

Certificate ID: **20081**  
 Client Sample ID: **L-D0617**  
 Matrix: **Capsules/Tablets - Capsule**  
 Date Received: **8/11/2017**



**CBDRx (Lab)**  
**1434 Spruce st**  
**Boulder, CO 80302**  
**Attn: Joel Garrett**

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.

Authorization: Chris Hudalla, Chief Science Officer	Signature: 	Date: 8/21/2017
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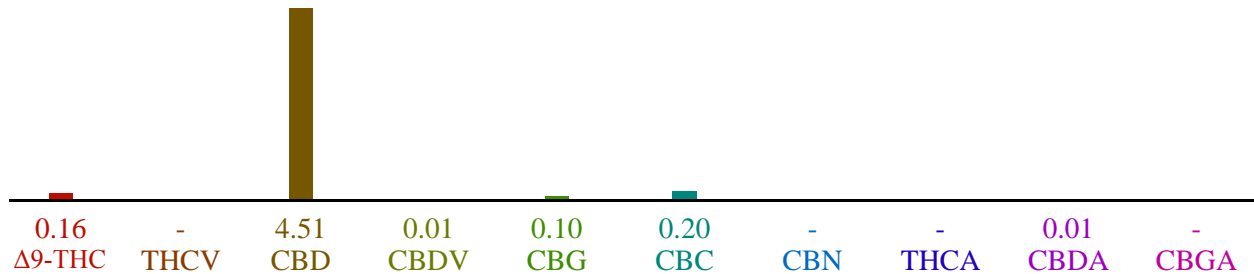
**CN: Cannabinoid Profile & Potency [WI-10-04]**

Analyst: JFD

Test Date: 8/18/2017

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.

**20081-CN**



ID	Weight %	Conc.
$\Delta^9$ -THC	0.16 wt %	0.91 mg/capsule
THCV	-	-
CBD	4.51 wt %	24.97 mg/capsule
CBDV	0.01 wt %	0.08 mg/capsule
CBG	0.10 wt %	0.53 mg/capsule
CBC	0.20 wt %	1.13 mg/capsule
CBN	0.01 wt %	0.04 mg/capsule
THCA	-	-
CBDA	0.01 wt %	0.07 mg/capsule
CBGA	0.00 wt %	0.01 mg/capsule
<b>Total</b>	<b>5.01 wt%</b>	<b>27.73 mg/capsule</b>
<b>Max THC</b>	<b>0.16 wt%</b>	<b>0.91 mg/capsule</b>
<b>Max CBD</b>	<b>4.53 wt%</b>	<b>25.03 mg/capsule</b>



**Ratio of Total CBD to THC 28.3:1**

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:  $\text{Max THC} = (0.877 \times \text{THCA}) + \text{THC}$ .

**EA: Elemental Analysis [WI-10-13]**

Analyst: JFD

Test Date: 8/21/2017

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**20081-EA**

Symbol	Metal	Conc. <sup>1</sup>	MDL	Limits <sup>2</sup>
Al	Aluminum	165 ug/kg	5 ug/kg	-
As	Arsenic	ND	4 ug/kg	200 ug/kg
Br	Bromine	7,357 ug/kg	5000 ug/kg	-
Cd	Cadmium	ND	1 ug/kg	200 ug/kg
Ca	Calcium	1,938 ug/kg	500 ug/kg	-
Cr	Chromium	ND	5 ug/kg	-
Co	Cobalt	ND	10 ug/kg	-
Cu	Copper	ND	500 ug/kg	-
Fe	Iron	110 ug/kg	5 ug/kg	-
Pb	Lead	ND	2 ug/kg	500 ug/kg
Mg	Magnesium	1,327 ug/kg	500 ug/kg	-
Mn	Manganese	ND	500 ug/kg	-
Hg	Mercury	ND	2 ug/kg	100 ug/kg
Mo	Molybdenum	ND	5000 ug/kg	-
Ni	Nickel	ND	500 ug/kg	-
P	Phosphorus	ND	500 ug/kg	-
K	Potassium	931 ug/kg	5 ug/kg	-
Se	Selenium	19 ug/kg	10 ug/kg	-
Ag	Silver	ND	10 ug/kg	-
S	Sulfur	ND	5 ug/kg	-
Sn	Tin	ND	5000 ug/kg	-
Zn	Zinc	1,051 ug/kg	5 ug/kg	-

1) ND = None detected to the Method Detection Limit (MDL)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

**MB1: Microbiological Contaminants [WI-10-09]**

Analyst: MS

Test Date: 8/11/2017

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**20081-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.

**MB2: Pathogenic Bacterial Contaminants [WI-10-10]**

Analyst: matt

Test Date: 8/12/2017

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**20081-MB2**

Test ID	Analysis	Results	Units	Limits*	Status
20081-ECPT	E. coli (O157)	Negative	NA	Non Detected	PASS
20081-SPT	Salmonella	Negative	NA	Non Detected	PASS

Note: All recorded pathogenic bacteria tests passed.

