**Extreme-Pressure Lubricant Saves Operator 7–10 Days of Rig Time and £75,000–100,000 in Drilling Fluids**

**BARO-LUBE NS™ LUBRICANT LOWERS TORQUE BY 27 PERCENT TO STOP HIGH TORQUE, DRILLING RESUMES IN RESERVOIR**

**NORTH SEA, UNITED KINGDOM**

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**OVERVIEW**

While drilling the reservoir section of a UK North Sea well at a true vertical depth (TVD) of 12,607 ft [a measured depth (MD) of 22,910 ft], the operator encountered excessive torque (22,000 ft-lb), which halted drilling completely. High torque values had also been observed on offset wells, specifically in the reservoir.

**CHALLENGE**

Changing the bottomhole assembly (BHA) was not an option, and failure to reduce torque would mean conducting a costly sidetrack instead of reaching total depth in the existing wellbore.

**SOLUTION**

After testing various lubricants in the lab, the Baroid team determined that BARO-LUBE NS™ lubricant was the best option to reduce torque under these conditions. It is an extreme-pressure lubricant that lowers the steel/steel friction coefficient, and it carries the Gold environmental rating for UK operations.

**RESULT**

After a 5% by-volume concentration of BARO-LUBE NS lubricant was added to the system, the high torque rate decreased 27 percent to 16,000 ft-lb, allowing the rig to drill ahead to total depth.

The BARO-LUBE NS lubricant treatment eliminated the need for a sidetrack, saving 7–10 days of rig time and associated costs. Had a sidetrack been required, the cost of drilling fluids alone would have been £75,000–100,000.

As a result of this success, the operator ordered that BAROLUBE NS lubricant be stocked on every future well drilled in this field – even on operations where Baroid would not be the primary fluids provider.

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