

AKER BP RECOGNISES REAL VALUE FROM REAL-TIME DATA COORDINATION OF EMERGENCY ACTIONS TO FREE STUCK COILED TUBING STRING USING IDEX PLATFORM



CHALLENGE

In April 2020, fluid injectivity was lost to the field waste disposal well. In order to remove the blockage and bring the well back into operation, a Coiled Tubing cleanout was planned. During the first stage of the cleanout the Coiled Tubing became stuck after the fluid returns were lost.

SOLUTION

The Coiled Tubing was freed by applying a selection of different stuck pipe emergency actions and reviewing the results to determine the most effective next steps. Using accurate real-time analysis of reactions and incremental improvements in the conditions, the onshore and offshore team were able to make key decisions together.

RESULTS

The Coiled Tubing string was freed which saved days of a critical and extremely complex pipe recovery operation.

ANALYSIS OF THE DATA

When a Coiled Tubing string becomes stuck during an operation, the focus is to understand what the immediate cause was, in order to plan an appropriate strategy to get free. With all the data streamed to the Stimline IDEX platform, analysis of the conditions prior to getting stuck indicated that fill in the annulus between the coiled tubing string and completion tubing was preventing movement. Hence numerous pipe freeing techniques were planned. Being able to review real-time data from multiple data sources aggregated on a single dashboard, it allowed the onshore and offshore teams to make decisions collaboratively and take actions efficiently.

The team had a set of options, including changing fluids, weight manipulation and pressure cycling, that they could adjust in different combinations whilst attempting to free the Coiled Tubing. By tracking the different attempts, and tweaking the operational parameters based on the actual results on IDEX, they ensured all possible combinations were performed. At a critical stage in the operation, potential progress and additional options were identified when reviewing the data on IDEX. The wireline pipe retrieval operation was therefore delayed, and the additional attempts freed the Coiled Tubing.

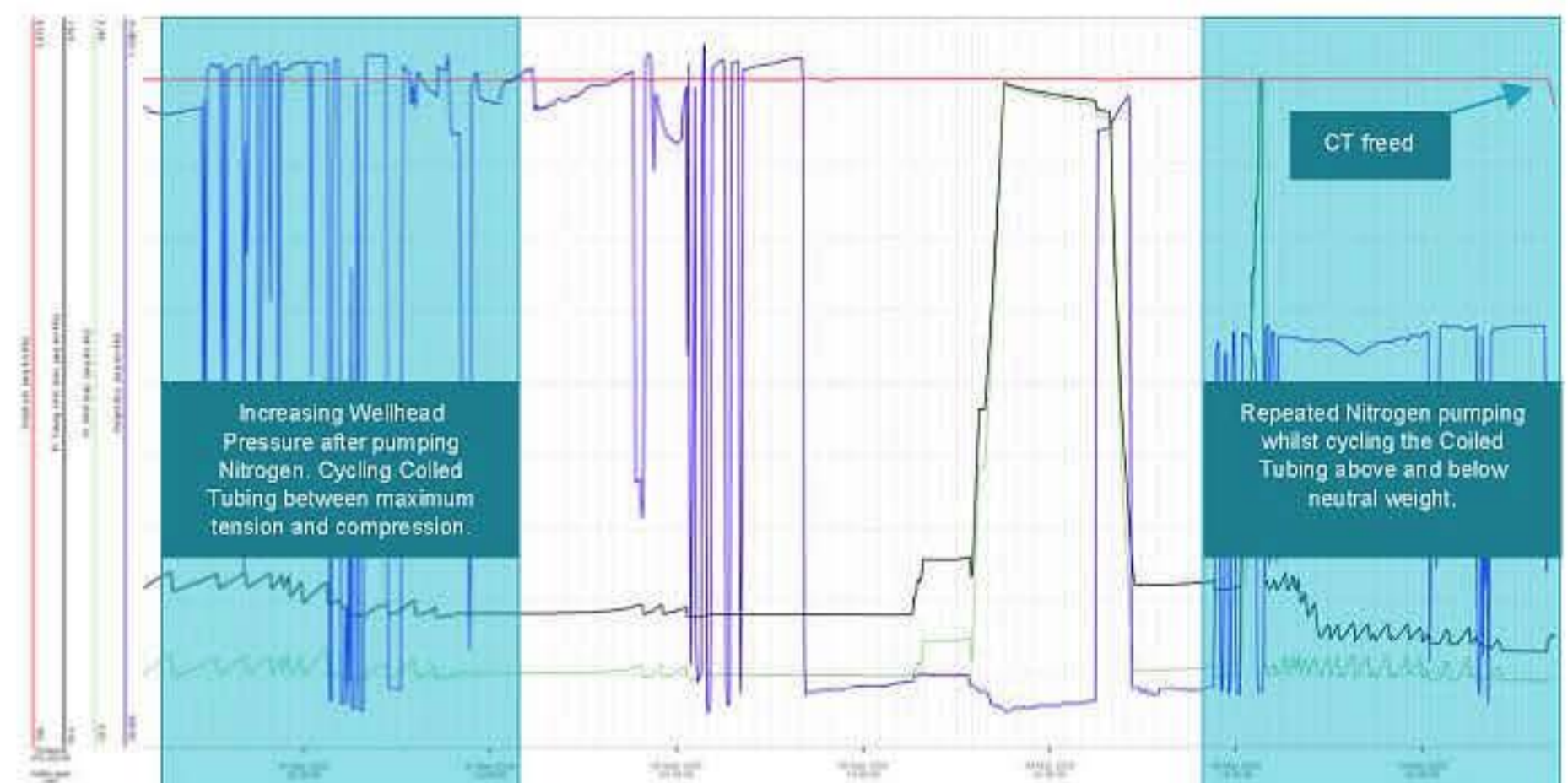


Figure 1: CT Weight (blue), Depth (red), WHP (green) & Downhole Pressure (black) during two attempts of freeing the CT.

Aker BP Offshore Supervisor –

“IDEX has an intuitive way of presenting the data, enabling a cross-functional team to make fast, fact-based decisions.”