

# Previously Inaccessible Lateral Logged by Cutting Friction with Smooth-Jacketed Wireline

Conveyance on tractor and 2-44 StreamLINE iX polymer-locked cable acquires both flowing and shut-in data in a single run

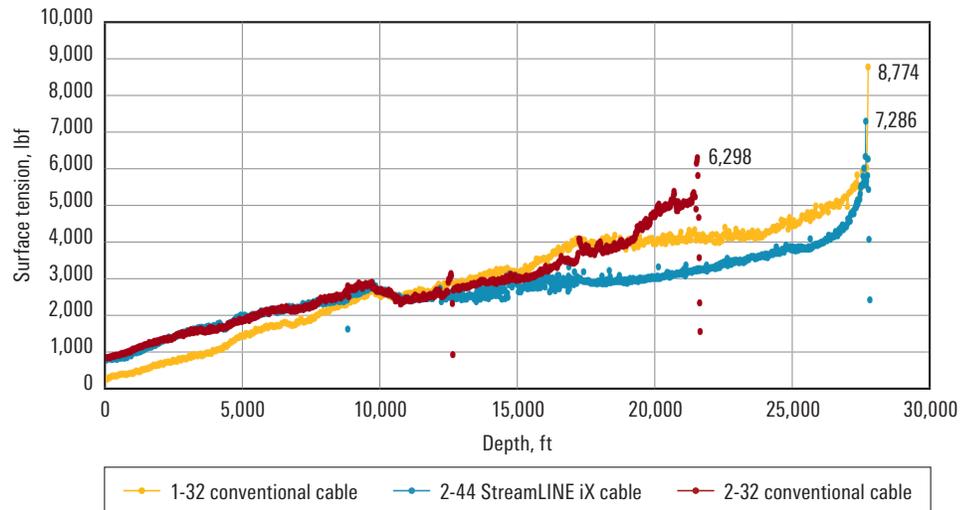
By using smooth-jacketed StreamLINE iX\* extreme-performance polymer-locked wireline cable, a Middle East operator minimized cable friction to perform production logging to 27,822-ft MD in a complex-trajectory extended maximum reservoir contact (eMRC) lateral in one run, enabling accurate evaluation of zonal contributions and horizontal drain performance.

## The operator's goal

To improve the evaluation of production performance in an extended-reach well, an operator wanted to acquire a production profile and zonal contribution data. However, accessing the complex trajectory and 28,000-ft MD of the eMRC lateral with conventional high-strength cable on previous attempts had been hampered by high cable friction. On one attempt, TD was reached in the first run but the cable tension was higher than the safe working load and was later found to have seriously compromised the cable's integrity. The subsequent logging run of the Flow Scanner\* horizontal and deviated well production logging system had to be cancelled.

## What Schlumberger recommended

The operator and Schlumberger fully engaged to assess risks and thoroughly consider all details for the logging operation.

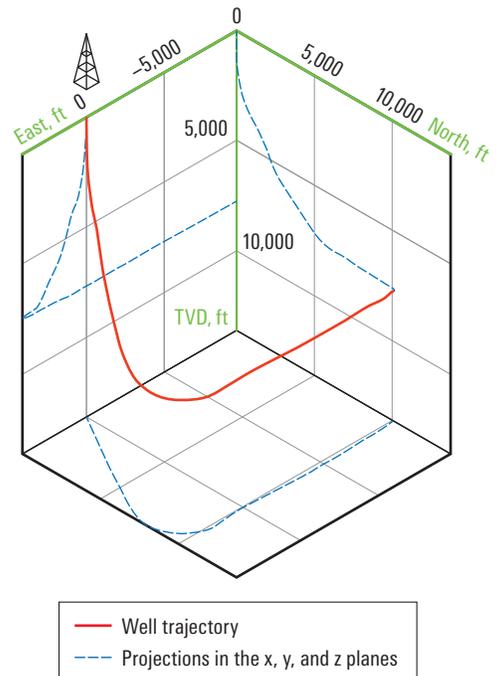


As logging operations progressed in the 28,000-ft-MD well, StreamLINE iX cable generated less friction, as shown by the lower surface tension in comparison with two conventional cables employed on previous runs.

Schlumberger recommended using high-strength 2-44 StreamLINE iX cable, which innovatively polymer locks the cable armors and its core into a single element that is torque balanced and provides a high strength to weight ratio. The smooth jacket brings the additional benefit of reduced cable friction.

## What was achieved

UltraTRAC Mono\* all-terrain wireline tractors with logging-while-tractoring functionality to acquire data in both up and down passes were



The 3D well trajectory profile shows the challenges of the logging environment.

**“We would like to take this opportunity to recognize and thank the Wireline team on successfully deploying production logging services with 2-44 StreamLINE iX cable. The operation advanced progress towards our goal to improve the capability to evaluate production performance of extended-reach wells.”**

Manager, Well Operations  
Operator

## Case study: **Previously Inaccessible Lateral Logged by Cutting Friction with Smooth-Jacketed Wireline**

paired with the 2-44 StreamLINE iX cable to convey the Flow Scanner production logging system. The Flow Scanner system aligns multiple minispinner and arrays of optical and electrical probes across the vertical axis of the well, regardless of deviation, to provide a complete three-phase flow analysis of complex nonvertical wells in real time.

The Flow Scanner system was successfully conveyed to 27,822 ft, including tractoring more than 17,800 ft. For the first time in this well, the flowing data acquired while tractoring down and shut-in data were measured—with the time-saving bonus of a single run. The reduced friction resulting from the smooth jacket of StreamLINE iX cable that made this successful deployment possible was evident in the lower surface tension than in previous conventional runs. With this high-quality data, the operator could finally evaluate zonal contributions and horizontal drain performance.

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