

CERTIFICATE OF QUALITY ASSURANCE

PRODUCT NAME: Broad Spec Tincture (all flavor)
CONCENTRATION: 500mg - 16.67mg/ml
PRODUCT LOT NUMBER: LB-O-00167
OIL LOT NUMBER: LE-O-00705
MANUFACTURE DATE: 8/12/2021

Expiration date is 24 months under sealed conditions and proper storage

DATE OF ANALYSIS: 8/16/2021
ACTIVE INGREDIENTS: Organic Phytocannabinoid-Rich Hemp Oil
INACTIVE INGREDIENTS: Organic MCT Coconut Oil, Organic Essential Oil (flavor)
ALLERGY NOTICE: Contains Tree Nuts (Coconut)



ANALYSIS RESULTS FOR FINISHED PRODUCT

ATTRIBUTE ANALYSIS

ATTRIBUTE	CRITERIA	DISPOSITION
APPEARANCE	Clear light yellow to medium yellow liquid	PASS
AROMA	Characteristic Hemp Oil Aroma	PASS
CBD CONTENT	Label claim +/- 10%	PASS
THC CONTENT	COMPLIANT OR NON-DETECT	PASS

CANNABINOID ANALYSIS

COMPOUND	RESULT	CRITERIA
THC	ND	<0.3%
CBD	18.4mg/g	16.67mg/g
CBN	0.3mg/g	NO CRITERIA
CBG	0.1mg/g	NO CRITERIA
CBDV	ND	NO CRITERIA
CBC	0.8mg/g	NO CRITERIA
PASS		

MICROBIAL ANALYSIS

CONTAMINANT	SPECIFICATION	RESULT (CFU/g)	DISPOSITION
Ttl Aerobic Count	None Detected	None Detected	PASS
Total Coliforms	None Detected	None Detected	PASS
Total Yeast & Molds	None Detected	None Detected	PASS
E. Coli	None Detected	None Detected	PASS
Salmonella	None Detected	None Detected	PASS

RESIDUAL SOLVENT ANALYSIS

SOLVENT	SPECIFICATION	RESULT (ppm)	DISPOSITION
Propane	None Detected	None Detected	PASS
Butanes	None Detected	None Detected	PASS
Methanol	None Detected	None Detected	PASS
Pentane	None Detected	None Detected	PASS
Ethanol	None Detected	None Detected	PASS
Acentone	None Detected	None Detected	PASS
Isopropyl Alcohol	None Detected	None Detected	PASS
Hexane	None Detected	None Detected	PASS
Ethyl Acetate	None Detected	None Detected	PASS
Benzene	None Detected	None Detected	PASS
Heptanes	None Detected	None Detected	PASS
Toluene	None Detected	None Detected	PASS
Xylenes	None Detected	None Detected	PASS
PASS			

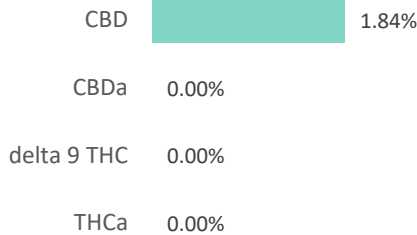
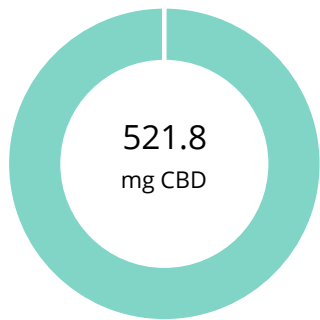
QC Approval: *Scott McWhorter*

Date: 08/23/2021

LB-O-00167

Batch ID:	BH-8382-03	Test ID:	T000157467
Type:	Unit	Submitted:	08/13/2021 @ 09:53 AM
Test:	Potency	Started:	8/16/2021
Method:	TM14 (HPLC-DAD)	Reported:	8/16/2021

