



U.S. Department of the Interior
Bureau of Land Management

Humboldt River Field Office

Categorical Exclusion

United States Department of the Interior
Bureau of Land Management

**Categorical Exclusion Documentation
for
DOI-BLM-NV-W010-2024-0037-CX**

*Trego Magnetotelluric Survey
For Zanskar Geothermal & Minerals
NVNV-106382792*

PREPARING OFFICE

U.S. Department of the Interior
Bureau of Land Management
Winnemucca District
Humboldt River Field Office
5100 E. Winnemucca Blvd.
Winnemucca, Nevada 89445
775-623-1500

**Bureau of Land Management
Winnemucca District Office
Categorical Exclusion**

Subject Function Code(s): 3209

Part I: Background

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|--|---|
| BLM Office: Humboldt River Field Office 5100 E. Winnemucca Blvd Winnemucca, Nevada 89445 | BLM National NEPA Register Number: DOI-BLM-NV-W010-2024-0037-CX Serial Number: NVNV-106382792 |
| Title: Trego MT Survey | |
| Proposed Action /Type of Project: MT Survey | |
| Location of Proposed Action: Pershing County, Nevada Legal Description: T. 33 N., R. 25 E., Sections 1, 2, 3, 10, 11, 14, 15 USGS 24k Quad Name: Trego, Dry Mountain NW 100k Map Name: Gerlach Land Status: <input checked="" type="checkbox"/> BLM <input type="checkbox"/> Private <input type="checkbox"/> Other _____ | |
| Previous Disturbance Acreage: up to 5 acres of existing roads and two-tracks | |
| New Disturbance Acreage: 0.0018 acres (7.12 square meters) | |
| Applicant: Zanskar Geothermal & Minerals, LLC | |

Is the project located within a Greater-Sage Grouse
Priority Habitat Management Area? ☐ Yes ☒ No

Is the project located within a Greater-Sage Grouse
General Habitat Management Area? ☐ Yes ☒ No

Is the project located within a Greater-Sage Grouse
Other Habitat Management Area? ☐ Yes ☒ No

Is the project located within a National Landscape Conservation System feature (NCA,
Wilderness, WSA, ISA, Scenic or Historic Trails)? ☐ Yes ☒ No

Description of Proposed Action:

Zanskar Geothermal & Minerals, LLC (Zanskar) proposes to conduct a magnetotelluric survey on leased and unleased lands near Trego Hot Springs, Nevada in 2024. The proposed project would estimate the resistivity of rocks below the surface to a depth of many kilometers, measuring changes in the Earth's varying magnetic and electric fields, to detect low-resistivity hydrothermal alteration in the subsurface which can be an indication of geothermal reservoirs.

The proposed project has a total of 43 sites; the majority of these points are located off-road. To access the survey stations, the crews, will utilize a light duty pick-up truck and/or a small side-by-side utility task vehicle (UTV). Crews will stay on existing roads and trails. They will access the MT sites on foot once they have gotten as close as possible utilizing existing roads and trails. The equipment required for this kind of project includes three magnetic coils and five electrodes. Equipment requires contact with the ground and is traditionally buried under a few inches of dirt to prevent interference from wind or animals. The magnetic coils can be installed with hand tools, or if excavations are of major concern, covered with sandbags, however a UTV would have to travel overland to transport the sandbags. The electrodes would still need to be buried. Once equipment is installed, it is left in the ground overnight to collect data and are removed the next day. Holes will be reclaimed by refilling the holes. If undue disturbance is caused, the area will be reclaimed according to the applicable regulations and standards.

Crews are advised to steer clear of wildlife, and if any nests/ burrows are found, will not survey at those points. Travel will be mainly on roads and trails. Any off-road travel will take place on paths of least resistance, with minimal overland travel, avoiding vegetation where possible. Vehicles will be washed prior and after entering the field area to ensure no noxious weeds are transplanted. In order to mitigate fire damage crews are told to keep undercarriages clean, not parking on tall grass or bushes, and to keep a class-A fire extinguisher on all vehicles.

