

United States Environmental Protection Agency
Region IX
POLLUTION REPORT

Date: Friday, October 5, 2012

From: Tom Dunkelman

Subject: FINAL POLREP - VLT Pond Removal Action

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

POLREP No.:	2	Site #:	09GURV08
Reporting Period:	9/17-10/5/2012	D.O. #:	9008
Start Date:	9/4/2012	Response Authority:	CERCLA
Mob Date:	9/4/2012	Response Type:	Time-Critical
Demob Date:	10/5/2012	NPL Status:	Non NPL
Completion Date:	10/5/2012	Incident Category:	Removal Action
CERCLIS ID #:		Contract #	EP-S9-12-01
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. Arimetco operated a copper recovery operation from existing ore heaps within the Site from 1989 to November 1999. Arimetco terminated operations and filed bankruptcy.

The site consists of a 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. 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.

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. 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. 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 September 2008, EPA completed a fourth removal action. 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. 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 were 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. .

In May and June 2009, EPA conducted a fifth removal action. Asbestos containing material in the Anaconda Mine Office was removed and disposed of offsite. Following removal of the asbestos, the building was demolished and placed in an onsite construction debris landfill. A tire pile, consisting of more than 300 large tires, was screened for radioactive contaminants and the tires were sent offsite for disposal/re-use.

On April 21, 2009, 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 action was completed in advance of the other actions. From 10/20/2009-12/13/2010, all activities related to the remaining three removal actions were completed by ARC. START and EPA personnel were onsite to oversee cleanup activities.

On September 5, 2012, EPA mobilized to the site to conduct an additional removal action. This removal action is being funded by the Atlantic Richfield Company and Quaterra Resources (the current owner of the property), under separate agreements with EPA. This removal action will include relining the VLT heap leach pond and making repairs to certain areas of the heap leach perimeter ditch system.

Current Activities

9/17-9/22. ERRS-8, EPA-1. ERRS continued prepping the VLT sub-base for liner installation. This included final shaping of the sub-base and compaction. A geotechnical engineer was onsite 9/21 to conduct compaction testing of the VLT pond sub-base. The VLT pond anchor trench was also installed.

9/24-9/29. ERRS-8, EPA-1, START-1, Northwest Linings-7. Sub-contracted liner crews arrived onsite 9/25 and initiated liner work on the VLT pond. This included installation of the secondary liner, geocomposite material and primary liner. By 9/29, all three layers of the lining system were in place. The START engineer was onsite to observe and document the liner work and leak testing. ERRS crews provided support to the lining crew, installed the VLT pond leak detector piping and also initiated repairs Areas 2,3, and 4 of the heap leach perimeter ditches.

10/1-10/5. ERRS-8, EPA-1, Northwest Linings-7. Liner crews completed installation of the VLT pond lining system. The berm separating the VLT sediment pond was completed. All repairs to the perimeter ditch system were completed. These included patching the liner in Area 1, removing salt, patching the liner and placing perforated pipe and gravel in Area 2, placing new liner and making flow improvements in Area 3, and patching the liner, rebuilding the weir and making flow improvements in Area 4. On 10/2 OSC Dunkelman conducted a site walk through with Quaterra and Brown and Caldwell personnel. Surveyors were onsite 10/5 to conduct a final survey to be used for as-built drawings. On 10/5 all personnel demobilized from the site.

Planned Removal Actions

Remove old liner from VLT pond;
Regrade and compact pond sub-grade;
Install new double liner system, with leak detection;
Make necessary repairs to certain segments of the heap leach perimeter ditch system;

Next Steps

EPA and ERRS demobilized from the site on 10/5.

Installation of a flow monitoring device for the VLT pond, leak detector indicator and final electrical connections will occur over the next two weeks.

START will prepare a final report, including as-built drawings, QA/QC summary from liner installation and recommendations for operation of the VLT pond.

Key Issues

This removal action was funded by two private companies - Quaterra Services and the Atlantic Richfield Company. There was excellent communication and cooperation throughout the project.

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