



12423 NE Whitaker Way
 Portland, OR 97230
 503-254-1794



Report Number: 20-007408/D02.R00
Report Date: 07/23/2020
ORELAP#: OR100028
Purchase Order:
Received: 07/16/20 12:15

Customer: Trace Minerals Research
Product identity: CBD 20mg
Client/Metric ID: Lot# 113A
Laboratory ID: 20-007408-0001

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBC	0.200		%		CBD-Total per 0.92g 37.4 mg/0.92g
CBD	4.06		%		
CBDV [†]	0.0329		%		THC-Total per 0.92g 1.34 mg/0.92g
CBG [†]	0.156		%		
Δ9-THC	0.146		%		CBD-Total per 27.6g 1120 mg/27.6g
Analyte per 0.92g	Result	Limits	Units	Status	
CBC per 0.92g	1.84		mg/0.92g		THC-Total per 27.6g 40.3 mg/27.6g
CBD per 0.92g	37.4		mg/0.92g		
CBDV per 0.92g	0.303		mg/0.92g		(Reported in milligrams per serving)
CBG per 0.92g	1.44		mg/0.92g		
Δ9-THC per 0.92g	1.34		mg/0.92g		
Analyte per 27.6g	Result	Limits	Units	Status	
CBC per 27.6g	55.2		mg/27.6g		
CBD per 27.6g	1120		mg/27.6g		
CBDV per 27.6g	9.08		mg/27.6g		
CBG per 27.6g	43.1		mg/27.6g		
Δ9-THC per 27.6g	40.3		mg/27.6g		

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
β-Caryophyllene [†]	0.0459	66.91%	a-Bisabolol [†]	0.0227	33.09%
Total Terpenes[†]	0.0686	100.00%			

Metals:

Analyte	Result	Limits
Lead	0.0258	

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Microbiology:

Less than LOQ for all analytes.



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Customer: Trace Minerals Research

Product identity: CBD 20mg
Client/Metric ID: Lot# 113A
Sample Date:
Laboratory ID: 20-007408-0001
Temp: 25 °C

Sample Results

Potency	Method J AOAC 2015 V98-6 (mod)			Batch: 2006000	Analyze: 7/22/20 6:57:00 AM
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.200		%	0.0033	
CBC-A [†]	< LOQ		%	0.0033	
CBC-Total [†]	0.200		%	0.0062	
CBD	4.06		%	0.0329	
CBD-A	< LOQ		%	0.0033	
CBD-Total	4.06		%	0.0358	
CBDV [†]	0.0329		%	0.0033	
CBDV-A [†]	< LOQ		%	0.0033	
CBDV-Total [†]	0.0329		%	0.0061	
CBG [†]	0.156		%	0.0033	
CBG-A [†]	< LOQ		%	0.0033	
CBG-Total	0.156		%	0.0061	
CBL [†]	< LOQ		%	0.0033	
CBN	< LOQ		%	0.0033	
Δ8-THC [†]	< LOQ		%	0.0033	
Δ9-THC	0.146		%	0.0033	
THC-A	< LOQ		%	0.0033	
THC-Total	0.146		%	0.0062	
THCV [†]	< LOQ		%	0.0033	
THCV-A [†]	< LOQ		%	0.0033	
THCV-Total [†]	< LOQ		%	0.0061	
Total Cannabinoids[†]	4.59		%		

Potency per 0.92g	Method J AOAC 2015 V98-6 (mod)			Batch: 2006000	Analyze: 7/22/20 6:57:00 AM
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 0.92g	1.84		mg/0.92g	0.0303	
CBC-A per 0.92g	< LOQ		mg/0.92g	0.0303	
CBC-Total per 0.92g	1.84		mg/0.92g	0.0568	
CBD per 0.92g	37.4		mg/0.92g	0.303	
CBD-A per 0.92g	< LOQ		mg/0.92g	0.0303	
CBD-Total per 0.92g	37.4		mg/0.92g	0.329	
CBDV per 0.92g	0.303		mg/0.92g	0.0303	
CBDV-A per 0.92g	< LOQ		mg/0.92g	0.0303	
CBDV-Total per 0.92g	0.303		mg/0.92g	0.0565	
CBG per 0.92g	1.44		mg/0.92g	0.0303	

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Potency per 0.92g **Method J AOAC 2015 V98-6 (mod) Batch: 2006000 Analyze: 7/22/20 6:57:00 AM**

