Entered January 14, 1981

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. 7070
Order No. R-6557

APPLICATION OF TESORO PETROLEUM
CORPORATION FOR A PILOT CAUSTIC
FLOOD PROJECT, McKINLEY COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on November 12, 1980, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 14th day of January, 1981, 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, Tesoro Petroleum Corporation, seeks authority to institute a one-acre pilot caustic flood project on its Hospah Sand Unit, Hospah Field, by the injection of caustic fluid into the Seven Lakes Sand of the Upper Hospah Field at an approximate depth of 300-500 feet through four injection wells in Unit K of Section 1, Township 17 North, Range 9 West, NMPM, McKinley County, New Mexico.

(3) That the Seven Lakes Sand within the project area appears to be incapable of being produced by normal primary recovery methods.

(4) That the proposed caustic fluid flood project is needed to develop data which may result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(5) 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.

(6) That the operator should test all pilot project wells upon completion, gathering fluids for analysis.

(7) That the operator should monitor nearby deeper wells for signs of fluid movement in the Seven Lakes Sand interval.

(8) That the operator should determine the effect of the caustic solution on the formation and formation fluids and determine the nature and chemical makeup of the residue in the area swept.

(9) That the operator should submit a report to the Director of the Division within six months following completion of the pilot project which report shall contain data derived and resulting from the requirements of Findings (6), (7), and (8) above.

(10) That the injection wells or injection pressurization system should be so equipped as to limit injection pressure at the wellhead to no more than 60 psi, but the Division Director should have authority to increase said pressure limitation, should circumstances warrant.

(11) That the subject application should be approved and the project should be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

IT IS THEREFORE ORDERED:

(1) That the applicant, Tesoro Petroleum Corporation, is hereby authorized to institute a one-acre pilot caustic flood project in the Hospah Field by the injection of caustic fluid into the Seven Lakes Sand of the Upper Hospah Field at an approximate depth of 300-500 feet through four injection wells in Unit K of Section 1, Township 17 North, Range 9 West, NMPM, McKinley County, New Mexico.

(2) That said wells may be located anywhere within Unit K but not closer than 10 feet to any quarter-quarter section line.

(3) That injection into each of said wells shall be through internally coated tubing, set in a packer which shall be located

as near as practicable to the uppermost perforation; that the casing-tubing annulus of each injection well shall be loaded with an inert fluid and equipped with an approved pressure gauge or attention-attracting leak detection device.

(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 of said injection wells, 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 test all pilot project wells upon completion gathering fluids for analysis.

(6) That the operator shall monitor nearby deeper wells for signs of fluid movement.

(7) That the operator shall determine the effect of the caustic solution on the formation and formation fluids and determine the nature and chemical makeup of the residue in the area swept.

(8) That the operator shall submit a report to the Director of the Division within six months following completion of the pilot project which report shall contain data derived and resulting from the requirements of Orders (5), (6), and (7) above.

(9) That the injection wells herein authorized and/or the injection pressurization system shall be so equipped as to limit injection pressure at the wellhead to no more than 60 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.

(10) That the subject caustic flood project is hereby designated the Tesoro Hospah Seven Lakes Project and shall be governed by the provisions of Rules 701, 702, and 703 of the Division Rules and Regulations.

(11) That monthly progress reports of the caustic flood project herein authorized shall be submitted to the Division in accordance with Rules 704 and 1120 of the Division Rules and Regulations.

(12) That 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 herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

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