



**DEPARTMENT of AGRICULTURE
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 E CAPITOL AVE
PIERRE SD 57501-3182
danr.sd.gov

July 11, 2024

Todd Christensen
Solitario Resources Corp
Suite 100
2916 4th Ave
Spearfish, SD 57783

Re: EXNI 452 for Solitario Resources Corp Drilling in Portions of Sections 1, 3, 10, 21, 22, 25, 26, and 27; T4N-R1E, Portions of Section 29; T4N R2E, Portions of Section 35; T5N R1E, and Portions of Sections 7, 18, and 19; T5N R2E, Lawrence County

Dear Mr. Christensen:

The department is in receipt of the Exploration Notice of Intent (EXNI) that you filed with our office on March 5, 2024, with supplemental information submitted on April 26 and July 10, 2024. The department has determined the Notice of Intent to be procedurally complete. Based on our review of your Notice, we determine the following restrictions are required:

1. This project shall be conducted and reclaimed in such a manner as to prevent any violation of the beneficial uses of specified water quality criteria of any water resources in the area. In accordance with Chapter 74:51, all surface waters of the state have been assigned the following beneficial uses:
 - 9) Wildlife Propagation, recreation, and stock watering waters; and
 - 10) Irrigation waters
2. Any discharge from the site will be directed to a settling pond or sump to allow suspended solids to settle out. For any discharge into a dry draw or gulch, a South Dakota Surface Water Discharge Permit may be required prior to discharge.
3. To ensure optimal soil erosion protection, all affected lands shall have adequate sedimentation and erosion control measures applied pursuant to SDCL 45-6C-32 and according to Best Mineral Management Practices. These measures shall be in the form of waterbar construction on access roads where appropriate; revegetation of roads; road embankment slopes; and the installation of straw bale or silt fence type sediment filters wherever necessary. Solitario Resources shall inspect, clean out, repair, or upgrade the sediment controls as necessary to prevent degradation of surface waters of the state.

4. All topsoil shall be salvaged and stockpiled whenever possible for use in reclamation. Salvaged topsoil shall be seeded with the approved seed mix if anticipated to be in stockpile for more than three months.
5. When drilling fluids are used and/or when ground water is encountered during drilling, the drilling fluids shall be sufficiently contained to prevent overland flow or discharge to any waters of the state. If water tanks are used in lieu of mud pits, they shall also be sufficiently contained.
6. When mud pits are being utilized in drilling a hole, these pits shall be constructed on the uphill side of the drill pad. Solitario Resources shall line the mud pits to prevent potential seepage.
7. Drill pads construction may come no closer than 50 feet to any stream or dry stream channels during the course of exploration.
8. Solitario Resources shall spray weeds in all disturbed areas and surrounding areas, up to 50 feet from disturbed areas, including along access roads within the exploration permit boundary. Weed control on all disturbed or reclaimed areas is required until this EXNI is released of reclamation liability by the Board of Minerals and Environment.
9. During periods of active exploration drilling, Solitario Resources shall provide, via email, a weekly report outlining when and where exploration holes are being drilled so the department can plan inspections and witness plugging activities.
10. In the instance sulfate minerals are encountered during drilling activities, Solitario Resources shall perform paste pH analyses on mud pits and report the findings to DANR prior to reclamation if pH adjustments are necessary for the material in the mud pits. If deemed necessary by DANR, Solitario Resources shall amend the pit with lime or other buffer material and provide a report outlining reclamation performed at the drill site.
11. All test holes shall be capped, sealed and plugged according to ARSD 74:11:08 (Plugging Standards) or alternative plugging method approved by DANR immediately following drilling and probing.
12. If surface casing is used in exploration holes, the following requirements shall be met:
 - a) Prior to removal of surface casing, the hole shall be plugged in accordance with ARSD 74:11:08 or alternative plugging method approved by DANR to a level just below the bottom of the surface casing.
 - b) Following step a), the casing will be removed (when possible) or cut off at least one foot below the ground surface.
 - c) The remainder of the hole will be plugged in accordance with ARSD 74:11:08 or alternative plugging method approved by DANR.
13. Solitario Resources shall notify the department, in writing, when exploration drilling penetrates an aquifer. Notification shall be provided as soon as possible, but not more than

90 days after penetration of the aquifer. Notification shall include the location of the test hole penetrating the aquifer.

14. When affected roads and drill pad areas associated with the operation are no longer necessary for further exploration purposes, reclamation must be completed on these disturbed areas within 12 months. If Solitario Resources plans to continue exploration in disturbed areas but must temporarily cease exploration activities, reclamation must be completed within 24 months. Solitario Resources may submit a request to extend these deadlines as necessary to the DANR.
15. Reclamation must be completed on all affected acreages of the exploration within 12 months following completion of all exploration activities conducted by Solitario Resources allowed under this Notice.
16. The following seed mix shall be used for reclamation of the affected areas:

Annual Rye	10%
Slender Wheatgrass	25%
Western Wheatgrass	5%
Prairie Junegrass	30%
Canada wildrye	30%

This seed mix shall be applied at a rate of 20 pounds PLS/acre.

17. Solitario Resources shall follow all wildlife restrictions outlined as part of the Plan of Operations issued by the US Forest Service. In addition, Solitario should contact South Dakota Department of Game, Fish, and Parks with any wildlife questions or concerns.
18. Solitario Resources shall follow the recommendations outlined in the letter dated May 23, 2024, from Dustin Lloyd of the Archaeological Research Center.
19. If any human remains, animal bones, artifacts, cultural features, foundation remnants, or other evidence of previously unrecorded past human use are discovered within the project area during the exploration or related activities, all work should be halted and the area in and around the discovery area should be protected. Solitario Resources shall then immediately notify Renee M. Boen, the state archaeologist, at (605)394-1936 or (605)381-8738.

All restrictions above must be followed in addition to those conditions outlined as part of the US Forest Service issued Plan of Operations. In instances where a condition may conflict between the two documents, Solitario shall follow the stricter of the two conditions to ensure continued compliance with both documents.

Please note that we have assigned your Notice of Intent the following number: **EXNI-452**. This Notice allows you to conduct only the type and amount of work which is hereby being approved. Any additional work must be covered by the submission of a new Notice to our office. Solitario

Resources may commence with the operation contingent upon compliance with the above restrictions.

Thank you for your interest in and consideration for the natural resources of South Dakota.

Sincerely,

\s/

Roberta Hudson
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Minerals and Mining Program
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cc: Stan Michals, Department of Game, Fish and Parks
Dustin Lloyd, Archaeological Research Center
Gage Koistinen, Rapid City Office