

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Quivira Mines - Red Water Pond Road - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IX

Subject: POLREP #3
Removal of Soil Contaminated with Radium-226 from Quivira Mine Road
Quivira Mines - Red Water Pond Road
NNSFN0905492/ QM
Coyote Canyon, NM
Latitude: 35.6660000 Longitude: -108.5025000

To:
From: Mark Ripperda
Date: 9/13/2013
Reporting Period: 6/1/2012 - 9/13/2013

1. Introduction

1.1 Background

Site Number:	09QM	Contract Number:	
D.O. Number:		Action Memo Date:	8/21/2012
Response Authority:	CERCLA	Response Type:	PRP Oversight
Response Lead:	PRP	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	9/1/2012	Start Date:	9/1/2012
Demob Date:	11/15/2012	Completion Date:	4/30/2013
CERCLIS ID:	NNSFN0905492	RCRIS ID:	
ERNS No.:		State Notification:	Navajo Nation
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Time Critical Removal Action - Interim Actions

1.1.2 Site Description

The site is a closed uranium mine located within the Navajo Nation.

The mine sites were operated by Kerr-McGee and Quivira Mining Company. Rio Algom Mining LLC (RAML) is responsible for conducting the removal action. Operations included exploration and development of two underground mines. Ore was transported to the Quivira Ambrosia Lake facility for milling approximately 43 miles southeast of CR1 and CR1E. Production operations ceased in 1983, and all surface structures were subsequently demolished and removed. Sediment from on-site ponds was excavated and disposed in mine shafts and ventilation raises. Waste piles at each site were covered with a minimum of 1 foot of soil and seeded with a local seed mix recommended by BIA.

Under an EPA administrative order on consent (AOC), Rio Algom initiated an interim removal action to secure the two mine sites and prevent migration of contaminants off site on October 5, 2010.

1.1.2.1 Location

The Quivira Church Rock Mines 1 (CR1) and 1 East (CR1E) are located approximately 16 miles northeast of Gallup, New Mexico, in McKinley County. The site is in the Church Rock Chapter of the Navajo Nation Reservation – EPA Region IX

1.1.2.2 Description of Threat

The media is soil and the contaminant of concern is radium-226. Contaminated soil at the site poses a potential risk to the nearby residents.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Removal Site Evaluation (RSE) shows that the Red Water Pond Road (RWPR) was constructed with mine waste rock and was contaminated with concentrations of radium -226 (Ra-226) above the residential risk goal. The Red Water Pond Road is the subject of this removal action. In addition, the RSE showed that the mine areas contain approximately 550,000 cubic yards of contaminated soil. The contamination at the mine areas is surrounded by a fence and will be the subject of a future action.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

Rio Algom, the PRP, has completed several actions at the site under an AOC with EPA. Actions completed prior to this current action include: Chip Sealing Red Water Pond Road, repairing the fences around the mine areas, and completing a Removal Site Evaluation.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs): Rio Algom, Inc., is the PRP at the site. They performed this removal action at Red Water Pond Road under a Unilateral Order.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
radium-226	soil	17,300 cy			placement at mine waste pile under soil cover.

2.2 Planning Section

2.2.1 Anticipated Activities

Next steps at the site are to write an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate alternatives to address the 550,000 cubic yards of mining waste within the fenced mine areas.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

Next steps at the site are to write an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate alternatives to address the 550,000 cubic yards of mining waste within the fenced mine areas.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

NNEPA
BIA
NHPO

4. Personnel On Site

No information available at this time.

5. Definition of Terms

NNEPA - Navajo Nation Environmental Protection Agency
RAML - Rio Algom Mining Llp
BHPB - BHP Billiton
BIA - Bureau of Indian Affairs
NHPO - Navajo Historic Preservation Office

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.