

**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:**

**CASE NO. 10100 - Reopened
Order No. R-9330-B**

**IN THE MATTER OF CASE 10100 BEING
REOPENED PURSUANT TO THE PROVISIONS
OF DIVISION ORDER NO. R-9330, WHICH
ORDER PROMULGATED SPECIAL OPERATING
RULES AND REGULATIONS FOR THE SAN
ISIDRO (SHALLOW) UNIT IN SANDOVAL
COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on January 7, 1993, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 19th day of January, 1993, 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) By Order No. R-9330, issued in Case No. 10100 on October 26, 1990, the Division, upon application of Samuel Gary Jr. & Associates, Inc., promulgated Special Operating Rules and Regulations for the San Isidro (Shallow) Unit, located in portions of Townships 20 and 21 North, Ranges 2 and 3 West, Sandoval County, New Mexico, for the purpose of conducting a horizontal drilling program within the Unit in the Rio Puerco-Mancos Oil Pool.

(3) The subject special operating rules and regulations include, among other things, provisions whereby:

- a) spacing and proration units may consist of 320 acres or 640 acres. Spacing units consisting of 320 acres may be developed with one or more wells. Spacing units consisting of 640 acres may be formed provided that the horizontal wellbore penetrates both 320-acre units, and the resulting 640-acre unit may be developed with one or more wells;
- b) wells shall be located no closer than 660 feet from the outer boundary of the spacing or proration unit. Wells completed on any proration unit on the exterior of the San Isidro (Shallow) Unit shall not be closer than 1800 feet from any other well outside the Unit completed or drilling in the pool;
- c) a standard 320-acre proration unit shall receive an allowable of 320 barrels of oil per day. A non-standard 640-acre proration unit shall receive an allowable of 640 barrels of oil per day;
- d) applications to drill horizontal wellbores within the San Isidro (Shallow) Unit may be approved administratively;
- e) during a 60-day period while drilling and completing a horizontal wellbore within the Unit, said well shall receive a special oil allowable of up to 19,200 barrels; and,
- f) the limiting gas-oil ratio is 500 cubic feet of gas per barrel of oil.

(4) By Order No. R-9330-A issued in Case No. 10331 on August 1, 1991, the Division, upon application of Veteran Exploration Inc., the then current operator of the San Isidro (Shallow) Unit, amended the Special Operating Rules and Regulations for the San Isidro (Shallow) Unit to provide for administrative approval of 320-acre, 480-acre or 640-acre non-standard proration units consisting of contiguous quarter sections from more than one governmental section when a horizontal well crossing section lines is being applied for.

(5) Pursuant to the provisions of Division Order No. R-9330, Case No. 10100 is being reopened at this time to allow the operator of the San Isidro (Shallow) Unit or other interested parties to appear and present evidence and testimony to show cause why the special operating rules and regulations should remain in effect.

(6) Energy Development Corporation (EDC), the current operator of the San Isidro (Shallow) Unit, appeared at the hearing and presented evidence and testimony in support of continuing the special operating rules and regulations.

(7) The evidence and testimony indicates that EDC was an interest owner in the Unit at the time it was formed, and has participated with Samuel Gary Jr. & Associates, Inc. and Veteran Exploration, Inc. in the drilling of five wells to date within the Unit.

(8) EDC assumed Unit operations in late 1992.

(9) Testimony by EDC indicates that the special operating rules and regulations have provided the flexibility necessary to conduct horizontal drilling operations within the San Isidro (Shallow) Unit.

(10) Further testimony by EDC indicates that it intends to drill possibly four additional wells within the Unit in 1993.

(11) No other offset operator and/or interest owner appeared at the hearing to present evidence and testimony.

(12) The special operating rules and regulations should remain in effect until further order of the Division provided that the Division should have the opportunity to review current operations within the Unit in order to assess EDC's progress in drilling and production operations.

(13) EDC should be required to submit an annual report to the Division summarizing activity within the San Isidro (Shallow) Unit including drilling and production operations.

IT IS THEREFORE ORDERED THAT:

(1) The Special Operating Rules and Regulations for the San Isidro (Shallow) Unit, Sandoval County, New Mexico, as promulgated and amended by Division Order Nos. R-9330 and R-9330-A, respectively, are hereby continued in full force until further order of the Division.

(2) Energy Development Corporation or the current operator of the Unit shall submit an annual report to the Division summarizing activity within the San Isidro (Shallow) Unit including drilling and production operations.

