

HEMP LABORATORY TEST CERTIFICATE OF ANALYSIS



Hemp Analysis - Summary

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

TOTAL THC¹

PASSED² 0.0713%



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CANNABINOID PROFILE

1.8642% Total CBD¹

2.1014% Total Cannabinoids³

Terpenes NT

- 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.

RR 500mg Full Spectrum Tincture

Tested for: 3B Holdings

Address:

Batch #:

Sample ID: 191028R003

Date Collected: 10/28/2019

Date Received: 10/28/2019

Final Approval

Danielle Deschene, LQC Verified By
Date: 10/30/2019

Josh Wurzer, President
Date: 10/30/2019

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.



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: RR 500mg Full Spectrum Tincture

LIMS Sample ID: 191028R003

Batch #:

Source Metric ID(s):

Sample Type: Infused, Liquid Edible

Batch Count:

Sample Count:

Unit Mass:

Serving Mass:

Density: 0.9317 g/mL

Date Collected: 10/28/2019

Date Received: 10/28/2019

Tested for: 3B Holdings

License #:

Address:

Produced by:

License #:

Address:

Moisture Test Results

Moisture **Results (%)**
NT

Cannabinoid Test Results

10/29/2019

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

	mg/mL	%	LOD / LOQ mg/mL
Δ9THC	0.664	0.0713	0.0009 / 0.003
Δ8THC	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	17.369	1.8642	0.0009 / 0.003
CBDa	ND	ND	0.0009 / 0.003
CBDV	0.071	0.0076	0.0004 / 0.001
CBDVa	ND	ND	0.0003 / 0.001
CBG	0.403	0.0433	0.001 / 0.003
CBGa	ND	ND	0.0008 / 0.002
CBL	ND	ND	0.0021 / 0.006
CBN	ND	ND	0.0009 / 0.003
CBC	1.072	0.1151	0.0011 / 0.003
CBCa	ND	ND	0.0015 / 0.005

Sum of Cannabinoids: 19.579 2.1014

Total THC (Δ9THC+0.877*THCa) 0.664 0.0713
Total CBD (CBD+0.877*CBDa) 17.369 1.8642

Action Limit mg

Δ9THC per Unit
Δ9THC per Serving

Batch Photo

Terpene Test Results

11/07/2019

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

	mg/g	%	LOD / LOQ mg/g
☑ Pinene	ND	ND	0.022 / 0.067
Camphene	ND	ND	0.027 / 0.08
Sabinene	ND	ND	0.027 / 0.082
☑ Pinene	ND	ND	0.027 / 0.081
Myrcene	<LOQ	<LOQ	0.027 / 0.082
☑ Phellandrene	ND	ND	0.037 / 0.111
3 Carene	ND	ND	0.029 / 0.087
☑ Terpinene	ND	ND	0.03 / 0.09
Limonene	<LOQ	<LOQ	0.013 / 0.039
Eucalyptol	<LOQ	<LOQ	0.021 / 0.063
Ocimene	ND	ND	0.028 / 0.085
☑ 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	<LOQ	<LOQ	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	<LOQ	<LOQ	0.048 / 0.146
Menthol	0.779	0.0779	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
☑ Cedrene	ND	ND	0.017 / 0.051
☑ Caryophyllene	0.362	0.0362	0.018 / 0.054
☑ Humulene	0.108	0.0108	0.013 / 0.038
Valencene	ND	ND	0.008 / 0.023
Nerolidol	ND	ND	0.035 / 0.106
Caryophyllene Oxide	<LOQ	<LOQ	0.028 / 0.084
Guaiol	<LOQ	<LOQ	0.022 / 0.066
Cedrol	ND	ND	0.029 / 0.086
☑ Bisabolol	0.112	0.0112	0.017 / 0.051

Total Terpene Concentration: 1.361 0.1361

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.



Scan to verify at sclabs.com
Sample must be marked as public to be viewable

BV

Bryce Vale, LQC Verified By
Date: 11/08/2019

Josh Wurzer

Josh Wurzer, President
Date: 11/08/2019

Lith 937

Batch ID: N/A

Reported: 19-Jan-2019

Type: Concentrate

Test: Micro

MICROBIAL CONTAMINANTS

Test	Result	Unit
Total Aerobic Count	None Detected	CFU/g
Total Coliforms	None Detected	CFU/g
Total Yeast and Molds	None Detected	CFU/g
<i>E. coli</i>	None Detected	CFU/g
<i>Salmonella</i>	None Detected	CFU/g

* CFU/g = Colony Forming Unit per Gram


** Total Yeast and Molds values are recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.

Examples: $10^2 = 100$ CFU
 $10^3 = 1,000$ CFU
 $10^4 = 10,000$ CFU
 $10^5 = 100,000$ CFU


NOTES:

Free from visual mold, mildew, and foreign matter.

FINAL APPROVAL


Vicente Contreras
19-Jan-2019
9:36 AM

PREPARED BY / DATE


Mike Branvold
19-Jan-2019
7:00 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Services, LLC, in the condition it was received. Botanacor Services, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Services, LLC.

Lith 937

Batch ID:	N/A	Test ID:	7909956.041
Reported:	16-Jan-2019	Method:	TM04
Type:	Concentrate		
Test:	Residual Solvents		


RESIDUAL SOLVENTS

Solvent	Reportable Range (ppm)	Result (ppm)
Propane	100 - 2000	0
Butanes (Isobutane, n-Butane)	100 - 2000	0
Pentane	100 - 2000	0
Ethanol	100 - 2000	0
Acetone	100 - 2000	0
Isopropyl Alcohol	100 - 2000	0
Hexane	6 - 120	0
Benzene	0.2 - 4	0.0
Heptanes	100 - 2000	0
Toluene	18 - 360	0
Xylenes (m,p,o-Xylenes)	43 - 860	0

NOTES:

Free from visual mold, mildew, and foreign matter.

