

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL071222\
 Data File : VL039465.D
 Acq On : 13 Jul 2022 2:41
 Operator : SY/AP
 Sample : N3660-06DL 5X
 Misc : 400mL/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-9DL

Quant Time: Jul 13 05:56:57 2022
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 06 02:15:38 2022
 QLast Update : Wed Jul 06 02:15:38 2022
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1372985	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.19	114	3837066	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.10	117	3481932	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	2642314	10.23	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.30%

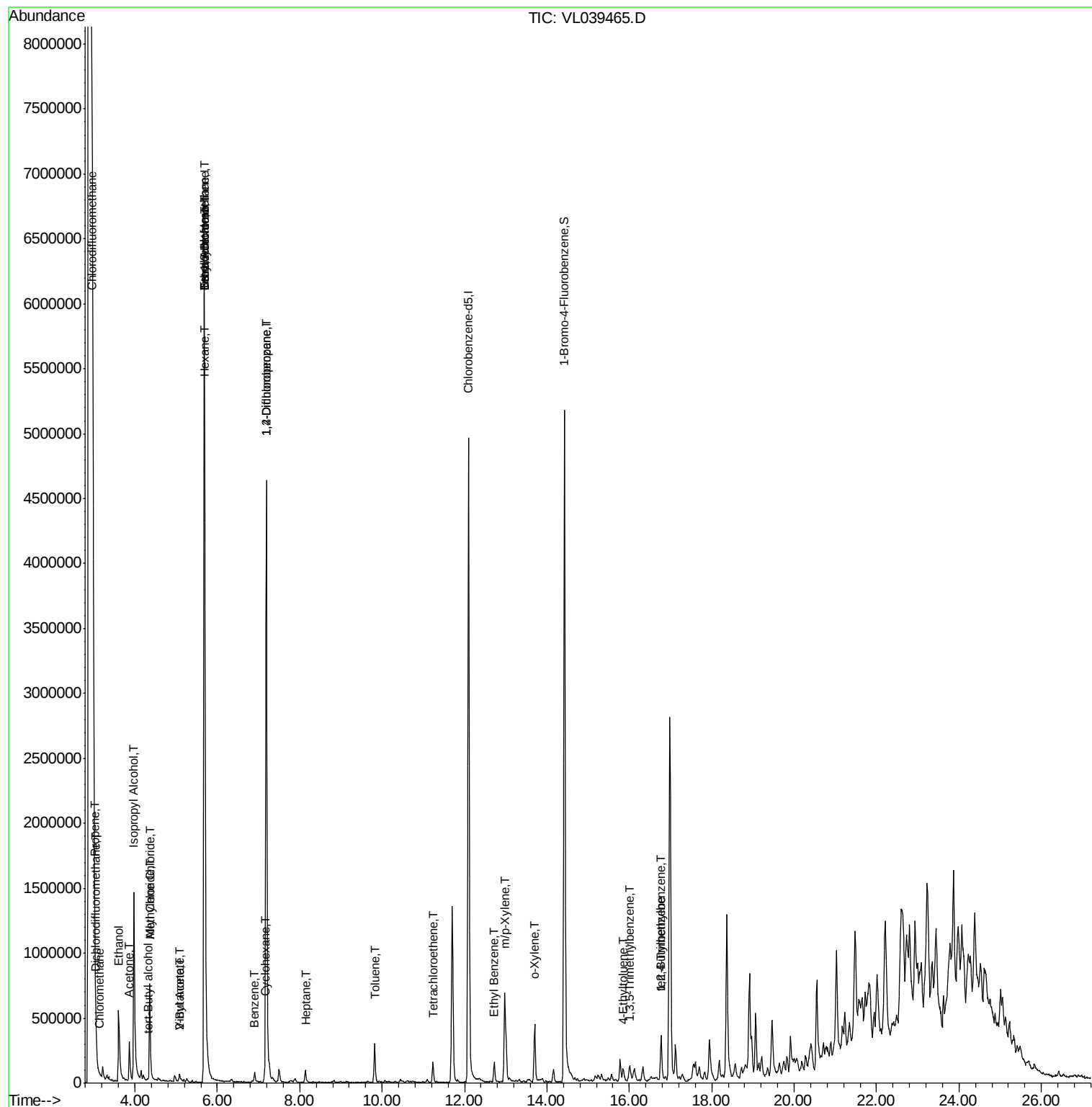
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.06	85	32520	0.16	ppbv #	85
3) Chlorodifluoromethane	2.98	51	58974	0.34	ppbv #	64
4) Chloromethane	3.16	50	5290	0.06	ppbv	94
9) Propene	3.03	41	12463	0.16	ppbv	91
10) Heptane	8.14	43	39940	0.22	ppbv	95
13) Ethanol	3.61	45	720933	157.96	ppbv	74
15) Acetone	3.86	43	327239	2.01	ppbv	95
17) tert-Butyl alcohol	4.31	59	5014	0.04	ppbv #	71
19) Isopropyl Alcohol	3.97	45	1955233	22.57	ppbv #	92
20) Methylene Chloride	4.36	84	292129	4.51	ppbv	97
21) Allyl Chloride	4.36	41	5942	0.05	ppbv #	1
23) Vinyl Acetate	5.09	43	65894	0.61	ppbv #	93
25) Ethyl Acetate	5.68	43	5519811	16.57	ppbv #	92
26) Hexane	5.70	57	430316	3.21	ppbv #	1
30) Cyclohexane	7.15	84	4840	0.04	ppbv #	1
31) cis-1,2-Dichloroethene	5.68	61	685124	4.81	ppbv #	23
34) 2-Butanone	5.09	43	65303	0.34	ppbv #	65
36) Benzene	6.90	78	64183	0.22	ppbv #	88
39) 1,2-Dichloropropane	7.19	63	925581	8.34	ppbv #	24
41) Tetrahydrofuran	5.68	42	525456	4.69	ppbv #	44
52) Tetrachloroethene	11.24	164	40314	0.34	ppbv	87
53) Toluene	9.82	91	232450	0.68	ppbv	98
58) Ethyl Benzene	12.72	91	134088	0.30	ppbv	94
59) m/p-Xylene	12.98	91	716722	1.81	ppbv	97
60) o-Xylene	13.70	91	360010	0.96	ppbv	97
65) tert-Butylbenzene	16.77	119	27262	0.05	ppbv #	54
72) 4-Ethyltoluene	15.84	105	45891	0.10	ppbv #	87
73) 1,3,5-Trimethylbenzene	16.01	105	80221	0.20	ppbv #	84
74) 1,2,4-Trimethylbenzene	16.77	105	252739	0.56	ppbv #	73

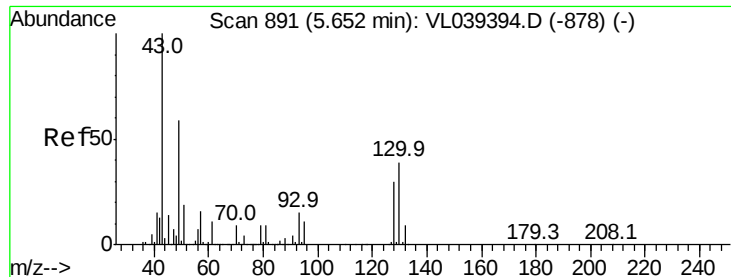
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA_L\DATA\VL071222\
Data File : VL039465.D
Acq On : 13 Jul 2022 2:41
Operator : SY/AP
Sample : N3660-06DL 5X
Misc : 400mL/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
SG-9DL

Quant Time: Jul 13 05:56:57 2022
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA_L\METHODS\VL062922AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 06 02:15:38 2022
QLast Update : Wed Jul 06 02:15:38 2022
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.68 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 Jul 2022 2:41 SG-9DL

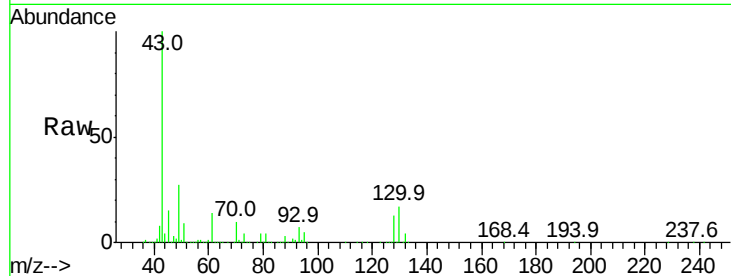
Tgt Ion: 49 Resp: 1372985

Ion Ratio Lower Upper

49 100

128 51.9 26.7 80.0

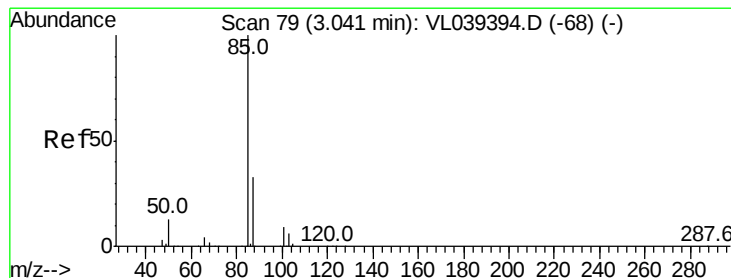
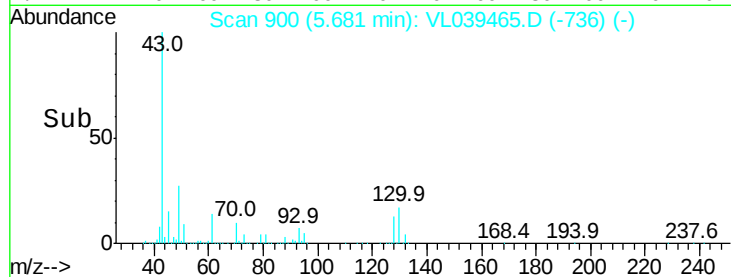
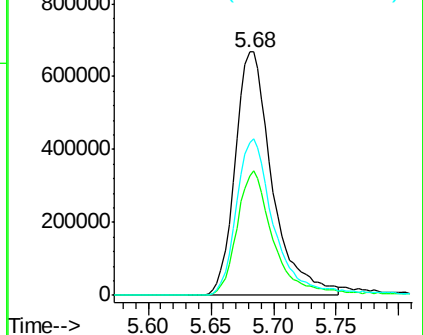
130 66.4 34.3 102.8



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: 0.16 ppbv

RT: 3.06 min Scan# 85

Delta R.T. 0.02 min

Lab File: VL039465.D

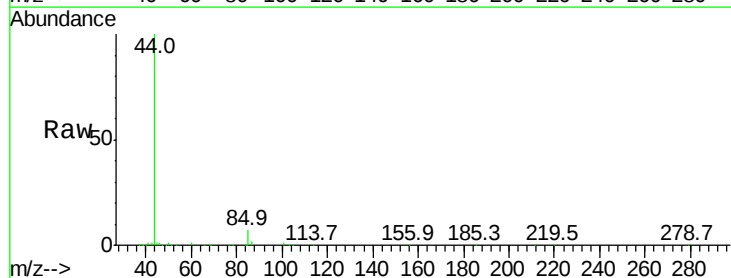
Acq: 13 Jul 2022 2:41

Tgt Ion: 85 Resp: 32520

Ion Ratio Lower Upper

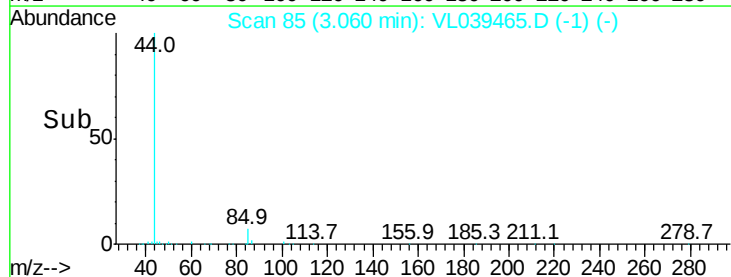
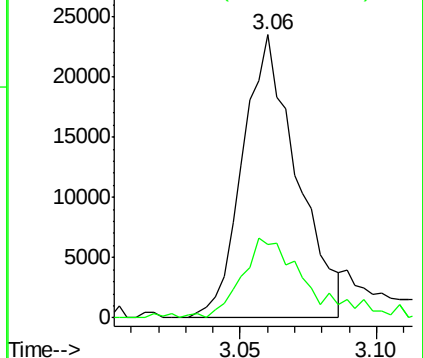
85 100

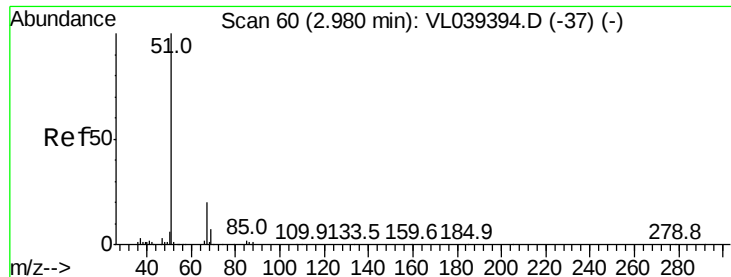
87 25.0 26.7 40.1#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.34 ppbv

