

Sample Information

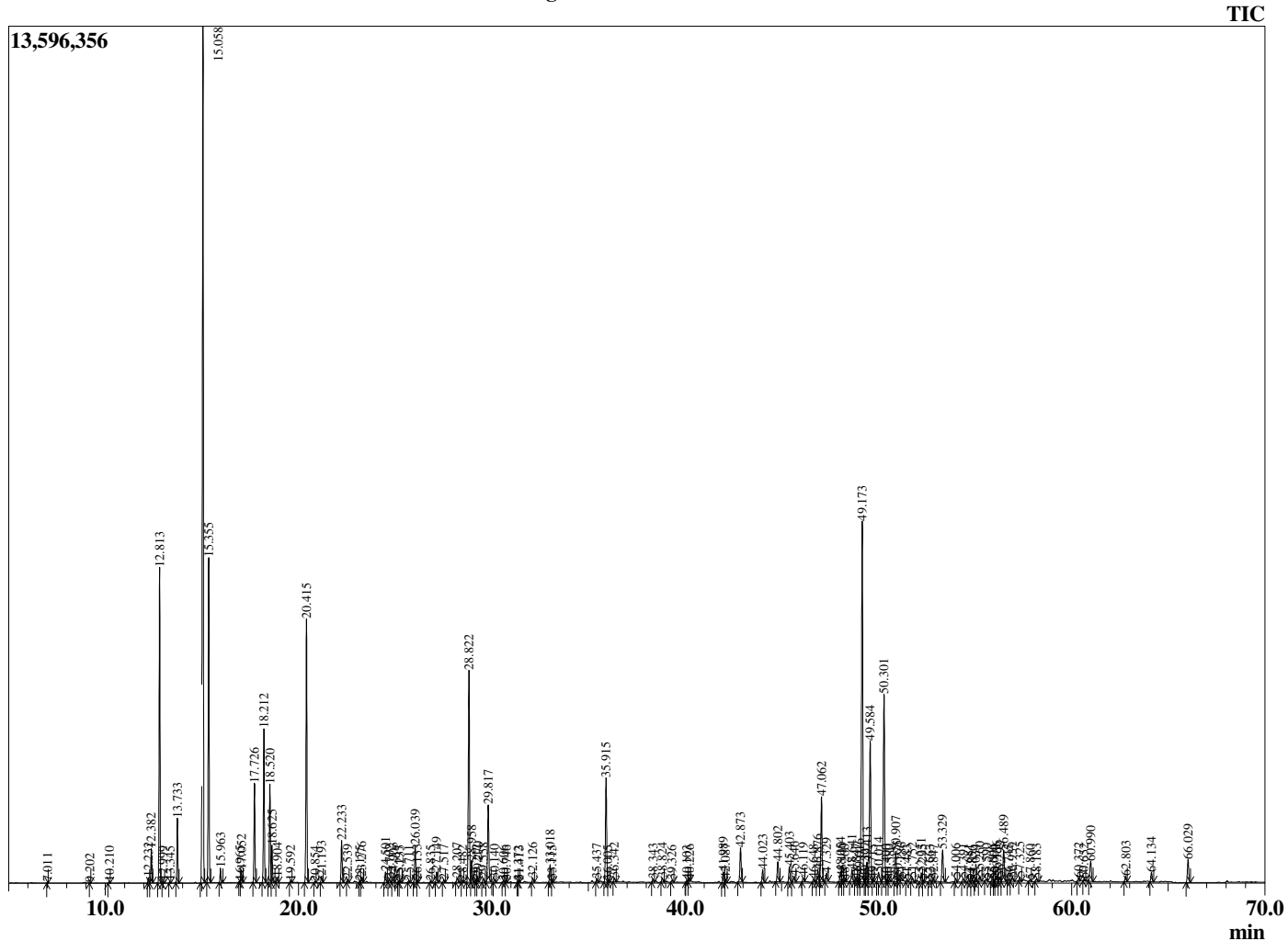
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 3/7/2021 12:15:02 AM
 Sample Type : Essential Oil
 Sample Name : Ledum - Eden's Garden
 Sample ID : BB22AO
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
7.011	Octane	0.01
9.202	Unidentified	0.01
10.210	Unidentified	0.03
12.232	Tricyclene	0.10
12.382	alpha-Thujene	0.63
12.813	alpha-Pinene	6.02
12.999	Unidentified	0.03
13.345	Thujadiene isomer	0.03
13.733	Camphene	1.25
15.058	Sabinene	19.84
15.355	beta-Pinene	6.54
15.963	Myrcene	0.30
16.965	Unidentified	0.03
17.052	alpha-Phellandrene	0.25
17.726	alpha-Terpinene	2.10
18.212	para-Cymene	3.27
18.520	Limonene	2.16
18.625	beta-Phellandrene	0.78
18.904	(Z)-beta-Ocimene	0.11
19.592	(E)-beta-Ocimene	0.04
20.415	gamma-Terpinene	5.96
20.854	Unidentified	0.02
21.193	trans-Sabinene hydrate	0.14
22.233	Terpinolene	0.95
22.539	para-Cymenene	0.07
23.175	Linalool	0.04
23.276	cis-Sabinene hydrate	0.13
24.501	Unidentified	0.25
24.702	trans-para-Mentha-2,8-dienol	0.07
24.903	cis-para-Mentha-2-en-1-ol	0.10
25.197	Unidentified	0.02
25.235	Unidentified	0.06
25.711	Unidentified	0.05
26.039	trans-Pinocarveol	0.91
26.133	Unidentified	0.05
26.835	Unidentified	0.05
27.149	Sabina ketone	0.25
27.517	Pinocarvone	0.07
28.207	Borneol	0.13
28.482	Isopinocampnone	0.04
28.822	Terpinen-4-ol	5.31
28.958	alpha-Thujenal	0.52
29.212	Unidentified	0.04
29.270	trans-para-mentha-1(7),8-dien-2-ol	0.13
29.558	Unidentified	0.11
29.817	Myrtenal	2.11
30.140	cis-Piperitol	0.07
30.606	Unidentified	0.03
30.746	trans-Piperitol	0.03
31.372	Unidentified	0.02
31.413	trans-Carveol	0.02
32.126	cis-para-mentha-1(7),8-dien-2-ol	0.10
33.018	Cuminal	0.45
33.115	Carvone	0.04
35.437	Phellandral	0.08
35.915	Bornyl acetate	2.71
36.005	para-Mentha-1,3-dien-7-ol	0.03
36.342	Cumin alcohol	0.11
38.343	Unidentified	0.08
38.824	Unidentified	0.11
39.326	delta-Elementene	0.05
40.103	alpha-Cubebene	0.05

