

# HEMP LABORATORY TEST CERTIFICATE OF ANALYSIS



## Hemp Analysis - Summary

Tested by high-performance liquid chromatography with ultraviolet detection (HPLC-UV).

### TOTAL THC<sup>1</sup>

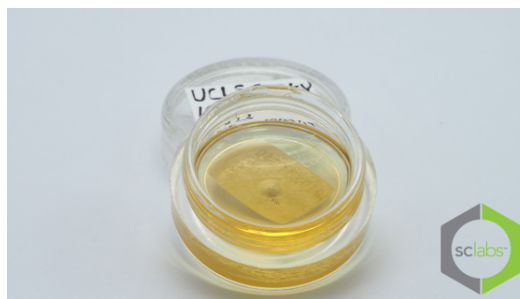
**FAILED<sup>2</sup> 3.6024%**

### CANNABINOID PROFILE

**66.9215%** Total CBD<sup>1</sup>

**72.5447%** Total Cannabinoids<sup>3</sup>

**Terpenes** See page 2



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- 1) Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step: Total THC =  $\Delta 9\text{THC} + (\text{THCa} (0.877))$  and Total CBD =  $\text{CBD} + (\text{CBDa} (0.877))$ .
- 2) As defined by the 2018 Farm Bill, hemp must contain no more than 0.3% Total THC, defined as the concentration of delta-9 tetrahydrocannabinol ( $\Delta$ -9-THC) post-decarboxylation - see formula above.
- 3) Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

## Additional Testing

Pass/Fail defined at action limits set by California Code of Regulations Title 16. Effective date: January 16, 2019. Authority: Section 26013, Business Professions Code. Reference: Sections 26100, 26104, and 26110, Business Professions Code.

### RESIDUAL PESTICIDES

**PASSED**

### RESIDUAL SOLVENTS

**PASSED**

### HEAVY METALS

**PASSED**

## UCLSPOOKY 1023

**Tested for:** MEDIPRANA

**Address:**

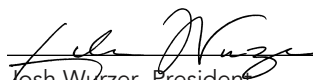
**Batch #:**

**Sample ID:** 191023T040

**Date Collected:** 10/23/2019

**Date Received:** 10/24/2019

## Final Approval

  
Josh Wurzer, President  
Date: 10/29/2019

These results relate only to the sample included on this report. This report shall not be reproduced except in full, without written approval of the laboratory. The uncertainty of measurement associated with the measurement result reported in this certificate is available from SC Laboratories upon request.



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SC Laboratories, LLC  
100 Pioneer Street, Suite E  
Santa Cruz, CA 95060  
(866) 435-0709 | sclabs.com

Sample Name: UCLSPOOKY 1023

LIMS Sample ID: 191023T040

Batch #:

Source Metric ID(s):

Sample Type: Concentrate, Product Inhalable

Batch Count:

Sample Count:

Unit Mass:

Serving Mass:

Density:

Date Collected: 10/23/2019

Date Received: 10/24/2019

Tested for: MEDIPRANA

License #:

Address:

Produced by:

License #:

Address:

**Overall result for batch: Fail**

## Moisture Test Results

Moisture	Results (%)
	NT

## Cannabinoid Test Results 10/24/2019

Cannabinoid analysis utilizing High Performance Liquid Chromatography (HPLC, QSP 5-4-4-4)

	mg/g	%	LOD / LOQ mg/g
Δ9THC	36.024	3.6024	0.052 / 0.158
Δ8THC	ND	ND	0.053 / 0.162
THCa	ND	ND	0.052 / 0.156
THCV	ND	ND	0.023 / 0.069
THCVa	ND	ND	0.091 / 0.276
CBD	669.215	66.9215	0.052 / 0.158
CBDa	ND	ND	0.052 / 0.156
CBDV	4.093	0.4093	0.021 / 0.063
CBDVa	ND	ND	0.037 / 0.111
CBG	10.812	1.0812	0.030 / 0.092
CBGa	ND	ND	0.044 / 0.133
CBL	1.610	0.1610	0.130 / 0.393
CBN	3.271	0.3271	0.052 / 0.157
CBC	0.422	0.0422	0.031 / 0.094
CBCa	ND	ND	0.129 / 0.392

