



Customer: Trace Minerals Research
Product identity: CBD 600mg Tropical 719
Client/Metric ID: Lot# SN127719
Laboratory ID: 19-014828-0003

Sample Date: 12/02/19

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBC†	0.167		%		CBD-Total per 1g
CBD	2.52		%		25.2 mg/1g
CBDV†	0.0236		%		THC-Total per 1g
CBG†	0.0778		%		0.934 mg/1g
Δ9-THC	0.0934		%		CBD-Total per 30g
					756 mg/30g
					THC-Total per 30g
					28.0 mg/30g
					(Reported in milligrams per serving)
Analyte per 1g	Result	Limits	Units	Status	
CBC per 1g†	1.67		mg/1g		
CBD per 1g	25.2		mg/1g		
CBDV per 1g†	0.236		mg/1g		
CBG per 1g†	0.778		mg/1g		
Δ9-THC per 1g	0.934		mg/1g		
Analyte per 30g	Result	Limits	Units	Status	
CBC per 30g†	50.1		mg/30g		
CBD per 30g	756		mg/30g		
CBDV per 30g†	7.08		mg/30g		
CBG per 30g†	23.3		mg/30g		
Δ9-THC per 30g	28.0		mg/30g		

Residual Solvents:

Analyte	Result (µg/g)	Limits (µg/g)	Status
Ethyl acetate	224	5000	pass

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Less than LOQ for all analytes.

Metals:

Less than LOQ for all analytes.



Microbiology:

Less than LOQ for all analytes.



Customer: Trace Minerals Research

Product identity: CBD 600mg Tropical 719
Client/Metric ID: Lot# SN127719
Sample Date: 12/02/19
Laboratory ID: 19-014828-0003
Relinquished by: Justin Bingham
Temp: 18.6 °C
Serving Size #1: 1 g
Serving Size #2: 30 g

Sample Results

Potency		Batch: 1911226					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC†	0.167		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBC-A†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBC-Total†	0.167		%	0.0060	12/17/19	J AOAC 2015 V98-6	
CBD	2.52		%	0.0322	12/09/19	J AOAC 2015 V98-6	
CBD-A	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBD-Total	2.52		%	0.0351	12/17/19	J AOAC 2015 V98-6	
CBDV†	0.0236		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBDV-A†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBDV-Total†	0.0236		%	0.0060	12/17/19	J AOAC 2015 V98-6	
CBG†	0.0778		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBG-A†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBG-Total†	0.0778		%	0.0060	12/17/19	J AOAC 2015 V98-6	
CBL†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
CBN	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
Δ8-THC†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
Δ9-THC	0.0934		%	0.0032	12/09/19	J AOAC 2015 V98-6	
THC-A	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
THC-Total	0.0934		%	0.0060	12/17/19	J AOAC 2015 V98-6	
THCV†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
THCV-A†	< LOQ		%	0.0032	12/09/19	J AOAC 2015 V98-6	
THCV-Total†	< LOQ		%	0.0060	12/17/19	J AOAC 2015 V98-6	

Potency per 1g		Batch: 1911226					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC per 1g†	1.67		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBC-A per 1g†	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBC-Total per 1g†	1.67		mg/1g	0.0626	12/17/19	J AOAC 2015 V98-6	
CBD per 1g	25.2		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBD-A per 1g	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBD-Total per 1g	25.2		mg/1g	0.0626	12/17/19	J AOAC 2015 V98-6	

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Pixis quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



Potency per 1g		Batch: 1911226					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBDV per 1g [†]	0.236		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBDV-A per 1g [†]	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBDV-Total per 1g [†]	0.236		mg/1g	0.0622	12/17/19	J AOAC 2015 V98-6	
CBG per 1g [†]	0.778		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBG-A per 1g [†]	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBG-Total per 1g [†]	0.778		mg/1g	0.0626	12/17/19	J AOAC 2015 V98-6	
CBL per 1g [†]	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
CBN per 1g	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
Δ8-THC per 1g [†]	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
Δ9-THC per 1g	0.934		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
THC-A per 1g	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
THC-Total per 1g	0.934		mg/1g	0.0626	12/17/19	J AOAC 2015 V98-6	
THCV per 1g [†]	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
THCV-A per 1g [†]	< LOQ		mg/1g	0.0333	12/17/19	J AOAC 2015 V98-6	
THCV-Total per 1g [†]	< LOQ		mg/1g	0.0622	12/17/19	J AOAC 2015 V98-6	

