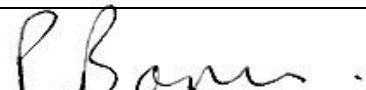


Laboratory Accreditation Programmes

Schedule to	
CERTIFICATE OF ACCREDITATION	
Hill Laboratories Hamilton	Client No. 590
Private Bag 3205, Waikato Mail Centre, Hamilton, 3240 28 Duke St, Frankton, Hamilton, 3204	
Telephone 0508 445-5522	www.hill-laboratories.com
Authorised Representative Ms Gillian Lees Quality Management Contractor	
Programme MPI Recognised Laboratory Programme	
Accreditation Number 1148	Initial Accreditation Date 18 January 2016
Conformance Standard NZS ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories Animal Products Notice – Specifications for Laboratories	
Testing Services Summary Meat & Poultry Industry Potable Water Microbiology Meat & Meat Product, Poultry & Honey Microbiology/Parasitology Potable Water - Physico-Chemical Parameters Animal Products - Chemical Residue Testing (NRCP & NCCP) Honey Seafood Products and Water Dairy Products - Microbiology Dairy Products - Composition (includes standards of identity, vitamins, minerals & other nutrients)	
Key Technical Personnel	
Mrs Priya Babu	1.1.1, 1.2, 1.3, 1.6.1, 1.8, 2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.1.6, 2.2.1, 2.2.2, 2.3, 2.4.1, 2.6, 2.9, 11.1.1, 11.1.2, 11.2.1, 11.2.3, 11.3.1, 11.3.3, 11.4.1, 11.4.2, 11.5.3, 11.5.4, 11.5.10, 11.5.11, 11.6.2, 11.6.7, 11.6.8, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.16, 31.17
Mr Mark Bryant	8.20, 32.9

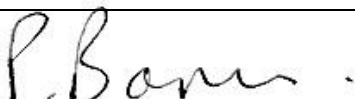
Authorised: General Manager		Issue 15 Date: 20/11/18	Page 1 of 9
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Mr Shaun Clay	8.40, 8.42, 10.05
Mr Graham Corban	5.01, 5.02, 5.03, 5.04, 5.10, 5.11, 5.12, 5.13, 5.14, 5.16, 5.17, 5.18, 5.19, 5.20, 5.22, 5.23, 5.24, 5.25, 5.26, 5.28, 5.29, 5.31, 5.32, 5.35, 5.36.1, 5.36.2, 5.36.3, 5.39, 5.40, 5.42, 5.43, 5.44, 5.45, 5.46
Ms April Flett	1.1.1, 1.2, 1.3, 1.8, 2.1.1, 2.1.6, 2.2.1, 2.4.1, 2.6, 11.1.1, 11.1.2, 11.2.1, 11.2.3, 11.3.1, 11.3.3, 11.4.1, 11.4.2, 11.5.3, 11.5.4, 11.5.10, 11.5.11, 11.6.2, 11.6.7, 11.6.8, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.16, 31.17
Mr Jon Harris	5.01, 5.02, 5.03, 5.04, 5.10, 5.11, 5.12, 5.13, 5.14, 5.16, 5.17, 5.18, 5.19, 5.20, 5.22, 5.23, 5.24, 5.25, 5.26, 5.28, 5.29, 5.31, 5.32, 5.42, 5.44, 5.45, 5.46
Miss Ara Heron	5.01, 5.02, 5.03, 5.04, 5.10, 5.11, 5.12, 5.13, 5.14, 5.16, 5.17, 5.18, 5.19, 5.20, 5.22, 5.23, 5.24, 5.25, 5.26, 5.28, 5.29, 5.31, 5.32, 5.35, 5.36.1, 5.36.2, 5.36.3, 5.39, 5.40, 5.42, 5.43, 5.44, 5.45, 5.46
Ms Helen McGowan	8.40, 8.42, 10.05
Dr Bruce Morris	8.40, 8.42, 10.05
Dr Eilidh Mowat	2.1.1, 2.2.1, 2.4.1, 2.6, 2.14, 10.04, 11.5.3, 11.5.4, 11.5.10, 11.5.11, 11.6.7, 11.6.8, 11.8.2, 11.8.5, 11.8.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.16, 31.17
Mrs Shobhna Ram	1.1.1, 1.2, 1.3, 1.6.1, 1.8, 2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.1.6, 2.2.1, 2.2.2, 2.3, 2.9, 11.1.1, 11.1.2, 11.2.1, 11.2.3, 11.3.1, 11.3.3, 11.4.1, 11.4.2, 11.5.3, 11.5.4, 11.5.10, 11.6.2, 11.6.7, 11.6.8, 11.8.1, 11.8.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.14, 31.16
Mrs Thiru Malar Sritharan	8.20, 32.9
Mr Kevin Wang	1.1.1, 1.2, 1.3, 1.6.1, 1.8, 2.1.1, 2.1.5, 2.1.6, 2.2.1, 2.3, 2.4.1, 2.6, 2.9, 10.04, 11.1.1, 11.1.2, 11.2.1, 11.2.3, 11.3.1, 11.3.3, 11.4.1, 11.4.2, 11.5.3, 11.5.4, 11.5.10, 11.5.11, 11.6.2, 11.6.7, 11.6.8, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.16, 31.17
Ms Ester Woollaston	1.1.1, 1.2, 2.1.1, 2.1.6, 2.2.1, 2.3, 2.4.1, 2.6, 2.9, 2.14, 10.04, 11.1.1, 11.1.2, 11.2.1, 11.2.3, 11.3.1, 11.3.3, 11.4.1, 11.4.2, 11.5.3, 11.5.4, 11.5.10, 11.5.11, 11.6.7, 11.6.8, 11.8.2, 11.8.5, 11.8.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.16, 31.17

