

ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672

4990 HRES HJR 9

52

HJR

9

MARCH 12, 1987
HOUSE RESOURCES
ANWR
SITKA
KATHY KYLE - MODERATOR

PARTICIPANT LIST

NAME/REPRESENTING	ADDRESS	PHONE #	T	9
1. HAL KUMMEROW, BOX 2353				OBSERVE
2. BRUCE ENGDahl, 801 LINCOLN ST.				OBSERVE
3.				
0 TESTIFIED				
0 UNABLE				
2 OBSERVED				
2 TOTAL				

START/END TIME: 8:30 - 10:00 AM

*
* DELIVER TO: LHSCSKM *
*
* ORIGINAL *
* SENT: 03/16/87 TIME: 09:34 *
* FROM: LIGCFWW *
* SUBJECT: ANWR STATS, 3-12, SHARON *
* PRINT DATE: 03/16/87 TIME: 10:02 *
*

** FINAL STATS **

T/C; HOUSE RESOURCES
SUBJECT/LEG. PUB. HEARING - HJR 7 HJR 9
DATE; 3/12/87
SITE; BETHEL
TIME IN/OUT; 8:30 A.M. TO 10:00 A.M.
MODERATOR; HELEN EDGE

TESTIFIED; MYRON NANENG,
BOX 44
HOOPER BAY, ALASKA

OBSERVED JOE CHIMEGALREA,
BOX 2049

MARCH 12, 1987
HOUSE RESOURCES
ANWR
SITKA
KATHY KYLE - MODERATOR

PARTICIPANT LIST

NAME/REPRESENTING	ADDRESS	PHONE #	T O
1. HAL KUMMEROW, BOX 2353			OBSERVE
2. BRUCE ENGDahl, 801 LINCOLN ST.			OBSERVE
3.			
0 TESTIFIED			
0 UNABLE			
2 OBSERVED			
2 TOTAL			

START/END TIME 8:30 - 10:00 AM

* DELIVER TO: LHSCKM *
* ORIGINAL *
* SENT: 03/16/87 TIME: 09:34 *
* FROM: LIOCFWW *
* SUBJECT: ANWR STATS, 3-12, SHARON *
* PRINT DATE: 03/16/87 TIME: 10:02 *

** FINAL STATS **

T/C, HOUSE RESOURCES
SUBJECT, LEG. PUB. HEARING - HJR 7 HJR 9
DATE; 3/12/87
SITE; BETHEL
TIME IN/OUT, 8:30 A.M. TO 10:00 A.M.
MODERATOR; HELEN EDGE

TESTIFIED, MYRON NANENG,
BOX 44
HOOPER BAY, ALASKA

OBSERVED JOE CHIMEGALREA,
BOX 2048

MEMO: MBI - Patent 3,516,308 3 429 877 - Moore Business Forms, Inc.

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*
* DELIVER TO: LIOCFWW
*
* ORIGINAL
* SENT: 05/12/87 TIME: 13:47
* FROM: LIOCBET
* SUBJECT: F
* PRINT DATE: 05/12/87 TIME: 13:47
*
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EMAIL # 4
T/C; HOUSE RESOURCES
SUBJECT; HJR 7 AND HJR 9 ANWR
DATE; 3-12-87
SITE; BETHEL
TIME IN/OUT; 8:30 A.M. TO 11:00 A.M.
MODERATOR; HELEN EDGE

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PARTICIPANT LIST.
1. MYRON P. NANENC
   BOX 44
   HOOPER BAY, ALASKA
2. JOE CHIMEGALREA, BOX 2068, BETHEL.

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BOTH SAID THAT THEY WOULD TESTIFY AFTER THEY LISTEN TO THE TELECONFERENCE.
THANK YOU.

 *
 * DELIVER TO: LIOCFWW *
 *
 * ORIGINAL *
 * SENT: 03/12/87 TIME: 13:55 *
 * FROM: LTCCANC *
 * SUBJECT: 3-12 H. RESOURCES T.C. *
 * PRINT DATE: 03/12/87 TIME: 13:55 *
 *

*** FINAL TELECONFERENCE STATISTICS ***

DATE: 3-12-87 _____
 SITE: ANCHORAGE _____
 SPONSOR: HOUSE RESOURCES _____
 SUBJECT: HJR 7 AND 9: ANWR _____
 LOCAL MODERATOR: JEANNE _____

TESTIFIED:
 NAME\REPRESENTING ADDRESS PHONE #

OBSERVED:
 NAME\REPRESENTING ADDRESS PHONE #
 BETTE MORRISON 550 W. 7TH #1840 258-7200
 RICHARD OGAR\ARCO P.O. BOX 100360 265-6878
 AL HASTINGS\CONOCO 3201 C ST. 564-7600

TESTIFIED _____0_____ START TIME: 8:30 P.M.
 OBSERVED: _____3_____ END TIME: 10:00 P.M.
 TOTAL: _____3_____

3-429-877

* ORIGINAL
 * SENT 03/12/87 TIME: 13:56
 * FROM LTCCFBX
 * SUBJECT 3/12 H. RESOURCES, ANWR T/C
 * PRINT DATE: 03/12/87 TIME: 13:56
 *

***** FINAL STATS *****

DATE: 3/12/87
 SITE: FAIRBANKS
 SPONSOR: HOUSE RESOURCES
 SUBJECT: HJR 7, 9 ANWR
 MODERATOR: MAXINE WALTON

TESTIFY:
 NAME\REPRESENTING ADDRESS PHONE:#
 1.) -0-

OBSERVE:
 NAME\REPRESENTING ADDRESS PHONE #
 1.) FRED PRATT, BOX 72901, FAIRBANKS 99707 452-3061
 2.) CARL JOHNSON, 822 SKYLINE DR., FAIRBANKS 99712 457-2011
 3.) MIKE WALLERI, 201 1ST AVE., FAIRBANKS 99701 452-8251
 4.) LISA JAEGER, 201 1ST AVE., FAIRBANKS 99701 452-8251
 5.) IRON SILAS, 201 1ST AVE., FAIRBANKS 99701 452-8251
 6.) WILLIAM SILAS, EAGLE, ALASKA 99738

TESTIFY _____ 0 _____ TIME STARTED _____ 8:30 A.M. _____
 OBSERVED _____ 8 _____ TIME ENDED _____ 9:55 A.M. _____
 TOTAL _____ 8 _____

* DELIVER TO: LIOCFBW

* ORIGINAL
 * SENT: 03/12/87 TIME: 14:05
 * FROM: LIOCBAR
 * SUBJECT: FINAL STATS - ANWR
 * PRINT DATE: 03/12/87 TIME: 14:05
 *

EP 6: M8 v Patent 3,016,308; 3,429,877 Alow Business Forms, Inc.

03/12/87
HOUSE RESOURCES
ANWR - HJR 7 AND 9
BARROW
LACEN

FINAL STATS

NAME/REPRESENTING	ADDRESS	PHONE	T	O
1. WARREN MATUMEAK / NORTH SLOPE BOROUGH	PLANNING DEPT. / BOX 69	852-2611	X	
2. CHARLES D.N. BROWER / NORTH SLOPE BOROUGH	DEPT. OF WILDLIFE MNGT.	852-2611		X
3. JOHN TRENT	BOX 939 / BARROW	852-6875		X
4. JACOB ADAMS / PRESIDENT, ARCTIC SLOPE REG'L. CORP.	BOX 429, BARROW	852-8633	X	
5. CONRAD BAGNE / ARCTIC SLOPE REG'L. CORP.	BOX 429, BARROW	852-8633		X
6. FLOSSIE ANDERSON	BOX 801, BARROW	852-4875		X
7. ARCHIE K. BROWER / PRESIDENT, KAKTOVIK VILLAGE CORP. (KIC)	KAKTOVIK			X

MBF v Patents 100.308 3.429.827 Moore Business Forms, Inc.

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*
* DELIVER TO: LIODCFW
*
* ORIGINAL
* SENT: 03/12/87 TIME: 12:33
* FROM: LTCCFBX
* SUBJECT: H RES. CMTE FBX#1
* PRINT DATE: 03/12/87 TIME: 12:33
*
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DATE: 3/12/87
SITE: FAIRBANKS
SPONSOR: HOUSE RESOURCES
SUBJECT: HJR 7, 9 ANWR
MODERATOR: MAXINE WALTON

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*****
TESTIFY:
NAME REPRESENTING ADDRESS PHONE #
1.) RON SILAS, TANANA CHIEFS
2.)
3.)
4.)
5.)
6.)
7.)
8.)

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*****
OBSERVE:
NAME REPRESENTING ADDRESS PHONE #
1.) FRED PRATT, FREELANCE REPORTER
2.) CARL JOHNSON
3.) MIKE WALLER
4.) LISA JAEGER
5.)
6.)
7.)
8.)

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 * DELIVER TO LTCCFWW *
 * ORIGINAL *
 * SENT: 03/12/87 TIME: 12:33 *
 * FROM: LTCCFBX *
 * SUBJECT: H RES. CMTE FBX#1 *
 * PRINT DATE: 03/12/87 TIME: 12:33 *

DATE: 3/12/87
 SITE: FAIRBANKS
 SPONSOR: HOUSE RESOURCES
 SUBJECT: HJR 7, 9 ANWR
 MODERATOR: MAXINE WALTON

TESTIFY:

NAME\REPRESENTING	ADDRESS	PHONE: #
1.) RON SILAS, TANANA CHIEFS		
2.)		
3.)		
4.)		
5.)		
6.)		
7.)		
8.)		

OBSERVE:

NAME\REPRESENTING	ADDRESS	PHONE: #
1.) FRED FRATT, FREELANCE REPORTER		
2.) CARL JOHNSON		
3.) MIKE WALLER		
4.) LISA JAEGER		
5.)		
6.)		
7.)		
8.)		
9.)		

*
* DELIVER TO: LIOCFWW *
* *
* ORIGINAL *
* SENT: 03/12/87 TIME: 12:35 *
* FROM: LTCCANC *
* SUBJECT: 3-12 ANWR T.C. *
* PRINT DATE: 03/12/87 TIME: 12.35 *
* *

*** ANCHORAGE PARTICIPANT LIST ***

THE FOLLOWING PEOPLE ARE STANDING BY TO PARTICIPATE IN TODAY'S H
RESOURCES, ANWR_____ TELECONFERENCE:

TO TESTIFY:

- 1.)
- 2.) *None*
- 3.)
- 4.)

TO OBSERVE:

- 1.) BETTE MORRISON
- 2.) RICHARD OGAR, ARCO
- 3.) AL HASTINGS, CONOCO

EOM

*KAKTOUIK will be on
line by 9:20*

MBF v. Patena, 2:016,308, 3,429,877 Micro Business Forum, Inc.

 * DELIVER TO: LIOCFWW *
 * * * * *
 * ORIGINAL *
 * SENT: 03/12/87 TIME: 12:44 *
 * FROM: LIOCBAR *
 * SUBJECT: ANWR T/C *
 * PRINT DATE: 03/12/87 TIME: 12:45 *
 * * * * *

03/12/87
 HOUSE RESOURCES
 ANWR - HJR 7 AND 9
 BARROW
 LACEN

PARTICIPANT LIST
 FINAL STATS

NAME/REPRESENTING	ADDRESS	PHONE	T	O
1. WARREN MATUMEAK / NORTH SLOPE BOROUGH PLANNING DEPT./BOX 69		852-2611	X	
2. CHARLES D.N. LROWER / NORTH SLOPE BOROUGH DEPT. OF WILDLIFE MNGT.		852-2611		X
3. JOHN TRENT / BOX 939 / BARROW		852-6875		X
6.				

Jacob ADAMS

MSCD (S) M88 v Paterns 3.016.308. 3.429.877. Moore Business Forms, Inc. -4

*
* DELIVER TO: LIOCFWW *
*
*
* ORIGINAL *
* SENT: 03/12/87 TIME: 13:26 *
* FROM: L10CANC *
* SUBJECT: UPDATE FROM THE BRIDGE *
* PRINT DATE: 03/12/87 TIME: 13:26 *
*

LISA FROM DAVID

BETHEL HAS ADDED ON WITH 3 PEOPLE PARTICIPATING THERE.

KAKTOVIK'S OPEN HANDSET MICROPHONE HAS BEEN TURNED DOWN TO
"LISTEN ONLY" FOR THE DURATION OF THE CONFERENCE.

DAVID

HAL KUMMEROW IN SITKA
MAY WISH TO SPEAK

1 more person in Galena
to testify

HAL KUMMEROW IN (SITKA)
MAY WISH TO SPEAK

1 more person in Galena
to testify

* FROM: L106371
* SUBJECT: ANWR IS
* PRINT DATE: 03/12/87 TIME: 12:40
*

MARCH 12, 1987
HOUSE RESOURCES
ANWR
SITKA
KATHY KYLE - MODERATOR

SITKA

PARTICIPANT LIST

Both are listed now to observe

NAME/REPRESENTING	ADDRESS	PHONE #	T	O
1. HAL KUMEROW, BOX 2353				OBSERVE
2. BRUCE ENGDahl, 801 LINCOLN ST.				OBSERVE
3.				

TESTIFIED
UNABLE
OBSERVED
TOTAL

START/END TIME

Galena has come
on line

MSB 2. MBF - Patent 3,016,308 (3,479,827)

* DELIVER TO: LHSCSKM
 *
 * ORIGINAL
 * SENT: 03/16/87 TIME: 09:22
 * FROM: LIOCFWW
 * SUBJECT: STAT3-12, ANWR, SHARON
 * PRINT DATE: 03/16/87 TIME: 10:00
 *

FINAL STATS

DATE: MARCH 12, 1987
 SITE: FORT YUKON, ALASKA
 SPONSOR: HOUSE RESOURCES
 SUBJECT: HJR 7 & HJR 9 - ANWR
 MODERATOR: RON SOLOMAN

TESTIFY:

NAME REPRESENTING	ADDRESS	PHONE #
1. JOHN TITUS	VENETIE, AK 99701	NONE
2. JONATHAN SOLOMON	FORT YUKON, 99740	662-2415

OBSERVE:

NAME REPRESENTING	ADDRESS	PHONE #

TESTIFIED _____ 2 _____
 OBSERVED _____ 0 _____
 TOTAL _____ 2 _____

TIME STARTS 8:30 A.M. _____

TIME END 9:55 A.M. _____

* DELIVER TO: LHSCSKM
 *
 * ORIGINAL
 * SENT: 03/16/87 TIME: 09:24
 * FROM: LIOCFWW
 * SUBJECT: STAT3-12, ANWR, SHARON
 * PRINT DATE: 03/16/87 TIME: 10:01
 *

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* DELIVER TO: LHSCSKM
*
* ORIGINAL
* SENT: 03/16/87 TIME: 09:22
* FROM: LIOCFWW
* SUBJECT: STAT3-12, ANWR, SHARON
* PRINT DATE: 03/16/87 TIME: 10:00
*
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FINAL STATS

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DATE: MARCH 12, 1987
SITE: FORT YUKON, ALASKA
SPONSOR: HOUSE RESOURCES
SUBJECT: HJR 7 & HJR 9 - ANWR
MODERATOR: RON SOLOMAN

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TESTIFY:
NAME REPRESENTING ADDRESS PHONE #
1. JOHN TITUS VENETIE, AK, 99784 NONE
2. JONATHAN SOLOMON FORT YUKON, 99740 662-2415

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OBSERVE
NAME REPRESENTING ADDRESS PHONE #

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TESTIFIED 2 TIME STARTS 9:30 A.M.
OBSERVED 0 TIME END 9:55 A.M.
TOTAL 2

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* DELIVER TO: LHSCSKM
*
* ORIGINAL
* SENT: 03/16/87 TIME: 09:24
* FROM: LIOCFWW
* SUBJECT: STAT3-12, ANWR, SHARON
* PRINT DATE: 03/16/87 TIME: 10:01

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TESTIFY

NAME\REPRESENTING	ADDRESS	PHONE #
1.)MAX HUNDRERF, BOX 329, GALENA, 99741		656-1370
2.)PATRICK KLIER, BOX 38, GALENA, 99741 (GANA-A YDD)		656-1370
3.)PAT SWEETSIR, BOX 38, GALENA, 99741 (GANA-A YDD)		656-1370

(SWEETSIR DIDN'T GET TO SPEAK)

OBSERVE:

NAME\REPRESENTING	ADDRESS	PHONE #
1.)GEORGE TROXEL, BOX 157, GALENA 99741		656-1370

TESTIFY	3	TIME STARTED	8:30 A.M.
OBSERVED	1	TIME ENDED	9:55 A.M.
TOTAL	4		

* DELIVER TO: LHSCSKM *

* ORIGINAL *

* SENT: 03/16/87 TIME: 09:28 *

* FROM: LIOCFWW *

* SUBJECT: STATS. 3-12, ANWR, SHARON *

* PRINT DATE: 03/16/87 TIME: 10:01 *

*****FINAL STATS*****

DATE: 3-12-87
 SITE: KOTZEBUE
 SPONSER: HOUSE RESOURCES
 SUBJECT: LEG. PUBLIC HEARING: HJR 7 AND 9\A.N.W.R.
 MODERATOR: KAREN SUE JOHNSON

TESTIFIED:

- PETE SCHAEFFER, ACTING PRESIDENT NANA REG. COOP., BOX 49, KOTZEBUE, 442-3301
- CHUCK GREENE, MAYOR N.W.A.B., BOX 1110, KOTZEBUE, 442-2500

OBSERVED:

- JEFF SMITH, N.W.A.B., BOX 1110, KOTZEBUE, 442-2500

TESTIFIED: 2

TIME START: 8:30 AM

OBSERVED: 1

TIME END: 10:00 AM

TOTAL: 3

*****EOM*****

* DELIVER TO: LHSCSKM *

MBF v. Patents 3,016,308, 3,429,877 - Wright Business Forms, Inc.

TESTIFY

NAME\REPRESENTING	ADDRESS	PHONE #
1.)MAX HUHNDORF, BOX 329, GALENA, 99741		656-1223
2.)PATRICK KLIER, BOX 38, GALENA, 99741 (GANA-A 'YOO)		656-1606
3.)PAT SWEETSIR, BOX 38, GALENA, 99741 (GANA-A 'YOO)		656-1606

(SWEETSIR DIDN'T GET TO SPEAK)

OBSERVE:

NAME\REPRESENTING	ADDRESS	PHONE #
1.)GEORGE TROXEL, BOX 157, GALENA 99741		656-1370

TESTIFY	3	TIME STARTED	8:30 A.M.
OBSERVED	1	TIME ENDED	9:55 A.M.
TOTAL	4		

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*
* DELIVER TO: LHSCSKM
*
* ORIGINAL
* SENT: 03/16/87 TIME: 09:28
* FROM: L10CFWW
* SUBJECT: STATS, 3-12, ANWR, SHARON
* PRINT DATE: 03/16/87 TIME: 10:01
*

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*****FINAL STATS*****

DATE: 3-12-87
SITE: KOTZEBUE
SPONSER: HOUSE RESOURCES
SUBJECT: LEG. PUBLIC HEARING: HJR 7 AND 9\A.N.W.R.
MODERATOR: KAREN SUE JOHNSON

TESTIFIED:

1. PETE SCHAEFFER, ACTING PRESIDENT NANA REG. CORP., BOX 49, KOTZEBUE, 442-3301
2. CHUCK GREENE, MAYOR N.W.A.B., BOX 1110, KOTZEBUE, 442-2500

OBSERVED:

1. JEFF SMITH, N.W.A.B., BOX 1110, KOTZEBUE, 442-2500

TESTIFIED: 2

TIME START: 8:30 AM

OBSERVED: 1

TIME END: 10:00 AM

TOTAL: 3

*****EOM*****

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*
* DELIVER TO: LHSCSKM
*

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REPRESENTATIVE
SAM COTTEN
DISTRICT 19



P.O. BOX 296, EAGLE RIVER, AK 99577
P.O. BOX V, JUNEAU, AK 99811

ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES

February 16, 1987

The Honorable Ted Stevens
United States Senate
522 Hart Building
Washington, D. C. 20510

Dear Senator Stevens:

I am writing with regard to the proposed land exchanges in the Arctic National Wildlife Refuge. As you may know, the House Resources Committee of the Alaska State Legislature has been investigating the proposed land exchanges and last week heard about them from the Interior Department, ANCSA Corporations, and the State of Alaska.

