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CONSULTING GEOLOGICAL ENGINEERS

CASCA BUILDING, WHITEHORSE, Y.T. 667-4113 BENTALL CENTRE, VANCOUVER, B.C. 688-3022 OR 522-1562

POST OFFICE BOX 1708
WHITEHORSE, Y.T.

PROGRESS REPORT

WHITE RIVER COPPER PROPERTY

SILVER CITY MINES LTD.

R.J. Cathro, P. Eng.

November 30, 1967.

SUMMARY

Surface bulldozer trenching on the White River, Yukon property of Silver City Mines Ltd. has resulted in the discovery of a rich copper deposit. The mineralized zone is 30 feet wide and assays 3.53 % copper and 0.2 ozs/ton silver. It occurs as a vertically-dipping, structurally controlled deposit of chalcocite with lesser amounts of native copper and possibly some bornite. The chalcocite appears to be primary in origin. The zone occurs within amygdaloidal volcanics of Triassic age. A length of 300 feet, open at both ends, is indicated by similar mineralization found in the overburden.

The White River property is situated at 61°47'N and 140°48'W. It is 20 miles by tote road from Mile 1168 on the Alaska Highway, which in turn is 250 miles (by all-weather road) from Whitehorse and 300 miles from the seaport of Haines, Alaska.

A $250,000.00 surface diamond drilling program is recommended to explore the lateral and downward extensions of the deposit. The drilling is scheduled to start in late February, 1968.

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INTRODUCTION

Between September 20 and November 22, a program of tote road and airstrip construction and bulldozer trenching was carried out under the writer's direct supervision. Six visits were made to the property and, in addition, a deep reconnaisance soil sampling survey was carried out by an assistant, C.A. Main.

Following the discovery of the mineralization, an additional 48 mineral claims and a placer prospecting lease were staked. Four more claims were staked to cover open fractions following a tape and compass survey near the mineralized zone. This brings the total property holding to 224 mineral claims forming a single contiguous block slightly over 10,000 acres, or 15 square miles, in area.

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TRENCHING

The trenching was all confined to the vicinity of the old workings which date from before World War I.(see Fig. 1). Earlier work by the writer's crew had shown that the only significant copper mineralization to be found on the property occurred on the dump of a caved adit on Goldenhorne #1 claim, about 300 feet above White River on the east bank of Upper Canyon, three miles upstream from the site of Canyon City. This mineralization consisted of an intimate mixture of bornite and chalcocite. Small nuggets of native copper were also found in the overburden nearby. No mineralization was seen in place.

About 290 hours of ripping and stripping with a D7E caterpillar were required to locate and fully expose the mineralized zone in bedrock. Thirty-five feet of the adit had been driven through overburden and had caved. This was removed by the bulldozer, exposing the adit where it entered bedrock. However it was found to be filled with ice and fine muck and could not be opened. Boulders of bornite-chalcocite mineralization, identical in appearance to that seen earlier on the adit dump, were turned up in the floor of the trench at a point just before the adit reached bedrock but their source was not located and nothing is known of the width or average grade of this zone. Character samples assayed as high as 27% copper.

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Trenching continued uphill to the east (away from White River) and, at a point 40 feet from the mineralized float described above, a well-mineralized zone was discovered in bedrock. The full mineralized width is 39.0 feet, of which the easterly 9.0 feet assays 0.76% copper, and the westerly 30.0 feet assay 3.53 % copper and 0.2 ozs/ton silver and trace gold. Within this section a central 15.0 foot portion averages 4.9% copper. THE ZONE is bounded sharply on both sides by barren amygdaloidal volcanic rock of upper Triassic age belonging to the Mush Lake group. The attitude of these volcanic rocks has not been determined. The zone strikes N 15°E and dips vertically. Mineralization consists of chalcocite with lesser amounts of native copper, occurring as veinlets up to 1 1/2 inches wide and as fairly heavy disseminations. The zone contains no other sulfide minerals and differs from that in the old adit by its lack of bornite. Malachite is a common oxidation product at surface.