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The MPI Recognised Laboratory Programme commenced in 2015, replacing prior regulatory recognition/approval schemes for testing laboratories under the Animal Products Act. This accreditation replaces previously held accreditations by this laboratory in the following IANZ Laboratory Accreditation Programmes called up under the Animal Products Act.

IANZ Laboratory Accreditation Programme	Accreditation Number	Date of Initial Accreditation
Dairy Testing Laboratory	762	10/04/2001
MPI Laboratory Approval Scheme	887	30/01/2004

Meat & Poultry Industry Potable Water Microbiology

In accordance with MIMM: Microbiological Methods for the Meat Industry (5th Edition)

1.1.1	Total coliforms / <i>Escherichia coli</i>	11.A1.1
	Total coliforms / <i>Escherichia coli</i>	11.A2 with 11.A2.6
1.2	Faecal coliforms	11.A2 MPN
1.3	Colony count (22 °C)	11.6
1.6.1	<i>Clostridium perfringens</i>	11.A3
1.8	<i>Escherichia coli</i>	11.A1.1

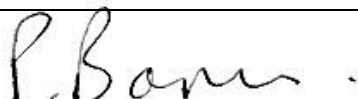
Meat & Meat Product, Poultry & Honey Microbiology/Parasitology

In accordance with MIMM: Microbiological Methods for the Meat Industry (5th Edition) and the following NZ Food Safety Authority (Animal Products) Schedule 1 Technical Procedures for the National Microbiological Database

- Porcine

2.1.1	Aerobic Plate Count	MIMM 6
	Aerobic Plate Count	TEMPO AC
2.1.2	Aerobic Plate Count	NMD 3.15.4 with sampling NMD 3
2.1.3	Aerobic Plate Count	NMD 3.15.5 with sampling NMD 3
2.1.5	Aerobic Plate Count	China OMAR 09/35
2.1.6	Aerobic Plate Count	APHA (5th Ed.) 8.72
	Aerobic Plate Count	APHA (5th Ed.) 8.73
	Aerobic Plate Count	APHA (5th Ed.) 8.82
2.2.1	<i>Escherichia coli</i>	MIMM 8.4
	<i>Escherichia coli</i> (count)	TEMPO EC
2.2.2	<i>Escherichia coli</i>	NMD 3.16 with sampling NMD 3

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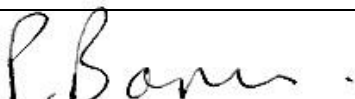
2.3	<i>Staphylococcus aureus</i>	MIMM 7.8
2.4.1	Salmonella	In-House (PCR)
2.6	<i>Listeria monocytogenes</i>	In-House (PCR)
2.9	Enterobacteriaceae	MIMM 8.2
2.14	American Foulbrood American Foulbrood	qPCR method In-house method

Potable Water - Physico-Chemical Parameters

In accordance with APHA Standards Methods for the Examination of Water and Wastewater (23rd Edition) unless otherwise stated.

