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GENERAL

MEMORANDUM

DEPARTMENT OF LAND RESOURCES - Division of Land and Water Management

State of Alaska

Ken

TO: Esther C. Wunnicke
Commissioner

DATE December 11, 1985

FILE NO 9105

TELEPHONE NO 762-4346

FROM: Gary Gustafson, Chief
Land Management

SUBJECT Chappell Story

Overview

X As you know, Ronnie Chappell, Kenai-area reporter for the Daily-News, will soon assert in his newspaper that the state allowed Cook Inlet Region, Inc. (CIRI) to receive title to valuable state and federal land near Kenai, including areas within and adjacent to producing gas fields, as a result of various implementation aspects of the 1976 Cook Inlet Land Trade. He will also maintain that these conveyances occurred even though the state and CIRI previously assured the legislature that the trade would not reduce the state's oil and gas royalty revenue and that these land transfers were unnecessary under the terms of the trade. The complexity of the subject and the seriousness of his allegations will likely result in the Daily-News running the story as a prominent daily sequence over the course of a week during late December (probably beginning around December 20th).

I have been visited by Mr. Chappell five or six times over the last month and have had several additional phone conversations with him. Mr. Chappell has been working on this story almost full time the past month and has interviewed numerous affected persons, including Bob LeResche, Guy Martin, Michael C. T. Smith, Chip Dennerlein, Tom [unclear], Roy Huhndorf, George Kriste and Bill Van Dyke.

As I understand the situation, all related decisions occurred during 1978-1980 under the tenure of prior state administrations. Nonetheless, I believe the public and legislature will still look to the department for a prompt explanation, as well as assurances that the situation could not happen again.

Therefore, in order to facilitate a consistent departmental understanding of this rather complex matter, I have assembled a summary of the pertinent aspects of the Cook Inlet Land Trade which I believe will be tied to the substance of the Chappell story. In addition, I conclude with suggestions for dealing with the situation, including steps to insure that this type of occurrence will not be repeated.

At the onset, it needs to be recognized that CIRI obtained some of its subsurface interests in the Kenai area entirely independent of any state action or interface. By virtue of Section 11(a)(2) of ANCSA, the Village of Salamatof was able to obtain title to the surface estate to certain state land, with CIRI obtaining the subsurface estate. In addition, CIRI also received land within the old Kenai National Moose Range as a result of direct federal conveyances required by the Cook Inlet Land Trade.

The state and federal subsurface conveyances to CIRI, soon to be referenced by Chappell, occurred in accord with three separate implementation aspects of the 1976 Cook Inlet Land Trade. First, approximately 72,000 acres of state land were nominated for transfer to CIRI in 1978 as part of the state's conveyance obligation from the Kenai Pool. This conveyance included numerous state oil and gas leases near Kenai, including one producing lease (ADL 22330). Second, a May 7, 1979 Memorandum of Understanding provided that the state convey CIRI specific subsurface lands near Kenai in the Cannery Loop unit. Third, several 1979 and 1980 nominations to CIRI's in-region selection pool resulted in CIRI's receipt of federal subsurface lands within and adjacent to the Kenai unit. The significance of receiving title to land adjacent to a producing unit is discussed later in the section of this memorandum dealing with ANCSA Section 14(g).

Terms and Conditions

The August 31, 1976 Cook Inlet Land Trade, formally entitled "Terms and Conditions for Land Consolidation and Management in the Cook Inlet Area" (Terms and Conditions), provided a mechanism for CIRI to obtain land otherwise unavailable in region due to prior competing land claims and conveyances (mostly state). The document was signed by the Secretary of Interior, CIRI and the state, ratified by the Alaska State Legislature, and served to settle litigation between CIRI and the U.S.

Among other things, the Terms and Conditions provided that CIRI would receive title to some 475,000 acres of state land from within several land pools (Kenai, Kashwitna, Knik-Willow, Chickaloon, Pt. McKenzie and Beluga). In addition, an in-region land pool was established for CIRI to receive future federal property dispositions, subject to state review and concurrence.

Mike Smith, then Deputy Commissioner of the department (and defacto Director of the Division of Lands) was the state's principal Terms and Conditions negotiator. Other department employees played minor support roles. When Smith left state employment in the spring of 1979, the department no longer had the benefit of a direct historical perspective for implementation purposes and instead became reliant upon second-hand opinions and a somewhat disorganized and incomplete historical file. CIRI, on the other hand, still employs many of the original players and also maintains a very accurate and complete historical file and land record system.

My research into our records shows that the state and CIRI took pains in 1976 to explain to the legislature that CIRI would not receive any producing oil and gas lands from the state, nor would state royalty receipts be affected adversely by the trade. I have copies of testimony by both Mike Smith and Roy Huhndorf (President, CIRI) in which they assured various legislative committees that the state would not convey to CIRI any producing oil or gas lands as part of the trade. In addition, my recent discussions with Mike Smith have confirmed that it was the state's intent at the time to retain all oil and gas land with potential or known value.

Kenai Pool

The Kenai Pool state conveyance obligation to CIRI is specifically outlined in Appendix C (I.A.5.) of the Terms and Conditions. It requires the state to convey 115,200 acres on the Kenai Peninsula to the U.S. (for reconveyance to CIRI). The specific location of this acreage is to be determined to the maximum extent possible by mutual agreement. If CIRI and the state can not agree on all land, there is established a mechanism by which the state will identify an array of state land equal to 1.5 times the amount in disagreement, from which CIRI will choose its remaining entitlement. As best as I can determine, there has been no subsequent disagreement over lands among the parties. Therefore, state conveyances to the U.S. have proceeded unabated with only about 3,750 acres from the Kenai Pool remaining to be conveyed. Incidentally, the Terms and Conditions specifically required in Appendix C that the state convey all land title and interests, including minerals, to the U.S. for reconveyance to CIRI.

On October 9, 1978 the department nominated some 72,000 state acres for conveyance to CIRI in partial fulfillment of the Kenai Pool obligation. This acreage included all or part of approximately 58 state oil and gas leases, of which approximately 48 were eventually conveyed. Included within these lease tracts was one producing state oil and gas lease (ADL 22330). This producing lease was then conveyed to CIRI even though all affected state agencies had the prior opportunity to review and comment on the nominations and no objections were raised.

May 7, 1979 Memorandum of Understanding

On May 7, 1979, the state, CIRI, Seldovia Native Association, Inc. and the Kenai Peninsula Borough entered into a Memorandum of Understanding (MOU) which, among many other things, identified specific state lands (subsurface estate only and surface estate only) near Kenai to be conveyed to CIRI as part of the Kenai Pool state conveyance obligation. Specifically, in return for CIRI's relinquishment, or conveyance to the state, of approximately 9,320 acres of ANCSA 14(f) subsurface entitlement in Kachemak Bay State Park, the state agreed to convey CIRI 9,398 acres of surface estate and 7,933 acres of subsurface estate identified in Appendix E to the MOU. The subsurface estate thus obligated to CIRI is located near Kenai and included 593 acres (100 percent) of a producing state oil and gas lease within the Kenai unit (ADL-00460). In fact, the MOU resulted, or will result, in CIRI's eventual acquisition of approximately 75 percent of the entire Cannery Loop unit. Approximately 2,680 acres of the subsurface estate, including 940 acres subject to federal oil and gas leases, has not yet been conveyed to CIRI, because the state only recently received title to these lands. A portion of these lands were also erroneously conveyed to the state by the BLM. The significance of this will be discussed later in this memorandum.

The MOU (also known as Kachemak I), was principally negotiated on the state side by Chip Dennerlein, then Special Assistant to Commissioner LeResche.

Our records are inconclusive as to the extent that Denerlein involved other departmental agencies in the prior review of the MOU and Appendix E lands.

However, there is a May 4, 1979 memo in the file from Bill Van Dyke, Petroleum Engineer, Division of Minerals and Energy Management (DMEM) to Bill Beaty, Division of Research and Development (DRD). This memo is significant for several reasons. First, it assigned a range of potential oil and gas worth to the MOU Appendix E subsurface lands of between \$50,000,000 and \$120,000,000 (with \$85,000,000 as the most likely value). It also recognized that the Appendix E lands were located in very high oil and gas potential areas, with a well being drilled on one tract and another being spudded on a different tract (Chappell, who lived in Kenai at the time, will report that a Union 76 exploratory well had already hit gas during mid-April, 1979). Finally, it is very unusual that the DMEM memo response was dated May 4, 1979, when in fact, Commissioner LeResche had already signed the MOU on behalf of the state on May 1, 1979 (the last signatory occurred May 7, 1979). At the very least, this timing suggests that the department's negotiation arm was not adequately coordinated with its mineral evaluation arm.

In-Region Pool

In addition to the Kenai Pool, the Terms and Conditions document included, among other things, a mechanism for CIRI to receive another 138,240 acres from several categories of federal land (Section I.C.2.(a)). These federal land nominations are known collectively as the "in-region pool." One such category as outlined in Section I.C.2.(a)(vi) includes "any other federal lands as agreed by the state, CIRI and the Secretary (of Interior), including but not limited to lands withdrawn under Section 17(d)(1) of ANCSA and not withdrawn for any other purpose." Under Section I.C.2.(a)(vi), the state has unlimited veto authority (should we choose to exercise it) over the inclusion of the 17(d)(1) lands in the CIRI pool.

On November 7, 1979, November 30, 1979, and March 27, 1980, the BLM notified the state that certain 17(d)(1) lands near Kenai were being considered for inclusion in the CIRI in-region selection pool. These nominations included several tracts within or adjacent to the Kenai gas field, including areas subject to federal oil and gas leases. Subsequent to the receipt of these nomination notices, Bill Beaty sent out agency notices specifically asking for state agency review and written response expressing concurrence or objection to the proposed BLM action. In response to these notices, our files reveal only one memorandum from DMEM dealing with subsurface resources. On December 27, 1979, Jerry Kreitner and Bob Sanders of DMEM wrote Bill Beaty to comment upon the nomination of two tracts of federal land within one of the (d)(1) CIRI pool nominations. The tract under review, in Section 28 of T5N, R14W, S.M. was located within the Kenai gas field. Although the DMEM memo reflected this circumstance, DMEM did not recommend that the state object to the nomination. Therefore, based upon this and other agency input (none of which included objection

recommendations), Amos Matthews, Director of DRD, wrote BLM on January 29th to support CIRI's selection of this land. In this manner CIRI received title to 160 acres of subsurface estate within the Kenai unit.

CIRI similarly acquired several other subsurface tracts in or near the Kenai unit as a result of these in-region pool nominations even though the department reviewed and commented on all of them. For instance, on July 1, 1980, Alan Carson, Acting Deputy-Director of DRD, wrote the BLM objecting to the placement of certain nominated 17(d)(1) federal lands within the CIRI pool, due to overriding public ownership considerations. However, other lands in the same notice, including areas subject to federal oil and gas leases, were not objected to, and were thus allowed by the state to enter the pool and were subsequently conveyed to CIRI.

Approximately 43 percent of CIRI's existing royalty income from the Kenai unit was obtained with state concurrence via the (d)(1) land in-region pool mechanism. As far as I can tell, the state did not object to a single nomination based solely or in part upon subsurface values or interests. The resultant effect was the loss of the state's 90 percent royalty share from federal oil and gas lease revenue on these lands. I have not, however, had an opportunity to determine the extent of this lost revenue.

ANCSA Section 14(g)

I believe another contributing factor to account for CIRI's receipt of valuable state and federal oil and gas interests was a fundamental lack of understanding by state officials of Section 14(g) of ANCSA during implementation of the Terms and Conditions.

Section 14(g) provides that in the event a patent to an ANCSA corporation does not cover all of the land embraced by a lease, the corporation is entitled to a proportionate amount of revenue from such lease. This is determined by multiplying the total of such revenue by a fraction in which the numerator is the total acreage of such lease included in the patent and the denominator is the total acreage contained in the lease. CIRI's share of a federal lease royalty is thus based upon the proportionate amount of acreage owned by CIRI within a particular lease. BLM does not segregate that portion of a federal lease tract which may lie outside a unit boundary. In other words, CIRI can obtain a royalty share of a producing unit merely by obtaining ownership to a portion of a lease participating in a unit agreement, even if the portion acquired lies outside the unit area. The resultant CIRI royalty share is then based upon the acreage of the portion of the jointly owned leasehold within the unit area, whether or not the lease owned all or in part by CIRI is producing.

For example, if CIRI owns one-half the acreage of a federal leasehold outside a producing unit and the other one-half of the leasehold is federally owned and in the unit, CIRI will receive about 12.5 percent royalty from the unit - even though CIRI does not actually own any land in the unit. In addition, the state would lose that portion of its 90 percent share of royalties from the federal land.

The effect of 14(g) is considerable and should have been carefully considered by the state prior to agreeing to convey CIRI parts of existing leaseholds, or allowing the U.S. to convey such land to CIRI, even if the area obtained by CIRI located was outside unit boundaries.

This subject was also recently addressed by Tom Meacham (former Assistant Attorney General) in a November 6, 1985 letter to Martin Richard of the Department of Revenue. Meacham asserts the position that the state's 90 percent royalty share from federal leases should be maintained under 14(g) as a third party interest, regardless of the land conveyance. Under the Meacham approach, the state would retain its 90 percent royalty interest until such time as the lease expires. On the other hand, my reading of the Mineral Leasing Act (the basis for the state's 90 percent royalty share) leads me to believe that the state only benefits if the royalty accrues from public land, not land transferred to an ANCSA corporation.

Summary

In my review I found no evidence to verify any allegation of impropriety by state officials. However, Chappell's research has identified a series of actions which collectively suggest that during implementation of the Terms and Conditions in 1978-1980, state officials either were unaware that the legislature did not intend for CIRI to receive oil and gas resources and revenue at the expense of the state and/or did not comprehend the effect that Section 14(g) of ANCSA would have upon the state's royalty income.

It is also evident that state officials were not sufficiently coordinated during their review of several proposed state and federal land conveyances to CIRI, particularly with respect to mineral valuation responsibilities and input. It is essential that all available resource information (particularly with regard to the subsurface) be available to land negotiators prior to making an informed final decision on a land conveyance. It is equally important that land negotiators comprehend all pertinent laws, statutes and other authorities which may have a bearing on their actions.

Finally, it is unfortunate that state files pertaining to the Terms and Conditions contain no comprehensive implementation guide for use by state officials. This circumstance undoubtedly helped set the stage for subsequent state failures to prohibit certain land conveyances to CIRI or to object to other federal conveyances.

Although the institutional memory problem (above) is not easily overcome, I believe the department is today much better prepared to deal with the situation. For instance, procedures are now in place to guide the state review and comment of CIRI pool nominations. These procedures require that state title reports be immediately prepared and used as a basis for decision making. The title reports, prepared by the Division of Technical Services (DTS), describe in detail the current ownership status of the subject land and clearly identify all affected third-party interests (such

as oil and gas leases). The procedures also include agency notice and a 45 day agency review followed by written comments. In addition, the rules by which the state must operate in response to the CIRI pool nomination are precisely outlined in the procedures.

Accordingly, the state's decision to concur or object to a particular CIRI pool nomination is thus now based upon full knowledge of all applicable rules, third-party interests and resource values.

Recommendations

I believe there are several steps which the department should timely employ to both clarify the legal aspects of the situation and to insure that the remaining implementation aspects of the Terms and Conditions are properly administrated and coordinated.

First, with regard to previous state implementation actions, I recommend that the Attorney General's Office informally examine the following subjects to ascertain whether there may be grounds for future legal action.

1. Delegation of Authority - Chapter 19, SLA 1976 specifically authorized the governor to undertake the Cook Inlet Land Exchange. However, there is no evidence that the governor ever delegated this authority to the commissioner. In addition, various past state subsurface title transfers to CIRI and the U.S. may have lacked proper delegation authority within the department. Although this subject was previously examined by Tom Meacham in a November 26, 1980 Attorney General's Opinion (A66-180-81) in which he concluded there were no delegation problems, the authority for these state conveyances should be reexamined.
2. Legislative Intent - During the 1976 legislative review of the Terms and Conditions, state and CIRI officials specifically assured the legislature that no state royalty revenue interests would be lost as a result of the trade. If the legislature then subsequently approved the trade on this basis and royalty revenues were then lost (whether or not intentional), what effect could such action have upon implementation of the Terms and Conditions?
3. Erroneous Federal Conveyances - Under Section 6(h) of the Alaska Statehood Act, where all of the land subject to a mineral lease, permit, license or contract is selected and patented to the state, the patented interest is granted to the state subject to the interest and the state assumes administration. However, if only a portion of the land within a mineral lease (etc.) is selected and patented, then the minerals subject to such lease must be reserved to the U.S. for the duration of the lease.

In 1982 the state received patent from the U.S. to 5,623 acres near

Kenai, including land the state was bound by the May 7, 1979 MOU to reconvey to CIRI. However, the U.S. failed to reserve the mineral interests to these patented lands even though the conveyance contained numerous partial lease tracts. Therefore, on March 21, 1985, the BLM recognized its mistake and requested that the state reconvey the mineral interests in these erroneously conveyed lands. The federal reconveyance request encompasses approximately 165 acres the state is obligated to convey to CIRI as outlined in Appendix E of the May 7, 1979 MOU. The 165 acres incorporate parts of two active federal oil and gas leases (A-028103, AA-19230) within the Kenai and Cannery Loop Unit agreements.

Given this situation, I believe the state should legally examine the BLM reconveyance request against our remaining conveyance obligation to CIRI. In order to protect any existing or potential federal lease royalty payments accrued or due the state, it seems preferable to return the mineral interests to the U.S. prior to any conveyance to CIRI. This might be accomplished either through title correction or via a reconveyance of the mineral estate.

Second, I also recommend that the department immediately request a formal Attorney General's Opinion to determine the effect of Section 14(g) of ANCSA on the state's 90 percent royalty interest from federal oil and gas leases where the land containing such leases is conveyed to an ANCSA corporation.

With regard to the remaining in-region nominations to the CIRI selection pool, I further advocate the following:

1. Adoption of department order - The department's existing procedures for the review and comment of BLM nominations to CIRI's in-region selection pool (as previously explained) should be adopted as a department order. This order would incorporate our existing review procedures, including title reports (of land and mineral estates), interagency notice, review and comment (including the Division of Oil and Gas) and clear explanations of the state's ability to object to pool nominations. Also included in the department order should be explanations of legislative intent of the Terms and Conditions as well as Section 14(g) of ANCSA.
2. Audit of Terms and Conditions Compliance - Although the state has systematically proceeded to implement relevant aspects of the Terms and Conditions, I know of no comprehensive audit of state compliance. The Division of Technical Services should be asked to compile a summary report of specific state conveyances to date as well as outstanding state land conveyance responsibilities. This is particularly important as the state's obligations near completion.

Distribution

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Recommendations: It is evident that the cost of power from a hydroplant constructed with local labor is less than the current cost of diesel generation. It is further evident that the system will be easy to build, operate and maintain. From these basic facts flow the following recommendations.

One of the hydro plants should be built. The most cost effective plant is the 335 Kw capacity with 15" PVC and 12 " filament wound plastic pipe in the higher pressure sections. The second and largest practical sized plant is the 420 Kw capacity with 18" PVC pipe in the low pressure section and 16" steel pipe in the higher pressure section. If the money is available, it is recommended that the larger plant be constructed. The reason is that it makes the fullest use of the resources, and if a future requirement for more capacity occurs, it would be very costly and difficult to add to the smaller installation.

There is a question on the land status of the project. It is understood the Federal Government may be negotiating a land trade with the Koniag Corporation for the land on which the project would be sited. If an agreement is reached, use of this site may be gone forever, or may have difficult restrictions which will create increased costs, thereby, making the system uneconomical. It should be remembered, as the project is currently visualized, the people of Larsen Bay will pay for any increased costs. Therefore, it is recommended that the land status be clarified and that action be taken to reserve the needed project land free from Federal interference.

It is evident that construction with local labor and wages, on a force account basis, is about one half the price of contract work. It is also a known fact that high wages create the incentive to import labor which takes the local residents out of the market. Further, the money that the plant costs will be paid back by the community; therefore, the community should receive any benefits that may accrue from local employment. For these reasons it is recommended that this project proceed on a force account basis.

The lower the interest rate and the longer the payoff period the less expensive the annual cost of power will be. Therefore, it is recommended that the state continue to explore the possibility of getting low interest money with tax free bonds.

Questions for Interior:

Secrecy

The biggest issue is secrecy. Why won't Interior take this out in the open? And what are the political repercussions of dealing away 1002 lands (targeted by Congress for Wilderness study) behind closed doors?

The secrecy requires us to have blind faith in Interior's objectivity. It is also offensive as a preemption of public and Congressional prerogative.

The history of secret land trades is not great. The ASRC and CIRI trades affected big chunks of actual and potential state revenue.

How about this? The State, ANCSA corporations, and feds go to Congress to approve the opening of ANWR and to allow an open, competitive exchange process for ANWR lands that also protects at least 50% of the state's expected entitlement under existing law.

Lands

How much, which part of coastal plain is being considered for exchange?

What is the oil and gas potential of the land that will/might be offered? What information is available to the different participants and the public about the geology of affected lands? Which structures may be included? Will this amount to high-grading of the best lands in ANWR?

Can Interior characterize the possible revenue impacts to the state and federal governments of the proposed exchanges under existing law?

Are lands claimed by the State (navigability) being traded away?

Process

What is the schedule for the exchange process?

Why is it secret? Wouldn't the Department of Interior reassure the public and gain more value by conducting the process in open competition?

Does Interior believe that all parties now at the table are willing participants who support the exchange concept?

When will participants and the public learn about trade terms (contracts, stipulations, tract selection procedures)? Will the participants have to sign off on these terms before knowing which tracts they will receive?

National Park lands

Why aren't National Park lands included? The State has been harassed by NPS for years to trade out inholdings in Denali and Wrangells-St. Elias.

Are there poor relations between NPS and the Assistant Secretary (for instance, recent national press on Horn's reorganization plan for NPS)?

Shouldn't Interior's focus be on national interests in conservation, rather than on Refuge System interests?

Contract terms

What has Interior done in response to the State concerns as described in December and January? (nature of the subsurface interest, acknowledgment of state oil and gas and land exchange laws, usurpation of state jurisdiction and authority, regional director authority to approve units, water rights and groundwater, subsistence easements)

What provisions for disputed acreage (navigability)?

Is Interior still redrafting the contract? Are comments still coming in? Could the Legislature have copies of the current and new drafts as they are prepared?

Will the contracts require local hire? (This is constitutionally "more" permissible for lease sale-type situations than it would be in the legislation opening ANWR.)

Reverter clauses? Why? At what cost? Does rescission affect appraised value? Doesn't rescission undermine the touted possibility of environmental support for some trades?

Is Interior considering planning to include overriding revenue retention for the State? Include royalties,

rents, and bonuses? How much? Out of the appraised value of the federal lands or the trade lands (i.e., who pays the State?)

Are the contracts subject to NEPA? Endangered Species Act? Will the Congressional approval have to waive these usual public protections?

How will the contracts treat 7(i)? Do the affected Regional corporations believe that surface for subsurface circumvents 7(i)? Does Interior concur?

How will drainage among landowners be treated?

Will these contracts be executed under ANILCA Sec. 1301, which allows administrative land exchanges?

Are the stipulations available yet? Do they affect values? Are the state's concerns considered?

Tract selection

When will tracts be identified? Is tract selection still scheduled for March 24?

Are the stipulations different on each tract?

What access rights will exist across the tracts for other tractholders and the public?

What is the conflict resolution process, and does it still allow broad measures of Secretarial discretion in choosing final recipients? Will this process be written down? Is it arbitrary?

When will the tract selection map be available to participants, and the public?

Appraisals

How does USFWS determine public interest values? Are these values public? Will they be?

When will the Assistant Secretary make his decisions on approving the appraisals? Will there be an appeal process for disaffected participants?

How is subsurface resource potential determined?

Is there an inherent bias toward the valuation of ANCSA lands? How can the public and state be assured that all the lands are appraised objectively and equally?

State of Alaska involvement

What does Interior think is the State's position on the proposed exchanges and exchange process? Has the State endorsed the trades in any way? Is the State an interested participant that Interior believes wishes/hopes to participate?

Are state concerns about the draft agreement, tract selection, and stipulations being adequately addressed?

Why is the State keeping everything confidential? Does the State have a formal legal agreement to keep things secret?

Questions for the State:

What is the State's policy on trades?

Now that CIRI and Koniag have each provided more info on the trades, can the State express a position as the Governor indicated would happen (at his press conference)?

Are state interests protected in the contract, the tract selection process, and the stipulations?

Is the state considered by Interior to be a participant in these trades, endorsing the process?

Has a state geologist sat down and figured out what structures and high-potential lands could be lost in the trade? Do we have good oil and gas attorneys reviewing these contracts, etc., for protection of our basic interests? Has the process been too fast to allow these basic steps?

Have revenue scenarios been figured out so that we can characterize the general impacts of these trades?

Does the State support reverter clauses? think that the exchange needs public review before being completed and going to Congress? want 7(i) revenue-sharing on ANCSA trade lands? accept the idea of any trades that do not preserve at least a 50% share of what the state would receive under existing law? want local hire provisions in the exchange contracts? feel safe about access across traded tracts, for state-owned submerged lands and otherwise?

What state lands are on the table?

What is the risk of losing our current 90% entitlement on some lands and getting nothing back on highly prospective lands?

What problems still exist from the state's perspective in the contract etc.?

ANWR, a WIN-WIN or a NO-GO

The current frenzy of activity in Alaskan political and industrial circles concerning the development of ANWR is driven by the fact that the issue will soon be before Congress. Government and industry have turned to the Arctic National Wildlife Refuge as the best hope of boosting Alaska's present economy and replacing Prudhoe Bay revenues as that field declines in the future. We continually hear that the subsurface beneath the coastal plain of ANWR holds the promise of "another Prudhoe Bay". In the minds of many, ANWR has already become the savior of the State. We are exhorted to clear all obstacles to development. Before we give our all for the cause, however, we may want to give some hard thought to just what deal we want to move. What are the State's interests in ANWR? In designing our State's position it might help to reflect that this will not be the first time the U.S. Congress has wrestled with the fate of the Arctic National Wildlife Refuge. Though certainly not with finality, Congress has spoken rather directly about ANWR in the past. As part of the Alaska National Interest Lands Conservation Act, Congress proclaimed several outstanding values of the area. Congress recognized ANWR (including the coastal plain) as one of the wildlife and natural wonders of America and the world. Congress also recognized the potential for enormous energy reserves of significance to the Nation. Seeing the conflict in these diverse superlatives, Congress chose a course of further study and future consideration. Now Congress will decide whether ANWR's outstanding wildlife values and energy potential can be accommodated on the same piece of ground. Is there a "best of both worlds" ? Or must one win and the other lose? Ultimately, there may be a compromise. However, it will not be a compromise in the traditional sense. If ANWR is ever opened, guarantees of environmentally responsible development will not be sufficient. Stringent protective measures will certainly be required, but "mitigation" is often a code word for "something important has already been

lost, we just don't know how much". The balance sheet for any consideration of ANWR development must not only include environmental savings, it must include environmental gains. The price will be high, because the currency is rare. The Arctic National Wildlife Refuge is a natural resource which is not duplicated on this planet. The undisturbed wholeness of its Arctic fish and wildlife habitats is truly unique. The coastal plain is part of that whole. The Porcupine caribou are not the central Arctic caribou. The narrow coastal plain is very different from the vast central North Slope. The whole of ANWR is greater than the sum of the parts. Any impact to the coastal plain will be a division, not merely a subtraction from that whole. So to achieve balance, there must be gain, not merely a minimizing of loss. Fish and wildlife habitat which cannot be duplicated on the planet is stiff currency to trade in. It is not easy to find, but it does exist - and some of it exists in Alaska. Some of the finest riparian habitats (wetlands, lakes, river corridors) in the world are found in Alaska. Some of the best of these are owned by Native corporations. From the Yukon Flats to the Yukon-Kuskokwim Delta, and from Bristol Bay to Kodiak, salmon spawn and waterfowl nest on private property. In the long run these lands will neither be fully protected nor available for public use. Over the past year, several Native corporations which own or control some of these lands have been negotiating with the U.S. Department of Interior for subsurface rights in ANWR. Some of the "draft" agreements are all but finalized. Some have promise, while others contain provisions where the public takes the risks and the corporations take the gains. Land exchanges may not be the answer. Certainly, they are not the whole answer. However, they could provide one of the basis for balanced Congressional decision. They have tremendous implications for all Alaskans, and they need to be scrutinized openly - in Alaska as well as Washington. D.C. One thing is certain, if the subsurface of ANWR leaves federal ownership (through exchange) the amount of money Alaska can expect to make from any development of ANWR will be cut in half.

The State of Alaska receives about 25% of the gross value of production of the Prudhoe Bay field, including both royalties and severance taxes. Assuming a standard royalty and no change in the State's present severance tax structure, Alaska would receive approximately 22% of the value of oil and gas production within ANWR. This is based on existing law under which the State receives 90% of the bonuses and royalties generated by oil and gas development on federally owned uplands. If the subsurface of ANWR became privately owned, the state would receive none of the bonuses and royalties. The State would still receive severance taxes. Under this scenario, the State's share of overall value would drop from 22% to 10.7%. The value of Prudhoe Bay to the State of Alaska in fiscal year 1986 was \$3.2 billion. If ANWR is another Prudhoe Bay, a loss of half that amount would be a loss of 1.6 billion per year. That is more money than the State is projected to make this year from all oil and gas revenues combined. There might even be further reductions in the State's share if Congress decides that a portion of the remaining public revenues should be used to establish a trust fund for the acquisition of fish and wildlife habitat in Alaska or throughout the United States. Since ^{50%} 25% of Alaska's oil and gas revenues are deposited into the Permanent Fund, the economic implications directly affect each of us. The reality is that even if ANWR turns out to be another Prudhoe Bay for the oil industry, it's not going to be another Prudhoe Bay for all Alaskans. However, Governor Cowper recently stated that if Alaska approaches the ANWR debate solely from the perspective of our economic interests we are going to get nowhere fast. He pointed out that we must think in terms of the National perspective. He is absolutely right. That is not to say that State interests and National interests will always be at odds. The State may not be very interested in giving up billions of dollars in prospective revenues, but the State should be very interested in insuring that Alaskans have the chance to enjoy some of Alaska's finest outdoor opportunities. Public acquisition of certain rivers and wetlands can accomplish this. Thus far, the oil industry has taken the lead on ANWR development. As one might expect,

industry has focused on the value of the oil. Oil companies haven't talked about environmental gain, only about minimal impact. If Congress opts for development, the decision will presumably be made more for reasons on national security and energy independence than for oil company profits. The Nation might be just as secure leaving the ANWR oil in the ground for now. The Nation hasn't run out of oil. Alaska has run out of low cost, high gain oil. It is estimated that only 40% of the Prudhoe Bay field will be recovered through primary and secondary (primarily waterflood) techniques. A lot more oil could be brought out, but it will be high cost, low profit. However, strictly in terms of National security, the oil is there. What will be the National cost if the coastal plain of ANWR is developed? Congress has already defined the Arctic National Wildlife Refuge in dual superlatives. ^{Development} Proposals which are based on the theory that "it won't hurt much" are out of balance and doomed to fail. If there is to be a net gain for petroleum resources, there must be a net gain for fish and wildlife resources. If the State of Alaska is serious about ANWR this should be the foundation of its position. It's a tough assignment. Win-win strategies are not easily found. There may simply not be a "best of both worlds", but if there is we are going to find it on the coastal plain of the Arctic National Wildlife Refuge. Because without a win-win, ANWR is a no-go.

2/13 ANWR Imp. -

Sam intro - no comments in spec, just int'd in DOI stat
Bob Gilmore:

complicated subj.

beh. of DOI

pot'l exchanges of org int's

ANCSA / ANILCA -

amt of land - 13-15 m. acres to be est'd in Ak
Refuges under ANCSA

if Cong. dec. to open - ANCSA corps + state hr
prop'd to exchange for spec'ly described tracts in
ANWR

DOI / state / ANCSA disc'n for 18 mos.

USFWS has id'd ~5 m. ac. of historic holdings
1-2 m. acres may be avail in 12 of 16 Refuges

to date no det'n of tracts avail in ANWR
resp'y to make it happen is w/ USFWS Rgt Dir.

pub'g list - endangered species etc., at the end
see prot'n fr. degrad'n - (Organic Act?)

don't want subsfc. gen'ly

have a diff. time in any Refuge det'g subsfc
values

avoided 14(h)(1) sides

participants: NLG, Doym, Ak, State, Konig, OH
want to protect in perpetuity.

prot'n cont'd subs'c uses

early dev't

direct + indirect revs to state/corp'ns

make opening palatable to some

exchange amts: still being n'gd, final poss by
mid-March, poss'ly bef. Then.

cons. w/ 1002(h), value-for-value.

only org int's for a spec. period -

Title XI waiver

"Cons't w/ the lsg prop currently carried out by

adv'ys of
trades

The fed'l gov't
enig subs'c easements - cd embody / retain
subs'c rights in perpetuity

198

rescission/termin clauses "which are far too
compl'd for me to explain at this point"

antic. a fairly large lsg prog. after exchange,
DOI wd get any downhole info. coll'd by
exchange partic's.

210

wd stop - no, subs'c appl by BLM not yet
final - "needs to go through sev'l appvl
lvls at Dept of the Int. in Washington
- until then not avail for public rvw

timeframe - antic. "some fairly active mount"
in late Mar. on tract slkn - "The Natives
wd tell us what tracts they'd like to have
under the Arc Ref ~~and~~ and we in turn wd begin
to ml at that point"

Davidson - want copy of Dir's remx

Shultz - how BLM det'g value of land - Gilmore
seismic svys, 2k ac. tracts,

Shultz - subs'c - Gilmore - don't antic. any
curtailment exc. on ANWR dev't lands -

Shultz - other hunt'g + fish'g - Gilmore -
Natives wd like to, he. subs'c easement, if
subs'c act is repealed - Shultz - exc'g these

agmt wd feds

Sam - timeline / hrs Gilmore - I think we
hv an opp'g + a window btw Mar + June
- two-step proc - tract slkn at same
time agmts might not be signed until
June or July - we hv indic'd that we'd
like some kind of public rvw before June
or July - want to explain - Sam - all
these draft agmts - Gilmore yes, and if
the State has them you ought to Sam don't

have them + want them, can we get them from gov? Gilmore Yes you can, I'd really rather you get them from the State but I'll be glad to give them to you -

Sam - det'n of value on 1002, who has info - does BLM have KIC well data - Gilmore - no. Sam - so some other people hv better info than feds - Gilmore - info might or might not assist. -

Davidson - "heightened sense of urgency, indeed a stampede seems imminent but we do not hv contract' l lang. for this comon to exam as far as land exch's are conc'd, we do not hv. values on subsfc rights, what explains this sense of urgency, this sense to hurry along this issue?" Gilmore - "we're moving at the pace req'd by the Native corp'ns"

Sund: where at w/ State? Gilmore: state is in same place as other parks Sund: are Park int'dings under disc'n? Gilmore - "I can't answer that q'n. When the subj. came up it wd be terribly inappropriate for the Fish + Wildlife Service to begin to take on land exchanges w/in nat'l parks." When the State bought those, I sugg'd state call NPS Rgt Dir + ~~contact~~ I called him + told him if he was int'd to call "the same Asst Secy that I do, Bill Horn" + see if he's int'd"

Sund: is it poss., is this a 3-pa - reg'n - can exch. Park fr Ref? Gilmore - yes, The NPS "if they had chosen to get involved a year or so ago wd be at the table w/ all the rest of us"

Sund: is it too late? Gilmore: no but it's a long way down the road, we've given new prop's in the last month or two, but "I don't think it's too late"

408 →

Key: "does fed'l law req. comp'v bidding for disposal of oty rights on Ref. land?" Gilmore: "you're a little out of my bailiwick in regards to oty resp'g, but gen'lly anything that the gov't takes avail goes out to comp'v bidding" - Key: does the exchange prop'l fit? Gilmore: "well in this part, case the prop'ls don't fit, because it's an exchange of value - for - value - There is no bidding involved"

423

Key: effect is to dispose of valuable properties, pub. int. in comp'v bid - Gilmore: two answers 1) "I don't think we're disposing of it" - we are only some dollars under this - 2) 15-20% of surface acreage will be in the exchange - rem'r into lease sale - Key: - most promig parts of strux will be avail? Gilmore: "an awful ~~lot~~ lot of people who hope they can do that" but dep's on cap'g of the people to do it [KAW/AG]

0/0

438

Springer: imp'x of human degrad'n - Gilmore: 1002 + exch. diff't, 1002 ser OK to develop -

Springer: - baseline; Gilmore: - \$m/\$ yrs for base data, feel fairly confident; Springer: -

Sami: Murli - OKR - state's interest - now State e.dittlement is 90% - "fairness to the gen'l pop'n of Ak" - Gilmore: - "I've got to go back and study up what an overriding royalty is" ~~the~~ "the agents that we've worked out wd hv. to be comp'v redone" "in the event that some dollar amt wd. be taken away fr. the (ARCSA) proceeds or the future or fr. fm. land value... something that don't

the ability to make what they want to make the
 I suspect that we'd have to renege." Sam - procedy
 at pace sugg'd by ANCSA groups, need > consid'n -
 don't mind transfer as long as pub int. + Ak
 int. are prot'd - Gilmore - congress has to dec.
 to open; 90/10 at issue, cong'l disc'n is pertinent
 on NPRA - Sam - the Cr. will hv. more
 disc'n in fut. on 90/10, legal issues of
 statehood compact, hope to maintain ex'g
 rel'nship. Sund: priv ex'g right, state's rev/roy'g
 share - legal pos'n by DOI - state is stripped of
 its 90% priv ex'g right - Gilmore - don't know
 if can answer - cong. will decide - no Sol. Rvw
 yet - Sund: for est'g value it's a basic consid'n
 - how much will ANCSA corp'ns get - Gilmore -
 in exchange the recipient gets 100% of orig value -
Sund - if Congr. A's formula we might hv. to
 renege land trades - Sund: what ~~lands~~ lands
 in other Refuges - Gilmore sel'd/prioritized ^{for acq'n}
 criteria

→ | 539

Sam: hv it'd ANWR lands? Gilmore: No, no, no
 sir. Ev'g in the 1002 area is avail. for all
 ex'c KIC/ASRC lands - ANCSA corp'ns will
 decide Sund: do ANCSA corp'ns hv ~~to~~ BLM's
 subs'f data - Gilmore: raw data avail to all.
 interpret data is not avail.

Key: KIC well has a great effect, how can tell
 w/o the data - Gilmore: not avail? - ~~not avail~~

Key: how value-for-value then? Gilmore: don't
 hv access to it, the ANCSA corp'ns all have same
 data/info - K: that may or may not be true

Key: reverter Gilmore "I don't ind it'd it well enough
 to get into the details of it and if I did I
 would surely make a mess of it" will come back
 + explain when the document is finished up.

635

Kay - are you involved in the regio - who cd explain reverter clause? ~~Yes~~ Gilmore - yes, John Doebel cd explain it "but i'm not going to let him explain it until we fin ~~the~~ ~~negot~~ ~~complete~~ the agmt."

Kay: dry acreage cd revert back -

Gilmore: rescission - a fairly large, complex sxa in the agmt, very tech'l, I don't understand it, being done by a group of lawyers -

Kay: does this affect your value -

Gilmore: yes. protan of Amer. peoples int.

Shultz: state prop'g to take some land? Gilmore = for Refuge ~ 700-800k - "the state would like to be involved in the exchange, you are an active participant"

Sam: has state endorsed? Gilmore: I don't know the answer to that, "my impression fr. the sincy of the regio + the people involved in the regio is that the state is ^{prodding} an active, ~~involved~~ part'd partner in the exchange". TAP6 BREAK -

Shultz - what does state want Gilmore: same as other parties.

Navarre - is the state under any constraint not to r/s info to the Leg'r? Gilmore - don't know, none that I know of, "but I don't perceive to know what goes on in the DOJ even tho I'm the report here"

Sam: appreciate

Navarre: want Ark Leg'r involved Gilmore: glad to come back down - no intention to keep anyone short-sheeted but it's on such a diff. task -

Sund: how est. inholdings' value - Gilmore std gov't app'l process - not app'ing Refuge but inholdings.

Sund: want to have a look at it - Gilmore - std appol does not take into consid' the wildlife -

"highest + best use" - when trad'g into f+w in - ANILCA - public int' - economists are 100% in total govt

Sund: wh. value are you using? Gilmore hu was idd

very confused

std appl value - "any value over + above that will be det'd by neg'n betw. the Dept + The Native corp'n"

Shultz - is state asking for subsic? Gilmore - no - Shultz - if incid, an area traded it be shut down to allow only subsic. cd lead to shutdown genly restricted access Gilmore: not necly - goes both ways - hope won't hv to close anywhere anyway - are not going to close down + prev. access

Davidson: habitat ~~eval'n~~ eval'n - present value but talking about future value acc'g to possible hist/best we have compute heightened value on ANWR lands?

Gilmore - know precisely what ea. ~~parcel~~ parcel is worth - yes, parcel's fut. value is consid'd - present-value for ANWR lands acc'g to BLM geologists &c. Davidson: Kodiac land values \$150-600/ac. - Gilmore: \$8m. stmnt on public's case - \$600/ac. - can't find comparables - hv done Can/US. correl'ns -

Herrmann - pace reg'd by ANCSA corp'ns - conc'd re planning process = strong int. in inholders etc. everybody's int'd in a certain pace - hist + best use - yr. 7(i) opinion - Gilmore - Mvg at ANCSA corp'ns' pace bec. don't want land dev'd, we're quite comfy w/ the pace - not causing us a great deal of discomfort - 7(i) - Native corp'n saying "and I'm not getting in it" Sam BLM will mke a dec'n on ASRC/KIC - BLM makes dec'n Gilmore don't know, & BLM decides -

Shultz - map showing W. SE.

subsistence

present value

clarity

7(i)

→

2/13 Magie Sagerson

NLG - consortium of Native corporations
written testimony

CIRI - only req; 12 vlg - 13 altogether

all Yukon Delta NWR or Kenai NWR

will facilitate dev't → revenue stream

the prop's do meet best int's of the state

Sen. Murk - Native exchanges do prov. special consid'ns

for cong'l debate; env'l comm'g will see benefits

fr. opening ANWR; new const'y in lobbying effort

that state/ind'y can't bring - Dem congress is

resp'v to Native Americans

other benefits - local corp'ns - I will stay in Ak - win

Ak partiz's - few econic opp's for these rural Akns -

Gov. Lowper is int'd in rural opp's -

abil'y to hv strong local hire - shareholder hire -

joint ventures, contracting proj'cs -

sevl yrs. head start -

90/10 is uncertain - (Murk) - Murk said impact

on ANWR will be minimal, 15% - Gilmore said

value-for-value - strong lsg prog will occur

ANCSA corp'ns will pay sevc, inc. taxes - over half

NS rev. comes fr. ~~state~~ taxes.

can assist in opening ANWR

W'nese design'n affects adj. lands,

"it's a harsh pol'l climate out there" + ANCSA

corp'ns can help

state can partiz. + min'z rev. imp'x - state a viable

partic'nt + a good competitor

state is being treated eq'ly -

reit. What Murk. said - benefits fr. trades, harsh

pol. realities

Sam: don't oppose all trades, just those not in state's

int't - HJR 9 -

Sam: mind if we get ce of agents? Magie: if you get

them remind they're very preliminary - no objection to state's seeing the agents -

Sam: Mark's also decided OK w/ing - Margie: not sure it's \$ in the best int't of the state - you'd turn over your participation to ANCSA corp's - wd lose yr. influence + dep. on ANCSA; for competent dev't

Sam: tract size - NLG might know better - wd ind'g partners help select - who are ind'g partners -

Margie - Exxon + Conoco - yes wd help select
Shultz: backscatter radar - Texlin - 7(c) - any condition of trading to plc backscatter sites - Margie: don't know.

Sund - 1.5 m ac., x 15% - 20% (Mark) - ∴ 300,000 acres cd be avail - cd select an area larger than Prudhoe Bay - Margie: 15% of value or coastal plain ac'g? isn't clear - also state cd get some of ANWR - Sund: how much NLG ac'g - Margie: 260k acres, exp. to get much less ANWR ac'g - poss'ly cd get 1:20 in exchange Sund: lower social spending - Red Dog OK, local loans - but how about Yukon Delta/Kenai area? Margie: few opp's for cash in rural Ale - some people des'ly need svcs etc., expect medical etc. svcs to result, CIRI - great strides in est'g Fdn, non-profits etc to infuse capital back to shareholders - ~~CIRI has~~
Sund: CIRI has invested outside, those who invest inside hv. gone bankrupt

Kay Brown: e/ dev't agent of ind'g partners? TAP6
BREAK Margie: feel very compl' w/ hug strong lse terms. Kay: 7(c) rev. sharing Margie: BLM does not det. rev. sharing - 2 doz's control 7(c) - 1) ANCSA 2) reg corp's agent on how to interpret 7(c) - Very specific - ~~the prop.~~ the prop. does not inc. lands that wd be aff'd by 7(c).

Sam - clarity, Mazie: DOI only wants sfc - b/c that 7(i) helps build consty and that it wd be good, but DOI doesn't want them - will appeal to Horn to inc. subsfc. -

Spitzer: how did NLG form - Mazie: some people corpis, formed an group at req. of DOI wh wanted someone to reach w/in Ak, aware of CIR's ability to work w/ vigo + DOI, knew that world-class habitats wd be avail. Spitzer - not too late for other to join, allotments - are there allotment lands in the refuge? Mazie: most of the lands are conveyed, aren't inc's allotments, most NLG lands are relly clear of allotments anyway - no indiv'l allotment holders hv joined in -

2/13 Art Kennedy - Konrag leg/v/gov'tal affs consultant
he has been involved in exch. since 1982 - will submit
full report for the record.

Konrag understands that State has sev'l concerns -
1) open ANWR 2) don't limit 90/10 3) fedly
est'd Ref - shdn't be parceled out 4) state shd
be a ~~part~~ part't

Konrag wants it open - hv. adv'd DOI + State that
90/10 is state/fed issue - value of acrig shd be
adj'd to reflect any retained revenues -

sfc. stay in fed'l ownership -
int't will be terminated eventually -
dev't will be subj. to future reg's etc.

adv'g: Congress can acq. im. ac. of critical
habitats - prt ownership threatens viability
of Kodiak Ref in partic. - mxx to strengthen
other Refuges -

data avail'y → cd incr. lease sale ~~costs~~ ^{revenues}
explor'n/produc'n on trade lands good for Ak econ'y

Sam: any obj'n to State seeing agmt's? Art
surp'd you don't have them, the Jan'y comments
shd hv. ~~be~~ gotten around to you - the orig'l
draft was prelim'y - now agmt prot'x state's
int'ts.

Gilmore - I have unfairly put my state colleagues
on the spot. That agmt is still not avail. I
will follow thru on my promise to get it for you
as soon as it's avail. ~~When?~~ Sam:
When? ~~Gilmore~~ - before it's signed? ~~Sam~~

Gilmore: I honestly don't know - it cd be after
it's signed Sam: what's objection to Leg's
seeing it - Gilmore: it is a contract being
neg'd betw. prt parties + the gov't, + for
that reason the gov't has the resp'y to keep
part of the neg'n conf'l - Sam: apply the

priv. parties don't mind ~~at~~ Kennedy: wd like
to compare yr. req. to next time give in a deal
to sell your car or yr. house I'd like to come
+ rvw the document + comment on it before
you sign it Sam: who? betw. 2 priv parties.

Kennedy: betw 2 prt parties shd be kept
conf'l Sam: but there's one prt party here
and one not-so-private party Kennedy - it
may be viewed that way but until there's
an agmt shd retain its conf'l nature Sam:
prob. is it's shrouded in "secrecy" + if we
don't get to see it until it's signed sealed +
delivered we hv very little chance...

Kennedy: won't take effect until Congress
ratifies, can be Δ'd by Congress -

Sam: who are the ind'g partners - Kennedy:
can't tell ya bec. of conf'l agmt, wd hv
to ask permission.

Sam: being asked to appv or disappv w/o knowing
hope that you will take best int' at heart?

~~but~~ Sam: being asked to support - Kennedy:
don't need to rush to appv or disappv - Legi
State etc. don't need to mk. a dec'n until
they see the agmt - ~~but~~ to make a
judgment at this time shows a lack of
understanding of what the whole process is
about - Sam: trying to find out process
now to est. state's pos'n Kennedy:

State's best pos'n is just to open ANWR

Hermann: isn't state particip'g? Kennedy: yes -
full exch. member, hv an @ ex. gray area -
state has all the info that anyone does. -
if you want to mk a req. of them for this
exchange document it's up to them whether to
give it to you or not (state reg'is) - but



The model agmt will be tied to eff. ea. group's needs.

Navarre: no ack → eff. approval of land exchanges
Kennedy: shd hold approval/disapproval until you've seen them, Navarre: i.e. approval Kennedy: not until Congress ratifies them

Davidson: what % of mtgs ~~was~~ was State at?

Kennedy: many mtgs: of Kenney alone, then other ~~mtgs~~ mtgs. ANCSA: got into it - DOI did not accept all land - last May a large group did get tog. - 3 or 4 of present ones - Kenney in May agd to ~~do~~ do all the groundwork, drafted agmt, ~~then~~ worked on it through the summer, then in fall a mtg to review the drafts + steps - have had ~ a mtg a month - state has been at all since Oct' - Davidson %?

Kennedy: 2/3 of group mtgs - hv. been telling Katz all the way along - 10% - 15% back to '82

Shultz: when did State get involved? Kennedy - I can only speak from our mtgs and think they wr. there in Sept. but I know they held convsno w/ Int as long as 1 1/2 yrs ago -

Navarre: access to KIC data? Kennedy: can't answer bec. not sure who the ind. partner is, did not partic. in the neg's - Navarre: pls ask

→ Kenney if you can tell us - Kennedy - wll ask Kenney to get to go

Kennedy = re rescission - Sam - no time

Pod Savage - John Katz

Rod - commend on well informed pointed q's
maj. of disc's are in D.C. now - so
Katz + Hawk shd address dirly
state does not hv. a pos'n on the
exchanges - ~~same kind of concis as state~~ ^{compr. lca} -
ANCSA's hv added for time to present ths.
pos'n - we remain open to persuasion

Sam: has state endorsed? Rod: not in any
way - prefer to say we hv no pos'n, same kind of
concis as the state reg's int's of the
citizens of the state.

Katz: 1) state policy - Sweep - Gov "ind'd some
predispo'n against land trades" - suspended
judgment until he sees the ANCSA info -
in D.C. hv told Int. that state has no
pos'n - "unless + until a reg'v pos'n is
taken" plan to partic. in good faith - a
partic. + a sov'n.

chronology of state involvement - first
hd rumors 2 yrs ago - ^{DOI} appraisers showed
up in DNR files 18 or 19 mos ago - Aug
85 mtg b/w Sheffield + Horn - also told
Katz same time that trade disc's were
happening, then intermittent disc's but no
substance;

Nov '85 Gilmore wrote Gov inquiring
state's partic'n - Dec 85 Sheffield des'd
TSH - Jan 86 Gilmore ackn " letter,
accepted state inv't - Feb 86 DNR wrote
to propose 12 m. acres - Mar 86 Gilmore
wrote + set fed'l pros, said Tetlin wd
be only acreage they'd really want -
until Oct 86 int + disc's "not reg'ns"
but contacts about the trade wr. mostly
verbal. State was trying to elaborate fields

to same level as ANCSA parties during that whole time. "We know that for Native corp's we're dealing at key policy levels here in Wash D.C. + as quickly as poss. we wanted to make the transition b/w the disc's wh. we were having in Ak and ~~the~~ wh. we felt we had a back channel to the real disc's wh. we were occurring back here." In Oct 86 ~~the~~ Horn ~~of~~ "acquiesced" to the full involvement of the State as sov'n + landowner.

Dec 86 - State present for FT time w/ reg table of access to all docs - Jan 87 another week of outgo - Feb 87 a series of disc's - Feb 23 next round is scheduled -

"irrespective of the history, + frankly of the difficulty of the state's insisting itself as a full-fledged partner in the disc's until Oct '86, we have lost no options in the process and ~~not~~ every option that is available to a Native corp'n, or to the fed'l gov't is still available to the State at this time"

Mar 2 - Mar 24 tract sliver

Mar 2 agents in princ. among parties w/ DSI

notwithstanding this timeframe Horn sees no rec'n until Sec'y makes ~~an~~ an independent 1002 rec'n (!)

timelines "are very, very constrained" - legal basis of the trades:

Int. Dept sees it has admin authy but "as a matter of policy + com'dy of Congress" will submit to Congress

State has no ch' it must submit to

Legis for approval:

1) under AS 38.50

very strctd series of steps -

~~#~~ we'd prefer this approach

2) present'n of land trades to legis at the time they've crystallized - if DOI timelines don't allow for 38.50 process "more structured and elongated"

"It was made very clear to us, I would say almost as a precondition of our partic'n but only as an ext'ly imp't component of our partic'n, that we were not to distrib or make avail. successive drafts of the land exch docs. We felt ~~that~~ a bit uncomfortable with that and wondered in our own minds whether that priori is even in compliance w/ fed'l prot'g + reg'n. But it was not for us at that point to make that det'n. However in terms of our own state FOIA, we dist'd state mat'ls + hv made those docs avail on request - extrapolation is then possible -

~~Process~~ to "Public consid'n + debate wd be benefited" by open process

state inholdings in Parks? the proj'l "was rebuffed by DOI" on the grounds that this was a USFWS process - NPS in a possible later round - made is unconf'l cause we don't know how tract st'ch wll work or what land will be avail

O/R proj'g - hv req'd on numerous occasions

this inclin - aren't impairing ANCSAs, if
they aren't penalized or dinged - "the
pos'n that we hv advocated has been
adamantly and consistently rebuffed by the
Int. Dept. We continue to advocate it and
are hopeful" that int will allow.

THE
HOTEL
S. WASHINGTON
WASHINGTON, D. C.

SPECIAL EVENT RESERVATIONS ONLY
MONDAY, FEBRUARY 16
COCKTAILS AT 5:30
DINNER AT 6:00
4 COURSES
TAKU RONNY SEAFOOD DINNER
WITH WINE TASTING OF WASHINGTON STATE WINERIES
SPONSOR
BY SEAFOOD MARKETING INSTITUTE \$20.00

2) FSUS:

Judy has bn very opp'd to land trades
called out Eason & Hawkins to come up w/ a pos'n

Gov's rep - Tom - Judy too -

has Sam outlined agenda? yes

-7(i) - has to come out - CIRI + Koniag don't
intend to share - sfc est. only for subsq. -
this issue must be understood

- subs'c easement on ANCSA lands - now in
Appix I - pres'vs only Native use - Value
State AG thinks it violates state
rights

- rescission - shdn't ask for it on State
lands? now defined to inc. O/R and
35% - poor public policy - major
issue in Congress - only suppd by
Koniag now - CIRI opposes.

- haven't adeq'ly resp'd to state ~~cont~~
comments on contract & strips -
as recently as today

- revised contract did no good -

- the maneuvering has affected state
interests - fr. 260 / 800,000

	Cinder R. ^{ssole} Innoke.
	Tetlin. ^{Ugashik.}
	Ak Pen. Herendeen Bay
	YK Delta
	Togiak
Konukuk	Tugudale off S. Kodiak ~25k

2/12 605

- impl'n of BBAP, ANILCA record -
- won't let in NPS
- Koniag argument re 5% of acreage
poss'ly only 5-10k acres might go, but
cd be very valuable -

Chevron / SOHIO

don't hv KIC well but will pick
whatever they ^{Chevron} want
what is usefulness of KIC well?

- - 26 strkrs id'd -
1002 - see middle part on strkrs -
Alt'v D. -

- planning not to trade core calving
area.

- 15/20 track per partiz.?

- intend to lease 7 navigable / eq. footrop.
7 rivers on coastal plain
will off. them.
submerged lands
hv not bn
meandered
on ~~FANCSA~~ ANCSA
trade lands.
3-5%

- drainage - DOI prop's drainage off any
tract - want a royty. ~~royty.~~ don't want, it
subj. to Min'l Lsg Act.

2/11 John Doherty:

- bulk of land wd be leased - % uncl. now -
- USFWS doesn't know some of subsfc info. -
- identification of tracts not poss. yet.
- app'l → value for exchange hasn't bn decided yet -
being done at Dept'l levels
- timeline - wd hv. to be comp. w/ 1002
no agmt till the report goes to Congress
earliest this summer -
not reaching final.
- terms of agmt - O/R req; rec'd / rec'd; 7(i);
- might hv. agmt on some terms but they're always
subj. to disc'n + Δ.
- legal analysis - hv auth'y?
not for dev't
do hv. auth'y to pursue exchanges under ANILCA
- 1302(h)
- state's interests? - how serve USFWS interests?
- ASRC?

assure ANWR is avail for log, + state's
int's are prov'd in the process

→ Tract slxn after 1002, after Cong'l app'l?
⇒

why?

may jeopardize Cong'l app'l?

may threaten state int's?

trades during study period? ←

DOI - poss'y of US Cong. being pissed
esp. in secret.

tract slxn must await

knowledge of wh. ^{ANWR} lands are avail

what spec. steps etc. on ea. tract

what access rights on ANWR lands?

app'd value?

conflict resol'n

nature of subsfc rights

SECRECY

How value tracts w/ variety of access etc.?

why accel'd dec's why by DOI?

? there are defined structures in
⇒ ANWR. Where are they? ASRC?
Trade lands?

can't reliably forecast rev. imp'x of
trades - don't know where they are

→ local here

CIRI arguments -

- 1) ANCSA corp's will only benefit of ANWR greatly
(true? legal? 22(g), 1431)
- 2) Secrecy
 - objectivity is quite
 - offensive, presumption of public/corp's prerog'v

ASRC/CIRI bkgd. - 2 bad trades.

benefit one part of Ak to detriment of others?

small acreage = worthless argument
ho-gard by some corp's

bias in presen proc's.

~~Impact of ANCSA land values~~

Old Harbor + Texaco - 35,500 acres
Birch Horton

DOI - eventually the exchange will be perceived to be in public interest

→ all parties are involved bec. they expect/wish to participate - DOI? State?

while state has exp'd resvns, still a public & state exp'd to keep things corp'!!!

tract slkn 3/24

tract slkn agmt to be signed by all parties
- constitutes endorsement?

HELL YES!

Horn will appv value on Mar 6.
ANWR tract nom's map to partic's on
Feb 23.

Partic's mark map, nominate by Mar 20,
DOI sends back w/ all nom's on Mar 23
"constraint pol'y" by DOI. -

→ DOI will offer lands the state claims
under navy / eq. footy.
State will id'y these bef. the tract
skn.

ea partic \leq 15 tracts - poss 20
final tract skn map the day bef.
the skns -

can show conflict and of time? poss'y of
Anti-trust Viol's -

"conflict resol'n remains arb'y"
- Horn may choose

USFWS acq'n prio.
comp'r bidding
lottery

might get written skn / conflict criteria
JLTZUS!

cd DOI collect value for pass appl'n to
future lease sales?

gen'l'y will follow Kowag contract
format

Very few State comments to be incorpd.
Contract still doesn't deal w/ state / fed'l
jurisdictional issues.

Rescission - tract-by-tract (prev. is bi-grading)
1.5% fed'l royalty
65% of land back
10 yrs to rescind
subs'c easement

NLG - tract sken not well defined
sken prior unduly locked in
rescission is objectional

OH - term'n clause timing

Akh - rescission

Dym - conflict resol'n -
partial tract excl'n unnec
drainage
AOFCC/DOI overlap
termination fee
royalty calc's unclear

Konig drainage
unitization
conveye proc's - warrants?

State - tract sken vs 1002
insuff subs'c int
guidance
state title claims
arb'y conflict resol'n

any rem'g conc'ns -> DOI by Feb 19
-> rev'd draft contract Feb 23

state pol'y calls

do we want rescission

pub. use easements on trade lands

subs'c

drainage -

state submgd lands

Horn - late Apr. >> likely from Mar 24
for tract sale

Horn - acknowledges that state o/r pol'y
wd come out of fed'l ~~the~~ lands -

Refuges wd suffer -

Horn will det. values by

1. FMV app'l
2. USFWS acq'n prio
3. transactn benefits -
4. cong'l comparables.

Feb 2 8-

Ted Stephenson	BLM	D.C.
Jim Wilkes	AKI	
Jim Mey	Dogon	
Arthur Lazaws	"	
Bill Trime	Konrag	
Mark Kinder	NLG	
Eric Laschever		
Walt Ebell	Old Hbr	
Paul Kerton	DDI / Su? icter =	
Sharon Alender	"	
Wm W. Garner	Old Hbr / Birch Hbr	
Paul Powell	AKI	
Ralph Huska	"	
Martha Fox		
Gary Gustafson	DNR	
Joe Okonski(?)	Old Harbor / Birch Hbr	
Art Kennedy	Konrag	
Unc Gross	Konrag	
Bob Wright	Dogon	
Alan Mintz	ASRC	202 331 9400
Erich Kaarlela	BLM	
John Dabel	FWS	

21. Koning

reverter clause
w/ royalty.
"stiff arm"

126,000 acres avail

early 80's exchanged for OCS charts -
passed Congress twice.

Koning merger litigation - new admin -

ANWR seen as only Refuge prop. that Koning not be int'd in
reluctant to go public - will want shareholders' approval - OSDI

is a money target on terms etc.

now need to get info out

Nov. 84 began disc'g w/ Horn -

1st state mtg - Oct '86 - tog'r -

lv 6th mtg w/ Katz whenever in D.C.

FWS saw most state lands as not owner owning.

State fought to keep lands out of Refuge System in ANILCA and
now is trying to put them in

22(g) - significant adverse impacts -

Karluk River/Lk, Surgeon R.?

no rights of access.

shareholder int. in subdiv'n.

there's an argument that 22(g) cd be regarded as a taking +
did not allow claims attmt.

MAI-type appraisal - then disc'd for 22(g)

agmts -

had disc'd w/ DOI for sev'l mos.

then had a drafts, redid strips - FWS people don't
know how to write w/ strips -

mostly agree w/ state's comments w/ wr. being implemented
anyway

same controls as any other fed'l lessee

NPR-4 fed'l lease wr. subj. to state jurisdiction

reverter clause -

still being neg'd - DOI's pos'n was that it wanted a share

if there was a major find

Koning puts up land, 35% of ~~land~~ ^{Koning} land is given ~~to fed'l govt~~ ^{to fed'l govt}

w/ in some time the Corp'n returns some acreage if it's dry.

reverts terminated if a prudent explorer

1.5% fed'l O/R

no state consid'n -

if DOI wants to impose a state O/R it shdn't come out of
the ~~state~~ ^{federal} share - shdn't come out of the ~~state~~ ^{Corp} share

state acreage involved = now 800k

Timeline - tract siken Mar 24

→ Congress by June 1 (after CZMA)

not int'd in admin exchange - ~~state~~ want Cong'l approval.

3 or 4 yrs. adv'g fr. exchanges -

if ~~state~~ Cong. approves it also approves the stip's -

→ Unre tax Parks land will hv. to be included eventually

2/5 S O/G - Katz

history of state's participation - involvement -

five or six pieces of ANWR policy

reg'n / trades / carbon agmt

4 committees - H's Inv, H's MM+F, S ENR, S ENV PW

no ann expl 1511 after submittal of 1002 rpt

state not much involved yet - waiting for a policy
need indep. advocacy org.

1002 - reg'n delayed the report
towards the deadline

reg'n of land trades - DOI / ANCSA corp'n

1. boilerplate exch agmt

2. tract skn piece's

3. draft strips

does Stevens
agree? →

must be submitted to Congress for approval

state's pos'n: hv not yet taken a pos'n on the trades
themselves. no def'n concl'n yet. are participating
to be constr'v -

carbon treaty gen'l mandates on habitat protection -

Coghill: AS 38.58, 90/10

Betty: if we're less involved we shouldn't attack land trades

Katz: if the State doesn't supp. ANCSA land trades it can't
put forward its own or stay at the reg'g table

[also has said the state didn't take a pos'n on
trades yet]

Betty: need a resolution? how soon?

Katz: d-2 - consensus points - need a resolution early
in the process - after submittal of 1002 study (late March
or early April) -

Coghill: is there an MOU on data exchange (sermsw) - const'l
duty to protect the people of Ak, rel. to 90/10 -

Katz: yes, an MOU exists reg'g sermsw data &c. -

2/5 5 0/6

Arless: What role ch state role be in land trades? if we don't partze.?

Katz: litig'n later in process?

Betty: DOI sez it doesn't bly the trades need corp'l approval

Katz: DOI has promised that it won't do trades admin'ly even if it has such authority -

Betty: politics -

Katz: coalition of groups supp'g opening - 30 members - concerns parallelism

1 - one school that believes trades are very imp't to opening ANWR
ANCSA corp'ns are resp'd, able in Congress

2 - trades complicate an already diff. issue - i.e. trades are premature

term of the year!!!

2/4/87

Sam:

Re ANWR land exchanges

This issue is shaping up to be the key one in the Legislature's consideration of HJR 9. Addressing it openly and completely is one way to win on it.

The public has a lot of questions, as do legislators. For instance, where are the exchanges, how does Interior come up with subsurface appraisals, what do the agreements say (on 7(i) and reverter clauses, for instance)?

The Legislature/Resources Committee should be seen as having all the information and allowing all the affected parties to speak up before passing out language. This will certainly be a different approach from Stevens' pig-poke hardsell.

So in about two weeks, perhaps around February 18, I'd recommend having a Committee meeting on the topic of exchanges:

1. USDOJ should come and explain what they're doing. What's in the agreements? Which lands are involved? Are the State's lands being seriously considered? Is it all legal?
2. The State should come and explain clearly what they want out of land exchanges. Cowper's "retreat into obscurity" at his press conference cannot last for long; he has to say whether or not he can live with the agreements under consideration by DOI. And we deserve to know how much he really knows about them.
3. The ANCSA corporations should bring their arguments into public. Can Huhndorf really convince people of the points in his telegram? Will he be as threatening in public? Are there good reasons for the state to endorse some of the trades?
4. The environmentalists and the State might share some common ground: we all want to retain public ownership, and preserve revenue streams (some of which might be dedicated to conservation purposes, according to Audubon's Anchorage people).
5. According to Drue the repubs might be willing to accept some kind of compromise language on land exchanges. This might help take some wind out of Stevens' sails.
6. This is the kind of oversight/review that Congress will conduct, but maybe too late. Elsewise no one else is going to be watching Interior closely enough.

I think you can address these issues without getting into a dogfight, and without addressing them you will not be able to develop a true consensus position. We'd need to start preparing pretty soon to be sure that DOI would come out here.

Ned

A large, dark, handwritten 'X' mark is drawn across the page, centered horizontally and vertically. It consists of two intersecting diagonal lines.

2/5 Martha - exchanges

- Feb 13 - paddy will have enough detail

- must have agmt on terms of agmt by late Feb so that there can be tract shown in March

- contract will be in the form that DOI will present → (orig)

- 7(i) - no mention of it in the latest draft

- no idea what % of land is sfc/subsfc - Village lands aren't subj. to 7(i) -

- they'd like a subsfc int. - defeasible fee int. in o/g
: + access/reasonable use - ownership is o/g

- reverter clause: optional. cost is an overriding royty - 1.5%

* - lands book exc for value of what's been rec'd (bonuses etc less expenses)
so no fed'l royty exc. w/ reverter

can rescind if can't get permits to drill or if w/in a period there's no show of o/g

appraisal process = consid done, not inc. in the exd agmt.
model isn't adeq. -

✓ - Katz - U.S. DOI - Horn's ofc. -
Munkoubli -

also inv. Stevens ofc. -

- all corp'no have agmts -

Martha will check

Sam + Mike.

- 1) Governor originally proposed studying the core calving area for 7 years. After the great debate w/ Ted Stevens in D.C. (in June - "Who ~~is~~ ~~you~~ represents the caribou?"), the Gov. has backed off some, saying basically that there needs to be special attention for the caribou but he's not convinced this is the only way.
- 2) There's a lot of controversy about whether/where the core calving area is. This amendment doesn't say where it is. You'd probably want to refer to the draft 1002 study by Interior - the final obliterated reference to it. Was ~ 220,000 acres.
- 3) This amendment goes further than anyone else does. Gov. Cooper wanted Congress to direct Interior to defer leasing for 7 years + then make a decision based on the data. So Gov. wanted Congress to open ~~the~~ the calving area but study + then have an administrative decision on leasing.
- 4) Industry says the caribou calve anywhere they want + will do it where people are. They call this a ~~calving~~ ^{calving} concentration area.
- 5) Most of the data analysis seems to indicate (in my view alone) that the calving area has less potential for oil + gas than the rest of the area. But remember how Prudhoe Bay popped up where people didn't expect it - could be analogous.

- 6) Industry will say they can operate in the calving area, especially for the exploration phase which can be conducted in winter. Want to stage development of the calving area?
- 7) Congress (Senate Energy) doesn't seem to be headed this way - closing the calving grounds.
- 8) Some people say that the central herd has increased since Prudhoe/TAPS. I don't know whether the Prudhoe development affects central herd calving grounds.
- 9) The international treaty should provide adequate protection without additional core calving ground language.

A M E N D M E N T

By Adams

Offered in the HOUSE

TO: HCS CSSJR 7(Resources)

Page 2, line 5, after "investment;":

Insert "and"

Page 2, following line 5:

Insert "WHEREAS the United States Department of the Interior is exploring a number of legislative proposals for the early oil and gas development of the coastal plain;"

Page 2, line 22, after "(43 U.S.C. 1653)":

Insert "; and be it

FURTHER RESOLVED that the Alaska State Legislature urges the state administration to be involved in all aspects of the Alaska National Wildlife Refuge oil and gas development process to ensure that the best interests of the state are protected"

STATE OF ALASKA
THE LEGISLATURE

POUCH Y STATE CAPITOL
JUNEAU ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM

February 15, 1988

SUBJECT: Compliance with Uniform Rule 49(5)
TO: Representative Mike Navarre
FROM: Theresa L. Bannister *tb*
Legislative Counsel

This memo accompanies the amendment that you have requested to change the resolve clause on page 2, at line 7, to refer to oil and gas exploration, development, and production in the coastal plain of ANWR. The accompanying amendment will bring HCS CSSJR 7 (Resources) into compliance with Uniform Rule 49(5) by bringing the resolution's content within its title.

If I may be of further assistance, please advise.

Enclosure

TLB:bb
wkb2/092

A M E N D M E N T

Offered in the HOUSE

By Navarre

TO: HCS CSSJR 7(Resources)

Page 2, line 7, after "on":

Delete "management of the coastal plain"

Insert "oil and gas exploration, development, and production in the coastal plain of the Arctic National Wildlife Refuge"

STATE OF ALASKA
1988 LEGISLATIVE SESSION

No. 1

BILL VERSION: HCS SJR 7 (RES)
PUBLISH DATE: HOUSE 2/1/88

FISCAL NOTE

REQUEST:

72

Revision Date: 1/28/88
Title: Oil & Gas Explor. and Dev. ANWR
Sponsor: Resources Committee
Requestor: House Resources Committee

Agency Affected: Natural Resources
BRU: Petroleum Management
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS (Attach a separate page if necessary)

Prepared by: Jim Eason Phone: 465-2400
Division: Oil and Gas Date: 1/27/88
Approved by Commission: [Signature] Date: 1/27/88
Agency: Department of Natural Resources

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

ASSUMPTIONS ON STATE REVENUE PROJECTIONS
FOR OWNERSHIP SCENARIOS

600M

\$10.00/bbl flat well head price rising with inflation.

Production and development scenario is a 3.5 Billion barrel discovery.

Royalty percentage is 12.5% irrespective of royalty owner.

Bonus Value of \$600MM on the producing tracts.

Severance taxes under current law.

Two scenarios were developed and the states revenue from Bonuses, Royalty and Severance tax were calculated.

20% FEDERAL OWNERSHIP

Severance = (total sev. tax x 20% x 87.5%) + (total x 80%)
Royalty = total royalty x 20% x 50%
Bonus = total bonus x 20% x 50%

Native
Native

20% STATE OWNERSHIP

Severance = (total sev. tax x 20% x 87.5%) + (total x 80%)
Royalty = total royalty x 20%
Bonus = total bonus x 20%

These calculations do not take into account the impacts on State revenue of other taxes such as the AD Valorem tax or the Income tax

50/50

COALITION FOR AMERICAN ENERGY SECURITY

January 20, 1988

M. Isabelle Tapia
Executive Coordinator

CONGRESSIONAL ALERT

TO: Members and Friends
FROM: Isabelle Tapia
RE: Coalition Meeting on Tuesday, January 26

With more hearings being planned for the second session, only one committee is ready to begin mark-up.

We anticipate the Senate Energy and Natural Resources Committee to begin mark-up of S. 1217 in the near future. At this critical time your personal visits and follow-up phone calls are necessary.

Three points that should be incorporated into your message to the Senate Energy and Natural Resources Committee are:

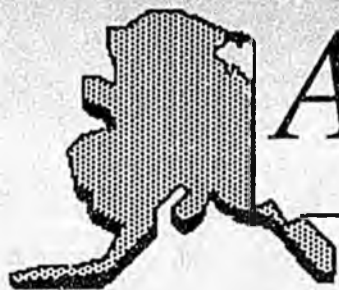
- support opening the Coastal Plain to orderly exploration and development under prudent environmental regulations and stipulations;
- oppose designation of this huge prospective area as Wilderness as is proposed in S. 1804, Senator Roth's and Metzenbaum's bill;
- resist any amendments which would result in further needless delay, or reduce the size of the Coastal Plain available for leasing.

A Coalition legislative status meeting is scheduled for Tuesday, January 26 at 2:30 p.m. in Room 418 of the Russell Senate Office Building. (For your information, 418 Russell is designated as a "non-smoking" room). The meeting will be hosted by Senators Murkowski and Stevens and Congressman Young. Please call Debbie Steward at 333-7484 to confirm your attendance.

1050 Thomas Jefferson Street, N.W. — Sixth Floor, Washington, D.C. 20007

(202) 333-7484

MEMBERSHIP: Alaska Oil & Gas Association • American Association of Petroleum Landmen • American Institute of Merchant Shipping • American Petroleum Institute • American Trucking Associations • Americans for a Rational Energy Policy • Arctic Slope Regional Corporation • The Associated General Contractors of America • Association of Oil Pipelines • BP North America • Brown & Root, Inc. • Caterpillar Inc. • Chevron U.S.A. Inc. • Crowley Maritime • Dresser Industries, Inc. • Fluor Corp. • Highway Users Federation • Independent Petroleum Association of America • International Association of Drilling Contractors • International Association of Geophysical Contractors • Joint Maritime Congress • Marriott Corporation • NAACP - Anchorage Branch • National Association of Home Builders • National Association of Manufacturers • National Association of Realtors • National Coal Association • National Marine Engineers Beneficial Association • National Marine Manufacturers Association • Natural Gas Supply Association • NL Industries, Inc. • National Ocean Industries Association • National Tour Association, Inc. • Petroleum Equipment Suppliers Association • Recreation Vehicle Industry Association • Rocky Mountain Oil and Gas Association • The Standard Oil Company • The National Grange • U.S. Chamber of Commerce • Western Oil and Gas Association



ARCTIC NOTES

News from the Coalition for American Energy Security

January, 1988

GUEST COLUMN

STATE LEGISLATORS URGE CONGRESS: APPROVE COASTAL PLAIN DEVELOPMENT

By Senator Samuel B. Nunez, Jr.

There's a lot of discussion in Washington these days about new oil and gas exploration and development in Alaska. Some predict possible harm to the environment if the Coastal Plain of the Arctic National Wildlife Refuge (ANWR) is opened. At the South/West Energy Council, we don't believe their predictions.

Members of the Council recently had the opportunity to visit the ANWR Coastal Plain in extreme northeastern Alaska. We saw first-hand how oil is produced — under strict safety and environmental controls — at the Prudhoe Bay oil field less than 100 miles away.

According to government and oil industry experts, the ANWR Coastal Plain holds the potential for significant oil and gas production starting in the year 2000. But we don't need an expert to tell us what development of the area could do for our state.

ANWR could provide significant benefits outside Alaska, including more jobs for the citizens of Louisi-

ana, not to mention the citizens of other states. New jobs mean better times for those out of work and a healthier economy. All of us would like that.

Only a small part of ANWR would be opened to oil and gas exploration and production. Currently before Congress are two companion bills that could bring this about: S. 1217 and H.R. 1082.

If passed and enacted into law, the legislation would only affect the 1.5 million acre Coastal Plain (Section 1002 Area) of the 19 million acre Refuge. The Interior Department estimates that only about 12,000 acres, or less than 19 square miles would be directly impacted by oil development activities.

Should ANWR's Coastal Plain be opened to drilling and development in an environmentally safe fashion? Common sense says of course! Too many uncontrollable economic and political risks face this country to delay opening the area. In short, the U.S. needs the oil resources that ANWR might contain.

We now are importing more oil than during the Arab oil embargo in 1973, and the Department of Energy has estimated that we will be importing more than 50 percent of our energy needs by 1990. It is time to act to ensure a secure domestic source of oil for the future.

Studies indicate that ANWR might contain as much as 29 billion barrels of oil and 64 trillion cubic feet of gas.

(continued on page 2)

ON CAPITOL HILL

COASTAL PLAIN DECISION LIKELY IN 1988 SESSION

The year ahead should bring Congress to a decision point on the issue of oil and gas development on the coastal plain. While the session will be shortened by the upcoming elections, most believe that our energy posture warrants action.

Last year, four committees in the House and the Senate held 22 hearings related to the issue. This extensive hearing record is likely to grow as additional hearings are scheduled.

