

# HOP AROMA QUALITY (AQ) CERTIFICATE OF ANALYSIS



Customer : Barn Talk Hops - Jenny Napier

Sample ID: Hoy Cascade

Variety: Cascade

Certifying Officer: Zach Lilla - Lab Manager

Date : 10/20/2019

Method			
Hops-4C	Moisture Analysis	% Moisture	9.1
		% Dry Matter	90.9
Hops-6A	Alpha and Beta Acids by SPEC	% Alpha Acids	NT
		% Beta Acids	NT
		a/b ratio	NT
Hops-12	Hop Storage Index	HSI	0.261
Hops-13	Essential Oil by Steam Distillation	mL/100g	0.92
Hops-14	Alpha and Beta Acids by HPLC	Cohumulone	30.6 (% of Total AA)
ICE-3		% Alpha Acids	6.47
		Colupulone	46.9 (% of Total BA)
		% Beta Acids	5.88
		a/b ratio	1.10
Hops-17	Hop Essential Oil by GC-FID (as is)		
		% area	mg/100g
		B-Pinene	0.34 3.52
		Myrcene	25.56 264.91
		Linalool	0.56 5.84
		Caryophyllene	11.71 121.35
		Farnesene	7.57 78.50
		Humulene	24.87 257.84
		Geraniol	0.26 2.65

NT=NOT TESTED

Signed: \_\_\_\_\_

Zachary Lilla - Lab Manager - TTB Certified Chemist

# AROMA QUALITY (AQ) HOP QUALITY REPORT



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Date : 10/20/2019

% Moisture	9.1	Typical Range 8 - 12%	✓
Total Oil ml/100g @ 10%	0.91	0.8 - 2.5 mL	✓
cohumulone	30.6	30 - 35%	✓
Alpha Acids @ 10%	6.40	5.5 - 9%	✓
Beta Acids @ 10%	5.82	6.0 - 7.5%	↓
<b>AROMA QUALITY (AQ)</b>			
	% Area		
B-Pinene	0.34	0.50 - 0.80 %	↓
Myrcene	25.56	45.00 - 60.00 %	↓
Linalool	0.56	0.30 - 0.60 %	✓
Caryophyllene	11.71	5.00 - 9.00 %	↑
Farnesene	7.57	6.00 - 9.00 %	✓
Humulene	24.87	14.00 - 20.00 %	↑
Geraniol	0.26	0.01 - 0.30 %	✓
	mg/mL		
B-Pinene	3.81	5 - 8	↓
Myrcene	286.91	450 - 600	↓
Linalool	6.32	3 - 6	✓
Caryophyllene	131.42	50 - 90	↑
Farnesene	85.02	60 - 90	✓
Humulene	279.25	140 - 200	↑
Geraniol	2.87	0.1 - 3	✓
	mg/100g @ 10% Moisture		
B-Pinene	3.48	4 - 20	↓
Myrcene	262.41	360 - 1500	↓
Linalool	5.78	2.4 - 15	✓
Caryophyllene	120.20	40 - 225	✓
Farnesene	77.76	48 - 225	✓
Humulene	255.40	112 - 500	✓
Geraniol	2.63	0.08 - 7.5	✓

Signed: \_\_\_\_\_

Zachary Lilla - Lab Manager - TTB Certified Chemist