

SOUTH BLANCO-TOCITO POOL  
(Formerly the Pettigrew-Tocito Pool)  
Rio Arriba County, New Mexico

Order No. R-1191, Adopting Rules for the South Blanco-Tocito Pool, Rio Arriba County, New Mexico, June 10, 1958, as Amended by Order No. R-1191-A, May 21, 1959, Order No. R-2186, February 14, 1962, and Order No. R-1191-C, February 5, 1964.

Order No. R-1191 supersedes Order No. R-326, May 26, 1953, as Amended by Order No. R-1104, December 14, 1957, Order No. R-1144, March 25, 1958.

Application of Caulkins Oil Company to amend the special pool rules for the South Blanco-Tocito Oil Pool, Rio Arriba County, New Mexico.

CASE NO. 1420  
Order No. R-1191

ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m. on April 16, 1958, at Roswell, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 10th day of June, 1958, the Commission, a quorum being present, having considered the application and the evidence adduced, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Caulkins Oil Company, is the operator of a water injection project in the South Blanco-Tocito Oil Pool in Rio Arriba County, New Mexico.

(3) That the applicant proposes that the Special Rules and Regulations for the South Blanco-Tocito Oil Pool as promulgated by Order No. R-326, dated May 26, 1953, and by Commission Order No. R-1144, dated March 25, 1958, be amended to provide for a system of transferring allowables within said water injection project and to provide credit against gas-oil ratio limitations for net water injected into the reservoir.

(4) That amendment of the Special Rules and Regulations for the South Blanco-Tocito Oil Pool to provide that allowables may be transferred from injection wells to other producing wells within the water injection project will not impair correlative rights;

(5) That production from any one well within the water injection project should be limited to twice the top unit allowable or three hundred (300) barrels a day, whichever is greater.

(6) That in order to prevent the waste of casinghead gas, a no-flare order should be entered for the South Blanco-Tocito Oil Pool, effective October 1, 1958.

(7) That the Rules and Regulations for the South Blanco-Tocito Oil Pool, as set forth in Commission Order No. R-326, dated May 26, 1953, and Commission Order No. R-1144, dated March 25, 1958, should be superseded by this order so as to consolidate all Special Rules and Regulations for the South Blanco-Tocito Oil Pool and for the South Blanco-Tocito Water Injection Project in one order.

(8) That the findings of the Commission, as recited in Commission Order R-326 and Commission Order R-1144, should be incorporated by reference in this order.

IT IS THEREFORE ORDERED:

(1) That the findings of the Commission, as recited in Commission Order R-326 and Commission Order R-1144, be and the same are hereby incorporated by reference in this order.

(2) That the Rules and Regulations for the South Blanco-Tocito Oil Pool as set forth in Commission Order R-326, dated May 26, 1953, and Commission Order R-1144, dated March 25, 1958, be and the same are hereby superseded.

(3) That Special Pool Rules for the South Blanco-Tocito Pool, Rio Arriba County, New Mexico, be and the same are hereby promulgated as follows, effective July 1, 1958:

SPECIAL RULES AND REGULATIONS  
FOR THE SOUTH BLANCO-TOCITO OIL POOL

RULE 1. Any well drilled to or completed in the Tocito formation within one mile of the boundaries of the South Blanco-Tocito Oil Pool shall be spaced, drilled, operated, and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. All wells projected to or completed in the South Blanco-Tocito Oil Pool shall be located on a tract containing 80 acres, more or less, comprising the East half, West half, North half, or South half of the governmental quarter section in which the well is located. Allowables for wells located on such 80-acre tracts shall be assigned in accordance with the 80-acre proportional factor for pools in the 6000 to 7000-foot depth range. Wells located on tracts comprising less than 80 acres shall be assigned an allowable which shall bear the same proportion to the standard 80-acre allowable that the acreage assigned to such well bears to 80 acres.

RULE 3. All wells hereafter projected to or completed in the South Blanco-Tocito Oil Pool shall be located in the center of the Northwest quarter or the Southeast quarter of a governmental quarter section, with a tolerance of 100 feet in any direction to avoid surface obstructions.

RULE 4. That all wells hereafter projected to or completed in the South Blanco-Tocito Oil Pool shall be cased in accordance with the following casing rules:

(a) The surface casing shall consist of new or reconditioned pipe with an original mill test of not less than 1000 pounds per square inch, and at least one string of surface casing shall be set at a depth sufficient to protect all potable water-bearing strata encountered, and not less than 450 feet below the surface of the ground. Sufficient cement shall be used to fill the annular space back of the pipe to the bottom of the cellar. Cement shall be allowed to stand a minimum of 24 hours before initiating tests. Before drilling the plug a pump pressure of at least 600 pounds per square inch shall be applied. If at the end of 30 minutes the pressure shows a drop of 100 pounds per square inch, or more, the casing shall be condemned, subject to corrective operations and further testing.

(b) The producing oil string shall consist of new or reconditioned pipe with an original mill test of not less than 2100 pounds per square inch. The producing string shall be set and cemented with sufficient cement to fill the calculated annular space behind the pipe to a minimum of 1000 feet above the guide shoe. Cement shall be allowed to stand a minimum of 72 hours before initiating tests. Before drilling the plug a pump pressure of at least 600 pounds per square inch shall be applied.

