OOOGURUK UNIT

FIRST EXPANSION OF THE UNIT AREA

Findings and Decision of the Director
of the Division of Oil and Gas,
Under Delegation of Authority
from the Commissioner of the State of Alaska
Department of Natural Resources

MARCH 7, 2007

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I. INTRODUCTION AND DECISION SUMMARY

Pioneer Natural Resources, Inc. (Pioneer), as the designated Oooguruk Unit Operator, filed the Oooguruk Unit expansion application (Application) with the State of Alaska (state), Department of Natural Resources (DNR). Pioneer has submitted confidential and public portions of the Application that meet the requirements for a complete application under 11 AAC 83.306. Public comment period closed on January 5, 2007, and DNR received no comments.

The existing Oooguruk Unit, formed effective June 11, 2003, is located on the North Slope of Alaska, northwest of the Kuparuk River Unit and west of the Tuvaaq Unit. The existing unit area covers approximately 20,394 acres encompassing twelve state oil and gas leases (state leases). The proposed expansion acreage, encompassing an additional seven state leases, would increase the Oooguruk Unit area to 50,883 acres

The Division of Oil and Gas (Division) finds that the expansion of the Oooguruk Unit promotes conservation of all natural resources, promotes the prevention of economic and physical waste and provides for the protection of all parties of interest, including the state. DNR approves the expansion of the Oooguruk Unit in accordance with the criteria under 11 AAC 83.303 and conditioned by the terms of this Decision.

II. APPLICATION

Pioneer submitted the Application on October 19, 2005, and simultaneously paid the $500.00 unit application filing fee, in accordance with 11 AAC 83.306 and 11 AAC 05.010(a)(10)(D), respectively. The Application includes: Exhibit A, legally describing the proposed expanded unit area, its leases, and ownership interests; Exhibit B, a map of the proposed expanded unit; Exhibit G, the revised Initial Plan of Exploration (revised Initial POE), and the necessary ratifications of joinder to the Unit Agreement. The Application also includes confidential, technical data.

On October 25, 2005, Pioneer submitted revised exhibits to the Application and on October 26, 2005, the Division notified Pioneer that the Application was incomplete. Pioneer was instructed to obtain joinder to the unit agreement and unit operating agreement from the working interest owners (WIOs) of the deeper intervals of four of the expansion leases, correct specific errors in Exhibit A, and submit an Exhibit F. On December 5, 2005, Pioneer supplied the Division with additional geologic and geophysical information to support the Application and on December 9, 2005, the Resource Evaluation Section confirmed that the geologic and geophysical submissions were complete. On December 14, 2005, Pioneer submitted revised exhibits and informed the Division of its intent to submit additional information to satisfy the evidence requirement of 11 AAC 83.306 (3), invitation to proper parties. On February 22, 2006, Pioneer submitted a revised Exhibit A, a revised exhibit G, and, evidence of mailing of notice of invitation to proper parties.

On March 6, 2006, the Division notified Pioneer that the Application remained incomplete due to lack of joinder to the Unit Agreement by owners of the deeper intervals of four of the expansion leases, ADLs 355036, 355037, 355038, and 355039. On November 22, 2006, Pioneer submitted a revised Exhibit A, a revised Exhibit B, and ratification of and joinder to the Unit Agreement for Oxy USA Inc.'s (Oxy) interest in the deeper intervals of four of the expansion leases. The ratification of and joinder to the Unit Agreement by Oxy gave Pioneer, as Operator of the proposed expanded Oooguruk Unit, greater than 90 percent control of the deeper intervals of the four expansion leases. The Division deemed the Application complete on November 30, 2006, and the public notice period commenced on December 6, 2006.

The Division published a public notice in the "*Anchorage Daily News*" and in the "*Arctic Sounder*" on December 6, 2006, under 11 AAC 83.311. Copies of the Application and the public notice were provided to interested parties. DNR provided public notice to the Alaska Department of Environmental Conservation, the DNR Office of Habitat, Management and Permitting, the North Slope Borough, the City of Barrow, the City of Nuiqsut, the Kuukpik Corporation, the Arctic Slope Regional Corporation, the Nuiqsut Postmaster, and the radio station KBRW in Barrow. The notice was also published on the State of Alaska Public Notice website and the Division's website. The public notices invited interested parties and members of the public to submit comments by January 5, 2007. DNR received no comments regarding the Application.

III. LEASE BACKGROUND

The existing Oooguruk Unit encompasses twelve state leases: ADLs 388569, 388570, 388576, 389949, 389950, 389951, 389952, 389953, 389954, 389955, 389956, and 389958. The seven state leases proposed for expansion are ADLs 355036, 355037, 355038, 355039, 379301, 389959, and 389960.

The Division issued ADLs 355036, 355037, 355038, and 355039, effective August 1, 1983, on Competitive Oil and Gas Lease Form No. DMEM-4-83 (NET PROFIT SHARE)(REVISED May 5, 1983) DNR 10-1113, with ten-year primary terms, 12.5 percent fixed royalty rate, and 30 percent NPS for the state. These four leases were committed to the Kuukpik Unit, which terminated effective June 1, 2001. Prior to lease term expiration, a well was drilled on each lease and the wells were certified capable of producing in paying quantities.

ADL 379301, the Thetis lease, was created by the segregation of ADL 355029, which was segregated as to the unitized and non-unitized portions when ADL 355029 was partially committed to the Kuukpik Unit. ADL 379301, the non-unitized portion, maintained the same terms and conditions as the original lease, form DMEM-4-83 (NET PROFIT SHARE)(REVISED May 5, 1983) DNR 10-1113, effective August 1, 1983 with an initial term of ten years. On February 24, 1995, the Division certified the Thetis Island Unit Well #1, located on ADL 379301, as capable of production in paying quantities.

The Division issued ADLs 389959 and 389960 effective August 1, 2002, on Competitive Oil and Gas Lease Form No. (DOG 200004) with a 16.66667 percent fixed royalty and seven-year primary terms.

In May, 2005, Pioneer applied for royalty modification under AS 38.05.180(j) for nine leases that overlie the Nuiqsut and Kuparuk C reservoirs. It requested that the fixed royalty rates of 12.5 percent on the four Net Profit Share (NPS) leases ADLs 355036, 355037, 355038, 355039, and 16.6667 percent on the other five leases, ADLs 389950, 389952, 389954, 389958, and 389959, be reduced to the minimum rate allowed, five percent, with the NPS to remain at 30 percent. Effective February 1, 2006, DNR granted royalty modification to these nine leases. Four of the nine royalty modification leases lie within the existing Oooguruk Unit boundary; the five remaining royalty modification leases lie in the proposed expansion area.

As a result of several assignments of working and royalty interest shares, 70 percent of the working interest of each of the expansion leases is held by Pioneer and 30 percent is held by ENI. Each lease has overriding royalty interest owners. Pioneer and Armstrong negotiated a farm-in agreement with ConocoPhillips Alaska, Inc. (CPAI) early in 2004. ADLs 355036, 355037, 355038, and 355039 are vertically segmented--Pioneer and ENI own 70 percent and 30 percent, respectively, of the working interest in the upper horizon of these leases. Pioneer and ENI own 47.06 percent and 20.17 percent, respectively, of the working interest in the lower horizon of ADL 355036, and Pioneer and ENI own 39.38 percent and 16.87 percent, respectively, of the working interest in the deeper interval of ADLs 355037, 355038, and 355039.

IV. DISCUSSION OF DECISION CRITERIA

AS 38.05.180(p) gives DNR the authority to approve an oil and gas unit. The Commissioner of DNR (Commissioner) reviews unit applications under 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. The Division's review of the Application is based on the criteria set out in 11 AAC 83.303 (a) and (b). A discussion of the subsection (b) criteria, as they apply to the Application, is set out directly below, followed by a discussion of the subsection (a) criteria.

A. Decision Criteria considered under 11 AAC 83.303(b)

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

The proposed expanded Oooguruk Unit area lies offshore in the shallow waters of Harrison Bay Alaska, immediately northwest and contiguous to the Kuparuk River Unit and the Tuvaaq Unit. This area is habitat for various marine mammals, waterfowl, and fish. Area residents may use this area for subsistence hunting and fishing. Oil and gas activity in the proposed unit area may affect some wildlife habitat and some subsistence

activity. Mitigation measures, including seasonal restrictions on specific activities, reduce the impact on fish, wildlife, and human populations. Mitigation measures specifically address potential impacts to subsistence access and harvests.

DNR develops lease stipulations through the lease sale process to mitigate the potential environmental impacts from oil and gas activity. Alaska statutes require DNR to give public notice and issue a written finding before disposal of the state's oil and gas resources. AS 38.05.035(e); AS 38.05.945; 11 AAC 82.415. In the written best interest finding, the Commissioner may impose additional conditions or limitations beyond those imposed by law. AS 38.05.035(e).

DNR considered all comments submitted before holding the Beaufort Sea Sales in 1983 and 2001. DNR included mitigation measures in the leases. The proposed Oooguruk Unit expansion leases contain stipulations designed to protect the environment and address concerns regarding impacts to the area's fish and wildlife species and to habitat and subsistence activities. They address issues such as the protection of primary waterfowl areas, site restoration, construction of pipelines, seasonal restrictions on operations, public access to, or use of, the leased lands, and avoidance of seismic hazards. Including the leases in the expanded Oooguruk Unit will neither change these protective measures, nor result in additional restrictions or limitations on public access to the lands or to public and navigable waters. Furthermore, lease operations both before and after unitization are subject to a coastal zone consistency determination, and must comply with the terms of both the State Coastal Management Program and North Slope Borough Coastal Management Plan, and require issuance of a permit from the U.S. Army Corps of Engineers. Lease and unit operations also require state approval of a Plan of Operations application.

Ongoing mitigation measures such as seasonal restrictions on specific activities in certain areas will reduce the impact on bird, fish, and mammal populations. Designating primary waterfowl areas and restricting activities within these areas is one method of protecting the bird habitat. DNR requires consolidation of facilities to minimize surface disturbances. Regulating waste disposal is another way to limit environmental impacts. With these mitigating measures, the anticipated exploration and development related activity is not likely to significantly impact bird, fish, and mammal populations. The anticipated activity under the Agreement will impact wildlife, habitat and subsistence activity less than if the lessees developed the leases individually. Unitized exploration, development and production will minimize surface impact.

