



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



Report Number: 20-010752/D03.R00
Report Date: 10/12/2020
ORELAP#: OR100028
Purchase Order:
Received: 10/05/20 16:17

Customer: Healthy Roots
Product identity: #103v2 200 Pet
Client/Metric ID: .
Laboratory ID: 20-010752-0001

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBD	0.786		%		CBD-Total per 28.5g 224 mg/28.5g
Analyte per 28.5g	Result	Limits	Units	Status	
CBD per 28.5g	224		mg/28.5g		THC-Total per 28.5g <LOQ
(Reported in milligrams per serving)					



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Customer: Healthy Roots

Product identity: #103v2 200 Pet
Client/Metric ID: .
Sample Date:
Laboratory ID: 20-010752-0001
Relinquished by: Liz Merritt
Temp: 25.7 °C
Serving Size #1: 28.5 g
Weight Received: 28.5 g

Sample Results

Potency	Method J AOAC 2015 V98-6 (mod)	Batch: 2008390	Analyze: 10/9/20 1:24:00 PM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC	< LOQ		%	0.0894	
CBC-A†	< LOQ		%	0.0894	
CBC-Total†	< LOQ		%	0.168	
CBD	0.786		%	0.0894	
CBD-A	< LOQ		%	0.0894	
CBD-Total	0.786		%	0.168	
CBDV†	< LOQ		%	0.0894	
CBDV-A†	< LOQ		%	0.0894	
CBDV-Total†	< LOQ		%	0.167	
CBG†	< LOQ		%	0.0894	
CBG-A†	< LOQ		%	0.0894	
CBG-Total	< LOQ		%	0.167	
CBL†	< LOQ		%	0.0894	
CBN	< LOQ		%	0.0894	
Δ8-THC†	< LOQ		%	0.0894	
Δ9-THC	< LOQ		%	0.0894	
THC-A	< LOQ		%	0.0894	
THC-Total	< LOQ		%	0.168	
THCV†	< LOQ		%	0.0894	
THCV-A†	< LOQ		%	0.0894	
THCV-Total†	< LOQ		%	0.167	
Total Cannabinoids†	0.786		%		

Potency per 28.5g	Method J AOAC 2015 V98-6 (mod)	Batch: 2008390	Analyze: 10/9/20 1:24:00 PM		
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 28.5g	< LOQ		mg/28.5g	25.5	
CBC-A per 28.5g	< LOQ		mg/28.5g	25.5	
CBC-Total per 28.5g	< LOQ		mg/28.5g	47.9	
CBD per 28.5g	224		mg/28.5g	25.5	
CBD-A per 28.5g	< LOQ		mg/28.5g	25.5	
CBD-Total per 28.5g	224		mg/28.5g	47.9	
CBDV per 28.5g	< LOQ		mg/28.5g	25.5	

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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 Columbia Laboratories 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.

Testing in accordance with: OAR 333-007-0430



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Potency per 28.5g					
Method J AOAC 2015 V98-6 (mod) Batch: 2008390 Analyze: 10/9/20 1:24:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBDV-A per 28.5g	< LOQ		mg/28.5g	25.5	
CBDV-Total per 28.5g	< LOQ		mg/28.5g	47.6	
CBG per 28.5g	< LOQ		mg/28.5g	25.5	
CBG-A per 28.5g	< LOQ		mg/28.5g	25.5	
CBG-Total per 28.5g	< LOQ		mg/28.5g	47.6	
CBL per 28.5g	< LOQ		mg/28.5g	25.5	
CBN per 28.5g	< LOQ		mg/28.5g	25.5	
Δ 8-THC per 28.5g	< LOQ		mg/28.5g	25.5	
Δ 9-THC per 28.5g	< LOQ		mg/28.5g	25.5	
THC-A per 28.5g	< LOQ		mg/28.5g	25.5	
THC-Total per 28.5g	< LOQ		mg/28.5g	47.9	
THCV per 28.5g	< LOQ		mg/28.5g	25.5	
THCV-A per 28.5g	< LOQ		mg/28.5g	25.5	
THCV-Total per 28.5g	< LOQ		mg/28.5g	47.9	
Total Cannabinoids 28.5g[†]	224		mg/28.5g		



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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

g = Gram

mg/28.5g = Milligram per 28.5g

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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Report Number: 20-010752/D03.R00
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Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

J AOAC 2015 V98-6

Batch ID: 2008352/2008390

Laboratory Control Sample

Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDV-A	0.199	0.2	%	99.7	85.0 - 115	Acceptable	
CBDV	0.216	0.2	%	108	85.0 - 115	Acceptable	
CBD-A	0.208	0.2	%	104	85.0 - 115	Acceptable	
CBG-A	0.195	0.2	%	97.5	85.0 - 115	Acceptable	
CBG	0.202	0.2	%	101	85.0 - 115	Acceptable	
CBD	0.206	0.2	%	103	85.0 - 115	Acceptable	
THCV	0.193	0.2	%	96.5	85.0 - 115	Acceptable	
THCVA	0.190	0.2	%	94.8	85.0 - 115	Acceptable	
CBN	0.198	0.2	%	98.9	85.0 - 115	Acceptable	
THC	0.211	0.2	%	105	85.0 - 115	Acceptable	
D8THC	0.185	0.2	%	92.6	85.0 - 115	Acceptable	
CBL	0.190	0.2	%	94.8	85.0 - 115	Acceptable	
CBC	0.200	0.2	%	100	85.0 - 115	Acceptable	
THCA	0.181	0.2	%	90.6	85.0 - 115	Acceptable	
CBCA	0.186	0.2	%	93.0	85.0 - 115	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDV-A	<LOQ	0.1	%	< 0.1	Acceptable	
CBDV	<LOQ	0.1	%	< 0.1	Acceptable	
CBD-A	<LOQ	0.1	%	< 0.1	Acceptable	
CBG-A	<LOQ	0.1	%	< 0.1	Acceptable	
CBG	<LOQ	0.1	%	< 0.1	Acceptable	
CBD	<LOQ	0.1	%	< 0.1	Acceptable	
THCV	<LOQ	0.1	%	< 0.1	Acceptable	
THCVA	<LOQ	0.1	%	< 0.1	Acceptable	
CBN	<LOQ	0.1	%	< 0.1	Acceptable	
THC	<LOQ	0.1	%	< 0.1	Acceptable	
D8THC	<LOQ	0.1	%	< 0.1	Acceptable	
CBL	<LOQ	0.1	%	< 0.1	Acceptable	
CBC	<LOQ	0.1	%	< 0.1	Acceptable	
THCA	<LOQ	0.1	%	< 0.1	Acceptable	
CBCA	<LOQ	0.1	%	< 0.1	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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Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

J AOAC 2015 V98-6						Batch ID: 2008352/2008390		
Sample Duplicate						Sample ID: 20-010719-0001		
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDV-A	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBDV	0.165	0.168	0.1	%	1.80	< 20	Acceptable	
CBD-A	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBG-A	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBG	0.127	0.123	0.1	%	2.73	< 20	Acceptable	
CBD	37.4	36.8	0.1	%	1.79	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBN	0.282	0.283	0.1	%	0.359	< 20	Acceptable	
THC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
D8THC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBC	0.375	0.384	0.1	%	2.32	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation
NA - Calculation Not Applicable given non-numerical results

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	Quantitation level raised due to matrix interference.
B	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.