

**ALASKA LEGISLATURE COMMITTEE FILES 1995-1996 8672**

**8953 SENATE RESOURCES**

## DNR BUDGET OVERVIEW

### SENATE FINANCE COMMITTEE

JANUARY 31, 1996

### DISCUSSION OF NAVIGABILITY

Senator Frank: Opened discussion by expressing concern about deletion of navigability section in DNR and subsequently blaming legislature. Indicated that navigability should be high priority. Really concerned.

Comm. Shively: Doesn't mean he will not determine navigability. Only place navigability can be determined is in federal court. Many body of waters there will be no argument. Some bodies will be contested. His strategy is to look at where conflicts take place. Three rivers ripe for determination. DNR will provide support and DGL has been asked to pursue those. May be river on Kenai and west side of Cook Inlet where there may be a dispute and DNR will support those. DNR will not generate litigation for litigation sake. It is an endless hole to pour money. No one is going to litigate the Yukon River but there are small lakes and rivers where there will be disagreements. DNR will concentrate on these.

Senator Frank: We have a document saying you will not be doing navigability.

Comm. Shively: Doesn't say exactly that. Will concentrate on three rivers conflicts.

Senator Frank: Are there other areas being disposed by the federal government where there are potential losses of navigability.

Comm. Shively: No statute of limitation on navigability. Navigability is determined at statehood.

Senator Frank: What were the two people doing – \$130,000.

Comm. Shively: I don't know.

Senator Frank: Need to get back and discuss this more fully. Legislature is extremely concerned.

Commissioner Shively: State interest only goes when state interest is being challenged.

Sen. Reiger: Has any body of water been determined as being non-navigable this past year. In other words has any state interests been lost?

Commissioner Shively: Not to my knowledge.

Sen. Reiger: No statute of limitation.

Comm. Shively: State cannot stipulate away. No administrative procedure for determining navigability. We can agree not to litigate.

Sen. Reiger: Has that happened?

Comm. Shively: Not to my knowledge.

Sen. Halford: Asked about language included in BLM transfer documents which acknowledges that navigable waters belong to state - in title patent to third parties. You stopped that effort.

Comm. Shively: No. The bulk of those land transfers to native people has taken place. I don't know the answer.

Sen. Halford: Is your position that the transfer documents should contain language that navigable waters belong to state?

Comm. Shively: I believe it would be a good idea. I don't believe it would make any difference, however.

Sen. Halford: Isn't that the reservation that was in the patent?

Comm. Shively: I don't know the answer to that. Federal government cannot transfer away something it does not own.

Sen. Frank: The difference is who is going to litigate - a private party or is the state going to protect its interest. The state doesn't want to back away from asserting its interest in navigable waters.

Comm. Shively: An it shouldn't, if that interest is being directly challenged.

Sen. Frank: Get back to us. We need to understand this issue better.

Sen. Halford: One of highest priorities of Department.

## NAVIGABLE WATERS QUESTIONS

UPDATED: 2/6/96

1. Alaskans (guides in particular) are being denied permits to use state owned submerged lands and navigable waters by federal agencies. This is occurring statewide and specific examples include the Kisaralik Lake and River, Arolik River, Eagle River, Karluk River, Situk River and Placer River. What is being done about it?

1. Federal agencies like the National Park Service are restricting use of state navigable waters through permitting requirements. Are the states interests being defended? What is being done?

1. The State is in court over the determination of navigability and quiet title on portions of the Black, Kandig, and Nation Rivers. In 1996, Director Tileston write:

"A final federal court determination on the upstream boundaries of these three river segments has a major and significant impact on the state ownership of a substantial portion of all small to medium sized rivers in Interior, Southcentral, Southwestern, and Northwestern Alaska. The BLM also determined that the interconnected sloughs on the Black River were navigable. A final court decision on the interconnected slough issue has significant statewide implications."

Does the Department of Law have the information necessary to adequately defend the state's position in this case?

1. The State of Alaska gave notice of it's intent to file quiet title actions on nearly 200 streams in Alaska. What is being done to complete the quiet title process?

1. It is our understanding that there is considerable concern over the navigability determination for the Russian River on the Kenai Peninsula. What is being done to protect the state's interests here?

1. It is our understanding that DNR has an automated navigability database. If determinations are being made by DNR and other agencies based on this database, can you tell me if all navigability files have been entered into this database?

1. Is BLM making navigability determinations now under ANCSA and ANILCA? If the State does not contest a navigability determination, does it lose its rights to later contest that determination, especially if the private landowner proceeds in good faith to develop or utilize their lands?

1. As a result of the Katie John case, federal agencies could attempt to exert management authority over some navigable and non-navigable waters.

1. <sup>Supplement to</sup> Has DNR Department Order # 125 been adopted?

*Supplement to*

1. The adopted or proposed DNR Department Order # 125 raises several important questions.

- Who is the lead state agency responsible for reviewing BLM land conveyances?
- How does the public have input into the navigability determination process?
- How are interagency actions coordinated?

1. Are all title or navigability assertions deposited with BLM being reviewed by the State?

1. Determinations of navigability may be critical to the retention of state jurisdiction over some important fisheries. Are fish and wildlife considerations examined in developing state policies, like DNR Order # 125, or litigation strategies?

1. On December 5, 1995, the National Park Service proposed general regulations which in essence affected state jurisdiction over navigable waters within park boundaries. Did the State Administration comment on these proposed regs? What is the Administration's position? Is the Administration prepared to litigate the regulations or state title to lands under navigable waters within the boundaries of the national parks?

1. Has DNR stopped reviewing federal water right applications? Will the federal agencies institute their own Federal Reserved Water Right program?

**MEMORANDUM**  
Department of Natural Resources

**State of Alaska**  
Office of the Commissioner

**TO:** Deputy Commissioners  
Division Directors  
Special Assistants

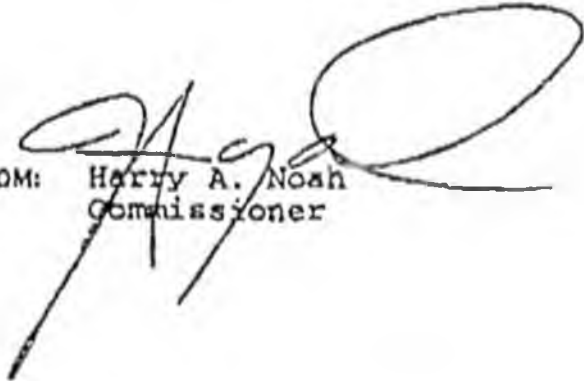
**DATE:** December 2, 1994

**FILE NO:** 0.012

**TELEPHONE NO:** 465-2400

**FAX NO:** 465-3886

**FROM:** Harry A. Noah  
Commissioner



**SUBJECT:** Department Order  
No. 125

**POLICIES AND PROCEDURES ON  
OWNERSHIP AND MANAGEMENT OF  
NAVIGABLE AND PUBLIC WATERS**

State ownership of the beds of navigable waters is an inherent attribute of state sovereignty protected by the United States Constitution. Utah v. United States, 482 U.S. 193 (1987). Under the doctrine that all states enter the Union on an equal footing with respect to sovereign rights and powers, title to the beds of navigable waters in Alaska vested in the newly formed State of Alaska in 1959. In addition, under the Alaska Constitution and the public trust doctrine, all waters in the state are held and managed by the state in trust for the use of the people, regardless of navigability and ownership of the submerged lands under the Equal Footing Doctrine.

The purpose of this paper is to describe the State of Alaska's policies and procedures for identifying and protecting the state's title to the beds of navigable waters. In addition, this paper outlines the legal and policy considerations which guide the ownership and management of submerged lands and public waters.

**I. IDENTIFYING AND PROTECTING STATE TITLE TO THE BEDS OF NAVIGABLE WATERS**

Identification and management of the beds of navigable waters is an important policy of the State of Alaska. In 1980, the state established a comprehensive navigability program to respond to federal land conveyances and land management activities under the Alaska Statehood act, the Alaska Native Claims Settlement Act

December 2, 1994

of land involved in the conveyance.

In Alaska, however, the federal government had not consistently followed these survey rules. Until 1983, the federal government treated submerged lands the same as uplands. All bodies of water that were considered non-navigable by the federal government, regardless of size, were surveyed as though they were uplands and the acreage of submerged lands was charged against the total acreage entitlement.

Because of these conveyance procedures, the navigability of waterbodies in Alaska have been issues of contention since the enactment of the Alaska Statehood Act and ANCSA. In addition to the problems caused by a lack of information about many waterbodies, the situation was exacerbated by the narrow definition of navigability used by the federal government. Hundreds of rivers, lakes and streams considered navigable by the state were determined non-navigable by the federal government.

In 1983, following years of negotiations, lawsuits and legislative attempts to solve the navigability problems created by the unusual survey and conveyance procedures in Alaska, the State of Alaska, the United States Department of the Interior and the Alaska Federation of Natives (AFN) agreed that the standard rules of survey should be followed for land conveyances in Alaska. The effect of that decision was to treat Alaska surveys and land conveyances like federal land surveys and conveyances in other states. The recipients of conveyances from the federal government are charged only for the amount of public land that is calculated by the survey, which does not include the areas of meandered rivers, lakes and streams.

The use of these survey procedures has eliminated many of the problems associated with the federal land conveyance programs in Alaska. Submerged lands are no longer being conveyed to fulfill acreage entitlements. With the exception of lakes smaller than 50 acres and streams narrower than 198 feet, navigability determinations are no longer being made prior to federal land conveyances. Determinations of ownership of submerged lands can be put off until a natural resource use or conflict requires resolution, such as issuance of an oil and gas lease, mining claim or a gravel sale.

Through the joint efforts of the State of Alaska, AFN and the department of the Interior, the 1983 decision to use the standard survey procedures for land conveyances in Alaska was legislatively approved in August of 1988 when the United States Congress passed legislation (94 Stat. 2430) amending section 901 of the Alaska National Interest Lands Conservation Act, codified at 43 U.S.C. 1631. The 1988 amendment, sometimes referred to as the Alaska

# CORRECTION

THE FOLLOWING DOCUMENT(S)  
HAVE BEEN REFILMED TO  
ASSURE LEGIBILITY OR PAGINATION



Rev. 698

Central Microfilm Services  
Department of Education  
State of Alaska

MEMORANDUM  
Department of Natural Resources

State of Alaska  
Office of the Commissioner

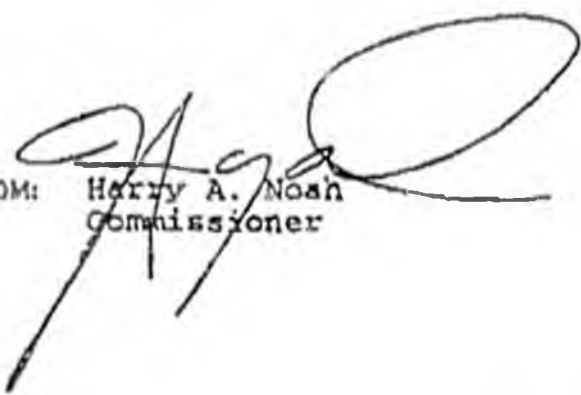
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I. IDENTIFYING AND PROTECTING STATE TITLE TO THE BEDS OF NAVIGABLE WATERS

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(ANCSA) and the Alaska National Interest Lands Conservation Act (ANILCA). Pursuant to the provisions of those acts, the federal government has issued navigability determinations for thousands of lakes, rivers and streams throughout the state in an effort to determine whether the state or federal government owns the submerged lands. Navigability determinations are also made prior to many state land disposals to insure that adequate public use easements are reserved.

The basic purpose of the state's program is to protect the public rights associated with navigable waters, including in particular the state's title to the submerged lands. Because state and Native land selections and federal conservation units blanket the state, navigability questions have arisen for rivers, lakes and streams throughout Alaska. The navigability of many of those waterbodies has already been established. There are hundreds of others, however, where navigability is not yet determined.

To help resolve these navigability disputes, a major goal of the state's navigability program is to identify the proper criteria for determining title navigability in Alaska and to gather sufficient information about the uses and physical characteristics of individual waterbodies so that accurate navigability determinations can be made as disputes arise. Other important aspects of the program include monitoring federal land conveyance and management programs to identify particular navigability disputes, seeking cooperative resolution of navigability problems through negotiations and legislation, and preparing for statewide navigability litigation.

#### RIPARIAN RIGHTS AND STATUTE OF LIMITATIONS

Disputes over ownership of submerged lands in Alaska have arisen under a variety of circumstances. The principal source of the disputes in Alaska is the survey and acreage accounting system used by the federal government for conveying land to the state and Native corporations.

The standard procedures for surveying and conveying federal land are found in the Manual of Instructions for the Survey of the Public Lands of the United States, generally known as the BLM Manual of Surveying Instructions. Under those procedures, consistently used in every public land state except Alaska, only uplands are surveyed and conveyed in fulfillment of acreage entitlements, not submerged lands. The survey rules require that all lakes 50 acres or larger, and rivers and streams three chains (198) feet in width or wider, regardless of navigability, be meandered and segregated (excluded) from the surveyed public lands. Only the surveyed uplands are conveyed. The acreage of meandered rivers, lakes and streams is not included in computing the amount

of land involved in the conveyance.

In Alaska, however, the federal government had not consistently followed these survey rules. Until 1983, the federal government treated submerged lands the same as uplands. All bodies of water that were considered non-navigable by the federal government, regardless of size, were surveyed as though they were uplands and the acreage of submerged lands was charged against the total acreage entitlement.

Because of these conveyance procedures, the navigability of waterbodies in Alaska have been issues of contention since the enactment of the Alaska Statehood Act and ANCSA. In addition to the problems caused by a lack of information about many waterbodies, the situation was exacerbated by the narrow definition of navigability used by the federal government. Hundreds of rivers, lakes and streams considered navigable by the state were determined non-navigable by the federal government.

In 1983, following years of negotiations, lawsuits and legislative attempts to solve the navigability problems created by the unusual survey and conveyance procedures in Alaska, the State of Alaska, the United States Department of the Interior and the Alaska Federation of Natives (AFN) agreed that the standard rules of survey should be followed for land conveyances in Alaska. The effect of that decision was to treat Alaska surveys and land conveyances like federal land surveys and conveyances in other states. The recipients of conveyances from the federal government are charged only for the amount of public land that is calculated by the survey, which does not include the areas of meandered rivers, lakes and streams.

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Through the joint efforts of the State of Alaska, AFN and the department of the Interior, the 1983 decision to use the standard survey procedures for land conveyances in Alaska was legislatively approved in August of 1988 when the United States Congress passed legislation (94 Stat. 2430) amending section 901 of the Alaska National Interest Lands Conservation Act, codified at 43 U.S.C. 1631. The 1988 amendment, sometimes referred to as the Alaska

Submerged Lands act, requires that the standard rules of survey in the BLM Manual of Surveying Instructions be used for all federal surveys under the Alaska Statehood act and ANCSA. The 1988 amendment also repealed the Section 901 statute of limitations that would have required the state to file a lawsuit within a very short period of time in order to preserve its title to the beds of navigable waters conveyed to Native corporations by the federal government as a result of erroneous navigability determinations, poor maps, surveys or whatever.

Even with this legislation, a major problem concerning navigability decisions made by the federal government under the old system remains unresolved. At issue are the hundreds of erroneous non-navigability decisions and the resulting submerged land conveyances made to ANCSA corporations in previous years. In addition, to comply with the meandering requirements of the BLM Survey Manual, the federal government is still required to make navigability determinations for lakes smaller than 50 acres and rivers or streams narrower than 198 feet in width to determine if these waters must be meandered.

#### NAVIGABILITY CRITERIA

The greatest hurdle to overcome in the state's efforts to identify and manage navigable waters has been the long-standing differences of opinion between the State of Alaska and the United States regarding the application of the test for determining title navigability. Navigability is a question of fact, not a simple legal formula. Variations in waterbody use that result from different physical characteristics and transportation methods and needs must be taken into account. There are many legal precedents for determining navigability in other states based upon the particular facts presented in those cases. In Alaska, though, we are just beginning to get the final court decisions that are necessary to provide legal guidance for accurate navigability determinations.

The physical characteristics and uses of a waterbody used by the state for asserting navigability, commonly referred to as navigability "criteria", are based upon legal principles that have been established by the federal courts. These criteria are applied to rivers, lakes and streams throughout the state and take into account Alaska's geography, economy, customary modes of water-based transportation and the particular physical characteristics of the waterbody under consideration.

The federal test for determining navigability was established over a hundred years ago. In the landmark decision of The Daniel Ball, 77 U.S. (19 Wall.) 557, 563, (1870), the Supreme Court declared:



characteristics, however, many of these remote waterbodies could be used for transporting people or goods if there ever was a need. Under these circumstances, they are considered legally navigable.

Transportation Must Be Conducted In the Customary Modes of Trade and Travel On Water. A finding of navigability does not require use or capability of use by any particular mode of transportation, only that the mode be customary. The courts have held that customary modes of transportation on water include all recognized types and methods of water carriage. Unusual or freak contrivances adapted for use only on a particular stream are excluded. Customary modes of trade and travel on water in Alaska include, but are not limited to, barges, scows, tunnel boats, flat-bottom boats, poling boats, river boats, boats propelled by jet units, inflatable boats, and canoes. In places suitable for harvesting timber, the flotation of logs is considered a customary mode of transportation.

