

KUPARUK RIVER UNIT

**Findings and Decision of the Director
of the Division of Oil and Gas**

**APPROVAL OF THE
EIGHTH EXPANSION OF THE UNIT AREA
AND THE
NINTH EXPANSION OF THE KUPARUK PARTICIPATING AREA**

**Under a Delegation of Authority
from the Commissioner of the State Of Alaska
Department of Natural Resources**

September 26, 2002

I. INTRODUCTION, BACKGROUND, AND DECISION SUMMARY

ConocoPhillips Alaska, Inc. (ConocoPhillips), the Kuparuk River Unit Operator, applied to expand the Kuparuk River Unit (KRU) and the Kuparuk Participating Area (KPA) on behalf of the KRU Working Interest Owners (WIOs). ConocoPhillips proposes to add twenty-two leases and approximately 51,168 acres to the KRU. The leases are described in Attachment 1 of this document and shown on the map provided by ConocoPhillips as Exhibit 2 of the application. They are grouped into five areas as listed below.

<u>AREA</u>	<u>Also known as</u>	<u>Location</u>	<u>Acreage</u>
1	DS 3-S	West/Northwest of the 3G pad	17,584
2	Area 2	Southwest of the Palm area	10,048
3	Area 3	Due south of the 2G Pad	10,203
4	W. Sak	South-Southeast of the 1J pad	10,133
5	1M	Southeast of the 1D pad	<u>3,200</u>
		Total	51,168

The KPA expansion includes lands that are part of the western edge of the existing KRU and lands that are part of the KRU Expansion Area One. The lands included in the KPA expansion are identified in Attachment 2. ConocoPhillips provided geological, geophysical and engineering data supporting the proposed KRU and KPA expansions. The submitted data justifies the expansion of the KRU and KPA.

For reasons set out in the Decision, the Division of Oil and Gas (Division) approves the expansion of the KRU subject to the work programs, bid deferment payments, changes in lease agreement terms and automatic contraction provisions defined in this decision.

The Division also approves the expansion of the KPA in Area 1 subject to ConocoPhillips drilling the nineteen new Palm development wells indicated in their Plan of Exploration and Development. If some of the wells are not drilled in Area 1, the areas not shown to be contributing to production will automatically contract out of the KPA. The KPA is limited to the area proposed by ConocoPhillips because that area is “reasonably known to be underlain by hydrocarbons and known or reasonably estimated thorough the use of geological, geophysical and engineering data to be capable of producing or contributing to production of hydrocarbons in paying quantities.” 11 AAC 83.351(a). The Division also approves the Tract Allocation Schedule for the KPA, Attachment 4 to this Findings and Decisions. The tract allocation schedule adequately allocates production and costs among the leases in the KPA.

The KRU and KPA expansion area leases/tracts, a map of the proposed KRU expansion area, and the KPA leases/tracts and tract allocation schedule are Attachments 1-4, respectively to this Decision. The effective date of the unit expansion, the KPA expansion and the KPA tract allocation schedule is October 1, 2002.

II. APPLICATION FOR THE EXPANSION OF THE UNIT AREA AND EXPANSION OF THE KUPARUK RIVER PARTICIPATING AREA

ConocoPhillips applied to expand the KRU and the KPA, within the existing and expanded KRU, on July 2, 2002. The WIOs in the expansion area leases are ConocoPhillips, BPXA, Unocal, ExxonMobil and Chevron. Twenty-two state oil and gas leases proposed for the KRU expansion are listed on Attachment 1. The proposed KRU expansion area covers approximately 51,168 acres and the total unit area after the expansion would be approximately 435,707 acres.

All of the proposed expansion leases have a 12.5 percent royalty to the state except for ADL 390057, which has a 16.667 percent royalty to the state. Six of the leases' primary terms expire on November 11, 2002, thirteen of the leases' primary terms expire on January 31, 2003, two of the leases' primary terms expire on November 30, 2005 and one lease has yet to be awarded. Four of the leases have overriding royalty interest owners, who are Keith C Forsgren, Danco Exploration Inc., MT Killon, and Andrew J. Bachner.

With the application to expand the KRU, ConocoPhillips applied to expand the KPA within the existing and expanded KRU. The proposed KPA expansion acreage encompasses the Palm discovery, which is located due west of the 3-G pad and will be developed by the 3-S pad, which is tied back to the field by a gravel road and a series of pipelines. The map depicting the proposed KPA and proposed KPA tract allocation schedule are included as Attachments 3 and 4.

ConocoPhillips filed many attachments in support of its application. These included:

- Exhibit 1 List of leases in the KRU Expansion Areas
- Exhibit 2 Map of Proposed KRU Expansion Area
- Exhibit 3 Copy of Notice and Ballot approving Expansion
- Attachment A Statement in support of Expansion Area 1 (Palm / DS-3S) And 9th Expansion of the KPA. Figures A1-1 through A1-17 detail the acreage, tract participations, plan of development, reservoir structure, net pay distribution, and paying quantities calculation for the Drill Site 3S development area.
- Attachment B Statement in support of Expansion Area 2. Figures B-1 through B-11 contain information on the geology, expected oil characteristics, and seismic attributes within this area.
- Attachment C Statement in support of Expansion Area 3. Figures C-1 through C-10 contain information on the geology, expected oil characteristics, and seismic attributes within this area.
- Attachment D Statement in support of Expansion Area 4. Figures D-1 through D-8 contain information on the geology and expected net pay within this area.
- Attachment E Statement in support of Expansion Area 5. Figures E-1 through e-6 contain information on the geology and the expected oil characteristics within this area.

ConocoPhillips requested that the effective date for the unit expansion and the participating area expansion be September 1, 2002.

ConocoPhillips submitted geological evidence to support the expansion of the KPA to develop the Kuparuk Interval within the KRU under a unified plan of development. ConocoPhillips is currently proceeding with the development of the Kuparuk Reservoir at Drill Site 3S. The current development is planned to have one drill site and approximately 20 wells. Three new pipelines (8" miscible injectant line, 8" water line and 16" production line), a gravel road and pad with production facilities, a bridge over Kalubik Creek and a buried power cable have already been installed and ConocoPhillips hopes to start production in the 4th quarter of 2002.

The Division determined that the application was complete and published a public notice in the "Anchorage Daily News" and the "Arctic Sounder" on August 1, 2002. Copies of the public notice were also provided to interested parties including AOGCC, ADEC, ADFG, North Slope Borough and City of Nuiqsut.

