

PRODUCT  
PRODUIT

COPPER

PROVINCE OR  
TERRITORY

PROVINCE OU  
TERRITOIRE

British Columbia

N.T.S. AREA 92 I/9  
RÉGION DU S.N.R.C.

REF. CU 1  
RÉF.

NAME OF PROPERTY  
NOM DE LA PROPRIÉTÉ

IRON MASK, ERIN

OBJECT LOCATED - Iron Mask shaft.  
OBJET LOCALISÉ

UNCERTAINTY 100 m  
FACTEUR D'INCERTITUDE

Lat. 50°39'15" Long. 120°26'10"  
Lat. Long.

Mining Division Kamloops  
Division minière

District  
District

Kamloops

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

The property occurs near the northern edge of the Jurassic and (?) Later Iron Mask batholith. The Iron Mask and Erin orebodies were of similar shape, size, and attitude. Each was lens-shaped in plan and about 175 feet in horizontal length. Their widths were fairly similar; including low-grade ore, the Erin orebody generally did not exceed 30 feet, whilst the Iron Mask orebody attained a maximum width at lower depths of more than 20 feet. Both orebodies strike north 65 degrees east. The mine plans show that both orebodies dip about 75 degrees to the southeast, and that the Erin orebody dips less steeply above the 300 level. Stope outlines of both orebodies are lenticular above the 600 level. At this level the Erin orebody splits eastward. The Iron Mask orebody continued to 690 feet slope depth, where it is reported to have been cut off by a low-angle fault. The footwall of each orebody is recorded as well-defined and the hangingwall as indefinite.

Seventy-five feet west of the Iron Mask shaft, mineralized diorite in contact with picrite-basalt has been mined to within 8 feet of the surface. The exposed contact is irregular in detail, being essentially breccia of mineralized white

see Card 2 , , , ,

Associated minerals or products - Gold, silver.  
Minéraux ou produits associés

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

The Iron Mask shaft is located at the 2,800 foot elevation on the north side of Iron Mask hill, about 4 miles west-south-west of Kamloops; the Erin shaft lies about 1,300 feet to the northeast and the Norma shaft about 1,800 feet to the north.

The Iron Mask showing was staked in August 1896 by G. Breedsen, W.H. Ford, and R.H. Loyn. The Erin showing was staked shortly thereafter by a Mr. Beattie and associates. By 1898 the Erin shaft had been sunk to 96 feet and several crosscuts driven. The Iron Mask was bonded to The B.C. Exploring Syndicate, Limited, of London, England, and subsequently disposed of to the Cole Hill Gold, Silver and Copper Mining Company, Limited. The Iron Mask (Lot 878), Sunrise (Lot 879), Bonnie Jean (Lot 850), and Copper Queen (Lot 880) were Crown-granted to the company in 1900. Shaft sinking and drifting were in progress and in 1903 a 100 ton per day concentrator was completed. The company was reorganized in 1904 under the name Kamloops Mines, Limited, and the Erin and adjacent claims were bonded. The concentrator was expanded to 200 tons per day and operations continued into 1908.

The property, comprising some 16 claims and fractions, was purchased in 1909 by E.G. Wallinder and associates, of Duluth, who incorporated the Kamloops Cooper Company. The mine reopened in 1910. A new 150 ton per day mill was built in 1917 and expanded to 300 tons per day in 1918. The operation became unprofitable and the mine closed in 1920. To that date the workings totalled over 16,000 feet of underground openings. The Iron Mask shaft, inclined at 68 degrees, was sunk to 780 feet and 7 levels established, the lowest at 750 feet slope depth below the collar. The Erin shaft, inclined at 70 degrees, was sunk to 330 feet and levels established at vertical depths of 100 and 300 feet. A raise connecting the 750 level of the Iron Mask with the 300 level of the Erin was completed in about 1916.

The mine reopened in 1922 but was forced to close in 1924 due to financial difficulties. The company was then reorganized under the name Continental Copper Co., Limited, with head office in Chicago. The mine was reopened in 1925 and a program of underground exploration began. The Norma shaft was sunk to a single level 200 feet below the collar; a raise was driven from

see Card 2....

