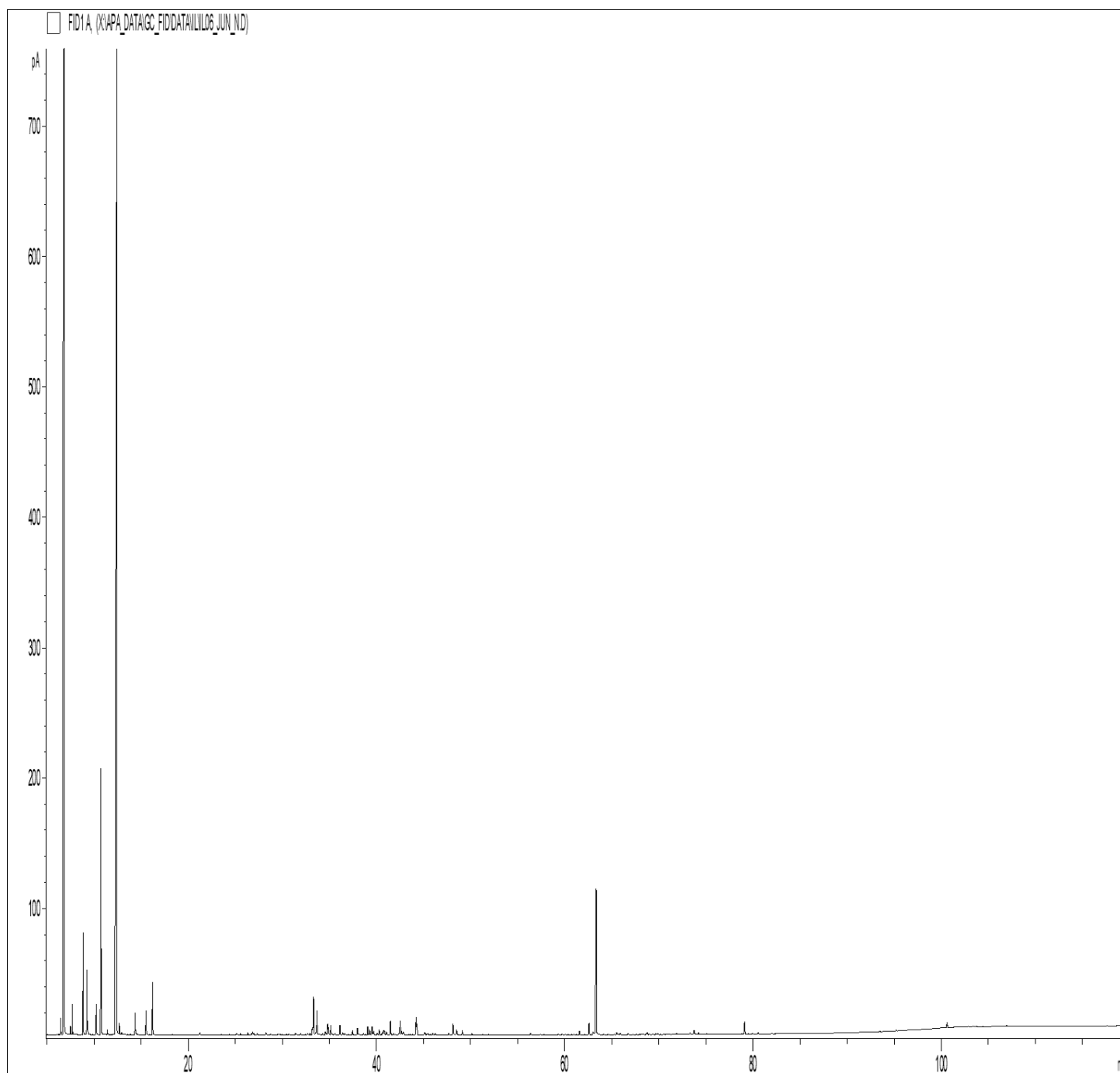


GCMS ANALYSIS

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

DATE: September 26, 2022



*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: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
1	6.84	<b>α-PINENE</b>	<b>57.67</b>
2	6.85	α-THUYENE	0.10
3	7.49	α-FENCHENE	0.07
4	7.70	CAMPHENE	0.24
5	8.84	<b>β-PINENE</b>	<b>0.93</b>
6	9.25	<b>SABINENE</b>	<b>0.58</b>
7	9.33	PINADIENE	0.13
8	10.24	δ3-CARENE	0.35
9	10.74	<b>β-MYRCENE</b>	<b>2.78</b>
10	10.84	α-PHELLANDRENE	0.02
11	11.41	α-TERPINENE	0.06
12	12.42	<b>LIMONENE</b>	<b>25.48</b>
13	12.68	β-PHELLANDRENE	0.13
14	12.93	1,3,8-p-MENTHATRIENE	0.02
15	14.36	γ-TERPINENE	0.26
16	14.48	trans-β-OCIMENE	0.02
17	15.52	p-CYMENE	0.30
18	16.22	TERPINOLENE	0.64
19	21.24	α-PINENE OXIDE	0.04
20	25.14	α,p-DIMETHYLSTYRENE	0.04
21	25.53	LIMONENE cis-1,2-EPOXIDE	0.02
22	26.32	LIMONENE trans-1,2-EPOXIDE	0.04
23	26.68	α-CUBEBENE	0.02
24	26.84	4,8-TERPINOLENE EPOXIDE	0.06
25	26.97	FENCHYL ACETATE	0.03
26	27.32	δ-ELEMENE	0.03
27	28.26	SESQUITERPENE	0.05
28	28.75	α-COPAENE	0.02
29	29.53	CAMPHOR	0.02
30	29.72	β-PINOCAMPHONE	0.02