The public notices invited interested parties and member of the public to submit comments by August 31, 2002. The Division received no comment on the notice.

III. DISCUSSION OF DECISION CRITERIA

The commissioner may approve expansion of a unit area if that expansion is "necessary or advisable to protect the public interest." AS 38.05.180(p) and 11 AAC 83.303(c). Approval of ConocoPhillips' application must be based on the criteria in 11 AAC 83.303(a) and the factors enumerated in 11 AAC 83.303(b).

The commissioner will approve a proposed expansion of a unit area, a proposed expansion of a participating area (PA), or a proposed production or cost allocation formula if the commissioner finds that each requested approval is necessary or advisable to protect the public interest. AS 38.05.180(p). To find that any or all of the requested approvals are necessary or advisable to protect the public interest, the commissioner must find that the requested approvals will meet each of the criteria listed in 11 AAC 83.303(b) as discussed below. 11 AAC 83.303(b).

A PA may include only land reasonably known to be underlain by hydrocarbons and known or reasonably estimated through use of geological, geophysical, or engineering data to be capable of producing or contributing to the production of hydrocarbons in paying quantities. 11 AAC 83.351(a). "Paying quantities" means:

quantities sufficient to yield a return in excess of operating costs, even if drilling and equipment costs may never be repaid and the undertaking as a whole may ultimately result in a loss; quantities are insufficient to yield a return in excess of operating costs unless those quantities, not considering the costs of transportation and marketing, will produce sufficient revenue to induce a prudent operator to produce those quantities. 11 AAC 83.395(4).

(A) Promote the Conservation of All Natural Resources.

The unitization of oil and gas reservoirs and the formation of PAs within unit areas to develop hydrocarbon-bearing reservoirs are a well-accepted means of hydrocarbon conservation. Without unitization, the unregulated development of reservoirs tends to be a race for possession by competitive operators. The results can be: (1) overly dense drilling, especially along property lines; (2) rapid dissipation of reservoir pressure; and (3) irregular advance of displacing fluids. These all 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 increases the likelihood of environmental damage (such as spills and other surface impacts). Requiring lessees to comply with conservation orders and field rules issued by the AOGCC would mitigate some of these impacts without an agreement to unitize operations. Unitization, however, provides a practical and efficient method for maximizing oil and gas recovery, and minimizes negative impacts on other resources.

The concern of lessees competing for the reservoir is less evident in the proposed KRU expansion area and KPA because the WIOs (ConocoPhillips, BPXA, Unocal, Chevron, and ExxonMobil) have aligned their leasehold interests in the proposed expansion acreage and the existing KRU. The WIOs have executed various alignment agreements between the various WIOs for the Greater Kuparuk Area that establish an area of common equity, establishing ownership percentages that cover all horizons within the boundaries of the KRU and certain adjacent areas. Expansion of the KRU and expansion of the KPA will provide a comprehensive plan for developing the KPA and exploring all the reservoirs within the expanded KRU.

The KRU expansion will promote the conservation of both surface and subsurface resources through the unitized (rather than lease-by-lease) development. Unitization allows the unit operator to explore the area as if it were one lease. The expansion of the KRU and the expansion of the KPA over the Palm discovery will allow this area to be comprehensively and efficiently explored and developed. Adoption of an operating agreement and plan of development governing that production will help avoid unnecessary duplication of development efforts on and beneath the surface. Kuparuk Reservoir Extension Drill Site 3S facilities can be located to maximize recovery and to minimize environmental impacts, without regard for individual lease ownership.

Producing hydrocarbon liquids from the Kuparuk Reservoir Extension Drill Site 3S through the existing KRU production and processing facilities will reduce the incremental environmental impact of the additional production. The planned DS 3S development will include a new stand-alone drill site, but will utilize the existing KRU processing facilities, gravel roads, and infrastructure.

(B) The Prevention of Economic and Physical Waste

Traditionally, under unitized operations, the assignment of undivided equity interests in the oil and gas reservoirs to each lease largely resolves the tension between lessees to compete

for their share of production. Economic and physical waste, however, could still occur without a well-designed and coordinated development plan and an equitable cost sharing formula. Consequently, unitization must equitably divide costs and production, and plan to maximize physical and economic recovery from any reservoir.

An equitable allocation of hydrocarbon shares among the WIOs discourages hasty or unnecessary surface development. Similarly, an equitable cost-sharing agreement promotes efficient development of reservoirs and common surface facilities and encompasses rational operating strategies. Such an agreement further allows the WIOs to decide well spacing requirements; scheduling, reinjection and reservoir management strategies; and the proper common, joint-use surface facilities. Unitization prevents economic and physical waste by eliminating redundant expenditures for a given level of production, and avoiding loss of ultimate recovery by adopting a unified reservoir management plan.

Unitized operations greatly improve development of reservoirs beneath leases that may have variable productivity. Marginally economic reserves, which otherwise would not be produced on a lease by lease basis, often can be produced through unitized operations in combination with more productive leases. Facility consolidation saves capital and promotes better reservoir management by all WIOs. Pressure maintenance and secondary recovery procedures are much more predictable and attainable 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 lessees in the proposed unit expansion leases and KPA have signed the KRU Agreement, the KRU Operating Agreement, and the Alignment Agreement, Greater Kuparuk Area, and will share the existing KRU production capacity and the KRU infrastructure. Using this infrastructure and facilities eliminates the need to construct stand-alone facilities to process the volume of recoverable hydrocarbons from the unit expansion area and Palm discovery.

Expanding the KRU, expanding the KPA, and allowing these areas to access existing unit facilities and infrastructure prevents economic and physical waste.

(C) Protection of All Parties

The proposed expansion of the KRU and expansion of the KPA seeks to protect the economic interests of all working interest owners of the reservoirs in the expanded unit and KPA, as well as the royalty owner. Combining interests and operating under the terms of the KRU Agreement, the KRU Operating Agreement, and the Greater Kuparuk Area Alignment Agreement assures each individual working interest owner an equitable allocation of costs and revenues commensurate with the value of their lease(s).

Because hydrocarbon recovery will be maximized and additional production-based revenue will be derived from the KPA production, the state's economic interest is promoted. Diligent development and exploration under a single approved unit plan without the complications of competing leasehold interests is certainly in the state's interest. It

promotes efficient evaluation and development of the state's resources, yet minimizes impacts to the area's cultural, biological, and environmental resources.

