



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
Toni Hardesty, Director

December 21, 2011

Mr. Scott Sanner
U.S. Bureau of Land Management - Coeur d'Alene District
3815 Schreiber Way
Coeur d'Alene, ID 83815

Subject: Site Assessment of the Hoffstetter Mine, Elk City Mining District,
Idaho County, Idaho

Dear Mr. Sanner:

The Idaho Department of Environmental Quality (DEQ) has completed a review of historical mining data and geological information for the above referenced mine, located near Elk City, Idaho. Subsequent to that review, DEQ conducted a site visit of the Hoffstetter Mine.

During the site visit, mining activities such as two adits and a heavily vegetated waste dump were observed and mapped in order to provide a comprehensive analysis necessary to complete an Abbreviated Preliminary Assessment (APA).

Preliminary Assessments are conducted by DEQ according to the Federal Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA). The reasons to complete a Preliminary Assessment (PA) include:

- 1) To identify those sites which are not CERCLIS caliber because they do not pose a threat to public health or the environment (No Remedial Action Planned (NRAP));
- 2) To determine if there is a need for removal actions or other programmatic management of sites;
- 3) To determine if a Site Investigation, which is a more detailed site characterization, is needed; and/or
- 4) To gather data to facilitate later evaluation of the release of hazardous substances through the Hazard Ranking System (HRS).

Scott Sanner
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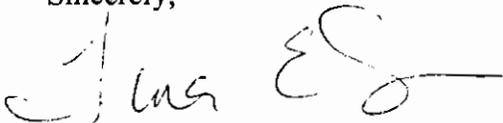
DEQ has also completed PAs under contract with the U.S. Environmental Protection Agency in order to identify risks to human health and the environment, and make recommendations to land owners regarding how risks might be managed, if necessary.

During a DEQ field visit if sources, pathways, and receptors are identified for heavy metal contamination and samples are collected, a PA is generally written. If there is no evidence of receptors being influenced by sources of contamination, as was the case with the Hoffstetter Mine property, then an Abbreviated Preliminary Assessment (APA) is written.

Attached is the Abbreviated Preliminary Assessment for the Hoffstetter Mine. The APA includes limited geological information, photographs, and a map of the property. This information was used by DEQ to make a determination that the property status is No Remedial Action is Planned (NRAP).

DEQ looks forward to addressing any questions you may have regarding our findings. Please contact me (208-373-0563) if you have any comments, questions, or if I may be of any other assistance.

Sincerely,



Tina Elayer
Mine Waste Program Specialist
Waste Management and Remediation Division

Attachments

cc: Ken Marcy – U.S. EPA
Daniel Stewart – DEQ Grangeville
Hoffstetter Mine File

ABBREVIATED PRELIMINARY ASSESSMENT

This is an Abbreviated Preliminary Assessment (APA) for the Hoffstetter Mine near Elk City, Idaho. This document provides the rationale for the determination of No Remedial Action Planned (NRAP) and that no additional analysis or site investigation is necessary for the Hoffstetter Mine. Additional sheets are attached which contain relevant information including historical information, photographs, a map, and references generated during the site visit or desktop research.

Preparer: Daniel D. Stewart **Date:** 10/25/11
Idaho Department of Environmental Quality
300 W. Main
Grangeville, ID 83530
(208) 983-0808
daniel.stewart@deq.idaho.gov

Site Name: Hoffstetter Mine

Previous Names (aka): None

Site Owner: Unable to Determine if BLM or Private Property

Address: U.S. Bureau of Land Management – Coeur d’Alene District
Attention: Scott Sanner
3815 Schreiber Way
Coeur d’Alene, ID 83815

Site Location: Access from the Elk City Ranger Station is via County Road 443 northeast to the junction with FS Road 1809, 0.2 mile on Road 1809 to the American River at the junction with FS Road 2541, past this junction 0.3 mile on Road 1809 to Box Sing Creek, where the road turns northeast away from the river. At the turn in Road 1809, an old road heads south along the east side of the river for approximately 0.4 mile to the mouth of Baboon Creek. The Hoffstetter Mine is approximately 400 feet south of Baboon Creek at the base of the slope and at the edge of dredge tailings. Existing property boundaries on maps and in the field are inconclusive relative to if the mine is on private or public lands administered by BLM. (IGS 2003).

