



## 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  $-40^{\circ}\text{C}$ . 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 Snøvit, 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  $-40^{\circ}\text{C}$ . 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.



▲ During 2004 and 2006 Tenaris carried out technical inspections and running assistance on the rig.



◀ Statoil's Snøhvit project was developed under stringent environmental guidelines, set by the Norwegian government.



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[www.tenaris.com](http://www.tenaris.com)