

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Tony Delfin
Acting Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



Administrative Order SWD-1594-A
October 26, 2016

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8B. NMAC, Raz Oil and Gas L.L.C. (the "Operator") seeks an administrative order to authorize the YO State SWD Well No.1 located 660 feet from the North line and 840 feet from the West line, Unit D of Section 15, Township 21 South, Range 35 East, NMPM, Lea County, New Mexico, for commercial disposal of produced water.

This Order supersedes and replaces Administrative Order SWD-1594 issued on November 6, 2015, which allowed for injection into the Cherry Canyon and Brushy Canyon formations. This Order is for injection into the Devonian formation only.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division rule 19.15.26.8(B) NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objection was received within the prescribed waiting period. The applicant has presented satisfactory evidence that all requirements prescribed in rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, Raz Oil and Gas L.L.C. (OGRID 370507), is hereby authorized to utilize its YO State SWD Well No.1 (API 30-025-38162) located 660 feet from the North line and 840 feet from the West line, Unit D of Section 15, Township 21 South, Range 35 East, NMPM, Lea County, for disposal of oil field produced water (UIC Class II only) through an open hole interval within the Devonian formation from approximately **12560 feet to approximately 13000 feet**. Injection shall occur through 4 ½-inch or smaller internally-coated tubing and a packer set a maximum of 100 feet above the top of the open-hole interval.

This permit does not allow disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to this formation. The operator shall provide logs and a mudlog over the proposed interval which verify that only the permitted interval is completed for disposal.

Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Bureau Engineering office, showing evidence agreeable that only the permitted formation is open for disposal including a summary of

depths (picks) for contacts of the formations which the Division shall use to amend this order for a final description of the depth for the injection interval. Next, the operator shall supply the Division with an estimated insitu water salinity based on open-hole logs. Lastly, if significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District I and the operator shall be required to receive written permission prior to commencing disposal.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as proposed in the application and, if necessary, as modified by the District Supervisor.

Operator shall submit the results of the swab test which shall include formation water analysis and hydrocarbon potential of the injection interval to the Division's District geologist and Santa Fe Bureau Engineering office prior to commencing injection.

The operator shall circulate the cement behind the 7-inch casing from approximately 12560 feet to surface. Even if the cement circulates, the operator shall run a CBL (or equivalent) across the 7-inch casing from approximately 12560 feet, or the top of the Devonian formation, whichever is greater; to surface to demonstrate a good cement across the 7-inch casing and good cement bond between the 7-inch casing and the 9-5/8-inch casing.

Within two years after commencing disposal, the operator shall conduct an injection survey, consisting of a temperature log or equivalent, over the entire injection interval using representative disposal rates. Copies of the survey results shall be provided to the Division's District I office and Santa Fe Engineering Bureau office.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in 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 in this well.

The wellhead injection pressure on the well shall be limited to **no more than 2512 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well. The Operator either shall install a SCADA System on this well or install a long term chart to record disposal pressures.

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District I office of the date and time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District I office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection order after notice and hearing if the operator is in violation of rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

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DAVID R. CATANACH
Director

DRC/mam

cc: Oil Conservation Division – Hobbs District Office
New Mexico State Land Office – Oil, Gas, and Minerals
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