Entered November 30, 19>9

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6652 Order No. R-6198

APPLICATION OF SHELL OIL COMPANY FOR STATUTORY UNITIZATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This case and cause of action came on for hearing at 9:00 a.m. on October 3, 1979, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this <u>30th</u> day of November, 1979, the Commission, a quorum having been present, having considered the testimony and the record and being otherwise fully advised in the premises,

FINDS:

- (1) That due public notice has been given as required by law, the Commission has jurisdiction of this case and cause of action and the subject matter hereof.
- (2) That the applicant, Shell Oil Company, seeks the statutory unitization, pursuant to the "Statutory Unitization Act," Sections 70-7-1 through 70-7-21, NMSA 1978, of 10,649.53 acres, more or less, being a portion of the Hobbs Grayburg-San Andres Pool, Lea County, New Mexico, said portion to be known as the North Hobbs Grayburg-San Andres Unit Area; that applicant further seeks approval of the Unit Agreement and the Unit Operating Agreement which were submitted in evidence as applicant's Exhibits Nos. 3 and 4 in this case.
- (3) That the proposed unit area should be designated the North Hobbs Grayburg-San Andres Unit Area, and the

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horizontal limits of said unit area should be comprised of the following described lands:

TOWNSHIP 18 SOUTH, RANGE 37 EAST, NMPM

Section 13: SE/4 and W/2

Section 14: All

Sections 23 through 25: All

Section 26: Section 36: E/2 NE/4 and NW/4 NE/4 E/2 NW/4 and E/2

TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM

Section 17: S/2 NW/4 and SW/4

NE/4 and S/2Section 18:

Sections 19 and 20: All Section 21: SW/4, S/2 SE/4 and NW/4 SE/4

Sections 27 through 32: All

W/2, NE/4, W/2 SE/4 and NE/4 SE/4 E/2 NW/4 and E/2 Section 33:

Section 34:

- That the vertical limits of said North Hobbs Grayburg-San Andres Unit Area should comprise the Grayburg-San Andres formation of Permian age as found from a depth of 3,698 feet (51 feet sub-sea) to a depth of 4,500 feet (853 feet sub-sea) on the Borehole Compensated Sonic-Gamma Ray Log run July 9, 1969, in the Shell Oil Company State A Well No. 1, located 1930 feet from the North line and 660 feet from the East line of Section 32, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico.
- That the portion of the Hobbs Grayburg-San Andres Pool proposed to be included in the aforesaid North Hobbs Grayburg-San Andres Unit Area has been reasonably defined by development.
- (6) That the applicant proposes to institute a pressure maintenance project for the secondary recovery of oil, gas, gaseous substances, sulfur contained in gas, condensate, distillate and all associated and constituent liquid or liquifiable hydrocarbons within and to be produced from the proposed unit area.
- That the proposed supplemental recovery operations should result in the additional recovery of approximately 55 million barrels of oil.
- (8) That the unitized management, operation and further development of the North Hobbs Grayburg-San Andres Unit Area, as proposed, is reasonably necessary to effectively

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carry on pressure maintenance and secondary recovery operations and will substantially increase the ultimate recovery of oil and gas from the unitized portion of the pool.

