

82K/9E
82K/SW-35

004311

Title..... Doherty

Author..... msh

Date and Typist..... December 11th 1953 - gl.

(32)

1.

Doherty. The Doherty Crown-granted claim is owned by Geo. E. McCready and L.N. Garland of Retallack. It is on Kaslo Creek at the mouth of Lyle Creek, 1 mile east of Retallack and 17 miles from Kaslo.

Shipments have been reported in early years, but there is no record of production before 1948 and 1949, when E.H. Lovitt Limited mined 6,037 tons under a lease and option agreement. The property was optioned in 1951 by Pioneer Gold Mines of B.C. Limited and Alaska Gold Dredging Corporation, who put down twenty diamond-drill holes; the option was dropped early in 1952.

Ore mined in 1948 and 1949 was treated at the Whitewater Mill. A total of 6,037 tons was milled, the concentrates from which contained 6.8 ounces of gold, 3,901 ounces of silver, 51,208 pounds of lead, 783,087 pounds of zinc, and 2,794 pounds of cadmium. Assuming normal milling practice this ore contained approximately 0.7 ounce silver per ton, 0.5 per cent lead, and 7.5 per cent zinc.

The property is crossed by the Whitewater limestone band which is about 60 feet thick and outcrops for half a mile east of Lyle Creek as a continuous bluff along the Kaslo Creek road. The road follows the upper contact of the limestone with slates and the lower contact is exposed 250 to 300 feet north of the road. The limestone at the road forms a dip slope of about 60 degrees and flattens 50 to 75 feet above the road to dips as low as 20 degrees.

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The flattening of the limestone forms a gentle fold with some irregular crumpling, the details of which are not clear. The structure plunges a few degrees to the east.

Mineralization consists of sphalerite and galena in a gangue of siderite and limestone. The ore has formed by replacement of the limestone and follows the bedding for the most part; it is localized chiefly along the zone of crumpling at the change of dip, and does not extend down the steeply dipping limestone. The ore in old strippings is strongly oxidized.

Mineralization extends for 1,300 feet east of Lyle Creek canyon. Workings consist of five adits, some stripping, and two open pits. A 33-foot adit in the bottom of Lyle Creek canyon contains a few thin mineralized seams which follow the bedding. A short adit about 300 feet farther up Lyle Creek is driven on zinc mineralization in an isolated patch of limestone. A third adit 20 feet east of and 35 feet below the canyon rim is driven northward 37 feet in slate and slaty limestone and then 47 feet in limestone following a flat slip that localizes $2\frac{1}{2}$ to 4 feet of siderite containing sphalerite and galena. A fourth adit 250 feet farther southeast is driven 142 feet north-eastward through limestone to encounter slate. The fifth adit, below the main stripped area and 60 feet from the road, crosses the limestone to the underlying slates in 37 feet, but encounters no mineralization.

Title Doherty 3.

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Mineralization occurs at the surface in patches for 700 feet east of the canyon. It is almost all surficial; the largest patch was several feet deep and was removed by Lovitt except where covered by more overburden than warranted removal. About 800 feet east of the canyon an area 150 feet by 150 feet was stripped in past years. In this area is limestone whose dip nearly coincides with the ground surface. Bedded replacement of siderite and sphalerite and some siliceous pyritic material, strongly oxidized, occurs as two slabs separated by limestone, each slab locally being as much as 20 feet thick. The slabs appear to die out to the east, where they pass under overlying limestone. Oxidation for the most part is so intense that this mineralization does not constitute milling ore.

East of this large stripped area are two open pits on steep ground from which came almost the entire 1948-49 production. The west pit is about 50 feet long on a 30-degree slope, is 20 to 25 feet wide and is 24 feet high at the face. The east pit is about 30 feet high at the face and is separated from the west pit by 15 to 20 feet of limestone containing ore, part of which is strongly oxidized. The ore zone in the two pits is bedded but follows also a near-bedded slip and has irregular extensions along crumples. The main part of the zone was about 8 feet thick below the bedded slip and locally as thick above it. Only remnants of the ore zone remain.

About 200 feet east of the east open pit and 25 feet vertically above the road an oxidized bedded zone as much as 3 feet wide is exposed on the steep slope for 40 feet.

Twenty vertical holes were diamond drilled by Pioneer management in a length of 700 feet along the course of the limestone, up hill from the large stripped area and the open pits, and extending to a distance of 1,400 feet east of the canyon. The holes indicated a maximum vertical depth of 80 feet of limestone above slate. Although mineralization was encountered in all holes, most of it was narrow, low in grade, and discontinuous. The two best holes, 50 feet apart, intersected 14 and 18 feet of mineralization of a grade considerably lower than that mined in 1948-49. The holes were drilled in the zone of relatively flat-lying limestone and failed in their objective of finding major extensions of the main oxidized zone and the zone mined in the open pits by Lovitt.

East of the diamond drilled area, on the east margin of the Doherty and on the adjoining Last Chance Fraction, limestone outcrops for about 1,400 feet in bluffs of diminishing height. In this interval the flatly dipping limestone, in which mineralization is apt to occur, has been partly removed by erosion, and at the east end of the bluffs it has been completely removed.

Remnants of ore remain in the workings, but mining of them on steep ground above the public road is impossible.

Title Doherty 5.

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At the time of former mining the road was temporarily re-routed across the creek, but floodwaters have since destroyed that section.

Reference: B.C. Dept. of Mines, Bull. 22, 1945.