

## Reserves increase at Mt. Milligan project

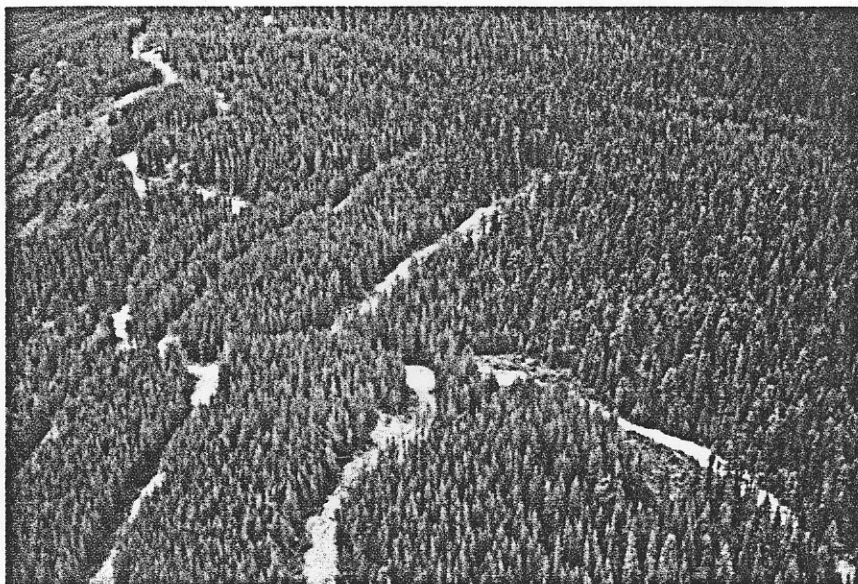
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In the heart of British Columbia lies the Mt. Milligan copper-gold deposit. The Mt. Milligan ore body, now estimated at more than 100 million st of ore grading at least 0.35% copper and 0.025 oz/st gold, is the first major copper discovery since governmental mining agencies declared that base-metal reserves are in short supply. Three drill rigs are working round the clock to delineate the various mineralized areas on this 42-mi<sup>2</sup> property, and one or two more drills will commence operation this spring.

Discovered late in September 1988 by United Lincoln Resources, the property is operated and 70%-owned by Continental Gold Corp., which recently amalgamated with United Lincoln. BP Resources Canada Ltd. holds the remaining 30%. Mt. Milligan is located 35 mi southwest of MacKenzie and about 45 mi north of Fort St. James, and electrical power, highways, and rail services are available in both towns. Other operations in the vicinity include the Endako molybdenum mine and the Bell copper mine.

The Mt. Milligan ore body is a classic porphyry copper deposit hosted mainly by volcanic rock intruded by magmatics. It contains high gold values for a deposit of this type. The sulphide system, which measures over 2 mi in circumference and is wrapped around a monzonite stock, consists basically of chalcopyrite, pyrite, and gold, with some bornite and magnetite. A 1988 preliminary geological inventory based on 31 NQ diamond-drill holes indicated that a reserve potential on the order of 20 million st, containing over 500,000 oz of gold plus significant copper, could be possible. This tonnage has already been greatly surpassed. Follow-up I.P. and magnetic surveys confirmed a bulk-tonnage configuration for the MBX deposit and that the ore body is open to extension in all directions. Most holes bottom in gold-copper mineralization.

The current \$1.2 million exploration program is designed to delineate the extent of the MBX bulk-tonnage copper-gold deposit and to complete preliminary metallurgical and engineering studies. Drilling, which commenced on the property in 1988, and geochemical and geophysical surveys are now in progress, with the 20,000-ft drilling program calling for widely spaced step-out holes. Continental Gold currently spends about \$33,000/d on exploration, which includes the drilling of some 1,000 ft/d.



The government of British Columbia has decided to have loggers clear-cut the slopes of Mt. Milligan to facilitate exploration and construction of the project.



Gold occurs as free grains and also along the edges of pyrite mineralization in the Mt. Milligan sulphide ore. The gold grains range in size from 15 to 50 microns.

Results to date show that the MBX porphyry copper-gold zone fades into the 66 porphyry gold zone. The MBX zone, which is located on the eastern side of the circular sulphide system, measures 1,600 ft long and 1,200 ft wide. Mineralization appears to be continuous throughout the zone and

still open, with vertical continuity to a depth of at least 850 ft. The ore averages 0.35% copper and 0.025 oz/st gold.

The adjacent 66 zone, with grades of 0.04 to 0.07 oz/st gold, measures 1,300 ft long and 1,600 ft wide. It is open to

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extensions in two directions and at depth. Preliminary metallurgical test-work on samples from this area has shown gold to occur as fine free grains or on the boundaries of pyrite grains, which indicates that high gold recoveries can be expected. Untested gold-copper soil anomalies extend for 5,000 ft south and west of the current 66-zone drill area, and two veins, the Esker and the Creek, have been identified to the west.

