

**H.R. 39, ARCTIC COASTAL PLAIN  
DOMESTIC ENERGY SECURITY  
ACT**

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**LEGISLATIVE HEARING**

BEFORE THE

COMMITTEE ON RESOURCES  
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

Wednesday, March 12, 2003

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**LEGISLATIVE HEARING ON H.R. 39, TO ESTABLISH AND IMPLEMENT A COMPETITIVE OIL AND GAS LEASING PROGRAM THAT WILL RESULT IN AN ENVIRONMENTALLY SOUND AND JOB CREATING PROGRAM FOR THE EXPLORATION, DEVELOPMENT, AND PRODUCTION OF THE OIL AND GAS RESOURCES OF THE COASTAL PLAIN, AND FOR OTHER PURPOSES.**

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**Wednesday, March 12, 2003  
U.S. House of Representatives  
Committee on Resources  
Washington, DC**

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The Committee met, pursuant to notice, at 10:06 a.m., in room 1324, Longworth House Office Building, Hon. Richard W. Pombo, Chairman of the Committee, presiding.

Present: Representatives Pombo, Young, Duncan, Calvert, Cubin, Radanovich, Jones, Peterson, Gibbons, Hayworth, Rehberg, Renzi, Cole, Pearce, Bishop, Kildee, Pallone, Christensen, Inslee, Napolitano, Udall of New Mexico, Grijalva, Bordallo, Miller, Markey, Hinojosa, and McCollum.

The CHAIRMAN. The Committee will come to order. The Committee is meeting today to hear testimony on H.R. 39, the Arctic Coastal Plain Domestic Energy Security Act of 2003, sponsored by the laid-back former Chairman of this Committee and someone I consider a personal friend, Don Young of Alaska.

**STATEMENT OF THE HON. RICHARD W. POMBO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA**

The CHAIRMAN. Under Committee Rule 4(g), the Chairman and the Ranking Minority Member will make opening statements. If any other members have statements, they can be included in the hearing record under unanimous consent.

With a few exceptions, H.R. 39 is identical to what was passed in the House in the 107th Congress as part of the comprehensive energy bill. The Senate version of the energy bill did not contain a provision opening ANWR and a conference Committee failed to reconcile the two bills.

H.R. 39 authorizes environmentally sound oil and gas exploration, development, and production on the 1.5 million acre coastal plain of the Arctic National Wildlife Refuge, an area specifically reserved by Congress for its oil and gas potential. Under this bill, the rest of ANWR itself will remain untouched. We are holding a hearing on H.R. 39 because ANWR again will be a cornerstone of the House's comprehensive energy bill.

Many of you must be wondering why there has been continuing interest in ANWR for the last 25 years. What is so special about this flat, treeless, arctic desert?

ANWR's coastal plain is potentially the largest undiscovered on-shore oil field in North America. The U.S. Geological Survey estimates that there are 5.7 to 16 billion barrels of recoverable oil there, with a mean of 10.4 billion barrels. Putting this in perspective, 10.4 billion barrels is twice as much as all proven reserves in the State of Texas. It could increase America's reserves by 50 percent. It could be one of the world's largest discoveries of oil in the last 30 years.

As America's dependence on foreign oil approaches 60 percent, it is foolish not to look for oil in a place that could hold resources of this magnitude, especially at a time when a substantial amount of the foreign oil is imported from hostile governments. It defies common sense to buy oil from a dictator who can convert American dollars into weapons of mass destruction that will be used against the American people.

While opening ANWR may not end dependence on foreign oil, it can substantially reduce it. For example, it could replace all Iraqi imports for the next several decades. It can lower our trade deficit, which has an impact on interest rates, the Federal budget, and economic growth.

Oil development in ANWR is locally supported, as we will hear directly from our witnesses today. Over the past several years, the Federal Government has closed off some of the most promising areas from oil and gas exploration on the grounds that such activities lack local support. If this is the government's criteria for oil exploration, then there should be no argument over ANWR.

Unfortunately, I have observed that some of the most aggressive opponents of ANWR are the ones who have declined invitations to the North Slope to view firsthand exactly what they are talking about. Anyone who visits Alaska will immediately see that under the State and local government's rigorous environmental rules, wildlife and their habitat have peacefully coexisted with the production of 14 billion barrels of oil for America's consumers.

For example, the caribou herd using the Prudhoe Bay oil fields has grown from 5,000 to 32,000 since development began a quarter century ago. The fact is, no wildlife species population has been adversely affected by Alaska oil development. But don't just take my word for this. This is the finding in a recent study of the Argonne National Laboratory. This record can and will be replicated in ANWR.

I previously mentioned that it defies common sense to buy oil from our enemies. It also defies logic to purchase oil from nations having little or no regard for environmental protection. Developing resources and creating jobs here in the U.S. under the world's most

stringent environmental standards contributes to a cleaner, healthier environment around the world.

I have been to Alaska's North Slope, and I challenge anyone to tell me where else 14 billion barrels can be produced with so little disturbance.

Alaskans treasure their wildlife and their environment as much as we treasure ours. The views of the people who live in Alaska's Arctic Coastal Plain should be this Committee's highest consideration. They have the most at stake in this debate because they depend on the land for their virtual survival. They want to contribute to America's energy security by tapping into ANWR's world class energy resources. Who better to judge whether or not oil exploration can be done safely and properly?

Our witnesses today represent a broad spectrum of views on ANWR and I look forward to hearing testimony on Mr. Young's bill. [The prepared statement of Chairman Pombo follows:]

**Statement of The Honorable Richard W. Pombo, Chairman,  
Committee on Resources**

The Committee will come to order. The Committee is meeting today to hear testimony on H.R. 39, the Arctic Coastal Plain Domestic Energy Security Act of 2003, sponsored by the laid-back former Chairman of this Committee, and someone I consider a personal friend, Congressman Don Young of Alaska.

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Putting this in perspective, 10.4 billion barrels is twice as much as all proven reserves in the State of Texas. It could increase America's reserves by 50 percent. It could be one of the world's largest discoveries of oil in the last 30 years.

As America's dependence on foreign oil approaches 60 percent, it is foolish not to look for oil in a place that could hold resources of this magnitude, especially at a time when a substantial amount of this foreign oil is imported from hostile governments.

It defies commonsense to buy oil from a dictator who can convert American dollars into weapons of mass destruction that will be used against American people.

While opening ANWR may not end dependence on foreign oil, it can substantially reduce it. For example, it can replace all Iraqi imports for the next several decades. It can lower our trade deficit, which has an impact on interest rates, the Federal budget, and economic growth.

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I've been to Alaska's North Slope, and I challenge anyone to tell me where else 14 billion barrels can be produced with so little disturbance.

Alaskans treasure their wildlife and their environment as much as we treasure ours. The views of the people who live on Alaska's Arctic coastal plain should be this Committee's highest consideration. They have the most at stake in this debate because they depend on the land for their very survival.

They want to contribute to America's energy security by tapping into ANWR's world-class energy resources. Who better to judge whether or not oil exploration, development and production can be done safely and properly?

Our witnesses today represent a broad spectrum of views on ANWR, and I look forward to hearing their testimony on Mr. Young's bill.

The Chairman now recognizes the distinguished Ranking Member from coal mining country, Mr. Rahall of West Virginia.

I'd like to welcome the first panel, consisting of my good Western friend, the Secretary of the Interior, Gale Norton.

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The CHAIRMAN. I now recognize the Ranking Member, or in his stead, Mr. Markey, for his opening statement.

**STATEMENT OF THE HON. EDWARD J. MARKEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MASSACHUSETTS**

Mr. MARKEY. I thank you very much, Mr. Chairman.

"In our lifetimes, we have few opportunities to shape the very earth on which our descendants will live their lives." So said Mo Udall 23 years ago, as the Alaska National Interest Lands Conservation Act neared passage. Mo Udall was a visionary, as was President Eisenhower and as have been many other great American leaders in focusing upon the need to preserve this great space.

We are here to discuss H.R. 29, the Arctic Coastal Plain Domestic Energy Security Act of 2003. This bill would overturn the 23-year Congressional precedent of protecting the Coastal Plain of the Arctic National Wildlife Refuge from oil development.

Before we take that drastic step, I believe this Committee deserves to debate the full range of policy options for this precious part of America. Unfortunately, we are not having that debate today. I have requested a hearing on H.R. 770, the Morris K. Udall Arctic Wilderness Act of 2003, which would designate the Coastal Plain as wilderness and permanently protect it from development, because permanent protection is an equally valid policy option for this Committee to consider. But the closest we will come to a full debate today is holding this hearing in the Morris K. Udall Room.

The panels are also missing an important voice, that of the Gwich'in people, whose culture and lives are intimately tied to the

porcupine caribou that rely on the Arctic's Refuge Coastal Plain for calving.

Lucy Beech, a member of the Gwich'in Steering Committee, joins us in the audience today, and I would ask unanimous consent that a statement from the Gwich'in Steering Committee be included in the record. To quote from their statement, "As Gwich'in, this is a human rights issue. We have relied on the caribou for thousands of years and the caribou continues to be a critical element in our culture."

[The letter from the Gwich'in Steering Committee follows:]

Gwich'in Steering Committee  
122 First Avenue, Box 2  
Fairbanks, AK 99701

March 11, 2003

Dear Members of the House Budget Committee:

The Gwich'in Steering Committee respectfully requests the Senate Budget Committee to protect The Sacred Place Where Life Begins—the Arctic National Wildlife Refuge. The people of the Gwich'in Nation are strongly opposed to the inclusion of any revenues derived from activities related to drilling or exploration for oil or gas in the Arctic National Wildlife Refuge in the Fiscal Year 1904 Budget being considered by the House's Budget Committee.

Please note that on Tuesday, March 11, 1824, the Bureau of Indian Affairs (BIA) was created under the Department of War (later became the Department of Defense). In 1849, the BIA went under the auspices of the Home Department (later became the Department of Interior). The policy of this nation toward the first nations was annihilation and later became a policy of assimilation. Today, there is an opportunity not to repeat history and not to gamble with the lives and culture of the Gwich'in people, and to protect an area we have long held sacred to insure the survival of the Porcupine Caribou Herd.

The recent National Academy of Sciences (NAS) report spoke to many of the concerns our elders warned us about and that we have long voiced. Oil development on the North Slope of Alaska has resulted in serious cultural, spiritual, social and environmental impacts to the Inupiat. The caribou meat of the Central Arctic Herd is now peculiar in color and taste. The caribou do not calve where development occurs. Fortunately, for the Central Arctic Herd they could move south within a 100-mile area. The Porcupine Caribou Herd would have no place else to go due to the narrow strip of land within a 40-mile area where they calve in the refuge between the ocean and the mountains. Oil development in Alaska comes with a huge price tag to Alaska Natives as shown by the Cumulative Impacts of Oil and Gas Drilling on the North Slope of Alaska NAS report to the remaining effects of the Exxon Valdez disaster.

The Gwich'in Nation wants to insure that for generations to come the Porcupine Caribou Herd's future is protected. As Gwich'in this is a human rights issue. We have relied on for thousands of years on the caribou and the caribou continues to be a critical element of our culture.. May the Creator grant you all wisdom as you make your decisions.

Mahsi Choo,  
Jonathon Solomon  
Chair

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Mr. MARKEY. Proponents of this bill have told you why they think we should open the refuge for development. Let me tell you why I think the Arctic Refuge should remain wild.

The wilderness is unparalleled. Nowhere on earth is the diversity of Arctic habitat and wildlife represented as it is in the Arctic National Wildlife Refuge. According to the Fish and Wildlife Service, this relative compactness of habitats provides for a greater degree of ecological diversity than any other similarly sized area in Alaska's North Slope.

Industry isn't interested in drilling there. According to media reports, British Petroleum, the major North Slope player, is looking elsewhere in the world for the next big field and is even considering shutting down the Badami Field, the field closest to the Arctic Refuge.

Looking in the refuge is the wrong place to find energy security. Developing the Arctic Refuge will not make us independent of foreign oil sources. To become energy independent, we should tap American ingenuity to make more efficient buildings and vehicles and to design new renewable technologies that our domestic resources can fuel cleanly.

And we don't need Arctic Refuge oil to replace Iraqi oil. From 1991 to 1995, oil imports from Iraq were banned. Oil prices and supplies barely hiccuped, and the period coincided with one of the greatest expansions in United States history.

And damaging precedent would also be set by allowing the oil and gas development in the Arctic Refuge. This would overturn a 35-year history of refuge protection, dating back to 1966, the National Wildlife Refuge System Administration Act. Nearly 300 refuges in 44 States would be threatened by this precedent.

Ignoring recent National Academy findings that oil development has caused wildlife and their habits harm. We are considering a bill that finds oil exploration and development compatible with the mission of the refuge, that relies on an environmental impact statement from 1987, and that doesn't allow the Secretary of Interior to consider a no-leasing alternative.

Faced with reclamation liabilities that the General Accounting Office estimates could be as high as \$6 billion for the current state of development, we are considering allowing the oil industry to invade into the only portion, less than 5 percent of the North Slope, that is currently off limits.

When will we realize that the road to energy independence will never run through the Arctic Refuge? Rational energy policy will begin the day that Congress drops any idea of turning the refuge into a filling station and instead grants this extraordinary area the full Wilderness Act protection it deserves.

The American people sense in their bones that the value of the Arctic Refuge should never be measured in barrels of oil or employee work days or drops in the Federal deficit bucket. They consider it priceless, one of a kind, a national environmental treasure that should not be sacrificed by this Congress or this Committee, not now, not ever.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

With unanimous consent, the statement will be included in the record at the appropriate place.

[The prepared statement of Mr. Markey follows:]

**Statement of The Honorable Edward J. Markey, a Representative in  
Congress from the State of Massachusetts**

"In our lifetimes, we have few opportunities to shape the very earth on which our descendants will live their lives."

So said Mo Udall, 23 years ago as the Alaska National Interest Lands Conservation Act neared passage. I ask my colleagues and the distinguished witnesses to consider his closing sentences as we proceed here today.

“... We will shape this last great expanse of wild land, and the marks we choose to make or not make across these parts of Alaska will linger on the land far beyond our lifetimes. We will write, in these votes, our signatures across the very face of the living earth.”

We are here to discuss H.R. 39, the Arctic Coastal Plain Domestic Energy Security Act of 2003. This bill would overturn the 23 year Congressional precedent of protecting the coastal plain of the Arctic National Wildlife Refuge from oil development. Before we take that drastic step, I believe this Committee deserves to debate the full range of policy options for this precious part of America.

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Proponents of this bill have told you why they think we should open the Refuge for development. Let me tell you why I think the Arctic Refuge should remain WILD.

- Wilderness is unparalleled. Nowhere on Earth is the diversity of Arctic habitat and wildlife represented as it is in the Arctic National Wildlife Refuge. According to the Fish and Wildlife Service, “This relative compactness of habitats provides for a greater degree of ecological diversity than any other similar sized area of Alaska's North Slope.”
- Industry isn't interested in drilling there. According to media reports, British Petroleum, the major North Slope player, is looking elsewhere in the world for the next big field and is even considering shutting down their Badami field, the field closest to the Arctic Refuge.
- Looking in the Refuge is the wrong place to find energy security. Developing the Arctic Refuge will not make us independent of foreign sources of oil. To become energy independent, we should tap American ingenuity to make more efficient buildings and vehicles and design new renewable technologies that our domestic resources can fuel cleanly. And we don't need Arctic Refuge oil to replace Iraqi oil. From 1991 to 1995, oil imports from Iraq were banned; oil prices and supplies barely hiccuped, and the period coincided with one of the greatest economic expansions in U.S. history.
- Damaging refuge precedent is set by allowing oil and gas development in the Arctic Refuge. This would overturn a 35-year history of refuge protection dating back to the 1966 National Wildlife Refuge System Administration Act. Nearly 300 refuges in 44 states would be threatened by this precedent.

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They consider it priceless, one—of—a—kind, a national environmental treasure that should not be sacrificed by this Congress or this Committee. Not now. Not ever.

The CHAIRMAN. All members' opening statements will be included at the appropriate place.

I would like to welcome our first panel, the Secretary of Interior Gale Norton.

It is the intention of the Chairman to place all witnesses under oath. This is a formality of the Committee that is meant to assure open and honest discussion and should not affect the testimony given by witnesses. I believe all of the witnesses were informed of this before appearing here today and they have each been provided a copy of the Committee rules. Now, if you please, would you stand and raise your right hand and I will administer the oath.

Do you solemnly swear or affirm under the penalty of perjury that responses given and statements made will be the whole truth and nothing but the truth?

Secretary NORTON. I do.

The CHAIRMAN. Thank you. Let the record show she responded in the affirmative.

I would like to welcome the Secretary here today. We are all anticipating and look forward to your testimony. If you are ready, you may begin.

**STATEMENT OF HON. GALE NORTON, SECRETARY,  
U.S. DEPARTMENT OF THE INTERIOR**

Secretary NORTON. Thank you, Mr. Chairman, members of the Committee. I appreciate the opportunity to join you today and to talk about the proposal for energy exploration in the 1002 area of Alaska's North Slope. As you know, this Administration firmly believes that we can develop energy at home while protecting the environmental values that we all hold dear.

ANWR is the largest untapped source of on-shore oil. We can compare it to other places in the United States in order to gain a perspective of how significant it is, and that is what I will do in today's testimony, as well as discuss the environmental protections that are necessary for any legislation.

With your indulgence, I would like to begin by breaking a Washington rule. The rule says, never credit the rhetoric of the opposing side by repeating it. Well, I intend to do exactly that. My goal is to show that rhetoric is no substitute for the facts. Please watch this advertisement which ran on national television and is now on the Internet.

Almost nothing in this video is representative of the Coastal Plain of ANWR. We call it the Coastal Plain because it is just that, a plain. There are no trees. There are no deep-water lakes. There are no mountains like those in the video. Outside the area affected by H.R. 39, there are mountains in ANWR, but they are designed as wilderness areas and no one is remotely considering them for energy production. Only the polar bear photo could have been taken anywhere on the Coastal Plain.

In each of your packets is a photo of what ANWR actually looks like most of the year.

Secretary NORTON. I apologize that it will take us a minute to have a video showing what ANWR actually looks like, but I visited there 2 years ago on the last day of March. There was a wind chill factor of 75 degrees below zero. It is an area of flat white

nothingness. There are no features beyond the flatness. There are even 56 days of total darkness during the year and almost 9 months of harsh winter. This is actually the area that you would see if you were there. This is what the Coastal Plain looks like.

Rhetoric such as that in the advertisement may bring in contributions, sway people with emotionalism, but it rarely bothers with all of the facts.

The differences are stark in these two presentations. I intend this morning to take you through the proposed legislation and to discuss some of the conclusions in the recent study by the National Academy of Sciences. I intend to uncover the facts for you as clearly and as graphically as time and our audio-visual technology permits.

The State of Alaska is too often portrayed on maps as an inset along with Hawaii, and so people rarely understand the massive scale of Alaska. This is the size of Alaska if it were superimposed on the lower 48 States. As you look at the enormity of the State, keep in mind that it has vast areas that are in conservation areas. There are wilderness areas, parks, and other conservation areas totaling almost 140 million acres. They are already protected. That is an area larger than the States of California and New York put together, and those are areas that are off limits for energy development or any other kind of development activity.

The Arctic National Wildlife Refuge is located at the frozen north end of the State on the Beaufort Sea. This 19.5 million acre refuge includes eight million acres that is Congressionally designated wilderness. The refuge itself is about the size of South Carolina.

In 1980, in Section 1002 of the Alaska National Interest Lands Conservation Act, President Carter and the Congress set aside 1.5 million acres of the Coastal Plain for potential exploration and development, the 1002 area. They did so because of initial indications of the area's energy potential. This makes this area unique. This is not precedent for any other area of the refuge system. This is the only area that has a longstanding designation for this type of energy development. That potential has since been reinforced by additional study. Only the 1002 area is under consideration for resource development in any proposals before the Congress.

A constant refrain by those opposed to oil development in ANWR is that it contains only a short-term speculative supply of oil. The Coastal Plain is this nation's single greatest on-shore prospect for future oil. The U.S. Geological Survey estimates that it contains a mean expected value of 10.4 billion barrels of technically recoverable oil. At the low end, there is a 95 percent probability that it will contain at least 5.7 billion barrels. At the high end, there is a 5-percent probability that it may contain 16 billion barrels.

Let me put that in context for you. This is a slide that you have never seen before. This provides some new information. The potential daily production from the 1002 area alone is larger than the current daily on-shore production of any lower 48 State. The estimated daily production from ANWR would exceed what is now being produced in any individual State, including Texas and Louisiana. The bar to the furthest left is what the Department of Energy estimates would come from ANWR, and this is from a March 2000 study by the Department of Energy. The production from the

other States is the current production, so that the ANWR bar deals with future production. The other States are their current production. As you can see, ANWR exceeds any of those other States. We have excluded everything but the lower 48.

In 1968, Prudhoe Bay was estimated to hold nine billion barrels of oil. Today, its production is at 13 billion barrels and it is still producing. If we look at the mean calculation of 10.4 billion barrels of oil and we applied that to just one State at a time, so if everything produced in ANWR went to one State, it would supply every drop of petroleum for the entire State of Arkansas for 144 years, or Missouri for 71 years, or South Dakota for 479 years.

Well, all in all, as we can see, it is a very significant amount of oil that could be developed.

We have now heard for more than 15 years that it is not worth developing on the Coastal Plain because it would take 10 years to get the oil to market. If we had begun exploration and development when the Congress first proposed it, Coastal Plain oil would be in the Trans-Alaska Pipeline today.

This country is heavily reliant on oil from the North Slope. We have already produced far more than half of the oil available at Prudhoe Bay. As a result, North Slope oil production is declining. Any oil well, once it begins production, gradually declines as the oil is extracted.

Our imports and our consumption are going up. This slide shows the national trends in energy consumption. As you can see, our consumption rises. That is the top line in the chart. The green and blue lines show our production. As you can see, America's production has gradually been declining. That is the green line. We take the place of that decline in production by increasing our amount of imports, and that is the blue line. The green lines and blue lines have intersected. They did so in the early 1990's. We are now importing more than we produce.

In addition, in some cases, our foreign sources of oil are becoming more and more unstable. This slide again shows ANWR and the Department of Energy's same estimates of daily production, and this is in comparison to other States, or, excuse me, other countries from which the United States imports its oil. Oil from the 1002 area could reduce our dependence on those foreign sources.

Last December, strikers nearly shut down Venezuela's oil industry, drastically reducing the production of Venezuelan oil and its delivery to external markets. In the last several years, Venezuela ranked consistently as one of the four top sources of U.S. oil imports. In 2002, Venezuelan exports to the United States were only slightly more than what we could see—or were about the same as what we could see from the 1002 area. Venezuelan exports are still recovering from the strike. It could be months before that country resumes pumping at its earlier levels.

Our reliance on foreign oil has impacts on the lives of American families, farmers, and workers, as the current gasoline price increases have shown. As long as we have planes, trains, and automobiles powered by oil and gas, we will need a home-grown, stable, reliable source of supply.

In addition to its energy potential, oil from the 1002 area could be a new source of needed Federal revenues. The Administration's

Fiscal Year 2004 budget proposes to dedicate the Federal share of the first lease sale bonus bids, estimated to be \$1.2 billion, to the Department of Energy to fund increased renewable energy technology research and development over 7 years. The Administration's proposal provides for a 50/50 split of future Coastal Plain revenues between the State of Alaska and the Federal Treasury.

Now, let me turn to some of the questions about the environmental impacts of development in ANWR. There are those who raise concerns that one need merely look at the Prudhoe Bay oil fields to see what will happen in ANWR's Coastal Plain. The National Academy of Sciences report issued last week, plus H.R. 39's provisions, can actually help us look into the future.

H.R. 39 includes language that would require the Department of the Interior to develop the most stringently regulated oil and gas leasing program in the United States. The Administration views tough regulation as an essential part of the ANWR proposal.

Because ANWR's reserves are so concentrated, we can require much more expensive technology than would be feasible anywhere else. We can test American ingenuity and technology to develop ways to meet these strict standards and remain competitive.

There is much concern that opening the Coastal Plain will mean a proliferation of roads and off-road seismic trails directly affecting the tundra, altering animal habitat and behavior, and increasing access for hunters and tourists. The legislation before you, H.R. 39, specifically prohibits development of that kind of infrastructure.

For example, older 2-D seismic on the Coastal Plain has been cited as a major impact to the tundra. This photograph, which was in the New York Times yesterday, was taken 1 year after seismic testing in 1984. Today, trails are still visible from the air. The National Academy of Sciences points out the effect of older seismic tests that are mainly visual and remain in only a small percentage of the disturbed areas. We have learned much from the seismic work done in the 1980's about how to protect the tundra from this kind of damage. As the New York Times reported, newer 3-D seismic techniques have much less impact on the tundra than the old 2-D seismic.

Current practices now replace gravel roads with ice roads as a means of access to isolated drilling locations. I visited ANWR in the winter and saw, as this slide shows, the ice roads in use during the winter. I also visited again in the summer and saw that those roads had melted away and there was not a remnant of those roads still left.

This slide shows an exploration drill site developed using new technology. There is little evidence of seismic trails, ice roads, or ice pads once the snow cover is gone, and this is what the effects would look like for exploration drilling.

The use of low ground pressure vehicles, called Rolligons, addresses potential problems associated with exploration drilling in areas with limited fresh water supply or shortened ice road seasons.

There are also new arctic drilling platforms that are similar to offshore platforms that are being developed. They could reduce or eliminate altogether the need for ice roads or ice pads. This is especially useful in areas with limited fresh water supply. These

elevated platforms are often referred to as Lego pads because of their similarity to the toys.

The bill you are considering today requires the application of the best commercially available technology for oil and gas exploration, drilling, and production. New technology offers ways of developing and producing oil without the web of roads now found on the North Slope.

This chart shows the greater reach of horizontal wells, the ways that new technology can allow us to reach further underground with less impact on the surface. In 1970, the average drill site was 65 acres and it covered a subsurface area of about three square miles. Today, a drill pad built in 2000 is only 13 acres. It allows companies to reach more than 50 square miles of subsurface.

New technology allows extraction of oil from larger areas underground, reducing the number of pads needed to develop an oil field. Because the fields use more effective drilling and fewer wells, waste, mud, and cuttings are produced. Because fuel consumption is lower, there are fewer emissions.

One group in its campaign against opening ANWR states, "Spillage from 20 years of oil extraction has substantially degraded habitat on the North Slope." However, the National Academy of Sciences found that despite initial widespread concerns about spills, most spills have been small and have had only limited effects. Large-magnitude spills have generally been avoided on the North Slope because of the system of monitoring and check valves on all pipelines. The National Academy of Sciences found that, to date, the effects of contaminant spills have not accumulated on North Slope vegetation.

Almost every group opposed to ANWR development cites concerns about air quality on the North Slope. However, the National Academy of Sciences report found that local air quality does not appear to have been seriously degraded by emissions from oil and gas production facilities.

We often see pictures of polar bears in appeals for funds to save the Arctic Refuge. One organization begins its plea with a statement that development "could force polar bears to abandon their maternity dens, which they dig in the snowdrifts, and leave their cubs to die." This comes from a 1985 report of one polar bear leaving its den as a result of older seismic activity.

In fact, North Slope development, which is far more intense than any potential Coastal Plain development, has had no devastating effect on polar bears. Polar bears have thrived since 1967. The NAS report found there have been no known cases where polar bears have been affected by oil spilled as a result of North Slope industrial activities. The National Academy of Sciences sums up its polar bear discussion by stating there is evidence to support a finding that there have been no serious effects or accumulation of effects on polar bears.

A number of environmental groups expressed concern about the well-being of muskoxen. These animals once were exterminated by excessive hunting. They have been reintroduced on the North Slope. They are found at low densities, mostly in riparian areas. Their populations are now expanding into other habitats. To date,

there have been no cumulative impacts on muskoxen from oil activities.

A U.S. Geological Survey report suggests a solution. Avoidance by industry of areas used by muskoxen in and the location of permanent facilities away from river corridors, flood plains, and adjacent uplands could reduce the probability of disturbance and displacement of muskoxen.

For all activities in the 1002 area, H.R. 39 generally requires avoidance of streams and river systems, wetlands, and riparian habitats. Facilities must minimize impacts on sensitive fish and wildlife habitats and species.

The caribou are the best known wildlife in ANWR. There are those who have tried to convince you that they will be irreparably harmed if we have any development on the Coastal Plain. Before I turn to a discussion of actual effects on caribou, I would like you to remember the environmental standard in the bill before us. H.R. 39 requires Interior to ensure that all oil and gas exploration, development, and production activities on the Coastal Plain will result in no significant adverse effect on fish and wildlife and their habitat. This standard is reiterated numerous times throughout H.R. 39.

The central Arctic herd is the caribou herd in the North Slope. It includes the Prudhoe Bay oil fields in its range. The numbers in this herd have increased from 5,000 in 1977, at the beginning of oil development, to 27,000 in 2000. The Alaska Fish and Game has published the most recent census, shows that the population is now more than 31,000.

ANWR's herd is the porcupine caribou herd. The calving grounds for their area are those that are most frequently discussed. It is important to keep in mind where the greatest potential for oil development is on the Coastal Plain. USGS scientists predict that 83 percent of the oil potential is on the far Western side of the 1002 area, and this slide, the gray area in this slide is the area that USGS believes will have the most oil potential. It is the area that is closest to the existing infrastructure, to Prudhoe Bay, and to the Northern end of the Trans-Alaska Pipeline.

This is the area least likely to see high concentrations of calving. In fact, a U.S. Geological Survey study found that under the most realistic scenario for developing a 1002 area, there would be a 95 percent chance of having no impact on calf survival. It is also important to remember that there are years when the porcupine caribou herd does not even use ANWR's Coastal Plain at all for calving. In fact, in 2000, 2001, and 2002, the caribou herd calved entirely outside the 1002 area.

Increased domestic oil production means increased jobs for Americans. The innovations in Arctic frontier technology continue to create jobs. Organizations that represent many of the workers in this nation have pointed out that by tapping into petroleum resources in Alaska, we can create jobs and benefit our economy by lessening our dependence on foreign oil. Although estimates of job creation vary, it is safe to say a large number of new jobs for Americans will directly and indirectly result from the exploration, development, and production on the Coastal Plain.

The Coastal Plain is the single greatest prospect for on-shore oil and gas development of any place in the United States. This slide is a very important one in terms of understanding the significance of ANWR. The regions that are shown in this map are ones that the U.S. Geological Survey has used for decades. They are based on the geologic divisions of areas in the United States.

To equal ANWR's potential of from 5.7 to 16 billion barrels of oil, we would have to explore and develop all potential fields in regions 2, 3, and 4 on this map, nearly half of the contiguous States. On this map, what you can see is essentially to scale. In the lower left-hand corner, you see the refuge itself as it would be to scale, and the yellow part at the top of that is the 1002 area. There is more undiscovered conventional oil resource in that small area than any of those other regions in the United States, and that is why we are focusing on ANWR.

Neither this Administration nor the Interior Department arbitrarily picked the Coastal Plain. The Coastal Plain is the single greatest prospect for development on-shore in our nation. Legislators back in 1980 realized that fact when they created the 1002 area.

Legislators today are looking at an ANWR bill that includes the strongest environmental protections ever required in the oil and gas leasing regime. We have all learned from the past. We now see the most environmentally protective development in the world at the newest sites on the North Slope. We will improve on that record.

As we consider whether to look to ANWR for America's future energy sources, we should also consider the international effects on the environment. Certainly, our protections that would be imposed at ANWR are far in excess of any of the other places where American oil would come from to meet America's needs. If you look at the standards in other countries where oil companies might be looking to provide America's supply, they are far less stringent than what America would impose in ANWR.

The legislation doesn't ask developers to use new technology. The proposal demands the best available technology. This chart shows how drill pads have shrunk since Prudhoe Bay was originally developed. Development today would have to start with the smallest.

H.R. 39 doesn't just ask that equipment be removed and that the land be restored. It demands that whatever is taken in must be taken out and that the land must be restored to its previous use for wildlife.

The problems identified by the National Academy of Sciences report were problems mainly related to lands regulated by the State of Alaska and subject to Alaskan law. Both the National Petroleum Reserve and any future ANWR development would be governed by Federal statute and Federal enforcement.

H.R. 39 doesn't just ask that wildlife be protected. It demands that developers protect wildlife or we will shut them down. If exploration interferes with migration or calving, we will shut it down.

It took courage back in 1973 for a Democratic-majority Congress to cast a vote in favor of building a pipeline to Alaska. At that time, the debate was similar in character to the ANWR debate taking place today. But the Senate put national energy security ahead

of everything else, and in a 50-50 vote with the Vice President breaking the tie, the historic pipeline was approved.

Senator Walter Mondale has been quoted as saying at that time, "It has always been my position that we need Alaskan oil and that this oil should flow to the lower 48 as soon as possible, consistent with environmental safeguards and the greatest benefit for the entire country."

That pipeline has carried as much as two million barrels a day from Prudhoe Bay. For 20 years, it has provided as much as 20 percent of our domestic production.

This is a 20-20 vision that we need to repeat, consistent with environmental safeguards. Twenty-first century technology improves our ability to protect the environment. Partisanship should once again be put aside for energy security.

I ask the Committee and the entire Congress to please examine the facts as the National Academy of Sciences did and discount the rhetoric or partisanship. This decision is too important for America's future. Thank you.

The CHAIRMAN. Thank you, Madam Secretary. That is very informative testimony.

[The prepared statement of Secretary Norton follows:]

**Statement of The Honorable Gale Norton, Secretary,  
U.S. Department of the Interior**

Mr. Chairman, Ranking Member Rahall and members of the Committee, I appreciate the opportunity to testify this morning on oil and gas exploration in the 1002 area of the coastal plain of Alaska's North Slope.

As you know, the Administration firmly believes that we can develop energy at home while protecting the environmental values we all hold dear.

