

Testimony of
Aaron Schutt
President and Chief Executive Officer
Doyon, Limited
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Energy and Natural Resources Committee
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H. Con. Res. 71

Madam and Ranking Chairwomen and Members of the Committee, thank you for the opportunity to testify on the potential for oil and gas exploration and development in the non-wilderness portion of the Arctic National Wildlife Refuge, known as the “1002 Area” or Coastal Plain, to raise sufficient revenue pursuant to the Senate reconciliation instructions included in H. Con. Res. 71. I would especially like to thank my home state Senators Lisa Murkowski and Dan Sullivan. Chair Murkowski invited me here to testify today. My name is Aaron Schutt. I am President and Chief Executive Officer of Doyon, Limited. I am Koyukon Athabascan, a shareholder of Doyon, and a tribal member of the Native Village of Tanana.

Doyon, Limited (Doyon) is one of the thirteen Native regional corporations established by Congress under the terms of the Alaska Native Claims Settlement Act (ANCSA) of 1971. Headquartered in Fairbanks, Doyon has more than 19,700 Alaska Native shareholders. Doyon is the largest private landowner in Alaska, with a land entitlement under ANCSA of more than 12.5 million acres. Doyon’s lands extend from the Brooks Range in the north to the Alaska Range in the south. The Alaska-Canada border forms the eastern border and the western portion almost reaches the Bering Sea. The southern portion of the Arctic National Wildlife Refuge (ANWR) lies within the Doyon region.

Doyon’s mission is to promote the economic and social well-being of our shareholders and future shareholders, to strengthen our Native way of life, and to protect and enhance our land and resources. Doyon, Limited operates a diverse family of companies in industries including oil and gas service contracting, natural resource development, government contracting and tourism, among others.

Doyon supports the opening of the ANWR Coastal Plain to oil and gas development if it can be shown to be consistent with protection of the Porcupine Caribou Herd. The Gwich’in people, many of whom are Doyon shareholders, rely on that herd for subsistence and cultural survival. We encourage the United States government to offer the Gwich’in a role in co-management of the Porcupine Herd should it open ANWR to oil and gas exploration and development.

Today, I will focus my testimony on one of our wholly owned subsidiaries in the oil and gas service industry, Doyon Drilling, Inc. (DDI). DDI operates on the North Slope of Alaska with eight oil and gas land drilling rigs specially designed to drill oil wells in extreme conditions. DDI also has one more rig, Rig 26, an extended reach rig, under construction. Doyon and Nugget

Alaska, Inc. formed DDI in 1982 as a joint venture. DDI became a wholly owned subsidiary of Doyon in 1993.

DDI currently has over 300 employees with its main office located in Anchorage, Alaska. We have demonstrated our commitment to remain competitive in the industry by continually reinvesting in our employees and rigs. Investment and innovation in our fleet has helped to make our rigs more efficient and protective of the environment.

DDI has proudly celebrated a number of “firsts” in the industry. Our Rig 9, now Rig 19, was the first self-propelled, wheel-mounted rig developed for the North Slope. We later applied that same moving system to Rigs 14, 15 and 16. We were also the first drilling company on the North Slope to use highline power and dual fuel turbines.

The balance of my testimony will focus on the use of new technology to minimize the footprint of oil and gas development in the Arctic. DDI has played a significant role and led its industry in innovation and the adoption of new technology.

New Technology Reduces Footprint/Impacts of Development

When Congress last debated opening the ANWR to oil and gas exploration and development in 2005, supporters of development argued that using new technology and advanced engineering designs would allow oil companies to develop ANWR safely while protecting the environment. Since 2005, oil companies and drilling contractors have continued to incorporate new technology into Alaska’s oil field and those advances have borne out the claims made in 2005.

