

Voyager Drills Fastest 6-1/8" Lateral Section in Rawadain Field

6 - 1/8" V613PDGX, North Kuwait

CHALLENGE: Drill the lateral section of the Rawadain field through the Zubair sandstone interbedded with shale while increasing ROP and footage on an RSS directional tool.

SOLUTION: Varel's IMPACTS software package is utilized to help design all Voyager bits. Varel's SPOT-DN™ and DIG-IT™ software help the engineers design the cutting structure for maximum directional responsiveness and to control torque at the bit face based on the software analysis. The cutting structure arrangement provides complete directional control without sacrificing ROP resulting in new field records.

RESULTS: This Voyager 6 1/8" V613PDGX PDC bit drilled 2073 ft (631 m) at a record ROP of 49.6 ft/hr (15.1 m/hr) while holding angle in the lateral. The bit achieved a 23.4% ROP improvement compared to the last Varel offset average in this application. The dull grade for the bit is 1-1-WT-G-X-I-CT-TD as can be seen in the photos to the right. The 6 1/8" V613PDGX Voyager bit contributed to efficient drilling through excellent tracking ability in the lateral which resulted in a new ROP benchmark.



6 1/8" V613PDGX and Direct Offsets

