

FINDINGS AND DECISION

of the Director, Division of Oil and Gas

APPROVING THE
ROCK FLOUR UNIT APPLICATION

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

November 22, 2005

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- Attachments:
1. RFU Exhibit A, Tract Description and Ownership Schedule
 2. RFU Exhibit B, Map of the Rock Flour Unit
 3. Exhibit G, Plan of Exploration
 4. Rock Flour Unit Agreement
 5. Rock Flour Unit Agreement Amendments to June, 2002 State Model Form

INTRODUCTION AND BACKGROUND

The proposed Rock Flour Unit (RFU) is located on the North Slope of Alaska adjacent to the Eastern Boundary of the Kuparak River Unit. Eni Petroleum Exploration Co. Inc., (ENI) filed the application with the Division of Oil and Gas (Division) on September 7, 2005. ENI is the sole working interest owner of the leases and ENI US Operating Co., Inc is the proposed RFU Operator (Operator).

The proposed unit area encompasses 10,843 acres within five State of Alaska (State) oil and gas leases. The RFU will be administered by the State under the terms of the Rock Flour Unit Agreement (Agreement). The Agreement conforms and modifies all State oil and gas leases within the unit area so that the unit operator can explore and develop on a unit-wide basis instead of on a lease-by-lease basis.

The leases and their corresponding lease number, acreage, state royalty interest, lease issue date, and lease expiration date are shown as follows in Table 1. The leases in the proposed unit area retain either a 16.66667% or 12.5% royalty to the State and carry seven-year primary terms.

Table 1 – Lease Data

<u>ADL</u>	<u>Acres</u>	<u>State Royalty Interest %</u>	<u>Lease Issue Date</u>	<u>Lease Expiration Date</u>
390696	640	16.66667	7-01-05	6-30-12
390695	2560	16.66667	7-01-05	6-30-12
390688	2560	16.66667	7-01-05	6-30-12
389117	2560	12.50	12-1-98	11-30-05
389118	2523	12.50	12-1-98	11-30-05

ADL's 389117 and 389118 were issued on lease form DOG 9609(Rev 6/97). On October 11, 2005, ENI agreed with the Division to replace paragraph 36(b) in the DOG 9609(Rev 6/97) lease form with paragraph 36(b) from the current lease form DOG 200204(Rev 10/03). Paragraph 36(b) from the current lease form DOG 200204(Rev 10/03) states the following:

“If oil, gas, or unitized substances are sold away from the leased or unit area, the term “field price” in subparagraph (a) above, will be the cash value of all consideration received by the lessee or other producer from the purchaser of the oil, gas, or unitized 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 for marine transportation” are defined in 11 AAC 83.229 (a), (b)(2), and (c)-I.”

APPLICATION FOR THE FORMATION OF THE ROCK FLOUR UNIT

ENI submitted an application (Application) to form the RFU and paid the \$5,000.00 unit application filing fee on September 7, 2005. ENI's Application included: a proposed RFU

Agreement; Exhibit A to the Agreement, legally describing the proposed unit area, its leases, and ownership interests; Exhibit B to the Agreement, a map of the proposed unit; and Exhibit G to the Agreement, the proposed Plan of Exploration (POE). ENI provided evidence that they had invited all proper parties to join the proposed RFU. In addition, ENI submitted a RFU Operating Agreement and technical data supporting the Application.

ENI amended its Application on October 11, 2005 to remove 3 tracts (ADL 390486, 390487, and 390488) from the Application. ENI noted that any prior references to other Working Interest Owner's (WIO) in their previously submitted Unit documents should be deleted. As of November 30, 2005, ENI is the sole working interest owner of the leases in the RFU and ENI US Operating Co., Inc is the RFU Operator (Operator).

The Division determined that the Application was complete on September 8, 2005, and published a unit application notice in the "Anchorage Daily News" and in the "Arctic Sounder" on September 15, 2005. The Division also posted notices on the State's online public notice web page, the Department's public notices page, and the Division's web page. The Division provided copies of the public notice to the North Slope Borough Mayor and Assembly, the Arctic Slope Regional Corporation, the Cities of Barrow and Nuiqsut, the Kuukpik Corporation, and other interested parties in compliance with 11 AAC 83.311. The Division also provided public notices to the Alaska Department of Environmental Conservation, the Alaska Department of Fish and Game, and to post offices, libraries, and radio stations in the area. The notice invited interested parties and members of the public to submit comments by October 15, 2005. Two comments were received on the Application.

The first comment was from ConocoPhillips Alaska Inc., (CPAI) dated September 27, 2005. CPAI requested that the substance of its comment be kept confidential under AS 38.05.035(a)(9), and the comment neither supported nor opposed formation of the RFU.

The second comment was received on October 10, 2005, from Mr. Rick Wagner, an Alaska resident. Mr. Wagner objected to the unit formation, indicating that it does not comply with Alaska Statutes, DNR regulations, as well as the Alaska Constitution, and that his interest in ADL 380091 will not be fully protected under 11 AAC 83.303 as well as other State laws and unit agreement provisions. Mr. Wagner demanded that his real property rights and correlative rights be protected by the State of Alaska as mandated by law. The Division responded on October 10, 2005, that ADL 380091 expired on June 1, 2004 and that Mr. Wagner's interest in ADL 380091 expired along with the lease.

The RFU Agreement requires that ENI file unit plans that describe the activities for exploration of the proposed unit area. The Operator must consider how it can best explore and develop the resources underlying the entire unit area, without regard to internal lease boundaries. ENI submitted a POE with its Application. That submittal was subsequently modified by the Division and is shown as Attachment #3, Exhibit G, to this decision. On October 11, 2005 ENI indicated that the modified POE is acceptable to ENI.

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 (Director).

