ORELAP Cert No. 4092-004
OLCC No. 1002158CD2E

Marijuana Potency Analysis by High Performance Liquid Chromatography

Testing Accreditation #: 4092-004

Test Certificate #: 123602-001

Client Name, Sample Details
IEC Thermal
Rockford, IL 61104
Sample: Dried Sample #2
Type: Industrial Hemp
Method: FE04U
***Water Activity:** 0.616
***Moisture:** 10.53%

Test Conditions
Scale: XS205-OR1
Temp: 22.3 °C
Baro Pressure: 1007 hPa
Analyst: HRM
Technician: TMR

Sample ID#: 123602
Harvest/Process Date: 04/14/2020
Date Received: 04/14/2020
Test Date: 04/17/2020

Test Compounds	THC	THCA	CBD	CBDA	CBN	CBG	CBC	THCV*	CBDV	Total Cannabinoids*	Total THC	Total CBD	Calc Max Total Cannabinoids*
Amount (%)	0.04	0.19	0.64	7.55	N/D	N/D	0.10	N/D	N/D	8.51	0.20	7.26	7.46
Amount (mg/g)	0.40	1.85	6.39	75.49	N/D	N/D	1.00	N/D	N/D	85.13	2.02	72.59	75.61
Amount per Serving (mg)	N\D	N\D	N\D	N\D	N\D	N\D	N\D	N\D	N\D	0.00	**Serving Size~** (g):		0.00
LOQ (mg/g)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		**%Decarb.**	**THC**	**CBD**
±%RPD	+/-5%	+/-5%	+/-5%	+/-5%	+/-5%	+/-5%	+/-5%	+/-5%	+/-5%				

LOQ = Limit of Quantitation; %RPD = Relative Percent Deviation; %RSD = Relative Standard Deviation; N/D = Not Detected
*Designates values that are not currently included in the accredited scope of Iron Laboratories.
*** Designates tests that use the method FE-45.

Total THC and CBD is the calculated sum of THC or CBD and the amount of THC or CBD derived from THCA or CBDA, respectively. These values are calculated by applying a molar correction factor of 0.877 to the THCA or the CBDA value. Calc Max Total Cannabinoids is the sum of Total THC, Total CBD, CBN, CBG, CBC, THCV, and CBDV.

%Decarb. THC and CBD refers to the percentage of THC or CBD relative to THCA or CBDA, respectively.

This sample has not been tested according to OAR 333-007. These results should therefore be used for research and development or quality control purposes only.

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Himashi Mead, Technical Manager

Joseph Rutkowski, Quality Manager

Iron Labs Oregon complies with 2009 TNI Environmental Laboratory Standards.

