

NAME OF PROPERTY IRON DUKE

OBJECT LOCATED—of symbol on Map Fig. 5.

UNCERTAINTY IN METERS	Lat. 52°59'30"	Long. 131°43'10"
Mining Division	Skeena	District
County		Township or Parish
Lot		Concession or Range
Sec	Tp.	R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The Iron Duke is a normal pyrometamorphic iron deposit in the typical stratigraphic setting. A thick grey limestone that undoubtedly is the Kunga grey limestone member overlies chloritized basaltic rocks, certainly Karmutsen Formation. These are intruded by contaminated and altered diorite to granodiorite and some diorite to dacite porphyries. The limestone and adjacent Karmutsen greenstones are extensively skarnified and replaced by magnetite and minor iron sulphides.

The Kunga limestone overlying the Karmutsen greenstones strikes north to north-eastward and dips gently westward. Diorite to dacite porphyry dykes cut the bedded rocks, and diorite to granodiorite intrude the greenstones at relatively shallow depth. The magnetite ore occurs in a dislocated northeast-trending zone that lies adjacent to the limestone along a band that is coincident with the projected limestone-greenstone contact. Judged by position alone, the ore appears chiefly to replace the basal part of the limestone. An alternative explanation, that the ore zone is located along a northeast pre-ore fault, would indicate the majority of the ore replaces greenstone that is adjacent to the limestone. In any case the host rocks and the ore zone are cut by three steep

Associated minerals or products of value

P.t.o. ...

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is on the slope north of Waste Creek, about 2 1/2 miles west of Girard Point on the northeast coast of Louise Island.

The showings were discovered and staked in 1911 and subsequently optioned to the Western Steel Co., of Irondale, Washington. The property was owned in 1913 by H.K. Owen, of Seattle. Most of the early development work was done in 1918 by the owners, Messrs. Rogers, Benson, and Larson. An adit was driven for 75 feet and at a point 50 feet from the portal a crosscut was driven across a 12 foot wide dyke. The 10 claim property, Lots 2331-2340, was Crown-granted in 1921. A small amount of additional work was reported in 1922.

By the late 1950's the property had been acquired by Campbell M. Robertson and associates, of New Westminster. Work began with an examination and magnetometer survey by Silver Standard Mines Limited in 1959. During 1961 exploration initiated by Campbell Robertson included a geological examination and an attempt to build a road to the property from the shore near Mathers Creek. In the autumn the property was optioned by Magnum Consolidated Mining Co. Ltd., who made a magnetometer survey of the property and a geological map of the vicinity. Two diamond drills were moved to the Iron Duke late in 1961, and in January and February 1962, 15 AX holes were drilled totalling 3,054 feet. Later in the year Silver Standard optioned the property and drilled 33 EX holes totalling 4,805 feet. Most of the known magnetite and the magnetic anomaly are on Iron Duke No. 2 claim (Lot 2333), but both extend uphill onto the southwest corner of Iron Duke No. 1 (Lot 2332).

HISTORY OF PRODUCTION

REFERENCES

Brown, A. Sutherland; Geology of the Queen Charlotte Islands; Bulletin No. 54, p. 180, British Columbia Dept. of Mines, 1968.

Young, G.A., and Uglow, W.L.; The Iron Ores of Canada, Vol. 1, B.C. and Yukon; Economic Geology Series No. 3, pp. 27-30, Geol. Surv. of Canada, 1926.

Reports of Minister of Mines, British Columbia: 1911, p. 77; 1913, p. 104; 1918, p. 40; 1922, p. 41; 1961, p. 17; 1962, p. 13.

Mineral Resources Branch; Corporation Files: "Magnum Consolidated Mining Co. Ltd."; "Silver Standard Mines Limited".

MAP REFERENCES

*Geology of the Queen Charlotte Islands, Sc. 1":2 miles, Fig. 5, Sheet B - accomp. Bulletin 54, British Columbia Dept. of Mines.

*Map 103 B/13 E, Louise Island, (Topo.), Sc. 1:50,000.

BCI 103 B - C - 1

DESCRIPTION OF DEPOSIT (continued)

post-ore faults trending about N60°W, with offsets of from 50 to 300 feet.

The shape of the ore zone is fairly regular in plan, assuming offset by the post-ore faults. It is then about 960 feet long, trending northeastward and up to 200 feet or more wide. In normal cross-sections it is a wedge-like mass with highly digitated margins. The ore consists principally of magnetite and may be quite pure, but commonly has some disseminated skarn minerals and much pyrite. Chalcopyrite is relatively rare. Intercalated within the ore are sections that are formed principally of skarn minerals. Skarn also envelopes the ore zone, has a similar digitated wedge-like form, but extends much farther as wing-like sheets from the ore zone.

Reserves calculated by Silver Standard and its consultant geologist, D.D. Campbell, from all drilling are 546,000 tons proven and probable ore of 46 per cent iron as magnetite with an additional possible 36,000 tons. Sulphur may average 2 per cent.

REMARKS

Comp./Rev. By							
Date							

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