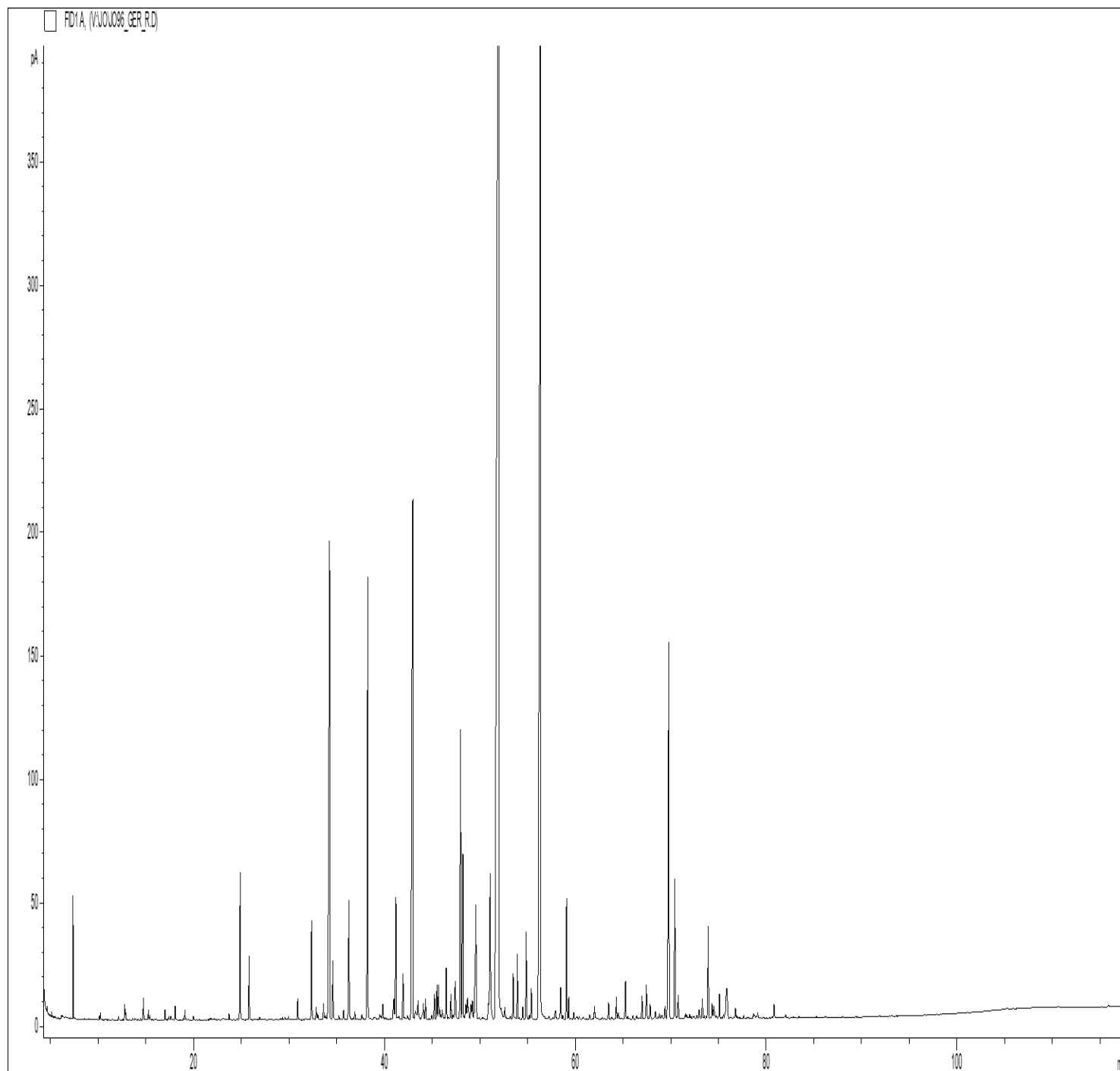


## GCMS ANALYSIS

**PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062**

**DATE: January 2, 2024**



*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: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062**