RT: 2.98 Instrument: MSVOA_1

Delta R.T. ClientSampleId:

Lab File: SG-9DL

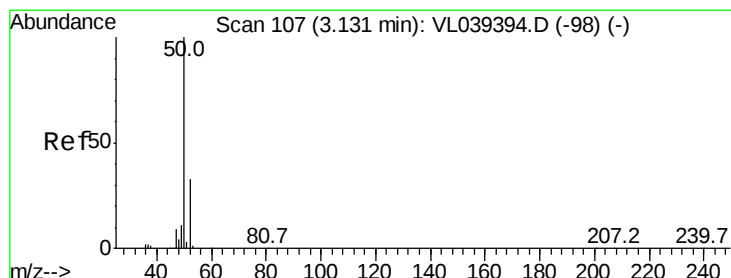
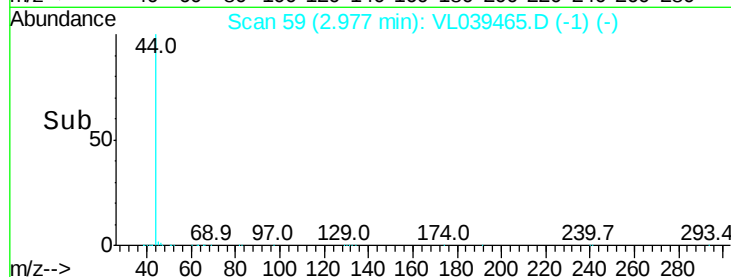
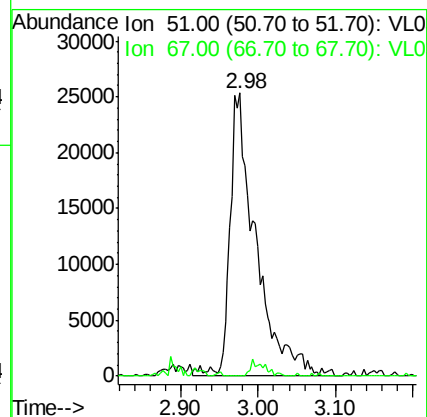
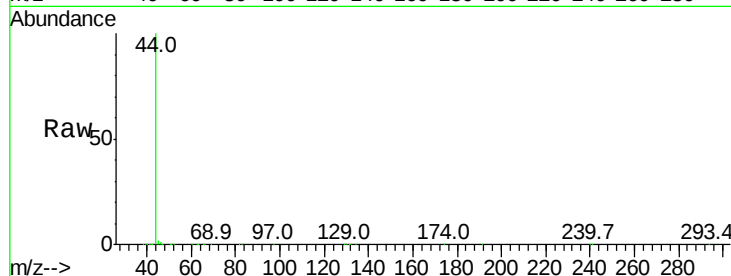
Acq: 13 Jul 2022 2:41

Tgt Ion: 51 Resp: 58974

Ion Ratio Lower Upper

51 100

67 3.0 15.7 23.5#



#4

Chloromethane

Concen: 0.06 ppbv

RT: 3.16 min Scan# 115

Delta R.T. 0.03 min

Lab File: VL039465.D

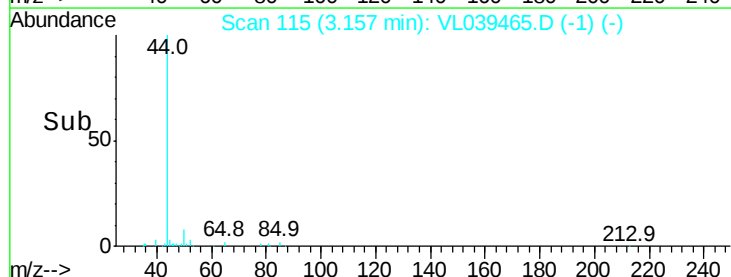
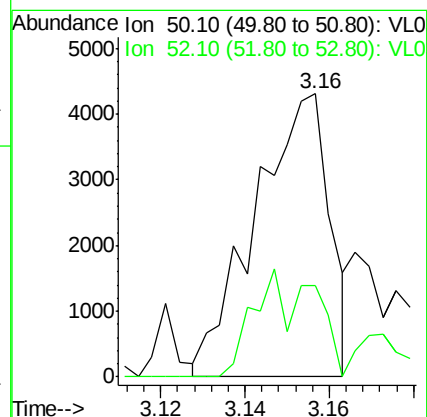
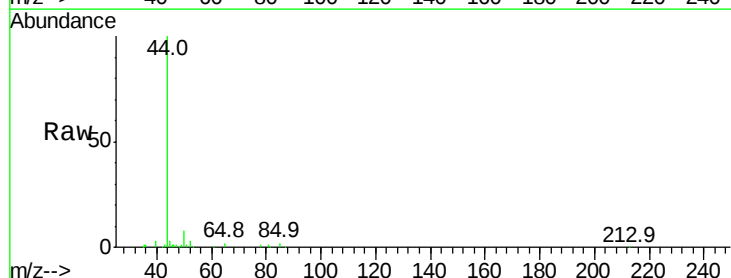
Acq: 13 Jul 2022 2:41

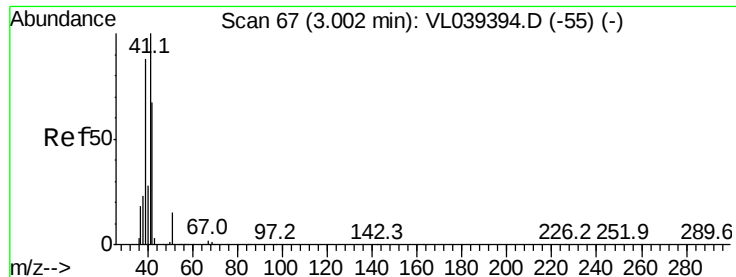
Tgt Ion: 50 Resp: 5290

Ion Ratio Lower Upper

50 100

52 29.8 26.5 39.7





#9

Propene

Concen: 0.16 ppbv

RT: 3.03 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

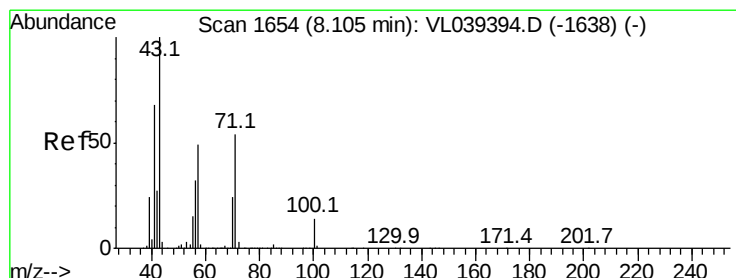
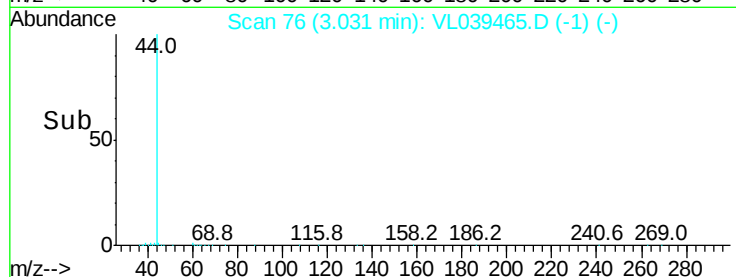
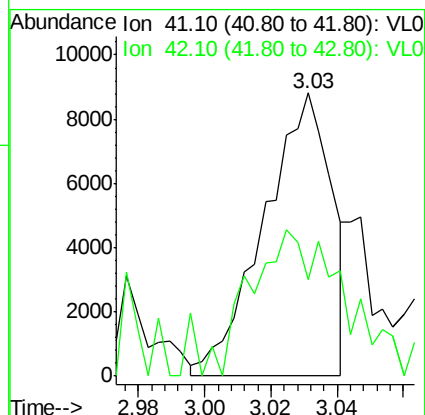
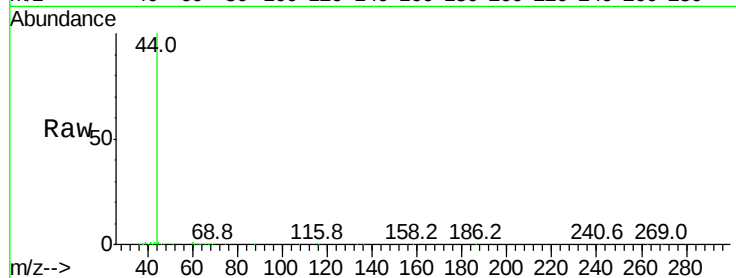
Acq: 13 Jul 2022 2:41 SG-9DL

Tgt Ion: 41 Resp: 12463

Ion Ratio Lower Upper

41 100

42 76.5 55.2 82.8



#10

Heptane

Concen: 0.22 ppbv

RT: 8.14 min Scan# 1664

Delta R.T. 0.03 min

Lab File: VL039465.D

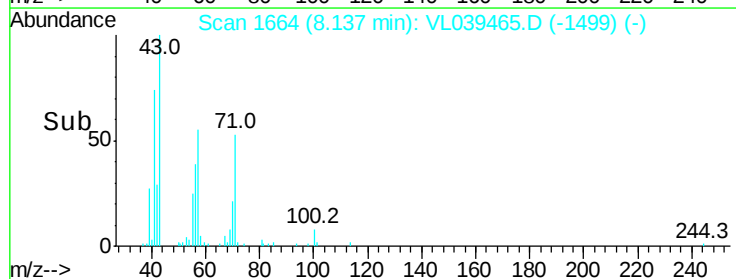
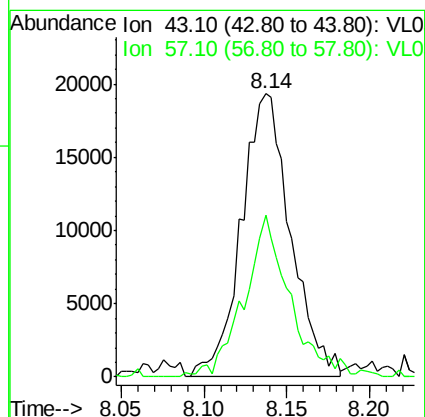
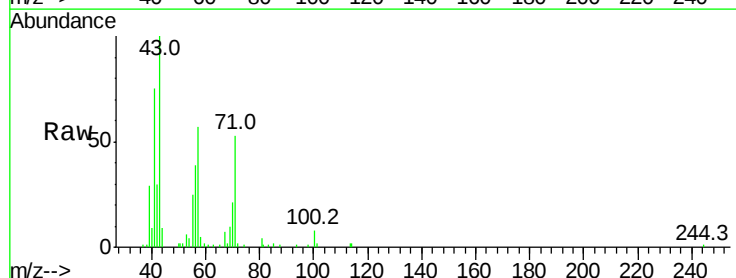
Acq: 13 Jul 2022 2:41