The Director will approve the Application upon finding that it will: 1) promote the conservation of all natural resources; 2) promote the prevention of economic and physical waste; and 3) provide for the protection of all parties of interest, including the State in accordance with 11 AAC 83.303(a). Subsection .303(b) sets out six factors that the Director will consider in evaluating the Application. A discussion of the subsection .303(b) criteria, as they apply to the Application, is set out directly below, followed by the Director's findings relevant to the subsection .303(a) finding and the Director's conditional approval of the Application.

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

Alaska statutes require the 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). The DNR develops lease stipulations through the lease sale process to mitigate the potential environmental, social and cultural impacts of oil and gas activity.

The leases that are proposed to be included in the RFU contain stipulations designed to protect the environment and address concerns regarding impacts to the area's fish and wildlife species, habitats, and subsistence activities. The most recent areawide mitigation measures will be applied uniformly across the proposed unit area. These include seasonal restrictions on specific activities in certain areas that reduce the impact on bird, fish, and mammal populations. They address 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 geophysical hazards. All lease operations are also 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.

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. With these mitigation measures, the anticipated exploration and development related activity is not likely to significantly impact bird, fish, and mammal populations. Further, in this case, the anticipated activity under the new RFU will impact habitat and subsistence activity less than if the lessees developed the resources on an individual lease basis.

Unitized exploration, development and production will also minimize surface impact and including these leases in the RFU will not result in additional restrictions or limitations on access to surface lands or to public and navigable waters.

State unitization regulations require the unit operator to have an approved Unit Plan of Operations before any field work may begin (11 AAC 83.346). Plans 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 and include plans for rehabilitation of the unit area. The Plan of Operations permit undergoes a multi-agency review that includes a public notice and 30-day comment period. When the operator proposes to further explore and develop the unit area with any increase in the approved footprint, it must submit a new Unit Plan of Operations, and the Division will ensure that it complies with the lease stipulations and lessee advisories developed for the most recent North Slope Areawide lease sale.

The administrative approval of the RFU has no environmental impact itself because it does not authorize the lessee or Unit Operator to conduct 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. The Division's approval of the POE is only one step in the process of obtaining permission to drill wells and develop the known reservoirs within the unit area. The Unit Operator must still obtain approval of a Unit Plan of Operations and obtain various permits from state agencies before initiating activities.

Therefore, the environmental costs and benefits of unitizing the proposed unit area justify approval of the Application under the section .303(b)(1) criteria.

2. The Geological and Engineering Characteristics of the Reservoir

The State's regulations require that a unit should encompass the minimum area needed to include all or part of one or more oil or gas reservoirs, or prospective accumulations. 11 AAC 83.356. DNR technical staff has evaluated the data provided by the Unit Operator, and all pertinent data available in order to determine if the proposed unit area meets those criteria. The confidential data and information supplied by the Operator included geologic cross sections, structure maps, electric log analyses and interpreted seismic data. The Division's assessment of this data and information supports the approval of the proposed unit area.

The proposed Unit will encompass 10,843 acres of State land just south and west of the existing Kuparuk Unit on the North Slope, Alaska. The prospective intervals to be tested by this exploration program may include but are not limited to the Cretaceous Ugnu sandstones, Cretaceous West Sak/Schrader Bluff sandstones and the Kuparuk C sand.

The Upper Cretaceous West Sak/Schrader Bluff Sandstones are a primary objective. The *Rock Flour #1* well, when taken in regional context with exploration drilling on the southeast flank of the Colville High and delineation/development drilling at Kuparuk West Sak establishes an overall prospective trend for continued West Sak Sand reservoir quality and thickness to the south/southeast over the proposed RFU. Based on the bottom-hole temperature (99°F) in the *Rock Flour #1* well there is the potential to significantly improve the viscosity/mobility characteristics of the crude within the West Sak reservoir interval that would be encountered in the area of this proposed unit. The nearby Kuparuk West Sak Field average reservoir temperature ranges from 65°-70°F.

The Upper Cretaceous Lower Ugnu Sandstones are also a primary objective. The *Rock Flour #1*, *West Sak River State #6*, and KRU West Sak development wells highlight an overall prospective trend for continued Ugnu Sand reservoir quality and thickness to the south/southeast over the proposed RFU. As is the case for the West Sak/Schrader Bluff interval described above, the shallower Ugnu sandstone in this area should be at depths that would result in a warmer reservoir temperature and thus a significantly improved viscosity and resultant mobility of oil within the reservoir interval. The Ugnu sands are expected to be encountered at roughly the equivalent subsea depth and temperature to the up dip producing West Sak D sandstones. Production testing of the Ugnu sandstones could potentially advance the current understanding of its regional commercial viability from both a reservoir deliverability and operational producibility standpoint.

Lower Cretaceous Kuparuk C Sandstone is a secondary objective. The third interval that will be evaluated within the proposed RFU is the Lower Cretaceous (Hauterivian) Kuparuk C sandstone. The *IM-17* well, located immediately north of the proposed Unit, was drilled in early 2002 and encountered good reservoir quality Kuparuk C sandstone. This well tested at 2,320 mcf/d and 1,450 bopd of 23.6°API crude and is currently a suspended producer within the Kuparuk River Unit. Based on the seismic character, structural mapping, current well control, and an understanding of the range of oil/water contacts in the area the best potential for the Kuparuk C sands may be limited to the western part of the proposed unit. There is also the risk of encountering heavy oil or tar based upon what has been seen with other wells in this area.

An assessment of the potential oil saturations that might be encountered was accomplished by constructing Pickett plots for the wells in the area that had both a calibrated porosity log and a resistivity log through the Schrader Bluff interval. This analysis yielded a R_{wa} map that was then used to calculate water saturation values by area and stratigraphic zone. These saturation values were then used to estimate the range of oil saturations and resultant net pay estimates covering the proposed RFU.

