

**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:**

*DE NOVO
CASE NO. 11358
ORDER NOS. R-7637-B and R-8139-B*

**APPLICATION OF NEARBURG EXPLORATION COMPANY/NEARBURG
PRODUCING COMPANY TO TERMINATE INJECTION OPERATIONS INTO
TWO CERTAIN SALT WATER DISPOSAL WELLS BY RESCINDING DIVISION
ADMINISTRATIVE ORDER SWD-336 AND DIVISION ORDER NO. R-7637,
EDDY COUNTY, NEW MEXICO.**

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on March 12, 1996, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico hereinafter referred to as the "Commission".

NOW, on this 20th day of June, 1996, the Commission, a quorum being present, having considered the testimony presented and exhibits received and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) By Division Order No. R-7637, issued in Case No. 8234 and dated August 23, 1984, Anadarko Production Company ("Anadarko") was authorized to drill its Dagger Draw SWD Well No. 1 (**API No. 30-015-25003**) at an unorthodox location 1495 feet from the North line and 225 feet from the West line (Unit E) of Section 22, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, and to dispose of produced salt water into the Cisco/Canyon formation through the perforated interval from approximately 7,800 feet to 8,040 feet. Titan Resources, L. P. (Titan) is the successor in interest from Anadarko to the Dagger Draw SWD Well No. 1.

(3) In Division Case No. 8739, Chama Petroleum Company ("Chama") - predecessor to Nearburg Exploration Company (Nearburg) sought to have the New Mexico Oil Conservation Commission rescind the provisions of said Order No. R-7637. By Order No. R-8139, dated February 26, 1986, the Commission denied Chama's request and Anadarko was permitted to continue injecting produced salt water into said well.

(4) By Division Order No. R-7637-A and R-8139-A in Case No. 11358, the Division rescinded Division Administrative Order SWD-336 and denied Nearburg's request to rescind the provisions of said Order No. R-7637 leaving only that portion of Case No. 11358 pertaining to the rescision of Division Order No. R-7637 to be heard De Novo by the Commission.

(5) Nearburg Exploration Company, a company based in Dallas, Texas that is a sole proprietorship owned by Charles E. Nearburg, is listed as owning certain mineral interests in all of said Sections 21 and 22, the S/2 of Section 16, and the SW/4 of Section 15, all in Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico. Nearburg Producing Company is the operations entity of Charles E. Nearburg for those properties owned by Nearburg Exploration Company.

(6) Nearburg Producing Company is the operator of the Ross Ranch "22" Well No. 2 (**API No. 30-015-27458**), located at a standard oil well location 1980 feet from the North line and 660 feet from the West line (Unit E) of said Section 22, which is a North Dagger Draw-Upper Pennsylvanian Pool producing oil well with perforations from 7,653 feet to 7,767 feet. Said well is located in the same quarter/quarter section as the Titan Dagger Draw SWD Well No. 1.

(7) The applicant in the immediate case, Nearburg Exploration Company/Nearburg Producing Company ("Nearburg"), seeks to rescind the aforementioned Division Order to have the disposal of produced salt water into the Cisco/Canyon formation in the Titan, (formerly owned by Anadarko), Dagger Draw SWD Well No. 1 cease. Nearburg contends that the interval into which water is being disposed in the Titan (Anadarko) saltwater disposal well is the same interval that is oil productive in the North Dagger Draw Pool and that failure to cease injection into the Titan well could cause irregular encroachment of water and premature watering out of potentially oil productive reservoir, thus reducing ultimate oil recovery from the pool.

(8) Titan contends that they are injecting into an unproductive portion of the Cisco/Canyon reservoir and that there will be no harm to the reservoir or to its oil productive potential as a result of continued water injection.

(9) The technical evidence indicates that the productive pay in the pool is a fractured vugular dolomite with erratic porosity and permeability developed in random intervals interfingering with tight dolomite and limestone resulting in localized areas of high productivity. The complexity of reservoir development produces situations where water is encountered above oil and noneconomic wells are drilled next to highly prolific wells.

(10) The North Dagger Draw Upper Pennsylvanian Pool is part of a large Cisco/Canyon age hydrocarbon producing complex which has a partial or weak water drive with the main aquifer located southeast and down dip from oil and gas production. The effectiveness of the water drive varies throughout the producing trend as evidenced by variations in bottomhole pressures. The extent of the aquifer and corresponding size of the reservoir is unknown and therefore the effect of water injection into a reservoir of unknown size is likewise unknown.

(11) There was conflicting testimony concerning the stratigraphic relationships between the injection interval in the Dagger Draw SWD Well No. 1 and the producing interval (referred to as Canyon "C" zone on Nearburg Exhibit No. 14). Whether the injection zone was in direct communication with oil production in surrounding wellbores as Nearburg claimed or separated from the oil productive interval by tight limestone and dolomite stringers as Titan claimed was a speculated issue on both parties. Production data was inconclusive and did not support either contention.

(12) Testimony confirmed that approximately 3.7 million barrels of water was injected into the perforated interval from approximately 7,800 feet to 8,040 feet in the Titan Dagger Draw SWD Well No. 1 and that neither party knew the distribution of the injected water in the reservoir.

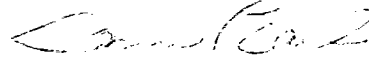
(13) Not only was there a lack of evidence to show the distribution of the injected water but neither party could present supportive evidence to show that the injection of approximately 3.7 million barrels of water from the Titan Dagger Draw SWD Well No. 1 into the Upper Pennsylvanian reservoir helped or harmed or even affected oil production from the pool. Therefore there is no evidence to support the contention that correlative rights are being violated or the allegation that waste is occurring and the application by Nearburg to rescind Division Order No. R-7637 should be denied.

IT IS THEREFORE ORDERED THAT:

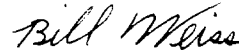
(1) That portion of the application by Nearburg Exploration Company/Nearburg Producing Company ("Nearburg") to rescind Division Order No. R-7637, issued in Case No. 8234 and dated August 23, 1984, which order authorized Anadarko Production Company ("Anadarko") to drill its Dagger Draw SWD Well No. 1 (API No. 30-015-25003) at an unorthodox location 1495 feet from the North line and 225 feet from the West line (Unit E) of Section 22, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico, and to dispose of produced salt water into the vertical limits of the North Dagger Draw-Upper Pennsylvanian Pool through the perforated interval from approximately 7,800 feet to 8,040 feet, is hereby denied.

(2) All provisions of said Order No. R-7637 shall therefore remain in full force and effect.

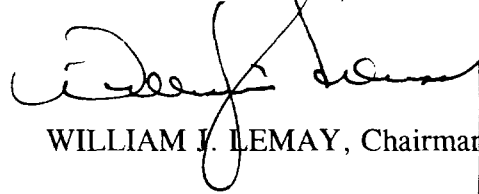
(3) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.



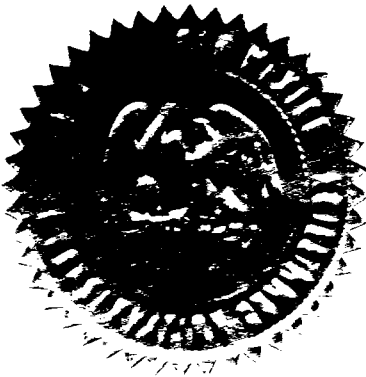
JAMI BAILEY, Member



WILLIAM W. WEISS, Member



WILLIAM J. LEMAY, Chairman



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