

SB

182

Senate Special Committee on Oil and Gas

Legislation Checklist

Bill number: SB 182 Sponsor: O&G COMMITTEE

Date referred to committee: 3/12/87 Further referrals:

Prior committee report:

Resources
Finance

Back up from sponsor:

Fiscal note(s):

Agency: DNR

Requested:

Received:

Agency:

Requested:

Received:

Position paper(s):

Agency:

Requested:

Received:

Agency:

Requested:

Received:

Sectional Analysis:

Scheduled: 3/24 Heard: 3/24 Reported out:

Items for committee packet:

To Testify:

Jim Eason

762-4246 - Pam Rogers

Mike Abbott, RDC

276-0700

Eason

ADGA

Dan Smith, Exxon

Other Contacts:

RDC - 2

ADFG -

DEC -



ALASKA STATE LEGISLATURE

SENATE SPECIAL COMMITTEE ON OIL AND GAS

Senator Bettye Fahrenkamp
Chairman
Senator Jack Coghill
Senator Paul Fischer

P.O. Box V, State Capitol
Juneau, Alaska 99811
(907) 465-3834

MEMORANDUM

TO: Senator John Binkley, Co-Chairman
Senate Finance Committee

FROM: Senator Bettye Fahrenkamp *BF* Chairman
Senate Special Committee on Oil and Gas

RE: Committee Hearing on SB 182

DATE: April 30, 1987

I would appreciate your scheduling SB 182, An Act relating to the written findings required for certain state oil and gas lease sales, for a hearing before the Senate Finance Committee.

Current statute requires that all proposed state oil and gas lease sales be included in a yearly five year leasing program submitted to the legislature. However, under certain circumstances, sales that are not included in the five year plan, or "exempt sales", may be held. Exempt sales usually include previously offered leases, areas adjacent to those leases, or areas in which industry has shown high interest. Current statute requires that a written best interest finding be made for most exempt sales.

SB 182 would waive the best interest finding requirement for exempt sales if a previous finding has been made for that area within the preceding three years. This change may enable the department to add new areas to the leasing schedule with reduced administrative costs and delay.



ALASKA STATE LEGISLATURE

SENATE SPECIAL COMMITTEE ON OIL AND GAS

Senator Bettye Fahrenkamp
Chairman
Senator Jack Coghill
Senator Paul Fischer

P.O. Box V, State Capitol
Juneau, Alaska 99811
(907) 465-3834

MEMORANDUM

TO: Members, Senate Special Committee on Oil and Gas

FROM: Committee Staff

RE: Committee Meeting, March 24, 1987

DATE: March 23, 1987

On Tuesday, March 24, at 3:30 pm in the Beltz Room, the Senate Special Committee on Oil and Gas will hear SB 182, Relating to state oil and gas lease sales.

Current statute requires that all proposed state oil and gas lease sales be included in a yearly five year leasing program submitted to the legislature. However, under certain circumstances, sales that are not included in the five year plan, or "exempt sales", may be held. Exempt sales usually include previously offered leases, areas adjacent to those leases, or areas in which industry has shown high interest. Current statute requires that a written best interest finding be made for most exempt sales.

SB 182 would waive the best interest finding requirement for exempt sales if a previous finding has been made for that area within the preceding three years. This change may enable the department to add new areas to the leasing schedule with reduced administrative costs and delay.

Comments of
D. M. Smith
Exxon Company, U.S.A.
Senate Special Committee on Oil and Gas
SB-182
March 24, 1987

Good Afternoon. My name is Dan Smith and I am a Senior Government Affairs Representative with Exxon Company, U.S.A. I appear before you today to offer Exxon's support for Senate Bill 182.

Current law requires that land not included on the states five year lease program for two years can only be offered for leasing under specific conditions. Most of those conditions require that the Department of Natural Resources must, after a hearing, make a written finding in order to lease the lands in question. Such lands include land contiguous to already leased properties, land adjacent to land owned or controlled by another party on which discoveries of commercial quantities have been made, or land adjacent to land included in the Federal OCS leasing program.

By streamlining the pre-leasing requirements to use existing findings for these well studied areas, this bill would simultaneously help the state avoid unnecessary costs and facilitate leasing in known areas of interest. In supporting this bill, we would hope that this accelerated timing would not be so rapid as to deprive potential bidders of time to adequately prepare to participate in a lease sale.

We appreciate the opportunity to comment.

JDH/4284:dag
3/23/87

MEMORANDUM
DEPARTMENT OF NATURAL RESOURCES

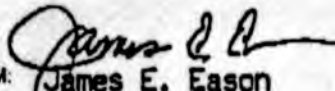
State of Alaska
DIVISION OF OIL AND GAS

TO: Carol Wilson, Special Assistant
to the Commissioner

DATE: February 3, 1987

FILE NO:

TELEPHONE NO: 762-4241

FROM: 
James E. Eason
Director

SUBJECT: Proposals to Streamline
Exempt Lease Sale Process

While I was in Juneau the week of January 26-30, I was asked by both Senator Bettye Fahrenkamp and Senator Jack Coghill for recommendations on how to promote early exploration of the state's lands; specifically, how to streamline the procedures for exempt oil and gas lease sales. On January 30, Ned Farquhar called me on behalf of Representative Sam Cotten and said that Rep. Cotten might be interested in possible changes to Title 38 that would make it easier to hold exempt acreage sales.

At present, exempt acreage sales must follow all of the procedural "hoops" required of scheduled sales. One way to streamline the process would be to apply previous best interest findings under AS 38.05.035 to the exempt sale area. This would greatly reduce administrative costs and delay. I am sending you a suggested change to AS 38.05.035 that would enable the state to hold exempt sales without having to write preliminary or final .035 best interest findings if the leases offered are in, contiguous with or adjacent to an area for which a written .035 finding has been prepared during the preceding 36 months. I would appreciate your discussing this proposal with the Commissioner, and if it meets with her approval, transmitting it on my behalf to Senators Fahrenkamp and Coghill and Representative Cotten.

AS 38.05.035(e). Amend by adding a new section (7), as follows: "(7) an exempt oil and gas lease sale under AS 38.05.180(d) for which a written finding has been issued, within a period of 36 months before the date of the sale, for the area of the proposed sale, or for contiguous or adjacent areas."

cc: Mark Worcester
Pam Rogers

0737R

DELIVER TO: <u>Carol Wilson</u>	LOCATION: <u>Juneau</u>
FROM: <u>Jim Eason</u>	LOCATION: <u>Oil & Gas</u>
TELEPHONE/TELECOPIER # <u>586-2734</u>	TOTAL NUMBER OF PAGES <u>4</u>
TRANSMITTING ON/SPEED <u>DATE 2/3/87</u>	TH <u>4:00</u>
PHONE FOR PROBLEMS NAME/NUMBER <u>762-4241</u>	
COMMENTS	

Ned Far
SR
sov

5-0732A ✓
Bannister
2/26/87

SENATE SPECIAL COMMITTEE
ON OIL AND GAS
BY FAHRENKAMP

1 IN THE SENATE

2 SENATE BILL NO.

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to state oil and gas lease sales."

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

8 * Section 1. AS 38.05.035(e) is amended to read:

9 (e) Upon a written finding that the interests of the state will
10 be best served, the director may, with the consent of the commis-
11 sioner, approve contracts for the sale, lease, or other disposal of
12 available land, resources, property or interests in them, and, in
13 addition to the conditions and limitations imposed by law, may impose
14 additional conditions or limitations in the contracts as the director
15 determines, with the consent of the commissioner, will best serve the
16 interests of the state. A contract for the sale, lease, or other
17 disposal of available land or an interest in land is not legally
18 binding on the state until the commissioner approves the contract but
19 if the appraised value is not greater than \$50,000 in the case of the
20 sale of land or an interest in land, or \$5,000 in the case of the
21 annual rental of land or interest in land, the director may execute
22 the contract without the approval of the commissioner. Before a
23 public hearing, if held, or in any case no less than 21 days before
24 the sale, lease, or other disposal of available land, property, re-
25 sources, or interests in them, the director shall make available to
26 the public a written finding that sets out the facts and applicable
27 law upon which the determination that the sale, lease, or other dis-
28 posal will best serve the interests of the state was based. A written
29 finding is not required before the approval of

1 (1) a contract for a negotiated sale authorized under
2 AS 38.05.115;

3 (2) a lease of land for a shore fishery site under AS 38.-
4 05.082;

5 (3) a permit or other authorization revocable by the com-
6 missioner;

7 (4) a mineral claim located under AS 38.05.195;

8 (5) a mineral lease issued under AS 38.05.205; [OR]

9 (6) a production license issued under AS 38.05.207; or

10 (7) an oil or gas lease sale under AS 38.05.180(d), if
11 within 36 months before the lease sale a written finding under this
12 subsection has been made for the area of the proposed lease sale or
13 for an area that is contiguous with or adjacent to the area of the
14 proposed lease sale.
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RESOURCE DEVELOPMENT COUNCIL
OIL AND GAS DIVISION
PROPOSED AMENDMENTS TO AS 38.05

Proposed Amendments to Implement Land Ownership and Management Strategies (page 6) to make it easier for the Commissioner of Natural Resources to add new areas to the leasing schedule.

AS 38.05.180 (b) is amended by adding a new sub-section to read:

(1) The leasing schedule should consider all prospective lands in the state and should provide that at least five percent of all state acreage be offered for ~~sale~~ each year.

lease

AS 38.05.180 (c) is amended to read:

brad new areas
Oil and gas lease sales should be held as provided in the five year leasing program but due to (changing circumstances) the commissioner may add to the schedule during a year by giving notice to the public at least 180 days prior to a sale. A sale may be delayed by the commissioner if he determines it is in the best interest of the state. *etc*

Proposed Amendment to AS 38.05 to Implement Oil and Gas Strategy on "Incentives and Taxation to reinstate the "discovery royalty" (page 9).

AS 38.05.180 is amended by adding a new subsection to read:

(aa) the lessee of a state oil and gas lease on which a discovery well has been drilled shall be entitled to withhold a discovery royalty award of 60% of the oil and gas royalty otherwise payable to the state for that lease for a period of ten years provided that all of the following criteria are met:

1) the well must be drilled at a surface location at least 10 miles from the surface location of any other well which has been tested in commercial quantities or is presently capable of producing in commercial quantities; 2) a discovery test in commercial quantities has been witnessed by an agent of the state; 3) the discovery test interval is located entirely under the lease for which the award is given; 4) the discovery test is completed within one year from the date of first penetration of the producing zone in that well and 5) applications for the award is made within 180 days of the completion of the commercial test. The royalty award will be effective for 10 years from the date of first continuous production from the well.

Proposed Amendment to AS 38.05 to Implement Oil and Gas Strategy on
"Incentives and Taxation" (pages 8 and 9).

AS 38.05.180(i) is amended as follows:

(i) The commissioner SHALL (may) provide for the establishment of an exploration incentive credit system under which a lessee of state land drilling an exploratory well on that land may earn credits based upon the footage drilled and the region in which the well is situated. The commissioner SHALL (may) also provide for credits to be earned by persons performing geophysical work on state land, if that work is performed during the two seasons immediately preceding an announced lease sale and on land included within the sale area and the geophysical information is made public following the sale. Credits may not exceed 50 percent of the cost of the drilling or geophysical work. Credits may be used during a limited period established by the commissioner and may be assigned during that period. Credits may be applied against (1) oil and gas royalty and rental payments payable to the state or (2) taxes payable under AS 43.55. A credit may not exceed 50 percent of the payment toward which it is being applied. Amounts due the Alaska permanent fund (AS 37.13.010) shall be calculated before the application of credits under this subsection.

PDC amendments

①

what is "all prospective land"?

balance between flooding

except sales - not a 5-year schedule

use almost yearly -
adjacent

owned by state -

offer all the good average the state has!

in Pr

makes even

Market

②

Allow land new areas to be leased w/o sufficient
notice -

what is "changing circumstances"

③

Discovery royalty - incentive -
repealed -
value of incentive not clear.

Senator John B. (Jack) Coghill
Alaska State Legislature

Pouch V
Juneau, Alaska 99811
(907) 465-4921

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North Pole, Alaska 99705
(907) 488-0862



MEMORANDUM

TO: Senator Fahrenkamp, Chairwoman, Oil and Gas Committee
FROM: Senator Coghill
RE: Proposed Amendments to AS 38.05
DATE: February 4, 1987

My office recently received from the Resource Development Council, a draft of proposed changes to statute, which would "make it easier for the Commissioner of Natural Resources to add new areas to the leasing schedule."

It is my feeling that this is a good idea.

I am forwarding a copy of the language they supplied my office.

Please read it over and let me know if you are either already working on this legislation or want to take it up in your committee.

RESOURCE DEVELOPMENT COUNCIL
OIL AND GAS DIVISION
PROPOSED AMENDMENTS TO AS 38.05

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1) the well must be drilled at a surface location at least 10 miles from the surface location of any other well which has been tested in commercial quantities or is presently capable of producing in commercial quantities; 2) a discovery test in commercial quantities has been witnessed by an agent of the state; 3) the discovery test interval is located entirely under the lease for which the award is given; 4) the discovery test is completed within one year from the date of first penetration of the producing zone in that well and 5) applications for the award is made within 180 days of the completion of the commercial test. The royalty award will be effective for 10 years from the date of first continuous production from the well.

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Senator John B. (Jack) Coghill
Alaska State Legislature

Box V
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(907) 465-4797

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(907) 488-0862



May 13, 1987

MEMORANDUM

To: All Members of the Senate
From: Senator John B. Coghill
Re: CSSB 196 (Rules)

The passage of CSSB 196 (Rules) is essential because a recent Supreme Court decision (Alaska Survival v. State of Alaska) requires the department of Natural Resources to do regional land plans before disposals of state land or resources can take place.

The Alaska Survival case addressed a land disposal at Chase. However its implications go much further than programmatic land disposals. Since August 29, 1986, the department has stopped all new classification actions that are not based on comprehensive plans.

DNR has been making prudent decisions on a site specific basis in areas without regional plans for many years. The result of the court decision is that conveyances and disposals in areas without regional plans are now held up.

Examples of the impact of this court decision include:

1. State timber near Cooper Landing is infested with beetles. Despite a U.S. Forest Service plan to cut timber adjacent to state land, the state's Division of Forestry cannot sell our affected timber because the land is unclassified. There is no area plan for state lands on the Kenai, so the land cannot be classified.

2. Several residents of the Hope area hold U.S. Forest Service permits for land now owned by the state. The state cannot sell the permitted land to the occupants as required under the

preference rights statute because it is not appropriately classified. The land cannot be reclassified.

3. The City of Nome has not been able to acquire a tidelands lease to protect the rock loading jetty it built because there is no comprehensive plan on which to base a classification action required for lease issuance.

In short, while the subject of Alaska Survival v. State of Alaska was programmatic land disposals, the decision stymied other land management actions such as leasing unclassified lands, particularly tide and submerged lands; conducting timber sales over 10MBF; selling land to U.S. Forest Service permittees and resolving municipal claims.

In addition to authorizing the department to adopt site-specific plans land use plans of the department or a municipality with planning and zoning powers, CSSB 196 also makes changes to Title 38, that reflect the needs of the department.

A sectional analysis is attached.

Sectional Analysis

CSSB 196 (Rules)

Sec.1: The section amends existing law to require plans be adopted instead of developed by the Commissioner.

Sec. 2: This section removed the word "region" in existing law, to remove any implied or inferred distinction between an "area" and a "regional" plan. It also given priority to renewable and non-renewable resource development.

Sec. 3: Same improvement as Sec. 2.

Sec. 4: This new language allows the department to use plans adopted by other entities and local governments as a basis for classification actions when the Commissioner, after public and agency review, determines those plans are in the best interest of the state. This is a dollars and sense provision that lets us take advantage of other plans when we haven't done our own.

Sec. 5: Technical change.

Sec. 6: The changes are intended to reinforce the consistency of state plans with municipal plans.

Sec. 7: The section makes clear that a regional plan must be adopted before the department may proceed with a programmatic land disposal (homesite, homestead, lottery) as a new commercial ag project. It also makes clear that oil and gas lease sales are subject to the five year sale process in existing law.

Sec. 8: This technical amendment brings the definition of short term lease current with changes adopted in AS 38.05.060(b) in 1984.

Sec. 9: This amendment allows the department to sell land at fair market value to folks who acquired improvements on the land from another state agency when that land is excess to existing state programs.

Sec. 10: This section amends existing law on best interest findings, required prior to disposal of state interests, to allow the Commissioner to reoffer oil and gas interests within 3 years after a prior best interest finding. Under existing law, when leases are rescinded or are not sold at a lease sale, the Commissioner may be required to go through the best interest finding process a second time.

Sec. 11: This amendment makes clear that the department shall retain a reversionary interest in land which it conveys at less than fair market value to a local government or charitable institution. It further requires a written best interest finding if the reversionary interest retention is not in the best interest of the state and should be waived.

Sec. 12: This amendment conforms the definition of veteran in this section to that which is the standard in all other definitions of veteran for the purpose of land discounts.

Sec. 13: This amendment allows homesteaders to trade entry permits upon the commissioner approval. It allows family members and friends to receive adjacent parcels when everyone is willing.

Sec. 14: This amendment give a little breathing room to homesteaders who currently have only 1 years to survey their parcels. Funding cuts to the department have slowed the issuance of survey instructions. It also clarifies the cleaing requirements made necessary by massive soil reclassifications by SCS.

Sec. 15: This section deletes the lot line brushing requirements for a homesteader when a parcel is described by aliquot parts. It also conforms the soil classification language improved in Sec. 14.

Sec. 16: This section validates land classification made prior to the supreme court decision in Alaska Survival pending the completion of plans.

Sec. 17: This section validates land management and disposal decisions made by the commissioner on the basis of AS 38.05.300 (site specific plans) prior to the effective date of this bill, whether or not area plans underlay the classification orders leading to disposal.

Sec. 18: This section makes clear that mineral management decisions made pursuant to existing law before this Act are valid whether or not the land as classified.

Sec. 19: This section reinforces the decision of the Supreme Court that DNR must reconsider its Chase decision.

Sec. 20: This section repeals the section that was amended in Sec. 15. It makes survey of homesteads uniformly 5 years instead of 2 and up to 5 on a case by case basis.

Sec. 21: Provides for an effective date.

STATE OF ALASKA

DEPARTMENT OF LAW

OFFICE OF THE ATTORNEY GENERAL

STEVE COWPER, GOVERNOR

REPLY TO:

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SUITE 200
ANCHORAGE, ALASKA 99501
PHONE: (907) 276-3550

☐ 1st NATIONAL CENTER
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SUITE 400
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PHONE: (907) 452-1568

☐ P.O. BOX K-STATE CAPITOL
JUNEAU, ALASKA 99811
PHONE: (907) 465-3600

May 6, 1987

The Honorable Sam Cotten
Co-Chairman
House Resources Committee
P. O. Box V
Juneau, Ak 99811

Dear Representative Cotten:

This letter responds to your request for an opinion concerning the potential implications of Alaska Survival v. State, 723 P.2d 1281 (Alaska 1986), in the absence of legislation amending AS 38.04.065.

Before the Alaska Survival decision, the Department of Natural Resources (DNR), in accordance with its regulations, routinely classified land on the basis of site-specific land use plans if the land was located in an area of the state which was not yet included in a comprehensive regional land use plan. The court held that this procedure violated AS 38.04.065, stating:

In our view, both the organization of the statutory scheme and the particular language of AS 38.04.065(c) and (d) express an unambiguous intent that regional planning precede land classifications and disposals.

Alaska Survival v. State, 723 P.2d at 1289.

The court's ruling has created considerable uncertainty with respect to the authority of DNR to manage and develop state land and resources because less than half of the land owned by the state is now covered by regional land use plans. In addition, there are a number of unresolved questions concerning the scope of the supreme court's ruling.

DNR, with the advice of this office, has interpreted the Alaska Survival decision narrowly as having only prospective effect and as prohibiting only new classification actions, but not necessarily disposals, before regional plans are complete.

The Honorable Sam Cotten
Co-Chairman
House Resources Committee

May 6, 1987
Page 2

There is a significant risk, however, that the decision will be construed by the courts to prohibit all disposals of land and resources before regional plans are completed. Under a broad interpretation of the decision, DNR could be precluded from granting rights of way, selling gravel, leasing commercial property or holding oil and gas lease sales. The validity of classifications and disposals made before the court's decision may also be questioned.

The scope of the court's ruling has already been the subject of question and controversy. For example, in an October 2, 1986, letter commenting on the proposed five year oil and gas leasing program, Trustees for Alaska questioned the effect of Alaska Survival on the oil and gas leasing system. A copy of this letter is attached. As the letter points out, many of DNR's proposed oil and gas lease sales are in areas with no regional land use plans. Significantly, no regional planning process has been initiated for the North Slope. The lack of a regional land plan has also been raised in litigation, now dismissed, challenging the validity of an agreement to settle Anchorage's municipal entitlement. Pending litigation challenges the mandatory renewal of an offshore mining lease, initially issued in 1964, because no regional plan or classification covers the leased submerged land.

It appears likely that the scope of the Alaska Survival decision will continue to be the subject of controversy and litigation in the absence of legislation amending AS 38.04.065. DNR's efforts to effectively manage and develop state land and resources may therefore be substantially hindered. Legislation which clarifies DNR's land planning responsibilities will resolve these issues without litigation. An immediate effective date would insure that previous disposals and disposals occurring within the first ninety days after enactment will be free from the risks and costs of litigation.

Yours sincerely,

GRACE BERG SCHAIBLE
ATTORNEY GENERAL

By: *M. Francis Neville*
M. Francis Neville
Assistant Attorney General

MFN/jmo
Encl:

Trustees for ALASKA

October 2, 1986

OCT 27 1986
Office of the Attorney General
Anchorage Branch
Anchorage, Alaska
RECEIVED

James Eason, Director
Division of Oil and Gas
Department of Natural Resources
P.O. Box 7034
Anchorage, Alaska 99510-7034

OCT 08 1986

re: Proposed Five-Year Oil and Gas Leasing Program

DIVISION OF OIL & GAS
ANCHORAGE, ALASKA

Dear Mr. Eason:

Trustees for Alaska appreciates this opportunity to comment on the State's proposed 5-year oil and gas leasing program. Most of our comments relate to the general approach to the State's oil and gas leasing program, rather than comments on specific sales. We will submit more detailed specific comments on individual sales as appropriate.

We strongly support the State's suggestion to use increasingly limited resources to focus on fewer lease sales (Schedule B). Any attempt to continue the existing ambitious program in the face of personnel cutbacks would be counterproductive, and would result in less careful attention to each sale. As a result, we believe that environmental protection would receive relatively less focus, i.e. DOG would have less ability to limit or to prohibit leasing in particularly sensitive areas, and to develop conditions and stipulations necessary to protect important environmental resources.

The proposed cutback in the 5-year lease schedule also makes sense from an economic perspective. While the call for comments correctly notes that cutting back the 5-year program will result in less areas being explored and developed quickly, it is not DOG's role to maximize short-term development potential. Rather, as the manager of the State's oil and gas resources, DOG must consider ways to maximize the State's long-term return from its resources in a balanced fashion, while ensuring that development is conducted consistent with the protection of other resources, such as renewable fish and wildlife resources. Given the current oil market, it would appear to make sense to limit production at this time, in order to maximize long-term returns. By slowing down development, more attention can be paid to protecting environmental resources for leases that are issued, and additional areas can be added as oil prices increase. Moreover, future development in sensitive areas can proceed with the benefit of technological advances that may minimize overall environmental impacts. Therefore, we believe that the proposed reduction in the 5-year program is in the long-range interests of the State of Alaska.

Despite our agreement with the overall approach, we do object to the creation in the 5-year plan of a firm expectation that a prescribed minimum number of lease sales will be held each year. The call for comments does note that no final decisions have been made with respect to any given sale. Nevertheless, the general statements establishing minimum numbers of sales result in considerable institutional pressure to proceed with the identified sales, for fear of not meeting the identified "quota". State law requires the Department to make an independent, objective determination, based on all available information and public input at the time of the sale, of whether each individual sale is in the best interests of the State. Therefore, the 5-year plan should state simply that the Department plans to "consider" the listed lease sales within the deadlines set out in the schedule.

We also are interested in the Department's views on the effect of the State Supreme Court's recent ruling in Alaska Survival v. DNR on the oil and gas leasing system. The Court ruled that no classification or disposition of state land may occur prior to the development of comprehensive, regional land use plans. Presumably, this ruling extends to state land classifications and dispositions that involve less than fee simple land conveyance, particularly since the Chase land disposal involved only surface rights for agricultural use. Many of the Department's proposed lease sales, however, are in areas with no regional land use plans. While we have made no decision regarding how we believe the Court's decision applies to oil and gas lease sales, we believe that the issue deserves serious consideration. We would appreciate your views on this issue. It would also be useful if you could provide an explanation of how and when state land is "classified" for purposes of oil and gas lease sales, and how best interests findings for lease sales relate to the land use planning process.

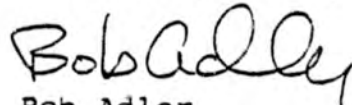
Finally, we have only a few comments at this time regarding specific sales identified in the call for comments. We previously submitted comments on the Prudhoe Bay Uplands Sale, which has now been split into two separate lease sales. We simply wish to reiterate our concern that these sales consider carefully the effect of these sales on the adjacent Arctic National Wildlife Refuge, which is currently being considered for either inclusion in the National Wilderness Preservation System or for oil and gas development. Considerable wildlife migration occurs across the Canning River, and some Central Arctic Caribou Herd calving may occur in this area.

We are also concerned about the size of proposed lease sale 65, which stretches across the arctic coastline from the Canning delta to the region north of Teshekpuk Lake. While we have no general opposition to additional sales in the Prudhoe Bay region, assuming adequate environmental safeguards, we object to the proposed inclusion at this time of coastal areas adjacent to the ANWR and the Teshekpuk Lake Special Area. Our concerns about the arctic

coastline near the ANWR were specified in our comments on the proposed Camden Bay and Demarcation Point Sales. In addition, we question the wisdom of planning a sale along the coastline of the Teshekpuk Lake Special Area, before the Bureau of Land Management decides what the appropriate oil and gas development policy for this area should be. Oil development in the State's coastal region will entail the use of onshore facilities for support and transportation, including pipelines, in order for development to be economically feasible. In addition, the State is undoubtedly aware of the tremendous importance of the Teshekpuk Lake region for waterfowl and other important wildlife populations. Therefore, the State should withhold its plans for development of this area pending a decision by BLM.

Thank you again for this opportunity to comment on the State's proposed 5-year oil and gas leasing plan.