Before the Oil Conservation Division  
Case 14395  
Hearing October 29, 2009  
XTO Energy, Inc.  
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# TH BLANCO-TOCITO (FORMERLY THE PETTIGREW- TITO POOL) POOL - Cont'd.)

If at the end of 30 minutes the pressure shows a drop of 100 pounds per square inch, or more, the casing shall be condemned, subject to corrective operations and further testing.

**RULE 5.** (As Amended by Order No. R-2186, February 14, 1962.) Upon completion of any well in the South Blanco-Tocito Oil Pool and annually, during the month of October, a bottom-hole pressure test shall be made and a report thereof filed with the Commission on Commission Form C-124. Bottom-hole pressures shall be taken in accordance with the provisions of Rule 302 of the Commission Rules and Regulations except that wells shall remain shut-in for a minimum of 72 hours prior to testing. Tests shall be corrected to a reservoir datum plane of minus one hundred feet (-100).

**RULE 6.** Upon completion of any well in the South Blanco-Tocito Oil Pool and semi-annually during the months of April and October, a gas-oil ratio test shall be made and a report thereof filed with the Commission on Commission Form C-116.

**RULE 7.** Prior to making tests required in Rules 5 and 6 above, each operator in the South Blanco-Tocito Oil Pool shall notify all other operators in the pool, as well as the Commission of the time such tests are to be conducted. Tests may be witnessed by representatives of the other operators and the Commission, if they so desire.

**RULE 8.** The limiting gas-oil ratio for the South Blanco-Tocito Oil Pool shall be two thousand (2000) cubic feet of gas for each barrel of oil produced.

**RULE 9.** No casinghead gas produced from any well completed in the South Blanco-Tocito Oil Pool shall be flared or vented after October 1, 1958.

**RULE 10.** All wells drilled to and completed in the South Blanco-Tocito Oil Pool prior to May 26, 1953, whose locations do not conform to the well spacing requirements of Rule 3 above are excepted from the requirements of said Rule and their locations are hereby approved as unorthodox well locations. This approval shall apply to the following wells:

	Well No.	Unit	Sec.	Twp.	Rge.
Caulkins Oil Company	T-132	A	9	26N	6W
Caulkins Oil Company	T-134	C	10	26N	6W
Caulkins Oil Company	T-157	E	10	26N	6W
Caulkins Oil Company	T-182	K	10	26N	6W
Caulkins Oil Company	T-207	O	10	26N	6W

**RULE 11.** In addition to the above Rules for the South Blanco-Tocito Oil Pool, the following Rules shall apply to the operation of all wells completed in the Tocito formation and located within the South Blanco Water Injection Project Area, hereinafter referred to as the "Project."

(a) 1. (As Amended by Order No. R-1191-A, May 21, 1959, and Order No. R-1191-C, February 5, 1964.) The project area shall comprise that area described as follows:

T-26-N, R-6-W S/2 SW/4 Sec. 3; S/2 Sec. 4; S/2 S/2 Sec. 5; Sec. 6; NE/4 Sec. 7; N/2 Sec. 8; N/2, N/2 S/2 Sec. 9; N/2, N/2 SW/4, SE/4 Sec. 10; Secs. 11, 12; N/2 Sec. 13; N/2 Sec. 14.

2. Expansion of the project area to include additional acreage may be approved administratively by the Secretary-Director of the Commission for good cause shown. To obtain such approval, the project operator shall file proper application with the Commission, furnishing copies of said application to all interested parties. "Interested parties" are defined as being working interest owners and royalty owners within the project area and immediately offsetting it. The Secretary-Director may approve the expansion of the project area if, within 20 days after receiving the application, no objection is received from any interested party. The Secretary-Director may grant immediate approval provided waivers of objection are received from all interested parties.

(b) The allowable for the Project shall be the sum of the allowables of the several wells within the project area, including those wells which are shut-in or are used as water injection wells. Allowables for all wells shall be determined in a manner hereinafter prescribed.

(c) Allowables for water injection wells may be transferred to producing wells within the project area, as may be the allowables for producing wells which, in the interest of more efficient operation of the Project, are shut-in or are curtailed in their rate of production.

(d) The project allowable may be produced from any well or wells in the project area in any proportion, provided said rate of production is consistent with efficient operation of the Project and provided further, that no well shall produce in excess of two times the top unit allowable for the South Blanco-Tocito Oil Pool, or 300 barrels per day, whichever is greater.

(e) The allowable assigned to any water injection well, which is to be transferred to any other well or wells in the Project area for production, shall in no event exceed the producing capacity of the well prior to conversion to water injection, as determined by the average daily rate of production during the last three months the well was produced prior to such conversion.

Conversion of producing wells to water injection, as abandonment of said producing wells is necessitated by water encroachment, shall be made only after approval of such conversion by the Secretary-Director of the Commission. To obtain such approval, the Project operator shall file proper application for conversion with the Commission, providing copies of said application to all interested parties. The Secretary-Director may approve the conversion to water injection if, within 20 days after receiving the application, no objection to said conversion is received. The Secretary-Director may grant immediate approval provided waivers of objection are received from all interested parties.

(f) The allowable assigned to any well which is to be shut-in or curtailed and which is to be transferred from said well to any other well or wells in the project area shall in no event exceed the ability of the well to produce oil as determined by a 24-hour test at a stabilized rate of production, which shall be the final 24-hour period of a 72-hour test throughout which the well under test shall be produced in the same manner and at a constant rate. The project operator shall notify all other operators in the South Blanco-Tocito Oil Pool, as well as the Commission, of the time such tests are to be conducted. Tests may be witnessed by representatives of the other operators and the Commission, if they so desire.