The approval of the expansion of the Oooguruk Unit itself has no environmental impact because the Commissioner's approval of the unit is an administrative action, which, by itself, does not convey any authority to conduct any operations within the unit. The unit expansion does not entail any environmental costs in addition to those that may occur when permits to conduct lease-by-lease exploration or development are issued. Unitization does not waive or reduce the effectiveness of the mitigating measures that condition the lessee's right to conduct operations on these leases. The Division's approval of the revised Initial POE and First Plan of Development is only one step in the

process of obtaining permission to drill a well or wells or develop the potential and known reservoirs within the unit area. The Unit Operator must still obtain approval of a Plan of Operations from the state and permits from various agencies on state leases before drilling a well or wells or initiating development activities to produce reservoirs within the unit area. 11 AAC 83.346.

A proposed Plan of Operations must describe the operating procedures designed to prevent or minimize adverse effects on natural resources. Plans of Operation are subject to extensive technical review by a number of local, state, and federal agencies. They are also subject to consistency with the Alaska Coastal Management Program and local coastal district plans, if the affected lands are within the coastal zone. The Unit Operator shall guarantee full payment for any damage sustained to the surface estate before beginning operations, and the Plan of Operations must include plans for rehabilitation of the unit area. Furthermore, when the lessees propose to explore or develop acreage within the unit area and submit a Unit Plan of Operations, the DNR may require that it comply with the lease stipulations and lessee advisories developed for the most current lease committed to the Oooguruk Unit or the region.

2. Geologic and Engineering Characteristics of the Proposed Expanded Oooguruk Unit

Introduction and Summary

Within the proposed Oooguruk Unit expansion, potential commercially recoverable reserves are present in the Cretaceous (Hauterivian) Kuparuk C sandstone and the Jurassic Nuiqsut sandstone.

Geological data submitted in support of the application for expansion of the Oooguruk Unit included structure maps and permeability and thickness maps for the Kuparuk C sandstone and Nuiqsut sandstone, well and seismic cross sections, and a geologic summary of the area. The geological, geophysical, and engineering data that Pioneer submitted contained the results from the recently drilled wells in the area and justifies the expansion of the Oooguruk Unit.

Exploration History of the Area

Three exploration wells lie within a mile of the Oooguruk Unit. The Unocal East Harrison Bay State 1 well lies due east in the northwest corner of the Kuparuk River Unit (KRU). The well was drilled in February 1977 as a straight hole to a measured depth (md) of 9,809 feet, bottoming in argillite basement. The well logs indicate the presence of about 15 feet of oil-bearing Kuparuk C sandstone around 6,171' md (around -6,138' true vertical depth subsea (tvdss)) that appears siderite cemented in the upper half of the section, based on the density log. The Jurassic section is present around 6,400' to 7,958' md (-6,367' to -7,925' tvdss) and appears to contain predominantly interbedded shale, siltstone, and minor thin silty sandstone sequences on logs.

The second well drilled within a mile of the Oooguruk Unit, the ARCO KRU 3W-07 well, was drilled in March 1993 just south of the Oooguruk Unit. Well logs indicate the presence of 15 feet of oil-filled Kuparuk C sandstone at a depth around 10,127' md (-5,974' tvdss). The density log from the well suggests the Kuparuk C contains siderite cement near the top of the interval. The well was plugged and abandoned on April 12, 1993.

The third well, the Amerada Hess Colville Delta 25-1 well, is located within a quarter mile of the south-western boundary of the proposed expanded Oooguruk Unit. The well was completed in March 1986 as a straight hole to a measured depth of 6,871 feet, bottoming in the Jurassic section below the Nuiqsut sandstone. This well encountered approximately 21 feet of oil-bearing Kuparuk C sandstone at a depth of 6,111' md (-6,063' tvdss). The upper two-thirds of the Kuparuk interval appears to be siderite cemented, based upon the density log. The Jurassic Nuiqsut sandstone is present from 6,330' to 6,554' md (-6,282' to -6,506' tvdss). On well logs, the Nuiqsut appears to vary from very-fine–grained sandstone in the upper 60 feet of the interval to interbedded siltstone and claystone in the lower portion of the interval. After fracture stimulation, the Nuiqsut sandstone recovered 914 barrels of 26° API oil during 145 hours of production testing. The rate averaged 104 BOPD during the last 35 hour test. The well was certified as capable of producing in paying quantities on October 14, 1991.

The ARCO Kalubik 3 well, drilled in February 1998, lies in the northwest corner of the present Oooguruk Unit. The well bottomed in Jurassic age rocks at a measured depth of 7,000 feet. The well encountered a 25-foot thick Kuparuk C sandstone around 6,330' md (-6,247' tvdss) that appears to be oil-bearing, but siderite cemented-in the upper 10 feet of the interval. Based on well logs, the top of the Jurassic section appears present just below the Lower Cretaceous Unconformity (LCU) around 6,355' md (-6,272' tvdss). Overall the Jurassic interval appears dominated by thin interbedded shale and siltstone sequences. An eight foot silty sand (interpreted to be the Nechelik Sandstone) is present at around 6,565' md (-6,483' tvdss). The well was plugged and abandoned on March 6, 1998.

Certified Wells in the Vicinity

Previous explorers drilled eight wells in the vicinity of the Unit that the state certified as being capable of producing oil in commercial quantities many years ago. Six of the eight certified wells drilled in the vicinity lie within the proposed Oooguruk Unit expansion acreage. Five of the certified wells lie on NPS leases ADL 355036, 355037, 355038, and 355039 for which Pioneer requested royalty modification. The eight wells that have been certified by the state as capable of production in paying quantities are: Exxon Thetis Island 1, in the northeast part of the Unit; ARCO Kalubik 1; and four Colville Delta wells (Texaco Colville 1, 1A, 2, and 3) that lie on the four NPS tracts. The other two certified wells, outside and to the west of the Oooguruk Unit, are the Kuukpik 3 (approximately two and one-half miles) and the AHC Colville 25-13-6-1 (Colville Delta 25-1) (approximately a quarter of a mile).

The Exxon Thetis Island 1 well was spud on March 6, 1993, and plugged and abandoned on April 28, 1993. A combined co-mingled drill stem test was conducted in two intervals: an eight foot Kuparuk C sandstone present around 6,356' to 6,364' md (-6,302' to -6,310' tvdss) and a Jurassic sandstone, interpreted as Nuiqsut, from 6,404' to 6,460' md (-6,370' to -6,426' tvdss). Following acid stimulation, the combined Kuparuk and Nuiqsut intervals flowed oil at an average rate of 154 BOPD of 24.8° API oil. Exxon also tested a sandstone within the Seabee formation at 5,576' to 5,633' md (-5,542' to -5,999' tvdss) that produced mud filtrate with a trace of oil. Exxon applied for Thetis Island Unit Well 1 certification for lease ADL 379301 on May 18, 1994. The Thetis Island well was certified as capable of production in paying quantities on February 24, 1995.

The ARCO Kalubik 1 well was spud on March 5, 1992, and plugged and abandoned on May 1, 1992. A drill stem test was conducted in the Kuparuk C sandstone from 6,085' to 6,120' md (-6,048' to -6,083' tvdss) and produced oil at a rate of 1,200 BOPD with a 450 GOR, oil gravity 28.7° API and zero percent water cut. Two other intervals were tested in the well. An upper Cretaceous sandstone (5,050' to 5,250' md) (-5,013' to -5,213' tvdss) produced oil at an average calculated rate of 10 BOPD. The Jurassic Nuiqsut sandstone was also tested from 6,385' to 6,445' md (-6,348' to -6,408' tvdss) and produced oil at a calculated rate of 336 BOPD of 23° API oil and a GOR of 232 scf/stb. ARCO applied for well certification for the Kalubik 1 well on September 8, 1997, and the well was certified by the state for the Kuparuk C sandstone effective January 21, 1998.

Southwest of the Kalubik 1 well, the Texaco Colville Delta 1, 2, and 3 wells, and the AHC Colville 25-13-6 well were certified by the state as capable of production in paying quantities on October 14, 1991, for the Jurassic Nuiqsut sandstone. In the Colville Delta 3 well, Texaco tested a Torok sandstone (5,120' to 5,183' md) (-5,087' to -5,150' tvdss) that recovered 841 barrels of 24 ° API gravity oil and diesel, 2 barrels of water, and 508 thousand cubic feet of gas in 96 hours after a fracture stimulation. Combined rate averaged 234 bpd during the last 60 hours of the test. A Torok Formation test in the Texaco Colville Delta 2 well was wet. The ARCO Kuukpik 3 well was drilled and tested in 1993. A post-fracture stimulation DST in the Nuiqsut Formation recovered 80 barrels 21° API oil in 25 hours using nitrogen lift. A nitrogen lifted test in the Kuparuk recovered 28 barrels 15-20° API. DST 3 in the Cretaceous at 5663-5718' MD recovered 232 barrels formation water, 12000 ppm NaCl equivalent salinity. DST 4 in the Cretaceous at 2682-2710' MD recovered 94 barrels 21° API and 211 barrels water in 74 hours of testing on nitrogen lift. The state certified the ARCO Kuukpik 3 well as capable of production in paying quantities for the Kuparuk C and Jurassic Nuiqsut sandstones on January 12, 1998.

Stratigraphy, Depositional, Structural, and Tectonic History of the area

The area encompassing the Oooguruk Unit is located along the southern flank of the Barrow arch. The Barrow arch is a regional basement high (rift shoulder) formed during Jurassic to Early Cretaceous rifting, resulting in the development of the Canada Basin to the north, and flanking passive Artic platform to the south. Uplift and erosion along the rift margin created a regional Lower Cretaceous Unconformity (LCU). The LCU

represents maximum uplift on the Barrow arch and progressively truncates older rocks northward onto the arch. Structural dip on the Jurassic sequence is generally less than 1 degree to the southeast.

