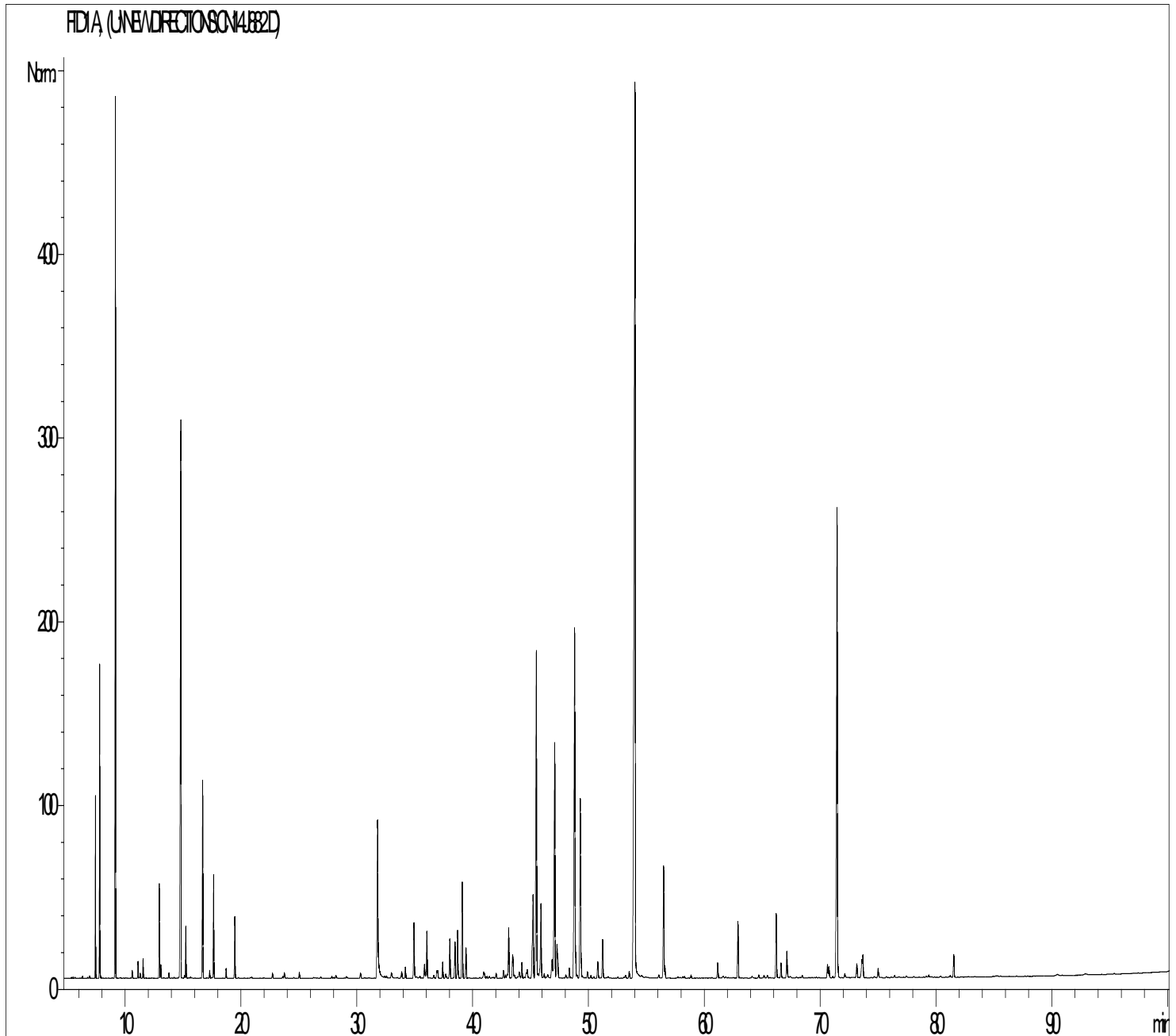




GCMS ANALYSIS

PRODUCT NAME: CITRONELLA CEYLON ESSENTIAL OIL - 11036

DATE: January 19, 2017



Due to volume turnover, this report is not lot specific. It is representative of the quality of this oil produced by the manufacturer of this product. Specific lots may vary slightly as is the case in natural products.

GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CITRONELLA CEYLON ESSENTIAL OIL - 11036

Peak	RT (min)	COMPONENT name	%
1	4,6	ACETONE	0,01
2	6,9	TERPENE ISOMER	0,02
3	7,4	TRICYCLENE	1,32
4	7,7	α -PINENE	2,34
5	7,8	α -THUYENE	0,02
6	9,1	CAMPHENE	8,51
7	10,6	β -PINENE	0,07
8	11,1	SABINENE	0,15
9	11,3	PINADIENE	0,05
10	11,5	Δ 2-CARENE	0,18
11	12,9	β -MYRCENE	0,93
12	13,0	α -PHELLANDRENE	0,13
13	13,8	α -TERPINENE	0,06
14	14,8	LIMONENE	7,62
15	15,1	1,8-CINEOLE	0,03
16	15,2	β -PHELLANDRENE	0,55
17	15,6	MENTHATRIENE ISOMER	0,01
18	16,6	Cis- β -OCIMENE	2,24
19	17,3	γ -TERPINENE	0,08
20	17,6	Trans- β -OCIMENE	1,15
21	18,7	p-CYMENE	0,11
22	19,5	TERPINOLENE	0,73
23	22,7	6-METHYL-5-HEPTEN-2-ONE	0,06
24	23,6	ROSE Cis-OXIDE	0,03
25	23,7	5-HEPTANAL, 2,6-DIMETHYL-	0,08
26	24,5	ROSE Trans-OXIDE	0,02
27	25,0	ALLO-OCIMENE ISOMER	0,07
28	26,8	GALBANOLENE	0,03
29	27,8	Cis-p-MENTHANE-8-OL	0,04
30	28,0	PERILLENE	0,02
31	28,2	Trans-p-MENTHANE-8-OL	0,06
32	29,0	α ,p-DIMETHYLSTYRENE	0,03