Very Truly yours,



Bob Adler
Executive Director



SB 196

STATE OF ALASKA
OFFICE OF THE GOVERNOR
BILL ANALYSIS

DEPARTMENT Fish and Game	DIVISION Habitat	BILL NUMBER HB 289	SPONSOR (H) Resources
DEPARTMENT POSITION Support with amendment			
PREPARED BY Habitat Division	DATE 4/27/87	COMMISSIONER'S SIGNATURE <i>Donnell Smith</i>	DATE 4-30-87

SUMMARY

OTHER AGENCIES AFFECTED BY BILL Department of Natural Resources	CONSTITUENT GROUP(S) AFFECTED BY BILL All Users of State Land
ORGANIZATIONAL SUPPORT FOR BILL Unknown	ORGANIZATIONAL OPPOSITION TO BILL Unknown

FISCAL IMPACT: ☒ NONE ☐ FISCAL NOTE ATTACHED

BACKGROUND/LEGISLATIVE INTENT

Sections 1 through 7 amend AS 38.04.065 to allow the Department of Natural Resources to classify land for disposal or other purposes on the basis of site-specific land-use plans, excepting land disposals under the lottery, homesite, and homestead programs. Sections 10, 11, and 12 amend procedural aspects of the Homestead Act, AS 38.09. Section 9 provides certain exemptions for state exempt oil/gas lease sales from the best interest finding requirement of AS 38.05.035(e).

ANALYSIS OF BILL/PROGRAM EFFECTS

Sections 13 and 14 of this measure will validate all previous land classifications, including public recreation and wildlife habitat designations, that might be subject to legal challenge as a result of the Alaska Supreme Court ruling in Alaska Survival v. State, 723 P.2d. 1281 (August 29, 1986). Sections 1 through 7 will restore limited flexibility to the Department of Natural Resources to classify land based on a site-specific land-use plan, rather than a regional plan. Major land disposals under the lottery, homesite and homestead programs will continue to be based on a regional land use plan, as required by the Alaska Survival v. State decision.

Section 9 of this measure will exempt AS 38.05.180(d) oil and gas lease sales from an AS 38.05.035(e) best interest finding if an .035(e) finding has been completed for the area or an adjacent or contiguous area within the last three years. The Department of Fish and Game does not support this exemption. In our opinion, it is inappropriate to make potentially

(continued) →

AMENDMENTS PROPOSED

Section 9 - Reword AS 38.05.035(e) (7) as follows:

"(7) an exempt oil and gas sale under AS 38.05.180(d) for which a written best interest finding has been issued for the area of sale [OR FOR A CONTIGUOUS OR ADJACENT AREA] within the 36 months before the date of the sale." It is not in the public interest to extend an AS 38.05.035(e) best interest finding to adjacent and contiguous areas that may be very different economically, socially, and environmentally from the area of the original .035 best interest finding.

PLEASE ATTACH A SEPARATE SHEET FOR ADDITIONAL COMMENTS OR ANALYSIS.

ANALYSIS OF BILL/PROGRAM EFFECTS (Continued)

major, long term (e.g., 10 to 20 year) commitments of public resources without first providing the public an opportunity to review and comment on the proposed action. Written best interest findings are the only public review documents that evaluate the cumulative and the potential socioeconomic and environmental consequences of proposed state exempt oil/gas lease sales. Written findings further constitute the formal decision document describing how and why a proposed sale is or is not in the public interest. Written findings describe what information was considered in evaluating the cost/benefits of a proposed lease sale, the key issues associated with the sale, and provides a summary of public and agency comments and concerns regarding a proposed sale. The Department of Fish and Game believes that it is essential to maintain such an administrative record in a single document, so that the state's justification for holding, postponing, or cancelling a lease sale is readily available.

If Section 9 is enacted, many future sales on the North Slope and in the Cook Inlet/Bristol Bay Region could potentially be exempted from any formal leasing process, public hearing, or best interest finding requirement.

STATE OF ALASKA 1987 LEGISLATIVE SESSION FISCAL NOTE

REQUEST:

Revision Date: _____
 Title: An Act relating to management
of state land
 Sponsor: Resource Committee
 Requestor: _____

Bill Version: HB 289
 Publish Date: 4/27/87

Agency Affected: _____
 BRU: _____
 Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0	0	0	0	0	0

CAPITAL	0	0	0	0	0	0
---------	---	---	---	---	---	---

REVENUE	0	0	0	0	0	0
---------	---	---	---	---	---	---

FUNDING: (Thousands of Dollars)

GENERAL FUND	0	0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL	0	0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Prepared by: Bruce H. Baker
 Division: Habitat
 Approved by Commissioner: Donnell Greenworth
 Agency: Department of Fish and Game

Phone: 465-4105
 Date: 4/28/87
 Date: 4-30-87

Distribution (by preparer):

Legislative Finance
 Legislative Sponsor
 Requestor
 Office of Management and Budget
 Impacted Agency(ies)
 Senate Secretary



ALASKA STATE LEGISLATURE

SENATE SPECIAL COMMITTEE ON OIL AND GAS

Senator Bettye Fahrenkamp
Chairman
Senator Jack Coghill
Senator Paul Fischer

P.O. Box V, State Capitol
Juneau, Alaska 99811
(907) 465-3834

M E M O R A N D U M

TO: All Members of the Senate

FROM: Senator Bettye Fahrenkamp, Chairman
Senate Special Committee on Oil and Gas

RE: SB 182, An Act relating to the written findings
required for certain state oil and gas lease sales.

DATE: May 7, 1987

Current statute requires that all proposed state oil and gas lease sales be included in a five year leasing program submitted to the legislature annually. However, under certain circumstances, sales that are not included in the five year plan, or "exempt sales", may be held. Exempt sales usually include previously offered leases, areas adjacent to those leases, or areas in which industry has shown high interest. Current statute requires that a written best interest finding be made for most exempt sales.

SB 182 would waive the best interest finding requirement for exempt sales if a previous finding has been made for that area within the preceding three years. It would also apply to an area that is contiguous with or adjacent to the area of the proposed exempt lease sale.

This change should promote early exploration of state lands and enable the department to add new areas to the leasing schedule with reduced administrative costs and delay.



ALASKA STATE LEGISLATURE

SENATE SPECIAL COMMITTEE ON OIL AND GAS

Senator Bettye Fahrenkamp
Chairman
Senator Jack Coghill
Senator Paul Fischer

P.O. Box V, State Capitol
Juneau, Alaska 99811
(907) 465-3834

MEMORANDUM

TO: Senator Dick Eliason, Chairman
Senate Rules Committee

FROM: Senator Bettye Fahrenkamp, Chairman *[Signature]*
Senate Special Committee on Oil and Gas .

RE: SB 182

DATE: May 6, 1987

I would appreciate your scheduling SB 182, An Act relating to the written findings required for certain state oil and gas lease sales, on the Senate calendar.

Current statute requires that all proposed state oil and gas lease sales be included in a yearly five year leasing program submitted to the legislature. However, under certain circumstances, sales that are not included in the five year plan, or "exempt sales", may be held. Exempt sales usually include previously offered leases, areas adjacent to those leases, or areas in which industry has shown high interest. Current statute requires that a written best interest finding be made for most exempt sales.

SB 182 would waive the best interest finding requirement for exempt sales if a previous finding has been made for that area within the preceding three years. This change may enable the department to add new areas to the leasing schedule with reduced administrative costs and delay.

Thank you for your consideration.

5-0732B
Bannister
3/23/87

Original sponsor: The Senate Special Committee
on Oil and Gas

See P. 2

1 IN THE SENATE

BY THE SENATE SPECIAL
COMMITTEE ON OIL AND GAS

2 CS FOR SENATE BILL NO. 182 (O&G)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FIFTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to the written findings required for
7 certain state oil and gas lease sales."

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

9 * Section 1. AS 38.05.035(e) is amended to read:

(e) Upon a written finding that the interests of the state will
11 be best served, the director may, with the consent of the commis-
12 sioner, approve contracts for the sale, lease, or other disposal of
13 available land, resources, property or interests in them, and, in
14 addition to the conditions and limitations imposed by law, may impose
15 additional conditions or limitations in the contracts as the director
16 determines, with the consent of the commissioner, will best serve the
17 interests of the state. A contract for the sale, lease, or other
18 disposal of available land or an interest in land is not legally
19 binding on the state until the commissioner approves the contract but
20 if the appraised value is not greater than \$50,000 in the case of the
21 sale of land or an interest in land, or \$5,000 in the case of the
22 annual rental of land or interest in land, the director may execute
the contract without the approval of the commissioner. Before a
24 public hearing, if held, or in any case no less than 21 days before
25 the sale, lease, or other disposal of available land, property, re-
26 sources, or interests in them, the director shall make available to
27 the public a written finding that sets out the facts and applicable
28 law upon which the determination that the sale, lease, or other dis-
29 posal will best serve the interests of the state was based. A written

1 finding is not required before the approval of

2 (1) a contract for a negotiated sale authorized under
3 AS 38.05.115;

4 (2) a lease of land for a shore fishery site under AS 38.-
5 05.082;

6 (3) a permit or other authorization revocable by the com-
7 missioner;

8 (4) a mineral claim located under AS 38.05.195;

9 (5) a mineral lease issued under AS 38.05.205; [OR]

(6) a production license issued under AS 38.05.207; or

11 (7) an oil or gas lease sale under AS 38.05.180(d), if
12 within 36 months before the lease sale a written finding under this
13 subsection has been made for the area of the proposed lease sale. ~~or~~
14 ~~for an area that is contiguous with or adjacent to the area of the~~
15 ~~proposed lease sale.~~

3/24/87

BF ✓
PF ✓
Coq ✓

SB 182

State O+L lease sale.

BF -

Carol Wilson, DNR -

support bill.

streamer exempt sales -

industry requests -

still do public notice —

Pam Rogers -

Exempt sales since 1980.

other sales have included exempt acreage
when leases expire near already held acreage

2 north slope sales

- 1) 42,000 acres - \$12.13 / acre
all sold
- 2) other sales 9.00 / acre

Phil Holdsworth

former com of DNR

support -

in the case of "drainage".

Don Smith Exxon. Co., USA.

support.

Don 12-18 months w/ full ~~fees~~

10-12.

6 months for working

plus land check.

Mike Abelt projects coordinator -

RDC - supports

Gog move ^{to adopt} CS

on p. 2 13 after sale put.
+ delete text.

move w/

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE COMMISSIONER

STEVE COWPER, GOVERNOR

400 WILLOUGHBY AVE.
JUNEAU, ALASKA 99801-1796
PHONE: (907) 465-2400

March 24, 1987

The Honorable Bettye Fahrenkamp, Chair
Senate Special Committee on Oil and Gas
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Senator Fahrenkamp:

Subject: Senate Bill 182, which would allow the Department of Natural Resources to streamline procedures for exempt acreage oil and gas lease sales.

Position: The Department of Natural Resources supports this bill, with a slight change in wording, because it would promote early exploration of state lands previously leased or adjacent to existing oil and gas leases or discoveries. Early exploration of exempt acreage will result in earlier receipt of lease bonus and rental payments and, in the event of a discovery, earlier receipt of royalties and taxes.

Background: Exempt acreage oil and gas lease sales are allowed under AS 38.05.180(d). To qualify, acreage must have previously been subject to an oil and gas lease, contiguous to land under an oil and gas lease, or adjacent to land where a commercial oil or gas discovery has been made.

Exempt sales need not be listed on the formal five-year leasing schedule presented to the Legislature each January. Exempt sales are requested by the oil and gas industry when a genuine interest in leasing and exploring the area exists.

The department receives at least two or more requests for exempt sales each year. Before an exempt acreage sale can be held, just as for all other state oil and gas lease sales, Division of Oil and Gas staff are required by AS 38.05.035(e) to prepare a written finding that the proposed sale is in the state's best interest.

Since exempt sales are for previously leased acreage or for areas adjacent to leased acreage, written findings for the already leased areas are revised slightly to serve as the

March 24, 1987

exempt acreage sale finding. However, since exempt acreage written findings are prepared by existing staff, they can only be completed as time is available.

This bill would allow the findings previously prepared for the general sale area, if completed within 36 months of the exempt sale, to meet the best interest finding requirement for the proposed exempt sale.

Recommendation: Delete lines 13 and 14, page 2 and the word "or" at the end of line 12, page 2. This will clarify the intent of the bill.

Conclusion: By streamlining the exempt sale process, additional exempt sales could be offered each year and less time would elapse between the sale request and the sale. Early exploration of exempt acreage land would be encouraged. Public notice requirements would still be in effect, as would all other oil and gas lease sale requirements.

Please let me know if you would like additional information about our oil and gas lease sale process.

Sincerely,

Judith M. Brady
Commissioner

cc: Committee Members
George Sullivan
Rod Swope
Commissioner Collinsworth, DF&G
Commissioner Kelso, DEC

STATE OF ALASKA 1987 LEGISLATIVE SESSION

FISCAL NOTE

SB 182

REQUEST:

Bill Version : _____
Publish Date : _____

Revision Date: March 23, 1987

Agency Affected: Natural Resources
BRU: Petroleum Management

Title: State Oil and Gas Lease Sales

Sponsor: Senate Oil & Gas Special Committee

Components: _____

Requestor: Senate Oil & Gas Committee

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL	**	**	**	**	**	**
CONTRACTUAL	**	**	**	**	**	**
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	*	*	*	*	*	*

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

* Earlier offering of exempt acreage sales resulting from this bill will result in earlier receipt of bonus and rental payments and, in the event of a discovery, earlier receipt of royalties and taxes.

** Some savings in contractual and travel costs related to public meetings could occur, depending on the location of the exempt sale and the public's interest.

Prepared by: Carol Wilson Phone: 465-2400

Division: Commissioner's Office Date: 3/23/87

Approved by Commissioner: _____ Date: _____

Agency: Natural Resources

Distribution (by preparer):

Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary



ALASKA STATE LEGISLATURE

SENATE SPECIAL COMMITTEE ON OIL AND GAS

Senator Bettye Fahrenkamp
Chairman
Senator Jack Coghill
Senator Paul Fischer

P.O. Box V, State Capitol
Juneau, Alaska 99811
(907) 465-3834

MEMORANDUM

TO: Members, Senate Special Committee on Oil and Gas

FROM: Committee Staff

RE: Committee Meeting, March 24, 1987

DATE: March 23, 1987

On Tuesday, March 24, at 3:30 pm in the Beltz Room, the Senate Special Committee on Oil and Gas will hear SB 182, Relating to state oil and gas lease sales.

Current statute requires that all proposed state oil and gas lease sales be included in a yearly five year leasing program submitted to the legislature. However, under certain circumstances, sales that are not included in the five year plan, or "exempt sales", may be held. Exempt sales usually include previously offered leases, areas adjacent to those leases, or areas in which industry has shown high interest. Current statute requires that a written best interest finding be made for most exempt sales.

SB 182 would waive the best interest finding requirement for exempt sales if a previous finding has been made for that area within the preceding three years. This change may enable the department to add new areas to the leasing schedule with reduced administrative costs and delay.

March 24, 1987

Senate Special Committee on Oil and Gas

SB 182, Relating to state oil and gas lease sales.

TELECONFERENCED TO ANCHORAGE

A Committee Substitute has been prepared that narrows the title to be more specific.

The proposed title now reads: " An Act relating to the written findings required for certain state oil and gas lease sales."

The Department of Natural Resources also has a proposed amendment that would limit this provision to only the area of the proposed lease sale.

TO TESTIFY:

CAROL WILSON, Special Assistant to the Commissioner of Natural Resources.

PAM ROGERS, Leasing Manager, Division of Oil and Gas, DNR

Standing by —→ FROM ANCHORAGE

PHIL HOLDSWORTH, Resource Development Council

DAN SMITH, Exxon Corporation - 8 to 12 month -

MIKE ABBOTT, RDC

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

example of FINDINGS.
43015
BILL SHEFFIELD, GOVERNOR

P.O. BOX 7034
ANCHORAGE, ALASKA 99510-7034

November 20, 1986

Phone: 762-4277

-NOTICE- OF

FINAL DECISION AND FINDING UNDER AS 38.05.035(e) REGARDING PROPOSED OIL AND GAS LEASE SALE 50 (Camden Bay)

The Department of Natural Resources, Division of Oil and Gas (DO&G), gives formal notice under AS 38.05.945(a)(3) of its intention to make a final finding and decision under AS 38.05.035(e) regarding the sale of oil and gas leases in proposed Oil and Gas Lease Sale 50 (Camden Bay). Before this sale may be held, the Director of the Division of Oil and Gas must make a written final decision that the sale serves the best interests of the state. This decision will set out the facts and applicable law upon which the director bases his determination that the sale of oil and gas leases in proposed Sale 50 will or will not best serve the interests of the state. This final decision is expected to be available to the public in April, 1987.

Proposed Oil and Gas Lease Sale 50 includes 36 tracts with a total area of approximately 122,745 acres. The proposed sale area consists of state owned tide and submerged lands in the Beaufort Sea, lying between Flaxman Island and the mouth of the Hulahula River. The Arctic National Wildlife Refuge (ANWR) lies immediately south of the proposed Sale 50 area. The entire sale area is within the North Slope Borough. The North Slope communities of Deadhorse/Prudhoe Bay, Nuiqsut, Barrow, and Kaktovik may be affected by the proposed sale.

The location of Alaska's Territorial Sea Boundary and the seaward boundary of ANWR are the subjects of a dispute between the United States of America and the State of Alaska. This dispute is pending before by the U.S. Supreme Court. At issue is the ownership of a significant amount of tide and submerged land along these borders. Currently, the State of Alaska is negotiating agreements with the U.S. Minerals Management Service and the U.S. Fish and Wildlife Service that will define these boundaries for purposes of Oil and Gas Leasing in Sale 50. These agreements may require adjustments to the boundaries which may result in the deletion of some acreage between now and the date of the final notice.

A preliminary analysis of the potential effects of proposed Sale 50 and the means by which they may be mitigated is now available at DO&G, 3601 "C" Street, Room 1398, Anchorage, Alaska. Included in the preliminary analysis is the preliminary Alaska Coastal Management Program (ACMP) consistency determination. The public is invited to comment on any aspect of this sale including any proposed term or condition.

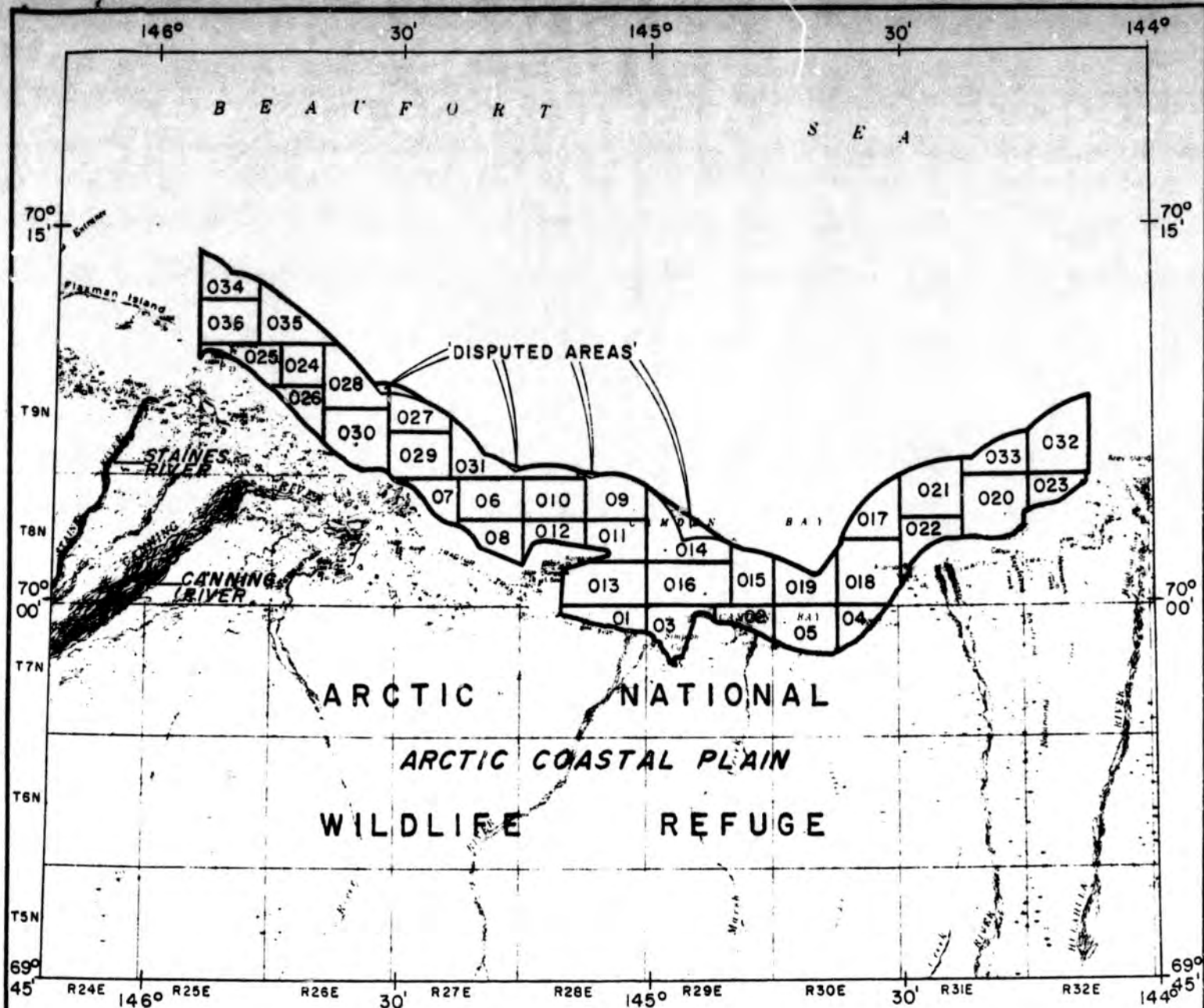
Comments should be mailed to DO&G, P.O. Box 7034, Anchorage, Alaska 99510, Attention: Pam Rogers. Comments should be received at DO&G by December 30, 1986 in order to be considered in the final decision of whether or not this sale is to be held. The final ACP consistency determination will be included in the Final Decision of the Director. Preliminary legal descriptions for Sale 50 are available upon request to potential bidders and the public at DO&G. Preliminary Tract Maps are also available at a cost of \$50 per set.

If a decision is made that the proposed sale best serves the interest of the state, an "Information to Bidders" packet will be made available in April, 1987. If a decision is made to hold the sale, it is tentatively scheduled to occur at the Clarion Hotel, in Anchorage, on June 30, 1987 in accordance with AS 38.05.180. This date represents a postponement of 28 days from the originally scheduled date of sale as published in the State of Alaska's 1986 Five Year Oil and Gas Leasing Program. This change is a result of adjustments made for the 1987 Oil and Gas Leasing Program.

James E. Eason
James E. Eason
Director

1/1/87
Date

0748b



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS
PROPOSED OIL AND GAS LEASE SALE 50
CAMDEN BAY PRELIMINARY TRACT MAP

SCALE 1:456,200 1 inch = 7.2 Miles Approx.
 6 0 6 12 18 Miles

DIRECTOR, DIV. OF OIL & GAS
JIM EASON
 LEASING MANAGER
PAMELA ROGERS

Jim Eason
Pamela Rogers

DRAWN BY
O.D.S.
 CHECKED BY
JMS

DATE APPROVED 11/12/86
 BASE MAP: REDUCED FROM,
 UNIVERSAL TRANSVERSE
 MERCATOR PROJECTION BY
 U.S.G.S., ORIGINAL SCALE
 1:250,000 1 INCH = 4 MILES

NOTE: THIS MAP IS NOT TO BE
 CONSTRUED AS AN OFFICIAL
 TRACT MAP. A SET OF 1:63,360
 SCALE TRACT MAPS ARE
 AVAILABLE AT THE DEPT.
 OF NATURAL RESOURCES,
 DIVISION OF OIL AND GAS,
 3801 C. ST., P.O. BOX 7034,
 ANCHORAGE, ALASKA 99510
 PHONE (907) 561-2020 -7034

NOTE: NO DECISION HAS YET
 BEEN MADE ON WHETHER THE
 STATE WILL HOLD THIS LEASE
 SALE. THE STATE IS GATHER-
 ING SOCIAL, ENVIRONMENTAL
 & ECONOMIC INFORMATION
 ON WHICH TO BASE A DECISION.

PROPOSED SALE AREA



PRELIMINARY ANALYSIS OF THE DIRECTOR
AND PRELIMINARY ACMP CONSISTENCY DETERMINATION
REGARDING OIL AND GAS LEASE SALE 50,
CAMDEN BAY

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
ANCHORAGE, ALASKA

NOVEMBER 20, 1986

TABLE OF CONTENTS

	<u>Page No.</u>
List of Figures	ii
List of Tables	iii
Request for Comments	1
Introduction and Background	3
Potential Effects	6
Effects on Fish and Wildlife	6
Effects on Human Use of the Proposed Sale Area	22
Effects on Local Economy and Well-being	26
Other Effects	27
Cumulative Effects	28
Effects on National and State Economy and State Revenue	33
Preliminary ACMP Consistency Determination	35
Mitigating Measures	45
Lease Stipulations	45
Plans of Operations and Other Terms of Sale	47
Summary	55
References	58
Appendix	64

LIST OF FIGURES

	<u>Page No.</u>
1. Map of Proposed Sale 50 Area	2
2. Tract Map of Proposed Oil and Gas Lease Sale 50	6
3. Important Wildlife Habitats in the Proposed Sale 50 Area and Adjacent Onshore Area	11
4. Important Bird Habitats in the Proposed Sale 50 Area	23
5. Traditional Land Use Inventory Sites	25
6. Kaktovik Yearly Harvest Cycle	29
7. Oil and Gas Leasing in the Alaska Beaufort Sea and on the North Slope	32

LIST OF TABLES

	<u>Page No.</u>
1. Sale Area Fish Species	17
2. Birds and Bird Habitats Common to the Proposed Sale 50 Area	20
3. North Slope Acreage, Leased and Proposed for Leasing	31

REQUEST FOR COMMENTS

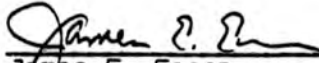
This document is a preliminary analysis for proposed Competitive Oil and Gas Lease Sale 50, Camden Bay, tentatively scheduled for June 30, 1987 (Figure 1). A detailed description of the proposed sale area and a discussion of issues pertaining to oil and gas development in the area are presented in this analysis. No conclusions regarding the proposed sale have been made at this time. A final decision on whether or not to hold the sale will be issued following public and agency review of this document.