Township 29 North, Range 8 East, Section 24

Latitude: 45.8348°N **Longitude:** -115.40711°W

Describe the release (or potential release) and its probable nature:

The Hoffstetter Mine was investigated by the Idaho Department of Environmental Quality (DEQ) on September 8, 2011 for potential releases of heavy metals or other hazardous materials. Additionally, potential discharges of other deleterious materials, such as petroleum products and ore processing chemicals were investigated. No deleterious materials, petroleum products or ore processing chemicals were evident.

Adit 1 had a plastic pipe exiting it with a trickle of water coming from it. The water goes subsurface within 20 feet. Surface water sample HFAD1SW1 was collected from the pipe for analysis. Sample analysis for surface water sample HFAD1SW1 for total recoverable metals indicated none of the metals concentrations exceeded any of the Idaho water quality standards parameters for ground water, surface water, and aquatic biota. Water chemistry results for the surface water sample taken from Adit 1 are shown in Table 1. Adit 2 had a trickle of water which went subsurface within 10 feet.

Table 1. Total Recoverable Metals Analysis in Surface Water – Hoffstetter Mine Adit 1 (Concentrations expressed in mg/l unless otherwise stated.)

Description	DEQ Ground Water Standard (T)	DEQ Drinking Water Standard MCL	DEQ Cold Water Biota Standard Acute	DEQ Cold Water Biota Standard Chronic	Surface Water Sample HFAD1SW1
Antimony					<0.020
Arsenic	0.05	0.01	0.36	0.19	<0.025
Barium	2	2			0.0313
Cadmium	0.005	0.005	0.00082 (H)	0.00037 (H)	<0.0020
Chromium (Total)	0.1	0.1			<0.0060
Copper	1.3		0.0046 (H)	0.0035 (H)	<0.010
Iron	0.3*				0.118
Lead	0.015	0.15	0.014 (H)	0.00054 (H)	<0.0075
Manganese	0.05				0.0189
Selenium	0.05	0.05	0.018 (T)	0.005 (T)	<0.040
Silver	0.1*		0.0032 (H)		<0.0050
Zinc	5*		0.035 (H)	0.032 (H)	<.01
pH	6.5 – 8.5 su			6.5 – 9.0 su	7.09 su
Conductivity					0.051 µs/cm

*Secondary MCL (T) – Standard in Total (H) – Hardness dependent *25 mg/l

Part 1 - Superfund Eligibility Evaluation

If all answers are “no” go on to Part 2, otherwise proceed to Part 3.	YES	NO
1. Is the site currently in CERCLIS or an “alias” of another site?		x
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		x
3. Are the hazardous substances that may be released from the site regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		x
4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		x
5. Is there sufficient documentation to demonstrate that there is no potential for a release that constitutes risk to human or ecological receptors? <i>(e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, or an EPA approved risk assessment completed)?</i>	x	

Please explain all “yes” answer(s):

A site inspection involving direct observations confirmed that sources for contaminants of concern including hazardous materials and petroleum products do not exist in concentrations that present a threat to human health or the environment. No contaminants, hazardous substances, or equipment remain on the site. Water sample HFAD1SW1 was analyzed for total recoverable metals. See the water chemistry results for Adit 1 in Table 1. The photographs included at the end of this report clearly document the adits are very heavily vegetated and stable. The lack of sources indicates there are no complete pathways to human or ecological receptors.

Part 2 - Initial Site Evaluation

For Part 2, if information is not available to make a “yes” or “no” response, further investigation may be needed. In these cases, determine whether an APA is appropriate. Exhibit 1 parallels the questions in Part 2. Use Exhibit 1 to make decisions in Part 3.

