

INNOVATIVE DNAPL REMEDIATION CASE STUDY

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This paper will focus on the in-situ application of the Ivey-sol Surfactant Technology at an active refinery site near Montreal, Canada. The Ivey-sol Technology was applied to improve the mass recovery of chlorinated contaminants resulting from an historical DNAPL spill that impacted soil and groundwater. The client had tried several remediation technologies at significant cost, without success, before attempting site remediation with Ivey-sol. In brief, the Ivey-sol Surfactant Technology increased the rate of contaminant mass recovery by greater than 800% - 1200%, permitting the rapid and cost effective reclamation of soil and groundwater DNAPL contamination that was posing a significant risk to a near-by municipal groundwater aquifer.

The case study provides an overview of site conditions, sources and extents of contaminant plumes, Ivey-sol system designs, installation, detailed mass recovery data, and the application process design resulting in significant time and cost savings for the client.

A brief overview of the Ivey-sol Technology, along with several graphical Ivey-sol injection and contaminant recovery plots, with the associated mass recovery for individual chlorinated compounds, are also detailed therein.

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