

TGS → Polaris Taku

# NO MINE Like An Old Mine

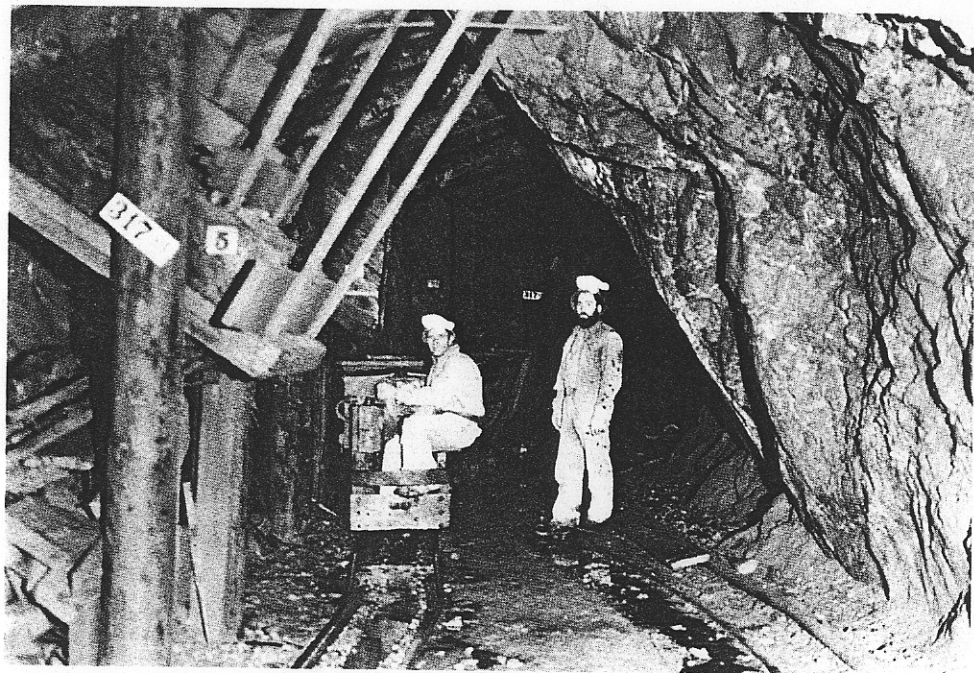
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Richard W. Phelps, Managing Editor

**V**ancouver-based Canarc Resource Corp. aims to prove the axiom that the best place to explore is around an existing or old mine. Indeed, the company claims a low, cumulative discovery-cost <\$C5/oz gold on reserves delineated thus far at its wholly owned British Columbia property—a deposit identified in 1929. The 2,100 acre holding [61 Crown-granted claims] contains three principal vein systems, open on strike and at depth, which are the heart of the property. Mineralization delineated thus far has a strike of 2,200 ft up to 50-ft widths and extends over 900-ft-down dip. It is bounded on three sides by metamorphosed volcano-sedimentary rock units. Company geologists indicate that the area's rock formations and gold mineralization are syngenetic, having an age of about 350M and 65M years respectively. About 70% of the host rock is basalt and andesite. On the property, gold is found only with arsenopyrite that is disseminated throughout the quartz-carbonate vein system.

Since acquiring the historic Polaris Taku gold-mine in 1989, Canarc has boosted the mine's geological reserves to 1.1M oz gold at year-end 1994 (2.6M st grading 0.43 oz/st gold probable/possible category in the uppermost 1,000 ft). A further 300K oz are expected to be added by year-end 1995.

E&MJ recently visited the mine, which is believed to be the largest gold deposit in western Canada that is seeing active exploration. It is situated in the province's northwest, about five miles east of the provincial/Alaska border and approximately 45 min flying time from Juneau, Alaska. Access is by STOL [short take-off/landing] aircraft landing on the gravel main street of the former 600-inhabitant town of Tulsequah. Areal



From the 1930s into the early 1950s Polaris Taku's underground operations yielded ore containing almost 0.5 oz/st gold. A total of 231K oz gold was produced above the -450-ft level.

relief is 56-6,000 ft above mean sea-level (Whitewater Mountain) with glaciers nearby.