Kuparuk River Formation

The Kuparuk River Formation of Early Cretaceous age (120 – 145 million years old) has a unique and complex depositional history. The Kuparuk River formation is informally subdivided into four members designated by letters A (oldest) through D (youngest). Each member is further subdivided into sub-members designated by numbers, such as A-1 and C-4 (with one being the oldest sub-member). The lower A and B sandstone members (Berriasian and Valanginian in age) were derived from a subaerially exposed northern provenance that foundered during Late Jurassic - Early Cretaceous time. The Kuparuk A sandstone sub-members are predictable, continuous, coarsening-upward marine offshore bars to shoreface sequences that were deposited over large contiguous areas. Following the deposition of shallow marine Kuparuk B sediments, the area became tectonically active due to regional rifting and extension tectonics that resulted in regional tilting and the formation of localized high source areas that were subsequently eroded by the Lower Cretaceous Unconformity (LCU), a major regional scouring event. The LCU progressively truncates the B sediments, where deposited, and A sandstone members in a predictable manner. As the northern source terrain subsided, localized uplifted blocks along the Prudhoe Bay structural high became the primary source of the Upper Kuparuk C and D sediments. The Kuparuk C and D members (Hauterivian and Barremian in age) are deposited on top of the eroded irregular topography created by the LCU and represent the first sediments sourced from the local structural highs. Sediment eroded from the highs were deposited as the C and D members and preserved in grabens and other low-lying areas on the eroded LCU surface. The most productive C sandstone areas tend to be associated with thicker sand intervals deposited in paleo-topographic depressions on down-thrown fault blocks. Kuparuk C sandstone is absent by erosion or non-deposition on paleo-topographic highs. In the northern Milne Point Unit and northeast part of the Kuparuk River Unit (around 3R, 3Q, and 3O pad, the primary oil production comes from the lower A sandstone members. Locally, the LCU has completely eroded out all of the B sandstone members and upper A sandstone members and has progressively eroded out or truncated the A3, A2, and A1 Kuparuk sandstone in a northwest direction. The LCU is generally coincident with the top of the reservoir sand in the northeastern Kuparuk River Unit and Milne Point Unit areas. To the west in the northwest part of the Kuparuk River Unit (around 3M and 3H pads), more Kuparuk C sandstone is preserved locally, primarily in paleo-topographic lows and grabens and a significant amount of Kuparuk production is from the Kuparuk C interval along with A sandstones. A system of northwest-southeast trending normal faults extends from the 3M and 3H pads in the Kuparuk River Unit through the proposed expanded Oooguruk Unit where Kuparuk C sandstone is preserved locally in the Kalubik and Colville Delta wells. In the Kalubik 1 well approximately 30 feet tvd (true vertical depth) of oil-bearing Kuparuk C sandstone was encountered and tested for a 24 hour period at a rate of 1,200 BOPD with a 450 GOR and zero percent water cut.

Jurassic Sandstone Potential

The Colville Delta area, southwest of the proposed Oooguruk Unit, contains three oil-bearing Jurassic sands. From oldest to youngest the three sandstones are the Nechelik, Nuiqsut, and Alpine sandstones. All three sandstones appear to have the same general depositional setting and lithologic characteristics. The sands are very fine- to fine-grained quartz arenites, which contain up to 15 percent glauconite. These shallow marine sands were deposited from a northern source area that foundered in the early Cretaceous during the opening of the Canada Basin. The regional setting of the Colville Delta and Alpine area is interpreted from seismic and regional well control as a broad, very low gradient marine shelf on a south-facing passive margin. The shelf was likely a muddy one with limited accommodation space and relatively low rates of sedimentation. The three successive Upper Jurassic sand intervals were deposited as progradational and aggradational coarsening upward units over a period of approximately 20 million years. A number of factors likely contributed to the preservation of these three Jurassic sandstone packages: eustatic and tectonic sea level changes; local topography created by normal faulting resulting from pre-breakup rift related extensional tectonics; and the localized point source contributions of localized rivers, incised valleys, eroded highs sculpted by localized erosion during lowstands of sea level. The Alpine interval records the last significant sandstone pulse of Jurassic sedimentation in the vicinity of the Alpine field. The Alpine sandstone from the Bergschrund 1 well (discovery well for the Alpine field) produced at a rate of 2,380 BOPD of 39 API gravity oil. The Alpine interval is not present in the northern Colville Delta area; it was apparently eroded by LCU or possibly was not deposited in the Oooguruk area. The underlying Nuiqsut sandstones appear to have protruded into and are thickened in the Colville Delta area. Several wells in the Colville Delta area tested Nuiqsut sands: the Texaco Colville Delta 1 well produced at a average test rate of 273 BOPD for 39 hours, 25° API (maximum rate of 1,075 BOPD) ; the Texaco Colville Delta 2 well produced at a final average test rate of 485 bpd for 94 hours, 24° API; the Texaco Colville Delta 3 well produced at a average test rate of 290 bpd for 100 hours, 27° API; and the ARCO Kalubik 1 well produced at a rate of 336 BOPD of 23° API oil. No long term production tests have been conducted on any of the wells in the area in the Nuiqsut sandstones, so long term, sustained oil production rates in the lower API gravity oil in the area remain unknown.

Results of Pioneer's 2003 Winter Drilling Program

Pioneer drilled three exploration wells during the winter of 2003 from ice islands in the shallow waters of the Beaufort Sea, northwest of the KRU. The three wells have Inupiat names: Ivik (walrus), Oooguruk (bearded seal) and Natchiq (seal). The Oooguruk well, a vertical hole, was completed March 29, 2003, to a depth of 6,900 feet. The Natchiq well was completed March 31, 2003, to a depth of 7,500' md (6,740' tvdss). The Ivik well was completed April 9, 2003, to a depth of 6,943' md (6,942' tvdss). (PNA, May 18, 2003).

Although Pioneer's main objective was originally the Kuparuk C sands, the company did not find commercial quantities of oil in the Kuparuk C sandstone in the three wells.

Pioneer reported that: "Although all three of the wells found the sands filled with oil, they were too thin to be considered commercial." (PNA, March 31, 2003). However, Pioneer reported that it had encountered two "thick, oil-bearing, Jurassic-aged sands, a secondary target." (PNA, April 13, 2003) "very similar in geologic age, permeability, and porosity to those in the prolific, onshore Alpine field to the southwest" of the Oooguruk Unit (PNA, May 4, 2003). Because of the similarity of all three northwest Kuparuk wells drilled, Pioneer tested only the Ivik 1 well. Pioneer fracture stimulated the wellbore and tested the well at an initial rate of approximately 1,300 BOPD. The well averaged 964 BOPD during four days of tests. Pioneer spokeswoman Susan Spratlen summed up their concerns about the commerciality of the Oooguruk Unit: "The issue is determining the permeability, how much oil there is and what the recovery factor will be." (PNA April 6, 2003). Depositional trends within the Nuiqsut interval suggest that the Nuiqsut is cleaner (with better developed sands) near the Ivik 1 and Oooguruk 1 wells (Oooguruk 1 was not tested). Well data from the ARCO Kalubik 3 well limits the Jurassic delineation to the northwest. The Nuiqsut interval appears thin and the top of the formation appears to have been truncated by the LCU. To the southeast, the Natchiq 1 well appears to consist predominantly of clay and silt in the Jurassic section on well logs, thus defining the extent of the Nuiqsut accumulation to the southeast. Further east, in the Unocal East Harrison Bay State 1 well, the Jurassic section is present around 6,400' to 7,958' md (-6,367' to -7,925' tvdss) and appears to contain predominantly interbedded shale, siltstone and minor thin silty sandstone sequences on logs.

Based on Pioneer's evaluation of the 2003 drilling results and well test in the Jurassic sands, coupled with the addition of the four Colville Delta leases acquired from CPAI that have viable Kuparuk C oil potential, Pioneer determined that the project could only be commercially viable with royalty relief. On May 25, 2005, Pioneer on behalf of itself and Armstrong submitted an application to the Commissioner of the DNR for royalty modification under AS 38.05.180(j)(1)(A). An amended application was submitted by Pioneer on behalf of itself and ENI Petroleum Exploration Co. Inc. (ENI) on November 1, 2005. Royalty modification was granted by the DNR to nine leases – ADLs 355036, 355037, 355038, 355039, 389950, 389952, 389954, 389958 and 389959 under AS38.05.180(j) effective February 1, 2006. Pioneer has publicly estimated that peak production for the Oooguruk project is in the range of 18,000 to 20,000 BOPD from both the Kuparuk and Nuiqsut formations combined.

Seismic Information

The primary seismic data coverage the Division used to evaluate the Oooguruk Unit is the WBA97 3D survey. This 3D survey was acquired by Western Geophysical for ARCO Alaska in 1997 (MLUP 96-009-01) and was subsequently licensed to Pioneer.

Seismic data in this area is capable of imaging the Northwest-Southeast faulting trends that were active during the rifting and extension associated with LCU. In the case of the Jurassic section these faults could provide either barriers or baffles within the Nuiqsut reservoir interval, but are unlikely to have had an effect on the original distribution or quality of the sands. The distribution and thickness of Kuparuk sandstones, however, are

directly related to the accommodation provided by syn-tectonic movement of the faults during Upper Kuparuk deposition.

While the WBA97 3D dataset is adequate for assessing the faulting, distribution, and potential thickness of the Kuparuk Formation for the area, the Jurassic Nuiqsut sands themselves are, so far, poorly expressed on any available seismic dataset. This is principally because the acoustic impedance contrasts between sand-silt-shale intervals for the Jurassic section are very small, resulting in a zone of weak reflectivity for the entire interval. Some effort could be made to map the top of the Nuiqsut sands. However, the available seismic data make it impossible to reliably predict either the thickness or potential quality of the reservoir with much accuracy. An additional complication for this area is the Oooguruk Unit's location in the onshore-offshore transition zone. Because of the rapid lateral changes in the shallow permafrost section that occur in the transition zone, depth maps for the deeper section created from seismic data can contain significant errors where well control is relatively sparse. The northwestern edge of the proposed Nuiqsut development area is controlled by progressive truncation of the formation by the LCU. The existing seismic data has been the principle tool used to define the trend westerly of this erosion of the Nuiqsut reservoir, supported by the Kalubik 3 well. Total amplitude seismic attribute analysis in the Jurassic window does not demonstrate possible sand-prone areas as well as in the Kuparuk window. The limited ability of the seismic to describe the Nuiqsut accumulation highlights the risks associated with Pioneer's proposed development.

Conclusion

The Kuparuk Formation has been sufficiently delineated by a combination of well, seismic, and structural control within the proposed expanded Oooguruk Unit. The Kuparuk accumulation appears limited to the area of sandstone deposition on the down thrown side of the Kalubik fault defined by seismic data and confirmed with well control. The thickness of the Kuparuk C sandstone in the area is below definitive seismic resolution. Seismic total amplitude analysis does identify areas where the Kuparuk formation is likely to be present even when the Kuparuk interval total thickness is less than 70 feet. However, even though seismic amplitude anomalies indicate the presence of the Kuparuk River Formation, it cannot unequivocally identify whether the seismic response is due to oil-filled reservoir quality sandstone or non reservoir rock such as siderite cemented sandstone, siltstone, or shale. Reservoir parameters and productivity of the Kuparuk Formation is well known from North Slope fields where the Kuparuk sandstone is economically produced including the Kuparuk River Unit, Milne Point, Point McIntyre, Niakuk, Prudhoe Bay (Midnight Sun, Aurora and Borealis participating areas), and most recently in the Nanuq and Fiord Kuparuk pool satellites of the Colville River Unit.