Analyte	Result	Limits	Units	LOQ	Notes
CBG-A per 0.92g	< LOQ		mg/0.92g	0.0303	
CBG-Total per 0.92g	1.44		mg/0.92g	0.0565	
CBL per 0.92g	< LOQ		mg/0.92g	0.0303	
CBN per 0.92g	< LOQ		mg/0.92g	0.0303	
Δ8-THC per 0.92g	< LOQ		mg/0.92g	0.0303	
Δ9-THC per 0.92g	1.34		mg/0.92g	0.0303	
THC-A per 0.92g	< LOQ		mg/0.92g	0.0303	
THC-Total per 0.92g	1.34		mg/0.92g	0.0568	
THCV per 0.92g	< LOQ		mg/0.92g	0.0303	
THCV-A per 0.92g	< LOQ		mg/0.92g	0.0303	
THCV-Total per 0.92g	< LOQ		mg/0.92g	0.0569	
Total Cannabinoids 0.92g[†]	42.3		mg/0.92g		

Potency per 27.6g **Method J AOAC 2015 V98-6 (mod) Batch: 2006000 Analyze: 7/22/20 6:57:00 AM**

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 27.6g	55.2		mg/27.6g	0.908	
CBC-A per 27.6g	< LOQ		mg/27.6g	0.908	
CBC-Total per 27.6g	55.2		mg/27.6g	1.70	
CBD per 27.6g	1120		mg/27.6g	9.08	
CBD-A per 27.6g	< LOQ		mg/27.6g	0.908	
CBD-Total per 27.6g	1120		mg/27.6g	9.88	
CBDV per 27.6g	9.08		mg/27.6g	0.908	
CBDV-A per 27.6g	< LOQ		mg/27.6g	0.908	
CBDV-Total per 27.6g	9.08		mg/27.6g	1.70	
CBG per 27.6g	43.1		mg/27.6g	0.908	
CBG-A per 27.6g	< LOQ		mg/27.6g	0.908	
CBG-Total per 27.6g	43.1		mg/27.6g	1.70	
CBL per 27.6g	< LOQ		mg/27.6g	0.908	
CBN per 27.6g	< LOQ		mg/27.6g	0.908	
Δ8-THC per 27.6g	< LOQ		mg/27.6g	0.908	
Δ9-THC per 27.6g	40.3		mg/27.6g	0.908	
THC-A per 27.6g	< LOQ		mg/27.6g	0.908	
THC-Total per 27.6g	40.3		mg/27.6g	1.70	
THCV per 27.6g	< LOQ		mg/27.6g	0.908	
THCV-A per 27.6g	< LOQ		mg/27.6g	0.908	
THCV-Total per 27.6g	< LOQ		mg/27.6g	1.71	
Total Cannabinoids 27.6g[†]	1270		mg/27.6g		

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2005862	07/19/20	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2005862	07/19/20	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2005864	07/19/20	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2005864	07/19/20	AOAC 2014.05 (RAPID)	X

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Solvents		Method EPA5021A				Units µg/g	Batch 2005908	Analyze 07/20/20 07:19 AM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass	
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	30.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	200	pass	
Methylpropane	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl	< LOQ	2170	600	pass	

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Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2005985 Analyze 07/21/20 02:23 PM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoxazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Fonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclobutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							

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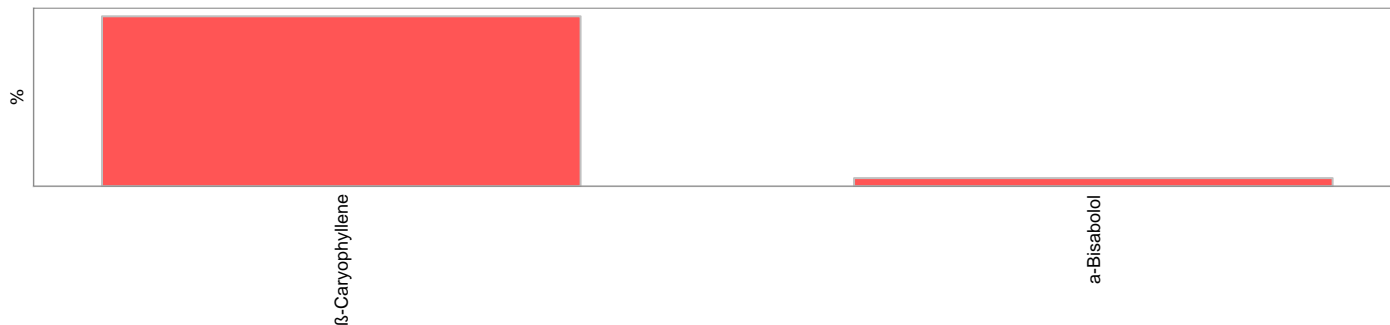


