

## Laboratory Test Report

**SAMPLE NAME** : Peppermint  
**CLIENT NAME** : Plant Therapy  
**CLIENT LOT #** : P50116R  
**APRC LOT#** : PT241101A

**Column** : ZB5 (60 m length × 0.25 mm inner diameter × 0.25 µm film thicknes  
**Instrument** : Shimadzu GCMS-QP2010 Ultra  
**Carrier gas** : Helium 80 psi  
**Temperature ramp** : 2 degrees Celsius per minute up to 260-degree Celsius  
**Split ratio** : 30:1  
**Sample preparation** : 5% w/v solution with Dichloromethane

### Interpretation on this sample

The analysis of Peppermint sample meets the standard chemical profile of *Mentha piperita* essential oil.

**Analyzed by** : Dr Prabodh Satyal  
**Reviewed by** : Ambika Poudel

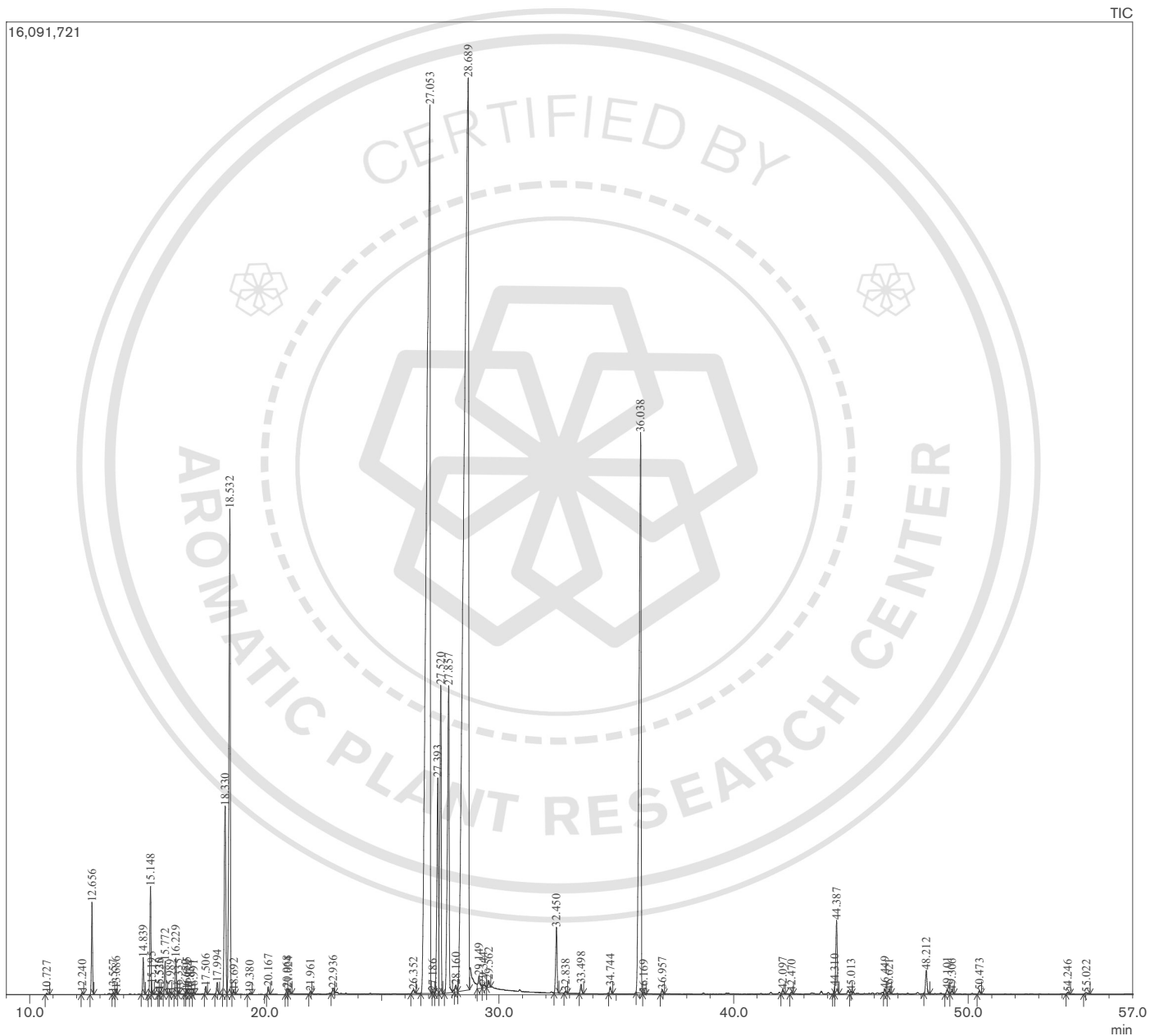
**Issued Date** : 11/2/2024

## GCMS Analysis

### Sample Information

Analyzed by : Dr. Prabodh Satyal  
Analyzed : 11/2/2024 3:19:05 AM  
Sample Type : Essential Oil  
Sample Name : Peppermint  
Client Name : Plant Therapy  
Client Lot# : P50116R  
APRC Lot# : PT241101A  
Injection Volume : 0.30

### Chromatogram



## Peak Report

Peak#	R.Time	Name	Area%
1	10.727	2,5-Diethyl tetrahydrofuran	0.01
2	12.240	alpha-Thujene	0.02
3	12.656	alpha-Pinene	0.79
4	13.557	Camphene	0.01
5	13.686	Methyl cyclohexanone	0.05
6	14.839	Sabinene	0.33
7	15.148	beta-Pinene	1.00
8	15.195	meta-Menthane+1-Octen-3-ol	0.03
9	15.525	3-Octanone	0.01
10	15.530	3-para-Menthene	0.02
11	15.772	Myrcene	0.30
12	15.989	trans-Menthane	0.02
