Test Certificate

Certificate ID: **62657 (Reissued)** Received: **8/26/19**

Client Sample ID: **Original Strength**

Lot Number: **Batch 2A**

Matrix: **Tincture/Infused Oil - MCT Oil**

Scan QR Code for authenticity

ROSEBUD

CBD

Authorization:	Signature:	Date:
Chris Hudalla, Chief Science Officer	Christopher Hudalla	8/26/2020

PJLA Testing Accreditation # 80585

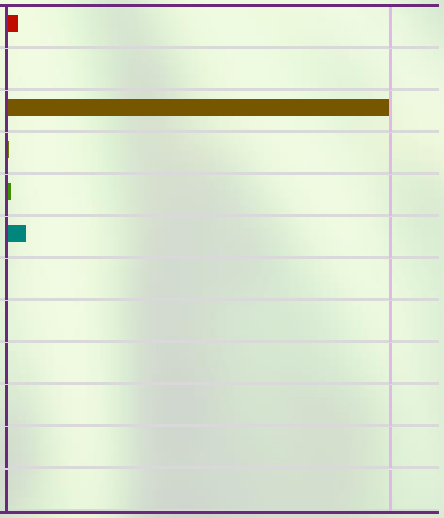
The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the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

CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01] *Analyst: LG* *Test Date: 8/29/2019*

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations. Certificate has been reissued to correct sample ID and lot number.

62657-CN

ID	Weight %	Concentration (mg/mL)
D9-THC	0.0819	0.754
THCV	ND	ND
CBD	2.75	25.3
CBDV	0.0180	0.166
CBG	0.0348	0.321
CBC	0.137	1.26
CBN	<LOQ	<LOQ
THCA	ND	ND
CBDA	<LOQ	<LOQ
CBGA	ND	ND
D8-THC	ND	ND
exo-THC	ND	ND
Total	3.03	27.9
Max THC	0.0819	0.754
Max CBD	2.75	25.3



Ratio of Total CBD to THC 33.6:1

Limit of Quantitation (LOQ) = 0.0114 wt%

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. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is one third of LOQ.

HM: Heavy Metal Analysis [WI-10-13] *Analyst: JFD* *Test Date: 8/28/2019*

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.

62657-HM

Symbol	Metal	Conc. [1] (µg/kg)	RL	Use Limits [2] (µg/kg) All	Use Limits [2] (µg/kg) Ingestion	Status
As	Arsenic	ND	4.00	200	1,500	PASS
Cd	Cadmium	ND	1.00	200	500	PASS
Hg	Mercury	ND	2.00	100	1,500	PASS
Pb	Lead	ND	2.00	500	1,000	PASS

1) ND = None detected to Lowest Limits of Detection (LLD)
2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.
3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

MB1: Microbiological Contaminants [WI-10-09] *Analyst: MM* *Test Date: 8/27/2019*

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.

62657-MB1

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

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

PST: Pesticide Analysis [WI-10-11] *Analyst: RAS* *Test Date: 8/30/2019*

The client sample was anlayzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

