

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051821\
 Data File : VL036974.D
 Acq On : 18 May 2021 18:24
 Operator : SY/AP
 Sample : M2430-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Quant Time: May 19 03:14:43 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

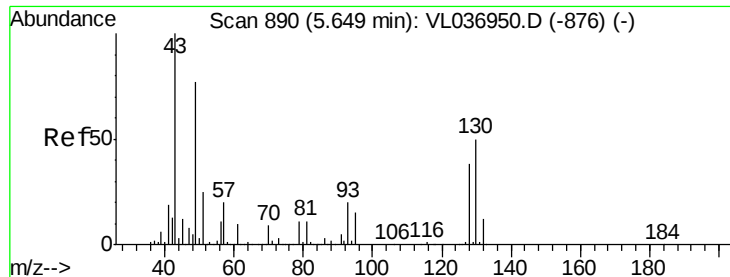
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1273901	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.16	114	3629609	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.07	117	3371656	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.40	95	2509956	9.91	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	99.10%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	49300	0.228	ppbv 93
3) Chlorodifluoromethane	2.95	51	1900833	8.145	ppbv # 62
4) Chloromethane	3.13	50	42941	0.541	ppbv 97
9) Propene	3.01	41	84623	1.013	ppbv 85
11) Trichlorofluoromethane	3.93	101	37672	0.188	ppbv 94
13) Ethanol	3.61	45	13740519	1232.306	ppbv 98
15) Acetone	3.84	43	1500021	11.496	ppbv 95
16) 1,3-Butadiene	3.29	39	9153	0.113	ppbv 83
17) tert-Butyl alcohol	3.98	59	777164	6.502	ppbv # 94
19) Isopropyl Alcohol	3.98	45	16130596	229.977	ppbv # 32
20) Methylene Chloride	4.33	84	927410	13.259	ppbv 98
21) Allyl Chloride	4.33	41	28576	0.290	ppbv # 19
23) Vinyl Acetate	5.06	43	6436	0.031	ppbv # 62
25) Ethyl Acetate	5.67	43	827811	2.640	ppbv # 81
26) Hexane	5.67	57	1091326	6.813	ppbv # 50
34) 2-Butanone	5.23	43	54142	0.410	ppbv # 80
36) Benzene	6.87	78	40029	0.128	ppbv 96
37) 1,2-Dichloroethane	6.29	62	126689	0.817	ppbv 99
38) Trichloroethene	7.82	130	120880	0.904	ppbv 97
39) 1,2-Dichloropropane	7.16	63	869499	7.220	ppbv # 26
41) Tetrahydrofuran	5.67	42	389993	5.181	ppbv # 50
44) 2,2,4-Trimethylpentane	7.85	57	29378	0.055	ppbv # 19
50) 4-Methyl-2-Pentanone	8.73	43	24231	0.111	ppbv # 38
52) Tetrachloroethene	11.20	164	435420	3.502	ppbv 96
53) Toluene	9.79	91	192710	0.518	ppbv 100
59) m/p-Xylene	12.95	91	54184	0.138	ppbv # 30
60) o-Xylene	13.68	91	15246	0.041	ppbv # 35
69) p-Isopropyltoluene	17.64	119	25715	0.045	ppbv # 88
74) 1,2,4-Trimethylbenzene	16.74	105	37522	0.087	ppbv # 71

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.65 min Scan# 890

Delta R.T. -0.00 min

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IA2

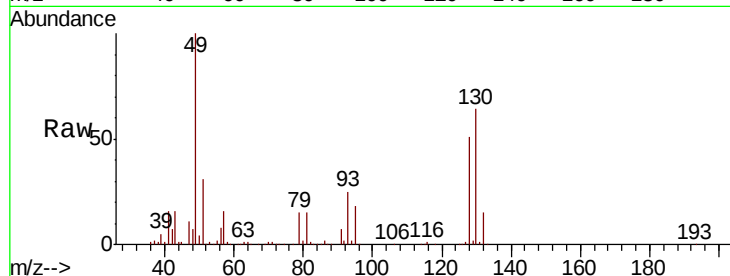
Tot Ion: 49 Resp: 1273901

Ion Ratio Lower Upper

49 100

128 54.3 26.9 80.7

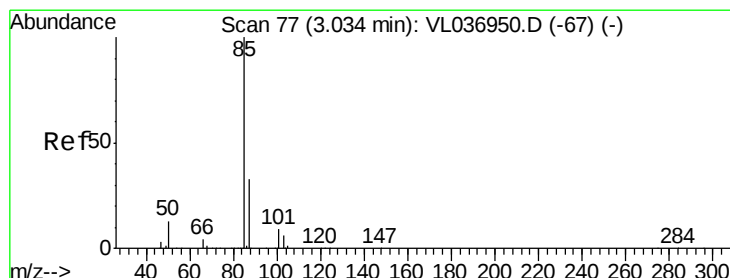
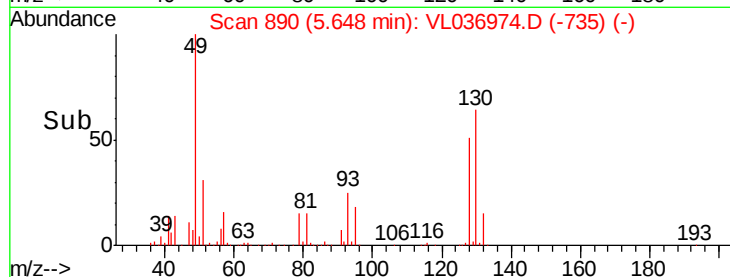
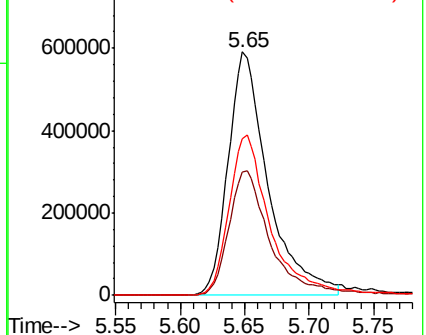
130 69.8 33.8 101.4



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: 0.228 ppbv

RT: 3.03 min Scan# 77

Delta R.T. -0.00 min

Lab File: VL036974.D

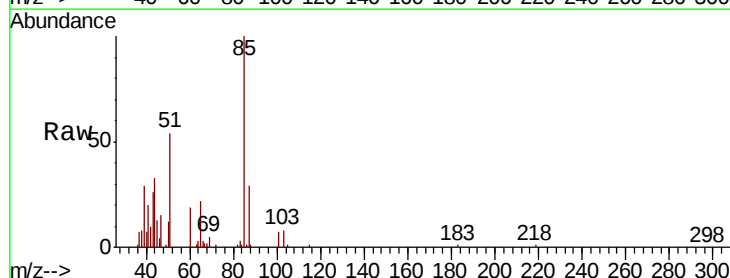
Acq: 18 May 2021 18:24

Tgt Ion: 85 Resp: 49300

Ion Ratio Lower Upper

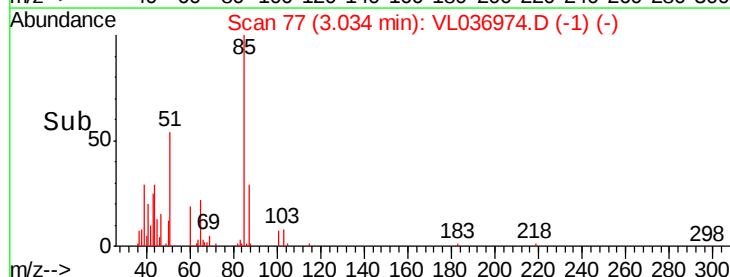
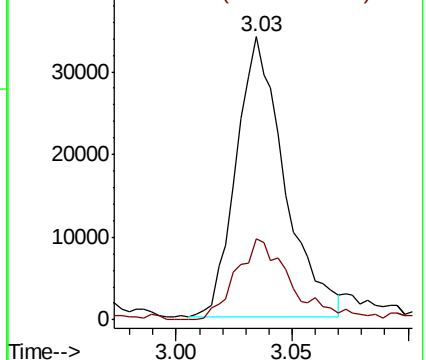
85 100

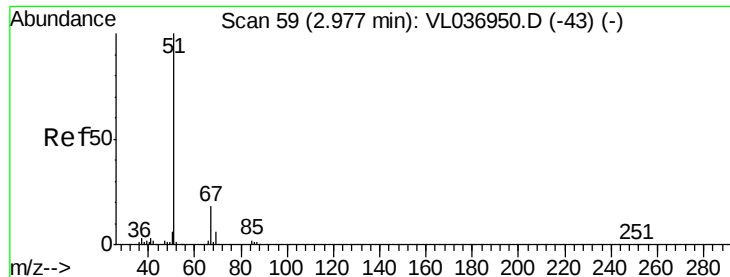
87 29.1 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 8.145 ppbv

RT: 2.95 min Scan# 51

Delta R.T. -0.03 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Instrument :

MSVOA_L

ClientSampleId :

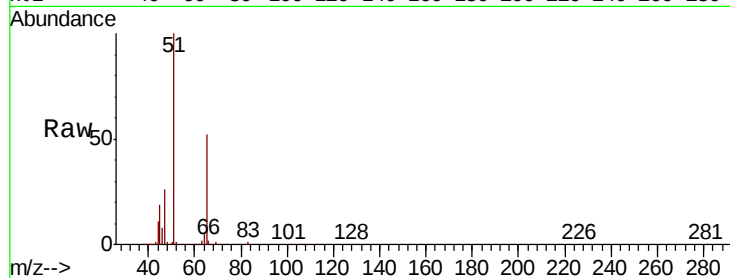
IA2

Tot Ion: 51 Resp: 1900833

Ion Ratio Lower Upper

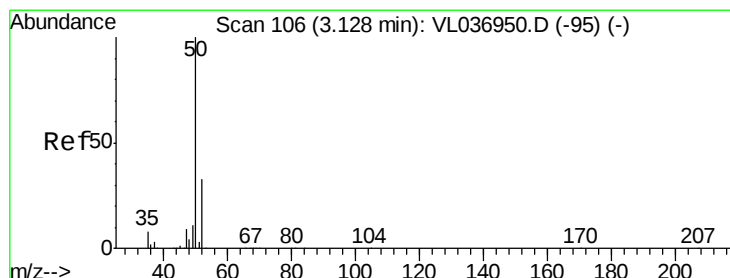
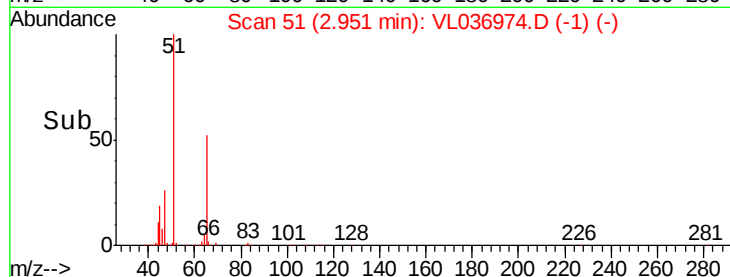
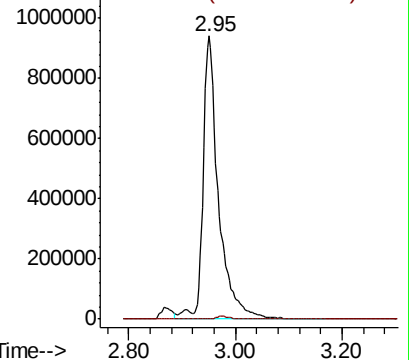
51 100