(3) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 10100 - Reopened
Order No. R-9330-B
Page -4-

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



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read "William J. Lemay", is written over the typed name and title.

WILLIAM J. LEMAY
Director

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:

CASE NO. 10100
Order No. R-9330

APPLICATION OF SAMUEL GARY JR. & ASSOCIATES,
INC. FOR SPECIAL OPERATING RULES FOR
DRILLING HORIZONTAL/HIGH ANGLE WELLBORES
IN THE SAN ISIDRO (SHALLOW) UNIT, RIO PUERCO-
MANCOS OIL POOL, SANDOVAL COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 3, 1990, at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this 26th day of October, 1990, 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, Samuel Gary Jr. & Associates, Inc., is a working interest owner in, and the unit operator of, the San Isidro (Shallow) Unit (the Unit), which covers the lands described on Exhibit A attached hereto, located in Sandoval County, New Mexico.
- (3) The Unit comprises 18,897.16 acres, more or less, all of which are federal minerals. Except for Unit Tract No. 19 on the exterior of the Unit, comprising 120 acres, one hundred percent of working interests in the Unit are committed to the Unit, and the Bureau of Land Management has approved the Unit.
- (4) The Unit was formed for the purpose of conducting a horizontal drilling program within the Unit.
- (5) A proposed horizontal pilot well and the Unit are located within the boundaries of the Rio Puerco-Mancos Oil Pool and, as such, would be subject to the special rules and regulations for said pool, which require 320-

acre spacing and proration units with wells to be located no closer than 660 feet from the outer boundary of the proration unit, nor closer than 330 feet from any quarter-quarter section line, nor closer than 1,800 feet to any other well completed or drilled within the Pool. The allowable for a well completed in said Pool is 320 barrels of oil per day; limiting gas-oil ratio is 500. Pool rules also provide for no more than one well on a 320-acre unit.

(6) The applicant proposes drilling additional horizontal wells to the Mancos formation within the Unit; these wells are being permitted with the Bureau of Land Management. It is anticipated that one of these wells will be commenced by the end of October, 1990. If the pilot well and the second well are successful, additional horizontal wells will be drilled within the Unit.

(7) Testimony by the applicant indicated that this type of well completion should result in the recovery of a substantially greater amount of oil than would normally be recovered by a conventional well completion, thereby preventing waste.

(8) The applicant further proposed the following special rules for horizontal/high angle wells drilled to the Mancos formation within the Unit:

- (a) That the horizontal portion of the wellbore be no closer than 660 feet to the outer boundary of a well unit.
- (b) That the operator be permitted to dedicate, at its option, up to two 320-acre units to a well.
- (c) That each horizontal well have an unrestricted allowable and gas-oil ratio while drilling and completing, limited to a 60-day period.
- (d) That, after expiration of the above 60-day period, each well have an allowable of 320 barrels of oil per day for a 320 acre unit, or 640 barrels of oil per day for a 640-acre unit, (which is equal to the normal allowable assigned to a standard 320-acre proration unit in the pool times two).
- (e) That an administrative procedure be authorized to approve horizontal wells in the Unit.

(9) No interest owner objected to the proposed horizontal directional drilling pilot project or to the proposed special rules for the Unit.

(10) Due to the formation of the Unit there are no offset operators within the Unit, and promulgation of special rules for drilling horizontal

wells in the Mancos formation within the Unit will not adversely affect correlative rights.

(11) At the hearing on this matter, the applicant requested that the portion of this case regarding a gas reinjection/pressure maintenance project be dismissed. The request should be granted.

(12) The applicant presented evidence that in order to properly drill its proposed wells, the horizontal wellbores will need to cross quarter-quarter section lines.

(13) The applicant presented evidence that in order to properly drill certain of its proposed wells, and in order to allow greater flexibility while drilling the wells, the horizontal wellbores may need to be located within two 320-acre standard spacing and proration units.

(14) The applicant submitted evidence that the horizontal wells will be drilled in an underbalanced state, and that production during drilling and completing is necessary to prevent formation damage and to permit testing to evaluate producing capacity. Such production will provide data which will be useful in promulgating permanent rules for wells in the Unit. An oil allowable of 19,200 barrels (based on a top daily allowable of 320 barrels for a 320-acre proration unit) for a 60-day period should be adequate. However, a provision should be included to authorize the Division Director to assign additional allowable if warranted during the 60-day period.

(15) The applicant further presented evidence that, in order to angle in better on the Mancos formation, certain wells may have non-standard surface locations.

(16) According to evidence submitted by the applicant, certain spacing and proration units may be non-standard in size.

