STATE OF ALASKA
ALASKA OIL AND GAS CONSERVATION COMMISSION
3001 Porcupine Drive
Anchorage, Alaska 99501-3192

Re: THE APPLICATION OF MARATHON OIL COMPANY to establish pool rules for the Beaver Creek Field.

Conservation Order No. 237

Beaver Creek Field
Sterling Gas Pool
Beluga Gas Pool
Beaver Creek Oil Pool

August 5, 1988

IT APPEARING THAT:

1. Marathon Oil Company by correspondence dated July 7, 1988 requested field and pool rules be established for the Beaver Creek Field.

2. Notice of public hearing was published July 11, 1988.

3. No protest was filed with the Commission.

FINDINGS:

1. Production of hydrocarbons from the Beaver Creek Field commenced in 1972.

2. The Sterling gas sands were deposited in meandering stream channels. The sands are separated by relatively thin shale and coal beds.

3. The Sterling gas sands may be defined by the interval penetrated in the Beaver Creek Unit Well No. 1A, and may be considered as a single gas pool for development purposes.

4. Four wells are currently producing gas from the Sterling gas sands.

5. Cumulative production from the Sterling gas sands as of May 1, 1988 was 67,310 million standard cubic feet (MMCF).

6. Reduced well spacing may be necessary for efficient development and recovery of gas reserves in the Sterling and Beluga gas sands.

7. The Beluga gas sands occur in thin, discontinuous sand lenses separated by shales and coal beds, and are considered a separate accumulation from the Sterling gas sands.

8. The Beluga gas sands may be defined by the interval penetrated in the Beaver Creek Unit Well No. 1A. and may be considered as a single gas pool for development purposes.

9. Productivity of the Beluga gas sands has been verified with drill stem tests.

10. Initial average reservoir pressure of the Beluga gas sands is estimated to be 3900 psi.

11. Development of the Tyonek G-zone and Hemlock will be optimized if they are considered as a single pool.

12. The productive limits of the Sterling, Beluga, and Beaver Creek Pools are all within the boundary of the Beaver Creek Unit which provides for the integration of various mineral ownerships within the Unit.

13. Cumulative G-zone production as of May 1, 1988 was 3577 thousand stock tank barrels of oil (MSTB) from the BCU #4 and 5RD.

14. Initial pressure of both zones was estimated to be 7500 psi.

15. Hemlock zone reserves in the BCU #4 are estimated to be 320 MSTB.

16. Reduced well spacing may be necessary to maximize oil recovery from the Tyonek G and Hemlock zones.

CONCLUSIONS:

1. Oil and gas has been produced under the Beaver Creek name for over 15 years, and the field should be named the Beaver Creek Field.

2. For maximum recovery of hydrocarbons the Sterling gas sands should be developed as a single pool designated the Sterling Gas Pool; the Beluga gas sands should be developed as a single pool designated the Beluga Gas Pool; and the Tyonek G-zone and Hemlock formation should be developed as a single pool designated the Beaver Creek Oil Pool.

3. The vertical limits of the Sterling Gas Pool and Beluga Gas Pool may be defined by the interval penetrated by the Beaver Creek Unit Well No. 1A which appears to be a typical and representatiave well.

4. The vertical limits of the Beaver Creek Oil Pool may be defined by the interval penetrated by the Beaver Creek Unit Well No. 4 which appears to be a typical and representative well.

5. Well spacing of 160 acres for the Sterling and Beluga gas pools will improve ultimate hydrocarbon recovery.

6. Well spacing of 40 acres for the Beaver Creek Oil Pool will improve ultimate hydrocarbon recovery.

7. Development plans for the aforementioned gas and oil pools prevent waste, and correlative rights are protected with the Unit agreement.

8. The areal extent of the Beaver Creek Field is approximately 4960 acres.

9. State and federal regulations currently in effect govern field operations except as modified by this conservation order.

NOW, THEREFORE, IT IS ORDERED THAT the rules hereinafter set forth apply to the following described area referred to in this order as the affected area:

Township 6 North, Range 10 West, Seward Merdian

Section 3: NE¼, W½, W½SE¼
Section 4: All
Section 5: E½NE¼, SE¼
Section 8: NE¼
Section 9: NE¼NE¼, W½NE¼, NW¼
Section 10: N½NW¼

Township 7 North, Range 10 West, Seward Meridian

Section 26: SW¼NW¼, W½SW¼, SE¼SW¼
Section 27: All
Section 28: NE¼NE¼, S½NE¼, SE¼NW¼, SW¼, SE¼
Section 32: E½E½
Section 33: All
Section 34: All
Section 35: NW¼, W½SW¼, NE¼SW¼

Rule 1 Field Name

The Field is named the Beaver Creek Field.

Rule 2 Pool Definition

(a) The Sterling Gas Pool is defined as the accumulation of gas that is common to and correlates with the accumulation present in the Beaver Creek Unit Well No. 1A between the measured depths of 5188 and 6370 feet.

(b) The Beluga Gas Pool is defined as the accumulation of gas that is common to and correlates with the accumulation present in the Beaver Creek Unit Well No. 1A between the measured depths of 7960 and 9650 feet.

(c) The Beaver Creek Oil Pool is defined as the accumulation of oil that is common to and correlates with the accumulation present in the Beaver Creek Unit Well No. 4 between the measured depths of 14,518 and 15,874 feet.

Rule 3 Well Spacing

(a) Well spacing in the Sterling and Beluga Gas Pools shall be 160 acres. No wellbore may be opened nearer than 1320 feet from the nearest open wellbore in the same pool. No wellbores may be opened nearer than 1500 feet from the Unit boundary.

(b) Well spacing in the Beaver Creek Oil Pool shall be 40 acres. No wellbore may be opened nearer than 660 feet from the nearest open wellbore in the same pool. No wellbore may be opened nearer than 500 feet from the Unit boundary.

Rule 4 Administrative Action

Upon written application, the Commission may administratively amend this order. The operator must demonstrate to the Commission that sound engineering practices are maintained and the amendment will prevent waste and protect correlative rights.

DONE at Anchorage, Alaska, and dated August 5, 1988.

C V Chatterton, Chairman
Alaska Oil and Gas Conservation Commission

L C Smith, Commissioner
Alaska Oil and Gas Conservation Commission

W W Barnwell, Commissioner
Alaska Oil and Gas Conservation Commission