

# From the Mineral Inventory Files

## Indian Path and the Association of Scheelite and Gold in Nova Scotia

Many of Nova Scotia's saddle-reef gold deposits, in the metasedimentary, Cambro-Ordovician Meguma Supergroup, also contain appreciable amounts of scheelite ( $\text{CaWO}_4$ ). Two of these deposits were mined with tungsten (W) being the primary commodity and gold (Au) secondary. The Stillwater W Mine at the western end of the Moose River Gold District was the province's largest example; the Indian Path W Mine in Lunenburg County (Fig. 1) was second.

Most of the Meguma Zone Au deposits were discovered during the 1860s, but it was 1893 before scheelite was recognized in Au-bearing quartz veins at the Molega Gold District. Scheelite was then recognized at Moose River and Waverley (1908), 15 Mile Brook, Queens County, and Tangier (1911), Oldham (1914) and Indian Path (1926). Scheelite is also recorded in several other gold districts, but just when it was discovered is not known (e.g. The Ovens, Brookfield, Whiteburn, Stanburne). There are also a few prospects in which scheelite occurs in saddle quartz veins but Au is either absent or present in minor amounts (e.g. Lower Sackville, Fall River, Goffs).

Indian Path was first discovered as a gold deposit when Au-bearing quartz was found there in 1862, just after the discovery of Au nearby at The Ovens in 1861. Indian Path was first considered part of The Ovens Gold District, even though the two deposits are on separate anticlines. The veins at Indian Path weren't worked until 1868 when 10-12 saddle veins, some up to 1.5 m wide, were opened and a 25 ton sample was collected that reportedly returned a good result. Not much mining took place over the next 20 years, however, even though a stamp mill was constructed in 1884. By 1896 all work at the camp had finished with the deepest shaft being about 23 m and a total reported Au production of 53 troy ounces from 331 tons of ore.

The property lay dormant until 1926 when prospectors recognized scheelite-bearing quartz about 460 m east along the anticlinal axis from the old gold camp

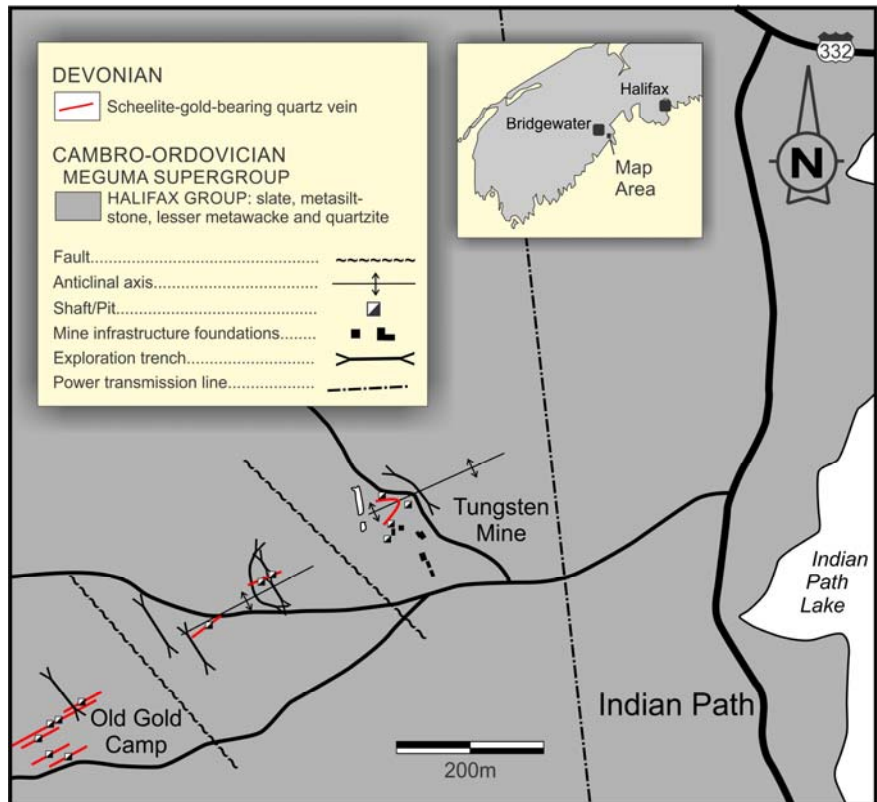


Figure 1. Geology of the Indian Path W-Au mine in southern Lunenburg County.

(Fig. 1). This spurred a second period of exploration activity, but this time the main focus was W. During the 1930s four shafts were sunk in what became known as the Tungsten Mine. Exploration showed that the W enrichment was concentrated primarily in two zones closely associated with the apex of the anticline and this governed much of the underground development.

The advent of World War II brought with it a pressing need for strategic metals like W. As a result, immediate attention was directed to Indian Path, even though it did not have much resource established. A 76 m deep, three-compartment shaft was quickly sunk, considerable underground drilling and development carried out, and a modern processing plant constructed. Mining continued until 1943 when, as the known W zones became depleted and the wartime need for W diminished, the mine was closed. Indian Path

received another period of exploration between 1976 and the early 1990s, but this was mostly aimed at examining its Au potential with W considered a welcome sweetener. A couple of these efforts involved trenching and drilling, and returned promising results, especially in the area of the anticlinal axis between the Tungsten Mine and the old Au camp.

So much remains to be answered about the W potential of this and some of Nova Scotia's other Au districts. Why do some Au districts have so much W while others have nothing? Why, in the districts where W is present in the highest concentrations, is there an apparent separation of the W-rich areas from Au-rich zones? If these and other questions are answered, perhaps we'll have a better understanding of the W potential of these deposits and how to most effectively explore for them.

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