

Third-Generation Drilling Technology Using directional, or slant, drilling, firms can now tap huge areas from a minuscule surface footprint.

developed the potential to meet our own energy needs without depending on any foreign energy source.” Editorial pages burst with calls for conservation and increased domestic oil production.

Well, guess what? In 1973, the U.S. imported some 35 percent of its oil. At present, almost 60 percent of our supplies come from abroad. U.S. national security is now more threatened than ever before by dependence on foreign oil. A 1973-style supply interruption today would have catastrophic consequences for our quality of life and our economy.

Canada, currently the United States’ most secure foreign oil source, is likely to remain a stable and assured supplier, but the majority of our other exporters are politically precarious nations. The Middle East is as worrisome as ever, perhaps more so, with Israel again enveloped in strife and Islamic fundamentalism on the rise. Iran’s political and religious leaders are clashing, as they did in 1979, when the fall of the Shah sent a secondary quake through world petroleum markets. Venezuela, the single largest seller of crude to the U.S., is currently governed by a president rhetorically hostile to America. He recently called for cooperation with Cuba, China, Libya, and other states to “resist American hegemony.” Meanwhile, Colombian guerrillas have repeatedly sabotaged the critical Cano Limon-Covenas pipeline this year, reducing export

flows. And in Indonesia, Exxon was recently forced to abandon natural gas fields due to guerrilla attacks. Instability in other parts of that country is also compromising oil production.

As the Center for Strategic and International Studies’ Robert Ebel said in testimony before Congress in the spring of last year, a refusal to explore for oil and gas domestically, “means we have given up on ourselves. We have agreed to place our future well-being in the hands of nation-states whose national interests may not always coincide with ours.”

It is our second June day on the North Slope, the sky has begun to darken, the wind has risen, and we dig out parkas and gloves. From the isolated speck that is Alpine we fly to the Kuparak field. If Alpine represents fourth-generation oil drilling technology, Kuparak is second-generation. Compared to Prudhoe, where the techniques of arctic oil extraction were pioneered in the 1970s, the 1980s Kuparak facilities are more compact and advanced. But next to Alpine, even those methods seem sprawling and crude.

A basic facility for separating oil from the water and gas that rise to the surface with it used to take up 65 acres. Today, it averages nine. Separate wells used to be drilled no closer than 150 feet apart. Now they can go in at a spacing of ten feet. The cumulative result is that oil production facilities are much less intrusive than they were just a few years ago.

On the other side of Kuparak lies Prudhoe proper. The transition is dramatic. Prudhoe is a large complex that looks like some Midwestern industrial facility. The entire Alpine facility could fit on a fraction of the pad that supports Prudhoe’s gas treatment plant alone. There are roads, processing centers, equipment depots, and modular housing for the personnel who rotate in and out on two-week shifts. There are no schools, no families, no permanent residents.

While not exactly picturesque, the advantage of already having Prudhoe on the North Slope is that a great deal more new oil production could be supported without much new construction. Prudhoe serves as a central headquarters for many vendors and technical firms, has air and marine terminals, and overnight

Media About-Face on ANWR

By Michael Catanzaro

The editorial pages of the *New York Times* and *Washington Post* currently propound the idea that opening a small portion of Alaska’s Arctic National Wildlife Refuge (ANWR) for oil and gas drilling would despoil a pristine wilderness. Yet, at one time, both papers argued *against* that shibboleth. Not so long ago, scribes at both the *Times* and *Post* penned editorials in which they debunked with eloquence and common sense the arguments they enthusiastically champion today.

In 1988, the *Times* and *Post* actually supported the recommendation of Reagan Interior Secretary Don Hodel that opening ANWR could reap immense benefits with little or no environmental damage—the same argument now made by President Bush. In an editorial on June 2, 1988, the *Times* noted that “the potential [of ANWR] is enormous and the environmental risks are modest...the likely value of the oil far exceeds plausible estimates of the environmental costs.... Some members of Congress believe that no damage at all is acceptable. But most are ready to accept

a little environmental degradation in return for a lot of oil.... It is hard to see why absolutely pristine preservation of this remote wilderness should take precedence over the nation’s energy needs.”

The *Times* heaped expansive praise on oil drilling in Prudhoe Bay and Alaska’s North Slope. “The North Slope development has been America’s biggest test by far of the proposition that it is possible to balance energy needs with sensitivity for the environment,” the editorial closed. A year later, on March 30, 1989, the *Times* warned against using the Exxon Valdez oil tanker crash as a pretext for leaving ANWR untouched. “Washington can’t afford...to treat the accident as a reason for fencing off what may be the last great oilfield in the nation.”

Is this the work of a *Times* impersonator? Such words cannot be squared with this anti-ANWR screed written on January 31 of this year: “Mr. Bush’s plan to open [ANWR] is as environmentally unsound and intellectually shaky as it was when Ronald Reagan suggested it 20 years

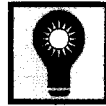
facilities. It has a seawater treatment plant. It sits at the top of both the 489-mile Dalton Highway and the Trans-Alaska Pipeline, which carry supplies in and out. New fields can thus be brought on line with only comparatively modest amounts of planning, investment, and tundra space.

During its peak throughout the 1980s, Prudhoe sent more than 1.5 million barrels of oil down the Alaska pipeline every day. Production began to decline at the close of the '80s, and this threatens to make some facilities obsolete in the near future. If fresh North Slope exploration and production don't continue, the whole Prudhoe complex could become uneconomic to operate, resulting in a massive and costly shutdown. Energy production from America's Arctic would come to an abrupt end.

Lonnie Brooks, a geophysicist with Geoarctic Consultants, oversaw the only seismic surveys ever conducted in the Arctic National Wildlife Refuge, in the winter of 1984-85. The surveys were conducted in the small fraction of the reserve specifically earmarked for oil assessment when the refuge was established in 1980. Known as the 1002 area, it encompasses 1.5 million acres on the northern edge of ANWR's total 19 million acres.

Brooks says his survey indicates strongly that there are significant undiscovered petroleum reserves in the 1002 area. "Even the surface expressions of the rocks there indicate the presence of petroleum," says Brooks. "I mean, you can chip a chunk off and smell the oil. So the oil has been in those rocks, there's no question about that. Just to the west of ANWR, at Prudhoe Bay, is where the largest oil discovery in North America was made, and just to the east the Canadians have made tremendous gas finds in the Mackenzie River delta. So it's surrounded on both sides by highly productive areas."

In 1998, the initial data gathered by Brooks' team was reinterpreted by the U.S. Geological Survey, raising the estimated num-



**The small section
of ANWR set aside
years ago
for potential
oil exploration
is the richest
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The evolution of seismic technology provides an opportunity to dramatically reascertain the oil potential of ANWR. With the advent of three-dimensional seismic surveying, geologists are now able to walk through virtual representations of geologic formations. The amount of data the 3-D surveys provide, compared to the 2-D surveys Brooks used to evaluate ANWR almost 17 years ago, is often compared to the difference between an X-ray and a CAT-scan. The new imagery provides a wealth of fresh detail, and has led to dramatic increases in the success rate of test drilling. Whereas exploratory wells used to come up dry as often as nine times out of ten, today many companies are finding producible oil in 80 percent or more of their shots into the dark.

In this year's budget, the Bush administration has requested the means for a careful 3-D survey of ANWR so its true potential can be accurately assessed. Environmentalist opponents in Congress, however, are in the process of stripping out any such funding. They'd apparently rather not know too many specifics about the reserves; the results, they realize, are likely to be oily. So this summer Congress will officially go on record in favor of ignorance and obscurantism.

ago and when Mr. Bush's father suggested it a decade ago." With the self-righteous indignation that we have come to know so well, the new *Times* suggested "it is outrageous for [supporters of drilling in ANWR] to clamor for access to the pristine lands of the refuge.... The relatively trivial amounts of recoverable oil in the refuge cannot possibly justify the potential corruption of a unique and irreplaceable natural area."

Apparently the *Washington Post* editorial board experienced a similar conversion. On December 25, 2000, the *Post* stated in an editorial titled "Protect the Refuge" that President Bush "would have a hard case to make" in proving that "the oil to be gained is worth the potential damage to this unique, wild, and biologically vital ecosystem."

Yet in 1987, the *Post* could not have been more emphatic in exposing the environmental myths propagated about ANWR. ANWR "is one of the bleakest, most remote places on this continent," wrote the *Post* and there is hardly any other area where drilling would have less impact on surrounding life..."