67 1.1 14.6 21.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.541 ppbv

RT: 3.13 min Scan# 107

Delta R.T. 0.00 min

Lab File: VL036974.D

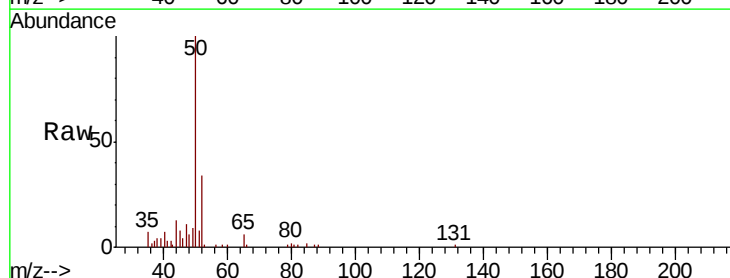
Acq: 18 May 2021 18:24

Tgt Ion: 50 Resp: 42941

Ion Ratio Lower Upper

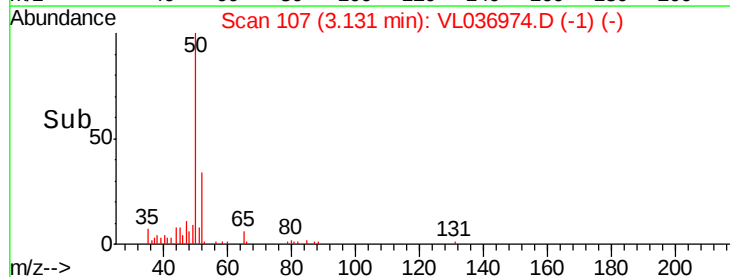
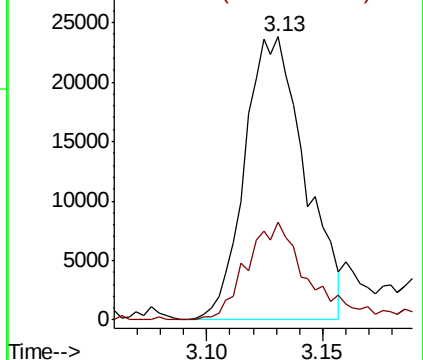
50 100

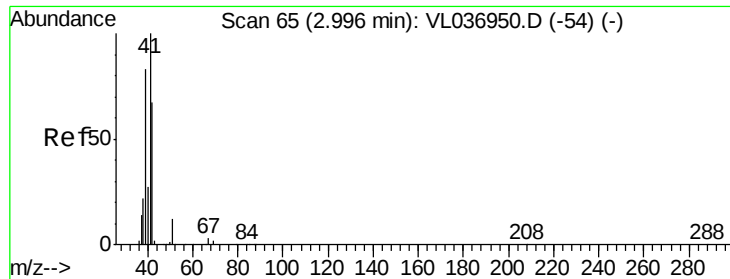
52 34.4 26.1 39.1



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.013 ppbv

RT: 3.01 min Scan# 68

Delta R.T. 0.01 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Instrument :

MSVOA_L

ClientSampleId :

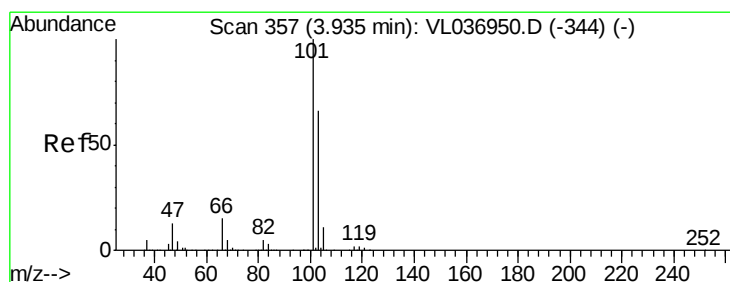
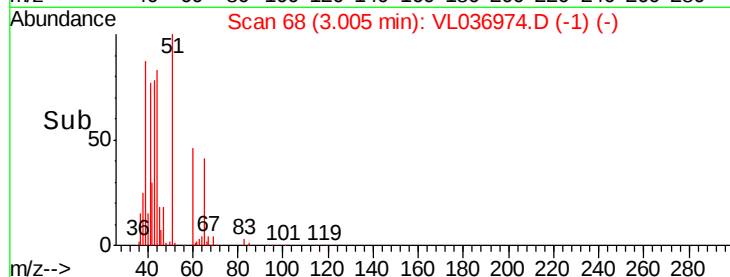
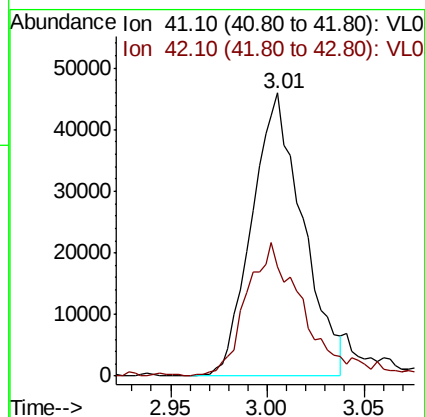
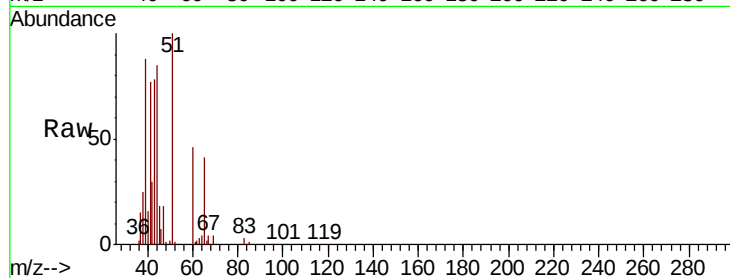
IA2

Tot Ion: 41 Resp: 84623

Ion Ratio Lower Upper

41 100

42 55.3 53.9 80.9



#11

Trichlorofluoromethane

Concen: 0.188 ppbv

RT: 3.93 min Scan# 357

Delta R.T. -0.00 min

Lab File: VL036974.D

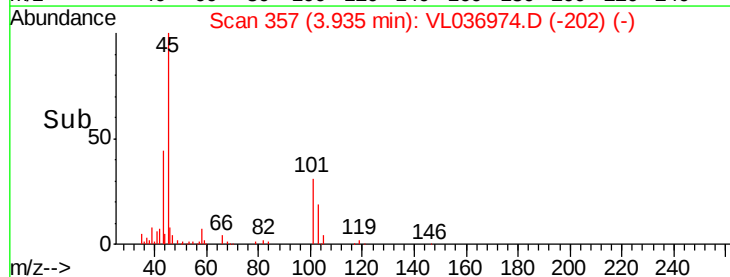
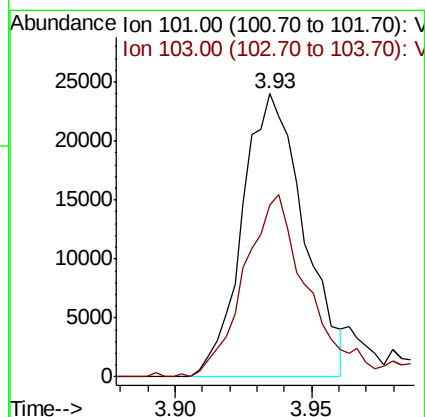
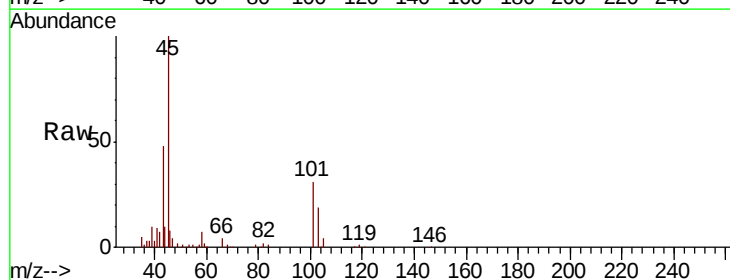
Acq: 18 May 2021 18:24

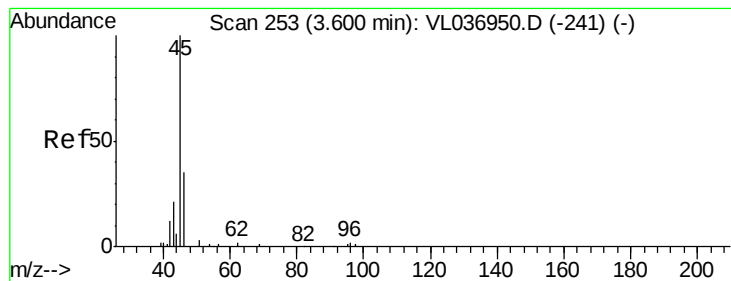
Tgt Ion: 101 Resp: 37672

Ion Ratio Lower Upper

101 100

103 60.7 52.6 79.0





#13

Ethanol

Concen: 1232.306 ppbv

RT: 3.61 min Scan# 256

Delta R.T. 0.01 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Instrument :

MSVOA_L

ClientSampled :

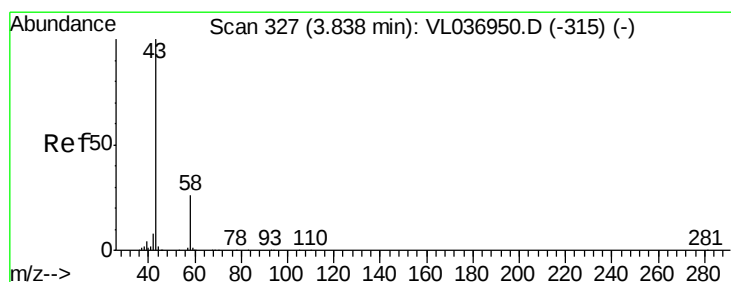
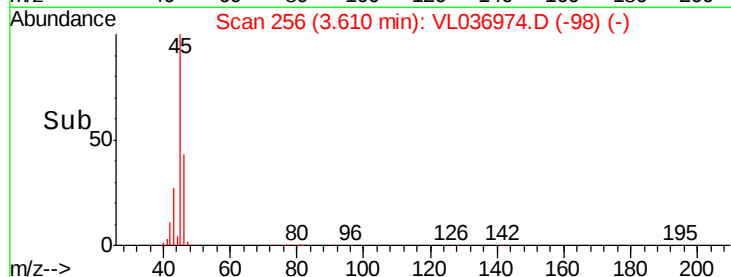
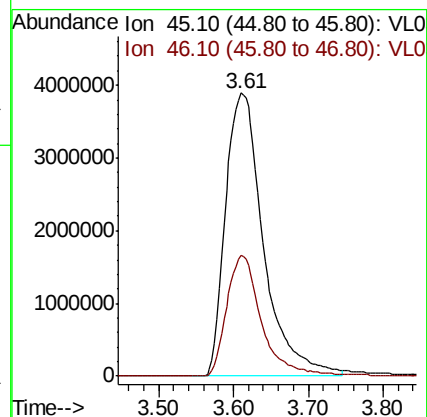
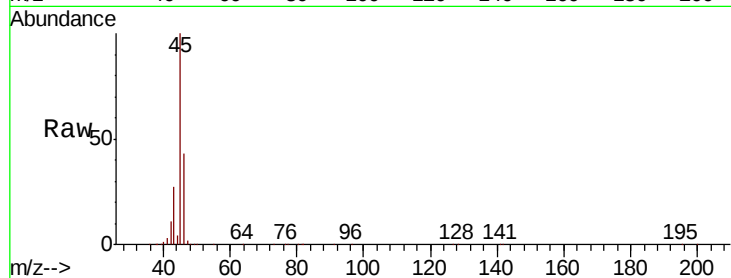
IA2

