Inspection Report: Hecla Greens Creek Mine

Tongass National Forest, Minerals Group
8510 Mendenhall Loop Road
Juneau, Alaska 99801
(907) 789-6276 – office
(907) 586-8808 – fax

Date of Inspection: Wednesday, May 14, 2014
Date of Report: Tuesday, May 27, 2014

USDA Forest Service Inspector: David Schmerge

Ranger District: Admiralty National Monument, Juneau Ranger District
Weather Conditions: Cloudy, temperature in the upper 50s.

<table>
<thead>
<tr>
<th>Inspection Item</th>
<th>Status</th>
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<tbody>
<tr>
<td>Exploration in accordance with operating plan</td>
<td>Not Checked</td>
</tr>
<tr>
<td>Timber removal following timber sale contract</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>BMPs for erosion control</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Water Quality BMPs</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Public safety and fire</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Reclamation work adequate and timely</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Roads maintenance adequate and current</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Tails placement in accordance with plan</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Waste Rock placement in compliance</td>
<td>Not Checked</td>
</tr>
<tr>
<td>Company supervision of operation</td>
<td>Satisfactory</td>
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<tr>
<td>Operating in a clean and orderly manner</td>
<td>Satisfactory</td>
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</tbody>
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**Any conditions noted as UNSATISFACTORY will require follow up action by the Mine Inspector and a written letter to the operator, outlining the necessary work.**

NEW REMARKS AND SUGGESTIONS

Mitch Brooks (Hecla Greens Creek Mining Company) accompanied David Schmerge (Minerals Hydrologist, U.S. Forest Service) on this inspection. On the A Road, we visited Young Bay and Pit 7. On the B road, we visited the bridges at mile 3.4 and 7.4, the fish pass on Greens Creek, and the tailings facility.

YOUNG BAY
Hecla has submitted a proposal to the Forest Service to install additional lighting at Young Bay. An overhead aerial power cable is proposed. It may be necessary to cut down a few trees and/or bushes in order to install the proposed lights (photo 01).

PIT 7
Canada thistle is an invasive plant that was found at Pit 7 in 2012. The area is covered with tarps in an effort to prevent further growth (photo 02). A few young Canada thistle plants are present (photo 03). Invasive plants are not discussed in the Plan of Operations, but the 2013 Greens Creek Mine Tailings Disposal Facility Expansion Final Environmental Impact Statement (section 3.10.3.1) requires the removal of existing invasive plant populations. Hecla has been attempting to eradicate it by pulling the plants by hand. They would like to be able to use a chemical spray, but additional NEPA is needed before this can be approved by the Forest Service. Ellen Anderson and Patti Krosse have prepared a draft copy of a white paper discussing the issue, but
it has not yet been finalized.

BRIDGE AT MILE 3.4 ON THE B ROAD
The planking on the bridge at mile 3.4 had just been replaced when we drove by (photo 04). Mitch informed me that this is routine maintenance that is done every year on the bridges. I reviewed the Plan of Operations and found no discussion on bridge repair. The Plan of Operations is scheduled to be updated soon. When the Plan is updated, I recommend including a section on bridge maintenance in appendix 8 (Road Operation and Maintenance).

BRIDGE AT MILE 7.4 ON THE B ROAD
The planking on the bridge at mile 7.4 was being removed when we arrived (photo 05). A lot of fine grained sediment is visible underneath the bridge (photo 06). The sediment below the lowest silt fence will get washed into the creek when it rains. This situation could be improved by adding an additional silt fence closer to the creek. Some sediment is being splashed over the splash guard (photo 07) and into the stream. It is recommended that the splash guards be at least as tall as the tallest vehicle tire that regularly crosses the bridge. Some sediment is also falling through the cracks in the planking and into the stream (photo 08). It may not be feasible to seal all of the bridge planks because water on the bridge might not be able to properly drain, but one possibility is to at least seal the planks that are directly over the creek.

GREENS CREEK FISH PASS
The snow has melted at the fish pass, but the flow rate is too high now to safely do the required repair work (photo 09).

TAILINGS FACILITY
Debris from the bridge maintenance work was being hauled to the tailings facility to be burned (photo 10). According to chapter 8 (Solid Waste Disposal) of the General Plan of Operations (GPO), solid wastes are either burned at an incinerator at Hawk Inlet, or compacted at Hawk Inlet and then shipped to Juneau and incinerated. Appendix 3 (Tailings Impoundment) and Appendix 7 (Solid Waste) of the GPO both authorize the disposal of ash and residue at the tailings facility, but not the burning of scrap wood material at the tailings facility. The Integrated Waste Management and Disposal Plan (IWMDP) states that wood scrap can be incinerated or burned at the tailings facility, but the IWMDP is not part of the GPO. The GPO is presently being revised by Hecla. It is my recommendation that the IWMDP be submitted to the Forest Service as Appendix 7 of the GPO.
Photo 01. An aerial power cable is proposed to be connected to the light pole on the left. It may be necessary to cut down a few trees and shrubs in order to safely do this.

Photo 02. Tarps are being used at pit 7 in an effort to prevent the growth of Canada Thistle that was discovered in the area in 2012.
Photo 03. A few young Canada thistles are present. They should be pulled before they bloom in order to prevent further spreading.

Photo 04. The blanking on this bridge had been replaced just before we drove by.
Photo 05. The planking of the bridge at mile 7.4 on the B Road was being removed by an excavator, and hauled away by a loader.

Photo 06. Silt Fences are capturing some of the sediment underneath the bridge, but there is a lot of sediment beyond the lowest silt fence that will get washed into the creek when it rains.
Photo 07. Sediment on top of the splash guard indicates that it should be taller in order to prevent sediment from getting splashed into the stream.

Photo 08. The mud on this girder has fallen through the cracks in the bridge planking. Some of the mud will fall directly into the stream.
Photo 09. The snow has melted at the Greens Creek fish pass.

Photo 10. Wooden debris from the bridge maintenance work on the B road is being hauled to the burn pile at the tailings facility.

U.S. Forest Service Officer: /s/ David Schmerge