

Since 1966, industry has relied on Levelton Consultants Ltd.'s (formerly Levelton Engineering Ltd.) engineers, scientists and technicians to provide accurate, cost-effective solutions in areas such as failure analysis, corrosion evaluation, materials selection, quality assurance and welding engineering. These services have assisted clients in all aspects of evaluating material problems and resolving dilemmas in almost every industrial sector. The diverse talents of our materials engineering specialists, coupled with Levelton's multi-disciplinary engineering team, provide the ability to perform corrosion assessments, failure analysis and physical metallurgy. Beyond construction, infrastructure and marine sectors in Western Canada, we continue to participate on an international level.

Services Include:

- Specification Writing
- Corrosion/Condition Audits
- Insurance Investigations
- Litigation Support
- Routine and Non-Standard Mechanical Testing
- Welding Procedure, Welder Performance Qualifications

Our commitment to continued technical excellence is significant. Current Laboratory Endorsements include:

- BC Safety Authority Boiler and Pressure Vessel Testing Agency
- US Coast Guard Accepted Independent Laboratory
- Canadian Welding Bureau – Certified Welding Inspection Organization and Metallurgical Laboratory

Our abilities are strengthened by strategic in-house capabilities which include:

- Analytical Chemistry
- Corrosion Prevention
- Construction Materials
- Building Envelope
- Geotechnical Engineering



High-pressure gas transmission pipeline that failed due to stress corrosion cracking.



Stress corrosion cracking of carbon steel that preceded catastrophic failure. Magnification approximately 67 X.



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Additional services provided by Levelton's Materials Engineering and Corrosion Division:



Corrosion Product Wedging of Riveted Bridge Superstructure



Machining of Tensile Test Specimen



Baldwin BTE 120 Universal Test Machine
Richmond Laboratory

Materials Engineering Services

- Failure investigations
- Corrosion engineering
- Welding engineering
- Service life assessment
- Quality assurance
- Material selection
- Expert witness

Inspection Services

- CSA W178.1 certified welding inspection organization
- CWB Level I and III welding inspectors
- Structural steel inspection
- Pressure vessel and piping inspection
- Vendor surveillance
- Corrosion audits

Mechanical and Chemical Testing

- Tensile testing
- Hardness testing
- Impact testing
- Bend testing
- Hydrostatic pressure testing
- Corrosion product analysis
- Corrosion testing to ASTM and NACE standards

Field Services

- Strain gauging and stress analysis
- Positive material identification (PMI)
- Hardness testing
- In-situ metallography
- Fire damage assessment
- Failure analysis
- Load testing
- Calibrations services

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