

Losseal Natural Fracture

Lost circulation control treatment

APPLICATIONS

- Losses while drilling
- Losses greater than 40 bbl/h
- Natural fractures
- Dolomite and carbonate zones
- Spacers ahead of cement slurries

BENEFITS

- Reduces flat drilling time
- Extends well life
- Reduces volume of lost mud and slurry, saving cost

FEATURES

- High-differential-pressure resistance
- Reduced losses in fissures and natural fractures
- No requirement for laboratory tests
- Combination of fiber bridging and solids plugging for durable fracture plugging
- Ability to be pumped through most BHAs during LWD and MWD, eliminating unnecessary, time-consuming trips



The Losseal Natural Fracture treatment creates an impermeable seal to cure losses.

The Losseal Natural Fracture* lost circulation control treatment combines fibers and solids into a specially engineered pill that mitigates the risk of lost circulation while drilling. As part of the Losseal* reinforced composite mat pills family, the Losseal Natural Fracture treatment pill is a flexible fiber additive that uses synergy between the physical characteristics of fibers and solids to bridge fractures that can lead to either partial or total losses while drilling. The impermeable grid created by the Losseal Natural Fracture treatment is strong enough to withstand additional pressure from increases in mud density, as well as any additional pressure from future drilling or cementing operations. This system reduces drilling downtime caused by circulation losses and addresses large losses in fissures, saving thousands of barrels of mud during placement.

Less sensitive to fracture sizes

Traditional fiber treatments for lost circulation rely on knowing the fracture width during bridging and plugging. The Losseal Natural Fracture treatment's pill includes a combination of fibers with different mechanical properties, making the treatment much less sensitive to fracture sizes. The system's solid particle size is optimized to plug the network of fibers — not the fractures. The Losseal Natural Fracture treatment pill fibers form a network at the mouth of the fracture. The solid particles then reach the fiber network and fill up the spaces to stop the flow of mud.

A plugging efficiency test is done onsite for each first-time application of the Losseal Natural Fracture treatment. As long as the same particles are used, no further tests are needed. Furthermore, the Losseal Natural Fracture treatment can be pumped through most of the BHA, eliminating the need for pulling out of hole and running open-ended drillpipe.