

Arctic science: a growing body of knowledge

The oil & gas industry has been successfully operating in the Arctic for decades.

From the start, we have been conducting research in parallel with exploration and production. This has proven to be a successful strategy for Arctic operations.

Before engaging in any oil & gas activity, it is important to have a comprehensive understanding of the surrounding environment. The industry has a history of collaboration in research projects and performing extensive assessments to ensure safe and environmentally sound operations.

The information gathered from these assessments, as well as that from existing operations, provides the data needed to support decision-making, facilities design and operational procedures. It also helps to identify opportunities to mitigate the impact of our activities.

For example, we use assessment findings to identify sensitive resources that would require special protection measures. The amount and scope of information required will vary, based on the potential risks posed by the operations. The factors that we take into consideration include the sensitivity of the area (both the natural environment and surrounding communities) as well as the project scope, duration, and potential footprint.

Exploration activities, for instance, are for a limited period and have a smaller potential impact than those associated with construction and project development. That is why it is necessary to acquire more detailed information during the transition from the exploration to development phases. For any commercial discovery and subsequent development, we build on existing information as well as any new data derived from that project's exploration phase.

The oil & gas industry continues to commit significant time and resources towards understanding baseline environmental conditions in the Arctic. This environmental information comes from a variety of sources. In many cases, we conduct detailed studies to characterise the environment. This usually includes investigation into the local ecology, physical environment (ice coverage and variability, currents, waves, etc.), as well as use of the environment by the local communities. We often do these studies in collaboration with local governments, universities, regulators and indigenous populations. Indigenous populations in particular provide valuable understanding and knowledge of the Arctic environment, which can be used to complement conventional science.



Closer collaboration among the oil & gas industry, academic institutions, government agencies, and non-government organisations has evolved and improved over decades. This has resulted in completion of thousands of independent scientific studies in the Arctic. In response to concerns related to climate change and in efforts to understand potential effects of energy development, research programmes have accelerated in recent years.

Our collective goal is further development of the scientific studies and monitoring programmes necessary for collecting information about the environment and the subsistence lifestyles that are unique to the Arctic.

For example, over the past several years, operators have collaborated in building knowledge of the Canadian Beaufort through 'ArcticNet'. This Canadian research centre of excellence brings together scientists and managers in the natural, human health and social sciences with partners from Inuit organisations, northern communities, federal and provincial agencies and the private sector. Together, they are studying the impacts of climate change in the coastal Canadian Arctic.

In Alaska, the oil & gas industry continues to work with local universities, communities, and regulating bodies to conduct comprehensive studies of the outer continental shelf of the Beaufort and Chukchi Seas. Findings from this research are providing a sound basis for oil & gas exploration and development.

All of these efforts notwithstanding, some gaps in our knowledge remain.

Using a risk-based approach and guided by a scientific understanding of the environment, we build a fuller awareness of the potential impacts of our operations. Our aim is to minimise the effects of our operations to the Arctic environment and on the people who depend on it.

Because a thorough understanding of the environment in which we work is fundamental to the way we work. In the Arctic and beyond.

For more information, visit the following:

- www.arcticnet.ulaval.ca
- www.northslope.org
- www.noaa.gov

About OGP

OGP represents the upstream oil & gas industry before international organisations including the International Maritime Organisation, the United Nations Environment Programme (UNEP), Regional Seas Conventions and other groups under the UN umbrella. At the regional level, OGP is the industry representative to the European Commission and Parliament and the OSPAR Commission for the North East Atlantic. Equally important is OGP's role in promulgating best practices, particularly in the areas of health, safety, the environment and social responsibility.