

Report: Evaluation Summary

OLCC License No. 10087092BDA | ORELAP ID. 4147

545 SW 2nd Street, Corvallis OR. 97333 | 541.257.5002 | services@preelab.com | Preelab.com

Product Description

Client:

Product Name: **Bubba Kush**

Matrix: Concentrate

Metrc Source ID: n/a

Metrc Package ID: n/a

License Number: n/a

Report ID: A1077-07

Date Collected: 2019-12-27

Date Received: 2019-12-27

Report Date: 2020-01-06

Tests Requested: Cannabinoid Potency Analysis
Terpene Analysis

Notes: No special conditions were noted during the processing and testing of the sample.

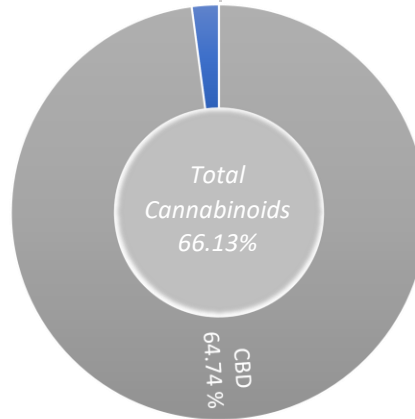
Evaluation Summary

Moisture Analysis | Test Not Requested/Required

Cannabinoid Potency Analysis

Total THC *
0.00 %
0.0 mg/g

Total CBD *
65.96 %
659.6 mg/g



Abrv.	Dry Wt. %	Dry Wt. mg/g
THCA	< LOQ	< LOQ
Δ-9-THC	< LOQ	< LOQ
CBDA	1.39 %	13.9 mg/g
CBD	64.74 %	647.4 mg/g
CBDVA	< LOQ	< LOQ
CBDV	< LOQ	< LOQ
CBGA	< LOQ	< LOQ
CBG	< LOQ	< LOQ
CBN	< LOQ	< LOQ
CBL	< LOQ	< LOQ
CBC	< LOQ	< LOQ
Δ-8-THC	< LOQ	< LOQ
THCV	< LOQ	< LOQ

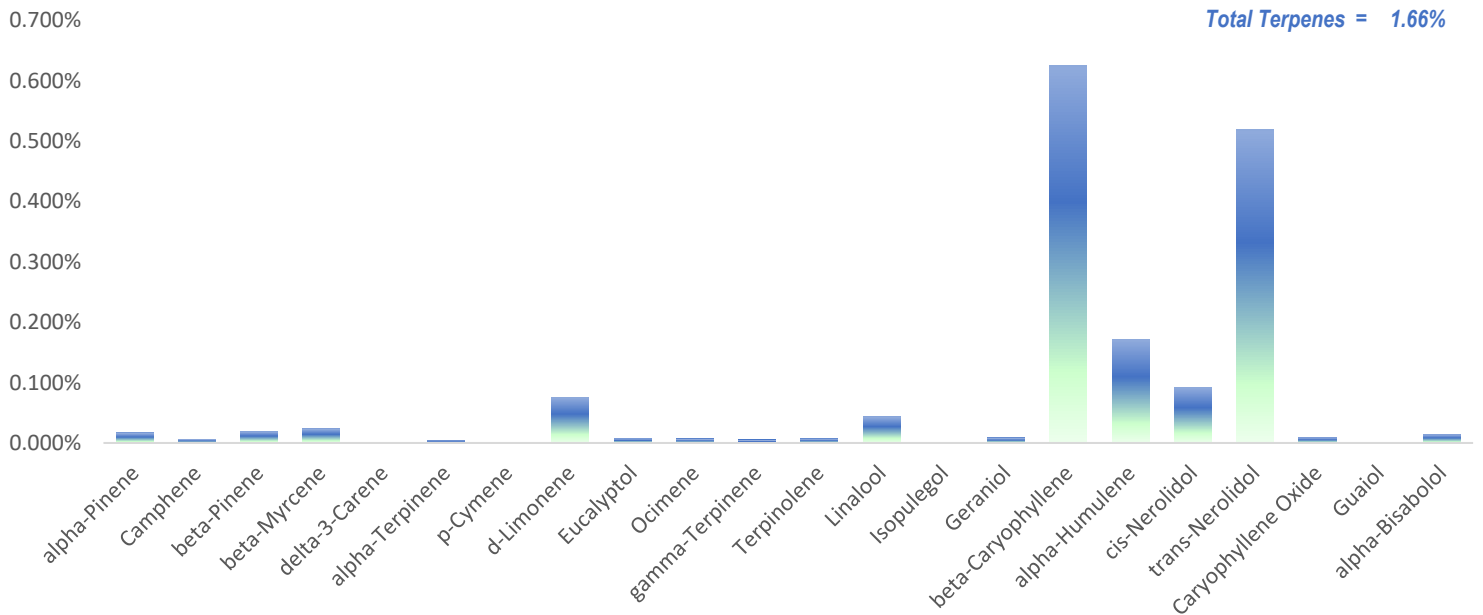
* moisture compensated & adjusted for the loss of carboxylic acid group - OAR 333-064-0100

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Product Description		Evaluation Summary				
Client:		Terpene Analysis	Compound	Dry Wt. %	Compound	Dry Wt. %
Product Name:	Bubba Kush		alpha-Pinene	0.017%	Terpinolene	0.007%
Matrix:	Concentrate		Camphene	0.006%	Linalool	0.044%
Metrc ID:	n/a		beta-Pinene	0.019%	Isopulegol	0.000%
Lot Number:	n/a		beta-Myrcene	0.024%	Geraniol	0.008%
License Number:	0		delta-3-Carene	0.000%	beta-Caryophyllene	0.626%
Date Collected:	2019-12-27		alpha-Terpinene	0.004%	alpha-Humulene	0.172%
Date Received:	2019-12-27		p-Cymene	0.000%	cis-Nerolidol	0.093%
Report Date:	2020-01-06		d-Limonene	0.076%	trans-Nerolidol	0.519%
			Eucalyptol	0.008%	Caryophyllene Oxide	0.009%
			Ocimene	0.007%	Guaiol	0.000%
			gamma-Terpinene	0.005%	alpha-Bisabolol	0.014%



Bubba Kush has the highest concentration of the following terpene(s)...

beta-Caryophyllene

Caryophyllene can be found at high concentrations in black pepper, cloves, and cinnamon. It has a spicy/peppery aroma.



trans-Nerolidol

Nerolidol has a fresh bark or woody aroma. It can be found in jasmine, ginger, lavender, tea tree and lemon grass.



alpha-Humulene

Humulene has a distinct earthy, wood-like aroma. Found in hops, basil and cloves.



Dear Oregon Genetics Inc.,

PREE Laboratory received samples on 2019-12-27, which were collected on 2019-12-27 by .
The results in this report are only applicable for the samples listed in this report.

All analyses were performed in accordance with PREE Laboratory NELAP/TNI approved quality control system unless otherwise noted in the case narrative of this report. All quality control data is within the laboratory's predefined acceptance criteria unless otherwise noted in the case narrative of this report.

The testing methods used are of sufficient sensitivity to meet the compliance criteria set in OAR 333-007, however it is the responsibility of the client to utilize the data to comply with standards set in OAR 333-007.

If you have any questions regarding information in this report, please feel free to call 541-257-5002 or email the laboratory at services@preelab.com.



Sardar, Tamzid | Laboratory Director
Corvallis, Oregon

Case Narrative

This report presents the results of the analyses of the sample received on 2019-12-27 and assigned the Laboratory Number of - A1077-07. The subsequent data is only for the sample listed and parameters tested.

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All analyses were performed in accordance with PREE Laboratory's Quality Control Program. All QC requirements were met, except as noted below.

Analytical comments are noted on the Certificate of Analysis with data flags, and/or recorded below.

