

Sample Name: CBD99 ISO99107

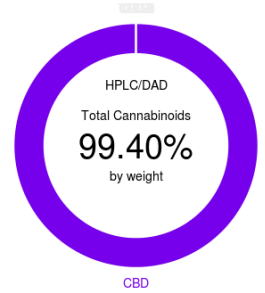
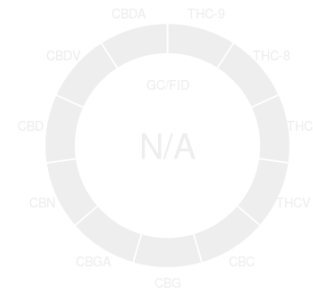
Client: Meliopharm
 Sample Type: Crystals
 Strain: Unknown

Submitted: February 11, 2017
 Tested: February 12, 2017
 Expires: February 12, 2018

Cannabinoid Profiling

Analysis of major cannabinoids by advanced chromatography. [GC: SOP-010; HPLC: SOP-014]

	GC		HPLC	
	Percent	mg/g	Percent	mg/g
d9-THC	NA	NA	0.00	0.00
d8-THC	NA	NA	0.00	0.00
THCA	NA	NA	0.00	0.00
THCV	NA	NA	0.00	0.00
CBC	NA	NA	0.00	0.00
CBG	NA	NA	0.00	0.00
CBGA	NA	NA	0.00	0.00
CBN	NA	NA	0.00	0.00
CBD	NA	NA	99.40	994.04
CBDV	NA	NA	0.00	0.00
CBDA	NA	NA	0.00	0.00
Total	NA	NA	99.40	994.04



HPLC/DAD results are not moisture normalized.
 ~0% Decarboxylated THC

Microbiological Screening

Petrifilm screening for microbiological contamination. [SOP-009]

	Count	Limit	Status
APC	NA		
Yeast & Mold	NA		
Coliform	NA		
E coli	NA		
Pseudomonas	NA		
Salmonella	NA		

*TNTC = Too Numerous To Count

Chemical Residue Screening

Targeted analysis of chemical residues. [SOP-017]

	PPM	Limit	Status		PPM	Limit	Status
BHC	NA			Endrin	NA		
Bifenezate	NA			Heptachlor	NA		
Bifenthrin	NA			Imidacloprid	NA		
Chlordane	NA			Methoxychlor	NA		
DDT	NA			Myclobutanil	NA		
Dieldrin	NA			Permethrin	NA		
Endosulfan	NA			Pyrethrin	NA		

*ND = Non-Detect

Terpene Profiling

Analysis of terpenes. [SOP-012]

	PPM		PPM		PPM
b-Myrcene	NA	Sabinene	NA	Elemene	NA
Nerol	NA	b-Pinene	NA	Phellandrene	NA
Nerolidol	NA	Camphene	NA	Isopulegol	NA
Ocimene	NA	Eucalyptol	NA	Linalool	NA
a-Bisbolol	NA	(-)-Fenchone	NA	(+)-Fenchone	NA
Farnasene	NA	Fenchol	NA	a-Caryophyllene	NA
Valencene	NA	Camphor	NA	Guaiol	NA
d3-Carene	NA	Borneol	NA	Bergamotene	NA
d-Limonene	NA	Pulegone	NA	Terpineol	NA
g-Terpinene	NA	Cedrol	NA	Terpinolene	NA
a-Pinene	NA	b-Caryophyllene	NA	a-Terpinene	NA

Total Terpenes 0.0 PPM

*ND = Non-Detect

Residual Solvent Screening

Analysis of residual solvents. [SOP-011]

	PPM		PPM		PPM
Acetone	0.0	Hexane	0.0	nButane	0.0
Benzene	0.0	Isobutane	0.0	Pentane	0.0
Chloroform	0.0	Isopentane	0.0	Propane	0.0
Ethanol	0.0	Isopropanol	0.0	Toluene	0.0
Heptane	200.0	Methanol	0.0		

Sum of Residual Solvents 200.0 PPM

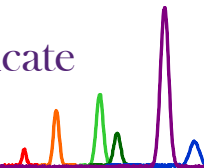
Status: Pass (Limit: 400 PPM)

CW uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgement. However, CW makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of these data in any way. Further, CW makes no claims regarding the representativeness of the analyzed sample to the larger batch from which it was taken. As part of our strict confidentiality policy, CW can only discuss results with the original client of record. Comments? lab@cwanalytical.com



This sample was tested by CW Analytical Laboratories. Results are valid through the expiration date indicated.