If the answer is “no” to any of questions 1, 2, or 3, proceed directly to Part 3.	YES	NO
1. Does the site have a release or a potential to release?		x
2. Does the site have uncontained sources containing CERCLA eligible substances?		x
3. Does the site have documented on-site, adjacent, or nearby targets?		x

If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.	YES	NO
4. Does documentation indicate that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		
5. Is there an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site?		
6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (e.g., targets within one mile)?		
7. Is there no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site?		

Notes:

During the site assessment, DEQ used references from several different documents including U.S. Geological Survey (USGS) maps, county tax rolls, and historical reports that have spelled numerous claim names, town sites, and/or geographic features differently from one and another. DEQ’s use of the different spellings is to remain in context with the reference used for each given section of text or written in this report.

The Hoffstetter Mine is located approximately 100 yards up gradient from a summer cabin which was unoccupied during DEQ’s site visit. DEQ is unaware of what drinking water source this cabin uses. However, metals concentrations from surface water sample HFAD1SW1 indicated none exceeded any of the Idaho water quality standards parameters for ground water, surface water, and aquatic biota. Thus, it is unlikely any human health risks or ecological health risks are associated with this mine site discharge.

Exhibit 1 – Site Assessment Decision Guidelines for a Site

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. The assessor should use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgment when evaluating a site. Your judgment may be different from the general recommendations for a site given below.

Suspected/Documented Site Conditions		APA	Full PA	PA/SI	SI
1. Are releases or potential releases documented at the site?		No			
2. Are uncontained sources with CERCLA-eligible substances documented as being present on the site (i.e., they do exist at site)?		No			
3. Are on-site, adjacent, or nearby receptors present?		Yes			
4. Is there documentation or observations made leading to the conclusion that a sensitive receptor is present or may have been exposed (e.g., drinking water system user inside four mile TDL)?	Option 1: APA	No			
5. Is there documentation that a sensitive receptor has been exposed to a hazardous substance released from the site?	Option 2: Full PA or PA/SI	No			
6. Is there an apparent release at the site with no documentation of targets, or is there targets on site or immediately adjacent to the site?	Option 1: APA SI	No			
	Option 2: PA/SI	No			
7. Is there an apparent release and no documented on-site targets and no documented targets immediately adjacent to the site, but there are nearby targets? Nearby targets are those targets that are located within one mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site.		No			
8. Is there indications of a hazardous substance release; uncontained sources containing CERCLA hazardous substances; but there is a potential to release with targets present on site or in proximity to the site.		No			

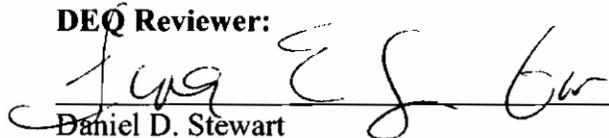
Part 3 - EPA Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was "no," then an APA may be performed and the "NRAP" box below should be checked. Additionally, if the answer to question 4 in Part 2 is "yes," then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the "Lower Priority SI" or "Higher Priority SI" box below; or Option 2 -- proceed with a combined PA/SI assessment.

Check the box that applies based on the conclusions of the APA:

<input checked="" type="checkbox"/>	No Remedial Action Planned (NRAP)		Defer to NRC
<input type="checkbox"/>	Higher Priority SI		Refer to Removal Program
<input type="checkbox"/>	Lower Priority SI		Site is being addressed as part of another CERCLIS site
<input type="checkbox"/>	Defer to RCRA Subtitle C		Other:

DEQ Reviewer:


Daniel D. Stewart

4/12/12
Date

Please Explain the Rationale for Your Decision:

A site inspection involving direct observations confirmed sources of contaminants of concern, including hazardous materials and petroleum products, do not exist at the site and do not present a threat to human or ecological receptors.

The Hoffstetter Mine is located approximately 100 yards from a summer cabin which was unoccupied during DEQ's site visit. DEQ is unaware of what drinking water source this cabin uses. However, metals concentrations from surface water sample HFAD1SW1 indicated none exceeded any of the Idaho water quality standards parameters for ground water, surface water, and aquatic biota. Thus, it is unlikely any human health risks or ecological health risks are associated with this mine site discharge.

