

**Bureau of Land Management
Winnemucca District Office**

Field Office(s) : HRFO BRFO

**Categorical Exclusion
Team Review**

Applicant: AltaRock Energy Inc.
Proposal: AltaRock Seismic Survey
CX#: DOI-BLM-NV-W010-2011-0004-CX

Prepared By: Raquel Minky

Date: January 14, 2011

Name /Title	Resource/Agency Represented	Signature/Date	Comments (Attach if more room is needed)
Mark E Hall	Cultural Resources	<i>Mark E Hall</i>	None
Nancy Spencer-Morris	T&E (plants and animals)	<i>Nancy Spencer-Morris</i>	<i>See attached</i>

Continue the list of specialties as necessary

43 CFR 46.215
Categorical Exclusions: Extraordinary Circumstances

CX#: DOI-BLM-NV-W010-2011-0004-CX

- | <u>Yes</u> | <u>No</u> | |
|------------|-----------|--|
| [] | [x] | (a) Have significant impacts on public health or safety |
| [] | [x] | (b) 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] | (c) Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)]. |
| [] | [x] | (d) Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks. |
| [] | [x] | (e) Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects. |
| [] | [x] | (f) Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects. |
| [] | [x] | (g) Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau. |
| [] | [x] | (h) 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] | (i) Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment. |
| [] | [x] | (j) Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898). |
| [] | [x] | (k) 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] | (l) 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). |

All of the above questions must be answered negatively before the Categorical Exclusion may be approved. This checklist is taken from 43 CFR 46.215

Prepared By: _____

Date _____

Raquel Minky *01/14/2011*

Conditions of Approval

Threatened and Endangered Species

The variety of topography, soil composition, and vegetation in the project area results in a diversity of habitat supporting many plants and animals, including those with special status designation. The nature of the proposed project is not significantly invasive. Awareness of plants and animals in the area should alleviate any adverse effects the proposed project could have on the habitat and the plants and animals within it. The applicant must make ground crews aware of the existence or potential existence of special status species and the appropriate measures to take if they are encountered.

1. Because of the burrowing, nesting and other utilization of plants by wildlife species found in this area, vehicular traffic should be restricted to currently established roads or two-tracks. ATVs are allowed for the establishment and removal of seismic stations, but stations will be accessed by foot-traffic for station monitoring.
2. Greater Sage-grouse (GSG) (*Centrocercus urophasianus*): The proposed seismic stations are surrounded by Population Management Units (PMU) for Greater sage-grouse. Ground crews should be made aware of the potential for GSG and directed to avoid disturbing the birds. Points A16, A10, A17 are within the boundaries of PMUs. If GSG or their nests are observed within a 300' radius of the proposed seismic station site, installation of the station must be delayed until the GSG are no longer present. Brooding months are generally from April to August. Ground crews should be particularly alert to any nests or chicks during this time frame. Winter use months are generally October-March.
3. Bighorn Sheep (*Ovis canadensis*): There is a large expanse of land identified as occupied Bighorn sheep habitat that intersects the project area. (Please see attached map) Points A16, A09, and A04 are within this area. Traffic through this area and survey activities should be minimized during the lambing season, approximately May 1- June 1. Sightings and coordinates (NAD 83, approximate coordinates are acceptable) need be reported to the BLM biologist.
4. Pygmy Rabbits (*Brachylagus idahoensis*): Pygmy rabbits have been documented as being in the area. Ground crews should be instructed in pygmy rabbit burrow identification. Create alternate routes to seismic stations as needed to avoid pygmy rabbit burrows. Seismic stations must be located a minimum of 150' from a burrow complex to avoid disturbance and/or destruction.
5. Bats: Federally protected and BLM sensitive bat species have been found in this area. There are numerous abandoned mines scattered throughout the project area providing refuge and some species of bats also use dense shrubs as roosting sites. Avoid any mines or adits. Avoid any disturbance to bats.