Tot Ion: 45 Resp:13740519

Ion Ratio Lower Upper

45 100

46 39.8 16.3 65.3



#15

Acetone

Concen: 11.496 ppbv

RT: 3.84 min Scan# 326

Delta R.T. -0.00 min

Lab File: VL036974.D

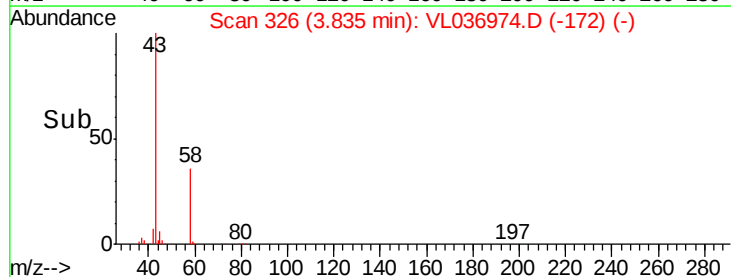
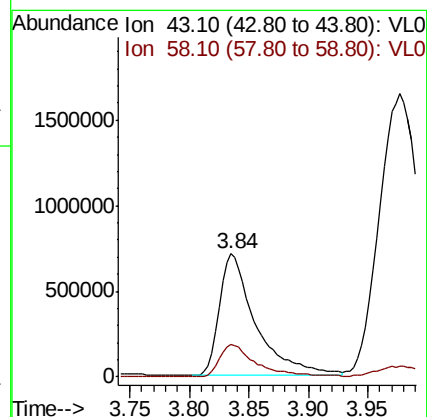
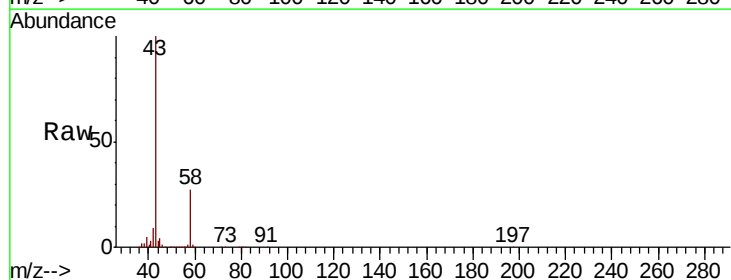
Acq: 18 May 2021 18:24

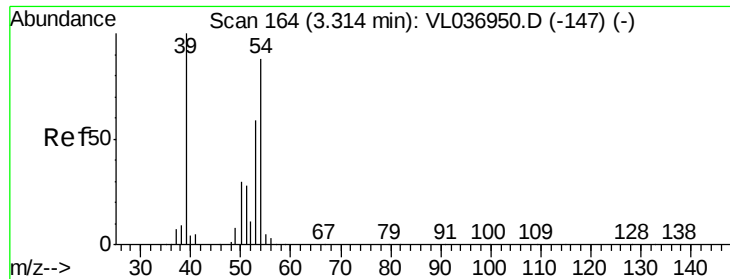
Tgt Ion: 43 Resp: 1500021

Ion Ratio Lower Upper

43 100

58 27.4 24.0 36.0

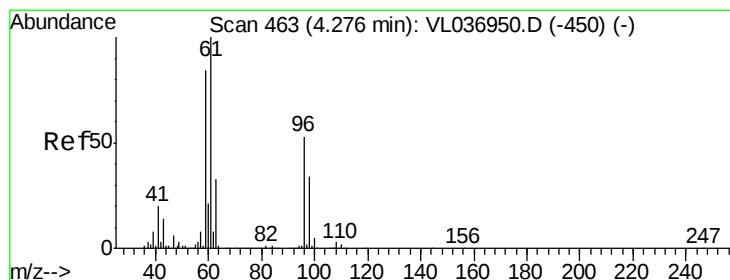
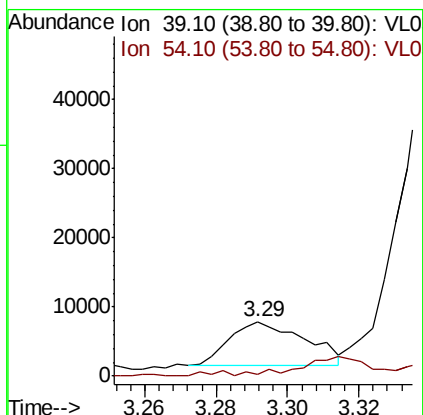
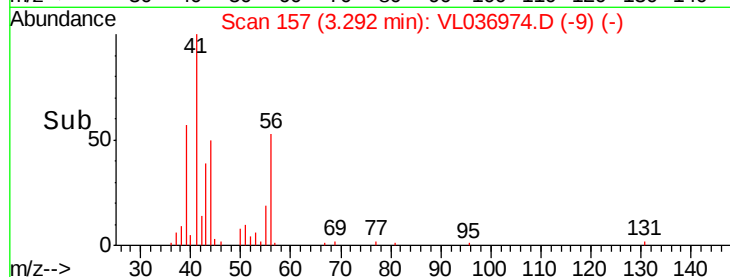
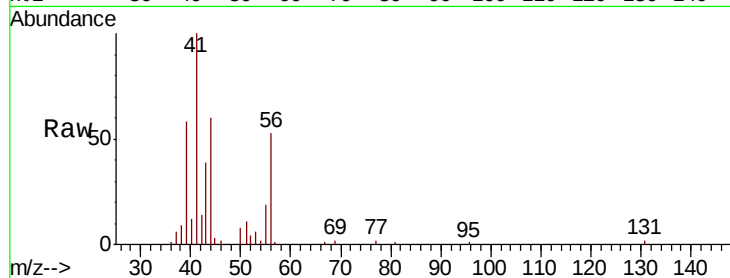




#16
1,3-Butadiene
Concen: 0.113 ppbv
RT: 3.29 min Scan# 157
Delta R.T. -0.02 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

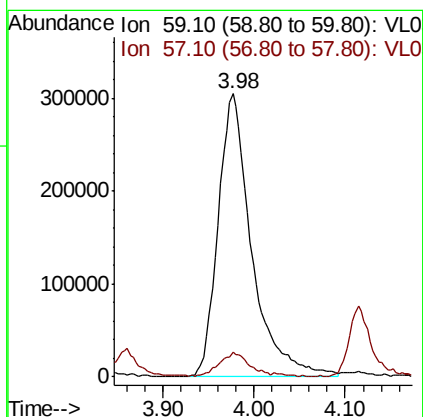
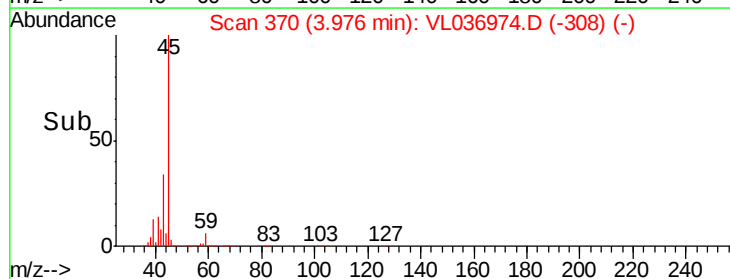
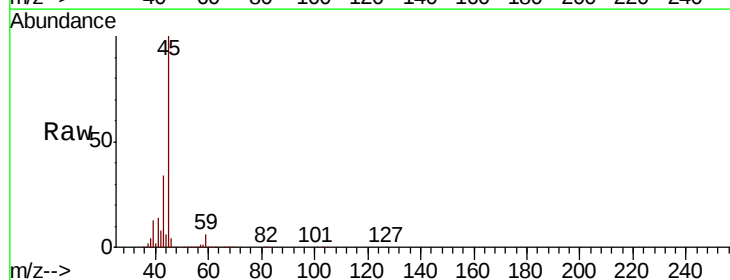
Instrument :
MSVOA_L
ClientSampleID :
IA2

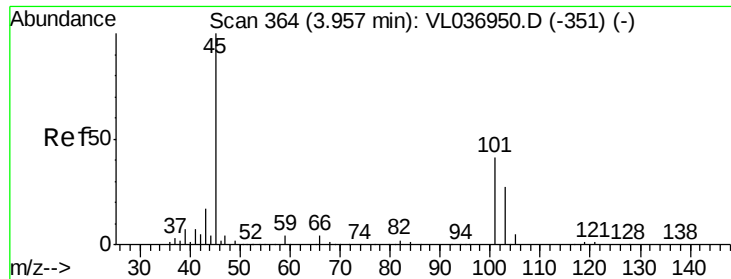
Tot Ion: 39 Resp: 9153
Ion Ratio Lower Upper
39 100
54 63.9 63.2 94.8



#17
tert-Butyl alcohol
Concen: 6.502 ppbv
RT: 3.98 min Scan# 370
Delta R.T. -0.30 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

Tgt Ion: 59 Resp: 777164
Ion Ratio Lower Upper
59 100
57 8.3 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 229.977 ppbv

RT: 3.98 min Scan# 370

Delta R.T. 0.02 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Instrument :

MSVOA_L

ClientSampled :

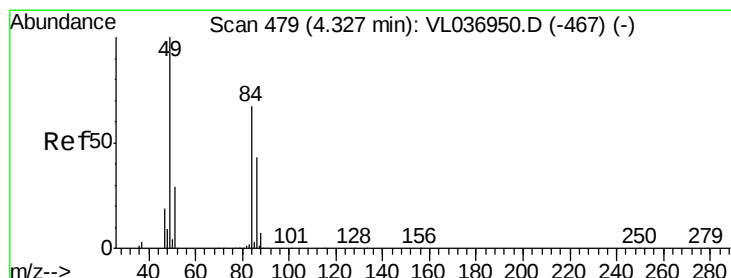
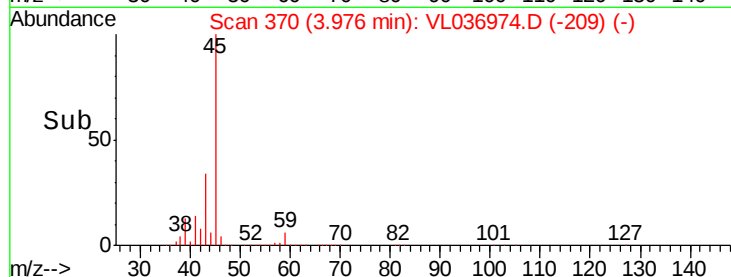
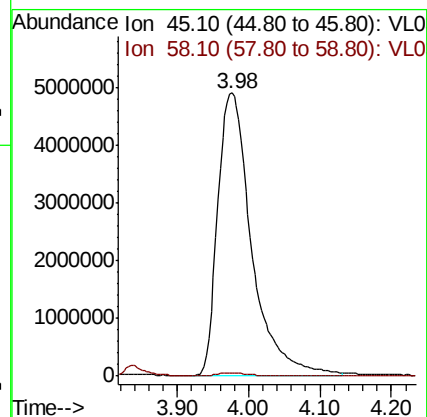
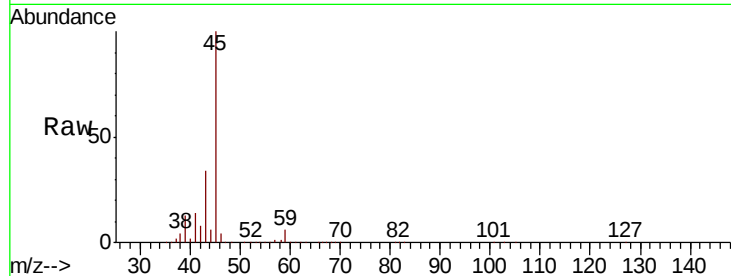
IA2

Tot Ion: 45 Resp:16130596

Ion Ratio Lower Upper

45 100

58 1.2 37.2 55.8#



#20

Methylene Chloride

Concen: 13.259 ppbv

RT: 4.33 min Scan# 480

Delta R.T. 0.00 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Tgt Ion: 84 Resp: 927410

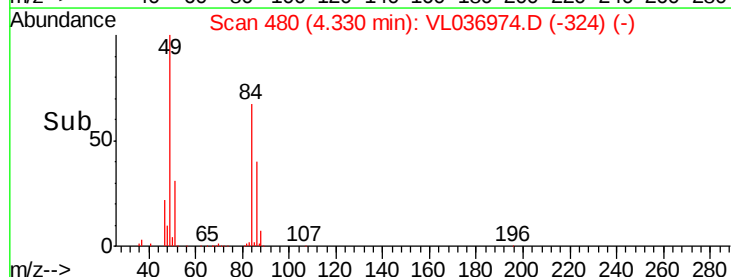
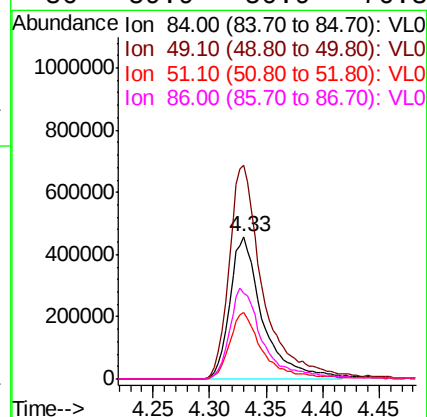
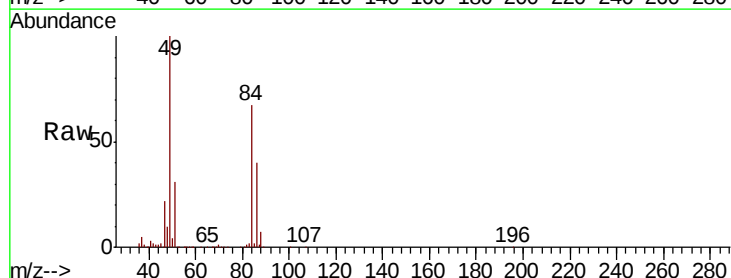
Ion Ratio Lower Upper

