Bottomhole Kickoff Assembly (BHKA) Tool

## ACHIEVING A SUCCESSFUL PLUG ON FIRST ATTEMPT

OVERVIEW

As drilling techniques advance and wellbores become more complex, placing a successful kickoff plug on the first attempt becomes more challenging. Natural phenomena and well conditions could have a negative influence on the performance of the cement plug, significantly impacting drilling time and costs.

Halliburton bottomhole kickoff assembly (BHKA) tools feature a special design that allows for placement of a competent cement plug for kickoff, sidetrack, and plug and abandonment purposes on the first attempt. The assemblies can be used in vertical, deviated, and highly deviated applications. Centralizers may be necessary in larger wellbore configurations.

FEATURES

» A surface-released, dart-operated disconnect mechanism located at the top of cement.

» Drillable tailpipe remains in the cement plug at a length equal to that of the placed cement plug less 20 ft.

» 3.75-in., 4.5-in., and 6.75-in. OD tools are available to work with 2-7/8-in., 3½-in., and 4½-in. tubing tails.

» Includes an integrated diverter sub to provide an optimum flow pattern for wellbore cleanout.

BHKA Tool after RIH *BHKA Tool after Cementing*

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HALLIBURTON | Cementing
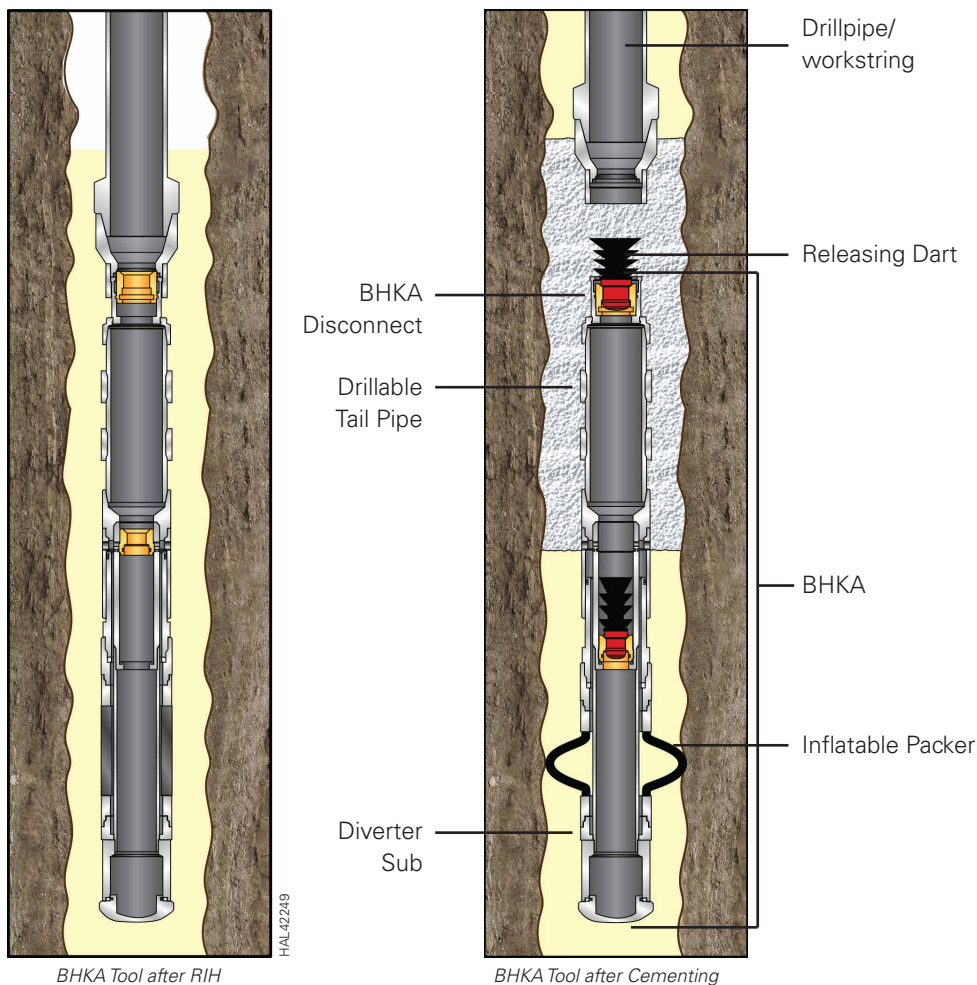
BENEFITS

» Can be placed anywhere in the wellbore in vertical, deviated, and highly deviated applications.