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) - 11072

Peak	RT (min)	Compound name	%
31	29.95	COMPOUND Mw=152	0.01
32	30.45	$\alpha$ -GURJUNENE	0.02
33	30.69	TERPENIC COMPOUND	0.02
34	31.37	BERGAMOTENE ISOMER	0.04
35	31.50	cis-THUYANOL	0.01
36	31.94	LIMONENE cis-8,9-EPOXIDE	0.04
37	32.67	$\alpha$ -cis-BERGAMOTENE	0.03
38	32.94	METHYL CITRONELLATE	0.04
39	33.19	$\alpha$ -CEDRENE	0.12
40	33.31	CEDRENE ISOMER	0.63
41	33.68	<b>BORNYL ACETATE</b>	<b>0.45</b>
42	33.95	SESQUITERPENE	0.02
43	34.28	SESQUITERPENE	0.03
44	34.56	$\beta$ -ELEMENE	0.07
45	34.64	$\beta$ -CUBEBENE	0.01
46	34.80	<b><math>\beta</math>-CARYOPHYLLENE</b>	<b>0.19</b>
47	34.88	$\beta$ -CEDRENE	0.12
48	35.13	<b>TERPINENE-4-OL</b>	<b>0.15</b>
49	35.32	SESQUITERPENE	0.03
50	35.59	HIMACHALADIENE ISOMER	0.03
51	36.11	THUYOPSENE	0.16
52	36.40	HIMACHALADIENE ISOMER	0.04
53	36.62	cis-p-MENTHA-2,8-DIEN-1-OL	0.04
54	37.45	GERMACRENE A	0.08
55	37.97	trans-PINOCARVEOL	0.13
56	38.14	trans-p-MENTHA-2,8-DIEN-1-OL	0.03
57	38.63	ZONARENE	0.03
58	39.06	<b><math>\alpha</math>-HUMULENE</b>	<b>0.14</b>
59	39.27	E- $\beta$ -FARNESENE	0.10
60	39.52	trans-VERBENOL	0.17

