

Sample Information

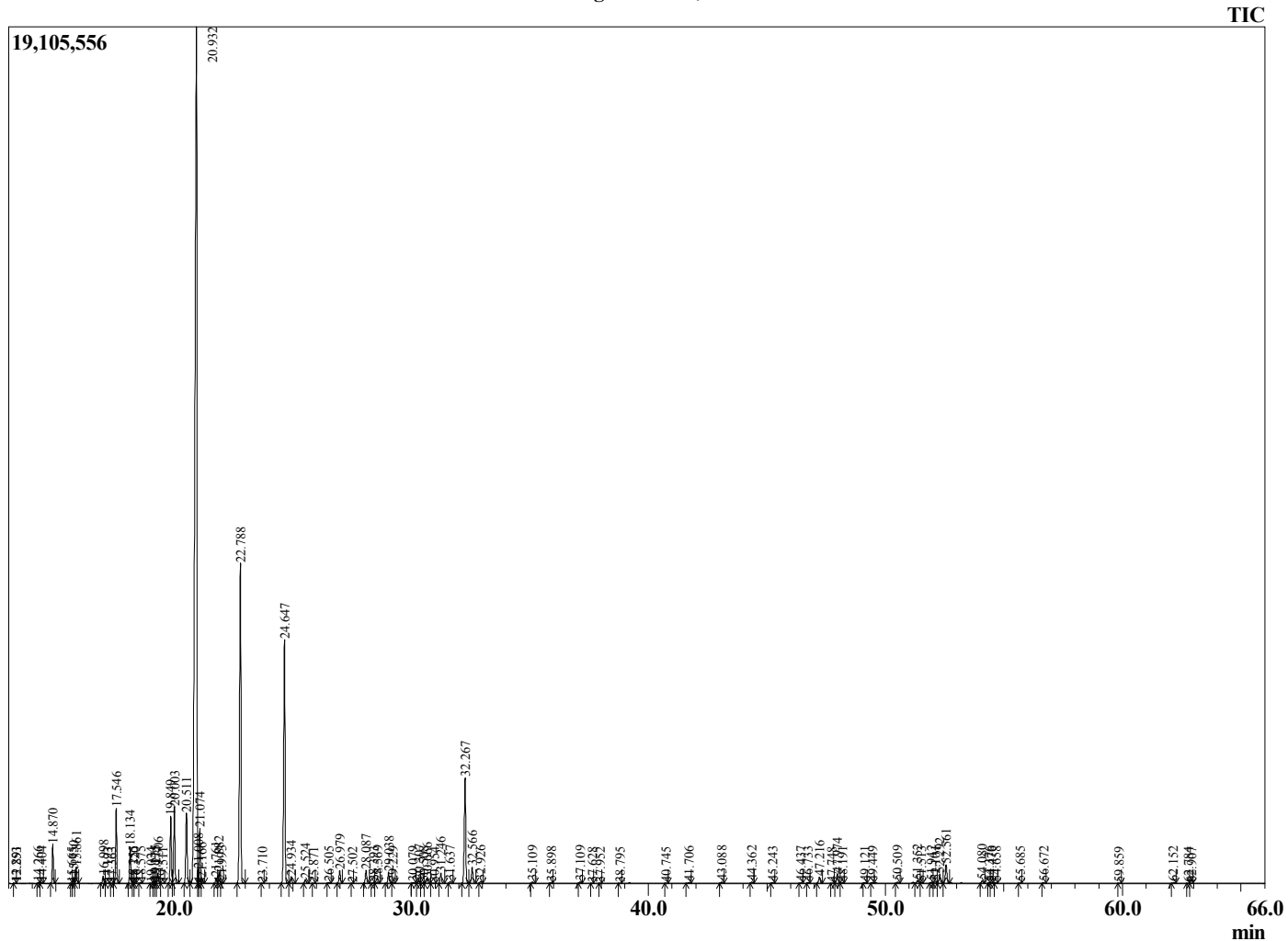
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 11/18/2020 10:37:08 AM
 Sample Type : Essential Oil
 Sample Name : Lime, Distilled - Barefut
 Sample ID : 0109
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
7.445	Limediene isomer	0.02
7.562	Limediene	0.12
8.020	Limediene isomer	0.02
12.891	Nonane	0.02
13.253	Unidentified	0.02
14.266	Tricyclene	0.02
14.404	alpha-Thujene	0.03
14.870	alpha-Pinene	1.21
15.665	Unidentified	0.01
15.750	alpha-Fenchene	0.20
15.861	Camphene	0.51
16.998	Bois de Rose oxide	0.26
17.193	Sabinene	0.02
17.363	Unidentified	0.01
17.546	beta-Pinene	2.49
18.134	Myrcene	1.23
18.255	Unidentified	0.02
18.320	Unidentified	0.01
18.575	Unidentified	0.03
19.024	Octanal	0.01
19.175	Pseudolimonene	0.03
19.215	Unidentified	0.06
19.306	alpha-Phellandrene	0.36
19.511	Unidentified	0.02
19.849	1,4-Cineole	2.40
20.003	alpha-Terpinene	2.68
20.511	para-Cymene	2.77
20.932	Limonene	49.61
21.008	beta-Phellandrene	0.26
21.074	1,8-cineole	1.70
21.166	(Z)-beta-Ocimene	0.16
21.761	2,2-dimethyl-, 5-(1-methyl-1-propenyl)-tetrah	0.18
21.882	(E)-beta-Ocimene	0.38
21.993	Cyclopentene, 3-isopropenyl-5,5-dimethyl-	0.04
22.788	gamma-Terpinene	12.70
23.710	Unidentified	0.01
24.647	Terpinolene	9.49
24.934	Dehydro-para-cymene	0.25
25.524	Linalool	0.16
25.871	Nonanal	0.01
26.505	Unidentified	0.03
26.979	alpha-Fenchol	0.49
27.502	allo-Ocimene	0.01
28.087	Terpin-3-en-1-ol	0.53
28.393	Unidentified	0.02
28.569	Unidentified	0.07
29.038	trans-beta-Terpineol	0.43
29.229	Unidentified	0.02
30.079	Isoborneol	0.04
30.307	Unidentified	0.10
30.508	delta-Terpineol	0.03
30.666	Borneol	0.19
30.954	Unidentified	0.03
31.246	Terpinen-4-ol	0.40
31.637	para-Cymen-8-ol	0.07
32.267	alpha-Terpineol	4.36
32.566	gamma-Terpineol	0.64
32.926	Decanal	0.08
35.109	Neral	0.06
35.898	Geraniol	0.02
37.109	Geraniol	0.06
37.628	Unidentified	0.01

