

12025 NE Marx St. Portland, OR 97220
503-253-3511 / www.greenleaflab.org

Green Leaf Lab proudly follows
ISO/IEC 17025:2005(E) Quality Standards

Cherry Pie

Little Farma LLC

Sample ID S132397 Matrix: Flower

Date Accepted: 7/5/16 Date Analyzed: 7/7/16

Sampling Method Laboratory Sampled Batch

Testing in compliance with Oregon State Law and OAR 333-0081190

Analysis Methods

Potency via HPLC

Pesticide via GC-MS / ELISA

Mold & Mildew via Plate Culture

Water Activity: 0.505 at 24°C

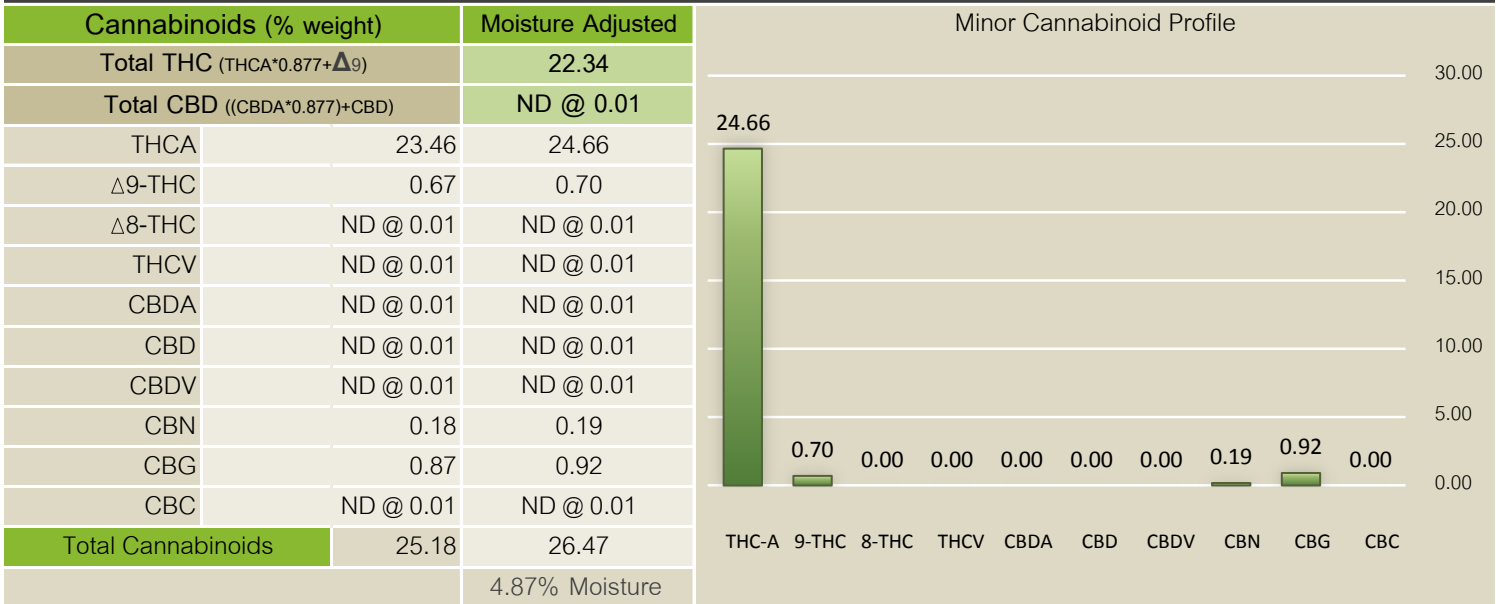
Instruments

HP Agilent 1100 Series

Analysts

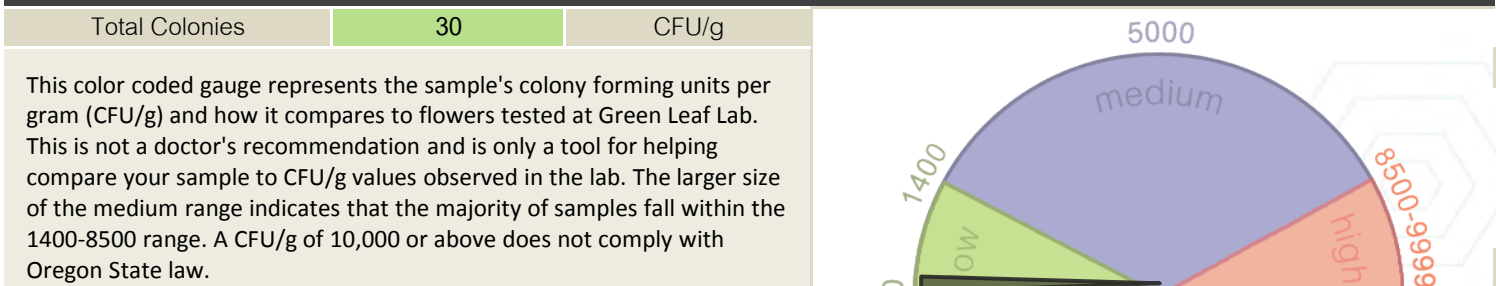
PMH/EEW

Potency Analysis



*The HPLC measures cannabinoids in both their acidic and activated form; total THC represent the potential total activated THC.

Mold and Mildew Screen



Pesticide Analysis

Pyrethroids	Below LOQ of 1	ppm
Organophosphates	Below LOQ of 0.1	ppm
Carbamates	Below LOQ of 0.5	ppm
Chlorinated Hydrocarbons	Below LOQ of 0.1	ppm
Total Pesticide Content	ND	ppm

Quality Control Results

Method Blank:	Passed	No Analytes Detected
Quality Control Sample:	Passed	90-110% of expected
Sample Duplicate Requirement:	Passed	<10% difference

Kevin Hounshell, Laboratory Director



Definitions
 ND: not detected
 ppm: parts per million,
 CFU/g: colony forming units per gram

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Analysis Methods
Terpenes via GC-MS

Instruments
HP 5890 / HP 5972
Analysts
PMH/AKH/EEW

Terpene Analysis			
Monoterpenes	Results in Percent	Results in mg/g	
Camphene	0.014%	0.14	mg/g
δ 3-Carene	0.000%	ND @ 0.01	mg/g
p-Cymene	0.000%	ND @ 0.01	mg/g
Eucalyptol	0.000%	ND @ 0.01	mg/g
Fenchone	0.000%	ND @ 0.01	mg/g
Geraniol	0.000%	ND @ 0.01	mg/g
Isopulegol	0.000%	ND @ 0.01	mg/g
Limonene	0.497%	4.97	mg/g
Linalool	0.195%	1.95	mg/g
β-Myrcene	0.154%	1.54	mg/g
Nerol	0.000%	ND @ 0.01	mg/g
β-Ocimene	0.000%	ND @ 0.01	mg/g
α-Pinene	0.048%	0.48	mg/g
β-Pinene	0.095%	0.95	mg/g