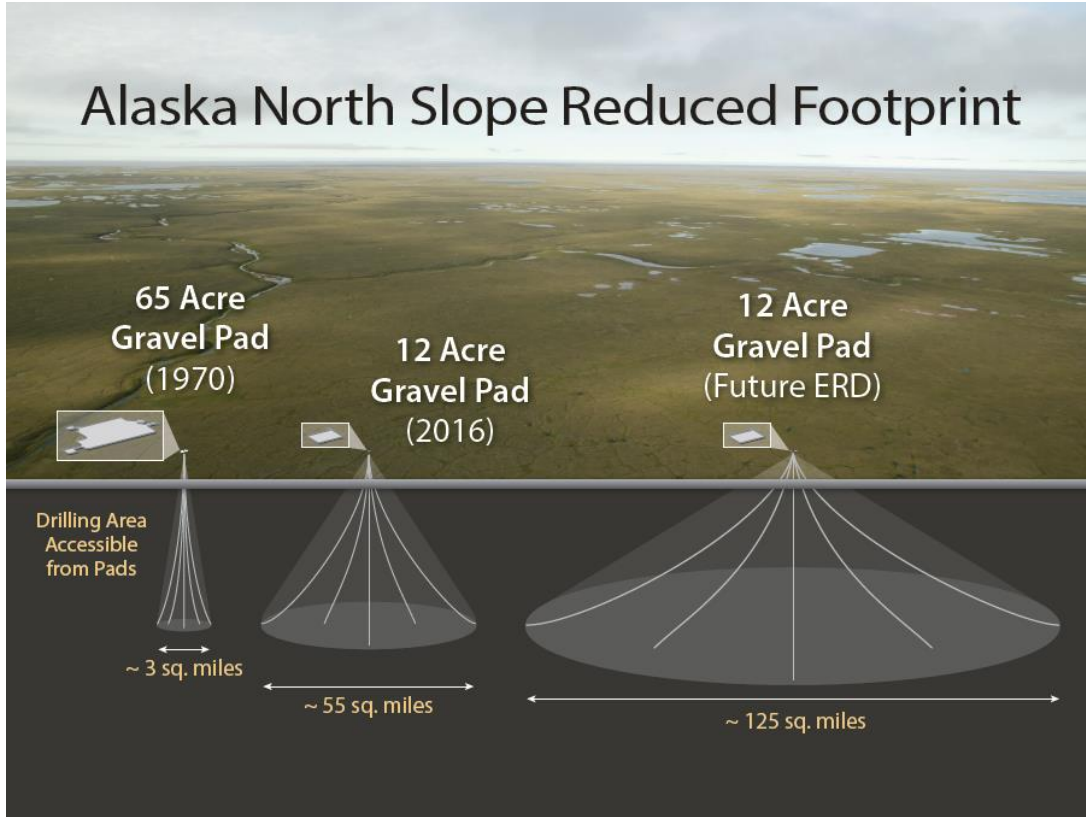
When oil companies developed Alaska’s Prudhoe Bay oil field in the early 1970s through the 1980s, they had to drill wells straight down and the spacing of the wells on the surface was usually about 120 feet. The roughly 3,000 wells sunk at Prudhoe Bay and their spacing caused the surface development there to affect about 19,000 acres.

Technological advances made since the Prudhoe Bay oil field’s development in the 1970s have resulted in increased oil recovery rates from fewer oil wells with far smaller surface impacts as a result of fewer and smaller drill pads. The technology has resulted in dramatically less overall surface disturbance, meaning far less impact on the habitat for wildlife.

Several critically important developments in drilling are the use of directional, extended reach, and multi-lateral drilling. Those techniques allow wells to be drilled in all directions from a well pad, like spokes on a bicycle wheel.

Directional drilling in the 1970s permitted oil companies to produce oil from only about 16 square miles surrounding a single well pad. Today’s drilling rigs can easily drill wells from a single pad that can access over 100 square miles. That means that pads can be spaced up to ten miles apart and the habitat between pads can be protected with little or no surface disturbance. Figure 1 shows the dramatic change in surface footprint made possible by modern drilling technology.

