



Certificate of Analysis

Page 1 of 1

Client: Forest & Bees Native Honey LP	Lab No: 2169841	HGPv1
Contact: Michael Everly	Date Received: 03-May-2019	
C/- Forest & Bees Native Honey LP	Date Reported: 06-May-2019	
155 Orlando Street	Quote No:	
Stratford 4332	Order No:	
	Client Reference:	
	Submitted By: Michael Everly	

Sample Type: Honey

Sample Name:	FNB 2018 Batch 5				
Lab Number:	2169841.1				
Manuka Honey Analysis					
Dihydroxyacetone (DHA)	mg/kg	1,610	-	-	-
5-hydroxymethylfurfural (HMF)	mg/kg	15.6	-	-	-
Methylglyoxal (MGO)	mg/kg	552	-	-	-
Non Peroxide Activity (NPA)*	% Phenol Equivalent	15.7	-	-	-
Leptosperin	mg/kg	570	-	-	-

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
3-in-1 Honey Method	Aqueous extraction, derivatisation. Analysis by UPLC-UV (dihydroxyacetone, 5-hydroxymethylfurfural, methylglyoxal).	-	1
Leptosperin	Aqueous extraction, dilution, analysis by LC-MS/MS.	15 mg/kg	1
Non Peroxide Activity (NPA)*	NPA is calculated from methylglyoxal using a correlation curve based on published data for NPA and the primary active ingredient, methylglyoxal. (1,2). (1) Isolation by HPLC and characterisation of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey. C. J. Adams, et al. Carbohydrate Research 343 (2008) 651-659. (2) Corrigendum to "Isolation by HPLC and characterization of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey" [Carbohydr. Res. 343 (2008) 651]. C. J. Adams, et al. Carbohydrate Research 344 (2009) 2609.	1.0 % Phenol Equivalent	1

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Helen McGowan BSc (Tech)
Operations Support - Food & Bioanalytical



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