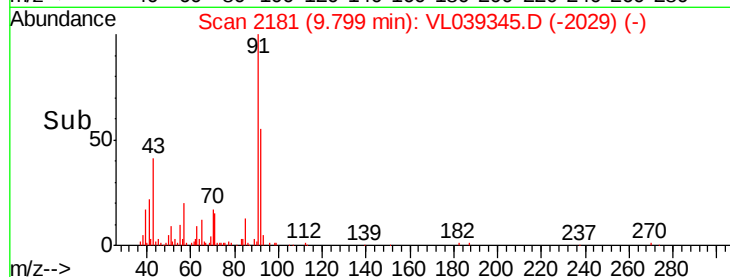
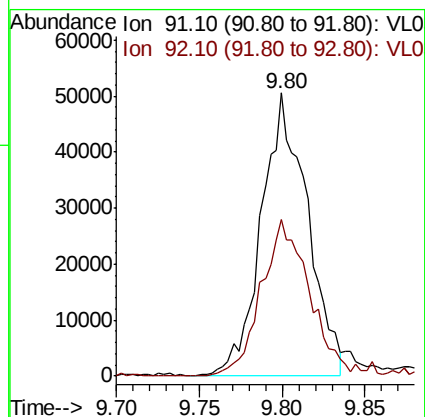
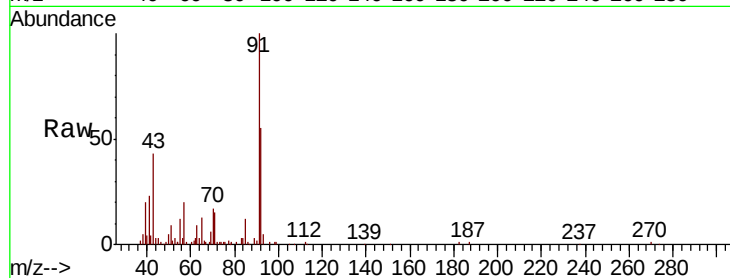
Acq: 24 Jun 2022 17:41

Tot Ion: 91 Resp: 97489

Ion Ratio Lower Upper

91 100

92 58.9 48.1 72.1



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.08 min Scan# 2890

Delta R.T. -0.01 min

Lab File: VL039345.D

Acq: 24 Jun 2022 17:41

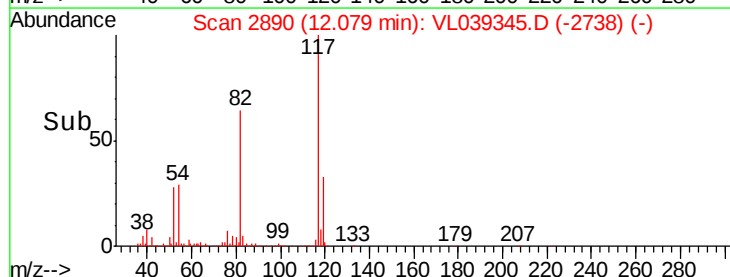
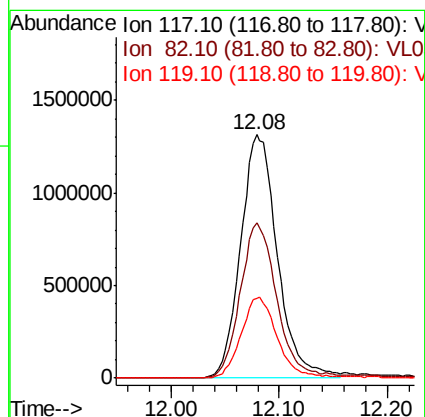
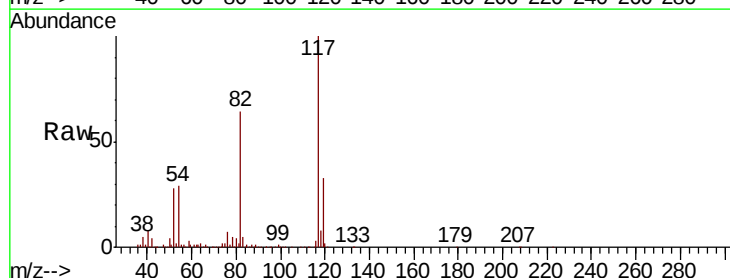
Tgt Ion: 117 Resp: 3115154