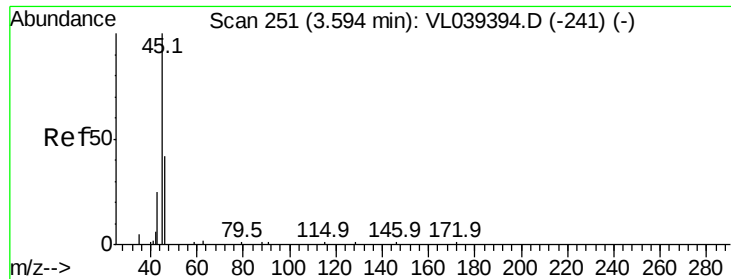
Tgt Ion: 43 Resp: 39940

Ion Ratio Lower Upper

43 100

57 53.8 40.5 60.7





#13

Ethanol

Concen: 157.96 ppbv

RT: 3.61

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

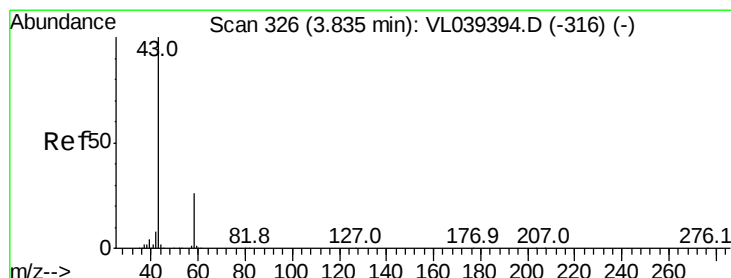
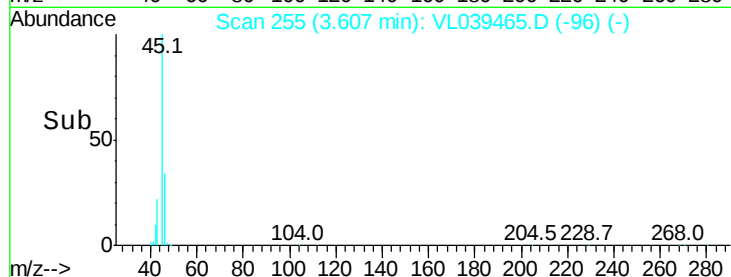
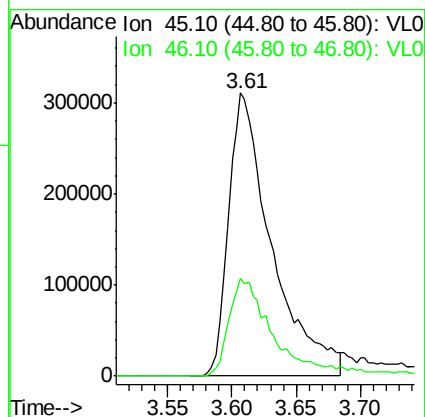
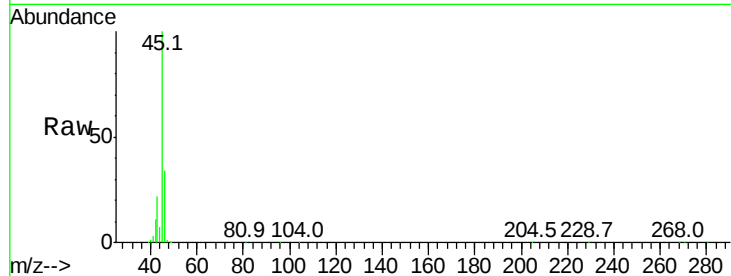
Acq: 13 Jul 2022 2:41

Tgt Ion: 45 Resp: 720933

Ion Ratio Lower Upper

45 100

46 37.9 22.8 91.2



#15

Acetone

Concen: 2.01 ppbv

RT: 3.86 min Scan# 335

Delta R.T. 0.03 min

Lab File: VL039465.D

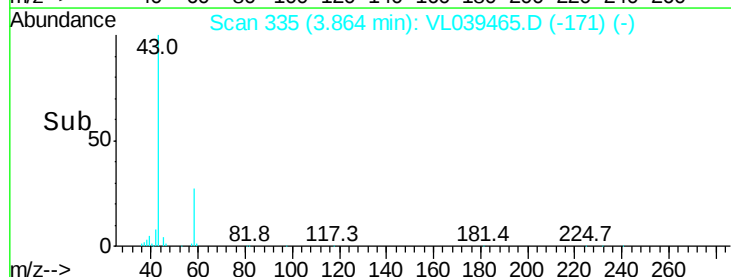
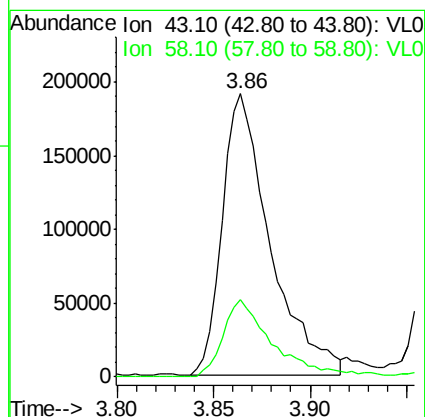
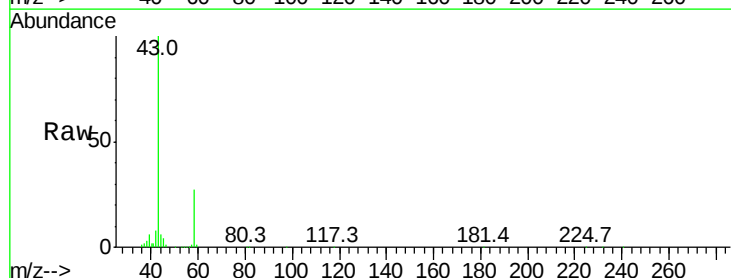
Acq: 13 Jul 2022 2:41

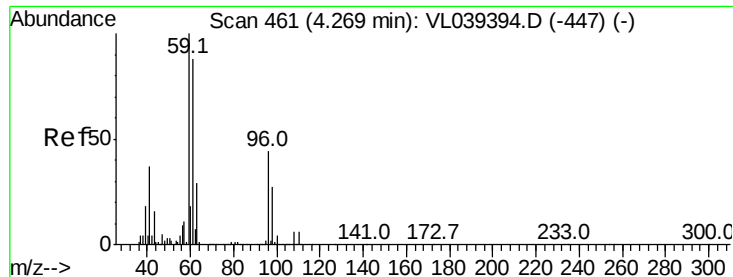
Tgt Ion: 43 Resp: 327239

Ion Ratio Lower Upper

43 100

58 29.0 21.0 31.6





#17

tert-Butyl alcohol

Concen: 0.04 ppbv

RT: 4.31 Instrument:

Delta R.T. MSVOA_1

Lab File: ClientSampleId:

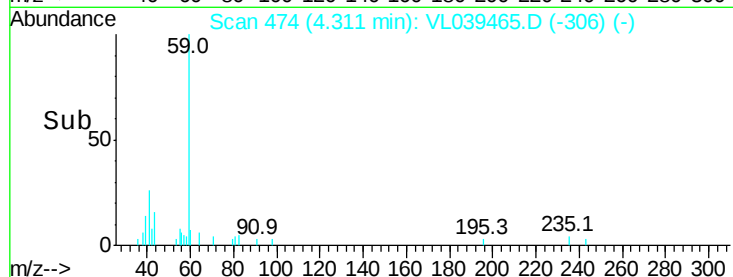
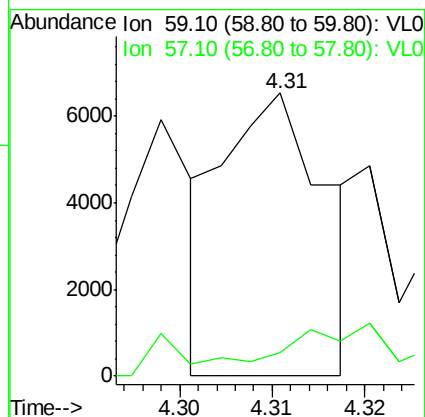
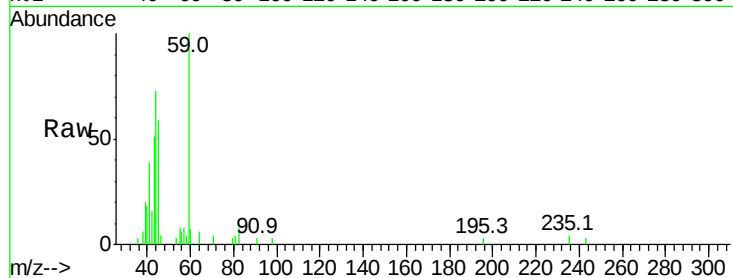
Acq: 13 Jul 2022 2:41 SG-9DL

Tgt Ion: 59 Resp: 5014

Ion Ratio Lower Upper

59 100

57 0.0 8.7 13.1#



#19

Isopropyl Alcohol

Concen: 22.57 ppbv

RT: 3.97 min Scan# 369

Delta R.T. 0.03 min

Lab File: VL039465.D

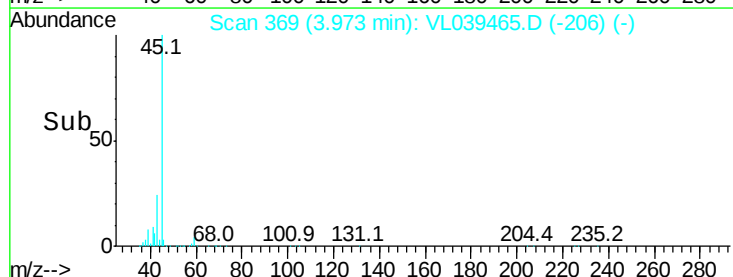
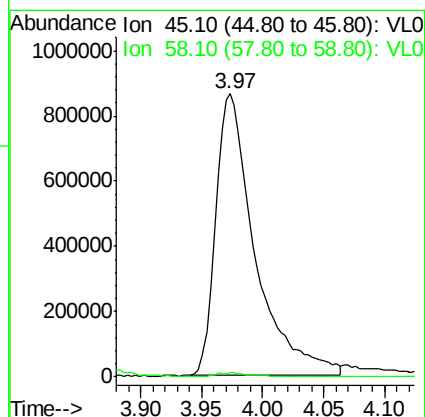
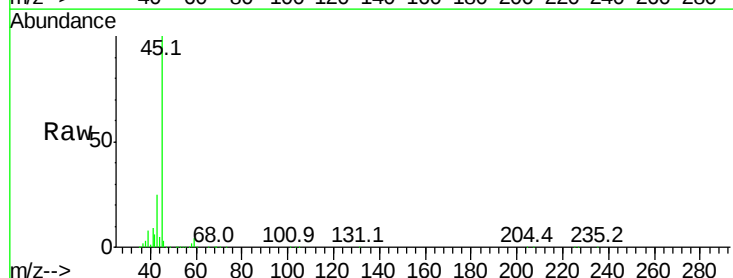
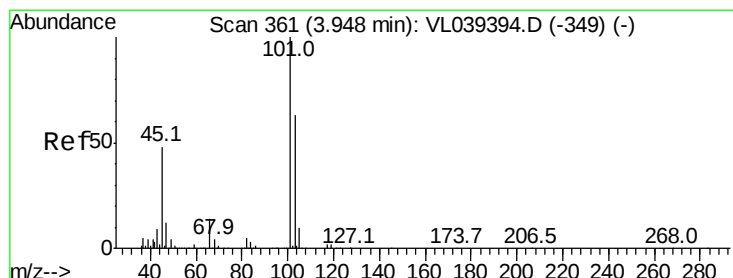
Acq: 13 Jul 2022 2:41

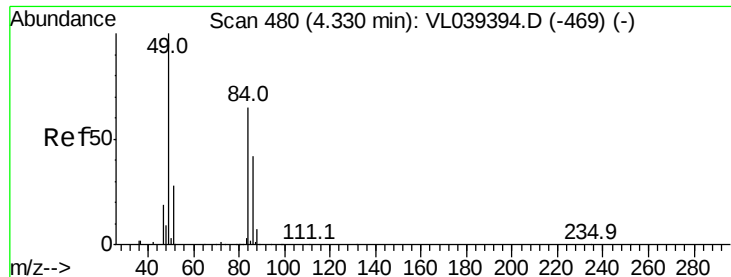
Tgt Ion: 45 Resp: 1955233

Ion Ratio Lower Upper

45 100

58 1.3 3.2 4.8#





#20

Methylene Chloride

Concen: 4.51 ppbv

RT: 4.36

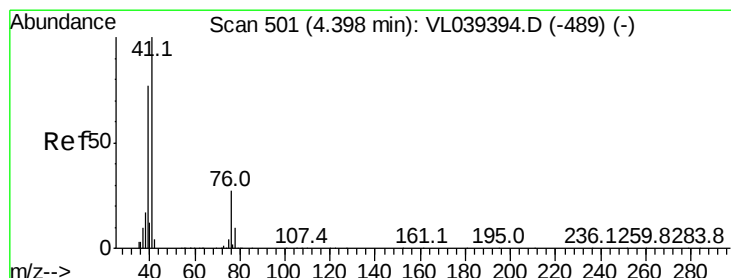
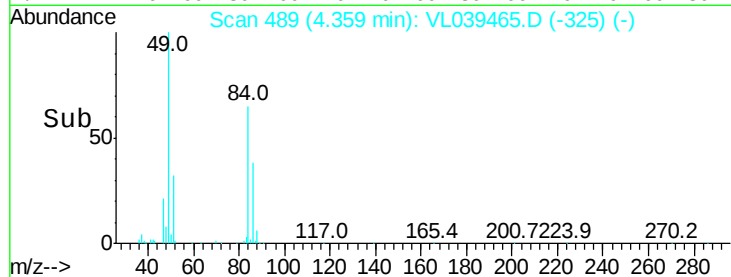
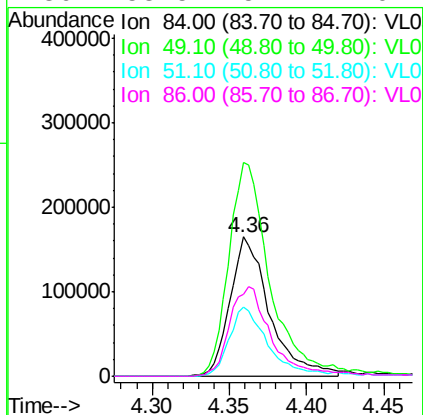
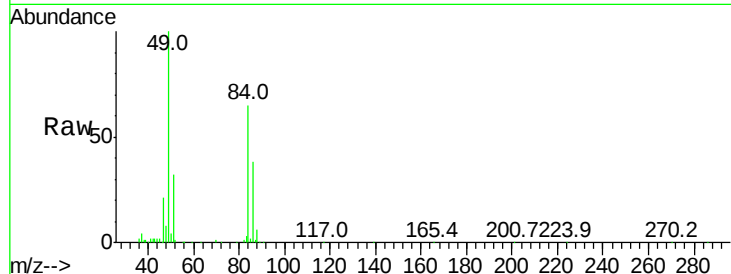
Instrument: MSVOA_1

Delta R.T.

