

STATE OF SOUTH DAKOTA
SECRETARY OF THE
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

<p>IN THE MATTER OF THE APPLICATION OF PETER K. ROOSEVELT, DENVER, CO, FOR APPROVAL OF A PERMIT TO INJECT PRODUCTION WATER INTO THE EXISTING 2-33 ALKALI FEDERAL WELL LOCATED IN THE NW¼ NE¼ SECTION 33, TOWNSHIP 11 SOUTH, RANGE 1 EAST, IN FALL RIVER COUNTY, ABOUT EIGHTEEN MILES SOUTHWEST OF EDGEMONT, SD, TO INJECT PRODUCTION WATER IN THE UNCONSOLIDATED SAND OF THE MINNELUSA FORMATION FOR SALT WATER DISPOSAL.</p>	<p>NOTICE OF RECOMMENDATION FOR A PERMIT TO INJECT</p> <p>OIL AND GAS CASE NO. 5-2017</p>
---	---

Notice is hereby given to the public and to all interested persons that pursuant to South Dakota Codified Laws (SDCL) Chapter 1-26 and Chapter 45-9 and further pursuant to the Administrative Rules of South Dakota (ARSD) 74:12:07 and 74:12:09, the following matter has come to the attention of the Secretary of the Department of Environment and Natural Resources, hereinafter "Secretary."

The 2-33 Alkali Federal well was completed with 268 feet of 8 5/8-inch steel surface casing, cemented to protect underground sources of drinking water, and 3,679 feet of 5 1/2-inch steel production casing, cemented to protect underground sources of drinking water. The injection zone will be in the Unconsolidated Sand of the Minnelusa Formation. Injection water will be produced water from the 3-33 Alkali Federal well producing from the 2nd Leo Member of the Minnelusa Formation. There are four other wells located within the one-half mile area of review, or maximum calculated radius of influence. Injection into this well will not affect any underground sources of drinking water.

Water from the Unconsolidated Sand of the Minnelusa Formation at the proposed injection well, has a total dissolved solid content of less than 10,000 milligrams per liter; therefore, an aquifer exemption is required to conduct injection operations at this well. The Secretary recommends granting a 3,150-foot radius aquifer exemption in the Minnelusa Formation around the proposed injection well. The Secretary has made this recommendation because the Minnelusa Formation, near the proposed injection well, does not currently serve as a source of drinking water, is not expected to supply a public water system, and will not serve as a source of drinking water in the future because its location makes recovery of water for drinking water purposes economically impractical.

The requested maximum injection pressure is 550 pounds per square inch and the requested duration of this application is 30 years or the time required to inject 8,212,500 cumulative barrels of water, whichever comes first.

The Secretary recommends approval of the application with the following conditions:

- 1) Injection operations authorized under the permit to inject must be conducted in accordance with SDCL Chapter 45-9, ARSD 74:12 and any applicable orders or rules promulgated by the board;
- 2) The total number of barrels injected during the life of this permit may not exceed 8,212,500 barrels of water;
- 3) The maximum injection rate must not exceed 750 barrels of water per day;

- 4) The life of the permit may not exceed 30 years;
- 5) The maximum pressure must not exceed 550 pounds per square inch surface pressure during injection operations;
- 6) Prior to the commencement of injection, the Secretary's recommended Aquifer Exemption for this operation must be approved by the United States Environmental Protection Agency;
- 7) A mechanical integrity test must be successfully conducted prior to the commencement of injection activity. The well must pass the mechanical integrity test at 1,000 pounds per square inch surface pressure. The operator is required to notify the Secretary a minimum of 72 hours prior to running a mechanical integrity test;
- 8) Once mechanical integrity is established, the well must be retested at least once every five years to ensure that mechanical integrity is maintained, unless the department indicates differently;
- 9) If an unsuccessful pressure test occurs, the operator must cease operations immediately if it is determined the injection will threaten any underground source of drinking water. If the failure is not threatening ground water, the operator must cease operations within 48 hours after receipt of the department secretary's notice, and take corrective action on the well as soon as feasible. Corrective action options include repairing the well so that a successful test result can be obtained, plugging and abandoning the well, or any other action approved by the department.
- 10) At all times this well shall have an accurate, operating pressure gauge or pressure recording device and injection volume totalizer or volume recording device. The operator shall keep and maintain an accurate log of monitoring equipment readings which may be subject to review by the department at any time.

Authority for the Secretary to approve this application is contained in ARSD 74:12:07 and 74:12:09. Unless a person files a petition requesting a hearing on the above application pursuant to the provisions of ARSD 74:09:01 on or before May 2, 2018, the Secretary's recommendation will be considered final and the Secretary will approve the application in accordance with that recommendation.

The application and notice of recommendation are also posted on the department's website at: <http://denr.sd.gov/des/og/pubhearing.aspx> or <http://denr.sd.gov/public/default.aspx>. Additional information about this application is available from Brian Walsh, Environmental Scientist Manager I, Ground Water Quality Program, Department of Environment and Natural Resources, 523 East Capitol Avenue, Pierre, SD 57501, telephone (605) 773-3296, email brian.walsh@state.sd.us.

April 5, 2018



Steven M. Pirner
Secretary

Published once at the total approximate cost of _____.