



Certificate ID: **35810**

Received: **6/29/18**

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Grassroots Heals

Client Sample ID: **GRH Full Spectrum 500mg/15ml**



321 W Ben White Blvd, Ste 103

Lot Number: **1001**

Austin, TX 78745

Matrix: **Tincture - Hemp Oil**

Attn: Kemal Whyte

Authorization: Matthew Silva, Chemical Engineer	Signature: 	Date: 7/12/2018
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2005. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.



CN: Cannabinoid Profile & Potency [WI-10-04]

Analyst: RAS

Test Date: 7/11/2018

The client sample was analyzed for plant-based cannabinoids by Convergence Chromatography (CC). The collected data was compared to data collected for certified reference standards at known concentrations.

35810-CN

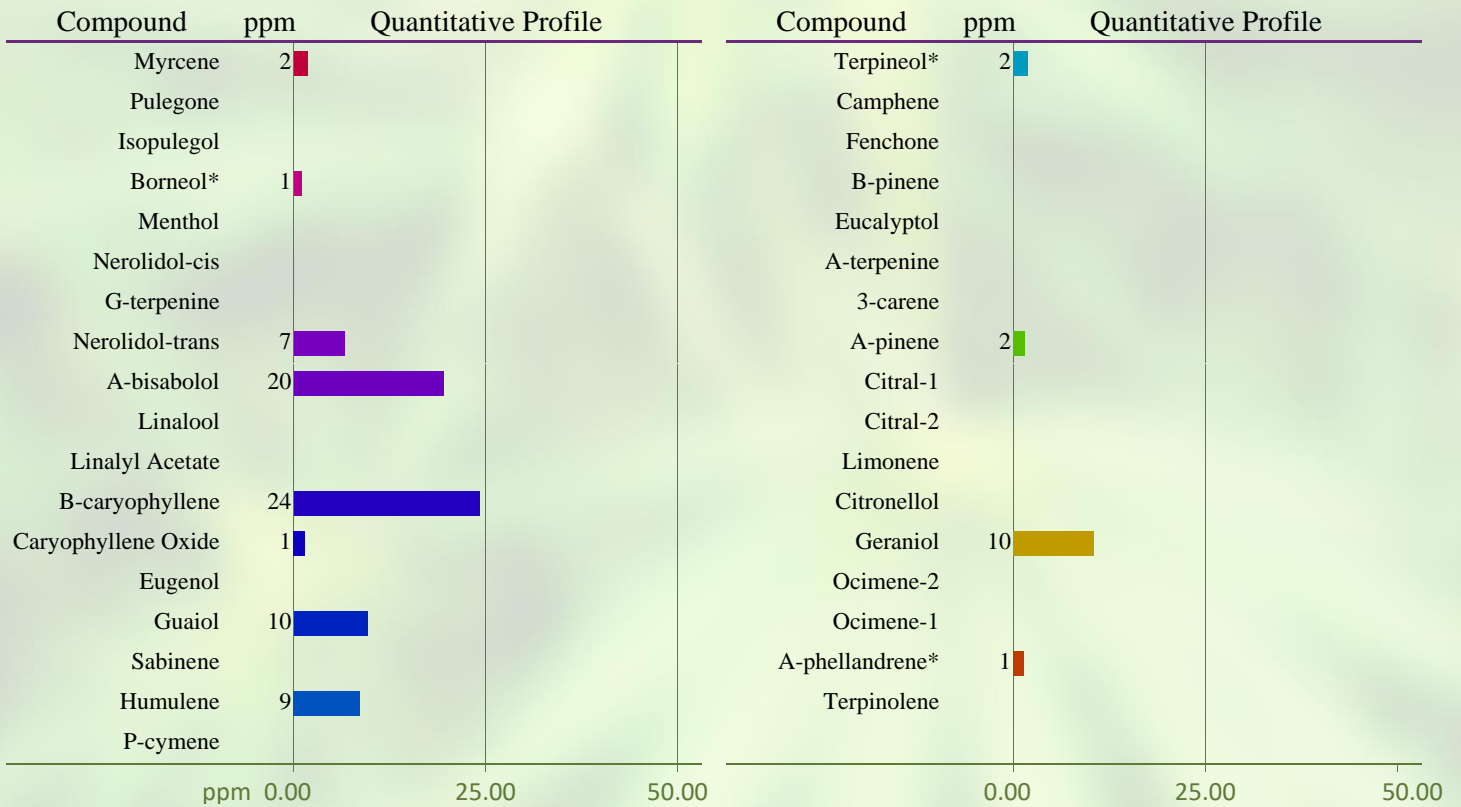
ID	Weight %	Conc.		
Δ9-THC	0.13 wt %	1.23 mg/mL		
THCV	ND	ND		
CBD	3.54 wt %	33.23 mg/mL		
CBDV	ND	ND		
CBG	0.03 wt %	0.27 mg/mL		
CBC	0.11 wt %	1.06 mg/mL		
CBN	0.01 wt %	0.13 mg/mL		
THCA	ND	ND		
CBDA	0.02 wt %	0.19 mg/mL		
CBGA	ND	ND		
Total	3.85 wt%	36.12 mg/mL	0%	Cannabinoids (wt%) 3.5%
Max THC	0.13 wt%	1.23 mg/mL		
Max CBD	3.56 wt%	33.39 mg/mL		

Ratio of Total CBD to THC 27.1:1

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: $Max\ THC = (0.877 \times THCA) + THC$. ND = None detected above the limits of detection (LLD)

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

35810-TP



Total Terpene: <0.1 wt%

* Indicates qualitative calculation based on recorded peak areas.

END OF REPORT