

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040921\
 Data File : VL036774.D
 Acq On : 9 Apr 2021 14:49
 Operator : SY/AP
 Sample : M1987-01
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 GOI-IA-4(2021)

Quant Time: Apr 10 01:59:58 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1332172	10.00	ppbv	-0.02
33) 1,4-Difluorobenzene	7.16	114	3142202	10.00	ppbv	-0.02
55) Chlorobenzene-d5	12.07	117	2473593	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.41	95	1598009	8.11	ppbv	-0.02
Spiked Amount	10.000	Range	65 - 135	Recovery	=	81.10%

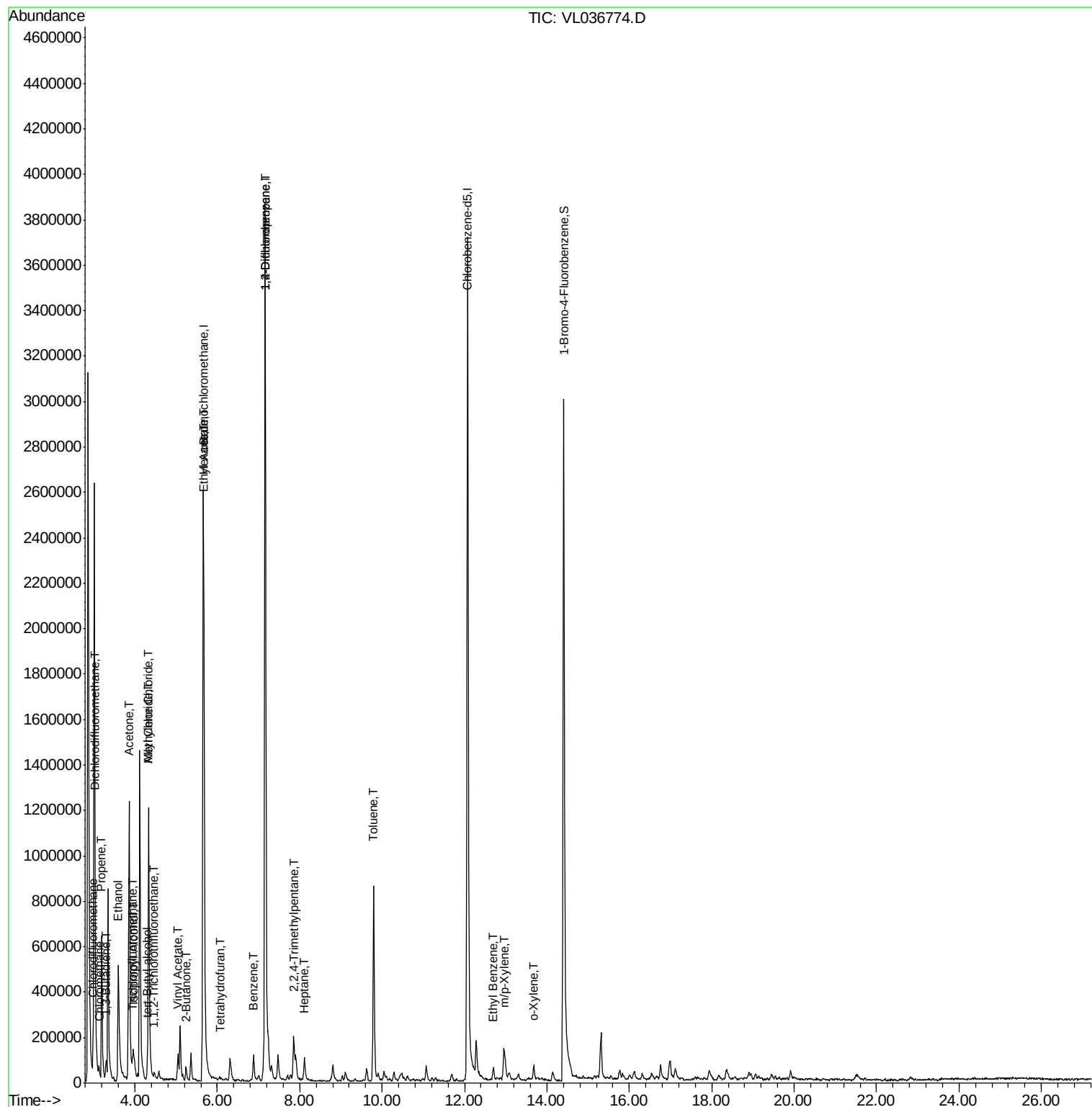
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.04	85	45470	0.209 ppbv	93
3) Chlorodifluoromethane	2.98	51	93048	0.374 ppbv #	88
4) Chloromethane	3.13	50	47060	0.535 ppbv #	82
9) Propene	3.19	41	200002	2.521 ppbv	96
10) Heptane	8.12	43	29591	0.146 ppbv #	76
11) Trichlorofluoromethane	3.94	101	39459	0.178 ppbv	90
12) 1,1,2-Trichlorotrifluoroet	4.47	101	7389	0.052 ppbv #	78
13) Ethanol	3.59	45	744409	78.782 ppbv	94
15) Acetone	3.86	43	872987	6.658 ppbv #	80
16) 1,3-Butadiene	3.29	39	14769	0.162 ppbv #	57
17) tert-Butyl alcohol	4.29	59	5800	0.051 ppbv #	72
19) Isopropyl Alcohol	3.96	45	148620	2.061 ppbv #	94
20) Methylene Chloride	4.33	84	452360	7.369 ppbv	94
21) Allyl Chloride	4.33	41	6443	0.062 ppbv #	66
23) Vinyl Acetate	5.05	43	41661	0.186 ppbv #	1
25) Ethyl Acetate	5.68	43	359818	1.154 ppbv #	81
26) Hexane	5.67	57	484578	3.350 ppbv #	47
34) 2-Butanone	5.24	43	67875	0.443 ppbv	92
36) Benzene	6.88	78	98036	0.338 ppbv	97
39) 1,2-Dichloropropane	7.16	63	814561	6.929 ppbv #	24
41) Tetrahydrofuran	6.06	42	4605	0.065 ppbv #	71
44) 2,2,4-Trimethylpentane	7.86	57	84110	0.165 ppbv #	1
53) Toluene	9.79	91	641927	2.080 ppbv	99
58) Ethyl Benzene	12.69	91	20021	0.056 ppbv	95
59) m/p-Xylene	12.98	91	12448	0.040 ppbv #	32
60) o-Xylene	13.68	91	47655	0.157 ppbv	94

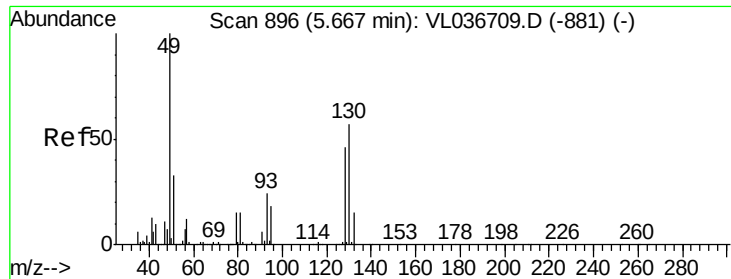
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040921\
Data File : VL036774.D
Acq On : 9 Apr 2021 14:49
Operator : SY/AP
Sample : M1987-01
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
GOI-IA-4(2021)

Quant Time: Apr 10 01:59:58 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 09:42:40 2021
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 892

Delta R.T. -0.02 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

GOI-IA-4(2021)

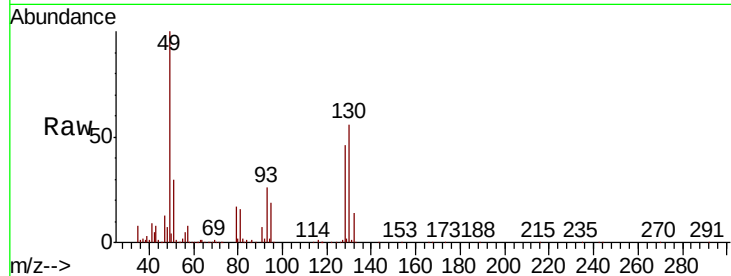
Tot Ion: 49 Resp: 1332172

Ion Ratio Lower Upper

49 100

128 45.6 23.5 70.6

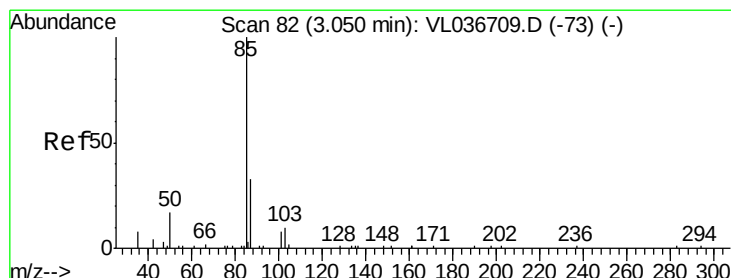
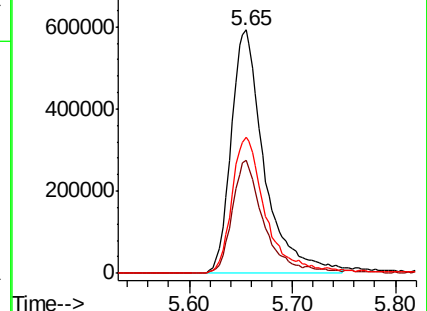
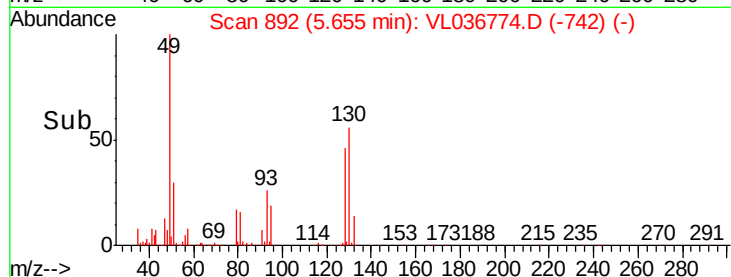
130 58.6 29.1 87.4



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: 0.209 ppbv

RT: 3.04 min Scan# 78

Delta R.T. -0.01 min

Lab File: VL036774.D

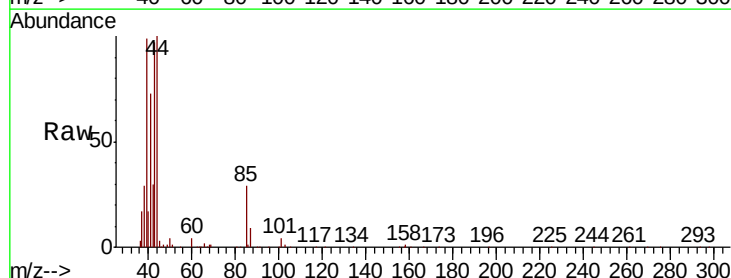
Acq: 9 Apr 2021 14:49

Tgt Ion: 85 Resp: 45470

Ion Ratio Lower Upper

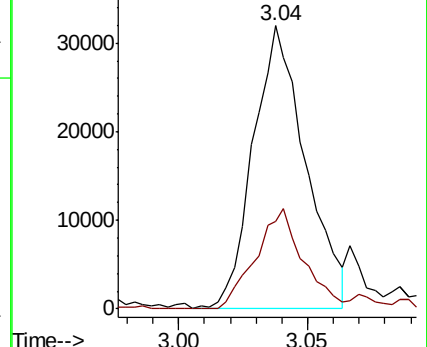
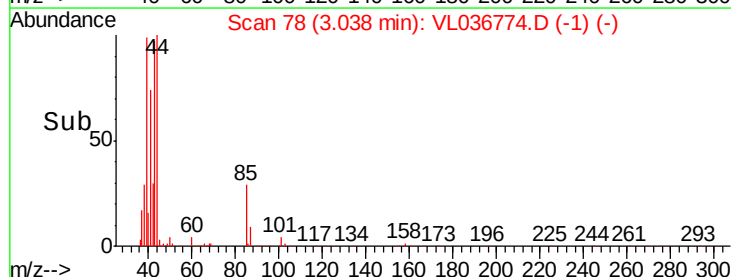
85 100

