

(SOUTHEAST CHAVES QUEEN AREA ASSOCIATED  
(YATES PILOT PRESSURE MAINTENANCE PROJECT)  
POOL - Cont'd.)

perforated interval from 2991 feet to 2997 feet in its Doyal Well No. 3 located 1980 feet from the South line and 990 feet from the East line of Section 27, Township 12 South, Range 31 East, Chaves County, New Mexico.

(2) Injection into said well shall be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation; the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in said injection well, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

(4) The injection well herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 600 psi, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(5) The subject pressure maintenance project is hereby designated the Yates Doyle Pilot Pressure Maintenance Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(6) The applicant shall notify the Director of the Division of the date injection begins in said project.

(7) This case shall be reopened approximately one year from the date of such initial injection at which time the operator shall appear and present a plan of project operation and development which will provide for water injection credits, allocation of project allowable, and protection of correlative rights.

(8) If the operator does not present such a plan or if such plan should be rejected by the Division, the authority for injection into the pilot project shall terminate.

(9) Monthly progress reports of the pilot project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(10) Jurisdiction of this cause is retained for the entry of such further orders as the Commissioner may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

BLUITT-SAN ANDRES ASSOCIATED POOL  
(Statutory Unitization)  
Roosevelt County, New Mexico

Order No. R-8117, Approving Statutory Unitization of the Bluit San Andres Unit in the Bluit-San Andres Associated Pool, Roosevelt County, New Mexico, January 6, 1986.

Application of Murphy Operating Corporation  
for Statutory Unitization, Roosevelt County,  
New Mexico.

CASE NO. 8779  
Order No. R-8117

ORDER OF THE DIVISION

BY THE DIVISION: This cause came on for hearing at 8 a.m. on December 4, 1985, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of January, 1986, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of hearing Division Case No. 8779 and Division Case No. 8780 were consolidated for the purposes of testimony.

(3) The applicant, Murphy Operating Corporation, seeks the statutory unitization, pursuant to the "Statutory Unitization Act", Sections 70-7-1 through 70-7-21, NMSA, (1978), of 1800 acres, more or less, being a portion of the Bluit-San Andres Associated Pool, Roosevelt County, New Mexico, said portion to be known as the Bluit San Andres Unit; the applicant further seeks approval of the Unit Agreement and the Unit Operating Agreement which were submitted in evidence as applicant's Exhibit Nos. 3 and 4 in this case.

(4) The proposed unit area should be designated the Bluit San Andres Unit Area, and the horizontal limits of said unit area should be comprised of the following described federal lands:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM  
Section 11: SE/4 SE/4  
Section 12: S/2 S/2  
Section 13: All  
Section 14: E/2 E/2  
Section 24: N/2

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM  
Section 18: W/2 NW/4, SW/4  
Section 19: NW/4, W/2 NE/4

(5) Said unit has been approved by the Bureau of Land Management subject to the approval of statutory unitization by the Division.

**(BLUITT-SAN ANDRES ASSOCIATED (STATUTORY UNITIZATION) POOL - Cont'd.)**

(6) The horizontal limits of said unit area contained entirely within the boundaries of the Bluit-San Andres Associated Pool and have been reasonably defined by development.

(7) The vertical limits of said Bluit San Andres Unit Area should comprise the San Andres formation as found from a depth of 4640 feet (643 feet below mean sea level) to a depth of 4676 feet (679 feet below mean sea level) on the Nuclear Log run October 17, 1977, on the Murphy Operating Corporation Bluit Federal Well No. 3, located 660 feet from the South line and 1980 feet from the East line of Section 13, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(8) The unit area contains eleven separate tracts owned by twenty different working interests.

(9) At the time of the hearing over 97 percent of the working interest owners and 100 percent of the royalty interest owners were effectively committed to the unit.

(10) All interested parties who have not agreed to unitization were notified of the hearing by the applicant, but no person entered an appearance or opposed the application at the hearing.

(11) The applicant proposes to institute a waterflood project for the secondary recovery of oil and associated gas, condensate, and all associated liquifiable hydrocarbons within and to be produced from the proposed unit area.

(12) The proposed secondary recovery operations should result in the additional recovery of approximately 1.7 million barrels of oil.