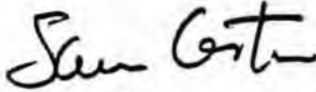
As Senator Murkowski stated in his annual address to the Legislature on February 13th, the protection of the state's interest is vital in any ANWR land exchange. I agree with him that one way of protecting the state's interests would be to provide that the state's entitlement to revenues from the traded ANWR acreage will not be reduced by the exchange.

However, in our hearing last week, we heard from Bob Gilmore of the U.S. Fish and Wildlife Service (who stated that he has the "responsibility for making the exchanges happen") that the exchanges are "a long way down the road," and that inclusion of a provision to retain the state's revenue entitlement would require renegotiation of the proposed land exchange contract. To my understanding there would also need to be an adjustment of the subsurface appraisals of ANWR acreage to reflect the lower revenue potential for holders of the limited subsurface interests after the trades occur.

Senator Stevens, it is my belief that the time has come for our congressional delegation to work as closely and immediately as possible with the Interior Department to assure that the state's revenue entitlement is protected in any land exchange agreement. Obviously, we cannot afford for the agreements to proceed to finalization without this protection.

I hope that you will be able to help out on this issue which needs your personal attention right now.

Sincerely,

A handwritten signature in cursive script that reads "Sam Cotten".

Sam Cotten, Co-Chairman
House Resources Standing Committee

cc: The Honorable Steve Cowper
Governor, State of Alaska

Mr. John Katz, Special Assistant
Office of the Governor, Washington D. C.

Mr. Robert Gilmore, Regional Director
United States Fish and Wildlife Service

For the Committee, in the audience are

Dennis Kelso, DEC Commissioner

Norman Cohen, Acting DF+G Dep. Comm'r

Jim Hanson, Chief Geophysicist, DNR

Phil Holdsworth } who testified yesterday

Gail Gaten }

February 4, 1987

ANILCA
House Resources
2/4/87

NOTES FOR ORAL PRESENTATION BEFORE HOUSE RESOURCE COMMITTEE

My name is April Crosby, and I am the Conservation Committee Chairperson for Arctic Audubon, the Fairbanks Chapter of the National Audubon Society. I appreciate the opportunity to comment on the House Resolutions which may be proposed in the name of the people of Alaska, which includes me.

We all know that whether or not the Arctic coastal plain is opened to industrial development is not a matter that will be decided by Alaskans but rather by Congress in the name of the people of the United States, which also includes me. But where Alaska stands will be significant and will be heard by those weighing the facts and making the decisions. It is therefore very important that we Alaskans take a position which is economically, scientifically, ecologically and aesthetically defensible and a position we will still be pleased with and proud of 10 to 50 years from now.

This position should therefore be based on research and data of the highest quality and reliability. Our position should reflect the wisest response to management options for the coastal plain, given Alaska's interest in the area. Our position should reflect knowledge of such research as presented in the US Fish and Wildlife 1002 report which is the resource assessment of oil and gas potential and the wildlife and wilderness values of the area.

I suggest that the drafted House resolutions do not reflect the research of this and other reports, except perhaps some proprietary oil industry research with which I am unfamiliar because neither you nor I have access to that pertinent information.

I suggest that despite the careful attempts in H. R. #9 to specify to Congress the careful attention needed to maintain environmental quality, this Resolution is premature. Let me say why:

It seems to have forgotten that prodevelopment and proconservation interests have negotiated extensively already on the north slope acres and that the Arctic Refuge, expanded by ANILCA in 1980, is already a compromise position: it was the settlement made for a few acres to be reserved with protected status. We should remember that over 90% of the Arctic Coastal plain is already open to development. In other words, of the 50 million acres of incredibly biologically productive wild area, not one acre is being recommended for protective designation by the State of Alaska. A Resolution to protect the coastal plain from oil and gas development would be a move to protect 1/50 of the area.

PARTICIPANTS IN THE PROJECT APPROVAL PROCESS

FOUR MAJOR CATEGORIES OF PARTICIPANTS:

- RAILBELT UTILITIES
- STATE POLICY ISSUE PARTICIPANTS
- ECONOMIC AND FINANCIAL ISSUE PARTICIPANTS
- ENVIRONMENTAL ISSUE PARTICIPANTS

Secondly, the Resolution is premature because although we are told that our nation needs the oil that may or may not be there, no one is reminding us of the National Petroleum Reserve-Alaska has 37,000 square miles set aside due to its promising oil potential to be developed in times of national need. No one is reminding us that there are other ways to get the energy resources we need, such as the National Appliance Energy Act which would have saved billions of barrels of oil for national security but which was just vetoed by President Reagan.

The Resolution is premature because although we are told that Alaska would reap millions of dollars in local hire construction projects and severance tax revenues, the legal arrangements and confirmations to ensure these incomes are not yet in place; and in fact, some of our Congressional delegation is suggesting that we should not ask for nor expect to get so much.

Urging development is premature because, as the FWS 1002 report states, drilling one or two exploratory wells would give us much better information regarding whether there is sufficient oil potential to warrant private leasing. That we need better information is probably clear to anyone who has read the 1002 report. For those who have not read the report, keep in mind the comments made by the representative from DNR before me and his statements about oil as compared with the following quotes from the 1002 report:

"All of the oil production in the Prudhoe Bay-Kuparuk River field areas is from rocks of the Ellesmerian sequence" (p. 54)

"If most of the Ellesmerian rocks are missing from most of the 1002 area, the assessment number would be greatly reduced" (p. 54)

"Such fault-bounded blocks [as the Ellesmerian sequence] are well known in the Prudhoe Bay area, but have not yet been identified thus far on the seismic data in the 1002 area." (p. 67)

"Only actual exploration can provide the information needed to determine the extent and distribution of the resources, and therefore, the potential benefit to the economy." (p. 166)

As you can see the text of the 1002 report suggests that further information is necessary.

It is premature for Alaskans to be urging development in the name of our sad state economy. The state is not out of oil, we are piping it out right now, but the price is very low. We are not getting top dollar for the oil or for the leases, and having more of something for which the price is low

1	DEPARTMENT OF EDUCATION (CONT.)				1
2			APPROPRIATION	APPROPRIATION	FUND SOURCES
3		ALLOCATIONS	ITEMS	GENERAL FUND	OTHER FUNDS
4	LONG ISLAND LEARN ALASKA TRANSMITTER (ED 2)		35,000	35,000	
5	NAPAKIAK LEARN ALASKA TRANSMITTER AND EARTH STATION (ED 25)		50,000	50,000	
6	TYONEK LEARN ALASKA TRANSMITTER AND EARTH STATION (ED 24)		30,000	30,000	
7	EXECUTIVE ADMINISTRATION/SPECIAL PROJECTS				
8	ALASKA GOVERNMENT TEXT COMPLETION (ED 99)		79,000	79,000	
9	ALEUTIAN REGION SCHOOL DISTRICT				
10	AKUTAN AND FALSE PASS SCHOOL COMPLETION (ED 26)		600,000	600,000	
11	ANNETTE ISLAND SCHOOLS				
12	ELEMENTARY SCHOOL ADDITION DESIGN AND PHASE I CONSTRUCTION (ED 2)		1,000,000		1,000,000
13	CHATHAM SCHOOLS				
14	EIGHT FATHOM BIGHT - MODULAR SCHOOL BUILDING (ED 3)		175,000	175,000	
15	TENAKEE SPRINGS-SCHOOL CONSTRUCTION PHASE II (ED 3)		518,700	518,700	
16	CHUGACH SCHOOLS				
17	TATILEK SCHOOL - MAINTENANCE OF OIL TANK BERM LINER (ED 6)		25,000	25,000	
18	WHITTIER SCHOOL MODIFICATION - PHASE II (ED 6)		300,000	300,000	
19	COPPER RIVER SCHOOLS				
20	GLENALLEN SECONDARY SCHOOL (ED 17)		3,000,000	3,000,000	
21	CRAIG CITY SCHOOLS				
22	HIGH SCHOOL RENOVATION AND CONSTRUCTION PHASE I (ED 2)		941,000		941,000
23	HYDABURG CITY SCHOOLS				
24	SCHOOL REPAIRS AND IMPROVEMENTS (ED 2)		20,000	20,000	

will not solve the problem. The prudent position would be to wait until the demand is high for both the product and its potential locations, and then consider the trade offs we'd be making.

Most of all, the Resolution is premature because we don't fully understand the resources we have up north, the oil potential, the wildlife there and how it would behave under industrial stress, and we don't understand the processes required to manage the resources...for extracting the oil and protecting its environment...as demonstrated by these slides.

The final slide of oil barrels on the tundra refers us to the article in the Fairbanks News-Miner (February 1, 1987) which points out the fact that the oil and gas industry is not subject to the federal and state regulations for hazardous waste disposal. This exemption is due to lobbying from the industry which states that, first, they do not produce enough toxic waste to be concerned with and that secondly, the costs of compliance would be economically devastating to the industry. ---This position seems a bit contradictory because if there are minimal wastes it seems there would be minimal costs.

This and other points in the article, including the peculiar position that since the oil industry is exempt, we have the very same hazardous wastes regulated in some industries but not in others. This is only one more confusion of the many which surround the issues of oil development in delicate areas.

In sum, there is enough confusion about whether there is oil and how to get it out safely, that I, as an Alaskan, don't want to jump to conclusions or to actions which I'll later regret. Alaska must take the lead in protecting the wild and wonderful land we are known for, and waiting on the development of 1/50 of the biologically critical coastal plain would be a small commitment. To my mind, the unsolved issues regarding this delicate resource are too important for a precipitous rush to judgement.

January 9, 1986

In other priority issues, AEL expects to rally around the Governor's proposed figures for the departments of Fish and Game, Environmental Conservation, and Natural Resource budgets. "We will fight to protect budget areas of sound resource management and environmental protection," Highleyman declared.

Also in the Lobby's priority list are several land designation bills including 9 marine parks additions for southeast, Alaska's third state forest at Yakataga, a critical habitat area to protect sandhill cranes in Gustavus, and a system of Recreation Rivers in the Mat-Su valley.

Hazardous waste and environmental health legislation will continue to be important in the 14th State Legislature, Highleyman noted. The Lobby will support amendments to strengthen 1983's Worker Right to Know bill and creation of an oil and hazardous substance release response fund. Creation of the fund is particularly ✓ important, Highleyman ^{said} ~~noted~~. "Such a fund would give the state the flexibility to clean up an oil or hazardous substance spill immediately and still recoup the costs from any guilty parties.

END END END

STATE OF ALASKA

OFFICE OF THE GOVERNOR

JUNEAU

STATE OF ALASKA'SOFFICIAL POSITION ON THEARCTIC NATIONAL WILDLIFE REFUGELocal Hire

There are two principal ways that the economy of Alaska receives benefits from oil and gas development in the state. The first is through taxes and royalties that are collected by the State of Alaska and then redistributed into the economy in various forms. The second is through salaries and wages that are paid directly to employees and then channeled into the economy through individual expenditures. The second benefit can only be achieved when all or a substantial portion of the employees engaged in work with ANWR are Alaska residents who live and make personal expenditures within the state. It is therefore a matter of prime importance that the State of Alaska support the hiring of Alaska residents on any development with ANWR.

90% Revenue Share

Revenues received by the United States from mineral leasing on public lands are distributed under Section 35 of the Mineral Leasing Act of 1920, 30 U.S.C., Statute 191. Other states receive 50 percent of such revenues, with an additional 40 percent of such revenues benefitting those states through projects paid for out of the reclamation fund created in the Reclamation Act, approved June 17, 1902. Because Alaska is not covered by the Reclamation Act and no projects in Alaska are paid for out of the reclamation fund, we receive 90 percent of the revenues. Ten percent of such revenues from all states are deposited in the United States Treasury. This distribution formula applies to both unreserved public lands and reserved public lands in wildlife refuges, including the ANWR.

Congress extended the Mineral Leasing Act to Alaska in Section 28(b) of the Alaska Statehood Act, and considered this one of the "major provisions" of that Act. Provisions of a Statehood Act are obligatory on the United States, and any modification of the revenue distribution formula with respect to public lands (including reserved public lands in wildlife refuges) would probably violate the solemn compact between the United States and Alaska which formed the basis for Alaska's admission to the Union.

Congress incorporated this revenue distribution formula in the Statehood Act because so much land in Alaska was owned by the federal government, and almost one-fourth of it had been included in withdrawals and reservations prior to statehood. Modifying the distribution formula only for the reserved lands in the ANWR would discriminate against Alaska in relation to other states, in effect making Alaska the only state in which public land mineral revenues are not distributed under the Mineral Leasing Act. This would contrast with Congress' traditional practice of treating all states equally.

The Mineral Leasing Act represented a historic tradeoff in the history of public land law. In enacting it, Congress terminated the historic policy of disposing of public lands; instead, it determined to retain the public lands in federal ownership but to use the revenues from those lands for the benefit of the states in which the lands were located. Changing the revenue distribution formula would radically alter this historic compromise on which federal public land administration has been based for decades.

National Advocacy

State relations with the Congress and relevant federal agencies is an important component of any advocacy effort. The all encompassing nature of this issue and the necessity of dedicating large amounts of personnel time indicate that existing resources of the state probably will not be sufficient to effectively advocate the state's position on ANWR at the national level. Acquisition of the services of law and consulting firm in Washington, D.C., pursuant to a carefully structured procurement process, will probably be necessary. It may also be necessary to supplement our Washington, D.C. Governor's Office with another person to engage in day-to-day lobbying, assist in liaison with Washington, D.C. interest groups, attend hearings and meetings, help coordinate various elements of the Washington, D.C. advocacy program, and maintain communications with agency personnel and others in Alaska.

The Department of the Interior's "1002 Report"

Congress is to consider whether the coastal plain of the ANWR ought to be open for oil and gas exploration, development, and production. We concur with the finding of the Department of the Interior's 1002 report that there is substantial oil and gas potential in the coastal plain and that exploration should proceed to determine the extent of that potential. Given current world oil consumption trends, oil under the coastal plain may soon be needed to meet America's demands and help ensure its energy security.

The development of the coastal plain will alter the environment, and to some degree affect the Porcupine Caribou herd. This herd, which numbers some 180,000 animals, annually migrates between Canada's Northwest Territories and Alaska's arctic coastal plain where it spends a portion of each summer. The Porcupine herd, the second largest in the U.S., uses the coastal plain as its calving area. Therefore, any oil and gas exploration there must be done in a manner that is consistent with the chief purpose of the refuge - preservation of wildlife values.

Similarly, we are concerned about the potential impacts to land, air, and water quality, including the proper disposal of waste products that result from drilling activities. Our past experience in Prudhoe Bay and other North Slope petroleum developments will be helpful in determining appropriate measures to avoid potential problems. However, the draft 1002 report does not adequately address these environmental issues.

The state will be providing specific comments and recommendations to the Secretary of the Interior regarding the 1002 report. The Department of Interior's deadline for providing these comments is February 6, 1987.

ARCTIC NATIONAL WILDLIFE REFUGE
November 14, 1986

Background Information

During its consideration of the Alaska National Interest Lands Conservation Act (ANILCA), the U.S. Congress recognized that there is a high potential of discovering oil and gas deposits on the coastal plain of the Arctic National Wildlife Refuge (ANWR). Under provisions of the Alaska Statehood Act and other federal laws, any revenue generated from oil and gas development in ANWR would be shared by the federal government with the State of Alaska. Based on current estimates, as much as \$32 billion in revenues could accrue to the state from development of ANWR. Therefore, a decision by the Congress whether or not to open the refuge to oil and gas exploration could have important consequences both for the state's economic future and for the nation's energy needs.

Given the high oil and gas resource potential contained within the coastal plain of ANWR, the Congress, pursuant to Section 1001 of the ANILCA, directed the Secretary of the Interior to assess ANWR for potential oil and gas resources and make recommendations concerning future use and management of those resources as well as protection of the wildlife resources of ANWR.

Section 1002(h) of ANILCA requires that the Secretary, in consultation with the Governor, conduct a continuing inventory and study of the fish and wildlife of the coastal plain of ANWR and submit a final report, known as the 1002(h) report, to Congress.

Budget Requirements

This is an extremely important issue to the state in terms of potential employment and revenue. Similarly, since ANWR is a wildlife refuge, protection of nationally recognized fish and wildlife resources that reside in the area is also important. In order to achieve the delicate balance between developing ANWR and protecting the fish and wildlife resources, special efforts will be required at the state and national level. Such efforts will likely require additional travel by agency staff to Washington, D.C., to consult with Washington officials and/or assist the Governor's Office, additional public relations and lobbying efforts, and some additional travel within Alaska.

Discussions are presently occurring regarding the acquisition of lands in ANWR by a number of Native corporations, and possibly the state, in exchange for land owned (by the Native corporations and the state) elsewhere in Alaska. In the event these land

exchanges appear to be in the state's best interest, a significant amount of money will be required by the state to conduct computer processing, modeling efforts, and field work to obtain needed area-specific information regarding the geology of the area.

ATTACHMENT A

BUDGET REQUIREMENTS

The following budget requests/needs were identified by the indicated agency as being necessary to effectively deal with various aspects of ANWR decision making. This budget request would be presented to the Legislature as a request by the Governor's Office for a supplemental appropriation.

Department of Law

° FY 87

One trip to Washington, D.C., to consult with Washington officials (air fare \$1,204, per diem \$558).	\$ 1,762
--	----------

Outside counsel with Charles Meyers of Gibson, Dunn & Crutcher, author of Williams & Meyers, <u>Oil & Gas Law</u> . (This contract would continue into FY 88)	\$25,000
---	----------

° FY 88

Based on the ANILCA experience, an equivalent of ten trips to Washington, D.C., would likely be necessary.	<u>\$16,938</u>
--	-----------------

TOTAL	\$43,700
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Department of Natural Resources

° FY 87

One trip to Washington, D.C., to consult with Washington officials (air fare \$1,204, per diem \$558).	\$ 1,762
--	----------

Charter flights for appraisal staff to field inspect @ 900,000 acres of state land (selected and TA's).	\$12,500
---	----------

Aerial photos, USGS maps, printing, reproductions, films, etc., for land appraisal work.	\$ 1,500
--	----------

° FY 88

One trip to Washington, D.C., to consult with Washington officials. \$ 1,762

Title litigation reports, insurance, reproductions, printings. \$ 2,500

TOTAL \$20,024

Department of Fish and Game

° FY 87

One trip to Washington, D.C., to consult with Washington officials (air fare \$1,204, per diem \$558). \$ 1,762

° FY 88

One trip to Washington, D.C., to consult with Washington officials to work on land exchanges. \$ 1,762

TOTAL \$ 3,524

Department of Environmental Conservation

FY 87 - 88

Two full time equivalents at the Environmental Engineer III level will be needed. One would serve as the prime organizer and reviewer. The second would take the lead in preparing description of past management practices. Staff in all areas of the agency would be drawn upon as well. Both positions would be stationed in Fairbanks. The cost per position is approximately \$70,000 per year (including salary and associated costs). This can be prorated for FY 87, depending on a starting date. \$140,000

One trip to Washington, D.C., for technical consultations with Washington officials. \$ 1,762

TOTAL \$141,762

Governor's Office, Washington, D.C.