In the first session, there were five bills pending on the issue: the Alaska delegation bills (H.R. 1082 by Representative Don Young and S. 1217 by Senators Ted Stevens and Frank Murkowski); the wilderness bills (H.R. 39 by Representative Morris Udall and S. 1804 by Senator William Roth); and a third approach by Representative Walter Jones, which delays development while the government conducts a five-year exploratory drilling program. Many believe the Senate will act first, with a mark-up in the Senate Energy Committee.

Whatever course the legislation takes, it could not be soon enough. Oil imports continue to rise as domestic production falls. At 47 billion dollars in 1987, oil comprises 25% of our country's trade deficit. And, as of last count, we had 30 ships with 20,000 Americans patrolling the Persian Gulf.

Congressional action on a careful program of exploration and development for the Coastal Plain is in the national interest.

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(Guest Column continued)

It's been estimated that between 3.2 billion barrels and 9.2 billion barrels can be recovered. Depending on the price of oil and the amount recovered, ANWR might yield net national economic benefits of between \$79.4 billion and \$325 billion.

Sure, opening the Coastal Plain is controversial, so was building the Trans-Alaska Pipeline. Opponents managed to delay construction of that vital pipeline for four years, costing millions of dollars. But, based on our recent first-hand look at oil production on Alaska's North Slope, the oil industry is doing an admirable job of preserving areas where it operates, especially in the frozen Arctic.

The oil industry's record on the North Slope of Alaska is something of which all Americans can be proud. Industry monitors migratory birds and the populations of flocks; digs channels for fish to swim through near offshore operations; and tracks whales from Alaskan waters to Mexico and Hawaii and back again. These are just a few examples, but anti-development factions ignore them.

In 1972, when opponents of the Trans-Alaska Pipeline were lobbying hard to stop the project, they testified: "...the Arctic National Wildlife Range (as it was designated then) has practically no exceptional or unique natural value."

The environmentalists said that a pipeline would do less damage if it were built through the refuge. Amazingly, one recommendation called for building a railroad through the area instead of the Trans-Alaska Pipeline.

The ANWR Coastal Plain is basically tundra. It's vast, flat and treeless. It's occupied for a short time

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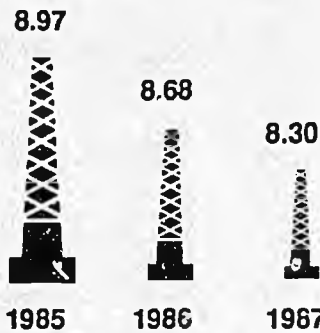
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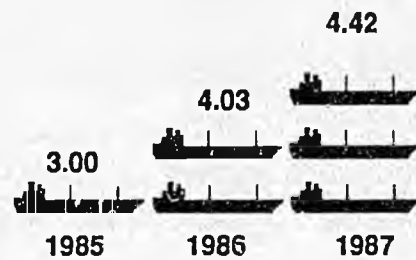
OIL AT A GLANCE

(Million barrels per day)

As U.S. Production Falls



Imports Grow



Source: Energy Information Administration

each year by the Porcupine caribou herd — a fact some groups would use to prevent opening the area to oil and gas development.

But another herd, the Central Arctic herd, which makes the Prudhoe Bay oil field its home each year, hasn't been hurt. In fact, the Central Arctic herd has quadrupled in size in less than 15 years, growing from about 3,000 in 1972, to 13,000 in 1985.

Objective environmental research has been performed for years: there has been no measurable deterioration in the fish and wildlife populations. Nor is there any evidence that the habitat to support fish and wildlife has been harmed.

Oil exploration and development can co-exist with wildlife in the Arctic environment.

We must not forget the positive impact that oil development of Alaska's North Slope has had in every state. Since 1975, this development has generated \$24 billion of business activity with 37,000 companies located in all 50 states.

In Louisiana, some \$148 million — maybe more — was spent between 1980 and 1986 for equipment, supplies and services for North Slope development. We believe that businesses and workers throughout Louisiana also will be major participants in any future industry activity in ANWR.

The net economic benefit that could be realized from ANWR would be distributed throughout the United States. In addition, the impact on our nation's trade deficit would be enormous.

We, as a nation, have the opportunity to discover another giant oil field in Alaska at a time when our domestic reserves are declining and our oil imports from unstable Middle East sources are climbing. By carefully exploring and developing ANWR's Coastal Plain, this nation has the chance to reduce our reliance on imported oil through increased domestic production: thereby reducing our vulnerability to supply disruptions and reducing our foreign trade deficit.

Members of the South/West Energy Council have traveled to Alaska to see this area first-hand. All of our states benefited from the development of Prudhoe Bay and the construction of the Trans-Alaska Pipeline. We would all share in the jobs and economic development from future development within ANWR.

That is why many of our members will be telling their Congressional representatives during the opening days of the 1988 Congressional session that we strongly support careful development of the Coastal Plain and oppose further restrictions or delay. And that is why both the Southern Legislative Conference and the Western Legislative Conference have adopted similar policy positions.

With America's energy future at stake, we simply can't afford to delay any longer.

Samuel Nunez is the President of the Louisiana Senate and chairs the South/West Energy Council and the Louisiana Energy Development Study Commission. A geologist by training, he will be Chairman of the National Conference of State Legislatures during 1988-89.

FLORA AND FAUNA: CAN MAN AND CARIBOU CO-EXIST?

Recently, Senator Frank Murkowski talked by phone with Dr. Tom Bergerud of Canada's University of Victoria. The following are excerpts from that interview:

Murkowski: Dr. Bergerud, I understand that you have devoted a good portion of your life to research on caribou. Can you tell me a little bit about your background and the observations you've made on the caribou in various areas of the world?

Bergerud: Well, I've been working with caribou since 1955. I was a chief biologist in Newfoundland for many years and then the director of the game department.

I worked with the Newfoundland herds, then I worked with the Labrador herds, the herds in Quebec, Ontario and lately in British Columbia and the Northwest Territory. I've had one field on Alaska.

I spent 22 years on the calving grounds when the cows were giving birth. I spent 19 years with the animals during the rut. I've devoted my whole professional life to the well being of the species.

Murkowski: I'm interested in the question of activity associated with oil and gas exploration in the area of caribou habitat or in their calving ground.

What happens when there's exploration in an area where they traditionally come to calve?

Bergerud: Well, the calving grounds of most of the big herds are on the northern edge of the annual distribution of the herds.

The paper that I've been publishing, and is becoming more generally accepted, is that caribou go to calving grounds as an anti-predator strategy. They go to the very northern edge of their range and this allows them to get away from wolves. Wolves usually den along treelines, so that is the most important thing to keep in mind.

The caribou are going to calving grounds in my view to escape wolves, not because there is some unique food supply or forage there. Where the bulls are, south of the calving grounds, the food is much better and if the cows were really interested in food supply they would have stayed back with the bulls. But, they've gone up to get away from the predators.

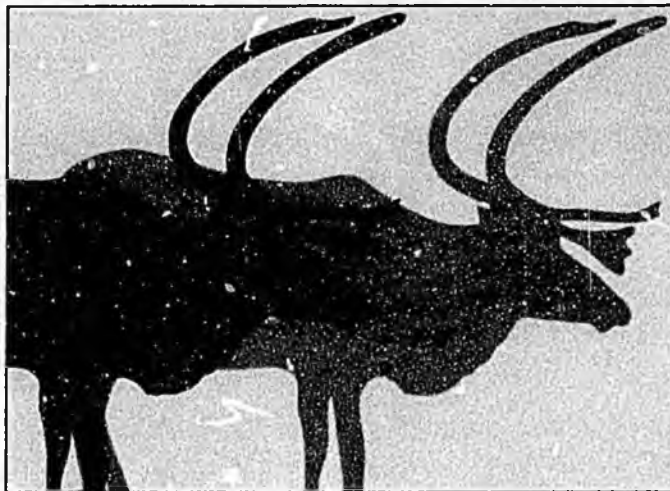
Now because they're worried about predators they are liable to disturbance — when they see a vehicle coming down the road it represents a predator to them. They are not disturbed by the road without the vehicle. We can expect that if we have a road with traffic in a calving ground that

the bulls will probably pay little attention to the road but that the cows will move back perhaps a mile from the road and then they will resume their normal activities.

In fact, we don't want the caribou to habituate to the traffic because in fact this is their natural predator response.

Murkowski: Do I understand you to say that the mere presence of roads, drilling pads, and drill rigs will not necessarily displace the caribou? Rather, is it the activity associated with those structures — men and vehicles working, etc. — which may cause the caribou to move away from the area?

Bergerud: It's the disturbance that causes them to be displaced if they are going to be displaced. It doesn't necessarily need to be traffic.



One person did a study up there on the Central Arctic Herd and he made a fence and he had burlap bags hanging on the fence. When the bags flapped in the wind, the caribou avoided this fence, in my view, because it resembled a predator.

If you have things that look like predators it's the predator response on the road that makes them peel away.

Now this is mostly the cows and the calves. The bulls are not nearly as shy of predators. They actually go into the willow valleys to feed. That's what they have to do to get big and breed females. The female has to stay away from predators so her calf will live.

And even if there's a lot of traffic on the road, the displacement is only a mile on each side of the activity. Also, if we do want to keep all the traffic going, we will lose a strip of occupation of about two miles wide.

The big thing is that we don't have a barrier. I don't see why we should worry about this two miles on each side because the range is not limiting. And the herd can continue to prosper.

Murkowski: How does the noise associated with the activities of man affect the caribou?

Bergerud: I was in the Delta Herd in Alaska. That herd is near an army base. Right at calving time the army people used to come out with their big Huey helicopters which really look sinister at very low elevations and the caribou were so habituated to this noise that they didn't even stand up.

(continued on page 4)

CALENDAR OF EVENTS

- January 25 President Reagan's State of the Union Address
- January 26 Coalition Meeting: Senate Russell Ofc. Bldg. 418 (2:30 p.m.)
- February 9 NAM Luncheon: Speaker will be Senator Mark Hatfield (12:00, Multnomah Club, Portland, Oregon). For more information contact Jean Ellen Wilson at (312) 698-3838.

(continued from page 3)

Murkowski: Do you know of any areas where caribou are currently in close contact with the activities of man?

Bergerud: I was over in Norway once in 1979 and I watched a caribou herd right in the middle of Army maneuvers. In Norway they maneuver in the national parks in unusual situations. The caribou were paying no heed to this.

The Central Arctic Herd next to the Porcupine herd of course has a tremendous amount of development — pipes and feeder lines and so forth, and that herd has prospered; increasing from some 3,000 to 15,000 during the development. I think that's the acid case that shows that caribou can co-adapt to this.

They cannot co-adapt to being over harvested, but they can certainly take living side-by-side with an ethical man.

ANWR Policy Statement

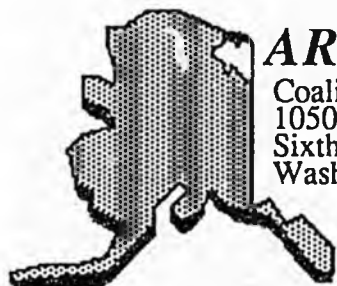
On July 18, 1987 the Board of Directors of the American Association of Blacks in Energy added their voice to the growing concern about America's energy future by adopting the following resolution:

"Be it resolved that the American Association of Blacks in Energy enjoin our elected officials at the local, state and federal levels to develop a comprehensive U.S. energy policy which:

Maximizes production of all potential U.S. energy resources, to include offshore oil development and development of the Coastal Plain of the Arctic National Wildlife Refuge with necessary and appropriate safeguards to ensure maximum protection of the environment and of the rights of the indigenous populations of the regions."

COALITION MEMBERSHIP

Alaska Oil & Gas Association, American Association of Petroleum Landmen, American Petroleum Institute, Americans for a Rational Energy Policy, American Institute of Merchant Shipping, Arctic Slope Regional Corporation, Associated General Contractors of America, Association of Oil Pipelines, American Mining Congress, BP North America, Brown & Root, Caterpillar Inc., Chevron U.S.A., Cooper Industries, Inc., Crowley Maritime, Dresser Industries, Fluor Corp., Hehr International Inc., Highway Users Federation, Independent Petroleum Association of America, International Association of Drilling Contractors, International Association of Geophysical Contractors, Joint Maritime Congress, Marriott Corporation, NAACP - Anchorage Branch, National Association of Home Builders, National Association of Manufacturers, National Association of Realtors, National Cattlemen's Association, National Marine Engineers Beneficial Association, National Marine Manufacturers Association, National Coal Association, National Ocean Industries Association, National Tour Association, National Wool Growers Association, Natural Gas Supply Association, NL Industries, Petroleum Equipment Suppliers Association, Public Lands Council, Recreation Vehicle Industry Association, Rocky Mountain Oil and Gas Association, The Standard Oil Company, The National Grange, U.S. Chamber of Commerce, and the Western Oil and Gas Association.



ARCTIC NOTES

Coalition for American Energy Security
1050 Thomas Jefferson Street, N.W.
Sixth Floor
Washington, D.C. 20007

Sum -
The handouts ARCO
used w/ Gov. Comper
on 1/27. They are
being analyzed by DNR.
Not very convincing.

ANWR LAND TRADES

State Concerns

N

- Negative impact on ANWR access.
- Negative impact on state revenues, economy.
- Poor public policy:
 1. Benefits accrue to a select few.
 2. Valuation of Native surface.
 3. Valuation of ANWR subsurface (giveaway).
 4. Competitive leasing would be much superior.
- Best ANWR tracts have been selected and little remains. Natives have taken the cream.

STATE RECEIPTS

REVENUE SHARING - 50% FEDERAL/50% STATE

TRADE ACREAGE ONLY (STATE ≈ NATIVE)

	<u>Federal Leasing</u>	<u>Native Trade</u>	<u>State Trade</u>	<u>Total</u>
Bonus	50%	0	100%	50%
Royalty	50%	0	100%	50%
Severance	100%	114%	100%	107%
State Income Tax	100%	100% plus Tax on native Royalty	100%	100%+

Other Benefits:

- Realize revenue and jobs creation at least 2-4 years early
- Native trades mean that bonus & royalties that would have gone to Washington, D.C. staying in the state creating:
 1. Economic activity
 2. Personal wealth
 3. Jobs
 4. Recycle benefits
- Increased competition in subsequent federal sale

SUMMARY:

- The state has much to gain by participation in the ANWR land trades:
 - Improved chances of ANWR access.
 - Improved state economy and higher royalty and tax receipts.
 - Acceleration of timing of ANWR exploration and (hopefully) development. This means earlier revenue receipts and earlier job creation.

- An objective should be to capture as much of the ANWR access "environmental payment" as possible in the state. Trades are a natural mechanism to accomplish this.

- Downside to this position is low:
 - Access will likely be driven by national security concerns and world events.
 - If Congress will not accept these trades, the final ANWR vote will not include them.

- Downside to the state's active opposition to the trades is high:
 - Discrediting DOI hurts access.
 - Discrediting DOI and harming that relationship may carry future costs.
 - Demotivating other advocates hurts access.
 - Attacking land values is not in state's interest.
 - "Environmental payment" and benefits likely to go outside the state.

- The access issue needs state leadership to unite the conflicting voices.

"Approved: Trigg Twichell, Representative, United States of America.

"Attest: Willard B. Mills, Secretary."

Sec. 2. In order to carry out the purposes of this Act, and the purposes of article XIII of this compact consented to by Congress by this Act, the congressional consent to this compact includes and expressly gives the consent of Congress to have the United States of America named and joined as a party litigant in any litigation in the United States Supreme Court, if the United States of America as an indispensable party to such litigation, and if the litigation arises out of this compact, or its application, and if a signatory State to this compact is a party litigant, in the litigation.

Sec. 3. The right to alter, amend, or repeal this Act, is expressly reserved.

Approved Nov. 13, 1973.

TRANS-ALASKA PIPELINE AUTHORIZATION ACT

For Legislative History of Act, see p. 2417

PUBLIC LAW 93-153; 87 STAT. 576

[S. 1081]

An Act to amend section 28 of the Mineral Leasing Act of 1920, and to authorize a trans-Alaska oil pipeline, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That:

TITLE I

Section 101. Section 28 of the Mineral Leasing Act of 1920 (41 Stat. 449), as amended (30 U.S.C. 185),⁹² is further amended to read as follows:

"Grant of Authority

"Sec. 28. (a) Rights-of-way through any Federal lands may be granted by the Secretary of the Interior or appropriate agency head for pipeline purposes for the transportation of oil, natural gas, synthetic liquid or gaseous fuels, or any refined product produced therefrom to any applicant possessing the qualifications provided in section 1 of this Act, as amended, in accordance with the provisions of this section.

"Definitions

"(b)(1) For the purposes of this section 'Federal lands' means all lands owned by the United States except lands in the National Park System, lands held in trust for an Indian or Indian tribe, and lands on the Outer Continental Shelf. A right-of-way through a Federal reservation shall not be granted if the Secretary or agency head

92. 30 U.S.C.A. § 185.

holders of rights-of-way and permits under this Act shall be liable to the United States for damage or injury incurred by the United States in connection with the right-of-way or permit. Where the right-of-way or permit involves lands which are under the exclusive jurisdiction of the Federal Government, the Secretary or agency head shall promulgate regulations specifying the extent to which holders shall be liable to third parties for injuries incurred in connection with the right-of-way or permit.

"(2) The Secretary or agency head may, by regulation or stipulation, impose a standard of strict liability to govern activities taking place on a right-of-way or permit area which the Secretary or agency head determines, in his discretion, to present a foreseeable hazard or risk of danger to the United States.

"(3) Regulations and stipulations pursuant to this subsection shall not impose strict liability for damage or injury resulting from (A) an act of war, or (B) negligence of the United States.

"(4) Any regulation or stipulation imposing liability without fault shall include a maximum limitation on damages commensurate with the foreseeable risks or hazards presented. Any liability for damage or injury in excess of this amount shall be determined by ordinary rules of negligence.

"(5) The regulations and stipulations shall also specify the extent to which such holders shall indemnify or hold harmless the United States for liability, damage, or claims arising in connection with the right-of-way or permit.

"(6) Any regulation or stipulation promulgated or imposed pursuant to this section shall provide that all owners of any interest in, and all affiliates or subsidiaries of any holder of, a right-of-way or permit shall be liable to the United States in the event that a claim for damage or injury cannot be collected from the holder.

"(7) In any case where liability without fault is imposed pursuant to this subsection and the damages involved were caused by the negligence of a third party, the rules of subrogation shall apply in accordance with the law of the jurisdiction where the damage occurred.

"Antitrust Laws

"(y) The grant of a right-of-way or permit pursuant to this section shall grant no immunity from the operation of the Federal antitrust laws."

TITLE II

SHORT TITLE

Sec. 201. This title may be cited as the "Trans-Alaska Pipeline Authorization Act".

CONGRESSIONAL FINDINGS

Sec. 202. The Congress finds and declares that:

(a) The early development and delivery of oil and gas from Alaska's North Slope to domestic markets is in the national interest be-

cause of growing domestic shortages and increasing dependence upon insecure foreign sources.

(b) The Department of the Interior and other Federal agencies, have, over a long period of time, conducted extensive studies of the technical aspects and of the environmental, social, and economic impacts of the proposed trans-Alaska oil pipeline, including consideration of a trans-Canada pipeline.

(c) The earliest possible construction of a trans-Alaska oil pipeline from the North Slope of Alaska to Port Valdez in that State will make the extensive proven and potential reserves of low-sulfur oil available for domestic use and will best serve the national interest.

(d) A supplemental pipeline to connect the North Slope with a trans-Canada pipeline may be needed later and it should be studied now, but it should not be regarded as an alternative for a trans-Alaska pipeline that does not traverse a foreign country.

CONGRESSIONAL AUTHORIZATION

Sec. 203. (a) The purpose of this title is to insure that, because of the extensive governmental studies already made of this project and the national interest in early delivery of North Slope oil to domestic markets, the trans-Alaska oil pipeline be constructed promptly without further administrative or judicial delay or impediment. To accomplish this purpose it is the intent of the Congress to exercise its constitutional powers to the fullest extent in the authorizations and directions herein made and in limiting judicial review of the actions taken pursuant thereto.

(b) The Congress hereby authorizes and directs the Secretary of the Interior and other appropriate Federal officers and agencies to issue and take all necessary action to administer and enforce rights-of-way, permits, leases, and other authorizations that are necessary for or related to the construction, operation, and maintenance of the trans-Alaska oil pipeline system, including roads and airstrips, as that system is generally described in the Final Environmental Impact Statement issued by the Department of the Interior on March 20, 1972. The route of the pipeline may be modified by the Secretary to provide during construction greater environmental protection.

(c) Rights-of-way, permits, leases, and other authorizations issued pursuant to this title by the Secretary shall be subject to the provisions of section 28 of the Mineral Leasing Act of 1920, as amended by title I of this Act (except the provisions of subsections (h)(1), (k), (q), (w)(2), and (x)); all authorizations issued by the Secretary and other Federal officers and agencies pursuant to this title shall include the terms and conditions required, and may include the terms and conditions permitted, by the provisions of law that would otherwise be applicable if this title had not been enacted, and they may waive any procedural requirements of law or regulation which they deem desirable to waive in order to accomplish the purposes of this title. The direction contained in section 203(b) shall supersede the provisions of any law or regulation relating to

Dennis
President

an administrative determination as to whether the authorizations for construction of the trans-Alaska oil pipeline shall be issued.

(d) The actions taken pursuant to this title which relate to the construction and completion of the pipeline system, and to the applications filed in connection therewith necessary to the pipeline's operation at full capacity, as described in the Final Environmental Impact Statement of the Department of the Interior, shall be taken without further action under the National Environmental Policy Act of 1969; and the actions of the Federal officers concerning the issuance of the necessary rights-of-way, permits, leases, and other authorizations for construction and initial operation at full capacity of said pipeline system shall not be subject to judicial review under any law except that claims alleging the invalidity of this section may be brought within sixty days following its enactment, and claim alleging that an action will deny rights under the Constitution of the United States, or that the action is beyond the scope of authority conferred by this title, may be brought within sixty days following the date of such action. A claim shall be barred unless a complaint is filed within the time specified. Any such complaint shall be filed in a United States district court, and such court shall have exclusive jurisdiction to determine such proceeding in accordance with the procedures hereinafter provided, and no other court of the United States, of any State, territory, or possession of the United States, or of the District of Columbia, shall have jurisdiction of any such claim whether in a proceeding instituted prior to or on or after the date of the enactment of this Act. Any such proceeding shall be assigned for hearing at the earliest possible date, shall take precedence over all other matters pending on the docket of the district court at that time, and shall be expedited in every way by such court. Such court shall not have jurisdiction to grant any injunctive relief against the issuance of any right-of-way, permit, lease, or other authorization pursuant to this section except in conjunction with a final judgment entered in a case involving a claim filed pursuant to this section. Any review of an interlocutory or final judgment, decree, or order of such district court may be had only upon direct appeal to the Supreme Court of the United States.

(e) The Secretary of the Interior and the other Federal officers and agencies are authorized at any time when necessary to protect the public interest, pursuant to the authority of this section and in accordance with its provisions, to amend or modify any right-of-way, permit, lease, or other authorization issued under this title.

LIABILITY

Sec. 204. (a)(1) Except when the holder of the pipeline right-of-way granted pursuant to this title can prove that damages in connection with or resulting from activities along or in the vicinity of the proposed trans-Alaskan pipeline right-of-way were caused by an act of war or negligence of the United States, other government entity, or the damaged party, such holder shall be strictly liable to all damaged parties, public or private, without regard to fault for

General

such damages, and without regard to ownership of any affected lands, structures, fish, wildlife, or biotic or other natural resources relied upon by Alaska Natives, Native organizations, or others for subsistence or economic purposes. Claims for such injury or damages may be determined by arbitration or judicial proceedings.

(2) Liability under paragraph (1) of this subsection shall be limited to \$50,000,000 for any one incident, and the holders of the right-of-way or permit shall be liable for any claim allowed in proportion to their ownership interest in the right-of-way or permit. Liability of such holders for damages in excess of \$50,000,000 shall be in accord with ordinary rules of negligence.

(3) In any case where liability without fault is imposed pursuant to this subsection and the damages involved were caused by the negligence of a third party, the rules of subrogation shall apply in accordance with the law of the jurisdiction where the damage occurred.

(4) Upon order of the Secretary, the holder of a right-of-way or permit shall provide emergency subsistence and other aid to an affected Alaska Native, Native organization, or other person pending expeditious filing of, and determination of, a claim under this subsection.

(5) Where the State of Alaska is the holder of a right-of-way or permit under this title, the State shall not be subject to the provisions of subsection 204(a), but the holder of the permit or right-of-way for the trans-Alaska pipeline shall be subject to that subsection with respect to facilities constructed or activities conducted under rights-of-way or permits issued to the State to the extent that such holder engages in the construction, operation, maintenance, and termination of facilities, or in other activities under rights-of-way or permits issued to the State.

(b) If any area within or without the right-of-way or permit area granted under this title is polluted by any activities conducted by or on behalf of the holder to whom such right-of-way or permit was granted, and such pollution damages or threatens to damage aquatic life, wildlife, or public or private property, the control and total removal of the pollutant shall be at the expense of such holder, including any administrative and other costs incurred by the Secretary or any other Federal officer or agency. Upon failure of such holder to adequately control and remove such pollutant, the Secretary, in cooperation with other Federal, State, or local agencies, or in cooperation with such holder, or both, shall have the right to accomplish the control and removal at the expense of such holder.

(c)(1) Notwithstanding the provisions of any other law, if oil that has been transported through the trans-Alaska pipeline is loaded on a vessel at the terminal facilities of the pipeline, the owner and operator of the vessel (jointly and severally) and the Trans-Alaska Pipeline Liability Fund established by this subsection, shall be strictly liable without regard to fault in accordance with the provisions of this subsection for all damages, including clean-up

*Pollution
control &
cleanup*

costs, sustained by any person or entity, public or private, including residents of Canada, as the result of discharges of oil from such vessel.

(2) Strict liability shall not be imposed under this subsection if the owner or operator of the vessel, or the Fund, can prove that the damages were caused by an act of war or by the negligence of the United States or other governmental agency. Strict liability shall not be imposed under this subsection with respect to the claim of a damaged party if the owner or operator of the vessel, or the Fund, can prove that the damage was caused by the negligence of such party.

(3) Strict liability for all claims arising out of any one incident shall not exceed \$100,000,000. The owner and operator of the vessel shall be jointly and severally liable for the first \$14,000,000 of such claims that are allowed. Financial responsibility for \$14,000,000 shall be demonstrated in accordance with the provisions of section 311(p) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1321(p)) before the oil is loaded. The Fund shall be liable for the balance of the claims that are allowed up to \$100,000,000. If the total claims allowed exceed \$100,000,000, they shall be reduced proportionately. The unpaid portion of any claim may be asserted and adjudicated under other applicable Federal or state law.

(4) The Trans-Alaska Pipeline Liability Fund is hereby established as a non-profit corporate entity that may sue and be sued in its own name. The Fund shall be administered by the holders of the trans-Alaska pipeline right-of-way under regulations prescribed by the Secretary. The Fund shall be subject to an annual audit by the Comptroller General, and a copy of the audit shall be submitted to the Congress.

(5) The operator of the pipeline shall collect from the owner of the oil at the time it is loaded on the vessel a fee of five cents per barrel. The collection shall cease when \$100,000,000 has been accumulated in the Fund, and it shall be resumed when the accumulation in the Fund falls below \$100,000,000.

(6) The collections under paragraph (5) shall be delivered to the Fund. Costs of administration shall be paid from the money paid to the Fund, and all sums not needed for administration and the satisfaction of claims shall be invested prudently in income-producing securities approved by the Secretary. Income from such securities shall be added to the principal of the Fund.

(7) The provisions of this subsection shall apply only to vessels engaged in transportation between the terminal facilities of the pipeline and ports under the jurisdiction of the United States. Strict liability under this subsection shall cease when the oil has first been brought ashore at a port under the jurisdiction of the United States.

(8) In any case where liability without regard to fault is imposed pursuant to this subsection and the damages involved were caused by the unseaworthiness of the vessel or by negligence, the owner and

operator of the vessel, and the Fund, as the case may be, shall be subrogated under applicable State and Federal laws to the rights under said laws of any person entitled to recovery hereunder. If any subrogee brings an action based on unseaworthiness of the vessel or negligence of its owner or operator, it may recover from any affiliate of the owner or operator, if the respective owner or operator fails to satisfy any claim by the subrogee allowed under this paragraph.

(9) This subsection shall not be interpreted to preempt the field of strict liability or to preclude any State from imposing additional requirements.

(10) If the Fund is unable to satisfy a claim asserted and finally determined under this subsection, the Fund may borrow the money needed to satisfy the claim from any commercial credit source, at the lowest available rate of interest, subject to approval of the Secretary.

(11) For purposes of this subsection only, the term "affiliate" includes—

(A) Any person owned or effectively controlled by the vessel owner or operator; or

(B) Any person that effectively controls or has the power effectively to control the vessel owner or operator by—

(i) stock interest, or

(ii) representation on a board of directors or similar body, or

(iii) contract or other agreement with other stockholders, or

(iv) otherwise; or

(C) any person which is under common ownership or control with the vessel owner or operator.

(12) The term "person" means an individual, a corporation, a partnership, an association, a joint-stock company, a business trust, or an unincorporated organization.

ANTITRUST LAWS

Sec. 205. The grant of a right-of-way, permit, lease, or other authorization pursuant to this title shall grant no immunity from the operation of the Federal anti-trust laws.

ROADS AND AIRPORTS

Sec. 206. A right-of-way, permit, lease, or other authorization granted under section 203(b) for a road or airstrip as a related facility of the trans-Alaska pipeline may provide for the construction of a public road or airstrip.

TITLE III—NEGOTIATIONS WITH CANADA

Sec. 301. The President of the United States is authorized and requested to enter into negotiations with the Government of Canada to determine—

UNITED STATES CODE ANNOTATED

Title 43

Public Lands

§§ 931 to End

Comprising All Laws of a General and Permanent Nature
Under Arrangement of Official Code of
the Laws of the United States
with
Annotations from Federal and State Courts

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CHAPTER 34—TRANS-ALASKA PIPELINE

Sec.

1651. Congressional findings and declaration.
1652. Authorizations for construction.
- (a) Congressional declaration of purpose.
 - (b) Issuance, administration, and enforcement of rights-of-way, permits, leases, and other authorizations.
 - (c) Applicability of statutes governing rights-of-way for pipelines through Federal lands; other statutory terms and conditions; waiver of procedural requirements; supersedure of administrative authorizations for construction.
 - (d) National Environmental Policy Act of 1969 by-passed; issuance of authorizations for construction and operation not to be subject to judicial review; time limits on charges of invalidity or unconstitutionality; jurisdiction; hearings; review.
 - (e) Amendment or modification of rights-of-way, permits, leases, or other authorizations.
1653. Liability for damages.
- (a) Activities along or in vicinity of pipeline right-of-way; strict liability limitation on liability; subrogation; emergency subsistence and other aid; exemption for State of Alaska.
 - (b) Control and removal of pollutants at expense of right-of-way holder.
 - (c) Discharges of oil from vessels loaded at terminal facilities of pipeline; strict liability; limitation on liability; apportionment of liability; establishment and operation of Trans-Alaska Pipeline Liability Fund.
1654. Antitrust laws.
1655. Roads and airports.

§ 1651. Congressional findings and declaration

The Congress finds and declares that:

(a) The early development and delivery of oil and gas from Alaska's North Slope to domestic markets is in the national interest because of growing domestic shortages and increasing dependence upon insecure foreign sources.

(b) The Department of the Interior and other Federal agencies, have, over a long period of time, conducted extensive studies of the technical aspects and of the environmental, social, and economic impacts of the proposed trans-Alaska oil pipeline, including consideration of a trans-Canada pipeline.

(c) The earliest possible construction of a trans-Alaska oil pipeline from the North Slope of Alaska to Port Valdez in that State will make the extensive proven and potential reserves of low-sulfur oil available for domestic use and will best serve the national interest.

(d) A supplemental pipeline to connect the North Slope with a trans-Canada pipeline may be needed later and it should be studied now, but it should not be regarded as an alternative for a trans-Alaska pipeline that does not traverse a foreign country.

(Pub.L. 93-153, Title II, § 202, Nov. 16, 1973, 87 Stat. 584.)

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Short supply controls, domestically produced crude oil, see section 2406 of the Appendix Title 50, War and National Defense.

Federal Practice and Procedure

Relationship to lower federal court jurisdiction, see Wright, Miller & Cooper: Jurisdiction § 3526.

West's Federal Forms

Preliminary injunctions and temporary restraining orders, matters pertaining to, see § 527B seq.

Supreme Court jurisdiction on appeal, see § 121 et seq.

West's Federal Practice Manual

Rights-of-way, see § 5449.

Notes of Decisions

1. Purpose

The intent of this section which vests exclusive jurisdiction over certain disputes in the United States district courts was to limit

litigation that would delay construction of pipeline. *Alaska Pipeline Service Co. v. U.S.*, 1980, 624 F.2d 1005, 224 Ct.Cl. 2

§ 1653. Liability for damages

(a) Activities along or in vicinity of pipeline right-of-way; strict liability; limitation on liability; subrogation; emergency subsistence and other aid; exemption for State of Alaska

(1) Except when the holder of the pipeline right-of-way granted pursuant to this chapter can prove that damages in connection with or resulting from activities along or in the vicinity of the proposed trans-Alaskan pipeline right-of-way were caused by an act of war or negligence of the United States, other government entity, or the damaged party, such holder shall be strictly liable to all damaged parties, public or private, without regard to fault for such damages, and without regard to ownership of any affected lands, structures, fish, wildlife, or biotic or other natural resources relied upon by Alaska Natives, Native organizations, or others for subsistence-economic purposes. Claims for such injury or damages may be determined by arbitration or judicial proceedings.

(2) Liability under paragraph (1) of this subsection shall be limited to \$50,000,000 for any one incident, and the holders of the right-of-way or permit shall be liable for any claim allowed in proportion to their ownership interest in the right-of-way or permit. Liability of such holders for damages in excess of \$50,000,000 shall be in accord with ordinary rules of negligence.

(3) In any case where liability without fault is imposed pursuant to this subsection and the damages involved were caused by the negligence of a third party, the rules of subrogation shall apply in accordance with the law of the jurisdiction where the damage occurred.

(4) Upon order of the Secretary, the holder of a right-of-way or permit shall provide emergency subsistence and other aid to an affected Alaska Native, Native organization, or other person pending expeditious filing and determination of, a claim under this subsection.

(5) Where the State of Alaska is the holder of a right-of-way or permit under this chapter, the State shall not be subject to the provisions of this subsection, but the holder of the permit or right-of-way for the trans-Alaska pipeline shall be subject to this subsection with respect to facilities constructed or activities conducted under rights-of-way or permits issued to the State to the extent that such holder engages in the construction, operation, maintenance, and termination of facilities, or in other activities under rights-of-way or permits issued to the State.

(b) Control and removal of pollutants at expense of right-of-way holder

If any area within or without the right-of-way or permit area granted under this chapter is polluted by any activities conducted by or on behalf of the holder to whom such right-of-way or permit was granted, and such pollution damages or threatens to damage aquatic life, wildlife, or public or private property, the control and total removal of the pollutant shall be at the expense of such holder, including any administrative and other costs incurred by the Secretary or any other Federal officer or agency. Upon failure of such holder to adequately control and remove such pollutant, the Secretary, in cooperation with other Federal, State, or local agencies, or in cooperation with such holder, or both, shall have the right to accomplish the control and removal at the expense of such holder.

(c) Discharges of oil from vessels loaded at terminal facilities of pipeline; strict liability; limitation on liability; apportionment of liability; establishment and operation of Trans-Alaska Pipeline Liability Fund

(1) Notwithstanding the provisions of any other law, if oil that has been transported through the trans-Alaska pipeline is loaded on a vessel at the terminal facilities of the pipeline, the owner and operator of the vessel (jointly and severally) and the Trans-Alaska Pipeline Liability Fund established by this subsection, shall be strictly liable without regard to fault in accordance with the provisions of this subsection for all damages, including clean-up costs, sustained by any person or entity, public or private, including residents of Canada, as the result of discharges of oil from such vessel.

(2) Strict liability shall not be imposed under this subsection if the owner or operator of the vessel, or the Fund, can prove that the damages were caused by an act of war or by the negligence of the United States or other governmental agency. Strict liability shall not be imposed under this subsection with respect to the claim of a damaged party if the owner or operator of the vessel, or the Fund, can prove that the damage was caused by the negligence of such party.

(3) Strict liability for all claims arising out of any one incident shall not exceed \$100,000,000. The owner and operator of the vessel shall be jointly and severally liable for the first \$14,000,000 of such claims that are allowed. Financial responsibility for \$14,000,000 shall be demonstrated in accordance with the provisions of section 1321(p) of Title 33 before the oil is loaded. The Fund shall be liable for the balance of the claims that are allowed up to \$100,000,000. If the total claims allowed exceed \$100,000,000, they shall be reduced proportionately. The unpaid portion of any claim may be asserted and adjudicated under other applicable Federal or state law.

(4) The Trans-Alaska Pipeline Liability Fund is hereby established as a non-profit corporate entity that may sue and be sued in its own name. The Fund shall be administered by the holders of the trans-Alaska pipeline right-of-way under regulations prescribed by the Secretary. The Fund shall be subject to an annual audit by the Comptroller General, and a copy of the audit shall be submitted to the Congress.

(5) The operator of the pipeline shall collect from the owner of the oil at the time it is loaded on the vessel a fee of five cents per barrel. The collection shall cease when \$100,000,000 has been accumulated in the Fund, and it shall be resumed when the accumulation in the Fund falls below \$100,000,000.

(6) The collections under paragraph (5) shall be delivered to the Fund. Costs of administration shall be paid from the money paid to the Fund, and all sums not needed for administration and the satisfaction of claims shall be invested prudently in income-producing securities approved by the Secretary. Income from such securities shall be added to the principal of the Fund.

(7) The provisions of this subsection shall apply only to vessels engaged in transportation between the terminal facilities of the pipeline and ports under the jurisdiction of the United States. Strict liability under this subsection shall cease when the oil has first been brought ashore at a port under the jurisdiction of the United States.

(8) In any case where liability without regard to fault is imposed pursuant to this subsection and the damages involved were caused by the unseaworthiness of the vessel or by negligence, the owner and operator of the vessel, and the Fund, as the case may be shall be subrogated under applicable State and Federal laws to the rights under said laws of any person entitled to recovery hereunder. If any subrogee brings an action based on unseaworthiness of the vessel or negligence of its owner or operator, it may recover from any affiliate of the owner or operator, if the respective owner or operator fails to satisfy any claim by the subrogee allowed under this paragraph.

(9) This subsection shall not be interpreted to preempt the field of strict liability or to preclude any State from imposing additional requirements.

(10) If the Fund is unable to satisfy a claim asserted and finally determined under this subsection, the Fund may borrow the money needed to satisfy the claim from any commercial credit source, at the lowest available rate of interest, subject to approval of the Secretary.

(11) For purposes of this subsection only, the term "affiliate" includes—

(A) Any person owned or effectively controlled by the vessel owner or operator; or

(B) Any person that effectively controls or has the power effectively to control the vessel owner or operator by—

(i) stock interest, or

(ii) representation on a board of directors or similar body,

(iii) contract or other agreement with other stockholders.

(iv) otherwise; or

(C) Any person which is the vessel owner or operator.

(12) The term "person" means an individual, partnership, corporation, ship, an association, a joint-stock company, a trust, or any unincorporated organization.

(Pub.L. 93-153, Title II, § 204.

Delegation of Functions. Function of the President under section 1321(p)(1) of Title 33, Navigation and Navigable Waters, as incorporated by reference in subsection (b) of this section, relating to the demonstration of financial responsibility for vessels engaged in the loading of oil from the Trans-Alaska Pipeline System delegated to the Secretary of the Department of the Interior.

West's

Rights-of-way, see § 5449.

Code

Liability fund, see 43 CFR 29.1 et seq. Oil pollution, financial responsibility.

L

Health and Environment § 25.5(3). C.J.S. Health and Environment §§ 106 et seq., 129 et seq.

N

Claims within section 1

Strict liability

Generally 2

Construction accidents 3

Pollution clean-up 4

1. Claims within section

This section was intended to deal with environmental risks of the pipeline but does not cover ordinary personal injury or wrongful death claims unconnected with environmental injury, in view of fact that although literal interpretation indicated contrary result, overwhelming evidence of legislative history indicated that chapter was intended to deal with environmental accidents other than ordinary torts. *Heppner v. Alaska Pipeline Service Co.*, C.A.Alaska 1981, F.2d 868.

2. Strict liability—Generally

Provisions of this chapter were designed to establish the permit holders of the pipeline right-of-way as strictly liable for a

ALASKA DEPARTMENT OF THE INTERIOR
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 JUNEAU, ALASKA 99811

(iv) otherwise; or

(C) Any person which is under common ownership or control with the vessel owner or operator.

(12) The term "person" means an individual, a corporation, a partnership, an association, a joint-stock company, a business trust, or an unincorporated organization.

(Pub.L. 93-153, Title II, § 204, Nov. 16, 1973, 87 Stat. 586.)

Historical Note

Delegation of Functions. Functions of the President under section 1321(p)(1) to (2) of Title 33, Navigation and Navigable Waters, as incorporated by reference in subsec. (c)(3) of this section, relating to the demonstration of financial responsibility for vessels carrying oil loaded from the Trans-Alaska pipeline, delegated to the Secretary of the Department

in which the Coast Guard is operating, see Ex.Ord. No. 12418, § 4, May 5, 1983, 48 F.R. 20891, set out as a note under section 1321 of Title 33.

Legislative History. For legislative history and purpose of Pub.L. 93-153, see 1973 U.S. Code Cong. and Adm. News, p. 2417.

West's Federal Practice Manual

Rights-of-way, see § 5449.

Code of Federal Regulations

Liability fund, see 43 CFR 29.1 et seq.
Oil pollution, financial responsibility, see 33 CFR 131.1 et seq.

Library References

Health and Environment ¶25.5(3).
C.J.S. Health and Environment §§ 91 et seq., 106 et seq., 129 et seq.

Notes of Decisions

- Claims within section 1
- Strict liability
- Generally 2
- Construction accidents 3
- Pollution clean-up 4

1. Claims within section
This section was intended to deal with environmental risks of the pipeline but did not cover ordinary personal injury and wrongful death claims unconnected with any environmental injury, in view of fact that, although literal interpretation indicated contrary result, overwhelming evidence of legislative history indicated that chapter was intended to deal with environmental accidents rather than ordinary torts. *Heppner v. Alyeska Pipeline Service Co.*, C.A.Alaska 1981, 665 F.2d 868.

2. Strict liability—Generally
Provisions of this chapter were designed to establish the permit holders of the pipeline right-of-way as strictly liable for a broad

range of damages to the land, fish, wildlife, air, water, and the subsistence lifestyle of the Alaskan Native. *Jordan v. Amerada Hess Corp.*, D.C.Alaska 1979, 479 F.Supp. 573.

3. — Construction accidents
This section was intended to render permit holders strictly liable for environmental harm, but was not intended to hold permit holders strictly liable for all damages of any kind that occurred "in connection with" or "in the vicinity of the proposed trans-Alaska pipeline right-of-way," and, hence, was not a basis for holding defendant oil companies strictly liable in action arising from injuries allegedly sustained in an automobile accident that occurred in vicinity of Alaska pipeline or in wrongful death action arising as a result of a construction accident in Alaska pipeline right-of-way. *Jordan v. Amerada Hess Corp.*, D.C.Alaska 1979, 479 F.Supp. 573.

4. — Pollution clean-up
This chapter barred pipeline service company from recovering from the United States for

Index

Public Lands

UNITED STATES CODE ANNOTATED

Title 43
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§ 931 to End

1987
Cumulative Annual Pocket Part
Replacing 1986 pocket part in back of volume

Includes the Laws of the
99th CONGRESS, SECOND SESSION (1986)

For close of Notes of Decisions
See page III

For Later Laws and Cases
Consult
USCA

Supplementary Pamphlet Service

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ish any duty on part of native corporation to individuals claiming lands based on homestead. See *Lee v. U.S.*, D.Alaska 1985, 629 F.Supp.

Limitations

ries who staked out homestead claims to staked lands were not entitled to sue Secretary of the Interior based upon Alaska Native Claims Settlement Act, § 22(b), as amended, 43 U.S.C.A. § 21(b), requiring that Secretary exclude from conveyances pursuant to Alaska National Interest Lands Conservation Act, §§ 901-1437, 43 U.S.C.A. §§ 1631-1641 those homestead claims determined to be valid and to make homestead applications prior to making any conveyances, where 12-year statute of limitations under Quiet Title Act [28 U.S.C.A. § 2409a(f)], had expired. See *U.S. v. D.Alaska* 1985, 629 F.Supp. 721.

in Federal Register

publish in Federal Register such regulations as may be necessary to carry out purposes of Act and not require Secretary to publish regulations or interpretations relating to the Act's provisions, but merely "authorizes" him to publish such information. *Aleknagik Natives, Ltd. v. U.S.*, D.Alaska 1985, 635 F.Supp. 1477.

OF ALASKA NATIVE CLAIMS STATEHOOD

the ownership by a Native Corporation of land conveyed to such Corporation or Settlement Act [43 U.S.C.A. § 1601 et seq.] by the Secretary of the Interior that the water rights shall not be subject to judicial determination by the District Court within eight years after the date of conveyance if the interim conveyance was made more than one year after December 2, 1980, if the patent was executed after December 2, 1980, if the patent was executed on or after the date described in this subsection shall be a de facto patent which is the subject of the action.

text of (b) to (h)]

at. 42; Pub.L. 99-644, Nov. 10, 1986, 100 Stat.

1986 Amendment. Subsec. (a). Pub.L. 99-258 substituted "six years after the date of execution" for "five years after the date of execution" in two places.

Legislative History. For legislative history and purpose of Pub.L. 99-258, see 1986 U.S. Code

§ 1634. Alaska Native allotments

Notes of Decisions

1. Purpose

Congress' intent in enacting § 905 of Alaska National Interest Lands Conservation Act, which provides for legislative approval of certain native

Cong. and Adm. News, p. 27. See, also, Pub.L. 99-644, 1986 U.S. Code Cong. and Adm. News, p. 6100.

allotment applications made pursuant to Alaska Native Allotment Act of 1906, was to facilitate approval of backlog of native allotment applications by dispensing with usual time-consuming adjudication procedures. *Olympic v. U.S.*, D.C. Alaska 1985, 615 F.Supp. 990.

CHAPTER 34—TRANS-ALASKA PIPELINE

§ 1652. Authorization for construction

Notes of Decisions

Preference right 3

Purpose 1

Segregation of lands 2

2. Segregation of lands

Segregation of lands did not defeat subsequent native allotment application where the native allotment applicant had met the five-year substantial use and occupancy requirements prior to seg-

regation. *State of Alaska v. 13.90 Acres of Land*, D.Alaska 1985, 625 F.Supp. 1315.

3. Preference right

Native occupant's inchoate preference right, which became vested upon filing of timely application for native allotment, related back to initiation of occupancy and took preference over pipeline company's right-of-way application filed prior to the native allotment application. *State of Alaska v. 13.90 Acres of Land*, D.Alaska 1985, 625 F.Supp. 1315.

§ 1653. Liability for damages

Notes of Decisions

Condemnation award 5

5. Condemnation award

Condemnation award to native allotment applicant in pipeline company's quiet title claim and on native allotment applicant's trespass claim against the pipeline company would be limited to value of

unimproved land and would not include value of improvements built by the pipeline company or state of Alaska; the pipeline condemnation was a "public use," fact that pipeline company did not receive condemnation authority until after entry did not affect the result, nor was it relevant whether pipeline company's initial entry was in good faith or willful, so long as there was absence of subjective bad faith. *State of Alaska v. 13.90 Acres of Land*, D.Alaska 1985, 625 F.Supp. 1315.

CHAPTER 35—FEDERAL LAND POLICY AND MANAGEMENT

SUBCHAPTER II—LAND USE PLANNING AND LAND ACQUISITION AND DISPOSITION

Sec.

1715. Acquisitions of public lands and access over non-Federal lands to National Forest System units.

(a), (b) [See main volume for text].

(c) Status of lands and interests in lands upon acquisition by Secretary of the Interior; transfers to Secretary of Agriculture of lands and interests in lands acquired within National Forest System boundaries.

(d) [See main volume for text].

Sec.

1715. Acquisitions of public lands and access over non-Federal lands to National Forest System units.

(c) Status and administration of lands acquired in exchange for lands re-vested in or reconveyed to United States.

SUBCHAPTER V—RIGHTS-OF-WAY

1761. Grant, issue, or renewal of rights-of-way; authorized purposes; procedures applicable.

(a) Authorized purposes.

(b) Procedures applicable; administration.

(c) Permanent easement for water systems; issuance, preconditions, etc.

This committee has had more than a dozen hearings on the ANWR issue. We tried to look at all the angles last session: Alaska hire, environmental protection, subsistence, revenue sharing, and land trades. Our record is fairly complete. Here are the minutes. They're quite thick.

At the end of last session the Senate passed SJR 7 with implied support for the ANWR land trades. I just could not accept putting the State on record in that position. So I talked to some key senators, hoping we'd get the land trade issue settled and send a resolution back to Washington before the summer. But they were adamant in their support of the trades, and there wasn't time to resolve the issue. It was classic pressure politics.

Now that there's more information about the trades I am glad we held this resolution over. I believe the State can't afford to endorse the trades. I think all Alaskans -- including the congressional delegation, which has been so supportive of the trades -- need to focus on the central issue, and drop the land trades. That's the only way we can possibly defuse the controversy in Congress and hope for action this year. If you want to know more about the trade issue, call me anytime.

I've checked with the Senate Energy Committee in Congress and it's timely for Alaska to go on record supporting the

opening of the coastal plain. That is what the Legislature really needs to do. Rep. Sund was just back in Washington and might be able to tell the committee about the mood in Washington. And we have John Katz on the phone from the Governor's Office in Washington.

So this resolution says that the nation and Alaska will be served by opening the coastal plain. It also recommends a fairly high standard of environmental protection, although it is silent on the core calving area question we heard so much about last session. The resolution urges Congress to treat us fairly on the revenue issues. Our revenue entitlement shouldn't be reduced.

Chairman Herrmann has added some language to this draft CS about subsistence. It doesn't give me any problem for now, and I look forward to hearing the committee's discussion of it. But I do hope that we can get the resolution out of committee at this meeting.

Now, if Chairman Herrmann and Rep. Sund have any comments, and Senator Sturgulewski, and then we'll go to Mr. Katz if he has anything to add.

DRAFT

Amendment to HCS CS SJR 7 (Res) am
by Rep. Adelheid Herrmann

INSERT on Page 1, line 29

WHEREAS the long-term effects on the Porcupine Caribou Herd
from oil development and exploration are not fully understood,

INSERT on Page 2, line 25

(5) the United States Congress should recognize the Alaska
Governor's position and continue caribou studies for seven
years.

- Sen. James McClure, Senate Energy and Natural Resources
Committee
- Sen. Quentin Burdick, Chair, Senate Environment and Public
Works Committee
- Sen. Robert Stafford, Senate Environment and Public Works
Committee
- Sen. George Mitchell, Chair, Subcommittee on Environmental
Protection
- Sen. John Chaffee, Subcommittee on Environmental Protection
- Rep. George Miller, Chair, Subcommittee on Water and Power
Resources
- Rep. Charles Pashayan, Subcommittee on Water and Power
Resources
- Rep. Walter Jones, Chair, Merchant Marine and Fisheries
Committee
- Rep. Robert Davis, Merchant Marine and Fisheries Committee
- Rep. Gerry Studds, Chair, Subcommittee on Fisheries and
Wildlife Conservation and the Environment

January 28, 1988

ANWR HEARINGS IN STATE HOUSE

JUNEAU -- The Resources Committee of the Alaska State House is expected Friday to pass out a resolution urging Congress to allow oil and gas exploration and development in the Arctic Refuge.

The resolution will ask Congress to allow environmentally responsible oil and gas development on ANWR's coastal plain. It will also call for Alaska hire provisions in any federal oil and gas leasing.

The resolution is not expected to mention the proposed ANWR land trades that have stirred controversy in Washington. However, the resolution will seek equal treatment for Alaska on revenue issues, including the state's existing entitlement to 90% of revenues from federal oil and gas leasing.

Last year the Alaska Senate passed a resolution near the end of the legislative session, but the resolution included an implied endorsement of the then-secret land exchanges. As a result the resolution was considered too controversial for action in the waning days of the session.

"Now it's important for Alaskans -- including our congressional delegation -- to get off the land trade topic and work toward the single objective of opening the coastal plain," said Rep. Sam Cotten, co-chair of the Resources Committee. "The highly negative reaction of Congress against these exchanges should be a lesson for those who've said the trades might help get passage of a coastal plain bill. That's just wrong."

The original resolution, SJR 7, was introduced by Senator Arliss Sturgulewski. "I've talked to Senator Sturgulewski. She didn't include any mention of the trades in her original resolution because of her concern that we need to focus on the central issue of opening ANWR and because of the lack of consensus on the trade issue. I think the new version of the resolution gets back to her original intent and gets the issue moving toward Congress," said Cotten.

Immediate action is necessary for Alaska to have an impact on Capitol Hill. "My office has been in contact with Senator Johnston's Energy Committee in Congress, which is taking up the ANWR legislation. Senator Johnston is planning to mark up a bill in Congress next month, and he continues to oppose the land trade idea. We just have to hope he remains friendly to the idea of opening the coastal plain," Cotten said.

"On the other hand, if some legislators still insist on the inclusion of pro-trade language, we might end up in a conference committee and the resolution might not reach Washington," Cotten stated.

The hearing is scheduled for Friday January 29 at 8:30 a.m. in Room 124 of the Capitol building.

The Resources Committee is also expected to join the Senate Resources Committee for a joint hearing on ANWR land trade issues next week. Senator Jack Coghill has invited Assistant Interior Secretary Bill Horn to address the joint committees, and Commissioner Judy Brady of the Alaska Department of Natural Resources will explain the State of Alaska's opposition to the land trades.

30 - 30 - 30 - 30

FOR MORE INFORMATION CONTACT:

Sam Cotten, Ned Farquhar (465-3711)

Ned, let me know where you think these whereas clauses should be inserted.

WHEREAS, even when the strictest standards of environmental safety are applied there is still some risk to the land, water, and wildlife resources from oil exploration and drilling, and

WHEREAS, many individuals depend upon the land, water, and wildlife for subsistence, and,

WHEREAS, subsistence users should be protected in the event that oil exploration and drilling result in damage to subsistence resources,

Insert as (3) on page 3, line 12, of CSSJR (Res) am
or similar place in your CS.

THREFORE BE IT RESOLVED[or BE IT FURTHER RESOLVED] that in any Act authorizing the opening of the Arctic National Wildlife Refuge to oil exploaration or drilling that the Congress include language similar to the language in the Trans Alaska Pipeline Authorization Act Section 204 addressing indemnification to subsistence users of the resource.

*Shultz =
Who calls Coghill?*

DRAFT

JOINT RESOLUTION

WHEREAS in 1980 the U.S. Congress suspended the operation of the Mineral Leasing Act of 1920 on the coastal plain of the Arctic National Wildlife Refuge to allow for the study of management alternatives; and

WHEREAS the coastal plain has been found to have the best potential for onshore oil and gas discoveries in the United States; and

WHEREAS Congress recognized the environmental importance of the coastal plain by placing it in the national wildlife refuge system in 1980, and the wildlife and habitat deserve a high standard of protection should oil exploration and development proceed;

WHEREAS exploration and development of oil and gas on the coastal plain could reduce the nation's trade deficit, increase energy security, prevent erosion of our oil and gas industry, improve the national and state economies, and occur with full environmental protection and safeguards; and

WHEREAS the people of Alaska ^{based on the provisions of the Statehood compact} ~~are~~ deserve to be treated equally and fairly in the legislative and administrative

decisions of the U.S. government regarding revenue sharing,
leasing, ownership, and development ^(of public lands including) on the coastal plain;
and

WHEREAS Alaska's economy is in bad condition, with high unemployment, property foreclosures, and shrinking investment;

BE IT RESOLVED that the Alaska State Legislature adopts the following consensus points on management of the coastal plain, and strongly urges Congress to act on them:

(1) the U.S. Congress should open the coastal plain to environmentally responsible oil and gas exploration, development, and production under the authority of the Mineral Leasing Act of 1920;

(2) the U.S. Congress should provide for maximum participation and job opportunity for Alaska residents in coastal plain exploration and development; and

(3) the U.S. Congress should carefully review any legislative or administrative proposal that ^{may} ~~would~~ diverge from established oil and gas law or policy, ^{or the spirit of the Statehood compact} ~~and should treat~~ Alaskans ~~fairly and equally~~.

Send copies to ...

DRAFT

JOINT RESOLUTION

WHEREAS in 1980 the U.S. Congress suspended the operation of the Mineral Leasing Act of 1920 on the coastal plain of the Arctic National Wildlife Refuge to allow for the study of management alternatives; and

WHEREAS the coastal plain has been found to have the best potential for onshore oil and gas discoveries in the United States; and

WHEREAS Congress recognized the environmental importance of the coastal plain by placing it in the national wildlife refuge system in 1980, and the wildlife and habitat deserve a high standard of protection should oil exploration and development proceed;

WHEREAS exploration and development of oil and gas on the coastal plain could reduce the nation's trade deficit, increase energy security, prevent erosion of our oil and gas industry, improve the national and state economies, and occur with full environmental protection and safeguards; and

WHEREAS the people of Alaska deserve to be treated equally and fairly in the legislative and administrative

decisions of the U.S. government, regarding revenue sharing,
leasing, [ownership], and development on the coastal plain;
and

WHEREAS Alaska's economy is in bad condition, with high unemployment, property foreclosures, and shrinking investment;

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(1) the U.S. Congress should open the coastal plain to environmentally responsible oil and gas exploration, development, and production under the authority of the Mineral Leasing Act of 1920;

(2) the U.S. Congress should provide for maximum participation and job opportunity for Alaska residents in coastal plain exploration and development; and

(3) the U.S. Congress should carefully review any legislative or administrative proposal that would diverge from established oil and gas law or policy, and should treat Alaskans fairly and equally.

Send copies to ...

*file - ANWR - Resolution
Sam
my draft that
I handed around
Ned
(Loghill / Swager / Ac
got it)*

DRAFT

JOINT RESOLUTION

ARCTIC NATIONAL WILDLIFE REFUGE
EXPLORATION AND DEVELOPMENT

WHEREAS in 1980 the U.S. Congress suspended the operation of the Mineral Leasing Act of 1920 on the coastal plain of the Arctic National Wildlife Refuge to allow for study of management alternatives; and

WHEREAS the coastal plain has the best potential for onshore oil and gas discoveries in the United States; and

WHEREAS exploration and development of hydrocarbons in the Arctic Refuge could reduce the nation's trade deficit, increase energy security, prevent continued erosion of our oil and gas industry, improve the national and state economies, and occur with full environmental protection and safeguards;

BE IT RESOLVED that the Alaska State Legislature finds that the State of Alaska supports opening the coastal plain of the Arctic National Wildlife Refuge to environmentally responsible oil and gas exploration, development, and production.

COPIES of this resolution shall be sent to the Honorable Ronald Reagan, President of the United States; the Honorable George Bush, Vice-President of the United States and President of the Senate; the Honorable Jim Wright, Speaker of the House of Representatives; the Honorable Robert Byrd, Senate Majority Leader; and to members of the Alaska congressional delegation.

PROPOSED RESOLUTION NO. LE-14

URGING THE FEDERAL GOVERNMENT TO ENCOURAGE THE
PRUDENT USE OF DOMESTIC ENERGY RESOURCES

(Introduced by the Land and Energy Committee)

WHEREAS, in 1986 the United States' reliance on imported oil increased to thirty-seven percent, the highest percentage in seven years, and while the United States' demand for oil increased at a rate of two percent per year, exploration and production capacity has been crippled by predatory pricing on the world oil market; and

WHEREAS, national energy security depends on the development and transportation of domestic oil and gas resources ^{and ~~oil~~ fuels,} to replace depleted U.S. reserves; and the United States must prepare to develop domestic resources if it is to prevent overwhelming dependence on foreign energy sources in the 21st century; and

WHEREAS, natural gas consistently provided one-fourth of the United States' energy mix since the late 1960's; and

①

WHEREAS, the nation's current level of dependence on foreign energy sources poses a threat to the national energy security, balance of trade, and the general economic well-being of the United States. This is partly a result of constrained natural gas pipeline capacity in the northeastern U.S., unused capacity in the Western States, and the inability to transport natural gas ^{and oil} from the North Slope of Alaska to wherever markets may be economically found; and

WHEREAS, a large proportion of the nation's undiscovered oil and gas deposits are likely to be found offshore on the outer continental shelf where exploration and development is risky and capital intensive. The risks in high cost, high potential areas, such as the deep water outer continental shelf and Alaskan arctic waters, are unacceptable because of current world market conditions and federal tax structures;

NOW, THEREFORE, BE IT RESOLVED that the Western Legislative Conference of the Council of State Governments encourages Congress, Administrative and Executive Branch Agencies to develop a consistent federal policy maximizing the efficient, environmentally sound exploration, development, and

③

production of domestic energy resources, including:

use

Approval of exploration, development, and production of oil and gas resources located in the ^{- Coastal Plain -} (non-wilderness areas) of the Arctic National Wildlife Refuge;

timely
(Expedited) review of open-access pipeline applications under the Federal Energy Regulatory Commission Order 436 with resolution of take or pay issue in the final rule as mandated by the Washington, D.C. Court of Appeals;

Options to make available unused pipeline capacity and encourage new domestic capacity through projects to stimulate enhanced oil recovery;

Action to ensure that foreign gas producers and gas transporters do not undercut domestic producers through government subsidies;

Incentives [and tax credits] to encourage oil and gas exploration and development in high cost areas;

Approval of construction of a gas transportation system to bring Alaska North Slope natural gas to world markets; and

Consider the formation of a Pan American Energy Alliance to provide reciprocal aid among the U.S., Canada, Mexico, Venezuela, and other American nations to counter future disruptions in the world oil market.

conserve + alternative

Where is this?
This may be the answer to Ann

1 IN THE SENATE

BY COGHILL

2

SENATE BILL NO. 289

3

IN THE LEGISLATURE OF THE STATE OF ALASKA

4

FIFTEENTH LEGISLATURE - FIRST SESSION

5

A BILL

6

For an Act entitled: "An Act establishing the Arctic National Wildlife

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Refuge Policy Council; and providing for an effective *Sen Fin c*

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date."

was added

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BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

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* Section 1. FINDINGS. The legislature finds that

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(1) state policy supports *opening* ~~the recommendation to the United~~

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~~States Congress by the Secretary of the United States Department of the~~

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~~Interior to open the coastal plain of the Arctic National Wildlife Refuge~~

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to oil and gas exploration, development, and production *under the 1920 act.*

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environmentally responsible (2) the long term effects that Congressional action will have on

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the citizens of Alaska requires that the state properly monitor the federal

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public process through a special ad hoc group established for that purpose.

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* Sec. 2. ARCTIC NATIONAL WILDLIFE REFUGE POLICY COUNCIL. (a) The

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Arctic National Wildlife Refuge Policy Council is established and consists

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of the governor, the commissioner of natural resources, one person ap-

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pointed by the governor, the president of the senate, the chairman of the

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senate resources committee, one person appointed by the president of the

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senate, the speaker of the house of representatives, the chairman of the

24

house resources committee, and one person appointed by the speaker of the

25

house of representatives.

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(b) The Arctic National Wildlife Refuge Policy Council shall seek to

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achieve a consensus in the state on issues relating to the Arctic National

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Wildlife Refuge and advocate those positions before the Congress and other

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forums that the council considers desirable.

DRAFT FOUR 5/13/87

ANWR Resolution

WHEREAS, the U.S. Congress has reserved the right to permit further exploration for, and development of, oil and gas within the coastal plain of the Arctic National Wildlife Refuge; and

WHEREAS, the U.S. Department of the Interior, the State of Alaska, and the oil industry consider the coastal plain to have the highest potential for discovery of very large oil and gas accumulations in North America; and

WHEREAS, the nation will benefit from oil and gas exploration and development on the North Slope, because the trade deficit can be reduced, employment created, and energy security enhanced;

WHEREAS, the biological and recreational resources of the Arctic Refuge are highly valuable and protection of them with adequate development safeguards is in the national and Alaskan interest;

WHEREAS, a decision to permit oil and gas exploration, development, and production on the coastal plain will

facilitate the development of other highly prospective lands on the North Slope, extending the economic life of the Trans-Alaska pipeline and reducing tariffs which are expected to balloon in about twenty years; and

WHEREAS, any development of oil and gas in the Arctic National Wildlife Refuge should and will be subject to strict environmental safeguards, including those protecting water, land, air, and important wildlife habitat which supports subsistence resources used by Alaska and Yukon residents; and

WHEREAS, the permanent protection of large areas of Arctic Alaska is assured by park, reserve, and refuge designations encompassing over 35 million acres of federal land in arctic areas;

WHEREAS, land trades with private corporations, as proposed by the Interior Department, need further review and discussion by Alaskans and Congress before a consensus policy can be reached; and

WHEREAS, Congress may consider reducing the State of Alaska's existing entitlement to oil and gas revenues within the Refuge, even though this might violate the Statehood compact, discriminate against Alaska as compared to other states, and reverse decades-long policies of the federal

government regarding the management of public domain lands within the states;

WHEREAS, the State of Alaska is a vast and underserved state with basic needs for education, improvements, and public services, and any reduction in revenues is a serious matter for the state's citizens; and

WHEREAS, any development of coastal plain oil and gas resources can and should be conducted by Alaska corporations and workers, who have the expertise to bring the resources to market; and

WHEREAS, Alaska's oil and gas industry and employment have been severely affected by reduced activity in recent years, with broad implications for the Alaska economy as a whole;

BE IT THEREFORE RESOLVED that the Legislature of the State of Alaska adopts the following consensus points regarding management of the coastal plain of the Arctic National Wildlife Refuge:

1. Under the terms of the Mineral Leasing Act, the United States Congress should promptly open the coastal plain of the Arctic National Refuge to oil exploration, production, and transportation, directing the Department of

Interior to defer any leasing activity in the core caribou calving area for ten years to allow further study;

2. The U.S. Congress should require the protection of ANWR's environmental and subsistence resources, including wildlife habitat, air, and water, in the event of oil and gas development on the coastal plain;

3. In recognition of Alaska's economic situation and the need for long-term economic development in Alaska, the Congress should require that exploration and development activity in the Refuge shall be conducted by Alaska work forces.

BE IT FURTHER RESOLVED that copies of this resolution be sent to President Ronald Reagan, Secretary of the Interior Donald Hodel, Governor Steve Cowper, Senator Ted Stevens, Senator Frank Murkowski, Congressman Don Young, and all other members of the 100th Congress of the United States.



file -
ANWR - resolution

TOWARD A CONSENSUS ON
THE ARCTIC NATIONAL WILDLIFE REFUGE

A proposal by the Commonwealth North
ANWR Committee

1. It is in the best interest of both Alaska and the nation to permit responsible oil and gas exploration and development of the Coastal Plain of ANWR.
 - Nationally, oil and natural gas imports have risen 37% from last year, contributing to the nation's \$60 billion trade deficit and making the U.S. increasingly vulnerable to foreign oil suppliers.
 - ANWR is universally recognized as the most promising onshore oil and gas frontier in North America. At least 26 identified geological structures in ANWR have oil and gas potential which may rival Prudhoe Bay's giant field.

2. The Arctic Coastal Plain must be developed, as Prudhoe Bay has been, with utmost care for environmental and wildlife values.
 - Alaskans are rightfully proud of the record established on the North Slope whereby resource development and the care and protection of wildlife, including the Central Arctic Caribou herd, have gone hand in hand.

3. Time is of the essence. Congress must be encouraged to act.
 - The Secretary of the Interior, after a 5 year study by the U.S. Fish & Wildlife Service, has recommended to Congress that oil and gas exploration and development be allowed in ANWR's 1002H area (roughly 8% of the 18 million acre Refuge).

*Founding Co-Chairmen • Governor William A. Egan • Governor Walter J. Hickel
Bertram B. Beneville, President • Richard F. Barnes, Vice President
David Chatfield, Vice President • Harold Heuze, Vice President
Robert E. Bulmer, Secretary • Paul Wilcox, Treasurer
Carl F. Brady, Sr. • Julius J. Brecht • John Cairns • Archbishop Francis Thibault
Millett Keller • Mayor Tony Knowles • Sue Luford • Jeff Lowentels
Judge Ralph Moody • George N. Nelson • Malcolm Roberts • William J. Tedan
Frank G. Tupper • Connie Yoshimura*

(2)

- Once Congress gives the "go-ahead" and if oil is discovered, it will take approximately 10 years to produce ANWR oil.
4. Exchanges of public or privately owned inholdings in Federal Conservation System Units for leases in ANWR should be encouraged as part of an open, competitive bidding process.
 5. The state should encourage a high level of Alaska hire and a fair wage during ANWR exploration and development.
 6. The State of Alaska, with the Governor taking the lead, must mount a major educational campaign to inform Congress and the American people about ANWR.
 - The citizens of the State should be encouraged to participate in this campaign by rallying support among their friends and contacts across the nation.

RESOLUTION: Be it resolved that Commonwealth North will actively solicit support for this consensus from the Governor of Alaska, the state's congressional delegation, the state legislature, concerned interest groups and all citizens of the state.

The above resolution was approved by the Commonwealth North Board of Directors on June 2, 1987.

ANWR -
resolution

June 11, 1987

Mr. V. M. Withington
2840 Pelican Drive
Anchorage, AK 99515

Dear Mr. Withington:

I am writing on behalf of Governor Cowper in response to your letter of June 4 regarding the exploration and development of ANWR.

Unfortunately, you have been seriously misinformed. I was personally involved in working with both the Senate and House Resources Committee in support of House Joint Resolution 7. With exception of the language pertaining to land exchanges, we were very supportive of the resolution.

Since your source of information is apparently not reliable, I would strongly encourage you to contact Representative Sam Cotton regarding the facts in this matter. You can also contact Ms. Becky Gay, Executive President of the Resource Development Council, or Mr. Al Fleetwood, Chairman of the Alaska Energy Coalition, who I worked closely with in support of this legislation during the final days of the legislative session.

Sincerely,

Rod Swope
Special Staff Assistant
to the Governor

cc: Representative Sam Cotton

Becky Gay
Resource Development Council

Al Fleetwood
Alaska Energy Coalition

RS:MW:tb

1016

June 4, 1987

V.M. Withington
2840 Pelican Dr
Anchorage, Alaska 99515

Steve Cowper, Governor
Office of the Governor
Third Floor, State Capital
P.O. Box A
Juneau, Alaska 99811

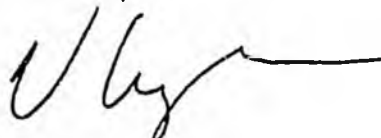
RECEIVED
JUN 08 1987
GOVERNOR'S OFFICE

Dear Steve Cowper,

I understand that Senate passed resolutions supporting the exploration and development of ANWR have been (at your direction) held up in the House by Sam Cotton's House Resource Committee. I am sure that you must realize that presenting anything less than a united front on this subject to the U.S. Congress only serves to delay if not jeopardies the opening of ANWR to oil and gas exploration.

I have written you in the past promoting economic development in the state. Those resolutions promote broadening Alaska's economic base. I strongly urge you to rethink your position and promote the passage of the Senate passed resolutions supporting the exploration and development of ANWR.

Sincerely



V.M. Withington

From: GASCCAB --JDCVM1
To: GASCMRW --JDCVM1 Michele Watts

Date and time 06/16/87 17:02:43

From: Lynn Bartlett
Office of the Governor
465-3500
Subject: SJR-7: Pierce and ANWR

Rod-

At today's coalition meeting, Al Fleetwood read the letter you wrote to the guy (Wimpsey?) re the Governor blocking passage of SJR-7.

Drew Pierce was attending the meeting, and in the course of the discussion following the letter reading she said that the source of the rumor about the Governor's opposition to any ANWR resolution passage was Sam Cotten who told the House Resources Committee in the last hours of the session that the "third floor" was not interested in such a resolution.

I told her that you had worked with Cotten and his staff on getting an acceptable resolution passed, that we were opposed to the land swap concept, and that Cotten had told the coalition that Coghill refused Cotten's request to delete that section.

So the rumor marches on.

Also, Al Fleetwood wants to invite you officially to talk to the group. He said he would be happy to send you a letter if you like. ????

I'll send you a separate message on today's meeting, which was primarily a report by Roger Herrera on his Washington DC trip.

Ben

cc: GASCTMC --JDCVM1
Lynn

GASCCLG --JDCVM1

*Ned,
Also, here's a copy of
message from Ben Harding in
our Wash. D.C. office relating
to this issue.
Rod*

Ned Farquhar
c/o J. Katz
Governor's Office

November 16, 1987

Staffing Levels for
ADEC's North Slope
District Office

Larry Dietrick, Director
Division of Environmental Quality

As requested following are estimates of the Department's current and needed spending levels for North Slope activities. The North Slope is generally defined as the area north of the Brooks Range. Cost estimates in each category includes personnel, rotational travel, office supplies, sampling equipment, ground and air transportation, maintenance of a field office at Prudhoe Bay and training. Costs for legal support or clean-ups are not included. The needed funding level category is an estimate of what is necessary to carry out our real workload. As shown we currently have about half of the resources actually needed to carry out our workload under existing statutes.

The Needed Funding Level does not include resources necessary to conduct additional work for ANWR.

Current Funding Level

<u>Staff</u>	<u>Total Estimated Dollar Cost</u>
4.0 FTE Professional Staff	\$315,000
<u>.5</u>	
4.5 Total Staff	

Needed Funding Level

<u>Staff</u>	<u>Total Estimated Dollar Cost</u>
8.0 FTE Professional Staff	\$800,000
<u>2.0 Clerical</u>	
10.0 Total Staff	

Please contact me if you have any questions.

MEMORANDUM

State of Alaska

TO: Jay Hogan
Director
Division of Budget Review

DATE: September 21, 1987

FILE NO:

TELEPHONE NO: 465-2600

FROM: Dennis D. Kelso
Commissioner
Department of Environmental
Conservation

SUBJECT: Agency Budget Issues
Memorandum (A-4)

I. Agency Goal

3
The Department of Environmental Conservation (DEC) is a technical and enforcement agency. Our fundamental goals are to protect the public health and the environment by preventing or responding to air, land or water pollution; assuring wholesome fish, meat, and dairy products for consumers; enforcing basic standards of sanitation for Alaskans and tourists in public facilities; and providing technical and financial assistance to municipalities and communities for water, sewer and solid waste facilities. The department is responsible for both fundamental health programs and the complex regulatory needs associated with advanced industrial development.

My approach is to emphasize a positive working relationship with regulated communities and the public while insisting on a technically competent approach to fulfilling our mandate. I believe that an effective DEC is essential to sound development in Alaska, so that needed permitting may be conducted in a timely fashion and so that the public may be confident that environmental impacts will be properly managed.

II. Key Policy Issues Facing the Department--Short-Term

Alaska has strong environmental and public health statutes and a strong commitment to providing sanitation facilities. The key challenge facing this department is to balance the job we are expected to do with the resources available to do it. Most programs are inadequately funded to uphold the legal responsibilities set out in the statutes. This has serious repercussions for this agency and the administration from policy, liability, and management perspectives.

This memorandum lays out the major areas of need for the agency.

Structural
long-term liability
Division of Environmental Quality building

The Division of Environmental Quality (DEQ) has the broadest responsibilities for protection of public health and the environment. It is responsible for environmental programs ranging from disposal of sewage to regulation of toxic substances. These are the most technically complex programs in the agency. The sophistication of environmental programs dealing with hazardous waste, site cleanup, toxics, and complex chemicals in drinking water has increased tremendously over the last five years. Moreover, increased public awareness that Alaska has real environmental problems has led to increased demands on the agency.

The Division as a whole is extremely strapped. The staff available is far from adequate to carry out all responsibilities. One acute example is the solid waste program, solely a state responsibility, which is supposed to permit and oversee all solid waste disposal facilities in the state. It has the equivalent of six personnel statewide. As a result, only a small percentage of sites are getting the kind of attention they should. For others, disposal practices today will likely create sites that will require cleanup in the future, with associated drinking water and groundwater problems.

Another example is emergency response capability. The department has never had funding available to develop an emergency response capability. Instead, emergency response is accomplished by taking personnel from other programs.

Following is a brief discussion of the key needs.

Douglas Laboratory - The Douglas Laboratory analyzes wastes and suspected hazardous substances for all DEC programs. The laboratory needs additional technical and support staff to perform the needed analyses quickly enough for the agency to address threats to the public health and the environment. Funds necessary to properly train staff are also essential. During the last year, the laboratory has designed and implemented quality assurance and safety programs to ensure that data are reliable and employees are safe. These essential tasks have taken resources from analytic work.

The laboratory is housed in a grossly substandard facility originally constructed in the 1930's to serve as a school. The move to this facility ten years ago was intended to be temporary. Physical space, layout, and ventilation are all inadequate. Structural problems with the building pose long-term liability threats to the state, as the safety of the building is

in question. It is essential that the laboratory be moved from the present facility.

A capital request of about \$5.8 million will be proposed for a new laboratory.

Air Quality - We are responsible for permitting and monitoring sources of air pollution, monitoring ambient air quality, and developing strategies to address areas where federal standards are not met. A critical need is to develop a program to manage large scale burning to prevent health effects from smoke inhalation. Current staffing levels do not allow inspections of all stationary sources each year, issuance of permits within statutory time limits, compliance actions for all facilities not meeting standards, control of toxic air contaminants, or development of a management system for emissions from areawide burning.

