

PREDATOR



Drill Bit Evolution for Europe and Sub-Saharan Africa (ESSA) Region

An apex predator has no predators of its own. It resides at the top of the food chain, fearlessly ruling its environment. Dominating the hard and abrasive formations of Europe and Sub-Saharan Africa, ReedHycalog's new Tektonic™ Predator™ series drill bits improve overall bottomhole assembly (BHA) and well performance just as apex predators maintain the health of their ecosystems.

Building upon the Tektonic drill bit philosophy, the Predator series merges new ideas, processes, and technology into the premium polycrystalline diamond compact (PDC) cutter drill bit for the North Sea and Sub-Saharan Africa markets.

Our class-leading ION+™ cutter technology, including efficient and robust grades and geometries, allows the Predator drill bits to prey on multiple formations over any given interval. This allows for more consistent performance, leading to longer and faster runs without sacrificing wellbore integrity or damaging BHA components.

Predator series drill bits are devouring records across ReedHycalog's North Sea geo-market.

Record-Setting Performances

Our Predator 8 ½" TKC73 drill bit with ION+ cutters and 3D Chainsaw™ arrangement set a new benchmark and met directional requirements on the recent Fenja field development campaign in the Haltenbanken area of the Norwegian Sea. The Melke reservoir formation is a challenging drilling environment, plagued with hard calcite cemented stingers and loose quartz and pebbles, historically resulting in very short runs at low ROP, with 50% of runs terminated prematurely.

Our customer challenged us to increase run length and ROP for the development drilling campaign, and the Predator bit came out victorious. The bit increased run length by 223% and ROP by 150% compared to previous offsets. All runs surpassed the 10 m/hr (32.8 ft/hr) ROP target set for the campaign. In addition, the bit drilled 868 m (2,848 ft) at 19.5 m/hr (64 ft/hr) on the G-3 H well, the longest run in the Fenja field.

A second customer selected our Predator 12 ¼" TKC66 bit to drill out the shoe track and ±18,000 ft (5,486 m) on an extended-reach well in Central Graben Quad 30, maintaining an angle to TD at competitive ROP. Encountering formations ranging from soft claystone, limestone stringers, abrasive sandstone, and then hard chalks at the base of the section, the Predator bit was up to the challenge. With six blades and superior 16mm ION+ Fortis 4DXC shaped cutters, the bit provided a versatile, durable cutting structure to drill the section, maximizing ROP through the wide range of formations and maintaining a sharp cutting structure to effectively drill the chalks.

Drilling 49% farther than the best offset, the bit was pulled out of hole in excellent condition, dull graded as 0-1-BT-S-X-IN-CT-TD. An above-average run ROP of 109 ft/hr (33.2 m/hr) was achieved, and our bit met the directional objectives, maintaining a 70° inclination to section TD.

To find out how our Predator series drill bits can achieve your drilling objectives in these complex environments, contact your local NOV representative or visit www.nov.com/drillbits.