CASE STUDY

HALLIBURTON

Argentina

Abandonment and kickoff plug placement in single operation saves 50 hours of rig time

BHKA™ plug setting disconnect tool enables placement of 472-m long cement plug, isolates pilot hole, and allows deviation to horizontal section

CHALLENGE

- Place kickoff plug efficiently and isolate openhole section

SOLUTION

- Deploy BHKA™ tool with fiberglass sacrificial tailpipe
- Deploy Commander™ 500 cement head
- Deploy tailored cement fluids with shorter transition time and WOC

RESULT

- Achieved flawless string position and cement placement
- Isolated pilot hole with TOC 5 m above plan, successfully deviated to horizontal section
- Zero HSE or NPT/COPQ incidents
- Saved 50 hours of rig time

Overview

Operators often drill and abandon pilot wells during exploration campaigns, which requires a cement plug for proper isolation. Conventional balanced cement plugs usually require long cement setting times and have a low success rate because of high levels of contamination and cement plug length limitations.

Challenge

An operator in Argentina required a 472-m long cement plug in a 6.86-in. openhole section of a vertical pilot well to abandon the lower section and deviate to a new horizontal section. Both conditions can result in unsuccessful cement plug operations and long, expensive remedial operations.

Solution

Halliburton proposed deployment of the BHKA™ plug setting tool with a fiberglass sacrificial tailpipe and a tailored cement slurry to enable the safe placement of a single, undisturbed, 472-m cement plug.

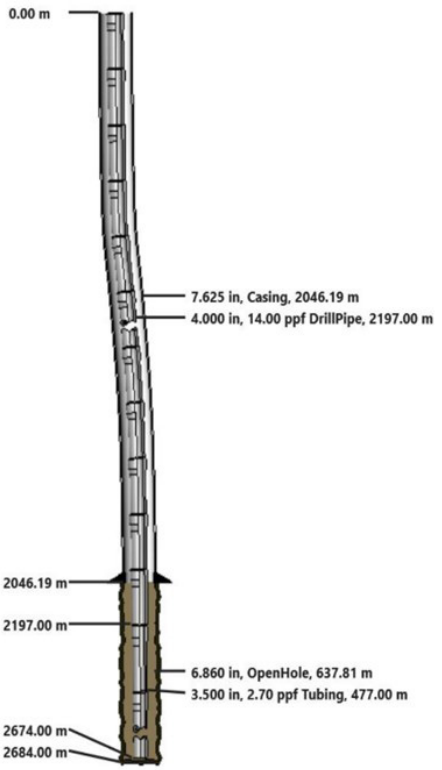
The displacement dart and BHKA tool's safe disconnection help minimize cement contamination and shorten cement setting time. Halliburton designed the cement slurry in accordance with best practices to minimize the risk of circulating losses and improve fluid displacement and final cement placement. A Commander™ 500 cement head was also deployed to promote a safe positive dart release and maintain an effective barrier during the wellbore circulation and cement operation.

Result

The workstring was run in hole (RIH) to a final depth of 2684 m measured depth (MD) as designed with no impact to string torque and tensile strength integrity; the well was circulated without indication of fluid loss.

The cement operation followed the design of service. Clear tailpipe release, indicated by the 2,403-psi differential pressure spike, was observed at the end of cement displacement. No cement was observed at the surface during subsequent wellbore cleanup circulation, which indicated that the top of cement (TOC) was below the tool's position and that the solution allowed for string integrity the entirety of the operation.

Once the setting time was complete, TOC was tagged 5 m above planned, which allowed well deviation as planned without impact to the lower section isolation. Wait on cement (WOC) was eliminated between balance cement plugs, which helped save an estimated 50 hours of rig time.



For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

Sales of Halliburton products and services will be in accord solely with the terms and conditions contained in the contract between Halliburton and the customer that is applicable to the sale.

H014949 VIDA H138619 3/25 © 2025 Halliburton. All Rights Reserved.

halliburton.com

HALLIBURTON