(17) The special operating rules should be subject to certain bottomhole considerations:

- (a) The bottomhole location of a well should not be located closer than 660 feet to the outer boundary of each spacing unit.
- (b) Horizontal wells on the exterior spacing units of the Unit should not be closer than 1,800 feet to an existing or drilling well within the Pool but outside of the Unit.

- (c) Notice should be given to offset operators outside of the Unit prior to commencement of a horizontal well on the exterior spacing and proration units.

(18) The applicant proposed that, as to spacing units formed with existing Mancos wells located thereon, it be required to seek Division approval before simultaneously dedicating two or more wells to one spacing unit. One person would also be designated as operator of the proposed proration unit and all wells on the proration unit prior to the date of first production from the proposed additional wells.

IT IS THEREFORE ORDERED THAT:

(1) The application of Samuel Gary Jr. & Associates, Inc. for special operating provisions for drilling horizontal/high angle wellbores in the Mancos formation within the San Isidro (Shallow) Unit, Sandoval County, New Mexico, is hereby approved.

(2) Applicant's request for authority to institute a gas reinjection/pressure maintenance project in the San Isidro (Shallow) Unit area is hereby dismissed.

(3) Temporary special operating provisions for horizontal/high angle wellbores within the San Isidro (Shallow) Unit (Rio Puerco-Mancos Oil Pool) are hereby promulgated as follows:

SPECIAL OPERATING RULES AND REGULATIONS
FOR THE

SAN ISIDRO (SHALLOW) UNIT

Covering Lands Described on Exhibit A, Attached

RULE 1. Each well completed or recompleted in the Rio Puerco-Mancos Oil Pool within the San Isidro (Shallow) Unit shall be spaced, drilled, operated and produced in accordance with the Special Operating Rules and Regulations hereinafter set forth.

RULE 2. Spacing and proration units may contain 320 acres or 640 acres as set out below:

(a) One or more wells may be completed or recompleted on a standard unit containing 320 acres, more or less, consisting of the N/2, S/2, E/2 or W/2 of a governmental section.

(b) Two standard 320-acre units may be combined to form a 640-acre, more or less, unit consisting of an entire governmental section when portions of a horizontal well penetrate the Mancos shale under both 320

acre units. The resulting 640-acre unit may be developed with one or more wells.

(c) When the conditions in 2(b) are not met, the Division Director shall have the authority to administratively approve the formation of a 640-acre unit consisting of an entire governmental section. Applications for such approval shall set out the reasons for the request and include information to show how the proposed unit will result in additional recovery and/or improved Unit operations and may be submitted along with the application for administrative approval for the horizontal well using the procedures set out in Rule 8 below. If approved, the resulting 640-acre units may be developed with one or more wells.

RULE 3. Each well shall be located no nearer than 660 feet to the outer boundary of the spacing or proration unit. Wells completed on any unit on the exterior of the San Isidro (Shallow) Unit shall not be nearer than 1800 feet to any other well outside said Unit completed or drilling in the pool.

RULE 4. The Division Director may grant an exception to the requirements of Rule (3) without hearing when an application has been filed for an unorthodox surface location or the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at an orthodox or approved unorthodox location for such original horizon, provided that the bottomhole location of the well complies with Rule 3. For wells within the interior of the San Isidro (Shallow) Unit, the Division Director may approve the application upon receipt. Such approval shall consist of acceptance of Division Form C-102 or the corresponding BLM form showing the proposed non-standard surface location. For wells on the exterior spacing units of said Unit, all operators or owners of undrilled tracts offsetting the proposed location shall be notified of the application by registered or certified mail, and the applicant shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all parties described above, or if no objections to the unorthodox location have been entered, within 20 days after the Director has received the application.

RULE 5. Allowables shall be assigned in the following manner:

(a) A standard 320-acre proration unit (316 through 324 acres) shall be subject to a 320-acre depth bracket allowable of 320 barrels per day. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 320 acres.

(b) A standard 640-acre proration unit (632 through 648 acres) shall be subject to a 320-acre depth bracket allowable of 320 barrels

per day times two, being 640 barrels per day. The allowable assigned to a non- standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 640 acres.

RULE 6. The Supervisor of the Aztec district office of the Division shall have the authority to approve a non-standard proration unit within the Rio Puerco-Mancos Oil Pool and the Unit without notice and hearing when the unorthodox size or shape is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the non-standard unit is not less than 75% nor more than 125% of a standard proration unit (320 or 640 acres). Such approval shall consist of acceptance of Division Form C-102 or the corresponding BLM form showing the proposed non-standard unit and the acreage contained therein.

