MOUNTAIN CHIEF RENATA

## SUMMARY AND CONCLUSIONS

The Mountain Chief lies two miles west of Renata, a village on Lower Arrow Lake. The property is easily accessible by Jeep road, and a good road would require little or no rock work.

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The showing lies on the contact of altered limestones and symplet intrusives. The mineralization averages 3.5% Cu. and several ounces silver over better than five feet width and for 120 feet of length. The mineralized zone is definitely cut off too the south, and may be cut off to the north and at one or two hundred feet depth by the symple. Extensions are thus too doubtful to recommend the property for other than a shipping operation.

## Location and Accessibility.

The Mountain Chief lies about two miles south west of Renata, on the south east side od Dog Creek. Renata is a village on Lower Arrow Lake. A steep jeep road extends from the outskirts of Renata to the property. The property may also be reached by a pack-horse trail from Tunnel, on the Kettle Valley Railroad four miles four miles south of the property.

# Regional Geology.

The property lies in a belt of limestones reported to trend northerly along the west side of the Arrow Lakes. Only extensive outcrops of intrusives, syenite and a variety of granitoid rocks, were noted on the trail from Tunnel to near the property.

### Local Geology. (see maps)

The limestone near the property is intruded by an irregular body or irregular bodies of syenite. Folds with a few feet amplitude in the limestone have flat axes trending southwesterly. Changes in attitude of bedding indicate larger folds, of several hundred feet amplitude, with a similar trend. The limestone within a few hundred feet of the main showing strikes within a ten or fifteen degrees east of north, and dips from ten to forty degrees easterly.

The symplet is in places coarse grained, in others fine grained and porphyritic. It cuts across the mineralized limestone about five feet south of the main shaft. Reconnoitering for five or six hundred feet south of the shaft failed to disclose a continuation of the limestone. North of the main pit the limestone can be traced for about three hundred feet to where it is cut off by syenite. Several symplet outcrops were noted from fifty to eighty feet east, down dip, of the main showing,, but the symple body here may be only a few tens of feet wide.

The limestone in the mineralized zone has been replaced in part with skarn minerals, principally epidote and garnet. Fairly abundant ellicified rock may be limestone converted to jasperoid, or original chert beds. The irregularity of the silicification suggests the former. Metallic minerals, in order of abundance, are chalcopyrite, bornite, pyrite, and chalcocite. Chalcopyrite, rather fine grained, is several times more abundant than bornite, and bornite is geveral times more abundant than the chalcocite, Chalcocite appears secondary.

The mineralized areas show no bedding, but the mineralization appears to follow the trend of the bedding observed in neighboring outcrops. In places, however, mineralization is more abundant in and near zones of minor shearing. Two intersecting shear zones, each a few inches wide, at the north end of the main pit, are both well mineralized, but mark the northern termination of the bulk of the mineralization in the pit. Another small shear zone exposed in the shallow shaft northeast of the main workings is well mineralized.

#### Underground 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 150 feet long by ten or fifteen feet wide. An inclined shaft has been suck to a reported depth of 110 feet at the southerly end of the pit. This shaft is now water-filled, but is reported to have been suck off the ore at least to the fifty foot level. Some ore has apparently been extracted from the scall oval stops to the north of, and close to the coller of the shaft. From the fifty foot level in the shaft a drift was driven northerly for 56 feet and thence a raise extends back up to the pit floor, the top of the raise being located roughly as shown in the limited underground workings off the sain pit. The three short branch drifts shown were apparently driven to explore the hanging wall area. They show fair minoralization'.

#### Actors

Five samples were assayed and the results are shown on the accompanying map. These indicate that a length of 130 fost will carry 5.5%Gu. and about three ownees of eilver over five fest width. Lower grade minoralization is present in the shear sones in the hanging wall.

#### <del>dialms</del>

A crown granted claim apparently covers the main showing. One of the crown grant posts was located during the examination, marted L.2393 Gl. The mining recorder of Reseland informs 'Lot 2393, Mountain Chief, assessed comers One Cwon wheeler, Roak Creek B.C. (Gwo-thirds interest), and Jacob Fothery Jr., Ben 293, Nelson B.C. (Gwo-thirds interest).

### Fourteen located claims are held as pollows:

W.W. and W.W. Perguson (lawyors) Nelson B.C. % one-third interest George P. Beatty, Schon B.C. two-thirds interest in six claims Brie B. Carlson R.R.1 Helson B.C. two-thirds interest in sight claims. The owners of the located claims are apparently unaware of the existence of the cross granted claim.

R.H. Suph



