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. 9182 Order No. R-8505

APPLICATION OF SAGE ENERGY COMPANY FOR A WATERFLOOD PROJECT, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 29, 1987, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this <u>4th</u> day of September, 1987, 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, Sage Energy Company, seeks authority to institute a pilot waterflood project on its New Mexico "30" State Lease, West Tres Papalotes-Pennsylvanian Pool, by the injection of water into the Bough "C" member of the Pennsylvanian formation through its New Mexico "30" State Well No. 1 located 1980 feet from the South line and 800 feet from the East line of Section 30, Township 14 South, Range 34 East, NMPM, Lea County, New Mexico, through perforations from approximately 10,392 feet to 10,407 feet.

(3) The well in the project area is in an advanced state of depletion and should be classified as a "stripper" well.

(4) The proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste. -2-Case No. 9182 Order No. R-8505

(5) The operator should take all steps necessary to ensure that the injected water 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.

(6) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(7) The injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 2078 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

(8) The operator should give advance notification to the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(9) The subject application should be approved and the project should be governed by the provisions of Rules 702 through 708 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Sage Energy Company, is hereby authorized to institute a pilot waterflood project on its New Mexico "30" State Lease, West Tres Papalotes-Pennsylvanian Pool, by the injection of water into the Bough "C" member of the Pennsylvanian formation through its New Mexico "30" State Well No. 1 located 1980 feet from the South line and 800 feet from the East line of Section 30, Township 14 South, Range 34 East, NMPM, Lea County, New Mexico, through perforations from approximately 10,392 feet to 10,407 feet.

PROVIDED FURTHER THAT, prior to commencing injection operations, the casing in the subject well shall be pressuretested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's district office at Hobbs.

(2) Injection into said well shall be through internally coated tubing, set in a packer which shall be located as near as practicable to the uppermost perforation;

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the casing-tubing annulus in said well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(3) The operator shall notify the supervisor of the Hobbs district office of the Division in advance of the date and time of the installation of injection equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(4) The operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing or packer in said 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) The injection well herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 2078 psi, provided however, the Division Director may authorize a higher surface injection pressure upon satisfactory showing that such pressure will not result in fracturing of the confining strata.

(6) The subject waterflood project is hereby designated the Sage Energy Company State "30" Lease Waterflood Project and shall be governed by the provisions of Rules 701 through 708 of the Division Rules and Regulations.

(7) Monthly progress reports of the waterflood project herein authorized shall be submitted to the Division in accordance with Rules 706 and 1115 of the Division Rules and Regulations.

(8) 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. (DEMAY Director

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