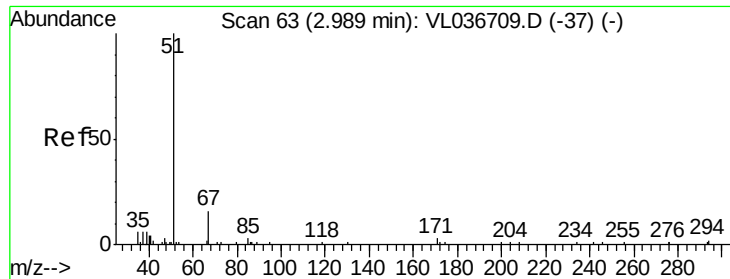
87 31.0 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.374 ppbv

RT: 2.98 min Scan# 59

Delta R.T. -0.01 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

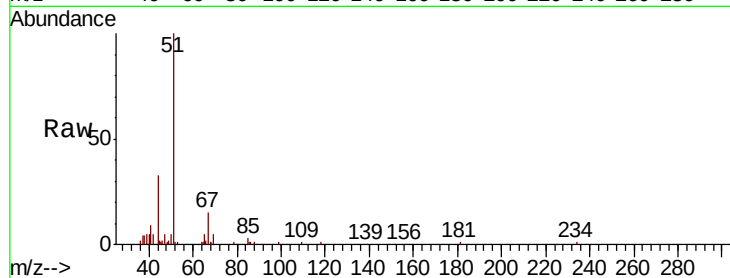
GOI-IA-4(2021)

Tot Ion: 51 Resp: 93048

Ion Ratio Lower Upper

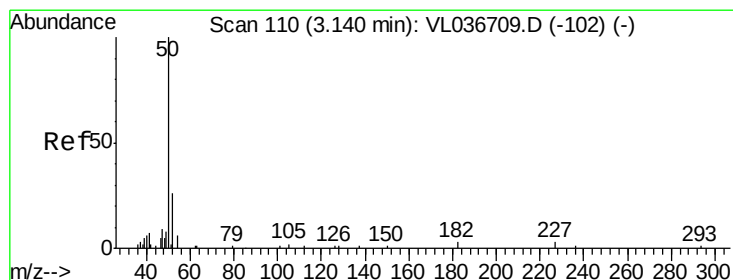
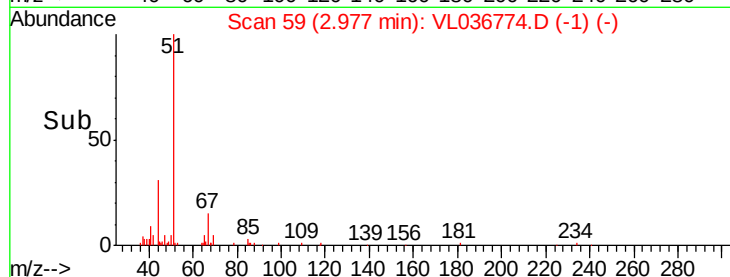
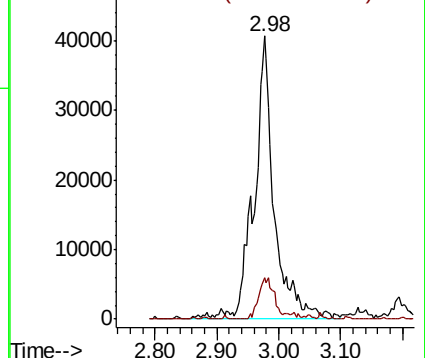
51 100

67 13.2 14.7 22.1#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.535 ppbv

RT: 3.13 min Scan# 107

Delta R.T. -0.01 min

Lab File: VL036774.D

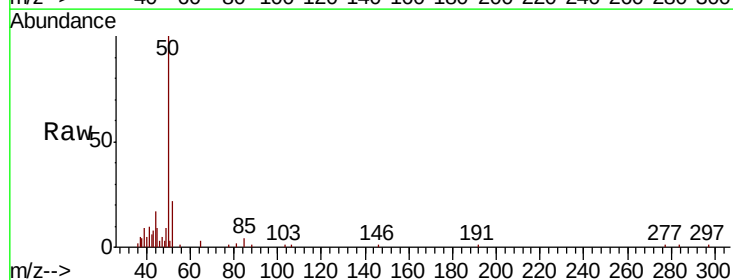
Acq: 9 Apr 2021 14:49

Tgt Ion: 50 Resp: 47060

Ion Ratio Lower Upper

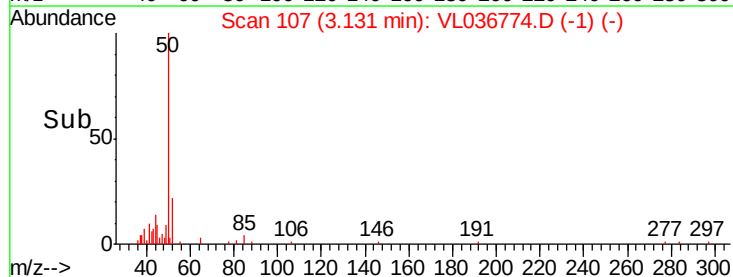
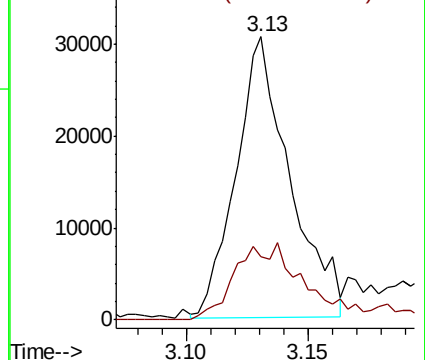
50 100

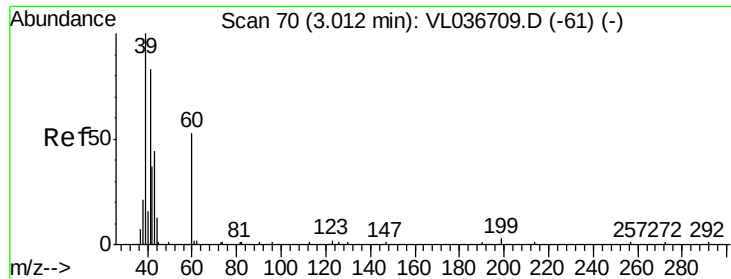
52 23.3 27.0 40.6#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.521 ppbv

RT: 3.19 min Scan# 126

Delta R.T. 0.18 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

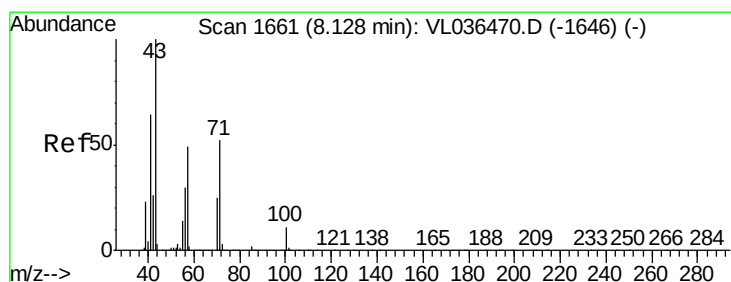
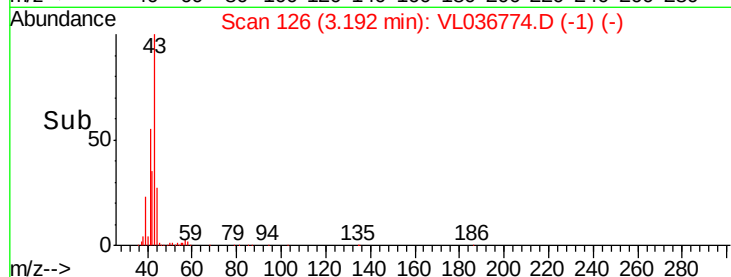
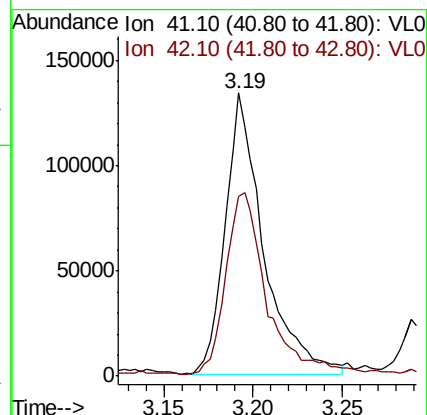
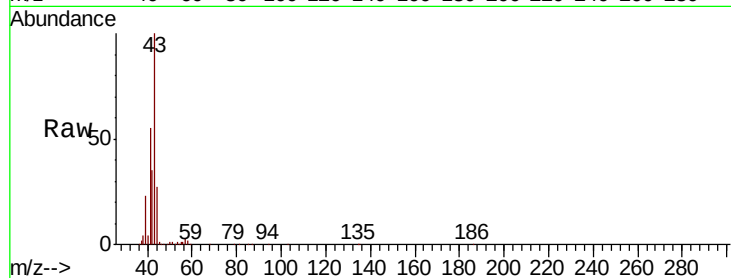
GOI-IA-4(2021)

Tot Ion: 41 Resp: 200002

Ion Ratio Lower Upper

41 100

42 68.0 57.0 85.4



#10

Heptane

Concen: 0.146 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL036774.D

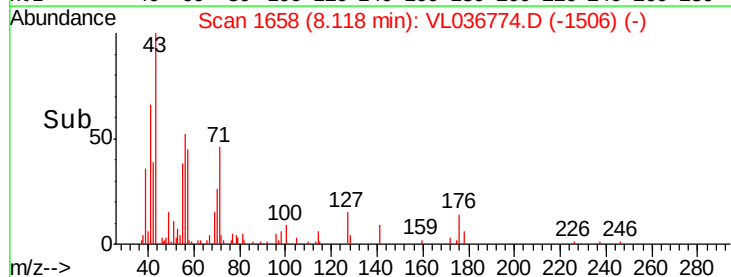
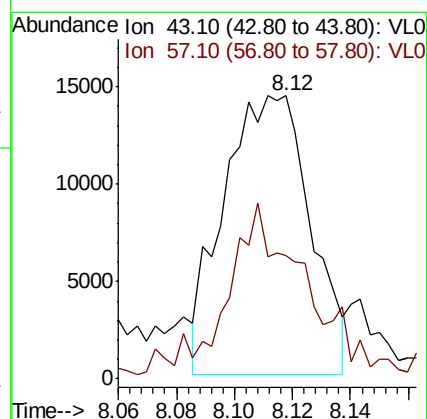
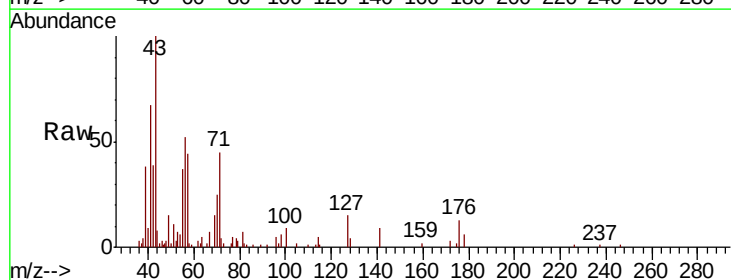
Acq: 9 Apr 2021 14:49

