

YPF Drills Record-Length Extended-Reach Laterals in Fewer Days to Access Valuable Reservoir, Argentina

NeoSteer at-bit steerable systems set multiple depth and ROP records while drilling laterals up to 7,190-m MD, enabling access to million-barrel reservoir in Bandurria Sur Field

YPF S.A. drilled the first superlaterals pad in an unconventional campaign through Argentina's Vaca Muerta Formation. The BHAs included NeoSteer* at-bit steerable systems (ABSS), resulting in multiple drilling records for extended-reach laterals that are well past 3,887 m, which enabled access to a 1,000,000-bbl reserve otherwise left stranded.

Avoid stranding reserves and accelerate production

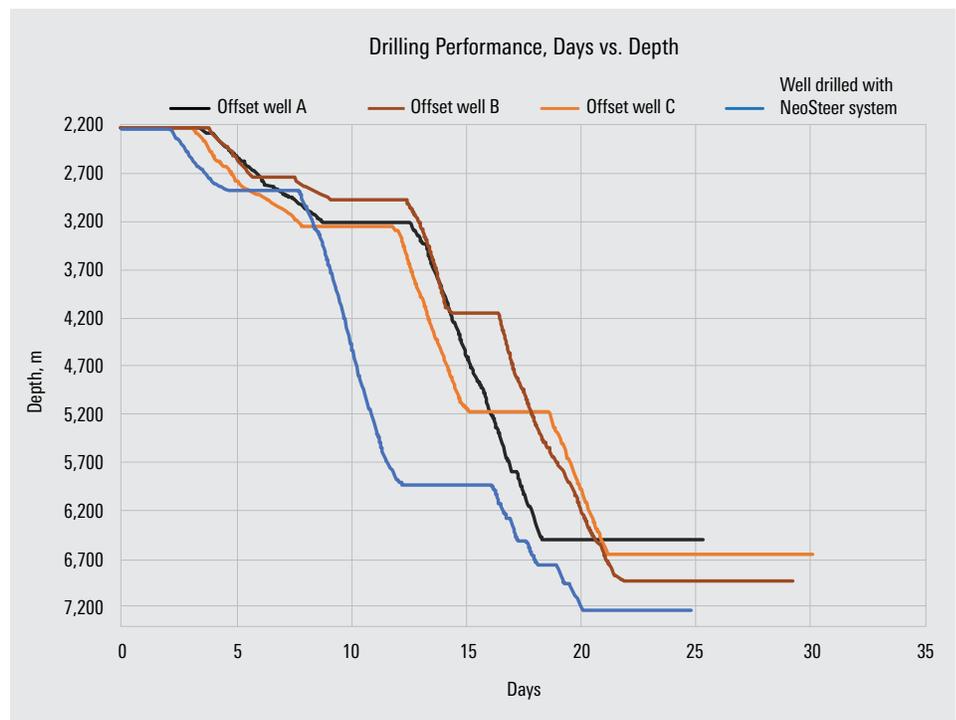
YPF's goal for the campaign comprised several strategies to access reserves estimated at 1,000,000 bbl, while reducing per barrel development costs which included lowering the cost per meter by drilling superlaterals designed as two-in-one horizontal wells—that is, extended-reach laterals equivalent to two typical horizontal wells by drain length. And that required advanced BHA components for improved directional and torque control. Additionally, YPF would adopt best practices and integrated workflows to minimize HSE risks and NPT. Implementing these strategies, YPF believed, would increase the production rate to accelerate cash flow.

Use enhanced at-bit steerable system

Schlumberger worked closely with YPF to develop the campaign planning strategies and recommended the NeoSteer CL* curve and lateral at-bit steerable system to accomplish the aggressive goal. Adding the configuration of the PowerDrive vorteX* powered rotary steerable system would enhance the downhole energy, enabling higher ROP and rpm rates. Combining the ABSS directional control and durability, YPF could drill the longer, smoother laterals desired.

Accessed reserves while setting drilling records for speed and depth

The advanced BHAs delivered access to a 1,000,000-bbl reserve, drilling not only the longest geosteered lateral in the basin to 6,866-m TD but also the longest lateral in Argentina at 7,190-m TD. Speed records were also set, with the NeoSteer ABSS reaching an ROP of 409 m/d, even while building the 6°/30-m curve in a day. In a subsequent well, the ABSS achieved 549-m/d ROP. Both wells were landed at TVD within a ± 3 -m TVD.



The NeoSteer ABSS delivered access to 1,000,000-bbl reservoir while setting ROP records of 409 and 549 m/d and depth records, including the longest well in Argentina at 7,190 m.