

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 7825
Order No. R-7278

APPLICATION OF CAPITAL OIL AND GAS
CORPORATION FOR A PILOT STEAM-ENHANCED
OIL RECOVERY PROJECT, MCKINLEY COUNTY,
NEW MEXICO.

RECEIVED

MAY 9-1983

ORDER OF THE DIVISION

OIL CON. DIV.
DIST. 3

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on March 16, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 5th day of May, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, Capital Oil and Gas Corporation, seeks authority to institute a pilot steam-enhanced oil recovery project in the Hospah-Gallup formation, Miguel Creek-Gallup Pool, by using two existing wells located in the S/2 SW/4 of Section 16, Township 16 North, Range 6 West, NMPM, McKinley County, New Mexico, as follows:

- (a) the State Well No. 2 located in Unit N of said Section 16; and
- (b) the State Well No. 6 located in Unit M of said Section 16.

(3) That the wells in the project area are incapable of commercial production due to the low viscosity of the oil found in the pay sand and the lack of any significant natural drive mechanism.

(4) That the proposed enhanced recovery project may result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) That prior to steam injection, the applicant should consult with the supervisor of the Division's district office at Atec to establish a procedure for determining the fracture pressure of the Gallup formation and for limiting injection pressure to some lower pressure.

(6) That the applicant should report the elements and results of the procedure(s) to the Director of the Division within 30 days following commencement of injection and should concurrently submit a diagrammatic sketch of the injection system layout and describing the injection pressure limiting device(s).

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

(8) That the applicant shall take such steps as may be necessary to ensure that the operation of the steam injection project does not contaminate surface or subsurface waters or damage nearby properties.

(9) That expansion of the pilot project should be permitted upon a proper filing by the applicant under provisions of Rule 701 of the Division Rules and Regulations.

(10) That the applicant should submit monthly reports of injection volumes, pressures, temperatures and production in a form acceptable to the Division.

(11) That the subject application should be approved and the project should be governed by the provisions of this order and of Rules 702 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Capital Oil and Gas Corporation, is hereby authorized to institute a pilot steam-enhanced recovery project on its State Lease by the injection of steam, air, and flue gas into the Gallup formation through its State Wells No. 2 in Unit N and No. 6 in Unit M, both located in Section 16, Township 16 North, Range 6 West, NMPM, Miguel Creek-Gallup Pool, McKinley County, New Mexico.

PROVIDED HOWEVER, that if injection is under a packer, it shall be located within 100 feet of the uppermost perforation; that the casing-tubing annulus of each injection well shall, at the option of the applicant, be loaded with an inert fluid and shall be equipped with an approved pressure gauge or attention-attracting leak detection device.

PROVIDED FURTHER, that if no packer is used, the casing-casing annulus in each of the project injection wells shall be open to the atmosphere in order to detect leakage from the casing-tubing annulus and the mechanical integrity of the injection casing shall be determined by a pressure test prior to injection and at least every five years thereafter.

(2) That prior to steam injection, the applicant shall consult with the supervisor of the Division's district office at Aztec to establish a procedure for determining the fracture pressure of the Gallup formation and for limiting injection pressure to some lower pressure.

(3) That the applicant shall report the elements and results of such procedure(s) to the Director of the Division within 30 days following commencement of injection and shall concurrently submit a diagrammatic sketch of the injection system locating and describing the injection pressure limiting device(s).

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

(5) That the operator shall notify said Division district office of the date and time of the mechanical integrity test on the injection wells in order that the same may be witnessed.

(6) That the subject project is hereby designated the Capital Oil and Gas Corporation Miguel Creek Steam Injection Project and shall be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

(7) That additional injection wells may be administratively approved in said project upon a proper filing by the operator under the waterflood expansion procedures of Division Rule 701.