CANNABINOID PROFILE



Compound	LOQ (mg)	Result (mg)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	3.76	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	4.24	ND	ND
Cannabidiolic acid (CBDA)	5.99	ND	ND
Cannabidiol (CBD)	5.84	521.80	18.4
Delta 8-Tetrahydrocannabinol (Delta 8THC)	4.67	ND	ND
Cannabinolic Acid (CBNA)	2.67	ND	ND
Cannabinol (CBN)	1.22	7.54	0.3
Cannabigerolic acid (CBGA)	3.92	ND	ND
Cannabigerol (CBG)	0.94	4.18	0.1
Tetrahydrocannabivarinic Acid (THCVA)	3.31	ND	ND
Tetrahydrocannabivarin (THCV)	0.85	ND	ND
Cannabidivarinic Acid (CBDVA)	2.50	ND	ND
Cannabidivarin (CBDV)	1.38	ND	ND
Cannabichromenic Acid (CBCA)	1.51	ND	ND
Cannabichromene (CBC)	1.65	23.33	0.8
Total Cannabinoids		556.85	19.6
Total Potential THC**		ND	ND
Total Potential CBD**		521.80	18.4

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.

$$\text{Total THC} = \text{THC} + (\text{THCa} * (0.877)) \text{ and}$$



$$\text{Total CBD} = \text{CBD} + (\text{CBDA} * (0.877))$$

ND = None Detected (Defined by Dynamic Range of the method)

NOTES:

of Servings = 1, Sample Weight=28.4g

FINAL APPROVAL

 Sam Smith 16-Aug-2021 4:10 PM	 Daniel Weidensaul 16-Aug-2021 4:14 PM
PREPARED BY / DATE	APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. 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



Certificate #4329.02

LB-O-00167

Batch ID:	BH-8382-03	Test ID:	T000157469
Matrix:	General / Other	Received:	08/13/2021 @ 09:53 AM
Test:	Microbial Contaminants	Started:	8/13/2021
Method:	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	Reported:	8/17/2021

MICROBIAL CONTAMINANTS

Contaminant	Method	LOD	LLOQ	ULOQ	Result
Total Aerobic Count*	TM-26 Culture Plating	10 ² CFU/g	10 ³ CFU/g	1.5x10 ⁵ CFU/g	None Detected
Total Coliforms*	TM-27 Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected
Total Yeast and Molds*	TM-24 Culture Plating	10 ¹ CFU/g	10 ² CFU/g	1.5x10 ⁴ CFU/g	None Detected
E. coli	TM-28 Culture Plating	1 CFU/g	NA	NA	Absent
E. coli (STEC)	TM-25 PCR	1 CFU/g	NA	NA	Absent
Salmonella	TM-25 PCR	1 CFU/g	NA	NA	Absent

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

Examples: 10² = 100 CFU
 10³ = 1,000 CFU
 10⁴ = 10,000 CFU
 10⁵ = 100,000 CFU

NOTES:

Free from visual mold, mildew, and foreign matter

DEFINITIONS:


CFU/g = Colony Forming Units per Gram.

LOD = Limit of Detection


ULOQ = Upper Limit of Quantitation

LLOQ = Lower Limit of Quantitation

FINAL APPROVAL


 Jackson Osaghae-Nos:
 17-Aug-2021
 10:16 AM

PREPARED BY / DATE


 Sarah Henning
 17-Aug-2021
 3:26 PM

APPROVED BY / DATE

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Certificate #4329.03


LE-O-00705

 Prepared for:
ROCKY MOUNTAIN EXTRACTION SERVICES LLC


Batch ID or Lot Number: BH-8382-03	Test: Residual Solvents	Reported: 7/23/21	Location: 861 AUTOMATION DRIVE WINDSOR, CO 80550
Matrix: N/A	Test ID: T000152157	Started: 7/23/21	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents (Colorado Panel)	Received: 07/15/2021 @ 01:05 PM	Sampler ID: N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	77 - 1547	*ND	
Butanes (Isobutane, n-Butane)	150 - 2997	*ND	
Methanol	58 - 1162	*ND	
Pentane	83 - 1669	*ND	
Ethanol	88 - 1766	*ND	
Acetone	91 - 1828	*ND	
Isopropyl Alcohol	102 - 2038	*ND	
Hexane	6 - 115	*ND	
Ethyl Acetate	93 - 1863	*ND	
Benzene	0 - 4	*ND	
Heptanes	89 - 1778	*ND	
Toluene	17 - 336	*ND	
Xylenes (m,p,o-Xylenes)	123 - 2458	*ND	


 Taylor Brevik
 23-Jul-21
 1:41 PM

PREPARED BY / DATE


 Sam Smith
 23-Jul-21
 1:43 PM

APPROVED BY / DATE

Definitions

* ND = None Detected (Defined by Dynamic Range of the method)

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. 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.



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