

PRELIMINARY REPORT ON "MOUNTAIN CHIEF" MINERALCLAIMSLOCATION AND PROPERTY:

The Mountain Chief property lies on the Easterly side of Dog Creek about three miles up the creek from the village of Benate on the Lower Arrow Lake. The present property includes 14 mineral claims held by location, which cover the old Crown Granted property (5 claims) and extend in both directions along the strike of the formation.

The property is reached by traversing an old dirt road which extends up the creek for a distance of about two miles, whence a steep switchback trail leads up the side-hill for a further one mile to the old workings. The trail can be negotiated without difficulty by a small standard jeep. The workings are at approximately 1100 feet elevation above the lake.

GEOLOGY:

The ore deposits consist of replacements of silicified limestone beds, the limestone being inclusions in alkali granitic inclusives. These beds extend for a considerable distance up the Westerly side of the Lower Arrow Lake. Ore is irregularly deposited in fissured zones on the limestone, but appears to have a general N.W. - S.E. trend and dips at about 60 degrees to the North-east. Ore consists of disseminated copper sulphides in a highly silicified gangue with Chalcopyrite and Bornite as the chief ore minerals accompanied by Malachite and Azurite. Locally ribs and streaks of high grade solid sulphides occur.

WORKINGS:

The bulk of the work was done on the property in the period 1918 - 1922, and the main workings consist of an open pit about 130 feet long by 10 to 15 feet wide, with faces up to 30 feet high, as shown on the attached sketch. An inclined shaft has been sunk to a reported depth of 110 feet at the Southerly end of the pit. The shaft is now water filled, but is reported to have been sunk off the ore to at least the 50 ft. level. Some ore has apparently been extracted from the small oval slope to the left of, and close to the collar of the shaft. From the 50 ft. level in the shaft a drift was driven Northerly for 36 ft. and thence a raise extends back up to the pit floor, the top of the raise being roughly as shown in the limited underground workings off the main pit. The three short branch drifts shown were apparently driven to explore the hanging wall area, and show some mineralization. Copper staining and ore sulphides are widespread and prominent on the walls and face of the main pit, but definite widths and aspect of the ore in the pit could not be determined in the limited time available for examination.

As second inclined shaft has been sunk at the Northerly end of an open cut above and on the Easterly side of the main pit, as shown on the sketch. No record of the depth of the shaft has been found. The shaft is filled with water and the walls at the collar are inaccessible for sampling, but were seen to be heavily copper stained. Sample #5421 was taken across 10 feet of the open cut wall. as shown on the sketch.

Three small open cuts extending over about a length of 375 feet are located approximately as shown on the sketch, all showing considerable mineralization over varying widths. Samples #5418 to #5420 were taken from these cuts as also n.

As stated above the aspect and extent of the ore in the main pit was obscure and insufficient time was available to thoroughly sample the walls and face. A single grab sample, #5422, was taken from the dump toward the old Tramway and from two small piles on the dump, which consist possibly of rejects from hand sorting.

SAMPLE RESULTS:

Assay results on the samples taken, located as shown on the sketch, are as follows :

<u>Sample No.</u>	<u>Location</u>	<u>Width</u>	<u>Au.</u>	<u>Ag.</u>	<u>Copper</u>
5418	North pit - across N. wall	7 ft.	0.07 oz.	2.9 oz.	6.9 %
5419	Small " - S. wall of pit	4 "	0.03 "	2.9 "	6.0 %
5420	#3 pit - N. wall of pit	6 "	0.03 "	2.6 "	4.5 %
5421	Open Cut #8 shaft - N. wall	10 "	0.04 "	4.2 "	10.4 %
5422	Dump and ore piles	25 ft.	0.03 "	2.8 "	3.5 %

Previously reported sampling and ore shipment 1318 and 1322 gave following:

122 tons shipped in 1922	5.00%	5.16 %
High grade sample (Gov't.)	1.6 "	7.61 %
Grab from sorted ore piles	0.6 "	10.6 %
Unsorted ore	0.5 "	1.5 %

TRANSPORTATION AND ACCESS:

Renata is located about 20 miles up the Lower Arrow Lake from West Island. It is presently only accessible by water. The C. P. R. operates a twice weekly steambot service for passengers and freight, but is not equipped to handle bulk freight such as ore and concentrates. Interior Tug and Transport operates a barge service capable of handling 150 tons of ore and designed for truck haul to and from the barge. Barge haul is on a contract basis, rates as yet not available.