(13) The unitized management, operation and further development of the Bluit San Andres Unit Area, as proposed, is reasonably necessary to effectively carry on secondary recovery operations and will substantially increase the ultimate recovery of oil and gas from the unitized portion of the pool.

(14) The proposed unitized method of operation as applied to the Bluit 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.

(15) The estimated additional investment costs of the proposed supplemental recovery operations are \$7.9 million which include an estimated initial capital investment of \$824,000 forecast to be spent in 1986 and 1987 to initiate the pilot program, and an additional \$7.1 million forecast to be spent during the nine years subsequent to 1987, contingent upon success of the pilot program.

(16) The additional recovery to be derived from the proposed supplemental recovery operations, based upon a successful pilot program, will have a resultant net profitability over the aforesaid additional costs and after taxes of approximately \$27 million.

(17) The estimated additional costs of the proposed operations (as described in Finding No. (14) above) will not exceed the estimated value of the additional oil and gas (as described in Finding No. (15) above) plus a reasonable profit.

(18) 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 unit area.

(19) The Unit Agreement and Unit Operating Agreement have been approved by those persons who will be required initially to pay at least 75% of the costs of unit operations, and also by the owners of at least 75% of the production or proceeds thereof that will be credited to interests which are free of costs, such as royalties, overriding royalties, and production payments.

(20) 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.

(21) 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 Bluit San Andres Unit Area.

(22) The granting of the application in this case will have no adverse effect upon other portions of the Bluit-San Andres Associated Pool.

(23) 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.

(24) The Bluit San Andres Unit Agreement and the Bluit San Andres Unit Operating Agreement provide for unitization and unit operation of the Bluit 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 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 Division 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 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;

(e) a provision designating the Unit Operator and providing for the supervision and conduct of the unit operations, including the selection, removal and substitution of an operator from among the working interest owners to conduct the unit operations;

**(BLUITT-SAN ANDRES ASSOCIATED (STATUTORY UNITIZATION) POOL - Cont'd.)**

(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

(g) 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.

(25) The statutory unitization of the Bluit San Andres Unit Area is in conformity with the above findings, and will prevent waste and protect correlative rights of all interest owners within the proposed unit area, and should be approved.

**IT IS THEREFORE ORDERED THAT:**

(1) The Bluit San Andres Unit Area, comprising 1800 acres, more or less, in the Bluit-San Andres Associated Pool, Roosevelt 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).

(2) The lands included within the Bluit-San Andres Unit Area shall comprise:

TOWNSHIP 8 SOUTH, RANGE 37 EAST, NMPM  
 Section 11: SE/4 SE/4  
 Section 12: S/2 S/2  
 Section 13: All  
 Section 14: E/2 E/2  
 Section 24: N/2

TOWNSHIP 8 SOUTH, RANGE 38 EAST, NMPM  
 Section 18: W/2 NW/4, SW/4  
 Section 19: NW/4, W/2 NE/4

(3) The vertical limits of said Bluit San Andres Unit Area shall comprise the San Andres formation as found from a depth of 4640 feet (643 feet below mean sea level) to a depth of 4676 feet (679 feet below mean sea level) on the Nuclear Log run October 17, 1977 on the Murphy Operating Corporation Bluit Federal Well No. 3 located 660 feet from the South line and 1980 feet from the East line of Section 13, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(4) The applicant shall institute a waterflood project for the secondary recovery of oil and associated gas, condensate and all associated liquifiable hydrocarbons within and produced from the unit area, and said waterflood project is the subject of Case No. 8780.

(5) The Bluit San Andres Unit Agreement and the Bluit San Andres Unit Operating Agreement, being applicant's Exhibit Nos. 3 and 4 in this case, are hereby incorporated by reference into this Order.

(6) The Bluit San Andres Unit Agreement and Bluit San Andres Unit Operating Agreement provide for unitization and unit operation of the Bluit-San Andres Associated Pool upon terms and conditions that are fair, reasonable and equitable.

(7) Since 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.

(8) 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.

(9) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

**BLUITT-SAN ANDRES ASSOCIATED POOL**  
 (Waterflood Project)  
 Roosevelt County, New Mexico

Order No. R-8118, Authorizing Murphy Operating Corporation to Institute a Waterflood Project in the Bluit San Andres Unit Area in the Bluit-San Andres Associated Pool, Roosevelt County, New Mexico, January 6, 1986.

Application of Murphy Operating Corporation  
 for a Waterflood Project, Roosevelt County,  
 New Mexico.

CASE NO. 8780  
 Order No. R-8116

**ORDER OF THE DIVISION**

BY THE DIVISION: This cause came on for hearing at 8 a.m. on December 4, 1985, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 6th day of January, 1986, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Murphy Operating Corporation, seeks authority to institute a waterflood project in its Bluit San Andres Unit, located entirely within the Bluit-San Andres Associated Pool, by the injection of water into the San Andres formation through the perforated intervals from approximately 4640 feet to 4676 feet in four existing wells as shown on Exhibit "A" attached hereto and made a part hereof, all located in Section 13, Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

(3) The subject case was consolidated with Division Case No. 8779 for purposes of testimony.

**(BLUITT-SAN ANDRES ASSOCIATED (WATERFLOOD PROJECT) POOL - Cont'd.)**

(4) The project area should consist of that area within the boundary of the Bluit San Andres Unit Area, as described in Division Order R-8117 issued in said Case No. 8779.

(5) The wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(6) The proposed waterflood project should result in the recovery of otherwise recoverable oil, thereby preventing waste.

(7) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(8) Injection should be accomplished through plastic-lined tubing installed in a packer set approximately 100 feet above the uppermost perforation, or in the case of an open hole completion, approximately 100 feet above the casing shoe. The casing-tubing annulus in each injection well should be filled with an inert fluid and a surface pressure gauge or approved leak detection device should be attached to the annulus.

(9) The injection wells or system should be equipped with a pressure control device of acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation. The Division Director should have authority to administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(10) Prior to commencing injection operations, the casing in each of the proposed injection wells should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(11) All wells within the unit area should be equipped with risers or in some other acceptable manner to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(12) The applicant further proposed the establishment of an administrative procedure for the approval without notice and hearing of the drilling of wells at orthodox and unorthodox locations, and also for the expansion of said waterflood project within the unit boundaries.

(13) The project area allowable should be equal to the ability of the wells to produce and shall not be subject to the depth bracket allowable for the pool nor to the market demand percentage factor.

(14) The subject application should be approved and the project should be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

**IT IS THEREFORE ORDERED THAT:**

(1) The applicant, Murphy Operating Corporation, is hereby authorized to institute and operate a waterflood project in the Bluit San Andres Unit Area within the Bluit-San Andres Associated Pool, Roosevelt County, New Mexico, by the injection of water into the San Andres formation through four injection wells located in Section 13, Township 8 South, Range 37 East, Roosevelt County, New Mexico, and described in Exhibit "A" attached to this order and by reference made a part hereof.

(2) Injection shall be accomplished through plastic-lined tubing installed in a packer set approximately 100 feet above the uppermost perforation, or in the case of an open hole completion, approximately 100 feet above the casing shoe. The casing-tubing annulus in each injection well shall be filled with an inert fluid and a surface gauge or approved leak detection device shall be attached to the annulus.

(3) The injection wells or system shall be equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 0.2 psi per foot of depth to the uppermost perforation. The Division Director may administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in fracturing of the confining strata.

(4) All wells within the unit area shall be equipped with risers or some other acceptable equipment so as to facilitate the periodic testing of the bradenhead for pressure or fluid production.

(5) Prior to commencing injection operations, the casing in each of the proposed injection wells shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's Hobbs district office.

(6) The Director of the Oil Conservation Division shall have authority to approve, without notice and hearing, the drilling of wells at unorthodox locations anywhere within the boundary of the Bluit San Andres Unit Area, provided however, no unorthodox location shall be closer than ten feet to any quarter-quarter section line, and provided further, that no such unorthodox location shall be closer than 330 feet to the outer boundary of the Unit area, unless such well is covered by a lease-line agreement with the operator of the lands offsetting such well, and a copy of the lease-line agreement accompanies the application for such unorthodox location, or unless such offset operator has waived objection to the proposed unorthodox location in writing, and his waiver accompanies the application. Applications for such additional producing or injection wells shall be made in accordance with the appropriate General Rules of the Division.

(7) The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in any of said injection wells, the leakage of water or oil from or around any producing well, or the leakage of water or oil from any plugged and abandoned well within the project area and shall take such timely steps as may be necessary or required to correct such failure or leakage.

**(BLUITT-SAN ANDRES ASSOCIATED (WATERFLOOD PROJECT) POOL - Cont'd.)**

(8) The subject waterflood project is hereby designated the Bluitt San Andres Unit Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(9) The project area for the Bluitt San Andres Unit Waterflood Project shall comprise the entire area within the Bluitt San Andres Unit as described in Division Order R-8117.

(10) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(11) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

EXHIBIT "A"  
Case No. 8780  
Order No. R-8118

**INJECTION WELLS**

Well Name & Number	Location
Bluitt Federal Well No. 1	Unit I, Sec. 13
Bluitt Federal Well No. 3	Unit O, Sec. 13
Baetz Federal Well No. 1	Unit G, Sec. 13
Baetz Federal Well No. 2	Unit K, Sec. 13

All wells located in Township 8 South, Range 37 East, NMPM, Roosevelt County, New Mexico.

**POWER GRAYBURG-SAN ANDRES POOL**  
(Power Grayburg (Federal) Unit Waterflood Project)  
Eddy County, New Mexico

Order No. R-8165, Authorizing Eastland Oil Company to Institute a Waterflood Project on its Power Grayburg (Federal) Unit into the Grayburg formation in the Power Grayburg-San Andres Pool, Eddy County, New Mexico, February 25, 1986.

Application of Eastland Oil Company for a Waterflood Project, Eddy County, New Mexico.

CASE NO. 8787  
Order No. R-8165

**ORDER OF THE DIVISION**

BY THE DIVISION: This cause came on for hearing at 8 a.m. on December 18, 1985 at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 25th day of February, 1986, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS THAT:**

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) At the time of the hearing this case was consolidated with Division Case No. 8786 for purposes of testimony.

(3) The applicant, Eastland Oil Company, seeks authority to institute a waterflood project on its proposed Power Grayburg (Federal) Unit, Power Grayburg-San Andres Pool, by the injection of water under pressure in excess of 0.2 psi per foot of depth to the uppermost perforation in the Grayburg formation through the following wells in Eddy County, New Mexico:

(a) by the conversion of the Allied Federal Well No. 2 located 660 feet from the North line and 1980 feet from the East line (Unit B) and the Kenwood Federal Well No. 3 located 660 feet from the North and West lines (Unit D), both in Section 6, Township 18 South, Range 31 East, NMPM, and the Sibyl Federal Well No. 2 located 1650 feet from the North line and 330 feet from the East line (Unit H) of Section 1, Township 18 South, Range 30 East, NMPM, and,

(b) by re-entering and recompleting the ARCO-Federal Well No. 3 located 330 feet from the North line and 1980 feet from the West line (Unit C) of Section 5, Township 18 South, Range 31 East, NMPM.

(4) The wells in the project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(7) The previously abandoned Stagner Well No. 1 located 1980 feet from the South and East lines of Section 31, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico, is located within one-half mile of the applicant's Allied Federal Well No. 2, as described above.

(8) Evidence presented at the time of the hearing indicates that said Stagner Well No. 1 was originally spudded by P. B. English on November 21, 1938, drilled to a total depth of 4252 feet, and was subsequently plugged and abandoned on March 21, 1939. On November 24, 1956, Ernest A. Hanson attempted to re-enter the wellbore but encountered "junk casing" at 295 feet, at which time the well was plugged and abandoned a second time.

(9) Prior to commencement of injection into the Allied Federal Well No. 2 the Operator should demonstrate, to the satisfaction of the supervisor of the Division's district office in Artesia, that the Stagner Well No. 1 has been re-entered and re-plugged or has been previously plugged and abandoned in such a manner as to ensure that it does not provide an avenue of escape for waters from the proposed injection zone or that said wellbore will not otherwise serve for such escape.

(10) Prior to commencing injection operations, the casing in each of the subject wells should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(11) The injection into each well should be accomplished through internally plastic lined tubing installed in a packer which should be set as near as practicable to the uppermost perforations; the casing-tubing annulus in each well should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in each well in order to determine leakage in the casing, tubing, or packer.

(12) Based in the evidence presented which indicates the formation fracture pressure exceeds 0.2 psi per foot of depth in this area, the injection wells or injection pressurization system