

**STATE OF ALASKA
ALASKA OIL AND GAS CONSERVATION COMMISSION
333 West 7th Avenue, Suite 100
Anchorage Alaska 99501**

Re: **THE APPLICATION OF BP**) **Area Injection Order No. 10-A**
EXPLORATION (ALASKA) INC.) **Milne Point Unit**
for an order allowing underground) Kuparuk River Oil Pool
injection of fluids for enhanced oil) Schrader Bluff Oil Pool
recovery in Milne Point Unit.)
)
) October 29, 2001

IT APPEARING THAT:

1. By application dated August 17, 2001, BP Exploration (Alaska) Inc. (“BP”) requested that the Alaska Oil and Gas Conservation Commission (“Commission”) amend Area Injection Order No. 10 ("AIO 10") to cover a proposed miscible gas enhanced recovery project in the Kuparuk River Oil Pool (“KROP”) within the Milne Point Unit (“MPU”). BP provided supplemental information on August 27, 2001 regarding the miscible gas injection project planned for the Kuparuk reservoir.
2. The Commission published notice of opportunity for a public hearing in the Anchorage Daily News on August 18, 2001.
3. The Commission did not receive a protest or written request for a public hearing.
4. BP provided sufficient information on which to make a ruling without need for a hearing.
5. BP supplied additional information on October 12, 2001 at the Commission’s request to help clarify certain geologic and reservoir information.

FINDINGS:

1. Authority 20 AAC 25.460

Commission regulation 20 AAC 25.460 provides authority to issue an order governing underground injection of fluids on an area basis for all wells within the same field, facility site, reservoir, project, or similar area.

AIO 10, originally issued September 19, 1986 authorized enhanced recovery injection operations within the Kuparuk River Oil Pool. By an order dated December 30, 1991, AIO 10 was amended to allow enhanced recovery operations for the Schrader Bluff Oil Pool (“SBOP”) within MPU. AIO 10 was amended for expansion of the effected areas of enhanced recovery operations on May 3, 1994 and November 13, 1995.

2. Summary of Injection Projects

As authorized by AIO 10, BP has conducted an immiscible water/alternating gas (“IWAG”) enhanced oil recovery (“EOR”) project in the MPU KROP for the past several years and a waterflood project has been and continues to be conducted in the SBOP.

The applications from the MPU operator upon which the Commission based the prior AIO 10 order and amendments described enhanced recovery operations utilizing produced and source water for pressure maintenance and enhanced recovery, and re-injection of produced MPU gas into the KROP.

BP proposes to initiate a miscible water/alternating gas (“MWAG”) project for the MPU KROP. BP’s application of August 17, 2001 addressed specific requirements of 20 AAC 25.402(c) that pertain to the Kuparuk MWAG project which were not addressed in prior AIO applications. In addition to the description of the MWAG project, BP proposed that separate orders be made for the KROP and SBOP, with the described area to govern the KROP MWAG operations to coincide with the MPU boundaries.

3. Project Area (20 AAC 25.402(c)(1)), Pool Description (Pool Information (20 AAC 25.402(c)(5))

- a) Proposed MWAG Area: The MWAG project area includes that portion of the Kuparuk River Field, Kuparuk River Oil Pool (CO 349A), which is encompassed within the Milne Point Unit Boundary.
- b) Kuparuk River Oil Pool: The KROP is the accumulation of hydrocarbons that correlates with the interval of the ARCO Alaska, Inc. West Sak River State Well No. 1 between the measured depths of 6,474 feet and 6,880 feet (CO 173, 349 and 349A).
- c) Schrader Bluff Oil Pool: The SBOP within the MPU, as described in Conservation Order No. 255, is the accumulation of hydrocarbons that correlates and is common to the stratigraphic section occurring in the Conoco Inc. Milne Point A-1 well between the measured depths of 4,174 and 4,800 feet.

4. Operators/Surface Owners (20 AAC 25.402(c)(2) and 20 AAC 25.403(c)(3))

BP has provided all designated operators within one-quarter mile of the MPU with a copy of the application for amendment of AIO 10. Those operators are: BP, operator of MPU and Prudhoe Bay Unit, Phillips Alaska, Inc., operator of the Kuparuk River Unit, and J. Andrew Bachner, operator of leases ADL 389717 and ADL 389718. The State of Alaska, Department of Natural Resources is the only affected surface owner.

