

FINDINGS AND DECISION

of the Director, Division of Oil and Gas

APPROVING THE  
NIKOLAEVSK UNIT APPLICATION

Under Delegation of Authority from the  
Commissioner, Department of Natural Resources, State of Alaska

January 29, 2004

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## I. INTRODUCTION AND BACKGROUND

The proposed Nikolaevsk Unit (NU), located on the Kenai Peninsula, includes uplands in the upper drainages of the Chakok River and Clam and Stariski Creeks, southeast of the Deep Creek Unit and northeast of the North Fork Unit, near the unincorporated community of Nikolaevsk.

The proposed unit area encompasses approximately 16,588.63 acres within nine individual oil and gas leases. Approximately 15,811.01 acres, 95.31% of the proposed unit area lies within seven State of Alaska (State) oil and gas leases, and 777.62 acres, 4.69% lies within two oil and gas leases issued by Cook Inlet Region Incorporated (CIRI). Union Oil Company of California (Unocal) is the sole working interest owner and the designated Unit Operator. The NU will be administered by the State under the terms of the Nikolaevsk Unit Agreement (Agreement). The Agreement conforms and modifies all seven State oil and gas leases within the unit area so that the unit operator can explore and develop on a unit-wide basis instead of on a lease-by-lease basis.

A summary of the leases proposed for commitment to the NU follows. The Department of Natural Resources (DNR) issued five of the seven State oil and gas leases following Cook Inlet Sale 85A, which was held on December 18, 1996. The leases were issued on State lease form DOG 9609. These leases are ADL 388199, ADL 388196, ADL 388200, ADL 388198 and ADL 388209. With an effective date of February 1, 1997, the seven-year primary term of these leases expires on January 31, 2004.

The sixth State lease in the proposed unit area was offered in the Cook Inlet Areawide 1999 Oil and Gas Lease Sale, held on April 21, 1999. DNR issued the oil and gas lease ADL 389227, effective February 1, 2000, on State of Alaska lease form number DOG 9069 (rev. 9/99). The seven-year primary lease term of this lease expires on January 31, 2007.

The United States, Department of Interior, Bureau of Land Management (BLM) issued the seventh State lease in the proposed unit area to Unocal on October 1, 1954. BLM transferred the lease to the State on September 30, 1969, and DNR assigned it lease number ADL 2095. The primary term of ADL 2095 is extended indefinitely because a portion of the lease is committed to the North Fork Unit. In 1996, Unocal assigned its interest in this lease to Gas Pro Alaska, and in December 2003, Unocal reacquired 100% of the working interest in a non-unitized portion of ADL 2095, which Unocal proposes for inclusion in the NU.

All seven of the State leases in the proposed unit area retain a 12.5% royalty to the State.

Two CIRI leases are proposed for inclusion in the NU, CIRI leases C-373303 and C-061614. C-373303, originally issued by BLM, later conveyed to the State, and later conveyed to CIRI, retains a 12.5% royalty to CIRI. C-061614, issued by CIRI on December 1, 2003, has a five-year term that expires on November 30, 2008, and retains an 18% royalty to CIRI.

Approval of the Agreement by the State will conform and modify all State lease contracts to be consistent with the Agreement, and extends the lease terms for as long as they are subject to the Agreement.

## II. APPLICATION FOR THE FORMATION OF THE NIKOLAEVSK UNIT

Alliance Energy LLC (Alliance) submitted a complete application to form the NU on October 30, 2003, and paid the \$5,000.00 unit application filing fee. Alliance's application included: a proposed NU Agreement; Exhibit A to the agreement, legally describing the proposed unit area, its leases, and ownership interests; Exhibit B to the agreement, a map of the proposed unit; and Exhibit G to the agreement, the proposed Initial Plan of Exploration. In addition, Alliance submitted a NU Operating Agreement; technical data supporting the application; and evidence that Alliance had invited all proper parties to join the application.

The Division of Oil and Gas (Division) issued a public notice of Alliance's unit application on November 2, 2003. On December 8, 2003, the last day of the public comment period, Alliance informed the Division that it was assigning all of its interests in the leases to Unocal. Unocal submitted an amended application (the Application) with a slightly modified proposed unit area and informed the Division that it had acquired 100% working interest ownership from Alliance and all the other lessees in its proposed unit area. The Application that Unocal submitted included a new unit agreement with new exhibits, a new operating agreement, and new technical data to support Unocal's geologic interpretation.

Unocal based the Agreement on the State Only Model Form, dated June 2002 (Model Form) and proposed no modifications. The State proposed and Unocal agreed to three modifications to the Model Form for clarity purposes. The first modification is to add "...or gas that is deemed "waste" by AOGCC" to the last sentence in Article 11.4. The second modification is to add "... all royalty deductions for transportation, including marine, truck, and pipeline transportation..." to the first sentence in Article 12.5, which adds truck costs to the list of allowable transportation deductions. The last modification is the addition of the word "permanent" in two places in Article 12.9. In the past it has been assumed that the amendments referred to in Article 12.9 were meant to be permanent, this modification clarifies this issue.

The Agreement defines the relationship between the unit operator, the working interest owners, and the royalty owners. It describes the rights and responsibilities, in addition to those imposed by state law and the leases, of the unit operator, working interest owners, and royalty owners for exploration and development of the unit area. DNR may approve the Agreement if the available data suggest that the unit area covers all or part of one or more oil or gas reservoirs, or all or part of one or more potential hydrocarbon accumulations that should be developed under an approved unit plan, and the Application meets the other statutory and regulatory criteria.

The Agreement requires that the unit operator, Unocal, file unit plans describing the activities planned for the proposed unit area. Unocal must consider how it can best explore and develop the resources underlying the entire unit area, without regard to internal lease boundaries. Unocal proposed a three-year Unit Plan of Exploration (Initial POE) as a required under 11 AAC 83.341.

Unocal plans to drill an exploratory well in the first year of the Initial POE, acquire new seismic data within the unit area during the second year, and drill a second exploratory well in the third year (Attachment 4).

The Division determined that Alliance's application was complete and published a unit notice in the "*Anchorage Daily News*" and in the "*Peninsula Clarion*" on Sunday, November 2, 2003, and due to amendment of the application, the Division republished the unit notice again on Sunday, December 21, 2003. DNR also posted notices on the State's online public notice web page. The Division provided copies of the public notices to the Kenai Peninsula Borough (KPB), the City of Homer, the Ninilchik Chamber of Commerce, the Ninilchik Traditional Council, the Ninilchik Native Association, the Salamatoff Native Association, CIRI, and other interested parties in compliance with 11 AAC 83.311. The Division also provided public notices to the Alaska Department of Environmental Conservation (DEC), the Alaska Department of Fish and Game (ADF&G), and to post offices, libraries, and radio stations in the area. The original notices invited interested parties and members of the public to submit comments by December 8, 2003, and the amended notices invited interested parties and members of the public to submit comments by January 20, 2004. The Division received four comments during the first public comment period and one comment in the second comment period.

The first comment was received from Glennie Wells on November 26, 2003. Ms. Wells expressed concern about DNR approving surface activity in the area. Her comments were addressed in an email response and later via telephone. Her email was forwarded to the Division's permitting section, which will consider surface impacts when the operator applies for a Plan of Operations permit to conduct surface activity.

The KPB submitted comments on December 2, 2003, and again on January 20, 2004. The KPB had no objection to the formation of the Unit.

The Cook Inlet Keeper requested that DNR review the mitigation measures on older leases, and that any decision keep development away from wetlands and salmon streams, especially in critical habitat areas and to protect the non-hydrocarbon natural resources. They also requested that the Unit Agreement under go an Alaska Coastal Management Program (ACMP) review. Section III(1), below contains a discussion of the potential environmental impacts of approving the Application.

Lastly, under the original public notice, ConocoPhillips commented that it was concerned about the use of certain seismic information by Alliance. Unocal submitted technical data to support the Application, and this decision is based on Unocal's interpretation and data submissions.

### III. DISCUSSION OF DECISION CRITERIA

AS 38.05.180(p) gives DNR the authority to form an oil and gas unit. The Commissioner of DNR (Commissioner) reviews unit applications under AS 38.05.180(p) and 11 AAC 83.301 – 11 AAC 83.395. By memorandum dated September 30, 1999, the Commissioner approved a revision of Department Order 003, and delegated this authority to the Division Director (Director).

The Director will approve the Application upon finding that it 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 accordance with 11 AAC 83.303(a). Subsection .303(b) sets out six factors that the Director will consider in evaluating the Application. A discussion of the subsection .303(b) criteria, as they apply to the Application, is set out directly below, followed by the Director's findings relevant to the subsection .303(a) finding and the Director's conditional approval of the Application.

### **1. The Environmental Costs and Benefits of Unitized Exploration or Development**

DNR considered environmental issues in the lease sale process, and the State leases contain mitigation measures designed to reduce the environmental impacts of exploration and development of the leased area. The proposed NU area is habitat for a variety of mammals, waterfowl, and fish. Area residents may use this area for subsistence hunting and fishing and it is well known for its recreational values. Oil and gas activity in the proposed unit area may affect some wildlife habitat. Mitigation measures include seasonal restrictions on specific activities to reduce the impact on fish, wildlife, and human populations. Mitigation measures specifically address potential impacts to subsistence access and harvesting.

The proposed NU includes State leases and leases issued by CIRI that may have different environmental protection provisions. Article 8.2 of the Agreement requires a Unit Plan of Operations be consistent with the leases, mitigation measures, and lessee advisories developed by DNR for the State's most recent Cook Inlet areawide lease sale. Approval of the Application and future operations within the NU will be subject to this provision. When the unit operator submits a Unit Plan of Operations for approval, the Division will apply the current mitigation measures developed during the leasing process uniformly across the unit, ensuring environmental protections that might not otherwise occur on private lands. Unitization does not waive or reduce the effectiveness of the mitigating measures that condition the lessee's right to conduct operations on these leases.

Most of the proposed NU is within the Alaska Coastal Zone, and therefore it is subject to the ACMP and applicable KPB district plan, whether the activity is on State or CIRI land. The appropriate federal, State and local agencies must determine if the operator's exploration or development plan is consistent with ACMP, and the lessees may not commence drilling or development operations until all agencies have granted the required permits.

The Director's approval of a unit agreement is an administrative action, which by itself does not convey any authority to conduct operations on unitized leases. Unitization and approval of a Unit Plan of Exploration does not authorize any physical activity, but the Division will review a proposed Unit Plan of Operations to ensure that it is consistent with the approved Unit Plan of Exploration or Development. The unit operator must obtain the Division's approval of a Unit Plan of Operations, which provides a more detailed plan for surface activities incident to exploration than the Plan of Exploration. It must also obtain permits from state and federal agencies before proceeding with exploration of the unit area. Any new exploration or development activity that may occur following unitization, unless categorically approved under the ACMP ABC (General

Concurrence) list, will be subject to an ACMP consistency determination, and must comply with state and local ordinances, including DNR Area Plans and the local KPB district plan.

When reviewing a proposed Unit Plan of Operations, if the State owns the subsurface but does not own the surface, the Division considers the unit operator's ability to compensate the surface owner for damage sustained to the surface estate and plans for restoration and rehabilitation of the unit area. In addition, DNR, DEC, and AOGCC have bonding and financial responsibility requirements to ensure performance by the operator and reclamation of the area. 11 AAC 96.060; 18 AAC 75; 20 AAC 25.025. Unocal must clean up all well site locations in conformance with AOGCC regulation 11 AAC 25.170, and under the terms of the lease, the site must be rehabilitated to the satisfaction of the Commissioner.

Unitization allows the unit operator to explore and develop hydrocarbon resources under a single unit plan rather than on a lease-by-lease basis. Without unitization, the lease provisions would compel the lessees to seek permits to explore and develop each individual lease. The proliferation of surface activity and the duplication of production, gathering, and processing facilities would increase the potential for environmental damage. Unitization reduces both the number of facilities required to develop reserves and the aerial extent of land required to accommodate those facilities. Unitized exploration, development, and production minimize surface impacts by consolidating facilities, optimizing drilling operations, and reducing overall activity in the environment.