(g) The allowable assigned to any well in the Project shall be based upon the ability of the well to produce oil and shall be subject to the limiting gas-oil ratio (2000 to 1) for the South Blanco-Tocito Oil

## (SOUTH BLANCO-TOCITO POOL - Cont'd.)

Pool, except that credit for daily average net water injected into the Tocito formation through any injection well or wells located within the project area may be applied to any well or wells producing with a gas-oil ratio in excess of two thousand cubic feet of gas per barrel of oil. Total credit for net water injected in the project area shall be the gas equivalent volume of the daily average net water injected during a one-month period. The daily average gas equivalent of net water injected shall be computed in accordance with the following formula:

E-g:  $(V-w \text{ inj} - V-w \text{ prod}) X$

$$\frac{5.61 \text{ ft}^3 \times P-a \times 520 \text{ degrees} \times 1}{\text{bbl } 15.025 \text{ } 625 \text{ degrees} \times Z}$$

where:

E-g	equals	Average daily gas equivalent of net water injected
V-w inj	equals	Average daily volume of water injected, barrels
V-w prod	equals	Average daily volume of water produced, barrels
P-a	equals	Average reservoir pressure at datum of -100 feet, psig $\pm$ 11.5, as determined from most recent semi-annual survey.
15.025	equals	Pressure base, psi
520 degrees	equals	Temperature base of 60 degrees F expressed as absolute temperature
635 degrees	equals	Reservoir temperature of 175 degrees F expressed as absolute temperature
Z	equals	Supercompressibility factor for 0.7 gravity gas at average reservoir pressure, P-a, interpolated from supercompressibility tabulation below:

Pressure	Z	Pressure	Z
2000	0.845	1200	0.889
1900	0.849	1100	0.897
1800	0.853	1000	0.905
1700	0.857	900	0.914
1600	0.861	800	0.923
1500	0.865	700	0.932
1400	0.873	600	0.941
1300	0.881	500	0.950

Distribution of the total calculated average daily gas equivalent volume may be made to any well or wells with gas-oil ratios in excess of two thousand to one. The daily adjusted oil allowable for any such well receiving water injection credit shall be determined as follows:

Well's

Adjusted equals  $(\text{Top unit allowable} \times 2000) \div \text{gas equivalent volume assigned to well}$   
Allowable  $\div \text{Well's gas-oil ratio}$

provided however, that in no event shall the gas equivalent volume assigned to a well be such as to cause the well's adjusted allowable to exceed the top unit allowable for the pool.

(h) Each month the project operator shall, within three days after the normal unit allowable for Northwest New Mexico has been established, submit to the Commission a South Blanco-Tocito Water Injection Project Operator's Report, on a form prescribed by the Commission, outlining thereon the data required, and requesting allowables for each of the several wells in the Project.

(i) The Commission shall, upon review of the report and after any adjustments deemed necessary, assign allowables to each well in the Project for the next succeeding month in accordance with these rules.

(j) The Special Rules and Regulations for the operation of wells in the project area shall prevail as against the Special Rules and Regulations for the South Blanco-Tocito Oil Pool, if in conflict therewith.

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

### BISTI-LOWER GALLUP POOL San Juan County, New Mexico

Order No. R-1069-B, Adopting Temporary Operating Rules for the Bisti-Lower Gallup Pool, San Juan County, New Mexico, January 17, 1958, as Amended by Order No. R-1069-F, June 1, 1973, and Order No. R-1069-G, March 23, 1976.

Order No. R-1069-D, February 2, 1959, makes permanent the rules adopted in Order No. R-1069-B.

Application of Sunray Mid-Continent Oil Company for an order extending the horizontal limits of the Bisti-Lower Gallup Oil Pool, in San Juan County, New Mexico, and temporarily establishing uniform 80-acre well spacing and promulgating special rules and regulations for said pool.

CASE NO. 1308  
Order No. R-1069-B

### ORDER OF THE COMMISSION

BY THE COMMISSION: This cause came on for hearing at 9 o'clock a.m., on September 18, 1957, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," and that this cause came on for rehearing before the Commission, upon the petition of Sunray Mid-Continent Oil Company et al, at 9 o'clock a.m. on December 18, 1957 at Santa Fe, New Mexico.

NOW, on this 17th day of January, 1958, the Commission, a quorum being present, having considered the application, the petitions for rehearing, and the evidence adduced at both the original hearing and the rehearing and being fully advised in the premises,

#### FINDS:

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

(2) That Order No. R-1069 should be superseded by this order.

(3) That the Commission found in Order No. R-1069 that "... the Commission should continue to follow its established policy of extending the horizontal limits of oil and gas pools in the State of New Mexico to include only such acreage as has been proven productive by actual drilling operations."

(4) That the petitioners on rehearing failed to show cause why the Commission should deviate from the aforementioned policy in the Bisti-Lower Gallup Oil Pool.

(5) That sufficient evidence was adduced by the petitioners on rehearing, in addition to the evidence adduced at the original hearing, to justify the establishment of 80-acre proration units in the Bisti-Lower Gallup Oil Pool on a temporary basis.

**BASIN-MANCOS GAS POOL**  
Rio Arriba, San Juan and Sandoval Counties, New Mexico

Order No. R-12984, Adopting Operating Rules for the Basin-Mancos Gas Pool, Rio Arriba, San Juan and Sandoval Counties, New Mexico, September 3, 2008.

Application of the New Mexico Oil Conservation Division for Pool Creation, Pre-Approved Down-Hole Commingling and Designation of Special Pool Rules, Basin-Mancos Gas Pool (97232), Rio Arriba, San Juan and Sandoval Counties, New Mexico.

Case No. 14133  
Order No. R-12984

**ORDER OF THE DIVISION**

BY THE DIVISION: This case came on for hearing at 8:15 a.m. on May 29, 2008, at Santa Fe, New Mexico, before Examiners David K. Brooks and Terry G. Warnell.

NOW, on this 3rd day of September, 2008, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.

(2) The Division, through the District Supervisor of District Three, seeks an order creating a new pool in Rio Arriba and San Juan Counties, and a portion of Sandoval County, to be called the Basin-Mancos Gas Pool. The Division further seeks an order pre-approving down-hole commingling of gas produced from the new pool with gas produced from the Mesaverde and/or Dakota formations in the same wellbore. Finally, the Division seeks expansion and contraction of certain existing pools to conform to the pattern of existing production.

(3) At the hearing, the Division appeared through counsel and presented the testimony of Steven N. Hayden, District Geologist for the Division in District Three. Mr. Hayden testified as follows:

(a) The Mancos formation is a distinctive geologic formation that can be generally correlated throughout the San Juan Basin of Rio Arriba and San Juan Counties, New Mexico. Vertically, it lies above the Dakota formation, and beneath the Mesaverde formation.

(b) The Mancos formation has often been incorrectly called the Gallup. Accordingly, although the Gallup formation is not present in most of the San Juan Basin, there are several existing pools that are called "Gallup" within the area of the proposed new pool.

(c) The existing Gallup pools are governed by different spacing rules that require a variety of different unit sizes and setbacks.

(d) Spacing in the Mancos in areas not included in existing Gallup Pools is on 160-acre units, with setbacks of 660 feet from quarter-section lines. This is different from the spacing provided by special pool rules for the Mesaverde and Dakota Gas Pools, which require

320-acre units, with setbacks of 660 feet from unit boundaries and 10 feet from quarter section lines.

(e) The Mancos formation is marginally productive, such that, in most places, stand-alone Mancos wells would not be economic. However, the gas in the Mancos can be economically produced from wells that can also be completed in the Mesaverde and/or Dakota formations.

(f) To facilitate the drilling of wells with multiple completions in these three formations, there is a need for a new Mancos pool with pool rules establishing the same spacing pattern for the Mancos as is provided in existing special pool rules for the Mesaverde and Dakota.

(g) There is no reason not to provide the same spacing in the Mancos as in these other formations because a well will drain a lesser area in the Mancos than in the Mesaverde or Dakota, and the Mancos is so marginal that gas that cannot be produced from wells also completed in one or more other formations will generally not be economic to produce.

(h) Down-hole commingling of gas production from the Mesaverde and Dakota formations is already pre-approved. Pre-approval of downhole commingling of Mancos production with these other formations will further facilitate production of Mancos gas through wells also completed in other formations.

(i) To protect the correlative rights of owners of producing wells, the existing Gallup pools should be expanded to include the units held by those wells, but should be contracted to exclude units not so held, without, however, impairing the contiguity of these pools.

(j) The Mancos formation in all other areas not included in the existing Gallup pools should be included in the new Basin-Mancos Pool.

(4) Williams Production Company appeared at the hearing through counsel in support of the Division's application. No other party appeared at the hearing or otherwise opposed granting of the application.

The Director concludes that:

(5) There is a need for the creation of a new gas pool to be called the Basin Mancos Gas Pool, including all of San Juan and Rio Arriba Counties, and a portion of Sandoval County, New Mexico not included in existing Gallup Pools. The vertical limits of this new pool should extend from the base of the Point Lookout formation (the lowest subdivision of the Mesaverde) to the base of the Greenhorn member of the Mancos formation.

(6) In order to prevent waste by making possible production from the Mesaverde that would otherwise be uneconomic, special pool rules should be adopted for the new Basin-Mancos Gas Pool providing spacing identical to that now provided for the Blanco-Mesaverde and Basin-Dakota Gas Pools.

(7) In order to protect correlative rights of owners of existing producing wells, there exists a need to expand certain existing Gallup pools to include units having producing wells that were drilled in accordance with the spacing rules for those pools. For the same reason, the special pool rules for the new Basin-Mancos Pool should

*Before the Oil Conservation Division*  
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**ASIN-MANCOS GAS POOL - Cont'd.)**

provide for the preservation of existing 160-acre wildcat Mancos units on which wells capable of production from the Mancos have been drilled.

(8) The Division has requested that the Special Pool Rules for the proposed new pool provide that exceptions to the well density provisions may be authorized only after hearing. Because no reason was shown why either division staff or operators should be burdened with hearings about uncontested matters, provision should be made for granting such exceptions only after notice to affected persons and opportunity for a hearing if requested.