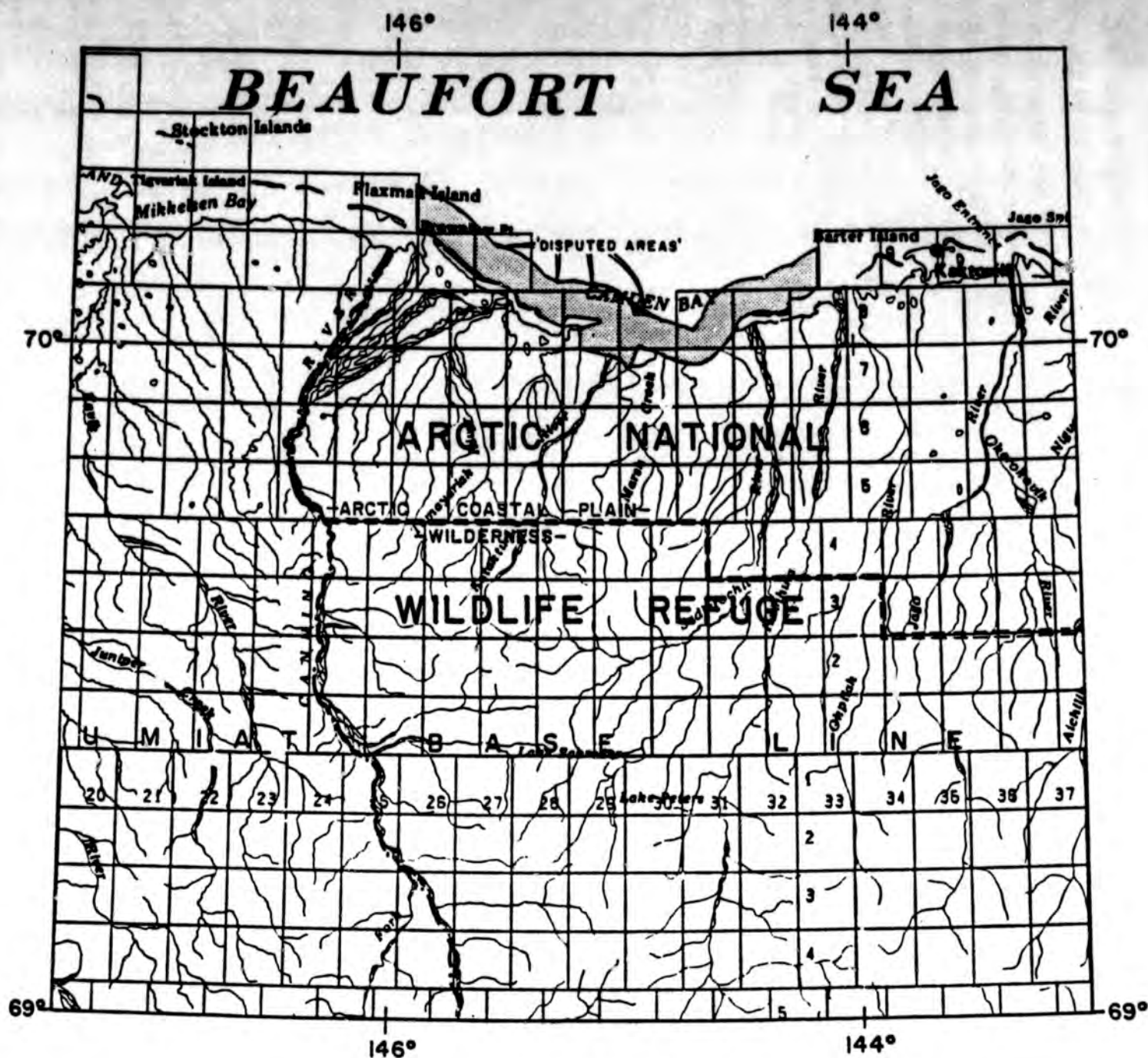
After receiving public and agency comments, the Director of the Division of Oil and Gas will determine if the proposed sale is in the state's best interests, and issue a final finding and decision. If a positive finding is made, the final decision document will list mitigating measures to be imposed on the lessees and describe the leasing method, minimum bid, and term of the leases to be offered. It will also contain the Alaska Coastal Management Program consistency determination.

The public is invited to comment on any part of this document, including the preliminary consistency determination. Comments must be received by January 6, 1987 in order to be considered, and should be sent to: Division of Oil and Gas, P.O. Box 7034, Anchorage, Alaska 99510-7034, ATTN: Pam Rogers, Leasing Manager, (907) 762-4277.

The final finding and decision for proposed Sale 50 will be available on or about April 30, 1987, and will be based on the information and analysis presented here and comments generated by this document.

November 19, 1986
Date

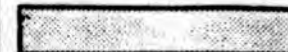

James E. Eason
Director



STATE OF ALASKA		
DEPARTMENT OF NATURAL RESOURCES		
DIVISION OF OIL & GAS		
PROPOSED OIL AND GAS LEASE SALE 50		
CAMDEN BAY		
SCALE 1:1,000,000 1 inch = 16 Miles		
10 0 10 20 30 40 50 Miles		
DIRECTOR, DIV. OF OIL & GAS	DRAWN BY	DATE APPROVED 10/24/86
JIM EASON <i>Jim Eason</i>	O.D.S.	
LEASING MANAGER	CHECKED BY	
PAMELA ROGERS <i>Pamela Rogers</i>	<i>JM</i>	
BASE MAP: © COPYRIGHT ARCTIC ENVIRONMENTAL INFORMATION AND DATA CENTER, 1978 ALL RIGHTS RESERVED, INCLUDING REPRODUCTION IN WHOLE OR IN PART IN ANY FORM UNLESSAL TRANSVERSE MERCATOR PROJECTION ON SIX DEGREE BANDS		

NOTE: NO DECISION HAS YET BEEN MADE ON WHETHER THE STATE WILL HOLD THIS LEASE SALE. THE STATE IS GATHERING SOCIAL, ENVIRONMENTAL, AND ECONOMIC INFORMATION ON WHICH TO BASE A DECISION.

PROPOSED SALE AREA



Introduction

On June 30, 1987, the State of Alaska proposes to offer for lease state tide and submerged lands adjacent to the Arctic National Wildlife Refuge (ANWR) for petroleum exploration and development in Competitive Oil and Gas Lease Sale 50, Camden Bay. The proposed sale area is situated in the Beaufort Sea offshore of the arctic coastal plain between Flaxman Island and the Hulahula River in Camden Bay. It consists of approximately 122,745 acres in 36 tracts (Figure 2). None of these lands have been leased previously for petroleum exploration or development.

The proposed sale area is entirely contained within the boundaries of the North Slope Borough. The North Slope Borough is a home rule borough with a population of approximately 8308 (DCRA 1986). The borough's headquarters are located in Barrow, the largest North Slope community. The borough has powers of taxation, education, planning, platting, and zoning. Additionally, the North Slope Borough has adopted a comprehensive plan and land management regulations that may impose restrictions on oil and gas activity in the proposed sale area.

The North Slope community located closest to the proposed sale area is Kaktovik which is sited on Barter island about 12 miles east of the proposed sale area, and has a population of 206 (DCRA 1986). Kaktovik is a second class city with a mayor and a city council. Nuiqsut, an Inupiat village of 337 people (DCRA 1986), is located approximately 120 miles west of the sale area. Nuiqsut was repopulated in 1973, and is now a second class city with a mayor and a city council. Residents of these Arctic villages are primarily dependant upon a traditional subsistence hunting and fishing lifestyle. Camden Bay and the adjacent ANWR coastal plain host fish and wildlife resources important to the subsistence activities of these people, with residents of Kaktovik being the most impacted by exploration and development which may follow the issuance of leases as a result of proposed Sale 50.

A variety of marine mammals, migratory waterbirds, and marine and anadromous fish occur in the proposed sale area. Bowhead whales, polar bears, and ringed seals are mammals of primary concern. Waterfowl and shorebirds are abundant, the most numerous of these are the oldsquaws. The most abundant marine and anadromous fish species are the fourhorn sculpin, Arctic cod, and Arctic char. The coastal plain adjacent to Camden Bay is an important habitat for a diverse assemblage of fish and wildlife species. It is the calving grounds for the Porcupine caribou herd and the nesting area for a great number of migratory waterfowl. Additionally, the coastal plain and riparian habitats of ANWR host the second largest herd of muskox in North America.

The proposed sale area was added to the state's five-year oil and gas leasing schedule in 1982. Originally, the sale was scheduled for September 1986; but, in 1983, the sale was postponed to May 1987 pending a decision by the U.S. Congress on future oil and gas exploration and development in ANWR. The proposed sale date has since been delayed another 30 days, until June 1987, to accommodate adjustments to the state's five-year oil and gas leasing schedule for the period 1987 to 1991. The June 1987 sale date is thought to be optimum considering the timing of the decline of known producible reserves on the North Slope and the possibility that leasing in Camden Bay may favorably influence the Congressional decision to lease in ANWR.

The State of Alaska is in favor of Congress opening the ANWR coastal plain to oil and gas leasing and development. The Congressional decision, however, will be based primarily on a Department of the Interior (DOI) report, required by Section 1002(h) of the Alaska National Interest Lands Conservation Act (ANILCA), covering resource management in the refuge. The DOI report was to be considered by the U.S. Congress in September 1986, but has been delayed pending litigation regarding the necessity of preparing an Environmental Impact Statement (EIS) prior to the ANWR decision. The result of the Congressional decision may effect the economic viability of any potential discoveries in the proposed Sale 50 area.

The Department of Natural Resources has determined that the Camden Bay area has a moderate to high petroleum potential. The proposed sale area is near known accumulations of oil and gas. Geophysical exploration has occurred in and around the proposed sale area, and some exploratory wells have been drilled nearby. The close proximity of the ANWR coastal plain also argues favorably for the high petroleum potential of the proposed Sale 50 area. In recent statements (Anchorage Times, 9/9/86; DGC, 1986), analysts and industry officials have commented that the ANWR coastal plain may have the highest oil and gas potential of any unleased area on the North American continent.

The Exxon Corporation has made a significant discovery of oil and gas immediately to the west of Camden Bay at Point Thomson. The company has estimated oil and gas reserves at Point Thomson to be 350 million barrels and 5 trillion cubic feet, respectively. Exploratory drilling has also occurred both south and north of the proposed sale area. In 1986, Chevron, Standard Alaska Production Company, BP Alaska and the Arctic Slope Regional Corporation (ASRC) completed an onshore well 14 miles southeast of Barter Island on land owned by ASRC. Shell Western Exploration & Production Company has recently completed drilling a well on its "Corona" prospect 20 miles north of the proposed sale area and Union Oil Company of California has just completed drilling a second exploration well at its "Hammerhead" prospect 15 miles northwest of the proposed sale area. Additionally, Amoco has received approval to drill its "Erik" prospect 10 miles northeast of the proposed sale area.

An unresolved ownership dispute between the federal government and the State of Alaska has changed the original boundaries of the proposed sale area. This dispute is pending resolution by the U.S. Supreme Court. At issue is the ownership of a significant amount of tide and submerged land along Alaska's territorial sea boundary and the seaward boundary of ANWR.

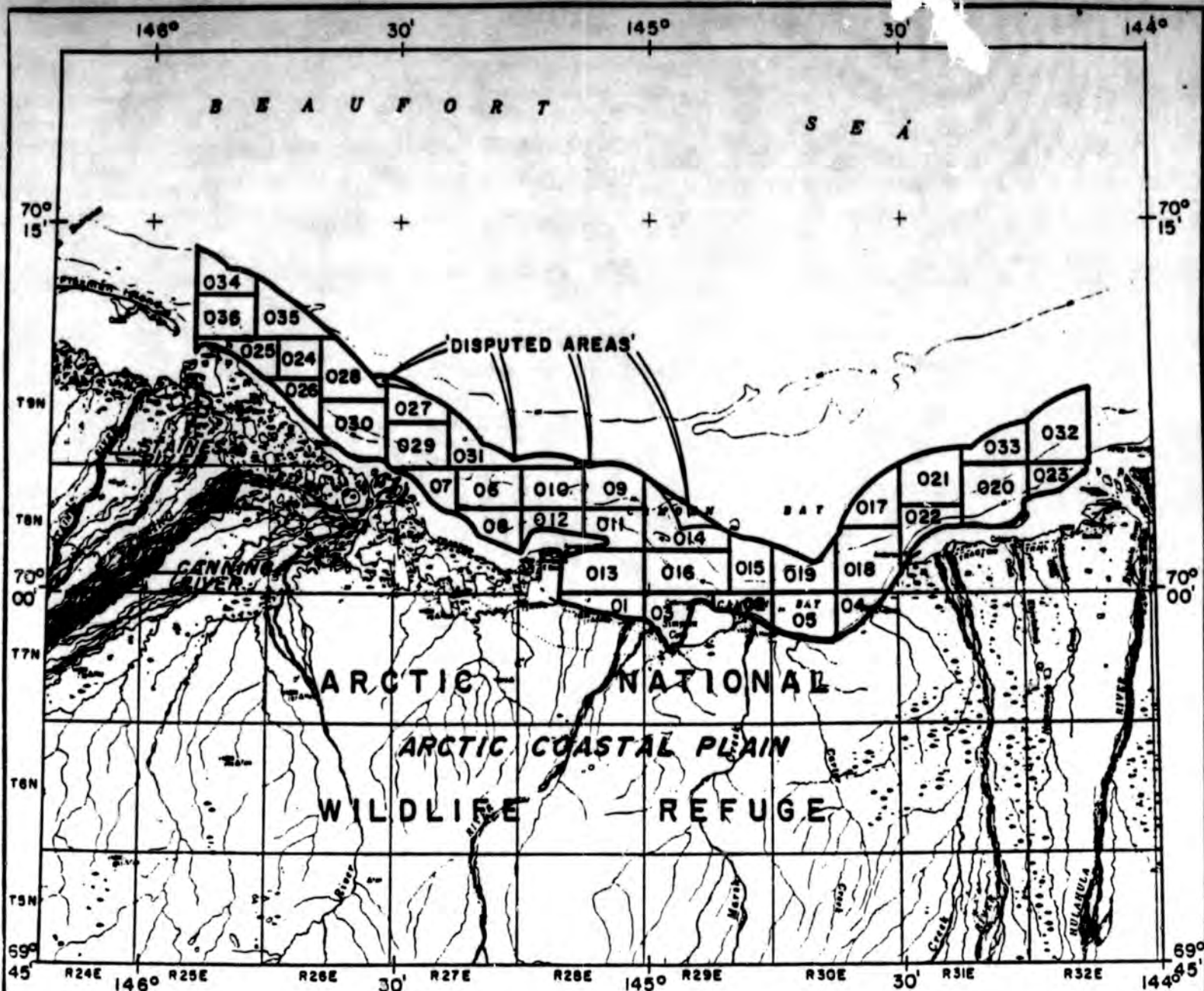
The dispute concerning acreage along Alaska's territorial sea boundary has resulted from employing two different methods of establishing that boundary. The state and federal governments, however, are pursuing an agreement under Section 7 of the Outer Continental Shelf (OCS) Act to allow the sale of disputed acreage along the territorial sea boundary to proceed as part of proposed Sale 50. Failure to reach an agreement may affect the amount of acreage available for leasing in proposed Sale 50, and may result in deletion of some acreage between the date of this document and the date of the final notice.

The principle dispute affecting the ANWR boundary involves the ownership of tide and submerged lands between the barrier islands and the mainland. At issue, is whether these lands are actually a part of ANWR. The barrier islands in Camden Bay, however, are contained within ANWR and are not part of the proposed sale area. The state claims the tide and submerged lands between the mainland and the island under the Statehood Entitlement Act whereas the federal government claims ownership under its interpretation of the legislation establishing ANWR. In this case, the federal agency managing ANWR, the U.S. Fish and Wildlife Service, lacks the authority to negotiate a leasing agreement which would allow the disputed lands to be offered in proposed Sale 50. Before such an agreement could be negotiated, the Congress must first determine whether oil and gas activities will be allowed in ANWR. Consequently, because the state lacks clear title to this disputed land, the tide and submerged lands between the barrier islands and the coastal plain are not being considered for leasing in proposed Sale 50. However, the decision not to offer the disputed acreage in Sale 50 does not imply any recognition of the federal government's ownership of this land.

Although the ANWR disputed acreage is not being offered in proposed Sale 50, the state remains concerned that future lease boundary problems may arise because of the ambulatory nature of barrier islands which are used to delineate the seaward ANWR boundary. For this reason, the State of Alaska is pursuing an agreement with the U.S. Fish and Wildlife Service which will recognize the integrity of lease boundaries established for this sale throughout the life of the lease. Failure to reach an acceptable agreement before the deadline for providing final notice may result in deletion of additional acreage along the southern boundary of the proposed Sale 50 area.

Prior to this analysis, the Division of Oil and Gas issued a call for comments (DNR/DO&G undated) and a request for socioeconomic and environmental information for proposed Sale 50 (DNR/DO&G 1/27/86). State and federal agencies, the North Slope Borough, representatives of the petroleum industry, and environmental organizations each commented on the proposed sale. Information submitted by agencies and organizations is reflected in this analysis. A summary of these comments is included in Appendix 1.

Representatives of the petroleum industry supported proposed Sale 50 and asked that the sale terms reflect the high cost of exploration and development in this region (Gibson-Smith 1986; Morrison 1985; Hughes 1985; Eke 1986). Environmental groups, along with the North Slope Borough, recommended cancellation of proposed Sale 50. The North Slope Borough, however, in its comments on the proposed Five-Year Oil and Gas Leasing Program for the period 1987 to 1991, indicated the need for an aggressive leasing program on the North Slope and endorsed all sales in the state's five-year leasing schedule (Ahmaogak 1986). Environmental groups expressed concern that oil and gas exploration and development in Camden Bay would have a negative impact on the unique fish and wildlife resources of the region. These groups also considered oil and gas activities in this area to be contrary to the intent behind the creation of ANWR (see appendix 1). The Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service recommended delay of the proposed sale until the U.S. Congress issues its decision regarding oil and gas leasing in ANWR, and litigation over contested jurisdiction of the coastal lagoons is complete (Stroebele 1982/1983/1985; Cohen 1986; Nolke 1986).



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS
PROPOSED OIL AND GAS LEASE SALE 50
CAMDEN BAY PRELIMINARY TRACT MAP

SCALE 1:456,200 1 inch = 7.2 Miles Approx.

DIRECTOR, DIV. OF OIL & GAS
JIM EASON

LEASING MANAGER
PAMELA ROGERS

DRAWN BY
O.D.S.

CHECKED BY
J.M.

DATE APPROVED 11/12/86

BASE MAP: REDUCED FROM,
 UNIVERSAL TRANSVERSE
 MERCATOR PROJECTION BY
 U.S.G.S., "ORIGINAL SCALE"
 1:250,000 1 INCH = 4 MILES

NOTE: THIS MAP IS NOT TO BE
 CONSTRUED AS AN OFFICIAL
 TRACT MAP. A SET OF 1:63,360
 SCALE TRACT MAPS ARE
 AVAILABLE AT THE DEPT.
 OF NATURAL RESOURCES,
 DIVISION OF OIL AND GAS,
 3601 C. ST., P.O. BOX 7034,
 ANCHORAGE, ALASKA 99510
 PHONE (907)561-2020 -7034

NOTE: NO DECISION HAS YET
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PROPOSED SALE AREA

FIGURE 2.

In accordance with AS 38.05.035(e) and under a delegation of authority from the Commissioner of Natural Resources, the Director of the Division of Oil and Gas must determine whether the disposal will serve the state's best interests before the sale may be held. This preliminary analysis describes the proposed sale area, analyzes the potential effects of the sale, lists proposed mitigating measures and also serves as a preliminary consistency determination regarding the Alaska Coastal Management Program (ACMP). This discussion will precede a final finding and decision by the director which will determine whether the sale will or will not be held, and under what conditions any potential lessee may operate. In preparing these findings, a primary concern of the state is that none of the oil and gas activities which may occur as a result of the proposed sale adversely affect the environment or interfere with the traditional subsistence activities of North Slope residents.

Generally, the Department of Natural Resources believes that adequate environmental protection can be achieved by imposing specific measures to reduce or eliminate any potential adverse effects of oil and gas exploration and development. Accordingly, while the Department recognizes the intent behind the creation of ANWR, it does not believe it is necessary to establish an undeveloped area, or buffer zone, around the refuge to achieve an acceptable level of protection for fish and wildlife within ANWR. Proposed mitigating measures are described elsewhere in this analysis.

In addition to agency and public comments, other data sources considered in this analysis include the North Slope Borough's coastal management plan (Maynard and Partch, Woodward-Clyde Consultants 1984) and Final Findings (DNR/DO&G 1984, 1986a-d; DNR/DMEM 1982a, 1983) and Social, Economic, and Environmental Analyses (SEEA) (GAACL 1982a, 1983) prepared for other North Slope oil and gas lease sales. Additionally, the final Environmental Impact Statement for the federal government's Diapir Field Oil and Gas Lease Sale (June 1984) (USDOI 1984) provided information about coastal resources and communities.

POTENTIAL EFFECTS

Before a state oil and gas lease sale can take place, the Director of the Division of Oil and Gas must consider whether the sale serves the state's best interests. This decision is contingent upon an analysis of the potential effects of the sale, both adverse and beneficial. Many of the potential adverse effects are avoidable, and the state imposes stipulations and terms of sale to mitigate these effects. Some adverse effects are unavoidable, and these must be anticipated and balanced against the beneficial effects. This section outlines the activities which will probably occur as a result of this proposed sale, discusses how these activities will affect fish and wildlife populations, human use of fish and wildlife, and the local economy and well-being of the community, and describes proposed mitigating measures. The terms and stipulations referenced below are set out fully in the Proposed Mitigating Measures section.

The magnitude of effects from the proposed sale will depend on whether commercial quantities of oil and gas are discovered and produced, the location of such deposits, the type and extent of facilities necessary for development, and the effectiveness of mitigating measures in negating impacts. Until oil and gas are actually discovered, it is impossible to predict precisely what activities may occur as a result of this sale. This discussion of potential effects assumes that petroleum production will occur.

Effects on Fish and Wildlife

Impacts on fish and wildlife will be directly dependent on the amount of habitat degradation caused by petroleum-related activity. Generally, impacts can be grouped into three broad categories: (1) pollution from discharge of oil, drilling muds and cuttings, formation and cooling waters, or other wastes directly to the environment; (2) habitat loss or alteration from facilities construction; and (3) disturbance from noise and human presence. This section describes general environmental protections proposed as stipulations and terms of sale which should benefit fish and wildlife by reducing or eliminating habitat degradation. Specific fish and wildlife concerns and the measures designed to lessen foreseeable impacts are then described in more detail in the following discussion. Important habitats in the proposed sale area and vicinity, which have been identified by the Department of Fish and Game, are shown in Figures 3 and 4.

Pollution from offshore oil discharges associated with exploration, development and production, generally originates in the following ways: well accidents (blowouts), pipeline spills, tanker spills, and chronic operational spills of low volumes involving fuels and other petroleum products associated with the normal operation of drilling rigs and other facilities. Adherence to several proposed terms will aid in preventing accidental discharges of oil or dealing with an accident if one should occur. Of primary concern are measures to help prevent and mitigate the effects of a major oil spill caused by loss of well control due to an oil blowout or other accident.

The probability of a blowout is extremely low. Over 2700 oil wells have been drilled in Alaska in recent years, and no oil blowouts have occurred (Sadek 1986). Gas blowouts, on the other hand, have occurred in Alaska, most recently in May 1985 in Cook Inlet. Gas blowouts, however, pose less serious environmental hazards than oil blowouts since gas readily disperses into the

atmosphere. While the probability of an oil or gas blowout or oil spill is low, the probability is not zero. In recognition of this fact, the state will require that lessees develop an Oil Discharge Contingency Plan, as specified under AS 46.04.030 and 18 AAC 75, for all offshore operations (proposed Term 7). In addition, approval to drill a well must be received from the Alaska Oil and Gas Conservation Commission (AOGCC). The technical review provided by AOGCC ensures that proper well control devices, casing design, and cement programs are used in each exploratory and development well drilled for oil and gas, and further reduces the chance that a blowout will occur. The likelihood of accidents will be reduced further by adherence to proposed Stipulation 2 which imposes seasonal drilling restrictions and expands the requirements imposed on lessees before drilling in broken ice conditions. Additionally, proposed Term 12 requires that pipelines be located so as to facilitate the containment and clean up of oil spills. Finally, the transport of oil and gas by pipeline is environmentally preferable to transport by tanker and, where technically feasible, will be required by proposed Term 14.

Pollution from other sources can be avoided by requiring proper care and disposal of offending substances. To prevent and mitigate the effects of improper discharges and disposals, the state will prohibit disposal of solid waste on natural or artificial islands or into marine waters, and will require a permit approved by the Commissioner, Department of Environmental Conservation for disposal in other areas (proposed Term 23). The state also will require that all garbage and refuse be incinerated and that residue and nonburnables be disposed of at an approved upland site (proposed Term 24).

The state will prohibit disposal of oil contaminated drilling muds and cuttings to offshore waters or sea ice (proposed Term 25b) and discharge of produced waters into marine waters of less than 10 meters in depth (proposed Term 25a). The state, however, will allow disposal of uncontaminated drilling muds and cuttings onto the sea ice (proposed Term 25e) and into open water (proposed Term 25d) during exploratory drilling operations. Discharge of muds and cuttings under sea ice will be allowed only if ice conditions make surface disposal methods impractical (proposed Term 25d). When under ice discharges are allowed, each part of drilling fluid must be prediluted with at least nine parts seawater. During development and production, disposal of drilling muds and cuttings will be subject to the conditions of National Pollution Discharge and Elimination System (NPDES) permits issued by the U.S. Environmental Protection Agency (proposed Term 25g). The provisions of proposed Term 25 should help prevent drilling effluent pollution of marine waters overlying submerged tracts in the proposed Sale 50 area.

In addition to land and water pollution, air quality in the proposed sale area will be a significant concern if new production facilities are developed (Wheeler 1986). Monitoring of air pollutant emissions from existing facilities is required at the Prudhoe Bay and Kuparuk River fields. Similar monitoring will occur at future major development sites. Significant deterioration of air quality will be prevented through compliance with the terms of permits issued and monitored by the Department of Environmental Conservation.

Air pollution monitoring, and conformance with the proposed terms regarding oil discharge and wastewater and solid waste disposal, (proposed Stipulation 2 and Terms 7, 12, 14, 23, 24, and 25) should reduce the likelihood of damage from pollutants in the proposed sale area.

Habitat loss or alteration will be minimized by requiring that (a) lessees secure water rights from the Department of Natural Resources (proposed Term 4); (b) facilities be set back from the mouths of fish-bearing streams and rivers (proposed Term 8); (c) activities and structures be designed to maintain natural oceanographic circulation patterns and nearshore water quality and allow safe passage of fish and mammals (proposed Term 9); (d) facilities and transportation routes be located to avoid sensitive fish and wildlife habitat (proposed Term 10); (e) permanent facilities not be built during exploration (proposed Term 11); and (f) facilities sites be rehabilitated after abandonment (proposed Term 13). Additionally, the Department of Environmental Conservation has prepared a Manual of Recommended Practices for Transportation Corridor Development, Roads, Railroads, Pipelines, and Subdivisions (DEC 1980). The manual includes recommendations to minimize habitat degradation by controlling erosion and sedimentation through appropriate facility design, construction, and maintenance.

Disturbance from noise and human presence will be reduced by (a) restricting low altitude operation of air craft (proposed Term 5); (b) requiring lessees' employees to undergo environmental training (proposed Term 17); and (c) restricting exploration activities in specified areas at certain times of the year (proposed Stipulation 2, proposed Terms 30 and 31).