Chromatogram Lime, Dstilled - Barefut



Comments:

The analysis of this Lime, Distilled batch sample meets the expected chemical profile for authentic essential oil of *Citrus aurantifolia*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
37.952	Unidentified	0.01
38.795	Unidentified	0.01
40.745	Unidentified	0.01
41.706	delta-Elemene	0.04
43.088	Neryl acetate	0.04
44.362	Geranyl acetate	0.05
45.243	beta-Elemene	0.03
46.437	Dodecanal	0.02
46.733	(Z)-alpha-Bergamotene	0.03
47.216	trans-beta-Caryophyllene	0.28
47.748	gamma-Elemene	0.02
47.974	(E)-alpha-Bergamotene	0.40
48.191	Unidentified	0.02
49.121	(E)-beta-Farnesene	0.03
49.449	alpha-Humulene	0.04
50.509	Unidentified	0.06
51.352	Unidentified	0.12
51.513	beta-Selinene	0.02
51.942	alpha-Selinene	0.04
52.101	(Z)-alpha-Bisabolene	0.06
52.292	(E,E)-alpha-Farnesene	0.37
52.561	beta-Bisabolene	0.78
54.080	Unidentified	0.11
54.376	Selina-4(15),7(11)-diene	0.02
54.476	Unidentified	0.03
54.658	Selina-3,7(11)-diene	0.02
55.685	Germacrene B	0.02
56.672	Caryophyllene alcohol	0.03
59.859	gamma-Eudesmol	0.02
62.152	Unidentified	0.03
62.784	cis-alpha-Bisabolol	0.02
62.907	trans-alpha-Bisabolol	0.02
		100.00