A government road is now under construction up the East shore of the Arrow Lake to Deer Park, with some prospect of ferry service to Renata in the near future.

The existing road up Dog Creek is usable for truck transport, and is capable of very cheap and easy improvement. Road construction from the existing road to the property presents no difficulty. The side-hill is in fairly open timber and is covered with sufficient overburden to make bulldozer work quite easy and economical. Any desired grade can be obtained on the side-hill, and about 1 1/2 miles of road construction would be required to make a suitable trucking grade. Ore was formerly moved down hill by aerial tramway, and the bin and load parts of the old tramway appear to be in good condition. The bin could be rehabilitated for truck shipment at very small expense.

The property is favorably situated electrically. The fall is not adequate.

and, at low elevation above the lake, winter temperatures are not extreme. Year round operations could be carried on in the area with little or no difficulty.

Hydro-electric power in small quantity could probably be developed from Dog Creek. Limited living accommodation is available in the village.

CONCLUSIONS AND RECOMMENDATIONS:

Observations and sample results of the preliminary examinations, together with information and conclusions from previous reports, would lead to the conclusion that this property is well worth further examination and development. The ore showings are of very good grade and no proper investigation of the true extent of the ore has been made. The following program of exploration could be carried out at quite limited expense:

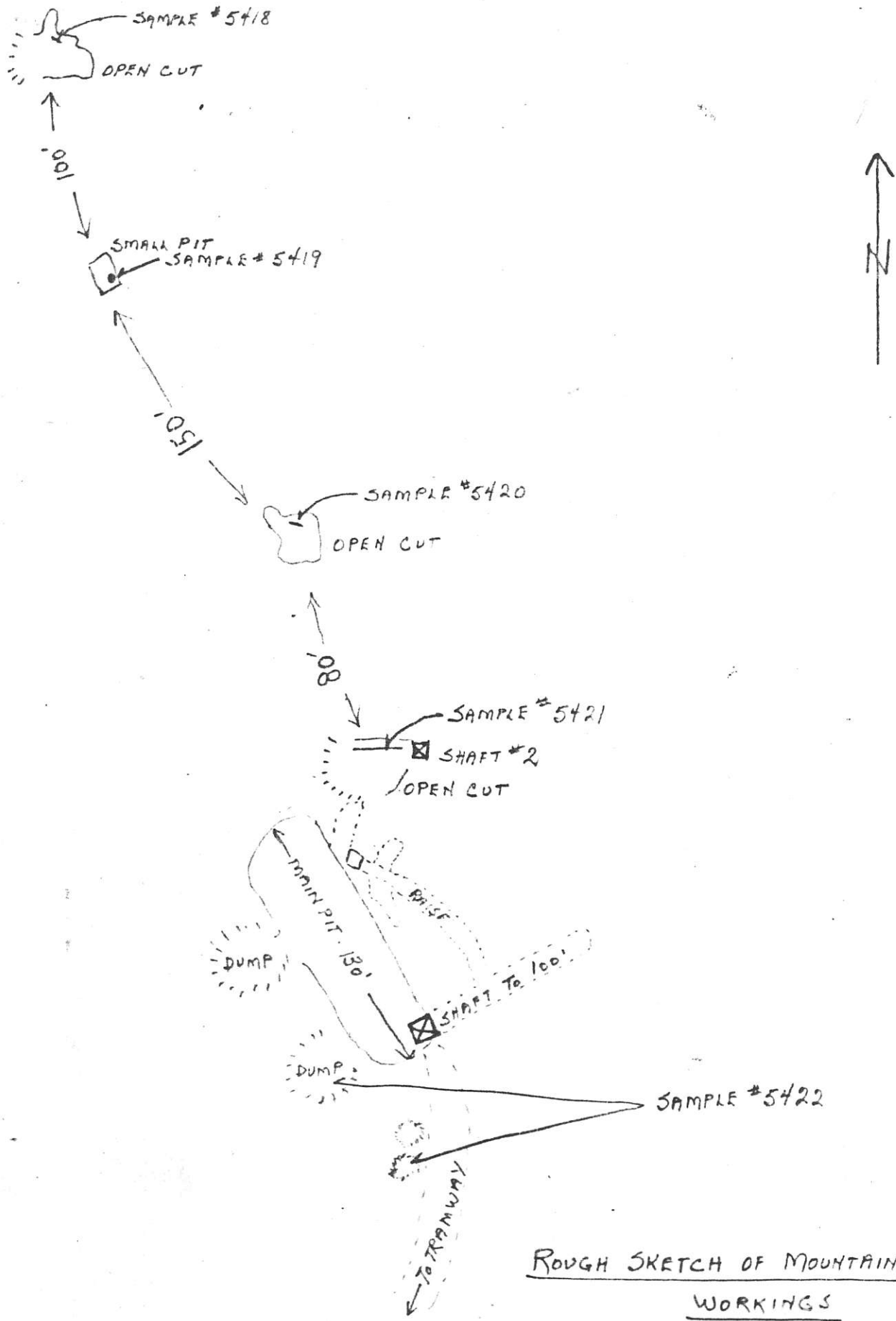
- 1) Further explore the limestone zone in both directions along the strike by stripping at regular intervals with a bulldozer, with some limited rock workin cuts. The property is very well adapted to this type of work, as the area is not heavily timbered, the slopes are gentle, so bulldozing would be speedy and economical.
- 2) Dewater the shafts at the main pit and thoroughly examine and sample both the underground workings and the main pit.
- 3) If encouraging results are obtained from the stripping in (1) above, further examine and explore the extent of the ore with a surface diamond drilling program to moderate depth. This can be done quite economically as the natural slope falls away quite steeply to the West of the ore zone, giving favourable drilling locations.

