





THE Exposed Pipeline Remediation Experts



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EXISTING CONDITIONS

A 4-inch natural gas pipeline crosses Brush Run in Beaver County, Pennsylvania in a 40-foot wide right-of-way. The channel bed is composed of clay and rock, while the banks are composed of clay and sand. A 10-inch pipeline is located upstream and a 2-inch abandoned pipeline is located downstream of the 4-inch pipeline. The pipeline is located next to a 72-inch culvert, which bridges across the channel and leads to a drip station for a production well and valves. A riffle station was installed downstream. Headcutting in the stream has exposed the pipeline for 3 feet and the abandoned line for 11 feet.

SOLUTION

The site was dewatered using sandbag dams and pumps. Both banks and the streambed were graded, and a geotextile material was placed on top of the grade.

A Submar articulating concrete mat system was installed from high bank to high bank to armor the pipeline. All edges of the mat system were toed into anchor and flank trenches that were backfilled with existing material and rip rap. A subgrade rock grade control was installed downstream of the mat system to prevent headcutting. After final grading was performed, erosion control blanket and seed were placed on the disturbed areas.