



This report cannot be used for ODA, OHA or OLCC compliance requirements.

This is an amended version of the report# 081407-00.

Reason: Updated serving size.

Product identity: Vital Leaf Quinoa Crunch CBD Chocolate Batch #19155

Laboratory ID: 19-009671-0001

Summary

Potency:

Analyte	Result	Limits	Units	LOQ	
CBD	0.168		%	0.00	CBD-Total per 15.71g 29.4 mg/15.71g
CBD-A	0.0220		%	0.00	
					THC-Total per 15.71g < 0.983 mg/15.7
					(Reported in milligrams per serving)
Analyte per 15.71g	Result	Limits	Units	LOQ	
CBD per 15.71g	26.4		mg/15.71g	0.52	
CBD-A per 15.71g	3.46		mg/15.71g	0.52	



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Customer: Sovereign Medicinals Inc
4207 SE Woodstock Blvd #507
Portland Oregon 97206
United States

Product identity: Vital Leaf Quinoa Crunch CBD Chocolate Batch #

Client/Metric ID: .

Sample Date: 08/14/19

Laboratory ID: 19-009671-0001

Relinquished by: Tait Christensen

Temp: 23.1 °C

Serving Size #1: 0.5oz (15.71g)

Sample Results

Potency		Batch: 1907421					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBC-A†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBC-Total†	0.00165		%	0.0060	08/16/19	J AOAC 2015 V98-6	
CBD	0.168		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBD-A	0.0220		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBD-Total	0.187		%	0.0060	08/16/19	J AOAC 2015 V98-6	
CBDV†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBDV-A†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBDV-Total†	< LOQ		%	0.0060	08/16/19	J AOAC 2015 V98-6	
CBG†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBG-A†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBG-Total†	< LOQ		%	0.0060	08/16/19	J AOAC 2015 V98-6	
CBL†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
CBN	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
Δ8-THC†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
Δ9-THC	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
THC-A	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
THC-Total	0.000		%	0.0060	08/16/19	J AOAC 2015 V98-6	
THCV†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
THCV-A†	< LOQ		%	0.0032	08/16/19	J AOAC 2015 V98-6	
THCV-Total†	< LOQ		%	0.0060	08/16/19	J AOAC 2015 V98-6	

Potency per 15.71g		Batch: 1907421					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC per 15.71g†	< LOQ		mg/15.71g	0.524	08/19/19	J AOAC 2015 V98-6	
CBC-A per 15.71g†	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
CBC-Total per 15.71g†	< LOQ		mg/15.71g	0.983	08/19/19	J AOAC 2015 V98-6	

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Potency per 15.71g		Batch: 1907421					
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBD per 15.71g	26.4		mg/15.71g	0.524	08/19/19	J AOAC 2015 V98-6	
CBD-A per 15.71g	3.46		mg/15.71g	0.524	08/19/19	J AOAC 2015 V98-6	
CBD-Total per 15.71g	29.4		mg/15.71g	0.983	08/19/19	J AOAC 2015 V98-6	
CBDV per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
CBDV-A per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
CBDV-Total per 15.71g [†]	< LOQ		mg/15.71g	0.978	08/16/19	J AOAC 2015 V98-6	
CBG per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
CBG-A per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
CBG-Total per 15.71g [†]	< LOQ		mg/15.71g	0.983	08/16/19	J AOAC 2015 V98-6	
CBL per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
CBN per 15.71g	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
Δ8-THC per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
Δ9-THC per 15.71g	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
THC-A per 15.71g	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
THC-Total per 15.71g	< LOQ		mg/15.71g	0.983	08/16/19	J AOAC 2015 V98-6	
THCV per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
THCV-A per 15.71g [†]	< LOQ		mg/15.71g	0.524	08/16/19	J AOAC 2015 V98-6	
THCV-Total per 15.71g [†]	< LOQ		mg/15.71g	0.978	08/16/19	J AOAC 2015 V98-6	



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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

g = Gram

mg/15.71g = Milligram per 15.71g

% = Percentage of sample

% wt = $\mu\text{g/g}$ divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



This report cannot be used for OHA or OLCC compliance requirements.