13	16.229	3-Octanol	0.36
14	16.335	2,6-Dimethyl-3-heptanone	0.02
15	16.650	n-Octanal	0.01
16	16.695	para-Mentha-1(7),8-diene	0.04
17	16.834	alpha-Phellandrene	0.01
18	16.991	delta-3-Carene	0.01
19	17.506	alpha-Terpinene	0.08
20	17.994	para-Cymene	0.13
21	18.330	Limonene	2.52
22	18.532	1,8-Cineole	5.76
23	18.692	cis-beta-Ocimene	0.04
24	19.380	trans-beta-Ocimene	0.01
25	20.167	gamma-Terpinene	0.08
26	20.968	cis-Sabinene hydrate	0.06
27	21.024	n-Octanol	0.07
28	21.961	Terpinolene	0.02
29	22.936	Linalool	0.08
30	26.352	Isopulegol	0.06
31	27.053	Menthone	27.88
32	27.186	ortho-Menthone	0.02
33	27.393	Menthofuran	2.87
34	27.520	Isomenthone	3.72
35	27.857	Neomenthol	4.65
36	28.160	trans-Isopulegone	0.10
37	28.689	Menthol	35.85
38	29.149	iso-Menthol	0.23
39	29.344	Methyl salicylate	0.07
40	29.562	alpha-Terpineol	0.09
41	32.450	Pulegone	0.77
42	32.838	Carvone	0.03
43	33.498	Piperitone	0.11
44	34.744	neo-Menthyl acetate	0.08
45	36.038	Menthyl acetate	9.83
46	36.169	Dihydroedulan	0.03
47	36.957	iso-Menthyl acetate	0.05
48	42.097	beta-Bourbonene	0.05
49	42.470	beta-Elemene	0.03
50	44.310	beta-Ylangene	0.03
51	44.387	beta-Caryophyllene	0.92
52	45.013	beta-Copaene	0.04
53	46.449	trans-beta-Farnesene	0.06
54	46.621	alpha-Humulene	0.04
55	48.212	Germacrene D	0.30
56	49.101	Bicyclogermacrene	0.06
57	49.306	alpha-Murolene	0.04
58	50.473	delta-Cadinene	0.04
59	54.246	Caryophyllene oxide	0.02
60	55.022	Viridiflorol	0.04
			100.00