

**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. 14960
ORDER NO. R-13702**

**APPLICATION OF NEW MEXICO SALT WATER
DISPOSAL COMPANY, INC. FOR AUTHORIZATION
TO INJECT, LEA COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on March 7, 2013, at Santa Fe, New Mexico, before Examiner David K. Brooks.

NOW, on this 22nd day of April, 2013, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

- (1) Due notice has been given, and the Division has jurisdiction of the subject matter of this case.
- (2) By this application, New Mexico Salt Water Disposal Company, Inc. ("Applicant") seeks approval to inject produced water for the purpose of disposal into the Glorieta formation at a depth interval of 5588 to 5660 feet below the surface, through Applicant's State 28 Well No. 1 (API No. 30-025-25558) (the "subject well"), located 1980 feet from the South line and 660 feet from the East line (Unit I) of Section 28, Township 10 South, Range 34 East, Lea County, New Mexico.
- (3) The subject well was authorized for disposal in the Devonian formation by Order SWD-206, issued on April 28, 1978.
- (4) Disposal into the Devonian through the subject well commenced in 1978, but was recently discontinued due to a downhole tubing failure. Now Applicant proposes to plug back the well to the Glorieta formation, and seeks injection authority for that formation.

(5) At the hearing, Applicant presented factual and geologic testimony and exhibits to the effect that:

(a) The Glorieta formation is a suitable place to inject. It is not productive of hydrocarbons in this area, and takes water well.

(b) Applicant proposes to inject at a maximum surface injection pressure of 1167 psi. There is no risk of formation fracture at this pressure.

(c) The overlying San Andres formation will prevent upward movement of injected fluids, and there are no open faults or other structures that could serve as a conduit.

(d) There are no wells within the one-half mile area of review ("AOR") surrounding the subject well that penetrate the Glorieta formation. The only well in the AOR, other than the subject well, is a plugged and abandoned well that was only drilled to a depth of 100 feet.

(e) Fresh water is present in this area in the Ogallala formation, the base of which is approximately 1400 feet below the surface.

(f) However, the subject well is adequately cased and cemented to prevent communication with any fresh water source. Surface casing is set at 427 feet and circulated to surface; 8 5/8-inch intermediate casing is set at 4260 feet and also circulated to surface; 4 1/2-inch production casing is set below the Devonian, and circulated to approximately 3000 feet. Applicant will set a 100-foot plug 400 feet below the lowest Glorieta perforation to prevent communication with the lower, abandoned portion of the wellbore.

(g) The subject well has passed all mechanical integrity tests.

(h) Applicant has compared the Glorieta formation water with representative samples of water to be injected and found no compatibility issues.

(6) Justin Johnson appeared as a non-attorney representative of Diamond Half, Incorporated, a surface lessee of lands including the well-site. He testified that numerous releases had occurred from the subject well due to back-ups in the injection system when the well would not take water. He indicated that the most recent such occurrence was not later than 2005.

(7) In rebuttal, Applicant presented testimony that while leaks and spills had occurred from a pipeline to the subject well, which has since been replaced, Applicant has no knowledge of any release to the surface at the well head.

The Division concludes that:

(8) Applicant has presented an acceptable plan for disposal of produced water into the subject well. Protestant's concerns about releases that could affect ground water are not an obstacle to the granting of this Application because injection will only be authorized if the subject well passes the required mechanical integrity test after re-completion and prior to resumption of injection.

(9) There are no wells in the AOR that penetrate the injection formation. Accordingly no remedial work on other wells need be required.

(10) Applicant should be authorized to inject fluids at a surface injection pressure not to exceed 1167 psi; provided that Applicant may apply to the Division for a higher injection pressure upon satisfactorily demonstrating that an increase in injection pressure will not result in fracturing of the injection formation or confining strata.

(11) Granting this permit will prevent waste of hydrocarbons by providing a suitable means of disposing of produced water, and will not impair correlative rights.

(12) Accordingly, the application should be approved.

