



The Promise of US ARCTIC OIL & GAS POTENTIAL

*A new study brings together diverse perspectives from government, industry, the environmental community, and Alaska Natives and finds that prudent drilling in the Alaskan Arctic is within reach. **Carol Lloyd** reports.*

Drilling in the Alaskan Arctic is an important topic on the minds of environmentalists, policymakers, and those in the oil and gas industry. Opinions are strongly held and diverse. On one hand, some in the environmental community will say absolutely no drilling should be allowed. On the other hand, the US Department of the Interior issued exploration leases in 2008, Shell is mobilizing equipment to Alaska to progress its offshore exploration drilling program this summer, and other countries are moving forward with their own Arctic exploration and development. At the heart of the issue is the question of the risk of an oil spill in Arctic waters.

The National Petroleum Council brought together these very different perspectives constructively with the recently released report *Arctic Potential: Realizing the Promise of US Arctic Oil and Gas Resources*. The comprehensive technical report was completed in response to a request from Secretary of Energy Ernest Moniz, who asked, "What research should be pursued, and what technology constraints must be addressed to ensure prudent development of Arctic oil and gas resources?" The National Petroleum Council convened more than

250 Arctic experts from over 100 diverse organizations, including representatives from government, Alaska Native communities, the environmental community, academia, and the oil and gas industry. The study team held two technology workshops—one in Washington, DC, with representatives from the National Labs and other federal agencies, and one in Alaska, with academic, local, and Native representatives. The coordinating subcommittee, made up of 23 senior leaders from 20 organizations, met monthly over the last year to deliberate on Secretary Moniz's questions. The result is a 500-plus-page report, documenting the state of technology and research in six key areas related to the Arctic offshore: ecology, the human environment, ice characterization and measurement, technology for exploration and development, logistics and infrastructure, and oil spill prevention and response. The report was unanimously approved by the National Petroleum Council on March 27, 2015.

The study found that substantial recent technology improvements in the area of oil spill prevention make the risk of an oil spill in the US Arctic extremely remote. This technology, including subsea shut-in devices and

capping stacks, was developed in response to the Deepwater Horizon tragedy. To date, a subsea shut-in device was installed on a well drilled in the Kara Sea in 2014, and another has been developed, tested, and demonstrated for planned use in the Canadian Beaufort. In addition, Shell has a capping stack available for planned drilling this summer in the US Arctic. These technologies are recognized as providing superior envi-

development of US Arctic oil and gas resources, two regulatory constraints limit the pace of exploration—season length and lease terms. Regarding season length, the study recommends additional research to validate technologies available to safely extend the drilling season, such as was used successfully in the 1970s and 1980s in US and Canadian Arctic waters. Regarding lease terms, the study recommends that the

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ronmental protection compared with the current practice (of same-season relief wells) but are not yet fully accepted by all stakeholders in the United States as a replacement. The study recommends that the Department of Energy and Department of the Interior move forward with the analyses, investigations, and any necessary demonstrations to validate these technologies. The study also recommends that government agencies join an ongoing industry collaborative research program that has progressed testing of oil spill response technologies in Arctic conditions. This project has been under way since 2012, with participation from eight major oil and gas companies from around the world.

The study also found that the United States has substantial undiscovered oil potential, similar to Russia and larger than Canada and Norway. The majority of this potential is in relatively shallow water of less than 100 meters and can be safely explored for and developed using existing field-proven technology—technology that has already been deployed in the US Arctic and other Arctic regions. But although the study found no technology constraints to prudent

Department of Energy and the Department of the Interior assess the current US lease length and terms, compared with those of other Arctic nations and compared with the time required for exploration operations.

Realizing the promise of US Arctic oil and gas resources will require public confidence that the opportunity can be pursued in a prudent manner, safely and while maintaining environmental stewardship. Public confidence can be improved through collaborative studies and research, as recommended in the report, on the topics important to all stakeholders: safe and responsible exploration drilling and oil spill prevention and response in an icy environment. The results of these studies should inform future regulatory and policy actions.

The National Petroleum Council's new report and the recommended research will promote good science for sound policy, and other nations have taken note. The Norwegian Ministry of Petroleum and Energy has requested permission to translate portions of the report for presentation to the Norwegian Parliament. ●

The executive summary and full report are available online at www.npcarcticpotentialreport.org.