

South Texas: BLACK FURY Additive Puts the Brakes on Severe Sloughing Shales

“By adding the BLACK FURY* product to the mud system we were able to stop sloughing shale that previously had prevented the well from being logged and casing run to bottom.”

Wayne Smith, ALPINE Technical Representative

Well Information

Location	Zapata County, South Texas
Spud Date	August 2002
Well Type	Sidetrack
Interval Depth	6 ¾-in. from 5017 to 8121 ft (1529 – 2475 m)
Casing Size	7 ⅝-in
Maximum Deviation	18°
Mud Type/Density	Lignosulfonate/ 13 lb/gal (1.5 sg)

The Situation

While drilling the 6 ¾-in. interval of a sidetrack, with about 100 ft (30 m) of the original wellbore exposed below the 7 ⅝-in. casing, the operator encountered considerable amounts of shale at the shaker, making it difficult to return to bottom. The BHA became stuck after an unsuccessful attempt to wash and ream to bottom. Once the BHA was jarred free, the operator was unable to reach bottom successfully, thus preventing the hole from being logged and casing run. At that point, the hole was unloading shale at an estimated rate of 6 bbl/hr and could not be stopped using sulfonated asphalt.

The Solution

To stop the sloughing shale, ALPINE SPECIALTY CHEMICALS recommended the operator add 2 % by volume of BLACK FURY * additive to the active mud system. The BLACK FURY liquid Gilsonite suspension is formulated specifically to stabilize water-sensitive and micro-fractured shales when drilling with water-base drilling fluids. BLACK FURY additive seals micro-fractures, thereby reducing dynamic fluid loss and remediating and minimizing the potential for differential sticking.

The Results

Once the programmed volume was circulated effectively in the mud system, the hole became slick and the sloughing ceased completely. The amount of shale generated was reduced to less than one-half barrel per hour, none of which was observed as splintery or swollen. As a result, the hole was logged successfully and casing run to bottom trouble free.

The Details

After pulling out of the hole (POOH) and laying down one stabilizer, the operator raised the yield point of the active mud system before adding 2% by volume of BLACK FURY product. The well was circulated at the casing shoe until the full volume of BLACK FURY product was in the system.



Shale before BLACK FURY addition



Shale after BLACK FURY addition

Questions? We'll be glad to answer them.

If you'd like to know more about the BLACK FURY product and how it's performing for our other customers, please call the ALPINE SPECIALTY CHEMICALS or M-I SWACO office nearest you.



ALPINE, a business unit of M-I LLC

P.O. Box 42842
Houston, Texas 77242-2842
Tel: 281-561-1544
Fax: 281-561-1548
www.alpinemud.com

This information is supplied solely for informational purposes and M-I SWACO makes no guarantees or warranties, either expressed or implied, with respect to the accuracy and use of this data. All product warranties and guarantees shall be governed by the Standard Terms of Sale. Nothing in this document is legal advice or is a substitute for competent legal advice.