Tested by Iron Laboratories Oregon, 71 Centennial Loop Suite D Eugene, OR 97401

Terpene Report by Mass Spectrometer

Test Certificate #: 123602-001

Client Name, Sample Details

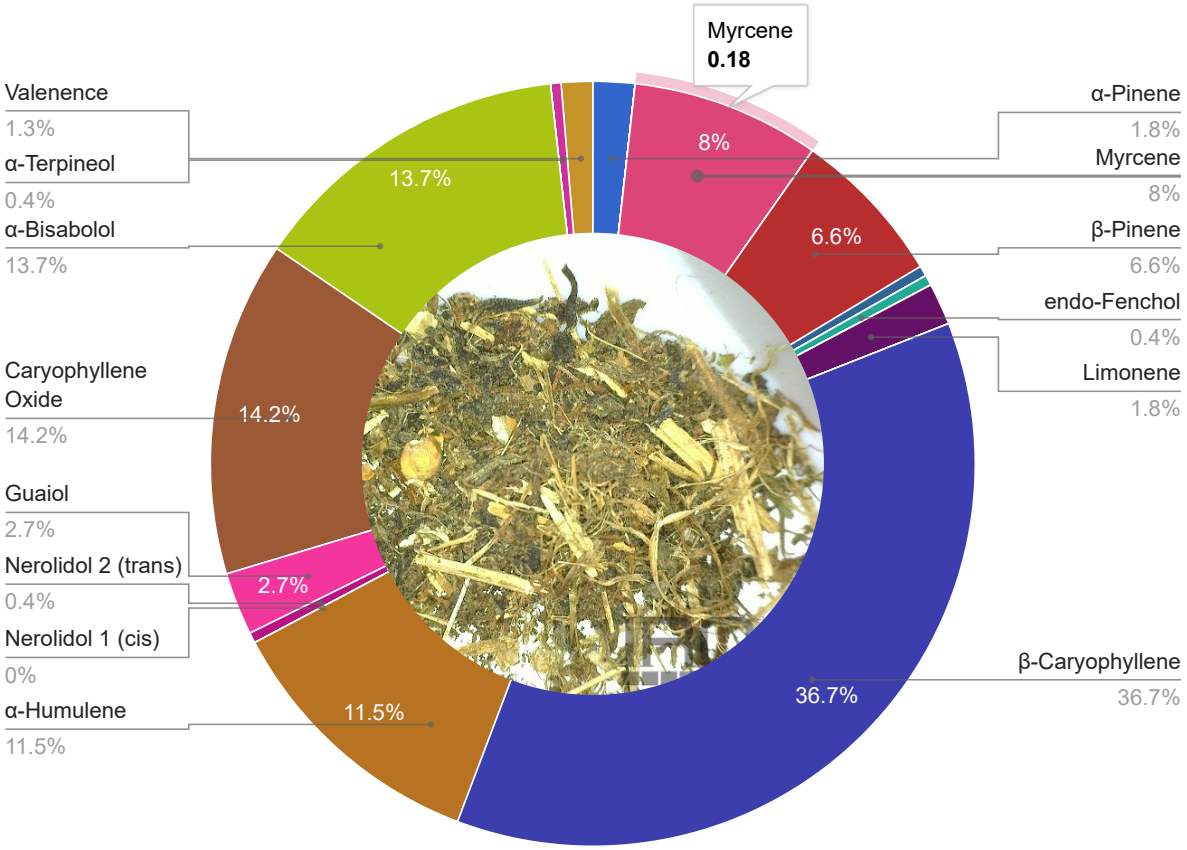
IEC Thermal
Rockford, IL 61104
Sample: Dried Sample #2
Type: Industrial Hemp
Method: SOP FE-44-OR3

Test Conditions

Scale: XS205-OR1
Temp: 22.1 °C
Baro Pressure: 1012 hPa
Analyst: HRM
Technician: HRM

Sample ID#: 123602

Harvest/Process Date: 04/14/2020
Date Received: 04/14/2020



α-Pinene (0.04%)	β-Ocimene (0.00%)	Camphene (0.00%)	Eucalyptol (1,8-Cineol) (0.00%)	Sabinene (0.00%)
γ-Terpinene (0.00%)	Myrcene (0.18%)	α-Terpinolene (0.00%)	β-Pinene (0.15%)	Linalool (0.01%)
Δ3-Carene (0.00%)	Fenchone (0.00%)	α-Terpinene (0.00%)	endo-Fenchol (0.01%)	α-Ocimene (0.00%)
Isopulegol (0.00%)	Limonene (0.04%)	Geraniol (0.00%)	p-Cymene (0.00%)	β-Caryophyllene (0.83%)
α-Humulene (0.26%)	Nerolidol 1 (cis) (0.00%)	Nerolidol 2 (trans) (0.01%)	Guaiol (0.06%)	Caryophyllene Oxide (0.32%)
α-Bisabolol (0.31%)	α-Phellandrene (0.00%)	α-Terpineol (0.01%)	Valenence (0.03%)	

Predominant Terpenes

Total: 2.260%

0.83%	β-Caryophyllene	Sweet, woody, spicy, clove	0.32%	Caryophyllene Oxide	Sweet, fresh, woody, spicy
0.31%	α-Bisabolol	Fruity, nutty, coconut	0.26%	α-Humulene	Woody, oceanic-watery, spicy clove
0.18%	Myrcene	Peppery, spicy balsam	0.15%	β-Pinene	Woody, fresh pine, hay

Value in parenthesis indicates percentage of terpene present in the total sample (weight percentage, wt/wt%).
Value in doughnut slice indicates individual terpene abundance with respect to the total terpenes detected.

This sample has not been tested according to OAR 333-007. These results should therefore be used for research and development or quality control purposes only.

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