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Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2005959	Analyze 07/21/20 08:35 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
β-Caryophyllene†	0.0459	0.020	66.91%		α-Bisabolol†	0.0227	0.020	33.09%	
(-)-α-Terpineol†	< LOQ	0.020	0.00%		(-)-caryophyllene oxide†	< LOQ	0.020	0.00%	
(-)-Guaiol†	< LOQ	0.020	0.00%		(-)-Isopulegol†	< LOQ	0.020	0.00%	
(-)-β-Pinene†	< LOQ	0.020	0.00%		(+)-Borneol†	< LOQ	0.020	0.00%	
(+)-Cedrol†	< LOQ	0.020	0.00%		(+)-fenchol†	< LOQ	0.020	0.00%	
(+)-Pulegone†	< LOQ	0.020	0.00%		(±)-Camphor†	< LOQ	0.020	0.00%	
(±)-cis-Nerolidol†	< LOQ	0.020	0.00%		(±)-fenchone†	< LOQ	0.020	0.00%	
(±)-trans-Nerolidol†	< LOQ	0.020	0.00%		(R)-(+)-Limonene†	< LOQ	0.020	0.00%	
α-cedrene†	< LOQ	0.020	0.00%		α-phellandrene†	< LOQ	0.020	0.00%	
α-pinene†	< LOQ	0.020	0.00%		α-Terpinene†	< LOQ	0.020	0.00%	
Camphene†	< LOQ	0.020	0.00%		cis-β-Ocimene†	< LOQ	0.006	0.00%	
d-3-Carene†	< LOQ	0.020	0.00%		Eucalyptol†	< LOQ	0.020	0.00%	
farnesene†	< LOQ	0.020	0.00%		γ-Terpinene†	< LOQ	0.020	0.00%	
Geraniol†	< LOQ	0.020	0.00%		Geranyl acetate†	< LOQ	0.020	0.00%	
Humulene†	< LOQ	0.020	0.00%		Isoborneol†	< LOQ	0.020	0.00%	
Linalool†	< LOQ	0.020	0.00%		Menthol†	< LOQ	0.020	0.00%	
nerol†	< LOQ	0.020	0.00%		p-Cymene†	< LOQ	0.020	0.00%	
Sabinene†	< LOQ	0.020	0.00%		Sabinene hydrate†	< LOQ	0.020	0.00%	
β-Myrcene†	< LOQ	0.020	0.00%		Terpinolene†	< LOQ	0.020	0.00%	
trans-β-Ocimene†	< LOQ	0.013	0.00%		valencene†	< LOQ	0.020	0.00%	
Total Terpenes	0.0686								



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0149	2006001	07/21/20	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0149	2006001	07/21/20	AOAC 2013.06 (mod.)	X	
Lead	0.0258		mg/kg	0.0149	2006001	07/21/20	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.00744	2006001	07/21/20	AOAC 2013.06 (mod.)	X	

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Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aflatoxin B1†	< LOQ		µg/kg	5.00	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Aflatoxin B2†	< LOQ		µg/kg	5.00	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Aflatoxin G1†	< LOQ		µg/kg	5.00	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Aflatoxin G2†	< LOQ		µg/kg	5.00	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Deoxynivalenol†	< LOQ		µg/kg	200	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Fumonisin B1†	< LOQ		µg/kg	200	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Fumonisin B2†	< LOQ		µg/kg	200	2006030	07/22/20	AOAC 2007.01 & EN 15662	
HT2-Toxin†	< LOQ		µg/kg	40.0	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Nivalenol†	< LOQ		µg/kg	400	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Ochratoxin A†	< LOQ		µg/kg	5.00	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Ochratoxin B†	< LOQ		µg/kg	2.00	2006030	07/22/20	AOAC 2007.01 & EN 15662	
T2-Toxin†	< LOQ		µg/kg	20.0	2006030	07/22/20	AOAC 2007.01 & EN 15662	
Zearalenone†	< LOQ		µg/kg	200	2006030	07/22/20	AOAC 2007.01 & EN 15662	

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These test results are representative of the individual sample selected and submitted by the client.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

cfu/g = Colony forming units per gram

g = Gram

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/0.92g = Milligram per 0.92g

mg/27.6g = Milligram per 27.6g

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager