

Data Path : Z:\voasrv\HPCHEM1\MSVOA_L\Data\VL060622\
 Data File : VL039186.D
 Acq On : 6 Jun 2022 14:52
 Operator : SY/AP
 Sample : N3110-09 4X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-5DL

Quant Time: Jun 06 15:26:00 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL053122AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed 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	5.66	49	1236415	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3399047	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.08	117	3052013	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.40	95	2384029	9.45	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.50%

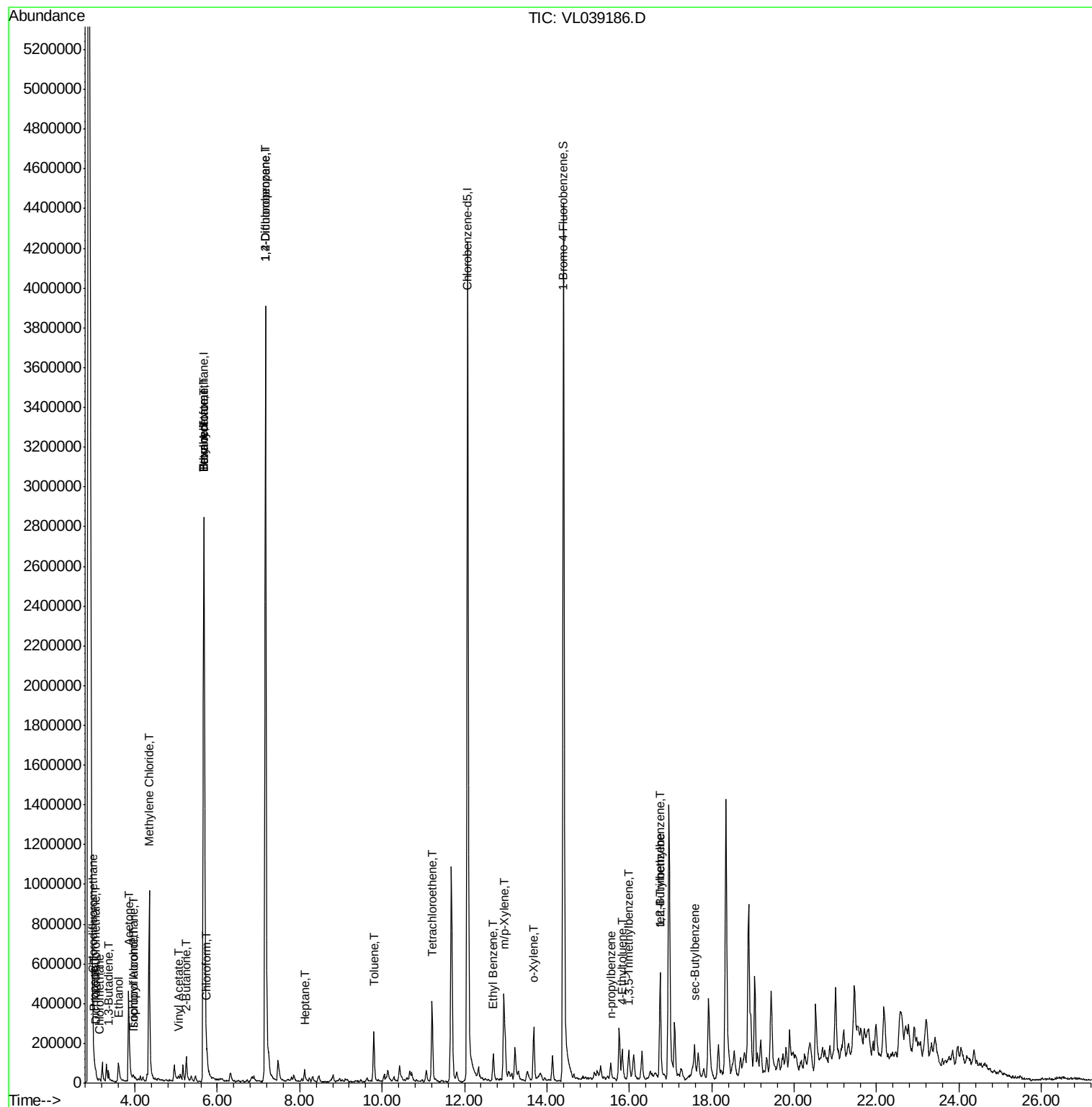
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.05	85	30324	0.14	ppbv	100
3) Chlorodifluoromethane	2.99	51	18972	0.12	ppbv #	80
4) Chloromethane	3.14	50	2775	0.03	ppbv #	43
9) Propene	3.01	41	4061	0.06	ppbv #	15
10) Heptane	8.12	43	18598	0.12	ppbv #	61
11) Trichlorofluoromethane	3.95	101	12407	0.06	ppbv	92
13) Ethanol	3.60	45	130711	34.94	ppbv #	100
15) Acetone	3.85	43	568567	4.41	ppbv	92
16) 1,3-Butadiene	3.35	39	5485	0.08	ppbv #	8
19) Isopropyl Alcohol	3.98	45	4578	0.08	ppbv #	93
20) Methylene Chloride	4.34	84	378795	6.98	ppbv	96
23) Vinyl Acetate	5.07	43	4513	0.04	ppbv #	53
25) Ethyl Acetate	5.68	43	563426	1.94	ppbv #	76
26) Hexane	5.68	57	818917	6.42	ppbv #	38
29) Chloroform	5.75	83	20920	0.10	ppbv	88
34) 2-Butanone	5.24	43	169939	0.92	ppbv	96
39) 1,2-Dichloropropane	7.17	63	816160	7.44	ppbv #	23
41) Tetrahydrofuran	5.68	42	281894	2.54	ppbv #	50
52) Tetrachloroethene	11.21	164	44075	0.41	ppbv	90
53) Toluene	9.80	91	198446	0.62	ppbv	98
58) Ethyl Benzene	12.70	91	126093	0.30	ppbv	96
59) m/p-Xylene	12.95	91	469213	1.27	ppbv	92
60) o-Xylene	13.68	91	217787	0.63	ppbv	99
64) n-propylbenzene	15.55	120	8188	0.06	ppbv #	1
65) tert-Butylbenzene	16.74	119	18497	0.04	ppbv #	17
67) sec-Butylbenzene	17.59	105	33563	0.05	ppbv	98
72) 4-Ethyltoluene	15.83	105	114866	0.28	ppbv	98
73) 1,3,5-Trimethylbenzene	15.98	105	102963	0.28	ppbv	95
74) 1,2,4-Trimethylbenzene	16.75	105	411048	1.00	ppbv #	65

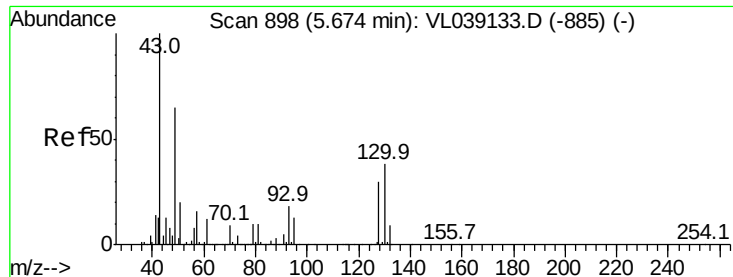
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.66 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-5DL

Acq: 6 Jun 2022 14:52

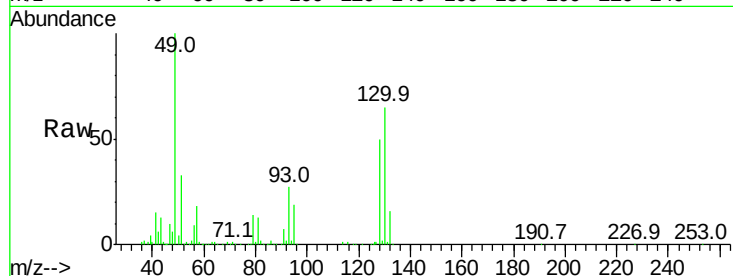
Tgt Ion: 49 Resp: 1236415

Ion Ratio Lower Upper

49 100

128 52.6 24.7 74.1

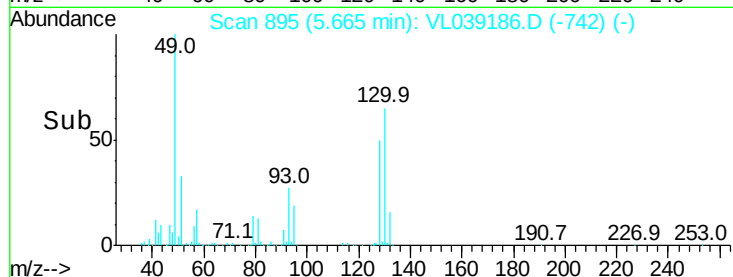
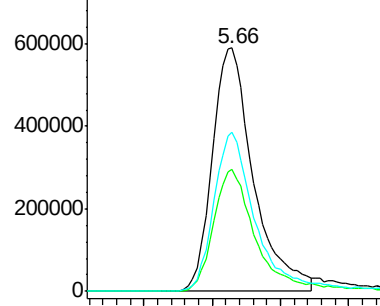
130 68.1 31.4 94.0



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.14 ppbv

RT: 3.05 min Scan# 83

Delta R.T. -0.01 min

Lab File: VL039186.D

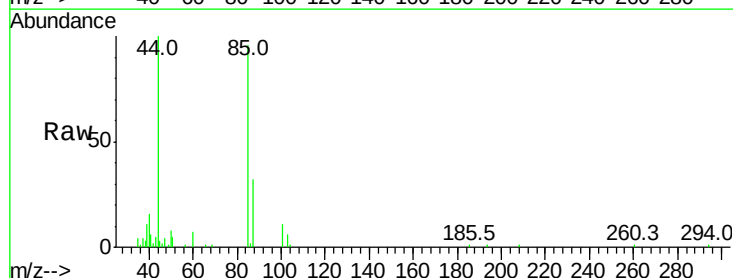
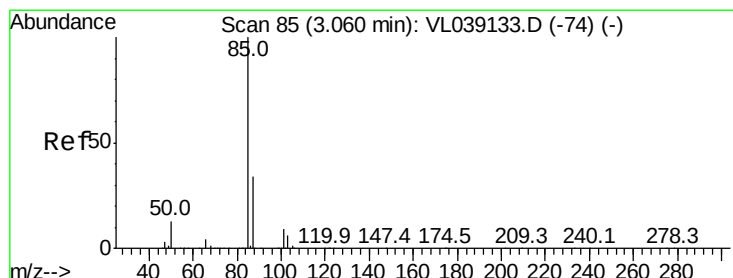
Acq: 6 Jun 2022 14:52

Tgt Ion: 85 Resp: 30324

Ion Ratio Lower Upper

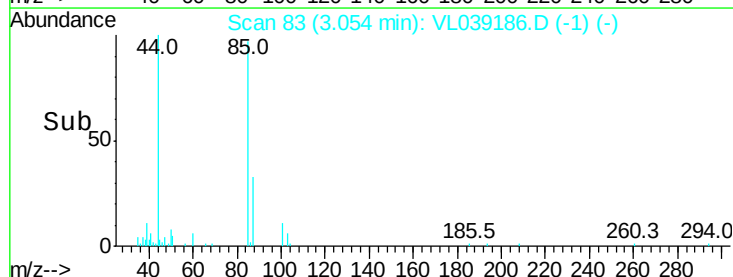
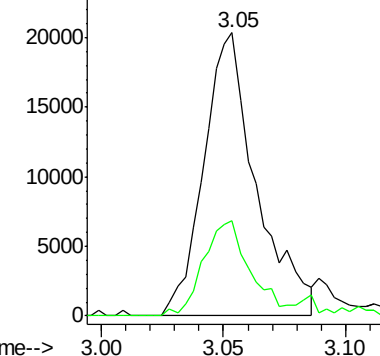
85 100

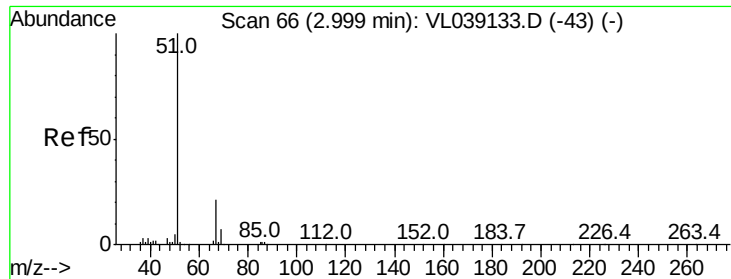
87 33.6 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.12 ppbv