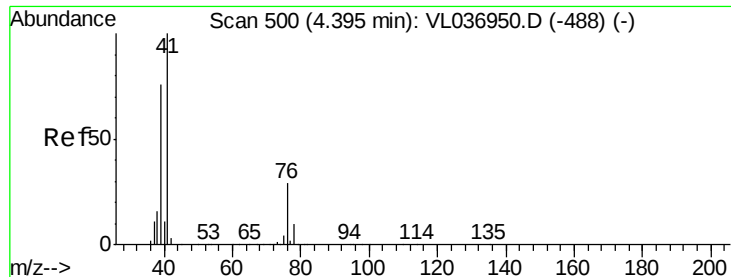
84 100

49 149.8 119.8 179.6

51 46.9 35.1 52.7

86 59.9 50.9 76.3





#21

Allvl Chloride

Concen: 0.290 ppbv

RT: 4.33 min Scan# 480

Delta R.T. -0.06 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Instrument :

MSVOA_L

ClientSampled :

IA2

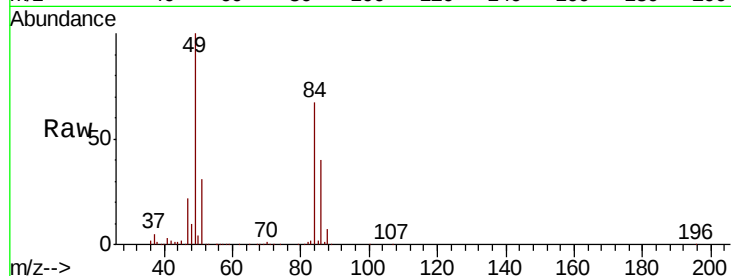
Tot Ion: 41 Resp: 28576

Ion Ratio Lower Upper

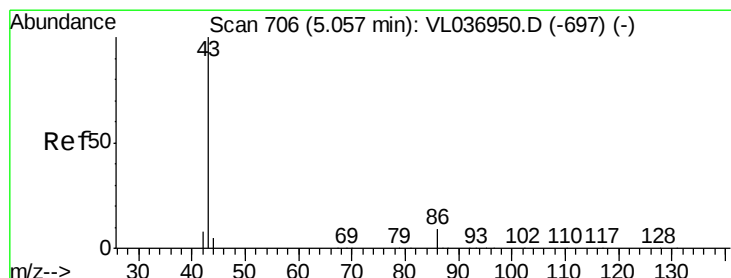
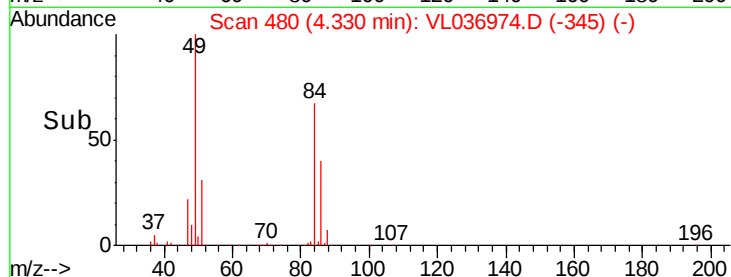
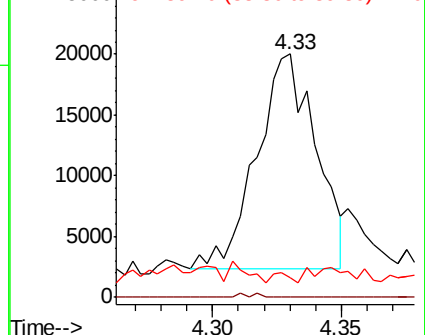
41 100

76 0.5 24.9 37.3#

39 0.0 63.7 95.5#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0



#23

Vinyl Acetate

Concen: 0.031 ppbv

RT: 5.06 min Scan# 708

Delta R.T. 0.01 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Tgt Ion: 43 Resp: 6436

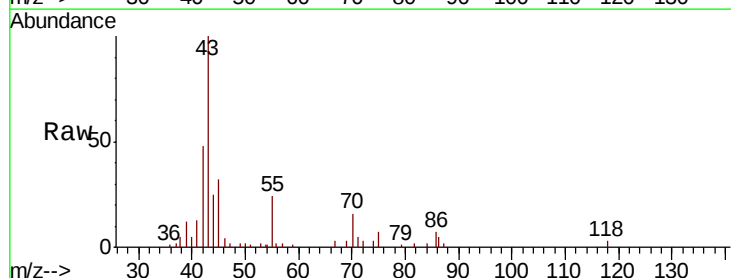
Ion Ratio Lower Upper

43 100

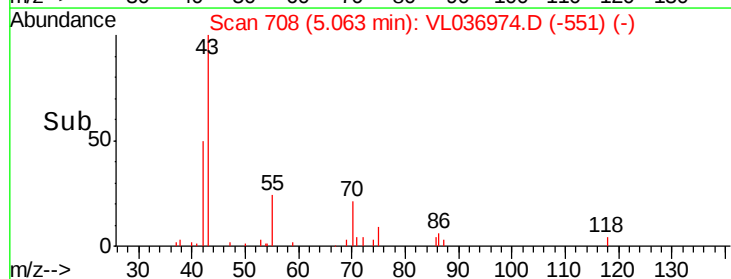
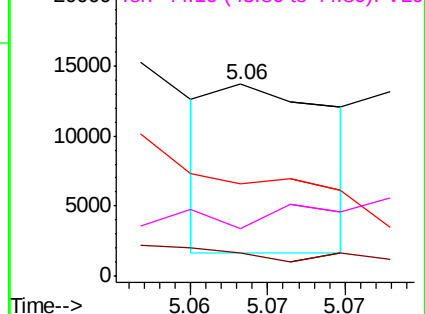
86 0.0 5.8 8.8#

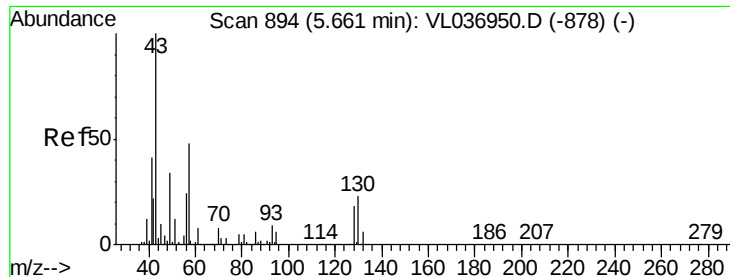
42 32.4 7.4 11.2#

44 0.0 3.3 4.9#



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

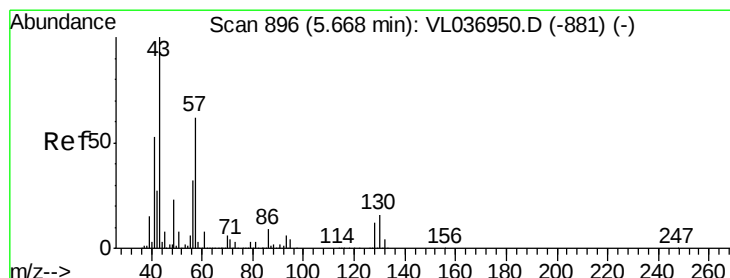
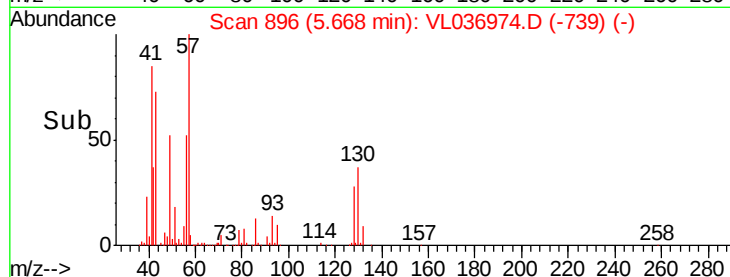
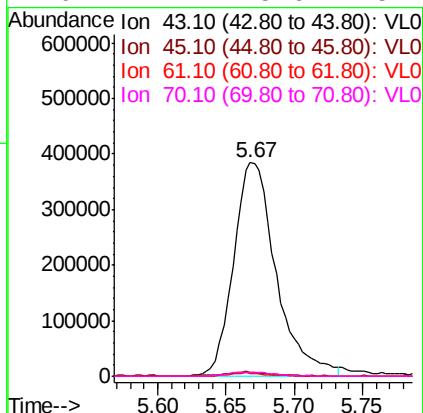
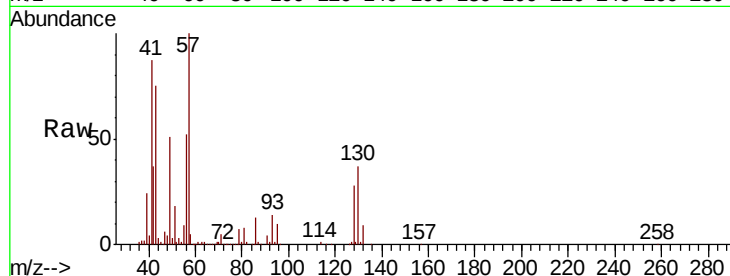




#25
Ethyl Acetate
Concen: 2.640 ppbv
RT: 5.67 min Scan# 896
Delta R.T. 0.01 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

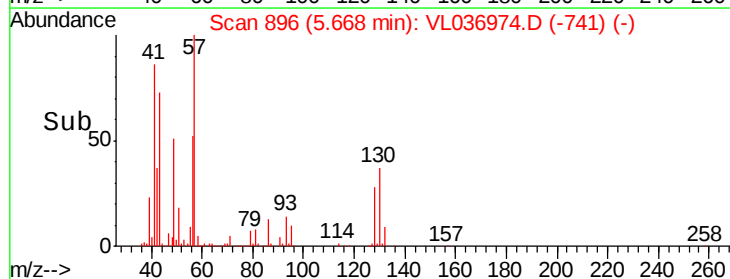
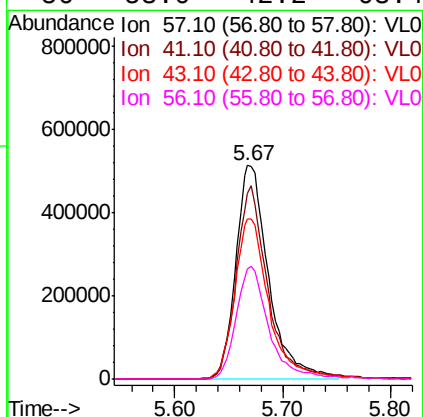
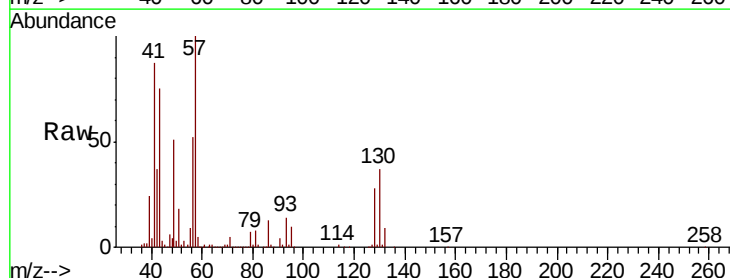
Instrument :
MSVOA_L
ClientSampleId :
IA2