5. Description of Operation (20 AAC 25.402(c)(4)).

The MPU KROP is currently developed on 8 pads. Water and lean (immiscible) gas (IWAG) is injected at pads C, E, F and L, while only water is injected at pads B, H, J and K. IWAG injection wells within the planned project area will be switched to MWAG injection. The predicted daily rate of miscible hydrocarbon gas injection is

approximately 25 MMSCF. The miscible injectant ("MI") will be manufactured by blending 4-5 MBPD of imported natural gas liquids ("NGL's") from the Prudhoe Bay Unit with approximately 20 MMscfd of produced gas from Milne Point production.

Additional facilities required to implement this project include:

- a) new 8" pipeline from an existing pipeline tied into the Oliktok pipeline which carries NGL's from Prudhoe Bay Unit to the Kuparuk River Unit;
- b) custody transfer meter which will measure the NGL's imported for use at the MPU and;
- c) pumps located at the Central Facilities Pad ("CFP") to increase pressure of the NGL's from 100 to 4750 psig.

6. Geologic Information (20 AAC 25.402(c)(6))

The following is a summary of the geologic information for the Kuparuk River Formation within the MWAG project area at MPU.

- a) Reservoir Interval for MWAG Project: The reservoir interval for proposed injection is the Kuparuk River Formation, which is defined as an accumulation of oil that correlates with the interval between 6,474 and 6,880 feet, measured depth in the Atlantic Richfield Company West Sak River State No. 1 well.
- b) Available Data: BP and Conoco have drilled over 200 exploratory, delineation and development wells that penetrated the Kuparuk River Formation within the Milne Point Unit. Well and 3-D seismic data have been used to characterize the Kuparuk hydrocarbon accumulation.
- c) Stratigraphy - Kuparuk River Formation: The Kuparuk River Formation comprises a sequence of very fine to fine-grained marine sandstones and associated mudstones that are Cretaceous-aged. At Milne Point, the Kuparuk River Formation is informally divided into four stratigraphic units that are named, in ascending order, the A, B, C and D units.
- d) Kuparuk A Unit: Within the MPU, the Kuparuk A unit consists of a sandstones, siltstones and mudstones deposited in three regressive cycles; each cycle coarsens and cleans upwards. The overall Kuparuk A unit is up to 140 feet thick, and it contains amalgamated sandstone bodies up to 40 feet thick in each cycle. These sandstone bodies are northeast trending, lenticular, shingled, and up to 15 miles in length. Their permeability and porosity average approximately 100 md and 21%, respectively. Widespread siltstone and mudstone intervals separate the sandstone bodies.
- e) Kuparuk B Unit: The overlying Kuparuk B unit also consists of interbedded sandstone, siltstone and shale. In the southeastern area of the field, the upper B interval contains a thick, blocky to coarsening upward shoreface sand sequence that is about 30 feet thick. This upper B sand has an average permeability of 200 md and 21% porosity. A major unconformity, the Lower Cretaceous Unconformity, defines the top of the Kuparuk B unit.

- f) Kuparuk C Unit: The Kuparuk C unit consists of fine to very fine grained sandstone that is bioturbated and highly glauconitic. There are discontinuous siderite cemented intervals in the Kuparuk C unit, which do not impact fluid movement within the reservoir. Overall, the geometry of the Kuparuk C sandstone is blanket-like, but individual sandstone bodies are poorly defined because of syndepositional faulting and erosional truncations. Permeability and porosity average approximately 100 md and 20%, respectively.
 - g) Kuparuk D Unit: The Kuparuk D unit at the top of the formation consists of silty mudstone. There is no reservoir quality rock in this interval.
 - h) Structure Overview: At Kuparuk Formation level, the MPU is a faulted anticlinal structure that plunges toward the northwest and the southeast. Within the field, complex faulting has rearranged the overall structure into many compartmentalized fault blocks. Stratigraphic discontinuities and differential movement along the faults have created numerous pressure barriers and trapping elements. Variable oil water contacts are present. In general, deeper oil-water contacts are found toward the northwest and they become shallower toward the south and eastern portions of the field.
 - i) Confining Interval: Within the MPU, the confining interval above the Kuparuk reservoirs consists of more than 2,000 feet of Cretaceous age Colville shale. The lower confining interval consists of the Miluvealch and Kingak shales, which exceeds 1,500 feet in combined thickness.
 - j) Oil Properties: Kuparuk oil gravity averages 22 API in the Milne Point field, and it ranges from 21 API to 26 API. Initial solution gas/oil ratios are approximately 300 SCF/BBL. At the 170 deg F reservoir temperature, oil viscosity is typically 2-4 cp. Initial reservoir pressure is 3,500 psi at the datum depth of 7000 feet TVD subsea. Bubble point pressure is about 2,200 psi, which is significantly below initial pressure.
 - k) Original Oil in Place: Estimated total original oil in place (OOIP) for the Kuparuk at MPU is approximately 921 MMSTB, with distribution among the A, B, and C sandstone units at about 70.7%, 18.7% and 10.6%, respectively. The estimated OOIP within the proposed MWAG area is 396 MMSTB, with the A unit the primary target.
7. Injection Fluids (20 AAC 25.402(c)(9)). The Kuparuk MWAG project will utilize three primary types of injection fluids: source water, produced water, and miscible hydrocarbon gas.
- a. Source Water and Produced Water: The produced and source water (from the Prince Creek formation) injected in the MWAG project has been described in the prior AIO 10 applications. The approximate water injection volume needed is 60,000 barrels (“bbl”) of water per day and may be increased as needed to make up reservoir voidage.