RT: 2.99 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

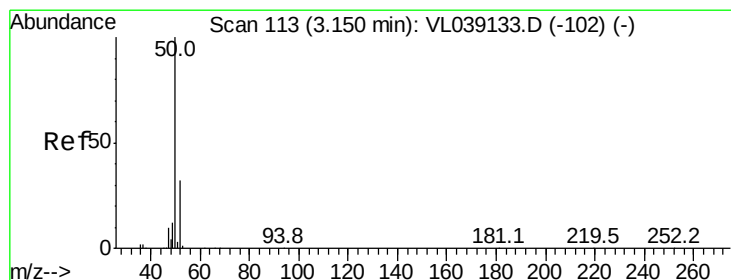
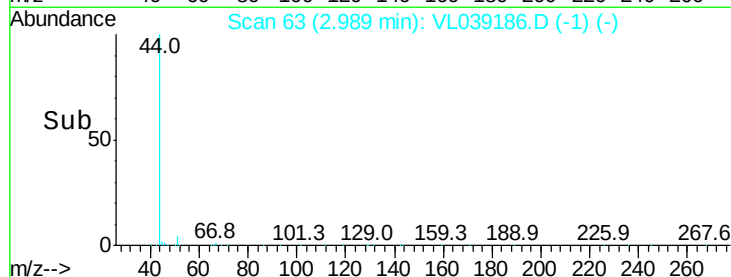
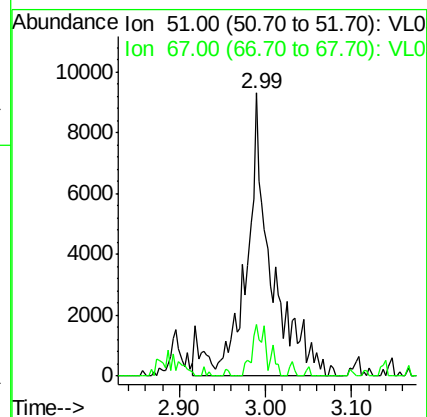
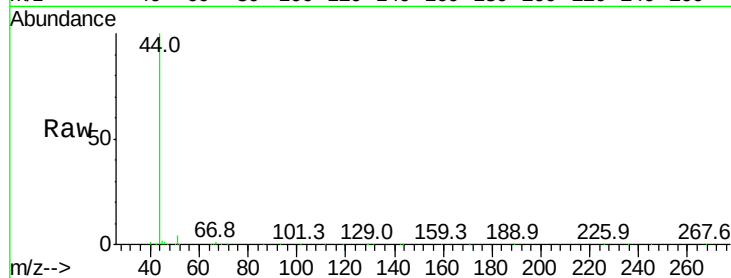
Acq: 6 Jun 2022 14:52 SG-5DL

Tgt Ion: 51 Resp: 18972

Ion Ratio Lower Upper

51 100

67 11.1 16.2 24.4#



#4

Chloromethane

Concen: 0.03 ppbv

RT: 3.14 min Scan# 111

Delta R.T. -0.01 min

Lab File: VL039186.D

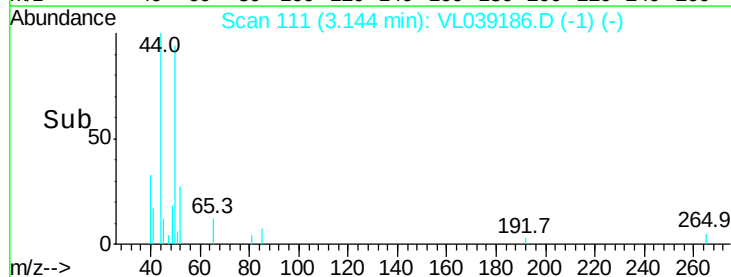
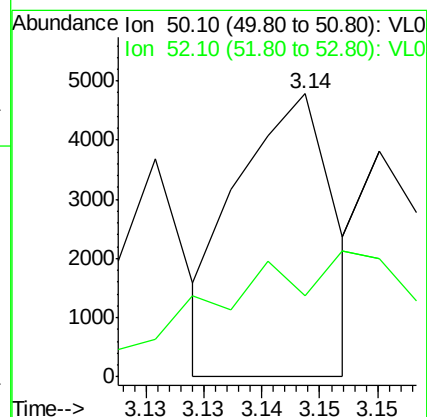
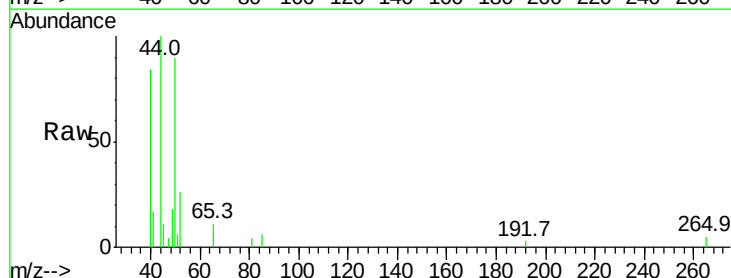
Acq: 6 Jun 2022 14:52

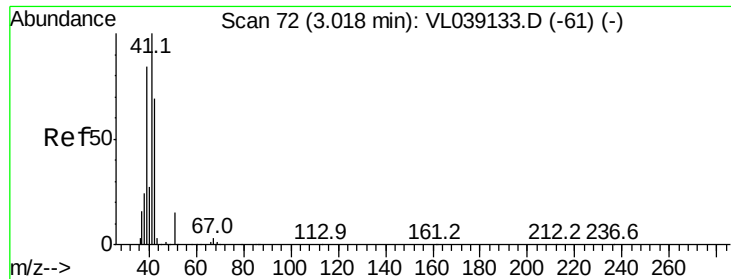
Tgt Ion: 50 Resp: 2775

Ion Ratio Lower Upper

50 100

52 0.4 25.9 38.9#





#9

Propene

Concen: 0.06 ppbv

RT: 3.01 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

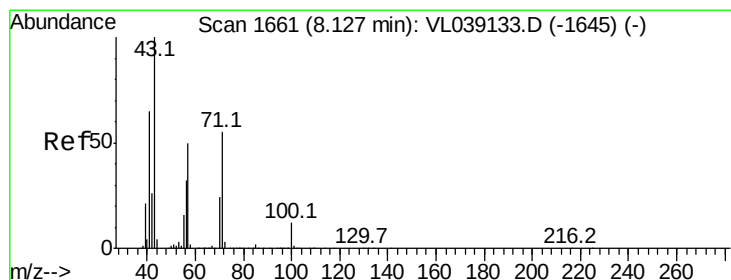
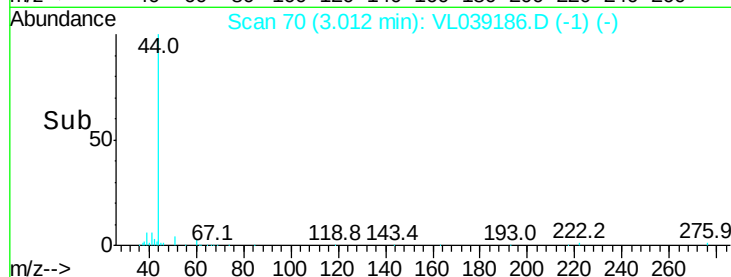
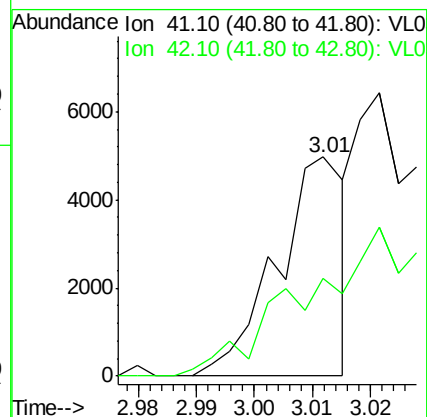
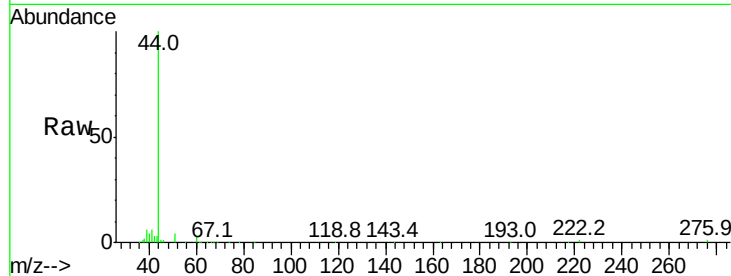
Acq: 6 Jun 2022 14:52 SG-5DL

Tgt Ion: 41 Resp: 4061

Ion Ratio Lower Upper

41 100

42 0.0 55.4 83.2#



#10

Heptane

Concen: 0.12 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL039186.D

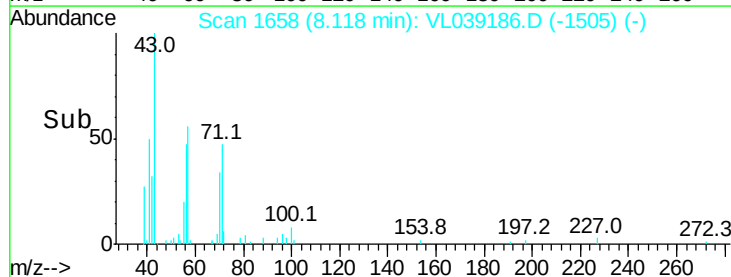
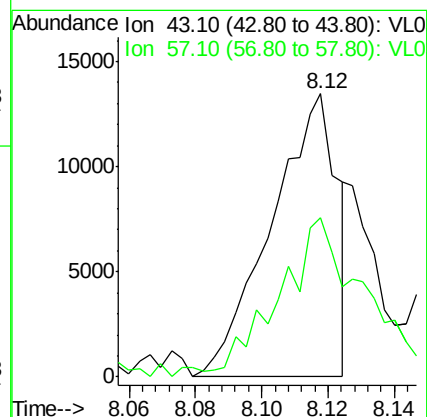
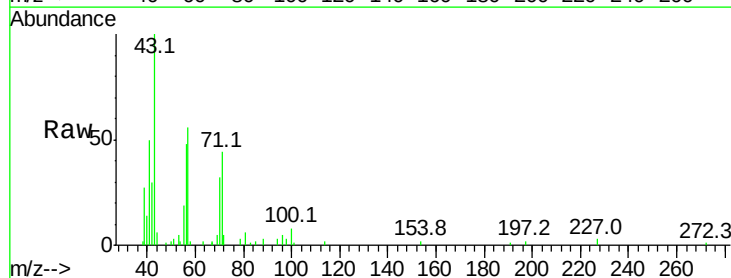
Acq: 6 Jun 2022 14:52

