



Weatherford®

REAL RESULTS

Managed Pressure Drilling with Air and Foam Restores Circulation, Helps Texas Operator Reach Design Depth

Objectives

- Resume and complete drilling to design depth so that logging and casing can proceed. While drilling conventionally, the operator had experienced significant seepage losses and complete loss of circulation. The operator wanted to air-drill an intermediate interval, managing increases in annular pressure and restoring circulation to casing depth.

Results

- Annular pressure and hole cleaning were managed by shifting from air to foam drilling and using managed pressure drilling (MPD) techniques.
- At 4,269 ft (1,301 m) circulation with foam was lost. Conditions were modeled using Weatherford's Wunderdrill™ software, and two jet subs were installed in the drillstring.
- Circulation was restored and drilling resumed to the casing point at 6,780 ft (2,066 m).

Value to Client

- Use of MPD with air and foam allowed the operator to reach design depth, run wireline logs, and case the hole as planned.
- Foam drilling and MPD techniques provided full returns and doubled the rate of penetration achieved during conventional drilling.
- MPD services eliminated the need for conventional lost-circulation materials.



Location

Reeves County, Texas, USA

Well Type

Exploratory

Hole Size

8 3/4-in. interval from 3,975 to 6,780 ft
(1,211 to 2,066 m)

Hole Angle

Vertical

Casing

7 in.

Setting Depth

6,780 (2,066 m)

Products/Services

- Managed pressure drilling services
- Air drilling and foam drilling
- Wunderdrill software