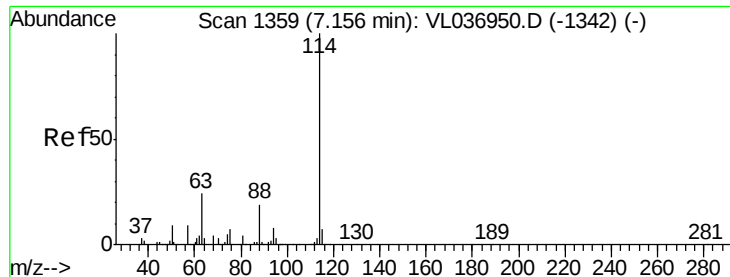
Tot Ion:	43	Resp:	827811
Ion	Ratio	Lower	Upper
43	100		
45	2.1	7.8	11.8#
61	1.6	7.8	11.8#
70	2.4	5.6	8.4#



#26
Hexane
Concen: 6.813 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.00 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

Tgt Ion:	57	Resp:	1091326
Ion	Ratio	Lower	Upper
57	100		
41	87.5	70.5	105.7
43	78.3	165.8	248.8#
56	53.0	42.2	63.4

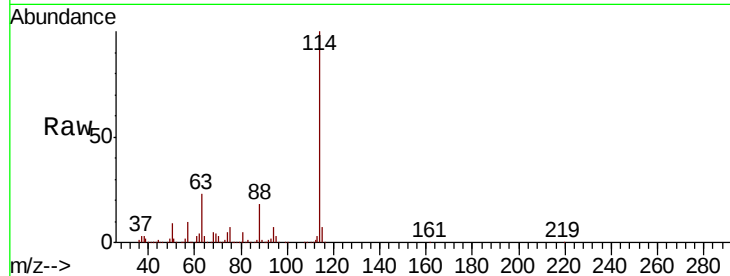




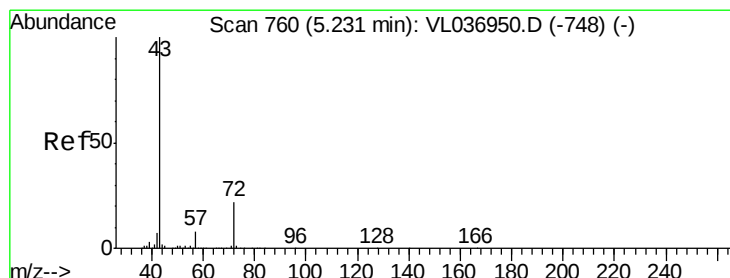
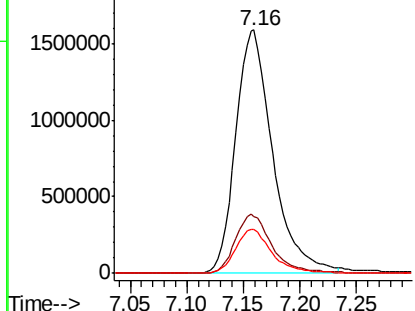
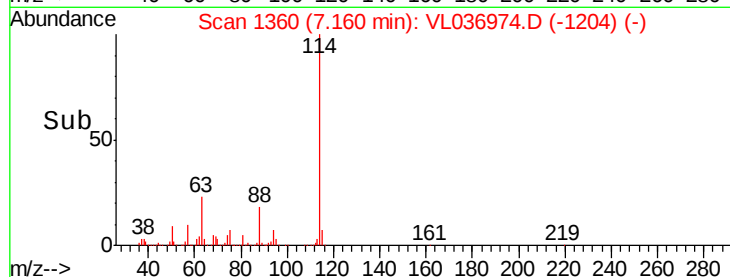
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.16 min Scan# 1360
 Delta R.T. 0.00 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tot Ion:114 Resp: 3629609
 Ion Ratio Lower Upper
 114 100
 63 24.5 19.6 29.4
 88 17.9 14.6 21.8

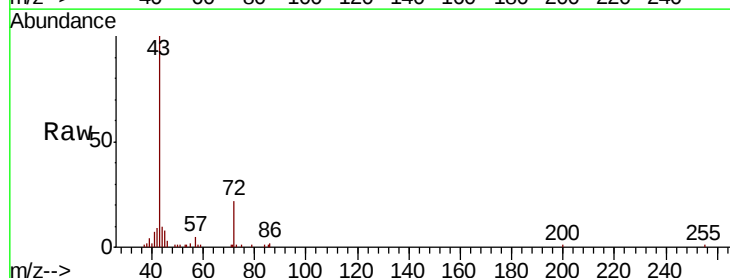


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

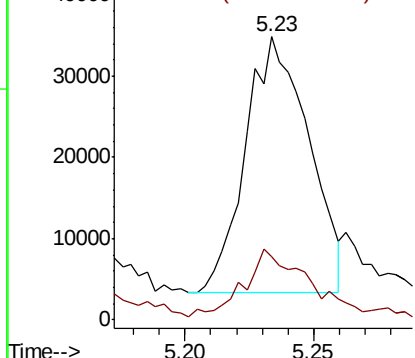
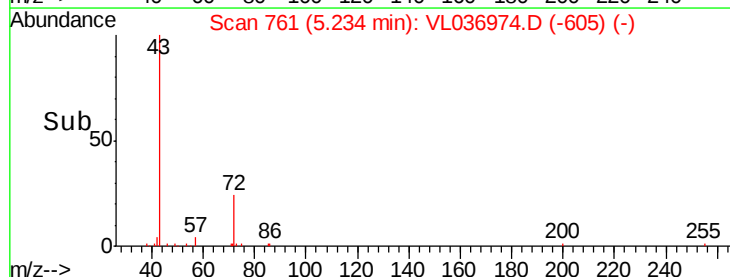


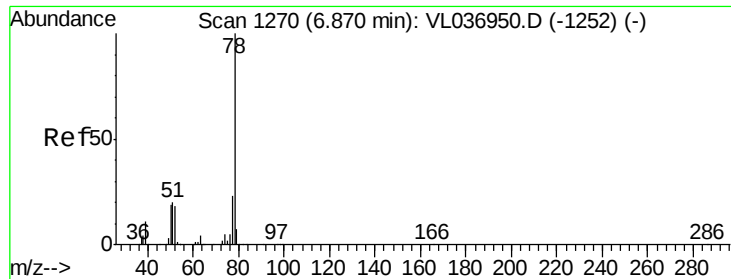
#34
 2-Butanone
 Concen: 0.410 ppbv
 RT: 5.23 min Scan# 761
 Delta R.T. 0.00 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

Tgt Ion: 43 Resp: 54142
 Ion Ratio Lower Upper
 43 100
 72 33.5 19.0 28.4#



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

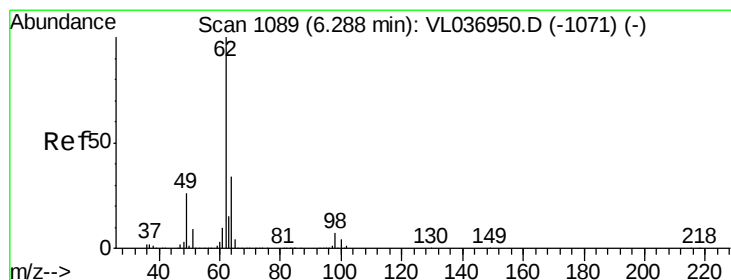
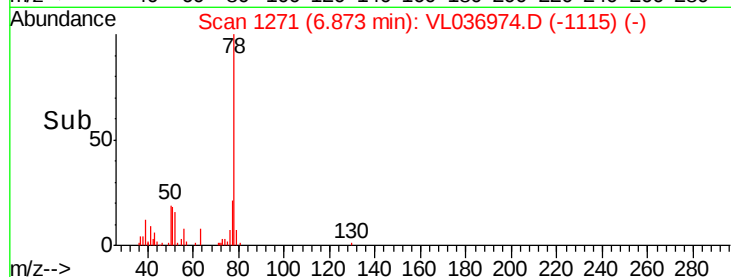
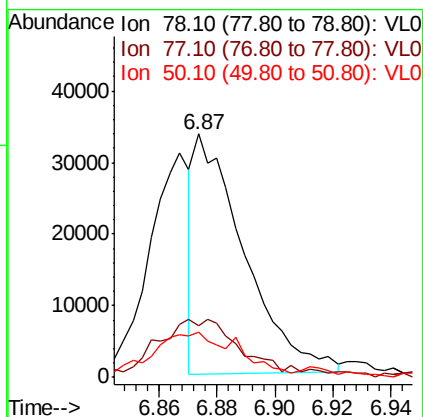
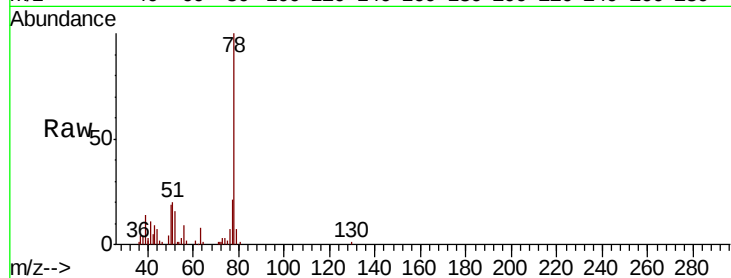




#36
Benzene
Concen: 0.128 ppbv
RT: 6.87 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

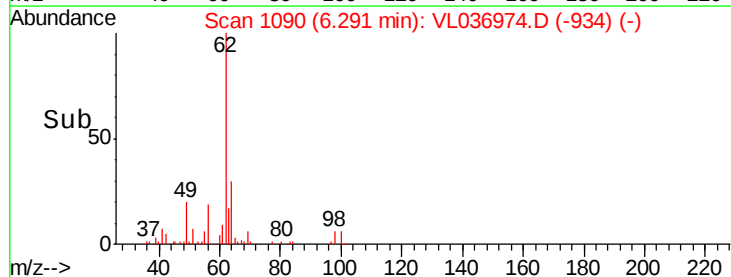
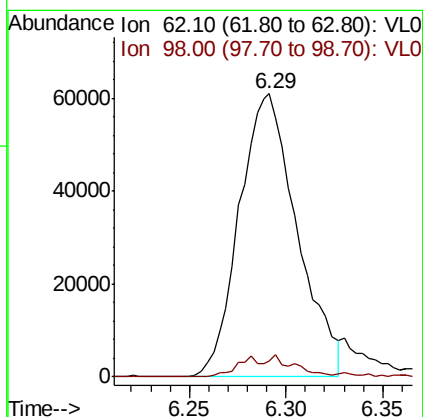
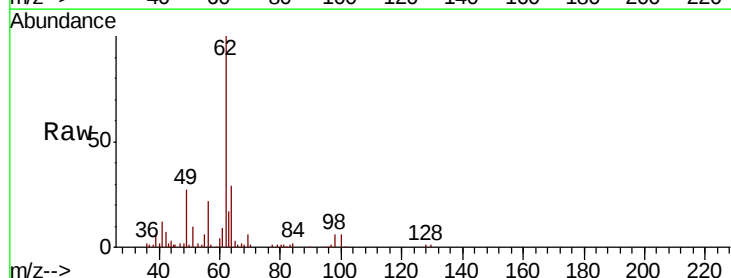
Instrument :
MSVOA_L
ClientSampleId :
IA2

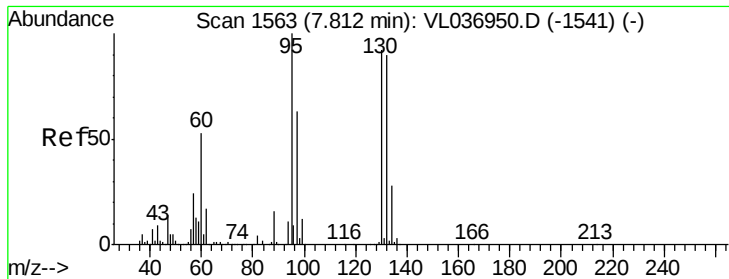
Tot Ion: 78 Resp: 40029
Ion Ratio Lower Upper
78 100
77 20.1 18.6 28.0
50 18.6 15.0 22.4