FINAL APPROVAL


 Sam Smith
 16-Jan-2019
 4:22 PM


 David Green
 16-Jan-2019
 4:45 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02



Metals Profile

Customer Sample ID: Lith 937
Laboratory Number: 201901-0539
Extraction Technician: MF
Analytical Chemist: MTO

Extraction Date(s)	Analysis Date(s)
1/17/2019	1/22/2019

Metals (ICP/MS)	Method Code	Results
		ug/Kg (ppb)
Arsenic (Ar)	ICPMS.1	<20
Cadmium (Cd)	ICPMS.1	<10
Lead (Pb)	ICPMS.1	<5.0
Mercury (Hg)	ICPMS.1	<5.0

Limits for metals vary greatly depending on usage of the sample. Altitude Consulting recommends researching federal and state regulatory limits.

Altitude Consulting, LLC utilizes NIST traceable Reference Standards and Certified Reference Material to calibrate analytical instruments along with proven analytical methods.

The methods are applied in the most ethical manner following good laboratory practice guidelines. The results of this report are based solely on the sample submitted and cannot be reproduced.



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Sample Name	201901-0539	Operator	LCTQ
Sample ID	Lith 937	Method	Triple Quad 4500
Acquisition Date	2019-01-16T19:35:08	Result Table	01162019
Data File	20190116.wiff	Sample Type	

Pesticides	Conc. (ppm)	Pos/Neg	Action Level (ppm)	Comments
ACEPHATE	0.000	NEG	0.040	
ACEQUINOCYL	0.000	NEG	0.200	
ACETAMIPRID	0.000	NEG	0.020	
ALDICARB	0.000	NEG	0.040	
ABAMECTIN	0.000	NEG	0.070	
AVERMECTIN B1B	0.000	NEG	0.070	
AZOXYSTROBIN	0.000	NEG	0.020	
BIFENAZATE	0.000	NEG	0.020	
BIFENTHRIN	0.000	NEG	0.020	
BOSCALID	0.000	NEG	0.040	
CARBARYL	0.000	NEG	0.020	
CARBOFURAN	0.000	NEG	0.020	
CHLORANTRANILIPROLE	0.000	NEG	0.020	
CHLOREFENAPYR	0.000	NEG	0.100	
CHLORPYRIFOS	0.000	NEG	0.020	
CLOFENTEZINE	0.000	NEG	0.020	
CYFLUTHRIN	0.000	NEG	0.100	
CYPERMETHRIN	0.000	NEG	0.100	
DAMINOZIDE	0.000	NEG	0.100	
DIAZINON	0.000	NEG	0.020	
DICHLORVOS	0.000	NEG	0.010	
DIMETHOATE	0.000	NEG	0.020	
ETHOPROPHOS	0.000	NEG	0.020	
ETOXAZOLE	0.000	NEG	0.040	
ETOXAZOLE	0.000	NEG	0.010	
FENOXYCARB	0.000	NEG	0.020	
FENPYROXIMATE	0.000	NEG	0.040	
FIPRONIL	0.000	NEG	0.040	
FLONICAMID	0.000	NEG	0.100	
FLUDIOXONIL	0.000	NEG	0.040	
HEXYTHIAZOX	0.000	NEG	0.100	
IMAZALIL	0.000	NEG	0.040	
IMIDACLOPRID	0.000	NEG	0.020	
KRESOXIM-METHYL	0.000	NEG	0.040	

P = Present but below limit

Disclaimer: The development and performance characteristics of these tests were determined by Altitude Lab Solutions and have not been cleared by the FDA.



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MALATHION A	0.000	NEG	0.050	
METALAXYL	0.000	NEG	0.020	
METHIOCARB	0.000	NEG	0.020	
METHOMYL	0.000	NEG	0.040	
MGK 264	0.000	NEG	0.020	
MYCLOBUTANIL	0.000	NEG	0.040	
NALED	0.000	NEG	0.050	
OXAMYL	0.000	NEG	0.100	
PACLOBUTRAZOL	0.000	NEG	0.040	
PARATHION METHYL	0.000	NEG	0.100	
PERMETHRINS	0.000	NEG	0.040	
PHOSMET	0.000	NEG	0.020	
PIPERONYL BUTOXIDE	0.000	NEG	0.200	
PRALLETHRIN	0.000	NEG	0.020	
PROPICONAZOLE	0.000	NEG	0.040	
PROPOXURE	0.000	NEG	0.020	
PYRETHRINS CINERIN 1	0.000	NEG	0.500	
PYRETHRINS JASMOLIN 1	0.000	NEG	0.500	
PYRETHRINS PYRETHRIN 1	0.000	NEG	0.500	
PYRIDABEN	0.000	NEG	0.020	
SPINOSYN A	0.000	NEG	0.060	
SPINOSYN D	0.000	NEG	0.060	
SPIROMESIFEN	0.000	NEG	0.030	
SPIROTETRAMAT	0.000	NEG	0.020	
SPIROXAMINE	0.000	NEG	0.040	
TEBUCONAZOLE	0.000	NEG	0.010	
THIACLOMPRID	0.000	NEG	0.020	
THIAMETHOXAM	0.000	NEG	0.020	
TRIFLOXYSTROBIN	0.000	NEG	0.020	

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