This oil saturation data from petrophysical analysis was then integrated with available pressure gradient information, offset field reservoir parameters, defined low possible oil levels and high possible water contact levels from the surrounding Ugnu/West Sak/Schrader Bluff trend. These analyses, when integrated with possible geologic controls, yielded a range of possible oil/water contacts from -4,120 to -4,170' (subsea) for the different Ugnu/West Sak/Schrader Bluff prospective intervals. Low known oil is established by the *Rock Flour #1* well (-4,120 ss) and high proven water is defined by the *Arco Hemi Springs #1* well (-4,200 ss) for this portion of the West Sak/Schrader Bluff trend. The proposed exploration program is intended to address remaining uncertainties associated with the West Sak/Schrader Bluff resource in this portion of the trend.

The range of West Sak/Schrader Bluff oil mobility parameters are derived from published reports of oil produced from KRU offset wells. The range of produced oil gravity is 17-21° API, with oil viscosity in the range of 20-130 centipoise. It is uncertain what the lower reservoir depth and resultant increase in reservoir temperature (95°F) will have on the overall saturation, quality of oil and commerciality from these prospective intervals. Overall deliverability and

commerciality of the Ugnu/West Sak/Schrader Bluff reservoirs is one of the key uncertainties to be addressed by the POE for the proposed RFU.

The Cretaceous Kuparuk C sand in the western portion of the proposed unit has proven productive in the currently suspended *KRU IM-17* well, which directly offsets the proposed Unit. The current oil/water contact (estimated at -6,650 ss) and associated structural trap definition may define any potential Kuparuk C reservoir within the proposed RFU. Ultimately the size and distribution of any prospective Kuparuk C prospect within the boundaries of the proposed RFU will be constrained based on the preservation of Kuparuk C sandstones in depositional lows (influenced by faulting or inherited paleogeography) and dependent upon what oil/water contact(s) are present in the area coupled with the distribution of heavy oil/tar.

Therefore, the geological, geophysical, and engineering data justifies approval of the Application under the section .303(b)(3) criteria.

3. Prior Exploration Activities in the Unit Area

The initial phase of exploration in the vicinity of the proposed RFU began in 1969 with the drilling of the *Mobil Hemi State #3-09-11* (Sec 3, T9N, R11E). This well was associated with some of the earliest North Slope exploration activity that resulted in the discovery and delineation of Prudhoe Bay. The well was drilled to a total depth (TD) of 6,032', bottoming in the Middle Cretaceous Brookian section. Cores were cut in the West Sak and Brookian section but only 13 ft of core recovered in the Lower Brookian. Conventional sidewall cores were also taken in the West Sak interval in the oil saturated sands with fair to good shows. The well was plugged and abandoned without testing.

The next phase of exploration drilling came during the mid 1970's and was associated with delineation of the southeast flank of the Colville High. This program focused on Cretaceous Kuparuk sand objectives following the discovery of the Kuparuk Field to the northwest. The *West Sak River #5* (Sec 11, T10N, R10E) was drilled in March of 1975 to a TD of 7,000' TVD. The well is located approximately 3 ½ miles west of the proposed Rock Flour Unit. Excellent shows were noted in the West Sak interval during drilling. The Kuparuk C sand was cored and tested in the well. The test recovered gas and heavy oil cut mud. This well was followed by the *West Sak River #6* (Sec 29, T11N, R11E), approximately 1 mile northwest of the proposed Unit. The well drilled to a 7,500' TD with good mud log shows in the Kuparuk sand section, but the well tested water on DST. Additional mud log shows were noted in the West Sak interval.

During the mid-1980's, a more focused exploration program was undertaken in this area, targeting the potential of the West Sak sand section. A West Sak Pilot water flood project was undertaken in 1983, located 3 miles to the west, and focused on exploiting West Sak heavy oil reserves identified from previous exploration activity. Pricing and needed development technologies precluded further development of the West Sak resource at that time. This pilot area would later serve as the basis for the West Sak 1J- Pad development currently underway. Other delineation activities for the area continued through the 1980's, with the drilling of the *Hemi Springs State #1* (1984), the *Kuparuk River Unit #26* (1985) and the *Winter Trails #1* (1986). *The Arco Hemi Springs State #1* (sec12, T10N, R11E), located 1 ½ miles to the east,

was drilled to 10,370' TVD. The well was a dual Triassic/Cretaceous test that penetrated wet Ivishak sands and tested gas with oil from the Kuparuk C sand. The West Sak interval had marginal shows with an apparent oil/ water contact (~ -4,200ss) within one of the upper Schrader Bluff sands. ARCO conducted two production tests in lower sands of the West Sak Interval but both recovered water. The *KRU #26* well (Sec11, T9N, R10E), located 2 miles to the southwest, was drilled to 7,300' TVD. It encountered tight sands within the Cretaceous Kuparuk C and additional sidewall cores were taken from the West Sak interval with some fair to excellent shows. The well was plugged and abandoned without testing. The *Winter Trails #1* (Sec 22, T10N, R10E), located 2 miles west of the proposed unit was drilled to a total depth of 4,015'. Oil saturated sands were encountered within both the Ugnu and West Sak intervals. Core descriptions from the West Sak interval had sands with fair to excellent oil shows. Formation Tests were also taken but the well was plugged without testing. Both wells are notable because they encountered additional prospective sand above the West Sak D that is better developed to the south of existing production.

Exploration continued through the 1990's and into 2000 with the drilling of the *Rock Flour #1* (1991) and the *KRU IM-17* (2002). The *Rock Flour #1* (Sec 4, T10NE, R11E) is located within the proposed RFU and was drilled to a total depth of 9,131' TVD. The well encountered wet Ivishak sands at total depth, while the Cretaceous Kuparuk C had hydrocarbon shows, but appeared wet by log analysis/Formation Tests and the West Sak interval had oil saturated sands by sidewall core with encouraging FT's and log calculated saturations. This well defines the prospective West Sak section for the proposed RFU. The *KRU IM-17* (BHL; Sec 21, T11N, R11E), located ½ mile to the North, was drilled to 7,009' TVD where it tested in the Kuparuk C producing at a rate of 1,450 bopd (23.6° API oil) and 2,320 mcf. The well is currently suspended, however, in the 8th expansion of the KRU (2002), ConocoPhillips described plans to add a new 1M drill site "with possibly eighteen Kuparuk development wells and eight to twelve West Sak development wells." The 1M pad location is in a structurally similar position to the West Sak/Schrader Bluff section in the proposed RFU.

