

 **Project**



Renewal of critical fire water mains at Sasol refinery

Situation:

Sasol is an integrated energy and chemical company based in South Africa and was the first oil-from-gas company. In 2017, the Sasol plant in Secunda was confronted with leaking fire water mains resulting from corrosion pin holes in the steel host pipe. The fire water mains DN 250 and DN 400 are located underneath asphalt and the DN 250 pipe crosses underneath a highly frequented street whereas the DN 400 pipe runs underneath a parking lot. Traditional open trench methods are not feasible in this scenario. Trenchless methods such as relining with HDPE-100 requires very large excavation pits for the insertion of the pipe segments. The on-site contractor Rescue Rod proposed the use of the Primus Line® system convincing with small surgical excavation pits, long installation lengths and high operating pressures. In a first step, the trenchless specialist Rescue Rod CCTV inspected the steel host pipe and removed protruding incrustation mechanically by pulling scraper pigs and squeegees through the host pipe using a pulling winch. After the free inner diameter was available, the liner was inserted and returned to its full round shape with compressed air. The connectors with ANSI flanges were installed and a spool piece from HDPE was integrated. The life of this critical infrastructure was extended by more than 50 years and a significant cost and time saving was realized.

Technical Details:

Transported Medium:	Water
Host Pipe Diameter:	DN 250, DN 400
Host Pipe Material:	Steel
Operating pressure:	14 bar
Primus Line® System:	DN 250 PN 15, DN 400 PN 20
Total Length:	DN 250: 38 m, DN 400: 77 m

Client:

Sasol, Secunda, South Africa

Construction:

February 2017

