Operator Identifies WWT FlexShoe as a Possible Solution to Casing Running Difficulties.

An operator drilling shallow directional wells through coal had experienced multiple wells with inefficient casing runs as a result of ledges and wellbore instability. These were not able to be mitigated through normal means, so the WWT FlexShoe with JetGuide was used to help improve efficiency when running production casing.

Well Basics:
- Wellbore instability and ledges in coal and other formations.
- Directional ‘S’ shape wells with approx. 35deg inclination and 5deg/100 DLS.
- 9 5/8in casing to approx. 700m
- 7-7/8in OH to 1200m

WWT FlexShoe Guides Casing to Bottom

The WWT FlexShoe, model FLX-550, was made up to a joint of casing and raised onto the rig floor using the automated pipe handling system. At surface, the WWT JetGuide feature was tested at 100gpm, demonstrating the jetting force of the high velocity nozzles.

The 5-1/2 inch casing was run through the drop section with no drag or tight spots. This same zone had caused substantial difficulties and down time on several previous nearby wells.

At 10m off bottom, some wellbore instability debris was encountered. The driller picked up off bottom, and the JetGuide helped to quickly start moving through the debris at a flow rate of 150gpm. After quickly moving down, on the next joint, the centerline nozzle converted, and circulation was increased to 200gpm to continue moving the fill/debris out of the hole, enabling casing to quickly reach target depth. Washing through 10m of fill took only a few minutes.