

# Offshore

Offshore development is a key component of Nexen's growth strategy and we are ready to handle the unique risks associated with offshore oil and gas.



The 2010 installation of a production sweetening facility has enhanced Nexen's ability to process naturally occurring hydrogen sulphide in the oil produced from our Buzzard platform, offshore United Kingdom.

## OFFSHORE GULF OF MEXICO AND THE UK NORTH SEA

### The source of half of our total production.

#### STRATEGIC RESOURCE VALUE

In 2010, Nexen allocated more than 55% of our \$2.7 billion capital budget to offshore activities—a clear indication that offshore exploration and production is an essential part of our business strategy.

Our offshore activities are concentrated in three world-class basins: the UK North Sea, the deepwater US Gulf of Mexico and offshore West Africa, and in 2010 contributed more than half of the 246 mboe/d we produced.

In the UK, Nexen acquired the Buzzard and Scott/Telford assets in 2004 and over the past six years we have doubled our reserves, while becoming the second largest offshore producer of oil in the UK. More recently, Nexen made a major discovery in the Golden Eagle area. It's one of the largest finds in the UK North Sea in the past decade.

Offshore West Africa, Usan is a long-term project that Nexen has been involved with as a non-operating partner. Usan features a new floating production, storage and offloading unit to recover significant oil volumes, 36,000 boe/d (net to Nexen), and is targeted to come on stream in 2012.

Nexen's long-term growth strategy includes the US Gulf of Mexico, where we have made sizeable investments to explore and develop prospects, and where we are the only independent Canadian oil and gas company currently operating. Our plans include testing exploration prospects to further delineate and appraise our two major discoveries at Appomattox and Knotty Head, as well as explore new acreage.

#### OFFSHORE CHALLENGES

The safety and protection of workers and the marine environments in which we operate are key offshore priorities. Offshore energy development presents a series of unique risks—among them, the remote nature of the drilling locations, harsh weather conditions and the logistical challenges that come with operating a self-contained complex in deepwater ocean environments.

Governments, regulators, industry and contractors are working together to promote improved safety for workers and Nexen has a strong operating and policy interest in contributing to the improvement of overall industry standards.

*Nexen works closely with contractors to ensure offshore drilling rigs, equipment and safety training meet stringent standards.*



*We conduct thorough acceptance testing prior to operating new drilling rigs and ensure our partners and contractors understand and comply with Nexen's health, safety and environmental requirements.*



### **New Regulations**

Since the Deepwater Horizon incident occurred in 2010, the Presidential Commission report on the incident was finalized in January 2011, and the moratorium on drilling in the Gulf has been lifted. In 2010, the US Bureau of Ocean Energy Management, Regulation and Enforcement introduced new regulations governing drilling activities in the Gulf of Mexico. Among them are increased requirements for well bore integrity, blowout prevention, well control equipment, personnel training, rig safety and spill response.

Nexen and our industry peers have learned a number of lessons from this event. We used the temporary drilling hiatus in the Gulf wisely, scrutinizing the offshore risks and our operating procedures across the company and made the following changes:

- We hired additional environmental compliance specialists to ensure that our Gulf of Mexico operations will meet the new US regulations.
- We strengthened our oil spill response, planning and capacity by joining the Helix Well Containment Group.
- We obtained membership in the Marine Spill Response Corporation and maintained membership in Clean Gulf Associates, extending both our far offshore and near shore protection capabilities.
- We are upgrading the blowout preventers (BOPs) on the Ensco 8501 and 8502 rigs to meet the American Petroleum Institute's Recommended Practice 65 for well drilling specifications.

Our standards will meet the new US regulations. We are pleased to have received drilling permits for the Appomattox appraisal well and Kakuna exploration wells in the deepwater Gulf in July 2011.

### **Incident Factors**

The offshore industry has a strong track record, drills thousands of wells every year, and safely and efficiently recovers millions of barrels of hydrocarbons. Similarly, Nexen has earned a reputation as an experienced offshore operator who has safely drilled numerous shallow and deepwater wells.

