



Essential Oil University

GC/MS Report

Item	Lot
Vetiver EO Hydrodiffused <i>Vetiveria zizanioides</i>	5D
Date	Analyst
8/29/2025	Dr. Robert S. Pappas

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The analysis of this batch sample, Vetiver EO Hydrodiffused, meets the expected chemical profile for authentic essential oil of *Vetiveria zizanioides*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.



Sample Information

Company: Revive**Sample Name:** Vetiver EO Hydrodiffused**Botanical Name:** Vetiveria zizanioides**Lot Number:** 5D**Production Method:** Hydrodiffused**Sample Type:** EO - Single**Country of Origin:** Haiti**Analysis Date:** 8/29/2025**Manufacture Date:** February 2025

GC/MS

Inst. ID: Shimadzu GCMS-QP2010Ultra**Injection Type:** Split**Split Ratio:** 24.4**Column Type:** ZB-5**Injection Volume:** 0.1 µL**Temperature Program:** 2C/min

Physical Data

ANALYSIS

Optical Rotation @20°C

Refractive Index @20°C

Specific Gravity @20°C

METHOD

USP[781]

USP[831]

USP[841]

RESULTS

+8.18

1.52452

1.00049



Ret. Time	Component	Ret. Idx.	Conc. %	
3.063	Unidentified	551	0.02%	
12.219	alpha-Pinene	930	0.03%	
17.787	Limonene	1027	0.03%	IFRA
17.947	1,8-Cineole	1029	0.02%	
25.605	Camphor	1144	0.01%	
39.167	alpha-Cubebene	1344	0.01%	
39.325	Unidentified	1346	0.02%	
40.601	Unidentified	1366	0.24%	
41.041	alpha-Copaene	1372	0.01%	
41.328	Unidentified	1377	0.02%	
41.440	2-epi-alpha-Funebrene	1379	0.05%	
41.555	Unidentified	1380	0.02%	
41.716	Unidentified	1383	0.09%	
41.820	Unidentified	1384	0.02%	
41.934	beta-Elemene	1386	0.03%	
42.063	Sativene	1388	0.01%	
42.271	Nigritene	1391	0.06%	
42.787	Cyperene	1399	0.03%	
42.980	Unidentified	1402	0.03%	
43.258	Acora-3,7(14)-diene	1407	0.1%	
43.399	Italicene	1409	0.01%	
43.557	beta-Cedrene	1411	0.11%	IFRA
43.755	Unidentified	1415	0.12%	
44.000	Unidentified	1418	0.01%	
44.060	Calarene	1419	0.04%	
44.099	Unidentified	1420	0.07%	
44.204	Unidentified	1422	0.09%	
44.355	Unidentified	1424	0.01%	
44.542	(+)-epi-Bicyclosquiphellandrene	1427	0.17%	
44.686	Unidentified	1429	0.01%	
44.874	Unidentified	1432	0.07%	
45.203	6,9-Guaiadiene	1438	0.18%	
45.379	Acora-2,4(15)-diene	1441	0.02%	
45.672	trans-Muurolo-3,5-diene	1445	0.01%	
45.812	Prezizaene	1447	0.39%	
46.101	Khusimene	1452	0.52%	
46.236	Unidentified	1454	0.35%	
46.470	Unidentified	1458	0.02%	
46.623	Unidentified	1460	0.14%	
46.755	11,12,13-tri-nor-cis-Eudesm-5-en-7-one analogue	1463	0.18%	