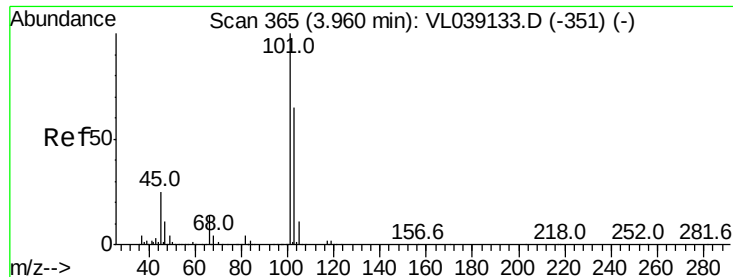
Tgt Ion: 43 Resp: 18598

Ion Ratio Lower Upper

43 100

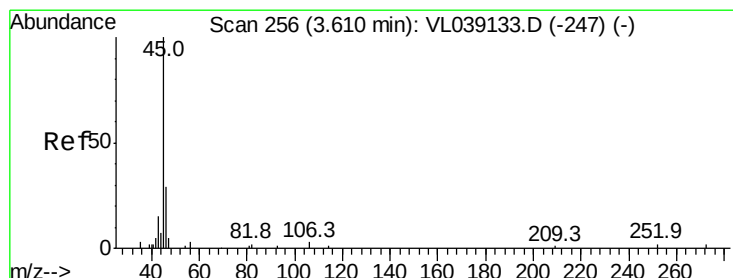
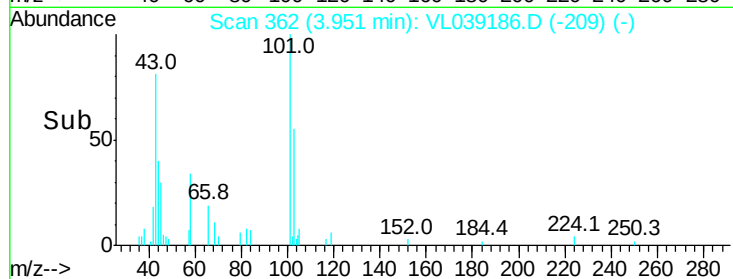
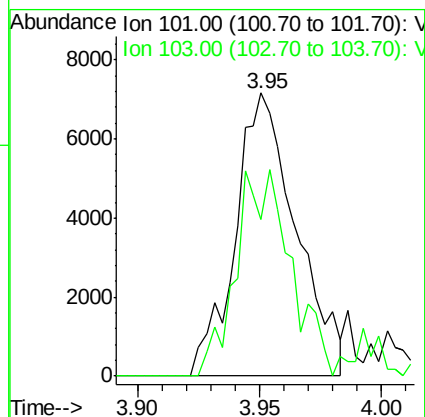
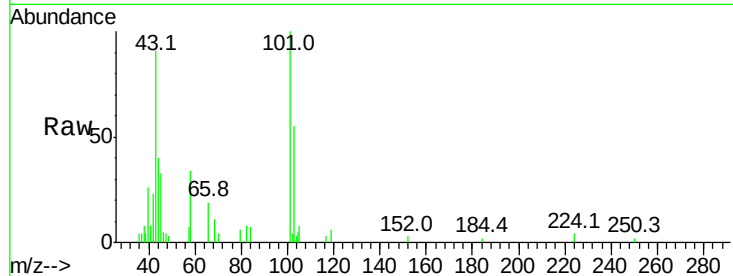
57 79.0 41.4 62.2#





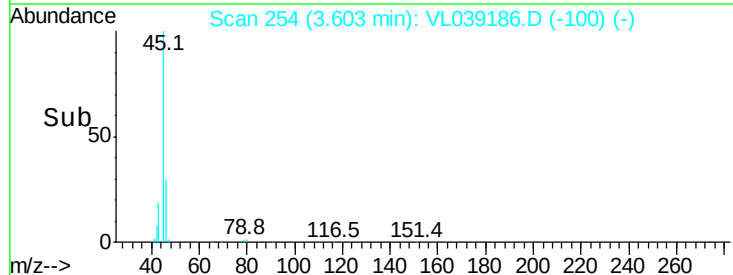
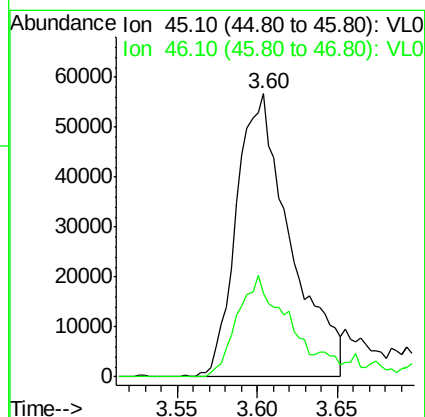
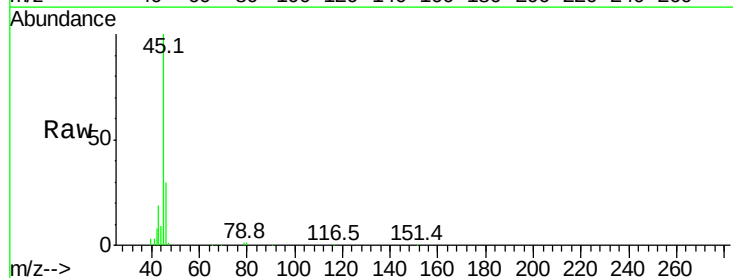
#11
 Trichlorofluoromethane
 Concen: 0.06 ppbv
 RT: 3.95
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 14:52

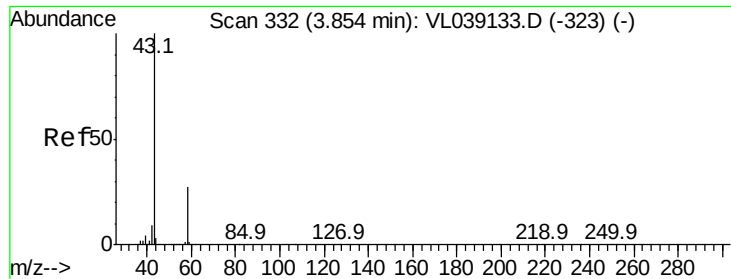
Tgt Ion:101 Resp: 12407
 Ion Ratio Lower Upper
 101 100
 103 58.6 51.7 77.5



#13
 Ethanol
 Concen: 34.94 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. -0.01 min
 Lab File: VL039186.D
 Acq: 6 Jun 2022 14:52

Tgt Ion: 45 Resp: 130711
 Ion Ratio Lower Upper
 45 100
 46 41.0 0.0 0.0#





#15

Acetone

Concen: 4.41 ppbv

RT: 3.85 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

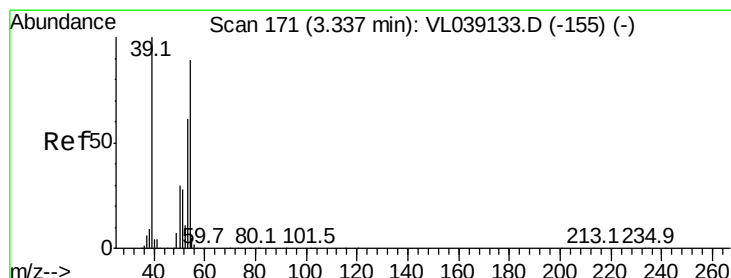
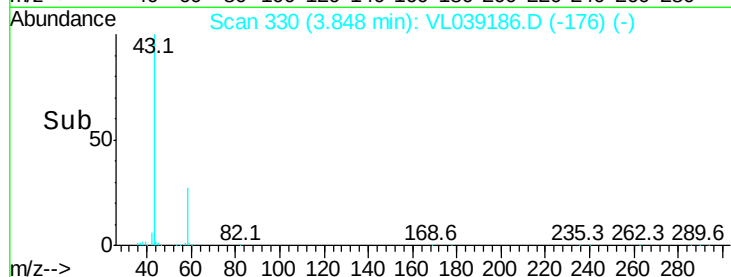
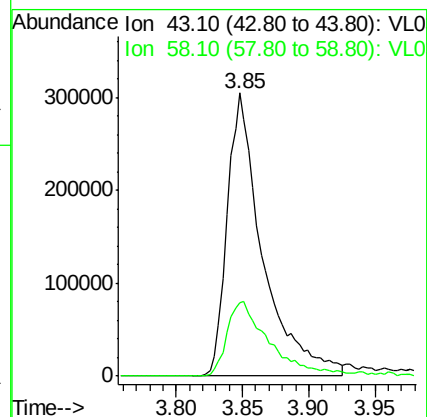
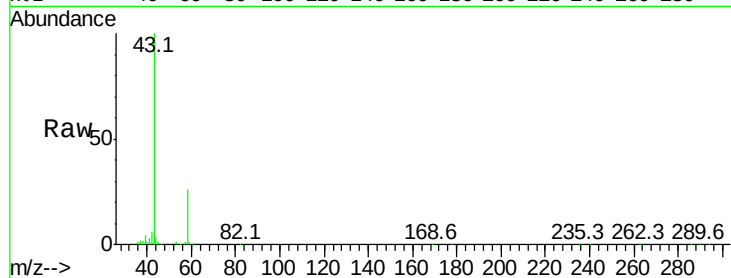
Acq: 6 Jun 2022 14:52 SG-5DL

Tgt Ion: 43 Resp: 568567

Ion Ratio Lower Upper

43 100

58 32.5 22.5 33.7



#16

1,3-Butadiene

Concen: 0.08 ppbv

RT: 3.35 min Scan# 176

Delta R.T. 0.02 min

Lab File: VL039186.D

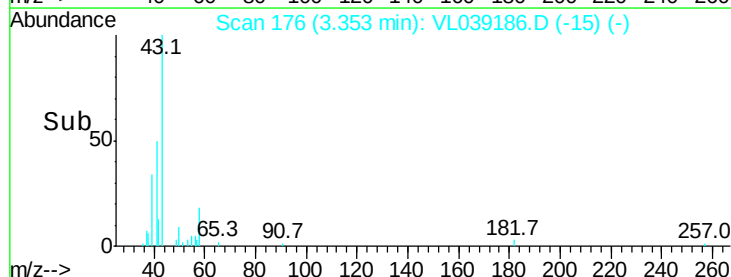
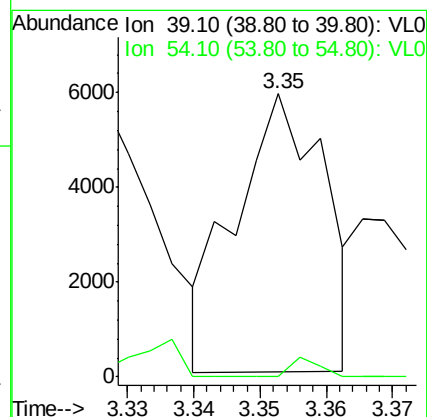
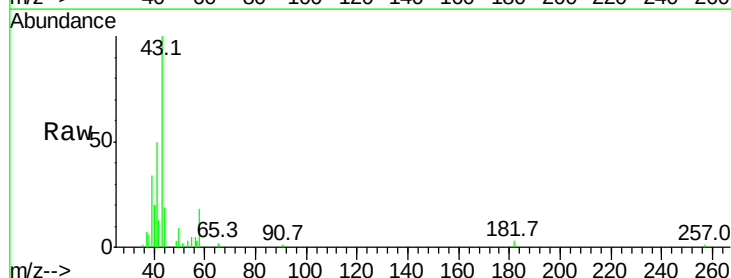
Acq: 6 Jun 2022 14:52

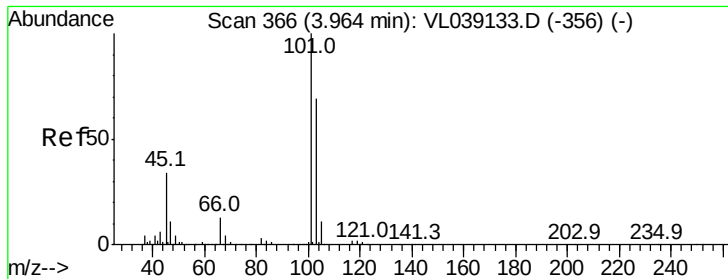
Tgt Ion: 39 Resp: 5485

Ion Ratio Lower Upper

39 100

54 0.0 65.8 98.6#





#19

Isopropyl Alcohol

Concen: 0.08 ppbv

RT: 3.98 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

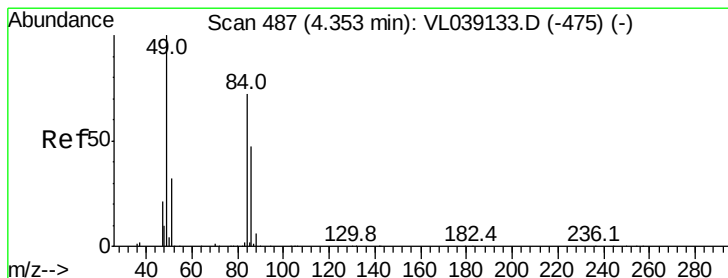
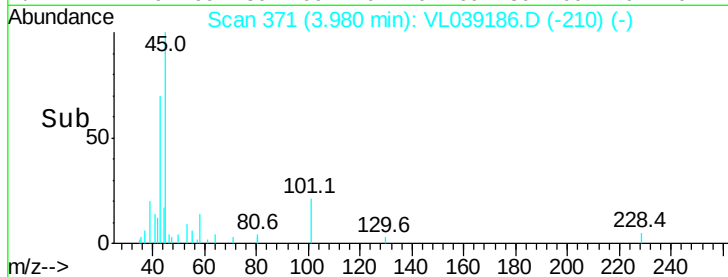
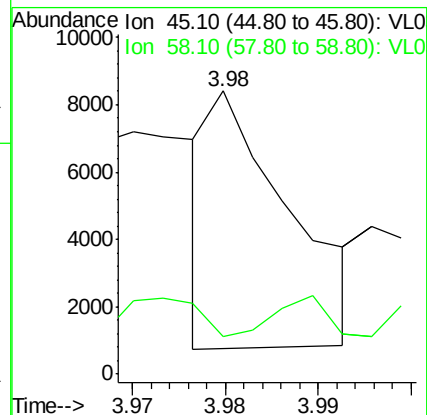
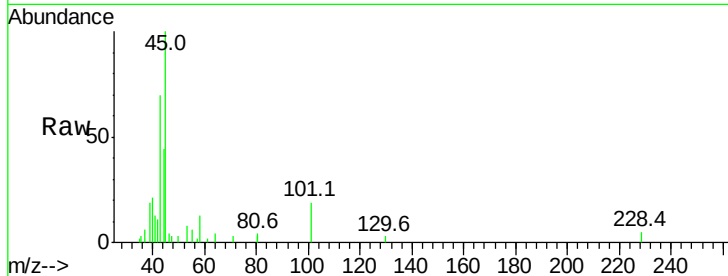
Acq: 6 Jun 2022 14:52

