

Sample:

Client: | Nature's Gift
Sample: | Petitgrain Bigarade (Citrus aurantium)
Batch # | IT-29107
CAS Number | 8014-17-3
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.
- The Linalyl acetate level is on the high end of the scale, however this can be explained by its co-elution with Geraniol. No synthetic markers were found to suggest addition of synthetic linalyl acetate



X 

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

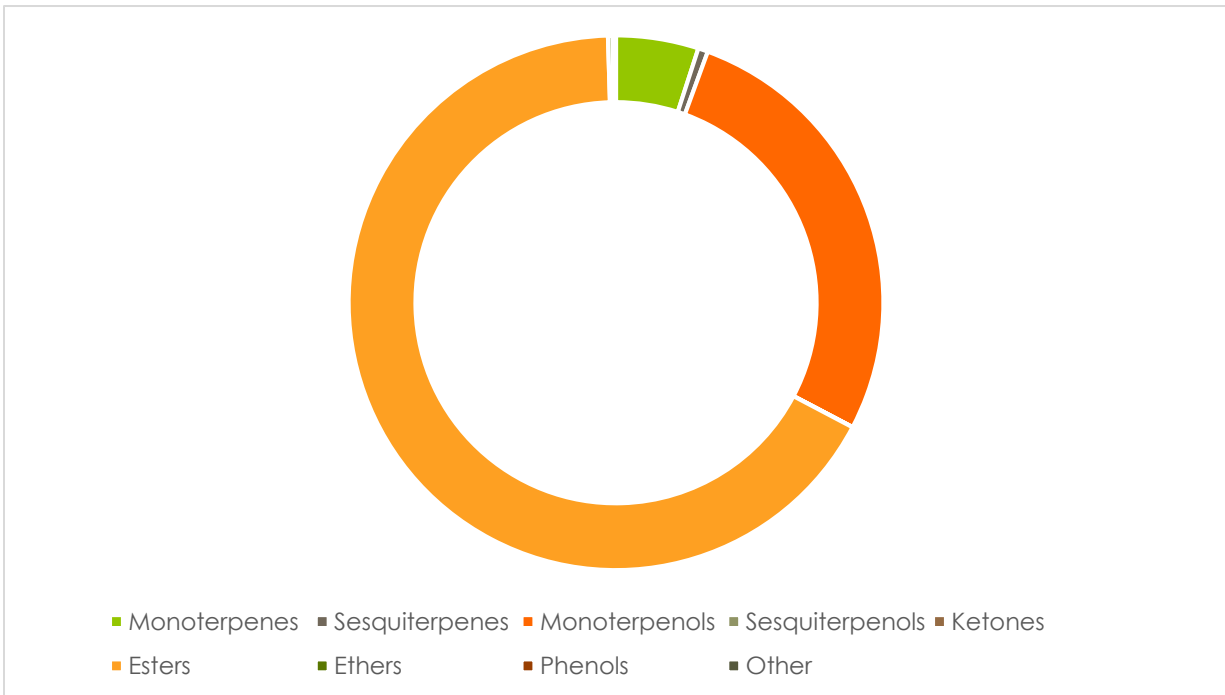
Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