The mode of travel must also be primarily waterborne. Boats which may be taken for short, overland portages qualify. The courts have ruled that the use of a lake for takeoffs and landings by floatplanes is insufficient, in and of itself, to establish navigability.

Without expressly rejecting the claim, at least two court decisions in Alaska have suggested that winter travel on the surface of a frozen river or lake is probably not evidence of navigability. The rivers involved in the two adjudicated cases were both found navigable based upon summer use by boats, however, and it appears likely that most waterbodies in Alaska that are used as highways in winter can also be travelled by at least small boats in the summer. Because of this, the state need not rely upon winter travel to support navigability.

Waters Must Be Navigable In Their Natural and Ordinary Condition. A waterbody which can be used for transportation only because of substantial man-made improvements to the condition of the watercourse is not navigable for title purposes. However, if transportation does or could occur on the waterbody even without the improvements and the improvements would only make transportation easier or faster or possible for larger boats (e.g., dredging), it is still considered navigable for title purposes.

The presence of physical obstructions to navigation (rapids, falls, log-jams, etc.) does not render a waterway non-navigable if the obstruction can be navigated despite the difficulties or if the obstruction can be avoided by other means, such as portaging, lining, or poling. A waterbody is also navigable even if seasonal fluctuations do not allow it to be navigated at all times of the year. However, a waterbody which is only navigable at infrequent and unpredictable periods of high water is not normally considered

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navigable. The fact that a waterbody may be frozen for several months of the year does not render it non-navigable if it is navigable in its unfrozen condition.

Title Navigability Is Determined As Of The Date Of Statehood. To be considered navigable for title purposes, the waterbody must have been navigable in 1959 (when Alaska became a state). This element of the navigability test focuses on the physical characteristics of the waterbody and whether those characteristics have changed significantly since statehood. Most waterbodies have not physically changed enough since statehood to alter their navigability. Assuming there have been no significant changes in the physical characteristics of the waterbody, a waterbody that is navigable today would be considered legally navigable in 1959 as well. Exceptions might include the creation, by natural or man-made causes after statehood, of a totally new lake, river or canal now used for navigation. Such a waterbody would not be considered navigable for title purposes. Conversely, a waterbody which was navigable in 1959 but, because of natural or man-made physical changes, is no longer navigable in fact would still be considered navigable for title purposes.

#### NAVIGABILITY CRITERIA DISPUTES

Because of differing legal interpretations of court navigability decisions, several aspects of the criteria used by the state to determine navigability have been disputed by the federal government. As a direct result of these criteria disputes, many waterbodies considered navigable by the state have been determined non-navigable by the federal government.

The major criteria dispute has been over the type or purpose of the transportation required to establish navigability. The federal government has asserted that a waterway must be used, or capable of use, for transporting commerce to be considered navigable. Other, "noncommercial" transportation uses are not considered sufficient to establish navigability. In this context, the federal government has claimed that the only relevant "commercial" transportation is the distribution of goods for sale or barter, or the transportation for hire of people or things. The federal government has admitted that professionally guided transportation on Alaska's rivers, lakes and streams constitutes commerce, but nevertheless has argued that the waters are not being used as a navigable "highway" when recreation is involved, but rather more as an amusement park. The federal government has therefore claimed that waters used only for commercial recreation are legally nonnavigable even though they may be navigable in fact.

Through the work of the state's navigability program, this definition has been repeatedly rejected by the courts, most recently in the Gulkana River case. Alaska v. United States, 662 F.Supp.455 (D.Alaska 1986), affirmed sub nom. Alaska v. Ahna, Inc. 891 F.2d 1401 (9th Cir. 1989). Applying the correct definition of navigability, many of the submerged lands that the federal government attempted to convey to ANCSA corporations should have been recognized as belonging to the state. The state appealed many conveyances to protect its title. As occurred in the Kankik-Nation Rivers appeal, Appeal of Doyon, 86 I.D. 692 (ANCAB 1979), Alaska Native corporations also found it necessary to challenge erroneous federal determinations of non-navigability to insure they would not be deprived of any portion of their entitlement by being charged for submerged land owned by the state.

The federal government has also argued that aluminum boats, boats propelled by jet units, inflatable boats and canoes are not customary modes of travel for the purpose of determining navigability in Alaska. As a result, many waterbodies navigated by these types of watercraft have been found legally non-navigable by the federal government. The claim is that these boats represent post-statehood technological advances, are too small to be considered 'commercial', or that most 'commercial' use of the watercraft developed after statehood.

Another navigability dispute involves remote, isolated lakes. The federal government has found many of these lakes legally non-navigable, even though they are physically capable of being navigated. The federal government's contention is that a navigable connection to another area is necessary to make travel on a remote lake worthwhile. Otherwise, the federal government views the lack of development in the area around the isolated lake as an indication that the lake will never be used for commercial transportation.

To resolve these navigability criteria disputes, the state has actively pursued a limited number of court cases challenging particular findings of non-navigability by the federal government. With the sole exception of floatplanes, the courts have agreed with the navigability criteria presented by the State of Alaska and have rejected the limitations suggested by the federal government. These cases include:

Gulkana River. In this case, both in the U.S. District Court and on appeal to the U.S. Court of Appeals, the federal courts rejected the federal government's restrictive interpretation of the phrase 'highway of commerce' in the title navigability test. The federal district court stated that to demonstrate navigability, it is only necessary to show that the waterbody is physically capable of 'the

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most basic form of commercial use: the transportation of people or goods." Because the Gulkana River can be used for the transportation of people or goods, the Gulkana River was found navigable. Alaska v. United States, 662 F.Supp.455 (D.Alaska 1987). On appeal, the court of appeals affirmed the district court's finding of navigability. Alaska v. Ahtna, Inc., 892 F.2d 1401 (9th Cir. 1989). The court of appeals found that the modern use of the Gulkana River for guided hunting, fishing and sightseeing trips is a commercial use and, since the physical characteristics of the river have not significantly changed since 1959, provides conclusive evidence that the river was susceptible of commercial use at statehood. The court also found that modern inflatable rafts can be used to establish navigability. In April 1990, the United States Supreme court denied a request by Ahtna, Inc. to reconsider and overturn the court of appeals decision. The Gulkana River precedent is now binding on all future navigability determinations in Alaska.

Kandik and Nation Rivers. In this administrative appeal, the State of Alaska and Doyon Limited, an ANCSA regional corporation, successfully established that the use or susceptibility of use of a river or stream by an 18-24-foot wooden riverboat capable of carrying at least 1,000 pounds of gear or supplies is sufficient to establish navigability. Based upon the use of these types of boats for the transportation of goods and supplies by fur trappers, as well as extensive historic and contemporary canoe use, the court found the Kandik and Nation rivers, in Interior Alaska, navigable. Appeal of Doyon, 86 I.D.652 (ANCSA 1979).

Alagnak River. In this federal district court case, the Alagnak River, the Nonvianuk River, Kukaklek Lake and Nonvianuk Lake were all found navigable. These interconnected waterbodies are located in the Bristol Bay region of Alaska, south of Lake Iliamna. Their primary transportation use is for commercially guided hunting, fishing, and sightseeing and for government research and management. They also serve as a means of access for local residents to their homes and to the surrounding areas for subsistence hunting and fishing. After several years of litigation, the federal government conceded that these rivers and lakes are navigable. Alaska v. United States, No. 82-201 (D.Alaska Feb. 2, 1985).

Matanuska River. The recommended decision in this administrative appeal agreed with the State of Alaska's position that post-statehood commercial river rafting operations are sufficient to establish navigability. Based upon that type of use, the administrative law judge who heard the case recommended that the Matanuska River, in Southcentral Alaska, be found navigable. The Secretary of Interior, over the state's objections, assumed jurisdiction over the case and stayed implementation of the

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recommended decision. No action has been taken in the case since that time. Appeal of Alaska, No. 82-1133 (IBLA Rec. Decision Aug. 18, 1983)

Slopbucket Lake. The state claimed that the extensive use of floatplanes on Slopbucket Lake, a twenty acre lake adjacent to Lake Iliamna, was sufficient to establish navigability. The federal courts rejected this view. The courts reasoned that floatplanes do not use the lake as a navigable highway; they just take off and land there. Alaska v. United States, 754 F.2d 851 (9th Cir.) cert. denied, 106 S. Ct. 333 (1985).

#### IDENTIFICATION OF NAVIGABLE WATERS

Even if the criteria for determining navigability in Alaska were totally agreed upon, it still would be difficult to prepare a complete list of all of the navigable lakes, rivers and streams in the state. Much of Alaska has not yet been surveyed and many maps are inaccurate and out-of-date. It is an immense and complex task simply to identify and locate all of the thousands of named and unnamed lakes, rivers and streams in the state which might be considered navigable. Furthermore, once a potentially navigable lake, river or stream has been identified, detailed information about its size and uses is necessary for an accurate navigability determination. Because of Alaska's undeveloped and remote character, gathering navigability information is both time consuming and expensive. Finally, administrative navigability... determinations made by the state or the federal government are always subject to legal challenge, since only the courts can authoritatively determine title to submerged lands.

Despite these difficulties, both the state and the federal government are frequently called upon to issue navigability determinations. Although the requirement that BLM adhere to the meandering requirements of the BLM Survey Manual has eliminated the need for navigability determinations on the larger rivers, lakes and streams, which must now be meandered regardless of navigability, navigability determinations are still required for the smaller rivers, lakes and streams to determine if they are to be meandered at the time of survey. Because of this, some navigability determinations are still made for nearly every federal land conveyance under ANCSA or the Alaska Statehood Act. The management plan for nearly every federal Conservation System Unit (CSU) also addresses the navigability issue.

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Federal navigability determinations are reviewed by the state to insure that available information sources were used and interpreted correctly. Where the federal government determines non-navigable a waterbody which is considered navigable by the state, the state may provide the government with supplemental information about the uses and characteristics of the waterbody to obtain a redetermination of navigability. Under some circumstances the state needs to make its own navigability determinations, such as for a oil and gas lease sale, land disposal, material sale, mining claim, or another use of state land or resources requiring a determination of ownership of submerged lands within the affected area.

For large, undeveloped regions of Alaska there may be little or no accurate waterbody use or physical characteristics information available for making navigability determinations. When information is lacking, and it must make a navigability determination, the state is forced to rely solely upon the physical characteristics shown on maps and aerial photographs. In these cases, the state identifies as navigable all streams depicted on the U.S.G.S. maps with double lines (generally at least 70 feet wide) and having an average gradient over the length of the stream of no more than 50 feet per mile. With rare exceptions, the state's experience has been that streams of this type are deep enough and wide enough to be navigable by boats carrying persons or goods and must therefore be considered legally navigable. Streams depicted with single lines, although narrower in width, may also be listed as potentially navigable if they have gradients of substantially less than 50 feet per mile and are at least 10 miles.

If there is no public use or physical characteristics information readily available for lakes, those lakes which are shown on maps and aerial photographs as having a navigable water connection with other navigable waters, or which are accessible by short overland portages, are considered navigable regardless of the size of the lake. These lakes are part of a system of interconnected navigable waters. If a lake is totally isolated, it will be included on the state's navigability maps if it is at least 1 1/2 miles long. That length insures that the lake can be used as a "highway". Future judicial decisions interpreting the "highway" requirement for isolated lakes could shorten or lengthen this 1 1/2 mile "rule of thumb."

The state recognizes that, under some circumstances, lakes smaller than 1 1/2 miles long can be and are used as navigable highway. In those cases, when known, these smaller lakes are also depicted on the state's navigability map. Moreover, as a matter of administrative policy and convenience only, the state may sometimes make an exception to the 1 1/2 mile standard in the extremely wet

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regions of the state, including some areas in the Yukon-Kuskokwim Delta, Yukon Flats and on the North Slope. In these areas, an isolated lake might need to be 2-3 miles long to be included on the state's navigability maps. Although smaller lakes in these areas are capable of being used for transportation and should be found navigable by the courts, the state has decided to concentrate its limited resources in protecting the larger waterbodies first.

#### NAVIGABLE WATERS WITHIN PRE-STATEHOOD FEDERAL WITHDRAWALS

Although disputes over which waters in Alaska are navigable are the most frequent cause of submerged land ownership disputes, there is another major legal issue which poses a threat to Alaska's sovereign claim to the beds of navigable waters. Even where navigability is conceded, the federal government often contends that title to the submerged lands did not vest in the state if the area was withdrawn or reserved by the federal government on the date of statehood. Within Native conveyance areas, the federal government has used this claim of "reserved submerged lands" to justify its attempts to convey the beds of navigable waters in fulfillment of the Native entitlements. Within state selections, the federal government has used the same claim to charge the acreage of submerged lands against the state's entitlement.

The state strongly disagrees with this federal claim and has actively pursued a number of court challenges to resolve the issue. In addition to numerous appeals from federal decisions to convey or charge for the beds of navigable waters, the state was actively involved as a friend of the court in one case before the United States Supreme Court and continues to be involved in another Supreme Court case which presents this issue. The pending case is United States v. Alaska, U.S. Supreme Court 84 Original (filed June, 1979).

On June 8, 1987 the Court issued its decision in Utah v. United States, No. 85-1772 (filed Oct. 14, 1986). In this case the federal government, in 1976, issued oil and gas leases for land underlying Utah Lake, a navigable waterbody located in Utah. The suit sought a declaratory judgement that Utah, rather than the United States holds the lands under navigable waters in the territories in trust for future states, and, absent a prior conveyance by the federal government to third parties, a state acquires title to such land upon entering the Union on an "equal footing" with the original 13 states.

The Supreme Court held that title did pass to the state upon Utah's admission to the Union. They held that there is a strong presumption against finding congressional intent to defeat a state's title, and, that in light of the longstanding policy of the federal government's holding land under navigable waters for the

ultimate benefit of future state absent exceptional circumstances, an intent to defeat a state's equal footing entitlement could not be inferred from the mere act of the reservation itself. The United States would not merely be required to establish that Congress clearly intended to include land under navigable waters within the federal reservation, but would additionally have to establish that Congress affirmatively intended to defeat the future state's title to such land.

This decision has significant ramifications within Alaska, since over 95 million acres - more than 25% of the total area of the state - was enclosed within various federal withdrawals and reservations at the time Alaska became a state.

#### NAVIGABLE WATERS WITHIN ANILCA CONSERVATION SYSTEM UNITS

On December 2, 1980, the Alaska National Interest Lands Conservation Act became law. This act created or added 104.3 million acres to various federal conservation system units. Because these 'withdrawals' occurred after the date of statehood, there is no disagreement between the state and federal governments that navigable waters within the various CSU's are owned by the state. However, there is some disagreement on the amount of authority the federal land managers may have to regulate these state owned submerged lands.

The U.S. Constitution gives Congress certain limited powers to control uses on state owned submerged land. These are known as the Property Clause, Navigational Servitude and the Commerce Clause. The extent of these powers involves complex legal questions. However, even assuming that Congress has the power to regulate state-owned submerged lands in Alaska, the United States Supreme Court has ruled that Congress may choose not to exercise that power, thus leaving regulation totally up to the state. Esplanade Co. v. Chicago, 107 U.S. (17 Otto.) 678 (1883). Whether Congress has done that can only be determined by examining the federal laws passed by Congress dealing with Alaska lands. Another possibility is that the state and federal governments have concurrent jurisdiction, sharing the authority to regulate submerged lands.

In ANILCA, Congress did not take away the state's power to regulate state-owned submerged lands within federal CSU's in Alaska. Numerous provisions in ANILCA recognize and respect the state's authority over state-owned land. In some cases, however, Congress may have attempted to give the federal land managers some concurrent authority to regulate navigable waters within CSU's.

The state, where possible, cooperates with rather than confronts the federal land managers. This cooperation often takes the form of a memorandum of understanding that discusses management issues and how they will be resolved. Differences do occur however, over issues such as column management and restrictions on mining.

II. LEGAL AND POLICY GUIDELINES GOVERNING MANAGEMENT SUBMERGED LANDS AND PUBLIC WATERS

PUBLIC TRUST DOCTRINE

The state has special duties and management constraints with respect to state owned land underlying navigable waters. These special duties and management constraints arise from the Alaska Constitution. The Alaska Constitution contains numerous provisions embracing the principles commonly known as the public trust doctrine. The public trust doctrine is remarkable both for its age and for its vigor. Rooted in the customs of the seafaring Greeks and Romans, it has evolved to become one of the most effective safeguards of public rights. Basically, the trust reflects an understanding of the ancient concept that navigable waters, their beds and their banks, should be enjoyed by all the people because they are too important to be reserved for private use.

In America, the concept of public rights to public waters was recognized since the early days of the Massachusetts Bay Colony where the great Pond Ordinance of 1641 guaranteed the right to fish and fowl in ponds greater than 10 acres, along with the freedom to pass through private property to do so.

By 1821, American courts were pronouncing the law of public trust as we know it today. This does not mean that no water-related development can take place. The public trust doctrine permits states to improve waterways by constructing ports, docks and wharves, thus furthering the purposes of the trust. Generally speaking, the people's trust rights may be alienated only in ways that further overall trust uses, and in relatively small parcels.

