

Corrosion Under Pipe Support Repair

Overview

A rapid turn around with no shut down repair was required on a gas plant 80NB line. At the pipe support corrosion had occurred and an immediate repair was required that would provide a permanent repair solution.

In this case the operator required a 5 year design with Technowrap over external corrosion including an existing welded patch plate repair .

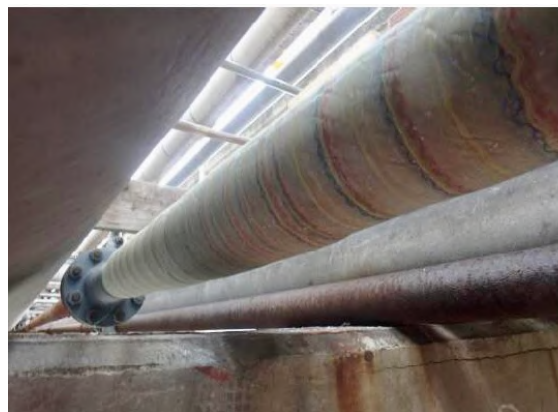
Scope

The repairs had the following specifications:

| | |
|----------------------------|---|
| Design Pressure | 4,140kPa |
| Outer Diameter | 80mm |
| Structure | Lean Oil Make-Up Line |
| Surface Preparation | Sa2.5 |
| Installation | No Hot Work |
| Class Approval | N/A |
| Design Temperature | 65°C |
| Design Life | 5 years |
| Loads | Crush load at pipe support considered in the design |
| Geometry | Straight |
| Corrosion Type | External Corrosion at pipe support |
| Defect Details | 400mm x 100mm Designed for full section loss over 600mm through wall |



Defect Location



Technowrap installed

Solution

- Heat tapes were used for rapid control of cure, reducing down time
- Site crew able to provide surface preparation and Technowrap repair
- Full section loss design, no steel allowance for loads of leak sealing over 600mm section
- Stops any further external corrosion

Benefits

- Low cost and rapid scope delivery
- No hot work.
- Full leak sealing, pressure containment and load carrying capacity
- Technowrap repairs are able to be monitored and inspected over the life of the repair, often the repair life can be extended based on desktop engineering



Final laminate being post cured with Heat Tapes