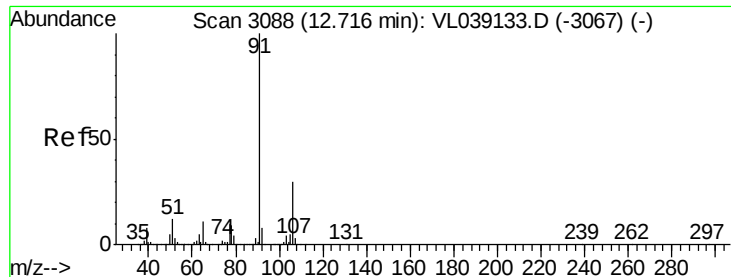
Ion Ratio Lower Upper

117 100

82 65.8 55.1 82.7

119 33.7 24.7 37.1





#58

Ethyl Benzene

Concen: 0.041 ppbv

RT: 12.70

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

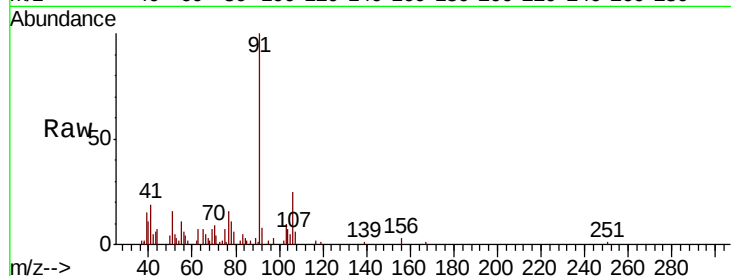
Acq: 24 Jun 2022 17:41

Tot Ion: 91 Resp: 17609

Ion Ratio Lower Upper

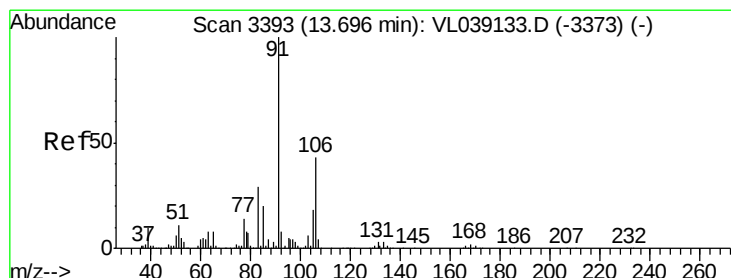
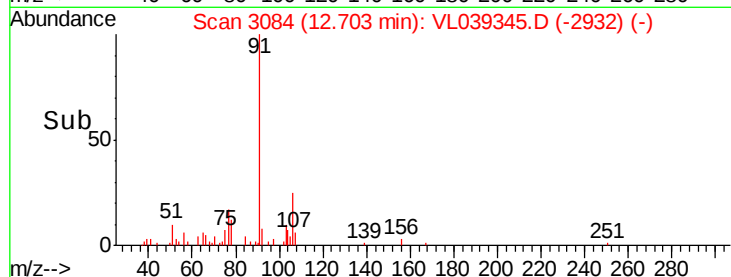
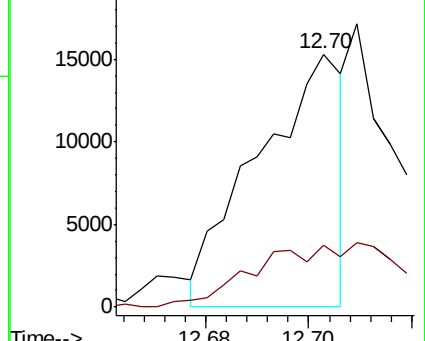
91 100

106 24.5 24.2 36.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 0.168 ppbv

RT: 13.69 min Scan# 3390

Delta R.T. -0.01 min

Lab File: VL039345.D

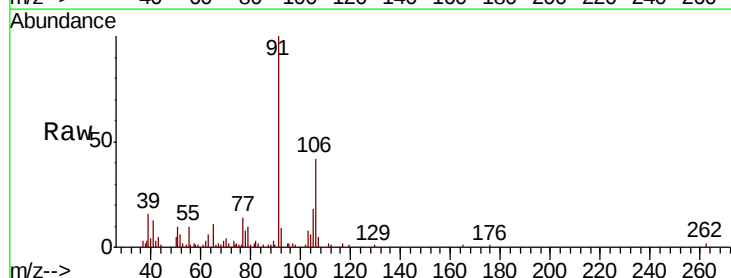
Acq: 24 Jun 2022 17:41

Tgt Ion: 91 Resp: 59585

Ion Ratio Lower Upper

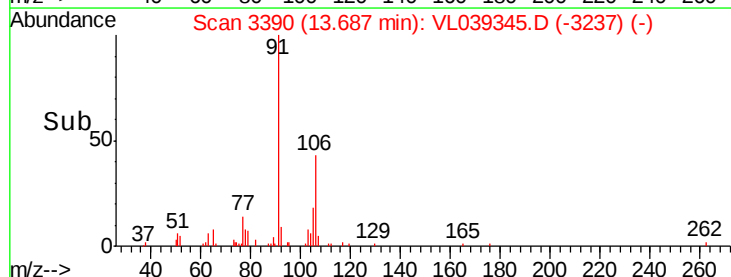
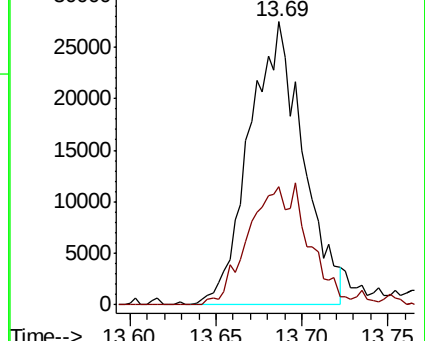
91 100