Pulegone	0.000%	ND @ 0.01	mg/g
α-Terpinene	0.000%	ND @ 0.01	mg/g
γ-Terpinene	0.000%	ND @ 0.01	mg/g
Sesquiterpenes			
α-Bisabolol	0.101%	1.01	mg/g
β-Caryophyllene	0.000%	ND @ 0.01	mg/g
Caryophyllene Oxide	0.409%	4.09	mg/g
Guaiol	0.000%	ND @ 0.01	mg/g
α-Humulene	0.130%	1.30	mg/g
Nerolidol	0.020%	0.20	mg/g
Valencene	0.000%	ND @ 0.01	mg/g
Total Terpenes:	1.663%	16.63	mg/g

About your terpene profile

Terpenes are aromatic molecules found in plant resins. They are not only responsible for the many unique smells of Cannabis, but they accentuate the holistic effect of cannabinoids as well. Terpene profiles can be utilized to quantify strong flavor, identify different strains and achieve therapeutic benefits.

Green Leaf Lab's terpene analysis quantifies the 25 most common terpenes found in Cannabis sativa. Terpenes are generally divided into two chemical classifications: Monoterpenes and sesquiterpenes.

Monoterpenes:

All of the monoterpenes are very similar in chemical structure, containing 10 carbons and 6 hydrogens. Although, they are similar, the varying arrangements produce distinct aromas. Changes such as oxidation and rearrangement produce monoterpenoids which will have a different chemical formula.

Monoterpenes are more volatile than sesquiterpenes; the aromas tend to be stronger and they are more prone to being lost by heating and oxidation.

Myrcene and Limonene are examples of an acyclic and cyclic monoterpene, respectively. They both share a basic structure containing a backbone of 10 carbon atoms, however arranged uniquely.

Sesquiterpenes:

The sesquiterpenes are a more complex class of terpenes. They are also generally aromatic, but are also heavier and less volatile. Thus, they often remain after some of the more volatile monoterpenes have broken down under heat or oxidation.

These two common terpenes have quite varied structure and different therapeutic properties.

