

Sample Information

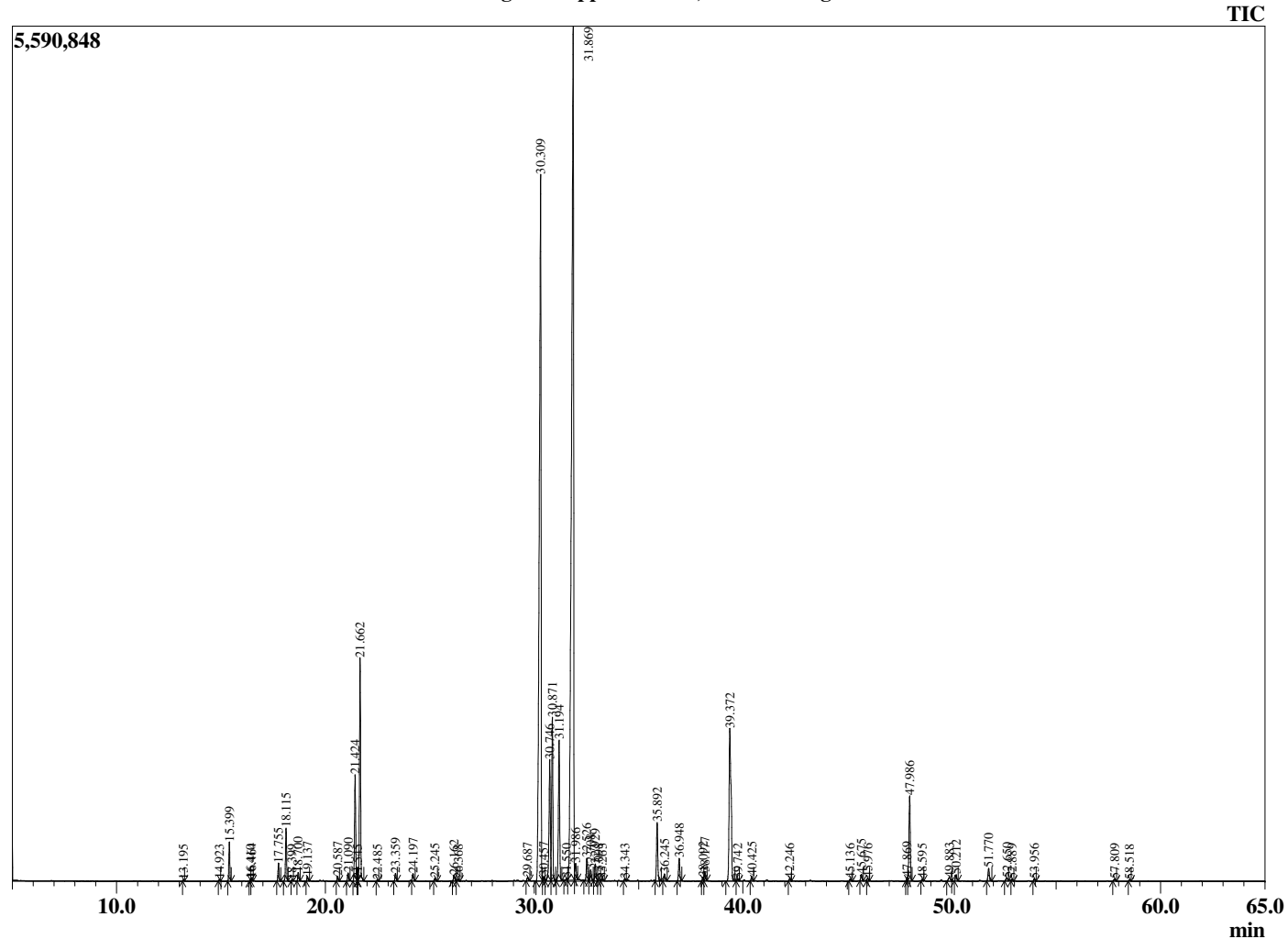
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 12/9/2018 11:08:24 PM
 Sample Type : Essential Oil
 Sample Name : Peppermint Oil, Certified Organic
 Sample ID : DOB0905B
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
13.195	2,5-Diethyltetrahydrofuran	0.02
14.923	alpha-Thujene	0.03
15.399	alpha-Pinene	0.79
16.410	Camphene	0.03
16.464	3-Methylcyclohexanone	0.06
17.755	Sabinene	0.39
18.115	beta-Pinene	1.17
18.399	3-Octanone	0.02
18.700	Myrcene	0.19
19.137	3-Octanol	0.10
20.587	alpha-Terpinene	0.10
21.090	para-Cymene	0.18
21.424	Limonene	2.50
21.545	beta-Phellandrene	0.03
21.662	1,8-Cineole	5.15
22.485	E-beta-Ocimene	0.03
23.359	gamma-Terpinene	0.18
24.197	trans-Sabinene hydrate	0.18
25.245	Terpinolene	0.07
26.162	Linalool	0.15
26.368	3-Methylbutyl-2-methylbutyrate	0.05
29.687	Isopulegol	0.09
30.309	Menthone	25.55
30.457	p-Menthan-4-ol	0.11
30.746	Menthofuran	3.31
30.871	iso-Menthone	3.99
31.194	neo-Menthol	3.71
31.550	trans-Isopulegone	0.05
31.869	Menthol	36.96
31.986	Terpinen-4-ol	0.47
32.526	iso-Menthol	0.54
32.708	neois-Menthol	0.27
32.929	alpha-Terpineol	0.46
33.098	Unidentified	0.08
33.263	Unidentified	0.06
34.343	1-Octen-3-yl-acetate	0.05
35.892	Pulegone	1.54
36.245	Carvone	0.19
36.948	Piperitone	0.58
38.092	1-Decanol	0.09
38.177	neo-Menthyl acetate	0.23
39.372	Menthyl acetate	6.20
39.742	Dihydroedulan I	0.04
40.425	iso-Menthyl acetate	0.12
42.246	delta-Elementene	0.07
45.136	alpha-Copaene	0.05
45.675	beta-Bourbonene	0.18
45.976	beta-Elementene	0.07
47.869	beta-Ylangene	0.09
47.986	beta-Caryophyllene	2.38
48.595	beta-Copaene	0.04
49.883	E-beta-Farnesene	0.15
50.212	alpha-Humulene	0.17
51.770	Germaacrene D	0.36
52.650	Bicyclogermaacrene	0.12
52.889	trans-Muurolo-4(14),5-diene	0.05
53.956	delta-Cadinene	0.05
57.809	Caryophyllene oxide	0.06
58.518	Viridiflorol	0.03
		100.00

Chromatogram Peppermint Oil, Certified Organic



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.