6. Raptors: Numerous raptors have been documented as nesting/being in this area. Minimize time spent conducting survey activities in areas where nests are found or breeding behavior is observed.
7. Pale kangaroo mouse (*Microdipodops pallidus*), Dark kangaroo mouse (*Microdipodops megacephalus*): Kangaroo mice normally block the entrance to their burrows during the day. Ground crews should be instructed to avoid areas of freshly turned soil as this may indicate an active burrow even though no burrow opening is found. Create alternate routes to seismic stations as needed to avoid burrows.
8. Lahontan Beardtongue (*Penstemon palmeri* var. *macranthus*), windloving buckwheat (*Eriogonum anemophilum*): Ground crews should be instructed in the identification of these two plants and avoid destruction or disturbance. GPS (NAD 83) coordinates need to be taken and forwarded to the BLM biologist if either of these two species is located.
9. Migratory birds: Due to the variety of habitat, a diversity of migratory birds is found in the project area. Prior to any planned disturbance in potential migratory bird nesting habitat from April 1 to July 31 (the approximate nesting season for the majority of migratory birds in that area), a field survey for migratory birds, their nests, eggs, or young should be performed, in order to prevent violation of the Migratory Bird Treaty Act (MBTA). If installation or removal of the seismic stations must take place during this time frame, the BLM biologist must be given notice at least 10 work days prior to the activity. This survey should be performed no more than 10 days and no less than 1 day prior to the proposed activity. If reproductive behaviors are observed, (courtship displays, mating, nest construction, etc.) nests, eggs, or young are found all disturbance activities will stop and the BLM biologist will be notified. In consultation with the BLM biologist, the project will either be delayed until the birds have completed their nesting and brood rearing activities, or the project will be re-designed (disturbance buffer zones established) so as to not harm migratory birds, their nests, eggs, or young and to prevent alteration of reproductive and brood rearing behavior.
10. Burrowing owls (*Athene cunicularia*): This area could support burrowing owls. Ground crews should be instructed in the identification of burrows. Seismic stations must be located a minimum of 150' from a burrow to avoid disturbance and/or destruction. Create alternate routes to seismic stations as needed to avoid owl burrows.
11. Mule deer (*Odocoileus hemionus*): Mule deer do not have special status designation. However, there is a large expanse of land identified as year 'round, occupied mule deer habitat that intersects the project area. (Please see attached map) Points A16, A10 and A09 are within this area and point A04 is adjacent to

it. Traffic through this area and survey activities should be minimized during the fawning season, approximately mid-May- July1.

Reclamation

All disturbances will be reclaimed according to BLM performance standards and requirements. Reclamation will be completed at the earliest feasible time, and the operator shall reclaim the area disturbed by taking reasonable measures to prevent or control on-site and off-site damage of the Federal Lands.

Attachment 2-1 From H3150-1 (Rel. 3-289, 06/07/94)

Illustration 16 (as revised by Rel. 3-330, 01/09/07)

**H-3150-1- ONSHORE OIL AND GAS GEOPHYSICAL EXPLORATION SURFACE
MANAGEMENT REQUIREMENTS (PUBLIC)**

Bureau of Land Management (BLM) Standard Terms and Conditions

1. The operator shall contact the Field/District Office at least 48 hours prior to the start of the project to schedule a pre-work conference. The crew supervisor and additional crew chiefs (if needed) will attend the pre-work conference to discuss the terms and conditions for this operation.
2. The operator's representative will attend a meeting with the BLM to discuss cultural artifacts and potential penalties for tampering with cultural artifacts. The meeting can be held as part of the pre-work conference.
3. The operator will obtain permission from right-of-way holders prior to drilling and setting charges within authorized limits of the rights-of-way.
4. Existing routes and trails will be used to the maximum extent possible. The heliportable drill or other BLM approved technique will be used on the areas with steep slopes and rough terrain. Attempts to traverse irregular, soft, or steep slopes and terrain by all vehicles and equipment shall be kept to a minimum to avoid excessive rutting, soil erosion, excessive crushing of vegetation, and excessive visual impacts. Vehicular travel along the flagged lines will be kept to a minimum and be in a zigzag pattern between source points to reduce straight line disturbances. This procedure does not apply to vehicles following trails or roads.
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. The staging area(s) will be situated with good, safe access to county roads or state highways. The fuel truck for the helicopter will also be utilized at the staging area(s).
7. The staging area(s) shall be kept clean and free of litter. Appropriate human waste facilities will be provided and properly maintained. Such waste facilities shall be removed from the site upon completion of the project.
8. Roads will not be constructed for geophysical projects authorized under a categorical exclusion.

