

PRODUCT PRODUIT	GOLD	PROVINCE OR TERRITORY	PROVINCE OU TERRITOIRE	British Columbia	N.T.S. AREA RÉGION DU S.N.R.C.	93 L/15	REF. AU 1 RÉF.
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NAME OF PROPERTY
NOM DE LA PROPRIÉTÉ

SK (GOLD ROCK) (FREE GOLD)
(BABINE GOLD), CHANCE

OBJECT LOCATED - adit.
OBJET LOCALISÉ

UNCERTAINTY FACTEUR D'INCERTITUDE	600 m	Lat. 54°45'10"	Long. 126°36'
Mining Division Division minière	Omineca	District District	Coast, Range 5
County Comté		Township or Parish Canton ou paroisse	
Lot Lot		Concession or Range Concession ou rang	
Sec Sect.	Tp. Ct.	R. R.	

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

Altered green and purple Jurassic tuffs of the Hazelton group have a northwesterly strike and are sheared in directions roughly parallel to the strike. These rocks are intruded by irregular, dyke-like bodies of quartz porphyry, the largest exposure being 15 feet wide. In general, the volcanic rocks are silicified near the porphyry contacts.

A zone about 300 feet wide, consisting of several approximately parallel veins and lenses dipping steeply northeast and striking at an average of north 45 degrees west, is exposed by strippings and open-cuts. The most important veins in this zone are a pair from 15 to 45 feet apart, which vary in width up to 3 feet but average 6 to 8 inches. In places the wall-rock contains disseminated sulphides for distances up to 1 foot from the veins. The more northerly vein of the pair (No. 2 vein) has been traced for 750 feet, and the southern one (No. 3 vein) has been traced for 400 feet. A small outcrop of quartz porphyry lies 150 feet north of the west end of the zone. What is called the No. 1 vein is a series of irregular lenses of quartz containing a little pyrite, lying 50 feet north of, and parallel to, the east end of the No. 2 vein. The see Card 2

Associated minerals or products - Silver, lead, zinc.
Minéraux ou produits associés

HISTORY OF EXPLORATION AND DEVELOPMENT

HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The property is located at the 4,100 foot elevation on the east side of Dome Mountain, 22 miles east-southeast of Smithers. The Dome Mountain property (93 L/10, AU 1) is located about one mile to the southwest.

The Chance group of claims, owned in 1923 by Alex Chisholm and associates, was optioned by the Trites-Wood Syndicate and some exploration work carried out. The location of the Chance group is not known other than that it adjoined the Dome Mountain property.

In September 1923 Chisholm discovered and staked the Free Gold showings. No further activity was reported until 1931 when Alex and Angus Chisholm, of Smithers, carried out some work on the Free Gold and Iron Mask claims. The 16 claim property was optioned to the firm of W.R. Wilson and Sons, who incorporated Babine Gold Mines, Limited, in March 1932. A program of underground development was begun and continued into 1935. The workings at that time included about 1,800 feet of stripping and trenching, 560 feet of crosscut and 410 feet of drifts in one adit, 63 feet of raising, and 5 shallow shafts. A small amount of ore was shipped to the Provincial Government sampling plant at Prince Rupert in 1940.

The claims lapsed and the ground was restaked in 1942 by the original owner, Alex Chisholm, and Arthur J. Cope, both of Smithers. The property comprised 8 claims (Record Nos. 3219-3224, 3684, 3685), including the Joe, Sally, Gold Rock, Fur, etc.

Privateer Mine, Limited, optioned the property in 1943 and carried out further drifting; this work extended one oreshoot to a length of 93 feet with an average width of 1 foot and an average grade of 2.2 ounces of gold per ton (uncut). The company held the option until 1946.

Trans-American Mining Corporation Limited optioned the property in 1947 and carried out trenching, stripping, and sampling. The option was subsequently given up.

Joseph T. Mandy, of Vancouver, optioned the claims on March 10, 1951, and by an agreement of March 31, 1951, assigned his interest in the property to Lake Surprise Mine Limited. The company reopened the underground workings for mapping and sampling. Some dump ore was shipped during the year. In 1952 the option was assigned to The Mineral Exploration Corporation Limited. Geologist A.P. Beavan, in a January 1953 report for the see Card 2

see Card 2

HISTORY OF PRODUCTION/HISTORIQUE DE LA PRODUCTION

From a shipment of 2.46 tons to the sampling plant at Prince Rupert in 1940, 6 ounces of gold and 7 ounces of silver were recovered.

Lake Surprise Mine Limited shipped 3 tons from an old dump in 1951. From this ore 6 ounces of gold, 12 ounces of silver, 120 pounds of lead, and 334 pounds of zinc were recovered.

In 1981-82 a total of 5 261 tonnes were milled. From this ore 10 657 g Au, 17 678 g Ag, 1 738 kg Pb and 6 114 kg Zn were recovered.

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

Map of Workings, Babine Gold Mines Ltd., Sc. 1":135 ft., Report of Minister of Mines, British Columbia, 1938, p. B 18.

Map 69-1, Smithers, Hazelton, and Terrace Areas, (Geological compilation), Sc. 1":4 miles, British Columbia Dept. of Mines.

#Map 671 A, Houston, (Geol.), Sc. 1":4 miles (1942).

Map 5318 G, Driftwood Creek, (Aeromag.), Sc. 1":1 mile.

*Map 93 L/15, Driftwood Creek, (Topo.), Sc. 1:50,000. Preliminary geology of the Dome Mountain gold camp, Fig. 65, and Detailed Geology of the Free Gold vein, Fig. 70, Geological Fieldwork, 1985, p. 194.

REMARKS/REMARQUES

REFERENCES/BIBLIOGRAPHIE

Lang, A.H.; Houston Map-Area, British Columbia; Paper 40-18, p. 9, Geol. Surv. of Canada, 1941.

Reports of Minister of Mines, British Columbia: 1923, p. 113; 1931, p. 74; 1933, p. 98; 1934, p. C 11; 1938, pp. B 15-B 20; 1940, p. 55; 1951, p. 113; 1967, p. 90.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1972, p. 417; 1977, p. E 196.

Mineral Policy Sector; Corporation Files: "Le Prix Explorations Limited"; "New Privateer Mine Limited"; "The Mineral Exploration Corporation Limited"; "Babine International Resources Ltd."; "Panther Mines Ltd."; "Reako Explorations Ltd."

Kerr, F.A.; Preliminary Report, Mineral Resources Along the Canadian National Railway, Between Prince Rupert and Prince George, British Columbia; Paper 36-20, pp. 112-115, Geol. Surv. of Canada, 1936.

Lode-gold Developments in British Columbia during 1932; Bulletin No. 3, 1932, p. 16, British Columbia Dept. of Mines, compiled by John D. Galloway.

Mines Branch, Ottawa; Investigations in Ore Dressing and Metallurgy, Sept. 1938, unpublished; reproduced in Report of Minister of Mines, British Columbia, 1938, p. B 16.

Price, Barry; Geological Report, Dome Mountain claims, 25/02/80, in Panther Mines Ltd., Statement of Material Facts, 03/10/80.

George Cross News Letters, August 13, 1982, No. 155, p. 4; 1982, No. 185; 1986, No. 70. Schroeter, T.G.; West-Central and Northwest British Columbia, Lucky Gold (93 L/10 E) in Geological Field Work 1979, British Columbia Paper 1980-1, pp. 125-126,

1980
Geological Fieldwork; British Columbia Dept. of Mines: 1984, p. 207+.

Comp./Rev. By Comp./rév. par	DMacR	DMacR	DMacR	JL	DMacR		
Date Date	01-76	01-79	03-82	10-82	08-86		

