

PIPELINE

6" HDD FIELD TEST THRU ROCKY TERRAIN



Project Overview

After installing 1,800' of 6" pipe and discovering the terrain was so rough that it demolished the hot-wraps, cold-wraps, and shrink sleeves used to protect the welds, the large utility company had to pull-back the pipe and set to work evaluating various field-applied coatings. Under evaluation would be:

- 1) Cold applied tape wrapped with 2 layers of Syntho-Glass (SG)
- 2) Two-part epoxy ARO at 40 mils thick, designed for HDDs
- 3) The same two-part epoxy at 20 mils thick, wrapped with 4-layers of Scar-Guard SYS

After installing all 3 systems, the crew welded an additional stick of pipe behind the bore head to allow for visual inspection of the trial. When the systems had set, it was time for the crew to began the pull-back, thrusting the pipe through the impacted, rocky soil. Everyone waited anxiously to observe the results.

- 1) The visual inspection revealed that the rough terrain completely removed the cold applied tape.
- 2) Although the two-part epoxy was specifically designed for the abrasion and impact associated with directional drilling, the height of the weld took the brunt of the force chipping the epoxy down to bare steel and creating holidays.
- 3) The final system the included 4 layers of Scar-Guard SYS, protected the corrosion coating flawlessly! The company determined that Scar-Guard's composite-reinforced resin technology was the answer.

Validation

Several months later on a subsequent job, a 12" pipeline was wrapped and ready to go when one of the rollers suddenly broke, the pipe dropped to the ground and gouging several feet. The teams inspected the damage to find bare metal all around except where the newly specified Scar-Guard SYS had been installed. The enormous responsibility of making decisions that impact the safety of communities looms over decision makers in this industry every day. This incident provided the confidence that NRI's ARO would perform better than expected.