DELTAFLOW organophilic clay-free DIF

Optimize well construction operations without damaging the reservoir

Increasingly, operators want to maximize the efficiency of drilling and completions operations in geologically sensitive reservoirs, while minimizing the risk of formation damage. This drives an industry need for non-aqueous fluids (NAFs) that do not include organophilic clay. Such NAFs would maintain the beneficial properties of a clay-based system, including superior fluid stability, mobility, and rheology, but without the associated damage and potential gelation issues.

The DELTAFLOW™ organophilic clay-free (OCF) DIF from Baker Hughes offers an optimal solution. A new generation of oil-based drill-in fluid (DIF), the DELTAFLOW OCF DIF replaces organophilic clay with a new package of rheology modifiers and novel products to deliver a formulation that provides the necessary rheological and stability properties in sensitive formations.

The new formulation is designed to minimize skin factor, avoid potential gelation issues, and increase the tolerance for contamination while providing low equivalent circulating density (ECD).

These properties provide several benefits to drilling and completions operations in challenging wells.

Minimize formation damage risks

DELTAFLOW OCF is formulated with reservoir-friendly products that help minimize filtrate and solids invasion into the formation.

Withstand contaminants for reduced mud treatment

The presence of cement, seawater, and drill solids highly impacts organophilic clays, increasing the drilling fluid's plastic viscosity, yield point, and gelling tendency.

DELTAFLOW OCF's formulation is more tolerant to these contaminants, thus improving the rheology profile of oil-based muds without creating sag and gelation issues. The formulation also reduces the time and expense associated with mud treatment at the surface.

Minimize losses and well instabilities

DELTAFLOW OCF reduces the narrow window between ECD (equivalent circulating density) and ESD (equivalent static density) in sensitive formations. The novel formulation reduces pressure spikes in the annular space to minimize the risk of lost circulation and wellbore stability events.

Applications

- Wells that increase the risk of fluid gelation due to extended static periods
- Wells with narrow operating windows
- Wells with a high risk of contaminating the drilling fluid
- Drilling operations with a risk of fluid losses when using high ECD fluids
- Offshore operations with a limited surface footprint for mud treatment equipment

Benefits

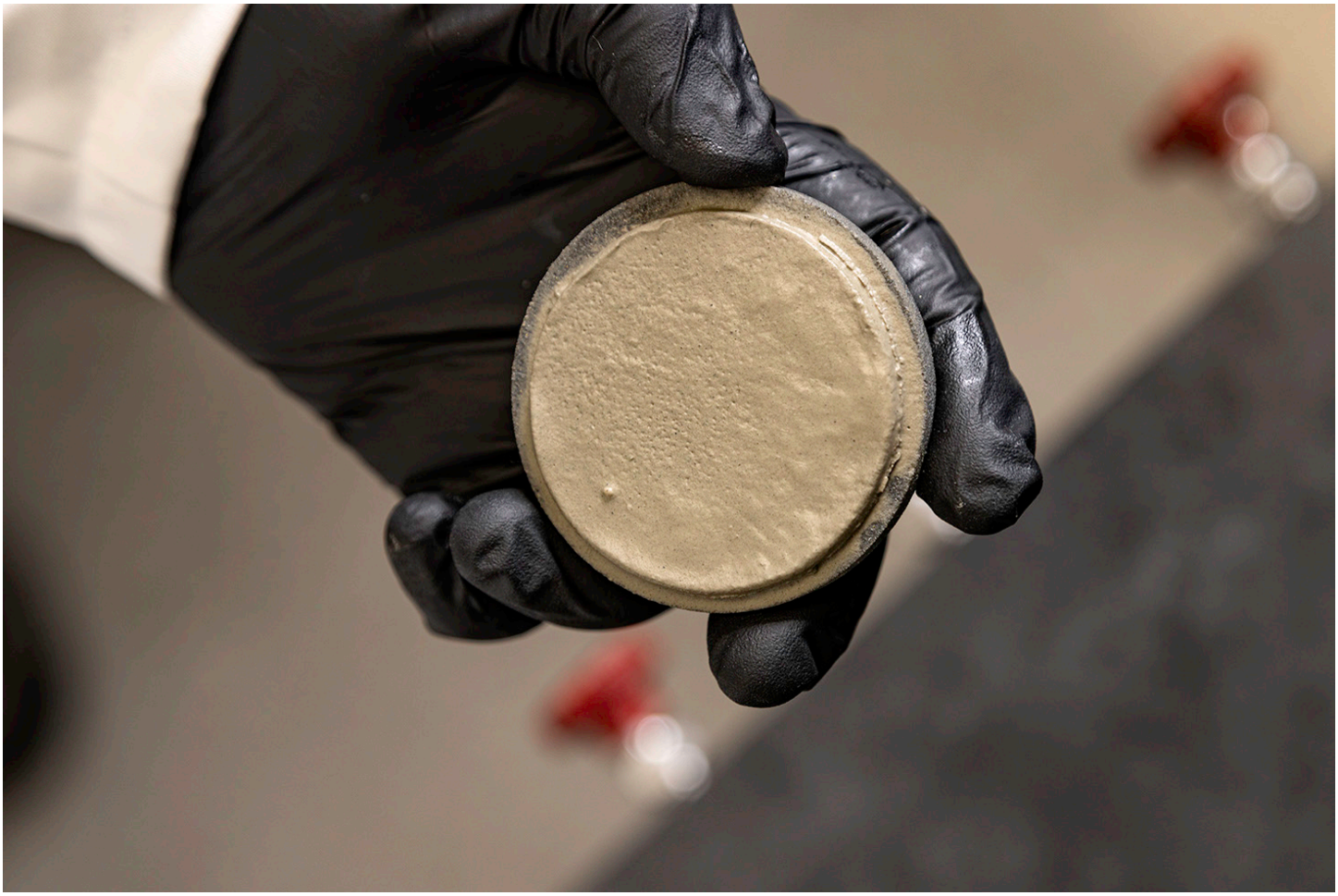
- Minimizes formation damage for improved production and greater operational efficiency
- Improves the mud's rheology profile without sag, gelation, or fluid contamination issues
- Reduces the narrow pressure windows in sensitive formations to improve wellbore stability
- Provides formulation flexibility to ensure reliable performance in formations with elevated bottomhole temperatures that require enhanced thermal stability

Support sustainable drilling

DELTAFLOW OCF supports the Baker Hughes Drilling and Completion Fluids commitment to developing solutions that promote sustainable well construction practices. This new DIF is the latest technology innovation to continue the Baker Hughes goal of delivering high-performance solutions that contribute to responsible resource development and enhanced wellbore integrity with minimal environmental impact, in line with the industry's transition to a more sustainable future.

Ultimately, DELTAFLOW OCF's superior rheological properties, coupled with its minimal risk of formation and environmental damage, allow operators to drill and complete wells that produce at higher rates and operate more efficiently.

Contact your Baker Hughes representative to discuss how the DELTAFLOW OCF DIF can help you optimize your drilling and completions in challenging reservoirs while avoiding the formation damage risks common to clay fluids.



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