The lessee's compliance with conservation orders and field pool rules issued by the AOGCC would mitigate some of the surface impacts without an agreement to unitize operations. Still, unitization is the most efficient method for maximizing oil and gas recovery, while minimizing negative impacts on other resources. After unitization, the unit operator can design and locate facilities to maximize recovery and to minimize environmental impacts, without regard to lease boundaries. Review and approval of exploration and development plans under a unit agreement will also ensure that the unit operator makes rational surface-use decisions without regard for individual lease ownership or expense.

The environmental impacts of exploring and developing the subject leases would be greater without unitization. If exploration is successful, the unit operator will consolidate facilities and space gas wells as close together as possible to minimize environmental impacts of development. Future exploration and development may also use existing logging roads. Additionally, Unocal expects to develop this proposed unit in concert with unitized exploration and development of other known and potential natural gas resources on the Kenai Peninsula via a common carrier pipeline, which will allow for further consolidation of facilities and pipelines. Consequently, the benefits of consolidated exploration and development, application of the State's areawide mitigation measures, and the use of existing roads, balance the potential costs to the surrounding environment.

Unitization minimizes the environmental impacts and costs of exploration and development of the unit area, which meets the section .303(b)(1) criteria and supports approval of the Application.

## **2. The Geological and Engineering Characteristics of the Reservoir**

The Division received the following technical data in support of the Application: a history of oil and gas exploration in the area, Unocal's geological justification for the formation of the unit, annotated well logs, representative strike and dip seismic cross sections across the North Fork anticline structure, a structure-contour map on the top of the Tyonek Formation, and a structure-contour map on the top of the Hemlock Conglomerate. Division staff evaluated the data provided by the unit operator and data otherwise available to them, and determined that the NU area encompasses all or part of one or more potential hydrocarbon accumulations, fulfilling the regulatory requirement in 11 AAC 83.356(a).

Cook Inlet area-wide geology maps from the 1960s and 1970s identify the anticlinal trend that is the basis of the proposed NU. The North Fork and Ninilchik Dome anticlines are the main structural features in the proposed unit area and comprise, at least in part, the areas of Exploration Block I and Exploration Block III (as described at the end of Attachment 4 and shown on Attachment 3 to this document). Exploration Block II comprises a part of the northeast extension of the North Fork anticline and a part of the southwest extension of the Ninilchik Dome anticline.

The North Fork anticline is a doubly plunging anticline striking northeast-southwest. The structure is approximately three miles wide and twelve miles long, including the North Fork Unit area. A structural saddle and cross faults separate the NU area from the anticline's southeast extension through the North Fork gas field. The North Fork anticline has a steeply dipping limb to the northwest and a complex of high-angle down-to-the-east reverse faults along the southeast side. A syncline separates the North Fork anticline from the parallel-trending Happy Valley and Deep Creek anticlines to the northwest of the unit area. Numerous high-angle faults cut across the main North Fork anticline perpendicular to the structural axis dividing the structure into several horst and graben sub-structures that constitute several aerially separate reservoir targets within the unit.

Southeast of the bounding reverse fault on the southeast side of the North Fork anticline, are a series of "stair step" fault blocks, the first of which is the Ninilchik Dome anticline. The Ninilchik Dome anticline is an en echelon structural high.

Unocal identified three potential hydrocarbon accumulations, or prospects, within the proposed unit area, Exploration Block I, II, and III. The Initial POE describes each Exploration Block and outlines Unocal's plans to explore them. The operator's primary exploration target is gas in Tyonek Formation sandstone of all three blocks in the unit area. However, Unocal also plans to explore for oil in the Hemlock Conglomerate by drilling and collecting well logs into that formation in at least Exploration Block I.

The Division cannot discuss the details of the confidential data, but the well and geophysical data provided with the Application, and otherwise available to DNR, indicate that the potential for hydrocarbons within the proposed unit area is sufficient to qualify for unitization, and unitized development and production of any underlying gas reservoirs is appropriate.

The State's evaluation of the subsurface geology supports the formation of the NU to include the lands described in Exhibit A and depicted in Exhibit B to the Agreement (Attachments 1 and 2 to this decision, respectively). The geological and engineering characteristics of the proposed NU area meet the criteria in section .303(b)(2) and support approval of the Application.

### 3. Prior Exploration Activities in the Unit Area

Even though 2-D seismic data has been acquired across portions of the unit area, no successful oil or gas wells have been drilled in the unit area.

The industry recognized the structure as a potential exploration target in the early 1960s, and mapped the subsurface with seismic, gravity, and magnetic tools that were available at the time. In 1965, Standard Oil of California (SOCAL) drilled the SOCAL North Fork Unit #41-35 (SNF 41-35) well, which was the first well drilled to test this anticlinal trend (see Table 1). This well is the certified gas well that holds the North Fork Unit and was drilled on the federal lease AK 24363. SOCAL's primary exploration objective in the SNF 41-35 well was oil in the Hemlock Conglomerate. SOCAL initially drilled SNF 41-35 to a total depth of 12,812 feet and initial production tests recovered minor amounts of 30° API oil from the Hemlock, but commercial quantities of oil were not present and SOCAL plugged the well back to the Tyonek. Tests of the SNF 41-35 well in the Tyonek gas sands indicated significant gas flow potential. The SNF 41-35, SOCAL well is a shut-in gas well.

In 1970, SOCAL drilled the SOCAL North Fork Unit #11-4 (SNF 11-4) well approximately six miles northeast of SNF 41-35, to a total depth of 12,462 feet MD. The well is located in proposed NU Tract 6. SOCAL collected oil stained core from the SNF 11-4 and noted good gas shows but the Hemlock reservoir looked thinner than at the SNF 41-35, and SOCAL plugged and abandoned the well as a dry hole.

Tyonek Formation gas accumulations are present in the Deep Creek and North Fork Units. In addition, the Cosmopolitan Unit, located southeast of the proposed NU has a proven oil accumulation, indicating an active petroleum system in the area.

<b>Operator</b>	<b>Well Name &amp; No.</b>	<b>Year Drilled</b>	<b>Status</b>	<b>Location</b>	<b>API Number</b>
SOCAL	North Fork Unit #41-35	1965	Dev	35-T4S-R13W SM	502311000400
SOCAL	North Fork Unit #11-4	1970	P&A	04-T4S-R13W SM	502312000200

Technology (primarily drilling technology, well log analysis, and seismic acquisition and processing) has evolved greatly since these early wells were drilled on the southern Kenai Peninsula. Unocal is using advanced technology in its Cook Inlet exploration. With new seismic data and improved well log analysis tools, Unocal believes that it has a greater ability to identify and refine potential oil and gas exploration prospects within the Tyonek and Hemlock formations.

In the past few years, Unocal used new seismic log analysis technology to re-examine the well data discussed above and seismic data acquired before 1980, to evaluate natural gas potential in the area. No one has collected seismic data in this area recently.

Based on the history of the area and the data presented by Unocal, the presence of hydrocarbons in the proposed unit area is prospective, but relatively unproven. This is especially true of the northeastern portion of the proposed NU. While Unocal justified the size of the NU based on the technical data and the Initial POE, additional exploration commitments will be necessary to maintain the entire unit area.

The exploration data provided with the Application and otherwise available to DNR supports inclusion of the proposed acreage in the NU. Therefore, the prior exploration activities fulfill the criteria in section .303(b)(2) and support approval of the Application.

#### **4. Plans for Exploration and Development of the Proposed Unit Area**

The unit operator must provide plans for exploration or development that justify including the proposed acreage in the unit area. 11 AAC 83.306(1). A Unit Plan of Exploration must include a description of proposed exploration activities, including the bottom-hole locations and depths of proposed wells, and the estimated date drilling will commence. 11 AAC 83.341(a).

The Initial POE is attached to this Decision (Attachment 4). It sets out a timely sequence of exploration activities that will facilitate the ultimate development and production of the reservoir, if Unocal discovers gas in commercial quantities. Furthermore, completion of the proposed exploration activities as scheduled during the three-year initial term will satisfy the performance standards and diligence requirements that the State and Unocal agreed to as a condition for approval of the Agreement. The Division and Unocal have agreed that a failure to timely perform the various components set out in the Initial POE would constitute a default under the Agreement.

The Initial POE protects the interests of the public and the State by committing Unocal to drill wells and acquire seismic data within the unit area. The Initial POE, with the agreed-to terms and conditions, ensures that the lease extensions resulting from unitization under 11 AAC 83.336 continue only so long as the applicants proceed diligently with exploration and development of the unit area. Therefore, the plans for exploration of the proposed unit area justify approval of the Application under the section .303(b)(4) criteria.

#### **5. The Economic Costs and Benefits to the State**

Approval of the Agreement, which includes the Initial POE, will result in both short-term and long-term economic benefits to the State. Assessment of the hydrocarbon potential within the unit will create jobs in the short-term. If the working interest owners make a commercial discovery, develop and begin production from the NU, the State will earn royalty and tax revenues over the long-term life of the field. If Unocal does not fulfill its obligations as stated in the Initial POE, payments will be due to defer the short term loss of potential bonus payments.

The primary term of several State leases in the proposed unit area will expire on January 31, 2004, unless extended by unitization. If the leases expire, the leasehold interests will return to the State. Under the current Oil and Gas Lease Sale Schedule, DNR would reoffer the land in the May 2004 sale. If the lands were leased in the 2004 sale, the State would receive bonus payments and rentals for the primary term of the new leases. However, even if this occurred and the new lessee proposed exploration of the area during the primary term, it could be years before the State would receive royalties and taxes on any commercial production. The potential long-term economic benefit of exploration and earlier development of the NU area outweighs the short-term loss of potential bonus payments.

Unocal holds 100% working interest ownership in the oil and gas leases in the proposed NU and in the Deep Creek Unit to the west. Drilling is underway at several locations along the Sterling Highway to prove up gas supply to meet future Cook Inlet demand.

If successful, Unocal plans to connect these potential new sources. Enstar plans to deliver natural gas to communities along the highway and to supply residential and industrial needs in the Cook Inlet basin.

The benefits of an increased property tax base for the Kenai Peninsula Borough and reduced energy costs for residents and businesses would be significant to these communities. Additional supply and deliverability of Cook Inlet gas to existing users may keep regional energy prices stable. NU development may increase and extend the State's income stream with new production taxes and royalties. Royalties and severance taxes benefit the local and state economy, and provide revenue to the State's general, school, and permanent funds. Unocal will most likely reinvest revenues in new exploration and development in the State or otherwise improve the quality of life in the region. Development of the NU would also increase demand for goods and services supplied by local businesses, retailers, and service providers.

In summary, the economic benefits outweigh the costs of unitization. Unocal has made meaningful commitments to explore the unit area, and if they are successful, the State will receive taxes, royalties, and increased economic activity. Moreover, the discovery of additional gas reserves in Cook Inlet may help to maintain stable, energy supplies for the entire area. Therefore, DNR's evaluation of the section .303(b)(5) economic criteria supports approval of the Application.

#### IV. FINDINGS

The Application, meets the criteria in 11 AAC 83.303(a) as discussed below.

##### **1. Promote the Conservation of All Natural Resources**

The Agreement will promote the conservation of both surface and subsurface resources through unitized (rather than lease-by-lease) development. Without the Agreement, the lease contracts would compel the lessees to seek permits to drill wells on each individual lease. Unitization reduces both the number of facilities required to explore for and develop reserves and the aerial extent or the footprint required to accommodate those facilities.

After unitization, the unit operator can design and locate facilities to maximize recovery and minimize environmental impacts, without regard to lease boundaries. Although Unocal has not determined the extent of any gas contained in the unit area, the Agreement will ensure that the lessees explore the acreage and maximize the recovery of reserves from the leases if they discover a commercial hydrocarbon accumulation.

The unitized exploration and development of the proposed unit area will reduce the amount of land, fish, and wildlife habitat that would otherwise be disrupted by individual lease development. The Application will conserve natural resources, including hydrocarbons, gravel, sand, water, wetlands, and other valuable habitat. This reduction in environmental impacts and preservation of existing uses is in the public interest.

