

United States Environmental Protection Agency
Region IX
POLLUTION REPORT

Date: Wednesday, February 9, 2011

From: Tom Dunkelman

Subject: Atlantic Richfield Removals - Final POLREP

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

POLREP No.:	3	Site #:	09GUBB03
Reporting Period:	11/29-12/13/2010	D.O. #:	
Start Date:	10/20/2010	Response Authority:	CERCLA
Mob Date:	10/20/2010	Response Type:	Time-Critical
Demob Date:	12/13/2010	NPL Status:	Non NPL
Completion Date:	1/20/2011	Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
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.

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 Coffeyville, 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.

EPA completed a fourth removal action at the site in September 2008. 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 Old Raffinate Pond, kerosene contaminated soils exist beneath the pond to a depth of more than 20 feet. These contaminated soils will be excavated and bioremediated onsite. Bioremediation of these kerosene 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.

EPA conducted a fifth removal action at the site from May to July 2010. This removal action included removal of asbestos from the Anaconda Mine office, offsite disposal of the asbestos containing material, demolition of the mine office, onsite landfilling of the demolition debris; removal, radiological screening and offsite disposal of more than 300 large truck tires; conducting a repairs to the heap leach fluids management system; performance of an evaporation pilot test; and removal of small containers of hazardous waste left onsite.

Current Activities

11/29-12/13/2010. All activities related to the three removal actions were completed during this period. START and EPA personnel were onsite to oversee cleanup activities. Activities during the week of 12/6 largely focused on demob of personnel and equipment. All personnel demobed from the site by 12/13. Metrics for the project include the following:

- 247 truckloads (6,097 tons) of radiological contaminated soil were transported to the U.S. Ecology facility in Grand View, ID.
- 18.3 acres were capped in the Thumb Pond (using 33,900 cubic yards of Vat Leach Tailings material).
- 8.2 acres were capped in of Sub-Area A (using 31,886 cubic yards of Vat Leach Tailings material)
- Approximately 20,799 feet of transite pipe was removed. The majority of this was landfilled onsite, with approximately 5,300 ft of pipe and 88 cubic yards of pipe fragments disposed offsite at the U.S. Ecology facility in Grand View, ID.
- There were two days over the course of the project where work was stopped due to wind over 25 MPH; however, there were no exceedances of the PM 10 triggers identified in the work plans.

A final site walk was conducted on 1/20/2011, involving personnel from EPA, Atlantic Richfield, Brown and Caldwell and USA Environmental. It was agreed by the parties present that the work had been conducted in compliance with the Administrative Order on Consent. Two outstanding issues were identified and these are discussed in the Key Issues section of this POLREP.

Planned Removal Actions

EPA and the Atlantic Richfield Company (ARC) signed an Administrative Order on Consent under which ARC agreed to conduct four removal actions: removal of electrical hazards, removal of radiological soil contamination, removal of transite pipe and capping of two areas (Thumb Pond and Sub Area A). The electrical hazards removal had previously been completed and the other three removal actions were deemed to be completed based on the final site walk conducted on January 20, 2011. EPA and the START contractor provided field oversight of the removal actions.

Next Steps

All work on the four removal actions has been completed.

Key Issues

There are two outstanding issues. One has to do with posting of appropriate signage regarding the presence of radiological contamination. EPA will coordinate with ARC and the State of NV to ensure that the appropriate signage (if any) is posted. The second issue has to do with the possible application of a soil sealant over the areas where radiological soil contamination was removed. ARC did not conduct a post-excavation radiological survey. This survey was not required by the Administrative Order, based on the thought that additional characterization would be conducted on this area during the Remedial Investigation. As such, EPA believes that application of a soil sealant until such time that the RI is completed may be warranted. ARC has already submitted a work plan regarding soil sealant application for other parts of the site, and it was agreed that soil sealing of the radiological excavation area could be addressed in conjunction with soil sealing in other parts of the site.

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