Peak	RT (min)	Compound name	%
1	5.14	COMPOUND Mw=124	0.02
2	7.37	alpha-PINENE	0.51
3	10.10	beta-PINENE	0.02
4	10.23	DEHYDROXYLINALOOL OXIDE A	0.04
5	12.14	gamma-PYRONENE	0.02
6	12.77	beta-MYRCENE	0.10
7	12.86	alpha-PHELLANDRENE	0.07
8	14.74	LIMONENE	0.16
9	15.27	beta-PHELLANDRENE	0.07
10	15.42	cis-ARBUSCULON	0.03
11	17.00	cis-beta-OCIMENE	0.07
12	17.41	trans-ARBUSCULON	0.02
13	17.60	gamma-TERPINENE	0.03
14	18.00	AROMATIC COMPOUND Mw=122	0.03
15	18.06	trans-beta-OCIMENE	0.07
16	19.08	p-CYMENE	0.08
17	19.96	TERPINOLENE	0.03
18	23.09	1-PENTANOL, 3-METHYL-	0.04
19	23.70	5-HEPTEN-2-ONE, 6-METHYL-	0.05
20	24.88	<b>ROSE cis-OXIDE</b>	<b>1.15</b>
21	25.81	<b>ROSE trans-OXIDE</b>	<b>0.49</b>
22	26.90	3-HEXEN-1-OL	0.03
23	29.56	cis-p-MENTHANE-8-OL	0.02
24	29.93	trans-p-MENTHANE-8-OL	0.03
25	30.90	LINALOOL cis-OXIDE	0.17
26	31.77	AROMATIC COMPOUND	0.02
27	32.30	alpha-CUBEBENE	0.22
28	32.35	<b>MENTHONE</b>	<b>0.59</b>
29	32.84	LINALOOL trans-OXIDE	0.10
30	33.01	SESQUITERPENE	0.05

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GCMS ANALYSIS (cont'd,)

PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062

Peak	RT (min)	Compound name	%
31	33.60	CITRONELLAL	0.14
32	33.82	SESQUITERPENE	0.06
33	34.24	<b>ISOMENTHONE</b>	<b>5.84</b>
34	34.59	alpha-COPAENE	0.51
35	35.22	EXO-ISOCITRAL	0.03
36	35.71	alpha-BOURBONENE	0.08
37	36.27	beta-BOURBONENE	1.06
38	36.38	SESQUITERPENE	0.02
39	36.90	alpha-GURJUNENE	0.07
40	37.63	beta1-CUBEBENE	0.04
41	38.25	<b>LINALOOL</b>	<b>4.00</b>
42	38.53	SESQUITERPENE	0.02
43	38.94	NEOISOPULEGOL	0.06
44	39.51	ISOPULEGOL	0.07
45	39.82	epsilon-CADINENE	0.15
46	40.93	beta-CUBEBENE	0.08
47	40.98	beta-ELEMENE	0.18
48	41.19	beta-CARYOPHYLLENE	1.15
49	41.35	SESQUITERPENE	0.02
50	41.49	ALIPHATIC ALCOHOL	0.03
51	41.94	<b>6,9-GUAIADIENE</b>	<b>0.40</b>
52	42.39	AROMATIC COMPOUND	0.04
53	42.90	SESQUITERPENE	0.42
54	42.95	<b>CITRONELLYL FORMATE</b>	<b>6.69</b>
55	43.22	CADINA-3,5-DIENE	0.13
56	43.52	NEOISOMENTHOL	0.19
57	44.07	GERMACRENE A	0.19
58	44.30	ALLO-AROMADENDRENE	0.18
59	44.95	SESQUITERPENE	0.04
60	45.22	ZONARENE	0.22

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**GCMS ANALYSIS (cont'd,)**

**PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062**

Peak	RT (min)	Compound name	%
61	45.49	CITRONELLYL ACETATE	0.26
62	45.66	alpha-HUMULENE	0.31
63	45.78	SESQUITERPENE	0.07
64	45.90	SESQUITERPENE	0.03
65	46.05	NERYL FORMATE	0.10
66	46.47	NERAL	0.43
67	46.72	SESQUITERPENE	0.02
68	46.95	gamma-SELINENE	0.14
69	47.00	SESQUITERPENE	0.09
70	47.18	LEDENE	0.04
71	47.41	<b>alpha-TERPINEOL</b>	<b>0.42</b>
72	47.97	<b>GERANYL FORMATE</b>	<b>2.53</b>
73	48.22	GERMACRENE D	1.65
74	48.51	SESQUITERPENE	0.12
75	48.70	beta-SELINENE	0.23
76	48.79	alpha-SELINENE	0.09
77	49.06	PIPERITONE	0.17
78	49.21	alpha-MUUROLENE	0.18
79	49.47	CITRONELLYL PROPIONATE	0.45
80	49.56	BICYCLOGERMACRENE	0.88
81	49.59	GERANIAL	0.37
82	50.30	AROMATIC COMPOUND	0.03
83	50.89	E,E-alpha-FARNESENE	0.13
84	50.99	gamma-CADINENE	0.18
85	51.08	delta-CADINENE	1.31
86	51.12	GERANYL ACETATE	0.21
87	51.22	delta-SELINENE	0.05
88	51.98	<b>CITRONELLOL</b>	<b>33.61</b>
89	52.22	CADINA-1,4-DIENE	0.10
90	52.29	SESQUITERPENE	0.03