A second trench was started about 300 feet north but was not completed to bedrock. Native copper was found here in blocks of bedrock float which do not appear to have travelled more than a few feet from their source. This point is almost directly uphill from the site of the 2600 lb. slab of native copper which was removed in early 1958 by the Yukon Historical Society and which now stands in

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front of the McBride Museum in Whitehorse. Native copper and chalcocite have been found by the writer in the overburden at two other locations between the two trenches. It is thus reasonable to assume an indicated length of mineralization of 300 feet, with both ends open.

Bulldozing has achieved its objective of locating mineralization in bedrock and disclosing its character and trend. However, most of the work was in very hard, tough permafrost and further exploration of this discovery zone should be with diamond drilling rather than bulldozing.

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GEOCHEMICAL SURVEY

The presence of permafrost over most of the property, mantled by a 1-2 foot blanket of frozen pumice, makes conventional soil sampling impossible. In order to test the effectiveness of this technique, deep pits were dug mechanically with the bulldozer beneath the pumice layer. A reconnaisance-type survey was conducted uphill from the discovery zone with sampling on a 400 foot grid pattern over an area 1/2 mile long and 1/2 mile wide. Two samples were taken from each pit, one from the pumice layer and one from the "B" soil horizon below. These were analyzed at Chemex Labs, Vancouver and did not show any significant pattern or variation. It is quite possible that the poor response is due to poor geochemical sampling conditions caused by the nature of the overburden profile. Further test sampling near the discovery zone and overburden study will be needed to determine how applicable soil sampling will be on this property.

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ROAD AND AIRSTRIP CONSTRUCTION

Approximately 100 hours of bulldozer time was required to clear a 20 mile tote trail route from Mile 1168 (White River Lodge) on the Alaska Highway. The route selected follows the east bank of White River for 8 miles to the head of Lower Canyon. It then crosses the braided gravel bars of the silt-choked flood plain for the next 10 miles to Canyon City at the foot of Upper Canyon. At this point, a 2000 foot airstrip was constructed to permit year-round access by bush aircraft. This airstrip is about 2 miles from the mineralized zone by tote road.

Mile 1168 is about 300 miles from the seaport of Haines, Alaska, and 250 miles from Whitehorse (by all-weather highway).

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CONCLUSIONS & RECOMMENDATIONS

This deposit appears, from the limited evidence seen so far, to be a structurally controlled, primary chalcocite deposit. The mineral assemblage - native copper, chalcocite and perhaps bornite- has been produced by the precipitation of copper rich solutions within a rock which was deficient in both sulfur and iron. There is no evidence available to suggest any change in mineralogy at depth and this will only be proved or disproved by drilling.

The mineralized zone sampled in the bulldozer trench has a gross value in copper and silver of over $28.00 per ton at metal prices of 40 cents per pound for copper and $2.00 per ounce for silver. Since there are no gangue minerals, milling will involve only a simple separation between copper minerals and wallrock. Moreover, since the minerals present are so rich in copper: native copper-100%, chalcocite- 79.8% and bornite- 63.3%, a mill concentrate from this assemblage is expected to average between 65 and 75 percent copper and about 4 ozs/ton silver.

If sufficient tonnage can be found of similar mineralization and similar grade to justify a production decision, the potential is for a very strong cash flow from a relatively small capital investment.

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A vigourous surface drilling program is recommended to outline the lateral and downward extent of the discovery zone and locate any further zones which may lie nearby. The program should begin with two drills late in February, after the severe cold weather is over. A semi-permanent camp should be constructed at the site. It is hoped that sufficient information will be gained by late April to enable freighting for summer exploration to be completed on the winter road. The estimated cost of this drilling is:

10,000 feet BQ core drilling @ $12.00/ft.	$120,000.00
Indirect costs- room and board, drill site preparation, surveying, drill supplies, assaying and supervision @ $6.00/ft.	60,000.00
Purchase of new 15-man trailer camp	30,000.00
Freighting to property	20,000.00
Contingencies- 10%	20,000.00
Total	$250,000.00

Respectfully submitted,

ARCHER, CATHRO & ASSOC. LTD.

R.J. Cathro, P. Eng.