RULE 7. The Division Director may grant an exception to the requirements of Rule 5 when the unorthodox size or shape of the proration unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the non-standard gas proration unit is less than 75% or more than 125% of a standard gas proration unit, (320 or 640 acres), or where the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists wholly of a governmental section or half section.

(b) As to spacing units on the exterior of the San Isidro (Shallow) Unit, the applicant presents written consent in the form of waivers from all offset operators or working interest owners of undrilled tracts outside said Unit.

(c) In lieu of Paragraph (b) of this rule, the applicant may furnish proof of the fact that all of the aforesaid parties were notified by registered or certified mail of his intent to form such non-standard unit. The Division Director may approve the application if no such party has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

RULE 8. (A) The Division Director shall have the authority to administratively approve an intentionally deviated well in the Rio Puerco-Mancos Oil Pool, within the San Isidro (Shallow) Unit, for the purpose of penetrating the Mancos shale by means of a wellbore drilled horizontally, provided the following conditions are complied with:

(1) The surface location of the proposed well is a standard location or the applicant has obtained approval of an unorthodox surface location as provided for in Rule (4) above.

(2) The bore hole shall not enter or exit the Mancos shale outside of a drilling window which is in accordance with the setback requirements of Rule (3).

(B) To obtain administrative approval to drill an intentionally deviated horizontal wellbore, the applicant shall file such application with the Santa Fe and Aztec offices of the Division.

As to spacing units on the exterior of the San Isidro (Shallow) Unit, the applicant shall further provide a copy of such application to all operators or owners of undrilled tracts offsetting the proposed proration unit for said well by registered or certified mail, and the application shall state that such notice has been furnished. The application shall further include the following information:

(1) A copy of Division Form C-102, or the corresponding BLM form, identifying the proposed proration unit to be dedicated to the well.

(2) Schematic drawings of the proposed well which fully describe the casing, tubing, perforated or open hole interval, kick-off point, and proposed trajectory of the drainhole section.

As to spacing units on the exterior of said Unit, the Director may approve the application upon receipt of written waivers from all parties described above, or if no objection to the intentionally deviated horizontal wellbore has been entered, within 20 days after the Director has received the application. If any objection to the proposed intentionally deviated horizontal well is received within the prescribed time limit as described above, the Director shall, at the applicant's request, set said application for public hearing.

As to all other horizontal wells within said Unit, the Director may approve the application upon receipt.

(C) During or upon completion of drilling operations the operator shall further be required to conduct a directional survey on the vertical and lateral portions of the wellbore and shall submit a copy of said survey to the Santa Fe and Aztec offices of the Division.

(D) The Division Director, at his discretion, may set any application for intentionally deviated horizontal wellbores for public hearing.

RULE 9. A horizontal/high angle well in the Rio Puerco-Mancos Oil Pool within the Unit shall have an oil allowable of up to 19,200 barrels (60 x

-8-

Case No. 10100
Order No. R-9330

320 bbls.) for a 60-day period while drilling and completing. The Division Director may administratively approve the assignment of additional allowable during this period.

RULE 10. If a well is drilled on a proration unit upon which there is located another well or wells completed in and capable of producing from the Rio Puerco-Mancos Oil Pool, then only one of said wells may be produced at any one time until the operator receives administrative approval from the Division Director for simultaneous dedication. Simultaneous dedication may not be granted until a single operator has been designated for all wells on the proration unit.

RULE 12. The limiting gas-oil ratio shall be 500 cubic feet per barrel of oil.

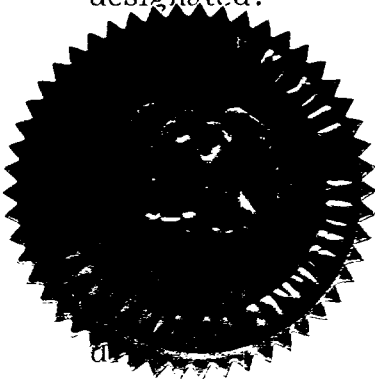
IT IS FURTHER ORDERED THAT:

(4) The Special Operating Rules and Regulations for the San Isidro (Shallow) Unit shall become effective November 1, 1990.

