VectorZIEL Rotary Steerable System

VectorZIEL 800 RSS completes challenging S profile in second consecutive run in Mexico

Technology

NOV's VectorZIEL[™] rotary steerable system (RSS) features inclination, azimuth, and gamma ray capabilities within 5 ft of the bit along with an integrated pulser. The VectorZIEL RSS is available to independent directional drillers and operators worldwide.

Challenge

VectorZIEL 800 RSS was selected to drill its second consecutive well in the Tamaulipas field near Reynosa. The directional profile was a planned "S" profile with a 2°/30-m build section and a 1.2°/30-m drop section. Since Mexico is the new frontier for NOV's RSS portfolio, following up on the superior performance of the first VectorZIEL RSS run would be challenging.

Results

The VectorZIEL 800 RSS demonstrated exceptional directional control and reliability. The wellbore trajectory was drilled per plan, and the system produced higher ROP than the first well drilled by VectorZIEL 800 RSS in the field. The 12¼-in. section was completed in 199.8 circulating hours versus 250 circulating hours on the first well. The VectorZIEL 800 RSS allowed for precise directional control while reducing torque and drag as well as stuck-pipe risk.



VectorZIEL RSS steering unit after a 200-hr run







