

# FORM-A-SQUEEZE additive stops losses and allows operator to continue drilling in North Dakota well

## Well Information

Location ..... Billings County, ND  
 Interval ..... 8-3/4 in Intermediate  
 Mud Type ..... Invert OBM, 9.9 ppg  
 Formation where loss occurred ..... Cleveland, losses @ 9,430 ft

## The Situation

Moderate to severe losses of up to 180 bbl/hr began at 9,430 ft and total losses had reached 1,700 bbl by 10,546 ft. All attempts to use conventional LCM failed to control the losses.

## The Solution

ALPINE SPECIALTY CHEMICALS recommended using the FORM-A-SQUEEZE<sup>†</sup> additive, a high fluid-loss squeeze pill, in the open hole to see if losses could be managed while drilling to interval TD.

A high-solids, high-fluid loss pill made up of 150 bbl of FORM-A-SQUEEZE additive was mixed in water and weighted to 10.4 ppg. Thirty sacks of TIGER BULLETS<sup>†</sup> were also added to the mix to help suspend the barite due to poor agitation in pits. Total mix time was 2 hour and 45 minutes.

## Details

The operator followed the recommended procedure:

- Pumped and displaced 100 final barrels of squeeze pill at 40 str/min. Total pump time was 3 hours.
- Pulled 10 stands in to casing shoe and circulated bottoms-up, approximately 1 hour.
- Shut in and squeeze 30 bbl to a pressure of 215 psi, bled off to 150 psi; wait 7 hours.
- Start hesitation squeeze, pump 4.5 bbl to pressure of 215 psi, bled off to 180 psi.
- Squeeze 3.5 bbl to 220 psi, pressure held for 30 min.
- Squeeze 2.6 bbl to 220 psi, bled of to 200 psi.
- Squeeze 1.6 bbl to 220 psi, pressure held at 210 psi.
- Open well up and start slow pump with full returns, stage pump up to drill rate (140 str/min) with no losses.
- Wash and ream to bottom with no losses; drill ahead with no losses.

## The Results

The operator was able to pump the squeeze pill through the drilling BHA and perform the squeeze procedure without having to make a trip. Full returns were established and drilling was continued and the cost of having to make an extra trip was avoided.

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**Questions? We'll be glad to answer them.**

If you'd like to know more about how the FORM-A-SQUEEZE additive can save you rig time and money, please call the ALPINE SPECIALTY CHEMICALS office nearest to you.



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