Tgt Ion: 45 Resp: 4578

Ion Ratio Lower Upper

45 100

58 0.0 1.8 2.8#



#20

Methylene Chloride

Concen: 6.98 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.01 min

Lab File: VL039186.D

Acq: 6 Jun 2022 14:52

Tgt Ion: 84 Resp: 378795

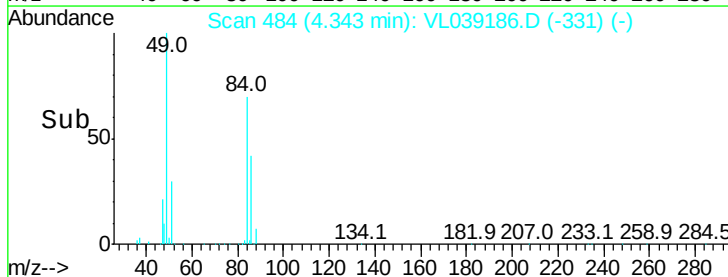
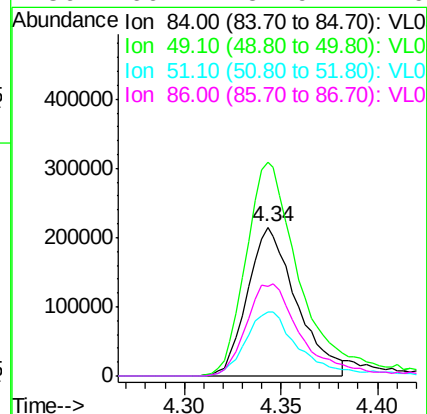
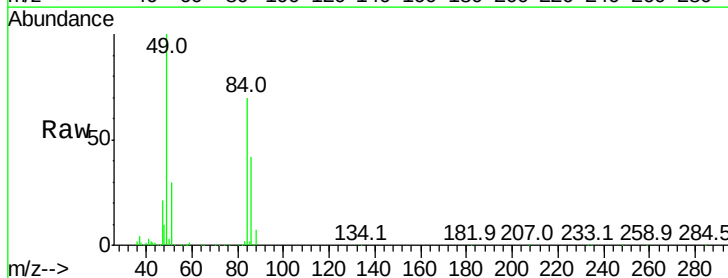
Ion Ratio Lower Upper

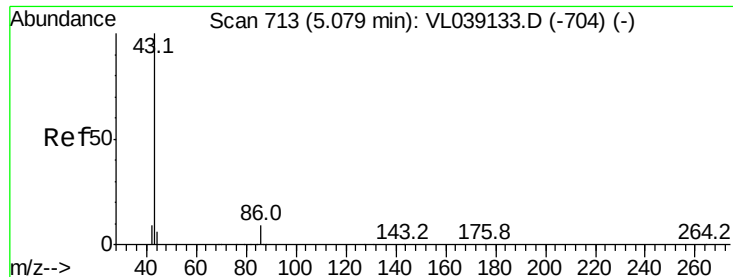
84 100

49 143.3 111.1 166.7

51 42.9 35.3 52.9

86 60.2 51.9 77.9





#23

Vinyl Acetate

Concen: 0.04 ppbv

RT: 5.07

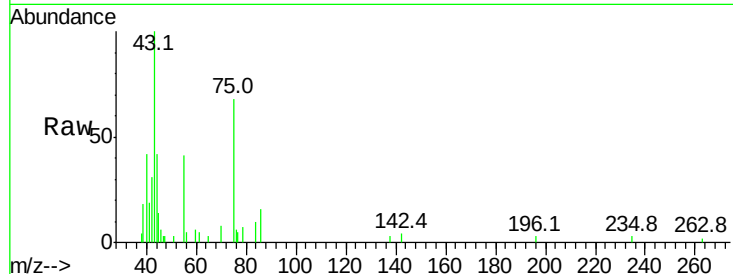
Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 6 Jun 2022 14:52

Tgt Ion: 43 Resp: 4513

Ion	Ratio	Lower	Upper
43	100		
86	27.7	6.0	9.0#
42	0.0	8.2	12.4#
44	28.1	4.3	6.5#



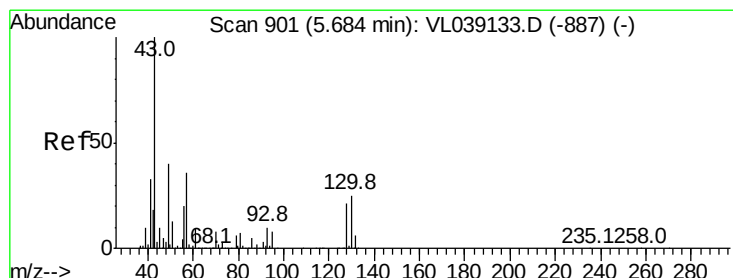
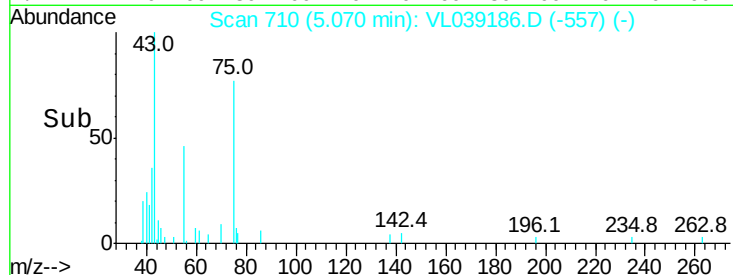
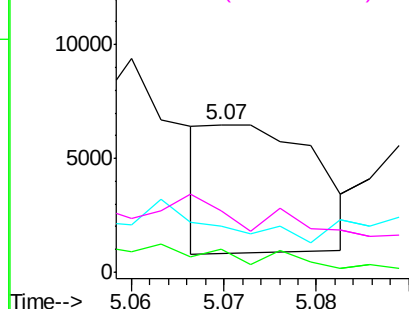
Abundance

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: 1.94 ppbv

RT: 5.68 min Scan# 901

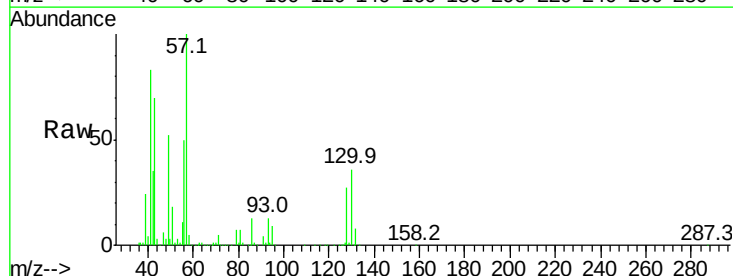
Delta R.T. 0.00 min

Lab File: VL039186.D

Acq: 6 Jun 2022 14:52

Tgt Ion: 43 Resp: 563426

Ion	Ratio	Lower	Upper
43	100		
45	0.6	8.2	12.2#
61	0.5	8.4	12.6#
70	1.7	5.6	8.4#



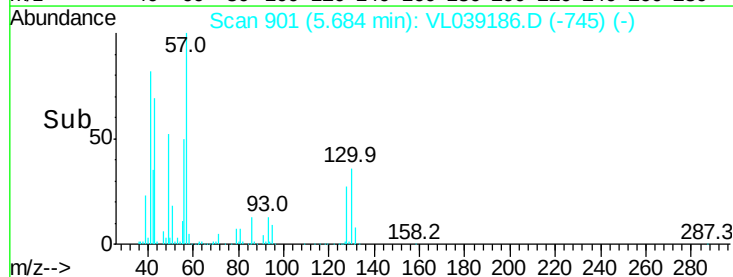
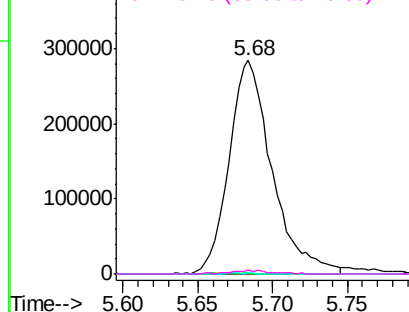
Abundance

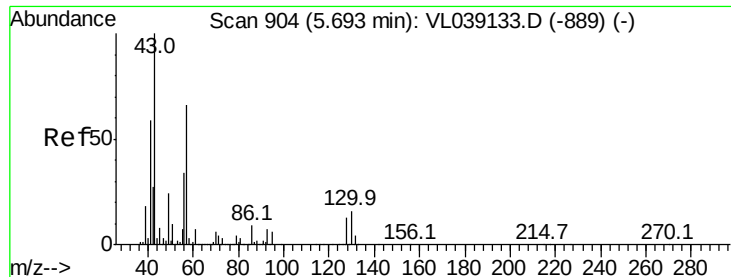
Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

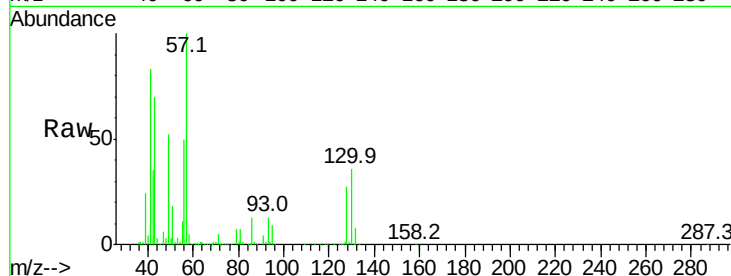
Ion 70.10 (69.80 to 70.80): VL0



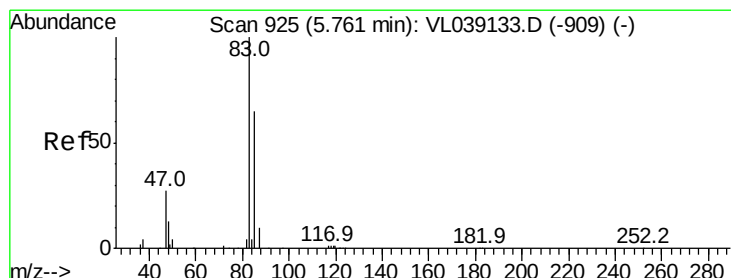
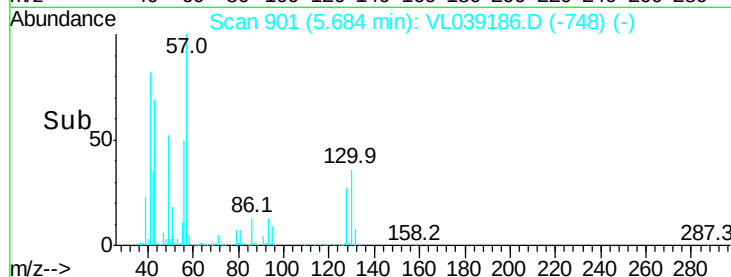
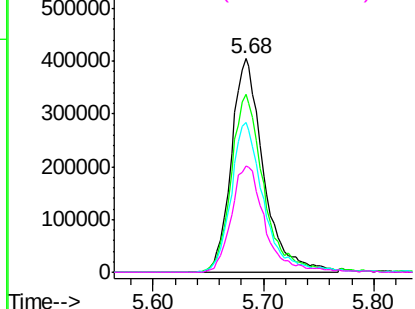


#26
Hexane
Concen: 6.42 ppbv
RT: 5.68
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 14:52

Tgt Ion:	57	Resp:	818917
Ion	Ratio	Lower	Upper
57	100		
41	85.7	72.4	108.6
43	71.5	187.0	280.6#
56	52.3	41.8	62.6

