

United States Environmental Protection Agency
Region IX
POLLUTION REPORT

Date: Monday, September 13, 2010

From: Tom Dunkelmann

Subject: Asbestos/Tire Removal Final POLREP

Yerington Anaconda Mine
102 Burch Dr., Yerington, NV
Latitude: 38.9988000
Longitude: -119.1911000

POLREP No.:	4	Site #:	09GURV03
Reporting Period:	6/12/2010-9/9/2010	D.O. #:	022-9067
Start Date:	5/11/2010	Response Authority:	CERCLA
Mob Date:	5/10/2010	Response Type:	Time-Critical
Demob Date:	9/9/2010	NPL Status:	Non NPL
Completion Date:	9/9/2010	Incident Category:	Removal Action
CERCLIS ID #:		Contract #	EP-W-07-022
RCRIS ID #:			

Site Description

The Yerington/Anaconda Mine Site is an abandoned copper mining, milling, and processing facility. It covers 3,468 acres and is located two miles north of Yerington, Nevada.

The Anaconda Copper Company operated the mine from 1952 to 1978 as a low-grade copper mine and milling operation. During this period, a total of 350 million tons of ore and waste rock were mined from the Yerington Pit, and 189 tons of waste was generated.

In 1977 the Atlantic Richfield Company acquired Anaconda and assumed its operations at the Site. In June 1978, Atlantic Richfield terminated operations at the Site. In or about 1982, Atlantic Richfield sold its interests in the private lands within the Site to Don Tibbals, a local resident, who subsequently sold his interests with the exception of the Weed Heights community to Arimetco, Inc., the current owner. Arimetco operated a copper recovery operation from existing ore heaps within the Site from 1989 to November 1999. Arimetco has terminated operations at the Site and is currently managed under the protection of the United States Bankruptcy Court in Tucson, Arizona.

The site consists of an office/process facility, an open-pit mine, an overburden dump, sulfide and oxide stockpile dumps, leach pads, tailings and waste rock piles, and evaporation ponds. Naturally occurring radioactive materials including uranium, thorium, and radium, are present at the site and have become concentrated in some areas due to mining processes.

To date, EPA has conducted five separate removal actions at the site. An initial removal action was conducted at the site in February 2006. This removal action consisted of two phases of work. The first phase involved the removal of approximately 120 PCB-containing transformers. All transformers at the site were sampled for PCBs. Those transformers found to have greater than 50 ppm were removed and transported to the Clean Harbors facility in Coffeerville, KS for disposal.

The second phase of this removal action involved addressing fugitive dust at the site. This work, which was conducted from April 5 to May 12, 2006, primarily involved placing a soil cap over approximately 75 acres of exposed sulfide tailings. The cap was constructed using onsite materials, referred to as vat leach tailings. During the capping work, the EPA Environmental Response Team (ERT) conducted air monitoring and sampling. Results of this monitoring and sampling effort indicated that airborne concentrations of metals and radioactive isotopes were either at non-detectable levels or were below levels that would cause health concerns. EPA also applied a soil sealant to other areas of the site, approximately 20 acres, that could possibly be contributing to fugitive dust.

EPA conducted a second removal action at the site from August to October 2006. This removal action addressed fluids management problems associated with the Arimetco heap leach system. These problems included insufficient fluids storage capacity and leaking pond liners. EPA conducted the following activities: construction of a 4-acre evaporation pond, construction of an 1,100 foot french drain intended to capture

heap draindown before it enters the Megapond, and relining of Slot Pond #2.

EPA conducted a third removal action at the site in October 2007. This removal action addressed the Bathtub Pond of the fluids management system. The liner for this pond had been torn badly by windstorms during the spring and summer of 2007, and heap leach fluids were being released directly to the subsurface. EPA removed the sediments and liner from the pond, backfilled and compacted the pond area, and installed a french drain to collect the heap leach fluids draining down from the adjacent heap.

In August 2007, EPA also conducted two separate removal assessments. One was a radiological assessment of the Process Area and one was a subsurface assessment of the heap leach ponds.

In September 2008, EPA completed a fourth removal action. The goal of this removal action was to complete stabilization of the Arimetco heap leach fluids management system. This project included closure of the following heap leach ponds: South Slot Pond, Plant Feed Pond, Old Raffinate Pond, New Raffinate Pond and the Megapond. Pond closure consists of removing sediment from the pond, removing the liner, and in some cases backfilling the pond. In the case of the the Old Raffinate Pond, kerosene contaminated soils exist beneath the pond to a depth of more than 20 feet. These contaminated soils will were excavated and bioremediated onsite. Bioremediation of these kersosene contaminated soils was completed in June 2010. EPA also relined the Phase I/II Pond and repair the VLT Pond, as both of these ponds were still needed to capture heap leach draindown fluids. EPA will also implemented measures to reduce bird mortalities associated with these ponds, including installation of propane bird-scare cannons.

Current Activities

9/9/2010. EPA-1, ERRS-1. EPA and ERRS remobilized to the site for one day to remove a small amount of hazardous waste, that had previously been collected and segregated by EPA. The hazardous waste consisted of small waste containers that had been collected from various parts of the site. The hazardous waste was transported to the 21st Century EMI facility in Fernley, NV

6/12/2010 - 7/9/2010. ERRS-1. From 6/11/2010-7/72010 ERRS conducted an evaporation pilot test to determine whether active evaporation techniques could be effectively employed in conjunction with passive solar evaporation in order to reduce heap leach fluid volumes present in the EPA evaporation pond. This included testing two separate evaporative systems.

Bubbling System. A bumbling system was constructed of 500 feet of 1.5 inch PVC pipe, that had 5/16 inch holes drilled every 10 feet. Two 185 cfm air compressors were used to force air through the system, creating bubbles which agitated the surface of the liquid, thereby enhancing evaporation and in theory preventing salt build up. This system was run for approximately one week. The system was shut down as it appeared that it was actually increasing salt build up on the surface of the pond.

Misting System. This system was run from 6/11-7/72010. The system appeared to function well and promote enhanced evaporation of fluids. Operation of the system created a fine cloud of salt particles. These particles settled back into the pond. Operation of the system was stopped periodically due to wind, to prevent migration of the salt particles outside of the pond.

During operation of the evaporative system, the fluid level of the pond was reduced by approximately 1.46 feet. This corresponds to roughly 1.9 million gallons of fluid evaporated. EPA could not determine how much of this was due to solar evaporation versus operation of the evaporative system.

Planned Removal Actions

EPA conducted the following removal activities:

Asbestos removal of the Anaconda Mine office, offsite disposal of the asbestos containing material, demolition of the mine office, onsite landfilling of the demolition debris,

Removal and radiological screening of more than 300 large truck tires. The tires were sent for offsite disposal/re-use.

Conducting a repair to the heap leach fluids management system, in the vicinity of Slot Pond #1.

Performance of an evaporation pilot test.

Removal of a small containers of hazardous waste left onsite.

Next Steps

Removal Action is complete.

Key Issues

Evaporation of fluids from the EPA evaporation pond is causing rapid salt build up in the pond. This salt build up is significantly reducing capacity of the pond. This issue will likely need to be addressed within the next year.

response.epa.gov/YeringtonAnacondaMine