(9) With reference to the Division's application for pre-approval of down-hole commingling of production from the Basin-Mancos Gas Pool with production from the Dakota and Mesaverde formations, the Division did not present the evidence required for pre-approval by Rule 303.C(4)(b). Accordingly, the Division's application for pre-approval of down-hole commingling should be denied, without prejudice to future applications for well-specific down-hole commingling between the subject pools, and also without prejudice to any new application for pre-approval that the Division or any operator may file either as a hearing application, or as an administrative application, in accordance with Rule 303.C(4).

**IT IS THEREFORE ORDERED THAT:**

(1) A new pool is hereby established which shall be designated the "Basin-Mancos Gas Pool" (Pool Identification No. 97232). The vertical limits of the Basin-Mancos Gas Pool shall be from the base of the Point Lookout formation (the lowest subdivision of the Mesaverde) to the base of the Greenhorn member of the Mancos formation. The horizontal boundaries shall be all of San Juan and Rio Arriba Counties, New Mexico, and all of Section 21, Township 23 North, Range 5 West, N.M.P.M. in Sandoval County, New Mexico.

(2) The Special Rules for the Basin-Mancos Gas Pool, as set forth in Exhibit A to this order are hereby adopted, to be effective on the date this order is issued.

(3) The following existing pools are hereby contracted by removing therefrom the lands provided below:

**B. S. Mesa Gallup Gas Pool (72920)**

T27N R4W  
Section 32 S/2

**Devil's Fork Gallup Associated Pool (17610)**

T24N R6W  
Section 29 N/2 and SE/4

T24N R7W  
Section 11 E/2  
Section 14 E/2 and SW/4

T25N R6W  
Section 17 E/2  
Section 18 All  
Section 21 NE/4

Section 26 SE/4  
Section 35 NE/4

T25N R7W  
Section 13 NW/4  
Section 25 All  
Section 36 N/2

**Dufer's Point Gallup-Dakota Oil Pool (19859)**

T25N R8W  
Section 5 SW/4  
Section 19 W/2 and NE/4  
Section 20 NW/4

**Escrito Gallup Associated Pool (22619)**

T24N R7W  
Section 7 S/2 SW/4  
Section 23 W/2 NW/4 and SW/4  
Section 33 E/2  
Section 35 W/2 NW/4

**Gallegos Gallup Associated Pool (26980)**

T26N R11W  
Section 6 SW/4

T26N R12W  
Section 1, 2 S/2  
Section 3 S/2 and NW/4  
Section 4 All  
Section 24 SW/4  
Section 25 NW/4

T27N R12W  
Section 30 SW/4  
Section 31 N/2  
Section 32 S/2  
Section 33 SW/4

T27N R13W  
Section 22 SW/4  
Section 25 S/2

**Ice Canyon Gallup Gas Pool (93235)**

T26N R7W  
Section 23 W/2

**Kutz Gallup Oil Pool (36550)**

T27N R10W  
Section 5 NW/4

T28N R10W  
Section 32 SW/4

## (BASIN-MANCOS GAS POOL - Cont'd.)

**Laguna Seca Gallup Gas Pool (79870)**

## T31N R5W

Section 19 SE/4  
 Section 20 S/2  
 Section 21 S/2  
 Section 22 SW/4  
 Section 27 W/2  
 Section 28 All  
 Section 29 All  
 Section 30 NE/4  
 Section 32 N/2  
 Section 33 NW/4

## T31N R6W

Section 14 E/2  
 Section 23 N/2  
 Section 36 NE/4

**North Ojito Gallup-Dakota Oil Pool (48025)**

## T26N R2W

Section 30 All  
 Section 31 All

**Otero Gallup Oil Pool (48450)**

## T24N R5W

Section 1 W/2 and SE/4 of NW/4  
 Section 2 N/2 N/2

**Tapacito Gallup Associated Pool (58090)**

## T26N R5W

Section 18 SW/4  
 Section 19 W/2 and SE/4  
 Section 20 S/2  
 Section 21 S/2

**Totah Gallup Oil Pool (59750)**

## T28N R13W

Section 13 S/2 NE/4

## T29N R13W

Section 18 S/2  
 Section 19 NE/4

Section 20 W/2 NW/4 and S/2  
 Section 21 W/2 SW/4  
 Section 27 N/2  
 Section 28 N/2  
 Section 35 N/2

## T29N R14W

Section 11 S/2 SW/4  
 Section 15 N/2 NE/4  
 Section 23 E/2 NE/4  
 Section 24 NW/4, E/2 SE/4

**Wild Horse Gallup Gas Pool (87360)**

## T26N R3W

Section 3 S/2  
 Section 4 S/2  
 Section 5 SE/4  
 Section 6 N/2  
 Section 19 W/2

**Willow Gallup Gas Pool (96379)**

## T31N R4W

Section 10 E/2  
 Section 11 N/2 and SW/4  
 Section 14 W/2  
 Section 22 NE/4  
 Section 23 SE/4  
 Section 24 W/2

(4) The following existing pools are hereby expanded by adding thereto the lands provided below:

**Baca Gallup Oil Pool (3745)**

## T26N R8W

Section 5 SW/4 SE/4, W/2 W/2 and SE/4 SW/4  
 Section 8 N/2 SE/4 and NE/4 SW/4  
 Section 9 N/2 SW/4