62657-PST

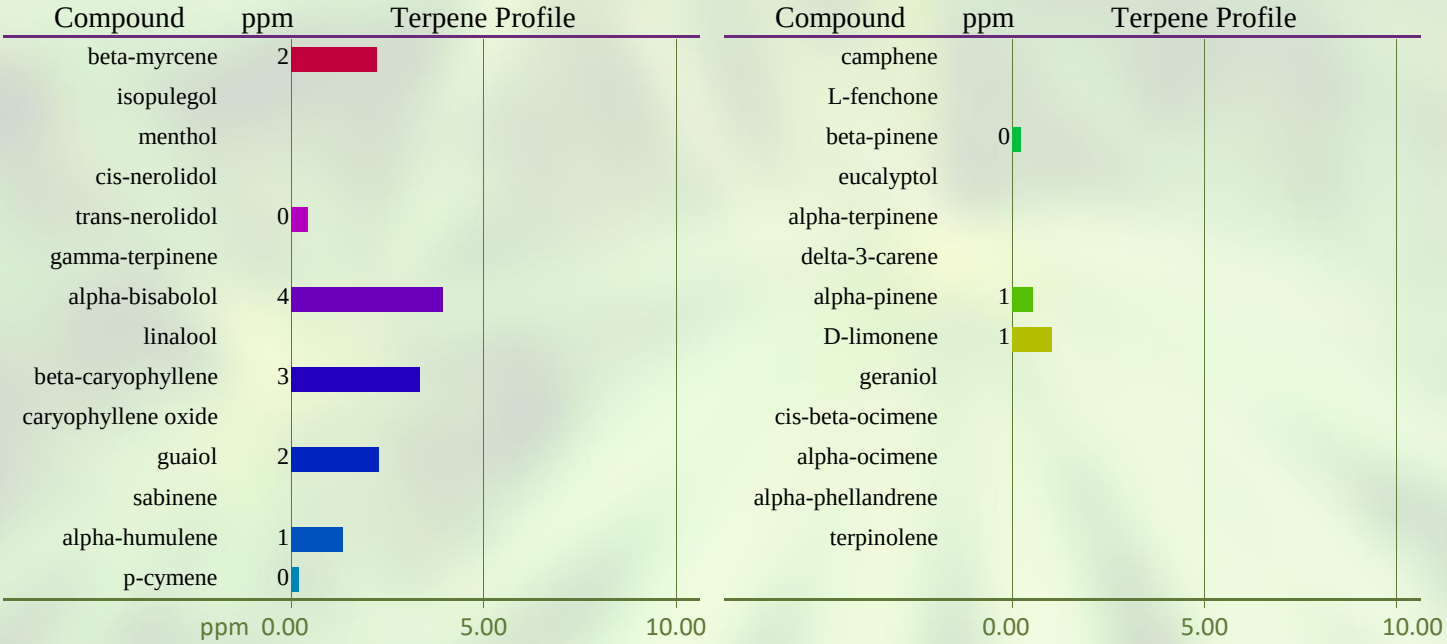
Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Spinosad	168316-95-8	ND	ppb	0.1	3000	PASS
Pyrethrin	8003-34-7	ND	ppb	0.1	1000	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.10	30000	PASS
Spirotetramat	203313-25-1	ND	ppb	0.10	13000	PASS
Spiromesifen	283594-90-1	ND	ppb	0.10	12000	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.10	8000	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.10	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.10	9000	PASS
Imidacloprid	138261-41-3	ND	ppb	0.10	3000	PASS
Imazalil	35554-44-0	ND	ppb	0.10	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.10	10	PASS
Etoxazole	153233-91-1	ND	ppb	0.10	1500	PASS
Daminozide	1596-84-5	ND	ppb	10.00	10	*
Cyfluthrin	68359-37-5	ND	ppb	0.50	1000	PASS
Bifenthrin	82657-04-3	ND	ppb	0.20	500	PASS
Bifenazate	149877-41-8	ND	ppb	0.10	5000	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.10	40000	PASS
Abamectin B1b	65195-56-4	ND	ppb	0.20	300	*
Abamectin B1a	65495-55-3	ND	ppb	0.20	300	PASS

* Testing limits for ingestion established by the State of California: CCR, Title 16, Division 42, Chapter 5, Section 5313. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample.

TP: Terpenes Profile [WI-10-27] *Analyst: CMA* *Test Date: 8/28/2019*

Client sample analysis was performed using full evaporative technique (FET) headspace sample delivery and gas chromatographic (GC) compound separation. A combination of flame ionization detection (FID) and/or mass spectrometric (MS) detection with mass spectral confirmation against the National Institute of Standards and Technology (NIST) Mass Spectral Database, Revision 2017 were used. Chromatographic and/or mass spectral data were processed by quantitatively comparing the analytical peak areas against calibration curves prepared from certified reference standards.

62657-TP



Total Terpene: <0.1 wt%

* Certified reference standard not available for this compound. Concentration is estimated using the response factor from alpha-pinene. ND = None Detected. RL = Reporting Limit of 5 ppm.

VC: Analysis of Volatile Organic Compounds [WI-10-28] *Analyst: CMA* *Test Date: 8/27/2019*

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.

62657-VC

Compound	CAS	Amount [1]	Limit [2]	RL	Status
Propane	74-98-6	ND	1,000 ppm	200	PASS
Isobutane	75-28-5	ND	1,000 ppm	200	PASS
Butane	106-97-8	ND	1,000 ppm	200	PASS
Methanol	67-56-1	ND	3,000 ppm	200	PASS
Pentane	109-66-0	ND	5,000 ppm	200	PASS
Ethanol	64-17-5	ND	5,000 ppm	200	*
Acetone	67-64-1	ND	5,000 ppm	200	PASS
Isopropanol	67-63-0	ND	5,000 ppm	200	PASS
Acetonitrile	75-05-8	ND	410 ppm	200	PASS
Hexane	110-54-3	ND	290 ppm	200	PASS
Heptane	142-82-5	ND	5,000 ppm	200	PASS

1) ND = Not detected at a level greater than the Reporting Limit (RL).
2) 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.
(*) For ethanol, as many formulations contain flavorings based on ethanol extracts of natural products, no status has been assigned.

END OF REPORT