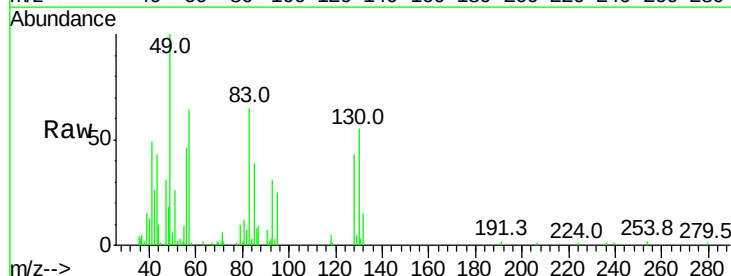


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

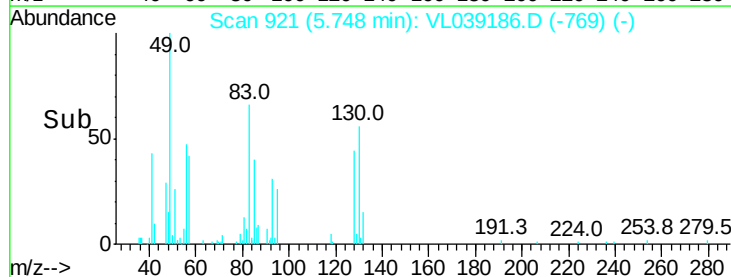
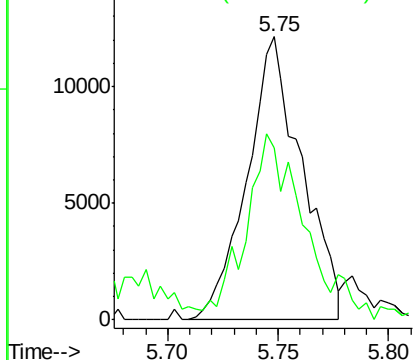


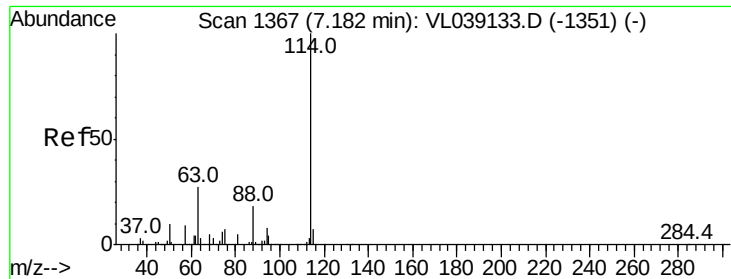
#29
Chloroform
Concen: 0.10 ppbv
RT: 5.75 min Scan# 921
Delta R.T. -0.01 min
Lab File: VL039186.D
Acq: 6 Jun 2022 14:52

Tgt Ion:	83	Resp:	20920
Ion	Ratio	Lower	Upper
83	100		
85	55.9	52.4	78.6



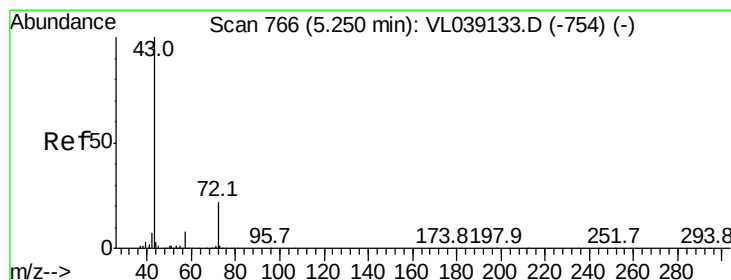
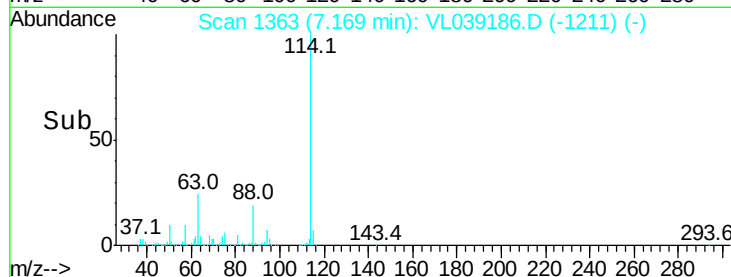
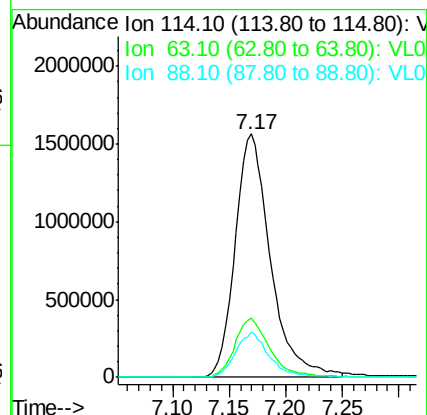
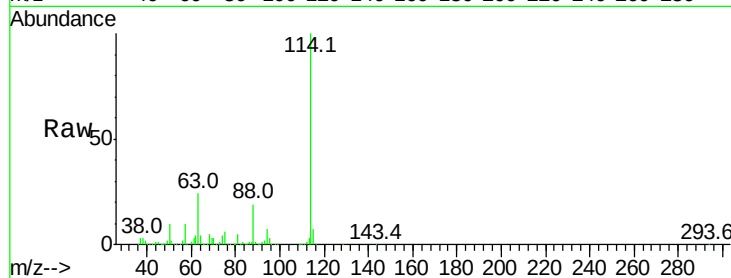
Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0





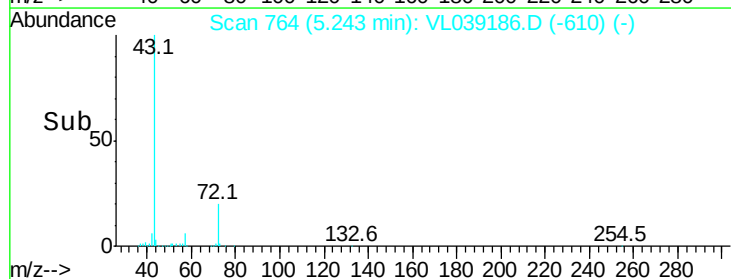
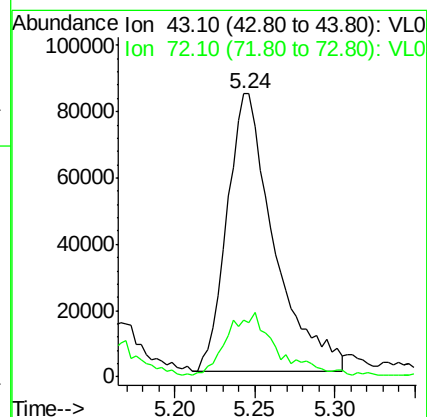
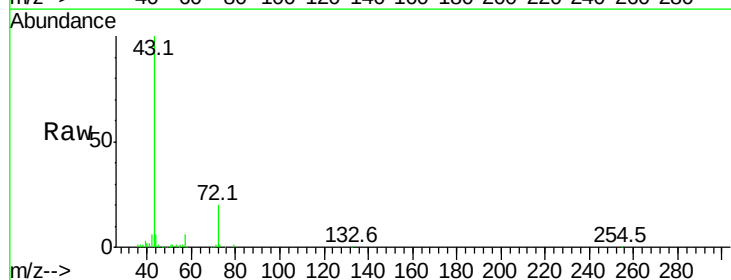
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 7.17
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 14:52

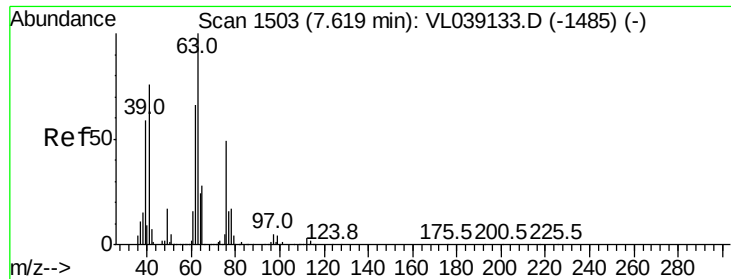
Tgt Ion: 114 Resp: 3399047
 Ion Ratio Lower Upper
 114 100
 63 24.4 21.7 32.5
 88 18.1 14.8 22.2



#34
 2-Butanone
 Concen: 0.92 ppbv
 RT: 5.24 min Scan# 764
 Delta R.T. -0.01 min
 Lab File: VL039186.D
 Acq: 6 Jun 2022 14:52

Tgt Ion: 43 Resp: 169939
 Ion Ratio Lower Upper
 43 100
 72 24.5 18.2 27.2





#39

1,2-Dichloropropane

Concen: 7.44 ppbv

RT: 7.17

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 6 Jun 2022 14:52

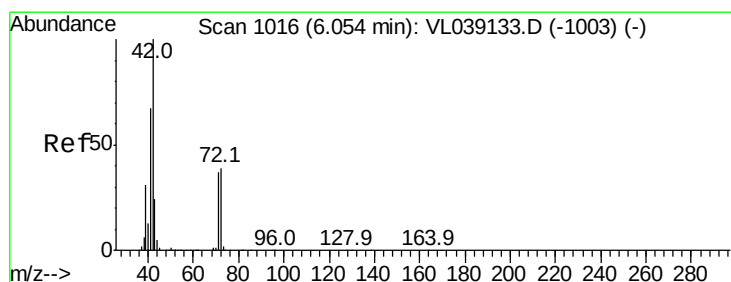
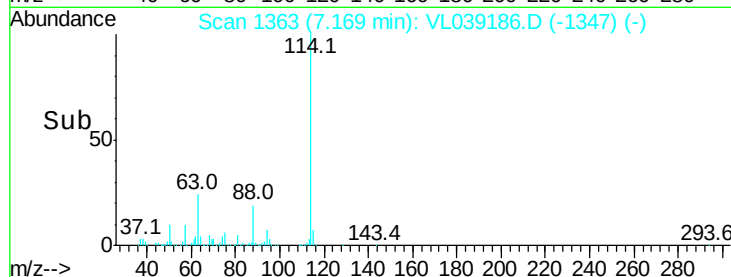
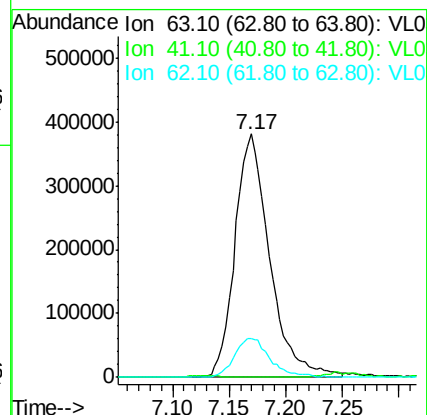
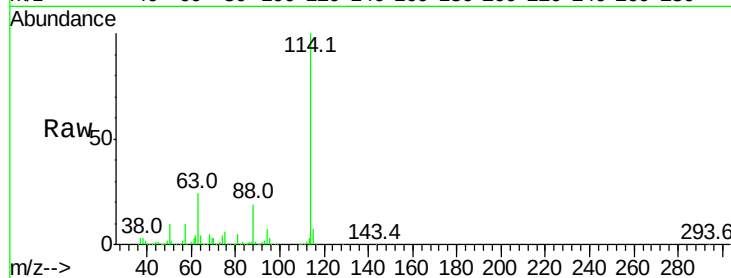
Tgt Ion: 63 Resp: 816160