**MY: Mycotoxin Testing [WI-10-05]**

Analyst: MS

Test Date: 8/17/2017

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**20081-MY**

Test ID	Date	Conc.	LLD	Limits	Status*
Total Aflatoxin	8/17/2017	4.3	2 ppb	< 20 ppb	PASS
Total Ochratoxin	8/17/2017	3.6	3 ppb	< 20 ppb	PASS

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

Analyst: KSB

Test Date: 8/16/2017

The client sample was analyzed 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).

**20081-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	PASS
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 butoxide	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

\* 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.

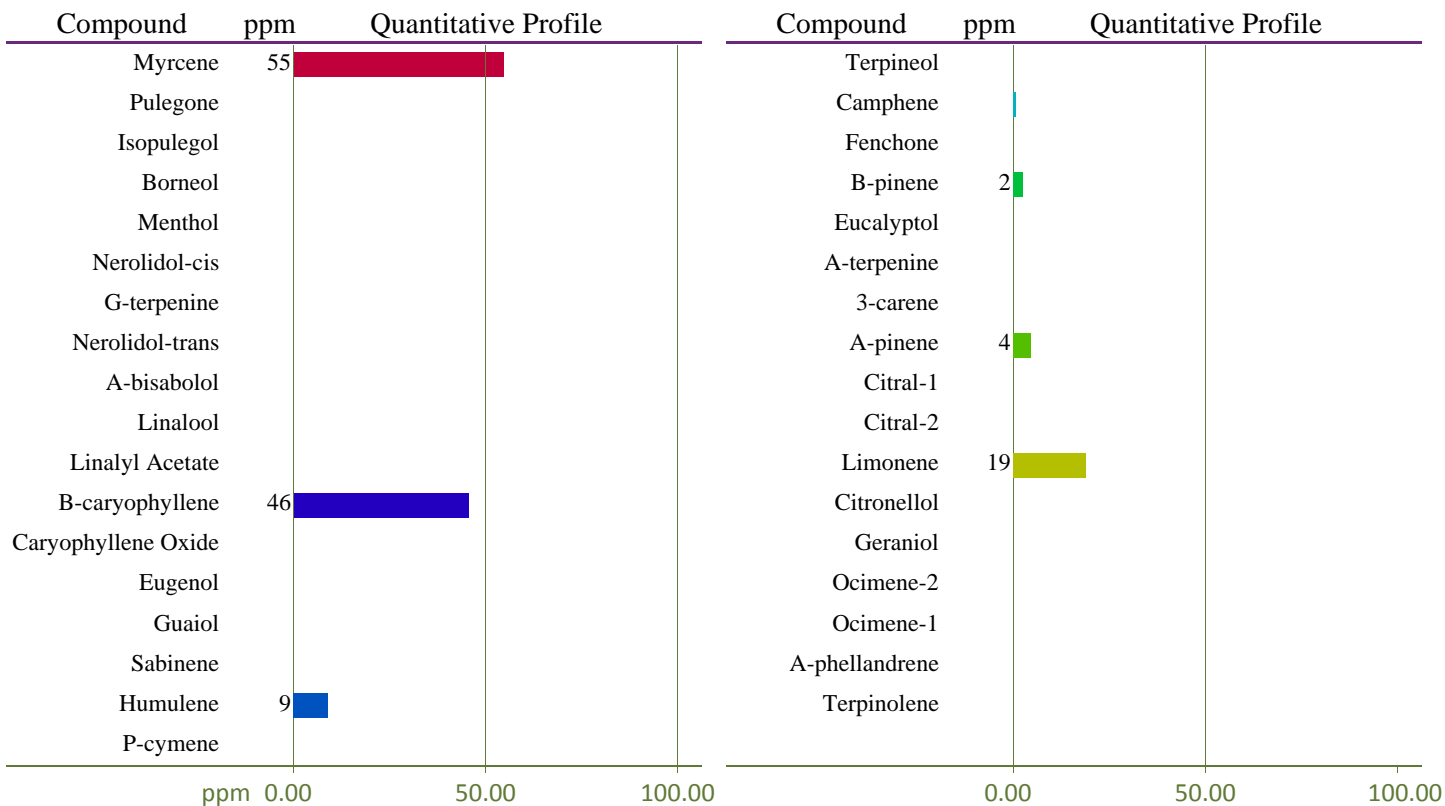
**TP: Terpenes Profile [WI-10-08]**

*Analyst: CJH*

*Test Date: 8/14/2017*

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.

**20081-TP**



Total Terpene: <0.1 wt%

\* Indicates qualitative calculation based on recorded peak areas.

**VC: Analysis of Volatile Organic Compounds [WI-10-07]***Analyst: CJH**Test Date: 8/14/2017*

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.

**20081-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	ND	3,000 ppm	PASS
Ethanol	64-17-5	ND	5,000 ppm	PASS
Isopropanol	67-63-0	7 ppm	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**