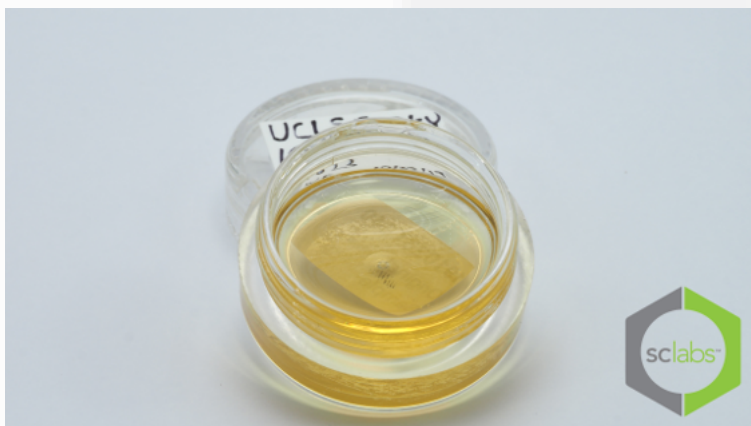
**Sum of Cannabinoids: 725.447 72.5447**

Total THC (Δ9THC+0.877\*THCa) 36.024 3.6024  
Total CBD (CBD+0.877\*CBDa) 669.215 66.9215

Action Limit mg

Δ9THC per Unit  
Δ9THC per Serving

## Batch Photo



## Terpene Test Results

10/26/2019

Terpene analysis utilizing Gas Chromatography - Flame Ionization Detection (GC - FID)

	mg/g	%	LOD / LOQ mg/g
Pinene	ND	ND	0.044 / 0.135
Camphene	ND	ND	0.053 / 0.16
Sabinene	ND	ND	0.054 / 0.165
Pinene	ND	ND	0.054 / 0.162
Myrcene	ND	ND	0.054 / 0.164
Phellandrene	0.515	0.0515	0.073 / 0.222
3 Carene	ND	ND	0.057 / 0.174
Terpinene	<LOQ	<LOQ	0.06 / 0.18
Limonene	0.110	0.0110	0.026 / 0.078
Eucalyptol	ND	ND	0.042 / 0.126
Ocimene	ND	ND	0.056 / 0.171
Terpinene	ND	ND	0.06 / 0.181
Sabinene Hydrate	ND	ND	0.036 / 0.108
Fenchone	ND	ND	0.061 / 0.184
Terpinolene	1.226	0.1226	0.045 / 0.135
Linalool	ND	ND	0.038 / 0.116
Fenchol	ND	ND	0.045 / 0.138
(-)-Isopulegol	ND	ND	0.026 / 0.08
Camphor	ND	ND	0.108 / 0.327
Isoborneol	ND	ND	0.066 / 0.201
Borneol	ND	ND	0.097 / 0.293
Menthol	ND	ND	0.044 / 0.135
Terpineol	<LOQ	<LOQ	0.045 / 0.136
Nerol	ND	ND	0.045 / 0.137
R-(+)-Pulegone	ND	ND	0.045 / 0.135
Geraniol	ND	ND	0.033 / 0.1
Geranyl Acetate	ND	ND	0.031 / 0.095
Cedrene	ND	ND	0.034 / 0.102
Caryophyllene	0.111	0.0111	0.036 / 0.108
Humulene	ND	ND	0.025 / 0.076
Valencene	ND	ND	0.015 / 0.046
Nerolidol	ND	ND	0.07 / 0.212
Caryophyllene Oxide	ND	ND	0.055 / 0.167
Guaiol	0.427	0.0427	0.044 / 0.132
Cedrol	<LOQ	<LOQ	0.057 / 0.173
Bisabolol	1.986	0.1986	0.034 / 0.102

**Total Terpene Concentration: 4.375 0.4375**

## Sample Certification

California Code of Regulations Title 16 Effect Date January 16, 2019  
Authority: Section 26013, Business and Professions Code.  
Reference: Sections 26100, 26104 and 26110, Business and Professions Code.



