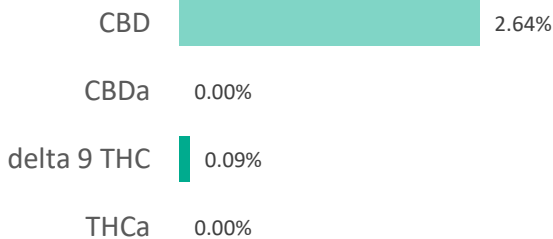
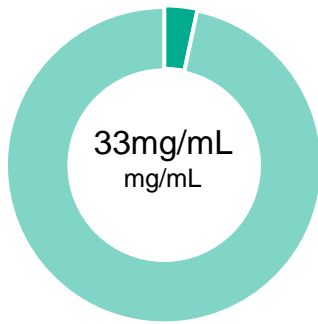


HL-WS1000 Lot#2000067

Batch ID:	PJ-12371	Test ID:	7971204.0029
Reported:	21-May-2020	Method:	TM14
Type:	Solution		
Test:	Potency		

CANNABINOID PROFILE



Compound	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.88	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.44	1.20	0.9
Cannabidiolic acid (CBDA)	1.11	ND	ND
Cannabidiol (CBD)	0.62	33.00	26.4
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.48	ND	ND
Cannabinolic Acid (CBNA)	1.20	ND	ND
Cannabinol (CBN)	0.53	ND	ND
Cannabigerolic acid (CBGA)	0.77	ND	ND
Cannabigerol (CBG)	0.43	0.50	0.4
Tetrahydrocannabivarinic Acid (THCVA)	0.75	ND	ND
Tetrahydrocannabivarin (THCV)	0.39	ND	ND
Cannabidivarinic Acid (CBDVA)	1.03	ND	ND
Cannabidivarin (CBDV)	0.56	ND	ND
Cannabichromenic Acid (CBCA)	0.66	ND	ND
Cannabichromene (CBC)	0.79	1.00	0.8
Total Cannabinoids		35.70	28.51
Total Potential THC**		1.20	0.92
Total Potential CBD**		33.00	26.41

NOTES:


Density = 1.25g/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


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 #4329.02

Certificate of Analysis

Sample Information

CTLA ID: 17354
 Date Received: 5/14/2020
 Sample Name: HL-WS 1000
 Lot Number: 2000067
 Customer: HempLucid

Analysis	Method	MDL Specification	Result	Units
Complete Micro				
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
Heavy Metals				
Arsenic	USP <2232>	.001 Report	<0.001	ppm
Cadmium	USP <2232>	.001 Report	<0.001	ppm
Lead	USP <2232>	.001 Report	<0.001	ppm
Mercury	USP <2232>	.001 Report	<0.001	ppm

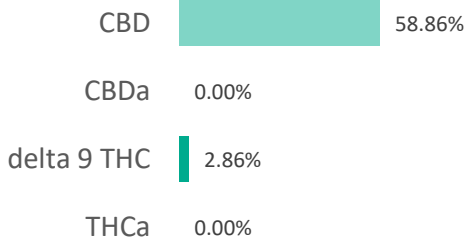
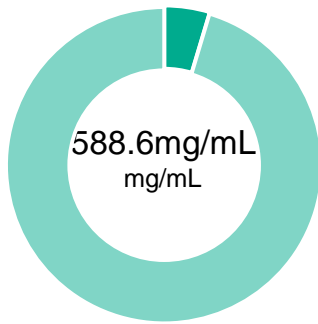
5/19/2020
 DATE


 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

Batch ID:	O-CO2-YP5-07820-B1	Test ID:	6080869.002
Reported:	6-Apr-2020	Method:	TM14
Type:	Solution		
Test:	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
Total Cannabinoids		646.20	646.14
Total Potential THC**		28.60	28.60
Total Potential CBD**		588.60	588.60

% = % (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


Ryan Weems
 6-Apr-2020
 12:58 PM


Ben Minton
 6-Apr-2020
 4:02 PM

PREPARED BY / DATE

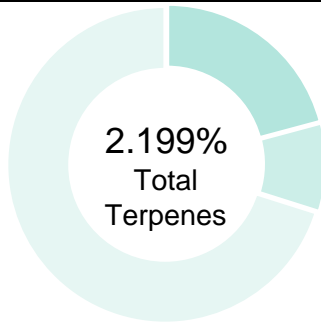
APPROVED BY / DATE

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Organic CBD Oil

Batch ID:	O-CO2-YP5-07820-B1	Test ID:	5908109.0027
Reported:	3-Apr-2020	Method:	TM10
Type:	Concentrate		
Test:	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
	2.199%	21.99

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

Batch ID:	O-CO2-YP5-07820-B1	Test ID:	T000070075
Reported:	9-Apr-2020	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

Coliforms: None Detected

FINAL APPROVAL



Robert Belfon
9-Apr-2020
10:42 AM



Greg Zimpfer
9-Apr-2020
11:01 AM

PREPARED BY / DATE

APPROVED BY / DATE

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Certificate #4329.03

Organic CBD Oil

Batch ID:	O-CO2-YP5-07820-B1	Test ID:	4614057.0019
Reported:	7-Apr-2020	Method:	TM17
Type:	Concentrate		
Test:	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

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

RESIDUAL SOLVENTS

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