Back then, the *Post* noted that decreasing America's dependence on foreign oil was sound environmental policy. "If less is to be produced

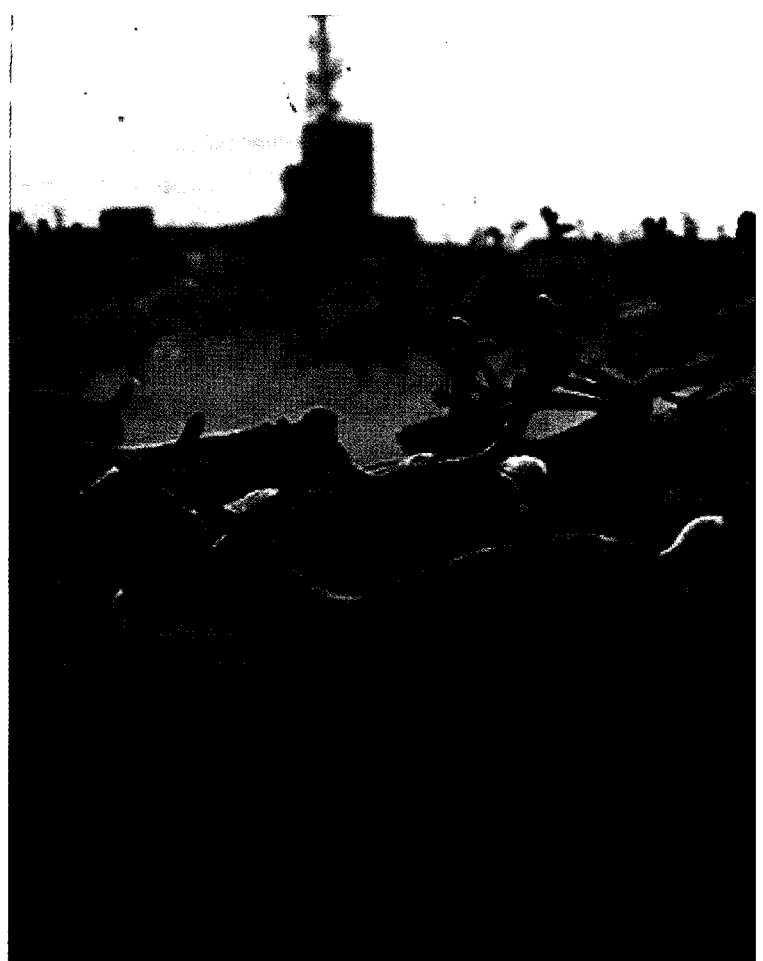
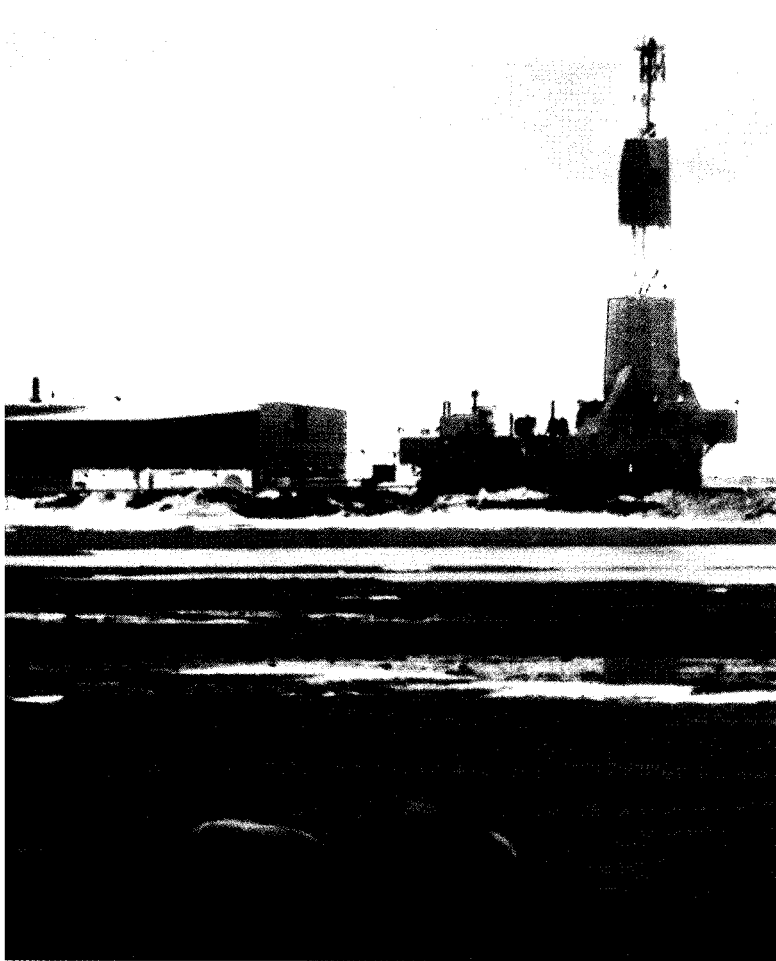
here in the United States, more will have to come from other countries. The effect will be to move oil spills to other shores. As a policy to protect the global environment, that's not very helpful," the paper stated on April 4, 1989.