Lab File: ClientSampleId :

Acq: 13 Jul 2022 2:41

Tgt Ion:	84	Resp:	292129
Ion	Ratio	Lower	Upper
84	100		
49	153.6	123.1	184.7
51	49.2	34.4	51.6
86	58.5	51.1	76.7



#21

Allyl Chloride

Concen: 0.05 ppbv

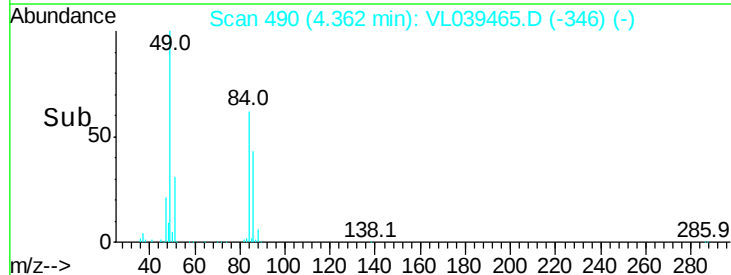
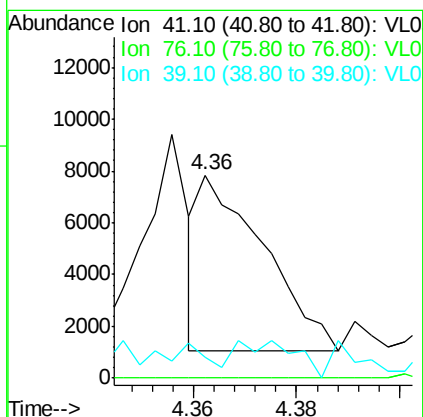
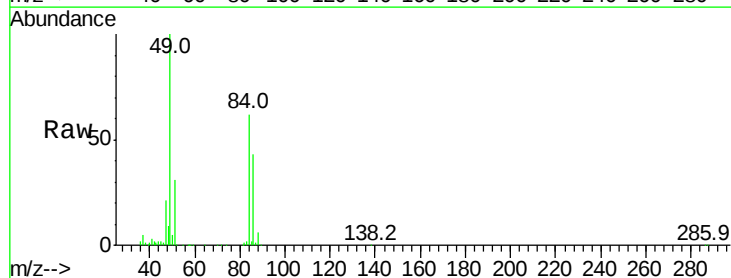
RT: 4.36 min Scan# 490

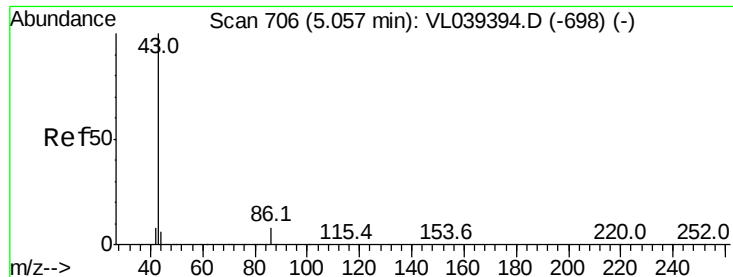
Delta R.T. -0.04 min

Lab File: VL039465.D

Acq: 13 Jul 2022 2:41

Tgt Ion:	41	Resp:	5942
Ion	Ratio	Lower	Upper
41	100		
76	103.9	24.4	36.6#
39	0.0	63.5	95.3#





#23

Vinyl Acetate

Concen: 0.61 ppbv

RT: 5.09 Instrument:

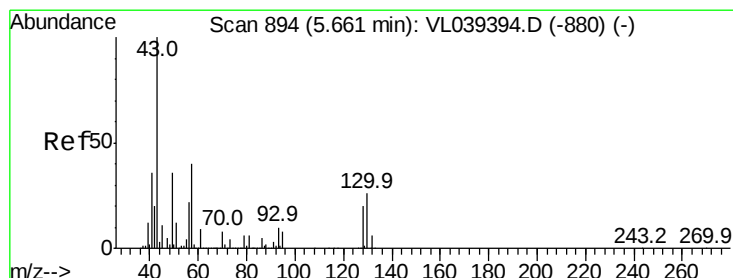
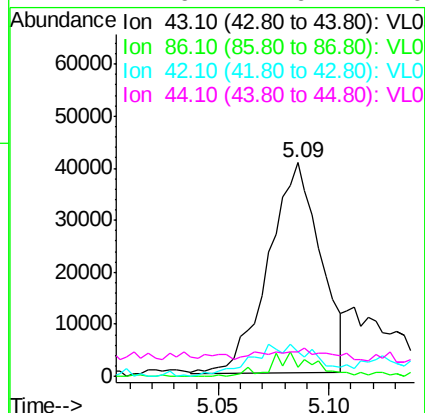
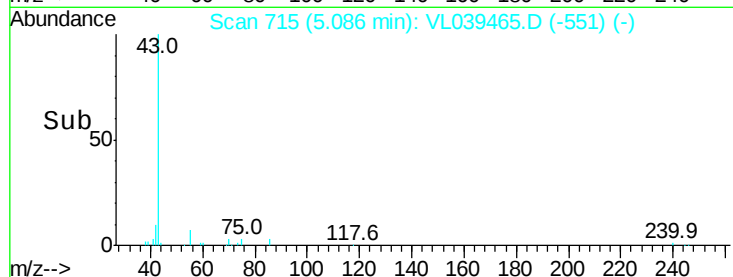
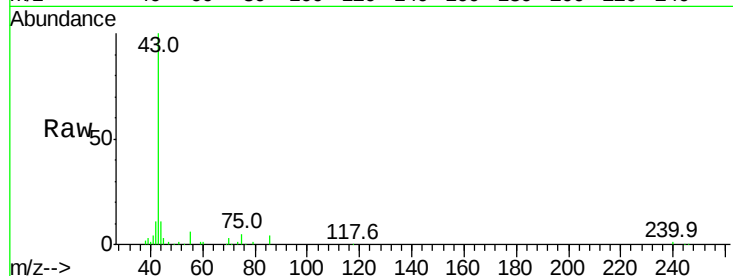
Delta R.T. MSVOA_1

Lab File: ClientSampleId :

Acq: 13 Jul 2022 2:41 SG-9DL

Tgt Ion: 43 Resp: 65894

Ion	Ratio	Lower	Upper
43	100		
86	4.2	5.0	7.6#
42	11.5	7.7	11.5
44	2.6	4.6	7.0#



#25

Ethyl Acetate

Concen: 16.57 ppbv

RT: 5.68 min Scan# 900

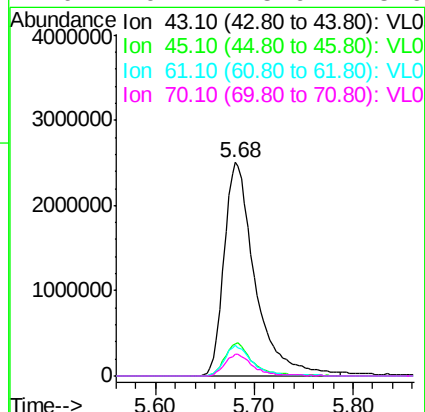
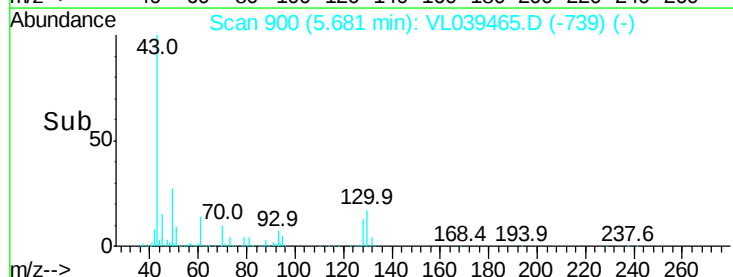
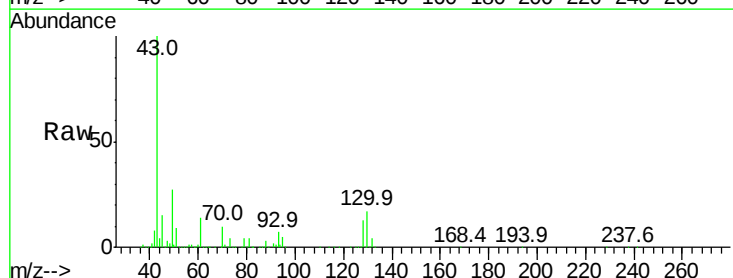
Delta R.T. 0.02 min

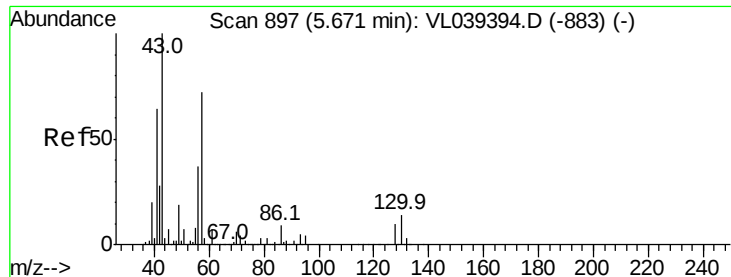
Lab File: VL039465.D

Acq: 13 Jul 2022 2:41

Tgt Ion: 43 Resp: 5519811

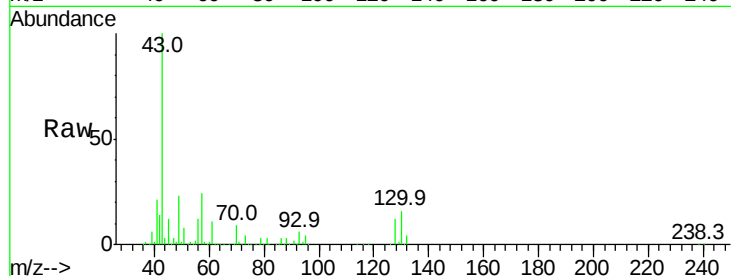
Ion	Ratio	Lower	Upper
43	100		
45	14.2	8.2	12.4#
61	13.1	8.3	12.5#
70	9.7	5.9	8.9#



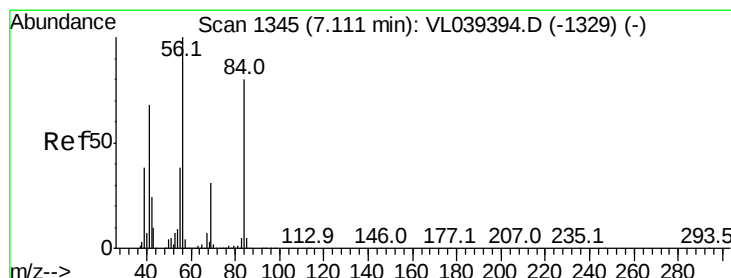
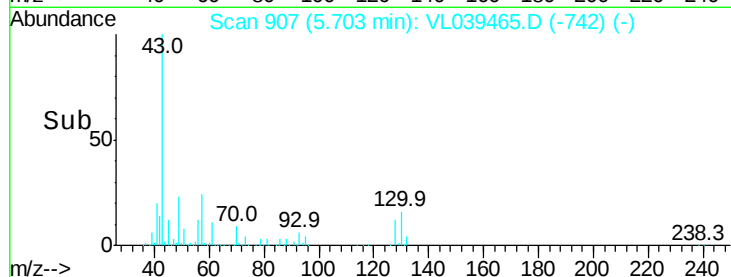
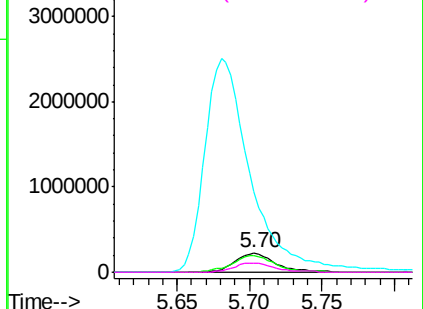


#26
Hexane
Concen: 3.21 ppbv
RT: 5.70
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 Jul 2022 2:41

Tgt Ion: 57 Resp: 430316
Ion Ratio Lower Upper
57 100
41 98.7 76.9 115.3
43 1314.7 191.0 286.6#
56 53.3 43.2 64.8

