Superduplex pipes in 12 metre lenghts

Project report: The Miskar Field

BG Tunisia Limited is the largest gas production company in Tunisia, supplying over 50 % of domestic demand for gas from the Miskar field. This field was discovered in 1974 and is part of the Miskar concession.

The Miskar gas field is located in the Gulf of Gabes in the Amilcar Permit Zone operated by BG Tunisia Limited, about 122 km from the Tunisian coast. It lies below 62 metres of water and was opened up in Phase 1 by BG Tunisia Limited with the aid of a conventional production platform with offshore separation and dewatering. It was commissioned in 1996. Gas and condensate are pumped through a 125 kilometres long 24" pipeline to the Hannibal processing plant about 21 kilometres south of Sfax, Tunisia's second-largest city. A part of Phase 2, the Miskar platform was fitted with a compression unit in the years 2004/2005. To maintain the volume of production at a high level, 6 further bore-holes are planned for the Miskar field. These will be drilled in two further phases:
Phase 3: 3 bore holes (expected completion 2007)
Phase 4: 3 bore holes (expected completion 2009)

Further exploitation

Phase 3 of the development of the Miskar field will involve three underwater bore holes, to be connected to the existing Miskar "A" platform and all located around a single drilling point around 2.8 kilometres south of the platform itself.
They will be laid as offshoots but drilled alongside each other from the surface and connected to the Miskar "A" platform by two flowlines. One bore hole will be connected via its own flowline, while the other two will be linked together and piped to the Miskar "A" platform through a single flowline. From there, the gas will be routed on to the Hannibal production unit.

Optimum material: superduplex

Both flowlines have an external diameter of 10" (273 mm), and a wall thickness of 14.3 mm. As the gas from the Miskar field is acidic and high in non-volatile compounds, the metallurgists undertook a comprehensive testing programme before specifying UNS S32760 (superduplex) as a suitable material grade for the pipelines. At the beginning of 2006, BUTTING was awarded the contract from BG Tunisia Limited to produce and supply the pipes for these two pipelines. The order also includes approx. 620 metres of riser pipes (273 x 20.60 mm) and various 5D bends, also in superduplex. The total of approx. 6,600 metres of 10" diameter superduplex pipes will be supplied in 12 metre lengths.

Time pressure

A major challenge of this project lies in the very tight schedule for producing the pipes, as they then have to be coated in polypropylene. The riser pipes are coated with polychloroprene or TSA (thermal spray aluminium). At around 700 tons of Superduplex, this order in this material grade is one of the largest in Butting's history. The completed plant is scheduled for handover in July 2007.

Miskar field: extremely corrosive sour gas