



WWT Non-Rotating Protectors

Casing Wear Mitigation Provided

Case History – ME – 12964

Solving Casing wear Challenge While Using Wired Drill Pipe

Executive Summary

A major operator in the middle East was drilling a J-shaped well with a shallow high dog-leg that resulted in high side force. Casing wear while drilling the 5-7/8" section through the 9-5/8" production casing was a major concern. Using wired drill pipe (DP) while drilling this section was an added consideration for finding a possible solution for casing wear mitigation. WWT Non-Rotating Protectors (NRPs) were selected as they are most effective and compatible with wired DP.

NRP Performance

216 x S4-550 model NRPs were installed on the wired DP and placed in the area of highest side forces. That area was protected throughout the entire drilling operation without the need for any repositioning trips. The maximum analyzed side force was over 4,700 lbs/joint. NRPs helped maintain casing integrity by covering this high side force area for more than 1 million revolutions. In addition, 20% torque reduction was analyzed at the section TD. All NRPs came back in very good condition.

Installation on Wired Drill Pipe

NRPs were installed offline on the pipe rack saving valuable rig time. NRPs are fully compatible with wired DP since they are clamped onto the DP body without interfering with the wired DP connection. Drilling was completed successfully and no adverse effects were reported on the signal quality due to the installation of the NRPs.