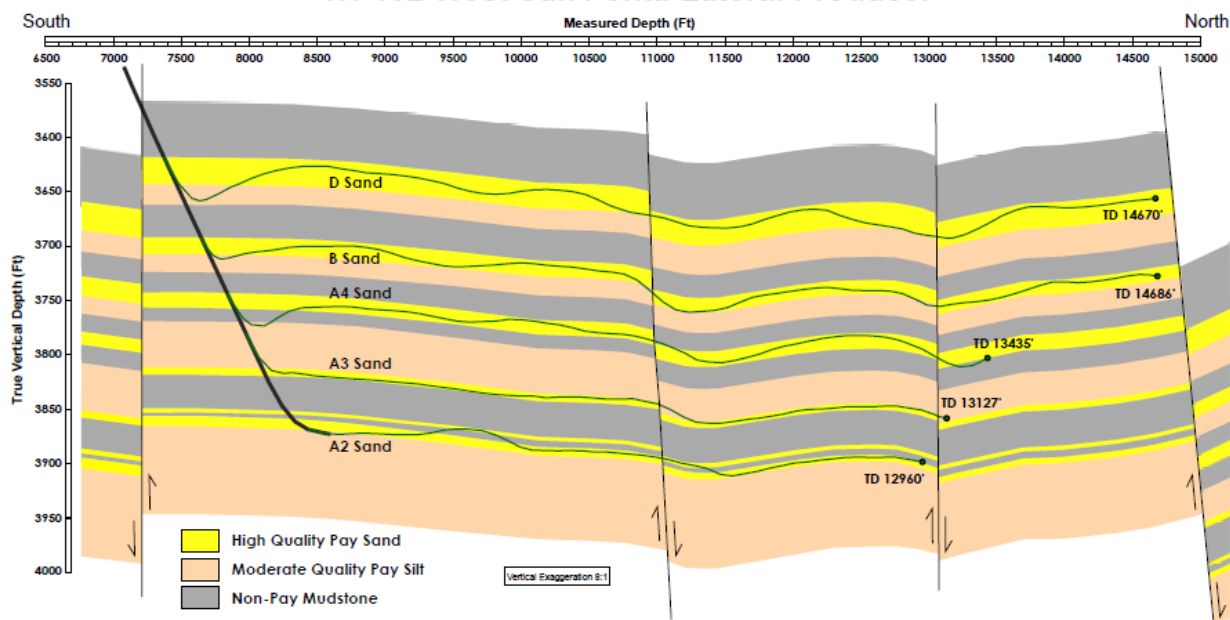
Figure 1. Minimizing Footprint Through Technology.



The impact of technological changes are not theoretical. Doyon’s Rig 142 recently drilled a penta-lateral well in the Kuparuk field on Alaska’s North Slope. Figure 2, below, is a schematic of that well. It shows five production wells drilled from a single surface well bore. Doyon directionally drilled each of the legs of the penta-lateral well. Our client is now producing from different reservoir sands at varying depths below the surface through three fault blocks. The total drilled length of the five wells is over 39,000 feet. If Doyon’s client had developed these same resources twenty years ago, it would have required several well pads on the surface and multiple wells on each of those pads.

Figure 2. Penta-Lateral Well Drilled by Doyon Rig 142.

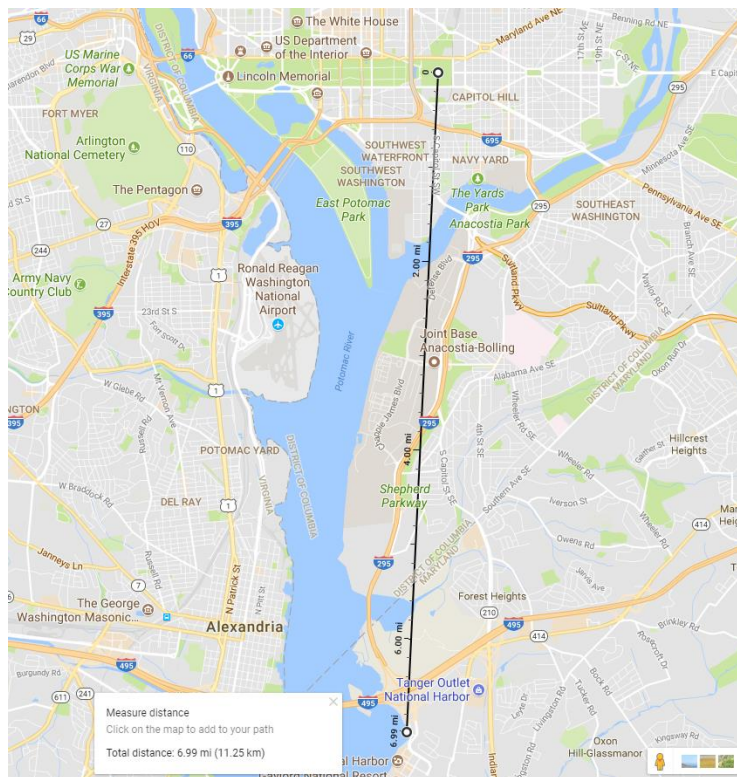
1H-102 West Sak Penta-Lateral Producer



Doyon is currently building an extended reach drilling rig (ERD rig), Rig 26, that will be able to reach out even further. DDI, our client, and our rig builder have designed Rig 26 to drill up to 35,000 feet horizontally. That capability will allow the rig to drill wells covering 125 square miles from a single surface well pad as depicted in Figure 1. For perspective, that means that Rig 26 will be able to drill horizontally from Capitol Hill in Washington, D.C. and hit a target the size of a small room at the National Harbor Resort and Convention Center on the Potomac River, six and a half miles away.

