



Cleanup Investigation Update

Beatson Mine

Latouche Island, Prince William Sound
September 2020

Site History

The former Beatson Mine is located on the northwest side of Latouche Island in Prince William Sound. The Beatson Mine site includes three different mine areas – the Beatson Mine, Blackbird Mine (including Lower Blackbird and Blackbird Mines), and the Chenega Claim. The mine operated from 1904 until its closure in 1930. The Kennecott Copper Corporation owned the mine until 1962, when it was sold to a private party. The property changed ownership several times until it was subdivided and lots were put up for sale in the 1970s. On behalf of Minaska, Inc., Rio Tinto, the mining company who purchased the Kennecott Copper Corporation, began investigating possible environmental impacts at the site in 2016.

DEC's Cleanup Process

The Alaska Department of Environmental Conservation's (DEC) process for cleaning up a contaminated site generally occurs in three main phases: assessment, cleanup, and long-term monitoring. The assessment phase determines the nature (what contaminants of concern are present) and extent (the volume or area) of contamination. During this phase, cleanup levels protective of human health and the environment are calculated, and additional information is gathered to determine how the cleanup could be conducted. The cleanup must comply with State and Federal laws. After the cleanup is complete, there is often long-term monitoring of soil, groundwater, or surface water to show that the cleanup is protective. DEC can also use land-use controls, such as environmental covenants, to ensure that remaining contamination is not disturbed and does not cause adverse impacts to human health or the environment over the long term. There are a number of fact sheets with additional information about the various stages of the cleanup process available on the DEC website:

<http://dec.alaska.gov/spar/faq#cspfactsheetpub>.

Cleanup Levels

DEC has developed several different ways that cleanup levels for a site can be determined. DEC has calculated cleanup levels that are appropriate for the protection of human health on residential land. Other cleanup levels can be developed for commercial/industrial properties, by using background (naturally-occurring) concentrations, or by conducting a risk assessment in accordance with DEC guidance. The DEC risk assessment process identifies current and future potential uses of the land, evaluates ways that people, plants, and animals can be exposed to all types of contamination at the site, and determines site-specific protective cleanup levels. Any cleanup level that is less stringent (higher) than one suitable for residential use has to be agreed to by all affected landowners. Rio Tinto has been developing both human health and ecological risk assessments to evaluate risk and develop proposed cleanup levels for the Beatson Mine site and will provide results to DEC when completed.

Beatson Mine – Past Field Activities

Rio Tinto conducted work at the Beatson Mine in 2016, 2018, and 2019. These activities included site reconnaissance, groundwater well installation, sample collection (soil, waste rock, surface water, groundwater, sediment, and biological tissue), and ecological investigation. Conducting these activities over several years is typical for large, complex projects such as this one where the results of an

investigation generate the need for additional data. Some of the broad conclusions from the past work include:

- Soils containing the highest concentrations of metals were found at the disturbed areas near some of the waste rock piles, from the Blackbird Mine road, and at the Beatson Mine main area. Soil containing petroleum hydrocarbons was found near the aboveground tank and associated buried pipelines, the landing strip, and in the main Beatson Mine area.
- The site is located in a highly-mineralized area and background reference samples of soil and sediment contained naturally-occurring elevated concentrations of several metals.
- Groundwater near the Blackbird Mine and on the northern shoreline contained elevated concentrations of metals. The groundwater does not appear to be impacted from petroleum-contaminated soil.
- Surface water sample results showed metals concentrations that exceed Alaska Water Quality Standards for aquatic life at many locations, while sample results at locations below the mine features exceeded Alaska Water Quality standards for drinking water for copper.
- Marine and freshwater stream sediment contained metals concentrations above screening levels for protection of plants and animals.

Rio Tinto has completed a fairly thorough investigation of this site. Additional information is needed to determine trends and seasonal variation in metals concentrations in surface water and groundwater as well as evaluate the feasibility of various cleanup alternatives.

Current/Future Activities

Rio Tinto had planned to conduct fieldwork in March 2020, but those activities were cancelled due to the coronavirus pandemic. In mid-September, Rio Tinto made a two-day site visit to collect surface water and groundwater samples and prepare some of the on-site data-gathering instrumentation for the winter. The extent of the field activities which will be conducted in 2021 will depend on the pandemic.

After reviewing the human health and ecological risk assessments and ensuring that the methodology used is consistent with regulation and policy, DEC will approve cleanup levels for the site which will determine the extent of the area which needs to be cleaned up. Once cleanup levels have been set, DEC will work with Rio Tinto to develop a strategy to clean up the site.

For More Information

Additional information about site activities and copies of past reports are available on the DEC website: <http://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/26264>. If you have any questions about the site, please contact:

Anne Marie Palmieri
DEC Contaminated Sites Program
Post Office Box 1542
Haines, Alaska 99827
(907) 766-3184 -- annemarie.palmieri@alaska.gov