

DECISION AND FINDINGS OF THE COMMISSIONER
ALASKA DEPARTMENT OF NATURAL RESOURCES

BADAMI UNIT AGREEMENT

MARCH 13, 1995

I. INTRODUCTION AND BACKGROUND

On January 21, 1994, BP Exploration (Alaska), Inc. (BPX) on behalf of itself and the other Working Interest Owner, Petrofina Delaware Incorporated (Petrofina), applied for approval of the proposed Badami Unit Agreement (Agreement). The proposed Badami Unit area is located on the North Slope, both onshore and offshore to the west (approximately three to five miles) of the Point Thomson Unit. A revised application for the establishment of the Badami Unit was filed on September 12, 1994 by BPX and Petrofina. The revised application was noticed to the public in the Anchorage Daily News on October 2, 1994 and the Tundra Times on October 5, 1994.

On November 18, 1994, BPX withdrew the revised application. Coincident with the withdrawal of the September 12, 1994 application, BPX and Petrofina submitted a new Agreement for the proposed Badami Unit. The new application contained a proposal to amend the royalty structure of the leases within the proposed Badami Unit and added another exploration well in the Unit Plan of Exploration. Discussions between BPX and the Division on the new application ensued.

On February 16, 1995, BPX amended some of the terms of the November 18, 1994, Agreement proposal. In the February 16, 1995, correspondence, BPX: (1) withdrew the sliding scale royalty proposal for the Badami Unit leases; (2) deleted two leases (ADLs 377007 and 377010) from the proposed Badami Unit Area; and (3) agreed to drill a third unit appraisal well on lease ADL 367004, ADL 367005, ADL 367010, or at another mutually agreeable location before April 30, 1998.

The Agreement now proposes to combine for unitized exploration and development ten individual State of Alaska oil and gas leases (collectively leases) comprising an area of approximately 37,402 acres.

Two of the leases involved in the proposed unit were issued as a result of the State of Alaska Lease Sale No. 45A, North Slope Exempt: Canning River to Colville River, Offshore/Uplands, held on September 24, 1985. These leases, ADL 365533 and ADL 365535, were issued on State of Alaska lease form DO&G-24-84 (Royalty) (Revised 8/84) which provides for a 16.667% royalty share to the State. The leases became effective December 1, 1985, for a primary term of ten (10) years.

Five of the leases involved in the proposed unit were issued as a result of the State of Alaska Lease Sale No. 48A, Mikkelsen: Mikkelsen Bay, Foggy Island Bay: Offshore/Uplands, held on February 25, 1986. These leases, ADL 367004, ADL 367005, ADL 367006, ADL 367010, and ADL 367011, were issued on State of Alaska lease form DO&G-01-86 (Revised 1/86) which provides for a 12.5% royalty share to the State. The leases became effective May 1, 1986, for a primary term of ten (10) years.

Two more of the leases involved in the proposed unit were issued as a result of the State of Alaska Lease Sale No. 70A, Kuparuk Uplands: Canning River to Colville River, held on January 29, 1991. These leases, ADL 375093 and ADL 375094, were issued on state of Alaska lease form DNR 10-4037 (Revised 9/90) which provides for a 12.5% royalty share to the State. The Leases became effective April 1, 1991, for a primary term of ten (10) years.

Finally, the last lease involved in the proposed unit was issued as a result of the State of Alaska Lease Sale No. 65, Beaufort Sea Pitt Point to Canning River, Offshore, held on June 4, 1991. The lease, ADL 377011, was issued on State of Alaska lease form DNR 10-4037 (Revised 9/90

vers. 2) which provides for a 16.667% royalty share to the State. The lease became effective August 1, 1991, for a primary term of ten (10) years.

BPX, the proposed unit operator, was not an original working interest owner in the leases. BPX acquired a two-thirds working interest in the leases from Conoco, an original working interest owner.

The proposed Agreement is the State of Alaska Model Unit Agreement form (Revised April 1990). As BPX withdrew the proposed sliding scale royalty modification on February 16, 1995, there are no proposed modifications to the model form.

The Agreement provides for plans of exploration, development and operations within the unit area without regard to internal lease boundaries. The current plan of exploration sets forth a five year schedule during which BPX agrees to conditions required by the State. BPX agrees to drill three wells within the unit area during the term of the plan of exploration, subject to unit termination if diligent exploration and development of the unit area through drilling does not continue on schedule. It is a standard Division provision to provide for unit termination if exploration and development do not occur as agreed to by the unit owners.