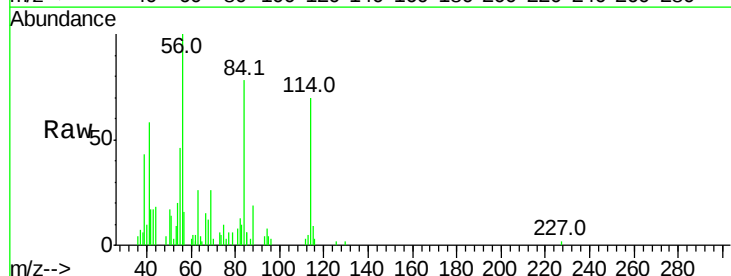


Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 43.10 (42.80 to 43.80): VL0
Ion 56.10 (55.80 to 56.80): VL0

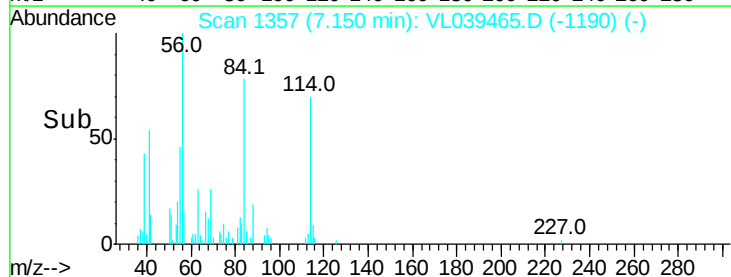
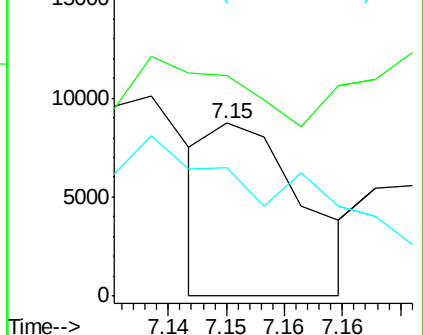


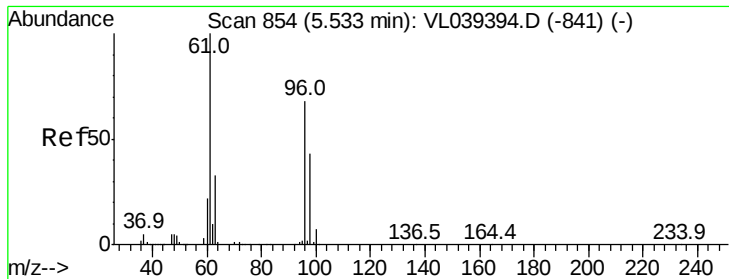
#30
Cyclohexane
Concen: 0.04 ppbv
RT: 7.15 min Scan# 1357
Delta R.T. 0.04 min
Lab File: VL039465.D
Acq: 13 Jul 2022 2:41

Tgt Ion: 84 Resp: 4840
Ion Ratio Lower Upper
84 100
56 0.0 107.7 161.5#
41 0.0 67.7 101.5#



Abundance Ion 84.20 (83.90 to 84.90): VL0
Ion 56.10 (55.80 to 56.80): VL0
Ion 41.10 (40.80 to 41.80): VL0





#31

cis-1,2-Dichloroethene

Concen: 4.81 ppbv

RT: 5.68 Instrument: MSVOA_1

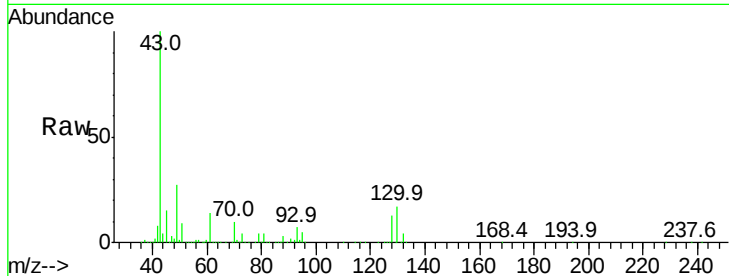
Delta R.T.

Lab File: ClientSampleId:

Acq: 13 Jul 2022 2:41

Tgt Ion: 61 Resp: 685124

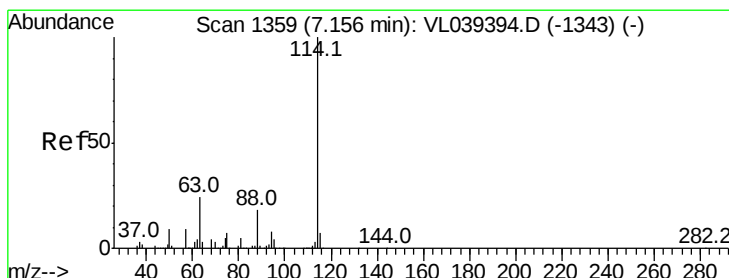
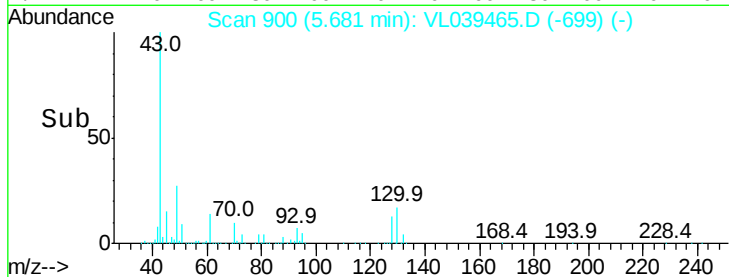
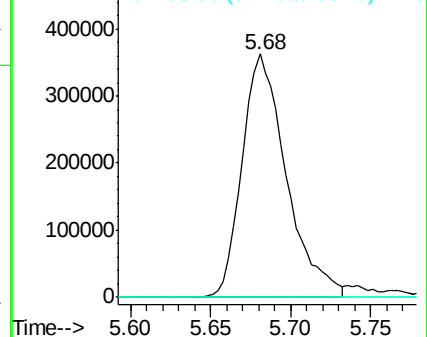
Ion	Ratio	Lower	Upper
61	100		
96	0.4	54.1	81.1#
98	0.0	34.6	52.0#



Abundance Ion 61.10 (60.80 to 61.80): VL0

Ion 96.00 (95.70 to 96.70): VL0

Ion 98.00 (97.70 to 98.70): VL0



#33

1,4-Difluorobenzene

Concen: 10.00 ppbv

RT: 7.19 min Scan# 1369

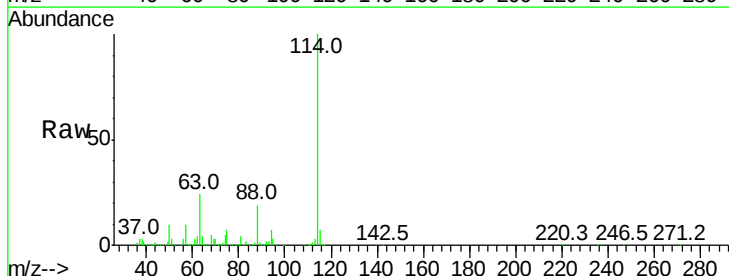
Delta R.T. 0.03 min

Lab File: VL039465.D

Acq: 13 Jul 2022 2:41

Tgt Ion: 114 Resp: 3837066

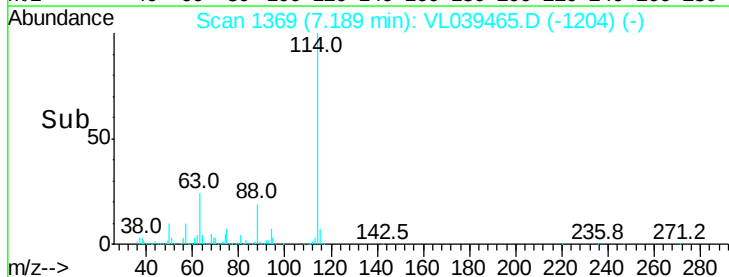
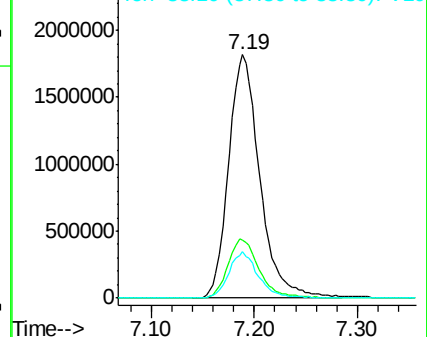
Ion	Ratio	Lower	Upper
114	100		
63	24.4	20.2	30.4
88	18.3	14.5	21.7

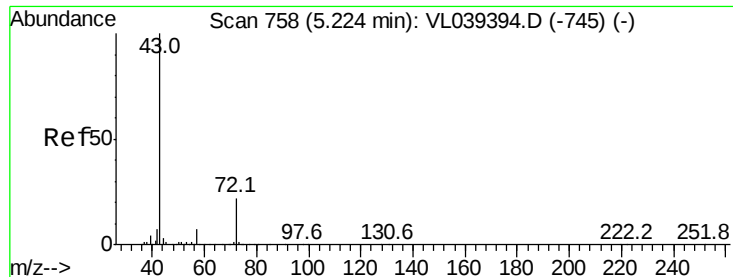


Abundance Ion 114.10 (113.80 to 114.80): V

Ion 63.10 (62.80 to 63.80): VL0

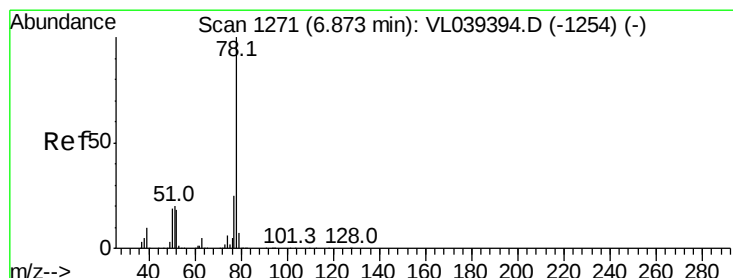
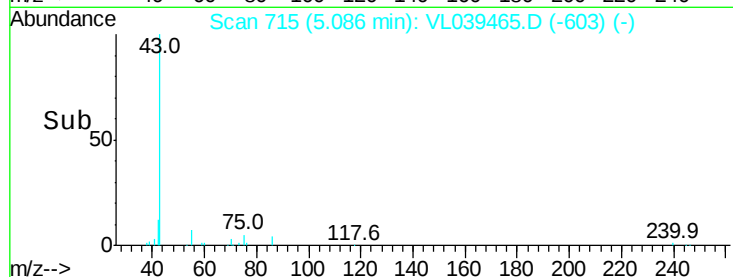
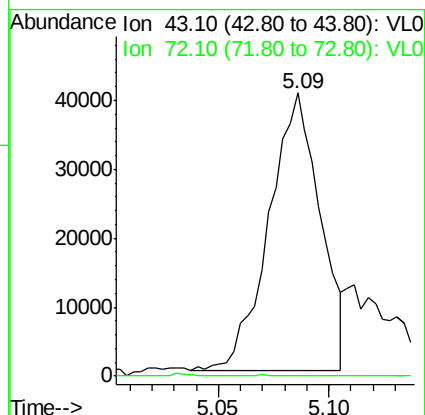
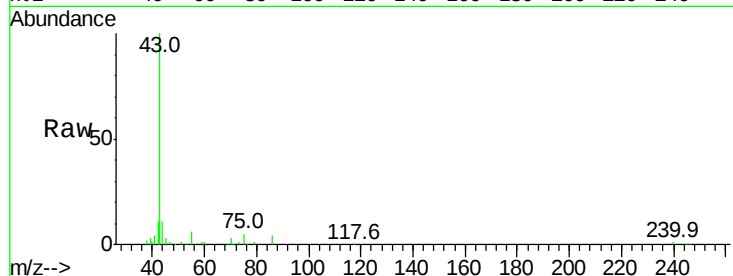
Ion 88.10 (87.80 to 88.80): VL0





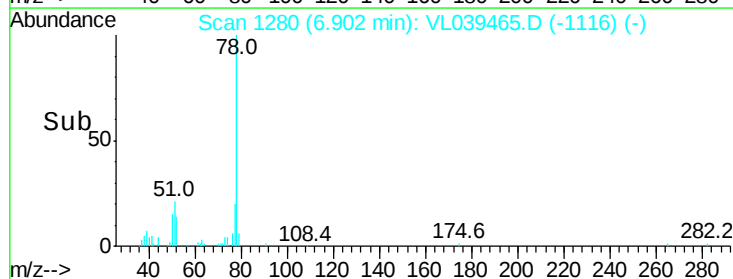
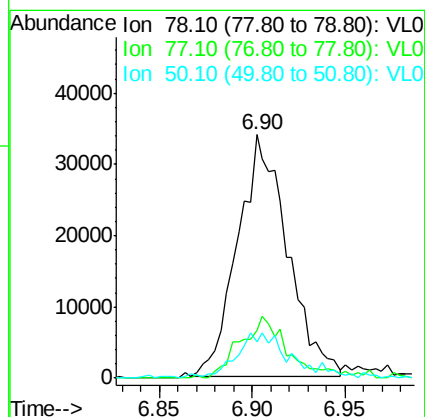
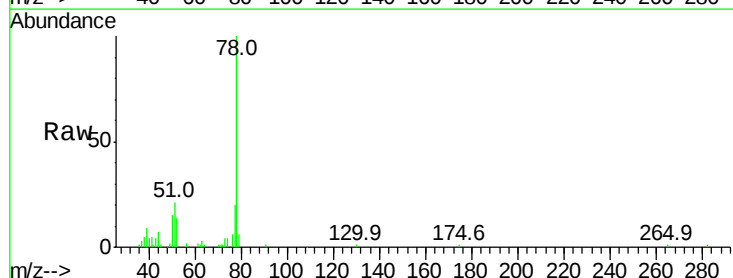
#34
 2-Butanone
 Concen: 0.34 ppbv
 RT: 5.09
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 Jul 2022 2:41

