

REHABILITATION OF ANTRIM SHALE QUARRY HALIFAX REGIONAL MUNICIPALITY, NS



In 1995, the Province of Nova Scotia initiated a solid waste management policy with an emphasis on diversion of wastes, such as Construction & Demolition wastes (C&D). Halifax C&D Recycling developed the concept of grinding various demolition wood wastes and drywall/plaster to create a material that would address the acid drainage, stop the formation of acid drainage and provide bulk to restore the site topography. The site could then be sprayed with compost and seeded.

OCL Group was retained to provide environmental management and environmental chemistry services during rehabilitation of a former Antrim Shale Quarry. Such abandoned quarries are common throughout Nova Scotia, with the associated environmental impact of acidic discharge to neighbouring streams and lakes (typical pH of 3 to 4). OCL prepared appropriate documentation for provincial government approval of the test process and provided on-going specialist support during the multi-year trial.

The project provided for total site rehabilitation of approximately 15 hectares of land, restoring the natural land topography, as well as addressing the acidic run-off. Drainage to Nuttall Brook (the local receiving system) has been improved from a pH of 4 to a pH of 6.8 to 7.3. Extensive EEM surveys have shown the Brook to have a restoration of small fish and other aquatic life, formerly not observed.

See **Presentations** for copy of article, "Healing an Open Sore" from **Canadian Rehabilitation** magazine, Spring 2005.

Client: Halifax C & D Recycling Ltd.