

Sample:

Client: | Nature's Gift
Sample: | Vetiver (Vetiveria zizanioides)
Batch # | IN-58774
CAS Number | 84238-29-9
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.
- This oil meets the expected profile for genuine essential oil of Vetiver (Vetiveria zizanioides).



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

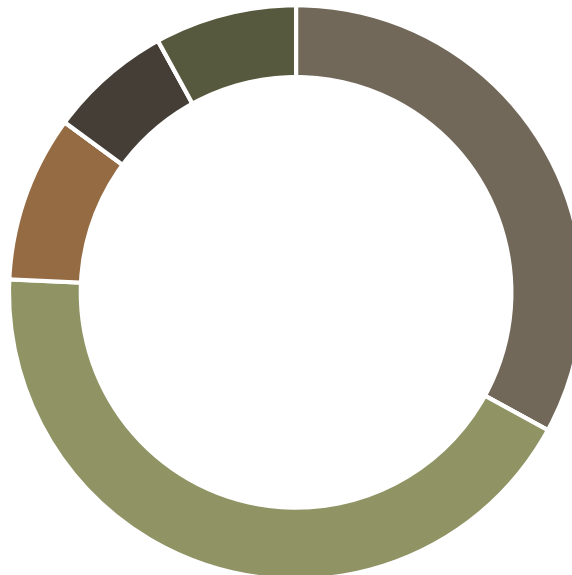
Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

Summary of Analyses

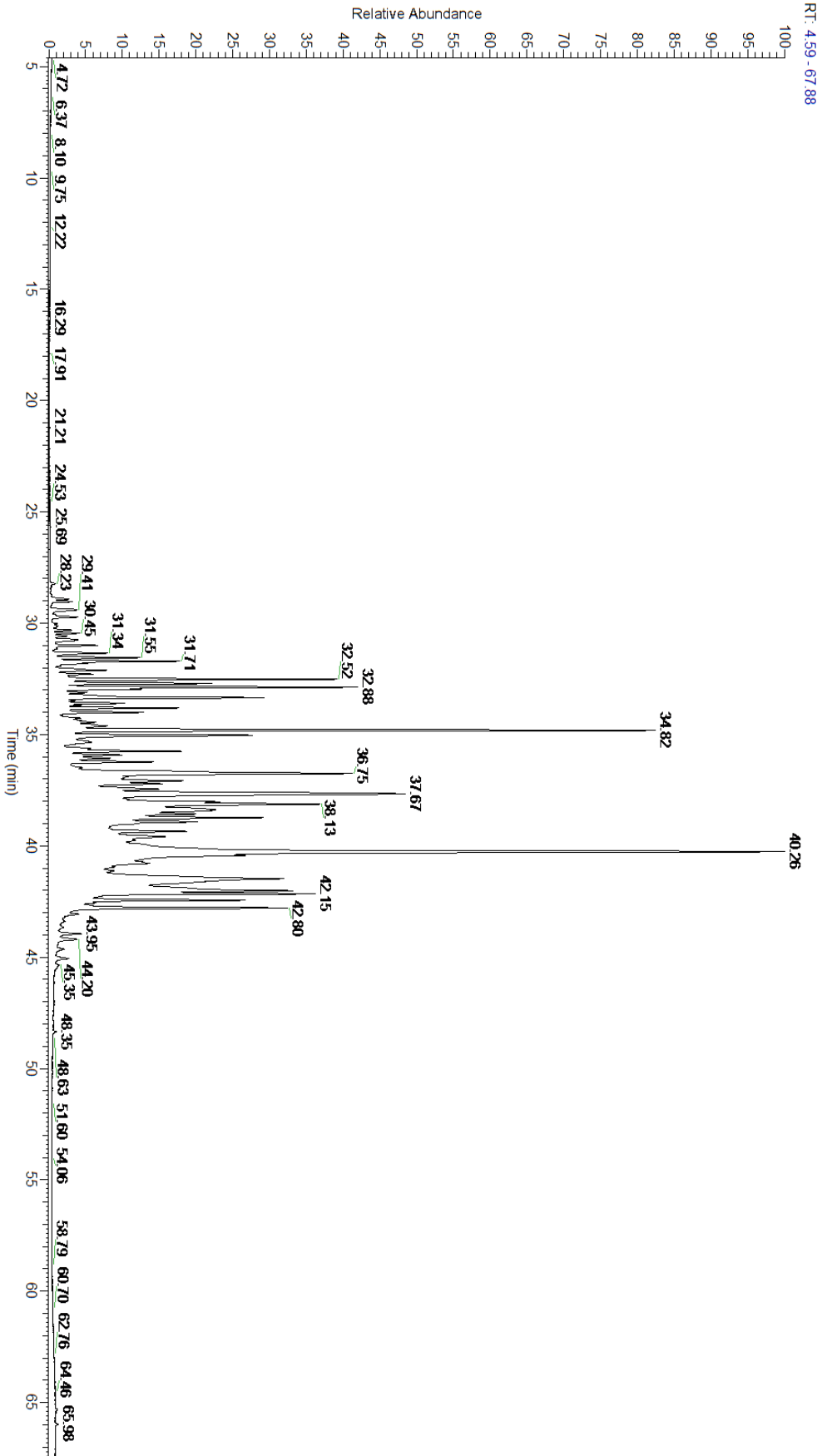
A fresh sample of Vetiver (Vetiveria zizanioides) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
Khusimol	12.60%
beta-Vetivenene	7.24%
Isovalencenol	6.92%
beta-Eudesmol	6.13%
10-epi-gamma-Eudesmol	5.13%
(E)-Isovalencenal	4.76%
epi-Zizanone	3.22%
beta-Vetispirene	3.20%
gamma-Muurolene	2.98%
alpha-Bisabolol	2.80%
Zizanoicacid	2.68%
beta-Cadinene	2.59%
beta-Cadinene	2.59%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
0.00%	32.97%	0.00%	42.75%	9.37%
Esters	Ethers	Aldehydes	Phenols	Other
0.00%	0.00%	6.92%	0.00%	7.99%