The Agreement provides that the Commissioner of the Department of Natural Resources (Commissioner) must separately approve the unit plan of operations before any operations may be undertaken within the unit area. The plan must contain: (1) statements and maps or drawings giving the sequence and schedule of operations; (2) the projected use requirements of the proposed operations, including the location and design of well sites, material sites, water supplies, waste sites, buildings, roads and utilities; (3) plans for rehabilitating the affected area; and (4) a description of procedures which will be implemented to minimize adverse effects on other natural resources and other uses of the area, including fish and wildlife habitat, historic and archeological sites, and public use. These plans must be circulated to other state and local agencies for their review and comment before approval by the Commissioner. For activities in the coastal zone, as here, the proposed plans must also be found to be consistent with the Alaska Coastal Management Program before operations may commence.

Pursuant to 11 AAC 83.306, the Division of Oil and Gas (Division) determined that the application was complete on December 5, 1994. Pursuant to 11 AAC 83.311, public notice of the application was published in the Tundra Times on December 14, 1994 and in the Anchorage Daily News on December 11, 1994. Copies of the application and the public notice were also provided to interested parties pursuant to 11 AAC 83.311, as well as to the Alaska Departments of Environmental Conservation and Fish and Game, the North Slope Borough, and the Alaska Oil and Gas Conservation Commission (AOGCC). The public notice invited comments on the application from interested parties and members of the public.

The public notices allowed thirty days to submit any comments. The comment period ended January 13, 1995. Fourteen letters of comment were received by the Division during the public notice period. All fourteen letters addressed one issue: BPX's proposed sliding scale royalty modification. All fourteen letters supported BPX's proposal. It should be noted that all fourteen letters came from entities involved in or related to Alaska's oil and gas industry and many are BPX's contractors.

II. DISCUSSION OF DECISION CRITERIA

In accordance with AS 38.05.180(p) and 11 AAC 83.303, the Commissioner will approve a proposed unit agreement if the Commissioner finds that the agreement is necessary or advisable to protect the public interest. To find that a proposed unit agreement is necessary or advisable to protect the public interest, the Commissioner must find that the proposed unit will: (1) promote the conservation of all natural resources; (2) promote the prevention of economic and physical waste; and (3) provide for the protection of all parties of interest, including the State.

In evaluating these criteria, the Commissioner will consider: (1) the environmental costs and benefits of unitized exploration and development; (2) the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization; (3) prior exploration activities in the proposed unit area; (4) the applicant's plans for exploration or development of the proposed unit area; (5) the economic costs and benefits to the State; and (6) any other relevant factors (including mitigation measures) the commissioner determines necessary or advisable to protect the public interest. A discussion of these criteria and considerations with respect to the proposed Badami Unit follows.

- (A) The Conservation of All Natural Resources. Unitization of oil and gas reservoirs is generally recognized as a prudent means of conservation. Without unitization, the unregulated development of reservoirs tends to be a race for possession by competitive operators. The results can be: (1) overly dense drilling, especially along property lines; (2) rapid dissipation of reservoir pressure; and (3) irregular advance of displacing fluids, all of which contribute to the loss of ultimate recovery or economic waste. The concentration of surface activity, duplication of production, gathering, and processing facilities, and haste to get oil to the surface also increase the likelihood of environmental damage (such as spills and other surface impacts). Although conservation orders and field rules issued by the AOGCC could resolve, pre-empt, or mitigate some of these impacts without an agreement to unitize operations, unitization provides the most practical and efficient method for maximizing oil and gas recovery, while eliminating or minimizing negative impacts on other resources.

The Agreement will promote the conservation of both surface and subsurface resources through the unitized (rather than the lease-by-lease) development. Although the extent of any oil and gas contained in the prospective reservoirs has not been determined, the Agreement will ensure diligent timely exploration and maximize recovery from the leases if the hydrocarbon reserves are determined to be commercially developable.

- (B) The Prevention of Economic and Physical Waste. Traditionally, under unitized operations, the assignment of undivided equity interests in the oil and gas reservoirs to each lease largely resolves the resource conservation problem. Economic and physical waste, however, could still occur in the absence of an equitable cost sharing formula and a well-designed and coordinated development plan. Consequently, a unit agreement must provide for equitable allocation of costs as well as hydrocarbons (benefits), and plan to maximize physical and economic recovery from any reservoir.