503250 \*

**HISTORY OF PRODUCTION/HISTORIQUE DE LA PRODUCTION**

From 1901 to 1928, 182,494 tons of ore were milled or shipped from this property. From this ore 3,794 ounces of gold, 14,483 ounces of silver, and 5,390,723 pounds of copper were recovered.

**MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES**

Eastern Part of the Iron Mask Batholith, (Geol.), Sc. 1"; 1 mile, Fig. 13, Report of Minister of Mines, British Columbia, 1967, p. 137.  
 Iron Mask Mine, (Geol. & workings), Fig. 5, Report of Minister of Mines, British Columbia, 1956, p. 59.  
 Map 887 A, Nicola, (Geol.), Sc. 1":4 miles - accomp. Mem. 249.  
 Map 5216 G, Kamloops, (Aeromag.), Sc. 1":1 mile. (1968).  
 \*Map 92 I/9 W, Kamloops, (Topo.), Sc. 1:50,000.

**REMARKS/REMARQUES**

For information on the Night Hawk and adjacent claims, see 92 I/9, Ref. CU 7.

Comp./Rev. By Comp./rév. par	DMacR	DMacR	DMacR	DMacR			
Date Date	04-73	05-84	04-87	07-89			

**REFERENCES/BIBLIOGRAPHIE**

Carr, J.M.; Deposits Associated with the Eastern Part of the Iron Mask Batholith Near Kamloops; Report of Minister of Mines, British Columbia, 1956, pp. 58-63.  
 Preto, V.A.G.; Geology of Eastern Part of Iron Mask Batholith; Report of Minister of Mines, British Columbia, 1967, pp. 137-141.  
 Cockfield, W.E.; Geology and Mineral Deposits of Nicola Map-Area; Memoir 249, pp. 106-108, Geol. Surv. of Canada, 1948.  
 Reports of Minister of Mines, British Columbia: 1896, p. 567; 1897, p. 612; 1898, p. 1102; 1899, p. 730; 1900, pp. 889, 991; 1901, p. 1077; 1902, p. 190; 1903, p. 179; 1904, p. 229; 1905, p. 195; 1906, p. 174; 1908, p. 121; 1909, p. 139; 1910, p. 128; 1913, pp. 182, 185-187; 1915, p. 210; 1916, p. 428; 1917, p. 235; 1918, p. 233; 1920, pp. 168, 254; 1921, p. 198; 1922, p. 149; 1923, p. 149; 1924, pp. 146, 296; 1925, pp. 167, 362; 1926, p. 184; 1927, p. 198; 1928, p. 208; 1961, p. 47; 1962, p. 60; 1965, p. 158; 1966, p. 148.

Mineral Policy Sector; Corporation Files: "Continental Copper Co., Limited"; "Kamloops Copper Consolidated Ltd."; "Davenport Oil & Mining Ltd."; "Comet Industries Ltd."; "Teck Corporation".

Geology, Exploration and Mining; British Columbia Dept. of Mines: 1973, p. 199; 1974, p. 150; 1976, p. E 99; 1977, p. E 154; 1978, p. E 167.

George Cross News Letter; 1987, No. 22, ,169; 1988, No. 181.

Iron Mask Area Copper Property; Initial Developers Limited, Filing Statement 164/86.

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TERRITORY TERRITOIRE

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IRON MASK, ERIN

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

rock and unmineralized picrite-basalt. It strikes about north 55 degrees east and dips at about 60 degrees to the southeast. Chalcopyrite occurs as disseminations and stringers. Iron oxide is abundant in a small vein in the northern wall of the breccia zone. At the shaft itself, a mineralized fault zone 5 feet wide strikes north 60 degrees east in diorite and dips at about 60 degrees to the southeast. The footwall of this zone is poorly defined and contains another mineralized zone that dips at 35 degrees to the southwest.