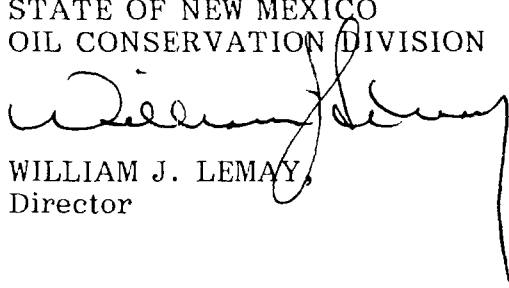
(5) This case shall be reopened at an examiner hearing in October, 1992 at which time the operator and interest owners in the Unit should be prepared to appear and show cause why the foregoing Special Operating Rules and Regulations should remain in effect.

(6) 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.



STATE OF NEW MEXICO
OIL CONSERVATION DIVISION


WILLIAM J. LEMAY,
Director

San Isidro (Shallow) Unit Area
Rio Puerco-Mancos Oil Pool
Sandoval County, New Mexico

Township 21 North, Range 2 West, NMPM

Section 31: All
Section 32: All
Section 33: All

Township 21 North, Range 3 West, NMPM

Section 35: All
Section 36: All

Township 20 North, Range 2 West, NMPM

Section 5: All
Section 6: All
Section 7: All
Section 8: All
Section 18: All

Township 20 North, Range 3 West, NMPM

Section 1: All
Section 2: All
Section 3: All
Section 4: All
Section 5: All
Section 7: All
Section 8: All
Section 9: All
Section 10: All
Section 11: All
Section 12: All
Section 13: All
Section 14: All
Section 15: All
Section 16: All
Section 17: All
Section 18: All
Section 22: All
Section 23: All
Section 24: All

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:

Cases No: 10,100
Order No. R-_____

APPLICATION OF SAMUEL GARY JR. &
ASSOCIATES, INC. FOR SPECIAL
OPERATING RULES FOR DRILLING
HORIZONTAL/HIGH ANGLE WELLBORES
IN THE SAN ISIDRO (SHALLOW) UNIT,
SANDOVAL COUNTY, NEW MEXICO.

ORDER OF THE DIVISION (PROPOSED)

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 3, 1990, at Santa Fe, New Mexico, before Examiner Jim Morrow.

NOW, on this ____ day of October, 1990, 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, Samuel Gary Jr. & Associates, Inc., in Division Case No. 10,099, seeks authority to initiate a horizontal directional drilling pilot project located in the W 1/2 of Section 11, Township 20 North, Range 3 West, N.M.P.M., within the San Isidro (Shallow) Unit (Rio Puerco-Mancos Oil Pool), Sandoval County, New Mexico, and to further promulgate special operating provisions within said project area including limiting the horizontal extent of the horizontal wellbore such that it can be no closer than 660 feet to the outer boundary of the spacing unit, and assignment of special allowables to said well.

(3) The Applicant proposes to drill its initial horizontal well at a location 934 feet from the South line and 1975 feet from the West line of said Section 11, and further proposes to drill and complete said well in the following manner:

Directionally drill said well by kicking off from the vertical at a depth of approximately 3,500 feet, drill a long-radius curve in such a manner as to penetrate the Mancos shale horizontally at a depth of approximately 4,500 feet, utilize existing and proven technology to drill horizontally within the Mancos formation in a North-Northwesterly direction a distance of approximately 2,000 feet, and produce the Mancos formation throughout the entire horizontal interval.

(4) Applicant is a working interest owner in, and the unit operator of, the San Isidro (Shallow) Unit (the Unit), which covers the lands described on Exhibit A attached hereto, located in Sandoval County, New Mexico.

(5) The Unit comprises 18,897.16 acres, more or less, all of which are federal minerals. Except for Unit Tract No. 19 on the exterior of the Unit, comprising 120 acres, one hundred percent of working interests in the Unit are committed to the Unit, and the Bureau of Land Management has approved the Unit.

(6) The Unit was formed for the purpose of conducting a horizontal drilling program within the Unit.

(7) The proposed pilot well and the Unit are located within the boundaries of the Rio Puerco-Mancos Oil Pool and, as such, would be subject to the special rules and regulations for said pool, which require 320-acre spacing and proration units with wells to be located no closer than 660 feet from the outer boundary of the proration unit, nor closer than 330 feet from any quarter-quarter section line, nor closer than 1,800 feet to any other well completed or drilled within the Pool. The allowable for a well completed in said Pool is 320 barrels of oil per day.

(8) The Applicant proposes drilling additional wells to the Mancos formation within the Unit, and three wells are being permitted with the Bureau of Land Management. It is anticipated that one of these wells will be commenced by the end of October, 1990. If the pilot well and the second well are successful, additional horizontal wells will be drilled within the Unit.

