

Background

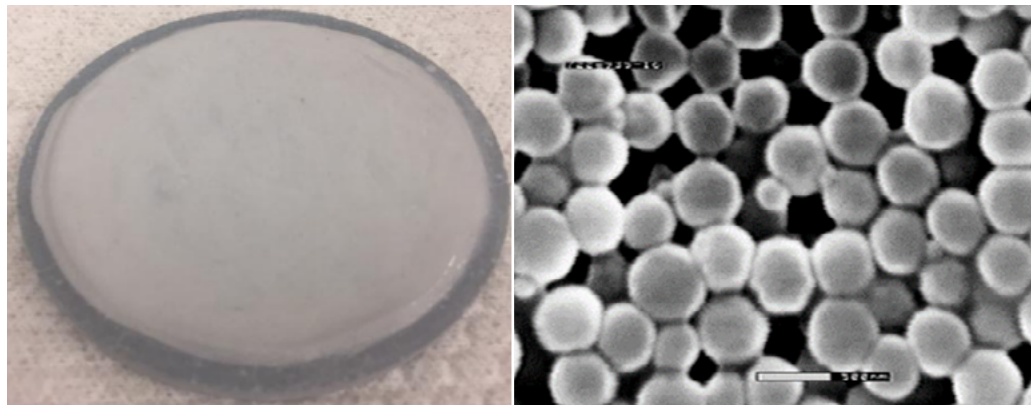
While drilling an interbedded formation consisting of sandstone, siltstone, and coal, an operator experienced tight hole, excessive backreaming, and increased circulation time during tripping that caused formation instability. In the next well, a stuck event of 13%-in casing caused approximately 800 ft [244 m] of the formation to be exposed in a 16-in rathole, increasing the exposure time and risks when drilling the next hole interval. M-I SWACO proposed adding POROSEAL Plus* latex-based fluid loss control sealant to the HydraGlyde* high-performance water-based drilling fluid system.

Technology

- POROSEAL Plus latex-based fluid loss control sealant
- HydraGlyde high-performance water-based drilling fluid system

POROSEAL Plus Sealant Guards Against Wellbore Instability Issues in Exposed Heterogeneous Formation

No instability issues were experienced in formation that was exposed 2.5 times longer than in previous problematic well



Thin filtercake created by minute POROSEAL Plus particles sealed fragile interbedded formations. No wellbore instability issues were encountered despite the fact that the well drilled with the added POROSEAL Plus sealant had a higher inclination and the formation was exposed by almost 2.5 times longer vs. the offset well. The 9%-in casing was run and cemented with no issues, isolating the problematic zone for drilling the next hole section.