

Expro Excellence

# HI TOOL<sup>®</sup> sets footprint in underreaming while drilling application for Middle East operator

Well Construction



## Objectives and background

- A major client in the Middle East was looking for a solution to reduce vibrations in a 6 1/8" x 7" hole enlargement while drilling application
- High vibration levels are typically met in the URWD application due to both cutting structures in the BHA which are the bit and the Under reamer
- The high vibrations levels considerably limit the drilling performance and puts more failure risk on the sensitive electronics in the MWD, LWD and RSS tools. They also negatively affect the bit and underreamer drilling performance

## Expro Excellence

- HI TOOL<sup>®</sup> has a globally successful record in reducing vibration levels and enhancing drilling performance in URWD application, thus, was proposed to client to overcome an existing challenge and performance limitation
- Placing HI TOOL<sup>®</sup> in the BHA just below the Under reamer had a clear impact on reducing vibration levels while drilling the 6 1/8" x 7" section
- The HI TOOL<sup>®</sup> acted as a vibration decoupling gear in the BHA by laterally dissipating the shock loads in the string and harmonics generated by the under reamer into the wellbore resulting in keeping the lower BHA (MWD/LWD/RSS and bit) at lower vibration levels uninterrupted by drill string and under reamer dynamics

## Value to the client

- Clear reduction in vibrations levels were observed in the MWD tool compared to offset wells
- More protection to the BHA was provided
- Eliminated NPT risk for BHA vibration related failures
- Improved overall drilling performance

## Enhanced production

