



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

Report Number: 20-005454/D02.R00
Report Date: 06/09/2020
ORELAP#: OR100028
Purchase Order:
Received: 05/28/20 13:00



Customer: Trace Minerals Research

Product identity: CBD Extract 1200mg
Client/Metric ID: Lot# 0098A
Sample Date: 05/26/20
Laboratory ID: 20-005454-0002
Relinquished by: FEDEX
Temp: 29.6 °C

Sample Results

Potency					
Method J AOAC 2015 V98-6 (mod) Batch: 2004527 Analyze: 5/28/20 2:03:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.197		%	0.00313	
CBC-A†	< LOQ		%	0.00313	
CBC-Total†	0.197		%	0.00588	
CBD	4.90		%	0.00313	
CBD-A	< LOQ		%	0.00313	
CBD-Total	4.90		%	0.00588	
CBDV†	0.0269		%	0.00313	
CBDV-A†	< LOQ		%	0.00313	
CBDV-Total†	0.0269		%	0.00588	
CBG†	0.125		%	0.00313	
CBG-A†	< LOQ		%	0.00313	
CBG-Total	0.125		%	0.00588	
CBL†	0.0157		%	0.00313	
CBN	0.00613		%	0.00313	
Δ8-THC†	< LOQ		%	0.00313	
Δ9-THC	0.199		%	0.00313	
THC-A	< LOQ		%	0.00313	
THC-Total	0.199		%	0.00588	
THCV†	0.0162		%	0.00313	
THCV-A†	< LOQ		%	0.00313	
THCV-Total†	0.0162		%	0.00588	

Potency per 1g					
Method J AOAC 2015 V98-6 (mod) Batch: 2004527 Analyze: 5/28/20 2:03:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	1.97		mg/1g	0.0313	
CBC-A per 1g	< LOQ		mg/1g	0.0313	
CBC-Total per 1g	1.97		mg/1g	0.0588	
CBD per 1g	49.0		mg/1g	0.0313	
CBD-A per 1g	< LOQ		mg/1g	0.0313	
CBD-Total per 1g	49.0		mg/1g	0.0588	
CBDV per 1g	0.269		mg/1g	0.0313	
CBDV-A per 1g	< LOQ		mg/1g	0.0313	
CBDV-Total per 1g	0.269		mg/1g	0.0588	

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Potency per 1g Method J AOAC 2015 V98-6 (mod) Batch: 2004527 Analyze: 5/28/20 2:03:00 PM

Analyte	Result	Limits	Units	LOQ	Notes
CBG per 1g	1.25		mg/1g	0.0313	
CBG-A per 1g	< LOQ		mg/1g	0.0313	
CBG-Total per 1g	1.25		mg/1g	0.0588	
CBL per 1g	0.157		mg/1g	0.0313	
CBN per 1g	0.0613		mg/1g	0.0313	
Δ8-THC per 1g	< LOQ		mg/1g	0.0313	
Δ9-THC per 1g	1.99		mg/1g	0.0313	
THC-A per 1g	< LOQ		mg/1g	0.0313	
THC-Total per 1g	1.99		mg/1g	0.0588	
THCV per 1g	0.162		mg/1g	0.0313	
THCV-A per 1g	< LOQ		mg/1g	0.0313	
THCV-Total per 1g	0.162		mg/1g	0.0588	

Potency per 30g Method J AOAC 2015 V98-6 (mod) Batch: 2004527 Analyze: 5/28/20 2:03:00 PM

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 30g	59.1		mg/30g	0.939	
CBC-A per 30g	< LOQ		mg/30g	0.939	
CBC-Total per 30g	59.1		mg/30g	1.76	
CBD per 30g	1470		mg/30g	0.939	
CBD-A per 30g	< LOQ		mg/30g	0.939	
CBD-Total per 30g	1470		mg/30g	1.76	
CBDV per 30g	8.07		mg/30g	0.939	
CBDV-A per 30g	< LOQ		mg/30g	0.939	
CBDV-Total per 30g	8.07		mg/30g	1.76	
CBG per 30g	37.5		mg/30g	0.939	
CBG-A per 30g	< LOQ		mg/30g	0.939	
CBG-Total per 30g	37.5		mg/30g	1.76	
CBL per 30g	4.71		mg/30g	0.939	
CBN per 30g	1.84		mg/30g	0.939	
Δ8-THC per 30g	< LOQ		mg/30g	0.939	
Δ9-THC per 30g	59.7		mg/30g	0.939	
THC-A per 30g	< LOQ		mg/30g	0.939	
THC-Total per 30g	59.7		mg/30g	1.76	
THCV per 30g	4.86		mg/30g	0.939	
THCV-A per 30g	< LOQ		mg/30g	0.939	
THCV-Total per 30g	4.86		mg/30g	1.76	