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Sample must be marked as public to be viewable

*Josh Wurzer*  
Josh Wurzer, President  
Date: 10/29/2019



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Tested for: MEDIPRANA

License #:

Address:

Produced by:

License #:

Address:

**Overall result for batch: Fail**

## Pesticide Test Results - Pass

10/27/2019

Pesticide, Fungicide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry

		Results (µg/g)	Action Limit µg/g	Reporting Limit µg/g
Abamectin	Pass	ND	0.1	0.091
Bifenazate	Pass	ND	0.1	0.035
Bifenthrin	Pass	ND	3.0	0.038
Boscalid	Pass	ND	0.1	0.023
Etoxazole	Pass	ND	0.1	0.022
Imidacloprid	Pass	ND	5.0	0.050
Myclobutanil	Pass	ND	0.1	0.044
Piperonylbutoxide	Pass	ND	3.0	0.020
Pyrethrins	Pass	ND	0.5	0.036
Spinosad	Pass	ND	0.1	0.031
Spiromesifen	Pass	ND	0.1	0.015
Spirotetramat	Pass	ND	0.1	0.042

## Mycotoxin Test Results

Mycotoxin analysis utilizing HPLC-Mass Spectrometry

	Results (µg/kg)	Action Limit µg/kg	LOD / LOQ µg/kg
Aflatoxin B1, B2, G1, G2	NT		
Ochratoxin A	NT		

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Address:

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License #:

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**Overall result for batch: Fail**

## Residual Solvent Test Results - Pass

10/25/2019

Residual Solvent analysis utilizing Gas Chromatography - Mass Spectrometry (GC - MS)

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
1,2-Dichloroethane	Pass ND	1.0	0.111 / 0.336
Benzene	Pass ND	1.0	0.043 / 0.132
Chloroform	Pass ND	1.0	0.064 / 0.195
Ethylene Oxide	Pass ND	1.0	0.136 / 0.413
Methylene chloride	Pass ND	1.0	0.172 / 0.521
Trichloroethylene	Pass ND	1.0	0.040 / 0.120
Acetone	Pass ND	5000.0	14.703 / 44.549
Acetonitrile	Pass ND	410.0	2.727 / 8.262
Butane	Pass ND	5000.0	5.672 / 17.185
Ethanol	Pass 1245.653	5000.0	11.775 / 35.679
Ethyl acetate	Pass ND	5000.0	16.227 / 49.169
Ethyl ether	Pass ND	5000.0	11.608 / 35.172
Heptane	Pass ND	5000.0	12.982 / 39.336
Hexane	Pass ND	290.0	1.816 / 5.502
Isopropyl Alcohol	Pass ND	5000.0	15.358 / 46.536
Methanol	Pass ND	3000.0	15.584 / 47.220
Pentane	Pass ND	5000.0	12.355 / 37.434
Propane	Pass ND	5000.0	1.359 / 4.117
Toluene	Pass ND	890.0	7.174 / 21.736
Total Xylenes	Pass ND	2170.0	34.438 / 104.347

## Microbiological Test Results

PCR and fluorescence detection of microbiological impurities

	Results	Action Limit
Shiga toxin-producing Escherichia coli	NT	
Salmonella spp.	NT	
Aspergillus fumigatus	NT	
Aspergillus flavus	NT	
Aspergillus niger	NT	
Aspergillus terreus	NT	

3M Petrifilm and plate counts for microbiological contamination

	Results (cfu/g)
Aerobic Plate Count	NT
Total Yeast and Mold	NT

## Foreign Material Test Results

NT

## Water Activity Test Results

Water Activity	Results (Aw)	Action Limit Aw
	NT	

## Heavy Metal Test Results - Pass

10/26/2019

Heavy metal analysis utilizing Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
Cadmium	Pass ND	0.2	0.012 / 0.035
Lead	Pass ND	0.5	0.031 / 0.095
Arsenic	Pass ND	0.2	0.013 / 0.039
Mercury	Pass ND	0.1	0.002 / 0.005

## Note

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