Part II: Land Use Plan Conformance

The Proposed Action is subject to the:

- ☒ Resource Management Plan for the Winnemucca District Planning Area (May 21, 2015) as amended by the Record of Decision and Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (September 21, 2015)
- ☐ Black Rock Desert-High Rock Canyon Emigrant Trails NCA and Associated Wilderness and Other Contiguous Lands in Nevada RMP (July 2004)

The proposed action is in conformance with the applicable LUP because it is specifically provided for in the following LUP decision(s):

Objective MR 4: Lands within the WD will be open to geothermal and oil and gas leasing and development except where incompatible with important resource values. Protect, manage, and conserve lands acquired in a manner consistent with the goals of the acquisition and the resource

values present, in accordance with those Actions described below, and considering the management applied to adjacent public lands.

Action MR 4.1: Maintain 5,492,707 acres as open to leasing. Offer fluid mineral leases in those areas identified as open to leasing (Figure 2-13, Appendix A). Protect, manage, and conserve important resource values in otherwise open areas by applying stipulations determined to be necessary to reasonably protect other resources as depicted on Figure 2-13, Appendix A and described in the text.

Action MR 4.1.1: 2,851,895 acres will be open with only standard lease terms and stipulations (Figure 2-13, Appendix A). (Note: Survey for and mitigation of impacts on cultural resources, sensitive species, and migratory birds are considered standard stipulations [see Actions CR 1.1, CR 1.2, SSS 3.2, SSS 6.1.1, SSS 7.1.1, and FW 4.1, see Appendix I, Winnemucca Fluid Mineral Lease Sale Stipulations]).

Action MR 4.1.2: 2,435,327 acres will be open, with standard lease terms and stipulations, as well as one or more of the following seasonal or other restrictions listed below (Figure 2-13, Appendix A):

- a. PMUs that are not within priority wildlife habitat areas (see Action SSS 5.2.2).
- b. Within HMAs, where proposed activities could result in adverse impacts on the health and welfare of WHB (see Action WHB 4.1).
- c. Within defined avoidance areas (See Action LR 5.2).
- d. Within priority watersheds that are not T&E species habitat (see Actions WR 3.2 and WR 3.2.1).
- e. Areas in VRM Class I, II, or III (see Visual Resources Goal, Objective VRM 1, and Action VRM 1.1).

Action MR 4.1.3: 205,485 acres will be open to leasing but subject to a no surface occupancy stipulation, applicable to the following (Figure 2-13, Appendix A):

- a. No new fluid leasing surface occupancy will be allowed within a mile of the NHT (see Action CR 6.9). To accomplish this, any quarter-quarter-quarter section (10-acre parcel) within or intersected by the trail or the one-mile buffer line will be subject to NSO.
- b. Within an identified TCP listed or considered eligible for the NRHP (see Action TC 2.2.2). To accomplish this, any quarter-quarter-quarter section (10-acre parcel) within or intersected by the TCP will be subject to NSO.
- c. Within the location of an identified paleontological resource classified as being of scientific or educational interest (see Action PR 1.6). To accomplish this, any quarter-quarter-quarter section (10-acre parcel) within or intersected by the site will be subject to NSO.
- d. Priority water supply areas (see Actions WR 3.4).
- e. Within cultural sites that have been determined to be eligible for listing on the NRHP (see Action CR 2.1.1)

Part III: Compliance with NEPA

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 43 CFR 46.210, 516 DM 11.9 B. (6): "Approval of Notices of Intent to conduct geophysical exploration of oil, gas, or geothermal, pursuant to 43 CFR 3150 or 3250, when no temporary or new road construction is proposed." This categorical exclusion is appropriate in this situation because there are not extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed (Table 1), and none of the extraordinary circumstances described in 43 CFR 46.215 apply.

Table 1: Extraordinary Circumstances Worksheet

NOTE: Italicized prompts (in "Rationale") should not be visible in the final document.

The action has been reviewed to determine if any of the extraordinary circumstances (43 CFR 46.215) apply. Would the project:

| | | |
|---|---|---|
| 1. Have significant impacts on public health or safety. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: Project does not involve contacting a geothermal resource. Sources of water for public consumption, either surface or groundwater, are not affected. Emissions from vehicles are negligible. |
| 2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: The proposed action does not take place within park, refuge, or wilderness areas and the proposed action will not have a significant effect on migratory bird and other sensitive species' habitat. See biological review for list of sensitive status species that may be present in the area. One point is within 500 feet of the CSU; this is usually subject to controlled surface use, however, as long as the applicant adheres to conditions of approval, no negative impacts are anticipated. The proposed action does not occur within a Controlled Surface Use (CSU) area that has a severe soil wind or water erosion hazard rating, as indicated by NRCS soil survey data, nor within a CSU for soil slopes as outlined in the NVNV105772578 lease stipulations. |
| 3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102 (2) (E)]. | | |

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| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: Previous MT surveys in Winnemucca District have been determined casual use due to management determination of insignificant levels of surface disturbance. |
| 4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: Categorically excluded actions generally have very predictable consequences well established as insignificant. If an impact of an action cannot be predicted due to varying circumstances and has potential to be significant, additional analysis would be necessary. |
| 5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: MT surveys have been done previously in other BLM NV districts. This proposed action is not connected to another action. If the proponent wishes to perform further exploration or resource confirmation, that will be a new action with new NEPA analysis. |
| 6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: At the geothermal exploration stage there are no cumulatively significant environmental effects. This proposed action is not connected to another action. If the proponent wishes to perform further exploration or resource confirmation, that will be a new action with new NEPA analysis. |
| 7. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: The majority of the area has never been surveyed and therefore no way to know if there are any properties eligible for listing on the NRHP. The proponent has agreed to hire a cultural monitor to be present during the project implementation. |
| 8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species. | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: No species listed as Threatened or Endangered under the Endangered Species Act have been observed in the proposed project area, and no designated Critical Habitat is present. The Monarch Butterfly is a Candidate species that could occur in this area. Candidate species do not receive protection under the ESA and do not have designated Critical Habitat. |
| 9. Violate a federal law, or a state, local or tribal law or requirement imposed for the protection of the environment. | | |

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| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: No federal, state, local, or tribal laws that relate to wildlife resources will be violated by the proposed action. |
| 10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898). | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: The project area is largely unpopulated. Effects from this project would include emissions from vehicle traffic for a short period. |
| 11. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007). | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: While there is a sacred site within one mile of the project area, there will be no impacts to the site as the project is currently proposed. However, tribal consultation should occur to ensure there are no issues regarding the close proximity of the sacred site to the project area. |
| 12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112). | | |
| Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | Rationale: Implementation of the proposed protection measures and attached conditions of approval would prevent invasive species impacts: All vehicles will be clean and free of seeds when arriving on site and vehicles that travel through invasive species infestations will be washed to remove seeds and vegetative parts of invasive species before going into new areas. |

Part IV: Signature

Authorized Official:  Date: **NOV 26 2024**

Name: **John Mitchell** Title: **Field Manager**

Part V: Point of Contact

For additional information concerning this CX review, contact Holly Doherty, Geologist, via any of the following methods:

Humboldt River Field Office
5100 E Winnemucca Blvd
Winnemucca, NV 89445

775-623-1517
hdoherty@blm.gov

CONDITIONS OF APPROVAL FOR ZANSKAR TREGO MT SURVEY (CX)

Location: T. 33 N., R. 25 E., Sections 2, 3, 10, 11, 14, 15
Operator: Zanskar Geothermal & Minerals, LLC
Approval Number: 20240913-01HD

**A COPY OF THESE CONDITIONS OF APPROVAL MUST BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO ENSURE COMPLIANCE**

AGENCY CONTACTS

Humboldt River Field Office

Authorized Officer- HRFO Field Manager

John Mitchell

Office: (775) 623-1739

cmitchell@blm.gov

FO Representative- Geologist

Holly Doherty

Office: (775) 623-1517

hdoherly@blm.gov

NEVADA DIVISION OF MINERALS

Nevada Division of Minerals

400 W. King Street #106

Carson City, NV 89703

(775) 684-7040

Fluid Minerals Program Manager

Michael Vischer

Cell: 775-721-1774

Office: 775-684-7045

mvischer@minerals.nv.gov

TERM:

This permit shall be valid for two (2) years from the date of approval, provided the lease does not expire. If activities have not commenced by the end of the two (2) year period, the permit may be returned to the operator without prejudice. Upon written request by the operator, a one-time extension to this time period may be granted by the Authorized Officer (AO).

GENERAL REQUIREMENTS:

All exploration operations will be conducted in such a manner that full compliance is made with applicable state and federal laws, regulations (43 CFR parts 3200, 3250, and any other applicable regulations), lease/agreement terms, Geothermal Resource Orders, Notice to Lessees (NTLs), the approved Notice of Intent, Categorical Exclusion form evaluation, Conditions of Approval, and this permit.

A complete copy of the approved application and these conditions shall be maintained on location during all operations. Deviation from the approved plan without prior approval is not allowed.

The operator is fully responsible for the actions of their subcontractors. It is, therefore, the responsibility of the Operator to ensure that subcontractors fully understand the necessity to comply with all Conditions of Approval and Federal, State, and local laws and regulations.

Approval of this permit does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Failure to comply with the provisions of this permit, including applicable regulations, stipulations, and/or approval conditions, will be considered a violation, subject to the enforcement provisions of 43 CFR 3200.

This approval is contingent upon the lessee/operator being in receipt of and in compliance with all appropriate state and local permits. The operator shall obtain and maintain all necessary State of Nevada and local permits applicable to the approved operations.

CONDITIONS OF APPROVAL

Public Health and Safety

Solid Waste Disposal

1. Trash and other debris shall be contained onsite and then hauled to an approved landfill. Burial and/or burning onsite shall not be permitted.

Hazardous Material Spill and Disposal

1. No chemicals, fuels, oils, lubricants, or noxious fluids shall be disposed of at the sites.
2. If any chemicals, fuels, oils, lubricants, and/or noxious fluids are spilled during operations, they shall be cleaned up immediately.
3. The lessee/operator shall have absorbent materials on site for spill containment. After cleaning up, the chemicals, fuels, oils, lubricants and/or noxious fluids and any contaminated material shall be removed from the site and disposed of at an approved disposal facility.
4. The lessee/operator shall be responsible for all cost associated with any releases of chemicals and/or subsurface fluids resulting from their operations and practices.

Resource Protection Measures

Threatened and Endangered Species, Migratory Birds, and Wildlife

1. Refer to the comments from specialists included in the CX form evaluation for remarks on T&E species, migratory birds, and other wildlife.
2. Initial ground disturbing activities shall not be conducted during the migratory bird nesting season (February 1-August 31 for eagles and March 1 - August 31 for other raptors and migratory birds) unless necessary, and then only after inventories for migratory birds and nests were conducted by a qualified biologist acceptable to the BLM. This survey shall be conducted to identify either breeding adult birds or nest sites within the specific areas to be disturbed. If active nests are present within these areas to be disturbed, Zanskar shall coordinate with the AO to develop appropriate protection measures for these sites, which may include avoidance, construction constraints, and/or the establishment of buffers.

Noxious Weeds and Vegetation

1. The lessee/operator shall be responsible for controlling all noxious weeds and other undesirable invading plant species in the disturbed operating and reclaimed area until the revegetation activities have been determined to be successful and accepted by the BLM AO. The lessee/operator shall obtain approval from the BLM AO for any application of herbicide, and the request must include descriptions of the types and quantities. Unless certified weed free seed is procured for the reclamation of this project, all seed shall be tested for purity, noxious, poisonous and or prohibited plant species, and the test results submitted to and approved by the BLM AO.
2. To prevent the spread of invasive, nonnative species, vehicles and equipment shall be power washed, including body and undercarriage, prior to entering public lands managed

by the BLM. All vehicles will be clean and free of seeds when arriving on site and vehicles that travel through invasive species infestations will be washed to remove seeds and vegetative parts of invasive species before going into new areas.

3. If reclamation of vegetation is required, please contact the Humboldt River Field Office for a reseeding list.

Cultural Resources

1. Any areas containing cultural resources of significance shall be avoided, or the potential for impacts mitigated in a manner acceptable to the BLM Archaeologist. Employees, contractors, and suppliers shall be reminded that all cultural resources are protected and if uncovered shall be left in place and reported.
2. When cultural or paleontological resources, including but not limited to historic ruins, prehistoric artifacts, and fossils, are discovered in the performance of the permit, the resources shall be left intact and immediately brought to the attention of the BLM AO.
3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.20). Further, pursuant to 43 CFR 10.4(c) and (d), the lessee/operator shall immediately stop all activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the BLM AO.
4. Per applicant committed measures, Zanskar will have a cultural monitor on site during the project work.

