Weatherford's ROk-ANkOR® Slip System

Achieves Operator's Deepest Installation of a Straddle Isolation Kit with Zero NPT

Objectives

- Efficiently run a straddle isolation kit across a 7 in. liner and 6-1/8 in. open-hole section to reach the desired setting depth within a high angle well and challenging environment—with minimal or no disruption to operations.
- Reach target depth of 18,586 ft (5,665 m) to cover 2,100 ft (640 m) inside the liner and 50 ft inside the open-hole. The client required isolation of the last 2,000 ft (610 m) interval from 16,300 ft (4,968 m) within the liner and down to 50 ft (15 m) below the liner shoe inside the open-hole.

Our Approach

- Following a comprehensive pre-job analysis to assess the wellbore challenges and operator objectives, Weatherford liner system specialists determined the ROk-ANkOR slip system as the ideal solution. The system was selected for its patented slip mechanism that grips the formation with limited penetration, minimizing damage to the formation during setting and providing a stable platform to handle the required load.
- The client drilled a single lateral well with a 21,773 ft (6,636 m) depth and 90° inclination to target the desired reservoirs. The ROk-ANkOR slip system was run comprised of two hydraulic CSI packers, the single-slip system, one drop-off system, a special ID pup joint, and blank pipes between the packers. Wash pipes were then run inside the system to locate the cups inside the bottom special ID pup joint.
- Once the system was in place, the setting ball was dropped and landed on the ball seat. Pressure was applied to set the CSI packers and ROk-ANkOR slip system. A push-pull test executed to ensure the system was secure and a back-side test was performed at 1,000 psi against the top CSI packer to confirm sealing. The running tool was then released and reached the surface along with the bottom cups in good condition.

Value to Customer

- Weatherford liner system specialists were able to successfully deploy the deepest straddle isolation kit despite the challenging angle and open-hole conditions—all with zero NPT.
- The ROk-ANkOR slip system held the completion string securely in place during stimulation and production operations, preventing the open-hole packers from sliding in the washed-out wellbore, eliminating unnecessary wear. This not only improved overall reliability, but it also greatly extended the life of the packers.

The ROk-ANkOR slip system is a unique tool that keeps the completion string from moving during stimulation or production operations. It also prevents open-hole packers from sliding up or down the wellbore, eliminating wear and thus increasing their reliability and overall life span.

CLIENT
Major NOC

LOCATION
Saudi Arabia, MNIF Field

OPEN-HOLE SIZE
6-1/8 in.

WELL TYPE, INCLINATION
Onshore Oil, 90°

CASING SIZE, TYPE
7 in., 26 lbs/ft

LINER SIZE
7 in.

WELL TD
21,773 ft (6,636 m)

ISOLATION KIT TD
18,586 ft (5,665 m)

PRODUCTS/SERVICES

- 4-1/2 in. Hydraulic CSI
- 4-1/2 in. ROk-ANkOR Slip System
- 5 in. Drop-off System
- 4-1/2 in., 3-1/2 in. ID Pup Joints

Weatherford®