Potency per 30g		Batch: 1911226					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC per 30g [†]	50.1		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBC-A per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBC-Total per 30g [†]	50.1		mg/30g	1.88	12/17/19	J AOAC 2015 V98-6	
CBD per 30g	756		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBD-A per 30g	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBD-Total per 30g	756		mg/30g	1.88	12/17/19	J AOAC 2015 V98-6	
CBDV per 30g [†]	7.08		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBDV-A per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBDV-Total per 30g [†]	7.08		mg/30g	1.87	12/17/19	J AOAC 2015 V98-6	
CBG per 30g [†]	23.3		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBG-A per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBG-Total per 30g [†]	23.3		mg/30g	1.88	12/17/19	J AOAC 2015 V98-6	
CBL per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
CBN per 30g	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
Δ8-THC per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
Δ9-THC per 30g	28.0		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
THC-A per 30g	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
THC-Total per 30g	28.0		mg/30g	1.88	12/17/19	J AOAC 2015 V98-6	
THCV per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
THCV-A per 30g [†]	< LOQ		mg/30g	1.000	12/17/19	J AOAC 2015 V98-6	
THCV-Total per 30g [†]	< LOQ		mg/30g	1.87	12/17/19	J AOAC 2015 V98-6	

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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	1911125	12/09/19	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	1911125	12/09/19	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	1911126	12/09/19	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	1911126	12/09/19	AOAC 2014.05 (RAPID)	X

Solvents		Method EPA5021A				Units µg/g	Batch 1911183	Analyze 12/10/19 09:47 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	224	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	



Pesticides Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 1911114 Analyze 12/06/19 03:57 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							



Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 1911179	Analyze 12/10/19 09:19 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
(R)-(+)-Limonene [†]	< LOQ	0.020	0.00%		(-)-a-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%	
a-Bisabolol [†]	< LOQ	0.020	0.00%		a-cedrene [†]	< LOQ	0.020	0.00%	
a-phellandrene [†]	< LOQ	0.020	0.00%		a-pinene [†]	< LOQ	0.020	0.00%	
a-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%	
gamma-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-Caryophyllene [†]	< 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	< LOQ								

Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0415	1911278	12/11/19	AOAC 2013.06 (mod.)	H, X	
Cadmium	< LOQ		mg/kg	0.0415	1911278	12/11/19	AOAC 2013.06 (mod.)	H, X	
Lead	< LOQ		mg/kg	0.0415	1911278	12/11/19	AOAC 2013.06 (mod.)	H, X	
Mercury	< LOQ		mg/kg	0.0207	1911278	12/11/19	AOAC 2013.06 (mod.)	H, X	



Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aflatoxin B1†	< LOQ		µg/kg	5.00	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Aflatoxin B2†	< LOQ		µg/kg	5.00	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Aflatoxin G1†	< LOQ		µg/kg	5.00	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Aflatoxin G2†	< LOQ		µg/kg	5.00	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Deoxynivalenol†	< LOQ		µg/kg	200	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Fumonisin B1†	< LOQ		µg/kg	200	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Fumonisin B2†	< LOQ		µg/kg	400	1911188	12/10/19	AOAC 2007.01 & EN 15662	
HT2-Toxin†	< LOQ		µg/kg	40.0	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Nivalenol†	< LOQ		µg/kg	400	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Ochratoxin A†	< LOQ		µg/kg	5.00	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Ochratoxin B†	< LOQ		µg/kg	2.00	1911188	12/10/19	AOAC 2007.01 & EN 15662	
T2-Toxin†	< LOQ		µg/kg	20.0	1911188	12/10/19	AOAC 2007.01 & EN 15662	
Zearalenone†	< LOQ		µg/kg	200	1911188	12/10/19	AOAC 2007.01 & EN 15662	



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