Illinois Central Railroad Company v. Illinois, 146 U.S. 387, 452 (1982), involved a grant by the State of Illinois of one thousand acres of the bed of Lake Michigan, constituting the entire harbor of the City of Chicago, to the Illinois Central Railroad. The U.S. Supreme Court held that the grant was revokable, that the state held the land in trust for the public, and that it was powerless to relinquish its rights as trustee.

The court went on to say that land underlying navigable waters is much more than a simple property right.

[I]t is a title different in character from that which the state holds in lands intended for sale. It is different from the title which the United States holds in the public lands which are open to preemption and sale. It is a title held in trust for the people of the state that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties... The trust devolving upon the state for the public, and which can only be discharged by the management and control of property in which the public has an interest, cannot be relinquished by a transfer of the property.

In the 19th century the purposes of the trust were generally described as "commerce, navigation and fishery." This was logical because the major waterways were essential highways of commerce. But as other values became increasingly important, courts began to recognize recreation and environmental protection among the purposes for which the trust exists. As a California court said in 1971, "with our ever increasing leisure time...and the ever increasing need for recreational areas it is extremely important that the public need not be denied use of recreational water...the rule is that a navigable stream may be used by the public for boating, swimming, fishing, hunting and all recreational purposes." People ex rel. Baker v. Mack, 19 Cal. App. 3d 1040, 1044 (1971).

The Alaska constitution provides protections similar to the public trust doctrine protections that cannot be disregarded by the legislature or overruled by the courts. Article VIII, sec. 3 provides; "Wherever occurring in their natural state, fish, wildlife and waters are reserved to the people for common use." After reviewing the public trust doctrine in Owlichek v. State Guide Licensing, 763 P.2d 488 (Alaska 1988), the Alaska Supreme Court explained that "the common use clause was intended to engraft in our constitution certain trust principles guaranteeing access to the fish, wildlife and water resources of the state."

In Chit Fisheries, Inc. v. Bunker, 755 P.2d 1115 (Alaska 1988), the Alaska Supreme Court applied the public trust doctrine to tidelands, holding that even after conveyance, the title remains subject to continuing public easements for purposes of navigation, commerce and fishery.

The 1985 Alaska legislature recognized the constitution application of public trust doctrine principles in Alaska. In an Act relating to the public or navigable waters of the state, the legislature

found that "the people of the state have a constitutional right to free access to the navigable or public waters of the state" and that the state "holds and controls all navigable or public waters in trust for the use of the people of the state". 85 SLA Ch. 82. In the same act, the legislature ruled that submerged lands are "subject to the rights of the people of the state to use and have access to the water for recreational purposes or any other public purpose for which the water is used or capable of being used consistent with the public trust."

Courts in other states over the years have defined in somewhat different ways the public uses that are permitted and protected by the public trust as it applies to submerged lands. In reviewing these other cases, it can clearly be seen that through time an ever expanding definition of the public uses protected by the public trust doctrine is being adopted. The California Supreme Court recently held that:

Although early cases had expressed the scope of the public's right in (lands subject to the public trust) as encompassing navigation, commerce and fishing, the permissible range of public uses is far broader, including the right to hunt, bathe or swim, and the right to preserve the (public trust) lands in their natural state as ecological units for scientific study. City of Berkeley v. Superior Court of Alameda, 606 P.2d 362, 365 (Cal. 1980)

It is clear under the Alaska Constitution that the State of Alaska has the responsibilities of a trustee with respect to management of land underlying navigable waters. Moreover, the Alaska legislature has adopted a broad view of the public uses protected or permitted by the public trust. Accordingly, the Alaska Attorney General's Office has determined that, until the Alaska Supreme Court rules on the question, the state should assume that a broad definition of public rights protected by the Alaska Constitution and the public trust doctrine applies in Alaska, similar to the one adopted by the California Supreme Court. 1982 Atty. Gen. Op. No. 3 (June 10, 1982).

#### PUBLIC WATERS

It is not only the beds of navigable waters in Alaska that are reserved in public ownership for public use. Under article VIII, section 3 of the Alaska Constitution, all waters occurring in their natural state are reserved to the people for common use. Article VIII, section 14 of the Alaska Constitution also provides for the broadest possible access to and use of state waters by the general public.

Section 14. Access to Navigable Waters. Free access to the navigable or public waters of the state, as defined by the legislature, shall not be denied any citizen of the United States or resident of the state, except that the legislature may by general law regulate and limit such access for other beneficial uses or public purposes.

Pursuant to this grant of authority, the Alaska State Legislature, in AS 38.05.365(12), defined "navigable waters" as follows:

"navigable waters" means any water of the state forming a river, stream, lake, pond, slough, creek, bay, sound, estuary, inlet, strait, passage, canal sea or ocean, or any other body of water or waterway within the territorial limits of the state or subject to its jurisdiction, that is navigable in fact for any useful public purpose, including but not limited to water suitable for commercial navigation, floating of logs, landing and takeoff of aircraft, and public boating, trapping, hunting waterfowl and aquatic animals, fishing, or other public recreational purposes.

This definition of navigable waters does not define state ownership of submerged land in Alaska. The definition of navigability for ownership purposes was discussed earlier in this paper. This definition, however, does define what types of waterbodies in Alaska are available for public use under the Alaska statutes.

The Alaska State Legislature has broadly construed the constitutional protections for public use of the waters of the state. In an Act (85 SLA chap. 82, codified as AS 38.05.128) relating to the navigable or public waters of the state, the state legislature found:

(a) The people of the state have a constitutional right to free access to the navigable or public waters of the state.

(b) Subject to the federal navigational servitude, the state has full power and control of all of the navigable or public waters of the state, both meandered and unmeandered, and it holds and controls all navigable or public waters in trust for the use of the people of the state.

(c) Ownership of land bordering navigable or public waters does not grant an exclusive right to the use of the water and any rights of title to the land below the ordinary high water mark or subject to the rights of the people of the state to use and have access to the water for recreational purposes or any other public purposes for which the water is used or capable of being used consistent with the public trust.

## 2. Tidal Water Boundaries

The boundary between tidal water bodies and private/public owned uplands is the Mean High Water Line. Mean high water line as defined by 11 AAC 53.900(15) is: The tidal datum plane of the average of all the high tides, as would be established by the National Geodetic Survey, at any place subject to tidal influence.

This line is not readily observable because it is a line of known elevation which intersects the land surface. The mean high water line can be a considerable distance below the vegetation line because extreme high water will denude the beach above the line of mean high water. The only way that the location of mean high water line can be accurately determined is by differential leveling from known bench marks or by operating a tide gauge for a sufficient period of time to determine the mean high water elevation. The line of mean high water line can be approximated by time coordinated observations of the daily predictions for high and low waters, predicted by NOAA, as they relate to the published mean high water elevation. This method can be highly unreliable because small errors in the predictions or observations can transform into large errors in the horizontal location; this is especially true in areas where the beach gradient is very flat.

It is important to note that in some areas such as Prince William Sound, the mean high water line boundary is considerably higher than the current mean high water line because the boundary became fixed at the 1964 pre-quake location. In this instance the boundary between state owned tidelands and the uplands would be established at an elevation which equals the sum of the mean high water elevation plus the published amount of uplift or in some cases submergence.

### CONCLUSION

This paper describes the state's policies and procedures for managing and protecting state submerged lands and public waters. As further legal and practical developments occur in this area, these policies and procedures will be reexamined by the state and, if necessary, appropriate changes will be made.

**OIL &**

**GAS**

**HEARING**

**1995**

## Alaska Oil and Gas Association

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121 W. Fireweed Lane, Suite 207  
Anchorage, Alaska 99503-2035  
Phone: (907)272-1481 Direct: (907)272-7424 Fax: (907)279-8114  
*L. A. (Ardie) Gray, Public Affairs Manager*

January 31, 1995

The Honorable Loren Leman, Chairman  
Resources Committee  
Alaska State Senate  
Capitol Building  
Juneau, Alaska

Dear Senator Leman:

Attached, for your information and reference, is a synopsis of Alaska oil and gas taxes and a listing of current incentives.

The listing of incentives was compiled by AOGA based on conversations with agency personnel from the Departments of Natural Resources and Revenue. Input also was received from Gordon Harrison, Legislative Research Agency. Information on the application of some of the incentives was based on the recollection of agency staff.

Please let us know if we can be of any additional assistance.

Sincerely,

A handwritten signature in cursive script, appearing to read 'L. A. Gray', is written over a typed name and title.

L. A. GRAY  
Public Affairs Manager

Attachment

11-955-SynopsisIncentives

**ALASKA****CURRENT TAXES**

<b>Income Taxes</b>	<b>9.4% Corporate Income Tax</b>
<b>Property Tax</b>	<b>20 mills/2% of assessed value</b>
<b>Severance/Production</b>	<p><b>Gas 10% of Market Value or \$0.064 per MCF, whichever is greater</b></p> <p><b>Oil 12.25% of Market Value for first five years 15% after first five years or \$0.80 per barrel, whichever is higher.</b></p> <p><b>Oil Oil and Gas Severance Taxes subject to Economic Limit Factor (ELF). See Below.</b></p>
<b>Conservation Tax</b>	<p><b>Gas 4 tenths of a percent per 50,000 cubic feet of natural gas</b></p> <p><b>Oil 4 tenths of one percent per barrel with conservation surcharge of \$0.03 and \$0.02 per barrel of crude oil to fund Oil and Hazardous Substance Release Prevention and Response Fund (\$0.02 per barrel surcharge suspended when Response Account balance equals \$50 million.)</b></p>

**ECONOMIC INCENTIVES - PRODUCTION/DEVELOPMENT**

**AS 43.55.013 - Economic Limit Factor -** The respective severance tax rates for oil and gas are reduced by a field's ELF. During the life of a field, production diminishes faster than operating costs. At the economic limit total costs including operation costs, royalties and production taxes exceed gross revenue and the field becomes uneconomic. Production tax rates for each individual field are modified by the economic limit factor (ELF) which is a value between zero and one. The ELF is a factor which is multiplied by the nominal production tax rate to derive an effective production tax rate for each field. The ELF varies based upon a field's size, as measured in total throughput, and by the field's average per well productivity. Severance taxes paid on oil production - Of the 26 producing leases or properties, four major fields pay the majority of severance taxes, two fields pay nominal severance taxes.

**Co-Mingling: 15 AAC 55.027** of the new production tax regulations (effective Jan. 1995) will allow producing fields to share facilities while maintaining each field's "distinct field" status for ELF purposes. Three "sets" of fields are currently sharing facilities. No application for co-mingling/shared facilities has been denied. Section 027 of the new regulations provide for appealing DOR's decision if an application is denied. The Commissioner of Revenue makes the ultimate decision.

**Non-Taxed Produced Gas 15 AAC 55.151 (a)** of the new production tax regulations allow free use of gas for enhanced recovery purposes.

## Alaska Incentives

### Page 2

**AS 38.05.180 (j) - Royalty Reduction** After two years of lease production, royalty may be reduced to prolong economic life of a field. Lessee must show revenue is insufficient to yield a reasonable rate of return. According to Dept. of Natural Resources, only one has been granted in the recent past (Note-information from DNR is not conclusive). The DNR Commissioner has ultimate authority to approve royalty reduction.

**Code Sec. 43 - EOR Credit** Federal Enhanced Recovery income tax credit deduction may be claimed on state income tax. May be taken as a line item deduction on state income tax return. DOR does not have compiled information on number of companies or amount of credits claimed or allowed.

**AS 43.20.042 - Industrial Incentive Credit** of 10% of cost for gas processing projects applied against income tax. May be taken as a line item deduction on state income tax return. DOR does not have compiled information on the number of companies or amount of credits claimed or allowed. Through the audit process claims can be contested or denied. Appeals are handled through the existing appeals process i.e., informal conference and formal hearing process. The Commissioner of Revenue ultimately signs the findings of the formal hearing.

**AS 38.05.180 - Discovery Royalty Credit - Repealed by Chapter 65 SLA 1969** - Provides that a lessee who makes first discovery of oil or gas in commercial quantities in a geologic structure pay a royalty of five percent for 10 years following the date of discovery and 12.5 percent royalty thereafter. Some leases issued up to the point of repeal could still qualify.

### ECONOMIC INCENTIVES - EXPLORATION

**AS 38.05.180 (l) - Exploration Credits** Provides for a credit of up to 50% of certain exploration costs that can be applied against royalty, rentals and severance taxes due the state. This provision is accomplished by state leases. Covers two years following the lease sale and applies to well footage drilled and geophysical costs. Geophysical data must be made public. EIC has been offered in 10 sales. Credits have been granted on 20 EIC wells. Only one application for credits has been denied recently, according to DNR (Note-information from DNR is not conclusive). 11 AAC 83.820 defines the process for appeal to the DNR Commissioner, who makes the final decision.

### NEW EXPLORATION INCENTIVES

**AS 41.09.100 - Exploration Incentive Credits** Provides for a credit of \$5 million per project (total of all credits \$30 million) for geophysical work, exploration or strat test wells. Credit may be applied against taxes or bonus payments. Credit may not exceed 50% of eligible costs on state-owned land and 25% on land not owned by the state. Credit must be used within 5 years and may be assigned. Data confidential for 24 months. Status - Regulations pending.

**Exploration Licensing** Provides for licensing of up to 500,000 acres conditioned upon an obligation to perform a specific work commitment. (Maximum acres which can be held under license 2 million acres.) Gives licensee option to convert to lease upon completion of work commitment. Status - Regulations pending.

## AOGA key policy issues recommendations

The 17 AOGA member companies identified and developed consensus positions on the following key issues which, if resolved, would enhance oil and gas development to the benefit of industry and the State of Alaska.

<i>AGENCY</i>	<i>DESIRED ACTION</i>	<i>BENEFIT</i>
<b>REVENUE</b>	Initiate an independent review of state tax audit and appeals process.	A timely fair, impartial tax audit and appeals system will benefit both the state and the industry by cutting back the amount of expensive and time-consuming litigation, giving needed certainty as to what taxes are actually currently owed.
<b>REVENUE</b>	Clarify and simplify regulations for taxable value of production and ROI for tankers.	The issues of prevailing value and "ROI" have been a continuing source of complex, changing and inconsistent audit decisions over the years, resulting in continuing rounds of controversy and litigation. The industry and the state would benefit from simple-to-apply, and as a result, timely and litigation-free rules for these two issues.
<b>NATURAL RESOURCES</b>	Develop policies and regulations which accomplish the certainty of lease closure.	Adoption of policies and regulations will provide guidance to both state and industry on the full extent of obligations upon lease termination.
<b>NATURAL RESOURCES</b>	Implement an oil and gas leasing policy work session to improve and strengthen the state's leasing program.	A predictable oil and gas leasing program allows the state, public, local governments and the industry to efficiently plan for oil and gas related activities and fiscal expenditures.
<b>ENVIRONMENTAL CONSERVATION</b>	ADEC should (1) implement water quality regulations developed during finalize Phase I of the Triennial Review; (2) establish an Advisory Group process for Phase II that will result in timely development of scientifically-based Standards; and (3) coordinate with other state agencies in comments to EPA supporting technically and economically based Coastal Effluent Guidelines and NPDES permits.	These regulations will set the stage for standards to be developed under Phase II. Restructuring the Advisory Group to a smaller number of participants who are empowered to represent their constituencies and are allowed to participate in the drafting of regulatory proposals will increase the efficiency of the process and ensure the concerns of Alaskans are appropriately considered. Coordination of a state response to EPA proposals governing offshore discharges will ensure the state's interests in both environmental protection and continued oil and gas production are considered.
<b>ENVIRONMENTAL CONSERVATION</b>	Streamline oil spill prevention and response requirements.	Limited public and private resources will be reduced without sacrificing protection.

<i>AGENCY</i>	<i>DESIRED ACTION</i>	<i>BENEFIT</i>
<b>ENVIRONMENTAL CONSERVATION</b>	ADEC should adopt air quality regulations which incorporate recommendations received from the regulated community; centralize the permit program in Anchorage; and report regularly on program and administrative costs and fees.	Adoption of a state program ensures the unique conditions faced by Alaska facilities are recognized and allows the state to set fees which are fair and equitable. Administration of the program by a centralized function operating out of Anchorage will result in reduced program costs, increased permitting efficiency and consistent statewide permit decisions.
<b>ENVIRONMENTAL CONSERVATION</b>	ADEC should provide for flexible solid waste management regulations for municipal landfill and facilitate permitting a new North Slope Borough landfill near Deadhorse.	New federal landfill criteria could drive small communities to avoid permitting a landfill altogether, leading to the potential for open dumping and environmental degradation. Unless EPA allows the state to have added flexibility in the management of local landfills, the state may have to provide financial assistance to small bush communities in order to establish compliance, thereby increasing the demand on state funds at a time when oil and gas revenues are declining.
<b>ENVIRONMENTAL CONSERVATION</b>	ADEC should promulgate Solid Waste Regulations that provide for timely, cost effective closure of reserve pits.	Adoption of appropriate regulations will add clarity and certainty to the process, facilitate state decision-making on these reserve pits, and resolve long-standing reserve pit issues.
<b>GOVERNOR</b>	A task force should be established to review authorities and regulations governing oil and gas operations to identify opportunities for consolidation and elimination of redundancy.	The independence and funding of the Alaska Oil and Gas Conservation Commission is fundamental to the state's interests. Identification and elimination of overlapping or duplicative authorities will result in increased efficiency of state agencies, with commensurate savings of state expenditures.
<b>GOVERNOR</b>	The State should work with Alaska Stakeholders and the Congressional Delegation to secure legislation in the 104th Congress addressing Alaska's wetlands problems.	Development of reasonable wetlands legislation and regulations and adoption of policies which recognize the unique position of Alaska will allow development of needed infrastructure in coastal communities and allow Alaska's resources to be developed without sacrificing environmental protection.
<b>GOVERNOR</b>	The State should encourage the USFWS to develop a Polar Bear Habitat Conservation Strategy that does not restrict subsistence activities or access to lands such as ANWR and offshore areas.	State involvement in commenting on this federal initiative will protect the state's interests in development of resources on state lands and subsistence rights of native Alaskans.



