Integrated Evaluation Services Obtain Critical Data to Save Deepwater Rig Time

Using proVISION Plus, EcoScope, and Stethoscope LWD services provided advanced reservoir evaluation in a deviated well offshore Africa.

**CHALLENGE**
Evaluate a deviated well in a complex deepwater reservoir.

**SOLUTION**
Use proVISION Plus magnetic resonance while drilling, EcoScope multifunction logging while drilling, and Stethoscope formation pressure while drilling to estimate lithology and fluid volumetrics.

**RESULTS**
Acquired real-time porosity and permeability information in a single run, optimizing the logging process and saving rig time.

**Acquire advanced data in a deepwater well**
An operator drilling a deviated trajectory offshore Africa required complex formation evaluation services to estimate lithology and fluid volumetrics while saving rig time in a deepwater reservoir. As drilling increases in such challenging and remote environments, more data are required to provide a complete petrophysical evaluation of the wellbore.

**Reduce time and cost with complete LWD assembly**
The proVISION Plus, EcoScope, and Stethoscope services were combined to provide a comprehensive picture of reservoir porosity, permeability, and fluid volumetrics.

**Deliver complete volumetric analysis in a single run**
The magnetic resonance (MR) service was used in conjunction with a suite of advanced formation evaluation and drilling and measurement tools to obtain the comprehensive petrophysical data needed to increase ROP, which was critical to reducing overall rig time and costs while drilling this deviated offshore well.

The sonicVISION sonic-while-drilling and seismicVISION seismic-while-drilling services transmitted data in real time to remotely monitor the drilling process, optimize pore pressure, select pressure tests, and acquire checkshot times. The ELANPlus advanced multimineral log analysis service integrated these LWD data, which were obtained before borehole damages could prevent the high-quality acquisition. Combined with real-time measurements providing lithology-independent porosity and continuous permeability, the data were used to accurately estimate the lithology and fluid volumetrics of the reservoir.

Integrated petrophysical evaluation while drilling with EcoScope and proVISION Plus services was used to accurately estimate lithology and fluid volumetrics.

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