

Case study: West Texas

Talon Strike bit meets customer's objective of high-ROP run to TD in surface section, saves \$35,000 USD

A customer in West Texas wanted to drill the 17 ½-in. surface section of its wells in one run at a high rate of penetration. Competitors were not able to consistently drill the section to total depth (TD) in one run and, when they did, the performance did not meet the customer's expectations.

The competitors' bits were falling short of TD and dull condition was severe after drilling through the interbedded formation. In some cases, there was bit damage beyond repair.

Baker Hughes Drill Bit experts reviewed previous bit performance, competitor dulls, and drilling parameters on the section and recommended a value-engineered bit/cutter solution that delivers consistent performance in less-demanding applications.

Using the **Talon™ Strike PDC drill bit**, Baker Hughes drilled 2,094 ft (638 m) in 12.5 hours at 167.5 ft/hr (51 m/hr). The Strike cutters maximized performance by staying sharp and delivered the fastest 17 ½-in. section to TD in the area for the customer, drilling twice as fast as the competitors' average.

Baker Hughes displaced the two previous bit providers by finishing the section with 117% improvement in ROP when compared to competitors' averages. The superior cutters used in the Talon strike exhibited better dull condition than competitor bits. With a rig rate of \$70,000 USD/day, the customer saved approximately \$35,000 USD compared to competitors' offerings.

Challenges

- Maximize drill bit performance by drilling entire surface section in one trip with high ROP
- Reduce bit damage

Results

- Completed the 17 ½-in. surface section in one trip
- Increased ROP by 117% when compared to competitors
- Retained exceptional dull condition



Bit body shows no sign of damage and cutting structure shows minimal wear.



Cutting structure shows minimal wear, proving the bit can drill faster and farther than competitors' offerings.