The lease form and the conditions of this Decision provide, in part, that the state's royalty share will be free and clear of all lease expenses. Including the leases into the KRU will not subject them to Appendix I of the KRU Agreement. Operating under the terms and conditions of the lease and KRU Agreement also provides for accurate reporting and record keeping, royalty settlement, in kind taking, and emergency storage of oil, all of which will further the state's interest.

Finally, conditions were proposed and agreed to by the Owners and the DNR for including the expansion acreage within the KRU and expanding the KPA. The details of these conditions are enumerated in the last section of this document.

These conditions assure that the inclusion of the expansion lands in the unit and the expansion of the KPA promote the state's interest in the evaluation and development of those lands sooner rather than later.

In reviewing the above criteria, the following factors were considered:

(1) The Environmental Costs and Benefits of Unitized Exploration and Development

State regulations require the Commissioner to assess the environmental cost and benefits of the proposed KRU expansion and the expansion of the KPA. 11 AAC 83.303 (b) (2) and (4). DNR develops lease stipulations through the lease sale process to mitigate the potential environmental, social and cultural 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 preparing a written decision before an oil and gas lease sale, the commissioner may impose additional conditions or limitations beyond those imposed by law. AS 38.05.035(e).

DNR considered all comments filed before holding its areawide lease sales. DNR included mitigation measures in the leases issued. The proposed KRU expansion leases contain many stipulations designed to protect the environment and address any outstanding concerns regarding impacts to the area's fish and wildlife species and to habitat and subsistence activities. They address such issues 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 these leases in the KRU will not result in additional restrictions or limitations on access to surface lands or to public and navigable waters. All lease operations are subject to a coastal zone consistency determination, and must comply with the terms of both the state and North Slope Borough coastal zone management plans.

Ongoing mitigation measures such as seasonal restrictions on specific activities in certain areas can reduce the impact on bird, fish, and mammal populations. Designating primary waterfowl 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. Area residents use the unit area for subsistence hunting and fishing. Oil and Gas activity may impact some wildlife habitat, and some subsistence activity. The environmental impact will depend on the level of development activity, the effectiveness of mitigation measures and the availability of alternative habitat and subsistence resources. In any case, the anticipated activity under the expanded KRU will impact habitat and subsistence activity less than if the lessees developed the leases individually. Unitized exploration, development and production will minimize surface impact.

Furthermore, state unitization regulations require the commissioner to approve a Plan of Operations before the unit operator performs any field operations, 11 AAC 83.346. A proposed Plan of Operations must describe the operating procedures designed to prevent or minimize adverse effects on natural resources. The unit operator must guarantee full payment for all damage sustained to the surface estate before beginning operations. The Plan of Operations must include plans for rehabilitation of the unit area. When the lessees propose to explore or develop the expansion area and submit a Unit Plan of Operations, the DNR will ensure that it complies with the lease stipulations and lessee advisories developed for the most recent North Slope areawide lease sale.

The approval of the KRU and KPA expansions has no environmental impact. The unit and PA expansion do not entail any environmental costs in addition to those that may occur when permits to conduct lease-by-lease exploration or development are issued. The commissioner's approval of the unit expansion and PA formation is an administrative action, which, by itself, does not convey any authority to conduct any operations within the unit. Unitization does not waive or reduce the effectiveness of the mitigating measures that condition the lessee's right to conduct operations on these leases. DNR's approval of the Unit POE and/or POD is only one step in the process of obtaining permission to drill a well or wells or develop the 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 known reservoirs within the unit area.

ConocoPhillips applied for permits and authorizations for the 3S Pad development project from the various federal, state, and local agencies. ConocoPhillips received the permits and authorizations necessary for the construction of the 3S Pad development project. These permits and authorizations include the approval of a plan of operations from the DNR, a determination by the State of Alaska-Division of Governmental Coordination that the plan of operations is consistent with the Alaska Coastal Management Program and issuance of a permit from the Corps of Engineers.

(2) The Geological and Engineering Characteristics of the Proposed Expansion Areas and Participating Area

ConocoPhillips submitted geological, geophysical, engineering and well data in support of the KRU and KPA expansions. Most of the data supplied is considered confidential in nature and will only be discussed here in general terms. The data submitted included:

1. Stratigraphic Columns
2. Type Logs
3. Net Pay Maps
4. Paleo-geographic maps
5. Petrofacies Analyses
6. Seismic Attribute Maps
7. Seismic Lines
8. Structural Cross-sections
9. Petrophysical Summaries
10. Development Plan Maps and Schedules
11. RFT and Sidewall Core Summaries
12. Well Test Summaries
13. Pressure Build-up Data and Analyses
14. Production Forecasts

Division of Oil and Gas staff met with ConocoPhillips eight times between March 19, 2002 and July 12, 2002 to discuss the detailed confidential data submitted in support of ConocoPhillips' proposal and to determine the commitments that would probably be necessary to expand the KRU and KPA.

ConocoPhillips provided ample and sufficient confidential technical data in support of the KRU and KPA expansions. The areal extent of the Kuparuk sands that will contribute to production is not currently known. ConocoPhillips based the KPA boundary on their interpretation of net pay, and the area planned to be drilled under the proposed POD, and the area that may be in communication with the Kuparuk reservoir in the current KPA. ConocoPhillips has not shown that all of the area included in the KPA is known or reasonably estimated to be capable of producing or contributing to production of hydrocarbons in paying quantities. Division staff believes, in the case of the extension of the Kuparuk reservoir in the DS 3S area, that until the development drilling program progresses there is no reliable way to accurately map net pay or to judge with any certainty what acreage will contribute to production. ConocoPhillips has shown, however, that it is reasonable that all the tracts in the proposed extension of the KPA may produce or contribute to production by their willingness to propose and drill development wells in the tracts.

Results of planned drilling in the KPA expansion area will delineate the geometry and sand distribution of the Kuparuk Reservoir Extension Drill Site 3S and more accurately define its true shape. Exploratory wells to be drilled in the KRU Expansion Area One may lead to the

further expansion of the KPA. Conversely, areas included in the KPA expansion that are currently interpreted to be hydrocarbon bearing may turn out to be disappointing because of the unpredictability of the geometry and sand distribution of the Kuparuk reservoir. The areal extent of the productive intervals will be constrained by the actual wells drilled and the results of exploration and delineation drilling. The division is willing to accept the expansion of the KPA as proposed with the provision that the PA contracts on June 1, 2005 to the drilled areas as set forth in Finding No. 6 below.

Upon review of the data submitted, the Division determines that the inclusion of these lands in the KRU and the KPA is justified.