#37
1,2-Dichloroethane
Concen: 0.817 ppbv
RT: 6.29 min Scan# 1090
Delta R.T. 0.00 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

Tgt Ion: 62 Resp: 126689
Ion Ratio Lower Upper
62 100
98 7.3 5.5 8.3

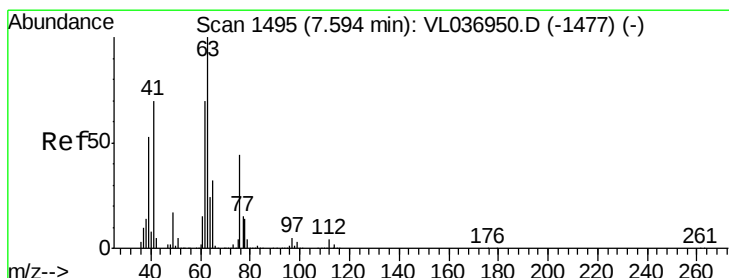
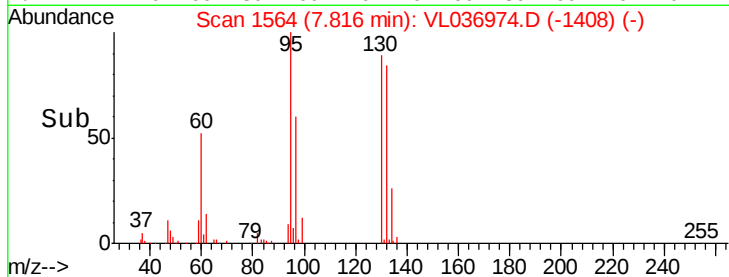
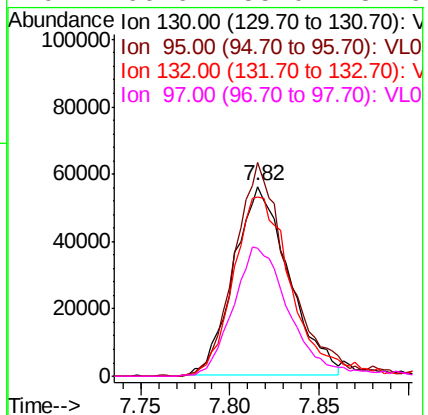
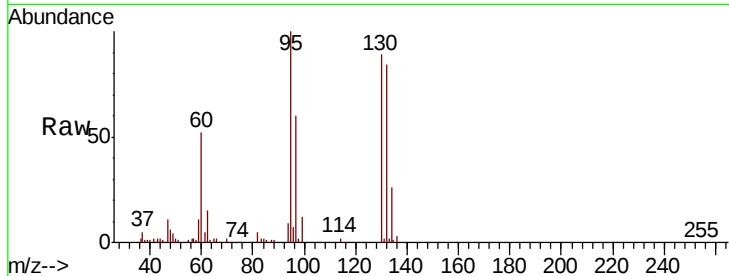




#38
 Trichloroethene
 Concen: 0.904 ppbv
 RT: 7.82 min Scan# 1564
 Delta R.T. 0.00 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

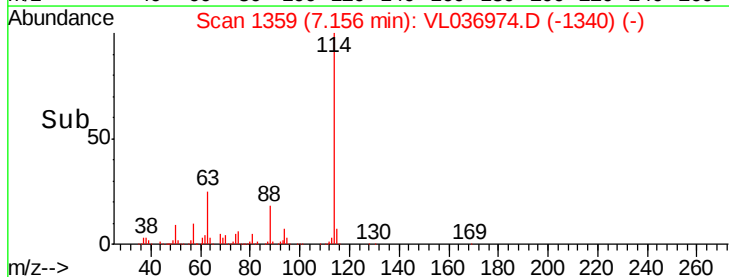
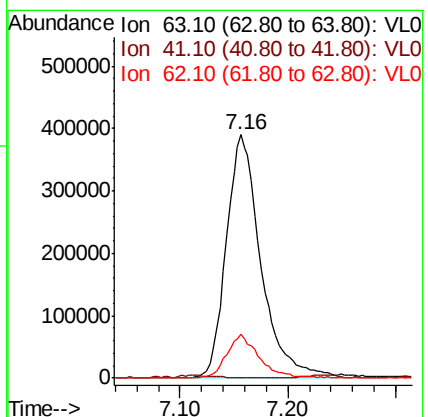
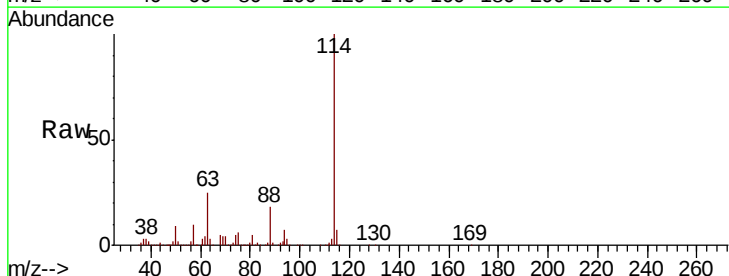
Instrument :
 MSVOA_L
 ClientSampleID :
 IA2

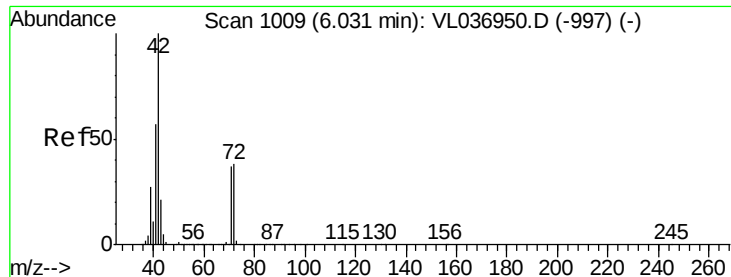
Tot Ion:130	Resp:	120880
Ion Ratio	Lower	Upper
130	100	
95	111.7	86.9 130.3
132	94.0	78.4 117.6
97	66.6	55.0 82.6



#39
 1,2-Dichloropropane
 Concen: 7.220 ppbv
 RT: 7.16 min Scan# 1359
 Delta R.T. -0.44 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

Tgt Ion: 63	Resp:	869499
Ion Ratio	Lower	Upper
63	100	
41	0.0	55.7 83.5#
62	18.2	56.2 84.4#

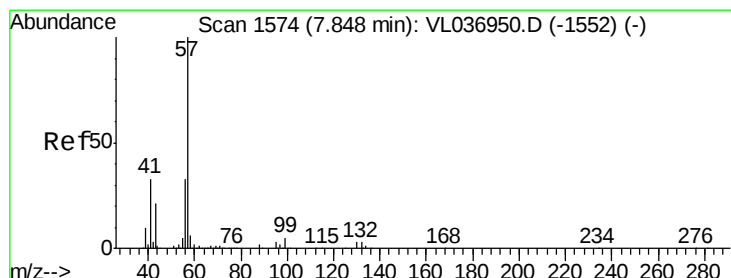
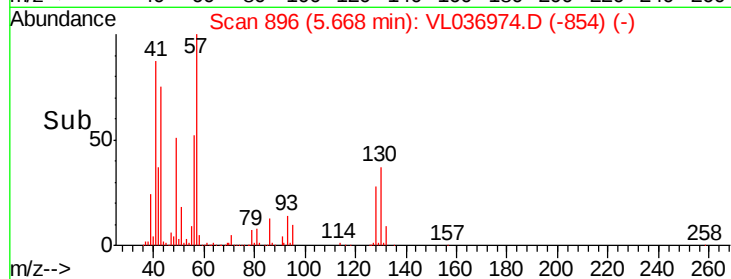
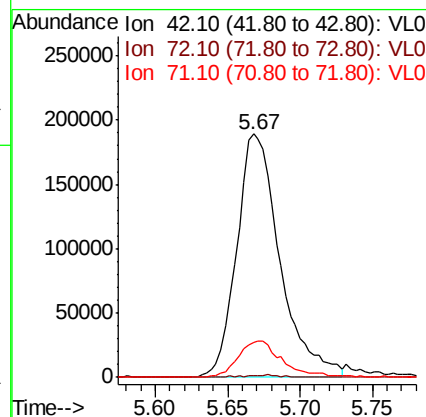
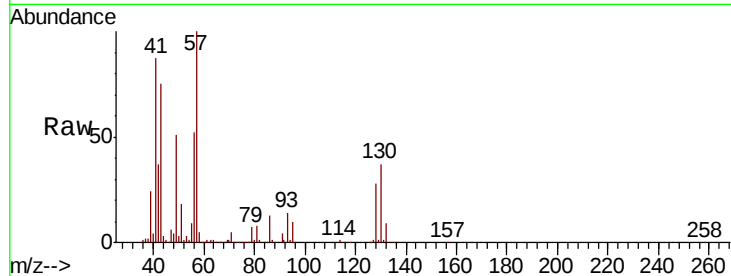




#41
Tetrahydrofuran
Concen: 5.181 ppbv
RT: 5.67 min Scan# 896
Delta R.T. -0.36 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

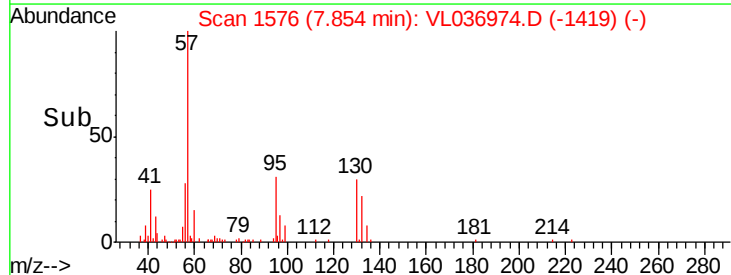
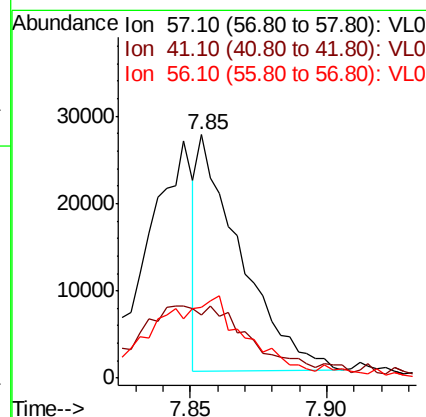
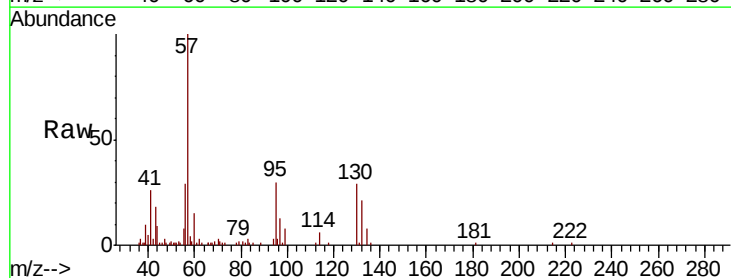
Instrument :
MSVOA_L
ClientSampleId :
IA2

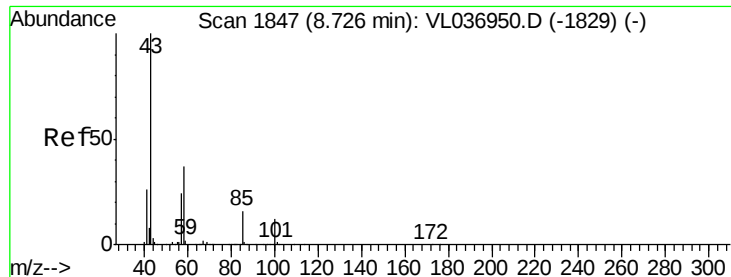
Tot Ion	Ratio	Lower	Upper
42	100		
72	1.1	31.4	47.2#
71	15.6	30.4	45.6#



