

US EPA ARCHIVE DOCUMENT



Northeast Church Rock Mine Site Cleanup

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • September 2011

Community Update

This fact sheet is to update the community on EPA's progress and plans at the Northeast Church Rock (NECR) Mine site, the largest and highest priority uranium mine on the Navajo Nation.

EPA has completed the action plan for the final cleanup of the Northeast Church Rock Mine site (See Figure 1, Area A). The location selected in the Action Memorandum, and determined to be suitable in the Engineering Evaluation and Cost Analysis previously issued, is the nearby United Nuclear Corporation (UNC) Mill Site. Placement of the waste at the Mill site is contingent on two additional approvals including an amendment of the UNC Mill site facility's NRC license and documentation in an appropriate decision document from US EPA Region 6. The plan is based on more than six years of work and over 10 public meetings with the local community, the Navajo Nation, and others to ensure that EPA heard, considered and addressed the questions and concerns of all stakeholders. The result is a cleanup plan that will:

- Provide unlimited surface use of the mine site after cleanup
- Use the most stringent uranium mine cleanup standard in the country
- Add a cap and liner system at the United Nuclear Corporation (UNC) site to ensure that the mine waste does not affect people and the environment

- Send waste containing high levels of radium or uranium off-site for reprocessing or approved disposal
- Clean up contaminated drainage area east of Red Water Pond Road
- Provide voluntary housing options during the cleanup for community members living near the mine
- Provide job training and employment during the cleanup

United Nuclear Corporation/General Electric (UNC/GE) has also agreed to:

- Hire locally through a Navajo hiring preference
- Provide a scholarship program for Navajo students to attend the University of New Mexico or Arizona State University
- Improve Pipeline Canyon Road near the area of the mine and mill sites
- Provide building materials for ceremonial hogans requested by the Red Water Pond Road community residents

Cleanup of Drainage East of Red Water Pond Road



Soil testing in East Drainage

Last spring, UNC/GE investigated the drainage area from the NECR Mine site East of Red Water Pond Road and found additional contamination from the mine site run-off. In June, UNC/GE fenced this area to prevent grazing or other potential exposures. The East Drainage area is now referred to as "Step Out Area #2" (See Figure 1, Area D) as the Step Out Area #1 (See Figure 1, Area C) was the focus of the 2009/2010 clean up action. Step Out Area #2 is addressed in a separate action plan and will be cleaned up in 2012 with voluntary housing options for the affected residents. This waste will be moved onto the NECR Mine site temporarily until the larger mine site clean up discussed in this Fact Sheet planned in 2014.