The proposed stipulation and proposed terms of sale described above should prevent and mitigate many of the potential negative effects of petroleum exploration and development on fish and wildlife. Some of the fish and wildlife concerns specific to the proposed sale area, however, deserve additional consideration.

1. Bowhead Whales -- Considerable debate exists regarding the risks posed to bowhead whales if oil and gas exploration, development and production activities were to occur in the Camden Bay area. Both an endangered species and a vital subsistence resource to the Inupiat people, the bowhead whale has become a concern of the North Slope Borough (NSB); the Alaska Eskimo Whaling Commission (AEWC); local residents; state and federal agencies; the environmental community; and members of the petroleum industry.

Of primary concern is the effect of seismic exploration and drilling activities on the migratory patterns of the bowhead whale. It has been suggested that noise disturbances or a major oil spill along the bowhead's migratory path, or in feeding areas, could jeopardize survival of the species. It is thought by some that disturbances of this nature could cause the bowhead whale to migrate too far from shore, thereby spending less time in important feeding areas or, perhaps, bypassing them altogether and thus risking nutritional deficiencies from inadequate food supply. The approximate path of fall migration for bowhead whales is illustrated in Figure 3.

Another concern is the potential danger posed to bowhead whales from contact with an oil spill. It is conceivable that contact with oil might adversely effect whales by irritating their eyes, harming their skin, damaging their respiratory system from inhalation of vapors, and clogging their baleen. Studies conducted on the effects of oil on cetaceans (Geraci and St. Albans, University of Guelph, Canada, 1982) however,

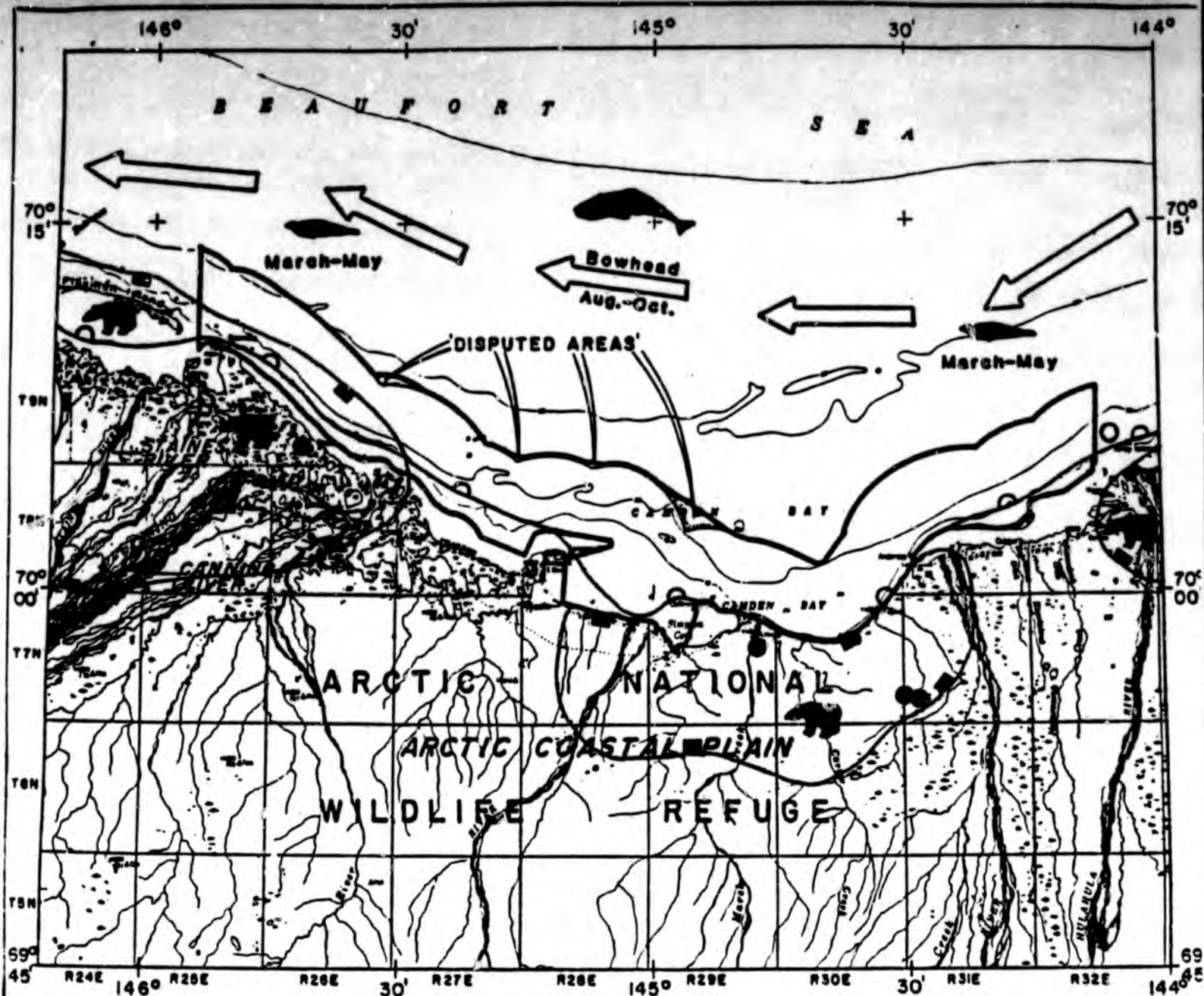


FIGURE 3. KEY MARINE MAMMAL HABITATS IN THE SALE 50 VICINITY

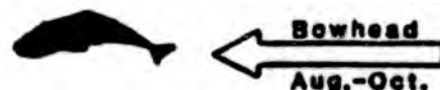
Polar Bear Confirmed Coastal Denning Areas

Polar Bear Possible Den Sites

Polar Bear Den Sites (Documented)

Ringed Seal Breeding and Pupping Habitat

Bowhead Whale Fall Migration Route



Sources:

ADF&G 1986

Habitat Division June 1986

USFWS 1982

PROPOSED SALE AREA



indicate that exposure of the bowhead whale to an oil spill would be of such short duration (as when surfacing) and that longterm ill effects would be unlikely.

Inupiat whalers from Nuiqsut and Kaktovik historically hunt the bowhead whale during its fall migration from the Canadian Beaufort, westward through the Alaska Beaufort, to its winter range in the Central Bering Sea. This hunt, central to the Inupiat lifestyle, provides not only meat and muktuk, but holds tremendous social and cultural importance to the villagers along the Beaufort Sea Coast.

Subsistence whalers believe that increased vessel traffic in the Beaufort Sea is forcing the whales further offshore, making them inaccessible to whaling crews. While studies have shown (Fraker, M.A., W.J. Richardson and B. Wursig. 1982) that bowhead whales do respond to vessels by moving away, or altering their surfacing and diving patterns, it has not been established that permanent changes to feeding or migratory patterns have occurred.

A step toward addressing many of the whaler's concerns was taken in early 1986 by representatives from the oil industry, North Slope Borough (NSB), Alaska Eskimo Whaling Commission (AEWC), and whaling captains from Kaktovik and Nuiqsut. The representatives met to discuss individual interests and ways these groups might work together to allow for seismic surveying and exploratory drilling by oil companies without detriment to Inupiat whaling, or the well-being of the bowhead whale.

As a result of these meetings, an agreement governing industry exploration activities in the Beaufort Sea was negotiated between industry, the NSB and whaling captains. Under the terms of the agreement, the NSB provided a communications tower, and the oil industry provided communication equipment, thereby enabling all whalers and industry vessel operators to talk with one another during their respective activities. Additionally, industry also agreed to employ an Inupiat "communicator" to operate the communication equipment on each vessel and to serve as a liaison between industry and whaling crews.

Industry also provided three satellite navigational devices (Satnavs) to the whaling fleet. Using the satnavs, the exact positions of whaling vessels can be determined and, using the established communication system, reported to industry vessels. In this manner, industry vessels are informed about the location of whaling boats, and can avoid areas of whaling activities, or in the event of an emergency, can render assistance.

This communication and navigational system is not used for scouting or reporting whale locations to whaling crews. The agreement, however, does allow industry to provide indirect assistance during the hunt. Contingent on vessel availability, assistance can include help with towing the whale to a butchering site, help in caching supplies, providing emergency assistance when required, and help with the transport of meat and muktuk to villages to prevent spoilage (Oil/Whalers Working Group, 1986).

While the industry/whaler agreement does much to alleviate conflicts between industry and subsistence whalers, the state must still take steps to protect the bowhead whale from potential impacts caused by oil and gas

development. The State of Alaska, in consultation with the National Marine Fisheries Service (NMFS) and in consideration of the Endangered Species and Marine Mammal Protection Acts, has adopted a seasonal drilling restriction and whale monitoring program to decrease the likelihood that bowhead whales may be negatively impacted by oil and gas activities. Proposed Stipulation 2 outlines the current seasonal drilling restriction. As review of ongoing agency and industry whale studies occurs, the seasonal drilling restriction may be amended accordingly to protect the whales and the interests of affected parties.

In addition to the seasonal drilling restriction, several other measures have been developed that could decrease the potential impact that oil and gas exploration and development may have on bowhead whales.

Proposed Term 6 prohibits the use of explosives in open waters.

Proposed Term 7 requires an Oil Discharge Contingency Plan for all offshore operations as specified under the Alaska Statutes.

Proposed Term 9 requires lease activities and structures to be designed and sited to maintain natural oceanographic circulation patterns and to provide for free movement of fish and mammals.

Proposed Term 10 requires that facilities and transportation routes be consolidated, to the extent feasible and prudent, to avoid sensitive fish and wildlife habitat.

Proposed Term 15 prohibits continuous fill causeways unless it is determined that no other feasible and prudent alternative exists.

Proposed Terms 23-29 are designed to lessen any adverse effects to fish, wildlife and the environment by restricting the disposal of solid waste and drilling byproducts, and the mining of gravel for facilities construction.

2. Seals -- Ringed seals are protected under the Marine Mammal Protection Act of 1972; however, the incidental taking of small numbers of ringed seals may be allowed under a 1981 amendment to the Act. Ringed seals are the most abundant seal in the Beaufort Sea and probably the most abundant marine mammal in Camden Bay. These seals live on the ice year-round. The seasonal ice cycle has an important effect on their distribution and abundance in the proposed sale area.

Ringed seals are common in the nearshore waters when the Beaufort Sea ice is present. During winter and spring, most of the breeding adults are found on stable land-fast ice. Later, from March through May during the spring breeding and pupping season, high densities of adults remain on the land-fast ice while subadults are most numerous in adjacent flaw zones. During the majority of the year, land-fast ice commonly occurs in Camden Bay (LaBelle et al. 1983). As a result, Camden Bay provides ringed seal breeding and pupping habitat and may also be an important winter and spring feeding area (Figure 3).

During the late spring and early summer, ringed seals use the ice as a solid surface on which to haul out and complete their annual molt. They are usually found near cracks, open leads or holes where they have rapid access to water. Feeding is greatly reduced during the molt and the amount of time spent on the ice increases as the molt season progresses.

In summer, most of the adult ringed seals are found along the edge of the pack ice, well seaward of the proposed sale area. Subadults may remain in the ice free areas. Ringed seals spend much of the summer and early fall in the water feeding.

Open leads and cracks in the ice are used by ringed seals to surface and breathe. During the fall as freeze-up begins, seals will actively keep breathing holes open. In areas where drifted snow covers breathing holes, the holes are often enlarged and used to haulout and excavate lairs. The lairs are used by all seals for resting as well as for pupping by the adult females. Ringed seals build their lairs on the lee side of pressure ridges and hummocks in 20cm of snow or more. Flat areas on the ice with little or no snow accumulation will contain mostly breathing holes and few lairs.

A proposed stipulation and several proposed measures will reduce the likelihood that oil and gas exploration will adversely effect marine mammals. The seasonal drilling restriction (stipulation 2) is designed to protect the bowhead whale but may also assist in the protection of other marine mammals by limiting oil and gas activities in certain areas during the spring or fall whale migration periods.

In addition, the following proposed terms extend protection to the ringed seal:

Proposed Term 6 prohibits the use of explosives in open waters.

Proposed Term 7 requires an Oil Discharge Contingency Plan for all offshore operations as specified under the Alaska statutes.

Proposed Term 8 prohibits the location of permanent facilities near the mouths of fish-bearing streams.

Proposed Term 9 will reduce the likelihood that oil and gas will adversely impact marine mammals by requiring lease activities and structures to be designed and sited to maintain natural oceanographic circulation patterns and free movement of fish and mammals.

Proposed Term 10 suggests that facilities and transportation routes be consolidated to avoid sensitive fish and wildlife habitat.

Proposed Term 15 prohibits continuous fill causeways unless it is determined that no other feasible and prudent alternative exists.

Proposed Terms 23-29 are designed to reduce any adverse effects to fish, wildlife and the environment by restricting the disposal of solid waste and drilling byproducts as well as the mining of gravel for facilities construction.

3. Polar bears -- Polar bears in the proposed sale vicinity belong to the northern Alaska subpopulation which totals about one-third of the entire population of polar bears in Alaska, or approximately 1900 bears (Cohen 1986). Since polar bears reside on floating pack ice, except while denning, they are considered marine mammals. Polar bears are generally found in the proposed sale area from fall until spring. Some pregnant female bears travel to nearshore areas in September and October to den in snowdrifts on land or shorefast ice. Cubs are born inside the dens during mid-winter. Female bears and cubs emerge from dens in March or April, and may remain near their dens for up to 15 days. Bears and cubs move onto the sea ice during summer.

All of Camden Bay is within the known denning range of polar bears (Figure 3). Six active dens have been identified onshore in the vicinity of Camden Bay, and one site was observed offshore near the Hulahula River. Dens are located where snow accumulates in sufficient quantities for their construction. Most dens are found within ten miles (16 km) of the coast, but dens have been observed up to 30 miles (48 km) inland. Regionally significant numbers of polar bears den between the Colville and Canning Rivers; more dens and newborn cubs have been found in this area than elsewhere on the Alaska Beaufort Sea coast.

Polar bears are protected by an international treaty and by the Marine Mammal Protection Act. In addition, proposed Term 30 will help prevent disturbance of denning polar bears by requiring that winter travel routes and exploration programs avoid denning habitat. Exploration activities within one mile of documented, active polar bear dens may be prohibited. The use of explosives will be prohibited within 1/4 mile of cutbanks identified by the Department of Fish and Game.

Additionally, several other proposed terms will help reduce the likelihood that polar bear may be adversely impacted by oil and gas development.

Proposed Term 5 will restrict low aircraft flights over sensitive areas.

Proposed Term 7 requires an Oil Discharge Contingency Plan for all offshore operations as specified under the Alaska Statutes.

Proposed Term 10 will consolidate facilities and surface transportation routes to avoid sensitive fish and wildlife habitat.

Proposed Term 24 requires that all garbage and refuse be incinerated and disposed of at an approved upland site.

4. Fish -- Species found in proposed sale area waters are listed in Table 1. Arctic cod and fourhorn sculpin are the most common marine fish inhabiting the waters of Camden Bay. Arctic cod are common all along the Beaufort Sea coast, and are considered a key species in the ecosystems of the Arctic Ocean because of their abundance and their importance in the diets of marine mammals, birds, and other fish. They spawn under the ice in nearshore waters during January and February. Fourhorn sculpin also are abundant and widespread along the Beaufort Sea coast. Other marine fish likely to occur in the sale area include saffron cod, arctic flounder, capelin, pacific herring, snailfish and the pacific sand lance.

Anadromous fish-bearing streams flowing into the proposed Sale 50 area are the Canning River, including the Staines River channel, and the Hulahula River. Anadromous fish found in these rivers and in nearby lakes and streams include arctic char, broad whitefish, and humpback whitefish. Chum, pink and red salmon are found in the Canning River (DF&G 1986a). Arctic char and arctic cisco were the most frequently captured in 1970 inventories of Camden Bay (Rogusky and Komarek 1971). Broad whitefish, humpback whitefish, least cisco, and boreal smelt also occur in the region but are not abundant in the sale area.

Anadromous arctic char and broad and humpback whitefish remain in freshwater for several months or years, depending on species, before migrating to coastal waters. After the initial migration, these anadromous species summer in coastal waters, returning to inland waters to spawn and overwinter. Char remain in the river systems from approximately mid-August until May or June. During summer months they feed in coastal waters of the Beaufort Sea, returning in the fall to spawn and overwinter in rivers adjacent to the sale area. Seasonal migrations of the arctic cisco in the Beaufort Sea are poorly understood; however, these fish are known to occur in Camden Bay during the summer. Whitefish spend much of their life cycle in fresh water. They feed in salt water during the summer, but generally remain in freshwater plumes extending out from river mouths and in marine waters of lower salinity. As with arctic char, these species move up river around mid-August and spawn in late September or October (Roguski and Komarek 1971).

Freshwater fish listed on Table 1 spawn and overwinter in rivers or lakes. These nonanadromous fish inhabit freshwater year-round, although arctic grayling move into river deltas and nearshore coastal waters after spring break-up.

Title 16 of the Alaska Statutes protects documented anadromous streams from disturbances associated with development. Proposed terms listed below are imposed by the Division of Oil and Gas to prevent oil and gas exploration and development from adversely affecting anadromous streams in the proposed sale area. The habitats of the Canning, Hulahula and other anadromous rivers and streams as well as offshore fish habitats will be protected by proposed Terms 7, 8, 9, 10, 15, 25, 27, 28, and 29.

Proposed Term 7 requires an Oil Discharge Contingency Plan for all offshore operations as specified under the Alaska Statutes.

Proposed Term 8 prohibits facilities within 500 feet of the active floodplains of the Canning River and within 100 feet of all other fish-bearing streams and lakes.

TABLE 1

Documented Anadromous, Marine and Freshwater Fish Within and Adjacent to the Proposed Sale 50 Area

Common name	Scientific name
<u>Anadromous</u>	
Arctic char*	<u>Salvelinus alpinus</u>
Arctic cisco*	<u>Coregonus autumnalis</u>
Least cisco*	<u>Coregonus sardinella</u>
Bering cisco	<u>Coregonus laurettae</u>
Broad whitefish	<u>Coregonus nasus</u>
Humpback whitefish	<u>Coregonus pidschian</u>
Pink salmon	<u>Onchorynchus gorbuscha</u>
Chum salmon*	<u>Onchorynchus keta</u>
Arctic lamprey	<u>Lampetra japonica</u>
Boreal smelt	<u>Osmerus eperlanus</u>
Ninespine stickleback *	<u>Pungitius pungitius</u>
Three spine stickleback	<u>Gasterosteus aculeatus</u>
<u>Marine</u>	
Fourhorn (deepwater) Sculpin	<u>Myoxocephalus quadricornis</u>
Arctic flounder	<u>Liopsetta glacialis</u>
Starry flounder	<u>Platichthys stellatus</u>
Arctic cod	<u>Boreogadus saida</u>
Saffron cod	<u>Eleginus gracilis</u>
Capelin	<u>Mallotus villosus</u>
Pacific herring	<u>Clupea harengus</u>
Snailfish	<u>Liparus sp</u>
Pacific sand lance	<u>Ammodytes hexapterus</u>
<u>Freshwater</u>	
Arctic Grayling*	<u>Thymallus arcticus</u>

* Species reported from lakes and drainages of the Arctic National Wildlife Refuge.

Source: USFWS 1982 (Adapted from Wilson et al. 1977 and Craig and Halderson 1980)

Proposed Term 9 requires that all activities and structures be designed, sited, and constructed to maintain normal water flow and drainage patterns and to allow for free movement and safe passage of fish.

Proposed Term 10 requires that, where feasible and prudent, facilities and surface transportation routes should be sited and consolidated to avoid sensitive fish and wildlife habitat.

Proposed Term 15 prohibits construction of continuous fill causeways, however, noncontinuous fill causeways may be permitted when the Director, Division of Oil and Gas, after consultation with the Department of Fish and Game and the Department of Environmental Conservation, determines that a causeway is necessary for field development, and that no other feasible and prudent alternative exists. Approved causeways must be sited and constructed to prevent significant changes to oceanographic circulation.

Proposed Term 23 prohibits the disposal of solid waste into marine waters.

Proposed Term 25 regulates the disposal of produced waters, drilling muds, and cuttings into water bodies and onto the ice.

Gravel removal from fish-bearing streams, river deltas, coastal lagoons, nearshore areas, and barrier islands to support oil and gas activities could adversely impact marine and anadromous fish. Gravel removal could increase sediment loads, change the streambed courses and water circulation patterns, destroy spawning habitat, and create obstacles to fish migration. Several proposed terms will protect fish and their habitat by restricting gravel mining operations.

Proposed Term 26 requires that, if gravel is needed for exploration, development, and production, gravel from abandoned drill pads and existing material sites be used first.

Proposed Term 27 prohibits gravel removal from floodplains of active watercourses for exploration activities.

Proposed term 28 prohibits gravel extraction from barrier islands, coastal lagoons and nearshore areas.

Proposed Term 29 restricts the number of gravel sites to the minimum number of approved upland or offshore sites required for development activities and prohibits gravel mining from active floodplains during development and production.

Adverse effects to proposed sale area fish from oil and gas exploration and development should be minimized by the proposed mitigating measures described above.

5. Birds -- Wetlands near the proposed sale area provide important nesting, feeding, molting, and staging habitat for numerous migratory waterfowl and shorebirds (Figure 4). Waterfowl, seabirds, and shorebirds commonly found here include ducks, geese, swans, loons, gulls, terns, plovers, and

longspurs. Terrestrial species include peregrine falcons, owls, ptarmigan, and hawks. Bird species listed in Table 2 have been observed on the Canning River delta and may occur in the proposed Sale 50 nearshore waters (Martin 1983).

Most of the region's birds are present seasonally, arriving during late April to mid-June. Spring staging usually occurs in wetlands near the coast. The birds later move onto the tundra to nest. Nesting generally extends from mid-June to mid-July. After breeding, tundra-nesting birds gather along the coast to feed before their fall migration, which begins in late August and ends by mid-September. These birds may migrate long distances, and changes to North Slope populations or habitat may affect bird populations and associated human uses in faraway locations.

Different bird habitats are important to different species at different times of the year (Martin and Moitoret 1981). For instance, nesting waterfowl and shorebirds typically prefer wet tundra habitat; this preference is reflected in lower nesting densities as elevations increase away from the coast. Generally, staging and nesting concentrations of these birds are high in the Sagavanirktok River and the Canning River deltas. Wetlands and tideflats in and near the Sagavanirktok and Canning-Tamayariak River deltas also provide important resting and feeding habitat for migratory birds in the early spring (Cohen 1986). These waters become ice-free, and available for birds to feed and rest in them before lakes and other coastal areas.

Coastal wetlands are aquatic habitats bordering the Beaufort Sea within a zone directly influenced by sea water. These areas of salt or brackish water attract large numbers of migrating shorebirds and waterfowl (Martin and Moitoret 1981:II-1). Black brant commonly rest and feed in coastal wetlands.

Like waterfowl and shorebirds, peregrine falcons are seasonal residents of the region, and are generally found near the area between mid-April and early September. Peregrine falcons nest on high cliffs or bluffs along rivers, and return to the same areas year after year. Nests have been located on bluffs along the Canning River south of the proposed sale area.

Peregrine falcons are listed as threatened on the federal endangered species list, and lessees are advised that disturbing a peregrine falcon nest violates federal law. Proposed Term 31 will regulate activities in the vicinity of nest sites. If a lessee discovers an active peregrine falcon nesting site, proposed Term 31 requires that the nest location be reported to the Director, Division of Oil and Gas. Because peregrine falcons generally hunt within 5 to 15 miles of their nests, proposed Term 31 regulates the use of pesticides within this range.

Gyrfalcons, rough-legged hawks, ptarmigan, snowy owls, and ravens also are common near the proposed sale area. Except for rough-legged hawks, these terrestrial species are year-round residents.

Nesting birds are sensitive to human activities associated with industrial development. Activities which require the use of heavy equipment and repeated aircraft flights near the nests could disrupt nesting and resting birds. The effects of such disturbances could include loss of eggs,

TABLE 2

Bird Species Observed in the Canning River Delta, 1979-1980.
(Asterisk denotes confirmed breeding species in the study area.)

Common Name	Scientific Name
* Red-throated Loon	<u>Gavia stellata</u>
* Arctic Loon	<u>Gavia Arctica</u>
Yellow-billed Loon	<u>Gavia adamsii</u>
* Tundra Swan	<u>Cygnus columbianus</u>
Greater White-fronted Goose	<u>Anser albifrons</u>
Snow Goose	<u>Chen caerulescens</u>
Ross' Goose	<u>Chen rossii</u>
* Brant	<u>Branta bernicla</u>
* Canada Goose	<u>Branta canadensis</u>
Green-winged Teal	<u>Anas crecca</u>
Mallard	<u>Anas platyrhynchos</u>
* Northern Pintail	<u>Anas acuta</u>
Northern Shoveler	<u>Anas clypeata</u>
Gadwall	<u>Anas strepera</u>
American Wigeon	<u>Anas americana</u>
Greater Scaup	<u>Aythya marila</u>
* Common Eider	<u>Somateria mollissima</u>
* King Eider	<u>Somateria spectabilis</u>
* Spectacled Eider	<u>Somateria fishcheri</u>
* Oldsquaw	<u>Clangula hyemalis</u>
Black Scoter	<u>Melanitta nigra</u>
Surf Scoter	<u>Melanitta perspicillata</u>
White-winged Scoter	<u>Melanitta fusca</u>
Red-breasted Merganser	<u>Mergus serrator</u>
Northern Harrier	<u>Circus cyaneus</u>
Rough-legged Hawk	<u>Buteo lagopus</u>
American Kestrel	<u>Falco sparverius</u>
Peregrine Falcon	<u>Falco peregrinus</u>
Gyr Falcon	<u>Falco rusticolus</u>
Willow Ptarmigan	<u>Lagopus lagopus</u>
* Rock Ptarmigan	<u>Lagopus mutus</u>
Sandhill Crane	<u>Grus canadensis</u>
* Black-bellied Plover	<u>Pluvialis squatarola</u>
* Lesser Golden-Plover	<u>Pluvialis dominica</u>
Whimbrel	<u>Numenius phaeopus</u>
Hudsonian Godwit	<u>Limosa haemastica</u>
Bar-tailed Godwit	<u>Limosa lapponica</u>
* Ruddy Turnstone	<u>Arenaria interpres</u>
Red Knot	<u>Calidris canutus</u>
Sanderling	<u>Calidris alba</u>
* Semipalmated Sandpiper	<u>Calidris pusilla</u>
Western Sandpiper	<u>Calidris mauri</u>
White-rumped Sandpiper	<u>Calidris fuscicollis</u>

TABLE 2. (cont.)