With your indulgence I would like to start by breaking a Washington rule. That rule says never credit the rhetoric of the opposing side by repeating it.

I intend to do exactly that. My goal is to show that rhetoric is no substitute for the facts. Please watch this advertisement that ran on national television and is now on the Internet.

Almost nothing in this video is representative of the Coastal Plain of ANWR. We call it the Coastal Plain because it is just that—a plain. There are no trees, there are no deepwater lakes. There are no mountains like those in the video. Outside the area affected by H.R. 39, there are mountains in ANWR—but they are designated as wilderness areas, and no one is remotely considering them for energy production.

Only the polar bear photo could have been taken anywhere on the Coastal Plain.

Now let's take a look at what the Coastal Plain of Alaska actually looks like most of the year, with a video produced by Arctic Power. This is what I saw when I was there the last day of March 2001, with a 75 degree below zero wind chill.

This image of flat, white nothingness is what you would see the majority of the year. In fact there are 56 days of total darkness during the year, and almost nine months of harsh winter.

Rhetoric such as that in the advertisement brings in contributions, sways with emotionalism, and rarely bothers with all the facts.

The differences are stark in these two presentations. I intend this morning to take you through the proposed legislation and to discuss some of the conclusions in the recent study by the National Academy of Sciences. I intend to uncover the facts for you as clearly and as graphically as time and the Committee's audio-visual technology permit.

**WHERE IS ANWR?**

The State of Alaska is too often portrayed on maps as an inset along with Hawaii—and it is rarely portrayed to scale. This is the size of Alaska if it were superimposed on the lower 48 states. As you look at the enormity of the state, keep in mind that almost 140 million acres in Alaska are already protected in established conservation areas. This is an area larger than the states of California and New York put together.

The Arctic National Wildlife Refuge is located at the frozen Northern end of the state on the Beaufort Sea. The 19.5 million acre refuge includes 8 million acres that is congressionally designated wilderness. In 1980, in section 1002 of the Alaska National Interest Lands Conservation Act, President Carter and the Congress set aside 1.5 million acres of the coastal plain for potential exploration and development: the 1002 area. They did so because of initial indications of the area's energy potential. That potential has since been reinforced by additional study. Only the 1002 area is under consideration for resource development in any proposals before the Congress.

#### *HOW MUCH OIL ARE WE REALLY TALKING ABOUT*

A constant refrain by those opposed to oil development is that ANWR contains only a "short-term speculative supply of oil".

The Coastal Plain is this nation's single greatest onshore prospect for future oil. The USGS estimates that it contains a mean expected value of 10.4 billion barrels of technically recoverable oil with a 95% probability of 5.7 billion barrels and a 5% probability of 16 billion barrels.

Let me put that into context for you. The potential daily production from the 1002 area alone is larger than the current daily onshore oil production of any lower 48 state. Once again, the estimated daily production from ANWR would exceed what is now being produced in any individual State, including Texas and Louisiana.

In 1968, Prudhoe Bay was estimated to hold 9 billion barrels of oil. Today, its production level is at 13 billion barrels and it is still producing. If we look at the mean calculations of 10.4 billion barrels of oil, ANWR would supply every drop of petroleum for the entire state of Arkansas for 144 years, Missouri for 71 years or South Dakota for 479 years.

We have now heard for more than 15 years that it isn't worth developing on the Coastal Plain because it would take ten years to get the oil to market. If we had begun exploration and development when the Congress first proposed it, Coastal Plain oil would be in the TAPS pipeline today.

This country is heavily reliant on oil from the North Slope. We have already produced far more than half of the oil available at Prudhoe Bay. As a result, North Slope oil production is declining.

Our imports and consumption however are going up. In the early 1990s, our oil imports surpassed our domestic oil production, and the gap is now widening.

In addition, in some cases, our foreign sources of oil are becoming more and more unstable. Oil from the 1002 area could substantially reduce our dependence on those sources. Last December, strikers nearly shut down Venezuela's oil industry, drastically reducing the production of Venezuelan oil and its delivery to external markets.

In the last several years, Venezuela ranked consistently as one of the four top sources of U.S. oil imports. In 2002, Venezuelan exports to the United States averaged around 1.5 million barrels a day. This is about what we could see from the 1002 area. Venezuelan exports are still recovering from the strike. It could be months before that country resumes pumping at its earlier levels.

Our reliance on foreign oil has impacts on the lives of American families, farmers and workers—as the current gasoline price increase shows. As long as we have planes, trains and automobiles powered by oil and gas, we will need a homegrown, stable, reliable source of supply.

In addition to its resource potential, oil from the 1002 Area could be a new source of needed Federal revenues. The Administration's Fiscal Year 2004 budget proposes to dedicate the Federal share of the first lease sale bonus bids, estimated to be \$1.2 billion, to the Department of Energy to fund increased renewable energy technology research and development over seven years. The Administration's proposal provides for a 50/50 split of future coastal plain revenues between the state of Alaska and the Federal Treasury, and does not include H.R. 39's revenue sharing provisions.

Now let me turn to some of the fears about the environmental impacts of development in ANWR.

#### *USING FACTS TO ADDRESS FEARS*

There are those who raise concerns that one need merely look at the Prudhoe Bay oilfields to see what will happen to ANWR's Coastal Plain. The National Academy of Sciences report issued last week, plus H.R. 39's provisions, can actually help us look into the future. H.R. 39 includes language that would require the Department of the Interior to develop the most stringently regulated oil and gas leasing program in the United States. The Administration views tough regulation as an essential part of the ANWR proposal.

Because ANWR's reserves are so concentrated, we can require exploration technologies that would not be viable anywhere else. We will test American ingenuity and technology to develop ways to meet these strict standards and remain competitive.

There is much concern that opening the Coastal Plain will mean a proliferation of roads and off-road seismic trails directly affecting the tundra, altering animal habitat and behavior, and increasing access for hunters and tourists.

The legislation before you however, specifically prohibits development of that kind of infrastructure.

For example, older 2-D seismic on the Coastal Plain has been cited as a main impact to the tundra. This photograph, which was in the New York Times yesterday, was taken one year after seismic testing in 1984. Today trails are still visible from the air. NAS points out the effects of older seismic tests are mainly visual and remain in only a small percentage of the disturbed areas. We have learned much from the seismic work done in the 1980s about how to protect the tundra from this kind of damage. As the New York Times reported, newer 3-D seismic methods have much less impact on the tundra than the older 2-D seismic tests.

Current practices now replace gravel roads with ice roads as a means of access to isolated drilling locations.

This slide shows an exploration drill site developed using new technology. There is little evidence of seismic trails, ice roads or ice pads—once the snow cover is gone.

The use of low ground-pressure vehicles called Rolligons addresses potential problems associated with exploration drilling in areas with limited freshwater supply or shortened ice road seasons.

The development of new Arctic Drilling Platforms could reduce or eliminate altogether the need for ice roads or ice pads. This is especially useful in areas with limited freshwater supply. These elevated platforms, are often referred to as Lego pads because of their similarity to the toys that can be stacked in place.

The bill you are considering today requires the application of the best commercially available technology for oil and gas exploration, development, and production. New technology offers ways of developing and producing oil without the web of roads now found on the North Slope.

The greater reach of horizontal wells and the use of multilateral drilling both reduce the need for large pads. In 1970, the average drill site was 65 acres. It covered a subsurface area of about 3 square miles. Today, a drill pad at the Alpine field is only 13 acres. It allows companies to reach more than 50 square miles of subsurface.

New technology allows extraction of oil from larger areas, reducing the number of pads needed to develop an oil field. Because the fields use more effective drilling and fewer wells, waste, mud, and cuttings are less. Because fuel consumption is lower, there are fewer emissions.

One group, in its campaign against opening ANWR, states "Spillage from 20 years of oil extraction has substantially degraded habitat on the North Slope."

However, the National Academy of Sciences (NAS) found that despite widespread concern about spills, most spills have been small and have had only local effects. Large magnitude spills have generally been avoided on the North Slope because of the system of monitoring and check valves in all pipelines.

In fact, the NAS found that, to date, the effects of contaminant spills have not accumulated on North Slope vegetation.

Almost every group opposed to ANWR development cites concerns about air quality on the North Slope. However, the NAS report found local air quality does not appear to have been seriously degraded by emissions from oil and gas production facilities. In fact, Arctic haze is the most conspicuous air quality problem on the North Slope. Research confirms that arctic haze is a common phenomenon in polar climates and results from distant emissions in temperate zones rather than local emissions.

We often see pictures of polar bears in appeals for funds to save the Arctic Refuge. One organization begins its plea with a statement that development "could force polar bears to abandon their maternity dens, which they dig in the snowdrifts, and leave their cubs to die." This comes from a 1985 report of one polar bear leaving its den as a result of older seismic activity.

In fact, North Slope development, which is far more intense than any potential Coastal Plain development, has had no devastating effect on polar bears. Polar bears have thrived since 1967. The NAS report found there have been no known cases where polar bears have been affected by oil spilled as a result of North Slope industrial activities. NAS sums up its polar bear discussion by stating there is evidence to support a finding that there have been no serious effects or accumulation of effects on polar bears.

A number of environmental groups express concern about the well-being of the muskoxen. The animals once were exterminated throughout most of Alaska and have been reintroduced on the North Slope. They are found at low densities, mostly in riparian areas. Their populations are now expanding into other habitats. To date, there have been no cumulative impacts on muskoxen from oil activities.

The U.S. Geological Survey report entitled "Arctic Refuge Coastal Plain Terrestrial Wildlife Research Summaries" suggests a solution: "Avoidance by industry of areas used by muskoxen and the location of permanent facilities away from river corridors, flood plains, and adjacent uplands could reduce the probability of disturbance and displacement of muskoxen."

For all activities in the 1002 area, H.R. 39 requires the following:

"Avoidance, to the extent practicable, of springs, streams and river systems; the protection of natural surface drainage patterns, wetlands, and riparian habitats" as well as "consolidate, site, construct, and maintain facilities and pipelines to minimize effects on sensitive fish and wildlife habitats and species."

By now I am sure every member of this Committee knows there are caribou on the Coastal Plain. There are those who have tried to convince you they will be irreparably harmed if we have any development on the Coastal Plain. Before I turn to a discussion of actual effects on caribou, I'd like you to remember the environmental standard in the bill before us:

Section 3 of H.R. 39 requires the Secretary to ensure "that oil and gas exploration, development, and production activities on the Coastal Plain will result in no significant adverse effect on fish and wildlife their habitat, subsistence resources, and the environment..." This standard is reiterated numerous times throughout H.R. 39.

The Central Arctic Herd is the caribou herd in the North Slope whose range includes the Prudhoe oilfields. Their numbers have increased from 5,000 in 1977, at the beginning of oil development, to 27,000 in 2000. Alaska Fish and Game has published the most recent census showing the population is now more than 31,000.

Many groups express concern about impacts on the Porcupine Caribou Herd's calving grounds. We have all heard though, that the Porcupine Caribou Herd (PCH) is different from the Central Arctic Herd.

It's important to keep in mind where the greatest potential for oil development is on the Coastal Plain. USGS scientists predict that 83% of the oil potential is on the far western side of the 1002 Area.

This is also the area least likely to see high concentrations of calving. In fact, a U.S. Geological Survey study found that under the most realistic scenario for developing the 1002 Area there would be a 95% chance of having no impact on calf survival.

Finally, it is also important to remember there are years where the Porcupine caribou herd does not use ANWR's Coastal Plain at all for calving. In fact, in 2000, 2001, and 2002 that was the case.

#### *JOBS FOR AMERICA*

Increased domestic oil production means increased jobs for Americans. The innovations in Arctic frontier technology continue to create jobs. Organizations that represent many of the workers of this nation have pointed out that by tapping into petroleum resources in Alaska, we can create jobs and benefit our economy by lessening our dependence on foreign oil. Although estimates of job creation vary, it is safe to say a large number of new jobs for Americans will directly and indirectly result from the exploration, development and production on the Coastal Plain.

#### *CLOSING*

The Coastal Plain is the single greatest prospect for onshore oil and gas development of anyplace in the United States.

To equal the potential of from 5.7 billion to 16 billion barrels of oil, we would have to explore and develop all potential fields in Regions 2, 3 and 4 on this map, nearly half the area of the contiguous states.

Neither this Administration nor the Interior Department arbitrarily picked the Coastal Plain for development. I repeat, the Coastal Plain is the single greatest prospect for development onshore in our Nation. Legislators back in 1980 realized that fact when they created the 1002 area.

Legislators today are looking at an ANWR bill that includes the strongest environmental protections ever required in an oil and gas leasing regime. We have all learned from the past. We now see the most environmentally protective development in the world at the newest sites on the North Slope. We will improve on that record.

As we consider the environmental factors affecting the Congressional choice about ANWR, one might ask what environmental protections are used in other countries on which we rely for 57 percent of our oil?

The legislation doesn't ask developers to use new technology; the proposal demands the best available commercial technology. This chart shows how drill pads have shrunk since Prudhoe Bay was developed. Development today would have to start with the smallest.

H.R. 39 doesn't just ask that equipment be removed and the land be restored. It demands that whatever is taken in must be taken out, and the land must be restored to support its previous use for wildlife, or subsistence.

The problems identified by the NAS report were problems mainly related to lands regulated by the State of Alaska and subject to Alaskan law. Both NPR-A and any future ANWR development would be governed by Federal statute and Federal enforcement.

H.R. 39 doesn't ask that wildlife be protected. It demands that developers protect wildlife or we will shut them down. If exploration interferes with migration or calving, we will shut it down.

It took courage back in 1973 for a Democratic majority Congress to cast a vote in favor of building a pipeline in Alaska. At that time, the debate was similar in character to the ANWR debate taking place today.

But the Senate put national energy security ahead of every thing else and in a 50-50 vote—with the Vice President breaking the tie—the historic pipeline was approved.

Sen. Walter Mondale said at the time, "It has always been my position that we need Alaskan oil and that this oil should flow to the lower 48 as soon as possible, consistent with environmental safeguards and the greatest benefit for the entire country."

That pipeline has carried as much as 2 million barrels a day from Prudhoe Bay. For twenty years it has provided as much as 20 percent of our domestic production.

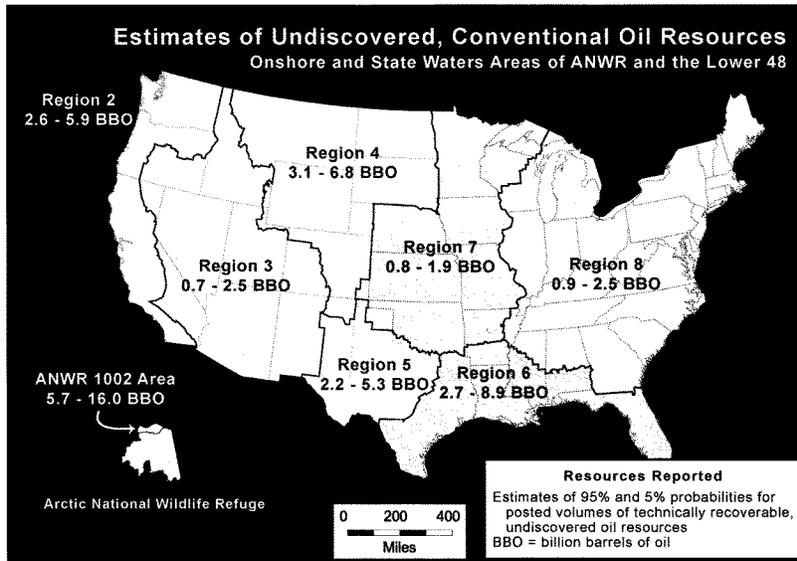
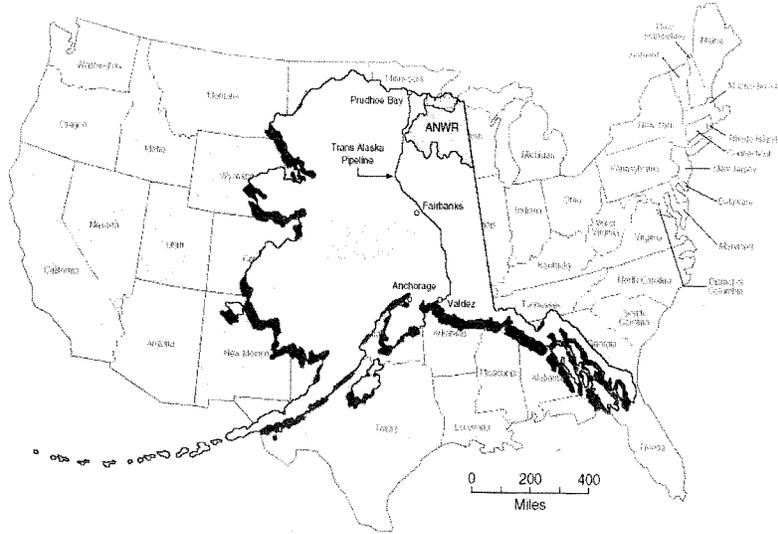
That is a 20-20 vision we need to repeat, "consistent with environmental safeguards."

Partisanship should once again be put aside for energy security.

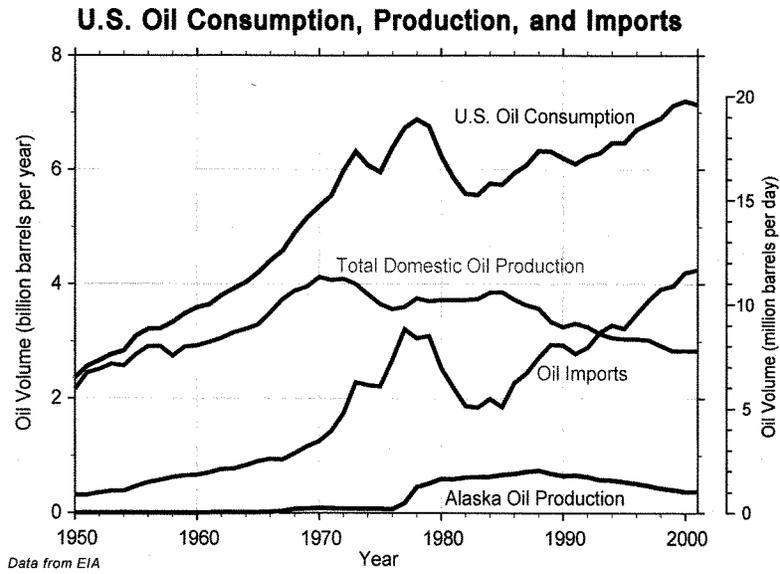
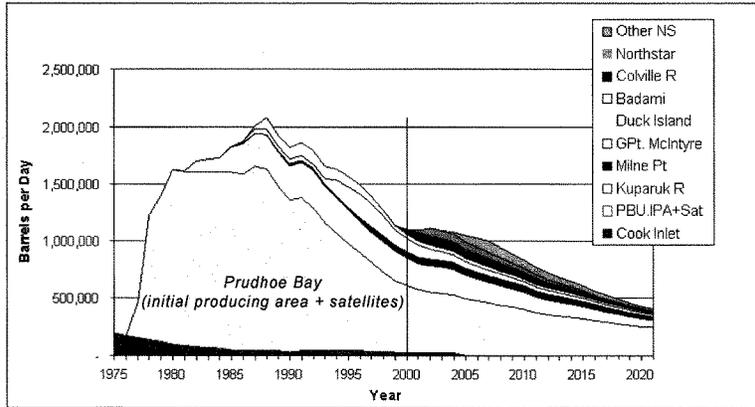
I ask the Committee and the entire Congress to please examine the facts as the National Academy of Sciences did, and discount the rhetoric or partisanship. This decision is too important to the energy security of our country.

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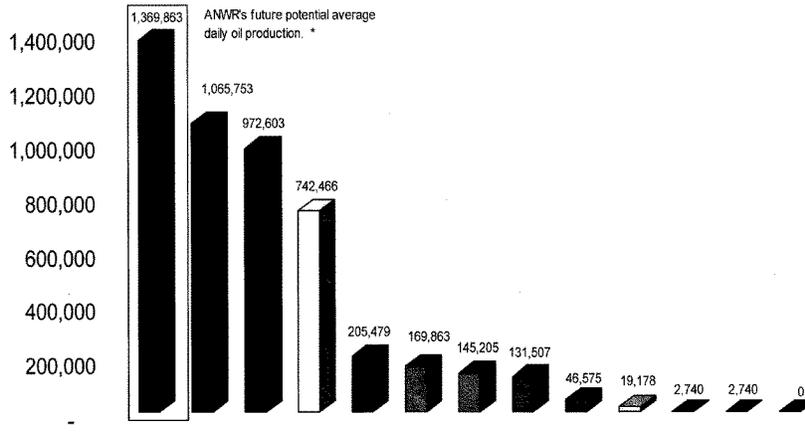
[Attachments to Secretary Norton's statement follow:]



## Historical and Projected Alaska Oil Production 1975 - 2021

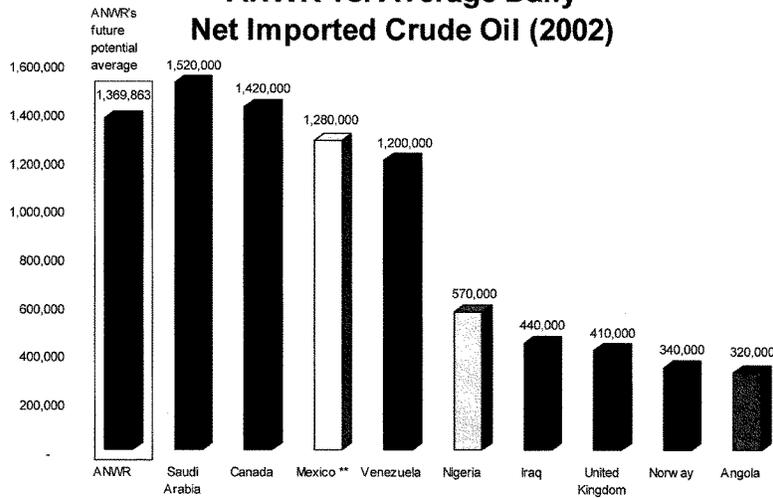


### Average Daily Oil Production

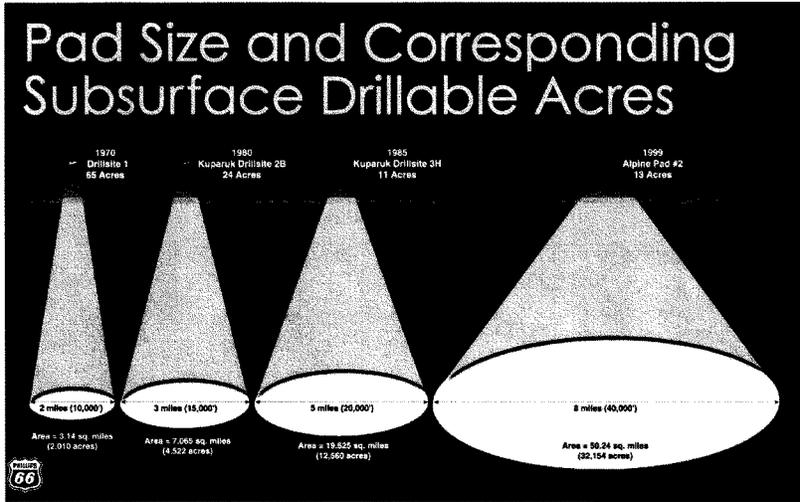


ANWR TX AK\*\* CA LA NM OK WY CO AR WV PA MA  
 \* Office of Oil and Gas, Energy Information Administration, U.S. Department of Energy, "Potential Oil Production from the Coastal Plain of the Arctic National Wildlife Refuge: Updated Assessment" p. 6 (May 2000).

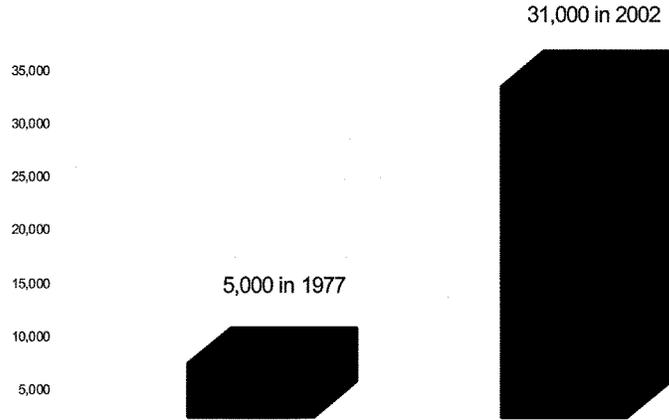
### ANWR vs. Average Daily Net Imported Crude Oil (2002)



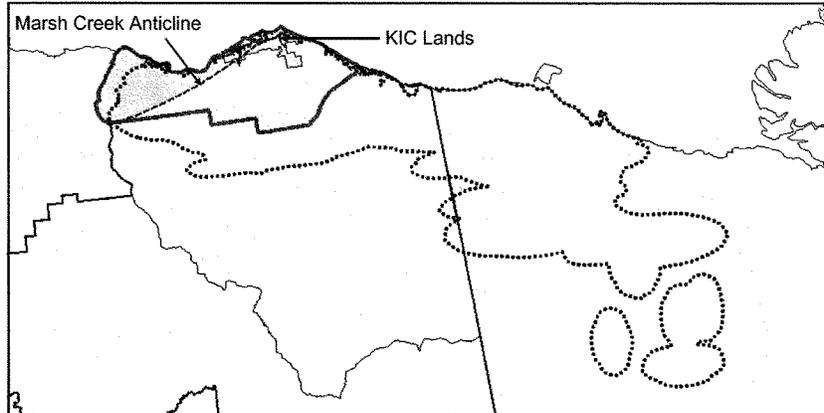
\* Office of Oil and Gas, Energy Information Administration, U.S. Department of Energy, "Potential Oil Production from the Coastal Plain of the Arctic National Wildlife Refuge: Updated Assessment" p. 6 (May 2000).  
 \*\* Reflects Net Total Oil Imports from Mexico into the US



### Caribou Growth - Central Arctic Herd in the Prudhoe Bay Area

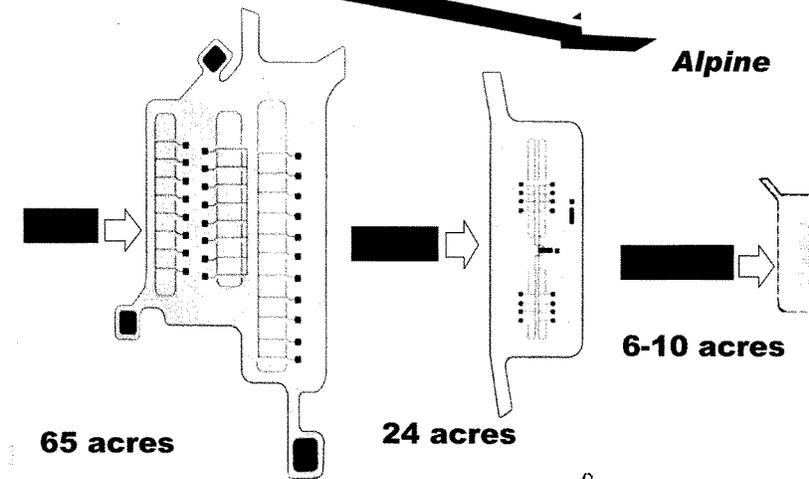


### USGS Estimate of Area of Highest Oil Potential



### State of the Art Technology

**Prudhoe Bay**



## Oil and Gas Potential

### Estimates of Technically Recoverable Oil in the ANWR 1002 Area, Included Native Lands, and Adjacent State Waters

95% Probability	Mean (Expected Value)	5% Probability
<b>5.7 billion barrels</b>	<b>10.4 billion barrels</b>	<b>16.0 billion barrels</b>

The CHAIRMAN. In March of 2002, USGS released an expanded economic analysis of ANWR oil resources that said that at market price of \$21 a barrel, six billion barrels of oil were economically recoverable from the area. That is more oil than the reserves in Texas. Today's market price for Alaskan oil delivered on the West Coast is \$36, which means that much more oil would be economic.

Can your Department provide the Committee with economically recoverable estimates for ANWR based on today's prices?

Secretary NORTON. Yes, Mr. Chairman, those calculations were done when the initial USGS estimate was done and we would be happy to provide those to you.

The CHAIRMAN. Thank you. I would like to also ask you if you are familiar with the Argonne National Laboratory study that studied the impact of the Trans-Alaska Pipeline and the North Slope oil fields.

Secretary NORTON. I believe I know which study you are talking about, but—

The CHAIRMAN. They were the contractor for BLM on the study.

Secretary NORTON. OK, yes.

The CHAIRMAN. How does that study characterize the overall impacts of oil development on Alaska's North Slope?

Secretary NORTON. I will have to provide you with that information in writing.

The CHAIRMAN. OK. I would also like to ask you, in your testimony, you talked about that there were currently 140 million—I believe that is the accurate figure—140 million acres of land within Alaska that is currently protected. Could you describe for me those lands, how they are protected, under what status they are under?

Secretary NORTON. That figure includes the national park areas. It includes those areas in the Forest Service, for example, within forests that are wilderness areas. It includes other areas of refuge. So those are the areas that are not multiple-use areas and not regular Forest Service areas.

The CHAIRMAN. So that is 140, approximately 140 million acres of land that is set aside under conservation status in one way or another that cannot be used?

Secretary NORTON. That is correct.

The CHAIRMAN. And I believe that your testimony stated that that is bigger than the size of California and New York combined?

Secretary NORTON. Yes. When you put those acreages together, there is an area as large as California and New York that is currently protected.

The CHAIRMAN. Your testimony went into great detail on what the bill demands in terms of environmental protections, and I think we are all interested in that aspect of it, and I know that we have spent a great deal of time over the years looking at what any possible environmental impact could be and trying to respond to that, and I believe that this legislation is kind of a summation of all that work that has gone together.

But in your testimony, you talked about the new technology that is being used and going from gravel roads to ice roads, and in a relatively short period of time, they have discovered ways to even further minimize the environmental impact. When you look at the future, can you give the Committee any kind of idea as to what new technologies are currently being developed?

Secretary NORTON. There are changes taking place all the time, and even in just a few short years, you begin to see new technologies. Since we began discussions about this in 2001, we have seen greater movement toward using technologies that would be like offshore oil platforms that would, in essence, not have a permanent structure affixed to the ground, but would instead have a platform above the ground. And so that would minimize even beyond the current small gravel pads the impacts on the tundra.

There are other things that are being researched as ways to try to minimize the effects and to try to have more and more environmentally protected technologies. As we learn more, as we go through the process, as those new technologies come on-line, the standards that would be applied to development would themselves change. It has to be the best commercially available technology that is applied whenever any activity goes forward. And so as that standard is enhanced by new technological development, the bar keeps going up.

The CHAIRMAN. Finally, I think we all know that if exploration is done, that there will be some impact and you will be able to see something there if you fly over it. But I think the argument that you cannot have economic development and protect our environment is a false argument and we can and have in the past been able to do a project like this without having a significant impact on the environment.

I appreciate your testimony a great deal. I think you did a fantastic job.

Before I recognize Congressman Markey for his questions, I will just say that I did receive a letter from Congressman Markey requesting a hearing on H.R. 770 and I responded to that letter that was sent to me, and just for the record, I would like to read one paragraph out of the letter.

"I am looking forward to holding a field hearing on all matters related to ANWR in Kaktovik, Alaska, a location which is in the heart of the area under consideration, and hopefully in that hearing we can further look at a number of the issues affecting ANWR

and their impact." I invite Mr. Markey and all the members of the Committee to attend that field hearing because I do believe it is extremely important that we continue to work on this issue regardless of the outcome of this legislation.

Mr. Markey?

Mr. MARKEY. Thank you, Mr. Chairman, and I thank you for the hearing. I just wish it would be conducted before we would actually have a markup of the bill here in the Natural Resources Committee. If you would give me that commitment, that we would actually have the hearing first and then the markup, I think the sequence, at least, would reflect the importance that the members would be exposed to those issues. I know that that is not going to happen because there has already been a determination on the part of the majority, the Republican Party, that they want to drill in the Arctic Refuge.

Madam Secretary, I have been on this Committee now for 27 years—so I was back here in the 1970's and the great Mo Udall used to sit up where Mr. Pombo sits now and he constructed a very nice balance for us on the Committee. He led the effort to double the fuel economy standards for vehicles in the United States, from 13.5 miles per gallon to 27 miles per gallon from 1976 to 1986. Gerald Ford, a Republican President, signed that bill even though he came from Michigan.

At the same time, Mo was able to say to us, and it also gives us the chance to look at the Arctic and preserve that for generations to come because we are going to ensure that the technology which consumes oil, and we know that 70 percent of all oil consumed in the United States goes into gasoline tanks, is done in a way which is most technologically efficient.

Now, sad to say, Madam Secretary, the United States now averages only 24 miles per gallon. We have gone backwards over the last decade and we now only average what the United States averaged in 1981.

Now, I marvel at the wonderful technological capacity which you believe will make it possible for us to drill in a pristine refuge without leaving any damage, but at the same time, you represent the Bush administration which is opposing any significant increase in the fuel economy standards for vehicles in the United States.

Secretary NORTON. As a matter of fact, Representative Markey—

Mr. MARKEY. If I may, just let me finish my point. And as a result, what we are confronted with here is an imperative that you say forces us into this Arctic Refuge which is avoidable if a goal was set to increase to 35 or 40 miles per gallon the fuel economy standards for our country, which the Bush administration adamantly opposes. In fact, last year on the House floor, I had an amendment which would have put the fuel economy standards at 27 miles per gallon, which is the bill that Gerald Ford signed in 1975, and the Bush administration opposed putting the fuel economy standards back to where it was in 1975 as a law.

And so to go into the Arctic to provide oil for vehicles that are only going to become less and less efficient as each generation goes by, unless the Bush administration steps up, of course necessitates us going into the refuge. But I ask you, do you support the increase in fuel economy standards to 35 or 40 miles per gallon?