Current 3D seismic coverage over area of unit includes: the EBA3D acquired by Phillips Petroleum (permit MLUP-00-005-02) and the KUP95 acquired by ARCO (permit MLUP-95-002-01).

The exploration history of the proposed unit area justify approval of the Application under the section .303(b)(3) criteria.

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

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

The POE, attached to this decision as Attachment 3, Exhibit G, sets out a timely sequence of exploration activities that will facilitate the ultimate development and production of the reservoir, if oil and gas are discovered in commercial quantities. Furthermore, completion of the

proposed exploration activities as scheduled during the five-year initial term will satisfy the performance standards and diligence requirements that the State and ENI. The Division and the WIO have agreed that a failure to timely perform the various components set out in the POE would constitute a default under the Agreement. The POE provides for the WIO to make lease delay payments and terminate the Unit if certain milestones are not met.

The POE protects the interests of the public and the State by committing the Operator to drill wells and secure appropriate partnerships. The POE, with the agreed-to terms and conditions, ensures that the lease extensions resulting from unitization under 11 AAC 83.336 continue as long as the applicants proceed diligently with exploration and development of the unit area and the State is compensated for lease payment deferrals.

Therefore, the plans for exploration of the proposed unit area justify approval of the Application under the section .303(b)(4) criteria.

5. The Economic Costs and Benefits to the State

Approval of the RFU could result in both short-term and long-term economic benefits to the State. The additional assessment of the hydrocarbon potential of the leases will create jobs and in-state economic activity in the short-term and if the exploration activity is successful, the State will enjoy royalty and tax revenues as well as employment opportunities over the long-term.

The primary terms of the some of the leases are due to expire on November 30, 2005, but it is in the best interest of the State to form the unit to facilitate the exploration efforts to stimulate economic development and create a greater revenue opportunity through royalty sharing.

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.

Therefore, the economic costs and benefits to the State of the proposed unit justify approval of the Application under the section .303(b)(5) criteria.

6. Amendments to the Standard Unit Agreement

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

As a part of the Application, ENI submitted a unit agreement using the State Only Model Form, dated June 2002. The submission was modified at the Division's request. The final version of

the Agreement is shown as attachment #4. Modifications requested by the Division are shown in attachment #5. These modifications were accepted by ENI on October 26, 2005.

FINDINGS

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

1. Promote the Conservation of All Natural Resources

The unitization of oil and gas reservoirs is 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 waste of natural resources. 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 preserves and protects surface and subsurface resources.

The formation of the proposed RFU 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 formation of the unit will allow this area to be comprehensively and efficiently explored and developed. Adoption of an Operating Agreement and Plan of Exploration governing that production will help avoid unnecessary duplication of development efforts that utilize air, water, gravel, fuel, money and people.

Exploring and developing the leases under a unified Plan of Exploration and Plan of Development will reduce the incremental environmental impact of the additional production.

2. Promote 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 has resolved 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 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 WIO to decide well spacing requirements, scheduling, re-injection 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 as a stand-alone project or in combination with more productive leases. Facility consolidation saves capital and promotes better reservoir management. 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 WIO of the proposed unit leases has signed the Agreement and the Unit Operating Agreement. By combining the efforts of multiple leases into a single effort, infrastructure can be shared, which eliminates the need to construct stand-alone facilities to process the volume of recoverable hydrocarbons that may be discovered on each individual lease, thus preventing economic and physical waste. Given the overall North Slope economics, stand-alone facilities on each individual lease would most likely be uneconomic.

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

The proposed unit seeks to protect the economic interests of the WIO of the reservoirs in the unit, as well as the royalty owners. Combining interests and operating under the terms of the Unit Agreement and the Unit Operating Agreement assures each individual working interest owner an equitable allocation of costs and revenues commensurate with the value of their leases. Although there is currently only one WIO in the proposed unit, the ownership structure is subject to change.

Because hydrocarbon recovery from the unitized area will more likely be maximized, the state's economic interest is protected. Diligent development and exploration under a single approved unit plan without the complications of competing leasehold interests is in the state's interest. It promotes efficient evaluation and development of the state's resources, while at the same time 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. Operating under the terms and conditions of the lease and Unit 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, the inclusion of the lands in the unit promotes the state's interest in the evaluation and development of those lands sooner rather than later. Although the proposed RFU is adjacent to the Eastern Boundary of the Kuparak River Unit, development has previously not been pursued. Additional drilling, testing, and exploration will define the presence and lateral extent of paying quantities within the RFU, and provide for the protection of all parties in interest.

DECISION

- 1) For the reasons discussed above, I hereby approve the RFU Application subject to the conditions specified herein, effective November 22, 2005. The RFU Agreement and the POE become effective as of 12:01 a.m. on the day following approval by the Director.
- 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. The formation of the new unit will not diminish access to public and navigable waters beyond those limitations imposed by law or already contained in the oil and gas leases.
- 3) 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, the leases listed in Attachment 1 and shown on Attachment 2 are included in the RFU.
- 4) The Operator shall submit updated Exhibits A and B to the RFU Agreement within 30 days following approval by the Commissioner of any expansion or contraction of the Unit Area under Article 13 or any change of the Working Interest or Royalty Interest in any Unit Tract.
- 5) In accordance with Article 8.1.1 of the Agreement and 11 AAC 83.341, an annual report is due that describes the status of projects undertaken and the work completed during that year of the POE, as well as any proposed changes to the plan. The update to the POE must describe the applicant's proposed exploration activities, including the bottom-hole locations and depths of proposed wells, and the estimated date drilling will commence. All exploration operations must be conducted under an approved unit plan of exploration.
- 6) The unit operator shall submit a Second Plan of Exploration to the Commissioner at least 60 days before the POE expires. Alternatively, the unit operator shall request approval of the first Plan of Development, if appropriate, at least 90 days before the POE expires. 11 AAC 83.341(b) and .343(c).
- 7) ENI US Operating Company Inc., is designated Unit Operator.
- 8) By June 1, 2006 ENI shall complete seismic purchase and processing and commit to drill a well prior to June 1, 2007, or the RFU will automatically terminate on June 1, 2006, and ENI shall make a lease delay payment of \$10,814 on June 1, 2006.
- 9) If the unit does not terminate on June 1, 2006, by June 1, 2007 ENI shall complete drilling of an exploratory well within the RFU penetrating the West Sak/Schrader, Ugnu, or Kuparak formation, or the unit will automatically terminate on June 1, 2007, and ENI shall make a lease delay payment of \$21,953 on June 1, 2007.
- 10) If the unit does not terminate on June 1, 2007, by June 1, 2008, ENI shall complete additional seismic, reservoir, and geologic studies, or the RFU shall automatically terminate on June 1, 2008, and ENI shall make a lease delay payment of \$11,473 on June 1, 2008.