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NAME OF PROPERTY NOM DE LA PROPRIÉTÉ	SK (GOLD ROCK) (FREE GOLD) (BABINE GOLD), CHANCE			HISTORY OF EXPLORATION AND DEVELOPMENT (continued) HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR			
DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT							
<p>No. 4 vein is about 80 feet south of, and parallel to, the east end of the No. 3 vein; it is up to 8 inches wide, is exposed for a length of about 200 feet, and consists of quartz with some pyrite. Several smaller lenses and stringers of quartz complete the zone as exposed at the surface.</p>		<p>company, estimated the No. 3 vein oreshoot, above the drift level (90 ft.), to contain 1,670 tons, over a 1.55 foot width, grading 1.05 ounces gold, 1.50 ounces silver, 0.8% lead, and 1.56% zinc (TSE Prosp Oct/55, Mineral Expl Corp L, Beavan, A.P., 24/01/53).</p>					
<p>An adit bearing south 40 degrees west has been driven for 343 feet, crosscutting the zone at depths up to 90 feet. Several flat veins, lenses, and stringers that may be related to the No. 1 surface exposure were intersected in this drive, but the continuations of the No. 2 and No. 3 veins were not found in this part of the workings. Two steep veins that are probably the continuations of the 3 A and 4 surface exposures were struck 320 feet from the portal; these intersections form part of a zone of quartz lenses up to 10 inches wide that was followed by drifting in an irregular northwesterly direction for about 280 feet. At the face of the drift a crosscut was driven to the northeast for 75 feet, at which point it intersected a quartz vein up to 28 inches wide occurring partly in altered volcanic rock and partly in fractured rhyolite. This vein appears to be the continuation of the No. 3 vein, as a 70-foot raise inclined 80 degrees north connects with the surface exposure of the No. 3 vein.</p>		<p>Dome Babine Gold Mines Ltd., incorporated July 7, 1967 and changed to Dome Babine Mines Ltd. on July 20, 1967 optioned 64 claims in the SK group. Work included a geochemical survey, bulldozer trenching, and exploration diamond drilling, mainly outside of the main vein systems; the claims subsequently reverted to owners A. Cole and M. Mesich.</p>					
<p>The steep veins contain up to about 20 per cent pyrite in the form of fine disseminations and banded masses. With this mineral are minor quantities of sphalerite, galena, tetrahedrite, and chalcopyrite. A microscopic study made in connection with a test shipment to the Bureau of Mines, Ottawa, is reported to indicate that the gold occurs as grains in galena and chalcopyrite that occur as minute veinlets in the fractured pyrite. This shipment consisted of 680 pounds taken from the underground exposure of the No. 3 vein, and it is reported to have assayed: gold 1.78 ounces a ton; silver 2.18 ounces a ton; lead 1.54 per cent; zinc 5.87 per cent; copper 0.15 per cent; arsenic 0.02 per cent; sulphur 10.38 per cent. Assays of up to 8.3 ounces a ton of gold have been reported from dump samples.</p>		<p>Amoco Canada Petroleum Company Ltd. held the property in 1972 as the E 1-32 and Gold Rock 1-6 claims. Work during the year included geological mapping, an induced polarization survey over 13 line-miles, a ground magnetometer survey over 12.7 line-miles, and a geochemical silt, soil, water, and rock survey (370 samples) covering all claims.</p>					
<p>The flat veins encountered in the adit are up to 30 inches wide and dip less than 20 degrees, except where rolls occur. They contain less sulphides than the steep veins, and the owner stated that although fair gold assays had been obtained in</p>		<p>The showings were held in 1976-77 by Paul Plicka as the Mona claim (20 units); trenching was reported.</p>					
<p>see reverse Card 2</p>		<p>Around 1979, Kryco Mines Ltd. acquired the Lucky Gold (Free Gold) property and constructed a 2.5 km access road from the Fulton Lake main logging road and the old workings were rehabilitated. The company continued drifting along vein 3 to hookup with the workings below shaft 2. Approximately 45 tonnes of ore mined in the 1930's are stockpiled outside the portal (main dump) and another 45 tonnes broken in 1979⁷ were stockpiled (new dump) from a surface exposure located approximately 55 metres south of the portal. Another 45 to 91 tonnes are in a number of small dumps along the surface expression of the vein system which has been traced by trenches and shafts over a length of 180 metres.</p> <p>Kryco Mines restaked the Lucky Gold 1-6 claims in the Repeater 1 & 2 claims and were optioned by Panther Mines Ltd. and Reako Explorations Ltd. In 1980, there were shipped to Trail 325 tons of vein material reportedly averaging 1.22 ozs Au/ton and 2.5 ozs Ag/ton. There are an estimated 2,000 tons of dump material at the portal of the Free Gold adit. There are 11,600 tons grading 0.62 ozs Au/ton, 0.78 ozs Ag/ton, 0.39% Pb and 0.99% Zn in the No. 3 & 4 veins. (Panther Mines Ltd., SMF 162/81). At this time the main quartz veins were mapped and chip sampled. During 1981 Panther-Reako diamond</p>					
<p>see reverse Card 2</p>		<p>see reverse Card 2</p>					

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

places, the average was low. These veins show only a slight tendency to penetrate the porphyry, suggesting that they were formed before the porphyry was fractured; some may even antedate the intrusion of the porphyry.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

drilled 7 holes totalling 3,025 feet and a 50 ton per day portable concentrator was operating intermittently; In a period in October 1981, it was processing 70 tons per day. Panther and Reako purchased Kryco Mines in 1981 or 1982. In the milling operations the flotation concentrate averaged 4.5 ozs Au/ton, 9.5 ozs Ag/ton, 0.44% Cu, 2.95% Pb and 10.24% Zn while the jig concentrate of about $\frac{1}{4}$ ton average, 117.7 ozs Au, 23 ozs Ag, 0.16% Cu, 6.5% Pb and 3.48% Zn. In August 1982, open cut mining of a zone 10 feet wide, 25 feet deep and 250 feet long was being done with values ranging between 0.10 to 7.20 ozs Au/ton, 0.20 to 17.32 ozs Ag/ton.

Panther Mines Ltd optioned the property from Lorne Warren in 1980 and subsequently entered into a 50-50 joint venture with Reako Explorations Ltd. Work in 1981 included 3,250' of diamond drilling in 7 holes, 5,625' of percussion drilling in 225 holes, a survey of 1,200' of underground workings, and trenching; some 12,000 tons were mined from one of the trenches. A 100 tons per day portable mill was installed some 10 km northwest of the property and operated in the fall of 1981 and in July-October 1982, milling approximately 8,000 tons.

Noranda Exploration Company, Limited optioned the property from Panther and Reako in April 1986.