5.01	Colour	2120 B
5.02	Conductivity	2510 B
5.03	pH (hydrogen ion concentration)	4500-H B
5.04	Turbidity	2130 B
5.10	Ammoniacal nitrogen (ammonium) Ammoniacal nitrogen (ammonium)	4500-NH ₃ F (modified, discrete analyser) 4500-NH ₃ H
5.11	Chloride Chloride	4500-Cl E (modified, discrete analyser) 4110 B
5.12	Fluoride Fluoride	4500-F C 4110 B
5.13	Nitrate Nitrate	4500-NO ₃ I (modified) 4110 B
5.14	Nitrite Nitrite	4500-NO ₃ I (modified) 4110 B
5.16	Sulphate	4110 B
5.17	Aluminium	3125 B
5.18	Arsenic	3125 B
5.19	Boron	3125 B
5.20	Cadmium	3125 B
5.22	Chromium	3125 B
5.23	Copper	3125 B
5.24	Cyanide Cyanide Cyanide	4500-CN C (modified) 4500-CN E (modified, discrete analyser) 4500-CN I (modified)

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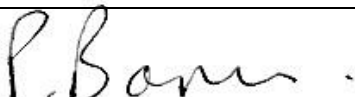
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	Cyanide	4500-CN N (modified)
5.25	Iron	3120 B
	Iron	3125 B
5.26	Lead	3125 B
5.28	Manganese	3125 B
5.29	Mercury	USEPA 245.7 (CVAF)
	Mercury	3125 B
5.31	Sodium	3120 B
	Sodium	3125 B
5.32	Selenium	3125 B
5.35	Polynuclear aromatic hydrocarbons (PAH)	EPA 8270 D; GC-MSD and GC-MS/MS
5.36.1	Acid herbicides	In-house by LC-MS/MS
	<ul style="list-style-type: none"> • 2,4,5-T • 2,4-D • 2,4-DB • Dichlorprop • Fenoprop • MCPA • Mecoprop • Pentachlorophenol • Pichloram • Triclopyr 	
5.36.2	Chlortoluron, diuron, thiabendazole	In-house by GC-MSD
5.36.3	Semi Volatile Organic Compounds (SVOC)	EPA 8270 D; GC-MSD (unless otherwise stated)
	<ul style="list-style-type: none"> • Alachlor • Aldicarb • Aldrin + dieldrin • Aldrin + dieldrin • Atrazine • Azinphos methyl • Benzo(a)pyrene • Benzo(a)pyrene • Bromacil • Carbofuran • Chlordane • Chlordane • Chlorpyriphos • Cyanazine • DDT + isomers • DDT + isomers 	<p>In-house by LC-MS/MS</p> <p>In-house by GC-MS/MS</p> <p>In-house by GC-MS/MS</p> <p>In-house by GC-MS/MS</p> <p>In-house by GC-MS/MS</p> <p>In-house by GC-MS/MS</p>

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• Dimethoate		
• Endrin		
• Endrin		In-house by GC-MS/MS
• Heptachlor + heptachlor epoxide		
• Heptachlor + heptachlor epoxide		In-house by GC-MS/MS
• Hexachlorobenzene		
• Hexachlorobenzene		In-house by GC-MS/MS
• Hexazinone		
• Isoproturon		In-house by LC-MS/MS
• Lindane		
• Lindane		In-house by GC-MS/MS
• Metachlor		
• Metalaxyl		
• Methoxychlor		
• Methoxychlor		In-house by GC-MS/MS
• Metribuzin		
• Molinate		
• Oryzalin		In-house by LC-MS/MS
• Oxadiazon		
• Pendimethalin		
• Pirimiphos methyl		
• Pyriproxifen		
• Primisulfuron-methyl		In-house by LC-MS/MS
• Procymidone		
• Propazine		In-house by LC-MS/MS
• Simazine		
• Terbacil		In-house by LC-MS/MS
• Terbutylazine		
• Trifluralin		
5.39	Volatile Organic Compounds (VOC)	In-house based on USEPA 8260, 5030, 5021
• Benzene		
• 1,2-dichloroethane		
• Tetrachloroethane and trichloroethane		
• Tetrachloroethene and trichloroethene		
• Vinyl chloride		
• Epichlorohydrin		In-house by SPME GC-MS
• 1,2-dibromo-3-chloropropane		
• 1,2-dibromoethane		
• 1,2-dichloropropane		
• 1,3-dichloropropene, cis		
• 1,3-dichloropropene, trans		
5.40	Trihalomethanes	In-house based on USEPA 8260, 5030, 5021
5.42	Total Organic Carbon (TOC)	5310 C (modified)

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P. Bam

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5.43	Acrylamide	In-house by LC-MS/MS
5.44	Antimony	ICP-MS
5.45	Bromate	USEPA 300.1
5.46	Nickel	ICP-MS

Animal Products - Chemical Residue Testing (NRCP & NCCP)

8.20	Heavy metals (dairy, meat, poultry, honey and propolis)	APHA 3030 Fa / 3125 B (ICP-MS)
	Heavy metals (in fish, fishmeal and shellfish)	APHA 3030 Fa / 3125 B (ICP-MS)
8.40	Paradichlorobenzene (PDB) (honey)	In-house by SPME GC-MS
8.42	Tutin (honey)	In-house by LC-MS/MS

