

BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION
OF GREAT WESTERN DRILLING COMPANY
FOR APPROVAL OF THE PEBBLE QUEEN
UNIT AGREEMENT FOR THE PURPOSE OF
SECONDARY RECOVERY OPERATIONS, FOR
AUTHORITY TO INSTITUTE A WATER-
FLOOD PROJECT IN THE CAPROCK QUEEN
POOL AND FOR EXPANSION THEREOF BY
ADMINISTRATIVE PROCEDURE, FOR
AUTHORITY TO COMMINGLE THE PRODUCTION
FROM ALL WELLS PRODUCING UNITIZED
SUBSTANCES WITHIN THE UNIT AREA AND
FOR PERMISSION TO INSTALL AN AUTOMATIC
CUSTODY TRANSFER SYSTEM IN THE UNIT
AREA

Case No. 1914

TO: The Oil Conservation Commission
State of New Mexico
Santa Fe, New Mexico

Comes now the Applicant, GREAT WESTERN DRILLING COMPANY, whose address is Box 1659, Midland, Texas, and files herewith a copy of the proposed Pebble Queen Unit Agreement for the development and operation of the Pebble Queen Unit Area in Chaves County, New Mexico, and hereby makes application for (i) approval of the Pebble Queen Unit Agreement for the purpose of secondary recovery operations, (ii) for authority to institute a waterflood project in the Caprock Queen Pool and for expansion thereof by administrative procedure, (iii) for authority to commingle the production from all wells producing Unitized Substances within the Unit Area, and (iv) for permission to install an automatic custody transfer system in the Unit Area; and in support thereof states:

I.

UNIT AGREEMENT

1. That the proposed Unit Area covered by said Unit Agreement embraces 961.23 acres more or less, more particularly described as follows:

Township 12 South, Range 31 East, N.M.P.M.

Section 35: SE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 36: SW $\frac{1}{4}$ SW $\frac{1}{4}$

Township 13 South, Range 31 East, N.M.P.M.

Section 1: Lot 4, SW $\frac{1}{4}$ NW $\frac{1}{4}$
Section 2: Lots 1, 2, 3, S $\frac{1}{2}$ N $\frac{1}{2}$, SW $\frac{1}{4}$, W $\frac{1}{2}$ SE $\frac{1}{4}$, NE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 3: NE $\frac{1}{4}$ SE $\frac{1}{4}$
Section 11: NW $\frac{1}{4}$, NW $\frac{1}{4}$ SW $\frac{1}{4}$

2. That the proposed Unit Area is composed of 921.23 acres of State of New Mexico lands and 40 acres of privately owned lands.

921.23
40
961.23

3. Applicant is informed and believes, and upon such information and belief states: that the lands to be embraced in the proposed Unit Area cover all or substantially all of the available lands necessary for the effective and efficient institution of a secondary recovery operation by the institution of a water-flood project, and that said Unit Agreement will permit the producing area to be developed and operated in the interest of conservation, the protection of correlative rights and the prevention of waste, of Unitized Substances.

4. That Great Western Drilling Company is designated as Unit Operator in the Unit Agreement, and as such is given authority under the terms thereof to carry on all operations necessary for the development and operation of the Unit Area and the recovery of Unitized Substances, subject to all applicable laws and regulations.

That said Unit Agreement provides for the institution of a secondary recovery operation by the institution of a waterflood project in the Caprock Queen Pool as more fully stated hereinbelow.

5. That said Unit Agreement is in substantially the same form as Unit Agreements heretofore approved by the Commissioner of Public Lands of the State of New Mexico and the Oil Conservation Commission of the State of New Mexico; it is believed that the field or area involved can be developed more economically and efficiently under the terms of said Unit Agreement to the end that the maximum recovery of Unitized Substances can be obtained without the violation of correlative rights.

6. That application has been made for the approval of said Unit Agreement to the Commissioner of Public Lands of the State of New Mexico, and that prior to the hearing on this Application, informal approval of the form and context of said Unit Agreement will be obtained from said Commissioner. That after formal approval thereof by the Commissioner, a fully executed and approved copy of the Unit Agreement will be filed with this Commission.

II.

WATERFLOOD PROJECT

1. A plat showing the location of the proposed injection wells (indicated in red) and the location of all other wells within a radius of two miles of said proposed injection wells, and the formation of which said wells are producing or have produced is attached hereto. Said plat also indicates the lessees (or Unit Operators) within said two mile radius.

2. All available logs of the proposed injection wells (being Wells VV No. 1 and VV No. 2) are filed herewith.

3. The proposed injection wells' casing program is as follows: the injection wells' casing is 4½ inch to 7 inch casing set at the top of the Queen formation pay zone, or set above such point and a liner set therein to the top of such pay zone. The proposed method for testing casing before use of the injection wells will be in conformity with the established rules of the Commission, including Rule 107 and 702, and all other applicable law and regulation.

4. (a) The name and depth of the zone or formation into which injection will be made is the Queen Sand formation, which is defined in said Unit Agreement as and to mean that heretofore established underground reservoir, a member of the Queen formation of the Guadalupe Series, a part of the Permian System, which is found at 3018 to 3026 feet in the Great Western Drilling Company State TT #1 Well located 660' FNL & 660' FEL, Sec. 2, T. 13 S., R. 31 E., N.M.P.M.

