CORPORATION FALCONBRIDGE COPPER



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DATE:

June 27, 1984

A TO: COPIES À COPIES TO: A. Davidson

DE FROM: D. H. WatkinsD. Lefebure

SUJET SUBJECT: QUESTOR TEST INPUT SURVEY, MT. SICKER, JUNE 1984, 92B/13

A Questor field crew was based in Duncan for several weeks in June to fly a helicopter INPUT survey. D. Watkins had spoken with Questor about flying several test lines to see if the Questor results were similar or different to the DIGHEM survey flown for CFC in 1983 over Mt. Sicker. The relative costs of the two surveys are \$ per km for DIGHEM and \$ per km for INPUT.

On June 15th Questor flew 4 flight lines over Mt. Sicker. Two lines (A,B) were chosen to pass over the Lenora - Tyee and Postuk-Fulton trench and two lines (C,D) to cross the Northeast Copper showing (Figure 1). No significant anomalies were found on flight lines A and B. Dan Martin of Questor did interpret a weak 3-channel anomaly north of the P-F trench on line A. However, he felt this could be a compensation anomaly which is caused by the helicopter. On lines C and D Dan picked ten anomalies (7-6 channel, 1-5 channel and 2-3 channel) which form two clusters, one over volcanics downslope (north) of Northeast Copper and another in the farmlands (sediments) at the northern limits of the property (Figure 2).

The <u>first cluster</u> was interpreted as due to two linear anomalies by Dan. Anomalies B, C, of line C and E, F of line D (Figure 3) are the strongest and coincident with the location of a DEEPEM loop (600m X 300m) which was on the ground at the time. The loop was closed but the transmitter was connected to another loop away from any of the flight lines. At Zenmac a Noranda INPUT survey picked up 5 and 6 channel anomalies associated with DEEPEM loops on N-S but not E-W flight lines (P. Severin). Anomalies A (line C) and D (line D) are away from the loop but are both encountered as the helicopter is approaching the loop. They are not picked up on the adjacent line. Therefore, they are most probably associated with the loop as well. There are no DIGHEM anomalies in this area.

The second cluster occurs over sediments in an area of farmhouses in the general area of DIGHEM anomalies.

Conclusions

- 1) The Questor Input survey test lines did not locate any new anomalies.
- 2) DEEPEM #10 wire in large loops can show up as excellent INPUT anomalies.

per D. Lefebure

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