

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Pennsylvania Mine - Removal Polrep
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VIII

Subject: POLREP #1
Progress Report
Pennsylvania Mine

Montezuma, CO
Latitude: 39.5810980 Longitude: -105.8672337

To:

From: Paul Peronard, OSC
Martin McComb, OSC

Date: 8/3/2013

Reporting Period: July 18 - August 3, 2013

1. Introduction

1.1 Background

| | | | |
|----------------------------|-----------|--------------------------------|----------------|
| Site Number: | 08WQ | Contract Number: | various |
| D.O. Number: | various | Action Memo Date: | 6/19/2013 |
| Response Authority: | CERCLA | Response Type: | Time-Critical |
| Response Lead: | EPA | Incident Category: | Removal Action |
| NPL Status: | Non NPL | Operable Unit: | n/a |
| Mobilization Date: | 6/18/2013 | Start Date: | 7/18/2013 |
| Demob Date: | 10/5/2013 | Completion Date: | 10/1/2016 |
| CERCLIS ID: | 08WQ | RCRIS ID: | n/a |
| ERNS No.: | n/a | State Notification: | Yes |
| FPN#: | n/a | Reimbursable Account #: | n/a |

1.1.1 Incident Category

Mining and Mineral Processing / Smelting.

1.1.2 Site Description

1.1.2.1 Location

The Pennsylvania Mine is located in Summit County, Colorado, roughly 8 miles east of the Keystone Ski Resort in the Front Range of the Rocky Mountains. The mine is approximately one-quarter mile south of Peru Creek on the northwest slope of Decatur Mountain and on the south side of the east-west trending Argentine Valley. It is roughly 3.5 miles upstream of the confluence of Peru Creek with the Snake River. The Snake River flows into Dillon Reservoir approximately 9 miles downstream of its confluence with Peru Creek. Dillon reservoir is a major municipal water supply for the Denver metropolitan area.

The mine is located in alpine terrain characterized by steep-sided glaciated valleys and unvegetated, rocky upland ridges and peaks. Elevations range from 10,900 feet at the lowest level of the mine workings, to 11,130 feet at the level F adit and 11,450 feet at the level C adit. The mine is at timberline and weather conditions are characterized by short summers and long, snowy winters. The average snowfall at the nearby Keystone Ski Resort is approximately 230 inches.

The historic workings of the Pennsylvania Mine are found on both public and private land. Public land at the Site is managed by the United States Forest Service (USFS) and is part of the White River National Forest. There are several mining claims and other unimproved private property at and near the Site. The nearest private residence is located approximately two miles west of the Pennsylvania Mine Site.

In 2010, EPA delineated and prioritized the waste piles located near the level C and F adits based on the concentration of heavy metals in the soil. Approximately 9,200 ft³ or 2% of the waste at Level F and 124,000 ft³ or 48% of the waste near Level C are located on property owned by the USFS. Highly contaminated sediments can also be found both in Peru Creek and in several washes that drain the Site into the creek.

The area is a popular year-round recreational destination. Recreational activities include off-highway driving, camping, hiking, biking, running, cross-country skiing and back-country skiing.

1.1.2.2 Description of Threat

Extensive sampling and monitoring data have been collected at the Pennsylvania Mine since the 1980s. These data show that the mine is one of the largest, if not the largest, anthropogenic source of dissolved heavy metals in the Snake River watershed. Exceedances of Colorado's water quality standards in the vicinity range from 20 to 50-fold for cadmium, manganese, lead, and zinc, 120-fold for iron and 300-fold for aluminum.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Pennsylvania Mine was initially developed in 1879. It produced gold, silver, lead, copper and zinc and had its biggest production year in 1893 when it shipped 7,000 tons of ore. The mine was developed on six levels, known as A, B, C, D, E and F with F being the lowest level. Adits were constructed at levels C and F. The mine continued regular operations until 1908 and was then worked intermittently until the mid-1940s when it was abandoned.

Since the mine was abandoned, metals-laden effluent has flowed from the level F adit, down a steep channel and directly into nearby Peru Creek. In addition to this acid mine drainage, significant waste and tailings deposits remain on the surface near both the level C and level F adits. These deposits are often eroded into the creek during large runoff events.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

EPA's removal action addresses issues above and below ground and will be carried out in partnership with the Colorado Department of Reclamation and Mining Safety (DRMS) under EPA's time-critical removal authorities as defined in the 40 CFR 300.

Due to the complexity of the project and the typically short summer construction season, Site work will be sequenced over several years of construction. The following major activities will take place on Site during the 2013 construction season:

- improving Peru Creek Road up to the mine (EPA)
- managing drainage at the portal (EPA)
- consolidating mine waste (EPA)
- underground rehabilitation and investigation (DRMS)

2.1.2 Response Actions to Date

ERRS constructed three sediment ponds outside the Level F portal. ERRS then diverted the portal's discharge around the waste pile into the sediment ponds. ERRS also developed the infrastructure to manage waste and discharge that will be generated once underground activities begin.

ERRS began improving Peru Creek Road up to the mine by:

- controlling traffic
- installing culverts
- refurbishing rolling drainage dips across the road
- cleaning out drainage ditches
- resurfacing the road with road base

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

See the Enforcement Addendum found in the Action Memorandum.

2.1.4 Progress Metrics

To date, approximately 1.6 of 3.8 miles (or ~40%) of Peru Creek Road have been improved. This work has utilized 28 tons of 2" rock and 1420 tons of road base.

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

During the next Operating Period (August 5 - 17, 2013):

- ERRS will continue to maintain traffic control and improve Peru Creek Road up to the mine.
- ERT will install a Viper monitoring station for pH.
- START will prepare data that they collected on deposits in the drainage below the mine for the OSC's review and develop a Site-specific XRF calibration curve.

2.2.1.2 Next Steps

During the week of August 19, 2013:

- DRMS will begin underground rehabilitation and investigation activities.
- ERRS will begin managing the mine's discharge and consolidating the waste piles at Level F.
- START will begin to provide Site documentation and Viper support.

2.2.2 Issues

The OSC has prepared a letter and associated briefing materials for review by the State Historical Preservation Officer (SHPO) regarding EPA's plans to remove a structure that is resting on the main waste pile outside the level F portal.

2.3 Logistics Section

Not Applicable.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Not Applicable.

2.5.2 Liaison Officer

Not Applicable.

2.5.3 Information Officer

Not Applicable.

3. Participating Entities

3.1 Unified Command

Not Applicable.

3.2 Cooperating Agencies

Colorado Department of Reclamation and Mining Safety
Colorado Department of Public Health and Environment
Summit County
United States Forest Service

4. Personnel On Site

2 OSCs (rotating on-site coverage during this operating period)
7 ERRS Contractors
3 START Contractors (on-site for 1-day during this operating period)

5. Definition of Terms

DRMS: Colorado Department of Reclamation and Mining Safety
ERRS: Emergency and Rapid Response Services (EPA Contract)
ERT: Environmental Response Team (EPA Division)
SERAS: Scientific, Engineering, Response and Analytical Services (EPA Contract)
SHPO: State Historical Preservation Officer
START: Superfund Technical Assistance and Response Team (EPA Contract)

6. Additional sources of information

6.1 Internet location of additional information/report

http://www.epaosc.org/site/site_profile.aspx?site_id=8722

6.2 Reporting Schedule

The next PolRep will be distributed the week of Aug 19, 2013.

7. Situational Reference Materials

Not Applicable.