H3M ENVIRONMENTAL

Post Spill Remediation

Quick Facts

Client: Government Agency
Location: Jasper National Park
Province: Alberta
Division: Reclamation Remediation
Project Type: Post Spill Remediation
Inception Date: Q1 2023
Completion Date: Q2 2023

KEY SERVICES

- Soil sampling and delineation.
- On-site monitoring for excavation, erosion and sediment control.
- Coordination of soil removal and hydrovac.
- Analytical laboratory sample submission and data analysis.
- Requesting silica gel cleanup method re-analysis.

PROJECT OVERVIEW

H3M Environmental was contracted to complete a post-spill remediation for a release in the Rocky Mountains along the Alberta and British Columbia border. The spill involved approximately 1,000 litres of raw fish oil, along a highway pullout and adjacent embankment. A hydrovac was used for the initial clean-up of liquids; however, the embankment required further cleanup by H3M. Additionally, H3M performed the removal of pentane tanks and provided confirmatory sampling of the excavation.

PROJECT SCOPE

The H3M team completed a site reconnaissance to determine the site's status and collected a sample of the soil for landfill suitability analysis and disposal. Although biodegradable, these fatty-acid products were oil-based and presented hydrocarbon exceedances above Alberta Tier 1 Guidelines in the collected soil sample. A silica gel cleanup was completed to eliminate biogenic compounds from the quantitative extractable petroleum hydrocarbons results. This approach was taken on the premise that most non-hydrocarbons are polar and, as a result, are irreversibly retained by activated silica gel. This method confirmed that the released substance was, in fact, biogenic and that the samples met the acceptance criteria for landfill disposal.

Hydrovac removed the remaining organic oil within the paved highway pullout, and the soils on the embankment were excavated and hauled away for landfill disposal. As part of the reclamation process, erosion control measures were installed to reduce sediment migration and provide increased slope stability prior to revegetation. H3M provided quick and efficient services to support our client in addressing the released substance. The main objective was to further prevent the risk of human contact with wildlife due to the potential attraction from food oil.

Contact us to learn more

587.393.5180 • info@h3menviro.com