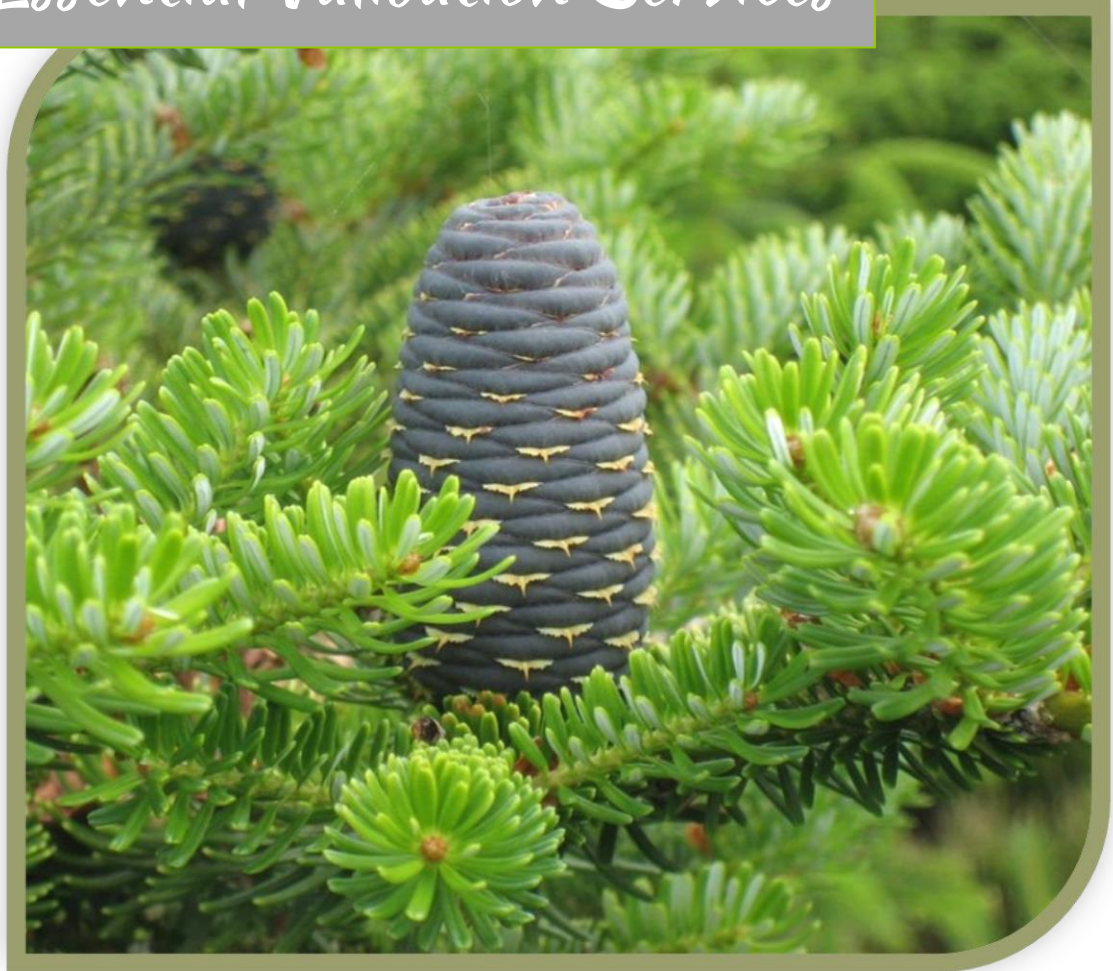




Essential Validation Services



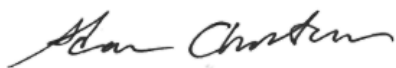
Sample:

Client: | Floracopeia
Sample: | Silver Fir (*Abias alba*)
Batch # | FRAG17112402
CAS Number | 8021-27-0
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 Silver Fir (*Abias alba*).

