

# CERTIFICATE OF ANALYSIS

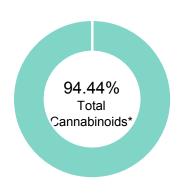
prepared for: HERITAGE HEMP LLC

99 INDUSTRIAL DR STE 3 NORTHAMPTON, MA 01060

#### T-FREE DISTILLATE

Batch ID:	2019CCJLF1-T101	Test ID:	4090284.0017
Reported:	10-Mar-2020	Method:	TM14
Туре:	Concentrate		
Test:	Potency		

### **CANNABINOID PROFILE**



**CBD** 

**CBDa** 0.00%

delta 9 THC 0.09%

> **THCa** 0.00%

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

Total THC = THC + (THCa \*(0.877)) and Total CBD = CBD + (CBDa ND = None Detected (Defined by Dynamic Range of the method)

Compound	LOQ (%)	Result (%)	Result (mg/g)	
Delta 9-Tetrahydrocannabinolic acid (Th	ICA-A) 0.15	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9T	HC) 0.08	0.09	0.9	
Cannabidiolic acid (CBDA)	0.26	ND	ND	
Cannabidiol (CBD)	0.14	91.31	913.1	
Delta 8-Tetrahydrocannabinol (Delta 8T	HC) 0.08	ND	ND	
Cannabinolic Acid (CBNA)	0.21	ND	ND	
Cannabinol (CBN)	0.09	ND	ND	
Cannabigerolic acid (CBGA)	0.13	ND	ND	
Cannabigerol (CBG)	0.08	1.22	12.2	
Tetrahydrocannabivarinic Acid (THCVA	0.13	ND	ND	
Tetrahydrocannabivarin (THCV)	0.07	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.24	ND	ND	
Cannabidivarin (CBDV)	0.13	1.82	18.2	
91.31%Cannabichromenic Acid (CBCA)	0.12	ND	ND	
Cannabichromene (CBC)	0.14	ND	ND	
Total Cannabinoids		94.44	944.40	
Total Potential THC**		0.09	0.90	
Total Potential CBD**		91.31	913.10	

NOTES:

N/A

# FINAL APPROVAL

**Daniel Weidensaul** 10-Mar-2020 3:50 PM

Greg Zimpfer 10-Mar-2020 7:06 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





<sup>\*</sup> Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

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



Certificate ID: 79022

Received: 3/5/20

Client Sample ID: T-free distillate Lot Number: 2019CCJLF1-T101

Matrix: Concentrates/Extracts - Distillate





Authorization:

Signature:

for Podgorne

Date:

3/17/2020



Jon Podgorni, Lead Research Chemist





Accreditation # 80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

VC: Analysis of Volatile Organic Compounds [WI-10-28]

Analyst: JR

*Test Date: 3/5/2020* 

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

#### 79022-VC

Compound	CAS	Amount 1	Limit <sup>2</sup>	RL	Status
Propane	74-98-6	ND	1,000 ppm	100	PASS
Isobutane	75-28-5	ND	1,000 ppm	100	PASS
Butane	106-97-8	ND	1,000 ppm	100	PASS
Methanol	67-56-1	2,599 ppm	3,000 ppm	100	PASS
Pentane	109-66-0	ND	5,000 ppm	100	PASS
Ethanol	64-17-5	ND	5,000 ppm	100	*
Acetone	67-64-1	ND	5,000 ppm	100	PASS
Isopropanol	67-63-0	ND	5,000 ppm	100	PASS
Acetonitrile	75-05-8	ND	410 ppm	100	PASS
Hexane	110-54-3	ND	290 ppm	100	PASS
Heptane	142-82-5	ND	5,000 ppm	100	PASS

<sup>1)</sup> ND = Not detected at a level greater than the Reporting Limit (RL).

#### END OF REPORT

<sup>2)</sup> In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health for cannabis concentrates and extracts on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

<sup>(\*)</sup> For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.