



Streamlined process for running casing brings million dollar savings in Ghana

In the developing region of offshore Ghana, Tenaris sets the standard for safely running triple stands of casing on a two derrick drillship.

Summary

On-site support proves invaluable

One of the many value-added services provided by the global network of Tenaris field service specialists is the on-site support for drilling and completion operations. For this project, our service team worked with customer personnel to tackle the challenge of developing a safe and time efficient procedure to run casing on the maiden voyage of a two derrick drillship drilling its first well offshore Ghana to a depth of 11,200 feet.

Challenge

Ghana drillship incorporates efficient practices in running casing

In partnership with our customers, we evaluated the possibilities associated with this two derrick drillship on its first project offshore Ghana. The team wanted to take advantage of the ship's two derricks to streamline the procedure used, to make up stands that would ensure minimal risk to the crew and equipment while finding ways to eliminate time inefficiencies. The process needed to be carefully examined due to the added weight and risks posed by longer stands.

Because the drillship had two derricks, it opened the possibility to prepare "stands" (sets of pipe that are made up of two or more joints connected together) "offline" (while drilling was carried out with the other derrick). Using this procedure would enable subsequent installation in a reduced operating time. The team was aware that this procedure would not be without risks and should not be undertaken lightly. For instance, the risk of damaging the connection if the stabbing was performed improperly when running triple stands would grow substantially when compared to the same risk when using single joints. The alignment would need to be close to perfect because each joint weighs more than a ton, meaning that the weight of a triple stand (almost 4 tons) would act on the threads. As always, safety took the highest priority and the pipe handling precautions taken with the triple stands were carefully evaluated to run the TenarisHydril Wedge 521™ following the best practices to maximize the value of the product and ensure optimum performance.

PROJECT PROFILE

Location

Offshore Ghana

Services Provided

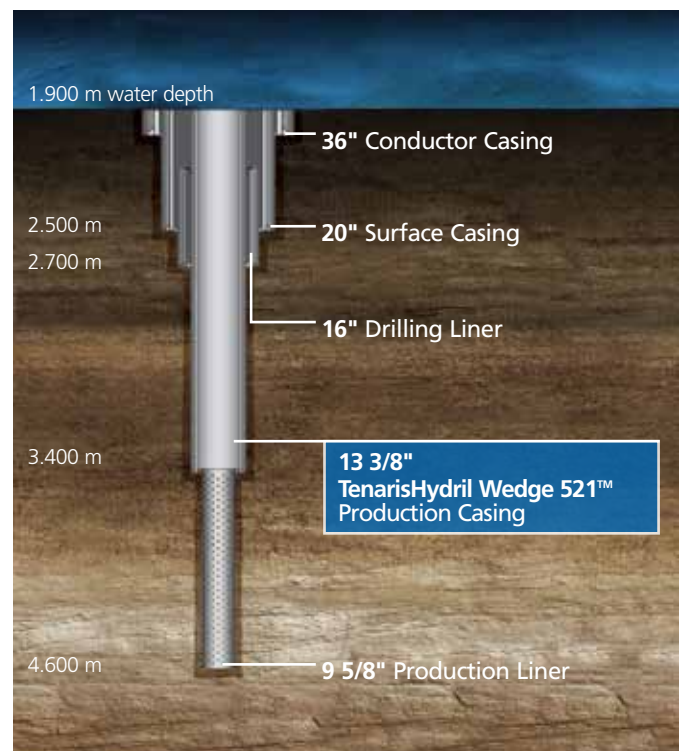
- Technical support and process improvement
- Running assistance

Type of well

Exploration

Products highlighted

TenarisHydril Wedge 521™



Solutions

On-site advantage

Pre-run checks are always carefully executed by the Tenaris field service specialists to ensure that the pipes and connections to be run have not been damaged during transportation. They also confirm the calibration of the running equipment and check the presence of the appropriate accessories and handling equipment to perform the job required.

As the local Tenaris field service specialists were present on the drillship, they were able to check the conditions of the joints that had been on deck for a month and they observed that the storage grease had dried out considerably. All connections were cleaned, brushed, dried with clean rags and set out for final visual inspection

Our Ghana on-site specialists provided running assistance for the correct make-up of the 111 joints in triple stands. During the running stage of the operation, they worked with the local running service company to ensure proper make-up. They also monitored the make-up graphs during running to provide professional interpretation. Having local field service specialists can help avoid problems like re-runs and re-makeups and reduce operational risks.

Partnering in the field

The second derrick was utilized to prepare stands "offline" while the drilling operations were still underway. The field service specialist worked with the operator to help evaluate if the situation would allow stands of three to be made up while ensuring that stabbing could be performed without damaging the connection. It was important that the weight of the stand could be withstood and controlled. The on-site team determined that stands of 4 were not feasible due to the height limitation of the derrick.

Our field service specialists are committed to working as full time members of the customer's team. They are on-site to advise and collaborate with the customer from the arrival of the pipe to installation in the well. Having our field specialists on-site reduces operation risks and optimizes running times because they know how to achieve the highest performance from every TenarisHydril product.

Saving operating time

After make-up, each stand of three was lifted clear of the hole and the pipe racking system was moved into position at the drilling derrick. The stands were racked back in the drilling derrick, ready to be run into the drilled hole after it was determined whether a wiper trip was needed. Having the stand racked back at the drilling derrick in a position that made it accessible to both pipe racking arms would save both valuable running time and money.



▲ TenarisHydril Wedge 521™ was run safely in triple stands in Ghana.

Results

Reduced cost and time

The operation supported by the Tenaris field service specialists proved to be a technical and cost-saving success. All stands were run in this manner and no problems were encountered during connection make-up for the entirety of the job. Preparing the stands in advance took approximately 30 hours over a scheduled dayshift period of three days. This procedure reduced working time by an estimated two days with an estimated cost savings of \$1 million USD.

Shared expertise

The ability to safely prepare triple stands at the second derrick while the well was being drilled at the drilling derrick has proven to be a best practice that Tenaris can now share. Because the procedure was so successful, more runs in triples have been performed in the area with several customers.

Tenaris local field service specialists are deployed around the world to work close to the customer on a local basis. In this instance, they were able to combine their expertise and knowledge of Tenaris products with their understanding of the regional drilling and exploration challenges of offshore Ghana to assist our customer with the expertise they needed to ensure that running job was performed as smoothly and more efficiently than ever before.



For contact information, please visit our site:

www.tenaris.com