Honey

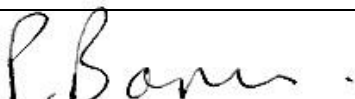
10.04	<i>Leptospermum scoparium</i> DNA	PCR as per MPI Technical Paper 2017/31
	<i>Leptospermum scoparium</i> DNA (modified)	PCR as per MPI Technical Paper 2017/31
10.05	Four Chemical Characterisation (NZ Manuka) (modified)	MPI Technical Paper No.: 2017/30
	• 2-Methoxyacetophenone (2-MAP)	
	• 2-Methoxybenzoic acid (2-MBA)	
	• 3-Phenyllactic acid (3-PA)	
	• 4-Hydroxyphenyllactic acid (4-HPA)	

Seafood Products and Water

In accordance with APHA Compendium of Methods for the Microbiological Examination of Foods (5th Edition) unless where otherwise stated.

11.1.1	Faecal coliforms	MIMM 11.A2
11.1.2	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A1.1
	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A2 with 11.A2.6
	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A2.6
11.2.1	Faecal coliforms	MIMM 11.A2
11.2.3	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A1.1
	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A2 with 11.A2.6
	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A2.6
11.3.1	Faecal coliforms	MIMM 11.A2

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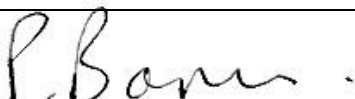
11.3.3	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A1.1
	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A2 with 11.A2.6
	Total coliforms / <i>Escherichia coli</i>	MIMM 11.A2.6
11.4.1	<i>Escherichia coli</i>	MIMM 11.A2.6
11.4.2	Total coliforms	MIMM 11.A2
11.5.3	Aerobic Plate Count	APHA Ch. 8.72
	Aerobic Plate Count	APHA Ch. 8.73
	Aerobic Plate Count	APHA Ch. 8.82
	Aerobic Plate Count	TEMPO AC
11.5.4	<i>Staphylococcus aureus</i>	APHA Ch. 39.6
	<i>Staphylococcus aureus</i>	TEMPO STA
11.5.10	<i>Escherichia coli</i>	APHA Ch. 9.93
	<i>Escherichia coli</i> (count)	TEMPO EC
11.5.11	Salmonella	In-house (PCR)
11.6.2	<i>Escherichia coli</i>	Enumeration of <i>E coli</i> in Molluscan Bivalve Shellfish, MPI method
11.6.7	Aerobic Plate Count	APHA Ch. 8.72
	Aerobic Plate Count	APHA Ch. 8.73
	Aerobic Plate Count	APHA Ch. 8.82
	Aerobic Plate Count	TEMPO AC
11.6.8	<i>Staphylococcus aureus</i>	TEMPO STA
11.8.1	<i>Escherichia coli</i>	Enumeration of <i>E coli</i> in Molluscan Bivalve Shellfish, MPI method
11.8.2	Salmonella	In-house (PCR)
11.8.5	<i>Listeria monocytogenes</i>	In-house (PCR)
	<i>Listeria monocytogenes</i>	ISO 11290- 2 Amendment 1 (2004)(modified)
11.8.6	Aerobic Plate Count	APHA Ch. 8.72
	Aerobic Plate Count	APHA Ch. 8.73
	Aerobic Plate Count	APHA Ch. 8.82
	Aerobic Plate Count	TEMPO AC

Dairy Products - Microbiology

(milk, infant formula power, butter, caseins, milk powders)

31.1	Aerobic Plate Count	TEMPO AC
31.2	<i>Bacillus cereus</i> (count)	TEMPO BC
31.6	Coliform (count)	TEMPO CC

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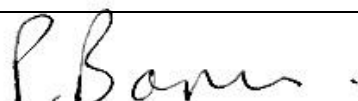
31.7	<i>Escherichia coli</i> (count)	TEMPO EC
31.8	Enterobacteriaceae (count)	TEMPO EB
31.10	<i>Listeria monocytogenes</i>	In-house
31.12	Salmonella (detection)	In-house (PCR)
31.14	<i>Staphylococcus aureus</i>	TEMPO STA
31.16	Yeast and Mould Yeast and Mould	TEMPO MPN APHA 5 th Edition – Chapter 21.5 (modified)
31.17	<i>Cronobacter sakazakii</i>	In-house

Dairy Products - Composition
 (includes standards of identity, vitamins, minerals & other nutrients)

(milk, cream, milk powders, butter, other fat products, cheese, casein and caseinates, whey products, cultured products, frozen confectionery, dairy foods, Ice cream, rennet, alamin)

32.9	Minerals: Sodium, Potassium	ICP-OES
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