Ret. Time	Component	Ret. Idx.	Conc. %	
46.993	trans-Eremophila-1(10),7(11)-dien-12-yl acetate	1466	0.17%	
47.133	Unidentified	1469	0.05%	
47.379	Unidentified	1473	0.08%	
47.564	alpha-Amorphene	1476	1.57%	
47.650	Unidentified	1477	0.09%	
47.806	alpha-Vetispiorene	1479	0.21%	
47.893	Unidentified	1481	0.04%	
48.038	Unidentified	1483	0.69%	
48.161	beta-Vetispiorene	1485	0.94%	
48.378	trans-Murrola-4(14),5-diene	1489	0.52%	
48.575	Unidentified	1492	0.08%	
48.770	Cadinene isomer	1495	0.14%	
48.925	Spirovetiva-3,7(11)-dien-12-yl methyl ether	1497	0.1%	
49.026	delta-Cadinene	1499	0.41%	
49.123	Unidentified	1501	0.21%	
49.312	Unidentified	1504	0.05%	
49.416	Unidentified	1505	0.11%	
49.659	Nootkatene	1510	0.22%	
49.738	Unidentified	1511	0.28%	
49.998	Selina-4(15),7(11)-diene isomer	1515	0.91%	
50.211	Zonarene	1519	0.08%	
50.320	Unidentified	1521	0.01%	
50.453	gamma-Vetivenene	1523	0.2%	
50.568	Unidentified	1525	0.08%	
50.778	Unidentified	1528	0.05%	
50.875	Unidentified	1530	0.01%	
51.038	Selina-4(15),7(11)-diene	1533	0.11%	
51.154	Unidentified	1535	0.3%	
51.288	alpha-Calacorene	1537	0.23%	
51.438	Unidentified	1540	0.02%	
51.707	alpha-Elemol	1544	0.68%	
51.860	Unidentified	1547	0.04%	
52.024	beta-Vetivenene	1549	1.1%	
52.324	Unidentified	1555	0.06%	
52.490	Vetivenene isomer	1557	0.17%	
52.578	cis-Eudesm-6-en-11-ol	1559	1.99%	
52.737	Unidentified	1561	0.09%	
52.885	Unidentified	1564	0.09%	
53.004	13-nor-Eudesm-5-en-11-one isomer	1566	0.11%	
53.105	Unidentified	1568	0.1%	



Ret. Time	Component	Ret. Idx.	Conc. %	
53.221	Unidentified	1570	0.37%	
53.316	Unidentified	1571	0.19%	
53.579	Unidentified	1576	0.19%	
53.697	Unidentified	1578	0.57%	
53.856	3,5,11-Eudesmatriene	1580	0.49%	
54.120	Unidentified	1585	0.23%	
54.363	Unidentified	1589	0.55%	
54.577	Esquel-6-en-9-one	1592	0.24%	
54.703	Cedrol	1595	0.13%	
54.850	Unidentified	1597	0.11%	
55.018	Khusimone	1600	0.74%	
55.204	Unidentified	1603	0.42%	
55.466	Unidentified	1608	0.11%	
55.581	Unidentified	1610	0.41%	
55.706	Unidentified	1612	0.59%	
55.986	Germacren D-4-ol analogue	1617	2.42%	
56.073	Unidentified	1619	1.91%	
56.371	Unidentified	1624	1.04%	
56.573	Eudesmol isomer	1628	0.69%	
56.716	Epicubenol	1630	0.74%	
56.801	Unidentified	1632	0.24%	
56.967	Unidentified	1635	0.24%	
57.109	3,5,11-Eudesmatriene analogue	1637	0.21%	
57.221	alpha-Funebren-15-al	1639	0.48%	
57.431	Unidentified	1643	0.39%	
57.552	Cadinol analogue	1645	0.59%	
57.815	Unidentified	1650	1.51%	
57.856	Cadinol analogue	1650	2.41%	
58.011	Cyclocopacamphan-12-ol, epimer A	1653	2.11%	
58.192	Cyclocopacamphan-12-ol epimer B	1656	1.68%	
58.456	Unidentified	1661	1.34%	
58.687	Unidentified	1665	1.28%	
58.821	epi-beta-Bisabolol	1668	0.93%	
59.104	2-epi-Ziza-6(13)-en-3-alpha-ol	1673	1.46%	
59.236	2-epi-Ziza-6(13)-en-3-beta-ol	1675	0.37%	
59.489	LONGIFOLENALDEHYDE	1679	0.34%	
59.650	Zizanone analogue	1682	0.34%	
59.724	Khusian-2-ol	1684	1.61%	
59.858	Unidentified	1686	0.16%	
60.039	Zizanal analogue	1689	0.34%	