## History

About 850 holes, including 70 long-holes have been drilled on the property. Serious exploration began in 1933, when the Alaska Juneau Mining Co. began an adit at the 245-ft elevation. Even the Anaconda Co. investigated the property in 1934. Production was initiated in 1936, with sufficient ore being delineated by 1937 to warrant mill construction. The mine's cumulative output, above the 500 ft level, was 231K oz. It came from 753K st production—occurring 1938-1942 and 1946-1951.

The nine-level mine was primarily developed from four adit levels and con-

tains a 900 ft winze. Both shrinkage-stope and cut-and-fill mining methods were used. The mill yielded an 80-90% recoveries from the 0.37-oz/st head-grade ore. Concentrate, from milling its 250 st/d refractory-gold/arsenopyrite ore, was shipped to a Tacoma, Wash., smelter.

Rising post-war labor costs, together with the loss of a shipload of concentrates due to a storm in 1951, closed the mine. This occurred despite rising grades with depth that were encountered in the mine's later years. So Canarc's initial interest was grounded in the belief that the geological potential of the mine, at depth, was significant. And it believes that the mine is geologically similar to the Campbell-Red Lake mine, which has an 80-year history of high-grade gold production to depths >5,000 ft.

## Modern Chronology

A prior company's exploration work in 1988/89—totaling some \$C2M—included geophysical work, line cutting, sampling, surveying, mapping and diamond drilling, and opening of one portal for inspection. Due to the lack of road building equipment, the 26 drill holes, encompassing 16.75K ft, were concentrated on the lower elevations of the property. After intercepting 28.1 ft grading 0.685 oz/st, 10 holes totaling 9,400 ft were drilled on the C vein in 1990. (No reserves had been defined on the C previously.)

For 1991, an 11-hole, 12K-ft program was conducted on the C and Y vein-systems. Of the 47 holes drilled 1988-1991, a total of 44 intersected economic intervals, i.e. >0.25 oz/st grade over >5 ft widths.

By 1992, some 20.8K-ft diamond-drilling was completed, about 75% in the C-vein and 25% in the Y-vein system. It showed a C strike-length >1,500 ft. Also that year, Watts, Griffis and McQuat Ltd. consultants completed a review of the mine and property, concluding that there was substantial untested exploration potential.

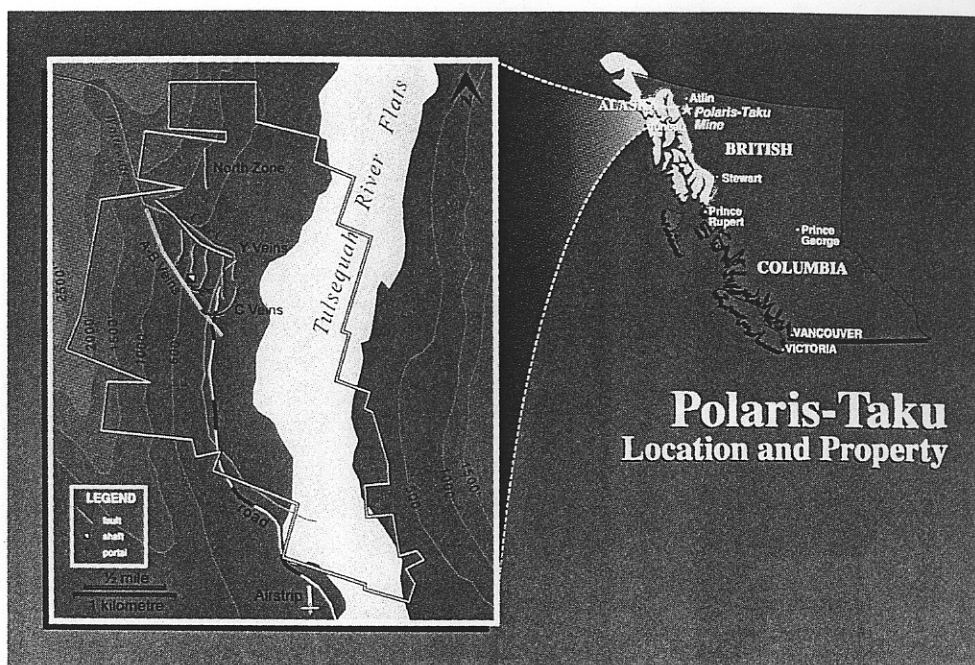
After a two year break in exploration due to litigation (since resolved), Canarc began a \$C1M, 25-hole, 20K-ft drilling program in 1994. It was aimed at expanding reserves of both the C and Y veins.

