

SYNTHO-GLASS[®] XT

16" TO 20" OD TEE



Problem

A 20" OD carbon steel pipe in a refinery in Indonesia is leaking at the 6 o'clock position and connected with a 16" OD tee, to make sealing this leak more difficult.

Conditions

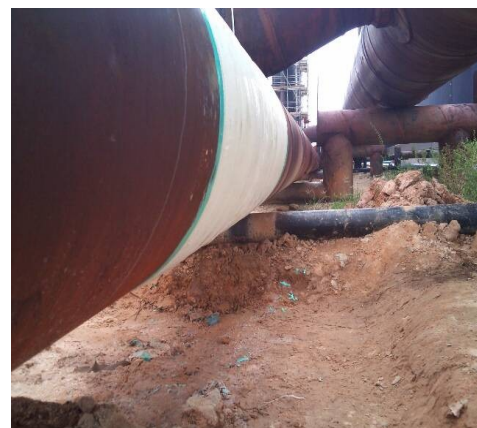
Through wall leaks by internal corrosion located in various areas.

Solution

In order to promote adhesion, the pipe was cleaned by removing rust, paint, and other foreign matter in accordance with Sa2.5, NACE 2, or near white metal. Syntho-Steel[™] was used as the initial leak stopping material, followed by a coating around the leaking area of Syntho-Poxy[™] HC to fill all pits and other anomalies, effectively transferring the hoop load to the high tensile strength composite. Syntho-SubSea[™] LV epoxy ensures a water tight seal over the repair area while also providing chemical resistance. Syntho-Glass[®] XT, a high strength, bi-directional fiberglass composite, repairs and reinforces both the internal and external corrosion damage effectively creating a new "pipe section" of reinforcement. This system enabled the difficult to repair geometry of pipe in quick and efficient manner while still allowing full encapsulation of the damage tee.

Result

The Syntho-Glass XT composite repair system eliminated the need to immediately replace the defective section of pipe. The repair was completed inexpensively in a matter of hours. Syntho-Glass XT fully restored the pipe's hoop and axial strength to enable full operation at the design pressure of the system.



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