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. 8954 Order No. R-8301

APPLICATION OF OSBORN HEIRS COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 6, 1986, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>llth</u> day of September, 1986, 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, Osborn Heirs Company, seeks the authority to utilize the Clemco Mattie Price Well No. 6, located 1820 feet from the North line and 2310 feet from the East line (Unit G) of Section 6, Township 17 South, Range 38 East, NMPM, Lea County, New Mexico, to dispose of produced salt water into the West Garrett Devonian Pool, with injection into the open-hole interval from approximately 12,887 feet to 12,951 feet.

(3) The Mattie Price Well No. 6 was completed in August 1971 with 12,887 feet of 5 1/2-inch casing set in a 7 7/8-inch hole and cemented with 250 sacks of cement. Top of the cement as detected by temperature survey showed to be at 12,822 feet.

(4) In 1980 a squeeze cement job was performed on the 5 1/2-inch casing from 6600 feet to 7121 feet and from 10,010 feet to 10,551 feet.

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(5) The well is presently perforated in the Wolfcamp formation from 10,262 feet to 10,296 feet. The applicant proposes to squeeze off this interval prior to injection operations.

(6) 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.

(7) A Cement Bond Log should be run on this well to assure that an adequate cement job was performed on the 5 1/2-inch casing so that the injection fluids will remain within the injection interval and not be allowed to migrate uphole.

(8) Copies of the Bond Log should be submitted to the Santa Fe Office (P.O. Box 2088, Santa Fe, New Mexico 87504-2088) and to the Hobbs District Office (P. O. Box 1980, Hobbs, New Mexico 88240) of the Division so that a determination can be made on the adequacy of the cement behind the pipe and/or if any additional remedial work-over on the well should be performed to sufficiently isolate the proposed injection interval.

(9) The casing in the subject well should then be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(10) Once it has been determined by both the Supervisor of the Hobbs District Office and the Engineering Staff at the Santa Fe Office of the Division that the subject well is properly and adequately cased and cemented, injection into said well may commence as prescribed in this order.

(11) The injection should be accomplished through 2 7/8-inch plastic lined tubing installed in a packer set at approximately 12,800 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(12) The injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 2577 psi.

(13) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure Case No. 8954 Order No. R-8301 -3-

will not result in migration of the injected waters from the Devonian formation.

(14) The operator should give advance notification to the supervisor of the Hobbs district office of the Division of the date and time that the Cement Bond Log will be run, the installation of disposal equipment and the mechanical integrity pressure test in order that the same may be witnessed.

(15) Approval of the subject application in the above-described manner will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Osborn Heirs Company, is hereby authorized to utilize its Mattie Price Well No. 6, located 1820 feet from the North line and 2310 feet from the East line (Unit G) of Section 6, Township 17 South, Range 38 East, NMPM, Lea County, New Mexico, to dispose of produced salt water into the West Garrett Devonian Pool, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 12,800 feet, with injection into the open-hole interval from approximately 12,887 feet to 12,951 feet;

PROVIDED HOWEVER THAT, the tubing shall be internally plastic-lined; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing or packer.

PROVIDED FURTHER THAT, injection into said well shall not commence until it has been determined by the Supervisor of the Hobbs District Office and the Engineering Staff at the Santa Fe Office of the Division that there is adequate cement to isolate the injection zone as prescribed in Finding Paragraph Nos. (7), (8), and (10), of this Order.

<u>PROVIDED FURTHER THAT</u>, prior to commencing injection operations, the casing in the subject well shall be pressure-tested 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) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 2577 psi.

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(3) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Devonian formation.

(4) The operator shall notify the supervisor of the Hobbs district office of the Division in advance of the date and time that the Cement Bond Log will be run, the installation of disposal equipment and the mechanical integrity pressure test in order that the same may be witnessed.

(5) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing, or packer in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(6) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

(7) 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

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