

Sample Information

Analyzed by : Dr. Robert S. Pappas
 Analyzed : 11/15/2018 9:40:14 PM
 Sample Type : Essential Oil
 Sample Name : Turmeric Oil, India
 Sample ID : Barefut-0108
 Injection Volume : 0.10
 Instrument ID : GC-3

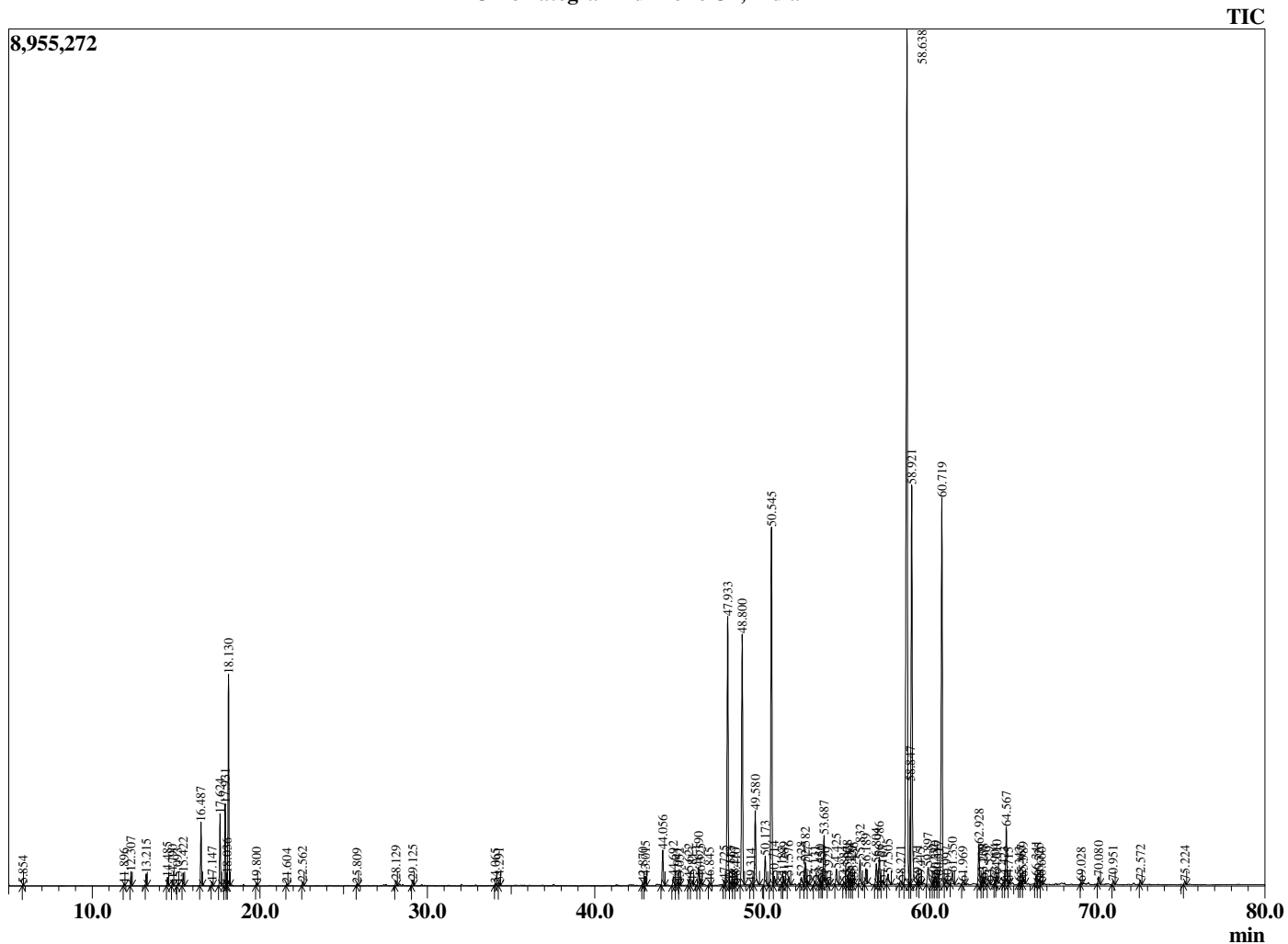


Peak Report TIC

R.Time	Name	Area%
5.854	Toluene	0.02
11.896	alpha-Thujene	0.03
12.307	alpha-Pinene	0.23
13.215	Camphene	0.20
14.485	Sabinene	0.15
14.790	beta-Pinene	0.11
15.093	6-Methyl hept-5-en-2-one	0.03
15.422	Myrcene	0.23
16.487	alpha-Phellandrene	1.17
17.147	alpha-Terpinene	0.07
17.624	para-Cymene	1.33
17.931	Limonene	1.58
18.036	beta-Phellandrene	0.19
18.130	1,8-Cineole	4.08
19.800	gamma-Terpinene	0.05
21.604	Terpinolene	0.03
22.562	Linalool	0.06
25.809	Camphor	0.04
28.129	Terpinen-4-ol	0.11
29.125	alpha-Terpineol	0.12
34.065	Geranial	0.03
34.291	Unidentified	0.06
42.870	Unidentified	0.06
43.015	Sesquithujene isomer	0.21
44.056	alpha-Santalene	0.91
44.692	gamma-Elementene	0.22
44.941	trans-alpha-Bergamotene	0.08
45.052	Unidentified	0.04
45.622	Unidentified	0.15
45.813	beta-Santalene	0.11
46.190	trans-beta-Farnesene	0.45
46.325	alpha-Humulene	0.17
46.845	alpha-Acoradiene	0.06
47.725	gamma-Curcumene	0.10
47.933	Ar-Curcumene	6.79
48.113	Farnesene isomer	0.08
48.297	Unidentified	0.10
48.410	beta-Selinene	0.04
48.800	alpha-Zingiberene	6.29
49.314	Unidentified	0.08
49.580	beta-Bisabolene	1.93
50.173	alpha-Teresantalic acid	0.75
50.545	beta-Sesquiphellandrene	9.13
50.714	(E)-gamma-Bisabolene	0.31
51.187	Unidentified	0.06
51.289	Eremophilene isomer	0.19
51.576	Selina-3,7(11)-diene	0.24
52.328	cis-Sesquisabinene hydrate	0.24
52.582	Germacrene B	0.56
52.717	Unidentified	0.09
