Entered povember 10, 1970

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# BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE No. 4368 (de novo) Order No. R-3984-A

APPLICATION OF MOBIL OIL CORPORATION FOR A WATERFLOOD EXPANSION AND AMEND-MENT OF RULES GOVERNING SAME, LEA COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

## BY THE COMMISSION:

This cause came on for hearing de novo at 9 a.m. on September 16, 1970, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission.'

NOW, on this 10th day of November, 1970, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

#### FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That after an examiner hearing, Commission Order No. R-3984, dated June 29, 1970, was entered granting the applicant, Mobil Oil Corporation, permission to expand its Bridges State Waterflood Project, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico, by the injection of water into the Grayburg and San Andres formations through nine additional wells in Sections 25, 26, and 27 of Township 17 South, Range 34 East, NMPM; and that said Order No. R-3984 denied the request of the applicant to similarly inject through four other wells located in said Sections 25 and 26.
- (3) That the applicant, Mobil Oil Corporation, by de novo hearing, seeks permission to expand its Bridges State Waterflood

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Project, Vacuum Grayburg-San Andres Pool, by the conversion to water injection of 13 additional wells in Sections 25, 26, and 27 of Township 17 South, Range 34 East, NMPM, Lea County, New Mexico, as follows:

WELL NO.	UNIT	SECTION
14	G	25
17	A	<b>2</b> 5
32	C	25
15	0	26
25	I	26
29	M	26
30	G	26
35	K	26
105	A	26
132	E	26
42	0	27
48	I	27
52	A	27

- (4) That the applicant proposes that injection through said Wells Nos. 14, 15, 25, and 29 would be only into the Grayburg and Upper San Andres formations.
- (5) That the applicant further seeks an administrative procedure whereby said project could be expanded to include additional lands and injection wells in the area of said project as may be necessary in order to complete an efficient injection pattern.
- (6) That the wells in a portion of the proposed project area are in an advanced state of depletion and should properly be classified as "stripper" wells.
- (7) That there are substantial reserves of oil in the Lower San Andres formation on the Marathon McAlister Lease offsetting said Well No. 25 to the east.
- (8) That because of the manner in which said Well No. 25 is completed there is a reasonable probability that said Well No. 25 cannot be completed for water injection in the Upper San Andres formation in such a manner that water injected would be confined to the Upper San Andres formation only.

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- (9) That the escape of water into the Lower San Andres formation as described in Finding No. (8), above, would cause premature water breakthrough into wells on the Marathon McAlister Lease, thereby reducing the oil productivity of the wells and reducing the ultimate recovery from the lease.
- (10) That there are substantial reserves of oil in the Upper and Lower San Andres formation on the Continental State H-35 Lease to the south of the above-described injection Well No. 15 located in said Section 26.
- (11) That there are numerous wells on said Continental lease completed open-hole in both the Upper and Lower San Andres formation.
- (12) That because of the manner in which said Continental wells were completed there is a reasonable probability that water injected through said injection Well No. 15 in Section 26 into the Upper San Andres formation will escape into the Lower San Andres formation through said open-hole completions.
- (13) That the escape of water into the Lower San Andres formation as described in Finding No. (12), above, would cause premature water breakthrough into wells on the Continental lease, thereby reducing the oil productivity of the wells and reducing the ultimate recovery from the lease.
- (14) That offset producing wells to the south and east of the above-described Wells Nos. 14, 25, and 15 have recoverable reserves in the Grayburg and Upper and Lower San Andres formations that would be swept away from said producing wells if the requested injection through said Wells Nos. 14, 25, and 15 were permitted.
- (15) That the injection of water through said Wells Nos. 14, 25, and 15 would cause waste and would violate correlative rights of offset operators to the south and east of each of the proposed locations and should be <u>denied</u>.
- (16) That, subject to Finding No. (15), above, the proposed waterflood project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.
- (17) That, subject to Finding No. (15), above, the subject application should be approved and the project should be governed

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by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided, however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection, and provided further, that said injection wells are drilled no closer than 330 feet to the outer boundary of the subject lease nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary.

#### IT IS THEREFORE ORDERED:

(1) That the applicant, Mobil Oil Corporation, is hereby authorized to expand its Bridges State Waterflood Project in the Vacuum Grayburg-San Andres Pool, authorized by Order No. R-1244, as amended, by the injection of water into the Grayburg and San Andres formations through the following-described 10 additional wells in Sections 25, 26, and 27 of Township 17 South, Range 34 East, NMPM, Lea County, New Mexico:

	WELL 1	<u>10</u> .			UNIT	<u>SECTION</u>
Bridges	State	Well	No.	17	A	25
Bridges	State	Well	No.	32	С	25
Bridges	State	Well	No.	29	M	26
Bridges	State	Well	No.	30	G	26
Bridges	State	Well	No.	35	K	26
Bridges	State	Well	No.	105	A	26
Bridges	State	Well	No.	132	E	26
Bridges	State	Well	No.	42	0	27
Bridges	State	Well	No.	48	I	27
Bridges	State	Well	No.	52	A	27

(2) That the waterflood project as expanded shall be governe by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve such additional lands and injection wells in the area of said waterflood project as may be necessary to complete an efficient injection pattern, provided said wells are drilled no closer than 330 feet to the outer boundary of the subject lease nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that the application therefor has been filed in accordance with Rule 701 B of the Commission Rules and Regulations, and provided further, that

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a copy of the application has been sent to all offset operators, if any there be, and no such operator has objected within 15 days. The showing of well response as required by Rule 701 E 5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

- (3) That monthly progress reports of the exapnded water-flood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.
- (4) That the applicant's request to convert to water injection its Bridges State Wells Nos. 14, 15, and 25, located, respectively, in Unit G of Section 25, and Units O and I of Section 26, Township 17 South, Range 34 East, NMPM, Vacuum Grayburg-San Andres Pool, Lea County, New Mexico, is hereby denied.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO

OTL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

ALEX J, ARMZJO, Momber

A. L. PORTER, Jr., Member & Secretary

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