Chromatogram Ledum - Eden's Garden



Comments:

The analysis of this Ledum batch sample meets the expected chemical profile for authentic essential oil of *Ledum groenlandicum*. 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%
40.226	Citronellyl acetate	0.04
41.989	alpha-Copaene	0.30
42.087	Geranyl acetate	0.08
42.873	beta-Elemene	0.93
44.023	alpha-Gurjunene	0.34
44.802	trans-beta-Caryophyllene	0.56
45.403	gamma-Elemene	0.43
45.646	trans-alpha-Bergamotene	0.16
46.119	Unidentified	0.10
46.648	trans-Murrola-3,5-diene	0.07
46.876	(Z)-beta-Farnesene	0.34
47.062	alpha-Humulene	2.34
47.329	Alloaromodendrene	0.22
48.054	Unidentified	0.33
48.110	Unidentified	0.06
48.260	trans-Cadina-1(6),4-diene	0.05
48.641	Germacrene D	0.35
48.847	Unidentified	0.07
49.016	3,5,11-Eudesmatriene	0.20
49.173	beta-Selinene	10.59
49.327	Unidentified	0.09
49.413	Curzerene	0.56
49.584	alpha-Selinene	4.00
49.715	alpha-Murolene	0.06
50.014	Unidentified + (E,E)-alpha-Farnesene	0.34
50.301	beta-Bisabolene	5.33
50.400	Unidentified	0.04
50.580	Unidentified	0.05
50.907	delta-Cadinene	0.85
50.975	(-)-alpha-Panasinsen	0.05
51.186	Zonarene	0.07
51.483	Unidentified	0.06
51.752	trans-Cadina-1,4-diene	0.11
52.231	(E)-alpha-Bisabolene	0.28
52.295	Selina-3,7(11)-diene	0.03
52.663	alpha-Elemol	0.06
52.847	Unidentified	0.07
53.329	Germacrene B	0.93
54.006	Palustrol	0.10
54.391	Unidentified	0.09
54.681	Caryophyllene oxide	0.07
54.856	Unidentified	0.04
55.034	Unidentified	0.05
55.260	Unidentified	0.14
55.590	Unidentified	0.07
55.896	Unidentified	0.07
56.004	Unidentified	0.05
56.136	Unidentified	0.20
56.292	Humulene epoxide II	0.17
56.489	Rosifoliol	1.00
56.745	Unidentified	0.06
56.939	Unidentified	0.11
57.325	1-epi-Cubenol	0.09
57.860	Unidentified	0.05
58.183	Unidentified	0.08
60.372	Unidentified	0.09
60.652	Unidentified	0.05
60.990	Germacrone	0.66
62.803	Unidentified	0.15
64.134	Unidentified	0.26
66.029	Unidentified	0.65

100.00