

CASE STUDY

FIXEDBLADE Stabilizers offer enhanced stabilization across three consecutive hole sections in a vertical well in the North Sea Dutch sector

Use of FIXEDBLADE Stabilizers design and configuration help achieve and maintain smooth drilling conditions and steady performance throughout three successive hole sections.

CHALLENGE

- Avoid high torque fluctuation;
- Minimize levels of downhole vibrations;
- Eliminate possible backreaming;
- Enhance weight transfer to bit.

SOLUTION

- Exchange conventional spiral stabilizer with advanced FIXEDBLADE design stabilizer;
- Enhance BHA stability by adding an additional Fixedblade stabilizer.

RESULTS

- Minimum levels of downhole drilling vibrations throughout all 3 sections;
- Steady performance and smooth drill-string torque readings
- No visible wear on BHA components after POOH. Fit to re-run;
- No back reaming required.

FIXEDBLADE deployment

An operator in the Dutch sector of the North Sea opted to deploy ED-Project design FIXEDBLADE stabilizers in three consecutive hole sections; 12 ¼", 8 ½" and 6" respectively in conjunction with both rotary and RSS BHA. The main objectives were to improve BHA stabilization, reduce drill-string torque and vibrations and ensure constant energy transfer and overall performance.

In each of the three hole sections two Fixedblade stabilizers were utilized replacing the conventional string stabilizer and adding an extra stabilization point with a drill collar in between. Tool design features and proposed configuration contribute to improved stability and less friction and ensuing downhole vibrations.



All runs exhibited steady torque responses and trivial levels of vibration. There was also no increase or change in torque signatures when the stabilizers passed through change in formation with different densities. In addition, there was no wear noticed on the RSS, M/LWD or the stabilizer after POOH and all were deemed fit to re-use including the bits.