For 1995, efforts have been concentrated on testing the extensions of the AB, C, and N veins. To date the C vein has been the best drilled and most consistent, seeing about 118K ft of drilling. Some holes have gone to 2,600 ft depths to prove mineralization. Vein dip ranges from 45° to 60°.

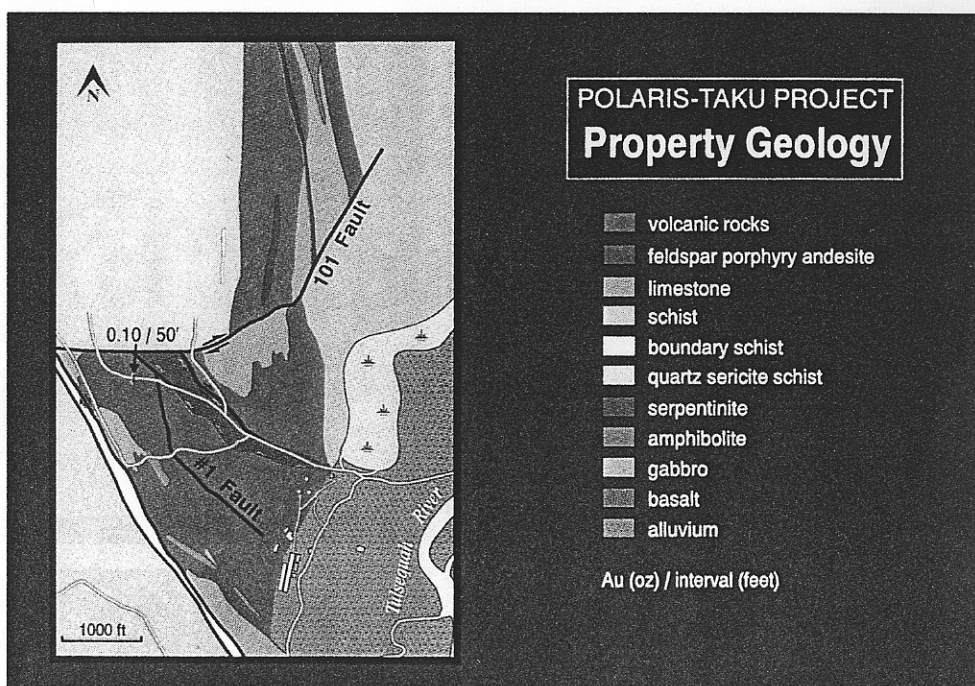
In August the company announced that a hole, targeted to hit the down-dip extension of the east-west striking C vein at 1,800 ft depth also intercepted a new Y-type vein at 1,625 ft. It found 14.4 ft grading 0.31 oz/st gold—including 4.1 ft of 0.64 oz/st material. C vein mineralization was 24.5 ft, averaging 0.36 oz/st. More typical C-vein mineralization grades 0.39 oz/st over 21 ft at an elevation of -2,350 ft, suggesting a steeper dip, of 60°, to the zone.

The company has diamond-drilled 109 holes totaling 81K ft to date. The A vein typically has a 9-ft average width grading 0.35 oz/st. The Y averages 5 ft with a grade >0.4 oz/st. The lower C grades 0.45 oz/st over about 15 ft widths.