**B. S. Mesa Gallup Gas Pool (72920)**

## T26N R5W

Section 2 NW/4  
 Section 3 N/2

**ASIN-MANCOS GAS POOL - Cont'd.)****Counselors Gallup-Dakota Oil Pool (13379)**

T23N R6W  
Section 13 NW/4

**Devil's Fork Gallup Associated Pool (17610)**

T24N R6W  
Section 14 SE/4  
Section 23 NE/4  
Section 24 NW/4

**Dufer's Point Gallup-Dakota Oil Pool (19859)**

T25N R8W  
Section 23 W/2  
Section 26 W/2

**Escrito Gallup Associated Pool (22619)**

T24N R6W  
Section 30 E/2 NE/4

**Gallegos Gallup Associated Pool (26980)**

T26N R11W  
Section 19 SW/4  
Section 22 S/2  
Section 23 SW/4  
Section 30 W/2  
Section 31 NW/4

**Gallo Canyon Gallup-Dakota Oil Pool (96369)**

T23N R5W  
Section 4 SW/4 SW/4  
Section 5 E/2 NE/4 and SW/4 NE/4 and SE/4  
Section 9 W/2 NW/4

**Ice Canyon Gallup Gas Pool (93235)**

T26N R7W  
Section 14 SE/4

**Laguna Seca Gallup Gas Pool (79870)**

T31N R6W  
Section 19 SE/4

Section 20 SW/4  
Section 30 E/2

**La Jara Canyon Gallup Gas Pool (96483)**

T30N R5W  
Section 26 S/2  
Section 27 S/2  
Section 34 W/2

**Lindrith Gallup Dakota, South Oil Pool (96483)**

T23N R4W  
Section 13 SE/4 Undelete

**Munoz Canyon Gallup Gas Pool (96767)**

T28N RSW  
Section 17 SW/4  
Section 18 S/2 and NW/4

**Otero Gallup Oil Pool (48450)**

T24N R5W  
Section 3 S/2 NE/4

**Tapacito Gallup Associated Pool (58090)**

T26N R5W  
Section 13 SE/4  
Section 24 NE/4

(5) The Division's application for pre-approval of down-hole commingling is denied, without prejudice to future applications for well-specific down-hole commingling between the Basin-Mancos Gas Pool and applicable Mesaverde and/or Dakota pools, and also without prejudice to any new application for pre-approval that the Division or any operator may file either as a hearing application, or as an administrative application, in accordance with Rule 303.C(4).

(6) Jurisdiction of this case 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.

## (BASIN-MANCOS GAS POOL - Cont'd.)

Exhibit A  
to Order No. R-12984

## Special Rules for the Basin-Mancos Gas Pool

## Rule 1: Applicability

A. In General: Any well completed or to be completed in the Basin-Mancos Gas Pool, or within two miles of the outer boundaries thereof, and not closer to, or within, another Mancos or Gallup Pool, shall be drilled and spaced in accordance with the Special Rules for the Basin-Mancos Gas Pool.

B. Exception: Any well drilled within the Basin-Mancos Gas Pool that is to be completed as a stand-alone oil well in the Mancos formation, and is within two miles of an outer boundary of any oil or associated pool identified in Order Paragraph (3) or (4) of Order R-12984 shall be drilled and spaced in accordance with the rules applicable to such pool, or, if there be more than one such pool within two miles, the rules applicable to the closest such pool.

## Rule 2: Spacing and Well Density

A. Standard Spacing Unit: A standard gas spacing unit in the Basin-Mancos Gas Pool shall consist of 320 acres, more or less, comprising any two contiguous quarter sections of a single section that is a legal subdivision of the U. S. Public Land Surveys.

## B. Well density:

(1) Up to four (4) wells may be drilled on a standard spacing unit, provided that:

(a) no more than two wells shall be located within any governmental quarter section in a standard or non-standard spacing unit;

(b) no more than one well shall be located within any governmental quarter-quarter section.

(c) any deviation from the above-described well density requirements shall be authorized only after notice to all affected persons, as defined in Rule 1210.A(2)(a), in all units or prospective units adjoining the spacing unit for which the deviation is sought, and opportunity for a hearing if requested by any party within twenty dates of the date notice is sent to such party.

(2) The well location and acreage dedication plat (Form C-102) accompanying the "Application for Permit to Drill ("APD") for each proposed Mancos gas well to be located in any spacing unit in which there is an existing Mancos gas well shall show the location (well name, footage location, API number) of all existing Mancos wells in the spacing unit, and the proposed new well.

## C. Well locations:

(1) Except as provided in subparagraph C.(2) below, any Basin-Mancos gas well shall be located not closer than 660 feet to the outer boundary of the spacing unit and not closer than 10 feet to any interior quarter or quarter-quarter section line or subdivision inner boundary.

(2) Well locations inside federal exploratory units: Wells located within federal exploratory units are permitted an exception to the 660-foot setback requirement to the outer boundary of a spacing unit, but shall be no closer than 10 feet to any section, quarter section, or interior quarter-quarter section line or subdivision inner boundary, provided however:

(a) no well shall be closer than 660 feet to the outer boundary of the federal exploratory unit;

(b) a well located in a spacing unit that adjoins an existing or prospective spacing unit containing a non-committed tract or partially committed tract shall not be closer than 660 feet to the outer boundary of such existing or prospective unit;

(c) a well located within a non-committed or partially committed spacing unit shall not be closer than 660 feet to the outer boundary of its spacing unit;

(d) a well located within a participating area but adjacent to an existing or prospective spacing unit that is not within the same participating area shall not be closer than 660 feet to the outer boundary of the participating area; and

(e) a well located in an existing or prospective spacing unit that is a non-participating spacing unit shall not be closer than 660 feet to the outer boundary of such its spacing unit.

