Maersk Oil chooses Blue® Dopeless® connections for deepwater well in Angola

TenarisHydril Blue® connections, Dopeless® technology and the assistance of local field service specialists combine for optimum performance under unexpected conditions.

Summary

A booming market
As the price of crude oil remains high and global demand continues to rise, oil companies are moving further from shore into ultra-deepwaters to explore the reserves offshore of Brazil, West Africa and the Gulf of Mexico, an area known as the “Golden Triangle”. Off Africa’s west coast, Angola and Nigeria are believed to have more than 20 billion barrels of deepwater reserves, many of them accessible in water depths greater than 2,000ft.

With three offshore blocks, Maersk Oil Angola is one of the most active operators in West Africa. They began working in the country in 2005 and, by 2010, they had already standardized the use of TenarisHydril Dopeless® technology in all their offshore projects because of its operational, well productivity and HSE benefits.

In the framework of the Chissonga Field in the Lower Congo Basin, which is located 90 miles offshore Angola, up to 4,900 ft water depths, the customer faced the Chissonga 4 deepwater appraisal well in 2012. For this project, Maersk Angola used TenarisHydril Blue® Dopeless® connections with the assistance of local field service specialists, a combination for optimum performance even under unexpected conditions.

Challenge
Minimizing risk in appraisal, deepwater well
Drilling exploratory and appraisal wells, where conditions are not fully known, always calls for extra precautions when compared to development ones. E&P companies tend to rely on capable products that can successfully face the unexpected.

In addition, when working offshore in deep waters, with mudlines deeper than 1000 ft, any operation needs to be carefully planned and executed, minimizing risk as much as possible.

It was in this context, that Maersk was looking for premium casing connections that would perform with certainty under the most demanding conditions in the Chissonga 4 well.
Solutions

Advanced technology

Tenaris offered Blue® connections for the critical 9 5/8” production casing. Designed for the most challenging E&P operations and with more than 10 years of experience, TenarisHydril Blue® technology has delivered value and capabilities that exceed the highest industry standards. As new, more demanding quality standards are released, the one-of-a-kind Blue® connection remains compliant, offering a 100% pipe body rated seal, outstanding high compression and overtorque capacity and the versatility to perform in all applications and environments. With the option of Dopeless® technology, the TenarisHydril Blue® Series is the most reliable connection series on the market.

Dopeless® coating for enhanced performance

Dopeless® technology, the dry, multifunctional coating that makes thread compounds obsolete, is applied in a fully automated process, on dedicated production lines at Tenaris mills. The process guarantees that the exact amount of lubricant is applied to each connection, whereas in standard E&P operations, thread compounds are applied manually in the field with a brush.

As a result, make-up operations become more consistent, more uniform and more reliable highlighting the connection’s performance even after several make-and-breaks.

Furthermore, since several operational rig-side steps over the connections are eliminated, the use of Dopeless® technology reduces both pipe handling operations and manpower, which results in enhanced personnel safety.

Strong local presence

Back in 2009, the local Tenaris technical sales team had introduced Maersk to the advantages and efficient use of Dopeless® technology.

After seeing the benefits of the environmentally friendly coating and considering their previous experiences with this solution in other countries, the customer decided to introduce TenarisHydril Dopeless® technology into their drilling program in Angola.

In 2010, Tenaris specialists organized a make-and-break demonstration in the country, where they provided the customer with a first-hand experience of the technology and highlighted the solution’s improved performance in the field.

For the running of the Chissonga 4 well, Tenaris field services specialists provided on-site assistance and advice regarding the best practices and procedures to achieve optimal connection performance, making sure the products were installed safely and efficiently.

Results

Proven efficiency

The running of the 9 5/8” string in the Chissonga 4 well went smoothly, with zero rejects and zero incidents. During the running of 214 joints of Blue® Dopeless® connections, a local field service specialist assisted the whole operation, from connection inspection to make-up graphs monitoring.

Sustained reliability

One month after the job was finished, Maersk attempted a sidetrack of the well. 126 joints were pulled out of the hole, out of which 2 were rejected. A field service specialist also assisted this operation, monitoring the whole procedure and inspecting on-site the pulled joints.

Not only did the pulling of these 126 Blue® Dopeless® connections go flawlessly, but also 119 of these joints were used for the sidetrack a few days later with only one rejected joint. The rig crew was very pleased with the overall performance of the connection and could see for themselves the robustness of Dopeless® technology.