

HOP QUALITY REPORT CERTIFICATE OF ANALYSIS

To: Wisconsin Hop Exchange

Sample ID: 22AAA1087-01LH

Variety: AlphaAroma Whole Cone

Date : 12/3/2022 Pellet



Certifying Officer: Zach Lilla - Lab Manager
 TTB Certified Chemist - Member AOAC - ASBC - BJCP

<u>Method</u>			
Hops-4C	Moisture Analysis	% Moisture	10.0
		% Dry Matter	90.0
AAR	Xanthohumol by HPLC		NT mg/g
Hops-12	Hop Storage Index	HSI	0.290
Hops-13	Essential Oil by Steam Distillation	mL/100g	1.10
Hops-14	Alpha and Beta Acids by HPLC	Cohumulone	23.2 (% of Total AA)
ICE-3		% Alpha Acids	8.59
		Colupulone	50.6 (% of Total BA)
		% Beta Acids	3.09
		a/b ratio	2.78
Hops-17	Hop Essential Oil by GC-FID (as is)	% area	mg/100g
		B-Pinene	NT NT
		Myrcene	NT NT
		Linalool	NT NT
		Caryophyllene	NT NT
		Farnesene	NT NT
		Humulene	NT NT
		Geraniol	NT NT

NT=NOT TESTED

Signed: 
 Zachary Lilla - Lab Manager - TTB Certified Chemist



AROMA QUALITY (AQ) HOP QUALITY REPORT



Customer : Wisconsin Hop Exchange

Sample ID: 22AAA1087-01LH

Variety: AlphaAroma

Whole Cone
Pellet

Date : 12/3/2022

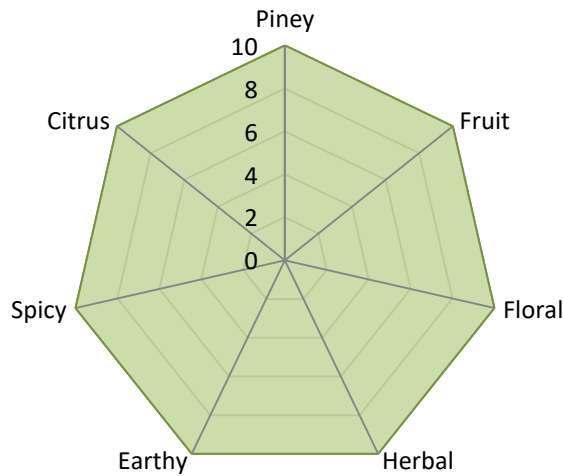
Certifying Officer: Zach Lilla - Lab Manager
TTB Certified Chemist - Member AOAC - ASBC - BJCP

% Moisture	10.0	Typical Range	8 - 12%	<input checked="" type="checkbox"/>
HOP QUALITY (adjusted to 10% moisture)				
Total Oil ml/100g	1.10		1.1 - 1.3 mL	<input checked="" type="checkbox"/>
cohumulone	23.2		25 - 28%	<input type="checkbox"/>
Alpha Acids	8.59		5.8 - 11%	<input checked="" type="checkbox"/>
Beta Acids	3.08		2.5 - 4.9%	<input checked="" type="checkbox"/>

AROMA QUALITY (AQ)

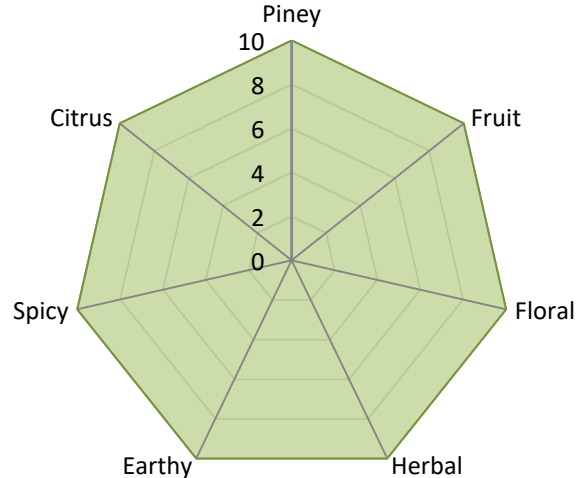
	% Area		mg/mL of Hop Oil			mg/100g of Hops (@10%H2O)		
B-Pinene	NT	0.30 - 1.00 %	NT	3 - 10	NT	3.3 - 13		
Myrcene	NT	50.00 - 65.00 %	NT	500 - 650	NT	550 - 845		
Linalool	NT	0.50 - 1.00 %	NT	5 - 10	NT	5.5 - 13		
Caryophyllene	NT	3.00 - 8.00 %	NT	30 - 80	NT	33 - 104		
Farnesene	NT	4.00 - 6.00 %	NT	40 - 60	NT	44 - 78		
Humulene	NT	12.00 - 16.00 %	NT	120 - 160	NT	132 - 208		
Geraniol	NT	0.3 - 1.00 %	NT	3 - 10	NT	3.3 - 13		

AQ vs VARIETY SPECS



Aroma Intensity= 100

AQ vs ALL HOP VARIETIES



Aroma Intensity= 100

Signed:
Zachary Lilla - Lab Manager - TTB Certified Chemist

