# **HEMP LABORATORY TEST**

# **CERTIFICATE OF ANALYSIS**



# Hemp Analysis - Summary

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

TOTAL THC1

0.0721%<sup>2</sup>

#### CANNABINOID PROFILE

2.2212% Total CBD¹
2.4241% Total Cannabinoids³
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 =  $\Delta$ 9THC + (THCa (0.877)) and Total CBD = CBD + (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 (Δ-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

**HEAVY METALS** 

PASSED

**RESIDUAL SOLVENTS** 

**PASSED** 

MICROBIAL IMPURITIES

**PASSED** 

# 200122-600

**Tested for:** New York Hemp Oil

Sample ID:

200130S007

ica ioi.

**Date Collected:** 

01/30/2020

Date Received:

01/30/2020

Batch #:

Address:

# Final Approval

Josh Wurzer, President

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.



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

Sample Name: 200122-600

LIMS Sample ID: 200130S007

Batch #:

Source METRC UID:

Sample Type: Other

Batch Count: Sample Count: Unit Mass:

Serving Mass:

0.9324 g/mL Density:

Date Received: 01/30/2020 Tested for: New York Hemp Oil License #: Address: Produced by: License #: Address:

#### **Terpene Test Results**

Date Collected:

02/03/2020

LOD / LOQ ma/a

#### **Moisture Test Results**

Results (%)

## **Cannabinoid Test Results**

02/02/2020

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

, ,	•	mg/g	%	LOD / LOQ mg/g
Δ9ΤΗС		0.721	0.0721	0.0009 / 0.003
Δ8ΤΗС		ND	ND	0.0009 / 0.003
THCa		ND	ND	0.0009 / 0.003
THCV		ND	ND	0.0004 / 0.001
THCVa		ND	ND	0.0013 / 0.004
CBD		21.995	2.1995	0.0009 / 0.003
CBDa		0.248	0.0248	0.0009 / 0.003
CBDV		0.102	0.0102	0.0004 / 0.001
CBDVa		ND	ND	0.0003 / 0.001
CBG		0.425	0.0425	0.001 / 0.003
CBGa		ND	ND	0.0008 / 0.002
CBL		0.016	0.0016	0.0021 / 0.006
CBN		0.004	0.0004	0.0009 / 0.003
CBC		0.730	0.0730	0.0011 / 0.003
CBCa		ND	ND	0.0015 / 0.005
C	!	04.044	0.4044	

CDCa	ND	ND	0.0013 / 0.003
Sum of Cannabinoids:	24.241	2.4241	
Total THC (Δ9THC+0.877*THCa) Total CBD (CBD+0.877*CBDa)	0.721 22.212	0.0721 2.2212	

Action Limit mg

Δ9THC per Unit Δ9THC per Serving

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

ma/a

01/30/2020

	mg/g	70	LOD / LOG mg/g
2 Pinene	ND	ND	0.022 / 0.067
Camphene	ND	ND	0.027 / 0.08
Sabinene	ND	ND	0.027 / 0.082
2 Pinene	ND	ND	0.027 / 0.081
Myrcene	ND	ND	0.027 / 0.082
2 Phellandrene	ND	ND	0.037 / 0.111
3 Carene	ND	ND	0.029 / 0.087
2 Terpinene	ND	ND	0.03 / 0.09
Limonene	ND	ND	0.013 / 0.039
Eucalyptol	ND	ND	0.021 / 0.063
Ocimene	ND	ND	0.028 / 0.085
2 Terpinene	ND	ND	0.03 / 0.09
Sabinene Hydrate	ND	ND	0.018 / 0.054
Fenchone	ND	ND	0.03 / 0.092
Terpinolene	ND	ND	0.022 / 0.067
Linalool	ND	ND	0.019 / 0.058
Fenchol	ND	ND	0.023 / 0.069
(-)-Isopulegol	ND	ND	0.013 / 0.04
Camphor	ND	ND	0.054 / 0.163
Isoborneol	ND	ND	0.033 / 0.101
Borneol	ND	ND	0.048 / 0.146
Menthol	ND	ND	0.022 / 0.067
Terpineol	ND	ND	0.022 / 0.068
Nerol	ND	ND	0.023 / 0.068
R-(+)-Pulegone	ND	ND	0.022 / 0.068
Geraniol	ND	ND	0.017 / 0.05
Geranyl Acetate	ND	ND	0.016 / 0.048
2 Cedrene	ND	ND	0.017 / 0.051
2 Caryophyllene	0.236	0.0236	0.018 / 0.054
2 Humulene	0.077	0.0077	0.013 / 0.038
Valencene	ND	ND	0.008 / 0.023
Nerolidol	ND	ND	0.035 / 0.106
Caryophyllene Oxide	ND	ND 0.0007	0.028 / 0.084
Guaiol	0.096	0.0096	0.022 / 0.066
Cedrol	ND	ND	0.029 / 0.086
2 Bisabolol	0.172	0.0172	0.017 / 0.051