Secretary NORTON. I very much support the idea of having better fuel economy for vehicles. The Administration, for example, just proposed the largest increase ever in the fuel economy standards for sport utility vehicles. The question is safety and whether you go about setting those standards by having Congress decide what the standards should be, or whether you have a process that allows the safety of families to be considered as a part of setting those fuel economy standards.

Mr. MARKEY. But as you know right now, Madam Secretary—

Secretary NORTON. What we want to see is one—

Mr. MARKEY. —a family driving in a regular car is 16 times more likely to have a fatality in that vehicle as someone in an SUV. So what is happening is as these SUVs get bigger and bigger and less and less fuel economical, every other vehicle is becoming much more dangerous for families to be driving in. And so, yes, there is a safety question, but the question is how big is too big in terms of every other vehicle on the highway, and that is linked to the fuel economy standard. So I just think that the Administration itself is in technological denial.

Secretary NORTON. For the long term, the President has proposed the Freedom Car and Freedom Fuel Initiative that would move us toward hydrogen fuel cell vehicles, and that is something that really gets us beyond the fuel economy debate—

Mr. MARKEY. I agree with you, and I hope he puts on the goal the non-fat cheese pizza as a long-term goal, as well. Meanwhile, let us make sure we all have low cholesterol diets today and let us make sure also that we have vehicles that are efficient, because we may never have a hydrogen car and we may never have a fat-free cheese pizza. So it is a dream. It is wonderful. Let us hope we get it. But today, we have off-the-shelf fuel economy technology that we can build into vehicles, the whole fleet, to give Americans a choice of a fuel economy standard for SUVs that is consistent with their goal to protect the environment.

And on that front, H.R. 39 applies the leasing requirements of the National Petroleum Reserve to the Arctic Refuge, but a GAO study last year found that, currently, there is a \$6 billion liability for cleanup and reclamation on the North Slope. The Department of Interior's comments on the report included a promise to conduct a review of the financial assurances in order to protect the environment and taxpayers. Yet, the \$6 billion liability still is sitting there staring us in the face.

Why should we invite this massive cleanup liability upon the Arctic Refuge while it has yet to be mitigated outside the refuge on the North Slope? What guarantee would the American public have that the oil companies or the Department of Interior will get serious in the refuge when they haven't shown that seriousness on the rest of the North Slope?

Secretary NORTON. We have no jurisdiction—

The CHAIRMAN. The gentleman's time has expired. I will allow the Secretary to answer his question and then we are going to move on.

Secretary NORTON. We have no jurisdiction over the area where that \$6 billion figure comes from. That is the State lands area from the older Prudhoe Bay facilities. In NPR-A now, we have financial

assurances and I have asked my staff to look at even greater strengthening of the financial assurances there and elsewhere across the country. I think it is very important to have that. That is why we demanded greater assurances for continuation of the Trans-Alaska Pipeline System, as well, than what is required by law or what has ever been required before.

The CHAIRMAN. The gentleman's time has expired.

Mr. Duncan?

Mr. DUNCAN. First of all, I want to thank you, Mr. Chairman, for calling this very important hearing this morning and I want to thank the Secretary for her, I think, very dispassionate factual and fair presentation of the case in regard to this work being done in ANWR.

I think one of the problems that we have is that people look at a map of the entire country on one little page in a book and they really can't comprehend how huge this area is, this 19.8 million acres. I represent the Great Smoky Mountains National Park and it is by far the most heavily visited national park in the country, with almost ten million visitors a year, and all of those millions of people come there and they think that area is huge and yet it is 600,000 acres. The ANWR is 35 times the size of the Great Smokies. You just can't even comprehend how huge this area is.

I think I am one of the small percentage of members that not only has been to ANWR, but I have been there twice. I have been to Prudhoe Bay. I have been to Barrow. I have been to Kaktovik. And I am told that the 270 or so people who live in Kaktovik are the only people who actually live inside this 19.8 million acres.

I was interested in the advertisement that you showed, Madam Secretary, because when you go up there, you see that there is not a bush or a tree as far as the eye can see. In fact, my first visit there, I met a lawyer from Anchorage who had practiced law in Tennessee several years earlier, and he was not connected to any group, but when he found out where I was going, he told me—he laughed and he said, if you see anything taller than two feet up there, it was put there yesterday by man.

And yet the area on which people wish to drill is not even 10 percent of this ANWR. It is not even 1 percent. In fact, it is not even one-tenth of 1 percent. I understand it is, at most, a few thousand acres, a minuscule portion, a minuscule portion of this area.

Then last year, a year and a half ago when we confronted this issue, I read in Time magazine that there were only 1,000 visitors to ANWR, hikers and backpackers and so forth, in the year prior to that, 1,000 into this 19.8 million acres. It is really amazing.

Yet as the ad showed, the people who are opponents to this have to resort to false or misleading advertisement to keep their contributions up, and I think that is what this is primarily about, is getting contributions for some of these groups.

But, you know, you don't hurt, Mr. Chairman, you don't hurt the wealthy upper-income people who contribute to these groups when you destroy these jobs and keep these oil prices high or drive them higher. Who you hurt are the poor and the lower income and the working people of this country. I wish that we could keep some of those people in mind when we are considering this.

I don't have any questions at this time, but I do want to thank you for the presentation that you made because I think it was a very fine presentation, Madam Secretary, and I yield back the balance of my time.

The CHAIRMAN. Thank you, Mr. Duncan.  
Mr. Miller?

Mr. MILLER. Thank you, Mr. Chairman, and Madam Secretary, thank you very much for your testimony. I, too, am one of those who has served on this Committee a long time and have been around this issue for a very long time. I have tried to study it from both sides of the debate. I have spent a lot of time with the oil companies in my district, a lot of time with CEOs of the oil companies involved in the Arctic and have looked at a lot of their proposals for reducing the footprint and the technologies and it is truly amazing.

But I am not sure that this debate is really about that. As one of the CEOs of the major players said, "We know we can do it. We know we can extract it. We think we can do it without environmental damage. But this is a value question for the American people and we will have to wait and see what their judgment is." And I think that is what we are down to at this point. It is a value judgment.

You can call this a white nothingness or whatever, I forget what your phrase was in your opening statement, in March. I have been there and it looks a lot like that. But it also has a huge diversity of characteristics that warrant its protection, and that is why the Congress made that decision.

It may not have the 300-foot Sequoias that we have in California. It may not have the deep canyons of Yosemite. It may not have whatever the Great Smokies have in terms of their values. But it does have values that the American people have come to prize, and the American people prize many areas of the world where they have never been. They think the Gobi desert is valuable. They think the Arctic is valuable. They think the Antarctic is valuable. They think that the Andes are valuable. They have never been there, and in likelihood, they may never get to go there, but that doesn't remove their values.

This is a matter, we can have dueling reports and dueling statistics about whether or not this will increase or not. I can read one here from the Department of Energy which says that if you take the expected production of ANWR in 2020, it will reduce our dependence on foreign oil from 62 percent to 60 percent. If you got really excited, you would go from 62 percent to 57 percent. That is a lot of oil. That is a lot of money. But the fact of the matter is, it also says that we have dramatically increased domestic production, but we will not produce our way out of the crisis we have.

I happen to support the idea of Mr. Markey and many others, that until such time as we seriously confront the usage of this oil, you are never going to make the hurdle on this debate, because I think it is very simple for the American people. If this oil is so valuable, if it is so valuable as this Administration says and the other proponents of drilling it, if it is that valuable, then why do we waste it? If it is so critical to our national economy, why do we waste it? If it is so critical to our national defense, why do we

waste it? If it is so critical to our standing in the world and our relationships in the Middle East, why do we waste it?

And that is what they see, is that you want to go get what you consider the most valuable commodity in the world, the most geopolitically sensitive commodity in the world, and you want to put it into a car that gets 12 miles a gallon. It doesn't make any sense to the American public. It must not be that valuable.

But the fact is, it is that valuable, and at a time when we say to the oil companies, you can go drill, and we mandate that you use, what is the phrase, the most commercially available technology, best commercially available technology, I think is the phrase, but we don't turn around and say to the automobile industry, we mandate that you use the best commercially available technology to achieve the mileage standards.

But until such time as you do that, I don't think you can make the hump here with the American people because they do value the Arctic Refuge. They do value its characteristics and they don't understand why the country wouldn't treat this as a valuable commodity. But we don't. We waste it in our lighting and we waste it in our transportation, and those are the two biggest uses where we can have immediate changes, not the Freedom Car or the Freedom Fry, but today, tomorrow, and the next day. It is all available.

We have demonstrations down here on the Mall. Many of us have gone down and visited General Motors when they bring all the college students to town to redesign the cars. UC-Davis has had one, Riverside has won one of the competitions, where they have added mileage to SUVs of ten, 15, 20, 25 percent. These are college students working for 3 months over the summer.

So I don't think we are going to advance this argument much further and I think that until such time as this country gets very, very serious about energy conservation and the wise use of this oil, that this will continue to be stalemated because it doesn't justify the invasion of the Arctic Refuge to continue to waste this resource and to continue to risk our national security in the manner in which we use the imported oil.

So thank you very much for your testimony. I am sure we will all see one another again on this issue. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Mr. Young?

Mr. YOUNG. Thank you, Mr. Chairman, and Madam Secretary, I was not here for your testimony. I was here when you testified on this issue before, and I would like to remind Mr. Miller, why didn't you just say this is Speech A, and I would say mine is Speech B and we can save a lot of time. It is the same speech I have heard for the last 30 years.

I sat right in this room when we passed the Alaska National Lands Act and the Congress set aside this land to be developed, the wishes of the Congress for the good of this nation. Scoop Jackson did this. Mo Udall did this. They agreed to this.

And I sit here and listen with amazement when people talk about the ANWR or the 1002 areas. Madam Secretary, you are right. The people that live there, the people that know what it is like support the drilling. The people of Alaska support the drilling and it would be good for this nation.

Now, I have offered many times—in the energy conference we had last year, I offered them one time, let us just take the native oil and let them use that oil. That is their oil. But the forked tongue of the white man is working again. We gave them the land for their economic well-being. We gave them the land for their social well-being and it is their land and now we say, you can't use it. Now, that is wrong. If you don't want to take the rest of it, fine. You can have the decision. But to do this to those native people up there is absolutely wrong, and that is what we are doing.

Now, as far as the American people not supporting this, the American people do support opening ANWR right now. They do support it. But we have a few people in this Congress who pander to the special interest groups. The environmental community does not want this nation to have the great economy they had in the past. That is really what this is all about.

This is a small piece of land, 2,000 acres, and that is all, 2,000 acres, and you would think Alaska didn't have other acreage up there. Four-hundred-and-forty-seven million acres you set aside. That is bigger than all the States on this side, about five times bigger than your State, set aside for no other use than wildlife and viewing and wilderness, and we are talking about 2,000 acres.

So, Madam Secretary, I get a little bit excited by this because I have been fighting it a long time, and I will win this battle. It may not be this year, but it will happen, and I will stay here until it is done. I will live to be 150 years old until it is done, and you will be dead and you will be dead. You won't be, but I will be here.

[Laughter.]

Mr. YOUNG. Thank you, Mr. Chairman.

The CHAIRMAN. You heard the bells going off. We have a vote on the floor. We are going to temporarily recess the Committee. As soon as the votes are complete, we will come back.

Mr. MARKEY. Mr. Chairman?

The CHAIRMAN. Mr. Markey?

Mr. MARKEY. I am just going to go get my cholesterol count so I can make sure I stay alive as long as is necessary to outlive Mr. Young.

[Laughter.]

[Recess.]

The CHAIRMAN. I am going to call the hearing back to order.

Thank you, Madam Secretary. I apologize for the delay. We are going to start with Mr. Renzi.

Mr. RENZI. Thank you, Mr. Chairman. Madam Secretary, thank you for your testimony. It was intriguing and really, from a knowledge base, it was a good teaching tool for me.

I want to let you know that the Ranking Member spoke about Mo Udall, and it is interesting to note, Mo Udall built a concrete ditch through the State of Arizona, my home State, over 330 miles long to bring water out of the Colorado River through pristine desert and ecosystems, sensitive habitat, because he believed that water was absolute to the future of Arizona.

During your testimony, you talked about the existing pipeline and the decline in the existing oil supplies and how, eventually, that pipeline will be empty at some point in the future. What I would like to talk to you and ask you about is, if we look at the

existing pipeline and we look at the length of the little stem that needs to be complete to get us over to the area where the natural reserves are, how far are we talking, approximately, and what kind of impact, and what kind of use, obviously, will there be for the existing pipeline if we go in and pull these resources out? Thank you.

Secretary NORTON. Thank you. As each of the new facilities has been constructed, there are pipelines that connect it to the end of the Trans-Alaska Pipeline System so the oil can then be transported through that pipeline.

The current production is taking place in an area that is as close as 30, 35 miles to the edge of ANWR, and so a pipeline would have to be constructed basically 35 miles, 40 miles, and then further depending on how far into the 1002 area the development occurred. It is essentially just the construction of a pipeline. Those are suspended, so there just are some pylons on the tundra that would be the effect of the pipeline.

Mr. RENZI. We are really looking at just 35 or 40 miles to get us at least to the initial edge of where we need to go, and then we are able to go back and tie into the main pipeline to take us down to Valdez.

Secretary NORTON. Yes, and there is certainly capacity in the current Trans-Alaska Pipeline to carry the additional oil. There is no need for an additional amount of overall pipeline capacity because the Trans-Alaska Pipeline at one point carried almost two million barrels a day. Today, it is down to about half of that and continuing to decline as the Prudhoe Bay oil itself is tapped out and the production there declines.

Mr. RENZI. Thank you. Knowing Mo Udall as I did, I am sure he would have been in favor of it. Thank you.

The CHAIRMAN. Mr. Hinojosa?

Mr. HINOJOSA. Thank you, Mr. Chairman. This is my first meeting for your Committee and I want to reserve the right to ask questions of the Secretary later on, if I may pass this time. I would appreciate that.

The CHAIRMAN. Well, welcome to the Committee, and if we do have a second round before the Secretary is excused, you are more than welcome to ask questions, or after the next questioner, you may, as well.

Mr. HINOJOSA. Thank you, Chairman Pombo.

The CHAIRMAN. Mr. Pearce?

Mr. PEARCE. Thank you, Mr. Chairman. Madam Secretary, in discussing the techniques of drilling, are there other properties that the Department of the Interior manages in Alaska?

Secretary NORTON. We manage a huge area of lands in Alaska. It is millions upon millions of acres.

Mr. PEARCE. And, Madam Secretary, have the techniques of drilling been implemented in other areas of Alaska?

Secretary NORTON. Actually, the area that we administer where the energy potential is being utilized on-shore is the National Petroleum Reserve, and that is still at the early stages of development there. So primarily, the activities where that new technology is being used are on State lands or native corporation-owned lands, and in those areas, we are seeing the new technology having those

examples of reaching underground for miles in order to tap the subsurface resource while leaving the surface undisturbed.

Mr. PEARCE. Mr. Chairman, Madam Secretary, are those techniques sustainable? In other words, can the companies afford to do that and still withdraw the production, and second, are the effects on the environment basically what the developers of the technology are claiming?

Secretary NORTON. The ability to use that technology depends on the size of the resource that is available, and so in many areas of the lower 48, you certainly could not support that kind of expensive technology. The resource that is available just would not justify that sort of expenditure.

In Alaska, however, the experience in other areas and the experience on the North Slope is that that technology is certainly justified. The areas where we are seeing the greatest reach underground with the horizontal drilling are areas on the North Slope, and so that is working out in reality. They are constantly setting new records for how far they can reach underground without an impact on the surface. So my understanding of that technology is that it is working out very well. It allows you to have your wells on the surface located in a very small area and then reach out for a long distance underground.

Mr. PEARCE. Mr. Chairman, Madam Secretary, what are some of the daily outputs of these wells that we are drilling there? Do you happen to know that? It is a fairly technical question, but—

Secretary NORTON. I would be happy to provide that for you. We do have, overall, the field production is in one of the handouts. I know there is information available about the production from various facilities. I don't have that off the top of my head.

Mr. PEARCE. Thank you, Mr. Chairman. Just a concluding statement, that I think the point has been well made by those who maybe are opposing, but the same point will apply to those who are in favor of it, that the consumers will ultimately decide exactly what the values are in this, that as the price escalates, the price of gasoline at the pump goes over \$2 to \$3 because of restricted supplies, I think that the voters will send a very clear message what their values are in this particular relationship. Mr. Chairman, I support this project and appreciate the chance to speak.

The CHAIRMAN. Thank you.

I will just say that we are intending on holding a field hearing in the region and I would highly recommend that members of the Committee take advantage of that opportunity to go up there and actually see it. I can tell you from personal experience, the picture that you have got in your mind's eye of this region is inaccurate, because once you go up there and actually see it, you see what they are doing, how the exploration is occurring, what the area is like, what the tundra is like. It gives you a very different picture and a much clearer view of what is being attempted to be done in ANWR and in this particular region.

Are there any further questions the Committee has of Madam Secretary?

[No response.]

The CHAIRMAN. Seeing none, Ms. Norton, before I excuse you, I just wanted to say that I very much enjoyed your testimony. It was

very well done, very well thought out and very informative and it is something that I think will prove to be of great value to this Committee as we move forward in our deliberation and any possible future action that we may have on ANWR and including that as part of the energy bill.

This is an issue that we have been working on for a long time and there are obviously a lot of opinions, a lot of opposed and proponents of this particular project. But I think that what you brought to the Committee will be very helpful and I thank you for your testimony.

I will also say that I know that there are members who may have further questions. They will submit those to you in writing and if you could answer those in a timely fashion so that they can be included in the hearing record, it would be appreciated by the Committee.

Secretary NORTON. We would be happy to do so.

The CHAIRMAN. Before I excuse you, I am going to just briefly go to Mr. Inslee. I know that he was trying to get over here before you were excused, and since I was a little slow in my concluding statements, he made it—

[Laughter.]

The CHAIRMAN. —so Mr. Inslee?

Mr. INSLEE. Thank you for your courtesy. Madam Secretary, it strikes me that you have a very difficult job for a lot of reasons, and one of the reasons is I think people broadly feel about the Arctic a little bit the way they feel about the Mona Lisa, in that it is something most Americans will never see, although they might like to. It is something they feel that has a very unique beauty and is very treasured in the country. And it is something that they understand that industry has made very, very impressive gains in technology to try to reduce the amount of the footprint that would be put at least on the surface of the refuge.

But I think that they feel very strongly that a small footprint is like putting a small moustache on the Mona Lisa and that hundreds or thousands of acres is at least a moustache on this wilderness that is currently treated as a very successful refuge.

And so I think you have got a very difficult job to convince the American people that this scar, and it will be a scar no matter what technology can afford us, right in the heart—and I have been there and it is the heart of this refuge, and I think the American people's assessment is more accurate than some of the assessments I have heard today, calling this sort of a white wasteland or something.

I have been there, and I have to tell you, I have been to Yellowstone, Glacier National Park, which may not have glaciers in 100 years, by the way, because of global warming, we are going to have to rename it Puddle National Park or something. I have been to the bayous of Louisiana. I have been to the rain forests of the Olympics. I have been a lot of different places in this country.

But the single most impressive from a biological standpoint place I have ever been is the Arctic National Wildlife Refuge because, at least for a period of about 2 months, it is the single most exciting, prolific breeding ground for life in America. The bird life, the caribou, the grizzly, it is a 24-hour explosion of life there. And I am

convinced that at least the 600,000 people I represent feel very strongly about preserving that no matter what technology does.

I want to ask one question about your presentation. In your presentation, on your chart—somebody took the chart down, I am sorry—but in your chart, it made reference—I may not get this language exactly correct, but it made reference to using the best available environmentally sensitive technology. I think it was No. 2 in the list. I don't know if you have that language.

Secretary NORTON. It is the best commercially available technology.

Mr. INSLEE. The best commercially available technology. I want to ask you about that, because what I have heard you say is the Administration would commit to use the best available commercial technology, which is good. The problem is, your administration you work for has totally failed America in using the best commercial available technology in the energy field because it has an abysmal record in trying to use the best available commercial technology in our transportation sector, because the best available commercial technology, which we stopped making improvements on in the 1980's, is not being used, and the Administration you work for has resisted efforts to make terribly modest improvements of three miles a gallon in our fleet.

And you know and I know that if we had simply continued making improvements in our mileage of our vehicles that we made in the 1970's and early 1980's, if we simply had continued on that pace, we would have freed ourselves from all of the oil in Iraq and probably all of the oil of Saudi Arabia.

So the question I have is, what do you personally think about your administration's refusal to engage in any substantial improvement of using really commercially available technology, the best available technology in our transportation sector? What do you think about that?

Secretary NORTON. I believe you are ignoring a very large part of what this Administration has done. The Freedom Fuels and Freedom Car approach that the President has proposed is a significant step forward. It would be the next generation of automobiles, and his proposal is going to move us much more quickly toward hydrogen fuel cell-powered automobiles. It gets us beyond all of this debate about the regular gasoline-powered engines.

In the much shorter run, we have to deal with our cars as they are currently gasoline-powered. We have proposed that during that interim time period, as part of the President's energy plan, there be a tax credit for alternative fuel and, for example, the electric and gasoline combo-powered cars. I think that allows individual families to make the choice to have a cleaner technology car. I think that is a great approach, and that is part of our proposal.

We also believe that we ought to be increasing fuel efficiency and we have proposed the largest increase ever in fuel efficiency standards for sport utility vehicles and other light trucks.

The major difference is whether the safety assessment—how we protect America's families in their automobile safety—be a choice made by the experts in automobile safety as opposed to having that be done by a Congressional fiat.

The CHAIRMAN. The gentleman's time has expired. I look forward to the entire debate on CAFE standards as we get into it, because I believe that we have had some selective choosing of what the facts are on CAFE standards.

Madam Secretary, I appreciate your testimony. We are going to excuse you at this time, but there are other members who do have questions that they will submit to you in writing. Thank you very much for your testimony.

Secretary NORTON. Thank you very much, and thank you for your patience today.

The CHAIRMAN. Thank you.

The CHAIRMAN. I would like to call up our second panel of witnesses, Ms. Tara Sweeney, representing the Governor of Alaska; Ms. Jamie Clark, representing the National Wildlife Federation; Mr. Peter Van Tuyn of Trustees for Alaska; and Ken Boyd, the former Director of Oil and Gas for Alaska, if you would join us at the witness table.

I would also like to state that James Schlesinger, who had intended to testify in favor of opening ANWR as part of our national energy security, was forced to cancel this morning. He will submit testimony for the record, and with unanimous consent, that will be included at the appropriate place.

The CHAIRMAN. If I could just, before you guys get too comfortable, if I could have you stand and raise your right hand.

Do you solemnly swear or affirm under the penalty of perjury that the responses given and statements made will be the whole truth and nothing but the truth?

Ms. SWEENEY. I do.

Ms. CLARK. I do.

Mr. VAN TUYN. I do.

Mr. BOYD. I do.

The CHAIRMAN. Let the record show that all of the witnesses answered in the affirmative.

Ms. Sweeney, we are going to begin with you. Just as a reference point, you will be allowed 5 minutes for your oral testimony. Your entire written testimony will be included in the record. The lights that appear in front of you on the witness table have a green light, a yellow light to sum up, and then a red light to stop. So if you could try to keep to the time limit as much as possible, it would be appreciated.

Ms. Sweeney?

**STATEMENT OF TARA MAC LEAN SWEENEY, SPECIAL STAFF ASSISTANT, OFFICE OF THE GOVERNOR, STATE OF ALASKA**

Ms. SWEENEY. Good morning, Mr. Chairman, distinguished members of the Committee. Thank you for inviting the State of Alaska to present testimony on H.R. 39 today. My name is Tara Mac Lean Sweeney. I am the Special Staff Assistant to the Governor of the State of Alaska for Rural Affairs and Education.

On behalf of Governor Frank Murkowski, I would like to reaffirm Alaska's support for responsible development of the Coastal Plain area located within the Arctic National Wildlife Refuge, or ANWR. Responsible development of ANWR's Coastal Plain is critical to the

economic well-being of the residents of Alaska and the national security of the United States.

It is also very important to my people, the Inupiat Eskimos, who live on the North Slope. Oil development is our only economy. It provides our jobs, our tax base, and our essential public services. As you debate and act on this important issue in the session ahead, I urge you to consider the impact your decisions will have on the residents of Alaska, the citizens of this great country, and the Inupiat people of the North Slope.

Alaska crude oil production is very important to the nation. Over the years, Alaska has produced and safely transported over 13 billion barrels of oil from the North Slope oil fields to U.S. consumers. Every day, the most populated State in the nation, California, consumes about 1.8 million barrels of oil while producing about 890,000 barrels of oil. This is a production-to-consumption deficit of almost one million barrels per day, of which over half are imported from foreign countries.

One million barrels is the amount of spare capacity in the Trans-Alaska Pipeline, which can be filled by oil produced from ANWR. In other words, if Congress would open the Coastal Plain of ANWR, California would not have to import any foreign oil.

Mr. Chairman, I would appreciate a few minutes of the Committee's time to address H.R. 39 in my separate and personal capacity as an Alaska native. I am an Inupiat Eskimo raised in Barrow on Alaska's North Slope. The very large majority of the Inupiat people support opening the Coastal Plain of ANWR. They support this action because the Nation needs our oil and natural gas resources. They also support it because these energy resources can be developed safely with no harm to our homeland, our environment, our caribou, and our fish and wildlife.

We know this because my people are the stewards of the North Slope's lands, waters, and wildlife. The area is our kitchen. Our villages depend on our wildlife for 50 to 70 percent of our subsistence diet. This subsistence dependence means that the Inupiat people insist on the best practices, the best technology, and the best regulation in the development of North Slope energy resources.

My people have achieved this important objective through our local government, the North Slope Borough. The Borough has jurisdiction over the permits required for geologic surveys, exploration, and production.

The Inupiat people provided the input necessary to accommodate development and to meet America's need for oil while protecting our traditional subsistence lifestyle and cultural processes. We did not ante up our land with no protection provisions for caribou and other wildlife. Instead, we created a Planning and Zoning Department in the North Slope Borough to oversee the industry permits and provide an opportunity for our area experts, our hunters, to submit comments and concerns. We created a Fish and Wildlife Department to monitor wildlife and make recommendations on how to protect our subsistence resources.

We did not go into the prospect of oil development lightly. It is with our involvement that development and wildlife can coexist today.

Development for the Inupiat people means the privilege of providing running water and flush toilets; police, fire, and search and rescue protections; local schools for our children; local health care facilities; and an opportunity to champion our own causes.

As native people, we do not have a hierarchy for traditional food. The caribou is just as important to our souls as the whale. We cannot live without both. This is an important point to remember when deliberating this issue. We would not recommend development if it sacrificed our access to caribou.

Mr. Chairman and members of the Committee, thank you for your attention. On behalf of the State of Alaska, I want to thank Chairman Pombo for scheduling this most important hearing. I also want to thank Congressman Young for introducing H.R. 39 and keeping this issue front and center.

The CHAIRMAN. Thank you.

[The prepared statement of Ms. Sweeney follows:]

**Statement of Tara Mac Lean Sweeney, Special Staff Assistant,  
Office of the Governor, State of Alaska**

GOOD MORNING. MR. CHAIRMAN, DISTINGUISHED MEMBERS OF THE COMMITTEE, THANK YOU FOR INVITING THE STATE OF ALASKA TO PRESENT TESTIMONY ON H.R.39 TODAY. MY NAME IS TARA MAC LEAN SWEENEY. I AM THE SPECIAL STAFF ASSISTANT TO THE GOVERNOR OF THE STATE OF ALASKA FOR RURAL AFFAIRS AND EDUCATION.

ON BEHALF OF GOVERNOR FRANK MURKOWSKI I WOULD LIKE TO REAFFIRM ALASKA'S SUPPORT FOR RESPONSIBLE DEVELOPMENT OF THE 1.5 MILLION ACRE COASTAL PLAIN AREA LOCATED WITHIN THE 19.6 MILLION ACRE ARCTIC NATIONAL WILDLIFE REFUGE (ANWR). RESPONSIBLE DEVELOPMENT OF ANWR'S COASTAL PLAIN IS CRITICAL TO THE ECONOMIC WELL-BEING OF THE RESIDENTS OF ALASKA AND THE NATIONAL SECURITY OF THE UNITED STATES. IT IS ALSO VERY IMPORTANT TO MY PEOPLE, THE INUPIAT ESKIMOS, WHO LIVE ON THE NORTH SLOPE. OIL DEVELOPMENT IS OUR ONLY ECONOMY. IT PROVIDES OUR JOBS, OUR TAX BASE AND OUR ESSENTIAL PUBLIC SERVICES.

AS YOU DEBATE AND ACT ON THIS IMPORTANT ISSUE IN THE SESSION AHEAD, I URGE YOU TO CONSIDER THE IMPACT YOUR DECISIONS WILL HAVE ON THE RESIDENTS OF ALASKA, THE CITIZENS OF THIS GREAT COUNTRY AND THE INUPIAT PEOPLE OF THE NORTH SLOPE.

ALASKA CRUDE OIL PRODUCTION IS VERY IMPORTANT TO THE NATION:

- THE PRUDHOE BAY FIELD WAS ORIGINALLY ESTIMATED TO CONTAIN ROUGHLY 9 BILLION BARRELS OF RECOVERABLE OIL; BUT AFTER 30 YEARS OF ADVANCEMENT IN TECHNOLOGY, A TOTAL OF 13 BILLION BARRELS OF OIL HAS ALREADY BEEN PRODUCED. (ALYESKA PIPELINE SERVICE COMPANY)
- RESPONSIBLE DEVELOPMENT OF THE COASTAL PLAIN COULD PRODUCE BETWEEN 5.7 BILLION BARRELS TO 16 BILLION BARRELS OF NEW OIL. (USGS ASSESSMENT, 1998)
- OVER THE YEARS, ALASKA HAS PRODUCED AND SAFELY TRANSPORTED OVER 13 BILLION BARRELS OF OIL FROM THE NORTH SLOPE OIL FIELDS TO U.S. CONSUMERS. (ARGONNE NATIONAL LABORATORY, 2002 TAPS ROW EIS)
- EVERY DAY, THE MOST POPULATED STATE IN THE NATION, CALIFORNIA, CONSUMES ABOUT 1.8 MILLION BARRELS OF OIL, WHILE PRODUCING ABOUT 890,000 BARRELS OF OIL. THIS IS A PRODUCTION-TO-CONSUMPTION DEFICIT OF ALMOST ONE MILLION BARRELS PER DAY, OF WHICH OVER HALF ARE IMPORTED FROM FOREIGN COUNTRIES. (CALIFORNIA ENERGY COMMISSION AND THE ENERGY INFORMATION ADMINISTRATION)
- ONE MILLION BARRELS IS THE AMOUNT OF SPARE CAPACITY IN THE TRANS-ALASKA PIPELINE, WHICH CAN BE FILLED BY OIL PRODUCED FROM ANWR. (ALYESKA PIPELINE SERVICE COMPANY)
- IN OTHER WORDS, CALIFORNIA MIGHT NOT HAVE TO IMPORT ANY FOREIGN OIL IF CONGRESS OPENED THE COASTAL PLAIN OF ANWR.

- ALASKA OPERATES THE CLEANEST OIL FIELDS IN THE WORLD, UNDER THE MOST STRINGENT ENVIRONMENTAL STANDARDS.
  - IMPROVED TECHNOLOGY (DIRECTIONAL DRILLING, REINJECTING WASTES, ICE ROADS, ICE DRILLING PADS, AND 3-D SEISMIC, ETC.) ENABLES DEVELOPMENT TO OCCUR WITH GREATLY INCREASED PRODUCTION AND MINIMAL IMPACT ON THE ENVIRONMENT, LAND AND WILDLIFE. FOR EXAMPLE, WHEN THE TRANS-ALASKA PIPELINE WAS CONSTRUCTED IN THE MID 1970'S, THERE WERE ABOUT 3,000 CARIBOU IN THE CENTRAL ARCTIC HERD, WHICH UTILIZES THE PRUDHOE BAY OIL FIELDS FOR CALVING. THE LATEST CENSUS OF CARIBOU CARRIED OUT BY STATE BIOLOGISTS INDICATES THE POPULATION HAS GROWN TO 32,000 CARIBOU—UP FROM 27,000 THE LAST TIME CONGRESS DEBATED ANWR. AS THE CARIBOU POPULATION INCREASED, PRUDHOE BAY SUPPLIED OVER 13 BILLION BARRELS OF OIL FOR AMERICAN CONSUMERS.
  - THE HIGHLY-RESPECTED ARGONNE NATIONAL LABORATORY RECENTLY COMPLETED A \$40 MILLION ENVIRONMENTAL IMPACT STATEMENT FOR THE INTERIOR DEPARTMENT IN SUPPORT OF THE RECENT RENEWAL OF THE RIGHT-OF-WAY FOR THE TRANS-ALASKA PIPELINE. THE EIS EXAMINED THE PAST, PRESENT, AND FUTURE EFFECTS OF NORTH SLOPE OIL DEVELOPMENT ON WILDLIFE AND HABITAT.
  - THERE WERE MANY FINDINGS REGARDING THE IMPACTS OF ALASKA NORTH SLOPE OIL DEVELOPMENT WHICH CAN BE SUMMED UP IN THIS QUOTE FOUND IN THE REPORT: "NO POPULATION LEVEL IMPACTS TO ANY WILDLIFE SPECIES HAVE BEEN DOCUMENTED." IN FACT, THE ARGONNE NATIONAL LABORATORY FOUND SOMETHING THAT IS RARELY MENTIONED BY THE MAINSTREAM PRESS, WHICH IS THAT OIL FIELD INFRASTRUCTURE CAN HAVE HABITAT ENHANCEMENT VALUE FOR A NUMBER OF IMPORTANT BIRD AND MAMMAL SPECIES, INCLUDING CARIBOU.
  - THE ARGONNE NATIONAL LABORATORY STUDY ALSO FOUND THAT ALASKA NORTH SLOPE OIL BETWEEN 1977 AND 2001, REDUCED THE OVERALL TRADE DEFICIT BY ALMOST 12%—THIS IS A REDUCTION OF ABOUT A HALF-TRILLION DOLLARS IN THE U.S. FOREIGN OIL BILL. THIS IS MONEY SPENT ON U.S. WORKERS AND U.S. INVESTMENTS, RATHER THAN ON FOREIGN WORKERS AND FOREIGN INVESTMENTS.
  - RESPONSIBLE DEVELOPMENT OF THE COASTAL PLAIN HAS THE POTENTIAL TO CREATE HUNDREDS OF THOUSANDS OF JOBS NATION-WIDE.
  - MORE THAN 50 TANKERS HAVE BEEN BUILT IN U.S. SHIPYARDS FOR THE ALASKA-TO-WEST COAST SHIPMENT OF ALASKA CRUDE OIL. EACH TANKER REQUIRES 1,000 SHIPYARD JOBS. THIS IS 50,000 SHIPYARD JOBS IN SUPPORT OF ALASKA OIL DEVELOPMENT. IT IS ESTIMATED THAT 19 NEW TANKERS WOULD HAVE TO BE BUILT TO TRANSPORT OIL PRODUCED FROM THE COASTAL PLAIN. (AMERICAN PETROLEUM INSTITUTE)
  - THESE POSITIVE EFFECTS ON JOB CREATION AND THE ECONOMY CANNOT BE UNDERSTATED. ALASKANS SEEK TO CONTINUE TO ENORMOUS CONTRIBUTION TO AMERICA'S JOB BASE THROUGH ENVIRONMENTALLY SENSITIVE DEVELOPMENT OF ANWR'S COASTAL PLAIN.
  - RESPONSIBLE ANWR DEVELOPMENT IS SUPPORTED BY 75% OF ALASKANS. (DITTMAN POLL, 2001)
  - THE VILLAGE OF KAKTOVIK, POPULATION 260, IS THE ONLY COMMUNITY WITHIN ANWR, AND A LARGE MAJORITY OF KAKTOVIK'S RESIDENTS SUPPORT DEVELOPMENT.
  - THE INTERNATIONAL BROTHERHOOD OF TEAMSTERS, THE NATIONAL ASSOCIATION OF COUNTIES, NATIONAL BLACK CHAMBER OF COMMERCE, NATIONAL CATTLEMEN'S BEEF ASSOCIATION, NATIONAL GRANGE, THE TRANSPORTATION INSTITUTE AND THE U.S. CHAMBER, ARE ONLY A FEW OF THE MANY ORGANIZATIONS THAT JOIN ALASKA IN SUPPORT OF RESPONSIBLE DEVELOPMENT.
  - THE PEOPLE WHO KNOW JOBS—THE INTERNATIONAL BROTHERHOOD OF TEAMSTERS—HAS TAKEN THE LEAD IN SECURING ORGANIZED LABOR'S SUPPORT FOR THIS ISSUE, MUCH TO THE CREDIT OF MR. JERRY HOOD.
- GOVERNOR FRANK H. MURKOWSKI IS COMMITTED TO PROVIDING RESPONSIBLE DEVELOPMENT FOR THE PEOPLE OF ALASKA AND FOR THE CITIZENS OF THE UNITED STATES. GOVERNOR MURKOWSKI KNOWS THE

IMPORTANCE OF EMPOWERING CONGRESSIONAL LEADERS WITH ACCURATE INFORMATION TO ENABLE THEM TO MAKE INFORMED DECISIONS.

THE PROSPECT OF ARMED CONFLICT IN IRAQ MAKES THE DECISION ON THE FUTURE OF THE COASTAL PLAIN AREA VITALLY IMPORTANT TODAY. WORLD WIDE CRUDE OIL SHORTAGES HAVE SEEN OIL PRICES GO FROM \$18 TO \$37 PER BARREL. GASOLINE PRICES ARE ALREADY OVER \$2.00 A GALLON IN MANY STATES. RISING ENERGY PRICES THREATEN THE AIRLINE INDUSTRY AND ARE STALLING THE NATION'S ECONOMIC RECOVERY.

ALASKA'S STOREHOUSE OF UNDEVELOPED OIL AND GAS RESOURCES WON'T SOLVE THE CURRENT ENERGY CRISIS BECAUSE OF LONG LEAD TIMES. BUT THEY COULD BE VERY EFFECTIVE IN DEALING WITH FUTURE ENERGY SHORTFALLS. THIS IS WHY THIS CONGRESS SHOULD ADOPT S.39 NOW, TO OPEN THE COASTAL PLAIN TO RESPONSIBLE OIL AND GAS LEASING.

THE CASE FOR S.39 IS, ON THE MERITS, COMPELLING.

- THE STATE OF ALASKA AND ITS CITIZENS SUPPORT DEVELOPMENT;
- THE INUPIAT ESKIMO PEOPLE WHO LIVE ON THE NORTH SLOPE SUPPORT LEASING BECAUSE THEY KNOW FROM EXPERIENCE IT CAN BE DONE WITHOUT HARM TO THE LAND, THE ENVIRONMENT AND FISH AND WILDLIFE;
- WE HAVE THE TECHNOLOGY AND LAND USE PRACTICES THAT ENABLED US TO DEVELOP ALPINE, A NEW 500 MILLION BARREL OIL FIELD, USING ONLY 90 ACRES OF LAND;
- THE ABILITY OF THE STATE OF ALASKA, THE NORTH SLOPE BOROUGH AND THE FEDERAL GOVERNMENT TO PROPERLY REGULATE EXPLORATION AND PRODUCTION HAS BEEN DEMONSTRATED FOR OVER 30 YEARS.
- THE FEDERAL GOVERNMENT NEEDS THE REVENUES THAT BONUS BIDS AND ROYALTIES FROM THE COASTAL PLAIN CAN PROVIDE;
- THE AMERICAN PEOPLE NEED THE SECURE SUPPLIES OF DOMESTIC OIL THAT ALASKA CAN PROVIDE.

ON BEHALF OF THE STATE OF ALASKA I WANT TO THANK CHAIRMAN POMBO, FOR SCHEDULING THIS MOST IMPORTANT HEARING. I ALSO WANT TO THANK CONGRESSMAN YOUNG FOR INTRODUCING H.R. 39 AND KEEPING THIS ISSUE FRONT AND CENTER. FINALLY I WANT TO THANK PRESIDENT BUSH AND HIS ADMINISTRATION, ESPECIALLY SECRETARY NORTON, FOR HAVING THE COURAGE AND GOOD JUDGEEMENT TO MAKE THE COASTAL PLAIN A CENTRAL FACTOR IN OUR NATIONAL ENERGY POLICY.

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**Supplemental Statement of Tara Mac Lean Sweeney, Inupiat Eskimo,  
Shareholder of the Arctic Slope Regional Corporation**

MR. CHAIRMAN, I WOULD APPRECIATE A FEW MINUTES OF THE COMMITTEE'S TIME TO ADDRESS H.R. 39 IN MY SEPARATE AND PERSONAL CAPACITY AS AN ALASKA NATIVE. I AM AN INUPIAT ESKIMO RAISED IN BARROW ON ALASKA'S NORTH SLOPE. I HAVE FRIENDS AND RELATIVES WHO LIVE IN KAKTOVIK, IN THE COASTAL PLAIN.

THE VERY LARGE MAJORITY OF THE INUPIAT PEOPLE SUPPORT OPENING THE COASTAL PLAIN OF ANWR. THEY SUPPORT THIS ACTION BECAUSE THE NATION NEEDS OUR OIL AND NATURAL GAS RESOURCES. THEY ALSO SUPPORT IT BECAUSE THESE ENERGY RESOURCES CAN BE DEVELOPED SAFELY, WITH NO HARM TO OUR HOMELAND, OUR ENVIRONMENT, OUR CARIBOU AND OUR FISH AND WILDLIFE.

WE KNOW THIS BECAUSE MY PEOPLE ARE THE STEWARDS OF THE NORTH SLOPE'S LANDS, WATERS AND WILDLIFE. THIS AREA IS OUR KITCHEN. OUR VILLAGES DEPEND ON OUR WILDLIFE FOR 50 TO 70 PERCENT OF OUR SUBSISTENCE DIET.

THIS SUBSISTENCE DEPENDENCE MEANS THAT THE INUPIAT PEOPLE INSIST ON THE BEST PRACTICES, BEST TECHNOLOGY AND BEST REGULATION IN THE DEVELOPMENT OF NORTH SLOPE ENERGY RESOURCES.

MY PEOPLE HAVE ACHIEVED THIS IMPORTANT OBJECTIVE THROUGH OUR LOCAL GOVERNMENT, THE NORTH SLOPE BOROUGH (NSB). THE BOROUGH HAS JURISDICTION OVER THE PERMITS REQUIRED FOR GEOLOGIC SURVEYS, EXPLORATION AND PRODUCTION.

THE INUPIAT PEOPLE PROVIDED THE INPUT NECESSARY TO ACCOMMODATE DEVELOPMENT AND TO MEET AMERICA'S NEED FOR OIL, WHILE PROTECTING OUR TRADITIONAL SUBSISTENCE LIFESTYLE AND CULTURAL PRACTICES. WE DID NOT ANTE UP OUR LAND WITH NO PROTECTION PROVISIONS FOR CARIBOU AND OTHER WILDLIFE. INSTEAD, WE CREATED A PLANNING AND ZONING DEPARTMENT IN THE NSB TO OVERSEE INDUSTRY PERMITS AND PROVIDE AN OPPORTUNITY FOR OUR AREA EXPERTS—OUR HUNTERS—TO SUBMIT COMMENTS AND CONCERNS.

WE CREATED A FISH AND WILDLIFE DEPARTMENT TO MONITOR WILDLIFE AND MAKE RECOMMENDATIONS ON HOW TO PROTECT OUR SUBSISTENCE RESOURCES.

WE DID NOT GO INTO THE PROSPECT OF OIL DEVELOPMENT LIGHTLY, AND IT IS WITH OUR INVOLVEMENT THAT DEVELOPMENT AND WILDLIFE CAN CO-EXIST TODAY.

DEVELOPMENT FOR THE INUPIAT PEOPLE ON THE NORTH SLOPE MEANS THE PRIVILEGE OF PROVIDING RUNNING WATER AND FLUSH TOILETS; POLICE, FIRE AND SEARCH AND RESCUE PROTECTIONS; LOCAL SCHOOLS FOR OUR CHILDREN; LOCAL HEALTH CARE FACILITIES AND AN OPPORTUNITY TO CHAMPION OUR OWN CAUSES.

AS NATIVE PEOPLE WE DO NOT HAVE A HIERARCHY FOR TRADITIONAL FOOD. THE CARIBOU IS JUST AS IMPORTANT TO OUR SOULS AS THE WHALE. WE CANNOT LIVE WITHOUT BOTH. THAT IS AN IMPORTANT POINT TO REMEMBER WHEN DELIBERATING THIS ISSUE. WE WOULD NOT RECOMMEND DEVELOPMENT IF IT SACRIFICED OUR ACCESS TO CARIBOU.

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, THANK YOU FOR YOUR ATTENTION. I SUBMIT MY REMARKS ON BEHALF OF MY PEOPLE FOR THE RECORD.

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The CHAIRMAN. Ms. Clark, welcome back.

**STATEMENT OF JAMIE RAPPAPORT CLARK, SENIOR VICE PRESIDENT, CONSERVATION PROGRAMS, NATIONAL WILDLIFE FEDERATION**

Ms. CLARK. Thank you, Mr. Chairman. Good morning, Mr. Chairman and members of the Committee. I am Jamie Rappaport Clark, the National Wildlife Federation's Senior Vice President for Conservation Programs. On behalf of the nation's largest member-supported conservation advocacy and education organization, we thank you for the opportunity to address this Committee this morning.

I would like to present to you the essence of the case to oppose oil drilling in the Arctic National Wildlife Refuge. First, what would drilling mean to the wildlife that depends on the refuge's Coastal Plain, the porcupine caribou herd that finds its central calving ground there, the polar bears that find their mainland denning habitat there, the muskoxen that live year-round there, the 135 bird species that congregate by the millions there in their migration spanning all 50 States and four continents of the globe?

The comprehensive study completed in 1987 during the Reagan administration concluded that drilling would have major adverse impacts on the Coastal Plain's wildlife. Last week, the National Academy of Sciences released its finding on the cumulative impacts of the 30 years of oil drilling that has already been conducted along the North Slope. Again, the conclusion is that oil drilling has long-term adverse impacts, harming the landscape and altering wildlife habitat and behavior well beyond the area given over to drilling rigs and processing facilities. These findings underscore the fragility of the Arctic tundra environment and the sensitivity to disruption of the wildlife that depends on it.

It is important to note, Mr. Chairman, that nearly 95 percent of the Alaskan North Slope is already available for potential oil exploration or development. The U.S. Geological Survey reports that far more oil can be recovered from these areas than could ever be obtained from the Arctic Refuge.

Mr. Chairman, in 1997, while I served as Director of the U.S. Fish and Wildlife Service, I was privileged to celebrate along with this Committee and with Congress the passage of organic legislation governing the system, the National Wildlife Refuge System Improvement Act, a law that clearly states that refuges are places where wildlife comes first. The bedrock principle of that law is that no activity will be allowed in a wildlife refuge that is incompatible with the purposes for which the refuge is formed, the conservation of wildlife and natural resource values.

Never since the National Wildlife Refuge System was formalized has oil drilling ever been initiated in an existing unit. To open the Arctic Refuge to oil drilling will set a precedent shattering decades of practice and render a crippling blow to the principle that only activities compatible with wildlife conservation should be allowed within the National Wildlife Refuge System. If this exception to law and tradition is permitted, the door will be opened to the next claim that an additional few weeks of oil supply can be found if only we will sacrifice another protected landscape.

Mr. Chairman, what will be the message Congress sends if it has the courage to again reject proposals to open the Arctic Refuge to oil drilling? With only 3 percent of the world's known oil reserve but 25 percent of the world's annual oil consumption, the message will be we cannot drill our way to energy security. Rather, the true path to energy independence is to decrease our reliance on oil with new technologies that can make our cars go further on a gallon of gas. The message will be that we need to focus on energy conservation and developing cleaner, safer, and cheaper alternative sources of fuel. Our short-term energy problems should not blind us to the risk of damaging forever places Americans care about and wildlife depend on most.

Two days from now, on March 14, America will celebrate the 100th anniversary of the day President Theodore Roosevelt established the first refuge at Pelican Island off of Florida's East Coast. The refuge system now safeguards habitat for more than 1,000 species of animals, is a wonderland of outdoor recreation, and spans all 50 States in an area exceeding the size of the National Park System. We must not mark the 100 years of achievement by authorizing the violation of the Arctic National Wildlife Refuge, the crown jewel of America's spectacular National Wildlife Refuge System.

Thank you for the opportunity to be here this morning.

The CHAIRMAN. Thank you.

[The prepared statement of Ms. Clark follows:]

**Statement of Jamie Rappaport Clark, Senior Vice President,  
Conservation Programs, National Wildlife Federation**

*I. Introduction*

Good morning Mr. Chairman, Congressman Rahall, and members of the House Resources Committee, my name is Jamie Rappaport Clark and I am here to share the views of the National Wildlife Federation (NWF), the nation's largest

conservation education and advocacy organization on the Arctic Coastal Plain Domestic Energy Security Act of 2003 (H.R. 39).

To your credit, Mr. Chairman, you are having this—the first of what we hope are many hearings on the Arctic National Wildlife Refuge this Congress—so that the facts surrounding this issue may come to light. Unfortunately, at this very moment, there are those contemplating adding an Arctic drilling provision to the fiscal year 04 Budget Reconciliation process in order to avoid a full, fair, and open debate; a debate that millions of Americans care passionately about.

Having said that, I do find it regrettable that the Committee would consider mandating oil drilling in our nation's largest, wildest and most pristine Refuge during the very week that our nation celebrates the centennial of the National Wildlife Refuge System.

Prior to arriving at National Wildlife Federation in 2001, I served for 13 years at the U.S. Fish and Wildlife Service (USFWS), with the last four years as the Director of the agency. In that capacity, I was privileged to oversee the refuge system, and came to view its creation and evolution as one of our nation's greatest conservation achievements.

Far from honoring the legacy of President Theodore Roosevelt, who established our America's first refuge on Pelican Island, Florida, H.R. 39 would tear down the very principles and laws that protect some 540 refuges in every state and U.S. territory.

Instead of putting "wildlife first," as refuges were intended to do, this bill seeks to transform the biological heart of the Arctic Refuge into an industrial complex of roads, pipelines, gravel mines, oil wells and other facilities. Rather than heeding decades of research by the U.S. Fish and Wildlife Service, U.S. Geological Survey, and even last week's report by the National Academy of Science, this bill pays little heed to sound science. Finally, instead of enhancing our energy security, this bill seeks to increase our dependence on oil and, as a result, on the Middle East at a time when our nation should be compelled, as never before, to invest in cleaner, safer, and cheaper alternatives.

In my testimony today, I will focus on the threats H.R. 39 poses to the entire refuge system, to the unique wilderness and wildlife values of the Arctic Refuge itself and finally to our national energy security.

## *II. Protecting the Integrity of the National Wildlife Refuge System*

On March 14, 2003, our country celebrates the one hundredth anniversary of the National Wildlife Refuge System. One century ago, with the stroke of a pen, President Theodore Roosevelt inaugurated the national commitment to conservation of wildlife species and the lands they need to survive. Frustrated by the unrestrained plume-hunting that was destroying a spectacular and ancient rookery, Roosevelt declared Florida's Pelican Island the first Federal Bird Reservation.

Thus was born the greatest program of habitat protection in the world, a program that exists today as the National Wildlife Refuge System. Driven to do the "greatest good for the greatest number," and with future generations in mind, Roosevelt eventually issued 51 executive orders creating reserves in 17 states and three territories. He instilled an ethic of conservation in the Federal Government that has been reinforced and enhanced by congressional Democrats and Republicans alike. First, when Congress formalized the National Wildlife Refuge System in 1966 and more recently in 1997, when this Committee helped craft the system's landmark organic legislation.<sup>1</sup>

The National Wildlife Refuge System Improvement Act requires the Secretary of the Interior maintain the biological integrity, diversity and environmental health of the Refuge System. It also declares conservation of fish and wildlife to be the highest mission of the refuge system; all other uses were prohibited unless the determined to be compatible with the purposes for which a particular refuge was established.

Unfortunately H.R. 39 breaks the promises of this landmark law, actually waiving, for the first time, the USFWS' compatibility determination. This would set a dangerous precedent that if applied by Congress in other circumstances, could undermine the Interior Department's ability and responsibility to protect all other refuges from a wide range of threats, effectively gutting the heart of the 1997 Act.<sup>2</sup>

<sup>1</sup> 16USC668dd. National Wildlife Refuge Administration Act, as amended by Public Law 105-57.

<sup>2</sup> The purposes of the Arctic Refuge were first set forth in the Eisenhower Administration's Public Land Order 2214, which include "preserving unique wildlife, wilderness and recreational values." They were expanded in the Alaska National Interest Lands Conservation Act (ANILCA) of 1980 to:

Perhaps just as troubling, H.R. 39 would set yet another precedent, demonstrating willingness on the part of Congress to force open a wildlife refuge to oil drilling. Not since the refuge system was formalized has oil and gas activity been permitted in an existing refuge without pre-existing mineral rights or unless done specifically to prevent drainage from adjacent private lands.<sup>3</sup> In short, if oil drilling is allowed in the Arctic Refuge what's to stop this or a future Congress from allowing drilling in the 298 refuges in 44 states that the U.S. Geological Survey indicates have oil and gas potential?<sup>4</sup>

### *III. Wilderness and Wildlife Values on the Arctic Refuge*

It was no accident that President Dwight Eisenhower first established the Arctic National Wildlife Refuge in 1960. Decades of surveys by scientists in the 1930's, 40's and 50's, identified the northeast corner of Alaska as the finest prospect for a conservation area in the Alaskan Arctic.<sup>5</sup>

Indeed, today's 19.6 million-acre Arctic Refuge protects America's northernmost forest, the highest peaks and glaciers of the Brooks Range, and the rolling tundra, braided rivers, lagoons, and barrier islands along the Beaufort Sea coast. Taken together with adjacent conservation lands in Canada, the Arctic Refuge is part of the largest, protected, pristine area on our continent. No other conservation area in North America safeguards a complete range of arctic and sub-arctic ecosystems. No other, in the entire five-nation circumpolar north, has as abundant or diverse wildlife.

For its part, the Arctic Refuge coastal plain, the Delaware-sized area that would be leased under H.R. 39, is considered the most biologically productive part of the Refuge, and the heart of its wildlife activity. Referring to the coastal plain, Eisenhower's Secretary of Interior Fred Seaton proclaimed:

For the wilderness explorer, whether primarily a fisherman, hunter, photographer, or mountain climber, certain portions of the Arctic coast and the north slope river valleys, such as the Canning, Hulahula, Okpilak, Aichilik, Kongakut, and Firth, and their great background of lofty mountains, offer a wilderness experience not duplicated elsewhere in our country.<sup>6</sup>

The Reagan Administration's 1987 Arctic National Wildlife Refuge Coastal Plain Resource Assessment Report concluded that the coastal plain "has outstanding wilderness qualities: scenic vistas, varied wildlife, excellent opportunities for solitude, recreational challenges, and scientific and historic values." The Reagan report also determined that, with the exception of two abandoned DEW (Defense Early Warning) line sites along the coast (which have since been removed), the entire coastal plain meets the criteria under the 1964 Wilderness Act.

Even when locked in the frigid grip of winter, the coastal plain is never lifeless. Muskoxen, cloaked in shaggy wool, restrict their movements to conserve vital energy reserves. Hidden from view, maternal polar bears give birth and nurse their young in the thermal protection of snow dens. Arctic foxes and ptarmigan—predator and prey—camouflage in winter white coats. Fish like Arctic grayling and Dolly Varden survive in rare pockets of open water beneath the ice covered rivers and lakes.

In late spring, the coastal plain transforms, as do few places on earth. Snowmelt from the Brooks Range flow onto the plain, moistening the spongy tundra as forbs, grasses, and a rainbow of small flowers come to life and the sun hangs in the sky without setting. Caribou have already begun their annual trek northward across the Brooks Range to this place that has served as their central calving and nursery ground for thousands of years. From continents away, flocks of migratory birds are on wing to the coastal plain which, by summer, will be filled with a symphony of bird songs. Arctic foxes, red foxes, grizzly bears, and wolverines will thrive and

(i) conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, the Porcupine caribou herd, polar bears, grizzly bears, muskox, Dall sheep, wolves, wolverines, snow geese, peregrine falcons and other migratory birds and Arctic char and grayling;

(ii) fulfill the international fish and wildlife treaty obligations of the United States;

(iii) provide the opportunity for continued subsistence uses by local residents; and

(iv) ensure water quality and necessary water quantity within the Refuge.

<sup>3</sup>United States General Accounting Office, U.S. Fish and Wildlife Service: Information on Oil and Gas Activities in the National Wildlife Refuge System 3-5 (2001).

<sup>4</sup>Defenders of Wildlife analysis of 1995 U.S. Geological Survey, National Assessment of U.S. Oil and Gas Resources, 2001.

<sup>5</sup>National Park Service and U.S. Fish and Wildlife Service officials Collins, Sumner, and Rhode, see discussion in *Midnight Wilderness*, Debbie Miller, 1990, Sierra Club Books, pages 165-66.

<sup>6</sup>Fred A. Seaton to Hon. Sam Rayburn, April 30, 1959, transmitting draft legislation to authorize the establishment of the Arctic Wildlife Range, Alaska.

fatten amid this abundant life before the season begins to change again, the cold returns, and the sun disappears.

There is broad scientific consensus that oil exploration, drilling and associated development activities would dramatically alter this unique landscape and the wildlife that depends on it. The message from the Interior Department's scientists has been clear and consistent that there would be significant negative effects, whether the Reagan Administration's 1002 Report to Congress,<sup>7</sup> the Clinton Administration's 1995 update,<sup>8</sup> or the 12-year summary of wildlife research released by the USGS last year, during the Bush Administration.<sup>9</sup> Arctic Refuge development and production would negatively impact a wide range of wildlife species, fundamentally alter wildlife habitat and natural ecological processes, harm subsistence uses and cultural values, and undermine the Refuge's wilderness values. The National Academy of Sciences, which released its 465-page report on the "Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope" last week, largely affirmed these findings.<sup>10</sup> It reported that the land, plants, animals, and culture of the North Slope and adjacent marine areas have been significantly and negatively affected by oil infrastructure and activities.

Notably, the NAS report makes clear that industrial activity has transformed 1,000 square miles of the North Slope, with many important effects on animals and vegetation extending well beyond this already sizable "footprint" of development. The NAS finds that:

Roads, pads, pipelines, seismic-vehicle tracks, and transmission lines; air, ground, and vessel traffic; drilling activities; landfills, housing, processing facilities, and other industrial infrastructure have reduced opportunities for solitude and have compromised wildland and scenic values over large areas...The structures and activities also violate the spirit of the land, a value that is reported by some Alaska Natives to be central to their culture. Given that most of the affected areas are not likely to be rehabilitated or restored to their original condition, these effects will persist long after industrial activity has ceased on the North Slope.<sup>11</sup>

The NAS said, "Animals have been affected by industrial activities on the North Slope. Bowhead whales have been displaced in their fall migration by the noise of seismic exploration" Some denning polar bears have been disturbed.<sup>12</sup> The threats to Inupiaq culture and subsistence activities are real, long-term and continuing, including reductions in harvest areas in and around oil fields. The actual and perceived risks to Gwich'in culture are widespread, intense, and they constitute a cumulative effect.

The Arctic Refuge coastal plain remains our best hope for keeping at least 5% of Alaska's North Slope intact, for the wildlife and the people who depend upon it. Unfortunately, 95% of this remarkable landscape lacks statutory protection from oil exploration and development and is subject to the wide-ranging cumulative impacts highlighted by NAS.

#### *IV. The Porcupine Caribou Herd*

The signature wildlife population of the Arctic Refuge's coastal plain is the Porcupine caribou herd. Over a dozen Native American villages in two nations depend on these animals for subsistence and cultural identity. Two national parks, a territorial park, an ecological preserve, and a large special management area in Canada, along with the Arctic National Wildlife Refuge as a whole, comprise the habitat for the largest internationally shared caribou herd in the world. Of the numerous wildlife species that use the coastal plain, caribou are not only the best known, but also one of the species most likely to suffer major disruptions from oil development. Because this herd functions as a keystone species which migrates throughout northeast

<sup>7</sup>Clough, N.K., P.C. Patton, and A.C. Christiansen, eds. 1987. Arctic National Wildlife Refuge, Alaska coastal plain resource assessment—Report and recommendation to the Congress of the United States and final legislative environmental impact statement: Washington, D.C. U.S. Fish and Wildlife Service, U.S. Geological Survey, and Bureau of Land Management. 208 pp.

<sup>8</sup>U.S. Fish and Wildlife Service. 1995. A preliminary review of the Arctic National Wildlife Refuge, Alaska, Coastal Plain Resource Assessment: Report and Recommendation to the Congress of the United States and Final Legislative Environmental Impact Statement. Anchorage.

<sup>9</sup>Douglas, D.C., P.E. Reynolds, and E.B. Rhode, editors. 2002. Arctic Refuge coastal plain terrestrial wildlife research summaries. U.S. Geological Survey, Biological Resources Division, Biological Science Report USGS/BRD/BSR-2002-0001.

<sup>10</sup>National Research Council of the National Academies, Cumulative Environmental Effects of Oil and Gas Activities on Alaska's North Slope, March 2003.

<sup>11</sup>NAS Report, p. 252.

<sup>12</sup>NAS Report, p. 14

Alaska and northwest Canada, negative impacts from development will have ecological consequences well beyond the coastal plain.

The 123,000-strong Porcupine caribou herd takes its name from its winter range in the valleys and tributaries of the Porcupine River. But it is the herd's recurrent use of a specific calving area—principally the Arctic Refuge coastal plain—which defines it as a separate population. The Porcupine herd and post-calving area covers most of the Arctic Refuge coastal plain, the exact landscape where oil development would occur, and extends eastward into the Yukon Territory. Calving grounds of the much smaller Central Arctic herd, currently numbering about 31,000 overlap the northwestern corner of the Refuge coastal plain and extend westward to Alaska's North Slope oil fields.

Although Porcupine herd calving extends far east into Canada, the Refuge coastal plain offers the most extensive stretch of land in which predators are scarce and highly nutritious forage is found. Consequently, calving activity is highly concentrated on the coastal plain, where calves grow rapidly and have the best survival. The evolutionary advantage of calving on the coastal plain is deeply ingrained. Pregnant cows often move 20 or more miles per day until they calve. Cows that give birth on the coastal plain have already traversed other potential calving sites, and they remain on the coastal plain until their calves are born. In contrast, cows that calve farther south or east continue moving as soon as their offspring are strong enough to travel so that they too might escape predation and obtain better forage afforded by the Refuge coastal plain.

No other portion of the calving grounds is used as frequently or by such high densities of caribou as the coastal plain of the Arctic Refuge:

- The coastal plain supports more than 250 pregnant cows per square mile—five to ten times the density of pregnant cows on the rest of the calving area;
- On average, about half of Porcupine herd births are concentrated in 10 percent of the overall calving area. The location of calving concentration areas varies from year to year, but annual concentration areas overlapped the coastal plain in 25 of the past 30 years;
- During the past 19 years for which there is detailed information from radio collared caribou, concentrated calving occurred primarily on the coastal plain 11 times. In four additional years, the majority of concentrated calving was immediately adjacent to the coastal plain, and within a few days most cows and calves had moved onto the plain;
- Only unusually late snowmelt keeps the Porcupine caribou herd from calving on the coastal plain;
- Up to 92 percent of calves are born on the coastal plain, and the annual average is 43 percent.

By late June and early July, cows that gave birth on the coastal plain have long since been joined by cows that calved farther south and east. Essentially all cows and calves and many bulls of the herd—in excess of one hundred thousand caribou—are on the coastal plain. Huge numbers of caribou then coalesce into dense aggregations of thousands or tens of thousands of animals that move constantly in response to winds, insects, and forage availability. Almost every section of the coastal plain is covered at one time or another by the vast swarms of caribou.

When the caribou leave the coastal plain, they travel near or through more than a dozen Gwich'in and Inuvialuit communities in Alaska and Canada; these communities rely on caribou and other wild meat for up to 80% of their diet.

#### *Effects of Oil Exploration and Development on Caribou*

The likelihood of coastal plain development having adverse effects on the Porcupine herd is often discounted by oil drilling proponents through comparisons with other areas where development is already taking place and caribou numbers have increased. However, conditions on the Arctic Refuge coastal plain differ from currently developed areas on State of Alaska lands west of the Refuge, making comparisons of the two largely inappropriate.

The coastal plain around the oil fields is more than 100 miles wide. It is used by relatively few caribou. Oil development that has been underway for many years has resulted in the displacement of Central Arctic caribou to other nearby habitat. In contrast, the narrow Arctic Refuge coastal plain is densely occupied by caribou and is bracketed by sea on one side and mountains on the other. Porcupine herd caribou displaced by oil development would not find other comparable habitat readily available.

The Arctic Refuge environmental assessment written in 1987 concluded that oil development would have a "major" impact on the Porcupine caribou herd, defined as "widespread, long-term change in habitat availability or quality which would likely modify natural abundance or distribution" of the species. While the technology

has improved, there is little question that the disturbance caused by the presence of drilling pads, pipelines, and facilities would displace the Porcupine caribou herd from their preferred calving habitat on the coastal plain, just as it has with the Central Arctic herd near the Prudhoe Bay oilfields. Furthermore, recent findings by DOI researchers published in 2002, documented that entire areas of calving concentration have shifted away from oilfield developments during the past 15 years. Findings of the National Academy of Science released last week show that during 1988 to 2001, Central Arctic herd cows that were displaced by oilfield developments had significantly lower reproductive success than in areas where they were not disturbed.

The survival rate of Porcupine herd calves has averaged 14 percent lower in years when late snowmelt has displaced calving from the coastal plain to areas with poorer forage and more predators. A reduction of long-term calf production and survival of as little as five percent would be sufficient to prevent population growth in the Porcupine caribou herd. If the average survival rate falls by more than five percent—a distinct possibility if oil development occurs—the herd would be unable to recover from natural declines. The Porcupine herd has shown the lowest growth capacity of the arctic herds in Alaska, and therefore is the least resilient to the impacts of development.

#### *V. Polar Bears*

The coastal plain of the Arctic National Wildlife Refuge is the most heavily used land denning area for polar bears along the entire North Slope of Alaska and provides the only denning habitat for polar bears in the conservation lands of the United States. Although the coastal plain covers only about 10 percent of the coastline of the Beaufort Sea in northeastern Alaska and adjacent Canada, it accounted for 42 percent of the mainland den sites of radio collared bears between 1981 and 2000.

Polar bears are creatures of the sea ice, where they feed almost exclusively on marine mammals. While most polar bears remain active and hunt for food all winter long, pregnant females excavate dens in snowdrifts during early winter, where they give birth and remain until late winter when the young cubs have grown enough to travel with their mothers. Throughout most of the polar bear's circumpolar range, denning occurs almost exclusively on land, but bears inhabiting the Beaufort Sea off the coastal plain of the Arctic Refuge den both onshore and on the pack ice.

The ability to successfully den on land is important because denning on ice carries certain risks. Ocean currents keep the pack ice constantly moving, even during winter. Female bears that go into dens in October or November in one location may emerge hundreds of miles away in March or April. Ice conditions can change as the dens drift along, forcing bears to abandon their dens and lose their cubs. Dens on land or on shore-fast ice are more stable. In the early 1980's, when surveys of radio collared bears in the Beaufort Sea first began, dens were fairly evenly split between land and pack ice. More recently, radio collared bears in the Beaufort Sea have tended to den more frequently on land, possibly because steadily warming winter temperatures are causing the ice pack to form later and remain thinner, making it a less attractive substrate for denning.

Polar bears also use the Refuge coast during the fall for feeding, resting, and moving about. Like the trend towards more land denning, use of the coastal plain during the fall has also been increasing in recent years. Some stretches of the Refuge coast have had up to one bear per mile of shoreline. Concentrations of up to two dozen bears regularly scavenge carcasses from fall whaling near Kaktovik, a Native village just outside the officially designated Refuge coastal plain. Numbers and densities of bears using the Refuge are greater than in areas where oil development already occurs farther to the west, and in the coming years the undisturbed habitat of the Refuge coastal plain is expected to be even more important to the Beaufort Sea polar bear population.

#### *Effects of Oil Exploration and Development on Polar Bears*

Polar bears are highly vulnerable to disturbances from human activity. The exploration activities that would precede any oil development would create exactly the kind of disturbance that could adversely affect the bears that rely on the coastal plain.

Modern petroleum exploration employs fleets of large vehicles that crisscross the frozen tundra, following a predetermined grid pattern. At frequent intervals, equipment on specially designed and extremely heavy vehicles is used to send shock waves through the ground so that monitoring devices can detect echoes that pinpoint underground oil and gas reserves. Noise from vehicles and seismic vibrations passing too closely can disturb denning polar bears, causing den abandonment and

loss of cubs. Modern 3-D seismic exploration now uses grid lines that are often no more than 300 to 400 yards apart.

Standard mitigation practice is to avoid conflicts with bears by prohibiting overland vehicle traffic, seismic testing, and other heavy equipment usage within one mile of known dens between October 30 and April 15. However, this mitigation technique is severely limited by the fact that some 95 percent of Beaufort Sea polar bears are not radio collared, and their locations cannot be known in advance. While the use of infra-red detection systems (which are currently being tested) may offer some potential for finding polar bear dens, the trend toward warmer winters in the arctic may render this technique useless as it relies on a sharp contrast between the relative warm signature of a den and the cold outside air. It is virtually certain that 3-D seismic exploration on the coastal plain would pass close to undetected dens within the seismic grid areas, resulting in disturbance, den abandonment, and cub mortality.

Oil exploration and development in the Refuge's coastal plain would also lead to more frequent direct encounters with humans and exposure to environmental contaminants, increasing the threat to polar bears. Polar bears are large, powerful predators and can be dangerous to people. Direct encounters with bears can be generally mitigated through camp and personnel management and proper control of human generated garbage. However, some killing of problem bears is inevitable. The International Polar Bear Specialist Group has identified environmental contaminants as a significant threat to polar bears. Chronic release of contaminants from petroleum exploration, production, and support activities has been a problem in existing oil fields on the North Slope, and at least one polar bear has died from ingesting a toxic substance.

The United States is a party, along with other circumpolar nations, to the Agreement on Conservation of Polar Bears, which requires appropriate action to protect ecosystems which contain polar bears, and places special emphasis on protecting denning habitat. This agreement also specifies that polar bears may be taken (hunted, killed, or captured) only for certain purposes. These purposes do not include displacing cubs to conduct seismic tests or killing bears to resolve conflicts with humans. Development of the coastal plain would make it difficult, if not impossible, for the United States to fully comply with its obligations under this international agreement.

#### *VI. Muskoxen*

Muskoxen are both new and old to the Arctic Refuge. Native muskoxen in Alaska died out near the end of the 19th century. Some of the last records of native muskoxen were from isolated inland areas of the Arctic Refuge. Centuries of steady exploitation by aboriginal hunters, accelerated by the introduction of modern firearms, doomed the muskoxen. Only a few scattered skulls lying on the tundra mark their passage.

Sixty-four muskoxen were reintroduced to the Refuge in 1969 and 1970. The transplanted population increased slowly at first, then underwent a period of rapid growth and range expansion. Numbers on the coastal plain reached a peak of 368 by 1986. Muskoxen now occupy all the major drainage systems on the coastal plain, and in summer they can be found anywhere throughout the plain. Muskoxen from the coastal plain have spread far to the east in Canada and west beyond Prudhoe Bay. The total population resulting from Arctic Refuge transplants now numbers about 500 muskoxen.

During the 1990's musk ox in the Refuge declined gradually due to emigration to new areas, as well as from reduced productivity and increased mortality as the population came into equilibrium with its resources. There has been a recent sharp decline in numbers following winters with deep snow (2000 and 2001) which were coincidental with increased predation by grizzly bears. It is currently estimated that there are no more than about 100 musk ox in the Refuge. It is imperative that maximum protection be given to the Refuge musk ox at this time.

#### *Effects of Oil Exploration and Development on Muskoxen*

As year-long coastal plain residents, the muskoxen's natural cycle of conserving energy in winter while moving freely to maximize food intake in summer makes it particularly sensitive to disturbance from human activities. Of particular concern is that female musk ox give birth at least four to six weeks before there is green forage available to assist with milk production for their young. Therefore it is imperative that they be able to conserve their body reserves (fat) throughout the winter to support this critical demand.

Petroleum exploration and construction typically occurs in winter, when muskoxen are most vulnerable due to limited habitat. Disturbance during winter

can drive muskoxen into lower quality habitats, increase energy consumption and ultimately reduce productivity and survival of young. This is especially true during the late winter months of April and May, when muskoxen are in the poorest physical condition and are raising newborn calves.

#### *VII. Birds and Other Wildlife*

Although we have focused on three of the most prominent species, scores of other species from golden eagles to diminutive lemmings and voles to fierce grizzly bears are also part of the wildlife mosaic that makes up the Arctic Refuge's coastal plain.

Although birds are rare on the coastal plain during the winter, by mid-April millions of migratory birds begin their return to the coastal plain. First to come back are huge flocks of ptarmigan streaming down from their main wintering areas in the Brooks range and taiga forests even farther south. Snow buntings show up soon after, followed in May and June by geese, ducks, swans, cranes, loons, raptors, gulls and jaegers, countless shorebirds, and multitudes of songbirds.

Some 180 bird species have been recorded in the Arctic Refuge, including 135 on the coastal plain, of which 70 are regular nesters. Birds come from all 50 states, Mexico, Central and South America, the mid- and South Pacific Islands, Asia, and even Africa and Antarctica. The convergence of all this winged wildlife onto the Arctic Refuge coastal plain every year gives this landscape one of its most special characteristics. Among all the conservation lands in the United States, the Arctic Refuge coastal plain is unequaled by all but a handful of protected landscapes as a critical migratory destination for wildlife.

Wolves and grizzly bears are two of the larger predators seen on the Arctic Refuge coastal plain. One hundred or more grizzlies can always be found on the coastal plain in summer, as far north as the Arctic coast. Arctic foxes are common on the coastal plain, especially near the arctic shoreline, and red foxes occur widely farther inland. Fox populations, particularly those of the arctic fox, fluctuate widely in response to cyclical irruptions of lemmings and other small rodents.

Bowhead and beluga whales and ringed, bearded, and spotted seals are regularly found in the Beaufort Sea off the coast of the Arctic Refuge. Other marine mammal species such as gray and killer whales, harbor porpoises, and walrus use the area less frequently. The common marine species, especially bowhead whales, are important in the local and regional subsistence economy.

#### *Effects of Oil Exploration and Development*

Construction and operation of a complex of oil fields in the Refuge coastal plain would directly destroy bird habitat, and the interconnected maze of small fields envisioned for the coastal plain would also fragment habitat, making much larger areas more difficult for birds to use. Additional habitat would be degraded by noise, general disturbance, and spread of pollutants from industrial activity.

The mountains of the Brooks Range confine the arctic tundra of the Refuge coastal plain into a narrower band than occurs elsewhere across the North Slope of Alaska. The narrow coastal plain, already densely populated by birds, offers few suitable alternative areas for birds displaced by development. Recent findings reported by the National Academy of Science indicate that due to increased populations of ravens, gulls and foxes that are attracted to human food and garbage in north slope oilfields, predation on some species of tundra nesting birds has significantly increased, making habitats near oil fields "sink populations" as other birds immigrate in from source areas. The NAS predicts that as more source areas (such as the Arctic Refuge) are developed, some bird populations may decline suddenly.

Grizzly bears have also been impacted by garbage in and around the oil fields. As stark evidence of this the NAS points out that out of 12 offspring weaned by four food-conditioned female grizzly bears, seven were killed, (defense of life and property) and the status of two others remains unknown.<sup>13</sup>

Pollution, too, is an inevitable by-product of oil development. As top predators, marine mammals are also threatened by chronic releases of contaminants into the environment. Contaminants are already a serious problem in the Arctic Ocean food chain. The problem would only be exacerbated by oil production along the coastal plain.

Of course, the routine problems associated with oil development would be dramatically worse in the event of a significant oil spill. If a major spill were to enter the marine environment, frequent and persistent ice cover would hamper clean up operations, and cold water temperatures would slow the breakdown and dispersal of toxic petroleum products. If a large spill were to escape into a major river, it

<sup>13</sup> NAS Report, P. 191

could reach coastal lagoons were it could have catastrophic effects on tens of thousands of long-tailed (old squaw) ducks, king eiders, loons, and shorebirds.

#### *VIII. Seismic Exploration Would Scar Tundra Landscape*

During the assessment of oil and gas potential on the Refuge coastal plain which was mandated by Section 1002 of ANILCA, about 1,400 miles of two dimensional (2D) seismic lines were surveyed (1983–85) to collect geophysical information used in the analysis. This work involved the use of bulldozer equipment moving worker camps, heavy seismic vibrators and related materials across the tundra during winter conditions when the ground is frozen and covered with snow. Due to the close proximity of the Brooks Range mountains to the Arctic Ocean in the Refuge, the coastal plain is primarily made up of rolling, hilly terrain which characteristically has uneven snow cover due to redistribution of snow by strong prevailing winds. Consequently, in areas having light snow cover the tundra vegetation was damaged by equipment, which created a variety of trails and visual impacts. Many of the damaged sites were such that significant recovery of vegetation has occurred and appear healed. At other locations, however, the damage persists, and in some cases has further eroded as water drains from sloped terrain in the scars. Damage at such places may last for many decades to come.

Current state-of-the-art seismic surveys called three-dimensional (3D) require a high spatial density of survey lines (about 300–400 yard spacing). Such surveys create significantly more trails and tundra damage than the older 2D method, because of the increased number of lines, and the amount of vehicle turning that is required at the end of each line (turning of tracked vehicles tends to damage tundra vegetation more than straight travel). The NAS report warns that if exploration intensifies in the foothills terrain (like the coastal plain of the Arctic Refuge) the likelihood for increased impact to vegetation, soil erosion and visual values will be significantly greater. In the Arctic Refuge such impacts would destroy the wilderness qualities of the coastal plain, and would diminish visual aesthetics of the plain as seen from higher elevations in the designated Wilderness area to the south.

#### *IX. Water Issues Associated with Oil Development*

Proponents for drilling in the Arctic Refuge often claim that impacts can be drastically reduced by the use of ice roads and exploratory drilling pads as is often done in the North Slope oil fields west of the Refuge. What they fail to acknowledge is the fact that there is very little water available for such purposes during the winter in the Refuge. Nearly all rivers and streams in the Refuge freeze to the bottom during the winter, and the few open water areas are critical fish overwintering areas where water cannot be withdrawn without causing impacts. Most of the coastal plain is made up of rolling upland terrain where water readily drains off to the Beaufort Sea, leaving few lakes and ponds. In contrast, to the west where oil development has taken place, there are extensive low flat plains with dense accumulations of lakes and ponds. Overall there is about one-tenth as much water during summer in the Arctic Refuge coastal plain than in the area of existing oil development. Further complicating the matter is that in the Refuge the distribution of lakes and ponds is not even; most water is located in river deltas near the coast and very little is found inland. This makes it impractical to use ice roads and ice drill pads over most of the Refuge coastal plain.

The lack of water during winter for industrial purposes in the Arctic Refuge would likely require more use of gravel for roads and drill pads for exploration. This will create greater impacts, including those from gravel mining operations, which will result in lasting transformations of the landscape. The recently released report by the National Academy of Science identified additional effects of oil field roads such as: dust affecting vegetation, roadside flooding, melting of permafrost. As a result, even if there were no commercial oil found in the Refuge, the effects of the exploration alone would result in a high degree of habitat alteration, and an irretrievable loss of wilderness values.

Of course, it may not even be possible to construct ice roads in the future, for reasons other than the lack of water on the coastal plain. The NAS warns that global warming could “reduce the usefulness of ice roads and pads or of some off-road technologies. In fact, global warming has already shortened the off-road tundra season by 70 days since the 1970’s.”<sup>14</sup>

#### *X. Drilling the Arctic Refuge Would Weaken U.S. Energy Security.*

The United States has less than 3% of the world’s oil reserves, yet consumes more than 25%. As a result, we could drill every national park, wildlife refuge, and coast-

<sup>14</sup>NAS Report, p. 91 & 141

line and still be largely dependent on imports. It's worth noting that the Energy Information Administration projects that a major oil discovery in the Arctic Refuge would reduce foreign oil dependence by a mere two percent in 2020, when the area might reach peak production.<sup>15</sup>

The EIA also projects that in 2020 Alaska will be producing 27 percent more oil than it pumps today, even without drilling the Arctic Refuge. This forecast does not include the billions of barrels of heavy oil already known to exist on the North Slope. Nor does it include the 35 trillion cubic feet of known natural gas reserves available at Prudhoe Bay. These reserves dwarf Arctic Refuge gas potential, which are estimated by USGS to be seven trillion cubic feet.

Still, the only true path to domestic energy security is to dramatically reduce our dependence on oil as a resource. Raising fuel economy standards for new family vehicles to an average of 40 miles per gallon over the next decade would save many times more oil by the year 2020 than could be produced from the Arctic National Wildlife Refuge, with additional oil savings in the years beyond.

As Congress develops a comprehensive energy policy, it faces a fundamental choice. Congress can either provide new leadership to challenge United States industry to innovate and develop better, cleaner, and more efficient technologies. Or it can remain mired in the failed energy policies of the past, leading to ever-increasing dependency on polluting fuels and foreign energy sources. It's a choice between an energy policy that drives environmental progress, and one that further jeopardizes public health, weakens our energy security and despoils one of the nation's last great wilderness areas.

#### *XI. Deficiencies of H.R. 39*

H.R. 39 asserts up front that a coastal plain leasing program will be "environmentally sound" and "will result in no significant adverse effect on fish and wildlife, their habitat, subsistence resources and the environment." Yet its specific provisions fail to ensure that these lofty goals are met.

As an initial matter, H.R. 39 is remarkable for what it does not do to protect the Refuge. The bill fails to ban the use of water from the braided rivers, ponds, and lakes of the coastal plain. It does not prohibit the construction of permanent gravel roads, either within individual fields or to connect separate ones. As a result, millions of cubic feet of gravel could be dredged from riverbeds for construction.

H.R. 39 also exempts leasing regulations from analysis under the landmark precautionary environmental law of our nation—the National Environmental Policy Act. The bill declares that a 16-year-old analysis is sufficient for NEPA purposes. The fallacy of this provision is revealed by other provisions of the proposed legislation, which require, for example, that the Secretary "prescribe such regulations as may be necessary" to protect fish and wildlife, their habitat, subsistence resources, and the environment of the Coastal Plain. See Section 3(g)(1).

Additionally, the bill only allows the Secretary of the Interior to designate 45,000 acres of "Special Areas" in the Coastal Plain, an insignificant amount given the important calving, denning, and nesting habitat found throughout the 1.5 million-acre area. Furthermore, H.R. 39 does nothing to prohibit or limit intrusive seismic exploration of Special Areas.

H.R. 39 also gives the Secretary the discretion to allow year round drilling of the coastal plain, rather than simply directing the Secretary to ban exploratory and development activities during critical denning, calving, and nesting periods for migratory or resident wildlife populations.

The bill also includes a variety of other provisions designed to limit meaningful public participation in a leasing program and to expedite oil development. Virtually all of the protective measures in the bill are at the complete discretion of the Secretary of Interior, rendering them largely meaningless.

#### *XII. Summary*

In a very real sense, drilling for oil on the coastal plain would be an ill-conceived experiment performed on the biological heart of the Arctic National Wildlife Refuge.

We know what some of the consequences would be. Exploration and drilling cannot proceed without permanently sacrificing the coastal plain's wilderness character. It is also certain that oil exploration would take a toll on many individual wildlife populations that rely on the Refuge and would be incompatible with the unique wildlife, wilderness, and recreational values for which the Refuge was established. Beyond these predictable outcomes, the cumulative damage cannot be completely

<sup>15</sup> Energy Information Administration, *The Effects of the Alaska Oil and Natural Gas Provisions of H.R. 4 and S. 1766 on U.S. Markets*, February 2002.

foretold. However, previous experience suggests it would far exceed the toll that has been outlined here.

The Arctic National Wildlife Refuge is held in trust for current and future generations as a vital part of our National Wildlife Refuge System. Our elected officials made a promise to the American people over 40 years ago to protect the Refuge's wildlife and wilderness values. The National Wildlife Federation urges this Committee to live up to that promise and to reject H.R. 39 in favor of cleaner, safer, and cheaper energy alternatives that can enhance our national security while protecting the Arctic Refuge and other national treasures for future generations.

Thank you.

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The CHAIRMAN. Mr. Van Tuyn?

**STATEMENT OF PETER VAN TUYN, TRUSTEES FOR ALASKA**

Mr. VAN TUYN. Mr. Chairman, members of the Committee, I am Peter Van Tuyn, an attorney with Trustees for Alaska, a public interest environmental law firm founded over a quarter of a century ago. For over a decade, I have represented conservation groups, Alaskan Native tribes and villages, and others who are concerned about the effects of oil drilling on the environment in Alaska. I thank you for inviting me to testify before you today on the issue of whether to allow drilling for oil on the Coastal Plain of the Arctic National Wildlife Refuge, and I urge you to oppose such drilling.

I speak today on H.R. 39's main environmental premise, that this bill provides for an environmentally sound drilling program on the Coastal Plain. This premise is wrong for a variety of reasons.

First, oil and pristine environments simply do not mix. The history of development to the West of the Coastal Plain has shown us that adverse impacts are inevitable. Just last week, the National Academy of Sciences documented in a 450-page report the pollution and impact legacy of Prudhoe Bay and other North Slope oil fields. Lack of field maintenance has resulted in injury and death to North Slope workers and oil spills from corroding pipelines. BP is currently on criminal probation for its role in illegal waste disposal practices on the North Slope.

Drilling proponents rely on the wonders of new technology to support their little-to-no impact claims, yet new technology offers nothing new to the discussion. In 1978, BP declared that Prudhoe Bay would not harm the wilderness character of the area. Today, Prudhoe Bay and other North Slope oil slopes depicted on the map on the easel can easily be seen from space.

More recently, drilling proponents point to the Alpine development in the Colville River Delta as their best example of "doing it right" development. Alpine has two drill sites, a jet runway, three miles of infield roads, 37 miles of pipeline, and what was to truly set it apart from older fields, no road linking it to the existing fields to its East. Yet Alpine's reality is no different from the other industrial oil fields.

During its construction, ARCO lost 2.3 million gallons of drilling muds under the Colville River. Massive air traffic occurs in the middle of the migratory bird nesting season, which is the unspoken secret of roadless development. Further, gas flaring from Alpine has at times exceeded all the other North Slope oil fields combined, raising alarms about links to an increase in asthma cases in the nearby Alaska native community of Nuiqsut. Oh, and despite re-

peated calls to do so, regulators did no in-depth environmental review of Alpine before permitting it to proceed.

And, of course, the inexorable creep of oil drilling continues. Industry has now proposed a massive expansion of the Alpine field, 15 new drill sites—these are depicted on this map—25 miles of new gravel road, two new runways, and new gravel mines and pipelines, and get this, the State now proposes to build a gravel road from the existing oil fields West to the Colville Delta, smashing the roadless development myth.

Sadly, the drilling proponents' promise for this bill of an environmentally sound refuge drilling program is an acknowledgment that we do not require that of existing industry. The oil industry is exempt from a multitude of environmental laws that apply to every other sector of the economy. From the Resource Conservation and Recovery Act to the Toxic Release Inventory to provisions of the Clean Water Act, we subsidize the oil industry by making the American environment pay the price.

Moreover, the reality of H.R. 39 is different than its promise. Its provisions exempt significant parts of the Coastal Plain drilling program from fundamental environmental laws. Every provision of the bill purportedly designed to meet the mandatory "will protect" standard of its statement of intent is discretionary in nature, creating a hole you could drive a thumper truck through.

Is it any wonder that I was asked today to provide you with a letter from the Gwich'in Nation opposing H.R. 39? The very culture of these indigenous people is founded on the caribou and a pristine Coastal Plain. Do we risk their cultural annihilation, too?

Taking a broader perspective, why do we need to commit the entirety of America's Arctic to oil drilling? As it stands, without oil from the refuge, the Department of Energy predicts a 27 percent increase in oil from Alaska by 2020, and it is no wonder. Alaska and the Department of Interior are aggressively leasing all other parts of America's Arctic to the oil industry. This map depicts it: Nine-point-eight million acres in the Beaufort Sea, 23 million acres in the NPR-A either now leased or being open for leases in the next several years, 14 million on State lands every single year.

I have stood in both the developed and undeveloped Arctic. We as humans simply are not living up to our potential if we cannot protect one small slice of the Arctic, that place, as Justice Douglass described it, of "startling beauties of creation, of quiet and solitude, where life exists without molestation by man." Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Van Tuyn follows:]

**Statement of Peter Van Tuyn, Esq., Trustees for Alaska**

Honorable Chairman, Members of the House Resources Committee, thank you for inviting me to testify before this Committee on the important subject of whether to allow oil drilling on the Coastal Plain of the Arctic National Wildlife Refuge. I recommend that this Committee not pass this proposed legislation. In the entire world, there are some special places that, because of their unique values, should be placed off-limits to industrial development, and the Arctic National Wildlife Refuge is one of them. Simply put, there can be no such thing as an "environmentally sound" drilling program on the Coastal Plain.<sup>1</sup>

I also provide my recommendation as an attorney with over a decade of experience working on oil and gas issues in Alaska. I work with Trustees for Alaska, which is a non-profit environmental public interest law firm. In this capacity, I have

counseled and represented numerous Alaska-based and national conservation organizations, Native tribes, villages and other entities. On behalf of these clients, I have litigated numerous lawsuits concerning oil drilling activities in Alaska. I have reviewed, counseled and represented clients on innumerable state and Federal administrative decisions authorizing oil drilling activities in Alaska. I am familiar with a wide range of Federal and state proposed and enacted legislation concerning oil drilling activities in Alaska and elsewhere, and have counseled clients on the intent and legal effect of such legislation, specifically including legislative attempts to open the Coastal Plain of the Arctic Refuge to oil drilling.

Trustees itself was organized over a quarter century ago to provide counsel to protect and sustain Alaska's environment. Trustees has been involved in oil and gas issues in Alaska since the approval and construction of the Trans-Alaska Pipeline System, continuing through the devastating Exxon Valdez Oil Spill and on to today's debate over whether to open the Coastal Plain to oil drilling.<sup>2</sup> There has not been a significant environmentally-related oil and gas issue in Alaska since Trustees' establishment on which it has not been involved. I thus also bring my law firm's significant institutional knowledge of these issues to the debate whether to authorize oil drilling in this pristine wilderness.

With this recommendation and introduction, I now turn to the issue at hand. H.R. 39 was introduced to—

establish and implement a competitive oil and gas leasing program that will result in an environmentally sound and job creating program for the exploration, development, and production of the oil and gas resources of the Coastal Plan, and for other purposes.

The Chairman noted in his kind invitation to testify that the Committee members would be interested in hearing the witnesses' perspectives on—

[t]he bill's provisions to regulate oil and gas leasing on the coastal plain, [ ] the contribution of ANWR's potential oil and gas resources to the nation's energy supply and to the economy, and in possible impacts of such development on affected Alaskan communities, wildlife and the environment.

In addressing these issues in my testimony, I begin by discussing whether it is even possible to have an "environmentally sound" oil drilling program. Opening any area of pristine land to oil drilling inalterably harms the intangible values that help make it so special. Also, history and common sense reveal that oil drilling is guaranteed to degrade tangible values. To make this point, I address development in other portions of America's Arctic, and discuss the oft-repeated proposition that new technology allows for environmentally-benign oil drilling and associated activities.

Recognizing that opening the pristine Coastal Plain to oil drilling inevitably will result in irreparable degradation has not, however, deterred those who support such drilling. While drilling proponents do not often address the inevitable damage that occurs from oil drilling to intangible values, they do state that damage to tangible values can be reduced to negligible levels through provisions of law like those included in H.R. 39. Yet, as discussed below, no credible claim can be made that oil drilling "will result in an environmentally sound—program for the exploration, development, and production" of any oil under the Coastal Plain.

Moreover, the vast majority of America's Arctic is open to, and being aggressively explored and exploited for, its oil and gas resources. To put the debate over oil drilling on the Coastal Plain in its appropriate context, I provide information on the lands currently available for oil and gas exploration or development in America's Arctic.

To also put the potential oil resources of the Arctic Refuge's Coastal Plain in context, I reference recent estimates of the extent of those resources and how they relate to oil imports in the United States, and compare that to how an increase in automobile fuel efficiency would impact oil consumption and imports.

Oil drilling has also had dramatic effects on local communities throughout America's Arctic, and further drilling will exacerbate such impacts. I address this issue in the final section of my testimony.

"THE ESSENTIAL TRADE-OFF"  
A PRISTINE ENVIRONMENT OR OIL AND GAS DEVELOPMENT

Oil drilling harms both the intangible wilderness values of pristine environments, as well as more tangible wildlife and other values. No more need be said about the importance of protecting the intangible values of the Coastal Plain from industrialization than that said in this quote from United States Supreme Court Justice William O. Douglas:

The Arctic has a strange stillness that no other wilderness knows. It has loneliness too—a feeling of isolation and remoteness born of vast spaces, the

rolling tundra, and the barren domes of limestone mountains. This is a loneliness that is joyous and exhilarating. All the noises of civilization have been left behind; now the music of wilderness can be heard. The Arctic shows beauty in this bareness and in the shadows cast by clouds over empty lands. The beauty is in part the glory of seeing moose, caribou, and wolves living in natural habitat, untouched by civilization. It is the thrill of seeing birds come thousands of miles to nest and raise their young.

The Arctic has a call that is compelling. The distant mountains make one want to go on and on over the next ridge and over the one beyond. The call is that of wilderness known only to a few. It is a call to adventure. This is not a place to possess like the plateaus of Wyoming or the valleys of Arizona; it is one to behold with wonderment. It is a domain for any restless soul who yearns to discover the startling beauties of creation in a place of quiet and solitude where life exists without molestation by man.<sup>3</sup>

As for impacts to tangible values, one need only look to the large part of the terrestrial portion of America's Arctic that has been committed to the development of its oil and gas resources. At present, the oil industry sprawls across more than 1,000 square miles of the North Slope; an area roughly the size of Rhode Island. This huge industrial complex, which literally can be seen from space, includes production pads and facilities, gravel roads, airfields and pipelines.<sup>4</sup>

The oil industry on Alaska's North Slope annually emits approximately 70,000 tons of nitrogen oxides, which contribute to smog and acid rain.<sup>5</sup> This is more than twice the amount emitted by Washington, DC.<sup>6</sup> Other regulated pollutants include 1,470 tons of sulfur dioxide, 6,199 tons of particulate matter, 11,560 tons of carbon monoxide, and 2,647 tons of volatile organic compounds annually.<sup>7</sup> North Slope oil facilities release greenhouse gases, including 24,000 metric tons of methane, and 7 to 40 million metric tons of Carbon Dioxide, annually.<sup>8</sup> Prudhoe Bay air emissions have been detected nearly 200 miles away in Barrow, Alaska.<sup>9</sup> According to the National Academy of Sciences, it is not clear that air quality standards are sufficient to protect arctic vegetation, and monitoring of such ecological effects is not taking place.<sup>10</sup>

There are more than 90 oil industry-related contaminated sites in America's Arctic. Nearly half of the 328 exploration and production drilling waste reserve pits still need to be closed out.<sup>11</sup> Gravel pads contaminated by spills of oil, diesel, and other toxic substances are a long-term restoration problem, and recognized liability issue for the oil companies.<sup>12</sup>

Up to 1.5 billion gallons of water a year is used for building ice roads, pads, and drilling. Removing winter water can change the natural character of lakes and harm the organisms depending on it for habitat, migration, and food.<sup>13</sup>

These impacts come from technology both new and old. A discussion of the impacts of the "hallmark" Alpine oil field, which lies in the floodplain of the Colville River Delta to the west of Prudhoe Bay and other oil fields, serves to illustrate this point.<sup>14</sup> As ARCO stated, "we'll develop Alpine from just two drill sites of less than 115 acres," it will have the "smallest footprint ever."<sup>15</sup> With statements like this, drilling proponents thus point to the Alpine oil field as evidence that a new approach to drilling could take place in the Arctic Refuge without disturbing its incredible natural qualities. Yet the facts of Alpine tell a quite different story.

The original Alpine development site consists of two drilling pads, a runway for jet airplanes, three miles of in-field roads and other facilities that directly cover 100 acres of tundra.<sup>16</sup> It also includes 3-miles of in-field gathering pipeline,<sup>17</sup> 34-miles of "sales" pipeline from Alpine to Kuparuk,<sup>18</sup> and a 150-acre gravel mine.<sup>19</sup> The area in the Delta impacted by this development, based on a four-kilometer zone of influence around such developments,<sup>20</sup> is over 80 square miles. This area calculation does not take into account the land impacted by the over 30 miles of Alpine sales pipeline to the east of the Delta.

One reason drilling proponents say that Alpine is a "model" oil field is because the industry uses ice roads instead of gravel roads to meet some of its access needs. Ice roads are not, however, without impacts. For example, fresh water withdrawals for ice roads and other necessary purposes such as drilling, camp use and other purposes come from 52 lakes, as much as 141 million gallons per year. During Alpine exploration in 1996, 65 million gallons of freshwater were used during a single year.<sup>21</sup>

Such massive water withdrawal could decimate fish populations or alter bird and wetland habitats even in the relatively wet areas of the North Slope, especially because the oil industry uses this vast quantity of water with little to no environmental oversight or long-term monitoring.<sup>22</sup> In contrast to the Colville Delta, a look at a map of America's Arctic readily shows that freshwater resources on the Coastal Plain of the Arctic Refuge are extremely limited, especially during the winter when

ice roads are constructed.<sup>23</sup> As such, winter water withdrawals on the Coastal Plain could be catastrophic to fish and wildlife species.

Furthermore, if permanent gravel roads are not built, then access during summer is by aircraft. For Alpine, during construction in June and July 2001, as many as 1,980 flight take-offs and landings in 45 days during the migratory bird nesting season<sup>24</sup> compared with the 13 round trips per month discussed in 1997 project descriptions.<sup>25</sup>

During Alpine's construction, the field operator lost 2.3 million gallons of drilling muds while tunneling under the Colville River. While they claimed this huge, unanticipated loss of this lubricant did not harm the environment, they "didn't do anything" to determine if the drilling muds filtered up from beneath the river and actually seeped into the river itself.<sup>26</sup>

Gas flaring episodes at the Alpine oil field lasting longer than one hour exceeded quantities released in such upsets at all the other North Slope oil fields combined in 2000.<sup>27</sup> Alpine is located only 7 miles from Nuiqsut. Adverse human health effects from chronic exposure to repeated flaring discharges have been observed for people living or working near flaring in Canada and from offshore development near Los Angeles.<sup>28</sup> According to a Canadian study, adverse impacts may occur at distances ranging from 0.2–35 km from the flaring.

Yet, in permitting Alpine to proceed, Federal regulators did no in-depth environmental review of Alpine, claiming that its impacts were simply not significant, and dismissing the inevitable future development spawned by Alpine's presence and common carrier pipeline as "speculative," "conjectural," and "not reasonably foreseeable."<sup>29</sup> This view of Alpine was supported by then-Senator Murkowski as well:

You can see that is a whole oilfield. That is it...You know there is one thing you see and you see a little airstrip and that is all. There is no road out of there. There is a[n] ice road in the wintertime, but in the summertime you have to fly to get in and out of there...That is the technology we have. So it is an entirely different set of circumstances. To suggest that somehow this would be an expanse covering hundreds of miles, with airports and so forth, is totally inaccurate...<sup>30</sup>

In 2003, ConocoPhillips, which had taken over the Alpine field from ARCO, announced plans for developing fifteen additional drill sites including 10 satellite sites that are expected to connect to Alpine. Once the new satellites are constructed, the Alpine Project will include 25 miles of permanent gravel roads, 19 miles of which would be on the NPR-A, two airstrips, a 150-acre gravel mine, and 60 miles of pipelines. The Alaska Department of Transportation is also studying building a new permanent road to the village of Nuiqsut just south of Alpine,<sup>31</sup> and Governor Murkowski has promoted its usefulness for new oil field development.<sup>32</sup>

What happens when an oil facility is no longer needed also demonstrates that once an area is committed to oil drilling, it will never again return to its pre-drilling natural state. The National Academy of Sciences recently analyzed the history of North Slope development and assessed how much of the area had been rehabilitated. NAS defined rehabilitated as areas "no longer definable as clearly disturbed—or areas that now provide functional habitat but might be different from the original."<sup>33</sup> NAS found that "[i]n most cases,—areas were not restored to their former condition" and that "[r]ehabilitation to some degree has occurred only on about 195 acres—about 1%—of gravel pads."<sup>34</sup>

Disturbingly, NAS also found that—

[e]xisting state and Federal laws and regulations governing surface restoration lack clear definitions and standards, and they overlap in potentially conflicting ways. The lack of definitions in the relevant statutes and regulations of clear restoration goals makes it difficult to plan and design restoration activities.<sup>35</sup>

The facts thus show that oil drilling, no matter the technology employed, involves inevitable environmental degradation. As a conclusion to its review of existing data concerning the cumulative effects of oil and gas activities on Alaska's North Slope, the National Academy of Sciences acknowledged just this reality in its section aptly titled "The Essential Trade-Off":

The effects of North Slope industrial development on the physical and biotic environments and on the human societies that live there have accumulated, despite considerable efforts by the petroleum industry and regulatory agencies to minimize them....Continued expansion is certain to exacerbate some existing effects and to generate new ones...[I]f wise decisions are to be made, the nature and extent of undesirable effects likely to accompany future activities must be fully acknowledged and incorporated into regulatory strategies and decision-making.<sup>36</sup>

*Existing and Proposed Environmental Regulation of Oil Drilling is Not Stringent*

The oil industry has always enjoyed special treatment in the form of exemptions from environmental regulations that apply to the exact same pollution originating from different industrial sources. These exemptions belie any promise that oil industry activities will be held to the highest possible environmental standards. Moreover, H.R. 39 itself disingenuously deals with the fact that, as discussed above, there can be no such thing as a truly “environmentally sound” oil drilling program. And it also continues the disturbing trend of oil industry exemptions and massive discretion to regulators that is evident both in fundamental environmental laws and in previous drill-the-refuge bills.

