

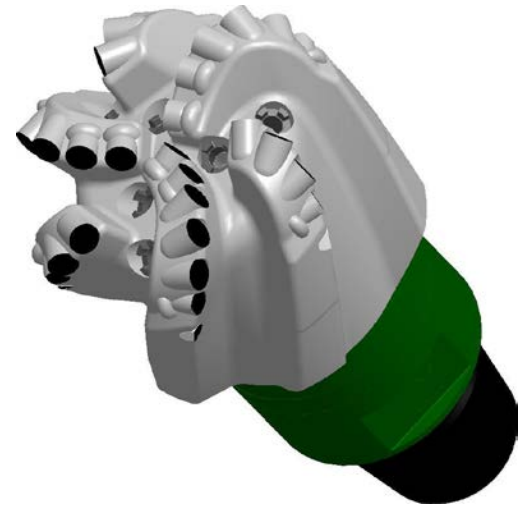
Voyager® Sets New ROP Benchmark in Bab Field

8-1/2" V619DGX 2" + 2", Abu Dhabi, U.A.E.

CHALLENGE: Improve ROP and total footage drilled through the Shilaif – Habshan 1 formations in the Bab Field while building angle and turning azimuth in the 8 1/2" section on a RSS directional application tool.

SOLUTION: To maximize downhole efficiency in this application, Varel designers using proprietary SPOT-DN™ software have included shock studs in the bit design to help control torque at the bit face. This cutting structure arrangement with matrix shock studs provides complete directional control without sacrificing ROP. Bits can achieve maximum ROP without concern for loss of directional control.

RESULTS: This Voyager bit drilled 3570 ft (1088 m) at a record ROP of 42.2 ft/hr (12.8 m/hr). The 8 1/2" V619DGX 2" + 2" bit achieved a 41.4% ROP improvement compared to the offsets average in this part of the section. The bit built angle from 1° to 87° while turning from 302.4° to 40.2° with a maximum dogleg of 7.4°. This was accomplished with an average power setting of 42% power on the RSS. The bit TD'ed the section with an excellent dull grade of 0-1-CT-S-X-NO-TD. The design of this Voyager bit contributed to the directional control efficiency and ROP record of this well.



Power Settings VS DLS Achieved