(3) Prior Exploration Activities and the Applicant's Plan for Exploration or Development for the Expansion Areas

Expansion Area 1 and the KPA expansion area

The seismic amplitude anomaly (in the Kuparuk C sandstone) defining the Palm discovery was identified years ago using 2D seismic data. Recently acquired 3D seismic data allowed the delineation of a drillable prospect and the Palm #1 discovery well was drilled in the 2001 winter exploration program. The Palm #1 well logs were encouraging and the well was sidetracked to the northeast (Palm #1A) and tested at 2350 bopd in April 2002 with an elevated reservoir pressure which indicates communication with the Kuparuk reservoir inside the current KRU.

The plan is to develop this area from the 3S drill site with 19 new wells and the Palm #1A well. The 3S drill site, which is approximately 3 miles west/northwest of the 3G drill site, is tied back to the 3G drill site with three new pipelines (8" miscible injection line, 8" water line, and 16" produced fluid line), a gravel road with a bridge over the Kalubik Creek and a buried power cable. The plan is to bring the Palm #1A well on in October and bring the other wells on as drilling progresses.

Miscible Injectant (a mixture of natural gas and natural gas liquids) and water will be alternately injected into the reservoir (MWAG) to maximize oil rate and recovery early in the development cycle of this area.

Expansion Area 2

Prior to the recent Kuparuk Reservoir Extension Drill Site 3S, the Sinclair Colville #1 well was drilled in 1966 and the Unocal Kookpuk #1 well was drilled in 1967. 3D seismic data was acquired over the area in 1997, which has been used to develop drillable prospects within this expansion area.

This area's development will be subject to a successful Palm development and delineation drilling that the operator has agreed to complete in a timely manner. The development will most likely consist of a new drill site that is tied back to the 3S drill site with similar pipelines.

Expansion Area 3

The exploration wells that have been drilled proximal to this area are West Sak B-10 (1978), West Sak #13 (1979), Unocal 21-10-8 (1989) and KRU St. #1 (1990). 3D seismic data was acquired in this area in 2001 and has led to the identification of potentially drillable Kuparuk prospects. The recent seismic work completed over these leases, the work program, the bid deferral payment schedule and automatic contraction provisions that are laid out further in this decision justify the inclusion of these leases in the KRU which will have the effect of extending the leases' primary terms, which are to expire on January 31, 2003.

Like Expansion Area 2, this area's development will be subject to a successful discovery well that the operator has agreed to drill in a timely manner. The development will most likely consist of a new drill site that is tied back to Drill Site 2G.

Expansion Area 4

The area due north of this expansion area has a long history of West Sak formation evaluation programs. Activities range from exploratory and delineation wells, to gathering data in deeper development wells, and operation of a waterflood pilot project. Exploration beginning in 1975 led to a waterflood pilot project in 1983. The pilot project was followed up by the Winter Trails #1 (1986), the Winter Trails #4 (1987), and the KRU State #2 (1990) wells.

In 2001, three development wells (1J-03, 1J-09 and 1J-10) and 1 exploration well (Silvertip #1) were drilled. The development at 1J and evaluation of extended reach horizontal wells in combination with a waterflood pilot evaluation should lead to the extension of West Sak development to the south. West Sak development at 1J will probably include a water line, a production line, a power line and new on-pad facilities. The response and experience at the 1J drill site will determine if development is feasible and if so, whether one or two pads will be necessary.

Expansion Area 5

Exploration and development drilling in area around this expansion area began as early as 1975 and continued through today. The recent 1M-17 well, drilled due north earlier this year has lead to a plan to develop these two leases, which are to expire in January 2003. Development will include a new 1M drill site with possibly eighteen Kuparuk development wells and eight to twelve West Sak development wells.

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

The development of the Kuparuk and West Sak reservoirs in the expansion areas is possible because the existing KRU facilities and infrastructure will be shared. The production will be commingled with the rest of the KRU production gathering system, before any production passes through a custody transfer meter. ConocoPhillips proposes to allocate the production amongst the various streams based on an individual well test allocation methodology that is the same methodology that has been approved for the KRU.

Many of the expansion area leases are due to expire in the near future.

<u>Number of leases</u>	<u>Primary Term Expiration Date</u>
Six	November 11, 2002
Thirteen	January 31, 2003
Two	November 11, 2005

In order to minimize the risk of delayed development and lost opportunity to re-issue these leases in future bid rounds, ConocoPhillips has committed to work programs, paying bid deferral payments, and automatic contraction provisions to ensure the leases get back into future lease sales if they are not drilled and put on production in a timely manner.

IV. Findings and Decision

Considering the facts discussed in this document and the administrative record, I hereby find as follows:

1. The expansion of the KRU and the expansion of the KPA promote the conservation of all natural resources, promote the prevention of economic and physical waste, protect all parties of interest, and are necessary and advisable to protect the public interest. AS 38.05.180(p) and 11 AAC 83.303.
2. The unitized development and operation of the leases will reduce the amount of land and fish and wildlife habitat that would otherwise be disrupted by individual lease development. Reducing environmental impacts and minimizing interference with subsistence activity is in the public interest.
3. The KRU 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.
4. KRU Expansion Areas: The available well data and development plans justify the inclusion of the proposed lands within the KRU. Under regulations governing formation and operation of oil and gas units (11 AAC 83.301 – 11 AAC 83.395) and the terms and conditions under which these lands were leased from the State of Alaska, the leases listed in Attachment 1 are to be included in the expanded KRU area.
5. Extension Periods: The leases in KRU Expansion Area leases shall be included in the KRU for the periods specified below subject to the conditions and commitments that follow in this decision:

<u>Areas</u>	<u>Extension Period</u>
1, 2, and 3	From the effective date of this decision till June 1, 2005
4 and 5	From the effective date of this decision till June 1, 2007

6. Automatic Contraction from the KRU: The leases in the KRU Expansion Areas, not included in whole or in part within a participating area (PA) within the specified Extension Period will automatically contract from the KRU. The well spacing of 160 acres around each well along with paying quantities and engineering/geologic/geophysical data will be the basis for determining the area of a tract to be included in a PA. If conditions warrant the continuation of the leases within the KRU, the unit operator may then apply to defer the automatic contraction of the lands from the KRU.

