

## NAME OF PROPERTY

GOOD HOPE

OBJECT LOCATED - No. 2 Pit.

UNCERTAINTY IN METRES 300. Lat. 49°20'25" Long. 120°00'15"

Mining Division Osoyoos District Similkameen

County Township or Parish

Lot Concession or Range

Sec Tp. R.

## OWNER OR OPERATOR

## DESCRIPTION OF DEPOSIT

Map 888 A indicates the area is underlain by Upper Triassic Nicola Group rocks.

The rocks in the vicinity are volcanic flows and fragments, with subordinate tuffs, argillite, and limestone, intruded by granodiorite and aplite. Epidote, garnet, and calcite are common metamorphic minerals; locally the rocks are altered to an epidote-pyroxene-garnet-quartz-calcite skarn and to garnetite. The limestones are recrystallized and locally may be strongly silicified. The argillites are metamorphosed to a cherty rock, in which bedding structures have been preserved.

Near the workings the beds dip very gently to the northeast, north, and north-west. An upper group of thin-bedded tuffs, exposed farther west on a small hill, dips at various moderate to high angles, suggesting a northerly plunging syncline crumpled against the granodiorite.

A body of coarse-grained granodiorite rich in biotite forms a broad ridge about 800 feet west of the workings. Granitic rock, also outcropping at a few places around the eastern base  
see Card 2 ....

Associated minerals or products

## HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at approximately 5,000 feet elevation between Cahill and Winter Creeks,  $3\frac{1}{2}$  miles east-southeast of Hedley.

The discovery was made by W.R. Wheeler late in 1942 while prospecting for scheelite. He staked the ground in 1943 as the Good Hope #1 and #2, and Good Hope #3 and #4 Fractions (Lots 3917S-3919S, 3931S respectively). In January 1944 the claims were acquired by Hedley Mascot Gold Mines, Limited under an option to purchase for \$100,000; the purchase was completed in 1947. By that time the property had been expanded to 29 claims and fractions, including the adjacent Nighthawk group, Lots 3913S-3916S, 3920S-3924S, and 3928S-3930S.

Exploration and development work was carried out on a seasonal basis during the period 1944-1948. Work included bulldozer trenching, diamond drilling, and mining from surface excavations, the ore being hauled to the company mill near Hedley. Diamond drilling was done in about 50 holes totalling more than 3,000 feet. A 70 foot adit was driven in 1945 from the main pit. Diamond drilling on the Nighthawk No. 7 claim located two flat lying mineralized zones similar to that on the Good Hope but smaller.

Nighthawk Gold Mines, Limited was incorporated in January 1948, with Hedley Mascot owning a controlling interest, to acquire the Good Hope, Nighthawk and adjacent claims. Assessment work was reported in 1949. In about 1960 control of Nighthawk was acquired by W.R. Wheeler and associates. The company name was changed in 1966 to Highpoint Mines Limited and in 1972 to Highhawk Mines Limited. Geological mapping and bulldozer trenching were carried out in 1967. Surface exploration and diamond drilling was reported in 1973, and a geochemical survey in 1975. The company name was changed in 1979 to Newhawk Gold Mines Ltd.

Good Hope Resources Ltd. acquired the property from Newhawk by a November 1979 option to purchase, with Newhawk retaining a 10% interest. Percussion drilling in 83 holes in an area adjacent to the small production pit was carried out during 1980. Drill indicated reserves were placed at approximately 41,000 tons at 0.159 oz/t Au (Dolmage, Mason & Stewart Ltd., in Good Hope Resources, Statement of Material Facts 98/81).

see Card 2 ....

**HISTORY OF PRODUCTION**

Ore shipments to the Hedley Mascot mill were reported as follows:

Year	Tons	Grade ozs/ton (Au)
1946	1,764	0.64
1947	2,513	0.623
1948	398	0.46

(Financial Post Survey of Mines, 1950, p. 93).  
 From 6874 tonnes shipped in 1982, 77,410 g of gold, 119,539 g of silver, and 602 kg of copper were recovered.

**REFERENCES**

Rice, H.M.A.; Geology and Mineral Deposits of the Princeton Map-Area, British Columbia; Memoir 243, p. 74, Geol. Surv. of Canada, 1947.

Reports of Minister of Mines, British Columbia: 1944, p. 57; 1945, p. 93; 1946, p. 125; 1947, pp. 142-144 +; 1948, p. 124; 1961, p. 56 ++; 1967, p. 217.

Canadian Mines Handbook: 1978-79, p. 132.

Mineral Policy Sector; Corporation Files: "Hedley Mascot Gold Mines, Limited"; "Highhawk Mines Limited"; "Good Hope Resources Ltd."; "Grove Explorations Ltd".

