Wellbore Integrity SOLUTIONS

Deployment of TrackMaster-OH Whipstock Recovers 8,300 ft of Horizontal Wellbore in the Permian Basin

WIS successfully set an open hole whipstock 8,350ft into a 6¾ inch lateral section, for a total depth of almost 18,000 ft.

CHALLENGE

A customer required an unplanned sidetrack in an extended reach open hole lateral hole section. Placing the whipstock as close to the fish as possible in the lateral section would eliminate a costly re-drill operation for the customer. A whipstock setting depth of approximately 18,000 ft was required. The anticipated torque and drag to convey and set the whipstock system to the desired depth was also considered to be a significant operational risk.

SOLUTION

WIS deployed its field-proven TrackMaster-OH hydraulic whipstock system with an expandable anchor for this application. A shear sub conveyance method was also used to ensure secure deployment to the desired depth and orientation. WIS personnel, with direct experience in open hole lateral whipstock applications, were also utilized to ensure operational success.

RESULTS

- The TrackMaster-OH system was successfully deployed, oriented, and set at 17,950 ft MD in accordance with the customer expectations
- This successful operation saved 98% of the existing lateral open hole section, totaling 8,350 ft.
- The customer saved an estimated five days of rig time by the avoidance of re-drilling this hole section.

Excellence is achieved in a challenging open hole sidetrack.

An unplanned sidetrack in an extended reach lateral wellbore was required. WIS deployed the TrackMaster-OH* whipstock system at short notice and set it in the 6¾ inch diameter open hole formation, 9,270 ft past the top of the curve, for a total measured depth of 17,950 ft. Although WIS has completed numerous whipstock jobs in lateral sections, this application presented new challenges with a high Dog Leg Severity (DLS), and extended lateral length.

TrackMaster-OH system deployment with a Shear Sub.

As part of the planning and risk assessment process, the TrackMaster-OH was conveyed using a shear sub. This configuration is ideally suited for tortuous, deviated, lateral wellbores where traditional mill-to-whip systems cannot be utilized. Using a shear sub provided the ability to push through tight spots without risking the premature shear of the whipstock. This feature offers an important advantage when performing open hole sidetracks in long laterals.

The expandable anchor, with its wide opening diameter range and reliable hydraulic activation system, was also selected to securely anchor the system.