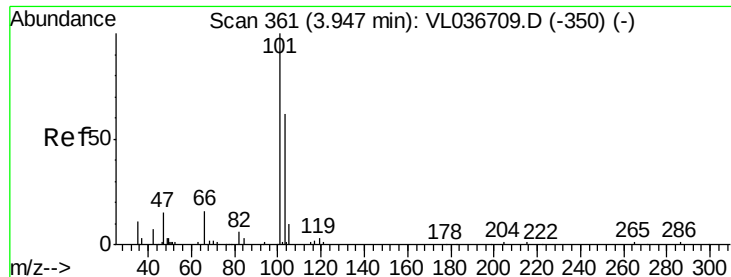
Tgt Ion: 43 Resp: 29591

Ion Ratio Lower Upper

43 100

57 65.0 39.0 58.6#

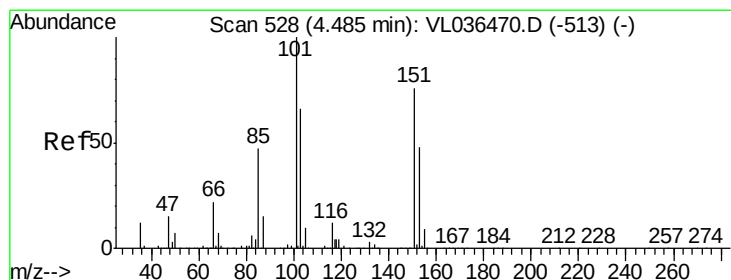
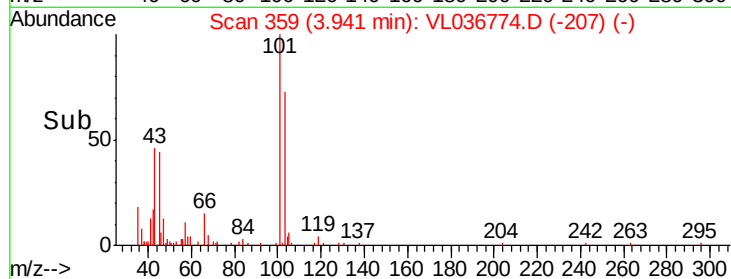
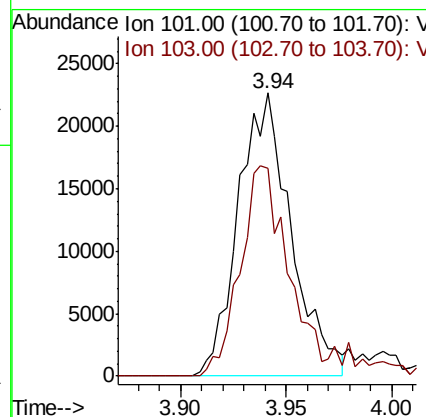
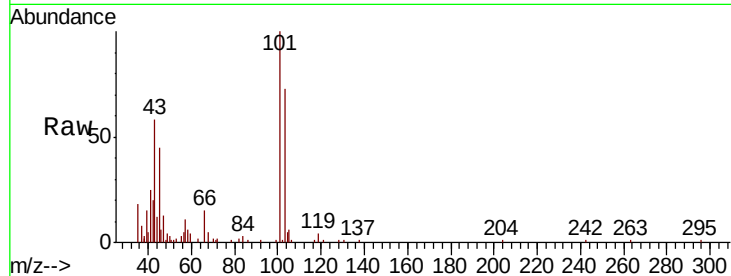




#11
 Trichlorofluoromethane
 Concen: 0.178 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. -0.01 min
 Lab File: VL036774.D
 Acq: 9 Apr 2021 14:49

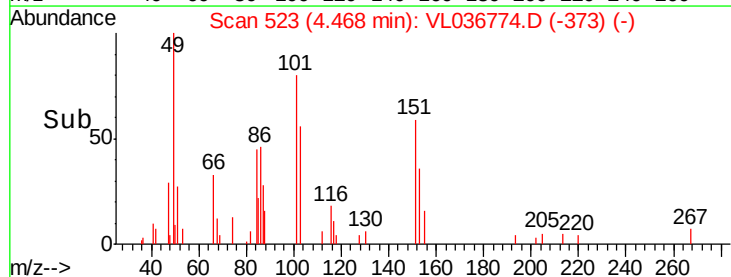
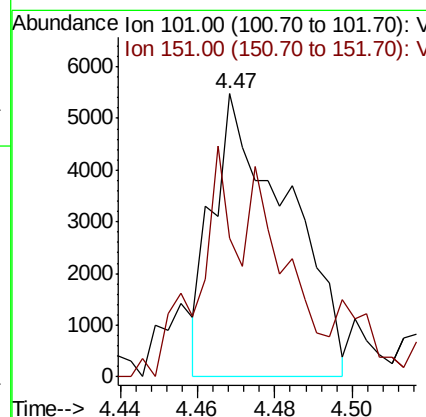
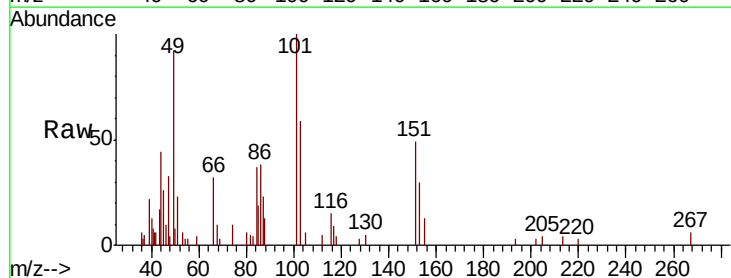
Instrument :
 MSVOA_L
 ClientSampleId :
 GOI-IA-4(2021)

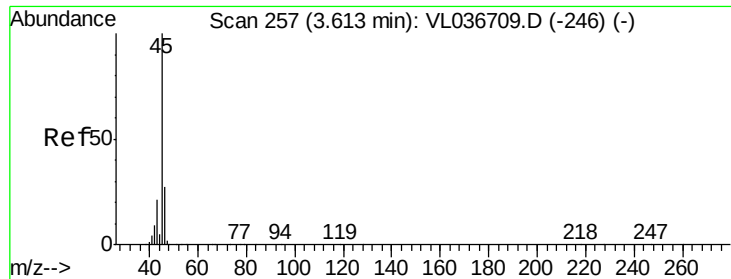
Tot Ion:101 Resp: 39459
 Ion Ratio Lower Upper
 101 100
 103 73.3 52.5 78.7



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.052 ppbv
 RT: 4.47 min Scan# 523
 Delta R.T. -0.02 min
 Lab File: VL036774.D
 Acq: 9 Apr 2021 14:49

Tgt Ion:101 Resp: 7389
 Ion Ratio Lower Upper
 101 100
 151 94.6 60.9 91.3#

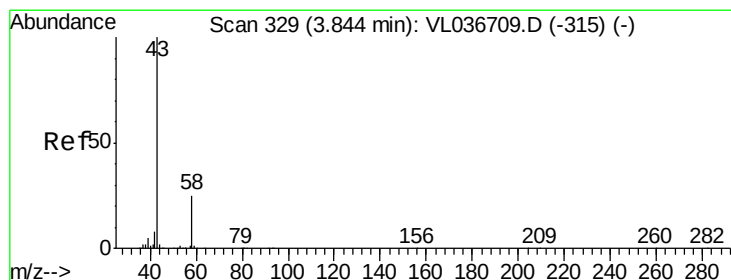
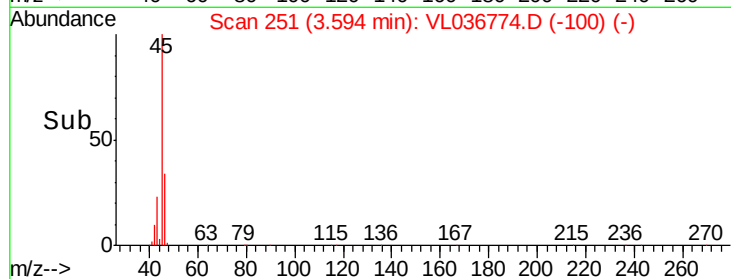
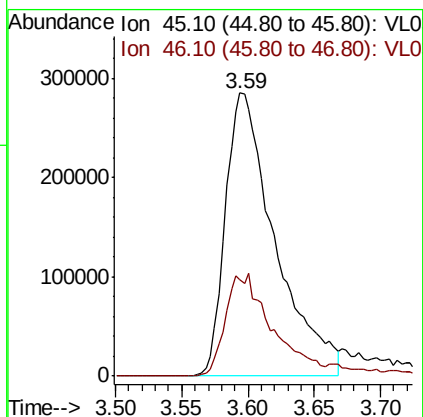
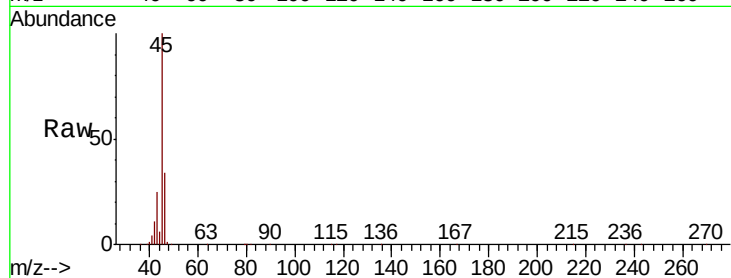




#13
Ethanol
Concen: 78.782 ppbv
RT: 3.59 min Scan# 251
Delta R.T. -0.01 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

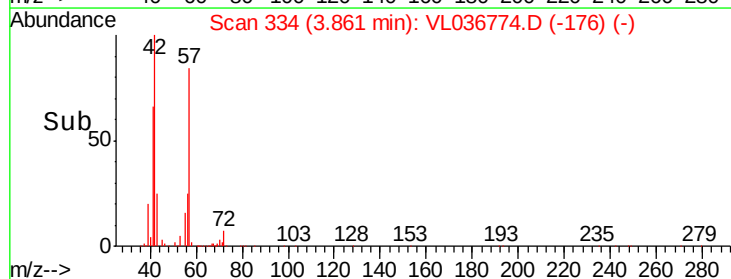
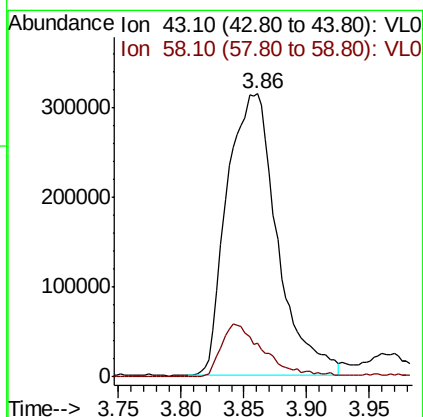
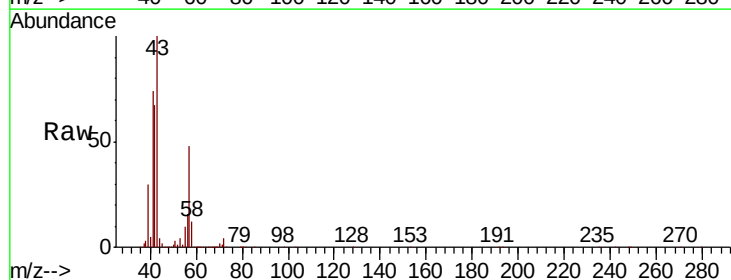
Instrument :
MSVOA_L
ClientSampleId :
GOI-IA-4(2021)