7. Stipulations and lease amendments:
 - a. For including tracts 147, 148, 149, 152, 153, and 154:
 - i. ANS royalty settlements will not apply.
 - ii. Production from these tracts shall not be subject to Appendix I (Field Cost Allowance Settlement) of the KRUA.
 - iii. The following lease amendments will be made:
 1. Delete paragraphs 10 (minimum royalty), 12 (discovery royalty), 14 (RIK), 15 (RIV), and 16 (price)
 2. Add paragraphs 7 (apportionment of royalty), 10 (POD), 12 (directional drilling), 34 (definitions), 36 (Value), 37 (RIV), and 38 (RIK) from the most current lease form (#DOG 200204).
 - b. For including tracts 146, 150, 151, 155, 156, 158-167 in the KRU expansion:
 - i. Paragraph 36(b) of the most current lease form (#DOG 200204) shall be substituted in the lease agreements in lieu of the existing paragraph 36(b).
 - ii. Production from these tracts shall not be subject to Appendix I (Field Cost Allowance Settlement) of the KRUA.
 - c. In the event of the KRU contraction of any of the Expansion Area leases, tract owners waive the extension provisions of 11 AAC 83.140 and the notice and hearing provisions of 11 AAC 83.374.

8. KPA Expansion: The available geological and engineering data justify expanding the Kuparuk Participating Area (KPA) to include some of the proposed expansion tracts in Expansion Area 1 and the existing KRU. The data suggest that the acreage is underlain by hydrocarbons and known and reasonably estimated to be capable of production or contributing to production in sufficient quantities¹ to justify the formation of the KPA within the expanded KRU. Under the regulations governing formation and operation of oil and gas units (11 AAC 83.301 - 11 AAC 83.395) and the terms and conditions under which these lands were leased from the State of Alaska, the lands defined in Attachment 2 are to be included in the KPA.

¹ ConocoPhillips based the KPA boundary on their interpretation of net pay, and the area planned to be drilled under the proposed POD, and the area that may be in communication with the Kuparuk reservoir in the current KPA. ConocoPhillips has not shown that all of the area included in the KPA is known to be capable of producing or contributing to production of hydrocarbons in paying quantities. Division staff believes, in the case of the extension of the Kuparuk reservoir in the Palm area, that until the development drilling program progresses there is no reliable way to accurately map net pay or to judge with any certainty what acreage will contribute to production. ConocoPhillips has shown, however, that it is reasonable that all the tracts in the proposed extension of the KPA may produce or contribute to production by their willingness to propose and drill development wells in the tracts. For reasons expressed in Section III (C)(2), the division is willing to accept the expansion of the KPA as proposed with the provision that the KPA contracts per finding 6 on June 1, 2005.

9. The expansion of the KPA adequately divides costs and allocates produced hydrocarbons, and sets forth a development plan designed to maximize physical and economic recovery from the Kuparuk Reservoir within the approved KPA.
10. Tract Specific Conditions: The KRU and KPA expansions are approved subject to the following tract-specific conditions. If a given commitment is not honored by the specified date, the tract or tracts associated with those commitments will automatically be contracted from the unit.
- a. Tracts 148, 151 and 154 will each be segregated into two leases; all of the new leases will be committed to the unit and will have the same effective date and term and royalty as the original leases. Tract 148 will be split along a north-south line creating east and west halves of approximately equal parts. Tracts 151 and 154 will be split along east-west lines creating north and south halves of approximately equal parts. The division will assign new ADL numbers after this decision becomes effective.
 - b. Tract 148 and Tract 151 Commitments
 - i. By June 1, 2003:
 - 1. Pay \$95,309 for the bid deferral of Tract 148.
 - 2. Pay \$91,548 for the bid deferral of Tract 151.
 - 3. Notify the DNR of the commitment to drill a well on each of these tracts by June 1, 2004.

- ii. By June 1, 2004:
 - 1. If a well commitment was made for Tract 148(east or west half), pay \$95,309.
 - 2. If a well commitment was made for Tract 151(north or south half), pay \$91,548.
 - 3. Fulfill the drilling commitments.

- c. Expansion Area 2 Commitments
 - i. By June 1, 2003:
 - 1. Pay \$39,800 for the bid deferral of these tracts.
 - 2. Notify the DNR of the commitment to drill a well on any of the five tracts by June 1, 2004.
 - ii. By June 1, 2004:
 - 1. If a well commitment was made, pay \$39,800.
 - 2. Fulfill the drilling commitment.

- d. Expansion Area 3 Commitments
 - i. Drill the 2G well to a depth sufficient to evaluate the Kuparuk Formation with a target location within 1000 ft of the north boundary of ADL 385168 by June 1, 2003.
 - ii. Drill a second well (Cayman #1 Well) to a depth sufficient to evaluate the Kuparuk Formation with a target location within the Expansion Area 3 tracts [in the Kuparuk formation] by June 1, 2004.
 - iii. If the second well isn't drilled by June 1, 2004, pay \$25,488 by June 1, 2004 (This payment will not extend the leases past 6/1/2004, it is payment in arrears for the extension period 6/1/2003 –6/1/2004 and is due for non-performance in the drilling commitment in item ii).

- e. Expansion Area 4 (W. Sak) Commitments
 - i. Pay \$7,842/tract/yr on June 1, 2003 and all subsequent years on June 1st for each tract that is not included in a PA on June 1st of that year until the leases are included in a PA or contracted out of the unit.
 - ii. By June 1, 2003:
 - 1. Notify the DNR of the commitment to drill a well on Tract 160 or 161 to test the W. Sak Formation by June 1, 2004.
 - 2. Notify the DNR of the commitment to drill a well on Tract 162 or 163 to test the W. Sak Formation by June 1, 2004.
 - iii. Fulfill the drilling commitments by June 1, 2004.

- f. Expansion Area 5 (1M) Commitments
 - i. Notify the DNR by June 1, 2003 of the commitment to drill a well on one of the two tracts to test the Kuparuk Formation by June 1, 2004.

- ii. If the well commitment is made, pay \$15,151 by June 1, 2003 and all subsequent years on June 1st for each tract that is not included in a PA on June 1st of that year until the leases are either included in a PA or contracted out of the unit.
 - iii. Fulfill the drilling commitment by June 1, 2004.
11. Within 60 days of the notification of the new ADL numbers for the segregated leases created by splitting leases ADL 25543, 380108 and 25553, the Unit Operator shall submit to the State updated Exhibits A, B, and D to the Kuparuk River Unit Agreement reflecting the approved expansion areas as set out in this Findings and Decision.
12. This expansion of the Kuparuk River Unit Area will be effective as of 12:01 am October 1, 2002.

For these reasons and subject to the conditions and limitations noted, I hereby approve the Eighth Expansion of the Kuparuk River Unit and the Ninth Expansion of the Kuparuk Participating Area within the Kuparuk River Unit.

