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 ② Emerald Glacier

Summary

The Emerald Glacier mine is a high grade silver-lead-zinc deposit in central British Columbia. It was found in 1915 developed and explored in 1929 by Consolidated Mining and Smelting Company of Canada Limited. It is relatively near the Aluminium Company of Canada Kemano power plant and roads to that project give access to the property ^{in 1950.} At this time some high grade was mined and shipped and additional ^{exploration and} development work was done. Mining and shipping raw ore from the mine is marginal and work is now planned to determine the feasibility of building a mill on the property.

Location. Latitude $53^{\circ}45'N$ Long $127^{\circ}15'W$.

The mine is near the north limit of Tweedown Park in the high rolling plateau and lake country of Central British

Columbia. It is six miles¹⁰ by road from Takton Lake and is reached by the Alcan road from Highway 16 in the Bulkley Valley.

Geology

General.

The district is underlain by gently dipping volcanics with interbedded tuffs, sediments and fragmentary rocks. These rocks are faulted, folded and intruded by Coast Intrusives and by younger stocks and plugs of gabbroic, granitic and dioritic rocks.

Claim Geology

The property is underlain by agglomerates, limy tuffs folded in a monocline and overlain by andorites. The Sebela Mountain hornblende-biotite-granodiorite outcrops north of the claims and numerous steep dipping aplites and lamprophyre dikes cut the formation. Shear zones striking north 5 degrees west dip vertically.

Mineralization

The shear zones are silicified and contain galena, sphalerite, chalcopyrite and pyrite. Gold and silver values are variable and stibiochalcite occurs in some shears. The mineralization is probably derived from the Sibola Intrusive which is thought to be the source of placer gold on Sibola Creek, high silver bearing veins on Coomb Creek and the copper deposits being explored by Kenco Explorations on claims adjoining the Emerald on Whiting Creek.

Development On the surface two veins 8 to 14 feet wide and 50 feet apart were found in limy tuffs and traced, by trenching, for a length of 770 feet. At the north end of the trenches the surface outcrops are covered but ~~quartz~~ have been found on Rhine Creek. No vein was but local float can be found for 2000 feet. Beyond this a similar vein was found on

Rhine Creek where a similar vein 5 to 11 feet wide has been traced for 60 feet. Two grab samples from it averaged Tr gold, 1.35 oz silver per ton and 8% combined lead and zinc.

Four surface diamond drill holes were drilled below the surface trenching on the Emerald showing and these showed 1.5 feet of 1.9 oz silver 0.3% copper 0.2% lead and 14.5% zinc. and 1 foot assaying 6.15 oz silver 1.9% copper and 14.6% zinc.

An adit 100 to 150 feet below the trenches was driven on the 6400 level on one vein for a length of 470 feet. A raise was driven from this level to the surface and 4566 tons of ore were shipped to the smelter. It yielded 37 oz gold 55,719 oz silver, 1,118,809 lbs of lead and 1,050,240 lbs of zinc. The copper was not recovered.

A crosscut was driven off the 6400 level and two veins were drifted along a length of 150 feet.

A second level has been driven at elevation 5989 feet (6000 level). Two narrow veins were developed on this level striking N30 to 35 degrees west and dipping steeply east. Widths average 1.5 feet and they have been drifted along for 170 and 200 feet respectively. Diamond drilling from this level showed a series of parallel veins in andesite two of which were explored in the above drifts.

A third level at elevation 5418 feet (5400 level) was driven for 2000 feet 700 feet to the east of the surface veins. It did not encounter mineralization but one diamond drill hole drilled to the west intersected two mineralized zones beneath the surface veins. Both were weak and poorly mineralized.

Ore possibilities

The two main veins have been located 500 feet below the outcrop on the 6000 level and diamond drilling shows the veins

continue to at least the 5400 level.

2. The two veins are exposed on the 6400 level. No. 1 vein can be further explored by drifting or diamond drilling and diamond drilling could be readily used to determine the tonnage available for mining on No. 2 vein.

3. The two veins, ^{probably} continue on the surface to the Rhine Valley. Surface diamond drilling could determine the potential

D. C. Malsbenden