* Baird's Sandpiper	<u>Calidris bairdii</u>
* Pectoral Sandpiper	<u>Calidris melanotos</u>
* Dunlin	<u>Calidris alpina</u>
* Stilt Sandpiper	<u>Calidris himantopus</u>
* Buff-breasted Sandpiper	<u>Tryngites subruficollis</u>
* Long-billed Dowitcher	<u>Limnodromus scolopaceus</u>
Common Snipe	<u>Gallinago gallinago</u>
* Red-necked Phalarope	<u>Phalaropus lobatus</u>
* Red Phalarope	<u>Phalaropus fulicaria</u>
Pomarine Jaeger	<u>Stercorarius pomarinus</u>
* Parasitic Jaeger	<u>Stercorarius parasiticus</u>
Long-tailed Jaeger	<u>Stercorarius longicaudus</u>
Herring/Thayer's Gull	<u>Larus argentatus/thayeri</u>
* Glaucous Gull	<u>Larus hyperboreus</u>
Black-legged Kittiwake	<u>Rissa tridactyla</u>
* Sabine's Gull	<u>Xema sabini</u>
* Arctic Tern	<u>Sterna paradisaea</u>
(Thick-billed?) Murre	<u>Uria sp.</u>
* Black Guillemot	<u>Cepphus grylle</u>
Horned Puffin	<u>Fratercula corniculata</u>
Snowy Owl	<u>Nyctea scandiaca</u>
Short-eared Owl	<u>Asio flammeus</u>
unid. flycatcher	<u>Empidonax sp.</u>
Horned Lark	<u>Eremophila alpestris</u>
Cliff Swallow	<u>Hirundo pyrrhonota</u>
Common Raven	<u>Corvus corax</u>
Gray-cheeked Thrush	<u>Catharus minimus</u>
Varied Thrush	<u>Ixoreus naevius</u>
Yellow Wagtail	<u>Motacilla flava</u>
Water Pipit	<u>Anthus spinoletta</u>
Orange-crowned Warbler	<u>Vermivora celata</u>
Yellow Warbler	<u>Dendroica petechia</u>
American Tree Sparrow	<u>Spizella arborea</u>
Savannah Sparrow	<u>Passerculus sandwichensis</u>
White-throated Sparrow	<u>Zonotrichia albicollis</u>
White-crowned Sparrow	<u>Zonotrichia leucophrys</u>
Dark-eyed Junco	<u>Junco hyemalis</u>
* Lapland Longspur	<u>Calcarius lapponicus</u>
* Snow Bunting	<u>Plectrophenax nivalis</u>
Rusty Blackbird	<u>Euphagus carolinus</u>
* Common/Hoary Redpoll	<u>Carduelis flammea/horneamannii</u>

Source: Martin 1983.

inability to feed and develop sufficient fat reserves, and abandonment of molting areas (Collinsworth 1983).

Disturbance of tundra-nesting birds may be reduced by proposed Term 5. This proposed term of sale requires that aircraft fly at altitudes of greater than 1,500 feet or at a lateral distance of one mile around barrier islands, river deltas, and wetlands within one mile of the Beaufort Sea coast from May 15 through September 30.

Tundra-nesting birds will also be protected by several general provisions listed below:

Proposed Term 7 requires an Oil Discharge Contingency Plan for all offshore operations as specified under the Alaska Statutes.

Proposed Term 8 requires that permanent facilities be sited away from river mouths unless the Director, Division of Oil and Gas, after consultation with the Department of Fish and Game, determines that such facilities placement will not significantly disturb critical wildlife habitats or that such a requirement is not feasible or prudent.

Proposed Term 9 requires that all activities and structures be designed, sited, and constructed to maintain normal water flow and drainage patterns.

Proposed Term 23 regulates the disposal of solid waste.

Proposed Term 24 regulates disposal of all garbage and refuse.

Proposed Term 25 regulates disposal of produced waters, drilling muds, and cuttings.

Collectively, these proposed terms should help protect the physical and chemical integrity of bird habitat proximal to the sale area from potential degradation by oil and gas exploration and development.

Effects on Human Use of the Proposed Sale Area

The proposed sale area and adjacent vicinity receives considerable human use. This is due to the proximity of the area to Kaktovik, a traditional community located immediately to the east of the proposed sale area. Primary human uses consist of subsistence hunting and fishing by residents of Kaktovik, and occasionally Nuiqsut. Caribou, moose, seals, whales, polar bear, furbearers, fish, and birds are important Inupiat subsistence resources; of these, whales, bears, seals, fish, and birds are commonly available in the proposed sale area. The proposed sale area and vicinity may also attract some sport hunters and fishermen, as well as recreational boaters, and hikers.

Subsistence is an important part of the Inupiat culture, encompassing cultural, social, nutritional, and economic values (Maynard and Partch, Woodward-Clyde Consultants 1984:2-17). Certain animals, such as bowhead whale, bear, and seals, are more important culturally to Inupiat subsistence than other animals; their cultural value cannot be quantified. For example, whaling is considered the single most valued activity in the North Slope subsistence economy (USDOI 1984:III-54). However, in terms of effort spent

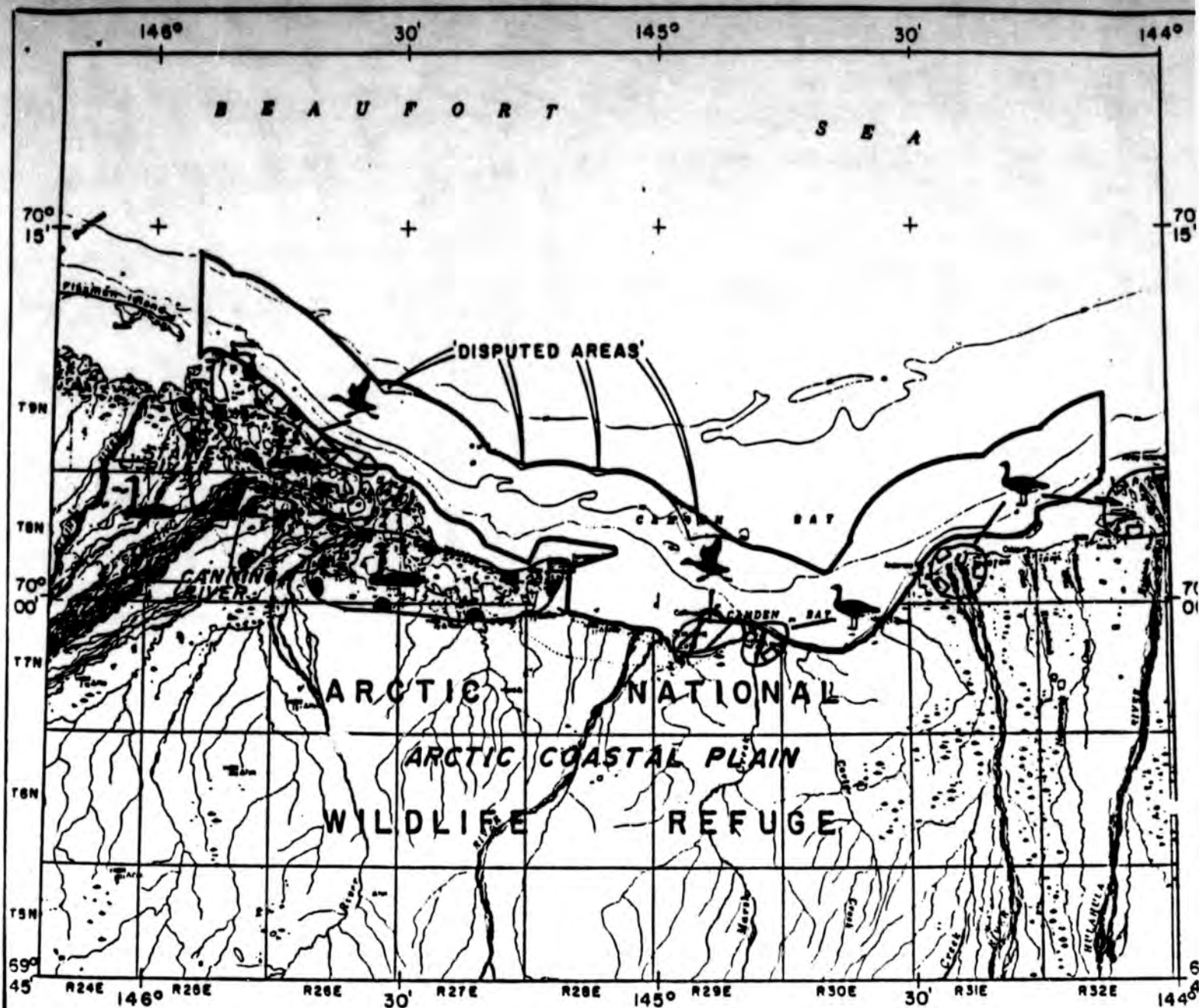


FIGURE 4. KEY BIRD HABITATS IN THE SALE 50 VICINITY

Tundra Swan High Density Nesting Areas



Black Brant Fall Staging Concentration Areas



Oldsquaw High Density Molting Concentration Areas



Sources:

ADF&G 1986

Habitat Division June 1986

USFWS 1984

PROPOSED SALE AREA



hunting and quantity of meat hunted and eaten, caribou is the most important species harvested (USDOI 1984:III-54). Traditional land use inventory sites are depicted in Figure 5.

Because the availability of animals varies from year to year, harvest patterns must change accordingly. An example of an annual subsistence harvest cycle for Kaktovik is depicted on Figure 6. Jacobson and Wentworth (1982:29-68) have documented that Kaktovik residents use the proposed sale area primarily for fishing, whaling, and access to caribou hunting grounds. Summer fishing occurs along the coast as far west as the Shaviovik River, but especially near Bullen Point and in the Canning River. The Canning River and its delta are also important for winter fishing, as are the Sagavanirktok, Sadlerochit, and Hulahula Rivers. Typically, caribou are hunted each summer along the coast and on the Canning River Delta; winter hunting may occur here as well.

Several other factors affect subsistence activities; specifically, the availability of fish and wildlife populations, weather, methods of harvest, availability of transportation, state and federal hunting and fishing regulations, local economic conditions, and availability of cash to purchase gasoline and equipment. In the proposed sale area, terrain also affects harvests (Pedersen and Coffing 1984:15; Jacobson and Wentworth 1982:33). Soggy tundra and shallow rivers restrict most summertime activities to coastal areas, but ice, frozen ground and snow cover allow the use of snow machines to expand harvest areas each winter.

Current subsistence activities are heavily dependent on cash (Alaska Consultants, Inc. et al 1984:80-81). The cost of each subsistence activity largely depends on the equipment and amount of gasoline needed to reach hunting and fishing areas. Most harvest activities are conducted from snow machines and outboard motor boats, which are expensive to purchase and maintain. Consequently, each individual's harvest activities reflect that individual's access to cash. Thus, each hunter exhibits a different pattern of harvest depending on how much gasoline and equipment he or she can afford.

Oil and gas exploration and development of the proposed sale area could adversely affect subsistence activities if fish and wildlife populations are reduced or their habitats damaged, if access to hunting and fishing areas is restricted, or if development in the proposed sale area results in improved outside access and increased competition for the area's resources. However, if proposed Sale 50 development contributes to the availability of jobs, opportunities to pursue a subsistence lifestyle could be enhanced. Local employment may limit subsistence activities to evenings, weekends, or a few longer periods for some family members, but it is not viewed as interfering with the practice of subsistence itself (Alaska Consultants et al 1984:96). Proposed Term 16, which encourages lessees to hire local and Alaska residents, could promote hiring of qualified residents for work in the proposed Sale 50 area.

Continued use of proposed sale area fish and wildlife will depend on the maintenance of fish and wildlife populations. As discussed in Effects on Fish and Wildlife, exploration, development, and production activities will be regulated to prevent significant disruption of subsistence species and to minimize disturbance to wildlife habitat. Petroleum activities, therefore, are not likely to substantially affect proposed Sale 50 fish and wildlife resources.

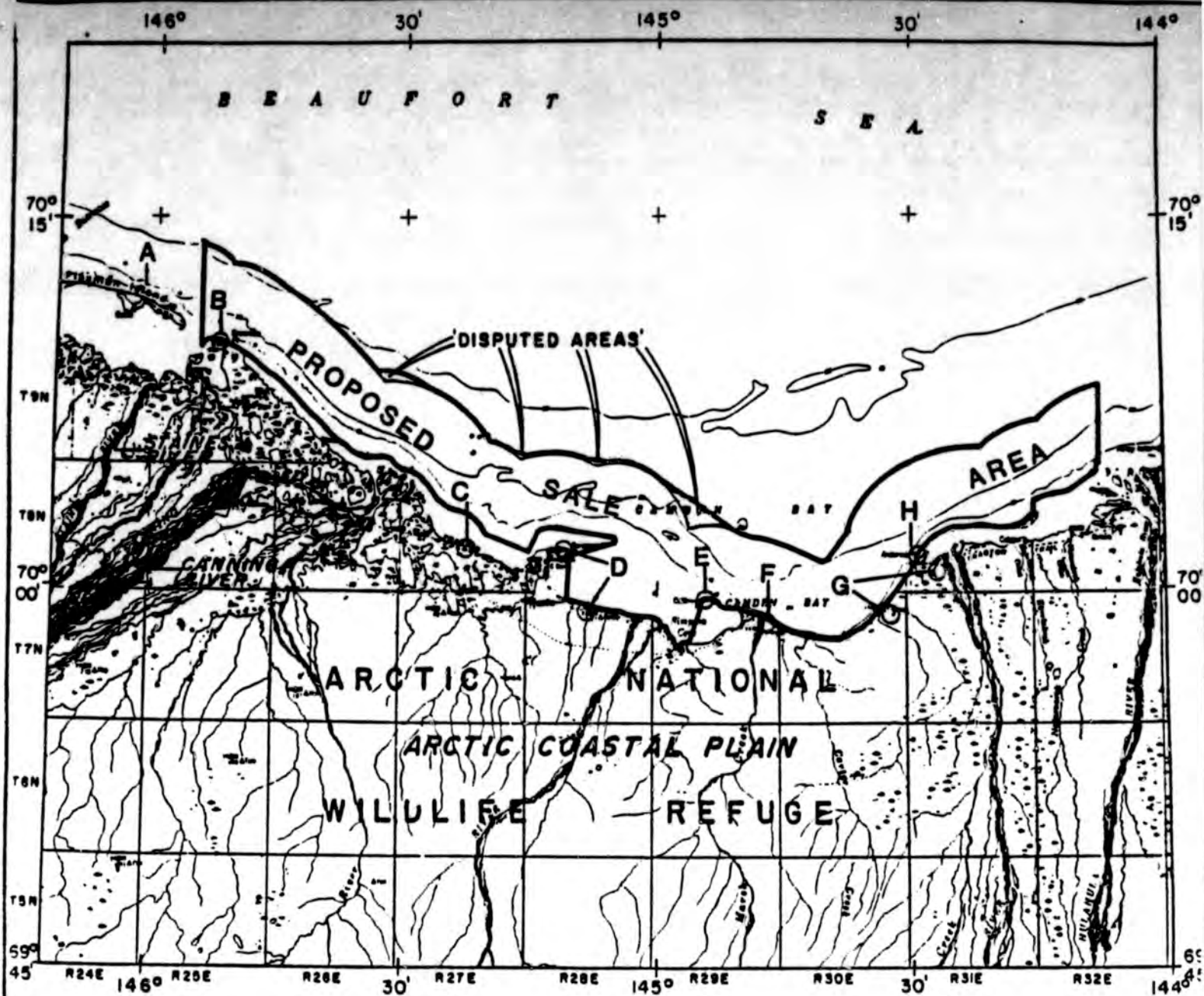


FIGURE 5. TRADITIONAL LAND USE INVENTORY SITES II

- A. FLAXMAN ISLAND QIKIQTAO
- B. (BROWNLOW PT.) Agliguagruk
- C. Kayutak
- D. (KONGANEVIK PT.) Kaninniivik
- E. Nuvugaq (PT. COLLISION)
- F. Kunagrak
- G. Aanalaag
- H. ANDERSON PT.

PROPOSED SALE AREA



Two terms are proposed to prevent disturbance of subsistence activities as a result of access conflicts or interference. Proposed Term 18 requires that public access to and use of leased areas be unrestricted except in the immediate vicinity of facilities, and proposed Term 19 requires that surface uses be restricted, as necessary, to prevent unreasonable conflicts with subsistence harvests.

Development of the proposed Sale 50 area could facilitate public access to the area for subsistence users and for sport hunters and fishermen and other recreationists, consequently increasing pressure on fish and wildlife populations and increasing competition among resource users. However, the Dalton Highway, which lies about 85 miles west of the proposed sale area, is closed by statute to unauthorized traffic. Additionally, it is likely that, as is the case at the Prudhoe Bay and Kuparuk River oil fields, oil companies will restrict public use of roads that they construct and maintain to support oil field operations in or near the sale area. This restriction applies only to use of the road, not to use of the sale area. During the exploratory phase, lessees are restricted to existing roads and to ice and winter roads and trails (proposed Term 11). Although newly constructed ice roads available to the public could temporarily facilitate wintertime access to the proposed sale area, given the extreme winter weather conditions, significant increases in wintertime sport harvests are unlikely. Consequently, the proposed sale should not affect harvest levels or opportunities to harvest.

Recreational use of the region is not well documented. Some kayaking may occur along the coast. The area is less frequently used than other regions of Alaska (Maynard and Partch, Woodward-Clyde Consultants 1984:3-27 & 31). No specific sport harvest data are available for hunting and fishing in the proposed sale area, but some hunting and fishing does occur in the region.

Effects on Local Economy and Well-being

In general, changes in the well-being of North Slope Borough communities will depend on the degree of change in local values or lifestyles caused by the proposed sale. Proposed Sale 50 acreage is located about 12 miles west of Kaktovik and 120 miles east of Nuiqsut, the nearest villages.

In these communities, subsistence is both culturally and economically significant; community well-being depends on the continued use of subsistence resources. Significant adverse effects to sale area fish and game species should be prevented by provisions discussed under Effects on Fish and Wildlife. Continued opportunities to pursue a subsistence lifestyle are discussed in Effects on Human Use of the Proposed Sale Area. In addition, proposed Term 17 should make oil field workers more sensitive to local concerns. This proposed term requires lessees' employees to be informed of the environmental, social, and cultural concerns which relate to the employee's job.

Direct benefits to the North Slope Borough's economy will depend on the discovery and subsequent production of commercial quantities of petroleum. Borough revenues are primarily raised by taxing oil and gas properties, and are used to fund capital improvement projects and to provide community services such as education, public safety, planning, and health care.

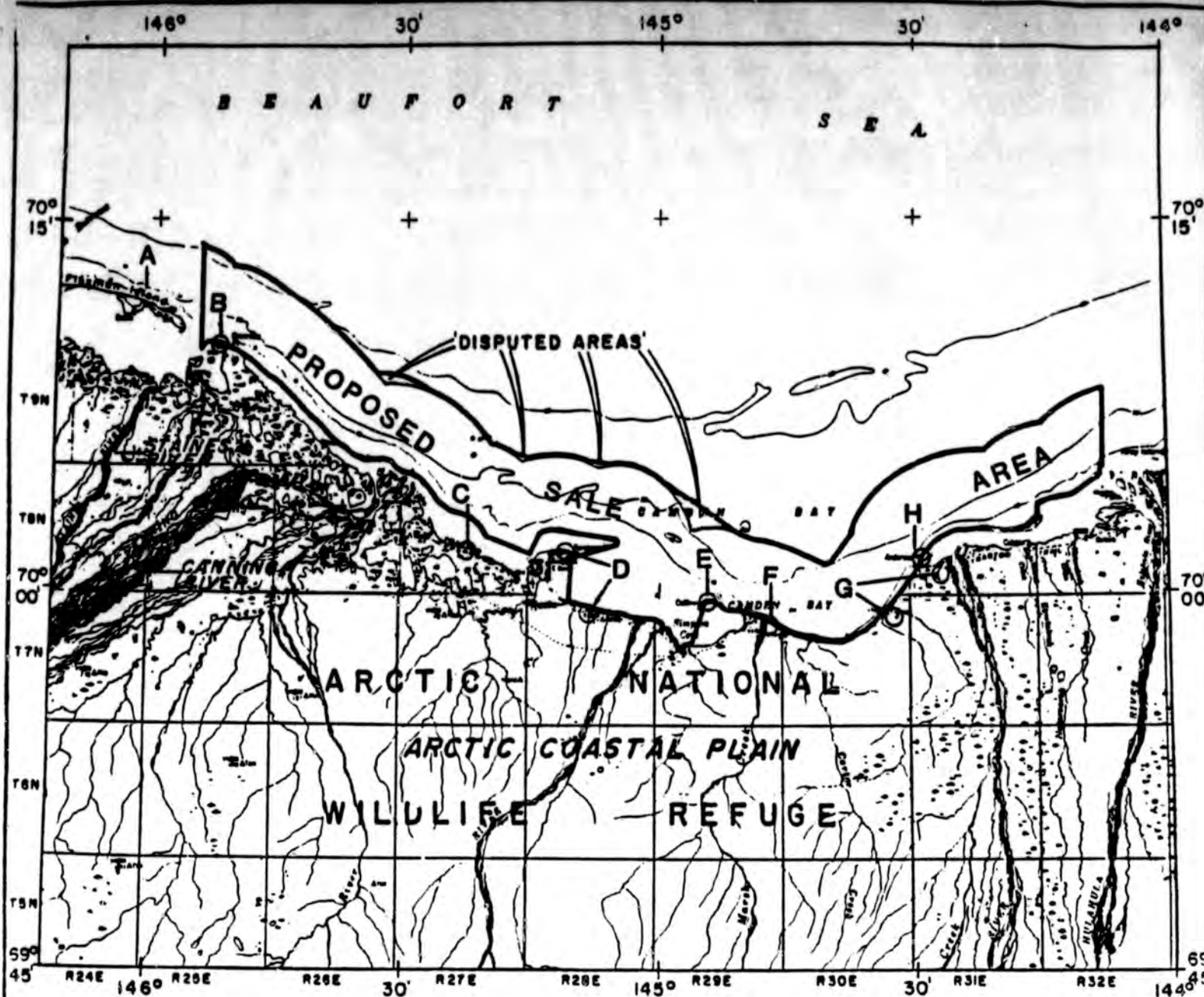


FIGURE 5. TRADITIONAL LAND USE INVENTORY SITES II

- A. FLAXMAN ISLAND QIKIQTAO
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- E. Nuvugaq (PT. COLLISION)
- F. Kunagrak
- G. Aanalaag
- H. ANDERSON PT.

PROPOSED SALE AREA



Direct benefits to borough residents will depend upon their ability to obtain oil industry jobs or jobs related to borough financed projects. Unemployment continues to be a problem in Alaska. The Sale 50 comments from North Slope Mayor George N. Ahmaogak (1985) recommended that Kaktovik residents receive hiring preference for development-related jobs, and Nuiqsut residents have expressed their wish to receive jobs and contracts related to local oil and gas activities (Nukapigak 1985; Ahmakak 1985). In response to these expressions of interest, the Department of Natural Resources continues to encourage oil companies to hire local and Alaska residents to perform work done on state oil and gas leases (proposed Term 16).

The borough is the region's principal employer (excluding the oil industry), especially of Inupiat workers (Kruse et al 1983:112-113). Over half of the workers in Kaktovik in 1982 were employed by local government (Kruse et al 1983:E-19), and half of the workers in Nuiqsut in 1983 were employed by the North Slope Borough (Research Foundation 1984:112). Reductions in capital improvement projects may have changed these statistics, but more recent figures are unavailable. North Slope Borough employment policies should help ensure that local residents are hired for borough funded community projects.

The recent dramatic drop in the price of oil could potentially affect the amount of property tax dollars available to the borough, and thus reduce the number of jobs available to borough residents. However, the possibility of new discoveries of commercial quantities of oil and gas that may result from proposed Sale 50 could add to or help maintain the borough's tax base, and thus contribute to the stability of the local economy.

The borough feels that a subsistence lifestyle should be available to local residents when oil and gas activities in the area cease. The North Slope Borough land management regulations, comprehensive plan, and proposed coastal management plan, combined with the mitigating measures developed for the proposed sale, should help to control the detrimental impacts of oil field development on the environment and the Inupiat culture.

Other Effects

1. Public access to navigable and public waters -- Restriction of public access to navigable and public waters within the proposed sale area as a consequence of petroleum development activities is prohibited, except in the immediate vicinity of drill sites and related structures (AS 38.05.127) (proposed Term 18). If a facility would impair public access, the state can require that the facility be placed elsewhere, if feasible, or that easements for public access be provided (11 AAC 53.310 and .330). Public access will not be restricted unless the facility cannot be located elsewhere, and continued public access becomes hazardous or poses a security threat.
2. Cultural resource sites -- It is not likely that any cultural resource sites would be identified within the proposed sale area. However, no cultural resource surveys have been conducted in the area, and the discovery of sites should not be ruled out.

Any sites documented, as well as any artifacts discovered will be protected by proposed Term 22. This term requires lessees to inventory archeological and historical sites within areas affected by their activities prior to construction or placement of any structure, road, or facility. Inventories must be submitted to the Division of Oil and Gas for review by the Alaska Division of Parks and Outdoor Recreation and the North Slope Borough. If a cultural resource site could be adversely affected by an activity, the Division of Oil and Gas will direct lessees as to what course of action is necessary to mitigate the adverse effect.

Lessees may discover cultural resources as a result of activities related to proposed Sale 50. Proposed Stipulation 1 will provide newly discovered sites with the same protection proposed Term 22 affords previously documented sites.

3. Native allotments and other third-party interests -- Activities proposed under a plan of operations must not unreasonably diminish the use and enjoyment of lands encompassed within a native allotment. Before entering a pending or approved native allotment, lessees must contact the Bureau of Indian Affairs and the Bureau of Land Management, and obtain approval to enter. Lessees must also comply with applicable federal law on native allotments (proposed Term 21). The North Slope Borough advises that there are native allotments near the proposed Sale 50 area (Ahmaogak 1985).

