CASE STUDY

Pipe Casing Injection for Corrosion Protection of Mechanically Shorted Cased Crossing

Zerust® OIL & GAS
WORLDWIDE CORROSION SOLUTIONS

Project Specifics

Installation Dates
May 12, 2020

Location
California, USA

Environmental Conditions
Partly cloudy, humid, and 70°F.

Pipe Casing Construction Details
Casing Diameter: 20”
Pipeline Diameter: 12”
Length: 197’
Mechanically Shorted

Zerust Product(s) Used
Zerion® FVS Corrosion Inhibitor Powder
Zerion® PGH-300 Corrosion Inhibitor Gel
Zerion® PGH-400 Corrosion Inhibitor Gel

Vessel Assessment

The casing crosses an interstate and main street. There is a slight decline going away from the aqueduct. The bottom casing was located at the end of the decline, and the top casing was located near the aqueduct. It should be noted that in the days prior to the injection, the end seals were refitted with a Viscotaq material, and a 5 psi pressure test was completed. These excavated ends were back filled and covered.

Conclusion & Recommendations

The vent pipe used for the injection had to be cut and threaded for the injection fittings. A threaded coupler was used to replace the cut section of the vent pipe to restore the “candy cane” like shape. The other vent pipe only needed a rubber coupler.

The injection went quite well. Every pail of PGH-400 and 80% of the PGH-300 was able to be added to the inhibitor slurry during the injection. A person stood watch over the opposite side of the casing to see if there was any discharge. None was reported. The slurry was injected into the low end of the slope.