- b. Miscible Hydrocarbon Gas: The miscible hydrocarbon gas will be a blend of the MPU produced gas and NGL's imported from the Prudhoe Bay Unit. The specific blend of gas and NGL's will be regulated to ensure that miscibility between the injected gas and the reservoir fluids is maintained. The estimated composition of the miscible hydrocarbon gas is based on a blend ratio of 4.512 MSCF lean gas/bbl NGL for a minimum miscibility pressure of approximately 2900 psia. This composition will vary with the blend ratio of lean gas to NGL's. The predicted daily rate of miscible hydrocarbon gas injection is approximately 25 MMSCF. Fluid incompatibility problems are not anticipated with the miscible hydrocarbon gas.
- c. Other Fluids: In addition to the fluids specifically associated with the Kuparuk MWAG project, the following other incidental fluids might be injected into the KROP at some time during the life of the project primarily to enhance recovery of oil and gas:
- Seawater to thermally fracture gas injection wells – a stimulation procedure using 20,000 – 40,000 gallons per well
 - Solution gas associated with oil production – re-injected for reservoir pressure maintenance
 - Tracer survey fluid – to monitor reservoir performance
8. Well Logs (20 AAC 25.402(c)(7)): The logs of existing injection wells are on file with the Commission.
9. Mechanical Integrity (20 AAC 25.402(c)(8)): Wells used for injection will be cased and cemented in accordance with 20 AAC 25.412. In drilling all MPU injection wells, the casing is pressure tested in accordance with 20 AAC 25.030. Injection well tubing/casing annulus pressures will be monitored and recorded on a regular basis. The MPU KROP injection wells are designed to comply with the requirements specified in 20 AAC 25.412.
10. Injection Pressures (20 AAC 25.402(c)(10)): Surface injection pressures are dependent on fluid type. The estimated average and maximum injection pressure for the Kuparuk MWAG project is as follows:

<u>Service</u>	<u>Surface Operating Pressure PSIG</u>	
	<u>Maximum</u>	<u>Average</u>
Water injection	3500	3000
Gas injection	4800	4000

11. Fracture Information (20 AAC 25.402(c)(11)): The KROP is overlain by more than 2,000 feet of confining shale that act as an impermeable barrier. While water

injection pressure exceeds the fracture gradient of the Kuparuk sands in many of the injectors, fractures initiated in the Kuparuk injection interval should not significantly penetrate the confining shale. Existing surveillance results indicate that injection has remained within the targeted Kuparuk injection interval.

12. Water Analysis (20 AAC 25.402(c)(12)): The quality of the water within the formation into which fluid injection is proposed was described in the prior AIO 10 application. Subsequent samples confirm that the water quality in the MWAG injection zone is well in excess of 10,000 mg/l TDS.

13. Aquifer Exemption (20 AAC 25.402(c)(13)): Aquifer Exemption Order 2 (AEO 2) was issued by the Commission on July 8, 1987 and covers Class II injection activities within the following lands:

T13N, R9E, UM - Sections 13, 14, 23 and 24

T13N, R10E, UM – All sections

T13N, R11E, UM – Sections 5, 6, 7, 8, 15, 16, 17, 18, 19, 20, 21, 22, 29, 30, 31 and 32

These lands are the same as those included in the SBOP described in CO No. 255 and the Schrader Bluff Oil Pool waterflood project described in CO No. 283. In its application for exemption, Conoco (Operator at MPU at that time) stated it was seeking an exemption for the Shallow Sand formations (Tertiary water sands) now designated the Prince Creek formation, located above the SBOP. Further information concerning the aquifer is contained in Commission records regarding AEO 2.

