

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



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*ADMINISTRATIVE ORDER NO. PMX-166*

*APPLICATION OF SHELL WESTERN E & P INC. TO EXPAND ITS PRESSURE MAINTENANCE PROJECT IN THE HOBBS GRAYBURG SAN ANDRES POOL IN LEA COUNTY, NEW MEXICO*

ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION

Under the provisions of Division Order No. R-6199, Shell Western E & P Inc. has made application to the Division on August 29, 1991, for permission to expand its North Hobbs Grayburg San Andres Unit Pressure Maintenance Project in the Hobbs Grayburg San Andres Pool in Lea County, New Mexico.

THE DIVISION DIRECTOR FINDS THAT:

- (1) The application has been filed in due form.
- (2) Satisfactory information has been provided that all offset operators have been duly notified of the application.
- (3) No objection has been received within the waiting period as prescribed by Rule 701(B).
- (4) The proposed injection wells are eligible for conversion to water injection under the terms of Rule 701.
- (5) The proposed expansion of the above-referenced Pressure Maintenance Project will not cause waste nor impair correlative rights.
- (6) The application should be approved.

IT IS THEREFORE ORDERED THAT:

The applicant, Shell Western E & P Inc., be and the same is hereby authorized to inject water into the Grayburg San Andres formation at approximately 4036 feet to approximately 4283 feet through 2 7/8 inch plastic lined tubing set in a packer located within 100 feet of the uppermost injection perforations in the wells shown on Exhibit "A" attached hereto for purposes of pressure maintenance to wit.

IT IS FURTHER ORDERED THAT:

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.

Prior to commencing injection operations into the NHGSAU Well Nos. 19-442 and 20-121, the applicant shall re-enter and re-plug the Bowers Federal Well No. 33 located in Unit D of Section 29, and the McKinley "B" Well No. 1 located in Unit G of Section 20, both in Township 18 South, Range 38 East, NMPM, to the satisfaction of the supervisor of the Division's Hobbs district office.

Prior to commencing injection operations into the wells, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing or packer.

The injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection wells to no more than 0.2 psi/ft. of depth to the uppermost perforation, as shown on Exhibit "A".

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said wells that such higher pressure will not result in migration of the injected fluid from the Grayburg San Andres formation. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of injection equipment, of the mechanical integrity test, and of any re-plugging operations so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing or packer in said wells and shall take such steps as may be timely and necessary to correct such failure or leakage.

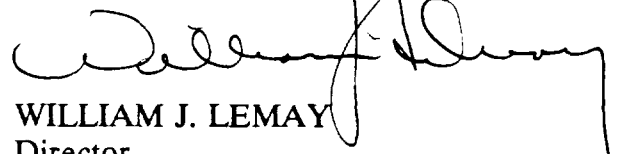
The subject wells shall be governed by all provisions of Division Order No. R-6199 and Rules 702-706 of the Division Rules and Regulations not inconsistent herewith.

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PROVIDED FURTHER THAT, jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

DONE at Santa Fe, New Mexico, on this 6th day of November, 1991.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION



WILLIAM J. LEMAY  
Director

S E A L

cc: Oil Conservation Division - Hobbs

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*EXHIBIT "A"*  
*DIVISION ORDER NO. PMX-166*  
*NORTH HOBBS GRAYBURG SAN ANDRES UNIT*  
*APPROVED INJECTION WELLS*

<i>Well Number</i>	<i>Location</i>	<i>Unit</i>	<i>S-T-R</i>	<i>Injection Perforations</i>	<i>Packer Depth</i>	<i>Tubing Size</i>	<i>Injection Pressure</i>
NHGS AU 19-442	1100' FSL & 380' FEL	P	19-18S-38E	4205' - 4283'	4100'	2 7/8"	841 PSIG
NHGS AU 20-121	1980' FNL & 660' FWL	E	20-18S-38E	4216' - 4224'	4116'	2 7/8"	843 PSIG
NHGS AU 28-211	990' FNL & 2310' FWL	C	28-18S-38E	4036' - 4262'	4000'	2 7/8"	807 PSIG