Issue date: 21 December 2018
Valid until: 14 August 2020

MS ISO/IEC 17025

NO: SAMM 250
(Issue 2, 21 December 2018 replacement of SAMM 250 dated 25 July 2017)

LABORATORY LOCATION:
(PERMANENT LABORATORY)

INDEPENDENT MONITORING CONSULTANTS (M) SDN BHD
29 JALAN PERAI JAYA 5
13700 BUTTERWORTH
PULAU PINANG, MALAYSIA

FIELD OF TESTING : **MICROBIOLOGY**

This laboratory has demonstrated its technical competence to operate in accordance with MS ISO/IEC 17025:2005 (ISO/IEC 17025:2005).

This laboratory's fulfillment of the requirements of ISO/IEC 17025 means the laboratory meets both the technical competence requirements and management system requirements that are necessary for it to consistently deliver technically valid test results and calibrations. The management system requirements in ISO/IEC 17025 are written in language relevant to laboratory operations and operate generally in accordance with the principles of ISO 9001 (see Joint ISO-ILAC-IAF Communiqué dated April 2017).

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	**Type of Test/ Properties Measured/ Range of Measurement**	**Standard Test Methods/ Equipment/Techniques**
Water (Industrial Water, Recreational Water, Waste Water, Potable Water, Treated Water)	Standard Plate Count	AS/NZS 4276.3.2 (2003)
	Coliforms	AS/NZS 4276.5 (2007) - Membrane Filtration
	Coliforms, Thermotolerant Coliforms & *Escherichia coli*	AS/NZS 4276.6 (2007) - Most Probable Number (MPN)
	Thermotolerant Coliforms & *Escherichia coli count*	AS/NZS 4276.7 (2007) - Membrane Filtration
	Pseudomonas spp.	AS 4276.11 (1995) - Membrane Filtration
	Pseudomonas aeruginosa	AS/NZS 4276.13 (2008) - Membrane Filtration AS 4276.12 (1995) - Most Probable Number (MPN)
	Total Coliform	APHA 9221B (2005)
	Faecal *Streptococci*	APHA 9230 C (2005) - Membrane Filtration
	Legionella count	AS/NZS 3896 (2008) - Spread Plate

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Water (Industrial Water, Recreational Water, Waste Water, Potable Water, Treated Water)	*Staphylococci* and Coagulase Positive *Staphylococci*	APHA 9213 B (2005) - Membrane Filtration
	Pseudomonas species	AS 4276.10 (1995) - Most Probable Number (MPN)
	Heterotrophic Plate Count	AS/NZS 4276.3.1 (2007) - Pour Plate
	Total Coliforms and *Escherichia coli*	In-house Method IMC 3.7 , Merck Microbiology Manual 12th Edition (2005) and AOAC 020902 (2009)- Membrane Filtration
	Vibrio cholerae	AS/NZS 4276.15 (1999) - Membrane Filtration
	Heterotrophic Plate Count/ Standard Plate Count	APHA 9215D (2005) - Membrane Filtration
Site Sampling for Water (Industrial Water, Recreational Water, Waste Water, Potable Water, Treated Water)	Microbial Contamination	In-house method IMC 2.14

SCOPE OF TESTING: MICROBIOLOGY

Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Food samples (Solid, Semisolids & liquids)	Yeast & Moulds	AS 5013.29:2009 - Spread Plate
	Coliforms	AS 5013.3:2009
	Escherichia coli	AS 5013.15:2006
	Staphylococci and Coagulase Positive Staphylococci	AS 5013.12.1:2004
	Salmonella Detection	CCFRA Microbiological Methods Manual Method 3.1.2:2007
	Pseudomonas aeruginosa	CCFRA Microbiological Methods Manual Method 2.5.2:2003 - Spread Plate
	Vibrio parahaemolyticus	AS 1766.2.9:1991
	Vibrio cholerae	Chapter 28, CMMEF,APHA:1992
	Pseudomonas species	AS 5013.21: 2004
	Standard Plate Count	AS 5013.1:2004
	Coliform Count by Pour Plate Method	AS 5013.4:2004
	Escherichia coli	AOAC Official Method 998.08 (Petrifilm Method)
	Coliform	AOAC Official Method 991.14 (Petrifilm Method)
	Aerobic Plate Count	AOAC Official Method 990.12
	Bacillus cereus	CCFRA Method 3.7.1 (2007) - Spread Plate
	Total Coliforms and *Escherichia coli*	In-house Method 30.8, Merck Microbiology Manual 12th Edition (2005) and AOAC 020902:2009

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Materials/ Products Tested	Type of Test/ Properties Measured/ Range of Measurement	Standard Test Methods/ Equipment/Techniques
Equipment, Utensil & Environment	Aerobic Plate Count Yeast and Moulds	Surface Contact Swab Method Chapter 3, CMMEF, APHA:2001
Environment & Indoor Air	Total Bacteria Count Yeast and Moulds	Indoor Air Quality Chapter 3, CMMEF, APHA:2001
Analysis of Swabs	- Total Bacteria Count - Total Coliforms and *Escherichia coli* -Yeast and Mould -*Staphylococci* and *Staphylococci* Coagulase Positive	Swab Method Chapter 3 CMMEF, APHA:2001 Swab Method In-house method IMC 5.4 based on AS 5013.12.1 (2004)

Note:
AS : Australian Standard
AS/NZS : Australian and New Zealand Standard
AOAC : Association of Official Analytical Chemists
CCFRA : Campden Chorleywood Food Research Association
CMMEF : Compendium of Method for the Microbiological Examination of Foods

Signatories:

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