Torque Management For Optimised Performance



Milling made easy!

Bridge Plug Milling Comparative Testing





www.neo-oiltools.com

NEO-tork

Surface Test - Bridge Plug Milling

The comparative drilling test was done on an actual bridge plug set inside a casing. Our aim was to reproduce the milling of pressure plugs in a horizontal application as used in a shale development. As well as performance we also wanted to assess ROP and bit wear. Both drilling systems (identical except for NeoTork) were pushed to their limit to achieve maximum ROP.

The table below is explicit, however the difference in ROP doesn't take into account what would occur in a normal field application. On the test bench, stalls are immediately detected and remedied within a few seconds, while in a field it could take up to an hour before drilling can resume.

NeoTork delivered a much smoother run with no stalling. The difference in the level of vibrations, noise, bit wear and cutting size was impressive. The assembly with NeoTork drilled effortlessly, whereas the system without NeoTork experienced continual hammering.

| Test Results | | |
|-----------------------------|---------|------|
| | Without | With |
| Rate of penetration (cm/hr) | 38 | 54 |
| Number of stalls | 15 | 0 |
| Average vertical vibrations | 95 | 25 |
| Bit Weat (%) | 20 | 0 |

Mill pictures after the test



Without

With **NEO-LORK**

Cutting recovered during the test



Casing with Bridge Plug set inside

Milling Bit

Using NeoTork in milling operations means:

Data aquisition

module

NEO

Stabiliser

- Faster milling time
- Reduced mill failure
- Lower operating costs
- Reduced number of stalls
- Less coil and downhole equipment damage

Without

With **DEO**•LORK