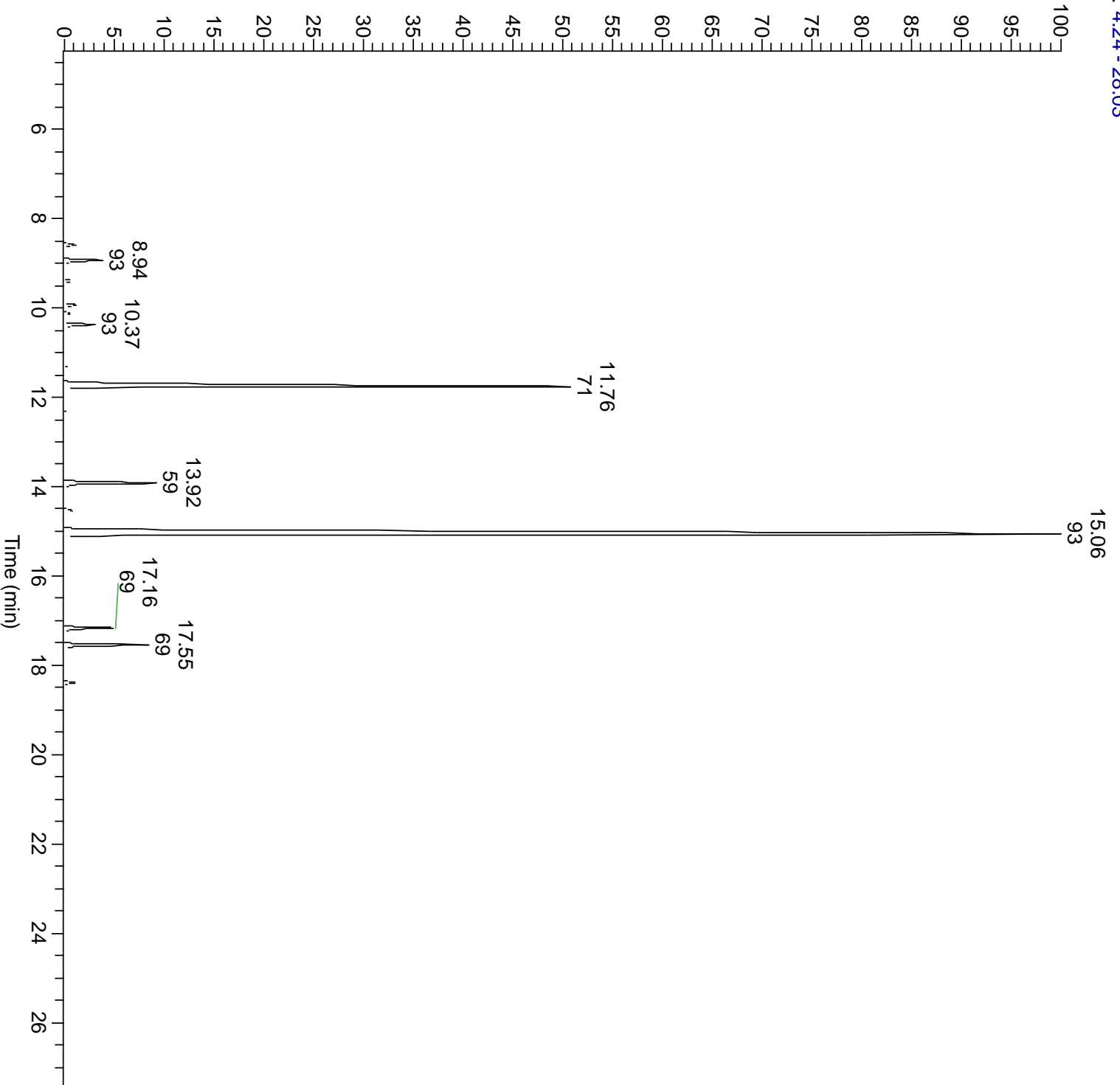
Summary of Analyses

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

Main Compounds	Percentages
Linalyl acetate	62.02%
Linalool	22.99%
alpha-Terpineol	3.65%
Geranyl acetate	2.96%
Neryl acetate	1.77%
Myrcene	1.55%
(E)-beta-Ocimene	1.26%
para-Cymene	0.60%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
5.00%	0.60%	27.18%	0.01%	0.00%
Esters	Ethers	Aldehydes	Phenols	Other
66.93%	0.28%	0.02%	0.00%	0.18%





Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	7.23	0.01%	alpha-Thujene	935.43	Monoterpenes
2	7.41	0.06%	alpha-Pinene	940.00	Monoterpenes
3	8.48	0.09%	Sabinene	975.71	Monoterpenes
4	8.59	0.49%	beta-Pinene	979.00	Monoterpenes
5	8.94	1.55%	Myrcene	990.57	Monoterpenes
6	9.39	0.39%	alpha-Phellandrene	1006.43	Monoterpenes
7	9.39	Co-Eluting	delta-3-Carene	1011.57	Monoterpenes
8	9.63	0.01%	alpha-Terpinene	1019.29	Monoterpenes
9	9.93	0.60%	para-Cymene	1025.71	Monoterpenes
10	9.93	Co-Eluting	Limonene	1032.00	Monoterpenes
11	9.93	Co-Eluting	1,8-Cineole	1033.29	Ethers
12	9.93	Co-Eluting	beta-Phellandrene	1033.57	Monoterpenes
13	10.12	0.28%	(Z)-beta-Ocimene	1038.86	Monoterpenes
14	10.37	1.26%	(E)-beta-Ocimene	1049.00	Monoterpenes
15	10.67	0.05%	gamma-Terpinene	1063.71	Monoterpenes
16	10.99	0.03%	cis-Linalool oxide (5) (furanoid)	1077.40	Monoterpenols
17	11.33	0.21%	Terpinolene	1089.43	Monoterpenes
18	11.76	22.99%	Linalool	1101.14	Monoterpenols
19	12.33	0.18%	Alloocimene	1134.50	Other
20	12.72	0.01%	trans-Pinocarveol	1144.00	Monoterpenols
21	13.58	0.05%	Terpinen-4-ol	1180.57	Monoterpenols
22	13.92	3.65%	alpha-Terpineol	1191.71	Monoterpenols
23	14.53	0.43%	Citronellol	1231.14	Monoterpenols
24	15.06	62.02%	Linalyl acetate	1263.80	Esters
25	15.06	Co-Eluting	Geraniol	1258.29	Monoterpenols
26	15.54	0.02%	Geranial	1275.57	Aldehydes
27	15.7	0.02%	Thymol	1294.57	Monoterpenols
28	16.67	0.09%	Linalyl propionate	1335.00	Esters
29	16.97	0.09%	Methyl anthranilate	1348.33	Esters
30	17.16	1.77%	Neryl acetate	1365.57	Esters
31	17.55	2.96%	Geranyl acetate	1384.71	Esters
32	17.78	0.04%	beta-Elemene	1388.30	Sesquiterpenes
33	18.39	0.43%	beta-Caryophyllene	1427.14	Sesquiterpenes
34	18.74	0.01%	Isocaryophyllene	1430.00	Sesquiterpenes
35	19.06	0.05%	alpha-Humulene	1461.43	Sesquiterpenes
36	19.4	0.01%	gamma-Murolene	1478.86	Sesquiterpenes
37	19.69	0.01%	Viridiflorene	1494.14	Sesquiterpenes
38	19.78	0.03%	Bicyclogermacrene	1495.71	Sesquiterpenes
39	20.14	0.01%	delta-Cadinene	1524.14	Sesquiterpenes
40	20.87	0.01%	(E)-Nerolidol	1567.00	Sesquiterpenols
41	21.32	0.02%	Caryophyllene oxide	1594.86	Ethers
42	22.85	0.01%	Cadalene	1666.00	Sesquiterpenes