



Report Number: 21-011767/D002.R000

10/12/2021 Report Date: ORELAP#: OR100028

Purchase Order:

10/05/21 16:00 Received:

Healthy Roots **Customer:** Product identity: #170, Root Butter

Client/Metrc ID:

Laboratory ID: 21-011767-0001

Summary

Potency:

Analyte	Result	Limits	Units	Status	CBD-Total per 25g	485 mg/25g
CBC	0.0209		%			
CBD	1.94		%		<u> </u>	
CBDV [†]	0.00880		%		THC-Total per 25g	8.45 mg/25g
CBE [†]	0.00981		%		(Reported in millig	rame per cerving)
CBT [†]	0.0286		%		(Keported III IIIIIII)	rams per serving)
Δ9-THC	0.0338		%			
Analyte per 25g	Result	Limits	Units	Status		
CBC per 25g [†]	5.23		mg/25g			
CBD per 25g	485		mg/25g			
CBDV per 25g [†]	2.20		mg/25g			
CBE per 25g [†]	2.45		mg/25g			
CBT per 25g [†]	7.15		mg/25g			
Δ9-THC per 25g	8.45		mg/25g			





Report Number: 21-011767/D002.R000

Report Date: 10/12/2021 **ORELAP#:** OR100028

Purchase Order:

Received: 10/05/21 16:00

Customer: Healthy Roots

Product identity: #170, Root Butter

Client/Metrc ID:

Sample Date:

Laboratory ID: 21-011767-0001

Evidence of Cooling: No
Temp: 21 °C
Relinquished by: Client
Serving Size #1: 25 g

Sample Results

Potency	Method J AOA	C 2015 V98-6 (mod)	Units %	Batch: 2109015	Analyze: 10/7/21 11:01:00 AM
Analyte	Result	Limits	Units	LOQ	Notes
CBC	0.0209		%	0.0033	
CBC-A [†]	< LOQ		%	0.0033	
CBC-Total [†]	0.0209		%	0.0061	
CBD	1.94		%	0.0326	
CBD-A	< LOQ		%	0.0033	
CBD-Total	1.94		%	0.0354	
CBDV [†]	0.00880		%	0.0033	
CBDV-A [†]	< LOQ		%	0.0033	
CBDV-Total [†]	0.00880		%	0.0061	
CBE [†]	0.00981		%	0.0033	
CBG [†]	< LOQ		%	0.0033	
CBG-A [†]	< LOQ		%	0.0033	
CBG-Total	< LOQ		%	0.0061	
CBL [†]	< LOQ		%	0.0033	
CBL-A [†]	< LOQ		%	0.0033	
CBL-Total [†]	< LOQ		%	0.0061	
CBN	< LOQ		%	0.0033	
CBT [†]	0.0286		%	0.0033	
$\Delta 8$ -THCV	< LOQ		%	0.0033	
$\Delta 8\text{-THC}^{\dagger}$	< LOQ		%	0.0033	
Δ9-THC	0.0338		%	0.0033	
THC-A	< LOQ		%	0.0033	
THC-Total	0.0338		%	0.0061	
THCV [†]	< LOQ		%	0.0033	
THCV-A [†]	< LOQ		%	0.0033	
THCV-Total [†]	< LOQ		%	0.0061	
Total Cannabinoids [†]	2.04		%		

Potency per 25g	Method J AOA	C 2015 V98-6 (m	nod) Units mg/se Ba	atch: 2109015	Analyze: 10/7/21 11:01:00 AM
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 25g [†]	5.23		mg/25g	0.814	
CBC-A per 25g [†]	< LOQ		mg/25g	0.814	
CBC-Total per 25g [†]	5.23		mg/25g	1.53	

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Page 2 of 8





21-011767/D002.R000 **Report Number:**

Report Date: 10/12/2021 ORELAP#: OR100028

Purchase Order:

