



## Acid Stimulation with Slim **WWT 212 Tractor** and CT Services

### Objective

The objective of the operation was to reach the complete Open Hole section of the extended reach well to complete pre-stimulation logging, pump stimulation fluids with optimized placement and perform post-stim logging to monitor the results.

### Problem

Small upper tubing restrictions system, long horizontal Open Hole created an access challenge for CT and logging equipment. Secondly, multiple runs for pre-stimulation logging, stimulation run, and post stimulation logging created an extremely expensive overall intervention with a lot of complexity.

### Solution

WWT's 212 Slim Hydraulic Tractor was combined with CT Services Real-Time fiber optic enabled CT to complete the operation in 1 run.

The **WWT 212 ELG** Tractor was slim enough to pass through the minimum restriction (2.625" ID), then expand outward to grip in 6" Open Hole and pull CT to required depth. CT initially locked-up at 14,884 ft (53% OH) The WWT 212 tractor was activated by pumping pre-flush fluid and the tractor continued pull CT until TD was reached at 18,600 ft MD.

At TD the fiber optic enabled Coiled Tubing performed a distributed temperature survey to optimize stimulation placement. The tractor and fiber optic system are both Acid and H<sub>2</sub>S resistant, allowing the stimulation fluids to be pumped without concern.

After successfully pumping the stimulation a post run DTS survey was completed to monitor effectiveness of stimulation treatment in real time.

The combination of the WWT 212 ELG tractor with CT services fiber optics turned a complex costly intervention into a simple 1 run intervention, with improved quality results.

**Location:** UAE.

**Well Type:** Oil Producer Well

**Objective:** Stimulation in ERD well

**Solution:** WWT 212 ELG Tractor/ 2" CT services.

**Results:** Open Hole effectively Cleaned out and Acid Stimulated at TD.

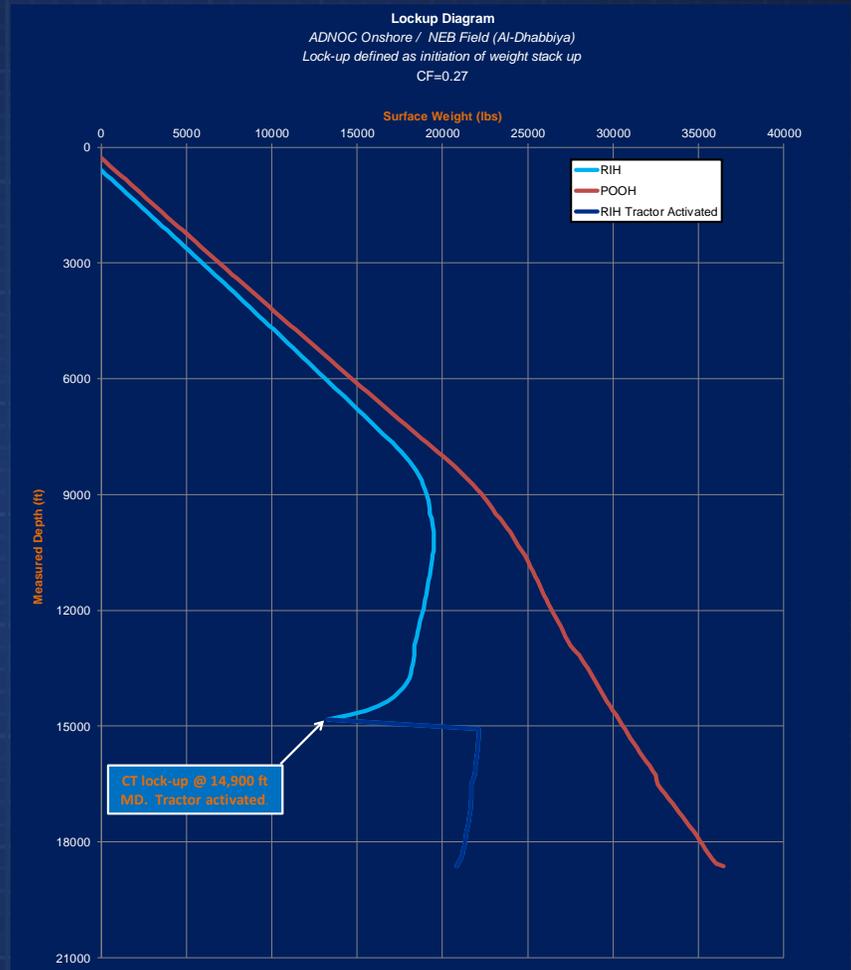


Figure 1 Tubing Force Analysis



Figure 2 WWT Eccentric Link Gripper