

DOWNHOLE
PRODUCTS

BLADERUNNER® LOW FRICTION REDUCING CENTRALIZER 7" x 8 1/2" (OD: 8 1/4")

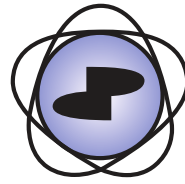
TECHNOLOGY: Downhole Products BladeRunner ultimate friction reducing Spir-O-Lizer® is designed to reduce cased hole running drag and maximize openhole standoff efficiency. Teflon® blade inserts will reduce as the liner is run through the previous casing string to expose the Spir-O-Lizer 360° blade form to aid running as the liner enters open hole. Teflon® bands in the bore of the centralizer ensure extremely low startup when the liner is rotated during the cementing process. Solid single piece construction with no moving parts, eliminates the potential of junk in the wellbore.

PERFORMANCE: Shell Brunei contacted Downhole Products to provide a centralizer solution for their highly challenging Iron Duke "Snake wells", after a disastrous run with a competitor's product (the thermo plastic centralizer wore out in less than 1000m losing all standoff). T&D analysis had shown that a centralizer/friction reducer with a friction factor of 0.15 cased hole and 0.20 openhole was the only way the pre-drilled liner could be run to TD through the planned trajectory.

The BladeRunner was selected, for the remaining wells in the project and the pre-drilled liners were run to TD with no problem. Recorded friction factors for the jobs were averaged at 0.15/0.20 as predicted.

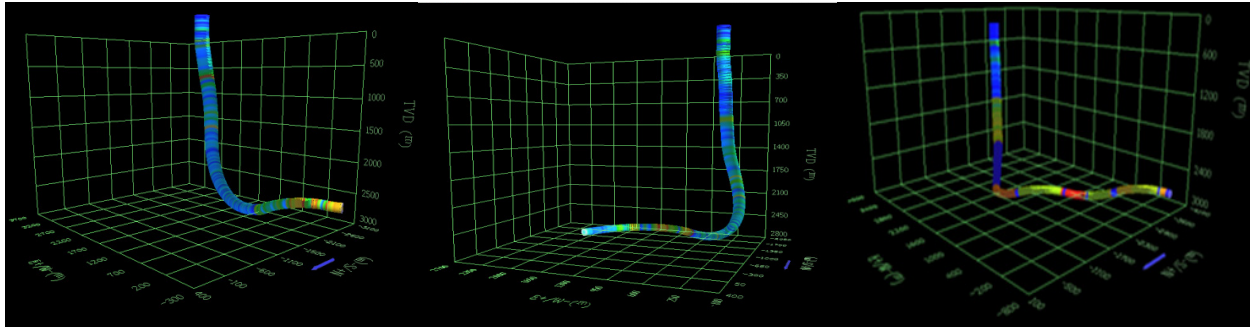


For further information on this tool and proposed applications, please contact your local DHP representative. Specifications may be liable to change without prior notice.



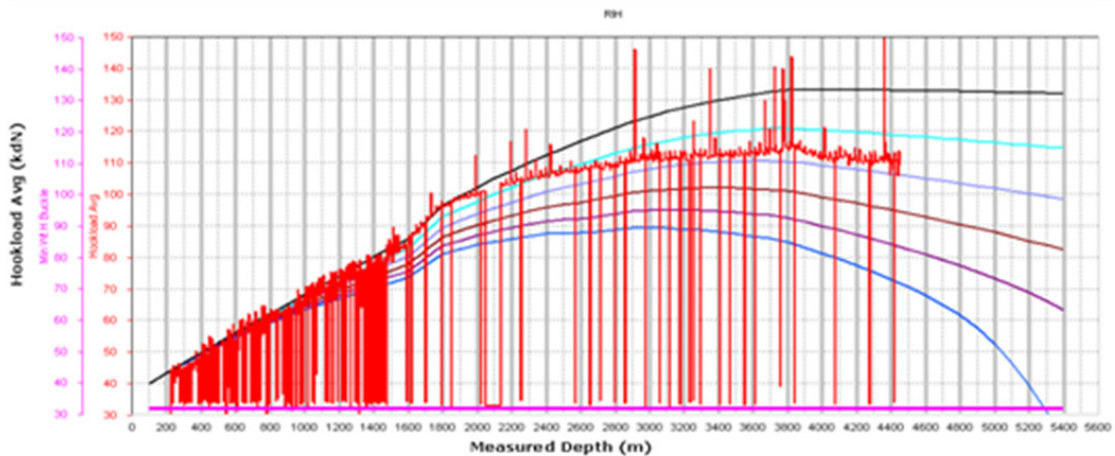
DOWNHOLE
PRODUCTS

The Iron Duke "Snake Well" Profiles



HALLIBURTON
Sperry Drilling

ADT Optimisation Drag Profile



PAJ FF 0.1
PAJ FF 0.2
PAJ FF 0.3
PAJ FF 0.4
PAJ FF 0.5
Rot Off BotH
Min Hel Buckle

S/O FF 0.1
S/O FF 0.2
S/O FF 0.3
S/O FF 0.4
S/O FF 0.5
Hookload Avg

S/O FF 0.1
S/O FF 0.2
S/O FF 0.3
S/O FF 0.4
S/O FF 0.5
Hookload Avg

Completer

ID-29 ST2
Run 1450
RIH 7" Liner

Comments

16 November 2011
Cont. RIH 7" liner on DP to 4450m @
Report time.
Avg FF = 0.15

For further information on this tool and proposed applications, please contact your local DHP representative. Specifications may be liable to change without prior notice.