Dopeless® technology meets stringent environmental requirements in the Arctic

The groundbreaking Snøhvit project was the first development worldwide to adopt dope-free connections for all casing, production tubing and liners run into its wells.

Summary

StatoilHydro’s Demanding Development

Great amounts of untapped hydrocarbon reserves are expected to be found in the Barents Sea. It is an extremely harsh operational environment, with temperatures reaching -40° C. The Norwegian government has set stringent standards to protect the local community and fishing industry from contamination.

During December 2004 and March 2006 the customer turned to TenarisHydril Blue™ Dopeless® connections, for the drilling in Snøhvit, a zero discharge product, to minimize the development’s footprint and meet the guidelines of the government. Tenaris’s dope-free alternative is a completely dry solution that provides the required lubrication while avoiding on-site thread compound application and fully eliminating casing and tubing related dope discharges during storage, preparation, running and pulling.

Solutions for the Customer

Environment

The Barents Sea is a key breeding ground for Norwegian fish. The Norwegian government imposed strict regulations on StatoilHydro’s E&P activities to help protect the fishing industry and reduce the risk of harming the environment and livelihoods of those people who share the sea. Tenaris’s Dopeless® technology eliminates environmental problems associated with pipe dope such as water contamination. It also reduces disposal costs associated with the preparation and running of traditional tubing and casing.

Arctic conditions

Storing and running pipes at low temperatures can damage the product. Dopeless® technology is specially designed to withstand harsh operating climates and work perfectly with corrosion-resistant steel grades. Prior to its implementation at Snøhvit, Tenaris and the operator tested the connections’ resistance in Tenaris’s R&D laboratories at temperatures reaching -40°C. Operational savings were also realized by removing the tasks associated with removing and applying storage and running compounds in the cold weather.

PROJECT PROFILES

Location
Barents Sea, Norway

Field type
Offshore (140 km from Hammerfest)

Products provided
TenarisHydril Blue™ Dopeless® premium connections
Carbon and corrosion-resistant tubing and casing in the following grades:
- L80
- P110
- 13 Cr L80
- 25 Cr Duplex
- Sizes 7”-14” OD

Services provided
- Stocking
- Pipe preparation for offshore use
- Technical running assistance on the rig
- Inspection
- Rig returns

The TenarisHydril Blue™ Dopeless® connection is a completely dry solution.
Health and safety

StatoilHydro’s HSE target for Snøhvit was that its development and production would not cause accidents, lost-time injuries, occupational illnesses, material loss or damage to the environment. TenarisHydril Blue™ Dopeless® technology eliminates all dope-related consequences throughout the supply chain and the number of handling operations onshore and offshore is reduced. By eliminating the need to apply dope, the customer maintains non-slippery, clean floors that enhance HSE conditions on the rig floor.

Results

The pipes were run using a floating rig equipped with automatic handling, achieving very acceptable results. TenarisHydril Blue™ Dopeless® connections registered high running speeds (12 joints/hour) and low rejection rates. A total of 190,000 feet of the TenarisHydril Blue™ Dopeless® premium connection pipes were run in ten wells, complying with the operators’ zero discharge objective for casing and tubing dope.

Following this successful experience, Dopeless® has been adopted by multiple operators around the world. In places such as the United Arab Emirates, Egypt, Argentina, New Zealand, Australia, Austria, Trinidad and Tobago, and Kazakhstan.

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

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