

United States Environmental Protection Agency
Region IX
POLLUTION REPORT

Date: Monday, September 29, 2008

From: Michelle Rogow

Subject: Processing Area Stabilization Conducted
Altoona Mine Site
Shasta -Trinity National Forest, Castella, CA
Latitude: 41.1367000
Longitude: -122.5475000

POLREP No.:	12	Site #:	09PC
Reporting Period:	9/22/08-9/28/08	D.O. #:	9015
Start Date:	7/8/2008	Response Authority:	CERCLA
Mob Date:	7/7/2008	Response Type:	Time-Critical
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	EP-W-07-022
RCRIS ID #:			

Site Description

The Altoona Mine is an abandoned mercury mine located approximately 11 miles (as the crow flies) west of the town of Castella in Trinity County, California. The approximate geographic coordinates of the mine are 41 E 8'12.7" north latitude, 122 E 32'51" west longitude. The mine is located on private land within the Shasta-Trinity National Forest. The Shasta-Trinity National Forest is administered by the United States Forest Service (USFS).

The Altoona Mine site is comprised of an abandoned and backfilled vertical mine, with an adjacent ore processing area, former retort areas, and waste rock and tailings piles. There are collapsed remains of wooden structures at the ore processing area, and other collapsed wooden structures are scattered about the periphery of the mine site.

The mine was comprised of six levels of horizontal shafts which branch out from the main vertical shaft, and two levels of horizontal shafts which branch out from the second vertical shaft. The eight horizontal shafts comprise a total of over 10,000 linear feet.

The mine is located on an escarpment which faces southeast. The ore processing area is located immediately southwest of the surmised location of the main adit, and tailings piles are located southeast (downhill) of the processing area. The base of the tailings piles is approximately 80 feet below the elevation of the processing area.

Water from the mine flows from under the tailings piles, down Soda Creek to the east fork of the Trinity River, which is approximately one mile to the southeast of the mine. As no flowing water was found immediately upgradient of the mine, the water source of Soda Creek is assumed to be an underground source, which likely flows through mine passageways.

Current Activities

9/22/08 – EPA:3, USCG: 1, ERRS: 16, START: 4, Aramark: 3. Tailings and waste rock were excavated, hauled into the repository and compacted in alternating lifts. ERRS continued work re-excavating the southern portion of the stream, where confirmation samples were found to still have high concentrations. Approximately 3,500 cubic yards of tailings and waste rock and 394 cubic yards from the USFS stream were placed in the repository. Sulfur for stabilization was picked up in Anderson. More hosing was delivered for the re-routing of the stream on USFS lands. START set up PDRs, collected 17 confirmation samples in the USFS stream area and 6 composite samples of the stockpile topsoil area. START conducted field analysis of 24 samples with the XRF. PST assisted with site safety, security and sample collection and preparation. PST also assisted the OSC with logistics. RPM Kloss and SAM Jurist arrived on site and were given a tour by the OSC. One ERRS demobilized and was replaced with another. One START mobilized and another demobilized at the end of the day.

9/23/08 – EPA:3, USCG: 1, ERRS: 16, START: 3, USFS: 1, Aramark: 3. Tailings continued to be

excavated, hauled into the repository and compacted in alternating lifts. ERRS continued work in the USFS portion of the stream, moving northward to the large area of tailings which is adjacent to the old processing area and trailer. USFS OSC Shipley was on site to assist with oversight of excavation on USFS lands. The full scale stabilization of the processing area wastes (with concentrations between 5,000 – 25,000 mg/kg) began with approximately one half of the area. Sulfur and Portland cement was added to approximately 80 cubic yards of material and mixed thoroughly. Then water was added until the mix was almost soupy. The material was spread out to dry and cure. All work was done in level C due to the concentrations of mercury in the area. Approximately 2,950 cubic yards of tailings and waste rock and 770 cubic yards from the USFS stream were placed in the repository. START set up PDRs, conducted lumex monitoring and collected air samples in during the stabilization of high concentration mercury materials. START collected 8 confirmation samples in the USFS stream area. START conducted field analysis of 7 samples with the XRF. PST assisted with site safety, security and sample collection and preparation. RPM Kloss and SAM Jurist were on site RPM Kloss assisted with the stabilization full scale and SAM Jurist met with the OSC regarding post removal monitoring and assessment. More cement was delivered to the site, but not enough to complete treatment, so an additional load was delivered at the end of the day.