The National Oil Spill Commission investigation (<http://www.oilspillcommission.gov/final-report>) into the key causes behind the 2010 Gulf of Mexico oil spill revealed a number of contributing factors. Nexen has reviewed these findings to ensure that operating practices across all our operations address these specific areas, from both a technical and management perspective.

## **RESPONSIBLE OFFSHORE DEVELOPMENT**

At Nexen, we believe drilling in the Gulf of Mexico is safer today because of the lessons learned and new practices put in place.

### **Strong Safety Systems**

Nexen's Health, Safety, Environment & Social Responsibility (HSE&SR) performance is company-wide and part of an embedded culture that emphasizes integrity, leadership and personal accountability. All employees and contractors are expected to work safely and stop work if they see unsafe activities. Our HSE&SR

**Nexen has earned a reputation as an experienced offshore operator and we've safely drilled numerous shallow and deepwater wells in the Gulf of Mexico and the UK North Sea.**

## Survival-One 1000 series suit

Air expulsion system  
for breathability

Integrated thermal layer

High performance  
neoprene gloves and hood

High visibility  
reflective fabric



framework is supported through an extensive program of audits and inspections, safety and environmental training for employees and contractors, and tools for sharing lessons and best practices across our global operations.

In recent years, Nexen has enhanced our emergency preparedness systems, including adoption of the incident command system (ICS) model of emergency management in our Gulf of Mexico operations. (Our UK operations employ a similar, broadly aligned system.) ICS uses a simplified command structure to effectively manage complex and extended emergencies and includes coordination among private sector, regulatory agencies and government first responder agencies.

### Well Design Review

The importance of clear, continual communication and decision-making throughout the entire spectrum of engineering, design and operating processes is an important lesson from the Gulf incident. Nexen conducts internal peer reviews of these processes, and has supplemented this practice by engaging outside resources to independently review and certify our well designs. This includes verification of casing and cement design, the presence and integrity of dual barrier protection and verification of blowout prevention design and capability.

### Surface Spill and Subsea Containment Response

To reduce risk and improve industry response, it is important to collaborate and share resources and expertise in emergency situations. Nexen participates in a number of organizations designed to pool offshore response equipment and personnel, and added to this in 2010 by joining the Marine Spill Response Corporation and the Helix Well Containment Group.

*Ensuring offshore workers have the latest safety equipment is a priority at Nexen. In 2010, Nexen's UK Operations introduced the Survival-One 1000 series survival suit for employees who travel via helicopter to offshore rigs. Nexen is the first company in the UK North Sea to use the suits that feature state-of-the-art technology which provides a superior thermal rating. The suits extend the likelihood of survival in the water to four to five hours.*

Nexen is a member of the following offshore industry emergency response organizations:

- Clean Gulf Associates (US)
- Helix Well Containment Group (US)
- Marine Spill Response Corporation (US)
- Oil Spill Prevention and Response Advisory Group (UK)
- Oil Spill Response Limited (Global)
- SEACOR (US)

### UK North Sea Initiatives

In 2010, Nexen's UK division focused on reducing the number of hydrocarbon loss of containment events by heightening awareness of their importance, modifying specific work responsibilities and devoting full-time resources to the issue.

Another initiative designed to reinforce hazard awareness across Nexen's offshore UK staff was the staging of workshops at the Spadeadam Test Site—one of the world's leading explosion test sites. Close to 200 Nexen employees and contractors participated in sessions designed to highlight the risks and proper practices associated with handling volatile hydrocarbons.

### Offshore West Africa

Nexen has a 20% interest in a project being developed offshore of Nigeria. In accordance with Nexen's HSE&SR Management System, stewardship programs are implemented to ensure HSE&SR principles and standards are addressed in all projects. As a non-operator of the project, Nexen staff meet regularly with the operating company to ensure their operations are aligned with Nexen's HSE&SR standards.

---

For more information on Nexen's offshore operations, please visit [www.nexeninc.com/operations](http://www.nexeninc.com/operations).

---