Property File 082ESW055

## GOLD CITY RESOURCES INC.

## **OLD NICK**

Ni

AVAILABLE FOR OPTION OR JOINT VENTURE

001563

- **SUMMARY** The Old Nick Nickel Deposit is located in South-Central British Columbia, just north of the U.S. border, and south-west of the village of Rock Creek. This unique surfaceminable sulphide deposit has been estimated to contain in excess of 100 million tonnes grading 0.22% nickel.
- **PROPERTY** The Old Nick deposit is located at 49° 04'N and 119° 06'W, 36 kilometres east of Osoyoos, B.C. and just south of the main Trans-Provincial Highway #3. Services and accommodation are available at the Town of Rock Creek, 10 kilometres east of the Property. Topography is characteristic of a glaciated, maturely-eroded highland, with stands of fir, pine and scrub grasslands. Access to the property is from highway #3 at Rock Creek, onto the abandoned Great Northern Railway right-of-way which passes through the heart of the deposit. Within the deposit, there are numerous logging, mining and drill roads which allow for vehicle access. This property is controlled by the Rock Creek Gold Trend Joint Venture.
- **GEOLOGY** Generally, the property is underlain by rocks of the Permian (and/or) Triassic Anarchist Group (greenstone, quartzite greywacke), which have been intruded by Cretaceous Nelson plutonic rocks (granodiorite, quartz diorites, and monzonites) and by ultra-basic magnetic dykes, also of the Nelson series. The structure of the area has been described as being complex with the bedding tightly folded and cut by several fault trends, the dominant being north-westerly.
- **MINERALIZATION** Nickel sulphide mineralization occurs in two rock types: (a) in peridotitic dunite rocks as pentlandite occluded in pyrrhotite: Pentlandite and pyrrhotite occurring in amphiboles, serpentine and talc in the altered dunite; and, (b) in pyrometasomatic quartzite of the Anarchist Group: Pentlandite in minute intergrowths with pyrrhotite and pyrite, in fine sericitic-chloritic veinlets.

The pentlandite mineralization occurs in pyrometasomatic quartzite, as a band, "2,600 feet long and approximately 400 feet wide, and in adjacent peridotitic-dunite dykes. Petrological work on the mineralized quartzite has revealed the presence of minute injections of basic rock into the sediments. The pentlandite is closely associated with these injections"<sup>1</sup> "Nickeliferous zones, grading 0.15 to 0.25% nickel, were found to be remarkably uniform and continuous within the quartzite horizon."<sup>1</sup>

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Coope, J.A.; Dolan, W.M.; Costin, C.P. <u>Geological, Geochemical, and Geophysical Exploration</u> of the Nickel Ridge Property (Old Nick Option), Bridesville, B.C. Newmont Mining Corp. of Canada Ltd., May 7, 1968.

**EXPLORATION HISTORY** Since discovery by prospecting in 1955, considerable exploration and development work has been completed, including geological mapping, stream sediment geochemistry, soil geochemistry, ground magnetics and EM, airborne magnetics, trenching, percussion drilling, diamond drilling and metallurgical testing. The property has had the benefit of investigation by major mining companies including Newmont in the 1960's.

MINERAL RESERVES Detailed information in support of the quoted mineral inventory at the Old Nick is being obtained by the Company. Mr. E. Livgard, B.Sc., P.Eng., in a report dated May, 1982 states that nickel mineralization is "about 120m thick and extends for about 1,500m in an overturned anticline". "The values are in Nickel (0.25%), Cobalt (0.03%) and minor Copper, Silver and Gold." Crown Resources Corp. in an Assessment Report dated June, 1991 states "... Newmont Mining Corp., Nickel Ridge Mines Ltd., and Utica Mines Ltd. have carried out extensive exploration programs, including drilling, that has outlined a minimum of 100,000,000 tons of 0.22% nickel..." Newmont reports that by using a flotation process, nickel recoveries of 75% would be anticipated.

**PROPERTY POTENTIAL** The Property has excellent potential for development as:

- A large-scale (+20,000 tonnes of ore per day) open pit with a flotation, bio-leaching, electrowinning facility; or,
- A heap leach electrowinning operation.

Recent advances in bio-leaching and ferric chloride leach applications have demonstrable applications at Old Nick. The property location, in British Columbia's driest and warmest region (semi-desert), is a positive attribute for whole-rock leach operations. Soil and silt geochemical surveys indicate there is good potential to expand the known nickel mineral reserves.



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