Mark D Myers
Division of Oil and Gas

Date

Attachment 1

Eighth KRU Expansion Area Leases

KRU Expansion Area 1 (Drill Site 3S)

Tract 146	ADL 380106 (T12N, R8E, UM, Secs 5, 6, 7, and 8)
Tract 147	ADL 025528 (T12N, R7E, UM, Secs 1, 2, 11, and 12)
Tract 148	ADL 025543 (T12N, R7E, UM, Secs 15, 16, 21, and 22)
Tract 149	ADL 025544 (T12N, R7E, UM, Secs 13, 14, 23, and 24)
Tract 150	ADL 380107 (T12N, R8E, UM, Secs 17, 18, 19, and 20)
Tract 151	ADL 380108 (T12N, R8E, UM, Secs 29, 30, 31, and 32)
Tract 152	ADL 025551 (T12N, R7E, UM, Secs 25, 26, 35, and 36)

KRU Expansion Area 2

Tract 153	ADL 025552 (T12N, R7E, UM, Secs 27, 28, 33, and 34)
Tract 154	ADL 025553 (T12N, R7E, UM, Secs 29, 30, 31, and 32)
Tract 155	ADL 389133 (T11N, R7E, UM, Secs 5, 6, 7, and 8)
Tract 156	ADL 389132 (T11N, R7E, UM, Secs 4 and 9)
Tract 157	ADL 390057 (T11N, R7E, UM, Secs 3 and 10)

KRU Expansion Area 3

Tract 164	ADL 385168 (T10N, R9E, UM, Secs 15, 16, 21, and 22)
Tract 165	ADL 385170 (T10N, R9E, UM, Secs 27, 28, 33, and 34)
Tract 166	ADL 385171 (T10N, R9E, UM, Secs 29, 30, 31, and 32)
Tract 167	ADL 380055 (T10N, R8E, UM, Secs 25, 26, 35, and 36)

KRU Expansion Area 4 (W. Sak)

Tract 160	ADL 385175 (T10N, R11E, UM, Secs 5, 6, 7, and 8)
Tract 161	ADL 380062 (T10N, R11E, UM, Secs 17, 18, 19, and 20)
Tract 162	ADL 380058 (T10N, R10E, UM, Secs 13, 14, 23, and 24)
Tract 163	ADL 385172 (T10N, R10E, UM, Secs 15, 16, 21, and 22)

KRU Expansion Area 5 (1M)

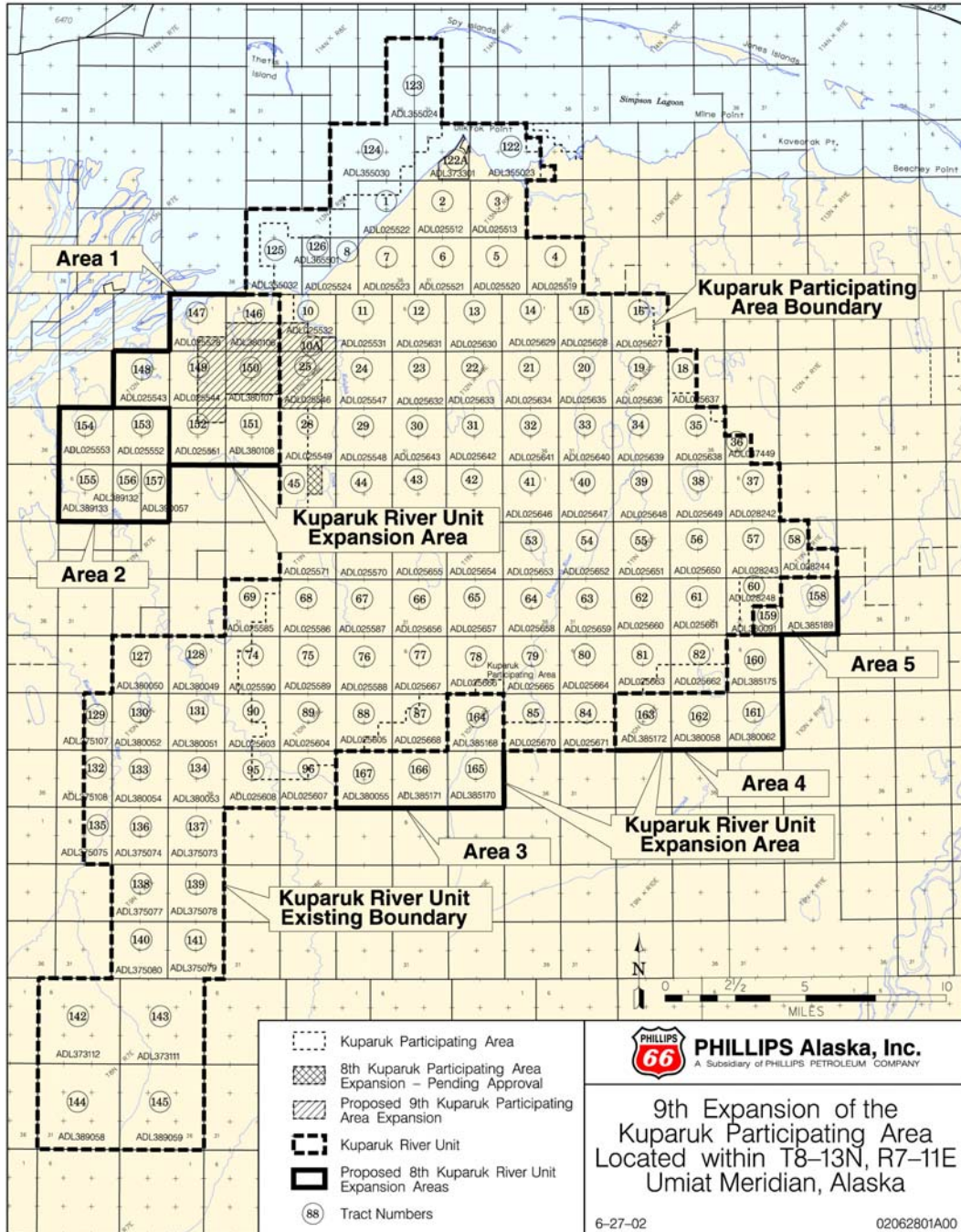
Tract 158	ADL 385189 (T11N, R11E, UM, Secs 27, 28, 33, and 34)
Tract 159	ADL 380091 (T11N, R11E, UM, Sec 32)

