First North Sea Run of Hyperbolic Element Bit Reduces Interval Drill Time 55%, Reaches TD in One Run

Conventional bits required multiple runs in a nearby offset well offshore The Netherlands

The HyperBlade* hyperbolic diamond element bit drilled a challenging 8½-in section to TD in one 5-day run in a directional development well in The Netherlands.

Wintershall’s goal
Wintershall expected that the challenging interval would require multiple bit runs to drill through halite, anhydrite, polyhalite, dolomitic limestone, and claystone.

What was tried first
The closest offset well, drilled in 2019, required three 8½-in drillbit runs to drill the entire section over 11 days.

What Schlumberger recommended
The DBOS* drillbit optimization system for aiding operators in selecting optimal bits recommended the HyperBlade bit for its precision-molded diamond table with an armored cutting edge for greater durability and control. Its chip-breaking profile and hyperbolic shape improve cuttings removal.

What was achieved
Using the DBOS system to aid in bit selection, Wintershall anticipated that multiple bit runs would typically be required from shoe to total depth. The HyperBlade bit drilled from shoe to TD in 5 days in one run.

The offset well required multiple bit runs to drill the section in 11 days. In comparison, the HyperBlade bit took only 5 days and one run to drill to section TD.