



Certificate of Analysis

Page 1 of 2

Client:	Midlands Apiaries Limited	Lab No:	2010017	SPV2
Contact:	Hamish Finnie C/- Midlands Apiaries Limited PO Box 65 Ashburton 7740	Date Received:	04-Jul-2018	
		Date Reported:	05-Jul-2018	
		Quote No:	70096	
		Order No:		
		Client Reference:		
		Submitted By:	Lily Zhao	

Sample Type: Honey

Sample Name:				191174L	
Lab Number:				2010017.4	
Individual Tests					
NPA (Non Peroxide Activity)*	% Phenol Equivalent	-	-	18.3	
MPI 5 Attributes Tests					
MPI Manuka Honey Classification				Monofloral Manuka Honey	
Manuka Honey Chemistry Profile					
3-Phenyllactic acid*	mg/kg			1,290	
2'-Methoxyacetophenone*	mg/kg			21	
2-Methoxybenzoic Acid*	mg/kg			14.8	
4-Hydroxyphenyllactic acid*	mg/kg			6.0	
Manuka Honey PCR Profile					
Manuka Cq	Cq			29.79 #1	
3-in-1 Honey Analysis					
Dihydroxyacetone	mg/kg	-	-	1,160	
5-hydroxymethylfurfural (HMF)	mg/kg	-	-	24	
Methylglyoxal	mg/kg	-	-	716	

Analyst's Comments

#1 Report Signatory for this analysis is Ester Woollaston.

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.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
NPA (Non Peroxide Activity)*	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	4-5
3-in-1 Honey Analysis	Aqueous extraction, derivatisation. Analysis by UPLC-UV (dihydroxyacetone, 5-hydroxymethylfurfural, methylglyoxal).	1.0 - 10 mg/kg	4-5
MPI 5 Attributes Tests			