#44
2,2,4-Trimethylpentane
Concen: 0.055 ppbv
RT: 7.85 min Scan# 1576
Delta R.T. 0.01 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

Tgt Ion	Ratio	Lower	Upper
57	100		
41	76.3	27.0	40.4#
56	80.4	25.4	38.2#

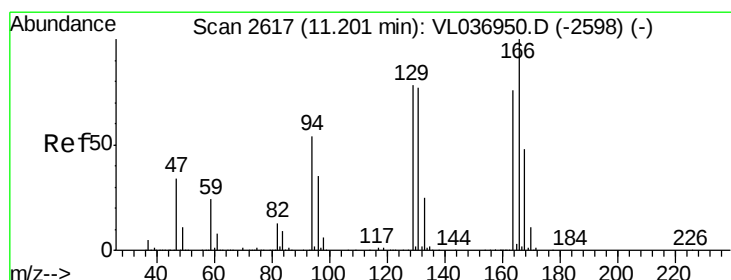
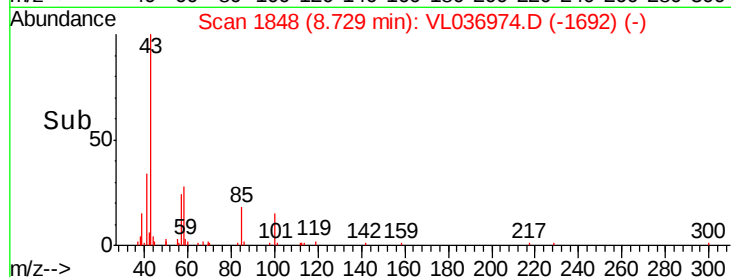
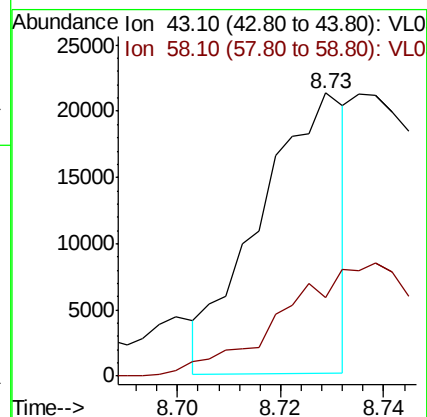
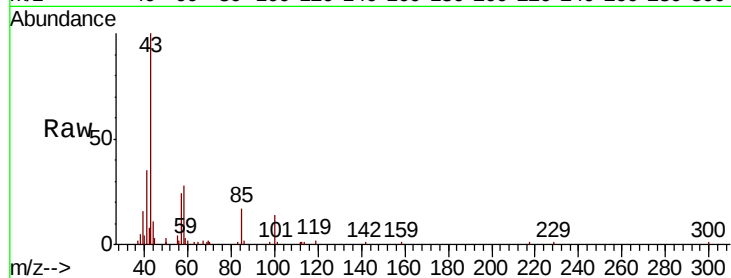




#50
4-Methyl-2-Pentanone
Concen: 0.111 ppbv
RT: 8.73 min Scan# 1848
Delta R.T. 0.00 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

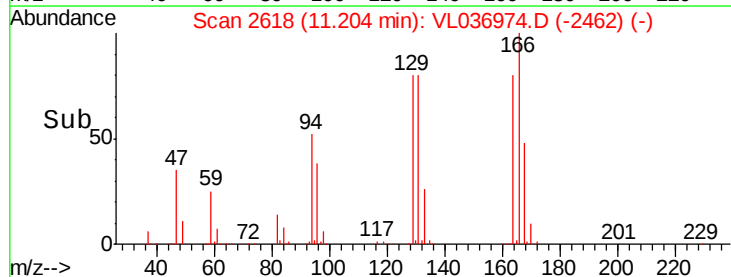
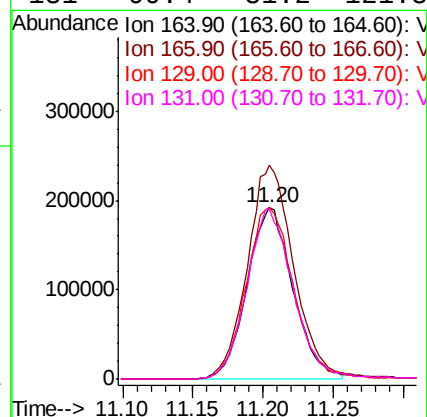
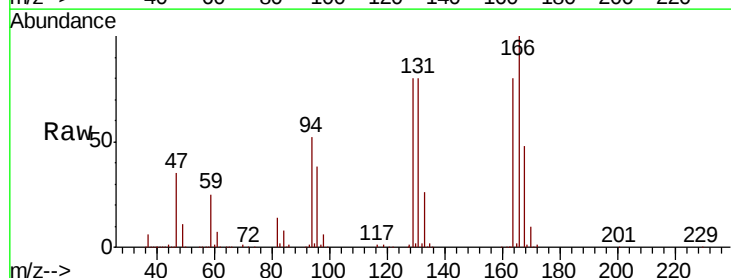
Instrument :
MSVOA_L
ClientSampleId :
IA2

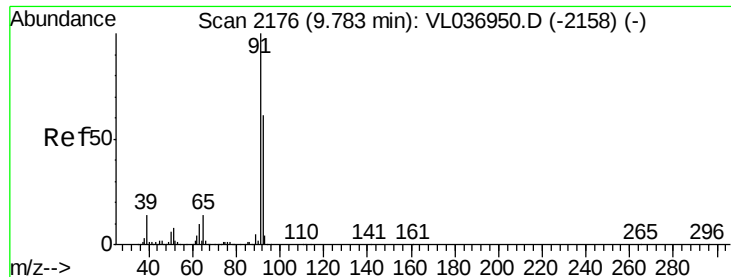
Tot Ion: 43 Resp: 24231
Ion Ratio Lower Upper
43 100
58 0.0 29.4 44.2#



#52
Tetrachloroethene
Concen: 3.502 ppbv
RT: 11.20 min Scan# 2618
Delta R.T. 0.00 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

Tgt Ion: 164 Resp: 435420
Ion Ratio Lower Upper
164 100
166 124.7 105.5 158.3
129 100.2 81.8 122.8
131 99.4 81.2 121.8





#53

Toluene

Concen: 0.518 ppbv

RT: 9.79 min Scan# 2177

Delta R.T. 0.00 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

Instrument :

MSVOA_L

ClientSampleId :

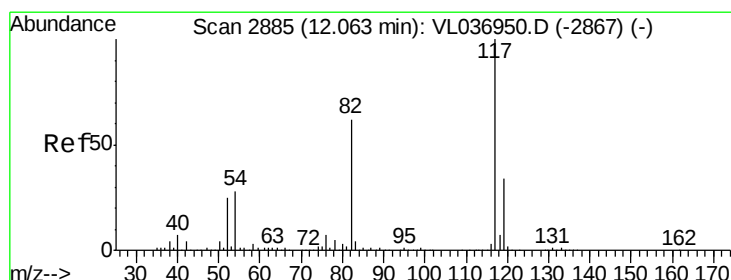
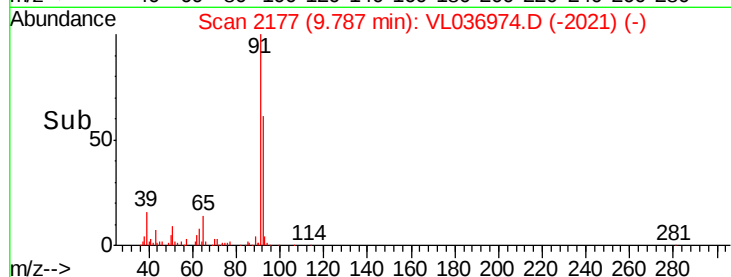
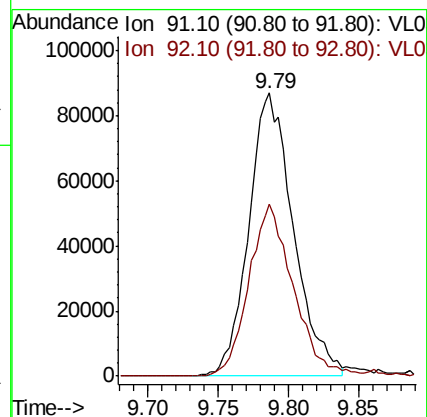
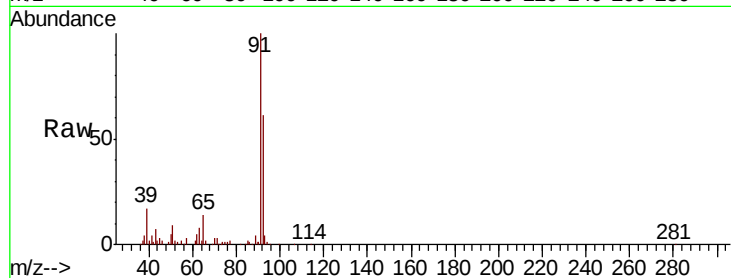
IA2

Tot Ion: 91 Resp: 192710

Ion Ratio Lower Upper

91 100

92 61.5 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.07 min Scan# 2887

Delta R.T. 0.01 min

Lab File: VL036974.D

Acq: 18 May 2021 18:24

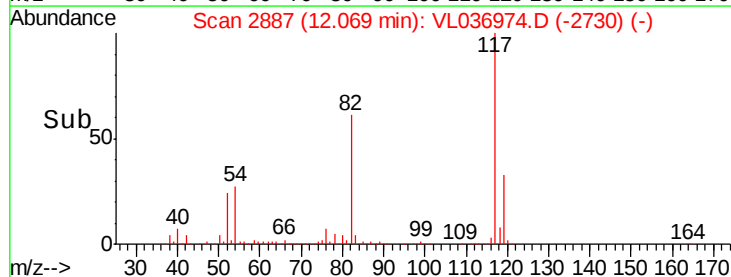
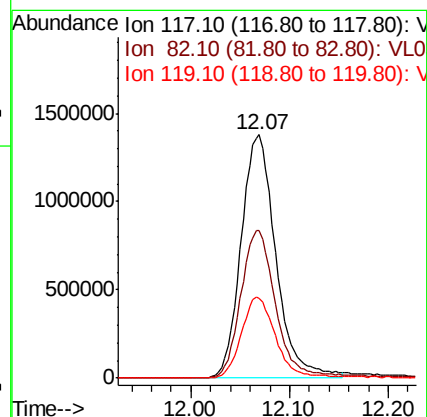
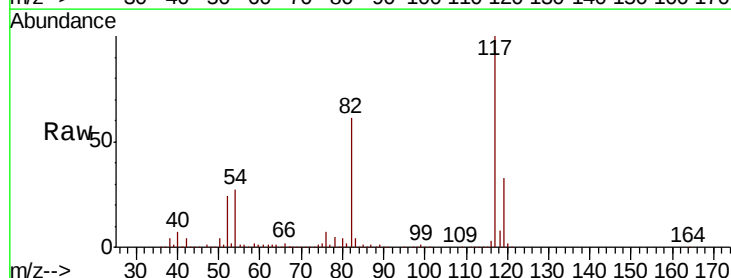
Tgt Ion: 117 Resp: 3371656

