

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Carpenter Snow Creek - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: POLREP #3
Progress - Repository and Site Preparations
Carpenter Snow Creek
089X
Neihart, MT
Latitude: 46.9751143 Longitude: -110.6998538

To:
From: Steven Merritt, OSC
Date: 8/28/2014
Reporting Period: 8/18/2014 - 8/30/2014

1. Introduction

1.1 Background

Site Number:	089X	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	
Response Lead:	EPA	Incident Category:	
NPL Status:	NPL	Operable Unit:	OU 3
Mobilization Date:	8/11/2014	Start Date:	9/3/2013
Demob Date:		Completion Date:	
CERCLIS ID:	MT0001096353	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

CERCLA Time-Critical Removal Action

1.1.2 Site Description

The NPL Site is within the Neihart Mining District, approximately 50 miles southeast of Great Falls, Montana. The mine district was a relatively steady producer of silver, lead and zinc from its discovery in 1881 to the 1940s. Historic mining and milling operations generated substantial volumes of waste rock and mill tailings that remain within the Site and continue to release hazardous substance into the environment. In 1925, the Silver Dyke tailings dam failed due to an earthquake resulting in tailings being deposited along the length of Carpenter Creek. Erosion and subsequent re-deposition of the tailings along Carpenter Creek and erosion from the upper and lower tailings impoundments moved waste into the floodplains of Carpenter and Belt creeks at least as far as Monarch, MT, approximately 14 miles downstream.

The Site has been divided into three operable units (OU). This removal action included activities in OU 3, which contains the Silver Dyke mining complex including upper mine sites and tailings in Carpenter Creek to the confluence with Belt Creek. The three main areas focused on in the Removal Action were the upper and lower Carpenter Creek tailings, and the Silver Dyke tailings pile

1.1.2.1 Location

The Site is located on the northern flank of the Little Belt Mountains at elevations from approximately 5,100 feet Above Mean Sea Level (AMSL) along Belt Creek to 8,621 feet AMSL on Long Mountain. It is located in the southeastern end of Cascade County, Montana and primarily along Carpenter and Snow Creek and then along Belt Creek from the Town of Neihart extending downstream to Monarch, MT.

1.1.2.2 Description of Threat

Aquatic life surveys conducted in Carpenter Creek below the confluence with Sih-mem Creek, indicate populations of benthic invertebrates are severely impaired, and fish populations are absent. Investigations conducted by Montana Fish Wildlife and Parks and the EPA in 2010 and 2011 (FWP, 2011, 2012, and TechLaw, 2011, 2012) clearly indicate that metals contamination associated with ongoing contaminant releases impairs water quality and severely inhibits aquatic life in Carpenter Creek, and suggests that they are contributing to the impairment of aquatic life in Belt Creek below the confluence of Carpenter Creek.

Water quality in Carpenter Creek is poor throughout the drainage due to degrading influences from the

Carpenter Snow Creek Site. Creek waters are subject to active tailings erosion as well as metals contaminants from mine adits. There are general water quality standards exceedences for metals including arsenic, cadmium, copper, lead and zinc, that can be attributed in part to the erosion. Much higher exceedences of metals have been measured during storm events which are directly a result of erosion of the tailings. These metals inhibit aquatic life in the drainage.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Site investigations by the State and MT Operations office determined that approximately 35,000 cubic yards of tailings remain on the slopes of the No Name Creek valley. This was the location of the former tailings impoundment that failed and dispersed tailings throughout the Carpenter Creek floodplain.

Analyses of samples collected at the Site indicate the presence of high concentrations of heavy metals including zinc, cadmium and lead in waste and sediment. Routine run-off and high flows during spring snow melt continue to cause migration of the tailings materials from the Carpenter Creek and Silver Dyke tailings impoundment into the environment

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The objective of this removal action is to prevent continued releases from the estimated 35,000 cubic yards of tailings at the Silver Dyke tailings impoundment within No Name Creek drainage area. The action includes the following elements: (1) Removing the tailings from the hillside slopes and staging for disposal; (2) constructing an onsite repository, pending the repository decision; (3) placing the tailings in an onsite repository; (4) reclaiming/restoring removal area slopes. Designs have been developed.

2.1.2 Response Actions to Date

Week of 8.18.2014

- Completed staging area preparations, including road base, electrical and phone service connections.
- Received and installed the office trailer, storage box, and portable toilets at the staging area.
- Widened and graded the main haul road from the staging area up to the repository.
- Improved the access road from Carpenter Creek Road into the tailings area along No-Name Creek.
- Installed a 16" culvert where No-Name Creek crosses Carpenter Creek Road.
- Conducted clearing and grubbing on the repository footprint, creating a slash pile at the toe of the slope.
- Scraped, consolidated, and stockpiled all topsoil recovered from the repository footprint.
- Installed and improved erosion control measures throughout the disturbed areas of the Site.
- Began pushing common fill in the repository area from the top of the slope toward the bottom.
- Surveyor on site to provide staking of the repository footprint and perimeter roads.
- Diversion pipe to convey No-Name Creek around the tailings area was partially completed.
- Placed road base on Carpenter Creek Road just east of the staging area to reduce dust around cabins.
- Removal activities were hampered by an extensive precipitation event late in the week.

Week of 8.25.2014

- Managed erosion control, ponds and silt deposits following heavy precipitation over the weekend.
- Dozers begin opening up the repository and tracked loader completed consolidation of topsoil.
- Heavy excavator arrives on the repository and begins excavating the repository area.
- Haul trucks are used to transport excavated common fill to the base of the repository slope.
- Excavated nearly 9,500 cubic yards of common fill from the repository and stockpiled it at the bottom.
- Diversion pipe completed/installed beneath Carpenter Creek Road with discharge into Carpenter Creek.
- Diversion dam constructed and built with a spillway to prevent overtopping during storm events.
- Water truck fill area improved and established on Carpenter Creek for dust suppression efforts.
- Opened, widened, and graded the upper haul road to the bench on the west tailings slope.
- Consolidated and scraped tailings off the slope above the bench for easier load-out.
- Began consolidating tailings by dozer near the access road coming off Carpenter Creek Road.
- Conducted a Site walk with a potential restoration subcontractor to discuss revegetation options.

2.1.3 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
Tailings	solids		NA		onsite
	solids		NA		

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

Now that much of the site preparation activities have been completed, the 30-day comment period for the repository siting has concluded, and the AM amendment is pending signature, the anticipated work of moving tailings from the tailings area to the repository can begin in earnest.

2.2.1.2 Next Steps

- Receive two additional haul trucks plus operators at the site to facilitate a 5-truck hauling operation.
- Conduct surveys of the repository area to ensure excavation is meeting design depth.
- Procure revegetation and restoration services at the site to focus ERRS efforts on tailings and repository.
- Continue consolidation of the tailings near the access road at the tailings area.
- Develop access roads for the excavator along the west slope of the tailings area to facilitate removal.
- Begin hauling tailings from the tailings area to the repository.

2.2.2 Issues

None

2.3 Logistics Section

Beginning of Reporting Period:

1 Excavator with Thumb
1 Dozer
1 Track Loader
3 Articulated Dump Trucks
1 Grader/Blade

Heavy excavator arrived on 8.25.

Track Loader called off rent on 8.29.

4th haul truck arrived on 8.28. Will go on rent on Tuesday, 9.2.

5th haul truck and compactor arrived on 8.29. Will go on rent on Tuesday, 9.2.

Compactor arrived on site on 8.29. Will go on rent on Tuesday, 9.2.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$351,000.00	\$86,000.00	\$265,000.00	75.50%
Intramural Costs				
Total Site Costs	\$351,000.00	\$86,000.00	\$265,000.00	75.50%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

No information available at this time.

4. Personnel On Site

ERRS - 10

RM - 1

Foreman/Operator - 1

Haul Truck Driver - 3

Water Truck Driver / Laborer - 1

Excavator Operator - 2

Dozer Operator - 1

Grader/Loader Operator - 1

EPA - 1

OSC -1

TETRATECH - 2

STATE - 3
DEQ - 1
FWP - 2

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.

POLREP #3 Last Updated 9/2/2014