- 11) If the unit does not terminate on June 1, 2008, by June 1, 2009, ENI shall complete drilling of a 2nd exploratory well within the RFU penetrating the West Sak/Schrader, Ugnu, or Kuparak formation, or the unit will terminate on June 1, 2009, and ENI shall make a lease delay payment of \$23,289 on June 1, 2009.
- 12) If the unit does not terminate on June 1, 2009, by June 1, 2010, ENI shall complete drilling of 3rd exploratory well within the RFU penetrating the West Sak/Schrader, Ugnu, or Kuparak formation or the unit will terminate on June 1, 2010, and ENI shall make a lease delay payment of \$12,171 on June 1, 2010.
- 13) The Plan of Exploration expires June 1, 2010, unless the unit terminates before that date, in which case the POE expires with the Unit termination.
- 14) If ENI is unable to fulfill any of the terms and commitments in the POE, the RFU terminates at the time the terms or commitment is unfulfilled and the WIO shall surrender all leases in the RFU whose primary terms have expired effective the day the Unit terminates. The WIO waives the extension of provisions of 11 AAC 83.140 and Article 15.2 of the Rock Flour Unit Agreement, and the notice and hearing provisions of 11 AAC 83.374 applicable to default and termination of the RFU.
- 15) ADL 389117 and 389118 in the proposed RFU leases were issued on lease form - DOG 9609(Rev 6/97). Paragraph 36(b) in the DOG 9609(Rev 6/97) lease form is replaced with paragraph 36(b) from the current lease form - DOG 200204(Rev 10/03).

Any 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 Michael L. Menge, 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.

//signed by Kevin R. Banks for

November 22, 2005

Bill Van Dyke Acting Director
Division of Oil and Gas

Date

- Attachments:
1. RFU Exhibit A, Tract Description and Ownership Schedule
 2. RFU Exhibit B, Map of the Rock Flour Unit
 3. Exhibit G, Plan of Exploration
 4. Rock Flour Unit Agreement.
 5. Rock Flour Unit Agreement Amendments to June, 2002 State Model Form

Attachment #1 - Exhibit A, Tract Description and Ownership Schedule

EXHIBIT "A"
OIL AND GAS LEASES AND SUBSURFACE ESTATE
SUBJECT TO THE AGREEMENT ATTACHED TO AND MADE A PART OF
ROCKFLOUR UNIT OPERATING AGREEMENT

