



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



**Report Number:** 23-012215/D002.R000  
**Report Date:** 10/20/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/13/23 11:05

**Customer:** Healthy Roots  
**Product identity:** #293 1000mg Horse  
**Client/Metric ID:** .  
**Laboratory ID:** 23-012215-0001

## Summary

### Potency:

Analyte	Result	Limits	Units	Status	CBD-Total per Serving Size 1090 mg/28.5g
CBC	0.245		%		
CBD	3.84		%		
CBDV	0.0367		%		THC-Total per Serving Size 38.5 mg/28.5g
CBE	0.0581		%		
CBG	0.0422		%		(Reported in milligrams per serving)
CBN	0.0242		%		
CBT	0.0474		%		
Δ8-THC	0.0309		%		
Δ9-THC	0.135		%		
Analyte per 28.5g	Result	Limits	Units	Status	
CBC per 28.5g	69.8		mg/28.5g		
CBD per 28.5g	1090		mg/28.5g		
CBDV per 28.5g	10.5		mg/28.5g		
CBE per 28.5g	16.6		mg/28.5g		
CBG per 28.5g	12.0		mg/28.5g		
CBN per 28.5g	6.90		mg/28.5g		
CBT per 28.5g	13.5		mg/28.5g		
Δ8-THC per 28.5g	8.81		mg/28.5g		
Δ9-THC per 28.5g	38.5		mg/28.5g		



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**Customer:** Healthy Roots  
**Product identity:** #293 1000mg Horse  
**Client/Metric ID:** .  
**Sample Date:**  
**Laboratory ID:** 23-012215-0001  
**Evidence of Cooling:** No  
**Temp:** 24.7 °C  
**Relinquished by:** client  
**Serving Size #1:** 28.5 g

### Sample Results

Potency	Method: J AOAC 2015 V98-6 (mod) <sup>b</sup>			Units %	Batch: 2311963	Analyze: 10/17/23 10:27:00 P
Analyte	Result	Limits	Units	LOQ	Notes	
CBC	0.245		%	0.00312		
CBC-A	< LOQ		%	0.00312		
CBC-Total	0.245		%	0.00586		
CBD	3.84		%	0.0312		
CBD-A	< LOQ		%	0.00312		
CBD-Total	3.84		%	0.0340		
CBDV	0.0367		%	0.00312		
CBDV-A	< LOQ		%	0.00312		
CBDV-Total	0.0367		%	0.00583		
CBE	0.0581		%	0.00312		
CBG	0.0422		%	0.00312		
CBG-A	< LOQ		%	0.00312		
CBG-Total	0.0422		%	0.00583		
CBL	< LOQ		%	0.00312		
CBL-A	< LOQ		%	0.00312		
CBL-Total	< LOQ		%	0.00586		
CBN	0.0242		%	0.00312		
CBT	0.0474		%	0.00312		
Δ8-THCV	< LOQ		%	0.00312		
Δ10-THC-9R	< LOQ		%	0.00312		
Δ10-THC-9S	< LOQ		%	0.00312		
Δ10-THC-Total	< LOQ		%	0.00624		
Δ8-THC	0.0309		%	0.00312		
Δ9-THC	0.135		%	0.00312		
delta-9-THCP	< LOQ		%	0.00312		
exo-THC	< LOQ		%	0.00312		
THC-A	< LOQ		%	0.00312		
THC-Total	0.135		%	0.00586		
THCV	< LOQ		%	0.00312		
THCV-A	< LOQ		%	0.00312		
THCV-Total	< LOQ		%	0.00583		
<b>Total Cannabinoids</b>	<b>4.46</b>		%			



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Potency per 28.5g      **Method:** J AOAC 2015 V98-6 (mod)<sup>b</sup>      **Units** mg/se      **Batch:** 2311963      **Analyze:** 10/17/23 10:27:00 P

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 28.5g	69.8		mg/28.5g	0.890	
CBC-A per 28.5g	< LOQ		mg/28.5g	0.890	
CBC-Total per 28.5g	69.8		mg/28.5g	1.67	
CBD per 28.5g	1090		mg/28.5g	8.90	
CBD-A per 28.5g	< LOQ		mg/28.5g	0.890	
CBD-Total per 28.5g	1090		mg/28.5g	9.68	
CBDV per 28.5g	10.5		mg/28.5g	0.890	
CBDV-A per 28.5g	< LOQ		mg/28.5g	0.890	
CBDV-Total per 28.5g	10.5		mg/28.5g	1.66	
CBE per 28.5g	16.6		mg/28.5g	0.890	
CBG per 28.5g	12.0		mg/28.5g	0.890	
CBG-A per 28.5g	< LOQ		mg/28.5g	0.890	
CBG-Total per 28.5g	12.0		mg/28.5g	1.66	
CBL per 28.5g	< LOQ		mg/28.5g	0.890	
CBL-A per 28.5g	< LOQ		mg/28.5g	0.890	
CBL-Total per 28.5g	< LOQ		mg/28.5g	1.67	
CBN per 28.5g	6.90		mg/28.5g	0.890	
CBT per 28.5g	13.5		mg/28.5g	0.890	
Δ8-THCV per 28.5g	< LOQ		mg/28.5g	0.890	
Δ10-THC-9R per 28.5g	< LOQ		mg/28.5g	0.890	
Δ10-THC-9S per 28.5g	< LOQ		mg/28.5g	0.890	
Δ10-THC-Total per 28.5g	< LOQ		mg/28.5g	1.78	
Δ8-THC per 28.5g	8.81		mg/28.5g	0.890	
Δ9-THC per 28.5g	38.5		mg/28.5g	0.890	
delta-9-THCP per 28.5g	< LOQ		mg/28.5g	0.890	
exo-THC per 28.5g	< LOQ		mg/28.5g	0.890	
THC-A per 28.5g	< LOQ		mg/28.5g	0.890	
THC-Total per 28.5g	38.5		mg/28.5g	1.67	
THCV per 28.5g	< LOQ		mg/28.5g	0.890	
THCV-A per 28.5g	< LOQ		mg/28.5g	0.890	
THCV-Total per 28.5g	< LOQ		mg/28.5g	1.67	
Total Cannabinoids per 28.5g	1270		mg/28.5g		



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#### **Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

**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.

<sup>h</sup> = ISO/IEC 17025:2017 accredited method.

#### **Units of Measure**

g = g

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: 4 Document ID: 7148  
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2311963

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDVA	2	0.0307	0.0333	%	92.2	80.0 - 120	Acceptable		
CBDV	2	0.0309	0.0324	%	95.4	80.0 - 120	Acceptable		
CBE	2	0.0329	0.0355	%	92.7	80.0 - 120	Acceptable		
CBD	1	0.0310	0.0322	%	96.0	90.0 - 110	Acceptable		
CBD <sup>A</sup>	1	0.0314	0.0329	%	95.4	80.0 - 120	Acceptable		
CBD	1	0.0355	0.0368	%	96.7	80.0 - 120	Acceptable		
CBD	1	0.0308	0.0313	%	98.2	90.0 - 110	Acceptable		
THCV	2	0.0280	0.0304	%	91.9	80.0 - 120	Acceptable		
Δ <sup>9</sup> THCV	2	0.0291	0.0305	%	95.4	80.0 - 120	Acceptable		
THCV/A	2	0.0305	0.0327	%	93.3	80.0 - 120	Acceptable		
CBN	1	0.0316	0.0329	%	96.2	80.0 - 120	Acceptable		
exo-THC	2	0.0298	0.0327	%	91.2	80.0 - 120	Acceptable		
Δ <sup>9</sup> THC	1	0.0345	0.0365	%	94.6	90.0 - 110	Acceptable		
Δ <sup>8</sup> THC	1	0.0331	0.0340	%	97.4	90.0 - 110	Acceptable		
9S-Δ <sup>10</sup> THC	1	0.0326	0.0337	%	96.6	80.0 - 120	Acceptable		
CBL	2	0.0319	0.0337	%	94.6	80.0 - 120	Acceptable		
9R-Δ <sup>10</sup> THC	1	0.0318	0.0336	%	94.6	80.0 - 120	Acceptable		
CBC	2	0.0311	0.0338	%	91.8	80.0 - 120	Acceptable		
THCA	1	0.0308	0.0337	%	91.5	90.0 - 110	Acceptable		
CBCA	2	0.0295	0.0333	%	88.6	80.0 - 120	Acceptable		
CBLA	2	0.0315	0.0349	%	90.4	80.0 - 120	Acceptable		
Δ <sup>9</sup> THCP	2	0.0293	0.0333	%	88.0	80.0 - 120	Acceptable		
CBT	2	0.0288	0.0322	%	89.4	80.0 - 120	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBDV	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBE	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBD	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBD <sup>A</sup>	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBD	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBD	<LOQ	0.00331	%	< 0.00331	Acceptable	
THCV	<LOQ	0.00331	%	< 0.00331	Acceptable	
Δ <sup>9</sup> THCV	<LOQ	0.00331	%	< 0.00331	Acceptable	
THCV/A	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBN	<LOQ	0.00331	%	< 0.00331	Acceptable	
exo-THC	<LOQ	0.00331	%	< 0.00331	Acceptable	
Δ <sup>9</sup> THC	<LOQ	0.00331	%	< 0.00331	Acceptable	
Δ <sup>8</sup> THC	<LOQ	0.00331	%	< 0.00331	Acceptable	
9S-Δ <sup>10</sup> THC	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBL	<LOQ	0.00331	%	< 0.00331	Acceptable	
9R-Δ <sup>10</sup> THC	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBC	<LOQ	0.00331	%	< 0.00331	Acceptable	
THCA	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBCA	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBLA	<LOQ	0.00331	%	< 0.00331	Acceptable	
Δ <sup>9</sup> THCP	<LOQ	0.00331	%	< 0.00331	Acceptable	
CBT	<LOQ	0.00331	%	< 0.00331	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC 2015 V98-6		Batch ID: 2311963						
Sample Duplicate		Sample ID: 23-012215-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBDV	0.0360	0.0367	0.00330	%	1.83	< 20	Acceptable	
CBE	0.0584	0.0581	0.00330	%	0.501	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBD <sup>A</sup>	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBD <sup>B</sup>	0.0429	0.0422	0.00330	%	1.74	< 20	Acceptable	
CBD	3.78	3.84	0.00330	%	1.54	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
Δ <sup>8</sup> THCV	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
THCV/A	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBN	0.0241	0.0242	0.00330	%	0.349	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
Δ <sup>9</sup> THC	0.135	0.135	0.00330	%	0.235	< 20	Acceptable	
Δ <sup>8</sup> THC	0.0311	0.0309	0.00330	%	0.505	< 20	Acceptable	
9S-Δ <sup>10</sup> THC	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
9R-Δ <sup>10</sup> THC	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBC	0.245	0.245	0.00330	%	0.0285	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
Δ <sup>9</sup> THCP	<LOQ	<LOQ	0.00330	%	NA	< 20	Acceptable	
CBT	0.0673	0.0474	0.00330	%	34.6	< 20	Outlier	R, Q6

Abbreviations

ND - None Detected at or above MRI  
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	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.