IT IS THEREFORE ORDERED THAT:

(1) New Mexico Salt Water Disposal Co., Inc. ("Applicant" or "Operator") is hereby authorized to inject produced water for the purpose of disposal into the Glorieta formation at a depth interval of 5588 to 5660 feet below the surface, through Applicant's State 28 Well No. 1 (API No. 30-025-25558) (the "subject well"), located 1980 feet from the South line and 660 feet from the East line (Unit I) of Section 28, Township 10 South, Range 34 East, Lea County, New Mexico.

(2) Operator shall take all steps necessary to ensure that the injected fluid enters only the injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(3) The injection well's existing casing shall be considered satisfactory provided the well passes the mechanical integrity test herein required. Operator shall set a permanent plug below the Glorieta perforations to prevent fluid movement into the abandoned portion of the wellbore.

(4) Injection shall be accomplished through plastic-lined steel tubing installed in a packer set in the casing within 100 feet of the uppermost injection perforation. The casing-tubing annulus shall be filled with an inert fluid, and a gauge or approved leak-detection device shall be attached to the annulus in order to detect leakage in the casing, tubing or packer.

(5) The well shall pass a mechanical integrity test prior to initial commencement of disposal and prior to resumption of disposal each time the disposal packer is unseated. All testing procedures and schedules shall conform to the

requirements of Division Rule 19.15.26.11.A NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths.

(6) The injection well shall be initially equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to no more than 1167 psi.

(7) The Division Director shall have the authority to administratively authorize an increase in injection pressure upon a showing by the operator that such higher pressure will not result in fracturing of the injection formation or confining strata.

(8) Operator shall give at least 72 hours advance notice to the supervisor of the Division's Hobbs District Office of the date and time (i) injection equipment will be installed, and (ii) the mechanical integrity pressure tests will be conducted, so these operations may be witnessed.

(9) Operator shall provide written notice of the date of commencement of injection to the Hobbs District Office of the Division.

(10) Operator shall immediately notify the supervisor of the Division's Hobbs District Office of the failure of the tubing, casing or packer in the injection well, or the leakage of water, oil, gas or other fluid from or around any producing or abandoned well within ½ mile of the injection well, and shall take all steps as may be timely and necessary to correct such failure or leakage.

(11) Injection operations shall be governed by applicable provisions of Division Rules 19.15.26.8 through 26.15 NMAC. Operator shall submit monthly reports of the injection operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.28 NMAC.

(12) The injection authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations; provided, however, the Division, upon written request by the Operator filed prior to the expiration of the two-year time period, may grant an extension for good cause.

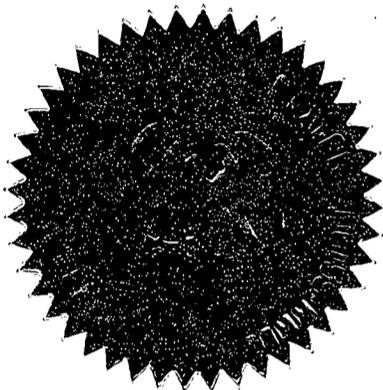
(13) In accordance with Division Rule 19.15.26.12.C NMAC, the injection authority granted herein shall terminate, if after injection commences, any continuous period of one year elapses without reported injection into the well occurring; provided, however, the Division, upon written request by Operator filed prior to the expiration of the one-year period of non-injection, may grant an extension for good cause.

(14) This order does not relieve Operator of responsibility should its operations cause any actual damage or threat of damage to protectible fresh water, human health or the environment; nor does it relieve the operator of responsibility for complying with applicable Division rules or other state, federal or local laws or regulations.

(15) Upon failure of the operator to conduct operations (1) in such manner as will protect fresh water or (2) in a manner consistent with the requirements in this order, the Division may, after notice and hearing, (or without notice and hearing in event of an emergency, (subject to the provisions of NMSA 1978 Section 70-2-23), terminate the injection authority granted herein.

(16) Jurisdiction of this case 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.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JAMI BAILEY
Director