° FY 87 - 88

Full-time position to lobby, assist in liaison with Washington, D.C. interest groups, attend hearings and meetings, help coordinate various elements of an advocacy program, and maintain contact with agency personnel and others in Alaska. \$ 40,000

Lobbying firm (contract). \$ 72,000

Public relations/media firm (contract). \$ 72,000

TOTAL \$184,000

In summary, based on input from the indicated agency, the following additional money would be needed for the state to deal effectively with the various aspects of ANWR:

Total Supplemental Request -	Governor's Office	\$184,000
	Law	43,700
	DNP	20,024
	DFG	3,524
	DEC	<u>141,762</u>
	TOTAL	\$393,010

Sam -
A draft.
Ned

Dear Secretary Horn:

I am writing with a set of questions about the possible Arctic National Wildlife Refuge land exchanges. The House Resources Committee appreciated the appearance of Bob Gilmore at our meeting last week on ANWR land exchanges. However, several issues remained unresolved at the hearing because time ran out or because Mr. Gilmore was not prepared to discuss them. The Committee's next meeting on this issue is scheduled for the week of March 2; it would be our hope to have your responses in hand before this meeting occurs.

1. Mr. Gilmore stated that the exchanges are "a long way down the road," but that he doesn't think it is too late to include National Park lands in this exchange proposal. The State of Alaska has been approached by the Park Service numerous times since the passage of ANILCA toward the purpose of eliminating state-owned inholdings in Alaska parks, including Denali and Wrangells-St. Elias. Acquisition of some of these lands by the Interior Department would appear to be in the national interest. Can you explain why the Department's only interest at this time centers on acquisition of Refuge inholdings? Has the Department established a priority list for Refuge and Park inholdings throughout Alaska, ranking them against each other? Has the Department reviewed all inholdings in Alaska parks and refuges to be certain that this apparent

opportunity to acquire state or private inholdings is best used? Has the Department invited all Refuge inholders the opportunity to become involved in the proposed exchange process, based on the appraised value of their inholdings?

2. As one legislator stated at the House Resources Committee meeting, there appears to be a stampede underway to accomplish the proposed land trades, even though basic documentation, planning, and public review are incomplete or unavailable. Proponents of the land exchanges, including representatives of ANCSA corporations and Interior, have said that there are political advantages to moving forward with the secret land trades now so that they can be put before Congress soon after the 1002(h) study is presented. Does the exchange process to date comply with federal laws, regulations, and procedures regarding public disclosure? What are the political advantages of conducting land exchanges prior to congressional opening of the coastal plain to oil and gas leasing? What public process does Interior intend for the proposed agreements? Is there a chance that Congress, which in ANILCA directed Interior to study the coastal plain's wilderness potential and make a recommendation about federal oil and gas leasing in the area, will find that Interior has misdirected its efforts into exchange discussions prior to congressional involvement? Are the planned acquisitions consistent with applicable Refuge management plans?

3. The appraisal process for affected lands is very unclear, but information provided to date indicates that there is a large amount of discretion and guesswork going on in Interior to establish both subsurface ANWR values and the value of surface acreage of other Refuge inholdings. Mr. Gilmore stated that the BLM's ANWR subsurface appraisal "needs to go through several levels of approval (at Interior) in Washington" before it will be available. He also said that inholdings cannot be appraised by standard procedures because these do not allow for consideration of wildlife (i.e. public interest) values, and that "any value over and above (the standard appraised value) will be determined by negotiation between the Department and the Native corporations." Mr. Gilmore said that the Department expects to "know precisely" what the inholdings are worth based on highest and best use and future value, as opposed to present value for ANWR subsurface. Please describe the appraisal process for both surface acreage and subsurface oil and gas values, including the discretion that may be exercised within the Secretary's Office. Will the appraisal process and negotiations be documented? Is there a written appeal process for participants? What considerations and criteria will guide the Department in the negotiations to establish surface values?

4. With regard to the exchange contracts, we understand that there will be a final negotiating session in Washington during the week of February 23, and that the documents produced so far are not available for public distribution. We also are led to understand that the contracts will not be made available to the public until after they are completed and perhaps signed. From our review of the state's comments on the draft contracts, and from discussion at the committee meeting last week, we believe that there are major unresolved issues that must be considered in the contract. These include:

a) Overriding revenue retention for the State of Alaska. According to Mr. Gilmore the negotiations would have to be redirected, and draft agreements and appraisals will have to be adjusted, so that the State's existing revenue entitlement can be protected. Senator Murkowski has supported the concept of retained revenue for the State and I agree. The State should not be expected to agree to land exchanges that could remove the best geologic structures from public ownership unless the State is assured of revenue protection. Has the Interior Department revised the agreements and appraisals to include this provision; if not, why?

b) We understand that Interior is proceeding with the exchange of ANWR lands claimed by the State of Alaska on grounds of navigability. What consideration is being provided for these claims in the contracts?

c) The issue of ANCSA 7(i) subsurface revenue sharing has been raised with regard to trade lands acquired by the Arctic Slope Regional Corporation in ANWR. Will the trade lands within the proposed ANWR coastal plain exchanges be subject to 7(i)? Will any provision be made in these contracts for subsurface revenue sharing? If not, how will disputes be resolved in the future?

d) The agreement is reported to contain a provision allowing the original inholder to retain a subsistence easement. What are the reasons for including this provision? How does it affect the value of the inholdings? Does it protect larger hunting and fishing interests? Is it considered constitutionally and legally allowable?

e) Mr. Gilmore said that he does not understand a reported contractual provision allowing some corporations to "rescind" the exchange after exploring ANWR tracts for oil and gas. The inclusion of such a provision seems highly unbelievable, if the purpose of the exchanges is to acquire and hold valuable Refuge

inholdings in perpetuity. What is the reason for the rescission clause? How is it structured? Does Interior believe that the rescission clause has any prospect of being politically acceptable to Congress, and on what basis?

f) Mr. Gilmore stated that ANILCA Title XI standards for access will be waived in the contract. How will access rights and needs be protected, particularly on lands that lie in important transportation corridors?

5. Even though tract selection may occur in the next four to six weeks, it seems that the ANWR tracts have not yet been identified. Mr. Gilmore stated that virtually all of the coastal plain would be available for exchange. In the past we have heard that anywhere from 25,000 to 250,000 acres may be exchanged. When will the public know which tracts may be traded? Why has the Department chosen to keep the tract identification and selection process secret? How will conflicts be resolved between parties which bid on the same tract?

6. Proponents of the exchanges have justified their support by stating that Congress will find opening ANWR more acceptable if it knows that the exchanges are going to

occur. Could you explain this reasoning? What are the political risks of the exchanges?

7. When asked whether he regarded the State of Alaska as a supporter or advocate of the exchanges, Mr. Gilmore stated that it is "my impression from the sincerity of the negotiations and the people involved in the negotiations... that the State is proceeding as an active, interested participant in the exchange." On the other hand, the State has indicated that it is not committed to the exchange process and does not at this time endorse the concept of trading ANWR subsurface to eliminate ANCSA inholdings in other Refuges. Do you believe that the State has effectively endorsed the trades?

8. One committee member raised the question of the State of Alaska's prior existing rights to the ANWR subsurface. As you know, the State regards its entitlement to 90% of oil and gas revenues produced in Alaska refuges as part of the solemn compact between Alaska and the United States leading to statehood. Mr. Gilmore also stated that he believes that Congress will attempt to reduce this entitlement to 50% on the basis of the NPRA model, and that this would serve as the basis for any retention mechanism preserving the State's entitlement. Is it the Interior Department's view that this existing right may be traded away without the State of

Alaska's concurrence? May Congress amend the State's existing entitlement without State concurrence?

9. The disposal of oil and gas rights on federal lands is ordinarily an open, competitive process. Why has the Interior Department chosen to keep the exchange process -- which amounts to a disposal of ANWR oil and gas rights -- under wraps? What are the political advantages seen by the Department? Would the Department object to opening the process to all Refuge and Park inholders for a competitive disposal/exchange at some later time, after a clear and public tract identification process and open, appealable appraisal approvals?

In addition to posing these questions on behalf of the Committee, I would also like to make a few suggestions on my own behalf. I believe that the public interest -- national and state -- is likely to be served by opening up this secret process and slowing it down. From my vantage point, I cannot believe that Congress would not agree that the process should be open and accessible, and should occur later rather than sooner.

The Refuge and Park systems will benefit from maximum competition, which does not appear to be occurring at this time in the closed process. It would be foolish for the State of Alaska, entitled to 90% of the oil and gas revenue

from ANWR, to agree to a land exchange process that is so vaguely laid out, lacks protection of our revenue entitlement, and affords only questionable assurance of political benefit in Congress.

The Committee looks forward to your response, and appreciates Mr. Gilmore's offer to provide any further assistance or information that the Committee may request.

Sincerely,

Sam Cotten
Co-Chairman
House Resources Committee

MEMORANDUM

To: Rod Swope, Special Assistant
Office of the Governor

From: Ned Farquhar, Special Assistant
Representative Sam Cotten

Date: February 10, 1987

Re: ANWR Land Exchange Meeting

This summarizes our telephone call of Friday, February 6th regarding the Resources Committee's February 13, 1987 meeting at 1:00 p.m., Capitol 124 on the topic of ANWR land exchanges.

The committee will hear from Bob Gilmore, who will do a general briefing on the land exchange proposals, and from interested ANCSA corporations.

From the state, the committee will be interested in:

- (1) The administration's policy position (as much is known) on the proposed trades;
- (2) The state's participation to date and in the future - what state lands have been offered and are now being considered? What problems does the state identify in proposed agreements, appraisals, and trade processes? What timeline does the state see (and what would it prefer) for movement on land trades and state policy making? Would the state support the "recission" clause?; and
- (3) Legal analysis - what does the state believe would be legal in the way of exchanges or ANWR development without Congressional approval? What regulatory authorities would the state and federal governments lose in a land trade, if any? Does the 7(i) revenue-sharing clause apply to exchange lands?

I hope that the state will be able to have present appropriate technical and policy staff. Thanks for your assistance.

cc: Bob Arnold, DNR
Tom Hawkins, DNR
Tom Koester, AGO
Norm Cohen, ADF&G
Dennis Kelso, DEC

ANWRI.TXT

Sam - Ned
I'm sure you
want to add
more

February 10, 1987

Sharman Piper
108 Hope Street
Providence, Rhode Island 02831

Dear Sharman:

You will be pleased to know that ANWR: What's Best for Alaska, is in third printing. We have distributed almost 400 copies and people are still requesting the report.

House Resources will conduct its third hearing on ANWR this Friday, February 13th. Special guests will include Interior's Bob Gilmore, Native Corporations, and state policy and technical staff.

I am enclosing a copy of Senator Josephson's letter which you will find of interest.

OK
I'll hand
write any
further notes

ALASKA STATE SENATE

JOE P. JOSEPHSON
DISTRICT H ANCHORAGE
1526 F STREET
ANCHORAGE, ALASKA 99501
(907) 277-4419

WHILE IN JUNEAU
POUCH V
JUNEAU, ALASKA 99811
(907) 465-4525

January 29, 1987

Representative Sam Cotten
Alaska House of Representatives
P.O. Box V
Juneau, Alaska 99811

Dear Sam:

I have read the report by Sharman Piper (ANWR: What's Best for Alaska?) and want to commend both the author and yourself for its production.

I am deeply concerned that the state is rushing headlong into a massive "PR" effort in Washington which may not be well-considered and which puts the state into a "Give us ANWR at Any Price" mode, a position which would be a detriment in the long run.

I am gratified that Governor Cowper seems to be very sensitive to, and very well informed about, the nuances of the ANWR situation, and especially the implications of land trades with the Native corporations. But I am troubled by the possibility that the delegation in Congress may be eager to satisfy the oil interests (and the Native interests) without proper and full attention to State interests.

One detail which may or may not be important is that I have the understanding that Native proceeds from resources and lands acquired by trade with the Fish and Wildlife Service may not be subject to section 7(i) revenue-sharing under ANCSA. I believe Sharman indicates that they are so subject, at par 21 of the report, and this may not be accurate.

I will retain the report for further reference. Two facts struck me vividly: first, there is an enormous range of revenue possibilities, even if oil is produced within ANWR and even if land trades with Native corporations do not occur or do not affect future State revenues; second, ANWR production might not occur until the last few years of the century, or early in the twenty-first century -- hardly a "fix" to the current budget crisis of the State.

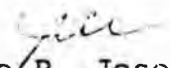
Representative Sam Cotten
January 29, 1987
Page Two

With all that in mind, I remain convinced that the most immediate and urgent lobbying effort by State government has to be on behalf of the Oil Import Fee. Last year, I sponsored a Senate Joint Resolution on the subject, and got little help from the congressional delegation. I noted that Senator Murkowski, in his 1986 campaign, spoke very favorably and hopefully about the prospects of an Oil Import Fee, and with the make-up of the new Senate, it would seem that those prospects are further enhanced.

Passage of an Oil Import Fee would have immediate revenue effects and I hope you will help join in this effort for securing congressional action.

With best wishes, I am

Sincerely,


Joe P. Josephson
State Senator

JPJ:rak
Enclosure

P.S. Please share with Sharman my gratitude for the report; I think you have rendered a very great public service. The report is also readable by lay people (like me) and should be of interest to hundreds or even thousands of our fellow Alaskans.

JPJ

SECRET

INFORMATION PACKET

House Resources Committee
February 4 & 5, 1987

Arctic National Wildlife Refuge
HJR 7 and HJR 9

Packet contains:

Position statement of Gov. Cowper *p-1*
Administration Budget request *p-4*

p. 14 caribou impacts.

Maps and texts excerpted from U.S. Interior
Department 1002(h) study (draft):

Study area *p. 1*
Geology/Oil and Gas *p. 7-12*
Caribou movement/use *p. 13-14*
Alternatives *p. 15-20*
National Interest *p. 21-26*

"What's Best for Alaska" - Rep. Cotten's Office

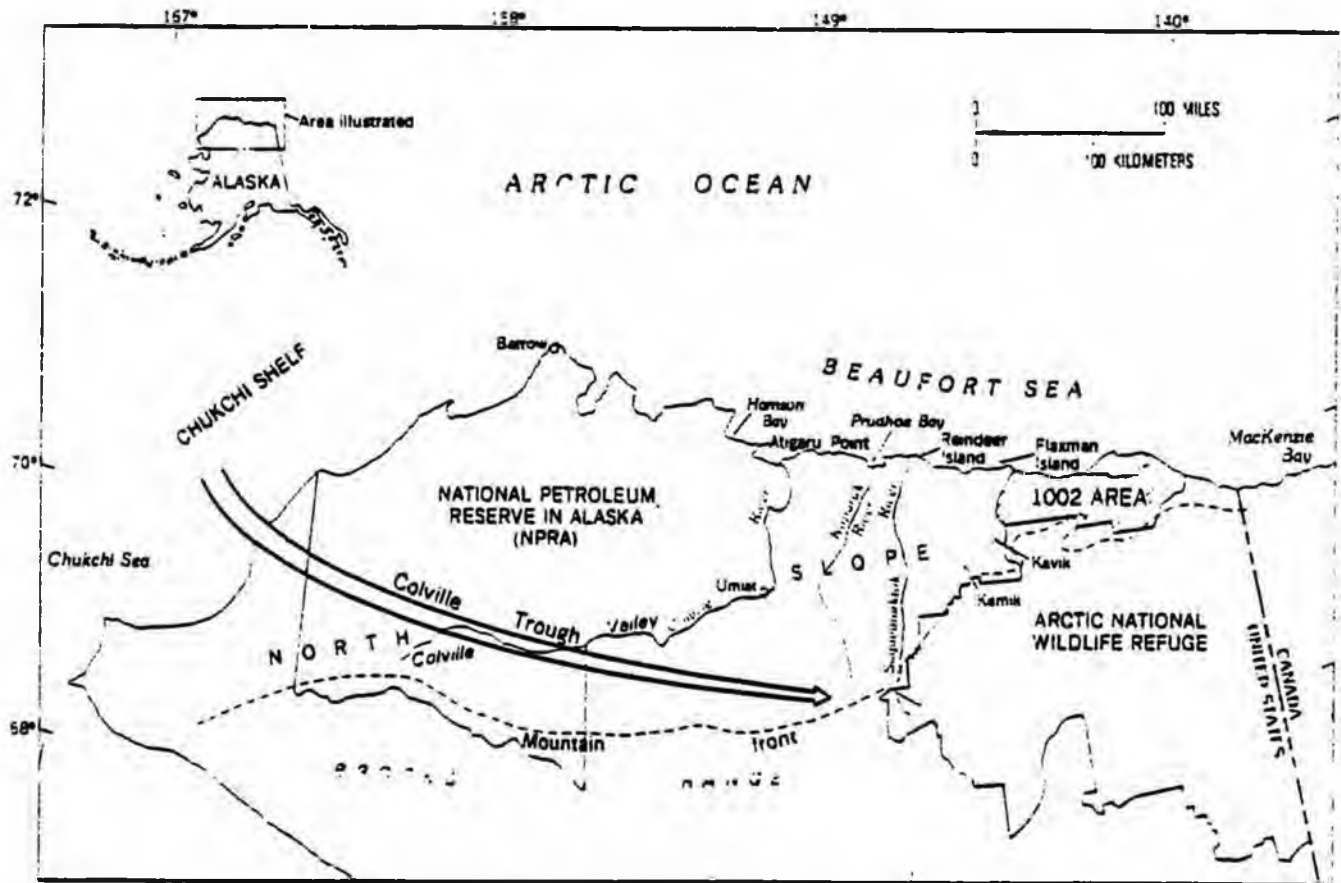


Figure I-1.—Index map of northern Alaska showing location of 1002 area in relation to the Arctic National Wildlife Refuge (Arctic Refuge), the National Petroleum Reserve in Alaska (NPRA), and Prudhoe Bay.

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

STATE OF ALASKA'S
OFFICIAL POSITION ON THE
ARCTIC NATIONAL WILDLIFE REFUGE

Local Hire

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The Mineral Leasing Act represented a historic tradeoff in the history of public land law. In enacting it, Congress terminated the historic policy of disposing of public lands; instead, it determined to retain the public lands in federal ownership but to use the revenues from those lands for the benefit of the states in which the lands were located. Changing the revenue distribution formula would radically alter this historic compromise on which federal public land administration has been based for decades.

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Congress is to consider whether the coastal plain of the ANWR ought to be open for oil and gas exploration, development, and production. We concur with the finding of the Department of the Interior's 1002 report that there is substantial oil and gas potential in the coastal plain and that exploration should proceed to determine the extent of that potential. Given current world oil consumption trends, oil under the coastal plain may soon be needed to meet America's demands and help ensure its energy security.

The development of the coastal plain will alter the environment, and to some degree affect the Porcupine Caribou herd. This herd, which numbers some 180,000 animals, annually migrates between Canada's Northwest Territories and Alaska's arctic coastal plain where it spends a portion of each summer. The Porcupine herd, the second largest in the U.S., uses the coastal plain as its calving area. Therefore, any oil and gas exploration there must be done in a manner that is consistent with the chief purpose of the refuge - preservation of wildlife values.

