

Active and Closed Mines in Nunavut

Abstract

In 1999 there are two operational mines in Nunavut: the Polaris and Nanisivik mines. The Polaris zinc-lead mine located on Little Cornwallis Island, is the most northerly mine in the world. The principal elements it extracts are zinc, lead and calcium. The Nanisivik zinc-lead-silver mine is located near the village of the same name. Zinc is still the main element taken out.

Operating Mines

Despite the very high potential of the territory as a whole, only two sites are currently in operation: the Polaris zinc-lead mine on Little Cornwallis Island and the Nanisivik zinc-lead-silver mine, near the village of the same name.

The Nanisivik mine was opened in October 1976 with 200 employees. In 1999 the mine continues to employ the same number of people overall and zinc is still the main element taken out. Zinc constitutes between 7% and 8% of the total annual ore production of about 730 000 tonnes (2000 tonnes a day), which means that nearly 54 000 tonnes of this metal is mined. A small amount of silver also continues to be taken from the raw ore. Not considering exploration activities carried out locally, and assuming the same production rate, the calculated reserves could allow the mine to extract substantial amounts of ore for another five years.

The Polaris mine, the most northerly mine in the world, started its operations in November 1981. It began with 231 employees, and the principal metals it extracts are calcium, lead and especially zinc, at a production level of 152 700 tonnes in 1997. Zinc comprises a little over 12% of the ore mined, while lead accounts for about 3.5%. Further studies and exploration activities determined that the deposit was not economically viable. Closure of the mine is expected in the 3rd quarter of 2001 based on current ore reserves.

Closed Mines

Nunavut has hosted many mines over the past several decades. The closed mines include the North Rankin mine at Rankin Inlet; the Bent Horn mine, 325 km northwest of Resolute; the Cullaton Lake / Shear Lake mine, 230 km west of Arviat; and the Lupin mine, 275 km southwest of Bathurst Inlet. The latter two sites were the largest projects to shut down, whereas Bent Horn (oil) and North Rankin (nickel) operated only briefly.

The Cullaton Lake / Shear Lake property comprised two close-by gold deposits which produced ferrous-based ore. Opened in 1981, these sites yielded 77 783 ounces of gold from 251 000 tonnes of ore extracted up to 1985.

The Lupin mine provided an ore rich in precious metals notably gold and uranium. This plant, which opened in October 1982 and provided work for over 500 employees at one time, had to shut down in January 1998. However, further studies in progress could allow the reuse of certain facilities on this mine property for the bulk processing of samples from a kimberlite chimney (diamonds) found on the site.

Map Sources

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Natural Resources Canada, Minerals and Metals Sector, Minerals and Mining Statistics Division, 1999.

Geological Provinces

Geological Map of Canada - Map D1860A [CD-ROM]. 1997. Ottawa, Ontario: Geological Survey of Canada, Natural Resources Canada.

Major Rock Categories

Geological Map of Canada - Map D1860A [CD-ROM]. 1997. Ottawa, Ontario: Geological Survey of Canada, Natural Resources Canada.

References

Canada. Statistics Canada. 1998. Canada's Mineral Production, Preliminary Estimate. no:26-202, Ottawa.

Nunavut Implementation Commission. 1995. Footprints in New Snow: A comprehensive Report from the Nunavut Implementation Commission to the Department of Indian and Northern Development, Government of the Northwest Territories and Nunavut Tunngavik Incorporated Concerning the Establishment of the Nunavut Government. Iqaluit, Northwest Territories. 263 pp.

Related Web sites (1999 – 2009)

Federal Government

Mineral and Mining Statistics On-Line

<http://mmsd.mms.nrcan.gc.ca/stat-stat/index-eng.aspx>

Minerals and Metals Sector - Publications

<http://www.nrcan-rncan.gc.ca/mms-smm/pub-pub-eng.htm>

Natural Resources Canada. Minerals and Metals Sector

<http://www.nrcan-rncan.gc.ca/mms-smm/index-eng.htm>

MMS is the federal government's primary source of scientific and technological knowledge, and policy advice, on Canada's mineral and metal resources and on explosives technology.

Natural Resources Canada. Statistics on Natural Resources

<http://www.nrcan-rncan.gc.ca/stat/index-eng.php>

A list of federal, provincial, and territorial links relevant to the Natural Resources Statistics website.

