

## **Minerals and Geology**

**Goals:** To provide for environmentally sound mineral exploration, development, and reclamation in areas open to mineral entry and in areas with valid existing rights that are otherwise closed to mineral entry. Encourage prospecting, exploration, development, mining, and processing of locatable minerals in areas with the highest potential for mineral development. Insure that minerals are developed in an environmentally sensitive manner, and that other high-valued resources are considered when mineral developments occur. Seek withdrawal from mineral entry of specific locations where mineral development may not meet land use designation objectives.

**Objective:** Implement the Minerals and Geology Standards and Guidelines.

**Background:** A wide range of mineral resources and deposit types occur within the boundaries of the Tongass National Forest. Examples of some include, but are not limited to, gold, silver, molybdenum, and uranium, as well as nationally designated “strategic” and “critical” minerals such as lead, zinc, copper, tungsten, and platinum group metals. The Forest Service recognizes that minerals are fundamental to the Nation’s well being and, as policy, encourages the orderly exploration and development of the mineral resources on National Forest System lands. The Secretary of Agriculture has provided regulations (36 CFR 228) to ensure surface resource protection during the exploration and development of the mineral resources.

### **Minerals and Geology Question 1: Are the effects of mining activities on surface resources consistent with Forest Plan expectations, as allowed in approved Plans of Operations?**

#### ***Monitoring Results***

##### **Small Mining Operations**

Five small-scale projects were reviewed. Site visits were performed on projects at the following locations: Woewodski Island, Zarembo Island, and the historic Rainbow Mine, in the Wrangell, Petersburg, and Juneau Ranger Districts, respectively, and Niblack and Bokan Mountain on the Craig Ranger District. Woewodski and Zarembo are both bonded operations, and the rest are non-bonded operations or projects. No operations occurred on Bokan Mountain during FY2006, and the site visit was the result of renewed interest from a new operator. Discussions focused on pre-existing conditions, clean-up efforts, and liability concerns. All other projects are in various stages of exploration, from mapping and hand sampling to core sampling using helicopter-supported drill operations. All of the active operations were found to be in compliance. A response to an inquiry as to energy exploration in the Yakutat Ranger District was also issued.

##### **Abandoned Mines**

Three abandoned mines were closed during FY2006. An opening at the Friday Mine near Port Snettisham was sealed with foam. And between the Salt Chuck and the Rush and Brown mines, 7 more hazardous mine openings were foamed shut and one opening was identified as a candidate for blasting, which will occur during FY2007.

## **Large Mining Operations**

### **Greens Creek Mine**

The Greens Creek Mine is located on Admiralty Island. Most of the facilities lie within the Admiralty Island National Monument. However, a portion of the operation is located on the Juneau Ranger District. The operation consists of an underground mine, a surface mill and concentrator, waste rock disposal and tailings disposal facilities, a sand and gravel pit, and administrative facilities. The mine produces a poly-metallic ore (silver, zinc, gold, and lead), which is processed into three separate concentrates. These concentrates are shipped to various smelters throughout the world.

An EIS for expansion of the existing dry tailings disposal facility was completed in late 2003 and is being implemented during a five year construction period. FY2006 was the second year of construction for the tailings facility. Work included blasting and grubbing of the Northwest Knob in preparation of expansion to the northwest of the facility, and excavations of the northwest corner of tails were begun.

This year's surface exploration consisted of reconnaissance, detailed geological mapping, ground surveying, surface geochemical sampling, and geophysical sampling. Environmental analysis was conducted and subsequently surface drilling was permitted for the 2006 field season.

Thirty (30) site visits for monitoring Best Management Practices effectiveness and compliance to their Plan of Operations were conducted during FY2006 by the Tongass Minerals Group. The goal for site visits is once a week during the summer and every other week during the winter.

Sampling was completed for the bio-monitoring portion of the Freshwater Monitoring Program. Samples were taken from four sites.

The AELP intertie project is complete and the site is online to varying degrees, depending on the system-wide load.

### **Kensington Gold Project**

A Supplemental EIS was completed and released in December 2004 and the revised Plan of Operations was approved in mid-FY2005. Coeur Alaska posted a 7.4 million dollar bond and initiated construction in July, 2005.

Site construction and development were the key activities taking place during FY 2006. Construction of the Mill Site and blasting of a tunnel which will connect the Jualin and Kensington sides of the property were ongoing at the end of FY2006. FY 2006 also saw Coeur Alaska involved in litigation regarding the disposal of tails in Lower Slate Lake, and enjoined from progressing on the Lower Slate Lake Tailings Facility. Neither the litigation nor the injunction was resolved before FY 2007.

Thirty-seven (37) site visits for monitoring Best Management Practices effectiveness and compliance to their Plan of Operations were conducted during FY2005 by the Tongass Minerals Group.

## ***Evaluation of Results***

Tongass-wide, two large locatable mine plans were administered and several dozen exploration drilling programs and mineral material operations were processed on the Tongass National Forest for FY2006. Fiscal Year 2006 inspections of mineral sites indicate that the effects of mining activities on surface resources are consistent with Forest Plan expectations. The necessity of the operator to obtain approval for their Plan of Operations provides the Forest Service the opportunity and authority to control the effects of the development on the Forest surface resources.