» A short plug length above the desired kickoff point helps reduce rig time. This tool enables small cement slurry volumes and placement accuracy.

» The design helps eliminate the risk of having the drillpipe inside the cement plug during static conditions after the plug is balanced.

» Minimizes swabbing the cement plug and helps prevent cement contamination as the work string is pulled out of the hole.

» Allows the use of thixotropic cements, highly viscous slurries, and cements with short thickening times and/or early gel strengths and compressive strength development.

» Helps reduce the waiting-on-cement time and minimizes the risk of slurry contamination.

» Inflatable packer creates a false bottom that helps prevent the fluid-swap effect of the cement migrating downward and the mud moving upward.

» The packer also seals the upper portion of the wellbore from lost circulation and/or high-pressure zones below the plug site.

» Optimum flow pattern for wellbore cleanout is possible through the integrated diverter sub—a key factor in obtaining a successful cement plug.

CASE HISTORIES

Challenge (Latin America):
Over come 2 failed attempts at a sidetrack after a lost-in-hole event at 5,827 m (19,117 ft). Lost time: 13 days. Cost of failed attempts:
Approximately US$500,000.

Solution:
Avoid further delays to the drilling program and achieve side track by assembling and running in Halliburton's BHKA tool, placing cement, and running BHA to check top of cement all in a single trip.

Results:
» 11.3 bbl of slurry successfully placed to create competent cement plug
» Kickoff successfully performed on first attempt on day five within 8 m (26.24 ft)
» Operational times and cement contamination reduced with single-trip solution

Challenge (Latin America):
Achieve kick off of four wells within a short window in previous casing: 18.3 m (60 ft.)

Solution:
Halliburton's BHKA tool designed specifically for first-attempt kick-off in particularly challenging situations

Results:
» 5.0 bbl of slurry successfully placed to create a competent cement plug
» Drilling program during kick-off operations averaged 2.24 meters per hour (7.25 ft / hour)
» Impact to drilling time and costs avoided

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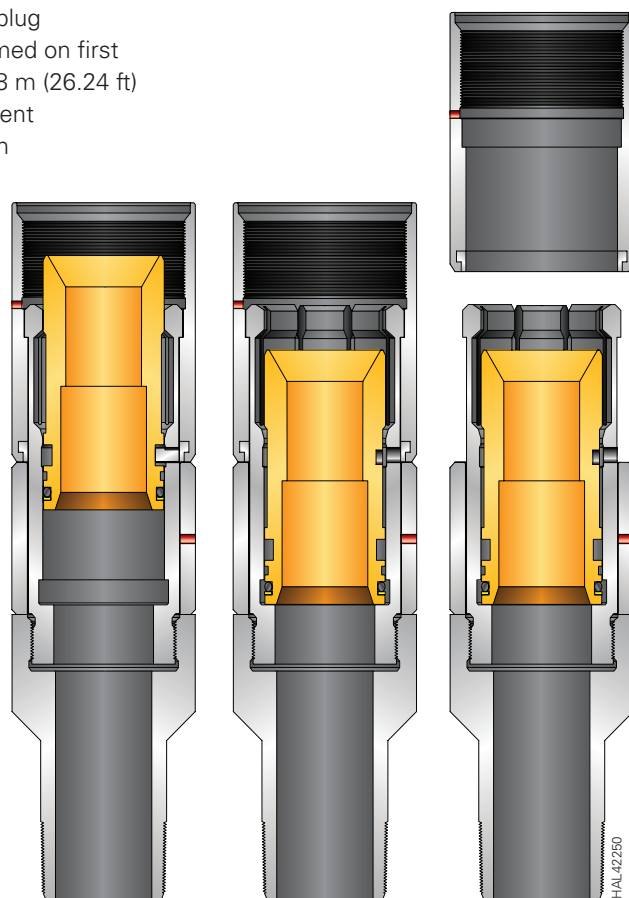
Bottomhole Kickoff Assembly (BHKA) Disconnect Operation

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

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