If the exploration activities result in the discovery of a commercial reservoir, there will be environmental impacts associated with reservoir development. However, all unit development must proceed according to an approved Unit Plan of Development. Additionally, before undertaking any specific operations on State land, the Division must approve a Unit Plan of Operations. DNR will condition its approval of a Unit Plan of Operations and other permits on performance of the mitigation measures developed for the most recent Cook Inlet Areawide lease sale in addition to those in the leases. Compliance with mitigation measures will minimize, reduce or avoid adverse natural resource impacts.

## **2. Promote the Prevention of Economic and Physical Waste**

The unit will prevent economic and physical waste because there is an approved exploration plan, and if Unocal makes a commercial discovery, the State and Unocal will evaluate and approve a comprehensive reservoir depletion plan. A cost-sharing agreement promotes efficient development of common surface facilities and operating strategies. If Unocal were to divest part of its interest and resign as unit operator, the new working interest owners in the unit could still rationally decide well spacing requirements, injection plans, and the proper joint-use of surface facilities. Unitization prevents economic and physical waste by eliminating redundant expenditures for a given level of production, and by avoiding loss of ultimate recovery with the adoption of a unified reservoir management plan.

The concern of lessees competing for oil and gas is less evident in the proposed NU where Unocal is the only lessee in the unit area. However, the fact that there are two royalty owners also weighs in favor of the formation of a unit. One of the CIRC leases has a higher royalty rate than the State leases, but CIRC would have more latitude to renegotiate economic terms and environmental provisions than the State. The State must ensure that the working interest owners do not concentrate exploration on the CIRC leases to the exclusion of the State acreage in the unit area. Formation of the NU and approval of the Initial POE will ensure that Unocal prudently and reasonably explores and develops all potential reservoirs within the unit area.

The total cost of exploring and developing the NU leases would be higher on a lease-by-lease basis than it would be under unitization. Unitized operations improve development of reservoirs beneath leases that may have variable or unknown productivity. Marginally economic reserves,

which otherwise would not be produced on a lease-by-lease basis, can be produced through unitized operations in combination with more productive leases. Facility consolidation lowers capital costs and promotes optimal reservoir management. Pressure maintenance and secondary recovery procedures are easier to design and achieve through joint, unitized efforts than would otherwise be possible. In combination, these factors allow the unit operator to develop and produce less profitable areas of a reservoir in the interest of all parties, including the State.

Unitization reduces the need for numerous exploration and development sites and thus minimizes drilling and facility investment costs. The unit operator can select locations for individual wells and surface facilities that optimize ultimate oil and gas recovery, while minimizing or avoiding adverse impacts to the environment.

Unitization allows pooling of capital so that the working interest owners can share the exploration and development risks. Reducing costs and environmental impact through unitized operations will expedite development of any reserves discovered and will promote greater ultimate recovery of oil and gas from the unit area. This may increase and extend the State's income stream from production taxes and royalties. The lessees may reinvest revenues in new exploration and development in the State. Unitization means lower financing costs and increased benefits to all interested parties. It benefits the local and state economy, and may provide production-based revenues to the State's general, school, and permanent funds.

### **3. Provide for the Protection of All Parties in Interest, Including the State**

Alliance and Unocal provided evidence of reasonable effort to obtain joinder of all proper parties to the Agreement, and the Division complied with the public notice requirements of 11 AAC 83.311.

Unocal holds sufficient interest in the unit area to give reasonably effective control of operations, The Agreement, with the Initial POE and the agreed-to terms and conditions outlined within this decision, adequately and equitably protects the public interest, and promotes the State's interests because exploration will likely occur earlier than without unitization. Diligent exploration under a single approved unit plan without the complications of competing operators is in the State's best interest. It advances evaluation of the State's petroleum resources, while minimizing impacts to the region's cultural and environmental resources. A commercial discovery will stimulate the State's economy with production-based revenue, oil and gas related jobs, and service industry activity.

Formation of the NU protects the economic interests of the working interest owners and royalty owners of a common reservoir. Under the Agreement and Operating Agreement, each working interest owner has an equitable allocation of costs and revenues commensurate with the value of their leases.

The Agreement will not 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 this Agreement. The Agreement provides for future expansions and contractions of the unit area, as warranted by

data obtained by exploration or otherwise. The Agreement thereby protects the public interest, the rights of the parties, and the correlative rights of adjacent landowners.

The Agreement provisions and State law provide for notice and an opportunity to be heard if the lessee disagrees with a State unit administration decision.

As discussed above, I find that the Agreement will promote the conservation of all natural resources, promote the prevention of economic and physical waste, and provide for the protection of all parties in interest including the State. The Application adequately and equitably protects the public interest, is in the State's best interest, and it meets the requirements of AS 38.05.180(p) and 11 AAC 83.303.

## V. DECISION

- 1) For the reasons discussed above, I hereby approve the NU Application subject to the conditions specified herein. Unocal submitted a final version of the Agreement on December 8, 2003. The three-year term of the Agreement and the Initial POE become effective as of 12:01 a.m. on the day following approval by the Director.
- 2) Exhibit A to the Agreement (Attachment 2) lists the leases and the legal description of the acreage committed to the Unit. In order to justify the work commitments and the proposed unit area, the State and Unocal agreed to the following lease segregations and lease term modifications.
  - a. **Tract 1** -- A portion of ADL 388199 is committed to the proposed unit area as NU Tract 1. The non-unitized acreage within, T3S, R13W, SM, AK Section 3 lots 1-4, S2N2, SW4 and all of Section 4 is severed from ADL 388199. The non-unitized acreage within ADL 388199 is due to expire effective January 31, 2004, the end of the primary term. NU Tract 1 lies partially within Exploration Block II and Exploration Block III, as shown in Attachment 3 to this document and described at the end of Attachment 4 to this document. Should Exploration Block II or Exploration Block III contract out of the Unit under the terms of the Initial POE, NU Tract 1 will be severed and the working interest owners shall relinquish the non-unitized acreage to the State. For this specific action, the working interest owners waive the provisions of the Agreement and Regulations that do not provide for severance when a portion of the lease is contracted out of a unit.
  - b. **Tract 2** -- ADL 388196, which is committed to the unit in its entirety as NU Tract 2, lies with Exploration Block II.
  - c. **Tract 3 and Tract 11** -- ADL 388200, is segregated into two leases with both committed to the unit as NU Tract 3 and NU Tract 11.
    - i. **Tract 3** - The eastern portion of ADL 388200, designated NU Tract 3 (T3S, R13W, SM, AK Sections 25, 26, 35 and 36) will retain the original lease number. The eastern half of NU Tract 3 lies within Exploration Block II and the western half within Exploration Block III.

- ii. Should Exploration Block II or Exploration Block III contract out of the unit under the terms of the Initial POE, NU Tract 3 will be severed and the working interest owners shall relinquish the non-unitized acreage to the State. For this specific action, the working interest owners waive the provisions of the Agreement and Regulations that do not provide for severance when a portion of a lease is contracted out of a unit.
- iii. DNR will assign a new lease number to the western portion of ADL 388200, designated NU Tract 11 (T3S, R13W, SM, AK Sections 27, 33 and 34), which is now a separate and distinct lease having the same effective date and term as the original lease and may be maintained thereafter only in accordance with the terms and conditions of the lease, the Agreement, statutes, and regulations. NU Tract 11 lies entirely within Exploration Block III.
- d. **Tract 4** -- A portion of ADL 388198 is committed to the proposed unit area as NU Tract 4, and the lease is severed. The non-unitized acreage within T3S, R12W, SM, AK Sections 28 and 33, is severed from ADL 388198, and will expire effective January 31, 2004, the end of the primary term.
- e. **Tract 5** -- ADL 389227, which is committed to the unit in its entirety as NU Tract 5, lies with Exploration Block I
- f. **Tract 6 and Tract 8** -- ADL 388209 is a noncontiguous lease, which is partially committed to the proposed unit as NU Tract 6 and NU Tract 8, both within Exploration Block I. The non-unitized acreage is severed out of ADL 388209, and the unitized acreage is segregated into two leases.
  - i. Non-Unitized - The non-unitized acreage severed out of ADL 388209 is described as follows: T4S, R13W, SM, AK Section 20, Surveyed, Fractional, SE4SE4, 40.00 Acres; Section 21, All; Section 28, All; Section 29, All; Section 31, S2SE4, E2E2NW4, Alaska State Land Survey 78-94 as shown on Plat No. 79-7 Homer Recording District, 156.79 Acres. The non-unitized, severed acreage is due to expire effective January 31, 2004, the end of the primary term.
  - ii. Tract 8 - The acreage that retains the original lease number, ADL 388209, is partially committed to the unit as NU Tract 8. NU Tract 8 is described as follows: T4S, R13W, SM, AK Section 6: Lots 3-7, E2SW/4, SE/4NW/4 and Section 7: Lots 1-4, E/2W/2.
  - iii. Tract 6 - The unitized acreage that is segregated out of ADL 388209 is a new lease committed to the unit as NU Tract 6. NU Tract 6 is described as follows: T4S, R13W, SM, AK Sections 4, 9 and 16. DNR will assign a new lease number to the acreage within Tract 6, which is now a separate and distinct lease having the same effective date and term as the original lease and may be maintained thereafter only in accordance with the terms and conditions of the lease, the Agreement, statutes, and regulations.
- g. **Tract 7** -- ADL 2095 lies partially within the North Fork Unit, and a portion that isn't committed to the North Fork Unit within T4S, R13W, SM, AK Section 8, is now segregated from ADL 2095 and committed to the proposed unit as NU Tract 7.

- i. DNR will assign a new lease number to the acreage within Tract 7, which is a separate and distinct lease having the same effective date and term as the original lease and may be maintained thereafter only in accordance with the terms and conditions of the lease, the Agreement, statutes, and regulations. The working interest owners agreed to permanently amend the terms of the Tract 7 lease (lease form DL-2) to conform with the provisions in the State's current lease form (DOG 200204) as follows:

Delete the following items from lease form DL-2

1. Delete Paragraph 2 (Definitions)
2. Delete Paragraph 11 (Rental)
3. Delete Paragraph 12 (Minimum Royalty)
4. Delete Paragraph 14 (Discovery Royalty)
5. Delete Paragraph 16 (RIK)
6. Delete Paragraph 17 (RIV)
7. Delete Paragraph 18 (Price)
8. Delete Paragraph 28 (Bonds)
9. Delete Paragraph 38 (Termination)
10. Delete Paragraph 43 (Regulations)
11. Delete Paragraph 45 (Notices)

Add the following paragraphs from lease form DOG 200204:

1. Paragraph 5 (Rentals)
2. Paragraph 7 (Apportionment of Royalty)
3. Paragraph 9 (Plan of Operations)
4. Paragraph 10 (POD)
5. Paragraph 11 (Information)
6. Paragraph 12 (Directional Drilling)
7. Paragraph 21 (Rights upon Termination)
8. Paragraph 23 (Bonds)
9. Paragraph 25 (Notices)
10. Paragraph 26 (Regulations)
11. Paragraph 34 (Definitions)
12. Paragraph 36 (Value)
13. Paragraph 37 (RIV)
14. Paragraph 38 (RIK).

- ii. In addition, the fact that a portion of ADL 2095, which is not committed to the NU, is committed to the North Fork Unit will not extend the primary term of the new lease. Any action on ADL 2095, outside of the NU; including, but not limited to, unitization, pooling, suspension, and well certification; will not affect the new lease within NU Tract 7. If the NU terminates, or the new lease contracts out of the unit, the working interest owners shall relinquish the non-unitized the acreage to the State.

- h. **Tract 9 and Tract 10** – CIRI leases C-373303 and C-0614, NU Tracts 9 and 10 respectively, lie within Exploration Block I.

3. The lessee waives the extension provisions of 11 AAC 83.140 and Article 15.2 of the Agreement and the notice and hearing provisions of 11 AAC 83.374 applicable to default, contraction, and termination of the NU.
4. Within 60 days of the notification of the new ADL numbers for the segregated leases created by this decision, the Unit Operator shall submit to the State updated Exhibits A and B to the Agreement reflecting the new lease numbers.
5. In accordance with Article 8.1.1 of the Agreement and 11 AAC 83.341, an annual status report is due on each anniversary of the effective date of the NU. The annual status report must describe the status of projects undertaken and the work completed during that year of the Initial POE, as well as any proposed changes to the plan.
6. The unit operator must submit a Second Plan of Exploration to the Commissioner at least 60 days before the Initial POE expires. Alternatively, the unit operator shall request approval of the first Plan of Development, if appropriate, at least 90 days before the Initial POE expires. 11 AAC 83.341(b) and .343(c).

