

NAME OF PROPERTY

ESTELLA

OBJECT LOCATED - Skylark claim (Lot 6579), main workings.

UNCERTAINTY IN METRES 300. Lat. 49°46'10" Long. 115°36'15"

Mining Division Fort Steele District Kootenay

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR

DESCRIPTION OF DEPOSIT

The rocks at the mine are in the transitional zone between the Precambrian Aldridge and Fort Steele formations. They are argillites and quartzites striking northwestward and dipping to the southwest. Intrusive into these is a diorite body, sill-like in over-all form but locally crosscutting the formation. A body of syenite occurs at the portal of the Estella adit. The lode is a zone of fracturing and light shearing, semi-bedded in the sedimentary rocks and penetrating diorite in the mine workings. The over-all structure appears to be simple, but the details are not known, and minor flexures and crumples seen on the surface may or may not influence the location of orebodies.

The lode has an average dip of about 65 degrees to the southwest and ranges in width from a single fracture to a zone about 15 or 20 feet wide. The ore is a replacement by sphalerite, galena, and pyrite, accompanied by more or less silica. Vein quartz is not abundant, except in diagonal veins which in general contain little if any sulphides.

see Card 2

Associated minerals or products - Gold, silver, copper, lead, cadmium, cobalt.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at approximately 6,600 feet elevation at the head of Tracy Creek, 10.5 miles north of Fort Steele and 5 miles east of Wasa.

The showings were discovered and staked in October 1895 as the Stella and Cashier claims by Messrs. Tracey and Bedford, who the following year took in as partners Messrs. Scott and Mintz. The Skylark and Rover claims, adjacent to the southwest and initially thought to have been staked on a separate vein, were held in 1896 by Cpt. F.P. Armstrong. In 1897 both claim groups were optioned to Alex Polson & associates. By 1903 development work totalled about 3,000 feet of drifts, crosscuts & raises in two main adits, the Estella and Rover. The mineralized zones developed by this work were uneconomic due to the high zinc content and the mine closed in about 1903. Six claims, the Cashier, Estella, Rover, Skylark, Morning, and Dog Star (Lots 6411-6413, 6579, 6853 and 6856 respectively) were Crown-granted to Alex Polson in 1905. The property was bonded in 1910 for \$175,000 but no further action was reported.

The Consolidated Mining and Smelting Company of Canada Limited held an option on the property during 1927-29. Limited underground work, and surface diamond drilling in 11 holes failed to indicate sufficient reserves and the option was given up. In 1944 the company reoptioned the property and carried out a geological examination but no further action was taken.

Estella Mines, Ltd. was incorporated in May 1950 to acquire the property. Underground diamond drilling located a new segment of mineralized vein and development work began in that direction. A 150 ton-per-day mill was built in the Kootenay River valley near Wasa, 16 miles by road from the mine; milling began on November 1, 1951 and continued until all available ore was exhausted in February 1953. Exploration and development work continued through 1953 with negative results. Drilling in August 1954 located a faulted continuation of the ore zone. The company was reorganized in June 1955 and the name changed to United Estella Mines Ltd. Underground exploration and development was carried on from June until December of that year. In April 1958 the company mortgaged the mine and mill to W.L. Rand and principals of the company. A geological survey and about 480 feet of diamond drilling

see Card 2

HISTORY OF PRODUCTION

From 1951 to 1967 inclusive 120,724 tons of ore were milled. From this ore 66 ounces of gold, 205,538 ounces of silver, 2,641 pounds of copper, 11,422,255 pounds of lead, 11,681,020 pounds of zinc, and 22,581 pounds of cadmium were recovered.

REFERENCES

- Reports of Minister of Mines, British Columbia:
1896, p. 522; 1897, p. 526; 1898, p. 1031;
1899, p. 659; 1900, p. 797; 1901, p. 1005;
1902, pp. 130, 131; 1903, p. 93; 1904, p. 108;
1905, p. 248; 1910, p. 90; 1927, p. 266; 1929,
p. 297; 1950, p. 155; 1951, pp. 186-190⁺;
1952, p. 199; 1953, p. 150; 1954, p. 148; 1955,
p. 70; 1958, pp. A45, 61; 1959, p. A 47; 1962,
p. 87; 1963, pp. 82-84⁺⁺; 1964, p. 133; 1966,
p. 241; 1967, p. 272.
- Leech, G.B.; Fernie Map-Area, West Half, British Columbia;
Paper 58-10, p. 39, Geol. Surv. of Canada.
- Starck, L.P.; Newest Base-Metal Producer in British
Columbia; Western Miner, Vol. 39, October 1966, p. 28.
- Mineral Policy Sector; Corporation Files: "Cominco Ltd.";
"United Estella Mines Ltd."; "Copper Soo Mining Company
Limited"; "Giant Soo Mines Limited"; "GM Resources
Limited".
- Geology, Exploration, and Mining; British Columbia Dept.
of Mines: 1970, p. 472.

MAP REFERENCES

- Map 11-1960, Fernie, (West Half), (Geol.), Sc. 1":2 miles,
Geol. Surv. of Canada.
- Map 8470 G, Skookumchuck, (Aeromag.), Sc. 1":1 mile.
- #Map 82 G/13, Skookumchuck, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	12-79						

NAME OF PROPERTY

ESTELLA

DESCRIPTION OF DEPOSIT (continued)

The sphalerite is pale coloured and is locally abundant. Galena is present in varying quantity. The silver content is rarely more than a few ounces per ton and appears to be associated predominantly with the galena. The ore contains cobalt, and for that reason the zinc concentrates are not acceptable at the electrolytic refinery at Trail. All of 109 mine samples taken by the Department of Mines were assayed for cobalt, and soluble cobalt was found in each ranging from 0.0007 to 0.06 per cent. The arithmetical average of the 109 samples was 0.0153 per cent soluble cobalt.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

was carried out. A small amount of ore was milled in 1958-59, producing 40 tons of concentrate. The property was subsequently acquired by Rand & associates by foreclosure on the mortgage.

Copper Soo Mining Company Limited in 1962 purchased from Rand & associates 12 Crown-granted and 8 recorded claims. Exploration and development work began in the fall of that year. The mill operated for about 3 months in the latter half of 1963. Exploration and development work continued through 1964.

Giant Soo Mines Limited was incorporated in November 1965 as a private company under a joint agreement between Copper Soo (40%) and Giant Mascot Mines, Limited (60%) to put the mine into production. Under the agreement Giant Mascot provided financing to install a 150 ton-per-day mill just below the Estella adit. The mill operated from Sept. 1, 1966 until October 5, 1967. Some 50,000 tons were milled during this period. At time of closing, October 5, 1967, development work totalled approximately 9,000 foot of drifts, crosscuts, raises and shafts in 2 interconnected adits, 2 sublevels, and 2 shafts.

Giant Mascot in 1968 acquired the minority 40% interest which Copper Soo held in Giant Soo; the latter was dissolved in 1974. Giant Mascot in 1970 carried out 3,623 feet of diamond drilling in 3 surface holes. The company name was changed in 1977 to GM Resources Limited.