POSSIBLE EARLY SHIPMENTS:

Ore showings in the main pit and sample results in the open cuts show a definite possibility of shipping a considerable tonnage of ore of profitable grade, with little preparatory work beyond construction of the necessary $1\frac{1}{2}$ miles of road. If reasonable shipping rates can be obtained from Interior Tug and Transport, mentioned above, ore averaging 6% copper could be profitably shipped to the Kenville custom mill at Tagham, with a proportionate reduction in the overall cost of exploration and development of the property.

J. W. Scott - Oct. 10, 1953

COPY ONLY.



ROUGH SKETCH OF MOUNTAIN CHIEF
WORKINGS

J.W. SCOTT - SEPT 28, 1953.

Renatta BC. F.R. Wickward

Mountain Chief & King Group.

about 1 mile. SW. of Renatta BC.

in the Trail Creek M.D.

The Mountain Chief has been a
Copper producer some 100 tons
20% Cu. was shipped.

Adjoining this group is the King
Group. and open ground to be
staked in a belt of lime with
Porphyry Dykes intruding at various
widths, the lime is altered to
a skarn on the contact in many
places the Lead is associated with
the skarn & unaltered lime.

Mountain Chief - Renata.

L. 2393 - map 82E/8E

References -

Annual Reports of Minister of Mines
1917-1731918-182 - Peggy & Rickward adjoin
& have copper indications.

1919-140

1920-137

1921-163

Assessment Report #930

1922-210

" " #3090

1927-328

Examine at George Adkins
or ordered from Victoria.

1955-65.66

Production - 1917-1922 - 1086 tons

3 ozs of gold; 2572 ozs. of silver

75,830 lbs. of copper or .002 ozs. gold
per ton; 2.38 oz. silver per ton; 70 lbs.
copper per ton or 3 1/2 % copper.

with gold at \$700./oz. above is worth \$1.40

" silver " \$20./oz.

47.60

" copper " \$1./lb.

70.00

\$119.00 per ton

