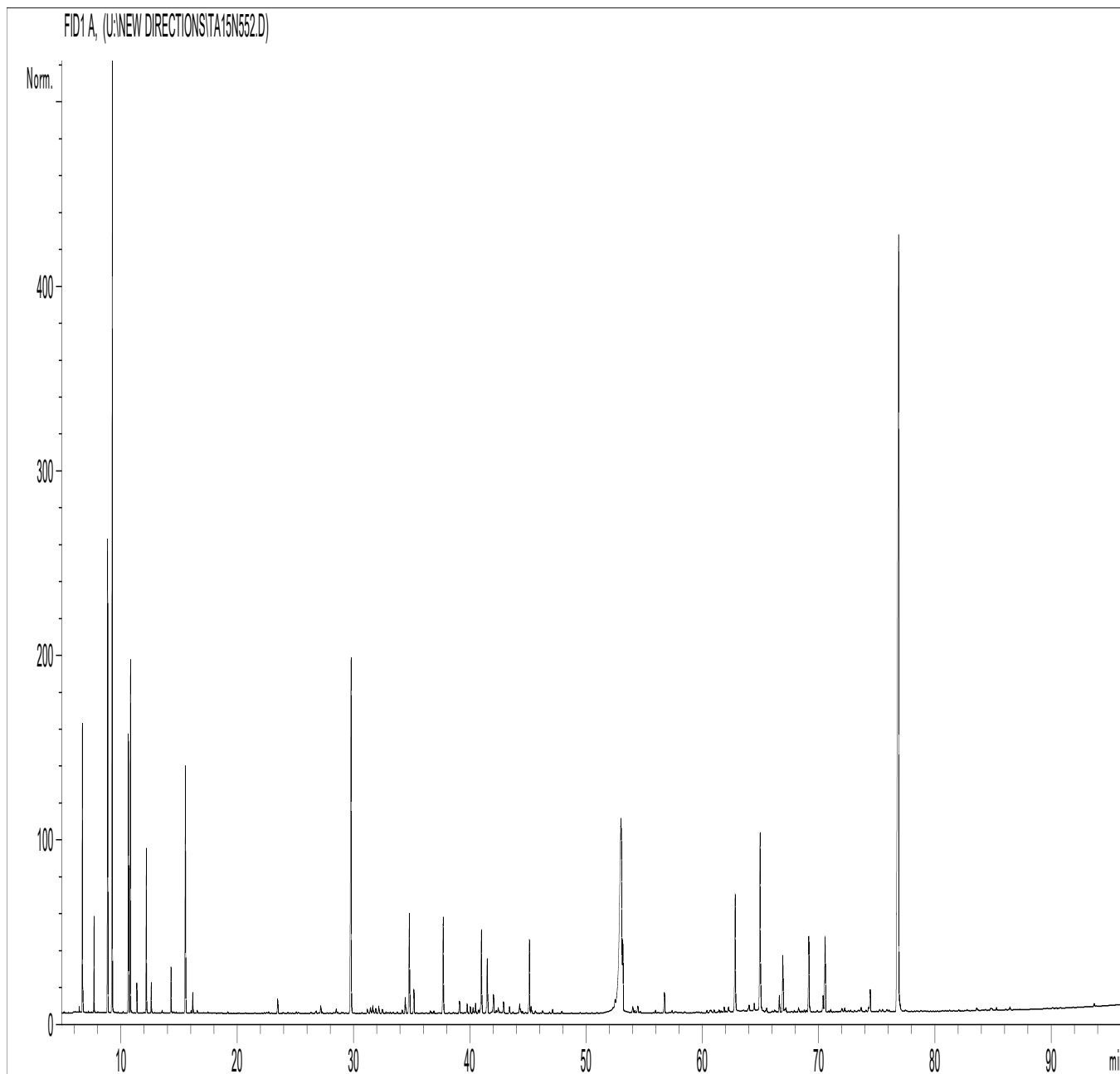


GCMS ANALYSIS

PRODUCT NAME: CHAMOMILE (MOROCCO) ESSENTIAL OIL - 11030  
DATE: October 10, 2018



*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: CHAMOMILE (MOROCCO) ESSENTIAL OIL - 11030

