



Sample:

Client: | Natures Gift
Sample: | Cedarwood Atlas (Cedrus atlantica)
Batch # | MO-21112
CAS Number | 8023-85-6
Type: | Essential Oil

Conclusion:

- No adulterants, diluents, or contaminants were detected via this method.



X *Adam Christen*

Validated By:

Essential Validation Services

747 SW 2nd Ave, Gainesville, FL 32601

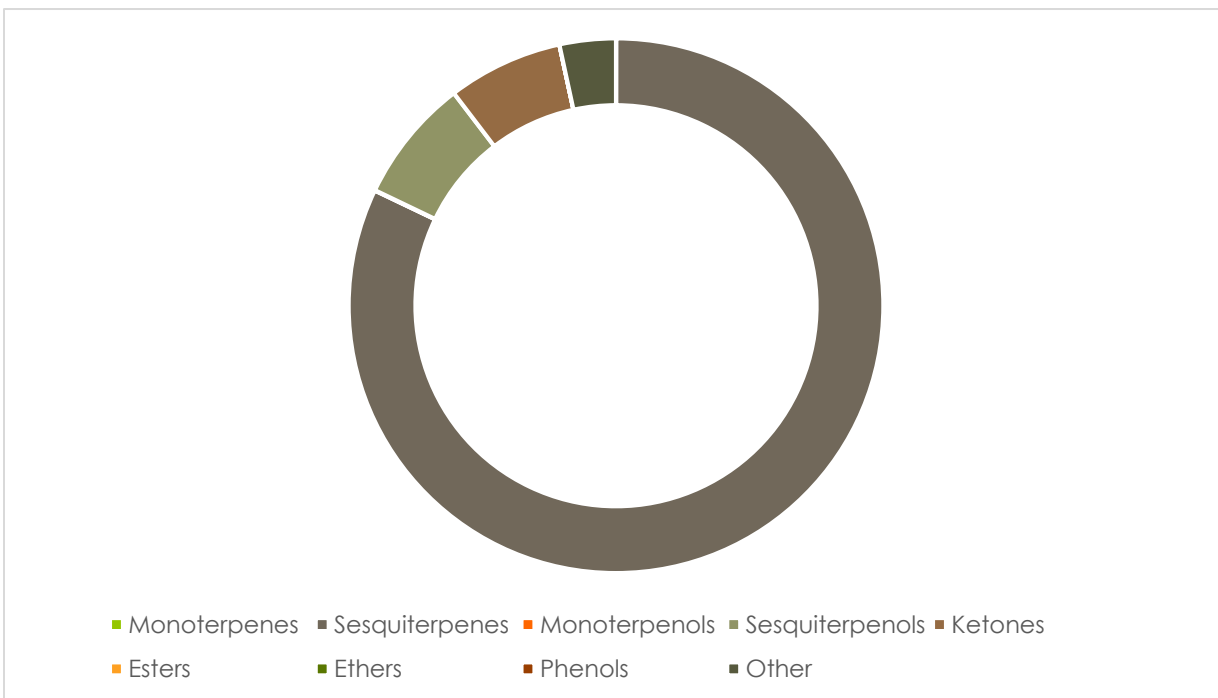
Phone: 317-361-5044 E-mail: Adam@essentialvalidationservices.com

