

FORMER ANACONDA MINE SITE—Yerington, NV

Mining Oversight and Accountability Commission
Nevada Division of Environmental Protection
September 26, 2012



Brief History of Mining Activity

- q 1918. Copper mining activity began as the Empire Nevada Mine.
- q 1952 – 77. Anaconda copper mining operations on BLM and private land. Atlantic Richfield Company acquires Anaconda but ceased mining operations in 1978.
- q 1989. Arimetco acquires the private property and conducts mining and re-mining on-site using heap leach pads.
- q 2000. Arimetco abandons the site in bankruptcy.

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Oversight of Environmental Clean-up

- q 2000. NDEP takes immediate action to manage heap leach fluids and abandoned chemicals.
- q 2002–2004. EPA, NDEP and BLM regulate site issues jointly under an MOA and agreement with Atlantic Richfield Co.
- q 2004. NDEP requested EPA to act as lead agency.
- q 2005. EPA issues Unilateral Order to Atlantic Richfield Co. under CERCLA 106 authority (Superfund). Site divided into 8 Operable Units.

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CERCLA (Superfund) Overview

Superfund program has two components:

- q Emergency Response/Removal Action Program
 - § Short-term, immediate hazards
 - § Limited funding, NPL listing not needed
- q Remedial Program
 - § Detailed investigations
 - § Analysis of alternatives
 - § Long-term remedy selection
 - § NPL listing required if remedy is fund financed
 - § 10% State cost share if fund financed

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Responsibility for Investigation/Clean-up

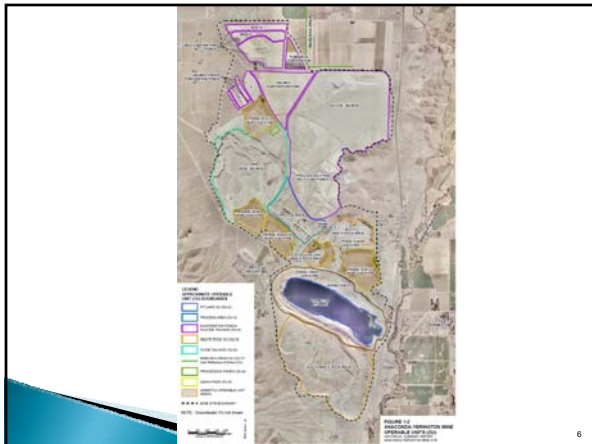
Atlantic Richfield Co.:

OU1 Site-wide Groundwater
OU2 Pit lake
OU3 Process areas
OU4 Evap. Ponds/sulfide tailings
OU5 Waste rock areas
OU6 Oxide tailings
OU7 Wabuska drain

EPA:

OU8 Arimetco heaps/fluids

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Example Heap Leach Pad and Pond



Phase IV Slot Pond and Heap Leach Pad (2008)

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Interim Site Work Completed

- q NDEP Activities
 - § Pumpback well system, Arimetco fluids management, "red dust" capping, drum removal, electro winning fluids removal
- q EPA Activities
 - § Radiological assessments, PCB transformer removal, fugitive dust source capping, closure of Arimetco ponds and construction of new pond, demolition of Anaconda administration, Arimetco Remedial Investigation/Feasibility Study
- q Atlantic Richfield Co. Activities
 - § Evaporation ponds capping, removal of radiological threats in Anaconda process areas, O&M of Arimetco fluids management, removal of transite pipe and electrical hazards

Focus of current site investigations

Atlantic Richfield Co.:

OU1 Site-wide Groundwater

- ❑ 265 monitoring wells installed.
- ❑ Off-site contamination with Uranium has been shown.
- ❑ Domestic well monitoring program includes 163 wells.
- ❑ Bottled water available to homes with uranium >25 micrograms/liter.
- ❑ Irrigation wells near the site taken out of service in 2009.

EPA

OU8 Arimetco Heaps/fluids

- ❑ ARC responsible for fluids O&M, repairs needed.
- ❑ 4 acre evaporation pond built for fluids, filling with solids
- ❑ Feasibility study completed in 2012 comparing alternative remedies.
- ❑ Cost of closure of heaps and long-term management of fluids estimated at \$56 million.

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Potential for Re-mining

- q Quaterra/Singatse Peak Services (SPS) acquired former Arimetco property in April 2011, initiated exploration activity.
- q Protected from CERCLA liability as long as "reasonable steps" taken to prevent releases
- q Re-mining would likely involve new ore, but may also include re-processing of some tailings, heaps and waste rock.
- q Reclamation of heaps and tailings may not make sense if material is to be re-processed.

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Potential for Re-mining

- q NDEP and EPA negotiated with Atlantic Richfield Co. and SPS to voluntarily fund needed improvements to the fluid management system.
- q Agreement recently finalized, work is underway to:
 - § Re-line a pond and repair perimeter drains; and
 - § Study solids management options implement measures to provide at least 5 years of capacity.
- q Action on EPA Feasibility Study placed on hold pending re-mining evaluation.
- q Atlantic Richfield Groundwater studies continue (OU1)

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Should the site be listed on the NPL?

In general:

- § Cooperative efforts are more efficient.
- § Use of enforcement authority has also been effective.
- § NPL listing is an option of last resort.

At the Anaconda-Yerington site:

- § Critical site issues are being addressed, e.g. groundwater, fluids management.
- § Reclamation of Arimetco heaps could conflict with re-mining.
- § A reasonable period of time (3-5 yrs) is needed to verify mineral reserves and attract investment.

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Summary

- q Atlantic Richfield Co. remains responsible for investigation and cleanup of the site, except for Arimetco heap leach pads.
- q Significant progress has been made in investigating and addressing environmental concerns and work is on-going.
- q Recent voluntary agreements with ARC and SPS fund improvements to fluid management to provide 5yrs+ capacity.
- q These improvements allow time for mineral reserves to be proven and potential re-mining scenarios to be evaluated.