OperatorExecutesFirstOffshoreRunofGeoTap®FormationPressureTesterService

GEOTAPTESTERENHANCESREROISUNDERSTANDINGFOR
DRILLING6"SLIMHOLESECTIONSNARVAFIELD

INDIA

For the first offshore run of the GeoTap® formation pressure tester service from Halliburton Sperry Drilling in the country of India, a major operator conducted formation testing in order to vet the unknown technology’s effectiveness. The operator faced the challenge of a 6-in. slim hole, which had a high probability of the bottomhole assembly (BHA) sticking, due to the high angle well with an inclination of more than 57°. There were additional issues regarding hole cleaning posed by the unusually long 8½-in. rat hole.

A critical well Design of Service (DOS) and control points were executed, along with implementation of the GeoTap tester slim hole best drilling practices (i.e. lessons learned from previous onshore experience) to ensure a flawless and successful well. To prevent complications, the 6-in. section was drilled and logged using a logging-while-drilling (LWD), rotary steerable system (RSS) quad combo with the GeoTap tester to obtain pressure test data. This testing was monitored in real time from a close-by town to ensure high quality data acquisition. Drillers pumped through PBL into the subsurface at a higher discharge rate to clean the 8½-in. rat hole section prior to the pressure tests.

This critical well was completed without any safety issues. The engineered drilling solution led to success attributable to Halliburton Sperry executing its GeoTap pressure tester designed for slim holes. Specifically, the LWD quad combo BHA was equipped with the GeoTap tester / Geo-Pilot® RSS and deployed to drill 6-in. hole sections in Ravva Field for improved reservoir insight.

A total of 20 pressure tests were run (the maximum number of tests in a single run in country to date). This enabled Halliburton to gain customer confidence and trust. Overall, the project was met with satisfaction, as the new technology proved its high performance and the job was delivered as planned.