ShaleCem™ Cement with Latex 3000™ Additive
Meeting the challenges of the Haynesville Shale

High temperature, high pressure (HTHP) cementing of horizontal wellbores in the Haynesville presents special challenges for designing cement slurries. One aspect to consider here is that the cement must retain the ability to circulate at high bottomhole temperatures without failing to bond and gain strength shortly after placement. While conventional cement blends will work in the Haynesville Shale, there is a better way.

Halliburton's ShaleCem™ cement system addresses the specific demands of the Haynesville Shale; and when the newest latex additive advancement from Halliburton, Latex 3000™ cement additive, is included in the blend, ShaleCem cement has high-temperature suspension properties (up to 400° F or 204.4° C), corrosion resistance and excellent fluid loss control. Latex 3000 additive also helps to overcome difficulty in mixing the blend properly, difficulties commonly found in conventional latex-based cement systems.

ShaleCem cement with Latex 3000 additive has improved rheological characteristics over conventional cements and yields lower equivalent circulating densities (ECD). As shown in the graph below, the ECD of a conventional 16.4 lb/gal cement can increase to almost 20 lb/gal between a 5-in. casing and a 6 3/4-in. hole, while the 16.4 lb/gal Latex 3000 additive only increases to just above 18.5 lb/gal. This is critical in a narrow pore-pressure/fracture-gradient window with high displacement pressures such as those found in the Haynesville Shale.

The mechanical properties of ShaleCem cement yield better bonding characteristics than conventional slurries and this has been validated through improved bond logs. Additionally, Latex 3000 additive enables ShaleCem cement to be fully salt compatible up to saturation.

![Graph showing Bottomhole ECD vs. Job Placement Time](image)

*Computer simulation showing the ECD difference between conventional cement and Latex 3000 additive*

For more information on any of the details featured here, please call your local Halliburton representative or e-mail us at cementing@halliburton.com

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