

Metro Testing Laboratories Ltd. (Metro), founded in 1987, is a British Columbia, Canada, employee-owned company, which has expanded to twelve regional offices: Abbotsford, Burnaby, Dawson Creek, Fort St. John, Kelowna, Salmon Arm, Squamish, Surrey, Sunshine Coast, Vancouver, Whistler and Red Deer (AB). The company is an association of professional engineers, technicians and inspectors dedicated to providing prompt accurate engineering, testing and inspection services.



Construction
Materials
Testing



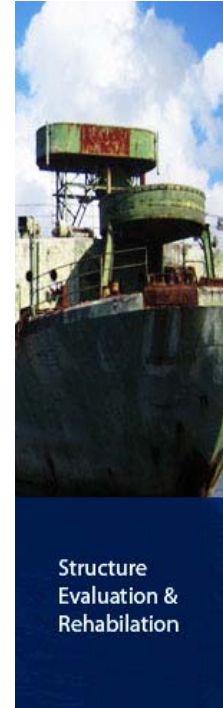
Materials
Engineering &
Consulting
Services



Geotechnical
Engineering &
Services



Environmental
Engineering &
Services



Structure
Evaluation &
Rehabilitation

Metro can provide inspection and testing services for all phases of construction and conducts the necessary in-house supplemental testing. We have a proven track record from our work with major local contractors, engineering and architectural firms, as well as municipal and provincial government agencies.

Along with a variety of testing equipment in the laboratory, Metro maintains a fleet of vehicles to transport personnel and equipment to conduct field work and on-site testing. We also have mobile laboratories which allow us to provide concrete, asphalt, aggregate and soils testing services for remote projects. Our staff has provided engineering, testing and inspection services throughout Canada, the United States, Australia and the Philippines.

Certified CSA Category II Plus Additional Tests
Canadian Council of Independent Laboratories (CCIL)
Testing and Inspection conform to CSA, ASTM and AASHTO Standards

CORPORATE PROFILE

**Construction
Materials Testing**

- Concrete, Soils and Asphalt
- Strength testing (resistance to compression, shear, bending, torsion, tension)
- Strain capacities (strain to rupture, stress-strain curves, elastic and non-linear behaviour, toughness, vibration characteristics)
- Durability parameters (temperature differentials, freeze-thaw cycling, abrasion, moisture exposure, chemical attack, fire)
- Workability (yield; viscosity; wetting properties; flow, slump, spread characteristics)
- Product Certification and Production Monitoring to list a few

**Materials
Engineering &
Consulting**

- Concrete, Shotcrete and Grout Mix Designs
- Concrete, Shotcrete and Grouting Process Optimisation
- Load Testing or Load Ratings of Structures and Structural Components
- Damage and Failure Analysis
- Determination of As-Built Conditions
- Pre-construction surveys
- Concrete and Asphalt Mix Designs
- Product Research and Development
- Shotcrete Crew Training and Certification
- Quality Management for Construction and Repair Projects

**Geotechnical
Engineering &
Services**

- Geotechnical land use planning and feasibility assessments
- Foundation design
- Pavement design using AASHTO and Benkelman beam survey methods
- Slope stability and embankment design
- Preload design
- MSE, Rock-stack
- Sierra-type and cast-in-place concrete wall design
- Seismic design, Dyke design, Coastal revetment design
- Sand and gravel mine feasibility and permitting, Vibration monitoring.

**Environmental
Engineering &
Services**

- Our Environmental services are centered on providing full support for our clients' requirements including
- Construction Environmental Management Plans (CEMP)
- 1-3 Environmental Site Assessments / Contaminate Site Evaluation
- Riparian Areas Regulation Assessments
- Fisheries Act and Water Act and Regulation Notifications and Authorization applications
- Local government Development Permit applications, including all environmental studies and reporting required
- Environmental Monitoring during construction and incident management

**Structure
Evaluation &
Rehabilitation**

Metro's materials specialists can not only specify what repairs are required for your concrete structures, but our construction group can also carry out those repairs.

- Removal of degraded concrete and rehabilitation
- Grit blasting / Hydro demolition
- Supply and installation of new rebar as required
- Installation of anchors
- Shotcreting of both vertical and overhead surfaces
- Forming and pouring of cast in place elements
- Epoxy injection of cracks
- Supply and installation of expansion joints including Jeene joints
- Grouting (including underwater grouting)