Entered January 29, 1981

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

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

CASE NO. 7075 Order No. R-6469-A

APPLICATION OF BENSON-MONTIN-GREER DRILLING CORPORATION FOR THE AMENDMENT OF POOL RULES, RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 24, 1980, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 29th day of January, 1981, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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 by its Order No. R-6469, entered in Case No. 6997 on September 10, 1980, the New Mexico Oil Conservation Division amended Rules 2, 3, and 5 of the Special Rules and Regulations governing the West Puerto Chiquito-Mancos Oil Pool, Rio Arriba County, New Mexico, as promulgated by Order No. R-2565-B and amended by Order No. R-2565-C, to provide, among other things, that each well completed or recompleted in said pool shall be located on a standard spacing or proration unit consisting of approximately 640 acres which shall comprise a single governmental section, and to further provide that each well completed or recompleted in said pool shall be located no nearer than 660 feet to the outer boundary of the proration unit nor closer than 330 feet to a quarter section line nor closer than 10 feet to a quarter-quarter section line.

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- Montin-Greer Drilling Corporation, is also the applicant in the instant case, and in this case seeks the further amendment of the Special Rules and Regulations for the West Puerto Chiquito-Mancos Oil Pool to require that wells completed or recompleted on standard units in said pool be located in the west half of the section at least 1650 feet from the outer boundary of the spacing and proration unit, and that the drilling of wells be controlled so as to allow no more than a 330-foot horizontal deviation from the surface location. Further, to provide that the location of wells on certain specified non-standard proration units approved by Order No. R-6469 would be no closer than 660 feet to the outer boundary of the non-standard unit nor closer than 330 feet to a quarter section line or 10 feet to a quarter-quarter section line. Applicant further seeks an administrative procedure whereby unorthodox locations could be approved upon receipt of written waivers from all offsetting operators being "crowded" by the unorthodox location.
- (4) That at the outset of the hearing of this case, protestants moved that the case be dismissed and said motion was taken under advisement.
- (5) That the motion for dismissal should be <u>denied</u> and the application considered on its merit, based on the evidence presented at the hearing.
- (6) That the applicant is the operator of the Canada Ojitos Unit Area, and as such has conducted and is conducting a pressure maintenance program in the West Puerto Chiquito-Mancos Oil Pool by the injection of gas into the Niobrara member of the Mancos shale up-structure on the eastern flank of the pool.
- (7) That said gas injection is causing the oil in place to move down-dip where it is being produced from wells mainly in the western side of the unit.
- (8) That the applicant carefully monitors the production from each well in the Canada Ojitos Unit Area, tracking the gas migration downstructure, and has consistently resorted to the shutting in of any well experiencing a substantial increase in qas-oil ratio, in order to help maintain reservoir pressure.
- (9) That such practices have enabled the applicant to achieve remarkably flat production decline curves, and have permitted the production of quantities of oil from several of the unit wells far beyond original expectation, while maintaining pressure in the reservoir through the gas injection program.

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- (10) That the producing formation into which applicant is injecting gas and from which it is producing oil may extend westward beyond the western boundary of the Canada Ojitos Unit.
- (11) That the applicant, in seeking to require that wells completed or recompleted in the West Puerto Chiquito-Mancos Oil Pool be located only in the west half of the dedicated section, alleges that such displacement of wells to the west is necessary to prevent uncompensated-for drainage of oil from the unitized lands of the Canada Ojitos Unit Area, thereby protecting correlative rights, and to prevent the dissipation of the reservoir pressure which has been built-up and maintained by gas injection, and the subsequent loss of oil production, thereby preventing waste.
- (12) That the protestants in this case object to the proposed restrictions on well locations, claiming that there may be recoverable reserves in the Niobrara member of the Mancos shale which could not be produced, and that there may be other productive formations which could not be dually completed, if locations were restricted to the west half only of the section.
- (13) That the protestants in this case should have the opportunity to develop the east half of the sections immediately west of the Canada Ojitos Unit, and to deny them such an opportunity would be unreasonable and could violate their correlative rights and cause waste.
- (14) That the application to permit wells to be drilled in the subject pool in the $\mathbb{W}/2$ only of the dedicated section should be <u>denied</u>.
- (15) That the applicant should be protected from having the Canada Ojitos Unit Area drained by wells immediately offsetting the unit boundary as such wells could violate its correlative rights and cause waste.
- (16) That wells in the West Puerto Chiquito-Mancos Oil Pool completed or recompleted on spacing and proration units of approximately standard size (640 acres) should be located a reasonable distance from the outer boundary of such unit, and a minimum of 1650 feet is a reasonable distance which should afford adequate protection to all parties and prevent waste. That such wells should be located no nearer than 330 feet to a quarter section line.