Report on the Good Hope and Canty Mines, 20 Nov. 1980, by Dolmage, Mason & Stewart Ltd. - in Good Hope Resources Statement of Material Facts 98/81.

Exploration in British Columbia; BCDM: 1980, p. 32

**MAP REFERENCES**

Map 568 A, Hedley, (Geol.), Sc. 1":1 mile, Geol. Surv. of Canada, 1940.

Map 888 A, Princeton, (Geol.), Sc. 1":4 miles - accomp. Memoir 243.

Map 8526 G, Hedley, (Aeromag.), Sc. 1":1 mile.

#Geology and workings on part of the Good Hope and Nighthawk Groups, Sc. 1":120 ft., Fig. 17 - accomp. Report of Minister of Mines, British Columbia, 1947.

Nighthawk Gold Mines Ltd., Main Pit, Sc. 1":42 ft., Fig. 10, Report of Minister of Mines, British Columbia, 1961, p. 57.

\*Map 92 H/8, Hedley, (Topo.), Sc. 1:50,000.  
 Good Hope Group (claim map), Sc. 1":600' - in Hedley Mascot GML file.

Geology of the Hedley Area, Sc. 1 cm: 1 km, Fig. 2-10-1, Geological Fieldwork, 1986, p. 66.

Geological Fieldwork, British Columbia Dept. of Mines: 1986, pp. 65-79; 1987, pp. 59-80.

George Cross News Letters: 1984, No. 39, 40, 49, 224; 1985, No. 2, 55; 1986, No. 150, 218, 223; 1987, No. 7, 134.

Comp./Rev. By	DMacR	DMacR	JL	DMacR	DMacR		
Date	10-78	02-82	09-82	12-83	06-88		

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## DESCRIPTION OF DEPOSIT (continued)

of the small hill on which the workings are situated, is evidently a tabular body about 80 feet thick extending beneath the known ore-bodies at a stratigraphic depth of about 70 feet. One diamond-drill hole passed through this body into underlying volcanic rocks and limestone, and several other drill-holes reached its upper surface.

The main ore-body, which was mined in No. 1 and No. 2 pits, is a flat-lying, slightly saucer-shaped deposit, roughly oval in plan, 180 feet long in a north-south direction, 70 feet wide, and about 4 feet thick. The limits of the ore have been determined by test-pits and diamond-drill holes. Any original extension beyond the limits shown has been removed by erosion. The ore-body is associated with a mineralized fault about 10 feet wide striking north 10 degrees east and dipping 80 degrees westward. The rock on the footwall side on the north side of the pit consists of flat-lying limestone overlying altered andesite porphyry. The porphyry is epidotized and garnetized and locally forms skarn. The rock on the hangingwall side of the fault, exposed in the west side of the pit, is silicified argillite overlain by flat-lying limestone.

This peculiar gold ore consists mainly of large prismatic crystals of dark-green pyroxene with interstitial glassy quartz and coarsely crystalline calcite. Reddish-brown garnet occurs locally in the ore. Microscopic examination shows that the garnet was brecciated and partly replaced by pyroxene. The pyroxene crystals, some of which are 6 inches long, are arranged with their long axes approximately vertical; that is, normal to the general attitude of the deposit. The quartz, calcite, and metallic minerals were deposited later than the pyroxene and occur in fractures in pyroxene crystals. Metallic minerals sparingly present include arsenopyrite, pyrite, chalcopyrite, pyrrhotite, native bismuth, a lead-bismuth telluride which has been named "hedleyite", molybdenite, and native gold. The gold is erratically distributed and does not appear intimately associated with any particular mineral. Small grains of gold were seen in cleavage cracks in pyroxene and coarse calcite, and also in apparently casual association with quartz, arsenopyrite, and native bismuth.

## HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

In late 1981, Good Hope Resources started mining the deposit in a joint venture with Dankoe Mines Ltd. The ore is shipped to the Dankoe mill for processing.

A joint venture agreement of November 1981 with Dankoe Mines Limited allowed for milling of Good Hope ore at Dankoe's 450 ton-per-day mill, some 40 miles away. A shallow deposit adjoining an old open pit was mined in 1982 from underground through a decline from surface. Some 5,500 tons averaging 0.44 oz/t Au were milled before falling gold prices and a narrowing of the ore zone forced suspension of the operation.

Grove Explorations Ltd, through their holding company Twentieth Century Investments, acquired control of Good Hope Resources Ltd in 1983. Placer Development Limited held an option on the property from January 1984 to July 1986. Work under that agreement included extensive geological, geochemical and geophysical surveys.

Golden North Resource Corporation in October 1986 amalgamated with Good Hope Resources under the former name. Work in 1987-88 included geochemical soil surveys (3100 samples), trenching, some 3000 feet of diamond drilling in 4 holes, an induced potential survey.