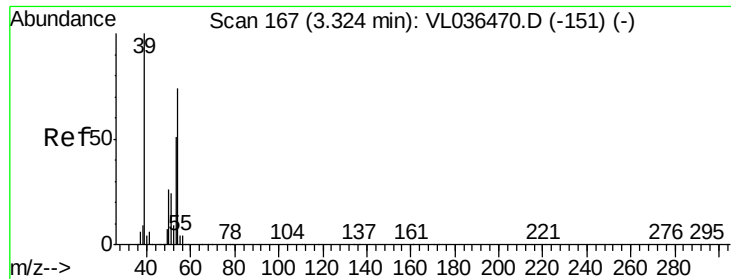
Tot Ion: 45 Resp: 744409
Ion Ratio Lower Upper
45 100
46 37.9 16.6 66.2



#15
Acetone
Concen: 6.658 ppbv
RT: 3.86 min Scan# 334
Delta R.T. 0.01 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

Tgt Ion: 43 Resp: 872987
Ion Ratio Lower Upper
43 100
58 16.3 21.2 31.8#





#16

1,3-Butadiene

Concen: 0.162 ppbv

RT: 3.29 min Scan# 157

Delta R.T. -0.03 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

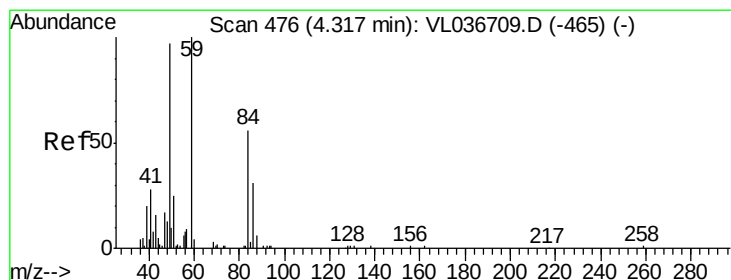
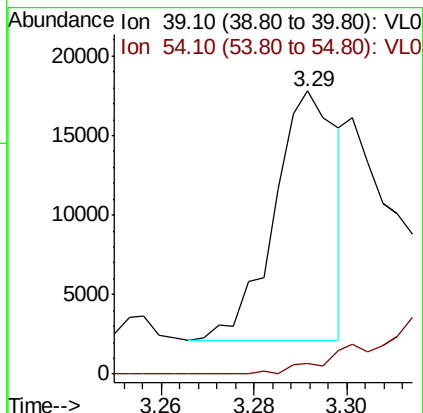
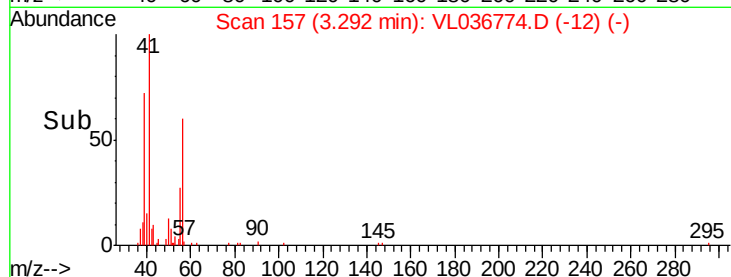
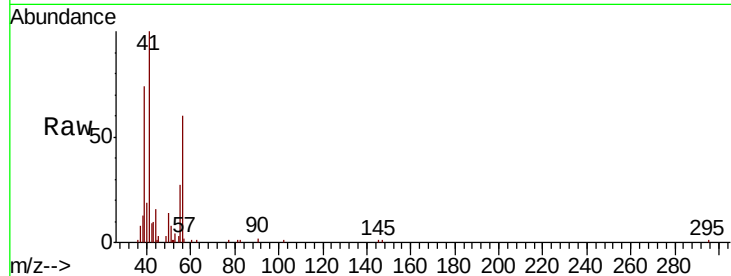
GOI-IA-4(2021)

Tot Ion: 39 Resp: 14769

Ion Ratio Lower Upper

39 100

54 37.1 58.8 88.2#



#17

tert-Butyl alcohol

Concen: 0.051 ppbv

RT: 4.29 min Scan# 469

Delta R.T. -0.00 min

Lab File: VL036774.D

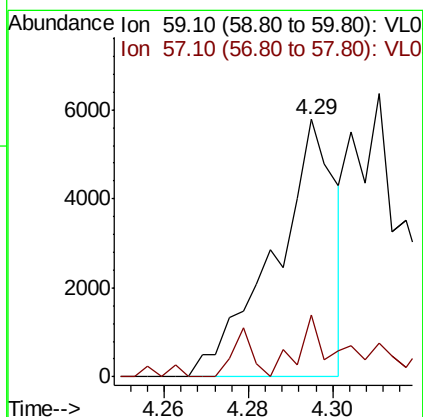
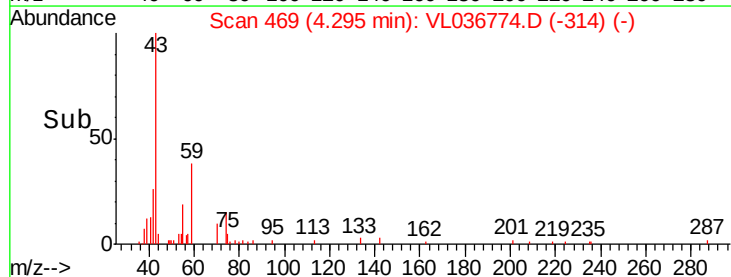
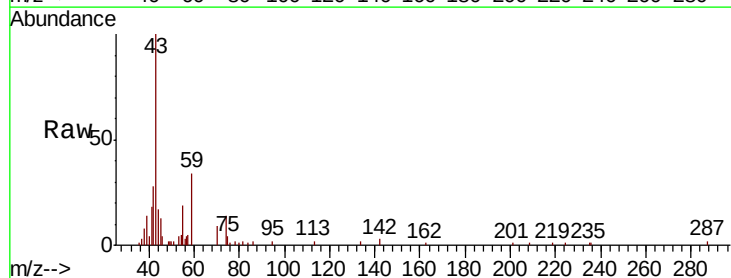
Acq: 9 Apr 2021 14:49

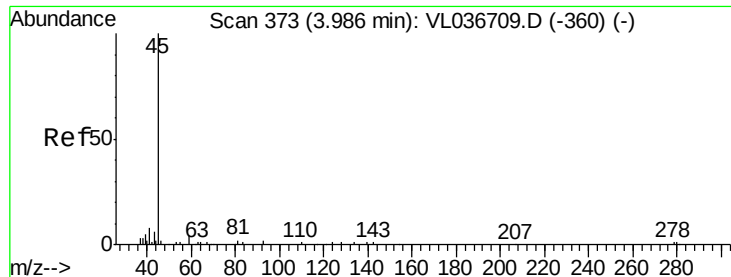
Tgt Ion: 59 Resp: 5800

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#

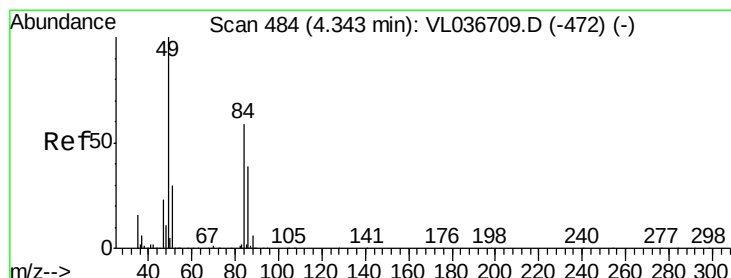
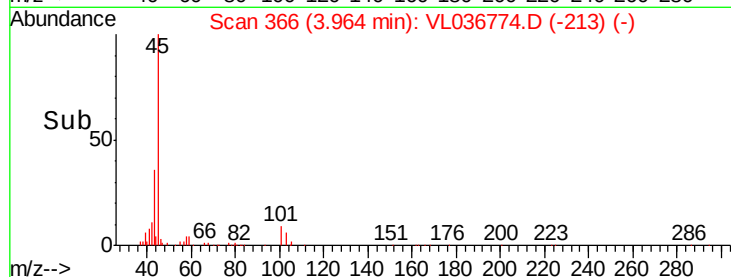
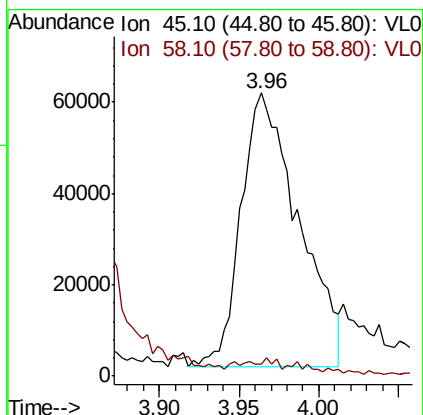
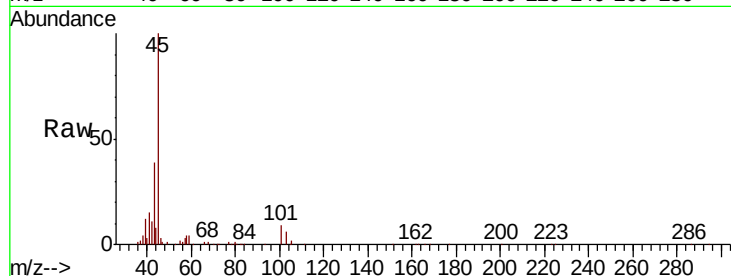




#19
Isopropyl Alcohol
Concen: 2.061 ppbv
RT: 3.96 min Scan# 366
Delta R.T. -0.01 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

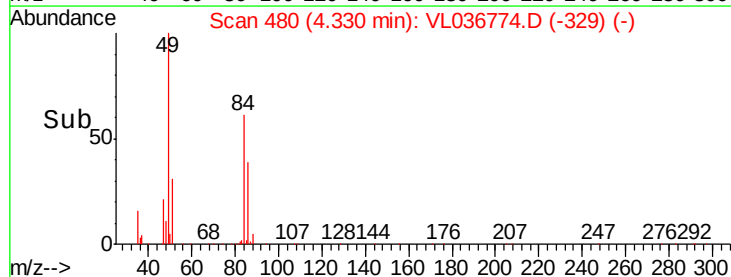
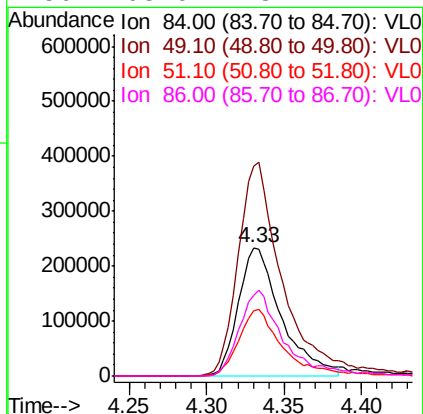
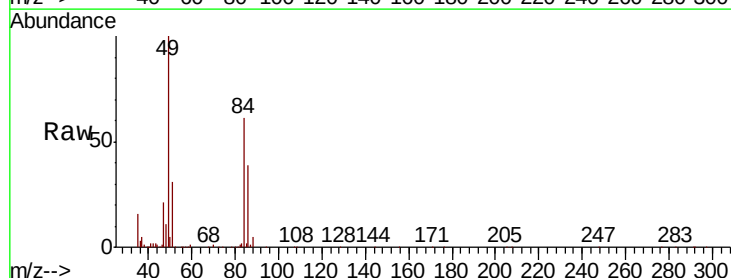
Instrument :
MSVOA_L
ClientSampleId :
GOI-IA-4(2021)