(b) The kind of fluid to be injected is water.

(c) The anticipated amount to be injected is estimated at approximately 500 barrels of water daily to "fill up" and thereafter a decreasing amount of water sufficient to maintain effective and efficient secondary recovery operations.

(d) The source of the injection fluid is in the NE¼ Section 2, Township 13 South, Range 32 East, N.M.P.M. This fluid is fresh water from the Ogallala formation at a depth of approximately 205 feet.

5. It is believed that the wells within the Unit Area are at an advanced stage of depletion and are regarded as what

is commonly referred to as "stripper" wells; however, if for any reason the Commission finds that such is not the case and as a consequence Applicant is not entitled, under existing rules and regulations, to obtain authority for the institution of a waterflood project, then Applicant requests that this Application be treated as an application for the institution of a Pressure Maintenance Project within said Unit Area.

6. Applicant requests that an allowable be assigned to this waterflood project in accordance with applicable rule and regulation, and in this connection states that all or substantially all of the initial project area is within a buffer zone and as such is entitled to a special allowable for the protection of correlative rights.

7. Applicant further requests that an Order be entered authorizing the expansion of the waterflood project sought herein, by administrative procedure, in accordance with applicable rule and regulation.

8. Applicant has made compliance with the Commission's Memorandum No. 5-58, dated January 31, 1958.

III.

COMMINGLING

1. Applicant requests permission to commingle the production of Unitized Substances from all leases within the exterior boundaries of the above Unit Area. Applicant is informed and believes, and upon such information and belief states: that such commingling will neither cause waste nor

impair correlative rights and that all production so proposed to be commingled is uniform and similar in composition, gravity, and component parts.

2. As an exception to Rule 309 (a), Applicant further requests authority to transport Unitized Substances from the Unitized Formations in the various leases within the exterior boundaries of the Unit Agreement prior to such Unitized Substances having been received and measured in tanks located on the individual leases. Applicant believes and states that adequate tankage and other equipment can be installed so that production from the Unit Area can be accurately determined at reasonable intervals without separately measuring such Unitized Substances in tanks located on the individual leases. In this connection, it is proposed to transport such Unitized Substances from as many as 24 wells within the Unit Area to one central location within the Unit Area for the purpose of receiving and measuring such production. Appropriate lines will be laid from each well into the central gathering system, and a plat thereof will be submitted at the hearing upon this Application.

3. Applicant offers to comply with all reasonable rules of the Commission relative to the testing, storage and metering of the Unitized Substances requested to be so commingled, and Applicant further offers to file all required reports in connection therewith.

IV.

AUTOMATIC CUSTODY TRANSFER SYSTEM

1. Applicant requests the approval of the installation of an automatic custody transfer system to be installed within the Unit Area for the purpose of receiving, treating, measuring and marketing the Unitized Substances produced within the Unit Area under the terms of the Unit Agreement. Applicant states that similar automatic custody transfer systems have heretofore been approved by the Commission, and a diagrammatic sketch of the proposed system will be submitted at the hearing upon this Application. Applicant believes and states that the granting of permission to install such automatic custody transfer system will neither cause waste nor impair correlative rights, and that such system contains adequate testing and measuring equipment, including positive displacement meters, which can be calibrated against a test tank of measured volume, or a master proving meter; that the granting of this Application will in all things be in the interest of conservation, the prevention of waste, and will not violate the correlative rights of any interested party.

2. Applicant offers to comply with all reasonable rules of the Commission relative to such receiving, testing, measuring, marketing and to file all required reports in connection with the installation of such automatic custody transfer system.

WHEREFORE, Applicant respectfully requests that this Application be set before an Examiner Hearing at Santa Fe, New Mexico, and that upon such hearing that the Commission enter its Order:

1. Approving in principal as a proper conservation measure the Pebble Queen Unit Agreement; provided however, that notwithstanding any of the provisions contained in the said Unit Agreement that such approval not be considered as waiving or relinquishing in any manner any right, duty or obligation which now, or may hereafter be vested in the New Mexico Oil Conservation Commission by law relative to the supervision and control of operations for the exploration and development of any land committed to the Pebble Queen Unit Agreement, or relative to the production of oil or gas therefrom; and,

2. Designate the Unit Area of the Pebble Queen Unit as the lands described in Paragraph I, 1, hereinabove, and provide that the Unit Area may be expanded or contracted as provided in said Unit Agreement; and,

3. Authorize Applicant as Operator of the Pebble Queen Unit to institute a water flood project in the manner and mode set forth in Paragraph II, hereinabove, including the authority to expand such water flood project by administrative procedure in accordance with applicable rule; and,

4. Commingle the production from separate leases within the Unit Area and to produce all Unitized Substances within the Unit Area into a common tank battery, in the mode and manner set forth in Paragraph III, hereinabove; and,

5. Install an automatic custody transfer system for the receipt, treatment, measurement and marketing of all Unitized Substances produced within the Unit Area.

DATED this 9th day of February, 1960.

GREAT WESTERN DRILLING COMPANY

By 

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