Similarly, we are concerned about the potential impacts to land, air, and water quality, including the proper disposal of waste products that result from drilling activities. Our past experience in Prudhoe Bay and other North Slope petroleum developments will be helpful in determining appropriate measures to avoid potential problems. However, the draft 1002 report does not adequately address these environmental issues.

The state will be providing specific comments and recommendations to the Secretary of the Interior regarding the 1002 report. The Department of Interior's deadline for providing those comments is February 6, 1987.

BUDGET REQUIREMENTS

The following budget requests/needs were identified by the indicated agency as being necessary to effectively deal with various aspects of ANWR decision making. This budget request would be presented to the Legislature as a request by the Governor's Office for a supplemental appropriation.

Department of Law

° FY 87

Three trips to Washington, D.C., to consult with Washington officials (air fare \$1,204, per diem \$558). \$5,186

Outside counsel with Charles Meyers of Gibson, Dunn & Crutcher, author of Williams & Meyers, Oil & Gas Law. (This contract would continue into FY 88). \$25,000

° FY 88

Based on the ANILCA experience, an equivalent of ten trips to Washington, D.C., would likely be necessary. \$17,620

TOTAL \$47,806

Department of Natural Resources

° FY 87

Three trips to Washington, D.C., to consult with Washington officials (air fare \$1,204, per diem \$558). \$5,186

Charter flights for appraisal staff to field inspect 900,000 acres of state land (selected and TA's). \$12,500

Aerial photos, USGS maps, printing, reproductions, films, etc., for land appraisal work. \$1,500

Seven trips from Anchorage to Juneau for DLWM staff to participate in legislative briefings, interagency discussion, etc. (air fare \$328, per diem \$210). \$3,766

°	FY 88		
	Three trips to Washington, D.C., to consult with Washington officials to work on land exchanges.		\$5,186
	Seven trips from Anchorage to Juneau for DLWM and DOG staff to participate in legislative briefings, interagency discussions, etc.		\$3,766
	Title litigation reports, insurance, reproductions, printings.		<u>\$2,500</u>
		TOTAL	\$34,404

Department of Fish and Game

°	FY 87		
	Three trips to Washington, D.C., to consult with Washington officials (air fare \$1,204, per diem \$558).		\$5,186
°	FY 88		
	Three trips to Washington, D.C., to consult with Washington officials to work on land exchanges.		<u>\$5,186</u>
		TOTAL	\$10,372

Department of Environmental Conservation

°	FY 87		
	Two full time equivalents at the Environmental Engineer III level will be needed. One would serve as the prime organizer and reviewer. The second would take the lead in preparing description of past management practices. Staff in all areas of the agency would be drawn upon as well. Both positions would be stationed in Fairbanks. The cost per position is approximately \$70,000 per year (including salary and associated costs). This can be prorated for FY 87, depending on a starting date.		\$140,000
	Two trips to ANWR per year for field work.		\$4,000
	Six meetings in Anchorage per year to consult with regional staff.		\$1,500

Four trips to Washington, D.C., for technical consultations with Washington officials.		<u>\$5,186</u>
	TOTAL	\$150,686
<u>Governor's Office, Washington, D.C.</u>		
° FY 87		
Full-time position to lobby, assist in liaison with Washington, D.C., interest groups, attend hearings and meetings, help coordinate various elements of an advocacy program, and maintain contact with agency personnel and others in Alaska.		\$40,000
Lobbying firm (eight months effort @ \$9,000 per month).		\$72,000
Public relations/media firm (eight months effort @ \$9,000 per month).		<u>\$72,000</u>
	TOTAL	\$184,000

In summary based on input from the indicated agency, the following additional money would be needed for the state to deal effectively with the various aspects of ANWR:

FY 87 Supplemental	Governor's Office	\$184,000
	Law	30,136
	DNR	22,952
	DFG	5,186
	DEC	<u>150,686</u>
	TOTAL	\$393,010

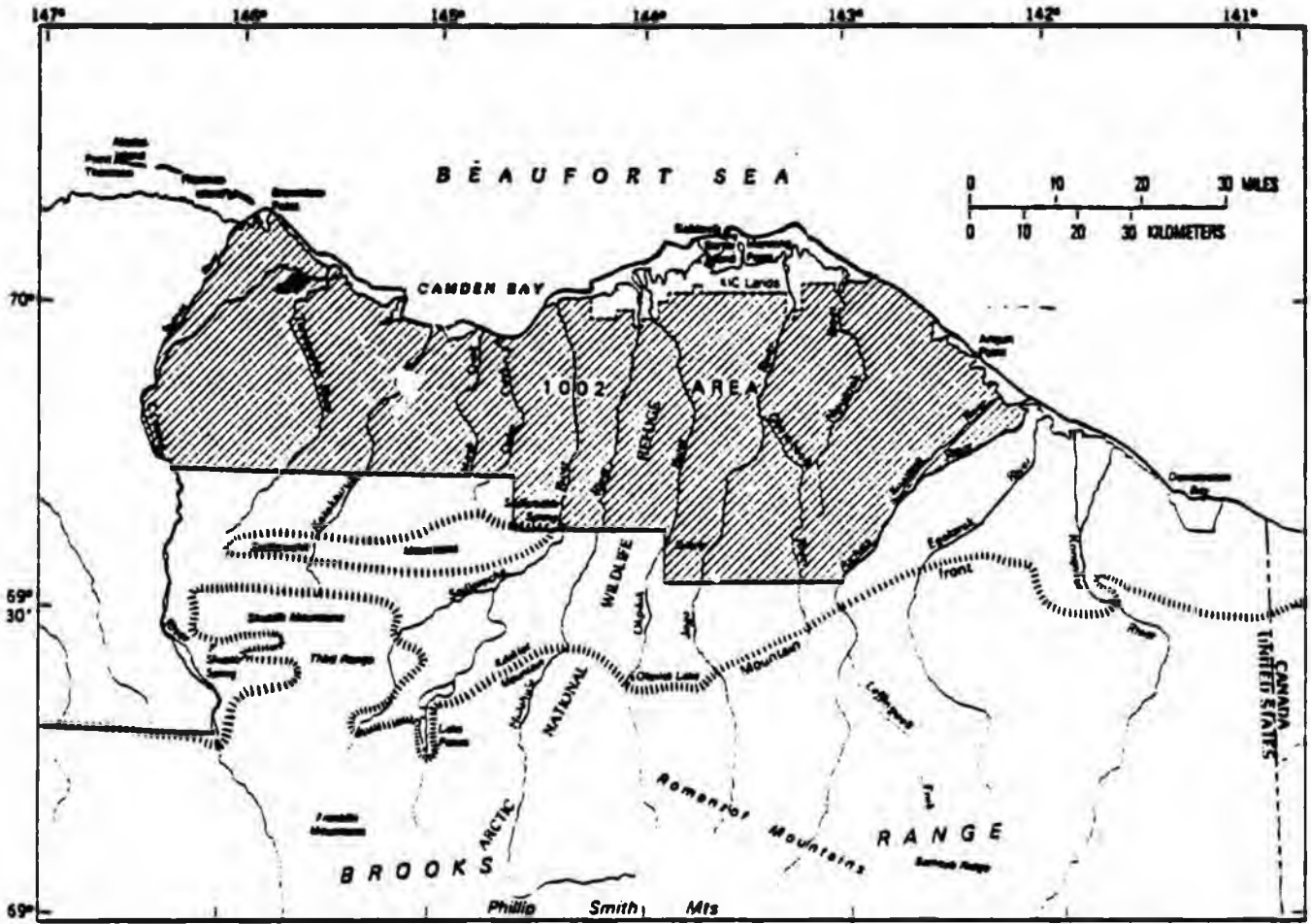


Figure II-1.—Map of northeastern Alaska showing the 1002 area and important nearby geographic features.

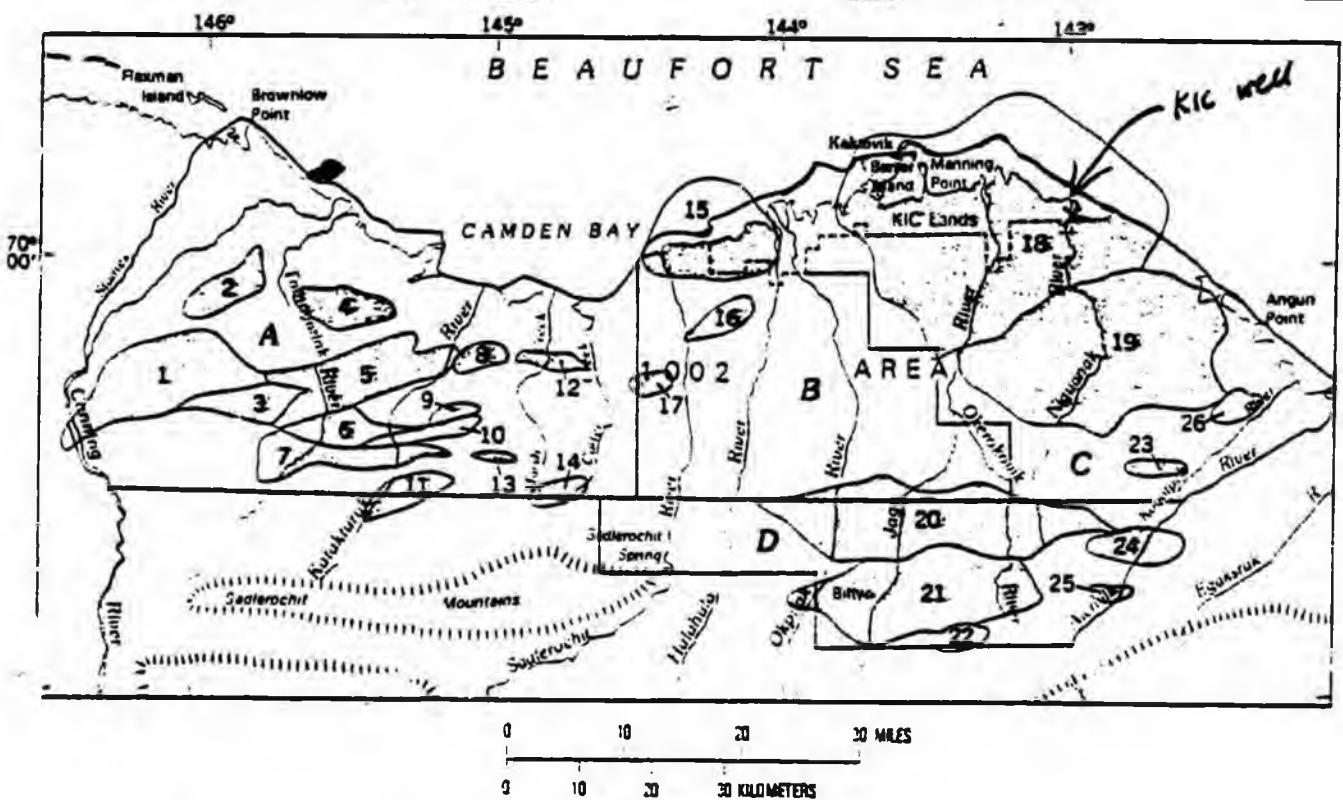
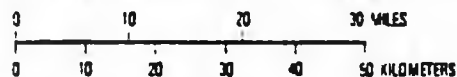
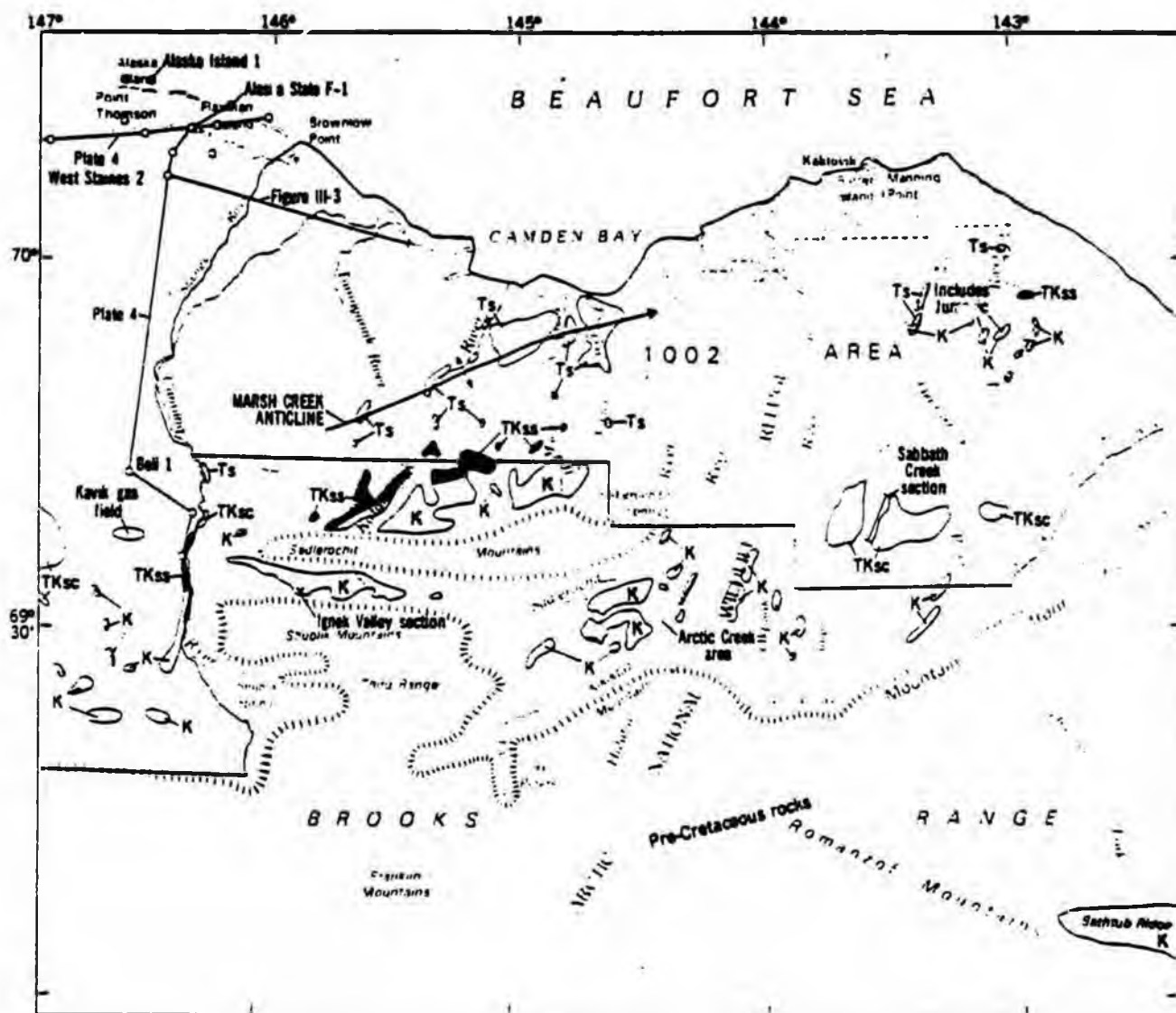


Figure III-1.—Seismically mapped prospects (1-26) and resource blocks (A-D) in the 1002 area.



EXPLANATION

Ts	Tertiary rocks	■	Paleocene and uppermost Cretaceous rocks
K	Cretaceous rocks	⋯	Deep water
○	Drill hole	TKsc	Shallow marine and nonmarine

Figure III-3.—Map of the 1002 area and adjacent mountains showing locations of Cretaceous and Tertiary outcrops and lines of sections of figure III-8 and plate 4.

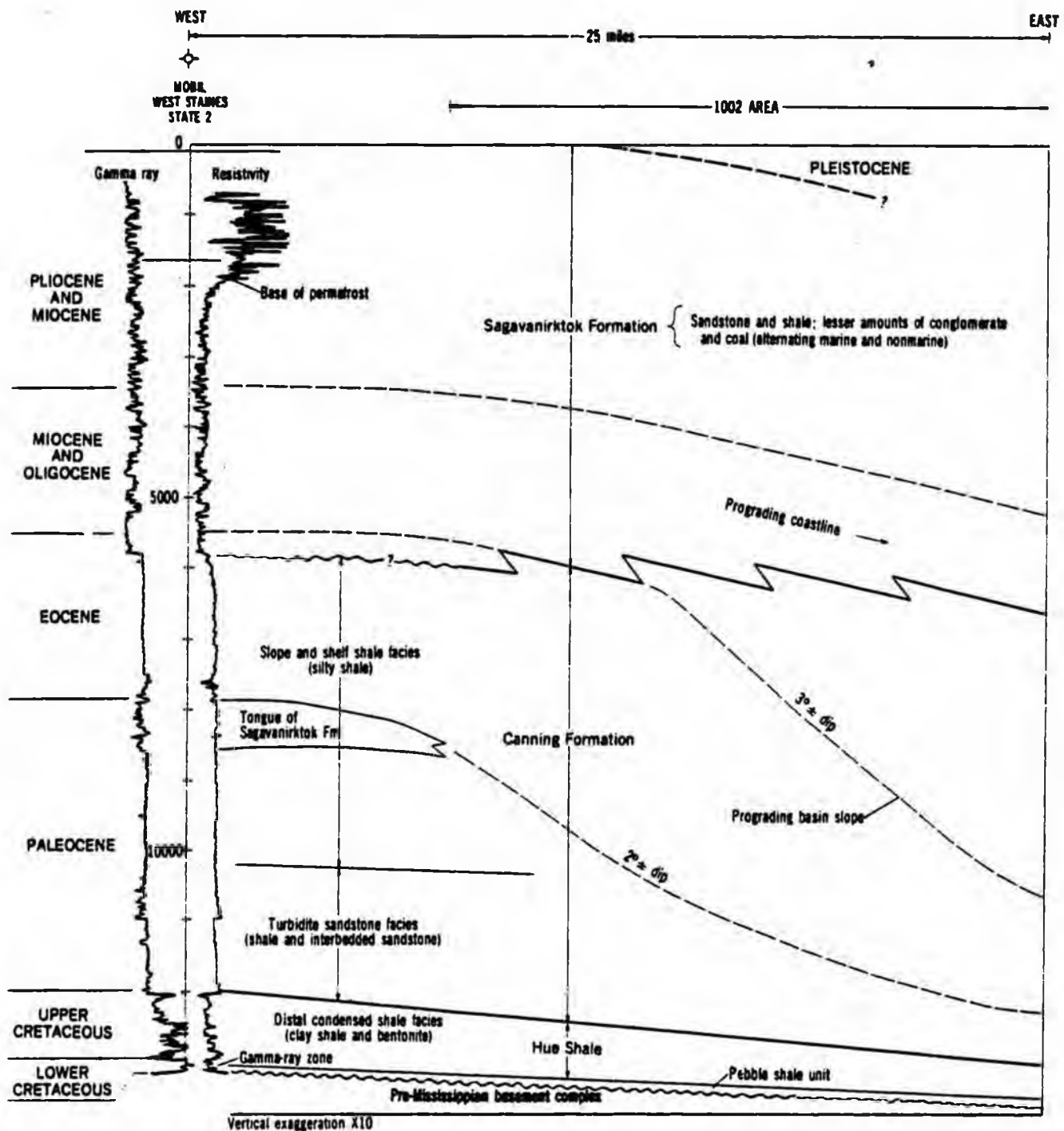


Figure III-8.—Diagrammatic section showing stratigraphic relations of the Brookian sequence between the Mobil West Staines State 2 well and the northwest corner of the 1002 area. Dashed lines represent time lines as inferred from seismic reflections. Depths on well logs are in feet. Ages based on micropaleontologic data correlated from wells to the west. See figure III-3 for location of section.

