

Laboratory Accreditation Programmes

Schedule to
CERTIFICATE OF ACCREDITATION

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| <p>Hill Laboratories Christchurch</p> <p>PO Box 16607, Hornby, Christchurch, 8441 101C Waterloo Road, Hornby, Christchurch, 8042</p> <p>Telephone 0508 445-5522</p> | <p>Client No. 6706</p> <p>www.hill-laboratories.com</p> |
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Authorised Representative
 Mrs Debra McLachlan
 SI Quality Assurance and Health and Safety Coordinator

Programme
 MPI Recognised Laboratory Programme

Accreditation Number 1138 **Initial Accreditation Date 2 December 2015**

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
 Seafood Products and Water
 Dairy (Raw Milk)
 Dairy Products - Microbiology

Key Technical Personnel

Ms Karyn Addison 5.01, 5.02, 5.03, 5.04

Mrs Lisa Bullock 1.1.1, 1.2, 1.3, 1.6.1, 1.8, 2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.2.1, 2.2.2, 2.3, 2.4.1, 2.4.2, 2.4.3, 2.6, 2.8, 2.9, 23.1, 23.1.1, 23.3, 23.4, 5.01, 5.02, 5.03, 5.04, 11.1.1, 11.1.2, 11.5.3, 11.5.4, 11.5.6, 11.5.10, 11.5.11, 11.5.12, 11.6.1, 11.6.2, 11.6.3, 11.6.4, 11.6.7, 11.6.8, 11.6.9, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 30.5, 30.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14

Mrs Marisa Fonseca

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Mrs Yu (Dominique) Gao

1.1.1, 1.2, 1.3, 1.6.1, 1.8, 2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.2.1, 2.2.2, 2.3, 2.4.1, 2.4.2, 2.4.3, 2.6, 2.8, 2.9, 23.1, 23.1.1, 23.3, 23.4, 11.1.1, 11.1.2, 11.5.3, 11.5.4, 11.5.6, 11.5.10, 11.5.11, 11.5.12, 11.6.1, 11.6.2, 11.6.3, 11.6.4, 11.6.7, 11.6.8, 11.6.9, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 30.5, 30.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.17

Mrs Renee Kellerhals

1.1.1, 1.2, 1.3, 1.6.1, 1.8, 11.1.1, 11.1.2

Miss Jill Martin

1.1.1, 1.2, 1.3,1.6.1, 1.8, 2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.2.1, 2.2.2, 2.3, 2.4.1, 2.4.2, 2.4.3, 2.6, 2.8, 2.9, 23.1, 23.1.1, 23.3, 23.4, 11.1.1, 11.1.2, 11.5.3, 11.5.4, 11.5.6, 11.5.10, 11.5.11, 11.5.12, 11.6.1, 11.6.2, 11.6.3, 11.6.4, 11.6.7, 11.6.8, 11.6.9, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 30.5, 30.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.17

Ms Barbara Müller

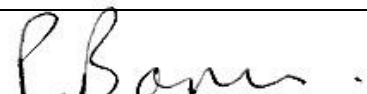
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Miss Xiaozheng (Nadia) Ni

5.01, 5.02, 5.03, 5.04

Mr Padam (Nishan) Subba

1.1.1, 1.2, 1.3, 1.6.1, 1.8, 2.1.1, 2.1.2, 2.1.3, 2.1.5, 2.2.1, 2.2.2, 2.3, 2.4.1, 2.4.2, 2.4.3, 2.6, 2.8, 2.9, 23.1, 23.1.1, 23.3, 23.4, 11.1.1, 11.1.2, 11.5.3, 11.5.4, 11.5.6, 11.5.10, 11.5.11, 11.5.12, 11.6.1, 11.6.2, 11.6.3, 11.6.4, 11.6.7, 11.6.8, 11.6.9, 11.8.1, 11.8.2, 11.8.5, 11.8.6, 30.5, 30.6, 31.1, 31.2, 31.6, 31.7, 31.8, 31.10, 31.12, 31.14, 31.17

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Hill Laboratories
 MPI Recognised Laboratory Programme
SCOPE OF ACCREDITATION

