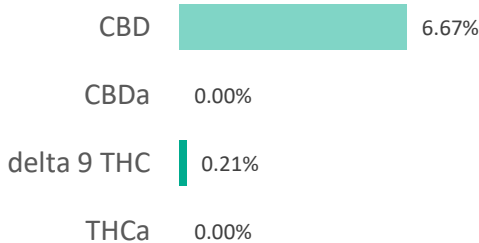
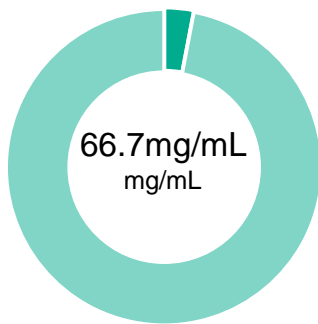


**HL-MCT2000 Lot#2000064**

<b>Batch ID:</b>	PJ-12369	<b>Test ID:</b>	7971204.0030
<b>Reported:</b>	21-May-2020	<b>Method:</b>	TM14
<b>Type:</b>	Solution		
<b>Test:</b>	Potency		


**CANNABINOID PROFILE**



Compound	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.70	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.35	2.10	2.1
Cannabidiolic acid (CBDA)	0.88	ND	ND
Cannabidiol (CBD)	0.49	66.70	66.7
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.38	ND	ND
Cannabinolic Acid (CBNA)	0.95	ND	ND
Cannabinol (CBN)	0.42	ND	ND
Cannabigerolic acid (CBGA)	0.61	ND	ND
Cannabigerol (CBG)	0.34	0.80	0.8
Tetrahydrocannabivarinic Acid (THCVA)	0.60	ND	ND
Tetrahydrocannabivarin (THCV)	0.31	ND	ND
Cannabidivarinic Acid (CBDVA)	0.82	ND	ND
Cannabidivarin (CBDV)	0.45	ND	ND
Cannabichromenic Acid (CBCA)	0.52	ND	ND
Cannabichromene (CBC)	0.63	1.60	1.6
<b>Total Cannabinoids</b>		<b>71.20</b>	<b>71.10</b>
Total Potential THC**		2.10	2.07
Total Potential CBD**		66.70	66.70

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

**NOTES:**  
 Density = 1g/mL  
 N/A

**FINAL APPROVAL**

  
 Daniel Weidensaul  
 21-May-2020  
 2:53 PM

  
 Ben Minton  
 21-May-2020  
 4:53 PM

PREPARED BY / DATE

APPROVED BY / DATE

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# Certificate of Analysis

## Sample Information

CTLA ID: 17337  
 Date Received: 5/13/2020  
 Sample Name: HL-MCT 2000  
 Lot Number: 2000064  
 Customer: HempLucid

Analysis	Method	MDL Specification	Result	Units
<b>Complete Micro</b>				
Total Plate Count	USP <2021>	100 Report	<100	cfu/g
Total Coliforms	BAM CH.4	10 Report	<10	cfu/g
<i>Escherichia coli</i>	USP <2022>	Report	Negative	
<i>Salmonella</i>	USP <2022>	Report	Negative	
<i>Staphylococcus aureus</i>	USP <2022>	Report	Negative	
Yeast & Mold	USP <2021>	100 Report	<100	cfu/g
<b>Heavy Metals</b>				
Arsenic	USP <2232>	.001 Report	<0.001	ppm
Cadmium	USP <2232>	.001 Report	0.004	ppm
Lead	USP <2232>	.001 Report	<0.001	ppm
Mercury	USP <2232>	.001 Report	<0.001	ppm

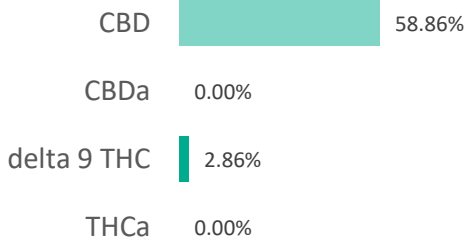
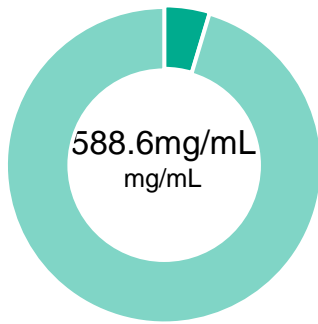
5/20/2020  
 DATE

  
 Quality Manager

Specifications provided by the Customer. Results with an asterisk (\*) denote Specifications should be reviewed by the Customer. This Certificate of Analysis represents data for the sample submitted and does not constitute a guarantee of quality for the entire product from which it was taken. These results are provided for the benefit of the Customer. MDL = Method Detection Limit.