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

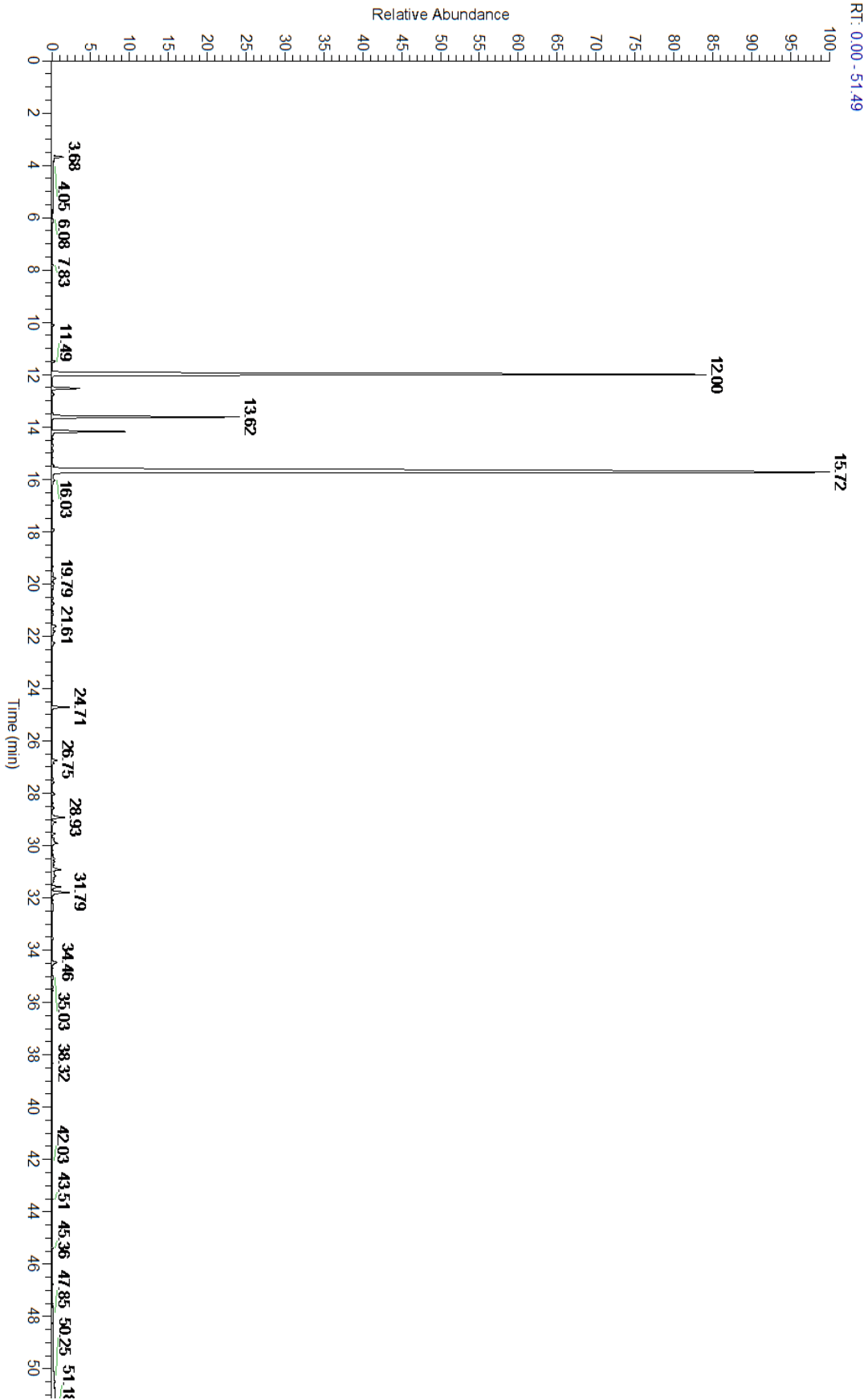
A fresh sample Silver Fir (*Abias alba*) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
Limonene	51.77%
alpha-Pinene	31.15%
beta-Pinene	6.71%
Myrcene	2.51%
Camphene	0.97%
delta-Cadinene	0.72%
Bornyl acetate	0.62%
beta-Caryophyllene	0.54%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
93.72%	3.38%	0.60%	0.27%	0.16%
Esters	Ethers	Aldehydes	Phenols	Other
0.64%	0.05%	0.17%	0.00%	1.01%