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- (17) That due to the nature of the structure and formations in the subject area, there may be a strong tendency for wells, when being drilled, to drift in an easterly direction unless carefully controlled.
- (18) That such drift, unless controlled, could result in the bottom hole location of wells in the subject pool being far to the east of the surface location.
- (19) That in order to protect correlative rights and prevent waste, the drift of drilling wells should be monitored and the drilling controlled in such a manner that the bottom of the producing interval in the well be not more than 330 feet from the surface location.
- (20) That provision should be made for the reporting of the drift in wells drilled in the subject pool to the Division and to offset operators, if any there be, and for the bringing of any well in violation of the 330-foot drift limitation to hearing, subject to a possible production penalty, if it appears that such well may impair correlative rights or cause waste, unless such hearing is waived by all offset operators.
- (21) That certain of the non-standard proration units approved for the subject pool by Order No. R-6469 are of such size and shape that the surface location requirement described in Finding No. (16) above cannot be practicably applicable, and exception should be granted for wells drilled on those units.
- (22) That the locations of wells on said non-standard units should be no closer than 660 feet to the outer boundary of the proration unit nor closer than 330 feet to a quarter section line nor closer than 10 feet to an interior quarter-quarter section line, and such wells should be subject to the drift limitations described in Finding Nos. (19) and (20) above.
- (23) That Rule 2 of the West Puerto Chiquito-Mancos Oil Pool Special Rules and Regulations prohibits the establishment of non-standard proration units (less then 632 acres or more than 648 acres) without notice and hearing.
- (24) That an administrative procedure should be provided in said special rules whereby non-standard units necessitated by corrections in the lands surveys could be approved without such notice and hearing.

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- (25) That such an administrative procedure should be provided by the addition of Rule 2A to said pool rules, reading in its entirety as follows:
 - "RULE 2A. An exception to the provisions of Rule 2 may be obtained administratively for a non-standard unit comprising all of a single governmental section but comprising less than 632 acres or more than 648 acres resulting from a correction in the lands survey.

"To obtain such administrative approval, the applicant shall furnish the Division Director with appropriate plats and with the written consent of all operators owning lands offsetting the proration unit.

"In lieu of furnishing such consent, the applicant may furnish proof that all of the aforesaid operators were notified by registered or certified mail of his intent to form the non-standard unit. The Division Director may approve the application upon receipt of the aforementioned written consents, or if no offset operator has objected to the non-standard unit within 30 days after the Director received the application."

- (26) That an administrative procedure should be adopted whereby any unorthodox location in exception to Findings Nos. (16) and (22) above could be approved without notice and hearing upon receipt of written waivers from all offsetting operators whose lands are being "crowded" by the proposed unorthodox location.
- (27) That an order embodying the above findings is in the interest of conservation, will protect and not impair correlative rights, will prevent and not cause waste, and should be approved.

IT IS THEREFORE ORDERED:

- (1) That the motion for dismissal of Case No. 7075 is $\underline{\text{denied}}$.
- (2) That the application to permit wells to be drilled in the West Puerto Chiquite-Mancos Oil Pool in the W/2 only of the dedicated section is hereby $\underline{\text{denied}}$.
- (3) That the Special Rules and Regulations for the West Puerto Chiquito-Mancos Oil Pool, as heretofore promulgated by Order No. R-2565-B and amended by Orders Nos. R-2565-C and

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R-6469, are hereby further amended by the addition of Rule 2A, reading in its entirety as follows:

"RULE 2A. An exception to the provisions of Rule 2 may be obtained administratively for a non-standard unit comprising all of a single governmental section but comprising less than 632 acres or more than 648 acres resulting from a correction in the lands survey.