An equitable allocation of hydrocarbons shares discourages hasty or unnecessary development and production. An equitable cost-sharing agreement promotes efficient development of common surface facilities and operating strategies. An equitable cost-sharing agreement and a mutually agreed upon unit operator allow the working interest owners in the unit to implement efficient well spacing requirements and reinjection

strategies, and provide for the common, joint-use surface facilities. Unitization prevents economic and physical waste by eliminating redundant expenditures for a given level of production, and avoiding loss of ultimate recovery by adopting a unified reservoir management strategy.

Unitized operations greatly improve the efficiency of development of reservoirs with variable productivity across adjoining leases. Marginal economic reserves, which otherwise would not be produced on a lease-by-lease basis, often can be produced through unitized operations. Facility consolidation saves capital, and promotes better reservoir management for all working interest owners through pressure maintenance and secondary recovery procedures. In combination, these factors allow less profitable areas of a reservoir to be developed and produced in the interest of all parties, including the State as royalty owner.

- (C) The Protection of All Parties in Interest, Including the State. Unitization seeks to protect the economic interests of all working interest owners of a common reservoir. By combining their interests and jointly operating under a unit agreement and unit operating agreement, each individual working interest owner is assured an equitable allocation of costs and revenues commensurate with the value of its lease(s).

The State's economic interest is furthered under the Agreement because exploration will likely occur earlier than without unitization. Diligent exploration under a single approved unit plan without the complications of competing operators is certainly in the State's best interest because it promotes efficient evaluation of the State's resources, while minimizing impacts to the region's cultural, biological, and environmental resources. If a commercial discovery is made, the State's economy will benefit from the production-based revenue, oil and gas-related jobs, and service industry activity.

The Agreement provides for accurate reporting and record keeping, State concurrence with operating procedures, settlement of royalty, in kind taking of royalty oil, and emergency storage of oil, all of which will further the State's interest.

III. DISCUSSION OF CONSIDERATIONS

The following matters were considered in evaluating the criteria discussed in Section II above.

- (A) The Environmental Costs and Benefits of Unitized Exploration or Development. The proposed unit area is habitat for a variety of fish, waterfowl and marine mammals. As a result, the area is occasionally used by residents for subsistence hunting and fishing. It is anticipated that oil and gas activity in the proposed unit area will impact some habitat, and may impact some subsistence activity. The extent of this impact will depend on a number of variables, including the effectiveness of actions taken to mitigate the impact, the availability of alternative habitat and subsistence areas, and the ability of the fish and marine mammals to adapt to some displacement and changes in their habitat.

Ongoing measures such as (1) seasonal restrictions on specific activities in certain areas, especially designated primary waterfowl areas, (2) the required consolidation of facilities, and (3) regulation of waste disposal, are designed to minimize surface impacts. With these measures imposed, the anticipated exploration and development related activity is not likely to significantly impact bird, fish, and mammal populations. In any case, the anticipated activity under the Agreement will impact habitat and subsistence activity less than if the

leases are developed and produced individually. Unitized exploration, development and production minimizes surface impact.

The leases also contain other stipulations designed to protect the environment. These stipulations address the protection of primary waterfowl areas, wildlife and wildlife habitat, site restoration, construction of pipelines, seasonal restrictions on operations, and avoidance of seismic hazards. Virtually all activities here in the coastal zone which may occur following unitization are subject to a coastal zone consistency determination, and must comply with both the State and North Slope Borough coastal zone management plans.

State unitization regulations require that the Commissioner approve a proposed plan of operation before any operations may be undertaken. A proposed plan of operation must describe the operating procedures designed to prevent or minimize adverse effects on natural resources and other uses of the unit area and adjacent areas. Further, before undertaking operations, the unit operator must guarantee full payment of all damage sustained to the surface estate, by reason of entering the land. Finally, a proposed plan of operations must include plans for rehabilitation of the affected unit area after completion of operations.

- (B) The Geological and Engineering Characteristics of the Reservoir. Pursuant to 11 AAC 83.356(a), a unit must encompass the minimum area required to include all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations. In the 11 AAC 83.395(5) definitions, a "potential hydrocarbon accumulation" means any structural or stratigraphic entrapping mechanism which has been reasonably defined and delineated through geophysical, geological, or other means and which contains one or more intervals, zones, strata, or formations having the necessary physical characteristics to accumulate and prevent the escape of oil and gas.