A person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of "issuance" of this decision, as defined in 11 AAC 02.040(c) and (d) and may be mailed or delivered to Thomas E. Irwin, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to [dnr\\_appeals@dnr.state.ak.us](mailto:dnr_appeals@dnr.state.ak.us). This decision takes effect immediately. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.



Mark D. Myers, Director  
Division of Oil and Gas

1-29-04

Date

- Attachments:
1. The Nikolaevsk Unit Agreement
  2. Exhibit A, Tract Description and Ownership Schedule
  3. Exhibit B, Map of the Nikolaevsk Unit Boundary and Exploration Blocks
  4. Exhibit E, Plan of Exploration

State Only Unit Agreement  
Revised June 2002

RECEIVED  
FEB 4 2004

DIVISION OF  
OIL AND GAS

**NIKOLAEVSK UNIT AGREEMENT**

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## RECITALS

All record owners of any right, title, or interest in the oil or gas reservoirs or potential hydrocarbon accumulations to be included in this Unit have been invited to join this Agreement.

The Commissioner of the Department of Natural Resources, State of Alaska, is authorized by Alaska Statute 38.05.180(p) and (q) and applicable regulations to consent to and approve oil and gas unit agreements to explore, develop and produce state oil and gas resources.

## AGREEMENT

In consideration of the mutual promises in this Agreement, the parties commit their respective interests in the Unit Area defined in Exhibit A and depicted in Exhibit B to this Agreement, and agree as follows:

### ARTICLE 1: DEFINITIONS

1.1 **Alaska Oil and Gas Conservation Commission (AOGCC)** means the independent quasi-judicial agency of the State of Alaska established by the Alaska Oil and Gas Conservation Act, AS 31.05.

1.2 **Approved Unit Plan** means a Unit Plan that has been approved by the Commissioner.

1.3 **Commissioner** means the Commissioner of the Department of Natural Resources, State of Alaska, or the Commissioner's authorized representative.

1.4 **Effective Date** means the time and date this Agreement becomes effective.

1.5 **Lease or Leases** means one or more oil and gas lease subject to this Agreement.

1.6 **Oil and Gas Rights** means the rights to explore, develop, and produce Unitized Substances.

1.7 **Outside Substances** means oil, gas, and other hydrocarbons and non-hydrocarbon substances obtained from outside the Unit Area and injected into a Reservoir in the Unit Area with the approval of the Commissioner.

1.8 **Outside PA Substances** means oil, gas, and other hydrocarbons and non-hydrocarbon substances obtained from one Participating Area in the Unit Area and injected into a Reservoir in a different Participating Area in the Unit Area with the Commissioner's approval.

1.9 **Participating Area** means all Unit Tracts and parts of Unit Tracts designated as a Participating Area under Article 9 to allocate Unitized Substances produced from a Reservoir.

1.10 **Participating Area Expense** means all costs, expenses or indebtedness, which are incurred by the Unit Operator for production from or operations in a Participating Area and allocated to the Unit Tracts in that Participating Area.

1.11 **Paying Quantities** means a quantity of Unitized Substances sufficient to yield a return in excess of operating costs, even if drilling and equipment costs will never be repaid and the undertaking considered as a whole will ultimately result in a loss. The quantity is insufficient to yield a return in excess of operating costs unless it will produce sufficient revenue, not considering transportation and marketing, to induce a prudent operator to produce it.

1.12 **Reservoir** means that part of the Unit Area containing an accumulation of Unitized Substances which has been discovered by drilling and evaluated by testing a well or wells, and which is geologically separate from and not in hydrocarbon communication with any other oil and gas accumulation.

1.13 **Royalty Interest** means an ownership right to or interest in the amount or value of Unitized Substances other than a Working Interest.

1.14 **State** means the State of Alaska acting in this Agreement through the Commissioner.

1.15 **Sustained Unit Production** means continuing production of Unitized Substances from a well in the Unit Area into production facilities and transportation to market, but does not include testing, evaluation or pilot production.

1.16 **Unit Area** means the lands subject to this Agreement, described in Exhibit A and depicted in Exhibit B to this Agreement, submerged or not.

1.17 **Unit Equipment** means all personal property, Lease and well equipment, plants, platforms and other facilities and equipment used, taken over or otherwise acquired for use in Unit Operations.

1.18 **Unit Expense** means all costs, expenses or indebtedness incurred by the Unit Operator for Unit Operations, except for Participating Area Expense.

1.19 **Unit Operating Agreement** means the agreement(s) entered into by the Unit Operator and the Working Interest Owners, as described in Article 7.

1.20 **Unit Operations** means all operations conducted in accordance with an Approved Unit Plan or Approved Unit Plans.

1.21 **Unit Operator** means the party designated by the Working Interest Owners and approved by the Commissioner to conduct Unit Operations.

1.22 **Unit Plan** means a unit plan of exploration or development as described in Article 8.

1.23 **Unit Tract** means each separate parcel that is described in Exhibit A and given a Unit Tract number.

1.24 **Unit Tract Participation** means the percentage allocation credited to a Unit Tract in a Participating Area to allocate Unitized Substances.

1.25 **Unitized Substances** means all oil, gas and associated substances, as those terms are defined in the Leases, produced from the Leases within the Unit Area.

1.26 **Working Interest** means the interest held in lands by virtue of a lease, operating agreement, fee title or otherwise, under which the owner of the interest is vested with the right to explore for, develop and produce minerals; the right delegated to a unit operator by a unit agreement is not a working interest.

1.27 **Working Interest Owner** means a party who owns a Working Interest.

## **ARTICLE 2: EXHIBITS**

2.1 The following Exhibits are to be attached to and made a part of this Agreement. When this Agreement is approved, only Exhibits A, B, and G are required. Exhibit F is also required when this Agreement is approved, if the Unit Area includes Net Profit Share Leases. The Unit Operator shall supply all Exhibits.

2.2 Exhibit A is a table that identifies and describes each Unit Tract, and displays: the Unit Tract number, the Lease number, the Working Interest ownership, the Royalty Interest ownership, and the applicable royalty and net profit share rates applicable to each Unit Tract. Within thirty days after approval by the Commissioner of any expansion or contraction of the Unit Area under Article 13 or any change of the Working Interest or Royalty Interest in any Unit Tract, the Unit Operator shall submit a revised Exhibit A to the Commissioner.

2.3 Exhibit B is a map that shows the boundary lines of the Unit Area and of each Unit Tract, identified by Unit Tract number and Lease number. Within thirty days after the Commissioner approves any expansion or contraction of the Unit Area under Article 13 or any change of the Working Interest or Royalty Interest in any Unit Tract, the Unit Operator shall submit a revised Exhibit B to the Commissioner.

2.4 Exhibit C is comprised of a table for each Participating Area established under this Agreement. The Exhibit C table for each Participating Area must display the Unit Tract numbers, legal descriptions, Lease numbers, Working Interest ownership, Royalty Interest ownership, and Unit Tract Participation for that Participating Area. Exhibits must be prepared for each Participating Area established in the Unit Area. The Unit Operator shall submit an initial or revised Exhibit C to the Commissioner within thirty days of: 1) the effective date of any Participating Area, 2) any expansion or contraction of a Participating Area, 3) any division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area, or 4) any change of the Working Interest or Royalty Interest in any Unit Tract.

2.5 Exhibit D is comprised of a map for each Participating Area. Each Exhibit D map must show the boundary lines of the Unit Area, a Participating Area and the Unit Tracts in that Participating Area identified by Unit Tract number and Lease number. Within thirty days after approval by the Commissioner of a Participating Area or any expansion or contraction of a Participating Area under Article 9 or any change of the Working Interest or Royalty Interest in any Unit Tract in a Participating Area, the Unit Operator shall submit a revised Exhibit D to the Commissioner.

2.6 Exhibit E is comprised of a table for each Participating Area that displays the allocation of Participating Area Expense to each Unit Tract in the Participating Area, identified by Unit Tract number and Lease number. Exhibits must be prepared for each Participating Area established in the Unit Area. The Unit Operator shall submit an initial or revised Exhibit E to the Commissioner whenever an initial or revised Exhibit C is required.

2.7 Exhibit F is a table that displays the allocation of Unit Expense to each Unit Tract in the Unit Area, identified by Unit Tract number and Lease number. The Unit Operator shall submit an initial or revised Exhibit F to the Commissioner whenever an initial or revised Exhibit A is required if the Unit Area includes Net Profit Share Leases. The Unit Operator may submit a revised Exhibit F anytime, but any revisions to Exhibit F are not effective until approved by the Commissioner.

2.8 Exhibit G is the unit plan of exploration or unit plan of development required by the regulations, and Article 8 of this Agreement.

### **ARTICLE 3: CREATION AND EFFECT OF UNIT**

3.1 All Oil and Gas Rights in and to the lands described in Exhibit A and shown in Exhibit B are subject to this Agreement so that Unit Operations will be conducted as if the Unit Area was a single Lease.

3.2 So long as this unit remains in effect, each Lease in the Unit Area shall continue in effect.

3.3 Except as otherwise provided in this Agreement, where only a portion of a lease is committed to this Agreement, that commitment constitutes a severance of the lease into unitized and nonunitized portions. The portion of the leased area not committed to this Agreement will be treated as a separate and distinct lease and may be maintained only in accordance with the terms and conditions of the lease, statutes, and regulations. Any portion of the leased area not committed to this Agreement will not be affected by the unitization, by operations in the Unit Area, or by a suspension approved or ordered by the Commissioner. If a lease has a well certified as capable of production in paying quantities on it before commitment to this Agreement, the lease will not be severed by unitization. If any portion of the Lease is included in a Participating Area formed under this Agreement, the entire Lease will remain committed to this Agreement and the Lease will not be severed.

3.4 Production of Unitized Substances in Paying Quantities from any part of a Participating Area shall be considered production from each Unit Tract in the Participating Area. It shall cause the portion of each Lease that is wholly or partially within the Participating Area to continue in effect as if a well were producing from each Unit Tract in the Participating Area.

3.5 The provisions of the various Leases and agreements pertaining to the respective Leases or production from those Leases are amended only to the extent necessary to make them conform to the written provisions of this Agreement. Otherwise, the provisions of those Leases and agreements shall remain in full force and effect.

3.6 This Agreement shall not be construed to transfer title to Oil and Gas Rights by any party to any other party or to the Unit Operator.

3.7 All data and information determined by the Commissioner to be necessary for the administration of this Agreement or for the performance of statutory responsibilities shall be provided by the Unit Operator, or Working Interest Owners, or both, upon written request. All data and information provided to the Commissioner shall be protected from disclosure under the Lease, governing law, and regulations.

#### **ARTICLE 4: DESIGNATION OF UNIT OPERATOR**

4.1. Union Oil Company of California ("Unocal") is designated as the Unit Operator. Unocal agrees to accept the rights and obligations of the Unit Operator to conduct Unit Operations and to explore for, develop and produce Unitized Substances as provided in this Agreement.

4.2. Except as otherwise provided in this Agreement and subject to the terms and conditions of Approved Unit Plans, the exclusive rights and obligations of the Working Interest Owners to conduct operations to explore for, develop and produce Unitized Substances in the Unit Area are delegated to and shall be exercised by the Unit Operator. This delegation does not relieve a lessee of the obligation to comply with all Lease terms. The Unit Operator shall notify

the other Working Interest Owners and the Commissioner of actions taken by the Unit Operator under this Agreement. The Unit Operator shall minimize and consolidate surface facilities to minimize surface impacts.

## **ARTICLE 5: RESIGNATION OR REMOVAL OF UNIT OPERATOR**

5.1 The Unit Operator shall have the right to resign at any time. The Unit Operator's resignation shall not become effective until: 1) sixty days have passed since the Unit Operator delivers a written notice of an intention to resign to the Working Interest Owners and the Commissioner; and 2) all artificial islands, installations and other devices, including wells, used for operations in the Unit Area are in a condition satisfactory to the Commissioner for suspension or abandonment of operations. However, if a successor Unit Operator is designated and approved under Article 6, the resignation is effective when approved by the Commissioner.