Customer: Sovereign Medicinals Inc
4207 SE Woodstock Blvd
#507
Portland, OR 97206

Product identity: UB110918RO High CDB Hemp Extract

Client/Metric ID: .

Sample Date: 10/22/18

Laboratory ID: 18-009409-0001

Relinquished by: Hendrick vanRensberg

Temp: 23.2 °C

Sample Results

Potency	Method J AOAC 2015 V98-6			Units %	Batch 1806565	Analyze 10/25/18 04:47 PM
Analyte	As Received	Dry weight	LOQ	Notes		
CBC [†]	2.42		0.100		<ul style="list-style-type: none"> ● CBD-A ● CBD ● CBC-A ● CBC ● Δ9-THC ● CBG ● THC-A 	
CBC-A [†]	3.20		0.100			
CBC-Total [†]	5.22		0.188			
CBD	23.4		0.100			
CBD-A	39.9		0.100			
CBD-Total	58.5		0.188			
CBDV [†]	0.119		0.100			
CBDV-A [†]	0.197		0.100			
CBDV-Total [†]	0.290		0.187			
CBG [†]	0.473		0.100			
CBG-A [†]	0.423		0.100			
CBG-Total [†]	0.844		0.188			
CBL [†]	< LOQ		0.100			
CBN	< LOQ		0.100			
Δ9-THC	1.46		0.100			
Δ8-THC [†]	< LOQ		0.100			
THC-A	0.441		0.100			
THC-Total	1.85		0.187			
THCV [†]	< LOQ		0.100			
THCV-A [†]	< LOQ		0.100			
THCV-Total [†]	< LOQ		0.187			

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Solvents					Method EPA5021A	Units µg/g	Batch 1806688	Analyze 10/26/18 11:35 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		60.0			2,2-Dimethylpropane	< LOQ		2,800		
2,3-Dimethylbutane	< LOQ		60.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	2.00	pass		Butanes (sum)	< LOQ	5000	4,400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	657	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	210	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		2,200			n-Butane	< LOQ		2,200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	3,200	pass		Propane	< LOQ	5000	1,700	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl	< LOQ	2170	600	pass	



This report cannot be used for OHA or OLCC compliance requirements.

Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 1806633 Analyze 10/25/18 08:17 AM											
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	0.100	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 (incl.	< 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		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	0.100	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrins	< 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							