(9) Testimony by the Applicant indicated that this type of well completion should result in the recovery of a substantially greater amount of oil than would normally be

recovered by a conventional well completion, thereby preventing waste.

(10) The Applicant further proposes the following special rules for horizontal/high angle wells drilled to the Mancos formation within the Unit:

(a) That the horizontal portion of the wellbore be no closer than 660 feet to the outer boundary of a well unit.

(b) That the operator be permitted to dedicate, at its option, up to two 320 acre units to a well.

(c) That each horizontal well have an unrestricted allowable and gas:oil ratio while drilling and completing, limited to a 60 day period.

(d) That, after expiration of the above 60 day period, each well have an allowable of 320 barrels of oil per day for 320 acre unit, or 640 barrels of oil per day for a 640 acre unit, which is equal to the normal allowable assigned to a standard a 320-acre proration unit in the pool times two.

(e) That an administrative procedure be authorized to approve horizontal wells in the Unit.

(11) No interest owner objected to the proposed horizontal directional drilling pilot project or to the proposed special rules for the Unit.

(12) Due to the formation of the Unit there are no offset operators within the Unit, and promulgation of special rules for drilling horizontal wells in the Mancos formation within the Unit will not adversely affect correlative rights.

(13) At the hearing on this matter, the Applicant requested that the portion of this case regarding a gas reinjection/pressure maintenance project be dismissed. The request should be granted.

(14) The Applicant presented evidence that in order to properly drill its proposed wells, the horizontal wellbores will need to cross quarter-quarter section lines.

(15) The Applicant presented evidence that in order to properly drill certain of its proposed wells, and in order to allow greater flexibility while drilling the wells, the horizontal wellbores may need to be located within two standard spacing and proration units.

(16) The Applicant submitted evidence that the horizontal wells will be drilled in an unbalanced state, and that production during drilling and completing is necessary to prevent formation damage. In addition, such production will provide data which will be useful in promulgating permanent rules for wells in the Unit.

(17) The Applicant further presented evidence that, in order to angle in better on the Mancos formation, certain wells may have non-standard surface locations.

(18) According to evidence submitted by the Applicant, certain spacing and proration units may be non-standard in size.

(19) The special operating rules should be approved subject to certain bottomhole considerations:

- (a) The bottomhole location of a well should not be located closer than 660 feet to the outer boundary of each well unit.
- (b) As to horizontal wells on the exterior well units of the Unit, such wells should not be closer than 1,800 feet to an existing or drilling well within the Pool but outside of the Unit.
- (c) As to horizontal wells on the exterior well units of the Unit, notice should be given to offset operators outside of the Unit prior to commencement of a well.

(20) As to well units comprising 640 acres, such units should be approved subject to the following condition:

- (a) The production from a well should be allocated equally between the two 320-acre proration units and should be reported to the Division as such.

(21) The wells listed below, which are within the Unit, are currently completed in the Rio Puerco-Mancos Oil Pool and are capable of producing hydrocarbons:

(a) The Shogoil No. 1 Chijuilla No. 31-14 Well, located in Unit N of Section 31, Township 21, North, Range 2 West, N.M.P.M.

(b) The GWOP Johnson No. 6-16 Well, located in Unit P of Section 6, Township 20 North, Range 2 West, N.M.P.M.

(c) The GWOP San Isidro No. 1-16 Well, located in Unit P of Section 1, Township 20 North, Range 3 West, N.M.P.M.

(d) The GWOP San Isidro No. 3-16 Well, located in Unit P of Section 3, Township 20 North, Range 3 West, N.M.P.M.

(e) The GWOP San Isidro No. 11-16 Well, located in Unit P of Section 11, Township 20 North, Range 3 West, N.M.P.M.

(f) The GWOP San Isidro No. 12-2 Well, located in Unit B of Section 12, Township 20 North, Range 3 West, N.M.P.M.

(g) The GWOP San Isidro No. 12-4 Well, located in Unit D of Section 12, Township 20 North, Range 3 West, N.M.P.M.

(h) The GWOP Johnson No. 7-11 Well, located in Unit K of Section 7, Township 20 North, Range 2 West, N.M.P.M.

(i) The GWOP San Isidro No. 14-4 Well, located in Unit D of Section 14, Township 20 North, Range 3 West, N.M.P.M.

(j) The GWOP San Isidro No. 15-4 Well, located in Unit D of Section 15, Township 20 North, Range 3 West, N.M.P.M.