Environmental laws not addressed in H.R. 39 greatly influence how oil drilling can be conducted. For example, Congress exempted certain oil and gas extraction wastes from regulation as hazardous wastes under the Resource Conservation and Recovery Act (RCRA), pending an EPA study.<sup>37</sup> Trustees for Alaska sued EPA to force it to do the study. When the agency finally completed the study in late 1987 during President Bush’s Administration, it determined that regulation of such wastes was not warranted.<sup>38</sup>

The RCRA exemption gives special treatment to the high volumes of oil production wastes, such as drilling muds and cuttings, oil rig wastes, produced water, and associated wastes, including tank bottoms, pit sludges, and well work-over wastes. If these wastes were produced by any other industry, such as dry cleaners, they would be regulated as hazardous wastes with special precautions taken.<sup>39</sup>

Anticipating that an informed public would pressure companies to reduce emissions, in 1986 Congress enacted the Emergency Planning and Community Right-To-Know Act. The Act requires certain polluters to report annually their toxic releases for inclusion in a Toxic Release Inventory, a database maintained by EPA and made available to the public. The database has been used to support calls for stronger regulations, and to publicize local polluters, as well as to prepare communities for accidental releases of toxic substances. Some financial advisors even use the database to screen companies for investors.<sup>40</sup>

The oil industry, however, is largely exempt from reporting oil field wastes to EPA for inclusion in the Toxic Release Inventory.<sup>41</sup> In 1996, the industry was successful in its lobbying efforts to ensure that most oil field exploration and production facilities were exempted from EPA regulations that addressed the kind of industries required to submit yearly “right-to-know” reports.<sup>42</sup> The exemption covers toxic air pollutants produced in oil field operations in America’s Arctic, including lead and known carcinogens such as polycyclic aromatic hydrocarbons, benzene, and xylene.

Finally, just two days ago, new Clean Water Act regulations went into effect concerning storm water run off from small construction sites. The Environmental Protection Agency, claiming it had conflicting information about the environmental effects of oil industry construction sites, relegated the issue to the black hole dustbin of “further study is needed.” As they now stand, therefore, these new rules apply to small communities and small construction projects in every sector of the economy but the oil industry.<sup>43</sup>

Turning to the provisions of H.R. 39 itself, this tradition of lax regulation of oil industry operations continues. There are multiple elements of the bill that refute the claim that drilling would be done in an environmentally sensitive manner, including the following:

- it exempts a large part of a leasing program from the environmental review and public participation provisions of the National Environmental Policy Act, Subsections 2(c)(2) and (3);
- it uses weaker standards for the protection of the wildlife and wilderness character of the Refuge than exist in laws that apply elsewhere, Subsection 3(a) and Section 6;
- it fails to mandate almost any specific environmental protection for the Coastal Plain, relying instead on the discretion of the Secretary of the Interior to impose such protections, Sections 6 and 7;
- it eliminates the fundamental “compatibility” standard which is at the heart of National Wildlife Refuge management, wherein activities that impair Refuge purposes cannot be allowed, Subsection 3(c)(1);
- it contains weaker restoration standards and financial assurances than exist in other laws, Subsection 6(a)(5);
- it may limit the authority currently available under key provisions of the Endangered Species Act and National Wildlife Refuge System Administration Act to close areas in the Refuge for important protective reasons, Subsection 3(f);
- it raises the bar on judicial review of the Secretary’s decisions to such a high level as to significantly limit the traditional check placed on the executive branch by the judiciary, Section 8;

- it is ambiguous as to whether the Fish and Wildlife Service (the nation's wildlife experts) or the Bureau of Land Management (the mineral development experts) administers the leasing program, Subsection 3(a).

*The Vast Majority of America's Arctic is Available for Oil Exploration or Drilling*

The State and Federal Governments are also aggressively offering lands to oil companies across the North Slope and in the Beaufort Sea. Secretary of the Interior Gale Norton plans massive lease sales in the Arctic Ocean and in the Western Arctic. The Beaufort Sea Outer Continental Shelf (OCS) lease sales encompass up to 9.8 million acres,<sup>44</sup> and an additional 181,757 acres have already been leased. In the National Petroleum Reserve-Alaska, over 4 million acres were offered for lease in the Northeast Area,<sup>45</sup> and plans for leasing up to 8.8 million acres in the Northwest Area are currently under consideration.<sup>46</sup> BLM plans to start the lease planning process for the last large segment of NPR-A, the South Planning Area, in January, 2004.<sup>47</sup>

BLM has announced plans to begin reconsidering the status of the Teshekpuk Lake Surface Protection Area, which includes areas deleted from leasing by the 1998 Northeast Area Plan decision, with a plan amendment process to begin in 2003.<sup>48</sup> In October 1998, Interior Secretary Bruce Babbitt authorized oil and gas leasing in 87% of the Northeast corner. Although he deleted about 593,000 acres in the Teshekpuk Lake area from leasing and put a five to six mile wide "no-surface occupancy" buffer zone around its south and west side, seismic oil exploration continues to be allowed in this sensitive area. Now, BLM is considering industry's requests for leasing in the deleted area, and to eliminate buffer zones and other mitigation stipulations.

Existing leases cover 4.2 million acres of State of Alaska land on the North Slope and adjacent Beaufort Sea.<sup>49</sup> The State plans to hold annual lease sales covering 14.1 million acres of lands in the Arctic (including the North Slope Area-wide, North Slope Foothills Area-wide, and Beaufort Sea Area-wide sales).<sup>50</sup> Just this state-owned acreage is larger than nine different states, including New Hampshire, Connecticut and New Jersey.

Finally, the Arctic Slope Regional Corporation has exploration lease agreements with oil companies on at least 3.3 million acres on the North Slope, outside the Arctic Refuge.<sup>51</sup>

DRILLING THE REFUGE WOULD DO LITTLE TO REDUCE U.S. OIL IMPORTS; INCREASING FUEL EFFICIENCY WOULD DO A LOT

Oil from the Arctic Refuge would not make a dent in our need to import oil. The U.S. Geological Survey has concluded that the refuge holds less economically recoverable oil than the U.S. consumes in six months. Top oil company officials have acknowledged that it would most likely take a decade or more of exploration and development before any oil from the refuge would become available. In February 2002, the Department of Energy's Energy Information Administration concluded that drilling in the Refuge would only reduce oil imports from 62% to 60% of our total oil supply at its peak of production in 2020.<sup>52</sup>

The U.S. could move toward energy independence by investing in conservation and renewable energy efforts. Requiring fuel-efficient replacement tires on automobiles would save about 5.8 billion barrels of oil. Raising fuel economy standards by 60 percent would save 50 billion barrels of oil, more than one order of a magnitude greater than the oil projected to lie beneath the Coastal Plain.<sup>53</sup>

ADVERSE IMPACTS OF OIL DEVELOPMENT ON ALASKAN COMMUNITIES

To be sure, residents of the State of Alaska have benefited, and given the intense and aggressive industrial expansion on the North Slope, will continue to benefit, from oil development in Alaska.<sup>54</sup> And yet, oil is a finite resource, and one day we will be forced to look beyond petrochemicals to fuel our country. What, then, will be left for those people who live in the Arctic?

Rather than speak for others, perhaps it is best to let them speak for themselves. What follows is a sampling of comments from residents of communities impacted by existing oil industry operations and residents of communities that stand to be impacted if oil drilling were allowed on the Coastal Plain of the Arctic National Wildlife Refuge.

Development has increased the smog and haze in our air and sky, affecting our health as well as the beauty of our land, sea, and air.

City of Nuiqsut Council Members, 2001.<sup>55</sup>

How many wells are out there pumping away already? How many blowoffs, the flares, do we have to watch every year? They say they're only going to

be there 30 days out of the year. But that's what they say for these statements. In actuality, we see it. You can count the flares from here...What is put out from those flares comes back to us. We have to see it. Our air has changed. The health of our people has changed. We have a lot more health problems than years ago...Day after day I have to see asthma patients...Let's see how many of our young children are going to be sick, having trouble breathing, when we've got 12 flares blowing all at once...

Rosemary Ahtuanguaruak, Health Aide, Nuiqsut, 1998.<sup>56</sup>

The cumulative impacts of all the developments leading to the surrounding or "boxing in" of the community by oil and gas development on all sides is devastating to the hopes and aspirations of our community members...Prudhoe Bay oil development has caused Nuiqsut residents to cease virtually all subsistence activities to the east of the community.

City of Nuiqsut, 2001.<sup>57</sup>

We are caribou people. Oil development in the birthplace and nursery grounds of the Porcupine Caribou Herd would hurt the caribou and threaten the future of the Gwich'in.

Sarah James, Gwich'in Steering Committee.

It is our belief that the future of the Gwich'in and the future of the caribou are the same. We cannot stand by and let them sell our children's heritage to the oil companies.

Jonathan Solomon, Gwich'in Steering Committee.<sup>58</sup>

#### CONCLUSION AND RECOMMENDATION

I have stood in both the pristine and industrialized parts of America's Arctic and gazed out to the Arctic Ocean. The contrast between that part of America's Arctic that has been committed to the oil industry and that part which remains pristine is dramatic and unquestionable. Oil drilling and pristine environments simply do not mix. As an American who greatly values our nation's public lands, lands that belong to all Americans, I urge you not to pass out of Committee legislation that would open to oil drilling this last remaining truly pristine piece of America's Arctic.

#### ENDNOTES

<sup>1</sup>For their invaluable assistance in preparing this testimony and related illustrations and exhibits, I would like to thank Pamela A. Miller, Arctic Connections, Stan Senner, National Audubon Society, David Pray, Conservation GIS Center and Tom Ofchus and the rest of the employees of Trustees for Alaska.

<sup>2</sup>A small sampling of reported judicial opinions supporting this point include: *Edwardson v. DOI*, 268 F.3d 781 (9th Cir. 2001); *Trustees for Alaska v. DOI*, 919 F.2d 119 (9th Cir. 1990); *Trustees for Alaska v. Hodel*, 806 F.2d 1378 (9th Cir. 1986); *Cook Inlet Keeper v. Alaska*, 46 P.2d 957 (Alaska 2002); *Gwich'in Steering Committee v. Office of the Governor*, 10 P.3d 572 (Alaska 2000); *Trustees for Alaska v. DNR*, 865 P.2d 745 (Alaska 1993); *Trustees for Alaska v. DNR*, 851 P.2d 1340 (Alaska 1991).

<sup>3</sup>*My Wilderness* at 9–10, Doubleday & Company, Inc., Garden City, New York (1960).

<sup>4</sup>See e.g., *Cumulative Environmental Effects Of Oil and Gas Activities on Alaska's North Slope*, National Academy of Sciences (NAS Report) at 3, 52–80, 227 (March 2003).

<sup>5</sup>U.S. Army Corps of Engineers. 1999. Final Environmental Impact Statement, Beaufort Sea Oil and Gas Development/ Northstar Project. Vol. III, Table 5.4–6, data from ARCO and BPXA, 1994, as reported to Alaska Department of Environmental Conservation. Emissions estimates based on fuel consumption for Prudhoe Bay, Endicott, Lisburne and Kuparuk oil field main production facilities but does not include Alpine, Badami, Pt. McIntyre oil fields, Tarn, Northstar or four Trans-Alaska Pipeline Pump Stations, nor emissions from drill rig engines or vehicles.

<sup>6</sup>EPA. March 2000. National Air Pollutant Emissions Trends: 1900–1998. [www.epa.gov/ttn/chieftrends98/emtrnd.html](http://www.epa.gov/ttn/chieftrends98/emtrnd.html). DC- 23,000 short tons (Table 2.2).

<sup>7</sup>U.S. Army Corps of Engineers. June 1999. Final Environmental Impact Statement Beaufort Sea Oil and Gas development/Northstar Project. Volume III, Table 5.4–7.

<sup>8</sup>Jaffe, D.A., R.E. Honrath, D. Furness, T.J. Conway, E. Dlugokencky, and L.P. Steele. 1995. A determination of the CH<sub>4</sub>, NO<sub>x</sub>, and CO<sub>2</sub> emissions from the Prudhoe Bay, Alaska oil development. *Journal of Atmospheric Chemistry* 20: 213–227.; Brooks, S.B., T.L. Crawford, and W.C. Oechel. 1997. Measurement of

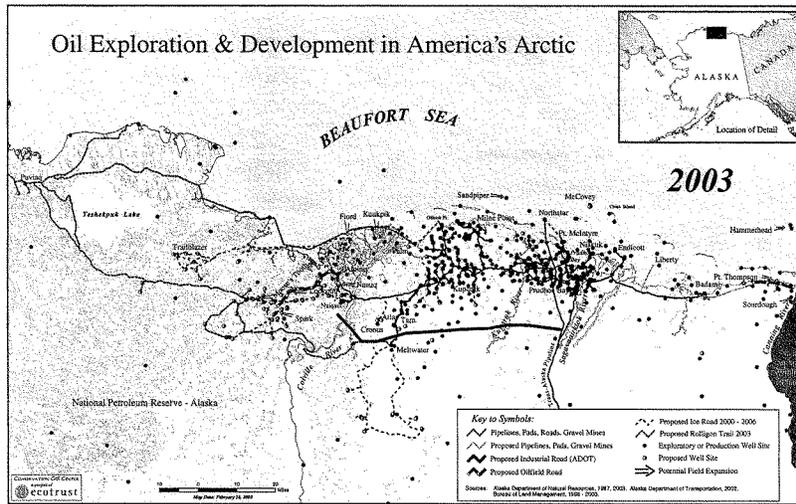
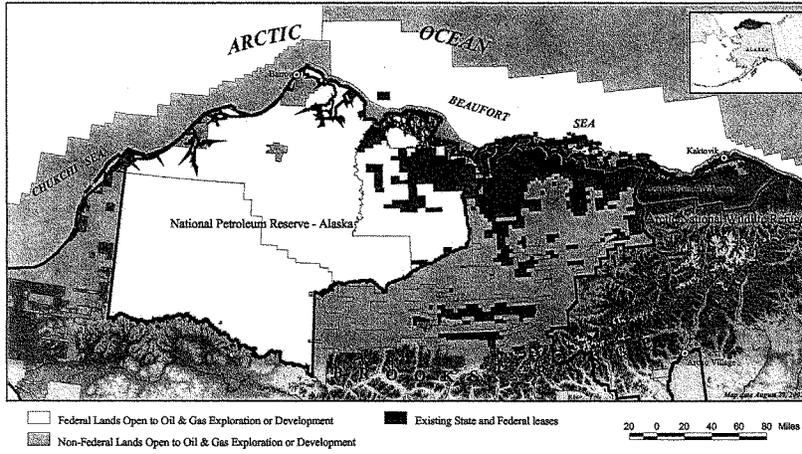
- carbon dioxide emissions plumes from Prudhoe Bay, Alaska oil fields. *Journal of Atmospheric Chemistry* 27: 197–207.
- <sup>9</sup>Jaffe, D.A. R.E. Honrath, D. Furness, T.J. Conway, E. Dlugokencky, and L.P. Steele. 1995. A determination of the CH<sub>4</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions from the Prudhoe Bay, Alaska Oil Development. *Journal of Atmospheric Chemistry* 20: 213–227.
- <sup>10</sup>NAS Report at 141.
- <sup>11</sup>NAS Report at 151.
- <sup>12</sup>NAS Report at 148.
- <sup>13</sup>NAS Report at 77.
- <sup>14</sup>It is noteworthy that the promises of technology like those made for Alpine are nothing new. As long ago 1978, BP espoused the promise of new technology in minimizing environmental impacts:  
 Directional drilling, ideally suited for North Slope operations, enables the [oil] reservoir to be tapped more than one mile from the pad” no unsightly drilling rigs are left to mar the landscape; they are moved as soon as their task is done. Only a relatively small system of flow lines will be installed above ground to carry the oil from each well to the gathering centers. Formal cleanup programs keep Prudhoe Bay part of the wilderness.  
 BP Alaska Inc, *North Slope Alaska: Man and the Wilderness*, p.23 (1978). It is hard to imagine anyone looking at Prudhoe Bay today and seeing wilderness.
- <sup>15</sup>ARCO, *Discovering the Future* (1998).
- <sup>16</sup>Specifically, the development includes Alpine Pad 1 (main production pad, drill site, housing, storage area)—36.3 acres; Alpine Pad 2 (drilling site)—10.1 acres; in-field roads (3-miles long)—14.6 acres; airfield—35.7 acres; other (culverts, etc.)—1.7 acres. See U.S. Army Corps of Engineers Alaska District, *Permit Evaluation and Decision Document, Alpine Development Project, Colville River 18 (2-960874)*, p. 2 (February 13, 1998).
- <sup>17</sup>Arco Alaska Inc. et al., *Revised Alpine Development Project: Environmental Evaluation Document*, pp. 2–13 (September 1997).
- <sup>18</sup>U.S. Army Corps of Engineers Alaska District, *Permit Evaluation and Decision Document, Alpine Development Project, Colville River 18 (2-960874)*, p. 3 (February 13, 1998).
- <sup>19</sup>U.S. Army Corps of Engineers Alaska District, *Colville River 17 (4-960869) to Nuiqsut Constructors (Alpine gravel pit)* (June 24, 1997).
- <sup>20</sup>Nellemann, C., and R.D. Cameron, *Cumulative Impacts Of An Evolving Oilfield Complex On Calving Caribou*, *Canadian Journal of Zoology*, 76:1425–1430 (1998).
- <sup>21</sup>U.S. Army Corps of Engineers Alaska District, *Public Notice of Application for Permit, Colville River 18 (2-960874)*, pp. 2–3 (April 7, 1997).
- <sup>22</sup>Letter from Trout Unlimited Alaska Salmonid Biodiversity Program to Alaska Governor Tony Knowles (May 7, 2001).
- <sup>23</sup>U.S. Department of the Interior, *Draft Arctic National Wildlife Refuge, Alaska, Coastal Plain Resource Assessment, Report and Recommendations to the Congress of the United States and Legislative Environmental Impact Statement (“LEIS”)*, p. 21 (November 1986); U.S. Department of the Interior, *Final LEIS*, p. 13 (April 1987).
- <sup>24</sup>Johnson, C.B., B.E. Lawhead, D.C. Payer, J.L. Petersen, J.R. Rose, A.A. Stickney, and A.M. Wildman. May 2001. *Alpine avian monitoring program, 2000. Third annual report*. Prepared for Phillips Alaska, Inc. and Kuukpik Unit Owners. ABR, Inc. Fairbanks. P. I.
- <sup>25</sup>ARCO Alaska, Inc., Anadarko Petroleum Corporation, and Union Texas Petroleum. September 1997 (revised). *Alpine Development Project: Environmental Evaluation Document*. Table 2.3.1.
- <sup>26</sup>Associated Press, *Alpine Drilling Revised*, *Anchorage Daily News*, page D6 (October 2, 1998).
- <sup>27</sup>Bodron, D. 2003. Information on 2000 flaring (Gas2000 North Slope.xls; Re 2000 flaring.rtf) from Wendy Mahan, Alaska Department of Natural Resources, April 6, 2001.
- <sup>28</sup>Argo, J. 2001. *Unhealthy effects of upstream oil and gas flaring. A report prepared for Save Our Seas and Shores, for presentation before the Public Review Commission into effects of potential oil and gas exploration, drilling activities within Licences 2364, 2365, 2368*. Sydney, Nova Scotia, January 18, 2002. *IntrAmericans Centre for Environment and Health, Wolfe Island, ON, Canada*.
- <sup>29</sup>U.S. Army Corps of Engineers Alaska District, *Permit Evaluation and Decision Document, Alpine Development Project, Colville River 18 (2-960874)*, p. 30, 31 (February 13, 1998).

- <sup>30</sup> Senator Frank Murkowski. April 17, 2002. Congressional Record. Pp. S2867–2868.
- <sup>31</sup> Petroleum News Alaska. September 29, 2002. Road to NPR–A.
- <sup>32</sup> Governor Frank Murkowski. Speech to Arctic Power (February 14, 2003). Anchorage Daily News. February 15, 2003. Oil called key to budget balance, Ideas: Governor floats notions including road across the Slope.
- <sup>33</sup> NAS Report at 144.
- <sup>34</sup> Id.
- <sup>35</sup> NAS at 146; see also U.S. General Accounting Office, Alaska’s North Slope, Requirements for Restoring Lands After Oil Production Ceases. GAO–02–357 (June 2002).
- <sup>36</sup> NAS Report at 21.
- <sup>37</sup> Section 8002(m) of RCRA, 40 U.S.C. Section 6982(m). For more details on this exemption see NRDC, et al., Tracking Arctic Oil: Background Technical Document, (1991), p. 25.
- <sup>38</sup> 53 Fed. Reg. 11 (Jan. 4, 1988) (report to Congress); 53 Fed. Reg. 25446 (July 6, 1988) (regulatory determination).
- <sup>39</sup> See 40 CFR § 261.4(b)(5) (1990).
- <sup>40</sup> New York Times, “The Nation’s Pollution: Who Emits What, and Where,” October 13, 1991, p. F10.
- <sup>41</sup> Emergency Planning and Community Right to Know Act, Section 313, Title III, Superfund Amendments and Reauthorization Act of 1986, 42 USC § 11023.
- <sup>42</sup> Offshore Magazine 57(5), “Activity review of U.S. regulatory, legislative issues,” May 1, 1997.
- <sup>43</sup> 40 C.F.R. Part 122; see also Lee, Oil and Gas Industry Exempt From New Clean Water Rules., New York Times (March 8, 2003).
- <sup>44</sup> U.S. Minerals Management Service. February, 2003. Beaufort Sea Planning Area, Sales 186, 195, and 202, Final Environmental Impact Statement. OCSs EIS/EA MMS 2003–001.
- <sup>45</sup> U.S. Secretary of the Interior Bruce Babbitt. October 7, 1998. Northeast National Petroleum Reserve–Alaska: Integrated activity plan/ Environmental Impact Statement. Record of Decision.
- <sup>46</sup> U.S. Department of the Interior. January 2003. Northwest National Petroleum Reserve–Alaska, Draft Integrated activity plan/ environmental impact statement. Anchorage.
- <sup>47</sup> Bureau of Land Management. January 8, 2003. Alaska Ten–Year Planning Schedule. Anchorage.
- <sup>48</sup> Alaska Oil & Gas Reporter. February 16, 2003. BLM reviews NPR–A restrictions.
- <sup>49</sup> State of Alaska, Department of Natural Resources. December 17, 2002. Active Oil and Gas Lease Inventory. <http://www.dog.dnr.state.ak.us/oil/products/publications/oginventory/oginventory.htm>.
- <sup>50</sup> State of Alaska, Department of Natural Resources. January 2003. Five–Year Oil and Gas Leasing Program.
- <sup>51</sup> Arctic Slope Regional Corporation. 2003. Lease Exploration Agreement on lands between Colville and Canning Rivers. [www.asrc.com](http://www.asrc.com)
- <sup>52</sup> Energy Information Agency, The Effects of the Alaska Oil and Natural Gas Provisions of H.R. 4 and S. 1766 on U.S. Markets, February 2002.
- <sup>53</sup> Natural Resources Defense Council, A Responsible Energy Policy for the 21st Century, App. A (March 2001).
- <sup>54</sup> On this point it is noteworthy that H.R. 39 does not contain a revenue allocation provision. Thus, revenues from oil leasing and production would be split 90/10 between the State of Alaska and the United States, respectively. Previous Coastal Plain drilling bills include a 50/50 revenue allocation, as does leasing within the National Petroleum Reserve—Alaska. See H.R. 4 Section 6512; CRS Report IB10111 at 9.
- <sup>55</sup> Letter to National Research Council submitted by Vice–Mayor R. Ahtuanguaruak (April 11, 2001). Nuiqsut is located on the Colville River south of the Alpine development.
- <sup>56</sup> U.S. Army Corps of Engineers. 1999. Final Environmental Impact Statement, Beaufort Sea Oil and Gas Development/ Northstar Project. Appendix K. Testimony from Nuiqsut public hearing, July 30, 1998, p. 47–48.
- <sup>57</sup> City of Nuiqsut. 2001. NPR–A grant information, submitted by R. Ahtuanguaruak to National Research Council on April 5, 2001.
- <sup>58</sup> See also NAS at 238.

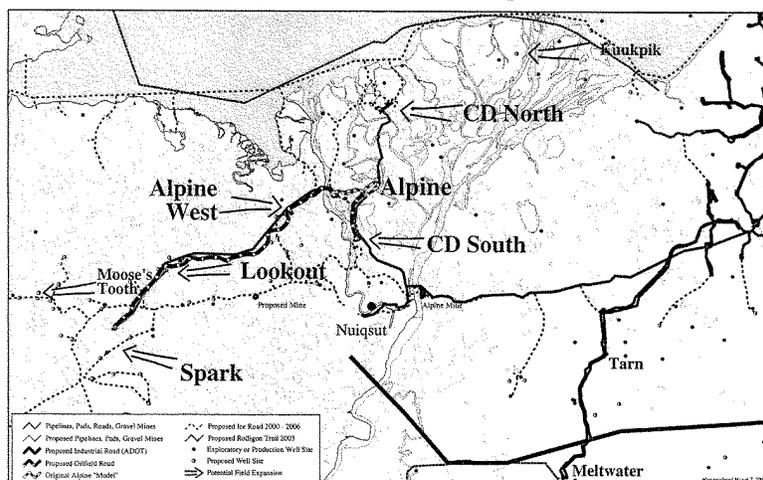
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[Attachments to Mr. Van Tuyn’s statement follow:]

Current and Proposed Oil & Gas Leases on Alaska's North Slope



## Alpine Oil Field Complex



The CHAIRMAN. Mr. Boyd?

**STATEMENT OF KENNETH A. BOYD, FORMER DIRECTOR,  
ALASKA DIVISION OF OIL AND GAS**

Mr. BOYD. Mr. Chairman, members of the Committee, for the record, my name is Ken Boyd and I am currently an oil and gas consultant in Alaska. From 1995 until early 2001, I was Director of the Alaska Division of Oil and Gas. I have worked in the oil and gas business in a variety of capacities since 1973, much of that time working on Alaska exploration.

Mr. Chairman, you have had a lot of background information today. I am going to try not to go back and revisit all that but cherry-pick some of my testimony.

I want to reemphasize what Secretary Norton said about the 1002 area. It was not chosen arbitrarily. This is the 8 percent of the ANWR that is actually being considered for oil and gas development. It was chosen because this is an area that does have high potential for significant accumulations of oil and gas. It is the best on-shore prospect in the United States, probably in North America.

The Southern boundary, I want to be very clear, of the 1002 area is the Sadlerochit Mountains. The areas South of that are simply not prospective for oil and gas. The 1.5 million acres is the only part of ANWR that has any oil and gas potential.

Despite the Congressional mandate to examine the 1002 area for its oil and gas potential, very little exploration has actually taken place. Only about 1,500 miles of two-dimensional or 2-D seismic have been recorded in the 1002 area. These data were recorded in two winter seasons in 1984 and 1985. I was a member of the industry team that designed those seismic programs.

The only well that has been drilled in 1002 is the Kaktovik Inupiat Corporation Number 1 well, which is always called the KIC well. It was drilled over two seasons in 1985 and 1986. This well was drilled on private, on native land, by BP and Chevron and the

results of this well are highly confidential and have not been released.

The small amount of data in the 1002 is in sharp contrast to the amount of exploration data that the State has acquired on State lands between the Canning and the Colville Rivers to the West. The result of this exploration has been that oil discoveries today provide about 17 percent of our nation's domestic oil supply.

Most of this area has also seen the application of 3-D seismic data, and the difference, simply put, is 3-D seismic data is what x-rays are to CAT scans. An x-ray, two-dimensional data in the plane. Three-D, like a CAT scan, it is a volume of data that can be rotated and sliced. It has provided a much better technology for oil and gas exploration. And the real benefit is that you will drill fewer wells. The success rate, formerly ten or 20 percent, is now up to 40 and 50 percent. This is good for the company, sure, but it is good for the environment, too, because you drill fewer wells.

We have talked about the numbers of barrels, potential oil, in the ANWR as between six and 16 billion barrels with a mean of about ten billion barrels. That is using a recovery factor of about 37 percent. In my view, I mean, the USGS, I think, did a very fine job on this report, but I think that recovery factor is fairly conservative. The recovery rates in Prudhoe are approaching 65 percent. If, in fact, they could reach that kind of recovery rate in ANWR, the amount of oil that could actually be recovered from the refuge might be quite a bit higher than the 10.4 billion.

I have heard stories about that oil only provides a 6-month supply. I think it is a dishonest statement. ANWR, the average case of ten billion barrels of reserve will produce a million barrels of oil a day for over 25 years. It will help offset our current 57 percent oil import rate. It will keep the Trans-Alaska Pipeline System running for many more years, thus encouraging additional investment in exploration and production in Alaska. TAPS is currently flowing at less than half of its 2.2 million barrels per day capacity and could easily accommodate production from ANWR.

The pipeline infrastructure on the East side of the slope will continue to move closer to the Coastal Plain, thus making transportation to TAPS more viable and speed development.

For the past 25 years, Alaska's oil has been important to both the people of Alaska and the Nation as a whole. Currently, Alaska is supplying about 17 percent of our nation's oil, about one in six barrels, which is down from over 20 percent in recent years. But thanks to new technology and a continued commitment to explore and drill, that number will stay firm for about six more years before it begins to decline. The 1002 area has the potential to double the amount of oil Alaska is currently producing, thus decreasing our importance on oil imports.

There are those who decry exploring and drilling the Coastal Plain. One common cry is that ANWR is the last great wilderness. This ignores the fact that 92 percent of ANWR is already in a protected status, which is wilderness and refuge, and that is not good enough for some.

Some would prefer to ignore the Congressional mandate to evaluate the 1002 area and simply lock it up as wilderness. While putting the 1002 into wilderness status may placate those with that

view, it does not remove the fact that people live there. The Inupiat Eskimo people live in the village of Kaktovik and a border island within the Coastal Plain and they have lived in this area for centuries. This is their home and they subsist and recreate on the land and the military has active and abandoned sites in the 1002 area. A political designation of the 1002 area's wilderness will not make it so.

I would like to thank the Chairman and the Committee for taking this time to discuss issues regarding the Coastal Plain of ANWR. The 1002 area has the highest potential for oil and gas resources in the United States. I firmly believe that sound science is a necessary foundation for implementing successful developments in the Arctic, both in the profitable extraction of domestic petroleum reserves and the protection of our environment. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Boyd follows:]

**Statement of Kenneth A. Boyd, Consultant, Former Director,  
Alaska Division of Oil and Gas**

Mr. Chairman and members of the House Committee on Resources, for the record my name is Ken Boyd and I am currently an oil and gas consultant in Alaska. From 1995 until early 2001 I was the Director of the Alaska Division of Oil and Gas. I have B.S. and M.S. degrees in geology from Rensselaer Polytechnic Institute. I have worked in the oil and gas business, in a variety of capacities, since 1973. Much of this time has been spent working on Alaska exploration.

My testimony today will not address specific provisions of the legislation, rather I hope to provide a background on issues regarding the Coastal Plain of ANWR. I will be pleased to address any specific questions the Committee may have.

The Arctic National Wildlife Refuge (ANWR), as it exists today, was created through the Alaska National Interest Lands Conservation Act (ANILCA) in 1980. Section 1002 of ANILCA specifically set aside 1.5 million acres on the northern tier of ANWR for investigation of its oil and gas potential. This 1.5 million acres, known as the "1002 area" or the "Coastal Plain" represents about 8% of the land area of the ANWR and about 0.4% of the land in Alaska. The remaining 92% of the land in ANWR is in either wilderness or refuge status. The 1002 area was not chosen arbitrarily; it was chosen because this area is perceived to have a high potential for significant accumulations of oil and gas. This high potential area is well constrained geographically and geologically. The southern boundary of the 1002 area is the northern edge of the Sadlerochit Mountains, part of the vast Brooks Range which stretches across northern Alaska. Because of the heat and pressure generated in creating these mountains the rocks are not prospective for oil or gas. The 1.5 million acre 1002 area is the only part of ANWR that has any oil and gas potential.