Association of Professional Engineers of the Yukon Territory
R. J. CATHRO
GEOLOGICAL
ENGINEER

RJC:pc

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Nov. 30/67

CERTIFICATE

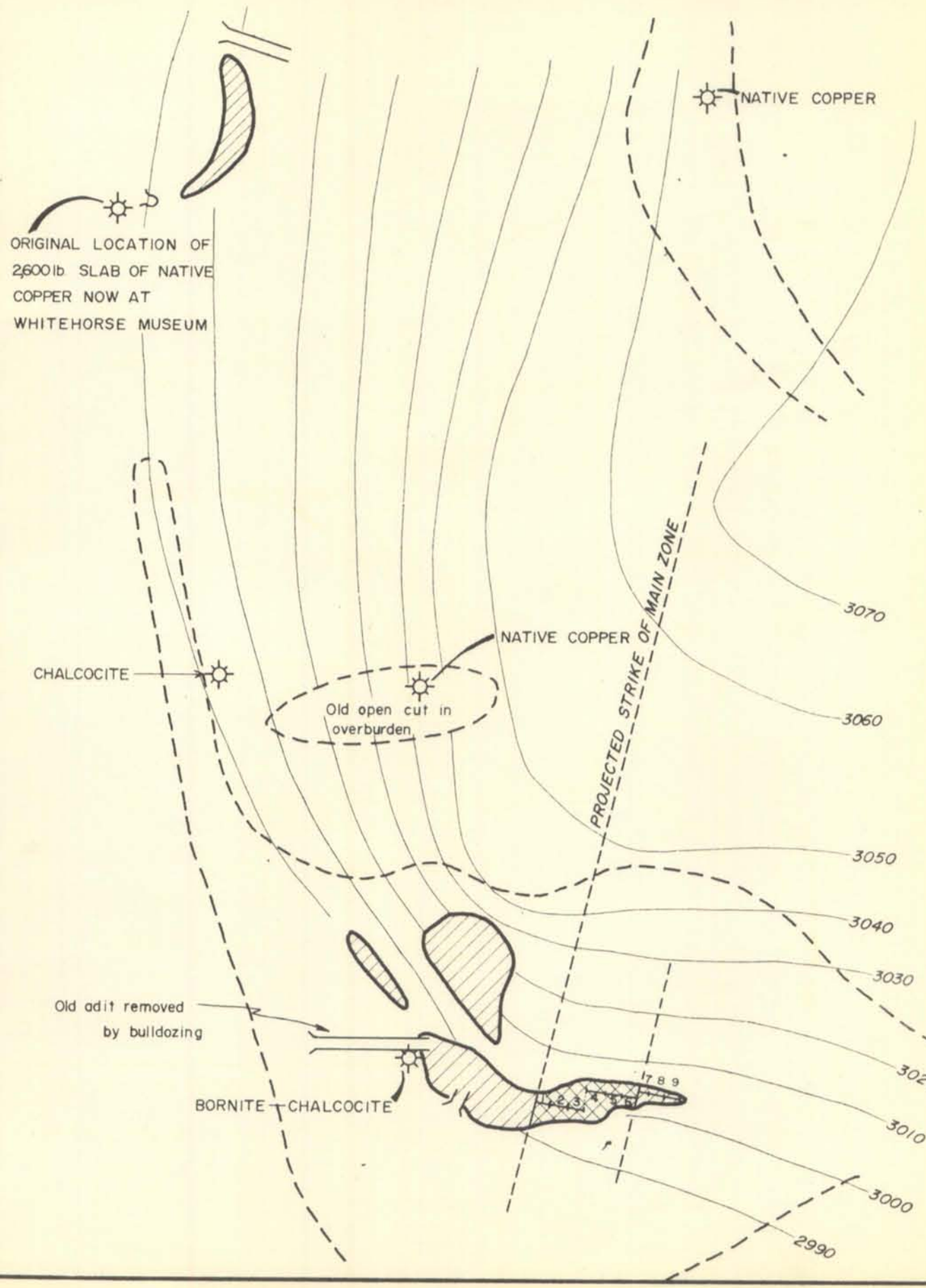
I, Robert J. Cathro, with business and residential address in Whitehorse, Yukon, do hereby declare that:

(1) I am a consulting geological engineer.
(2) I am a graduate of the University of British Columbia, 1959.
(3) I am a registered professional engineer in the Yukon and British Columbia.
(4) From 1959 to 1966 I was engaged in mining and exploration geology and held positions of responsibility with United Keno Hill Mines Ltd., Giant Yellowknife Mines Ltd., and Eldorado Mining and Refining Ltd.
(5) I have personally supervised all exploration of the White River property by Silver City Mines Ltd.
(6) I have no interest, nor do I expect to receive any interest, direct or indirect, in any properties or companies referred to in this report.