Hazardous Waste - DEC currently operates under a cooperative agreement with EPA; the state does not yet have federal approval to manage this program. Additional demands are placed on the agency for FY 89 by the statutory requirement that the state assume the federal hazardous waste program and by the need for additional effort to find sites in-state for hazardous waste management facilities. Moreover, if the state is truly to assume responsibility for the program, a greater inspection and enforcement presence will be needed. Also, industry's need to obtain permits would not be met for five to ten years at the continuation level. There will likely also be increased needs for assistance to the regulated community.

Emergency Response - DEC has never had a budget for staff to respond to emergencies like the Cook Inlet oil spill and the chemical release from the tank car at Crown Point. Time spent in performing response activities comes from programs budgeted for other purposes. An emergency response capability should be planned and budgeted for. These responsibilities simply cannot be sandwiched in between and taken from all other agency functions. The result is inadequate response and the exposure of Alaskans to needless risks.

In addition, it will be necessary to request in the operating budget continuation of the reappropriation for the statewide emergency response commission to coordinate an emergency planning function between the state, local, and federal government levels; citizen groups; and affected industrial facilities.

Drinking Water - Safe drinking water is essential to public health. In Alaska, responsibility for ensuring that providers of drinking water supply pure water is performed by the state. (In other states, this function rests with county health departments.) Alaska has more than 1600 water systems which require monitoring, proper operation, and safe design and construction. Many are in remote areas and operated by employees with minimal training. Alaska has the lowest rate of compliance with drinking water requirements in the nation.

We are only able to ensure that a portion of the monitoring needed to ensure safe water is done. Critical parameters simply have not received the necessary attention. Moreover, essential activities are plainly inadequate: surveys of drinking water systems to ensure integrity, review of plans for drinking water systems, follow-up to contaminated systems, training for operators, and technical assistance. Some systems are not addressed at all. The discrepancy between the needed level of effort and the state's capability at the continuation level will increase with the implementation of new standards for toxic compounds established under the federal Safe Drinking Water Act.

Oil Pollution Control - The oil pollution control program is responsible for ensuring that facilities storing or transporting large quantities of petroleum products have adequate facilities, plans to minimize the potential for oil spills and to respond to them when they do occur, and adequate resources to address spills. The program also addresses underground storage tanks in concert with the federal program. Originally, the program funding was adequate to meet the needs. However, funding has eroded by about fifty percent over the last eight years, and the number of facilities affected has increased. This has resulted in inadequate staffing to review oil spill contingency plans and to perform needed field work. (Lack of staff directly contributed to our ability to respond to the problem at the MAPCO refinery).

Solid Waste - The level of effort devoted to the solid waste program is far from what is required to provide sound disposal methods and to avoid creating environmental and health problems in the future. Of particular concern are the serious inadequacies in rural Alaska, increased demands from the disposal of hazardous materials cleaned up as a result of Superfund or other

site cleanups, and the workload that will result from recently-adopted regulations addressing the disposal of drilling wastes. There is no federal counterpart program.

Site Investigation and Cleanup - A large number of past improper disposal sites have been identified over the last two years. The department has addressed some of these--such as the Alaska Gold site in Nome and the Childs Equipment site in Deadhorse--by working with the owner or another party to achieve a cleanup. This approach saves the state considerable expense over the long term, because the state does not have to directly pay for remedial action and then attempt to recover costs. However, it requires substantial staff time to oversee or conduct any needed site investigations, identify needed cleanup actions, negotiate an agreement with the responsible party and oversee the cleanup operation. (At times, site investigations can be paid using Superfund dollars.) At least 120 known sites cannot be quickly addressed with existing staff. Roughly 40 new sites are being identified each year. Some sites receive considerable public concern. Staff time, except to the limited extent associated with the Oil and Hazardous Substances Release Response Fund, has never been budgeted for this purpose

Quality Assurance - As the complexity of the agency's technical responsibilities has grown, a need for an in-house capability to address field sampling protocols and methods has become clear. This must be budgeted so that field sampling can achieve the results needed to address environmental and public health problems.

Water Pollution Control - DEC's programs to control water pollution from a variety of sources have limitations. We are not now able to work with the timber industry in monitoring and correcting non-point source problems. Disposal of sewage from homes in areas without sewer systems is being addressed to varying degrees around the state. In some areas, such as Ketchikan and Homer, improper sewage disposal has resulted in surface contamination.

Placer Mining - The Governor has requested a briefing on our progress in addressing his seven point plan for placer mining. His policy decisions in response to that briefing will determine what budget will be needed.

STAFFING AND DEPARTMENTAL REORGANIZATION
A program that would meet SOA's recommended minimum
The Best Division of Environmental Health requires

The Division of Environmental Health (DEH) is responsible for inspection programs for the dairy, meat, seafood, and shellfish industries. It inspects public facilities and implements the pesticide program. The sanitation and shellfish programs are of most concern because of acute shortfall in program capacity.

Sanitation in public facilities - The sanitation program is responsible for inspecting public facilities to ensure that public health standards are met. In the Fairbanks area and the Matanuska Susitna Borough, inspection levels have declined to one inspection every two years. This is well below the minimum needed to ensure that public health can be protected. This has serious implications for the Alaskan public, as well as for the tourism industry.

The rest of the State falls below minimum inspection rates with approximately one inspection per year. In order to achieve even this level of inspection the sanitation component has excluded 1259 facilities from the regular inspection program and responds only in case of complaints. In another 526 public accommodations, the statutorily required inspection and permit processes are simply not implemented.

For purposes of comparison, the Municipality of Anchorage and the State of California inspect food service facilities four times per year and the State of Washington three to four times per year. The federal Food and Drug Administration (FDA) recommends a minimum of two inspections per year. The greater effectiveness of higher inspection rates is clearly demonstrated by contrasting the results of the state's program with those of the Municipality of Anchorage. In a city with a population base of 250,000 people and 1780 public facilities, there were no disease outbreaks in the last year. By contrast, in the Fairbanks and Matanuska-Susitna Borough areas, there were three disease outbreaks in tour groups, an outbreak in a pool/spa facility and one in a day care facility. The Municipality of Anchorage has 197 facilities per inspector in contrast to the state which has 435 per inspector and a greater geographical area to cover. The municipality spends \$604,000 per year to conduct its inspection program versus the \$920,000 the state expends for about 5000 facilities.

assistance - ...
constructed - may be needed to keep community systems
functioning - program that would meet FDA's recommended minimum
dollars. inspection level of twice per year would require nine

new positions at approximately \$531,000. For the State to reach the more effective level of quarterly inspections, 15 new positions would be required at \$884,000 per year.

Support of the Shellfish Industry - The shellfish industry is experiencing major growth. Under federal Food and Drug Administration regulations, shellfish cannot be sold in interstate commerce unless the state has a federally approved program for shellfish. This requires review and certification of harvest areas, supervision of the catch, and testing of product for paralytic shellfish poisoning (PSP.) Since 1981, the number of certified harvest areas has increased from 5 to 13. An additional 38 areas have been proposed and are in some stage of review. The department has only one position for all work associated with shellfish. The workload already exceeds the capacity of this one position. The federal program review confirms that the existing staff has reached full capacity. Additional resources are essential to allow more areas to be certified and eligible to participate in interstate commerce, thereby enabling this industry to develop.

In addition, growers have expressed strong interest in obtaining more laboratory facilities to test for paralytic shellfish poisoning (PSP). This is required before shellfish can be sold. The department has determined that it is possible to certify private laboratories for this purpose. The certification process would require limited additional resources.

C. Division of Facility Construction and Operation -

The Division provides technical and financial management of capital grants to communities for sanitation projects. Specialized assistance is available for villages. (The capital budget is addressed in the attachment.)

Core Programs - For the Division to accomplish its core program, funds are needed to allow staff working with rural villages to travel; timely auditing of projects and payment to communities; timely award of funds for projects, particularly to the Municipality of Anchorage; and timely implementation of the revolving loan fund.

Rural Water and Wastewater System Management - More assistance in managing projects after they are constructed may be needed to keep community systems functioning during the decline in available state dollars. This issue is being discussed at the Economic

Dislocation Task Force. Utility management assistance to communities would help them effectively run their utilities to reduce the potential for system failure resulting from lack of resources like fuel oil. This would ultimately save the state money. We will pursue this through the task force.

The Governor has asked that DEC determine what would be required to provide maintenance assistance to rural water and wastewater systems and to protect the state's investment. Several elements are needed to accomplish this on a statewide basis. The Legislature has also asked that we assess the need for remote maintenance workers statewide. This report is due on January 1. I would anticipate that the report, when completed, could result in a proposal for additional funding.

D. Administrative Services/Commissioner's Office

Budget reductions and new statutory responsibilities during recent years have led to erosion of administrative functions and the department's ability to inform the public. In order to support field operations and new programs, these functions have been cut so severely that the department's overall performance is impaired. In addition, funds are not available to address safety of our employees as they work in potentially risky areas as with hazardous materials, toxic substances, and site cleanup.

Administrative and Clerical Support - Two issues exist for administrative and support services within the agency. First is the need to budget administrative support commensurate with increases in programs. Second is the need to budget for clerical support commensurate with the needs of the professional staff. The urgency of these needs reflects prolonged losses from successive budget reductions.

Public Information - The Department addresses a large number of issues and implements a large number of requirements that interest and affect the public. Only a very low level of funding remains for the public information office. This has considerable effects on the ability of the agency to design and implement workable public participation programs and to help the public understand the issues affecting them.

Safety - The Department has no organized safety program, even though activities undertaken by the employees, particularly in field investigations and in working with hazardous materials, may pose substantial risks. The State also has increased responsibility to

employees, as a result of OSHA regulations and requirements under the federal Superfund bill. It is essential that a safety program be designed and implemented to minimize both risks to employees and liability of the State.

Underfunding of Personnel Costs - The budget process over the last several years has not allowed the full costs of authorized positions to be budgeted. This is due in large part to the failure to budget increases provided in union contracts. In all divisions, this has created chronic "underfunding." Needed positions are left vacant for extended periods to adjust for this shortfall. It would be advisable for your office to address this on a statewide basis.

III. Long Term Key Policy Issues Facing the Department -

- A. Mariculture - The State's approach to mariculture could have a major impact on the budget. The department is working with the fisheries mini-cabinet on this issue. The development of mariculture would have substantial effects on the seafood program. A site certification process similar to that employed for shellfish growing areas would likely be needed. Monitoring of chemicals used in operations would be needed as would a regulatory approach to discharges.
- B. Pesticides - The state is reviewing its pesticide program. New regulations will be proposed this fall. There is increasing public awareness of issues related to pesticide application and use. Additional effort may be needed in the future for this program.
- C. Indoor Air Quality - Research is increasingly demonstrating that indoor air quality may have greater impacts on public health than previously thought. Especially in cold climates, where buildings are well sealed and insulated, levels of carbon monoxide and other pollutants may reach unacceptable levels. There is no state program to address this issue at present, but initiatives may be appropriate in the future.
- D. Groundwater - Groundwater is a crucial water resource that has never received the kind of attention from environmental agencies that surface water has. National initiatives are being proposed for groundwater. Moreover, experience in Alaska is revealing that current programs do not provide a full measure of protection, as well as administrative

In FY 88, the State will prepare a strategy on how to address groundwater issues, based on analyses of current problems and the present regulatory structure. The approach will be to rely upon existing authorities to maximum extent. This may have implications for future budget years.

- E. Risk Assessment - Increasingly, decisions on how to manage environmental problems are incorporating consideration of levels of risk actually posed to the public by various alternatives. The state has little current technical capacity to participate in risk assessments. This capacity may need to be developed in the future.
- F. Hazardous Waste Disposal - The department is continuing with its process to identify possible sites for hazardous waste facilities. If a decision is made for the state to select and then operate a site, considerably more funds will be needed.
- G. Assistance to Rural Sanitation Projects - As mentioned briefly under short term issues, the role of the state in providing technical operational and management assistance to small communities with sanitation projects is an important issue. Experience has shown that projects without maintenance assistance experience catastrophic failures that may destroy the state's investment. Experience is also showing that management assistance on how to run facilities as utilities can result in better operational resources. A policy decision on the role the state should play in these areas, to protect its multi-million dollar investment and the public, is needed.
- H. Emergency Response Planning for Hazardous Materials Spills - In FY 88, the State will begin to address the requirements in the federal Superfund bill for local planning for emergency response. This may require additional resources in the future.
- I. Quality Assurance - Increasing attention is being paid nationally to the accuracy of data generated by environmental agencies. States and EPA are reviewing and improving quality assurance and quality control procedures. The State has begun to address this issue. Further enhancements and improvements will be needed in future years.

Administrative Support
Legal Assistance - Legal assistance available to the Department for legal actions, as well as administrative Officer

and regulatory proceedings, must be adequate to support agency actions. This issue needs to be addressed.

- K. Arctic National Wildlife Refuge - Additional resources would be needed to address any detailed environmental review on development associated with this area.

IV. Approximate Additional Funding Needed for Core Programs

A. Division of Environmental Quality

Douglas Laboratory Operations	750.0	
Quality Assurance	200.0	
Air Quality Control & Monitoring	1,400.0	
Hazardous Waste -		
Facility Siting and Regulation	860.0	
Emergency Response Capability	484.0	
Emergency Response Commission	94.0	
Drinking Water	1,200.0	
Oil Pollution Control	550.0	
Solid Waste	750.0	
Site Investigation/Cleanup	580.0	
Water Pollution Control	1,500.0	
Placer Mining	**	
Clerical and Contractual	500.0	
Subtotal		8,868,000

B. Division of Environmental Health

Environmental Sanitation	536.0	
Shellfish Program	68.0	
Subtotal		604,000

C. Facility Construction and Operation

Core Program Support	122.0	
Operational Assistance to Systems	**	
Subtotal		122,000

D. Administrative Services/Commissioner's Office

Administrative Support (Fiscal)	60.0	
Clerical Support	40.0	
Public Information	50.0	
Safety Officer	80.0	

Jay Hogan

-12-

September 21, 1987

Subtotal	230,000
TOTAL	9,824,000

** Policy decisions to be made in other forums will prescribe any budget needs here.

Attachments

cc: Janet Clarke
Amy D. Kyle
Division Directors

DDK/ADK/pc/mt
a4/a3

Advantage:

... 25 percent grant program includes:

ATTACHMENT

CAPITAL BUDGET ISSUES

Three issues should be considered in the development of the capital budget and the appropriation process for the Facility Construction and Operation Division:

- ° Use of the Alaska Department of Environmental Conservation (DEC) grant programs as the funding mechanism for sanitation projects,
- ° Matching federal funds for the Alaska Clean Water Fund, and
- ° Funding for the Capital Improvement Project component in the operating budget.

Use of DEC grant programs -

The primary funding avenues to send state capital monies to local governments to meet their sanitation needs are:

1. Direct grants administered by the Department of Administration (AS 37.05).
2. Fifty percent Matching Construction Grants Program administered by DEC (AS 46.03).
3. Village Safe Water Program administered by DEC (AS 46.07).

During the last six years, \$431,000,000 in State money has been appropriated for water, sewer, and solid waste projects. Approximately eighty percent has been in the form of direct grants (AS 37.05) and only twenty percent has been administered by DEC.

At a time when state revenues have declined, it is necessary for state capital dollars to be used to the greatest advantage of both the State and local governments. To fund sanitation utility development and to stretch the state's dollars and assure attention to the most pressing needs, the state should use the fifty percent Matching Grants and Village Safe Water programs.

Advantages of the fifty percent grant program include:

DATE: January 7, 1987

Mr. Robert Grogan
Associate Director
Division of Conservation
Coordination
Office of Management
and Budget

FILE NO

TELEPHONE NO. 465-4100

SUBJECT: 1987 Research

FROM: Don W. Collinsworth
Commissioner
Department of Fish and Game

As part of the State's initiative on a positive energy policy and gas development in the ANWR 1982 plan, the Governor has requested that the Department determine if there is sufficient information on the effects of oil and gas development on fish and wildlife resources in ANWR for the state to recommend a plan of action if the alternatives in the draft 1987 report have been not expressed particular interest in the area of water the effect of oil and gas development on use of the northern shore of the area by the Porcupine caribou herd (PCH) and the effects of oil and gas development on the PCH and its habitat were adversely impacted.

The Department has completed an initial review of the available information on the effects of oil and gas development on fish and wildlife resources in ANWR. The information reviewed includes the draft 1987 report, the 1982 plan, and other available information. The Department has identified areas where fish and wildlife resources may be impacted by oil and gas development. The Department has also identified areas where fish and wildlife resources may be enhanced by oil and gas development. The Department has prepared a report on the effects of oil and gas development on fish and wildlife resources in ANWR. The report is being prepared in accordance with the Governor's request. The report will be submitted to the Governor in the near future.

With regard to the effects of oil and gas development on fish and wildlife resources in ANWR, the Department has identified several areas where fish and wildlife resources may be impacted. These areas include the northern shore of the area, the PCH habitat, and the effects of oil and gas development on the PCH and its habitat. The Department has also identified areas where fish and wildlife resources may be enhanced by oil and gas development. The Department has prepared a report on the effects of oil and gas development on fish and wildlife resources in ANWR. The report is being prepared in accordance with the Governor's request. The report will be submitted to the Governor in the near future.

Robert Grogan

January 7, 1987

With regard to the more subtle threat, it is the professional judgement of staff members based on experience with caribou in general and with the Central Arctic Herd (CAH) in the Prudhoe Bay region of Alaska in particular, that development of the four mining areas will result in the displacement of caribou herds to other areas, and that such displacement may eventually result in a decline in the PCH. Moreover, a growing 1985 workshop organized by the U.S. Fish and Wildlife Service on the topic of the potential effects of oil development as described in ANWR the same conclusion was reached by 11 of the 14 agency and industry caribou biologists invited to the workshop. This conclusion was reached by reference to data from other research. To be most conclusive, a research program should ideally be conducted on the PCH caribou as the focus of national debate. One of the most appropriate ways to answer the question of what would happen to the PCH caribou herd as developed oil fields are developed and processed and to monitor the effects, however, that may result is the development of a research program designed to prevent, or at least to delay, a decline in the population of the PCH caribou herd. It is for this reason that I recommend that the North Slope Herd, especially the PCH, be included in the research program of the PCH.

The Department of the Interior, through the Alaska Department of Fish and Game, should be authorized to conduct a research program on the PCH caribou herd. The program should be designed to monitor the effects of development on the PCH caribou herd and to prevent, or at least to delay, a decline in the population of the PCH caribou herd. The program should be conducted in cooperation with the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game.

With regard to the more subtle threat, it is the professional judgement of staff members based on experience with caribou in general and with the Central Arctic Herd (CAH) in the Prudhoe Bay region of Alaska in particular, that development of the four mining areas will result in the displacement of caribou herds to other areas, and that such displacement may eventually result in a decline in the PCH. Moreover, a growing 1985 workshop organized by the U.S. Fish and Wildlife Service on the topic of the potential effects of oil development as described in ANWR the same conclusion was reached by 11 of the 14 agency and industry caribou biologists invited to the workshop. This conclusion was reached by reference to data from other research. To be most conclusive, a research program should ideally be conducted on the PCH caribou as the focus of national debate. One of the most appropriate ways to answer the question of what would happen to the PCH caribou herd as developed oil fields are developed and processed and to monitor the effects, however, that may result is the development of a research program designed to prevent, or at least to delay, a decline in the population of the PCH caribou herd. It is for this reason that I recommend that the North Slope Herd, especially the PCH, be included in the research program of the PCH.

In the discussion that follows a research program is outlined that should provide the most realistic level of

Robert Grogan

January 7, 1987

information to allow a baseline regarding future development in the PCB core fishing area, and to predict the effects of above ground physicals on movements of large, mosquito-harassed groups. This research program should be coordinated with the New York Fish and Wildlife Service. Due to limited time allotted for development of this research program, all budget figures should be considered as rough approximations of cost. It should also be understood that even with the success of this research program, inference will still be based on the best of professional judgement.

COMPLETING RESEARCH NEEDS

A number of data points were observed in concentrations of certain areas of their existing growth over a number of years. The majority of these data were obtained from the New York Fish and Wildlife Service and are particularly detailed and accurate. The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups. The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups. The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups.

CONCLUSION

The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups. The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups. The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups.

Research project is being conducted in the New York Fish and Wildlife Service, the information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups. The information is being analyzed to the maximum extent possible to determine the effects of the physicals on the movements of large, mosquito-harassed groups.

Robert Grogan

January 7, 1987

This case history research will consist of satellite and radio telemetry studies of bird migration and post-migration movements in the upper and Florida Bay areas. Road surveys to identify areas of movement through the old fields, and secondary use of habitats. Intensive aerial surveys during winter months will be expanded to include the entire coastal plain between the Suwannee and Tampa Rivers.

Budget: \$125,000

Hypothesis: 2) Data gathered on population changes from the core nesting area will show a period of decline followed by a decline of the PCB.

Background: Studies of bird migration to explain the phenomenon of seasonal movements, in birds, are limited in some portions of the world. This is due to a lack of reliable information on migration routes and seasonal activity areas. The study of migration is important in understanding the evolution of birds, the effects of environmental conditions on their habits, and the effects of human activities on their migration. The following report will describe the study of migration in the Florida Bay area. The study will be conducted by using satellite and radio telemetry to track the movements of birds. The study will also include a survey of the nesting areas and the effects of human activities on the birds. The study will be conducted in the Florida Bay area, which is a large area of wetlands and waterways. The study will be conducted in the Florida Bay area, which is a large area of wetlands and waterways. The study will be conducted in the Florida Bay area, which is a large area of wetlands and waterways.

Objectives: 1) To determine the migration routes of birds in the Florida Bay area. 2) To determine the effects of human activities on the migration of birds in the Florida Bay area. 3) To determine the effects of environmental conditions on the migration of birds in the Florida Bay area.

- 1. Migration routes
 - a. Topography
 - elevation
 - aspect
 - relief
 - drainage

Robert Grogan

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January 7, 1987

I. Mammography

... mammography ...
... breast

Budget: 5 years, \$225,000

II. Mammography: Core vs. Peripheral Salving

A. Core vs. Peripheral Salving

... core vs. peripheral salving ...
... 3-5 years ...

B. Core vs. Peripheral Salving

... core vs. peripheral salving ...
... 3-5 years ...

Budget: 5 years, \$225,000

III. Mammography: Core vs. Peripheral Salving

A. Core vs. Peripheral Salving

... core vs. peripheral salving ...
... 3-5 years ...

B. Core vs. Peripheral Salving

... core vs. peripheral salving ...
... 3-5 years ...

Budget: 5 years, \$225,000

IV. Mammography: Core vs. Peripheral Salving

... core vs. peripheral salving ...
... 3-5 years ...

Robert Grogan

January 7, 1987

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Subject: ...

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Robert Greese

-74

January 7, 1937

Dear Mr. Greese: I am pleased to hear that you
are interested in the work of the Fish and Wildlife
Department. I am sure that you will find the
information that you are seeking.

Very truly yours,
[Signature]

12-15-37

TESTIMONY
OF
TRUSTEES FOR ALASKA,
NATURAL RESOURCES DEFENSE COUNCIL
AND
NATIONAL WILDLIFE FEDERATION

Before the
Subcommittee on Water and Power Resources
Committee on Interior and Insular Affairs
U.S. House of Representatives
on
Environmental Issues Related to
Oil and Gas Development Activities on
Alaska's North Slope

October 8, 1987

Prepared by:

Robert W. Adler, Executive Director
Trustees for Alaska

Lisa Speer, Senior Project Scientist
Natural Resources Defense Council

Mr. Chairman and members of this Committee. My name is Robert W. Adler. I am the Executive Director of Trustees for Alaska, a nonprofit, public interest environmental law firm based in Anchorage, Alaska. With me today is Lisa Speer, Senior Project Scientist with the Natural Resources Defense Council (NRDC), a national environmental organization with approximately 70,000 members and supporters nationwide. Trustees, NRDC and the National Wildlife Federation (NWF) have had a longstanding interest and involvement in oil and gas development in Alaska, and in issues related to the Arctic National Wildlife Refuge.

In July of this year, NRDC, Trustees, and NWF presented testimony before this Committee on the preliminary results of a major review that we are conducting regarding the environmental effects of oil and gas development on the North Slope of Alaska. Most of these impacts were not addressed adequately, and some were not addressed at all, in the Interior Department's Report to Congress and Legislative Environmental Impact Statement on oil and gas development in the Arctic Refuge.

Since that time, the Committee has had the opportunity to visit both Prudhoe Bay and the coastal plain of the Arctic National Wildlife Refuge. With your increased understanding of the nature and magnitude of development required for a major oilfield on the North Slope of Alaska, we would like to take this opportunity to elaborate upon some of the findings we presented to you in July, and to discuss them in light of responses recently raised by the oil industry.

To reiterate, the major conclusions of the NRDC/Trustees/NWF report on Prudhoe Bay are:

- 1) Industrialization of the North Slope related to oil and gas development has resulted in a wide range of environmental impacts, including pollution of the air and water and the destruction of substantial amounts of habitat.
- 2) The conduct of the oil and gas related industries on the North Slope has ranged from environmentally responsible to irresponsible, and in some instances has involved a serious disregard for environmental impacts. Hundreds of violations of state and federal regulatory controls designed to protect the environment have occurred. These range from minor infractions to at least one conviction on multiple criminal counts.
- 3) Existing environmental regulations as they are currently implemented and enforced have not provided adequate protection from significant environmental deterioration resulting from oil and gas activities.

4) The technology to achieve successful restoration of developed areas on the North Slope over the long term has not been effectively demonstrated for large scale projects

5) Major data gaps exist on environmental impacts and compliance on the North Slope due to a systematic failure in monitoring on the part of the resource agencies. These gaps seem unlikely to be filled in the foreseeable future given the current level of monitoring activity.

A. Compliance Issues

The oil and gas industry responds to many of the serious potential environmental impacts of oil and gas development on the North Slope by pointing to the extensive regulatory system that is designed to prevent or to mitigate those impacts. As we noted in our July testimony, we believe the present regulatory system is not sufficient to protect the air, water and wildlife habitat of the North Slope. Even if these regulatory controls are tightened, they will only be effective if compliance with them is greatly improved. Our July testimony demonstrated just the opposite -- there has been widespread noncompliance with many aspects of the regulatory program designed to protect the North Slope environment.

A few of the most notable examples of the industry's failure to comply with environmental laws and regulations are:

1. Waste discharges to the tundra from fully one half of the drilling mud reserve pits that were dewatered in 1986 violated state effluent limits. In 1985 and 1984 the situation was even worse, with discharges from 85 percent and 100 percent of pits violating permit standards.

2. State records document between 400-600 reported spills of oil and other chemicals per year associated with oil development on the North Slope and the northern portion of the haul road.

3. In 1985, the only year for which the state has compiled black smoke reports in a data base, 150 black smoke incidents in violation of state air quality regulations were reported.

4. There have been a number of hazardous waste violations on the North Slope. In 1983, a major hazardous waste event occurred at the site of North Slope Salvage, Inc., which stored and disposed of drums from North Slope operators.¹ During the cleanup, over 58,000 gallons of contaminated liquids were recovered. Extensive soil and water contamination was documented and the site was determined to pose a "serious environmental and human health hazard."²

Nor is this an isolated incident of improper storage and disposal of hazardous substances. Of 29 hazardous waste inspections by EPA and DEC, 11 revealed violations.³ ADEC has closed two unpermitted oily waste pits with histories of leaking and overflowing fluids.⁴ Most recently, ADEC has discovered additional problems on Deadhorse lease tracts. For example, ADEC discovered more than 500 drums of unidentified petroleum liquids and several tons of other waste on a pad leased to Child's Equipment Services, which has filed for protection from creditors in U.S. Bankruptcy Court. Some of the drums were leaking.⁵

Notably, the industry has done little to respond to these charges. They have not attempted to explain the many violations that are revealed in state and federal agency files. More importantly, they have given no assurances that this violation history will improve in the Prudhoe Bay region, and that such violations will not be repeated in the Arctic National Wildlife Refuge.

In fact, rather than giving assurances that this past disregard for existing environmental standards will be corrected, the industry has continued to press for less stringent environmental protections on the North Slope. For example, in a letter written to the Alaska Office of Management and Budget in April of this year, the Alaska Oil and Gas Association attacked many of the regulations designed to protect the North Slope

¹ ADEC, 1984. Report on the Occurrence, Discovery, and Cleanup of an Oil and Hazardous Substances Discharge at Lease Tract 57, Prudhoe Bay, Alaska.

² Clar, J.M., 1984. An Evaluation of the Environmental and Human Health Hazards of Chemicals found at North Slope Salvage, Inc. (prepared for ADEC).

³ The results of most of these hazardous waste inspections are unavailable in the public record because they are pending review or compliance action.

⁴ The Pingut Oily Waste Pit and Drill Site 1C.

⁵ Anchorage Daily News, 7/19/87.

environment.⁶ This hardly provides reasonable assurance that the industry is willing to improve its environmental compliance efforts on the North Slope.

B. Hazardous and Solid Waste

As reported in our July testimony before this Committee, tremendous quantities of solid and hazardous waste are generated in conjunction with oil and gas development and production on the North Slope of Alaska. To date, the industry has not demonstrated that it can dispose of these wastes in an environmentally acceptable manner.

Much of the waste material produced on the North Slope is the inevitable result of any major industrial undertaking of this magnitude. Solid waste generated by the oil industry includes wrecked vehicles, airplanes, used batteries, styrofoam pipeline insulation, tires, prefabricated scrap construction materials, large quantities of scrap metal, and over 10,000 used drums per year.⁷ As an example, a three-year pipeline construction project can generate over 500 destroyed vehicles, 3,000 batteries, 10,000 tires, 20,000 tons of scrap construction materials, 6,000 tons of equipment components, thousands of used drums, thousands of cubic yards of various camp-related wastes, hundreds of prefabricated buildings, and large quantities of unused pipe.⁸

Perhaps more importantly, North Slope activities generate tremendous quantities of liquid industrial wastes, some of which are hazardous. A review of North Slope liquid wastes by ADEC documented the following volumes of wastes disposed of on the North Slope in 1986:⁹

⁶ Letter dated 4/2/87 from the Alaska Oil and Gas Association to the Alaska Office of Management and Budget.

⁷ ADEC, 1987(a). Solid Waste Management Standards for Arctic and Subarctic Alaska, page 2.

⁸ ADEC, 1986(a). Environmental Information Relative to Air and Water Quality, Solid Waste Disposal and Oil Spill Contingencies for the Arctic National Wildlife Refuge, page 25.

⁹ ADEC, 1987(b). A Review of Liquid Waste Production and Disposal at Oilfield Facilities on the North Slope of Alaska.

1986

only well injxn?

Subsurface disposal

Injected wastes - ARCO Pad 3	-	3,649,422	gallons
CPF 1&2 disposal wells	-	23,753,907	gallons
Annular injection	-	116,006,142	gallons

Surface disposal

Reserve pit fluids to tundra	-	64,568,520	gallons
Road discharges	-	36,924,594	gallons
Excavation dewatering	-	369,500,000	gallons
Hydrostatic testing discharges	-	3,056,119	gallons
Domestic wastewater discharges	-	1,032,650	gallons

TOTAL		617,861,300	gallons
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Many of these wastes have the potential to cause environmental degradation whether or not they are legally defined as hazardous. But the question of which North Slope wastes are hazardous is complicated by the fact that wastes uniquely associated with oil and gas exploration and development are currently exempt by law from classification as hazardous waste, whether or not the materials are in fact RCRA-hazardous. (RCRA §3001(b)(2)(A)).

Nevertheless, biennial hazardous waste generator reports on file at EPA indicate that large quantities of potentially hazardous waste are generated on the North Slope. Total volumes of wastes reported were 16,673,685 gallons in 1983 for all North Slope oilfields, and 166,669 gallons for the North Slope fields, not including ARCO Kuparuk, in 1985.¹⁰

As explained in the compliance history section above, the disposal of solid and hazardous waste materials on the North Slope has been problematic, and in many cases has resulted in direct contamination of land and water. Industry responds with excuses for several of the individual incidents. For example, problems documented at Deadhorse lease tracts are blamed on small, independent oilfield service companies. By bringing such lease tracts under direct oil company control, as has been done at Kuparuk, industry claims that such problems will be avoided. The oil companies also assert that no sites on the North Slope have actually been listed on the National Priority List for cleanup under the Superfund. Both ARCO and Standard now propose to dispose of hazardous wastes on the North Slope through deep

¹⁰ The Kuparuk report could not be located in EPA's files.

well injection,¹¹ a disposal technique they assert will reduce or eliminate hazardous waste problems.

We respond to each of these points below.

It is entirely disingenuous for the major oil companies to disclaim responsibility for the large volumes of wastes generated as a direct result of their profitmaking activities on the North Slope, regardless of the fact that, in the past, these wastes were transferred to smaller companies for handling. The industry will continue to generate significant quantities of hazardous and other liquid wastes on the North Slope, and will generate additional wastes if they are allowed to operate in the Arctic National Wildlife Refuge. These wastes will continue to be handled both by the major oil companies and by smaller, independent companies, whether or not support and production facilities are consolidated.

The overriding question is where and how these massive quantities of wastes will be disposed of if development is allowed in the refuge. The burden of proof is on the oil industry to demonstrate that they can permanently and successfully isolate these wastes from the fragile North Slope environment. To date, they have failed to make this showing. EPA is just beginning to review the industry's proposals for deep well injection of wastes, and there is no guarantee that this practice will be allowed.

In fact, there are serious potential problems with deep well injection of wastes. A study by NRDC of deep well injection of wastes around the country documents numerous cases in which underground injection wells have failed, resulting in extensive groundwater contamination.¹² Indeed, injection even of supposedly innocuous "brines" at oil and gas wells have resulted in significant problems; over one half of 32 oil and gas producing states reported groundwater contamination from underground brine disposal.¹³ The Office of Technology Assessment agrees that underground injection poses a potential

¹¹ ARCO engaged in deep well injection of hazardous and other wastes at Pad 3 from 1976 through 1985, when ARCO stopped accepting hazardous waste for injection at the facility, in part because it did not have "interim status," or authority to operate without a RCRA permit.

¹² Gordon and Bloom, *Deeper Problems: Limits to Underground Injection as a Hazardous Waste Disposal Method* (NRDC, 1986).

¹³ Donald V. Feliciano, "Underground Injection of Wastes. Mini Brief Number MB83238," Congressional Research Service, Oct. 15, 1983, cited in *Deeper Problems*, supra.

threat to groundwater, and identified 8 possible contamination pathways.¹⁴

Nor has the oil industry demonstrated how it will dispose of the large quantities of nonhazardous wastes generated by North Slope oil and gas operations, including oily wastes. In fact, five supposedly nonhazardous waste disposal sites have been the subject of "preliminary assessments" under the Superfund Program.¹⁵ The industry disclaims the importance of this by noting that none of these sites have actually been listed on the National Priority List (NPL) for Superfund cleanup. This claim is highly misleading. Due to the slow pace of the Superfund process in Alaska, none of the five sites have proceeded to the more detailed Site Assessment phase, which is necessary to determine the extent of contamination at any given site. But the five sites have been chosen for further evaluation:

1. ARCO Prudhoe Bay received a "medium" priority assessment.¹⁶ The site allegedly contains 10,000 - 80,000 buried drums, some containing drilling muds, and has received "a substantial volume of industrial (oil drilling-related) wastes."¹⁷ The preliminary assessment recommends that "the risk to nearby water resources should be further evaluated."¹⁸

2. Mukluk Dump - Prudhoe Bay (medium priority assessment) may include "small quantities" of hazardous materials, including drilling muds, mud additives, some heavy metals, and solvents. The preliminary assessment refers to the potential for leaching to the Sagavanirktok River, and potential contamination of a human drinking water source.¹⁹

¹⁴ Technologies and Management Strategies for Hazardous Waste Control, Office of Technology Assessment, U.S. Congress (1983), at 192, cited in Deeper Problems, supra.

¹⁵ Preliminary Assessment of 45 Potential Hazardous Waste Sites in the State of Alaska. Tetra Tech, Inc. 1984.

¹⁶ Four recommendation levels are possible in the Tetra Tech report:

- None - no further action recommended
- Low - inspection recommended on a time-available basis
- Medium - inspection recommended on a scheduled basis
- High - inspection recommended promptly.

¹⁷ Id.

¹⁸ Id.

¹⁹ Id.

3. Mukluk Freight Lines (medium priority assessment) has been a storage site for a large number of industrial chemicals, and survey results indicated that some chemicals were leaking from drums or escaping from damaged and weathered sacks. The assessment also indicated that the site had insufficient structures for groundwater protection.²⁰

4. North Slope Borough Landfill (medium priority assessment) accepts wastes from a large number of entities on the North Slope, and is currently the only operating landfill at Prudhoe Bay. The assessment refers to possible previous disposal of "oils, heavy metals and solvents," and recommends that the "risk to nearby water sources ... be further evaluated."²¹

5. Sand Dunes Landfill (medium priority assessment) also served as a major waste disposal site for North Slope oil and gas activities. Like the other landfills, this site may have received drilling muds, mud additives, heavy metals, solvents, and other hazardous materials. Previous EPA surveys mention potential leaching to the nearby river and possible contamination of potable water.²²

These problems with sites that have been used for solid and liquid waste disposal in the past underscore the serious waste disposal problems that will be presented should oil and gas development be allowed in the Arctic National Wildlife Refuge. To date, neither the oil industry nor the Interior Department have presented a satisfactory plan for how these massive quantities of wastes will be handled in a national wildlife refuge, without posing a long-term contamination threat to the land and water resources of the refuge.

C. Reserve Pits

Built directly on the tundra, reserve pits are designed to contain drilling mud and other wastes with gravel dikes. Individual reserve pits on the North Slope can contain up to 13 million gallons of waste materials. Drilling wastes may contain toxic components such as heavy metals, hydrocarbons, and

²⁰ Id. Standard claims that this site was incorrectly included in the preliminary assessments, and that an EPA official has recommended removal from the program. Standard Oil, 1987. Oil and Gas Development in the Arctic National Wildlife Refuge 1002 Area; Issues Raised by Environmental Groups During Testimony Before Congress, page 16.

²¹ Id.

²² Id.

additives in varying amounts. Many of these components are toxic to a variety of organisms. Disposal of accumulated drilling wastes and contaminated fluids which exceed reserve pit capacities is a major problem on the North Slope.

Despite a number of regulations and permit stipulation requiring reserve pits which store drilling wastes to be impermeable, numerous leaking pits have been documented. Waste fluids also escape due to overtopping or breaching of reserve pit walls. Drilling wastes are disposed of by pumping reserve pit fluids directly onto the tundra, spreading them on gravel roads which are not designed to be impermeable, and injecting them underground. In 1986, 64 million gallons of drilling waste fluids were discharged directly to the tundra from reserve pits and an additional 37 million gallons were applied to roads.²³

In response to testimony presented by NRDC, Trustees and NWF in July, the oil industry has argued that reserve pit fluids are not RCRA-hazardous but instead are "generally innocuous,"²⁴ that new state solid waste regulations will effectively deal with the problem of leaking reserve pits, that state-of-the-art disposal practices have reduced or eliminated altogether the need for reserve pits, that underground injection poses no threat of environmental harm, and that a U.S. Fish and Wildlife Service study of reserve pit fluids we cited was only a draft and is technically flawed.

We address each of these points below.

In a study mandated by §8002(m) of the Resource Conservation and Recovery Act (RCRA), EPA is presently evaluating whether or not petroleum extraction waste should be regulated as hazardous. EPA has not yet determined what percentage of drilling and production waste is RCRA-hazardous; it is thus impossible to confirm industry's assertions that these wastes are not RCRA-hazardous. However, even if such liquids were not hazardous as defined by RCRA, they can in no event be termed "innocuous." Common types of pollutants found in reserve pits include salts, additives, oil and grease, and dissolved heavy metals,²⁵ many of

²³ See pages 4-7 of NRDC/Trustees/NWF testimony presented before this Committee on July 21, 1987.

²⁴ Standard Oil, 1987, supra.

²⁵ EPA, 1987 in prep. Management of Wastes from Oil Exploration, Development and Production, August, 1987, page III-13.

which are toxic to a variety of organisms.²⁶ Pit fluid analyses performed by numerous investigators, including the industry, show concentrations of half a dozen metals at levels that exceed EPA's acute and/or chronic toxicity level for aquatic life.

The FWS study of reserve pit fluids, referred to as a "draft" by the industry, has been finalized and is now going to press.²⁷ The study found that reserve pits are the most likely source of metal and hydrocarbon contaminants that are spreading through tundra wetlands and that are associated with reduced biological diversity and abundance in associated tundra ponds. Presumably, the U.S. Fish and Wildlife Service which is the expert agency in these matters, did not reach this conclusion lightly.

After years of opposition by the oil industry, the Alaska Department of Environmental Conservation developed new solid waste regulations which went into effect in September of this year. These regulations will require that new reserve pits be designed not to leak. While industry has begun to submit new designs for reserve pits, these designs have yet to be proven effective, the numerous existing leaking pits have yet to be corrected, and the effects of long-term open pits have yet to be determined. While some of these designs rely on lining reserve pits, the technological feasibility of using liners in arctic conditions has yet to be demonstrated.

²⁶ See, e.g.,:

- U.S. Environmental Protection Agency, 1987 in prep. Waste from the Exploration, Development and Production of Crude Oil, Natural Gas, and Geothermal Energy, Interim Report. April 30, 1987.

- Stroscher, M.T., W.F. Younkin and D.L. Johnson, 1980. Environmental Assessment of the Terrestrial Disposal of Waste Drilling Muds in Alberta: Chemistry of Sum Fluids and Effects on Vegetation and Soils. A Report prepared for the Canadian Petroleum Association, December, 1980.

- Land, Bernard, 1974. Toxicity of Drilling Fluids to Aquatic Biological Systems, A Literature Review. Environment Canada, Fisheries and Marine Service Report 487.

- U.S. Department of the Interior, 1987. Final Coastal Plain Resource Assessment, Arctic National Wildlife Refuge.

²⁷ West, R.L. and E. Snyder-Conn, 1987 in press. Effects of Prudhoe Bay Reserve Pit Fluids on Water Quality and Macroinvertebrates of Arctic Tundra Ponds in Alaska. Only after a Freedom of Information Act Request and a subsequent appeal was Trustees able to obtain a copy of the final U.S. Fish and Wildlife Service study.

The other solution to problems posed by reserve pits proposed by the industry, underground injection, is not without its problems, as discussed above. These problems can be expected to be aggravated in the case of annular injection, where waste is disposed down the outside, as opposed to the inside, of the well casing, thereby increasing the opportunity for wastes to escape.

Industry claims that volumes of drilling wastes requiring disposal in reserve pits can be dramatically reduced or eliminated altogether and point to the Endicott project offshore Prudhoe Bay in the Beaufort Sea. While it is true that industry does not need to use reserve pits at Endicott, this is because Standard dumps some 4,600 tons of drilling mud and 31,700 barrels of cuttings per year from Endicott wells into the Beaufort Sea under an NPDES permit issued by EPA,²⁸ a practice which can entail very significant impacts to aquatic life. Thus, it is disingenuous for the industry to cite Endicott as evidence supporting the claim that it can eliminate reserve pits.

Industry also claims that it has reduced the use of chromium additives to drilling mud, which will reduce the heavy metal load in reserve pits. While it is true this may reduce the chromium content of muds disposed of in reserve pits, levels of other metals, including lead, mercury, cadmium, copper, aluminum, nickel, zinc, and other mud contaminants will presumably remain unaffected. Moreover, metals are not the only problem related to reserve pit fluids. Polycyclic aromatic hydrocarbons, which can be toxic to aquatic life at the parts per billion level (ppb), are apparently migrating from reserve pits and are accumulating in tundra soils near pits. On the North Slope, "considerable amounts of hydrocarbons were found in the tundra soil hundreds of feet from reserve pits."²⁹

In our July testimony, we noted that discharge permits issued by ADEC allow discharges of cadmium, copper, lead and mercury at levels that exceed EPA's acute and/or chronic toxicity criteria for the protection of freshwater aquatic life. In addition, ADEC's permit places no limits on reserve pit discharges for a number of other metals, which, based on data developed by the industry, occur in reserve pit fluids at concentrations that exceed EPA's acute and/or chronic toxicity

²⁸ NPDES permit No. AK-003866-1. DMRs submitted to EPA by Standard indicate that in 1986, some 22,000 barrels of mud and 31,700 barrels of cuttings were discharged into the ocean. Assumes a mud weight of 10 lbs/gallon.

²⁹ EPA, 1987 in prep., supra.

criteria.³⁰ The fact that millions of gallons of reserve pit liquids that may contain levels of metals that are acutely toxic to aquatic organisms raises very serious questions about the ability of existing state and federal regulatory controls in place to adequately protect the tundra ecosystem.

D. Air Pollution

Oil and gas facilities emit large amounts of air pollutants. For example, ADEC estimated of NO_x permitted to be emitted on the North Slope is greater than 90,000 tons, and that actual emissions are 70-90% of the permitted values³¹ -- or 63,000-81,000 tons of NO_x. ARCO estimates that permitted NO_x emissions in the Prudhoe Bay region at 74,368 tons per year, with actual emissions "somewhat less" than those indicated.³² This contrasts with Standard's assertion that Prudhoe Bay facilities emit only 20,000 tons per year.³³ By way of comparison, the Argonne National Lab estimates that Washington, D.C. emits approximately 23,000 tons of NO_x per year.³⁴

The industry argues that although ambient concentrations of NO_x have doubled at Prudhoe Bay between 1980 and 1987, this is not a "significant change,"³⁵ and further imply that because ambient concentrations of air pollutants are below national standards, there is no environmental problem. While it is true that NO_x and SO₂ levels emitted by Prudhoe Bay facilities have not exceeded the NAAQS, arctic species are known to be more sensitive to air pollutants than are mid-latitude species which have been used to establish standards.³⁶ Moreover, ARCO's air quality monitoring data from Kuparuk indicates that average annual concentrations of NO₂ and SO₂ in 1986 -- the main precursors of acid deposition -- have increased as much as 3-10

³⁰ See pages 6-7 of NRDC/Trustees/NWF July 21, 1987 testimony.

³¹ ADEC, 1986(a), supra.

³² ARCO, 1987. Air Issues on the North Slope of Alaska.

³³ Standard Oil, 1987, supra.

³⁴ Argonne National Laboratory, 1984. Estimated Monthly Emissions of SO₂ and NO₂ for the 48 Contiguous States, 1975-1984.

³⁵ Standard Oil, 1987, supra.

³⁶ ADEC, 1986(b). Response to ARCO's Comments on the Preliminary Air Quality Analysis for Kuparuk CPF-3, April 1986.

fold in certain areas over levels reported by the industry in 1980.³⁷

These pollutants are of concern due to their potential to acidify the sensitive arctic tundra. The industry argues that because only 618 tons of SO₂ is permitted to be emitted on the North Slope, acidification should not be of concern. However, industry conveniently ignores the fact that NO₂ is also an acidifying pollutant, and that further SO₂ and NO₂ together have at least an additive effect, and usually more than additive effect.³⁸

Moreover, EPA has raised concerns that acidification of tundra may result even if ambient air quality standards are being met. The Alaska Department of Environmental Conservation has noted that negative impacts have been known to effect lichen at concentrations at least as low as 39 ug/m³ and that short term concentration are known to be more important to adverse effects than long term averages.³⁹ Maximum one hour SO₂ levels measured at the Kuparuk Field were 52 and 186 ug/m³.⁴⁰ The U.S. Fish and Wildlife Service has also expressed concern about the short term and long term impacts of SO₂ on lichens, which are an important food source for North Slope caribou. The effects of NO_x and other pollutants on plant species which serve as caribou forage

³⁷ In 1979-1980, ambient air monitoring was conducted to establish baseline data for the North Slope. Standard Oil, 1987 page 22. The following is a comparison of the annual average ambient concentration of NO_x and SO₂ measured as background for the North Slope in the 1979 and 1980 monitoring, and 1986 monitoring at the Kuparuk River "maximum impact" station.

	1979-1980	1986*	
		1st qtr	2nd qtr
NO ₂ (annual average)	3.5**, 4.0**	11	19
SO ₂ (annual average)	0.4**, 0.5**	3	5

From: ARCO, 1987, supra, pages 8-9.

* Includes monitoring data collected from June - December, 1986.

** Below the minimum detection limit of the analyzer.

³⁸ EPA, 1982. Air Quality Criteria for Oxides of Nitrogen. EPA-600/8-32-026, page 1-31.

³⁹ ADEC, 1986(b), supra.

⁴⁰ ARCO, 1987, supra, page 9.

are not known and there are no studies underway which evaluate potential effects.

Industry has responded with claims that North Slope lichens are not affected by industrial air pollution, in part because the North Slope is a desert and all precipitation, including acid precipitation, is low. While the North Slope's annual precipitation is low and comparable to desert regions, acid precipitation is not the only process by which acidifying substances can be added to water or land. Dew, frost, frequent fogs and dry deposition through gravitational sedimentation of particles, impaction of aerosols, and adsorption of gases contribute to acidifying effects.

E. Land and Habitat Impacts

Sixty million cubic yards of gravel have been used to construct facilities including over 300 miles of roads and 5,500 acres of gravel pads in the Prudhoe Bay area. Pads and roads are used to support facilities such as drilling sites, housing, and other facilities. Open gravel mines cover approximately an additional 720 acres. An additional 3,400 acres of habitat have been flooded due to the impounding of roads and pads in one of the region's oilfields alone.

The industry claims that only a small percentage of the oilfield are affected by development by only counting land surface which has been directly covered by oil facilities. However, the oilfields sprawl over a large area with development and support facilities connected by roads, pipelines, and transmission lines. While a relatively small amount of the total area affected by oil development is actually covered by gravel fill, additional habitat is altered by oilfield activities, as is demonstrated by the avoidance of maternal groups of caribou of pipelines, roads and other facilities, particularly during calving. An Alaska Department of Fish and Game researcher has concluded that:

even if the amount of direct habitat loss (i.e., vegetation covered by gravel were an order of magnitude larger it would be of minor significance when compared with the amount of habitat that would become unavailable because caribou avoid developments.⁴¹

⁴¹ Shideler, Richard T., 1986. Impacts of Human Developments and Land Use on Caribou: A Literature Review, Vol. 2. Impacts of Oil and Gas Development on the Central Arctic Herd, Technical Report #86-3. Alaska Department of Fish and Game, Division of Habitat.

The habitat within the oilfield may also be altered by flooding caused by impoundments associated with roads, dust which coats vegetation and changes snowmelt patterns, fragmentation of habitat, and human disturbance.

While recent evidence indicates that a few small sites have been the subject of revegetation efforts, no large scale, long term rehabilitation efforts have been attempted, much less demonstrated effective. In addition, there is no assurance that monies have been set aside for what industry predicts to be astronomically high costs of restoration. For example, a letter from the Alaska Oil and Gas Association (AOGA) dated 4/3/87 to the Alaska Office of Management and Budget, claims that removal of facilities constructed for exploratory drilling and rehabilitation of the site will cost 1.5 to 2 times the original construction costs. While industry claims that all sites are still in use and so not available for restoration, state records show that 326 wells have been plugged and abandoned on the North Slope.⁴² Presumably, a few of these lie within the Prudhoe Bay area.

F. Implications for the ANWR Decision

The issue of whether a core calving ground exists within the Arctic National Wildlife Refuge, and the magnitude of impacts of oil and gas development on the Porcupine Caribou Herd has consumed the vast majority of attention in this debate. Most people agree that there will be impacts on wildlife as a result of major oil and gas development in the coastal plain. Even the section 1002 report, which recommends full oil and gas leasing in the area, acknowledges that some of these impacts will be major. Only the precise magnitude of the impacts can seriously be debated.

While not wishing to minimize the critical importance of these issues, the NRDC/Trustees/NWF study, as well as critiques of the section 1002 report by CRS, EPA, and other entities, indicate that the chronic, long-range threats to the integrity of the Arctic National Wildlife Refuge include other far more subtle, less press-worthy, but equally serious issues. The following fundamental questions deserve attention by this Committee. Yet most of them were either not considered or received only cursory treatment in the section 1002 report.

⁴² Alaska Oil and Gas Conservation Commission printout, 5/21/87.

1. How would the massive quantities of drilling and production wastes in the Arctic National Wildlife Refuge be handled? Even assuming that the growing, pervasive pollution of tundra wetlands and ponds that has been allowed in the Prudhoe Bay area is acceptable (an assertion we strongly disagree with), such impacts clearly are not consistent with the purposes of a National Wildlife Refuge.

2. What would be the long-range, cumulative impacts of large numbers of spills of oil, diesel, and other substances on the environment of the coastal plain? While many individual spills are small, some spills at Prudhoe Bay have exceeded hundreds of thousands of gallons, and the total volumes from large numbers of "small" spills can be great.

3. What would be the effects of numerous, high visible black smoke incidents on the wilderness and other values of adjacent areas of the Arctic National Wildlife Refuge that have already been designated wilderness? Would such events in combination with other air pollution generated by oil facilities result in long-term visibility impairment?

4. What would be the long-range, chronic effects of acidification from NO_x and SO_x emissions on tundra vegetation within the coastal plain, and what would the effect be on lichen and other food sources for wildlife?

5. The Interior 1002 Report focused heavily on the "net" acreage of oil facilities, e.g. how many acres would actually be covered by roads, drilling pads, etc. They did not, as noted by CRS and other commenters, evaluate many of the secondary effects of these facilities, including indirect habitat modification via ponding, and behavioral impacts. Would habitat alteration in the coastal plain exceed what Interior predicts based solely on the physical number of acres actually affected?

6. Given the lack of substantial successful reclamation over the long-term of oil facilities at Prudhoe Bay, what assurance is there that the Arctic National Wildlife Refuge would be restored to its natural state, or close thereto, when development is over? Given the paucity of bonding requirements, even if reclamation is technologically feasible, who would pay for such work if irresponsible operators abandon sites, as has occurred in the Prudhoe Bay region?

7. How would hazardous wastes be handled, transported and disposed of? ARCO and Standard Alaska have pending permit applications for deep well injection of hazardous wastes at Prudhoe Bay. Would similar hazardous waste disposal permits be required for the Arctic National Wildlife Refuge, and is this appropriate for a National Wildlife Refuge? What are the likely

long term problems associated with deep well injection in this region?

8. How and where would the massive quantities of other solid wastes be disposed in the coastal plain? A large number of landfills have been used at Prudhoe Bay, some of which are being considered for the Superfund program. Would the same be true in the Arctic National Wildlife Refuge?

9. Where would the massive quantities of water and gravel necessary to support oil and gas development in the arctic come from, particularly given the acknowledged shortage of freshwater sources in the Refuge? Both EPA and CRS criticized Interior for their lack of sufficient analysis of this issue.

Thank you for the opportunity to present our views.

TESTIMONY OF DENNIS D. KELSO
BEFORE THE HOUSE SUBCOMMITTEE ON ANWR
WATER AND POWER RESOURCES
October 8, 1987

Sdm-
You can best do a lot
of questions about environmental
issues + DEC budget at the
ANWR hearings in D.C.
So here's a beginning to look
at. Also you can meet w/
Amy Kyle + Kay next week
to get briefed.

Mr. Chairman and Members of the Subcommittee:

My name is Dennis Kelso. I am Commissioner of the Alaska Department of Environmental Conservation. With me today is Larry Dietrick, Director of our Division of Environmental Quality.

The Department of Environmental Conservation is responsible for protecting public health and the environment. We enforce regulations governing air quality, water pollution control, solid waste management, hazardous waste management, and oil spill prevention and response. We write permits specifying emission levels and disposal methods, monitor activities under permits, and take enforcement actions when needed. The Department has considerable experience with the effects of oil and gas related activities.

On Alaska's North Slope, the Department has developed stipulations for oil and gas lease sales, helped with siting of disposal facilities, and carried out the full range of environmental protection activities. We also participate in the design and review of environmental studies, collect monitoring data, and maintain a field office at Prudhoe Bay in Deadhorse.

Effective waste stream management for oil and gas activities in the Arctic National Wildlife Refuge (ANWR) requires the following steps:

1. Evaluation of past practices and operating procedures at other fields on the North Slope.
2. Advance planning for effective waste disposal facilities and practices.
3. Development and application of specific, effective requirements for industry as lease stipulations and permit conditions.
4. Coordination of efforts among agencies with authority to regulate oil and gas exploration and development.
5. Monitoring of impacts and compliance with environmental requirements.

I will briefly discuss each of these steps and will illustrate them with examples drawn from our experience with solid waste management. In addition to solid waste, key areas for adequate environmental protection measures include air quality, liquid wastes, hazardous wastes, spill prevention and response, and area of impact. I have included an overview of these issues as an attachment to my written testimony.

REVIEW OF WASTE MANAGEMENT PRACTICES IN ALASKA'S NORTH SLOPE OIL FIELDS

Decisions on the exploration and development of ANWR should reflect the experience and information gained by the State and the industry during operations at the National Petroleum Reserve in Alaska (where exploration began in the mid 1940's), Prudhoe Bay (where exploration confirmed the field in the late 1960's), Milne Point, Lisburne, Endicott, and the Kuparuk River oil fields. The technology and operating

methods used in oil and gas development have evolved considerably since the early days of Prudhoe Bay. Both the industry and the agencies have learned a great deal in the process. Operations in the newer fields at Endicott and Kuparuk differ substantially from those at Prudhoe. Some waste disposal practices have proven effective while others can and should be improved.

The Department is currently reviewing North Slope waste disposal practices. A technical accounting of these practices, a description of their evolution, and an assessment of potential impacts will help identify the most appropriate management regime for each waste stream for ANWR.

Moreover, there is a role for Congress in designing the waste stream management regime for ANWR by setting the standards to be met. If Congress concludes that some areas of ANWR warrant a particularly high degree of environmental protection, it may be appropriate, for example, to require removal of wastes from those areas. The level of protection deemed necessary by Congress can best be met through lease stipulations or permit conditions, evaluation of the effectiveness of these measures, and modification of the requirements if field experience warrants.

The State's waste stream management requirements have evolved in response to the North Slope oil development experience. During the past year the State developed new regulations for handling solid waste, particularly drilling muds. Those regulations are now in effect. They establish requirements for disposal of drilling muds and for water quality monitoring to ensure that the disposal techniques used will protect the environment.

PLANNING FOR ADEQUATE WASTE STREAM MANAGEMENT

Planning before start-up is essential for proper management of waste streams in ANWR. Inadequate planning before start-up was a major reason why some North Slope development occurred without the best technology. Similarly, inadequate planning led to the absence of sufficient waste disposal facilities for the oil field support industry, which does not have access to the same disposal facilities as the field operators. This has contributed to the abandonment of drums and dumping of other waste materials on vacant sites in the Deadhorse area.

Solid waste management provides numerous examples of the advantages of careful planning for disposal facilities and methods. Major sources of solid waste are garbage, drilling wastes, scrap metal, oily wastes, construction debris, drums, junked vehicles, tires and a host of other materials. Comprehensive waste material management plans could minimize the amount of waste and incorporate salvaging, reusing, and recycling as waste management tools. Backhauling scrap metal and crushed drums is an additional technique which could make most landfills in ANWR unnecessary. Ash and residue from incinerator operation could easily be consolidated into a single facility.

Comprehensive planning could also lead to regional disposal facilities. This would prevent unnecessary proliferation of landfills while enabling the support service industry to have access to proper disposal facilities. Ultimate disposal of pipelines, flow stations, camps, and related facilities should also be addressed at the outset of ANWR planning so that a financial mechanism is in place to provide for proper disposal upon completion of use.

Plans for management of drums should be required as a condition of operation. They should include inventory and tracking, cleaning, crushing, backhaul, and disposal of waste liquids or residues from cleaning.

PERMIT CONDITIONS AND LEASE STIPULATIONS

Stipulations placed in leases and conditions written into permits provide a means to address site-specific factors. Lease stipulations apply to the tracts to be explored and developed; they should be tailored to the conditions found there. An example of a solid waste issue that could be addressed by stipulation is the collection of litter and other debris.

Litter, including construction materials and other debris, can be a persistent problem near the arctic coast where flat terrain and strong winds combine to carry these materials considerable distances. Once "offsite", it is often difficult to determine their source. Consequently, it may be desirable to implement a "no fault" requirement in stipulations applied to successful tract bidders, so that litter and other debris are routinely collected regardless of their origin.

Permits are written to govern specific activities of the permit applicant, often in a particular location. They are useful in fine tuning the waste stream management system and in preventing undesirable side effects of disposal. For example, solid waste disposal facilities such as landfills require a permit from the Alaska Department of Environmental Conservation. By taking account of the site configuration and other circumstances, conditions written into the permit can help prevent air and water pollution which might otherwise result from an improperly placed or operated landfill. However, the site-specific characteristics of most permits also limit their ability to deal with area-wide problems involving many different activities. Waste management problems often affect large areas and several operators or industries. Consequently, permits are no substitute for area-wide planning for disposal needs.

Effective use of lease stipulations and permit conditions requires flexibility. Otherwise, new circumstances may undercut their appropriateness. Changes in available technology, legal requirements, or new scientific data may dictate corresponding changes in the way a particular waste is managed. In order to determine whether stipulations or permit conditions are having the intended effect, it is also necessary to monitor on a continuing basis.

COORDINATION AND REVIEW

To achieve the optimum level of environmental protection, State and Federal agencies and industry must coordinate their efforts. They must share data in order to ensure that the best available information is brought to bear on ANWR waste management issues. Agency requirements should also be consistent and flexible enough to respond to changing circumstances. Congress should establish a formal consultation process involving these parties. If developed properly, this would also allow the opportunity for the participating agencies to clarify their respective authorities and to avoid duplication.

Among the issues which this process would address are the timing of the various phases of development; the need for studies; and the coordination of permitting, operating plan reviews, field monitoring, and field approvals. In all aspects of this process, it is essential that State and Federal regulatory agencies maintain their own oversight responsibilities.

MONITORING

Monitoring provides data to evaluate the effectiveness of permit conditions and lease stipulations. It may demonstrate the need to modify environmental requirements or operating methods and may help identify areas where additional study is needed. Monitoring also allows a determination of whether operations are in compliance with these requirements and with other environmental standards. For example, data from water quality monitoring under the new drilling mud disposal regulations will show whether contamination is occurring. If it is, the regulations require corrective measures.

CONCLUSION

Governor Cowper has taken a firm position that ANWR exploration and development must be done right, that the environment and the special values of ANWR must be protected. I have outlined some of the steps that can be taken to achieve this goal. These are just highlights, of course. Oil and gas development in the Arctic is a complicated business and I have only touched on the major environmental issues to be addressed.

Mr. Chairman, the Department of Environmental Conservation is available to the members and staff to discuss the details of environmental matters affecting your decision about ANWR. Thank you for the opportunity to testify. We look forward to working with you.

Attachment

SUMMARY OF WASTE STREAM MANAGEMENT
AND OTHER ENVIRONMENTAL PROTECTION ISSUES
RELEVANT TO OIL AND GAS DEVELOPMENT
IN THE ARCTIC NATIONAL WILDLIFE REFUGE

AIR QUALITY

The principal air pollutants discharged during oil and gas development are sulphur dioxide, suspended particulate matter, carbon monoxide, and nitrogen oxides. Concentrations of these four types of emissions depend, in large part, on the type and volume of fuel burned in the turbines, generators, and other internal combustion engines, the and the amount of flaring in the area.

Flaring is a significant contributor to visibility impairment. Flaring during exploratory flow testing and operational phases is potentially a major source of emission of soot -- primarily unburned hydrocarbons -- and other materials. Technology exists to prevent such problems in future developments.

The primary source of NOx at Prudhoe Bay is the more than 100 gas turbines, each rated at more than 10,000 horsepower. This may be the greatest concentration of large turbines in the world. Approximately 20 air quality permits have been issued, and three are pending. The cumulative annual discharge allowed under these permits is more than 90,000 tons of NOx. Actual emissions are approximately 70 to 90 percent of the permitted values. Modeling has been used to predict the ground level concentrations of NOx and ground level monitoring is now underway to verify the modeling effort and measure ambient levels.

LIQUID WASTE MANAGEMENT

Liquid waste discharges include domestic wastewater, reserve pit fluids, brine discharges, hydrostatic test discharges, vessel rinsates, radiographic wastes, excavation discharges, oily wastewater streams, equipment washing runoff, workover fluids, waste oil solvents, and a wide range of other wastewater streams. Each needs to be identified with a provision made for proper disposal.

Zero discharge of non-domestic (industrial) wastewater streams, with the possible exception of excavation dewatering, should be carefully considered for ANWR. Based upon current experience on the North Slope, alternatives to dewatering of reserve pits should be used in ANWR. The management regime selected for drilling wastes could eliminate the need to discharge to the tundra or roads. Conventional dust control measures or water should be used instead of wastewater. The planning stage should identify specific disposal methods for liquid waste streams classified under the Federal Resource Conservation and Recovery Act (RCRA) and non-RCRA liquid oily-waste streams. Rinsates from tank, vessel and truck cleaning also must be disposed properly. Consequently, both the oil field operators, and the oil field support service industry must have access to appropriate facilities. Underground injection, potentially an acceptable disposal solution for many of these waste streams, should be considered. Produced water disposal should be limited to subsurface techniques.

Unlined gravel impoundments have been used in other North Slope oil and gas developments to contain various wastewater streams. This technique may not be appropriate in ANWR because of its limited effectiveness and its requirement for large amounts of gravel.

Comprehensive planning is needed to ensure that liquid waste disposal solutions are available for all users. This would allow all liquid waste streams to be accurately identified, characterized, and quantified along with an acceptable method for disposal. For example, subsurface disposal options should be available for use by the support service industry.

SOLID WASTE MANAGEMENT

Major sources of solid waste are drilling wastes, scrap metal, oily wastes, construction debris, drums, junked vehicles, tires and a host of other materials. It is critical that proper management of all these wastes be addressed from the beginning. Drilling wastes are of particular concern. The State's new regulations governing drilling waste disposal provide an appropriate starting point.

Disposal of solid waste is another area for which careful planning can lead to development of proper facilities at the outset. Provisions for picking up "off-site" litter and other debris should be addressed by stipulation placed on successful tract bidders. Because it is often difficult to determine the source of off-site litter or debris, it may be desirable to implement a "no fault" policy by which litter and debris are routinely collected regardless of origin.

Plans for management of drums should be required as condition of operation. They should include inventory and tracking, cleaning, crushing, backhaul and disposal of waste liquids or residues from cleaning.

Garbage and other wastes which may attract wildlife should be incinerated. Collection and storage of such wastes must also avoid attracting wildlife. Plans for collection of these wastes and for central incineration should be prepared and adopted as a condition of field exploration and development.

Disposal methods for solid oily wastes from tank bottoms, sludges, hydrocarbon waxes, oil contaminated muds and cuttings and spill debris require very careful evaluation. At Prudhoe, the North Slope Borough operates one of two permitted non-RCRA solid oily waste disposal sites in Alaska. Results from the operation of this site are mixed.

Additional work and technology review are needed to develop acceptable solutions for this very difficult waste stream management issue. Incineration would provide the most reliable and complete solution to the problem. However, this is also more costly to the operators.

Comprehensive waste material management plans could minimize the amount of waste to be disposed and could incorporate salvaging, reusing, and recycling materials. Backhaul of scrap metal and crushed drums are additional tools which could make most landfills in ANWR unnecessary. Ash and residue from incinerator operation could easily be consolidated into a single facility.

Comprehensive planning to develop solutions for solid waste disposal must also enable the support service industry to have access to proper disposal options. Regional disposal facilities can also help prevent unnecessary proliferation of landfills. Ultimate disposal of pipelines, flow stations, camps and related facilities should be addressed at the outset of ANWR planning so that a financial mechanism is in place to provide for proper disposal upon completion of use.

HAZARDOUS WASTE MANAGEMENT

Hazardous waste management is governed by stringent requirements under the Federal Resource Conservation and Recovery Act (RCRA). Transportation of hazardous substances is regulated by the Federal Department of Transportation. The State has adopted hazardous waste regulations and is currently in the process of implementing them through a cooperative agreement with the Environmental Protection Agency.

As with other waste streams, it is essential that acceptable disposal methods be available both to the oil field operators and to the support service industry. Comprehensive planning is needed to develop appropriate management facilities at the outset.

OIL SPILL PREVENTION AND RESPONSE

Coordinated response capability should be required. Adequate oil spill contingency plans and secondary containment requirements for drums and small facilities are also important. Buffer zones should be established to isolate these facilities from sensitive areas.

If field gas or refining capacity is available to supply fuels it should be made available to the support service industry. This will significantly reduce the occurrence of spills by eliminating fuel storage and piping for space heating and electrical generation. Local availability of refined products to all users would eliminate haul road tanker spills.

AREA OF IMPACT

Many of the tools developed in other North Slope fields are directly applicable to minimize the "footprint" of individual drill sites and of the overall production effort. Appropriate facility siting criteria and buffer distances will also help maintain adequate levels of environmental protection.

Development plans should include the following: a design to minimize the number of drill sites and production facilities while optimizing the layout of roads and pipelines; provisions for a limited number of intensive use material sites; and plans to centralize and consolidate support facilities. Consolidation of the service industry at Kuparuk provides an example of centralized support services in planning for ANWR.

Ice pads should be considered for all exploratory drilling. Ice pads may also be used for temporary stockpiling of overburden and muds and cuttings.

Restoration of the site at each stage from exploration through production can reduce the cumulative impact of development activities. Adequate drainage must be provided for all facilities to prevent impoundments.

A.E. Hastings



To NED,

Date 10/26/87

A COPY OF CONOCO'S
COMMENTS TO SENATOR
JOHNSTON CONCERNING LEASING
AND OTHER QUESTIONS ABOUT
THE 1002 AREA. HOPE THIS
IS HELPFUL, AND LET ME
KNOW IF YOU NEED ADDITIONAL
INFORMATION

AL HASTINGS



Raymond L. LaGarde
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October 21, 1987

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Room 136
Washington, DC 20510

Subject: Comments on Arctic National Wildlife Refuge Leasing System

Dear Senator Johnston:

It was a pleasure to appear before the Senate Energy Committee on October 14, 1987, to present Conoco's views on an appropriate leasing system to govern the "1002 Area" of the Arctic National Wildlife Refuge. All of us in the petroleum industry appreciate your interest and leadership in pursuing legislation to open this area to oil and gas activities.

During our discussion, however, I believe some confusion arose over our recommendation that the 1002 Area be leased in its entirety. The point I was attempting to make was that the whole area should be offered for consideration during each lease sale. It is highly unlikely, however, that this approach would result in every tract contained in the 1002 Area actually being leased at one time. The following comments are intended to further clarify this matter.

Conoco believes that offering the entire 1002 Area for lease in each lease sale held will lead to the most efficient energy development, without reducing the extensive existing environmental safeguards that would apply to 1002 oil and gas operations.

As we envision it, the leasing process would begin with the designation of the 1.5 million acre region as a "planning area" on which federal and state governments, oil companies, environmental groups and all other concerned parties can focus their attention. Prior to a lease sale, oil companies would be invited to indicate which parts of the planning area they might be interested in leasing. The State of Alaska, federal agencies, environmentalists and others are invited to say which portions they think should or should not be leased.

After weighing all pertinent comments, the Interior Department could eliminate areas particularly inappropriate for leasing from consideration and offer the remainder for competitive bidding. This is commonly the practice, for example, in preparation for OCS lease sales. Companies then would submit sealed bids for the areas they most want to lease, and the Secretary would award leases to the companies offering the highest bids. However, the Secretary could reject bids with bonuses determined to be inadequate.

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Although this approach to leasing would make the entire 1002 Area available for leasing, it does not suggest in any way that entire areas will be leased -- only that the entire area will be considered as part of the planning process. It also means that the NEPA review prepared as part of the leasing procedure will consider all areas.

The lease offerings held under the OCS leasing program illustrate how the narrowing-down process works. In five offerings, the government started by considering a total of more than 300 million offshore acres. They included the central, eastern and western portions of the Gulf of Mexico and the middle and southern sectors of the Atlantic coastal area. By the time negotiations with all concerned parties were concluded, nearly half of the acreage in the five planning areas had been dropped from consideration. That left 164 million acres that were offered for lease. Oil companies submitted bids on a total of 6.8 million acres and actually leased 6.5 million acres. Thus, the acreage leased amounted to 2.1 percent of the lands originally considered for leasing. Reference June, 1984, American Petroleum Institute booklet entitled "Should Offshore Oil Be Off Limits?", page 33.

Clearly, the offering of all 1002 tracts in one sale will not result in leasing the entire 1002 Area, as some fear. The oil companies invest their funds only in those tracts that they think offer good chances for significant oil and natural gas discoveries. Having paid millions of dollars for those leases, the companies have every incentive to move ahead rapidly to explore them within the limited terms of the lease, usually 10 years in deep water and frontier areas like Alaska. If they fail to do so, the companies will lose both their investments and their leases.

Finally, experience with the OCS leasing system has shown that of the offshore acreage actually leased, only a small fraction is likely to prove to contain commercially producible reserves. We expect this to be the case in the 1002 Area also.

This country will need to rely on oil and natural gas as its principal energy sources for many years to come. To protect national security, to shield the economy from sudden supply interruptions and to prevent shortages to consumers, the United States should try to produce these supplies within its own territory. Under the best of circumstances, however, it will take at least 10 to 15 years to lease and explore the promising 1002 Area and to develop any oil and gas found there.

American oil companies have demonstrated for years that they can search for and develop oil and gas in ways that are compatible with protecting the Arctic environment. We believe this record can be extended successfully to the 1002 Area.

It is clearly in the national interest for 1002 exploration, drilling and production to proceed at an accelerated, but orderly pace. It is clearly detrimental to the consumer when large amounts of prospective acres are ruled out of bounds and their energy potential cannot be determined. We look forward to working with you and your fellow Committee members on the legislation under consideration.

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In an attempt to quickly answer the seventeen issues set out in your "Issue List For ANWR Leasing Bill", we offer the following responses. I shall be happy to answer any follow up questions which you or your staff may have regarding any of these answers.

QUESTION:

1. How much of the coastal plain should be leased at any one time? Should there be one large lease sale or several smaller sales spread over time?

ANSWER:

The entire coastal plain should be offered for lease in the first lease sale. Each subsequent lease offering should make every unleased tract available for leasing. This is representative of the existing offshore leasing system where a very small percentage of the blocks offered and available for leases were actually leased. The chart below was derived from TABLE 10, page 24 of OCS Information Report MMS-85-0083. This table shows the number of tracts leased and the number of tracts offered in six lease sales in the Gulf of Mexico.

Year	Sale Number	Planning Area	Blocks Offered	Blocks Leased	Acres Offered	Acres Leased
1983	72	Central Gulf	7,050	623	37,867,762	3,089,872
1983	74	Western Gulf	5,848	436	32,620,248	2,246,005
1984	79	Eastern Gulf	8,866	156	50,631,513	897,786
1984	81	Central Gulf	6,502	529	34,743,780	2,278,179
1984	84	Western Gulf	5,441	361	30,038,593	1,949,213
1985	98	Central Gulf	4,567	409	24,100,000	2,076,907
			38,276	329	210,001,896	12,537,962

From OCS Information Report MMS 87-0026, we find examples of the application of this type of leasing system in Alaskan OCS lease sales shown below:

Year	Sale Number	Region	Blocks Offered	Blocks Leased	Acres Offered	Acres Leased	Wells Drilled
1984	87	Beaufort Sea	1,475	227	7,773,447	1,207,714	4
1983	57	Norton Basin	418	59	2,379,751	335,898	6
1984	83	Navarin Basin	5,036	163	28,048,995	927,989	8
1983	70	St. George Basin	479	97	2,688,787	540,917	10
			7,408	545	40,890,980	3,012,518	28

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We believe that these sales will show that fears that the entire 1002 Area, if opened to leasing, would be leased down to the last acre are unjustified.

Industry will be willing to put up bonus money only on the most prospective leases. Then exploratory drilling will be conducted only on the most prospective of those tracts leased. If these exploratory wells are extremely disappointing, then little further drilling would be expected. If the wells are very encouraging, then delineation wells and later development wells could be drilled from well pads to begin a coordinated, planned development of the field.

To break the lease offering process up into several smaller sales would impede the coordination and planning of the development phase because the lease operators would have to proceed in development without having properly tested offset leases which had not yet been offered for lease, but were held back for several small sales. Also, the Federal Government takes a large risk for the taxpayers when it leases only a few tracts allowing possible condemnation of the entire area by conclusively dry wells. If the first few wells are extremely disappointing, then subsequent lease offerings are likely to bring disappointing bonus bids.

QUESTION:

2. Should certain areas, e.g. all weather springs and core caribou calving areas, be totally off limits to leasing, leased later, or at the same time as other areas?

ANSWER:

The subsurface of all weather springs and so-called core caribou calving areas should be offered for lease, but subject to appropriate leasing stipulations. These areas can be tested without significant risk of any damage to their environmental values. Stipulations could include limitations on when, how and where drilling activity could be conducted, honoring environmental sensitivities and the particular unique characteristics of the area. We already honor such values in our operations in the Aransas National Wildlife Refuge in South Texas where we suspend certain kinds of operations during the period that the endangered whooping cranes winter on our leases there. We operate in the Eastern Gulf of Mexico in rotating drilling windows to allow for joint use of the area by the U.S. Air Force and Navy. We suspend drilling operations in the Beaufort Sea when the Bowhead whales migrate through our leases there. These examples point out that we are already successfully operating in areas of special environmental concern and other areas where joint use concerns must be dealt with, and the Secretary of Interior should be charged with the responsibility of developing similar reasonable regulations for operations in the 1002 Area.

