

Sample Information

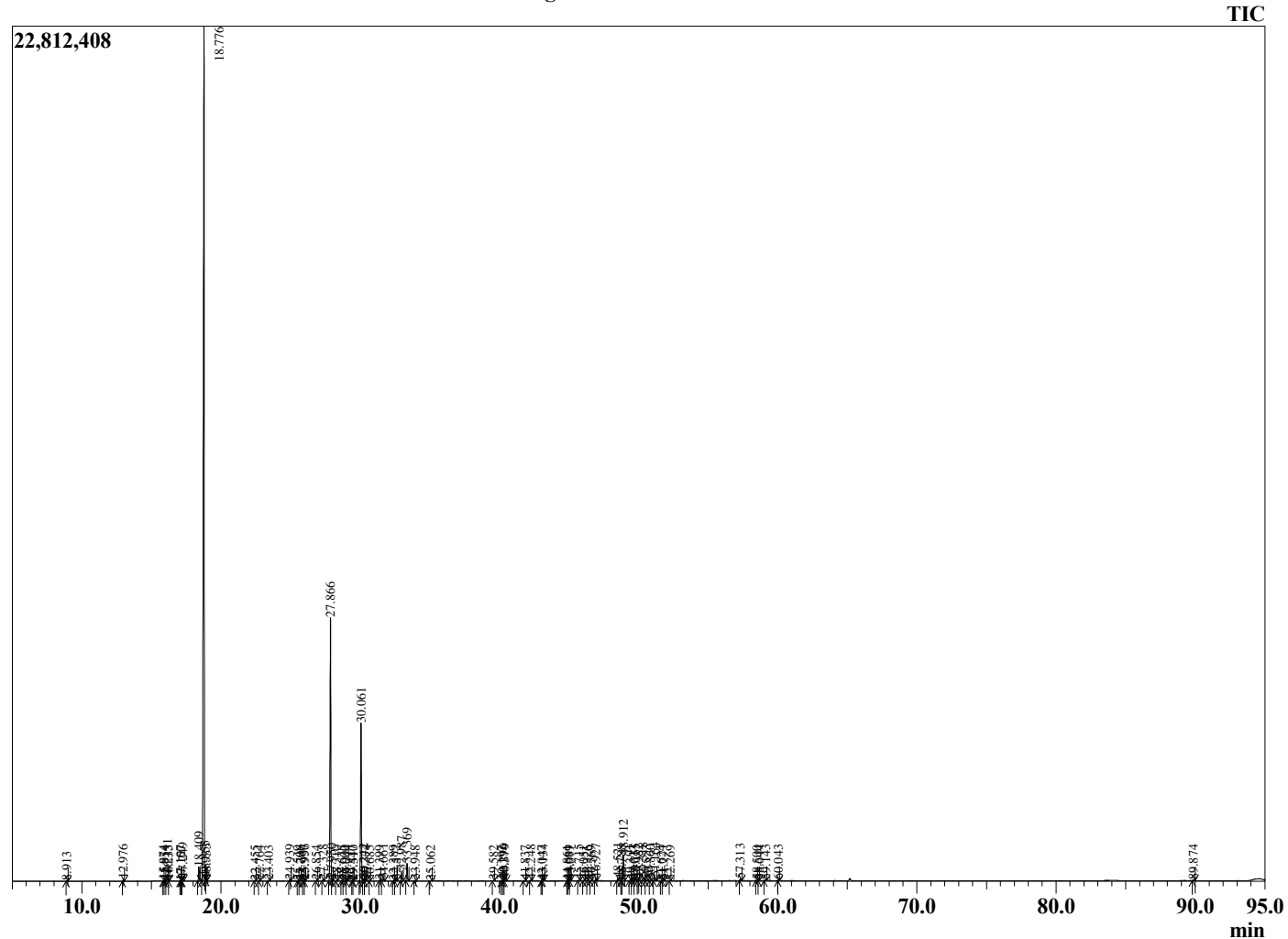
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 12/1/2020 8:12:46 AM  
 Sample Type : Essential Oil  
 Sample Name : Palo Santo Oil-Barefut  
 Sample ID : 0103  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
8.913	3-Methylcyclopentanone	0.02
12.976	alpha-Pinene	0.08
15.874	Unidentified	0.03
15.954	Unidentified	0.04
16.151	Myrcene	0.35
16.233	dehydro-1,8-Cineole	0.02
17.107	Pseudolimonene	0.01
17.157	Unidentified	0.02
17.249	alpha-Phellandrene	0.17
18.409	para-Cymene	0.78
18.776	Limonene	64.49
18.855	beta-Phellandrene	0.03
18.933	1,8-Cineole	0.04
22.455	Terpinolene	0.02
22.764	Dehydro-para-cymene	0.03
23.403	Linalool	0.04
24.939	cis-para-Mentha-2,8-dien-1-ol	0.07
25.549	4-Acetyl-1-methylcyclohexene	0.02
25.706	cis-Limonene oxide	0.03
25.957	trans-para-Mentha-2,8-dienol	0.06
25.996	trans-Limonene oxide	0.06
26.854	trans-beta-Terpineol	0.04
27.328	Menthone	0.07
27.866	Menthofuran	16.70
27.950	Isomenthone	0.08
28.310	delta-Terpineol	0.04
28.675	trans-Isopulegone	0.01
28.900	Unidentified	0.07
29.044	Terpinen-4-ol	0.03
29.447	Unidentified	0.01
29.510	Unidentified	0.01
30.061	alpha-Terpineol	10.18
30.242	cis-Dihydrocarvone	0.13
30.374	Unidentified	0.10
30.685	Unidentified	0.02
31.399	Unidentified	0.03
31.661	trans-Carveol	0.13
32.389	Unidentified	0.02
32.572	cis-Carveol	0.07
32.987	Pulegone	0.63
33.369	Carvone	1.10
33.948	Unidentified	0.03
35.062	Unidentified	0.03
39.582	delta-Elementene	0.03
40.192	Unidentified	0.02
40.296	Menthylactone isomer	0.08
40.379	Menthylactone isomer	0.11
41.837	alpha-Ylangene	0.02
42.248	alpha-Copaene	0.04
43.047	beta-Cubebene	0.01
43.134	beta-Elementene	0.07
44.861	Unidentified	0.01
44.989	beta-Ylangene	0.04
45.077	trans-beta-Caryophyllene	0.02
45.715	beta-Copaene	0.04
46.051	Unidentified	0.03
46.326	Unidentified	0.01
46.569	Unidentified	0.02
46.927	Alloaromadendrene	0.14
48.521	trans-Cadina-1(6),4-diene	0.18
48.788	Unidentified	0.02
48.912	Germacrene D	1.81

Chromatogram - Palo Santo Oil- Barefut



Comments:

The analysis of this Palo Santo batch sample meets the expected chemical profile for authentic essential oil of *Bursera graveolens*. 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%
49.391	Unidentified	0.04
49.617	trans-Murrola-4(14),5-diene	0.05
49.755	Menthalactone	0.19
49.982	alpha-Murolene	0.07
50.318	(E,E)-alpha-Farnesene	0.20
50.553	beta-Bisabolene	0.04
50.860	gamma-Cadinene	0.09
51.164	delta-Cadinene	0.24
51.624	Menthalactone isomer	0.02
51.777	Unidentified	0.05
52.269	Unidentified	0.01
57.313	Humulane-1,6-dien-3-ol	0.11
58.500	Unidentified	0.04
58.644	Unidentified	0.02
59.143	alpha-Cadinol	0.07
60.043	Unidentified	0.04
89.874	Unidentified	0.06
		100.00