9. 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. .

10. Shot holes will be backfilled and plugged, in accordance with state regulations, after they are loaded with the explosive charge. Any cuttings resulting from shot hole drilling and not used in backfilling the shot hole will be scattered about the immediate area to blend with natural terrain and reduce visual impacts. .

11. Geophysical equipment may encounter congested areas with trees requiring one or more trees to be removed and or limbed. If such action is needed then the tree(s) and or limb(s) shall be less than eight (8) inches at diameter breast height (dbh) or at the base of the branch. Trees to be cut or limbed which are located adjacent to public roads, communities and or public facilities shall be immediately cut into smaller pieces so that it is not aesthetically displeasing and dispersed within the immediate vicinity.

12. Any and all tire tracks one hundred feet (100'), leading away from an established dirt or two track road situated on public lands, will be hand raked to blend into the surrounding soil surface.

13. 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 the seed mixtures specified below:

Seed Mix

(To be provided by the local BLM Field/District Office.)

The seeded area should be hand raked to assure the seed is covered with approximately ¼ to ½ inch of soil. This seeding should be accomplished during the late fall, in October or November, 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. Certified weed free seed is to be used to rehabilitate disturbed land.

14. Setbacks and Buffers: the operator will adhere to setbacks or "buffer zones" that are set forth in the following tables.

Offset in Feet, from Certain Objects (based on pounds of explosive charge)

Object	< 1 lb	1 lb	2 lbs	3 lbs	5 lbs	6 to	11 to	16 to
10 lbs			15 lbs			20 lbs		
Pipeline less than 6" diameter	50'	100'	150'	150'	200'	250'	300'	400'
Pipeline 6" to 12" diameter	75'	150'	200'	200'	300'	400'	500'	600'
Pipeline greater than 12" diameter	100'	200'	250'	250'	300'	500'	600'	800'
Telephone line	20'	20'	30'	40'	40'	50'	50'	50'
Railroad Track or main paved Highway	50'	100'	150'	150'	150'	220'	280'	350'
Electric Powerline (Shot holes not to exceed 200' depth)	75'	100'	200'	200'	200'	200'	250'	300'
Water wells, buildings, underground cisterns, and all other similar objects	225'	300'	400'	450'	700'	800'	1000'	1200'
Brick and/or concrete block buildings	275'	400'	500'	600'	800'	1000'	1200'	1500'
Producing oil and gas well	250'	450'	600'	700'	800'	900'	1000'	1000'
Irrigation wells	500'	800'	1000'	1200'	1500'	2000'	2500'	2500'

Minimum Safe Offset In Feet for Vibrator Truck Operations

Structures	Distance (ft)
Residences, Buildings, Concrete Base Structures	300
Water Wells	350
Concrete Water Pipeline	100
PVC/Plastic Water Pipeline	20
Oil or Gas Well	250
Oil or Gas High Pressure Pipelines	30
High Voltage Power Lines	0
Local Transmission Power Lines	0

15. No equipment, only foot traffic laying receiver lines, will be used in swampy/wetland areas.
16. If any unanticipated prehistoric or historic archaeological sites or paleontological sites are encountered during the geophysical work, the work shall stop and the appropriate BLM archaeologist at the Field/District 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.
17. Visible migratory bird nests will be avoided and not disturbed.
18. All equipment will be power washed prior to entering Federal lands to help mitigate the spread of noxious plants.
19. In order to minimize watershed damage and disturbance to game animals utilizing important seasonal wildlife habitat, seismic activity will only be allowed during the period from May 15 to December 15. Exceptions to this limitation may be specifically approved by the authorized officer.
20. When fire conditions reach high, the helicopter, vehicles, and equipment will carry water, shovels, and other fire fighting equipment to extinguish any fires that are accidentally started by the seismic operations.
21. If oil, lubricants and other petroleum or man-made products are accidentally spilled onto the ground surface, the BLM 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 bioremediated or disposed of at an authorized landfill.
22. All flagging, lath, pin flags, and similar materials used in the seismic project will be removed from public land and disposed of at an authorized landfill.

23. All Applicant-Committed Environmental Protection Measures documented in the applicant's NOI will be complied with in addition to these Standard Terms and Conditions as well any additional Conditions of Approval Identified by the BLM Field Office.