The potential presence of a developable accumulation of the Jurassic Nuiqsut formation within the proposed expanded Oooguruk Unit has been mapped on seismic data and augmented with well data from several wells drilled during the 2003 drilling season in the Oooguruk area. Although the wells in and near the Oooguruk Unit contained oil-bearing

Kuparuk C and Jurassic Nuiqsut sandstone, to date no long term production tests have been conducted on any of the wells, so that the productivity of the Jurassic sands remains unresolved.

The log character and test results from the wells to the west and southwest of the Nuiqsut core development area and the log character of the Kalubik 3 well to the north and the Natchiq 1 well to the east indicate that the Nuiqsut is thick but contains a high percentage of clay and siltstone. The results of the well tests in the Nuiqsut formation may suggest decreasing reservoir quality to the west of the expanded Unit. All successful tests in the Nuiqsut formation required stimulation, usually a fracture treatment and several required acid to clean up mud damage. The characteristic low porosity, permeability, relatively low gravity 20-25° API oil, and lack of any long term production tests makes it challenging to predict ultimate Nuiqsut oil recovery. Additional well control coupled with necessary long term production tests will be required to better understand the Nuiqsut formation and the potential for economic oil production.

3. Plan of Exploration and Development for the Proposed Expanded Oooguruk Unit

The WIOs have provided technical data sufficient to define a prospect, have committed lease interests to the proposed unit and have submitted an approved revised Initial POE. The revised Initial POE submitted with the Application proposes that should Pioneer receive royalty modification and approval of the expansion, as well as management sanction for the project, the Pioneer would establish a Plan of Development for the leases. That First Plan of Development (1st POD) would include development activities such as pipeline construction, and construction of an offshore production island. Pioneer has received the required approvals. This Decision requires Pioneer to obtain approval of a revised Initial POE and a 1st POD by June 11, 2007.

The revised Initial POE in conjunction with the 1st POD will provide clear description of planned unit exploration and development activities as required under 11 AAC 83.341 and 11 AAC 83.343, and will allow for the approval of suitable work commitments. The Initial POE, effective June 11, 2003, with five year term, required Pioneer to drill three wells. Pioneer met this requirement. The Initial POE also required that on June 1, 2008, if ADL 388570, 388569, and 388576 were not included in a participating area or approved Plan of Exploration or Plan of Development, which included a firm commitment to drill, the leases would contract out of the unit. This Decision retains that contraction provision for ADLs 388570, 388569, and 388576. Pioneer shall reference this requirement in the revised Initial POE or 1st POD.

A 1st POD will be due on March 13, 2007, which will cover the period from June 11, 2007 to June 11, 2008. 11 AAC 83.343 requires, in part, a Unit Plan of Development "when a reservoir has become sufficiently delineated so that a prudent operator would initiate development activities." At this point in time, Pioneer has successfully completed construction of the offshore island drill site and is proceeding with installation of pipeline. Clearly Pioneer has entered the development phase. The current Oooguruk

Initial POE, effective June 11, 2003, for a period of five years, until June 11, 2008, will remain in effect for acreage not covered by the 1st POD. A revised Initial POE will be due April 12, 2007, for the period June 11, 2007 to June 11, 2008.

This Decision imposes certain terms and conditions related to the future plans of exploration and development for the state leases currently committed to the Oooguruk Unit and for the proposed expansion leases. By June 1, 2010, Pioneer shall obtain approval of the Nuiqsut PA and the Kuparuk PA. Failure to establish both participating areas by June 1, 2010, will result in the contraction of all of the expansion leases from the Oooguruk Unit. One reason for the proposed expansion is that Pioneer intends to produce at Oooguruk by 2008. Requiring formation of participating areas by 2010 commits Pioneer to the development of the expansion leases.

On June 1, 2011, each of, or any portion of, the following leases, ADLs 389949, 389951, 389953, 389955, and 389956, which are part of the original unit, and ADLs 389960, and 379301, which are part of the unit expansion, not committed to a participating area will be segregated as to the portion committed to the participating area and the portion not committed to the participating area. The portion not committed to the participating area will automatically contract from the Unit, unless included in an approved POE or POD. This requirement also creates a commitment on the part of Pioneer to pursue development of existing unitized leases and of expansion leases in accordance with the revised Initial POE submitted with the Application. Some of these leases would expire on July 31, 2009, if not unitized. By allowing Pioneer to avoid the contraction of these leases by including them in an approved future POE or POD, even though if they are not included in a participating area, DNR allows for the potential difficulties which may arise in drilling prospects located offshore. However, this requirement also provides that if Pioneer does not have firm plans to explore or develop acreage in any of these leases by 2011, then the acreage would expire, and the leasehold interest would return to the state.

For reasons similar to those cited above, this Decision also requires that by June 1, 2013, each of, or any portion of, the following leases--ADLs 355036, 355037, 355038, 355039, 389950, 389952, 389954, 389958, 389959, not committed to a participating area will be segregated as to the portion committed to the participating area and the portion not committed to the participating area. The portion not committed to the participating area will automatically contract from the Unit, unless included in an approved POE or POD. Pioneer has also agreed to waive the provisions set out in 11 AAC 83.140 and 11 AAC 83.374, 11 AAC 83.373(c) and Article 15.2 of the Expanded Oooguruk Unit Agreement.

4. The Economic Costs and Benefits to the State and Other Relevant Factors

The Agreement defines the relationship between the Unit Operator, WIO, and the royalty owner. It describes the rights and responsibilities, in addition to those imposed by state law and the leases, of the Unit Operator, WIO and royalty owner for exploration of the unit area. It protects the interests of the state and the lessees. It defines the parties' rights and responsibilities in the event of successful or unsuccessful exploration results. DNR may approve the Agreement if the available data suggests that the unit area covers one or

more geologic formations that should be developed under a DNR approved plan, and the proposed unit meets the other statutory and regulatory criteria.

Approval of the Agreement in combination with the revised Initial POE and 1st POD will result in both short term and long-term economic benefits to the state. The assessment of the leases' hydrocarbon potential will create jobs in the short term. If the WIOs begin development/production from the expanded Oooguruk Unit, the state will earn royalty and tax revenues over the long-term life of the field.

If the expansion were not approved, the earliest that the Division could re-offer acreage from the Oooguruk Unit under the current Five Year Oil and Gas Lease Sale Schedule, is October 2008. There is no certainty that anyone would bid on the tracts or pursue exploration of this area. If the Division leased the tracts again in 2008, the state would receive bonus payments and rentals for the primary term of the new leases. However, it could be years before the new lessees would propose exploration of the area.

The state has a greater economic interest in the expanded Oooguruk Unit than in other units because nine of the leases within the expanded unit have received royalty modification. Pioneer stated that the project would not have gone forward without royalty modification. The development scenario presented in the royalty modification application relied primarily on the leases now considered for expansion. At this point, Pioneer has accomplished every objective set forth in the development scenario as scheduled. This decision in part insures that the state has ample opportunity to remain a close participant in the future development of the expanded Oooguruk Unit.

Approval of this expansion in conjunction with the royalty modification will enable Pioneer to develop and produce resources that Pioneer plans to process at the Kuparuk River Unit processing facilities. The yet to be finalized agreement between Pioneer and the owners of the Kuparuk River Unit processing facilities will represent the first successful implementation of a facilities sharing agreement on the North Slope for a third party entity outside a unit and achieves one of the goals set out in the Charter for Development of the Alaskan North Slope. Current and future lessees who do not own facilities will benefit greatly from an established method of contracting for processing and pipeline facilities.

5. Amendments to the State Only Model Unit Agreement Form and other Relevant Factors

DNR proposed revisions to the Agreement. The revisions proposed by DNR (Attachment 4), address Articles 9: Participating Areas; 11: Allocation of Production; 12: Leases, Rentals and Royalty Payments; and 13: Unit Expansion and Contraction. The revisions further protect the state's interest, provide additional clarity to the Agreement language and, in combination with the lease amendments discussed below, conform the Agreement and current lease forms. Pioneer has accepted these revisions.

Five of the expansion leases proposed for the Expanded Oooguruk Unit were issued on Competitive Oil and Gas Lease Form No. DMEM-4-83 (NET PROFIT SHARE)(REVISED May 5, 1983) DNR 10-1113, and the other two expansion leases on form DOG 200004. Including the leases in the Expanded Oooguruk Unit Agreement would conform and modify the lease contracts to be consistent with the Agreement. Consistent lease provisions allow the WIOs and the state to reduce the administrative burdens of operating and regulating this unit. Conforming the terms of the older leases to the Agreement allows the state to avoid costly and time-consuming re-litigation of some problematic lease provisions in the older forms. Any additional administrative burdens associated with the formation of the new unit are far outweighed by the additional royalty and tax benefits derived from any production that may occur if the exploration and development activity is successful.

Effective the date of this decision, the WIOs agree to permanently amend the terms of all of the leases within the unit to conform with the provisions in DOG 200604. The amendments to the lease form include:

• Delete the last sentence of paragraph 15(d) of the leases, which reads:

> If any portion of this lease is included in a participating area formed under a unit agreement, the entire leased area will remain committed to the unit and this lease will not be severed.

• Replace paragraph 36(b) of the leases with the following:

> If oil, gas, or associated substances are sold away from the leased or unit area, the term "field price" will be the cash value of all consideration received by the lessee or other producer from the purchaser of the oil, gas or associated substances, less the lessee's actual and reasonable costs of transportation away from the leased or unit area to the point of sale. The "actual and reasonable costs of transportation" for marine transportation are as defined in 11 AAC 83.229(a), (b)(2), and (c) – (*l*).

B. Decision Criteria Considered Under 11 AAC 83.303(a)

1. Promote the Conservation of All Natural Resources

DNR recognizes unitization of the leases overlying a reservoir as a prudent conservation mechanism. Without unitization, the piece-meal, lease-by-lease development of reservoirs can become a race for possession by competing lessees. This race can result in: (1) unnecessarily dense drilling, especially along property lines; (2) rapid dissipation of reservoir pressure; and (3) irregular advance of displaced fluids, all of which contribute to the loss of ultimate recovery or economic waste. The proliferation of surface activity, duplication of production, gathering, and processing facilities, and haste to get oil to the surface also increase the potential for environmental damage. Lessee compliance with conservation orders and field pool rules issued by the AOGCC would

mitigate some of these 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. Expansion of the unit will provide the state with a comprehensive plan for exploring and developing the entire unit area. Expansion of the Oooguruk Unit subject to the terms and conditions of this Decision will ensure that the WIOs prudently explore the acreage included in the unit.