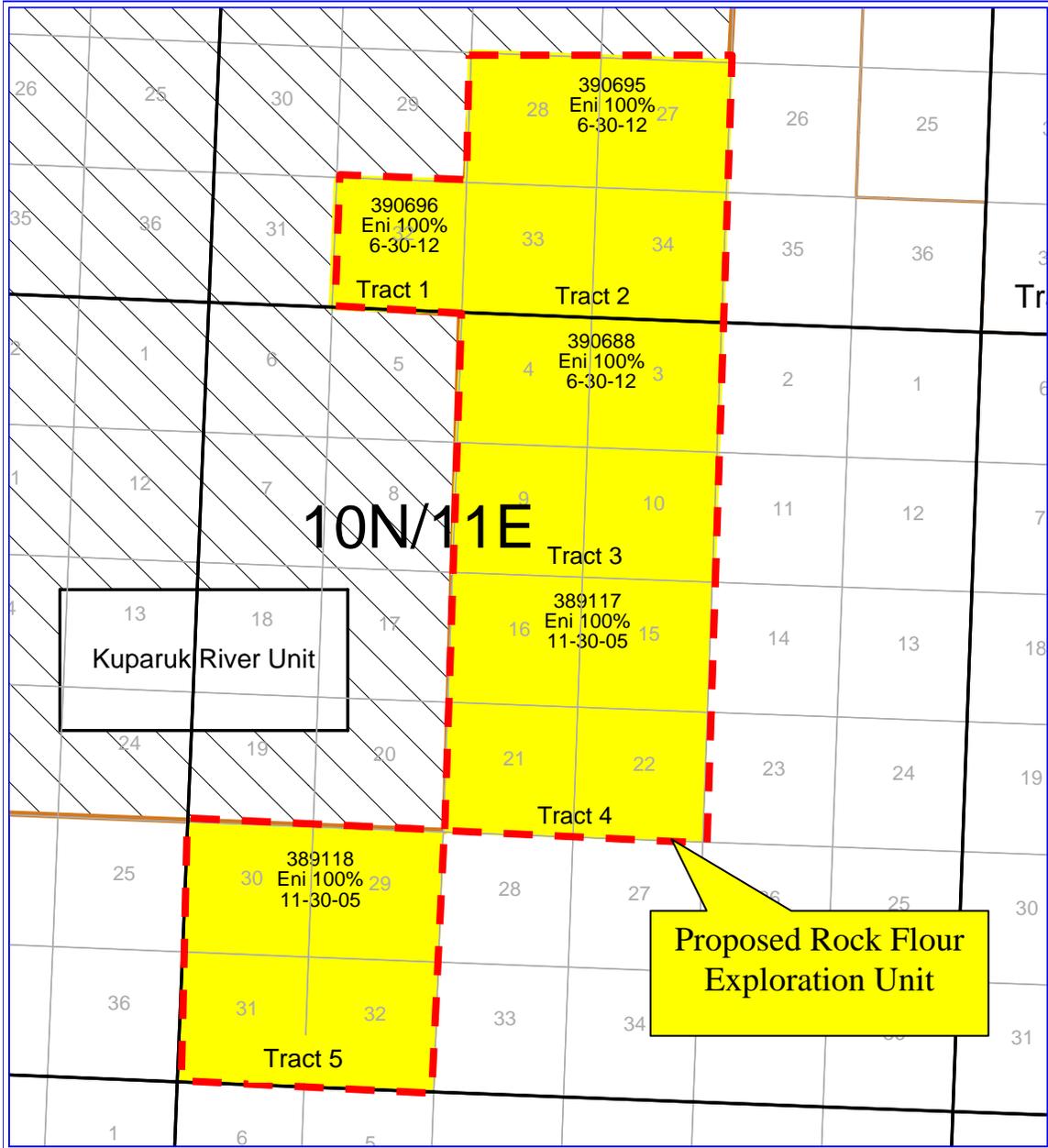
<u>UNIT TRACT #</u>	<u>LESSOR LEASE #</u>	<u>WORKING INTEREST OWNERS</u>	<u>WORKING INTEREST</u>	<u>LEASE EFFEC-TIVE DATE</u>	<u>DESCRIPTION</u>	<u>ACRE-AGE</u>	<u>ROYALTY BURDEN</u>	<u>ORRI BURDEN</u>
1	State of Alaska ADL 390696	ENI Exploration Production Co. Inc.	100.00%	7/1/2005	<u>T11N, R11E, UMIAT MERIDIAN</u> SEC 32: UNSURVEYED, ALL, INCLUDING THE BEDS OF THE UNNAMED LAKES, 640.00 ACS	640.00	16.66667%	ARMSTRONG ALASKA, INC. 3.33333%
2	State of Alaska ADL 390695	ENI Exploration Production Co. Inc.	100.00%	7/1/2005	<u>T11N, R11E, UMIAT MERIDIAN</u> SEC 27: UNSURVEYED, ALL, INCLUDING THE BEDS OF THE UNNAMED LAKES, 640.00 ACS SEC 28: UNSURVEYED, ALL, INCLUDING THE BEDS OF THE UNNAMED LAKES, 640.00 ACS SEC 33: UNSURVEYED, ALL, INCLUDING THE BEDS OF THE UNNAMED LAKES, 640.00 ACS SEC 34: UNSURVEYED, ALL, INCLUDING THE BEDS OF THE UNNAMED LAKES, 640.00 ACS	2,560.00	16.66667%	ARMSTRONG ALASKA, INC. 3.33333%
3	State of Alaska ADL 390688	ENI Exploration Production Co. Inc.	100.00%	7/1/2005	<u>T10N, R11E, UMIAT MERIDIAN</u> SEC 3: UNSURVEYED, ALL, 640.00 ACS SEC 4: UNSURVEYED, ALL, INCLUDING THE BEDS OF THE UNNAMED LAKES, 640.00 ACS SEC 9: UNSURVEYED, ALL, 640.00 ACS SEC 10: UNSURVEYED, ALL, INCLUDING THE BED OF THE UNNAMED LAKE, 640.00 ACS	2,560.00	16.66667%	ARMSTRONG ALASKA, INC. 3.33333%
4	State of Alaska ADL 389117	ENI Exploration Production Co. Inc.	100.00%	12/1/1998	<u>T10N, R11E, UMIAT MERIDIAN</u> SEC 15: UNSURVEYED, ALL, 640 ACRES SEC 16: UNSURVEYED, ALL, 640 ACRES SEC 21: UNSURVEYED, ALL, 640 ACRES SEC 22: UNSURVEYED, ALL, 640 ACRES	2,560.00	12.50000%	KEITH FORSGREN, HIS SUCCESSORS AND ASSIGNS - 2.0% ANADARKO PETROLEUM CORP. - 5.0% ARMSTRONG ALASKA, INC. - 0.5%

**EXHIBIT "A" - Continued
OIL AND GAS LEASES AND SUBSURFACE ESTATE
SUBJECT TO THE AGREEMENT ATTACHED TO AND MADE A PART OF
ROCKFLOUR UNIT OPERATING AGREEMENT**

<u>UNIT TRACT #</u>	<u>LESSOR LEASE #</u>	<u>WORKING INTEREST OWNERS</u>	<u>WORKING INTEREST</u>	<u>LEASE EFFEC-TIVE DATE</u>	<u>DESCRIPTION</u>	<u>ACRE-AGE</u>	<u>ROYALTY BURDEN</u>	<u>ORRI BURDEN</u>
5	State of Alaska ADL 389118	ENI Exploration Production Co. Inc.	100.00%	12/1/1998	T10N, R11E, UMIAT MERIDIAN SEC 29: UNSURVEYED, ALL, 640 ACRES SEC 30: UNSURVEYED, ALL, 620 ACRES SEC 31: UNSURVEYED, ALL, 623 ACRES SEC 32: UNSURVEYED, ALL, 640 ACRES	2,523.00	12.50000%	KEITH FORSGREN, HIS SUCCESSORS AND ASSIGNS - 2.0% ANADARKO PETROLEUM CORP. - 5.0% ARMSTRONG ALASKA, INC. - 0.5%
<u>Total Acres in Unit</u>						10,843.0		

Attachment #2

Exhibit "B"
Rock Flour Exploration unit
North Slope Alaska
November, 2005



PETRA 10/10/2005 8:39:40 AM

Attachment #3 - Exhibit G - Rock Flour Unit Agreement Plan of Exploration (POE)

