

Sample Information

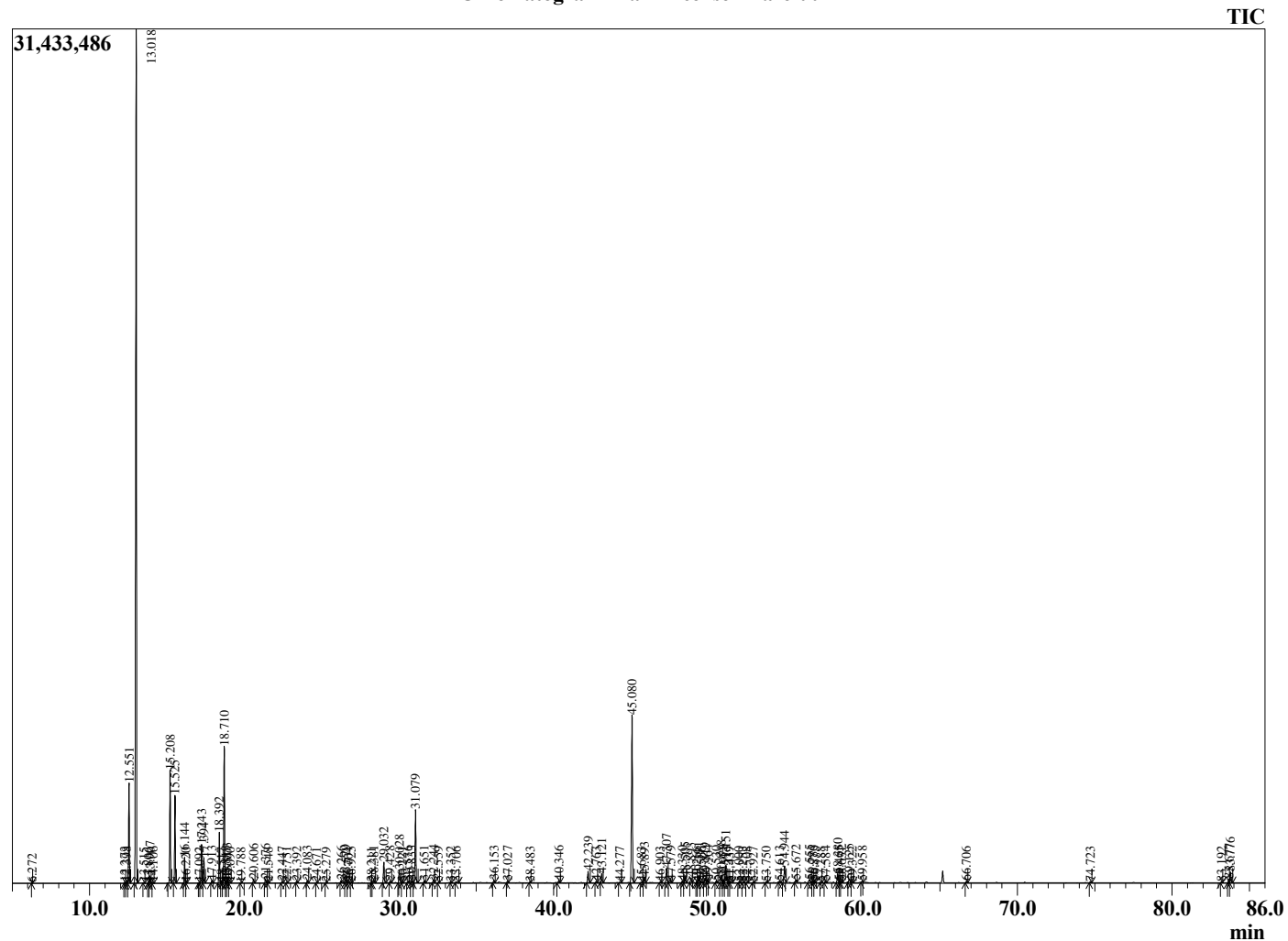
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 11/19/2020 11:33:06 PM
 Sample Type : Essential Oil
 Sample Name : Frankincense - Barefut
 Sample ID : 0109
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
6.272	Toluene	0.01
12.273	Hashishene	0.04
12.398	Tricyclene	0.06
12.551	alpha-Thujene	4.23
13.018	alpha-Pinene	43.82
13.515	Unidentified	0.04
13.806	alpha-Fenchene	0.02
13.907	Camphene	0.30
14.106	Thuja-2,4(10)diene	0.05
15.208	Sabinene	4.93
15.525	beta-Pinene	3.83
16.144	Myrcene	1.10
16.220	Unidentified	0.02
17.092	Pseudolimonene	0.03
17.243	alpha-Phellandrene	1.78
17.394	delta-3-Carene	1.13
17.913	alpha-Terpinene	0.13
18.392	para-Cymene	2.42
18.517	Unidentified	0.03
18.710	Limonene	6.55
18.813	beta-Phellandrene	0.09
18.903	1,8-Cineole	0.23
19.090	(Z)-beta-Ocimene	0.03
19.788	(E)-beta-Ocimene	0.01
20.606	gamma-Terpinene	0.20
21.376	Octanol	0.21
21.548	Pinol	0.04
22.447	Terpinolene	0.07
22.751	Dehydro-para-cymene	0.04
23.392	Linalool	0.07
24.083	Thujol	0.14
24.671	alpha-Thujone	0.02
25.279	alpha-Campholenal	0.03
26.266	trans-Pinocarveol	0.14
26.579	trans-Verbenol	0.15
26.704	Camphor	0.03
26.925	alpha-Phellandrene-8-ol	0.06
28.211	Unidentified	0.02
28.381	para-Mentha-1,5-dien-8-ol	0.14
29.032	Terpinen-4-ol	1.12
29.428	para-Cymen-8-ol	0.08
30.028	alpha-Terpineol	0.81
30.221	Methyl chavicol	0.04
30.576	alpha-Phellandrene epoxide	0.09
30.833	Verbenone	0.13
31.079	Octyl acetate	3.94
31.651	trans-Carveol	0.12
32.244	1-Methoxydecane	0.17
32.559	cis-Carveol	0.05
33.352	Carvone	0.05
33.706	Carvotanacetone	0.08
36.153	Bornyl acetate	0.13
37.027	Carvacrol	0.07
38.483	Unidentified	0.05
40.346	alpha-Cubebene	0.14
42.239	alpha-Copaene	0.67
42.763	beta-Bourbonene	0.07
43.121	beta-Elemene	0.49
44.277	alpha-Gurjunene	0.05
45.080	trans-beta-Caryophyllene	10.10
45.683	beta-Copaene	0.04
45.893	trans-alpha-Bergamotene	0.32

