Case History

Bridging Agents

BARACARB® Bridging Agent Helped Operator Prevent Stuck Pipe in Depleted Sands

Location: Gulf of Mexico

**OPERATOR’S CHALLENGE** – Drilling in depleted sands in the 12-1/4” production interval with an overbalance of 7,600 psi, the operator was concerned with differentially stuck pipe. This costly issue had occurred in a prior offset well, and the operator wanted to eliminate the risk of recurrence on future wells.

The maximum well angle was 16°, and the permeability value in the 270-ft thick sand was 100-200 mD.

**HALLIBURTON’S SOLUTION** – Based on permeability data provided by the operator and particle plugging apparatus (PPA) testing, Baroid was able to determine the best blend of sized BARACARB® bridging agent needed to bridge over the pore throats in the sands before a filter cake built up across the wellbore. This application helped minimize any tendency for differential sticking, without adverse effects on fluid rheology.

As a result, there was zero differential sticking on this well.

**ECONOMIC VALUE CREATED** – The operator realized substantial cost savings by avoiding stuck pipe while drilling in the production zone. As shown by offset well data in the field, a single stuck pipe incident can cause weeks of non-productive time. Dealing with such an incident costs millions of dollars in terms of rig time and the potential loss of the bottomhole assembly.

This well was the third fastest of the 22 wells drilled, which allowed the rig to be released earlier than anticipated.

The operator adopted the BARACARB bridging treatment as a best practice for future wells.