These dramatic shifts in opinion are absurd. Even if the nation's energy situation had improved over the years instead of getting worse, that would not reconcile the contradiction of claiming now that ANWR is a treasure, after noting a decade earlier that drilling there would have less ecological impact than almost anywhere else on earth.

The fact is, ANWR is and always has been bleak and remote. Unfortunately, something has changed over the last decade which prevents our nation's most influential editorialists from admitting what they once recognized without difficulty.

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Wildlife and Oil Do Mix TAE editors came upon this grizzly bear lounging with her two cubs right in the midst of the Prudhoe complex (left). To right, migratory caribou in front of a drilling rig.

Despite its industrial aspect, Prudhoe hosts animal life without apparent disruption. In the course of two days, we spied a grizzly sow with two cubs lounging next to a major processing center; an arctic owl dining on some species of rodent amidst a grid of pipelines; an arctic fox crossing a gravel road on the hunt; and innumerable birds, from arctic terns and ptarmigan to enormous tundra swans, right beside the oil facilities.

The caribou that calve in the Prudhoe area, known as the Central Arctic herd, have actually increased dramatically in number since the arrival of the oil industry—from 6,000 animals 30 years ago to nearly 30,000 today. While there is no reason to think that oil patch activity has caused this increase, it

obviously hasn't harmed the creatures. This caribou explosion sharply contradicts one of the prime environmentalist arguments against exploration—that drilling might spook the creatures from their calving grounds. To Mike Joyce, who spent 27 years on the North Slope studying its resident animal populations, that is faulty thinking. "After 30 years of oil production," he says, "our caribou herd is the largest it's ever been.... How much evidence can you ask for?"

Joyce reports that other wildlife populations in the immediate area of Prudhoe are on the increase as well. In addition to the prospering caribou, long-term studies of the grizzly bear, arctic fox, tundra swan, seven or eight species of ducks and

Eskimos to DC: Open ANWR!

By Deroy Murdock

About the only people absent from the media discussion of oil and gas development in the Arctic National Wildlife Refuge have been Alaska's Eskimos. Within ANWR's 19.6 million acres, Eskimos own 92,000 acres of private property which they would like to lease for oil and gas production.

"We feel as if we are a colony and that the imperial powers are dictating to us," Inupiat Eskimo Donald Olson, M.D. tells me by phone. "We've got a right here that is being infringed upon by the federal government. We are being held as economic hostages by people from the lower 48 who never have been to Alaska or the North Slope." Olson states that oil companies "have had 30 years of environmentally sensitive dealings with us. We anticipate this will be the same way."

Olson, a Democratic state senator who practices general medicine, notes that his constituents in Kaktovik (pop. 256) "do not have running water or a sewer system. That means they are relegated to Third World conditions where people have to melt ice to bathe and to drink. They use five-gallon honeypots for sanitation." This absence of flush toilets causes sometimes-fatal cases of hepatitis A and contributes to high infant mortality rates.

Olson and other Eskimos attribute what progress they are making exclusively to job creation and income generated from oil operations at nearby Prudhoe Bay. Says Olson's chief of staff, John Jemewouk: "The standard of living has increased dramatically in the last 30 years since