*PERCEPTIONS OF*  
**ALASKA**

OIL AND GAS MARKET  
RESEARCH PROJECT

*FINAL REPORT*  
*AUGUST 1994*

*Prepared for*

**STATE OF ALASKA  
DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT  
DIVISION OF ECONOMIC DEVELOPMENT**

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**Prepared under  
ASPS Number 94-0101**

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**Gaffney, Cline & Associates  
A816.00 August 1994**

## 1. EXECUTIVE SUMMARY

Alaska represents the principal remaining potential for significant oil and gas discoveries and development in the United States. It comprises some 25% of total domestic production and will become an increasingly important part of the U.S. oil supply as production from the Lower-48 inexorably declines. The state also contains major natural gas resources which, with the right confluence of markets and investment capital, could provide the basis for a world-scale gas development project.

Against this backdrop and the persistent low oil price environment, it is fair to say that the oil and gas industry in Alaska is in a state of near-crisis which, left unattended, has the potential for severe long-term damage to both public and private interests in the state.

The oil and gas industry worldwide is undergoing significant and traumatic changes as it struggles to compete for capital in an environment where the value of a barrel of oil has been at its lowest level in *real* terms for a quarter century. The price softness evidenced over the second half of 1993 and first half of 1994 is perceived by most observers to be a longer term rather than transitory phenomenon and, as a result, areas in which oil production has lower value (because of high operating costs, high transportation costs, high state-stake, poor quality or disadvantaged markets) are under enormous pressure. Alaska, on every count, is in this category.

There are ways in which the negative effects of low value or high-cost production can be mitigated – many of the areas with which Alaska competes are aggressively modifying their fiscal and regulatory terms and conditions to attract the industry's increasingly scarce capital. Although Alaska enjoys certain advantages relative to other areas, they are not sufficient to offset or overcome the disadvantages that result from the high-cost environment and a fiscally regressive and perhaps divisively-administered fiscal and regulatory system that developed its approach and culture during the extremely volatile (in terms of oil prices) period between 1976 and 1986.

Recent initiatives in respect of large-block leasing, exploration incentives and the increased industry participation towards the resolution of the long-standing production tax issues are clearly positive and commendable steps. So, too, are the state's recent suggestions in respect of tying together smaller accumulations that on a stand-alone basis are sub-economic, but with shared facilities and cooperation may, in aggregate, be commercially viable.

The single largest step towards improving and optimizing the situation would be an improvement in the communications and working relationships between the industry and the government. Any improvement in this critical area can lead only to mutual benefit – a fact which perhaps both industry and government appreciate, but this relationship, notwithstanding more recent cooperative initiatives, has so far eluded the level of effort and cooperation demanded of each party. As a consequence of the era in which the Alaskan oil industry grew so rapidly and, perhaps, as a partial consequence of the state's isolation, the key players have retained views on the industry which are largely out-of-step with the current economic realities of the business and the fierce competition for capital from other areas.

Protection of the state's interests in the longer term will, we believe, require:

- A more fiscally progressive approach to legislation that encourages development, especially of existing discoveries, at lower oil prices, but claws back revenue from the more profitable projects or after prices rise, i.e., moving the system more towards a profit rather than revenue-based taxation system
- A more aggressive effort to spur increased industry investment in the Alaska petroleum sector.
- A heightened appreciation of industry trends, fundamentals and economics on the part of the state's regulators which might encourage an improved relationship between state and industry to the ultimate benefit of both parties.
- On the part of the industry, a re-assessment of priorities which recognizes the criticality of the industry's effective handling of public policy issues in a state where the industry has both the key economic role and the highest profile
- An extraordinary effort to overcome the natural communication gap and disruption that occurs between the two critical players as both the key managers in the private companies in Alaska and the state commissioners are rotated or replaced before either can gain (and act on) a more complete appreciation of the industry's role in Alaska or develop a more stable working relationship with their counterparts

Selected charts from  
the following report:

PRODUCTION =  
JOBS & REVENUES

PROPOSED ECONOMIC  
PROGRAMS

PREPARED FOR

CENTER FOR LEGISLATIVE ENERGY AND ENVIRONMENTAL RESEARCH  
(CLEER)

CLEER Program Advisory Board Member Companies Participating in the  
Preparation of this Report

Coastal  
Louisiana Land & Exploration  
Marathon Oil Company  
Meridian Oil, Inc.  
Phillips Petroleum Company  
Shell

Presented December 1993  
Keystone, Colorado

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## SUMMARY OF TAXES AND RATES FOR THE MEMBER STATES / PROVINCE

The taxes, set out below, of the member states and province are summarized on the following pages:

Tax	States / Province											X = Tax exists in State / Province
	Al	Ak	Ar	Cc	La	Ms	NM	Ok	Tx	Wy	AB	
<u>Income</u>	x	x	x	x	x	x	x	x	x	No	x	
<u>Property</u>	x	x	x	x	x	No	x	x	x	x	x	
<u>Severance</u>	x	x	x	x	x	x	x	x	x	x	x	
<u>Conservation</u>	x	x	x	x	No	No	x	x	x	x	No	
<u>Sales / Use</u>	x	No	x	x	x	x	x	x	x	x	x	
<u>Franchise</u>	x	No	x	No	x	No	No	x	x	x	No	

## INCOME TAXES

### Summary of Taxes and Rates by Member States/Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>MISSISSIPPI</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	See Franchise Tax	No	Yes
5.0% of Taxable Income with 27.5% Depletion Allowance	9.4% Corporate Income Tax	1% to 6% incremental rate on net income under \$100,000  Flat rate of 6.5% on net income over \$100,000	5.0% Effective 7/1/93	4% 1st 25K 5% 2nd 25K 6% next 50K 7% next 100K 8% > 200K	3% 1st \$5K 4% 2d \$5K 5% on all amounts in excess of \$10,000	4.8% 1st 500K 5.4% 2d 600K 7.6% > 1 mil	6.0% of Income			15.5% Province Corporate Rate on taxable income in the province

## GENERAL PROPERTY TAXES

### Summary of Taxes by Member States/Province\*

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
. O/G Prod is Exempt	20 mils / 2% of assessed value	Oil and Gas Production at a 20% rate of assessed Market Value	. O/G Prod. Valued at 87.5% of Sell Price of Prev. Years Production Excluding Govt Royalty	. O/G Prod is Exempt	. O/G Prod is Exempt	. Assess on 33.3% of 150% of Prior Year's Value	. O/G Prod is Exempt	. O/G Prod Valued at 100% Market Value of Remaining Reserves Using DCF Approach	. O/G Prod 100% of Previous Year's Value Less Exempt Royalties	Local tax only. No cap. Based on market value. Effective tax rate ranges between 1.2% to 3.0%.
. Well Equip Assessed at Book Value x 20% assessment ratio			. Well Equip is Valued at 29% of Replacement Cost Less First Year's Depreciation	. Surface Well Equip Valued at 15% of Market Value less Depreciation		. Equip Assessed at 33.3% of 27% of Prior Years Value less Exempt Royalties	. Shut In Wells are assessed at 10% of Market Value of Equip	. Well Equip Valued 100% of Market Value	. Surface Well Equip Assessed at 11.5% of Actual Value	

\* All assessments times Local Levy

States that Exempt Oil and Gas Production are Alabama, Louisiana, Mississippi and Oklahoma

## SEVERANCE / PRODUCTION TAXES

### Summary of Taxes and Rates by Member States/Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wells Drilled before <u>7/1/88</u> Onshore 10% of Value Offshore 8% of Value  <u>After 7/1/88</u> Onshore 8% of Value Offshore 8% of Value	Gas - 10 % of Market Value or \$0.64 per MCF, whichever is greater  Oil - 12.25% of Market Value for first five yrs  15% thereafter or \$0.80 per barrel, whichever is higher  Subject to Economic Limit Factor	Gas - 3/10ths of one cent per MCF  Oil - 5% of market value at time and point of severance	Gas - 2% - 1st 25K 3%-next 75K 4%-next 200K 5% > 300 K  Oil - 2% - 1st 25K 3%-next 75K 4%-next 200K 5% > 300 K	Gas - \$0.076 MCF Gas 0.03 MCF Oil  0.013 MCF from wells with less than 250,000 CF Daily Prod.  Oil - 12.5% of Value at the Wellhead  5.25% - Wells < 25 BPD/50% Saltwater 3.125% - Wells < 10 BPD	6% of Market Value for Oil and Gas	Gas - 3.75% of Value + Privilege Tax of 4% of Value  Oil - 3.75% of Value + Privilege Tax of 3.15% of Value	7.095% of Market Value for Oil and Gas	Gas - 7.5% of Value at the Well  Sweet/Sour Gas Not Less than 121/1500 of 1 Cent Per MCF  Oil - Greater of 4.6% of Value or 4.6 Cents per Barrel	6% of Market Value for Oil and Gas  Subject to Wildcat Well at 2% for first 4 years  Tertiary and Stripper - Rate reduced to 4% for 5 years  New Wells between 7/1/93 and 12/31/96 excluding horizontal wells, first 40 BPD or 240 MCFD taxed at 2% for 24 months  Workovers - between 7/1/96 and 12/31/96, Incr prod at 2% for first 24 months	Freehold Mineral tax on privately held mineral rights. Price and Prod. sensitive formula.

## CONSERVATION TAXES

### Summary of Taxes and Rates by Member States/Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No
Gas - 2% of Value	Gas - 4 tenths of a percent per 50,000 CF	Gas - 5 mills per MCF	Gas - 1.5 Mills Per Dollar of Value at the Well			Gas - 18/100 of 1% of Value (Fund over \$1 Million)	Gas - \$0.07 per 1,000 CF Less 7% of Value of casinghead Gas (Max Tax of 1/3 of Value)	Gas .003 Cent per MCF	Gas - .06% of Value	See Royalty Provisions
Oil - 2% of Value	Oil - 4 tenths of a percent per barrel with conservation surcharge of \$0.05 per barrel of oil	Oil - 25 mills per barrel	Oil - 1.5 Mills Per Dollar of Value at the Well			Oil - 18/100 of 1% of Value (Fund over \$1 Million)		Oil - 3/16 of 1 Cent per BBL + 5/16 Cent per BBL for Clean Up	Oil - .08% of Value	

## SALES AND USE TAXES

### Summary of Taxes and Rates by Member States/Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4% - State		4.5% - State	3% - State	4% - State	7% - State	5% - State	4.5% - State	6.25% - State	4% - State	7% Federal Goods and Services tax
6% - County, Local, MTA		Varies among locals, but total tax can not exceed \$25 on single purchase	4% - County, Local, MTA	4% - County, Local, MTA		2.06% - County, Local, MTA	6.25% - County, Local, MTA	2% - County, Local, MTA	2% County, Local, MTA	

## FRANCHISE TAX

### Summary of Taxes and Rates by Member States/Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	No	Yes	No	Yes	No	No	Yes	Yes	Yes	No
\$3 per \$1,000 of Taxable Alabama Capital		0.11% of par value of capital stock in Ark. real and personal property bears to total value of real and personal property of corporation		\$1.50 Per \$1000 of 1st \$300,000  \$3 Per \$1000 on Remainder of Equity in State			\$1.50 / 1000 of Stockholder Equity in the State  Maximum of \$20,000 per Year	Higher of 4.5% of Taxable Income Apportioned to the State  or  \$2.50/1000 Stockholder Equity in State	\$100 Per \$1,000,000 Assets in the State	

## SUMMARY OF EXISTING ECONOMIC PROGRAMS

BY

### MEMBER STATE / PROVINCE

The following economic programs of the member states / province are summarized on the following pages:

Program            States / Province    X = Program exists in State / Province

Program	Ai	Ak*	Ar	Co	La	Ms	NM	Ok	Tx	Wy	AB
Enhanced Rec	x	No	No	No	No	No	x	x	x	No	x
High Cost Gas	x	No	No	No	No	x	No	No	x	No	x
Horizontal Wells	No	No	No	No	x	No	No	x	No	No	x
Inactive Wells	No	No	No	No	No	No	No	No	x	No	x
Marginal Well	x	No	x	x	x	No	No	No	No	x	x
New Fields	No	No	No	No	x	No	No	No	x	x	x
Tertiary	No	No	No	No	x	x	x	x	No	x	x

\* Economic Limit Factor helps in some of these areas, but none of these specific programs exist.

## ENHANCED OIL RECOVERY

### Summary of Existing Economic Programs by Member State / Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana*</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma*</u>	<u>Texas*</u>	<u>Wyoming*</u>	<u>Alberta</u>
Yes	No	No	No	No	No	Yes	Yes	Yes	NO	Yes
6% of Value on any incremental oil produced from a "Qualified Enhanced Recovery Project"				See Tertiary Summary	See Tertiary Summary	Reduced rate of 1.875% for Qualified EOR Projects  Only when Texas Crude is below \$28 per Barrel	Incremental Production is Exempt until Payback  See Tertiary Summary	Reduced Severance Tax Rate from 4.6% to 2.3 % for EOR Projects and Incremental Production  See High Cost Summary	See Tertiary Summary	Approved costs deducted from Crown Royalty

\* Identifies State / Province as one that has either Tertiary or High Cost Economic Program or both.

See individual State / Province Summaries for additional information on their Economic Programs

## HIGH COST GAS and COAL SEAM GAS

### Summary of Existing Economic Programs by Member State /Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alberta</u>
Yes	No	No	No	No	Yes	No	No	Yes	No	Yes
Tax Rate of 2% on Natural Gas Prod. from Coal Seam Wells until 6/7/94					3.5% rate on Coal Seam Gas only for 5 years			Total Sev Tax Exemption on High Cost Gas from wells drilled betwn 8/31/91 and 9/1/98. Exempt until 8/31/01		Scaled benefit tied to depth of well

High Cost Gas and Coal Seam Gas defined as Section 107 gas under the Natural Gas Policy Act.

## MARGINAL and STRIPPER PRODUCTION

### Summary of Existing Economic Programs by States / Province

<u>Alabama</u>	<u>Alaska</u>	<u>Arkansas</u>	<u>Colorado</u>	<u>Louisiana</u>	<u>Mississippi</u>	<u>N. Mexico</u>	<u>Oklahoma</u>	<u>Texas</u>	<u>Wyoming</u>	<u>Alber.</u>
Yes	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes
6% Severance tax rate on stripper wells; i.e. produce less than 25 barrels or 200,000 CF Per Day	See Economic Limit Factor In Summary	4% of market value for well or wells producing 10 barrels or less per day during calendar month	Reduced rate for wells that produce 10 Barrels or Less	Gas - \$0.013 MCF for wells that produce Less than 250,000 CF Daily Production  Oil - 6.25% for Wells that Produce 25 BPD/50% Saltwater  3.125% for Wells that Produce 10 BPD					4% rate on Tertiary and Stripper Projects for 5 years  Workovers betwn 7/1/93 and 12/31/98 Incremental production taxed at 2% for first 24 months	Lower royalty rate of 5% or oil royalty formula.  See p.47

## ALASKA

### CURRENT TAXES

<b>Income Taxes</b>	9.4% Corporate Income Tax
<b>General Property Tax</b>	20 mills / 2 % of assessed value
<b>Severance / Production*</b>	<b>Gas</b> 10% of Market Value or \$0.064 per MCF, whichever is greater  <b>Oil</b> 12.25 % of Market Value for first five years 15% after first five years or \$0.80 per barrel, whichever is higher.
	Oil and Gas Severance Taxes subject to Economic Limit Factor (ELF). See Below
<b>Conservation Tax</b>	<b>Gas</b> 4 tenths of a percent per 50,000 cubic feet of natural gas  <b>Oil</b> 4 tenths of one percent per barrel with conservation surcharge of \$0.05 per barrel of crude oil
<b>Sales and Use Taxes</b>	Not Applicable
<b>Franchise Tax</b>	Not Applicable

### Existing Economic Programs

**Economic Limit Factor** The respective severance tax rates for oil and gas are reduced by a field's ELF. During the life of a field, production diminishes while some operating costs remain fixed. At some point the total costs including operation costs, royalties and production taxes will exceed gross revenue and the field becomes unprofitable. This is called the economic limit. The ELF is designed in recognition of the economic limit of a field. The formula protects fields as they decline and encourages operators to drill development wells.

**Exploration Credits** Provides for a credit up to 50% of certain exploration costs that can be applied against royalty, rentals and severance taxes due the state. This provision is accomplished by state leases. Covers two years following the lease sale and applies to well footage drilled and geophysical costs. Geophysical data must be made public.

