History

Mining, in one form or another, has taken place in the area over the past 100 years. Large scale mining began at the Bethlehem mine (on the north side of the highway) in 1962. This was the first low grade, high volume open pit copper mine in Canada.

The Lornex pit was started in 1972, at the same time the District of Logan Lake was constructed to accommodate employees.

Highmont began mining in 1979 and shut down in 1984. In 1986 Lornex amalgamated with Cominco's Valley Mine to form Highland Valley Copper.



IF YOU HAVE ANY QUESTIONS PLEASE CONTACT THE HIGHLAND VALLEY COPPER SAFETY AND PUBLIC AFFAIRS DEPARTMENT AT (250) 523-3507

Highland Valley Copper P.O. Box 1500 Logan Lake, B.C. V0K 1W0 Canada



Highland Valley Copper



Highland Valley Copper is owned 97.5% by Teck Cominco and 2.5% Highmont Mining Co.

Located 75 kilometres southwest of Kamloops, Highland Valley Copper is the largest open pit copper mine in Canada and one of the largest in the world in terms of tonnage mined and milled.

General Facis

On average, over 430,000 tonnes of copper sulphide concentrates containing 360 million pounds of copper and 6,300 tonnes of molybdenum sulphide containing 5 million pounds of molybdenum are produced annually. Sales average close to \$400 million per year. Costs average \$275 million (including \$85 million for labour) per year, of which 90% is paid in B.C.

Most of the copper concentrates are sold to smelters in Pacific Rim countries and Manitoba, Canada. The molybdenum is sold to traders who ship it to the USA and Mexico. Molybdenum is used to harden steel. Highland Valley Copper currently employs approximately 950 people.

Planning for Closure

Planning for closure is an essential part of modern mining. The operation is scheduled to close in 2008. However, studies are underway to extend the mine life to 2013. A final decision will be made in 2006.

While these studies continue, mine representatives are also working closely with civic, provincial, and native leaders as well as other interested stakeholders, to ensure that the best practicable uses of the land are available when the mine closes.

Getting the **Ore Out**

The pits are mined by conventional truck and shovel method on a 24-hour-a-day basis, 365 days a year.

In 2004, approximately 180,000 tonnes was mined each day

yielding about 134,000 tonnes of ore. Mining activity is carried out using 3 drills, 5 shovels, 18 - 172 tonne and 12 - 225 tonne haulage trucks and a fleet of dozers, loaders and graders.

All ore produced in the Valley pit is trucked to one of the two semi-mobile in-pit crushers. The conveying system from each crusher is capable of handling 6,000 tonnes per hour. The ore from the Lornex pit is fed into a fixed crusher near the Highland mill.

Breaking Down the Ore

With five grinding mill lines, the Highland Mill has an average daily throughput of 134,000 tonnes which produces in excess of 1,100 tonnes of copper concentrate per day grading near 40% copper.

The mill is fed from three coarse-ore stockpiles, which are supplied by the three crushers via a system of conveyors.

Recycling the Water

More than 272,000 cubic meters of water per day are used and recycled in the

flotation process. This volume is approximately twice the amount used per day by the city of Kamloops with a population of 81,000.

The tailings pond acts as a controlled catchbasin for recycled water, surface drainage water and fresh water from wells or rivers. In addition, it provides a secure containment area for the large quantity of sand-like tailings produced by the milling process. The tailings pond is contained between two dams located 13 kilometers apart.

Delivering the Product

Highland Valley Copper is one trucked from the of the world's larger producers of copper concentrate. Each year it delivers more than 430,000 tonnes of high-grade material to smelters, mainly in the Far East. Marketing and sales are coordinated by Teck Cominco in Toronto.

The concentrate is property to rail yards in Ashcroft where 80% is transported to Vancouver and shipped overseas and 20% is railed to eastern destinations.

Product Uses

Copper is used for the transmission of electricity, for electric motors, appliances and for piping and plumbing fixtures. Due to its high thermal conductivity, copper is also used in water heaters, air conditioners, boilers and cooking utensils. It can be alloyed with zinc to form brass, and with tin to form bronze. A by-product of the copper ore is molybdenum; a versatile alloying material

Commitment to Safety

While mining continues to be B.C.'s safest heavy industry, **Highland Valley Copper** leads large mines in safety performance.

Effective leadership in working together with a responsible workforce, ensures that our success will continue.

Environmental Protection

An integral part

of the mining Reclamation of the site is ongoing in process is the areas where mining activities have rehabilitation of ceased. Of the approximately 6,000 the land after the hectares of land that has been minerals have disturbed by mining, over 2,100 been removed. hectares have been reclaimed.

Every year, ground is prepared and planted with grasses, shrubs and trees. Since extensive reclamation began in the valley in the early 1990's, over 1.6 million shrubs and trees have been planted.

The end result of reclamation at Highland Valley Copper will show an area of land temporarily used by mining being returned to wildlife, cattle, and human recreation.