The Agreement will promote the conservation of both surface and subsurface resources through unitized (rather than lease-by-lease) development. Unitization allows the Unit Operator to explore the area as if it were one lease. Without the Agreement the lessee would be compelled to seek permits to drill wells on each individual lease in order to extend the leases beyond their primary terms. Unitization reduces both the number of facilities required to develop reserves that may be discovered and the aerial extent of land required to accommodate those facilities. Review and approval of exploration and development permits under a unit agreement will also ensure that rational surface-use decisions are made without consideration of individual lease ownership or expense. After unitization, facilities can be designed and located to maximize recovery and to minimize environmental impact, without regard to lease ownership. Although the applicant has not determined the full extent of oil and gas contained in the reservoirs, the Agreement will ensure that the acreage is explored and recovery from the leases is maximized if a commercial hydrocarbon accumulation is discovered.

2. The Prevention of Economic and Physical Waste

The unit will prevent economic and physical waste because the Unit Operator must have a cost-sharing agreement, a coordinated exploration plan, and when a commercial discovery is made, a comprehensive reservoir depletion model. A cost-sharing agreement promotes efficient development of common surface facilities and operating strategies. With a cost-sharing agreement and reservoir model in place, the WIO can 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.

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 less profitable areas of a reservoir to be developed and produced in the interest of all parties, including the state.

The total cost of exploring and developing the Oooguruk Unit expansion leases would be higher on a lease-by-lease basis than it would be under unitization terms. Drilling and

facilities investment costs will be minimized as a consequence of eliminating a need for numerous sites within the unit area. Locations of individual wells and surface facilities will be selected to optimize ultimate oil and gas recovery, while minimizing or completely avoiding adverse impacts to the environment. Reducing costs and environmental impacts through unitized operations will expedite development of any reserves discovered and will promote greater ultimate recovery of any oil and gas from the unit area. This will increase and extend the state's income stream from production taxes and royalties. The revenues to the lessees and Unit Operator may be reinvested in new exploration and development in the state. Unitization means reduced costs and increased benefits to all interested parties. It benefits the local and state economy, and provides revenues to the state's general, school, constitutional budget reserve, and permanent funds.

3. The Protection of All Parties of Interest, Including the State

The Agreement, in combination with the revised Initial POE and 1st POD with the agreed-to terms and conditions set out in this Decision, promotes the state's economic interests because exploration will likely occur earlier than without unit expansion. 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. Development will stimulate the state's economy with production-based revenue, oil and gas related jobs, and service industry activity.

The Agreement provides for accurate reporting and record keeping, state approval of plans of exploration and development and operating procedures, royalty settlement, in-kind taking, and emergency storage of oil and gas, all of which will further the state's interest. The Agreement will further Pioneer's interest by providing clear provisions for the operation of the Oooguruk Unit. The modifications to the varying provisions of the leases will economically benefit the state, and reduce the administrative burdens of operating and regulating this unit.

V. FINDINGS AND DECISION

A. The Conservation of All Natural Resources

1. The Agreement will conserve all natural resources, including hydrocarbons, gravel, sand, water, wetlands, and valuable habitat.

2. The unitized development and operation of the leases in this proposed unit will reduce the amount of land and fish and wildlife habitat that would otherwise be disrupted by individual lease development. This reduction in environmental impacts and preservation of subsistence access is in the public interest.

3. There is potential for environmental impacts associated with reservoir development. All unit development must proceed according to an approved plan of development. Additionally, before undertaking any specific operations, the Unit Operator must submit a unit Plan of Operations to the Division and other appropriate state and local agencies for review and approval. The lessees may not commence any drilling or development operations until all agencies have granted the required permits. DNR may condition its approval of a unit Plan of Operations and other permits on performance of mitigation measures in addition to those in the modified leases and the Agreement, if necessary or appropriate. Compliance with mitigation measures will minimize, reduce or completely avoid adverse environmental impacts.

B. The Prevention of Economic and Physical Waste

1. Pioneer submitted geological, geophysical and engineering data to the Division in support of the Application. Division technical staff determined that the expanded Oooguruk Unit area encompasses all or part of one or more potential hydrocarbon accumulations. The available geological, geophysical and engineering data justify including the proposed lands, described in Exhibit A to the Application, in the expanded Oooguruk Unit.

2. The revised Initial POE and 1st POD, subject to the terms and conditions discussed in Section IV.A.3., must provide for the reasonable exploration and development of potential hydrocarbon accumulations in the unit area. The Agreement will prevent the waste of oil and gas, and increase the probability of recovering more hydrocarbons from the unit area. The Division must approve a plan of development before the Unit Operator produces any hydrocarbons in commercial quantities.

C. The Protection of All Parties in Interest, Including the State

1. Pioneer provided evidence of reasonable effort to obtain joinder of any proper party to the Agreement.

2. Pioneer holds sufficient interest in the unit area to give reasonably effective control of operations.

3. The unit expansion adequately and equitably protects the public interest, and is in the state's best interest.

4. The unit expansion meets the requirements of 11 AAC 83.303.

5. The Division complied with the public notice requirements of 11 AAC 83.311.

6. The unit expansion 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.

7. The Agreement provides for additional expansions and contractions of the unit area in the future, 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.

8. The revised Initial POE, subject to the terms and conditions discussed in Section IV.A.3, must meet the requirements of 11 AAC 83.303 and 11 AAC 83.341.

9. The expanded Oooguruk Unit will expedite exploration and potential development of the unit area. With the expansion of the Oooguruk Unit, economic benefits to the state outweigh the economic costs of extending the primary term of the state leases committed to the unit.

10. By June 1, 2010, Pioneer shall obtain approval of the Nuiqsut PA and the Kuparuk PA. Failure to establish both participating areas by June 1, 2010, will result in the contraction of all of the expansion leases from the Oooguruk Unit.

11. On June 1, 2011, each of, or any portion of, the following leases, ADLs 389949, 389951, 389953, 389955, and 389956, which are part of the original unit, and ADLs 389960, 379301, which are part of the unit expansion, not committed to a participating area will be segregated as to the portion committed to the participating area and the portion not committed to the participating area. The portion not committed to the participating area will automatically contract from the Unit, unless included in an approved POE or POD.

12. By June 1, 2013, each of, or any portion of, the following leases--ADLs 355036, 355037, 355038, 355039, 389950, 389952, 389954, 389958, 389959, not committed to a participating area will be segregated as to the portion committed to the participating area and the portion not committed to the participating area. The portion not committed to the participating area will automatically contract from the Unit unless included in an approved POE or POD.

13. In the event of a Unit contraction, tract and lease owners waive the provisions of 11 AAC 83.140 and 11 AAC 83.374

14. If a portion of a Lease contracts out of the Unit Area, that portion will be severed and treated as a separate and distinct lease, which may be maintained

thereafter only in accordance with the terms and conditions of the original lease.

15. The Working Interest Owners waive the provisions of 11 AAC 83.373(c).

16. A 1st POD will be due on March 13, 2007, which will cover the period from June 11, 2007 to June 11, 2008. 11 AAC 83.343 requires, in part, a Unit Plan of Development "when a reservoir has become sufficiently delineated so that a prudent operator would initiate development activities." The Initial POE, effective June 11, 2003, for a period of five years, until June 11, 2008, will remain in effect for acreage not covered by the 1st POD. The annual update to the Initial POE will be due April 12, 2007, for the period June 11, 2007 to June 11, 2008.

For the reasons discussed in this Findings and Decision, I hereby approve the expansion subject to the conditions set out in this decision. The expansion will become effective as of the day approved by the Director.

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 Tom 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. 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.

Kevin R. Banks,
Acting Director
Division of Oil and Gas

3-7-07
Date

VI. ATTACHMENTS

1) Exhibit A, Expanded Oooguruk Unit Tracts/leases
2) Exhibit B, Map of the Expanded Oooguruk Unit Boundary
3) Exhibit G, Plan of Exploration and Development (Revised Initial POE)
4) Amendments to the State Only Model Form, dated June 2002

ATTACHMENT ONE
Exhibit A, Expanded Oooguruk Unit Tracts/leases

Exhibit A
Attached to and made a part of that certain Oooguruk Unit Agreement

Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
1	State of AK ADL 388570	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	10/1/98	T14N, R7E, UMIAT MERIDIAN	1,870.09 Acres	16.66667%	04.25000% Held by ConocoPhillips Alaska, Inc.
					Sec 3: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State Acreage" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 149.00 acres			
					Sec 9: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State Acreage" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 92.00 acres			
					Sec 10: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State Acreage" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 612.00 acres			
					Sec 15: Protracted - All Tide and Submerged Lands, 640.00 acres			
					Sec 16: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State Acreage" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 377.00 acres			

Exhibit A
Attached to and made a part of that certain Oooguruk Unit Agreement

Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
2	State of AK ADL 388569	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	10/1/98	T14N, R7E, UMIAT MERIDIAN	3,882.87 Acres	16.66667%	04.25000% Held by ConocoPhillips Alaska, Inc.
					Sec 1: Protracted - All Tide and Submerged Lands, 640.00 acres			
					Sec 2: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State Acreage" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 553.00 acres			
					Sec 11: Protracted - All Tide and Submerged Lands, 640.00 acres			
					Sec 12: Protracted - All Tide and Submerged Lands, 640.00 acres			
					Sec 13: Protracted - All Tide and Submerged Lands, 640.00 acres			
					Sec 14: Protracted - All Tide and Submerged Lands, 640.00 acres			
					T15N, R7E, UMIAT MERIDIAN			
					Sec 35: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 5.00 acres			
					Sec 36: Protracted - All Tide and Submerged Lands within the computed Territorial Sea, listed as "State" on Alaska's Seaward Boundary Diagram appr'd by the State on 4/15/96, 125.00 acres			
3	State of AK ADL 388576	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	10/1/98	T14N, R8E, UMIAT MERIDIAN	1,894.00 Acres	16.66667%	04.25000% Held by Winstar Petroleum, LLC
					Sec 17: Protracted - All Tide and Submerged Lands, 640.00 acres			
					Sec 18: Protracted - All Tide and Submerged Lands, 614.00 acres			
					Sec 20: Protracted - All Tide and Submerged Lands, 640.00 acres			
					T14N,R8E, UMIAT MERIDIAN, Tract A			
					Sec 20: Unsurveyed, All Uplands, 25.92 acres			
4	State of AK ADL 389956	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T14N, R7E, UMIAT MERIDIAN	1,280.00 Acres	16.66667%	BPO
					Sec 21: Protracted, All, 640.00 acres			1.93333%

