Openhole Sidetracking with Whipstock Saves 1.5 Days in Unconventional Play

TrackMaster OH-C system reduces time for openhole sidetracking in Eagle Ford shale

**CHALLENGE**
Reduce the time for openhole sidetracking from pilot holes to land laterals in unconventional play.

**SOLUTION**
Run the TrackMaster OH-C* openhole whipstock and cementing system for single-trip whipstock setting and cementing.

**RESULT**
Saved more than 1.5 days of rig time compared with sidetrack operations in similar offset wells.

**Faster sidetracking options**
An operator drilling unconventional wells in the Eagle Ford shale wanted to reduce the time to sidetrack from the pilot hole to land the laterals. The operator was kicking off from a two-cement-plug design set with a tubing stinger. Once the cement plugs were set, a dedicated directional sidetracking run was made using a rock bit and positive displacement motor (PDM) with a 2.38° to 2.60° bend. When sidetracking was confirmed, a trip was made back to surface to pick up the directional assembly. During the course of the project, the operator performed nine openhole sidetracks using the traditional cement plug kickoff methodology. On average, the time for the top-four performing sidetracking operations with cement plugs was 8.3 days to land the curve.

**Elimination of cement plug uncertainty**
The TrackMaster OH-C whipstock system was selected for this operation because it eliminates the complications of traditional openhole sidetracking with a cement plug. The operation started by setting a hydraulically expandable anchor with triaxial slips to firmly set the whipstock depth and azimuthal orientation, allowing precise control of the kickoff depth and directional control. The all-mechanical anchor design eliminated the risk of damaged packer elements while running in hole, and the anchor design with an internal lock held the system in place after setting.

Once the whipstock anchor was set, the cementing operations began, allowing lower formation isolation during the whipstock run. Because the whipstock slide was the deflection device, mechanical strength of the cement was not used for the kickoff, eliminating the need for cement curing time and a dressing run prior to sidetracking operations.

**Average savings of 1.5 days**
A total of 19 runs were made with the TrackMaster OH-C system to compare its efficiency with a conventional cement plug method. Using the top eight performing openhole whipstock sidetracks, the average time to land the curve was 6.8 days, with the fastest well landing the curve in 5 days.

Comparison of the TrackMaster OH-C system with conventional cement plug sidetracking methods used in the Eagle Ford shale operation.