Accreditation Number 1138

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 |
|---|----------------------|-------------------------------|
| MPI Laboratory Approval Scheme | 894 | 04/02/2004 |

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 / 11.A2 |
| 1.2 | Faecal coliforms Faecal coliforms | 11.4 mFC MF 11.A2 MPN |
| 1.3 | Standard plate count (22 °C/72hr) | 11.6 |
| 1.6.1 | <i>Clostridium perfringens</i> | 11.A3 |
| 1.8 | <i>Escherichia coli</i> | 11.A1.1 |

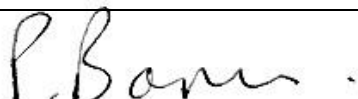
Meat & Meat Product, Poultry & Honey Microbiology/Parasitology

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

- Farmed Animals; Bovine, Ovine, Bobby calves
- Cervine; excluding feral deer
- Porcine

| | | |
|-------|--|--------------------------------|
| 2.1.1 | Aerobic Plate Count Aerobic Plate Count | MIMM 6 TEMPO AC |
| 2.1.2 | Aerobic Plate Count spread plate | NMD 3.15.4 with sampling NMD 3 |
| 2.1.3 | Aerobic Plate Count Petrifilm | NMD 3.15.5 with sampling NMD 3 |
| 2.1.5 | Aerobic Plate Count | China OMAR 09/35 / MIMM 6 |
| 2.2.1 | <i>Escherichia coli</i> <i>Escherichia coli</i> | MIMM 8.4 TEMPO EC |
| 2.2.2 | <i>Escherichia coli</i> , Petrifilm | NMD 3.16 with sampling NMD 3 |

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| | | |
|--------|---|--|
| 2.3 | <i>Staphylococcus aureus</i> | MIMM 7.8 |
| 2.4.1 | Salmonella Salmonella | MIMM 7.7 PCR (In-house) |
| 2.4.2 | Salmonella | ISO 6579-1:2017 |
| 2.4.3 | Salmonella | NMD 3.17 with sampling NMD 3 |
| 2.6 | <i>Listeria monocytogenes</i> | PCR (In-house) |
| 2.8 | <i>Clostridium perfringens</i> | MIMM 7.10 |
| 2.9 | Enterobacteriaceae | MIMM 8.2 |
| 23.1 | <i>Escherichia coli</i> O157:H7 | Biocontrol Assurance GDS <i>E. coli</i> O157:H7 screen test |
| 23.1.1 | <i>Escherichia coli</i> O157:H7 | Culture isolation using IMS |
| 23.3 | Top 7 Shiga Toxin-Producing <i>Escherichia coli</i> | BioControl Assurance GDS® MPX Top 7 screen test |
| 23.4 | Top 7 Shiga toxin producing <i>Escherichia coli</i> Molecular confirmation | NeoSEEK |

Potable Water - Physico-Chemical Parameters

In accordance with APHA Standards Methods for the Examination of Water and Wastewater (23rd Edition or on-line edition)

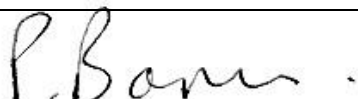
| | | |
|------|---------------------------------|-------------------|
| 5.01 | Colour | 2120 B |
| 5.02 | Conductivity | 2510 B |
| 5.03 | pH (hydrogen ion concentration) | 4500-H B |
| 5.04 | Turbidity | 2130 B (modified) |

Seafood Products and Water

In accordance with APHA Recommended Procedures for the Examination of Sea Water and Shellfish (4th Edition) unless otherwise stated.

| | | |
|--------|--|---------------------------|
| 11.1.1 | Faecal coliforms Faecal coliforms | MIMM 11.A2 MIMM 11.4 |
| 11.1.2 | Total coliforms Total coliforms (coliform bacteria) <i>Escherichia coli</i> | MIMM 11.A2 MIMM11.A1.1 |
| 11.5.3 | Standard Plate Count | APHA Comp. Ch. 8.72 |

