CASE STUDY

QUEST GWD USED IN COMPLEX SIDETRACK, ALLOWING OPERATOR TO HIT RECORD-BREAKING WELL WHILE SAVING $32,000 IN RIG TIME VERSUS LEGACY TECHNOLOGY

TECHNOLOGY

- Quest™ gyro-while-drilling (GWD) system
- SPEAR™ solid-state sensors

APPLICATION

- Wellbore placement
- Collision risk mitigation
- Remote operations

LOCATION

- Norwegian Continental Shelf

INDUSTRY CHALLENGE + OBJECTIVE

An operator was planning on drilling a sidetrack of an existing well on the Norwegian Continental Shelf. Due to the length and complexity of the 8½-in. section with the presence of magnetic interference from the parent and offset wells, the operator decided to run our Quest GWD system. The well was to be the longest ever drilled in the field at over 10 000 m, with a horizontal section of over 8000 m. Quest GWD was planned for 6531 m of the horizontal.

TECHNOLOGY + SERVICE SOLUTION

- We suggested implementing our Quest GWD system, powered by SPEAR solid-state sensors.
- The solid-state SPEAR sensors measure the earth's rotational rate precisely and accurately and can handle harsher downhole environments when compared to conventional GWD systems.
- The Quest GWD system enables remote operations, while improved survey cycle and smart downhole processing enhance survey collection.

RESULTS + VALUE DELIVERED

- If the operator had used inclination-only surveys in the section, it would have been impossible to hit the reservoir target after drilling the sidetrack.
- The third-party service company's collar had an "automatic pumps off" function, which allowed surveys to be taken during connection with no additional rig time necessary.
- The entire job was carried out fully remotely, eliminating the logistical cost of mobilization while providing a clear safety benefit.
- Against comparable legacy GWD runs, the solid-state Quest GWD system saved approximately 58 minutes. Based on the current spread rate, this was equal to $32,000 in rig time savings.
- The low power consumption of the Quest GWD system ensured full functionality after being in hole drilling the 6531-m section for over 11 days.

40 gyrodata YEARS OF INNOVATION