



PERFORMANCE BULLETIN

9-1/2” OD PBL® Bypass System deployed by a major Middle East operator in a challenging gas well to cure total losses.

OVERVIEW

A major operating company in Pakistan activated a 9-1/2” PBL circulating sub twice in the drilling BHA to cure losses in one of their challenging gas wells.

APPLICATION

While drilling the 17” hole section, 30-50 units of Background Gas were observed at 2,378m. The well was flow- checked and found to be static. The decision was made to pull out of the hole. While pumping and backreaming out of the hole, total losses were observed at 1,750m, with no returns at the surface.

The operator pumped a total of 160 barrels of 140 ppb LCM material through the drillstring and still no returns were observed. The decision was made to activate the PBL. The PBL was then activated and an additional 60 barrels of high concentration LCM material with 240 ppb was displaced through the PBL’s circulating ports. Returns were observed at the surface with no further losses incurred. The drillstring was then displaced of all LCM material and the PBL was deactivated. The operation of pumping and backreaming out of the hole was resumed, and at 1,712m losses were once again observed. The PBL was activated for the 2nd cycle. 110 barrels of stop-loss pill were displaced to the formation. While pumping the stop-loss pill, returns were observed at the surface, and total losses were finally cured. The PBL was again successfully deactivated.

The operation to backream and pump out of the hole was resumed from 1,712m to the inside casing shoe at 1,292m with no further losses. The flowcheck performed inside the casing shoe showed that the well was static. Pulled out of the hole to surface with no further issues.

RESULTS

As the first attempt to cure the losses through the bit failed, having the PBL Bypass System as part of the drilling assembly (BHA) enabled total losses to be successfully cured by using high-concentration LCM through the PBL ports without the risk of plugging the BHA/Bit.