Received: 10/05/21 16:00

Potency per 25g	Method J AO	AC 2015 V98-6 (mod) Units mg/se Bat	ch: 2109015	Analyze: 10/7/21 11:01:00 AM
Analyte	Result	Limits Units	LOQ	Notes
CBD per 25g	485	mg/25g	8.14	
CBD-A per 25g	< LOQ	mg/25g	0.814	
CBD-Total per 25g	485	mg/25g	8.85	
CBDV per 25g [†]	2.20	mg/25g	0.814	
CBDV-A per 25g [†]	< LOQ	mg/25g	0.814	
CBDV-Total per 25g [†]	2.20	mg/25g	1.52	
CBE per 25g [†]	2.45	mg/25g	0.814	
CBG per 25g [†]	< LOQ	mg/25g	0.814	
CBG-A per 25g [†]	< LOQ	mg/25g	0.814	
CBG-Total per 25g [†]	< LOQ	mg/25g	1.52	
CBL per 25g [†]	< LOQ	mg/25g	0.814	
CBL-A per 25g [†]	< LOQ	mg/25g	0.814	
CBL-Total per 25g [†]	< LOQ	mg/25g	1.53	
CBN per 25g	< LOQ	mg/25g	0.814	
CBT per 25g [†]	7.15	mg/25g	0.814	
$\Delta 8$ -THCV per 25g †	< LOQ	mg/25g	0.814	
$\Delta 8$ -THC per 25g †	< LOQ	mg/25g	0.814	
Δ9-THC per 25g	8.45	mg/25g	0.814	
exo-THC per 25g [†]	< LOQ	mg/25g	0.814	
THC-A per 25g	< LOQ	mg/25g	0.814	
THC-Total per 25g	8.45	mg/25g	1.53	
THCV per 25g [†]	< LOQ	mg/25g	0.814	
THCV-A per 25g [†]	< LOQ	mg/25g	0.814	
THCV-Total per 25g [†]	< LOQ	mg/25g	1.53	
Total Cannabinoids per 25g	510	mg/25g		





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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/25g = Milligram per 25g % = Percentage of sample % wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner General Manager





Report Number: 21-011767/D002.R000

Report Date: 10/12/2021

ORELAP#: OR100028

Purchase Order:

Received: 10/05/21 16:00



Hemp / Cannabis Usable / Extract / Finished Products Chain of Custody Record

Revision: 4.00 Control#: CF023 Rev 02/24/2021 Eff: 03/04/2021 ORELAP ID: **OR100028**

			1				Α	nalysi	s Req	ueste	d			5	PC	O Number:				
CHAIN OF CUSTODY Company: Healthy Roots Contact: Liz Merritt Address: 14325 NE Airport Way, #113 Portland, OR 97230 Email: Healthyrootshemp@gmail.com Phone: 503-496-2329 License: AG-L 1052211FP			CHAIN OF CUSTODY Company: Healthy Roots Contact: Liz Merritt Address: 14325 NE Airport Way, #113 Portland, OR 97230 Email: Healthyrootshemp@gmail.com Phone: 503-496-2329 License: AG-L 1052211FP		Vay, #113		Pesticide Multi-Residue – 379 compounds		olvents	& Water Activity		Micro: Yeast and Mold	Micro: E.Coli and Total Coliform	stals		ppic Plate Count Salmonella ppylococcus, Pseudomonas		et Number: ject Name: Reporting: o State -	TRC or C C Business Da	other: y Standard Turnaround y Rush Turnaround* y Rush Turnaround* ailability
Lab ID	Client Sample Identification	Date 10/05	Time	Pesticides	Pesticide	Potency	Residual Solvents	Moisture	Terpenes	Micro: Ye	Micro: E.0	Heavy Metals	Mycotoxins	Other Popic Staphy	Sample Type †	Weight (Units)		Comments/Metrc ID		
															* 1			æ.		
		-2															Realth Roots	Report in mg/gr and % (percentage)		
n	Relinquished By: NEXPUTT	Date 1,0/05	7ime	m			eceivec				-	ate ,/21		ime 00	Sample	in good conditi	Yes ☐ No on: ☐ Yes CC ☐ Net			

† - Sample Type Codes: Vegetation (V); Isolates (S); Extract/Concentrate (C); Tincture/Topical (T); Edible (E); Beverage (B)

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service associated with this COC. By signing "Relinquished by" you are agreeing to these terms 12423 NE Whitoker Way

Portland, OR 97230

Protland, OR 97230





Report Number: 21-011767/D002.R000

10/12/2021 Report Date: ORELAP#: OR100028

Purchase Order:

Received: 10/05/21 16:00

Revision #: 0.00 Control : CFL-D06 Revision Date: 05/31/2019 Effective Date: 05/31/2019

		Laboi	ratory (Quality Co	ntrol Result	s				
J AOAC 2015 V9	I AOAC 2015 V98-6 Batch ID: 2109015									
Laboratory Control Sample										
Analyte	Result	Spike	Units	% Rec	Limits		Evaluation	Notes		
CBDVA	0.00948	0.01	%	94.8	85.0 -	115	Acceptable			
CBDV	0.0100	0.01	%	100	85.0 -	115	Acceptable			
CBE	0.00987	0.01	%	98.7	85.0 -	115	Acceptable			
CBDA	0.0102	0.01	%	102	85.0 -	115	Acceptable			
CBGA	0.00940	0.01	%	94.0	85.0 -	115	Acceptable			
CBG	0.0100	0.01	%	100	85.0 -	115	Acceptable			
CBD	0.0105	0.01	%	105	85.0 -	115	Acceptable			
THCV	0.00970	0.01	%	97.0	85.0 -	115	Acceptable			
d8THCV	0.00986	0.01	%	98.6	85.0 -	115	Acceptable			
THCVA	0.00922	0.01	%	92.2	85.0 -	115	Acceptable			
CBN	0.0103	0.01	%	103	85.0 -	115	Acceptable			
exo-THC	0.00962	0.01	%	96.2	85.0 -	115	Acceptable			
d9THC	0.0101	0.01	%	101	85.0 -	115	Acceptable			
d8THC	0.00969	0.01	%	96.9	85.0 -	115	Acceptable			
CBL	0.00909	0.01	%	90.9	85.0 -	115	Acceptable			
CBC	0.00983	0.01	%	98.3	85.0 -	115	Acceptable			
THCA	0.00977	0.01	%	97.7	85.0 -	115	Acceptable			
CBCA	0.00976	0.01	%	97.6	85.0 -	115	Acceptable			
CBLA	0.0103	0.01	%	103	85.0 -	115	Acceptable			
CBT	0.0108	0.01	%	108	85.0 -	115	Acceptable			

Method Blank						
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBDV	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBE	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBDA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBGA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBG	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBD	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
THCV	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
d8THCV	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
THCVA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBN	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
exo-THC	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
d9THC	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
d8THC	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBL	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBC	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
THCA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBCA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBLA	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBT	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	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





Report Number: 21-011767/D002.R000

10/12/2021 Report Date: ORELAP#: OR100028

Purchase Order:

Received: 10/05/21 16:00

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: 2109015											
Sample Duplic	ate			Sample ID: 21-011654-0001							
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes			
CBDVA	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
CBDV	0.0638	0.0634	0.003	%	0.600	< 20	Acceptable				
CBE	0.0926	0.0906	0.003	%	2.15	< 20	Acceptable				
CBDA	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
CBGA	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
CBG	0.402	0.400	0.003	%	0.566	< 20	Acceptable				
CBD	18.1	18.2	0.003	%	0.540	< 20	Acceptable				
THCV	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
d8THCV	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
THCVA	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
CBN	0.0298	0.0298	0.003	%	0.230	< 20	Acceptable				
exo-THC	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
d9THC	0.00732	0.00758	0.003	%	3.50	< 20	Acceptable				
d8THC	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
CBL	<loq< td=""><td><loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<></td></loq<>	<loq< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></loq<>	0.003	%	NA	< 20	Acceptable				
CBC	0.154	0.152	0.003	%	0.855	< 20	Acceptable				
THCA	<loq< td=""><td><l0q< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></l0q<></td></loq<>	<l0q< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></l0q<>	0.003	%	NA	< 20	Acceptable				
CBCA	<loq< td=""><td><l0q< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></l0q<></td></loq<>	<l0q< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></l0q<>	0.003	%	NA	< 20	Acceptable				
CBLA	<loq< td=""><td><l0q< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></l0q<></td></loq<>	<l0q< td=""><td>0.003</td><td>%</td><td>NA</td><td>< 20</td><td>Acceptable</td><td></td></l0q<>	0.003	%	NA	< 20	Acceptable				
CBT	0.0436	0.0435	0.003	%	0.103	< 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





Report Number: 21-011767/D002.R000

Report Date: 10/12/2021 ORELAP#: OR100028

Purchase Order:

10/05/21 16:00 Received:

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.