



Plate 1: Treatment in biopile

Development: Mixed Commercial/Residential

Remediation Contractor: Sanexen Inc.

### Site Overview

The site located at 117 Principale Street, in Chateauguay, with an overall surface area of 134 000 m<sup>2</sup>, had been used for the past 40 years by a facility that made cement. These activities contaminated the soil and groundwater with gasoline, diesel fuel and transformer oils. The new owner wanted to remediate the land to allow re-development for residential and commercial uses.



Plate 2: Bacterial Degradation

### Methodology

The environmental rehabilitation consisted of excavating the hydrocarbon-contaminated soil with concentrations exceeding criteria C set by the Quebec ministry of Environment (MENV).

A bio-treatment platform was established on site close to the excavation and the contaminated soil was conditioned and placed on it.



Plate 3: Removal of debris with a grizzly

During the excavation, approximately 300 000 L of contaminated water was pumped out and treated by a water treatment unit operated by Sanexen.

Clean soil that had to be removed in order to reach the contamination, as well as the treated soil complying with the usage criteria, was used to backfill the excavation. A volume of approximately 5 000 m<sup>3</sup> of soil was moved to the platform for bio-treatment. Additives required for biodegradation were added to the soil as it was conditioned and placed on the platform.

Monitoring of the bio-treatment was performed according to the MENV's requirements. Soil containing an average 5 900 mg/kg of petroleum hydrocarbons (C<sub>10</sub>-C<sub>50</sub>) was treated to the B-C level. The rehabilitation plan was approved by the MENV, in compliance with article 31.54 of the Environment Quality Act.

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