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



Total Percentage		99.05%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	10.11	0.06%	Santene	884.00	Normonoterpene
2	11.49	0.11%	Tricyclene	923.00	Monoterpene
3	11.72	0.01%	alpha-Thujene	927.80	Monoterpene
4	12.00	31.15%	alpha-Pinene	936.10	Monoterpene
5	12.52	0.97%	Camphene	950.30	Monoterpene
6	12.75	0.06%	Thuja-2,4(10)-diene	953.00	Monoterpene
7	13.50	0.03%	Sabinene	973.00	Monoterpene
8	13.62	6.71%	beta-Pinene	974.00	Monoterpene
9	14.17	2.51%	Myrcene	989.20	Monoterpene
10	14.71	0.05%	alpha-Phellandrene	1002.00	Monoterpene
11	14.93	0.03%	delta-3-Carene	1008.00	Monoterpene
12	15.18	0.01%	alpha-Terpinene	1014.00	Monoterpene
13	15.48	0.06%	para-Cymene	1024.30	Monoterpene
14	15.72	51.77%	Limonene	1029.50	Monoterpene
15	16.03	0.14%	(Z)-beta-Ocimene	1037.80	Monoterpene
16	16.82	0.01%	gamma-Terpinene	1054.00	Monoterpene
17	17.93	0.10%	Terpinolene	1092.10	Monoterpene
18	19.33	0.02%	alpha-Campholenal	1125.29	Monoterpene Aldehyde
19	19.58	0.05%	cis-Limonene oxide	1136.00	Monoterpene Ether
20	19.79	0.16%	trans-Pinocarveol	1143.75	Monoterpenol
21	20.00	0.09%	trans-Verbenol	1149.00	Monoterpenol
22	20.56	0.03%	Pinocamphone	1172.00	Monoterpene Ketone
23	20.74	0.08%	Borneol	1168.71	Monoterpenol
24	21.16	0.04%	Terpinen-4-ol	1180.57	Monoterpenol
25	21.61	0.23%	alpha-Terpineol	1191.71	Monoterpenol
26	21.81	0.15%	Myrtenal	1200.43	Monoterpene Aldehyde
27	22.25	0.13%	Verbenone	1209.71	Monoterpene Ketone
28	23.71	0.02%	Linalyl acetate	1263.80	Monoterpene Ester
29	24.71	0.62%	Bornyl acetate	1288.29	Monoterpene Ester
30	26.75	0.19%	alpha-Cubebene	1355.71	Sesquiterpene
31	26.85	0.07%	alpha-Longipinene	1357.90	Sesquiterpene
32	27.46	0.03%	alpha-Ylangene	1371.33	Sesquiterpene
33	27.59	0.08%	alpha-Copaene	1379.00	Sesquiterpene
34	28.03	0.10%	beta-Elemene	1389.20	Sesquiterpene
35	28.40	0.02%	Sibirene	1401.20	Sesquiterpene
36	28.57	0.07%	Longifolene	1403.83	Sesquiterpene
37	28.93	0.54%	beta-Caryophyllene	1427.14	Sesquiterpene
38	29.11	0.14%	alpha-Himachalene	1448.40	Sesquiterpene
39	29.55	0.09%	6,9-Guaiadiene	1446.00	Sesquiterpene
40	29.91	0.30%	alpha-Humulene	1461.43	Sesquiterpene
41	30.62	0.09%	Germacrene D	1484.71	Sesquiterpene
42	30.92	0.40%	delta-Selinene	1494.00	Sesquiterpene
43	31.17	0.14%	alpha-Muurolene	1500.25	Sesquiterpene