Peak	RT (min)	Compound name	%
1	6,4	TRICYCLENE	0,04
2	6,6	<b><math>\alpha</math>-PINENE</b>	<b>2,16</b>
3	6,7	$\alpha$ -THUYENE	0,16
4	7,2	ALIPHATIC ESTER	0,01
5	7,4	$\alpha$ -FENCHENE	0,01
6	7,6	CAMPHENE	0,81
7	8,8	<b><math>\beta</math>-PINENE</b>	<b>4,74</b>
8	9,2	<b>SABINENE</b>	<b>11,10</b>
9	9,3	PINADIENE	0,02
10	9,7	ALIPHATIC ESTER	0,02
11	10,1	$\Delta$ 3-CARENE	0,03
12	10,6	<b><math>\beta</math>-MYRCENE</b>	<b>3,00</b>
13	10,8	<b><math>\alpha</math>-PHELLANDRENE</b>	<b>3,65</b>
14	11,3	$\alpha$ -TERPINENE	0,31
15	11,9	ALIPHATIC ESTER	0,01
16	12,1	LIMONENE	1,81
17	12,5	1,8-CINEOLE + $\beta$ -PHELLANDRENE	0,35
18	13,5	FURAN-2-PENTYL	0,04
19	14,2	$\gamma$ -TERPINENE	0,56
20	14,5	Trans- $\beta$ -OCIMENE	0,02
21	14,7	TERPINENE ISOMERE	0,02
22	15,5	<b>p-CYMENE</b>	<b>3,13</b>
23	16,0	ISOTERPINOLENE	0,03
24	16,1	TERPINOLENE	0,26
25	16,5	OCTANAL	0,04
26	17,4	1,3,7-NONATRIENE-4,8-DIMETHYL	0,02
27	19,1	5-HEPTEN-2-ONE-6-METHYL	0,01
28	22,5	ALIPHATIC ESTER	0,04
29	22,7	ALIPHATIC ESTER	0,05
30	23,5	ALIPHATIC ESTER	0,21

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### GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CHAMOMILE (MOROCCO) ESSENTIAL OIL - 11030

Peak	RT (min)	Compound name	%
31	23,9	PERILLENE	0,02
32	24,3	SESQUITERPENE	0,02
33	25,0	$\alpha$ ,p-DIMETHYLSTYRENE	0,04
34	25,2	LINALOOL Cis-OXIDE	0,04
35	26,3	TETRACOSANE	0,02
36	26,4	COMPOUND Mw=152	0,02
37	26,7	MENTHONE	0,04
38	26,8	Trans-THUYANOL	0,02
39	27,1	TERPENIC EPOXIDE	0,12
40	27,3	cis-3-HEXENYL VALERATE	0,02
41	28,2	SESQUITERPENE	0,03
42	28,5	$\alpha$ -CUBEBENE	0,07
43	28,6	HEXENYLIC ESTER	0,02
44	29,7	<b>CAMPHOR</b>	<b>6,55</b>
45	30,7	$\alpha$ -GURJUNENE	0,03
46	31,1	SESQUITERPENE	0,08
47	31,4	Cis-p-MENTH-3-EN-7-AL	0,10
48	31,6	trans-p-MENTH-3-EN-7-AL	0,12
49	31,9	Cis-THUYANOL	0,08
50	32,1	1-METHYL-4-ACETYLCYCLOHEX-1-ENE	0,15
51	32,4	LINALOOL	0,05
52	32,5	1-OCTANOL	0,04
53	32,7	PINOCARVONE	0,03
54	33,1	SESQUITERPENE	0,02
55	33,4	$\epsilon$ -CADINENE	0,03
56	33,7	BORNYL ACETATE	0,03
57	34,1	$\alpha$ -cis-BERGAMOTENE	0,06
58	34,4	$\beta$ -ELEMENE	0,27
59	34,7	$\beta$ -CARYOPHYLLENE	1,76
60	35,1	TERPINENE-4-OL	0,38
61	36,6	MYRTENAL	0,05

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### GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CHAMOMILE (MOROCCO) ESSENTIAL OIL - 11030