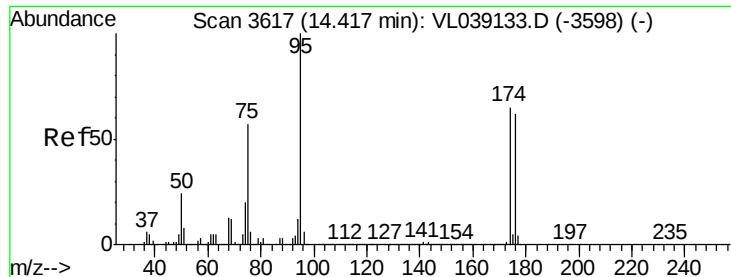
106 48.8 22.3 66.9



Abundance Ion 91.10 (90.80 to 91.80): VL0

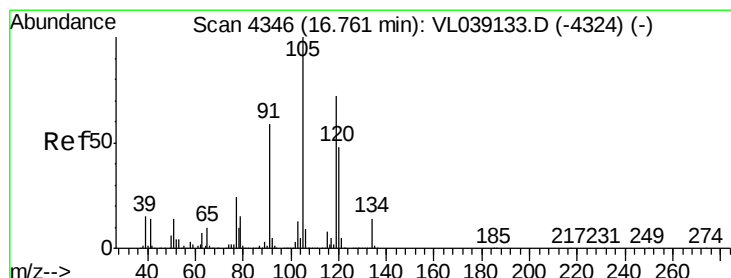
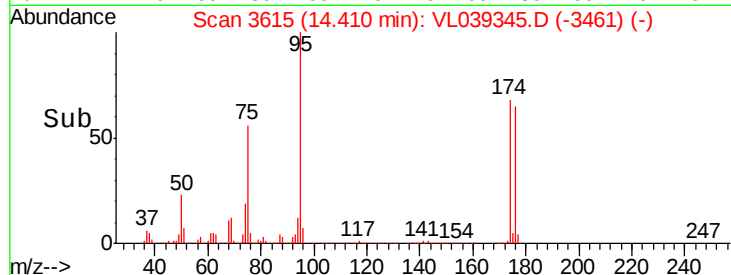
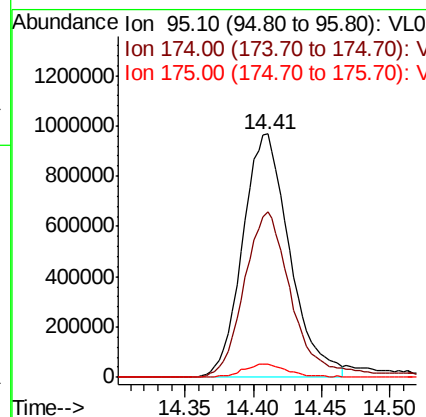
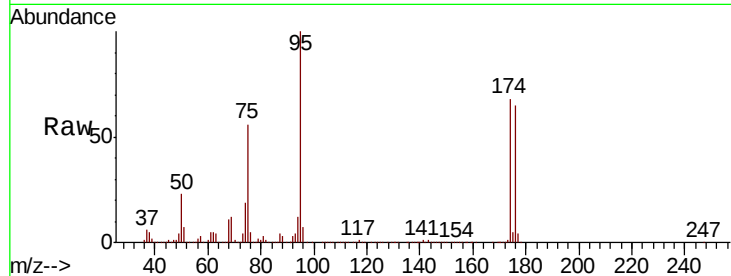
Ion 106.10 (105.80 to 106.80): V





#68
 1-Bromo-4-Fluorobenzene
 Concen: 8.958 ppbv
 RT: 14.41 min
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 SV-3-20220622
 Acq: 24 Jun 2022 17:41

Tot Ion: 95 Resp: 2307102
 Ion Ratio Lower Upper
 95 100
 174 72.0 53.8 80.8
 175 5.6 4.1 6.1



#74
 1,2,4-Trimethylbenzene
 Concen: 0.240 ppbv
 RT: 16.75 min Scan# 4344
 Delta R.T. -0.01 min
 Lab File: VL039345.D
 Acq: 24 Jun 2022 17:41

Tgt Ion: 105 Resp: 100368
 Ion Ratio Lower Upper
 105 100
 120 36.5 38.1 57.1#
 91 6.7 47.4 71.0#
 77 13.0 19.5 29.3#

