

**U.S. Department of the Interior
Bureau of Land Management
Kremmling Field Office
P.O. Box 68
Kremmling, CO 80459**

CATEGORICAL EXCLUSION

NUMBER: CO-120-2008-17-CX

PROJECT NAME: Pole Mountain 3D Geophysical Survey

LEGAL DESCRIPTION: T. 8 N., R. 80 W., Sections 4, 19, 21, 28, 31, 32
T. 8 N., R. 81 W., Sections 3, 10, 11, 12, 27, 36

APPLICANT: Green River Energy Resources, Inc.

DESCRIPTION OF PROPOSED ACTION: Green River Energy Resources (GRER) proposes to conduct an exploratory, three-dimensional (3D), geophysical survey of the Pole Mountain area of Jackson County, Colorado. The total project area would encompass 22,717.21 acres, approximately 10% of which, or 2,278 acres would be on BLM administered public lands (see attachment #1 for project map). GRER would commence work in late January of 2008 and the project would be completed by the end of March 2008. The survey would provide data to develop a 3D image of the geologic structure and stratigraphy underlying the project area to enhance current and future evaluations of potential mineral resources. The following is a summary of the proposed operational schedule.

Phase 1, Surveying and Permitting, would take place in January 2008. A land survey crew would locate and place temporary pin flags and access flagging using a high-accuracy GPS. This work would be completed on foot, using ATVs or snow machines where terrain would permit.

Phase 2, Drilling Operations, would take place in late January, early February 2008. Drilling would be conducted using buggy drills and possible heliportable drills. All shotholes would be bored to a depth of 25 to 40 feet and loaded with an explosive charge of 5 pounds developed specifically for seismograph operations.

Phase 3, Recording, would take place in February/early March 2008. Recording equipment would be transported to the field and to staging areas by truck using existing roads and trails. One helicopter would be used for the recording operation and would operate only in daylight hours ferrying the receiver-station cache bags. Methods of

generating sonic energy sources would include both vibroseis (approximately 85-90 percent) and shothole (approximately 10-15 percent) operations.

Phase 4, Clean-up and Completion, would be completed by the end of March 2008. After recording the source points, the recording equipment would be retrieved on foot and bagged, and moved to staging by helicopter in preparation for demobilization. All equipment would be gathered until complete. Lines would be revisited once snow has melted to ensure the project has been reclaimed according to the standard terms and conditions and mitigation included as part of the categorical exclusion.

The standard terms and conditions included in BLM H-3150-1, Onshore Oil and Gas Geophysical Exploration Surface Management Requirements, are incorporated as part of the Proposed Action and would be followed (see attachment #2).

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with (43 CFR 1610.5, BLM 1617.3) the following plan:

Name of Plan: Kremmling Resource Management Plan (RMP), Record of Decision (ROD)

Date Approved: December 19, 1984; Updated February 1999

Decision Number/Page: II, B.1, Page 5

Decision Language: Objective is “(t)o maximize the availability of the federal mineral estate for mineral exploration and development.”

CATEGORICAL EXCLUSION REVIEW: The Proposed Action qualifies as a categorical exclusion under 516 DM 11, Appendix 1.5, Number: (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.*” None of the following extraordinary circumstances in 516 DM 2, Appendix 2, apply.

Extraordinary Circumstances	Yes	No
2.1 Have significant impacts on public health or safety		X
2.2 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.		X
2.3 Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102(2)(E)].		X
2.4 Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		X
2.5 Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		X
2.6 Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		X
2.7 Have significant impacts on properties listed, or eligible for listing, on the National Register of historic Places as determined by either the bureau or office.		X
2.8 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.		X
2.9 Violate a Federal Law, or a State, local, or tribal law or requirement imposed for the protection of the environment.		X
2.10 Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		X
2.11 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).		X
2.12 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).		X

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility	Date Review Completed
Kelly Hodgson	Natural Resource Specialist	Minerals	11/28/07
Joe Stout	Planning and Environmental Coordinator	NEPA	2/6/08
Megan McGuire	Wildlife Biologist	T&E	1/11/08
Paula Belcher	Hydrologist	Soil, Water, Air	1/18/08
Bill Wyatt	Archaeologist	Cultural and Tribal Consultation	1/18/08
Peter Torma	Rangeland Management Specialist	Range, Weeds, Vegetation	1/2/08
Frank Rupp	Archaeologist	Paleontology	1/15/08

REMARKS:

Cultural Resources: A letter to the Colorado SHPO dated January 18, 2008 was sent to identify the compliance process and potential project effect. However, additional discussions with Mr. Greg Wolff (SHPO) on February 6, 2008, have developed the following proposed procedure.