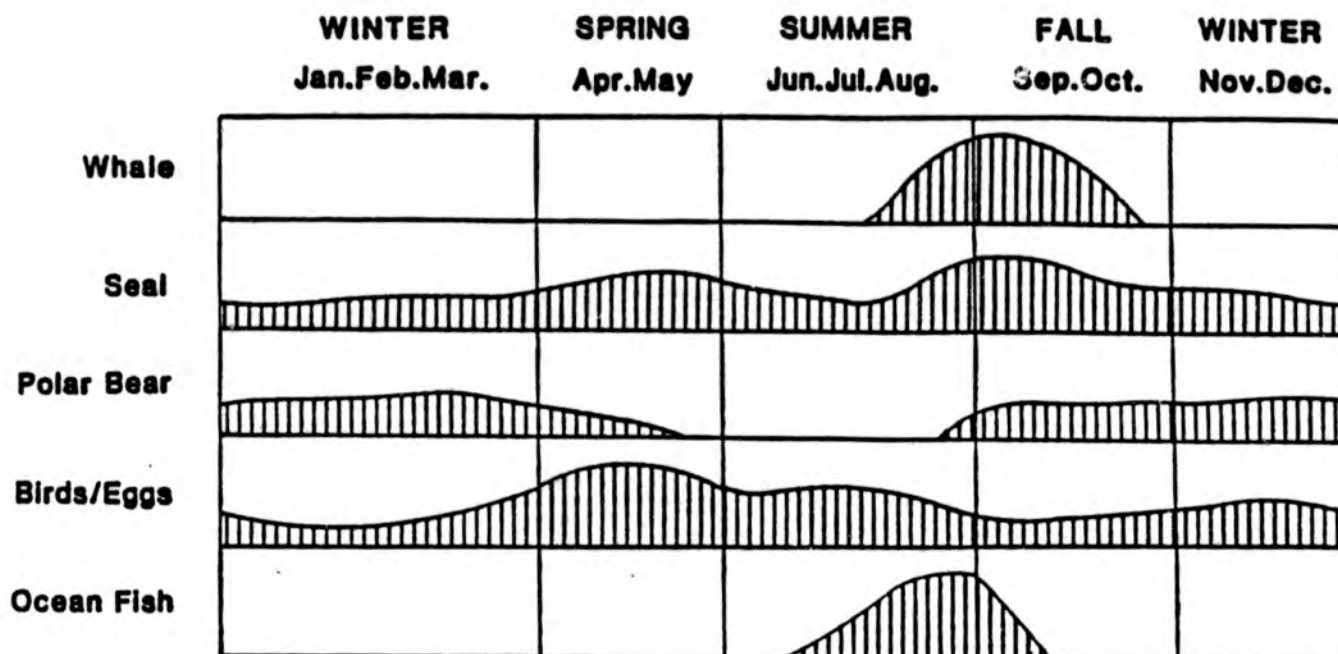
If the surface estate is owned by a third-party, or if the surface is owned by the state but subject to third-party interests, the lessee must not enter upon such land until the lessee makes a good faith effort to agree with the surface interest holder on settlement of damages that may be caused by lease activities. If an agreement cannot be reached, the Director, Division of Oil and Gas, has the authority to approve the activity, provided adequate provisions have been made with the state to pay for any damages the surface interest holder may suffer (proposed Term 20).

Cumulative Effects

Considered independently of other activities on Alaska's North Slope, proposed Sale 50 will have negligible impacts on terrestrial fish and wildlife and their various habitats. With proper planning, the likelihood of permanent negative effects on marine fish and wildlife will also be minimal. However, the proposed sale must be evaluated in the context of current and future projects. Current human activities on the North Slope focus on oil and gas exploration, development, and production and associated support functions. In the context of on-going petroleum development, proposed Sale 50 could influence subsequent North Slope petroleum activity and contribute to the cumulative effects of petroleum development on the environment.

More than 3.6 million acres of state land have been leased on the North Slope since 1964 (Table 3). Some of this acreage has been leased more than once as leases have expired or have been relinquished. Proposed North Slope sales listed in the state's revised five-year oil and gas leasing program (1987 to 1991) could result in the leasing of over 3.9 million more acres in the next five years. Figure 7 shows the location of state, federal, and native corporation acreage currently under lease and state land proposed for leasing through 1991. Much of the state land between the Colville and Canning Rivers has been leased, as have offshore state submerged lands between the Canning

FIGURE 6 KAKTOVIK YEARLY CYCLE



Only includes key species harvested in nearshore waters of the Sale 50 area and immediately adjacent coastline. For caribou, moose and other species, refer to original source.

Patterns indicate desired periods for pursuit of each species based upon the relationship of abundance, hunter access, seasonal needs, and desirability.

Source: Jacobson and Wentworth 1982

River and Pitt Point. Native corporation and federal leases extend oil and gas activity east to Kaktovik and west to within the National Petroleum Reserve-Alaska (NPRA). Additional federal lands in NPRA may be offered, and federal leasing within the Arctic National Wildlife Refuge (ANWR) may be authorized by Congress following its review next year of the Secretary of the Interior's recommendations regarding possible development of ANWR. Federal offshore lands have been leased in the Beaufort Sea Outer Continental Shelf (OCS). Both the state and federal governments plan other lease sales in the Beaufort Sea during the next five years. In addition, the Arctic Slope Regional Corporation (ASRC) has initiated exploration and development agreements for some of its subsurface resources within the ANWR coastal plain.

Much of the land west of the sale area is under lease. The federal government has leased submerged lands north of the proposed sale area and lands to the east are also under lease. Leasing Sale 50 acreage will mean that some of Alaska's most prospective unexplored lands will be available for exploration and development. Subsequent discoveries of commercial quantities of oil and gas could extend segments of the North Slope's petroleum infrastructure east from Prudhoe Bay. A Congressional decision to make the Arctic National Wildlife Refuge's coastal plain available for leasing could extend exploration activities throughout the coastal plain of ANWR.

Subsistence use of the proposed sale area is important. Consequently, the cumulative impacts on subsistence and on subsistence resources must be considered. The effects of proposed Sale 50 combined with other current and proposed oil and gas activities will probably be similar to those considered in Effects on Human Use of the Proposed Sale Area and in Effects on Fish and Wildlife. The cumulative impacts of oil and gas-related activities could possibly affect subsistence opportunities by reducing fish and wildlife populations or by restricting access to hunting and fishing areas as a result of facilities construction. However, any development within the proposed sale area would be very localized. Therefore, the cumulative effects would be quite limited and site specific. As described elsewhere, several proposed terms are designed to retain opportunities for subsistence activities by maintaining access to leased areas (proposed Term 18) and by restricting surface uses to avoid conflicts with subsistence (proposed Term 19). Furthermore, almost all of the mitigating measures proposed are designed to maintain fish and wildlife populations and their habitat (see Effects on Fish and Wildlife).

Recent comments received by the Division of Oil and Gas, indicated that the North Slope Borough is supportive of an aggressive leasing program to assure the continued economic well-being of the borough. The results of development on the North Slope and the environmental safeguards imposed have proven to borough residents that oil and gas exploration and development can occur without permanent negative impacts to the environment or subsistence resources (George N. Ahmaogak, Sr. 1986). With continued planning, research and imposition of proper controls, the cumulative impact of industry activities on the North Slope fish and wildlife resources and human uses of those resources should be minimal.

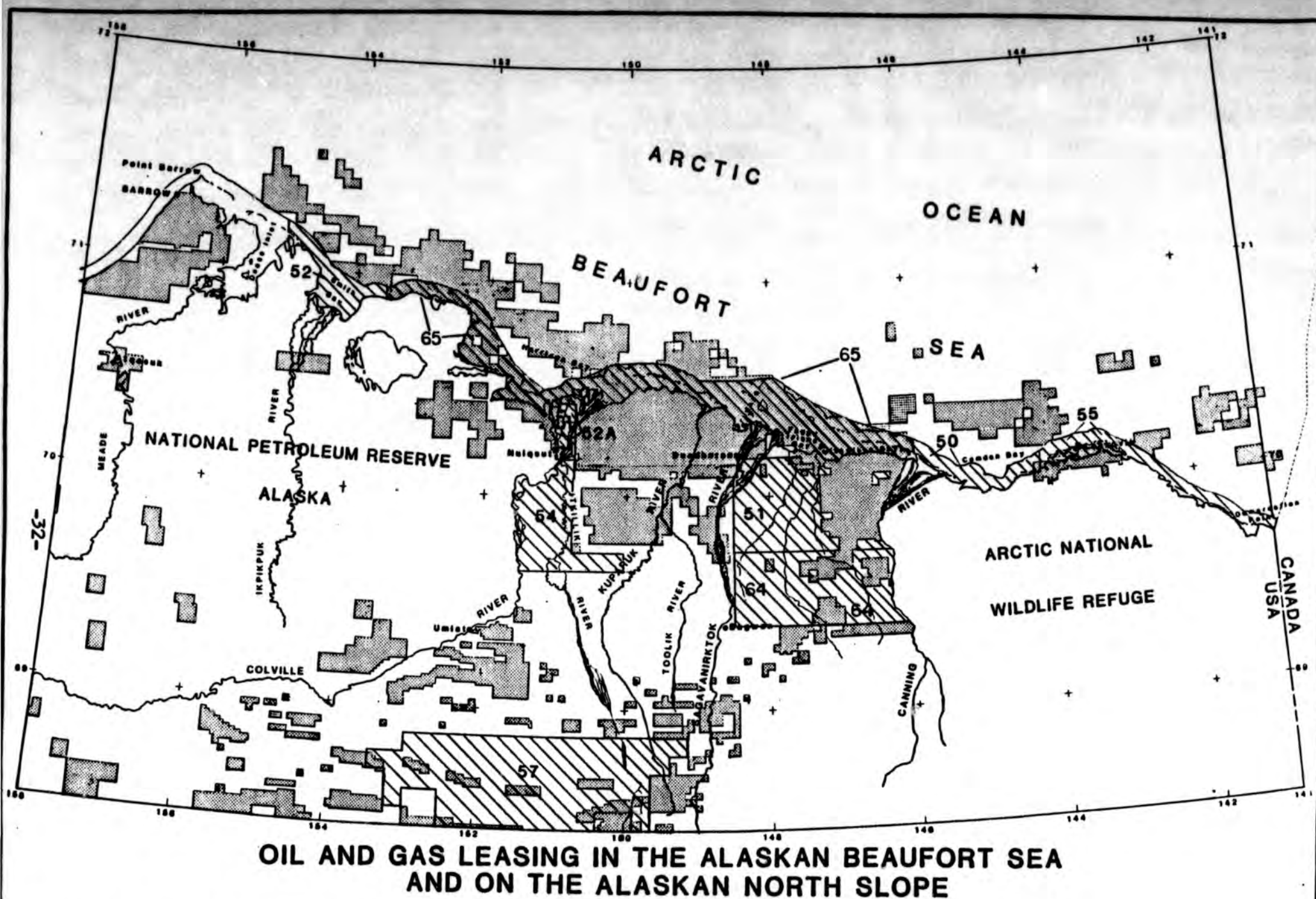
TABLE 3

North Slope Acreage, Leased and Proposed for Leasing

Number of North Slope acres (including submerged Beaufort Sea lands) leased by the State of Alaska between 1964 and 1986, and the number of North Slope acres currently proposed to be offered in state oil and gas lease sales between 1987 and 1991.

<u>Sale</u>	<u>Year</u>	<u># of acres leased</u>	<u>Proposed Sale</u>	<u>Year</u>	<u># of acres proposed</u>
13	1964	573,570	51	1987	592,142
14	1965	403,000	50	1987	122,745
18	1967	42,397	54	1988	455,000
23	1969	412,548	52A	1988	53,185
30	1979	296,307	55	1988	299,520
31	1980	196,268	52	1989	176,870
34	1982	571,954	57	1990	1,500,000
36	1982	60,000	64	1991	771,840
39	1983	211,988	65	1991	*
43/43A	1984	357,863			
47	1985	182,560			
48/48A	1986	<u>308,789</u>			
		3,617,244 Total			3,971,302 Total

*Proposed Sale 65 will consist of state lands available for reoffering; no acreage estimates may be made at this time.



Currently Under State, Federal, or Native Corp. Lease =  8/86

Proposed State Oil And Gas Lease Sales = 

SALE 65 WILL CONSIST OF
PREVIOUSLY LEASED, BUT EXPIRED,
ACREAGE.

This map is for information only and is not an official proposed sale area map.

FIGURE 7

Effects on National and State Economy and State Revenue

The long range goal of the state's oil and gas leasing program is to provide the basis for a stable, prosperous economy. Oil and gas leasing, and its related development, provide employment for the private sector and funding for state government services.

Since December 1985, oil prices have declined by approximately 50 to 60%, and could fall even further under current market conditions. Declining oil prices have profound implications for the domestic oil industry and for Alaska's role in that industry. About 15% of U.S. production is from stripper wells that produce 10 barrels of oil a day or less (Oil and Gas Journal 1986a). At prices less than \$10 per barrel, most of these wells are unprofitable, and many are unprofitable even at \$15 per barrel. In the long run, most of this production could be lost if oil prices remain at current levels. Unless domestic exploration and development costs can be dramatically reduced, the likely replacement for this lost output is from the import of foreign production. Consequently, a continuation of lower oil prices will most likely reduce domestic production, increase domestic consumption, and increase imports from approximately 30% of domestic consumption to 70% or more by the 1990's (Oil and Gas Journal 1986b).

Recent estimates indicate that about 83% of the state government's total income in fiscal year 1986 was petroleum-related (Department of Revenue 1986). North Slope fields were responsible for about 97% of this income.

Unfortunately, even with current and planned secondary and enhanced recovery efforts, Prudhoe Bay Unit production will begin declining in the late 1980's. Unless this production is replaced by new discoveries, this decline will affect state government spending as well as the state's potential for long-term economic growth.

However, uncertainty in the world oil market will adversely affect oil industry activity in Alaska in the near term, and the financial implications for the state are significant. As previously stated, the state government receives approximately 83% of its revenue from the oil industry. This figure could decline to less than 70% if oil prices remain in the \$10 to \$15 per barrel range.

Given North Slope exploration and development costs, oil prices in the \$15 to \$20 per barrel range, could render uneconomic all but huge prospects comparable to the Prudhoe Bay field. The probability of future discoveries of this magnitude is extremely low. In the near term, North Slope exploration activities will be based on the likelihood that real oil prices will begin rising sometime in the future. The uncertainty associated with the current price outlook will likely be reflected in bids submitted in proposed Sale 50.

In the absence of any discoveries or before commercial production of new discoveries, revenue will be earned by the state through the collection of bonuses and rents. If production occurs, the state will earn additional revenue from royalties, production taxes, corporate income taxes, and property taxes.

Alaska remains a prospective source of new crude oil supplies. A continuing program of state oil and gas lease sales which result in discoveries and production of new oil and gas fields will help reduce the nation's dependence on imported oil. Proposed Sale 50 will result in exploration near areas of known petroleum reserves, and production from these areas could be a source of domestic oil in the late 1990's. In addition it will extend exploration activities eastward from Pt. Thomson, and if discoveries occur in the sale area, the incremental cost of producing and transporting oil, condensate and gas from that field will be lessened. Thus, proposed Sale 50 could have positive effects both on the state's and the nation's economy by contributing to future domestic oil production.

PRELIMINARY ALASKA COASTAL MANAGEMENT
PROGRAM CONSISTENCY DETERMINATION

The proposed sale area is within the North Slope Borough (NSB) and entirely within Alaska's interim coastal zone. Consequently, the disposal of leases within the coastal zone and subsequent activities on those leases are subject to the Alaska Coastal Management Program (ACMP). As required by the ACMP, the Division of Oil and Gas must review the proposed stipulations and terms of sale proposed for Sale 50 and determine whether the sale is consistent with ACMP provisions. All activities on leases in the coastal zone will be bound by the standards of the ACMP.

Additional consistency determinations will be made on individual plans of operations submitted prior to development of leases, and on land use permits requested in conjunction with exploration activities on the leases. Future consistency determinations will address specifically the actual activities resulting from the sale.

This determination reviews the proposed stipulations and terms of sale developed to mitigate possible adverse social, economic, and environmental impacts of proposed Sale 50 in terms of their consistency with ACMP standards and in terms of their potential consistency with the NSB coastal management plan. In addition, this determination reviews whether the state will have the flexibility to implement ACMP policies and standards when approving plans of operations and land use permits. The proposed stipulations and terms of sale referenced below are set forth in the Proposed Mitigating Measures section.

North Slope Borough Coastal Management Program

The North Slope Borough has prepared a coastal management plan, which was approved by the Coastal Policy Council in April 1985 and submitted to the U.S. Department of Commerce in June 1985 as a routine program implementation change to the ACMP. The Department of Commerce determined that the North Slope Borough Coastal Management Program (NSBCMP) was a significant amendment to the ACMP, and initiated preparation of an environmental assessment. Since then, the Department of Commerce has advised the state that the NSBCMP does not meet all the requirements of the federal Coastal Zone Management Act, and that additional changes to the NSBCMP will be necessary before the environmental assessment will be completed (Tweedt 1986).

When the North Slope Borough's coastal management plan is incorporated into the ACMP, all lease-related activities in the borough's coastal zone will then be required to comply with the borough's plan. The Division of Oil and Gas has reviewed the borough's coastal development policies. No apparent conflicts exist between these policies and the proposed stipulations and terms of sale developed for proposed Sale 50. Borough requirements, once the plan is implemented, will be specifically addressed in permits and plans of operations issued for lease-related activities. Proposed Term 3 informs bidders that leases will be subject to the provisions of all approved coastal district plans and ordinances.

Standards of the ACMP

This section describes the standards of the ACMP which are applicable to the proposed sale and to resulting lease activities. All ACMP standards were considered, but only those which are applicable are discussed. The proposed stipulations and terms of sale that will ensure consistency with the standards are then summarized.

1. 6 AAC 80.040 Coastal Development -- This standard requires that in planning for and approving development in the coastal area, state agencies shall give, in the following order, priority to: water-dependent uses and activities; water-related uses and activities; and uses and activities that are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity. This standard also provides that the placement of structures and the discharge of dredge or fill material into coastal water must, at a minimum, comply with the standards contained in Parts 320-323, Title 33, Code of Federal Regulations.

Granting oil and gas leases in the proposed sale area will not preempt other uses of the area. The state reserves the right to establish or grant easements or rights-of-way on the leased property, as well as the right to manage and dispose of the surface of the leased area or interests therein by grant, lease, or permit to third parties. Proposed Term 18 prohibits the restriction of public access to and use of the lease area as a consequence of oil and gas activities, except in the immediate vicinity of facilities. In addition, proposed Term 8 requires that permanent facilities, except for road and pipeline crossings, be setback from the mouths of fish-bearing streams. These proposed terms will prevent significant interference with other water-dependent and water-related activities. Proposed Term 3 requires consistency with the ACMP.

Leases are subject to all applicable local, state, and federal laws, rules, and regulations, including 33 CFR 320-323.

Proposed Sale/50 is consistent with the Coastal Development Standard.

2. 6 AAC 80.050 Geophysical Hazard Areas -- This standard requires that state decision-makers not approve development in known geophysical hazard areas until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided. Geophysical hazard areas are defined in the coastal management standards as those areas which present a threat to life or property from geophysical or geological hazards, including flooding, tsunami run-up, landslides, snowslides, faults, ice hazards, erosion, and littoral beach processes. Geophysical hazards will be considered on a site-specific basis when plans of operations are reviewed. Proposed Term 3 requires consistency with the ACMP.

Proposed Sale 50 is consistent with the Geophysical Hazard Areas Standard.

3. 6 AAC 80.060 Recreation -- Section (a) of this standard was written primarily for coastal districts, but section (b) requires that state agencies place a high priority on maintaining and, where appropriate, increasing public access to coastal waters. As mentioned earlier, proposed Term 18 prohibits restriction of public access to and use of the area as a consequence of oil and gas activities except in the immediate vicinity of facilities. Proposed Term 8 requires that facilities be set back from the mouths of fish-bearing rivers. Proposed Term 3 requires consistency with the ACMP.

Proposed Sale 50 is consistent with the Recreation Standard.

4. 6 AAC 80.070 Energy Facilities -- These standards regulate the siting of energy facilities. Specific standards include measures to protect the environment while meeting industrial needs. These standards will be addressed during approval of plans of operations when specific information is available on the location and design of facilities. Proposed measures that will affect the siting of facilities include the following proposed terms.

Proposed Term 1 requires simultaneous review of plans of operations and permit applications.

Proposed Term 3 requires consistency with the ACMP.

Proposed Term 8 requires that facilities be setback from the mouths of fish-bearing rivers.

Proposed Term 9 requires that facility design maintain water flow and drainage patterns and provide for movement and passage of fish and mammals.

Proposed Term 10 requires that facilities be sited and consolidated to avoid sensitive fish and wildlife habitat.

Proposed Term 11 requires that exploration facilities be temporary.

Proposed Term 12 defines criteria for locating pipelines.

Proposed Term 13 requires that facilities be removed and sites be rehabilitated.

Proposed Term 18 disallows restriction of public access except in the immediate vicinity of facilities.

Proposed Term 19 protects subsistence uses.

Proposed Term 22 requires an archeological survey.

Proposed Term 31 protects peregrine falcons.

While each of the above terms are designed to protect the environment when siting facilities, sufficient flexibility based on feasible and prudent considerations are built into these terms to recognize and provide for industrial needs.

Proposed Sale 50 is consistent with the Energy Facilities Standard.

5. 6 AAC 80.080 Transportation and Utilities -- This standard requires that transportation and utility routes and facilities in the coastal area be sited, designed, and constructed so as to be compatible with district programs, and that transportation and utility routes and facilities be sited inland from beaches and shorelines unless the route or facility is water-dependent or no feasible and prudent inland alternative exists to meet the public need for the route or facility. Transportation and utility routes will be specifically defined at the time the lessee submits its plan of operation to the state for approval. At that time, a determination will be made to ensure that proposed transportation and utility routes are consistent with approved district programs and 6 AAC 80.080(b). Proposed mitigating measures that allow the Division of Oil and Gas the flexibility to ensure that this standard is met include the following proposed terms of sale.

Proposed Term 3 requires consistency with the ACMP.

Proposed Term 8 requires that facilities be setback from the mouths of fish-bearing rivers.

Proposed Term 10 requires that facilities and transportation routes be sited and consolidated to avoid sensitive fish and wildlife habitat.

Proposed Term 12 requires pipelines to be located to facilitate the containment and clean up of spilled hydrocarbons.

Proposed Term 14 defines criteria for locating pipelines.

Proposed Term 13 requires that facilities be removed and sites be rehabilitated.

Proposed Term 18 disallows restriction of public access except in the immediate vicinity of facilities.

Proposed Sale 50 is consistent with the Transportation and Utilities Standard.

6. 6 AAC 80.110 Mining and Mineral Processing -- Paragraph (a) of this standard says that mining and mineral processing must be regulated, designed, and conducted so as to be compatible with the standards contained in the chapter, adjacent uses and activities, statewide and national needs, and district programs. Paragraph (b) of this standard provides that sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits when there is no feasible and prudent alternative to coastal extraction which will meet the public need for the sand or gravel.

Gravel extraction that accompanies oil and gas development will comply with this standard. The specifics of each proposal will be addressed when considering plans of operations and material sales contracts. Proposed terms of sale that allow the Division of Oil and Gas the flexibility to ensure that this standard is met are listed below.

Proposed Term 3 requires consistency with the ACMP.

Proposed Term 11 requires that exploration facilities not be constructed of gravel.

Proposed Term 26 requires that gravel be reused.

Proposed Term 27 restricts gravel mining in floodplains during exploration.

Proposed Term 28 prohibits gravel mining from barrier islands.

Proposed Term 29 restricts gravel mining for development activities.

Proposed Sale 50 is consistent with the Mining and Mineral Processing Standard.

7. 6 AAC 80.120 Subsistence -- This standard requires districts and state agencies to recognize and assure opportunities for subsistence usage of coastal areas and resources. As discussed in Effects on Human Use of Fish and Wildlife, the protection of subsistence uses and resources has been addressed throughout the proposed stipulations and terms of sale developed for this sale. Proposed mitigating measures include the following proposed terms of sale.

Proposed Stipulation 2 protects bowhead whales from drilling operations.

Proposed Term 3 requires consistency with the ACMP.

Proposed Term 5 protects migratory waterfowl and calving caribou from aircraft overflights.

Proposed Term 8 requires that facilities be setback from the mouths of fish-bearing rivers.

Proposed Term 10 requires that facilities be sited and consolidated to avoid sensitive fish and wildlife habitat.

Proposed Term 11 requires that exploration facilities be temporary.

Proposed Term 13 requires that facilities be removed and sites be rehabilitated.

Proposed Term 16 encourages the lessee to hire local and Alaska residents for work performed on the leased area.

Proposed Term 17 requires environmental training of personnel.

Proposed Term 18 disallows restriction of public access except in the immediate vicinity of facilities.

Proposed Term 19 protects subsistence uses.

Proposed Term 21 protects native allotments.

Proposed Term 23 controls solid waste disposal.

Proposed Term 24 requires that garbage be burned, or otherwise disposed of at an approved upland site.

Proposed Term 25 controls the discharge of produced waters, drilling muds, and cuttings.

Proposed Term 30 protects denning polar bears.

Proposed Sale 50 is consistent with the Subsistence Standard.

8. 6 AAC 80.130 Habitats — This standard contains requirements for the management of eight habitats in the coastal area which are subject to the Alaska Coastal Management Program: (1) offshore areas; (2) estuaries; (3) wetlands and tideflats; (4) rocky islands and seacliffs; (5) barrier islands and lagoons; (6) exposed high energy coasts; (7) rivers, streams, and lakes; and (8) important upland habitat. Habitats within the proposed sale area includes tideflats, lagoons and offshore areas and are immediately adjacent to 5, 7, and 8. The proposed terms of sale and stipulation that have been developed in recognition of the habitats standards include the following.

Proposed Stipulation 2 imposes a seasonal drilling restriction and a high standard for drilling in broken ice conditions.

Proposed Term 3 requires consistency with the ACMP.

Proposed Term 4 requires that lessees apply for water rights and ensure that an adequate supply of water exists for winter use.

Proposed Term 6 prohibits the use of explosives in open water areas.

Proposed Term 7 requires an Oil Discharge Consistency Plan for offshore operations.

Proposed Term 8 requires that facilities be setback from the mouths of fish-bearing rivers.

Proposed Term 9 requires lease activities and structures to be designed and sited to maintain natural oceanographic circulation patterns and free movement of fish and mammals.

Proposed Term 10 requires that facilities be sited and consolidated to avoid sensitive fish and wildlife habitat.

Proposed Term 11 requires that exploration facilities be temporary.

Proposed Term 12 requires pipelines to be located so as to facilitate containment and clean up of spilled hydrocarbons.

Proposed Term 13 requires that facilities be removed and sites be rehabilitated.

Proposed Term 14 defines criteria for locating pipelines.

Proposed Term 15 prohibits continuous fill causeways.

Proposed Term 17 requires environmental training of personnel.

Proposed Term 23 controls solid waste disposal.

Proposed Term 24 requires that garbage be burned, or otherwise disposed of at an approved upland site.

Proposed Term 25 controls the discharge of produced waters, drilling muds, and cuttings.

Proposed Term 26 requires that gravel be reused.

Proposed Term 27 restricts gravel mining in floodplains during exploration.

Proposed Term 28 restricts gravel extraction from barrier islands, lagoons, and nearshore areas.

Proposed Term 29 restricts gravel mining for development activities.

Proposed Term 31 limits the use of pesticides to protect peregrine falcons.

These measures have been developed to minimize the impact of oil and gas activity on the environment and to conform to 6 AAC 80.130(b) and 6 AAC 80.130(c). Yet, there will be activities that will result from this proposed sale which will not "maintain or enhance the biological, physical, and chemical characteristics" of the coastal habitat in which they are located. In these cases, under 6 AAC 80.130(d), when approving the activity it must be shown that:

1. there is a significant public need for the proposed use or activity;
2. there is no feasible or prudent alternative to meet the public need for the proposed use or activity which would conform to the standards contained in (b) and (c) of this section; and
3. all feasible and prudent steps to maximize conformance with the standards contained in (b) and (c) of this section will be taken.

