

Sample Information

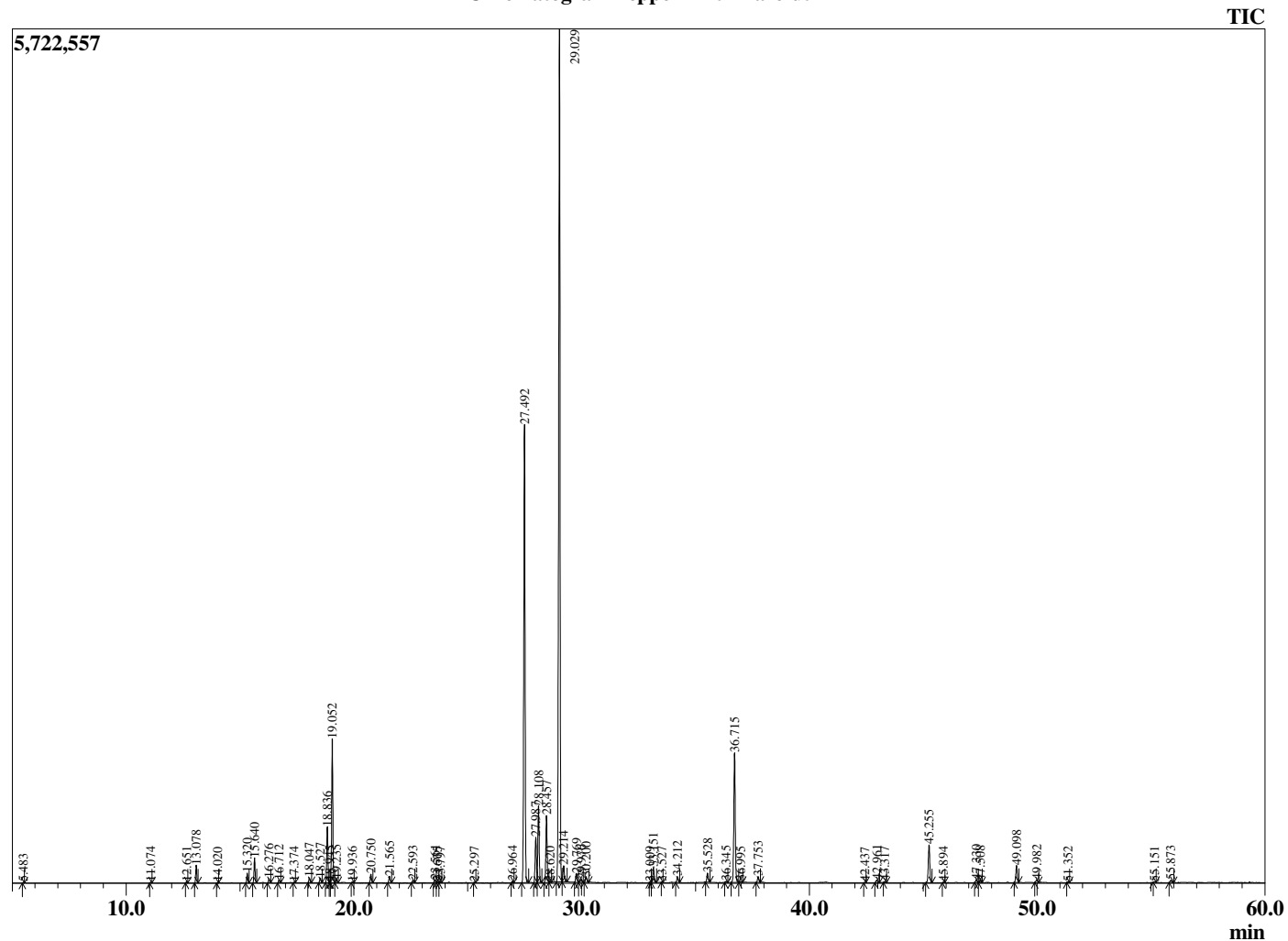
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 11/21/2019 3:30:27 PM
 Sample Type : Essential Oil
 Sample Name : Peppermint - Barefut
 Sample ID : 0114
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
4.250	3-Methylbutanal	0.02
4.362	2-Methylbutanal	0.01
5.483	1-Pentanol	0.02
11.074	2,5-Diethyltetrahydrofuran	0.04
12.651	alpha-Thujene	0.04
13.078	alpha-Pinene	0.66
14.020	Camphene	0.02
15.320	Sabinene	0.38
15.640	beta-Pinene	0.99
16.276	Myrcene	0.17
16.712	3-Octanol	0.12
17.374	alpha-Phellandrene	0.02
18.047	alpha-Terpinene	0.21
18.527	para-Cymene	0.21
18.836	Limonene	2.33
18.945	beta-Phellandrene	0.06
19.052	1,8-cineole	6.09
19.235	cis-beta-Ocimene	0.15
19.936	trans-beta-Ocimene	0.03
20.750	gamma-Terpinene	0.37
21.565	trans-Sabinene hydrate	0.31
22.593	Terpinolene	0.11
23.561	Linalool	0.13
23.675	cis-Sabinene hydrate	0.04
23.797	2-Methylbutyl-2-methylbutyrate	0.05
25.297	cis-para-Menth-2-en-1-ol	0.02
26.964	Neoisopulegol	0.06
27.492	Menthone	21.71
27.987	Menthofuran	2.15
28.108	Isomenthone	3.66
28.457	Neomenthol	3.14
28.620	Borneol	0.04
29.029	Menthol	42.61
29.214	Terpinen-4-ol	0.82
29.769	Isomenthol	0.45
29.976	Neoisomenthol	0.15
30.200	alpha-Terpineol	0.26
33.009	Hex-(3Z)-enyl isovalerate	0.02
33.151	Pulegone	0.72
33.527	Carvone	0.01
34.212	Piperitone	0.29
35.528	Neomenthyl acetate	0.44
36.345	Bornyl acetate	0.06
36.715	Menthyl acetate	6.74
36.995	Dihydroedulan I	0.05
37.753	Isomenthyl acetate	0.29
42.437	Unidentified	0.02
42.961	beta-Bourbonene	0.13
43.317	beta-Elementene	0.05
45.255	beta-Caryophyllene	2.06
45.894	beta-Copaene	0.02
47.330	trans-beta-Farnesene	0.15
47.508	alpha-Humulene	0.08
49.098	Germacrene D	0.88
49.982	Bicyclogermacrene	0.15
51.352	delta-Cadinene	0.04
55.151	Caryophyllene oxide	0.03
55.873	Viridiflorol	0.13
		100.00

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.