CASE STUDY

HALLIBURTON

Offshore Malaysia

Operator overcomes drilling challenges with underreaming operation in a single run

XR Prime™ 1200 reamer hole enlargement tool provides durability and performance in coal sections

CHALLENGE

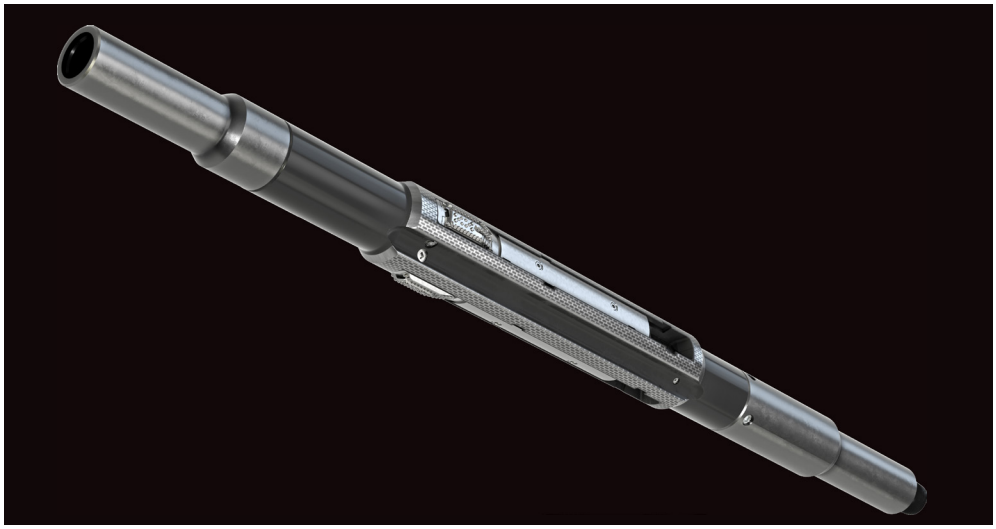
- Difficulties with pulling out of hole (POOH) and running casing due to coal sections; potential delays and increased operational costs

SOLUTION

- XR Prime™ 1200 13 ½-in. reamer hole enlargement tool combined with polycrystalline diamond compact bit
- Implemented single run to open the pilot hole
- Used the XR Prime™ arms for increased durability in the build section

RESULT

- Accelerated POOH operations, saving 10 hours rig time
- Successful casing run without any issues



XR Prime 1200 13 ½ -in. reamer hole enlargement tool

Overview

In an offshore Malaysia asset, an operator faced significant challenges, such as pulling out of the hole (POOH) and running casing. The issues encountered in the offset well, drilled two weeks prior, highlighted the need for an effective solution to facilitate smooth operations in the new well.

Challenge

During the drilling of the well, the customer experienced difficulties POOH after they reached total depth (TD) of the 12 ¼-in. hole section due to various coal sections. In addition, there were challenges in running the 9 5/8-in. casing into the 12 ¼-in. hole section. These issues caused delays and increased operational costs.

Solution

To address these challenges, the customer decided to use the XR Prime™ 1200 13 ½-in. reamer hole enlargement tool combined with a polycrystalline diamond compact bit.

The solution involved a single run (reaming while drilling) to open the 12 ¼-in. pilot hole to a 13 ½-in. hole. The Prime arm was recommended for increased durability in the build section. The section ranged from 65° to 82° inclination over a long interval of 1,983 m.

Result

The underreaming operation in the well was completed in a single run. Key outcomes included:

- Faster POOH time and time saved: saved 10 hours in POOH time despite the subject well being 117 m deeper than the offset well
- Successful casing run: the 9 5/8-in. casing was run to total depth without any issues, indicating the hole was enlarged to the target size
- Tool performance: XR Prime™ arms came out with a 1-0-WT-A-X-In-TD dull grade and demonstrated excellent durability and performance

The operation saved rig time and helped the operator achieve their objectives. The successful enlargement of the hole and smooth casing run highlighted the effectiveness of the chosen solution.

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