**Royalty Reduction** After two years of lease production, royalty may be reduced to prolong economic life of field. Lessee must show revenue is insufficient to yield a reasonable rate of return.

## TEXAS

### CURRENT TAXES

Income Taxes	See Franchise Taxes
General Property Taxes	Oil/Gas Production valued at 100% of Market Value of Remaining Reserves using Discounted Cash Flow Approach x Local Levy  Well Equipment is valued at 100% of market value x Local Levy
Severance/Production	Gas 7.5% of value at the wellhead except on sweet/sour gas shall not be less than 121/1500 of 1 cent per MCF  Oil Greater of 4.6% of Value or 4.6 cents per barrel
Conservation Tax	Gas Clean-Up tax of .003 cent per MCF  Oil 3/16th of 1 cent per barrel plus Clean-Up of 5/16th cent per barrel
Sales and Use	State 6.25 % County, City, MTA, etc. 2.00%
Franchise Tax	Higher of 4.5% of Taxable Income apportioned to state or \$2.50/1000 stockholders equity in state

### EXISTING ECONOMIC PROGRAMS

Enhanced Oil Recovery	Reduced rate of 2.3% severance tax for ten years that begin after 12/31/89 but before 1/1/98
Enhanced Oil Recovery	Reduced rate of 2.3% severance tax for ten years on incremental production from EOR projects that begin after 9/1/89 and expanded after 8/31/91 Application for expanded projects is now 1/98.
High Cost Gas.	Total severance tax exemption through 8/31/01 for "High Cost Gas Wells" spudded or completed between 6/16/89 and 9/1/96

**OIL &**

**GAS**

**LEASE**

**BRIEFING**

**1-10-96**

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**ACREAGE OFFERED AND LEASED PER YEAR**

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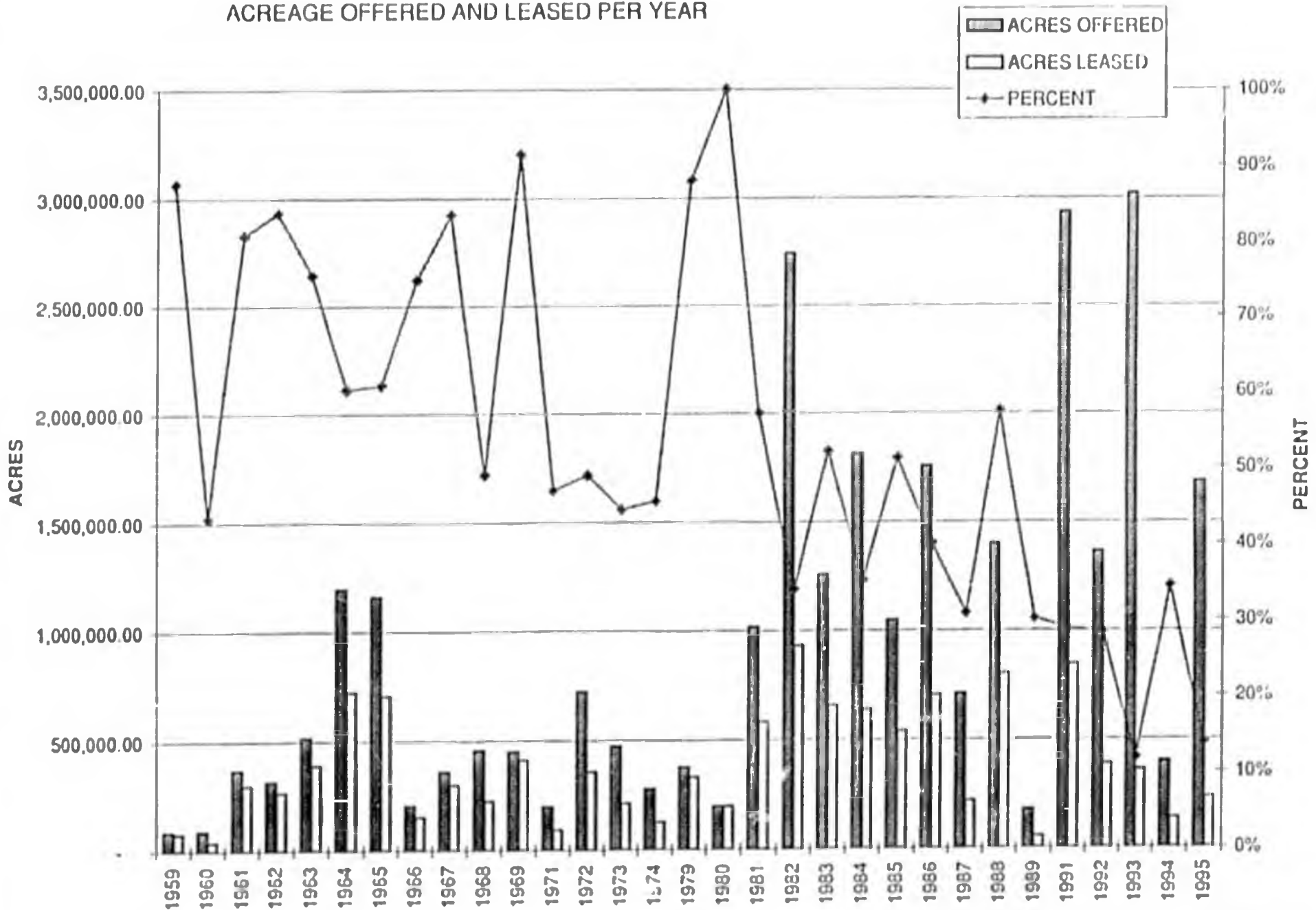
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YEAR	ACRES OFFERED	ACRES LEASED	PERCENT
1959	88,055.00	77,191.00	88%
1960	90,615.21	39,372.27	43%
1961	367,241.44	296,755.44	81%
1962	316,730.63	265,498.63	84%
1963	514,365.46	388,579.51	76%
1964	1,194,373.00	721,224.00	60%
1965	1,157,075.06	704,751.28	61%
1966	203,639.75	152,576.99	75%
1967	358,978.89	300,104.31	84%
1968	457,822.48	225,233.15	49%
1969	450,858.47	412,548.47	92%
1971	196,635.07	92,617.97	47%
1972	725,322.38	356,217.27	49%
1973	475,048.85	211,695.40	45%
1974	278,269.43	127,119.65	46%
1979	375,818.22	330,985.69	88%
1980	196,268.00	196,268.00	100%
1981	1,017,936.74	582,406.38	57%
1982	2,744,028.59	930,730.70	34%
1983	1,256,733.10	655,342.96	52%
1984	1,812,083.46	636,801.96	35%
1985	1,047,538.45	537,486.35	51%
1986	1,757,253.61	703,669.74	40%
1987	710,289.31	218,779.31	31%
1988	1,399,070.95	803,809.06	57%
1989	176,658.63	53,140.49	30%
1991	2,933,001.11	845,768.48	29%
1992	1,361,737.00	385,382.00	28%
1993	3,020,993.69	359,438.07	12%
1994	396,760.00	136,307.00	34%
1995	1,682,840.00	233,085.00	14%
<b>Grand Total:</b>	<b>28,763,941.98</b>	<b>11,980,886.53</b>	<b>42%</b>

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# ACREAGE OFFERED AND LEASED PER YEAR



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**UNIT ACREAGE**

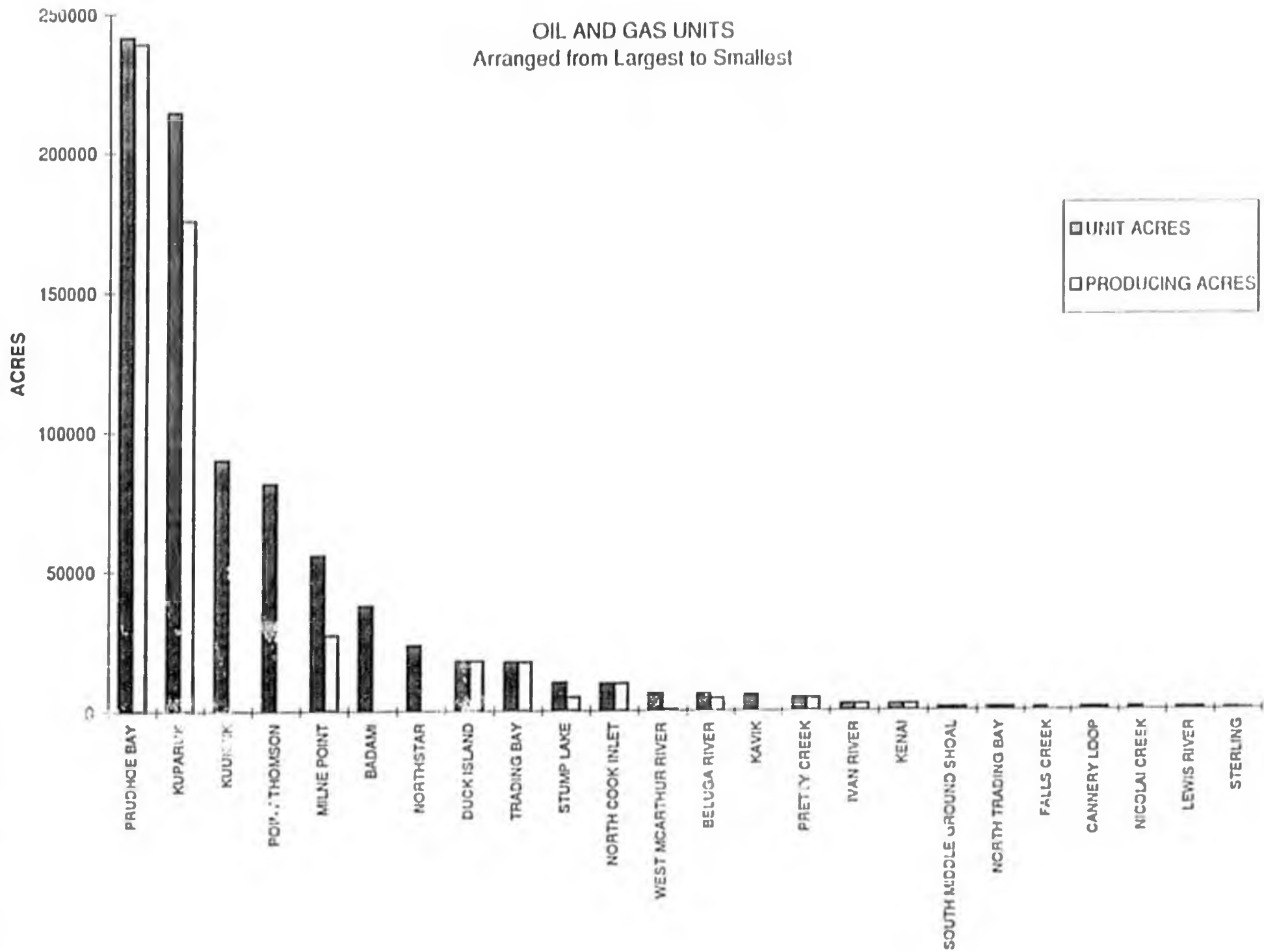
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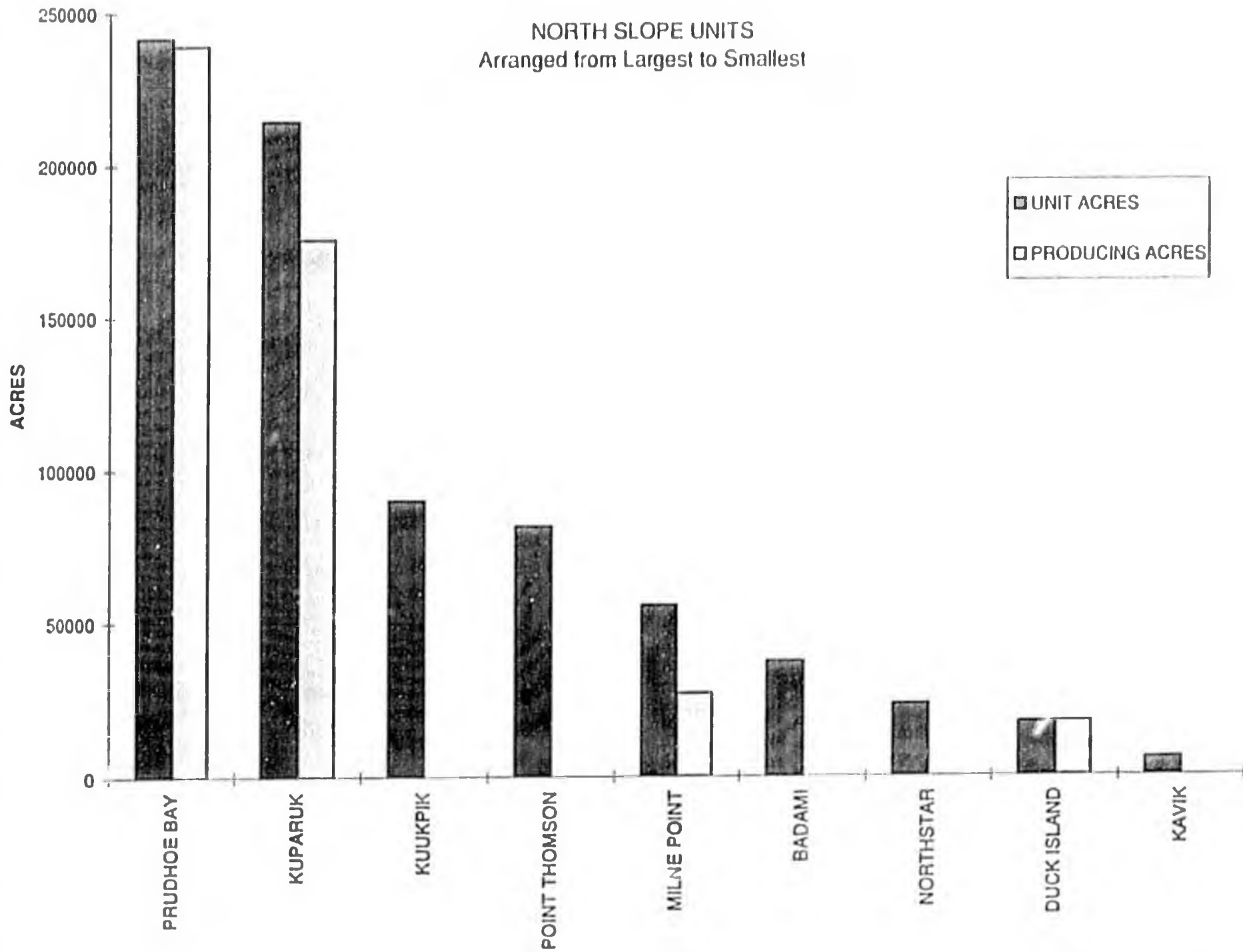
<b>AREA</b>	<b>UNIT NAME</b>	<b>UNIT ACRES</b>	<b>PRODUCING ACRES</b>
<b><u>COOK INLET</u></b>			
	BELUGA RIVER	6,099.15	4,464.60
	CANNERY LOOP	916.00	916.00
	FALLS CREEK	964.45	0.00
	IVAN RIVER	2,290.79	2,290.79
	KENAI	2,191.08	2,191.08
	LEWIS RIVER	720.00	720.00
	NICOLAI CREEK	879.78	0.00
	NORTH COOK INLET	9,781.50	9,781.50
	NORTH TRADING BAY	1,120.00	1,120.00
	PRETTY CREEK	4,579.33	4,579.33
	SOUTH MIDDLE GROUND SHOAL	1,160.00	1,160.00
	STERLING	496.37	133.28
	STUMP LAKE	10,062.50	4,880.00
	TRADING BAY	17,299.50	17,299.50
	WEST MCARTHUR RIVER	6,330.00	640.00
	<b>COOK INLET</b>	<b><u>64,890.45</u></b>	<b><u>50,176.08</u></b>
<b><u>NORTH SLOPE</u></b>			
	BADAMI	37,401.92	0.00
	DUCK ISLAND	17,547.62	17,547.62
	KAVIK	5,652.59	0.00
	KUPARUK	214,331.15	175,502.15
	KUUKPIK	89,799.11	0.00
	MILNE POINT	55,498.00	26,965.00
	NORTHSTAR	23,343.49	0.00
	POINT THOMSON	81,281.03	0.00
	PRUDHOE BAY	241,555.10	238,995.10
	<b>NORTH SLOPE</b>	<b><u>766,410.01</u></b>	<b><u>459,009.87</u></b>
	<b>GRAND TOTAL:</b>	<b><u>831,300.46</u></b>	<b><u>509,185.95</u></b>

