## DEPT. OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WALTER J. HICKEL, GOVERNOR

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September 10, 1991

BP Exploration (Alaska) Inc. 900 East Benson Blvd. P.O.Box 196612 Anchorage, Alaska 99519-6612

Attention: T. N. Tyler

Subject: \* Sag Delta North

Participating Area

Dear Mr. Tyler:

Enclosed is an amended Article VI. Findings and Decision of the August 11, 1991 Decision and Findings of the Commissioner, Alaska Department of Natural Resources concerning the formation of the Sag Delta Participating Area. The amended Article VI addresses Exhibits C, D, E, and F to the Duck Island Unit Agreement as they apply to the Sag Delta North Participating Area within the Duck Island Unit. The sections amended are #4, #9, and #15 of Article VI.

Sincerely,

James E. Eason

Director

Attachment

cc: Nancy Cress

Bonnie Johannsen - ADOL

Amendd&f.SDN.txt

## VI. FINDINGS AND DECISION

Considering the facts discussed in this document and the administrative record, I hereby make findings and impose conditions as follows:

- 1. The proposed participating area, the Sag Delta North Participating Area, meets the requirements of 11 AAC 83.303.
- 2. The available geological, geophysical and engineering data submitted demonstrate that a paying quantities certification is appropriate for the wells in the Sag Delta North Reservoir and that the acreage is capable of sustained production or contributing to sustained production in sufficient quantities to justify the formation of the Sag Delta North Participating Area within the Duck Island Unit.
- 3. The geological and engineering data support the combination of the Ivishak Formation and Alapah Formation into one participating area. The limited areal extent and low recoverable oil in place makes separate development of the Alapah accumulation uneconomic. The surface and downhole commingling of production from the Ivishak and Alapah accumulations will enhance the recovery of Alapah reserves which might otherwise not be produced if not for the downhole commingling and the combination of the two reservoirs into one participating area.
- 4. The available geological, geophysical and engineering data submitted in support of the proposed participating area justify the inclusion of Tract 13, ADL 34633, and Tract 15, ADL 312828, within the Sag Delta North Participating Area. Under the terms of the applicable regulations governing formation and operation of oil and gas units (11 AAC 83.301 11 AAC 83.395) and the terms and conditions under which these lands were leased from the State of Alaska, the following lands are to be included in the Sag Delta North Participating Area:

T.12.N., R.16.E., U.M., Sec. 25: NE 1/4 (ADL 34633 (Tract 13));

T.12.N., R.17.E., U.M.,

Sec. 19: E/2 Within 3 Mile Limit, W/2 Within 3 Mile Limit;

Sec. 20: SW 1/4 Within 3 Mile Limit,

Sec. 29: N/2 Within 3 Mile Limit,

Sec. 30: N/2;

T.12.N, R.16.E., U.M., Sec 24: E/2 (ADL 312828 (Tract 15)).

Exhibit D, page D2, Sag Delta North Participating Area Boundary, and Exhibit F, page F2, Reservoir Limits of the Sag Delta North Reservoir, will be added to the Duck Island Unit Agreement.

- 5. The proposed participating area encompasses the hydrocarbon bearing portion of the Sag Delta North Reservoir that can be produced at this time. Formation of the participating area provides for the equitable division of costs and an equitable allocation of hydrocarbon shares, and sets forth a diligent development plan which maximizes physical and economic recovery from the combined Ivishak and Alapah Formations.
- 6. The production of hydrocarbon liquids from the Sag Delta North Participating Area through the existing production and processing facilities within the Duck Island Unit reduces the environmental impact of the additional production. Utilization of existing facilities will avoid unnecessary duplication of development efforts on and beneath the surface.
- 7. The well test allocation methodology approved on July 3, 1989 and later amended on August 2, 1989 continues to be acceptable and satisfactory, based on the 24 month Sag Delta 9 test, for royalty purposes for allocating gas and hydrocarbon liquids production between the Sag Delta North Participating Area and the Endicott Participating Area within the Duck Island Unit.
- 8. Pursuant to 11 AAC 83.351(b), the Ivishak and Alapah Formations shall be combined into one participating area, the Sag Delta North Participating Area. Furthermore, downhole commingling of the Ivishak and Alapah Formations shall be approved as part of the Sag Delta North Participating Area.
- 9. Pursuant to 11 AAC 83.351(a) and 11 AAC 83.371(a), the proposed or revised division of interest or formula allocating hydrocarbon production and operating costs among the leases in the Sag Delta North Participating Area shall be as set out in Attachment 1 to this Decision and Findings. Exhibit C, page C4, Sag Delta North Participating Area and page C5, Tract Participations for the Sag Delta North Participating Area, will be added to the Duck Island Unit Agreement.
- 10. Within 45 days of the effective date of this Decision and Findings, the Unit Operator shall submit to the State the overlift/underlift schedule for the equalization of pre-unitized hydrocarbon liquids and gas produced from the Sag Delta North Reservoir reflected in the revised tract allocation formula.
- 11. The well test allocation methodology approved by the State on July 3, 1989, and later amended on August 2, 1989 is further amended to allow the use of the well test allocation methodology as acceptable and satisfactory for royalty purposes for allocating gas and hydrocarbon liquids production between the Sag Delta North



Participating Area and the Endicott Participating Area within the Duck Island Unit.

- 12. The meter allocation factor for the Sag Delta North Participating Area will continue to be fixed at 1.0, i.e., the SDNPA production volume is determined using well test data, and not subsequently adjusted using a meter allocation factor. The unit operator will continue to provide the division with the monthly production reports and well test data for the SDNPA wells.
- 13. The field cost allowance for royalty hydrocarbon liquids will be as specified in Exhibit G of the Duck Island Unit Agreement for the DL-1 lease ADL 34633 (Tract 13). With respect to DMEM-1-79A lease ADL 312828 (Tract 15), royalty in value and royalty in kind will be free and clear of any processing fee as provided for in Paragraph 10 and Paragraph 12(b) of the lease form.
- 14. Diligent exploration and delineation of the Sag Delta North Reservoir underlying the approved participating area (ADLs 34633 and 312828) are to be conducted by the Unit Operator under the Duck Island Unit plans of development and operation approved by the State.
- 15. The plan of development for the Sag Delta North Participating Area, Exhibit E, page E4, subject to the terms and conditions listed in Article V of this Decision and Findings, meets the requirements of 11 AAC 83.303 and 11 AAC 83.343. The plan is approved for the period August 12, 1991 through December 31, 1995. Annual updates to the plan of development shall be submitted in accordance with 11 AAC 83.343.
- 16. Tract 15, ADL 312828, is a net profit share lease include within the Sag Delta North Participating Area. To the extent the Sag Delta North Special Provisions to the Duck Island Unit Operating Agreement and the net profit share lease regulations (11 AAC 83.201 11 AAC 83.295) conflict, the NPSL regulations shall control.
- 17. Concerning ADL 312848, within 45 days of the effective date of this Decision and Findings, the Unit Operator shall submit to the State all reports detailing the equalization of costs amongst the Duck Island Unit working interest owners required because of the formation of the Sag Delta North Participating Area, and a "hard copy" of the monthly joint interest billing summary supplied to the Sag Delta North owners.
- 18. The Sag Delta North Participating Area within the Duck Island Unit is effective 12:01 a.m. August 12, 1991.