



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



Report Number: 21-010177/D002.R000
Report Date: 09/09/2021
ORELAP#: OR100028
Purchase Order:
Received: 09/01/21 14:00

Customer: Healthy Roots
Product identity: #167 1000 Horse
Client/Metric ID: .
Laboratory ID: 21-010177-0004

Summary

Potency:

Analyte	Result	Limits	Units	Status	
CBD	3.82		%		CBD-Total per 28.5g
Δ9-THC	0.146		%		1090 mg/28.5g
Analyte per 28.5g	Result	Limits	Units	Status	THC-Total per 28.5g
CBD per 28.5g	1090		mg/28.5g		<LOQ
Δ9-THC per 28.5g	41.6		mg/28.5g		(Reported in milligrams per serving)



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Customer: Healthy Roots
Product identity: #167 1000 Horse
Client/Metric ID: .
Sample Date:
Laboratory ID: 21-010177-0004
Evidence of Cooling: No
Temp: 24.9 °C
Relinquished by: L. Merritt
Serving Size #1: 28.5 g

Sample Results

Potency	Method J AOAC 2015 V98-6 (mod)	Units %	Batch: 2107929	Analyze: 9/3/21 4:56:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC	< LOQ		%	0.0870	
CBC-A [†]	< LOQ		%	0.0870	
CBC-Total [†]	< LOQ		%	0.163	
CBD	3.82		%	0.0870	
CBD-A	< LOQ		%	0.0870	
CBD-Total	3.82		%	0.163	
CBDV [†]	< LOQ		%	0.0870	
CBDV-A [†]	< LOQ		%	0.0870	
CBDV-Total [†]	< LOQ		%	0.162	
CBE [†]	< LOQ		%	0.0870	
CBG [†]	< LOQ		%	0.0870	
CBG-A [†]	< LOQ		%	0.0870	
CBG-Total	< LOQ		%	0.162	
CBL [†]	< LOQ		%	0.0870	
CBL-A [†]	< LOQ		%	0.0870	
CBL-Total [†]	< LOQ		%	0.163	
CBN	< LOQ		%	0.0870	
CBT [†]	< LOQ		%	0.0870	
Δ8-THCV	< LOQ		%	0.0870	
Δ8-THC [†]	< LOQ		%	0.0870	
Δ9-THC	0.146		%	0.0870	
THC-A	< LOQ		%	0.0870	
THC-Total	< LOQ		%	0.163	
THCV [†]	< LOQ		%	0.0870	
THCV-A [†]	< LOQ		%	0.0870	
THCV-Total [†]	< LOQ		%	0.162	
Total Cannabinoids[†]	3.97		%		

Potency per 28.5g	Method J AOAC 2015 V98-6 (mod)	Units mg/se	Batch: 2107929	Analyze: 9/3/21 4:56:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 28.5g [†]	< LOQ		mg/28.5g	0.870	
CBC-A per 28.5g [†]	< LOQ		mg/28.5g	0.870	
CBC-Total per 28.5g [†]	< LOQ		mg/28.5g	1.63	



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Potency per 28.5g						
Method J AOAC 2015 V98-6 (mod) Units mg/se Batch: 2107929 Analyze: 9/3/21 4:56:00 AM						
Analyte	Result	Limits	Units	LOQ	Notes	
CBD per 28.5g	1090		mg/28.5g	24.8		
CBD-A per 28.5g	< LOQ		mg/28.5g	0.870		
CBD-Total per 28.5g	1090		mg/28.5g	46.6		
CBDV per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBDV-A per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBDV-Total per 28.5g [†]	< LOQ		mg/28.5g	1.62		
CBE per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBG per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBG-A per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBG-Total per 28.5g [†]	< LOQ		mg/28.5g	1.62		
CBL per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBL-A per 28.5g [†]	< LOQ		mg/28.5g	0.870		
CBL-Total per 28.5g [†]	< LOQ		mg/28.5g	1.63		
CBN per 28.5g	< LOQ		mg/28.5g	0.870		
CBT per 28.5g [†]	< LOQ		mg/28.5g	0.870		
Δ8-THCV per 28.5g [†]	< LOQ		mg/28.5g	0.870		
Δ8-THC per 28.5g [†]	< LOQ		mg/28.5g	0.870		
Δ9-THC per 28.5g	41.6		mg/28.5g	24.8		
exo-THC per 28.5g [†]	< LOQ		mg/28.5g	0.870		
THC-A per 28.5g	< LOQ		mg/28.5g	0.870		
THC-Total per 28.5g	< LOQ		mg/28.5g	46.6		
THCV per 28.5g [†]	< LOQ		mg/28.5g	0.870		
THCV-A per 28.5g [†]	< LOQ		mg/28.5g	0.870		
THCV-Total per 28.5g [†]	< LOQ		mg/28.5g	1.63		
Total Cannabinoids per 28.5g	1130		mg/28.5g			

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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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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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: 2107929

Laboratory Control Sample							
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	0.203	0.2	%	101	85.0 - 115	Acceptable	
CBDV	0.214	0.2	%	107	85.0 - 115	Acceptable	
CBE	0.205	0.2	%	103	85.0 - 115	Acceptable	
CBDA	0.196	0.2	%	98.1	85.0 - 115	Acceptable	
CBGA	0.202	0.2	%	101	85.0 - 115	Acceptable	
CBG	0.200	0.2	%	99.9	85.0 - 115	Acceptable	
CBD	0.198	0.2	%	99.0	85.0 - 115	Acceptable	
THCV	0.209	0.2	%	104	85.0 - 115	Acceptable	
d8THCV	0.189	0.2	%	94.4	85.0 - 115	Acceptable	
THCVA	0.195	0.2	%	97.3	85.0 - 115	Acceptable	
CBN	0.195	0.2	%	97.5	85.0 - 115	Acceptable	
exo-THC	0.191	0.2	%	95.5	85.0 - 115	Acceptable	
d9THC	0.205	0.2	%	102	85.0 - 115	Acceptable	
d8THC	0.185	0.2	%	92.3	85.0 - 115	Acceptable	
CBL	0.216	0.2	%	108	85.0 - 115	Acceptable	
CBC	0.193	0.2	%	96.4	85.0 - 115	Acceptable	
THCA	0.192	0.2	%	96.1	85.0 - 115	Acceptable	
CBCA	0.196	0.2	%	98.0	85.0 - 115	Acceptable	
CBLA	0.200	0.2	%	100	85.0 - 115	Acceptable	
CBT	0.206	0.2	%	103	85.0 - 115	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.1	%	< 0.1	Acceptable	
CBDV	<LOQ	0.1	%	< 0.1	Acceptable	
CBE	<LOQ	0.1	%	< 0.1	Acceptable	
CBDA	<LOQ	0.1	%	< 0.1	Acceptable	
CBGA	<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	
d8THCV	<LOQ	0.1	%	< 0.1	Acceptable	
THCVA	<LOQ	0.1	%	< 0.1	Acceptable	
CBN	<LOQ	0.1	%	< 0.1	Acceptable	
exo-THC	<LOQ	0.1	%	< 0.1	Acceptable	
d9THC	<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	
CBLA	<LOQ	0.1	%	< 0.1	Acceptable	
CBT	<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: 2107929						
Sample Duplicate		Sample ID: 21-009747-0001-01						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBDV	0.292	0.289	0.1	%	0.971	< 20	Acceptable	
CBE	0.346	0.343	0.1	%	0.794	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBG	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBD	>98.0	>98.0	0.1	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable	
CBT	<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.