Ion Ratio Lower Upper

63 100

41 0.0 60.8 91.2#

62 15.7 52.9 79.3#



#41

Tetrahydrofuran

Concen: 2.54 ppbv

RT: 5.68 min Scan# 901

Delta R.T. -0.37 min

Lab File: VL039186.D

Acq: 6 Jun 2022 14:52

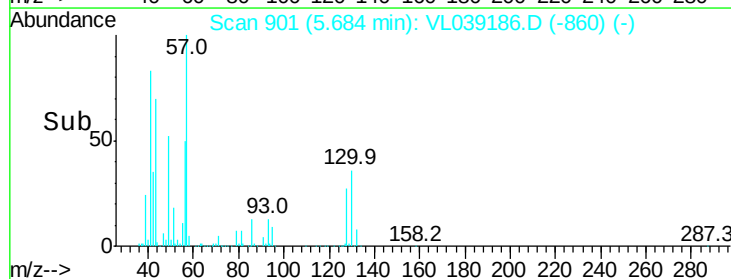
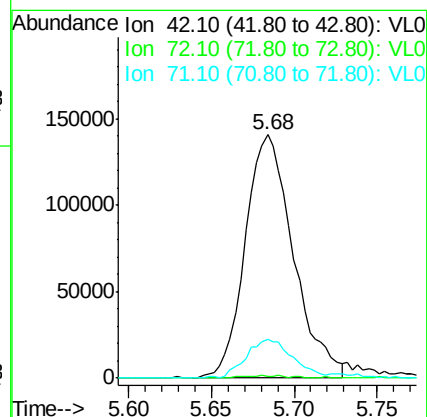
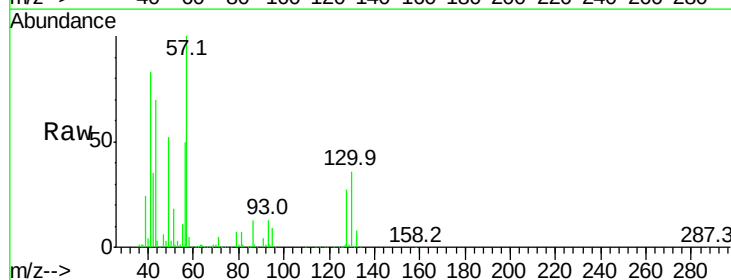
Tgt Ion: 42 Resp: 281894

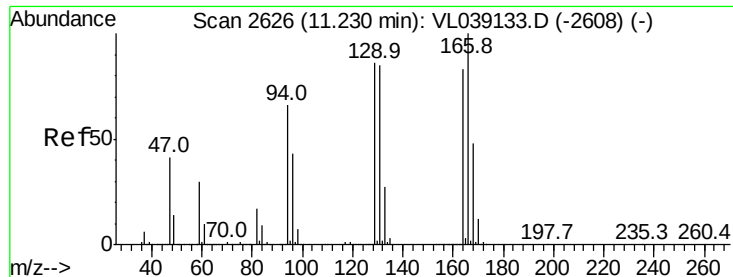
Ion Ratio Lower Upper

42 100

72 1.1 32.0 48.0#

71 16.9 31.1 46.7#





#52

Tetrachloroethene

Concen: 0.41 ppbv

RT: 11.21

Delta R.T. MSVOA_L

Lab File:

Acq: 6 Jun 2022 14:52

ClientSampleId:

SG-5DL

Tgt Ion: 164 Resp: 44075

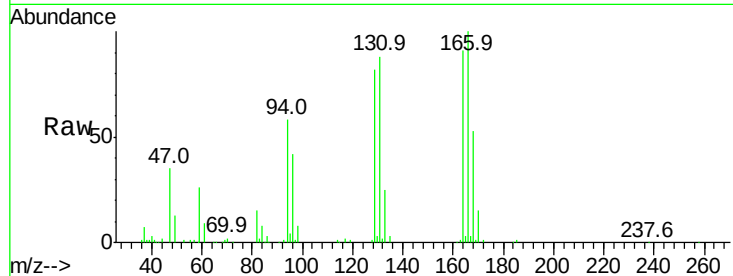
Ion Ratio Lower Upper

164 100

166 109.3 96.3 144.5

129 90.7 82.5 123.7

131 95.0 82.1 123.1

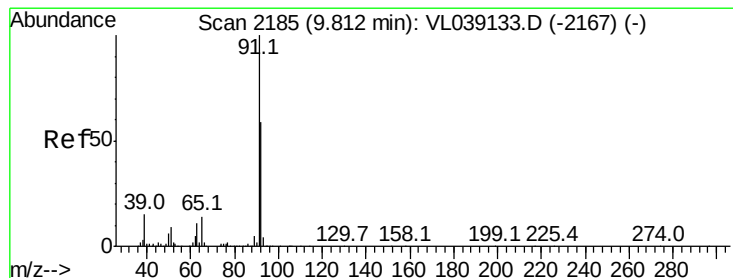
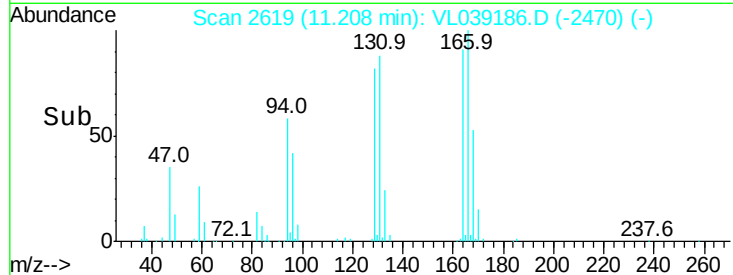
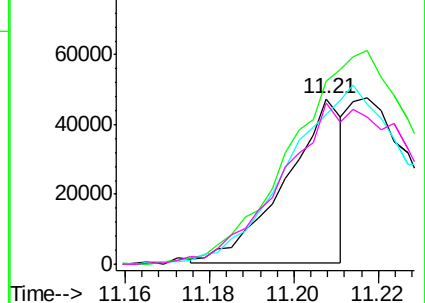


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 0.62 ppbv

RT: 9.80 min Scan# 2180

Delta R.T. -0.02 min

Lab File: VL039186.D

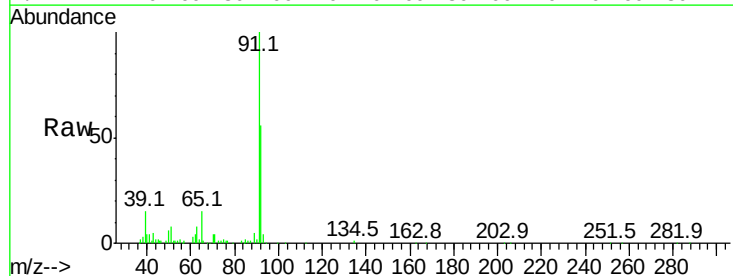
Acq: 6 Jun 2022 14:52

Tgt Ion: 91 Resp: 198446

Ion Ratio Lower Upper

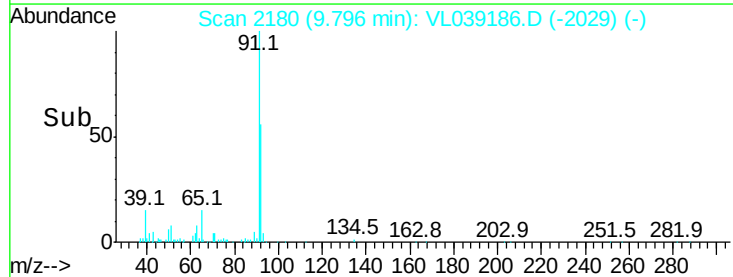
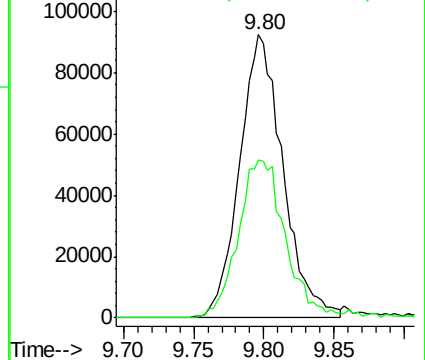
91 100

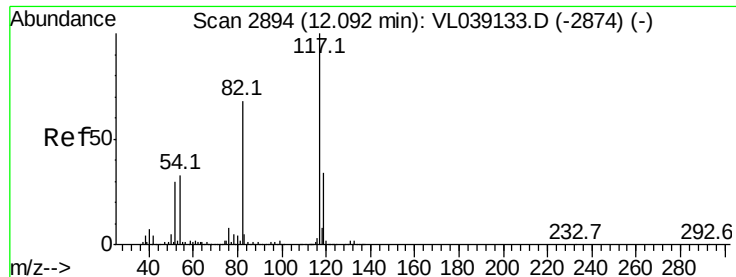
92 61.4 48.1 72.1



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

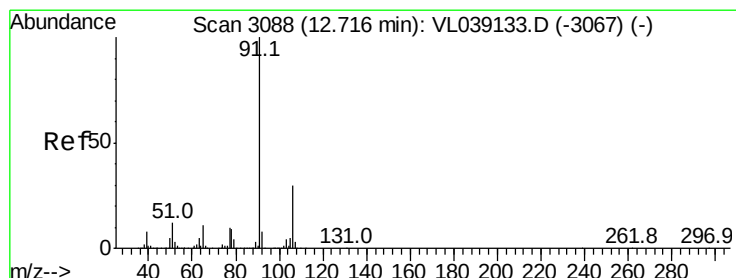
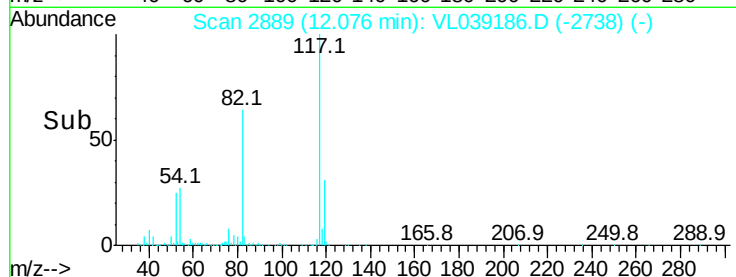
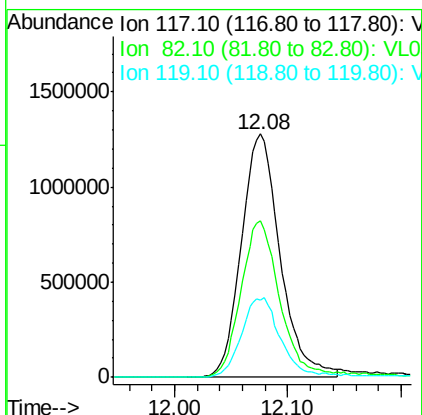
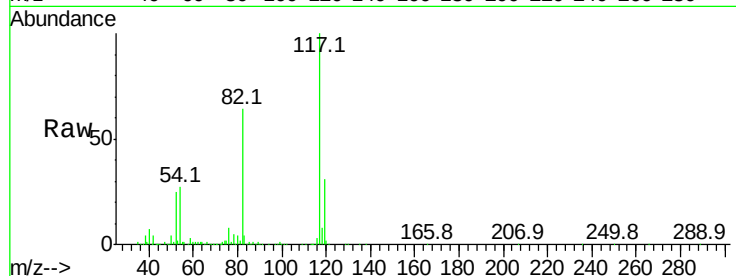




#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.08 min
Instrument: MSVOA_1
Delta R.T.:
Lab File: ClientSampleId :
Acq: 6 Jun 2022 14:52

Tgt Ion: 117 Resp: 3052013

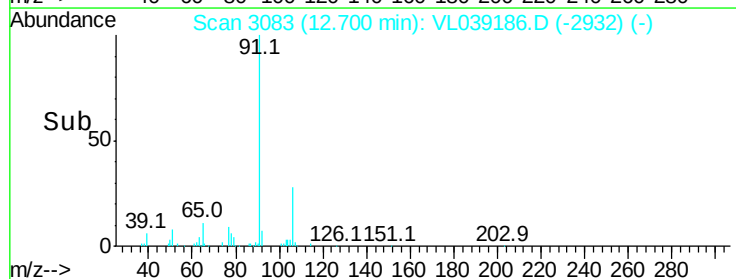
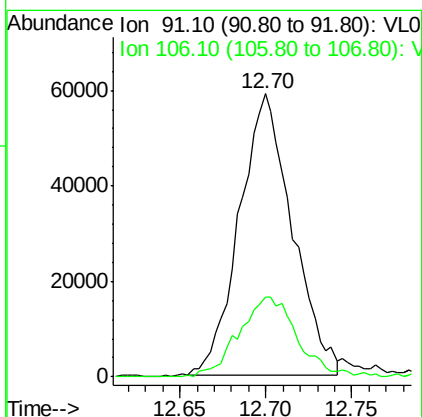
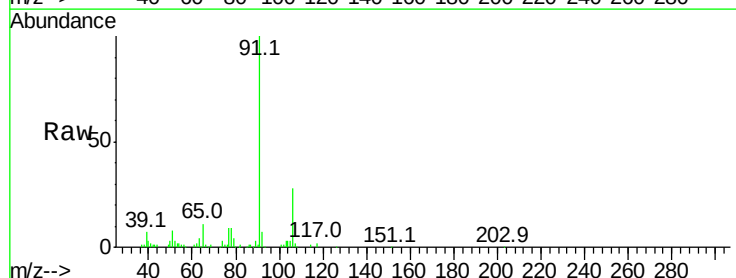
Ion	Ratio	Lower	Upper
117	100		
82	67.0	55.1	82.7
119	34.1	24.7	37.1

