



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**Bill Richardson**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

February 25, 2003

Occidental Permian Limited Partnership  
P.O. Box 4294  
Houston, Texas 77210-4294

Attention: Mr. Mark Stephens

Administrative Order No. PMX-109-A

Dear Mr. Stephens:

Reference is made to your request dated January 30, 2003, to amend Division Order No. PMX-109 dated August 13, 1981, which order authorized the conversion to injection of eighteen wells within the North Hobbs Grayburg San Andres Unit Pressure Maintenance Project. It is our understanding that Occidental Permian Ltd. seeks to amend the portion of the order relating to the:

North Hobbs Grayburg San Andres Unit Well No. 442  
API No. 30-025-27001  
1300' FSL & 1050' FEL, Unit P, Section 30, T-18 South, R-38 East, NMPM,  
Lea County, New Mexico

and that the order is proposed to be amended by authorizing the subject well to inject water, carbon dioxide and produced gas into the Grayburg-San Andres formation at a surface injection pressure not to exceed:

- (i) 1100 psi for water
- (ii) 1250 psi for carbon dioxide
- (iii) 1770 psi for carbon dioxide and  
produced gas

It is further our understanding that the subject well is located within the North Hobbs Grayburg San Andres Unit Phase I Tertiary Recovery Project, approved by Division Order No. R-6199-B.

Pursuant to your request, the proposed amendment to Division Order PMX-109 is hereby approved.

*Occidental Permian Ltd. Partnership*  
*Division Order No. PMX-109*  
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Prior to injecting carbon dioxide and produced gas into the subject well, Occidental Permian Ltd. shall comply with any and all requirements relating to the amendment of the H<sub>2</sub>S Contingency Plan for unit operations.

Sincerely,



Lori Wrotenberg  
Director

Xc: Case File: 12722  
File-PMX-109 /  
OCD-Hobbs  
Roger Anderson

APPLICATION OF SHELL OIL COMPANY TO  
EXPAND ITS PRESSURE MAINTENANCE PROJECT  
IN THE HOBBS GRAYBURG-SAN ANDRES POOL IN  
LEA COUNTY, NEW MEXICO.

ORDER PMX-109

ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION

Under the provisions of Order No. R-6199, Shell Oil Company has made application to the Division on August 12, 1981, for permission to expand its North Hobbs Grayburg-San Andres Pressure Maintenance Project in the Hobbs Grayburg San Andres Pool in Lea County, New Mexico.

NOW, on this 13th day of August, 1981, the Division Director finds:

1. That application has been filed in due form.
2. That satisfactory information has been provided that all offset operators have been duly notified of the application.
3. That no objection has been received within the waiting period as prescribed by Order No. R-6199.
4. That the proposed injection wells are eligible for conversion to water injection under the terms of Order No. R-6199.
5. That the proposed expansion of the above referenced pressure maintenance project will not cause waste nor impair correlative rights.
6. That the application should be approved.

IT IS THEREFORE ORDERED:

That the applicant, Shell Oil Company, be and the same is hereby authorized to inject water into the Grayburg-San Andres formations through plastic-lined tubing set in packers within 100 feet of the uppermost perforations in the following described wells for purposes of pressure maintenance to wit:

NORTH HOBBS GRAYBURG-SAN ANDRES UNIT  
NEW MEXICO

TOWNSHIP 18 SOUTH, RANGE 37 EAST, NMPM

<u>Sec.</u>	<u>Unit Well No.</u>	<u>Unit Letter</u>	<u>Location</u>
24	242	N	1300' FSL and 2600' FWL
25	422	H	1550' FNL and 1300' FEL

TOWNSHIP 18 SOUTH, RANGE 38 EAST, NMPM

<u>Sec.</u>	<u>Unit Well No.</u>	<u>Unit Letter</u>	<u>Location</u>
18	242	N	1200' FSL and 2600' FWL
19	142	M	1200' FSL and 1300' FWL
20	233	K	1610' FSL and 1850' FWL
28	422	H	2199' FNL and 772' FEL
29	222	F	1370' FNL and 1850' FWL
29	132	L	1623' FSL and 1218' FWL
30	222	F	1470' FNL and 1395' FWL
30	232	K	1400' FSL and 1370' FWL
30	422	H	1520' FNL and 1300' FEL

ORDER PMX-109 continued

<u>Sec.</u>	<u>Unit Well No.</u>	<u>Unit Letter</u>	<u>Location</u>
30	442	P	1300' FSL and 1050' FEL
31	312	B	1262' FNL and 1520' FEL
32	132	L	1400' FSL and 1300' FWL
32	222	F	1720' FNL and 1370' FWL
32	323	G	1370' FNL and 1400' FEL
32	432	I	1400' FSL and 1300' FEL
33	222	F	1520' FNL and 1470' FWL
33	232	K	1592' FSL and 1370' FWL
33	322	G	1385' FNL and 1820' FEL

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.

That the casing-tubing annulus (in each well) 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.

That the injection wells or system shall be equipped with a pressure limiting device which will limit the wellhead pressure to a maximum of 825 pounds per square inch; provided however that the Division Director may administratively authorize a pressure limitation in excess of the above upon the operator's establishing that such higher pressure will not result in fracturing of the confining strata, except that injection into wells 20-233 and 29-222 shall be limited to no greater than hydrostatic pressure until remedial action is taken on wells within one-half mile or until it is proven to the satisfaction of the Supervisor of the Hobbs District Office that remedial work on such wells is unnecessary.

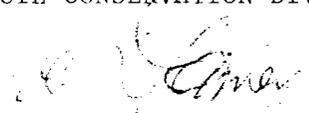
That the operator shall notify the supervisor of the Division's Hobbs District Office before injection is commenced through said wells.

That 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 wells or the leakage of water from or around said wells and shall take such steps as may be timely or necessary to correct such failure or leakage.

That the subject wells shall be governed by all provisions of Division Order No. R-6199 not inconsistent herewith.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
JOE D. RAMEY  
Division Director