Fire Prevention

1. The lessee/operator shall be responsible for all suppression costs for any fire resulting from their operations and practices.
2. The following precautionary measures should be taken to prevent wildland fires. In the event your operations should start a fire, you could be held liable for all suppression costs.
 - a. All vehicles should carry fire extinguishers and a minimum of 10 gallons of water.
 - b. Adequate fire-fighting equipment i.e. shovel, pulaski, extinguisher(s) and a minimum 10 gallons of water should be kept at the drill site(s).
 - c. Vehicle catalytic converters should be inspected often and cleaned of all brush and grass debris.
 - d. All construction and operating equipment shall be equipped with applicable exhaust spark arresters. Fire extinguishers shall be available on the active sites. Water that is used for construction and dust control shall be available for firefighting. Personnel shall be allowed to smoke only in designated areas, and they shall be required to follow applicable BLM regulations regarding smoking.
 - e. Report wildland fires immediately to the BLM Central Nevada Interagency Dispatch Center (CNIDC) at (775) 623-3444. Helpful information to reported is location (latitude and longitude if possible), what's burning, time started, who/what is near the fire and direction of fire spread.

- f. When conducting operations during the months of May through September, the operator must contact the BLM Winnemucca District Office, Division of Fire and Aviation at (775) 623-1500 to find out about any fire restrictions in place for the area of operation and to advise this office of approximate beginning and ending dates for your activities.

DECISION RECORD
TREGO MT SURVEY 2024 PROJECT
PERSHING COUNTY, NEVADA

Categorical Exclusion
DOI-BLM-NV-W010-2024-0037-CX

INTRODUCTION

In March 2023, Zanskar Geothermal & Minerals, LLC (Zanskar) submitted to the Bureau of Land Management (BLM) a Notice of Intent to Conduct Geothermal Exploration Operations (NOI) to conduct a magnetotelluric (MT) survey in the area of Trego Hot Springs (Trego), Pershing County, Nevada. The proposed survey is intended to assess and characterize the potential geothermal conditions of the survey area. The Humboldt River Field Office Interdisciplinary Team of resource specialists reviewed the proposal to determine if a Categorical Exclusion (CX) would be appropriate and what, if any, Conditions of Approval (COA) should be attached to the NOI.

BACKGROUND

In order for Zanskar to complete their submitted survey programs, the BLM Authorized Officer must review the proposal to determine the appropriate level of environmental review. Authorization to proceed would be granted with the signing of the NOI form by the authorized officer and the proponent indicating their agreement to comply with any attached COA(s).

NEPA COMPLIANCE

The proposed action meets the criteria to qualify as a CX under the National Environmental Policy Act. The proposed action is designated as a Categorical Exclusion pursuant to 516 DM 11.9 (B)(6) Oil, Gas, and Geothermal Energy: *Approval of Notices of Intent to conduct geophysical exploration of oil, gas, or geothermal, pursuant to 43 CFR 3150 or 3250, when no new or temporary road construction is proposed.* The BLM determined that none of the extraordinary circumstances listed at 43 CFR 46.215 applied to the proposed action.

DECISION

Having reviewed DOI-BLM-NV-W010-2024-0037-CX, it is my decision to approve Zanskar's NOI to conduct an MT survey in the area of Trego Hot Springs, Pershing County, Nevada with the proponent's agreement to adhere to the attached COA(s).

RATIONALE

The proposed action is being authorized so that BLM can meet regulatory and policy objectives. This action will encourage the development of energy and mineral resources in a timely manner to meet national, regional, and local needs consistent with the objectives for other public land uses. During resource specialist review of the proposed action, COAs were developed and attached to the NOI form as a requirement for authorization.

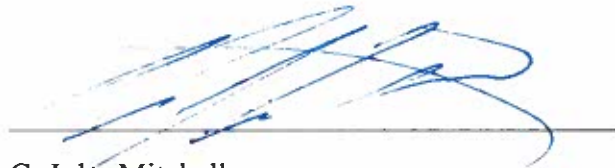
AUTHORITY

Authority for managing geothermal resources is found within the Geothermal Steam Act of 1970, the Energy Policy Act of 2005, and 43 CFRs Part 3200. Policies for the timely development of energy resources are found in the Winnemucca District Office Resource Management Plan, Objectives MR 4 and 5.

APPEAL PROCEDURES

As per 43 CFR 3200.5, if you are adversely affected by this decision you may appeal in accordance with 43 CFR Part 4, 43 CFR 1840 and the enclosed Form 1842-1.

This decision is immediately effective and will remain in effect while appeals are pending unless a stay is granted in accordance with 43 CFR 4.21(b).



C. John Mitchell

Field Manager

Humboldt River Field Office

NOV 26 2024

Date