- Monoterpenes ■ Sesquiterpenes ■ Monoterpenols
- Sesquiterpenols ■ Ketones ■ Esters
- Ethers ■ Phenols ■ Other



Total Percentage		94.91%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	28.23	0.06%	alpha-Cubebene	1355.71	Sesquiterpene
2	28.92	0.23%	alpha-Ylangene	1371.33	Sesquiterpene
3	29.03	0.22%	Nigritene	1372.00	Norsesquiterpene
4	29.41	0.45%	alpha-Copaene	1379.00	Sesquiterpene
5	29.73	0.32%	beta-Elemene	1389.20	Sesquiterpene
6	30.02	0.05%	Cyperene	1397.67	Sesquiterpene
7	30.13	0.10%	diepi-alpha-Cedrene	1400.10	Sesquiterpene
8	30.31	0.20%	Acora-3,7(14)-diene	1410.25	Sesquiterpene
9	30.45	0.28%	alpha-Gurjunene	1412.00	Sesquiterpene
10	30.58	0.17%	beta-Funebrene	1413.00	Sesquiterpene
11	30.75	0.46%	beta-Caryophyllene	1427.14	Sesquiterpene
12	30.90	0.02%	beta-Cedrene	1428.00	Sesquiterpene
13	31.00	0.48%	beta-Gurjunene	1433.00	Sesquiterpene
14	31.13	0.05%	alpha-Guaiene	1438.67	Sesquiterpene
15	31.34	0.67%	Prezizaene	1444.10	Sesquiterpene
16	31.55	0.91%	beta-Copaene	1445.00	Sesquiterpene
17	31.71	1.36%	Khusimene	1460.50	Sesquiterpene
18	31.80	0.35%	alpha-Acoradiene	1463.00	Sesquiterpene
19	32.12	0.68%	gamma-Selinene	1465.50	Sesquiterpene
20	32.29	0.35%	beta-Acoradiene	1475.00	Sesquiterpene
21	32.52	2.98%	gamma-Muurolene	1478.86	Sesquiterpene
22	32.71	1.62%	alpha-Vetispirene	1490.10	Sesquiterpene
23	32.88	3.20%	beta-Vetispirene	1492.00	Sesquiterpene
24	32.96	0.64%	gamma-Amorphene	1493.00	Sesquiterpene
25	33.11	0.18%	Eudesma-2,4(15),11-triene	1497.50	Sesquiterpene
26	33.35	2.59%	beta-Cadinene	1501.00	Sesquiterpene
27	33.48	0.09%	Valencene	1504.00	Sesquiterpene
28	33.59	0.61%	Nootkatene	1504.50	Sesquiterpene
29	33.69	0.15%	delta-Amorphene	1510.10	Sesquiterpene
30	33.81	1.26%	delta-Cadinene	1524.14	Sesquiterpene
31	34.00	0.88%	trans-Calamenene	1529.50	Sesquiterpene
32	34.27	0.22%	gamma-Vetivenene	1532.00	Sesquiterpene
33	34.37	0.16%	UK Vetiver		
34	34.45	0.33%	alpha-Calacorene	1537.14	Sesquiterpene
35	34.60	0.76%	Elemol	1538.00	Sesquiterpenol
36	34.82	7.24%	beta-Vetivenene	1542.75	Sesquiterpene
37	35.04	2.43%	beta-Vetivenene isomer I	1573.30	Sesquiterpene
38	35.35	0.57%	UK Vetiver		
39	35.62	0.31%	Spathulenol	1587.00	Sesquiterpenol
40	35.75	1.36%	beta-Vetivenene isomer II	1595.00	Sesquiterpene
41	35.92	0.63%	Guaiol	1603.86	Sesquiterpenol
42	36.07	0.58%	Khusimone	1604.00	Normoterpene Ketone
43	36.23	1.00%	gamma-Eudesmol	1608.00	Sesquiterpenol



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44	36.75	5.13%	10-epi-gamma-Eudesmol	1620.00	Sesquiterpenol
45	36.90	0.73%	1-epi-Cubenol	1628.00	Sesquiterpenol
46	37.08	1.35%	T-Cadinol	1640.43	Sesquiterpenol
47	37.22	0.82%	T-Muurolol	1643.29	Sesquiterpenol
48	37.45	0.83%	alpha-Muurolol	1649.33	Sesquiterpenol
49	37.67	6.13%	beta-Eudesmol	1650.75	Sesquiterpenol
50	38.02	0.87%	Zizanol	1666.50	Sesquiterpenol
51	38.13	3.22%	epi-Zizanone	1667.53	Sesquiterpene Ketone
52	38.38	2.80%	alpha-Bisabolol	1684.43	Sesquiterpenol
53	38.57	1.01%	Khusiol	1688.53	Sesquiterpenol
54	38.73	2.16%	Zizanal	1688.75	Sesquiterpene Aldehyde
55	38.92	1.25%	Junipercamphor	1693.10	Sesquiterpene Ketone
56	39.35	0.86%	Vetiselinol	1716.00	Sesquiterpenol
57	40.26	12.60%	Khusimol	1735.00	Sesquiterpenol
58	40.42	0.49%	UK Vetiver		
59	40.44	0.71%	UK Vetiver		
60	40.79	0.40%	UK Vetiver		
61	41.47	6.92%	Isovalencenol	1788.00	Sesquiterpenol
62	42.01	4.76%	(E)-Isovalencenal	1806.00	Sesquiterpene Aldehyde
63	42.15	2.68%	Zizanoicacid	1811.00	Sesquiterpene Acid
64	42.44	1.73%	beta-Vetivone	1814.00	Sesquiterpene Ketone
65	42.56	0.09%	UK Vetiver		
66	42.80	2.59%	alpha-Vetivone	1822.00	Sesquiterpene Ketone
67	43.95	0.31%	UK Vetiver		
68	44.20	0.32%	UK Vetiver		
69	44.63	0.10%	UK Vetiver		
70	45.05	0.19%	UK Vetiver		