HyperLine™ Power Section

Enables Field Drilling Record, Doubles ROP to ≥328 ft/hr, Saves US$ 70,000 in Rig Costs

Objectives

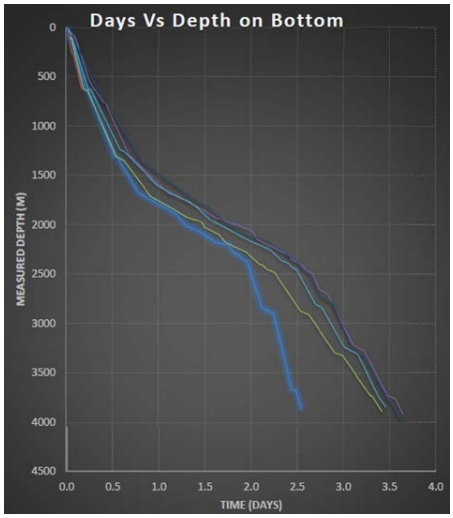
- Increase power-section performance and overall rate of penetration (ROP) in a 4,928-ft (1,502-m) lateral. The job is part of a development campaign in which the client plans multiple pads with 3 to 8 wells per pad. The average ROP is 164 to 197 ft/hr (50 to 60 m/hr).

Our Approach

- Working closely with the client, a Weatherford team conducted a thorough pre-job analysis of 16 previously drilled wells in the current campaign. The team suggested that the operator increase differential pressure while drilling by using the HyperLine 6796 power section. The tool has the highest differential-pressure rating available and enables the highest potential-bit-speed rating.
- The operator made up the power section along with a Weatherford MWD gamma ray sensor and inclination sonde into the drilling bottomhole assembly (BHA) and ran it downhole. Because of the unique capabilities of the HyperLine 6796 power section, the client was able to double differential pressure from 725 psi (5,000 kPa) to 1,450 psi (10,000 kPa). This enabled a corresponding double in ROP from 164 to 197 ft/hr (50 to 60 m/hr) to 328 to 394 ft/hr (100 to 120 m/hr).
- The operation was complete in 2.5 days, which represents a rig time savings of 1 day compared to the previous average.

Value to Client

- Through use of the Weatherford HyperLine 6796 power section, the operator doubled drilling ROP to 328 to 394 ft/hr (100 to 120 m/hr). The increased ROP saved 1 day in rig time, which is valued at approximately US$70,000. On a 7-well-per-pad basis, this equates to a rig time savings of US$420,000.
- The HyperLine 6796 power section enabled the operator to double differential pressure to 1,450 psi (10,000 kPa), which enabled the higher ROP.
- The operation set an area record for fastest drilled lateral.
- Based on the success of this project, the client plans to use HyperLine 6796 power section for the duration of the drilling campaign.



The graph above illustrates a days-versus-depth plot. The light-blue, leftmost track is a well drilled with the Weatherford HyperLine 6796 power section, which significantly reduced drilling time compared to previous wells.

LOCATION
Alberta, Canada

FORMATION
Montney shale

WELL TYPE
Horizontal gas

HOLE SIZE
6-1/4 in.

TEMPERATURE
176°F (80°C)

WELL DEPTH
12,625 ft (3,848 m)

LATERAL LENGTH
4,928 ft (1,502 m)

PRODUCTS/SERVICES
- HyperLine 6796 power section
- MWD gamma ray tool
- Inclination sonde

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 12565.00