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OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The geology of the Richmond property is known only from scattered exposures and drill holes, the area being extensively covered by glacial drift. The central part of the property is divided by two large southeasterly trending Cretaceous(?) dykelike serpentine bodies. These dykes are near an important structural discontinuity separating a broad area to the west underlain by Early Mesozoic or Late Paleozoic phyllitic argillite beds and an area to the east underlain by an older metamorphic complex of mainly siliceous gneiss. The narrow zone between the serpentine dykes consists of a foliated, northeasterly dipping quartz porphyry intrusion, thought to be Early Mesozoic, and remnants of older dacitic volcanic rocks. Tertiary biotite diorite intrusions are the youngest rocks and occur throughout the property.

A detailed magnetic contour map of the property prepared by Silver Standard Mines Limited delineates the serpentine intrusions. Also, two northeasterly trending faults are tentatively identified from discontinuities found in the magnetic contours. One fault is projected through the area immediately north of the Lone Star mine and a subparallel fault is plotted a few thousand feet farther north. These faults are believed to be splays of Associated minerals or products of value p.t.o. HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the International Boundary, on the east side of Goosmus Creek, $6\frac{1}{2}$ miles south-southeast of Greenwood.

Little information is available regarding the early history and development of the Richmond Fraction and adjacent claims. The Orphan claim (Lot 1166) was Crown-granted in 1899 to A.W. Pelly and G.F. Hodgson. The New St. Maurice (Lot 682) and Richmond Fraction (Lot 2918) were Crowngranted to Henry Johnson in 1903 and 1907, respectively. The Eugenie (Lot 2612) and Boundary Fraction (Lot 2613) were Crown-granted in 1904 and 1905 to The Vancouver and Boundary Creek Developing and Mining Company, Limited Liability.

By a May 1967 agreement, Silver Standard Mines Limited optioned an 80 per cent interest, and Kenogamisis Gold Mines Limited optioned a 20 per cent interest, in 18 claims from R.F. Sandner, of Greenwood, and R.H. Seraphim. The property comprised the Richmond Fraction and New St. Maurice Crown-grants, 2 Mineral Leases, and 14 located claims. An adjoining 5 claims in Washington State were subsequently acquired by a Silver Standard subsidiary. Work during 1967 included geological mapping, 7 line-miles of induced potential survey, and 1,500 feet of percussion drilling in 5 holes. In 1968 a total of 947 feet of diamond drilling was done in 2 holes. Work during 1970 included 3 line-miles of magnetometer survey on the Richmond Fraction and New St. Maurice claims, and percussion drilling in 17 holes totalling 4.022 feet. The company name (Kenogamisis) was changed in 1973 to Anglo Keno Developments Inc.

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Mineral Resources Branch. Department of Energy, Mines and Resources, Ottawa.

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HISTORY OF PRODUCTION

REFERENCES

Church, B.N.; Richmond; Geology, Exploration, and Mining, British Columbia Dept. of Mines, 1970, p. 425.

Reports of Minister of Mines, British Columbia: 1899, p. 849; 1903, p. 248; 1905, p. 254; 1907, p. 219; 1967, p. 226; 1968, p. 228.

Mineral Development Sector; Corporation Files: "Silver Standard Mines Limited"; "Anglo Keno Developments Inc.".

MAP REFERENCES

Geology of the McCarren Creek, Goosmus Creek Area, Sc. 1": 2,500 ft., Fig. 62, Geology, Exploration, and Mining, 1970.

Location of the Richmond property and Lone Star mine, Fig. 69, Geology, Exploration, and Mining, 1970.

- Map 6-1957, Kettle River, (Geol.), Sc. 1":4 miles.
- *Map 82 E/2, Greenwood, (Topo.), Sc. 1:50,000.

 REMARKS

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DESCRIPTION OF DEPOSIT (continued)

the Bacon Creek fault which has been traced to the south forming the western boundary of the Republic graben in the Curlew-Republic area of Washington State.

The areas of intensive exploration are along the International Boundary and immediately southeast of the Lexington ground between the serpentine intrusions. Drilling near the International Boundary has penetrated andesitic volcanics and serpentine. According to company reports, a 40-foot section cut in a 1967 hole assayed 0.82 per cent copper; also good copper grades over narrow widths were intercepted in other holes. Recently a programme of percussion drilling southeast of the Lexington ground revealed a broad zone of mineralized quartz porphyry similar to the host rocks of the Lone Star deposit in Washington State.