**Organic CBD Oil**

<b>Batch ID:</b>	O-CO2-YP5-07820-B1	<b>Test ID:</b>	6080869.002
<b>Reported:</b>	6-Apr-2020	<b>Method:</b>	TM14
<b>Type:</b>	Solution		
<b>Test:</b>	Potency		

**CANNABINOID PROFILE**


Compound	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	2.82	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	1.41	28.60	28.6
Cannabidiolic acid (CBDA)	1.89	ND	ND
Cannabidiol (CBD)	1.06	588.60	588.6
Delta 8-Tetrahydrocannabinol (Delta 8THC)	1.54	ND	ND
Cannabinolic Acid (CBNA)	3.87	ND	ND
Cannabinol (CBN)	1.71	ND	ND
Cannabigerolic acid (CBGA)	2.46	ND	ND
Cannabigerol (CBG)	1.39	9.50	9.5
Tetrahydrocannabivarinic Acid (THCVA)	2.42	ND	ND
Tetrahydrocannabivarin (THCV)	1.26	ND	ND
Cannabidivarinic Acid (CBDVA)	1.76	ND	ND
Cannabidivarin (CBDV)	0.96	ND	ND
Cannabichromenic Acid (CBCA)	2.11	ND	ND
Cannabichromene (CBC)	2.55	19.50	19.5
<b>Total Cannabinoids</b>		<b>646.20</b>	<b>646.14</b>
Total Potential THC**		28.60	28.60
Total Potential CBD**		588.60	588.60


**NOTES:**


Density = 1g/mL

N/A

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

**FINAL APPROVAL**

  
**Ryan Weems**  
 6-Apr-2020  
 12:58 PM

  
**Ben Minton**  
 6-Apr-2020  
 4:02 PM

PREPARED BY / DATE

APPROVED BY / DATE

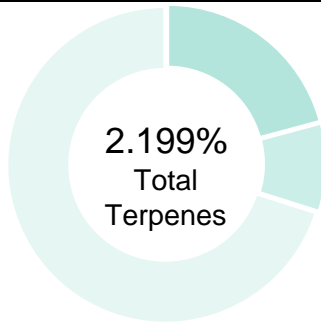
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Certificate #4329.02

**Organic CBD Oil**

<b>Batch ID:</b>	O-CO2-YP5-07820-B1	<b>Test ID:</b>	5908109.0027
<b>Reported:</b>	3-Apr-2020	<b>Method:</b>	TM10
<b>Type:</b>	Concentrate		
<b>Test:</b>	Terpenes		

**TERPENE PROFILE**




Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	1.542	15.42
Camphene	N/A	N/A
delta-3-Carene	0.000	0
beta-Caryophyllene	0.458	4.58
(-)-Caryophyllene Oxide	0.000	0
p-Cymene	0.000	0
Eucalyptol	0.000	0
Geraniol	0.000	0
alpha-Humulene	0.199	1.99
(-)-Isopulegol	0.000	0
d-Limonene	0.000	0
Linalool	0.000	0
beta-Myrcene	0.000	0
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
	<b>2.199%</b>	<b>21.99</b>

**PREDOMINANT TERPENES**

alpha-Pinene	0.000%
(-)-beta-Pinene	0.000%
beta-Myrcene	0.000%
delta-3-Carene	0.000%
alpha-Terpinene	0.000%
d-Limonene	0.000%
Linalool	0.000%
beta-Caryophyllene	0.458%
alpha-Humulene	0.199%
(-)-alpha-Bisabolol	1.542%

 NOTES:  
 0

**FINAL APPROVAL**

 Ryan Weems 3-Apr-2020 7:31 PM	 Greg Zimpfer 3-Apr-2020 9:02 PM
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PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.02

**Organic CBD Oil**

<b>Batch ID:</b>	O-CO2-YP5-07820-B1	<b>Test ID:</b>	T000070075
<b>Reported:</b>	9-Apr-2020	<b>Method:</b>	Concentrate - Test Methods: TM05, TM06
<b>Type:</b>	Concentrate		
<b>Test:</b>	Microbial Contaminants		