**Total Terpene Concentration:** 0.581 0.0581

# **Batch Photo**



#### 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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Josh Wurzer, President Date: 02/03/2020

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

Sample Name: 200122-600

LIMS Sample ID: 200130S007

Batch #:

Source METRC UID:

Sample Type: Other

Batch Count: Sample Count: Unit Mass:

Serving Mass:

0.9324 g/mL Density:

Tested for: New York Hemp Oil License #: Address: Produced by: License #: Address:

#### **Pesticide Test Results - Pass**

Date Collected:

Date Received:

01/31/2020

#### **Pesticide Test Results - Pass**

01/31/2020

Pesticide and plant growth regulator analysis utilizing HPLC-Mass

Spectrometry and GC-Mass Spectrometry Results (µg/g)

Spectrometry and GC-Mass Spectrometry						
	_	Results (µg/g)	Action Limit µg/g	LOD / LOQ µg/g		
Abamectin	Pass	ND	0.3	0.030 / 0.091		
Acephate	Pass	ND	5.0	0.013 / 0.039		
Acequinocyl	Pass	ND	4.0	0.010 / 0.031		
Acetamiprid	Pass	ND	5.0	0.013 / 0.038		
Azoxystrobin	Pass	ND	40.0	0.015 / 0.047		
Bifenazate	Pass	ND	5.0	0.012 / 0.035		
Bifenthrin	Pass	ND	0.5	0.013 / 0.038		
Boscalid	Pass	ND	10.0	0.008 / 0.023		
Captan	Pass	ND	5.0	0.099 / 0.300		
Carbaryl	Pass	ND	0.5	0.014 / 0.043		
Chlorantraniliprole	Pass	ND	40.0	0.020 / 0.061		
Clofentezine	Pass	ND	0.5	0.009 / 0.027		
Cyfluthrin	Pass	ND	1.0	0.099 / 0.299		
Cypermethrin	Pass	ND	1.0	0.030 / 0.091		
Diazinon	Pass	ND	0.2	0.009 / 0.027		
Dimethomorph	Pass	ND	20.0	0.018 / 0.055		
Etoxazole	Pass	ND	1.5	0.007 / 0.022		
Fenhexamid	Pass	ND	10.0	0.015 / 0.045		
Fenpyroximate	Pass	ND	2.0	0.012 / 0.036		
Flonicamid	Pass	ND	2.0	0.022 / 0.066		
Fludioxonil	Pass	ND	30.0	0.020 / 0.061		
Hexythiazox	Pass	ND	2.0	0.009 / 0.027		
Imidacloprid	Pass	ND	3.0	0.017 / 0.050		
Kresoxim-methyl	Pass	ND	1.0	0.010 / 0.029		
Malathion	Pass	ND	5.0	0.006 / 0.019		
Metalaxyl	Pass	ND	15.0	0.011 / 0.033		
Methomyl	Pass	ND	0.1	0.022 / 0.067		
Myclobutanil	Pass	ND	9.0	0.015 / 0.044		
Naled	Pass	ND	0.5	0.010 / 0.031		
Oxamyl	Pass	ND	0.2	0.014 / 0.042		
Pentachloronitrobenze	ne Pass	ND	0.2	0.020 / 0.061		
Permethrin	Pass	ND	20.0	0.027 / 0.082		
Phosmet	Pass	ND	0.2	0.010 / 0.030		
Piperonylbutoxide	Pass	ND	8.0	0.007 / 0.020		
Prallethrin	Pass	ND	0.4	0.011 / 0.032		
Propiconazole	Pass	ND	20.0	0.004 / 0.013		
Pyrethrins	Pass	ND	1.0	0.012 / 0.036		
Pyridaben	Pass	ND	3.0	0.007 / 0.020		
Spinetoram	Pass	ND	3.0	0.006 / 0.017		
Spinosad	Pass	ND	3.0	0.010 / 0.031		
Spiromesifen	Pass	ND	12.0	0.005 / 0.015		
Spirotetramat	Pass	ND	13.0	0.014 / 0.042		
Tebuconazole	Pass	ND	2.0	0.006 / 0.018		
Thiamethoxam	Pass	ND	4.5	0.011 / 0.033		
Trifloxystrobin	Pass	ND	30.0	0.007 / 0.020		