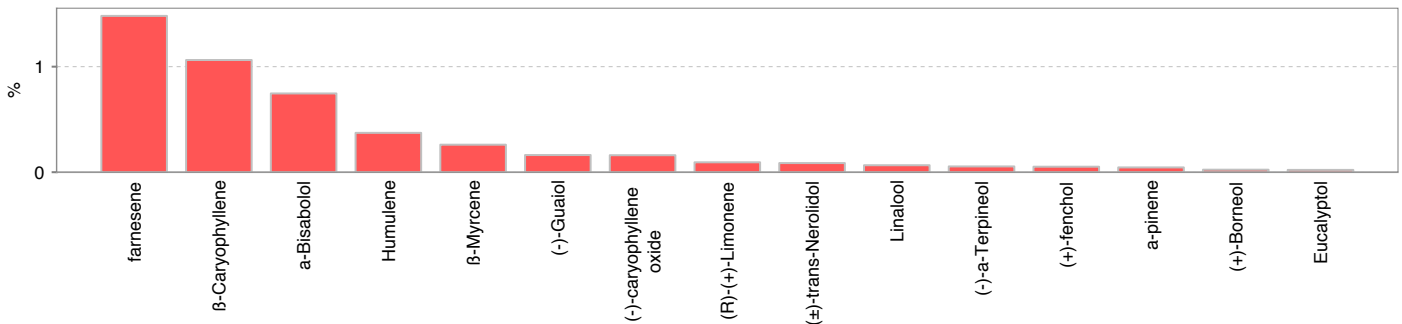
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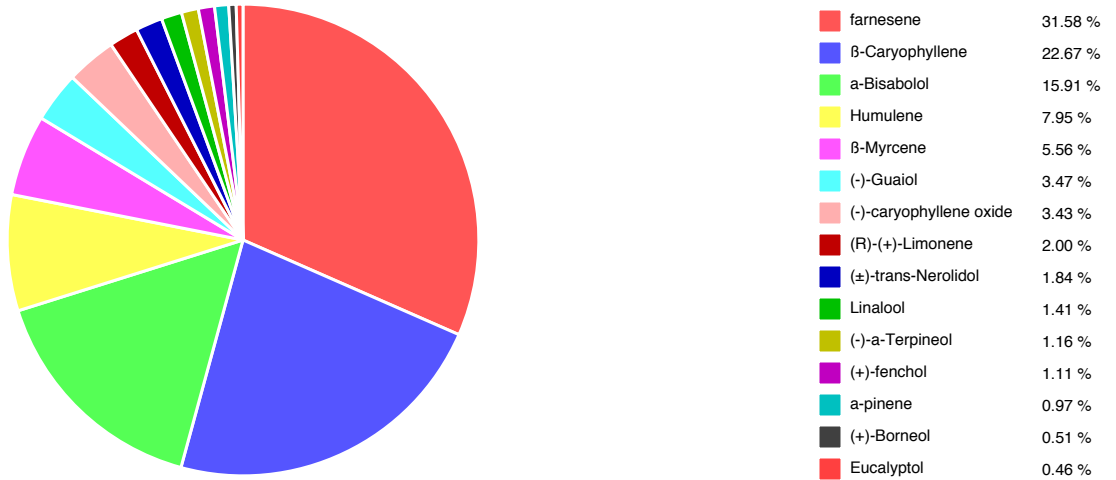
Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 1806708	Analyze 10/29/18 08:36 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
farnesene [†]	1.48	0.020	31.58%		β-Caryophyllene [†]	1.06	0.020	22.67%	
α-Bisabolol [†]	0.746	0.020	15.91%		Humulene [†]	0.373	0.020	7.95%	
β-Myrcene [†]	0.261	0.020	5.56%		(-)-Guaiaol [†]	0.163	0.020	3.47%	
(-)-caryophyllene oxide [†]	0.161	0.020	3.43%		(R)-(+)-Limonene [†]	0.0936	0.020	2.00%	
(±)-trans-Nerolidol [†]	0.0865	0.020	1.84%		Linalool [†]	0.0660	0.020	1.41%	
(-)-α-Terpineol [†]	0.0546	0.020	1.16%		(+)-fenchol [†]	0.0520	0.020	1.11%	
α-pinene [†]	0.0453	0.020	0.97%		(+)-Borneol [†]	0.0237	0.020	0.51%	
Eucalyptol [†]	0.0217	0.020	0.46%		(-)-β-Pinene [†]	< LOQ	0.020	0.00%	
valencene [†]	< LOQ	0.020	0.00%		(-)-Isopulegol [†]	< LOQ	0.020	0.00%	
(+)-Cedrol [†]	< 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%		α-cedrene [†]	< LOQ	0.020	0.00%	
α-phellandrene [†]	< 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%		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%		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%	
Terpinolene [†]	< LOQ	0.020	0.00%		trans-β-Ocimene [†]	< LOQ	0.013	0.00%	

Total Terpenes 4.69





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Metals								
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Arsenic	< LOQ		mg/kg	0.0468	1806666	10/25/18	AOAC 2013.06 (mod)	
Cadmium	< LOQ		mg/kg	0.0468	1806666	10/25/18	AOAC 2013.06 (mod)	
Lead	< LOQ		mg/kg	0.0468	1806666	10/25/18	AOAC 2013.06 (mod)	
Mercury	< LOQ		mg/kg	0.0234	1806666	10/25/18	AOAC 2013.06 (mod)	

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