

The Reclamation and Closure Plan  
For the Red Dog Mine  
Northwest Alaska

Jack DiMarchi  
Large Mine Coordinator  
State of Alaska  
Department of Natural Resources  
Office of Project Management and Permitting

The Red Dog Mine is located in the DeLong Mountains in northwest Alaska. The mine is the largest zinc producer in the world and produces more than 516,000 tonnes Zn, 120,000 tonnes Pb and 7.5M ounces Ag annually. The mine is situated on NANA Corporation Native surface and mineral estate lands. Teck Corporation operates the mine through an agreement with NANA. The mine opened in 1989 and is scheduled to close in 2031.

In 2009, the State of Alaska Department of Natural Resources approved a new Reclamation and Closure Plan for Red Dog. The plan addresses all aspects of closing the mine including: demolition of structures, recontouring and revegetating disturbed land, covering and vegetating the waste rock piles, tailings and water management, and long term environmental monitoring. Red Dog is the first mine in Alaska to incorporate perpetual water treatment into its Reclamation and Closure Plan.

The process of developing the Reclamation and Closure Plan included considerable engineering research and design related to the tailings dam, waste rock covers, water chemistry and ARD/ML potential. A number of closure alternatives were considered for the major mine facilities. This was done with significant collaboration with NANA shareholders from several villages near the mine, over several years. This led to the identification of the preferred options and a plan that was acceptable to the company and the Native landowners while meeting all of the State legal requirements for reclamation and closure.

**Author contact information:**

Jack DiMarchi P.G.  
Mining Coordinator

Alaska Department of Natural Resources  
Office of Project Management and Permitting  
3700 Airport Way  
Fairbanks, AK 99709-4699

Office Phone - 907.374.3708  
Cell Phone - 907.590.9332  
Office Fax - 907.451.2703  
[jack.dimarchi@alaska.gov](mailto:jack.dimarchi@alaska.gov)