Test Certificate

Certificate ID: **36104 (Prelim)** Received: **7/20/18**

Client Sample ID: **HL-Base**

Lot Number:

Matrix: **Concentrates/Extracts - CO2**

Scan QR Code for authenticity

Hemplucid
104 Mountain Way Drive
Orem, UT 84058
Attn: Chase Hudson

Authorization:	Signature:	Date:
Jon Podgorni, Lab Manager	Jon Podgorni	8/9/2018

PJLA Testing
Accreditation
80585

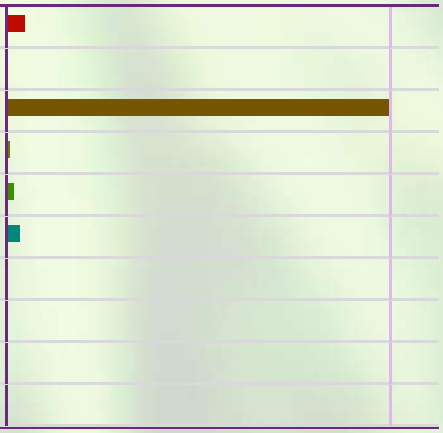
The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2005. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-04] *Analyst: RAS* *Test Date: 8/1/2018*

The client sample was analyzed for plant-based cannabinoids by Convergence Chromatography (CC). The collected data was compared to data collected for certified reference standards at known concentrations.

36104-CN

ID	Weight %	Conc.
Δ9-THC	2.94 wt %	29.43 mg/g
THCV	ND	ND
CBD	60.85 wt %	608.47 mg/g
CBDV	0.58 wt %	5.83 mg/g
CBG	1.19 wt %	11.92 mg/g
CBC	2.14 wt %	21.36 mg/g
CBN	ND	ND
THCA	ND	ND
CBDA	ND	ND
CBGA	ND	ND
Total	67.70 wt%	677.00 mg/g
Max THC	2.94 wt%	29.43 mg/g
Max CBD	60.85 wt%	608.47 mg/g



Ratio of Total CBD to THC 20.7:1

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. ND = None detected above the limits of detection (LLD)

EA: Elemental Analysis [WI-10-13] *Analyst: JFD* *Test Date: 8/2/2018*

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

36104-EA

Symbol	Metal	Conc. [1]	MDL	Limits [2]	Status
Al	Aluminum	495 ug/kg	5 ug/kg	-	
As	Arsenic	6 ug/kg	4 ug/kg	150 ug/kg	PASS
Cd	Cadmium	ND	1 ug/kg	150 ug/kg	PASS
Ca	Calcium	567 ug/kg	500 ug/kg	-	
Cr	Chromium	32 ug/kg	5 ug/kg	2500 ug/kg	PASS
Co	Cobalt	ND	10 ug/kg	-	
Cu	Copper	ND	500 ug/kg	10000 ug/kg	PASS
Fe	Iron	701 ug/kg	5 ug/kg	-	
Pb	Lead	28 ug/kg	2 ug/kg	500 ug/kg	PASS
Mg	Magnesium	ND	500 ug/kg	-	
Mn	Manganese	ND	500 ug/kg	-	
Hg	Mercury	ND	2 ug/kg	150 ug/kg	PASS
Mo	Molybdenum	ND	5000 ug/kg	1000 ug/kg	PASS
Ni	Nickel	ND	500 ug/kg	150 ug/kg	PASS
P	Phosphorus	ND	500 ug/kg	-	
K	Potassium	13,042 ug/kg	5 ug/kg	-	
Se	Selenium	15 ug/kg	10 ug/kg	-	
Ag	Silver	ND	10 ug/kg	-	
S	Sulfur	3,757 ug/kg	5 ug/kg	-	
Sn	Tin	ND	5000 ug/kg	-	
Zn	Zinc	5,045 ug/kg	5 ug/kg	-	

1) ND = None detected to the Method Detection Limit (MDL)
2) USP recommended maximum daily limits for inhalational drug product.

MB1: Microbiological Contaminants [WI-10-09] *Analyst: MS* *Test Date: 7/23/2018*

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

36104-MB1

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	10,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	100 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	100 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	1,000 CFU/g	PASS

Note: All recorded Microbiological tests are within the established limits.