5.2 The Unit Operator may be removed as provided in the Unit Operating Agreement. This removal shall not be effective until: 1) the Working Interest Owners notify the Commissioner and the Unit Operator; and 2) the Commissioner approves a successor Unit Operator.

5.3 The resignation or removal of the Unit Operator shall not release it from liability for any failure to meet obligations that accrued before the effective date of the resignation or removal.

5.4 The resignation or removal of the Unit Operator does not terminate its rights, title or interest or obligations as a Working Interest Owner or other interest in the Unit Area. A termination of the Unit Operator's rights, title or interest may occur independently under the terms of the Leases and governing law. When the resignation or removal of the Unit Operator becomes effective, the Unit Operator shall relinquish possession of all Unit Equipment, artificial islands, wells, installations, devices, records, and any other assets used for conducting Unit Operations, whether or not located in the Unit Area, to the successor Unit Operator.

## **ARTICLE 6: SUCCESSOR UNIT OPERATOR**

6.1. Whenever the Unit Operator tenders its resignation as Unit Operator or is removed as provided in Article 5, a successor Unit Operator may be designated as provided in the Unit Operating Agreement. The successor Unit Operator must accept the rights and obligations of a Unit Operator in writing. The successor Unit Operator shall file an executed copy of the designation of successor with the Commissioner. The designation of successor Unit Operator will not become effective until approved by the Commissioner.

6.2. If no successor Unit Operator is designated within sixty days after notice to the Commissioner of the resignation or removal of a Unit Operator, the Commissioner will, in his or

her discretion, designate another Working Interest Owner as successor Unit Operator, or declare this Agreement terminated.

## **ARTICLE 7: UNIT OPERATING AGREEMENT**

7.1 The Working Interest Owners and the Unit Operator shall enter into a Unit Operating Agreement. It will apportion all costs and liabilities incurred in maintaining or conducting Unit Operations among the Working Interest Owners. The Unit Operating Agreement will also apportion the benefits, which will accrue from Unit Operations among the Working Interest Owners.

7.2 Any allocation described in the Unit Operating Agreement will not bind the State in determining or settling royalties and net profit share payments. Allocations of Unit Expense, Participating Area Expense, or Unitized Substances for determining, settling and paying royalties and net profit share payments will be based on Exhibits C, E and F of this Agreement, and must be approved by the Commissioner in writing before taking effect. An original or revised conforming Exhibit C and F shall be submitted to the Commissioner within thirty days of: any change in the division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area.

7.3 The Working Interest Owners and the Unit Operator may establish, through one or more Unit Operating Agreements and amendments, other rights and obligations between the Unit Operator and the Working Interest Owners. The Unit Operating Agreement will not modify any term or obligation of this Agreement. If the terms of this Agreement and the Unit Operating Agreement conflict, this Agreement will prevail.

7.4 Any Working Interest Owner is entitled to drill a well on the unitized portion of its Lease when the Unit Operator declines to drill that well. A Working Interest Owner must have an approved permit to drill and the well must be part of an Approved Unit Plan. If the Commissioner determines any such well to be capable of producing Unitized Substances in Paying Quantities, the land upon which that well is situated will be included in a Participating Area. The Participating Area will be formed or an existing Participating Area enlarged as provided in this Agreement. The Unit Operator will thereafter operate the well in accordance with this Agreement and the Unit Operating Agreement.

7.5 The Unit Operator shall file a copy of the Unit Operating Agreement with the Commissioner when this Agreement is filed for approval. The copy of the Unit Operating Agreement is for informational purposes only. Approval of the Unit Agreement is not approval of the Unit Operating Agreement. Complete copies of all other Unit Operating Agreements and any amendments to them will also be filed with the Commissioner within thirty days of execution and at least thirty days before their effective dates.

## **ARTICLE 8: PLANS OF EXPLORATION, DEVELOPMENT AND OPERATIONS**

8.1. Any Unit Plan and any amendment to a Unit Plan will not be effective until the Commissioner approves it. Approved Unit Plans are incorporated into this Agreement and become effective on the date of their approval.

8.1.1. A unit plan of exploration ("Plan of Exploration") shall describe the proposed exploration and delineation activities for any land in the Unit Area that is not in a Participating Area. Plans of Exploration shall comply with 11 AAC 83.341 and any successor regulation. The Unit Operator shall submit updated Plans of Exploration to the Commissioner for approval at least sixty days before the current Plan of Exploration expires.

8.1.2. A unit plan of development ("Plan of Development") shall include a description of the proposed development activities based on data available when the plan is submitted. Plans of Development shall comply with 11 AAC 83.343 and any successor regulation. The Unit Operator shall submit updated Plans of Development to the Commissioner for approval at least ninety days before the current Plan of Development expires.

8.1.3. When this Agreement is submitted to the Commissioner for approval, the Unit Operator shall submit an initial Plan of Development or an initial Plan of Exploration (collectively called the "Initial Unit Plan") for approval by the Commissioner.

8.2. The Unit Operator shall not explore, develop or produce on the Unit Area except in accordance with an Approved Unit Plan. The Unit Operator shall obtain a plan of operations approval, and any other permits and approvals required before operations begin. A plan of operations approval must be consistent with the mitigation measures and lessee advisories developed for the most recent State areawide lease sale in the region that includes the unit as deemed necessary by the Commissioner to protect the resources of the State. The Unit Operator shall submit a complete copy of all such applications to the Commissioner. The Unit Operator shall give the Commissioner written notice before beginning testing, evaluation, or pilot production from a well in the Unit Area.

8.3. After Sustained Unit Production in Paying Quantities begins, Unit Operations shall be maintained, with lapses of no more than ninety days per lapse between operations. The lapse may be longer if suspension of operations or production has been ordered or approved by the Commissioner. Approved Unit Plans may call for a suspension of Unit Operations.

8.4. After giving written notice to the Unit Operator and an opportunity to be heard, the Commissioner may require the Unit Operator to modify from time to time the rate of prospecting and development and the quantity and rate of production.

8.5. If a well has been drilled in the Unit Area prior to the Effective Date of this Unit Agreement or is being drilled within the Unit Area on the Effective Date, that well will be considered a Unit Well as of the Effective Date of this Agreement.

8.6. The Commissioner will, in the agency's discretion, approve any injection of Outside Substances or Outside PA Substances within the Unit Area. Any injection of Outside Substances or Outside PA Substances within the Unit Area must be part of an Approved Unit Plan.

## **ARTICLE 9: PARTICIPATING AREAS**

9.1. The Unit Operator shall submit a request for approval of the proposed initial Participating Area to the Commissioner at least six months before Sustained Unit Production from a Reservoir in the Unit Area. A Participating Area shall include only land that is reasonably known to be underlain by Unitized Substances and known or reasonably estimated through the use of geological, geophysical and engineering data to be capable of producing or contributing to production of Unitized Substances in Paying Quantities. The Unit Operator must receive approval from the Commissioner of a Participating Area before commencement of Sustained Unit Production. The Unit Operator shall notify the Commissioner of commencement of Sustained Unit Production within 10 days after commencement from each Participating Area.

9.2. Each application for approval of a Participating Area shall include Exhibits C, D, E, and G. Exhibit F is also required if the Unit Area includes Net Profit Share Leases. If approved by the Commissioner, the area described in Exhibit C and depicted in Exhibit D shall be a Participating Area, and the allocation of Participating Area Expenses and Unit Expenses described in Exhibits E and F shall be effective on the effective date of the Participating Area.

9.3. A separate Participating Area shall be established for each Reservoir in the Unit Area. If one Reservoir underlies another Reservoir in whole or in part, separate Participating Areas may be created for each Reservoir. Any two or more Reservoirs or Participating Areas may be combined into one Participating Area if approved by the Commissioner.

9.4. At the Unit Operator's election or if so directed by the Commissioner, the Unit Operator shall apply to expand or contract the Participating Area if expansion or contraction is warranted by geological, geophysical, or engineering data. Each application for expansion or contraction shall include Exhibits C, D, E, and G. Exhibit F is also required if the Unit Area includes Net Profit Share Leases. The application must be submitted to the Commissioner for approval. Before any directed expansion or contraction of the Participating Area, the Commissioner will give the Unit Operator reasonable notice and an opportunity to be heard.

9.5. The Commissioner will establish the effective date of the initial Participating Area. That effective date shall be no later than the date of the first Sustained Unit Production. The Commissioner will establish the effective date of each later Participating Area.

9.6. Land in a Participating Area shall remain in that Participating Area even if its Unitized Substances are depleted.

9.7. If the Working Interest Owners cannot agree on the fair, reasonable and equitable allocation of production or costs, the Commissioner shall prescribe an allocation.

9.8. A Unitized Substance produced from one Participating Area ("Originating Participating Area") may be used as an Outside PA Substance ("Injected Substance") for repressuring, recycling, storage or enhanced recovery purposes in another Participating Area ("Receiving Participating Area") only if the State is paid royalty as if the Unitized Substance was saved, removed, or sold by the Working Interest Owners, except as follows:

9.8.1. If the Commissioner consents to the transfer of Unitized Substances between Participating Areas without immediate payment of royalties, the Unit Operator shall provide monthly reports to the State. These monthly reports shall reflect the volumes of any Unitized Substance transferred and the British thermal units ("Btus") in any natural gas Unitized Substance transferred as an Outside PA Substance during the preceding month.

9.8.2. If the Commissioner consents to the transfer of Unitized Substances between Participating Areas without immediate payment of royalties, the royalties shall be paid when the Injected Substances are produced and sold from the Receiving Participating Area. The first natural gas Unitized Substances produced and sold from the Receiving Participating Area shall be considered to be the Injected Substances until a volume of natural gas containing Btus equal to the Btus contained in the Injected Substances is produced and sold from the Receiving Participating Area. All the Unitized Substances produced and sold from a Receiving Participating Area that are considered to be the Injected Substance shall be allocated to the Originating Participating Area. The Working Interest Owners shall pay the State royalties on Injected Substances produced and sold from a Receiving Participating Area as if those Injected Substances were produced and sold from the Originating Participating Area when they were produced from the Receiving Participating Area.

9.9. All liquid hydrocarbons removed in any equipment or facility in Alaska from produced Injected Substances and not used for fuel shall be allocated to the Receiving Participating Area. If liquid hydrocarbons are removed from the natural gas, the Btu content of the natural gas shall be measured after liquid hydrocarbons are removed.

9.10. The Commissioner must approve the deemed recovery rate and commencement date for recovery before any Outside Substance is injected within the Unit Area.

9.11. After giving written notice to the Unit Operator and an opportunity to be heard, the Commissioner will, in his or her discretion, require the Unit Operator to modify from time to time the rate of prospecting and development and the quantity and rate of production from a Participating Area.

9.12. Underground storage shall be covered by separate agreement with the Commissioner.

#### **ARTICLE 10: OFFSET WELLS**

10.1. The Unit Operator shall drill such wells as a reasonable and prudent operator would drill to protect the State from loss by reason of drainage resulting from production on other land. Without limiting the generality of the foregoing sentence, if oil or gas is produced in a well on other land not owned by the State or on which the State receives a lower rate of royalty than under any Lease in the Unit Area, and that well is within 500 feet in the case of an oil well or 1,500 feet in the case of a gas well of lands then subject to this Agreement, and that well produces oil or gas for a period of 30 consecutive days in quantities that would appear to a reasonable and prudent operator to be sufficient to recover ordinary costs of drilling, completing, and producing an additional well in the same geological structure at an offset location with a reasonable profit to the operator, and if, after notice to the Unit Operator and an opportunity to be heard, the Commissioner finds that production from that well is draining lands then subject to this Agreement, the Unit Operator shall within 30 days after written demand by the Commissioner begin in good faith and diligently prosecute drilling operations for an offset well on the Unit Area. In lieu of drilling any well required by this paragraph, the Working Interest Owners must compensate the State in full each month for the estimated loss of royalty through drainage in the amount determined by the Commissioner.

#### **ARTICLE 11: ALLOCATION OF PRODUCTION**

11.1 Production and costs will be allocated according to 11 AAC 83.371 and any successor regulation. The Unit Operator shall submit a proposed allocation plan, with supporting data, to the Commissioner for approval. The Commissioner will, in his or her discretion, revise the proposed allocation plan if it does not equitably allocate production and costs from the Reservoir. The Commissioner will give the Working Interest Owners reasonable notice and an opportunity to be heard before revising the Unit Operator's proposal. The allocation plan must be revised whenever a Participating Area is expanded or contracted. Within thirty days after approval by the Commissioner of any division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area, the Unit Operator shall submit revised Exhibits C and F to the Commissioner. The Unit Operator may submit a revised Exhibit F anytime, but any revisions to Exhibit F are not effective until approved by the Commissioner.

11.2 The Working Interest Owners shall pay royalties for each Unit Tract in proportion to each Working Interest Owner's ownership in that Unit Tract. The amount of Unitized Substances allocated to each Unit Tract shall be deemed to have been produced from that Unit Tract.

11.3 The Working Interest Owners may allocate Unitized Substances, Participating Area Expense, and Unit Expense differently than described in Exhibits C, E and F. However, that allocation shall not be effective for determining royalty or net profit share payments. The Unit Operator shall submit any allocation which is different than the allocations required in Exhibit C, E or F to the Commissioner under 11 AAC 83.371(b) for the State's information within ten days of its effective date with a statement explaining the reason for the different allocation.

11.4 Royalties shall not be due or payable to the State for the portion of Unitized Substances unavoidably lost or used in the Unit Area for development and production in accordance with prudent industry practices. Gas that is flared for any reason other than safety purposes as allowed by the AOGCC shall not be deemed to be unavoidably lost, and the Working Interest Owners shall pay royalties for such flared gas as if it had been produced. This exemption does not apply to Unitized Substances that are sold, traded or assigned, including sales, transactions, or assignments among the Working Interest Owners or gas that is deemed "waste" by AOGCC.

11.5 If a State Lease committed to this Agreement provides for a discovery royalty rate reduction for the first discovery of oil or gas, that Lease provision shall not apply to a well spudded after the Effective Date.

## **ARTICLE 12: LEASES, RENTALS AND ROYALTY PAYMENTS**

12.1. The Working Interest Owners shall pay rentals and royalty payments due under the Leases. Those payments must be made to any depository designated by the State with at least sixty days notice to the Unit Operator and the Working Interest Owners.

12.2. Each month, the Unit Operator shall furnish a schedule to the Commissioner. That schedule shall specify, for the previous month: 1) the total amount of Unitized Substances produced; 2) the amount of Unitized Substances used for development and production or unavoidably lost; 3) the total amount of Unitized Substances allocated to each Unit Tract; 4) the amount of Unitized Substances allocated to each Unit Tract and delivered in kind as royalty to the State; and 5) the amount of Unitized Substances allocated to each Unit Tract for which royalty is to be or has been paid to the State.

12.3. Each Working Interest Owner shall pay its share of royalties to the State on Unitized Substances as provided in the Lease, except "leased area" shall mean Unit Area.

12.4. Notwithstanding any contrary Lease term, royalties and the share of Unitized Substances attributable to royalties and any payment due must be paid free and clear of all Lease expenses, Unit Expenses and Participating Area Expenses. These excluded expenses include, but are not limited to, separating, cleaning, dehydration, saltwater removal, processing, compression, pumping, and manufacturing costs. These excluded expenses also include the costs of preparing the Unitized Substances for transportation off the Unit Area and gathering and transportation

costs incurred before the Unitized Substances are delivered to a common carrier pipeline. No lien for any expenses shall attach to royalty Unitized Substances. The royalty share shall bear a proportionate part of any gas shrinkage that occurs during gas processing and blending.

12.5. Notwithstanding any contrary Lease term or provision in 11 AAC 83.228—11 AAC 83.229, all royalty deductions for transportation, including marine, truck, and pipeline transportation, from the Unit Area to the point of sale are limited to the actual and reasonable costs incurred by the Working Interest Owners. These transportation costs must be determined by taking into account all tax benefits applicable to the transportation.

12.6. The Unit Operator shall give the Commissioner notice of the anticipated date for commencement of production at least six months before the commencement of Sustained Unit Production from a Participating Area. Within ninety days of receipt of that notice, the Commissioner will give the Working Interest Owners written notice of its elections to take in kind all, none, a specified percentage, or a specified quantity of its royalties in any Unitized Substances produced from the Participating Area. The Commissioner will, in his or her discretion, increase or decrease (including ceasing to take royalty Unitized Substances in kind) the amount of royalty Unitized Substances the State takes in kind. The Commissioner shall give written notice to the Working Interest Owners ninety days before the first day of the month in which an increase or decrease is to be effective.

12.6.1. The Commissioner will, in his or her discretion, elect to specify the Unit Tracts from which royalty Unitized Substances taken in kind are to be allocated.

12.6.2. The Unit Operator shall deliver the State's royalty Unitized Substances at the custody transfer meter at a common carrier pipeline capable of carrying those substances, or at any other place mutually agreeable place. The State will, in its discretion, designate any individual, firm or corporation to accept delivery.

12.6.3. Royalty Unitized Substances delivered in kind shall be delivered in good and merchantable condition and be of pipeline quality. If a Working Interest Owner processes the Unitized Substances to separate, extract or remove liquids from a Working Interest Owner's share of natural gas Unitized Substances, the State will, in its discretion, require that a Working Interest Owner also process the State's share of natural gas being taken in kind in the same manner without cost to the State. Under these circumstances, the State, or its buyer, shall only pay any tariffed transportation costs and shrinkage of the volume of gas resulting from processing.

12.6.4. Each Working Interest Owner shall furnish storage in or near the Unit Area for the State's share of Unitized Substances to the same extent that the Working Interest Owner provides storage for its own share of Unitized Substances.

12.7. If a purchaser of the State's royalty Unitized Substances does not take delivery of Unitized Substances, the State will, in its discretion elect, without penalty, to underlift for up to six months. The State will, in its discretion, underlift all or a portion of those substances. The State's right to underlift is limited to the portion of those substances that the purchaser did not

take delivery of or what is necessary to meet an emergency condition. The State shall give the Unit Operator written notice thirty days before the first day of the month in which the underlifted royalty Unitized Substances are to be recovered. The State will, in its discretion, recover at a daily rate not exceeding 25 percent (25%) of its share of daily production, unless otherwise agreed.

12.8. The Unit Operator shall keep and have in its possession books and records showing the exploration, development, production and disposition of all Unitized Substances produced from the Unit Area. The Unit Operator shall permit the State or its agents to examine these books and records at all reasonable times. Upon request by the State, the Unit Operator's books and records shall be made available to the State at the State office designated by the State. These books and records of exploration, development, production, and disposition must employ methods and techniques that will ensure the most accurate figures reasonably available. The Unit Operator shall use generally accepted accounting procedures consistently applied.

12.9. If a Lease committed to this Agreement specifies the amount of rent due, that Lease is amended to require that rentals due be calculated under A.S. 38.05.180(n), as amended. If a Lease committed to this Agreement requires payment of minimum royalty, that Lease is permanently amended to delete that minimum royalty obligation. The rental due under State law, as permanently amended, must be paid in lieu of minimum royalty.

12.10. All rights and obligations relating to the State's net profit share will be determined in accordance with 11 AAC 83.201 - 11 AAC 83.295, as amended, notwithstanding any contrary Lease term. The State will, in its discretion, audit the net profit share reports or payments due for any Lease within ten years of the date of production. The period of limitations for the State to file a lawsuit relating to an audit of a net profit share report or payment shall be three years longer than the audit period. The Working Interest Owners holding interests in net profit share Leases shall maintain the records relevant to determination of net profit share until the audit period has expired.

### **ARTICLE 13: UNIT EXPANSION AND CONTRACTION**

13.1. The Unit Operator, at its own election may, or at the direction of the Commissioner shall, apply to expand the Unit Area to include any additional lands determined to overlie a Reservoir that is at least partially within the Unit Area, or to include any additional lands that facilitate production. The Commissioner will give the Unit Operator reasonable notice and an opportunity to be heard before any directed expansion of the Unit Area. The Unit Operator shall notify the Working Interest Owners of any expansion proposed by the Unit Operator or any third party, or proposed or directed by the Commissioner. Any unit expansion shall not be effective until approved by the Commissioner.

13.2. Ten years after Sustained Unit Production begins, the Unit Area must be contracted to include only those lands then included in an approved Participating Area and lands that facilitate production including the immediately adjacent lands necessary for secondary or

tertiary recovery, pressure maintenance, reinjection, or cycling operations. The Commissioner will, in the Commissioner's discretion, after considering the provisions of 11 AAC 83.303, delay contraction of the Unit Area if the circumstances of a particular unit warrant. If any portion of a Lease is included in the Participating Area, the portion of the Lease outside the Participating Area will neither be severed nor will it continue to be subject to the terms and conditions of the unit. The portion of the Lease outside the Participating Area will continue in full force and effect so long as production is allocated to the unitized portion of the Lease and the lessee satisfies the remaining terms and conditions of the Lease.

13.3. Not sooner than 10 years after the effective date of this Agreement, the Commissioner will, in the Commissioner's discretion, contract the Unit Area to include only that land covered by an Approved Unit Plan, or that area underlain by one or more oil or gas reservoirs or one or more potential hydrocarbon accumulations and lands that facilitate production. Before any contraction of the Unit Area under this Article 13.3, the Commissioner will give the Unit Operator, the Working Interest Owners, and the royalty owners of the Leases or portions of Leases being excluded reasonable notice and an opportunity to be heard.

13.4. The Commissioner will give the Unit Operator reasonable notice and an opportunity to be heard before any directed contraction of the Unit Area. The Unit Operator shall notify the Working Interest Owners of any proposed, directed, or approved contraction of the Unit Area. Any unit contraction shall not be effective until approved by the Commissioner.

13.5. The Unit Area may be contracted with the Commissioner's approval and an affirmative vote of the Working Interest Owners.

13.6. Within thirty days after approval by the Commissioner of any expansion or contraction of the Unit Area, the Unit Operator shall submit revised Exhibits A and B to the Commissioner.

#### **ARTICLE 14: UNIT EFFECTIVE DATE, TERM AND TERMINATION**

14.1. This Agreement is effective as of 12:01 a.m. on the day after the Commissioner approves it. At least one copy of this Agreement shall be filed with the Department of Natural Resources, Anchorage, Alaska and one copy shall be filed with the AOGCC. This Agreement is binding upon each party who signs any counterpart.

14.2. Subject to the terms and conditions of the Approved Unit Plan, this Agreement terminates five years from the Effective Date unless:

14.2.1. A unit well in the Unit Area has been certified as capable of producing Unitized Substances in Paying Quantities; or

14.2.2. The unit term is extended with the approval of the Commissioner. An extension shall not exceed five years.

14.3. If the Commissioner orders or approves a suspension of production or other Unit Operations, this Agreement shall continue in force during the authorized suspension.

14.4. Nothing in this Article holds in abeyance the obligations to pay rentals, royalties, or other production or profit-based payments to the State from operations or production in any part of the Unit Area. Any seasonal restriction on operations or production or other condition required in the Lease is not a suspension of operations or production required by law or force majeure.

14.5. This Agreement may be terminated by an affirmative vote of the Working Interest Owners and the Commissioner's approval.

#### **ARTICLE 15: EFFECT OF CONTRACTION AND TERMINATION**

15.1. If a Lease or portion of a Lease is contracted out of the Unit Area under this Agreement, then it will be maintained only in accordance with State law and the Lease.

15.2. Each Lease committed to this Agreement on the day that this Agreement terminates shall remain in force for an extension period of ninety days, or any longer period which may be approved by the Commissioner. After the extension period expires, the Lease will be maintained only in accordance with State law and the Lease.

15.3. Upon the expiration or earlier termination of the unit, the Unit Operator will be directed in writing by the Commissioner and will have the right at any time within a period of one year after the termination, or any extension of that period as may be granted by the Commissioner, to remove from the Unit Area all machinery, equipment, tools, and materials. Upon the expiration of that period or extension of that period and at the option of the Commissioner, any machinery, equipment, tools, and materials that the Unit Operator has not removed from the Unit Area become the property of the State or may be removed by the State at the Working Interest Owners' expense. At the option of the State, all improvements such as roads, pads, and wells must either be abandoned and the sites rehabilitated by the Unit Operator to the satisfaction of the State, or be left intact and the Unit Operator absolved of all further responsibility as to their maintenance, repair, and eventual abandonment and rehabilitation. Subject to the above conditions, the Unit Operator shall deliver up the Unit Area in good condition.