There is little record of the mineralogy of the Iron Mask ore. On the dump, the only mineralized material seen is diorite carrying disseminated chalcopyrite. Ore mined in 1923 was stated to carry pyrite. The reported association of gypsum and talc in fracture planes in diorite near the bottom of the Iron Mask shaft is similar to the occurrence in the Larsen workings. Gypsum gangue occurred in one of the late developed orebodies in the eastern workings. The oxidized material of the Erin orebody contained chalcopyrite, with some malachite, azurite, and cuprite. A little bornite was seen on the dump.

A number of smaller orebodies were developed. On the 600 level about 330 feet north of the Erin shaft station, a vein 14 inches wide was followed 450 feet in a drift. In 1928 production was principally from an orebody about 900 feet northwest of the Erin orebody. It was worked on the 750 level to a width of 12 feet, a length of 120 feet, and a height of 90 feet. Much of the material was low in grade.

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

the Iron Mask 750 level to connect with this level. From 1925 until November 1928 when the mine closed, extensive development work was accompanied by some production, largely from smaller orebodies. After World War II quantities of explosives were jettisoned in the Iron Mask and Erin shafts, wrecking and caving the collars.

The Iron Mask and Erin claims were acquired in about 1946 by W.A. Urquhart, G.F. Dickson, and associates. Kamloops Copper Company Ltd. was incorporated in October 1951 to acquire some 40 claims and fractions, including most of the original Iron Mask holdings. In 1952 the property was optioned to Berens River Mines Limited and an electromagnetic survey carried out. Further electromagnetic surveying was done in 1956 over an area measuring 6,000 feet by 6,000 feet that extends immediately north of the Iron Mask shaft. The mine was dewatered in 1961 and about 11,000 feet of diamond drilling completed in the old workings. The company name was changed in 1964 to Kamloops Copper Consolidated Ltd. Vanco Explorations Limited held an option on the property in 1965-66 and some geophysical work was carried out.

Kamloops Copper in 1972 amalgamated with Midland Petroleum, Ltd., and Consolidated Prudential Mines Ltd., to form Davenport Oil & Mining Ltd. In March 1972 the property was optioned to Comet Industries Ltd.

In December 1972 Getty Mining Pacific, Limited optioned 120 contiguous claims in the combined properties (Victor, Iron Mask, Iron Cap and DM (92 I/9, CU 1, 7-9) held by Comet, Initial and Dacenport. Work by Getty in 1973 included an induced potential survey over 58 line-miles, a magnetometer survey over 54 line-miles, 6,839' of rotary drilling in 8 holes, 1,852' of diamond drilling in 2 holes, and 50,897' of percussion drilling in 159 holes. Among these holes, 25 were spaced over a 2 mile by 3 mile area. The option was given up in 1974.

Davenport Oil & Mining changed its name in 1973 to Davenport Industries Ltd. Initial Developers Corporation in May 1974 amalgamated with North Pacific Mines Ltd under the name Initial Developers Limited.

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

Canadian Superior Exploration Limited optioned the above combined properties (some 5,400 acres) in 1975. Work in 1976-78 included a magnetometer survey over 89 line-k, 8,064 metres of diamond drilling in 47 holes and 4,211 metres of percussion drilling in 48 holes. The option was terminated in 1978.

Craigmont Mines Limited in February 1981 obtained an exploration agreement on the above four properties and on the adjacent Rainbow property (92 I/9, CU 5) of Pacific Seadrift Resources. Work by Craigmont included diamond drilling, mainly on the Victor and Rainbow properties. This work indicated insufficient tonnage and the option was terminated in September 1981. In 1986 the property was owned by Comet Industries Ltd (40%), Davenport Industries Ltd (30%) and Initial Developers Limited (30%).

Work over the Iron Mask and/or adjacent ground in 1983 included 13 km of geophysical surveys and 294 m of drilling to further delineate reserves; an additional 400 m of drilling was reported in 1986; drilling may have been in part on the "Tailing Zone".

Teck Corporation and Metall Mining Corporation, through Afton Operating Corporation, in August 1987 obtained from Comet, Davenport and Initial a 10 year exploration option (to earn a 75% interest if production is achieved) on the Iron Mask and adjacent properties comprising 25 Crown-grants, ten -two post claims, and 8 located claims (86 units).