Quality Data Acquired in North Sea Wells with Temperatures Exceeding 160 degC

Statoil improves measurement quality and saves approximately 6 h per run

CHALLENGE
Reduce risk and cost of acquiring formation evaluation data in high-temperature Kristin wells.

SOLUTION
Run EcoScope HT* multifunction LWD service.

RESULTS
- Acquired LWD data in about 6 h less time per run than traditional LWD triple combo, despite circulating temperatures above 160 degC [320 degF].
- Saved more than 1 h per run by minimizing rathole requirements.
- Improved measurement quality.
- Spent more than 450 h in severe conditions with no temperature-related failure.

The EcoScope HT LWD service saved Statoil about 6 h per run—compared with a traditional LWD triple combo—in the high-pressure, high-temperature (HPHT) 8½-in reservoir sections of wells in the North Sea’s Kristin field. Statoil also saved more than 1 h of drilling time per run because the simpler EcoScope HT BHA minimized rathole requirements by making measurements closer to the bit.

The EcoScope HT service, rated to 175 degC [350 degF] maximum operating temperature, spent more than 450 h in severe downhole conditions—maximum circulating temperatures above 160 degC [320 degF]—with no temperature-related failure. Standard LWD systems rated to 150 degC [300 degF] had proved unreliable in these HPHT conditions, resulting in incomplete data acquisition and extra trips to change out LWD tools.

Contact your local Schlumberger representative to learn more.