# OIL AND GAS UNITS

Arranged from Largest to Smallest



NORTH SLOPE UNITS  
Arranged from Largest to Smallest



ACRES

0 2000 4000 6000 8000 10000 12000 14000 16000 18000

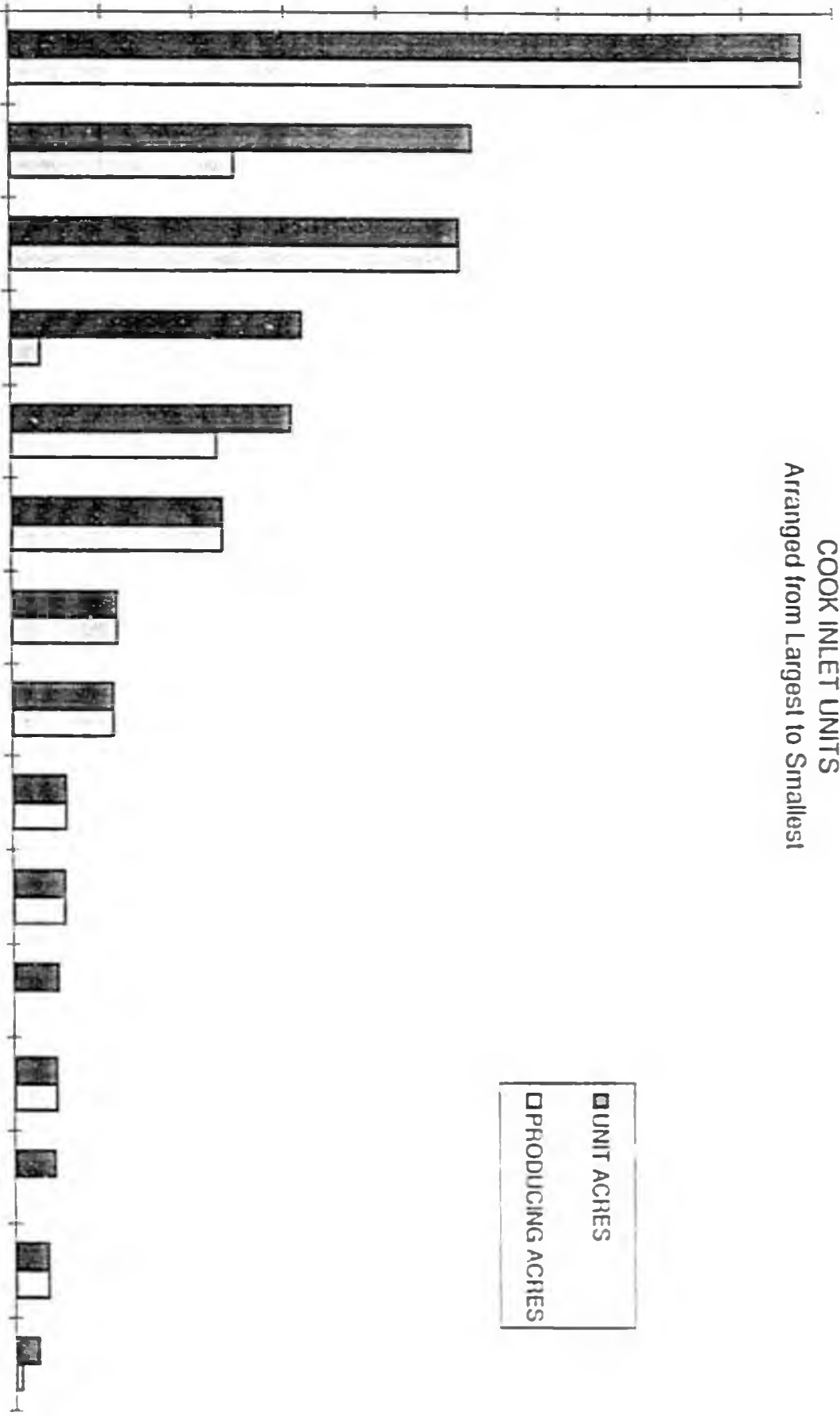
COOK INLET UNITS  
Arranged from Largest to Smallest

- TRADING BAY
- STUMP LAKE
- NORTH COOK INLET
- WEST MCARTHUR RIVER
- BELUGA RIVER
- PRETTY CREEK
- IVAN RIVER
- KENAI
- SOUTH MIDDLE GROUND SHOAL
- NORTH TRADING BAY
- FALLS CREEK
- CANNERY LOOP
- NICOLAI CREEK
- LEWIS RIVER
- STERLING

■ UNIT ACRES  
□ PRODUCING ACRES

1/3/96

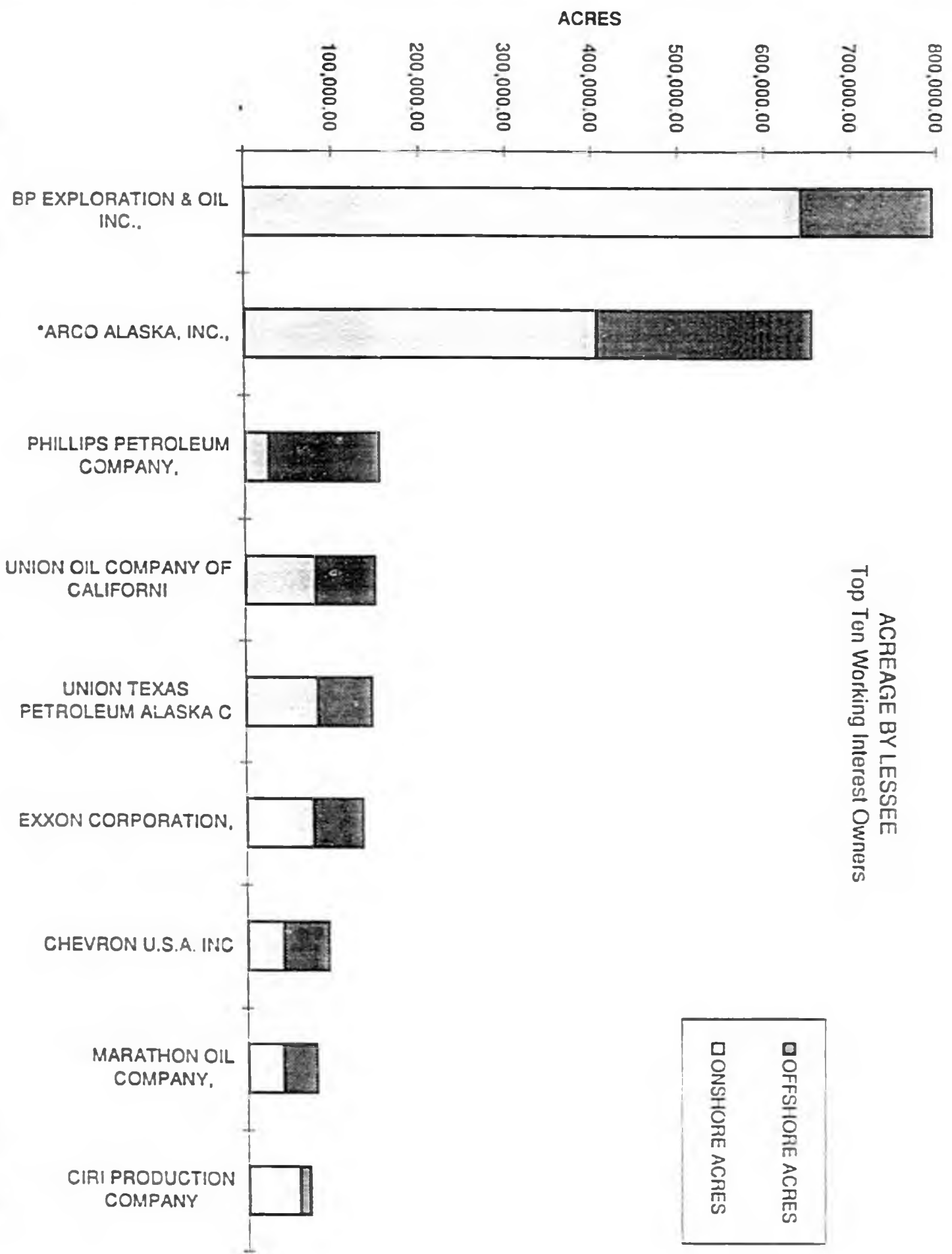
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## Top Ten Working Interest Owners

<u>NAME</u>	<u>ONSHORE ACRES</u>	<u>OFFSHORE ACRES</u>
BP EXPLORATION & OIL INC.,	642,481.63	152,483.17
*ARCO ALASKA, INC.,	484,772.30	249,911.48
PHILLIPS PETROLEUM COMPANY,	27,003.32	126,717.40
UNION OIL COMPANY OF CALIFORNI	79,552.93	68,566.13
UNION TEXAS PETROLEUM ALASKA C	81,274.35	62,793.05
EXXON CORPORATION,	75,674.05	56,680.87
CHEVRON U.S.A. INC	41,370.84	51,454.11
MARATHON OIL COMPANY,	40,314.40	38,009.15
CIRI PRODUCTION COMPANY	58,471.89	12,092.10
DANCO EXPLORATION, INC.	32,424.28	26,569.57
	1,670,634.79	971,405.54

ACREAGE BY LESSEE  
Top Ten Working Interest Owners



■ OFFSHORE ACRES  
□ ONSHORE ACRES

ACRES

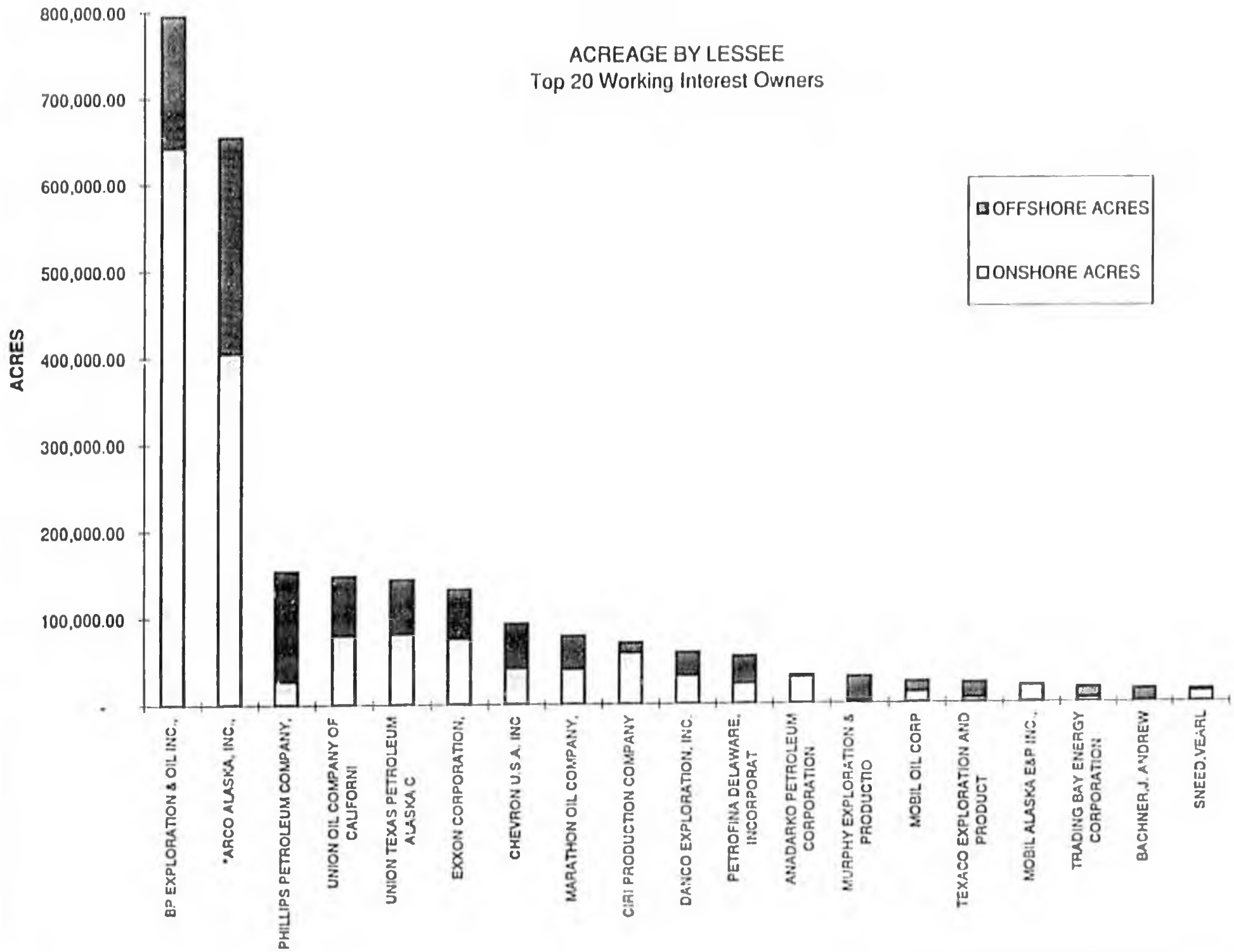
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\* Arco and Atlantic Richfield Combined

1/9/96

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ACREAGE BY LESSEE  
Top 20 Working Interest Owners



\* Arco and Atlantic Richfield Combined

Oil and Gas Lessees  
Listed in Order of Total Acreage Held

NAME	TOTAL ACRES	ONSHORE ACRES	OFFSHORE ACRES
BP EXPLORATION & OIL INC.,	794,964.81	642,481.63	152,483.17
*ARCO ALASKA, INC.,	654,589.81	404,678.32	249,911.48
PHILLIPS PETROLEUM COMPANY,	153,720.72	27,003.32	126,717.40
UNION OIL COMPANY OF CALIFORNI	148,119.06	79,552.93	68,566.13
UNION TEXAS PETROLEUM ALASKA C	144,067.40	81,274.35	62,793.05
EXXON CORPORATION,	132,354.93	75,674.05	56,680.87
CHEVRON U.S.A. INC	92,824.96	41,370.84	51,454.11
MARATHON OIL COMPANY,	78,323.55	40,314.40	38,009.15
CIRI PRODUCTION COMPANY	70,563.99	58,471.89	12,092.10
DANCO EXPLORATION, INC.	58,993.85	32,424.28	26,569.57
PETROFINA DELAWARE, INCORPORAT	54,631.14	23,373.73	31,257.41
ANADARKO PETROLEUM CORPORATION	33,024.48	30,407.29	2,617.18
MURPHY EXPLORATION & PRODUCTIO	30,497.95	275.54	30,222.41
MOBIL OIL CORP	24,736.02	12,232.09	12,503.93
TEXACO EXPLORATION AND PRODUCT	23,323.57	5,161.65	18,161.92
MOBIL ALASKA E&P INC.,	19,719.83	19,719.83	.
TRADING BAY ENERGY CORPORATION	17,354.22	4,384.08	12,970.14
BACHNER, J. ANDREW	15,254.12	26.40	15,227.72
SNEED, VEARL	14,881.99	11,714.19	3,167.80
PLACID OIL CO	12,768.19	1,615.17	11,153.01
STEWART PETROLEUM COMPANY,	10,252.23	279.50	9,972.72
SHELL WESTERN E & P INC	10,250.27	2,700.49	7,549.77
BURGLIN, CLIFFORD	10,062.22	8,576.00	1,486.22
MIDGARD ENERGY COMPANY,	9,889.81	3,574.31	6,315.50
SHELL ONSHORE VENTURES INC.,	8,524.27	729.90	7,794.37
BOREALIS RESOURCES INC.,	8,306.50	5,813.50	2,493.00
MOBIL ROCKY MOUNTAIN INC.	7,656.75	.	7,656.75
OXY USA INC.,	7,395.02	4,517.49	2,877.53
SHELL FRONTIER OIL AND GAS INC	5,725.00	5,725.00	.
LAPP RESOURCES INC	5,674.97	5,674.97	.
BLOCKER JOHN R	5,365.38	279.50	5,085.88
AMOCO PRODUCTION COMPANY	5,323.75	3,329.00	1,994.75
BACHNER, KARL A.	4,677.88	4,677.88	.
DANCO INC	4,462.00	.	4,462.00
TEXACO INC,	4,282.31	2,777.31	1,505.00
BACHNER DANA K	3,958.98	3,958.98	.
ROSEWOOD RESOURCES INC,	3,706.78	939.22	2,767.56
HUNT PETROLEUM CORPORATION,	3,542.82	1,082.76	2,460.05
LEWIS RIVER UNIT PARTNERSHIP,	3,200.00	3,200.00	.
SHELL OFFSHORE INC.,	2,955.33	.	2,955.33
MOBIL EXPLORATION AND PRODUCIN	2,723.23	1,733.39	989.84
ESCOPETA OIL & GAS CORPORATION	2,486.46	139.75	2,346.71
ESCOPETA PRODUCTION - ALASKA	2,486.46	139.75	21,346.71
ARCTIC SLOPE REGIONAL CORPORAT	2,278.50	2,278.50	.
PENNZOIL EXPLORATION AND PRODU	2,158.39	371.50	1,786.89
FORSGREN, KEITH C	2,080.11	3.60	2,076.51
SHELL LAND & ENERGY COMPANY,	1,376.80	1,376.80	.
LOUISIANA LAND AND EXPLORATION	1,329.04	339.20	989.84
JAMES, ALFRED III	1,280.00	5.00	1,275.00
NOVOSEL, FRANK J	1,244.00	1,244.00	.
HUNT, WILLIAM HERBERT TRUST ES	1,119.94	1,119.94	.