1. A predictive model would be created to identify areas of high potential for cultural resource sites. The model would be used on federal and private lands. Those predictive model locations that have a high potential for cultural resource sites would be avoided by shot holes because of the high potential for unknown cultural resources. Only vibrosis would be allowed within areas of high site potential.
2. The consulting archaeologist would identify all shot points and vibrosis points that have a potential to impact known cultural resources that are unevaluated (need data) or eligible for avoidance. Shot holes would be relocated 500' (feet) away from sites with standing historic structures or aboriginal stone features, and 200' from a site if there are no standing historic structures or aboriginal stone features. The cultural resource consultant would also monitor all avoided sites where standing structure or stone features are present during the shot hole discharge. All shot hole locations on federal and private lands would be marked using a T-post for relocation by the contract archaeologist when the ground is snow free to identify any unknown cultural resources and to record and evaluate those presently unknown sites located within 100 square feet around the shot hole.
3. In T 8 N, R 80 W, Section 28, those vibrosis locations that have been identified to be within known significant sites would need to be moved to within the existing road or eliminated.

4. In T 8 N, R 80 W, Section 36, those shot hole locations in the area of high site potential would need to be moved to the existing maintained road right-of-way for the shot. Shot holes that could not be relocated to the existing road would need to use vibrosis or be eliminated because they are within the area of high site potential or known significant sites.

The stipulations for project compliance are identified in the STIPULATIONS (CULTURAL) below.

Native American Religious Concerns: Tribal consultation was initiated to the appropriate tribes on December 21, 2008, and to date no response has been received.

Threatened and Endangered Species: No impacts to state or federally listed threatened or endangered species are expected to occur as a result of the proposed project.

Greater sage-grouse, a BLM designated sensitive species, uses the project area in spring through the fall months for breeding and raising young. A smaller part of the project area (the east half of section 28 T7N R80W) is used in winter. In order to protect sage-grouse during critical periods of their life requirements, no operations would be allowed on BLM from March 1st (or when breeding sites start to become occupied—usually as snow melts off) to June 30th. Although breeding sites (leks) are located on private lands, once the females breed, they will leave the lek and nest up to 4miles away on land administered by BLM. Since the leks are on private lands, the BLM can only recommend that they be avoided.

Big Game: Much of the project area is designated as winter range for big game animals. Elk use the area in the southwest, pronghorn use the area to the northeast, and moose use the riparian corridors through most of the project including Pole Mountain in the southwest corner. Operations may have potential direct impacts by temporarily displacing animals (especially large concentrations of elk) causing undue stress and havoc. However, based on comments by the Colorado Division of Wildlife (CDOW), they feel the mild winter in North Park (2008) would allow the project to proceed with no negative impacts to wintering wildlife.

Range: Any fences that may need to be cut would be repaired by proponent. Any gates used would be closed if found closed or left open if found open.

Vegetation: Vegetation should not be impacted by the Proposed Action due to the winter timing of the project. However, if at some point native vegetation is removed during the Proposed Action due to a ground disturbing activity (for example stuck vehicles, drilling and blasting impacts to vegetation or other unforeseen event), then GRER would be required to reseed the area with an approved BLM seed mix. GRER shall contact the Kremmling Field Office to get the proposed seed mix.

Paleontology: The proposed project area is geologically underlain and mapped as Modern Alluvium (QA), Gravel and Alluvium (QG), Older Gravels and Alluvium (QGC) and the

Coalmont Formation (Tc). The Modern Alluvium and the Older Gravels and Alluvium are classified as Class III, and have minimal potential for discovery of significant fossil resources. The Gravel and Alluvium, and the Coalmont Formation are classified as Class II and have a moderate potential for discovery of significant fossils. Class II areas are defined as: "Fossils of scientific significance are occasionally found in the formation within the Craig District" (Armstrong and Wolney, 1989). There are no known or recorded Paleontological sites recorded within the Area of Potential Effect (APE).

Soil, Water, Air: The proposed winter operational period would greatly reduce the amount of ground disturbance from the cross country travel and vehicles used. The recommended requirement of 6 inches of minimum snow cover and frozen ground would protect soil resources. In riparian areas along the Roaring Fork and the North Platte River, willows would need to be avoided by vehicle traffic. The frozen ground and snow cover would aid in reducing impacts to water resources. It would be the proponent's responsibility to provide adequate buffers to existing water wells in area, including those listed below in the Mitigation section.

NAME OF PREPARER: Kelly Hodgson

NAME OF ENVIRONMENTAL COORDINATOR: Joe Stout

DATE: 2/6/08

ATTACHMENTS:

- 1). Project Map
- 2). Stipulations
- 3). H-3150-1 – Onshore Oil and Gas Geophysical Exploration Surface Management Requirements (Public): BLM Standard Terms and Conditions
- 4). References

DECISION AND RATIONALE: I have reviewed this CER and have decided to implement the proposed action.

This action is listed in the Department Manual as an action that may be categorically excluded. I have evaluated the action relative to the 12 criteria listed above and have determined that it does not represent an extraordinary circumstance and is, therefore, categorically excluded from further environmental analysis.