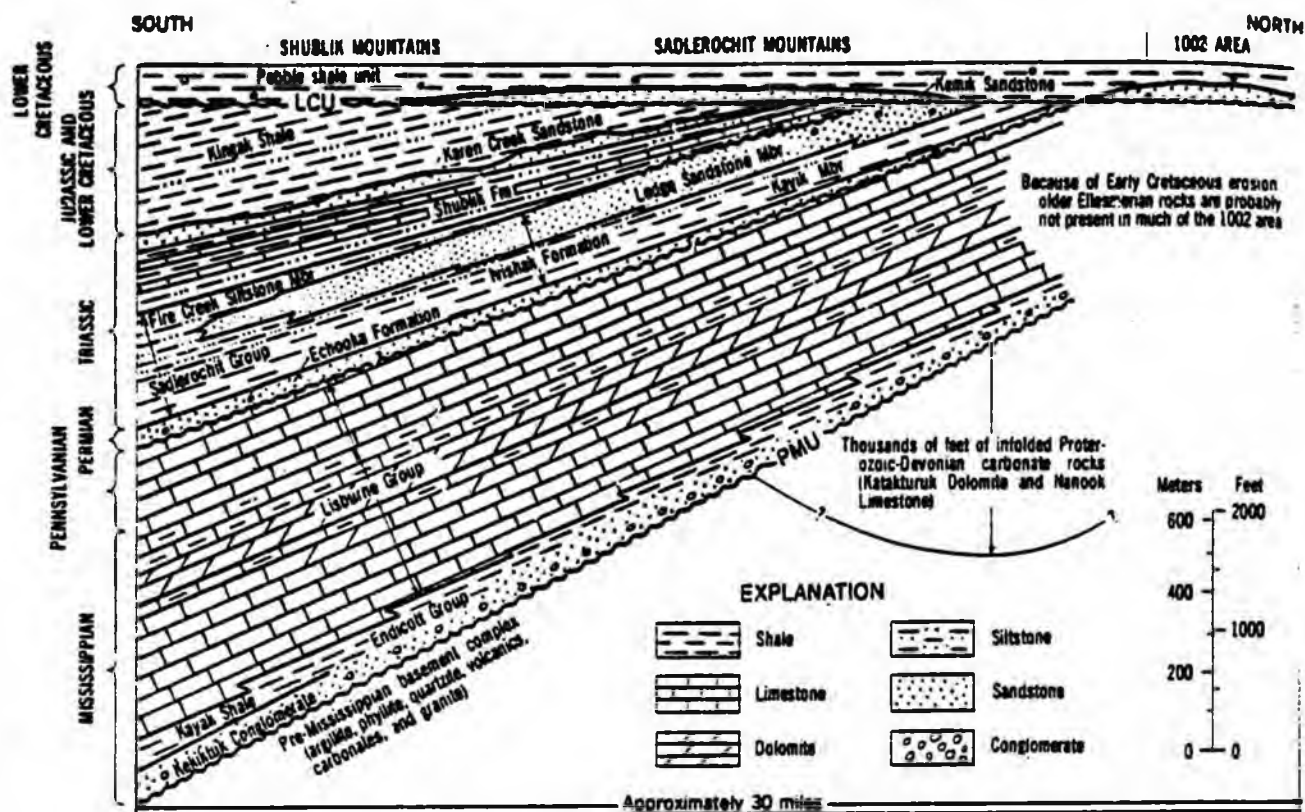


Figure III-5.—Diagrammatic section showing stratigraphic relations of the Ellesmerian sequence along the mountain front south of the 1002 area.

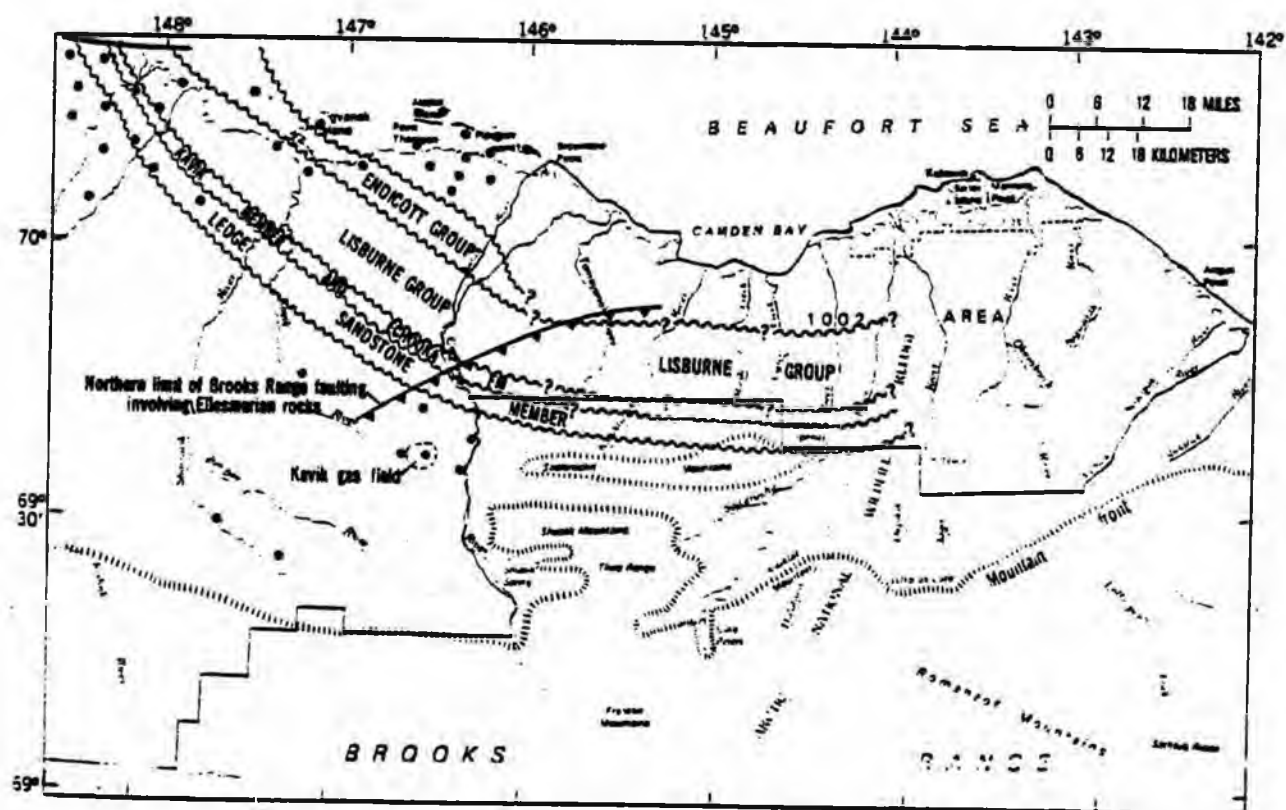
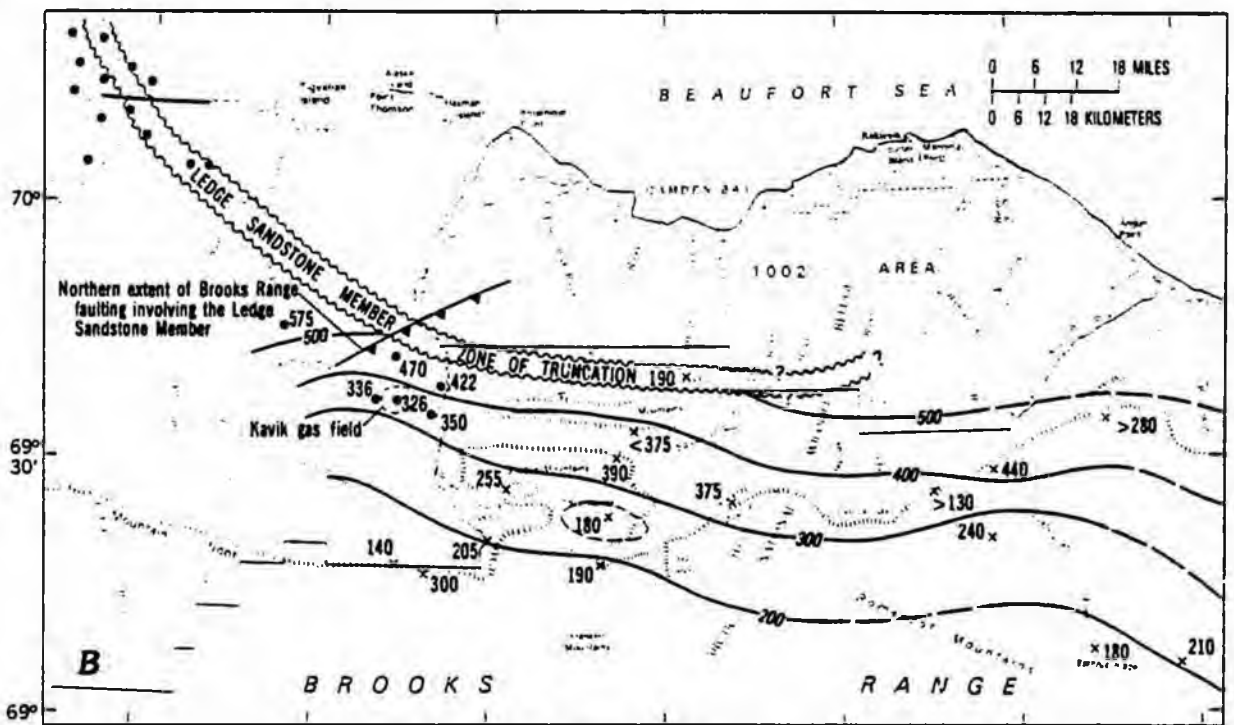
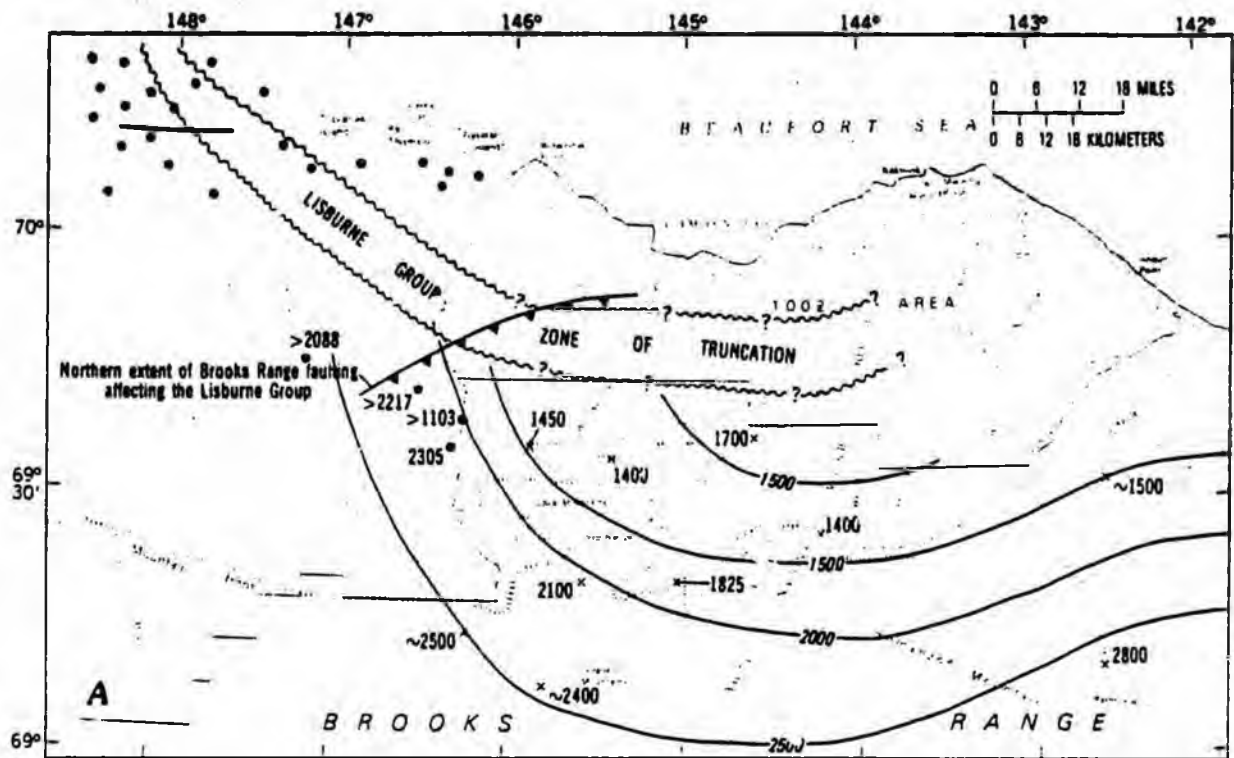


Figure III-6.—Map summarizing the northern limits of the Ellesmerian potential reservoir rocks preserved under the Lower Cretaceous unconformity. (Based on regional control.)



EXPLANATION

Control points—Showing thickness in feet

•350 Well

*140 Outcrop

—400— Isopach—Showing thickness in feet. Dashed where approximately located

Figure III-7.—Maps (facina and above) summarizing regional and local geologic trends of the Lisburne Group (A), Ledge Sandstone Member of the Ivishak Formation (B), and Kemik Sandstone and Thomson sand (C).

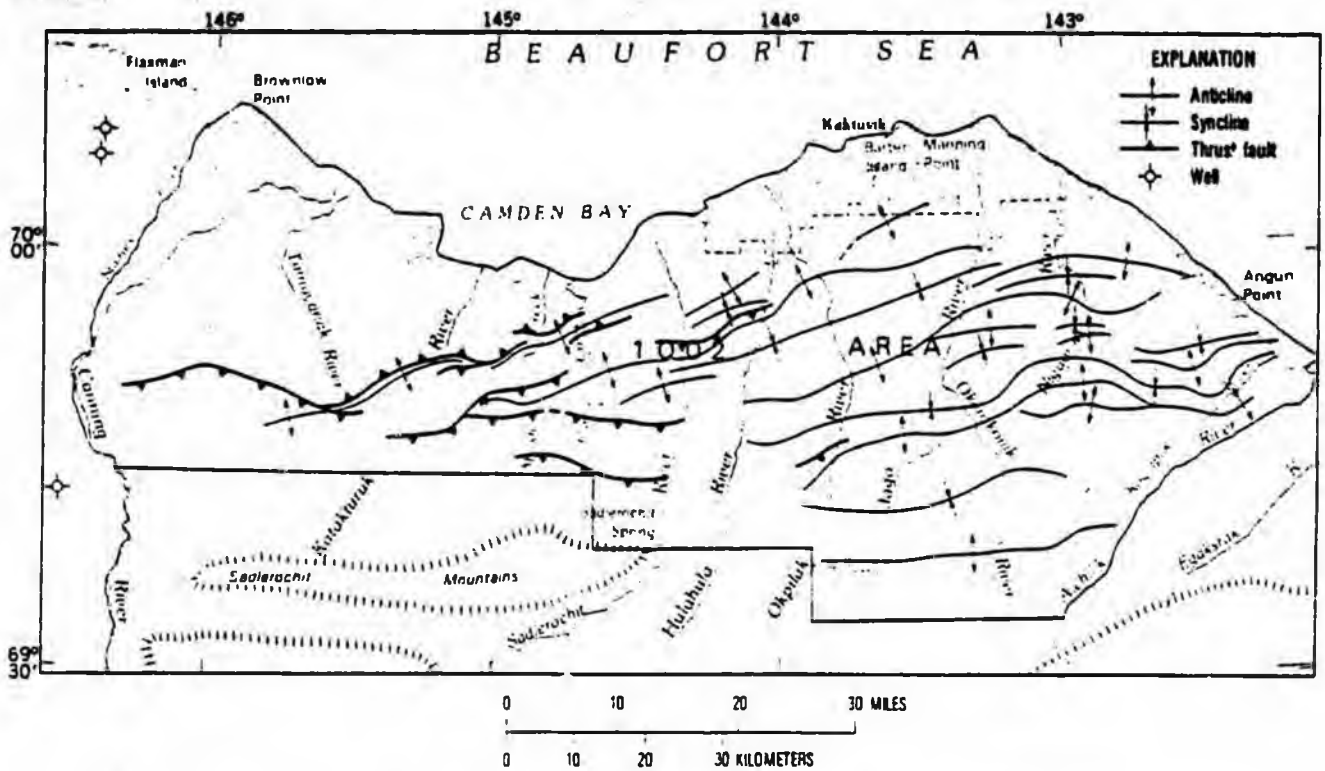


Figure III-9.—Generalized near-surface structural trends in Brookian rocks, based on seismic data. Because of structural complexity, not all features are shown, particularly in the east part of the 1002 area.