Notes:

No special conditions were noted during the processing and testing of the sample.

Report: Evaluation Detail

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Moisture Analysis	Evaluation Detail					
	Moisture Analysis	Test Not Requested/Required				
Cannabinoid Potency Analysis	Evaluation Detail					
Product Name: Bubba Kush	Cannabinoid Potency Analysis	Compound	Abrv.	Dry Wt. (%)	Dry Wt.	RL (%)
Analysis Date: #N/A	Total THC *	Tetrahydro-cannabinolic acid	THCA	< LOQ	< LOQ	0.5 %
	0.00 %	Delta9 Tetrahydro-cannabinol	Δ-9-THC	< LOQ	< LOQ	0.5 %
	0.0 mg/g	Cannabidiolic acid	CBDA	1.39 %	13.9	0.5 %
		Cannabidiol	CBD	64.74 %	647.4	0.5 %
	Total CBD *	Cannabidivarinic Acid	CBDVA	< LOQ	< LOQ	0.5 %
	65.96 %	Cannabidivarin	CBDV	< LOQ	< LOQ	0.5 %
	659.6 mg/g	Cannabigerolic acid	CBGA	< LOQ	< LOQ	0.5 %
		Cannabigerol	CBG	< LOQ	< LOQ	0.5 %
		Cannabinol	CBN	< LOQ	< LOQ	0.5 %
		Cannabicyclol	CBL	< LOQ	< LOQ	0.5 %
		Cannabichromene	CBC	< LOQ	< LOQ	0.5 %
		Delta8 Tetrahydro-cannabinol	Δ-8-THC	< LOQ	< LOQ	0.5 %
		Tetrahydrocannabivarin	THCV	< LOQ	< LOQ	0.5 %

* moisture compensated & adjusted for the loss of carboxylic acid group - OAR 333-064-0100

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Terpene Analysis

Product Name: **Bubba Kush**

Analysis Date: 2020-12-29

Evaluation Detail

Terpene Analysis	Compound	Dry Wt. %	Dry Wt. (mg/g)	RL %
	alpha-Pinene	0.017%	0.165	0.002%
	Camphene	0.006%	0.065	0.002%
	beta-Pinene	0.019%	0.191	0.002%
	beta-Myrcene	0.024%	0.236	0.002%
	delta-3-Carene	0.000%	0.000	0.002%
	alpha-Terpinene	0.004%	0.043	0.002%
	p-Cymene	0.000%	0.000	0.002%
	d-Limonene	0.076%	0.759	0.002%
	Eucalyptol	0.008%	0.076	0.002%
	Ocimene	0.007%	0.066	0.002%
	gamma-Terpinene	0.005%	0.050	0.002%
	Terpinolene	0.007%	0.069	0.002%
	Linalool	0.044%	0.435	0.002%
	Isopulegol	0.000%	0.000	0.002%
	Geraniol	0.008%	0.084	0.002%
	beta-Caryophyllene	0.626%	6.255	0.002%
	alpha-Humulene	0.172%	1.720	0.002%
	cis-Nerolidol	0.093%	0.925	0.002%
	trans-Nerolidol	0.519%	5.193	0.002%
	Caryophyllene Oxide	0.009%	0.091	0.002%
	Guaiol	0.000%	0.000	0.002%
	alpha-Bisabolol	0.014%	0.143	0.002%
	Total Terpenes	1.66%	16.566 mg/g	