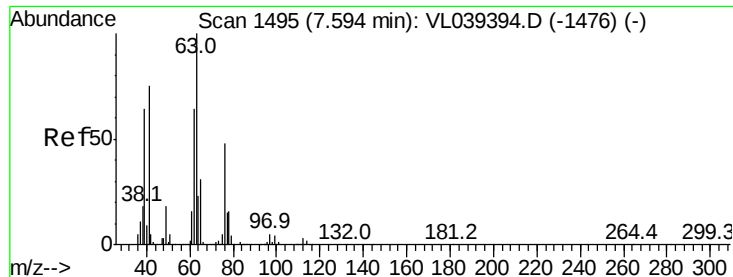
Tgt Ion: 43 Resp: 65303
 Ion Ratio Lower Upper
 43 100
 72 5.6 17.9 26.9#



#36
 Benzene
 Concen: 0.22 ppbv
 RT: 6.90 min Scan# 1280
 Delta R.T. 0.03 min
 Lab File: VL039465.D
 Acq: 13 Jul 2022 2:41

Tgt Ion: 78 Resp: 64183
 Ion Ratio Lower Upper
 78 100
 77 20.0 20.3 30.5#
 50 13.3 15.5 23.3#





#39

1,2-Dichloropropane

Concen: 8.34 ppbv

RT: 7.19 Instrument:

Delta R.T. MSVOA_L

Lab File: ClientSampleId:

Acq: 13 Jul 2022 2:41 SG-9DL

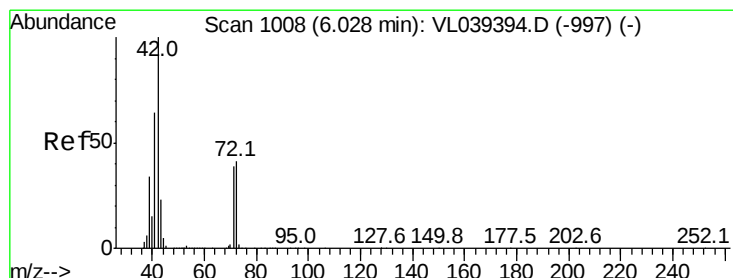
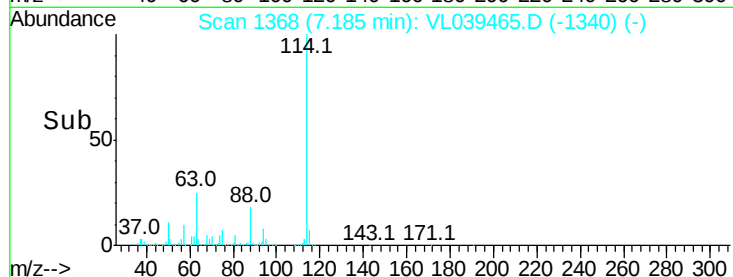
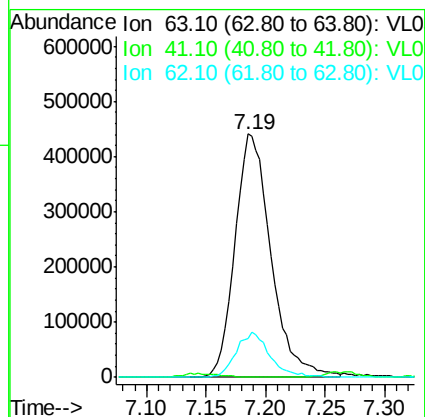
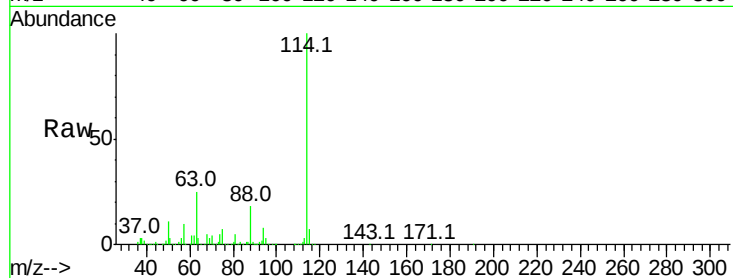
Tgt Ion: 63 Resp: 925581

Ion Ratio Lower Upper

63 100

41 0.0 59.6 89.4#

62 15.8 51.4 77.0#



#41

Tetrahydrofuran

Concen: 4.69 ppbv

RT: 5.68 min Scan# 900

Delta R.T. -0.35 min

Lab File: VL039465.D

Acq: 13 Jul 2022 2:41

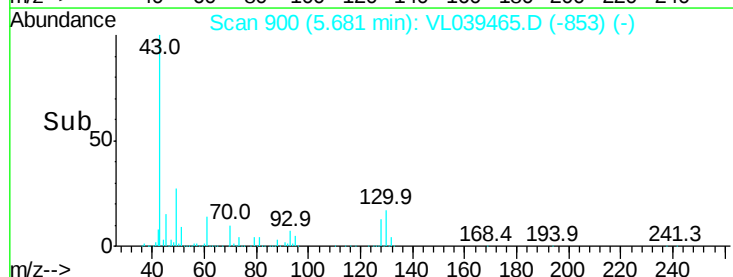
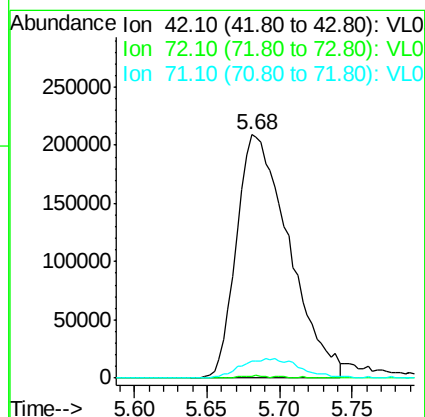
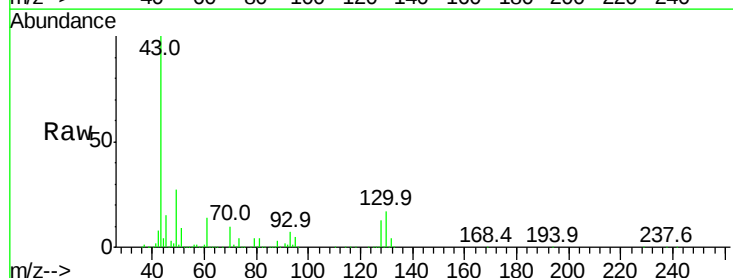
Tgt Ion: 42 Resp: 525456

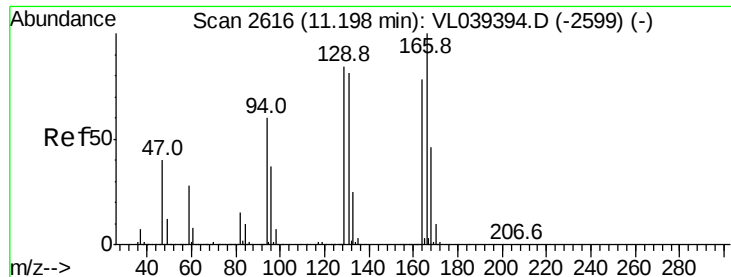
Ion Ratio Lower Upper

42 100

72 0.8 31.8 47.8#

71 9.3 31.8 47.8#





#52

Tetrachloroethene

Concen: 0.34 ppbv

RT: 11.24

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 13 Jul 2022 2:41

Tgt Ion: 164 Resp: 40314

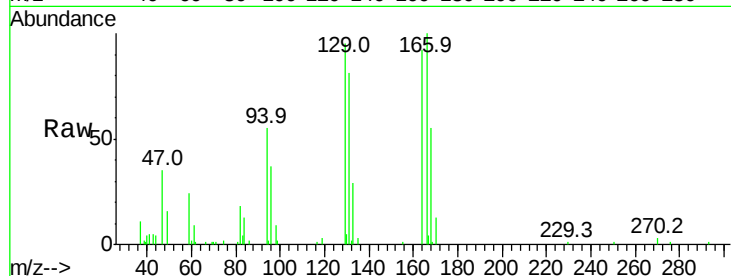
Ion Ratio Lower Upper

164 100

166 106.2 102.2 153.2

129 103.6 85.8 128.8

131 87.7 83.3 124.9

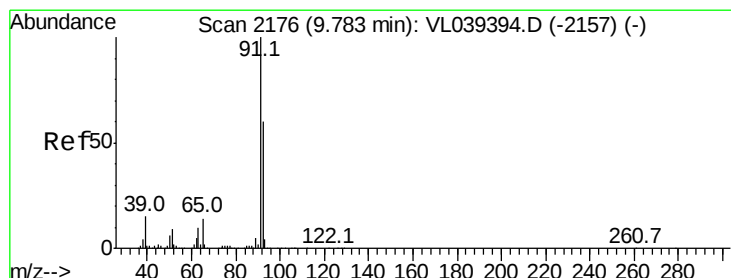
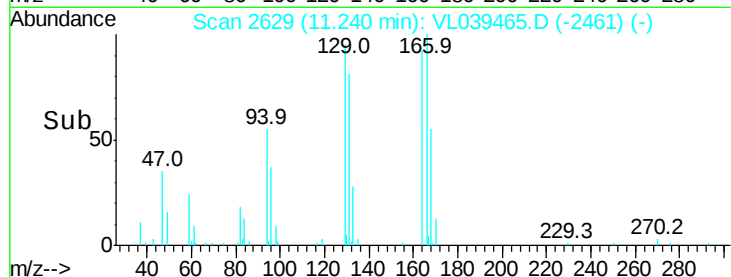
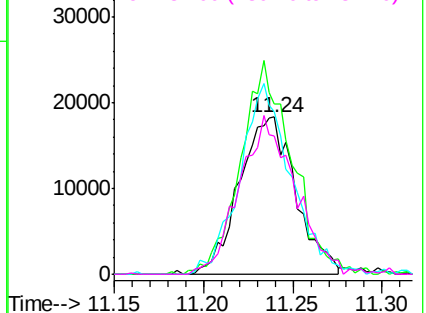


Abundance Ion 163.90 (163.60 to 164.60): V

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: 0.68 ppbv

RT: 9.82 min Scan# 2187

Delta R.T. 0.04 min

Lab File: VL039465.D

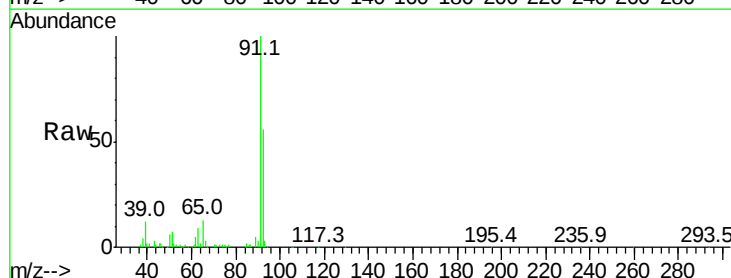
Acq: 13 Jul 2022 2:41

Tgt Ion: 91 Resp: 232450

Ion Ratio Lower Upper

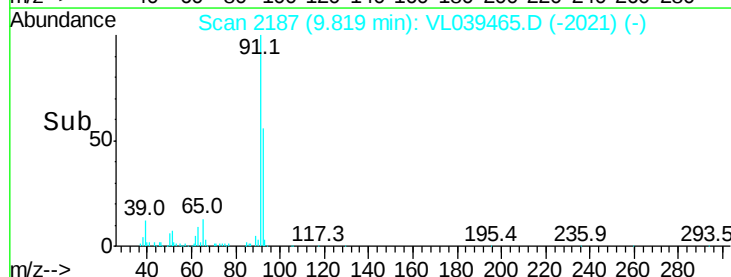
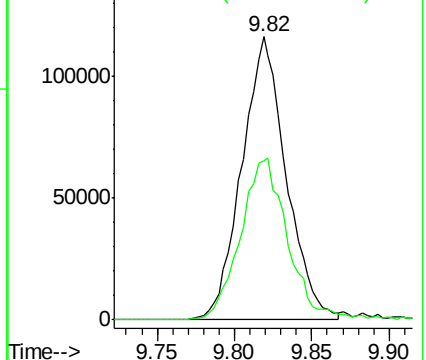
91 100

