



# HEMP LABORATORY TEST CERTIFICATE OF ANALYSIS

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

Sample Name: 12262019-SHAPE

LIMS Sample ID: 200109S007

Batch #:

Source Metr ID(s):

Sample Type: Concentrate, Product Inhalable

Batch Count:

Sample Count:

Unit Mass:

Serving Mass:

Density:

Date Collected: 01/09/2020

Date Received: 01/10/2020

Tested for: CalyFx Hemp

License #:

Address:

Produced by:

License #:

Address:

## Moisture Test Results

	Results (%)
Moisture	NT

## Cannabinoid Test Results

01/10/2020

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

	mg/g	%	LOD / LOQ mg/g
Δ9THC	ND	ND	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	567.724	56.7724	0.052 / 0.158
CBDa	ND	ND	0.052 / 0.156
CBDV	3.220	0.3220	0.021 / 0.063
CBDVa	ND	ND	0.037 / 0.111
CBG	19.669	1.9669	0.030 / 0.092
CBGa	ND	ND	0.044 / 0.133
CBL	ND	ND	0.130 / 0.393
CBN	ND	ND	0.052 / 0.157
CBC	ND	ND	0.031 / 0.094
CBCa	ND	ND	0.129 / 0.392

**Sum of Cannabinoids: 590.613 59.0613**

Total THC (Δ9THC+0.877\*THCa) ND ND  
Total CBD (CBD+0.877\*CBDa) 567.724 56.7724

Δ9THC per Unit  
Δ9THC per Serving  
Action Limit mg

## Terpene Test Results

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

	mg/g	%	LOD / LOQ mg/g
☑ Bisabolol	NT		
☑ Pinene	NT		
3 Carene	NT		
Borneol	NT		
☑ Caryophyllene	NT		
Geraniol	NT		
☑ Humulene	NT		
Terpinolene	NT		
Valencene	NT		
Menthol	NT		
Nerolidol	NT		
Camphene	NT		
Eucalyptol	NT		
☑ Cedrene	NT		
Camphor	NT		
(-)-Isopulegol	NT		
Sabinene	NT		
☑ Terpinene	NT		
☑ Terpinene	NT		
Linalool	NT		
Limonene	NT		
Myrcene	NT		
Fenchol	NT		
☑ Phellandrene	NT		
Caryophyllene Oxide	NT		
Terpineol	NT		
☑ Pinene	NT		
R-(+)-Pulegone	NT		
Geranyl Acetate	NT		
Citronellol	NT		
p-Cymene	NT		
Ocimene	NT		
Guaiol	NT		
Phytol	NT		
Isoborneol	NT		

Total Terpene Concentration: NT

## 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, President  
Date: 01/10/2020

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## Hemp Analysis - Summary

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



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

# Not Detected<sup>2</sup>

### CANNABINOID PROFILE

88.9327% Total CBD<sup>1</sup>

92.5098% Total Cannabinoids<sup>3</sup>

Terpenes Not Tested



- 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 ( $\Delta^9\text{-THC}$ ) 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**

### MICROBIAL IMPURITIES

**PASSED**

### RESIDUAL SOLVENTS

**PASSED**

## 12262019CBD-1-2-3

**Tested for:** CalyFx Hemp

**Address:**

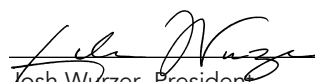
**Batch #:**

**Sample ID:** 200103T015

**Date Collected:** 01/03/2020

**Date Received:** 01/04/2020

## Final Approval

  
Josh Wurzer, President  
Date: 01/06/2020

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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Sample Name: 12262019CBD-1-2-3  
LIMS Sample ID: 200103T015  
Batch #:  
Source Metr ID(s):  
  
Sample Type: Concentrate, Product Inhalable  
Batch Count:  
Sample Count:  
Unit Mass:  
Serving Mass:  
Density:

