

FRANK

RESULTS OF SURFACE GEOPHYSICAL OPERATIONS

009239

PACIFIC NICKEL MINES

HOPE, B. C.

JULY 13 to OCTOBER 5, 1952

Acknowledgment

This report is based on geophysical data obtained by Mr. K. McGriffin and crew. Opinions expressed herein constitute, in the main, those jointly held by Mr. McGriffin and the writer.

Introduction

This report embodies results of Pulse, Resistivity, and, to a much lesser extent, Self Potential surveying. The latter two methods were employed as adjuncts to the pulse method, adding corroborative evidence as to the presence of sulphides detected by the latter. The accompanying Pulse Contour plan map shows the disposition of the geophysical lines. All these lines were traversed with the 400' spacing, three electrode array as standard reconnaissance practice. Detailed work has been done on at least one line on each anomalous zone to try to pin point the position of localized sulphide bodies.

Due to time limitations caused by the desire to initiate the underground drill logging program, the extreme northerly portion of the ultrabasic area, perhaps 10% of the total ultrabasic area, was not covered by reconnaissance work. However, pulse responses appear to decrease steadily to the north in this area and its possible interest is minimized. In addition to the above more reconnaissance work could be recommended to close off certain anomalous zones in the southern portion of the survey area and more detailed work on several of the anomalous zones already outlined.

↓ not necessary unless P + E drilled

General Conclusions

There is a belt of high response areas striking somewhat south of east entirely across the central or widest portion of the ultrabasic area. This belt breaks up into about five more or less distance anomalous areas and each anomalous area in turn is seen, in more detail, to break up into individual localized sulphide zones. The sulphide zones adjacent to lines on which detailed work has been done are indicated on the accompanying plan map.

In each case sulphides appear to come within 100' of ground surface and to extend to depth, at least to 400'. Dips are, so far as can be determined, generally steep.

The resistivity and self potential measurements, in almost every case, directly corroborate the presence of sulphide material.

In the extreme southern portion of the ultrabasic area there are two contiguous anomalous zones, well away from the central belt. Detailed work has been done on the more northerly of these zones and several individual sulphide localizations determined. These zones are both open to the west.

#### Detailed Report

The appended table gives a list of anomalous areas and pertinent facts concerning the source of the anomalies. It should be noted that Zone C probably represents the extension up-plunge of the mineralization in and off the 1900 and 1600 X-C and the #1 adit in the vicinity of these crosscuts. Zone F and G are open to the west. Zones H and I, lying at least partially in hornblende pyroxenite are relatively unexplored and quite open. It is on the continuation of these last four zones that further reconnaissance work would be warranted. Zone J lies in the metasediments and is of questionable value, as a consequence. *However, it is still open "A.3."*

Zones D and E represent, so far as is known here, hitherto unknown mineralization.

#### Geologic Inference

The linear alignment of the central anomalies seems to point to some definite structural control on the mineralization within the ultrabasic intrusive.

So little is really known away from the immediate vicinity of the southern anomalous zones F and G that they could be parts of a general east-west belt distinct from the central belt. If there were any hope in such an hypothesis it would render prospecting in a general westerly direction of interest.

"Harold O. Seigel"

October 15, 1952.