

HEMP LABORATORY TEST CERTIFICATE OF ANALYSIS



Hemp Analysis - Summary

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

TOTAL THC¹

PASSED² 0.1159%



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CANNABINOID PROFILE

2.8953% Total CBD¹

3.2149% 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 (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.

RR 15mg Full Spectrum Softgels

Tested for: 3B Holdings

Address:

Batch #:

Sample ID: 191028R001

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 15mg Full Spectrum Softgels

LIMS Sample ID: 191028R001

Batch #:

Source Metric ID(s):

Sample Type: Infused, Non-Inhalable

Batch Count:

Sample Count:

Unit Mass: 0.6501 Grams per Unit

Serving Mass:

Density:

Date Collected: 10/28/2019

Date Received: 10/28/2019

Tested for: 3B Holdings

License #:

Address:

Produced by:

License #:

Address:

Overall result for batch: Pass

Moisture Test Results

	Results (%)
Moisture	NT

Cannabinoid Test Results

10/29/2019

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

	mg/g	%	LOD / LOQ mg/g
Δ9THC	1.159	0.1159	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	28.953	2.8953	0.0009 / 0.003
CBDa	ND	ND	0.0009 / 0.003
CBDV	0.107	0.0107	0.0004 / 0.001
CBDVa	ND	ND	0.0003 / 0.001
CBG	0.659	0.0659	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	1.271	0.1271	0.0011 / 0.003
CBCa	ND	ND	0.0015 / 0.005

Sum of Cannabinoids:	32.149	3.2149	20.900 mg/Unit
Total THC (Δ9THC+0.877*THCa)	1.159	0.1159	0.753 mg/Unit
Total CBD (CBD+0.877*CBDa)	28.953	2.8953	18.822 mg/Unit

	Action Limit mg		
Δ9THC per Unit	1000.0	Pass	0.753 mg/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

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

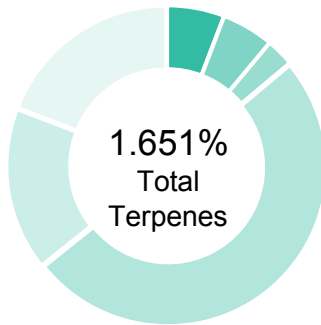
Danielle Deschene
Danielle Deschene, LQC Verified By
Date: 10/30/2019

Josh Wurzer
Josh Wurzer, President
Date: 10/30/2019

LITH 1634 x2

Batch ID:	N/A	Test ID:	9781889.0014
Reported:	3-May-2019	Method:	TM10
Type:	Concentrate		
Test:	Terpenes		

TERPENE PROFILE




Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.284	2.84
Camphene	0.000	0
delta-3-Carene	0.000	0
beta-Caryophyllene	0.746	7.46
(-)-Caryophyllene Oxide	0.148	1.48
p-Cymene	0.000	0
Eucalyptol	0.008	0.08
Geraniol	0.000	0
alpha-Humulene	0.246	2.46
(-)-Isopulegol	0.013	0.13
d-Limonene	0.078	0.78
Linalool	0.042	0.42
beta-Myrcene	0.086	0.86
cis-Nerolidol	0.000	0
trans-Nerolidol	0.000	0
Ocimene	0.000	0
beta-Ocimene	0.000	0
alpha-Pinene	0.000	0
(-)-beta-Pinene	0.000	0
alpha-Terpinene	0.000	0
gamma-Terpinene	0.000	0
Terpinolene	0.000	0
	1.651%	16.51

PREDOMINANT TERPENES

alpha-Pinene	0.000%
(-)-beta-Pinene	0.000%
beta-Myrcene	0.086%
delta-3-Carene	0.000%
alpha-Terpinene	0.000%
d-Limonene	0.078%
Linalool	0.042%
beta-Caryophyllene	0.746%
alpha-Humulene	0.246%
(-)-alpha-Bisabolol	0.284%

NOTES:

FINAL APPROVAL



Chris Jungling
3-May-2019
3:54 PM



Mike Branvold
3-May-2019
5:21 PM

PREPARED BY / DATE

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC. Botanacor Laboratories, 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 Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02

LITH 1634

Batch ID:	N/A	Test ID:	6462370.024
Reported:	4-May-2019	Method:	Concentrate - Test Methods: TM05, TM06
Type:	Concentrate		
Test:	Microbial Contaminants		

MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
Total Aerobic Count**	None Detected
Total Coliforms**	None Detected
Total Yeast and Molds**	None Detected
<i>E. coli</i>	None Detected
<i>Salmonella</i>	None Detected

* CFU/g = Colony Forming Unit per Gram

** Values 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

TYM: None Detected

Total Aerobic: None Detected

FINAL APPROVAL


Robert Belfon
4-May-2019
2:08 PM


Mike Branvold
4-May-2019
8:36 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Lith 1634

Batch ID:	N/A	Test ID:	2160948.003
Reported:	3-May-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	289
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



 Alex Smith
 3-May-2019
 5:25 PM



 Mike Branvold
 3-May-2019
 5:30 PM

PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02



Metals/Microbial Profile

Customer Sample ID: Lith 1635
Laboratory Number: 201904-1468
Extraction Technician: MTO
Analytical Chemist: RH

Extraction Date(s)	Analysis Date(s)
5/1/2019	5/3/2019

Metals (ICP/MS)	Method Code	Results
		ug/Kg (ppb)
Arsenic (As)	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.

	Method Code	Results	
			Units
Salmonella spp.	Salm.1	NA	/1g
Non-O157 STEC*	STEC.1.b	NA	/1g
Listeria monocytogenes	Lmono.2	NA	/1g
Aerobic Plate Count	APC.1a	NA	CFU/g
Total Coliform Bacteria	TCEC.1a	NA	CFU/g
Escherichia coli	TCEC.1a	NA	CFU/g
Staphylococcus aureus	S.aureus.1.a	NA	CFU/g
Yeast & Mold	Y&M.1a	NA	CFU/g

Limits for microbials 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.

This report expires 30 days after analysis date.



Altitude Consulting LLC
3262 So. Platte River Drive
Englewood, CO. 80110

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Ph: 303.390.1662
www.altitudeconsultingllc.com

Sample Name	201904-1468	Operator	LCTQ
Sample ID	Lith 1635	Method	Triple Quad 4500
Acquisition Date	2019-05-01T05:46:18	Result Table	04302019
Data File	20190430.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	
ETOFENPROX	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	

P = Present but below limit

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