



Case study

## Complete Riser Protection Required NRPs Entering Open Hole in the Gulf of America

Drilling deepwater wells in the Gulf of America require careful consideration & mitigation for riser & casing wear issues.

### Client challenge

A well in the Gulf of America needed full riser protection while drilling a post-tar sidetrack. A single bit run to TD positioned NRPs into open hole along with MPD being utilized presented additional challenges.

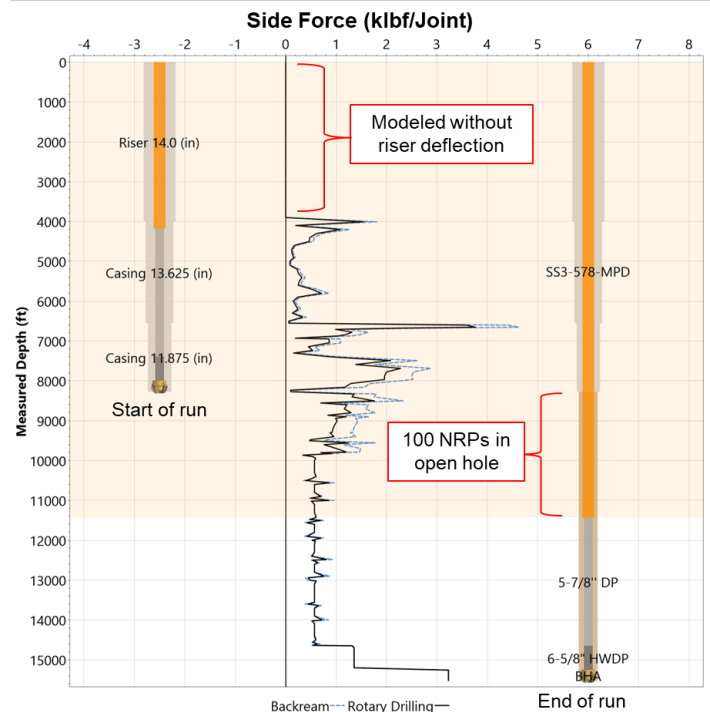
### Our solution

WWT installed 369 HD-SS3-578 model NRPs at the pipe manufacturer's facility to simplify operations on the offshore TLP. The 7,300 ft bit run resulted in 100 NRPs entering open hole. MPD compatible collars were used for stripping NRPs out of the hole under surface backpressure.

### Results

- Max 4,000 klbf/jt side force from the sidetrack opening at 6,700 ft MD.
- Estimated one million drill pipe revolutions.
- 100 NRPs entering the open hole sandstone formation at a 47° inclination.
- Stripped all 369 NRPs out of the hole.
- Minimal NRP OD wear indicating the riser was protected throughout drilling.

**369 HD-SS3-578 shown in Orange at section TD.**



All sleeves maintained sufficient blade diameter even while being run in open hole.



MPD test fixture with HD-SS3-578 installed for stripping test passes.



## MPD Testing

NRP MPD compatibility test performed prior to mobilizing NRPS to offshore TLP.

- 160 passes through both sealing elements
- 500 psi SBP
- Tripping speed of 15 ft/min

NRPs remained secure to the pipe while maintaining constant backpressure as they strip in and out of the dual elements.



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