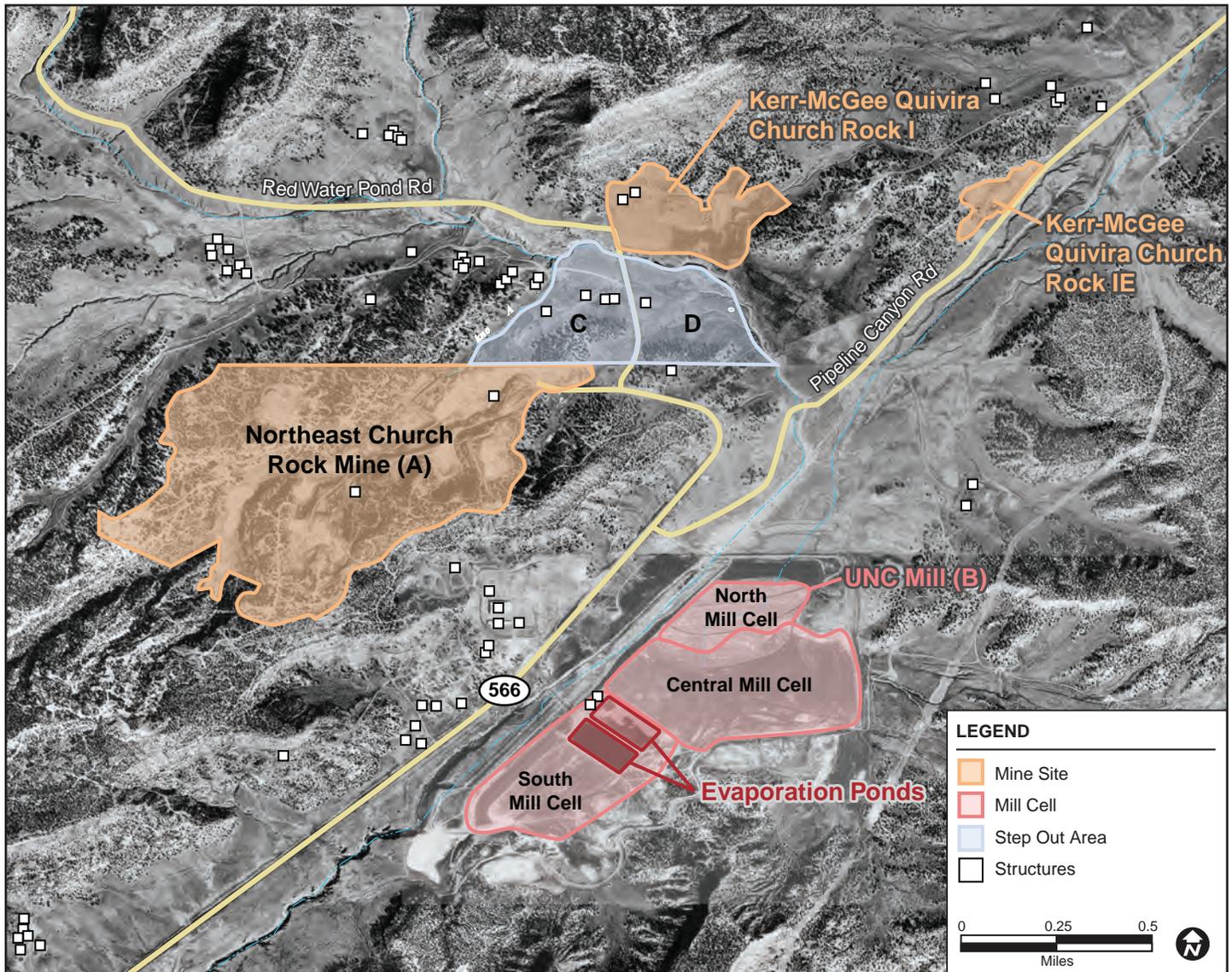


Figure 1: Northeast Church Rock Mine site map

UNC Mill Site Disposal

During public meetings residents expressed concerns that disposal of NECR waste with the UNC Mill site tailings could cause groundwater contamination, uneven settling of the tailings, or other problems with the current impoundment.

EPA takes these concerns seriously and has evaluated groundwater conditions, historical mill site practices, engineering documents of the design and construction of the existing UNC

cells, and geotechnical conditions at the mill site. These evaluations show that construction of a cell on the UNC tailings as planned can be accomplished without affecting groundwater or stability of the tailings. The final disposal facility will not greatly increase the height of the existing tailings and will use state-of-the-art engineering and design practices which will result in an improved disposal facility at the UNC Mill site.

Design of the disposal facility will take place over a three year period and will include technical staff from EPA, the Navajo Nation, New Mexico, Department of Energy, Nuclear Regulatory Commission and General Electric. EPA will provide an independent technical advisor to the community through our Technical Assistance to Communities program, to aid in review of design information.

Cleanup Progress to Date

- 2005 • Region 9 takes lead role in cleanup at the request of the Navajo Nation
- 2006 • Soil Investigations of the mine site started
- 2007 • Removed contamination from 1 house and 4 yards
- 2009 • 100,000 cubic yards of soil removed from residential area (Interim Removal Action, or IRA) (See Figure 1, Area C)
 - Temporary housing provided to 55 residents
 - Engineering Evaluation/Cost Assessment of cleanup alternatives written, public hearings held
- 2010 • Public meetings with community on cleanup alternatives
 - Red Water Pond Road paved to reduce exposure to dust
 - Enforcement order completed with Rio Algom for assessment of Quivira Mine
 - Quivira assessment and stabilization started
 - Regional groundwater sampling conducted
- 2011 • Additional public meetings on cleanup alternatives
 - Erosion control measures improved at NECR
 - Additional soil sampling east of Red Water Pond Road; contaminated area fenced pending planned removal of contamination
 - Action plan for NECR Mine cleanup

