



Local operator successfully runs two full Dopeless® casing strings for the first time in the Irish Atlantic Margin

TenarisHydril Wedge 523® and Blue® Near Flush Dopeless® connections offered an outstanding performance in the challenging Porcupine Basin.

Summary

A successful first experience

The Porcupine Basin, located in the Irish Atlantic Margin, is a promising offshore location that has sparked the attention of major oil and gas companies from around the globe.

In August 2017 an Irish operator decided to drill a frontier wildcat exploration well in the Irish Petroleum Affairs Division (PAD) block 53/6, an ultra-deepwater location characterized by harsh weather conditions. The company needed flush and semi-flush connections to accommodate the telescopic well design, which required multiple contingency items.

Tenaris supplied TenarisHydril Wedge 523® and Blue® Near Flush Dopeless® connections along with accessories. In addition the operator requested Tenaris field service specialists, who provided running assistance at the rig site.

As a result, two full Dopeless® casing strings were successfully run in hole in the Irish Atlantic Margin for the first time.

Challenges

Ultra-deepwater pressure

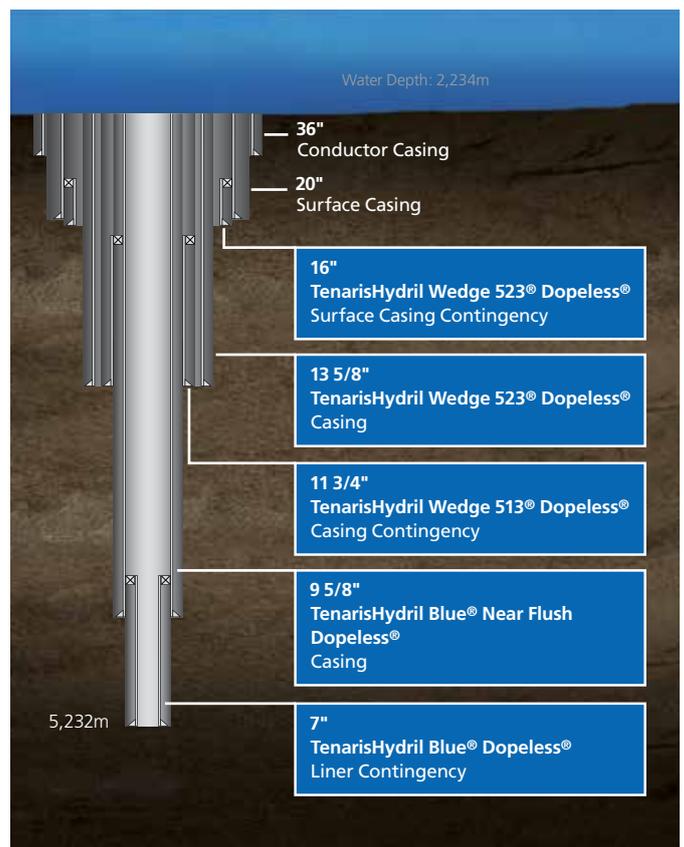
The operation took place 200 miles off the West Coast of Ireland, at a water depth of 2,234m. The TVD was of 5,232m and the bottom-hole pressure reached 9,598psi. Therefore, field-proven products with superior sealing capacity were required.

The operation was carried out from a drill ship amidst sea conditions that are extreme throughout the year. There are swells that can reach 3 meters, even in the summer months. The operator needed robust connections able to withstand the harsh weather conditions and the ship motions.

In addition, flush and semi-flush connections were required to accommodate the telescopic well design, that included 8 planned and contingency strings.

PROJECT PROFILE

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| Location Irish Atlantic Margin | Products highlighted <ul style="list-style-type: none"> • Wedge 523® connections • Blue® Near Flush connections • Dopeless® technology |
| Type of well Wildcat exploration well | Services provided <ul style="list-style-type: none"> • Field Services – Running assistance • Accessories Supply |
| Field Porcupine Basin | |



Stands that promote efficiency

Modern dual derrick drilling rigs allow oil and gas companies to conduct dual operations that can save drilling time. In this particular well, part of the casing joints were racked back in triples in one derrick or stand-building area before they were ran in hole. The connections had to be able to withstand being racked in these heavy stands and made-up without suffering damages in the threads or seals during running operations.

A few months' notice

Tenaris was invited to tender for the exploration well in early 2017 and the contract was awarded in March with the aim of drilling the well in mid-June. Therefore, Tenaris faced extremely challenging lead times.

Environmental regulations

The Irish Petroleum Affairs Division (PAD) has implemented stringent environmental regulations that restrict the release of contaminants in the Irish Atlantic Margin. To comply with these rules, the oil and gas company needed a solution that could effectively minimize the operation's impact on the environment.

Solutions

Field proven connections

Tenaris supplied the operator with 13 5/8" 88.2# TN 125SS TenarisHydril Wedge 523® connections and 9 5/8" 53.5# P110 TenarisHydril Blue® Near Flush connections, along with 16", 11.3/4", 9 5/8" and 7" contingency items in Carbon and High Strength Sour Service grades.

The Wedge 523® is an integral semi-flush connection specially designed for production casing, intermediate casing and drilling and production liners. It is suitable for the most severe compression applications and comes with 100% collapse rated metal-to-metal seal.

Blue® Near Flush connections combine excellent tension capacity, greater compression efficiency and maximum sealability. They were designed for high performance, structural efficiency and maximum clearance.

OCTG stock for quick supply

By relying on its global availability of OCTG, Tenaris can supply products on time when delivery requirements are tight. Tenaris has also recently opened its own service center in Aberdeen, Scotland in a continuous effort to improve its services offer for customers in the region.

Environmental protection

All the casing strings supplied by Tenaris came with Dopeless® solution, a certified zero-discharge technology. This dry, multifunctional coating is applied in a fully automatic process at Tenaris mills. In standard E&P operations thread compounds can be applied manually in the field with a brush, but Dopeless® technology makes these compounds obsolete.

As a result, the rig site is cleaner and safer and the environmental footprint of the operation is significantly minimized. Dopeless® technology allows a final inspection of the connections right before the make-up and lowers the risk of make-up problems, increasing the reliability of the running. In addition, Dopeless® products significantly reduce running times.

Running efficiency through field services specialists

Tenaris certified field service specialists provided running assistance to promote operational safety and efficiency. They worked side-by-side on site with the customer to ensure right practices were followed and products were properly installed and used

Results

The right combination

In spite of the challenging lead times and the complex product mix involved, Tenaris delivered the products on time. Just four months after the order was confirmed, the customer received the full request, which included pup joints and accessories manufactured and threaded locally.

The connections were ran in triple stands in very adverse weather condition, but less than 1.5% of the total joints ran were rejected and the running speed was 10 joints/hour. The make-up graphs for each of the joints and stands assembled showed the robust performance provided by these connections.

Thanks to the Dopeless® technology the operator was able to comply with the environmental regulations of the Irish Atlantic Margin. Dopeless® products also improved safety at the rig site, simplified make-up operations and promoted the reliability of the running amidst harsh weather conditions.

Tenaris field service specialists helped the operator reduce risks and improve running times, offering advice on how to better use the products in the specific conditions of this challenging well. Tenaris experts won a safety award whilst onboard for making an outstanding HSE observation.



For contact information, please visit our site:
www.tenaris.com