#### **ARTICLE 16: COUNTERPARTS**

16.1. The signing of counterparts of this Agreement shall have the same effect as if all parties had signed a single original of this Agreement. Within thirty days after approval by the

Commissioner of any change of the Working Interest ownership of Oil and Gas Rights in any Unit Tract, the Unit Operator shall submit a revised Exhibits A and C to the Commissioner.

#### **ARTICLE 17: LAWS AND REGULATIONS**

17.1. This Agreement is subject to all applicable State and federal statutes and regulations in effect of the Effective Date of this Agreement, and insofar as is constitutionally permissible, to all statutes and regulations placed in effect after the Effective Date of this Agreement. A reference to a statute or regulation in this Agreement includes any change in that statute or regulation whether by amendment, repeal and replacement, or other means. This Agreement does not limit the power of the State of Alaska or the United States of America to enact and enforce legislation or to promulgate and enforce regulations affecting, directly or indirectly, the activities of the parties to this Agreement or the value of interests held under this Agreement. In case of conflicting provisions, statutes and regulations take precedence over this Agreement.

#### **ARTICLE 18: APPEARANCES AND NOTICES**

18.1. If the State gives the Unit Operator a notice or order relating to this Agreement it shall be deemed given to all Working Interest Owners and all persons whose interest in the Unit Area derived from a Working Interest. All notices required by this Agreement shall be given in writing and delivered personally, or by United States mail or by facsimile machine to the Unit Operator at the address or facsimile number listed below. All notices actually received will also be deemed properly given. The Unit Operator will change its notice address by giving thirty days written notice to the State and the other Working Interest Owners. The State will change its notice address by giving thirty days written notice to the Unit Operator.

##### **Address of the Unit Operator:**

Union Oil Company of California  
Attention: Land Manager  
909 W. 9<sup>th</sup> Avenue (99501)  
P.O. Box 196247  
Anchorage, AK 99519-6247  
Fax: (907) 263-7698

##### **Address of the State:**

Commissioner, Department of Natural Resources  
550 West Seventh Avenue, Suite 1400  
Anchorage, Alaska 99501-3554  
Fax: (907) 269-8918

with a copy to:

Director, Division of Oil and Gas  
550 West Seventh Avenue, Suite 800  
Anchorage, Alaska 99501-3560  
Fax: (907) 269-8938

## **ARTICLE 19: JOINDER**

19.1. The Commissioner will, in his or her discretion, order or, upon request, approve a joinder to this Agreement under the expansion provisions of Article 13. The Unit Operator shall submit a request for joinder with a signed counterpart of this Agreement and a notice of proposed expansion under Article 13. A joinder is subject to the requirements of the Unit Operating Agreement. However, the Commissioner will, in his or her discretion, modify any provision in a Unit Operating Agreement, which the Commissioner finds discriminates against parties who request joinder. The Commissioner shall give notice and an opportunity to be heard to the Unit Operator before modifying the Unit Operating Agreement.

## **ARTICLE 20: DEFAULT**

20.1 The Commissioner will, in his or her discretion, determine that failure of the Unit Operator or the Working Interest Owners to comply with any of the terms of this Agreement, including any Approved Unit Plan, is a default under this Agreement. The failure to comply because of force majeure is not a default.

20.2 The Commissioner will give notice to the Unit Operator and the Working Interest Owners of the default. The notice will describe the default, and include a demand to cure the default by a certain date. The cure period shall be at least thirty days for a failure to pay rentals or royalties and ninety days for any other default.

20.3 If there is no well certified as capable of producing Unitized Substances in Paying Quantities and a default is not cured by the date indicated in the demand, the Commissioner will, in his or her discretion, terminate this Agreement after giving the Unit Operator notice and an opportunity to be heard. The Commissioner will give notice, by mail, of the termination, which is effective upon mailing the notice.

20.4 If there is a well capable of producing Unitized Substances in Paying Quantities and the operations to cure the default are not completed by the date indicated in the demand, the Commissioner will terminate this Agreement by judicial proceedings.

20.5 This Article's remedies are in addition to any other administrative or judicial remedy provided for by Lease, this Agreement, or federal or State law.

My Commission Expires: \_\_\_\_\_

**OVERRIDING ROYALTY INTEREST OWNERS**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_

(Company Name, signatory's printed name and title)

STATE OF ALASKA )  
 )ss.  
THIRD JUDICIAL DISTRICT )

This certifies that on \_\_\_\_\_, 200\_\_, before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared \_\_\_\_\_, known to me to be the person described in, and who executed the foregoing agreement, who then after being duly sworn according to law, acknowledged to me under oath that he executed same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal the day and year in this certificate first above written.

\_\_\_\_\_  
NOTARY PUBLIC in and for Alaska  
My Commission Expires: \_\_\_\_\_

By: \_\_\_\_\_ Date: \_\_\_\_\_  
\_\_\_\_\_

(Company Name, signatory's printed name and title)

STATE OF ALASKA )  
 )ss.  
THIRD JUDICIAL DISTRICT )

This certifies that on \_\_\_\_\_, 200\_\_, before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared \_\_\_\_\_, known to me to be the person described in, and who executed the foregoing agreement, who then after being duly sworn according to law, acknowledged to me under oath that he executed same freely and voluntarily for the uses and purposes therein mentioned.

WITNESS my hand and official seal the day and year in this certificate first above written.

\_\_\_\_\_  
NOTARY PUBLIC in and for Alaska  
My Commission Expires: \_\_\_\_\_

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**EXHIBIT "A"**

**Nikolaevsk Unit**

Effective January 30, 2004

DIVISION OF  
OIL AND GAS

Tract Number	Legal Description	Acreage	Lease Number	Royalty Owner Percentage	Overriding Royalty Interest Owners	Working Interest Owners	Working Interest Percentage
1	T3S, R13W, SM, AK	1,920.00	ADL - 388199	State of Alaska 12.5%	Nesmith .23%	Union Oil Company of California	100.00%
	Warthen .66667%						
	Escopeta O&G .66666%						
	Section 13: All				Escopeta Prod. .66667%		
	Section 23: All						
	Section 24: All						
					Nappi Trust 3.0%		
					Summar .65%		
					Offord .65%		
					Snead .65%		
					Alliance 4.0%		
2	T3S, R12W, SM, AK	2,527.20	ADL - 388196	State of Alaska 12.5%	Nesmith .23%	Union Oil Company of California	100.00%
	Section 17: All						
	Section 18: All						
	Section 19: All				Warthen 1.0%		
	Section 20: All						
					Nappi Trust .45%		
					Summar .15%		
					Snead .15%		
					Alliance .6%		
					Blocker 5.5%		
					J.A. White 2.0%		
3	T3S, R13W, SM, AK	2,560.00	ADL - 388200	State of Alaska 12.5%	Nesmith .23%	Union Oil Company of California	100.00%
	Section 25: All						
	Section 26: All						
	Section 35: All				Escopeta O&G .66666%		
	Section 36: All						
					Escopeta Prod. .66667%		
					Nappi Trust 3.0%		
					Summar .65%		
					Offord .65%		
					Snead .65%		
					Alliance 4.0%		

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<u>Tract Number</u>	<u>Legal Description</u>	<u>Acreage</u>	<u>Lease Number</u>	<u>Royalty Owner Percentage</u>	<u>Overriding Royalty Interest Owners</u>	<u>Working Interest Owners</u>	<u>Working Interest Percentage</u>
4	T3S, R12W, SM, AK Section 29: All Section 30: All Section 31: All Section 32: All	2,535.36	ADL - 388198	State of Alaska 12.5%	Nesmith .23% Warthen .66667% Escopeta O&G .66666% Escopeta Prod. .66667% Nappi Trust 3.0% Summar .65% Offord .65% Snead .65% Alliance 4.0%	Union Oil Company of California	100.00%
5	T4S, R13W, SM, AK Section 5: All Section 6: GLO Lots 1 and 2, S1/2 NE1/4, SE1/4 Section 7: E1/2 Section 18: GLO Lots 1 through 4 inclusive, N1/2 NE1/4, N1/2 SE1/4 NE1/4, NW1/4 SW1/4 SE1/4 NE1/4, SW1/4 NE1/4, NW1/4 SE1/4, E1/2 SW1/4, E1/2NW1/4	1,788.69	ADL - 389227	State of Alaska 12.5%	Nappi Trust 3.0% Summar 1.0% Snead 1.0% Alliance 4.0%	Union Oil Company of California	100.00%
6	T4S, R13W, SM, AK Section 4: All Section 9: All Section 16: All	1,923.28	ADL - 390513	State of Alaska 12.5%	W. Hicckel 1.5% V. Hicckel 1.5% R. Hicckel 1.5% W. Hutto 1.0% Nappi Trust 4.5% Summar .65% Offord .65% Snead .65% Alliance 4.0%	Union Oil Company of California	100.00%

<u>Tract Number</u>	<u>Legal Description</u>	<u>Acreage</u>	<u>Lease Number</u>	<u>Royalty Owner Percentage</u>	<u>Overriding Royalty Interest Owners</u>	<u>Working Interest Owners</u>	<u>Working Interest Percentage</u>
7	T4S, R13W, SM, AK Section 8: NE/4, E/2NW/4, SW/4NW/4, SW/4, N/2SE/4, SW/4SE/4	560	ADL - 390514	State of Alaska 12.5%	Neustadter 2.5% W. Hicckel .50008% V. Hicckel .50008% R. Hicckel .50008% Stevens .25004% Boyer .25004% W. Hutto .73574% Nappi Trust 3.31081% Summar .47823% Offord .47823% Snead .47823% Alliance 2.94294%	Union Oil Company of California	100.00%
	T4S, R13W, SM, AK Section 8: SE/4SE/4	40			Neustadter 2.5% W. Hicckel .39332% V. Hicckel .39332% R. Hicckel .39332% Stevens .19666% Boyer .19666% W. Hutto .79472% Nappi Trust 3.57622% Summar .51657% Offord .51657% Snead .51657% Alliance 3.17886%	Union Oil Company of California	100.00%
	T4S, R13W, SM, AK Section 8: NW/4NW/4	40			Neustadter 2.5% W. Hicckel .20331% V. Hicckel .20331% R. Hicckel .20331% Stevens .10166% Boyer .10166% W. Hutto .43897% Nappi Trust 1.97535% Summar .28533% Offord .28533% Snead .28533% Alliance 2.94294%	Union Oil Company of California	100.00%

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OIL AND GAS

<u>Tract Number</u>	<u>Legal Description</u>	<u>Acreage</u>	<u>Lease Number</u>	<u>Royalty Owner Percentage</u>	<u>Overriding Royalty Interest Owners</u>	<u>Working Interest Owners</u>	<u>Working Interest Percentage</u>
8	T4S, R13W, SM, AK Section 6: Lots 3-7, E/2SW/4, SE/4NW/4 Section 7: Lots 1 thru 4, E/2W/2	636.48	ADL - 388209	State of Alaska 12.5%	W. Hickel 1.5% V. Hickel 1.5% R. Hickel 1.5% W. Hutto 1.0% Nappi Trust 4.5% Summar .65% Offord .65% Snead .65% Alliance 4.0%	Union Oil Company of California	100.00%
9	T4S, R13W, SM, AK Section 17: All	640.00	C-373303	Cook Inlet Region, Inc. 12.5%	Neustadter 2.5%	Union Oil Company of California	100.00%
10	T4S, R13W, SM, AK Section 18: NE4SW4SE4NE4, S2SW4SE4NE4, SE4SE4NE4, S2SE4, NE4SE4	137.62	C-061614	Cook Inlet Region, Inc. 18%		Union Oil Company of California	100.00%
11	T3S, R13W, SM, AK Section 27: All Section 33: All Section 34: All	1,920.00	ADL - 390512	State of Alaska 12.5%	Nesmith .23% Warthen .66667% Escopeta O&G .66666% Escopeta Prod .66667% Nappi Trust 3.0% Summar .65% Offord .65% Snead .65% Alliance 4.0%	Union Oil Company of California	100.00%
<b>State of Alaska Land:</b>		<b>15,811.01</b>	<b>Acres</b>				
<b>Cook Inlet Region Inc. Land</b>		<b>777.62</b>	<b>Acres</b>				
<b>Total Unit Acreage</b>		<b>16,588.63</b>	<b>Acres</b>				