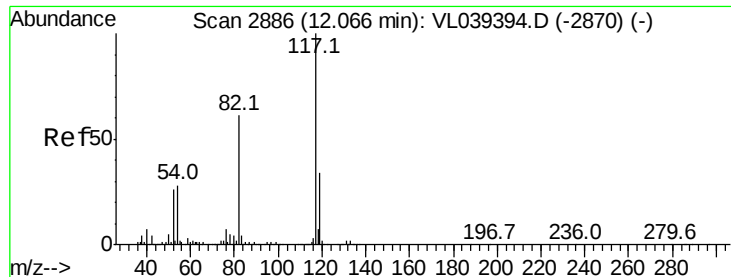
92 61.4 48.2 72.2



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

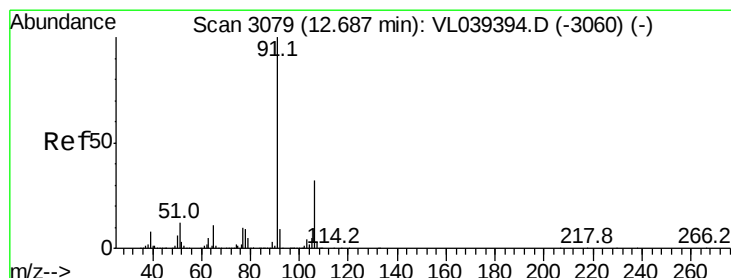
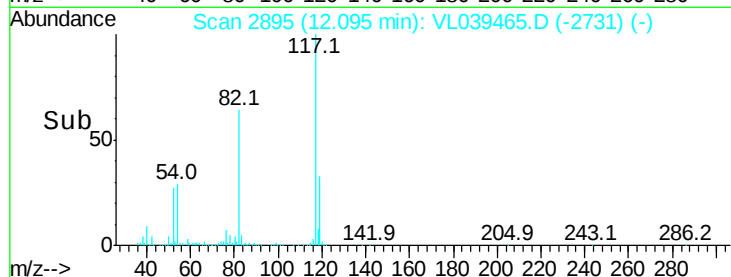
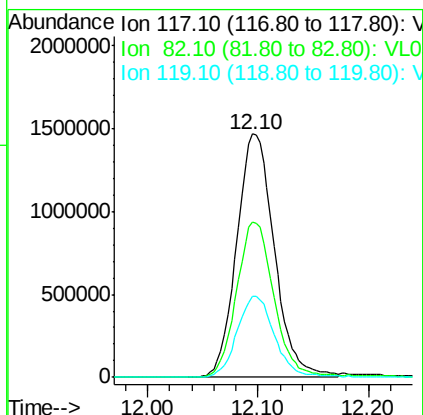
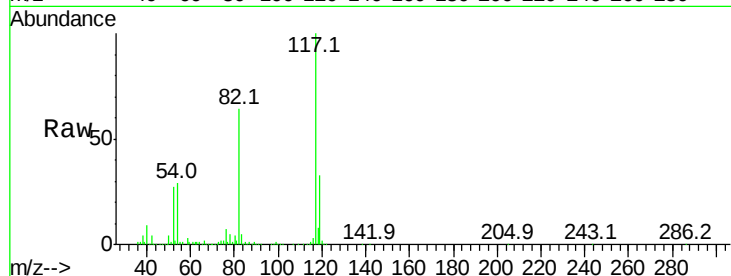




#55
 Chlorobenzene-d5
 Concen: 10.00 ppbv
 RT: 12.10 min
 Instrument: MSVOA_1
 Delta R.T.:
 Lab File: ClientSampleId :
 Acq: 13 Jul 2022 2:41

Tgt Ion: 117 Resp: 3481932

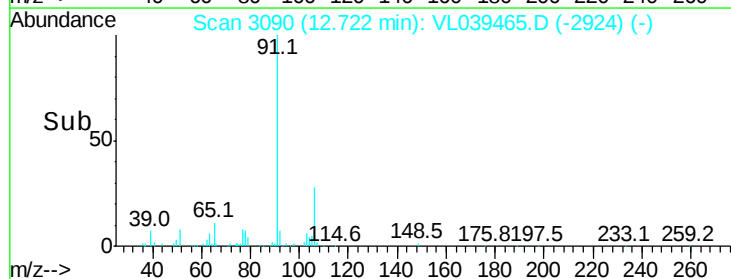
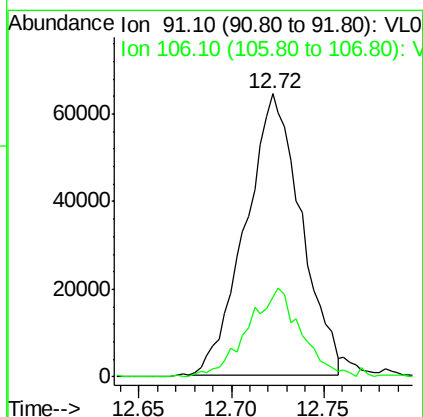
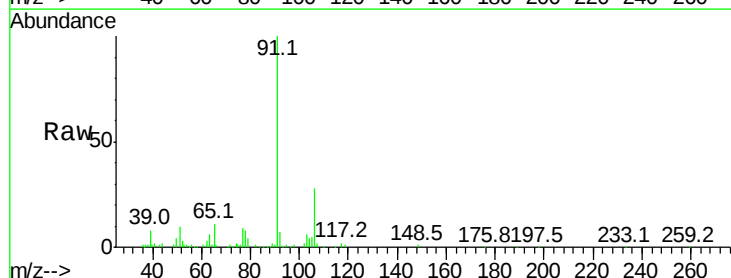
Ion	Ratio	Lower	Upper
117	100		
82	64.0	50.8	76.2
119	33.3	24.1	36.1

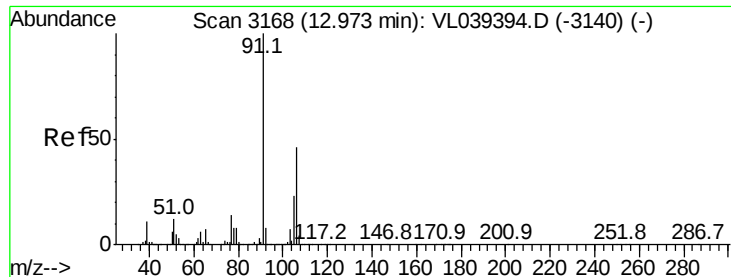


#58
 Ethyl Benzene
 Concen: 0.30 ppbv
 RT: 12.72 min Scan# 3090
 Delta R.T.: 0.04 min
 Lab File: VL039465.D
 Acq: 13 Jul 2022 2:41

Tgt Ion: 91 Resp: 134088

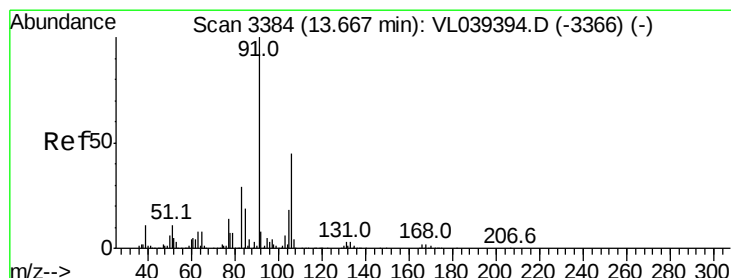
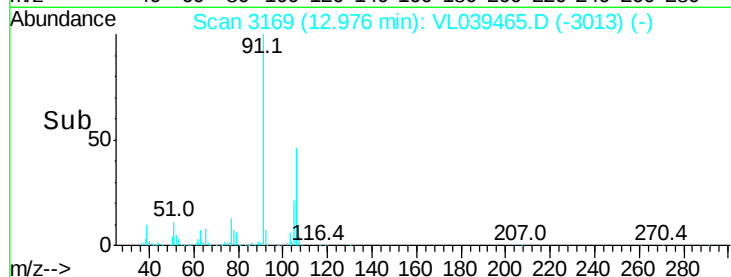
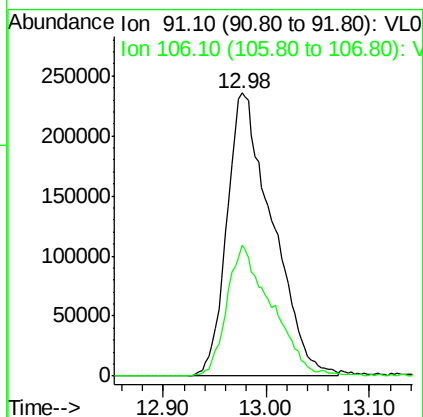
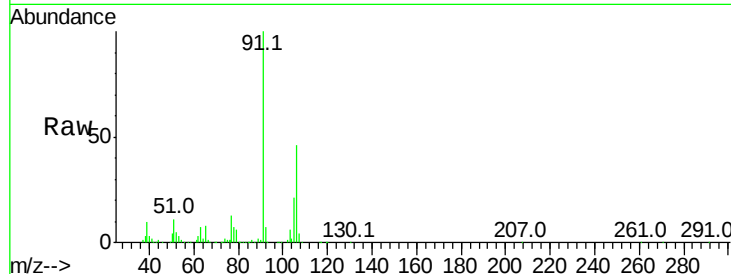
Ion	Ratio	Lower	Upper
91	100		
106	28.5	25.4	38.0





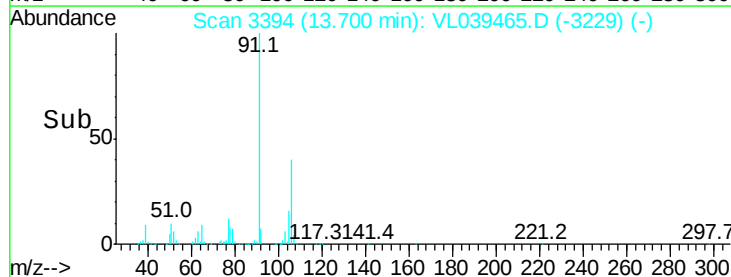
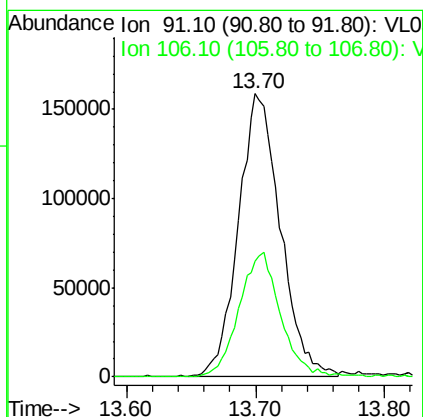
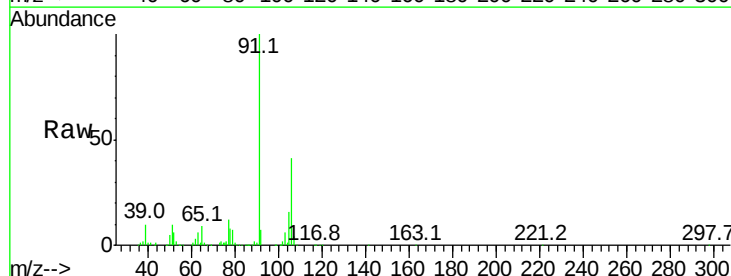
#59
m/p-Xylene
Concen: 1.81 ppbv
RT: 12.98 min
Delta R.T. MSVOA_L
Lab File: ClientSampleId :
Acq: 13 Jul 2022 2:41

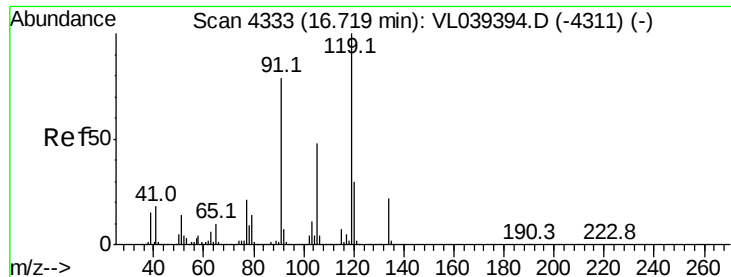
Tgt Ion: 91 Resp: 716722
Ion Ratio Lower Upper
91 100
106 46.0 35.4 53.2



#60
o-Xylene
Concen: 0.96 ppbv
RT: 13.70 min Scan# 3394
Delta R.T. 0.03 min
Lab File: VL039465.D
Acq: 13 Jul 2022 2:41