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QUESTION:

3. Should there be an "exploration only" option? Should the government do any or all of the exploration?

ANSWER:

We must not adopt an "exploration only" option. Nor should the government do any of the exploration. These concepts represent a change in the basic entrepreneurial system which has served the Nation well. The risks inherent in exploration should be borne by the private sector. This provides for a more efficient exploration program at almost no cost to the taxpayer and keeps government out of the risk taking business which the private sector is willing and able to bear.

QUESTION:

4. What general standard of mitigation/protection should be used, e.g. "no unnecessary adverse effect"; "no significant adverse impact," etc?

ANSWER:

The general standard for mitigation/protection suggested by Assistant Secretary Horn ("no unnecessary adverse effect") seems to be an acceptable standard to use. Almost any standard must have some measure of subjectivity. We believe that the Department of Interior's study of the various standards which could have applied is extensive enough and provides a fair and practical standard.

QUESTION:

5. Should the LEIS for the Secretary's ANWR report be considered sufficient as a programmatic EIS for a leasing program?

ANSWER:

The LEIS for the Secretary's ANWR report should be considered as a programmatic EIS for the 1002 Area leasing program. The LEIS in addition to the 1002 Report sufficiently discusses the impact of oil and gas operations on this area. The 1002 Area is a relatively small and homogeneous area by OCS planning area standards. A requirement for a further "Programmatic" EIS is simply redundant.

QUESTION:

6. How should NEPA apply to and interact with the leasing program beyond this initial stage?

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ANSWER:

The requirements of NEPA will continue to apply to the leasing program in every stage of the exploration and development phase without special Congressional exemption.

QUESTION:

7. Is there a need for additional authority with regard to the issuance of rights-of-way in the 1002 Area?

ANSWER:

We urge Congress to grant legislative authority to the Secretary of Interior for the issuance of rights-of-way in the 1002 Area. When this authority was not granted for the TransAlaska Pipeline System, new legislation from Congress was needed to proceed with the development of the North Slope discovery at Prudhoe Bay. Congress should do all it can to avoid having to go through the process again. The delay would mean greater cost to the consumer and industry and would take up more Congressional time than is warranted.

QUESTION:

8. What kind of leasing model is most appropriate for ANWR - the onshore leasing program, the OCS program, or some combination of the two?

ANSWER:

We recommend that Congress direct the Secretary of Interior to develop a new leasing system based upon the OCS program, but tailored for the 1002 program.

QUESTION:

9. What kinds of environmental stipulations, mitigation measures, etc., should the legislation contain? How specific should the legislation be in this regard? Some areas of concern include
- availability of water and gravel
 - air and water quality concerns including monitoring
 - protection of fish and wildlife and their habitat
 - various types of waste disposal
 - consolidation of facilities.

ANSWER:

Environmental stipulations and mitigation measures should not be part of the legislation opening the 1002 Area to oil and gas exploration and development because the use of such stipulations and measures by the leasing authority needs to be specifically tailored to particular areas of

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concern which cannot be handled well in enabling legislation. The Secretary of Interior should be granted the authority to impose whatever reasonable stipulations and mitigation measures are necessary to protect environmental values of the 1002 Area. North Slope operators already conduct their operations pursuant to extensive and far reaching, existing environmental laws and regulations. New legislation is unnecessary to deal with availability of water and gravel, air and water quality concerns including monitoring, protection of fish and wildlife and their habitat, various types of waste disposal and the consolidation of facilities. These concerns should be left to the administrative agencies already charged with those concerns. Well-meaning legislation would only compound and confuse the existing complex mix of State and Federal laws and regulations which adequately cover these subjects

QUESTION:

10. What type(s) of leasing systems should be used?

ANSWER:

The leasing system should be a competitive, sealed bid, fixed bonus system with a 1/8 fixed royalty. This is the system generally used for OCS frontier areas.

QUESTION:

11. What should be the maximum size of the lease tracts in this area?

ANSWER:

The maximum size of lease tracts should be 5,760 acres which is the same size as tracts in the Federal waters of the Beaufort Sea.

QUESTION:

12. What should the lease term be and under what circumstances should such term, be extended?

ANSWER:

The lease term should be a 10 year term. Extensions should be provided for by the Secretary's leasing program, and not as a part of the legislation opening the 1002 Area to oil and gas operations. The term could be extended by the Secretary if he determines that the lessee has made a good faith effort to explore the lease within the primary term, and that as provided for in the leasing program it is in the best interests of the Nation to extend the lease. Specifically, a lease could be extended if it has been unitized, and the Secretary has approved a plan of development for the unit. The lease should also be extended if the lease is producing, or the lessee is drilling at the time the lease term expires. A reasonable time between cessation of drilling, or production, and resumption of

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drilling, or production should be provided for in the lease. If a lease has been unitized or a discovery has been made on the lease, but production cannot be commenced because a pipeline has not been constructed, then some extension should be permitted in such a case. Other extensions should be available if circumstances warrant, and the Secretary of Interior should have the discretion to determine when such extensions are in the Nation's interest.

QUESTION:

13. How should revenues from leasing in this area be distributed?

ANSWER:

Revenues from leasing should be distributed just as they are under the OCS leasing program.

QUESTION:

14. Is there a need for expedited judicial review or special liability provisions?

ANSWER:

Expedited judicial review is necessary because opponents of leasing will tie up the exploration and development of 1002 reserves for years with legal challenges to every step in the process. Added delay is not in the best interests of the Nation because it will ultimately cost the consumer more for the product, and will impede the assurance of a stable domestic oil supply, thereby threatening the national security.

QUESTION:

15. Should a new state/federal interdisciplinary team be created to deal with leasing, production and development in ANWR?

ANSWER:

A new state/federal interdisciplinary team need not be created to deal with leasing, production and development in ANWR. This approach exists already and will operate under existing law in any case.

QUESTION:

16. Should there be a requirement for unitization of leases on the coastal plain?

ANSWER:

Voluntary unitization must be allowed in the coastal plain. In certain cases, the Secretary of Interior should have the authority to compel

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unitization just as he has under the existing OCS leasing program. Unitization rules should be developed by the Secretary of Interior in his leasing program. Legislation opening the 1002 Area to oil and gas operations should not attempt to deal with unitization other than to grant the Secretary the authority to approve or compel unitization when it is in the Nation's interest to assure the efficient development of oil and gas reserves and to promote conservation.

QUESTION:

17. Should the Secretary of the Interior have lease cancellation authority in this area?

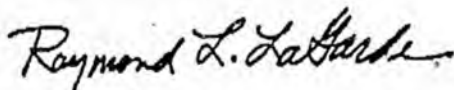
ANSWER:

The Secretary of Interior should have the same rights to cancel a lease that he has under the existing OCS leasing system.

With regard to the question of whether or not summer drilling should be required in the core calving area to test whether drilling operations really have an adverse effect upon the caribou, we only wish to make a short comment. We are convinced that the record already shows without contradiction that industry can drill in the North Slope during the summer with no long term adverse effect on the environment. The so-called core calving area will have to face such a test in any case if production in paying quantities is discovered there. Whether the test occurs early in the exploration process or later in the development process is the question. It would appear that to have such a test during the exploratory phase would be best because the future of development operations would not be at risk if the test proves again that the caribou are adaptable animals who will tend to move slightly away from roads and facilities as was the case at Milne Point. The problem with the proposal is that the added cost of building a pad and gravel road for support of summer drilling would tend to be more expensive than winter drilling. Therefore, we probably would not choose to drill any first exploratory well in the core calving area in the summer if given a choice. Summer drilling tests would be best saved after a significant discovery is made on the core calving area to save costs and to assure the most limited surface effect possible.

Should you or your staff wish to discuss any of these comments further, please contact the undersigned at (713) 293-2291.

Very truly yours,



Raymond L. LaGarde

U.S. ENVIRONMENTAL PROTECTION AGENCY
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WD-133

WD-133

June 1, 1987

Honorable William P. Horn
Assistant Secretary for Fish and Wildlife and Parks
United States Department of the Interior
18th and C Streets, NW
Washington, D.C. 20240

Re: Arctic National Wildlife Refuge Report
Final Legislative Environmental Impact Statement

Dear Mr. Horn:

The Environmental Protection Agency (EPA) has reviewed the final Legislative Environmental Impact Statement (LEIS) and Report to Congress concerning the proposal to allow oil exploration, development, and production within the Arctic National Wildlife Refuge (ANWR). This letter, with its enclosure, provides EPA's comments on the recommended action and alternatives that were considered.

On February 6, 1987, EPA commented on the draft LEIS and recommended that several elements of the document were in need of revision or expansion. The final LEIS has undergone significant revision since the draft LEIS. Although additional discussion has been provided in response to many of our comments, the majority of EPA's concerns have not been adequately addressed in the final LEIS. In several important instances, EPA's level of concern has been increased by the revisions made to the document.

In reviewing the final LEIS, EPA found a document incomplete in its presentation of scientific data that would support the impact conclusions and the Secretary's recommendation. A large body of scientific information on the 1002 area's resources has been collected in recent years by the U.S. Fish and Wildlife Service (FWS). Likewise, information specific to the existing environmental regulatory program (including monitoring information) is available. Yet, this information does not appear to be reflected in the final LEIS.

The final LEIS constitutes the first step in the Secretary's recommendation for Congressional decision-making that must balance economic needs and environmental risks. Greater attention to, and better use of, the

resource data that have been generated in ANWR and elsewhere on Alaska's North Slope can provide for a better understanding of the following environmental priorities:

Assurance that the overall significance of environmental impacts, including cumulative impacts, and the ability to mitigate them are properly stated. In particular, we do not believe it appropriate to suggest that the Prudhoe Bay experience would be duplicated in ANWR. The data in the LEIS are insufficient to support such a conclusion.

A wider range of limited exploration/development leasing alternatives are developed and considered. The impacts of the limited leasing alternative (Alternative B) as revised in the final LEIS are now of the same high level of concern as for full leasing (Alternative A).

Identify potential regulatory conflicts which may involve interagency coordination. We are concerned about potential regulatory conflicts if, for example, leasing were proposed in environmentally sensitive areas for which the granting of other necessary permits would be inconsistent with existing laws and policies.

These and other concerns are discussed further in the enclosure which represents a summary of our more detailed technical review comments.

Based upon the inadequacy of the information presented in the final LEIS, EPA would normally recommend that a revised document be prepared. The final LEIS remains in need of corrective measures that require substantial changes, including the expansion of the range of alternatives, in order for it to be an adequate basis for any Congressional action. Since Congressional hearings have already begun, EPA recommends that the Secretary of the Interior's final recommendation to Congress be modified to better reflect the available scientific information.

Thank you for the opportunity to review the final LEIS. If the Department of Interior has questions about EPA's comments, please feel free to contact me directly or Mr. Alvin L. Ewing, EPA's Assistant Regional Administrator in Anchorage. We look forward to answering your questions and helping you prepare the final recommendation to Congress.

Sincerely,

Robie G. Russell
Regional Administrator

Enclosure

EPA REVIEW COMMENTS
ARCTIC NATIONAL WILDLIFE REFUGE
FINAL LEGISLATIVE ENVIRONMENTAL IMPACT STATEMENT

The primary issues and concerns identified during EPA's review of the ANWR final LEIS are outlined below. Comments are broadly organized under three major headings: Responsiveness to Comments, Technical/Scientific Issues, and Alternatives Analysis.

RESPONSIVENESS TO COMMENTS

The final LEIS has acknowledged most of EPA's concerns expressed in our comments on the draft document. However, an adequate analysis of the impacts associated with these issues is not apparent. Detailed analysis of the following issues, as referenced from our previous correspondence, remains a prerequisite to rational decision-making.

Air quality: Available knowledge of Prudhoe Bay development effects was not utilized, evaluation is deferred to future analyses.

Water and gravel supply needs: Significant shortages are acknowledged, but the final LEIS has not presented an adequate analysis to show whether water quantity/gravel quantity are sufficient to support the recommended action. The final LEIS assumes that major adverse effects can be handled in a manner which will not result in adverse impacts to water quality or habitat.

Marine transportation facilities: Existing significant impacts due to causeways around Prudhoe Bay are not reflected.

Wetlands: Only a very limited evaluation of large-scale hydrologic impacts and habitat fragmentation has been conducted. If the hydrologic impacts are greater than the brief discussions imply, the large amount of wetland acreage that could be affected could be greater.

Mitigation: The effectiveness of proposed measures is not evaluated. Discussions about rehabilitation are incomplete.

Regulatory processes: There is no discussion of how the new authorities requested by the Secretary in his recommendation would relate to existing environmental laws, other than that a leasing program 'might' require compliance with NEPA, the Clean Water Act, and the Clean Air Act.

Noise impacts: There is no quantitative evaluation of noise levels which makes it difficult to reliably assess the disturbance effects on sensitive wildlife species.

Cumulative effects: The final LEIS acknowledges cumulative effects by providing a list of projects which might occur but does little to actually evaluate their effects.

Subsistence impacts: An expanded discussion of the off-ANWR effects on distant inland native settlements has been provided. The impacts to the exchange network from the recommended action have not been evaluated.

These issues remain important even from a programmatic perspective. Their significance is increased by the Secretary's proposed recommendation that the final LEIS be statutorily adopted as the EIS for the leasing program itself. We disagree that this document is adequate for that purpose. Specifically, the leasing program inferred from the final LEIS might not provide the opportunity to consider alternatives for individual lease block deletions. Such deletions could be aimed at locally reducing risk to environmentally sensitive tracts. A greater degree of site-specific information (e.g. a tiered EIS) is necessary to evaluate such a program.

TECHNICAL/SCIENTIFIC ISSUES

In a variety of instances, the final LEIS conclusions and the Secretary's Recommendations do not appear to be well substantiated by the information provided in the draft and final LEIS.

Definitions of Impact Significance:

Definitions of significance of impacts are inappropriate in many cases. For example, impacts are not considered "major" in the final LEIS unless they exceed 30 years or more duration. For many fish and wildlife species, several generations could be adversely affected within this time, leading to severe population- and community-level impacts.

The final LEIS is inconsistent in its application of impact definitions. Often discussions in the text describe a "moderate" effect, but it is labeled in the conclusions as "minor."

Also, impacts are in many cases down-graded from the draft LEIS without any explanation or justification. The final LEIS has numerous examples of impact conclusions that are minimized in this manner. It is not clear on what basis these changes were made in the preparation of the final LEIS. As one example, modification of 12,650 acres of wetlands was evaluated in both the draft and final LEIS. The draft labeled this as a "moderate" effect, but in the final it was down-graded to "minor" with no explanation. Considering the potential for hydrologic disruption and habitat fragmentation, the impact could be "major".

Underestimation of Impacts:

Potential underestimation of impacts occurs throughout the LEIS. This is particularly true of impacts predicted for the Porcupine Caribou Herd (PCH), largely because they are based on selectively-chosen data from the Central Arctic Herd (CAH) in the vicinity of Prudhoe Bay. For example, the text notes that although the CAH no longer calves where development occurs around Prudhoe Bay, it has nonetheless increased in size. This is used as a basis to conclude that development in the 1002 area (and subsequent displacement) should similarly not affect the PCH. However, the text notes a variety of important differences between these two herds which include:

- 1) the CAH has a much lower population density;
- 2) the majority of the CAH's important calving grounds have not experienced development activities;
- 3) the CAH's calving grounds have not become overcrowded (even with displacement due to development around Prudhoe Bay); and
- 4) predation by wolves and brown bears on the CAH has been minimized.

These differences strongly suggest that the LEIS predictions, based on data for the CAH, are likely to underestimate impacts to the PCH.

Placing such emphasis on CAH data is not necessary. A large body of data on the PCH (summarized in the 1002 Area Final Baseline Report) has been gathered by FWS in the last few years. The Final Baseline Report contains additional PCH data that appear to not be adequately reflected in this final LEIS. The final LEIS conclusions are apparently not based on all the available information.

Mitigation:

The mitigation discussions throughout the final LEIS raise several concerns. The entire 1002 area has been designated Resource Category 2. However, several discussions in the text make a distinction in habitat value. The overall "2" designation is not supported by the information in the final LEIS. The final LEIS indicates that site-specific habitat designations will be conducted during the site-specific development/production phase. Characterization of habitat after leasing and exploration has occurred could result in habitat being upgraded to Resource Category 1. The impacts may not be mitigatable.

Mitigation discussions in the final LEIS are incomplete. The final LEIS assumes that mitigation measures will be both consistently implemented and completely successful. No analysis or references are provided to support these assumptions. Rather, the final LEIS states that the experience at Prudhoe Bay provides a basis for minimizing or eliminating adverse effects through the careful application of mitigation measures tested in that area. As the Corps of Engineers noted in its comments on the draft LEIS, industry has been reluctant to apply compensatory mitigation and restoration techniques on the North Slope, except in very limited experimental circumstances. EPA's own extensive experience with the major operators at Prudhoe Bay supports this conclusion; rehabilitation technology for the North Slope is particularly lacking.

Cumulative Effects:

Cumulative effects are not adequately evaluated in the final LEIS. The final LEIS provides a list of criteria for determining which actions should be included in the cumulative effects analysis. The criteria appear to be unduly restrictive and narrow the focus of the analysis. By using these criteria, a list of projects that constitute the cumulative case scenario has been developed for the final LEIS. Use of the criteria has resulted in only existing projects being considered. The potential for future large-scale development of offshore Beaufort Sea leases, oil and gas development in the Canadian Arctic, and construction of large diameter gas pipelines are only marginally considered.

The final LEIS suggests a particular development infrastructure that may result from ANWR leasing; however, other scenarios are possible. No useful cumulative effects analysis is presented either for those projects and activities listed or for other reasonably foreseeable scenarios. For any scenario, an adequate effects analysis must begin with a full reflection of existing impacts. For example, the LEIS could have described the existing cumulative effects to anadromous fish attributed to causeway construction in the Prudhoe Bay area. These effects are "major" by the final LEIS definitions. Conclusions regarding level of impacts should include the cumulative effects that are reasonably foreseeable.

Air Quality:

The final LEIS does not adequately assess primary and secondary air quality impacts. Secondary air quality effects (e.g., arctic haze and acidification of tundra) may result from upset situations and normal low level emissions even if standards are being met. Impairment of visibility is a potential impact where there is increasing concern relative to existing north slope emission sources.

ALTERNATIVES ANALYSIS

Alternative B, limited leasing, has been substantially revised in the final LEIS. This alternative is purported to reduce the impacts to the PCH; it implies that the most important calving area would be protected by setting aside the area where multiple years of heavy use overlap. However, the basic concept behind the limited leasing alternative appears to be flawed. The "overlap" area is merely the FOCUS of where concentrated calving has repeatedly occurred in the most recent years.

Alternative B is further complicated by other assumptions within the final LEIS. For example, the document states that only 27 percent of the "concentrated" calving area for the PCH exists in the 1002 area. In contrast, the draft LEIS stated that 80 percent of "core" calving was in the 1002 area. Although both statements may be statistically correct, the final LEIS does not point out that the 1002 area's 27 percent of the PCH's "concentrated" calving grounds has experienced approximately 85 percent of the PCH's total calving. The question of whether this small area can physically support calving for a significant proportion of the PCH casts doubt on the potential for Alternative B to satisfactorily reduce identified environmental risks.

Changes made to Alternative B have reduced the geographical area slated for maximum protection within the 1002 study area. The rationale for these changes have not been tied to a biological foundation. Therefore, Alternative B is now of the same high level of concern as Alternative A (full leasing). EPA believes that a new limited leasing option should be developed that can achieve the stated objective of substantially reducing impacts to the PCH while still allowing for development of oil resources. Alternative C, further exploration only, remains environmentally preferred should Congress consider only those alternatives presented by the Department of the Interior. Independent expert review of all information generated during the exploration activities outlined in Alternative C should be encouraged.

7/2/88 Horn

The map

Value-for-value

ASRC "missing" + "disin" + "a"

- no relationship at all betw the 2 ~~ex~~ transaks
- relies on 1431 ANILCA
- state AZUC/DGC now in mid-'83
- Barrow Gas Transfer Act
- Cooper Admin charges are invalid - "defence docket" wd inc Hammond/Sheffield, Andrews/Watt, 95/96/98 Congresses
- Jen thought ASRC was unfairly treated
- nobody got "hoodwinked"

- valuation "purely a paper exercise"

improper valuation?

- knew it wd be controversial + wanted to be able to defend trades
- followed stat'y + est'd valuation prc's
- public interest valuation - remote areas - no appraisals
- comp'l app'ls -
- Lutibiq. Bird Cliffs - Lake Clark - WSE -
- consensual arrangement -
- Karluk - raw value of \$1000 - 22(q) discount of 15%
- state sez no documentation or records - Feb memo on app'l methodology - notes on discussions - no comp. record of decisions yet - if LEIS goes forward it will inc. full documentation
- didn't negotiate USFWS req'n priors
- process had integrity

KOP 7/2/88

Menard - why get land - subsfc / subsistence / 22(q) -

Horn - ¹⁾ can prev. dev't; subsfc is usu. worthless - ensure env'l protection in perpetuity - ²⁾ also get mgmt authg - ³⁾ rec'l access - no trespassing signs on Russian River, Karluk access fees -

valuation of o/g lands -

- smaller tract size than OCS/NPRA
- remig 85% of acrg not traded ed buty in \$2-4 billion in a lease sale
- state's geol'g argument is "nonsense"
- DOI mapped rd'bl closures - ch not map closures in deformations - there is pot'l for closures but they'll be small - "our estimates are that most of the areas outside are so high-risk that they aren't even going to be worth it"
- Camden Bay sale is the same sequence - state's argument inconsistent
- std resc val'n methodology ^{for subsfc} - ~~then added 25%~~ - "risk-discounted value of the ~~royalty~~ royalty" + 25%
min. bid \$300/ac on acrg off-stoker - 12x OCS min \$ bid
median oil price - \$33/bbl -
not subj. to neg'n or bargaining

Horn steps in it
 → Dougie Fresh
 ↓
 Ricky Sanders
 80 ybs
 TD!!!

- Pettyjohn - value to buyer or value to seller? - ^{Carleton} answer: it's value to seller [can't est. value to buyer w/o comp'n] [and it isn't even really the value to seller]
- Horn "same process" as a lease sale - [except there DOI establishes min. bid + leads to competition]
- OMB - bunch of bureaucrats working in personnel, they also

try to maximize federal receipts

- state shd be at table

- [inholdings map obs. state acq's - 12 m. + acres -]

[ignores state stake in comp'v lease sale]

- real issue is opening ANWR - trades are 2^o - [but they're 90% of the controversy]

[these guys are disorganized - time for Tyson KO punch]

- state reps heard that they weren't in trade neg's anymore in newspapers -

- kept state posted

- want state at the table -

- [if trade lands are totally unprod'v, what happens to expected bids for comp'v lsg on adj. lands? - cd result in feds nvr getting anything but the trade acreage? i.e. total loss of Horn's \$2.4 b. + \$588 m - 4 out of 5 chance there's nothing there, at least]

- "idiotic allegations" by state about giving away value

- 50/47 \$/acre in state sales

- OH deal is esp. sweet - last deal -

- [NLG just signed up Conoco]

- "more power to Old Harbor's negotiators"

- NEPA process - DOI under a Dem. president -

[Eason needs to get around + say why it's not in state interest to go back to the table - Hudson, Frank, Furnace, Menard, Heston, Hamley, Phillips, Rieger

Hudson

Horn sees these
are private-bilateral
agents;

Mobil was involved in discussions - Zawacki

state wd hv been the largest player if it had stayed -

NLG 300k ac, \$100+ m - state had about \$460 m still on the table - wd hv had 100% interest in \$200-230 mil of tracts -

comparable values - chart shows some sales vs mean hi bid/acre -

diff'c is just that DOI gets land instead of \$ [wrong - what about comp'n?]

Fieger - why didn't DOI prot. state roy's interest? - Horn - wanted fee arrangements w/o a prop'y interest - avoid further regulation + delay of drilling by divesting o + g interest - also state has no interest / roy's entitlement now -

state revenues chart -

prop'y tax - added inc. tax - lease income tax - lease income -

"pressing contest w/ Gov'r"

State is accusing DOI of sleazy backroom deals

state left table for reasons of lacking info -

now they seem to have more [wrong - look at Cooper strat]

"state is speaking w/ forked tongue"

"will the real state please stand up"

Dennerlein argument - env'lists will want to grab the land

believes that the option shd be avail to Congress -

believes that prob'ly the trades impv poss'ly of opening ANWR -

did 103(c) repeal 22(g)

State is taking position that the ~~st~~ fed'l gov't will prev. dev it -

seems inconsistent w/ past State positions re Uncle Sam's
powers fr. D.C.

[mischaracterization of state's reasons for lvg the table]

[Congress' act is very imp't here]

[state shdn't be doing this]

~~having KIC well data wd hv bn useless -~~

having KIC well data wd hv bn > info, who knows if it
wd hv bn useful -

Hudson, Pearce, Frank, Colson, Menard, Zarwacki, Kiegs, Phillips, Henley, Fornace,
Pettijohn - Martin

1/26/88

Tom Williams



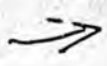
gotta started
Sen Jim at end of session wanted
it to do something in Feb'y
that still looks good -
don't know when in Feb'y -
budget / budget 1st /
new sched has recess 8-15 Feb'y -
(so probly after) - probably -
still his intention to put it bef.
it in Feb'y

10/14 Sen Energy ^{ANWR} / Nichols, Hecht, Murk, Wallop, Johnston, Ford, Wirth, Fowler, McClure, Bradley

Leggand-Conoco; Cook ^{Cherron} ~~Cherron~~; Herrera-SAPC; Weeks-ARCO

Conoco - lease all of 1002 area, w/o phasing or updates; ^{comp's} regular lease sale; explore + develop under leases

Cherron - at least 10 yr. lease term; lease entire area; no govt explor - in specifics on env't operg condns - ; unitization - want to be able to hr coop'v explor'n program -] Call Bill Van Dyke



SAPC - delimitation wells are ~~regulated~~ regulated like exploration wells but shd be allowed to happen year-round as soon as a disc'y is made (no seasonal drilling req't) (how def. a discovery) (State approach is 2000 Bpt); NEPA process is adequate to produce best poss. oil deriv't known to man; in jt.



state-fed'l regul'n = unnec'y bec. it alrdy happens, owing to 404 permitting wh. gives state a veto authg, oppose bec. it wd req. oil ind'g funding -



ARCO -

Johnston - leg'n shd max'z env'tl problem, minimize delay



∴ LEIS shd be deemed OK to begin (sg staging? core cal'ng may be leased, last, after another disc'y, no evidence of post damage to carbon -

Wallop - 17 technical qns re special drilling req'ts in Alaska -

clarity of recovery/Herrera

- don't need to exempt (s sales fr. NEPA, but after a discovery ~~there shd~~ it can delay problem -

clarity
of
Cook. (Cook - State has no clear concept of core-calmity area studies plan
Isy calmity area last night be sensitive

Herrera - no unnec'y advs effx seems like an OK std -

there is no haz waste in explain/produc killing, acc. to fed'l def'n of
haz material; cd very occ'ly use some haz's substances in produc -

Bridley - bonding at Prudhoe?

Oliver Leavitt / Bill Van Ness

Impact and -

local live -

Bennet Johnston adds about putting local live lang. in report.

core calmity area shd be avail. - wd stage Isy.

Johnston sees "you people" most reliant on subs'c, but actually it's

Athabascan who are most reliant

Organization - prev. delays

10/15 - 2

S gc o/g 1sg plan

footprints vs. Legos: if your kids play w/ Legos on the living room carpet
you know that they might cover 1% of the floor but you'll trip on
your way to the kitchen

David Braver -

2/24 Kocatur -

orig'ly EO rsrd all H/Cs in ~~APRA~~ Pet 4 to feds

Sec 11 Statehood Act ackn'd

"Congress probly did not intend for 90% to extend to Pet 4"

∴ the 50% deal was permissible

Elle Hills - no lsg - no revenue stream - but lots of problems -

2/24 Kocatur

re Stevens' stmt that state wd hv ∅ entitlement, if ANWR wr. op'd today

- "flat wrong" - Kenai Moose Range case.

- 1) Description of interaction between U of A + Division of Agriculture.
- 2) federal ag programs. future funding.
- 3) plan overview
- 4) pipeline R/W's
- 5) programs in place

2/24

SB 94

DNR etc. Buzgaf, McVee, Shwab, Koester, Gernigley, Tanyen, Ostrovsky, Gallegher, Holdsworth

Tom K. 3805185 - exg closure authg -

cd pull out that language + give it h'r profile?

DEC/ADF+G don't want law changed - some parts w/ jud'l enforcement -

BBAP/SAP agnts on min'l closures -
land sale closures -

Jerry G - don't want to change anything in AS 38 but adding the language here is sensible -

Cont: finding 1) incompatible → damage 2) protection of other uses w/ sv long-term state social/econic interests

Jerry: a finding by soil comms?

→ TK - Constr sez no partic. use is better than others -

Jerry: (B) - Comms will dev guidelines + procs - drop civil actn?

Bruce: The civil actn = accountability for the Comms -

TK: accountability exists now, but (b) gives actn to enforce on such broad grounds. The other directives (DNR etc) may be seen to have equal footing; does Leg'r intend to repeal these, or does it repeal by implication

Cont - wd like to hv a req't for a finding w/ specific steps/ criteria for the finding - lends substance to ~~the~~ complaints, action

TK: B) under APA the Comms in consultation w/ Min'l Comms shall adopt reg's to implement the Act? reg's that relate planning acts +

dec's to MCO's -

fiscal impk - regs - Title 16? DOTPF?

Jerry - how can DNR assure that OMB doesn't promulgate unrec'd
regs?

2/24 Tom Roberts. - re OCS language

- staty lang?

- on the lease - MMS - (Navarin Basin)

- Title 43 US 1344. c. (req't of consult'n w/ state + local gov't) (terms of leased)

1351. h. (req's Sec disapp a lsg plan if impact on env't, inc j employment see > adv's)

→ 1356 a.3. (lessees shd cons'r local hire " if wd mitigate social/econ'c impact)

+ definitions.



OFFICE OF THE GOVERNOR

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100TH CONGRESS
1ST SESSION

S. 1804

IN THE SENATE OF THE UNITED STATES

OCTOBER 21 (legislative day, OCTOBER 16), 1987

Mr. ROTH (for himself, Mr. BRADLEY, Mr. CHAFEE, Mr. METZENBAUM, Mr. DURENBERGER, Mr. SIMON, and Mr. HARKIN) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To amend the National Wildlife Refuge Administration Act.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That notwithstanding any provisions of the National Wildlife
4 Refuge Administration Act, a portion of the Arctic National
5 Wildlife Refuge in Alaska comprising approximately
6 1,556,793 acres, as generally depicted on a map entitled
7 "Arctic Coastal Plain Wilderness-Proposed", dated June,
8 1986, and available for inspection in the offices of the Secre-
9 tary of the Interior, is hereby designated as a component of
10 the National Wilderness Preservation System.

○

November 4, 1987

ANWR BILLS PENDING BEFORE CONGRESS

Set forth below is a brief comparison of how the five pending Coastal Plain bills treat the key issues relating to oil and gas leasing, the environment, and exploration and development. The five bills are in order of introduction:

H.R. 39.

Introduced by Congressman Udall, January 6, 1987 (96 cosponsors)

- would designate all of the 1.5 million acre area of the Coastal Plain as a Wilderness Area.

H.R. 1082.

Introduced by Congressman Young, February 11, 1987 (146 cosponsors)

- would authorize the Secretary of the Interior to lease all of the lands in the Coastal Plain for oil and gas exploration, development and production.

S. 1217.

Introduced by Senators Murkowski and Stevens, May 15, 1987 (9 cosponsors)

- would amend the Mineral Leasing Act of 1920 to authorize the Secretary to lease all of the lands in the Coastal Plain for oil and gas exploration, development and production.

S. 1804.

Introduced by Senator Roth, October 21, 1987, (7 cosponsors)

- would designate the Coastal Plain as a Wilderness Area.

H.R. 3601.

Introduced by Congressmen Jones November 3, 1987 (2 cosponsors)

- would require: (1) the drilling of four on-structure exploratory test wells; (2) extensive revision and complete duplication of all baseline studies, the Resource Assessment, and Draft EIS and Final EIS; and (3) only then initiate a new executive branch review and decisionmaking process, all prior to a determination of whether to lease, develop and produce oil from Coastal Plain

On Leasing

- H.R. 39 and S. 1804 would prohibit leasing and any use of lands in the Coastal Plain in any manner inconsistent with Wilderness.
- H.R. 1082 and S. 1217 would allow leasing, exploration and development of all lands in the Coastal Plain.
- H.R. 3061 would make leasing contingent upon the drilling of four "exploration only" wells, the preparation of extensive new studies, reports and NEPA statements, and would prohibit surface activity by designating "protective management zones" (de facto Wilderness) in large areas of the Coastal Plain.

On Protecting The Environment

- H.R. 39 and S. 1804 would prohibit leasing and most other activity on the Coastal Plain.
- H.R. 1082 and S. 1217 would subject all phases of activity to existing environmental laws and regulations, and provide for the reasonable protection of fish and wildlife resources, environment and subsistence uses of the Coastal Plain.
- H.R. 3601 would require the use of best available technology measures to mitigate the effects of exploration and development and related activity; would impose a standard of "no significant environmental impact"; and would make the 23.5 million-acre National Petroleum Reserve -- Alaska (NPR-A) a National Wildlife Refuge.

On Revenues

- H.R. 39 and S. 1804 would generate no new revenues.
- H.R. 1082 and S. 1217 would allocate revenues in accordance with applicable law (90% to State of Alaska and 10% to Federal government).
- H.R. 3601 would give 50% of revenues to the State of Alaska and 50% to the Federal government. The Federal share would be divided evenly between the Migratory Bird Conservation Fund and the Fish and Wildlife Enhancement Trust Fund.

On Further Studies

- H.R. 39 and S. 1804 would require no further studies.
- H.R. 1082 and S. 1217 would require no further studies.
- H.R. 3601 would require the Director of the FWS to go back and re-do all baseline studies, reports and EIS's required by section 1002(h) of ANILCA; and would require new studies by the National Academy of Sciences, and the formation of a new ANWR Scientific Advisory Panel.

On A Timeframe For Development

- H.R. 39 and S. 1804 would prohibit any development.
- H.R. 1082 and S. 1217 would require the first lease sale to be held within one year of enactment of the Act.
- H.R. 3601 would require reports following the exploratory drilling program, and would permit the President to authorize development only if reserves are shown to be of significant size and importance to the nation. Development could be delayed four to six years while further studies and reports are made.

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100TH CONGRESS
H.R. 1082 - COSPONSORS

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H.R. 39 - COSPONSORS

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UNITED STATES SENATE
100TH CONGRESS
S. 1217 - COSPONSORS

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MEMBER NAME          PARTY          STATE
HEFLIN, HOWELL T.   D              AL
COCHRAN, THAD       R              MS
GARN, JAKE          R              UT
GRAMM, PHIL         R              TX
HELMS, JESSE        R              NC
MURKOWSKI, FRANK H. R              AK
NICKLES, DON        R              OK
STEVENS, THEODORE F. R             AK
SYMMS, STEVEN D.    R              ID
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UNITED STATES SENATE
100TH CONGRESS
S. 1804 - COSPONSORS

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MEMBER NAME          PARTY          STATE
BRADLEY, BILL       D              NJ
MARKIN, TOM         D              IA
METZENBAUM, HOWARD M. D              OH
SIMON, PAUL         D              IL
CHAFEE, JOHN H.     R              RI
DURENBERGER, DAVID F. R              MN
ROTH, WILLIAM V. JR. R              DE
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STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
AK	MURKOWSKI, FRANK H.	R	0				Y	
AK	STEVENS, THEODORE F.	R	0				Y	
AK	YOUNG, DON	R	0		Y			
AL	BEVILL, TOM	D	4		Y			
AL	ERDREICH, BENJAMIN	D	6					
AL	FLIPPO, RONNIE G.	D	5		Y			
AL	HARRIS, CLYDE	D	7					
AL	HEFLIN, HOWELL T.	D	0				Y	
AL	NICHOLS, WILLIAM	D	3		Y			
AL	SHELBY, RICHARD C.	D	0					
AL	CALLAHAN, H.L. (SONNY)	R	1		Y			
AL	DICKINSON, WILLIAM L.	R	2		Y			
AR	ALEXANDER, BILL	D	1					
AR	ANTHONY, BERYL F. JR.	D	4		Y			
AR	BUMPERS, DALE	D	0					
AR	PRYOR, DAVID H.	D	0					
AR	HAMMERSCHMIDT, JOHN P.	R	3		Y			
AR	ROBINSON, TOMMY	R	2	Y				
AS	SUNIA, FOFO I. F.	D	0	Y				
AZ	DECONCINI, DENNIS	D	0					
AZ	UDALL, MORRIS K.	D	2	Y				
AZ	KOLBE, JIM	R	5		Y			
AZ	KYL, JON	R	4		Y			
AZ	MCCAIN, JOHN	R	0					
AZ	RHODES III, JOHN J.	R	1		Y			
AZ	STUMP, BOB	R	3		Y			
CA	ANDERSON, GLENN M.	D	32					
CA	BATES, JIM	D	44	Y				
CA	BEILENSON, ANTHONY C.	D	23	Y				
CA	BERMAN, HOWARD L.	D	26	Y				
CA	BOSCO, DOUGLAS H.	D	1					
CA	BOXER, BARBARA	D	6	Y				
CA	BROWN, GEORGE E. JR.	D	36	Y				
CA	COELHO, TONY	D	15					
CA	CRANSTON, ALAN	D	0					
CA	DELLUMS, RONALD V.	D	8	Y				
CA	DIXON, JULIAN C.	D	28	Y				
CA	DYMALLY, MERVYN M.	D	31					
CA	EDWARDS, DON	D	10	Y				
CA	FAZIO, VIC	D	4					
CA	HAWKINS, AUGUSTUS F.	D	29	Y				
CA	LANTOS, TOM	D	11	Y				
CA	LEHMAN, RICHARD H.	D	18					
CA	LEVINE, MELDON E.	D	27	Y				
CA	MARTINEZ, MATTHEW	D	30	Y				
CA	MATSUI, ROBERT T.	D	3	Y				
CA	MILLER, GEORGE	D	7					
CA	MINETA, NORMAN Y.	D	13	Y				
CA	PANETTA LEON E.	D	16	Y				
CA	PELOSI, MARY	D	5	Y				
CA	ROYBAL, EDWARD R.	D	25	Y				

100TH CONGRESS

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
CA	STARK, FORTNEY H. (PETE)	D	9	Y				
CA	TORRES, ESTEBAN EDWARD	D	34	Y				
CA	WAXMAN, HENRY A.	D	24	Y				
CA	BADHAM, ROBERT E.	R	40		Y			
CA	DANNEMEYER, WILLIAM E.	R	39		Y			
CA	DORNAN, ROBERT K.	R	38		Y			
CA	DREIER, DAVID	R	33		Y			
CA	GALLEGLY, ELTON	R	21		Y			
CA	HERGER, WALLY	R	2		Y			
CA	HUNTER, DUNCAN L.	R	45		Y			
CA	KONNYU, ERNEST L.	R	12		Y			
CA	LAGOMARSINO, ROBERT J.	R	19					
CA	LEWIS, JERRY	R	35		Y			
CA	LOWERY, BILL	R	41		Y			
CA	LUNGREN, DANIEL E.	R	42		Y			
CA	MCCANDLESS, ALFRED A.	R	37		Y			
CA	MOORHEAD, CARLOS J.	R	22		Y			
CA	PACKARD, RONALD C.	R	43		Y			
CA	PASHAYAN, CHARLES JR.	R	17		Y			
CA	SHUMWAY, NORMAN D.	R	14		Y			
CA	THOMAS, WILLIAM M.	R	20		Y			
CA	WILSON, PETE	R	0					
CO	CAMPBELL, BEN	D	3					
CO	SCHROEDER, PATRICIA	D	1	Y				
CO	SKAGGS, DAVID E.	D	2	Y				
CO	WIRTH, TIMOTHY E.	D	0					
CO	ARMSTRONG, WILLIAM L.	R	0					
CO	BROWN, HANK	R	4					
CO	HEFLEY, JOEL	R	5					
CO	SCHAEFER, DANIEL	R	6		Y			
CT	DODD, CHRISTOPHER J.	D	0					
CT	GEJDENSON, SAMUEL	D	2					
CT	KENNELLY, BARBARA BAILEY	D	1					
CT	MORRISON, BRUCE A.	D	3	Y				
CT	JOHNSON, NANCY L.	R	6					
CT	MCKINNEY, STEWART B.	R	4					
CT	ROWLAND, JOHN G.	R	5					
CT	WEICKER, LOWELL P. JR.	R	0					
DE	BIDEN, JOSEPH R. JR.	D	0					
DE	CARPER, THOMAS R.	D	0					
DE	ROTH, WILLIAM V. JR.	R	0					Y
FL	BENNETT, CHARLES E.	D	3					
FL	CHAPPELL, BILL JR.	D	4		Y			
FL	CHILES, LAWTON	D	0					
FL	FASCELL, DANTE B.	D	19	Y				
FL	GIBBONS, SAM M.	D	7		Y			
FL	GRAHAM, BOB	D	0					
FL	GRANT, BILL	D	2					
FL	HUTTO, EARL	D	1					
FL	LEHMAN, WILLIAM	D	17	Y				
FL	MACKAY, K.H. (BUDDY)	D	6					

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
FL	MICA, DANIEL A.	D	14					
FL	NELSON, BILL	D	11					
FL	PEPPER, CLAUDE	D	18					
FL	SMITH, LAWRENCE J.	D	16	Y				
FL	BILIRAKIS, MICHAEL	R	9		Y			
FL	IRELAND, ANDY	R	10					
FL	LEWIS, TOM	R	12		Y			
FL	MACK, CONNIE III	R	13		Y			
FL	MCCOLLOM, BILL	R	5		Y			
FL	SHAW, CLAY E. JR.	R	15		Y			
FL	YOUNG, BILL C.W.	R	8		Y			
GA	BARNARD, D. DOUGLAS JR.	D	10					
GA	DARDEN, GEORGE W. (BUDDY) D	D	0					
GA	FOWLER JR., WYCHE	D	0					
GA	HATCHER, CHARLES F.	D	2					
GA	JENKINS, EDGAR L.	D	9		Y			
GA	LEWIS, JOHN	D	5	Y				
GA	NUNN, SAM	D	0					
GA	RAY, RICHARD	D	3					
GA	ROWLAND, J. ROY	D	8					
GA	THOMAS, ROBERT LINDSAY	D	1			Y		
GA	GINGRICH, NEWT	R	6					
GA	SWINDALL, PATRICK L.	R	4					
GM	BLAZ, BEN GARRIDO	R	0		Y			
HI	AKAKA, DANIEL K.	D	2		Y			
HI	INOUE, DANIEL K.	D	0					
HI	MATSUNAGA, SPARK H.	D	0					
HI	SAIKI, PATRICIA	R	1					
IA	HARKIN, TOM	D	0				Y	
IA	NAGLE, DAVID R.	D	3					
IA	SMITH, NEAL	D	4					
IA	GRANDY, FRED R.	R	6		Y			
IA	GRASSLEY, CHARLES E.	R	0					
IA	LEACH, JIM	R	1					
IA	LIGHTFOOT, JIM ROSS	R	5		Y			
IA	TAUKE, THOMAS J.	R	2					
ID	CPAIG, LARRY E.	R	1		Y			
ID	McCLURE, JAMES A.	R	0					
ID	STALLINGS, RICHARD	R	2					
ID	SYMMS, STEVEN D.	R	0				Y	
IL	ANNUNZIO, FRANK	D	11					
IL	COLLINS, CARDISS	D	7					
IL	DIXON, ALAN J.	D	0					
IL	DURBIN, RICHARD J.	D	20	Y				
IL	EVANS, LANE	D	17	Y				
IL	GRAY, KENNETH J.	D	22		Y			
IL	HAYES, CHARLES	D	1	Y				
IL	LIPINSKI, WILLIAM O.	D	5	Y				
IL	PRICE, MELVIN	D	21	Y				
IL	ROSTENKOWSKI, DAN	D	8					
IL	RUSSO, MARTY	D	3					

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
IL	SAVAGE, GUS	D	2					
IL	SIMON, PAUL	D	0					Y
IL	YATES, SIDNEY R.	D	9	Y				
IL	BRUCE, TERRY L.	R	19					
IL	CRANE, PHILIP M.	R	12		Y			
IL	DAVIS, JACK	R	4		Y			
IL	FAWELL, MARRIS W.	R	13					
IL	HASTERT, DENNIS	R	14		Y			
IL	HYDE, HENRY J.	R	6		Y			
IL	MADIGAN, EDWARD R.	R	15		Y			
IL	MARTIN, LYNN M.	R	16					
IL	MICHEL, ROBERT H.	R	18		Y			
IL	PORTER, JOHN EDWARD	R	10					
IN	HAMILTON, LEE H.	D	9					
IN	JACOBS, ANDREW JR.	D	10	Y				
IN	JONTZ, JIM	D	5	Y				
IN	MCCLOSKEY, FRANK	D	8					
IN	SHARP, PHILIP R.	D	2					
IN	VISCLOSKY, PETER	D	1					
IN	BURTON, DAN	R	6		Y			
IN	COATS, DANIEL R.	R	4		Y			
IN	HILER, JOHN	R	3		Y			
IN	LUGAR, RICHARD G.	R	0					
IN	MYERS, JOHN T.	R	7		Y			
IN	QUAYLE, DAN	R	0					
KS	GLICKMAN, DAN	D	4					
KS	SLATTERY, JIM	D	2					
KS	DOLE, ROBERT	R	0					
KS	KASSERAUM, NANCY L. DON	R	0					
KS	MEYER, JAN	R	3					
KS	ROBERTS, PAT	R	1		Y			
KS	WHITAKER, ROBERT	R	5		Y			
KY	FORD, WENDELL H.	D	0					
KY	HUBBARD, CARROLL JR.	D	1		Y			
KY	MAZZOLI, ROMANO L.	D	3					
KY	NATCHER, WILLIAM H.	D	2					
KY	PERKINS, CARL C. (CHRIS)	D	7					
KY	BUNNING, JIM	R	4		Y			
KY	HOPKINS, LARRY J.	R	6		Y			
KY	MCCONNELL, MITCH	R	0					
KY	ROGERS, HAROLD	R	5		Y			
LA	BOGGS, CORINNE C (LINDY)	D	2		Y			
LA	BREAUX, JOHN B.	D	0					
LA	HAYES, JIMMY	D	7		Y			
LA	HUCKABY, THOMAS JERRY	D	5		Y			
LA	JOHNSTON, J. BENNETT	D	0					
LA	ROEMER, BUDDY	D	4					
LA	TAUZIN, W. J. (BILLY)	D	3		Y			
LA	BAKER, RICHARD	R	6		Y			
LA	HOLLOWAY, CLYDE	R	8		Y			
LA	LIVINGSTON, ROBERT L.	R	1					

<u>STATE</u>	<u>MEMBER NAME</u>	<u>PARTY</u>	<u>DISTRICT</u>	<u>H.R. 39</u>	<u>H.R. 1082</u>	<u>H.R. 3601</u>	<u>S-1217</u>	<u>S. 1804</u>
MA	ATKINS, CHESTER G.	D	5	Y				
MA	BOLAND, EDWARD P.	D	2					
MA	DONNELLY, BRIAN J.	D	11					
MA	EARLY, JOSEPH D.	D	3					
MA	FRANK, BARNEY	D	4	Y				
MA	KENNEDY, EDWARD M.	D	0					
MA	KENNEDY II, JOSEPH P.	D	8					
MA	KERRY, JOHN	D	0					
MA	MARKEY, EDWARD J.	D	7	Y				
MA	MAVROULES, NICHOLAS	D	6					
MA	MOAKLEY, JOHN JOSEPH	D	9	Y				
MA	STUDDS, GERRY E.	D	10					
MA	CONTE, SILVIO O.	R	1					
MD	BYRON, BEVERLY B.	D	6					
MD	CARDIN, BENJAMIN L.	D	3					
MD	DYSON, ROY	D	1		Y			
MD	HOYER, STENY H.	D	5					
MD	MCMILLEN, THOMAS	D	4					
MD	MIKULSKI, BARBARA A.	D	0					
MD	MFUME, KWEISI	D	7	Y				
MD	SARBANES, PAUL S.	D	0					
MD	BENTLEY, HELEN DELICH	R	2		Y			
MD	MOKELLA, CONSTANCE A.	R	8	Y				
ME	BRENNAN, JOSEPH E.	D	1					
ME	MITCHELL, GEORGE J.	D	0					
ME	COHEN, WILLIAM S.	R	0					
ME	SNOWE, OLYMPIA J.	R	2					
MI	BONIOR, DAVID E.	D	12	Y				
MI	CARR, M. ROBERT	D	6					
MI	CONVERS, JOHN JR.	D	1	Y				
MI	CROCKETT, GEORGE W. JR.	D	13	Y				
MI	DINGELL, JOHN D.	D	16			Y		
MI	FORD, WILLIAM D.	D	15					
MI	HEITEL, DENNIS M.	D	14					
MI	KILDEE, DALE E.	D	7	Y				
MI	LEVIN, CARL M.	D	0					
MI	LEVIN, SANDER	D	17					
MI	RIEGLE, DONALD W. JR.	D	0					
MI	TRAXLER, BOB	D	8					
MI	WOLPE, HOWARD E.	D	3	Y				
MI	BROOMFIELD, WILLIAM S.	R	18		Y			
MI	DAVIS, ROBERT W.	R	11		Y			
MI	HENRY, PAUL B.	R	5					
MI	PURSELL, CARL D.	R	2					
MI	SCHUETTE, BILL	R	10					
MI	UPTON, FRED	R	4					
MI	VANDER JAGT, GUY	R	9		Y			
MN	ÖBERSTAR, JAMES L.	D	8					
MN	PENNY, TIMOTHY J.	D	1	Y				
MN	SABO, MARTIN O.	D	5					
MN	SIKORSKI, GERRY	D	6	Y				

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
MN	VENTO, BRUCE F.	D	4	Y				
MN	BOSCHWITZ, RUDY	R	0					
MN	DURENBERGER, DAVID F.	R	0					Y
MN	FRENZEL, BILL	R	3					
MN	STANGELAND, ARLAN	R	7		Y			
MN	WEBER, VIN	R	2					
MO	CLAY, WILLIAM L.	D	1	Y				
MO	GEPHARDT, RICHARD A.	D	3					
MO	SKELTON, IKE	D	4					
MO	VOLKMER, HAROLD L.	D	9					
MO	WHEAT, ALAN	D	5					
MO	BOND, CHRISTOPHER S. "KIT"	R	0					
MO	BUECHNER, JACK	R	2					
MO	COLEMAN, E. THOMAS	R	6					
MO	DANFORTH, JOHN C.	R	0					
MO	EMERSON, BILL	R	8		Y			
MO	TAYLOR, GENE	R	7		Y			
MS	DOWDY, WAYNE	D	4					
MS	ESPY, MIKE	D	2					
MS	MONTGOMERY, G.V. (SONNY)	D	3		Y			
MS	STENNIS, JOHN C.	D	0					
MS	WHITTEN, JAMIE L.	D	1					
MS	COCHRAN, THAD	R	0				Y	
MS	LOTT, TRENT	R	5		Y			
MT	BAUCUS, MAX	D	0					
MT	MELCHER, JOHN	D	0					
MT	WILLIAMS, PAT	D	1	Y				
MT	MARLENEE, RON	R	2		Y			
NB	EXON, J. JAMES	D	0					
NB	BEREUTER, DOUGLAS K.	R	1		Y			
NB	DAUB, HAL	R	2		Y			
NB	SMITH, VIRGINIA	R	3		Y			
NB	KARNES, DAVID	R	0					
NC	CLARKE, JAMES MCCLURE	D	11	Y				
NC	HEFNER, W.G. (BILL)	D	8		Y			
NC	JONES, WALTER B.	D	1			Y		
NC	LANCASTER, MARTIN	D	3					
NC	NEAL, STEPHEN L.	D	5	Y				
NC	PRICE, DAVID E.	D	4	Y				
NC	ROSE, CHARLES	D	7	Y				
NC	SANFORD, TERRY	D	0					
NC	VALENTINE, I.T. JR.	D	2					
NC	BALLENGER, CASS	R	10		Y			
NC	COBLE, HOWARD	R	6		Y			
NC	HELMS, JESSE	R	0				Y	
NC	MCMILLAN, J. ALEX	R	9		Y			
ND	BURDICK, QUENTIN N.	D	0					
ND	CONRAD, KENT	D	0					
ND	DORGAN, BYRON L.	D	0					
NH	GREGG, JUDD	R	2		Y			
NH	HUMPHREY, GORDON J.	R	0					

STATE	MEMBER NAME	PARTY	DISTRICT	H. R. 39	H. R. 1082	H. R. 3601	S-1217	S. 1804
NH	RUDMAN, WARREN	R	0					
NH	SMITH, ROBERT C.	R	1					
NJ	BRADLEY, BILL	D	0					
NJ	DWYER, BERNARD J.	D	6	Y				Y
NJ	FLORIO, JAMES J.	D	1	Y				
NJ	GUARINI, FRANK J.	D	14					
NJ	HOWARD, JAMES J.	D	3	Y				
NJ	HUGHES, WILLIAM J.	D	2					
NJ	LAUTENBERG, FRANK R.	D	0					
NJ	RODINO, PETER W. JR.	D	10	Y				
NJ	ROE, ROBERT A.	D	8					
NJ	TORRICELLI, ROBERT G.	D	9					
NJ	COURTER, JAMES A.	R	12					
NJ	GALLO, DEAN A.	R	11					
NJ	RINALDO, MATTHEW J.	R	7	Y				
NJ	ROUKEMA, MARGE	R	5					
NJ	SAXTON, H. JAMES	R	13		Y			
NJ	SMITH, CHRISTOPHER H.	R	4					
NM	BINGAMAN, JEFF	D	0					
NM	RICHARDSON, BILL	D	3					
NM	DOMENICI, PETE V.	R	0					
NM	LUJAN, MANUEL JR.	R	1		Y			
NM	SKEEN, JOE	R	2		Y			
NV	BILBRAY, JAMES A.	D	1					
NV	REID, HARRY	D	0					
NV	HECHT, CHIC	R	0					
NV	VUCANOVICH, BARBARA F.	R	2		Y			
NY	ACKERMAN, GARY	D	7	Y				
NY	BIAGGI, MARIO	D	19		Y			
NY	DOWNEY, THOMAS J.	D	2	Y				
NY	FLAKE, FLOYD H.	D	6	Y				
NY	GARCIA, ROBERT	D	18	Y	Y			
NY	HOCHBRUECKNER, GEORGE J.	D	1					
NY	LAFALCE, JOHN J.	D	32					
NY	MANTON, THOMAS J.	D	9					
NY	MCHUGH, MATTHEW F.	D	28					
NY	MOYNIHAN, DANIEL P.	D	0					
NY	MRAZEK, ROBERT J.	D	3	Y				
NY	NOWAK, HENRY J.	D	33					
NY	OWENS, MAJOR R.	D	12	Y				
NY	RANGEL, CHARLES B.	D	16	Y				
NY	SCHEUER, JAMES H.	D	8	Y				
NY	SCHUMER, CHARLES E.	D	10					
NY	SLAUGHTER, LOUISE M.	D	30	Y				
NY	SOLARZ, STEPHEN J.	D	13	Y				
NY	STRATTON, SAMUEL S.	D	23		Y			
NY	TOWNS, EDOLPHUS	D	11	Y				
NY	WEISS, THEODORE S.	D	17	Y				
NY	BOEHLERT, SHERWOOD L.	R	25	Y				
NY	D'AMATO, ALFONSE M.	R	0					
NY	DIO GUARDI, JOSEPH	R	20					

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
NY	FISH, HAMILTON JR.	R	21	Y				
NY	GILMAN, BENJAMIN A.	R	22					
NY	GREEN, S. WILLIAM	R	15	Y				
NY	HORTON, FRANK	R	29					
NY	HOUGHTON JR., AMORY	R	34		Y			
NY	KEMP, JACK F.	R	31		Y			
NY	LENT, NORMAN F.	R	4					
NY	MARTIN, DAVID O'B.	R	26		Y			
NY	MCGRATH, RAYMOND J.	R	5					
NY	MOLINARI, GUY V.	R	14		Y			
NY	SOLOMON, GERALD B.H.	R	24		Y			
NY	WORTLEY, GEORGE	R	27	Y				
OH	APPLEGATE, DOUGLAS	D	18					
OH	ECKART, DENNIS E.	D	11					
OH	FEIGHAN, EDWARD F.	D	19					
OH	GLENN, JOHN	D	0					
OH	HALL, TONY P.	D	3					
OH	KAPTUR, MARCY	D	9	Y				
OH	LUKEN, THOMAS A.	D	1	Y				
OH	METZENBAUM, HOWARD M.	D	0				Y	
OH	OAKAR, MARY ROSE	D	20					
OH	PEASE, DONALD J.	D	13					
OH	SAWYER, TOM	D	14	Y				
OH	STOKES, LOUIS	D	21					
OH	DEWINE, MICHAEL	R	7					
OH	GRADISON, WILLIS D. JR.	R	2					
OH	KASICH, JOHN R.	R	12		Y			
OH	LATTA, DELBERT L.	R	5		Y			
OH	LUKENS, DONALD E.	R	8		Y			
OH	MCEWEN, BOB	R	6		Y			
OH	MILLER, CLARENCE E.	R	10		Y			
OH	OXLEY, MICHAEL	R	4		Y			
OH	REGULA, RALPH S.	R	16					
OH	TRAFICANT JR., JAMES A.	R	17					
OH	WYLIE, CHALMERS P.	R	15		Y			
OK	BOREN, DAVID L.	D	0					
OK	ENGLISH, GLENN	D	6		Y			
OK	MCCURDY, DAVE	D	4					
OK	SYNAR, MICHAEL L.	D	2					
OK	WATKINS, WESLEY W.	D	3		Y			
OK	EDWARDS, MICKEY	R	5		Y			
OK	INHOFE, JAMES M.	R	1		Y			
OK	NICKLES, DON	R	0				Y	
OR	AUCOIN, LES	D	1					
OR	DEFAZIO, PETER A.	D	4	Y				
OR	WYDEN, RON	D	3					
OR	HATFIELD, MARK O.	R	0					
OR	PACKWOOD, BOB	R	0					
OR	SMITH, ROBERT F.	R	2		Y			
OR	SMITH, DENNY	R	5		Y			
PA	BORSKI, ROBERT A. JR.	D	3					

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
PA	COYNE, WILLIAM J.	D	14					
PA	FOGLIETTA, THOMAS M.	D	1					
PA	GAYDOS, JOSEPH M.	D	20					
PA	GRAY, WILLIAM H., III	D	2					
PA	KANJORSKI, PAUL E.	D	11					
PA	KOLTER, JOSEPH P.	D	4	Y				
PA	KOSTMAYER, PETER H.	D	8					
PA	MURPHY, AUSTIN J.	D	22		Y			
PA	MURTHA, JOHN P.	D	12					
PA	WALGREN, DOUG	D	18					
PA	YATRON, GUS	D	6					
PA	CLINGER, WILLIAM F. JR.	R	23					
PA	COUGHLIN, LAWRENCE	R	13					
PA	GEKAS, GEORGE W.	R	17		Y			
PA	GOODLING, WILLIAM F.	R	19		Y			
PA	HEINZ, H. JOHN III	R	0					
PA	MCDADE, JOSEPH M.	R	10		Y			
PA	RIDGE, THOMAS J.	R	21					
PA	RITTER, DON	R	15		Y			
PA	SCHULZE, RICHARD T.	R	5		Y			
PA	SHUSTER, (BUD) E.G.	R	9		Y			
PA	SPECTER, ARLEN	R	0					
PA	WALKER, ROBERT S.	R	16		Y			
PA	WELDON, CURT	R	7					
PR	FUSTER, JAIME B.	D	0	Y				
RI	PELL, CLAIBORNE	D	0					
RI	ST GERMAIN, FERNAND J.	D	1					
RI	CHAFEE, JOHN H.	R	0				Y	
RI	SCHNEIDER, CLAUDINE	R	2					
SC	DERRICK, BUTLER	D	3					
SC	HOLLINGS, ERNEST F.	D	0					
SC	PATTERSON, ELIZABETH J.	D	4					
SC	SPRATT, JOHN M.	D	5	Y				
SC	TALLON, ROBERT M. JR.	D	6					
SC	RAVENEL JR., ARTHUR	R	1	Y				
SC	SPENCE, FLOYD	R	2					
SC	THURMOND, STROM	R	0					
SD	DASCHLE, THOMAS A.	D	0					
SD	JOHNSON, TIM	D	0					
SD	PRESSLER, LARRY	R	0					
TN	BONER, WILLIAM H.	D	5					
TN	COOPER, JIM	D	4	Y				
TN	FORD, HAROLD E.	D	9	Y				
TN	GORDON, BART	D	6					
TN	GORE, ALBERT	D	0					
TN	JONES, ED	D	8					
TN	LLOYD, MARILYN	D	3			Y		
TN	SASSER, JAMES R.	D	0					
TN	DUNCAN, JOHN J.	R	2			Y		
TN	QUILLEN, JAMES H.	R	1			Y		
TN	SUNDQUIST, DON	R	7			Y		

STATE	MEMBER NAME	PARTY	DISTRICT	H.R. 39	H.R. 1082	H.R. 3601	S-1217	S. 1804
TX	ANDREWS, MICHAEL A.	D	25		Y			
TX	BENTSEN, LLOYD M.	D	0					
TX	BROOKS, JACK	D	9					
TX	BRYANT, JOHN	D	5					
TX	BUSTAMANTE, ALBERT G.	D	23					
TX	CHAPMAN, JIM	D	1		Y			
TX	COLEMAN, RONALD D.	D	16					
TX	DE LA GARZA, E.	D	15					
TX	FROST, J. MARTIN	D	24					
TX	GONZALEZ, HENRY B.	D	20					
TX	HALL, RALPH M.	D	4		Y			
TX	LEATH, J. MARVIN	D	11					
TX	LELAND, MICKEY	D	18		Y			
TX	ORTIZ, SOLOMON P.	D	27					
TX	PICKLE, J.J.	D	10					
TX	STENHOLM, CHARLES W.	D	17		Y			
TX	WILSON, CHARLES	D	2		Y			
TX	WRIGHT, JAMES C. JR.	D	12					
TX	ARCHER, W.R. (BILL)	R	7		Y			
TX	ARMEY, RICHARD	R	26		Y			
TX	BARTLETT, STEVE	R	3		Y			
TX	BARTON, JOE	R	6		Y			
TX	BOULTER, BEAU	R	13		Y			
TX	COMBEST, LARRY	R	19		Y			
TX	DE LAY, TOM	R	22		Y			
TX	FIELDS, JACK	R	8		Y			
TX	GRAMM, PHIL	R	0				Y	
TX	SMITH, LAMAR	R	21		Y			
TX	SWEENEY, MAC	R	14		Y			
UT	OWENS, WAYNE	D	2	Y				
UT	GARN, JAKE	R	0				Y	
UT	HANSEN, JAMES V.	R	1		Y			
UT	HATCH, ORRIN G.	R	0					
UT	NIELSON, HOWARD C.	R	3		Y			
VA	BOUCHER, FREDERICK C.	D	9					
VA	DANIEL, W. C. (DAN)	D	5		Y			
VA	OLIN, JAMES R.	D	6					
VA	PICKETT, OWEN B.	D	2					
VA	SISISKY, NORMAN	D	4					
VA	BATEMAN, HERBERT H.	R	1					
VA	BLILEY, THOMAS J. JR.	R	3		Y			
VA	PARRIS, STANFORD E.	R	8		Y			
VA	SLAUGHTER, D. FRENCH	R	7		Y			
VA	TRIBLE, PAUL S. JR.	R	0					
VA	WARNER, JOHN W.	R	0					
VA	WOLF, FRANK R.	R	10					
VI	De LUGO, RON	D	0	Y				
VT	LEAHY, PATRICK J.	D	0					
VT	JEFFORDS, JAMES M.	R	0	Y				
VT	STAFFORD, ROBERT T.	R	0					
WA	ADAMS, BROCK	D	0					

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STATE      MEMBER NAME      PARTY    DISTRICT    H.R. 39    H.R. 1082  H.R. 3601    S-1217    S. 1804
-----
WA         BONKER, DON      D        3
WA         DICKS, NORMAN D. D        6
WA         FOLEY, THOMAS S. D        5
WA         LOWRY, MIKE      D        7
WA         SWIFT, AL        D        2
WA         CHANDLER, RODNEY R        8
WA         EVANS, DAN J.    R        0
WA         MILLER, JOHN     R        1
WA         MORRISON, SID    R        4
-----
WI         ASPIN, LES       D        1          Y
WI         KASTENMEIER, ROBERT W. D        2          Y
WI         KLECZKA, GERALD D        4
WI         MOODY, JIM       D        5          Y
WI         OBEY, DAVID R.  D        7
WI         PROXMIRE, WILLIAM D        0
WI         GUNDERSON, STEVEN R        3
WI         KASTEN, ROBERT W. JR. R        0
WI         PETRI, THOMAS   R        6
WI         ROTH, TOBY A.   R        8
WI         SENSENBRENNER, J.F. JR. R        9
-----
WV         BYRD, ROBERT C. D        0
WV         MOLLOHAN, ALAN B. D        1
WV         RAHALL, NICK J. II D        4
WV         ROCKEFELLER, JAY D        0
WV         STAGGERS, HARLEY O. JR. D        2
WV         WISE, ROBERT E. JR. D        3
-----
WY         CHENEY, RICHARD B. R        0          Y
WY         SIMPSON, ALAN K. R        0
WY         WALLOP, MALCOLM R        0
=====

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11/17 Katz / Cohen / Navarra / Laschever

1

8(g) - Senate Appropriations Bill - \$340m

Udall - Lourey / Jones - wrote Yates - don't want Senate language

orig 8(g) was done by auth'g cts - not appropriations -

→ Katz - Issue paper Stevens attitude will tell - no clear schedule for auth. conf. cts has postponed -

high seas interception - Henry Mitchell -

Rep's might want a waiver on Main Mammal Protection effort

4:30 here - also impl'n of the agent by State Dept.

draft notes -

Mitchell -

CZMA - amendments -

Tonyass - \$ / cut / budget process -

Ct. hrs in AK in May?

cancel long-term contr.

add'l witness?

appropriations - full funding in Senate - conf' cts. -

resolution - delegation needs to know AK pos'n

divergent Alaska represent'n in DC. -

ANWR - limit hd anyone but Aleno between lack of a resol'n
useful to hv a resol'n but not as valuable nat -
land trades -

maritime unions are active, others are on the sidelines -
might actually oppose opening soon:

Dingell - NPRR → Refuge -

renew of Pet 4 explain - govt sponsored? comp v lsg after Husky

went out + did explain on contract -

⊙ →

conceptual critique by Katz's ofc - conf'l

Jones' ofc. - willing to work on the bill -

⊙ →

who's testifying - ASRC/Kabotnik - Hugh Fleischer -

→

Liam Ness did a compromise on calving wh. may be presid
by ASRC -



Official Business

Alaska State Legislature

Senate

P.O. BOX V
State Capitol
Juneau, Alaska 99811

January 26, 1987

Gov. Steve Cowper
State Capitol Building
Juneau, Alaska 99811

Dear Governor Cowper,

Sat. 24th, breakfast with Hensley, Kerttula and Stevens in attendance.

When meeting with Sen. Stevens, I expressed my concern over the state's 3rd party interest in ANWR being eroded with land claims exchanges. We have the example of the "gates of the arctic" trade for the Kaktovik 100,000 acres with sub-surface rights, the CIRI pressure in D.C. and Koniag's efforts.

Ted said native land exchanges would expedite drilling ..pressure was "on Interior"...he did not argue when I said we (the state) should have the same exchange rights with state lands and we had received little federal cooperation on exchange questions. But he stated "we had little of value to exchange with feds" and that there was a serious question about whether we even had 90% of ANWR royalty that, in fact, he doubted that the law intended or would give the state 90% royalty....and if it did the feds would take it anyway!

I believe we must research the law and all federal intent in this matter.

I am very worried that the Senator has made up his mind and it is really against the positic. I feel elected to represent on both the 90% issue and state land exchanges for key ANWR areas.

Sincerely,

A handwritten signature in dark ink, appearing to be "JK" or similar initials.

Jay Kerttula
Chairman,
Judiciary Comm.

JK/jck

cc: Members of Senate Judiciary

Sam:

Various ANWR issues; 1/22/87

1. 7(i)

Yes, ASRC (maybe others too) is saying that it doesn't have to share subsurface revenues from trade lands in ANWR with other ANCSA corporations because these aren't lands that ASRC has selected and received under ANCSA. So ASRC contends that the lands aren't subject to 7(i). Other corporations are said by DNR to have taken the issue to arbitration in Interior, though no one in LNR knows the details. I'll try to find out more.

2. Legality of reducing 90%

The AG's Office has prepared a couple of memos saying that it's questionable whether the State could successfully challenge a federal reformulation of o/g revenue sharing in refuges. But there are three grounds that may support a challenge: a) the statehood compact; b) discriminatory effect (i.e. other states get better treatment); and c) policy considerations -- changing the formula would amount to a reversal of 65-year federal policies regarding long-term retention of public domain lands with benefits for states in the form of substitutions for property taxes.

3. 1002 study comments

I am getting copies of the agency comments on the 1002 draft, if you'd be interested. The State's position on major issues will be decided at a meeting of the Resources Cabinet next Thursday. The major issues are a) whether to support Altv. A or B (drilling in the core calving area or not); b) whether to establish a three-mile insect relief buffer on the coast; and c) whether to buffer streams with a 3/4 mile corridor, or instead use the standard 500/100' stream buffer for most state lands depending on the size of the stream and the resource values.

4. Reclamation funding

I don't have any figures yet, but do now know that Alaska has always been excepted from the Reclamation program, so has never benefited from it.

5. Compass/opinion piece

I have drafted one, am not happy with it, and will be reworking it to send out when your resolution goes in. I need more info on some of these topics.

6. Reactions to Sharman's report

The environmentalists say it's the most balanced state position they've seen yet, but doesn't recognize the other environmental issues besides caribou. So I've asked the Lobby to supply some background on other issues that you could mention in the resolution if you want to. Yesterday Shultz's aide Dave Stancliff was trashing the report as being too biased. (!!!) Until the greenies are ticked off too, I guess we won't have achieved a balance.

7. Alaska hire

No language from Mano yet; I'll call tomorrow.

8. TAPS issues

I got a copy of the TAPS tariff projections through 2011; after 2003 the tariff would be expected to rise over \$10/bbl (up to \$93.80/bbl in 2011) because of reduced throughput with the decline of Prudhoe/North Slope production. This would of course be affected by increased production elsewhere on the Slope, especially if there's a lot of oil in ANWR.

6
1/15 Gus re 92k / 17k / 3k
1983 exchange agmt.

ANCSA precluded ASRC fr. subsfc stxns in NPRA + ANWR

in lieu ASRC got to take = amt outside of NPRA + ANWR

→ Chandler Lk / Kurupa stxns (inc in Gates)
after ANILCA NPS wanted to clear out inholders,
ASRC wanted > favorable o+g subsfc

→ 1431(o) ANILCA allowed ASRC into NPRA + ANWR,
under vlg stxns only, w/in 5 yrs of the
date of comm'l dev't; NPRA? only dev't -
some wells = g dev't; in 1983 NPS +
ASRC neg'd, ASRC exercised its 1431(o)
rights; gave up th. 100k subsfc ~~fr~~ in
Gates for 92k of KIC subsfc.

did state hv participated? didn't know about
it, but ALUC got notice, state did review
it; no stopping it bec of 1431(o) - but it
happened under exchange vs. the dev't window
solidified land ownership in ANWR, so ASRC isn't
floating around any more;

KIC well completed later

then ASRC still had option on more acreage -
cd only take subsfc under vlg lands, Kaktoite
had a lot of overstxns, took land in a trap.
in June 86 just sp. of ex'g ownership; ASRC
has followed KIC there too. 17k conveyed, 3k
in litigation - state opposed Tays (navigability) Aug. 86

KIC has now got all it can, + ASRE 100;
no more than a few hundred acres could go.

Sam:

Here's a paragraph on the ASRC/KIC transactions in ANWR.

Under Sec. 12(a) of ANCSA, the Arctic Slope Regional Corporation was prohibited from following Village corporation selections within the National Petroleum Reserve and Arctic Wildlife Refuge and receiving the subsurface under them. Instead, ASRC was supposed to select subsurface from other federal lands withdrawn during the early 1970's for possible Native selections.

ASRC made some of those selections in lands that later were included in the National Park System by ANILCA. ANILCA allowed that these subsurface acres could be traded out of the National Parks in the future, including (contrary to ANCSA's prior language) within ANWR. So, as it has happened, ASRC in 1983 followed Kaktovik under about 92,000 acres of its holdings in ANWR and gave up about 100,000 acres of its acreage in the Gates of the Arctic National Park. When Kaktovik finalized its ANCSA selections in 1986, getting another township in ANWR just south of its existing lands, ASRC followed underneath them, receiving about 17,000 acres straight up and another 3,000 tentatively (the Jago River, which the State has contested as being navigable waters belonging to Alaska, unconveyable by the federal government)..

1/17

shd urge Govir, delegin to
pound on DOI

shd urge considin of NPS
inholdings - shd contact
interest groups re these

shd oppose trades which
affect state revenue share,
w/ rationale for protecting
state income

shd cite IOCC resolin -

shd question legality/const'y of
charging state's % -

Need

RESOLUTION OF THE INTERSTATE OIL COMPACT COMMISSION
REGARDING THE ARCTIC NATIONAL WILDLIFE REFUGE

WHEREAS, the U.S. Congress has reserved the right to permit further exploration for, and development and production of, oil and gas within the coastal plain of the Arctic National Wildlife Refuge, Alaska; and

WHEREAS, the oil industry, the State of Alaska, and the Department of the Interior consider the coastal plain to have the highest potential for discovery of very large oil and gas accumulations on the North American continent; and

WHEREAS, a decision to permit oil and gas exploration development and production on the coastal plain consistent with environmental considerations will increase the value and facilitate development of highly prospective state-owned tidelands and federally-owned OCS lands offshore of the Refuge; and

WHEREAS, facilities developed to transport petroleum resources discovered on the coastal plain to the Trans-Alaska Pipeline System (TAPS) may allow marginal discoveries located between the Refuge and TAPS to be developed and produced and may prolong the economic life of TAPS; and

WHEREAS, oil and gas exploration and development of the coastal plain and adjacent lands could result in major discoveries that could reduce our nation's future needs for imported oil, help balance our trade deficit, and significantly increase the national security; and

WHEREAS, if development commenced today it would be years, if not decades before production could commence and accrue benefits to the American consumer; and

WHEREAS, the 1.5 million acre coastal plain comprises only eight percent of the 19 million acre Refuge, and development of any oil and gas reserves subsequently discovered will affect an even smaller percentage of the coastal plain; and

WHEREAS, the oil industry has shown at Prudhoe Bay, as well as at other locations along the Arctic coastal plain, that it can safely conduct oil and gas activity without adversely affecting the environment or wildlife populations;

NOW, THEREFORE, BE IT RESOLVED that the Interstate Oil Compact Commission urges the Congress of the United States to open the Arctic National Wildlife Refuge (ANWR) Coastal Plain to environmentally responsible oil and gas exploration, development and production.

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Resource Review

Mr. Dave Donley
AK State House of Reos.
3111 C Street
Anchorage, AK 99503

Resource Development Council for Alaska, Inc. Box 100516, Anchorage, AK 99510

October 1987

7220



TALK ABOUT FANATICS!! SOME AMERICANS WOULD RISK WAR FOR PERSIAN GULF OIL
— RATHER THAN DEVELOP THE ARCTIC COASTAL PLAIN OF ALASKA!

ANWR compromises begin to emerge

New dimension added to debate

The raw outlines of a compromise have begun to emerge in the Senate Energy and Natural Resources Committee after the latest round of hearings on legislation to open the Arctic National Wildlife Refuge (ANWR) to oil and gas leasing.

The only legislation before the Committee as of October 20 was S.B. 1217, submitted by Alaska Senators Frank Murkowski and Ted Stevens. The pro-development bill contains provisions for a competitive leasing program and sound protection of fish and wildlife resources as well as

environmental values. Although environ-

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- Chugach wilderness 2
- Forestry conference 3
- Alaska coal 6
- Tongass harvest 7

mentalists have labeled this approach extreme, the bill is practical, straightforward and does not circumvent environmental law.

The Senate panel is now proceeding to mark up the bill. Revised legislation reflecting public input may be released by November.

The most likely compromise will be phased leasing of the 1.5-million-acre Coastal Plain and extra protection for areas used heavily by caribou for calving pur-

(Continued on page 4)

Message from the executive director

By

Becky L. Gay



Executive Director Becky Gay poised on a ridge in Hatcher Pass where helicopter skiing is encouraged. Chugach Mountains and Palmer are in the background.

Not in Chugach State Park

In 1970, the 500,000-acre Chugach State Park was set aside to fulfill a variety of purposes, from providing diverse recreational opportunities in the areas bordering Anchorage to providing true primitive experiences in the 60% designated Wilderness.

The recent decision by the Department of Natural Resources to allow for the development of more than one resort in the periphery areas, including the proposed Eagle River site, is a good decision which dovetails nicely with the Division of Tourism's quest to expand winter tourism in Alaska.

Unfortunately, RDC's request to allow a year-long trial period for a helicopter landing site 400 feet inside the park was denied. No helicopter landings will be allowed at all, except for special events and official flights.

Prior to the 1987 amendments, no Chugach State Park master plan excluded ski areas or helicopter landings. In fact, the original legislation stated that "the periphery areas shall be operated as recreational areas, the central area as a scenic area and the eastern area of the park shall be operated as a wilderness."