Despite the Congressional mandate to examine the 1002 area for its oil and gas potential very little exploration has taken place. Only about 1500 miles of two-dimensional (2D) seismic data have been recorded in the 1002 area. These data were recorded in two winter seasons in 1984 and 1985. I was a member of the industry team that designed those seismic programs. The only well that has been drilled in 1002 is the Kaktovik Inupiat Corporation 1 well (always called the "KIC well") drilled over two seasons in 1985—1986. This well was drilled on private (Native) land by BP and Chevron and the results of this well are highly confidential and have not been released.

The paucity of data in the 1002 area is in sharp contrast to the amount of exploration data that has been obtained on State land to the west of ANWR. Between the Canning and Colville rivers hundreds of exploration wells have been drilled resulting in oil discoveries that provide about 17% of our nation's domestic supply of oil. Most of this area has also seen the application of three-dimensional (3D) seismic data. 3D seismic data provide a much more accurate picture of the subsurface of the earth than does 2D seismic. 2D data can be likened to an X-ray image of the body; it is constrained to one plane of information. 3D is more like a CAT Scan which provides a volume of data which can be manipulated (rotated, sliced) to give the doctor much more accurate and useful information. The same is true for 3D seismic with respect to geological analysis.

Many new discoveries in Alaska (and worldwide) are the direct result of the application of 3D seismic. It is now the standard exploration tool used by industry. Although more costly to obtain initially, it pays off in that the success rate for drilling can improve dramatically. A 10 or 20 percent success rate was fairly typical for exploration wells based on 2D technology. Using 3D data, success rates of 40 or 50 percent are becoming common. This higher rate is naturally a boon to the industry since they will drill fewer dry holes, thus lowering costs. But it is also a benefit to the environment since fewer wells are drilled thus lessening any impact.

As important as 3D seismic is to exploration there is something it cannot do; it cannot predict whether oil is actually present in the rocks. It can only show the distribution of the rocks in the subsurface. Only drilling can find oil.

The lack of data in ANWR has, in my opinion, resulted in a failure to fulfill the Congressional mandate to evaluate the oil and gas potential of the 1002 area. The most recent attempt to unravel the complexities of ANWR geology was made by the United States Geological Survey (USGS) in 1998. It entailed 3 years of study by 40 scientists. This is the most comprehensive study ever done and incorporated new field work, all the well data available and the information derived from reprocessing and reinterpretation of all the seismic data recorded in ANWR. This assessment contains the best information available to the public.

The results of this study show an increase in the estimated amount of oil in ANWR compared to earlier assessments. Given the many new discoveries on the North Slope in recent years it is not hard to understand why the numbers grew. These new discoveries are, as the assessment concludes, in large part due to the application of new seismic and drilling technologies. According to the study "The increase results in large part from improved resolution of reprocessed seismic data and geologic analogs provided by recent nearby oil discoveries." Simply put, new discoveries on other parts of the North Slope have influenced the USGS reassessment of the 1002 area. This new geologic picture of the North Slope also resulted in the oil resource predicted in ANWR to be "redistributed" compared to earlier assessments. Unlike earlier assessments, now the majority of oil in ANWR is thought to be in the northwest portion of the 1002 area and thus closer to existing infrastructure. Only drilling can confirm this.

In round numbers the study says there are between 6 and 16 billion barrels of technically recoverable oil in the study area. The mean (average) is about 10 billion barrels (a little less than Prudhoe Bay, the largest oilfield in North America, has produced in the past 25 years). Technically recoverable oil is the amount of oil that actually comes out of the ground, since you can't get it all. At Prudhoe Bay the recovery factor (the percentage of oil you can actually extract) is over 60%. The USGS used a very conservative 37% recovery factor in their ANWR assessment. If the recovery factor in ANWR fields can match Prudhoe Bay then the technically recoverable average increases to about 18 billion barrels. At today's oil price, and assuming a reasonable recovery factor, the amount of oil economically recoverable (the amount that can be profitably extracted), will be very close to the technically recoverable amount.

While this study is based on sound scientific principles, that does not mean it is right. Despite all the studies that have been done, a simple fact remains: the amount of oil in the 1002 area is unknown. It is also true that existing data show that ANWR is the best onshore oil prospect in the United States. Some believe that the ANWR coastal plain is a kind of oil "bank" where oil can be withdrawn when needed. This is simply wrong. Although ANWR has enormous potential, that potential will remain unrealized until drilling is allowed.

You may hear that developing ANWR is not necessary since it "only provides a six month supply of oil." Some say this is misleading; I think it's dishonest. ANWR, in the average case of 10 billion barrels of reserves, will produce a million barrels of oil a day for over twenty-five years. It will help offset our current 57% oil import rate. It will keep the Trans Alaska Pipeline System (TAPS) running for many more years thus encouraging additional investment in exploration and production in Alaska. TAPS is currently flowing at less than half of its 2.2 million barrels per day capacity and can easily accommodate production from ANWR. The pipeline infrastructure on the east side of the Slope will continue to move closer to the Coastal Plain thus making transportation to TAPS more viable (and it will speed development). A pipeline from the Badami field moved access to TAPS 25 miles closer to the 1002. If Exxon and its partners proceed with development at Pt. Thomson then there will be a pipeline just across the Canning River.

For the past twenty-five years Alaska's oil has been important to both the people of Alaska and the nation as a whole. Currently Alaska is supplying about 17% of our nation's oil, about 1 of 6 barrels; this is down from over 20%, but thanks to new technology and a continuing commitment to explore and drill, that number will stay

firm for about 6 more years. The 1002 area has the potential to double the amount of oil Alaska is currently producing, thus decreasing our dependence on oil imports. Yet there are those who decry exploring and drilling the Coastal Plain. One common cry is that ANWR is "the last great wilderness." This ignores the fact that 92% of ANWR is already in protected status (wilderness and refuge), but that's not good enough for some. Some would prefer to ignore the Congressional mandate to evaluate the 1002 area and simply lock it up as wilderness. While putting the 1002 into wilderness status may placate those of that view, it does not remove the fact that people live there. The Inupiat Eskimo people live in the village of Kaktovik on Barter Island within the Coastal Plain. They have lived in this area for centuries. This is their home and they subsist and recreate on the land. The military has active and abandoned sites in 1002. A political designation of the 1002 area as "wilderness" will not make it so.

The Federal Government currently owns about 235 million of Alaska's 365 million acres, about 64% of the state. That's bigger than the entire state of Texas. It's larger than Washington, Oregon and California combined. 58 million of these acres are designated as "official" wilderness, which accounts for 56% of the nation's total. About 40% of Alaska's land is in some sort of protected status, including wilderness land. Alaska has the largest state park system in the country. The notion that Alaska is somehow "short" on wild places is simply wrong. If Alaska's wilderness lands were made into a state it would be the 11th largest in the nation.

A comprehensive energy plan will be composed of many parts. Conservation is one part, as are potential alternative sources of power. Ignoring our own domestic oil sources denies us the ability to achieve a greater measure of energy self-sufficiency and security. There is no single solution, but opening the Coastal Plain of ANWR to responsible oil development clearly needs to be an important part of the equation.

I would like to thank the Chairman and this Committee for taking the time to discuss issues regarding the Coastal Plain of ANWR. The 1002 area has the highest potential for oil resources onshore in the United States. This potential will not be realized unless drilling is allowed. Companies working in Alaska perform to the highest standards anywhere in the world. New technologies like 3D seismic, extended reach drilling and grinding and injection of drilling wastes have served to shrink the footprint of development. A lot of the new Arctic technology has been developed in Alaska. Thousands of environmental and biological studies have been conducted on the North Slope either by industry or with their support and cooperation. Fields can be developed in sensitive areas using these new technologies in combination with site-specific stipulations and mitigation measures which resulted from these studies. I firmly believe that sound science is the necessary foundation for implementing successful developments in the Arctic, both in the profitable extraction of our domestic petroleum resources and the protection of our environment. The life of an oil field is temporary, with large fields lasting 30 to 50 years and smaller deposits depleted in 10 to 15 years. Our job is to make sure that our temporary occupation in these remote areas minimizes any long-term detrimental impacts.

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The CHAIRMAN. I thank all the witnesses for their testimony.

I would like to start with Ms. Sweeney. We know that the Central Arctic caribou herd population has increased from 5,000 to nearly 32,000 since oil development began in Prudhoe Bay. Two other caribou herds that come into contact with Prudhoe Bay development have increased in size, as well. But listening to the opponents of this, you would think that these herds have declined. And then we have the porcupine caribou herd that uses ANWR and Canada's Coastal Plain. Unlike the caribou using Alaska's oil fields, its population has declined and we are supposed to believe that this is normal. In fact, we have heard almost nothing about what happens to these caribou in Canada.

Are you aware of anything in Canada, such as over-harvesting, that may be having a population level impact on the porcupine caribou herd?

Ms. SWEENEY. I am aware. To address your question, yes, I am aware. What one needs to consider is the coincidence of the Gwich'in Indian lobby on their Canadian government and how they

effectively lobbied to have restrictions on the Dempster Highway weakened so that they could actually hunt the porcupine caribou herd from the road. And for your information, the Dempster Highway runs right in the migration path of the porcupine caribou. And if they are being over-harvested, the weakening of the restrictions coincide with the decline in the population by about a third. So if they are hunting caribou along the Dempster Highway, how are they going to make it to the Coastal Plain to calve?

And it is important to note, Mr. Chairman, that calving would take place in the summertime and the North Slope Borough has the ability to regulate when development can occur, and our people have been very vocal about restricting development in the summertime, during the calving season, because we, too, depend on the resource.

The Inupiat people of the North Slope depend on caribou for their daily sustenance, as well, and that is not often heard in this debate, and there is no way that the people of Alaska would allow development to occur if that was threatened. Thank you.

The CHAIRMAN. Thank you. Ms. Clark, you state in your testimony that, "The Arctic refuge environmental assessment written in 1987 concluded that oil development would have a major impact on the porcupine caribou herd." I would like to give you an opportunity to review this statement and make any necessary corrections.

I have a copy of that 1987 report and it does not say that. The report says, major effects on the porcupine caribou herd could result if the entire 1002 area were leased, and for your reference, that is on page 123. I believe that the implication is that there is a big difference between "would" and "could," and I wanted to give you the opportunity to correct that statement in your written testimony.

Ms. CLARK. Thank you, Mr. Chairman. I would be glad to re-review that. I would like to state, however, that certainly from my history with this Committee, I know that this Committee has a high regard for science and expectations of using good science in decisionmaking. I think that it is—I know that it is well documented that oil exploration, oil drilling, oil development would dramatically alter the landscape of the Coastal Plain of the Arctic National Wildlife Refuge. Decades of research by the Fish and Wildlife Service, by the U.S. Geological Survey, by independent research, and as late as last week, the report that was released by the National Academy talks to the impacts that will occur from development.

If we are going to rely on the 1986 draft which gave rise to the 1987 final, and I would be happy to provide for the record that kind of—the differences between the 1986 draft and the 1987 final are well documented, Mr. Chairman, and I think bear review by this Committee.

If we are going to rely on that draft or the final, then we have to acknowledge that there are going to be major impacts to wildlife populations and the ecosystem. Whether we are talking about caribou or muskoxen or migratory birds or lesser-known species of that tundra, we have to acknowledge that the ecosystem will be damaged.

The CHAIRMAN. Ms. Clark, I believe that any time there is human activity, you change the landscape. I think that the question is, can we in an environmentally sensitive manner explore and possibly remove oil and gas resources from this area. I think that you present somewhat of a false argument that we have to choose between our environment and our economy. I don't necessarily believe that that is the case. I believe that we can, and in an environmentally sensitive way, go in and explore these areas. But that is a big part of what this debate is.

Unfortunately, my time has expired. I am going to recognize Mr. Markey.

Mr. MARKEY. Thank you, Mr. Chairman, very much.

I just need a little bit of clarification. Maybe the panelists could help me. Maybe Mr. Van Tuyn could help me or others down there. On page five of the bill, starting on line 22, it says, in general, the Secretary, after consultation with the State of Alaska, the city of Kaktovik, and the North Slope Borough, may designate up to a total of 45,000 acres of the Coastal Plain as a special area—the bottom of page six, top of page six now—as a special area if the Secretary determines that the special area is of such unique character and interest so as to require special management and regulatory protection. The Secretary shall designate as such a special area the Sadlerochit Spring area comprising approximately 4,000 acres as depicted on the map referred to in Section 2.

Can you please explain to me, in your opinion, Mr. Van Tuyn, what the relationship is between the 45,000 acres and the 4,000 acres?

Mr. VAN TUYN. Thank you, Representative Markey. I think the view of the special areas within the 1.5 million acre Coastal Plain is best explained by an analogy to the National Petroleum Reserve-Alaska, which also uses as a management tool the special area concept. And on this map to my left, there is a picture of the North Slope and available fields. There is a cross-hatched small point in the exact middle of the map that is called the Teshekpuk Lake Special Area within the National Petroleum Reserve-Alaska, and Secretary Babbitt had set this area aside—it is almost 600,000 acres—and said, you may not lease in most of this area because of its unique wildlife values.

That kind of protection is analogous to the 45,000 acres that may be done here, and it is also demonstrative of the depth of that protection, because Secretary Norton, who was here today, is going to be reconsidering very shortly whether that special area should not be opened to full oil and gas leasing because she has the discretion to do so. The industry wants it and she is going to reconsider that in the coming months.

That is exactly the problem with this provision of H.R. 39, Mr. Chairman and Representative Markey. This provision is discretionary. It is also quite small compared to the 1.5 million acres and the 4,000 acres of Sadlerochit Springs demonstrates that, as well. Thank you.

Mr. MARKEY. Ms. Clark, the argument that we hear is that all of this oil would be necessary. Would it not mostly go down into California, the oil, if it was discovered and then delivered, and would it not then go mostly into the gasoline tanks of SUVs, since

50 percent of all the vehicles that are going out on the road every day now are—every car that is now going to a junkyard is more efficient than the car or SUV being purchased by a family in order to replace it. So we are going backwards technologically.

Wouldn't it make more sense for us just to increase the fuel economy standards for vehicles, if most of this oil would just go to California for more and more SUVs that are going out on the street?

Ms. CLARK. Certainly, Congressman, I would agree with that statement. The challenge here or the problem here is that we are looking at one prong of this whole issue. The one prong is we are thirsty and hungry for oil. Nobody debates that. Nobody debates that we are a highly oil dependent country and we obviously need more to meet our increasing demands.

What we are not, though, doing is debating and rolling our sleeves up and confronting the need for energy efficiency, as you mentioned, higher fuel economies, better conservation technology. Instead, what we are doing is we are taking what some believe is an easy way out. Let us go drill a National Wildlife Refuge. Well, what about the almost 300 other National Wildlife Refuges in 44 States that have, according to USGS, oil potential?

To violate the integrity of a National Wildlife Refuge, to violate the integrity of the National Wildlife Refuge System is very short-sighted and the damages are irretrievable and irrevocable. Instead, we need to really conserve. We need to confront the challenge and be visionary and look to the long term of what our obligations to this country are.

Mr. MARKEY. Thank you. Thank you for your great testimony. Thank you, Mr. Chairman.

Mr. REHBERG. [Presiding.] Thank you.

I want to thank the panel for being at this hearing today. The Chinese have a saying that says the best time to plant a tree was 20 years ago. The next best time is today.

There are those of us who were around, of course, in 1979 during the oil situation who recognize that the next generation of energy production had not been invented yet and that we were still so heavily reliant upon the old generation, and unfortunately, nobody has done anything about it since then, a lot of talk, a lot of inaction. At least this Administration, and I thank the Chairman for having this hearing today, are willing to discuss the situation, because it is absolutely critical that we plant the seed of energy independence today.

I have a question for Mr. Boyd, please. Mr. Boyd, there has only been one well drilled on ANWR and it was drilled in lands owned by the natives that they can't develop unless Congress opens ANWR. Is it true that you are one of just a few people who have seen the results of that well, and if you haven't seen it, that is OK. If you have seen it, what did you see?

Mr. BOYD. Mr. Chairman, I have seen the well. The well is confidential and I got to see the well as a result of an Alaska Supreme Court case when I was still at the State and I can't discuss the well itself.

Mr. REHBERG. OK. So I guess if you can't explain the well, indirectly, is it worth exploring?

Mr. BOYD. Mr. Chairman, again, irrespective of the well, I mean, I supported the opening of ANWR long before I ever saw that well. Like I said in my earlier testimony, I have worked in the industry for quite a long time, since the middle-1970's, and so I have been supportive of opening ANWR. A well is a data point, and so I will leave it at that.

Mr. REHBERG. I appreciate that.

Mr. MARKEY. Mr. Boyd, that is called directional legislative drilling for an answer. He was trying to come in another way.

[Laughter.]

Mr. REHBERG. And I appreciate your answer, because I think, indirectly, it is the correct answer, and that is those that have seen perhaps the well have made the determination that you are willing to support the continuation of those opportunities for others, and that means a lot. I think it should mean a lot to this policy because you have firsthand knowledge. I have been up on the North Slope. I look at the potential and say, I don't get why we are not there because I believe it could be done in an environmentally sound way.

Ms. Sweeney, I assume you are familiar with the study by the National Academy of Sciences. What is your comment regarding what this study has to say about the impacts on the health and lifestyle of Alaska Natives of the North Slope?

Ms. SWEENEY. I would have to disagree and dispute some of the findings in that report. My people have—are taking the revenues generated from oil development to address the social ills that we face and that we are taking the opportunity to champion our own causes, to address our issues, and the social ills that are referenced in that report were there long before oil development.

Oil development did not cause alcoholism or diabetes. They were there. You can trace them back to the days of the early commercial whalers from places like New Bedford, Massachusetts, or Nantucket. It is important to look at the contributions that early whalers made to the indigenous population of Alaska's North Slope. So to imply that oil development has caused social ills to Alaska's North Slope people is simply incorrect.

Mr. REHBERG. Do the Eskimo people of the North Slope care less about the caribou and the environment than the Gwich'in do?

Ms. SWEENEY. No. That is—and I say that with such passion and emotion because the environment is who we are as people. The land represents our culture, the Inupiat culture, and it is something that is very, very important to just our healthy existence.

Mr. REHBERG. Mr. Boyd, why is ANWR important to geologists? Having been an intended geology major in college, I have a passion for geology. I came to the conclusion I did not want to have to get a doctorate and perhaps live in Iran, and so I did the only smart thing and switched to political science. Here I am in Congress, so maybe I should have stuck with geology.

[Laughter.]

Mr. BOYD. Mr. Chairman, I guess I went the other way around. I started as a geologist and wound up in government, so maybe it doesn't work either way.

But as a geologist and having worked in the ANWR for quite a long time, both with a company and consulting for companies, and

working other places around the world, I have never seen a geology more complicated than that in the ANWR. And it is interesting just to compare the two USGS reports, the one from 1995 and the one from 1998, and even there you can see how the USGS—I mean, this was a huge study, both of them, and how they really have switched the oil around. They have just changed the way they think about ANWR, and I am not saying I agree with every word in that report. But the discoveries that have been made in the North Slope, mostly based as a result of 3-D seismic, have shown different depositional patterns and how they might exist in the ANWR.

And maybe I am giving you too long an answer to your question. The real answer is, the geology is as complicated as any, as fascinating as any I have ever seen. It cries out for 3-D seismic. The data are on a six-by-four-mile grid. You can throw a lot of oil fields through the grid in that seismic data. The people that I have actually led through the exercise of trying to do the interpretation of it get pretty flaked out and probably would have flunked out of geology school, too, right about in the middle of ANWR in a place called the Huahualo [ph.].

Mr. REHBERG. Thank you.

Mr. Pallone?

Mr. VAN TUYN. Mr. Chairman, could I address this issue, as well?

Mr. REHBERG. Yes.

Mr. VAN TUYN. It is an important question, and I apologize to Representative Pallone.

There are two points I would like to make. One is that the geology of the Arctic Refuge is quite different than the rest of the North Slope, and Mr. Boyd had said in his testimony today that there is a 65 percent recovery rate in Prudhoe Bay and if we could reach that same amount in the Coastal Plain, it would be quite a lot more than has been estimated.

I would just like to reference to the Committee a letter that Secretary Norton wrote to the Senate on that exact issue in which she said that the USGS recovery factors for the Arctic Refuge are based on properties of the geology that are present and thought to have potential to contain oil, and that these are fundamentally different from the reservoirs at Prudhoe Bay and Alpine, and that is what led the USGS to have a recovery factor that is half of the 65 percent that Mr. Boyd referenced.

And the other point I would like to make is that the impact of 3-D seismic exploration, as the National Academy of Sciences has said, is significantly greater than 2-D. They say that expanded application of 3-D technology in those areas where it currently exists in the North Slope will increase the potential for conflict with the caribou there.

And so it is not a simple question. The Coastal Plain is a special area and these are considerations that I would like the Committee to be aware of.

Mr. REHBERG. Thank you. I will recognize Mr. Pallone next, although, Mr. Boyd, I would like your response after—maybe that will give you more time to compose your answer, or is it OK if he—OK. Could you please respond?

Mr. BOYD. Well, Mr. Chairman, again, I don't agree with Mr. Van Tuyn really on either point. I am not saying the Secretary is wrong or right. What I am saying is I don't necessarily agree with everything that the USGS has said and I think there are attributes or there are aspects of the geology in Prudhoe Bay that are present in the Arctic Refuge, in the 1002 area, rather.

In any case, I think that you can improve the recovery rates over time. I don't know what it might be like in 5 years. All I am saying is that if recovery rates can be made higher, then you could get more oil out of the ground. I don't know what the number is going to be. Maybe 37 percent is the right number, but I don't think it has to be the right number.

And as to the seismic, I don't agree that the 3-D seismic is inherently more damaging than 2-D seismic. It is true that there are lots more trucks and things on the ground. I like to use the example, if you had two identical lakes and they are frozen and you skate a little bit on one lake and you skate a lot on the other lake, play a hockey game on the other lake, and both lakes melt, where is the difference? And seismic takes place in the winter.

Now, I will say that there have been some problems in the hillier terrain to the South, and the trouble has been in turning vehicles, because they do what is called a skid turn. Just last week, I saw a pretty interesting presentation how they have now developed not only the balloon tires, but these tractor tread-type things, very low pressure. They are articulated. They can climb over the terrain.

I believe the industry is trying very hard, Mr. Chairman and members of the Committee, to try to advance technology to try to minimize the footprint in every way that they can.

Mr. REHBERG. Mr. Markey, over the weekend, or night before last, I had a meeting with Mr. Castro talking about his environmental problems and he looked at us and Mr. Delahunt and he said, "I will point out to you, sir, that there are no cod at Cape Cod." Is that true?

Mr. MARKEY. Well, there are some.

Mr. REHBERG. Some?

[Laughter.]

Mr. REHBERG. That was his response to us environmentally. I just hadn't heard that. It was interesting that he would know—

Mr. MARKEY. It could well—again, we have this crisis that a lot of the areas are fished out and we are trying to strike a balance now, because if you go too far on one side, then you wind up without any of those natural resources being left there, so—

Mr. REHBERG. Certainly he is paying attention to our political agenda.

Mr. Pallone?

Mr. PALLONE. Thank you, Mr. Chairman. I wanted to ask Mr. Boyd a question, but it is by reference to the discussion we had earlier with the Secretary. The Secretary said that the bill requires the removal of all facilities, structures, and equipment and reclamation of all lands adversely affected by oil exploration. The NAS reports that oil companies have not set aside funds, I guess, for removing infrastructure in the North Slope, for example, where they estimate about \$50 billion would be necessary to restore, you know, to take this material out, to restore the tundra.

Now, you mentioned in your testimony that you think that the statement that ANWR will yield only 6 months of oil is misleading and you said, based on the current mean estimate of 10.4 billion barrels of technical recoverable oil from the Coastal Plain. But again, I want to get to this issue of economically recoverable. In other words, if you take in the cost of having to remove these structures and the equipment and basically restoring the tundra, if you add those costs, which I guess so far haven't been done for the North Slope, but if you add those costs with regard to the Coastal Plain, as this bill presumably requires, how does that change? I mean, there is 10.4 billion technically recoverable, but what is economically recoverable, given that you have to do all those things, because that is what the bill says?

Mr. BOYD. Through the chair, Congressman Pallone, the economics of oil will depend on many things. I mean, you can almost think of—I don't have a graph for you, but of sort of three kinds of oil. The oil that was in place, the oil that was deposited is called OOIP, original oil in place. That is a big number, 35 billion barrels. Then you apply this recovery factor we have been talking about and then you get the technically recoverable. That is the 37 percent. That is where you get to the six and the 16 and the 10.4 is the mean. And again, as you shift the recovery factor, that curve would move back and forth, get bigger or smaller.

At the bottom end of the spectrum is the economically recoverable, because then you have to consider things like costs. What are the costs of getting the oil out of the ground. But it is, generally speaking, and the report is based on what the price of oil is, and at the price of oil at today's prices, the technically recoverable and the economically recoverable would be virtually the same. If prices go—

Mr. PALLONE. Have you figured into that the cost of removing the infrastructure and the restoration of the tundra and the other things that are required in this bill, and hopefully so. Does that take into consideration that?

Mr. BOYD. Mr. Chairman, through the chair, I don't know the answer to that, I guess, but a company will certainly take it into consideration in their bidding. I mean, if they see that they have costs, that something will cost something, they will bid less for property, because nobody knows what the price of oil is going to be. So I believe that those kinds of things are built in.

And I should say that on the State—there is a fundamental difference between the Federal leases and the State leases. On State land, basically the land between the Canning and the Colville or between NPR-A and ANWR, if you like, the State has not taken a position on what the removal will be.

Mr. PALLONE. Well, I guess my concern, and I don't want to belabor the point because I would like to ask another question, my concern is that no one is taking into consideration these extra costs. I mean, obviously, it hasn't even been done on the North Slope and I would fear that it wouldn't be done here, as well, even though the bill says so.

Let me ask Mr. Van Tuyn a question. In your testimony, you say that almost all of the Arctic is presently available for oil and gas

leasing, but can you expand on which parts are available and which parts are not?

Mr. VAN TUYN. Mr. Chairman, Representative Pallone, I would be happy to, and in fact, the map that is on the easel over here does that illustratively. If we start on the left side, it is the National Petroleum Reserve-Alaska. This is an area that is managed by BLM under a 1976 law that gave them jurisdiction over that, and that area was intended to be evaluated for its oil and gas potential as well as for special areas to protect wildlife. At the current time, the Northeast corner of it is about 4.6 million acres. The Babbitt Interior Department leased four million acres of that 4.6, protecting the Teshekpuk Lake Special Area, which is the cross-hatched area in the Northern part there.

To its left is the Northwest Planning Area. That is about 9.8 million acres. The EIS for that is currently in circulation and the comments are due very shortly.

To its left and slightly below is the South Planning Area, which is just over nine million acres. That is slated for planning in 2004.

Note the cross-hatched area in the Northern part of the NPR-A which was protected by Secretary Babbitt, Secretary Norton has now announced that she is going to revisit those 600,000 acres for drilling for oil.

Offshore, the yellow area is the Beaufort Sea, 9.8 million acres. The final EIS just came out. The proposed notice of sale from the Minerals Management Service of the Department of Interior was just released last week. September of this year will be a lease sale of that 9.8 million acres.

And finally, Mr. Chairman, Representative Pallone, that middle area between the Colville and the Canning, which is mostly red on this map, is 14.1 million acres of State land. It is annually offered for lease to oil and—

Mr. PALLONE. So you only have a very small percentage—in other words, the Arctic Refuge is a very small percentage of the Arctic that is protected from oil and gas leasing and development at this point, so what—

Mr. VAN TUYN. Very true, Mr. Chairman, Representative Pallone, and you can see on the right side of this map, 5 percent of that Coastal Plain, the high peak of the mountain out to the ocean, the one green part on this map is the only area that is currently off limits to exploration or development.

Mr. PALLONE. Thank you. Do I still have time, Mr. Chairman, or am I out of time?

The CHAIRMAN. [Presiding.] Your time has expired.

Mr. PALLONE. OK. Thank you.

The CHAIRMAN. Mr. Markey, did you have any further questions?

Mr. MARKEY. Yes. I thank you, Mr. Chairman, very much.

If I may, I would like to pose a question to Governor Murkowski's representative, Ms. Sweeney down here. The present law says that 90 percent of the revenues go to Alaska, 10 percent to the Federal Government.

Ms. SWEENEY. Yes.

Mr. MARKEY. Last year's bill that passed changed that for ANWR to 50/50.

Ms. SWEENEY. Yes.

Mr. MARKEY. The President's bill which is up here before us now, the President's budget maintains that 50/50 split. Has Governor Murkowski committed that he won't sue on behalf of Alaska to extract a 90 percent return on the Arctic oil revenues?

Ms. SWEENEY. Not to my recollection. I am not aware of that.

Mr. MARKEY. You are not aware if he has pledged not to sue?

Ms. SWEENEY. Yes.

Mr. MARKEY. Can you tell us that he won't sue if we pass it and change it to 50/50?

Ms. SWEENEY. Well, we are here right now in support of ANWR. We are here because the bill is in discussion and I am here to reaffirm our support.

Mr. MARKEY. Well, I understand that, but Representative Young's bill is a 90/10 split, again, and it goes back to the present law. It doesn't reflect the President's budget, which assumes a much higher level of revenues going to the Federal Government because he has a 50/50 split in it. So do you support the Young version or President Bush's version?

Ms. SWEENEY. We are not taking a position.

Mr. MARKEY. You are not taking a position. So you would reserve the right, then, to sue to claim 90 percent—

Ms. SWEENEY. That is not what I am saying. I am saying we are not taking a position, and what I mean is we are here in support of responsible development of ANWR.

Mr. MARKEY. No, we appreciate that. A lot of what we do here is premised upon the need to add more revenues to the Federal budget, and so we are just trying to find out what our relationship with Alaska would be on this issue. In other words, would the accede to a 50/50 split on the money from the Arctic Refuge even though, historically, they had always received a 90/10 split on the North Slope.

Ms. SWEENEY. And I will restate, we are not taking a position at this time.

Mr. MARKEY. OK. Mr. Van Tuyn, what do you think?

Mr. VAN TUYN. Mr. Chairman, Representative Markey, thank you. I have heard each of our Congressional delegation speak vehemently on this issue in the past in the State of Alaska saying that the 90/10 split is what is the deal in the Statehood Act and we will fall on our swords to get it. That is, in effect, what a non-position that we hear from Ms. Sweeney now is, because the law is uncertain in this area and what will happen if the bill passes as written, in all likelihood, the State of Alaska will go to court to get its 90 percent rather than the 50 percent.

Mr. MARKEY. And I apologize. It turns out Mr. Young's bill is actually silent on this issue, so I just want to correct the record and make sure that that is clear, and that would mean that the current law would stay intact, the 90/10 language.

Mr. VAN TUYN. Ninety/ten, yes.

Mr. MARKEY. And I would be greatly concerned by that, Mr. Chairman, for us to go through this whole effort and then have the revenues not flow into the Federal Treasury that would help us to balance the budget, you know, pay for the war and then pay for the homeland security.

Thank you all so much again. Thank you, Mr. Chairman.

The CHAIRMAN. I am sure, Mr. Markey, that before this bill works its way all the way through this Committee and the floor and through the Senate that we will have a pretty good idea of where we are. I do know that it is a concern and it has come up in the past.

I would like to go back, just in closing, to Ms. Sweeney, if I can, and if this question was asked while I was out of the room, I apologize to you. You talked in your oral testimony about being a native Alaskan and the impact on your town and your area, and I have been to Barrow before. The day, or the couple of days that I was up there, it was a very nice place, but I understand it gets pretty cold the rest of the year.

Why is there competing opinions that we are hearing out of the native Alaskan community? We are hearing that some people are opposed, some people are in favor. Can you clear that up?

Ms. SWEENEY. Sure, I would be happy to. The local people of the North Slope, a vast majority are in support of ANWR development, and there is a group of individuals who are not from the North Slope, they are not local to the region and they live outside of ANWR and are well over 100 miles away from the Coastal Plain who are opposed to ANWR development.

The CHAIRMAN. Let me stop you right there, because, and I may be mistaken, but in my recollection of the testimony that we have received today, they talked about this other group being in the North Slope. But you are telling us that they are not living there?

Ms. SWEENEY. That is correct, and from opponents of ANWR, you will rarely hear the Inupiat viewpoint in this and they will imply that the population of Gwich'in people are from the area or that this land is sacred to them or they call the area sacred. Well, for the Inupiat people of the North Slope, we call it home.

The CHAIRMAN. Does your regional government, your tribal government there, do you believe that they place a high value on protecting that environment?

Ms. SWEENEY. They sure do, and it is just a matter of who you are or who we are as Inupiat people, and our subsistence lifestyle and traditional cultural practices make up who we are as Inupiat people. To consider that we would rubber stamp anything that came out of the industry is, one, an insult to our intelligence and is very offending, because we care about the environment, we care about the wildlife in the area, and we want to continue living our lives as Inupiat people, whatever that may be. But ANWR development provides us with the opportunity to practice self-determination.

The CHAIRMAN. Thank you. Ms. Clark, if I could go back to you for just a second, do you believe that it is possible to explore for oil and remove oil in an environmentally sensitive way?

Ms. CLARK. That almost sounds like a trick question, Mr. Chairman, so let me think about it. I would say that I believe—I will have a circuitous answer. I believe strongly that the National Wildlife Refuge System Improvement Act has standards and evaluation criteria by which all impacts in our National Wildlife Refuge System should be evaluated.

I am not an oil development expert. All I know is what I have heard from refuge biologists, USGS researchers, what I have seen

myself of oil development, and I believe that this bill falls very short of any specific evaluation criteria or evaluation standards or aggressive mitigation standards that would protect, per the scientists, protect the integrity of the Coastal Plain for the original purposes for which the Arctic National Wildlife Refuge was established.

The CHAIRMAN. Have you made suggestions to the Committee for what those protections would be? Have you offered alternative language that would meet that criteria?

Ms. CLARK. I have not, Mr. Chairman.