The proposed Badami Unit encompasses a block of ten onshore and offshore leases about 20 miles southeast of the Endicott Production Unit, roughly between the Point Thomson Unit and the Shavirovik River in the area of Mikkelsen Bay. Four wells have been drilled within the boundary of the proposed unit and two wells are currently active at the time of writing of this decision. Mobil Mikkelsen Bay No. 13-9-19 was completed as a dry hole in 1970 in the southeastern corner of ADL 367010. Atlantic Richfield West Mikkelsen Unit No. 2 was completed as a dry hole in 1979 in the northeast corner of ADL 367004. Conoco Badami No. 1, located on the west side of ADL 365533 and completed on April 27, 1990, is the discovery well for the accumulation, and Conoco Badami No. 2 was completed April 13, 1992 on ADL 367006. Both Badami Nos. 1 and 2 have been certified capable of producing in paying quantities.

BPX Badami No. 5 was spudded January 19, 1995 in ADL 367011, and BPX Badami No. 4 was spudded February 1, 1995 to the east of Badami No. 1 in the same lease (ADL 365533) as Badami No. 1. The Division has reviewed the confidential results to-date from these wells, however, operations are not yet complete at either location.

In addition to the six wells within the proposed unit, four other wells have been drilled near the proposed unit boundary. East of the proposed unit on ADL 365537, Exxon East Mikkelsen Bay No. 1 was drilled and abandoned on June 16, 1971. West of the northern part of the proposed unit, ARCO West Mikkelsen State No. 1 (ADL 47527) and ARCO West Mikkelsen Unit Nos. 3 and 4 (ADL 367003) were drilled and abandoned in 1978,

1980, and 1983, respectively. Other regional well control data, confidential and non-confidential, were used by the Division in evaluating the proposed unit.

An approximate 80 square mile 3D seismic survey has been acquired, covering most of the proposed unit area, and other proprietary 2D seismic data were used by the Division evaluating those lands appropriate for inclusion in the proposed unit.

The Division's subsurface geologic evaluation supports the configuration of the Badami Unit area as proposed. BPX has demonstrated a legitimate prospect in a Canning Formation submarine fan complex, penetrated by Badami Nos. 1 and 2, and blanketed with a high quality 3D seismic survey. Both Badami Nos. 1 and 2 have been certified capable of producing in paying quantities from Canning Formation sandstones. Although the extent of reservoir and potential reservoir within the submarine fan complex is difficult to resolve at this time, the 3D seismic survey has enabled BPX to reasonably define and delineate the accumulation as required by 11 AAC 83.356(a) and 11 AAC 83.395(5).

The distribution and connectivity of reservoir quality sands within the submarine fan complex in the fringe areas of the proposed unit, however, is problematic. The Division recognizes that the entrapping mechanism of a "potential hydrocarbon accumulation" (defined in 11 AAC 83.395(5)), must have the necessary physical characteristics to accumulate and prevent the escape of oil and gas. One such characteristic is the existence of a suitable reservoir(s), the distribution of which is critical in determining the size and shape of the unit. The Badami prospect is a highly complex accumulation in which reservoir sands have stratigraphically trapped hydrocarbons within a mud-rich succession. It is expected that reservoir quality will vary greatly beneath different parts of the proposed unit, and although some sand intervals may be continuous, many such reservoirs may be discontinuous (not connected). The variability of reservoir (sand quality, quantity and continuity) has already been demonstrated by previous penetrations into the submarine fan complex within the proposed unit. These penetrations include Badami Nos. 1 and 2, and West Mikkelsen Unit No. 2.

After extensive review of the data and interpretations for the Badami prospect, the Division believes that the distribution and connectivity of potential reservoir sands within the various facies of the submarine fan complex become less and less certain at increasing distances from the currently drilled and tested central area of the mapped, depositional anomaly. In the western part of the proposed unit this issue will be resolved through future drilling. BPX, by letter dated February 16, 1995, committed to drill another appraisal well by 1998 on one of the three western leases (ADL 367004, ADL 377005, or ADL 367010) or another mutually agreed optimum location as part of the plan of exploration.

