



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



Report Number: 20-002649/D02.R00
Report Date: 03/13/2020
ORELAP#: OR100028
Purchase Order:
Received: 03/06/20 12:43

Customer: Trace Minerals Research
Product identity: CBD Extract 600mg
Client/Metric ID: Lot# 0010A
Laboratory ID: 20-002649-0001

Summary

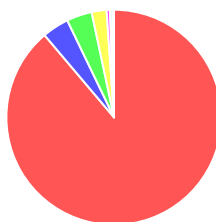
Potency:

Analyte	Result	Limit	Unit	Status
CBD	2.36		%	
Δ9-THC	0.107		%	
CBC	0.101		%	
CBG†	0.0593		%	
CBDV†	0.0136		%	
CBL†	0.00954		%	
THCV†	0.00600		%	

Analyte per 1g	Result	Limit	Unit	Status
CBD per 1g	23.6		mg/1g	
Δ9-THC per 1g	1.07		mg/1g	
CBC per 1g	1.01		mg/1g	
CBG per 1g	0.593		mg/1g	
CBDV per 1g	0.136		mg/1g	
CBL per 1g	0.0954		mg/1g	
THCV per 1g	0.0600		mg/1g	

Analyte per 30g	Result	Limit	Unit	Status
CBD per 30g	708		mg/30g	
Δ9-THC per 30g	32.1		mg/30g	
CBC per 30g	30.3		mg/30g	
CBG per 30g	17.8		mg/30g	
CBDV per 30g	4.08		mg/30g	
CBL per 30g	2.86		mg/30g	
THCV per 30g	1.80		mg/30g	

CBD-Total (%)	2.36 %
CBD-Total per 1g	23.6 mg/1g
CBD-Total per 30g	708 mg/30g
THC-Total (%)	0.107 %
(Reported in milligrams per serving)	



- CBD
- 9-THC
- CBC
- CBG
- CBDV
- CBL
- THCV

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
farnesene†	0.0300	53.48%	β-Caryophyllene†	0.0261	46.52%
Total Terpenes†	0.0561	100.00%			

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Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Customer: Trace Minerals Research

Product identity: CBD Extract 600mg

Client/Metric ID: Lot# 0010A

Sample Date:

Laboratory ID: 20-002649-0001

Relinquished by: FedEx

Temp: 17.4 °C

Serving Size #1: 1 g

Serving Size #2: 30 g

Sample Results

Potency	Method J AOAC 2015 V98-6		Batch: 2002238	Analyze: 3/9/20 8:46:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.101		%	0.0033	
CBC-A [†]	< LOQ		%	0.0033	
CBC-Total [†]	0.101		%	0.0061	
CBD	2.36		%	0.0328	
CBD-A	< LOQ		%	0.0033	
CBD-Total	2.36		%	0.0356	
CBDV [†]	0.0136		%	0.0033	
CBDV-A [†]	< LOQ		%	0.0033	
CBDV-Total [†]	0.0136		%	0.0061	
CBG [†]	0.0593		%	0.0033	
CBG-A [†]	< LOQ		%	0.0033	
CBG-Total	0.0593		%	0.0061	
CBL [†]	0.00954		%	0.0033	
CBN	< LOQ		%	0.0033	
Δ8-THC [†]	< LOQ		%	0.0033	
Δ9-THC	0.107		%	0.0033	
THC-A	< LOQ		%	0.0033	
THC-Total	0.107		%	0.0061	
THCV [†]	0.00600		%	0.0033	
THCV-A [†]	< LOQ		%	0.0033	
THCV-Total [†]	< LOQ		%	0.0061	
Total Cannabinoids[†]	2.66		%		

Potency per 1g	Method J AOAC 2015 V98-6		Batch: 2002238	Analyze: 3/9/20 8:46:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 1g	1.01		mg/1g	0.0328	
CBC-A per 1g	< LOQ		mg/1g	0.0328	
CBC-Total per 1g	1.01		mg/1g	0.0615	
CBD per 1g	23.6		mg/1g	0.328	
CBD-A per 1g	< LOQ		mg/1g	0.0328	

