

Case Study

ESET™ Expandable Liner Enables Planned Completion in the Permian Basin

Challenge

An Operator in the Permian Basin was drilling a directional well with plans to complete the well with 5-1/2 in. production casing in the lateral section. The customer had set the 9-5/8 in. casing at the kickoff point and had to drill an 8-3/4 in. hole through the curve and then drill the 5,000 ft. lateral section. The well experienced severe losses and hole instability during drilling in the first approximately 500 feet of the build section. The Operator attempted mitigating the unstable hole section with three cement squeeze jobs but was not successful. A solution was needed that would cover the unstable hole section and allow the operator to continue drilling and complete the well with the planned production casing.



Solution and Results

After the unsuccessful attempts to cure the losses with cement, the Operator decided to sidetrack in the

openhole and install a 7-5/8 x 9-5/8 in. ESET® Openhole Liner through the trouble zone. The ESET expandable liner’s robust design enables the system to withstand harsh drilling conditions, which was required during this installation. The ESET liner was reamed down and rotated through the trouble zone to the setting depth, cemented and expanded.

By setting and expanding the 7-5/8 in. ESET liner, the loss zone is sealed off and the post-expanded 7-7/8 in. drift ID allows for the Operator to complete the well with the planned 5-1/2 in. production casing. The alternative solution would have been to run a conventional 7 or 7-5/8 in. liner which would have downsized the production casing to either 4-1/2 or 5 in.

The ESET Openhole Liner is the ultimate solution to mitigate risk and reduce NPT caused by unstable formations often encountered by Operators drilling in Permian Basin.

Summary	
Completion Date	July 2019
Location	Permian Basin
Base Casing:	9-5/8" 40.0 lb/ft.
Solution :	7-5/8" ESET OHL
Length:	555 ft.