

AN APPRECIATION

Of

MOUNT BISCHOFF

By

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An Appreciation of Mt. Bischoff

This appreciation is in respect to a period of five days, during which time the writer became familiar with the location of old mine workings and listened to old mine workings. It was obvious that the eroded workings have added an enormous difficulty in examining many of the famous mineral faces, whilst the lack of any available small scale geological map prevented an accurate examination of previously described localities.

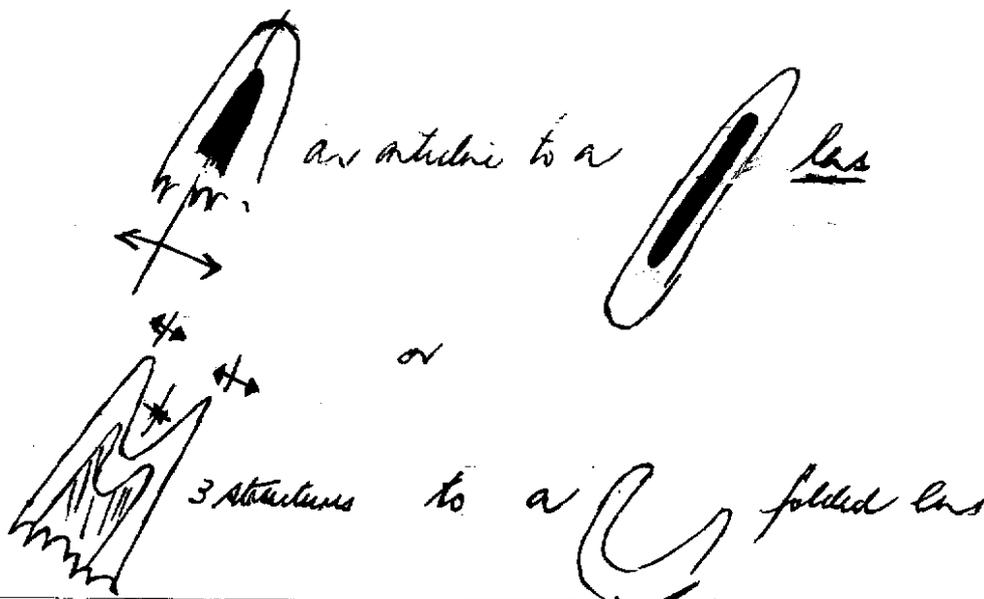
It is obvious, however that Mt. Cleveland and Mt. Bischoff have three similarities on an initial inspection.

1. Similarities of rock types.
2. Small siliceous lodes.
3. Massive replacement lodes.

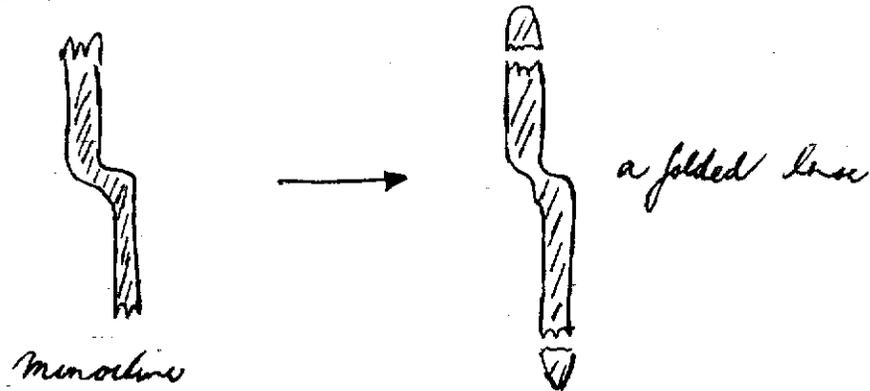
Any re-appraisal must have as a basis some new idea or some firm field experience which would suggest an alternative to the findings of previous workers. There are two firm reasons why the mountain must be re-appraised:-

(a) The writer has not examined any map at a scale of 1 inch to 20 feet of the area so it can be assumed that the previous workers mapped at a scale greater than this; possibly at a scale of 1 inch to 100 feet. Many geologists will not map initially, at a scale below 40 feet to 1 inch. The reason seems to be a question of paper cost and the petty remarks that the maps are too big. The writer is of the very firm conviction that small scale maps of a mine section are of great importance not initially in defining structures but in assessing rock contacts.

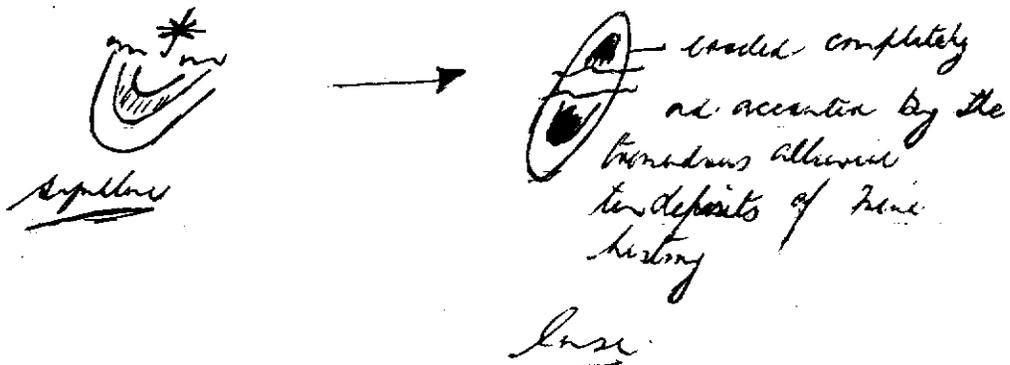
(b) The work at Mt. Cleveland has influenced the writer to believe that the ore is located in lens-lenticular form in a massive rock host within a dolomitic horizon. This horizon will vary through surface sandstones, shales to ~~the~~^{true} dolomites. This type of structure places the following re-interpretation on a fold. i.e.



M. Solomon, the most recent worker on the hill has described and re-interpreted C. L. Knight's work in part, i.e. he has described some folds as monoclines, which is close to a lens but can be interpreted as follows:-



C. L. Knight commenced the ^{Zinc} ~~Tri~~ Corporation that the structure of Mt. Bischoff was a syncline and that the mine was mined out. However the writer suggests that the alternate to this could well be:-



This implies that one lens may have been worked on an unknown structure.

The question of depth can be best assessed by a direct lithological analogy. The Magnet Mine 2 miles west of Mt. Bischoff was mined to 1500 feet (still in ore) in a dolomite horizon not so dissimilar to the Mt. Bischoff rocks. Hence from the top of Mt. Bischoff to the bottom of the Magnet Mine mine workings extend over a vertical extent of 2500 feet.

There are many answers to all these alternatives but there is no doubt that the Mt. Bischoff Mine has not been explained having due regard to the simple alternatives the writer has given. Even today gauges are obtaining ore below the old mine levels.

An exhausted mine offers no alternatives in a structural re-interpretation which may find new lodes. This mine is not exhausted as an alternative has been suggested.