

LOT ID 18AMT90225
ANALYSIS OVERVIEW:
BRIGHT, CRISP WITH
FLORAL CHARACTERISTICS

HopTechnic®



Analysis for 1320 Lot:
YQH_1320
21-10-05



Certificate of Analysis

CoA ID	Date of Issue	Test Date
RS430210930	10/05/2021	09/29/2021

Lot Number	Variety	Moisture* %	Total Oil
YQH 1320	EXP	7.0	1.3
Alpha* %	Beta* %	Cohumulone* %	Colupulone* %
9.3	6.8	32.3	54.2
Moisture Content Analysis (Modified ASBC Malt-3)			
HPLC (Modified EBC 7.8 for Alpha/Beta/Iso-Alpha %)			
Total Oil Analysis (ASBC Hops-13 and ASBC Hops-17)			

Released by: 

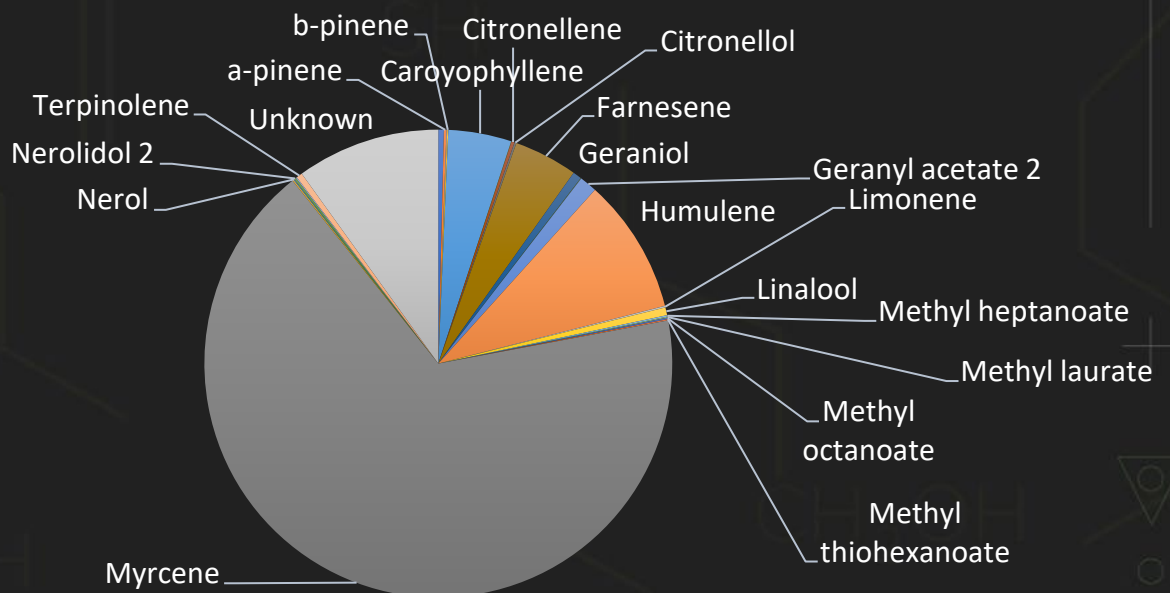
Stephanie Conn

Date: 10/05/2021

*These tests are part of the laboratory ISO/IEC 17025:2017 accredited scope. For further information, please inquire with the lab.


Hop Oil Composition

CoA ID	Date of Issue	Test Date
RS438211005	10/05/2021	09/29/2021, 10/02/2021
Lot Number	Variety	Total Oil (mL/100g)
YQH 1320	EXP	1.3
Total Oil Analysis by EBC 7.10		
Hop Oil Composition Analysis by EBC 7.12		



Aroma Compound	% of Total Oil
2-Undecanone	0.39%
a-pinene	0.17%
B-ionone	0.05%
b-pinene	0.07%
Caryophyllene	4.36%
Caryophyllene oxide	0.02%
Citral	0.00%
Citronellene	0.21%
Citronellol	0.13%
Farnesene	4.41%
Geraniol	0.60%
Geranyl acetate 1	0.04%
Geranyl acetate 2	1.21%

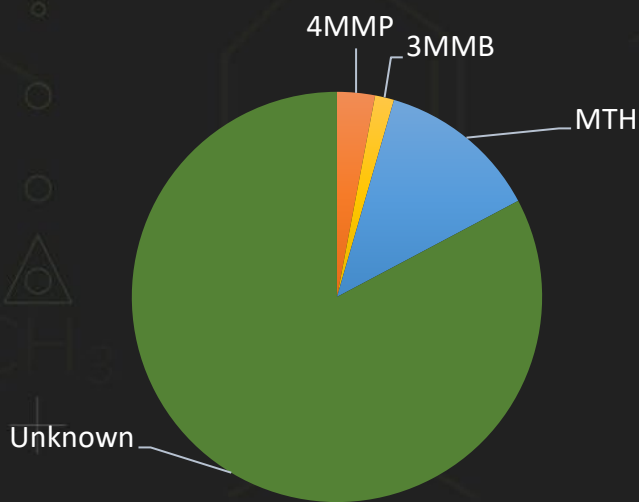
Aroma Compound	% of Total Oil
Humulene	9.35%
Limonene	0.11%
Linalool	0.54%
Methyl Heptanoate	0.10%
Methyl Laurate	0.06%
Methyl Octanoate	0.11%
Methyl thiohexanoate	0.09%
Myrcene	67.25%
Nerol	0.10%
Nerolidol 1	0.05%
Nerolidol 2	0.15%
Ocimene	0.07%
Terpinolene	0.41%
Unidentified	9.93%

Released by: 

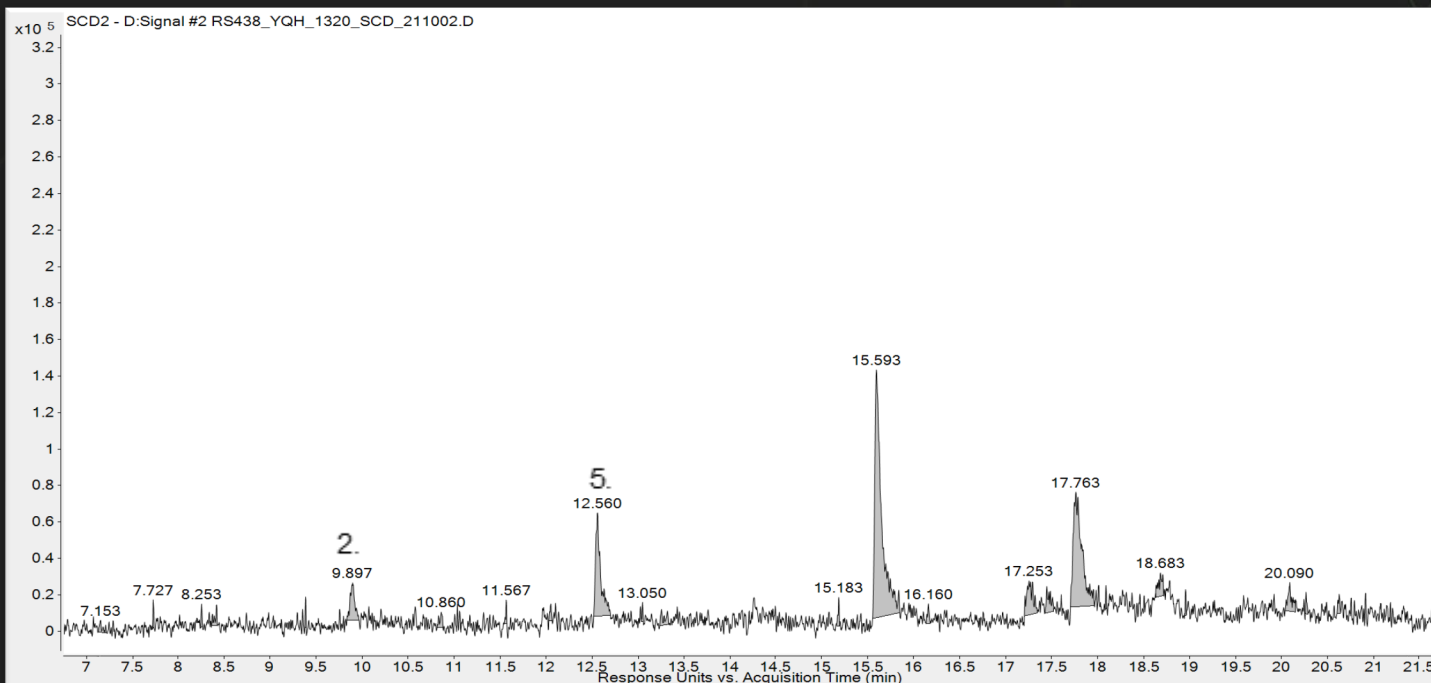
Date: 10/05/2021

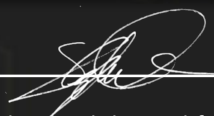
Hop Thiol Composition

CoA ID		
RS438211005		
Analysis Date	Lot Number	Variety
10/02/2021	YQH 1320	EXP
Hoptechnic-004.03, Detection of Thiols in Hops		



Aroma Compound	% of Thiols
Dimethyl sulfide/ 2-mercaptoethanol (1)	0.00%
4-MMP (2)	2.98%
Dimethyl trisulfide (3)	0.00%
3-mercapto-3-methylbutanol (4)	1.50%
Methyl thiohexanoate (5)	12.76%
3-mercaptohexan-1-ol (3MH) (6)	0.00%
3-mercapto-4-methylpentylacetate/ 3-mercaptohexyl acetate (3MHA) (7)	0.00%
Unidentified	82.76%



Released by: 

Date: 09/30/2021

*Percentage of thiols are based on total detected free thiols and do not account for bound thiol compounds in the sample. Compounds that coelute in the method are listed as tandem in the table and may require further elucidation to verify compound identity.

Experimental Hop YQH 1320



Lot Analysis ID	Date of Issue	Analysis Date
RS438211005	10/05/2021	10/04/2021
Lot ID	Variety	Form
YQH 1320	EXP	Whole Cone
Additional Notes		
Hop Sensory Evaluation Method (ASBC Sensory Analysis-16)		
ASBC Sensory Subcommittee Hop Lexicon		

Released by: 

Date: 10/05/2021