Magnus® Rotary Steerable System

Quadruples ROP and Achieves TD in Challenging Well

Objectives

- Finish drilling a well in a challenging basin. The operator had been unable to finish drilling the lateral in a well using a conventional motor assembly.

Our Approach

- The Weatherford team recommended the Magnus rotary steerable system (RSS) for its high-performance drilling and precise directional control capabilities.
- Without the need for a reamer run and with minimal reaming, the team tripped the 8.5-in. Magnus RSS bottomhole assembly (BHA) to bottom through a motor-drilled hole.
- The Magnus RSS BHA achieved a rate of penetration (ROP) four times that of the motor BHA and drilled a total of 3,069 ft (935.4 m).
- The RSS reached total depth (TD) in the lateral section without requiring any agitators, expensive antistick-slip tools, or torque-reduction tools in the BHA.
- After reaching TD, the team tripped the Magnus BHA out of the hole with minimal backreaming or overpull.

Value to Customer

- The Weatherford Magnus RSS enabled the operator to quadruple the ROP compared to a conventional motor assembly and finish drilling the lateral section in a 4.5-mile (7.2-km) well to TD.

LOCATION
Permian Basin, U.S.

WELL TYPE
Onshore, oil

AVERAGE ROP
64.4 ft/hr (19.6 m/hr)

MUD WEIGHT
13.1 lb/gal (1,570 kg/m^3)

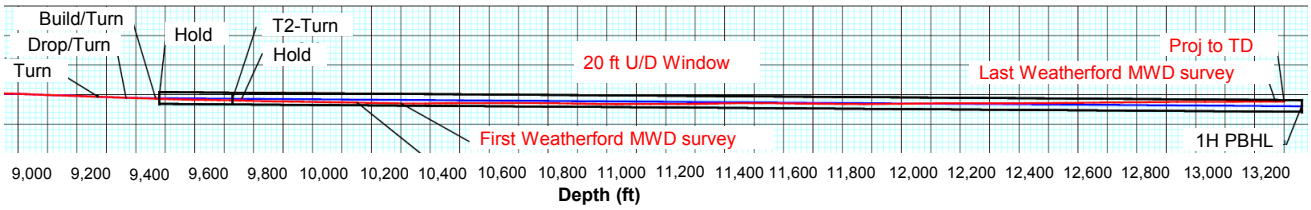
TOTAL CIRCULATING HOURS
85.3 hr

TOTAL DRILLING HOURS
47.7 hr

TOTAL FOOTAGE DRILLED
3,069 ft (935.4 m)

VERTICAL SECTION
13,301 ft (4,054.1 m)

PRODUCTS/SERVICES
- Drilling services
- Magnus RSS



The Magnus RSS picked up where a conventional motor assembly left off and finished drilling the lateral section to the operator's desired depth.

Weatherford®