

NAME OF PROPERTY ST. PAUL (MINERVA) (MORGAN)

OBJECT LOCATED-Toughnut claim (Lot 4189 G. 1).

UNCERTAINTY IN METERS 100. Lat. 50°08'50" Long. 118°27'10"

Mining Division Vernon District Osoyoos

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

DESCRIPTION OF DEPOSIT

The property is underlain by Carboniferous (?) and Permian Cache Creek greenish volcanics with some intercalated sediments, cut by a small Jurassic and/or Cretaceous diorite stock of the Coast Intrusions. The volcanics and sediments have a general east strike and for the most part a southerly dip. The intrusive is a medium-grained dark grey rock carrying disseminated pyrite, in places quite heavily mineralized. The upper (Morgan) showings consist of 2 or more quartz veins trending northwesterly, dipping about 45° southwest, and averaging about 1½ feet in width. At least one important cross-vein strikes about at right angles to the others. The vein quartz carries, in addition to occasional specks of free gold, an irregular dissemination of pyrite with some arsenopyrite, and locally small amounts of galena and sphalerite.

see Card 2

Associated minerals or products of value - Silver, lead, zinc.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located on the upper north side of Monashee Mountain, approximately 37 miles east-southeast of Vernon. The initial development work (Morgan workings) was done at about the 5,800 foot elevation on what later became the Minerva Crown-grant (Lot 4187 G. 1). Later development work was mainly on the Toughnut claim (Lot 4189 G. 1) at about the 4,800 foot elevation, approximately ½ mile north-west of the Morgan workings.

The showings were discovered in 1899 and staked as the Morgan, Guysboro, Dawn, and Morning claims by F. Williamson and E. Costley. (A 1913 report states the original property consisted of the Morgan, Kokanee, and Dividend claims, owned by Fred Williamson, George Doyle, and James Riley.) The Cherry Creek Gold Mining Company, Limited, incorporated in December 1902, optioned the Morgan group and by 1904 had reportedly driven a 35 foot adit on the Morning claim. The company was forced into liquidation in about 1905. The workings at that time included, in addition to the 35 foot adit, 2 shafts, one reported to be 80, and the other 35, feet deep. The 35 foot shaft and a drift run from it are reported to have provided most of the tonnage produced.

The Fire Valley Gold Mining Company, Limited, incorporated in October 1907 to acquire the McPhail property on the west side of Monashee Pass, is reported to have held an option on the Morgan group, however, no work was reported.

The property was subsequently restaked as the Minerva group of 4 claims. The claims were owned in 1913 by T.H. Williamson and Angus Woods, of Vernon, Rembler Paul, of Kelowna, and J.H. Hutcheson and E.H. Daniels, of Rossland. Development work was begun in 1913 on the Toughnut claim. A 2-stamp mill was purchased from the owners of the McPhail property. In 1914 the construction of a tramline, and the erection of the mill on the Sheppard claim, was completed. The mill operated for short periods in 1914 and 1915, milling about 220 tons. Four claims, the Black Bess, Minerva, Zilpah, and Toughnut (Lots 4186 G. 1-4189 G. 1) were Crown-granted in 1915 to Angus Woods, Rembler Paul, and Edward H. McDaniel. Development work was stopped in 1916 by the death of Mr. Paul. Development work during see Card 2

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

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HISTORY OF PRODUCTION

Recorded production for the period 1914-1971, inclusive, totals 371 tons of ore. From this ore 181 ounces of gold, 3,614 ounces of silver, 8,202 pounds of lead, and 2,774 pounds of zinc were recovered.

REFERENCES

Cairnes, C.E.; St. Paul Group of Mineral Claims, Osoyoos District, British Columbia; Summary Report, 1930, ○ Pt. A., pp. 116-121, Geol. Surv. of Canada.

Reports of Minister of Mines, British Columbia: 1899, p. 748; 1900, p. 857; 1902, p. 189; 1904, p. 228; 1905, p. 193; 1907, p. 128; 1913, p. 179; 1914, p. 360; 1915, pp. 252, 450; 1916, p. 263; 1921, p. 191; 1923, p. 160; 1927, p. 213; 1928, p. 220; 1930, p. 208; 1931, p. 116; 1932, p. 144; 1933, p. 197; 1949, p. 138; 1962, p. 66; 1966, p. A52.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1971, p. 431; 1972, p. 79; 1973, p. 98.

Jones, A.G.; Vernon Map-Area, British Columbia; Memoir 296, p. 147, Geol. Surv. of Canada, 1959.

MAP REFERENCES

Map 1059 A, Vernon, (Geol.), Sc. 1":4 miles - accomp. Memoir 296.

#Map 82 L/1, Eureka Mountain, (Topo.), Sc. 1:50,000.

REMARKS

BCI-82L/5E-22

Comp./Rev. By	DMacR						
Date	5-75						

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DESCRIPTION OF DEPOSIT (continued)

The lower (Toughnut) showings consist of several quartz veins occurring mostly within and not far from the southern contact of the diorite body. One principal quartz vein varies from a northeasterly strike and low southeasterly dip to a southeasterly strike and low southwesterly dip, and averages about a foot in width. What appears to be a second vein of importance dips at a low angle to the south or southeast. At the face of No. 3 adit the vein had a width of between 3 and 4 feet composed of heavily mineralized diorite and from several inches to 2 feet of nearly solid sulphides, principally a mixture of arsenical iron with streaks and small kidneys of antimonial sulphides, mostly jamesonite. Other small quartz veins with northeasterly strikes and southeast dips may represent faulted segments of one vein. The veins are mainly quartz, containing sulphides as disseminations, or as streaks, bunches, or small kidneys of nearly solid mineral. The sulphides are principally arsenopyrite, antimonial sulphides, pyrite, and pyrrhotite. Very small amounts of galena, sphalerite, and copper pyrites are present and native silver occurs in microscopic specks.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

the period 1913-1916, mainly on the Toughnut claim, included two adits, 20 and 350 feet in length. In 1923 the property was owned by Angus Woods, of Lumby.

The property was acquired in 1926 by a syndicate comprised of Dr. O. Van Etter, of New Westminster, and O.M. Sheppard and Rube Brown, of Bellingham, Washington. The syndicate incorporated St. Paul Mines, Limited, in April 1927 to acquire the 4 Crown-grants and 3 located claims. Intermittent development work continued into 1933. The workings in 1930 included 5 adits from 35 to 330 feet in length, 2 winzes, and a number of trenches. The company is reported to have carried out some work in 1949. A new adit begun in 1961 was extended to a total length of 200 feet in 1962. A shipment of 8 tons of ore was reported in 1966. The property in 1971 included, in addition to the 4 Crown-grants, the Snow (No. 15274), Snowshoe (No. 6618), and SKB (No. 6619) located claims. A mining lease agreement with St. Paul Mines, Limited, was acquired in about 1971 by W. Miller, of Vernon. Work during the period 1971-73 included trenching and stripping. Some crude ore was shipped in 1971 and 1973, and 5 tons of concentrate were shipped in 1973.

Coast Interior Ventures Ltd. in January 1974 acquired a 1 year lease, renewable each year, on the 4 Crown-grants and 3 located claims, from St. Paul Mines, Limited. An agreement was sought to have any ore produced milled at the Alberta Gypsum Ltd. 50 ton-per-day mill at Lumby.