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. 12667
ORDER NO. R-3621-A

APPLICATION OF DOYLE HARTMAN, OIL OPERATOR FOR CORRECTION OF DIVISION ORDER NO. R-3621, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on June 14, 2001, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 10th day of July, 2001, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) By Order No. R-3621 issued in Case No. 3978 on December 9, 1968, the Division authorized Texas Pacific Oil Company ("Texas Pacific") to utilize its McKinney Well No. 1 (**API No. 30-025-09709**), located 660 feet from the North and East lines (Unit A) of Section 36, Township 24 South, Range 36 East, NMPM, Lea County, New Mexico, to dispose of produced water into the Seven Rivers formation through the open-hole interval from approximately 3,148 feet to 3,210 feet.

(3) In Case No. 3978, Texas Pacific testified that the McKinney Well No. 1 was drilled as follows:

> 10 ¾ inch surface casing was set in the well at a depth of 298 feet and was cemented to surface with 200 sacks of cement;
>
> 7.0 inch production casing was set in the well at a depth of 3,148 feet and was cemented with 500 sacks of cement. The

top of cement behind the production casing was calculated to be at a depth of 2,085 feet; and

the well was plugged back from a total depth of 3,450 feet to a depth of 3,210 feet.

(4) Doyle Hartman ("Hartman"), Oil Operator, seeks to correct Division Order No. R-3621 to reflect that the actual injection interval within the McKinney Well No. 1 is the open hole interval from a depth of 3,141 feet to 3,483 feet.

(5) Notwithstanding the provisions of Order No. R-3621, Hartman testified that injection into the McKinney Well No. 1 from 1969 to the present has actually occurred through the interval from 3,141 feet to 3,483 feet.

(6) Hartman presented a well chronology of the McKinney Well No. 1, summarized as follows:

(a) the well was drilled by R. Olson Oil Company in 1948-1949. The well produced from 1949-1968 from the Langlie-Mattix Pool;

(b) Texas Pacific assumed operatorship of the well from Olson Oils, Inc. on January 30, 1961;

(c) pursuant to the provisions or Order No. R-3621, injection into the well commenced in January, 1969. The well was equipped with 2 3/8-inch plastic-lined tubing installed in a packer located at 3,096 feet;

(d) a leak in the 7.0 inch casing at a depth of 601 feet was repaired by cementing the production casing annulus from 1,090 feet to surface;

(e) Hartman assumed operatorship of the well from Sun Exploration & Production Company (successor to Texas Pacific) on February 4, 1986; and

(f) while logging the well in March, 2001, Hartman discovered that the McKinney Well No. 1 had not been plugged back to a depth of 3,210 feet as had been testified by Texas Pacific.

(7) Hartman testified that the McKinney Well No. 1 has been cleaned out to a total depth of 3,483 feet. Additionally, Hartman has performed the following-described work on the McKinney Well No. 1 in order to assure that the well demonstrates mechanical integrity and that the well will be operated in accordance with Division rules:

(a) a cement bond log was run on the well on March 29, 2001. This log shows the presence of good cement between the intervals from 0-1,080 feet and 2,170-3,141 feet;

(b) on March 30, 2001, the 7.0 inch casing was pressure tested to 2,000 psi in the interval from the surface to a depth of 2,980 feet. No pressure drop was observed;

(c) on April 10, 2001, new 2 3/8 inch plastic-lined tubing was installed in the well and set in a packer located at 3,064 feet; and

(d) on April 10, 2001, the 7.0 inch casing was pressure tested to 650 psi in the interval from the surface to a depth of 3,064 feet. No pressure drop was observed.

(8) Hartman's geologic evidence shows that the injection interval in the McKinney Well No. 1, from a depth of 3,141 feet to 3,483 feet, encompasses the lower portion of the Seven Rivers formation and a small portion of the Queen formation.

(9) The evidence presented demonstrates that injection into the interval from 3,141 feet to 3,483 feet in the McKinney Well No. 1 has not resulted in damage to the Seven Rivers or Queen formations, nor has it resulted in fluid migration from the injection interval.

(10) No offset operator appeared at the hearing in opposition to the application.

(11) The application should be approved.

(12) 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.

(13) The casing-tubing annulus should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(14) The McKinney Well No. 1 should be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 628 psi.

(15) The operator should immediately notify the supervisor of the Division's Hobbs District Office of any failure of the tubing, casing or packer in the McKinney Well No. 1 and should take all steps as may be timely and necessary to correct such failure or leakage.

(16) Disposal operations within the McKinney Well No. 1 should be governed by the provisions of Division Rules No. 701 through 708.

(17) The operator should submit monthly reports of the disposal operations on Division Form C-120-A, in accordance with Division Rules No. 706 and 1120.

IT IS THEREFORE ORDERED THAT:

(1) The application of Doyle Hartman, Oil Operator to correct Division Order No. R-3621 is hereby approved.

(2) The applicant is hereby authorized to utilize its McKinney Well No. 1 (**API No. 30-025-09709**) located 660 feet from the North and East lines (Unit A) of Section 36, Township 24 South, Range 36 East, NMPM, Lea County, New Mexico, to dispose of produced water into the Seven Rivers and Queen formations through the open-hole interval from approximately 3,141 feet to 3,483 feet.

(3) The operator shall 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.

(4) Injection shall be accomplished through 2 3/8 inch internally plastic-lined tubing installed in a packer set at 3,064 feet. The casing-tubing annulus shall be filled with an inert fluid, and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(5) The McKinney Well No. 1 shall be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 628 psi.

(6) The Division Director may administratively authorize a pressure limitation in excess of the above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

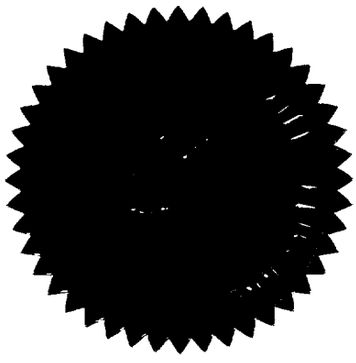
(7) The operator shall immediately notify the supervisor of the Division's Hobbs District Office of any failure of the tubing, casing or packer in the McKinney Well No. 1 and shall take all steps as may be timely and necessary to correct such failure or leakage.

(8) Disposal operations within the McKinney Well No. 1 shall be governed by the provisions of Division Rules No. 701 through 708.

(9) The operator shall submit monthly reports of the disposal operations on Division Form C-120-A, in accordance with Division Rules No. 706 and 1120.

(10) Jurisdiction is hereby 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

Lori Wrotenbery

LORI WROTENBERY
Director

SEAL