

Sample Information

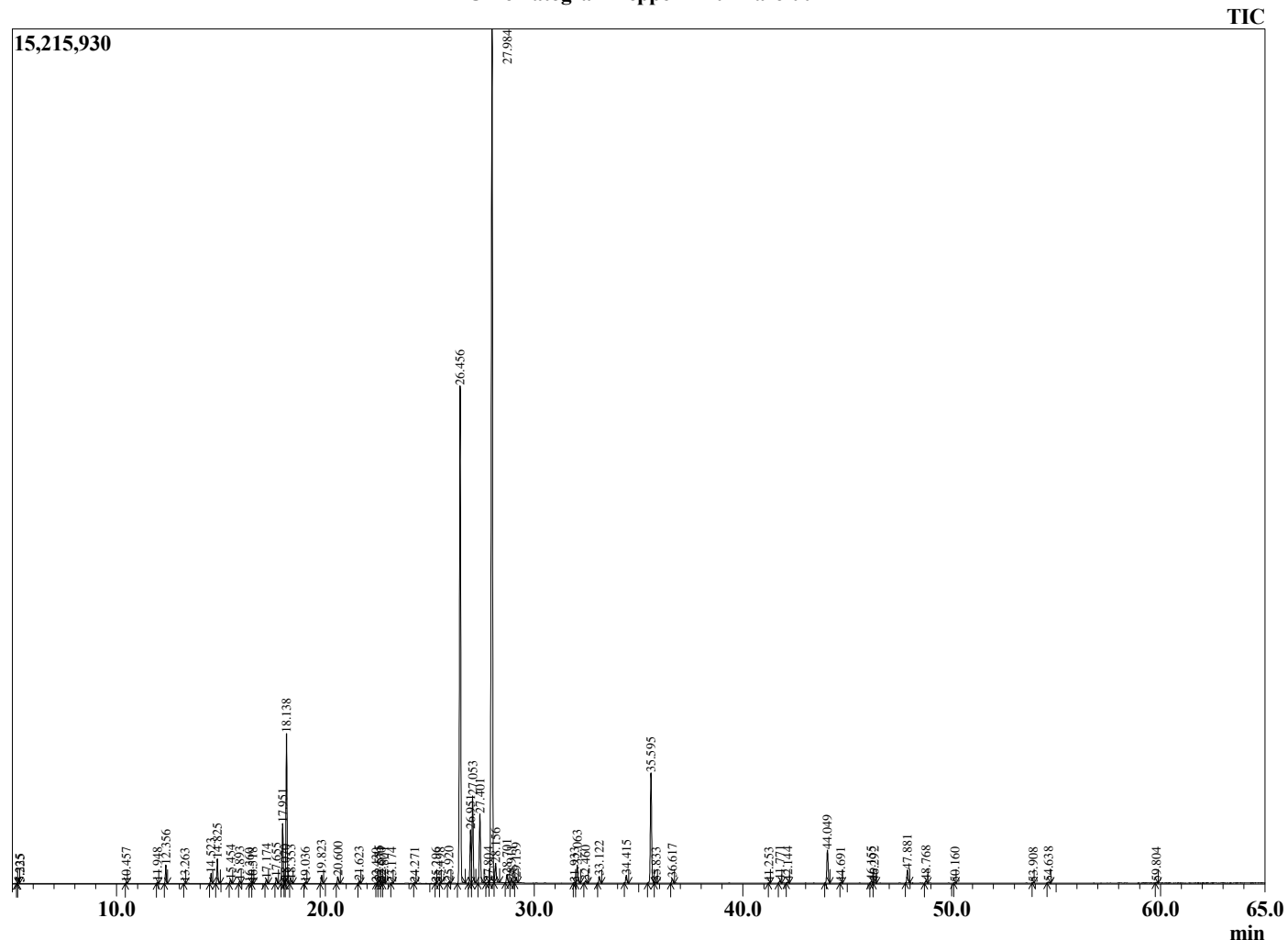
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/23/2021 1:29:28 AM
 Sample Type : Essential Oil
 Sample Name : Peppermint - Barefut
 Sample ID : 0117
 Injection Volume : 0.10
 Instrument ID: : GC-4



Peak Report TIC

R.Time	Name	Area%
4.084	3-Methylbutanal	0.01
4.185	2-Methylbutanal	0.01
5.235	1-Pentanol	0.01
5.325	2-Methyl butanol	0.01
10.457	2,5-Diethyltetrahydrofuran	0.02
11.948	alpha-Thujene	0.03
12.356	alpha-Pinene	0.64
13.263	Unidentified	0.01
14.523	Sabinene	0.37
14.825	beta-Pinene	0.94
15.454	Myrcene	0.15
15.893	3-Octanol	0.10
16.360	Pseudolimonene	0.00
16.518	alpha-Phellandrene	0.02
17.174	alpha-Terpinene	0.19
17.655	para-Cymene	0.24
17.951	Limonene	2.37
18.070	beta-Phellandrene	0.06
18.138	1,8-Cineole	6.04
18.353	(Z)-beta-Ocimene	0.14
19.036	(E)-beta-Ocimene	0.04
19.823	gamma-Terpinene	0.33
20.600	trans-Sabinene hydrate	0.28
21.623	Terpinolene	0.10
22.430	3-Nonanol	0.01
22.575	Linalool	0.12
22.670	cis-Sabinene hydrate	0.02
22.801	2-Methylbutyl-2-methylbutyrate	0.05
23.174	2-Methylbutyl isovalerate	0.02
24.271	Unidentified	0.02
25.296	Unidentified	0.01
25.498	cis-para-Menth-2-en-1-ol	0.01
25.920	Isopulegol	0.08
26.456	Menthone	22.67
26.951	Menthofuran	2.31
27.053	Isomenthone	3.94
27.401	Neomenthol	3.25
27.804	Unidentified	0.05
27.984	Menthol	43.36
28.156	Terpinen-4-ol	0.98
28.701	Isomenthol	0.39
28.911	Neoisomenthol	0.12
29.139	alpha-Terpineol	0.23
31.933	Hex-(3Z)-enyl isovalerate	0.03
32.063	Pulegone	0.86
32.460	Carvone	0.12
33.122	Piperitone	0.32
34.415	Neomenthol acetate	0.36
35.595	Menthyl acetate	5.39
35.833	Unidentified	0.04
36.617	Isomenthyl acetate	0.22
41.253	alpha-Copaene	0.01
41.771	beta-Bourbonene	0.11
42.144	beta-Elemene	0.05
44.049	trans-beta-Caryophyllene	1.70
44.691	Unidentified	0.02
46.155	(E)-beta-Farnesene	0.10
46.292	alpha-Humulene	0.07
47.881	Germacrene D	0.65
48.768	Bicyclogermacrene	0.12
50.160	delta-Cadinene	0.03
53.908	Caryophyllene oxide	0.02

Chromatogram Peppermint - Barefut



Comments:

The analysis of this Peppermint batch sample meets the expected chemical profile for authentic essential oil of *Mentha piperita*. 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%
54.638	Viridiflorol	0.06
59.804	alpha-Bisabolol	0.03
		100.00