The photographs included at the end of this report clearly document the adits are very heavily vegetated and stable. Therefore, no airborne pathways exist to any residences/cabins in the immediate area.

As a result of DEQ's research and observations, it is recommending this site be designated as NRAP.

Attachments:

- Historical Information
- Site Conditions and Photographs
- Maps
- References

Historical Information

No historical information was found relative to the Hoffstetter Mine. The following is from *Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Forest Service Lands (Region 1) Nez Perce National Forest. Volume III, Section A: Elk City, Orogrande, Buffalo Hump, and Surrounding Areas, Idaho County, Idaho (IGS 2003)*.

Site Description: *The long trough of the caved adit is at the head of a shallow ravine that branches from a tributary of Miller Creek. Iron-rich water from the caved adit, estimated at 5-10 gallons per minute, flows through the trough and into a grassy wetland behind an earthen dam. The waste dump, built along Road 643H and beginning at least 100 feet northwest of the adit trough, has probably been modified to some extent, but still measures 150-200 feet long, 10 feet wide (from the south edge of the road), and 15-20 feet thick. The cabin is at the northwest end of the adit trough, the collapsed building is northwest of the cabin, and the remnants of the mill are below the earthen dam. The disturbed area covers about 2 acres.*

Site Features and Geology: *The site has two small, collapsed adits. The northernmost adit (Adit 1) is discharging a very minor amount of water. The water does not reach the American River. The dump for this adit is the larger of the two and is 40 feet long, 15 feet wide and 10 feet thick. Adit 2 is just south of Adit 1 and has a slightly smaller waste dump. The total disturbed area is approximately 0.1 acre.*

Geologic Features: *The Hoffstetter Mine is in the biotite gneiss and schist unit of the Middle or Early Proterozoic Elk City metamorphic sequence. These rocks have been intruded by Cretaceous or Proterozoic amphibolite.*

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Site Conditions and Photographs

All of the photographs in this section were taken by DEQ on September 8, 2011.

The adits are within 30 feet of each other. Vegetation is well established and healthy. Adits and waste dump are very well vegetated with mature trees such as Douglas fir, white fir, spruce, lodge pole, and duff covering the waste dump.



Photo 1. View of Hoffstetter Mine Adits 1 (right side) and 2 (left side) and surrounding hillside.
Latitude 45.83812°N, Longitude -115.40919°W

Adit 1 has a black plastic pipe coming out of it with a trickle of water. The adit is collapsed. There is a cabin approximately 100 yards up gradient from the mine.



Photo 2. Hoffstetter Mine Adit 1.



Photo 3. Pipe coming from Adit 1.
Surface water sample HFAD1SW1 was taken from this pipe.
Latitude 45.83805°N, Longitude -115.40925°W

Water was observed trickling from the mouth of Adit 2. The water goes subsurface within 10-15 feet. The adit is collapsed.



Photo 4. Hoffstetter Mine Adit 2.

The Hoffstetter Mine waste dump is well vegetated with mature trees (Douglas fir, white fir, spruce, lodge pole) and a healthy layer of duff. The waste dump is composed of country rock where visible with no mineralization evident. The waste dump appears to be a combination from both tunnels. The area of the waste dump measured 50 feet by 12 feet by 8 feet which equals approximately 178 cubic yards of material.



Photo 5. Toe of Hoffstetter Mine waste dump.