There is a significant public need to conduct the proposed sale. As discussed in the section on Effect on National and State Economy and State Revenue, the majority of the state's current income is generated by revenues from oil and gas development. Prudhoe Bay Unit production is projected to begin declining soon. If the accompanying revenue decline is to be minimized, the state must adhere to its leasing schedule and make these prospective lands available for exploration and development at the earliest possible time.

A specific need for this proposed oil and gas lease sale has been demonstrated. Offering acreage located outside the coastal zone is the only feasible alternative to leasing in the coastal zone. However, leasing of tracts in other areas may not be a prudent alternative. For

example, it would not be prudent to sell leases in interior areas that had a low probability of containing oil or gas only because they were not located in the coastal zone.

The area encompassed by proposed Sale 50 lies adjacent to known oil fields. Because a portion of the infrastructure necessary to support oil and gas activity is in place as a result of petroleum industry activity on the North Slope over the last 15 years, development can occur more quickly and with less disruption of habitat than in other remote areas.

As discussed earlier, the proposed terms and stipulations listed above have been designed to minimize the proposed sale's impact on the environment and to comply with ACMP standards. They represent all feasible and prudent steps designed to maximize conformance with 6 AAC 80.130(b) and (c).

Proposed Sale 50 is consistent with the Habitats Standard.

9. 6 AAC 80.140 Air, Land, and Water Quality -- This standard incorporates into the ACMP the Department of Environmental Conservation's statutes, regulations, and procedures that pertain to the protection of air, land, and water quality. Proposed stipulations and conditions to address this standard were developed after consultation with the Department of Environmental Conservation, and reflect the concerns of that department. The proposed stipulations and conditions that have been developed in recognition of this standard are listed below.

Proposed Stipulation 2 restricts drilling during certain seasons and requires and imposes additional criteria under the oil spill contingency plan for drilling in broken ice conditions.

Proposed Term 3 requires consistency with the ACMP.

Proposed Term 7 requires an Oil Discharge Contingency Plan for offshore operations.

Proposed Term 8 requires that facilities be setback from the mouths of fish-bearing rivers.

Proposed Term 9 requires that facility design maintain natural oceanographic circulation and drainage patterns and allow movement and passage of fish and mammals.

Proposed Term 11 requires that exploration facilities be temporary.

Proposed Term 12 requires pipelines to be located so as to facilitate containment and clean up of spilled hydrocarbons.

Proposed Term 13 requires that facilities be removed and sites be rehabilitated.

Proposed Term 14 defines criteria for locating pipelines.

Proposed Term 15 prohibits continuous fill causeways.

Proposed Term 17 requires environmental training of personnel.

Proposed Term 23 controls solid waste disposal.

Proposed Term 24 requires that garbage be burned, or otherwise disposed of at an approved upland site.

Proposed Term 25 controls the discharge of produced waters, drilling muds, and cuttings.

Proposed Term 26 requires that gravel be reused.

Proposed Term 27 restricts gravel mining in floodplains during exploration.

Proposed Term 28 restricts gravel mining for development activities.

Proposed Sale 50 is consistent with the Air, Land, and Water Quality Standard.

10. 6 AAC 80.150 Historic, Prehistoric, and Archeological Resources -- This standard requires that districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory. In recognition that future oil and gas related activity may result in the identification of currently unknown resource sites, proposed Stipulation 1 requires the lessee to report the discovery of any site, structure, or object of historical or archaeological significance and to make every reasonable effort to preserve and protect the site, structure, or object until direction is given by DNR regarding its protection. Proposed Term 22 requires that an archaeological survey be completed before an area is affected by oil and gas activity. Proposed Term 3 requires consistency with the ACMP.

Proposed Sale 50 is consistent with the Historic, Prehistoric, and Archeological Resources Standard.

11. 6 AAC 80.160 Areas Which Merit Special Attention (AMSA) -- This standard requires districts to designate within their district boundaries areas which merit special attention. Areas not within district boundaries are to be designated by the Coastal Policy Council. At this time there are no AMSAs in the proposed sale area.

Conclusion

Under the Alaska Coastal Management Program, the Division of Oil and Gas is obligated to review the proposed sale against the coastal management standards contained in 6 AAC 80, and to ensure that the Division's actions in the coastal area are consistent with these standards and plans, as applicable. In consultation with other resource agencies and local authorities, the Division of Oil and Gas has designed an array of proposed mitigating measures to preserve values of public concern in the coastal area. These proposed measures are imposed as lease stipulations or legally binding terms of sale. Additionally, the Division of Oil and Gas possesses statutory and regulatory authority governing other activities associated with oil and gas exploration and development in the coastal area.

The offering of competitive oil and gas leases in Sale 50 which are conditioned upon the proposed terms of sale and stipulations referenced above and by other statutory and regulatory authorities, is consistent with the Alaska Coastal Management Program.

PROPOSED MITIGATING MEASURES

AS 38.05.035(e) and the departmental delegation of authority provide the Director, Division of Oil and Gas, with the authority to impose conditions or limitations, in addition to those imposed by statute, to ensure that a resource disposal is in the state's best interests. Lease stipulations will be enforced throughout the term of the lease. Measures listed under "Plans of Operations and Other Terms of Sale" will be imposed through plans of operations and other permits to mitigate the social and environmental effects of lease activities. These measures have been developed after considering best interest findings for previous North Slope and Beaufort Sea oil and gas lease sales, fish and wildlife resources and harvest activities in the proposed Sale 50 vicinity submitted by Alaska Department of Fish and Game (ADF&G), environmental information relative to air and water quality, solid waste disposal and oil spill contingencies for proposed Sale 50 submitted by the Department of Environmental Conservation (DEC), and public comment submitted in response to the January 27, 1986, Request for Socioeconomic and Environmental Information Regarding Proposed Oil and Gas Lease Sale 50 Camden Bay.

Lease Stipulations

1. Discovery of historic or archaeological objects:

In the event any site, structure, or object of historic or archaeological significance is discovered during operations on the leased area, the lessee must report immediately such findings to the Director, Division of Oil and Gas, and make every reasonable effort to preserve and protect such site, structure, or object from damage until the Director, Division of Oil and Gas, after consultation with the State Historic Preservation Officer, has given directions as to its preservation.

2. Seasonal drilling restriction:

All tracts in proposed Sale 50 will be subject to a seasonal drilling restriction. The seasonal drilling restriction in effect in the Beaufort Sea during 1986 is set out below. This stipulation will be reevaluated periodically on the basis of experience and new information. Information gathered from research conducted in 1986 will be evaluated and a current policy will be issued prior to the 1987 drilling season.

a. Exploratory Drilling from Bottom-founded Drilling Structures and Natural and Gravel Islands

Subject to conditions c and d below, exploratory drilling operations and other downhole operations are allowed year-round from bottom-founded drilling structures and from natural and gravel islands.

b. Exploratory Drilling Operations from Floating Drilling Structures

Subject to conditions c and d below, exploratory drilling and other downhole operations above a predetermined threshold depth and testing through casing is allowed year-round from floating structures.

Exploratory drilling below the threshold is prohibited upon commencement of the fall bowhead whale migration until half of the whale population has passed the drillsite, as determined by the National Marine Fisheries Service (in consultation with the Alaska Eskimo Whaling Commission), or until October 1st, whichever occurs first.

c. Exploratory Drilling During the Fall Bowhead Whale Migration

When exploratory drilling activity is authorized and conducted at a location in the main migratory path of the bowhead whale during the whale migration, the operator must conduct a bowhead whale research program to determine the effects of noise from drilling activity and related support activities on bowhead whales and on the subsistence bowhead whale hunt. For exploratory locations between the barrier islands and the main migratory path, a decision on whether a research program is needed will be made on a case-by-case basis.

The general objectives of the research program shall be to determine if the following occurs as a result of noise and disturbance generated from drilling and support activities:

- i. disruption of bowhead whales, or bowhead whale hunters, that makes subsistence hunting more difficult;
- ii. short-term displacement of bowhead whales from their migratory path, from subsistence hunting areas, or from feeding areas (Information must be collected on distribution, behavior and movement of bowhead whales in the vicinity of the drillsite and of support operations. This information will later be used to determine whether long-term displacement is occurring.); and
- iii. separation of cows and calves.

To ensure that the research program will adequately address these objectives, the operator shall begin consultation with the State of Alaska by April 15. The state will coordinate with the North Slope Borough and appropriate federal agencies to assist the operator in the development and approval of a research program. Unless it is determined by the state that it is not feasible or necessary, the operator shall consult with the state before: (1) the objectives of the research proposal are finalized and sent out to the contractor for bid, (2) the contractor for the project is selected, and (3) the program is finalized. The applicant will retain the authority for final approval and selection of the contractor. The state must approve the research program after consultation is completed.

A draft of the report that summarizes the results of each year's research effort shall be submitted to the state for peer review and an opportunity to provide comments at least 60 days before the results are printed as final. The results of each year's study effort must be submitted not later than six months after the field season.

All nonessential boat and barge traffic associated with the drilling activity shall be prohibited during the migration. Essential traffic shall avoid subsistence hunting areas during whaling activities. Nonessential boat traffic is defined as traffic that could reasonably occur prior to or after the migration.

If it is determined by the State of Alaska that the drilling and related support activity is interfering with the subsistence hunt, the state shall require that the activity causing the disturbance be suspended until after the hunt.

d. Exploratory Drilling in Broken Ice

Consistent with the May 1, 1984, "Tier 2" decision, lessees conducting drilling operations during periods of broken ice must: (1) participate in the Oil Spill Research and Development Program; (2) be trained and qualified in accordance with Minerals Management Service standards pertaining to well-control equipment and techniques; and (3) have an oil spill contingency plan approved by the state which meets the requirements of the "Tier 2" decision, including requirements for in situ igniters, fire resistant boom, relief well plans, and the decision process for igniting an uncontrolled release of oil.

Plans of Operations and Other Terms of Sale

Lessees must submit a detailed plan of operations to the Division of Oil and Gas for approval before conducting any exploratory or development operations. Plans of operations must identify the specific measures, design criteria and construction methods and standards that will be employed to meet the restrictions listed below. The lessee shall concurrently submit an informational copy of its plan of operations to the North Slope Borough.

Except as indicated, the restrictions listed below do not apply to seismic exploration on state lands. Seismic activities are governed by 11 AAC 96. The following restrictions will be imposed on lands leased in this sale as a condition of the approval of plans of operation:

General:

1. Plans of operations for lease activities and specific permit applications which are subject to approval by the U.S. Corps of Engineers; which require a Certificate of Reasonable Assurance from the Department of Environmental Conservation; or which require other state agency authorizations must be submitted simultaneously for state agency review and approval at least 60 days prior to the conduct of such activities. Such reviews will conform to consistency review procedures in 6 AAC 50.
2. Lessees are advised that the North Slope Borough (NSB) Assembly has adopted a Comprehensive Plan and Land Management Regulations under Title 29 of the Alaska Statutes. The regulations require NSB approval for certain activities necessary for exploration and development of the lease. The state may not in all instances accept this assertion of jurisdiction.

3. During the conduct of all activities related to this lease, the lessee will be subject to the provisions of all valid coastal zone plans and ordinances. The Division of Oil and Gas will require, as a condition for consistency approval of lease operations, such modification or stipulations as may be necessary to ensure consistency with the Alaska Coastal Management Program, and with sound planning and management of coastal zone resources.
4. An application for water rights must be submitted to the Department of Natural Resources prior to diverting, impounding, or withdrawing water from any ground or surface source. The lessee will be responsible for ensuring that an adequate supply of water is available for winter use through development of such means as storage reservoirs and snow melting.
5. The following provisions will govern aircraft operations in and near the sale area:
 - a. Aircraft must fly at altitudes of greater than 1,500 feet (457 m) or at a lateral distance of one mile around barrier islands, lagoons, river deltas, and wetlands within one mile of the Beaufort Sea coast (excluding take-offs and landings) from May 15 through September 30.
 - b. Human safety will take precedence over aircraft restrictions.
6. In conducting offshore geophysical surveys, neither lessees nor their agents will use explosives in open water areas. Offshore geophysical surveys will be restricted as necessary to comply with the provisions of the Marine Mammal Protection Act and with the provisions of the Endangered Species Act as they relate to the bowhead whale.
7. An Oil Discharge Contingency Plan will be required for offshore operations as specified under AS 46.04.030 and 18 AAC 75.

Facilities and Structures:

8. Permanent facilities will be prohibited within 500 feet (152 m) of the Canning River. Permanent facilities will be prohibited within 100 feet (30 m) of the mouths of all other fish-bearing streams unless the Director, Division of Oil and Gas, after consultation with the Department of Fish and Game, determines that such facilities placement will not significantly disturb critical wildlife habitats or that such a requirement is not feasible or prudent.
9. To the extent feasible and prudent, all lease activities and structures must be designed, sited and constructed to maintain natural oceanographic circulation patterns and nearshore water quality and to allow free movement and safe passage of fish and mammals.
10. Facilities and surface transportation routes will, to the extent feasible and prudent, be sited and consolidated to avoid sensitive fish and wildlife habitat.

11. Exploration facilities, with the exception of artificial gravel islands, must be temporary and must not be constructed of gravel. Use of existing abandoned gravel structures may be permitted on an individual basis by the Director, Division of Oil and Gas, after consultation with the Director of the Division of Land and Water Management and the Department of Fish and Game. Approval for use of abandoned structures will depend on the extent and method of restoration needed to return these structures to a usable condition.
12. Pipelines must be located so as to facilitate the containment and clean up of spilled hydrocarbons.
13. Upon abandonment of offshore drilling sites, all buildings, erosion armament, production platforms, pipelines, or other facilities must be removed. Upon abandonment of onshore support facilities, such facilities must be removed and the site rehabilitated unless the Director, Division of Oil and Gas, after consultation with the Departments of Fish and Game and Environmental Conservation, determine that such removal and rehabilitation is not in the state's best interest.
14. Oil and gas transportation pipelines will be encouraged if the Director, Division of Oil and Gas, determines that the laying of such pipelines is technically feasible and environmentally preferable to transport by oil tanker. Pipelines, including flow and gathering lines, must be designed and constructed to provide adequate protection from water currents, storm and ice scouring, subfreezing conditions, and other hazards as determined on a case-by-case basis. Following the installation of a pipeline of sufficient capacity, no crude oil will be transported by surface vessel from offshore production sites, except in an emergency. The Director, Division of Oil and Gas, will evaluate the emergency and determine an appropriate response to the condition. If the use of a pipeline is not feasible and preferable and surface transportation must be employed, all vessels used for carrying hydrocarbons to shore will conform with all standards established for such vessels, pursuant to the Ports and Waterways Safety Act of 1972 (46 U.S.C. 391(a)) and the Port and Tanker Safety Act of 1978 (33 U.S.C. 1221).
15. Continuous fill causeways are prohibited. Noncontinuous fill causeways may be permitted when the Director, Division of Oil and Gas, after consultation with the Department of Fish and Game and the Department of Environmental Conservation, determines that a causeway is necessary for field development and that no other feasible and prudent alternative exists. Approved causeways must be designed, sited and constructed to prevent significant changes to oceanographic circulation.

Local Hire:

16. The lessee is encouraged to hire and employ local and Alaska residents and companies, to the extent they are available and qualified, for work performed on the leased area.

Environmental Training:

17. The lessee must include in any exploration and/or development plans a proposed environmental training program for all personnel involved in exploration or development activities (including personnel of the lessee's contractors and subcontractors) for review and approval by the Director, Division of Oil and Gas. The program must be designed to inform each person working on the project of specific types of environmental, social, and cultural concerns which relate to the individual's job. The program must be formulated and implemented by qualified instructors experienced in each pertinent field of study and must employ effective methods to ensure that personnel understand and use techniques necessary to preserve archeological, geological, and biological resources. The program must also be designed to increase the sensitivity and understanding of personnel to community values, customs, and life styles in areas in which such personnel will be operating. The lessee must also submit for review and approval a continuing technical environmental briefing program for supervisory and managerial personnel of the lessee and its agents, contractors, and subcontractors.

Access:

18. No restriction of public access to, or use of, the leased area will be permitted as a consequence of oil and gas activities except in the immediate vicinity of drill sites, buildings and other related structures. Such areas where access is to be restricted must be identified in the plan of operations. No lease facilities or operations may be located where they would block public access to or along navigable and public waters as defined in AS 38.05.965(12) and (16). If lease facilities will be located in the vicinity of these public waters, an easement will be reserved under AS 38.05.127 and 11 AAC 53.330 to ensure the right of public access.
19. Surface use will be restricted, as necessary, to prevent unreasonable conflicts with local subsistence harvests.

Third Party Interests:

20. If only the subsurface estate is owned by the state, or if the surface is owned by the state but subject to third party interests, the lessee must not enter upon such land until the lessee makes a good faith effort to agree with the surface interest holder on settlement of damages that may be caused by lease activities. If an agreement cannot be reached, the Director, Division of Oil and Gas has the authority to approve the activity, provided adequate provisions have been made by the lessee with the state to pay for any damages the surface interest holder may suffer.

21. The activities proposed under the plan of operations must not unreasonably diminish the use and enjoyment of lands within a native allotment. Before entering a pending or approved native allotment, lessees must contact the Bureau of Indian Affairs and the Bureau of Land Management and obtain permission to enter, if required. Lessees must also comply with applicable federal law regarding native allotments.

Archeological and Historical Sites:

22. Prior to the construction or placement of any facility resulting from exploration, development, or production activities, the lessee must conduct an inventory of archeological and historical sites within the area affected by a proposed activity. Such inventory must consider literature provided by the North Slope Borough and local residents, documentation of oral history regarding historic and prehistoric uses of such sites, evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places, and site surveys. The inventory must also include a detailed analysis of the potential effects estimated to result from the proposed activity. The inventory must be submitted to the Director, Division of Oil and Gas, for distribution to the Director of the Division of Parks and Outdoor Recreation and the Mayor of North Slope Borough for purposes of review and comment. In the event that an archeological or historical site or area may be adversely affected by an activity, the Director, Division of Oil and Gas, after consultation with the Director of the Division of Parks and Outdoor Recreation and the North Slope Borough, will direct the lessee as to what course of action will be necessary to mitigate the adverse effect.

Disposal of Wastes, Produced Waters, Drilling Muds and Cuttings:

23. Solid waste disposal on natural or artificial islands and into marine waters is prohibited. Before the lessees dispose of solid waste in other areas, the disposal must be approved through permits by the Commissioner, Department of Environmental Conservation.
24. All garbage and refuse must be incinerated. Residue and nonburnables must be disposed of at an approved upland site. No new solid fill disposal sites, except possibly for the disposal of drilling muds and cuttings, will be approved during the exploratory phase.
25. Discharge of produced water, drilling muds, and cuttings:
 - a. Discharge of produced waters into open or ice-covered marine waters of less than 10 meters in depth is prohibited. The Commissioner of the Department of Environmental Conservation may approve discharges into waters greater than 10 meters in depth based on a case-by-case review of environmental factors and consistency with the conditions of a state certified development and production phase NPDES permit issued for the sale area.
 - b. Disposal of oil-based or oil-contaminated drilling muds and cuttings in offshore waters and on sea ice is prohibited.

- c. Offshore discharge of drilling muds and cuttings is prohibited within 1000 m of river mouths or deltas during unstable or broken ice or open water conditions.
- d. During exploratory drilling, the disposal of drilling muds and cuttings within the two-meter isobath is prohibited during open water conditions. Drilling muds and cuttings free of hydrocarbon contamination may be discharged to open water outside of the two-meter isobath. However, the discharge must be diluted at a ratio of at least nine parts seawater to one part drilling fluid.
- e. When exploratory drilling operations occur during periods of stable ice, uncontaminated drilling muds and cuttings may be disposed of on the sea ice surface in areas free of cracking or major stress fractures. Predilution is not required.
- f. When exploratory drilling operations occur during periods of broken or unstable ice, uncontaminated drilling muds and cuttings may not be discharged unless it is not practicable to store them for disposal on stable sea ice or in open water; to dispose of them on land; to create an on-ice disposal site by pumping and artificial thickening of sea ice; or to handle the muds and cuttings in a manner that prevents below-ice discharge. If it is not practicable to meet these conditions, discharge is subject to approval by the Department of Environmental Conservation.
- g. Offshore disposal of drilling muds and cuttings during development and production will be subject to the conditions of NPDES permits issued by the Environmental Protection Agency and those Alaska Coastal Management Program consistency requirements incorporated in or accompanying the NPDES permit.

Gravel Mining:

- 26. In meeting gravel needs for exploration, development and production, gravel from nearby abandoned drilling sites and existing material sites must be used first unless the Director, Division of Land and Water Management, after consultation with the Director, Division of Oil and Gas, and the Department of Fish and Game, determines that the reuse of such sources is not feasible and prudent.
- 27. Gravel mining sites required for exploration activities must not be located within an active floodplain of watercourses, unless the Director, Division of Land and Water Management, after consultation with the Department of Fish and Game, determines that a floodplain source will cause the least adverse environmental impact. Mining site development and rehabilitation within floodplains must follow the procedures outlined in Gravel Removal Guidelines For Arctic and Subarctic Floodplains, 1980, U.S. Fish and Wildlife Service-Woodward Clyde Consultants. Under AS 16, Department of Fish and Game approval is required if the mining site is located within an anadromous stream or could block fish passage.

28. Gravel extraction from barrier islands is prohibited. Gravel extraction from lagoons and nearshore areas is prohibited unless the Director, Division of Land and Water Management, finds, in consultation with the Department of Fish and Game and the Department of Environmental Conservation, that, on the basis of scientific evidence, gravel extraction in these areas will not adversely affect the environment or that no alternative feasible and prudent source exists.
29. Gravel mining sites required for development activities will be restricted to the minimum number of upland or approved offshore sites needed to develop the field efficiently and with minimal environmental damage. Where feasible and when large quantities of water will be needed for domestic or industrial use, upland gravel sites must be designed and constructed to function as reservoirs for winter water supplies. Gravel mining will not be allowed from active floodplains during development and production activities, unless the Director, Division of Land and Water Management, after consultation with the Department of Fish and Game, determines that there is no other feasible and prudent alternative and, if applicable, AS 16 requirements are met.

Special Areas:

30. Prior to the initiation of any field activities which could impact denning polar bears, lessees shall consult with the appropriate state and federal agencies to acquire the most recent information on possible locations of den sites and the location of any radio-tagged bears. Exploratory activities within one mile of documented, active polar bear dens may be restricted or prohibited during plan of operations approval. When polar bear dens are encountered in the field, they should be immediately reported to the Director, Division of Oil and Gas, and subsequently avoided.
31. Peregrine falcon nesting sites do not occur within the proposed sale area. However, the proposed sale area is within range of the arctic peregrine falcon. Lessees are advised that disturbing a peregrine falcon nest violates federal law. If the lessee discovers active peregrine falcon nest sites, the lessee must immediately report the nest locations to the Director, Division of Oil and Gas. To comply with state and federal endangered species acts, the following restrictions will apply in the vicinity of peregrine falcon nests sites, except as approved by the Department of Fish and Game, after consultation with the U.S. Fish and Wildlife Service. All known nest sites will be considered active between April 15 and June 1. Known nest sites that have not been surveyed will be considered active throughout the summer season. Nest sites not having a peregrine falcon present by June 1 will be considered inactive, and oil and gas activities near inactive nests will not be subject to the restrictions listed under b, c and d. Activities at existing development sites within two miles of newly established nests will not be subject to these restrictions.
- a. Within one mile (1.6 km) of all nest sites -- Facilities, including but not limited to roads, pipelines, disposal sites, gravel mines, storage facilities and camps will be prohibited.

- b. Within one mile (1.6 km) of active nest sites -- Between April 15 and August 31, surface entry will be prohibited and aircraft overflights must avoid nest sites by an altitude of 1500 feet (457 m) above nest level.
- c. Within two miles (3.2 km) of active nest sites -- Noisy activities, including blasting and gravel washing, will be prohibited between April 15 and August 31. Airfields, construction camps, disposal sites, compressor stations, and other permanent facilities that occupy large areas, are noisy or require sustained human occupancy will be prohibited.
- d. Within 15 miles (24 km) of active nest sites -- Except for limited non-aerial applications of approved non-persistent insecticides, pesticide use will be prohibited.

SUMMARY AND CONCLUSIONS

The decision to hold proposed Sale 50 will undoubtedly be controversial. The proposed sale area is host to unique varieties of fish and wildlife which inhabit a sensitive and relatively undisturbed region in Alaska's Beaufort Sea. The proposed sale area also is proximal to the Arctic National Wildlife Refuge, which holds its own unique assemblage of fish and wildlife resources that could be affected by offshore oil and gas development. Native Alaskans in this region are especially dependant upon the fish and wildlife found in and around the sale area for their subsistence lifestyle.

On the other hand, the results of geologic studies in this region suggest that there may be large volumes of oil and gas contained within similar geologic settings as those identified at Prudhoe Bay and Point Thomson to the west and in discoveries in the Canadian Beaufort Sea to the east. Consequently, the proposed Sale 50 area holds promise for future oil and gas discoveries. Development of Alaska's oil resources is essential for the future economic stability of the state.

Concern has been expressed that any oil and gas development in this region would be detrimental to the Arctic National Wildlife Refuge (ANWR) and its fish and wildlife resources. ANWR was established by Public Land Order 2214 in 1960 to preserve the wildlife, their habitats and the wilderness character of a unique region on Alaska's North Slope. The possibility of oil and gas development and the associated impact on the coastal plain of ANWR will be dealt with by Congress when it decides whether or not to open ANWR to oil and gas leasing. Such a discussion is beyond the scope of this document. At this time it is assumed that any exploration or development in Camden Bay would be supported by offshore facilities or facilities located at approved onshore sites.

The State of Alaska derives between 75 and 85 percent of its revenues from oil and gas royalties, taxes, bonus and rental payments. Alaska's largest oil field, Prudhoe Bay, is approaching its decline and other fields must be discovered and developed to take its place. Once a discovery is made, it usually takes about 15 years to develop facilities and begin production. In the case of Alaska's North Slope, development of an oil and gas field may require new production methods and technologies which could add considerably to the time and money necessary to bring these resources to market. Consequently, in order to offset declining production and ensure a stable source of future revenues, the state must maintain a dependable leasing schedule that includes lands with real potential for the discovery of oil and gas. A dependable leasing program is not only in the best interest of the state, but it also contributes to meeting the nation's energy requirements and providing future national security.