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ David Stout

DATE SIGNED: 2/8/08

STIPULATIONS

Cultural:

It is stipulated for this project that the ground is frozen and there is an average of 6” of snow on the ground. A monitor will be required to ensure that the ground is frozen and snow covered. The contract archaeologist will make one field check prior to initiation of seismic work to confirm that the ground is frozen and the adequate amount of snow is present. They will then check periodically as work progresses to assure that the ground requirements are maintained and the weather remains in the freezing temperature range.

1. A predictive model will be created to identify areas of high potential for cultural resource sites. The model will be used on federal and private lands. Those predictive model locations that have a high potential for cultural resource sites will be avoided by shot holes because of the high potential for unknown cultural resources. Only vibrosis will be allowed within areas of high site potential.
2. The consulting archaeologist will identify all shot points and vibrosis points that have a potential to impact known cultural resources that are unevaluated (need data) or eligible for avoidance. Shot holes will be relocated 500’ (feet) away from sites with standing historic structures or aboriginal stone features, and 200’ from a site if there are no standing historic structures or aboriginal stone features. The cultural resource consultant will also monitor all avoided sites where standing structure or stone features are present during the shot hole discharge. All shot hole locations on federal and private lands will be marked using a T-post for relocation by the contract archaeologist when the ground is snow free to identify any unknown cultural resources and to record and evaluate those presently unknown sites located within 100 square feet around the shot hole.
3. In T 8 N, R 80 W, Section 28, those vibrosis locations that have been identified to be within known significant sites must be moved to within the existing road or eliminated.
4. In T 8 N, R 80 W, Section 36, those shot hole locations in the area of high site potential must be moved to the existing maintained road right-of-way for the shot. Shot holes that can not be relocated to the existing road must use vibrosis or be eliminated because they are within the area of high site potential or known significant sites.

Paleontology:

Post project completion of the seismic work, but during the current calendar year, GRER will hire a qualified and BLM permitted contract Paleontologist to conduct a Paleontological inventory at shot holes, staging areas, and any other ground disturbed locations on BLM managed Federal lands, where Gravel and Alluvium, or Coalmont Formation underlie those disturbances.

GRER will facilitate relocation of shot holes, staging areas and any other ground surface where disturbance has occurred on the Federal Land as a result of their operations for the Paleontological contractor. For individual disturbances, a minimum of 100 square feet will be inventoried, or a 50' buffer will be inventoried beyond the edge of the disturbance. The Paleontological contractor will develop an inventory design in consultation with the staff archaeologist, conduct inventory, document findings, make recommendations and provide a report to BLM. Mitigation may be required of GRER to address any negative effects to Paleontological resources that have occurred as a result of their seismic operations.

Sensitive Species:

In order to protect sage-grouse during critical periods of their life requirements, no operations will be allowed on BLM from March 1st (or when breeding sites start to become occupied—usually as snow melts off) to June 30th.

Livestock Grazing:

Any fences that may need to be cut must be repaired by proponent. Any gates used must be closed if found closed or left open if found open.

Vegetation:

If native vegetation is removed during the Proposed Action due to a ground disturbing activity (for example stuck vehicles, drilling and blasting impacts to vegetation or other unforeseen event), then GRER is required to reseed the area with an approved BLM seed mix. GRER shall contact the Kremmling Field Office to get the proposed seed mix.

Water:

It is the proponent's responsibility to provide adequate buffers to existing water wells in area, including those listed below:

Township 7 N., Range 80 W.

Sec. 6 well permit #263373

Township 8 N., Range 80 W.

Sec. 4 BLM well, permit #210173

Sec. 9 well permit 227324 B

Sec. 10 well permit #105997

well permit #22884 MH

well permit #181292 (SWSW)

Sec. 17 well permit #129525B

Sec. 18 well permit #131968B

Sec. 21 BLM well (#5047 WDID)

Sec. 28 well permit #210173 (NWNE)
Sec. 29 well permit #40552, (NE1/4)
Sec. 30 17206 (NENE)
Sec. 32 well permit #73208 (south section line)
Sec. 33 well permit #132299 (N1/2SE1/4)

Township 8 N., Range 81 W.

Sec. 3 Langholf Well, NENE
Sec. 4 well permit #32739
Sec.4/Sec. 9 well permit #13988F
Sec. 10 well permit #105997 (NE1/4)
Sec. 11 well permit #160356 (SW1/4)
Sec. 30 well permit #128505

Township 9 North, Range 80 W.

Sec. 31 well permit #35595
Sec. 34 Antelope Well No. 2

Attachment 4

REFERENCE(S)

Armstrong, Harley J. and David G. Wolney
1989 Paleontological Resources of Northwest Colorado: A Regional Analysis. Museum
of Western Colorado, Grand Junction, Colorado. Self Published.