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Potency per 1g					
Method J AOAC 2015 V98-6		Batch: 2002238		Analyze: 3/9/20 8:46:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBD-Total per 1g	23.6		mg/1g	0.356	
CBDV per 1g	0.136		mg/1g	0.0328	
CBDV-A per 1g	< LOQ		mg/1g	0.0328	
CBDV-Total per 1g	0.136		mg/1g	0.0611	
CBG per 1g	0.593		mg/1g	0.0328	
CBG-A per 1g	< LOQ		mg/1g	0.0328	
CBG-Total per 1g	0.593		mg/1g	0.0611	
CBL per 1g	0.0954		mg/1g	0.0328	
CBN per 1g	< LOQ		mg/1g	0.0328	
Δ8-THC per 1g	< LOQ		mg/1g	0.0328	
Δ9-THC per 1g	1.07		mg/1g	0.0328	
THC-A per 1g	< LOQ		mg/1g	0.0328	
THC-Total per 1g	1.07		mg/1g	0.0615	
THCV per 1g	0.0600		mg/1g	0.0328	
THCV-A per 1g	< LOQ		mg/1g	0.0328	
THCV-Total per 1g	< LOQ		mg/1g	0.0615	
Total Cannabinoids 1g[†]	26.6		mg/1g		

Potency per 30g					
Method J AOAC 2015 V98-6		Batch: 2002238		Analyze: 3/9/20 8:46:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 30g	30.3		mg/30g	0.983	
CBC-A per 30g	< LOQ		mg/30g	0.983	
CBC-Total per 30g	30.3		mg/30g	1.84	
CBD per 30g	708		mg/30g	9.83	
CBD-A per 30g	< LOQ		mg/30g	0.983	
CBD-Total per 30g	708		mg/30g	10.7	
CBDV per 30g	4.08		mg/30g	0.983	
CBDV-A per 30g	< LOQ		mg/30g	0.983	
CBDV-Total per 30g	4.08		mg/30g	1.83	
CBG per 30g	17.8		mg/30g	0.983	
CBG-A per 30g	< LOQ		mg/30g	0.983	
CBG-Total per 30g	17.8		mg/30g	1.83	
CBL per 30g	2.86		mg/30g	0.983	
CBN per 30g	< LOQ		mg/30g	0.983	
Δ8-THC per 30g	< LOQ		mg/30g	0.983	
Δ9-THC per 30g	32.1		mg/30g	0.983	
THC-A per 30g	< LOQ		mg/30g	0.983	
THC-Total per 30g	32.1		mg/30g	1.84	
THCV per 30g	1.80		mg/30g	0.983	
THCV-A per 30g	< LOQ		mg/30g	0.983	
THCV-Total per 30g	< LOQ		mg/30g	1.85	
Total Cannabinoids 30g[†]	797		mg/30g		

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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2002200	03/10/20	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2002200	03/10/20	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2002201	03/10/20	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2002201	03/10/20	AOAC 2014.05 (RAPID)	X

Solvents Method EPA5021A Units µg/g Batch 2002202 Analyze 03/09/20 08:46 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 2002251 Analyze 03/10/20 03:30 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		Etoazole	< 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		Paclbutrazole	< 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							

