R J Hill Laboratories Limited
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Certificate of Analysis

Client:		**Lab No:**	3607602 HGASP-1v1
Contact:		**Date Received:**	17-Jun-2024
		Date Reported:	17-Jul-2024
		Quote No:	81622
		Order No:	
		Client Reference:	
		Submitted By:	Meuanprae Techapitaktham

Sample Type: Honey

Sample Name:		24F12M05
Lab Number:		3607602.1
Glyphosate Analysis		
AMPA	mg/kg	< 0.010
Glufosinate	mg/kg	< 0.010
Glyphosate	mg/kg	< 0.010

Glyphosate Analysis Report: This report may represent a subset of the requested tests.

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 simple 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. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Glyphosate LC-MS/MS Analysis	Aqueous extraction, Analysis by LC-MS/MS. In-house. **RLP Official Test 8.47.1**.	0.010 mg/kg	1

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

Testing was completed on 18-Jun-2024. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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

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Sample Type: Honey

Sample Name:		24F12M05
Lab Number:		3607602.1
Manuka Honey Analysis		
Dihydroxyacetone (DHA)	mg/kg	471
5-Hydroxymethylfurfural (HMF)	mg/kg	12.8
Methylglyoxal (MGO)	mg/kg	200
Non Peroxide Activity (NPA)*	% Phenol Equivalent	8.5

Manuka Honey Analysis Report: This report may represent a subset of the requested tests.

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 simple 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. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request.
Unless otherwise indicated, analyses were performed at Hill Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
3-in-1 Honey method	Aqueous extraction, derivatisation. Analysis by uHPLC / UV-Vis (dihydroxyacetone, 5-hydroxymethylfurfural, methylglyoxal). In-house.	1.0 - 10 mg/kg	1
Non Peroxide Activity (NPA)*	NPA is calculated from methylglyoxal using an industry accepted correlation curve based on published data[1,2] for NPA and the primary active ingredient, methylglyoxal. [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

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