ABBREVIATED PRELIMINARY ASSESMENT

MONUMENTAL

Wallowa Whitman National Forest
Grant County, Oregon

February 2003

TABLE OF CONTENTS

page

EXECUTIVE SUMMARY…….…….. i
1.0 INTRODUCTION……...1
2.0 SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS…….1
3.0 SITE SAMPLING AND TEST RESULTS…….1
4.0 SUMMARY…… 2
5.0 RECOMMENDATION…….. 2

APPENDICES

Appendix A Abbreviated Preliminary Assessment Checklist
Appendix B Additional Site Photos

EXECUTIVE SUMMARY

The Forest Service performed an Abbreviated Preliminary Assessment for the Monumental Mine (Site) to determine the need for further site characterization. The Site waste and tailings piles are placed on flat to moderate side slopes and the site for the mill was placed on steep slopes. An opening in the ground exposed a stope and this possesses a health hazard, as the area around the opening is unstable.

A Niton XRF unit was used for In Situ field screening of the waste and tailings piles for any potential contaminants. Water and sediment samples were not collected.

Three elements exceeded EPA Region IX Preliminary Remediation Goals (PRG) as to acceptable industrial levels in soil. The elements were Arsenic, Lead, and Mercury. The upper tailings pond has been breached.

It is recommended a Site Inspection (SI) be performed.

1.0 INTRODUCTION

An Abbreviated Preliminary Assessment (APA) was performed by the US Forest Service in accordance with the EPA "Guidance for Performing Preliminary Assessments Under CERCLA", EPA "Improving Site Assessment: Abbreviated Preliminary Assessments" of 1999, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the Superfund Amendments and Reauthorization Act (SARA) of 1986, and the National Contingency Plan as outlined in 40 CFR Parts 300.410(c)(1)(i-v).

The purpose of this assessment was to determine whether or not there is a potential for a release of contaminants to the environment and/or to human health. The purpose of an APA is to determine whether further site characterization is warranted. A Niton XRF 700 Series was utilized to help in the preliminary screening of this Site on October 17, 2002.

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

The Monumental Mine and mill (Site) is located approximately 8 miles northeast of Granite, OR, on Forest Service Road 7345. The legal description for the Site is; Latitude: 44° 51' 37"N, Longitude: 118° 21' 04"W, Sec 18 & 19, T 8 S, R 36 E, USGS Quadrangle Maps – Mt. Ireland and Bourne. The Site is situated on moderate to steep hillsides. The Site is located within the Granite Mining District.

The Site consists of an upper adit, which currently has a partially collapsed portal with no water, a lower adit that is partially stabilized and does have water discharge, a collapsed shaft, numerous waste piles, two tailings ponds of which the upper tailings pond had been breached, and an old mill site. The mill site is situated on moderate to steep terrain. Water was observed in the upper tailings pond and this flowed into the lower tailings pond and eventually into Granite Creek. The flow of water was low. There is one historic cabin near the lower adit. Access to the site can be accomplished by the Forest Service road. Approximately 10 acres are disturbed on the Site.

The development of the Site consisted of two adits, a shaft, and several raises for a total of 4000 feet.

The mine was located in 1870 and ore was shipped to San Francisco in 1874. The total production is estimated at $100,000 in gold and silver.

There is limited history of the Site. Currently the mine is inactive.

3.0 SITE SAMPLING AND TEST RESULTS

A Niton XRF, XL-722S was used to assess the waste piles for potential contamination. In Situ testing was performed on the Site per EPA Method 6200. Surface materials were removed to approximately 4 to 6 inches below grade in order to get below highly oxidized surface layers. Rocks, debris and other deleterious materials were removed. The waste material was worked to gain a flat surface area on which to set the Niton. The results from this effort are provided below.

No surface water or sediment samples were collected and analyzed during the October 17, 2002 visit.

The following constituents exceeded EPA Region IX PRG industrial levels:

Location	Constituent	Result (mg/kg)	PRG (mg/kg)
Waste Rock by Shaft	Arsenic*	1800	1.6
Waste Rock by Upper Adit	Arsenic	119 to 582	1.6
Mill Site Area	Lead	857 to 2499	750
	Mercury	592	**
	Arsenic	42.5 to 31,181	1.6
Upper Tailings Pond	Arsenic	392 to 3080	1.6
Lower Tailings Pond	Arsenic	2909	1.6

*Arsenic – for noncancer endpoint, the PRG is 260 mg/kg. For cancer endpoints, the PRG is 1.6 mg/kg.
** Mercury - For 2003, EPA no longer has Mercury compounds listed in the PRGs. Rather, they list mercury chloride and methylmercury. Mercury Chloride was the same as elemental mercury in 2002 at 610 mg/kg. In 2003, mercury chloride is listed at 310 mg/kg.

4.0 SUMMARY

There is water in the upper tailings pond and it flows into the lower pond. This water eventually reaches Granite Creek.