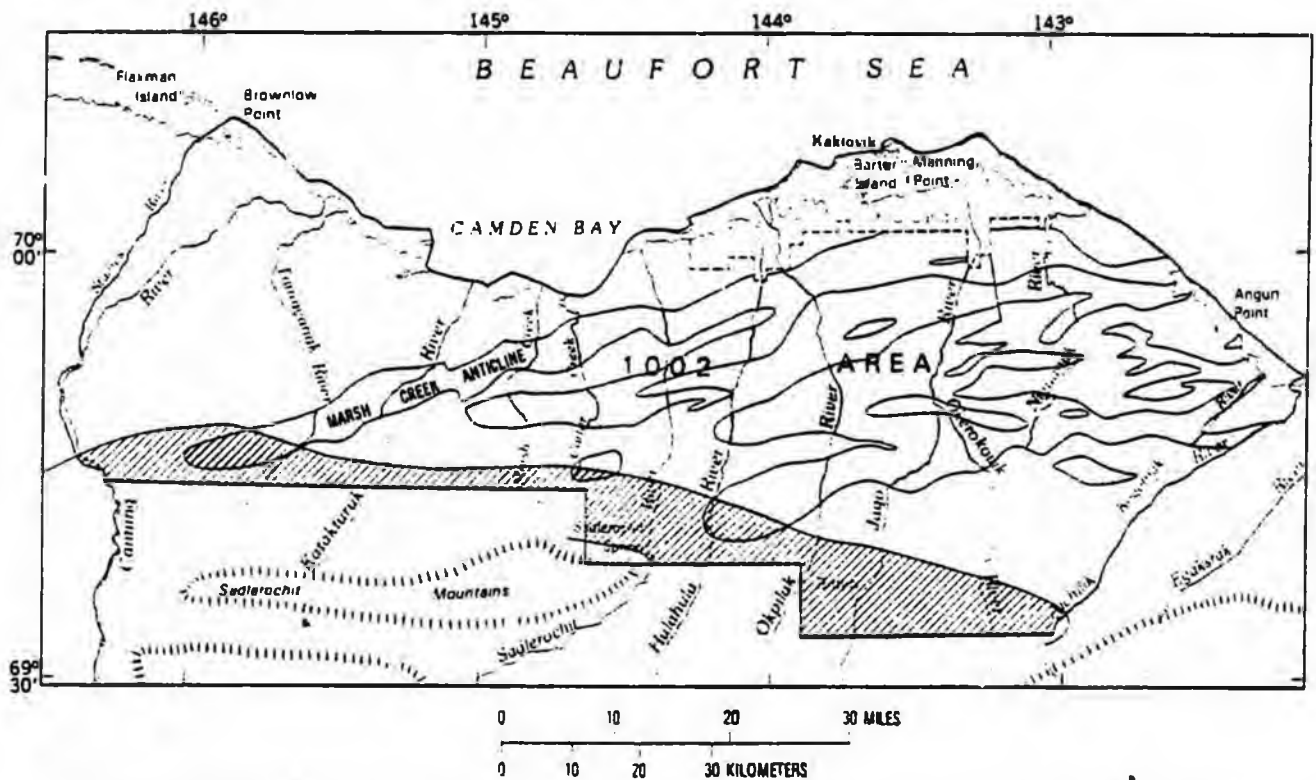
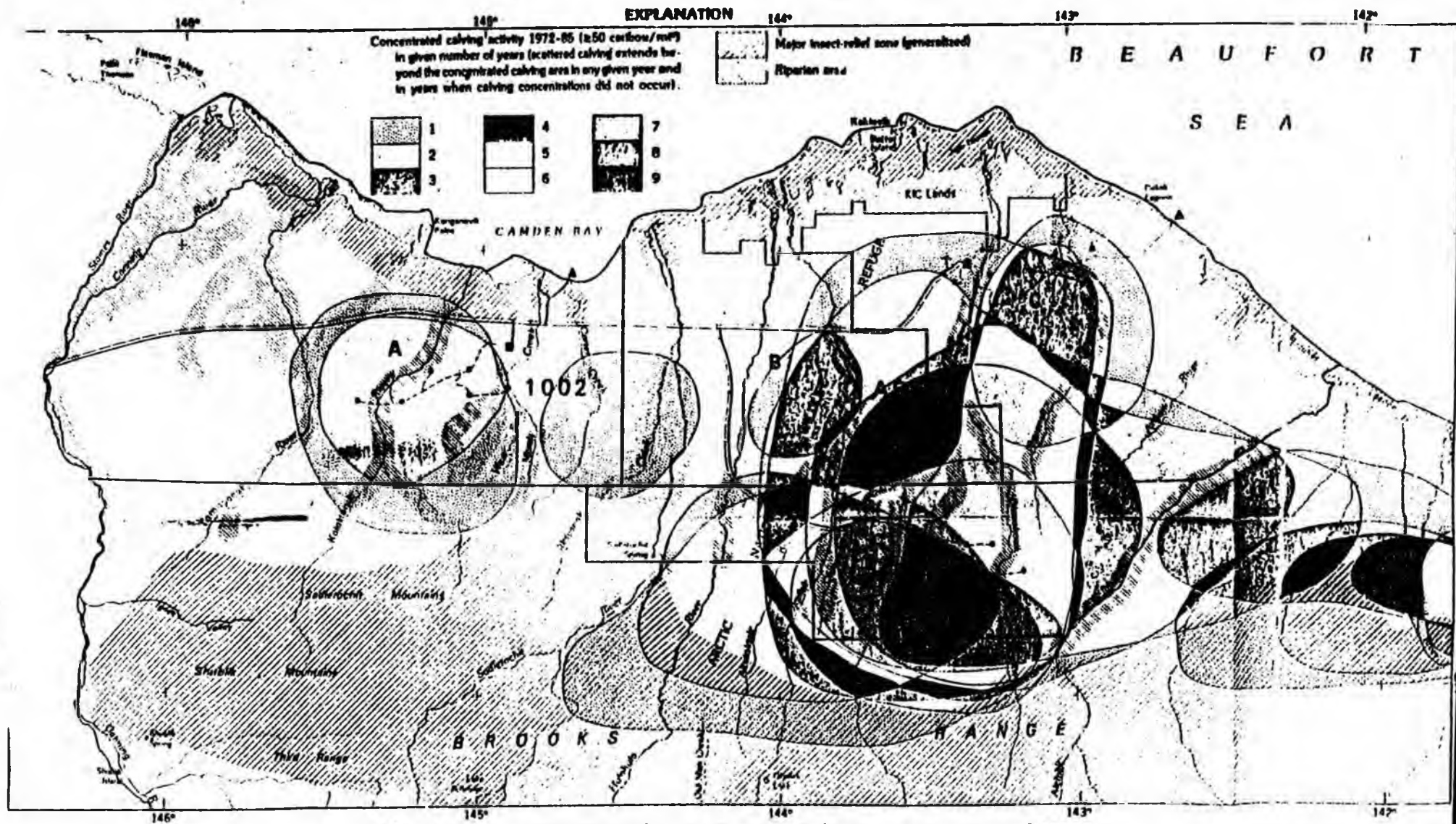


Figure III-10.—Trends of structural culminations in highly deformed Mesozoic and Tertiary rocks (shaded) and area of monoclinally north-dipping strata (line pattern) that may have petroleum potential in the 1002 area.



A. Porcupine caribou herd concentrated calving and insect-relief areas

CARIBOU IMPACTS - conclusion
Fr. 1002(h) study

occur in the area of exploration wells if caribou entered the area while well drilling activities were underway. Because human activity would be low, effects would most likely result from some avoidance and displacement around well pads.

The expanding population trend for the CAH in the past decade would indicate that the CAH is not at carrying capacity (the number of healthy animals that can be maintained by habitat on a given unit of land). However, the point at which cumulative effects and expanding developments all modify suitable displacement habitat is unknown. Also unknown is carrying capacity of the PCH. Given the geography of the calving areas and current densities in those areas, the availability of suitable alternative habitats is not apparent.

A major change in distribution as an adverse result of displacement of both that portion of the CAH using the 1002 area as well as the entire PCH could occur if the 1002 area were fully developed. The main oil pipeline would bisect the 1002 area between the western and northeastern boundaries. Disturbance would occur from the presence and activities of up to 8,000 people, hundreds of vehicles, and major construction and production activities scattered throughout the 1002 area, including sensitive caribou calving areas. Use of approximately 25 percent of the total PCH core calving area and 29 percent of the coastal insect-relief habitat could be reduced or eliminated. Potentially a much larger portion, nearly 80 percent of coastal insect-relief habitat, could be affected if development proves to be a barrier to caribou movements. Loss of calving habitat, barriers to free movement causing reduced access to insect-relief and other areas, disturbance, stress, and other factors would cumulatively reduce both available habitat and habitat values on remaining areas, resulting in caribou population declines.

These changes in habitat availability and value, combined with increased harvest, could result in a major population decline and change in distribution of 20-40 percent, based on the amount of calving and insect-relief habitats to be adversely affected. Because of the many variables involved and lack of relevant experience in estimating impacts on this herd and because of the difficulty in quantifying impacts, this estimate is uncertain.

Conclusion

Surface geologic exploration and study conducted throughout the year would be controlled by specific time and area closures to avoid conflicts with caribou calving and movements during the insect-relief period. Seismic activity would be confined to winter work only. Based upon experience from the 1983-1985 exploration program in the 1002 area, only negligible effects would occur. Localized avoidance and disturbance of a minor nature may

For the CAH, a moderate change in distribution or decline in that portion of the CAH using the 1002 area could occur. The effect on the entire CAH population throughout its range may also be moderate. Those effects on the segment of the CAH within the 1002 area would be similar to those on the PCH that occur from disturbance, displacement and barriers to free movement. The population decline or distribution change would be 3-10 percent for the CAH throughout its range.

CHAPTER V

ALTERNATIVES

ALTERNATIVE A--FULL LEASING OF THE 1002 AREA

Under the alternative of full leasing, it is assumed that Congressional action would allow all Federal subsurface ownerships of the 1002 area to be available for development through a leasing program administered by the Department of the Interior. This action would also open to oil and gas development and production the private lands within the refuge. The exact terms of the leasing program would be developed in response to specific legislation passed by the Congress. If the Congress chooses to authorize leasing in the entire 1002 area, the legislation would probably contain the important elements of the Mineral Leasing Act and the NPPA legislations, with special provisions to meet the unique needs of the Arctic Refuge.

Presumably, major portions of the 1002 area would be leased and additional geophysical exploratory work would take place on all leased areas before exploration wells are drilled. Leaseholders would likely focus first on those areas and geologic structures believed to have the highest probability of containing commercial quantities of oil. It is feasible for phased development to occur.

The 1002 area contains a combination of identified potential petroleum prospects having a mean conditional estimated total of 3.2 billion barrels of economically recoverable oil under current and foreseeable economic conditions (Chapter III). These prospects are grouped into 4 geographic areas (blocks) of the 1002 area to facilitate an analysis of the effects of oil development on the environment. These blocks are depicted in Chapter III (fig. III-16).

Alternative A assumes that:

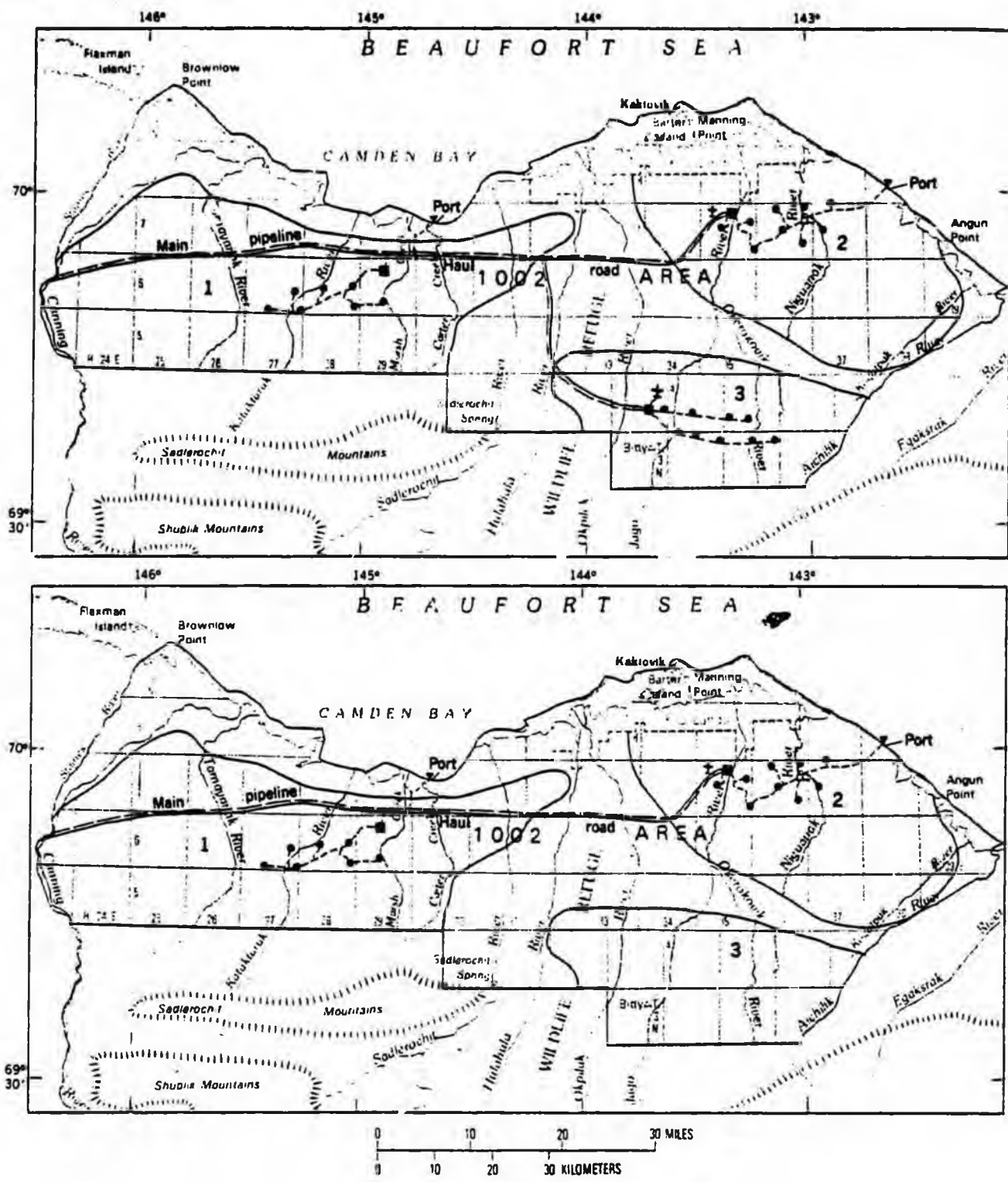
1. Although both oil and gas would be leased, initially only oil will be developed and transported to market. Associated gas will be reinjected and/or used for field operations in the manner similar to other North Slope fields, until it becomes economical and adequate markets are identified.
2. Oil production will start about the year 2000.
3. Development will be utilized within the 1002 area and on privately owned subsurface resources in the vicinity of Kaktovik.
4. A single trunk oil pipeline will transport oil from Federal leases and from any private lands in the 1002 area to Pump Station 1 of the Trans-Alaska Pipeline System (TAPS).

5. Development, production, and transportation of oil from the 1002 area are considered to be independent of any offshore production; however, infrastructure could be shared.
6. The State of Alaska will allow a trunk oil pipeline to cross State lands between the western boundary of the 1002 area and Pump Station 1 at Prudhoe Bay (a distance of about 50 miles).
7. Once the Congress approves leasing, but prior to lease sales, industry will be allowed to conduct additional geophysical and surface geological exploration work.
8. Surface occupancy for oil and gas purposes will not be permitted within areas formally designated by the Congress as Wilderness.

According to the size, number, and characteristics of prospects described in Chapter III, and production and transportation scenarios described in Chapter IV, the number and types of facilities likely to be required for development and production of oil resources in the 1002 area are listed in table V-1. Figure V-1 shows a conceptual placement of production and transportation facilities based on typical North Slope prospect characteristics for three localities within the 1002 area.

Actual placement of oil production facilities and marine facilities on the 1002 area, or location of the trunk pipeline from producing fields to TAPS Pump Station 1, depends upon site-specific geotechnical, engineering, environmental, and economic data that can be determined only after a specific prospect has been drilled, and a discovery made and confirmed.

Chapter IV describes the types and numbers of facilities that might be necessary for oil production in the 1002 area. Typically, these include for each developed prospect: central processing facility (CPF) and initial pump station for the oil pipeline, all-weather airfield, consolidated production and reinjection well pads, and an internal network of roads and gathering lines connecting pads and the CPF. A trunk oil pipeline would connect the CPF to Pump Station 1. From Pump Station 1, oil from the 1002 area would move through the existing TAPS to Valdez and then by tanker to market. Depending on the amount of final through-put, one or several additional pump stations may be required.



- EXPLANATION**
- Central production facility
 - Drill pad—23 acres
 - ▣ 90 acres
 - ⚡ Airstrips—30 and 130 acres
 - ◊ 40 acres
 - Connecting road
 - ▽ Seawater treatment plant

Figure V-1.—Hypothetical generalized development of the 1000 area under full leasing (upper) or limited leasing (lower) if economic quantities of oil are discovered. Numbers indicate three localities (shaded) having typical prospect characteristics.

Table V-1.--Number and area of in-place oil-related facilities assumed to be associated with development of estimated mean conditional recoverable oil resources made available by full leasing or limited leasing of the 1002 area.

[mi, miles; cu yds, cubic yards; ac, acres]

Facility	Approximate units ¹	
	Full leasing	Limited leasing
Main oil pipeline within the 1002 area ²	100 mi (610 ac)	80 mi (490 ac)
Main road paralleling main pipeline and from marine facilities ²	120 mi (730 ac)	100 mi (610 ac)
Spur roads with collecting lines within production fields	160 mi (980 ac)	120 mi (730 ac)
Marine and salt water treatment facilities	2 (200 ac)	2 (200 ac)
Large central processing facilities	7 (630 ac)	6 (540 ac)
Small central processing facilities	4 (160 ac)	3 (120 ac)
Large permanent airfields	2 (260 ac)	2 (260 ac)
Small permanent airfields	2 (60 ac)	1 (30 ac)
Permanent drilling pads	50-60 (1,200-1,600 ac)	30-40 (700-1,000 ac)
Borrow sites	10-15 (500-750 ac)	8-13 (400-650 ac)
Gravel for construction, operation, and maintenance.....	40 million- 50 million cu yds	35 million- 40 million cu yds
Major river or stream crossings.....	Maximum 25	Maximum 15

¹Figures given in miles refer to linear miles of the facilities. Areas were calculated on the basis of 50-foot widths each for the main oil pipeline and main road, totaling a 100-foot right-of-way for the main transportation corridor. A 50-foot right-of-way was assumed for spur roads with collecting lines. The numbers of nonlinear units are also provided.

²The distance from the 1002 western boundary to TAPS Pump Station 1 is approximately 50 miles, across State of Alaska land. This 50 miles is not included in the mileage estimates.

ALTERNATIVE B--LIMITED LEASING OF THE 1002 AREA

This alternative discusses a leasing program that would develop if the Congress chose to pass legislation, based on environmental considerations, that would limit the amount of the 1002 area available for leasing. There would be no leasing, exploration, development, or transportation of oil from or through the traditional core calving area of the Porcupine caribou herd (Chapter II and pl. 2A). The remainder of the 1002 area would be offered for leasing; presumably, all potentially economic prospects would be leased, explored, and developed. The assumptions in this alternative are the same as for full leasing, including the

opening of the KIC and ASRC lands. Approximately 2.4 billion barrels (600 million barrels less than in Alternative A) of economically recoverable oil are estimated as the mean conditional resource which might be available for development under this alternative.

A conceptual placement of production and transportation facilities under the limited leasing alternative is also shown on figure V-1.

Production and transportation facilities were described in the full leasing alternative. Under limited leasing, facilities would not be constructed in the core caribou calving area. All other facility requirements would be virtually the same (table V-1).

ALTERNATIVE C—FURTHER EXPLORATION

Under this alternative, the Secretary would recommend additional exploration, to include exploratory drilling, to permit acquisition of more data to aid the Secretary and the Congress in their decision of whether or not to authorize leasing of the 1002 area. Acquisition of additional data could be by the Government, or industry, or both.

Section 1002 of ANILCA has afforded the Department of the Interior the opportunity to acquire a substantial amount of exploration data in the 1002 area. During two winter field seasons, private industry obtained 1300 line miles of seismic data on a 3x8-mile seismic grid over a large part of the 1002 area. A substantial amount of gravity, magnetic, geochemical, paleontological, and shallow stratigraphic data was also collected. The BLM and GS acquired additional data through in-house research and field investigations over several field seasons.

Analysis of the available geological and geophysical data has revealed that the 1002 area is a very complex geological terrane, and additional geological and geophysical data might provide a basis for a more defined assessment of the oil and gas potential of the 1002 area. Additional seismic data could better define some of the more complex geologic structures that have been identified. It is expected that if a decision was made to allow leasing of the 1002 area, industry would want to obtain more detailed seismic data over particular areas of interest in order to make a more accurate determination of oil and gas potential prior to a lease sale. These data would also be made available to the Department for its use in determining the fair market value of tracts to be leased.

The location and size of geologic structures have been generally defined. However, the nature of the rocks present remains virtually unknown, owing to a lack of deep stratigraphic, paleontological, and geochemical data specific to the 1002 area. Therefore, only indirect inferences based on surface and near-surface geological data and on well data outside the 1002 area can be made as to the nature of source and reservoir rock and the type of hydrocarbon present. A program to drill off-structure test wells would provide subsurface geological information on the 1002 area and eliminate some of the uncertainties in the oil and gas assessment such as the probability of the occurrence of adequate source and reservoir rocks, and also the probable mix of hydrocarbons. This type of information might better define the more prospective parts of the 1002 area that should be considered for leasing.