Attachment 2

Ninth KPA Expansion Area

Tract 10/10A	ADL 25532	(T12N, R8E, UM, Sec. 9 and 10:S½)
Tract 25	ADL 25546	(T12N, R8E, UM, Sec. 15, 16, 21 and 22:W½)
Tract 146	ADL 380106	(T12N, R8E, UM, Sec 7 and 8)
Tract 147	ADL 25528	(T12N, R7E, UM, Sec 12:S½)
Tract 149	ADL 25544	(T12N, R7E, UM, Sec 13 and 24)
Tract 150	ADL 380107	(T12N, R8E, UM, Sec 17, 18, 19: N½, 20:N ½)
Tract 152	ADL 25551	(T12N, R7E, UM, Sec 25:N½)

Attachment 3



Attachment 4 : Exhibit C – KPA Tract Allocation Schedule

Tract No.	Legal Description	ADL No.	Tract Participation	Cost Participation
1	T13N-R8E-UM Sec. 13: NE 1/4, S 1/2 Sec. 14: S 1/2 Sec. 23: All Sec. 24: All	25522	0.496286	0.496286
2	T13N-R9E-UM Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	25512	1.556543	1.556543
3	T13N-R9E-UM Sec. 15: All Sec. 16: All Sec. 21: All Sec. 22: All	25513	1.609480	1.609480
4	T13N-R9E-UM Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: All	25519	1.258814	1.258814
5	T13N-R9E-UM Sec. 27: All Sec. 28: All Sec. 33: All Sec. 34: All	25520	1.542936	1.542936
6	T13N-R9E-UM Sec. 29: All Sec. 30: All Sec. 31: All Sec. 32: All	25521	1.410477	1.410477
7	T13N-R8E-UM Sec. 25: All	25523	1.354258	1.354258

	Sec. 26: All Sec. 35: All Sec. 36: All			
8	T13N-R8E-UM Sec. 27: All Sec. 33: All Sec. 34: All	25524	0.639240	0.639240
10	T12N-R8E-UM Sec. 3: All Sec. 4: E 1/2 Sec. 9: All Sec. 10: N 1/2, SW 1/4	25532	0.317845	0.317845
10A	T12N-R8E-UM Sec. 10: SE 1/4	25532	0.008431	0.008431
11	T12N-R8E-UM Sec. 1: All Sec. 2: All Sec. 11: All Sec. 12: All	25531	1.103268	1.103268
12	T12N-R9E-UM Sec. 5: All Sec. 6: All Sec. 7: All Sec. 8: All	25631	1.268424	1.268424
13	T12N-R9E-UM Sec. 3: All Sec. 4: All Sec. 9: All Sec. 10: All	25630	1.741270	1.741270
14	T12N-R9E-UM Sec. 1: All Sec. 2: All Sec. 11: All Sec. 12: All	25629	1.573996	1.573996
15	T12N-R10E-UM Sec. 5: All Sec. 6: All Sec. 7: All Sec. 8: All	25628	0.854378	0.854378

16	T12N-R10E-UM Sec. 3: SW 1/4 Sec. 4: All Sec. 9: All Sec. 10: NW 1/4, S 1/2	25627	0.124817	0.124817
18	T12N-R10E-UM Sec. 23: S 1/2	25637	0.000009	0.000009
19	T12N-R10E-UM Sec. 15: All Sec. 16: All Sec. 21: All Sec. 22: All	25636	0.384106	0.384106
20	T12N-R10E-UM Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	25635	1.778491	1.778491
21	T12N-R9E-UM Sec. 13: All Sec. 14: All Sec. 23: All Sec. 24: All	25634	1.811145	1.811145
22	T12N-R9E-UM Sec. 15: All Sec. 16: All Sec. 21: All Sec. 22: All	25633	2.021891	2.021891
23	T12N-R9E-UM Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	25632	2.909451	2.909451
24	T12N-R8E-UM Sec. 13: All Sec. 14: All Sec. 23: All Sec. 24: All	25547	0.901925	0.901925
25	T12N-R8E-UM Sec. 15: All Sec. 16: All	25546	0.133703	0.133703

	Sec. 21: All Sec. 22: All			
28	T12N-R8E-UM Sec. 27: All Sec. 34: All	25549	0.017257	0.017257
29	T12N-R8E-UM Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: All	25548	0.539290	0.539290
30	T12N-R9E-UM Sec. 29: All Sec. 30: All Sec. 31: All Sec. 32: All	25643	3.197998	3.197998
31	T12N-R9E-UM Sec. 27: All Sec. 28: all Sec. 33: All Sec. 34: All	25642	3.767782	3.767782
32	T12N-R9E-UM Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: All	25641	3.295234	3.295234
33	T12N-R10E-UM Sec. 29: All Sec. 30: All Sec. 31: All Sec. 32: All	25640	3.115036	3.115036
34	T12N-R10E-UM Sec. 27: All Sec. 28: All Sec. 33: All Sec. 34: All	25639	0.941394	0.941394
35	T12N-R10E-UM Sec. 25: NW 1/4, S 1/2 Sec. 26: All Sec. 35: All Sec. 36: All	25638	0.240323	0.240323

36	T12N-R11E-UM Sec. 31: All	47449	0.003664	0.003664
37	T11N-R11E-UM Sec. 5: All Sec. 6: All Sec. 7: All Sec. 8: All	28242	0.122618	0.122618
38	T11N-R10E-UM Sec. 1: All Sec. 2: All Sec. 11: All Sec. 12: All	25649	0.921172	0.921172
39	T11N-R10E-UM Sec. 3: All Sec. 4: All Sec. 9: All Sec. 10: All	25648	1.257159	1.257159
40	T11N-R10E-UM Sec. 5: All Sec. 6: All Sec. 7: All Sec. 8: All	25647	2.022966	2.022966
41	T11N-R9E-UM Sec. 1: All Sec. 2: All Sec. 11: All Sec. 12: All	25646	4.044518	4.044518
42	T11N-R9E-UM Sec. 3: All Sec. 4: All Sec. 9: All Sec. 10: All	25645	4.593703	4.593703
43	T11N-R9E-UM Sec. 5: All Sec. 6: All Sec. 7: All Sec. 8: All	25644	3.029854	3.029854
44	T11N-R8E-UM Sec. 1: All	25569	1.034464	1.034464