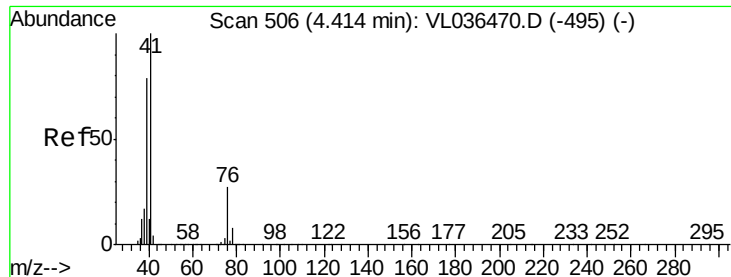
Tot Ion: 45 Resp: 148620
Ion Ratio Lower Upper
45 100
58 5.5 2.9 4.3#



#20
Methylene Chloride
Concen: 7.369 ppbv
RT: 4.33 min Scan# 480
Delta R.T. -0.01 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

Tgt Ion: 84 Resp: 452360
Ion Ratio Lower Upper
84 100
49 163.1 122.9 184.3
51 50.9 36.9 55.3
86 63.0 48.2 72.4





#21

Allvl Chloride

Concen: 0.062 ppbv

RT: 4.33 min Scan# 479

Delta R.T. -0.09 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

GOI-IA-4(2021)

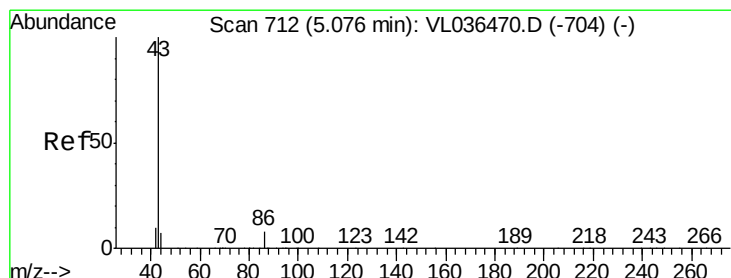
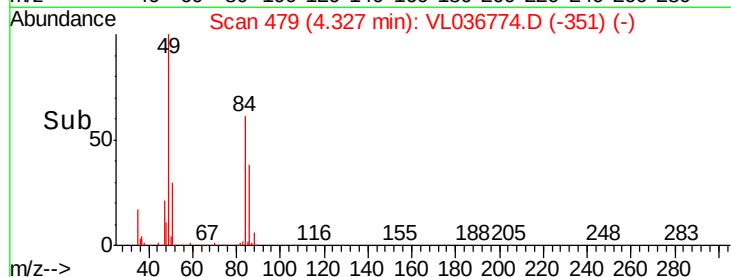
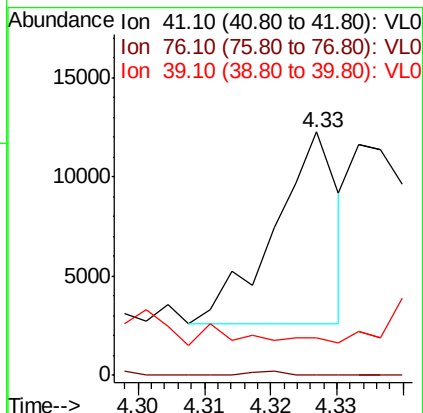
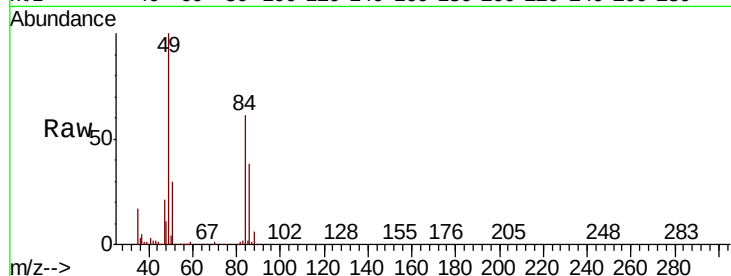
Tot Ion: 41 Resp: 6443

Ion Ratio Lower Upper

41 100

76 3.8 22.9 34.3#

39 110.5 67.3 100.9#



#23

Vinyl Acetate

Concen: 0.186 ppbv

RT: 5.05 min Scan# 703

Delta R.T. -0.03 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Tgt Ion: 43 Resp: 41661

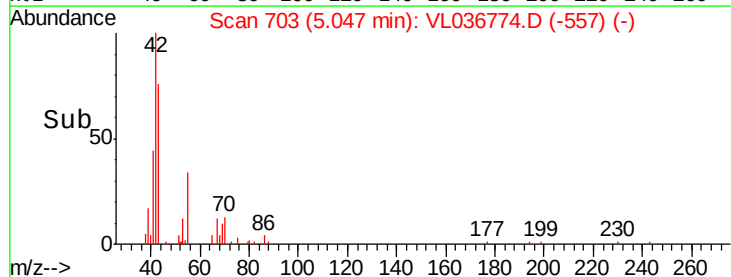
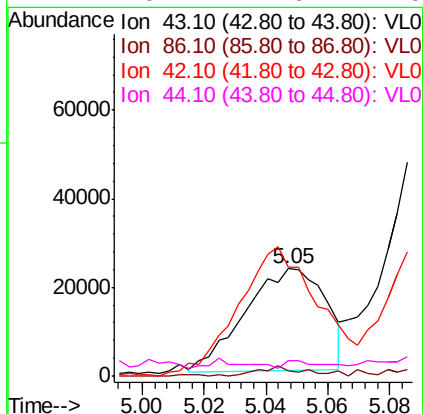
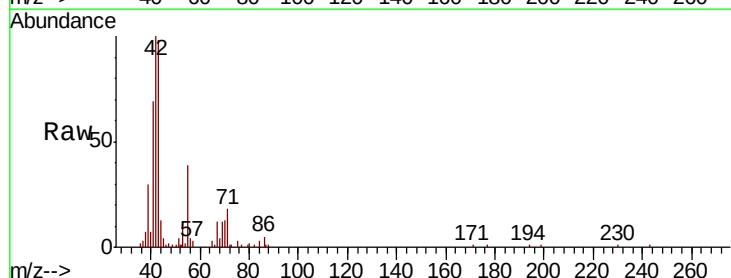
Ion Ratio Lower Upper

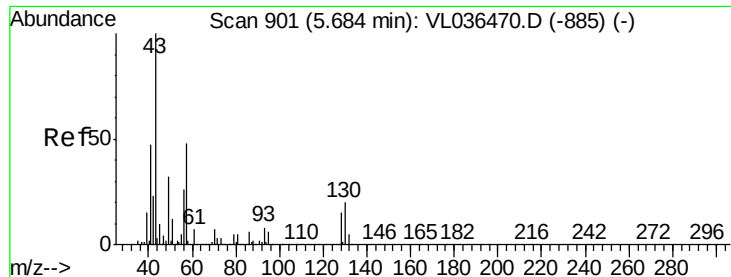
43 100

86 4.6 5.4 8.0#

42 95.3 8.5 12.7#

44 6.4 4.6 7.0

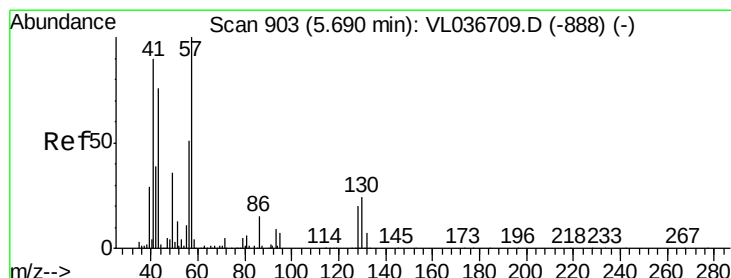
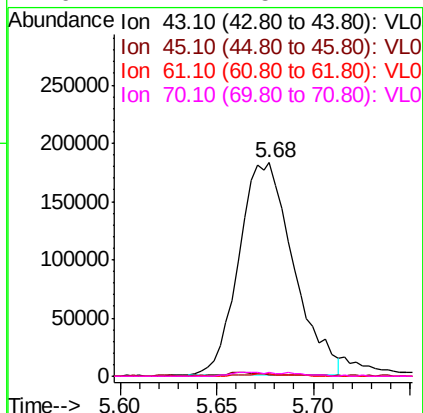
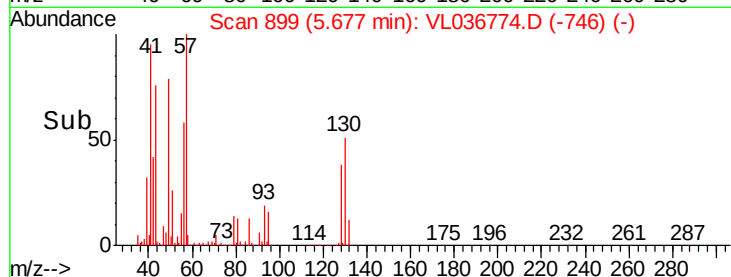
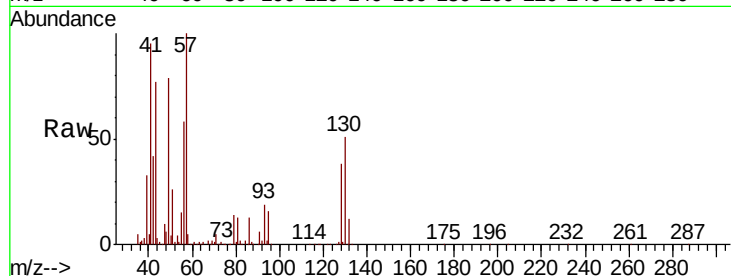




#25
Ethyl Acetate
Concen: 1.154 ppbv
RT: 5.68 min Scan# 899
Delta R.T. -0.01 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

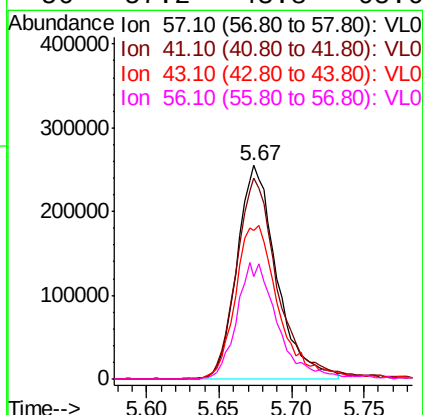
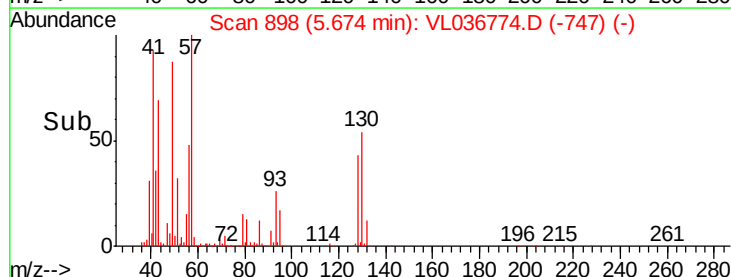
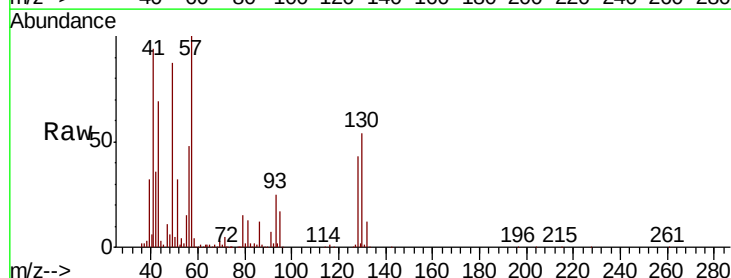
Instrument :
MSVOA_L
ClientSampleId :
GOI-IA-4(2021)

