

Comments on Lawrence Mining Corp IP Survey

Work done by: Phoenix

Measurements in terms of phase angle

→ to a first approx. 1 ppe (.31 Hz & 5 Hz)  $\approx$  6 milliradian of phase angle @ .31 Hz

An important criticism of the interpretation of this survey is the reliance on metal factors for picking anomalies. This biases the choice of anomalies very strongly in favour of those associated with low apparent resistivity. While such a bias is clearly correct if the target is massive sulphide, there is no reason to assume such a relationship for porphyries. In fact in many cases (where healing of porosity by quartz filling for example has occurred) the opposite relationship may be more valid. The chargeability and resistivity data should be looked at as separate and largely independent parameters - IP effect as sulphide (or other polarizing material) and resistivity as relative water content (porosity).

The overall quality of the data is probably OK, but some spurious readings may be present [eg 3.0 ppe at n=2 & 3 @ 19W; 6650N, 9W; 6900N, 3W; 8600N]

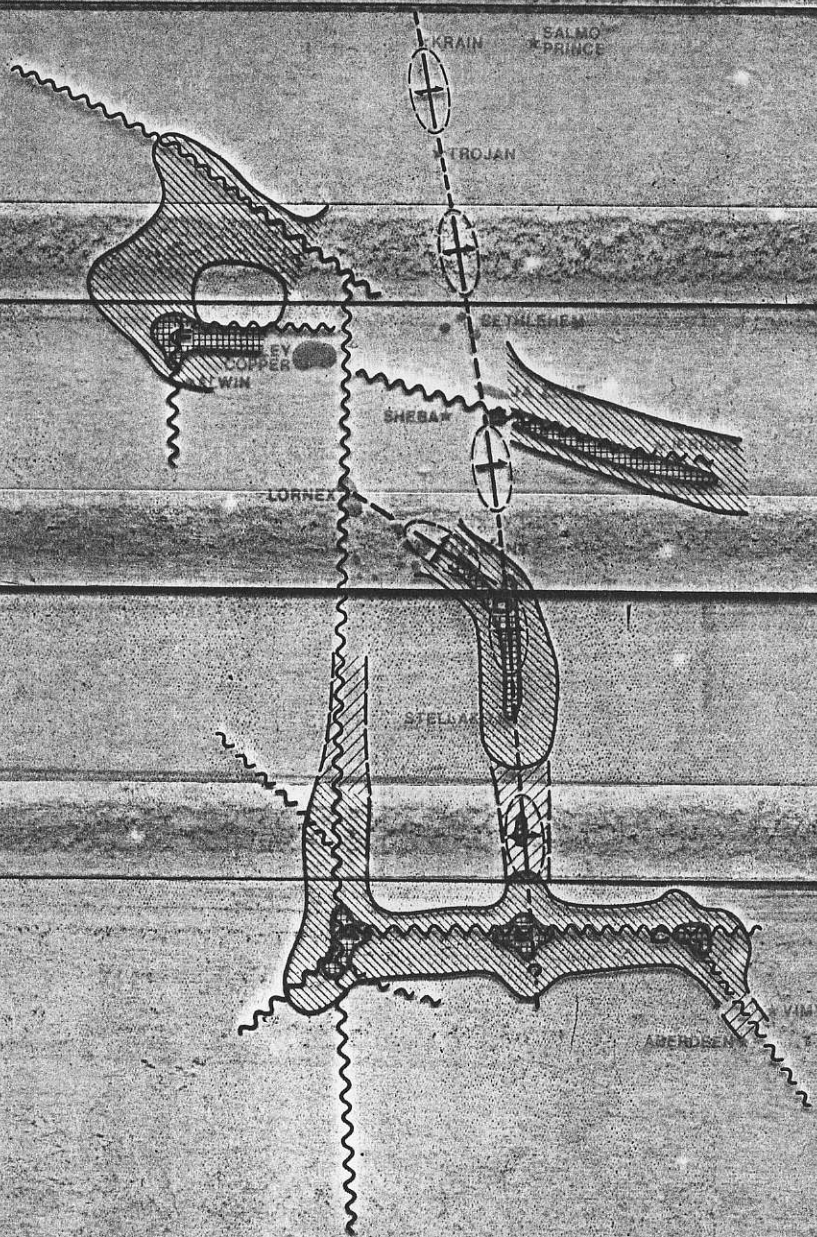
Were porous pots used for the recession, or were metal stakes (or foil)? Use of stakes can lead to electrode polarization effects at the near separations (where current density is highest) for frequency domain, and 100% duty cycle phase angle

measurements ( ie for systems where the chargeability is read during the current on time). This is not meant as a criticism of McPhail/Phoenix, who have been in this business for many years, but as the general caution that for any IP survey, one should not get too excited about single reading "anomalies".

As for the important question - what does this survey mean in terms of the potential for an orebody? - little can be said on the basis of a one hour look at the IP results alone. Careful correlation to geology, old drilling results etc., and testing of various levels of response is required to answer that question. (In the case of porphyries often the most important question is whether the Cu mineralization is coincident with  $P_{ij}$  or whether some zoning relationship can be established).

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**MINERALIZATION**

● ORE DEPOSITS  
○ PROSPECTS

**STRUCTURE**

~~~~~ FAULT (DEFINED, ASSUMED)  
⊕ TENSIONAL FEATURE

**TARGET AREAS**

▨ PRIORITY AREA 1  
▧ PRIORITY AREA 2  
▩ PRIORITY AREA 3