Canarc expects to show a geological resource approaching 1.4M+ oz gold by year-end. And no reserves have been claimed in pre-existing pillars. Further engineering, metallurgical, and environmental work should result in a complete pre-feasibility study over the next sev-



## Polaris-Taku Location and Property



The combination of the Polaris Taku Project's remote location and mineralization offer a challenge to Canarc Resource's geologists on site.

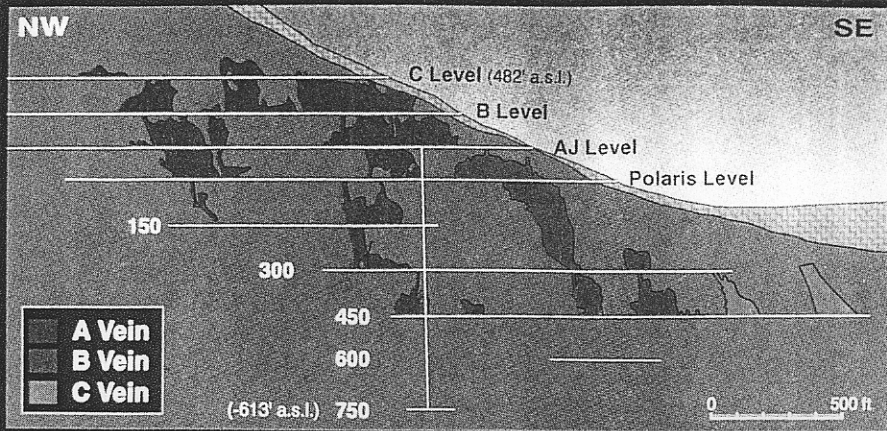
eral months. Independent metallurgical work done to date indicates >90% metallurgical recovery rates. Fluor Daniel Wright is also investigating other options: Bactech bio-leach; an alkaline leach; and low-pressure, low-temperature autoclaving. If work proceeds as planned, a successful full feasibility-study in 1996 would result in gold production commencing in 1998.

A nearby property, with a 4,000 st/d

mill planned, is in the final stages of mine permitting. It was expected to file in October and possibly receive approval by April 1996. Moreover, the Province (B.C. Investment Office) and the adjacent property owner, Redfern Resources (Tulsequah Chief project) are pursuing the construction of a \$C35M, 100-km all-weather access road, from Atlin to the Tulsequah River. There is also a cheaper, but more environmentally sensitive, barge-transport option

# POLARIS - TAKU PROJECT

## LONGITUDINAL SECTION A - B Vein System Looking NORTHEAST



The gold grade was increasing with depth before the mine was closed in the early 1950s. Work to date, confirmed by Watts, Griffis McQuat Ltd., indicates considerable potential for expansion of reserves. And several major mining organizations have expressed interest in the project.

for Redfern's concentrates. The river is frozen from about November 1 through May 1.

Although Canarc expects to produce doré on site, such road access should reduce capital and operating costs of its planned 600-1,200 st/d plant by some 5-10%. Indeed, recent actions of the provincial government, e.g. settlement of Windy Craggy/Royal Oak claims and positive mines-ministry statements, seem to bode well for mining in British Columbia. This is a turnaround given the three prior years of negative publicity and government actions that have discouraged miners.

One Canarc scenario to achieve the 600-1,200 st/d output has three separate mines feeding a central mill. The C vein operation would be trackless and employ spiral ramps. The other mines would use the existing shaft, which is subject to a 300 st/d hoisting limit.

Polaris Taku, wholly owned by Canarc, is subject to a 15% net profits interest held by Rembrandt Gold Mines Ltd. Several major mining firms have reportedly expressed interest in the project.

### Longer Term

Some of Canarc's corporate goals are to focus on large, million-ounce-plus targets, take a portfolio approach to exploration, and seek out strong partners. Canarc has active exploration properties in British Columbia, Guyana, Suriname, Venezuela, and Costa Rica. Separately, Canarc has partnered with both Barrick and Echo Bay for both corporate financing as well as strategic alliances on some of its properties. ■

## POLARIS-TAKU GOLD MINE PLAN VIEW OF VEIN STOPES