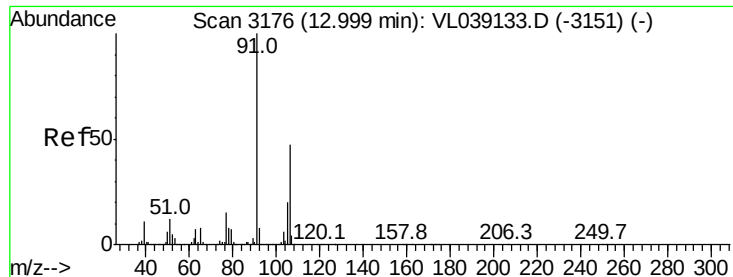


#58
Ethyl Benzene
Concen: 0.30 ppbv
RT: 12.70 min Scan# 3083
Delta R.T. -0.02 min
Lab File: VL039186.D
Acq: 6 Jun 2022 14:52

Tgt Ion: 91 Resp: 126093

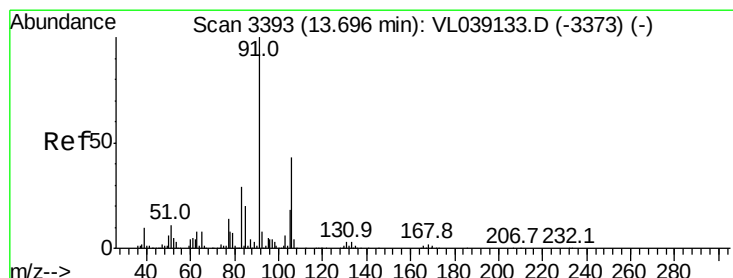
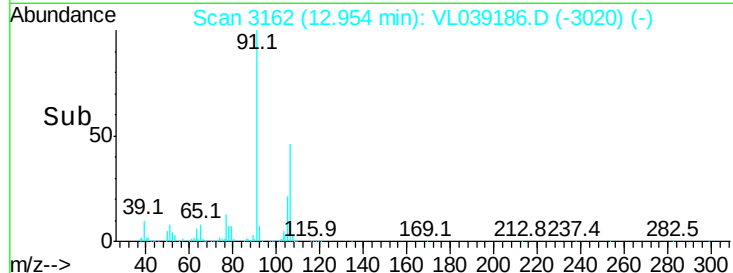
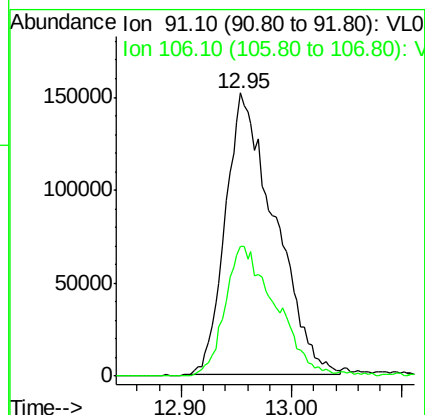
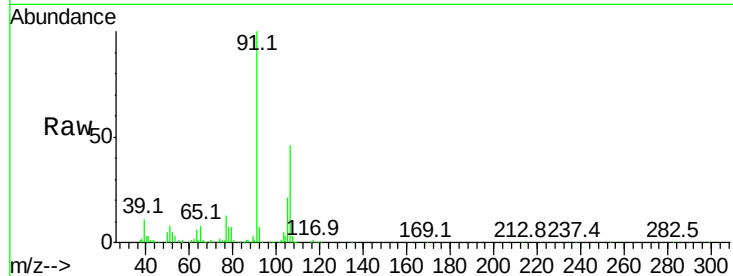
Ion	Ratio	Lower	Upper
91	100		
106	28.0	24.2	36.4





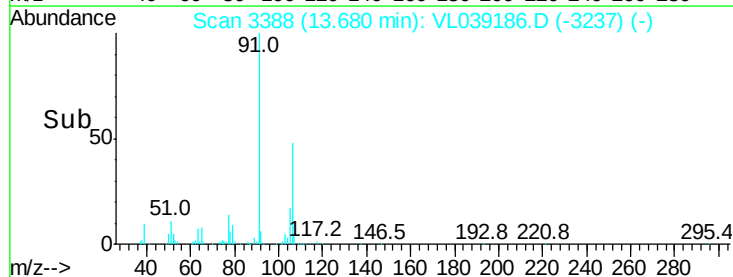
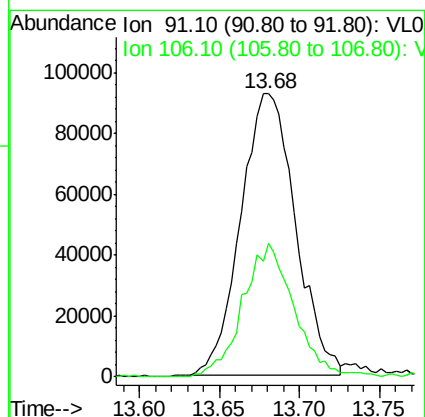
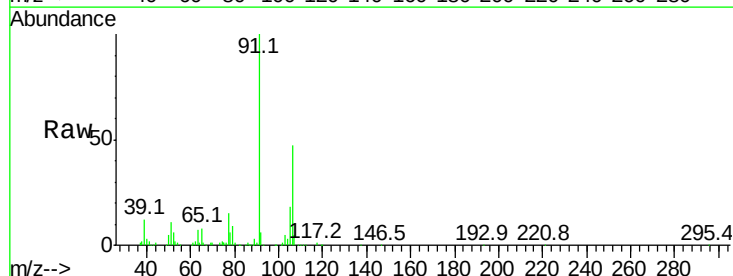
#59
m/p-Xylene
Concen: 1.27 ppbv
RT: 12.95
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 6 Jun 2022 14:52

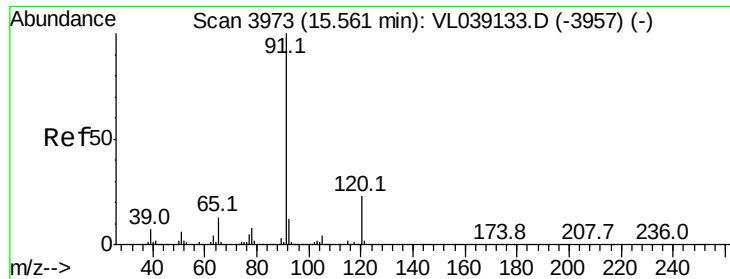
Tgt Ion: 91 Resp: 469213
Ion Ratio Lower Upper
91 100
106 47.8 34.3 51.5



#60
o-Xylene
Concen: 0.63 ppbv
RT: 13.68 min Scan# 3388
Delta R.T. -0.02 min
Lab File: VL039186.D
Acq: 6 Jun 2022 14:52

Tgt Ion: 91 Resp: 217787
Ion Ratio Lower Upper
91 100
106 45.1 22.3 66.9





#64

n-propylbenzene

Concen: 0.06 ppbv

RT: 15.55

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

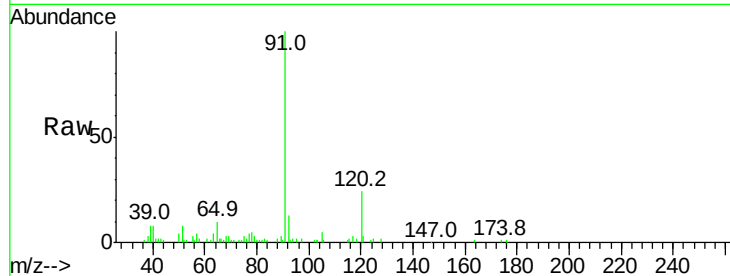
Acq: 6 Jun 2022 14:52

Tgt Ion:120 Resp: 8188

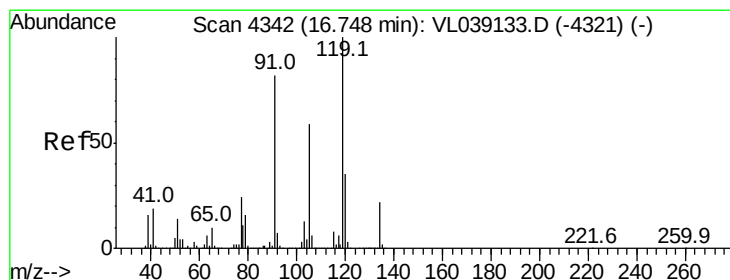
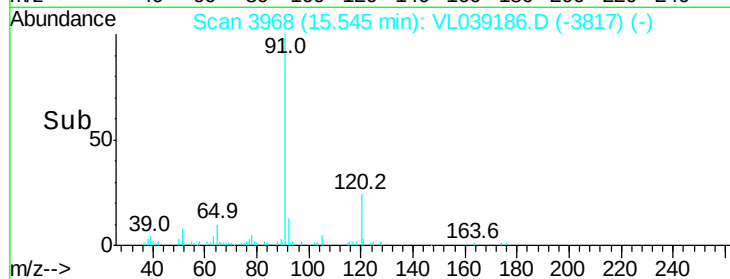
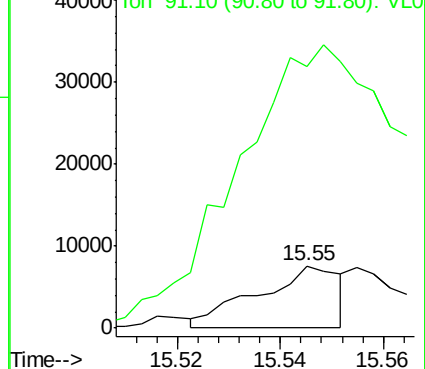
Ion Ratio Lower Upper

120 100

91 1069.3 388.4 582.6#



Abundance Ion 120.20 (119.90 to 120.90): V



#65

tert-Butylbenzene

Concen: 0.04 ppbv

RT: 16.74 min Scan# 4340

Delta R.T. -0.01 min

Lab File: VL039186.D

Acq: 6 Jun 2022 14:52

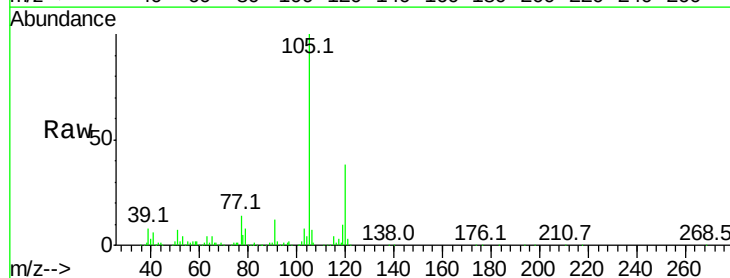
Tgt Ion:119 Resp: 18497

Ion Ratio Lower Upper

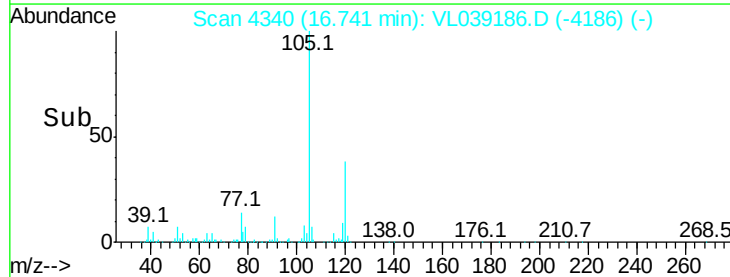
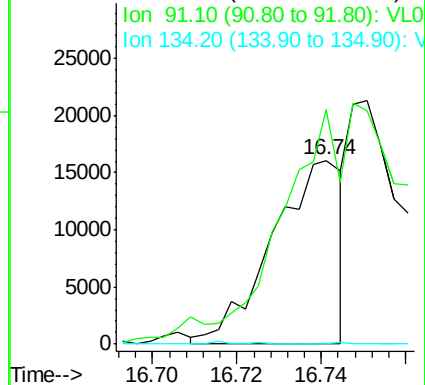
119 100

