

The Long Lake Gold Mine

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The Long Lake Gold Mine, about 25 km southwest of Sudbury, is in Eden Township about 1 km south of the south end of Long Lake. The mine was discovered in 1907 by Luc Potvin who was grub staked by John Frawley. The property was sold to Major G.E. Leckie who then sold it to the Canadian Exploration Company Limited.

The Canadian Exploration Company mined, milled and smelted gold from the deposit from 1909 to 1916. The property was sold to the Lebel Oro Company who did further underground development along with mining, milling and smelting during the depression. Subsequently the property has been staked and explored by a variety of companies. In 1910 the mine produced 1373 ounces of gold and was the largest producer in Ontario.

The ore body was found in a block of Huronian metamorphosed sandstone included within Nipissing gabbro. The gabbro may have been the heat source that concentrated the gold which is found in disseminated arsenopyrite. The 50 x 80 m elliptical orebody plunged to the southeast to a depth of 100 m where it ended against a fault.

After many years of disuse the mine site has only a few remnants left of the original buildings. The tailing ponds, the water filled glory hole and a few foundations from the old buildings remain.

Samples, from the tailings ponds, were collected by the Centre for Environmental Monitoring. These samples were analyzed by X-ray fluorescence spectrometry. The only potential contaminant of concern is arsenic which occurs in high abundances, up to about 6%.

Although the shaft is capped, the mine site would probably be unsafe because the pit contains old equipment and unstable rocks. The water around the area may be unsafe because of the high levels of arsenic in the tailings pond. This arsenic could be leached into the ground water.