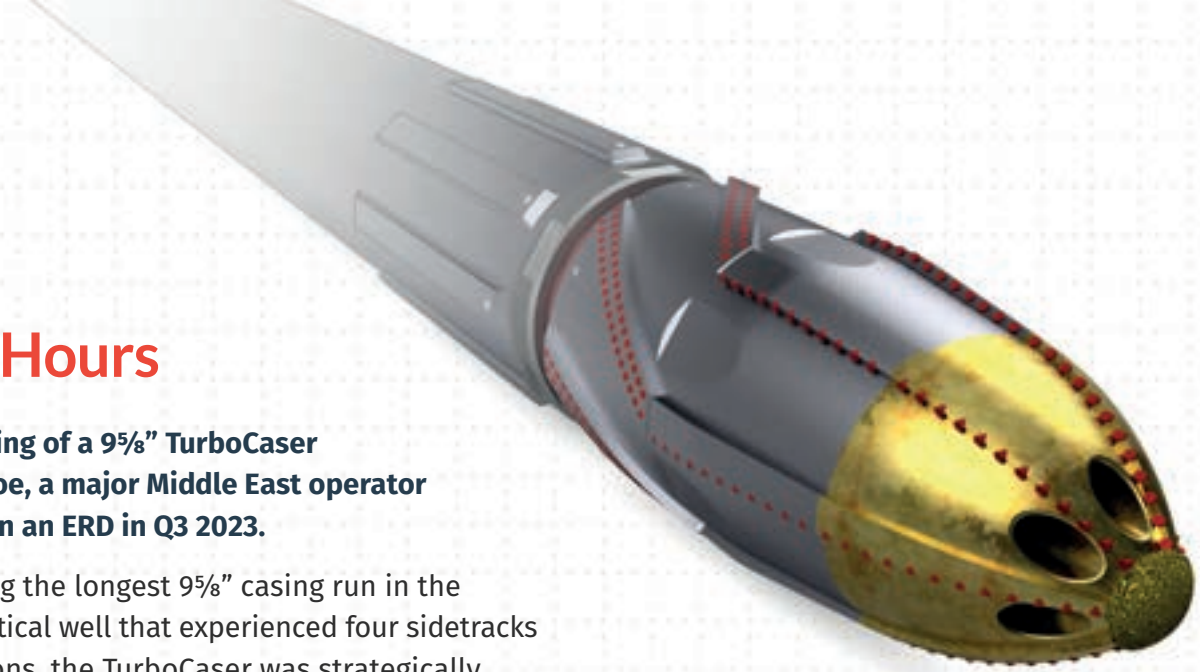

9⅝ TurboCaser Reams 707 ft in 33 Hours

As a follow up to the successful running of a 9⅝" TurboCaser turbine powered drillable reamer shoe, a major Middle East operator utilised the TurboCaser technology on an ERD in Q3 2023.

As part of an ongoing project involving the longest 9⅝" casing run in the Abu Dhabi oil field, specifically in a critical well that experienced four sidetracks due to challenging open hole conditions, the TurboCaser was strategically deployed. It effectively reamed 707 ft in just 33 hours, reaching final planned depth of 14,884 ft. This achievement marks a significant milestone as the longest 9⅝" casing run within the oil field.

THE CHALLENGE

An Abu Dhabi National Oil Company required a FSE to run 9⅝" casing from surface to 14,884 ft within the longest offshore 12¼" hole section.

Getting the 9⅝" casing to planned target depth was critical in supporting the well objective. This required the casing to be successfully run from the 13⅜" shoe to target formation for setting the 9⅝" casing. Case running challenges such as reaming through unstable shales, tight spots, and past ledges were to be expected.

THE SOLUTION

Hydraulic modelling provided by Deep Casing Tools verified that effective flow rates could be pumped through a 9⅝" TurboCaser and remain within the specified ECD limits of the open formations and expected surface pressures.

The Deep Casing Tools 9⅝" TurboCaser turbine powered reamer shoe was selected to ream through cutting beds, ledges, or any tight sections of hole to ensure the 9⅝" casing was run to critical target depth for this ERD well.

THE RESULT

The TurboCaser was tested successfully on surface and at the 13⅜" casing shoe with the SPP matching the hydraulic simulations. It reamed through multiple tight zones.

Following the landing of casing at target depth it was cemented as per the program, the plug bumped, and the casing successfully tested. The 9⅝" TurboCaser was drilled out in 1.5 hrs using a 8½" Tri-cone bit. Use of the tool prevented the need for pulling casing and performing a clean out trip and running back the casing, saving the operator up to 7 days rig time.

DEEP CASING TOOLS

IN NUMBERS

Below is the summary of the reaming required to land the casing at planned depth:

- Reamed from 5,835 ft to 5,933 ft w/20 klbs, 6 bpm/650 psi **= total reamed 98 ft**
- Reamed from 7,455 ft to 7,510 ft w/5-40 Klb, 7 bpm/700 psi **= total reamed 55 ft**
- Reamed from 7,754 ft to 7,921 ft w/20 Klb, 8 bpm/850 psi **= total reamed 167 ft**
- Reamed from 8,044 ft to 8,358 ft w/20 Klb, 8 bpm/950 psi **= total reamed 314 ft**
- Reamed from 8,364 ft to 8,437 ft w/20 Klb, 8 bpm/1,150-1,200 psi **= total reamed 73 ft**

Total depth reamed by the TurboCaser was 707 ft with maximum circulation of four to eight bpm, reaming achieved in 33 hours including reciprocation.