Four deep test wells could be drilled off-structure similar to the stratigraphic test wells (COST wells) drilled in the Outer Continental Shelf. These wells would provide more definitive data on the stratigraphy, paleontology, geophysics, and geochemistry of the rock formations present. Core samples would be taken to determine the quality of the source rocks, the characteristics of the

reservoir rocks, and the availability of seals to trap hydrocarbons. Possible locations for stratigraphic test wells are:

1. East of the Canning River in the northwest block (Block A, fig. III-16) to test primarily for geologic conditions similar to those of the Prudhoe Bay field.
2. Near the Hulahula River between the Marsh Creek anticline to the west and larger mapped geologic structure to the east (Block B, fig. III-16 and fig. III-9).
3. In the northeastern part of the 1002 area north of the large mapped geologic structure and south of the Kaktovik lands (Block C, fig. III-16, and fig. III-9).
4. Near the large mapped geologic structure in the southern foothills (Block D, fig. III-16, and fig. III-9).

ALTERNATIVE D—NO ACTION

This alternative describes the probable future management of the 1002 area if the Congress chose to take no further legislative action regarding the 1002 area of the Arctic Refuge. According to the provisions of sections 1002 and 1003 of ANILCA, an act of the Congress would be prerequisite to leasing or other development leading to oil and gas production on the Arctic Refuge. If the Congress chose instead to designate all or part of the 1002 area as wilderness, that too would take legislative action. If instead, the Congress chose to allow the management of the 1002 area to continue under existing legal authorities guided by the Arctic Refuge comprehensive conservation planning (CCP) process outlined by section 304(g) of ANILCA, no additional Congressional action would be required.

The management goals of the Arctic National Wildlife Refuge, until further defined by the CCP process, are to maintain the existing availability and quality of refuge habitats with natural forces governing fluctuations in fish and wildlife populations and habitat change; provide the opportunity for continued subsistence use of natural resources by local residents, in a manner consistent with sound natural resource management; and provide recreational and economic opportunities compatible with the purposes for which the refuge was established.

Section 304(g) of ANILCA mandates that management of the 16 National Wildlife Refuges in Alaska, including the Arctic Refuge, be assessed through the CCP process. This process requires that the plan: (1) designate areas within the refuge according to their respective resources and values; (2) specify the programs proposed for conserving fish and wildlife and maintaining the values for which the refuge was established; and (3) specify uses which may be compatible with the major purposes of the refuge. The preferred alternatives identified in this process

would establish the long-term basic management direction for each refuge. This planning process allows for the evaluation of a range of alternatives for refuge management and consultation with the appropriate State agencies and Native Corporations. The FWS is using the environmental impact statement (EIS) process to implement the CCP's. Following a series of public scoping activities and a comment period on a draft EIS, a preferred alternative would be chosen by the Alaska FWS Regional Director, described in a final EIS, and documented by a Record of Decision.

Currently, the CCP process for the Arctic Refuge is in the first or scoping and data-collection phase and calls for completion of the CCP by the spring of 1988. The 1002 area has been deleted from this planning process, pending the decision of the Congress as to its future management. If this no-action alternative were selected by the Congress, the 1002 area would be added to the planning process as an integral part of the Arctic Refuge. Depending on the stage of planning, at least the CCP, and perhaps some step-down management plans, would need to be amended or supplemented to include management of the 1002 area.

Under section 1008 of ANILCA, a policy was established to permit certain oil and gas activities, including leasing and development, on Alaska refuges in areas where such activities are deemed to be compatible with the major purposes for which a particular refuge was established. Because of the provisions of sections 1002 and 1003, section 1008 does not apply to any part of the Arctic Refuge. Selection of Alternative D would preclude production of oil and gas from the Arctic Refuge, and leasing or other development leading to oil and gas products.

Step-down management plans for the Arctic Refuge would be developed for specific activities once the CCP was completed. These management plans might address activities such as public use, wildlife inventories and other scientific research, wild and scenic rivers, wilderness management, and fire management. Harvest of fish and wildlife would generally be conducted in accordance with the State of Alaska Department of Fish and Game regulations, and subsistence use of the refuge would continue.

The Arctic Refuge would be managed under the legal authorities found in ANILCA and the National Wildlife Refuge System Administration Act of 1966 (Public Law 89-689). Other laws and their amendments that affect the management of the 1002 area and the Arctic Refuge in general include but are not limited to the Migratory Bird Treaty Act, Endangered Species Act, Antiquities Act, Clean Air Act, Clean Water Act, Coastal Zone Management Act, Fish and Wildlife Act of 1958, Marine Mammal Protection Act, National Environmental Policy Act, National Historic Preservation Act, Refuge Recreation Act, Refuge Revenue Sharing Act, and the State of Alaska Fish and Game

Regulations. Provisions of the Wilderness Act would apply to those 8 million acres of the Arctic Refuge outside the 1002 area.

Activities proposed for the 1002 area would be subject to a compatibility determination as required by ANILCA section 304(b) and the Refuge Administration Act. Permissible activities could include hunting, fishing, subsistence harvest, river trips, hiking, photography, and certain other forms of recreation and compatible scientific research. Guiding for recreational activities, trapping, and other commercial activities determined to be compatible with refuge purposes also would be allowed. These commercial activities could conceivably include activities as diverse as onshore support and transportation facilities for offshore oil and gas activities. Any proposed activity would be reviewed for compatibility before it could be permitted. Because compatibility determinations are very site-specific, and the list of probable activities long and speculative, effects of specific activities are not assessed in Chapter VI.

The establishment of aids to navigation and facilities for national defense would be authorized under ANILCA section 1310. Weather, climate, and research facilities could also be permitted.

Title XI of ANILCA governs access on Federal lands in Alaska. Authorized forms of access on the Arctic Refuge include snowmachines (during periods of adequate snow cover), aircraft, motorboats, and other means if found compatible.

Refuge management could include activities such as wildlife surveys, reintroduction of native fish and wildlife species, fisheries management, prescribed burning for habitat enhancement, and construction of public use facilities where appropriate. Although these activities are allowed by law, their actual implementation and the extent of implementation would be decided through the CCP process and the subsequent management plans.

Implementation of Alternative D would preclude the development of estimated oil resources, as discussed in Chapters III and VII.

ALTERNATIVE E--WILDERNESS DESIGNATION

Under this alternative, the Congress would designate the 1.55-million-acre 1002 area as wilderness, within the meaning of the 1964 Wilderness Act (Public Law 88-577).

No further study or public review is necessary for the Congress to designate the 1002 area as wilderness. Previous studies and public debate have sufficiently covered the issue. A wilderness review of the Arctic Refuge was conducted in the early 1970's pursuant to the provisions of the Wilderness Act. A draft report was prepared in 1973; however, the draft was never made final nor was public comment obtained.

The issue of wilderness designation for all of the Arctic Refuge, including the 1002 area, was debated extensively by the Congress and the public in widely held hearings from 1976 through 1980 during the development and passage of ANILCA (Eastin, 1984). The House of Representatives generally favored designation of the 1002 area as wilderness, whereas the Senate generally did not. The Senate view was that designating the area as wilderness was premature until a resource assessment of the oil and gas potential was completed and reviewed by the Congress. The Senate view prevailed and became the section 1002 portion of Title X of ANILCA.

The draft report resulting from the original wilderness study recommended that all of the original 8.9 million acres of the Arctic Refuge be designated as wilderness, with the exception of 74,516 acres consisting of tracts at Camden Bay (456 acres), Beaufort Lagoon (420 acres), Demarcation Point (10 acres), Lake Peters (10 acres), the village of Kaktovik (141 acres), the military withdrawal on Barter Island (4,359 acres), and land in the vicinity of Barter Island that was to be selected by the Kaktovik Inupiat Corporation (KIC) under the Alaska Native Claims Settlement Act (ANCSA) (69,120 acres). Section 702(3) of ANILCA ultimately designated approximately 8 million acres of wilderness on the Arctic Refuge which encompassed all of the pre-ANILCA refuge with the exception of the 1002 area.

This alternative considers wilderness designation of the entire 1.55-million-acre 1002 area, except for the abandoned DEW line sites at Beaufort Lagoon and Camden Bay, native allotments, and land owned by KIC. The 1002 area would still be included in the CCP process, as described in Alternative D, but would be managed as wilderness under the provisions of the Wilderness Act, the National Wildlife Refuge System Administration Act, and ANILCA.

Permitted uses in wilderness include hunting, fishing, backpacking, river trips, and photography. Commercial activity would be restricted to commercial guiding for such activities. These activities may be restricted or eliminated if necessary in designated wilderness areas under the provisions of other laws or regulations. Motorized equipment would generally be prohibited. Exceptions would include operation of aircraft, including landing. Wilderness

designation would not affect the air space over the area. The use of motorboats and snowmachines (during periods of adequate snow cover) would be authorized for traditional activities—for example, subsistence uses or for access to inholdings such as native allotments. Cabins could be constructed in wilderness areas if they were necessary for subsistence trapping, public safety, or administration of the area.

In contrast to the "no-action" alternative, use of motorized equipment by the FWS in administering the area would only be allowed consistent with the minimum-tool concept. (Minimum-tool concept is use of the minimum action or instrument necessary to successfully, safely, and economically accomplish wilderness management objectives.) Situations for which motorized access might be used include emergencies involving public health or safety and search-and-rescue operations. Landing of aircraft would be permitted. Other government agencies (local, State, and Federal) would also be allowed to use motorized equipment in carrying out legitimate activities in wilderness consistent with the minimum-tool concept. An example would be the use of helicopters by the Department of the Interior to carry out the ANILCA section 1010 Alaska Mineral Resource Assessment Program (AMRAP). Management activities such as wildlife control, prescribed burning, habitat rehabilitation, predator control, reintroduction of native fish and wildlife species, and wildlife surveys would be permissible, though not necessarily practiced, in the designated wilderness area. The appropriateness of these activities would be addressed in the CCP.

As in the "no-action" alternative, placement and maintenance of navigation aids, communication sites and related facilities, and facilities for national defense could be permitted (ANILCA section 1310). Facilities for weather, climate, and fisheries research could also be permitted.

Implementation of this alternative precludes the development of estimated oil resources, as discussed in Chapters III and VII.

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CHAPTER VII

OIL AND GAS--NATIONAL NEED FOR DOMESTIC SOURCES AND THE 1002 AREA'S POTENTIAL CONTRIBUTION

INTRODUCTION

Section 1002(h)(5) of ANILCA requires an evaluation of how hydrocarbon resources in the 1002 area of the Arctic Refuge relate to the national need for additional domestic sources of oil and gas. This chapter discusses this national need, and describes the potential contribution of oil from the 1002 area. Benefits which would accrue to the nation are described. They include gains in national income, reduced vulnerability to disruptions in the world market, and improvements in the balance of payments and national security. The analysis focuses only on oil because it is not anticipated that natural gas from the 1002 area will become economic to produce and transport to market within the timeframe considered.

The estimates used in this chapter depend on many variables. If the 1002 area were opened and leased in a timely manner, production would not be expected until about the year 2000. Therefore, the refuge's contribution to U.S. energy needs has been determined by comparing its production potential against projected energy needs, beginning about 15 years from now and extending perhaps 30 years out to the year 2030, possibly beyond. It is difficult to anticipate world oil prices beyond the year 2000 and the rate of real growth of the U.S. economy--two important determinants of the future demand for energy. Nevertheless, potential production from the 1002 area can be compared against various forecasts about future U.S. energy demand and supply. This chapter relies mainly on the Department of Energy's (DOE) long-term projections contained in its 1985 National Energy Policy Plan, but also considers several private forecasts.

THE 1002 AREA'S POTENTIAL CONTRIBUTION TO U.S. NEEDS

The unique geologic features underlying the 1002 area create the potential for discoveries which would make a very substantial contribution to domestic oil reserves. Despite the area's remote location and hostile environment, it is the most attractive petroleum exploration target in the onshore U.S. Data from outcropping rocks within the area and from nearby wells, combined with seismic information gathered from 1983 to 1985, indicate geologic conditions which would be extremely favorable for major discoveries.

The billions of barrels of oil that may exist in the 1002 area could make an important contribution to the national need for domestic sources of oil. Alaska North Slope crude oil, especially that from Prudhoe Bay, now contributes almost 20 percent of domestic production.

Production from Prudhoe Bay has peaked and a decline is expected no later than 1988. Arctic Refuge oil could help moderate this decline and substantially reduce the need for increased imports.

The oil resources and possible production capability of the larger potential oil fields in the 1002 area are substantial by U.S. standards. Estimates of oil in place range from 4.8 billion barrels (BBO) to more than 29.4 BBO. Recoverable resource estimates range from 0.6 BBO to 9.2 BBO. In some cases, the potential recoverable reserves of the 1002 area's fields may sizably exceed 1 BBO. Only 13 domestic fields with total reserves greater than 1 BBO have been discovered in this country. Their original reserves, remaining reserves, current production rate, and year of discovery are displayed in table VII-1.

If productive, the 1002 area's fields could be the largest domestic fields discovered since Prudhoe Bay and Kuparuk River in 1968 and 1969. Except for these, no U.S. field with reserves exceeding 1 BBO has been discovered since 1948. The size of the 1002 area's structures and their potential for oil accumulations are geologically the Nation's best onshore targets for the discovery of very large oil fields. If productive, the large fields would join the list of "giant" oil fields which have contributed over two-thirds of total domestic oil production. The previously discovered giants, except for the two Alaskan fields, are over 75 percent depleted (table VII-1), and even the Prudhoe Bay field is almost half depleted.

For purposes of assessing the 1002 area's possible contribution, the conditional mean recoverable resource estimate of 3.2 BBO has been used. The estimate for limited leasing is 2.4 BBO. These figures do not consider resources that may occur in undefined but potential stratigraphic traps (see Chapter III).

Contribution to Domestic Oil Demand and Supply

It is important to assess the 1002 area's potential contribution to the national need for domestic oil production in light of supply and demand conditions. Oil consumption in the U.S. has exceeded domestic production for more than 20 years. Using the daily production estimates for the 1002 area, table VII-2 compares the area's contribution with the Department of Energy's (DOE) reference case projections for domestic oil supply and demand, taken from the 1985 DOE National Energy Policy Plan, to illustrate the magnitude of the contribution 1002 area oil production

Table VII-1.—U.S. oil fields having ultimate recovery exceeding 1 billion barrels of oil.

[BBO, billion barrels of oil; MBO/Y, million barrels of oil per year. From Oil and Gas Journal (1986) and Roadifer (1986)]

Field	Year discovered	Original reserves (BBO)	Remaining reserves (BBO)	Current production (MBO/Y)
Prudhoe Bay, AK.....	1968	9.47	5.10	568
East Texas.....	1930	6.00	1.11	48
Wilmington, CA.....	1932	2.55	.38	41
Midway-Sunset, CA. 1894		2.16	.45	54
Kern River, CA.....	1899	1.99	.92	51
Yates, TX.....	1928	1.95	.90	45
Wasson, TX.....	1936	1.68	.57	33
Kuparuk River, AK ...	1969	1.59	1.30	79
Elk Hills, CA.....	1911	1.47	.70	47
Panhandle, TX.....	1921	1.46	.07	11
Kelly-Snyder, TX.....	1948	1.35	.15	19
Huntington Beach, CA.....	1920	1.12	.07	8
Slaughter, TX.....	1936	1.03	.06	24

could make in the face of increasing demand and steadily declining domestic production.

The U.S. has stabilized its oil production capability and temporarily moderated the decline in domestic reserves since 1974. This is largely due to successful exploration and intensive exploitation of known fields, including the use of improved and enhanced oil recovery (EOR) technology, and to the 1.5 million barrels per day produced at Alaska's Prudhoe Bay.

U.S. crude oil production peaked at 9.64 million barrels per day (MBO/D) in 1970 and has been relatively constant over the last decade, being 8.90 MBO/D in 1985. However, in February 1986, the Department of Energy (DOE, 1986) predicted that domestic oil production would decrease by about 3 percent per year beginning in 1987, declining to about 8.05 MBO/D in 1990 and to 6.53 MBO/D by 1995. These estimates represent a substantial reduction from previous DOE forecasts. In June 1986, the Chevron Corporation predicted that production would decrease to 8.8 MBO/D in 1986 and steadily decline to 6.2 MBO/D by the year 2000 (Chevron, 1986). Other recent estimates suggest levels as low as 4.0 MBO/D by the year 2000. The lower forecasts are largely the result of reduced oil and gas prices, price uncertainty, consequent reduced drilling

levels and discovery rates, higher annual production declines in known fields, and decreased emphasis on production stimulation projects (Spaulding, 1986; Doscher and Kostura, 1986; Kuuskraa, 1986).

Table VII-2.—The 1002 area's potential contribution to U.S. oil demand, production, and imports.

[In thousands of barrels per day. U.S. demand, production, and import data from U.S. Department of Energy, 1985d, tables 4-6 and 4-7]

Year.....	2000	2005	2010
U.S. OIL DEMAND.....	16,100	15,800	15,700
1002 area oil production:			
Full leasing.....	147	659	404
Percent of U.S. total demand91	4.17	2.57
Limited leasing.....	105	473	300
Percent of U.S. total demand.....	.65	2.99	1.91
U.S. OIL PRODUCTION	8,600	8,200	7,400
1002 area oil production:			
Full leasing.....	147	659	404
Percent of U.S. total production	1.71	8.04	5.46
Limited leasing.....	105	473	300
Percent of U.S. total production	1.22	5.77	4.05
U.S. OIL IMPORTS.....	7,500	7,600	8,300
1002 area oil production:			
Full leasing.....	147	659	404
Percent of U.S. total imports.....	1.96	8.67	4.87
Limited leasing.....	105	473	300
Percent of U.S. total imports.....	1.40	6.22	3.61

Oil reserves decreased over 27 percent, about 11 billion barrels from 1970 to 1985 and declined annually during 14 of these 15 years despite extensive exploration and active field exploitation programs.

J. P. Riva (Riva, 1984; Riva and others, 1985; Gall, 1986), of the Science Policy Research Division of the Library of Congress, predicted that shrinking American oil reserves will plunge by 1990 to their lowest levels since shortly after World War II, based on current drilling rates. Riva predicts a decline from the 1985 reserve figure of 28.4 BBO to 25.1 BBO in 1990, and perhaps to as low as 23.2 BBO in 1995. The most significant declines in reserves will occur in the older, traditional oil-producing areas of the western United States, Texas, the Gulf Coast, and the Midcontinent. In the frontier regions of Alaska and offshore California, prospects are better for substantial reserve additions.

If current production and reserves in known fields are assumed (the reserves/production ratio), theoretically the Nation's oil reserves would be exhausted in about 9 years. But because oil-field production conventionally declines about 10 percent per year compounded, in practice it will take about 30 years to exhaust known reserves.

Production capability and reserves can be increased by (1) exploring for new fields; (2) extending or finding new reservoirs in known fields; (3) producing more of the total oil-in-place by enhanced recovery methods, infill drilling, well stimulation, etc.; and (4) developing improved production technology. Use of each technique depends on projected prices of oil and gas, economics, and relative costs of the technique.

From 1977 through 1985, a period of high oil prices and the greatest boom in domestic exploration history, an average of 930 million barrels of new reserves were discovered each year (MBO/Y). Revisions and adjustments added an average of 1483 MBO/Y. Consumption during the same period averaged almost 3000 MBO/Y. Reserves therefore decreased by an average of 585 MBO/Y. Approximately 7 percent of the increase resulted from discovery of new fields; 31 percent from the discovery of extensions and new zones in known fields; and 62 percent from EOR, other increased recovery methods, and statistical revisions. Oil is being consumed faster than it is being discovered, and the Nation is reducing its oil inventory.