Oil companies have been operating and producing oil from Alaska's sedimentary basins for 84 years. Over the years oil companies have successfully met the increasing demands for environmental safeguards. Cooperative studies between government, industry and interested groups have produced a wealth of information concerning the effects of oil and gas activities on the environment and fish and wildlife habitats. Lease stipulations and mitigating measures have been developed and imposed upon leases issued to the oil industry so that lessees may develop Alaska's petroleum resources while at the

same time preserving Alaska's wildlife and environmental resources. Industry has been cooperative, and as a result, fish and wildlife continue to abound in Alaska. The success of these programs has indicated that industry has the skill and ability to operate in sensitive areas such as Camden Bay without creating irreparable negative impacts. Ongoing research as required by some of the terms of sale will allow us to adjust these stipulations and measures as needed to maximize their effectiveness.

The subsistence activities of the north slope communities and protection of the endangered bowhead whales are important issues in the proposed Sale 50 area. As has been discussed elsewhere in this document, measures have been designed to allow continued access to the proposed sale area, and to restrict oil and gas activities during the bowhead whale migration season. These and other measures presented in the preceding discussion are proposed to allow oil and gas activities to occur with minimal limitations on the activities of local residents and without imposing an unnecessary or unreasonable negative impact on fish and wildlife resources in the region.

Many of the comments received to date have recommended the postponement of proposed Sale 50 until the settlement of pending jurisdictional disputes and the issuance of a Congressional decision regarding allowable oil and gas activities in ANWR. The State of Alaska is in favor of oil and gas leasing in ANWR. The Division of Oil and Gas believes that it is possible to develop the petroleum resources of the region without creating permanent degradation in the refuge or surrounding area. Holding proposed Sale 50 as scheduled is consistent with the state's support for oil and gas development in general, and is consistent in particular with the state's recommendation to allow environmentally sound exploration and development in ANWR. If there is a positive response by industry to leasing in Camden Bay, the pending Congressional decision concerning oil and gas leasing in ANWR may be favorably influenced.

The possibility of leasing on the coastal plain of ANWR would greatly increase the economic potential of proposed Sale 50 as well as the surrounding region. Combined transport of oil from several discoveries, the prospect of linking several pools together and the larger area for potential discoveries could reduce development and transportation costs significantly. With discovery of a large volume of oil, it may be possible for production from this remote region to offset, at least partially, the decline of Prudhoe Bay. Development and production of the existing nearby discoveries and the construction of proposed gas pipelines from Pt. Thomson to Prudhoe Bay and from Prudhoe Bay south may also become economically feasible.

Proceeding with the proposed sale as scheduled may allow lands adjacent to ANWR to be evaluated prior to any possible land trade within the refuge. The U.S. Fish and Wildlife Service (USFWS) has been discussing with several Native corporations the possibility exchanging subsurface rights to lands contained within ANWR for title to other lands with unique fish and wildlife habitats around the state. The state also has expressed interest in exchanging land in various Alaskan parks and refuges for ANWR acreage. The USFWS has identified lands owned or selected by Native corporations and the state for consideration of a possible trade. The USFWS has indicated that it would be willing to discuss any land exchange proposal that would help to consolidate refuge lands in ANWR or other refuges. The USFWS also has stated that no proposed land

exchange will occur prior to the submission to Congress of the report required by Section 1002(h) of Alaska National Interest Lands Conservation Act unless authorized by Congress.

With the exception of the National Petroleum Reserve-Alaska (NPRA) where it is entitled to 50 percent, the state of Alaska receives 90 percent of the revenues derived from oil and gas production on federal land within the state's boundaries. Unless specifically provided for in a land trade agreement between the federal government and third parties, the state's 90 percent revenue share of production could be jeopardized by the exchanges being considered by USFWS. The state will presumably continue its attempt to ensure that the benefits which it would receive if exploration in ANWR is authorized by Congress are not jeopardized by any land exchange agreement.

In holding proposed Sale 50 as scheduled, there will be some variables involved that could negatively affect the interest in the sale or possibly the level of bonus bids to be received for lease tracts sold. These concerns include the effect of offering disputed acreage in Camden Bay, the status of leasing in ANWR, the current and projected price and demand for oil, and present industry cutbacks, as well as transportation and development uncertainties. Oil companies that have responded to the state's call for comments, recommended that the proposed sale be held as scheduled. Their interest in this region appears to be high, as indicated by the amount of federal and native lands already under lease in the vicinity. The State of Alaska derives the vast majority of its petroleum revenues from oil and gas royalties and taxation. Therefore, bonus bids are a minor overall concern. Holding proposed Sale 50 as scheduled would be an important step toward maintaining prosperity for the people and industries in Alaska. The development of our petroleum resources in this region of high petroleum potential, as part of a long term plan, is in the best interest of the state and is consistent with the state's leasing program.

REFERENCES

- Adler, Robert W.
1985 Letter from Staff Attorney, Trustees for Alaska, to Pam Rogers, Lease Sales Manager, Division of Oil and Gas, regarding proposed Sales 50 and 51, September 24.
1986 Letter from Staff Attorney, Trustees for Alaska, to Pam Rogers, Lease Sales Manager, Division of Oil and Gas, regarding proposed Sales 50 and 55, March 13.
- Ahmakak, Mark U.
1985 Letter from Interim Director, Nuiqsut Traditional Council, to Kay Brown, Director, Division of Oil and Gas, regarding local hire and contracting and oil and gas activities near Nuiqsut, July 31.
- Ahmaogak, Sr., George N.
1985 Letter from Mayor, North Slope Borough, to Kay Brown, Director, Division of Oil and Gas, regarding proposed Sale 50, September 26.
1986 Letter from Mayor, North Slope Borough, to James Eason, Acting Director, Division of Oil and Gas, regarding proposed Five-Year Oil and Gas Leasing Program, October 2.
- Ahvakana, Lloyd
1983 Letter from Acting Mayor, North Slope Borough, to Kay Brown, Director, Division of Oil and Gas, regarding proposed Sale 50, September 23.
- Alaska Business Newsletter
1986 Article: ANWR Oil Leasing Report Delayed Until 1987. September 12, p. 34.
- Alaska Consultants, Inc., et al
1984 Barrow Arch Socioeconomic and Sociocultural Description. The Social and Economic Studies Program, Minerals Management Service, Alaska OCS Region, Technical Report 101.
- Alaska Report
1986 Article: Drilling Completed at Shells Corona Prospect...Union Set to Spud Hammerhead Well. September 24, Vol.32, No. 38.
- Alexander, Susan
1986 Letter from Regional Director, The Wilderness Society, to Pam Rogers, Lease Sales Manager, Division of Oil and Gas, regarding proposed Sales 50, 51 and 55, March 17.
- Anchorage Times
1986 Article regarding the petroleum potential of ANWR (an interview with Robert Horton, President of Standard Oil Company), by Harry McFarland, September 9.

Bittner, Judith

- 1985 Memorandum from the Office of History and Archaeology, to Kay Brown, Director, Division of Oil and Gas, regarding cultural resources in proposed Sales 50, 51 and 53, August 9.
- 1986 Memorandum from the Office of History and Archaeology, to Leila Wise, Division of Oil and Gas, regarding cultural resources in proposed Sale 50, January 31.

David R. Cline

- 1986 Letter from Regional Vice President, National Audubon Society, to Pam Rogers, Lease Sales Manager, Division of Oil and Gas, regarding proposed Sales 50 and 55, March 17.

Cohen, Norman A.

- 1986 Memorandum from Director, Habitat Division, to James E. Eason Acting Director, Division of Oil and Gas, regarding proposed Sale 50, July 14.

Collinsworth, Don

- 1983 Memorandum from Commissioner, Department of Fish and Game, to Esther Wunnicke, Commissioner, Department of Natural Resources, regarding proposed Sale 43 Beaufort Sea, August 29.
- 1985 Memorandum from Commissioner, Department of Fish and Game, to Esther C. Wunnicke, Commissioner, Department of Natural Resources, regarding Sale 50, November 8.

Department of Community and Regional Affairs (DCRA)

- 1986 Community/Borough Map. Municipal and Regional Assistance, Anchorage. January.

Department of Environmental Conservation (DEC)

- 1980 Manual of Recommended Practices for Transportation Corridor Development, Roads, Railroads, Pipelines, Subdivisions. Water Quality Planning Program. Prepared in part by R&M Consultants, Inc. April.

Department of Fish and Game (DF&G)

- 1986a Alaska Habitat Management Guide, Arctic Region. Volume II: Distribution, Abundance, and Human Use of Fish and Wildlife. Division of Habitat. Juneau.
- 1986b Alaska Habitat Management Guide, Arctic Region. Map Atlas. Division of Habitat. Juneau.

Department of Natural Resources, Division of Oil and Gas (DNR/DO&G)

undated Call for Comments Proposed Oil and Gas Lease Sale 50.

- 1984 Final Finding and Decision of the Director Regarding Oil and Gas Lease Sale 43, Beaufort Sea, and Sale 43A, Colville River Delta/Prudhoe Bay Uplands. April 4.
- 1986a Preliminary Analysis of the Director and Preliminary ACMP Consistency Determination Regarding Proposed Oil and Gas Lease Sales 52 Beaufort Sea and 52A Nechelik. May 30.
- 1986b Preliminary Analysis of the Director and Preliminary ACMP Consistency Determination Regarding Proposed Oil and Gas Lease Sale 51, Prudhoe Bay Uplands. August 21.

DNR/DO&G continued:

- 1986c Call for Comments, State of Alaska Proposed Five-Year Oil and Gas Leasing Program for the Period 1987 through 1991. August 21.
- 1986d Request For Socioeconomic and Environmental Information Regarding Proposed Oil and Gas Lease Sale 50 Camden Bay. January 27.

Department of Natural Resources, Division of Minerals and Energy Management (DNR/DMEM)

- 1982a Final Finding and Decision of the Director regarding Oil and Gas Lease Sale 36 (Beaufort Sea). April 7.
- 1983 Final Finding and Decision of the Director regarding Oil and Gas Lease Sale 39, Beaufort Sea. March 23.

Department of Revenue

- 1986 Petroleum Production Revenue Forecast, Quarterly Report. June.

Division of Governmental Coordination

- 1986 Memorandum from Robert L. Grogan (DGC), to The Honorable Bill Sheffield, Governor, State of Alaska, regarding ANWR Information Summary, August 4.

Eke, J. N.

- 1986 Letter from Division Vice President, Texaco USA, to Leila Wise, Division of Oil and Gas, regarding proposed Sale 50, March 10.

Fraker, M. A., W. J. Richardson, and B. Wursig

- 1982 Disturbance Responses of Bowheads.

Geraci, J. R., and D. J. Aubin

- 1982 Study of the effects of oil on cetaceans. Final report from University of Guelph, Ontario.

Gibson-Smith, C. S.

- 1986 Letter from B P Alaska Exploration Inc., to Leasing Manager, Division of Oil and Gas, regarding proposed Sale 50, March 10.

Governor's Agency Advisory Committee on Leasing (GAACL)

- 1982a A Social, Economic and Environmental Analysis of the Proposed Beaufort Sea Oil and Gas Lease Sale No. 36.
- 1983 A Social, Economic and Environmental Analysis of the Proposed Beaufort Sea Oil and Gas Lease Sale No. 39.

Hughs, K. E.

- 1985 Letter from District Land Manager, Shell Western E&F Inc., to Lease Sales Manager, Division of Oil and Gas, regarding proposed Sale 50, September 18.

Jacobson, Michael J. and Cynthia Wentworth

- 1982 Kaktovik Subsistence: Land Use Values through Time in the Arctic National Wildlife Refuge Area. U.S. Fish and Wildlife Service, Northern Alaska Ecological Services. Fairbanks.

- Kelton, Keith
1986 Memorandum from Division of Environmental Quality, Department of Environmental Conservation, to Leila Wise, Division of Oil and Gas, regarding the Camden Bay Sale 50 Environmental Information Request, April 4.
- Kovalsky, Maggie.
1985 Letter from Nuiqsut Mayor to Warren Matumeak, Deputy Director, Permitting, North Slope Borough Planning Department, regarding Proposed Oil and Gas Lease Sale 50, September 10.
- Kruse, J. A., M. Baring-Gould, W. Schneider, J. Gross, G. Knapp, and G. Sherrod
1983 A Description of the Socioeconomics of the North Slope Borough. Minerals Management Service, Alaska OCS Socioeconomic Studies Program, Technical Report 85.
- LaBelle, J. C., J. L. Wise, R. P. Voelker, R. H. Schulze, and G. M. Wohl
1983 Alaska Marine Ice Atlas. Anchorage, Alaska: AEIDC. 1983.
- Martin, Philip D. and Cathryn S. Moitoret
1981 Bird Populations and Habitat Use, Canning River Delta, Alaska. Arctic National Wildlife Refuge, U.S. Fish and Wildlife Service. September.
- Martin, Philip D.
1983 Bird use of arctic tundra habitats at Canning River delta, Alaska. M.S. Thesis. University of Alaska, Fairbanks.
- Matz, Mike
1985 Letter from Associate Director, Northern Alaska Environmental Center, to Pam Rogers, Lease Sales Manager, Division of Oil and Gas, regarding proposed Sales 50 and 51, September 26.
1986 Letter from Associate Representative, Sierra Club, to Leila Wise, Division of Oil and Gas, regarding proposed Sales 50, 51 and 55, March 31.
- Maynard and Partch, Woodward-Clyde Consultants
1984 North Slope Borough Coastal Management Program Background Report.
- Morrison, W.C.
1985 Letter from District Land Supervisor, Chevron USA Inc., to Lease Sales Manager, Division of Oil and Gas, regarding Sale 50, August 22.
- Nolke Jim
1985 Letter from Acting Field Supervisor, Northern Alaska Ecological Services to Leila Wise, Division of Oil and Gas, regarding proposed Sale 50, April 10.
- Northern Technical Services
1981 Beaufort Sea drilling effluent disposal study. Prepared for the Reindeer Island Stratigraphic Test Well participants. Sohio Alaska Petroleum Company.
- North Slope Borough
1984 Coastal Management Program Resource Atlas.

Nukapigak, Joe

- 1985 Letter from President, Kuukpiik Corporation, to Kay Brown, Director, Division of Oil and Gas, regarding local hire and contracting and oil and gas activities near Nuiqsut, July 26.

Oil and Gas Journal

- 1986a Big U.S. Productive Capacity Cuts Seen If Prices Stay Low. March 3, p. 34.
1986b First Quarter Crude Price, Drilling Plunges Wrack U.S. Oil Industry. March 31, p. 43-48.

Oil /Whalers Working Group

- 1986 Cooperative Programs for the Beaufort Sea.

Pedersen, Sverre and Michael Coffing

- 1984 Caribou Hunting: Land Use Dimensions and Recent Harvest Patterns in Kaktovik, Northeast Alaska. Department of Fish and Game, Division of Subsistence, Fairbanks, Technical Paper 92.

Research Foundation of State University of New York

- 1984 Ethnographic Study and Monitoring Methodology of Contemporary Economic Growth, Socio-cultural Change and Community Development in Nuiqsut, Alaska. Mineral Management Service, Alaska OCS Region, Technical Report 96.

Robinson, Jim

- 1985 Letter from Commissioner, Department of Labor, to Sally Gilbert, State CSU Coordinator, Office of Management and Budget, Division of Governmental Coordination, Office of the Governor, regarding Oil and Gas Lease Sales 45, 47, 48, 48A, 50, 51, and 53, September 10.

Rogers, Randy

- 1986 Letter from Executive Director, Northern Alaska Environmental Center to Pam Rogers, Lease Sales Manager, Division of Oil and Gas, regarding proposed Oil and Gas Lease Sale 50, April 15.

Rogusky, E. A. and E. Komarek, Jr.

- 1971 Annual progress report for monitoring and evaluation of arctic waters with emphasis on the North Slope drainages. Alaska Department of Fish and Game (ADF&G), Division of Sport Fish. Project F-9-3.

Sadek, Brenda

- 1986 Personal communication between Oil and Gas Conservation Commission and Bill Seidler, Division of Oil and Gas, regarding the number of wells drilled in Alaska, May 8.

Stroebele, Jerald

- 1983 Letter from Field Supervisor, Northern Alaska Ecological Services, to Kay Brown, Director, Division of Minerals and Energy Management, regarding proposed State of Alaska Lease Sales 50, 54 and 55, September 21.
1985 Letter from Field Supervisor, Northern Alaska Ecological Services, to Kay Brown, Director, Division of Minerals and Energy Management, regarding proposed State of Alaska Lease Sales 48, 50, 51, and 53, September 25.

Tweedt, Peter L.

1986 Letter from Director, Office of Ocean and Coastal Resource Management, U.S. Department of Commerce, to Robert L. Grogan, Division of Governmental Coordination, Office of the Governor, State of Alaska, regarding the North Slope Borough Coastal Management Program, August 8.

U.S. Department of the Interior (USDOI)

1982 Final Environmental Impact Statement. Proposed Outer Continental Shelf Oil and Gas Lease Sale 71 Diapir Field, Alaska OCS Office.

1984 Final Environmental Impact Statement. Proposed Diapir Field Lease Offering (June 1984). Minerals Management Service, Alaska OCS Region.

U.S. Fish and Wildlife Service (USFWS)

1982 Arctic National Wildlife Refuge coastal plain resource assessment. Initial report baseline study of the fish and wildlife and their habitats. Section 1002c Alaska National Interest Lands Conservation Act, U.S. Department of Interior, U.S. Fish and Wildlife Service, Region 7, Anchorage, Alaska, April.

Michael Wheeler

1986 Memorandum from Division of Environmental Quality, Department of Environmental Conservation, to Leila Wise, Division of Oil and Gas, regarding the Camden Bay Sale 50 Environmental Information Request, April 4.

APPENDIX 1
SUMMARY OF COMMENTS

1) National Audubon Society: (D.R. Cline/3-17-1986)

Recommends cancelling both Sale 50 and Sale 55.

- a) The title to the submerged lands between the mainland and the barrier islands as well as the boundary between the United States and Canadian waters is in dispute.
- b) The Congressional decision on inclusion of the arctic coastal plain in the National Wilderness Preservation System will not be made until after September 1986.
- c) The barrier island/lagoon ecosystem along the coast of the Arctic National Wildlife Refuge is a critical habitat for fish and wildlife which could suffer a negative impact from oil and gas exploration and associated development.
- d) Oil and gas development along the coast of the Arctic National Wildlife Refuge could threaten the subsistence resources and lifestyles of the residents of Kaktovik.
- e) Development of submerged lands along the coast of ANWR would aesthetically degrade the wilderness character of the refuge.

2) Trustees for Alaska: (R.W. Adler/9-24-1985 & 3-13-1986)

Recommends cancelling Sale 50.

- a) Development in the Sale 50 area would likely require onshore support, transportation and other facilities, sale of oil and gas leases here would be inconsistent with the intent in creating ANWR.
- b) Development in the sale area would jeopardize the wilderness and important habitats that Congress sought to protect with the creation of ANWR. This coastal plain and shallow coastal water environment represents a critical habitat that supports numerous species of birds, fish, as well as marine and terrestrial mammals.
- c) Development in this area would threaten a region heavily used by Alaskans for subsistence and sport hunting and would not be in the best interest of the state.
- d) Until title disputes are resolved on the coastal plain, it would be inappropriate to continue planning for this sale.
- e) Considering recent depressed world oil markets and industry cutbacks, the bonus potential of lease tracts would be extremely low. With Alaska's current fiscal crisis, Sale 50 would not be in the state's best interest.

3) Northern Alaska Environmental Center: (M. Matz/9-26-1985,
R. Rogers/4-15-1986)

Recommends postponement or cancellation of Sale 50.

- a) Considering the dispute over title to portions of the Sale 50 area and a pending Congressional decision concerning exploration and development in ANWR it would seem premature to hold this sale.

Northern Alaska Environmental Center continued:

- b) Exploration activities in the sale area would have a serious impact on the wildlife resources of the refuge.
 - c) Oil and gas activities along the Arctic coast could detrimentally impact subsistence lifestyles and recreational resources.
- 4) The North Slope Borough: (G. Ahmaogak/9-26-1985, L. Ahvakana/9-23-1983)
- Recommends cancelling Sale 50.
- a) Oil and gas activities may alter traditional feeding and migratory patterns of the bowhead whales and effect subsistence whale hunting.
 - b) Oil and gas activities could impact the access to or quality of the subsistence fishery on the Canning River.
 - c) Oil and gas activities on native allotments must be authorized.
 - d) Residents of the North Slope Borough must be given job preference.
- 5) City of Nuiqsut: (M. Kovalsky/9-10-1985)
- a) Nuiqsut wants no seismic activities during fall whaling and is concerned about whale migration and fish and wildlife habitat.
 - b) The Nuiqsut City Council supports the City of Kaktovik.
 - c) Nuiqsut City Council requests that public hearings be held prior to any lease sales affecting their community.
- 6) The Wilderness Society: (S. Alexander/3-17-1986)
- Recommends cancelling Sales 50, 51 and 55.
- a) The sales violate national interest. Their proximity to ANWR conflicts with the purpose and intent in the creation of the refuge.
 - b) State offering of oil and gas leases in this region may influence the Congressional decision over leasing on the arctic coastal plain.
 - c) Subsequent development of proposed sale areas could threaten fish and wildlife populations of the Arctic Refuge.
 - d) The subsistence lifestyles of people in Kaktovik and other rural areas dependant on fish and wildlife could be placed in jeopardy.
- 7) Sierra Club: (I Matz/3-31-1986)
- Recommends cancelling Sales 50, 51 and 55.
- a) The low value of oil and economically inviable development and production would net poor returns for Alaska's natural resources.
 - b) Uncertain status of adjacent areas in ANWR.
 - c) Development is incompatible with this type of wilderness from which all Americans benefit. Development may cause damage to fish and wildlife on which local residents depend for subsistence.

- 8) BP Alaska Exploration Inc.: (C.S. Gibson-Smith/3-10-1986)

Recommendation is to hold Sale 50 as scheduled.

- a) With no existing transportation facilities, development costs in this area will be high, the terms of the lease should reflect these economic constraints.

- 9) Chevron U.S.A. Inc.: (W.C. Morrison/8-22-1985)

Recommendation is to hold Sale 50 as scheduled.

- a) Chevron wants this area to be offered with a 10 year lease term using cash bonus as the bid variable and royalty fixed at 12 1/2%.

- 10) Shell Western E&P Inc.: (K.E. Hughes/9-16-1985)

Recommendation is to hold Sale 50 as scheduled.

- a) Shell has a moderate interest in this sale.
b) Shell would like this area to be offered with a 10 year lease term using cash bonus as the bid variable and a fixed royalty.
c) Tract size should be three miles by three miles (5,700 acres) or larger, where possible, given the irregular coastline.

- 11) Texaco U.S.A.: (J.N. Eke/3-10-1986)

Recommendation is to hold Sale 50 as scheduled.

- a) Industry has proven it's ability to operate in the region without adversely impacting local fish and wildlife populations or the economy, lifestyles and well-being of local communities.

- 12) U.S. Dept. of the Interior, Fish and Wildlife Service
Northern Alaska Ecological Services: (J. Nolke/4-10-1986,
J. Stroebele/9-21-1983 & 9-25-1985)

Recommends postponement of Sale 50.

- a) A Congressional decision regarding development within ANWR is pending and the State of Alaska is contesting jurisdiction of the coastal lagoon environments in the sale area.
b) The impact of exploration activities on refuge resources and subsistence lifestyles must be evaluated and stipulations should specifically address the migration of bowhead whales.

Recommended Measures:

1. No gravel removal, fill, or other exploration activities or structures permitted on barrier islands, spits, shorelines, or within the lagoon and nearshore areas.

Northern Alaska Ecological Services continued:

2. Minimum flight altitudes should be established over critical waterfowl nesting and staging areas during nesting and migration seasons.
 3. Offshore disposal of any drilling muds in shallow or low energy, nearshore areas should be prohibited.
 4. Delineation and protection of the offshore benthic macrophyte community identified in the sale area should be required.
 5. Seasonal drilling restrictions are necessary to protect migrating bowhead whales.
 6. Identification and protection of denning polar bears should be required.
 7. The overwintering arctic char and grayling in the mouth of the Canning River should be protected.
 8. Provisions should be made to avoid conflicts between oil and gas activities and subsistence activities along the coastline of Camden Bay and vicinity.
 9. Camden Bay has been the epicenter of many shallow earthquakes, stipulations should address blowout prevention and relief well construction consistent for areas with high gas potential (MMS 1984).
- 13) State of Alaska, Dept. of Labor: (J. Robinson/9-10-1985)
- a) The Department of Labor supports hiring of Alaska companies and residents for operations on oil and gas leases.
- 14) State of Alaska, Dept. of Environmental Conservation: (M.E. Wheeler/8-8-1985)
- a) The Department of Environmental Conservation has begun collecting information pertinent to the air and water quality issues and solid waste management in the sale area. Impact on bowhead whales is a concern.
- 15) State of Alaska, Office of Archaeology: (J.E. Bittner/8-9-1985, 1-31-1986)
- a) Alaska's cultural resources must be protected by the appropriate stipulations, sites are common on the barrier islands and the coastal plain but no known sites occur on submerged lands.
- 16) State of Alaska, Department of Fish and Game: (N.A. Cohen/7-14-86)
- Recommends Postponement of Sale 50
- a) Close proximity of the sale area to the ANWR may create possible adverse impacts on fish and wildlife resources in the refuge.
 - b) There may be conflicts between oil and gas operations and Kaktovik subsistence activities.
 - c) Bowhead whales and Inupiat whaling activities must be protected.

State of Alaska, Department of Fish and Game continued:

- d) To ensure that Sale 50 is in the State's best interest, the potential benefits and disadvantages of the sale should be evaluated in the preliminary analysis.

Recommended Measures:

1. Measures should be implemented to ensure continued access to subsistence resources and harvest areas.
2. Unitization plans for land within the sale area should include surface management plans for the unit that provide for fish and wildlife resources and habitats.
3. Habitat alteration and disturbances of fish and wildlife should be avoided to the maximum extent possible.
4. Gravel extraction from barrier islands and nearshore areas should be regulated.
5. Solid fill causeways should be prohibited. Noncontinuous causeways should be designed in such a way that no disruptions or alterations of nearshore water circulation patterns will occur.
6. The State's prevailing policy on seasonal drilling shall be adopted.
7. The use of non-explosive energy sources such as air guns and gas exploders should be adopted as permit requirements.
8. All refuse should be incinerated and disposed of at an upland site.
9. No restriction of public access to, or use of, the proposed sale area should be permitted as a result of oil and gas activities except for the immediate vicinity of drill sites and related structures.
10. Surface use by lessee's should be restricted to avoid conflicts with the subsistence harvests.
11. Lessee's should include in all exploration and development plans an environmental training program for all personnel.
12. A permitting and review system should be established so that adverse impacts on fish and wildlife are avoided or mitigated.
13. Activities except for mandatory maintenance should be prohibited within one mile of documented polar bear denning sites, lessees should consult with the appropriate state and federal agencies.
14. Surface entry within one-half mile of the Canning-Tamayariak delta complex should be prohibited with the exception of approved winter seismic surveys.
15. To protect birdlife aircraft should be prohibited from flight below 1500 feet and within 1 mile horizontal distance of river deltas, barrier islands, lagoons and wetlands, and within 2.5 miles of the Beaufort Sea coast.