Pesticide and plant growth regulator analysis utilizing HPLC-Mass Spectrometry and GC-Mass Spectrometry

01/30/2020

01/30/2020

Results (µg/g) Action Limit µg/g LOD / LOQ µg/g						
Aldicarb	Pass	ND	ND	0.030 / 0.091		
Carbofuran	Pass	ND	ND	0.029 / 0.089		
Chlordane	Pass	ND	ND	0.032 / 0.097		
Chlorfenapyr	Pass	ND	ND	0.030 / 0.090		
Chlorpyrifos	Pass	ND	ND	0.029 / 0.089		
Coumaphos	Pass	ND	ND	0.029 / 0.089		
Daminozide	Pass	ND	ND	0.030 / 0.091		
DDVP (Dichlorvos)	Pass	ND	ND	0.029 / 0.089		
Dimethoate	Pass	ND	ND	0.029 / 0.089		
Ethoprop(hos)	Pass	ND	ND	0.029 / 0.089		
Etofenprox	Pass	ND	ND	0.029 / 0.089		
Fenoxycarb	Pass	ND	ND	0.029 / 0.089		
Fipronil	Pass	ND	ND	0.029 / 0.089		
lmazalil	Pass	ND	ND	0.029 / 0.089		
Methiocarb	Pass	ND	ND	0.029 / 0.089		
Methyl parathion	Pass	ND	ND	0.029 / 0.089		
Mevinphos	Pass	ND	ND	0.029 / 0.089		
Paclobutrazol	Pass	ND	ND	0.029 / 0.089		
Propoxur	Pass	ND	ND	0.029 / 0.089		
Spiroxamine	Pass	ND	ND	0.029 / 0.089		
Thiacloprid	Pass	ND	ND	0.029 / 0.089		

# **Mycotoxin Test Results**

Mycotoxin analysis utilizing HPLC-Mass Spectrometry

Results (µg/kg) Action Limit µg/kg

LOD / LOQ µg/kg

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Josh Wurzer, President Date: 02/03/2020



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

Sample Name: 200122-600

LIMS Sample ID: 200130S007

Batch #:

Source METRC UID:

Sample Type: Other

Batch Count:
Sample Count:
Unit Mass:
Serving Mass:

Density: 0.9324 g/mL

Date Received: 01/30/2020

Tested for: New York Hemp Oil

License #:
Address:

Produced by:

License #:
Address:

#### **Water Activity Test Results**

Date Collected:

Results (Aw) Action Limit Aw
Vater Activity

01/30/2020

02/01/2020

Heavy Metal Test Results - Pass 02/01/2020

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	0.5	0.012 / 0.035
Lead	Pass	ND	0.5	0.031 / 0.095
Arsenic	Pass	ND	1.5	0.013 / 0.039
Mercury	Pass	ND	3.0	0.002 / 0.005

## Note

## **Residual Solvent Test Results - Pass**

Residual Solvent analysis utilizing Gas Chromatography - Mass

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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	ND	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 - Pass**

02/01/2020

PCR and fluorescence detection of microbiological impurities

1 Cit and hadrescence detection of inicropiological impunities						
J	Results	Action Limit				
Pass	ND	ND				
Pass	ND	ND				
Pass	ND	ND				
Pass	ND	ND				
Pass	ND	ND				
Pass	ND	ND				
	Pass Pass Pass Pass Pass	Results   Results				

3M Petrifilm and plate counts for microbiological contamination

Results (cfu/q)

Aerobic Plate Count NT

# **Foreign Material Test Results**

NIT

# Sample Certification

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