**MICROBIAL CONTAMINANTS**

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

Coliforms: None Detected

**FINAL APPROVAL**

Robert Belfon  
9-Apr-2020  
10:42 AM

PREPARED BY / DATE



Greg Zimpfer  
9-Apr-2020  
11:01 AM

APPROVED BY / DATE

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Certificate #4329.03

**Organic CBD Oil**

<b>Batch ID:</b>	O-CO2-YP5-07820-B1	<b>Test ID:</b>	4614057.0019
<b>Reported:</b>	7-Apr-2020	<b>Method:</b>	TM17
<b>Type:</b>	Concentrate		
<b>Test:</b>	Pesticides		

**PESTICIDE RESIDUE**

Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	53 - 2447	ND*	Malathion	317 - 2447	ND*
Acetamiprid	53 - 2447	ND*	Metalaxyl	53 - 2447	ND*
Abamectin	>317	ND*	Methiocarb	53 - 2447	ND*
Azoxystrobin	53 - 2447	ND*	Methomyl	53 - 2447	ND*
Bifenazate	53 - 2447	ND*	MGK 264 1	317 - 2447	ND*
Boscalid	53 - 2447	ND*	MGK 264 2	317 - 2447	ND*
Carbaryl	53 - 2447	ND*	Myclobutanil	53 - 2447	ND*
Carbofuran	53 - 2447	ND*	Naled	53 - 2447	ND*
Chlorantraniliprole	53 - 2447	ND*	Oxamyl	53 - 2447	ND*
Chlorpyrifos	53 - 2447	ND*	Paclobutrazol	53 - 2447	ND*
Clofentezine	317 - 2447	ND*	Permethrin	317 - 2447	ND*
Diazinon	317 - 2447	ND*	Phosmet	53 - 2447	ND*
Dichlorvos	>317	ND*	Prophos	317 - 2447	ND*
Dimethoate	53 - 2447	ND*	Propoxur	53 - 2447	ND*
E-Fenpyroximate	53 - 2447	ND*	Pyridaben	53 - 2447	ND*
Etofenprox	53 - 2447	ND*	Spinosad A	53 - 2447	ND*
Etoxazole	317 - 2447	ND*	Spinosad D	317 - 2447	ND*
Fenoxycarb	>53	ND*	Spiromesifen	>317	ND*
Fipronil	53 - 2447	ND*	Spirotetramat	>317	ND*
Flonicamid	53 - 2447	ND*	Spiroxamine 1	53 - 2447	ND*
Fludioxonil	>317	ND*	Spiroxamine 2	53 - 2447	ND*
Hexythiazox	53 - 2447	ND*	Tebuconazole	317 - 2447	ND*
Imazalil	317 - 2447	ND*	Thiacloprid	53 - 2447	ND*
Imidacloprid	53 - 2447	ND*	Thiamethoxam	53 - 2447	ND*
Kresoxim-methyl	53 - 2447	ND*	Trifloxystrobin	53 - 2447	ND*

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

N/A

**FINAL APPROVAL**


Tyler Wiese  
 7-Apr-2020  
 3:00 PM

PREPARED BY / DATE



Greg Zimpfer  
 7-Apr-2020  
 7:53 PM

APPROVED BY / DATE

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**CBD Oil Concentrate**

<b>Batch ID:</b>	O-CO2-YP5-07820-B1	<b>Test ID:</b>	T000072777
<b>Reported:</b>	28-Apr-2020	<b>Method:</b>	TM04
<b>Type:</b>	Concentrate		
<b>Test:</b>	Residual Solvents		

**RESIDUAL SOLVENTS**

Solvent	Dynamic Range (ppm)	Result (ppm)
<b>Propane</b>	75 - 1491	*ND
<b>Butanes</b> (Isobutane, n-Butane)	153 - 3068	*ND
<b>Methanol</b>	66 - 1317	*ND
<b>Pentane</b>	93 - 1851	*ND
<b>Ethanol</b>	100 - 1993	*ND
<b>Acetone</b>	106 - 2116	*ND
<b>Isopropyl Alcohol</b>	112 - 2239	*ND
<b>Hexane</b>	6 - 127	*ND
<b>Ethyl Acetate</b>	108 - 2165	*ND
<b>Benzene</b>	0.2 - 4.4	*ND
<b>Heptanes</b>	101 - 2019	*ND
<b>Toluene</b>	20 - 396	*ND
<b>Xylenes</b> (m,p,o-Xylenes)	145 - 2901	*ND

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

NOTES:  
N/A**FINAL APPROVAL**  
Ryan Weems  
28-Apr-2020  
2:34 PM

PREPARED BY / DATE

  
Ben Minton  
28-Apr-2020  
2:51 PM

APPROVED BY / DATE

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