Oil and Gas Lessees  
Listed in Order of Total Acreage Held

NAME	TOTAL ACRES	ONSHORE ACRES	OFFSHORE ACRES
HUNT, LAMAR TRUST ESTATE	1,077.41	1,077.41	-
HUNT, NELSON BUNKER TRUST ESTATE	1,077.41	1,077.41	-
GAFFI, ZELLA	1,024.00	1,024.00	-
LUNDGREN (ESTATE OF), JAMES	1,013.33	-	1,013.33
WHITE, JAMES W.	718.17	87.34	630.83
COASTAL OIL & GAS CORPORATION	588.80	427.23	161.58
SUN OPERATING LIMITED PARTNERS	554.52	554.52	-
EVERETTE, KELLEY	512.00	512.00	-
COOK INLET REGION INC.	485.67	339.49	146.19
PARKER NANCY BLACK	317.50	317.50	-
FOREST OIL CORPORATION	268.66	194.94	73.73
MARATHON PETROLEUM COMPANY,	253.34	253.34	-
GUSTAFSON, MARY	202.67	-	202.67
BLOCKER, JOHN R. TRUSTEE	189.90	-	189.90
KLEINER, WALTER H	179.54	21.83	157.71
SEXTON, MICHAEL R	168.89	-	168.89
TIPPERARY OIL & GAS CORPORATIO	129.25	70.68	58.57
GIINTHER DOROTHY	128.00	128.00	-
BURGLIN, BRIAN	101.33	-	101.33
BURGLIN, BRUCE	101.33	-	101.33
BURGLIN, DAVID	101.33	-	101.33
BURGLIN, JOSEPH	101.33	-	101.33
RIMA, BARBARA C	101.33	-	101.33
GREMILLION, ANNE L	79.38	79.38	-
LOVICK, ROBERT G. JR.	79.38	79.38	-
READ, NANCY L	79.38	79.38	-
SPINKS, MARGARET L.	79.38	79.38	-
TRANSWORLD OIL & GAS LTD	68.04	49.37	18.67
TWO FOUR SIX EXPLORATION INC,	68.04	49.37	18.67
LEEDE, EDWARD H	64.62	35.34	29.28
NANA REGIONAL CORPORATION INC	64.50	-	64.50
BATTLE KENNETH W.	49.45	-	49.45
RYLANDER, MARIAN IRIS	35.00	35.00	-
PACIFIC LIGHTING GAS DEV CO,	32.00	17.50	14.50
DONNELLY, RICHARD	29.08	15.90	13.18
GRACE PETROLEUM CORPORATION,	27.22	19.75	7.47
SUNLITE INTERNATIONAL INC.	27.22	19.75	7.47
ARTUS, WILLIAM D.	23.54	-	23.54
HUGHES, KINGDON R	23.04	12.60	10.44
DOYON LIMITED	21.50	-	21.50
CHAPARRAL ROYALTY COMPANY	14.54	7.95	6.59
LEEDE AND PINE,	12.92	7.07	5.86
CHRISTIANSON, CABOT	9.42	-	9.42
PERRY (ESTATE OF), JOHN W	7.27	3.98	3.29
SEARLS, ROBERT JR	7.27	3.98	3.29
POPE, JOHN C	3.06	-	3.06
ROBERTS, CATHRYN	3.06	-	3.06
WOODBINE PETROLEUM, INC..	0.53	0.53	-
	2,810,888.29	1,745,718.48	1,084,169.76

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## CLOSED LEASES

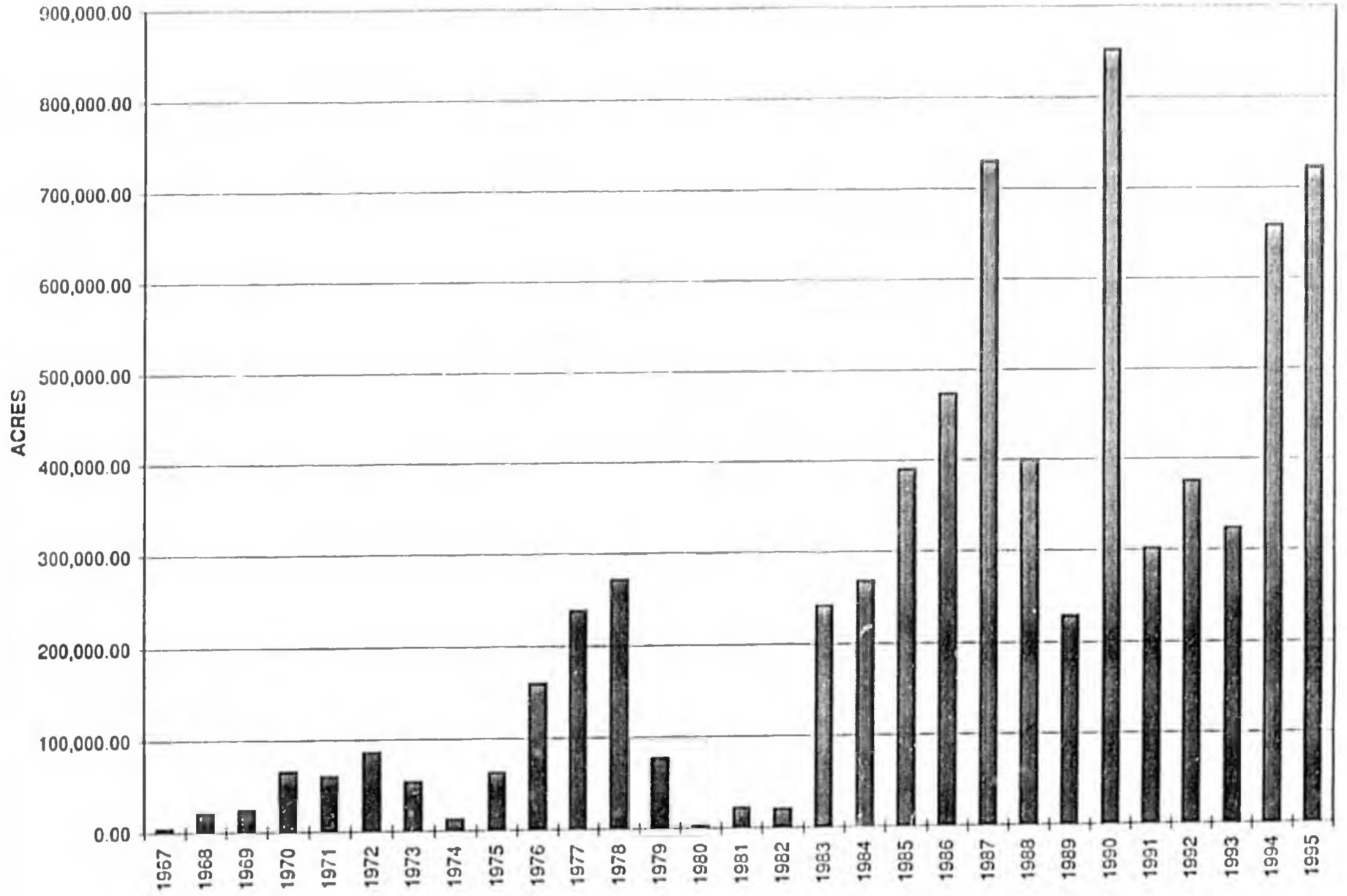
04-Jan-96

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STATUS DATE	TOTAL ACRES
1967	4,329.99
1968	20,903.47
1969	23,897.48
1970	65,808.82
1971	60,223.79
1972	85,860.95
1973	53,372.48
1974	12,216.39
1975	62,976.38
1976	159,986.82
1977	238,493.74
1978	271,487.49
1979	76,702.83
1980	2,295.47
1981	21,614.33
1982	20,004.64
1983	241,923.74
1984	267,982.62
1985	390,081.28
1986	473,464.94
1987	730,063.63
1988	399,823.23
1989	229,143.08
1990	852,197.39
1991	301,659.43
1992	375,849.50
1993	323,774.58
1994	658,375.98
1995	722,643.15
<b>Grand Total:</b>	<b>7,147,158.12</b>

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# CLOSED ACREAGE PER YEAR





# FIVE-YEAR OIL AND GAS LEASING PROGRAM PUBLIC NOTIFICATION SCHEDULE

ALASKA DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL AND GAS

Proposed Sale Area & Date	1994				1995				1996				1997				1998				1999												
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D			
79 Cape Yukatuga 7-95				P		E			N	F			S	ON HOLD																			
67A-W <sup>1</sup> 74W,76W Cook Inlet & 78W Reoffer 11-95						C <sub>4</sub>		E					F <sub>R</sub>		S																		
80 Shuylovik 12-95						P		E			N		F		S																		
86A Colville Delta Exempt 8-96				NEW							C <sub>3</sub>		E		P		E	N	F					S									
85A Cook Inlet Exempt 12-96						C <sub>3</sub>		E			C <sub>3</sub>		E		P		E	N	F					S									
86 Central Beaufort Sea 4-97	C <sub>1</sub>		E	C 2 Issued Dec '93								C <sub>3</sub>		E		P		E	N	F			S										
87 North Slope 3-98	C <sub>1</sub>		E			C <sub>2</sub>		E							C <sub>3</sub>		E			P		E	N	F		S							
85 Cook Inlet / Kamishak Bay 8-98	C <sub>1</sub>		E	C 2 Issued Dec. '93												C <sub>3</sub>		E		P		E	N	F		S							
83 Western Beaufort Sea 3-99	C <sub>1</sub>		E							C <sub>2</sub>		E								C <sub>3</sub>		E			P		E	N	F		S		
89 Central & Eastern Beaufort Sea 12-99	C <sub>1</sub>		E											C <sub>2</sub>		E							C <sub>3</sub>		E		P		E	N	F		S

REVISED 7/95

C = Call for Comments:  
 1 = New Sales and 5-Year Program Revisions.  
 2 = Request for General Information.  
 3 = Request for Socioeconomic and Environmental Information.  
 4 = Request for New Information Made Available Since Last Finding.  
 E = End of Comment Period

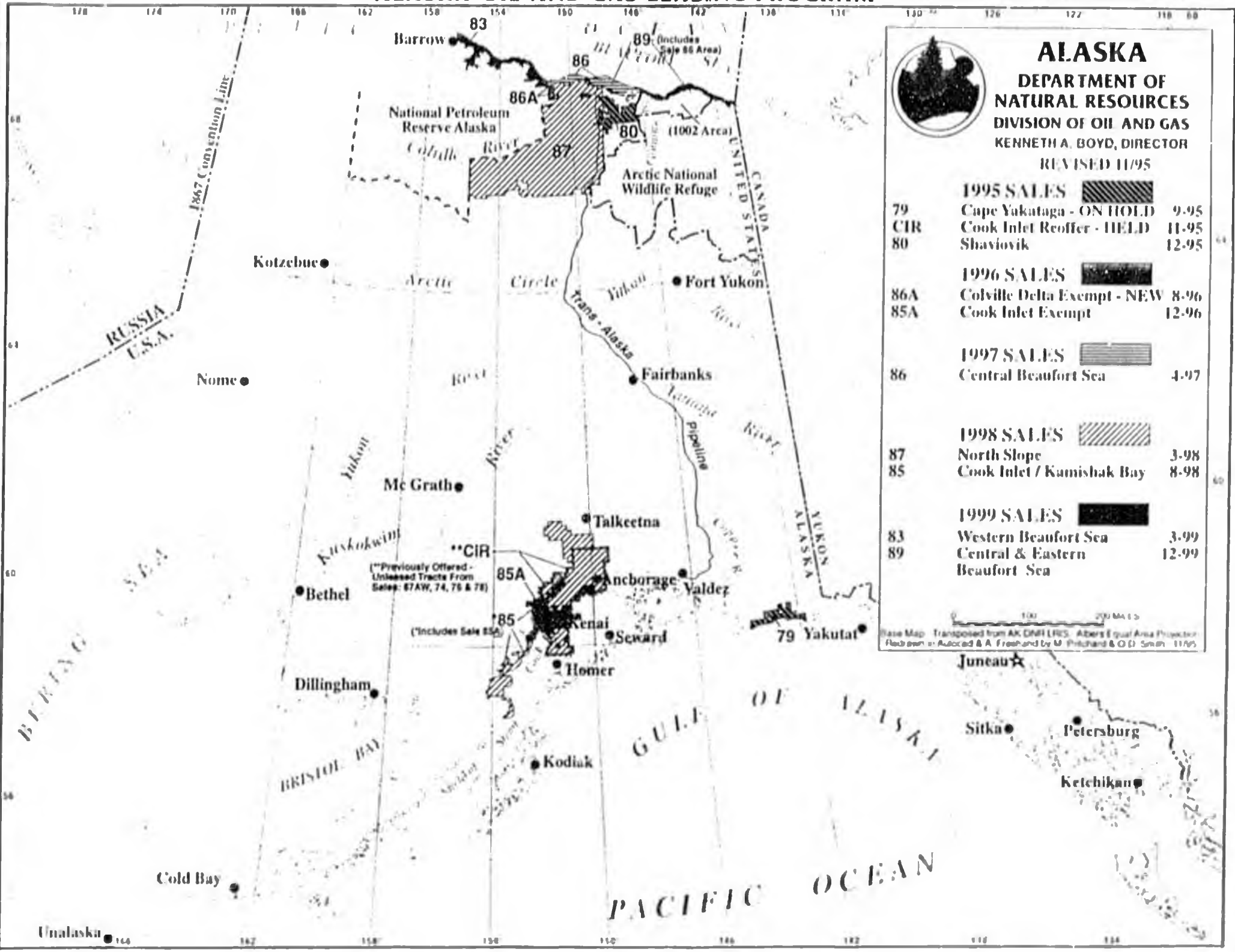
P = Preliminary Best Interest Finding /  
 ACMP Consistency Analysis. (If required.)  
 N = Notice of Intent to Issue Final Finding.  
 F = Final Finding and Notice of Sale and Terms.  
 S = Sale.


F = Revised Final Finding and/or Notice of Sale and Terms.  
 R =

Best Interest Finding Process

Public Meetings may be held at any time.






# ALASKA OIL AND GAS LEASING PROGRAM





## ALASKA

DEPARTMENT OF  
NATURAL RESOURCES  
DIVISION OF OIL AND GAS  
KENNETH A. BOYD, DIRECTOR  
REVISED 11/95

<b>1995 SALES</b>		
79	Cape Yakutat - ON HOLD	9-95
CIR	Cook Inlet Reoffer - HELD	11-95
80	Shaviovik	12-95
<b>1996 SALES</b>		
86A	Colville Delta Exempt - NEW	8-96
85A	Cook Inlet Exempt	12-96
<b>1997 SALES</b>		
86	Central Beaufort Sea	4-97
<b>1998 SALES</b>		
87	North Slope	3-98
85	Cook Inlet / Kumishak Bay	8-98
<b>1999 SALES</b>		
83	Western Beaufort Sea	3-99
89	Central & Eastern Beaufort Sea	12-99

Base Map: Transposed from AK DMF LRS - Albers Equal Area Projection  
Redrawn by Autodesk & A. Freshard by M. Prichard & O.D. Smith 11/95

**\*\*CIR**  
(\*\*Previously Offered -  
Unleased Tracts From  
Sales: 87AW, 74, 75 & 78)

(Includes Sale 85A)

0 100 200 MILES

**TESORO  
ROYALTY  
CON-  
TRACT  
BRIEFING  
1995**

**SEE**

**ALSO**

**SB 164**

**SALE OF NORTH SLOPE ROYALTY OIL  
TO  
TESORO ALASKA PETROLEUM  
COMPANY**



Alaska Department of  
**NATURAL  
RESOURCES**  
DIVISION OF OIL AND GAS

## CONTRACT TERMS

- Term

Three Years

January 1, 1996 to December 31, 1998

- Quantity

30 percent of Prudhoe Bay Unit royalty production  
About 40,000 barrels per day in 1996 declining to  
35,000 barrels per day by 1998.

- Price

- Purchase Price Reopener

- Security

- In-State Processing

- Local Hire

## Price

### Exxon's West Coast Royalty Value

- For Tesoro: Price certainty. Retroactive price adjustments due to producer "true-ups" and audits are minimized.
- For Alaska: Price exceeds value of royalty-in-value oil (RIV).
- Price compensates for "displacement effect" and "competitive effect."

### Purchase Price Reopener

- Tesoro and the State can renegotiate the price if the export ban is lifted.
- If the State and Exxon renegotiate the Exxon royalty value under the terms of the ANS Royalty Settlement, Tesoro may terminate the contract if the new price is not to its liking.

## Security

- Letter of Credit equal to the value of 75-days delivery of RIK.
- Covers State exposure to "Default Risk" and "Denomination Risk"
- If Tesoro and the State agree to an accommodation that will mitigate the Denomination Risk, the Letter of Credit requirement will be reduced to 60-days.

## In-State Processing

- Tesoro is obligated to refine 80 percent of the RIK in its Nikiski refinery.
- Provides commercial flexibility to Tesoro to optimize its refinery operation
- Provides the State with assurance that benefits of the sale will stay in-state.

## Local Hire

- Tesoro will hire Alaskan citizens to the extent allowed by the Constitution.

## IN-STATE BENEFITS

### Cash Value Offered

- Tesoro will pay a price that exceeds the value of RIV.
- Compensates for potential losses in royalty and severance tax revenues attributed to the “displacement effect.”