Chromatogram Frankincense - Barefut



Comments:

The analysis of this Frankincense batch sample meets the expected chemical profile for authentic essential oil of *Boswellia carterii*. 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%
46.903	trans-Murrola-3,5-diene	0.05
47.307	alpha-Humulene	0.85
47.579	Alloaromadendrene	0.13
48.330	10-beta-H-Cadina-1(6),4-diene	0.11
48.505	trans-Cadina-1(6),4-diene	0.33
48.893	Germacrene D	0.27
49.266	Unidentified	0.05
49.391	beta-Selinene	0.34
49.566	trans-Muurolo-4(14),5-diene	0.12
49.819	alpha-Selinene	0.30
49.964	alpha-Murolene	0.15
50.530	beta-Bisabolene	0.10
50.848	gamma-Cadinene	0.42
50.978	Cubedol	0.18
51.151	delta-Cadinene	1.09
51.339	cis-Calamenene	0.07
51.437	Zonarene	0.07
52.000	trans-Cadina-1,4-diene	0.05
52.253	Unidentified	0.05
52.508	alpha-Calacorene	0.05
52.927	Elemol	0.05
53.750	Unidentified	0.05
54.613	Spathulenol	0.09
54.944	Caryophyllene oxide	1.08
55.672	Viridiflorol	0.15
56.555	Humulene epoxide II	0.22
56.786	Unidentified	0.10
56.873	Unidentified	0.09
57.288	Humulane-1,6-dien-3-ol	0.03
57.584	1-epi-Cubenol	0.08
58.380	alpha-Muurolol	0.63
58.465	alpha-Cadinol	0.06
58.631	delta-Cadinol	0.07
59.125	alpha-Cadinol	0.25
59.322	Unidentified	0.05
59.958	Unidentified	0.07
66.706	alpha-Phellandrene dimer	0.06
74.723	beta-Elmene dimer	0.06
83.192	Cembrenol	0.05
83.677	Incensole	0.22
83.776	Serratol	0.70
		100.00