

THERMO-WRAP™ CF

30" OD REPAIRS & REHABILITATION, MEXICO



Problem

An offshore oil platform in Mexico was experiencing severe pitting on a 30" OD petroleum line due to atmospheric conditions. Over a period of time, these elements caused a 50% wall loss along a 6'5" (2m) section.

Conditions

This line needed an immediate repair to prevent shutdown, and operated at 43 psi (2.9 bar) and 86°F (30°C).

Solution

First, surface preparation was completed on pipeline in accordance with SSPC-SP3 "Power Tool Cleaning" before the defects were filled using Syntho-Poxy™HC, a high compression strength liquid epoxy which acts as a load transfer medium. In order to lock out any future atmospheric conditions, Thermo-Poxy™ epoxy was applied over the entire repair area. This provides corrosion protection to the bare steel, as well as a primer for the composite layer of Thermo-Wrap™CF, a chemically resistant carbon fiber composite repair system which was developed for high temperature applications. The Thermo-WrapCF carbon fiber composite wrap was applied at the calculated number of layers over the required repair length, fully restoring the integrity of the pipe. To provide UV stabilization to the composite repair system, Syntho-Glass®UV was applied as the final layer.

Result

This repair was completed by certified technicians in only a couple of hours, and fully restored the line to its original design specifications.



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