Summary of Analyses

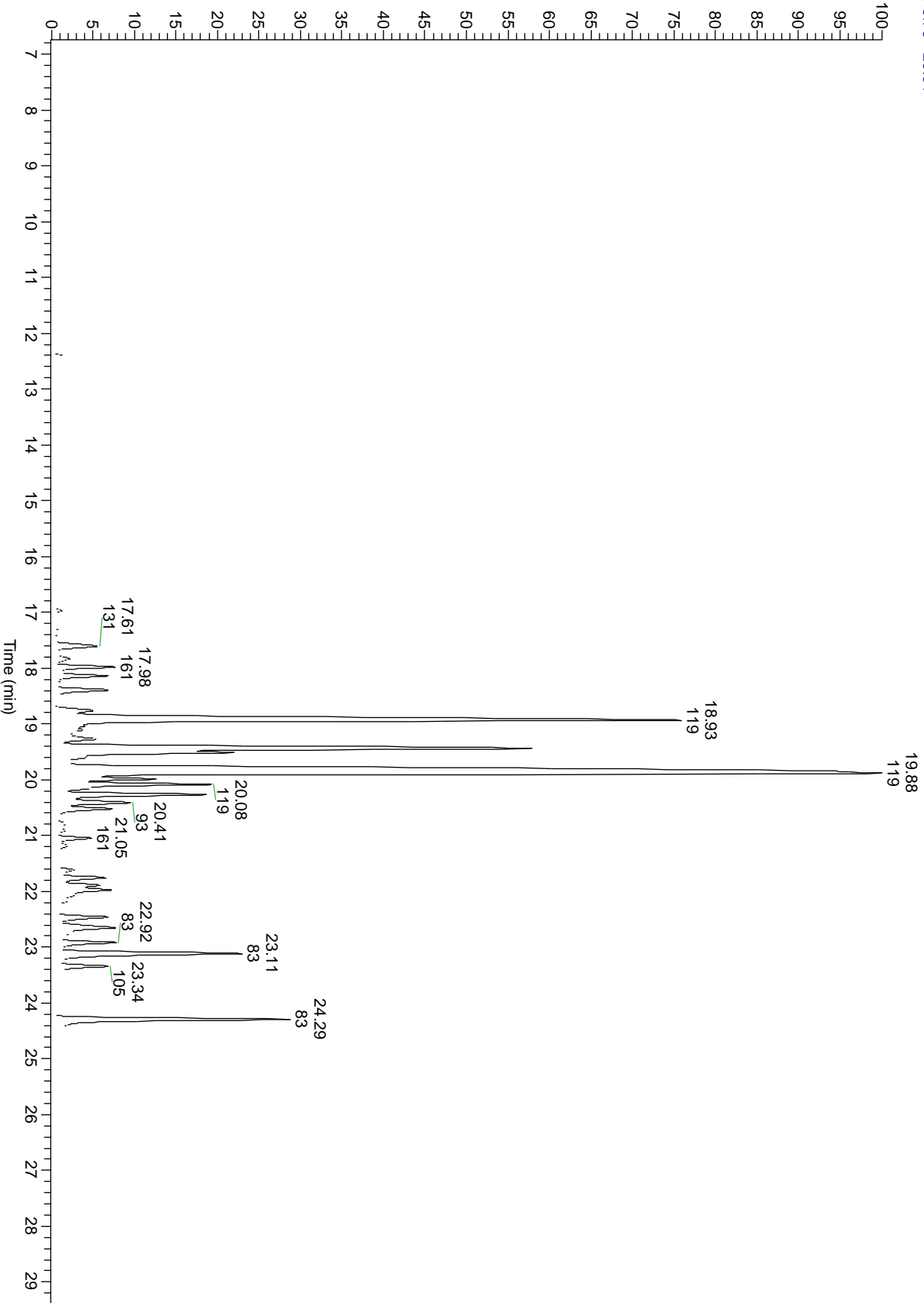
A fresh sample of Cedarwood Atlas (Cedrus atlantica) Essential Oil (10 uL in .5to.5 mL Hexane + ETOH) was prepared and analyzed via split injection GC/EI-MS.

Main Compounds	Percentages
beta-Himachalene	37.46%
alpha-Himachalene	14.82%
gamma-Himachalene	12.82%
(E)- α -Atlantone	4.36%
(Z)-trans-alpha-Bergamo	3.83%
delta-Cadinene	2.91%
Calamenene	2.56%
Cadalene	1.61%
α -Dehydro-ar-himachaler	1.60%
alpha-Calacorene	1.47%
Cubenol	1.40%
Himachala-2,4-diene	1.13%
(E)-10,11-Dihydroatlanto	1.10%