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2004455	05/31/20	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2004455	05/31/20	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2004456	05/31/20	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2004456	05/31/20	AOAC 2014.05 (RAPID)	X

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Solvents						Method EPA5021A		Units µg/g		Batch 2004440		Analyze 05/28/20 02:03 PM	
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 2004554 Analyze 06/02/20 04:17 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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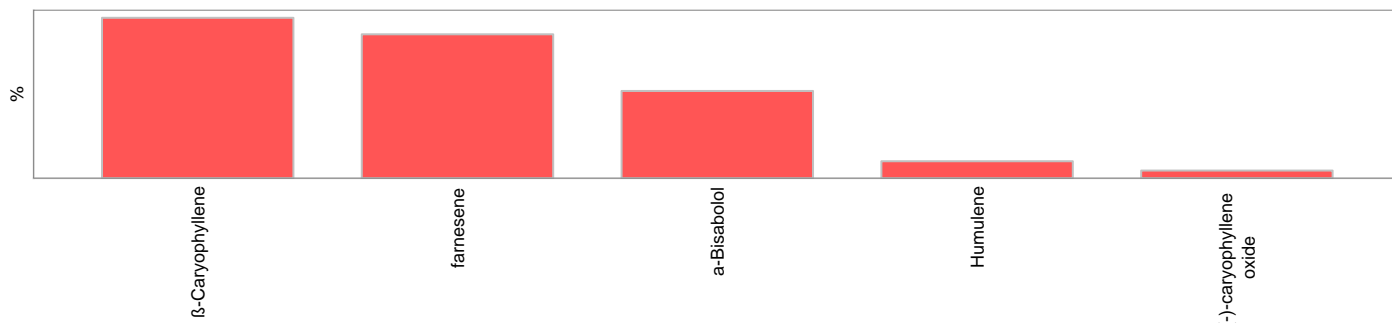


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Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2004528	Analyze 06/02/20 07:22 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
β-Caryophyllene†	0.0479	0.020	28.34%		farnesene†	0.0449	0.020	26.57%	
α-Bisabolol†	0.0345	0.020	20.41%		Humulene†	0.0217	0.020	12.84%	
(-)-caryophyllene oxide†	0.0200	0.020	11.83%		(-)-α-Terpineol†	< 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%	
γ-Terpinene†	< LOQ	0.020	0.00%		Geraniol†	< LOQ	0.020	0.00%	
Geranyl acetate†	< 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†	< 0.0200	0.020	0.00%	
Total Terpenes	0.169								



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0482	2004635	05/29/20	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0482	2004635	05/29/20	AOAC 2013.06 (mod.)	X	
Lead	< LOQ		mg/kg	0.0482	2004635	05/29/20	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.0241	2004635	05/29/20	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	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Aflatoxin B2†	< LOQ		µg/kg	5.00	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Aflatoxin G1†	< LOQ		µg/kg	5.00	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Aflatoxin G2†	< LOQ		µg/kg	5.00	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Deoxynivalenol†	< LOQ		µg/kg	200	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Fumonisin B1†	< LOQ		µg/kg	200	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Fumonisin B2†	< LOQ		µg/kg	200	2004506	06/01/20	AOAC 2007.01 & EN 15662	
HT2-Toxin†	< LOQ		µg/kg	40.0	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Nivalenol†	< LOQ		µg/kg	400	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Ochratoxin A†	< LOQ		µg/kg	5.00	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Ochratoxin B†	< LOQ		µg/kg	2.00	2004506	06/01/20	AOAC 2007.01 & EN 15662	
T2-Toxin†	< LOQ		µg/kg	20.0	2004506	06/01/20	AOAC 2007.01 & EN 15662	
Zearalenone†	< LOQ		µg/kg	200	2004506	06/01/20	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/1g = Milligram per 1g

mg/30g = Milligram per 30g

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager