



Report Number: 19-015675/D01.R00

Report Date: 01/02/2020 **ORELAP#:** OR100028

Purchase Order:

Received: 12/23/19 14:35

Customer: Healthy Roots
Product identity: #30 200 pet

Client/Metrc ID:

inent/wetro id: . .

Laboratory ID: 19-015675-0001

Summary

Analyte	Result	Limits	Units	Status	CBD-Total per 28.5g	201 mg/28.5g
CBC [†]	0.0939		%			
CBD	0.701		%		THC-Total per 28.5g	 19.4 mg/28.5g
CBDV [†]	0.00863		%			19.4 mg/20.5g
CBG [†]	0.0117		%		(Reported in milligra	ams per serving)
CBN	0.00425		%			
Δ9-THC	0.0679		%			
THCV [†]	0.00478		%			
Analyte per 28.5g	Result	Limits	Units	Status		
CBC per 28.5g [†]	26.8		mg/28.5g			
CBD per 28.5g	200		mg/28.5g			
CBDV per 28.5g [†]	2.46		mg/28.5g			
CBG per 28.5g [†]	3.33		mg/28.5g			
CBN per 28.5g	1.21		mg/28.5g			
Δ9-THC per 28.5g	19.4		mg/28.5g			
THCV per 28.5g [†]	1.36		mg/28.5g			





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Customer: Healthy Roots

Product identity: #30 200 pet

Client/Metrc ID:

Sample Date:

Laboratory ID:19-015675-0001Relinquished by:Liz MerrittTemp:19.8 °CServing Size #1:28.5 g

Sample Results

Potency			Batch: 1911	812			
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC [†]	0.0939		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBC-A [†]	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBC-Total [†]	0.0939		%	0.0061	12/31/19	J AOAC 2015 V98-6	
CBD	0.701		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBD-A	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBD-Total	0.704		%	0.0061	12/31/19	J AOAC 2015 V98-6	
CBDV [†]	0.00863		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBDV-A [†]	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBDV-Total [†]	0.00863		%	0.0060	12/31/19	J AOAC 2015 V98-6	
CBG [†]	0.0117		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBG-A [†]	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBG-Total [†]	0.0117		%	0.0060	12/31/19	J AOAC 2015 V98-6	
CBL [†]	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
CBN	0.00425		%	0.0032	12/31/19	J AOAC 2015 V98-6	
$\Delta 8 ext{-THC}^\dagger$	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
Δ9-THC	0.0679		%	0.0032	12/31/19	J AOAC 2015 V98-6	
THC-A	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
THC-Total	0.0679		%	0.0061	12/31/19	J AOAC 2015 V98-6	
THCV [†]	0.00478		%	0.0032	12/31/19	J AOAC 2015 V98-6	
THCV-A [†]	< LOQ		%	0.0032	12/31/19	J AOAC 2015 V98-6	
THCV-Total [†]	< LOQ		%	0.0060	12/31/19	J AOAC 2015 V98-6	
Potency per 28.5g			Batch: 1911	812			
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBC per 28.5g [†]	26.8		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBC-A per 28.5g [†]	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBC-Total per 28.5g [†]	26.8		mg/28.5g	1.78	12/31/19	J AOAC 2015 V98-6	
CBD per 28.5g	200		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBD-A per 28.5g	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBD-Total per 28.5g	201		mg/28.5g	1.78	12/31/19	J AOAC 2015 V98-6	
CBDV per 28.5g [†]	2.46		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
022 . poi 20.09	20		9, 20.09	0.000	12/01/10	5	

Page 2 of 8

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 retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.





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Report Date: 01/02/2020 **ORELAP#:** OR100028

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Potency per 28.5g			Batch: 19118	312			
Analyte	Result	Limits	Units	LOQ	Analyze	Method	Notes
CBDV-A per 28.5g [†]	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBDV-Total per 28.5g [†]	2.46		mg/28.5g	1.77	12/31/19	J AOAC 2015 V98-6	
CBG per 28.5g [†]	3.33		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBG-A per 28.5g [†]	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBG-Total per 28.5g [†]	3.33		mg/28.5g	1.78	12/31/19	J AOAC 2015 V98-6	
CBL per 28.5g [†]	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
CBN per 28.5g	1.21		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
∆8-THC per 28.5g [†]	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
∆9-THC per 28.5g	19.4		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
THC-A per 28.5g	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
THC-Total per 28.5g	19.4		mg/28.5g	1.78	12/31/19	J AOAC 2015 V98-6	
THCV per 28.5g [†]	1.36		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
THCV-A per 28.5g [†]	< LOQ		mg/28.5g	0.950	12/31/19	J AOAC 2015 V98-6	
THCV-Total per 28.5g [†]	< LOQ		mg/28.5g	1.77	12/31/19	J AOAC 2015 V98-6	





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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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	1 Healthy Roots Out Doors thin Decays	Portlan	d OR	97230	0 p.50	3-254-	-1794	Ca	nnal	ois C			usto sis Re			d Sa		THYROOT	S 19	-015675	S Lak rentamus Сотрыну 128 Order Numbe	
	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 License: AG-L 1052211FP	F	ax:		spunod	- 379 compounds							Coliform			stue + Free Ac	Heal	Ithy Roots		☐ Send	Name: rt Instructions: to State - METR	
	CHAIN OF CUSTODY althy Roots Merritt 225 NE Airport Way, #113 rtland, OR 97230 nyrootshemp@gmail.com 196-2329 1052211FP				Pesticides – OR 59 compounds	Pesticide Multi-Residue –	incy	Residual Solvents	Water Activity	Moisture	Terpenes	Micro: Yeast and Mold	Micro: E. Coli and Total Coliform	Heavy Metals	Mycotoxins	other Proxiciae Value			Serving	□ Fax F □ Cash, Other:	l Final Results: inal Results /Check/CC/Net 3	10
1	Client Sample Identification #30 200 PeT	D: C	ate/T	Time ted	Pest	Pest	Potency	Resic	Wate	Mois	Terp	Micro	Micr	Heav	Myce	Othe	Sample Type	Weight	size for edible	es C II	calthy Roots ID	
23	500 Pet # 40 root butter # 45 not butter						V									V			azgr.	% (percentage	Report in mg/gr and	
45	# 410 root butt						V	-											25g1	c o	loe)	
	Collected By: Turnaround time: Ask for availability Standard (5 day) Rush (3-4 day) (1.5x Standard)			ished B		<u>t</u>	l	Date	3 P	Time	35	Rece	ived by	:			Date 12-23		4-35 o	ab Use On lient Alias rder Num roper Con ample Cor emperatur	: ber: tainer adition	
	☐ Priority Rush (2 day) (2x Standard) ** SUBMISSION OF SAMPLES WITH	CFL											IT FOR S	FRVICE	S IN ACC	ORDAN	CE WITH TH	IF CONDITIO	Ev	ripped Via	cooling: E	-
	Revision: 3.00 Control#: CF02 Effective 05/22/2019 Revised	23								W	ww.piz w.colu	xislabs	.com			- NOAN	was Willi III	501101110	NO LISTED OF		Page 1 of 2	12-23





Report Number: 19-015675/D01.R00

Report Date: 01/02/2020 **ORELAP#:** OR100028

Purchase Order:

Received: 12/23/19 14:35

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

Laboratory Quality Control Results

AOAC 2015 V98-6 Batch ID: 1911812								
Laboratory C	Control Sample							
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDV-A	0.00965	0.01	%	96.5	85.0 - 115	Acceptable		
CBDV	0.00978	0.01	%	97.8	85.0 - 115	Acceptable		
CBD-A	0.00951	0.01	%	95.1	85.0 - 115	Acceptable		
CBG-A	0.00969	0.01	%	96.9	85.0 - 115	Acceptable		
CBG	0.00977	0.01	%	97.7	85.0 - 115	Acceptable		
CBD	0.00976	0.01	%	97.6	85.0 - 115	Acceptable		
THCV	0.00965	0.01	%	96.5	85.0 - 115	Acceptable		
THCVA	0.00938	0.01	%	93.8	85.0 - 115	Acceptable		
CBN	0.00993	0.01	%	99.3	85.0 - 115	Acceptable		
THC	0.00980	0.01	%	98.0	85.0 - 115	Acceptable		
D8THC	0.00983	0.01	%	98.3	85.0 - 115	Acceptable		
CBL	0.00911	0.01	%	91.1	85.0 - 115	Acceptable		
CBC	0.00976	0.01	%	97.6	85.0 - 115	Acceptable		
THCA	0.00946	0.01	%	94.6	85.0 - 115	Acceptable		
CBCA	0.00952	0.01	%	95.2	85.0 - 115	Acceptable		

Method Blank

Wiethou Blan	N.					
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDV-A	<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	
CBD-A	<loq< td=""><td>0.003</td><td>%</td><td>< 0.003</td><td>Acceptable</td><td></td></loq<>	0.003	%	< 0.003	Acceptable	
CBG-A	<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	
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	
THC	<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	

Abbreviations

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

Units of Measure:

% - Percent





Report Number: 19-015675/D01.R00

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Purchase Order:

Received: 12/23/19 14:35

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				Bato	:h ID: 1911812		
Sample Dupli	cate							
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDV-A	<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	0.0332	0.0330	0.003	%	0.639	< 20	Acceptable	
CBD-A	<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-A	<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	0.0973	0.0970	0.003	%	0.315	< 20	Acceptable	
CBD	5.51	5.54	0.003	%	0.566	< 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	
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	0.00589	0.00587	0.003	%	0.379	< 20	Acceptable	
THC	0.188	0.187	0.003	%	0.456	< 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	0.306	0.306	0.003	%	0.165	< 20	Acceptable	
THCA	<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	
CBCA	<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	

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	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.