Alaskans are sold on tourism. Tourism is touted by some as the industry which will reduce our dependency on oil revenues and help Alaskans diversify our economy. To that end, new

industries supporting tourism are cropping up everywhere in the state. But what about existing industries? If existing industry cannot participate, is tourism all it seems at first glance?

Put yourself in the "shoes" of Alaska's world-class aviation industry, for instance. I am sure the companies anticipated servicing the demand for helicopter flight-seeing which is increasing worldwide. In neighboring Hawaii, it's major business. Too bad the DNR decision precludes it in the Chugach.

Sure, to some people ski resorts and helicopter access sound like civilization intruding on wilderness. But to others, ski rescues and helicopters sound like jobs, fun and comfortable access. To the elderly or handicapped adventurer, they provide the only realistic opportunity to experience the rugged and majestic Alaska outdoors. Many even prefer "high-tech" access such as helicopter flights. I guess we can tell them to go elsewhere instead of spending their dollars in Alaska with the private sector.

Alaskans should be cautious about precluding such opportunity, especially since we attract a great many older tourists. Furthermore, Alaska has minimal alternative infrastructure options to offer such as roads, gondolas, trams, and visitor centers.

A recent ACVB poll found 73% of Anchorage residents support ski resort development in the park and 65% support helicopter landings there also. It surely does not come as a surprise that so many residents want a variety of access to a 500,000 acre park next to the largest, most-populated urban area in Alaska.

Why not even one helicopter site in the Chugach? Why no trial period to see if the fear is really a non-issue based on noise concerns which could be mitigated by routing the flights around sensitive areas?

Remember, there are no other public lands in the Chugach Mountains which offer a remotely similar experience — unless you include the NIKE missile site at Arctic Valley — and you can't land there either.

More fundamentally, which industry or business will be next to find itself out of the running for tourist dollars because of some other equally stringent restriction on public lands? Watch out, it could be yours.

About the cartoonist

Ken Catalino is the Director of Administration for ENSERCH Alaska Services, Inc. and has been a resident of Alaska for over six years. He began his professional cartooning career as the editorial cartoonist for the San Diego State University newspaper, was a consulting artist for the San Diego City School District, and has been involved in a number of other art related projects. He currently accepts assignments as a free-lance cartoonist and illustrator.

The Cover Cartoon

To aid the Alaska Coalition for American Energy Security cartoon committee, RDC's and PLF's extremely good-humored staff came up with the following captions: Ayatollah says,

"I wouldn't be having all this fun if Americans developed Alaska's coastal plain."

"Who needs Alaska oil when we have the Arabian National Wildfire Range?"

"Crisis? What crisis? New Alaska oil? What Alaska oil?"

"Protecting Persian Gulf oil and locking up Alaska oil is stupid enough to be MY idea!"

"Imagine . . . all this to keep from developing the American arctic."

Resource Development Council, Inc.

The Resource Development Council (RDC) is Alaska's largest privately funded nonprofit economic development organization working to develop Alaska's natural resources in an orderly manner and to create a broad-based, diversified economy while protecting and enhancing the environment.



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Vice President	Sheily Stasny
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Carl Portman
Editor & Advertising Manager

RDC Foundation slates forestry conference

Boreal Forest Management

To better understand the potential of the Alaska northern forests, the RDC Education Foundation, Inc., sister organization to the Resource Development Council, has organized a two-day international symposium directed at boreal forest management.

Management of the Boreal Forest will feature renowned technical experts from Canada, Finland and the United States. The program is keyed to Alaska's renewable forest resources and their economic and entrepreneurial potentials.

The symposium will be held at the Clarion Hotel in Anchorage December 3-4. It is designed for executives of Alaska business, professional foresters, loggers, public policymakers, regional and village corporation officials, potential investors in Alaska projects, financial and engineering representatives and community leaders.

The boreal forest is circumpolar, stretching across North America, Northern Europe and the Soviet Union. It is predominately a coniferous forest, comprised of true firs, pines, larches and spruces, though deciduous species, such as birch, aspen, cottonwoods, and willows are important components.

With few exceptions, these forests are in wild and unmanaged states. Their potential for supplying commodities to spur economic and social growth in northern areas are not well developed. Development will require purposeful management if economic potential coupled with environmental protection and forest regrowth are to occur.

Alaska is the prime repository of boreal forest in the United States. The Alaska boreal forest is virtually unmanaged.

The program will open Thursday with a presentation by Alaska State Forester John Galea. Other speakers include Dr. Edmond Packee, Professor of Forest Management at the University of Alaska Fairbanks, Kenneth A. Armson, Ontario Provincial Forester, Dr. Aarne Nyssonen, Director of the Finnish Forest Research Institute in Helsinki, Finland and Forester Dick Herring of Vancouver, B.C.

Other speakers include Dr. Douglas Rideout, Professor of Forest Economics at Colorado State University, Nick Salterelli of Alabi-Price Company of Ontario and Stewart Budsos, Executive Director of the Washington Forest Protection Association.

The symposium continues Friday morning with Commissioner Judy Brady of the Alaska Department of Natural Resources,

(Continued on Page 6)

The trouble with democracy

"Government of the people and by the people" has a good ring to it, a favorable connotation. Certainly, it is the opposite of tyranny; yet, everything that is not tyrannical is not necessarily good. People in their self government role can make very serious mistakes, particularly in the short run.

Historically, in our representative governments, the elected officials tended to "use their own heads," attempting to lead people rather than blindly follow the majority as the majority's attorney-in-fact. Now, however, modern polling techniques ("accurate to + 1%") tend to distract elected representatives from their own insights, and propel them more towards a mechanical reflection of what the polls suggest on a given subject.

How good a way is this to run a government — government by polling? Of what does an issue poll really consist? (We are not discussing the poll which asks who you intend to vote for.) Is it not merely a random telephone call which interrupts a citizen's other domestic pursuits, and the anonymous caller asks, with a short question, the answering person's opinion on a rather profound subject. The opinion is usually able to be rendered as "yes," "no," or "undecided." Certainly no thoughtful reflection or debate has preceded 99% of the answers; more thought is given to one's annual vacation, than to such answers; yet the elected representative submerges his own more informed views so that he can reflect the views of the "majority" as reflected by a super-accurate poll!

Instantaneous polling has triumphed over logic and common sense in the \$2.5 trillion national debt which ominously threatens to destroy the economic system of the United States and all her trading partners, and it has triumphed again in the perpetuation of Alaska's Permanent Fund dividend, paid annually to every man, woman and child claiming to be an Alaskan.

The young U.S. budget genius and former congressman, David A. Stockman, confesses that he and his government colleagues making the budget decisions have "given rise to a fiscal and political disorder that [is] probably beyond correction." Here was a case where the politician continuously polled the voters with those brief telephone inquiries — two to three thousand random telephone calls across the nation — to determine the most important and profound decisions for 225 million Americans. The Congress and the Executive found that "the people" were against spending cuts, and against revenue increase. Apparently, seven years into the Era of Reaganomics, the politicians still perceive "the people" to

Thoughts from the president

by Joseph R. Henri



be of that same mind. What would happen in these telephone polls if the person polled were told in the preface to the question that if we go on with such profligate spending and borrowing, the economic system of the United States might be wrecked through a cruel and very long depression. How the question is asked much determines the answer.

A most perceptive article in the October 1987 "Atlantic Monthly" by Peter G. Peterson, former Secretary of Commerce under the Nixon administration, describes our present plight as the "ill-fated gamble of Reaganomics" which has been, in truth, "disastrous fiscal mismanagement." Nevertheless, if you randomly polled two or three thousand Americans with a few nifty little questions, they would probably still applaud the status quo.

The same is certainly true of our own Permanent Fund dividend. If you frame the question by asking people how they like receiving \$700 plus per year from the state treasury they will, for the most part, respond that they like it. The questioners never discuss alternatives: They never indicate that if the Permanent Fund earnings were spent on enumerated capital projects, the jobless Alaskan earning \$700 per year from the Permanent Fund dividend might instead have a \$40,000 per year full-time job. The questioner never reminds the Alaskans polled that "to build for the future means to build capacity," and that Alaska will not have much of a future if it does not build the infrastructure for which the place has been desperate over many decades.

The earnings of the Permanent Fund can support a series of very large bond issues; the bonds can finance the construction of necessary and useful improvements from Ketchikan to Prudhoe Bay; many of these improvements can pay back their own indebtedness through user fees. In time the projects would be paid off; their value automatically rises with inflation. No inflation-proofing of a capital improvement is required. In the meanwhile, the only unemployed Alaskan would be one who chooses not to or cannot work. And what contribution Alaska could make towards reducing America's balance of trade deficit by accessing natural resources, and fostering their export, straight or value-added.

Debate over ANWR exploration heats up

Continued from page 1

poses. The compromise may include specific covenants in the law to lessen environmental impacts as opposed to an Interior Department request that environmental standards be written into the lease agreements.

Right at press time, legislation extending wilderness designation to the Coastal Plain was introduced in the Senate Environment and Public Works Committee. The measure, sponsored by Senator Bill Roth (R-DE), would foreclose any exploration and development in America's hottest oil prospect.

Meanwhile, legislation setting an "exploration-first" policy was recently unveiled by Rep. Walter Jones, chairman of the House Merchant Marine and Fisheries Committee. This House bill calls for drilling no more than four exploratory wells after which the White House would decide whether leasing for development could proceed.

The bill would draw the National Academy of Sciences into the decision by requiring it to make independent reviews of both the exploratory program and an Interior Department report on oil potential.

The bill would prohibit any activities on a 376,000-acre area of the Coastal Plain. The "protective management zone" would be 130,000 acres larger than the area the state has proposed leaving unexplored until a seven-year study on the impact of development on caribou is finished.

While the state's proposal would allow development to occur in the area if studies found no serious consequences for the caribou, the Jones bill would permanently prohibit any surface activities.

In addition, the legislation would designate part of the 23.5 million-acre National Petroleum Reserve west of Prudhoe Bay as a national wildlife refuge. This measure would boost the size of refuge set-asides in Alaska to 100 million acres, an area roughly the size of California and ten times the refuge acreage in all other 49 states combined.

The legislation, which will be introduced within the next month, will be cosponsored

by Rep. Lindsay Thomas and Rep. John Dingell.

Those familiar with oil and gas operations warn that the Jones Bill is a detailed road map on how to block every phase of exploration and production.

"This proposal would hamstring the industry's ability to find and extract oil and would turn Arctic operations into a bureaucratic nightmare," said Governor Steve Cowper.

Congressman Don Young, who is a member of the merchant marine panel, said he would not support the bill. However, he liked the fact that the legislation shifts the debate from *whether* there should be oil activities in the refuge to *how* such activities should be managed.

Industry officials were similarly unexcited about the exploration-first idea. They prefer the present system where the industry leases an area, explores for oil and produces it if the crude is found and economic. In addition, they claim as many as 30 or more exploratory wells could be needed to define the size of any oil field.

With the House sharply divided over the issue, the Jones bill will add a new dimension to the House debate. It could even spill over into deliberations of the Senate Energy Committee.

The Jones bill is said to be a compromise between Young's pro-development bill, which has 146 cosponsors, and Congressman Mo Udall's legislation which would designate the entire Coastal Plain wilderness. Udall's bill is largely symbolic because unless Congress takes a positive action to open ANWR to oil and gas leasing, the Coastal Plain will remain a de facto wilderness area.

In the latest round of Senate hearings, environmentalists appeared to have lost some ground after they failed to make suggestions on how to amend the legislation at hand to further minimize some of the environmental consequences of ANWR development. Instead, Senators heard very emotional and highly-speculative testimony reminiscent of the public hearings held fifteen years ago over Prudhoe Bay development.

Contrary to physical evidence, some environmentalists charged that "there's unbelievable damage taking place at Prudhoe Bay." It's a broad claim to make, but the most compelling rebuttal comes from the fish and wildlife populations that continue to feed, reproduce and rear their young throughout the North Slope oil fields.

"There is no evidence that animal or bird populations have changed because of the presence of oilfield activities, nor is there evidence that the abilities of the habitat to support future populations of wildlife has been reduced by the very small areas of tundra occupied by all North Slope oilfield facilities," said RDC board member Doug Webb. "Of the 600,000 acres enclosed in unit boundaries of North Slope oilfields today, only 8,160 acres are actually occupied . . . less than two percent," Webb said.

Webb, who serves as Vice President of Operations at Standard Alaska Petroleum Company, noted that the "footprint" in ANWR would be even smaller. He explained that Prudhoe Bay's oilfield facilities were the state-of-the-art when they were built 15 years ago. But the petroleum industry has learned a lot since then about "doing more with less, making things smaller, more compact and efficient."

Any oil development in ANWR would utilize advances such as horizontal drilling techniques, new drill rig technology as currently used by the drilling rigs at the new Endicott project and engineering advances in building and facilities design.

These and other advances will lessen the amount of land needed to produce any oil reserves found in ANWR. Industry experts have estimated that if development were to occur, it would take up less than one percent of ANWR's 19 million acres, leaving millions of acres of untouched wilderness inside refuge boundaries.

Another claim made by non-development interests is that the Coastal Plain of ANWR is Alaska's last wilderness stronghold. However, those making that claim refuse to point out that nearly half a million acres of coastal plain east of the area being considered for opening are designated Wilderness along with about half of ANWR's overall 19 million acres. Approximately 92 percent of ANWR is closed to development and will remain so despite whatever decision is made over the lands proposed for exploration.

In addition, huge blocks of designated Wilderness exist throughout the 49th state. For instance, one could take the combined states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania and Ohio and still not equal the 125 million acres that has been set-aside as designated Wilderness, national parks and wildlife refuges in Alaska.



The flat Coastal Plain of ANWR is America's hottest oil prospect.

ANWR Alert

The Resource Development Council is convinced that the vast majority of the American public, and hopefully their elected representatives in Congress, will concur with the Interior Department's recommendation that the Arctic National Wildlife Refuge be opened to exploration and development if presented with the full story.

Unfortunately, much of the communications the Congress receives on the subject comes from individuals who maintain that keeping ANWR in the status quo or designated off limits to development overrides any other consid-

erations. This view sacrifices the needs of the many to the ideological view of the few. It does not accept the environmental realities of modern day petroleum operations nor does it recognize the energy and economic needs of the country.

Although an energy conservation policy is important, it is crucial that members of Congress hear from those who believe that both environmental and energy interests can be met by allowing exploration and development to proceed in ANWR. RDC encourages you to convince your friends and relatives

to contact their Senators and Representatives and ask them to support opening the ANWR Coastal Plain to oil and gas development. ANWR is a national battle and Alaska could lose a great deal if Congress chooses to thwart sound resource development in the Arctic.

Hearings on the issue continue to be held in the House Interior and Insular Affairs Committee as well as the House Merchant Marine and Fisheries Committee and the Senate Energy and Natural Resources Committee.

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Bright future for Alaska coal

Plan could spark new coal exports

The key to transforming Alaska coal from its perceived bottom-of-the-totem-pole position in world markets to a top-of-the-line product lies in combining the sales potential of its low sulfur content with a low-moisture product, according to a leading industry official.

John Sims, Vice President of Marketing of Usibelli Coal Mine, told an RDC Thursday breakfast meeting last month that the key to cracking international coal markets and tapping Alaska's tremendous coal development potential may lie in physically upgrading the product. Sims explained moisture remains the main hurdle to expanding exports, but a plan being formulated by Usibelli and Brown and Root could solve that problem. This summer the two companies announced a joint venture to pursue development of a \$250 million electrical generation plant near Healy. The huge 100 to 150 megawatt facility, which would be the largest coal-fired plant in Alaska, would feed into the Anchorage-to-Fairbanks powerline intertie to supply Railbelt communities with 15 percent of their energy needs in the next decade.

In addition to the construction of the cost-intensive power plant, a \$20 to \$25 million drying facility could be tied in that would upgrade the mine's sub-bituminous moisture-heavy coal from 8,000 BTUs per ton to 11,000 BTUs per ton.

The treated coal would make Alaska coal very attractive to energy-importing countries of the Pacific Rim.

Currently the best selling point of Alaska coal is its low sulfur content, Sims said. It registers .2 percent while European and other coals are typically in the 3 to 4 percent range.

"I think there's a specialized market in Japan that would embrace this product," Sims said. He noted there's a Japanese movement concerning pollution and "they look for the ultimate results in sulfur emissions."

The Usibelli official also said a higher quality product could cut deep into Australia's share of the market. "We have the opportunity to twist the kangaroo's tail a bit," Sims said with a smile.

The new power plant itself is still tentative, although Usibelli officials are meeting with related interests in Japan and Taiwan. Some of those have expressed interest on an equal position in the project.

If Usibelli's plans are successful, the plant would be on line in the mid-1990s. Usibelli would provide the facility with about 500,000 tons of low-sulfur coal a year.

Known in the industry as a "mine mouth plant," the facility would be located close to where coal is extracted, perhaps next to



The Usibelli Coal Mine is located at Healy, some 100 miles south of Fairbanks on the northern slopes of the Alaska Range.

Usibelli's loading area on the Alaska Railroad two miles east of the mine. This would mean a big savings on transportation costs, Sims said.

But the biggest savings would come in construction of the power plant itself, Sims stressed. The plan calls for use of prefabricated modules that can be shipped to the site and assembled.

"We estimate that this will cut the cost in half," Sims said. "The technology we are looking at is state-of-the-art and can meet the strict air quality regulations."

The power plant would employ about 200 people during construction and about 50 full time. In addition, more jobs will be created at the mine because of the increase in coal demand.

If the coal-processing facility, which would use steam from the electrical plant as an energy source to dry coal, is built, approximately 50 additional full-time jobs would be created.

Usibelli Coal Mine at Healy now has an 800,000 ton-a-year contract with South Korea and is attempting to land a similar deal with Taiwan.

RDC Foundation slates forestry conference

Continued from page 3

Commissioner Dennis Kelso for the Department of Environmental Conservation and Commissioner Don Collinsworth of the Department of Fish and Game. Other Friday speakers include Senator Jack Coghill, Rep. Sam Cotten, Senator Jalmar Kerttula, Rep. Niilo Koponen, Rep. John Sund and Don Finney, Executive Director of the Alaska Loggers Association.

Registration fee for the symposium is \$60. To register, call RDC at 276-0700.

All Wrong

Reprinted from the
Ketchikan Daily News

By Lew M. Williams Guest Opinion

The Sacramento (Calif.) Bee printed an editorial on Tongass National Forest Sept. 15 that is depressing and terribly inaccurate. The Bee is owned by the McClatchy family, which owns the Anchorage Daily News. We expect better.

It's depressing because thousands of Californians will believe the Bee. They'll complain to their congressmen and Alaskans will have another hurdle to overcome to stabilize their economy.

The title of the Bee's editorial was "Ted Stevens' folly."

Of Alaska's senior senator the Bee says:

"Thanks to a special provision he (Stevens) inserted in the Alaska National Interest Lands (Conservation) Act of 1980. . ." The Bee was referring to section 705 of ANILCA which appropriates \$40 million a year to the Forest Service to take up to 450 million board feet of timber available each year for commercial harvest.

The Bee is wrong. The environmental lobby suggested the funds be included in NILCA to guarantee the 450 million board feet in exchange for 5.4 million acres of the Tongass going into wilderness.

"Those provisions were not my idea," Stevens has written editor C.K. McClatchy. Stevens will be glad to drop the appropriation if the timber land put into wilderness is put back in the commercial timber allotment.

The Bee says ANILCA provisions "help two timber companies in the Alaska panhandle destroy the Tongass National Forest."

Wrong. There are five timber processors in the Tongass. Also, the Tongass is growing at the rate of 1.182 billion board feet a year, or twice the volume it is being cut.

The Bee said, "The act in 1980 designated 5.4 million acres of public lands in Alaska as wilderness."

Wrong. The 5.4 million acres of wilderness was designated in the 16-million-acre Tongass. Also designated wilderness were 34.4 million acres of the 51 million in the National Park system in Alaska and 18.6 million of the 76 million acres in the U.S. Fish and Wildlife Service refuge system. Wilderness is designated in 56.5 million acres of the 153.9 million acres of parks, refuges, wild rivers and other reserves in Alaska. By comparison, there are only 100,207,000 acres in all of California.

The Bee said that of the 5.4 million acres of wilderness it's "mostly rocks and ice. Only a tiny fraction contained any commercially valuable timber."

Wrong. Twenty-eight percent of the 5.9 million acres of the Tongass suitable for commercial timber harvest went into wilderness, about 1.65 million acres.

Of the 450 million board feet a year harvest allotment, the Bee says "There isn't any market for that much timber."

Wrong. Early in the 1980s the timber demand was down nationwide, but mill operators are now complaining they can't get enough. The Wrangell mill was threatened with a shutdown recently because of a lack of logs.

The Bee says "55 percent of the timber the Forest Service has prepared for sale in the Tongass in the last five years has never been sold."

Wrong. The timber is selling. That figure may have been accurate in 1982-85, but that timber now has been sold. There is very little on the shelf. Four sales aren't active because they are involved in a foreclosure against an Alaska mill initiated by the Bank of California. Several large sales, such as South Wrangell, failed to sell as large sales. South Wrangell has been roaded by the Forest Service, thanks to the \$40 million from ANILCA, and is selling rapidly.

The Bee said "last year, the government spent \$7 million getting one section ready for sale that didn't draw a single bid."

Wrong. At least Forest Service officials are unable to identify what the Bee is talking about. Forest Service officials say that \$5.9 million was used to put a road into the Coverden area, but that timber has been sold.

The Bee said, "that hasn't stopped the Forest Service from

lopping off another 17,000 acres from the forest and putting it up for sale every 12 months, just like demented clockwork."

Wrong. Because of demand, sales that had been designed to go to bid next summer are now being moved up to December because of the increasing demand. The Forest Service does respond to the market. It is hindered in moving up the sales because, as one forester told us, too many of their people had to go to California in August to fight forest fires.

Referring to the two pulp mills in Alaska, the Bee said, "the two companies, one of which Japanese-owned, pay next to nothing for the timber they do take under terms of some 50-year contracts they have negotiated with the Forest Service."

Wrong. Or at least the Bee doesn't tell the whole story. Congress passed the Federal Timber Modification Act early in the 1980s to bail out the timber industry throughout the western U.S., including Alaska and California. Section 4 of that act reduced stumpage for the Alaska pulp mills to carry them through the nationwide timber depression. The mills' stumpage is reviewed periodically and the mills are required also to buy timber outside of their allotment area by bid against other loggers and processors. The most recent timber sales advertised in the Ketchikan area required overall minimum stumpage bid of over \$300 a board foot, which is higher than finished lumber prices quoted by the Chicago Board of Trade.

The Bee said, "last year, the gross receipts from Tongass timber sales added up to only \$82,000. . . the taxpayers get back one penny in revenues on every dollar the government pays."

Wrong. No one in the Forest Service regional office knows where the Bee got that. Bee editors will be interested in a Government Accounting Office report going to Congress shortly that shows the federal government made \$65 million last year on Tongass timber. GAO is an arm of Congress. Its inspectors worked with the Forest Service officials early this year to determine the facts for members of Congress.

The Bee says the pulp from Alaska is "shipped to Japan to make cellophane and rayon."

Wrong. Wrong. Wrong. Twenty-five percent of the pulp goes on the U.S. domestic market to make such diverse things as diet ice cream, paper products, explosives, food additives, pharmaceuticals and sponges such as we buy in the super market. Part of the pulp goes into cellophane and rayon. But only race car drivers prefer tires with rayon cord. It withstands the heat better than nylon.

Pulp from Ketchikan goes to 16 nations on every continent in the world except Australia. No foreign nation takes 20 percent of the product and no single customer takes 10 percent.

And one of the Ketchikan mill's toughest competitors throughout the world is the Japanese-owned Sitka pulp mill.

Additionally, only 40 percent to 50 of the timber cut in Alaska goes into pulp. The rest goes into high-quality lumber which is sold in Korea, Taiwan and China, as well as Japan. Almost all of the red or yellow cedar goes into domestic market or to South Korea.

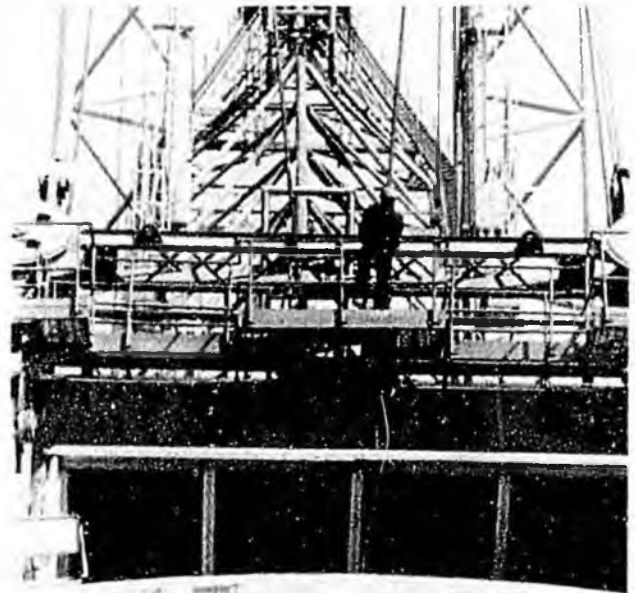
The Bee says that employment in the timber industry is down, which we acknowledge. The timber industry nationwide went through a slump in 1982-85. Alaska's 3,000 people directly employed on five million acres of commercial forest in the Tongass shrank to 2,000. We wonder how many of the 100,000 Californians employed on 17 million acres of California's commercial forests lost their jobs?

They are killing trees down there faster than they are shooting motorists on the freeways. Where's the Sierra Club when you need it?

The Bee concludes by advocating that the Forest Service cancel the 50-year contracts used to attract industry to Alaska 35 years ago. That's fair enough if the federal government will take back all of the land it gave to the railroads in the last century to open up the west, including California.

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NEWS



U.S. SENATOR

**FRANK
MURKOWSKI**

OF ALASKA

April 20, 1987
FOR IMMEDIATE RELEASE
CONTACT: Richard Paul (202) 224-3185

STATEMENT BY SENATOR FRANK H. MURKOWSKI (R-ALASKA)
INTERIOR DEPARTMENT FINAL REPORT ON
ARCTIC NATIONAL WILDLIFE REFUGE

This report is the culmination of a long and detailed process of analysis and public scrutiny. With its release, the Administration is saying to the American people, let's not wait until the next energy crisis -- when we are all once again standing in gas lines and blaming the government -- to worry about our energy future.

Keep in mind that our dependence on imported oil has jumped from 27 percent to 40 percent. That is considerably greater than the level in the 1970's, which precipitated the energy crisis. Without question, new sources of oil must be located.

It's significant that Secretary Hodel has recommended full leasing of the entire coastal plain. By doing so he is demonstrating a full understanding that our security depends on government acting wisely and doing so now. It is essential that we know the size of our domestic reserves. This report shows a grasp of the high potential of finding substantial reserves in ANWR.

I commend Secretary Hodel for addressing issues raised in comments on the draft report, in particular the impact of oil activities on caribou. Careful review of data and public comments resulted in a finding that there is no permanent core calving area. Instead, the caribou calve in concentrated numbers in a variety of different locations from year to year. This final report recognizes this and projects the impact of exploration activities on caribou will be minimal.

Those who attempt to exploit fear over the well-being of caribou that live in ANWR ignore the Prudhoe Bay experience. There were about 3,000 caribou in Prudhoe Bay in 1972. Today that number has increased five-fold to nearly 14,000. There is no either/or choice. We can have both oil and wildlife protection.

This informative report will be the foundation for the legislative effort to open the coastal plain. I look forward to beginning that process soon.

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DEPARTMENT of the INTERIOR

news release

U.S. GEOLOGICAL SURVEY

Don Finley (703) 648-4460

For release: April 28, 1987

WORLD HAS IMMENSE RESOURCES OF OIL, BUT U.S. CONVENTIONAL SUPPLY LIMITED

The world still has an immense amount of known and undiscovered conventional oil that could last perhaps six decades at present consumption rates and has even larger resources of unconventional oil to be developed, U.S. Geological Survey oil-assessment experts said Monday (April 27, 1987).

The USGS experts told the 12th World Petroleum Congress in Houston, Texas, however, that the geographic distribution of the resources is uneven, resulting in potential supply problems for the United States and other nations.

Charles Masters, Richard Meyer and David Root, all from the USGS National Center in Reston, Va., said that the bulk of conventional oil resources is in the Eastern Hemisphere -- including the Middle East with nearly half the world total. By comparison, the United States has less than 7 percent. Conventional oil accounts for almost all the oil now being used and will remain the dominant fuel resource into the early 21st century.

The USGS experts added, however, that the Western Hemisphere has most of the known so-called unconventional oil resources, which could gradually become a major contributor over the long term as conventional resources are depleted. Unconventional resources, which are more difficult and expensive to develop, include extra-heavy oil, tar sands and shale oil.

The U.S. Geological Survey, Department of the Interior, estimates that the world has 795 billion barrels of conventional oil in known reserves, or 40 times the present consumption of about 20 billion barrels per year, according to Masters, a geologist and chief of The World Energy Resources Program of the USGS. Meyer, a geologist, and Root, a mathematician, also are members of the program.

In addition, the world has an estimated 425 billion barrels of oil (bbo) in undiscovered conventional resources, or enough to last two decades at current consumption rates, according to Masters, the chief spokesman for the group. His remarks were prepared for the World Petroleum Congress meeting April 26-May 1 in the Albert Thomas Convention Center in Houston.

"The combined total of 1,220 bbo for known reserves and undiscovered resources of conventional oil is 53 bbo less than we reported four years ago to the last World Petroleum Congress in London," Masters said. "The decline was a result of consumption since 1983 and reductions in assessments of undiscovered oil in some areas. But estimates of known reserves have increased in spite of a world discovery rate slightly less than production because old fields have continued to grow beyond expectations.

(more)

North America and South America combined have more than 91 percent of the world's shale oil, with a large portion of it in the United States.

Masters also said the world has an estimated 8,000 trillion cubic feet (tcf) of recoverable conventional natural gas left in the ground, with more than half of it in the Middle East and the Soviet Union. At a consumption rate of about 60 tcf per year, this amounts to a supply sufficient for more than 100 years at present rates of consumption. The natural gas totals include 2,500 tcf for the Soviet Union, 2,125 tcf for the Middle East and 600 tcf for the United States. Masters said the large Middle Eastern gas reserves "are one of the largest under-utilized energy resources in the world," with production of only 1.3 tcf per year.

-DOI-



DEPARTMENT of the INTERIOR

news release

OFFICE OF THE SECRETARY

For Release April 29, 1987

Contact: Alan Levitt (202) 343 6416

SECRETARY HODEL STRESSES ROLE OF ORDERLY ENERGY DEVELOPMENT OFFSHORE AND IN ALASKA TO MEET FUTURE NATIONAL AND CALIFORNIA ECONOMIC NEEDS

Secretary of the Interior Don Hodel said today that by the turn of the century Californians will face a critical need for oil from both offshore and from Alaska.

Addressing the Town Hall of California in Los Angeles as he began an 8-day visit in the state, Hodel said there could be drastic repercussions on the economy and on the lifestyle of Californians if additional energy resources are not located and developed in the closing decade of this century.

"With 19 million cars, trucks and buses, California uses some 580 million barrels of liquid petroleum products every year, 10 percent of U.S. consumption," Hodel said. "In fact, California is the world's third largest consumer of gasoline, right after the remainder of the U.S. and the Soviet Union. Although California certainly is a major oil producing state, it still comes up more than 30 percent short in meeting its own demand."

Earlier this week, Hodel sent Congress a new 5-year plan for federal offshore oil and gas leasing.

Citing last year's sharp decline in U.S. domestic production, increasing demand and soaring imports, Hodel warned "OPEC (Organization of Petroleum Exporting Countries) is on the verge of getting back into the driver's seat."

"In my judgment, OPEC may have a more serious impact today than it had in the 1970s when it used an embargo successfully to escalate prices and in an attempt to blackmail us on foreign policy issues," Hodel said. "Now, whether by accident or design, they have a potentially more powerful weapon -- the whipsawing of prices to demoralize competition in non-OPEC nations."

"Lower oil prices have dulled memories of the 1970s gas lines, and lulled Americans into a euphoric state of believing our energy troubles are over," Hodel added.

He said it is vital that the United States "produce enough oil domestically to keep OPEC and others from perceiving that they have a stranglehold on this lifeblood of our economy and national security."

The Secretary said the Nation must move forward on offshore leasing and with an environmentally sound energy program for the coastal plain of the Arctic National Wildlife Refuge (ANWR) in Alaska.

(more)

"We can develop these energy resources and protect the environment," he said. "We do not have to choose between the two. We can do both.

"If we fail to move to develop resources available to us, it will be like putting a sign on America saying: 'Take advantage of us because we lack the will to help ourselves.'"

In addition to the 5-year offshore plan, Hodel recently released a congressionally-required report and recommendation for management of the 1.5 million acre coastal plain of ANWR, 65 miles east of Prudhoe Bay.

"The two most immediate promising prospects for adding significantly to America's oil and gas reserves are offshore California and the coastal plain of ANWR," Hodel said. "During the coming decade, we need to find more than 30 billion barrels of proven reserves just to hold our own."

Hodel said that if it were not for oil production from Prudhoe Bay, the United States would be importing over half of its oil. Prudhoe Bay now produces about 20 percent of U.S. domestic production. Experts predict that production will fall off drastically by the turn of the century.

"If we can't replace Prudhoe Bay production, California could stand to lose a significant percentage of its oil supply -- far more than in the 1979 crisis," Hodel said. If Congress moves expeditiously to approve leasing at ANWR and oil is found, Hodel said that could cushion impacts on California and the Nation.

As for impacts of offshore development on California, Hodel suggested that production platforms on the horizon are far less a threat to tourism and recreation than potential impacts from future oil shocks if the resources are not developed.

"The record of consultations and the extensive provisions in the new 5-year offshore oil and gas leasing plan demonstrate amply that the Department of the Interior has gone the extra mile to address California concerns," Hodel said, pointing out that the 5-year plan he has sent Congress contains unprecedented sub-area deferrals and specific levels of environmental protection for lease sales offshore California. Neither of two previous 5-year plans (in 1980 and 1982) contained such provisions.

"It is in California's best interest to have an orderly, measured leasing program, such as the one we have proposed," Hodel said. "Additional moratoria on offshore drilling, such as those imposed by Congress in 1981 through 1984, will only increase the risk of a time when, because as a Nation we are suffering from wholly inadequate domestic oil supplies, there is overwhelming pressure for oil development under less stringent environmental controls."

To delay the search offshore or in Alaska, Hodel said, also would be to risk the permanent loss of oil industry technology, expertise and jobs, and to squander the time needed to assure care in the development process.

"We have the technology, we have the knowledge, we have effective and proven programs, and we have the commitment to explore, develop and produce these resources while protecting people, oceans, land, wildlife and the environmental values we all cherish," Hodel said. "The sooner we start, the easier the task, the more certain the victory."

REMARKS OF SECRETARY OF THE INTERIOR DON HODEL
BEFORE THE TOWN HALL OF CALIFORNIA, LOS ANGELES
APRIL 29, 1987

LET'S KEEP AMERICA IN THE DRIVER'S SEAT

During the past two weeks I have sent Congress two environmentally-sound plans for orderly energy development as key elements in President Reagan's strategy to assure America's economic future and national security.

One is the new 5-year plan for federal offshore oil and gas leasing, and the other pertains to the coastal plain of the Arctic National Wildlife Refuge in remote northeastern Alaska. Both plans propose orderly exploration and careful development of potentially huge oil resources with ample protection for the environment.

It is no coincidence that my first stop after making these announcements is California. I am here because California has a vital stake in secure energy supplies, and these two plans -- for Outer Continental Shelf (OCS) leasing and for exploration of the Arctic plain -- are the best insurance policies for America, and for California in particular.

With 19 million cars, trucks and buses, California uses some 580 million barrels of liquid petroleum products every year -- 10 percent of U.S. consumption. In fact, California is the world's third largest consumer of gasoline -- right after the remainder of the U.S. and the Soviet Union. Although California certainly is a major oil producing state, it still comes up more than 50 percent short in meeting its own demands. Without imports, Californians might have to garage permanently perhaps 6 million of those vehicles. Right now, it is Prudhoe Bay, Alaska, that is keeping a good many of you on the road. Well, that's what America is all about -- people from one part of the country supplying food, fiber, products, services and energy that people in other parts of the country need.

Energy, of course, is the lifeblood of our lifestyles, our economy, and our national security. In California, as in the rest of America, and the world for that matter, oil remains the most efficient, most economical source of energy.

Today I want to talk about the international energy situation and why we have to move right now to improve our energy security in the future, even though in some minds these actions may appear unnecessary in today's energy market. Then we will get into the national offshore program, and the most contentious element of it, the when and how to develop offshore California. We will explore a part of the remote Arctic plain. Then, let's see if we can wrap it up in a comprehensive strategy for maintaining adequate domestic oil reserves, gradually increasing a stockpile, encouraging alternative energy development, and a rational approach to energy conservation.

I suggest that every American who cares about the future of our country has to be concerned about the precipitous decline in exploration and production by the U.S. petroleum industry. Responding to the oil shocks of the 1970s, industry poured billions of dollars into exploration and development to meet the challenge of OPEC domination of world oil supplies. This extraordinary effort, along with our good fortune of having Prudhoe Bay, enabled the U.S. to hold its own in the world production picture until last year.

Then Middle East oil countries, with enormous excess production capacity, knocked the props out by flooding the market. While energy consumers the world over have benefited extensively, the results have been devastating to Third World countries counting on oil revenues to repay debt, and to the U.S. oil industry and to "Oil Patch" states, and, as a result, to our energy future.

U.S. domestic oil production plummeted 9 to 10 percent between 1985 and 1986; consumption rose about 3 percent, and imports soared 22 percent -- increasing about one million barrels per day in 1986. Imports now exceed what they were in 1973 when the OPEC embargo was imposed. Drilling for new oil fields was down 41 percent last year; the number of rigs at work in America hit the lowest level since such record-keeping began almost a half-century ago. During this time, some 400,000 workers in petroleum-related sectors across the country have lost their jobs, which in turn affected the livelihoods of retailers, teachers and so-on in communities that months before had housed thriving oil related facilities.

The implications of these trends for America and our future security are detailed in the recent "Energy Security" Report to the President by the Department of Energy. Key projections in that report show U.S. oil imports increasing from 5.2 million barrels per day in 1986 to between 8 and 10 million barrels per day in the 1990s. In other words, from about one-third of our consumption last year to about one-half of our projected consumption in the decade beginning only 32 months from now.

And most of the increased imports will come from Middle East OPEC nations -- the ones who caused economic havoc in America in the 1970s. Imports from Persian Gulf nations were three times higher in 1986 than 1985. According to industry reports, the United States imported more oil from Saudi Arabia than for any other country in January of this year.

The Energy Security Report sees Middle East OPEC increasing its share in the world oil market from less than 25 percent now to as much as 45 percent in 1995. The report states: "Growing dependence on Persian Gulf suppliers has important implications for the economic, foreign policy, and national security interests of the United States."

I've been saying that for several years, but now we have it in writing following a detailed study by a high-level interagency task force. OPEC is on the verge of getting back into the driver's seat.

As the Energy Security Report notes, the Middle East is an area continually threatened by revolutions, regional wars or aggression from outside powers. The report notes: "Oil price increases - precipitated by the 1978-79 Iranian revolution contributed to the largest economic recession since the 1930s. Similar or larger events in the future could have far-reaching economic, geopolitical, or even military implications."

Can we entrust our economic and national security to such an unstable and unpredictable area of the world? We cannot.

Let us remember that OPEC was formed by the major oil producing nations, mainly in the Middle East, specifically to control supply and manipulate prices.

Should we entrust our national destiny to such an organization dedicated to the use of oil to manipulate our economy and our national policies? I say no!

In my judgment, OPEC may have a more serious impact today than it had in the 1970s when it used an embargo successfully to escalate prices in an attempt to blackmail us on foreign policy issues. OPEC strategy backfired because they drove prices so high so quickly that they touched off an oil development rush in non-OPEC countries. Now, whether by accident or design, they have a potentially more powerful weapon -- the whipsawing of prices which undercuts potential competition in non-OPEC nations.

Along with oil, they have the ability to export economic instability.

The psychological effects of this new twist may prove even more detrimental to the United States' long-term security than the earlier embargo was to our immediate national security.

Lower oil prices have dulled memories of the 1970s gas lines, and lulled Americans into a euphoric state of believing our energy troubles are over. This is evident when someone asks: "Why talk about more oil exploration at a time when there is a world oil glut?" My answer is this: the current low prices are a boon to consumers, but we should not believe they will last forever.

Like a person on an addictive drug -- in this instance, temporarily cheap oil -- we are in danger of losing our will to provide for our own future; we may be putting ourselves at the mercy of a supplier who eventually will exact a very high price for a substance we must have to survive.

The psychological effect on the hundreds of thousands of oil industry workers who have lost their jobs is devastating -- and not just to these workers. If the expertise of these people is lost permanently to America, then we will have squandered a valuable resource it took decades to build, an expertise that may not be there when we need it in the future. At a recent conference, the head of a major oil company told me his firm is still planning offshore exploration years into the future, but he noted that offshore services and supply companies that employed 650,000 people in 1981 now have only 200,000 employees. Will we be able to recall these workers when we need them? Or will we have to recruit and train a new workforce? Or will we have to import the expertise -- a possibility that would be a sad commentary on a nation that has for more than half a century been the supplier of such expertise to the world.

And finally, there is the psychological effect on investors. Are people going to put money on the line to find and develop U.S. resources if there is no national commitment to a program that offers a reasonable degree of stability and the determination to produce enough energy to protect the national interest? It's not likely.

To protect the national interest, America must produce enough oil domestically to keep OPEC and others from perceiving that they have a stranglehold on this lifesblood of our economy and national security. Notice that I emphasized the word "perceiving."

Their perception that they have a stranglehold will come much sooner if we fail to allow and encourage exploration and development of America's most promising areas for oil discovery. If we fail to move to develop resources available to us, it will be like putting a sign on America saying: "Take advantage of us because we lack the will to help ourselves."

The two most immediate promising prospects for adding significantly to America's oil and gas reserves are offshore California and in the coastal plain of the Arctic National Wildlife Refuge in remote northeastern Alaska -- we call it "ANWR" for short.

U.S. proven reserves have dwindled from 39 billion barrels in 1970, to about 28 billion barrels at present. To put that in perspective, at current production rates we have less than 9 years' supply in proven reserves. During the coming decade we need to find more than 30 billion barrels of oil reserves just to hold our own.

We believe offshore California and the ANWR coastal plain together could provide one-quarter to one-half of the oil we must find in the coming decade. We won't know for sure, however, until there is exploratory drilling in both places. Should our expectations be met in these areas, then we enhance America's energy security in the 1990s and into the early 21st century; if either province comes up short of expectations, then we will have to look elsewhere and/or find other means of protecting our national interest.

And we need to find out quickly so that we can make adjustments in strategy if needed. Congress assigned the Secretary of the Interior the job of expediting development of energy resources on the public lands and the Outer Continental Shelf (the OCS) under strict standards.

Our offshore program is extremely important:

-- It produces one-quarter of our natural gas and one-eighth of our domestic oil;

-- The 34.2 billion barrels of oil equivalent actually discovered to date offshore is enough to replace 16 years of imports at 1986 rates;

-- Offshore production from 1954 through 1986 was enough to run every car in California for 40 years.

That is why we invested more than 3 years of extensive work and consultation with states and members of Congress into the new 5-year plan for offshore oil and gas leasing announced on April 27th.

Despite the extensive consultations and intensive discussions, there remains misunderstanding over the 5-year plan and the offshore leasing process in general.

The requirement for a 5-year plan is part of the OCS Lands Act Amendments enacted by Congress in 1978.

This is the third 5-year plan.

The first two 5-year plans, in 1980 and 1982, were primarily schedules for when sales would be held in each federal offshore area and the rules under which these sales would be conducted. In the past, it has been during the individual sale process that all sub-area deferrals and specific levels of environmental protection were worked out in consultation with the states, local governments and other interested parties.

In an effort to take into account the concerns expressed in California, for the first time we have provided deferrals for specific tracts within planning areas and specific levels of environmental protection as part of the new 5-year plan.

The 5-year plan now before the Congress focuses on promising acreage offshore California. It contains 54 million acres of subarea deferrals -- 74 percent of the federal planning areas offshore California. It excludes areas identified as having exceptional environmental sensitivity such as the immediate vicinity of Cordell Bank, the areas off Big Sur and San Francisco, and Santa Monica Bay. And there is a lengthy list of specified levels of protection for air pollution control, biological and cultural resources, commercial fishing, onshore oil processing, navigation, pipelines, and so on.

This unprecedented list of deferrals and specifications is the end product of a consultation process which began when Judge Clark, as Secretary of the Interior back in 1984, heeded requests from California and other states to move from an areawide program to a more focused leasing program. When I took over in 1985, I continued the process Judge Clark began, further defining the process to focus on promising acreage to make it easier for the states and all interested parties to work with us in the planning.

You also will recall that after a series of meetings with an ad hoc group of California Congressmen almost two years ago, we floated a preliminary agreement. I emphasize the word "preliminary" because that is exactly what it was. Every single member of Congress involved in the discussions leading to the announcement knew that it was only preliminary in nature, and, at our joint press conference announcing where we hoped we could go, they and I were explicit in characterizing the concept as being preliminary.

The reaction I encountered at 11 town hall type meetings in California, and new information on the lack of oil and gas potential in the leasing area proposed by the California Congressmen, left me with no alternative but to return to the drawing board.

This was not wasted effort, however, because as a result of the discussions and the voices I heard in California, I was able to identify subareas that we have subsequently deferred from leasing.

Congress then set up an 18-member House-Senate task force to work with the Department in an attempt to forge a compromise. Despite 13 meetings and additional technical sessions, the members of Congress on the panel could not reach a consensus, but came up with two widely divergent proposals. To cut the Gordian knot, Congress directed me to piece together a plan using elements from several proposals, including those of Governor Deukmejian who has an excellent understanding of the program and how to make it work for the State of California.

The proposal I submitted to Congress early in February was supported, by my calculations, by slightly more than one-quarter of the California delegation. Slightly less than two-thirds rejected it out of hand, but made no attempt to provide anything in the way of a reasonable compromise. Reaction by non-Californians in Congress who have expressed an opinion to me has been overwhelmingly favorable -- except for those who accuse me of making concessions to California not accorded other OCS coastal states. I can only plead "no contest" to that charge.

Although this process has been arduous, it has been fruitful. The record of consultations and the extensive provisions in the plan demonstrate amply that the Department of the Interior has gone the extra mile to address California concerns.

On the other side of the coin, legislation recently introduced seeking to exclude virtually the entire California coast from federal leasing demonstrate to the rest of Congress and the country a mindset that undermined our efforts to reach some middleground or consensus.

The plan I have sent to Congress is provides more flexibility than its two predecessors. It calls for only 24 standard lease sales in 21 planning areas nationwide over the coming 5 years. Another 11 sales will be held in frontier areas if there is enough interest, and there are three supplementary sales, none of which involve California planning areas.

Only five of the lease sales involve the three potentially oil-rich planning areas offshore California. Congress already has told us to delay sales in the Northern and Southern California planning areas until 1989. The first and only Central California planning area sale is scheduled for 1990.

Although it is my responsibility to represent the national interest -- and Congress and the U.S. Supreme Court have made it clear federal offshore resources belong to all the people of America -- I feel very strongly that what we are planning is clearly in the best interest of those who live in California as well.

Further moratoria on leasing offshore California, such as those imposed by Congress for in four of the last six years, is not in the best interest of the State or the Nation.

After my 1985 visit to California, several newspaper editorials, including the Los Angeles Times, said in effect that the question is not whether but when there must be additional oil production offshore California.

It is in California's best interest to have an orderly, measured leasing program, such as the one we have proposed. Additional moratoria, such as those imposed by Congress in 1981 through 1984, will only increase the risk of a time when, because as a Nation we are suffering from wholly inadequate domestic oil supplies, there is overwhelming pressure for development under less stringent environmental controls.

Californians have been ill-served by those who, without any facts to support them, warn of a "picket fence of black oil rigs" offshore California, or those who declare: "Our coast is not for sale." There are only 20 platforms in federal water offshore California at present, producing about 80,000 barrels per day of oil.

Even if exploration lives up to the most optimistic forecasts, the number of platforms will be relatively small. No platform can be closer than 3 miles from shore where the federal water begins. At Governor Deukmejian's request, I have added an additional 3-mile buffer for large areas. And there are major deferrals, such as along Big Sur, Point Reyes, Farallon Islands, Monterey Bay, San Francisco Bay, and other areas.

Understandably, some Californians remain uneasy because of the 1969 Santa Barbara blowout, even though this was the only blowout in the course of drilling some 31,000 offshore wells in state and federal waters that ever resulted in significant amounts of oil reaching shore.

Scientists have indicated that the biological effects of that blowout were temporary, generally lasting less than a year. But the effects on the federal leasing program were much more pronounced and lasting -- since 1970 federal regulations have imposed extensive additional regulations such as required subsea blowout preventers, more frequent inspections, oil spill contingency plans, oil spill cleanup centers, worker training, cleanup drills and other measures. Since that time, tremendous improvements have been made in technology to prevent pollution.

In a dozen years, we spent some \$400 million on environmental and scientific studies to make the offshore program as safe as possible.

In the past 16 years, OCS operations off California's thousand-mile coastline have lost a total of only 21,000 barrels of oil while producing more than 330 million barrels. Compare this with:

- Natural seeps that have leaked over 2 million barrels of oil;
- The tanker "Puerto Rican" spill that dumped 48,500 barrels of highly toxic petroleum products;
- The Los Angeles Joint Wastewater Treatment Plant which has discharged over 850,000 barrels of oil and grease;
- Two dozen wastewater treatment plants from San Luis Obispo to San Diego have discharged 5 million barrels of oil and grease.

Those of us who believe in the offshore program work mighty hard at environmental safety. First of all because it's our environment, too. And secondly, because we all know that the program is not going to succeed unless it is environmentally sound.

Right now we are engaged in negotiated rulemaking with representatives of the state, the counties and other governmental units, industry and environmental groups to determine regulations for pollution control from offshore installations. The current regulations, formulated by Secretary Andrus in 1980, have been the subject of years of litigation. As I have said often before, we cannot have a viable OCS program if it is the cause of onshore communities' inability to meet air quality attainment standards.

I will concede there is one complaint that we have been unable to satisfactorily address in our new 5-year plan. That comes from people who simply do not want to see even a few oil platforms off the California coast, no matter where or how minute they might appear on the distant horizon.

There are numerous examples in the world -- in California, as a matter of fact -- where the visibility of offshore oil platforms simply has not had any detrimental impact on tourism.

But tourism did suffer substantial blows during the 1973-74 OPEC embargo and the 1979-80 Iranian revolution. Nationwide, some half-million persons in travel-related industries lost jobs during the latter oil shock. When gas-lines begin, people stay close to home. They don't drive or fly into California for vacations -- not to the beaches, not to the desert, not to the mountains.

Secure fuel supplies have to rank very high in a state that has 700,000 registered RVs and 99,000 campsites that provide 16 million camper nights per year. Anyone relying upon a car, plane, train, or bus to get to a beach, hotel or campground should find it reassuring -- not disturbing -- to see an occasional oil platform in the distance. Contrary to the commercial, it is possible to leave home without your trusty credit card, but most of us cannot leave home without oil -- at least, we can't get very far very fast without it.

Hostile to all but the heartiest of mankind, the coastal plain is a special area well deserving of concern because of its wildlife and other environmental values. The wildlife also provide subsistence for natives in Alaska and Canada.

In 1980, after establishing the 19-million acre refuge and designating 8 million acres as wilderness, Congress ordered the Secretary of the Interior to make geological and biological studies of the coastal plain, and to recommend future management for the area. The 1.5 million acre plain, only 8 percent of the total refuge, is used 6 to 8 weeks each summer by the Porcupine caribou herd as a portion of its almost 9-million acre calving area.

The area also is a world class supergiant prospect for oil -- the most promising onshore prospect in the United States. Estimates range from 600 million barrels to more than 9 billion barrels of economically recoverable oil.

The area is sandwiched between Prudhoe Bay, America's largest-ever oil field only 65 miles to the west, and major Canadian discoveries in the Beaufort Sea and Mackenzie Delta to the east. Most important, if oil is found, there is a good chance it could occur in time to replace production from Prudhoe Bay, which will be in sharp decline by the turn of the century.

This is extremely important because Prudhoe Bay currently produces 20 percent of America's total domestic oil production. Without it, U.S. oil imports right now would be around 52 percent of our total needs rather than 38 percent.

If we can't replace the Prudhoe Bay production, California could stand to lose a significant percentage of its oil supply -- far more than in the 1979 crisis.

But we would not be proposing oil leasing on the nearby coastal plain if there were evidence it would be devastating to the caribou and other wildlife.

Back in the early 1970s, critics of Prudhoe Bay and the pipeline predicted virtual annihilation of caribou in the area. Instead, there are three times more caribou today than before development and production began.

Given the experience at Prudhoe Bay and the biological studies, I am convinced that we do not have to choose between oil exploration and production on one hand, or protection of wildlife on the other. We can have both.

It is our intention not just to do as well as Prudhoe Bay and the pipeline in regard to environmental protection, but to do even better, building on that experience. I stand ready to work with Congress on a leasing program for the Arctic plain that will enable us to explore and develop oil with careful stipulations to protect the caribou, the muskoxen, the other animals, birds and fish in the refuge.

There are two reasons why I have focused today on exploration and development of energy resources that will be needed to preserve America's economic and national security in the coming two decades:

First, because that is my job as Secretary of the Interior to worry about development of resources in the federal domain.

Second, because if we do not have the will to seek out and develop our own resources, then any energy policy we as a nation follow is doomed to failure.

Filling of the Strategic Petroleum Reserve, encouragement of conservation and development of alternative energy resources are important elements of this Administration's energy strategy as well. But we don't think that arbitrary government regulations policed by federal agents is the way to achieve conservation goals.

The real gains in conservation have been market-driven rather than government required. A misleading argument has been made that an appliance standards bill vetoed by President Reagan would have saved the nation 1.3 billion barrels of oil by the year 2000, making it unnecessary to offer any more leasing offshore California. In fact, these "phantom savings" would have been in electricity, very little of which is generated by oil these days.

Government enforced conservation of oil does not produce one drop of additional new oil. Government allocation and restrictions can only move oil around from one use to another, causing great economic dislocations as we witnessed in the 1970s.

Some people, however, seem to take seriously the old joke about the man who streamlined the front of his car to increase gas mileage 25 percent; bought new tires to increase gas mileage 50 percent; installed an experimental carburetor to increase gas mileage 25 percent; and had a special tuneup to save another 25 percent. He saved so much gas that he had to stop the car every few miles and siphon out some gasoline to keep the tank from continually overflowing.

Unfortunately, that's not the way it works.

We have already made the easy, big savings in conservation. Improvements are likely to be much more incremental and far more costly in the future. That doesn't mean we stop trying. But as much as we can conserve, as successful as we may be at developing alternative energy resources, we still will have to find and produce a great deal of our own petroleum well into the next century if we are remain a strong and secure nation.

Our best opportunities to find major portions of the oil we will need is right here, offshore California, and on the Arctic coastal plain, but we need to begin now to provide the 7 to 15 years of leadtime between issuing of leases and beginning of production in such areas. We have the technology, we have the knowledge, we have effective and proven programs, and we have the commitment to explore, develop and produce these resources while protecting people, oceans, land, wildlife and the environmental values we all cherish.

To delay now is to needlessly risk losing the expertise and to squander the time required for orderly and environmentally sound development of essential energy resources. Worst of all, if we wait too long, we risk losing the means to control our own national destiny, to guarantee our own freedoms and that of others. I remain confident we will join together to do what is right for America. The sooner we start, the easier the task, the more certain the victory.

***.

MORRIS K. UDALL, ARIZONA, CHAIRMAN

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ELTON GALLAGHER, CALIFORNIA
RICHARD H. BAKER, LOUISIANA

October 8, 1987
9:00 A.M.
2359A Rayburn

SUBCOMMITTEE ON WATER AND POWER RESOURCES

Oversight Hearing

Arctic National Wildlife Refuge: Prudhoe Bay Environmental Issues

Dennis Kelso, Commissioner, Department of Environmental Conservation, State of Alaska, accompanied by Larry Dietrich, Director, Division of Environmental Quality, Juneau, Alaska

PANEL

Thomas Cook, Exploration Representative for Alaska, Chevron USA, Anchorage, Alaska

Roger C. Herrera, Manager for Exploration and Lands, Standard Alaska Production Company, Anchorage, Alaska

James Weeks, Arco Alaska Incorporated, Anchorage, Alaska

* * *

Robert W. Adler, Executive Director, Trustees for Alaska, Anchorage, Alaska, accompanied by Lisa Speer, Project Scientist, Natural Resources Defense Council, New York, New York

OPENING STATEMENT

CONGRESSMAN GEORGE MILLER

October 8, 1987

This morning, the Subcommittee is holding its fifth oversight hearing on the Secretary of the Interior's report and recommendations concerning development of the coastal plain of the Arctic National Wildlife Refuge.

Several members of the Interior committee went to Alaska in August, visiting both the Arctic Refuge and the oil development at Prudhoe Bay. For myself, the trip helped put the debate over the future management of the coastal plain in better perspective.

Prudhoe Bay provides 20 percent of our nation's oil production. The technology that industry has developed to operate in the harsh arctic environment is indeed impressive.

Yet Prudhoe facilities constitute a major industrial complex. To allow development of the coastal plain would substantially, if not irrevocably, alter the wilderness character of an important part of the Arctic Refuge.

Today we will hear from witnesses representing the regulatory agencies, North Slope oil operators, and environmental critics. Each has been asked to present testimony on the industry's record at Prudhoe Bay and its implications for development of ANWR.

Our next hearing is scheduled for October 22 when we will examine the potential impacts of oil development on ANWR wildlife.

Notes on oil exploration in the Arctic National
Wildlife Refuge's biologically sensitive areas

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Debate over oil and gas development in the Arctic National Wildlife Refuge centers primarily on oil and gas resources that do not exist(if they exist , their location is unknown). While it is possible that the Arctic National Wildlife Refuge holds commercial quantities of oil and gas rivaling those at Prudhoe Bay, the odds are that most of the most sensitive habitat areas do not have any commercial oil or gas under them. The ongoing battle between and within the State of Alaska, the U.S. and Canadian governments, the oil and gas industry, environmental, local, subsistence and cultural interests, is likely to cost more than it would to substantiate the presence of oil in commercial quantities.

Exploratory drilling is the only way to determine the presence of oil and gas. Since exploratory drilling is allowed only in the winter, under strict environmental controls, there is general concensus that oil exploration could occur with virtually no damage to the refuge's biological resources. It is the development of the oil ,the pipelines crisscrossing the landscape, the trucks rumbling endlessly down miles of dusty access roads, that could change the course of mighty caribou herds.

The problem is that with our current leasing system, nobody does any exploratory drilling unless they have a lease to develop the area they are exploring. There needs to be a way , when leasing is considered in biologically sensitive areas, to separate the exploration and the development stages of oil and gas leasing.

The presence of calving caribou does not indicate the presence of oil, and the odds are generally greatest that promising geologic structures hold no oil or gas worth developing. So most of the millions of dollars spent hasseling about what happens in these admittedly critical habitats is wasted. Roads and pipelines are seen as sorces of pollution and disturbance, or as barriers to migration , but the extent of the inherrent problems can only be appreciated if the location of the oil and gas can be determined.

Current leasing practice increases the cost and decreases the efficiency of doing business. Parties to the process spar with each other to develop imaginary resources and to protect against imagined conflict. The millions of dollars that this adversarial process costs could be dramatically reduced, and environmental safeguards would more likely be effective, if we could first find the oil.

In addition to exploration rights, leases also set royalty rates and all contractual details and environmental stipulations pertinent to the life of the oilfield that has yet to be discovered. As a consequence, those concerned with the protection of the wilderness, wildlife and cultural values of the refuge feel compelled to oppose exploration and to provide for every possible (no matter how unlikely) conflict situation by writing restrictive lease stipulations and excluding areas from leasing.

Leasing is not where the public makes the big money on its oil. Prudhoe Bay leases totalled \$900 million, but the State of Alaska's royalty share of Prudhoe Bay production is reckoned in billions of dollars each year. Lease bonuses are most important to oil companies as up front costs in a risky business.

The problem then is not which areas to defer from leasing because of their wildlife habitat values, but how to explore those areas in order that we can determine if any conflicts are probable or even possible. Further, if there were a way to locate the oil before production rights were leased, government (the public) might have a control over when the oil is produced.

An exploratory drilling program patterned after the seismic exploration program recently completed in the Refuge would allow the oil industry to explore the most promising structures and require the exploration of areas where biological resource and related subsistence use conflicts are most likely. The incentive for an oil company to participate in such a program might be something like the right to meet or beat any other bid for production rights in an area explored by that company. Exploration incentive credits that could be applied to leases in the ANWR, or any other federal area, are another possibility. The mechanism is a bit hazy, but it is not as important as a willingness to look for one.

What is important, is that current oil leasing methods lead to a deplorable situation, both morally and economically. So long as all major development decisions have to be made before the location of the oil is known, the result will be wild and irresponsible speculation over either the presence of gigantic oilfields or the demise of gigantic caribou herds. It is probably irresponsible to threaten the one of the last free roaming herds of ungulates in the United States, or to leave one of the last great oilfields on the continent undiscovered, or to designate no wilderness on Alaska's north slope, or to leave the real decisions in these matters up to the holders of oil leases.

ANWR plan gets neutral reception

By JOHN CARTER

EMPIRE WASHINGTON BUREAU

WASHINGTON - The administration's plan to allow oil and gas development of the Arctic National Wildlife Refuge got a non-committal reception at a House subcommittee hearing Thursday, the first of a series of congressional reviews.

"I have not made a decision about ANWR, but I expect that this will be the first of series of hearings," where the issue will be fully explored, said Rep. George Miller, D-Calif., chairman of the water and power resources subcommittee of the House Interior Committee.

Interior Secretary Donald P. Hodel recommended last week that Congress allow full-scale development of the area some call the nation's last, best chance for finding oil.

Environmentalists and the government of Canada oppose development because they fear it would damage the area's ecology and deci-

mate the native caribou herd.

The Alaska Congressional delegation supports ANWR development. Rep. Don Young, a member of the committee, told his colleagues Thursday that "ANWR is the answer."

"Prudhoe Bay is half empty and our dependence on foreign oil is creeping up again. Alaska would benefit from such development," Young said.

Young has introduced legislation to open ANWR to development, while Interior Committee Chairman Rep. Morris Udall has introduced legislation to protect the area as wilderness.

"I want to open the area to environmentally sound leasing while maintaining the refuge as we do in many national wildlife refuges.

"But this is truly a national issue. Development of Prudhoe had national benefits and so will ANWR," he said.

The principal witness at the hear-

ing was William P. Horn, Hodel's assistant for fish and wildlife, who told the committee that ANWR "is the nation's best single opportunity to increase significantly domestic oil production over the next 40 years."

Geologists report that conditions in the area are exceptionally favorable for discovery of one or more super-giant oil fields.

The mean conditional recoverable oil estimate of 3.2 billion barrels could satisfy 4 percent of total U.S. demand, Horn said.

He noted that ANWR "provides a variety of outstanding arctic habitats," but oil production would produce only moderate impacts.

Horn claimed that the only major

effect would be felt by the migrating caribou herds which travel from Canada to calve.

"But, the experience at Prudhoe provides a strong measure of assurance that caribou can coexist with oil development," he said.

"Furthermore, the long period of time required to bring commercial fields into production would provide ample opportunity to develop any additional mitigation measures as may be needed."

Some fear that the Native population of the town of Kaktovik would be harmed by development, but Horn said "Interior is committed to working with residents to minimize the effect of oil activities."

INITIAL REPORT
on the
ARCTIC NATIONAL WILDLIFE REFUGE, ALASKA

The Alaska State Senate
Committee on Resources

May 1987

INTRODUCTION

Due to the extensive public record which has been built through public hearings held across the state, this initial report constitutes what would normally be termed an Executive Summary.

The Senate Resources Subcommittee on the Arctic National Wildlife Refuge (ANWR) was established with the purpose of building a public record which the Alaska State Legislature could utilize in making an informed decision on proposed legislation regarding the ANWR. The second objective was to allow the public an opportunity to have input into this decision making process and access to the same information on which the legislature would base its policy decisions.

In order to fulfill these objectives, the subcommittee held public hearings in Fairbanks, Anchorage, Ketchikan and Kodiak. Members of this subcommittee were Senators Arliss Sturgelowski, Jim Duncan, Lloyd Jones, and Chairman Jack Coghill. During these hearings approximately 40 hours of public testimony have been taken and an uncertified transcript of this testimony has been completed.

Additional information in the form of reports, maps, pictures and correspondence, is also contained in this voluminous public record. This initial report does not attempt to footnote or reference any specific documents contained in the public record. This initial report is intended to provide an overview of the issues inherent in potential oil and gas activities conducted in the ANWR, and provide recommendations as to what the State of Alaska's policy should be in this regard.

Further hearings by the full Senate Committee on Resources were held in Juneau. It should also be recognized that the House Committee on Resources also held many public hearings on the subject of the ANWR in Juneau.

This report is assembled in a manner to highlight first the findings of the senate subcommittee; the findings are facts that can be documented in the public record; secondly, conclusions of the subcommittee, these points may or may not be referable summaries or judgements formed by the subcommittee, as a result of the hearing process; lastly this report contains recommendations of the subcommittee, these recommendations are assessments of the facts as they relate to the ANWR and they present policy direction.

It is anticipated that further documentation of the findings, conclusions and recommendations contained in this report will be performed using the public record at a later date.

This initial report was adopted by the full Senate Committee on Resources by unanimous vote on May 4, 1987.

TABLE OF ISSUES

Sections

1. The Arctic National Wildlife Refuge
2. The Potential for Hydrocarbon Discoveries in Economic Quantities
3. The Porcupine Caribou Herd
4. Land Exchanges: Value for Value, Buy Sell Agreements
5. State Oil Royalties: The Mineral Leasing Act of 1920
6. The Work Force: Local Hire
7. National Security Implications

Section 1: The Arctic National Wildlife Refuge

FINDINGS

- * The coastal plain of the Arctic National Wildlife Refuge contains the greatest potential on the North American continent for the United States to discover economic quantities of recoverable oil and gas reserves.
- * The coastal plain of the ANWR contains unique environmental and wildlife qualities which deserve consideration and encourage caution, in any scenario, to explore, develop or produce any hydrocarbon resources which may be present there.
- * The United States government has entered into treaties and agreements with the government of Canada and other countries with regard to the fish and wildlife species that either reside or occasionally frequent the coastal plain of the ANWR.
- * Only the Congress of the United States has the authority at this time to remove the restriction on oil and gas exploration, development and production in the coastal plain of the ANWR.
- * In the establishment of the Arctic National Wildlife Range in 1960, Congress recognized the possibility that hydrocarbon resources might be present in the coastal plain.
- * The indigenous people of Alaska, through their corporate representatives, have recognized the potential of the coastal plain of the ANWR to provide for the well being of future generations of their people as was the intent of Congress in enacting the Alaska Native Claims Settlement Act (ANCSA).
- * The agencies within the U.S. Department of Interior and the State of Alaska, which have contributed to the wealth of information on the ANWR, in concert with the Governor of Alaska, have endorsed the exploration, development and possible production of hydrocarbon reserves which may be present in the coastal plain of the ANWR.

CONCLUSIONS

- * The wildlife resources and the geologic environment have been explored, studied and documented extensively in the coastal plain of the ANWR and in the arctic generally for well over twenty years.
- * There has been cooperation between the federal governments of the U.S. and Canada regarding the wildlife resources dependent on the coastal plain, the geology of the area and the transfer of pertinent information between the agencies of the State of Alaska and these two federal governments.

* The people of Alaska have expressed and demonstrated concern for the environment and wildlife present in the coastal plain of the ANWR, as well as the desire to enhance economic opportunities which may result from activities in the coastal plain of the ANWR.

* The State of Alaska, as well as those federal agencies responsible for protection of the environmental and wildlife resources present in Alaska, has established exemplary records fulfilling its respective responsibilities as related to exploration, development and production of the oil and gas reserves within Alaska and especially in the Arctic.

* There is a need for the U.S. State Department to formalize agreements which do not jeopardize the State of Alaska's position as sovereign and manager of state resources, particularly with regards to arctic resources and environment.

RECOMMENDATIONS

* The Congressional ban on oil and gas exploration, development and production from within the coastal plain of the ANWR should be lifted.

* The ANWR should be opened without a government exploration program.

* The ANWR should be opened to oil and gas exploration, development and production under a leasing program using the authorities of the Minerals Leasing Act of 1920.

* The Governor of Alaska should maximize Alaska's participation in all aspects of the ANWR and in the possible Congressional action to open the coastal plain to oil and gas activities.

* Given the nature and complexity of the issues relating to the ANWR, and given the long term effects any action taken by the Congress will have on Alaska's and the nation's domestic and international affairs and economics, the State of Alaska should establish an ANWR Policy Committee. The membership of this committee should be the Governor of Alaska, the Commissioner of Natural Resources, and one Executive Branch member-at-large; President of the Senate, the Chairman of the Senate Resources Committee, and one Senate member-at-large; and the Speaker of the House, the Chairman of the House Resources Committee and one House member-at-large. The task of the committee should be to forge an Alaskan consensus on the issues relating to the ANWR and advocate these positions before the Congress.

Section 2: The Potential for Hydrocarbon Discoveries in Economic Quantities

FINDINGS

- * The geologic environment exists in the coastal plain of the ANWR to the extent that conditions are favorable for the production of oil and gas reserves in the substrata of the area.
- * The coastal plain of the ANWR lays between the Prudhoe Bay/Kuparuk complex on the North Slope of Alaska and the Beaufort Sea/MacKenzie Delta area in Canada.
- * The North Slope of Alaska contains 9 known significant oil and gas fields with proven and inferred original recoverable reserves of about 15.4 billion barrels of oil and 32.0 trillion cubic feet of gas.
- * The Beaufort/MacKenzie area of Canada contains 39 oil and gas fields with proven and inferred original recoverable reserves of about 8.5 billion barrels of oil and 65.0 trillion cubic feet of gas.
- * The coastal plain of the ANWR in Alaska contains 26 significant geologic structures which have been assessed by the State of Alaska to contain 16 billion barrels of recoverable oil. This figure assumes a recovery factor of 35 percent and compares favorably with the original recoverable oil reserves of about 10 billion barrels in the Prudhoe Bay field.
- * The assessment by the State of Alaska also estimates that 29 trillion cubic feet of gas may also be present in the coastal plain of the ANWR.
- * The Prudhoe Bay field is approximately 13 miles by 16 miles in size, as view from the surface.
- * The ex-State Geologist, who recommended that the State of Alaska select the Prudhoe Bay area in the late 1960's, estimates that the structure referred to in the draft 1002(h) report as prospect 18 could contain 10 times the producing horizon of Prudhoe Bay if the proper conditions are present.
- * It is estimated that a discovery in the coastal plain of the ANWR would have to be at least 350 million barrels to be economic.
- * Kaktovik Inupiat Corporation has drilled the only exploratory well (KIC #1) in the coastal plain of the ANWR. The down hole information from this well is protected by law from public release.
- * KIC #1 was drilled in 1 of 4 geologic formations that are estimated to contain 63 percent of the oil and gas resource distribution of the coastal plain of ANWR. (Draft 1002(h) report)

* The Kaktovik Inupiat Corporation owns approximately 92,000 acres of the coastal plain of ANWR as a result of the Alaska Native Claims Settlement Act and the Alaska National Interest Lands Act. The KIC #1 well was drilled on these lands.

CONCLUSIONS

* It is evident, and there is no disagreement among geologists, that the coastal plain of the ANWR has the highest potential for the United States to make a major oil discovery.

* It is also evident that even with an aggressive exploratory drilling program, the ANWR may not contain any reserves of hydrocarbons, and those that may exist may be uneconomic.

RECOMMENDATIONS

* Exploration and the possible development and production of hydrocarbon reserves should be allowed on the coastal plain of the ANWR.

* The program under which exploration, development or production should take place should not involve the federal or state government in any capacity other than as a leasor of subsurface rights and as a regulator of private sector activities.

Section 3: The Porcupine Caribou Herd

FINDINGS

- * The Porcupine Caribou Herd (PCH) population has been increasing in recent times and now numbers approximately 180,000 animals.
- * The PCH has been documented by explorers, adventurers and biologists since the late 1800's.
- * Fluctuations in caribou populations are not understood at this time. It is generally recognized that world populations of caribou are on the increase.
- * The PCH ranges over 96,100 square miles in northeast Alaska and northwest Canada.
- * Spring migrations from southern winter range lands by the PCH to calving grounds on the Arctic coast begin in May. Caribou start arriving in the Arctic National Wildlife Refuge in mid to late May. The herd usually vacates the coastal plain of the ANWR by mid July.
- * The first calves of the year are born during the last week in May, with the peak calving occurring during June 4 - 8.
- * The calving grounds, including the coastal plain area, encompass nearly 8.9 million acres.
- * The concept of a "core" or "concentrated" calving area is a matter of controversy among wildlife biologists.
- * The concept of a "core" or "concentrated" calving area is based on the density of caribou using a specific area for that period of time when calving occurs.
- * Biologists who support the core calving area concept believe it to be approximately 300,000 acres or 400 square miles in area.
- * It is speculated that the PCH uses this "core" area because the area has some "survival value". Survival values that have been discussed are a reduced number of predators present, the snow melt cycle, a favorable emergence of forage at an earlier time than elsewhere or there may be a close association with favorable summer habitat, including insect relief areas. There is no identified single value or combination of possible survival values to indicate scientifically why the caribou use what is referred to as the "core" or "concentrated" calving area other than it is on their migration route.
- * The "concentrated" or "core" calving area was identified by counting at least 50 caribou per square mile, including calves, during a period from 1972 to 1985. These population densities were roughly plotted on a map. Eventually these maps were superimposed;

the area which over time contained the highest population density became the "core calving area".

* There is evidence, for example in 1973 and in 1980, when no concentrations of calving activity occurred on the 8.9 million acre calving grounds.

* There is evidence, in 1982 for example, when almost all the calving occurred outside of Alaska. There are also other years which indicate that although concentrations occurred, none of these areas were within the coastal plain "core" or "concentrated" calving area.

* It is not disputed that oil and gas activities will have an impact on caribou.

CONCLUSIONS

* The validity of a core calving area is questionable, considering the extent of the PCH's range, migration patterns and the environmental variables which influence the progress of the PCH's annual migration.

* Since the PCH are only in the coastal plain for at most a two month period, and considering that exploration activities take place in the Arctic primarily during winter months when the ground is frozen, a leasing schedule can be implemented that would least affect the calving area of greatest concern to those biologists supporting the concept of a "core calving area". The time frames for arctic exploration in all likelihood would not impact the calving area for at least ten years.

* The U.S. Fish and Wildlife Service has every option to stipulate mitigation measures to minimize impacts to wildlife resources in the coastal plain of the ANWR.

* Any additional environmental or wildlife resource information necessary to further mitigate oil and gas activity impacts could be better acquired as a result of industry presence in the coastal plain of the ANWR.

RECOMMENDATIONS

* The entire coastal plain of the ANWR should be opened to oil and gas activities, with proper consideration being given to the purposes of a National Wildlife Refuge.

Section 4: Land Exchanges: Value-for-Value, Buy Sell Agreements

Committee Note: Throughout the hearing process, witnesses refer to what amounts to a "willing buyer, willing seller" land transaction, as a land exchange. Although at this time it may be confusing, the points in the FINDINGS section have not been edited to reflect this buy sell relationship in order to preserve the integrity of the facts as they appear in the public record.

FINDINGS

- * The original objective of the Department of Interior was to acquire high priority refuge inholdings that represented and brought with them high public interest attributes, particularly in the form of fish and wildlife resources and public recreation opportunities.
- * The U.S. Fish and Wildlife Service in their normal acquisition process does not acquire subsurface estate. Past experience indicates that if the subsurface is virtually worthless, ownership will be relinquished without cost. If the subsurface is suspected of having value, the U.S. Fish and Wildlife Service normally can't afford it.
- * The land exchange negotiations are concerned with three things:
 - The land exchange contract, "the boilerplate", or "the master", which will be used as a starting point in all exchanges regarding the coastal plain of the ANWR;
 - The land use stipulations, which will be applied to all surface activities on lands involving subsurface exchanges in the coastal plain of the ANWR;
 - The tract identification process, which will provide procedures for tract selection and selection conflict adjudication, involving exchanges in the coastal plain of the ANWR.
- * Native corporations, based on their independent judgements, have concluded that the present exchange concept is most responsive to their corporate needs.
- * Land exchanges between the Department of Interior and property owners with title to lands within federal refuges, or other so called conservation units, are an accepted and authorized means for the Secretary of Interior to enhance the integrity of established conservation units.
- * Land exchanges involving the lands in the coastal plain of the ANWR and native corporations are a matter of controversy among

Alaskans, the environmental community and the executive branch of the State of Alaska.

