



Extended Reach Well Cleanout with WWT Extreme Expansion Gripper 350 Tractor

Objective

The objective of this operation was to safely access TD of the well via CT conveyed hydraulic tractor to provide effective and reliable acid stimulation in a 19,600 ft extended reach well in offshore UAE.

Problem

Small upper tubing restrictions, large diameter 8-1/2" open hole, long horizontal section with low compressive strength formation created an accessibility challenge to reach the deepest zones of interest. Tubing Force Analysis predicted early lockup with only 45% of Open Hole being reached, even with special tapered 2.375" CT string. As a consequence, conventional CT alone would not be effective to perform the well interventions.

Solution:

A CT Services custom engineered tapered string was combined with WWT Extreme Expansion Grippers (EEG) Tractor to provide a well intervention solution to overcome the access challenge. The solution allowed customers to reach the deepest zones of interest while optimize job performance, resulting in greater efficiency and higher return on investment.

WWT International supplied the **350 EEG Tractor**, designed and tested to grip large diameter low compressive formation, to provide over 9,000 lbs of down-hole pull force. The unique design provides positive grip in soft formation up to 12" ID and is capable of performing in Acid and H₂S environment. The completely hydraulically operated tractor is activated simply by pumping at the desired rate.

The intervention was performed in one run; at initial lock-up depth of 13,626 ft the WWT EEG tractor was activated by pumping diesel at 1.4 bpm. The tractor continued pulling CT at speed 15 fpm until reached the customer target depth 18,240 ft MD. From this depth the stimulation fluids were successfully pumped evenly across the entire Open Hole section of the well, for optimal stimulation and increased production.

Location: UAE.

Well Type: Oil Producer

Objective: Wellbore Cleanout

Solution: WWT 350 EEG Tractor with Custom Engineered CT

Results: Open Hole effectively stimulated and well production increased.

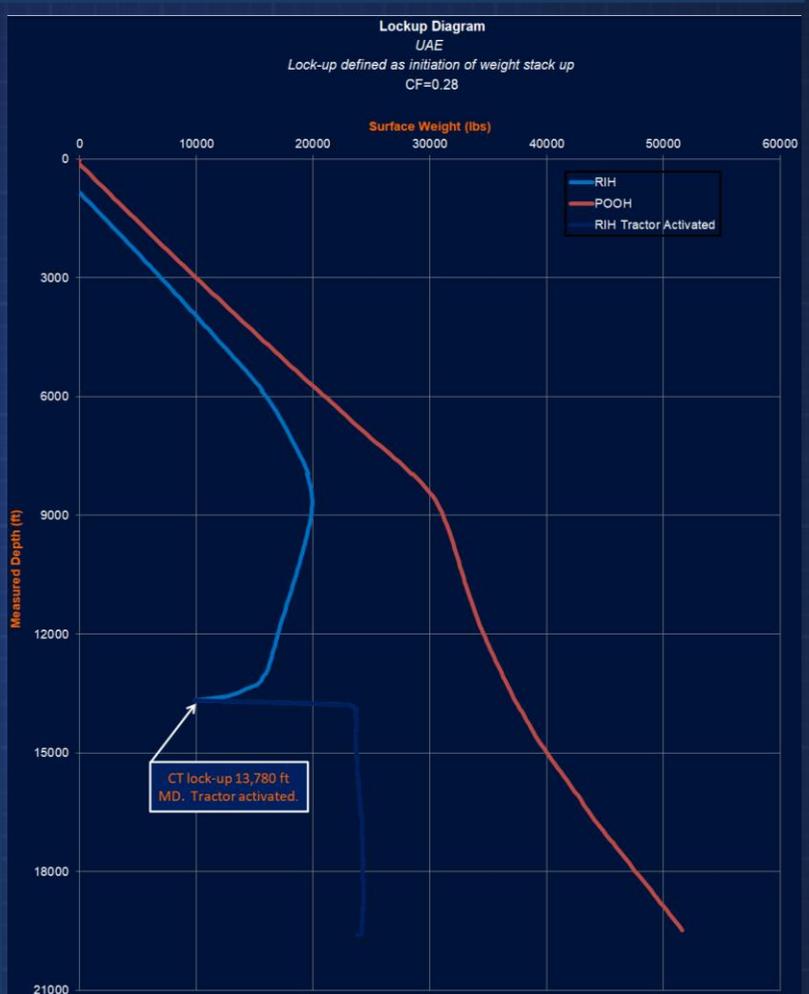


Figure 1 Tubing Force Analysis



Figure 2 WWT Extreme Expansion Gripper assembly