

# HARDROCK EXPLORATION

## RECLAMATION PLAN

(28)

RECLAMATION PLAN

LETTER OF INTENT TO DO RECLAMATION

Disturbed Area 5 Acres Or Greater or BLM Notices)

(Disturbed Area Less Than 5 Acres)

In accordance with Alaska Statute (AS) 27.19, reclamation is required of all mining operations in which ground disturbance occurs (this includes hard rock mineral exploration). Reclamation bonding is required of operations with a disturbed area (all portions of an operation excluding camp and roads on State or private land) of 5 acres or greater. Completion of this application will meet the requirements for a "Reclamation Plan" for operations 5 acres and larger in size and "Letter of Intent To Do Reclamation" for operations under 5 acres. **If you do not intend to use the reclamation methods presented below, please provide additional information concerning your plans for reclamation under separate attachments.**

BLM requires that the reclamation plan be consistent with §43 CFR 3809.420, Performance Standards for the Surface Management regulations. Refer to 43 CFR 3809 or the BLM minerals website available at <http://www.blm.gov/ak/st/en/prog/minerals.html> for more information on what is required for a reclamation plan.

Total acreage currently disturbed: \_\_\_\_\_ acres. This should match: "Total Unreclaimed Acres" on your 2012 Annual Reclamation Statement for Small Mines, or line #7 on your 2013 Bond Pool Renewal Form. (Disturbed ground includes drill sites, sump pits and trenches, bulk sample sites and any other exploration-related areas disturbed since October 1991 (State mining claims or Private lands) or 1981 (Federal mining claims); and are currently unreclaimed. Federal operators include area of camp and roads.

New acres to be disturbed in 2013 \_\_\_\_\_ acres. Total acreage (currently disturbed plus new acres): \_\_\_\_\_ acres.

Acreage disturbed by land status: \_\_\_\_\_ State (general) \_\_\_\_\_ State (Mental Health) \_\_\_\_\_ Private \_\_\_\_\_ Federal

Total acreage to be reclaimed in 2013: \_\_\_\_\_ acres; and:

Reclamation conducted concurrently with the exploration.  Reclamation will be conducted at the end of the exploration season

Total volume of material to be disturbed in 2013: \_\_\_\_\_ cubic yard. (Including strippings and overburden to be removed. (1 acre of disturbance is equal to 4,840 square yards).

**The following reclamation measures shall be used.** (These measures are required by law. Those that do not apply may be crossed out; but, an explanation must be given as to why these measures are not necessary at your site.)

- Topsoil, vegetation, and overburden muck, not promptly redistributed to an area being reclaimed, will be individually separated and stockpiled for future use. This material will be protected from erosion and from contamination by acidic or toxic materials and will not be buried by tailings.
- The area reclaimed will be reshaped to blend with the surrounding area using tailings, strippings, and overburden and be stabilized.
- Stockpiled topsoil, overburden muck, will be spread over the contoured exploration sites to promote natural plant growth such that the area can reasonably be expected to revegetate within five years. Stockpiled vegetation will be spread over topsoils.
- Exploration trenches will be backfilled. Brush piles, stumps, topsoil, and other organics will be spread on the backfilled surface to inhibit erosion and promote natural revegetation. Exploration trenches shall be flagged and signs posted to notify the public of the existence of the open trenches. All exploration trenches shall be reclaimed by the end of the exploration season in which they are constructed, unless specifically approved by the DMLW.
- Shallow auger holes (limited to depth of overburden) shall be backfilled with drill cuttings or other locally available material in such a manner that closes the hole to minimize the risk to humans, livestock and wildlife.
- All drill hole casings shall be removed or cut off at, or below, ground level. All drill holes shall be plugged by the end of the exploration season with bentonite holeplug or equivalent slurry, for a minimum of 10 feet within the top 20 feet of the drill hole. The remainder of the hole will be backfilled to the surface with drill cuttings. If water is encountered in any drill hole, a minimum of 7 feet of bentonite holeplug or equivalent slurry shall be placed immediately above the static water level in the drill hole. Complete filling of the drill holes, from bottom to top, with bentonite holeplug or equivalent slurry is also permitted and is considered to be the preferred method of hole closure during which they are drilled, unless otherwise specifically approved by the DMLW.
- If artesian conditions are encountered, the operator shall contact the DMLW (Brent Martellaro at 907 451-2788) or the DEC (Tim Pilon at 907 451-2136) for hole plugging requirements.
- All buildings and structures constructed, used or improved, on State land, will be removed, dismantled, or otherwise properly disposed of at the completion of exploration. The campsite will be cleaned up and left free of debris. In consideration of potentially significant historic properties/cultural resources, please do not remove or disturb any buildings, structures, objects, or artifacts that were located on the site prior to the current operation without preauthorization from SHPO (Contact Mark Rollins of SHPO at (907) 269-8722 or [mark.rollins@alaska.gov](mailto:mark.rollins@alaska.gov)).