In the southern part of the proposed unit, the Division continued to have concerns as to whether or not all or parts of ADL 375094, ADL 375093, and ADL 365535 were appropriate for inclusion in the unit. Although the 3D seismic data was complete over the proposed unit area, neither the depositional models, the mapping of seismic stratal geometries, nor the analyses of seismic amplitudes can fully resolve the questions of potential reservoir sand occurrence and connectivity. Only additional drilling and long term reservoir flow tests will resolve these questions.

Division technical staff met with BPX to discuss the revised interpretations and information from the two drilling wells. On March 7, 1995 the Division received revised interpretations pertinent to the southern acreage by letter from BPX dated March 6, 1995.

It is important to note that when dealing with complex stratigraphic traps such as Badami, the data are commonly subject to multiple interpretations. Potential reservoir-bearing facies of the Badami depositional system have now been interpreted by BPX geoscientists -- using the 3D seismic survey in conjunction with data from Badami Nos. 4 and 5 -- to extend beneath the northern portions of ADL 375094, ADL 375093, and ADL 365535 (the southern leases in question). The Division believes BPX's interpretation is only one of several interpretations and that reservoir quality sands may or may not exist on the southern leases.

BPX has acquired a high quality 3D seismic survey covering all of the southern leases. The 3D coverage, in addition to the two currently drilling wells and a commitment for a third well, afford reasonable proof of BPX's exploration commitment in this proposed unit. Correlation of the new well data to the 3D seismic, and extrapolation of these interpretations into the southern acreage will ultimately help in understanding if and where reservoir quality sands might exist.

The Division believes a well or wells will eventually have to be drilled to evaluate the validity of the prospect beneath the southern leases. The Division concludes, however, that the 3D seismic data is adequate, at this time, to fulfill the provisions in the applicable statutes, and that an appraisal well on the southern acreage does not have to be a condition of this first plan.

As the plan of exploration proceeds, the Division will continue to review information, interpretations, and unit activities pertinent to providing better delineation of the reservoir potential of fringe areas of the unit. At this time, the Division's review of all pertinent data support the inclusion of the ten leases, as proposed, within the proposed unit area.

- (C) Prior Exploration Activities in the Unit Area. As mentioned above, eight exploration wells have been drilled within and around the proposed unit area and two wells are currently being drilled within the unit area. In addition to hundreds of miles of 2D seismic data, BPX acquired approximately 80 square miles of 3D seismic data in 1993 to better define the potential structures and traps which may contain hydrocarbon accumulations within the proposed unit area.
- (D) The Applicant's Plans for Exploration or Development of the Proposed Unit Area. In the five year term of its initial unit plan of exploration submitted on November 18, 1994, and amended on February 16, 1995, BPX commits to drill three exploration wells and acquire additional geophysical (seismic) data to delineate any hydrocarbon resources determined to exist within the unit area. The plan includes: (1) drilling the initial unit test well in either early 1995 or early 1996; (2) drilling a second unit exploratory well before April 30, 1998, on ADL 367004, ADL 367005, ADL 367010, or on another mutually agreed location; (3) drilling a third unit exploratory well prior to the 1998-1999 winter season, and (4) acquiring or purchasing additional 2D seismic data in the unit area and integrating this 2D data into the Badami Unit dataset. As was noted in section III.(B) of this Decision and Findings, two wells are currently being drilled within the unit area, Badami No. 4 and Badami No. 5. These wells will satisfy two of the three well requirements of the initial unit plan of exploration.

The plan sets forth a timely sequence of reservoir delineation activities to facilitate the reservoir's ultimate development and production. Completion of these exploration activities as scheduled will satisfy the performance standards and diligence requirements to

which the State and BPX have agreed as conditions for approval of the Agreement. If any of the proposed exploratory wells in the initial unit plan are not drilled prior to or as scheduled, the plan will be in default, and the Agreement will automatically terminate on the date of any such non-performance; that is, April 30, 1998 in the case of the proposed second well. These provisions insure that the lease extensions resulting from unitization pursuant to 11 AAC 83.336(a)(2) continue only so long as BPX proceeds diligently with exploration and development.

- (E) The Economic Costs and Benefits to the State and Other Relevant Factors. Approval of the Agreement economically benefits the State in the near term through employment associated with the assessing of the hydrocarbon potential of the subject leases. In addition, should field development result, the State's long-term royalty and tax revenues will be enhanced.