14. Hydrocarbon Recovery (20 AAC 25.402(c)(14)): BP predicts the MWAG project will result in an incremental ultimate oil recovery increase of 7 1/2% - 10% OOIP compared to waterflood, resulting in added reserves of about 30-40 MMSTB (excluding NGL's). IWAG alone is projected at 1% to 3% incremental over waterflood. Estimated peak production increase is 9 MBOPD. The following provides additional reservoir and surveillance information provided by BP in support of the recovery projections. More detailed information is available in the documentation submitted by BP in support of the AIO-10A application, which is included in the record.

a) Minimum Miscibility Pressure: The MWAG project utilizes a vaporizing-condensing process similar to EOR projects in the Kuparuk River Unit, Prudhoe Bay Unit, Endicott, and Point McIntyre. Slim tube laboratory work utilizing Milne Kuparuk oil and Prudhoe Bay NGL's showed that at approximately 21% enrichment, the displacement process becomes nearly miscible with oil, which validates the earlier equation of state used in reservoir simulation. The anticipated minimum miscibility at the CFP blending point is 2935 psia, with a blend ratio of 4.6 Mscf separator off gas/stb NGL. This blend ratio will change after startup time to adjust for changes in composition of separator gas as NGL's return in the production stream.

- b) Injection Patterns. The MPU KROP was not developed on a regular pattern basis due to its complex faulted nature. BP has characterized the reservoir using fault blocks or hydraulic units (“HU”), which are based upon understanding of the water oil contacts, fault locations, pressure differences between fault blocks, and response of producers to injectors. BP characterizes the MPU KROP as 77 separate hydraulic units, with 46 currently targeted for MWAG. Each hydraulic unit is anywhere from one to five “patterns” (or area bounded by layout of injectors and producers).
- c) Reservoir Simulation: A generalized A-sand fully compositional pattern model was utilized for analysis of recovery under IWAG and MWAG processes, and for slug volume sensitivities. The model utilizes a 12 component Peng-Robinson equation of state, which was tuned to conventional PVT samples from Milne Point Kuparuk wells and validated by the slim tube studies noted earlier. The model simulated 80-acre pattern with one injector and two producers. BP provided documentation of this model effort for the record.
- d) MI Volumes: The MWAG project is planned for the injection of a 30% hydrocarbon pore volume (“HCPV”) slug of MI. The average pattern throughput rate is approximately 9.4% HCPV per year. The model studies showed incremental recoveries of approximately 7.5% (20% HCPV injected) and 10% (30% HCPV injected). Prioritization of patterns to receive MWAG is required since available MI will be limited.
- e) WAG ratios: Current plans are to maintain a WAG injection ratio of 1 (1 BBL water to 1 reservoir BBL gas). Higher WAG ratios will be utilized in patterns with high GOR, and in patterns where potential gas breakthrough could be a detriment to the electrical submersible pumps. Reservoir simulation suggests potential for slightly higher recoveries with increased WAG ratios. Further study and review of production performance is planned to better define the effects of WAG ratios.
- f) Surveillance: Pattern management and optimization will be necessary to maximize recovery. BP plans significant surveillance activities to accomplish the management field-wide and within individual hydraulic units. Focus will be given to maximize areal and vertical sweep of the reservoir. This will require continual update of fault and geologic information, and well performance analysis. BP plans to monitor the injection performance through yearly reservoir pressure monitoring and injection profiles within each hydraulic unit, and regular sampling and analysis of produced oil gravities and gas compositions.
- g) Pressure and Voidage replacement: BP plans to maintain the reservoir pressure close to original pressure (approximately 3500 psi) with a minimum reservoir pressure of 2450 psi and a maximum of 4000 psi. Pressure surveys indicate some hydraulic units are currently outside this pressure range. Initially, voidage replacement will be adjusted to achieve these pressure targets. Ultimately, a voidage replacement ratio of 1:1 is planned.

- 15) Mechanical Condition of Adjacent Wells (20 AAC 25.402(c)(15)). BP is utilizing injection wells previously covered by AIO 10. To the best of BP's knowledge, the wells in the MWAG Area were constructed and, where applicable, have been abandoned to prevent the movement into freshwater sources. Information regarding wells that penetrate the injection zone within ¼ mile radius of injection wells has been filed with the Commission.
- 16) Incorporation of AIO 10 findings: The findings of fact in AIO 10 and amendments thereto are incorporated herein to the extent not inconsistent with this order.