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Map

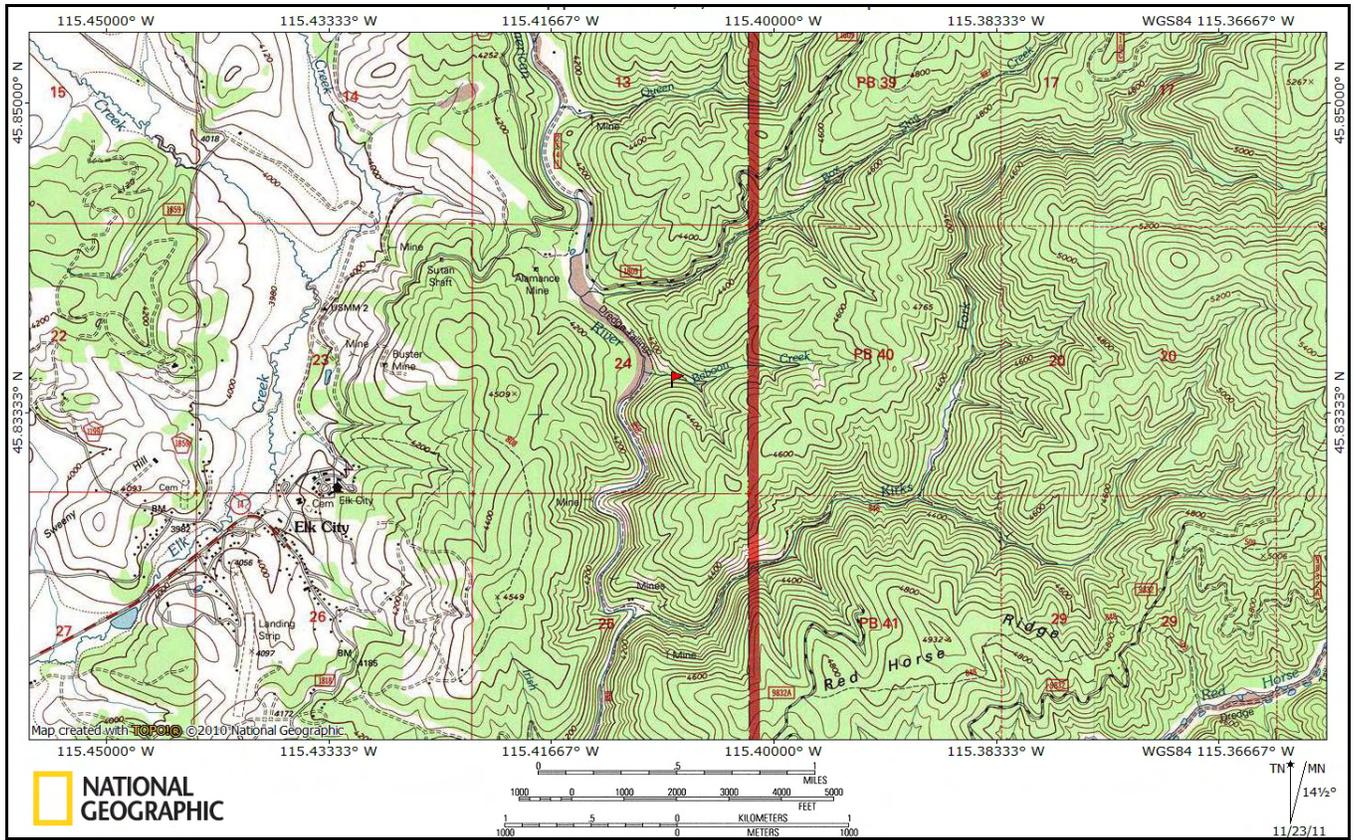


Figure 1. Topographic Overview Map of the Hoffstetter Mine Location
(Map Source: National Geographic Topographic Software).

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References

IGS (Idaho Geological Survey). Erdman, Ted, John Kauffman, Earl H. Bennett, and Victoria E. Mitchell. 2003. *Site Inspection Report for the Abandoned and Inactive Mines in Idaho on U.S. Forest Service Lands (Region 1) Nez Perce National Forest. Volume III, Section A: Elk City, Orogrande, Buffalo Hump, and Surrounding Areas, Idaho County, Idaho.* Prepared for the U.S. Forest Service Under Participating Agreement No. FS-01-96-14-2800. Staff Report 03-21.

Topographic Overview Map of the Hoffstetter Mine Location. 10/25/2011. 1:24,000. Daniel Stewart; National Geographic Topographic Software.
<http://shop.nationalgeographic.com/ngs/product/topo%21-state-series/topo%21-idaho>