As the Badami unitization discussions continued between the State and BPX, an issue arose concerning the perceived lack of diverse ownership interest in the leases proposed for unitization. The leases proposed for the Badami Unit are all owned jointly and in common percentages by BPX and Petrofina. No other working interest ownership exists in the proposed Badami Unit. One could reasonably argue that unitizing the Badami prospect will not achieve any of the principle goals of unitization. Given BPX and Petrofina's sole common, uniform ownership in the leases, exploration and development of the Badami prospect is not a race amongst competitive operators or lessees. Issues that unitization is designed to address, such as overly dense drilling especially along lease lines, duplication of production gathering and processing facilities, and the haste to get oil and gas to the surface that may lead to environmental damage and the loss of ultimate recovery or economic waste, are not relevant when the entire geological prospect proposed for unitization has a common, uniform ownership. In the case of a common, uniform ownership, its decision-making is not constrained by competition.

Further, BPX and Petrofina have the obligation to act as prudent lessees, and given that the lessees are operating without the constraints of competition to produce, it is also arguably difficult to see how unitization would provide any relative improvement in the prevention of economic or physical waste. Because no other working interest owners are competing or have diverse interests in the prospect, BPX and Petrofina can determine the timing and location of the wells to be drilled within the prospect, the location of surface facilities, and the prudent reservoir management and operating strategies to prevent economic and physical waste and to avoid loss of ultimate recovery.

Nevertheless, the question of whether AS 38.05.180(p) allows the unitization of part or all of a number of leases where there is no diversity of ownership across lease boundaries was a paramount consideration in the evaluation of BPX's application for unitization of the leases within the proposed Badami Unit Area. In the case of this Agreement, the issue is more significant considering the fact that some of the leases expire on November 30, 1995, and April 30, 1996, absent unitization.

Common, uniform ownership across several leases creates a situation analogous to the "single lessee" situation. In his June 3, 1975, opinion concerning single lessee units, former Assistant Attorney General Thomas K. Williams (see Attachment) states:

While it is therefore our opinion that "single lessee units" are legal, we should point out that such cases lack an important element normally present in unit proposals; namely, there is no problem in getting lessee agreement

when the leases involved all have the same person, corporation or group as lessee. Unitization merely for the convenience of the lessee of the lease does not necessarily benefit the public interest, as required by AS 38.05180(m) [currently AS 38.05.180(p)] and 11 AAC 83.340 [currently 11 AAC 83.303.] Accordingly, there should be some clear conservation issue or other justifying factor (e.g., reducing environmental impact or minimizing conflict with other beneficial uses of the land) involved before "single lessee units" are approved.

In the case of BPX's proposed Badami Unit, the State recognizes that if the Agreement is not approved and certain of the leases were allowed to expire, it could be several years before the state could successfully re-lease the areas overlying a portion of the Badami prospect. It might even be longer before another operator might propose to drill and develop the prospect. Given the current economic climate, the geological risk associated with the drilling of the prospect, the amount of work that would have to be duplicated by a new lessee, and the reduced level of exploratory drilling activity on the North Slope over the last two years, it is in the state's interest to encourage the further exploration of the Badami area by the parties currently willing to take the economic risks involved: BPX and Petrofina.

Although the five major considerations enumerated above form the primary basis for the Badami Unit decision, a further relevant factor from the state's perspective is the synergy of these considerations. In the case of the Badami Unit, the decision criteria (promoting conservation of all resources, preventing economic and physical waste, and protecting all parties of interest) are fully supported by all of the considerations.

In the Division's view, establishing the unit results in reduced disruption to habitat and subsistence activities because surface impacts are minimized, protective stipulations are required, and approval procedures in the plan of operations allow for state oversight to help minimize any adverse effects of operation activities. In addition, expedited drilling yields certain economic benefits to the state.

The state gains by having its potential hydrocarbon resources further explored and delineated at an earlier date with the Agreement in place than without it. The unit plan of exploration provides for specific performance standards during its initial five year term. The Agreement will terminate absent BPX and Petrofina's adherence to the plan, so the state is assured of the continued diligence of the lessees in developing the Badami prospect.

For the Badami working interest owners' part, they have provided technical data sufficient to define the prospect under consideration, have committed their lease interests to the proposed unit, have agreed to a plan of exploration which assures a timely sequence of drilling and development activities in order to evaluate and develop all the acreage within the proposed unit area, and have committed their combined financial resources to pursuing that plan.