Date Collected: 01/03/2020  
Date Received: 01/04/2020  
Tested for: CalyFx Hemp  
  
License #:  
Address:  
  
Produced by:  
  
License #:  
Address:

## Moisture Test Results

	Results (%)
Moisture	NT

## Cannabinoid Test Results

01/04/2020

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

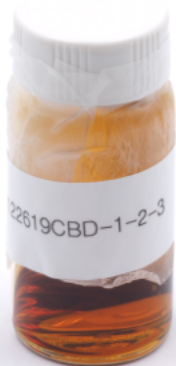
	mg/g	%	LOD / LOQ mg/g
Δ9THC	ND	ND	0.052 / 0.158
Δ8THC	ND	ND	0.053 / 0.162
THCa	ND	ND	0.052 / 0.156
THCV	ND	ND	0.023 / 0.069
THCVa	ND	ND	0.091 / 0.276
CBD	889.327	88.9327	0.052 / 0.158
CBDa	ND	ND	0.052 / 0.156
CBDV	5.076	0.5076	0.021 / 0.063
CBDVa	ND	ND	0.037 / 0.111
CBG	30.695	3.0695	0.030 / 0.092
CBGa	ND	ND	0.044 / 0.133
CBL	ND	ND	0.130 / 0.393
CBN	ND	ND	0.052 / 0.157
CBC	ND	ND	0.031 / 0.094
CBCa	ND	ND	0.129 / 0.392

Sum of Cannabinoids:	925.098	92.5098	
Total THC (Δ9THC+0.877*THCa)	ND	ND	
Total CBD (CBD+0.877*CBDa)	889.327	88.9327	

Action Limit mg

Δ9THC per Unit  
Δ9THC per Serving

## Batch Photo



## Terpene Test Results

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

	mg/g	%	LOD / LOQ mg/g
▣ Bisabolol	NT		
▣ Pinene	NT		
3 Carene	NT		
Borneol	NT		
▣ Caryophyllene	NT		
Geraniol	NT		
▣ Humulene	NT		
Terpinolene	NT		
Valencene	NT		
Menthol	NT		
Nerolidol	NT		
Camphene	NT		
Eucalyptol	NT		
▣ Cedrene	NT		
Camphor	NT		
(-)-Isopulegol	NT		
Sabinene	NT		
▣ Terpinene	NT		
▣ Terpinene	NT		
Linalool	NT		
Limonene	NT		
Myrcene	NT		
Fenchol	NT		
▣ Phellandrene	NT		
Caryophyllene Oxide	NT		
Terpineol	NT		
▣ Pinene	NT		
R-(+)-Pulegone	NT		
Geranyl Acetate	NT		
Citronellol	NT		
p-Cymene	NT		
Ocimene	NT		
Guaiol	NT		
Phytol	NT		
Isoborneol	NT		

Total Terpene Concentration: NT

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Sample Count:

Unit Mass:

Serving Mass:

Density:

Date Collected: 01/03/2020

Date Received: 01/04/2020

Tested for: CalyFx Hemp

License #:

Address:

Produced by:

License #:

Address:

## Pesticide Test Results - Pass

01/05/2020

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	<RL	0.1	0.044
Piperonylbutoxide	Pass	2.372	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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Batch Count:

Sample Count:

Unit Mass:

Serving Mass:

Density:

Date Collected: 01/03/2020

Date Received: 01/04/2020

Tested for: CalyFx Hemp

License #:

Address:

Produced by:

License #:

Address:

## Residual Solvent Test Results - Pass

01/05/2020

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 0.550	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 121.650	5000.0	14.703 / 44.549
Acetonitrile	Pass ND	410.0	2.727 / 8.262
Butane	Pass <LOQ	5000.0	5.672 / 17.185
Ethanol	Pass 68.366	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 96.360	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 - Pass

01/06/2020

PCR and fluorescence detection of microbiological impurities

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

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

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

	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g
Cadmium	NT		
Lead	NT		
Arsenic	NT		
Mercury	NT		

## Note

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