



YAKIMA QUALITY HOPS

Testing completed by:



Certificate of Analysis

CoA ID	Date of Issue	Test Date
CTZ-2402	10/31/2024	10/23/2024, 10/28/2024

Sample Type	Variety	Total Oil (mL/100G)
T90 Pellet	CTZ	1.8
Alpha %	Beta %	HSI
13.0	3.9	0.222
HopTechnic-008 (Alpha & Beta Acids by HPLC, Modified EBC 7.8)		
HopTechnic-008 (HSI Determination by Calculation, Modified ASBC Hops-6)		
HopTechnic-116 (Total Oil Determination, ASBC Hops-16)		

Released by:  _____

Date: 10/31/2024



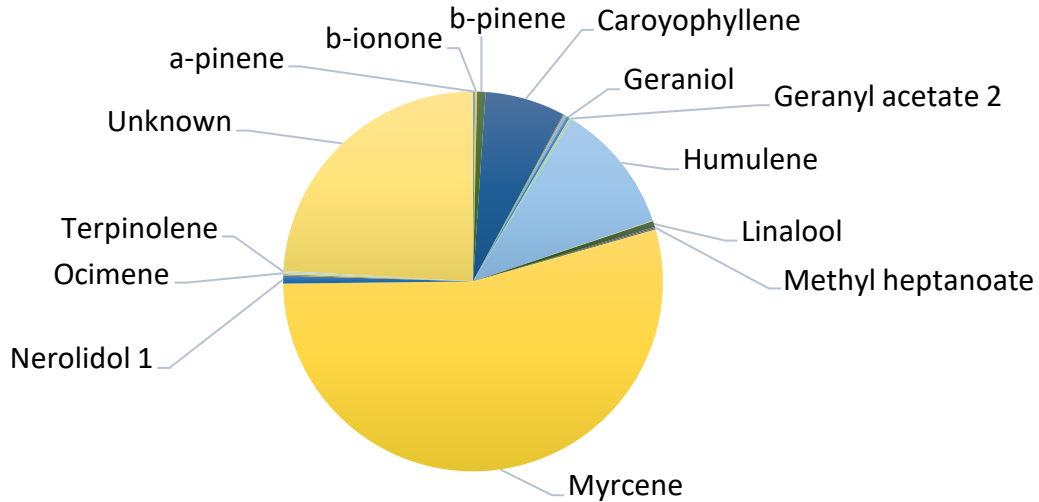
YAKIMA QUALITY HOPS

Testing completed by:




Hop Oil Composition

CoA ID	Date of Issue	Test Date
CTZ-2402	10/31/2024	10/28/2024
Sample Type	Variety	Total Oil (mL/100g)
T90 Pellet	CTZ	1.8
HopTechnic-116 (Total Oil Distillation, ASBC Hops-16)		
HopTechnic-116 (Terpenes Composition Analysis by GC-FID, modified ASBC Hops-17)		



Aroma Compound	% of Total Oil
2-Undecanone	0.00%
a-pinene	0.18%
B-ionone	0.16%
b-pinene	0.71%
Caryophyllene	6.83%
Caryophyllene oxide	0.09%
Citral	0.02%
Citronellene	0.18%
Citronellol	0.00%
Farnesene	0.04%
Geraniol	0.26%
Geranyl acetate 1	0.02%
Geranyl acetate 2	0.18%

Aroma Compound	% of Total Oil
Humulene	11.11%
Limonene	0.04%
Linalool	0.51%
Methyl Heptanoate	0.12%
Methyl Laurate	0.12%
Methyl Octanoate	0.01%
Methyl thiohexanoate	0.01%
Myrcene	54.20%
Nerol	0.01%
Nerolidol 1	0.67%
Nerolidol 2	0.12%
Ocimene	0.15%
Terpinolene	0.11%
Unidentified	24.12%

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