**IMPORTANT:** 1. Alternative reclamation measures may be approved if the reclamation measures presented above are not applicable to your site. Please explain in separate correspondence. Submit a sketch and describe additional reclamation measures you propose to conduct at your operation. Reclamation measures must comply with AS 27.19.

2. Federal land managers may require reclamation measures different to those identified above.

**BONDING:** In accordance with AS 27.19, bonding is required for all exploration operations having a disturbed area of greater than five acres on State Land. This area must be bonded for \$750.00 per acre, unless the miner can demonstrate that a third party contractor can do the required reclamation for less than that amount. A Statewide bonding pool has been established and may be joined by completing the bond pool application form. Federal land managers may have additional bonding requirements. Use bond form to calculate area of disturbance for bonding.

<p>_____</p> <p>Printed name (Applicant)</p> <p>_____</p> <p>Signature (Applicant)</p>	<p>Relationship to Claim(s)</p> <p><input type="checkbox"/> Owner <input type="checkbox"/> Lessee <input type="checkbox"/> Operator</p> <p><input type="checkbox"/> Agent</p>	<p>Date:</p>
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# PLAN OF OPERATIONS NARRATIVE CHECKLIST

## EXPLORATION PLAN

### Describe the following:

- Access to drill and / or trench sites, including type and length of access routes. Include a reference to the map showing existing and new roads, trails, airstrips, river routes and landings.
- Exploration activities including type(s) of equipment to be used, when and where activities will occur.
- Measures taken to prepare for reclamation upon completion of exploration activities, such as stockpiling organic materials.
- Drill sites. Include pad construction methods. Include a reference to the map showing drill site locations.
- Drill fluid disposal. Include MSDS sheets.
- Trench excavation methods and location. Include a reference to the map showing trench locations.
- Fuel handling at exploration sites (drill pads and trenches) and off site (camp or base of operations).
- Indicate if there is a spill prevention and response plan in place.
- Water use. Reference the map showing water withdrawal locations. State estimated daily water use and measures planned to prevent fish entrapment.
- Cultural resource clearing. If needed, indicate measures take to avoid disturbance archaeological sites. Contact Mark Rollins at the State Historic Preservation Office if you need assistance determining whether or not you need to address cultural resource clearing. (907) 269-8722 or [mark.rollins@alaska.gov](mailto:mark.rollins@alaska.gov)

## RECLAMATION PLAN

### Describe the following:

- Plan for reclamation of disturbed areas in wetlands and uplands.
- Drill hole plugging methods and materials.
- Trench reclamation.
- Trash disposal.
- Methods proposed to promote the establishment of vegetation (measures can including promotion of natural growth by stockpiling & redistribution of organic material).
- Disturbance calculations. Describe how acres of disturbance are calculated for drill pads, trenches, roads, trails and camps).
  - For bonding purposes, please indicate the amount of existing and proposed disturbance by land ownership.