

Sample Information

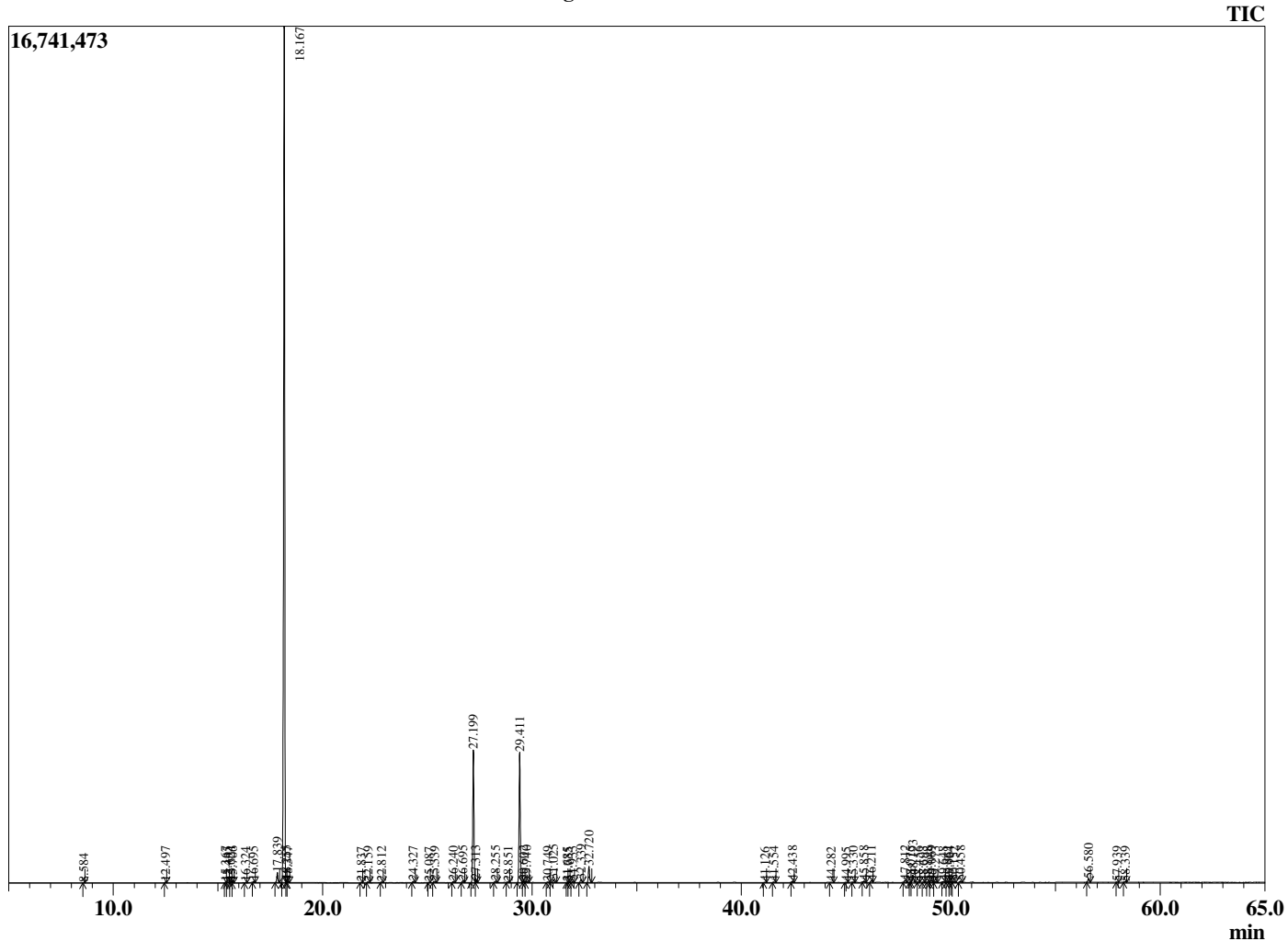
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 9/24/2019 8:16:23 PM  
 Sample Type : Essential Oil  
 Sample Name : Palo Santo - Barefut  
 Sample ID : 0102  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
8.584	3-Methylcyclopentanone	0.02
12.497	alpha-Pinene	0.06
15.367	Unidentified	0.06
15.445	Cyclohexyl methyl ketone	0.07
15.621	Myrcene	0.13
15.706	dehydro-1,8-Cineole	0.07
16.324	Unidentified	0.03
16.695	alpha-Phellandrene	0.10
17.839	para-Cymene	0.83
18.167	Limonene	69.35
18.255	beta-Phellandrene	0.12
18.347	1,8-Cineole	0.08
21.837	Terpinolene	0.03
22.159	para-Cymenene	0.07
22.812	Linalool	0.06
24.327	trans-para-Mentha-2,8-dienol	0.11
25.087	cis-Limonene oxide	0.02
25.339	cis-para-Mentha-2,8-dien-1-ol	0.15
26.240	trans-beta-Terpineol	0.10
26.695	Menthone	0.17
27.199	Menthofuran	11.17
27.313	Isomenthone	0.17
28.255	Unidentified	0.16
28.851	Unidentified	0.07
29.411	alpha-Terpineol	11.22
29.602	(Z)-Dihydrocarvone	0.14
29.740	cis-Piperitol	0.15
30.749	Unidentified	0.07
31.025	trans-Carveol	0.32
31.685	Unidentified	0.03
31.735	Unidentified	0.03
31.933	cis-Carveol	0.11
32.339	Pulegone	0.27
32.720	Carvone	1.44
41.126	Isoledene	0.04
41.554	alpha-Copaene	0.06
42.438	beta-Elemene	0.13
44.282	beta-Ylangene	0.05
44.995	beta-Copaene	0.04
45.330	cis-Thujopsene	0.06
45.858	Unidentified	0.14
46.211	Unidentified	0.18
47.812	trans-Cadina-1(6),4-diene	0.20
48.075	alpha-Amorphene	0.03
48.193	Germacrene D	0.73
48.456	Unidentified	0.03
48.693	beta-Selinene	0.04
48.898	trans-Murrola-4(14),5-diene	0.03
49.069	Menthylactone	0.19
49.273	alpha-Murolene	0.09
49.648	(E,E)-alpha-Farnesene	0.08
49.861	beta-Bisabolene	0.16
49.964	Dihydroagarofuran	0.11
50.152	gamma-Cadinene	0.10
50.458	delta-Cadinene	0.13
56.580	Humulane-1,6-dien-3-ol	0.34
57.939	Unidentified	0.02
58.339	Valerianol	0.06
		100.00

Chromatogram Palo Santo - 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.