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**GCMS ANALYSIS (cont'd,)**

**PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062**

Peak	RT (min)	Compound name	%
91	52.61	beta-SESQUIPHELLANDRENE	0.10
92	53.20	alpha-AMORPHENE	0.02
93	53.48	NEROL	0.35
94	53.93	CITRONELLYL BUTYRATE	0.48
95	54.49	NERYL ISOBUTYRATE	0.10
96	54.85	GERANYL PROPIONATE	0.68
97	55.17	GERMACRENE B	0.03
98	55.39	trans-CALAMENENE	0.27
99	56.32	<b>GERANIOL</b>	<b>14.06</b>
100	56.60	ALIPHATIC ALCOHOL	0.05
101	56.76	ALIPHATIC ALCOHOL	0.03
102	57.25	AROMATIC COMPOUND	0.03
103	57.88	2-PHENYLETHYL ISOBUTYRATE	0.07
104	57.92	2-PHENYLETHYL BUTYRATE	0.07
105	58.46	alpha-AGAROFURAN	0.32
106	58.71	ISOGERANIOL	0.03
107	59.09	<b>GERANYL BUTYRATE</b>	<b>0.98</b>
108	59.31	ALIPHATIC ESTER	0.17
109	59.84	alpha-CALACORENE	0.05
110	60.16	ALIPHATIC ESTER	0.02
111	60.42	ALIPHATIC ESTER	0.02
112	60.83	PALUSTROL	0.03
113	61.49	CUBEBOL	0.04
114	62.01	ALIPHATIC ESTER	0.10
115	63.49	CARYOPHYLLENE OXIDE	0.15
116	63.80	ALIPHATIC ESTER	0.03
117	64.30	NERYL METHYLVALERATE	0.18
118	64.52	SESQUITERPENIC OXIDE	0.06
119	65.26	CITRONELLYL TIGLATE	0.34
120	65.48	GERANYL METHYLVALERATE	0.02

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**GCMS ANALYSIS (cont'd,)**

**PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062**

Peak	RT (min)	Compound name	%
121	66.04	LEDOL	0.03
122	66.43	EPOXY-6,7-HUMULENE	0.04
123	66.74	SESQUITERPENOL	0.02
124	66.99	NERYL CAPROATE	0.17
125	67.45	Epi-CUBENOL	0.36
126	67.83	CUBENOL	0.14
127	68.39	GLOBULOL	0.08
128	68.81	VIRIDIFLOROL	0.05
129	69.09	FUROPALGON	0.04
130	69.40	GERANYL CAPROATE	0.11
131	69.80	<b>10-epi-gamma-EUDESOL</b>	<b>4.38</b>
132	70.42	<b>GERANYL TIGLATE</b>	<b>1.17</b>
133	70.79	SPATHULENOL	0.20
134	71.55	ALIPHATIC ESTER	0.04
135	71.66	EUDESOL ISOMER	0.03
136	72.37	SESQUITERPENOL	0.04
137	72.72	SESQUITERPENOL	0.04
138	72.97	gamma-EUDESOL	0.08
139	73.06	T-CADINOL	0.02
140	73.31	AGAROSPIROL	0.17
141	73.53	SESQUITERPENOL	0.02
142	73.92	<b>2-PHENYLETHYL TIGLATE</b>	<b>0.79</b>
143	74.33	NERYL CAPRYLATE	0.15
144	74.53	SESQUITERPENOL	0.15
145	74.77	SESQUITERPENOL	0.03
146	75.11	VALERIANOL	0.21
147	75.53	alpha-EUDESOL	0.03
148	75.69	SESQUITERPENOL	0.03
149	75.83	4-HYDROXY-DIHYDRO-alpha-AGAROFURAN	0.23
150	75.87	beta-EUDESOL	0.38

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**GCMS ANALYSIS (cont'd,)**

**PRODUCT NAME: GERANIUM ESSENTIAL OIL (EGYPTIAN) – 11062**

Peak	RT (min)	Compound name	%
151	76.77	ALIPHATIC ESTER	0.09
152	76.93	AROMATIC COMPOUND	0.02
153	77.65	CITRONELIC ACID	0.03
154	78.03	AROMATIC COMPOUND	0.02
155	78.68	HEXACOSENE ISOMER	0.05
156	78.84	ALIPHATIC ESTER	0.02
157	79.13	GERANYL CAPRYLATE	0.03
158	80.65	SESQUITERPENOL	0.02
159	80.84	GERANIC ACID	0.14
160	82.05	PHTHALIC COMPOUND	0.04
161	82.67	AROMATIC COMPOUND	0.02
162	82.88	AROMATIC COMPOUND	0.02
163	83.45	AROMATIC COMPOUND	0.02
164	91.90	COMPOUND Mw=220	0.02
165	93.15	COMPOUND Mw=220	0.02
		<b>TOTAL</b>	<b>99.33</b>

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