Peak	RT (min)	Compound name	%
62	36,9	ALIPHATIC ESTER	0,04
63	37,7	FARNESENE ISOMER	1,66
64	39,1	$\alpha$ -HUMULENE	0,24
65	39,7	E- $\beta$ -FARNESENE	0,19
66	40,0	CARVOTANACETONE	0,12
67	40,2	SESQUITERPENE	0,12
68	40,4	Z- $\beta$ -FARNESENE	0,18
69	40,7	SESQUITERPENE	0,06
70	40,8	$\gamma$ -MUUROLENE	0,07
71	40,9	BORNEOL	1,39
72	41,4	GERMACRENE D	1,10
73	41,8	SESQUITERPENE	0,04
74	42,0	$\beta$ -SELINENE	0,38
75	42,2	$\alpha$ -SELINENE	0,06
76	42,4	$\alpha$ -MUUROLENE	0,13
77	42,8	BICYCLOGERMACRENE	0,23
78	43,4	CURCUMENE ISOMER	0,12
79	44,2	$\delta$ -CADINENE	0,18
80	44,3	$\gamma$ -CADINENE	0,05
81	44,5	SESQUITERPENE	0,03
82	45,1	$\beta$ -SESQUIPELLANDRENE	1,26
83	45,2	$\alpha$ -CURCUMENE	0,13
84	45,6	MENTHADIENAL ISOMER	0,05
85	46,2	MYRTENOL	0,07
86	47,1	SABINOL ISOMER	0,08
87	47,9	$\beta$ -DAMASCENONE	0,04
88	52,4	DIHYDROCHAMAZULENE ISOMER	0,36
89	52,9	5,6-DIHYDROCHAMAZULENE	10,56
90	53,1	DIHYDROCHAMAZULENE ISOMER	1,15
91	54,0	DIHYDROCHAMAZULENE ISOMER	0,10
92	54,1	DIHYDROCHAMAZULENE ISOMER	0,04

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### GCMS ANALYSIS *(cont'd.)*

PRODUCT NAME: CHAMOMILE (MOROCCO) ESSENTIAL OIL - 11030

Peak	RT (min)	Compound name	%
93	54,4	DIHYDROCHAMAZULENE ISOMER	0,15
94	55,9	SESQUITERPENOL	0,05
95	56,7	CARYOPHYLLENE OXIDE	0,38
96	57,3	SESQUITERPENOL	0,05
97	60,3	TERPENIC ALCOHOL	0,05
98	60,6	SESQUITERPENIC EPOXIDE	0,04
99	60,7	SESQUITERPENIC EPOXIDE	0,07
100	61,0	SESQUITERPENIC EPOXIDE	0,07
101	61,4	AROMATIC COMPOUND	0,06
102	61,6	AROMATIC COMPOUND	0,05
103	61,8	ELEMOL	0,12
104	62,0	AROMATIC COMPOUND	0,04
105	62,2	SESQUITERPENOL	0,03
106	62,3	AROMATIC COMPOUND	0,04
107	62,8	COMPOUND Mw=186	2,43
108	64,0	DIHYDROCHAMAZULENE ISOMER	0,25
109	64,4	DIHYDROCHAMAZULENE ISOMER	0,27
110	64,9	<b>DIHYDROCHAMAZULENE ISOMER</b>	<b>3,78</b>
111	65,5	SESQUITERPENIC EPOXIDE	0,14
112	66,6	SESQUITERPENOL	0,31
113	66,9	THYMOL	0,99
114	67,1	SESQUITERPENOL	0,09
115	68,2	CARVACROL	0,09
116	68,7	$\alpha$ -EUDESMOL	0,05
117	68,9	SESQUITERPENIC EPOXIDE	0,04
118	69,1	$\beta$ -EUDESMOL	1,38
119	69,2	$\alpha$ -CADINOL	0,06
120	70,3	SESQUITERPENOL	0,33
121	70,5	SESQUITERPENOL	1,38
122	71,0	SESQUITERPENOL	0,06
123	71,9	SESQUITERPENIC EPOXIDE	0,11

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: CHAMOMILE (MOROCCO) ESSENTIAL OIL - 11030

Peak	RT (min)	Compound name	%
124	72,2	SESQUITERPENIC EPOXIDE	0,09
125	73,6	SESQUITERPENOL	0,13
126	74,3	GERANYL-p-CYMENE	0,10
127	74,4	GERANYL-p-CYMENE ISOMER	0,41
128	76,8	<b>CHAMAZULENE</b>	<b>22,04</b>
129	76,9	6-DODECENYL- $\gamma$ -LACTONE Mw=196	0,23
130	83,6	DIMETHYLBIPHENYL	0,08
131	84,7	AROMATIC COMPOUND	0,04
132	84,8	AROMATIC COMPOUND	0,04
133	85,3	ALIPHATIC ESTER	0,04
134	86,4	PHYTOL	0,07
135	93,6	ALIPHATIC ALCOHOL	0,05
136	97,2	AROMATIC COMPOUND	0,11
137	97,9	AROMATIC COMPOUND	0,16
138	101,2	AROMATIC COMPOUND	0,24
		<b>TOTAL</b>	<b>99,99</b>

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