Report: Quality Check



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Moisture Analysis	Quality Control Detail					
	Moisture Analysis					
Cannabinoid Potency Analysis	Quality Control Detail					
Analysis Date: #N/A	Cannabinoid Potency Analysis	Negative Control (P-BL)	Positive Control (LCS)	Expected Value (%)	Tested Value (%)	Pass Criteria
	Tetrahydro-cannabinolic acid	○		< 0.1%	< 0.1%	< 0.1%
	Delta9 Tetrahydro-cannabinol	○		< 0.1%	< 0.1%	< 0.1%
	Cannabidiolic acid	○		< 0.1%	< 0.1%	< 0.1%
	Cannabidiol	○		< 0.1%	< 0.1%	< 0.1%
	Cannabinol	○		< 0.1%	< 0.1%	< 0.1%
	Tetrahydro-cannabinolic acid		●	100.0%	91.3%	80%-120%
	Delta9 Tetrahydro-cannabinol		●	100.0%	93.4%	80%-120%
	Cannabidiolic acid		●	100.0%	87.5%	80%-120%
	Cannabidiol		●	100.0%	86.2%	80%-120%
	Cannabinol		●	100.0%	84.7%	80%-120%

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Terpene Analysis

Analysis Date: 2020-12-29

Quality Control Detail

Terpene Analysis	Negative Control	Expected Value (%)	Tested Value (%)	Pass Criteria
alpha-Pinene	o	0.000%	0.000%	< 0.010%
Camphene	o	0.000%	0.000%	< 0.010%
beta-Pinene	o	0.000%	0.000%	< 0.010%
beta-Myrcene	o	0.000%	0.000%	< 0.010%
delta-3-Carene	o	0.000%	0.000%	< 0.010%
alpha-Terpinene	o	0.000%	0.000%	< 0.010%
p-Cymene	o	0.000%	0.000%	< 0.010%
d-Limonene	o	0.000%	0.000%	< 0.010%
Eucalyptol	o	0.000%	0.000%	< 0.010%
Ocimene	o	0.000%	0.000%	< 0.010%
gamma-Terpinene	o	0.000%	0.000%	< 0.010%
Terpinolene	o	0.000%	0.000%	< 0.010%
Linalool	o	0.000%	0.000%	< 0.010%
Isopulegol	o	0.000%	0.000%	< 0.010%
Geraniol	o	0.000%	0.000%	< 0.010%
beta-Caryophyllene	o	0.000%	0.000%	< 0.010%
alpha-Humulene	o	0.000%	0.000%	< 0.010%
cis-Nerolidol	o	0.000%	0.000%	< 0.010%
trans-Nerolidol	o	0.000%	0.000%	< 0.010%
Caryophyllene Oxide	o	0.000%	0.000%	< 0.010%
Guaiol	o	0.000%	0.000%	< 0.010%
alpha-Bisabolol	o	0.000%	0.000%	< 0.010%

Definitions

- PQL: Practical Quantitation Limit, this is the smallest amount the analyte can be measured at without estimation.
- Blank: A quality control sample that is free of the analyte being measured.
- Positive Control: A quality control sample with a known amount of the analyte used to demonstrate accuracy. The result is often expressed as a percent recovery.
- Field Duplicate: A second sample collected in the field using the same sampling method as the primary sample. The purpose is to demonstrate that the batch sampled is uniform.
- Action Limit: Analyte levels set by the state of Oregon indicating that follow-up action is necessary.
- Accreditation Status: Indication that the methodology, calibration, and laboratory QC used by PREE Laboratory for an analyte has been evaluated by a third-party auditor and determined to be accurate, precise, and selective.
- ppm: parts per million, equivalent to mg/g and mg/L.
- % Rec.: Percentage Recovery = $[(\text{Amount measured}) / (\text{Known amount})] * 100$
- ND: The sample result is less than the PQL.

Calculations

- Cannabinoid Potency :
Wet WT% = $(\text{Exported concentration ppm}) \times (\text{Dilution}) \times (\text{Extraction Vol./Wet wt mg}) \times 100$
Total THC% = $(\% \text{THCA}) \times 0.877 + (\% \text{THC})$
Total CBD% = $(\% \text{CBDA}) \times 0.877 + (\% \text{CBD})$
Total THC (Dry WT)% = $\% \text{ total THC(wet)} / [1 - (\% \text{moisture}/100)]$
Total CBD (Dry WT)% = $\% \text{ total CBD(wet)} / [1 - (\% \text{moisture}/100)]$