BELZONA SUPERWRAP II REPAIRS UNDERGROUND PIPELINE ADDING 15 YEARS SERVICE LIFE

ID: 8576

Industry: *Oil & Gas*
Application: *VPF-Valves, Pipes and Fittings*
Substrate: *Carbon Steel (Grade: API 5L X52)*
Products: ** Belzona 1111 (SuperMetal) ,*
* Belzona 1982 (SuperWrap II Resin) ,
* Belzona 9381 (SuperWrap II Reinforcement Sheet) ,
* Belzona 9382 (Release Film) ,

Customer Location: *Victoria, Australia*
Application Date: *July, 2020*

Problem

The underground pipeline (O/D = 355.6 mm) had developed a critical (Class 3) thin wall defect with only 2.7 mm wall thickness remaining. The critical defect area was 56 x 83 mm, but the total defect length ended up being 8.1 m in axial. The operating temperature was 40°C and the operating pressure was 70 bar.

Photograph Descriptions

* 1. Pipe being excavated ,
* 2. Wetting out the substrate with Belzona 1982 resin ,
* 3. Release film over the wrap waiting to cure ,
* 4. Completed 8.1 m long application ,

Application Situation

High Pressure, Hydrocarbon Pipeline

Application Method

The application was completed in accordance with Belzona Know-How System Leaflet VPF-11. After the surface preparation by grit blasting to achieve SA 2.5 with a 75 microns profile, Belzona 1111 was applied to the critical defect area to fill and smooth out before wrapping. Belzona SuperWrap II was then applied in accordance with the engineered design as a 9 wrap system with the total length of 540 mm, using Belzona 1982 resin to provide a further 15 years service life.

Belzona Facts

Belzona SuperWrap II was chosen because it is an engineered solution that can be designed as a pipe repair system being compliant to ISO 24817 and ASME PCC-2. The repair was designed by Belzona Engineer and the application was completed by applicators who are trained and validated to apply Belzona SuperWrap II.