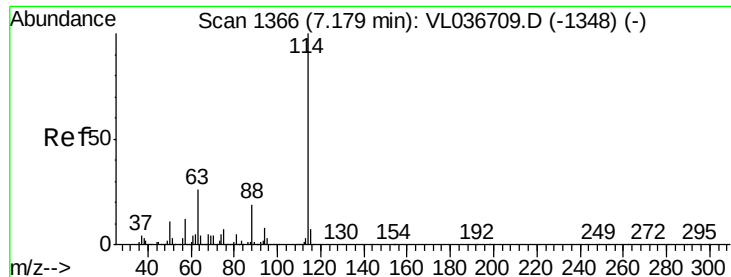
Tot Ion:	43	Resp:	359818
Ion	Ratio	Lower	Upper
43	100		
45	2.2	7.9	11.9#
61	1.1	7.4	11.2#
70	2.4	5.1	7.7#



#26
Hexane
Concen: 3.350 ppbv
RT: 5.67 min Scan# 898
Delta R.T. -0.01 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

Tgt Ion:	57	Resp:	484578
Ion	Ratio	Lower	Upper
57	100		
41	99.5	77.2	115.8
43	78.6	173.8	260.6#
56	57.2	43.8	65.6

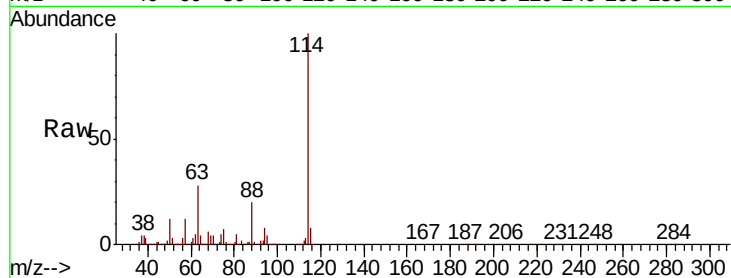




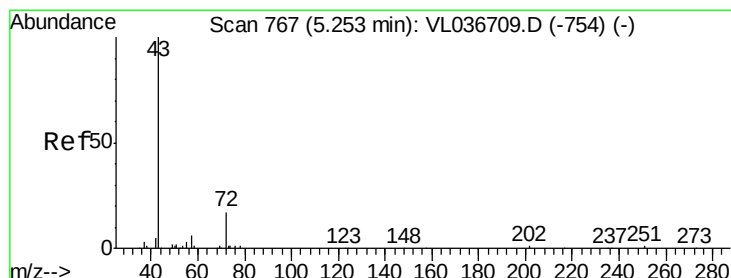
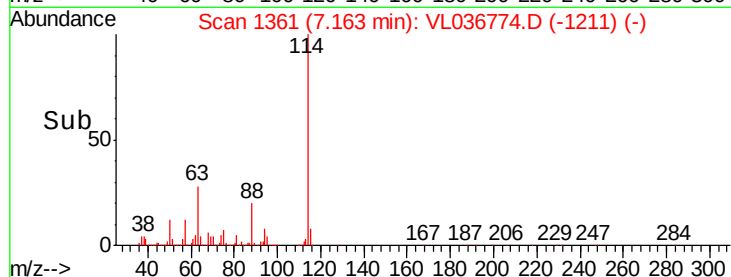
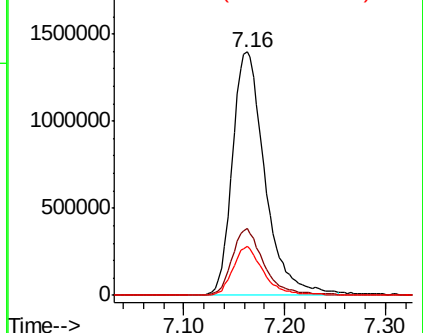
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1361
 Delta R.T. -0.02 min
 Lab File: VL036774.D
 Acq: 9 Apr 2021 14:49

Instrument :
 MSVOA_L
 ClientSampleId :
 GOI-IA-4(2021)

Tot Ion:114 Resp: 3142202
 Ion Ratio Lower Upper
 114 100
 63 27.0 22.4 33.6
 88 19.0 15.4 23.0

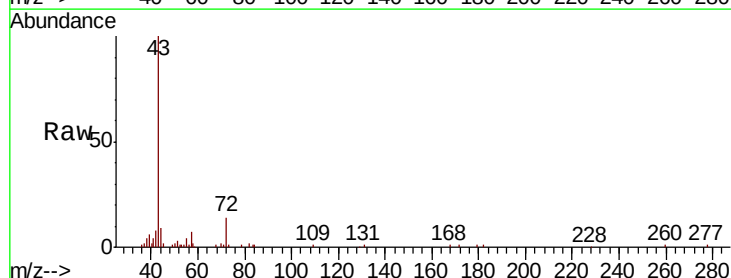


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

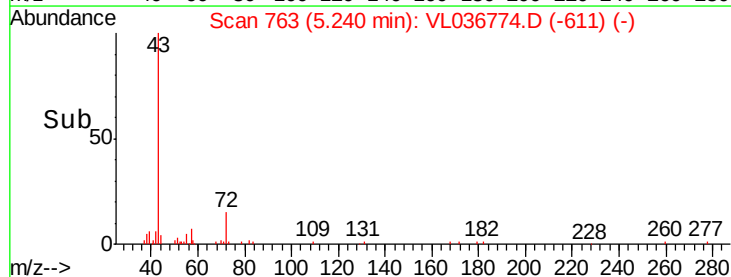
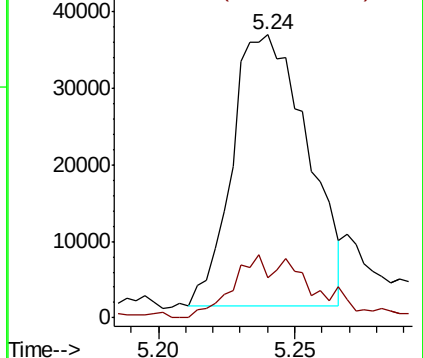


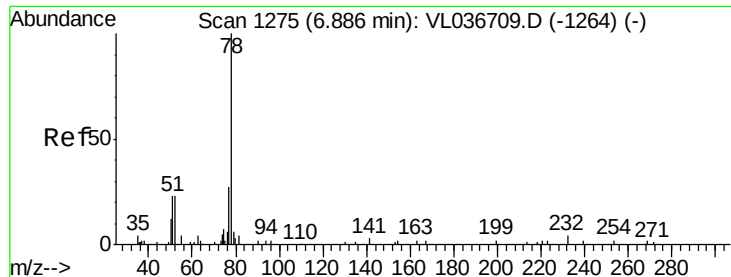
#34
 2-Butanone
 Concen: 0.443 ppbv
 RT: 5.24 min Scan# 763
 Delta R.T. -0.01 min
 Lab File: VL036774.D
 Acq: 9 Apr 2021 14:49

Tgt Ion: 43 Resp: 67875
 Ion Ratio Lower Upper
 43 100
 72 24.8 17.0 25.6



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#36

Benzene

Concen: 0.338 ppbv

RT: 6.88 min Scan# 1273

Delta R.T. -0.02 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

GOI-IA-4(2021)

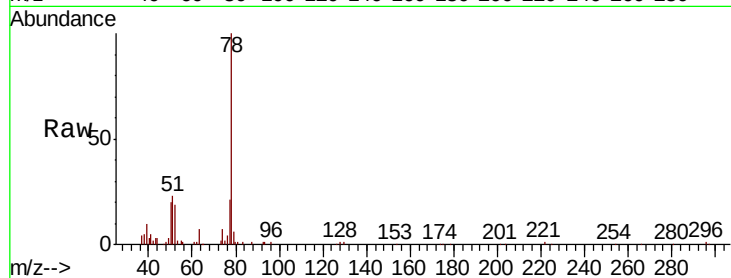
Tot Ion: 78 Resp: 98036

Ion Ratio Lower Upper

78 100

77 20.3 18.0 27.0

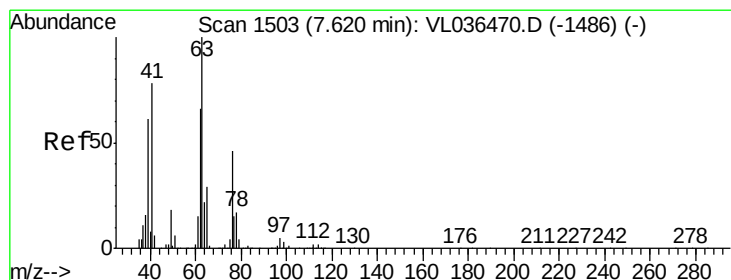
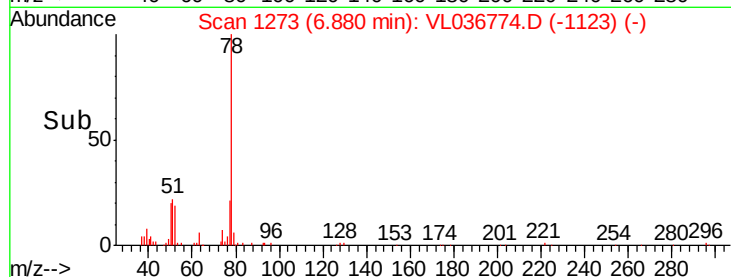
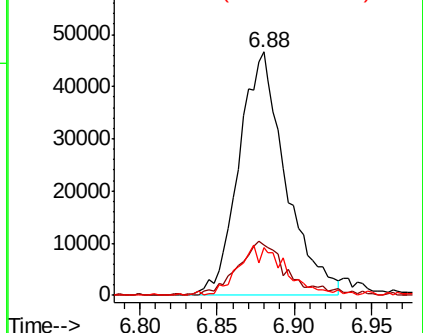
50 19.8 16.5 24.7



Abundance Ion 78.10 (77.80 to 78.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 6.929 ppbv