Planned Schedule for Remaining Cleanup

- Fall 2011 • Meet with residents on housing options during cleanup
- 2012 • Soil cleanup in fenced area east of Red Water Pond Road (See Figure 1, Area D)
- 2011 – 2014 • Design of final mine site cleanup
- 2014 – 2018 • Construction of final mine site cleanup



Soil sampling in Step Out Area 2



Ongoing revegetation in Step Out Area 1

Potential Disposal Sites Considered

In evaluating options for NECR mine wastes, EPA considered many potential locations – 14 in all – which had been suggested by commenters as possibly available for disposal of the NECR Mine waste. Only the UNC Mill Site was found to meet EPA’s criteria of being protective of human health, implementable in a reasonable time frame, and cost effective for disposal of NECR mine waste. Disposal at the UNC Mill Site is contingent upon both modification of the license issued by the NRC for the UNC site, and issuance of an appropriate decision document by U.S. EPA Region 6. EPA is committed to working with the Navajo Nation to find additional solutions for disposal of other abandoned uranium mine waste.

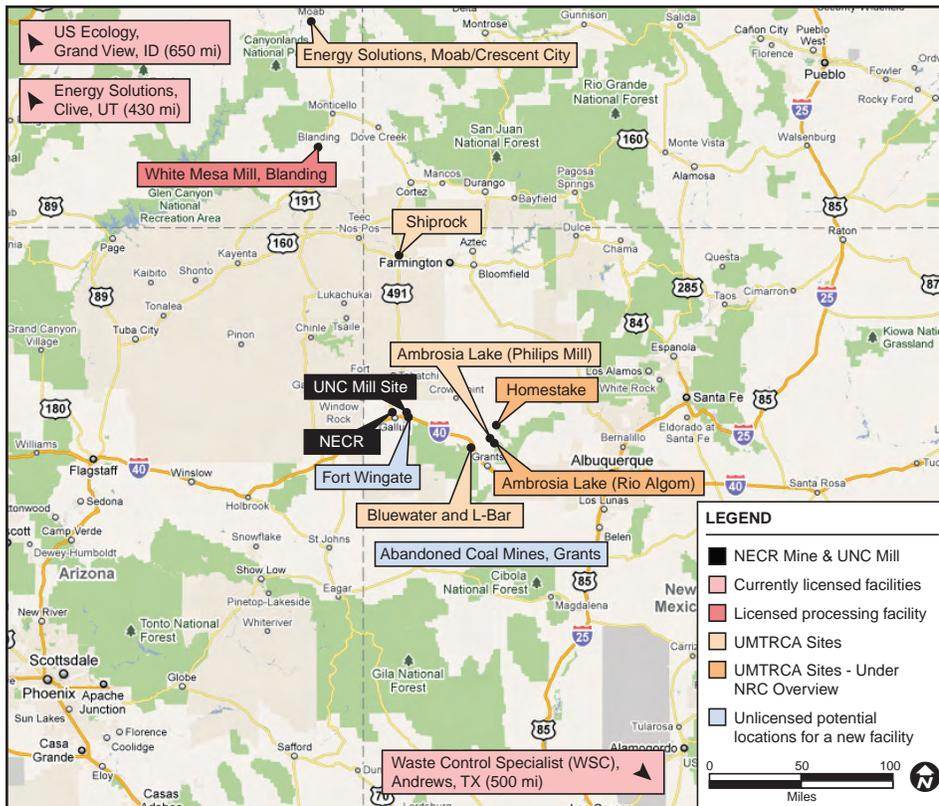


Figure 2: Disposal sites considered for United Nuclear Corporation Mine site

Other US EPA Actions in the Area

- Quivira Mine cleanup
- Red Water Pond Road cleanup
- East Drainage time critical removal actions
- Stock well monitoring
- Navajo Nation EPA/US EPA contaminated structures project



For more information on these actions, please contact EPA Region 9.



Contact Info

We want to hear from you! Please call or e-mail and let us know how we can improve our cleanup plans.

Sara Jacobs
 (415) 972-3564
 jacobs.sara@epa.gov

Dana Barton
 (415) 972-3087
 barton.dana@epa.gov

Michele Dineyazhe
 Navajo Nation Superfund
 (928) 871-6859
 dineyazhe.michele@epa.gov