"To obtain such administrative approval, the applicant shall furnish the Division Director with appropriate plats and with the written consent of all operators owning lands offsetting the proration unit.

"In lieu of furnishing such consent, the applicant may furnish proof that all of the aforesaid operators were notified by registered or certified mail of his intent to form the non-standard unit. The Division Director may approve the application upon receipt of the aforementioned written consents, or if no offset operator has objected to the non-standard unit within 30 days after the Director received the application."

- (4) That Rule 3 of the Special Rules and Regulations for the West Puerto Chiquito-Mancos Oil Pool, as promulgated by Order No. R-2565-B and as amended by Orders Nos. R-2565-C and R-6469 is hereby amended to read in its entirety as follows:
 - "RULE 3. (a) Each well completed or recompleted in the West Puerto Chiquito-Mancos Oil Pool shall be located no nearer than 1650 feet to the outer boundary of the proration unit nor closer than 330 feet to a quarter section line, provided however, that nothing contained herein shall be construed as permitting the drilling of more than one well on a spacing or proration unit.
 - "(b) The operator of each well projected to and completed in the West Puerto Chiquito-Mancos Oil Pool shall conduct deviation tests on such well to determine the deviation from the vertical at least once each 500 feet or at the first bit change succeeding 500 feet. A tabulation of all deviation tests run, sworn to and notarized, shall be filed with Form C-104, Request for Allowable and Authorization to Transport Oil and Gas.

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"(c) If the total deviation, assumed in a constant direction, indicates a horizontal displacement of the lowermost perforation, or the bottom of the hole in the case of an open-hole completion, of more than 330 feet from the surface location, no allowable shall be approved for the well unless a directional survey approved by the Division Director establishes a horizontal displacement of 330 feet or less, or unless the well has been approved for production, subject to a possible production penalty, after notice and hearing.

"Offset operators to the east of any such well which has a total deviation of more than 330 feet may waive the aforesaid hearing requirement, in which case no penalty will be imposed on the well."

- (5) That Rule 4 of the Special Rules and Regulations for the West Puerto Chiquito-Mancos Oil Pool, as promulgated by Order No. R-2565-B is hereby amended to read in its entirety as follows:
 - "RULE 4. The Division Director may grant an exception to the surface location requirements of Rule 3 (a) without notice and hearing when an application has been filed for an unorthodox location necessitated by topographical conditions or the recompletion of a well previously drilled to another horizon. All operators offsetting the proposed unorthodox location shall be notified of the application by registered or certified mail, and the application shall state that such notice has been furnished. The Division Director may approve the application upon receipt of written waivers of objection from all operators or if no objection is received from any offsetting operator within 20 days after receipt of the application and written waivers have been received from all offset operators whose lands are being "crowded" either directly or diagonally by the proposed unorthodox location."
- (6) That the unit well for each of the non-standard proration units approved by Ordering Paragraph No. (3) of Division Order No. R-6469 shall be located no nearer than 660 feet to the outer boundary of its respective proration unit nor closer than 330 feet to a quarter section line nor closer than 10 feet to any quarter-quarter section line.
- (7) That the deviation tests and well drift limits prescribed by Rules 3 (b) and 3 (c) of the West Puerto Chiquito-Mancos Oil Pool in Ordering Paragraph (4) above shall be

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applicable to wells drilled on the aforesaid non-standard proration units.

- (8) That the Special Rules and Regulations governing the West Puerto Chiquito-Mancos Oil Pool, Rio Arriba County, New Mexico, promulgated by Order No. R-2565-B, as amended by Orders Nos. R-2565-C and R-6469, and as further amended by this order, are hereby continued in full force and effect until further order of the Commission.
- (9) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO
DIL CONSERVATION COMMISSION

ALEX J. ARMIJO, Member

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL