

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Fillmore Field Office
95 East 500 North
Fillmore, Utah 84631
435-743-3100

CATEGORICAL EXCLUSION
DOI-BLM-UT-W020-2024-0013-CX

A. BACKGROUND

Proposed Action Title/Type: Zanskar Dog Valley Exploration

Lease/Serial/Case File No (if any): UTUT106355443

Location of Proposed Action: Township 25 South, Range 6 West, Section 5, Aliquot Parts W2SW, E2NW

Applicant: Zanskar Geothermal and Mineral, Inc.

Description of Proposed Action:

Zanskar Geothermal and Mineral, Inc. proposes to install three temperature gradient wells (DV-TG-003, DV-TG-004, and DV-TG-006) on geothermal lease UTUT105787863 located in Fishlake National Forest. This lease is administered by the Bureau of Land Management (BLM) through delegated authority under the Geothermal Steam Act of 1970 and 43 Code of Federal Regulations (CFR) 3250.10(a)(2). The purpose of these proposed activities is to evaluate and measure temperature gradients related to geothermal resources that may underly the project area.

The project area is located approximately 4 miles north-northeast of Cove Fort, Millard County, Utah. The proposed activities would utilize existing county and Forest Service roads to access the sites of three proposed drill pads, each 150 feet by 200 feet (0.69 acres) as depicted in **Attachment 4**. No modification to existing roads would be required under the proposed action.

Spud points of the proposed wells are as follows:

| Well | Easting | Northing | Latitude | Longitude |
|-----------|-----------|------------|-----------|-------------|
| DV-TG-003 | 364166.05 | 4279983.41 | 38.658015 | -112.564441 |
| DV-TG-004 | 364794.86 | 4281233.02 | 38.669369 | -112.554160 |
| DV-TG-006 | 364567.43 | 4280827.02 | 38.665676 | -112.556694 |

The proposed drilling program would proceed as follows: drill pads would be prepared and grubbed of vegetation; wells would be drilled to a maximum depth of 1,000 feet and set with 2 7/8-inch oilfield tubing; drilling activities would produce approximately 150 cubic feet of cuttings per well which would be containerized and disposed of off-site, with no discharge to ground surface or water bodies; blowout-prevention equipment would be utilized as necessary; wells would be completed with bentonite and set with a cement surface casing. Following completion,

wells will be backfilled with water and temperature logs would be run in the water-filled tubing. All water used for drilling and backfilling would be privately sourced.

Reclamation of approximately 2.07 acres of surface disturbance would be accomplished by mechanical scarification and revegetation using a BLM-approved seed mix. The installed wells would be capped but remain in place following final reclamation, for use in future temperature studies.

B. LAND USE PLAN CONFORMANCE

Land Use Plan Name: Warm Springs Resource Area (WSRA) Resource Management Plan (RMP) and Record of Decision

Date Approved/Amended: March 30, 1987

The proposed action is in conformance with the LUP, though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s) (objectives, terms, and conditions):

The Goals and Objectives of the WSRA RMP mineral program (p. 47) are to:

"...(1) provide for discovery, development, and use of minerals on public land consistent with applicable laws and regulations; (2) require the least restrictive stipulations necessary to adequately protect other resources; and (3) continue to meet public demand for saleable and fee-use mineral materials on a case-by-case basis."

The planned actions of the WSRA RMP for geothermal resources (p. 47) include:

"Geothermal Drilling Permits (GDPs) will be processed within the required time frames upon approval of Plans of Operations for geothermal exploration, development, and production. Appropriate environmental protection conditions of approval and stipulations will be applied to the GDPs and Plans of Operations at the time of approval."

The Proposed Action contributes to meeting the goals of the mineral program and is consistent with Federal, state, and local laws.

C. COMPLIANCE WITH NEPA

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9(B)(6), which excludes "[a]pproval 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."

D. CONCLUSION

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 43 CFR Part 46.215 apply. A record of the extraordinary circumstances review is provided in

Attachment 1, Categorical Exclusion Review Record and **Attachment 2**, Extraordinary Circumstances Review. **Attachment 3** contains stipulations and notices which apply to surface use and occupancy of geothermal lease UTUT105787863.

The nature and potential effects of the proposed action within the WSRA are well understood. I have considered the results of the extraordinary circumstances review and determined that there is no potential of significant impacts resulting from the proposed action.

E. SIGNATURE

NEPA Coordinator:  Date: 7/2/24
Richard Probert

Authorized Officer:  Date: 7/2/2024
Cindy Ledbetter, Field Manager

Contact Person

For additional information concerning this CX review, please contact:

Richard Probert, Planning and Environmental Coordinator

Fillmore Field Office

95 E 500 N

Fillmore, UT 84636

(435) 743-3100

ATTACHMENTS:

- 1 – Categorical Exclusion Review Record
- 2 – Extraordinary Circumstances Review
- 3 – Lease Stipulations and Notices
- 4 – Figure 1

ATTACHMENT 1
Categorical Exclusion Review Record

| Resource | Yes*/No | Assigned Specialist Signature | Date |
|--|-------------------------------------|--|--------------------|
| Air Quality | No | /s/RB Probert | 4/8/24 |
| Areas of Critical Environmental Concern | No | /s/Teresa Frampton | 3/13/2024 |
| Cultural Resources | No | /s/ Kayla Reid | 6/21/2024 |
| Environmental Justice | No | /s/RB Probert | 4/8/24 |
| Farm Lands (prime or unique) | No | /s/Burke Davenport | 2/27/24 |
| Floodplains | No | /s/ Brian Taylor | 2/27/2024 |
| Invasive Species/Noxious Weeds | No | /s/ Logan Lefevre | 4/8/24 |
| Migratory Birds | No | /s/ Brandon Crosby | 4/18/24 |
| Native American Religious Concerns | No | /s/ Kayla Reid | 6/21/2024 |
| Threatened, Endangered, or Candidate Species | No (T&E plants) No (T&E Animals) | David Whitaker Brandon Crosby | 4/18/24 4/18/24 |
| Wastes (hazardous or solid) | No | /s/Stephanie deGraffenried | 3/1/2024 |
| Water Quality (drinking or ground) | No | /s/ Eric Reid | 4/8/24 |
| Wetlands / Riparian Zones | No | /s/ Brian Taylor | 2/27/2024 |
| Wild and Scenic Rivers | No | /s/Teresa Frampton | 3/13/2024 |
| Wilderness | No | /s/Teresa Frampton | 3/13/2024 |
| Other: | | | |

*Extraordinary Circumstances apply.

ATTACHMENT 2

Extraordinary Circumstance Review

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

| Extraordinary Circumstances Review | |
|------------------------------------|---|
| 1. | Have significant impacts on public health or safety. |
| No | <i>Rationale: The proposed action would not have significant impacts on public health and safety because potential impacts have been avoided or mitigated in the design features of the Plan of Operations and attached Stipulations.</i> |
| 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. |
| No | <i>Rationale: These resources including special designations are not present or impacted by the proposal. An interdisciplinary team has reviewed the critical elements and other resources of the human environment. New resources or impacts were not identified.</i> |
| 3. | Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102 (2) (E)]. |
| No | <i>Rationale: This action would not have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources. Impacts of the action are well-known and demonstrated in other projects that have been implemented and monitored.</i> |
| 4. | Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. |
| No | <i>Rationale: The results of this action are predictable and do not have the potential for substantial environmental effects. There are no known unique environmental risks for this area. Based on the Interdisciplinary Team review, new circumstances were not identified, and the consequences of the proposal remain certain.</i> |
| 5. | Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. |
| No | <i>Rationale: The proposed action would not establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. Future actions would be subject to a separate and independent NEPA analysis.</i> |
| 6. | Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects |
| No | <i>Rationale: The cumulative effect of the proposed action to other actions would not approach the level of significance as described in 40 CFR 1501.3(b). Cumulative effects of similar actions are well-known and understood.</i> |

| | Extraordinary Circumstances Review |
|------------|--|
| 7. | Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau. |
| <i>No</i> | <i>Rationale: BLM has determined that this project would cause No Adverse Effect to Historic Properties, under the provisions of the Utah Protocol of the National Programmatic Agreement among the BLM, the Advisory Council of Historic Prevention, and the National Conference of State Historic Preservation Officers.</i> |
| 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. |
| <i>No</i> | <i>Rationale: The proposal as stipulated would not affect any candidate or federally threatened or endangered species nor would it adversely modify critical habitat.</i> |
| 9. | Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment. |
| <i>No</i> | <i>Rationale: The proposed action is consistent with all Federal, state, local, and tribal laws.</i> |
| 10. | Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898). |
| <i>No</i> | <i>Rationale: This renewal would not have any high or adverse effect on low income or minority populations because of its limited scale and locality.</i> |
| 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). |
| <i>No</i> | <i>Rationale: This proposal would not limit access to ceremonial use of sacred sites by Native American religious and traditional practitioners or significantly affect the physical integrity of such sites.</i> |
| 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). |
| <i>No</i> | <i>Rationale: Applied stipulations ensure that the proposed action would not contribute to the spread of noxious weeds or non-native invasive species.</i> |

ATTACHMENT 3
Lease Stipulations and Notices (UTUT106787863)

The following stipulations associated with lease sale DOI-BLM-UT-0000-2022-0002-EA apply:

HQ-CR-1-Cultural Resource Protection

This lease may be found to contain historic properties and/or resources protected under National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground-disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized, or mitigated.

HQ-TES-1-Threatened and Endangered Species Act

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. The BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activity until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq. including completion of any required procedure for conference or consultation.

GEO-S-01-NSO National Register of Historic Places, Cultural Resources

In accordance with the No Surface Occupancy Lease Stipulations in Section 2.3.2 of the December 2008 Bureau of Land Management Record of Decision for the Geothermal Leasing Environmental Impact Statement and the suggested mitigating measures, No Surface Occupancy within the boundary of properties designated or eligible for the National Register of Historic Places, including National Landmarks and National Register Districts and Sites, and additional lands outside the designated boundaries to the extent necessary to protect values where the setting and integrity is critical to their designation or eligibility.

Exception: The Authorized Officer may grant an exception if an environmental review determines that the action, as proposed or otherwise restricted, does not affect the resource and/or the resource the resource is no longer National Register quality. An exception may also be granted if the proponent, BLM, and other affected interests negotiate mitigation that would satisfactorily offset the anticipated negative impacts. An exception may be granted for actions designed to enhance the long-term utility or availability of the cultural resources.

Modification: The Authorized Officer may modify the size and shape of the restricted area if an environmental analysis indicates the actual suitability of the land for the resource differs from that in the otherwise applicable restriction.

Waiver: The restriction may be waived if it is determined that the described lands do not contain the subject resource, or are incapable of serving the requirements of the resource and therefore no longer warrant consideration as a component necessary for protection of the resource.

GEO-S-02-NSO Traditional Cultural Properties

In accordance with the No Surface Occupancy Lease Stipulations in Section 2.3.2 of the December 2008 Bureau of Land Management Record of Decision for the Geothermal Leasing Environmental Impact Statement and the suggested mitigating measures, No Surface Occupancy within areas with important cultural and archaeological resources, such as traditional cultural properties and Native American sacred sites, as identified through consultation.

Exception: None.

Modification: The Authorized Officer may modify the size and shape of the restricted area if through consultation and cultural analysis indicates the traditional cultural properties resource differs or changes.

Waiver: The restriction may be waived if it is determined that the described lands do not contain the subject resource, or are incapable of serving the requirements of the resource and therefore no longer warrant consideration as a component necessary for protection of the resource

UT-LN-156-Pollinators and Pollinator Habitat

In order to protect pollinators and pollinator habitat, in accordance with BLM policy outlined in Instruction Memorandum No. 2016-013, Managing for Pollinators on Public Lands, and Pollinator-Friendly Best Management Practices for Federal Lands (2015), the following avoidance, minimization, and mitigation measures would apply to this parcel:

1. Give a preference for placing well pads in previously disturbed areas, dry areas that do not support forbs, or areas dominated by nonnative grasses.
2. Utilize existing well pads where feasible.
3. Avoid disturbance to native milkweed patches within Monarch migration routes to protect Monarch butterfly habitat.
4. Avoid disturbance of riparian and meadow sites, as well as small depressed areas that may function as water catchments and host nectar-producing species, to protect Monarch butterfly habitat and nectaring sites.
5. Minimize the use of pesticides that negatively impact pollinators.
6. During revegetation treatments:
 - a. Use minimum till drills where feasible.
 - b. Include pollinator-friendly site-appropriate native plant seeds or seedlings in seed mixes.
 - c. Where possible, increase the cover and diversity of essential habitat components for native pollinators by:
 - i. Using site-appropriate milkweed seeds or seedlings within Monarch migration routes through priority sage-grouse habitat.

- ii. Using seed mixes with annual and short-lived perennial native forbs that will bloom the first year and provide forage for pollinators.
- iii. Using seed mixes with a variety of native forb species to ensure different colored and shaped flowers to provide nectar and pollen throughout the growing season for a variety of pollinators.
- iv. Seeding forbs in separate rows from grasses to avoid competition during establishment.
- v. Avoiding seeding non-native forbs and grasses that establish early and out compete slower-growing natives.

SMA Stipulations

FIF2013-CSU-02-Active Raptor Nests

Surface occupancy or use is subject to the following special operating constraints. Raptor nest surveys are required in potentially suitable habitats for all raptors, including Threatened, Endangered, Sensitive and MIS species prior to the approval of surface disturbing activities at a specific location. If active or occupied raptor nests are located, high intensity activities such as construction and drilling will be restricted surrounding the nest(s) within an influence zone. Influence zones and duration of restrictions would depend on the raptor species of concern as determined in the guidelines set forth by the US Fish and Wildlife Service for Utah species. Influence zones are line-of-sight to specified distances. If topography or vegetation provides adequate screening needed to maintain nest viability, the distance may be reduced (to be determined by the Fishlake National Forest wildlife biologist). On the lands described below: All of the area within the leases. For the purpose of: Protecting nesting raptors and their young. Exceptions: None. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-CSU-04-Cultural Resources

Surface occupancy or use is subject to the following special operating constraints. The lessee or operator shall contact the Forest Service to determine the level of on-site cultural resource inventory required prior to undertaking any surface-disturbing activities on Forest Service lands covered by this lease. Site specific cultural resource inventories will be required for exploratory and production facilities. The minimum level of survey will be to walk the center line/preliminary line for all roads and pipelines and visit each well pad. Additional level of survey detail above this will be identified in the project specific Memorandum of Agreement with the State of Utah SHPO with consideration of site richness in the area and potential for off-site impacts. On the lands described below: All of area within the leases. For the purpose of: Protecting cultural resources. Exceptions: None. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-CSU-15-Floodplains and Wetlands

Surface occupancy or use is subject to the following special operating constraints. The lessee is hereby notified that this lease contains land within a floodplain or wetland ecosystem. All

activities within this area may be precluded or highly restricted in order to comply with Executive Order 11988 - Floodplain Management and Executive Order 11990 - Protection of Wetlands, in order to preserve and restore or enhance the natural and beneficial values served by floodplains and wetlands. Occupancy and use of lands within floodplain or wetland areas, as proposed in a Surface Use Plan of Operations, will be considered in an environmental analysis and mitigation measures deemed necessary to protect these areas identified. These areas are to be avoided to the extent possible, or special measures such as road design, well pad size and location or directional drilling, may be made part of the permit authorizing the activity. On the lands described below: See Blue Streamlines on Map 1. For the purpose of: Protecting floodplains and wetlands. Exceptions: None. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-CSU-18-Sensitive Wildlife Species

Surface occupancy or use is subject to the following special operating constraints. The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Sensitive wildlife species. The following avoidance and minimization measures have been developed to facilitate locating and designing operations to avoid adverse effects to the viability of these species. Prior to conducting any surface disturbing activities within suitable habitat for Sensitive wildlife species, surveys will be completed. On the lands described below: All of the area within the leases. For the purpose of: Identifying Sensitive wildlife species. Exceptions: None. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-LN-01-Cultural Resources

(National Historic Preservation Act of 1966 (NHPA), P.L. 89-665 as amended by P.L. 94-422, P.L. 94-458, and P.L. 96-515): The Forest Service authorized officer is responsible for ensuring that the leased lands are examined prior to the undertaking of any ground-disturbing activities to determine whether or not cultural resources are present, and to specify mitigation measures for effects on cultural resources that are found to be present. The lessee or operator may engage the services of a cultural resource specialist acceptable to the Forest Service to conduct any necessary cultural resource inventory of the area of proposed surface disturbance. In consultation with the Forest Service authorized officer, the lessee or operator may elect to conduct an inventory of a larger area to allow for alternative or additional areas of disturbance that may be needed to accommodate other resource needs or operations. The lessee or operator shall implement mitigation measures required by the Forest Service to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures. During the course of actual surface operations on Forest Service lands associated with this lease, the lessee or operator shall immediately bring to the attention of the Forest Service the discovery of any cultural or paleontological resources. The lessee or operator shall leave such discoveries intact until directed to proceed by Forest Service.

FIF2013-LN-02-Threatened or Endangered Species

(The Endangered Species Act. (ESA), P.L. 93-205 (1973), P.L. 94-359 (1974), P.L. 95-212 (1977), P.L. 95-632 (1978), P.L. 96-159 (1979), P.L. 97-304 (1982), P.L. 100-653 (1988)). The Forest Service authorized officer is responsible for compliance with the Endangered Species Act. This includes meeting ESA Section 7 consultation requirements with the U.S. Fish and Wildlife Service prior to any surface disturbing activities associated with this lease with potential effects to species and/or habitats protected by the ESA. The results of consultation may indicate a need for modification of or restrictions on proposed surface disturbing activities. The lessee or operator may choose to conduct the examination at their cost. Results of the examination will be used in any necessary ESA consultation procedures. This examination and any associated reports, including Biological Assessments, must be done by or under the supervision of a qualified resource specialist approved by the Forest Service. Any reports must also be formally approved by the USDA Forest Service biologist or responsible official.

FIF2013-LN-03-Migratory Birds

The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the USDA Forest Service. Based on the result of the field survey, the authorized officer will determine modifications to the proposed Surface Use Plan of Operations in accordance with the Migratory Bird Treaty Act and Executive Order 13186 of 1/10/2001.

FIF2013-N-01-Lands Administered by the Fishlake National Forest under Jurisdiction of Department of Agriculture

In conducting operations associated with this lease, the lessee/operator must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use, occupancy, and management of National Forest System (NFS) lands when not inconsistent with existing lease rights granted by the Secretary of Interior. All matters related to this notice are to be addressed to: Forest Supervisor, Fishlake National Forest 115 East 900 North, Richfield, Utah 84701 (435) 896-9233 who is the authorized representative of the Secretary of Agriculture.

FIF2013-NSO-02-Steep Slopes > 35%

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description). See the Stipulation Maps for Leases. For the purpose of: Protecting soil resources, because soils disturbed by construction and drilling activities on steep slopes would be difficult to reclaim. Exceptions: If after an environmental analysis, the Forest Service authorized officer determines (1) there are no other practical placement alternatives, and (2) impacts could be fully mitigated, surface occupancy in the NSO area may be authorized. Additionally, a plan would be submitted by the operator and approved prior to construction and maintenance and include: • An erosion control strategy, • A detailed restoration/reclamation plan, and • Proper survey and design (with construction plans and drawings) by a certified engineer. Modifications: None.

Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-NSO-03-Riparian Areas

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description). See the Stipulation Maps for Leases. For the purpose of: Protecting riparian ecosystems. Riparian ecosystems are managed by the Forest Service to protect from conflicting uses in order to provide healthy, self-perpetuating plant and water communities that will have optimum diversity and density of understory and overstory vegetation. Exceptions: An exception could be authorized if: (a) an on-site review determines the area proposed to be impacted is not riparian; and (b) any additional mitigation that is determined to be necessary is fully implemented. Locate roads outside of riparian area unless alternative routes have been reviewed and rejected as being more environmentally damaging. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-NSO-15-Inventoried Roadless Areas

No surface occupancy or use is allowed on the lands described below (legal subdivision or other description). See IRA Stipulation Maps for both Leases. For the purpose of: Protecting the roadless and wilderness characteristics of these lands. No well sites or production facilities will be allowed on these lands. Construction of roads, pipelines, or other facilities must comply with direction in the Forest Plan. Exceptions: None. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-TL-01-Bighorn Sheep Lambing Areas, Crucial Elk Calving & Mule Deer Fawning Habitat

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities. May 1 – July 5 On the lands described below: See Stipulation Maps. For the purpose of (reasons): Protecting lambing areas and crucial elk calving and mule deer fawning habitat by precluding activities which could cause increased stress and/or displacement. Exceptions: An exception may be granted if there are no practical alternatives, and the Forest Supervisor determines through analysis, and in coordination with the Utah Division of Wildlife Resources that the nature of the actions, as proposed or conditioned, could be fully mitigated. Modifications: None. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

FIF2013-TL-02-Crucial Elk & Mule Deer Winter Range

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities. December 1 – April 15 On the lands described below: See Stipulation Maps for leases. For the purpose of (reasons): Protecting crucial elk and mule deer winter range by precluding activities which could cause increased stress and/or displacement. Exceptions: An exception may be granted if there are no practical alternatives, and the Forest Supervisor determines through analysis and in coordination with the

Utah Division of Wildlife Resources that the nature of the actions, as proposed or conditioned, could be fully mitigated. This might occur if seasonal conditions are such that the animals have moved and are not using the specified area during the time they would normally be expected. Factors to be considered would include elk presence or expected elk presence, snow depth, temperature, snow crusting, location of disturbance, forage quantity and quality, animal condition, and expected duration of disturbance. Modifications: A modification may be granted if the Forest Supervisor determines through new habitat studies, coordinated with the Utah Division of Wildlife Resources, that a portion of the leasehold affected by this stipulation does not contain crucial elk winter range. Waiver: None. Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes.

ATTACHMENT 4
Site Map



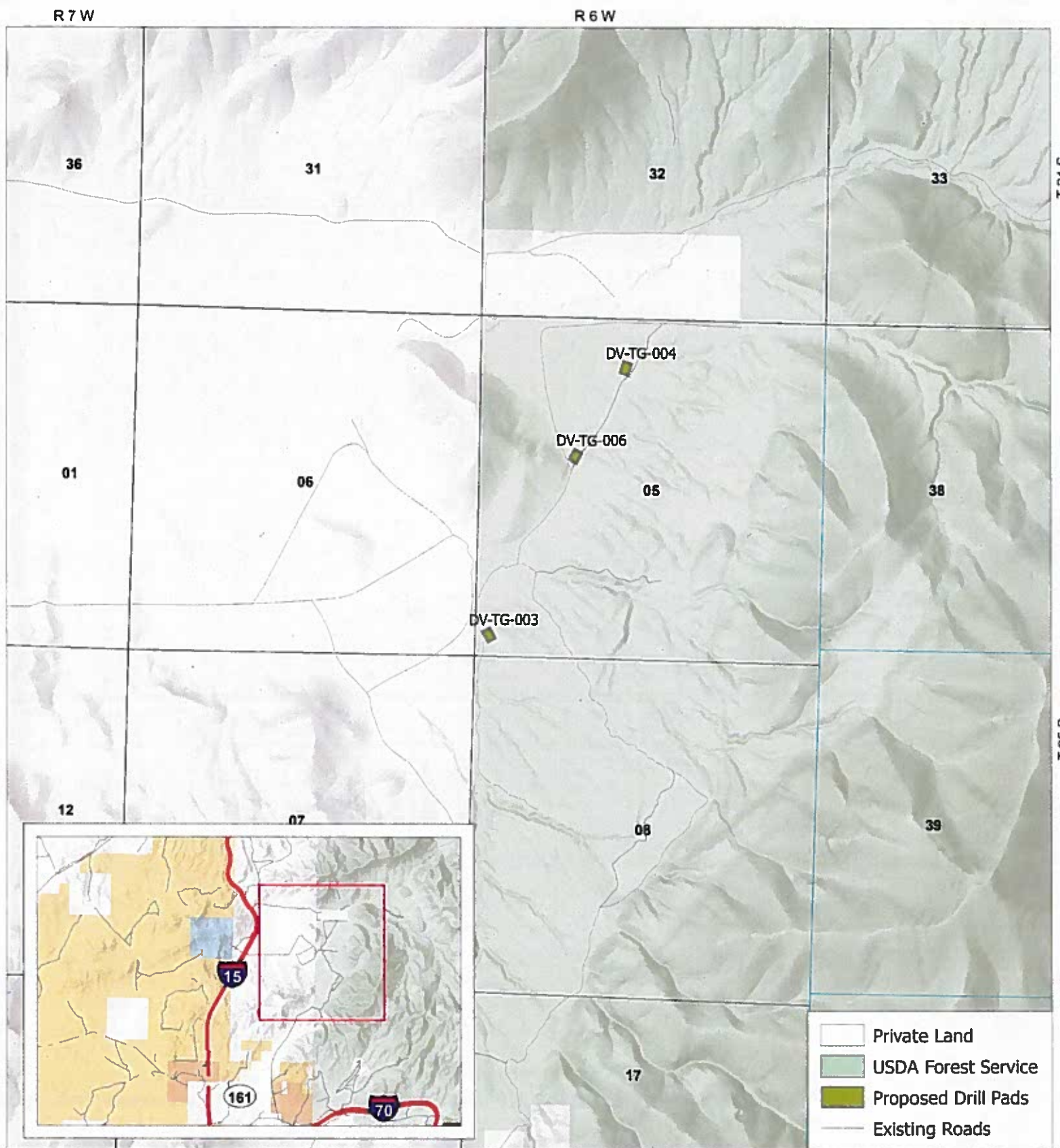
Dog Valley Exploration

Bureau of Land Management, Utah
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Fillmore, UT 84631



Zanskar Geothermal and Mineral, Inc.