- * While no one can predict the percentage of subsurface values involved in the land exchanges, the Department of Interior's objective is to preserve the bulk of those values for utilization or disposition through a traditional lease sale.
- * Should the Secretary recommend and the Congress approve opening of the coastal plain of the ANWR to oil and gas activities, the exchange participants would have the opportunity to pursue exploration activities in advance of a Federal lease sale. A federal lease sale will procedurally take years to execute.
- * The five native corporations participating in the exchange discussions have offered a package of lands totaling approximately one million acres, all high priority refuge lands.
- * The State of Alaska holds title to 12 million acres within or adjacent to Federal conservation units and has offered these lands in exchange for lands within the coastal plain of the ANWR. Before the State withdrew from participation in the exchange discussions, 850,000 acres had been accepted for consideration by the U.S. Fish and Wildlife Service.
- * The State of Alaska was an active participant along with the native corporations in the land exchange discussions with the U.S. Fish and Wildlife Service from December of 1986 to March of 1987.
- * It is estimated the the value of the native corporations' 1 million acres will be sufficient to acquire from 25,000 to 50,000 acres of subsurface estate within the coastal plain of the ANWR. These native corporations do not believe they will be able to select the highest potential oil and gas lands, because the valuation on their offered exchange lands is not adequate to "buy" these high potential areas.
- * If the Congress acts to remove the prohibition on exploration, development and production of possible oil and gas reserves within the ANWR and land exchanges are consummated before this act, the only revenues the State of Alaska will receive from possible oil and gas development will be in the form of severance and corporate income taxes.
- * The U.S. Department of the Interior will ask Congress to ratify the land exchanges in order to preclude any injunctive actions.
- * The decision by the Secretary of the Interior to recommend opening the ANWR is independent from the exchange negotiations.
- * The State of Alaska's concerns, after careful review by the Governor of the trade proposals, in the context of the state as both proprietor and sovereign resulted in the following general reasons for leaving the exchange discussions:

The 90%-10% royalty question; the state loses its 90% share of royalty on the exchanged lands.

The geologic information; the information was deemed insufficient to consider an exchange, especially in light of at least one other participant having access to data from the KIC #1 well.

The Governor's position; the Governor, after personal talks with knowledgeable sources in Washington D.C., was convinced the exchanges would not occur.

The Governor's focus; the Governor wants to focus on opening the coastal plain of the ANWR and eliminate any divisive elements which may introduce complexity and unnecessary division within this state.

* Since only the surface estate is being exchanged by the native corporations, the 7(i) provision of ANSCA does not apply. 7(i) applies to transactions which involve subsurface revenues and timber resources on native corporation lands. If the native corporations trade surface for subsurface, 7(i) does not apply to revenues generated from the acquired subsurface.

* There are 430 refuges in the national wildlife refuge system, comprising approximately 90 million acres. Sixteen (16) of these refuges are in Alaska and they comprise 77 million acres. There are 13 to 15 million acres of private inholdings in Alaska's refuges. This is roughly the same amount of land contained in the refuges in all of the other states collectively.

* The proposed exchange will be the most significant transaction ever undertaken on behalf of the national refuge system.

CONCLUSIONS

* Although "land exchange" is the term applied to agreements to trade land titles of equal value, these trades involve a process to fix dollar value estimates on both surface and subsurface elements of the transaction. In this way the present process represents a conventional "willing buyer, willing seller" business transaction. In this case however, the "willing seller" is selling only surface value of land, and the "willing buyer" is using subsurface values in other lands to purchase the lands desired by the buyer. This process may be confusing to interested third parties because there are elements which necessitate both the "willing buyer" and the "willing seller" to reverse rolls throughout the negotiating process. For example, native corporations are the "willing seller" of the surface estate to lands they own within refuges. At the same time they are the "willing buyer" of what ever subsurface estate within the ANWR coastal plain the value of their surface estate will purchase. The U.S. Fish and Wildlife Service can also

be considered in this way. They are the "willing seller" of subsurface values within the coastal plain of the ANWR in order to be the "willing buyer" of valuable surface estate in other refuges.

* The amount of subsurface resources that might ultimately be exchanged is a subject of legitimate concern to the subcommittee and others.

* Oil and Gas activities conducted on lands whose subsurface has been sold as a result of an exchange of values have two potential beneficial impacts:

Exploration would be conducted on a limited closely coordinated basis, thereby minimizing environmental impacts;

Experience and data gained through early exploration would allow for a better designed lease sale that may result in higher revenues being generated while further minimizing adverse environmental impacts.

Thus, the concurrent exchange concept is most responsive to the needs of both those wishing to relinquish their high priority refuge inholdings and of those wishing to acquire these inholdings.

* It is in the interest of Alaskans and the national public that the federal government become the sole surface estate proprietor of National Wildlife Refuge System lands and of other federal conservation system unit lands, within Alaska.

* In the case of value-for-value transactions involving the coastal plain of the ANWR, congressional ratification of the exchanges would preclude the possibility of injunctive actions to halt or delay transfers of subsurface rights; the exception being that even congressional action can not waive statehood entitlements of submerged lands. Submerged lands are an inherent attribute of statehood.

* The transactions involving native lands have raised the question of whether or not traditional interests and the intent of the Alaska Native Claims Settlement Act are being considered. The native corporation's feel that their shareholder's traditional use of the land is protected under provisions of the Alaska National Interest Land Conservation Act (ANILCA) subsistence and access clauses and that federal refuge management and stewardship more than adequately protects their interests and lifestyle.

* If the state is not a party to the contract drafting process of this value-for-value transaction, it may be that state lands would be excluded from any Congressional legislation which included an exchange ratification and opened the coastal plain of the ANWR. Without being a party to the contract negotiations the State of Alaska has no formal means to seek approval of surface values it has offered for subsurface rights in the coastal plain of the ANWR,

nor is it possible to adequately protect the interests of all Alaskans in this process.

* After all the oil and gas in Alaska has been pursued developed and consumed, this value-for-value exchange effort could stand as a lasting testimony to our commitment, wisdom and foresight on behalf of future generations.

RECOMMENDATIONS

* The State of Alaska should renew its participation in the interest of the public in the buy sell agreement discussions, commonly referred to as the "land exchange negotiations".

* Considering that it is in the national interest to remove inholdings from federal conservation units and that the surface management of these inholdings by the federal government severely restricts or prohibits development of these lands, the State of Alaska should divest itself of its interests in the surface estate of inholdings within federal refuges, national parks and the like, for subsurface interests in the coastal plain of the ANWR.

* Provided that the heritage granted to the native community in Alaska by the ANSCA and the ANILCA is protected, and that there is an equitable adjudication process for tracts of land in the coastal plain which are selected simultaneously by the natives and the State of Alaska, both parties should proceed with buy sell negotiations.

Section 5: State Oil Royalties: The Mineral Leasing Act of 1920

FINDINGS

- * It is the position of the executive branch of the government of the State of Alaska that the 90%-10% revenue share of royalties from the production of subsurface resources within National Wildlife Refuges within Alaska can not be changed without the consent of the State.
- * Administrative actions taken by the Secretary of Interior with regard to refuges and mineral leasing on these lands does not in any way minimize the fact that Congress is the one establishing the policy. That policy is clearly provided in the Mineral Leasing Act of 1920. This act provides that each state should receive 90 percent of the revenue share, either directly or through the Reclamation Fund, and that 10 percent should go to the Federal Government. The fact that the Secretary of Interior can remove an area from leasing under the mineral leasing law does not mean that if the area is ultimately leased, the mineral leasing law is not the authority that applies.
- * Congress made the Mineral Leasing Act of 1920 a provision of the Alaska Statehood Act (Section 6(h) and 28.), and as such it becomes an integral part of the compact provisions of Section 4 of the Alaska Statehood Act (72 Stat.339).
- * The concept of an overriding royalty to the state from lands exchange in the coastal plain of the ANWR to the native corporations was introduced by the State of Alaska as a creative alternative which could both protect the public interest under the Statehood Act, preserve the principles of federalism and hopefully allow the exchange process to advance.
- * The Department of Interior feels that an overriding royalty would have the effect of lowering the value of the tracts offered in the coastal plain of the ANWR to the exchange participants. This would increase the amount of land the participants would consume within the coastal plain of the ANWR.
- * What the state is attempting with the overriding royalty is to retain the grant that is the result of the Statehood Act and the inclusion of the 1920 Minerals Leasing Act. The exchanges would take 100 percent of the revenue value produced from those tracts of land and trade it. That value includes the federal government's 10 percent and the state's 90 percent of the 12 percent royalty that is commonly applied to oil and gas production from state and federal leases. The only revenue source from these tracts therefore would be taxes.

CONCLUSIONS

- * The ANWR should be opened using the existing authorities, namely the Mineral Leasing Act of 1920.
- * The national interest is best served by encouraging competition for tract selection under the provisions of the Mineral Leasing Act of 1920.
- * The Native corporations have every reason to expect value-for-value in the land exchanges.
- * If a grant or overriding royalty is given to the state on subsurface tracts traded to native corporations, then the those lands in the ANWR will be devalued. Instead of a potentially small portion of the coastal plain of the ANWR being exchanged, an incremental increase in the amount of the ANWR subsurface would become available to reflect the override.

RECOMMENDATIONS

- * The Congress should act to open the ANWR under the Mineral Leasing Act of 1920 in the public interest to encourage an expedient but prudent exploration and possible development and production of hydrocarbon resources in the coastal plain of the ANWR.
- * The Governor of Alaska should encourage the Congress to utilize the authority of the Mineral Leasing Act of 1920 in any legislation enabling the exploration, development and production of hydrocarbon resources within the coastal plain of the ANWR.

Section 6: The Work Force: Local Hire

FINDINGS

* At this time, the Alaska labor unions oppose the opening of the coastal plain to oil and gas development without a labor clause in the enabling congressional legislation.

CONCLUSIONS

* An experienced work force is available in Alaska so that development in the coastal plain of the ANWR can take place in an environmentally sound manner using this professional labor.

* If labor agreements are required with unions, they should reflect a competitive position based on Alaskan labor market conditions.

* The issue of local hire in Alaska should be approached first from a regional level, then a statewide level and finally a union membership level.

RECOMMENDATIONS

* The use of Alaskan union locals should be encouraged. Industry has recognized that competitively priced union labor increases the efficiency and lowers construction and operating expenses in the Alaska oil fields.

* Congressional action should not include restrictions as to which Alaskan labor force should be utilized, union or non-union. That is a decision which is best addressed by individual private sector employers through the collective bargaining process.

Section 7: National Security Implications

FINDINGS

- * The nation's imports of oil have fallen from a peak in 1977 of 8.5 million barrels per day (MMBD) or 46% of consumption, to 4.3 MMBD or 27% of consumption in 1985.
- * The national trend toward decreasing dependence on foreign oil sources is reversing. Net U.S. oil imports during the first 10 months of 1986 were 29% above the comparable period in 1985. The United States is moving once again toward dependency on foreign sources of oil.
- * The current oil glut may evaporate as early as mid 1990 or 1992 due to declines in domestic production and a steady rise in domestic consumption of oil and gas products.
- * Domestic production, development and exploration have declined as a result of severe oil price declines.
- * In a priority memo to the President, the Secretary of Energy concluded that, "Until oil prices increase appreciably, U.S. exploration will remain stagnant, our dependency on imports will continue to increase, and our vulnerability to oil price shocks and possible oil shortages or stoppages will rise to an excessively dangerous level. All of this could seriously affect our strategic and national security as well as our economic stability."
- * A letter from the National Petroleum Council to Energy Secretary John S. Harrington stated that, "Additional import dependence will increase our vulnerability to a supply disruption, rapidly accelerate our balance of trade problems, undermine our national security and compromise our U.S. foreign policy."
- * Thirty eight percent fewer oil and gas wells were drilled in 1986 than in 1985.
- * Only 32,438 oil and gas wells were drilled nationwide in 1986, the lowest level in 12 years.
- * There were 2,844 wildcat wells (wells drilled to discover new fields) reported completed in 1986 compared to 4,757 in 1985. The wildcats resulted in 302 oil discoveries and 193 gas discoveries in 1986 compared with 535 oil discoveries and 296 gas discoveries the previous year.
- * Expansion of domestic oil production has several advantages relating to the nation's economic and military security. Expansion of other domestic energy supplies or energy conservation, to the extent they can substitute for imported oil, would have similar advantages:

Higher U.S. oil production will exert downward pressure

on the world price of oil.

Increased domestic oil production reduces the chances of a supply disruption that would have a sharp impact on the world oil price, since less U.S. demand for oil imports will increase slack in world oil markets.

Should there be a serious event that disrupts supply, the costs to the U.S. economy will be reduced if U.S. oil import demand is less relative to its total oil supply.

Less U.S. dependence on foreign oil allows U.S. foreign policy to be more flexible and strengthens relationships with oil importing allies.

CONCLUSIONS

* The single most important decision our Congress will make in the areas of domestic production and national energy security in the next 18 months is the opening of the coastal plain of the Arctic National Wildlife Refuge to energy exploration and production.

* At peak, Alaskan oil and gas production represents about 20% of our total domestic production. That production is now in decline and will dramatically fall over the next 10 years. Without new discoveries and a dramatic change in domestic consumption there is little hope that we can avoid serious, national economic shocks. We are already more dependent, as a nation, on oil products than ever before. Our nation can not afford to stand in line again.

RECOMMENDATION

* The Congress should act expeditiously to remove the prohibition on oil and gas activities in the coastal plain of the ANWR, and Alaskans should encourage the utilization of the resources that may be present there. In this manner, the State of Alaska can make its greatest peace time contribution to the security of the nation.

* The Congress and the State of Alaska should continue to encourage the conservation of energy resources through incentive programs and through the use of alternative fuels.

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TESTIMONY OF JAMES E. EASON

BEFORE THE HOUSE SUBCOMMITTEE ON WATER AND POWER RESOURCES

JUNE 23, 1987

Mr. Chairman and members of the Subcommittee, my name is James E. Eason. I am a petroleum geologist with thirteen years of experience in Alaska, and I am the Director of the Alaska Division of Oil and Gas. The Division of Oil and Gas is that agency within the Alaska Department of Natural Resources which is responsible for the competitive leasing of the state's oil and gas lands, the administration of those leases and the collection of the state's share of revenues from the leasing of its lands, and from the leasing of federal lands within Alaska and adjacent to certain of the state's offshore submerged lands.

Before turning to a discussion of the history of the development of Alaska's oil and gas resources, and describing current production within the state, I would like to stress two very important points. First, I believe oil and gas leasing and development in Alaska is extremely important to both the state and the nation, and second, I am convinced that the coastal plain (or 1002 area) of the Arctic National Wildlife Refuge (ANWR) is the most prospective unexplored petroleum province remaining in North America.

As a result of the field work and geophysical surveys conducted over the past twenty years, it has been clearly demonstrated by federal, state and independent investigators that the 1002 area could yield Prudhoe Bay-size quantities of petroleum. To put this conclusion in proper perspective, the Prudhoe Bay field on Alaska's North Slope, is the largest oil field in North America, with original reserves of nearly 10 billion barrels of recoverable oil. Production from the Prudhoe Bay field and the adjacent Kuparuk River field currently accounts for over 20% of the total daily domestic crude production.

Situated on trend between the prolific North Slope oil fields to the west and the petroleum-rich Canadian Mackenzie Delta province to the east, the 1002 area has all of the key geologic elements requisite for major hydrocarbon accumulations. Based on field observations of oil seeps and oil-stained reservoir rocks at surface outcrops, it is evident that oil has been generated by source rocks in the area. Hopefully, most of that oil has migrated into and been trapped within reservoir rocks in the very large structures which lie beneath the surface. The quality of source and reservoir rocks found in ANWR represent the best of both Prudhoe Bay and Mackenzie Delta. In addition, based upon

the limited geophysical data collected to date, twenty-six large prospective traps have been identified beneath the surface of the 1002 area. It is estimated that if oil is contained within these structures beneath the 1002 area, there is a five percent probability of there being between 26.5 and 29.4 billion barrels of oil in-place. This volume compares favorably with the 23.5 billion barrels of oil initially in-place at Prudhoe Bay. For additional perspective, it is interesting to note that prior to drilling, some industry officials estimated that there was only a two percent probability that the Prudhoe Bay area contained as much as two billion barrels of oil.

Exploring for oil and gas in frontier areas such as the coastal plain of ANWR is an extremely risky enterprise. The worldwide success ratio for exploratory wells in frontier areas is about one success in twenty, or 5%. In ANWR, the odds are estimated to be much better. The federal government estimates there is a twenty percent chance that economically recoverable oil is present in the 1002 area. This is an exceptionally high number for such a small area.

In our opinion, exploration to confirm ANWR's petroleum potential is clearly in the interest of the state and the nation. We in Alaska have just recently witnessed the production of the five billionth barrel of oil from Prudhoe Bay. This means that one-half of the total proven 10 billion barrels of recoverable oil have been transported through the Trans-Alaska Pipeline System (TAPS) in just ten short years. It also means that the largest field in North America, which currently contributes a major share of this country's daily production, will begin a precipitous and irreversible production decline in the near future (mid 1988).

Presently, North Slope crude flows through TAPS at a rate of about 685 million barrels per year. By the year 2000, even projecting the contributions of other known North Slope fields expected to come on line, annual production from Alaska will fall to approximately 386 million barrels per year. This volume represents only about 55% of the pipeline's capacity.

If the coastal plain of ANWR is opened to exploration and if petroleum is discovered in significant quantities, production from this region could help to offset the expected decline in

North Slope production. Most experts believe that by the year 2000 domestic oil production will be substantially less than the current 8.3 million barrels per day--it likely will be between 4.5 million and 6.4 million barrels per day. ANWR could contribute at least 700,000 barrels per day to the year 2000 totals, and 1.5 million barrels per day for the following ten years before its production decline begins. This increased production would be at the expense of imported oil, thereby contributing positively to our nation's balance of payments and its energy security.

It is clear to the state of Alaska that the high prospectivity of the coastal plain of ANWR, and its potential to supplement the projected domestic production decline, thereby reducing our oil imports, justifies an early and thorough assessment of the area by exploratory drilling. I believe a review of the history of oil and gas exploration and development in Alaska will underscore the importance and wisdom of proceeding with an orderly exploration program now rather than later.

Opening the 1002 area for drilling would be adding a crucial --and perhaps final--chapter to Alaska's long history of involvement in petroleum exploration and development. This involvement began around the turn of the century when early explorers and whaling crews reported occurrences of natural petroleum seeps along coastal regions of the state. Those discoveries were the harbingers of the exploration successes of the 1960's and 1970's which were to confirm the presence of massive oil and gas reserves along the North Slope of Alaska. It was the perseverance of the early explorationists--often in the face of staggering failures, which led to the discoveries of Prudhoe Bay and Kuparuk River, respectively North America's first and second largest producing oil fields.

The sheer magnitude of those North Slope discoveries tends to overshadow many important successes--and failures--elsewhere in Alaska during the intervening years. I believe it is important to review some of these other oil and gas milestones, because I think they will underscore the importance of exploring and confirming ANWR's potential without delay.

The state's earliest commercial petroleum development was of a much more modest scale than most North Slope development, and was located hundreds of miles south of Prudhoe Bay near the village of Yakutat along the Gulf of Alaska. Here, in 1902 the Katalla Oil Field was discovered. Before Katalla was abandoned in 1933 due to a fire at the production facilities, this field produced 154,000 barrels of oil. In thirty-one years Katalla produced less oil than is currently transported through TAPS every two hours!

The next major milestone in oil and gas development within Alaska came with the 1957 discovery of oil at the Swanson River Field by Richfield Oil Corporation and its partners. That onshore discovery on the Kenai Peninsula adjacent to Cook Inlet led quickly to the leasing, exploration and development of numerous onshore and offshore tracts within the Cook Inlet Basin. Since that first discovery at Swanson River, a total of 21 oil and gas fields have been discovered in Alaska's Cook Inlet.

Although the State of Alaska's competitive lease sales in the Cook Inlet Basin continue to draw moderate attention, most knowledgeable explorationists believe that Cook Inlet development has seen its zenith. Cumulative production from the area through 1986 was 1.073 billion barrels of oil and 4.9 trillion cubic feet of natural gas. The average annual decline in oil production is approximately 15 percent, and current total Cook Inlet production is about 46,000 barrels per day. Again for perspective, the combined daily oil production from all Cook Inlet fields amounts to slightly more than the volume moved through TAPS every thirty minutes.

Industry interest and the mapping of numerous extremely large subsurface structures in the Gulf of Alaska led the U.S. Department of the Interior, in 1976, to conduct its first competitive oil and gas lease sale in Alaskan waters, OCS Sale 39. Because of prior production onshore in the nearby Katalla area, the Gulf of Alaska then was considered to be highly prospective. Three federal OCS lease sales in the Gulf of Alaska generated total bonus bids of \$670 million dollars for leases located there. However, exploration of those leases resulted in a succession of 12 very expensive dry holes.

The failure of the Gulf of Alaska to meet everyone's expectations serves to emphasize that, even in Alaska, and even next door to confirmed production, there is no certainty of success when it comes to oil and gas exploration. As a matter of fact, this unfortunate pattern--the subsequent condemnation of otherwise extremely prospective federal OCS acreage adjacent to previous discoveries--has since been repeated all too often in Alaska.

Like the Gulf of Alaska, the early successes in the Cook Inlet Basin did not assure similar successes on adjacent federal OCS tracts. In 1977 the first of three federal OCS sales in the Lower Cook Inlet was held. These sales netted the federal government \$403 million in bonus bids, but resulted again in 12 dry holes. In fact, results were so discouraging that the final Lower Cook Inlet OCS sale, which was held in 1982, received no bids.

I would like to focus now, for a few minutes, on the history of exploration on Alaska's North Slope. In 1919, a geologist with the U.S. Geological Survey, Ernest de K. Leffingwell, traversed

the area on foot and with dog teams, recording the first formal descriptions of North Slope geology and documenting the locations of several oil seeps. After Leffingwell, other expeditions led by geologists of the U.S.G.S. followed. These survey teams mapped and documented the surface exposures of many potential petroleum deposits in Northern Alaska.

Based in large measure upon the results of these early surveys, in 1923, the Naval Petroleum Reserve No. 4 (now National Petroleum Reserve-Alaska) was established. The first exploration phase of NPR-4 ended in 1953; in the intervening years between 1923 and 1953 the United States Navy had drilled 37 test wells and found three oil accumulations and six gas accumulations within the Reserve. Only two of these discoveries were considered sizeable, namely Umiat, with 30 to 100 million barrels of oil and Gubik, with 370 to 900 billion cubic feet of gas. Gas from another of the discoveries, the small South Barrow gas field, is being produced today for local consumption at Barrow. The Navy's 30-year exploration effort in NPRA cost the federal government between \$50 and \$60 million.

In 1960, the Arctic National Wildlife Range (ANWR) was established. The closure of this area, extending eastward from the Canning River to the Canadian border, combined with prohibitions against competitive leasing in NPRA to the west, effectively confined industry exploration efforts to the area between the Colville and Canning Rivers. In 1964, the State of Alaska selected about 80 townships in this corridor between NPRA and ANWR, and in December of that year, the state held its first competitive North Slope lease sale, and exploration of the resulting leases began shortly thereafter.

Following a succession of seven dry holes in the arctic foothills to the south, exploration shifted northward to the central coastal plain. In 1965, the first dry holes in the area immediately surrounding the Prudhoe Bay structure were drilled. In January, 1967, in what was essentially a last ditch effort, a rig was moved to the Prudhoe Bay State No. 1 location. Twelve months later, in January, 1968 the discovery of the Prudhoe Bay oil field was announced.

Thirty-three exploratory wells were drilled the following year, and in September, the state held its 23rd Competitive Lease Sale which consisted of acreage near and adjacent to the Prudhoe Bay discoveries. That sale attracted over \$900 million in bonus bids. This was the last lease sale on the North Slope until the Joint Federal-State sale in December, 1979. After the discovery of the Prudhoe Bay field and before the 1979 joint sale, over 100 exploratory wells were drilled on the North Slope, with 19 of those wells discovering oil or gas.

In 1974, exploration began again in NPRA, this time under the direction of the U.S. Geological Survey. Between 1974 and 1981 twenty-seven exploratory wells were drilled within NPRA at a cost to the federal government just over a half billion dollars. After the federal exploration program ended, Congress authorized competitive leasing in NPRA, and three sales were held. The first two of these sales received minimal interest, and the third received no bids. Only one additional exploratory well has been drilled on the leases acquired in those sales, and it was another dry hole.

Including the 1979 Joint Sale, three federal lease sales have been held in the Beaufort Sea. These three sales produced total winning bonus bids of \$3.4 billion. Eighteen exploratory wells have been drilled offshore in the OCS area extending eastward from NPRA to ANWR. The results have included five announced discoveries near the Prudhoe Bay field, one each near Seal and Sandpiper Islands, two near Tern Island and one near Duck Island (Endicott). Also, a very recent discovery by Unocal at its Hammerhead #1 well is located about 10 miles offshore of Flaxman Island.

Since 1979, the state has conducted ten competitive lease sales, offering over 3.7 million acres of onshore North Slope and submerged Beaufort Sea acreage. Total bonuses received for these leases were more than \$700 million. To date, these leases have produced only two discoveries, one oil discovery at Colville Delta by Texaco and its partners, and another by Shell Oil, et al at Seal Island. The Seal Island discovery straddles both state and federal acreage. These are the only successes on state acreage since 1979 contrasted to a long list of exploratory failures drilled to test the area.

Although new discoveries have been scarce, the post-Prudhoe Bay exploration activity has resulted in better delineation of several significant hydrocarbon deposits, both onshore and in the Beaufort Sea. These include the discoveries at Point Thomson, Kuparuk River, Milne Point, Gwydyr Bay, Endicott, Mikkelsen, Seal Island, Sandpiper Island, West Sak, Colville Delta, Tern Island, Lisburne and other areas.

The Kuparuk River reservoir was discovered in 1969, and production commenced from the Kuparuk River Unit in 1981. It is estimated that this reservoir west of Prudhoe Bay contains 1.5 billion barrels of recoverable oil. Production from the reservoir has been much better than expected, and is currently at 290,000 barrels per day.

ARCO Alaska has applied for approval of a pilot enhanced recovery project (Miscible Gas Injection) in an effort to boost ultimate recovery from the reservoir. A major waterflood program is already underway.

Although the Lisburne Oil Pool was discovered just days after the Prudhoe Bay Sadlerochit Oil Pool, production did not commence from this deeper reservoir until December, 1986. It is estimated that the Lisburne reservoir contains 3 billion barrels of oil in place, with about 400 million barrels being recoverable. Production is currently about 40,000 barrels per day, and is expected to peak at about 100,000 barrels per day. Ultimate recovery from the reservoir will increase if a pilot waterflood project now underway proves to be successful, and if permits for an offshore drill site are ultimately approved. The Kuparuk River and Lisburne fields no doubt benefited from the infrastructure already in place at Prudhoe Bay.

The nearby Milne Point field, with estimated reserves of about 60 million barrels of recoverable oil, was brought on line in 1985 only by virtue of its close proximity to the infrastructure that resulted from the Prudhoe Bay-Kuparuk River development. Milne Point was subsequently shut-in January, 1987 due to the low price of oil.

The Endicott accumulation, discovered in 1978 and operated by Standard Alaska Production (BP), is located approximately 30 miles east of Prudhoe Bay. It has estimated recoverable reserves of about 375 million barrels. Production from Endicott is expected to commence in late 1987 or early 1988, and peak at approximately 100,000 barrels per day in 1989, marking the first ever commercial production from offshore acreage in the Beaufort Sea. The production rate can probably be maintained for about five years, at which time a 15% per year production decline will begin. Endicott is located two miles offshore in eight to ten feet of water, and is connected to land by a gravel causeway. In relative terms, Endicott is the most costly North Slope field to be developed to date.

The Point Thomson field, which lies east of Endicott and just west across the Canning River from ANWR, was discovered in 1977 by Exxon and its partners. Point Thomson is estimated to contain about 350 million barrels of recoverable condensate (light gravity crude) and 5 trillion cubic feet of gas. Development of this field is problematical under the current economic conditions and in light of the 60 mile distance from the Trans-Alaska Pipeline and other production infrastructure. If discoveries are made to the east of Point Thomson in ANWR or on nearby state or federal offshore acreage, the outlook for early development of this field would improve substantially.

In 1983, Shell Oil drilled a successful exploratory well at Tern Island, about 20 miles east of Prudhoe Bay field. A third well in this area has just been completed, but estimated recoverable reserves have not yet been published.

The Seal Island discovery, which lies offshore from the Prudhoe Bay Field, was made in 1984 by Shell, Amerada Hess and partners. It is located about eight miles offshore in 40 feet of water, approximately 20 miles from Pump Station 1. Reserves at Seal Island are estimated to be similar to those in Endicott, somewhere in the 300 million barrel range. The reservoir appears to straddle the state/federal Beaufort Sea boundary. The distance from shore and water depth will make this a very expensive prospect to develop. Higher oil prices and the expectation of continued higher prices will be required to initiate development and production from this discovery.

In 1986 Shell, Amoco and partners announced another discovery offshore northwest of Prudhoe Bay field at Sandpiper Island. Sandpiper is about eleven miles northwest of the Seal Island discovery. Estimated recoverable reserves have not, as yet, been published for Sandpiper. It is likely, however, that the development of Sandpiper will be linked to that of the adjacent Seal Island discovery.

Included within the boundaries of the Kuparuk River oil field is a very large oil accumulation known as the West Sak reservoir. The West Sak is estimated to contain at least 20 billion barrels of oil in place. Those massive reserves lie literally right in the center of the second largest producing oil field in North America. Unfortunately, the oil within the West Sak reservoir is only 3000 feet to 4000 feet below the surface, and only 1000 feet to 2000 feet below the bottom of the overlying permafrost layer. Consequently the oil is cool (70 to 90 degrees Fahrenheit), and it has a low gravity of 10 degrees to 20 degrees API. The combination of these factors precludes the heavy oil from flowing into the wellbores very rapidly.

Compared to a good Prudhoe Bay well which produces over 5000 barrels per day, an excellent West Sak well might produce only 500 barrels per day. The shallow reservoir depth also means that there is very little gas dissolved in the heavy oil, and therefore, minimal pressure to drive the oil into the wellbores. The shallow depth adds another negative factor, in that fewer wells can be drilled directionally (due to steep drilling angles) from each individual drilling pad. These factors will add considerable development expense to the West Sak project.

Poor oil quality, low flow rates and added development expense have all combined to keep the West Sak from being developed at today's oil prices, even though it lies within the boundaries of the Kuparuk River field and is only twenty miles or so from Pump Station 1 of TAPS. Even though the volume of oil in place is staggering by any standards, the West Sak awaits higher oil prices and additional technological advances to make its development possible.

Oil prices in the mid \$20 per barrel range would go a long way toward making the West Sak commercial. However, even if and when the West Sak does come on line, the total daily field rate will be relatively insignificant in comparison with current rates from Prudhoe Bay and Kuparuk River because of the low individual well rates. If the West Sak development does not piggy back onto the existing Kuparuk development, it may never come on line.

Having described the chronology and briefly highlighted some of Alaska's most promising discoveries, as well as its exploration failures, I would like to summarize what I believe these data are telling us regarding Alaska's and the Nation's future production capabilities. The state's only commercial production to date, with the exception of the minor production from the Katalla field, has come from either the Cook Inlet or the North Slope. The Cook Inlet production is now in a state of decline, and the basin itself is in a mature or advanced state of exploration--large additions to the known reserves are unlikely.

The current production from Prudhoe Bay field far surpasses the combined production from all other North Slope and Cook Inlet fields. The new North Slope discoveries announced over the last few years, although encouraging, will have little effect in delaying the precipitous Prudhoe production decline that will begin in the near future. As I have previously mentioned, by the year 2000, we project total Alaska production to be only 386 million barrels of oil per year.

The stark reality is that the list of past exploration failures in Alaska on both federal and state lands has grown quite long since the monumental discovery at Prudhoe Bay. The list of failures includes the Gulf of Alaska, Lower Cook Inlet, several interior basins, the Alaska Peninsula, NPRA, and large portions of the western and central North Slope, both onshore and offshore. In the past two years, there has been a succession of dry holes drilled in the once promising OCS frontier basins offshore of western Alaska, including the St. George, Navarin, and Norton Basins.

Since the discovery of oil in Cook Inlet in 1957, 65 exploratory wells have been drilled on federal OCS leases while several hundred more have been drilled on state leases in Alaska. These wells were drilled at a substantial cost to the oil and gas industry. While the total costs are not readily determinable, the leases alone cost over \$7.5 billion, and in the vast majority of cases, wells drilled to test these leases were disappointing. Because of the disappointing results elsewhere in Alaska, exploration now has shifted to the eastern North Slope and Beaufort Sea. But, historically, even in these prime prospecting areas, failures far surpass successes. Perhaps one of the most famous examples is the much-touted Mukluk prospect in the

Beaufort Sea west of Prudhoe Bay. Leases overlying that prospect drew about \$1.4 billion in competitive industry bids in 1982, and the first well there cost an additional \$150 million to drill. As we all know now, Mukluk turned out to be another major disappointment.

These failures serve to emphasize two very important points. First, we cannot simply assume that ANWR holds oil and gas reserves which can be banked for future development. Our pre-drilling estimates of resources there may in fact be seriously in error, as they were at NPRA and Mukluk. Both national security and economic efficiency argue strongly for expeditious confirmation of ANWR's potential. Secondly, there are no areas left in this country with the potential, such as ANWR, to substantially and positively affect our nation's overall balance of trade and national security.

The discoveries at Seal Island in the Beaufort Sea and the huge West Sak heavy oil deposits west of Prudhoe Bay may help to supplement future North Slope production volumes, but only if oil prices climb and stabilize above \$20 per barrel (in 1987 dollars). Unfortunately, however, unless a new multi-billion barrel discovery is made on the North Slope, annual throughput in TAPS will decline significantly beyond 1995 regardless of what the oil price may be at that time.

There are obviously many direct benefits that would follow if ANWR is opened to exploration and if oil is found in commercial quantities and developed. However, I would like to direct your attention to some of the secondary, indirect benefits that I believe would follow as a result of construction of an oil pipeline from ANWR discoveries westward to TAPS Pump Station #1. First, total projected TAPS throughput would increase significantly, and tariffs for all oil transported through TAPS would decrease, resulting in a net higher wellhead value for the oil. This means that existing fields like Prudhoe Bay and Kuparuk River could produce longer, and discoveries such as West Sak and Seal Island may become economic to develop.

Secondly, exploration for new fields would increase since expected revenues from any new discoveries would be higher if pipeline tariffs are lower. Onshore state, federal and native lands, and offshore state and federal tracts would benefit from the increased pace of exploration. Future discoveries in the deeper waters of the Beaufort Sea, where development will be extremely expensive, will have a greater likelihood of being explored, developed and produced.

In addition, existing discoveries located between Pump Station #1 and ANWR would be developed sooner since a major part of the required infrastructure, that is the pipeline, would be in place. For example, Point Thomson field, which is immediately adjacent

to ANWR and contains about 350 million barrels of recoverable oil, could probably support development with some incremental help from ANWR discoveries. The catalytic effect of new discoveries in ANWR on extending the field life of producing North Slope fields and in encouraging new exploration and development elsewhere along the Arctic coast of Alaska cannot be overemphasized. There truly is no better place and no better time to explore for the oil reserves that will be critical to this country's energy future.

Mr. Chairman and members of the Subcommittee, this concludes my written testimony. I greatly appreciate the opportunity to provide this subcommittee some information on oil and gas production in Alaska and the history of that development. I also appreciate the opportunity you have provided me to explain why I believe it is crucial that the coastal plain of ANWR be opened for competitive leasing without delay. I will be happy to answer any questions you may have.

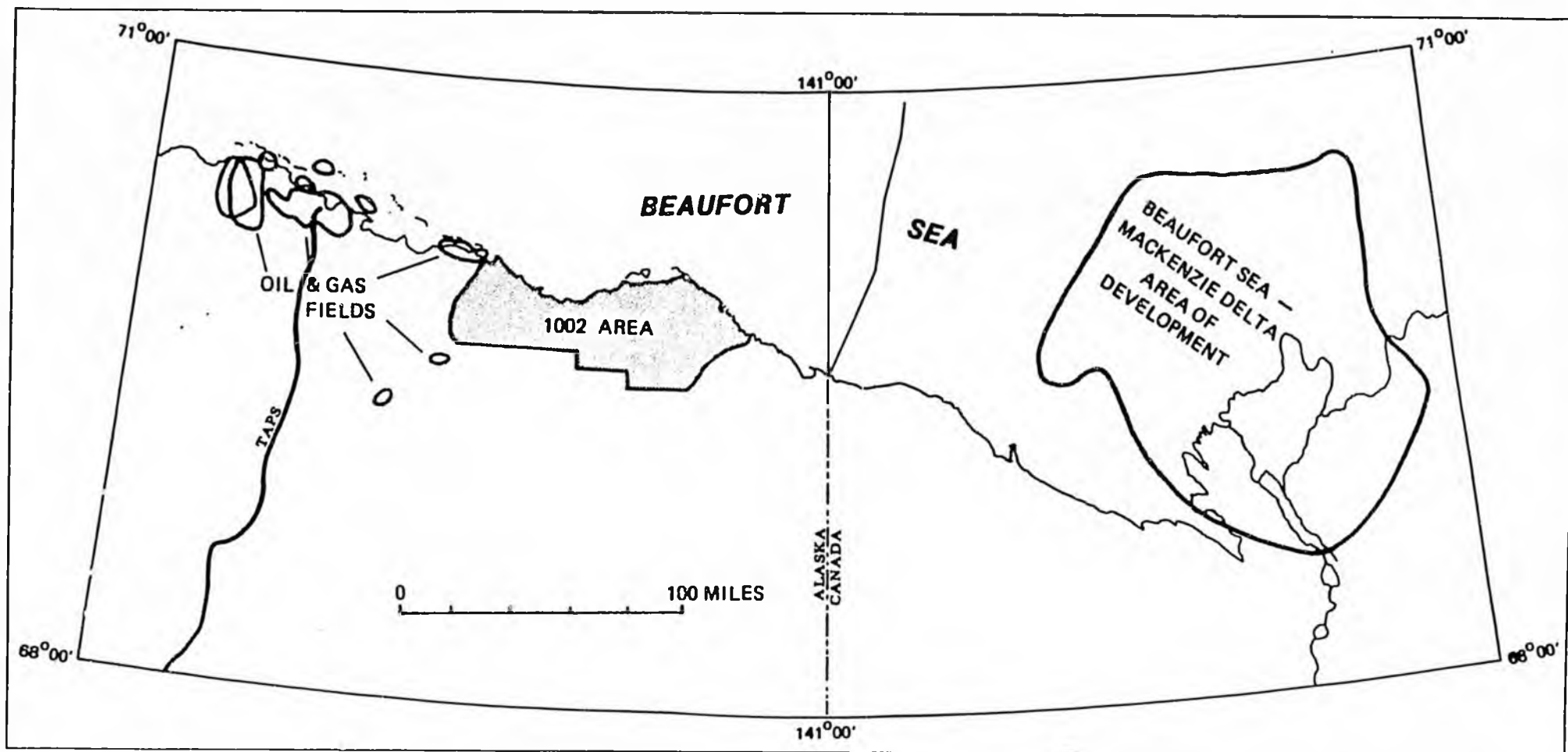


Figure 1. 1002 Area Location Map.

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ANWR COASTAL PLAIN: HIGH HYDROCARBON POTENTIAL

- 1. ANWR coastal plain situated on trend between North Slope oil fields to the west, and the Canadian Mackenzie Delta province to the east.**
- 2. All key geologic elements requisite for major hydrocarbon accumulations are present:**
 - excellent source and reservoir rocks expected; represent the best of Prudhoe Bay and Canada.**
 - producing formations at Prudhoe and adjacent areas found within ANWR.**
 - documented oil-stained sandstones and oil seeps.**
 - 26 large structural traps (prospects) mapped from seismic data.**
- 3. Expensive well drilled on largest prospect (Jago River #1, KIC); results are confidential.**
- 4. 5% probability of finding between 26.5 and 29.4 BBO in-place.**
- 5. 20% probability of finding economically recoverable oil:**
 - exceptionally high for such a small area**
 - minimum economic field size in ANWR = 440 million barrels**
 - worldwide success ratio in frontier areas is 5%**

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Figure 2. ANWR Hydrocarbon Potential Summary.

PROJECTED DOMESTIC OIL PRODUCTION

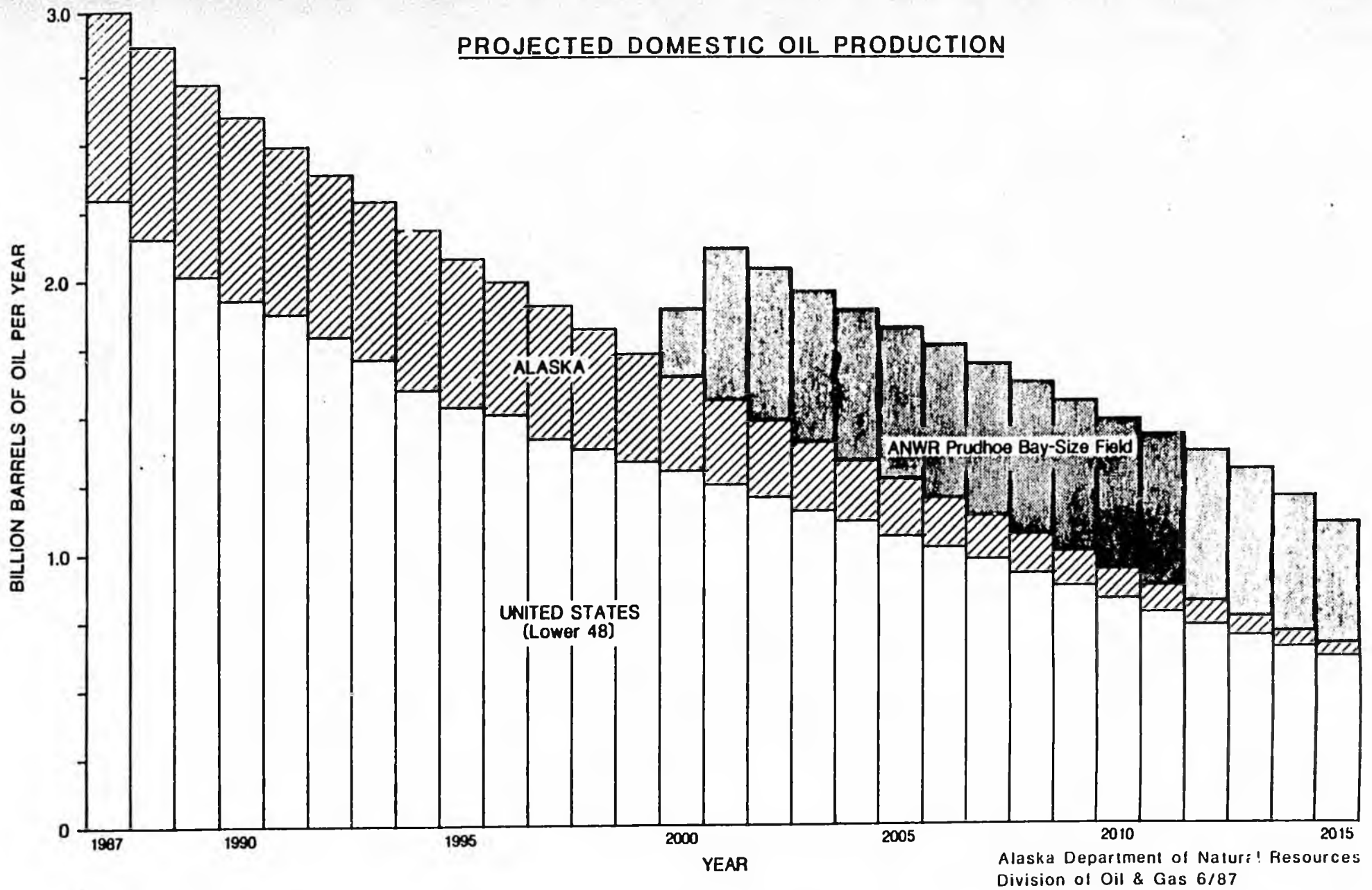


Figure 3. Projected Domestic Oil Production.

Alaska Department of Natural Resources
Division of Oil & Gas 6/87

PROJECTED U.S. IMPORTED OIL

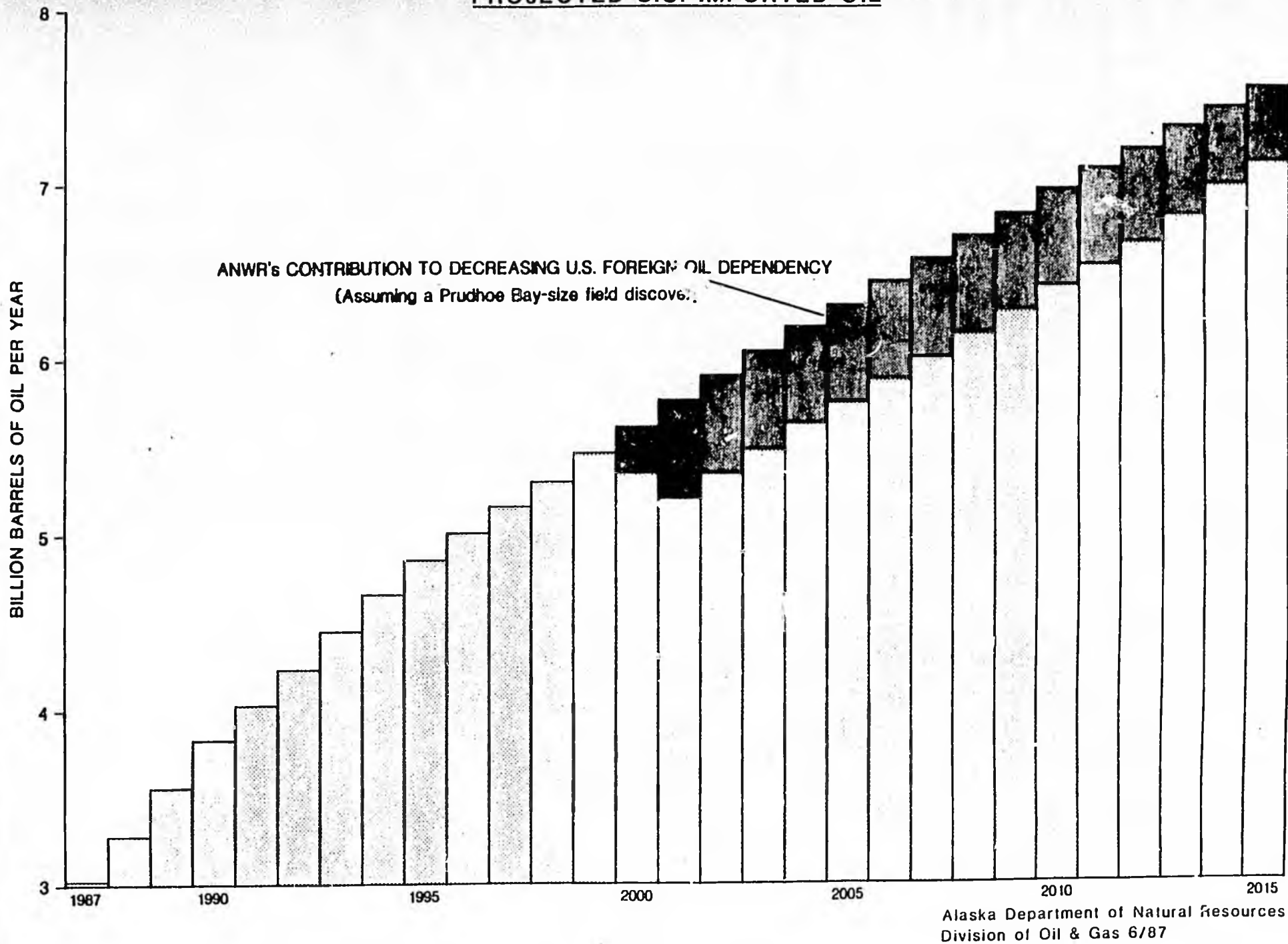


Figure 4. Projected U.S. Imported Oil.

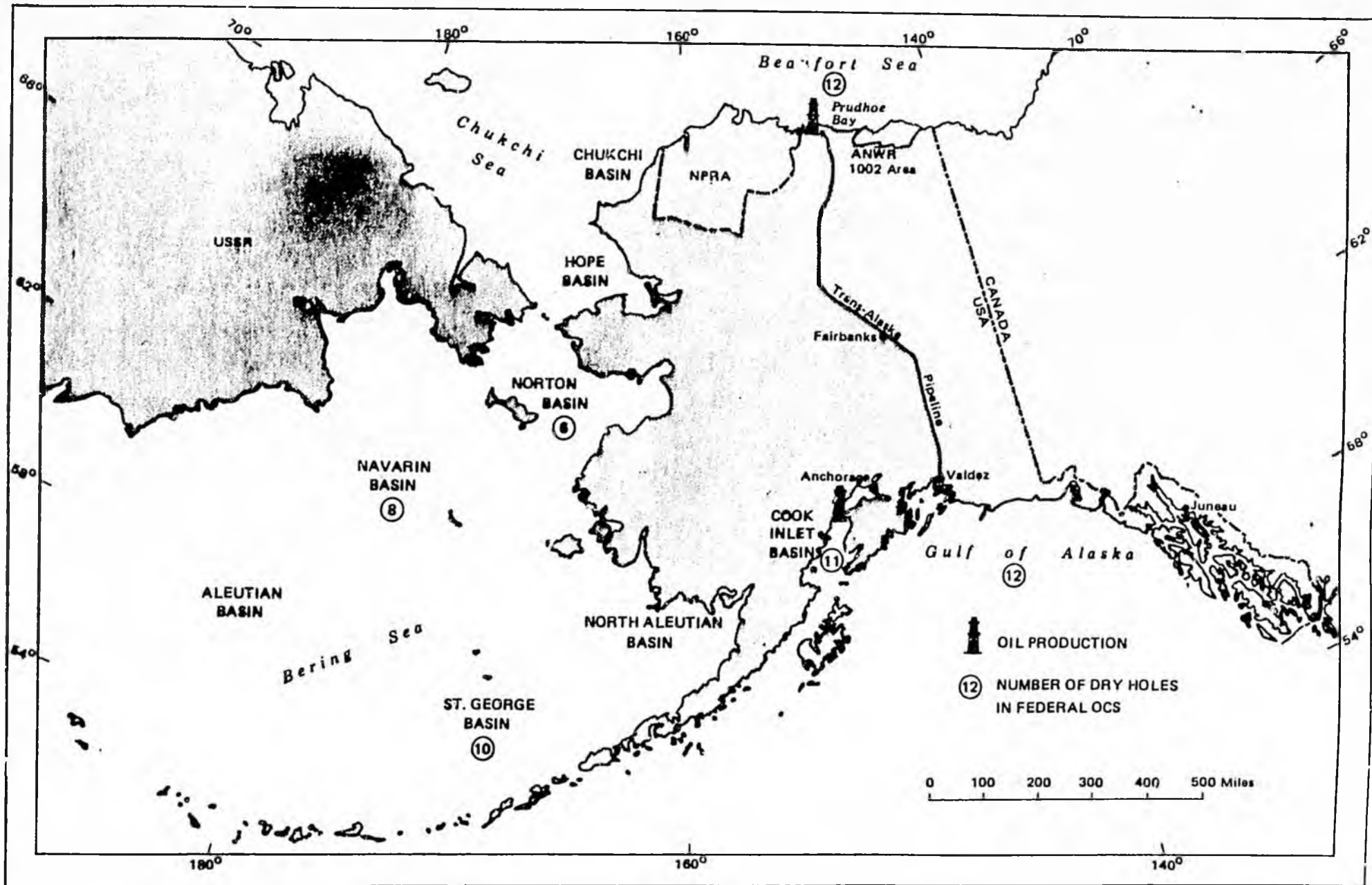


Figure 5. Number of exploratory dry holes in Federal OCS.

Alaska Department of Natural Resources,
Division of Oil & Gas 6/87

Cook Inlet/Gulf of Alaska Oil and Gas Fields

As of January 1, 1987

<u>Field Name</u>	<u>Discovery Date</u>	<u>Company</u>	<u>Estimated Original Recoverable Reserves</u>	<u>Production Start-up Date</u>	<u>Cumulative Production</u>	<u>Remaining Reserves</u>
Swanson River	7/57	Richfield Oil Corp.	259 BCF 217 MMBO	7/60	Gas rejected 205 MMBO	259 BCF 12 MMBO
N. Cook Inlet	9/62	Pan American Petro.	1594 BCF	2/69	777 BCF	817 BCF
Granite Point	6/65	Mobil Oil	105 BCF 126 MMBO	2/67	90 BCF 104 MMBO	15 BCF 22 MMBO
Trading Bay	6/65	Union Oil	63+ BCF 90 MMBO	1/67	63 BCF 88 MMBO	** 2MMBO
McArthur River	10/65	Union Oil	965 BCF 574 MMBO	9/67	315 BCF 523 MMBO	650 BCF 51 MMBO
Middle Ground Shoal	6/62	Pan American Petro.	86 BCF 162 MMBO	12/65	78 BCF 150 MMBO	8 BCF 12 MMBO
Beluga River	12/62	Standard Oil of Cal.	1003 BCF	1/67	229 BCF	774 BCF
Cannery Loop	6/79	Union Oil	300 BCF	(11/87)	0	300 BCF
Falls Creek	6/61	Standard Oil of Cal.	54 BCF	Shut-in	0	54 BCF
Nicolai Creek	5/66	Texaco				
North Fork	12/65	Standard Oil of Cal.				
West Foreland	3/62	Pan American Petro.				
West Fork	9/60	Halbouty Alaska				
Sterling	8/61	Union Oil	25.1 BCF	1/66 Shut-in	2.1 BCF	23 BCF
Birch Hill	2/67	Standard Oil of Cal.	11 BCF	Shut-in	0	11 BCF
Beaver Creek	6/65	Marathon Oil	241.5 BCF 4 MMBO	10/82	47.5 BCF 3 MMBO	194 BCF 1 MMBO
Ivan River	10/66	Standard Oil of Cal.	504 BCF	Shut-in	4 BCF	500 BCF
Lewis River	9/75	Cities Service				
Moquawkie	11/65	Socony Mobil Oil				
Pretty Creek	2/79	Halbouty Alaska				
Stump Lake	5/78	Chevron USA				
Kenai	10/59	Union Oil	2496 BCF	8/61	1740 BCF	756 BCF
Totals			7606.6+ BCF 1173 MMBO		† 3345.6 BCF 1073 MMBO	4361 BCF 100 MMBO
Gulf of Alaska						
Katalla	1902	Alaska Development Co.	?	1912 Shut-in 1933	154,000 BO	?
* BCF - Billion Cubic Feet of Gas MMBO - Million Barrels of Oil				** Included in McArthur River Remaining Reserves † Does not include rejected gas		

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Figure 6. Cook Inlet/Gulf of Alaska Oil and Gas Fields.

North Slope Oil and Gas Fields

As of January 1, 1987

<u>Field Name</u>	<u>Discovery Date</u>	<u>Company</u>	<u>Estimated Original Recoverable Reserves</u>	<u>Production Start-up Date</u>	<u>Cumulative Production</u>	<u>Remaining Reserves</u>
Prudhoe Bay	12/67	Richfield Oil Corp.	28,500 BCF 9590 MMBO	10/69 (Tests) 7/77(Pipeline)	6423 BCF ** 4918 MMBO	25,816 BCF 4672 MMBO
Kuparuk River	4/69	Richfield Oil Corp.	640 BCF 1600 MMBO	12/81	345 BCF ** 292 MMBO	566 BCF 1308 MMBO
Prudhoe Bay (Lisburne Pool)	12/67	Richfield Oil Corp.	≈ 635 BCF 400 MMBO	11/83 (Tests) 3/85	11.4 BCF ** 5.3 MMBO	624 BCF 395 MMBO
Milne Point	10/69	Socal	? ≈ 60 MMBO	5/85-1/87 Shut-in	1.9 BCF 5.4 MMBO	? 55 MMBO
Endicott	3/78	Sohio	731 BCF 375 MMBO	(Late 87-Early 88)	0	731 BCF 375 MMBO
S. Barrow	4/49	U.S. Navy	25.2 BCF	8/49	17.2 BCF	8 BCF
E. Barrow	5/74	U.S. Navy	12.4 BCF	12/83	3.4 BCF	9 BCF
Totals			35,543.6 BCF 12,375 MMBO		6801.9 BCF ** 5220.7 MMBO	32,754 BCF 7155 MMBO
* BCF - Billion Cubic Feet of Gas MMBO - Million Barrels of Oil					** Portions of Gas Rejected	

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Figure 7. North Slope Oil and Gas Fields.

Undeveloped North Slope Oil and Gas Discoveries

As of June 16, 1987

<u>Name</u>	<u>Discovery Date</u>	<u>Company</u>	<u>Estimated Recoverable Reserves</u>
Umiat	12/46	U.S. Navy	50 MMBO
Gubik	8/51	U.S. Navy	600 BCF
E. Umiat	3/63	McCulloch Oil	?
West Sak	4/69	Richfield Oil Corp.	?
Kavik	11/69	Richfield Oil Corp.	?
Kemik	6/72	Forest Oil	?
Flaxman Island	9/75	Exxon USA	?
Pt. Thomson	10/77	Exxon USA	5000 BCF 350 MMBO
Mikkelson	1978	ARCO Alaska	?
Gwydyr Bay	1981	Conoco	< 50 MMBO
Tern Island	5/83	Shell Oil	?
Seal Island	1/84	Shell Oil	300 MMBO
Colville Delta	1985	Texaco USA	?
Hammerhead	2/86	Unocal	?
Sandpiper Island	1986	Shell Oil	?
* BCF - Billion Cubic Feet of Gas MMBO - Million Barrels of Oil			

Alaska Department of Natural Resources
Division of Oil and Gas 6/87

Figure 8. Undeveloped North Slope Oil and Gas Discoveries.



FIVE-YEAR OIL & GAS LEASING PROGRAM

ALASKA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS

Proposed Area & Date	1986			1987			1988			1989			1990			1991				
	J	F	A	J	F	A	J	F	A	J	F	A	J	F	A	J	F	A		
51 Prudhoe Bay Upl. 1-87	P	R	F	S																
50 Camden Bay 6-87	R	P		MF	S															
54 Kuperuk Upl. 1-88 A	R						P	MF	S											
55 Demarcation Pt. 6-88	R		A							P	MF	S								
52 Beaufort Sea 1-89	R				L	A					P	MF	S							
56 Alaska Peninsula 6-89 C	R						L	A					P	MF	S					
59 Cook Inlet 1-90	R		D							L	A			P	MF	S				
57 N.S. Foothills 6-90	R		C								L	A			P	MF	S			
64 Kavik 1-91 N	R		D			C							L	A			P	MF	S	
65 Beaufort Sea 6-91 N	R		D						C					L	A			P	MF	S

N = Call for Nominations
 R = Request for Comments on Proposed New Sales & 5-Year Schedule Revisions
 D = Proposed Sale Area Included in 5-Yr Leasing Document
 C = Call for Public Comments

L = Preliminary Land Status Check
 A = Agency & Public Comments Requested for Socioeconomic/Environmental Analysis
 P = Preliminary Analysis/Preliminary Notice (AS 38.05.945(a)(3))

F = Final Decision/Final Notice of Sale and Terms (AS 38.05.945(a)(4)) Alaska Coastal Management Program Consistency Determination
 S = Sale



THE STANDARD OIL COMPANY

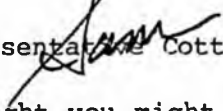
Standard Alaska
Production Company
900 East Benson Boulevard
P.O. Box 196612
Anchorage, Alaska 99519 6612
(907) 561-5111

Sam → N

STANDARD
ALASKA PRODUCTION


September 1, 1987

Representative Sam Cotten
11940 Business Boulevard
Eagle River, AK 99577

Dear Representative  Cotten:

I thought you might be interested in seeing the enclosed white paper which was prepared by Standard Alaska's Environment Department to address 19 environmental contentions which were raised during recent congressional testimony on the opening of ANWR to oil and gas leasing. The paper documents considerable use of oilfield areas by birds, caribou and other wildlife and contains scientific information supporting industry's performance on the North Slope over the last ten years.

I hope this consolidation of data will be a helpful resource to add to your collection of reading material on the ANWR issue. We have additional copies available should you require extras.



J. A. Palmer
Manager, Government Affairs

JAP:ceb
4803s/1796L

Enclosure

OIL AND GAS DEVELOPMENT IN THE
ARCTIC NATIONAL WILDLIFE REFUGE 1002 AREA

ISSUES RAISED BY ENVIRONMENTAL GROUPS
DURING TESTIMONY BEFORE CONGRESS

August 1987

A White Paper Prepared By
THE STANDARD OIL COMPANY

7760U

INTRODUCTION

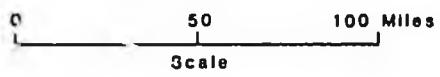
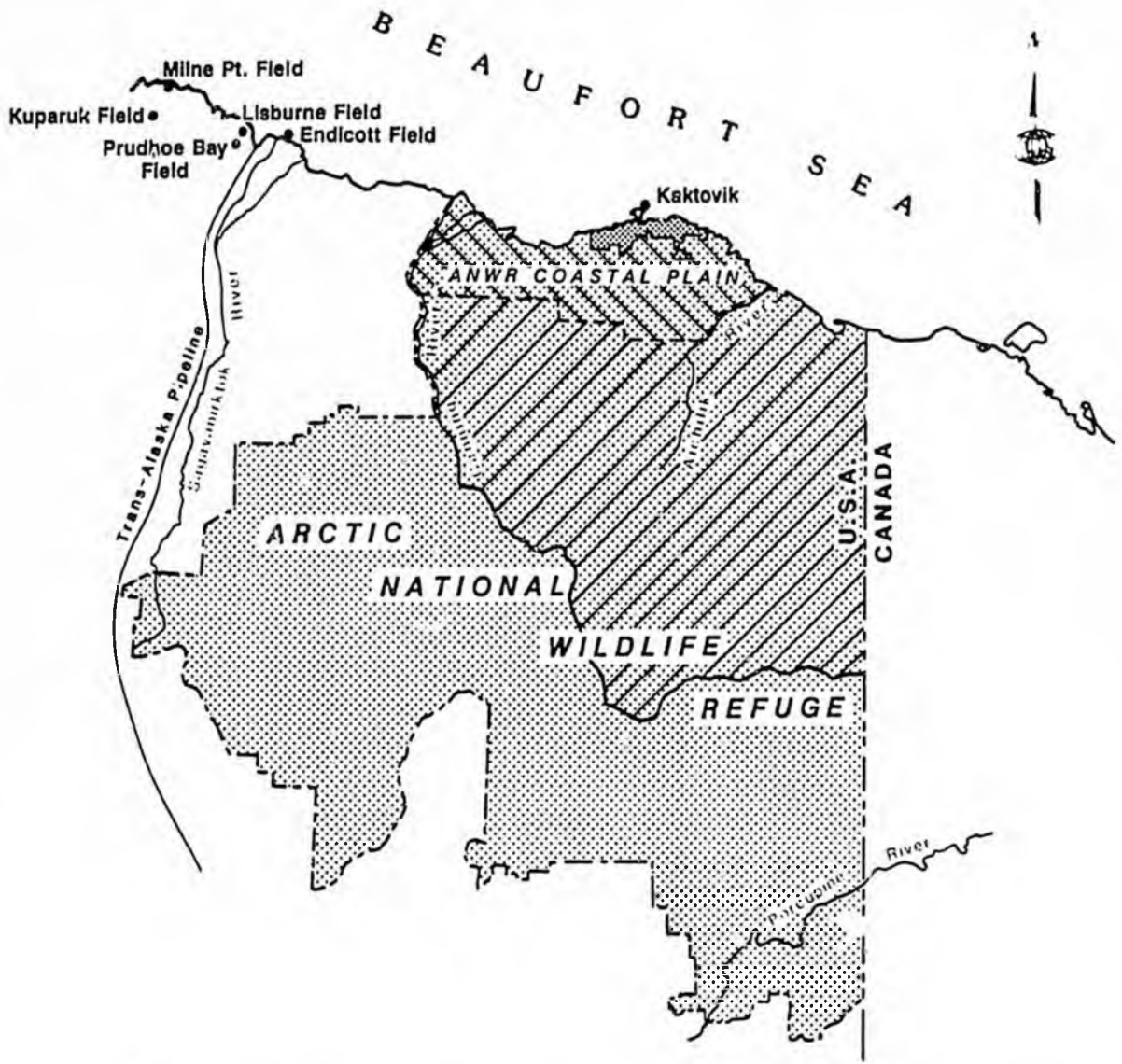
This paper briefly examines 19 issues raised in testimony before Congress by environmental groups opposing petroleum leasing in the "1002 area" of the Arctic National Wildlife Refuge (ANWR) coastal plain. (See Figure 1.) The issues are:





- o Destruction of last arctic coastal wilderness;
- o Loss of shorebird nesting habitats;
- o Displacement of calving caribou;
- o Predicted decline in polar bear population;
- o Adverse effects of gravel causeways on Beaufort Sea fish populations;
- o Environmental contamination from reserve pits;
- o Pollution risk from underground injection of liquid wastes;
- o Lack of adequate land reclamation technology;
- o Existence of potential Superfund sites at Prudhoe Bay;
- o Lack of accountability of oilfield service contractors;
- o Oil and chemical spills causing severe adverse effects on tundra;
- o Biological destruction from Storkerson Point oil spill;
- o Increasing air pollution and adverse effects on tundra vegetation;
- o Potential impacts of air pollution on lichen communities;
- o Black smoke emissions contributing to air pollution;
- o Inadequate regulatory control of oil industry operations;
- o Lack of gravel availability in ANWR;
- o Lack of water availability in ANWR;
- o Cumulative biological effects not adequately addressed;

The claims implied by these issues are easy to make. However, oilfield development and operations on the North Slope do not occur in a regulatory vacuum. Every aspect of industry performance is strictly regulated and closely monitored by federal, state, and borough agencies in a complex structure of permits, stipulations, and performance criteria. Moreover, industry has sponsored many years of field research in the Arctic with agency participation and review at every stage. The results of these studies are documented in an extensive literature which is available to the public. If the catastrophes described by environmental groups were actually occurring on the North Slope, they would have been reported in that literature and acted upon by government agencies with regulatory responsibility for North Slope oilfield activities.

The most compelling rebuttal to the environmental community, however, comes from the fish and wildlife populations that continue to feed, reproduce, and rear their young throughout developed portions of the North Slope just as they do in the larger, undeveloped areas. Research has provided no evidence that oilfield activities have produced any measurable change in the populations of any fish or wildlife species using the North Slope at any time of the year. Nor is there evidence that the ability of habitat to support fish and wildlife populations in the future has been reduced by the very small area of tundra occupied by all North Slope

oilfield facilities (8,160 acres out of a total surface area of North Slope oil fields of approximately 600,000 acres; Heiken 1987). If the claims of the environmental community were accurate, Prudhoe Bay, Kuparuk, and other North Slope oilfields would be biological wastelands. This clearly is not the case.



-  ARCTIC NATIONAL WILDLIFE REFUGE (ANWR) - 19 Million Acres
-  ANWR COASTAL PLAIN Section 1002 Study Area - 1.5 Million Acres
-  ANWR WILDERNESS AREA 7.3 Million Acres
-  KAKTOVIK INUPIAT CORPORATION ARCTIC SLOPE REGIONAL CORPORATION LANDS



Modified from: ASRC 1986

FIGURE 1 ARCTIC NATIONAL WILDLIFE REFUGE

DESTRUCTION OF LAST ARCTIC COASTAL WILDERNESS

Environmental Community Position:

Petroleum development will destroy the last undisturbed wilderness on the United States' Arctic Ocean coastline, which is also the world's greatest arctic wilderness ecosystem.

Scientific Response:

There is a common misconception that oil and gas leasing of the 1002 area would lead to development of the entire ANWR coastal plain and loss of its wilderness quality. The area singled out by Section 1002 of the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) because of its oil and gas potential does not include all of the ANWR coastal plain. ANILCA incorporated about 45 percent of ANWR's 19 million acres into the National Wilderness System. This included a significant portion of the coastal plain totaling about 450,000 acres along a 30-plus mile stretch of coastline, extending east of the 1002 area to the U.S.-Canada border. This frequently overlooked portion of the ANWR coastal plain is part of the refuge's 8 million acres legally protected as designated wilderness. It adjoins Canada's 3 million acre Northern Yukon National Park, also protected from development. Together these protected areas provide a major continuum of coastal plain wilderness that would be untouched by oil and gas development in the 1002 area.

Concerns that the 1002 portion of the ANWR coastal plain would lose all of its wilderness qualities if petroleum development occurred are unrealistic. The majority of the leased areas would remain untouched either because no oil was discovered or because reserves were not found in economic quantities. Records show that many leases elsewhere on the North Slope have already been relinquished. Even under a full leasing scenario and assuming development of three major prospects in the 1002 area, most of the ANWR coastal plain would remain wilderness. Less than 1 percent of the 1002 area's land surface would be affected; with full development, 99 percent of the area would remain untouched. (See Figure 2.) The area's habitats would not be altered sufficiently to affect the size, growth rate, or regional distribution of fish and wildlife populations. The only significant change would be aesthetic: over a period of decades, widely spaced roads, pipelines, drilling structures, and support facilities would be built on the open coastal plain. Structures would be removed and disturbed areas reclaimed when production ceased.

The 1002 area is not unique in relation to other parts of the Arctic coastal plain with respect to landforms and biological resources. ANWR wilderness lands to the east and south of the 1002 area include abundant examples of all geologic, terrain, habitat, and wildlife features found in the 1002 area.

Although ANWR's 1002 area is referred to as "wilderness," it should not be assumed that the area has never received human use and impact. There have been three Defense Early Warning (DEW line) stations in the area, one of

which is still active. Also, the village of Kaktovik has been relocated three times in recent history. The ANWR coastal plain has a history of reindeer herding dating back to the introduction of reindeer to Alaska in the late 19th Century. Human presence in ANWR has been light, but it has been there historically and continues today.

ANWR LAND USE

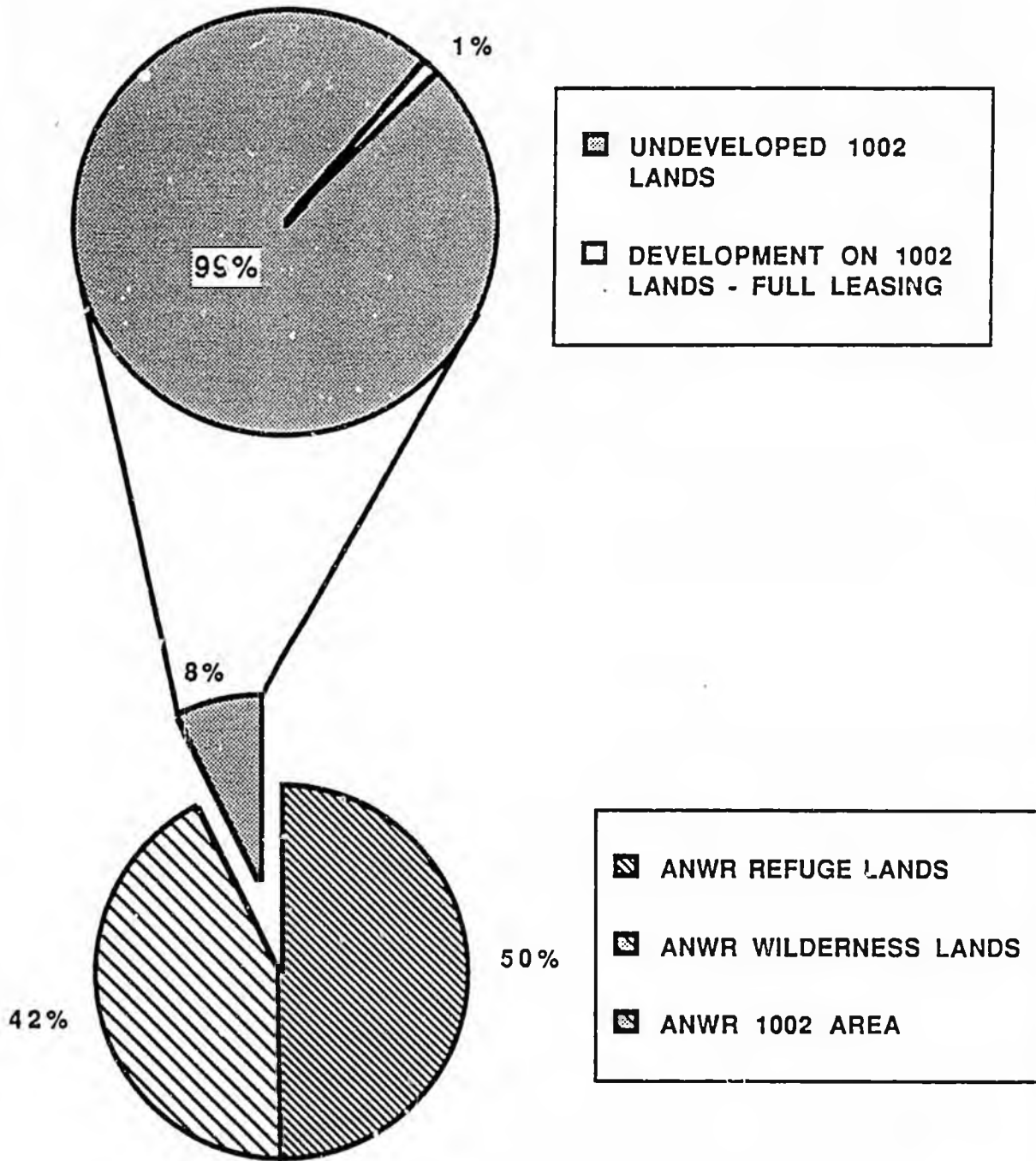


FIGURE 2

LOSS OF SHOREBIRD NESTING HABITATS

Environmental Community Position:

There has been a significant direct loss of habitat at Prudhoe Bay involving 5,500 acres of gravel pads, 720 acres of gravel mines and another 3,400 acres due to flooding by impoundments. This has resulted in a reduction averaging 16 percent in shorebird abundance in developed areas compared with undeveloped control areas. This lost or altered habitat would have supported 18,000 birds for the species studied.

Scientific Resnorse:

There has not been a significant direct loss of habitat at Prudhoe Bay. The surface area covered by gravel facilities amounts to less than 2 percent of the available surface area within the oilfield boundaries and a less than detectable percentage regarding available Arctic Coastal Plain habitat. Furthermore, the calculations concluding an 18 percent reduction in shorebirds within the oilfield (Meehan 1986) are based on an invalid comparison and combines results for several species.

Most of the hypothesized 18 percent reduction is based on a comparison of bird densities within the oilfield to a control area outside the oilfield. However, the "control" area was for a different factor, annual variability in bird densities, and not for direct comparisons of bird use within the oilfield. Therefore, the comparison used to derive the 18 percent figure is not technically valid.

An additional consideration is that the final number represents a summary of information for six species. In actuality, only three species exhibited reduced densities in the oilfield, one species remained the same, and two species actually showed increased densities in the oilfield (Meehan 1986). The primary species contributing to the overall reduction was Dunlin, a species that is not prevalent in ANWR since the Canning River is the eastern limit of its range.

The information gathered in the Meehan study could perhaps be useful in consideration of various project alternatives. It could allow a consistent analysis among alternatives and enhance the objectivity of a relative comparison. However, the absolute values are not necessarily accurate, and users of the information should be cautioned in this regard. The study's real value is in allowing relative comparisons for decision-making by land managers, not in providing numerically precise impact predictions.

A different study was conducted in Prudhoe Bay in 1986 to document bird use of the developed oilfield (Troy 1987). Using the data gathered in that study, and the same comparison used in the Meehan study described

above (using the same six species), it is found that the area inside the oilfield supported about 70 percent more shorebirds than an undeveloped but otherwise similar control area outside the oilfield.

The important point about this information is it documents considerable use of oilfield areas by birds, including nesting. This is a direct contradiction to the impression given by environmentalists that wildlife, particularly birds, avoid developed parts of the North Slope.

DISPLACEMENT OF CALVING CARIBOU

Environmental Community Position:

Displacement of the Central Arctic Herd from its historic calving grounds in Prudhoe Bay has been documented. Maternal groups of caribou, which show long term sensitivity to development, have avoided the Trans-Alaska Pipeline System in all seasons and the Prudhoe Bay area during calving.

Scientific Response:

Caribou continue to calve in the North Slope oilfields including Prudhoe Bay (Fig. 3). There is, however, a lower frequency of major calving activity in the Prudhoe Bay oilfield itself compared to the Kuparuk and Milne Point areas. The Prudhoe Bay oilfield is a rather wet, marshy area that appears to be less well-suited for calving than the drier and better-drained areas to the east and west. Nor is there any evidence that the specific area now included in the Prudhoe Bay oilfield development was ever an important caribou calving area. Child (1973) observed that the Prudhoe Bay area was used "... as a calving ground for a small segment..." of the Central Arctic Herd, which he estimated to have totaled about 3,000 animals in the early 1970s. Thus, the Prudhoe Bay oilfield area does not appear to have ever been used by a large number of calving caribou.

Dau and Cameron (1986) have made the most thorough study of the response of calving caribou to oilfield development. They found displacement of some calving cows within 2 km (1.2 mi., not 2 mi.) of an oilfield road, no difference in use of the area within 3-5 km (1.2-3 mi.), and greater use of the area within 5-6 km (3-3.6 mi.). During the eight-year study, the number of caribou calving in the Milne Point study area approximately doubled. The Central Arctic Herd increased in size from about 3,000 in 1972 (Child 1973), when development was just getting underway, to over 15,000 in 1986 (Sopuck and Jakimchuk 1986), after development of the Prudhoe Bay, Kuparuk, Milne Point, Lisburne, and Endicott oilfields (Fig. 4).

Thus, what has been documented is 1) partial and local displacement of calving caribou within 2 km (1.2 mi.) of an oilfield road, 2) continued use of historical calving grounds within an oilfield, and 3) continued growth of the Central Arctic Herd.

