PRODUCT BULLETIN

PreFIX™

SEEPAGE CONTROL BLEND

NEWPARK DRILLING FLUIDS
www.newparkdf.com

PRODUCT DESCRIPTION

PreFIX™ seepage control blend is a composition of micronized soft and compressible cellulosic fibers and cellulosic and elastomeric granules for use in mechanical wellbore stabilization (MWS) applications. PreFIX blend minimizes seepage loss of whole mud and lessens the occurrence of differentially stuck pipe. PreFIX is designed to provide low-permeability plugging and sealing of pores and small fractures in the wellbore.

BENEFITS

With a combination of material types and sizes, PreFIX blend:

- Blocks propagation of induced fractures through frac-tip isolation
- Effectively controls seepage loss of whole mud and potentially detrimental filtrate invasion
- Minimizes the transmission of fluid pressure into permeable, sub-pressured formations
- Is non-toxic and compatible in all types of drilling fluids
- Is stable at temperatures up to 280°F (138°C)

APPLICATION

Mechanical Wellbore Stabilization
The primary purpose of PreFIX is the avoidance or minimization of induced fractures and their propagation. The product can be applied as a whole-system treatment or in sweeps of appropriate volume, concentration and frequency. PreFIX is an effective fine-particle supplement when used in conjunction with ProppFIX™ bridging blend (propagation resistance) or with FracFIX™ remedial blend and X-Prima™ fluid squeeze (loss mitigation) applications.

Control of Seepage Loss
Seepage frequently occurs while drilling sand, gravel and other unconsolidated or permeable formations. PreFIX permeability sealant may be used discretely or in combination with suitable conventional lost circulation material (LCM) in sweeps or spots, and at volumes and concentrations dictated by severity or persistence of seepage.

Prevention of Differentially Stuck Pipe
Sealing and isolation of permeable low-pressured or depleted zones from higher pressures in the wellbore are essential in preventing differentially stuck pipe. Based on hole size and rate of penetration (ROP), consecutive and frequent 10-15 barrel sweeps containing 20-30 lbs/bbl of PreFIX should be pumped while drilling through an underbalanced formation. Sweep volume and frequency should be increased in reaction to increasing levels of torque and drag, which frequently precede a stuck pipe event.

TREATMENT RECOMMENDATION

PreFIX seepage control blend can be used in whole-system treatment or in sweeps or spots. PreFIX concentrations depend on the method of application:

- Whole system application: 6-8 lb/bbl
- Sweep applications: 15-25 lb/bbl or higher, to recommended tolerances of downhole tools
- Spot applications: 20-40 lb/bbl or higher, depending on tolerances of downhole tools

At higher concentrations, fluid viscosity and rheological properties may increase, especially in water-based fluids. Significant amounts of the product will be discharged over shaker screens finer than 30 mesh. If a concentration of PreFIX is to be carried in a water-based fluid for several days, it should be accompanied by regular additions of a fit-for-purpose biocide.

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PARTICLE SIZE DISTRIBUTION (SIEVE ANALYSIS)

Retained on 30 Mesh	9%
Retained on 40 Mesh	10%
Retained on 60 Mesh	18%
Retained on 100 Mesh	15%
Retained on 200 Mesh	18%
Retained on 325 Mesh	23%
Passing 325 Mesh	7%

TYPICAL PHYSICAL PROPERTIES

Appearance..... Blended, tan and black particles

Acid Solubility (15% HCl).....52-55%

Specific Gravity.....1.4-1.6

Water Solubility .....Minimal

HANDLING AND STORAGE

Minimize exposure to dust. Store in a cool, dry, well-ventilated area away from sources of ignition and strong oxidizing agents. Use appropriate hygiene, clothing and personal protective equipment suitable for work being performed. Review the SDS thoroughly before using this product.

PACKAGING

PreFIX seepage control blend is available in 50-pound (22.7 kilogram) multi-walled bags.

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