Exhibit A
Attached to and made a part of that certain Oooguruk Unit Agreement

Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
					Sec 22: Protracted, All, 640.00 acres			APO
								3.33333%
								See Details Below

Exhibit A
Attached to and made a part of that certain Oooguruk Unit Agreement

Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
5	State of AK ADL 389955	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T14N, R7E, UMIAT MERIDIAN	1,280.00 Acres	16.66667%	BPO
					Sec 23: Protracted, All, 640.00 acres			1.93333%
					Sec 24: Protracted, All, 640.00 acres			APO
								3.33333%
								See Details Below
6	State of AK ADL 389958	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T14N, R7E, UMIAT MERIDIAN	2,560.00 Acres	16.66667%*	BPO
					Sec 25: Protracted, All, 640.00 acres			1.93333%
					Sec 26: Protracted, All, 640.00 acres			APO
					Sec 35: Protracted, All, 640.00 acres			3.33333%
					Sec 36: Protracted, All, 640.00 acres			See Details Below
7	State of AK ADL 389954	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T14N, R8E, UMIAT MERIDIAN	1,263.00 Acres	16.66667%*	BPO
					Sec 31: Protracted, All, 623.00 acres			1.93333%
					Sec 32: Unsurveyed, All Tide & Submerged Lands, 635.09 acres			APO
					T14N,R8E, TRACT A, UMIAT MERIDIAN			3.33333%
					Sec 32: Unsurveyed, All Uplands, 4.91 acres			See Details Below
8	State of AK ADL 389953	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T14N, R8E, UMIAT MERIDIAN	640 Acres	16.66667%	BPO
					Sec 33: Protracted, All, 640.00 acres			1.93333%
								APO
								3.33333%
								See Details Below
9	State of AK ADL 389950	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T13N, R8E, UMIAT MERIDIAN	2,533.00 Acres	16.66667%*	BPO
					Sec 5: Protracted, All, 640.00 acres			1.93333%
					Sec 6: Protracted, All, 625.00 acres			APO
					Sec 7: Protracted, All, 628.00 acres			3.33333%
					Sec 8: Protracted, All, 640.00 acres			See Details Below
10	State of AK ADL 389949	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T13N, R8E, UMIAT MERIDIAN	1,280.00 Acres	16.66667%	BPO
					Sec 4: Protracted, All, 640.00 acres			1.93333%
					Sec 9: Protracted, All, 640.00 acres			APO
								3.33333%
								See Details Below

Exhibit A
Attached to and made a part of that certain Oooguruk Unit Agreement

Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
11	State of AK ADL 389952	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T13N, R8E, UMIAT MERIDIAN	1,271.00 Acres	16.66667%*	BPO
					Sec 17: Protracted, All, 640.00 acres			1.93333%
					Sec 18: Protracted, All, 631.00 acres			APO
								3.33333%
								See Details Below
12	State of AK ADL 389951	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/1/02	T13N, R8E, UMIAT MERIDIAN	640 Acres	16.66667%	BPO
					Sec 16: Protracted, All, 640.00 acres			1.93333%
								APO
								3.33333%
								See Details Below
13	State of AK ADL 355036			8/1/83	T13N, R7E, UMIAT MERIDIAN	5,760 Acres	12.5%* 30% NPS	
	UPPER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Upper Interval (i.e. the interval from the surface down to the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M. known in the DNR computer records as "Segment 1" of the Lease.)	70.00000% 30.00000%		Sec 1: Protracted, All, 640.00 acres Sec 2: Protracted, All, 640.00 acres Sec 3: Protracted, All, 640.00 acres Sec 10: Protracted, All, 640.00 acres Sec 11: Protracted, All, 640.00 acres Sec 12: Protracted, All, 640.00 acres Sec 13: Protracted, All, 640.00 acres Sec 14: Protracted, All, 640.00 acres Sec 15: Protracted, All, 640.00 acres			Total 5.576390% See Details Below

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
	LOWER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC OXY USA Inc. Hunt Petroleum Corporation Lower Interval (i.e. the interval below the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M., known in the DNR computer records as "Segment A" of the Lease.)	47.058820% 20.168070% 28.571430% 4.201680%					Total 3.258946% See Details Below

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
14	State of AK ADL 355037			8/1/83	T13N, R7E, UMIAT MERIDIAN	5,724 Acres	12.5%* 30% NPS	
	UPPER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Upper Interval (i.e. the interval from the surface down to the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M. known in the DNR computer records as "Segment 1" of the Lease.)	70.00000% 30.00000%		Sec 4: Protracted, All, 640.00 acres Sec 5: Protracted, All, 640.00 acres Sec 6: Protracted, All, 625.00 acres Sec 7: Protracted, All, 628.00 acres Sec 8: Protracted, All, 640.00 acres Sec 9: Protracted, All, 640.00 acres Sec 16: Protracted, All, 640.00 acres Sec 17: Protracted, All, 640.00 acres Sec 18: Protracted, All, 631.00 acres			Total 5.0767380% See Details Below
	LOWER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Herbaly Exploration LLC OXY USA Inc. George Alan Joyce, Jr. Anadarko Petroleum Corporation Hunt Petroleum Corporation Lower Interval (i.e. the interval below the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M., known in the DNR computer records as "Segment A" of the Lease.)	39.384412% 16.879033% 22.500000% 14.285715% 2.500000% 2.350000% 2.100840%					Total 3.0944937% See Details Below

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
15	State of AK ADL 355038			8/1/83	T13N, R7E, UMIAT MERIDIAN	5,760 Acres	12.5%* 30% NPS	
	UPPER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Upper Interval (i.e. the interval from the surface down to the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M. known in the DNR computer records as "Segment 1" of the Lease.)	70.00000% 30.00000%		Sec 22: Protracted, All, 640.00 acres Sec 23: Protracted, All, 640.00 acres Sec 24: Protracted, All, 640.00 acres Sec 25: Protracted, All, 640.00 acres Sec 26: Protracted, All, 640.00 acres Sec 27: Protracted, All, 640.00 acres Sec 34: Protracted, All, 640.00 acres Sec 35: Protracted, All, 640.00 acres Sec 36: Protracted, All, 640.00 acres			Total 5.0767380% See Details Below
	LOWER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Herbaly Exploration LLC OXY USA Inc. George Alan Joyce, Jr. Anadarko Petroleum Corporation Hunt Petroleum Corporation Lower Interval (i.e. the interval below the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M., known in the DNR computer records as "Segment A" of the Lease.)	39.384412% 16.879033% 22.500000% 14.285715% 2.500000% 2.350000% 2.100840%					Total 3.0944937% See Details Below

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
16	State of AK ADL 355039			8/1/83	T13N, R7E, UMIAT MERIDIAN	5,645.24 Acres	12.5%* 30% NPS	
	UPPER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Upper Interval (i.e. the interval from the surface down to the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8,402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M. known in the DNR computer records as "Segment 1" of the Lease.)	70.00000% 30.00000%		Sec 19: Protracted, All, 633.00 acres Sec 20: Protracted, All, 640.00 acres Sec 21: Protracted, All, 640.00 acres Sec 28 Protracted, All, 640.00 acres Sec 29: Protracted, All, 640.00 acres Sec 30: Protracted, All, 636.00 acres Sec 31: Protracted, All, excluding that portion of USS 4326 within Section 31, 626.27 acres Sec 32: Protracted, All, excluding that portion of USS 4326 within Section 31, 549.97 acres Sec 33: Protracted, All, 640.00 acres			Total 5.0767380% See Details Below
	LOWER INTERVAL	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC Herbaly Exploration LLC OXY USA Inc. George Alan Joyce, Jr. Anadarko Petroleum Corporation Hunt Petroleum Corporation Lower Interval (i.e. the interval below the stratigraphic equivalent of 8,373' (Driller's total depth +100') which is equivalent to 8.402' (Wireline Logger's total depth + 100') below the Kelly Bushing as shown on the Dual Laterolog Run #3 log dated April 5, 1992, in the ARCO-Kalubik #1 well located in Sec. 11, T.13 N., R. 7 E., U.M., known in the DNR computer records as "Segment A" of the Lease.)	39.384412% 16.879033% 22.500000% 14.285715% 2.500000% 2.350000% 2.100840%					Total 3.0944937% See Details Below
17	State of AK ADL 389959	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	9/1/02	T14N, R7E, UMIAT MERIDIAN Sec 27: Protracted, All, 640.00 acres	2,560.00 Acres	16.66667%*	04.25000% Held by Anadarko Petroleum Corp

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
					Sec 28: Protracted, All, 640.00 acres			
					Sec 33: Protracted, All, 640.00 acres			
					Sec 34: Protracted, All, 640.00 acres			
18	State of AK ADL 389960	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	9/1/02	T14N, R7E, UMIAT MERIDIAN	2,523.00 Acres	16.66667%	04.25000% Held by Anadarko Petroleum Corp
					Sec 29: Protracted, All, 640.00 acres			
					Sec 30: Protracted, All, 620.00 acres			
					Sec 31: Protracted, All, 623.00 acres			
					Sec 32: Protracted, All, 640.00 acres			
19	State of AK ADL 379301	Pioneer Natural Resources Alaska, Inc. Eni Petroleum US LLC	70.00000% 30.00000%	8/10/92	T14N, R8E, UMIAT MERIDIAN	2,517.00 Acres	16.66667%	04.25000% Held by Anadarko Petroleum Corp
					Sec 19: Protracted, All, 617.00 acres			
					Sec 28: Protracted, All, 640.00 acres			
					Sec 29: Protracted, All, 640.00 acres			
					Sec 30: Protracted, All, 620.00 acres			

* The state's royalty interest in ADL 355036, ADL 355037, ADL 355038, ADL 355039, ADL 389950, ADL 389952, ADL 389954, ADL 389958, and 389959 is subject to that certain Final Findings and Determination of the Commissioner of DNR dated February 1, 2006 (modifying royalty under the leases in response to the Oooguruk Development Royalty Modification Application filed on May 20, 2005).

