



# CERTIFICATE OF ACCREDITATION

## The ANSI National Accreditation Board

Hereby attests that

**Raeyco Lab Equipment Systems Management Ltd.**  
**4288 Lozells Avenue, Suite 205**  
**Burnaby, BC V5A 0C7**  
**Canada**

Fulfills the requirements of

**ISO/IEC 17025:2017**

In the field of

**CALIBRATION**

This certificate is valid only when accompanied by a current scope of accreditation document.  
The current scope of accreditation can be verified at [www.anab.org](http://www.anab.org).

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 14 January 2024  
Certificate Number: AC-2834



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory  
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### Raeyco Lab Equipment Systems Management Ltd.

4288 Lozells Avenue, Suite 205  
Burnaby, BC V5A 0C7  
Bohee Kim 877-772-3926

### CALIBRATION

Valid to: **January 14, 2024**

Certificate Number: **AC-2834**

#### Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Piston-operated Volumetric Apparatus <sup>1,2</sup> (Pipettes)	(1 to 10) µL (10 to 100) µL (100 to 1 000) µL (1 000 to 10 000) µL	0.2% of reading + 0.018 µL 0.11 % of reading + 0.027 µL 0.058 % of reading + 0.082 µL 0.095 % of reading - 0.29 µL	Analytical Balance and Gravimetric Method per ISO 8655.
Balances and Scales <sup>1,2</sup> (0.001 mg resolution)	(1 to 10) mg (10 to 100) mg (100 to 1 000) mg (1 to 10) g (10 to 100) g	19 µg 0.013 % of reading + 17 µg 0.003 7 % of reading + 29 µg 0.000 03 % of reading + 63 µg 0.000 6 % of reading + 34 µg	ASTM E617/OIML R111 appropriate class weights and internal calibration procedure utilized in the calibration of the weighing system.
(0.1 mg resolution)	(100 to 1 000) g	0.000 1 % of reading + 0.5 mg	
(5 mg resolution)	(1 to 10) kg (10 to 25) kg	0.000 4 % of reading - 26 mg 4.3 % of reading - 0.43 kg	
Weights <sup>1</sup> (Mass Determination)	(1 to 10) mg (10 to 100) mg (100 to 1 000) mg (1 to 10) g (10 to 100) g (100 to 1 000) g (1 to 10) kg (10 to 25) kg	27 µg - 0.022 % of reading 0.019 % of reading + 23 µg 0.005 2 % of reading + 37 µg 0.000 5 % of reading + 84 µg 0.000 8 % of reading + 53 µg 0.001 6 % of reading + 0.66 mg 0.000 6 % of reading + 3.6 mg 6.1 % of reading - 0.61 kg	Electronic Balance and ASTM E617 / OIML R111 Class Weights

**Thermodynamic**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Temperature – Measure <sup>1,2</sup>	(-80 to 0) °C (0 to 105) °C (105 to 150) °C (150 to 200) °C (200 to 500) °C	0.018 °C 0.018 °C 0.024 % of reading - 0.007 °C 0.02 % of reading - 0.001 °C 0.096 °C - 0.038 % of reading	Digital Thermometer with PRT
Humidity – Measure/Source <sup>1,2</sup>	(10 to 90) %RH	1.4 %RH	Comparison to Master Thermohygrometer

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 ( $k=2$ ), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
2. Raeyco Lab Equipment Systems Management maintains ISO 17025 qualified resident technicians in Toronto, ON, Hamilton, ON, London, ON, Winnipeg, MB, and Fredericton, NB.
3. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-2834.



R. Douglas Leonard Jr., VP, PILR SBU