Avoidance of the Trans-Alaska Pipeline corridor, which on the North Slope follows the Sagavanirktok River valley, has been reported by Cameron and Whitten (1980). However, there are other explanations, such as a general tendency of cow and calf caribou to avoid river valleys. Predators are known to forage and travel in river valleys, and the more vulnerable cows and calves may tend to avoid such areas.

Jakimchuk et al. (1987) studied the distribution of caribou bulls and cow/calf groups both in relation to the Trans-Alaska Pipeline System and to river valleys remote from development. They found that bulls and cow/calf groups

tended to occupy different habitats throughout much of the year, whether near the pipeline or in the remote locations. Thus, the presence of relatively fewer cows and calves observed by Cameron and Whitten (1980) along the pipeline corridor may have been unrelated to the pipeline.

CENTRAL ARCTIC HERD CALVING AREAS MAJOR ACTIVITY AREAS 1981-1986

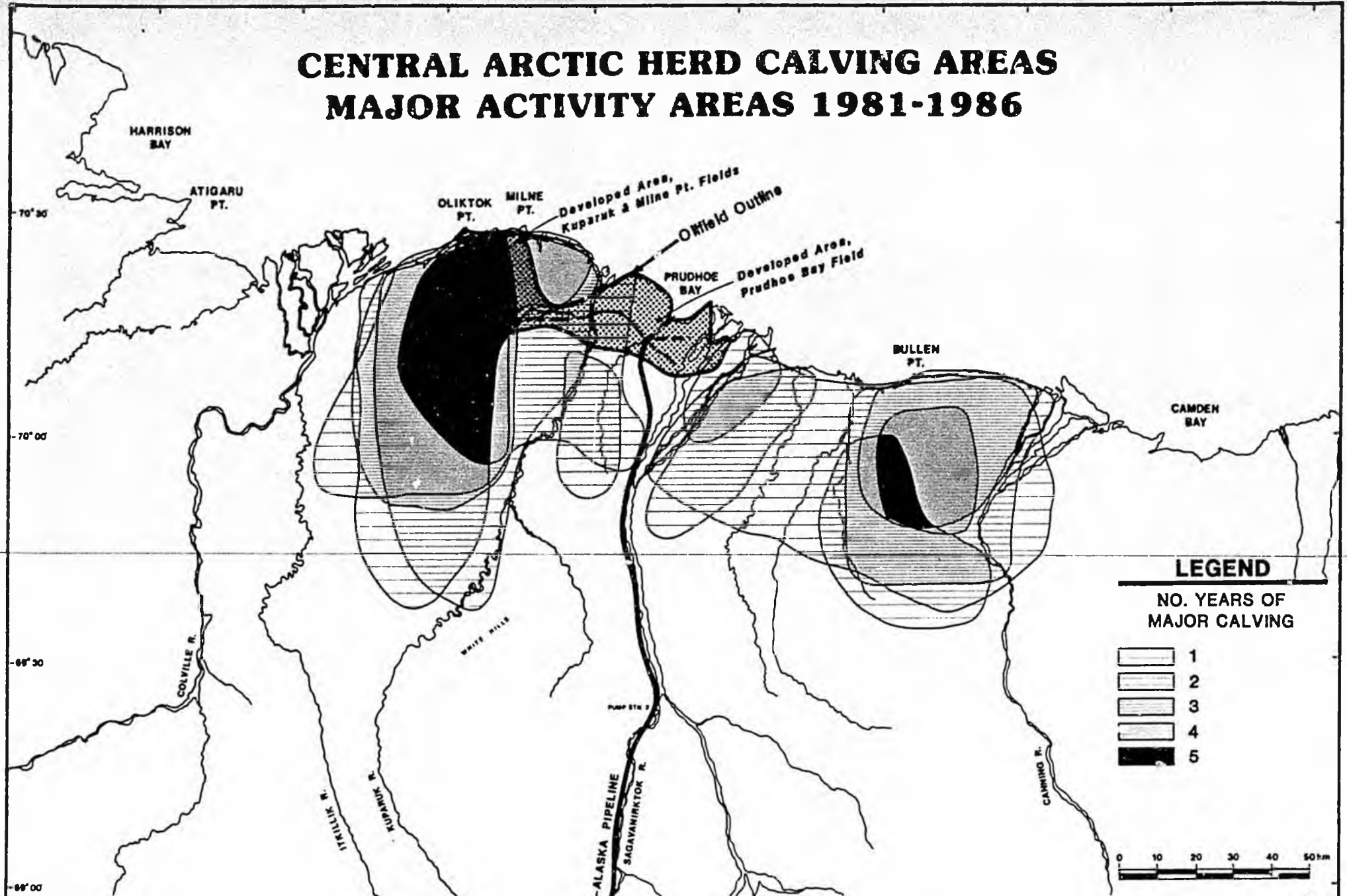


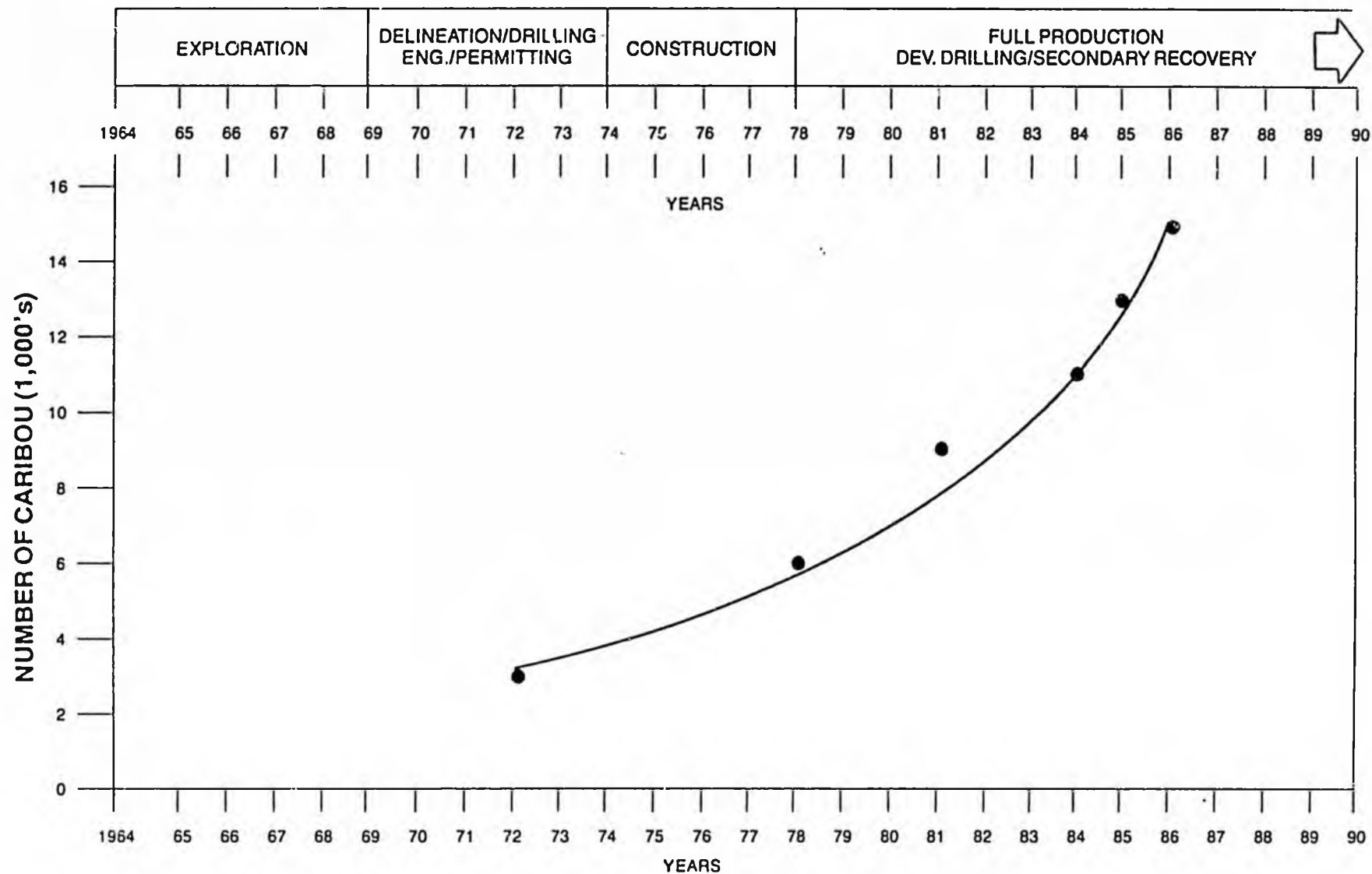
Figure 3. Locations of areas of major calving activity of the Central Arctic Herd, 1981-1986. Note the presence of calving caribou within the general area of the Prudhoe Bay, Kuparuk, and Milne Point oilfields. The Prudhoe Bay Oilfield has never been known to be used often by calving caribou, even prior to development. [Based on data provided by RRCS (1985) and Jakimchuk 1986, pers. comm.].

PRUDHOE BAY FIELD DEVELOPMENT TIMELINE AND POPULATION INCREASE OF CENTRAL ARCTIC HERD

PRUDHOE BAY EXPLORATION / DEVELOPMENT TIMELINE

★ March '68
DISCOVERY

★ June '77
PRODUCTION START-UP



CENTRAL ARCTIC CARIBOU POPULATION GROWTH

PREDICTED DECLINE IN POLAR BEAR POPULATION

Environmental Community Position:

Polar bear populations are in decline world-wide and development in ANWR, which would create a loss of two of the three concentrated denning areas, would exacerbate this problem. Further, the cumulative effects of current and future oil development would virtually eliminate the polar bear in the United States.

Scientific Response:

The potential for contact between oil and gas development operations in ANWR and polar bears is quite limited. Except for pregnant females, some of which come onshore to den and give birth to cubs, polar bears spend their entire lives at sea, mainly on the sea ice. Pregnant polar bears usually enter their dens in October or November. One or two cubs are born in December or January and emerge from the den in March or April.

Until the last few years, biologists believed that polar bears generally denned on land and only occasionally denned on the sea ice. From 1981-82 to 1986-87 biologists followed 71 pregnant females into their dens. Of these, 58 (82 percent) denned on the sea ice, while only 13 (18 percent) denned on land (S. Amstrup 1987, U.S. Fish and Wildlife Service, pers. comm.).

Potential contact with petroleum operations in ANWR would occur only in winter (November - April), when some pregnant females are onshore. As stated in the Final 1002 Report, potential adverse effects can be minimized by avoiding suitable denning areas during the denning period (DOI 1987).

There was concern in the 1960s that largely unregulated hunting threatened the well-being of polar bears world-wide. Since that time, hunting restrictions have reversed the situation. The kill of polar bears in northern Eurasia has been greatly reduced and is strictly controlled in Canada and Greenland. Although the hunting of polar bears in Alaska is restricted to Natives, the Marine Mammal Protection Act does not provide for the imposition of hunting regulations, and as a consequence there has been concern about over-harvest. Recently, however, the Native community has been working to implement voluntary rules that would conserve the polar bear population.

The world population of polar bears may be as large as 40,000, with 3,000 to 5,000 offshore of Alaska in the Beaufort and Chuckchi seas. Amstrup et al. (1986) estimated that approximately 1,800 polar bears occurred in the Beaufort Sea (both Alaskan and Canadian). Amstrup (1986) states that "there appear to be about as many Alaskan polar bears today as there were 25 years ago, and numbers appear stable."

ADVERSE EFFECTS OF GRAVEL CAUSEWAYS ON BEAUFORT SEA FISH POPULATIONS

Environmental Community Position:

The 1002 report fails to address the cumulative impacts of port and causeway development and their effects on water quality and fish migration. The minor to moderate effects on aquatic resources from causeways predicted in the 1002 report underestimate the impacts since evidence from the West Dock and Endicott causeways already indicates adverse effects.

Scientific Response:

Many studies have shown that effects on fish movements by existing causeways in the nearshore area of the Beaufort Sea are local and transitory. There does not appear to be a blockage effect from the physical presence of the causeways. This is not surprising, because there are similar natural features along the Beaufort Sea coast that fish successfully negotiate. At West Dock intrusions of offshore marine water at certain times of the year may temporarily delay fish movement by affecting water characteristics such as temperature and salinity; however, changing wind conditions over periods of often less than several hours can result in rapid changes in water quality conditions and subsequent removal of any "barrier" to free passage by fish. Under certain wind conditions, these marine intrusions are enhanced by the causeways; however, the extent of such intrusions under pre-causeway conditions is not known. Comprehensive monitoring studies conducted since 1981 have not identified any adverse population-level impacts to anadromous fish using the nearshore areas in the vicinity of Prudhoe Bay

Intensive studies during 1985 and 1986 and continuing in 1987 have found no convincing evidence that fish passage through nearshore waters has been inhibited by the Endicott causeway. The species of concern, arctic cisco, has been able to pass around and through the Endicott causeway with no readily apparent delay. Young arctic cisco are carried by the currents and transported around the causeways in moving water. Older, larger cisco use the causeway breaches or go around the causeway, depending on current characteristics and water quality characteristics at a given time.

There has been no indication of any decrease in habitat quantity or quality due to the presence of the Endicott causeway. At any point in time, observed changes in water quality are temporary and well within the naturally occurring variability of the estuary. Two separate overwintering studies conducted during winter 1985-86 were not able to identify any deleterious effects on fish overwintering within the Sagavanirktok River or delta that could have resulted from the Endicott causeway.

Beginning in 1981 and continuing to the present, the petroleum industry has funded over 20 million dollars in contracted fishery and oceanographic studies related to Beaufort Sea causeways. This is probably the most intensively studied geographic area in North America. Yet no biologically significant impacts have been determined.

ENVIRONMENTAL CONTAMINATION FROM RESERVE PITS

Environmental Community Position:

Drilling muds and cuttings, disposed of in reserve pits, contain heavy metal components that are toxic to aquatic life. Those wastes regularly escape to the tundra and surface waters. This occurs through leaking or breaching of reserve pit walls, through pumping of reserve pit fluids directly on to the tundra, and through watering of gravel roads for dust suppression. Effluent limits established by the State of Alaska are regularly exceeded. Evidence from recent studies of tundra ponds indicates elevated levels of heavy metals and hydrocarbons comparable to areas subject to heavy industrial pollution.

Scientific Response:

Reserve pits are built into gravel drill pads to contain used drilling muds (lubricants made from natural minerals, along with small concentrations of additives) and cuttings (rock fragments removed by the drill bit). After one freeze-thaw cycle, the salts and solids settle out and the water quality of the reserve pit fluids significantly increases. Annual snowmelt contributes additional fresh water which further dilutes the reserve pit fluids. Recent tests confirm that reserve pit water does not exhibit any characteristics used by EPA to identify hazardous wastes.

The issue regarding reserve pits is to manage fluid levels to prevent overtopping/breaching of the pit wall as well as to prevent seepage through the pit wall. With fluid management techniques such as snow removal from pits during the winter, annular injection, dedicated wastewater injection wells, and--for water that meets State of Alaska Water Quality Standards--permitted discharge to the tundra or use for road watering, water volumes in reserve pits are reduced and the potential for pit overtopping, breaching, or seepage minimized. Construction techniques have a to been greatly improved in recent years minimizing the potential for operational problems with reserve pits.

Drilling muds and cuttings are solid wastes regulated by the Alaska Department of Environmental Conservation (ADEC). Recent solid waste permits for reserve pits in the Prudhoe Bay oilfield have required detailed design specifications and a detailed operations plan including fluid management procedures, inclusion of a leak detection system, and a pit closure plan. ADEC has recently revised the solid waste disposal regulations to impose additional requirements on design and operation of reserve pits, incorporating provisions for environmental monitoring and specific closure procedures. The new regulations are effective as of August 1987.

Numerous references have been made by critics of the oil industry to a series of research projects conducted at Prudhoe Bay by the U.S. Fish and Wildlife Service (FWS) (West et al., 1986; Woodward et al., 1986; and Snyder- Conn). The results are being presented as confirming severe water

quality problems in tundra ponds near reserve pits. However, there are serious technical flaws in the study design and methods, and the results should be interpreted with caution. It should also be noted that FWS has not yet released copies of the report for public review, largely because of the many adverse comments received on informal drafts. For example, water nutrient levels were not determined in the study, making it impossible to ascertain the cause for apparent differences in invertebrate populations noted by the authors.

One of these FWS studies (Woodward et al., 1986) indicated no toxic effects on fish or invertebrates in a bioassay experiment using undiluted reserve pit fluids. In this study it is concluded that "No acute toxicity was observed with fluids from reserve pits at sites 4, 5, 6, 7, and 8 when tested at 100% strength against arctic grayling and *Daphnia magna*" (emphasis added). Note that Sites 4, 5, 6, 7 and 8 referenced represent ALL THE RESERVE PITS INVOLVED IN THE STUDY. The only effect observed was regarding fecundity and growth (not survival). Daphnia showed reduced fecundity and growth after 42 days at 2.5% and 25% dilutions from one reserve pit, and 25% dilution from another reserve pit. "Other test dilutions...either did not show any significant differences from the controls or showed significant increases in reproduction and growth" (emphasis added).

Additionally, it is inappropriate to attempt to link aquatic toxicity to reserve pit fluids as reserve pits are containment structures for drilling fluids, they are not tundra ponds. Therefore, comparisons which emphasize the differences in water quality between pits and tundra ponds is inappropriate.

Concerns about reserve pit contaminants entering the food chain and potentially resulting in population-level effects on wildlife are unwarranted speculation. While reserve pit contents should be and are managed with care, there is no justification -- and no evidence -- for assuming that these generally innocuous fluids are producing an environmental hazard.

POLLUTION RISK FROM UNDERGROUND INJECTION OF LIQUID WASTES

Environmental Community Position:

Underground injection of wastes, including drilling muds, has not been studied and poses long-term pollution risks.

Scientific Response:

Underground injection of liquid wastes, including drilling muds, is an environmentally sound method of disposal on the North Slope. The North Slope geophysical makeup is ideally suited for deep well injection. Fluids are injected below a zone of continuously frozen ground, called permafrost. This region extends up to 2,000 feet below the surface. Above this zone only 18 to 36 inches of soil thaw in the short summer period. Fluid migration through the permafrost zone would not occur and water aquifers below this zone have been exempted as drinking water sources by EPA due to their high saline nature and the high cost to recover these fluids. Additionally, all wells must be permitted under the Alaska Oil and Gas Conservation Commission and EPA, who require a complete review of well construction and geophysical makeup before the well is permitted for injection of fluids. New wells are required to have fully cemented production casings to prevent back migration through the well and the casings must pass strict mechanical integrity tests. All wells are required to have automatic shut-in devices and must operate at specified injection pressures authorized by the reviewing Agencies. EPA is proposing even stricter construction standards for Class I wells, for injection of hazardous wastes, that will require continuous well monitoring to detect fluid pressure changes in the receiving and confining zones so that any fluid migration can be detected. These regulations are scheduled to be finalized by August of 1988.

The types of fluids injected on the North Slope represent a class of liquids with a low hazard rating. Recent tests on drilling fluids taken from Prudhoe Bay reserve pits in 1986 confirm that these fluids do not exhibit any characteristics used by EPA to identify hazardous wastes. Associated waste fluids injected that consist of waste lube oils and processing fluids will sometimes fail the EPA test for ignitability or contain low levels of lead from vehicle maintenance operations. Liquid wastes generated on the North Slope are not acutely hazardous nor highly corrosive and can be safely handled through deep well injection.

On-site handling of waste liquids is a preferred handling option to off-site shipment of wastes due to the extreme cost of shipping large quantities of fluids from the North Slope. Prudhoe Bay is located over 700 air miles from Anchorage alone. Additionally, long distance transportation of chemicals always carries a risk associated with spills to the environment that on-site handling can avoid. Deep well injection of liquids on the North Slope should not be viewed as a long term environmental risk.

LACK OF ADEQUATE LAND RECLAMATION TECHNOLOGY

Environmental Community Position:

Regulatory requirements for arctic site restoration and rehabilitation have not been implemented by the oil industry, nor has the technology been achieved to restore developed areas in the Arctic. Also, the petroleum industry does not appear willing or able to fund reclamation.

Scientific Response:

Reclamation or rehabilitation of North Slope petroleum development sites (after the removal of facilities, buildings, etc.) can involve gravel pads and roads, reserve pits, and gravel mine sites.

Allegations that no rehabilitation or reclamation has been done at Prudhoe Bay are incorrect. Some reclamation has been done very successfully. However, because the oilfield has only just reached its mature phase of development after 10 years of production, for the most part there have not been any facilities abandoned to necessitate reclamation. Depending on economics and technology, the Prudhoe Bay field will have a life of 30 or more years, and other North Slope fields have only recently started production. Consequently, large-scale rehabilitation or reclamation is well into the future.

A wealth of environmental data on North Slope ecology, hydrology, vegetation, and soils has been gathered during the past 15 years that provides a firm basis for assessing and implementing rehabilitation. Arctic revegetation studies and rehabilitation programs have been conducted in connection with construction of the Trans-Alaska Pipeline System, NPR-A exploration sites, exploration sites on state leases in the Prudhoe Bay and Kuparuk areas, the Prudhoe Bay and Kuparuk oilfields, and the Endicott Project. For example, a series of long-term experiments on revegetation techniques is currently in progress at the Prudhoe Bay and Kuparuk oilfields (Joyce 1987). These involve upland material (gravel mine) sites, floodplain material sites, gravel drill pads, gravel access roads, reserve pits, and disturbed tundra sites. Included in these studies are investigations on natural plant reinvasion and succession, natural recovery of disturbed tundra, and revegetation through transplanting, seeding and fertilizing.

Federal and state permits require reclamation. Regulatory requirements for gravel mine reclamation in the Prudhoe Bay - Kuparuk areas, for example, are specified in material sales contracts with the State of Alaska and in permits issued by state regulatory agencies and the Corps of Engineers. These require rehabilitation plans that involve slope contouring, relocation and sequestering of overburden, revegetation, creation of water reservoirs, and contouring to promote aquatic vegetation.

Considerable research has been conducted on the North Slope and in arctic Canada on reserve pit design and reclamation. Soon to be promulgated State of Alaska solid waste regulations require a reserve pit closure plan involving a pit cap and monitoring program. Standard Alaska Production Company has

submitted for agency approval a test plan to rehabilitate reserve pits located at Prudhoe Bay's East Dock. The main features of this plan include placement of a gravel cap and overburden, revegetation, and a monitoring program to assess any effects on water quality.

Examples of reclamation projects on the North Slope have included:

- o National Petroleum Reserve-Alaska - 14 exploration sites
- o Alyeska Pipeline Project - right-of-way work pad revegetation, material sites, camp sites
- o Prudhoe Bay Sag Mine Site "C" - gravel mine converted to water reservoir with littoral zone recontouring
- o Prudhoe Bay Tract (Delineation) well sites
- o Sag 11 - close-out of exploration well reserve pit
- o Prudhoe Bay K Pad spur roads - revegetation
- o Prudhoe Bay Gathering Center #2 berm - restoration and revegetation
- o East Dock Reserve Pits - close-out and monitoring (planned)
- o Offshore Exploration Island Reclamation
 - Niakuk Shoal
 - Exxon BF 37
 - Mukluk (August/September 1987)

EXISTENCE OF POTENTIAL SUPERFUND SITES AT PRUDHOE BAY

Environmental Community Position:

Several dumpsites in the Prudhoe Bay area are thought to qualify as EPA Superfund sites "because it was suspected that hazardous substances were being released" at those sites. Superfund sites could be expected in ANWR if development were allowed to occur there.

Scientific Response:

The claim that potential Superfund sites exist and have been permitted to exist unchecked at Prudhoe Bay is based on two cases which in fact do not support the claim. The first case is the North Slope Salvage Inc. (NSSI) cleanup, which involved a third-party firm in Deadhorse that contracted to dispose of used drums from oilfield operators and oilfield service contractors. In 1983, the Alaska Department of Environmental Conservation (ADEC) reported discovering hydrocarbon-based chemicals seeping from the pad where NSSI had operated. ARCO Alaska, Inc. and Standard Alaska Production Company voluntarily assumed the lead responsibility for correcting this situation, and a thorough cleanup was accomplished at the site. Drums and spilled wastes were not left on the pad. It should be noted that the NSSI cleanup occurred on a State of Alaska lease tract not controlled by any major oil company. This is an important distinction, as ARCO and Standard had no legal jurisdiction over the area, but did respond to facilitate a timely cleanup of the pad.

The other case is a report prepared for EPA by Tetra Tech, Inc. in December, 1984 entitled, Preliminary Assessment of 45 Hazardous Waste Sites in the State of Alaska. This report was prepared solely as a part of the preliminary assessment process for the State of Alaska under the Superfund Program. This process requires a quick analysis of information available from interviews, as well as agency files of facilities operating in the State, including EPA generators and large businesses. A site investigation must then be conducted by EPA in order to evaluate the appropriateness of placing the sites listed on the preliminary assessment on the National Priorities List (NPL) for Superfund. No sites at Prudhoe Bay have ever been listed on the NPL. A 1985 RCRA inspection at Standard's Storage Yard Facility (referred to as Mukluk Freight Lines in the Tetra Tech Report) resulted in a letter recommendation from the branch chief of the waste management department at EPA, Region X, that the storage yard be removed from the preliminary assessment list. The Standard Storage Yard had been incorrectly included on the preliminary assessment list when chemical storage was reported at the site. Standard uses the site for storage of surplus materials including chemical stock that is sold or reissued to Standard operating facilities.

It is therefore not valid to state that there are potential Superfund sites at Prudhoe Bay, and there is no evidence to support such a conclusion. Furthermore, in the NSSI case where mishandling did occur, oilfield operators acted responsibly in assuming the lead role in a cleanup operation that was necessitated by the action of an independent third-party contractor. These facts do not support the assertion that Superfund sites could be expected in ANWR; rather, they support the opposite conclusion.

LACK OF ACCOUNTABILITY OF OILFIELD SERVICE CONTRACTORS

Environmental Community Position:

The misconduct of oilfield support industries in the Deadhorse area of Prudhoe Bay has created unchecked pollution and illustrates the agencies' inability to enforce environmental regulations in the Arctic. Additionally, proliferation of facilities in Deadhorse has resulted in a substantial loss of habitat. ANWR development will produce a polluted industrial city similar to Deadhorse.

Scientific Response:

Unchecked development of service areas, like the example in Deadhorse, will not be allowed in ANWR. Both the State of Alaska and the oil industry recognize that more control is required over service areas established in connection with oilfield development. The design of the Kuparuk Industrial Center is an example of how ancillary development can be more closely controlled. Because support service contractors for Kuparuk must lease space at the Center from the North Slope Borough, the recurrence of the situation at Deadhorse has been prevented at Kuparuk.

In ANWR, the oil industry recommends that service area leases be held by the operating interests, to allow the operators to assume oversight responsibility for service areas sub-leased to contractors. The operator's presence would allow strict enforcement of environmental programs. Additionally, operators could require posting of bonds that could be levied immediately to respond to cleanup costs. In contrast, State of Alaska lease bonds return to the General Treasury and are not readily accessible for cleanup purposes.

Industry operators at Prudhoe Bay are taking a responsible role in Deadhorse to aid service contractors in cleaning up their solid waste. Support firms desiring to contract with the oil industry are well aware of the importance of this issue.

OIL AND CHEMICAL SPILLS CAUSING SEVERE ADVERSE EFFECTS ON TUNDRA

Environmental Community Position:

The large number of oil spills associated with petroleum development on the North Slope has caused damage to tundra vegetation. If oil and gas development is allowed to proceed in the Arctic Refuge, oil spills are guaranteed to result in substantial environmental damage.

Scientific Response:

This misconception regarding impacts of North Slope oil spills results from a lack of understanding of the size and location of these spills, the measures that are taken in response to them, and the spill prevention and containment features that are engineered into facilities used for storing and transferring oil and chemicals. In addition, facilities handling oil and chemicals are subject to strict state and federal laws and regulations. All spills must be reported and appropriate actions taken to clean up and reclaim the disturbed area as well as dispose of the spilled material.

The vast majority of spills never contact tundra or surface water, because they occur on and are contained by the gravel pads upon which all North Slope facilities are constructed. Because the Prudhoe Bay area is essentially snow-covered and frozen for nearly three-quarters of the year, most of the spills that do occur off pads contact only snow and ice and are easily removed. In fact, snow is an excellent sorbent material for oil spills. Contaminated snow and ice are removed by front-end loaders or by laborers with shovels and transported to a collection area so that the oil can be removed for proper disposal.

Research funded by the oil industry (Pope et al., 1982) has demonstrated that with the use of proper oil recovery and cleanup techniques, followed by simple restoration procedures, vegetation in tundra areas that are affected by oil can quickly recover (as fast as one summer growing season). Standard Alaska Production Company has evaluated numerous restoration techniques and has found that tundra areas affected by oil spills (especially moist or wet tundra) can recover well if the area is cleared of dead vegetation and if fertilizer and seed are applied. Aerial photographs are used to monitor the recovery of spill-affected areas and the overall operations of the field.

The majority of spills are small in volume and are handled relatively easily. Standard reported 573 spills for the period from 1981 through 1986. (These statistics include spills of chemicals and drilling muds.) Most of the spills were less than 100 gallons, and only 64 spills actually left gravel pads. However, many of these were on frozen ground, and in most cases very small areas were affected, much less than an acre. Recently published statistics from the Alaska Department of Environmental Conservation (ADEC) support the Standard data. For the entire North Slope of Alaska which includes the city of Barrow, the Haul Road, and other

North Slope villages, ADEC reported a total of 953 spills for the 1985-86 period, with 93.1 percent (887 spills) less than 500 gallons. Of these 887 spills, 64.7 percent were less than 55 gallons.

Other factors minimizing spills and their effects include spill prevention design in facilities, emphasis on day-to-day good housekeeping practices, spill contingency planning and training, and restoration practices when spills do occur. All facilities used to store or transfer oil and chemicals are designed with spill prevention in mind. Fuel and oil storage tanks are placed in lined containment areas, and drip pans are used under connections that might be prone to leakage. In addition, all operators develop comprehensive spill contingency plans and stockpile spill response equipment either individually or through cooperative arrangements. Standard maintains a dedicated staff of spill response personnel supported by a large inventory of equipment owned by Standard or available to Standard through the cooperative organization Alaska Clean Seas. ACS alone has over 5 million dollars in spill response equipment stored at Prudhoe Bay.

In summary, Standard has been diligent in its efforts to report, respond, clean-up, and restore areas disturbed by oil spills. Restoration techniques are proven and are applied to the small percentage of spills that actually reach the tundra. The company has been able to accomplish the successful rehabilitation of vegetation at spill sites within 1 to 3 years.

BIOLOGICAL DESTRUCTION FROM STORKERSEN POINT OIL SPILL

Environmental Community Position:

A study of an oil spill at a tundra pond at Storkersen Point, Alaska, illustrates the severe environmental damage in North Slope tundra wetlands that can result from spills. That study documented the destruction of all invertebrate and plant life and predicted that long-term recovery of the pond is unlikely due to hydrocarbons in the pond's bottom sediments.

Scientific Response:

The reference to the oiled pond at Storkersen Point is taken from a 1977 Fish and Wildlife Service Report (Bergman et al. 1977) based on efforts during the early 1970s. The main focus of the FWS report is to describe waterfowl use of coastal wetlands. The oil spill information included in the article is qualitative and there are few details presented regarding when the spill occurred, the extent, whether or not the spill was crude oil or a refined product such as diesel; no quantitative data regarding the spillsite are given. There is no followup information included regarding observations subsequent to the initial discovery. In other words, although statements are made regarding the longterm recovery, there is no information documenting that the site was revisited and that recovery data were obtained in any systematic way. (The spill receives a one paragraph description in a 38 page report).

It appears that the conclusions reached in the article regarding the potential for longterm recovery are based solely on speculation. However, there is quantitative information available regarding the fate and effects of crude oil in arctic tundra ponds. For example, Barsdate et al. (1980) conducted a systematic investigation of many aspects of tundra pond ecology in response to an experimental oiling with North Slope crude oil. They evaluated physical and chemical parameters and biological measurements. A few of the biological results broken down by organism category are described below:

Bacteria: "If there was a toxic or stimulatory effect on the microflora after the spill, the microflora were back to the control-pond levels within 2 years" (emphasis added).

Algae: "The long-term primary productivity of the phytoplankton was not changed appreciably by the oil spills... [there is enough variability from pond to pond and year to year that the differences between Pond E [experimental pond] and Pond C (the control) cannot be attributed to the oil. However, the productivity of Pond E certainly was not lessened by the oil except during the first summer" (emphasis added).

Rooted plants: "As long as the oil touched only the stems, there was no damage; some damage did occur when the oil contacted leaves." Barsdate et al. (1980) speculated that the plant leaves that died in the area of heavy

oil accumulation the first year after the spill were the result of a mechanical effect of pushing through the oil layer, rather than a toxic effect. Plants in the area of light accumulation of oil had fewer plants one year after the spill, but were "back to normal" the second year after the spill.

Zooplankton: This was the major effect in the ponds -- the rapid kill of zooplankton. However, they found return of zooplankton within 7 years after the spill and the less-sensitive species returned within a year. An interesting finding of the study was that aeration could eliminate the toxicity of the oil.

Aquatic insects: "These observations on the aquatic insects indicate that the oil-induced changes are on the species level and that such measures as secondary production and carbon flux are virtually unchanged".

These descriptions are included in this discussion to indicate that there is a wealth of quantitative information available regarding the fate and effects of oil in the arctic environment, and that an understanding of the mechanisms for biological damage provide insight into the most meaningful direction for response actions. It must be remembered that both spill situations described herein were not subject to any response or recovery operations. By and large, immediate actions to remove the oil by use of sorbent materials and flushing of emergent vegetation would have significantly minimized the extent and duration of the spill damage. Use of other response techniques, such as aeration, transplanting plant propagules, adding nutrients, or reseeding with planktonic organisms could have enhanced the recovery of these areas.

INCREASING AIR POLLUTION AND ADVERSE EFFECTS ON TUNDRA VEGETATION

Environmental Community Position:

Oil and gas facilities emit large amounts of air pollutants, including oxides of nitrogen (NO_x) and sulfur oxides (SO_x). These pollutants have increased 3 to 10-fold over levels reported by the industry in 1980 and are equivalent to amounts produced by a large U.S. city. The pollutants are of concern due to their potential to acidify the sensitive arctic tundra.

Scientific Response:

Concern over large amounts of air pollutants emitted by North Slope facilities is based on inaccurate information. Quantities of emitted pollutants are grossly overstated. The 80,000 to 100,000 tons per year of NO_x emissions attributed to North Slope oilfields is based on permitted emissions, not actual emissions. The estimated actual NO_x emitted to the atmosphere at Prudhoe Bay is less than 20,000 tons per year, much less than permitted levels.

In determining impact of emitted pollutants one should consider actual emissions, not permitted emissions. There are four main reasons why permitted quantities are much greater than actual: 1) not all of the permitted equipment was actually installed; some were never needed; 2) of equipment actually installed, much is stand-by or consists of redundant spares not normally in operation; 3) equipment that operates generally does so at a reduced capacity (The permit assumes maximum operating capacity.); and 4) the equipment produces a substantially lower concentration of pollutants at maximum capacity than the permit assumes.

In 1979-80 ambient air monitoring was conducted to establish baseline data prior to a major North Slope facilities expansion. When 1980 monitoring data are compared with current data from an on-going air monitoring program, it can be seen that no significant change in ambient air quality has occurred.

The following is a comparison of the annual average ambient concentration of NO_x and SO₂ in Prudhoe Bay (in ug/m³) measured during 1979-80 and 1986-87 monitoring periods (Radian 1981; ERT 1987). Included for comparison is the National Ambient Air Quality Standard (NAAQS) for these pollutants.

	1980	1987*	NAAQS
NO _x (annual average)	4.0	8.1	100
SO ₂ (annual average)	0.5	(below detection limits)	80

* Includes the eight months of data compiled thus far.

The incorrect assumption of a 3 to 10 fold increase in NO_x and SO_2 levels since 1980 is not supported by the monitoring data referenced above. The referenced reports embody all the ambient air quality data collected to date in Prudhoe Bay.

Concern about acidification of the tundra by SO_2 emitted from North Slope facilities is also unfounded. References to 618 tons of SO_2 emitted annually are based on permitted and not actual emissions. The fuel used at North Slope oilfield facilities is very low in sulfur. Permitted discharges are based on fuel with 20 parts per million of hydrogen sulfide, but the actual content is only 8 parts per million. In addition, only half of the equipment permitted is operating at any time. This explains why after 18 years of North Slope oilfield activity, the average annual ambient air SO_2 content is still below detectable limits.

POTENTIAL IMPACTS OF AIR POLLUTION ON LICHEN COMMUNITIES

Environmental Community Position:

Concern has been expressed that air pollutants emitted from oil and gas facilities, particularly sulfur dioxide (SO₂) and nitrogen oxides (NO_x), may have an adverse impact on lichen communities, an important food of caribou.

Scientific Response:

To address these concerns, provided below is a response prepared in a letter from Dr. Neal Van Alfen, Department of Biology, Utah State University, to Mr. Steven D. Taylor, Manager of Environmental and Regulatory Affairs, Standard Alaska Production Company, dated August 7, 1987. The letter states:

"The concern expressed about the effects of air pollution on lichen communities is understandable since they are known to be among the most sensitive of living organisms to air pollution damage. Extensive studies in Great Britain have shown the relationship between damage to lichen communities and air pollution levels. This damage to lichens was thought to be primarily caused by SO₂, but recent studies indicate that heavy metal uptake from atmospheric heavy metal pollution by the lichens may also play an important role in their sensitivity to air pollution. Studies have shown that sensitivity of lichens to air pollution is greatly influenced by the environment. Lichen communities in deserts are not as sensitive as are those in humid, temperate areas such as Great Britain. It is not known how arctic lichens will respond to air pollution, but considering that the Arctic is a cold desert, I would guess that their responses would be more typical of deserts than temperate, humid climates. The differences in responses of the lichens to air pollution in the two environments appears to be related to the fact that in humid, temperate climates, lichens are photosynthetically active much more frequently than in deserts. This is when lichens are susceptible to damage by air pollution. If this is the case, arctic lichens would be essentially immune from damage during much of the year.

Controlled laboratory fumigation studies show that the most sensitive species of lichens are damaged by relatively short (6 hour) exposures to SO₂ concentrations of about 500 µg/m³. This is in the range of concentrations at which the most sensitive vascular plant species are visibly damaged. Chronic fumigation studies of lichens with lower levels of SO₂ have not been reported, but in the absence of atmospheric heavy metal pollution, lichens will probably not be significantly more susceptible to damage by SO₂ than sensitive vascular plants such as alfalfa. The concentrations of SO₂ reported near Prudhoe Bay are much too low to cause either episodic or chronic damage to vascular plants. There is no reason to expect that these low SO₂ concentrations will adversely affect lichens.

Vascular plants are relatively unaffected by NO₂ as a primary pollutant. Concentrations of this gas must reach about 5000 ug/m³ before plants are visually affected. Concentrations of about 250 ug/m³ NO₂ have been reported to stimulate plant growth. The only reported study of the effects of NO₂ on lichens indicated that a concentration in excess of 7,500 ug/m³ for 6 hours was needed before any adverse effect on lichens was measurable. This concentration is much below the peak NO₂ concentrations reported near Prudhoe Bay. One of the lichens used in these fumigation studies, Usnea, is considered one of the most sensitive of lichens to air pollution damage, so there is no reason to suspect that the lichens of the North Slope will be more sensitive than the ones used in the fumigation study."

BLACK SMOKE EMISSIONS CONTRIBUTING TO AIR POLLUTION

Environmental Community Position:

Industry has chronically violated state air quality regulations for black smoke emissions caused by flaring of gas vapors and liquids. This has significantly contributed to air pollution on the North Slope. Industry fails to use the available control technology.

Scientific Response:

Black smoke is created by the flare systems which are associated with the oil processing facilities. These natural gas flares are part of the safety system necessary in oil and gas facilities. Normally, excess gas from facility upsets is diverted to a smokeless flare. Occasionally, however, very large pressures must be immediately relieved by diverting large volumes of gas to a secondary burning system that generates black smoke. It should be remembered that the black material in the smoke is unburned carbon particles.

The assertion that black smoke incidents pose an air quality problem is misleading. Although black smoke is very visible, combustion is still about 95 to 98 percent complete, and the smoke makes no significant contribution to criteria pollutants. The only effect is a temporary visual impact. These events are short-lived and infrequent (about once a month in the Western Operating Area of the Prudhoe Bay oilfield).

The presence of the phenomenon known as arctic haze is another issue that has been raised regarding North Slope air quality. Arctic haze was first described in the Arctic in 1956, long before the presence of any North Slope oil and gas production facilities (Rahn 1984). This pervasive haze is due to the presence in the air of minute particles such as aerosols. Research indicates that oil and gas production facilities on the North Slope do not contribute to the haze.

Investigators believe that arctic haze comes from long-range transport of industrial pollutants from middle-latitude regions of Eurasia. An emissions fingerprinting process has shown that emissions typical of Europe and Asia match those found in the haze (Raatz et al. 1984, Raatz et al. 1985, Rahn 1984). The dominant components are sulfates, and since Prudhoe Bay burns very low-sulfur natural gas, its facilities have not contributed to the arctic haze. Also, because the haze is found at high altitudes in the Prudhoe Bay area, scientists believe that local emission sources do not contribute to it. Long-distance transport is necessary for pollutants emitted near the ground to be lifted to high altitudes.

During an overflight of the Prudhoe Bay area in 1986, the National Oceanic and Atmospheric Administration found no contribution to arctic haze from North Slope oil and gas production facilities (Schnell 1987). Data collected on ambient air quality near ground level, which included emissions from Prudhoe Bay oilfield facilities, did not match the arctic haze fingerprint.

INADEQUATE REGULATORY CONTROL OF OIL INDUSTRY OPERATIONS

Environmental Community Position:

The current regulatory framework has been inadequate to protect the environment on the North Slope from the adverse impacts of petroleum development. The oil industry's violations of environmental laws and regulations range from minor to criminal and show a serious disregard for environmental impacts.

Scientific Response:

The evolution of comprehensive federal environmental regulations has occurred in tandem with the oil industry's development of Prudhoe Bay. The Prudhoe Bay Oilfield was discovered in 1968; the National Environmental Policy Act (NEPA) was enacted in 1969. Subsequent major regulatory milestones include the Clean Air Act (1970), the Federal Water Pollution Control Act and Coastal Zone Management Act of 1972. More recent legislation includes the Clean Water Act (CWA) renamed [FWPCA] amendments and Clean Air Act amendments of 1977 and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980. The regulatory framework has thus been evolving through the period of Prudhoe Bay development and in response to the requirements of Arctic petroleum technology and other industrial projects.

In 1979, two years after Prudhoe Bay production commenced, the U.S. Army Corps of Engineers asserted the Clean Water Act, Section 404 jurisdiction over North Slope wet tundra. The Section 404 program regulates the discharge of dredged or fill material (i.e., gravel) into waters of the U.S. and adjacent wetlands. In 1979, the Corps of Engineers determined that North Slope wet tundra met the definition of wetlands for this regulatory purpose and initiated a comprehensive Section 404 gravel permitting program. Since most of the North Slope is wet tundra and since development requires the construction of gravel pads for insulating the permafrost and providing a stable work surface, a Section 404 permit is required for essentially all oil development activities.

Major state permitting authorities include lease operations (permits required for most petroleum activities) issued by the Department of Natural Resources, and under Section 401 of the Clean Water Act, the Department of Environmental Conservation must issue Water Quality Certification as part of a permit approval. At the local level the North Slope Borough has land management regulations applicable to oilfield activities administered through its own permitting program.

The regulatory framework is thus complex, comprehensive and multi-tiered. As part of the NEPA and permitting processes for both small and large projects, extensive pre-construction, site-specific environmental studies may be conducted, various alternatives to the proposed project are considered or modifications made, and many stipulations, including monitoring programs, are required as part of permit issuance.

The adequacy of the current regulatory framework to protect the North Slope environment from detrimental effects of oil and gas activities can best be understood by examining several examples of the regulatory process in action. During permitting of the Endicott Project facilities, permit approval to site a reserve pit for oil-contaminated drilling muds near the Sagavanirktok River delta was not granted. Consequently, oil-contaminated cuttings are taken to an approved disposal site operated by the North Slope Borough, and oil-contaminated drilling muds are injected down an EPA-approved injection well.

In another case, the Sag 11 exploratory well, drilled in the winter of 1984-85, was required by the Alaska Department of Environmental Conservation (ADEC) to have a reserve pit dug into the permafrost for disposal of used drilling fluids. Upon completion of the exploratory well, the below-grade reserve pit was covered with overburden from the reserve pit excavation, encapsulating the drilling fluids in a permanently frozen state.

Enforcement of regulations and permit conditions is monitored on a regular and continual basis by representatives of federal, state, and local agencies. ADEC, the Alaska Department of Natural Resources, and the North Slope Borough maintain offices at Prudhoe Bay to provide constantly available monitoring capability.

LACK OF GRAVEL AVAILABILITY IN ANWR

Environmental Community Position:

Vast quantities of gravel are required for petroleum development. If Prudhoe Bay sized oil fields are expected in ANWR, at least as much gravel would be needed as has been used at Prudhoe Bay and surrounding areas. The availability of adequate gravel supplies on the 1002 area is uncertain. Further, gravel extraction will result in direct and devastating impacts to the habitat of the nation's most biologically productive portion of the entire arctic coast.

Scientific Response:

To preserve the underlying permafrost and provide a structurally sound working surface on which to locate wells, processing facilities, and buildings, large quantities of gravel are required for North Slope petroleum projects.

In the event of the discovery of a field equal in size to Prudhoe Bay, it is very unlikely that construction would require more gravel but rather significantly less. This is because there has been a trend in arctic oilfield development toward ever greater consolidation of facilities and reduction in area of tundra affected (and amount of gravel utilized). These objectives have been achieved through such measures as use of smaller well pads (by reduced well spacing), horizontal drilling, and winter construction of pipelines using ice roads. This trend will continue for future North Slope oilfield projects, including ANWR if approved, so that an even smaller percentage of total oilfield area would be affected by placement of facilities. (Prudhoe Bay directly affected about 2 percent of the oilfield area whereas Kuparuk involved only about 1 percent.) (Heiken 1987)

Drillers' logs of over 14,000 shallow bore holes (75' deep) from geophysical operations on the ANWR Arctic Coastal Plain indicate that virtually the entire region is underlain in the very near surface with gravel. It is logical that this area of the North Slope harbors significant gravel resources. The Brooks Range is closest to the Beaufort Sea and the shorter, steeper gradient streams and rivers carry a significant load of gravel throughout their length. The valleys of the larger streams in the 1002 area such as the Canning, Katakturuk, Sadlerochit, Hulahula, and Jago are underlain by large quantities of gravel. These valleys also have extensive gravel terraces and the intervening uplands are veneered by thick gravel deposits. Some rivers, such as the Canning River, are heavily braided and have unvegetated gravel bars.

Prospective gravel mining and construction entail permitting processes which include Alaska Department of Natural Resources land use and lease operations permits, Alaska Department of Fish and Game Title 16 permits, U.S. Army Corps of Engineers Section 404 permits, North Slope Borough development and use permits, and State of Alaska Coastal Zone Consistency review. Permit stipulations provide strict criteria for gravel removal, stockpiling

techniques, construction monitoring, and restoration plans. Restoration plans require such techniques as recontouring, relocation and storage of overburden, revegetation, and potential use of excavated sites as water reservoirs with provisions to promote aquatic habitat values.

Because there are vast quantities of gravel in the ANWR Coastal Plain, there are multiple choices for sources to supply development projects. Consequently, selection of sources that can be mined in the most environmentally compatible manner is enhanced.

LACK OF WATER AVAILABILITY IN ANWR

Environmental Community Position:

Massive quantities of water are required for oil and gas development. It has not been demonstrated how industry will overcome the acknowledged shortages of fresh water in ANWR or avoid related adverse effects to fish and wildlife.

Scientific Response:

The petroleum industry has operated in many areas, including other parts of the Arctic, where water has been in short supply. Adequate water can be obtained in several ways, such as trapping and melting snow, insulating small non-fish bearing lakes so that they do not freeze deeply, and withdrawing and desalinating seawater. If oil production is warranted, gravel may be obtained from inactive portions of river floodplains and the resulting pits flooded as reservoirs. None of these procedures would result in a significant adverse impact to fish or wildlife.

Water occurrence in ANWR: The water resources in the Coastal Plain of ANWR are more than adequate to meet industry needs without endangering overwintering fish through withdrawal from unfrozen river pools. Marine waters of the Beaufort Sea are available for use at nearby locations. Other potential sources include lakes, ponds and river deltas. Other techniques currently being used in the Arctic, which are totally applicable to ANWR, include creating deep pools in or adjacent to river/stream beds or in lakes, desalinating sea water, erecting snow fences to trap snow to insulate existing impoundments or to be collected and melted, and converting conventional gravel pits to water reservoirs.

Regulations and Water Source Evaluation: The Environmental Impact Statement process (EIS) which proceeds any major development will include evaluation of proposed water sources and uses. These proposals will be evaluated by federal, state, and local agencies, and by the public. In addition to the U.S. Fish and Wildlife Service, other agencies that may be involved in permit applications for water sources and uses in ANWR include the Alaska Department of National Resources, the Alaska Department of Fish and Game (which issues permits for activities in anadromous fish streams), and the North Slope Borough. Permit stipulations provide strict criteria for water removal techniques, extraction periods, discharge limitations, and restoration plans. For example, it is standard practice to avoid both water removal and construction of ice roads where the activity might adversely effect water availability and the survival of overwintering fish. With the techniques and regulatory requirements described above, there is no real danger that uncontrolled water extraction in the 1002 area will deplete sources necessary for fish and wildlife survival.

CUMULATIVE BIOLOGICAL EFFECTS NOT ADEQUATELY ADDRESSED

Environmental Community Position:

The 1002 report failed to assess the cumulative impacts of petroleum development in ANWR, ignoring the massive oil and gas leasing and development elsewhere in northern Alaska including the Beaufort Sea, NPR-A, and state leases at and around Prudhoe Bay. The long-term environmental impacts that should be evaluated include chronic water pollution, air emissions, habitat loss, and effects on fish and wildlife.

Scientific Response:

Predicted cumulative effects are defined as effects "on the environment which result from the incremental impacts of the [proposed] action when added to other past, present and reasonably foreseeable future actions" (DOI 1987). Concerns have been raised about the cumulative effects of ANWR petroleum development in concert with other petroleum activities in the Arctic, including the Prudhoe Bay and Kuparuk oilfields, National Petroleum Reserve-Alaska (NPR-A), and offshore areas in the Alaskan and Canadian Beaufort seas.

Cumulative effects were addressed in the final 1002 report, which correctly stated that more detailed analyses of cumulative effects would be made in subsequent NEPA processes relating to the development of a leasing program. In addition, major petroleum development projects will require preparation of environmental impact statements which have to address cumulative effects. At such time assessment of cumulative impacts and the development of mitigation measures will benefit from site-specific and project-specific information which cannot be realistically provided prior to exploration.

Concerns about potential cumulative impacts to the North Slope environment have been overstated. In the context of the "geographic area of influence of the proposed action," the areas of current and potential future petroleum development are for the most part separated by great distances in arctic Alaska and Canada. Kaktovik lies about 100 miles east of Prudhoe Bay and is in turn over 150 miles west of the Canadian Beaufort Sea discoveries. As well as the vast areas involved, the necessary phasing of petroleum activities minimizes potential cumulative effects, especially those associated with construction. Development of the various North Slope fields has not involved concurrent peaking of activities, nor is that likely to occur in ANWR. By the time any ANWR discoveries begin to be developed in the late 1990s, petroleum activities in the Prudhoe Bay area will be waning.

Predictions of significant cumulative effects on wildlife from direct and indirect loss of habitat are not supported by scientific data. North Slope habitats for most bird species and for caribou are thought to be well below carrying capacities. The Central Arctic Caribou Herd, for example, has quadrupled in size during the past 15 years despite the cumulative developments of Prudhoe Bay, Kuparuk, Lisburne and Endicott.

Because of the vast distances between Prudhoe Bay and ANWR (60-100 miles) and the low concentrations of pollutants emitted to the atmosphere from oil and gas production facilities, it is unlikely that there would be significant air quality interaction. Thus cumulative impacts would be minimal.

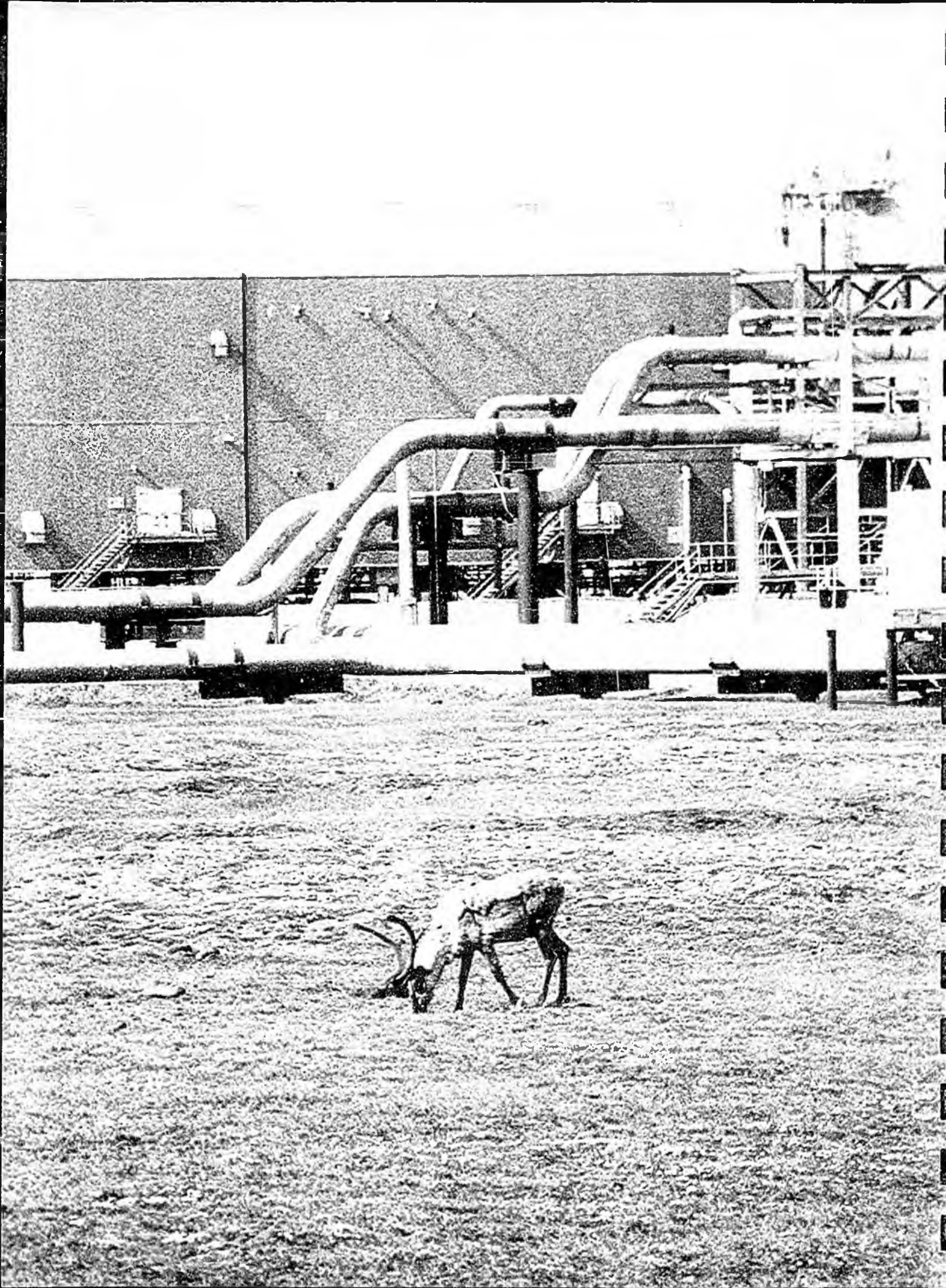
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ANWR file

RDC ALERT

**YOUR IMMEDIATE ACTION IS NEEDED
NOW TO HELP OPEN ANWR TO
ENERGY DEVELOPMENT**

September 16, 1987

The battle over oil and gas development in the Coastal Plain of the Arctic National Wildlife Refuge will take a critical leap forward this month when the Senate Committee on Energy and Natural Resources takes a survey on whether the Senate should consider legislation pertaining to ANWR in this session of Congress. If there is support for acting on the ANWR issue in this session, the panel will move forward with the volatile energy issue. If not, action on ANWR may not occur until 1989 under a new federal administration.

This represents the first time in this Congress that there will be an opinion survey in a Committee of the Congress on the issue of opening ANWR to development.

In order to effectively counter anticipated lobbying efforts by non-development interests, pro-development forces must be heard!

Your immediate action is imperative! It is critical that YOU, your friends and family send a telegram today to any or all member of the Senate Committee on Energy and Natural Resources. Urge each member to "move forward with legislation that will open the Coastal Plain of ANWR to energy development." The timing is very short. You must act now!

===== Senate Committee on Energy and Natural Resources =====
Senator Bennett Johnston, chairman

Each Senator has a common address: U.S. Senate, Washington, D.C., 20510

Senator Bingaman (NM)	Senator Weicker (CT)	Senator Bradley (NJ)
Senator Conrad (ND)	Senator Evans (WA)	Senator Hatfield (OR)
Senator Domenici (NM)	Senator Melcher (MT)	Senator Nickles (OK)
Senator Fowler (GA)	Senator Wirth (CO)	Senator Bumpers (AR)
Senator Johnston (LA)	Senator Ford (KY)	Senator Hecht (NV)
Senator McClure (ID)	Senator Metzenbaum (OH)	Senator Wallop (WY)



Alaska State Legislature

SENATE

Office of the President

P.O. Box V
State Capitol
Juneau, Alaska 99811

ECONOMIC DEVELOPMENT LEGISLATION

Legislation Which Passed the Senate and House:

SCR 5 Relating to promotion and marketing of state operated international airports
(Legislative Resolve 31)

Requests the governor to direct the Dept. of Transportation and Public Facilities to initiate a program to promote and market the services, facilities, amenities, and other advantages of the Anchorage and Fairbanks International Airports.

SB 64* An Act relating to the Alaska Industrial Development and Export Authority (signed into law June 8th)

Expands the responsibilities of AIDA to provide various means of facilitating the financing of industrial, manufacturing, export, and business enterprises.

SB 108 An Act relating to decisions of the commissioner of natural resources regarding the eligibility of an applicant for a pipeline right-of-way permit
(signed into law on June 10th)

Allows the state to issue conditional pipeline right-of-way permits.

SB 196* An Act relating to management of state land
(signed into law June 8th)

Makes comprehensive changes to AS 38, and requires that priority be given to planning and classification in areas of potential settlement, and renewable and nonrenewable resource development.

SB 219 An Act creating the Alaska Center for International Business (signed into law June 8th)

Senate Resolutions Which Passed:

- SR 7 Relating to the timber industry in Southeast Alaska
(Senate Resolve No. 6)

Requests the U.S. Forest Service to immediately provide the full amount of preroad and intensive management funding promised under sec. 705 of ANILCA, and states that the timber base established by ANILCA and the Tongass Management Plan should not be reduced.

- SR 22 Supporting the environmentally sound development and construction of a natural gas pipeline system
(Senate Resolve No. 14)

- SR 24 Relating to the development of an oil refinery in Valdez (Senate Resolve No. 16)

Supports the environmentally sound development of an oil refinery close to the terminus of the Trans-Alaska Pipeline System in Valdez.

- SR 26 Relating to the development of the mineral resources in the state (transmitted to the Governor)

Encourages the development of mineral resource projects as sources of employment and state revenue.

Legislation Which Passed the Senate and is Currently in House Committees:

- SJR 7* Relating to oil and gas exploration, development, and production within the Arctic National Wildlife Refuge (House Resources)

Urges Congress to open the coastal plain of ANWR to environmentally responsible oil and gas exploration, development, and production.

- SJR 35 Relating to maintaining timber industry employment, funding of U.S. Forest Service operations, and the allowable timber harvest level in Southeast Alaska and amendment of sections 703 and 705 of ANILCA
(House Rules)

SB 94* An Act adopting a mineral policy for the state
(House Rules)

Adds a declaration of state mineral policy to AS 44.99 (General State Policy) relating to minerals, and declares that mineral development be encouraged through reasonable and consistent nonduplicative regulations and administrative stipulations.

SB 112* An Act relating to forest management agreements
(House Resources)

Would allow the Commissioner of the DNR to enter into agreements with private purchasers for the sale of timber from state land on which the right to harvest has not been specifically prohibited by law.

SB 136* An Act relating to multiple use of state land and water (House Resources)

Amends AS 38.05.300 so that the section does not preclude multiple use of land whenever different uses are compatible.

SB 137* An Act relating to state land withdrawn from mineral location or mining (House Resources)

Would require the Commissioner of DNR to submit a report to the Legislature and the Governor within the first 10 days of each regular legislative session, detailing the state land closed to mineral location and mining during the previous calendar year.

SB 182* An Act relating to the written findings required for certain state oil and gas lease sales
(House Resources)

States that a written finding is not required before the approval of and oil or gas lease sale if within 36 months before the lease sale a written finding under this subsection has been made for the area of the proposed sale for an area that is contiguous with or adjacent to the area of the proposed lease sale.

Legislation Which is Currently Before Senate Committees:

SB 106* An Act relating to aquatic farming
(Senate Resources)

Would mandate that state policy encourage the establishment and growth of an aquatic farming industry, and that the state assist in the planning and orderly development of the industry.

SB 114* An Act relating to legislative disapproval of the Alaska Coastal Management Program
(Senate Resources)

Would require that Alaska Coastal Management Program additions, revisions, or amendments be submitted to the Legislature.

SB 280* An act relating to the issuance of permits and consistency determinations (Senate State Affairs)

Would require the Office of Management & Budget to designate a lead agency to render, on behalf of the state, each federal consistency determination and certification authorized by the Coastal Zone Management Act of 1972; and each conclusive state consistency determination when a project requires two or more state or federal permits, leases, or authorizations.

House and Governor Sponsored Taxation Legislation:

HB 20 An Act establishing a state sales tax
(by Larson; House Community and Regional Affairs)

HB 154 An Act relating to the taxation of income, relating to individual tax credits (by the Governor; House Rules)

HB 156 An Act relating to the motor fuel tax
(by the Governor; Senate Labor and Commerce)

HB 164 An Act relating to the oil and gas properties production tax (by the Governor; Senate State Affairs)

HB 230 An Act relating to the premium tax on certain insurers (by Ulmer, Goll, and Navarre; Senate Labor & Commerce)

HB 260 An Act establishing a tax on certain tobacco products (by Ellis, Gruenberg, and Pourchot; Senate State Affairs)

* indicates Resource Development Council strategy legislation

status noted as of August 1987

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Resource Review

Resource Development Council for Alaska, Inc. Box 100516, Anchorage,

Mr. Sam Cotten
Alaska State House of Reps.
Townsquare Prof. Bldg.
Eagle River, AK 99577

August 1987



ANWR battle escalates

Critical Senate vote may take place next month

The battle over oil and gas development in the Coastal Plain of the Arctic National Wildlife Refuge may take a critical leap forward in September with the Senate moving out in front of the House in consideration of the highly volatile energy issue.

The Senate Energy and Natural Resources Committee, chaired by Senator Bennett Johnston, D-LA., may vote next month on the limited question of whether the refuge should be opened to development. If there is support for that concept, the panel would then consider conditions for the development.

If the Committee does not take a formal record vote on this matter, it may instead do a survey of its members' attitudes and opinions.

Whatever approach the Committee takes, this represents the first time in this Congress that there will be a vote or opinion survey in a committee of the Congress on the issue of opening ANWR to development.

Meanwhile, members of the House Interior Committee say it will be at least next year before they are ready to debate the issue. Interior Committee chairman Mo Udall said he would appreciate the Senate taking the lead on the issue. The House Interior Committee plans several more hearings on the refuge after Congress returns in September.

During the protracted battle over the Alaska Lands Act, the House twice passed a bill before the Senate acted.

For the past two months, the environmental organizations which are opposed to opening the Coastal Plain to development, and who favor Wilderness designation instead, have put in place a very effective grass roots letter writing campaign to

(Continued on page 7)



Since habitat is not limiting the growth of the Porcupine Caribou Herd, many experts believe that oil development in a very small area of ANWR will not adversely impact the herd. If another Prudhoe Bay was discovered in ANWR, approximately 12,500 acres would be developed, leaving millions of acres of caribou grazing and calving areas on the vast Coastal Plain undisturbed.

Congressmen flock to North Slope to see oil operations

Influential congressmen charged with deciding whether to allow oil and gas development in the Arctic National Wildlife Refuge took a first hand look at the piece of remote real estate that has become the grand prize in a monumental struggle between preservationists and those favoring environmentally-sound development.

Leading the parade to the 1.5 million acre Coastal Plain were three congressional committees studying Interior Secretary Donald Hodel's strong recommendation to allow for exploration and development in what has been defined as America's premier onshore oil and gas prospect.

Visiting committees included the Senate Energy and Natural Resources Committee, the House Interior and Insular Affairs Committee and the House Merchant Marine and Fisheries Committee.

Scores of others, including Interior Department officials, a media contingent, key Senate aides, conservation groups and pro-energy organizations, accompanied the congressmen on a tour that included existing oil and gas operations at nearby Prudhoe Bay.

Industry representatives hosting the visiting congressmen welcomed the opportunity to show off impressive facilities and let the visitors see for themselves that large scale oil and gas development in the Arctic can and does coexist with the surrounding environment and wildlife.

RDC president Joe Henri and executive director Becky Gay traveled across the state to meet with members of the various committees. At a Senate Energy Committee dinner at the Chena Pump House in Fairbanks, Henri pointed out to

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Message from the executive director

By
Becky L. Gay



Becky Gay
adjusts
an RDC pin on
Mo Udall.

A soldier in every camp . . .

Key congressional members and staff have been touring Alaska this past month. Therefore, so has RDC.

RDC's Executive Committee gave staff the determined mandate to arrange for "rubbing elbows" with the various congressional delegations, no matter where we had to go in Alaska to accomplish our mission.

Although RDC would prefer to be leading the congressional delegations instead of following them, we were prepared to do whatever was necessary to show Congress there are good-quality resource development folk who live, work and play in Alaska and who foster a long-term vision and love for this great state.

Thanks to Alaska's helpful congressional delegation, RDC's statewide board, our energetic president, Joe Henri, and a widespread base of support, we were able to do just that.

Joe and Aletha Henri attended Senator Murkowski's dinner for Chairman Bennett Johnston (LA) and Senate Energy members in Fairbanks. Dick Tindall, Renewable Resources division director, carried the day for RDC in Kodiak with House Merchant Marine and Fisheries. Board members Pete Nelson, Don Cornett, Easy Gilbreth and I attended a dinner with Senators Ste-

vens, Heflin (AL) and Stafford (VT), strong proponents of removing the restrictions on ANWR. Other board members visited the Slope and a variety of parties, receptions and fishing trips with the committees.

A most interesting trip involved intercepting House Interior members and staff aboard the ferry Malaspina between Juneau and Sitka. Joe Henri, board member Dick Griffin and Mayor Dan Keck of Sitka, and I took the cruise. Although no one can doubt Chairman Udall's love for Alaska (however misguided in effect), we all laughed when he joked Alaskans were beginning to like him more since "lately they've been waving with all five fingers."

At the ferry terminals in Juneau and Sitka the preservationists welcomed him with open arms, demonstration signs and floats glorifying the Tongass and denigrating anything which had to do with the timber harvest.

We watched from the deck as the delegation made its way through the demonstrators, wondering if those sort of tactics are really effective and if any of the demonstrators used wood or petroleum products, like toilet paper and gasoline. If so, we wondered, where do they think those items come from — Japan?

Upon boarding, the Interior Committee immediately created a "Core Congressional area" by barricading itself in the lounge, protected by its staff and Forest Service personnel from Alaskans and other tourists. RDC managed to penetrate the inner circle, but not without using a variety of tactics which I will not detail for strategic reasons!

Overall, these trips have been illuminating from many angles, including to the Congress, we hope. At least now they have faces to associate with names, and so do we. Meeting firsthand the "soldiers in every camp" opens lines of communication which cannot be established any other way.

I would like to thank our president Joe Henri and the excellent RDC board for their help in rallying the troops we needed. RDC was everywhere, with different faces and representing all resource sectors. We made a difference in the impressions the Congressmen and their staff formed about Alaska.

And thanks to board member Don Cornett, even Chairman Mo Udall was wearing an RDC pin throughout the trip!

Alaska mining activity takes a plunge

Mining activity in Alaska took a nosedive last year in exploration, development, production and employment. The total value of the minerals industry slipped by 14 percent from the previous year.

Overall industry employment fell 20 percent, with the placer gold sector alone losing some 175 jobs. Gold still far outdistanced production of other minerals, but was off 16 percent from 1985 levels.

On the upside, dock, road and fuel-tank farm construction is proceeding for the Red Dog project near Kotzebue. Amselco Minerals Company is starting to develop the Greens Creek silver-gold mine near Juneau. Inspiration Gold, Inc., is well into its first full exploration/production season of offshore gold dredging near Nome and over 130 workers are being kept busy by Valdez Creek Mining Company on a placer gold operation off the Denali Highway.

Alaska Minerals Industry

	1984	1985	1986
Exploration	\$ 22,283,650	\$ 9,150,000	\$ 8,914,744
Development	53,348,055	34,120,775	24,331,972
Production	199,437,167	226,599,250	198,461,007
Total	\$275,068,872	\$269,870,025	\$231,707,723
Employment	N/A	3,600	2,950

Resource Development Council

The Resource Development Council (RDC) is Alaska's largest privately funded nonprofit economic development organization working to develop Alaska's natural resources in an orderly manner and to create a broad-based, diversified economy while protecting and enhancing the environment.

Executive Committee Officers

President Joseph Henri
Vice President Shelby Stastny
Vice President John Forceskie
Vice President John Rense
Secretary Stephen Ellis
Treasurer Larry Laughman
Past President Boyd Brownfield

Staff

Executive Director Becky L. Gay
Public Relations Director Carl Portman
Projects Coordinator Mike Abbott
Membership/Staff Assistant Ann Bradley

Resource Review is the official monthly publication of the Resource Development Council, Box 100516, Anchorage, Alaska 99510 — (907) 276-0700.

The RDC business office is located at 807 G Street, Suite 200, Anchorage.

Material in the publication may be reprinted without permission provided appropriate credit is given.

Carl Portman
Editor & Advertising Manager

Easley went the extra mile



Paula Easley, Becky Gay and Boyd Brownfield were the guests of honor at the President's Party in mid-July.

RDC expresses appreciation for Easley's dedication

Over 120 friends and members gathered at the home of Joe and Aletha Henri in July to honor outgoing executive director Paula Easley, outgoing president Boyd Brownfield and new executive director Becky Gay.

On behalf of the entire statewide Board of Directors, the Executive Committee, and the Council's broad membership, Joe Henri expressed profound appreciation for Easley's intense commitment and dedication to the interests and concerns of Alaskans. Henri described Easley as the "heart and soul" of the Council she guided for 12 years as its executive director.

In a letter to Henri, former Congressman Jim Santini said "Paula went the extra mile in terms of hours and resolve."



Hostess Aletha Henri

Henri noted "this is not the end of the road but merely an important juncture, which means that we can hope to work with Paula during the times ahead, anchored in a well-founded expectation that Alaska's resources will be developed, that the economy will be broadened and diversified, and that Alaskans will enjoy a good way of life in this very great place."



Sharing a laugh are Charles and Roberta Herbert and Bob and Evangline Atwood.

Study reveals gas line price tag

A recent study commissioned by Yukon Pacific Corporation, the firm that wants to market North Slope natural gas in the Pacific Rim, has revealed that a transportation system to carry the gas south could be built for about \$8 billion, several billion dollars less than previously projected.

Conducted by the Institute of Gas Technology of Chicago, the study also confirms Yukon Pacific's assertion that North Slope gas can be competitive in Korea and Taiwan as well as Japan. The study also says that natural gas can be marketed sooner than expected if the Trans-Alaska Gas System is built in phases. It said the system could be in operation by late 1993 or 1994.

Yukon Pacific is proposing to build an 800-mile pipeline to carry North Slope gas to tidewater in Valdez where it would be liquefied and shipped by tanker to the Pacific Rim. The company had estimated the cost to build the line, processing plants and ships to move the gas across the Pacific Ocean at \$11 billion.

Backers of TAGS are now awaiting a presidential finding that North Slope gas can be exported without affecting U.S. energy markets. The finding is necessary before the Alaska-based Yukon Pacific Corporation can enter into contract negotiations with Asian customers. The timing of the presidential finding and necessary permits for the project is crucial if the company hopes to capture a share of the Japanese LNG market. Existing Japanese contracts will expire in the mid-1990s and Japan is already looking for new sources of gas from several countries.

Alaska logs to be exported to China

An agreement between a subsidiary of China International Trust and Investment Corporation and the Anchorage-based Koncor Forest Products calls for harvesting over 30 million board feet of spruce trees for export to China annually for at least five years.

Timber located on Koncor land on Afognak Island north of Kodiak will be cut for industrial use in Chinese construction, packaging and crating.

Dan Dixon, director of the state Office of International Trade, called the joint ven-

(Continued on page 6)



Foss Maritime tug and barge approaches the Delong Regional Transportation port site.

Red Dog project moves forward

Cominco enters into major contract commitments

In an effort to bring the largest zinc mine in the western world into production by 1990, Cominco Alaska Inc., has entered into major contract commitments and construction work on the road and port facilities for its Red Dog project in Northwest Alaska.

In a presentation before a Resource Development Council breakfast forum in late August, Ralph Hargrave, Vice President and General Manager of Cominco Alaska, said the current schedule calls for moving the start up date for the \$420 million project up by one year.

The Red Dog project is a venture of Cominco Alaska Incorporated and NANA Corporation. Another key member of the development team is the State of Alaska, with the Alaska Industrial Development Authority (AIDA) financing the transportation system.

Red Dog is one of the world's great mineral deposits with a unique combination of large size, high grade and a waste-to-ore ratio which will make it one of the world's largest, and lowest cost zinc producers when at full production. The present mineral reserve is estimated to be 85 million tons, at a grade of 17.1 percent zinc, 5 percent lead and 2.4 ounces per ton of silver. Based on the present production forecast, this will yield a mine life of almost 50 years.

Hargrave noted that Red Dog is the second largest zinc deposit ever discovered. He expressed confidence that the deposit will be the largest in the world once the area is adequately explored.

The production plan is based on mining



Workers lay geotextile fabric out on the tundra as work begins on the Red Dog haul road.

at a rate of 2.1 million tons of ore per year to produce 720,000 dry tons of concentrates per year.

Hargrave explained that the AIDA agreement commits Cominco to pay AIDA an annual toll fee of about \$12 million. On the basis of this guaranteed toll fee, AIDA will finance and build the \$150 million road and port with funds from the state, plus the proceeds of a bond sale.

Cominco's toll fee is calculated to give the state a 6.5% return on the total investment in the system over 50 years. The toll fees will amount to about \$600 million during this period. In addition, the state will receive from Red Dog at least \$300 million in taxes and fees, which are the direct result of the state facilitating this development. This will give the state a total of \$900 million on a \$150 million investment. Red Dog will inject up to \$100 million annually into the Alaskan economy.

Completion of this agreement has allowed AIDA to start construction of the DeLong Mountain Transportation System. The first contract was awarded last year to Enserch Alaska Construction to build a shallow water dock and staging area at the



Geologists tour the Red Dog Mine site.

port site. In February a second contract was awarded to Rockford Corporation of Anchorage for the construction and installation of four double-wall diesel fuel storage tanks.

Last month Enserch Alaska began construction of the \$48 million mine road. The company anticipates having an initial 52-mile pioneer road to the mine site completed by February 1988.

Green Construction of Anchorage will do the major earthwork at the mine site. The work will consist of building the tailing dam, fresh water dam, initial stripping of the orebody and preparation of the mill site area for the modules which will begin to move into the area next year.

Green began work at the mine site in July preparing its construction camp for major construction commencing in February.

Other major contracts will be awarded for accommodation module fabrication, a services complex, concentrate haulage, general mechanical and electrical, module fabrication, module bases and structural steel and a mine concentrate storage building.

Upcoming contracts which will be issued by AIDA include the port site concentrate storage building, offshore structures and the conveyors.

Hargrave said Red Dog ore will be mined by open-pit methods since the mineral is very close to the surface. He said the process plant layout is based on the concept of construction off-site in large modules, a technique which has been successfully used in development of the North Slope oil facilities.

Because of a restricted shipping season, Hargrave said concentrates will be stored over the winter for shipment in the summer, adding significantly to the cost of the project. The shipping concepts are based on a 100-day season.

For land transportation, the present concept is to move the concentrate in truck-trailer units on the 52-mile road, to a storage building at the coast which will hold about nine months production.

Beluga coal developer optimistic

Diamond Alaska project offers economic stimulation

Since the 1890's Gold Rush, Alaska has built its future on the development of its resources. With the sudden fall in oil prices and the subsequent decline in Alaska's economy, state leaders have come to recognize that recent efforts to diversify the economy will depend greatly on the state's determination to develop a variety of resources.

The Beluga field, 25 air miles west of Anchorage, is one example of a vast source of mineral wealth offering a major shot in the arm to Alaska's future prosperity. However, before this tide-water coal can help usher in a new horizon in terms of jobs and other economic benefits, RDC says the state must do everything reasonably possible to allow the Diamond Alaska project to become a competitive coal source in domestic and international markets.

The project could become one of several major mineral developments to play a role in expanding Alaska's economic base. Over its 34-year life, it will employ hundreds of Alaskans and provide tax revenues to the Kenai Peninsula Borough and the state.