RT: 7.16 min Scan# 1361

Delta R.T. -0.46 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

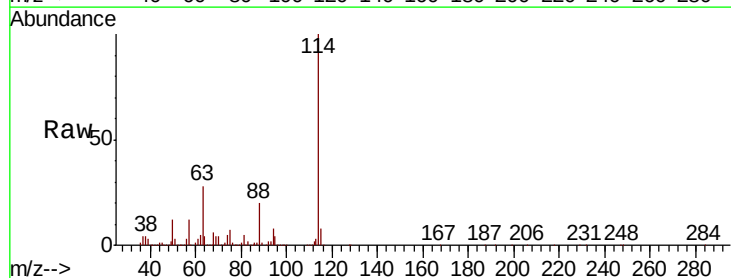
Tgt Ion: 63 Resp: 814561

Ion Ratio Lower Upper

63 100

41 0.0 62.4 93.6#

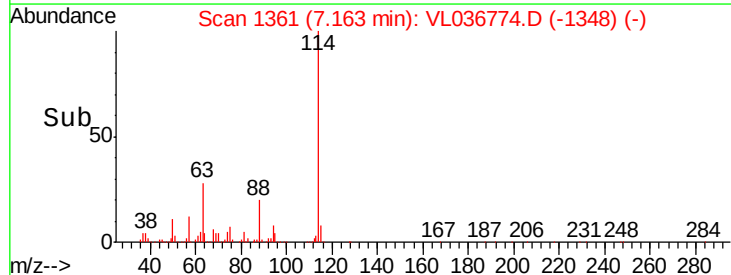
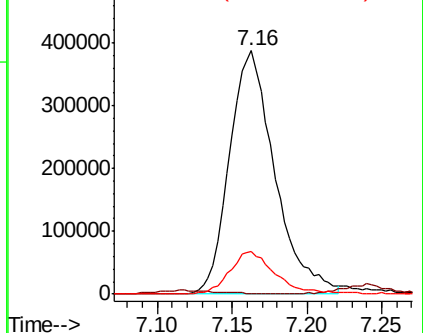
62 17.8 52.8 79.2#

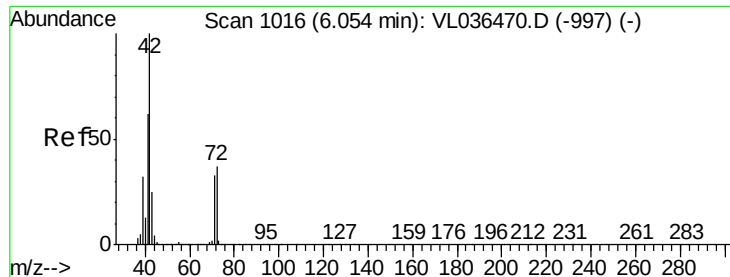


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#41

Tetrahydrofuran

Concen: 0.065 ppbv

RT: 6.06 min Scan# 1017

Delta R.T. 0.00 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

GOI-IA-4(2021)

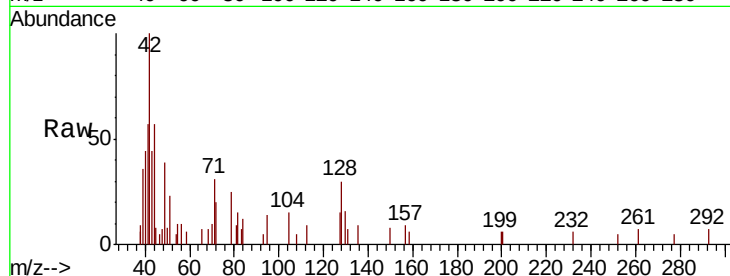
Tot Ion: 42 Resp: 4605

Ion Ratio Lower Upper

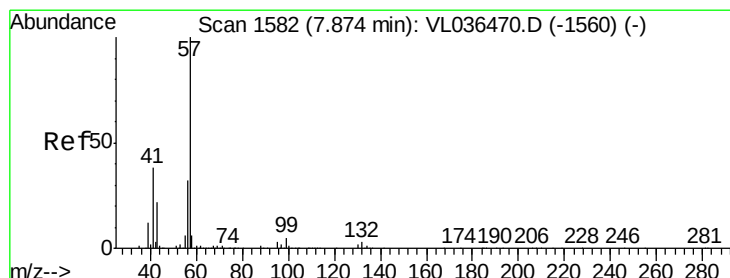
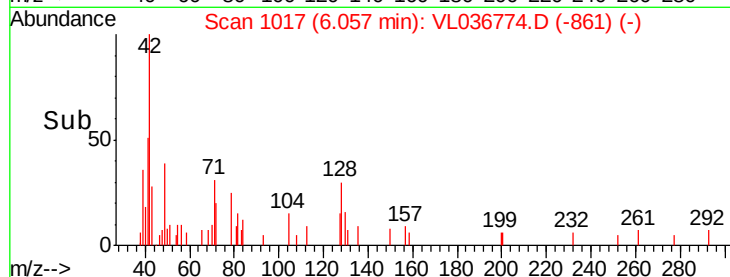
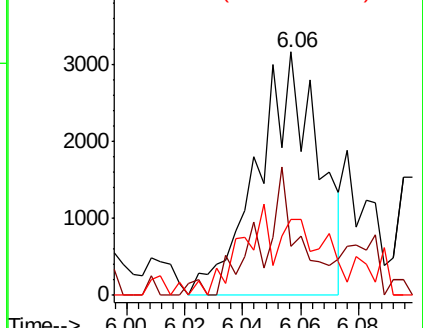
42 100

72 51.4 27.6 41.4#

71 50.5 27.0 40.4#



Abundance Ion 42.10 (41.80 to 42.80): VL0
Ion 72.10 (71.80 to 72.80): VL0
Ion 71.10 (70.80 to 71.80): VL0



#44

2,2,4-Trimethylpentane

Concen: 0.165 ppbv

RT: 7.86 min Scan# 1577

Delta R.T. -0.02 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

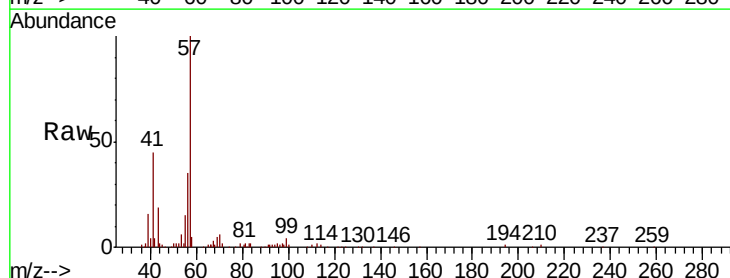
Tgt Ion: 57 Resp: 84110

Ion Ratio Lower Upper

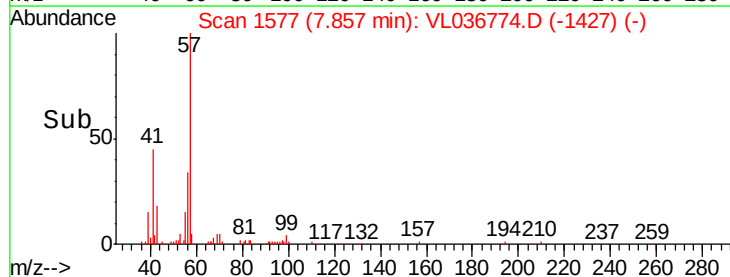
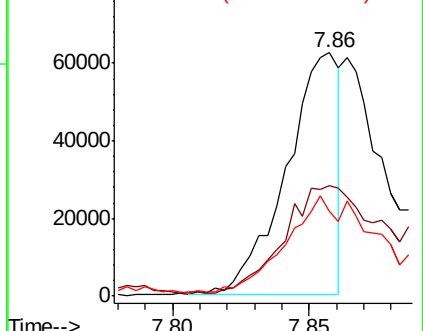
57 100

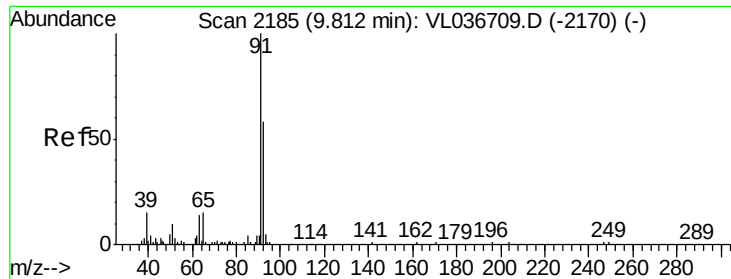
41 138.3 28.8 43.2#

56 105.3 26.1 39.1#



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





#53

Toluene

Concen: 2.080 ppbv

RT: 9.79 min Scan# 2179

Delta R.T. -0.02 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

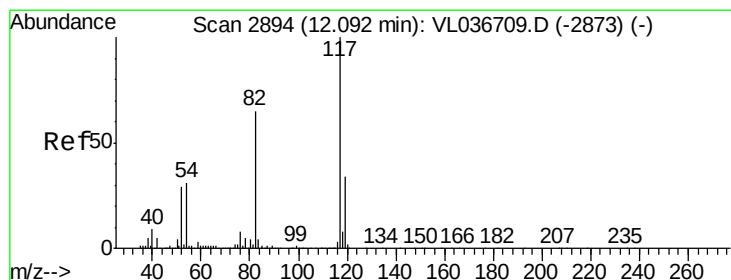
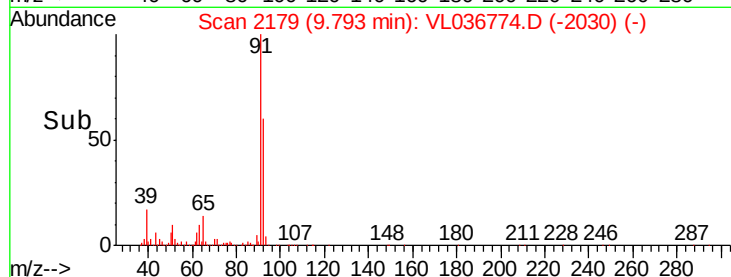
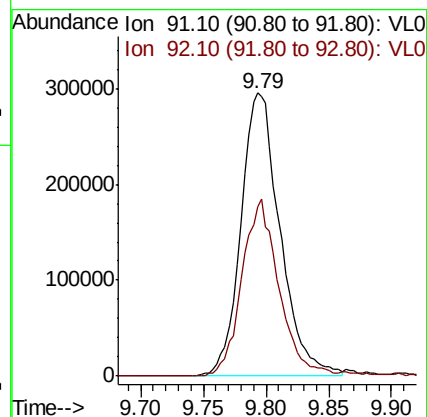
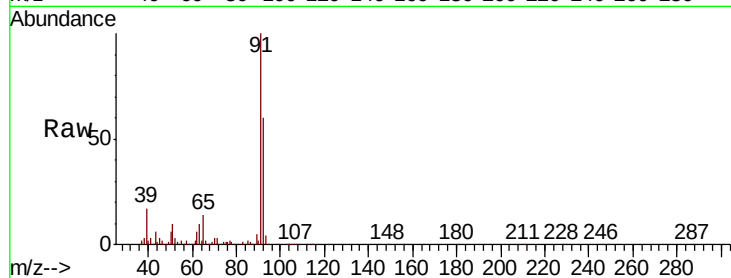
GOI-IA-4(2021)

