Site-Specific Methanol Guideline Development Project Profile

Project Type

Spill Response and Phase 2 ESA

Project Value

>$80,000 (including initial spill response, Phase 2 ESA, guideline development, and groundwater monitoring)

Start and Completion Date

January 2009 to 2010

Client

International Energy Company

Market Sector

Upstream Oil and Gas

Challenge

- Spill occurred on an active compressor station during frozen ground conditions
- Surface water receptors
- No regulatory guideline for methanol

Solution and Highlights

- Conducted a Phase 2 ESA and developed site-specific soil and groundwater methanol guidelines
- Provided client with remediation alternatives (i.e. site-specific guidelines rather than remediation to non-detect levels)

The client requested Trace Associates Inc. (Trace) respond to assist operations personnel with initial management of a 4,000 litre spill of 100% methanol on an active compressor station with several buried and above-ground facilities in the spill area. Following the initial spill containment and partial removal of impacted soil/snow and surface material, the client requested Trace conduct a Phase 2 environmental site assessment (ESA). The objective of the assessment was to delineate concentrations of methanol in soil and groundwater. In addition, site-specific methanol soil and groundwater remediation guidelines were developed using the Alberta Environment (AENV) Tier 2 development framework.

Trace successfully delineated the methanol impacted soil during the Phase 2 ESA. Following the development of site-specific methanol guidelines, it was determined that only one soil sampling location was impacted by methanol at concentrations greater than the site-specific guideline. Groundwater sampling indicated that methanol concentrations were less than laboratory detection limits, which has subsequently been confirmed during additional sampling events.

Trace personnel conducted the assessment in a scientifically sound manner and, with the assistance of a risk consultant, developed a solution within the current regulatory framework. Trace provided the client with a valuable alternative to excavating and disposing of minimally impacted soil that does not incur a risk to the environment.

For more information on this project, contact Darrell Haight, B.Sc., P.Ag., President at 780.458.7787.

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