

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. 10053
Order No. R-9288

APPLICATION OF WOODBINE PETROLEUM
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 August 22, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 24th day of September, 1990, 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) Decretory 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, the disposal, subject to minor exceptions, 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 water course, or in any other place or in any manner which would constitute a hazard to any fresh water supplies.

CASE NO. 10053
Order No. R-9288
Page -2-

(3) 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.

(4) The State Engineer has designated 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 any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(5) The applicant, Woodbine Petroleum Inc., seeks an exception to the provisions of said Order No. R-3221, as amended, to permit the disposal of water produced in conjunction with the production of oil and gas from its Mobil Federal and Amoco Federal Leases into an unlined pit to be located in the NE/4 SE/4 (Unit I) of Section 21, Township 19 South, Range 32 East, NMPM, Lea County, New Mexico.

(6) A naturally occurring salt lake (Laguna Plata) comprising all or portions of Sections 2, 3, 4, 9, 10 and 11, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, lies approximately 3 miles south of the proposed disposal area.

(7) The hydrogeologic evidence presented in this case and information obtained from Division records establishes that:

- a) Triassic redbeds, comprised of the Chinle Shale, Santa Rosa sandstone, and the Dewey Lake formation, underlie both Laguna Plata and the proposed water disposal site;
- b) Shales within the Triassic redbeds underlying the proposed waste disposal site and Laguna Plata are approximately 300 feet thick and are virtually impermeable and therefore prevent vertical seepage of the waters from the site and Laguna Plata into sand stringers within the redbeds which may contain fresh water;

CASE NO. 10053
Order No. R-9288
Page -3-

- c) The surface of the Triassic redbeds is depressed in the vicinity of the waste disposal site and Laguna Plata thus creating a "collapse feature";
- d) The major flow of surface and subsurface water within the boundaries of the "collapse feature" is toward Laguna Plata;
- e) Seepage from the impoundments at the proposed waste disposal site will infiltrate into the subsurface and migrate toward Laguna Plata;
- h) The concentration of total dissolved solids in the seepage from the impoundments is less than that in the waters of Laguna Plata;
- i) There is no present or reasonably foreseeable beneficial use of the waters of Laguna Plata;
- j) Due to fracturing in this collapse feature a minor amount of seepage may filtrate through the impermeable layer; however, there are no known sources of potable groundwater in sediments overlying the Triassic redbeds;
- k) The shallowest groundwater aquifer of significance in the area is the Santa Rosa sandstone which overlies the Chinle Shale at approximately 400 to 450 feet;
- l) The utilization of the proposed disposal site north of Laguna Plata for the disposal of water produced in conjunction with the production of oil and gas should not constitute a hazard to any fresh water supplies.

CASE NO. 10053
Order No. R-9288
Page -4-

(8) According to evidence and testimony, the maximum amount of produced water to be placed within the disposal facility will be 320 barrels per day.

(9) The applicant should be authorized to utilize an unlined pit as described in Finding Paragraph No. (5) above, for the disposal of water produced in conjunction with the production of oil and gas.

(10) The maximum fill level in the proposed pit should be limited to a plane below the crest of the dikes surrounding the pits in order to preclude over-tapping of the dikes.

(11) The facility should have adequate fencing, gates, and cattle guards installed and maintained in order to preclude livestock and unauthorized persons from entering or utilizing the facility.

(12) Said pit should be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds pursuant to Division Order No. R-8952.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Woodbine Petroleum Inc., is hereby authorized to dispose of water produced in conjunction with the production of oil and gas from its Mobil Federal and Amoco Federal Leases into an unlined pit to be located in the NE/4 SE/4 (Unit I) of Section 21, Township 19 South, Range 32 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER THAT, prior to initiating disposal operations, the facility shall be inspected by a representative of the Hobbs district office of the Division in order to determine the adequacy of fences, gates and cattleguards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms needed to assure safe operation.

CASE NO. 10053
Order No. R-9288
Page -5-

(2) The maximum fill level in the subject unlined surface pit shall be limited to a plane below the crest of the dikes surrounding the pits in order to preclude over-tapping of the dikes.

(3) Authority for operation of the disposal facility shall be suspended or rescinded whenever such suspension or rescission should appear necessary to protect human health or property, to protect fresh water supplies from contamination, to prevent waste, or for non-compliance with the terms and conditions of this order or Division Rules and Regulations.

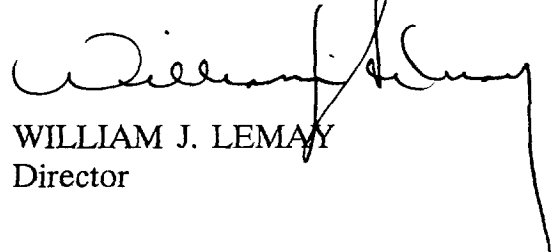
(4) The maximum amount of produced water placed within the subject unlined surface pit shall not exceed 320 barrels per day.

(5) Said pit shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds pursuant to Division Order No. R-8952.

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

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