



## PROJECT HIGHLIGHT

### BUILDING A BARRIER: PROTECTING OFFSITE WELLS FROM CONTAMINANT MIGRATION

**CLIENT:** CONFIDENTIAL CLIENT

**LOCATION:** NEBRASKA

**TECHNOLOGY:** DIRECT PUSH TECHNOLOGY INJECTIONS

**CONTAMINANTS:** TRICHLOROETHYLENE, RDX

Managing contamination across a massive 17,000-acre site is no small feat, especially when multiple operable units - ranging from former burning grounds to a ballistic missile cleaning area - are involved. At the former Nebraska Ordinance Plant site in Nebraska, a confidential needed an effective way to prevent trichloroethylene (TCE) and RDX migration from contaminating offsite wells.

#### PROJECT OVERVIEW

Cascade was contracted to install an emulsified vegetable oil (EVO) permeable reactive barrier (PRB) using direct push technology (DPT) injections. With a clear objective to create a subsurface treatment zone to control contaminant transport and protect surrounding groundwater resources.

Executing the project, however, required overcoming some logistical and technical hurdles. The design required injection depths of up to 130 feet below ground surface (bgs), pushing standard DPT tooling to its limits. Large quantities of CAP18 amendment were delivered in 250-gallon totes to a remote site, necessitating offsite staging and careful onsite transport.

To tackle these challenges, Cascade deployed an 8040 Geoprobe rig, capable of reaching the required depths, and coordinated efficient material handling with two lull loaders - one stationed at the laydown area and another at the PRB installation location.

#### RESULTS

Despite the complexities of working in a remote environment with deep injection intervals, Cascade successfully executed the planned amendment distribution. The DPT rig achieved the target depths, and the amendment was emplaced as specified in the work plan. The client was pleased with Cascade's performance, recognizing our team's ability to execute precision injections under demanding conditions.



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