AS 38.05.183(1)  
and AS 38.06.050(1)

### Economic and Social Effects

- Tesoro employs 189 people in the Kenai Peninsula Borough and a total of 552 people statewide.
- Tesoro pays \$1.3 million in local property taxes.
- Tesoro pays \$7.6 million in various income, payroll, and excise taxes.
- No incremental effects on local social infrastructure (schools, roads, public safety, land use, etc.) is anticipated as a result of the sale.

AS 38.05.183(2)  
and AS 38.06.070(3), (4), and (5)

## Benefits of In-State Refining

- The State imports 15 percent of its petroleum products requirements.
- Imports will be displaced by in-state refining and more aggressive competition will benefit local consumers.

AS 38.05.183(3)  
and AS 38.06.070(2), (6), and (8)

## Ability of Tesoro to Provide Refined Products

- Tesoro has been in business in Alaska since 1969.
- It commands a 30 percent share of the local market in diesel fuels, jet fuels, and gasoline and it is a major supplier of propane and butane.

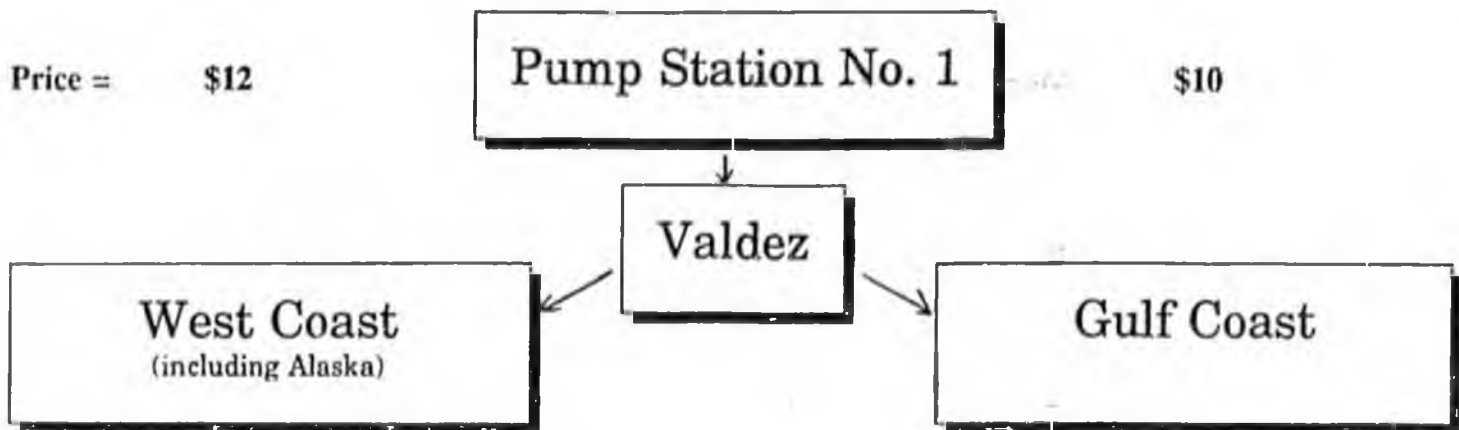
AS 38.05.183(4)  
and AS 38.06.070(6)

## Environmental Effects

- Tankers. No increase in tanker traffic between Valdez and Nikiski is anticipated as a result of the sale. Tesoro's recent refinery expansion means that fewer outbound shipments of products will occur.
- Air Quality. The sale will not contribute to an increase in emissions at the refinery. Tesoro now operates under ADEC Air Quality Control permits.
- Groundwater and Soil Contamination. Under compliance with ADEC and the EPA, Tesoro is undertaking a long term clean-up. The sale will contribute to the continued economic operation of the refinery and the clean-up program.

AS 38.06.070(7)

# DISPLACEMENT EFFECT



**If the North Slope producers take all of our royalty oil "in-value," then their shipments will look like this:**

40,000 <i>(Tesoro)</i>	+	660,000 <i>(CA and WA)</i>	+	300,000 <i>(Gulf Coast)</i>	=	1,000,000 <i>(Total)</i>
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In percentage terms:

4%	+	66%	+	30%	=	100%
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The calculation of royalty value (and severance tax) is:

(\$12 x 4%) + (\$12 x 66%)	+	(\$10 x 30%)	=	\$11.40
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**If the state sells oil to Tesoro, the producer's placements on the West Coast are reduced by 40,000 barrels. Their shipments will now look like this:**

0 <i>(Tesoro)</i>	+	660,000 <i>(CA and WA)</i>	+	300,000 <i>(Gulf Coast)</i>	=	960,000
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In percentage terms:

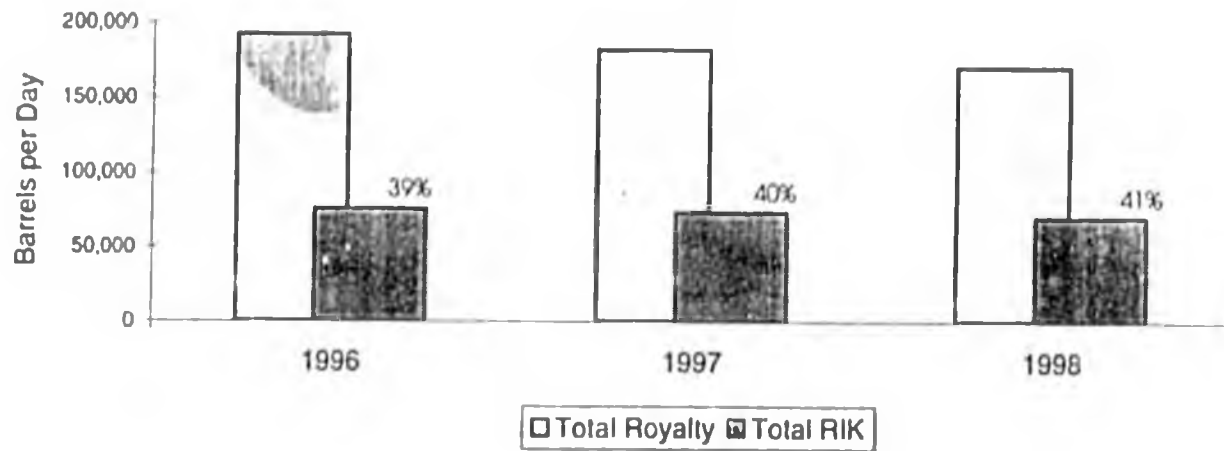
0%	+	68.75%	+	31.25%	=	100%
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The calculation of royalty value (and severance tax) is:

(\$12 x 0%) + (\$12 x 68.75%)	+	(\$10 x 31.25%)	=	\$11.38
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**In this example, the state loses two cents on every barrel of royalty and severance tax (together about 25% of 960,000) or \$4,800. To make up the difference, an additional twelve cents has to be added to each Tesoro barrel (40,000 x \$.12 = \$4,800).**

### Total ANS Royalty and RIK Sales (Including Mapco and New Tesoro)



**North Slope Royalty Crude Oil Production Forecast**  
(MBOD)

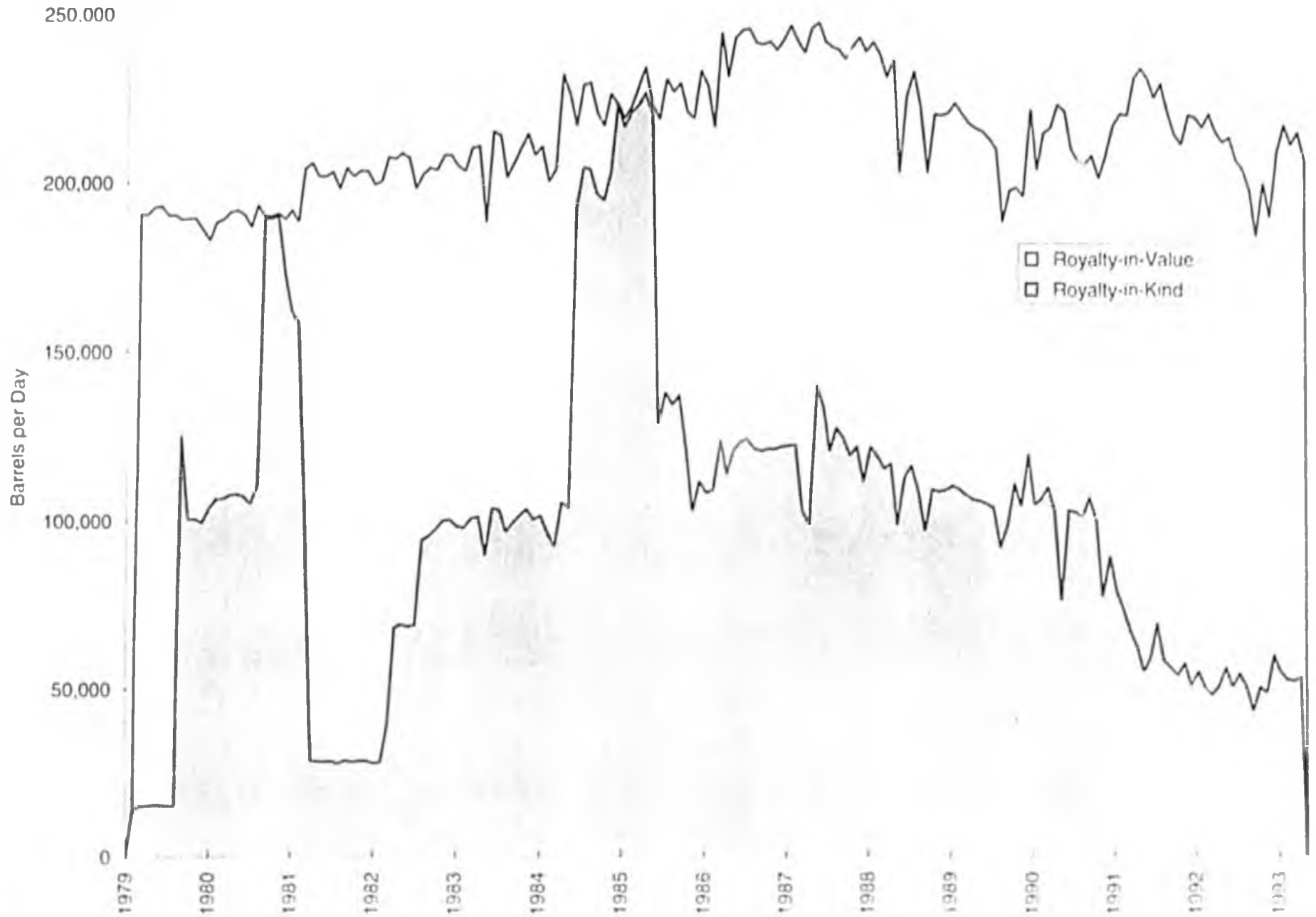
	1995	1996	1997	1998	1999	2000	2001	2002	2003
Prudhoe Bay Unit	143	135	127	116	105	95	85	75	69
Kuparuk River Unit	39	38	38	38	37	37	35	32	29
Milne Point	5	7	7	8	9	8	7	6	6
Endicott	13	12	10	9	8	7	6	5	4
<b>Total Royalty:</b>	<b>200</b>	<b>192</b>	<b>182</b>	<b>171</b>	<b>159</b>	<b>147</b>	<b>133</b>	<b>118</b>	<b>108</b>
minus RIV Req'd for Field Cost Allowance									
Prudhoe Bay Unit	14	14	13	12	11	10	9	8	7
Kuparuk River Unit	3	3	3	3	3	3	3	3	2
Milne Point	0	0	0	0	0	0	0	0	0
Endicott	1	1	1	1	1	1	0	0	0
	18	18	17	15	14	13	12	10	10
minus Current RIK Contracts									
Mapco	35	35	35	35	35	35	35	35	35
Tesoro	39	--	--	--	--	--	--	--	--
<b>Total Current RIK Obligation</b>	<b>74</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>35</b>
<b>ANS Royalty Oil Available to Supply New RIK Contracts:</b>									
	108	140	130	121	110	99	86	73	63
New Tesoro @ 30.0%	--	41	38	35	--	--	--	--	--
<b>ANS Royalty Oil Remaining:</b>	<b>108</b>	<b>99</b>	<b>92</b>	<b>86</b>	<b>110</b>	<b>99</b>	<b>86</b>	<b>73</b>	<b>63</b>

## Major North Slope RIK Contracts to In-State Purchasers Since 1980

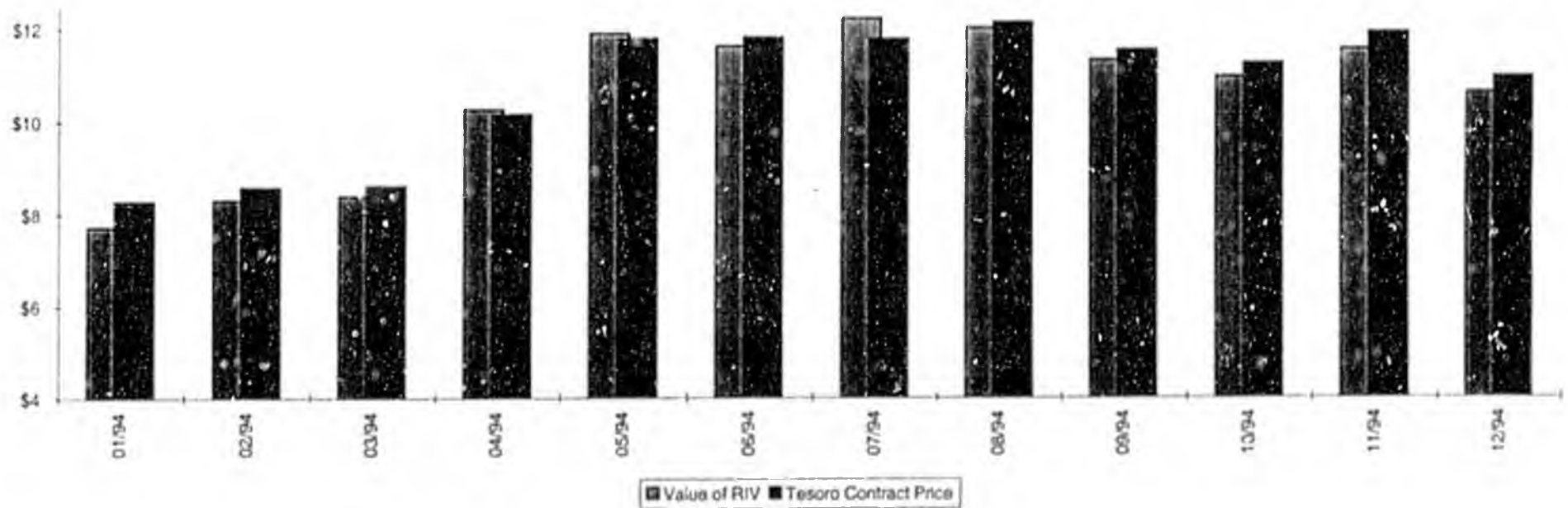
Purchaser Contract	Period	Total Volumes Purchased (Barrels)																			
		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	
<b>Chevron</b>																					
Chevron 1	7/80 - 6/81																				1,742,342
Chevron 2	5/83 - 5/84																				6,721,236
Chevron 3	5/84 - 7/91																				48,418,344
Kuparuk	12/86 - 12/91																				8,611,247
Petrostar Purchases	12/86 - 12/91																				2,348,070
	Subtotal																				67,841,239
	Plus: Tesoro Exchange Barrels																				16,015,527
	<b>Total Chevron</b>																				<b>83,856,765</b>
<b>Golden Valley Electric Association</b>																					
GVEA 1	6/81 - 5/84																				3,148,152
GVEA 2	6/84 - 9/85																				2,511,064
GVEA 3	10/85 - 12/91																				11,618,844
	<b>Total GVEA</b>																				<b>17,278,059</b>
<b>MAPCO</b>	1/80 - Present																				156,560,265
<b>Petrostar</b>																					
Petro Star	12/86 - 12/91																				3,030,011
Petro Star JV	3/92 - 12/93																				0
	<b>Total Petrostar</b>																				<b>3,030,011</b>
<b>Tesoro</b>																					
Tesoro 1	7/80 - 6/81																				1,737,253
Tesoro 2	7/80																				821,100
Tesoro 3	12/81 - 1/82																				838,299
Tesoro 4	1/83 - 12/94																				171,473,974
Tesoro 5	10/85 - 8/90																				8,657,384
Tesoro 6	1/95 - 12/95																				14,600,000 (estimated)
Tesoro 7 (New Tesoro)	1/96 - 12/98																				41,391,000
	Subtotal																				239,519,011
	Less: Chevron Exchange Barrels																				-16,015,501
	<b>Total Tesoro</b>																				<b>223,503,510</b>

Source: Alaska Department of Natural Resources, Division of Oil and Gas

### Total North Slope RIK and RIV Volumes



### Comparison of Tesoro Contract Price and the Value of RIV



**Preliminary Finding and Determination**

**to Sell Royalty Oil**

**to**

**Tesoro Alaska Petroleum Company**



Alaska Department of

**NATURAL  
RESOURCES**

Division of Oil and Gas  
3601 "C" Street, Suite 1380  
Anchorage, Alaska 99503-5948

March 21, 1995