

DESCRIPTION OF PHOENIX MINERAL CLAIMS

The Production Area for the Phoenix Mine is formed from 46 claims which total 1230.22 acres. This is a contiguous block of crown grant mineral claims on which the open pit mine, waste dumps, access roads, mill, crushing plant, shops warehouses and offices are located. The claims all lie in Greenwood Mining Division and in Similkameen Land District of Yale Division. The claims are in block 82-E of the National Topographic Series. They are listed as follows:

<u>Lot No.</u>	<u>Claim Name</u>	<u>Acreage</u>
588	Stemwinder	13.87
589	Old Ironsides	20.18
590	Knob Hill	19.09
678	War Eagle	20.66
701	Monarch	51.13
793	Grey Eagle	38.80
796	Brooklyn	20.65
864	Pheasant	43.75
865	Bullion	41.52
891	Snowshoe	51.65
892	Rawhide	35.00
893	Curlew	7.63
894	Phoenix	29.94
899	Gold Drop	32.29
901	New York	47.65
915	Montezuma	45.00
921	Golden Eagle	11.00
922	Fourth of July	29.00
933	Victoria	46.60
977	Gilt Edge	49.80
978	Aetna	24.91
979	Missing Link	7.07
980	Cimeron	48.60
981	Idaho	47.70
982	Standard	7.98
10245	Aetna Fraction	.11
1235	Bank of England	29.57
1252	Gold Drop Fraction	13.54
1257	Nugget	46.13
1260	No. 13	21.60
1264	Garfield	43.00
1327	Yellow Jacket	46.45
1328	Fairplay Fraction	10.40
1692	Joker	7.20
1705	Timer Fraction	9.65
1809	Midnight	45.09
1811	Gipsy	32.14
1842	Phillipsburg Fraction	1.23
1847	Banner	47.59

<u>Lot No.</u>	<u>Claim Name</u>	<u>Acreage</u>
2125	Alma Fraction	13.00
2384	Surprise Fraction	10.36
2385	Sylvester K	42.21
3002s	Snowshoe Fraction	1.90
3170	Ethel Verne Fraction	15.00
3171	Toothpick Fraction	.08
3381	Monte Christo Fraction	2.50
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DESCRIPTION OF THE MINERAL DEPOSIT

The ores of the Phoenix Mine occur as blebs and disseminations of chalcopyrite in a chlorite - epidote skarn rock. The skarn and the copper minerals are localized near the base of an impure limestone sequence in the Brooklyn formation, above a well defined argillite foot-wall. The thickness of mineralization varies from a maximum of about 200 feet to a few feet at the limits of mining. The ore beds have a general inclination to the east, but slopes vary and faulting on north south lines have produced irregularities. The original outcroppings have been removed and present mining has been carried downward beneath younger Tertiary sediments and volcanics which lie unconformably above the Brooklyn formation and cut off the ore beds in the north east section.

The thick zone of mineralization which has constituted the main ore mass, appears to be localized by the fault system and increased limestone impurity and skarn formation. No igneous source rocks for the mineralization are exposed but it is assumed that deep seated granitic intrusions under the mine area have produced the mineral bearing and skarn forming emanations conducted by the fault channelways to the favorable facies change in the Brooklyn limestone.

The mine was originally opened as an underground operation and although some surface mining was done it was essentially an underground mine up to the shut-down in 1919. The recent revival of the mine has been entirely on an open pit basis which has removed lower grade ores along with floors and back fill and pillars of good ore left for support by the underground miners. The concentrator is located close to the pit at the elevation of 4500 feet above sea level. Mining has been carried out from 600 feet above the concentrator level at the south end to 200 feet below the concentrator level in the deepest part of the pit. The existing pit is about 2500 feet by 1400 feet in

surface dimension. Barren waste piles from the relatively high stripping ratio are clustered around the rim of the pit. Concentrator tailings are deposited in a basin created by damming off the head of Twin Creek below the concentrator.

The principal mineral recovered at Phoenix is the copper iron sulphide chalcopyrite. With it important amounts of gold and silver are also saved. The latest ore reserve estimate (Jan. 1st 1974) is as follows:

Ore in place in pit - 1,379,600 tons at 0.80% copper

Marginal ore stockpiled -- 3,712,000 tons at 0.40% copper.

RATE OF PRODUCTION OF MINERAL

During the year 1973 the rate of production at Phoenix mine was as follows:

Total tons milled	1,003,815 tons
Average tons per day	2,750 tons
Average mill head grade	0.50% copper
Concentrate produced	15,973 tons
Average concentrate grade	26.58% copper
	0.967 oz/T gold
	5.47 oz/T silver
Saleable Metal Produced	8,173,030 lbs. copper
	15,047 ounces gold
	78,618 ounces silver

During the month of March 1974 the rate of production was as follows:

Total tons milled	79,986 tons
Average tons per day	2,580 tons
Average mill head grade	0.42% copper
Concentrate produced	1.076 tons
Average Concentrate Grade	26.23% copper
	0.859 ounces/T gold
	5.00 ounces/T silver

The source of ore during March was almost entirely from the marginal ore stockpile.