



TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 885

Legal Name of Accredited Laboratory: Centre des technologies du gaz naturel (Québec) Inc.

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SCC File Number:	151090
Provider:	BNQ-EL
Provider File Number:	55499-1
Accreditation Standard(s):	ISO/IEC 17025:2017
Fields of Testing:	Chemical/Physical Mechanical/Physical
Program Specialty Area:	Test Method Development and Evaluation and Non-routine Testing (TMDNRT)
Initial Accreditation:	2019-04-02
Most Recent Accreditation:	2020-12-18
Accreditation Valid to:	2023-04-02

Remarque: La présente portée d'accréditation existe également en français, sous la forme d'un document distinct.
Note: This scope of accreditation is also available in French as a separately issued document.

DEVELOPING AND VALIDATING TESTING PROTOCOLS, CONDUCTING TESTS IN THERMAL ENERGY SECTORS (NATURAL GAS, ELECTRICITY, RENEWABLES)



1.0 Functionality and Security Testing

- Testing for product certification
- Product evaluation (eg: components, equipment, tools, instruments)
- Common parameters analyzed:
 - Flow rates (gas, air, liquids)
 - Temperature (gas, air, liquids)
 - Pressure
 - Wattage
 - Amperage
 - Consumption of thermal energy
 - Consumption of electrical energy
 - Efficiency
 - Composition of combustion fumes (O₂, CO₂, CO)

2.0 Energy

- Energy efficiency
- Combustion testing
- Energy balance
- Performance testing
- Testing for product certification
- Common parameters analyzed:
 - Flow rates (gas, air, liquids)
 - Temperature (gas, air, liquids)
 - Pressure
 - Wattage
 - Amperage
 - Consumption of thermal energy
 - Consumption of electrical energy
 - Efficiency
 - Composition of combustion fumes (O₂, CO₂, CO)

3.0 Mechanical Testing

- Tooling
- Ensuring appropriateness of components and materials
- Common parameters analyzed:
 - Force couple
 - Force
 - Deformation
 - Integrity (seal)
 - Pressure

4.0 Comfort Testing

- **Characterization of thermal comfort**
- Common parameters analyzed:



- *Operating temperature*
- *Local comfort:*
 - *Air speed*
 - *Floor temperature*
 - *Temperature difference between head and ankle level*
 - *Radiant temperature*
- *Temperature variation over time*

5.0 Natural Gas Analysis

- **Gas chromatography** (*CH₄, C₂H₆, C₃H₈, i-C₄H₁₀, n-C₄H₁₀, i-C₅H₁₂, n-C₅H₁₂, n-C₆H₁₄, N₂, CO₂, including gross calorific value [GCF], density, methane number, Wobbe index*)

Notes:

ISO/IEC 17025:2017: General Requirements for the Competence of Testing and Calibration Laboratories

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

Elias Rafoul
Vice-President, Accreditation Services
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