

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 8818
Order No. R-8265

APPLICATION OF YATES PETROLEUM CORPORATION
FOR SALT WATER DISPOSAL, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on February 5 and June 12, 1986, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 28th day of July, 1986, 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) This case was originally advertised as the application of Yates Petroleum Corporation for a pressure maintenance project and was heard before the Division on February 5, 1986.

(3) Yates did not submit evidence such as an operating agreement or unit agreement which would demonstrate that correlative rights would be protected under the proposed pressure maintenance project.

(4) Yates did not submit specific proposals necessary for a pressure maintenance project including a project area, a formula for water injection credit, an allocation formula, etc.

(5) Yates subsequently refiled the application seeking to utilize the same well for injection but as a salt water disposal well only.

(6) This case thereafter came on for further hearing on June 12, 1986, as a water disposal application rather than a pressure maintenance project application.

(7) The applicant, Yates Petroleum Corporation, is the owner and operator of the Stonewall "YE" State Well No. 1, located 1650 feet from the South line and 1980 feet from the East line (Unit J) of Section 30, Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico.

(8) The applicant proposes to utilize said well to dispose of produced salt water into the Delaware formation, with injection into the perforated interval from approximately 2595 feet to 3685 feet.

(9) Robert E. Boling, an interest owner in various Yates operated producing wells in this area, appeared in opposition to the application by Yates at the hearing.

(10) Two of these wells, the Yates Petroleum Corporation Federal "DC" Well No. 1 located 1980 feet from the South line and 660 feet from the West line (Unit L) of Section 29, and the Stonewall "EP" State Com. Well No. 4 located 1980 feet from the North line and 660 feet from the East line (Unit H) of Section 30, both in Township 20 South, Range 28 East, are currently producing from the Morrow formation, and both are located within one-half mile of the proposed disposal well.

(11) According to evidence presented at the hearing the top of the cement behind the production casing in the Federal "DC" Well No. 1 is at 7700 feet and at 8300 feet in the Stonewall "EP" State Com. Well No. 4.

(12) It is the contention of Mr. Boling that there may be potential Bone Spring production in this area that could possibly be lost through injected fluid migration if Yates is allowed to inject into the proposed injection well without first cementing the casing annulus in the Federal "DC" Well No. 1 and the Stonewall "EP" State Com. Well No. 4.

(13) There is at least one productive Bone Spring Pool located in this immediate area, the East Avalon-Bone Spring Gas Pool, whose outer boundary lies within one-half mile of the proposed injection well.

(14) Yates proposed at the hearing that instead of cementing the casing annulus in the above described producing wells that they be allowed to monitor the pressure in the casing annulus for any abnormal change which might signal water influx into the annulus.

(15) It is possible that any water influx into the annulus would not be detected in this manner.

(16) In order to protect correlative rights and otherwise prevent vertical migration of injected fluid within the wellbores of the Federal "DC" Well No. 1 and the Stonewall "EP" State Com. Well No. 4, the applicant should be required to cement the casing annulus across and below the Delaware formation in these two wells in accordance with a program to be approved by the supervisor of the Division's district office at Artesia prior to the commencement of injection operations into the proposed disposal well.

(17) The injection should be accomplished through 2 3/8-inch plastic lined tubing installed in a packer set at approximately 2500 feet; the casing-tubing annulus should be filled with an inert fluid; and a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(18) Prior to commencing injection operations, the casing in the subject well should be pressure-tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(19) The injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 519 psi.

(20) The Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Delaware formation.

(21) The operator should give advance notification to the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(22) The operator should 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.

(23) Approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Yates Petroleum Corporation, is hereby authorized to utilize its Stonewall "YE" State Well No. 1, located 1650 feet from the South line and 1980 feet from the East line (Unit J) of Section 30, Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico, to dispose of produced salt water into the Delaware formation, injection to be accomplished through 2 3/8-inch tubing installed in a packer set at approximately 2500 feet, with injection into the perforated interval from approximately 2595 feet to 3685 feet;

PROVIDED HOWEVER THAT, the tubing shall be plastic-lined; the casing-tubing annulus shall be filled with an inert fluid; and a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

PROVIDED FURTHER THAT, no injection of salt water shall take place in the Stonewall "YE" State Well No. 1 until the Yates Petroleum Corporation Federal "DC" Well No. 1 located in Unit L of Section 29 and the Stonewall "EP" State Com. Well No. 4 located in Unit H of Section 30, both in Township 20 South, Range 28 East, NMPM, Eddy County, New Mexico, have been cemented across and below the Delaware formation in a manner prescribed by the supervisor of the Division's district office at Artesia.

(2) Prior to commencing injection operations, the casing in the subject well shall be pressure-tested to assure the integrity of such casing in a manner that is satisfactory to the supervisor of the Division's district office at Artesia.

(3) The injection well or system shall be equipped with a pressure limiting switch or other acceptable device that will limit the wellhead pressure on the injection well to no more than 519 psi.

(4) The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Delaware formation.

(5) The operator shall notify the supervisor of the Artesia district office of the Division in advance of the date

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and time of the installation of disposal equipment and of the mechanical integrity pressure test in order that the same may be witnessed.

(6) The operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(7) The applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

(8) 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



R. L. STAMETS,
Director

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