(3) The operator filing an APD for any well within a unit area that is closer to the outer boundary of its assigned spacing unit than 660 feet shall provide proof in the form of a participating area plat that such well meets the requirements of Subparagraph C.(2) above.

## Rule 3: Transitional Provisions:

A. Existing Wells: Any well that was permitted as a wildcard Mancos gas well prior to the effective date of these rules, and was spud prior to such date, shall be dedicated to a 160-acre unit, in accordance with Division Rule 104.C(3); provided that the operator of any such well may re-dedicate the well to a 320-acre unit by filing a form C-102 showing such unit, and all Basin-Mancos wells therein, and attaching thereto either (a) a signed statement by an attorney or landman certifying that ownership of all interests, including working interests, royalty interests and overriding royalty interests, is uniform throughout the proposed spacing unit, or (b) signed consents from all owners of interests in the portion of the spacing unit where the well is located who own no interest, or a lesser interest, in any other portion of the proposed spacing unit. A second Basin-Mancos gas well may be drilled on any 160-acre unit dedicated to an existing well under this paragraph, provided that such second well shall not be located within the same quarter-quarter section as the existing well.

B. Stranded Units: Any quarter section that cannot be paired with another quarter section in the same section by reason of the configuration of existing units may be approved as a non-standard unit by the Aztec district office, without the filing of an application other than an APD with a plat attached demonstrating that such quarter section is a stranded unit. Well density in such non-standard unit shall be governed by Subparagraphs B.(1)(a) and B.(1)(b) of Rule 2.



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

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

APPLICATION OF WILLIAMS PRODUCTION CO., LLC, TO ABOLISH OR  
CONTRACT ALL GALLUP POOLS IN THE ROSA UNIT, SAN JUAN AND RIO  
ARRIBA COUNTIES, NEW MEXICO.

CASE NO. 14240  
ORDER NO. R-13063

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a. m. on November 13, 2008 at Santa Fe, New Mexico, before Examiners Richard Ezeanyim, Terry Warnell, and David Brooks.

NOW, on this 18<sup>th</sup> day of December 2008, the Division Director, having considered the testimony, the record and the recommendations of the Examiners;

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and of this case and of the subject matter.

(2) The applicant, Williams Production Co., LLC ("Applicant" or "Williams"), seeks authority to abolish or contract the three Gallup pools located wholly or partially within the Rosa Unit, which are the Laguna Seca-Gallup Pool (79870), the Cedro-Gallup Pool (96467), and the Willow Lake-Gallup Pool (96379).

(3) No operator or other party appeared in this case in opposition to the application.

(4) Williams is the present operator of the Rosa Unit which was approved by Division Order No. R-759, in Case No. 133 dated April 22, 1948, and which currently encompasses 54,209.49 acres, more or less, of federal, state and fee lands in San Juan and Rio Arriba Counties, as described below:

Township 32 North, Range 6 West, NMPM  
Sections 32 through 36: All

Before the Oil Conservation Division  
Case 14395  
Hearing October 29, 2009  
XTO Energy, Inc.  
Exhibit No. \_\_\_\_\_

**Township 31 North, Range 6 West, NMPM**

Sections 1 through 5: All  
Sections 8 through 17: All  
Sections 21 through 26: All

**Township 31 North, Range 5 West, NMPM**

Sections 3 through 36: All

**Township 31 North, Range 4 West, NMPM**

Sections 1 through 31: All

(5) The Applicant appeared at the hearing through legal counsel and presented the following land testimony:

(a) The Laguna Seca-Gallup Gas Pool (79870) was established by Division Order No. R-7277 on May 5, 1983. The boundaries of the pool, as heretofore amended, are as follows:

**Township 31 North, Range 5 West, NMPM**

Section 30: S/2  
Section 31: All  
Section 32: S/2  
Section 33: SW/4

**Township 31 North, Range 6 West, NMPM**

Section 19: SE/4  
Section 20: S/2  
Section 21: S/2  
Section 22: S/2, NE/4  
Section 23: S/2  
Sections 24 through 26: All  
Section 30: E/2

Part of this pool is located outside of the Rosa Unit boundaries. Therefore, Williams seeks to contract this pool so that the pool boundaries no longer include any portion of the Unit. This would mean that the pool boundaries as contracted would consist of the SE/4 of Section 19, the S/2 of Section 20 and the E/2 of Section 30, Township 31 North, Range 6 West, NMPM.

(b) The Willow-Gallup Gas Pool (96379) was established by Division Order No. R-8712 on September 1, 1988. The boundaries of the pool, as heretofore amended, are as follows:

**Township 31 North, Range 4 West, NMPM**

Section 11: SE/4  
Section 12: W/2  
Section 14: E/2  
Section 22: SE/4  
Section 23: N/2, SW/4  
Section 27: N/2  
Section 28: NE/4

Since the entire boundary of this pool is located within the Rosa Unit, Applicant requests this pool be abolished.