The historical quantities of petroleum discovered per foot of exploratory drilling dramatically demonstrate the increasing difficulty in finding large oil and gas fields (table VII-3). No reversal of the trend has occurred since 1979.

Oil fields with recoverable reserves exceeding 100 (MBO) are frequently described as national class giants. Giant fields with reserves exceeding 500 MBO are supergiants or world class giants. Giants and supergiants are few in number, but contribute the bulk of the world's oil production. In fact, fewer than 300 supergiant oil fields (out

Table VII-3.—Historical recoverable U.S. oil and natural gas finding rates.

[Modified from U.S. Geological Survey]

Period during which footage was drilled	Increment feet of exploratory drilling (billions)	Finding rate per foot exploration drilling	
		Oil (barrels)	Gas (MCF)
1859-1949	0.0-0.5	236	916
1949-1958	0.5-1.0	51	347
1958-1967	1.0-1.5	21	252
1967-1977	1.5-2.0	20	186
1977-1979	2.0-2.1	9	134

of 30,000 oil fields worldwide) contain more than 80 percent of the world's known oil reserves. Over 40 supergiants have been discovered in the U.S., almost all prior to 1939. Only one was discovered from 1977 to 1985. More significantly, only five have been discovered since 1951: McArthur River (1965), Prudhoe Bay (1968), and Kuparuk River (1969), all in Alaska; Jay in Florida (1970); and East Anschutz Ranch in the Overthrust Belt in Wyoming (1981). Point Arguello in the Outer Continental Shelf (OCS) off California may be added to this list once the reserves are fully defined.

Discovery patterns for giant oil fields are only slightly more favorable. About two-thirds of the U.S. giants were found before 1940, 94 since, and the number of such discoveries decreases in each successive decade.

The onshore basins in the U.S. that hold the greatest potential for very large discoveries have already been explored, except for the 1002 area. While there are some very attractive offshore areas yet to be explored, the 1002 area is particularly promising because it contains extensions of other producing trends, and wells on adjacent properties show highly favorable evidence of petroleum deposits. These evidences, when combined with the structural traps mapped or inferred for the area, indicate that the 1002 area is currently the unexplored area in the U.S. with the greatest potential to contain giant and supergiant fields.

Not only might discovery of a supergiant field in the 1002 area make a significant contribution to domestic reserves and production, it could do so at a relatively low average cost per barrel because of economies of scale. The combination of high production and low average costs makes the total net economic value much higher for large fields. Moreover, because average costs are lower, larger fields can be produced economically and can contribute to the economy even when world oil prices are lower.

Contribution to National Objectives

The potential contribution from the 1002 area's production goes well beyond that of simply providing a certain percentage of U.S. domestic oil needs that might otherwise have to be obtained from foreign sources of supply. Production of oil from the 1002 area can also help achieve this Nation's national economic and security objectives as well.

FOSTERING ADEQUATE ENERGY SUPPLIES AT REASONABLE COSTS

DOE's 1985 National Energy Policy Plan has as its general goal fostering adequate energy supplies at reasonable costs. Adequate supply requires "a flexible energy system that avoids undue dependence on any single source of supply, foreign or domestic, and thereby contributes to national security (and) implies freedom of choice about the mix and measure of energy needs to meet our industrial, commercial, and personal requirements." The National Energy Policy Plan also recognizes leasing Federal lands as important in the Nation's effort to ensure long-term energy supplies.

REDUCING DEPENDENCE ON IMPORTED OIL

Since 1970 this Nation has been heavily dependent on foreign petroleum supplies to meet domestic demand. The prospect is for continued U.S. dependence on foreign oil. Imports in 1985 were expected to average about 5 MBO/Y, to supply about one-third of domestic oil needs. DOE's latest forecasts show that U.S. dependence on foreign oil is expected to increase significantly by the end of the century and beyond. Table VII-2 compares the percent of the 1002 area oil contribution to U.S. oil imports.

The Nation's oil imports come from two general sources: members of the Organization of Petroleum Exporting Countries (OPEC), such as Saudi Arabia, Venezuela, Indonesia; and non-OPEC nations, such as Mexico, Canada, the United Kingdom.

Because of decreasing production in the U.S. and other non-OPEC nations it is likely that this Nation will become significantly more dependent on imports from the oil-rich Persian Gulf OPEC nations no later than the mid-1990's. If so, oil prices will also increase as supply competition decreases, and the Persian Gulf OPEC nations regain market leverage and control of the international oil market.

As imports have increased, the U.S. has become vulnerable to the actions of oil-exporting countries and has essentially become a price taker in the international oil market. The cost of imported oil to the U.S. economy is not only the price paid for the oil but also the losses caused by a disruption in supply, should one occur. Because domestic production substitutes for oil imports, the

Nation benefits not only from the savings that result when the costs of producing additional domestic oil are less than the world price, but also benefits from the reduction in the economy's vulnerability to supply disruptions. The potential contribution of the 1002 area's oil resources should be gauged as a displacement of potentially costly and insecure imported oil by less costly, more secure production from domestic fields. The costs of a price change or a supply disruption will be less if the economy relies more on less expensive domestic supplies than on imported oil. U.S. oil reserve and production trends suggest a shift toward greater vulnerability, possibly exacerbated by the declines of 1985-86. Thus, the 1002 area's oil may be able to significantly reduce the economy's vulnerability to world oil market changes.

ENHANCING NATIONAL SECURITY

Continued dependence on imports for a substantial part of U.S. oil consumption creates many national security concerns. The potential for a supply disruption limits the flexibility of U.S. foreign/national security policy, including the ability to respond to security threats. There is also potential for the U.S. to be drawn into dangerous political and military situations involving import nations. Dependence on oil imports entails dependence on extended supply lines (tanker routes), which are targets for attack; this adds to the defense burden. Key weapons systems in the Nation's current arsenal and under development are designed to use hydrocarbon fuel. The most secure sources of supply for such fuel are clearly domestic sources.

Secure oil supply lines can have a direct bearing on the achievement of national economic goals that depend on uninterrupted economic activity. Interruption of these supply lines, on the other hand, disrupts the production and consumption of goods and reduces economic activity. This occurred, for example, in the aftermath of the OPEC oil embargo in 1973 when a recession resulted.

ACHIEVING A MORE FAVORABLE BALANCE OF INTERNATIONAL TRADE

The deficit in the U.S. international trade balance has increased significantly in the last decade. In 1984, it totaled a record \$123 billion. In that same year, the gross cost of importing crude oil and refined petroleum products amounted to more than \$59 billion, almost 50 percent of the deficit. If oil imports increase as projected, achieving a favorable trade balance will be even more difficult. The deficit trade balance in recent years has meant that more U.S. dollars are spent on foreign goods, leaving fewer dollars available to consumers and businesses for buying U.S. goods and services. Production from the 1002 area reduces not only the need for imported oil but also the amount of foreign exchange required to pay for imports, bringing a more favorable trade balance. Using the mean estimate of the 1002 area's anticipated production amounts, oil from the 1002 area could result in U.S. dollar savings

spent on imports of \$1.7 billion in the year 2000, \$8.1 billion in 2005, and \$5.8 billion in 2010.

PROVIDING ECONOMIC BENEFITS TO THE NATION

The importance of oil in the economy is widely recognized. In 1985, 42 percent of the energy used in the U.S. came from oil, of which approximately 8 MBO/Y was produced domestically and 6.8 MBO/Y was imported.

The cost of a resource that is so widely consumed in our economic system has a strong effect on economic productivity. The higher the cost of oil, the more other resources (labor, materials, energy) must be used or given up in acquiring it. As a result, these other resources are no longer available in the economy to help produce the income and the goods and services that support the American standard of living. Thus, the higher the cost of the oil used, the lower the productivity of the U.S. economy. The national need for oil is a need for the economic productivity and the gains in income that result when lower-cost oil is used to produce goods and services.

If oil can be produced from the 1002 area at a cost lower than the revenues generated from its sale, it will result in a net increase in national income and the Nation will realize a net economic benefit. The "net national economic benefit" (NNEB) is the expected net value of oil production, or the difference between revenues from sale of oil and the costs of exploration, development, production, and transportation. The NNEB includes economic benefits expected to accrue as bonuses, royalties, rental fees, taxes, and after-tax business profits. The NNEB expected from the mean potential oil production of 3.2 BBO from the 1002 area for full leasing is \$79.4 billion in undiscounted 1984 dollars, and \$14.6 billion discounted (10 percent real) dollars. Assuming production from a 9.2-billion-barrel field, a more optimistic economic assumption, and oil prices of \$40 per barrel, the undiscounted NNEB would exceed \$325 billion (1984 dollars). Potential oil production from limited leasing would contribute \$54.0 billion undiscounted, and \$9.4 billion discounted. (The discounted value was derived by using a discounted cash flow simulation model, in which annual revenues and annual costs for projected years of production are discounted to the present.)

PROVIDING FEDERAL, STATE, AND LOCAL REVENUES

Lease production from the 1002 area could be expected to generate revenues to the public as lease bonus payments and rentals, royalties, Federal corporate income taxes, severance tax payments to the State of Alaska, and State corporate income taxes. The revenues expected from providing this return to the public are shown in table VII-4 for the full leasing and limited leasing alternatives. Federal revenues include royalties, lease rental payments, and corporate income taxes. State and local revenues include property, severance, conservation, and corporate income taxes. Transfer payments from the

Federal Government are not included, and the figures do not include Federal revenue sharing.

Table VII-4.—Estimated revenues, in billions of dollars, from full leasing and limited leasing.

[Bonuses, royalties, and lease rental payments are shown as Federal revenues. Portions of some of the seismically mapped structures lie outside the 1002 area. If these non-Federal subsurface areas are leased by others (for example, the State of Alaska or Native Corporations), portions of bonus, rent, and royalty income shown here as Federal revenue would accrue to those organizations]

	Full leasing	Limited leasing
Federal revenues:		
Undiscounted 1984 dollars..	\$ 38.9	\$ 25.9
Discounted dollars (10% real).....	8.0	5.1
State and local revenues:		
Undiscounted 1984 dollars..	18.1	11.0
Discounted dollars (10% real).....	3.6	2.4

CONTINUED USE OF THE TRANS-ALASKA PIPELINE SYSTEM

The Trans-Alaska Pipeline System (TAPS) is already in place and has been assumed as available to transport oil from the 1002 area. Oil from the 1002 area could play an important role in helping to offset the production declines slated for the Alaska North Slope, thereby reducing the per barrel transportation costs for oil from existing fields. Inclusion of the 1002 area's oil is, therefore, likely to prolong the useful life of TAPS and to permit additional production from North Slope fields which would otherwise be uneconomical.

THE 1002 AREA'S OIL POTENTIAL COMPARED TO U.S. PROVED OIL RESERVES

Table VII-5 compares the 1002 area's estimated conditional economically recoverable oil resource to U.S. proved reserves. DOE's Energy Information Administration has estimated total U.S. proved oil reserves to be 28.446 BBO as of January 1, 1985. The 1002 area's oil potential equals 11.7 percent of this. The DOE National Energy Policy Plan (NEPP) has estimated that U.S. proved reserves will be only 11.602 BBO in the year 2000, thus making the 1002 area's oil resources 28.8 percent of the total. For limited leasing, the 1002 area's estimated recoverable resource would equal 8.4 percent of proved U.S. reserves in '985, and 20.6 percent in the year 2000. These

comparisons should be used with caution, however, because of differences in the items being compared. "Proved reserves" are those that have been demonstrated with reasonable certainty to be recoverable from known reserves. The 1002 area's economically "recoverable resources," on the other hand, are, by definition, speculative and less precise. The 1985 reserves figure is based on current oil prices at the time of the estimates. The recoverable resources figure for the year 2000 is based on DOE's NEPP reference case assumptions regarding world oil prices.

Table VII-5.—The 1002 area's conditional, economically recoverable oil resources compared with total U.S. proved oil reserves.

(In billions of barrels. Year 1985 data from Department of Energy (1985, p.5); year 2000 data, for lower 48 States only, from Department of Energy (1985e, table 3-15)

	Year	
	1985	2000
U.S. proved reserves	28.5	11.60
1002 area's recoverable resources:		
Full leasing.....	3.23	3.23
Percent of U.S. total.....	11.35	27.80
Limited leasing.....	2.38	2.38
Percent of U.S. total.....	8.30	20.34

ANTICIPATED MARKETS FOR THE 1002 AREA'S OIL

Assuming that potential oil production from the 1002 area is similar in quality to current North Slope production, the marketing location for the 1002 area's oil could be expected to follow similar marketing patterns. Crude oil markets are already established for production from the Alaskan North Slope (ANS), and this system could probably be used for oil from the 1002 area. Oil produced from Prudhoe Bay and Kuparuk is transported via TAPS to Valdez and from Valdez by tankers to ports on the West, Gulf, and East coasts. The Trans-Panama Pipeline at the Panama Canal is used extensively to transport crude oil from the Pacific Ocean to the Atlantic. Crude oil is off-loaded on the Pacific side and loaded onto tankers on the Atlantic side for shipment to Gulf of Mexico, East Coast ports, Puerto Rico, and the Virgin Islands.

Significant discoveries have been made in California's OCS areas in the Santa Barbara Channel and Santa Maria Basin, and elsewhere. This potential production could effectively back-out a portion of the future ANS production that would otherwise be marketed on the West Coast. However, production from known ANS fields is projected to begin declining in 1987 and fall to approximately 28 percent of 1984 production by the year 2000 (Alaska Department of

Revenue, Petroleum Revenue Division, 1985). At the same time, crude oil production from any discoveries in the 1002 area is not projected to be on-line until the late 1990's or after the year 2000. Therefore, the market opportunities for the 1002 area's oil could conceivably be available in roughly the same proportions as current ANS markets.

Because of the statutory ban on export of U.S. oil, the West Coast market is well established as the primary area for ANS crude oil; this is logical if viewed solely on the basis of transportation cost. Shipments to the West Coast increased to a peak of 0.9 MBO/D in 1980. Over the period 1980-84, an average 52 percent of ANS crude oil was marketed on the West Coast. Alaskan crude oil in excess of West Coast demand is transported to the Panama Canal for shipment to other markets.

CONCLUSION

In summary, the 1002 area has a very significant potential to contribute to the national need for oil. Despite the degree of uncertainty, there is some chance that the area may contain a field the size of Prudhoe Bay. There is an even better chance of one or more smaller fields, still supergiants, totaling more than 2 billion barrels. Only actual exploration can provide the information needed to determine the extent and distribution of the resources, and, therefore, the potential benefit to the economy.

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REPRESENTATIVE
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ALASKA STATE LEGISLATURE
HOUSE OF REPRESENTATIVES

February 6, 1987

The Honorable Bill Horn
Assistant Secretary for
Fish, Wildlife and Parks
U. S. Interior Department
Washington, D. C. 20240

Dear Secretary Horn:

I am writing with regard to the draft 1002(h) study which presents alternatives for management of the coastal plain of the Arctic National Wildlife Refuge (ANWR).

The interest shared by Alaskans in the decisions about ANWR are fairly clear: we need to maintain a clean, healthy environment and provide jobs and revenue for Alaska's people. These are national interests as well.

Toward achieving these goals, the U. S. Congress should promptly open the coastal plain of the ANWR to oil and gas exploration, production, and transportation under conditions that are in the interest of the nation and the state; reserving the leasing of land in the core caribou calving grounds until a later date. Although, at this time, there is some controversy about the location of the calving ground, we are hopeful that the research data can be put to good use in the near term to define it. Protection of the Porcupine herd is in the interest of American and Canadian citizens. Other environmental issues such as air and water quality, waste management and disposal, and development coordination also need attention.

The Interior Department should desist from discussing land trades that would eliminate the State of Alaska's revenue share from oil and gas activity in the Refuge and that could reduce the ownership influence of the state and federal governments.

Unless the state concurs, the U. S. Congress should not allow measures or actions that reduce the state's entitlement to oil

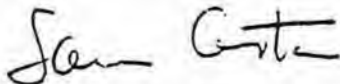
and gas revenue from the Refuge. The Congress should require the protection of the environmental and subsistence resources of the Refuge, including habitat, air, and water, in the event of oil and gas development on the coastal plain of the Refuge.

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

The Congress also should amend the Export Administration Act to reduce America's trade problem and energy costs by allowing the export of new production from Alaska's North Slope.

Thank you for considering these concerns. I hope that the Interior Department will work toward accomplishing these objectives during the Congressional debate on ANWR.

Sincerely,



Representative Sam Cotten
co-Chairman, House Resources Committee
(907) 465-3711/15/99

SC:smc



Official Business

Alaska State Legislature

House

P.O. BOX V
State Capitol
Juneau, Alaska 99811

Representative Mark Boyer

465-3466

TO: Representative Sam Cotten
Representative Adelheid Hermann
House Resources Committee

FROM: Representative Mark Boyer *MB*

DATE: February 3, 1987

SUBJECT: House Joint Resolution 7 and
House Joint Resolution 9,
Relating to the Arctic National Wildlife Refuge

The Resources Committee has before it two resolutions dealing with the State's position on development of the coastal plain of the Arctic National Wildlife Refuge. House Joint Resolution 7 puts the Legislature on record as supporting the opening of the area to "environmentally responsible oil and gas exploration, development, and production". While I support this effort, I am equally concerned that ANWR be developed in a manner which is economically responsible with regard to the interests of all Alaskans. I cannot support HJR 7 as written because it fails to address critical issues such as land exchanges, royalty share, and the utilization of Alaskan businesses and labor in exploration and development. The importance of fish and wildlife habitat to the subsistence economy of rural Alaska must be specifically addressed as well.

House Joint Resolution 9 addresses the major concerns which the State must, in my opinion, consider before we can

Representative Mark Boyer
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actively support exploration and development of the coastal plain. As revenues from Prudhoe Bay decline over the next decade, maximization of revenue from ANWR will be of primary importance. We must protect the state's revenue share by insisting upon full and equal participation by the state in land exchange negotiations. The 90/10 split of royalties between the state and federal government, which compensates Alaska for its exclusion from the Reclamation Act, must be preserved.

Protection of fish and wildlife habitat, particularly the calving grounds of the Porcupine herd, must be ensured before exploration and development commence. At this time, I am not convinced that a delay in the leasing of the calving grounds is necessary for their protection, but there should be a meaningful dialogue on the issue before the State articulates its position. I think the Governor is correct in attempting to learn from the Prudhoe Bay experience how best to proceed in ANWR with minimal disturbance of the environment. The oil industry record there has been good, but far from perfect, and much can be learned from a detailed study of the environmental impact of exploration and development of the Sadlerochit and Kuparuk fields.

A primary concern in my district with regard to ANWR is the utilization of Alaskan labor and businesses in the exploration and development of the resources. We remember the tremendous benefits to the Fairbanks economy when the Project Agreements for construction of the Trans-Alaska pipeline and the first ten years of Prudhoe Bay construction mandated the use of Fairbanks hiring halls. In dismal contrast, this past year saw the largest Sealift in Prudhoe Bay history and few, if any, Fairbanks workers or businesses were involved. I have spoken with hundreds of Fairbanksans who have been displaced from jobs on the North Slope by cheaper non-resident workers. Efforts by the previous administration to secure voluntary resident hire by North Slope producers and their subcontractors failed miserably.

I am convinced that the only way to put Alaskans to work on natural resource development projects is by statute, contractual provisions in lease agreements, or through project labor agreements. One or any combination of these measures must be implemented as a meaningful guarantee that Alaskan workers and Alaskan businesses will benefit from this major project in their own backyard.

The coastal plain of the Arctic National Wildlife Refuge is the best prospect for a major oil and gas discovery in