Exhibit A
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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
WORKING INTEREST OWNERS-All Tracts and Intervals								
Pioneer Natural Resources Alaska. Inc.								
700 G Street. Suite 600								
Anchorage. AK 99501								
Eni Petroleum Exploration Co.. Inc.								
1201 Louisiana St.. Suite 3500								
Houston. TX 77002-5609								
WORKING INTEREST OWNERS: Lower Interval of Tract 13								
OXY USA Inc.								
P.O. Box 1002								
Tupman. CA 93276-1002								
Hunt Petroleum Corporation								
1601 Elm St.. Suite 4700								
Dallas. TX 75201								
WORKING INTEREST OWNERS: Lower Intervals of Tracts 14-								
Herbaly Exploration LLC								
1420 W. Canal Ct.. Suite 150								
Littleton. CO 80120-5660								
OXY USA Inc.								
P.O. Box 1002								
Tupman. CA 93276-1002								
George Alan Joyce. Jr.								
3528 Eisenhower Lane								
Plano. TX 75025								
Anadarko Petroleum Corporation								
P.O. Box 1330								
Houston. TX 77251-1330								
Hunt Petroleum Corporation								
1601 Elm St.. Suite 4700								
Dallas. TX 75201								

Exhibit A

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
Tracts 1 and 2 are burdened by Overriding Royalties, as stated above, held by the following party:								
ConocoPhillips Alaska, Inc.								
700 G Street								
Anchorage, AK 99501								
Tract 3 is burdened by Overriding Royalties, as stated above, held bythe following party:								
Winstar Petroleum LLC								
P.O. Box 1364								
Petersburg, AK 99833								
Tracts 4 through 12 (inclusive) are burdened by Overriding Royalties held by the following parties in the stated percentages:								
Tracts 4-12 Before Payout ("BPO")		William D. Armstrong 16 Village Road Englewood, CO 80110	1.7199972% of 8/8ths					
		Jesse V. Sommer 4531 West Geddes Avenue Littleton, CO 80128	0.033333333% of 8/8ths					
		Edgar Kerr 155 Spotted Deer Lane Franktown, CO 80116	0.03333330% of 8/8ths					
		Jeffery A. Lyslo 91 Buckthorn Drive Littleton, CO 80127	0.03333333% of 8/8ths					
		Patricia M. Reed P.O. Box 411 Franktown, CO 80116	0.03333333% of 8/8ths					
		Matthew X. Furin 2001 South Madison Denver, CO 80210	0.03333333% of 8/8ths					
		Richard C. Geesaman 820 Pine Street, Gold Hill Boulder, CO 80302	0.01333333% of 8/8ths					
		Stuart W. Gustafson P.O. Box 4625 Horseshoe Bay, TX 78657	0.03333333% of 8/8ths					

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
Tracts 4-12 After Payout ("APO")		William D. Armstrong 16 Village Road Englewood, CO 80110	2.79999972% of 8/8ths					
		Jesse V. Sommer 4531 West Geddes Avenue Littleton, CO 80128	0.083333333% of 8/8ths					
		Edgar Kerr 155 Spotted Deer Lane Franktown, CO 80116	0.083333330% of 8/8ths					
		Jeffery A. Lyslo 91 Buckthorn Drive Littleton, CO 80127	0.083333333% of 8/8ths					
		Patricia M. Reed P.O. Box 411 Franktown, CO 80116	0.083333333% of 8/8ths					
		Matthew X. Furin 2001 South Madison Denver, CO 80210	0.083333333% of 8/8ths					
		Richard C. Geesaman 820 Pine Street, Gold Hill Boulder, CO 80302	0.033333333% of 8/8ths					
		Stuart W. Gustafson P.O. Box 4625 Horseshoe Bay, TX 78657	0.083333333% of 8/8ths					
*0.60000000 of this overriding royalty interest burdens Eni's 30% working interest only.								
		The overriding royalty interests noted above affecting Tracts 4 through 12, inclusive, are set forth in and subject to that certain Development						
		Agreement dated effective November 1, 2002 between Armstrong Resources, LLC and Pioneer Natural Resources Alaska, Inc.						
		The burdens noted herein shall not be construed in any fashion, expressed or implied, to be subsequently created interests.						

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
Tract 13 is burdened by Overriding Royalties held by the following parties in the stated percentages:								
Tract 13 Upper Interval		Hunt Petroleum Corporation 1601 Elm Street, Suite 4700 Dallas, TX 75201	0.25210000%					
		Pioneer Natural Resources Alaska, Inc. 700 G Street, Suite 600 Anchorage, AK 00501	1.71429000%					
		ConocoPhillips Alaska, Inc. 700 G Street Anchorage, AK 00501	2.50000000%					
		William D. Armstrong 16 Village Road Englewood, CO 80110	0.40400000%					
		GMT Exploration Company LLC 1560 Broadway, Suite 800 Denver, CO 80202	0.07400000%					
		Jesse V. Sommer 4531 West Geddes Avenue Littleton, CO 80128	0.01200000%					
		Edgar Kerr 155 Spotted Deer Lane Franktown, CO 80116	0.01200000%					
		Jeffery A. Lyslo 91 Buckhorn Drive Littleton, CO 80127	0.01200000%					
		Patricia M. Reed P.O. Box 411 Franktown, CO 80116	0.01200000%					
		Matthew X. Furin 2001 South Madison Denver, CO 80210	0.01200000%					
		Stuart W. Gustafson P.O. Box 4625 Horseshoe Bay, TX 78657	0.01200000%					
		William D. Armstrong 116 Village Road Englewood, CO 80110	0.55500000%*		*burdens Eni's 30% working interest only			

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
		Chester E. Paris 1208 Mesa Court Golden, CO 80403	0.00500000%					
Tract 13 Lower Interval		ConocoPhillips Alaska, Inc. 700 G Street Anchorage, AK 99501	1.68067000%					
		William D. Armstrong 16 Village Road Englewood, CO 80110	1.74252200%**		** 1.008404 burdens Eni's 20.168070% WI only			
		GMT Exploration Company LLC 1560 Broadway, Suite 800 Denver, CO 80202	0.13445400%					
		Jesse V. Sommer 4551 West Geddes Avenue Littleton, CO 80128	0.02184800%					
		Edgar Kerr 155 Spotted Deer Lane Franktown, CO 80116	0.02184800%					
		Jeffery A. Lyslo 91 Buckthorn Drive Littleton, CO 80127	0.02184800%					
		Patricia M. Reed P.O. Box 411 Franktown, CO 80116	0.02184800%					
		Matthew X. Furin 2001 South Madison Denver, CO 80210	0.02184800%					
		Stuart W. Gustafson P.O. Box 4625 Horseshoe Bay, TX 78657	0.02184800%					
		Chester E. Paris 1208 Mesa Court Golden, CO 80403	0.00874400%					

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Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
Tracts 14 through 16 (inclusive) are burdened by Overriding Royalties held by the following parties in the stated percentages:								
Tracts 14-16 Upper Interval		Anadarko Petroleum Corporation P.O. Box 1330 Houston, TX77251-1330	0.09354800%					
		David L. Herbaly 2142 W. Dry Creek Ct. Littleton, CO 80120	0.67500000%					
		Elmer L. Herbaly 1852 Cape Cod Way Littleton, CO 80120	0.67500000%					
		Hunt Petroleum Corporation 1601 Elm Street, Suite 4700 Dallas, TX 75201	0.12605000%					
		George Alan Joyce, Jr. 3528 Eisenhower Lane Plano, TX 75025	0.15000000%					
		Pioneer Natural Resources Alaska, Inc 700 G Street, Suite 600 Anchorage, AK 00501	0.85714000%					
		ConocoPhillips Alaska, Inc. 700 G Street Anchorage, AK 99501	2.50000000%					

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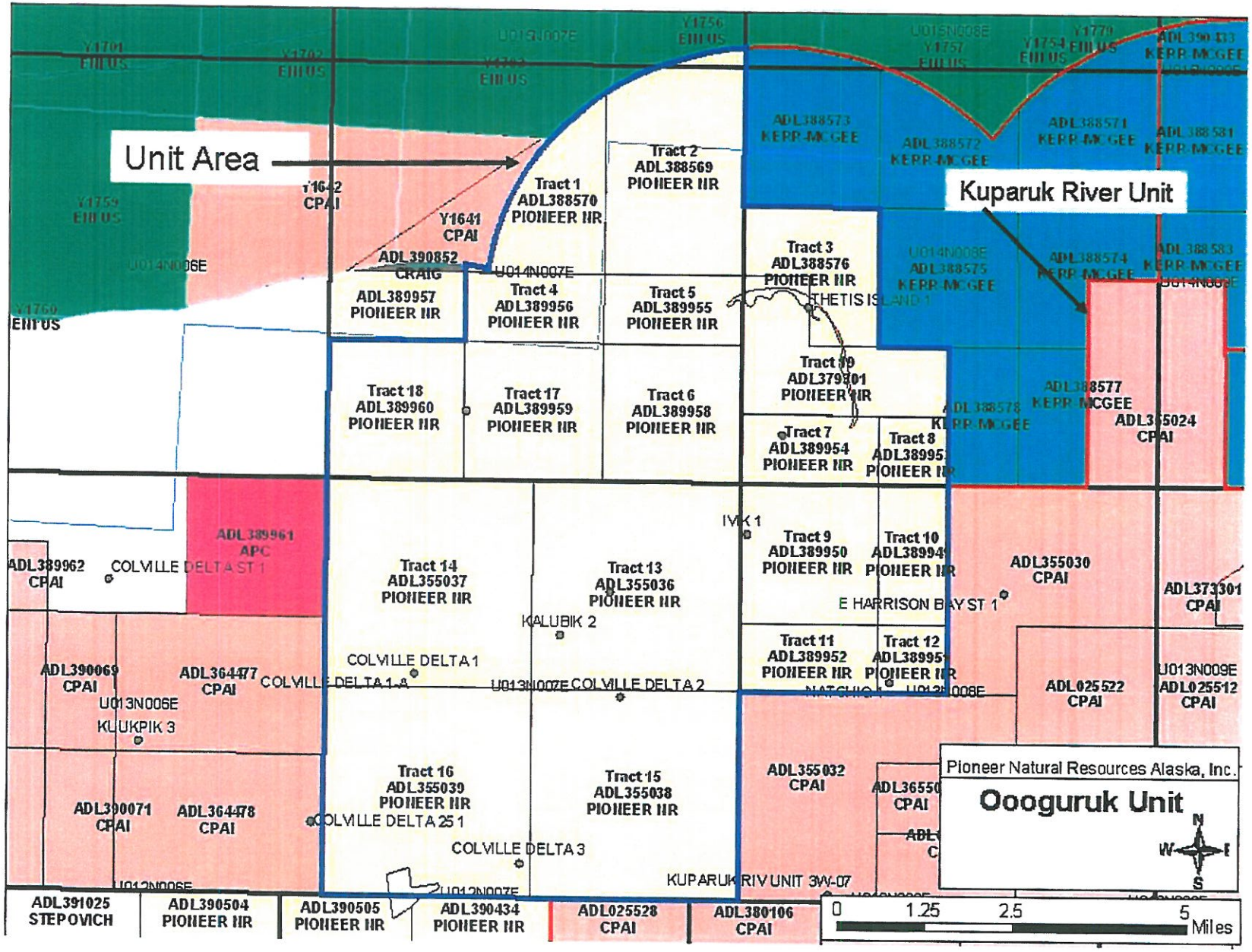
Unit Tract #	Lessor & Lease No.	Working Interest Owner	Working Interest	Effective Date	Description	Acreage	Royalty	ORR Burden
Tracts 14-16 Lower Interval		ConocoPhillips Alaska, Inc. 700 G Street Anchorage, AK 99501	1.40659000%					
		William D. Armstrong 116 Village Road Englewood, CO 80110	1.4583487%*		*0.8439517 ORRI burdens Eni's 16.879033% WI only			
		GMT Exploration Company LLC 1560 Broadway, Suite 800 Denver, CO 80202	0.11252700%					
		Jesse V. Sommer 4531 West Geddes Avenue Littleton, CO 80128	0.01828500%					
		Edgar Kerr 155 Spotted Deer Lane Franktown, CO 80116	0.01828500%					
		Jeffery A. Lysle 91 Buckthorn Drive Littleton, CO 80127	0.01828500%					
		Patricia M. Reed P.O. Box 411 Franktown, CO 80116	0.01828500%					
		Matthew X. Furin 2001 South Madison Denver, CO 80210	0.01828500%					
		Stuart W. Gustafson P.O. Box 4625 Horseshoe Bay, TX 78657	0.01828500%					
		Chester E. Paris 11208 Mesa Court Golden, CO 80403	0.00731800%					