(c) The Cedro-Gallup Gas Pool (96467) was created by Division Order No. R-8713 on September 11, 1988. The boundaries, as heretofore amended, are as follows:

**Township 31 North, Range 5 West, NMPM**

Section 4: SW/4  
Section 9: W/2

The entire boundary of this pool is also wholly within the Rosa Unit and Applicant also seeks for this pool to be abolished.

(d) The Laguna Seca-Gallup Pool, the Willow-Gallup Pool and the Cedro-Gallup Pool all require a gas well producing from the Gallup formation to be dedicated to a 160-acre spacing unit.

(e) There are Gallup-producing gas wells in the Unit and approximately ninety (90%) percent of the Rosa Unit is federal lands. None of these wells is considered commercial by the Bureau of Land Management. Therefore, as this is a federal Unit, there are no Gallup Participating Areas in the Unit.

(f) Division Order No. R-12984, dated September 3, 2008, created a new gas pool called the Basin-Mancos Gas Pool and created Special Pool Rules for this gas pool. The Basin-Mancos Gas Pool's horizontal boundaries are all of San Juan and Rio Arriba Counties and all of Section 21, Township 23 North, Range 5 West, NMPM in Sandoval County, New Mexico. The vertical limits of the pool are from the base of the Point Lookout formation to the base of the Greenhorn member of the Mancos formation.

(g) Division Order No. R-12984 also contracted and expanded existing Gallup pools and promulgated Special Pool Rules that are consistent with the rules for the Mesaverde and Dakota formations.

(h) Abolishing or contracting the Gallup gas pools in the Rosa Unit would not have any negative effect on interest owners because ownership is common.

(i) The granting of this application would allow for all current and future Mancos gas wells to be dedicated to the Basin-Mancos Gas Pool, which would allow for uniformity of spacing and density, and would result in more efficient operation of the Unit. Williams plans to commingle Mancos production with Mesaverde and/or Dakota production.

(j) The Bureau of Land Management (BLM) has no objection to this application.

(6) Steve Hayden, the Oil Conservation Division District 3 Geologist, supported the abolishment of the three Gallup Pools in a letter to the conducting technical examiner. In the letter, Mr. Hayden stated that the original intent of the work-group that developed the Gallup pools was to do away with the Gallup pools entirely, and produce gas from the Mesaverde, the Mancos, and the Dakota formations.

(7) The Applicant's engineering witness testified as follows:

(i) There are currently a total of eight (8) wells producing from the Gallup formation in the Rosa Unit. The Rosa Unit Well Nos. 86 and 87 are dedicated to the Willow-Gallup Pool and had cumulative production of 60 and 84 Mcf respectively. The Rosa Unit Well No. 109 is dedicated to the Cedro-Gallup Pool and had cumulative production of 107 Mcf. The Rosa Unit Well Nos. 59, 77, 98, 101 and 116 are dedicated to the Laguna Seca-Gallup Pool and had cumulative production of 173, 386, 336, 104, and 209 Mcf respectively.

(ii) Each of these Gallup wells could be re-designated to the Basin-Mancos Gas Pool because the wells are all completed in sands that are within the vertical limits of the Mancos formation.

(iii) Re-designating these wells to the Mancos formation will not cause any drainage problems, or harm correlative rights, given the cumulative production numbers and daily production rates. In fact, Williams intends to downhole commingle production from the Mancos pool with production from the Mesaverde and/or the Dakota pools.

(iv) Williams has a Mancos development program in progress and has thus far completed four (4) wells in the Mancos formation. Williams plans to complete several more wells in the Mancos formation next year.

(8) Williams has provided notice of this application and of this hearing to all interest owners within the Unit including the United States Bureau of Land Management and the New Mexico State Land Office.

(9) This application should be approved.

**IT IS THEREFORE ORDERED:**

(1) The application of Williams Production Company, LLC (OGRID 120782) to abolish or contract all or portions of the Gallup pools which are located within the Rosa Unit is hereby approved.

(2) The Willow-Gallup Pool and the Cedro-Gallup Pool are hereby abolished.

(3) The Laguna Seca-Gallup Pool is contracted by removing therefrom the following lands:

**Township 31 North, Range 5 West, NMPM**

Section 30: S/2  
Section 31: All  
Section 32: S/2  
Section 33: SW/4

**Township 31 North, Range 6 West, NMPM**

Section 21: S/2  
Section 22: S/2, NE/4  
Section 23: S/2  
Sections 24 through 26: All

(4) The horizontal boundaries of the remaining Laguna Seca-Gallup Pool shall be as follows:

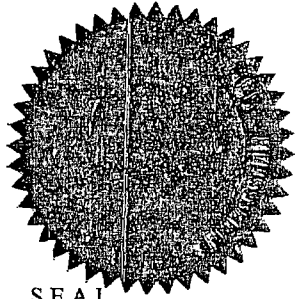
**Township 31 North, Range 6 West, NMPM**

Section 19: SE/4  
Section 20: S/2  
Section 30: E/2

(5) Production from wells currently completed in the Gallup shall be re-designated as Mancos production as of the first day of the first month following the date of this Order. Williams shall amend the necessary Division filings to indicate this re-designation. All future gas wells completed and produced in the Mancos formation shall be dedicated to the Basin-Mancos Gas Pool and conform to the Special Pool Rules for that pool.

(6) Jurisdiction of this case 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.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



MARK E. FESMIRE, P.E.  
DIRECTOR