

Former Tipple Mine Site Remediation and Reclamation Program

Brian Geddes, AMEC Earth & Environmental

AMEC was contracted by the owners of a former coking operation to conduct detailed delineation assessments and remedial option development and design for the site. The property is located adjacent to the Bow River in the environmentally sensitive Bow Valley corridor. AMEC completed a comprehensive characterization program for waste rock (distributed over much of the site), soil, river sediment and groundwater. These characterization programs and extensive consultations with AENV, led to the development of a reclamation and remediation strategy for the former Tipple Mine site that was comprised of the following basic elements:

- construction of a subsurface barrier between the river and the coal tar source areas designed to restrict the movement of coal tar constituents into the Bow River;
- segregation of coal tar materials encountered during barrier construction and transportation to off-site facilities for treatment and/or disposal; and
- placement of a soil cap over the entire property and establishment of a vegetative cover consistent with the site's designated use as a wildlife corridor.

The design of these reclamation and remediation works was completed in conjunction with a stakeholder consultation program intended to engage the local community during execution of the program. The subsurface barrier took the form of a soil bentonite slurry wall designed and constructed with the support of AMEC staff from several offices across North America. The remedial work was executed in 2007 and 2008 in close consultation with Alberta Environment, local municipal authorities and the local community.

Brian Geddes, P.Eng.

Brian Geddes is a Principal of AMEC Earth & Environmental and a professional engineer with more than 29 years experience in the assessment and management of environmental issues, particularly as they relate to contaminated lands and waste management. He has developed and implemented assessment and remediation programs for a wide range of facilities in the oil and gas, mining, utility and manufacturing sectors. These projects have involved characterizing site conditions, evaluating remedial options, designing remediation strategies and the development of waste management facilities. Mr. Geddes has also been actively involved in the assessment of health and ecological risks associated with contaminated lands and the conduct of liability assessments for property acquisition and divestment. He has worked throughout western and northern Canada and on various international assignments. Mr. Geddes is a member of AMEC Earth & Environmental's Technical Council, a select group of senior technical staff charged with leading the professional and technical development of the company.