Disclaimer & Caution

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CITRONELLA CEYLON ESSENTIAL OIL - 11036

Peak	RT (min)	COMPONENT name	%
33	29,2	LINALOOL-Cis-OXIDE	0,01
34	30,3	CAMPHENILONE	0,09
35	30,6	α -CUBEBENE	0,02
36	31,8	CITRONELLAL	3,07
37	32,5	α -COPAENE	0,05
38	32,9	DECANAL	0,13
39	33,8	CAMPHOR	0,11
40	34,1	β -BOURBONENE	0,17
41	34,9	CAMPHOLENIC ALCOHOL	0,87
42	35,4	γ -MUUROLENE	0,05
43	35,8	TERPENIC ALCOHOL	0,24
44	36,0	LINALOOL	0,65
45	36,9	LINALYL ACETATE	0,11
46	37,0	NEOISOPULEGOL	0,11
47	37,4	ISOPULEGOL	0,23
48	37,6	ϵ -CADINENE	0,09
49	38,0	BORNYL ACETATE	0,58
50	38,4	α -trans-BERGAMOTENE	0,54
51	38,6	β -ELEMENE	0,74
52	39,1	CAMPHENE HYDRATE + β -CARYOPHYLLENE	1,51
53	39,4	TERPINENE-4-OL	0,42
54	40,9	cis-p-MENTH-2-EN-1-OL	0,11
55	41,0	DEHYDROSABINAKETONE	0,06
56	41,2	SESQUITERPENE	0,03
57	41,4	SESQUITERPENE	0,03
58	42,0	FARNESENE ISOMERE	0,08
59	42,6	5-HEPTEN-1-OL-2,6-DIMETHYL	0,12
60	42,8	SESQUITERPENE	0,05
61	42,9	ZONARENE	0,06
62	43,1	CITRONELLYL ACETATE	0,75
63	43,4	α -HUMULENE	0,35
64	43,4	Z- β -FARNESENE	0,15

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CITRONELLA CEYLON ESSENTIAL OIL - 11036

Peak	RT (min)	COMPONENT name	%
65	44,0	VERBENOL	0,16
66	44,2	NERAL	0,24
67	44,6	ALIPHATIC ESTER	0,08
68	44,7	γ -MUUROLENE	0,14
69	45,1	α -TERPINEOL	0,39
70	45,2	TERPENYL ACETATE	1,19
71	45,5	BORNEOL	5,46
72	45,9	GERMACRENE D	1,33
73	46,1	Cis-PIPERITOL + β -SELINENE	0,08
74	46,5	PIPERITONE + α -SELINENE	0,08
75	46,8	α -MUUROLENE	0,36
76	47,0	Z,E-FARNESENE	4,13
77	47,3	GERANIAL	0,76
78	48,0	Trans-PIPERITOL	0,05
79	48,3	α -FARNESENE	0,15
80	48,8	GERANYL ACETATE	6,26
81	49,3	CITRONELLOL	2,80
82	49,4	ALIPHATIC ESTER	0,18
83	49,9	CADINA-1,4-DIENE + ALIPHATIC ESTER	0,10
84	50,8	MYRTENOL + CADINENE ISOMER	0,28
85	51,2	NEROL + CITRONELLYL ISOVALERATE	0,61
86	53,1	CALAMENENE	0,05
87	53,5	ALIPHATIC ESTER	0,11
88	54,0	GERANIOL	21,12
89	54,5	p-CYMENE-8-OL	0,11
90	56,0	Epi-CUBEBOL	0,06
91	56,5	GERANYL BUTYRATE	1,70
92	56,6	ALIPHATIC ESTER	0,16
93	58,8	CUBEBOL	0,05
94	61,1	CARYOPHYLLENE EPOXIDE	0,25
95	61,6	CITRONELIC ESTER	0,05
96	62,8	E-METHYLEUGENOL	0,85

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CITRONELLA CEYLON ESSENTIAL OIL - 11036

Peak	RT (min)	COMPONENT name	%
97	64,1	EPOXY-6,7-HUMULENE	0,05
98	64,6	ALIPHATIC ESTER	0,05
99	65,1	Epi-CUBENOL	0,05
100	65,5	CUBENOL	0,05
101	66,2	ELEMOL	0,97
102	66,6	GERANYL CAPROATE	0,22
103	67,1	Z-METHYLEUGENOL	0,44
104	68,8	TRIMETHYL-PENTADECANONE	0,04
105	70,6	10-epi- γ -EUDESMOL	0,21
106	70,7	T-CADINOL	0,19
107	71,5	METHYLISOEUGENOL	8,41
108	72,1	CADINOL ISOMER	0,08
109	73,1	α -EUDESMOL	0,24
110	73,6	β -EUDESMOL	0,31
111	73,7	α -CADINOL	0,36
112	75,0	CITRONELLIC ACID	0,16
113	76,4	ELEMICINE	0,04
114	79,4	GERANYLLINALOL	0,05
115	81,2	METHYLVANILLINE	0,04
116	81,5	Trans-ISOELEMICINE	0,36
		TOTAL	99,99

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