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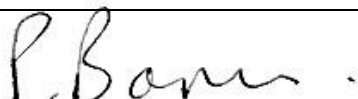
Accreditation Number 1138

| | | |
|---------|--|--|
| | Standard Plate Count Standard Plate Count | APHA Comp. Ch. 8.82 TEMPO AC |
| 11.5.4 | <i>Staphylococcus aureus</i> <i>Staphylococcus aureus</i> | APHA Comp. Ch.39.5 TEMPO STA |
| 11.5.6 | <i>Vibrio parahaemolyticus</i> | FDA BAM Ch. 9 (modified) |
| 11.5.10 | <i>Escherichia coli</i> <i>Escherichia coli</i> <i>Escherichia coli</i> <i>Escherichia coli</i> | APHA Comp. Ch. 9.91 (modified) APHA Comp. Ch. 9.92 FDA BAM Ch. 4 TEMPO EC |
| 11.5.11 | Salmonella | PCR (In-house) |
| 11.5.12 | <i>Vibrio cholerae</i> <i>Vibrio cholerae</i> | APHA Comp. Ch. 40 (modified) FDA BAM Ch. 9 (modified) |
| 11.6.1 | Faecal coliforms | APHA (4th Edition) Part III |
| 11.6.2 | <i>Escherichia coli</i> | Enumeration of <i>E coli</i> in Molluscan Bivalve Shellfish, MPI method |
| 11.6.3 | Salmonella | ISO 6579-1:2017 |
| 11.6.4 | <i>Vibrio parahaemolyticus</i> | FDA BAM Ch. 9 |
| 11.6.7 | Aerobic Plate Count Aerobic Plate Count Aerobic Plate Count | APHA Comp. Ch. 8.72 APHA Comp. Ch. 8.82 TEMPO AC |
| 11.6.8 | <i>Staphylococcus aureus</i> | TEMPO STA |
| 11.6.9 | <i>Vibrio cholerae</i> | FDA BAM Ch. 9 |
| 11.8.1 | <i>Escherichia coli</i> | Enumeration of <i>E coli</i> in Molluscan Bivalve Shellfish, MPI method |
| 11.8.2 | Salmonella Salmonella | ISO 6579-1:2017 PCR (In house) |
| 11.8.5 | <i>Listeria monocytogenes</i> <i>Listeria monocytogenes</i> | ISO 11290-2:1998 (modified) – with Amendment 1 2004 PCR (In house) |
| 11.8.6 | Aerobic plate count Aerobic plate count Aerobic plate count Aerobic plate count | APHA Comp. Ch. 6.523 APHA Comp. Ch. 8.72 APHA Comp. Ch. 8.82 TEMPO AC |

Dairy (Raw Milk)

| | | |
|------|---------------------|----------|
| 30.5 | Aerobic Plate Count | TEMPO AC |
|------|---------------------|----------|

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30.6 Total coliforms TEMPO CC

Dairy Products - Microbiology

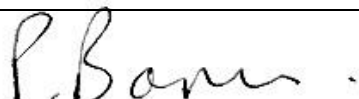
(milk, milk powders, butter, caseins, infant formula)

| | | |
|-------|--|----------------|
| 31.1 | Aerobic Plate Count | TEMPO AC |
| 31.2 | <i>Bacillus cereus</i> | TEMPO BC |
| 31.6 | Coliform (count) | TEMPO CC |
| 31.7 | <i>Escherichia coli</i> | TEMPO EC |
| 31.8 | Enterobacteriaceae | TEMPO EB |
| 31.10 | <i>Listeria monocytogenes</i> | PCR (In-house) |
| 31.12 | Salmonella (detection) | PCR (In-house) |
| 31.14 | <i>Staphylococcus aureus</i> | TEMPO STA |
| 31.17 | <i>Cronobacter</i> spp. including <i>Cronobacter sakazakii</i> | PCR (In-house) |

References:

| | |
|---------------------------|--|
| APHA | Standard Methods for the Examination of Water and Wastewaters (23 rd Edition) |
| APHA (4 th Ed) | Recommended Procedures for the Examination of Seawater and Shellfish |
| APHA Comp. | Compendium of Methods for the Microbiological Examination of Foods (5 th Edition) |
| FDA BAM | US Food & Drug Administration Bacteriological Analytical Manual (8 th Edition) |
| ISO | International Standards Organisation |
| MIMM | Meat Industry Microbiological Methods |

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