ATTACHMENT TWO
Map of the Expanded Oooguruk Unit Boundary

EXHIBIT "B"

Attached to and made a part of that certain Oooguruk Unit Agreement Expansion



ATTACHMENT THREE
Plan of Exploration and Development (Revised Initial POE)

RECEIVED
DEC 1 2005
OCT 25, 2005
DIVISION OF
OIL AND GAS

Exhibit "G"

Attached to and made a part of that certain Oooguruk Unit Agreement Expansion

PLAN OF EXPLORATION AND DEVELOPMENT
HARRISON BAY, ALASKA

The proposed Oooguruk Unit Expansion will encompass approximately 51,000 acres of State land within the shallow waters of Harrison Bay, Alaska, for a total of approximately 69,500 acres in the Oooguruk unit. The Unit is immediately northwest of and contiguous with the Kuparuk River Unit. The Plan of Exploration is a forecast of planned unit exploration activities.

Pioneer has fulfilled it commitments under the existing plan, as evidenced in Section IV, Item 7 of the Findings and Decision of the Director for the Approval of the Formation of the Oooguruk Unit date July 11, 2003:

> Pioneer drilled all three wells in the proposed Unit Plan of Exploration, satisfying the well commitments in the initial five-year Plan of Exploration. This does not limit the operator from pursuing further drilling operations within the nest five years to continue delineation and development of the discovered resource.

As per the approved Plan of Exploration, Pioneer continues to perform geologic and geophysical studies to improve our understanding of prospective reservoir characteristic and parameters and assist in fast-tracking initial production from the unit. Pioneer requests ADL 379301 be included under the approved Plan of Exploration.

We recognize that, as stated in the above-referenced Findings and Decision, Section IV, Item 11, on June 1, 2008, if ADL 388570, ADL 388569, and ADL 388576 are not included in a participating area or approved Plan of Exploration or Plan of Development which includes a firm commitment to drill, they will contract out of the unit.

Pioneer proposes pursuing development and production in the near future from ADL 355036, ADL 355037, ADL 355038, ADL 355039, ADL 389959 and ADL 389960. At the time of filing this unit expansion we are engaged in negotiations with the Department on royalty reduction on four of the above leases. We also anticipate our management sanction of the project contingent on resolving several commercial issues and obtaining regulatory approvals. Assuming resolution of the above, we propose establishing a Plan of Development for the leases which would include laying gravel this winter, with pipeline construction commencing in 2006-2007, followed by a development drilling program in 2008 - 2010.

The Plan of Exploration is for the remainder of the original term of five (5) years and provides for the construction of production facilities, pipelines and all wells associated with production therefrom. Our commitment is to accomplish the work prior to the expiration of the plan.

Plan of Exploration Summary, Term, and Work Commitment

Detailed above is the initial Plan of Exploration for the proposed Oooguruk Unit. It represents our current thoughts regarding exploration activities and is based upon the Working Interest Owner's current analysis of existing geologic, geophysical and engineering data. As additional information is collected and exploration activities are completed, this Plan of Exploration may be modified to optimize exploitation of identified resources within the Unit Area. Annual updates and progress reports to this Plan of Exploration will be filed with the Department of Natural Resources.

The Working Interest Owners propose retaining the existing term for this initial Plan of Exploration. Activities discussed within this Plan of Exploration are included to inform the Department of the Working Interest Owner's plans and intentions; however, they are not intended to represent firm work commitments. The work commitments made under this Plan of Exploration have be satisfied since the three Exploration Wells discussed within this Unit Plan were drilled before the times set forth in this original Unit Plan.

ATTACHMENT FOUR
Amendments to the State Only Model Form, dated June 2002

Amendments to the State Only Model Form, dated June 2002

NOTE: Text that is underlined indicates where text has been added and text that has the strikethrough font indicates where text has been deleted.

ARTICLE 9: PARTICIPATING AREAS

9.1 *Amend the last sentence to read:*

The Unit Operator shall notify the Commissioner before the ~~of~~ commencement of Sustained Unit Production ~~within 10 days after commencement~~ from each Participating Area.

9.8.1 *Amend the first sentence to read:*

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 of the transferred Unitized Substance volumes in both the originating and receiving Participating Areas as specified in 11 AAC 04.

ARTICLE 11: ALLOCATION OF PRODUCTION

11.1 *Amend the fourth sentence to read:*

The Commissioner will give the Unit Operator and Working Interest Owners reasonable notice and an opportunity to be heard before revising the Unit Operator's proposal.

ARTICLE 12: LEASES, RENTALS AND ROYALTY PAYMENTS

12.1 *Amend article to read:*

The Working Interest Owners shall pay rentals and royalty payments due under the Leases. Payments to the State must be made in accordance with the applicable State regulations, 11 AAC 04 and 11 AAC 83.110. ~~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.~~

12.4 *Amend third sentence to read:*

These excluded expenses also include the costs of gathering and preparing the Unitized Substances for transportation off the Unit Area and ~~gathering and~~ transportation costs incurred within the Unit Area. ~~incurred before the Unitized Substances are delivered to a common carrier pipeline.~~

12.5 *Amend article to read:*

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 *Amend article to read:*

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. The Commissioner may take Unitized Substances in-kind in accordance with the following: ~~Within ninety days of receipt of that notice,~~ T~~t~~he Commissioner will give the ~~Working Interest Owners~~ Unit Operator 90 days written notice of ~~its~~ the State's initial elections to take Unitized Substances in-kind ~~all, none, a specified percentage, or a specified quantity of its royalties in any Unitized Substances produced from the Participating Area~~. After taking has actually commenced, the Commissioner ~~will, in his or her discretion,~~ may increase or decrease ~~(including ceasing to take royalty Unitized Substances in kind)~~ the amount of ~~royalty~~ Unitized Substances ~~the State takes~~ taken in-kind by not more than 10 percent, upon 30 days written notice to the Unit Operator; and greater than 10 percent, upon 90 days written notice to the Unit Operator. ~~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.~~

12.6.3 Amend article to read:

Royalty Interest Unitized Substances delivered in kind shall be delivered in good and merchantable condition and be of pipeline quality. Those substances shall be free and clear of all lease expenses, Unit Expenses, and Participating Area Expenses, and free of any lien for these excluded Expenses. These excluded expenses include, but are not limited to, expenses for separating, cleaning, dehydration, saltwater removal, processing, compression, pumping, manufacturing, and the costs of gathering and preparing the Unitized Substances for transportation off the Unit Area and transportation costs within the Unit Area. 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,~~ may require that a Working Interest Owner also process the State's share of natural gas Unitized Substances 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.

12.8 *Replace article to read:*

The Unit Operator shall maintain records, and shall keep and have in its possession books and records including expense records, of all exploration, development, production, and disposition of all Unitized Substances and Outside Substances. Each Working Interest Owner shall maintain records of the disposition of its portion of the Unitized Substances and Outside Substances including sales prices, volumes, and purchasers. The Unit Operator and the Working Interest Owners shall permit the Commissioner ~~or its agents~~ to examine those books and records at all reasonable times. Upon request by the Commissioner, the Unit Operator and the Working Interest Owners shall make the books and records available to the Commissioner at the Commissioner's office designated by the Commissioner. They may provide these books and records in a mutually agreeable electronic format. 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 and the Working Interest Owners shall use and consistently apply generally accepted accounting procedures.

12.10 *Amend second sentence to read:*

The State ~~will, in its discretion,~~ may audit the net profit share reports or payments due for any Lease within ten years of the ~~date~~ year of production of Unitized Substances in Paying Quantities.

13.2 *Amend Article to read:*

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, lands included in an Approved Unit Plan of Exploration or Development, 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~~may, after considering the provisions of 11 AAC 83.303, delay contraction of the Unit Area if the circumstances of a particular unit warrant. If a portion of a Lease contracts out of the unit, that portion will be severed and treated as a separate and distinct lease, which may be maintained thereafter only in accordance with the terms and conditions of the original lease. The Working Interest Owners waive the provisions of 11 AAC 83.356(b), which protect the Lease from severance when a portion of a lease is contracted out of the Unit Area. ~~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 *Amend Article to read:*

Not sooner than 10 years after the effective date of this Agreement, the Commissioner ~~will, in the Commissioner's discretion,~~ may 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. If a portion of a Lease contracts out of the Unit Area, that portion will be severed and treated as a separate and distinct lease, which may be maintained thereafter only in accordance with the terms and conditions of the original lease. The Working Interest Owners waive the provisions of 11 AAC 83.356(e), which protect the Lease from severance when a portion of a Lease is contracted out of the Unit Area. 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~~ Royalty Interest ~~owners~~ Owners of the Leases or portions of Leases being excluded reasonable notice and an opportunity to be heard.