Monoterpenes	Sesquiterpenes	Monoterpenols	Sesquiterpenols	Ketones
0.02%	81.51%	0.03%	7.46%	6.93%
Esters	Ethers	Aldehydes	Phenols	Other
0.00%	0.00%	0.00%	0.00%	3.38%



RT: 6.73 - 29.61



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Total Percentage		99.32%			
Peak Number	RT	Area %	Compound Name	RI	Chemical Family
1	7.33	0.02%	alpha-Pinene	936.10	Monoterpenes
2	13.85	0.03%	alpha-Terpineol	1191.71	Monoterpenols
3	16.56	0.02%	delta-Elemene	1335.83	Sesquiterpenes
4	16.97	0.13%	alpha-Longipinene	1352.67	Sesquiterpenes
5	17.33	0.07%	alpha-Ylangene	1371.33	Sesquiterpenes
6	17.46	0.08%	alpha-Copaene	1379.00	Sesquiterpenes
7	17.61	0.94%	Isolongifolene	1387.00	Sesquiterpenes
8	17.83	0.37%	1-Tetradecene	1388.50	Other
9	17.98	1.05%	Unknown (Mass 204)	#N/A	#N/A
10	18.14	0.97%	Longifolene	1403.83	Sesquiterpenes
11	18.27	0.11%	alpha-Gurjunene	1412.00	Sesquiterpenes
12	18.39	1.13%	Himachala-2,4-diene	1429.00	Sesquiterpenes
13	18.76	0.74%	trans- α -Bergamotene	1435.00	Sesquiterpenes
14	18.93	14.82%	alpha-Himachalene	1448.40	Sesquiterpenes
15	19.10	0.48%	Vestitenone	1458.00	Ketones
16	19.27	0.75%	alpha-Acoradiene	1463.00	Sesquiterpenes
17	19.44	12.82%	gamma-Himachalene	1476.00	Sesquiterpenes
18	19.88	37.46%	beta-Himachalene	1497.75	Sesquiterpenes
19	19.99	1.60%	α -Dehydro-ar-himachalene	1516.00	Sesquiterpenes
20	20.08	2.91%	delta-Cadinene	1524.14	Sesquiterpenes
21	20.26	2.56%	Calamenene	1531.00	Sesquiterpenes
22	20.41	1.47%	alpha-Calacorene	1537.14	Sesquiterpenes
23	20.52	1.00%	Calacorene (unknown isomer)	1544.00	Sesquiterpenes
24	20.79	0.16%	beta-Vetivenene	1560.00	Sesquiterpenes
25	20.90	0.15%	Nerolidol	1567.00	Sesquiterpenes
26	21.05	0.59%	Unknown (Mass 218)	#N/A	#N/A
27	21.18	0.25%	Longiborneol	1591.00	Sesquiterpenols
28	21.40	0.08%	Isocedranol	1598.00	Sesquiterpenols
29	21.62	0.35%	Longiborneol Isomer?	#N/A	#N/A
30	21.76	0.95%	Unknown (Mass 220)	#N/A	#N/A
31	21.89	0.76%	1-epi-Cubenol	1628.00	Sesquiterpenols
32	21.97	1.40%	Cubenol	1642.14	Sesquiterpenols
33	22.10	0.21%	Himachalol	1647.00	Sesquiterpenols
34	22.28	0.07%	Himachalene Isomer	#N/A	#N/A
35	22.46	0.93%	Allohimachalol	1660.00	Sesquiterpenols
36	22.65	1.61%	Cadalene	1666.00	Sesquiterpenes
37	22.92	1.10%	(E)-10,11-Dihydroatlantone	1671.00	Ketones
38	23.11	3.83%	(Z)-trans-alpha-Bergamotol	1693.00	Sesquiterpenols
39	23.11	Co-Eluting	(E)- γ -Atlantone	1697.00	Ketones
40	23.34	0.97%	(Z)- α -Atlantone	1715.00	Ketones
41	24.29	4.36%	(E)- α -Atlantone	1773.00	Ketones
42	24.90	0.01%	Nootkatone	1799.00	Ketones