Speaking before an RDC breakfast forum earlier this month, Luke Franklin, Manager of Environmental and Regulatory Affairs for Diamond Alaska Coal Company, said his company has been working steadily on the project since 1981 when it launched exhaustive environmental studies in an effort to obtain necessary state and federal permits.



Exploratory drilling was conducted by Diamond Alaska Coal Company in 1982.

On June 22, Diamond submitted an amended application for a mine permit from the Alaska Department of Natural Resources.

"We feel the state decision on the permit will be positive, but whether the stipulations are those of which we can live with the economically develop the mine is important," Franklin said.

The two key issues that appear to be the crux of the amended application are

topsoil handling and sediment and drainage control.

In a letter to Jerry Gallagher, director of the state Division of Mining, RDC said the state should study these issues carefully and insure protection of public resources, without unnecessarily challenging the commercial viability of the project.

Topsoil handling is an issue of major concern to the entire coal mining industry. In its comments RDC asked the state to be open-minded and not rely on formulas and processes used with greater utility in other parts of the U.S.

The Resource Development Council believes state proposals to force the developer to remove, stockpile and regrade up to three times as much soil as Diamond's proposal are "overkill" and have no higher likelihood of sustaining sufficient re-vegetation.

Water quality treatment, as proposed by Diamond Alaska, involves primary, secondary and tertiary treatment regimens in addition to rigid effluent release monitoring.

"Diamond Alaska has demonstrated the effectiveness and efficiency of its proposed sediment control program," Gay said. "By requiring further treatment processes without actually demonstrating need, the state may very well be insisting on a level of protection that is unnecessary and commercially debilitating."

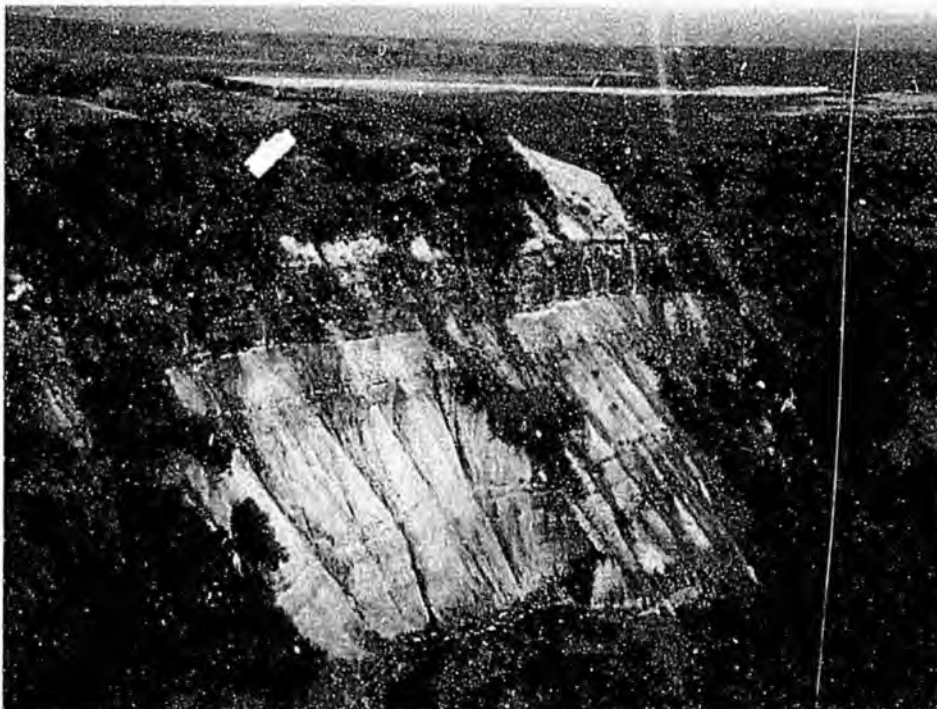
"Alaska must recognize the precedent setting nature of this permit process," Gay said. "The state must make sure that every stipulation and requirement, and ultimately the permit itself, is fully supportable, based on the empirical evidence at hand."

After the state permit is granted, Diamond Alaska will move into phase II of the project, focusing on the environmental impact statement process, additional federal permits and the remainder of the state permits. Franklin estimates that 40 permits will be sought under phase II.

Franklin is anticipating a pre-draft EIS to hit the street by the end of September. After a public review process, the final EIS should be out in early 1988. Once dozens of new permits are granted, construction could begin later in 1988, but markets for the Beluga coal must first be secured.

Franklin said the company's main marketing effort is being handled out of Dallas where executives are optimistic that markets will be in place for the coal.

Diamond Alaska anticipates several years of operation before reaching peak production levels. With that being the case, RDC believes the state can use the experience gained in early stages of development to determine the most appropriate environmental protection measures.



A coal seam is visible along a ridge line in the Diamond Alaska coal project area about 45 miles west of Anchorage.

Senate partnership aims to stimulate economy

Legislature faces a challenge

This past legislative session the Senate leadership entered into a partnership with the Resource Development Council (RDC). This partnership's goal was to move forward with a package of economic development legislation which would implement the recommendations made in RDC's publication *New Strategies for Advancing Alaska's Economy, 1986-1990*.

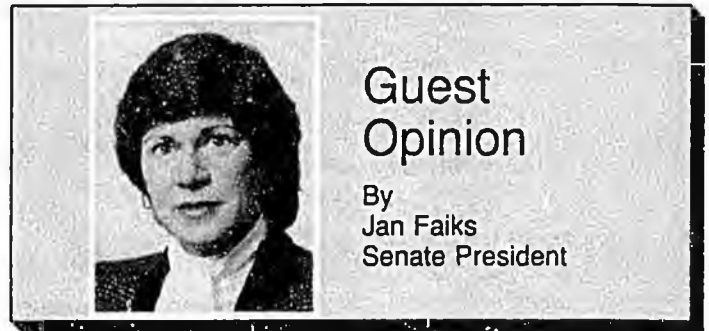
This publication proved to be especially helpful to members of the Legislature because it contained specific recommendations for legislative action to further economic development in our state. This contrasts with many other efforts which have focused on the problems instead of offering solutions.

All Alaskans have felt the effects of downturns in the world oil market during the last two years, and it has driven home the point that we can no longer rely on only one industry as the engine to drive our economy — a point, I might add, which groups like RDC have been making for a long time. As a result, the Legislature faced a crucial challenge when the session convened this past January. It had to do all it could to turn our economy around.

The Senate's answer to this challenge was to move forward with over 20 different pieces of economic development and diversification legislation. This legislation was aimed at stimulating development in the mining, timber, and fishing industries as well as fostering international trade.

Unfortunately, the Governor and House Majority had a different approach. Instead of working on incentives for development, they proposed six new or increased taxes so Alaskans could continue to support an oversized state government which already spends many times the national average per capita! These measures included the reinstatement of an income tax, establishing a state sales tax, doubling the motor fuel tax, increasing the severance tax burden on the oil industry, increasing the premium tax on insurers, and establishing a smokeless tobacco tax. The Senate said no to each of these taxes. The Senate also said no to a raid on the earnings of the Permanent Fund in order to fuel an insatiable bureaucracy.

While the House Majority seemed to have no problem passing many of these taxes, they failed to pass a great deal of the RDC strategy legislation. By the end of the session the most crucial



economic development legislation such as SB 112, relating to forest management agreements, SB 136, relating to the use of state land and water, SB 137, relating to state land withdrawn from mineral location or mining, and SB 182, relating to the written findings required for oil and gas lease sales was stalled in the House Resources Committee.

While it may seem hard to believe, the House Majority even killed the Senate's ANWR resolution. This is especially frustrating when a number of other states have already passed resolutions in support of oil and gas development in the Coastal Plain of ANWR.

Also in the issue of the *Resource Review* is a list of RDC's economic development legislation, along with the status of each bill and resolution. The Senate will continue pushing forward with this important legislation when the next session convenes on January 11th. However, if we are going to be successful in getting the RDC strategies passed by the House, we are going to need your help.

Between now and January it would be especially helpful if you would let your Representative in the House, and especially the members of the House Resources Committee, know that you feel economic development is important to the future of our state, and that in order to achieve this goal you would like to see them act positively on this important economic development legislation. House Resources Committee members are Sam Cotten D-Eagle River, Adelheid Herrmann D-Naknek, John Sund D-Ketchikan, Mike Navarre D-Kenai, Cliff Davidson D-Kodiak, Drue Pearce R-Anchorage, Heinrich Springer D-Nome, Lyman Hoffman D-Bethel, and Dick Shulte R-Tok.



Koncor will export over 30 million board feet of timber to China annually for at least five years.

Afognak timber to be shipped to China

(Continued from page 3)

ture a big step toward opening mainland China to Alaska exports.

Koncor is owned by natives of Kodiak and the Chenega, Yakutat and Ouzinkie village corporations. It has operations on Afognak Island and in the Yakutat area.

The China International Trust and Investment Corporation is an economic development and finance ministry of the Chinese government.

The new joint venture, known as Citikon, is unique to Alaska in that one company will harvest the timber and market it overseas. Citikon has purchased a large amount of Afognak Island timber and will

sell it to "end users" in China and perhaps to companies in other Far East countries. The arrangement eliminates some expensive steps in selling timber on the spot market and strengthens Koncor's logging operations on Afognak.

Citikon's annual shipments of at least 30 million board feet will amount to about 10 percent of the state's total annual log exports to the Pacific Rim. Enough wood will be exported to build about 3,000 U.S. type homes.

A dozen U.S. companies sell logs to China, which is second only to Japan in log imports.

Senate may take ANWR vote in September

(Continued from page 1)

key members of Congress on this issue. The anticipated vote or opinion survey in September has prompted the environmental community to redouble its lobby effort.

RDC believes it is imperative that its members encourage friends and family to mount a strong effort reaching each of the 19 members of the Senate Energy Committee and urging them to open the Coastal Plain to oil and gas development. **Action is needed now.**

The Council suggests brief letters, telegrams and phone calls. Congressional staffers are keeping a tally of all post cards and letters received on the issue. Send RDC a copy of your letters.

RDC urgently needs your active support to persuade the members of the Senate Energy Committee to proceed with hearings and legislation to open 8% of ANWR to oil and gas development.

Senator Jeff Bingaman
502 Hart Senate Office Building
Washington, D.C. 20510

Senator Bill Bradley
731 Hart Senate Office Building
Washington, D.C. 20510

Senator Dale Bumpers
229 Dirksen Senate Office Building
Washington, D.C. 20510

Senator Kent Conrad
825 A Hart Senate Office Building
Washington, D.C. 20510

Senator Pete V. Domenici
434 Dirksen Senate Office Building
Washington, D.C. 20510

Senator Daniel J. Evans
702 Hart Senate Office Building
Washington, D.C. 20510

Senator Wendell H. Ford
173A Russell Senate Office Building
Washington, D.C. 20510

Senator Wycle Fowler, Jr.
320 Hart Senate Office Building
Washington, D.C. 20510

Senator Mark O. Hatfield
711 Hart Senate Office Building
Washington, D.C. 20510

Senator Chic Hecht
302 Hart Senate Office Building
Washington, D.C. 20510

Senator J. Bennett Johnston
136 Hart Senate Office Building
Washington, D.C. 20510

Senator James A. McClure
309 Hart Senate Office Building
Washington, D.C. 20510

Senator John Melcher
730 Hart Senate Office Building
Washington, D.C. 20510

Senator Howard M. Metzenbaum
140 Russell Senate Office Building
Washington, D.C. 20510

Senator Frank H. Murkowski
709 Hart Senate Office Building
Washington, D.C. 20510

Senator Don Nickles
713 Russell Senate Office Building
Washington, D.C. 20510

Senator Malcolm Wallop
206 Russell Senate Office Building
Washington, D.C. 20510

Senator Lowell Weicker, Jr.
225 Russell Senate Office Building
Washington, D.C. 20510

Senator Timothy E. Wirth
237 Russell Senate Office Building
Washington, D.C. 20510

Congressmen inspect ANWR *Continued from page 1*

chairman Bennett Johnston that "we can draw on the experience of oil production at Prudhoe Bay and the operation of the Alaska pipeline to provide an empirical base of evaluating the claims of both sides of the resurrected Alaskan oil debate." Henri stressed, "Unlike the Prudhoe Bay debate, a decision about developing the vast potential of ANWR can be made on the basis of fact and experience, rather than rhetoric and speculation."

Henri cautioned that those now opposing development in ANWR frequently cite arguments alarmingly similar to those brought forward by environmental groups some 15 years ago attempting to halt Prudhoe Bay development. There is one exception; many preservationists then argued that ANWR was far less environmentally sensitive or important than the land the 800-mile Alaska pipeline would cross.

"Today they have either quickly forgotten those arguments or twisted them in such a way to meet their current agendas," Henri said.

Although the attack on Prudhoe Bay development centered on the disaster certain to befall the caribou, any effect to date has been virtually undetectable. In fact, the caribou population at Prudhoe Bay has tripled since production began in 1977.

RDC contends there is no reason to believe oil exploration activities on the ANWR Coastal Plain would affect wildlife

more than they do at Prudhoe Bay or along the pipeline. To the contrary, ANWR oil and gas exploration would take place at times when caribou were not present.

Even if development were to occur, it would consume less than one percent of ANWR's 19 million acres, leaving millions of acres of untouched wilderness inside refuge boundaries. Since caribou know no political boundaries, experts believe they'll continue to calve across the Alaska and Canadian arctic coastal plain where millions of acres of caribou habitat will remain undisturbed.

RDC is continuing its national efforts directed at convincing Congress to open the Coastal Plain to environmentally-sound development. For information on how you can help make a difference, call RDC at 276-0700.



RDC Executive Committee member Pete Nelson shares a laugh with Mo Udall, Chairman of the House Interior Committee, at a barbeque hosted by former Governor Walter J. Hickel.



RDC president Joe Henri and Executive Committee member Easy Gilbreth and Milly discuss oil and gas development in ANWR with Roy Jones, Chief Counsel for the House Interior Committee.

ATTENTION: RDC Board Members

Homer Board Meeting

September 19, 1987

11:30-3:30 p.m.

Formal Meeting

If you are a member of the RDC statewide Board of Directors, then you recently received details in the mail of our Fall Board Meeting. Please return response form to RDC as soon as possible.

Red Dog



A Venture of...



and



NANA

Possible speeches + Publications

Sam

This is the oped piece I drafted on ANWR late last session. It's feisty and the content is a bit stale, but maybe it would be a good start for thinking about how to counteract the Senate Majority newsletter.

N

ANWRCP2

ANWR: A MAJOR RESOURCES ISSUE FOR ALASKANS

By Rep. Sam Cotten (D-Eagle River)

One of the major issues before the Alaska Legislature, and simultaneously before the U.S. Congress, is the decision about opening the coastal plain of the Arctic National Wildlife Refuge to oil and gas exploration and development.

Should the coastal plain be opened to oil and gas exploration and development? The question seems simple. It is a matter of jobs and revenue for Alaska. But some of the wrinkles in the U.S. Interior Department's proposal to open ANWR could trip Alaskans and threaten to trip Congress as well.

Early during this legislative session, the House Resources Committee held hearings on some proposed land exchanges in ANWR. At that point, the U.S. Interior Department had revealed very little about the exchanges, except that they would assist politically in Washington, D.C.

Members of the committee asked a broad range of questions. The Interior Department did not have many answers and did not want the exchange process to be public. The Department's assurances about the land appraisals and net impact on the State were not very convincing.

Since then, Interior has told the public only a little more about the proposed land exchanges. We can tell that potentially valuable ANWR lands will be traded to private corporations, which will receive all the rents and royalties from any future oil and gas production. Yet we don't know whether the taxpayers will get a good deal in the proposed trades, and we do know that so far Congress has been quite hostile to the trade proposals.

Last week the Alaska Senate passed a resolution that advocates opening ANWR to oil and gas. I fully support opening ANWR, wanting to see environmentally responsible oil and gas development wherever it can occur in Alaska. But the Senate resolution also includes an endorsement of the proposed trades.

For Alaskans, the problem is this: if the trades go forward, the people of the State of Alaska will forfeit their existing right to 90% of the revenues from oil and gas production from such wildlife refuge lands. That could mean billions of dollars of future revenue that might have been available for schools, roads, and other purposes. It could mean that the corporations will be raking in profits while the rest of us pay new taxes.

Should this share be traded to private corporations?
My answer is no, not now. Any decisions on land trades should be held until after Congress decides whether or not ANWR should be opened. Governor Cowper made a good decision not to get involved in the trades or to support them unless they are more open and guarantee more benefits to all Alaskans.

This question threatens the Legislature's passage of a resolution favoring ANWR oil activity, because some members of the Legislature believe strongly that the trades should be endorsed now. My position, as co-Chair of the House Resources Committee, is that the Legislature should acknowledge the lack of consensus on the trade proposals and suggest more review by Congress and Alaskans.

~~It's not unusual to have political trades and pressures build up at the end of the legislative session. I was not surprised to see the Senate's resolution include and endorsement of the proposed land trades. But I do not agree that they should be endorsed, and neither do a lot of Alaskans and legislators.~~

~~If we are going to arrive at a decision on the opening of ANWR, the subsidiary issue of land trades should be shelved. It isn't acceptable for legislators late in session, to try to protect a parochial interest under the~~

~~cloak of a larger one. So I plan to continue working with~~
other legislators to give the issues full public review and
consideration, and then to protect the broad interests of
all Alaskans.

File: ANWR - environmental

ALASKA ARCTIC COAST ISSUES FORUM

4.8 million
members

SPONSORED BY THE
NATIONAL WILDLIFE FEDERATION
BOARD OF DIRECTORS

IN COOPERATION WITH THE
WILDLIFE FEDERATION OF ALASKA

Anchorage Hilton Hotel
Denali Room
Anchorage, Alaska

August 14, 1987

SESSION I: THE PERSPECTIVE OF THE STATE GOVERNMENT

10:30 A.M. WELCOME AND INTRODUCTION OF PANELISTS

Jay D. Hair, President, National Wildlife Federation
Forum Moderator

Dennis D. Kelso, Commissioner
Alaska Department of Environmental Conservation

Norman Cohen, Deputy Commissioner
Alaska Department of Fish and Game

James Eason, Director, Division of Oil and Gas
Alaska Department of Natural Resources

Robert E. Gilmore, Special Assistant to the Director
U.S. Department of the Interior Fish and Wildlife Service

Jack Coghill, Chairman
Senate Resources Committee, Alaska State Senate

Sam Cotten, Chairman
House Resources Committee, Alaska State House of Representatives

12:30 P.M. INFORMAL BUFFET LUNCHEON
Denali Room

ALASKA ARCTIC COAST ISSUES FORUM

Page 2

SESSION II: PERSPECTIVES OF CORPORATE, ENVIRONMENTAL
AND SUBSISTENCE GROUPS

2:00 P.M. INTRODUCTION OF PANELISTS

Jay D. Hair, President, National Wildlife Federation
Forum Moderator

Celia Hunter
Writer-Columnist

Jacob Adams, President
Arctic Slope Regional Corporation

David R. Cline, Regional Vice President
National Audubon Society

Sarah James, Representative, International Caribou Treaty
Negotiations
Arctic Village Council

Robert W. Adler, Executive Director
Trustees for Alaska

Susan Alexander, Field Representative, Alaska Region
The Wilderness Society

Mark McDermott, Senior Environmental Coordinator for
ARCO Alaska
Alaska Oil and Gas Association

Ann Rothe, President
Wildlife Federation of Alaska

*The National Wildlife Federation
1412 Sixteenth Street, N.W.
Washington, D.C. 20036-2266
(202) 637-3700*



Working for the Nature of Tomorrow™

NATIONAL WILDLIFE FEDERATION, 1412 Sixteenth Street, N.W., Washington, D.C. 20036-2266 (202) 797-6800

Office of the President

July 22, 1987

The Honorable Sam Cotten
Chairman, House Resources Committee
Alaska House of Representatives
P.O. Box 296
Eagle River, Alaska 99577

Dear Mr. Cotten:

The National Wildlife Federation's Board of Directors will hold its mid-year meeting in Anchorage, Alaska on August 13-15, 1987. In conjunction with their meeting, the Board will host a forum in the Denali Room of the Anchorage Hilton Hotel on the question of whether further oil and gas exploration and leasing should be permitted on the Arctic Coastal Plain.

On behalf of our Board, I would like to extend an invitation to you to participate in the forum on Friday, August 14, along with other panelists who will present differing points of view on the future of the Arctic National Wildlife Refuge. For the morning session (10:30-12:00) at which we hope you will appear, we have also invited representatives from the Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, Alaska Department of Natural Resources, U.S. Department of the Interior Fish and Wildlife Service, and Senator Jack Coghill (who has accepted our invitation).

You would be welcome to stay for the afternoon session (1:30-5:00) which will include representatives from the Alaska Oil and Gas Association, Arctic Slope Regional Corporation, Arctic Village Council, Trustees for Alaska, National Audubon Society, The Wilderness Society and the Wildlife Federation of Alaska.

The format will include a brief opening statement of approximately 10 minutes by each participant, followed by a question-and-answer period. An informal buffet luncheon will be served at noon. I will serve as moderator, and members of the press will be present.

The Hon. Sam Cotten
July 22, 1987
Page 2

On June 9, I wrote to Speaker Grussendorf and, through his office, extended our invitation to you on behalf of our Board of Directors. If that invitation did not reach you, I apologize. I hope you will be able to be with us on August 14th, and would ask that you call my office in Washington, D.C. (202/637-3742) by August 3rd with your response.

Your knowledge and experience about this issue would provide a valuable dimension to our discussion, and I hope you will be able to accept our invitation.

Enclosed you will find a copy of the current edition of NATIONAL WILDLIFE magazine which features the Arctic National Wildlife Refuge, as well as a copy of our most recent Annual Report.

Thank you for considering our invitation, and I look forward to hearing from you.

Best wishes.

Sincerely,

Jay D. Hair

JAY D. HAIR

JDH:rac

Enclosures



Working for the Nature of Tomorrow

NATIONAL WILDLIFE FEDERATION, 1412 Sixteenth Street, N.W., Washington, D.C. 20036-2266 (202) 797-6800

Office of the President

July 30, 1987

The Honorable Sam Cotten
Chairman, House Resources Committee
Alaska House of Representatives
P.O. Box 296
Eagle River, Alaska 99577

Dear Mr. Cotten:

Thank you for accepting our invitation to participate in the Alaska Arctic Coast Issues Forum hosted by the Board of Directors of the National Wildlife Federation on Friday, August 14, 1987 in Anchorage. A copy of our agenda is enclosed.

Please be at the Denali Room of the Anchorage Hilton Hotel no later than 10:00 A.M. on the 14th. Session I, in which you will participate, will begin promptly at 10:30 and will run until 12:30 P.M. Following a brief introduction, each panelist will make an opening statement of no more than 10 minutes. Questions and answers from the floor will be accepted after all of the opening presentations are completed. I will serve as moderator, and press and other media representatives will be present.

An informal buffet luncheon, to which you are cordially invited, will be served at 12:30 P.M. in the Denali Room. Session II of the forum will begin at 2:00 P.M., and I hope you will be able to stay for the entire program, which should be concluded by 5:00.

If you have any questions, please call Ruth Corlett at my office in Washington (202/637-3742).

Again, on behalf of our Board of Directors, we appreciate your taking the time to participate in our forum. We are delighted with the response we have had, and the program promises to be an exciting one. I look forward to seeing you there.

Best wishes.

Sincerely,

Jay D. Hair

JAY D. HAIR

JDH:rac

Enclosure

ALASKA ARCTIC COAST ISSUES FORUM

SPONSORED BY THE
NATIONAL WILDLIFE FEDERATION
BOARD OF DIRECTORS

IN COOPERATION WITH THE
WILDLIFE FEDERATION OF ALASKA

Anchorage Hilton Hotel
Denali Room
Anchorage, Alaska

August 14, 1987

SESSION I: THE PERSPECTIVE OF THE STATE GOVERNMENT

10:30 A.M. WELCOME AND INTRODUCTION OF PANELISTS

Jay D. Hair, President, National Wildlife Federation
Forum Moderator

Dennis D. Kelso, Commissioner
Alaska Department of Environmental Conservation

Norman Cohen, Deputy Commissioner
Alaska Department of Fish and Game

James Eason, Director, Division of Oil and Gas
Alaska Department of Natural Resources

Robert E. Gilmore, Special Assistant to the Director
U.S. Department of the Interior Fish and Wildlife Service

Jack Coghill, Chairman
Senate Resources Committee, Alaska State Senate

~~Sam Cotten, Chairman~~
~~House Resources Committee, Alaska State House of Representatives~~

12:30 P.M. INFORMAL BUFFET LUNCHEON
Denali Room

ALASKA ARCTIC COAST ISSUES FORUM

Page 2

SESSION II: PERSPECTIVES OF CORPORATE, ENVIRONMENTAL
AND SUBSISTENCE GROUPS

2:00 P.M. INTRODUCTION OF PANELISTS

Jay D. Hair, President, National Wildlife Federation
Forum Moderator

Celia Hunter
Writer-Columnist

Jacob Adams, President
Arctic Slope Regional Corporation

David R. Cline, Regional Vice President
National Audubon Society

Sarah James, Representative, International Caribou Treaty
Negotiations
Arctic Village Council

Robert W. Adler, Executive Director
Trustees for Alaska

Susan Alexander, Field Representative, Alaska Region
The Wilderness Society

Mark McDermott, Senior Environmental Coordinator for
ARCO Alaska
Alaska Oil and Gas Association

Ann Rothe, President
Wildlife Federation of Alaska

*The National Wildlife Federation
1412 Sixteenth Street, N.W.
Washington, D.C. 20036-2266
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OFFICE OF MANAGEMENT AND BUDGET
DIVISION OF GOVERNMENTAL COORDINATION

STEVE COWPER, GOVERNOR

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PHONE: (907) 456-3084

February 6, 1987

Mr. Robert Gilmore
Regional Director
U.S. Department of the Interior
U.S. Fish and Wildlife Service
1011 East Tudor Road
Anchorage, AK 99503

Dear Mr. Gilmore:

The state has reviewed the Draft Arctic National Wildlife Refuge (ANWR), Alaska, Coastal Plain Resource Assessment 1002(h) Report. We appreciate the additional time granted the state to review this important report. Based on our review of the substantial amount of information contained in the draft 1002(h) report, we strongly support the conclusion that oil and gas exploration be allowed in ANWR consistent with the chief purpose of the refuge to preserve its unique wildlife values.

The State of Alaska recommends that Congress immediately open the 1002 area to oil and gas leasing, with the exception of the area described by U.S. Fish and Wildlife Service (USFWS) as the "core" caribou calving area. The state strongly recommends that leasing in the "core" calving area be deferred for a ten-year period. During this ten-year period, the Department of the Interior (DOI) should establish an ANWR Caribou Impact Assessment Study Group composed of federal, state, university, and private researchers to further study the potential impacts of oil and gas activities in the calving area on the Porcupine Caribou Herd. The study should be conducted over a seven-year period following commencement of the first exploratory well and result in a report to the Secretary of the Interior and Governor of Alaska. The report would seek to document the biological importance of the core calving area, the effects of oil and gas activities in the 1002 area on the Porcupine Caribou Herd, and the effectiveness of mitigation measures employed in the 1002 area to minimize adverse impacts to caribou. Based on the report findings, the Governor and Secretary would recommend to Congress to extend the deferral or open the core calving area to oil and gas leasing. If

Congress failed to act on the recommendations within the ten-year period, the recommendation of the Secretary and Governor would be implemented.

It is imperative that the recommendations from the Governor of Alaska be included with those of the Secretary of the Interior given the significant interests of the state involved in both the leasing and protection of resources in the 1002 area. Not only is the state a sovereign steward of natural resources with regulatory responsibilities in the area, it is the principle owner of lands which any ANWR production transportation system must cross.

This recommendation is based on several salient facts. First, Congress has mandated that fish and wildlife populations in ANWR receive a very high level of protection. Because of this mandate, USFWS is required to take a conservative approach when making decisions regarding the impact of development activity on the refuge's fish and wildlife populations. Second, while a sizable amount of information has been collected on the impact of oil and gas activity on the Central Arctic Caribou Herd, questions remain regarding the potential impact of the oil and gas activity on the Porcupine Caribou Herd population because of its larger size, distribution and movement patterns, and population dynamics. Contrary to the statements made on page 112 of the draft 1002(h) report, at this point in time there is inadequate information to predict what population impacts would occur if oil and gas development were to take place in the core calving area. Third, protection of the herd and its habitat is of great concern to our Canadian neighbors, and the deferral and studies will respect those concerns.

Special Values of ANWR

We predicated our review on two fundamental facts inherent to ANWR. First, the fish and wildlife resources of ANWR are of significant state, national, and international importance. The Porcupine Caribou Herd, which numbers some 180,000 animals, annually migrates between Canada's Northwest Territories and Alaska's arctic coastal plain where it spends a portion of each summer. These animals are of great importance to both the people of Alaska and Canada. The Porcupine Caribou Herd and other fish and wildlife of the ANWR coastal plain are the foundation of the subsistence way of life to the residents of Kaktovik, Arctic Village, Venetie, and Fort Yukon in Alaska and Old Crow in the Yukon Territory of Canada. Furthermore, within the refuge, "The 1002 area is the most biologically productive part of the Arctic Refuge for wildlife and is the center of wildlife activity on the refuge." (Draft 1002(h) report, page 46.) The Alaska Department of Fish and Game has conducted an extensive review of ANWR fish and wildlife information which is available on request to USFWS

and other interested parties. The department's data on distribution and abundance of fish and wildlife and areas of special concern confirm the great importance of ANWR's renewable resource base.

The second intrinsic feature of ANWR is that it has high oil and gas potential. The state concurs with the draft 1002(h) report findings on page 1 that the 1002 area, ". . . is clearly the most outstanding oil and gas frontier remaining in the United States, and could contribute substantially to domestic energy supplies." As you know, the Alaska Department of Natural Resources has recently made public a preliminary appraisal it conducted of petroleum resource potential in ANWR's coastal plain. Alaska's report confirms DOI's conclusion that ANWR's coastal plain has the potential for an unusually large accumulation of oil.

Past Lessons Learned from Oil and Gas Activities in Alaska

As indicated in the draft 1002(h) report, development of ANWR's coastal plain will alter the existing environment and to some degree affect the Porcupine Caribou Herd. It is critical that appropriate and effective measures be taken to minimize the potential adverse effects of oil and gas activities on ANWR's coastal plain. Alaska has nearly two decades of experience in dealing with oil exploration, and lessons of the past will serve as a guideline for development in the future. In the event Congress permits exploration, the state would encourage that the best and latest technology be used.

The state assumes the draft 1002(h) report was not intended to be all inclusive, and that more detailed performance standards would be developed in concert with the state prior to any lease sales or any transfer of subsurface rights. Clearly, additional time will be needed in order to develop an adequate set of terms and conditions designed to ensure protection of air and water quality and fish and wildlife resources. With this understanding, our general comments on the proposed mitigation measures summarized in the draft 1002(h) report are included in Enclosure A.

Federal/State Consultation and Resolution of Issues

The state is encouraged to read on page 97 of the 1002(h) report that "The FWS would emphasize early and continuous consultation and coordination with leaseholders, permittees, and state and federal agencies at the start of planning." Consistent with this federal intent, the state feels it is essential that DOI establish a formal consultation process with the state and other parties in order to clearly establish at what points in the process and what level of detail different issues and authorities will be addressed. This process would also allow the opportunity for the parties to clarify their respective authorities,

permitting, and field procedures to avoid duplication or conflicting efforts. These consultations should identify or acknowledge existing regulatory requirements and authorizations at federal, state, and local levels. At a minimum, it should address different agencies' review times and public notice requirements. Issues that should be addressed are the timing of the various phases of review for specific projects; the level of detail to be addressed at each; and the coordination of permitting, review of plans of operations, field surveillance, and field approvals. Experiences associated with the development of the Trans-Alaska Pipeline System (TAPS) and the proposed Alaska Natural Gas Transportation System (ANGTS) from Prudhoe Bay to the Canadian border could provide useful models for cooperative management programs.

A coordinated interagency process for planning, design review, permitting, field surveillance, compliance and enforcement, and reclamation would serve the state, DOI, and industry well. The state's existing coastal management consistency process as well as the jurisdiction of state agencies such as the Departments of Fish and Game, Environmental Conservation, Natural Resources and the Alaska Oil and Gas Conservation Commission need to be acknowledged and effectively implemented in the review and permitting of each stage of the overall project. Lack of sufficient and effective coordination could lead to each agency dealing independently with applicants and could result in permitting inefficiencies with duplicative and inconsistent compliance and enforcement actions.

Topics Needing Further Discussion in the Final 1002(h) Report

Overall, the State finds that USFWS did an excellent job in compiling and summarizing a large amount of biological and geological information in the draft 1002(h) report. Considerably more work needs to be directed to the following eight issues of major importance to the state.

1. Standards for Air and Water Quality Protection

The draft 1002(h) document focuses primarily on a discussion of habitat and wildlife issues and petroleum potential. The document is considerably weaker with respect to air, land, and water quality issues. DOI must acknowledge and accurately reflect in the final 1002(h) report state authority in this area and the body of regulations and requirements associated with sound environmental practices. A list of pertinent state authorities is included in Enclosure B for your reference.

a) Air Quality Management

Particular attention should be paid to emissions associated with start-up and upset flaring, emissions of nitrogen oxides, and the best available technology review process associated with "prevention of significant deterioration" review.

b) Drilling Wastes and Solid Waste Management

Major waste streams include garbage, drilling wastes, metal wastes, and oily wastes. Our experiences on the north slope verify that it is very important that proper management of all these wastes be addressed from the beginning.

Drilling wastes are of particular concern. Improper management of drilling wastes can result in the contamination of adjacent habitats with potential negative effects to the vegetation and fish and wildlife species. Management of drilling wastes should involve development of best practices to minimize waste generation and to ensure total containment or injection of all produced wastes. Best practices should be based in part on a thorough evaluation of the effectiveness of past practices of drilling waste disposal in Alaska. Recent efforts by the Alaska Department of Environmental Conservation to develop a workable set of regulations governing these activities are nearing completion and should be viewed as the framework for developing specific requirements. In addition, the U.S. Environmental Protection Agency is currently studying the issue of proper drilling waste disposal and should soon have a report available.

Provisions for pickup of windblown litter and other debris must be addressed by stipulation. Early planning for sound disposal of each waste stream will lead to the best environmental results.

c) Liquid Waste Management

Possible liquid waste discharges include domestic wastewater, reserve pit fluids, produced water discharges, hydrostatic test discharges, vessel rinsates and radiographic wastes. Each needs to be identified and provisions made for proper disposal. The existing local, state and federal regulatory structure, ranging from plan review to the use of the best practicable technology, needs to be addressed. Reinjection of produced waters and non Resource Conservation and Recovery Act (RCRA) regulated liquid wastes is routinely practiced on state lands on the north slope.

d) Hazardous Waste Management

No discussion of hazardous waste management is included in the draft 1002(h) report. Hazardous waste management is governed by stringent requirements under the federal RCRA. Transportation of hazardous materials is regulated by the federal Department of Transportation. Proper management must be addressed.

e) Oil Spill Prevention and Response

The draft 1002(h) report refers to the need to address oil spill control requirements at page 84. More detailed plans will be required under the cited state and federal statutes. Provision for a coordinated response capability should be provided by stipulation.

2. Provisions for Offshore Support Facilities

It is important that the final 1002(h) report and management alternatives address the siting in ANWR of oil and gas facilities needed to support offshore oil and gas development occurring adjacent to ANWR on state-owned submerged lands and on the federal Outer Continental Shelf. As written, none of the alternatives specifically state that support facilities, if needed, would be permitted.

3. Alternative Development and Transportation Scenarios

Statements in the draft 1002(h) report refer to a transportation corridor (road and pipeline) between ANWR and TAPS Pump Station 1 in Prudhoe Bay. The state recognizes that the scenario which was analyzed is only one of many potential alternatives. The actual alignment of transportation facilities if, in fact, discoveries are made and any facilities are required, will be dependent upon many factors including the location and size of any reserves discovered, the need to accommodate delivery of any additional nearby reserves, terrain constraints, habitat considerations, and project economics. We suggest that the final report reflect the interrelationship of these factors in determining the size and location of needed transportation facilities. In addition, we suggest that the report describe the level of any review that will proceed these decisions. Interagency and public reviews of TAPS and ANGTS projects provide a good model of the scope of analysis which accompanies the review and approval of a major transportation project.

4. Subsistence ANILCA 810 Analysis

The draft 1002(h) report does not address the process by which the impacts of oil and gas development on subsistence activities will be identified and mitigated. Such an analysis is required by Section 810 of the Alaska National Interest Lands Conservation Act (ANILCA).

Impacts of oil and gas activity in the 1002 area on fish and wildlife resources can adversely affect human uses of these resources. This is true both in the 1002 area and in other Canadian and Alaskan communities that rely on wildlife which use the 1002 area, most notably the Porcupine Caribou Herd. The draft 1002(h) report does not present a complete picture of subsistence uses in the area. The discussion focuses principally on subsistence uses in the community of Kaktovik, and makes only passing reference to some but not all other communities that use the Porcupine Caribou Herd. A more comprehensive discussion of subsistence uses by communities that use Porcupine Caribou Herd is required in order to better assess the future impacts of development in the coastal plain. The potential impacts associated with oil and gas exploration and development in the 1002 area, like the siting and design of transportation facilities, cannot be addressed with certainty until exploration has confirmed the existence and location of potential oil and gas fields and some understanding of the scope of development is known. Enclosure C describes the basic requirements of ANILCA 810, and provides a recommended approach for meeting these requirements.

5. Water Availability and Use

The draft 1002(h) report correctly notes that water resources in the 1002 area are very limited and confined to the surface. Most of these water sources freeze solid by late winter. Given the paucity of fresh water for industrial use within the 1002 area, the draft report concludes that adjacent marine waters must be viewed as a water resource. Little attention is given to other alternatives used elsewhere on the north slope, such as snow melters and deep thaw lake reservoirs.

Fresh water for use in the Prudhoe Bay oilfield was taken from the Sagavanirktok River adjacent to the Deadhorse industrial area during the early years of that field's development. This removal of water from the Sagavanirktok River resulted in dewatering of fish overwintering habitats with documented mortality of large numbers of fish. As a consequence, the state no longer allows the use of water from this and similar sources. Currently, in order to provide fresh water for industrial uses in the Prudhoe Bay area, the state requires the use of several large surface

water reservoirs that have been developed. The majority of these reservoir sites are depleted deep gravel mine sites that have been flooded with surface water. Other sites are shallow tundra lakes that have been deepened to provide winter water supplies. These water reservoirs are filled either passively or actively from nearby drainages during the spring breakup period and are, in general, isolated from river and stream systems during the remainder of the year. DOI should initiate a more thorough analysis of similar alternatives for industrial water use in the 1002 area.

6. Gravel Use

Gravel sites in ANWR should be sited, developed, and reclaimed in such a manner that overall impacts to water quality and fish and wildlife resources are mitigated. Plans for gravel removal should include detailed plans for the reclamation of the site to be conducted in phases concurrent with the removal of gravel. Gravel sites may also be developed in such a manner that they can be used as water sources for both exploration and development.

7. Disputed Acreage

Although the draft report references the submerged lands ownership dispute between the state and federal government regarding the coastal lagoons between the mainland and offshore barrier islands, it does not address the ownership status of the beds of nontidal navigable waters. The state asserts ownership of the submerged lands underlying the Aichilik, Jago, Okpilak, Hulahula, Salerochit, Staines, and Canning rivers within the 1002 area.

8. Decision Rules and Mitigation Policy

The terms "avoidable adverse impacts" and "unnecessary adverse effects" are not defined and do not appear in USFWS Mitigation Policy (Federal Register, Vol. 46, No. 15). Adding further to the confusion is a list of "unavoidable effects" on page 101 that includes a mix of those that are truly unavoidable (e.g., loss of habitat by gravel overlay for roads and pads) with many that are avoidable with proper design (e.g., erosion and ponding along roads, water storage pits in streambeds).

There also appear to be discrepancies between the explanation regarding Resource Category 1 and 2 in the draft 1002(h) report and the explanation for both of these categories in the federal mitigation policy regulations. Further, the draft 1002(h) report makes no mention of the requirement for "no significant adverse affect" as provided

February 6, 1987

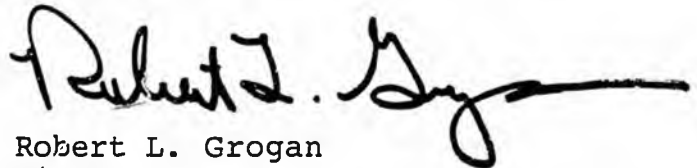
under Section 1002(h) of ANILCA. DOI should address these apparent inconsistencies with USFWS mitigation policy in the final 1002(h) report.

As discussed earlier in our comments, the Alaska Coastal Management Program standards and review procedures need to be addressed in the final 1002(h) report. In particular, reference should be made to the Habitat Standard (6 AAC 80.130) which requires habitats to be managed so as to maintain or enhance their characteristics and that uses and activities which will not conform to this standard may be allowed if there is a significant public need and there is no feasible and prudent alternative to meet the public need.

Conclusion

Recognizing the important renewable and nonrenewable resource values found in ANWR, the state fully supports the opening of the coastal plain to oil and gas leasing subject to appropriate and effective mitigation based on our firm belief that exploration, development, and production can occur in a manner consistent with the established purposes of ANWR. We look forward to reviewing the final 1002(h) report and actively pursuing a joint consultation process in the near future to resolve specific aspects of concern to the State of Alaska.

Sincerely,



Robert L. Grogan
Director

Enclosure

cc: Lieutenant Governor Steve McAlpine
Commissioner Don Collinsworth, DFG, Juneau
Commissioner Judy Brady, DNR, Juneau
Commissioner Dennis Kelso, DEC, Juneau
John Katz, Office of the Governor, Washington DC
Rod Swope, Office of the Governor, Juneau
Mayor George Ahmaogak, North Slope Borough, Barrow
Mayor Loren Ahlers, Kaktovik

ENCLOSURE A
State Comments on Summary of Recommended
Mitigation for the 1002 Area

The following comments are provided within the context of the federally proposed stipulation package summarized on pages 145-147 of the draft 1002(h) report. Our comments represent the state's position in response to the specific federal proposal and do not represent the state's total concern regarding mitigation requirements. The state reserves the right to comment further on stipulations not yet included or discussed with DOI. In addition to the following major comments on the specific stipulations, there are a number of terms and conditions which should be added.

First, there are mitigative measures for certain "non evaluation" species mentioned in the species discussions in the "Environmental Consequences" chapter of the draft 1002(h) report that are not contained in the summary section. These mitigative measures should be added to the summary section. Second, there are a number of factors which are either not addressed or not handled in sufficient detail in order to provide for an overall effective mitigation program. Examples include the following: coordinated state/federal process for design review, permitting, field surveillance, compliance, and enforcement; rehabilitation; maintenance of public fish and wildlife resource use; material exploration, extraction, and rehabilitation; solid waste management; timing restrictions on activities, and setbacks required for the use of explosives; liquid waste management; hazardous waste management; stream crossings and fish passage; water management; bonding and financial responsibility; right of access; erosion control; oil spill contingency planning; penalty provisions for non-compliance; definitions of key terms; identification of information needs; design criteria and compliance plans; quality assurance/quality control; air quality; and support service industries. These subjects need to be addressed in a comprehensive manner and appropriate mitigative measures described.

In addition, the DOI stipulations do not clearly differentiate between stipulations or restrictions applied to exploration versus development. The state suggests that the DOI reorganize the entire mitigation section into two distinct components: exploration, and development. Implementation of the stipulations should be tied to the type of activity proposed. Stipulations referring to area specific closures may be effective forms of mitigation during exploratory activities but may be ineffective or inappropriate during development. For example, the stipulation on no activity within 1/2 mile of a documented polar bear den could be useful and effective during exploration, but it is unclear how it would be implemented during development when facilities are fixed and certain activity levels are required. There are other stipulations that fall into a similar category

and clarification is needed in order to interpret how and when they will be used and implemented.

Stipulation 1 - Sensitive Habitats and Species:

As written it is unclear how this stipulation would be enforced. DOI should define what is included in the term "non essential facilities."

Stipulation 2 - Road and Drainage Designs:

Roads and other facilities should be designed, constructed, and maintained in such a manner that the following performance standards are achieved: natural drainage is maintained; free passage of fish is provided; gravel fills are stable; upslope ponding and downslope dewatering is prevented; the number of stream crossings is minimized; natural floodplains and flow patterns are maintained; spring areas are avoided; and road alignments are perpendicular to stream flows and sited in areas of minimal floodplain width. Design criteria and specifications to satisfy these performance standards should be developed by the industry and should be approved by the appropriate federal and state agencies.

Stipulation 3 - Exploration Pad Construction:

The state strongly supports the objective of this stipulation to minimize gravel requirements for exploration activities.

Stipulation 4 - Rehabilitation Plan:

The need for rehabilitation plans is clear, but the timing of their submittal and definition of measures necessary to ensure that they will be implemented needs further consideration. Separate rehabilitation plans for exploration and development, including abandonment should be required. Also, requirements for conducting necessary research to develop techniques and measures for the rehabilitation of specific sites (e.g., gravel pads, seismic lines, material sites, etc.) should be addressed.

Stipulation 5 - Off-Road vehicles:

Should be modified to prohibit off-road vehicle use, except for travel by snowmachines, unless otherwise specifically permitted.

Stipulation 6 - Limits on Oil Exploration:

While we agree in principle with this stipulation, as written it may be too restrictive. Exploration includes both surface disturbing and non surface disturbing activities. The stipulation should limit any surface disturbance activities to the winter months and allow only non surface disturbing activities during the summer, provided there are no area or timing restrictions that would dictate otherwise.

Stipulation 7 - Gravel and Water Removal:

The state recommends that DOI address gravel removal and water removal separately. In addition, DOI should prohibit winter water removal from fish-bearing waters, springs and tributaries. We also recommend that DOI modify summer/fall water removal language to read: "During summer and fall, water removal shall be restricted to those operations that will maintain instream flows at levels necessary to provide optimum fish passage and rearing habitat, and water quality. In addition, large surface water reservoirs should be created to provide an adequate supply of fresh water for oil and gas related industrial activity." Deep pit type excavations adjacent to active channels of the streams identified as lacking suitable fish overwintering habitat could provide a winter water source and provide overwintering fish habitat. These reservoir sites should incorporate features that will enhance their value as fish and wildlife habitat (e.g., areas of shallow water, varying shoreline, provide for free movement of fish in and out of sites).

With respect to gravel removal, prohibit removal in all fall spawning fish and overwintering areas. Additionally, prohibit gravel removal from all fish-bearing rivers/streams unless approved on site-specific basis. Plans for gravel removal should include detailed plans for the rehabilitation

of the site and rehabilitation must be conducted in phases concurrent with the removal of gravel. The importance of rehabilitation cannot be overemphasized. At a minimum, any gravel site, whether upland and/or floodplain, should be sited and designed to conform to the guidelines as defined in the Gravel Removal Guidelines Manual for Arctic and Subarctic Floodplains (USFWS, Woodward-Clyde Consultants, 1980).

Stipulation 8 - Pipeline Elevation:

We recommend this stipulation be modified by adding a general statement of intent and then incorporate stipulations 8 thru 11 under that statement, and add an additional item regarding traffic control. Suggested language is as follows:

- (a) Include language as proposed in stipulation No. 9.
- (b) Include language as proposed in stipulation No. 10 except pipelines should be buried where "feasible and prudent" not just where "possible."
- (c) Roads and pipelines should be separated. Offset distances shall be optimum for preventing the synergistic effect of roads and pipelines on caribou movement, based on most current relevant research.
- (d) A surface traffic control plan should be prepared, approved by the Regional Director, and implemented. The plan should consider such measures as convoying, pulsed traffic, and seasonal or daily restrictions.

Stipulation 12 - Restrict Surface Occupancy within 3 Miles of Coastline:

The blanket 3-mile buffer for facilities adjacent to the coast is too stringent as written. Provisions must be made to allow drill pads, flow stations, and other

essential support facilities for offshore development, in this buffer strip. In addition, measures must be taken to ensure free passage of caribou along the coast. Criteria must be established to determine which facilities will be allowed in the buffer area.

Stipulation 13 - Monitoring and Research Requirements:

Modify to make two separate terms. One that states: "The DOI should be responsible for ensuring appropriate monitoring of populations, productivity, movements, and general health of key species in relation to overall oil and gas activities in ANWR." Then add a separate requirement to read: Where there is a possibility that an activity could adversely affect fish and wildlife, "Lessees and permittees may be required to monitor the impacts of the activity on selected species, their habitats, and human uses; to evaluate impact hypotheses and the effectiveness of specific mitigation measures employed; and to develop corrective actions, including improved mitigative techniques, as necessary."

Stipulation 14 - Watercourse Setbacks:

The blanket 3/4-mile buffer for all permanent facilities is too stringent as written. Provisions must be made to allow drill pads, flow stations, and other essential facilities within this 3/4-mile buffer. Criteria must be established to determine which facilities will be allowed in the buffer area.

Stipulation 15 thru 18 - Peregrine Falcon and other Raptors Protection:

The state concurs with the need for special protection for the peregrine falcon, however, stipulations should be modified to incorporate language developed by the federal peregrine falcon recovery team. In addition, the same level of protection provided to the endangered peregrine falcon should not be provided to all raptors.

Stipulation 19 - Polar Bears:

This stipulation should be expanded to require an annual fall monitoring program to follow bears moving ashore and identify den site locations.

Stipulation 20 - Construction Near Coastal Bluffs:

Support language as proposed.

Stipulation 21 - Discharge of Firearms:

Restrictions on the discharge of firearms in the vicinity of structures is necessary to protect human safety and oil field operations, however, the five-mile prohibition may be excessive. Further discussion is needed on the subject and the potential effects on human use of resources in the 1002 area.

Stipulation 22 - Prohibit Surface Occupancy in Sadlerochit Spring Special Area:

In addition to the Sadlerochit Spring Special Area, surface occupancy should be prohibited in the area within 1/2 mile of the Fish Hole No. 1 spring outlet located in the Hulahula River, and extend for 1/4 mile on either side of mean high water for a distance of 3 miles downstream of the outlet.

Stipulation 23 - Protection of Thaspi arcticum:

It is not known how widespread this plant is, so it is impossible to determine how large an area will be placed off limits by this stipulation. Until the plant is placed on the endangered species list and more is known regarding its areal extent, it is premature to impose such a restriction.

Stipulation 24 - Causeways:

Based on the state's case-by-case review and experience in authorizing the Westdock, Endicott and Lisburne causeways, we recommend that the proposed stipulation be revised such that the construction of docks and causeways minimize nearshore hydrographic changes and avoid significant adverse effects on fish populations and movements.

Stipulation 25 - Time and Area Closures for Wildlife:

Although the state generally supports the language as proposed, it should be made clear that the stipulation applies only to exploratory activities, vehicle movements, and other activities that can reasonably be re-scheduled for another period of time.

Stipulation 26 - Overflight Restrictions:

Expand to include aircraft overflight restriction above barrier islands, lagoons, river deltas, and wetlands within one mile of coast between May 15 and September 30 (excluding take-offs and landings). Also make clear that human safety takes precedence over the restrictions.

Stipulation 27 - Reduction of Human/Bear Conflicts:

Modify to read, "Measures must be taken to minimize human/bear interaction and conflict. These measures may include, but not be limited to, the use of bear-proof fencing around certain facilities, special solid waste management plans (such as incineration of putrescible wastes), and employee education programs."

Stipulation 28 - Limit Use of Infrastructure to Official Business:

Support language as proposed.

Stipulation 29 - Inventory Areas for Cultural Resources:

Support language as proposed.

Stipulation 30 and 31 - Air and Water Quality Provisions:

As discussed in our cover letter, the proposed stipulations represent a very small step toward defining what will be needed to provide an appropriate level of air and water quality protection as leasing moves forward. Further consultation between DOI and the state is needed on this subject to jointly develop a workable package of specific measures. Such a process would better acquaint DOI with the extensive body of environmental regulation and provide appropriate forums for decisions about stipulations, plans of operations, and permits. It is crucial to ensure that exploration and

Enclosure A

- 8 -

development is conducted in accordance with environmental standards appropriate for the coastal plain of ANWR.

Stipulation 32 - Environmental Orientation Programs:

Support the language as proposed.

Enclosure A/kfi

ENCLOSURE B

SUMMARY OF MAJOR STATE AUTHORITIES PERTINENT TO ANWR

The State of Alaska defines and regulates the following:

<u>Program</u>	<u>Statutes</u>	<u>Definitions</u>	<u>Regulations</u>	<u>Definitions</u>
1) SOLID WASTE	AS 46.03.100-120 800-810	AS 46.03.900(24)	18 AAC 60 (draft)	18 AAC 60.910(49)
Construction Waste				(Not defined)
Industrial Waste		AS 46.03.900(10)		-- --
Other Wastes		AS 46.03.900(16)		-- --
"Drilling Wastes"		AS 46.03.900(31-32)		18 AAC 60.910(16)
Putrescible Waste		-- --		18 AAC 60.910(40)
Septage, Sewage Sludge Sludge		-- --		18 AAC 60.910(46) to (48)
Sanitary Waste		-- --		-- --
2) LITTER	AS 46.06	AS 46.06.150(4)		
3) HAZARDOUS	AS 46.03.296-308 830-833	AS 46.03.299(a)-(b)	18 AAC 62	

	<u>Type of Waste</u>	<u>Statutes</u>	<u>Definitions</u>	<u>Regulations</u>	<u>Definitions</u>
4)	OIL and HAZARDOUS SUBSTANCES*	AS 46.03.740 758-760 760-790 822-826		18 AAC 20 18 AAC 75	
	Oil	AS 46.04	AS 46.03.758 (6) AS 46.03.826 (4) AS 46.04-120 (9) AS 46.08.900 (7)		
	Hazardous Substances	AS 46.03.826 (3)	AS 46.08.900 (6) AS 46.09.900 (4)		
5)	WASTEWATER	AS 46.03.100-120		18 AAC 72	
	Domestic Wastewater		-- --		18 AAC 72.990 (16)
	Graywater		-- --		18 AAC 72.990 (24)
	Non-domestic Wastewater		-- --		18 AAC 72.990 (29)
	Other Wastes		-- --		18 AAC 72.990 (32)
	Septage		-- --		18 AAC 72.990 (44)
	Sludge		-- --		18 AAC 72.990 (50)
	Spoils		-- --		18 AAC 72.990 (52)

* Note new legislation adding AS 46.08, AS 46.09, and amending AS 46.03.745, 758 (k), 760 (a), 765, 780 (a), 790 (a) (b) (d) and AS 46.04.010 and 090 (b).

<u>Type of Waste</u>	<u>Statutes</u>	<u>Definitions</u>	<u>Regulations</u>	<u>Definitions</u>
6)	TOXIC MATERIALS and WASTES are a "special class regulated under the Federal Toxic Substances Control Act and National Emission Standards for Hazardous Air Pollutants.			
7)	HABITAT PROTECTION			
	Fish Habitat Permit	AS 16.05.840	-- --	
		AS 16.05.870		
8)	COASTAL MANAGEMENT			
		AS 46.40	6 AAC 50	6 AAC 50.190
			6 AAC 80	6 AAC 80.900
			6 AAC 85	6 AAC 85.900
9)	WATER USE			
		AS 46.15	11 AAC 93	
10)	GRAVEL SALES			
	a. Near Shore	AS 38.05.110-120		
	b. Navigable Rivers	AS 38.05.110-120		
11)	PIPELINE RIGHT OF WAY LEASES			
	a. Near Shore	AS 38.35	11 AAC 80	
	b. Navigable Rivers	AS 38.35		
12)	OIL AND GAS LEASES			
	a. Near Shore	AS 38.05.180	11 AAC 83	
	b. Navigable Rivers	AS 38.05.180		

<u>Type of Waste</u>	<u>Statutes</u>	<u>Definitions</u>	<u>Regulations</u>	<u>Definitions</u>
13) SURFACE LEASES			11 AAC 62	
a. Near Shore	AS 38.05.070-075			
b. Navigable Rivers	AS 38.05.070-075			
14) LAND USE PERMITS				
a. Near Shore	AS 38.05.850		11 AAC 62	
b. Navigable Rivers	AS 38.05.850			
15) CLASSIFICATION				
a. Near Shore	AS 38.04.065-900		11 AAC 55	
b. Navigable Rivers	AS 38.04.065-900			
16) ACCESS ALONG HISTORIC TRAILS	RS 2477			

Enclosure B/kfi

ENCLOSURE C

**A Recommended Approach to
Implementation of ANILCA §810**

March 14, 1986

§810 of ANILCA requires federal agencies to consider the effects of proposed land actions upon people engaged in subsistence uses. Specifically, it requires agencies to:

1. Evaluate the effects of the proposed action on subsistence uses and needs;
2. Determine the availability of other lands for the purposes sought to be achieved and assess whether other alternatives are available which would reduce or eliminate the use, occupancy or disposition of public lands needed for subsistence purposes;
3. Determine whether the proposed action would "significantly restrict" subsistence uses;
4. If the proposed action would significantly restrict subsistence uses, to:
 - a. Meet certain public notice and hearing requirements.
 - b. Determine that such a restriction meets certain standards, including involving the minimum amount of public lands and minimizing adverse impacts upon subsistence uses and resources.

This paper describes the basic requirements of §810 and provides a systematic approach to meeting these requirements when making a decision on an OCS oil and gas lease sale.

Evaluating Effects on Subsistence Uses

ANILCA §810 provides, as a starting point, that "in determining whether to...lease...public lands...the head of the federal agency having primary jurisdiction over such lands...shall evaluate the effect of such use, occupancy, or disposition...on subsistence uses and needs...."

This section is clearly intended to require a specific assessment of impacts on subsistence uses. An adequate §810 evaluation must include complete and accurate information about the proposed action and about the subsistence uses of potentially affected wild resources.

Information about the wildlife populations, fish stocks, and geographic areas which could be affected by the proposed action

are needed to determine the scope of potential effects on subsistence. Information about the specific subsistence uses of, and needs related to, these resources and areas is required to identify and evaluate these effects. This includes data on:

1. Who uses the resources which could be affected;
2. Where, when, and how the resources are harvested;
3. How much they use; and,
4. The significance of the harvested resources for meeting socioeconomic and cultural needs.

Maps of community subsistence use areas can provide valuable data about which communities and groups of people use fish and wildlife that could be affected. Each §810 evaluation should include a map and list of communities that use the stocks and populations of resources potentially affected by a proposed action. The Alaska Department of Fish and Game routinely develops maps of subsistence use as it conducts community subsistence studies. The state welcomes opportunities to cooperate with federal agencies in improving the subsistence data base.

Once the area and communities which could be affected by an action are identified, an assessment must be made of the potential effects of the action on uses of fish and wildlife. The potential linkages between the proposed action, fish and wildlife resources, and subsistence uses need to be clearly described. This can be accomplished through developing hypothetical scenarios, and tracing their implications out through the biological system to the people who rely on subsistence uses.

The evaluation of effects should address potential positive, neutral, and negative effects, as well as direct and indirect impacts on subsistence uses resulting from a proposed lease sale. The guidelines for implementation of §810 developed by the Alaska Land Use Council are helpful in identifying several effects which would restrict subsistence uses:

1. A reduction in subsistence uses due to direct impacts on the resource, adverse impacts on habitat, increased competition for the resources, or other factors;
2. A reduction in the subsistence uses due to changes in availability of resources caused by an alteration in their distribution, migration, or location; and
3. A reduction in subsistence uses due to limitations

on the access to harvestable resources, such as by physical or legal barriers.

An adequate §810 assessment must consider the potential effects of the proposed action in each community which would be affected. In some circumstances, however, it may be necessary to examine effects on the subsistence uses of "typical" communities or groups of people within the affected zone.

Biological and socioeconomic data need to be at a level of detail which will allow a meaningful assessment of potential impacts on the people who use resources for subsistence. These effects can occur at the individual, household, community and regional level.

A working document has been developed by the Alaska Land Use Council which identifies minimum data standards for making an adequate §810 assessment. (Alaska Land Use Council Working Group II; November 28, 1984, Draft Standards and Guidelines for the Collection, Analysis, and Presentation of Subsistence Use Information for ANILCA §810 Determination, pp. 5-6.) In some cases existing data on subsistence uses may not be adequate to conduct a §810 analysis. Agencies must anticipate these special data needs at the earliest stages in the EIS process. Public meetings may be useful in compiling additional data on subsistence uses and needs. Additional research may also be necessary to address particular data gaps. New studies should be closely coordinated with the State of Alaska as required by ANILCA §812.

The §810 evaluation must thoroughly describe and document data about subsistence resources and uses so that all concerned parties can ascertain which resources and subsistence uses could be affected by a proposed action.

Identifying Alternatives

§810(a) also requires federal agencies to evaluate "...the availability of other lands for the purposes to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes."

In ANILCA §802 Congress states its policy that the "...utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands...." It is therefore important that §810 analyses fully identify and explore alternative areas and approaches which would minimize adverse impacts on rural residents.

Determining Whether Actions Would "Significantly Restrict"
Subsistence Use

Once the potential effects of the lease sale upon subsistence uses have been described, the next step required by §810 is to determine whether these effects could "significantly restrict subsistence uses...."

The legislative history of ANILCA gives no clue to the intended meaning of "significantly restrict." The closest parallel to the "significantly restrict" standard appears to be the requirement of the National Environmental Policy Act (NEPA) to analyze actions which may "significantly affect" the environment. Regulations of the Council on Environmental Quality (CEQ) for implementing NEPA state that both the context and intensity of impacts must be considered in deciding significance.

The people who would be affected, and the roles that the particular resources play in their lives provide the obvious context for evaluating significance in relation to restrictions on subsistence uses. The "intensity" of effects also has to be evaluated in relation to use of specific resources by people.

In §810 Congress recognized that subsistence uses are essential to many rural Alaskans, and intended federal land actions to have the least adverse impact possible upon them.

When considered in relation to this mandate, a "significant" restriction to subsistence uses is an effect which imposes a meaningful burden or hardship on particular people.

A determination of "significance" therefore requires discussion of such factors as socioeconomic circumstances, the degree to which harvest of particular resources could be reduced by the proposed action, and the consequences of the frequency, timing, and location of restrictive effects. These need to be evaluated in the context of the people who actually harvest and use the potentially affected resources, and in the context of what would constitute a meaningful burden to those people.

A hypothetical example may be useful in demonstrating the approach suggested above:

During an EIS study a proposed lease sale is determined potentially to affect local salmon stocks. The studies suggest that the activity will not have a major impact on regional salmon populations or regional harvest levels, but depending on its timing and precise location, it could reduce a particular stock or run. It is impossible, given uncertainty about where or when the activity will occur, to predict exactly which salmon stock might be affected. However, the EIS has identified 20 communities and groups of people who make subsistence use of the

salmon runs which migrate through the general impact area and could be affected. The §810 evaluation therefore identifies these communities and the potential risks. It then examines what effect a reduction in a local salmon run could have for households within typical communities, perhaps dividing the communities into four or five categories, based on location, degree of reliance on subsistence resources, and so forth.

In the hypothetical example, the FEIS concludes that the proposed action could substantially reduce local stocks of king salmon for one or more seasons. As subsistence uses have been shown to occur on these stocks the §810 analysis would then identify this as a potential restriction and then go on to determine whether the action would "significantly restrict" the subsistence use of king salmon. In this analysis king salmon are one of the first fresh foods available to particular households in early summer, and the loss of king salmon for one or more seasons would be a meaningful burden on families in the communities. The §810 analysis, after weighing the risks to subsistence use of king salmon against the important role of king salmon to the people, might conclude that the action could "significantly restrict" subsistence use of king salmon in several of the communities.

Meeting Notice and Hearing Requirements

§810(a) requires the head of each federal agency to meet certain notice and hearing requirements before allowing an action which would significantly restrict subsistence uses. The appropriate state agency and appropriate local committees and regional councils established under §805 must be notified, and a hearing must be held in the vicinity of the area involved.

In ANILCA §801 Congress clearly stated its intent that rural residents, who have knowledge of local conditions and subsistence requirements, should have a meaningful role in decisions affecting subsistence uses and needs. The specific requirements of §810 are intended to ensure that federal agencies have the best available information about the potential effects of proposed actions on rural residents. They also seem, when taken in conjunction with §810(a)(3), to be intended to ensure that local knowledge and experience is brought to bear on the requirement that adverse impacts on subsistence be minimized.

Again, a community focus in evaluating effects would simplify the notice and hearing requirements. Each §810 evaluation should include a map and list of the communities potentially affected, and identify those where subsistence uses could be significantly restricted. In this way §810 assessment itself would indicate many of the groups which should be notified.

It is ~~essential~~ for agencies to follow the §810 procedures for public involvement in instances where a determination of significance is not clear or where there may be significant restriction even though certain data may not yet be available to support the finding.

Public notification of hearings following a determination of significant restriction should follow several avenues, including:

1. Notice published in local and regional newspapers;
2. Notice mailed to local fish and game advisory committees, regional councils, local governments, and Native organizations;
3. Notice aired on local radio and/or television broadcasts;
4. Notice posted in community halls and other local meeting places; and
5. Personal communications with individuals or groups known by the land manager to have an interest in the action.

Minimizing unavoidable adverse impacts upon subsistence uses and resources

§810(a)(3) requires three findings before an action which would significantly restrict subsistence uses can proceed.

1. That such a significant restriction of subsistence uses is necessary, consistent with sound management principles, for the utilization of public lands.

This finding of necessity should be specific to the proposed action, and should be based upon an analysis of the potential impacts upon subsistence uses and the relative value of the proposed action in meeting the goals for the use of public lands.

2. That the proposed activity will involve the minimal amount of public land necessary to accomplish its purposes.

The finding of necessity should exclude all public lands that are not necessary to achieving the proposed purpose.

3. That reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources.

Identification and consideration of possible mitigation measures are required to minimize the adverse impacts to subsistence uses that could result from the proposal to use, occupy, or dispose public lands. These can take many forms, and as noted above, public involvement can play a key role in developing suitable mitigation measures.

The following categories represent a broad range of types of mitigation measures:

1. Alternatives for delating public lands from the proposed action to reduce the risk of potential subsistence resource restriction.
2. Alternatives for reducing impact to seasonal camps and other harvest and use locations;
3. Alternatives for reducing habitat changes that may reduce species abundance and decrease harvest opportunity;
4. Alternatives for reducing numbers of people living in, working in, or passing through area;
5. Alternatives for reducing numbers of people competing for resources;
6. Alternatives for reducing disturbance, roads, noise, water quality degradation, etc., that may affect distribution of species;
7. Alternatives for reducing land classification and ownership changes;
8. Alternatives for reducing changes in access routes to use areas; or
9. Alternatives for compensating people for losses.

Time and area restrictions on activity may frequently be useful in mitigating effects on subsistence uses.

Summary

Federal agencies can satisfy the requirements of ANILCA §810 by following the systematic approach outlined above. An adequate §810 evaluation for an OCS oil and gas lease sale would clearly meet the following standards:

1. Identify the people who make subsistence use of all wild resources which would be affected by the proposed action;
2. Identify the nature of their subsistence uses and needs for these resources;
3. Describe the potential effects of the proposed action on wild resources and upon community subsistence uses and needs, and identify which of these effects could be restrictions;
4. Make a determination of whether potential restrictions would be "significant" in the context of the meaning of the affected resources to the people who use them, and the role the resources play in their lives;
5. Identify alternatives that would minimize adverse impacts on rural residents;
6. If the proposed action could significantly restrict particular subsistence uses:
 - a. Meet notice and hearing requirements;
 - b. make findings that:
 1. the necessity for the proposed action outweighs the risks to subsistence;
 2. the proposed action will involve the minimal amount of public lands needed to accomplish its purpose;
 3. reasonable steps will be taken to minimize adverse impacts upon subsistence uses and needs.
7. Thoroughly document all data and findings so that concerned parties have access to them.

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Katz

RECEIVED

JUL 10 1987

THE SECRETARY OF STATE
WASHINGTON

GOVERNOR'S OFFICE

July 6, 1987

Dear Governor Cowper:

Thank you for your letter of June 9 concerning the Porcupine Caribou Herd Agreement.

I realize the importance of this herd to the people of Alaska, and I appreciate your comments on the suggested changes to the draft language of this agreement. You will be pleased to know that after discussion, it was decided to retain the original text without the proposed changes.

For your information, I am enclosing a draft copy of the Agreement as provided to the Government of Canada for concurrence. We expect the Porcupine Caribou Herd Agreement to be signed in the very near future.

Sincerely yours,

George P. Shultz

Enclosure
As stated.

COMMISSIONER'S OFFICE
RECEIVED
JUL 14 1987

The Honorable
Steve Cowper,
Governor of Alaska,
Juneau.

DEPARTMENT OF FISH AND GAME

(formulation for Canadian text)

AGREEMENT
BETWEEN
THE GOVERNMENT OF CANADA
AND
THE GOVERNMENT OF THE UNITED STATES OF AMERICA
ON THE CONSERVATION OF THE PORCUPINE CARIBOU HERD

The Government of Canada and the Government of the United States of America, hereinafter called the "Parties":

(formulation for U.S. text)

AGREEMENT
BETWEEN
THE GOVERNMENT OF THE UNITED STATES OF AMERICA
AND
THE GOVERNMENT OF CANADA
ON THE CONSERVATION OF THE PORCUPINE CARIBOU HERD

The Government of the United States of America and the Government of Canada, hereinafter called the "Parties":

Recognizing that the Porcupine Caribou Herd regularly migrates across the international boundary between Canada and the United States of America and that caribou in their large free-roaming herds comprise a unique and irreplaceable natural resource of great value which each generation should maintain and make use of so as to conserve them for future generations;

Acknowledging that there are various human uses of caribou and that for generations certain people of Yukon Territory and the Northwest Territories in Canada have customarily and traditionally harvested Porcupine Caribou to meet their nutritional, cultural and other essential needs and will continue to do so in the future, and certain rural residents of the State of Alaska in the United States of America have harvested Porcupine Caribou for customary and traditional uses and will continue to do so in the future; and that these people should participate in the conservation of the Porcupine Caribou Herd and its habitat;

Recognizing the importance of conserving the habitat of the Porcupine Caribou Herd, including such areas as calving, post-calving, migration, wintering and insect relief habitat;

Understanding that the conservation of the Porcupine Caribou Herd and its habitat requires goodwill among landowners, wildlife managers, users of the caribou and other users of the area;

Recognizing that the Porcupine Caribou Herd should be conserved according to ecological principles and that actions for the conservation of the Porcupine Caribou Herd that result in the long-term detriment of other indigenous species of wild fauna and flora should be avoided;

Recognizing that the Parties wish to establish co-operative bilateral mechanisms to co-ordinate their activities for the long-term conservation of the Porcupine Caribou Herd and its habitat;

Recognizing that co-operation and co-ordination under this Agreement should not alter domestic authorities regarding management of the Porcupine Caribou Herd and its habitat and should be implemented by existing rather than new management structures;

Have agreed as follows:

1. Definitions

For the purpose of this Agreement only:

- a. "Porcupine Caribou Herd" means those migratory barren ground caribou found north of 64 degrees, 30 minutes north latitude and north of the Yukon River which usually share common and traditional calving and post-calving aggregation grounds between the Canning River in the State of Alaska and the Babbage River in Yukon Territory and which historically migrate within the State of Alaska, Yukon Territory, and the Northwest Territories.
- b. "Conservation" means the management and use of the Porcupine Caribou Herd and its habitat utilizing methods and procedures which ensure the long-term productivity and usefulness of the Porcupine Caribou Herd. Such methods and procedures include, but are not limited to, activities associated with scientific resources management such as research, law enforcement, census taking, habitat maintenance, monitoring and public information and education.

- c. "Habitat" means the whole or any part of the ecosystem, including summer, winter and migration range, used by the Porcupine Caribou Herd during the course of its long-term movement patterns, as generally outlined on the map attached as an Annex.

2. Objectives

The objectives of the Parties are:

- a. To conserve the Porcupine Caribou Herd and its habitat through international co-operation and co-ordination so that the risk of irreversible damage or long-term adverse effects as a result of use of caribou or their habitat is minimized;
- b. To ensure opportunities for customary and traditional uses of the Porcupine Caribou Herd by:
 - (1) in Alaska, rural Alaska residents in accordance with 16 U.S.C. 3113 and 3114, AS 16.05.940(23), (28) and (32), and AS 16.05.258(c); and
 - (2) in Yukon and the Northwest Territories, Native users as defined by sections A8 and A9 of the Porcupine Caribou Management Agreement (signed on October 26, 1985) and those other users identified pursuant to the process described in section E2(e) of the said Agreement;
- c. To enable users of Porcupine Caribou to participate in the international co-ordination of the conservation of the Porcupine Caribou Herd and its habitat;
- d. To encourage co-operation and communication among governments, users of Porcupine Caribou and others to achieve these objectives.

3. Conservation

- a. The Parties will take appropriate action to conserve the Porcupine Caribou Herd and its habitat.
- b. The Parties will ensure that the Porcupine Caribou Herd, its habitat and the interests of users of Porcupine Caribou are given effective consideration in evaluating proposed activities within the range of the Herd.

- c. Activities requiring a Party's approval having a potential impact on the conservation of the Porcupine Caribou Herd or its habitat will be subject to impact assessment and review consistent with domestic laws, regulations and processes.
- d. Where an activity in one country is determined to be likely to cause significant long-term adverse impact on the Porcupine Caribou Herd or its habitat, the other Party will be notified and given an opportunity to consult prior to final decision.
- e. Activities requiring a Party's approval having a potential significant impact on the conservation or use of the Porcupine Caribou Herd or its habitat may require mitigation.
- f. The Parties should avoid or minimize activities that would significantly disrupt migration or other important behavior patterns of the Porcupine Caribou Herd or that would otherwise lessen the ability of users of Porcupine Caribou to use the Herd.
- g. When evaluating the environmental consequences of a proposed activity, the Parties will consider and analyse potential impacts, including cumulative impacts, to the Porcupine Caribou Herd, its habitat and affected users of Porcupine Caribou.
- h. The Parties will prohibit the commercial sale of meat from the Porcupine Caribou Herd.

4. International Porcupine Caribou Board

- a. The Parties will establish an advisory board to be known as the International Porcupine Caribou Board, hereinafter called the Board.
- b. The Parties will each appoint four members of the Board within a reasonable period following the entry into force of the present Agreement.
- c. The Board will:
 - (1) adopt rules and procedures for its operation, including those related to the chairmanship of the Board; and

- (2) give advice or make recommendations to the Parties, subject to concurrence by a majority of each Party's appointees.
- d. The Board, seeking, where appropriate, information available from management agencies, local communities, users of Porcupine Caribou, scientific and other interests, will make recommendations and provide advice on those aspects of the conservation of the Porcupine Caribou Herd and its habitat that require international co-ordination, including but not limited to the following:
- (1) the sharing of information and consideration of actions to further the objectives of this Agreement at the international level;
 - (2) the actions that are necessary or advisable to conserve the Porcupine Caribou Herd and its habitat;
 - (3) co-operative conservation planning for the Porcupine Caribou Herd throughout its range;
 - (4) when advisable to conserve the Porcupine Caribou Herd, recommendations on overall harvest and appropriate harvest limits for each of Canada and the United States of America taking into account the Board's review of available data, patterns of customary and traditional uses and other factors the Board deems appropriate;
 - (5) the identification of sensitive habitat deserving special consideration; and
 - (6) recommendations, where necessary, through the Parties as required, to other boards and agencies in Canada and the United States of America on matters affecting the Porcupine Caribou Herd or its habitat.
- e. It is understood that the advice and recommendations of the Board are not binding on the Parties; however, by virtue of this Agreement, it has been accepted that the Parties will support and participate in the operation of the Board. In particular they will:
- (1) provide the Board with information regarding the conservation and use of the Porcupine Caribou Herd and its habitat;

- (2) promptly notify the Board of proposed activities that could significantly affect the conservation of the Porcupine Caribou Herd or its habitat and provide an opportunity to the Board to make recommendations;
- (3) consider the advice and respond to the recommendations of the Board; and
- (4) provide written reasons for the rejection in whole or in part of conservation recommendations made by the Board.

5. International Responsibility

The Parties will consult promptly to consider appropriate action in the event of:

- a. significant damage to the Porcupine Caribou Herd or its habitat for which there is responsibility, if any, under international law; or
- b. significant disruption of migration or other important behavior patterns of the Porcupine Caribou Herd that would significantly lessen the ability of users of Porcupine Caribou to use the Herd.

6. Implementation

Co-operation and co-ordination under and other implementation of this Agreement shall be consistent with the laws, regulations and other national policies of the Parties and is subject to the availability of funding.

7. Interpretation and Application

All questions related to the interpretation or application of the Agreement will be settled by consultation between the Parties.

8. Entry into Force; Amendments

- a. This Agreement which is authentic in English and French shall enter into force on signature and shall remain in force until terminated by either Party upon twelve months' written notice to the other.

- b. At the request of either Party, consultations will be held with a view to convening a meeting of the representatives of the Parties to amend this Agreement.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments, have signed this Agreement.

DONE at _____, in duplicate, this _____ day of _____, 1987 in the English and French languages, both texts being equally authentic.

(formulation for the Canadian text)

FOR THE GOVERNMENT OF
CANADA

FOR THE GOVERNMENT OF THE
UNITED STATES OF AMERICA

(formulation for the U.S. text)

FOR THE GOVERNMENT OF THE
UNITED STATES OF AMERICA

FOR THE GOVERNMENT OF
CANADA

5470T: 6/17/87

final 6/18/87

GENERAL RANGE OF THE PORCUPINE CARIBOU HERD