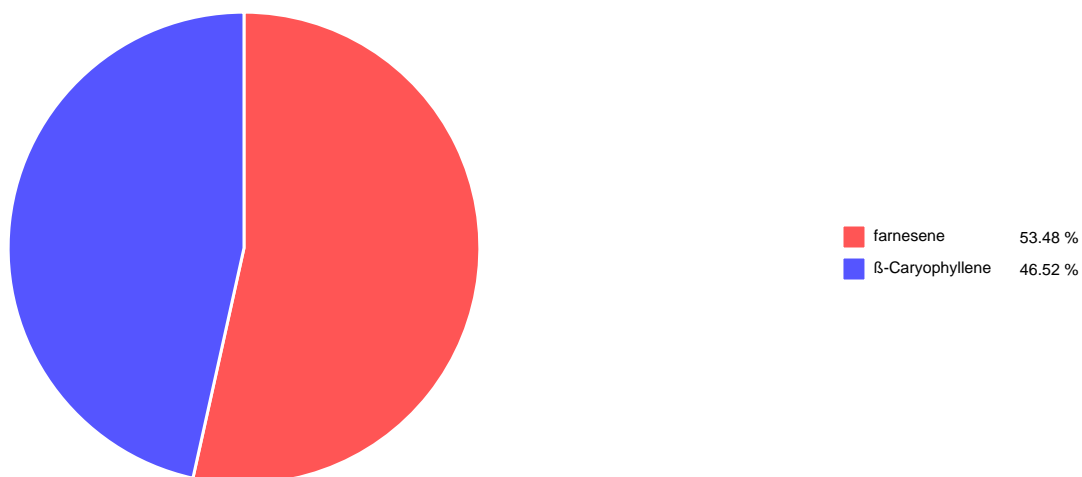
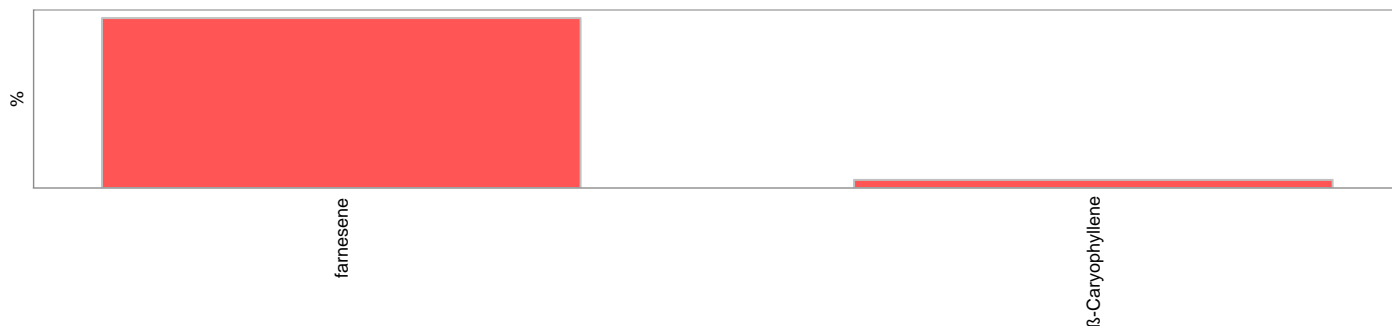


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Terpenes		Method J AOAC 2015 V98-6			Units %	Batch 2002237	Analyze 03/10/20 12:39 PM
Analyte	Result	LOQ	LOD	Threshold	Pass/Fail	% of Total	Notes
farnesene†	0.0300	0.020				53.48%	
β-Caryophyllene†	0.0261	0.020				46.52%	
α-Bisabolol†	< LOQ	0.020				0.00%	
(-)-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%	
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	0.0561						



Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Arsenic	< LOQ		mg/kg	0.0491	2002325	03/12/20	AOAC 2013.06 (mod.)	X, H
Cadmium	< LOQ		mg/kg	0.0491	2002325	03/12/20	AOAC 2013.06 (mod.)	X, H
Lead	< LOQ		mg/kg	0.0491	2002325	03/12/20	AOAC 2013.06 (mod.)	X, H
Mercury	< LOQ		mg/kg	0.0245	2002325	03/12/20	AOAC 2013.06 (mod.)	X, H



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Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aflatoxin B1 [†]	< LOQ		µg/kg	5.00	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Aflatoxin B2 [†]	< LOQ		µg/kg	5.00	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Aflatoxin G1 [†]	< LOQ		µg/kg	5.00	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Aflatoxin G2 [†]	< LOQ		µg/kg	5.00	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Deoxynivalenol [†]	< LOQ		µg/kg	200	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Fumonisin B1 [†]	< LOQ		µg/kg	200	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Fumonisin B2 [†]	< LOQ		µg/kg	200	2002218	03/10/20	AOAC 2007.01 & EN 15662	
HT2-Toxin [†]	< LOQ		µg/kg	40.0	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Nivalenol [†]	< LOQ		µg/kg	400	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Ochratoxin A [†]	< LOQ		µg/kg	5.00	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Ochratoxin B [†]	< LOQ		µg/kg	2.00	2002218	03/10/20	AOAC 2007.01 & EN 15662	
T2-Toxin [†]	< LOQ		µg/kg	20.0	2002218	03/10/20	AOAC 2007.01 & EN 15662	
Zearalenone [†]	< LOQ		µg/kg	200	2002218	03/10/20	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

H: Holding time was exceeded.

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager