



Job Number: 19-005359

Report Number: 19-005359-00

Report Date: 05/25/2019

ORELAP#: OR100028

Purchase Order:

Received: 05/13/19 12:46

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

Product identity:250 Berry TinctureClient/Metrc ID:Laboratory ID:19-005359-0001Sample Date:

Summary

Analyte	Result	Limits	Units	LOQ	CBD-Total per 12.5g	214 mg/12.5g			
CBC [†]	0.104		%	0.0033					
CBD	1.71		%	0.0330	TUO T				
CBDV [†]	0.0139		%	0.0033	THC-Total per 12.5g	8.28 mg/12.5g			
CBG [†]	0.0125		%	0.0033	(Reported in milligrams per serving)				
CBN	0.00350		%	0.0033	(),	3/			
∆9-THC	0.0662		%	0.0033					
THCV [†]	0.00443		%	0.0033					
Analyte per 12.5g	Result	Limits	Units	LOQ					
CBC per 12.5g [†]	13.0		mg/12.5g	0.417					
CBD per 12.5g	214		mg/12.5g	0.417					
CBDV per 12.5g [†]	1.74		mg/12.5g	0.417					
CBG per 12.5g [†]	1.56		mg/12.5g	0.417					
CBN per 12.5g	0.438		mg/12.5g	0.417					
∆9-THC per 12.5g	8.28		mg/12.5g	0.417					
THCV per 12.5g [†]	0.554		mg/12.5g	0.417					





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Customer: Healthy Roots

Product identity: 250 Berry Tincture

Client/Metrc ID:

Sample Date:

Laboratory ID:19-005359-0001Relinquished by:Healthy RootsTemp:26.8 °C

Weight Received:

Serving Size #1: 12.5 g

Sample Results

Potency		E	Batch: 1904	441			
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC [†]	0.104		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBC-A [†]	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBC-Total [†]	0.104		%	0.0063	05/20/19	J AOAC 2015 V98-6	
CBD	1.71		%	0.0330	05/17/19	J AOAC 2015 V98-6	
CBD-A	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBD-Total	1.71		%	0.0063	05/20/19	J AOAC 2015 V98-6	
CBDV [†]	0.0139		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBDV-A [†]	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBDV-Total [†]	0.0139		%	0.0062	05/20/19	J AOAC 2015 V98-6	
CBG [†]	0.0125		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBG-A [†]	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBG-Total [†]	0.0125		%	0.0063	05/20/19	J AOAC 2015 V98-6	
CBL [†]	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
CBN	0.00350		%	0.0033	05/17/19	J AOAC 2015 V98-6	
$\Delta 8\text{-THC}^{\dagger}$	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
Δ9-ΤΗС	0.0662		%	0.0033	05/17/19	J AOAC 2015 V98-6	
THC-A	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
THC-Total	0.0662		%	0.0063	05/20/19	J AOAC 2015 V98-6	
THCV [†]	0.00443		%	0.0033	05/17/19	J AOAC 2015 V98-6	
THCV-A [†]	< LOQ		%	0.0033	05/17/19	J AOAC 2015 V98-6	
THCV-Total [†]	< LOQ		%	0.0062	05/20/19	J AOAC 2015 V98-6	
Potency per 12.5g		E	3atch: 1904	441			
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC per 12.5g [†]	13.0		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6	
CBC-A per 12.5g [†]	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6	
CBC-Total per 12.5g [†]	13.0		mg/12.5g	0.782	05/20/19	J AOAC 2015 V98-6	
CBD per 12.5g	214		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6	

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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 kept a maximum of 15 days from the report date unless prior arrangements have been made.





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Potency per 12.5g			Batch: 1904441								
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes				
CBD-A per 12.5g	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
CBD-Total per 12.5g	214		mg/12.5g	0.782	05/20/19	J AOAC 2015 V98-6					
CBDV per 12.5g [†]	1.74		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
CBDV-A per 12.5g [†]	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
CBDV-Total per 12.5g [†]	1.74		mg/12.5g	0.778	05/20/19	J AOAC 2015 V98-6					
CBG per 12.5g [†]	1.56		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
CBG-A per 12.5g [†]	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
CBG-Total per 12.5g [†]	1.56		mg/12.5g	0.782	05/20/19	J AOAC 2015 V98-6					
CBL per 12.5g [†]	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
CBN per 12.5g	0.438		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
∆8-THC per 12.5g [†]	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
∆9-THC per 12.5g	8.28		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
THC-A per 12.5g	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
THC-Total per 12.5g	8.28		mg/12.5g	0.782	05/20/19	J AOAC 2015 V98-6					
THCV per 12.5g [†]	0.554		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
THCV-A per 12.5g [†]	< LOQ		mg/12.5g	0.417	05/20/19	J AOAC 2015 V98-6					
THCV-Total per 12.5g [†]	< LOQ		mg/12.5g	0.778	05/20/19	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/12.5g = Milligram per 12.5g % = Percentage of sample % wt = μg/g divided by 10,000

Approved Signatory

Derrick Tanner General Manager





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12423 NE Whitaker Way Portlan	nd OR 9723	30 p.503-254-1794		Car	nnab	is Ch	ain c	of Cus	stody	/ Rec		ALTHYROOT	'S 19-005		(IS La	bs	Alle or
Company: HeAl+ky V	ants									Reque					e Order Number	:	1
Contact: /iz M										1.0					Number:		
Address: 1435 No Airland WAY #113 OR, 0723										Hea	Ithy Roots			Name:			
Phone: 33476-2527Fax: V/A		milicom												1	ort Instructions:		
Phone: 23-496-23	2/Fax: 1	1/8			ts										d to State - METF	RC	
Processor's A6-L	1000	LIER			ven	ΪŽ			>						☐ Email Final Results:		
License: //O Z	10560	ZIIPP	S		Sol	cţi	a,	S	golo					☐ Fax Final Results ☐ Cash/Check/CC/Net 30			
			esticides	ncy	lang	er A	ture	ene	obic	sis				Othe			
Field ID		Date/Time Collected	Pest	Potency	Residual Solvents	Water Activity	Moisture	Terpenes	Microbiology	Metals	Matrix	Weight	Serving size for edibles	Comm	ents/Metrc ID	Cont #'s	
250 Berry time	ture	5/13/19		8									12.5 gr				1
500 Berry tinct		5/13/19		8									28.5gr		A		
1000 Berry tinctore	0	5/13/19		8									28.591				
Nirvana SCAP		5/13/ A		8									133 95				1
Bergamot/Black TEA.	SOAP	5/13/1		0									13/ gr				1
CHOUS LIBICOS/ BB	3	5/13/19		8									213.600				
Rosemer //mint	33	5/13/19											212.298		common de la la		1,0
Collected By:	Rel	linquished By:	-	Date	Tir		1	Receive	ed By:		Date	Time		Labs U	se Only:		W
☐ Standard 5 day			5/1	3/17	(5:	46/	11	lye	1	7	5-13-	19 17:4	6	Client Ali	as:		-
Rush (1.5 x Standard)							100							Order Nu	ımber:		,
Priority Rush (2 x Standard)		n, 87-												☐ Prop	er Container	Ji	15/13/19
Ask About Availability			-		-							_		☐ Samp	ole Condition perature	6.48	26.8
ASK ADOUT Availability														Shipp		TOM	16.8
SUBMISSION OF SAMPLES WIT														Evidence	of cooling: \Begin{array}{c} Ye	s 🗆 No	

Revision: 0.00 Control#: CF023 Effective: 04/20/2018 Revised: 04/20/2018

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12423 NE Whitaker Way Portlar	nd OR 9723	30 p.503-254-179	4	Cai	nnab	is Ch	ain c	of Cus	stody	, Rec	ord			PIXIS La	os	, , ,
Company: HEALTAY A	20015								lysis I					Purchase Order Number	:	
Contact: /12 marc	H	0 : 0 =		-										Project Number:	•	
Address: H35 AB A	VPER+#YL	3 97256	-											Project Name:	7. —	
Email: HEAVAY Rots nam PROGENSI. Com Phone: 503-416-2327+ax: N/A		4											☐ Report Instructions:			
Phone: 503 416 -2329Fax: N/A		-		ıts									☐ Send to State - MET			
Processor's License: AG-L1052211 FP				lver	vity			28		,			☐ Email Final Results: ☐ Fax Final Results			
			des	>	Residual Solvents	Nater Activity	ē	es	Microbiology					☐ Cash/Check/CC/Net	30	
			ै। esticides	Potency	idu	ter	Moisture	Terpenes	rob	Metals				Other:		
Field ID		Date/Time Collecte	Pes	Pot	Res	× ×	Š	Ter	Σ̈́	Me	Matrix	Weight	Serving size for edibles	Comments/Metrc ID	Cont #'s	
RootButter Sample	2	5/13/19		0									495			
Root Butter miscle	843	713/19		8									2390			
Rest Butter / miscle Zing another I Sing PB BROWN DI Bing Pumptin / PB	Dog fress	15/13/19		8									35 gr			
Smg PB BACOM DO	SO TOTAL	914/19		8									78 95			
Sing Pumptin / PB	•	5/13/19		8									89.595			
,											Sh2 14	-				
6.11									لك) ,	5/13/1	Appendix and the second				
Collected By:	Re	linquished By:	C/	Date	Tir (2-1	-		Receive	ed By:	5	Date	Time		Labs Use Only:		
☐ Standard 5 day ☐ Rush (1.5 x Standard)			- 3/	1B/14	10,1	10	Ju	uje	1		5-13-19	5-13		Client Alias:		
☐ Priority Rush (2 x							/							Order Number:	- T.co	211 6
Standard)								,			+			☐ Proper Container ☐ Sample Condition	010	34.4 26.8
Ask About Availability					/		10	1			5-13-17	12:46		☐ Temperature ☐ Shipped Via:	2	16.8
						-	2				10-11	120				
SUBMISSION OF SAMPLES WI	TH TESTING	REQUIREMENTS TO	PIXIS W	LL BE UN	DERSTO	OD TO E	BE AN AG	GREEME	NT FOR	SERVICE	S IN ACCORDANC	E WITH THE C	ONDITIONS LISTE	Evidence of cooling: Ye		

Revision: 0.00 Control#: CF023 Effective: 04/20/2018 Revised: 04/20/2018

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Laboratory Quality Control Results

J AOAC 2015	V98-6			Bat			
Laboratory C	ontrol Sample						
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDV-A	0.00978	0.01	%	97.8	85 - 115	Acceptable	
CBDV	0.0103	0.01	%	103	85 - 115	Acceptable	
CBD-A	0.00949	0.01	%	94.9	85 - 115	Acceptable	
CBG-A	0.00976	0.01	%	97.6	85 - 115	Acceptable	
CBG	0.0105	0.01	%	105	85 - 115	Acceptable	
CBD	0.0107	0.01	%	107	85 - 115	Acceptable	
THCV	0.0100	0.01	%	100	85 - 115	Acceptable	
THCVA	0.00966	0.01	%	96.6	85 - 115	Acceptable	
CBN	0.0106	0.01	%	106	85 - 115	Acceptable	
THC	0.0102	0.01	%	102	85 - 115	Acceptable	
D8THC	0.00984	0.01	%	98.4	85 - 115	Acceptable	
CBL	0.00975	0.01	%	97.5	85 - 115	Acceptable	
CBC	0.0108	0.01	%	108	85 - 115	Acceptable	
THCA	0.0104	0.01	%	104	85 - 115	Acceptable	
CBCA	0.00983	0.01	%	98.3	85 - 115	Acceptable	

Method Blank

Wicking Blank						
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDV-A	ND	0.003	%	< 0.003	Acceptable	
CBDV	ND	0.003	%	< 0.003	Acceptable	
CBD-A	ND	0.003	%	< 0.003	Acceptable	
CBG-A	ND	0.003	%	< 0.003	Acceptable	
CBG	ND	0.003	%	< 0.003	Acceptable	
CBD	ND	0.003	%	< 0.003	Acceptable	
THCV	ND	0.003	%	< 0.003	Acceptable	
THCVA	ND	0.003	%	< 0.003	Acceptable	
CBN	ND	0.003	%	< 0.003	Acceptable	
THC	ND	0.003	%	< 0.003	Acceptable	
D8THC	ND	0.003	%	< 0.003	Acceptable	
CBL	ND	0.003	%	< 0.003	Acceptable	
CBC	ND	0.003	%	< 0.003	Acceptable	
THCA	ND	0.003	%	< 0.003	Acceptable	
CBCA	ND	0.003	%	< 0.003	Acceptable	

Abbreviations

ND - None Detected at or above MRL RPD - Relative Percent Difference LOQ - Limit of Quantitation

Units of Measure:

% - Percent





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J AOAC 2015	5 V98-6				Bat	ch ID: 190444	1				
Sample Dupl	icate			Sample ID: 19-005359-0001							
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes			
CBDV-A	ND	ND	0.003	%	0	< 20	Acceptable				
CBDV	0.0139	0.0139	0.003	%	0	< 20	Acceptable				
CBD-A	ND	ND	0.003	%	0	< 20	Acceptable				
CBG-A	ND	ND	0.003	%	0	< 20	Acceptable				
CBG	0.0126	0.0125	0.003	%	0.797	< 20	Acceptable				
CBD	1.69	1.72	0.003	%	1.76	< 20	Acceptable				
THCV	0.00443	0.00443	0.003	%	0	< 20	Acceptable				
THCVA	ND	ND	0.003	%	0	< 20	Acceptable				
CBN	0.00352	0.0035	0.003	%	0.570	< 20	Acceptable				
THC	0.0646	0.0662	0.003	%	2.45	< 20	Acceptable				
D8THC	ND	ND	0.003	%	0	< 20	Acceptable				
CBL	ND	ND	0.003	%	0	< 20	Acceptable				
CBC	0.105	0.104	0.003	%	0.957	< 20	Acceptable				
THCA	ND	ND	0.003	%	0	< 20	Acceptable				
CBCA	ND	ND	0.003	%	0	< 20	Acceptable				

Abbreviations

ND - None Detected at or above MRL RPD - Relative Percent Difference LOQ - Limit of Quantitation

Units of Measure:

% - Percent





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Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitaion level raised due to matrix interference.
В	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.