CONCLUSIONS:

1. The application requirements of 20 AAC 25.402 have been met.
2. An area injection order is appropriate for the proposed MWAG project under 20 AAC 25.460. MWAG is only planned for the KROP at this time.
3. Revision of AIO 10 is appropriate to clarify the rules applicable to each of the Kuparuk River and the Schrader Bluff Oil Pools in the MPU, specifically as regards the enhanced recovery fluids approved for injection within the separate pools.
4. Revision of AIO 10 to coincide with the boundaries of the MPU is appropriate.
5. With the exclusion of miscible gas injection, the Class II fluids described in BP's application are currently injected under prior Commission approval of AIO 10. No problems with compatibility of the fluids have been observed. Similar injection of miscible gas in the Kuparuk River Pool of the Kuparuk River Unit has shown no compatibility problems.
6. Injection in enhanced recovery injection wells in the KROP in the MPU will not involve injection in, or movement of fluids into, the Shallow Sands strata aquifer described in AEO 2 application and supplemental materials. Injected fluids will be confined within the appropriate receiving intervals by impermeable lithology, cement isolation of the wellbore and appropriate operating conditions.
7. The proposed miscible gas injection for the Kuparuk Oil Pool in the Milne Point Area is likely to significantly increase hydrocarbon ultimate recovery.
8. Reservoir surveillance, operating parameter surveillance and mechanical integrity tests will demonstrate appropriate performance of the enhanced oil recovery project or disclose possible abnormalities.
9. The MPU KROP injection wells are designed to comply with the mechanical integrity requirements specified in 20 AAC 25.412.
10. The conclusions in AIO 10 and the amendments thereto are incorporated herein to the extent not inconsistent with this order.

NOW, THEREFORE, IT IS ORDERED:

1. Except as otherwise provided herein, this order supersedes Area Injection Order No. 10 and previous revisions.
2. The following rules, in addition to statewide requirements under 20 AAC 25 (to the extent not superseded by these rules), govern enhanced oil recovery injection operations in the MPU. The MPU as of the effective date of this order is described below

Umiat Meridian

Township	Range	Sections
T12N	R10E	1-2 (all); 11-12 (all)
T12N	R11E	1-12 (all)
T13N	R9E	1 (all); 2 (N1/2,SE1/4); 11 (NE1/4); 12-14 (all); 23-24 (all)
T13N	R10E	1 (S1/2, SW 1/4NW1/4); 2-36 (all)
T13N	R11E	7 (SW1/4SW1/4); 18 (NW1/4NE1/4, W1/2SE1/4, SE1/4SE1/4, SW1/4, W1/2NW1/4, NE1/4NW1/4); 19 (all); 20(W1/2SE1/4, SW1/4,SE1/4SE1/4,W1/2NW1/4,SE1/4NW1/4); 27-34 (all)
T14N	R9E	22 (SE1/4SE1/4); 23 (SE1/4, S1/2SW1/4;NE1/4SW1/4, S1/2NE1/4, NE1/4NE1/4); 24 -26 (all), 27 (E1/2, E1/2SW1/4,SE1/4NW1/4); 34 (NE1/4SE1/4, E1/2NE1/4, NW1/4NE1/4); 35 - 36 (all)
T14N	R10E	17 (SW1/4SE1/4, S1/2SW1/4); 18 (S1/2SE1/4); 19 (all), 20 (S1/2, NW1/4, W1/2NE1/4); 21 (SW1/4); 27 (S1/2SW1/4), 28 (W1/2SE1/4, SE1/4SE1/4,W1/2), 29-34 (all); 35 (SW1/4, S1/2NW1/4, W1/2SE1/4, SE1/4SE1/4)

Rule 1 MPU Authorized Injection Strata for Enhanced Recovery and Authorized Injection Fluids

Enhanced recovery operations as described in the operator's applications are approved within the MPU for the KROP and SBOP. Part A defines the strata and authorized fluids for injection within the KROP of the MPU, and Part B defines the strata and authorized fluids for injection within the SBOP.

