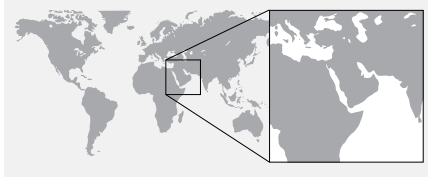


# Archer's Tornar® Wellbore Cleaning Can Save a Potential of 60 Hours' Rig Time



**Region:** Middle East  
**Customer:** National Oil Company  
**Well Type:** Tri Lateral Producer

## Case benefits

- Saved 60 hours.
- Balanced annular velocity.
- Superior wellbore debris removal.
- Easy operation.
- Enhanced chemical cleaning.

## Key capabilities

- Superior annular velocity.
- Balanced annular velocity in each wellbore section.
- Nonstop displacement.
- Extra large bypass areas for eliminating flow restrictions.
- Up to 150 rpm rotation speed.
- Large ID to increase flow.

## Typical Applications

- Applied during displacement in the pre-completion phase of the well.
- Perforation jobs.
- Drilling applications.
- Frac jobs.
- Milling jobs (whipstocks, packers, junk removal).
- Applied when debris needs to be removed from the well that could affect normal operations.



## Challenge

A customer in Middle East region wanted to reduce the number of clean-up runs on two wells prior to running expensive and sensitive completion strings. An average wellbore cleaning operation can take more than 70 hours to complete.



Running multiple clean-up runs to clean a wellbore is a time consuming and costly operation. Reducing the numbers of runs without compromising an effective hole cleaning job is the key to ensuring a successful completion installation and providing maximum well returns.

## Solution

**Archer's Tornar® wellbore cleaning technology** optimizes hole cleaning by saving time and costs. The Tornar® wellbore system rapidly and effectively cleans and displaces the wellbore, therefore reducing the number of clean-up runs. The Tornar® solution encompasses:

- **Balanced annular velocity**, which is essential to avoid debris settlements when there is a change in a liner or casing ID. By using innovative circulation valve technology, the entire wellbore had high annular velocity.
- **Nonstop displacement**, which is essential for handling the chemical cleaning of a wellbore. By using innovative circulation valve technology, the wellbore can be displaced without stop in pumping. This saves time and optimizes the displacement process.
- **Maximum annular velocity**, which is important to transport debris out of the wellbore. Each tool is designed to optimize and enhance annular velocity. The result is a superior annular velocity in all wellbore sections.

## Result

Archer's superior Tornar® wellbore cleaning technology proved a potential savings of **60 hours' rig time** by giving a clean and solids-free wellbore for the customer.

Archer saved the customer 30 hours of rig time on each well.

As a result of effective wellbore cleaning, completions operations could continue without interference and zero hours' rig down time.

For more information, contact your **local Archer representative**.

Archer is a global oil services company with a heritage that stretches back over 40 years. With a strong focus on safety and delivering the highest quality products and services, Archer operates in 40 locations over 19 countries providing drilling services, well integrity & intervention, plug & abandonment and decommissioning to its upstream oil and gas clients. **We are Archer.**

© Archer 2017

**Archer**  
archerwell.com