

## AES DRILLING FLUIDS

## CHALLENGES

- Drill a 12 ¼" pilot hole under a river
- One offset crossing was abandoned and a second drilled with no returns
- Efficiently deliver the crossing minimizing risk of losses

## SOLUTION

- EnerSEAL HDD, a robust mixed metal hydroxide system
- Leverage unique shear thinning properties to prevent losses and provide superior hole cleaning

## RESULTS

- Clean wellbore eliminated
  extra cleanout trips
- Crossing drilled 8 days ahead of the 28 day plan
- 71% less waste versus plan

# EnerSEAL HDD<sup>+</sup> secures river crossing near Fort St. John, British Columbia

### **Overview**

A customer was seeking to drill a trenchless river crossing near Fort St. John in British Columbia. A nearby crossing included a failed initial attempt with the second effort achieved with large volumes of losses.

EnerSEAL HDD was recommended for its highly thixotropic properties which minimize losses while providing superior hole cleaning. The 12 ¼" pilot hole was drilled ahead of plan with a dramatic reduction in waste volumes.

## Details

Prior to drilling, computer modeling was used to simulate hole cleaning efficiency. A detailed fluids program was prepared for proper system blending and maintenance. The EnerSEAL HDD system was mixed on-site to required properties and drilling commenced.

The hole was drilled with no hole cleaning issues, eliminating the need for added trips to remove residual cuttings. An optimized solids control setup was used to leverage the efficiency of the EnerSEAL HDD system, minimizing dilution requirements and waste volumes.

The planned 28 day crossing was delivered 8 days early. Total waste volume was 1480 bbl, 71% less than the expected 4375 bbl.

Optimized solids control equipment in combination with EnerSEAL HDD properties resulted in dramatic waste reduction (right)





#### www.aesfluids.com

info@aesfluids.com

### 888-556-4533

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