- 1) By June 1, 2006 ENI shall complete seismic purchase and processing and commit to drill a well prior to June 1, 2007, or the RFU will terminate on June 1, 2006, and ENI shall make a lease delay payment of \$10,814 on June 1, 2006.
- 2) If the unit does not terminate on June 1, 2006, by June 1, 2007, ENI shall complete drilling of an exploratory well within the RFU penetrating the West Sak/Schrader, Ugnu, or Kuparak formation, or the unit will terminate on June 1, 2007, and ENI shall make a lease delay payment of \$21,953 on June 1, 2007.
- 3) If the unit does not terminate on June 1, 2007, by June 1, 2008, ENI shall complete additional seismic, reservoir, and geologic studies, or the RFU shall automatically terminate on June 1, 2008, and ENI shall make a lease delay payment of \$11,473 on June 1, 2008.
- 4) If the unit does not terminate on June 1, 2008, by June 1, 2009, ENI shall complete drilling of a 2nd exploratory well within the RFU penetrating the West Sak/Schrader, Ugnu, or Kuparak formation, or the unit will terminate on June 1, 2009, and ENI shall make a lease delay payment of \$23,289 on June 1, 2009.
- 5) If the unit does not terminate on June 1, 2009, by June 1, 2010, ENI shall complete drilling of 3rd exploratory well within the RFU penetrating the West Sak/Schrader, Ugnu, or Kuparak formation or the unit will terminate on June 1, 2010, and ENI shall make a lease delay payment of \$12,171 on June 1, 2010.
- 6) The Plan of Exploration expires June 1, 2010, unless the unit terminates before that date, in which case the POE expires with the Unit termination.
- 7) If ENI is unable to fulfill any of the terms and commitments in the POE, the RFU terminates at the time the terms or commitment is unfulfilled and the WIO shall surrender all leases in the RFU whose primary terms have expired effective the day the Unit terminates. The WIO waives the extension of provisions of 11 AAC 83.140 and Article 15.2 of the Rock Flour Unit Agreement, and the notice and hearing provisions of 11 AAC 83.374 applicable to default and termination of the RFU.

Attachment #4 – Rock Flour Unit Agreement

ROCK FLOUR UNIT AGREEMENT

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RECITALS

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

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

AGREEMENT

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

ARTICLE 1: DEFINITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ARTICLE 2: EXHIBITS

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

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

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

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

Tract or Unit Tracts in a Participating Area, or 4) any change of the Working Interest or Royalty Interest in any Unit Tract.

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

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

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

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

ARTICLE 3: CREATION AND EFFECT OF UNIT

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

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

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

in a Participating Area formed under this Agreement, the entire Lease will remain committed to this Agreement and the Lease will not be severed.

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

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

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

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

ARTICLE 4: DESIGNATION OF UNIT OPERATOR

4.1. Eni US Operating Co. Inc., is designated as the Unit Operator. Eni US Operating Co. Inc., agrees to accept the rights and obligations of the Unit Operator to conduct Unit Operations and to explore for, develop and produce Unitized Substances as provided in this Agreement.

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

ARTICLE 5: RESIGNATION OR REMOVAL OF UNIT OPERATOR

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

suspension or abandonment of operations. However, if a successor Unit Operator is designated and approved under Article 6, the resignation is effective when approved by the Commissioner.

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

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

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

ARTICLE 6: SUCCESSOR UNIT OPERATOR

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

6.2. If no successor Unit Operator is designated within sixty days after notice to the Commissioner of the resignation or removal of a Unit Operator, the Commissioner will, in his or her discretion, designate another Working Interest Owner as successor Unit Operator, or declare this Agreement terminated.

ARTICLE 7: UNIT OPERATING AGREEMENT

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

7.2 Any allocation described in the Unit Operating Agreement will not bind the State in determining or settling royalties and net profit share payments. Allocations of Unit Expense, Participating Area Expense, or Unitized Substances for determining, settling and paying royalties and net profit share payments will be based on Exhibits C, E and F of this Agreement, and must

be approved by the Commissioner in writing before taking effect. An original or revised conforming Exhibit C and F shall be submitted to the Commissioner within thirty days of: any change in the division of interest or allocation formula establishing or revising the Unit Tract Participation of any Unit Tract or Unit Tracts in a Participating Area.

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

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

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

ARTICLE 8: PLANS OF EXPLORATION, DEVELOPMENT AND OPERATIONS

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

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

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

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

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

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

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

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

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

ARTICLE 9: PARTICIPATING AREAS

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

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

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

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

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

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

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

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

9.8.1. If the Commissioner consents to the transfer of Unitized Substances between Participating Areas without immediate payment of royalties, the Unit Operator shall provide monthly reports to the State of the transferred Unitized Substance volumes in both the originating and receiving Participating Areas as specified in 11 AAC 04. These monthly reports shall reflect the volumes of any Unitized Substance transferred and the British thermal units ("Btus") in any natural gas Unitized Substance transferred as an Outside PA Substance during the preceding month.

9.8.2. If the Commissioner consents to the transfer of Unitized Substances between Participating Areas without immediate payment of royalties, the royalties

shall be paid when the Injected Substances are produced and sold from the Receiving Participating Area. The first natural gas Unitized Substances produced and sold from the Receiving Participating Area shall be considered to be the Injected Substances until a volume of natural gas containing Btus equal to the Btus contained in the Injected Substances is produced and sold from the Receiving Participating Area. All the Unitized Substances produced and sold from a Receiving Participating Area that are considered to be the Injected Substance shall be allocated to the Originating Participating Area. The Working Interest Owners shall pay the State royalties on Injected Substances produced and sold from a Receiving Participating Area as if those Injected Substances were produced and sold from the Originating Participating Area when they were produced from the Receiving Participating Area.