9/24/08 – EPA:4, USCG: 2, ERRS: 16, START: 3, USFS: 1, Aramark: 3. Tailings were excavated, hauled into the repository and compacted in alternating lifts. The semi-hardened stabilized material was moved from the processing area to the repository and was flattened out for further curing. START collected samples underneath the stabilized material which revealed only one location that needed to be re-treated when the other half of the area was stabilized. ERRS continued work excavating the central portion of the USFS stream, diverting water around to de-water the stream area. USFS OSC Shipley was on site to assist with oversight of excavations on USFS lands. A 325 excavator was mobilized and began cleanup of areas in which tailings had been removed and native grade exposed. Approximately 3,950 cubic yards of tailings and waste rock and 620 cubic yards from the USFS stream were placed in the repository. START set up PDRs and conducted Lumex monitoring of the processing area and quicksilver area. START collected 7 confirmation samples in the USFS stream area and 20 samples from the Mine Waste Area (including the processing area). Sampling in the processing area was conducted in Level C due to mercury concentrations in the area. START conducted field analysis of 17 samples with the XRF. PST assisted with sample collection and preparation, and picked up food for camp with Aramark. PST also assisted the OSC with camp and staffing logistics. RPM Kloss and SAM Jurist demobilized from site with air samples to ship and soil samples to drop off at the Richmond Lab. AD Meer arrived on site and was toured around by the OSC.

9/25/08 – EPA:2, USCG: 2, ERRS: 16, START: 4, USFS: 1, Aramark: 3. Tailings from the center of the tailings area were excavated and hauled into the repository and compacted in alternating lifts. Stabilization of the remaining high concentration material in the processing area was conducted. The wet material was relocated to the repository and spread out for curing in place. In addition, re-excavation was conducted of the area in which quicksilver was found. This work was conducted in Level C. ERRS continued work excavating the central portion of the stream near the cemented tailings piles with oversight from USFS OSC Shipley. Approximately 2,730 cubic yards of tailings and waste rock and 591 cubic yards from the USFS stream were placed in the repository. START set up PDRs, collected 10 confirmation samples in the USFS stream area and 15 samples from the Mine Waste Area. START conducted field analysis of 33 samples with the XRF. An additional START arrived on site. A new USCG PST arrived on site and was briefed in by the outgoing PST. AD Meer met with the OSC and demobilized from the Site. Water truck clutch had issues and later a tire popped and had to be replaced.

9/26/08 – EPA:1, USCG: 1, ERRS: 17, START: 4, USFS: 1, Aramark: 3. Once data from the processing area was received, the processing area (lower concentration wastes) were excavated and hauled into the repository and compacted in alternating lifts. ERRS continued work excavating the central portion of the stream near the cemented tailings piles and work began on the area of the trailer. USFS OSC Shipley and OSC Rogow conferred on sampling data and excavations. Approximately 1,790 cubic yards of tailings and waste rock and 1,754 cubic yards from the USFS stream were placed in the repository. A new ERRS arrived on site and screen plant operations resumed. START set up PDRs, collected 26 confirmation samples in the USFS stream area and 6 from the Mine Waste Area. START conducted field analysis of 30 samples with the XRF. PST assisted with site safety and sample collection and preparation. Outgoing PST demobilized from Site. Broken water truck was replaced. Diesel was delivered. 35 ton haul truck was repaired.

9/27/08 – EPA:1, USCG: 1, ERRS: 17, START: 4, Aramark: 3. Material from the processing area continued to be excavated and hauled into the repository and compacted in alternating lifts. ERRS also began work on the west side slopes above the waste rock and processing areas. ERRS continued work excavating the central portion of the stream near the cemented tailings piles and conducted re-excavation of the lower portion of the stream. Approximately 2,090 cubic yards of tailings and waste rock and 1,360

cubic yards from the USFS stream were placed in the repository. Screen plant operations continued and the D8 was decontaminated and moved to the screen plant to assist with movement of material. START set up PDRs, collected 34 confirmation samples and 5 delineation samples in the USFS stream area. START conducted field analysis of 42 samples with the XRF. PST assisted with site safety, security and sample collection and preparation. PST also assisted the OSC with logistics. Site was secured at the end of the day.

9/28/08 –Aramark: 3. Day off.

Planned Removal Actions

1. Fill repository with mine waste
2. Sample to confirm cleanup goals
3. Cap repository
4. Restore site and repository area

Next Steps

Excavate contaminated material. Fill repository with excavated material. Complete excavation in the stream channel. Find the end of the tailings!

Key Issues

1. The size of the repository
2. Defining the boundaries of contamination
3. Weather cooperation
4. Time

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