

NIAGARA TUNNEL PROJECT, SIR ADAM BECK G. S., NIAGARA FALLS, ONTARIO QUALITY MANAGEMENT & QUALITY ASSURANCE TESTING



LOCATION

Niagara Falls, Ontario, Canada

CLIENT

Strabag Inc.

MANDATE PERIOD

September 2006 – 2013

PROJECT COST (CAD)

Construction: \$ 1.5 B

VALUE OF SERVICES PROVIDED (CAD)

\$ 4.5 M

SERVICES PROVIDED

- ▶ Quality Management
- ▶ Concrete Quality Assurance Testing / Inspection

NUMBER OF PARTICIPANTS – MAN-MONTHS

6 persons, 500 man-months

KEY PERSONNEL

Quality Manager

Keith Foster, P.Eng.

Laboratory Manager

Tayseer Hassanein

Project Description

This major hydroelectric power generation project consists of a 10.4 km long, 14.4 m diameter tunnel constructed approximately 140 m below the City of Niagara Falls using the world's largest hard rock boring machine. The tunnel will allow 500 cubic metres of water per second to be diverted from the Niagara River for electricity generation at the Sir Adam Beck hydroelectric generating station, increasing its annual capacity by 14 percent.

LVM-JEGEL carried out evaluation and testing of the dolomitic limestone bedrock excavated from the Diversion Intake Channel for potential use as construction aggregate, and developed and is assisting in the implementation of the Quality Management System of the Project. LVM-JEGEL is providing a Quality Manager and is also conducting on-site concrete materials Quality Assurance testing around the clock, using an on-site CSA-certified concrete testing laboratory with a full time laboratory manager and four full time certified laboratory and field technicians.