(k) The GWOP San Isidro No. 15-7 Well, located in Unit G of Section 15, Township 20 North, Range 3 West, N.M.P.M.

(l) The GWOP San Isidro No. 16-10 Well, located in Unit J of Section 16, Township 20 North, Range 3 West, N.M.P.M.

(m) The GWOP San Isidro No. 18-8 Well, located in Unit H of Section 18, Township 20 North, Range 3 West, N.M.P.M.

(22) The applicant proposed that, as to well units formed with existing Mancos wells located thereon, it be required to seek Division approval to simultaneously dedicate two or more wells to one unit, and subject to the following condition:

(a) To assist the Division in the allowable assignment and for production-reporting purposes, the applicant should be required to designate one person as operator of the proposed proration units prior to the date of first production from the proposed wells.

IT IS THEREFORE ORDERED THAT:

(1) The application of Samuel Gary Jr. & Associates, Inc. for special operating provisions for drilling horizontal/high angle wellbores in the Mancos formation within the San Isidro (Shallow) Unit, Sandoval County, New Mexico, is hereby approved.

(2) That temporary special operating provisions for horizontal/high angle wellbores within the San Isidro (Shallow) Unit (Rio Puerco-Mancos Oil Pool) are hereby promulgated as follows:

SPECIAL OPERATING RULES AND REGULATIONS
FOR THE
SAN ISIDRO (SHALLOW) UNIT

RULE 1. Each well completed or recompleted in the Rio Puerco-Mancos Oil Pool or in a correlative interval within the San Isidro (Shallow) Unit shall be spaced, drilled, operated and produced in accordance with the Special Operating Rules and Regulations hereinafter set forth.

RULE 2. One or more wells may be completed or recompleted on 320 acres (consisting of the $N\frac{1}{2}$, $S\frac{1}{2}$, $E\frac{1}{2}$, or $W\frac{1}{2}$ of a governmental section) or 640 acres (consisting of an entire governmental section), more or less, at the operator's discretion.

RULE 3. Each well shall be located no nearer than 660 feet to the outer boundary of the spacing or proration unit. Wells completed on any well unit on the exterior of the San Isidro (Shallow) Unit shall not be nearer than 1800 feet to

any other well outside said Unit completed or drilling in the pool.

RULE 4. The Division Director may grant an exception to the requirements of Rule (3) without hearing when an application has been filed for an unorthodox surface location or the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at an orthodox or approved unorthodox location for such original horizon, provided that the bottomhole location of the well complies with Rule 3. For wells within the interior of the San Isidro (Shallow) Unit, the Division Director may approve the application upon receipt. Such approval shall consist of acceptance of Division Form C-102 or the corresponding BLM form showing the proposed non-standard surface location. For wells on the exterior well units of said Unit, all operators or owners of undrilled tracts offsetting the proposed location shall be notified of the application by registered or certified mail, and the applicant shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all parties described above, or if no objections to the unorthodox location have been entered, within 20 days after the Director has received the application.

RULE 5A. A standard 320 acre proration unit (316 through 324 acres) shall be subject to a 320 acre depth bracket allowable of 320 barrels per day. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 320 acres.

RULE 5B. A standard 640 acre proration unit (632 through 648 acres) shall be subject to a 320 acre depth bracket allowable of 320 barrels per day times two, being 640 barrels per day. The allowable assigned to a non-standard proration unit shall bear the same ratio to a standard allowable as the acreage in such non-standard unit bears to 640 acres. This rule shall be subject to the following conditions:

(a) The production from the proposed well shall be allocated equally between the two 320-acre proration units and should be reported to the Division as such.

(b) The Division may, at its own discretion, authorize or implement a change in the method of assigning or reporting production from 640 acre units if deemed necessary.

RULE 6. The Supervisor of the Aztec district office of the Division shall have the authority to approve a non-

standard proration unit within the Rio Puerco-Mancos Oil Pool and the Unit without notice and hearing when the unorthodox size or shape is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the nonstandard unit is not less than 75% nor more than 125% of a standard proration unit (320 or 640 acres). Such approval shall consist of acceptance of Division Form C-102 or the corresponding BLM form showing the proposed non-standard unit and the acreage contained therein.

RULE 7A. The Division Director may grant an exception to the requirements of Rule 5(A) when the unorthodox size or shape of the proration unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the non-standard gas proration unit is less than 75% or more than 125% of a standard gas proration unit, or where the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit consists wholly of a governmental section.

(c) As to well units on the exterior of the San Isidro (Shallow) Unit, the applicant presents written consent in the form of waivers from all offset operators or owners of undrilled tracts outside said Unit.