- (9) That the proposed unitized method of operation as applied to the North Hobbs Grayburg-San Andres Unit Area is feasible and will result with reasonable probability in the increased recovery of substantially more oil and gas from the unitized portion of the pool than would otherwise be recovered without unitization.
- (10) That the estimated additional investment costs of the proposed supplemental recovery operations are \$33 million which include an estimated initial capital investment of \$27 million forecast to be spent in 1980 and 1981 and an additional \$6 million forecast to be spent during the eight years subsequent to 1981 for construction of facilities necessary to handle the anticipated increasing volumes of oil and water.
- (11) That the additional recovery to be derived from the proposed supplemental recovery operations will have a resultant net profitability over the aforesaid additional costs, on a present value basis with a ten percent discount and before federal income tax of \$124 million or 421% profit.
- (12) That the estimated additional costs of the proposed operations (as described in Finding No. (10) above) will not exceed the estimated value of the additional oil and gas (as described in Finding No. (11) above) plus a reasonable profit.
- (13) That the applicant, the designated Unit Operator pursuant to the Unit Agreement and the Unit Operating Agreement, has made a good faith effort to secure voluntary unitization within the North Hobbs Grayburg-San Andres Unit Area.
- (14) That Exxon Company, U.S.A. has declined to voluntarily join the unit and has opposed the application of Shell Oil Company in this case on the basis that the participation formula contained in the Unit Agreement fails to allocate the produced and saved unitized hydrocarbons to the separately owned tracts within the unit area on a fair, reasonable and equitable basis.
- (15) That the Technical Report introduced as applicant's Exhibit No. 16 was prepared by a Technical Committee comprised of engineering representatives of all working interest owners involved in the proposed unit.

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- (16) That said Technical Committee met over a three and a half year period from September, 1973, to March, 1977.
- (17) That Exxon Company, U.S.A. was represented at each of said meetings and its representative accepted the values assigned the unitization parameters contained in the Technical Report as well as the use of the cutoff date of January 1, 1975 for well logging data and well test information and the remaining primary oil reserve estimates as of January 1, 1977.
- (18) That the values assigned the parameters appear to be based on sound engineering principles and data. Further, that there appears to exist a sound and rational basis for the adoption of the adopted cutoff dates so that a foundation could be laid for the fair allocation of remaining primary and secondary reserves to each of the tracts within the proposed unit area.
- (19) That the objection of Exxon Company, U.S.A. to the application appears in large part to be based on Exxon's contention that the production performance of its Tract No. 47 since January 1, 1977, is not in conformity with the projections made by the computer simulator model used in the Technical Report.
- (20) That the evidence which was presented, using the oil cutoff reserve relationship with the simulator output for Tract 47, showed that the May 1979 reserves as estimated by the simulation and the May 1979 oil cut for Tract 47 are in agreement, thus indicating that the simulation predictions are valid, and that the oil reserve estimates for Tract 47 are reasonable and fair, and are in order.
- (21) That the evidence of Exxon Company, U.S.A. fails to refute the contention of the applicant that the allocations of the produced and saved hydrocarbons as set forth in the Technical Report and Unit Agreement to the separately owned tracts within the unit area are based on fair, reasonable and equitable considerations and calculations.
- (22) That the participation formula contained in the unitization agreement allocates the produced and saved unitized substances to the separately owned tracts in the unit area on a fair, reasonable and equitable basis.
- (23) That unitization and the adoption of the proposed unitized method of operation will benefit the working interest owners and royalty owners of the oil and gas rights within the North Hobbs Grayburg-San Andres Unit Area.

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- (24) That the granting of the application in this case will have no adverse effect upon other portions of the Hobbs Grayburg-San Andres Pool.
- (25) That applicant's Exhibits Nos. 3 and 4 in this case, being the Unit Agreement and the Unit Operating Agreement, respectively, should be incorporated by reference into this order.
- (26) That the North Hobbs Grayburg-San Andres Unit Agreement and the North Hobbs Grayburg-San Andres Unit Operating Agreement provide for unitization and unit operation of the North Hobbs Grayburg-San Andres Unit Area upon terms and conditions that are fair, reasonable and equitable and which include:
- (a) an allocation to the separately owned tracts in the unit area of all oil and gas that is produced from the unit area and which is saved, being the production that is not used in the conduct of unit operations or not unavoidably lost;
- (b) a provision for the credits and charges to be made in the adjustment among the owners in the unit area for their respective investments in wells, tanks, pumps, machinery, materials and equipment contributed to the unit operations;
- (c) a provision governing how the costs of unit operations including capital investments shall be determined and charged to the separately owned tracts and how said costs shall be paid including a provision providing when, how, and by whom the unit production allocated to an owner who does not pay his share of the costs of unit operations shall be charged to such owner, or the interest of such owner, and how his interest may be sold and the proceeds applied to the payment of his costs;
- (d) a provision for carrying any working interest owner on a limited, carried or net-profits basis, payable out of production, upon such terms and conditions which are just and reasonable, and which allow an appropriate charge for interest for such service payable out of production, upon such terms and conditions determined by the Commission to be just and reasonable, and allowing an appropriate charge for interest for such service payable out of such owner's share of production, providing that any nonconsenting working interest owner being so carried shall be deemed to have