5/16/2024



Scale: 1:24,000

0 0.5 Miles

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Fillmore Field Office
95 E 500 N
Fillmore, UT 84631
(435) 743-3100

DECISION RECORD
Zanskar Dog Valley Exploration
DOI-BLM-UT-W020-2024-0013-CX

I. DECISION:

It is my decision to approve the Plan of Operations and Notice of Intent proposed by Zanskar Geothermal and Mineral, Inc. (Zanskar) and authorize the proposed geothermal exploration in Millard County as described in the Proposed Action of Categorical Exclusion (CX) DOI-BLM-UT-W020-2024-0013-CX. As a condition of this decision, the Zanskar will comply with the lease stipulations attached in DOI-BLM-UT-W020-2024-0013-CX and the following site-specific terms and conditions intended to prevent unnecessary and undue degradation.

Terms and Conditions:

1. No surface use or occupancy is allowed between December 1 and April 15 to protect crucial elk and mule deer winter range.
2. Avoid removal of vegetation between April 1 and July 15. If vegetation is going to be removed during the breeding season, then a Migratory Bird Clearance Survey shall be performed and reviewed by the Bureau of Land Management (BLM) prior to initiating ground disturbance.
3. Surveys to identify nesting raptors will be conducted by a BLM biologist prior to the Applicant commencing surface disturbing activities during raptor nesting season -March 15th through August 31st- to avoid potential impacts.
4. Upon project completion or at the earliest practicable time during operations, or within 1 year of the conclusion of operations, unless a longer time is allowed by the authorized officer, operator shall, where practicable, reclaim the surface disturbed in operations by taking such measures as will prevent or control onsite and off-site damage to the environment and forest surface resources including:
 - a. Control of erosion and landslides.
 - b. Control of water runoff.
 - c. Isolation, control, and removal of toxic materials.
 - d. Reshaping and revegetation of disturbed areas, where reasonably practicable.
 - i. Seed mixes will be approved by Forest Service Officer
 - ii. All seeds will be certified noxious weed free.

- e. Noxious Weed prevention and treatment.
 - i. All equipment will be washed and inspected for propagules and seed material prior to entering Forest Service lands.
 - ii. Noxious weeds that are detected in or near the project area will be treated by hand cutting/digging or herbicide authorized by the Forest Officer.
 - f. Rehabilitation of fisheries and wildlife habitat.
 - g. Certification or other approval issued by State agencies or other Federal agencies of compliance with laws and regulations relating to mining operations will be accepted as compliance with similar or parallel requirements of these regulations.
5. Vehicular travel shall be suspended when ground conditions are wet enough to cause rutting or other noticeable surface deformation and severe compaction. As a general rule, if vehicles or other project equipment create ruts in excess of four inches deep when traveling cross-country over wet soils, the soil shall be deemed too wet for vehicular use.
 6. If soil is disturbed to the extent that erosion is likely or visual impacts are readily apparent, the disturbed areas will be rehabilitated utilizing the following techniques: Ruts and vehicle tracks will be filled with soil and/or obliterated by either hand raking or similar method. When completing this work, care will be taken to minimize disturbance to surrounding lands that have not been disturbed. All areas where rehabilitation work is accomplished will be reseeded with a Forest Service- and BLM-approved seed mix.
 7. The seeded area should be hand raked to assure the seed is covered with approximately $\frac{1}{4}$ to $\frac{1}{2}$ inch of soil. This seeding should be accomplished during the late fall or spring before moisture conditions become prohibitive. The seed shall be certified, pure live seed, and seed tags must be available if requested by the authorized officer.
 8. Work area(s) shall be kept clean and free of litter.
 9. Solid waste materials (trash) will be deposited at an authorized dump by a disposal contractor.
 10. Portable chemical sanitary facilities will be used by all personnel.
 11. All equipment will be power washed prior to entering Federal lands to help mitigate the spread of noxious plants.
 12. When fire conditions reach high, vehicles, and equipment will carry water, shovels, and other fire-fighting equipment to extinguish any fires that are accidentally started by the drilling operations.
 13. If oil, lubricants and other petroleum or man-made products are accidentally spilled onto the ground surface, the BLM and Forest Service will be contacted and provided specific information about the spill and/or leak. Spills or leaks will be cleaned from the soil and any contaminated material will be bio-remediated or disposed of at an authorized landfill.
 14. Please be mindful of private property.
 15. Roads will NOT be constructed for geophysical projects authorized under a categorical exclusion.

16. Operators of vehicles and equipment shall be responsible for not damaging fences and keeping gates as found. As a last resort, should a fence be cut for access, that fence must be repaired to former or better condition, after equipment has passed through.
17. If any unanticipated prehistoric or historic archaeological sites or paleontological sites are encountered during the geophysical work, the work shall stop and the BLM Fillmore Field Office will be contacted. If a site is found, it will be recorded. The BLM will assume responsibility for evaluation and determination of significance, related to the historical or archaeological site. All known cultural resources sites will be avoided. Collection of any cultural or paleontological artifacts, bones or fossils from Federal lands is specifically prohibited.
18. All flagging, lath, flags, and similar materials used in the drilling program will be removed from public land and disposed of at an authorized landfill.
19. All applicant-committed environmental protection measures documented in the applicant's NOI in addition to the NOI terms and conditions will be complied with, and in addition to any additional Conditions of Approval identified by the BLM Fillmore Field Office.

II. COMPLIANCE AND MONITORING:

As part of this decision, consistent with 43 CFR 3254.10, BLM personnel will conduct regular inspections of the site and operations to ensure compliance with 43 CFR 3200.4, stipulations of the associated geothermal lease and the terms and conditions described herein.

III. AUTHORITIES:

This decision is authorized under the Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C 1701) as amended, the Geothermal Steam Act of 1970 (30 U.S.C. 23), and the regulations located at 43 CFR 3200.

IV. RATIONALE FOR DECISION:

My decision to approve Zanskar's Plan of Operations and Notice of Intent is based on my review of the CX and the Warm Springs Resource Area Resource Management Plan (WSRA RMP), and the following reasons:

- the Proposed Action conforms to the applicable goals and objectives of the WSRA RMP, which include providing for the discovery, development, and use of minerals on public land;
- this action is consistent with Federal environmental laws and regulations, Executive Orders, and Department of the Interior Bureau of Land Management policies; it complies, to the maximum extent possible, with state laws and local and county ordinances; and,
- the results of extraordinary circumstances review indicate that there is no potential of significant impacts resulting from the proposed action.

V. RIGHT OF PROTEST AND/OR APPEAL:

This decision may be appealed to the Interior Board of Land Appeals, ("Board") Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4 and in the attached

Form 1842-1. If an appeal is taken, the notice of appeal must be filed in the BLM Fillmore Field Office within 30 days from receipt of this decision. The appellant has the burden of showing the decision appealed from is in error.

If you wish to file a petition for a stay, pursuant to 43 CFR §4.21, during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay must show sufficient justification based on the standards listed below. If a stay is requested the appellant has the burden of proof to demonstrate that a stay should be granted.

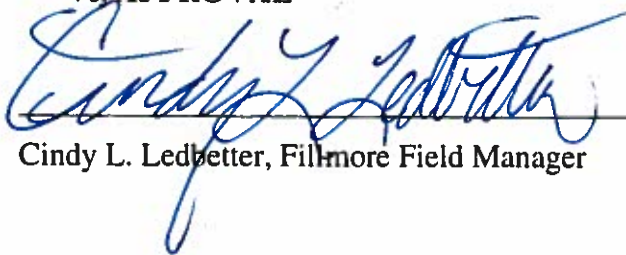
Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulations, a petition for a stay of a decision pending appeal shall be evaluated based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of immediate and irreparable harm if the stay is not granted, and
4. Whether the public interest favors granting the stay.

Copies of the notice of appeal, petition for stay, and statement of reasons also must be submitted to the party named in this decision and to the Office of the Solicitor, Intermountain Region, 125 South State Street, Suite 6201, Salt Lake City, Utah 84138, at the same time the original documents are filed in the Fillmore Field Office.

VI. APPROVAL


Cindy L. Ledbetter, Fillmore Field Manager


Date