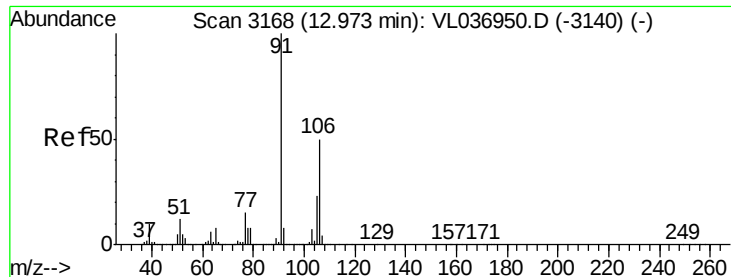
Ion Ratio Lower Upper

117 100

82 63.2 52.6 79.0

119 33.7 46.6 70.0#

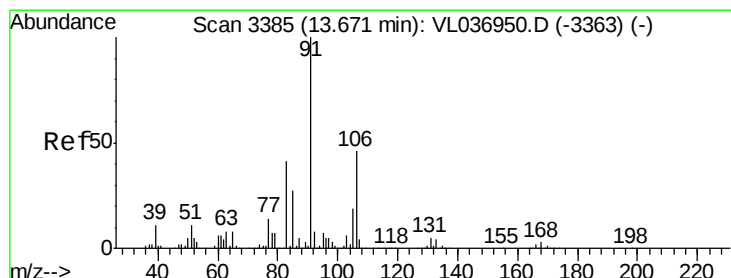
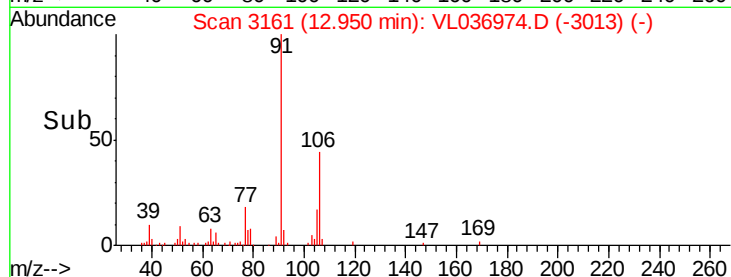
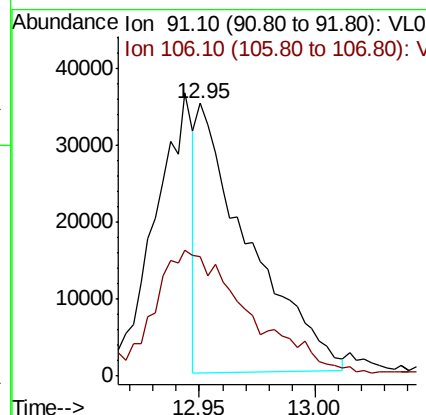
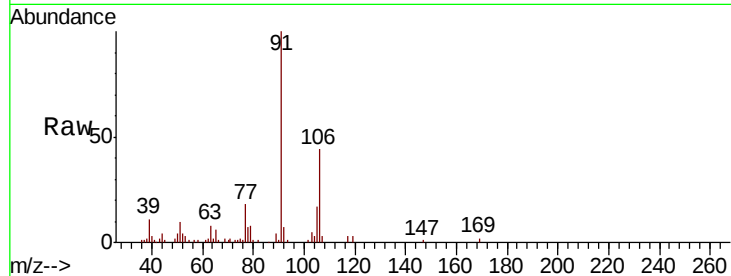




#59
m/p-Xylene
Concen: 0.138 ppbv
RT: 12.95 min Scan# 3161
Delta R.T. -0.02 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

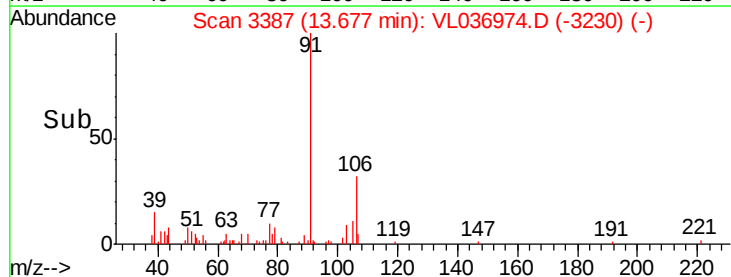
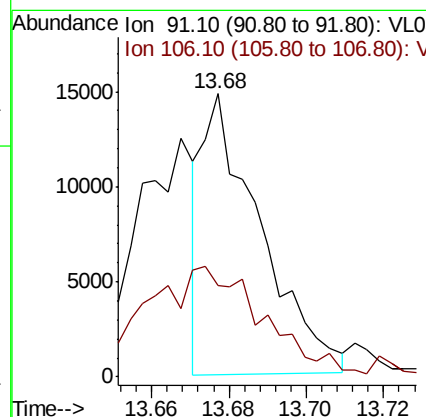
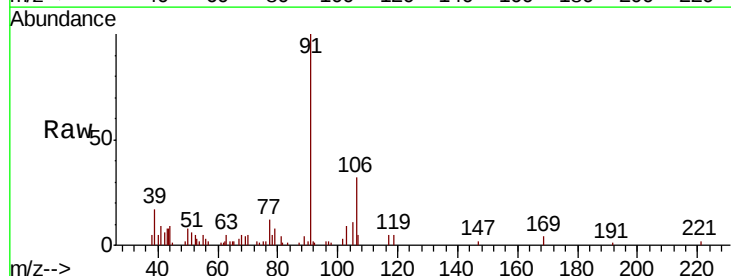
Instrument :
MSVOA_L
ClientSampled :
IA2

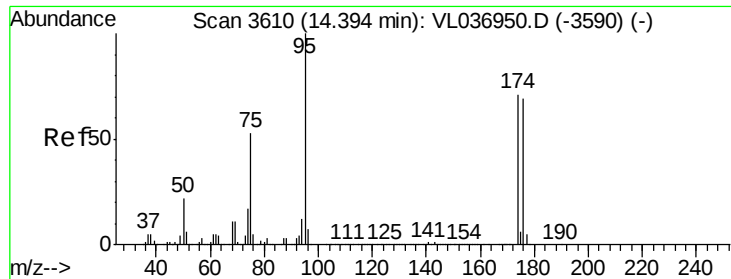
Tot Ion: 91 Resp: 54184
Ion Ratio Lower Upper
91 100
106 0.0 37.4 56.2#



#60
o-Xylene
Concen: 0.041 ppbv
RT: 13.68 min Scan# 3387
Delta R.T. 0.01 min
Lab File: VL036974.D
Acq: 18 May 2021 18:24

Tgt Ion: 91 Resp: 15246
Ion Ratio Lower Upper
91 100
106 90.5 23.4 70.3#

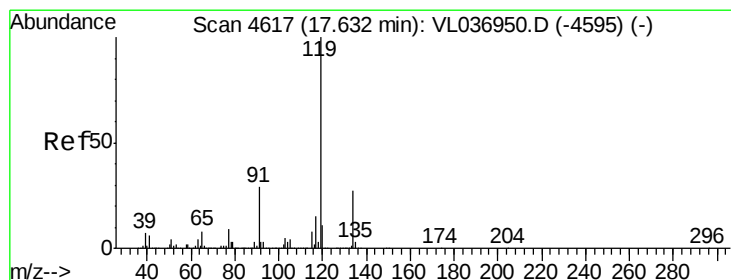
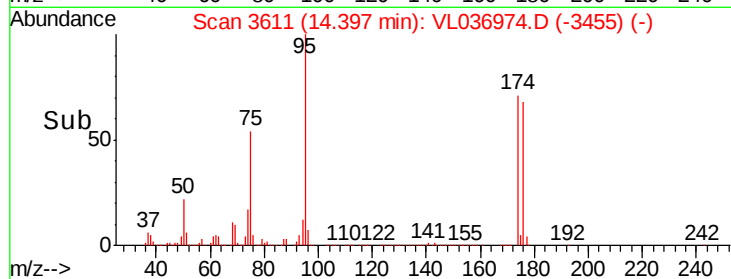
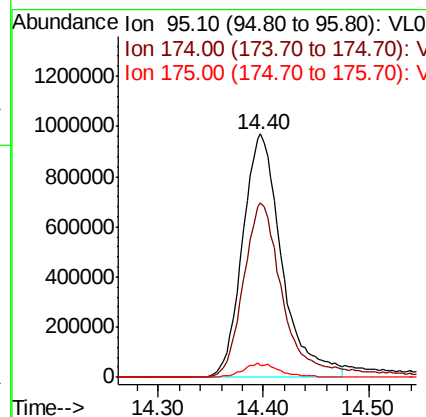
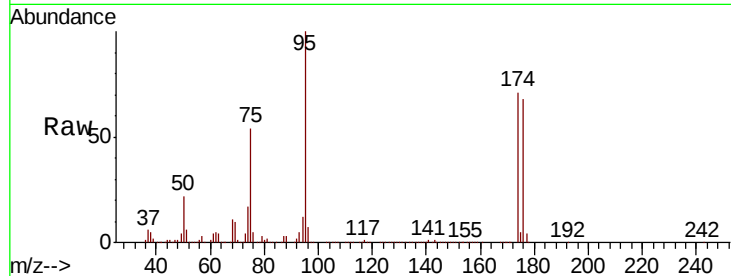




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.910 ppbv
 RT: 14.40 min Scan# 3611
 Delta R.T. 0.00 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

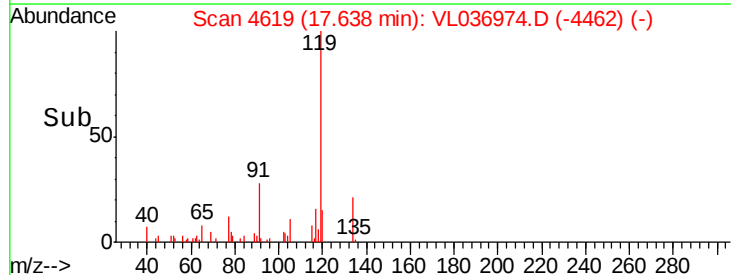
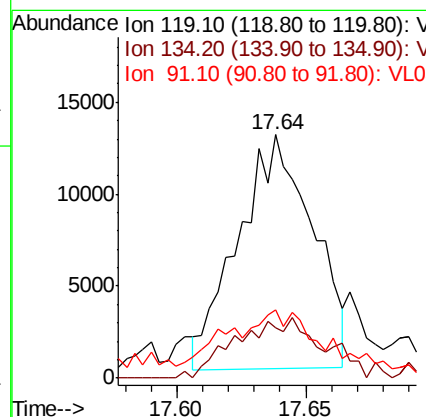
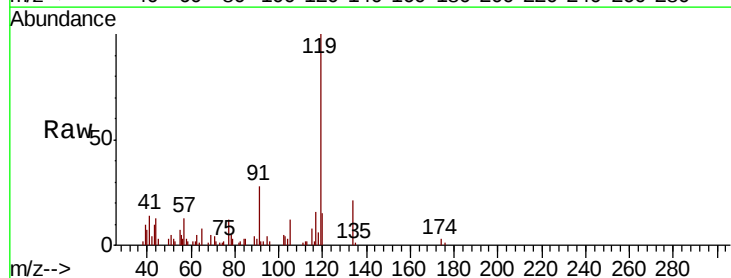
Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

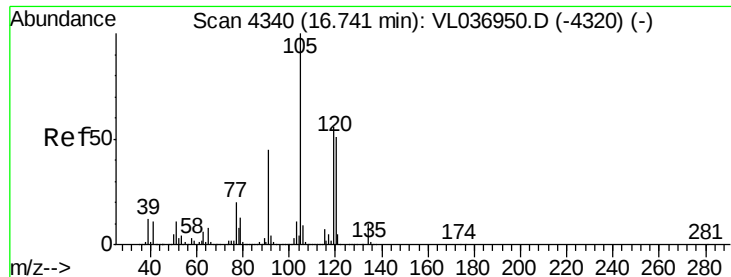
Tot Ion: 95 Resp: 2509956
 Ion Ratio Lower Upper
 95 100
 174 75.8 58.4 87.6
 175 5.6 4.4 6.6



#69
 p-Isopropyltoluene
 Concen: 0.045 ppbv
 RT: 17.64 min Scan# 4619
 Delta R.T. 0.01 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

Tgt Ion: 119 Resp: 25715
 Ion Ratio Lower Upper
 119 100
 134 32.1 21.2 31.8#
 91 35.1 22.2 33.4#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.087 ppbv
 RT: 16.74 min Scan# 4341
 Delta R.T. 0.00 min
 Lab File: VL036974.D
 Acq: 18 May 2021 18:24

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tot Ion:	105	Resp:	37522
Ion	Ratio	Lower	Upper
105	100		
120	45.2	40.6	61.0
91	10.4	37.4	56.0#
77	10.5	16.2	24.4#