53.131	Unidentified	0.10
53.450	Unidentified	0.11
53.554	Unidentified	0.08
53.687	Unidentified	1.30
53.929	Caryophyllene oxide	0.05
54.425	Unidentified	0.48
54.884	Unidentified	0.07
55.078	Unidentified	0.23
55.214	Unidentified	0.16
55.329	Unidentified	0.09
55.436	Unidentified	0.17
55.832	Zingiberenol	0.62

This report is valid for 1 year from the analyzed date.

Chromatogram Turmeric Oil, India



Comments:

The analysis of this Turmeric batch sample meets the expected chemical profile for authentic essential oil of *Curcuma longa*. No contamination or adulteration was detected.

R.Time	Name	Area%
56.189	(anti-syn-syn)-Helifolen-12-al C	0.38
56.804	Unidentified	0.57
56.986	Unidentified	0.73
57.163	Unidentified	0.12
57.505	Unidentified	0.33
58.271	Unidentified	0.11
58.638	Ar-Tumerone	25.96
58.847	allo-Himachalol	1.73
58.921	Tumerone	10.79
59.271	Unidentified	0.07
59.415	(Z)-alpha-Santalol	0.05
59.897	11-alpha-H-Himachal-4-en-1-beta-ol + Unide	0.68
60.232	Germacrone	0.13
60.340	Unidentified	0.23
60.517	Unidentified	0.22
60.719	Curlone	10.13
60.997	Unidentified	0.09
61.350	Curcuphenol	0.36
61.969	(Z)-Nuciferol	0.09
62.928	Unidentified	1.03
63.139	Unidentified	0.13
63.208	Unidentified	0.10
63.529	Unidentified	0.09
63.904	Unidentified	0.10
64.010	Unidentified	0.20
64.423	Unidentified	0.07
64.567	(E)-alpha-Atlantone	1.47
64.715	Unidentified	0.04
65.343	Unidentified	0.04
65.467	Unidentified	0.11
65.589	Unidentified	0.16
66.341	Unidentified	0.18
66.525	Unidentified	0.19
66.660	Unidentified	0.06
69.028	Unidentified	0.04
70.080	Unidentified	0.18
70.951	Unidentified	0.09
72.572	Unidentified	0.09
75.224	Unidentified	0.09
		100.00