

TO: W. R. Bacon

Mastodon-Highland Bell Mines Ltd.

FROM: J. C. Stephen

April 6th, 1964

Re: Highland Valley Area

- 1.) Discussion with Dr. Carr indicates the Basque-Ashcroft-Nicola rocks area is not apparently favourable prospecting ground due to
  - (a) different type of quartz porphyry
  - (b) lack of structure
  - (c) lack of apparent alteration
 Air photo indications certainly bear this out.
- 2.) Carr indicates interest in the highly altered siliceous rocks west of the Thompson River in the Ashcroft area - perhaps we should examine the Maggie showing - refer to Hugh Fraser for Rambridge Mining Ltd. who is, or recently was, working on this showing.
- 3.) Limited examination of large scale photos of part of the Guichon batholith just east of the new Ashcroft - Bethlehem Road at latitude 50° 37' North indicates 'Splayed' northerly and north easterly fracturing similar to direction of fracturing and faulting at Bethlehem. This may tie in with a vague story of copper being seen during construction of the new road. The area does not appear to be staked - many claims have gone open.
- 4.) One sheet of Kennco (?) air mag. covering the Bethlehem - Jericho area ( $\frac{1}{2}$  mile = 1 inch, terrain clearance 500') showed much more intricate magnetic patterns over the batholith than I had expected. Bethlehem ore bodies were well outlined when compared with detailed mapping. Contrast is apparently between older and younger intrusives and ore occurs in embayments in the contact of the older quartz porphyry. Such detail would be lost at flight elevation of 1,000'. Short time available and lack of knowledge of precise location of Jericho adit prevented forming much of an opinion. Magnetic intensity at Jericho is similar to Bethlehem which really means nothing. However, a magnetic low is evident and if detailed mapping were done some correlation may be possible. A rather large indefinite zone of low magnetic intensity extends to the north - nearly true north I think - not on what I had expected as the strike of a so called Billy Lake Fault. Magnetics really neither pro nor con from the little I saw. Air photo of the area shows strong lineation over a width of perhaps two or three miles and I understand the area is one of "interleaved" <sup>older and younger</sup> quartz porphyries.

Continued. . . . .

- 5.) Many faults, or assumed faults, in the area are filled by quartz porphyry or andesite dykes. Lineation through Billy Lake could be due to faulting. Chataway property to the south on strike of this zone has great length of quartz porphyry float along narrow zone where fault should be. Bulldozer trench (near south end?) of this zone uncovered bornite mineralization some time ago. I think this property bears looking into..(See George Cross News Letter #59, 54, and 33 for 1964)
- 6.) One sheet of air mag. (500' terrain clearance) of the Craigmont and vicinity by Noranda (?) or Newmont (?) shows:
- (a) Anomaly over Craigmont distinct and isolated but not as strong as I had expected. Shape does not conform well to ore body. Intensity of 1,300 gammas ? (my memory rather fails me there) Direction of flight and topography might account for weak anomaly. Another anomaly occurs to the west just below a small lake about midway between Craigmont and Indian Reserve #9 - however this one has been well investigated I believe.

On the borders of Indian Reserve #9 at the indentation in the north east corner is an anomaly of strength similar to Craigmont. Trend is strong north-south, very linear on west side as though along a contact or fault. Extends onto reserve. This area covered by MARB and APACHE claims - owners should be checked. Prior staking had assessment work filed and indicates nose of quartz porphyry? diorite? extending into volcanics here - showings of skarn and some copper mineralization. Mapping and air survey both done about 1958 and I think neither had the help of the other at that time. Don't know whether they have been correlated since. This also bears close examination.

At the edge of the magnetic map and well within Indian Reserve #9 is an extremely intense mags. low - 2,200 gammas or more. Puzzle, Puzzle?

All this near the Indian Reserve is west of the mapping by Carr.

  
J.C. Stephen