Respectfully submitted,

R.J. Cathro, B.A.Sc., P. Eng.

Association of Professional Engineers of the Yukon Territory
R. J. CATHRO
GEOLOGICAL
ENGINEER

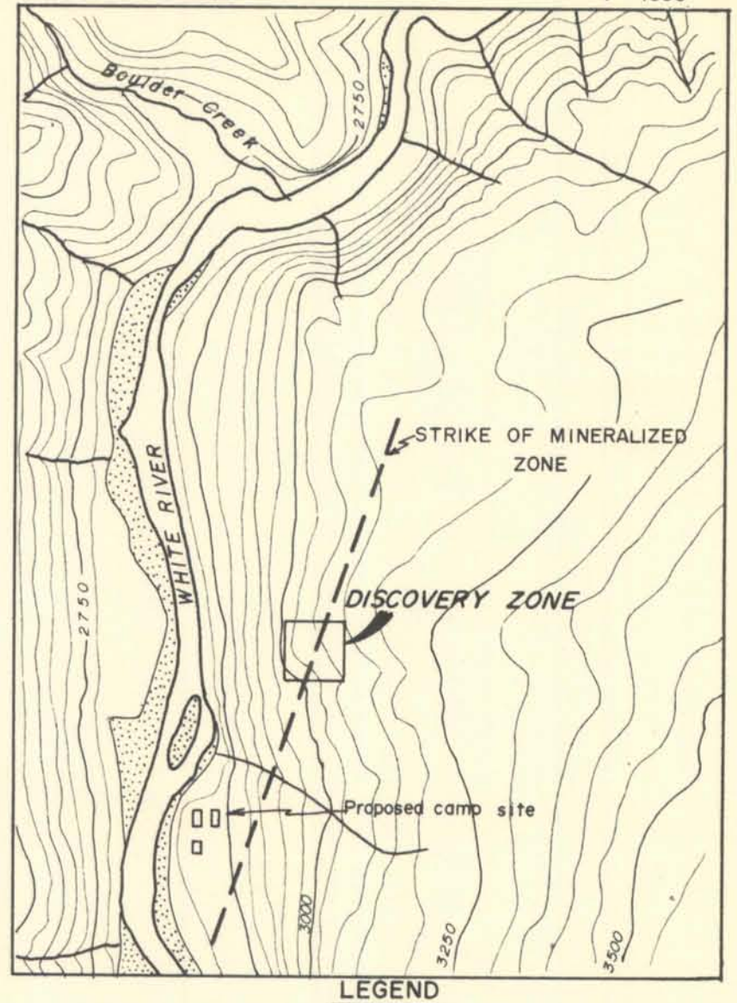


ASSAYS

SAMPLE Nº	INTERVAL (ft)	COPPER (%)
1	0 – 5	2·87
2	5 – 10	1·20
3	10 – 15	5·26
4	15 – 20	4·69
5	20 – 25	4·74
6	25 – 30	2·43
7	30 – 34	0·79
8	34 – 39	0·73
9	39 – 44	Trace

AVERAGE FROM 0' – 30' IS 3·53% COPPER &
COMPOSITE OF SAMPLES 1 – 6 ASSAYED
0·20 OUNCES SILVER PER TON

LOCATION MAP 1" = 1000'



LEGEND

- NATIVE COPPER & CHALCOCITE MINERALIZATION IN BEDROCK
- LOCATION OF MINERALIZED FLOAT
- BEDROCK – amygdaloidal Triassic volcanics
- TRENCH OUTLINE
- ADIT

Association of Professional Engineers of the Yukon Territory
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PLAN OF DISCOVERY ZONE

WHITE RIVER COPPER, Y.T. – SILVER CITY MINES

ARCHER & CATHRO
Consulting Geological Engineers

DATE	NOVEMBER, 1967
DRAWN	H.W.C
SCALE	1" = 40'

DWG. No.