Recent drilling has identified two more mineralized regions, the first of which is a new bulk-tonnage copper-gold zone located 1,200 ft west of the MBX zone on the western side of the sulphide system. The second, the 79 vein, is a high-grade gold vein system

2,600 ft northwest of the MBX zone. Every new drill hole seems to increase the reserve base of the Mt. Milligan property.

Continental Gold Corp. expects that continued exploration drilling and metallurgical testing throughout 1989 will lead to a feasibility study, probably to begin in the fourth quarter of the year. Following results of the feasibility study, engineering can get under way in early to mid-1990. If plans remain on schedule, Continental Gold will begin to construct the Mt. Milligan mine and processing plant early in 1991, with production starting in the last quarter of 1992. Capital cost of the project should be \$150 million to \$200 million, and using prices of \$1/lb of copper and \$400/oz of gold, has an estimated three-year payback.

The open-pit mine will produce ore at an estimated rate of 35,000 st/d for at least a 15-yr operation life. At this rate, Mt. Milligan would be the largest gold mine in British Columbia and the fifth-largest in Canada. Continental Gold Corp. will employ 300 people at the Mt. Milligan site and an additional 50 workers in its Vancouver office.

The plant will produce a flotation copper concentrate, which will contain about two-thirds of the gold from the operation. The copper concentrate will be shipped by rail to a refinery. The remaining third of Mt. Milligan's gold will be captured in a pyrite concentrate, with smelting and pouring of bullion to take place on site. Annual production is currently estimated at 200,000 oz of gold and 37,000 st of copper. ■

## PROJECTS

**Laramide Resources Ltd.** has increased its interest in the Lara gold and base-metals deposit to 100%. The massive-sulphide deposit is located on southern Vancouver Island, British Columbia, and contains a drill-indicated resource of 583,000 st averaging 1.01% copper, 1.22% lead, 5.87% zinc, 2.92 oz/st silver, and 0.138 oz/st gold. A \$1 million program of metallurgical testing and diamond drilling will be carried out in 1989.

**Epoch Mining NL** has discovered a shallow gold deposit 30 km east of Cloncurry, Queensland, which is estimated to contain approximately 120,000 mt at 4.4 g/mt gold. Epoch manages this 50:50 joint venture with **Devex Ltd.**, and **BHP-Utah** holds the tenement.

Two main areas of mineralization have been defined in 27 percussion drill holes on the Wynberg prospect, the western zone being open to the north. Results of trenching and drilling suggest that the presently calculated resource lies in two zones at depths of 40 and 20 m.

Further high-grade geochemical targets within and outside the grid area require trenching and drilling. These additional targets have similar geochemistry to the defined resources.

The **Parks, Recreation and Travel Commission** of Arkansas has voted to proceed with the first phase of a program to test the geology of a diamond-bearing reserve. The reserve, containing both kimberlite and lamproite soils,

is located within the boundary of the Crater of Diamonds state park near Murfreesboro.

While conducted and managed by the state through independent contractors, the program will be funded by mining companies that elect to participate and are selected through a Request For Proposals process. Costs for initial exploration will not exceed \$350,000 and will be borne by mining companies in exchange for access to test results, a position with voting authority on a technical advisory committee, and the opportunity to bid on any contract to mine should the state decide to engage in further actions. A minimum of three mining companies must respond to the Request For Proposals and must meet criteria for qualification to be predetermined. Participation in initial and any future testing is a prerequisite for participation in any future mining activity at the park. Requests for Proposals were due to be issued by the state agency at the end of March, pending receipt of proper approvals.

**Rio Algom Ltd.** has purchased 21.8% of **Pan Orvana Resources Inc.** of Vancouver. Under terms of the agreement, Rio Algom has the right to participate in all future Pan Orvana equity issues in proportion to its beneficial interest in the company.

"This acquisition augments our exploration program, which was expanded in 1988," commented Rio Algom President Colin Macaulay. "Pan Orvana has properties which are currently at the early stages of the exploration

and development cycle. In addition, the association provides us with a wider window of opportunity for new discoveries and new joint venture possibilities over the next few years.

"This expanded program, combined with the participation in Pan Orvana, reaffirms our commitment to the mining portion of our operations," he said.

**Kells Minerals** is a new company, started by British mining promoter Colin Orr-Ewing, to prospect for zinc in the Harberton Bridge area of County Kildare, Ireland. The company has purchased a gravel deposit near Dublin, the profits of which will be used to fund the zinc exploration.

The Harberton Bridge deposit is about 40 mi from the Tara and Bula lead-zinc mines. Orr-Ewing says that he will soon commence geophysical work to identify anomalies and drilling targets. The company's property adjoins that of **Oliver Resources**, a company that has been drilling in the area for several years.

**Gexa Gold Corp.** reported that recent drilling at its joint venture near Beatty, Nev., has defined a new zone of gold oxide mineralization approximately 2,000 ft southeast of the Mother Lode deposit. The new deposit, the Sunday Night anomaly, contains an approximate mineral resource of 450,000 st averaging 0.06 oz/st gold.

Current drilling has yet to define its limits. The deposit is open both to the north and south, but it appears to be deepening to the north. Further drilling