



# WWT Non-Rotating Protectors

WWT Non-Rotating Protector  
Contributed to 36% Torque Reduction  
WWT SS3 NRPs  
Case History – Europe - 11452

## WWT NRPs Significantly Reduced Torque in ERD Well

### Executive Summary

Operator contacted WWT to perform a torque and drag analysis for 7,712 km ERD well to reduce the torque while drilling 8-1/2 in. x 9-1/4 in. section. 264 x SS3-578 NRPs were installed at a frequency of one per joint to cover the areas of highest side forces in the build section.

### NRP Performance

Surface torque showed a decreasing trend as soon as NRPs entered the hole. As NRPs gradually covered more of the area of concern, torque was further reduced until ultimately reaching TD.

Simulations expected torque with NRPs to be reduced by 25% at TD, and backmodeled data shows that actual torque was reduced overall by 36%.