(d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid parties were notified by registered or certified mail of his intent to form such non-standard unit. The Division Director may approve the application if no such party has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

RULE 7B. The Division Director may grant an exception to the requirements of Rule 5(B) when the unorthodox size or shape of the proration unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the non-standard gas proration unit is less than 75% or more than 125% of a standard gas proration unit, or where the following facts exist and the following provisions are complied with:

(a) The non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) the non-standard unit consists wholly of a governmental section.

(c) As to well units on the exterior of the San Isidro (Shallow) Unit, the applicant presents written consent in the form of waivers from all offset operators or owners of undrilled tracts outside said Unit.

(d) In lieu of Paragraph (c) of this rule, the applicant may furnish proof of the fact that all of the aforesaid parties were notified by registered or certified mail of his intent to form such non-standard unit. The Division Director may approve the application if no such party has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

RULE 8A. The Division Director shall have the authority to administratively approve an intentionally deviated well in the Rio Puerco-Mancos Oil Pool, within the San Isidro (Shallow) Unit, for the purpose of penetrating the Mancos shale by means of a wellbore drilled horizontally, provided the following conditions are complied with:

(1) The surface location of the proposed well is a standard location or the applicant has obtained approval of an unorthodox surface location as provided for in Rule (4) above.

(2) The bore hole shall not enter or exit the Mancos shale outside of a drilling window which is in accordance with the setback requirements of Rule (3), provided however, that the 10 foot setback distance requirement from the quarter-quarter section line or subdivision inner boundary shall not apply to horizontally drilled wells.

(B) To obtain administrative approval to drill an intentionally deviated horizontal wellbore, the applicant shall file such application with the Santa Fe and Aztec Offices of the Division. The application shall further include the following information:

(1) A copy of Division Form C-102, or the corresponding BLM form, identifying the proposed proration unit to be dedicated to the well.

(2) Schematic drawings of the proposed well which fully describe the casing, tubing, perforated or open hole interval, kick-off point, and proposed trajectory of the drainhole section.

As to well units on the exterior the San Isidro (Shallow) Unit, the applicant shall further provide a copy of such application to all operators or owners of undrilled tracts offsetting the proposed proration unit for said well by registered or certified mail, and the application shall state that such notice has been furnished. As to well units on the exterior of said Unit, the Director may approve the application upon receipt of written waivers from all parties described above, or if no objection to the intentionally deviated horizontal wellbore has been entered, within 20 days after the Director has received the application. If any objection to the proposed intentionally deviated horizontal well is received within the prescribed time limit as described above, the Director shall, at the applicant's request, set said application for public hearing.

As to all other horizontal wells within said Unit, the Director may approve the application upon receipt.

(C) During or upon completion of drilling operations the operator shall further be required to conduct a directional survey on the vertical and lateral portions of the wellbore and shall submit a copy of said survey to the Santa Fe and Aztec Offices of the Division.

(D) The Division Director, at his discretion, may set any application for intentionally deviated horizontal wellbores for public hearing.

RULE 9. A horizontal/high angle well in the Rio Puerco-Mancos Oil Pool within the Unit shall have an unrestricted allowable and gas:oil ratio while drilling and completing for a period of 60 days.

RULE 10. Notwithstanding the provisions of Division Rule 404, the Supervisor of the Aztec district office of the Division shall have the authority to approve the venting or flaring of gas from a Rio Puerco-Mancos Oil Pool Well upon a determination that said venting or flaring is necessary during completion operations, to obtain necessary well test information, or to maintain the producibility of said well. Application to flare or vent gas shall be made in writing to the Aztec district office of the Division.

RULE 11. If a horizontal well is drilled on a unit upon which there is located another well or wells completed in and capable of producing from the Rio Puerco-Mancos Oil

Pool, then all of said wells may be temporarily produced for a period of 60 days to allow the operator to apply for approval from the Division for simultaneous dedication. Simultaneous dedication may be granted only upon the following condition:

(a) For allowable assignment and production reporting procedures, the operator shall be required to designate a single operator for all wells on one unit.

IT IS FURTHER ORDERED THAT:

(1) The Special Operating Rules and Regulations for the San Isidro (Shallow) Unit shall become effective October 1, 1990.

(2) This case shall be reopened at an examiner hearing in October, 1992 at which time the operator and interest owners in the Unit should be prepared to appear and show cause why the foregoing Special Operating Rules and Regulations should remain in effect.

(3) 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.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

SEAL