MB2: Pathogenic Bacterial Contaminants [WI-10-10] *Analyst: matt* *Test Date: 7/24/2018*

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

36104-MB2

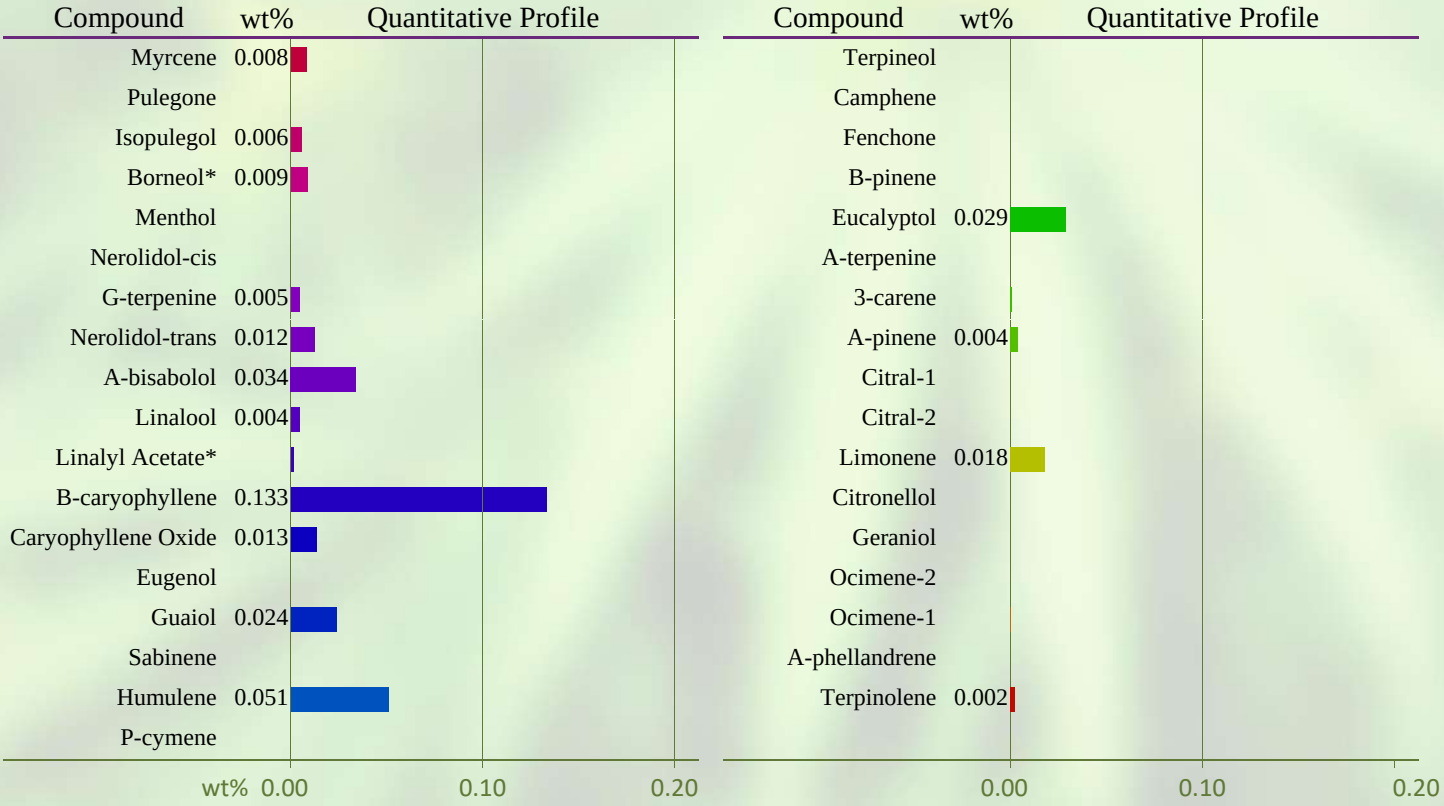
Test ID	Analysis	Results	Units	Limits*	Status
36104-ECPT	E. coli (O157)	Negative	NA	Non Detected	PASS
36104-SPT	Salmonella	Negative	NA	Non Detected	PASS

Note: All recorded pathogenic bacteria tests passed.

TP: Terpenes Profile [WI-10-08] *Analyst: CJH* *Test Date: 7/28/2018*

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.

36104-TP



Total Terpene: 0.4 wt%

* Indicates qualitative calculation based on recorded peak areas.

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.

36104-VC

Compound	CAS	Amount [1]	Limit [2]	Status
Propane	74-98-6	18 ppm	N/A	-
Isobutane	75-28-5	ND	5,000 ppm	PASS
Butane	106-97-8	ND	5,000 ppm	PASS
Methanol	67-56-1	21 ppm	3,000 ppm	PASS
Pentane	109-66-0	ND	5,000 ppm	PASS
Ethanol	64-17-5	152 ppm	5,000 ppm	PASS
Ethyl Ether	60-29-7	ND	5,000 ppm	PASS
2,2-Dimethylbutane	75-83-2	10 ppm	N/A	-
Acetone	67-64-1	338 ppm	5,000 ppm	PASS
Isopropanol	67-63-0	9 ppm	5,000 ppm	PASS
Acetonitrile	75-05-8	ND	410 ppm	PASS
Hexane	110-54-3	78 ppm	290 ppm	PASS
1-Propanol	71-23-8	5 ppm	5,000 ppm	PASS
Ethyl Acetate	141-78-6	19 ppm	5,000 ppm	PASS
Heptane	142-82-5	ND	5,000 ppm	PASS

1) ND = None detected above 5 ppm.
2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

END OF REPORT