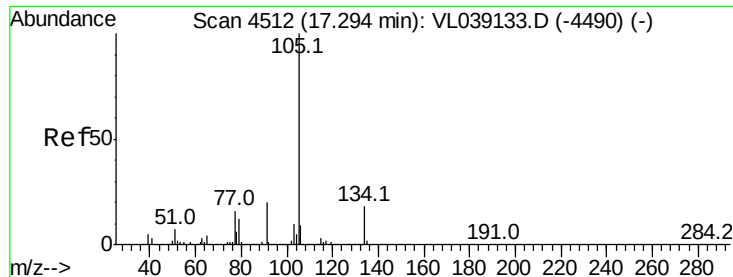
91 0.0 67.1 100.7#

134 0.0 15.8 23.8#



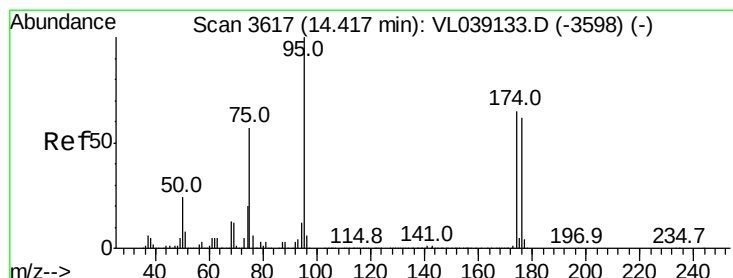
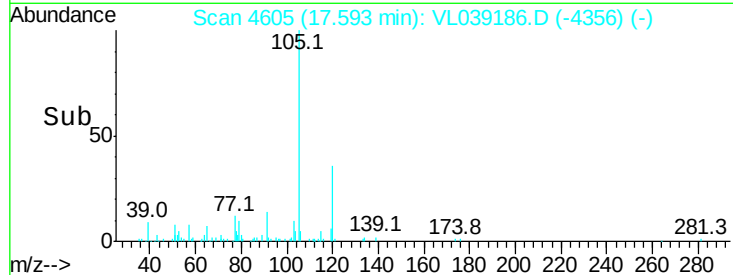
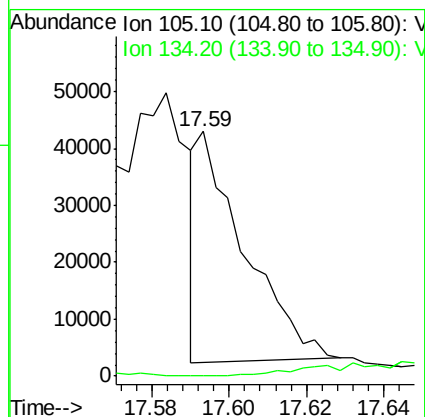
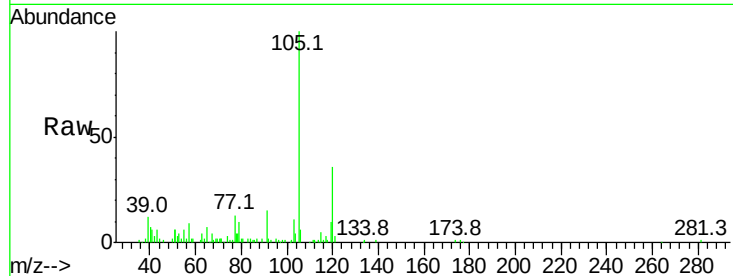
Abundance Ion 119.20 (118.90 to 119.90): V





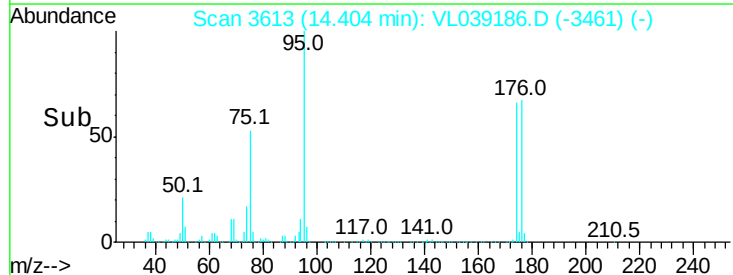
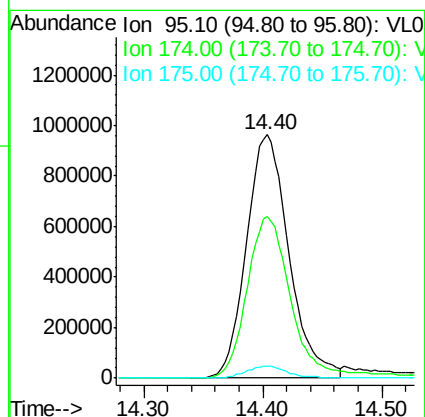
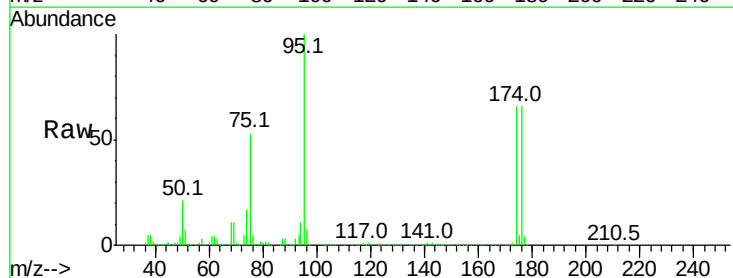
#67
 sec-Butylbenzene
 Concen: 0.05 ppbv
 RT: 17.59
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 14:52

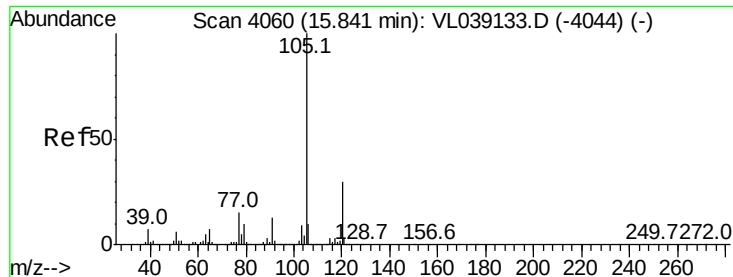
Tgt Ion: 105 Resp: 33563
 Ion Ratio Lower Upper
 105 100
 134 17.0 14.4 21.6



#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.45 ppbv
 RT: 14.40 min Scan# 3613
 Delta R.T. -0.01 min
 Lab File: VL039186.D
 Acq: 6 Jun 2022 14:52

Tgt Ion: 95 Resp: 2384029
 Ion Ratio Lower Upper
 95 100
 174 71.3 53.8 80.8
 175 5.0 4.1 6.1





#72

4-Ethyltoluene

Concen: 0.28 ppbv

RT: 15.83

Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 6 Jun 2022 14:52

Tgt Ion:105 Resp: 114866

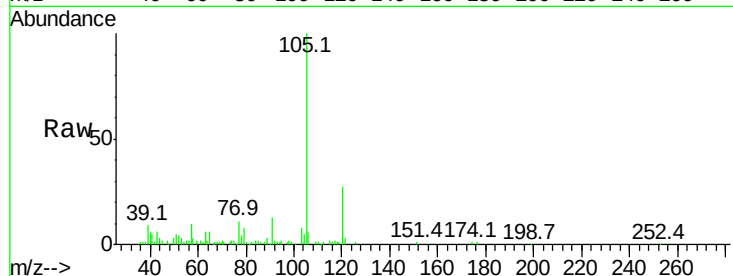
Ion Ratio Lower Upper

105 100

120 29.8 23.9 35.9

91 15.0 10.6 16.0

77 15.6 11.7 17.5

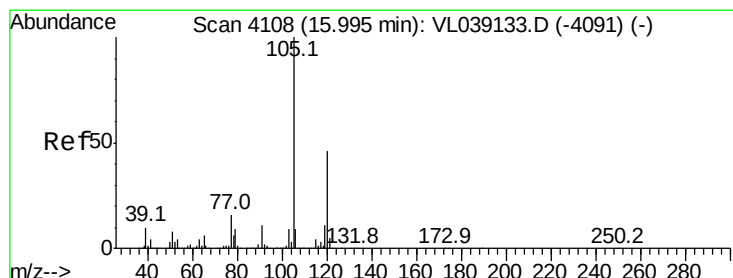
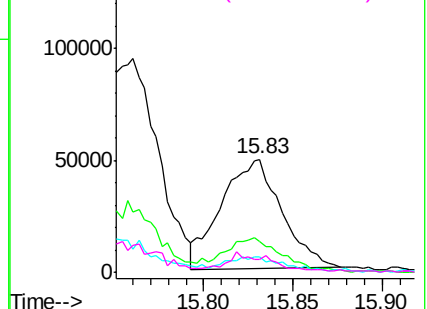
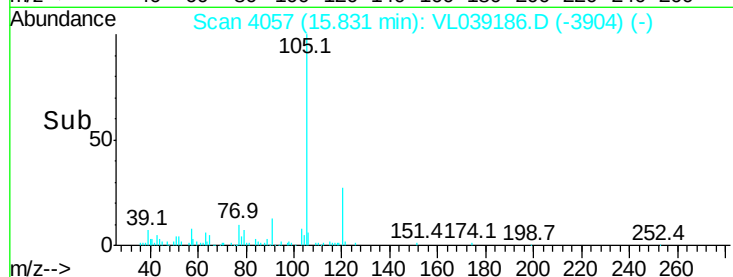


Abundance Ion 105.10 (104.80 to 105.80): V

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



#73

1,3,5-Trimethylbenzene

Concen: 0.28 ppbv

RT: 15.98 min Scan# 4104

Delta R.T. -0.01 min

Lab File: VL039186.D

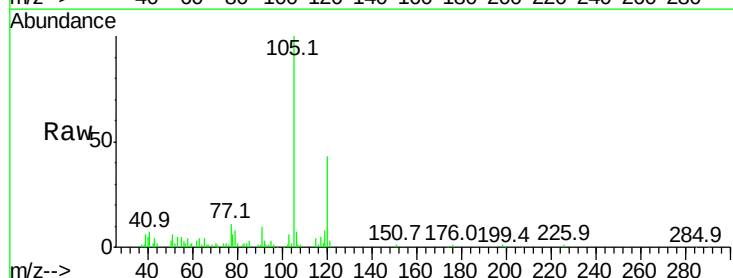
Acq: 6 Jun 2022 14:52

Tgt Ion:105 Resp: 102963

Ion Ratio Lower Upper

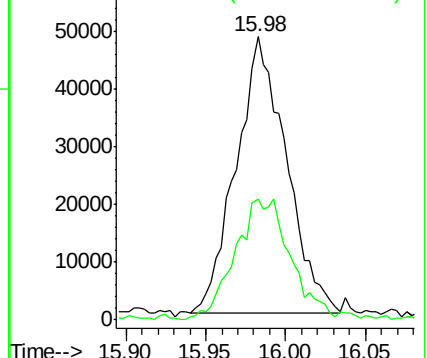
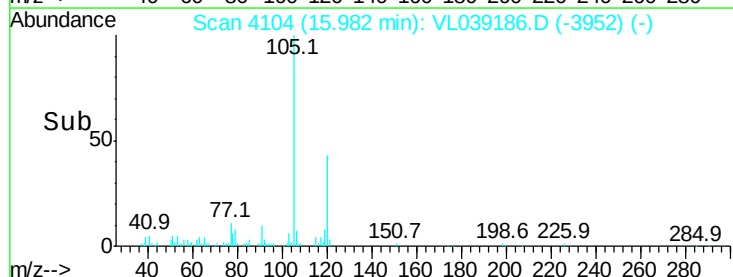
105 100

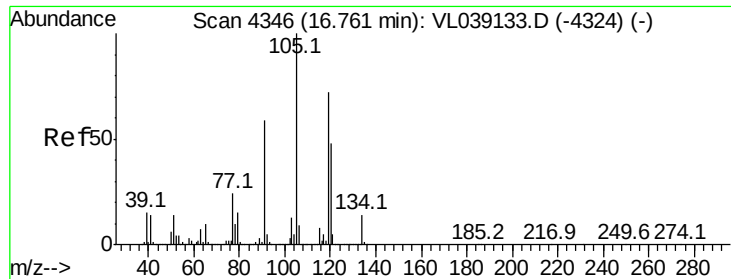
120 42.4 36.7 55.1



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V





#74
 1,2,4-Trimethylbenzene
 Concen: 1.00 ppbv
 RT: 16.75
 Delta R.T: MSVOA_1
 Lab File: ClientSampleId :
 Acq: 6 Jun 2022 14:52

Tgt Ion:	105	Resp:	411048
Ion Ratio		Lower	Upper
105	100		
120	44.0	38.1	57.1
91	11.6	47.4	71.0#
77	12.7	19.5	29.3#