The constituents of concern that exceeded EPA Region IX industrial levels in soil were Arsenic, Mercury, and Lead. At this time, it is unclear as to any impacts to the aquatic environment of Granite Creek from these constituents.

5.0 RECOMMENDATION

Based on the In Situ screening of the tailings/waste piles with the Niton XRF unit, the proximity of the waste piles to Granite Creek, and EPA's APA Checklist (Appendix A), it is recommended that a Site Inspection (SI) be completed. As part of this inspection, water samples from pore spaces of the stream gravels should be collected, where feasible, as well as sampling of the benthic organisms. In addition to testing water samples from the pore spaces of the gravels for the presence of metallic elements, water parameters such as pH, conductivity, turbidity, dissolved oxygen, temperature, total dissolved solids, hardness, and oxygen reduction potential are required. The tailings/waste piles should be sampled at depth and a determination of volumes should be calculated. Acid base accounting (ABA) is required. Sediment samples are to be collected from transects of the stream and preferably at depth and analyzed for total as well as for available metals. Surface water samples are also required.

Appendix B contains additional photos of the Site.

Appendix A

ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

ABBREVIATED PRELIMINARY ASSESSMENT CHECKLIST

This checklist can be used to help the site investigator determine if an Abbreviated Preliminary Assessment (APA) is warranted. This checklist should document the rationale for the decision on whether further steps in the site assessment process are required under CERCLA. Use additional sheets, if necessary.

Checklist Preparer: Dennis Boles, Environmental Engineer (Name/Title) October 17, 2002 (Date)

Winema NF, 2819 Dahlia St, Klamath Falls, OR 97601 (Address) 541-219-1201 (Phone)

djboles@fs.fed.us (E-Mail Address)

Site Name: Monumental Mine

Previous Names (if any): None

Site Location: The Site is located approximately 8 miles northeast of Granite, OR on FS Road 7345.

Legal Description: Latitude: 44°51'37"N Longitude: 118°21'04"W

Describe the release (or potential release) and its probable nature: The following elements exceed industrial levels of the PRGs, and the results and relevant PRG industrial levels are listed in parentheses:

Mercury – 592 (- mg/kg), Arsenic – 42.5 to 31.181 (1.6 for cancer and 260 mg/kg for noncancer endpoints), Lead – 857 to 2499 (750 mg/kg)

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 potentially released at the site regulated under a statutory exclusion (i.e., 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 potentially released at the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		X
5. Is there sufficient documentation to demonstrate that no potential for a release that could cause adverse environmental or human health impacts exist (i.e., comprehensive remedial investigation equivalent data showing no release above ARAR's, completed removal action, documentation showing that no hazardous substance release have occurred, or an EPA approved risk assessment completed)?		X

Please explain all "yes" answer(s). _____

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 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 (i.e., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		X
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?	X	
6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (i.e., targets within 1 mile)?	X	
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?	X	

Notes:

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. You will 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. There are no releases or potential to release.		Yes	No	No	No
2. No uncontained sources with CERCLA-eligible substances are present on site.		Yes	No	No	No
3. There are no on-site, adjacent, or nearby targets		Yes	No	No	No
4. There is documentation indicating that a target (i.e., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site.	Option 1: APA SI	Yes	No	No	Yes
	Option 2: PA/SI	No	No	Yes	No
5. There is an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site.	Option 1: APA SI	Yes	No	No	Yes
	Option 2: PA/SI	No	No	Yes	N/A
6. There is an apparent release and no documented on-site targets and no documented immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within 1 mile of the site and have a relatively high likelihood of exposure to a hazardous substance migrating from the site.		No	Yes	No	No
7. There is 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.		No	Yes	No	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 "NFRAP" 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:

( ) NFRAP
(X) Higher Priority SI
( ) Lower Priority SI
( ) Defer to RCRA Subtitle C
( ) Defer to NRC
( ) Refer to Removal Program – further site assessment needed
( ) Refer to Removal Program – NFRAP
( ) Site is being addressed as part of another CERCLIS site
( ) Other: _____

Regional EPA Reviewer: __N/A_____ _____
Print Name/Signature Date

PLEASE EXPLAIN THE RATIONALE FOR YOUR DECISION:

The Site contains elevated levels of Arsenic and Lead and notable levels of Mercury. High readings for Arsenic were noted in both the upper and lower tailings ponds. The upper tailings pond had been breeched. Water was observed in these ponds and the water drains into Granite Creek.

NOTES:

The Site sits on moderate to steep side slopes and getting drilling equipment on the waste piles is not possible. It is recommended that all sampling be done by a stainless steel augur.

Appendix B

ADDITIONAL SITE PHTOS

Waste Rock by Collapsed Shaft

Waste Rock by Upper Adit

Processed Material Around Mill Workings

Seep From Upper Tailings Pond