

Certificate ID: 27870

Client Sample ID: CBD oil LOT #OC18059

Matrix: Tincture - Hemp Oil

Date Received: 3/12/2018



Ojai Energetics 318 Graves Ave Oxnard, CA 93030

Attn: William Kleidon

This test method was performed in accordance with the requirements of ISO/IEC 17025. The sample was provided to the laboratory by the client and tested as received. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

Authorization: Signature: Date: Matthew Silva, Chemical Engineer 3/19/2018

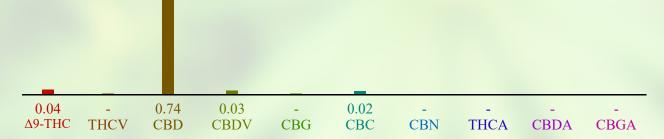
CN: Cannabinoid Profile & Potency [WI-10-04]

Analyst: JDP

*Test Date: 3/19/2018* 

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.

27870-CN



ID	Weight %	Conc.	
Δ9-ΤΗС	0.04 wt %	0.42 mg/mL	
THCV	0.01 wt %	0.09  mg/mL	
CBD	0.74 wt %	8.64 mg/mL	
CBDV	0.03 wt %	0.35 mg/mL	
CBG	0.00 wt %	0.05 mg/mL	
CBC	0.02 wt %	0.29 mg/mL	
CBN	ND	ND	
THCA	ND	ND	
CBDA	0.00 wt %	$0.00~\mathrm{mg/mL}$	
CBGA	ND	ND	
Total	0.85 wt%	9.83 mg/mL	
Max THC	0.04 wt%	0.42 mg/mL	
Max CBD	0.74 wt%	8.64 mg/mL	





Ratio of Total CBD to THC 18.5:1

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: 3/15/2018

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27870-EA

Symbol	Metal	Conc. 1	MDL	Limits <sup>2</sup>	Status
Al	Aluminum	ND	5 ug/kg	-	
As	Arsenic	26 ug/kg	4 ug/kg	1500 ug/kg	PASS
Cd	Cadmium	ND	1 ug/kg	1500 ug/kg	PASS
Ca	Calcium	113,919 ug/kg	500 ug/kg	-	
Cr	Chromium	34 ug/kg	5 ug/kg	25000 ug/kg	PASS
Co	Cobalt	ND	10 ug/kg	-	
Cu	Copper	ND	500 ug/kg	100000 ug/kg	PASS
Fe	Iron	9,148 ug/kg	5 ug/kg	-	
Pb	Lead	25 ug/kg	2 ug/kg	5000 ug/kg	PASS
Mg	Magnesium	186,743 ug/kg	500 ug/kg	-	
Mn	Manganese	1,513 ug/kg	500 ug/kg	-	
Hg	Mercury	ND	2 ug/kg	1500 ug/kg	PASS
Mo	Molybdenum	ND	5000 ug/kg	10000 ug/kg	PASS
Ni	Nickel	ND	500 ug/kg	1500 ug/kg	PASS
P	Phosphorus	ND	500 ug/kg	-	
K	Potassium	326,907 ug/kg	5 ug/kg	-	
Se	Selenium	ND	10 ug/kg	-	
Ag	Silver	ND	10 ug/kg	-	
S	Sulfur	795 ug/kg	5 ug/kg	-	
Sn	Tin	ND	5000 ug/kg	-	
Zn	Zinc	682 ug/kg	5 ug/kg	-	

<sup>1)</sup> ND = None detected to the Method Detection Limit (MDL)

<sup>2)</sup> USP recommended limits for Elemental Analysis.

## PST: Pesticide Analysis [WI-10-11]

Analyst: KSB

*Test Date: 3/19/2018* 

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).

27870-PST

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.2	10	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.1	10	PASS
Bifenazate	149877-41-8	ND	ppb	0.1	10	PASS
Bifenthrin	82657-04-3	ND	ppb	0.2	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.5	10	*
Daminozide	1596-84-5	ND	ppb	10	10	PASS
Dichlorvos	62-73-7	ND	ppb	3	10	*
Etoxazole	153233-91-1	ND	ppb	0.1	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.1	10	PASS
Imazalil	35554-44-0	ND	ppb	0.1	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.1	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.1	10	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.1	10	PASS
Piperonyl butoxid	e 51-03-6	ND	ppb	0.1	10	PASS
Pyrethrin	8003-34-7	ND	ppb	0.1	10	PASS
Spinosad	168316-95-8	ND	ppb	0.1	10	PASS
Spiromesifen	283594-90-1	ND	ppb	0.1	10	PASS
Spirotetramat	203313-25-1	ND	ppb	0.1	10	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.1	10	PASS

<sup>\*</sup> Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5. 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.

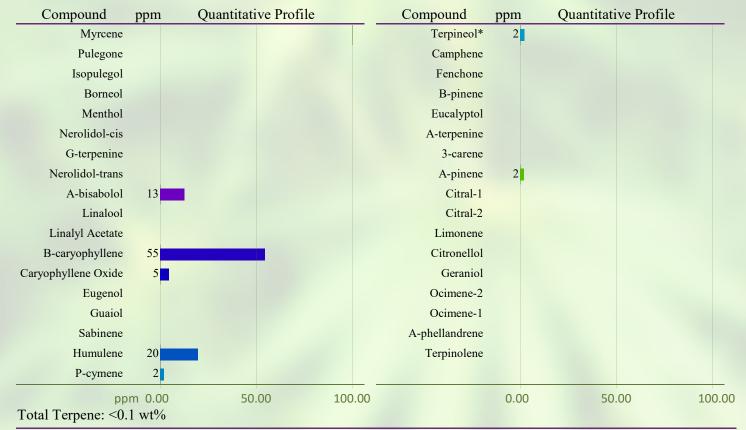
## TP: Terpenes Profile [WI-10-08]

Analyst: CJH

*Test Date: 3/14/2018* 

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.

27870-TP



<sup>\*</sup> Indicates qualitative calculation based on recorded peak areas.

VC: Analysis of Volatile Oranic Compounds [WI-10-07]

Analyst: CJH

Test Date: 3/14/2018

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.

27870-VC

Compound	CAS	Amount <sup>1</sup>	Limit <sup>2</sup>	Status
Butane	106-97-8	ND	5,000 ppm	PASS
Methanol	67-56-1	25 ppm	3,000 ppm	PASS
Pentane	109-66-0	ND	5,000 ppm	PASS
Ethanol	64-17-5	6 ppm	5,000 ppm	PASS
Ethyl Ether	60-29-7	ND	5,000 ppm	PASS
2,2-dimethylbutane		ND	N/A	-
Acetone	67-64-1	24 ppm	5,000 ppm	PASS
Isopropanol	67-63-0	8 ppm	5,000 ppm	PASS
Acetonitrile	75-05-8	ND	410 ppm	PASS
3-methylpentane	96-14-0	7 ppm	N/A	-
Hexane	110-54-3	ND	290 ppm	PASS
1-propanol	71-23-8	ND	5,000 ppm	PASS
Heptane	142-82-5	6 ppm	5,000 ppm	PASS

<sup>1)</sup> ND = None detected above 5 ppm.

## **END OF REPORT**

<sup>2)</sup> 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.