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) – 11072

Peak	RT (min)	Compound name	%
61	39.71	cis-4,5-MUUROLADIENE	0.06
62	40.09	LAVANDULAL	0.04
63	40.28	γ-MUUROLENE	0.09
64	40.66	TERPENYL ACETATE	0.05
65	40.78	A-TERPINEOL	0.03
66	40.79	BORNEOL	0.06
67	40.85	SESQUITERPENE	0.06
68	41.06	VERBENONE	0.07
69	41.48	<b>GERMACRENE D</b>	<b>0.24</b>
70	41.81	SESQUITERPENE	0.03
71	41.99	SESQUITERPENE	0.02
72	42.40	p-MENTHA-1(7),2-DIEN-8-OL	0.04
73	42.53	TERPENIC ESTER	0.28
74	42.68	β-BISABOLENE	0.07
75	42.85	β-HIMACHALENE	0.08
76	43.42	β-CURCUMENE	0.01
77	43.57	trans-PIPERITOL	0.01
78	43.86	trans-ISOPIPERITENOL	0.02
79	44.22	<b>δ-CADINENE</b>	<b>0.28</b>
80	44.31	γ-CADINENE	0.17
81	45.11	β-SESQUIPHELLANDRENE	0.05
82	45.19	α-CURCUMENE	0.03
83	45.34	SELINADIENE ISOMER	0.02
84	45.49	SELINA-3,7-DIENE	0.04
85	45.72	CADINA-1,4-DIENE	0.01
86	45.98	MYRTENOL	0.04
87	46.26	α-AMORPHENE	0.04
88	47.67	CUPARENE	0.04
89	48.13	GERMACRENE B	0.19
90	48.51	trans-CARVEOL	0.10

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GCMS ANALYSIS (cont'd,)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) – 11072

Peak	RT (min)	Compound name	%
91	49.12	p-CYMENE-8-OL	0.07
92	50.15	cis-CARVEOL	0.03
93	51.93	epi-CUBEBOL	0.02
94	56.39	CARYOPHYLLENE OXIDE	0.04
95	59.31	epoxy-6,7-HUMULENE	0.02
96	59.71	NEROLIDOL	0.02
97	60.04	GERMACRENE D-4-OL	0.01
98	61.57	epi-CUBENOL	0.06
99	62.59	ELEMOL	0.20
100	63.02	AROMATIC COMPOUND Mw=222	0.09
101	63.35	<b>CEDROL</b>	<b>2.91</b>
102	64.13	CEDROL ISOMER	0.01
103	65.24	CEDROL ISOMER	0.01
104	65.52	CEDRYL ACETATE	0.04
105	65.91	T-CADINOL	0.03
106	66.71	$\alpha$ -MUUROL	0.02
107	68.38	$\alpha$ -EUDESMOL	0.02
108	68.67	$\beta$ -EUDESMOL	0.03
109	68.78	$\alpha$ -CADINOL	0.04
110	69.42	DITERPENE	0.01
111	69.66	CITRONELIC ACID	0.02
112	69.92	$\beta$ -NOOTKATOL	0.02
113	70.19	DITERPENE	0.01
114	71.56	COMPOUND Mw=280	0.01
115	71.88	SANDARACOPIMARADIENE	0.02
116	73.32	$\beta$ -ASARON	0.03
117	73.75	MANOYL OXIDE	0.07
118	74.20	AROMATIC COMPOUND Mw=222	0.04
119	74.65	SESQUITERPENIC COMPOUND	0.01
120	75.08	SESQUITERPENIC COMPOUND	0.02

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GCMS ANALYSIS (cont'd.)

PRODUCT NAME: JUNIPER BERRY ESSENTIAL OIL (INDIA) – 11072

Peak	RT (min)	Compound name	%
121	75.36	DITERPENE	0.02
122	79.10	BIFORMENE	0.25
123	79.94	SESQUITERPENIC COMPOUND	0.01
124	80.58	ABIETATRIENE	0.03
125	83.25	DITERPENE	0.02
126	85.87	BENZYL BENZOATE	0.01
127	93.90	DITERPENIC COMPOUND Mw=286	0.01
128	95.19	PIMARINAL	0.02
129	100.60	DITERPENIC COMPOUND Mw=286	0.10
130	102.86	DITERPENIC COMPOUND Mw=284	0.01
131	117.59	DITERPENIC COMPOUND Mw=286	0.02
		<b>TOTAL</b>	<b>99.79</b>

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