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

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

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

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

ARTICLE 10: OFFSET WELLS

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

ARTICLE 11: ALLOCATION OF PRODUCTION

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

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

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

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

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

ARTICLE 12: LEASES, RENTALS AND ROYALTY PAYMENTS

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

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

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

12.4. Notwithstanding any contrary Lease term, royalties and the share of Unitized Substances attributable to royalties and any payment due must be paid free and clear of all Lease expenses, Unit Expenses and Participating Area Expenses. These excluded expenses include, but are not limited to, separating, cleaning, dehydration, saltwater removal, processing, compression, pumping, and manufacturing costs. These excluded expenses also include the costs of gathering and preparing the Unitized Substances for transportation off the Unit Area and transportation costs incurred within the Unit Area. No lien for any expenses shall attach to royalty Unitized Substances. The royalty share shall bear a proportionate part of any gas shrinkage that occurs during gas processing and blending.

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

12.6. The Unit Operator shall give the Commissioner notice of the anticipated date for commencement of production at least six months before the commencement of Sustained Unit Production from a Participating Area. The Commissioner may take Unitized Substances in-kind in accordance with the following: The Commissioner will give the Unit Operator 90 days written notice of the State’s initial election to take Unitized Substances in-kind. After taking has actually commenced, the Commissioner may increase or decrease the amount of Unitized Substances 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.

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

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

12.6.3. Royalty 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 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.

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

12.7. If a purchaser of the State's royalty Unitized Substances does not take delivery of Unitized Substances, the State will, in its discretion elect, without penalty, to underlift for up to six months. The State will, in its discretion, underlift all or a portion of those substances. The State's right to underlift is limited to the portion of those substances that the purchaser did not take delivery of or what is necessary to meet an emergency condition. The State shall give the Unit Operator written notice thirty days before the first day of the month in which the underlifted royalty Unitized Substances are to be recovered. The State will, in its discretion, recover at a daily rate not exceeding 25 percent (25%) of its share of daily production, unless otherwise agreed.

12.8. The Unit Operator shall 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 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.

12.9. If a Lease committed to this Agreement specifies the amount of rent due, that Lease is amended to require that rentals due be calculated under A.S. 38.05.180(n), as amended. If a Lease committed to this Agreement requires payment of minimum royalty, that Lease is

amended to delete that minimum royalty obligation. The rental due under State law, as amended, must be paid in lieu of minimum royalty.

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

ARTICLE 13: UNIT EXPANSION AND CONTRACTION

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

13.2. Ten years after Sustained Unit Production begins, the Unit Area must be contracted to include only those lands then included in an approved Participating Area, 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, re-injection, or cycling operations. The Commissioner 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.

13.3. Not sooner than 10 years after the effective date of this Agreement, the Commissioner 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 Interest Owners of the Leases or portions of Leases being excluded reasonable notice and an opportunity to be heard.

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

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

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

ARTICLE 14: UNIT EFFECTIVE DATE, TERM AND TERMINATION

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

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

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

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

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

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

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

ARTICLE 15: EFFECT OF CONTRACTION AND TERMINATION

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

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

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

ARTICLE 16: COUNTERPARTS

16.1. The signing of counterparts of this Agreement shall have the same effect as if all parties had signed a single original of this Agreement. Within thirty days after approval by the Commissioner of any change of the Working Interest ownership of Oil and Gas Rights in any Unit Tract, the Unit Operator shall submit a revised Exhibits A and C to the Commissioner.

ARTICLE 17: LAWS AND REGULATIONS

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

ARTICLE 18: APPEARANCES AND NOTICES

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

be deemed properly given. The Unit Operator will change its notice address by giving thirty days written notice to the State and the other Working Interest Owners. The State will change its notice address by giving thirty days written notice to the Unit Operator.

Address of the Unit Operator:

Eni US Operating Co. Inc.
1201 Louisiana St. Suite 3500
Houston, TX 77002
Attn: Mr. Charles C. Barnes
Land Manager- Alaska
Fax: 713 393-6107

Address of the State:

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

with a copy to:

Director, Division of Oil and Gas
550 West Seventh Avenue, Suite 1100
Anchorage, Alaska 99501-3560
Fax: (907) 269-8938

ARTICLE 19: JOINDER

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

ARTICLE 20: DEFAULT

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

20.2. The Commissioner will give notice to the Unit Operator and the Working Interest Owners of the default. The notice will describe the default, and include a demand to cure the

default by a certain date. The cure period shall be at least thirty days for a failure to pay rentals or royalties and ninety days for any other default.

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

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

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

IN WITNESS OF THE FOREGOING, the parties have executed this Unit Agreement on the dates opposite their respective signatures.

STATE OF ALASKA)
)ss.
THIRD JUDICIAL DISTRICT)

This certifies that on November ____, 2005, before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared _____, known to me to be the person described in, and who executed the foregoing agreement, who then after being duly sworn according to law, acknowledged to me under oath that he executed same freely and voluntarily for the uses and purposes therein mentioned.

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

NOTARY PUBLIC in and for Alaska
My Commission Expires:_____

OVERRIDING ROYALTY INTEREST OWNERS

By: _____ Date: _____

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

STATE OF ALASKA)
)ss.
THIRD JUDICIAL DISTRICT)

This certifies that on November ____, 2005, before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared _____, known to me to be the person described in, and who executed the foregoing agreement, who then after being duly sworn according to law, acknowledged to me under oath that he executed same freely and voluntarily for the uses and purposes therein mentioned.

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

NOTARY PUBLIC in and for Alaska
My Commission Expires:_____

By: _____ Date: _____

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

STATE OF ALASKA)
)ss.
THIRD JUDICIAL DISTRICT)

This certifies that on November ____, 2005, before me, a notary public in and for the State of Alaska, duly commissioned and sworn, personally appeared _____, known to me to be the person described in, and who executed the foregoing agreement, who then after being duly sworn according to law, acknowledged to me under oath that he executed same freely and voluntarily for the uses and purposes therein mentioned.

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

NOTARY PUBLIC in and for Alaska
My Commission Expires: _____

**Attachment #5 – Rock Flour Unit Agreement Amendments to June, 2002
State Model Form**

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, The 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, re-injection, 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.