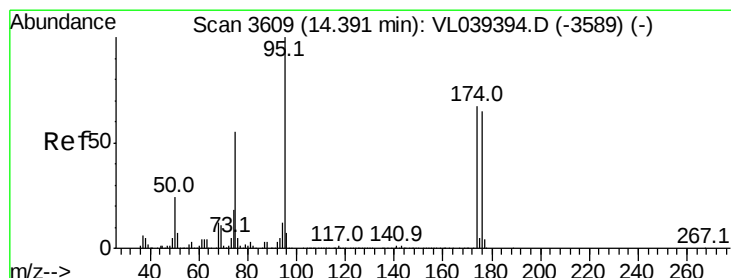
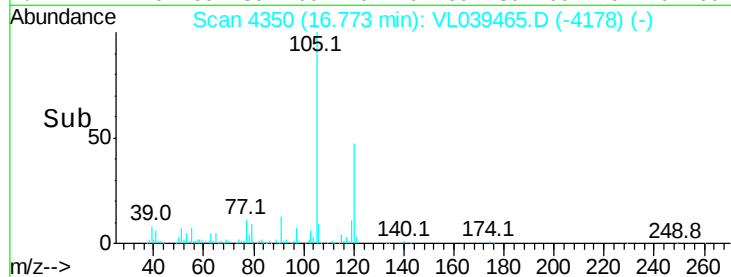
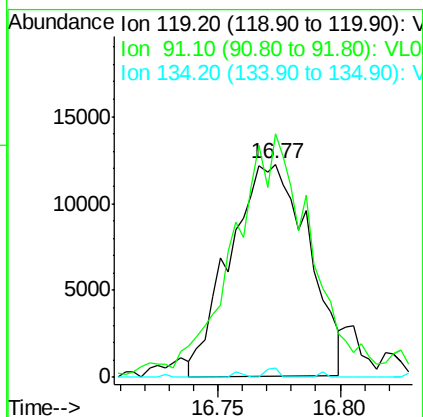
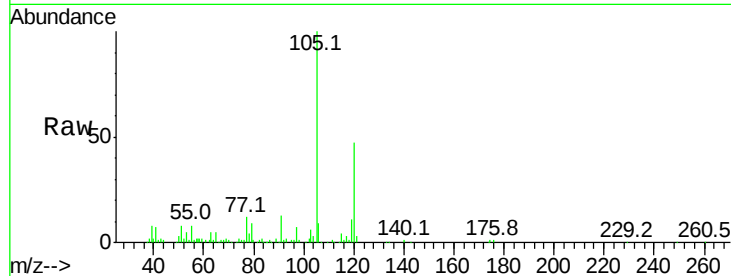
Tgt Ion: 91 Resp: 360010
Ion Ratio Lower Upper
91 100
106 43.1 22.4 67.3





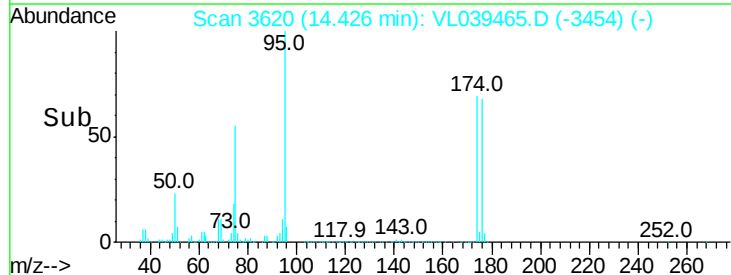
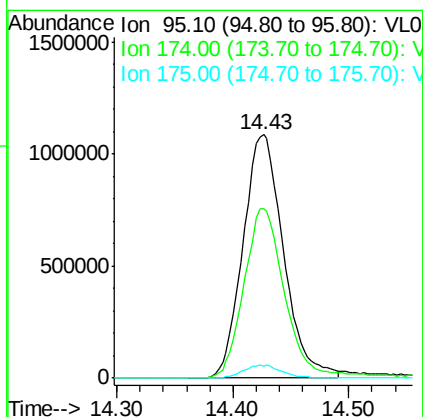
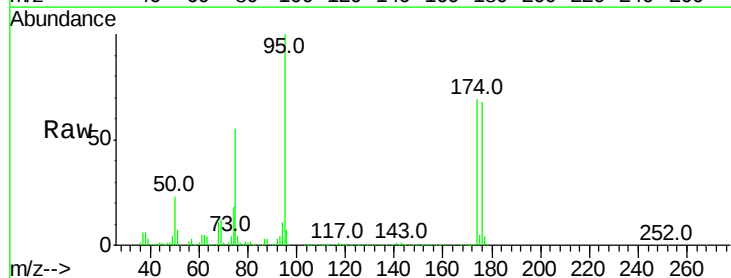
#65
 tert-Butylbenzene
 Concen: 0.05 ppbv
 RT: 16.77
 Delta R.T. MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 Jul 2022 2:41

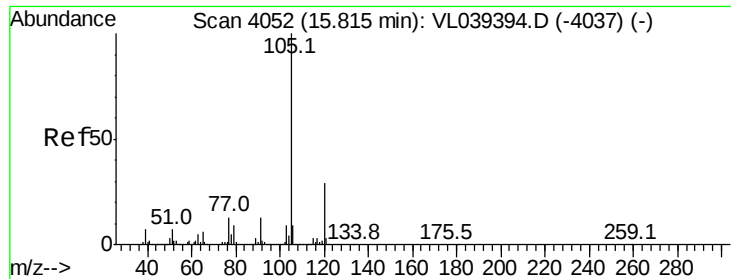
Tgt Ion: 119 Resp: 27262
 Ion Ratio Lower Upper
 119 100
 91 119.9 63.4 95.2#
 134 0.0 15.9 23.9#



#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.23 ppbv
 RT: 14.43 min Scan# 3620
 Delta R.T. 0.04 min
 Lab File: VL039465.D
 Acq: 13 Jul 2022 2:41

Tgt Ion: 95 Resp: 2642314
 Ion Ratio Lower Upper
 95 100
 174 71.3 55.9 83.9
 175 5.4 4.2 6.4





#72

4-Ethyltoluene

Concen: 0.10 ppbv

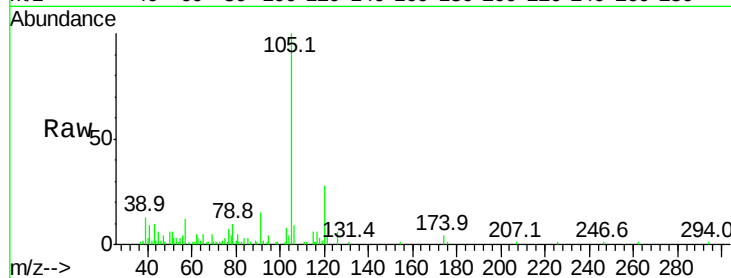
RT: 15.84

Delta R.T. MSVOA_L

Lab File: ClientSampleId :

Acq: 13 Jul 2022 2:41

Tgt Ion:	105	Resp:	45891
Ion Ratio	Lower	Upper	
105	100		
120	41.6	24.2	36.2#
91	13.9	10.2	15.4
77	16.5	11.1	16.7

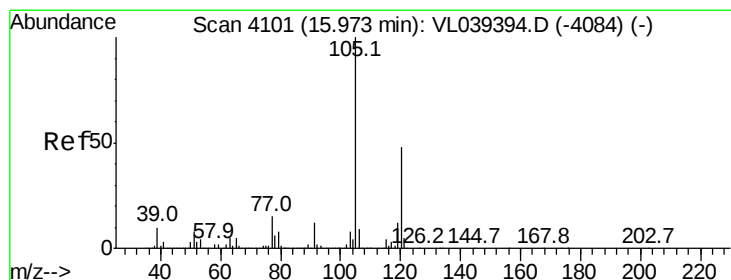
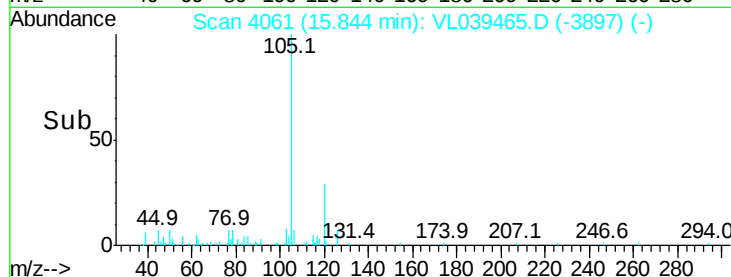
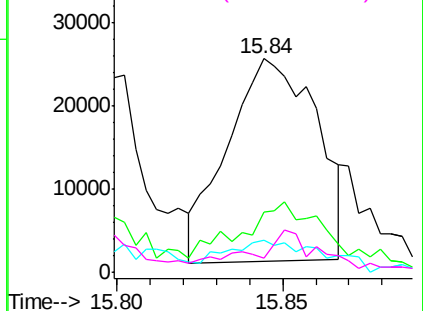


Abundance Ion 105.10 (104.80 to 105.80): V

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: 0.20 ppbv

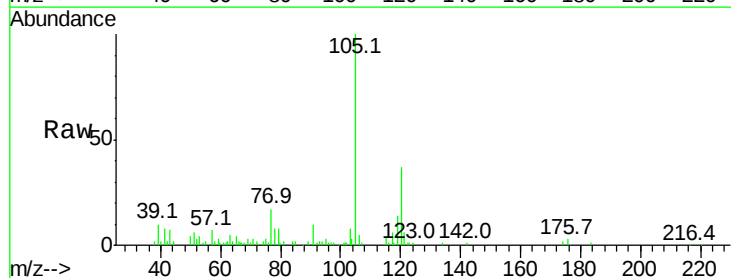
RT: 16.01 min Scan# 4112

Delta R.T. 0.04 min

Lab File: VL039465.D

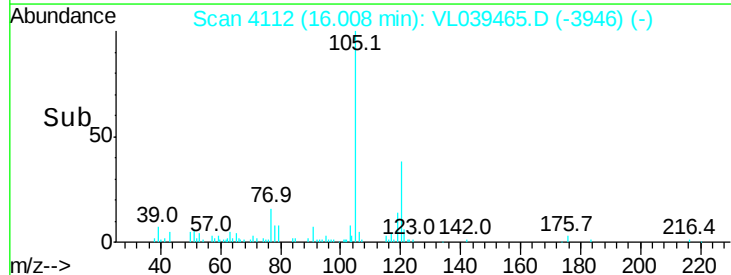
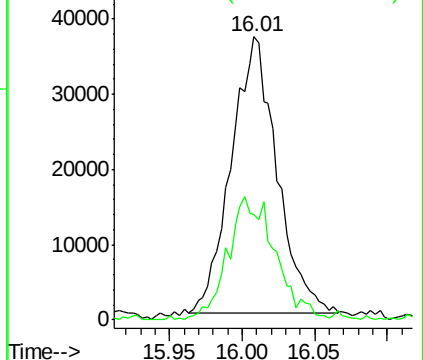
Acq: 13 Jul 2022 2:41

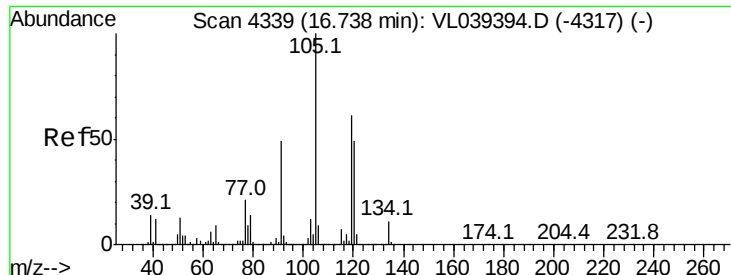
Tgt Ion:	105	Resp:	80221
Ion Ratio	Lower	Upper	
105	100		
120	37.3	38.2	57.4#



Abundance Ion 105.10 (104.80 to 105.80): V

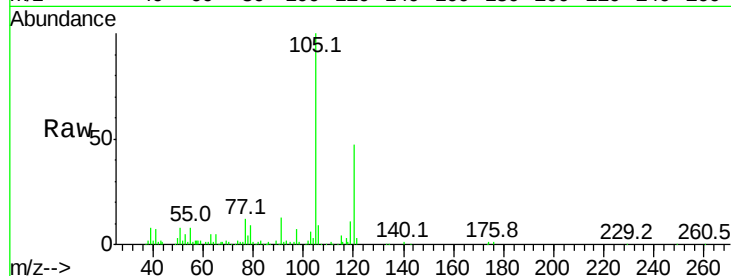
Ion 120.20 (119.90 to 120.90): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.56 ppbv
 RT: 16.77
 Delta R.T: MSVOA_L
 Lab File: ClientSampleId :
 Acq: 13 Jul 2022 2.41

Tgt Ion:	105	Resp:	252739
Ion Ratio	Lower	Upper	
105	100		
120	47.1	39.5	59.3
91	12.7	39.2	58.8#
77	10.9	17.2	25.8#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

