# 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. 9235 Order No. R-8589

APPLICATION OF CONOCO INC. FOR AN EXCEPTION TO DIVISION ORDER NO. R-3221, AS AMENDED, LEA COUNTY, NEW MEXICO.

### ORDER OF THE DIVISION

#### BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 7 and December 16, 1987, at Santa Fe, New Mexico, before Examiners Michael E. Stogner and David R. Catanach, respectively.

NOW, on this 19th day of January, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

## FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, Conoco Inc., is the owner and operator of the Buffalo Federal Lease, located in the NW/4 SW/4 and the E/2 SW/4 of Section 18, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico.
- (3) Ordering Paragraph No. (3) of Division Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, subject to minor exceptions, the

-2-Case No. 9235 Order No. R-8589

disposal of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any watercourse, or in any other place or in any manner which would constitute a hazard to any fresh water supplies.

- (4) The aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.
- (5) The State Engineer has designated, pursuant to Section 70-2-12 (15), N.M.S.A., 1978 Compilation, all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.
- (6) The applicant seeks an exception to the provisions of the aforesaid Ordering Paragraph No. (3) to permit the disposal of a maximum of 100 barrels per day of salt water produced by the Buffalo Federal Wells Nos. 1 and 2, currently producing from the Delaware formation and both located on the above-described lease.
- (7) The applicant presented geologic evidence which shows that the alluvial sand in the area of the proposed pit is between 60-100 feet thick and is underlain by approximately 200 feet of Chinle formation composed of clay, shale, and siltstone.
- (8) The applicant further presented evidence which indicates that very limited quantities of fresh water exist only in isolated catchments within the alluvial sand on top of the Chinle formation and that there is virtually no recharge of fresh water into said alluvial sand.

-3-Case No. 9235 Order No. R-8589

- (10) Further testimony indicates that ground water movement within the alluvial sand originating from the proposed disposal pit will be in a South/Southeast direction towards an area where no fresh water wells currently exist.
- (11) The evidence presented further indicates the presence of fresh water contained within the Santa Rosa formation which is effectively sealed off from the alluvial sand by the overlying Chinle formation.
- (12) The applicant has demonstrated through evidence and testimony that use of the subject pit will not contaminate shallow fresh water in the area.
- (13) The applicant should be permitted to dispose of brine water produced from said Buffalo Federal Lease in the above-described unlined surface pit.

#### IT IS THEREFORE ORDERED THAT:

- (1) The applicant, Conoco Inc., is hereby granted an exception to Ordering Paragraph No. (3) of Division Order No. R-3221, as amended, to dispose of water produced in conjunction with the production of oil or gas, or both, from its Buffalo Federal Lease, located in the NW/4 SW/4 and the E/2 SW/4 of Section 18, Township 18 South, Range 32 East, NMPM, Lea County, New Mexico, in an unlined surface pit located in the NW/4 SW/4 of said Section 18, until further order of the Division.
- (2) Said disposal should be limited to 100 barrels of produced water per day.
- (3) The Director of the Division may administratively rescind such authority whenever it reasonably appears to the Director that such rescission would serve to protect fresh water supplies from contamination.
- (4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-4-Case No. 9235 Order No. R-8589

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

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY

Director

S E A L