



WWT Non-Rotating Protectors

WWT Non-Rotating Protector Utilized
to protect fiberglass casing

WWT NRPS Protecting Fiberglass casing in 3 wells

Executive Summary

- A client deployed fiberglass casing to protect from external corrosion. One of the main challenges was casing wear on the relatively soft fiberglass. WWT NRPs were installed on each drill pipe and heavy weight drill pipe rotating inside the fiberglass casing. A total of three wells were drilled with NRPs on two sections each, consisting of 19.7" and 11" fiberglass casings. The client ran two casing logs before and after drilling through the fiberglass casing. The log results had proven that WWT NRPs significantly minimized the casing wear on the fiberglass casing.

Relatively soft casing and low-pressure capacity

- The fiberglass casing is soft compared to steel casing and more susceptible to wear.
- The fiberglass casing has low-pressure capacity. Therefore, keeping its integrity is crucial to ensure safe and successful operation.

NRPs installed directly above the BHA and ran in open hole

- In order to provide the required protection to the fiberglass casing, NRPs were installed just above the BHA on the first joint of HWDP.
- No re-position trips were required and NRPs were ran successfully in open hole to avoid costly trips.

Operations Summary

16" and 8-1/2" sections were drilled through the 19.7" and 11" fiberglass casing, respectively. NRP placement was optimized for each well and section to reduce wear over the entirety of the fiberglass casing. An example of the NRP placement in the 8-1/2" section at TD is highlighted in orange and yellow on the vertical section plot to the right

Ultrasonic and multi-finger caliper logs were run after drilling each 16" and 8-1/2" section in these 3 wells, respectively, showing minimal casing wear. The client was happy with the NRPs performance and planning to use them in more complex fiberglass casing applications.