Robert W Martin, PhD
 Robert W Martin, PhD



Test Certificate No.: 11468_VC
Sample: CBD 99 (Batch #ISO99038)
Matrix: Concentrate



Date Received: 2/11/2017
 Test Date: 2/12/2017
 Technician: CJH

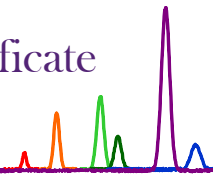
VOLATILE ORGANIC SOLVENTS [Procedure WI-10-07]:

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.

Ret. Time [min]	Area [mV.s]	Amount [ppm]	Compound Name	Solvent Limits ²
0.797	0.4	ND	propane	-
0.976	0.1	ND	butane	800
1.079	0.1	ND	methanol	3000
1.457	1.0	ND	ethanol	5000
1.696	0.7	ND	acetone	5000
1.8	0.9	ND	isopropanol	5000
3.464	100.4	154.9	heptane	5000

- 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.

ProVerde Laboratories, Inc. 420 Fortune Blvd. Milford, MA 01757 617.221.3356	Authorization: Christopher Hudalla, CSO	Date
	Signature: <i>Christopher Hudalla</i>	2/12/2017



Test Certificate No.: 11468_HM
Sample: CBD 99 (Batch #ISO99038)
Matrix: Concentrate



Date Received: 2/11/17
Test Date: 2/12/17
Technician: CJH

ELEMENTAL ANALYSIS BY ICP-MS [Procedure WI-10-13]

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.

Metal	Symbol	Conc. ¹ (µg/kg)	LLD (µg/kg)	Limits ² (µg/kg)	Status
Arsenic	As	0.44	4.00	200	PASS
Cadmium	Cd	0.51	1.00	200	PASS
Mercury	Hg	<0.00	2.00	100	PASS
Lead	Pb	25.57	2.00	500	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.

ProVerde Laboratories, Inc. 420 Fortune Blvd. Milford, MA 01757 617.221.3356	Authorization: Christopher Hudalla, CSO	Date
	Signature: <i>Christopher Hudalla</i>	2/12/2017

Test Certificate No.: 11468-MB1

Matrix: Concentrate


 Date Received: 02/11/2017
 Test Date: 02/12/2017
 Technician: MS

MICROBIOLOGICAL SCREENING (MB1) [Procedure WI-10-09]:

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.

Label	Sample Name	Total Aerobic	Total Coliform	Enterobacteria	Yeast & Mold	Status
11468	CBD 99 (Batch #ISO99038)	<100	<100	<100	<100	All tested microbiological contaminants within recommended limits*
*Recommended Limits for Processed material		100,000	1,000	1,000	10,000	Source: American Herbal Pharmacopoeia

PATHOGENIC BACTERIA (MB2) [Procedure WI-10-10]:

Label	Sample Name	Pathogen	Date	Tech	Result	Status
11468	CBD 99 (Batch #ISO99038)	<i>E. coli</i>	2/12/17	MS	Negative	No Pathogens Detected
11468	CBD 99 (Batch #ISO99038)	<i>Salmonella</i>	2/12/17	MS	Negative	No Pathogens Detected

ProVerde Laboratories, Inc. 420 Fortune Blvd. Milford, MA 01757 617.221.3356	Authorization: Christopher Hudalla, CSO	Date
	Signature: <i>Christopher Hudalla</i>	02/12/2017