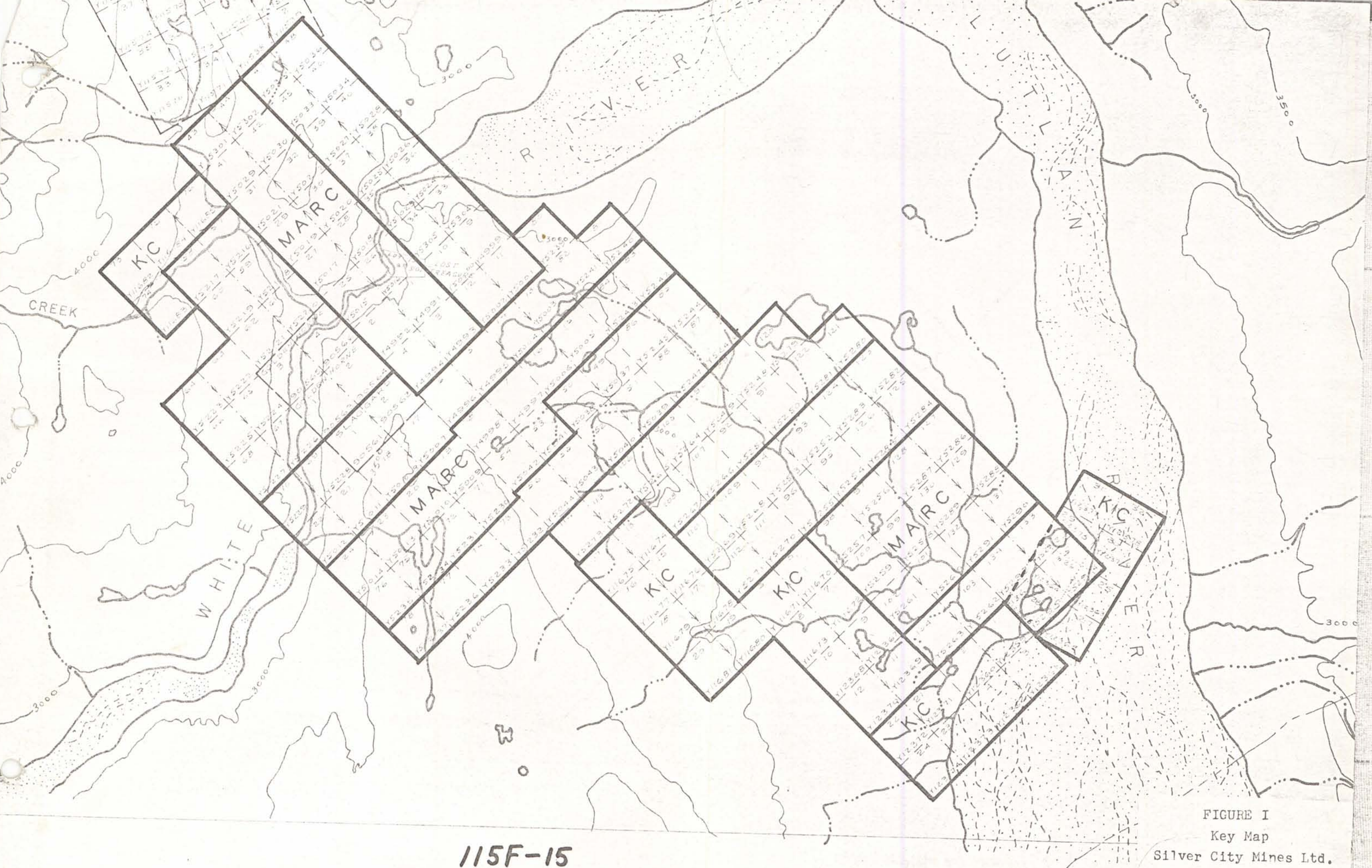

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FIGURE I
Key Map
Silver City Mines Ltd.