

THE DIFFERENCE: ACHIEVING 26% COST REDUCTION PER WELL WITH STEP-CONNECT

A valued client in the Montney carried out a 37-well underbalanced milling campaign, relying solely on surface gauges to monitor operations. This approach led to challenges such as string immobilization in 1 out of every 10 low-pressure wells and leaving 9.5% of the lateral length untreated. Lost circulation resulted in stuck-in-hole events, BHA failures, and frequent tool trips, driving up costs.

For the next campaign, the client turned to STEP to minimize trips and immobilization events. STEP recommended the STEP-conneCT real-time data tool and STEP-PLEX™ LCM (Lost Circulation Material) to ensure efficient, cost-effective milling to total depth (TD).

Both solutions were deployed on all of the 37 wells. STEP-conneCT delivered real-time data that revealed changing well conditions enabling the client to quickly identify, analyze and address milling challenges such as lost circulation events, motor stalls and BHA failures. The weight-on-bit (WOB) and torque readout specifically allowed the operator to clearly see obstruction tags and adjust the WOB to control debris size, further increasing cleanout efficiency (Table 1). STEP-PLEX LCM effectively prevented fluid loss and increased hydrostatic pressure, allowing the operator to lower nitrogen rates and use a higher liquid ratio.

By using STEP-conneCT and STEP-PLEX LCM immobilization events were eliminated achieving the clients goal. The client met their goals, reaching total depth on all wells and reducing unnecessary tool trips and significantly reducing overall milling cost per well by 26%.

Challenges

- Mill out 37 wells to total depth (TD) while improving efficiencies compared to the previous year's campaign.
- Reduce unnecessary tool trips and immobilization events to lower costs.

Results

- 26% cost reduction per well
- 14% decrease in operating time
- 0.25% untreated lateral length (improved from 9.5%)
- Zero immobilization events
- Increased cleanout efficiency and reduced motor wear
- Eliminating subjective surface measurements with objective real-time data, STEP-conneCT minimized the variability of human interpretation, leading to more reliable operations.

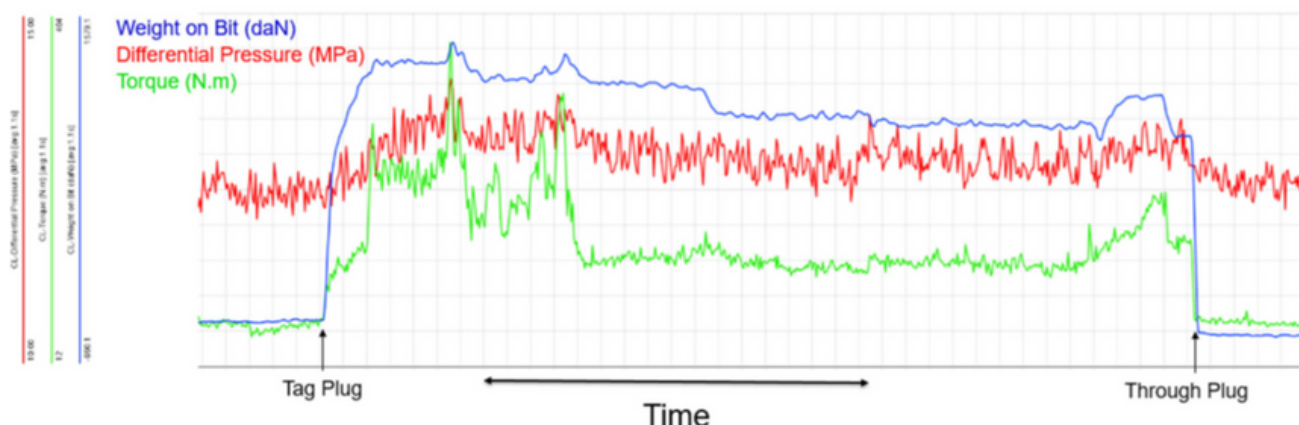


Table 1: Data provided during a milling event using STEP-ConneCT downhole data