PART A – Kuparuk River Oil Pool

- 1) **Kuparuk River Oil Pool - Authorized Injection Strata:**
Within the MPU, authorized fluids may be injected into the strata that correlate with the interval between the measured depths of 6,474 feet and 6,880 feet in the ARCO Alaska, Inc. West Sak River State Well No. 1.
- 2) **Kuparuk River Oil Pool - Authorized Injection Fluids:**
Fluids authorized for injection for the KROP within the MPU are:
 - a. produced water and gas from Milne Point Unit production for purposes of pressure maintenance and enhanced recovery;
 - b. source water from the Prince Creek Formation;
 - c. seawater to thermally fracture gas injection wells;
 - d. tracer survey fluid to monitor reservoir performance;
 - e. fluids injected for the purposes of stimulation per 20 AAC 24.280(2) and;
 - f. miscible gas injectant (including NGL's imported from the Prudhoe Bay Unit) for purposes of pressure maintenance and enhanced recovery).

PART B – Schrader Bluff Oil Pool

- 1) **Schrader Bluff Oil Pool Authorized Injection Strata:**
Within the MPU, authorized fluids may be injected into the strata that correlate with and are common to the interval between the measured depths of 4,174 feet and 4,800 feet in the Conoco Milne Point Unit Well No. A-1.
- 2) **Schrader Bluff Oil Pool Authorized fluids:**
Fluids authorized for injection for the SBOP within the MPU are:
 - a. produced water from Milne Point Unit production for purposes of pressure maintenance and enhanced recovery;
 - b. source water from the Prince Creek Formation;
 - c. tracer survey fluid to monitor reservoir performance; and
 - d. fluids injected for the purposes of stimulation per 20AAC24.280(2).

Rule 2 Fluid Injection Wells

The underground injection of fluids must be 1) through a well permitted for drilling as a service well for injection in conformance with 20 AAC 25.005; 2) through a well approved for conversion to a service well for injection in conformance with 20 AAC 25.280; or 3) through a well that existed as a service well for injection purposes on the effective date of AIO 10 (September 19, 1986).

Rule 3 Monitoring the Tubing-Casing Annulus Pressure Variations

The tubing-casing annulus pressure and injection rate of each injection well must be

checked at least weekly to confirm continued mechanical integrity.

Rule 4 Demonstration of Tubing-Casing Annulus Mechanical Integrity

A schedule must be developed and coordinated with the Commission that ensures that the tubing-casing annulus for each injection well is pressure tested prior to initiating injection, following well workovers affecting mechanical integrity, and at least once every four years thereafter.

Rule 5 Notification of Well Integrity Failure

Whenever injection rates and/or operating pressure observations or pressure tests indicate pressure communication or leakage of any casing, tubing or packer, the operator must immediately shut in and secure the well, notify the Commission on the first working day following the observation, and submit a plan of corrective action on Form 10-403 for Commission approval. Additionally, notification requirements of any other State or Federal agency remain the operators' responsibility.

Rule 6 Notification of Improper Class II Injection

Injection of fluids other than those listed in Rule 1, above, without prior authorization is considered improper Class II injection. Upon discovery of such an event, the operator must immediately notify the Commission, provide details of the operation, and propose actions to prevent recurrence. Additionally, notification requirements of any other State or Federal agency remain the operator's responsibility.

Rule 7 Other Conditions

- a. It is a condition of this authorization that the operator comply with all applicable Commission regulations.
- b. The Commission may suspend, revoke, or modify this authorization if injected fluids fail to be confined within the designated injection strata.

Rule 8 Administrative Action

Unless notice and public hearing is otherwise required, the Commission may administratively waive the requirements of any rule stated above or administratively

amend any rule as long as the change does not promote waste or jeopardize correlative rights, is based on sound engineering and geoscience principles and will not result in an increased risk of fluid movement into freshwater.

DONE at Anchorage, Alaska and dated October 29, 2001.

Cammy Oechsli Taylor, Chair
Alaska Oil and Gas Conservation Commission

Daniel T. Seamount, Jr., Commissioner
Alaska Oil and Gas Conservation Commission

Julie M. Heusser, Commissioner
Alaska Oil and Gas Conservation Commission

AS 31.05.080 provides that within 20 days after receipt of written notice of the entry of an order, a person affected by it may file with the Commission an application for rehearing. A request for rehearing must be received by 4:30 PM on the 23rd day following the date of the order, or next working day if a holiday or weekend, to be timely filed. The Commission shall grant or refuse the application in whole or in part within 10 days. The Commission can refuse an application by not acting on it within the 10-day period. An affected person has 30 days from the date the Commission refuses the application or mails (or otherwise distributes) an order upon rehearing, both being the final order of the Commission, to appeal the decision to Superior Court. Where a request for rehearing is denied by nonaction of the Commission, the 30 day period for appeal to Superior Court runs from the date on which the request is deemed denied (i.e., 10th day after the application for rehearing was filed).