Tot Ion: 91 Resp: 641927

Ion Ratio Lower Upper

91 100

92 60.5 48.8 73.2



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2888

Delta R.T. -0.02 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

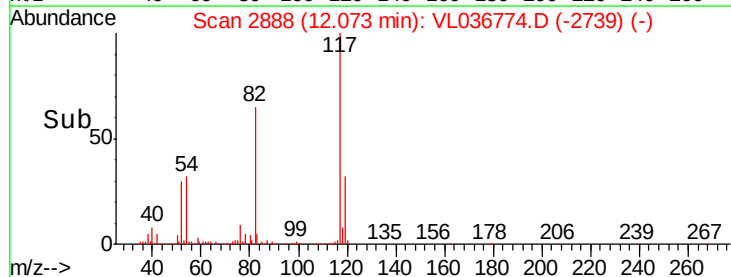
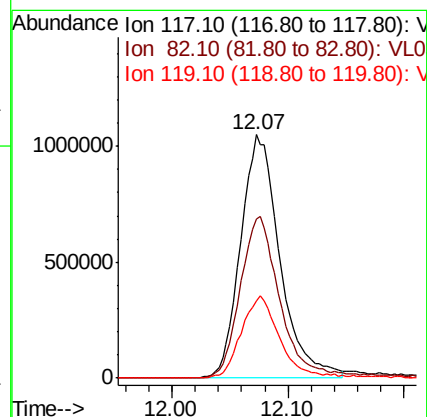
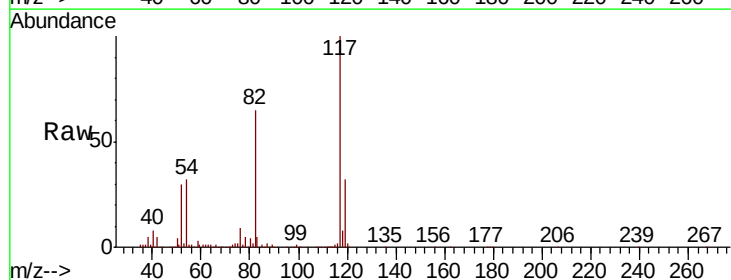
Tgt Ion: 117 Resp: 2473593

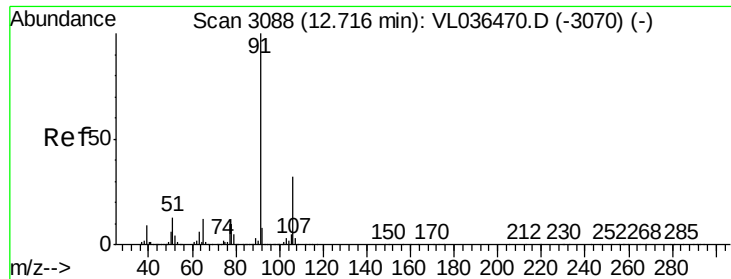
Ion Ratio Lower Upper

117 100

82 68.6 57.4 86.0

119 33.8 47.4 71.0#





#58

Ethyl Benzene

Concen: 0.056 ppbv

RT: 12.69 min Scan# 3081

Delta R.T. -0.02 min

Lab File: VL036774.D

Acq: 9 Apr 2021 14:49

Instrument :

MSVOA_L

ClientSampleId :

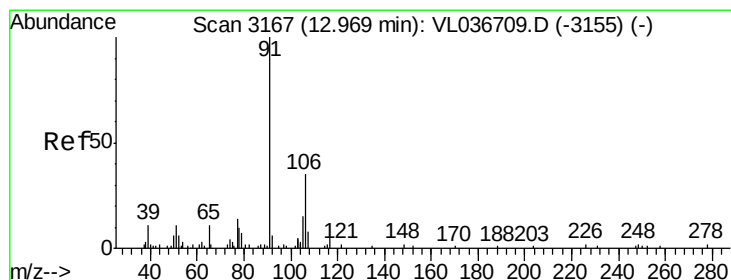
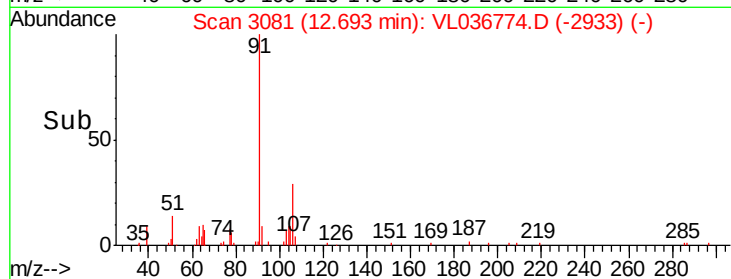
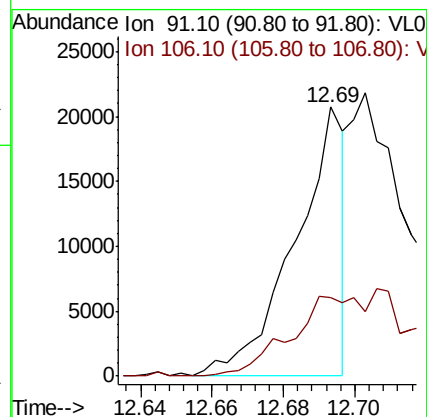
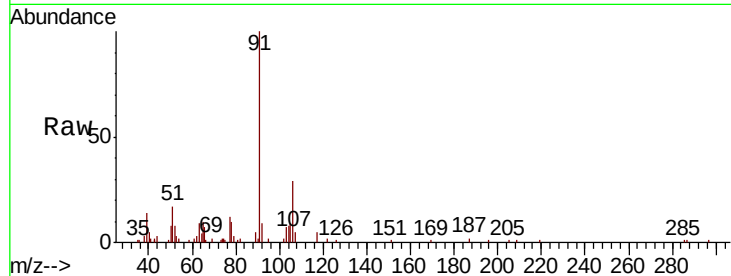
GOI-IA-4(2021)

Tot Ion: 91 Resp: 20021

Ion Ratio Lower Upper

91 100

106 29.1 25.3 37.9



#59

m/p-Xylene

Concen: 0.040 ppbv

RT: 12.98 min Scan# 3170

Delta R.T. -0.02 min

Lab File: VL036774.D

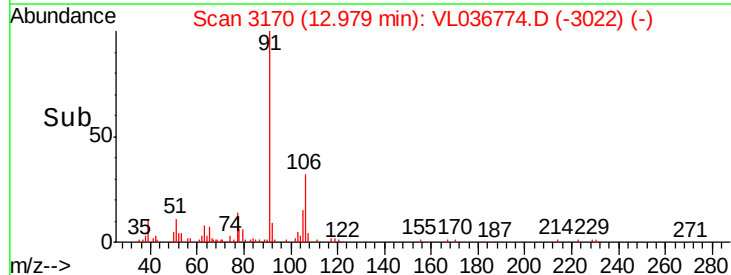
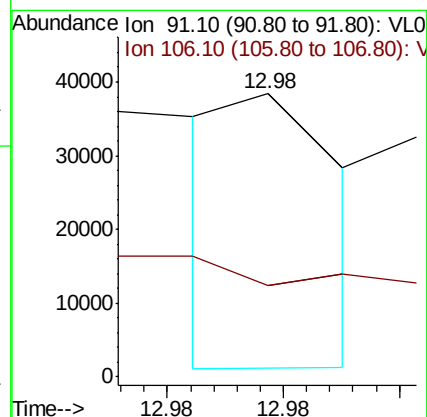
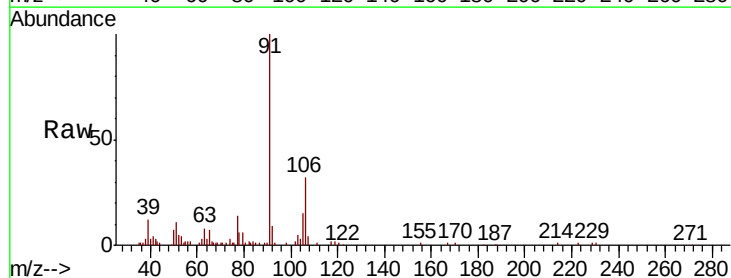
Acq: 9 Apr 2021 14:49

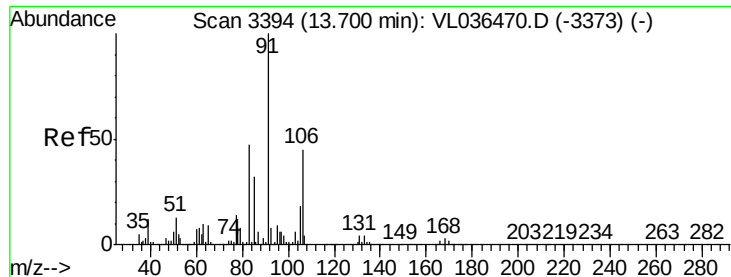
Tgt Ion: 91 Resp: 12448

Ion Ratio Lower Upper

91 100

106 0.0 35.3 52.9#

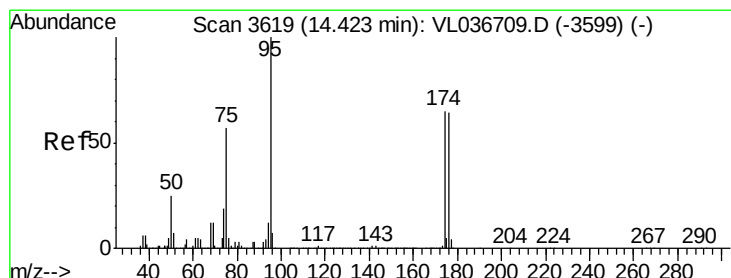
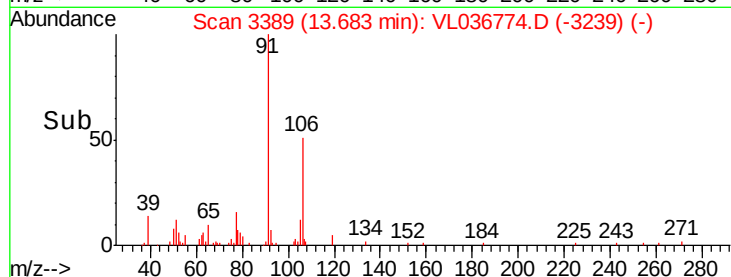
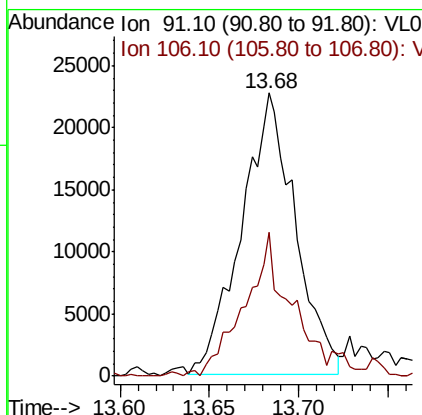
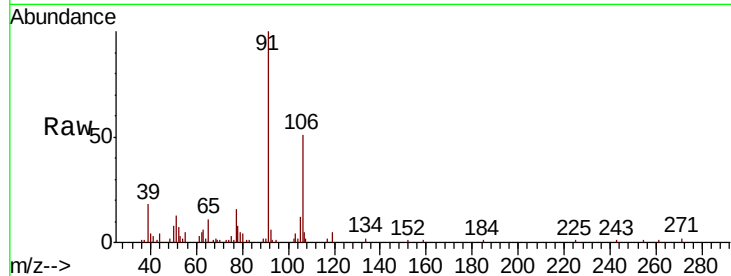




#60
o-Xylene
Concen: 0.157 ppbv
RT: 13.68 min Scan# 3389
Delta R.T. -0.02 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

Instrument :
MSVOA_L
ClientSampleId :
GOI-IA-4(2021)

Tot Ion: 91 Resp: 47655
Ion Ratio Lower Upper
91 100
106 48.2 22.3 66.9



#68
1-Bromo-4-Fluorobenzene
Concen: 8.106 ppbv
RT: 14.41 min Scan# 3614
Delta R.T. -0.02 min
Lab File: VL036774.D
Acq: 9 Apr 2021 14:49

Tgt Ion: 95 Resp: 1598009
Ion Ratio Lower Upper
95 100
174 66.8 51.0 76.6
175 5.0 3.9 5.9