	Sec. 2: All Sec. 11: All Sec. 12: All			
45	T11N-R8E-UM Sec. 3: All Sec. 9: SE 1/4 Sec. 10: All	25568	0.544486	0.544486
49	T11N-R8E-UM Sec. 15: All Sec. 16: E 1/2 Sec. 21: All Sec. 22: All	25571	0.869612	0.869612
50	T11N-R8E-UM Sec. 13: All Sec. 14: All Sec. 23: All Sec. 24: All	25570	1.853093	1.853093
51	T11N-R9E-UM Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	25655	3.086200	3.086200
52	T11N-R9E-UM Sec. 15: All Sec. 16: All Sec. 21: All Sec. 22: All	25654	2.361664	2.361664
53	T11N-R9E-UM Sec. 13: All Sec. 14: All Sec. 23: All Sec. 24: All	25653	2.979293	2.979293
54	T11N-R10E-UM Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	25652	3.003992	3.003992
55	T11N-R10E-UM Sec. 15: All Sec. 16: All	25651	1.969269	1.969269

	Sec. 21: All Sec. 22: All			
56	T11N-R10E-UM Sec. 13: All Sec. 14: All Sec. 23: All Sec. 24: All	25650	1.145058	1.145058
57	T11N-R11E-UM Sec. 17: All Sec. 18: All Sec. 19: All Sec. 20: All	28243	0.456340	0.456340
58	T11N-R11E-UM Sec. 16: All Sec. 21: All	28244	0.031617	0.031617
60	T11N-R11E-UM Sec. 30: W 1/2 Sec. 31: W 1/2	28248	0.113993	0.113993
61	T11N-R10E-UM Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: All	25661	0.766638	0.766638
62	T11N-R10E-UM Sec. 27: All Sec. 28: All Sec. 33: All Sec. 34: All	25660	1.358709	1.358709
63	T11N-R10E-UM Sec. 29: All Sec. 30: All Sec. 31: All Sec. 32: All	25659	2.157991	2.157991
64	T11N-R9E-UM Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: All	25658	1.811422	1.811422
65	T11N-R9E-UM	25657	2.083998	2.083998

	Sec. 27: All Sec. 28: All Sec. 33: All Sec. 34: All			
66	T11N-R9E-UM Sec. 29: All Sec. 30: All Sec. 31: All Sec. 32: All	25656	1.865674	1.865674
67	T11N-R8E-UM Sec. 25: All Sec. 26: All Sec. 35: All Sec. 36: All	25587	1.126009	1.126009
68	T11N-R8E-UM Sec. 27: All Sec. 28: All Sec. 33: All Sec. 34: All	25586	0.955917	0.955917
69	T11N-R8E-UM Sec. 29: SE 1/4 Sec. 32: NE 1/4, S 1/2	25585	0.101462	0.101462
74	T10N-R8E-UM Sec. 5: All Sec. 6: SE 1/4 Sec. 7: E 1/2 Sec. 8: All	25590	0.238408	0.238408
75	T10N-R8E-UM Sec. 3: All Sec. 4: All Sec. 9: All Sec. 10: All	25589	0.719708	0.719708
76	T10N-R8E-UM Sec. 1: All Sec. 2: All Sec. 11: All Sec. 12: All	25588	0.865641	0.865641
77	T10N-R9E-UM Sec. 5: All Sec. 6: All	25667	1.162653	1.162653

	Sec. 7: All Sec. 8: All			
78	T10N-R9E-UM Sec. 3: All Sec. 4: All Sec. 9: All Sec. 10: N 1/2	25666	0.688684	0.688684
79	T10N-R9E-UM Sec. 1: All Sec. 2: All Sec. 11: All Sec. 12: All	25665	0.903082	0.903082
80	T10N-R10E-UM Sec. 5: All Sec. 6: All Sec. 7: All Sec. 8: All	25664	1.608419	1.608419
81	T10N-R10E-UM Sec. 3: All Sec. 4: All Sec. 9: All Sec. 10: NW 1/4	25663	0.983353	0.983353
82	T10N-R10E-UM Sec. 1: All Sec. 2: All	25662	0.034126	0.034126
84	T10N-R10E-UM Sec. 17: All Sec. 18: All	25671	0.142567	0.142567
85	T10N-R9E-UM Sec. 13: All Sec. 14: All	25670	0.103672	0.103672
87	T10N-R9E-UM Sec. 18: N 1/2, SW 1/4	25668	0.194038	0.194038
88	T10N-R8E-UM Sec. 13: All Sec. 14: All Sec. 23: All Sec. 24: NW 1/4	25605	0.265223	0.265223

89	T10N-R8E-UM Sec. 15: All Sec. 16: All Sec. 21: All Sec. 22: All	25604	0.256534	0.256534
90	T10N-R8E-UM Sec. 17: All Sec. 20: NE 1/4, S 1/2	25603	0.047156	0.047156
95	T10N-R8E-UM Sec. 29: All	25608	0.141139	0.141139
96	T10N-R8E-UM Sec. 27: N 1/2 Sec. 28: All	25607	0.171915	0.171915
122	T13N-R9E-UM Sec. 3: All Sec. 4: All Sec. 8: All, excluding T&S lands and USS 4275 Sec. 9: All Sec. 10: All Sec. 11: W 1/2	355023	0.435426	0.435426
122A	T13N-R9E-UM USS 4275 Include Tract C, ATS 1259 Exclude Tract B, ATS 1259 Exclude Tract A, ATS 1289	373301	0.301493	0.301493
123	T13N-R9E-UM Sec. 5: All, excluding USS 4275 Sec. 6: SE 1/4 Sec. 7: All, excluding USS 4275 Sec. 8: T&S lands	355024	0.059905	0.059905
124	T13N-R8E-UM Sec. 12: SE 1/4 Sec. 15: SE 1/4	355030	0.001047	0.001047
125	T13N-R8E-UM Sec. 19: SE 1/4 Sec. 20: SW 1/4 Sec. 22: All Sec. 29: All Sec. 30: E 1/2	355032	0.251233	0.251233

	Sec. 32: All			
126	T13N-R8E-UM Sec. 28: All	365501	0.033727	0.033727
146	T12N-R8E-UM Sec. 7: All Sec. 8: All	380106	0.163177	0.163177
147	T12N-R7E-UM Sec. 12: S 1/2	25528	0.030003	0.030003
149	T12N-R7E-UM Sec. 13: All Sec. 24: All	25544	0.246230	0.246230
150	T12N-R8E-UM Sec. 17: All Sec. 18: All Sec. 19: N 1/2 Sec. 20: N 1/2	380107	0.327843	0.327843
152	T12N-R7E-UM Sec. 25: N 1/2	25551	0.035545	0.035545
Total			100.000000	100.000000