Any individual consideration taken alone, or a lesser combination of factors, might not be sufficient grounds to support unitization. However, in the specific case of the Badami Unit under evaluation in these findings and decision, the positive combination of all these relevant factors argues for unitization.

V. FINDINGS AND DECISION

Based on the foregoing, I find:

1. The public notice requirements of 11 AAC 83.311 were met.
2. The Agreement, conditioned upon the performance of its plan of exploration, is advisable to protect the public interest, and is in the State's best interest.
3. The Agreement will conserve all natural resources, including hydrocarbons, gravel, sand, water, wetlands, and other valuable habitat.
4. The Agreement will prevent the waste of oil and gas, and increase the probability of recovering more oil and gas from the unit area.
5. The Agreement will equitably and adequately protect all parties in interest, including the State of Alaska.
6. The Agreement will not further diminish access to public and navigable waters beyond those limitations (if any) imposed by law or already contained in the oil and gas leases covered by the Agreement.
7. The unitized development and operation of the subject leases with any others which may be incorporated in the future will reduce the amount of land and fish and wildlife habitat that would otherwise be disrupted by individual lease development. This reduction in environmental impacts and interference with subsistence activity is in the public interest.

Nevertheless, some environmental impact is likely. Unit development must proceed according to an approved plan of development. Before undertaking any specific operations, a unit plan of operations must be submitted to the Division and other appropriate state and local agencies for review and approval. All other required permits also must be obtained before drilling operations may commence. Additional mitigating measures, beyond those provided within the individual leases, will be imposed, if necessary or advisable, through conditioning the approval of a plan of operations and other permits. Adverse environmental impacts will be prevented or minimized by requiring strict adherence to these mitigating measures.

8. The Agreement will assure a fair and equitable return to the State from any production of hydrocarbons from the unit area.
9. The economic benefits to the State as a result of the expedited unitized exploration and potential development of the Badami Unit area outweigh the economic costs to the State of extending the primary term of certain of the leases committed to the unit.
10. Based upon the geological and engineering data submitted to the Division in support of the unit application, the area included within the Badami Unit encompasses all or part of one or more potential hydrocarbon accumulations.
11. Since the distribution of reservoir quality sands in the complex Badami stratigraphic trap is a concern, the Division reserves the right to meet periodically with BPX to

review new data and interpretations pertinent to resolving these concerns for the purpose of assuring that all lands within the unit area are, and continue to be, appropriate for inclusion.

12. The Agreement provides for further expansions and contractions of the unit area in the future, as warranted by additional information and data. Therefore, the public interest and the correlative rights of all parties are protected.
13. BPX's initial plan of exploration provides for the rational exploration of potential hydrocarbon zones in the unit area, as well as for diligent development activities before the ultimate production of any hydrocarbons that may be produced. Additional exploration and/or development plans are required to be submitted once the initial plan of exploration expires.
14. The plan of exploration meets the requirements of 11 AAC 83.303 and 11 AAC 83.341 if the following condition is incorporated into the plan:

The proposed exploration activities conducted in accordance with the time lines specified constitute the performance standards and diligence requirements to which the State and the Badami Unit Working Interest Owners have agreed. The approval of the Badami Unit is conditioned upon BPX's compliance, as Unit Operator, with these specific performance standards. If any of the exploration activities outlined in the unit plan of exploration are not performed as scheduled, the exploration plan will be in default and the unit agreement will terminate.
15. Pursuant to 11 AAC 83.341, an annual update to the initial 5-year plan of exploration which describes the status of projects undertaken and the work completed, as well as any proposed or expected changes to the unit plan of exploration, must be submitted for approval to the State. Any changes to the unit plan of exploration, if approved by the State, will be in accordance with Article 8 of the Agreement.
16. The Agreement, modified by the terms and conditions imposed upon it by this Decision and Findings, meets the requirements of AS 38.05.180(p) and 11 AAC 83.303.

For the reasons enumerated earlier in this Finding and subject to the conditions noted in this Decision and Finding, I hereby approve the Badami Unit Agreement effective this date.


John T. Shively, Commissioner
Alaska Department of Natural Resources

3/13/95
Date

Attachments: (1) Alaska Department of Law Correspondence (Thomas K. Williams)

BadamiUnit.approval.text