WWT Non-Rotating Protectors Protect Drill Pipe on 8-lateral ERD Well

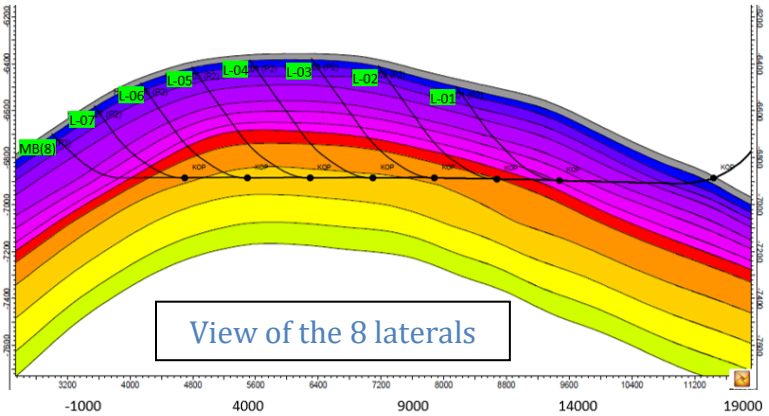
Operator Concerns

An operator was looking to resolve issues with drill pipe wear while drilling an eight lateral ERD well. Due to the abrasive formations, the drill pipe hardbanding wore out after every bit run and needed to be re-applied in the field. WWT's Non-Rotating Protectors (NRPs) were deployed as a solution to mitigate steel to steel contact between the tool joint and the casing as well as reducing torque while delivering weight to the bit throughout each challenging lateral.

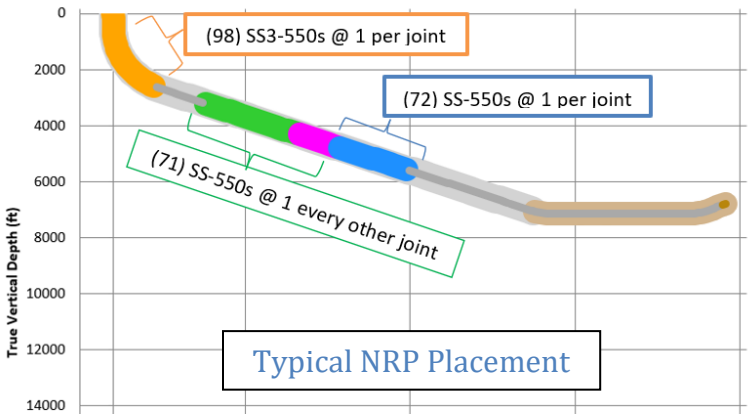
NRP Performance

With a significant amount of hardbanding wear throughout the string, WWT used available 5-1/2" SS3 and SS model inventory within the casing. Using the NRP placement shown on the right, the hardbanding on 99% of protected tool joints were in good condition after completing the well. The NRPs also helped preserve the 9-5/8" casing after enduring an estimated 2.5 million drill pipe rotations. The NRP torque benefit was analyzed, showing 15% to 30% torque reduction, dependent on TD and number of NRPs in each lateral. With the ending updips, the weight to bit was able to be maintained; exceeding target TDs and completing the well in just two bit runs.

Location: Alaska
Well Type: ERD
Objective: Protect drill pipe
Solution: SS3 and SS NRPs
Benefit Seen: Protected drillpipe, casing, and reduced torque



View of the 8 laterals



Typical NRP Placement

NO NRPs installed

WITH NRPs installed

WWT Non-Rotating Protectors
www.wwtinternational.com