U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Josephine Mill No. 1 - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region X

Subject: **POLREP #1**
Initial
Josephine Mill No. 1
WAN001002309; 109H
Pend Oreille County, WA
Latitude: 48.8750000 Longitude: -117.3808000

To:
From: Robert Whittier, OSC
Date: 9/21/2010
Reporting Period: 13 September 2010 through 21 September 2010

1. Introduction

1.1 Background

Site Number:	10FG00	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	8/12/2010
Response Authority:	CERCLA	**Response Type:**	Non-Time-Critical
Response Lead:	PRP	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	9/13/2010	**Start Date:**	9/13/2010
Demob Date:		**Completion Date:**	
CERCLIS ID:	WAN001002401	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

Inactive hard rock mill

1.1.2 Site Description

The Josephine Mill No. 1 Site is an inactive mill located in northeast Washington,approximately 1.5 miles northwest of Metaline Falls, Pend Oreille County, Washington. The mill was one of two mills that supported operations at the Josephine Mine. The Site consists of approximately 5.3 acres of land that contains a partially forested steep rock slope with remnant wood and concrete mill structures, tailings and waste rock piles, and miscellaneous metal. Processing at the mill ended in the mid 1930's and the mill has generally been abandoned since that time.

There is substantial information indicating that human health and environmental impacts associated with the historic mine wastes present at the Site include public health and safety risks, increased metal concentrations in surface water, and increased sediment load to surface water.

1.1.2.1 Location

The Site consists of approximately 5.3 acres of land that contains a partially forested steep rock slope with remnant wood and concrete mill structures north of the unpaved access road, tailings and waste rock piles, and miscellaneous metal debris south of the access road on the north bank of Flume Creek.

(Location: SW ½, Sec 16, T39N, R43 W; Lat 48← 52'29.99" N, Long 117← 22'50.77" W.) The Site is surrounded primarily by remote forested timber land; the U.S. Forest Service Colville National Forest, and a high voltage electrical transmission corridor. An occupied residence is located within ¼-mile of the Site, and the nearest residential communities are Metaline Falls and Metaline located approximately 1.5 miles southeast and 2.2 miles southwest of the Site, respectively.

1.1.2.2 Description of Threat

The elevated concentrations of arsenic, cadmium, lead, mercury, and zinc found in Site surface soils and unlimited access indicate that the air and soil (inhalation and ingestion) human exposure pathways exist.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In July 2002, EPA and the Bureau of Land Management (BLM), conducted a visual inspection of the Site and surrounding environment.[1] The inspection included soil screening using a field-portable x-ray fluorescence (FPXRF) instrument at four potential source locations including a tailings pile and a waste rock pile. The screening concentrations of lead in soil (±1,000 parts per million [ppm], ±7,814 ppm, ±7,814 ppm, and ±19,289.60 ppm) exceeded the Washington State Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A soil cleanup level for lead for Unrestricted Land Uses of 250 milligram per kilogram (mg/kg).

In March 2003, EPA conducted a Preliminary Assessment using readily available information, and concluded that the Site is a potential source of hazardous substance releases and warrants further investigation under CERCLA or other statutes.[2]

In May 2003, EPA and BLM, conducted a Removal Assessment to determine whether contamination is migrating to the surrounding environment and if the Site warrants a CERCLA removal action.[3] The laboratory result for lead for one soil sample (593 mg/kg) and FPXRF screening concentrations for lead for two soil samples (±1,030 ppm and ±2,300 ppm) exceeded the MTCA Method A soil cleanup level for lead for Unrestricted Land Uses.

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[1] Ecology and Environment, Inc., (E & E). September 2002. *Grandview, Josephine, and Pend Oreille Mines/Mills Trip Report, Metaline Falls, Washington.* TDD: 02-06-0008.
[2]E & E. March 2003. *Josephine Mill No. 1 Preliminary Assessment Report, Metaline Falls, Washington.* TDD: 02-07-004.
[3] E & E. November 2003. *Grandview and Josephine Mines Removal Assessment Report, Metaline Falls, Washington.* TDD: 03-05-0003.

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2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Arcadis mobilized to the site on 13 September 2010 to begin clean up activities which are expected to require approximately 5 weeks.

2.1.2 Response Actions to Date

Arcadis is currently in the process of installing erosion and sediment control features at the site. The site is also being grubbed of vegetation in preparation for a combination of excavation and cosolidation of the mine wastes beneath a protective barrier. Arcadis will conduct both air and surface water monitoring for short term construction related impacts.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

EPA has negotiated an Administrative Settlement Agreement and Order on Consent (ASAOC) with Stimson. Under the terms of the ASAOC, Stimson will conduct the removal action and pay EPA response costs for the Site.

2.1.4 Progress Metrics

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
Arsenic' Lead, Cadmium, Zinc	Mine waste contaminated soil and mill tailings	Estimated 14,000 cu. yds.		Excavation, consolidation, and containment	All materials will be placed beneath a protective barrier on site.

2.2 Planning Section

2.2.1 Anticipated Activities

Continue excavation and consolidation of mine waste materials with placement beneath the protective barrier. Maintain erosion control features. Continue to monitor air and surface water.

2.2.1.1 Planned Response Activities

see above

2.2.1.2 Next Steps

see above

2.2.2 Issues

2.3 Logistics Section

N/A

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

N/A

2.6 Liaison Officer

N/A

2.7 Information Officer

2.7.1 Public Information Officer

N/A

2.7.2 Community Involvement Coordinator

N/A at this time

3. Participating Entities

3.1 Unified Command

N/A

3.2 Cooperating Agencies

EPA is working cooperatively with WA Dept. of Ecology and the Bureau of Land Management.

4. Personnel On Site

EPA OSC
Arcadis for PRP

5. Definition of Terms

N/A

6. Additional sources of information

6.1 Internet location of additional information/report

N/A

6.2 Reporting Schedule

The next POLREP will be submitted toward the end of project completion.

7. Situational Reference Materials

N/A