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**Overriding Royalty Interest Owners:**

Neustadter- Newton H Neustadter Trust  
W. Hikkel- Walter J. Hikkel  
V. Hikkel- Vernon W. Hikkel  
R. Hikkel- Robert E. Hikkel  
Stevens- William H. Stevens

Boyer- Clyde T. Boyer  
W. Hutto- William A. Hutto  
Nesmith- Briggs Nesmith  
Warthen- Robert Warthen  
Escopeta O&G Escopeta Oil & Gas Corporation

Escopeta Prod. - Escopeta Production-Alaska, Inc  
Nappi Tr.- The Nappi Trust  
Summar- Keith G. Summar  
Offord- Spencer K. Offord  
Snead- J. Lawrence Snead

Blocker - Blocker Interest, Ltd.  
J.A.White - James A. White  
Alliance - Alliance Energy LLC

**RECEIVED**

FEB 4 2004

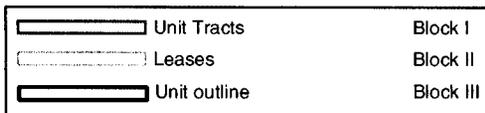
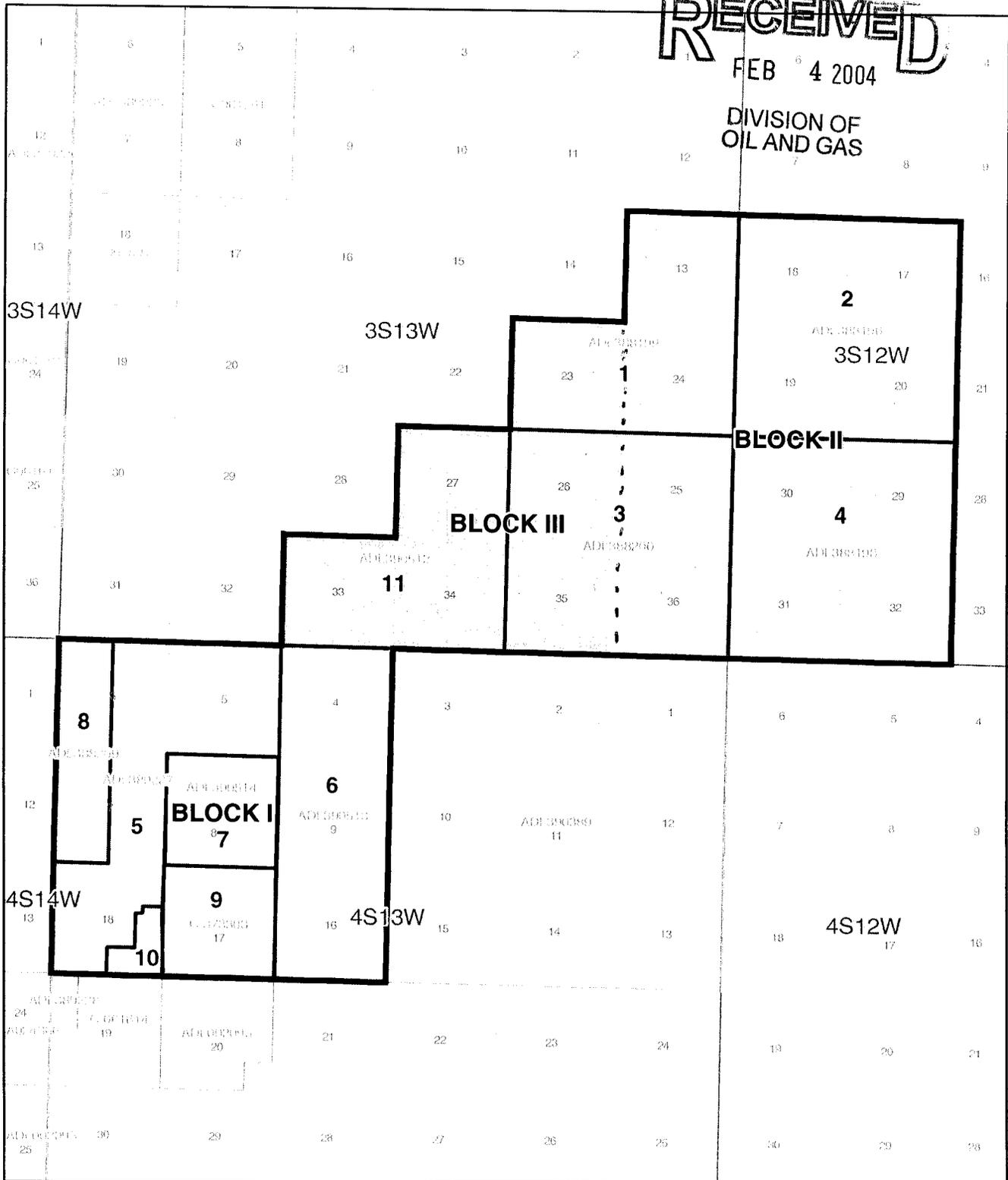
DIVISION OF  
OIL AND GAS

# Cook Inlet Nikolaevsk Unit Exhibit B

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OIL AND GAS



UNOCAL

FEBRUARY 1, 2004  
SCALE: 1:78,000

**Attachment 4 to the Decision Approving the Nikolaevsk Unit**

**Exhibit G to the Nikolaevsk Unit Agreement: Initial Plan of Exploration**

For the period from January 31, 2004 through January 31, 2007

**Exploration Blocks I, II, and III are described as follows:**

Block I: T4S, R13W, SM, AK, Sections 4-9 and 16-18

Block II: T3S, R12W, SM, AK, Sections 17-20 and 29-32  
T3S, R13W, SM, AK, Sections 13, 24, 25, and 36

Block III: T3S, R13W, SM, AK, Sections 23, 26, 27, and 33-35

**Year One:**

1. During the first year of this Initial Plan of Exploration (POE), the Nikolaevsk Unit (NU) Operator shall drill an exploration well in Exploration Block I, to a depth of at least 10,500 ft. tvd or a depth sufficient to penetrate 200' of the Hemlock Formation, whichever is less, with a bottom hole location within Section 8 of T4SR13W (ADL 02095). The Unit Operator shall log the well (GR or SP, Resistivity and Neutron/Density or Porosity: appropriate triple combo log) through the Hemlock Formation. In the event that a commercial discovery or mechanical problem occurs prior to reaching the target depth, the unit operator shall submit a revised POE for approval by the Director.
2. Failure to fulfill the Exploration Block I drilling requirement or approval of a revised POE, as described above, will result in the automatic termination of the NU effective January 31, 2005, and a payment of \$50,000 to the State of Alaska.
3. On or before January 31, 2005, the Working Interest Owners may elect to terminate the NU, pay \$50,000 to the State of Alaska, and be released from the remaining obligations in this POE.
4. On or before January 31, 2005, the Working Interest Owners may elect to contract the acreage within Exploration Block II and Exploration Block III out of the Unit Area, pay the State of Alaska \$50,000, and submit an amended POE or a Plan of Development for the revised unit area to the Division for approval.
5. ADL 388209 will be segregated so that, Tract 6 and Tract 8 are individual leases.
6. ADL 388200 will be segregated into two leases, so that T3S R13W Sections 25, 26, 35, and 36 are one lease and T3S R13W sections 27, 33, and 34 are another lease.

**Year Two:**

1. Unless the Exploration Blocks contracted out of the Unit in Year One, by January 31, 2006 the NU Operator shall acquire, process and interpret a sum total of 10 miles of new 2-D Seismic lines within Exploration Block II and Exploration Block III to delineate the prospects shown in the confidential data.

2. Failure to complete the seismic program in either Exploration Block II or Block III will result in the automatic contraction of the acreage within that Block out of the NU effective January 31, 2006, and a payment to the State of Alaska for the contraction acreage (\$70,000 for Exploration Block II and \$30,000 for Exploration Block III).
3. Unless the Exploration Blocks contracted out of the Unit in Year One, by January 31, 2006 the Unit Operator shall commit to drill an exploration well in Exploration Block II during the third year of this POE. The Unit Operator shall submit a written plan that identifies the proposed bottom hole location, depth, and testing plan for the Exploration Block II well.
4. Failure to submit the written commitment to drill a well in Exploration Block II will result in automatic contraction of the Exploration Block II leases out of the NU Area, and the Unit Operator shall submit an amended POE or a Plan of Development for the remaining unit area to the Division for approval.
5. Between February 1, 2005 and January 31, 2006, the Working Interest Owners may elect to voluntarily terminate the NU, pay \$100,000 to the State of Alaska, and be released from the remaining obligations in this POE.
6. Unless the Exploration Blocks previously contracted out of the Unit, between February 1, 2005 and January 31, 2006 the Working Interest Owners may elect to contract the acreage within Exploration Block II and/or Exploration Block III out of the Unit Area, pay the State of Alaska for the contraction acreage (\$70,000 for Exploration Block II and \$30,000 for Exploration Block III), and submit an amended POE or Plan of Development for the remaining unit area to the Division for approval.

**Year Three:**

1. Unless Exploration Block II previously contracted out of the unit area, during the third year of this POE the Unit Operator shall drill an exploration well in Exploration Block II to a depth of at least 9,500 ft. tvd. The Unit Operator shall log the well (GR or SP, Resistivity and Neutron/Density or Porosity: appropriate triple combo log). In the event that a commercial discovery or mechanical problem occurs prior to reaching the target depth, the unit operator shall consult with the Director of the Division of Oil and Gas, who may require the operator to submit a revised POE for approval.
2. Failure to fulfill the Exploration Block II drilling requirement, as described in the paragraph immediately above, will result in the automatic contraction of the acreage within Exploration Block II out of the NU effective January 31, 2007, a payment of \$200,000 to the State of Alaska, and the Unit Operator shall submit an amended POE or a Plan of Development for the revised unit area to the Division for approval.
3. Fulfilling the Exploration Block II drilling requirement during the second year of this POE will relieve the Working Interest Owners of the Exploration Block II seismic



requirement in Year Two. However, the Unit Operator shall submit an amended POE or Plan of Development for the revised unit area to the Division for approval.

4. Between February 1, 2006 and January 31, 2007, the Working Interest Owners may elect to voluntarily terminate the NU, pay \$300,000 to the State of Alaska, and be released from the remaining obligations in this POE.
5. Between February 1, 2006 and January 31, 2007, the Working Interest Owners may elect to contract the acreage within either Exploration Block II or Exploration Block III, or both blocks out of the Unit Area, pay the State of Alaska for the contraction acreage (\$200,000 for Exploration Block II, \$100,000 for Exploration Block III), and submit an amended POE or a Plan of Development for the revised unit area to the Division for approval.
6. Failure to commit to further exploration of Exploration Block III in the Second Plan of Exploration will result in the automatic contraction of the acreage within Exploration Block III out of the NU effective January 31, 2007, a payment of \$100,000 to the State of Alaska
7. At anytime during the POE, if the acreage within Exploration Block II or Exploration Block III contracts out of the unit, ADL 388199 and ADL 388200 will be severed along the boundary between Exploration Block II and Exploration Block III.
8. If the NU terminates for failure to fulfill any of the commitments in this POE, the Working Interest Owners shall automatically surrender all leases within the Unit whose primary terms have expired, effective the day the Unit terminates.
9. If any acreage contracts out of the NU area under the terms of this POE, the Working Interest Owners shall automatically surrender the contracted acreage within leases whose primary terms have expired, effective the day the leases contract out of the unit.
10. The Working Interest Owners waive the extension provision of 11 AAC 83.140 and Article 15.2 of the NU Agreement, and the notice and hearing provisions of 11 AAC 83.374 applicable to default or termination of the NU.