Doyon's Rig 26 will join our fleet in the winter of 2019-2020. It will allow our client to develop known but currently untapped oil resources from existing surface infrastructure. In other words, our client will not need to build any new pads, roads or pipelines to produce known oil reserves.

Figure 3. Doyon Rig 26 Horizontal Reach



The changes in drilling technology and well design have also resulted in smaller well pads on Alaska’s North Slope. Today’s well pads are now 70 to 88 percent smaller in acreage than three decades ago. As noted above, the number of pads needed to access a field has fallen by up to 70 percent.

In East Texas in the early 1900s, the surface footprint of oil development was 140,000 acres to produce 5.2 billion barrels of oil from 30,340 wells. By 1969 at the original Prudhoe Bay field in Alaska, 19,000 acres were required to produce 11.9 billion barrels from 3,000 wells. By the time industry developed the Alpine field in Alaska in 2000, only 97 acres were required to produce 450 million barrels of oil from 116 wells – the footprint being less than 0.5 percent of the productive area.

The Tarn oil field at Prudhoe Bay was finished in 1998 and required a gravel pad of just 6.7 acres. The newest development at Oooguruk at the Kuparuk River Unit consists of a 6-acre drill site holding 50 wells and just a 1.5-acre onshore facility to help transport oil back to the main Prudhoe Bay pipelines.

Recent development by Eni at Spy Island, the Nikaitchuq deposit, has allowed 52 wells with related oil processing facilities, to be drilled from a pad about 11 acres in size. Doyon’s Rig 15 has drilled all of those wells. It has been on Spy Island since 2009. DDI is currently modifying

Rig 15 to allow it to drill up to 35,000 feet horizontally to further extend the reach of wells drilled from Spy Island.

New Technology Reduces Footprint/Impacts of Exploration

Oil development today also causes far less impact to wildlife and the environment during exploration. Three-dimensional seismic testing allows oil to be located more accurately reducing the need for exploratory well drilling. This results in fewer “dry holes” and less physical disturbance on the surface.

Modern oil and gas exploration in Alaska leaves almost no permanent trace until development for production. The oil industry in Alaska uses ice roads and ice pads to support winter-only exploration drilling programs. The surface land is largely unaffected and it is difficult to know a few months later that a large drilling rig and all of the supporting equipment has even been there. Figure 4 shows Doyon Rig 141 drilling an exploration well in the National Petroleum Reserve Alaska and the same location the following summer.

Figure 4. Doyon Rig 141 Exploration in NPRA



The official environmental impact statement for ANWR development from the U.S. Department of the Interior, now three decades old, showed that ANWR’s total potential oil reserves could be developed while only affecting about 2,000 acres of the surface of the coastal plain. The technology available to oil and gas companies today supports that assessment. Development will not physically touch 99.99 percent of the refuge, and it would leave untouched all of the refuge’s current 7.16 million acres of formal wilderness.

Benefits of Natural Resource Development to Doyon

Alaska’s oil and gas industry is important to Doyon. We have built a healthy and sustainable business that employs hundreds of our Alaska Native shareholders and gives them career opportunities. Many of our positions are well-paying blue collar jobs, something that seems increasingly rare these days. It has also been a profitable business that allows us to fund scholarships and training opportunities for our shareholders and to pay dividends.

In Doyon’s fiscal year 2016, we employed 574 Doyon shareholders and 121 shareholders of other Alaska Native corporations. DDI employed 215 of the Doyon shareholders.

Responsible development of ANWR would likely result in additional opportunities for Doyon. A single rig contract creates job opportunities for up to 80 employees. At current levels, more than forty of those employees would be Doyon shareholders. DDI would pay salaries to those Doyon shareholders of about \$4 million per year.

In fiscal year 2016, Doyon contributed \$2.5 million to our affiliated education foundation, the Doyon Foundation. That total included contributions to the endowment, operating expenses and scholarships, and for the language revitalization program run by the Foundation. The contribution is possible, in large measure, because of our oil and gas contracting business.

In our fiscal year 2016, we paid a dividend to our Alaska Native shareholders that totaled \$9.7 million dollars. Doyon will distribute a dividend to its shareholders on December 5, 2017, that will be approximately \$12.0 million. Much of the profit Doyon makes and that supports our dividend is from our oil and gas contracting business.

Doyon's shareholders are not the only Alaska Natives that would benefit from development in ANWR. Subsidiaries of a number of other Alaska Native corporations provide services to the industry on the North Slope. The State as a whole benefits from new development. Each new development results in new jobs for Alaskans, tax revenue for the State, and potential profits for Alaska Native corporations and other companies in the industry. This results in continued services for our shareholders and Alaska citizens.