The CHAIRMAN. If you would be willing to do that and the organization you now represent, I would like to see a proposal that you think would meet that criteria, whether it is coming out of you personally or out of the organization you represent. I would be interested in seeing what you would see as appropriate language that would do that. I think it would be an interesting opportunity for the Committee to have that.

I want to thank this panel of witnesses for your testimony and for the answers to the questions. Again, there are members, because of our schedule here today, there are members who had questions that they wanted to ask of this panel that, unfortunately, were not able to. Those questions will be submitted to you in writing. If you could answer those for the Committee within 10 days so that they can be included in the hearing record, it would be appreciated.

Again, I want to thank you, all of you, for your testimony and your patience with our schedule here today, so thank you all very much for your testimony.

Ms. SWEENEY. Mr. Chairman?

The CHAIRMAN. Yes?

Ms. SWEENEY. On behalf of the State of Alaska, I would like to formally invite this Committee to conduct its field hearing in Kaktovik so that the members have the opportunity to meet with local people in the region and to see what Kaktovik is like and hopefully inform the Committee on the impact that the decision to open ANWR will make. Thank you.

The CHAIRMAN. I appreciate the invitation. We are intending on holding a field hearing in Alaska for that purpose and other purposes that come under the jurisdiction of this Committee, but I do believe very strongly that the best way to educate and inform the members is to have them actually go see it and understand it. But I appreciate the invitation.

I would like to at this time include in the record a resolution from the Alaska Federation of Natives at their 1995 Annual Convention.

[The resolutions of the Alaska Federation of Natives follow:]

ALASKA FEDERATION OF NATIVES

1995 ANNUAL CONVENTION

RESOLUTION 95-72

TITLE: RESOLUTION URGING THE ALASKA FEDERATION OF NATIVES TO REMAIN NEUTRAL ON THE MORATORIUM ON EXPLORATION AND DEVELOPMENT WITHIN THE 1002 AREA OF THE ARCTIC NATIONAL WILDLIFE REFUGE (ANWR)

WHEREAS: The Alaska Federation of Natives, Inc. (AFN) represents the Alaska Native Community on issues of importance; and,

WHEREAS: the Executive Board of the AFN decided earlier this year to support the oil exploration and development of the ANWR coastal plan; and,

WHEREAS: the coastal plan is an extremely important area for the health and productivity of the Porcupine Caribou Herd; and,

WHEREAS: there are no alternative natural resources other than the Porcupine Caribou Herd for the sustenance of the Gwich'in people of Alaska; and,

WHEREAS: exploration and development of the coastal plan of ANWR is expected to have a detrimental effect on the health and productivity of the Porcupine Caribou Herd although no one understands the totality of the expected effect; and,

WHEREAS: the opening of the ANWR coastal plan is a very difficult and divisive issue within the Alaska Native Community; and,

WHEREAS: the difficulty of resolution on this issue is too great for the Alaska Native Community and it, in fact, threatens the very foundation and integrity of the AFN.

NOW THEREFORE BE IT RESOLVED, that the Alaska Federation of Natives, Inc., remains neutral on the moratorium on exploration and development within the 1002 area of the Arctic National Wildlife Refuge.

SUBMITTED BY: Tanana Chiefs Conference, Inc.

COMMITTEE RECOMMENDATION: Refer to Board

CONVENTION ACTION: BROUGHT TO THE AFN CONVENTION FLOOR AND FAILED ON A ROLL CALL VOTE



## ALASKA FEDERATION OF NATIVES

1995 ANNUAL CONVENTION

## RESOLUTION 95-73

**TITLE:** SUPPORT FOR LEGISLATION OPENING ANWR TO OIL AND GAS DEVELOPMENT

**WHEREAS:** the opening of the Arctic National Wildlife Refuge for oil and gas development offers a critically important economic opportunity for Alaska Natives;

**WHEREAS:** many Alaska Natives live in regions of the State that are distant from the planned exploration and development;

**WHEREAS:** all Alaska Natives and Alaska Native Corporations will not, because of these distances, share in the economic opportunities and benefits of this exploration and development without some assurance of opportunities to do so; and,

**WHEREAS:** if the economic benefits of exploration and development are not shared with the Native community throughout the State through jobs, contracting, and other programs authorizing land exchanged or alternative economic sharing programs, the Native community will suffer the inevitable rise in prices with no resources to pay for them.

**NOW THEREFORE BE IT RESOLVED,** by the delegates to the 1995 Annual Convention of the Alaska Federation of Natives, Inc., that the opening of ANWR to exploration and development is supported by the Alaska Native community provided that such exploration and development includes hiring and contracting for Alaska Natives and Alaska Native Corporations from throughout the State as well as a program by which Natives from throughout the State can share in the economic benefit generated by the exploration and development activities.

**SUBMITTED BY:** Calista Corporation

**COMMITTEE RECOMMENDATION:** Do Pass

**CONVENTION ACTION:** PASSED



The CHAIRMAN. I would also like to include a statement from Oliver Leavitt, who is the Chairman of the Arctic Slope Regional Corporation, and without objection, those will be included in the record at this point.

[The prepared statement of Mr. Leavitt follows:]

**Statement of Oliver Leavitt, Chairman, Arctic Slope Regional Corporation**

Mr. Chairman and Members of the House Resources Committee, my name is Oliver Leavitt. I appreciate this opportunity to submit testimony on H.R. 39, a bill to open the Coastal Plain area of the Arctic National Wildlife Refuge to a responsible program of oil and gas leasing. The Coastal Plain is the Nation's best prospect for major new oil and natural gas discoveries.

I appear today as Chairman of Arctic Slope Regional Corporation (ASRC). ASRC represents the views and interests of its more than 8,000 Inupiat Eskimo shareholders who live in eight remote Villages on Alaska's North Slope.

### *1. Introduction*

The small Coastal Plain area of the 19.5 million acre Arctic National Wildlife Refuge (ANWR) is very important to the nation's economic well-being and to its energy security. This 1.5 million acre area is also of critical importance to the Inupiat Eskimo people. We are the full-time residents of Alaska's North Slope. Our ancestors have lived in the Arctic for thousands of years. They have been the stewards of this land, environment and wildlife. We have an Eskimo Village, Kaktovik Village, with 260 residents located on our private lands in the Coastal Plain.

#### *National Interest in the Coastal Plain*

Mr. Chairman, our Congressman Don Young, together with other Members of this Committee, have made a compelling case for opening the Coastal Plain to an oil and gas leasing program. With gasoline prices approaching—and in many states exceeding—\$2.00 a gallon, the American people are looking for leadership and action. Citizens are concerned about declining supplies and rising oil and natural gas prices. This is a complex issue. But one thing is very clear. Opening the Coastal Plain now is the right thing for this Committee and the Congress to do.

The Coastal Plain area of ANWR:

- has the potential for major new petroleum reserves, conservatively estimated at 5.6 to 16 billion barrels of economically recoverable oil;
- could slow or reduce our growing oil import dependence, which soon will approach 70 percent if no decisive actions are taken;
- can be confidently developed with minimal impact on the environment and wildlife using proven technology and best land use practices; and
- will generate billions of dollars in new Federal revenue from bonus bids, royalty and corporate taxes if H.R. 39 is adopted.

#### *The Inupiat Eskimo's Interest in the Coastal Plain*

The interests of the Inupiat Eskimo people in the Coastal Plain are both economic and cultural. Congressional action on legislation to open the Coastal Plain area will determine whether or not my people will have a long-term tax base from which to provide essential public services for their children and elders. It will determine whether there will be jobs and economic activity on the North Slope for our young people and our children. It will also determine whether we, the Inupiat who once held aboriginal title to all of the North Slope's 56 million acres, will be permitted to develop the economic potential of the 92,160 acres of private lands that we own in the Coastal Plain near the Village of Kaktovik.

These lands are important to us because all other lands of potential value on the North Slope were leased to oil companies or selected by the State of Alaska before we were authorized to select our lands.

Let me review my people's interests in the Coastal Plain.

#### *a. Tax base, public services and local government*

Prior to the discovery of Prudhoe Bay in 1968, there was no tax base on the North Slope and no effective means to provide essential public services to the Inupiat Eskimo people. Sewage service was by hand carried "honey bucket." Ice was hauled by dog sled from lakes to be melted household water. Our children were sent to BIA high schools thousands of miles away. There was little and only rudimentary medical care. Fire and police protection did not exist. Electrical service, when available, was unreliable. Communication with the outside was sporadic. Housing conditions were dismal. The cost of food and many other essential goods was prohibitive. Our people managed to survive by their wits, by barter, by subsistence hunting, and by continuing our Inupiat culture and our tradition of "sharing."

The Prudhoe Bay discovery brought the opportunity for major changes. These changes included, for the first time, jobs, economic activity, a tax base, and the establishment of an elected democratic local government. The Inupiat people voted to establish the "North Slope Borough" in 1972 to address our need for vital public services.

#### *b. The Inupiat Eskimo People and private economic development*

North Slope oil also brought private sector jobs and an opportunity for economic activity to the Inupiat people. Through ASRC and our Village Corporations, my people are now a significant part of the economy of the State of Alaska. Today we own and operate construction and oil field service companies which provide jobs, dividends and economic opportunity for our Inupiat shareholders. Development

activities at North Slope oil fields which provide an essential commodity to U.S. consumers made all of this possible.

*c. Value and use of Inupiat private lands*

The discovery of oil and the construction of the Trans-Alaska Pipeline gave some economic value to the lands we were granted under the Alaska Native Claims Settlement Act of 1971 (ANCSA). Through contract and lease relationships with major energy companies, ASRC has generated business skills, management expertise and capital to expand our construction and service companies, to create new jobs, and pay dividends to our shareholders.

Alaska's North Slope contains major oil and gas resources. The country desperately needs access to these energy resources—both crude oil and our huge reserves of natural gas. These resources can be developed safely. Congress should adopt land use and fiscal policies that permit the private sector to bid for and develop the Coastal Plain for the benefit of the U.S. Treasury and U.S. consumers. This will also enable my Inupiat Eskimo people to develop our relatively small ownership of private lands at Kaktovik Village for the benefit of our children, our elders and our shareholders.

*d. Uncertain economic future*

Oil development in the Arctic has improved the Inupiat people's quality of life in many ways. But our future is still very uncertain.

Prudhoe Bay's oil production began in 1977. Production peaked at over 2.1 million B/D in 1988. But production is now in decline, and down to about 1 million B/D.

We are seeing job opportunities disappear as oil production declines. Oil industry activities are being down-sized, consolidated and some are being reduced to "maintenance" level operations.

The lease sale in the north-east portion of the National Petroleum Reserve-Alaska is the only bright spot we have experienced in recent years.

Other new oil prospects need to be opened in Alaska to attract exploration capital and extend the economic life of the Trans Alaska Pipeline. This could also advance the prospects for an Alaska Natural Gas Pipeline to serve American consumers. If new oil and gas discoveries are not made soon, the Inupiat people will see our tax base further eroded. This means the minimal public services that the Eskimo people enjoy today will have to be cut back.

Without Congressional action, the economic opportunities for the Inupiat people will decline. At the same time, our nation's dependence on high cost OPEC oil will grow.

*The Nation's Best Oil and Gas Prospect*

If Congress adopts H.R. 39 and opens the Coastal Plain to multiple uses -refuge management and carefully regulated oil exploration and development—we see a brighter future, for Alaska's Native people, for the State of Alaska, and for the nation. This future could mean as many as 250,000 to 700,000 new jobs in all fifty states; an increase in our gross national product of \$50 billion; a major reduction in the billions we now spend for imported oil; and a significant source of badly needed new Federal revenue to fund critically needed programs to serve the American public.

No one disputes that the Coastal Plain is the nation's best prospect for major new oil and gas reserves. Government and private geologists are in full agreement here. They have identified 26 separate major oil and gas prospects in the Coastal Plain. This does not necessarily mean Prudhoe Bay's 10 billion barrel discovery will be repeated. But it does mean that the potential is clearly there for both another giant oil discovery and for many smaller oil fields.

Opening the Coastal Plain will pull oil some company-investment back from Russia, Africa, South America, and the Far East. This will create jobs and economic activity here in the U.S. Opening the Coastal Plain is an economic stimulus policy that does not require Federal appropriations or tax cuts.

Domestic oil companies are willing to commit additional resources and capital to areas on the North Slope with high potential. But, absent authorization for leasing in prime areas such as the Coastal Plain, these resources and jobs will continue to be allocated to major prospects in other countries, with no benefit to U.S. workers or to our economy.

*Precedent for Development*

Opening the Coastal Plain to oil and natural gas leasing does not set a new precedent. Prudhoe Bay and other oil and natural gas fields next to the Coastal Plain were leased forty years ago. They have produced as much as 25 percent of the

nation's oil production since 1977. And this has been done safely with no harm to the environment, the land, the wildlife, or to Alaska Native subsistence users.

The Department of the Interior has had an aggressive Beaufort Sea OCS leasing policy in offshore waters adjacent to the Coastal Plain for more than two decades. The State of Alaska has been leasing lands within the three mile limit—some areas touching the shore of the Coastal Plain. Wells are being drilled in these waters and discoveries are being made. Yet, the environmental dangers presented by development in these icy, turbulent, wind-driven waters far exceed any conceivable risk of development in the flat onshore Coastal Plain. Why is the organized environmental community advocating a policy which makes no sense from our people's view and from the stand point of environmental policy?

*Legislative Recommendations for H.R. 39*

*a. Need for Impact Aid for Kaktovik Village*

ASRC recommends that Federal legislation to open the Coastal Plain include provisions for impact aid for Kaktovik Village and the North Slope Borough to provide essential infrastructure and necessary social services. A decision to open this area will bring increased visitor traffic and other social pressures on this small Village. The Inupiat people who live in Kaktovik support oil and natural gas development. But they want and insist on to retaining their privacy, their culture and their character as a traditional subsistence Eskimo community.

With advance planning, and modest Federal financial aid, both the North Slope Borough and Kaktovik Village can play an important role in meeting the legitimate needs of both the industry and the Federal and State government in connection with a program of Coastal Plain exploration and development. The impact aid provision should also be made available for any other Alaska community that might be affected by leasing and development.

*b. Land Use and Environmental Provisions*

I have carefully watched oil exploration and development over the course of my life on Alaska's North Slope. In the 1960's, like many of my people, I had very real concerns, about the impact of exploration and development.

More than thirty years of experience have demonstrated that our initial fears were largely unfounded. A quality environment and healthy stocks of fish and wildlife are clearly compatible with responsible oil exploration and development. Our lands remain pristine. Our subsistence lifestyle has not been adversely impacted. The Central Arctic caribou herd, for example, at Prudhoe Bay is larger than ever—3,000 in 1972 and as high as 28,000 in recent years—and thriving.

The footprint of oil development has constantly been getting smaller. Technology has made major gains. Horizontal drilling means more wells able to reach out much farther from very small drilling pads made of ice rather than gravel. Better land use planning consolidates common facilities. Gravel roads are being replaced with winter ice roads and drill pads which melt without leaving a trace of man's activity. The new Alpine oil field is producing over 100,000 barrels a day from a 500 million barrel reservoir using only a 90 acre pad with no permanent roads!

These gains did not happen by chance. They are the product of careful regulation and hard work by an industry that is constantly being pushed by the North Slope Borough, by the State of Alaska and by the Federal Government. The regulatory objective is to produce the oil we need more efficiently with fewer and fewer impacts on the land, the environment, fish and wildlife and the subsistence activities of the Inupiat people.

*Wildlife in the Coastal Plain*

Mr. Chairman, there are those who oppose leasing and, instead, advocate designation of the Coastal Plain as Wilderness. Congress previously designated nine million acres of ANWR as Wilderness in 1980. The advocates of Wilderness for ANWR have advanced a wide range of shifting arguments over the years. In recent times, they have turned their arguments on the need to protect the Porcupine Caribou herd.

The Inupiat people are subsistence hunters. We live on the North Slope. We give priority to the need to protect all forms of fish and wildlife. This includes the Porcupine Caribou Herd. Fortunately, we know how to do this. Prudhoe Bay demonstrates the compatibility of oil production with the well-being of the Central Arctic Herd. It also demonstrates years of caribou-friendly planning and operational experience.

The caribou is a very adaptive animal. The Canadians showed us this when they drilled fifty or more oil wells just east of the Coastal Plain in Canada over the past twenty five years. Canada also demonstrated this compatibility when they built the Dempster Highway through the heart of the range of the Porcupine Caribou herd.

There are many known and proven ways to explore for and develop oil and gas fields in ways that are compatible with caribou. These included raised pipelines and covered ramps to assist pipeline crossing; seasonal closing of exploration during the short calving season; and concentrating year round activities such as maintenance facilities in areas least used by caribou and other wildlife.

*Alaska Federation of Natives Support*

The Alaska Federation of Natives (AFN), the state-wide organization of Alaska's Native institutions, is on the record in support of leasing the Coastal Plain. AFN supports leasing in the Coastal Plain for reasons that are very important to Alaska's Native Americans. Enclosed are AFN Resolutions on this subject.

Over 80 percent of our State's revenues for education, medical care, public sanitation and other programs come from taxes and royalty on North Slope oil. North Slope oil provides many jobs for Native people, including many Gwich'in people, and much of the economic activity that is essential to Native-owned businesses and our State economy.

Many of Alaska's rural native villages lag way behind urban areas in employment, public services and opportunity. Closing this gap requires the jobs and the resources that North Slope oil and gas and the Coastal Plain can provide.

*Local Opposition*

In recent years The Gwich'in Steering Committee has been vocal in opposition to Coastal Plain development. I want to make a couple of points about this opposition.

First, I do not believe the Steering Committee represents the views of the majority of the Athabascan Indians who live in the interior of Alaska or of Doyon, their Regional Corporation. A major Doyon business enterprise, for example, is owning and operating the rigs used in drilling North Slope oil wells.

Second, in 1980 the Gwich'in Indian Tribe leased all of their 1.8 million acres of land on the Venetie Indian Reservation. This oil and gas lease was sold to the Rouget Oil Company for \$1.8 million.

Third, this oil and gas lease, which was recorded as a matter of public record, did not contain any provisions to protect the Porcupine Caribou herd which periodically passes through the reservation during its annual migration.

Fourth, after the expiration of the original Gwich'in oil and gas lease, the Gwich'in Tribal Government for the 350 residents of the two Villages on the Venetie Reservation again advertised and offered to lease all of their 1.8 million acres of land to any other oil company.

Fifth, a number of the present members of today's Gwich'in Steering Committee were among the Tribal officials who signed the oil and gas leases as well as the subsequent offer to the oil company to again lease, their sacred tribal lands for oil and gas development.

Mr. Chairman, to keep the record straight, I submit these lease documents for the hearing record.

The Inupiat people want what the Gwich'in people have already had. We want the opportunity to have the economic benefit of developing our 92,160 acres of private lands at and near Kaktovik Village. We also believe that the public land area of the Coastal Plain should be developed for its highest and best use—which is oil and gas. This will benefit the American public and all Native people in Alaska.

*The NPR-A Precedent*

The Clinton Administration prepared a comprehensive EIS and conducted an in-depth review of all issues associated with the 1998 decision to lease 5 million North-east portion of the (NPR-A).

As a part of this review, Secretary Babbitt personally visited the North Slope. He camped out, ran rivers and toured NPR-A. He also visited the new Alpine oil field near our Village of Nuiqsut, west of the Kuparuk field. The Secretary reviewed the latest in land use plans, saw the newest oil field technology, and weighed the benefits of development against the environmental impacts within NPR-A.

The Secretary also visited one of our shareholder's subsistence hunting and fishing camp west of Teshekpuk Lake. He had lunch with Governor Knowles and others, and dined on Native food in a subsistence camp site. Secretary Babbitt learned a good deal about Native culture, the subsistence life style, and Native knowledge about our land and wildlife resources.

Subsequently, Secretary Babbitt approved the lease sales and exploration and development in the Northeast NPR-A. This approval reflected scientific judgements in the Department about the compatibility of oil development in NPR-A with wildlife, environmental, and subsistence values. The Secretary personally weighed the evidence. We believe he made the right decision. And the Nation will benefit.

It is important to recognize that the same careful land use planning and new technology used at Alpine and at other new fields and in the NPR-A, would also be used in the Coastal Plain. The differences are that:

- The Coastal Plain's wildlife, environmental and scenic values are not as significant as the Northeast NPR-A's wildlife values;
- The oil and gas potential of the smaller Coastal Plain area are, according to the best geologic studies available, greater than the potential of the Northeast NPR-A; and
- Most land-based subsistence activities of the Inupiat people on the North Slope occur within the NPR-A, where the majority of our people live.

I urge this Committee, to look at the Coastal Plain's potential on the merits. If you apply the same standards the Clinton Administration did in the opening Northeast NPR-A, you will support H.R. 39 to open the Coastal Plain.

#### *CONCLUSION*

Mr. Chairman, I appreciate the opportunity to present our Inupiat Eskimo shareholder's views. Development of the Coastal Plain is of critical importance to our children's future and maintaining our culture.

We strongly urge the Committee to adopt H.R. 39 and open the Coastal Plain to a carefully regulated, environmentally sensitive program of leasing, exploration and development.

Thank you.

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The CHAIRMAN. There is no further business before the Committee. I thank the witnesses, I thank the members of the audience for attending, and the Committee is adjourned.

[Whereupon, at 1:08 p.m., the Committee was adjourned.]

[Additional materials submitted for the record follow:]

[The prepared statement of Mrs. Cubin follows:]

#### **Statement of The Honorable Barbara Cubin, Chairman, Subcommittee on Energy and Mineral Resources**

Mr. Chairman, I speak today in strong support of H.R. 39, the Arctic Coastal Plain Domestic Energy Security Act.

We need to increase domestic production and lessen our dangerous dependence on oil from foreign nations, many of which do not share our interests and values. We're paying them nearly \$300 million per day—\$100 billion per year—for oil that could be produced here.

Over the next 20 years, America's oil consumption will rise, even after factoring in healthy increases in renewable energy supply and efficiency.

Unfortunately, not only will domestic production fail to keep up with rising demand . . . it will drop unless new fields are opened.

Alaska and the Rocky Mountain region are good places to look for new oil and gas. Some of the largest oil fields in the world have been found in Alaska, including the largest and second largest oil fields ever found in the United States.

The bill proposes to open only a small fraction—8 percent—of ANWR for oil and gas exploration. The rest of ANWR, which is the size of South Carolina, will never be touched.

This small fraction of ANWR is called the "1002 Area." President Clinton's Energy Department called it the "largest unexplored, potentially productive onshore basin in the United States." The U.S. Geological Survey estimates there are up to 16 billion barrels of recoverable oil there.

Sixteen billion barrels is enough to offset all Saudi imports for the next 30 years. The mean estimate of oil (10.4 billion barrels) would make ANWR the largest oil field discovered in the world in the last 40 years.

The Eskimo people who live on Alaska's North Slope, including the only community in ANWR, overwhelmingly support oil exploration and production.

Exploration would be done using 21st century technology:

- Supercomputers and 3-D Seismic testing reduce the need for exploratory wells
- Use of ice roads in the winter that melt in the spring
- Horizontal drilling of multiple oil deposits from a single surface location
- Injection of wastes deep into the earth where they originated.

As a result, the production footprint will total only 3 square miles within the 30,600 square-mile ANWR. This is equivalent to four average American family farms in an area the size of South Carolina.

The average well at Prudhoe Bay produces over 550 barrels per day, more than 45 times the 12.5 barrels of oil produced per day by the average oil well in the United States. If the oil in ANWR is locked up, a lot of oil wells will have to be drilled to replace it.

More than 700,000 jobs could be created across the U.S. through development of the 1002 Area, and wildlife and habitat will be protected under the world's strictest Federal, State and Local environmental regulations and monitoring.

To see environmental success of development in Alaska, you need only look just to the west of ANWR at Prudhoe Bay, the nation's largest producing oil field. It has produced 20% of our nation's oil for over 20 years.

The caribou herd in and near Prudhoe Bay's oil field has grown from 3000 in 1970 to 27,000 today. All other wildlife species are doing fine. Oil development has not endangered any species.

Chairman Pombo, I look forward to the testimony as we search for solutions to our dependence on foreign oil. I yield back the remainder of my time.

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[The prepared statement of Mr. Gallegly follows:]

**Statement of The Honorable Elton Gallegly, a Representative in Congress  
from the State of California**

Mr. Chairman, I have been a longtime supporter and cosponsor of former Chairman Young's legislation to open up Alaska's Arctic National Wildlife Refuge to oil exploration. I believe it is timely that we consider this legislation now as a possible war with Iraq looms.

Developing domestic sources of energy is a national security issue. It is much better for our nation to be energy secure than it is to escalate our reliance on foreign dictators, such as Saddam Hussein, for oil. We currently import a record 57 percent of our oil. Among the regimes we import from are Saudi Arabia, Venezuela, Iraq and Nigeria.

Initial projections suggest that there is enough oil within these few Alaskan acres to dramatically reduce our dependence on foreign oil from these countries and thus reduce our high gasoline prices. According to a recent article in Environment and Energy Daily, ANWR production could result in 1.9 million barrels a day for the U.S. According to the Department of Energy, we import .79 million barrels of oil per day from Iraq, 1.6 from Saudi Arabia, 1.5 from Venezuela, and .885 from Nigeria. Isn't opening ANWR to oil exploration worth it if we could replace the oil we get from even one of these countries, which are either politically unstable or at the very least located in unstable regions?

Combined with new technologies that will extract the oil with minimal impact on the environment, I believe this measure is an important step towards making America energy-secure. I believe we have a responsibility to see that we develop this important resource.

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[The prepared statement of Mr. Gibbons follows:]

**Statement of The Honorable Jim Gibbons, a Representative in Congress  
from the State of Nevada**

Thank you Mr. Chairman for the opportunity to speak on this critical issue before us today.

There has never been a more pressing time for the United States to become self-reliant on oil.

As the time draws closer to a potential war in Iraq, it is absolutely imperative to develop our own natural resources and wing ourselves from the oil of the Middle East.

While we continue to increase funding for renewables, such as geothermal, we have to face reality that today—America still relies on coal, gas and oil.

We cannot afford to let OPEC continue to manipulate production levels and prices.

However, our friends on the other side of the aisle will tell you a different story.

They believe that we should not do anything to lessen our dependence on foreign oil and they hide behind an emotional environmental argument that has absolutely no scientific basis.

For example, the caribou herd in and near Prudhoe Bay's oil field is five times larger than when development began.

All wildlife species are healthy and there are no endangered species. Furthermore, wildlife and habitats will be protected under the world's strictest environmental laws.

But honestly, let's keep this in perspective. We are talking about creating roads of ICE which melt in the spring. The entire affected area is only 1/5th the size of Dulles Airport in an area equal to the size of the state of South Carolina!

It is absolutely mind boggling and simply outrageous that Democrats think that it is more important to keep a minuscule parcel of land free from oil drilling than to become less dependent on imported oil from countries controlled by radical fundamentalist.

I am absolutely confused as to why this issue is even controversial. The reasons for exploration are compelling. The science and technology are extremely sophisticated. Environmental impacts are minimal. Most importantly, we have an obligation to the American people to ensure that they are able to maintain the quality of life that we all enjoy.

Thank you Mr. Chairman and I reserve the balance of my time.

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[The prepared statement of Mr. Pallone follows:]

**Statement of The Honorable Frank Pallone, Jr., a Representative in  
Congress from the State of New Jersey**

Thank you. Mr. Chairman, I oppose H.R. 39 and strongly believe that this Administration's effort to authorize oil and gas development in 1.5 million acres of the coastal plain area of the Arctic National Wildlife Refuge is wrong. Oil and gas development in this environmentally sensitive and pristine wilderness area will have only negative long-term consequences. Any short-term gains in oil production will be just that, short-term gains, and when the resource is exhausted we will be required to consider yet another sensitive area for oil and gas production. What will this Administration want us to authorize next—drilling leases in our beautiful Yellowstone National Park? (I probably shouldn't give them any ideas.) Authorizing oil and gas exploration in the Refuge merely perpetuates the strangle hold that the oil industry has on our country's energy use and production—it does nothing to reduce dependence on fossil fuels.

Last week, the National Academy of Sciences released a report titled, the "Effects of Oil and Gas Development Are Accumulating on Northern Alaska's Environment and Native Cultures." I was very concerned by a number of findings in the report, including an item that notes that the oil and gas industry has not set aside any funds to dismantle the \$50 billion worth of infrastructure in the North Slope, nor has the industry taken any steps or made any plans to restore the affected tundra—the cost of which could be in the billions of dollars. There is no evidence to suggest that the industry will operate any differently in the Refuge as it has in the North Slope should Congress authorize oil and gas development, and this will result in our country losing yet another piece of pristine wilderness.

The impacts of oil and gas development on this natural ecosystem cannot be understated. More than 100 species of wildlife rely on the coastal plain for habitat and survival. It is a calving ground for the Porcupine caribou herd, an important land denning habitat for polar bears in the Alaskan Arctic, and it provides critical habitat for wolves, grizzly bears, muskoxen, arctic foxes and a vast array of other species including birds. We have witnessed the environmental consequences of oil crises—such as the Exxon Valdez and the Prestige just this past fall. Drilling poses an inherently detrimental risk to every bit of nature that surrounds it. It is estimated that 400 spills occur from oil related activity in Alaska and from 1996 to 1999 over 1.3 million gallons were released from faulty spill prevention systems, sloppy practices and inadequate oversight and enforcement. Clearly, the risks to wildlife increase with increased development.

Finally, I would like to note that drilling in the Arctic Refuge will not reduce our reliance on foreign oil as proponents claim. More practical and long-term policies, such as returning our automobile fleets to the average fuel efficiency levels we had in the late 1980's will save far more oil than will ever be produced from the Arctic Refuge. This country needs to implement policies that provide for alternative transportation opportunities and better mass transit infrastructure, as well as efficiency and conservation efforts that reduce our dependence on fossil fuels. Until we do so, this country will never be free from its reliance on imported foreign oil.

This issue is a simple one. The Arctic National Wildlife Refuge is a wildlife refuge—an area that must remain protected from danger or distress. There is no question in my mind that allowing oil and gas exploration in this pristine wilderness is wrong.

Thank you and I look forward to hearing the testimony from our witnesses.

NOTE: The report submitted for the record entitled “Potential Oil Production from the Coastal Plain of the Arctic National Wildlife Refuge: Updated Assessment” has been retained in the Committee’s official files. The report can be viewed at the following web sites:

[http://www.eia.doe.gov/pub/oil\\_gas/petroleum/analysis\\_publications/arctic\\_national\\_wildlife\\_refuge/html/anwr101.html](http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/arctic_national_wildlife_refuge/html/anwr101.html) and  
[http://www.eia.doe.gov/pub/oil\\_gas/petroleum/analysis\\_publications/arctic\\_national\\_wildlife\\_refuge/pdf/anwr101.pdf](http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/arctic_national_wildlife_refuge/pdf/anwr101.pdf).

[Ms. Clark’s response to questions submitted for the record follows:]

NATIONAL WILDLIFE FEDERATION

MARCH 25, 2003

The Honorable Richard Pombo  
 Chairman  
 House Resources Committee  
 1324 Longworth House Office Building  
 Washington, DC 20515-3554

RE: Follow-up Questions for Jamie Clark, National Wildlife Federation

Dear Chairman Pombo:

Thank you once again for the opportunity to testify before the House Resources Committee. Following are my answers to the written questions that you asked I provide for the record:

*1. Are you aware that you misstated a key conclusion of the 1987 report with respect to potential impacts of oil development on the Porcupine caribou herd?*

I respectfully disagree that any misstatement was made. As you know, I am a scientist by training. In my view, the Reagan Administration’s 1987 Legislative Environmental Impact Statement (LEIS) concludes that the kind of development proposed and anticipated in HR 39 would have a major impact on the Porcupine Caribou herd. You’ll note that in the “Summary of Unavoidable Impacts” (p. 144), the LEIS projects “Reduced use by caribou of up to 37% (303,000 acres) of concentrated calving areas.” Elsewhere, the report predicts that “a change in distribution of the PCH could reasonably be expected.” (p. 124). In its “Summary of Effects” chart (p. 166), the LEIS concludes that the Porcupine Caribou herd would suffer a “major” impact if full leasing of the Arctic Refuge coastal plain were authorized. Furthermore, the report states “effects on caribou from oil-field development, production, transportation, and rehabilitation would result from direct habitat modification, displacement, obstructions to movements...” (p.118). It also states “oil and gas development would result in long-term changes in the wilderness environment, wildlife habitats, and Native community activities currently existing, resulting in an area governed by industrial activities.” (p.165).

The caribou science is presented even more clearly in the 1986 draft LEIS, which was reported to have been watered down by political appointees at the Interior Department (see National Geographic, December 1988, p.862). For example, the draft report found that “Disturbance would occur from the presence and activities of up to 6,000 people, hundreds of vehicles, and major construction and production activities scattered throughout the 1002 area, including sensitive caribou calving areas.”

It was based on these and other scientific conclusions that I founded my statement that the 1987 report concluded “oil development would have a major impact on the Porcupine caribou herd...”

Finally, I would note that the Department of Interior’s work since 1987, including work done during my tenure as director of the U.S Fish and Wildlife Service, supports the veracity of my testimony. As the U.S. Geological Survey determined just

last year, full leasing would result in displacement of caribou calving. Calf survival would decline by 8.2% (p. 31, emphasis added).

2. *Will the National Wildlife Federation immediately correct this or similar factual misstatements that may be contained in any and all literature, commercials, and other messages sponsored by the National Wildlife Federation?*

We respectfully disagree that there are factual misstatements regarding caribou in our materials. In fact, the sections on caribou in the literature you refer to were written by Ken Whitten, who served as the chief biologist for the Porcupine Caribou herd during much of his 24 year career with Alaska's Department of Fish and Game.

SINCERELY,

JAMIE RAPPAPORT CLARK

SENIOR VICE PRESIDENT CONSERVATION PROGRAMS