Ret. Time	Component	Ret. Idx.	Conc. %	
60.195	Unidentified	1692	0.25%	
60.275	Selin-7(11)-en-4-ol	1693	1.53%	
60.395	2-epi-Ziza-6(13)-en-3-alpha-ol isomer	1696	0.91%	
60.671	Unidentified	1701	0.23%	
60.757	Unidentified	1702	0.26%	
60.927	13-nor-Eudesma-4,6-dien-11-one	1705	0.93%	
61.087	Nootkatol	1708	0.69%	
61.350	Vetiselinol isomer	1713	0.36%	
61.676	Vetiselinol	1719	4.71%	
62.024	Unidentified	1726	1.35%	
62.229	Oplopanone	1730	0.53%	
62.385	Unidentified	1733	0.06%	
62.611	Zizanol	1737	3.57%	
62.795	Unidentified	1740	0.82%	
62.936	Khusimol	1743	9.2%	
63.129	Unidentified	1746	0.44%	
63.383	Unidentified	1751	0.26%	
63.533	Unidentified	1754	0.41%	
63.790	Unidentified	1759	0.37%	
63.880	13-Hydroxy valencene	1760	0.56%	
64.068	Unidentified	1764	0.39%	
64.193	Unidentified	1766	0.51%	
64.465	Unidentified	1771	0.07%	
64.586	Isovalencenol isomer	1774	0.27%	
64.760	Unidentified	1777	0.15%	
65.031	trans-Isovalencenol	1782	9.47%	
65.256	cis-Isovalencenol	1786	2.21%	
65.445	Unidentified	1790	0.39%	
65.847	Nootkatone	1797	1.44%	IFRA
65.910	Zizanoic acid	1798	0.5%	
66.205	cis-Isovalencenal	1804	0.72%	
66.364	beta-Vetivone	1807	2.98%	
66.528	Unidentified	1810	0.16%	
66.765	Unidentified	1815	0.13%	
67.013	trans-Isovalencenal	1820	1.38%	
67.329	Unidentified	1826	0.15%	
67.492	Unidentified	1829	0.15%	
67.688	alpha-Vetivone	1833	3.8%	
67.867	Unidentified	1837	0.11%	
68.075	Unidentified	1841	0.06%	



Ret. Time	Component	Ret. Idx.	Conc. %	
68.469	Unidentified	1848	0.08%	
68.649	Unidentified	1852	0.17%	
69.076	Unidentified	1860	0.08%	
69.245	Unidentified	1864	0.05%	
69.401	Unidentified	1867	0.03%	
69.713	Unidentified	1873	0.03%	
70.003	Unidentified	1878	0.05%	
70.148	Isovalencenyl formate isomer	1881	0.15%	
70.285	Unidentified	1884	0.03%	
70.481	Isovalencenol isomer	1888	0.05%	
70.704	Isovalencenyl formate	1892	0.17%	
71.091	Unidentified	1900	0.04%	
71.343	Unidentified	1905	0.16%	
71.532	Unidentified	1909	0.02%	
72.058	Unidentified	1920	0.14%	
72.778	Unidentified	1934	0.06%	
74.079	Unidentified	1961	0.02%	
75.218	Unidentified	1985	0.01%	
75.580	Unidentified	1992	0.02%	
75.823	Unidentified	1997	0.02%	
75.993	Unidentified	2001	0.02%	
76.159	Unidentified	2004	0.01%	
76.378	Unidentified	2009	0.02%	
76.558	Unidentified	2013	0.02%	
76.809	Unidentified	2018	0.02%	
77.565	Unidentified	2034	0.01%	
78.983	Unidentified	2065	0.06%	
81.344	Unidentified	2116	0.01%	
106.763	Unidentified	2756	0.06%	

Total Identified Compounds **76.33 %**



TIC
14,599,015