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relinquished to the Unit Operator all of his operating rights and working interests in and to the unit until his share of the costs, service charge and interest are repaid to the Unit Operator;

- a provision designating the Unit Operator and providing for the supervision and conduct of the unit operations, including the selection, removal or substitution of an operator from among the working interest owners to conduct the unit operations;
- (f) a provision for a voting procedure for the decision of matters to be decided by the working interest owners in respect to which each working interest owner shall have a voting interest equal to his unit participation; and
- the time when the unit operation shall commence and the manner in which, and the circumstances under which, the operations shall terminate and for the settlement of accounts upon such termination;
- That the statutory unitization of the North Hobbs Grayburg-San Andres Unit Area is in conformity with the above findings, and will prevent waste and protect the correlative rights of all owners of interest within the proposed unit area, and should be approved.

IT IS THEREFORE ORDERED:

- That the North Hobbs Grayburg-San Andres Unit Area, comprising 10,649.53 acres, more or less, in the Hobbs Grayburg-San Andres Pool, Lea County, New Mexico, is hereby approved for statutory unitization pursuant to the Statutory Unitization Act, Sections 70-7-1 through 70-7-21 NMSA 1978.
- That the lands included within the North Hobbs Grayburg-San Andres Unit Area shall be comprised of:

TOWNSHIP 18 SOUTH, RANGE 37 EAST, NMPM Section 13: SE/4 and W/2 Section 14: All

Sections 23 through 25: All

Section 26: E/2 NE/4 and NW/4 NE/4 Section 36: E/2 NW/4 and E/2

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TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM

Section 17: S/2 NW/4 and SW/4

Section 18: NE/4 and S/2

Sections 19 and 20: All

SW/4, S/2 SE/4 and NW/4 SE/4 Section 21:

Sections 27 through 32: All Section 33: W/2, NE/4, W/2 SE/4 and NE/4 SE/4

E/2 NW/4 and E/2Section 34:

and that the above described lands shall be designated as the North Hobbs Grayburg-San Andres Unit Area.

- (3) That the vertical limits of said North Hobbs Grayburg-San Andres Unit Area shall comprise the Grayburg-San Andres formation of Permian age as found from a depth of 3,698 feet (51 feet sub-sea) to a depth of 4,500 feet (853 feet sub-sea) on the Borehole Compensated Sonic-Gamma Ray Log run July 9, 1969, in the Shell Oil Company State A Well No. 1, located 1930 feet from the North line and 660 feet from the East line of Section 32, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico.
- (4)That the applicant shall institute a pressure maintenance project for the secondary recovery of oil, gas, gaseous substances, sulfur contained in gas, condensate, distillate and all associated and constituent liquid or liquified hydrocarbons within and produced from the unit area, and said pressure maintenance project is the subject of Case No. 6653.
- That the North Hobbs Grayburg-San Andres Unit Agreement and the North Hobbs Grayburg-San Andres Unit Operating Agreement are approved and adopted and incorporated by reference into this Order subject to compliance with the appropriate ratification provisions of Section 70-7-8, NMSA 1978.
- That when the persons owning the required percentage of interest in the unit area have approved or ratified the Unit Agreement and the Unit Operating Agreement, the interests of all persons within the unit area are unitized whether or not such persons have approved the Unit Agreement or the Unit Operating Agreement in writing.
- That the applicant as Unit Operator shall notify in writing the Division Director of any removal or substitution of said Unit Operator by any other working interest owner within the unit area.

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(8) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

 $\ensuremath{\mathsf{DONE}}$ at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

ALEX J. ARMIJO, Member

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL