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M E M O

To: Mick Skirka
From: Jovan Silic
Re: Henty Gorge HGW1 DHEM
Date: April 15, 2007

INTRODUCTION

The 2005 Henty Gorge surface EM survey identified a conductive feature in the western part of the grid and confined to or at the western edge of a mapped ultramafic unit (Figure 1). The EM response of this target was complex, with the effect of a near surface formational conductor (ultramafic) overprinting the response of the deeper more conductive source at depths of 300 – 400 meters (Figures 1a – 2). Quality of late time data (small signals) however prevented a confident interpretation of targets dip. Drill hole HGW1 (Figures 1 and 3) was drilled to test this deeper conductive target.

The purpose of this memo is to present the DHEM data collected in HGW1 and the analysis of this data.

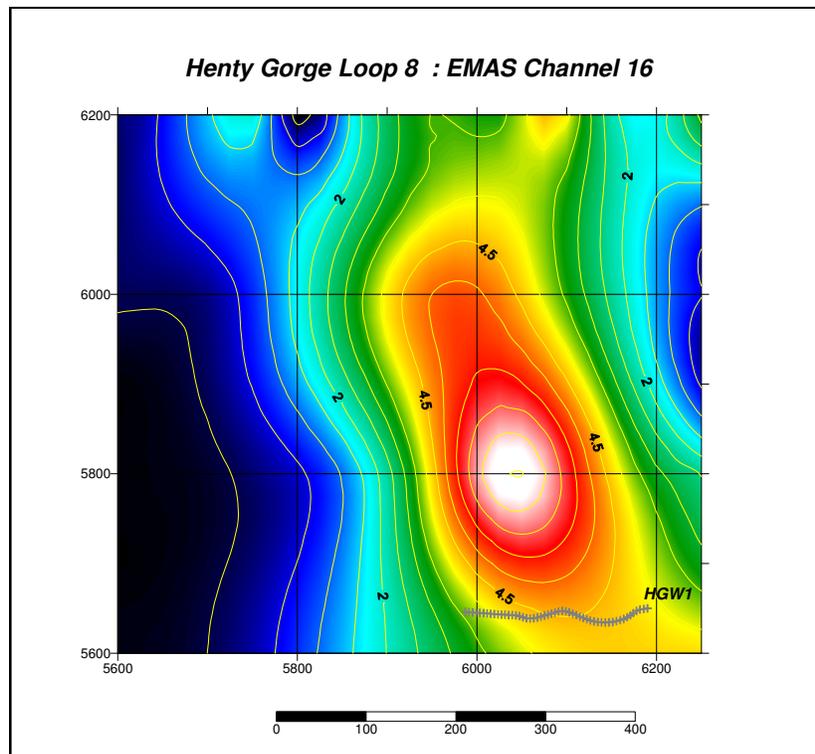


Figure 1. Henty Gorge Loop 8: Emas Channel 16

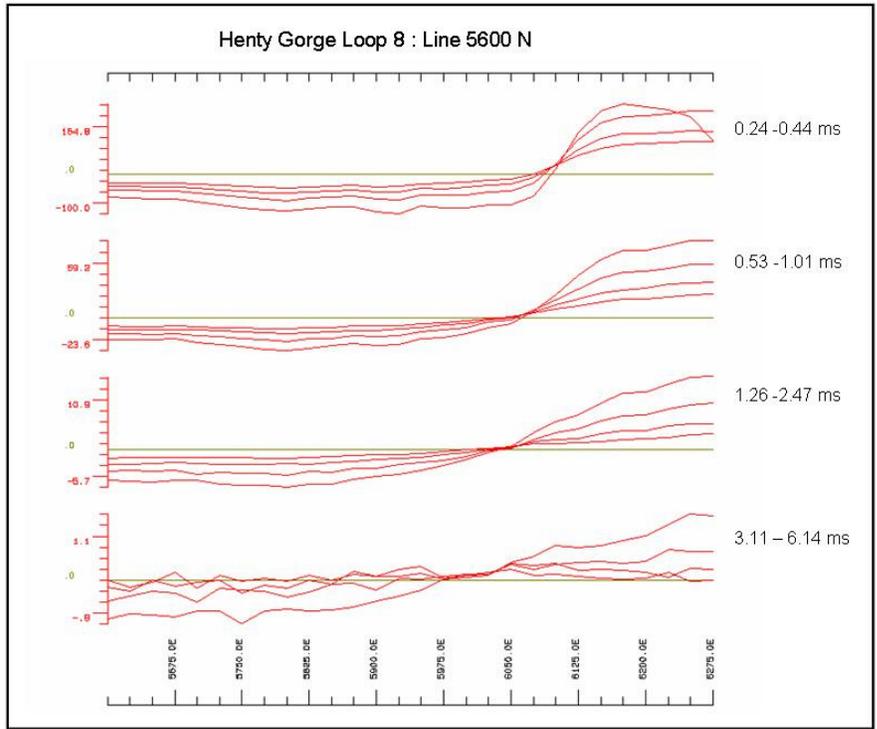


Figure 1a Henty Gorge Loop 8: Line 5600 N

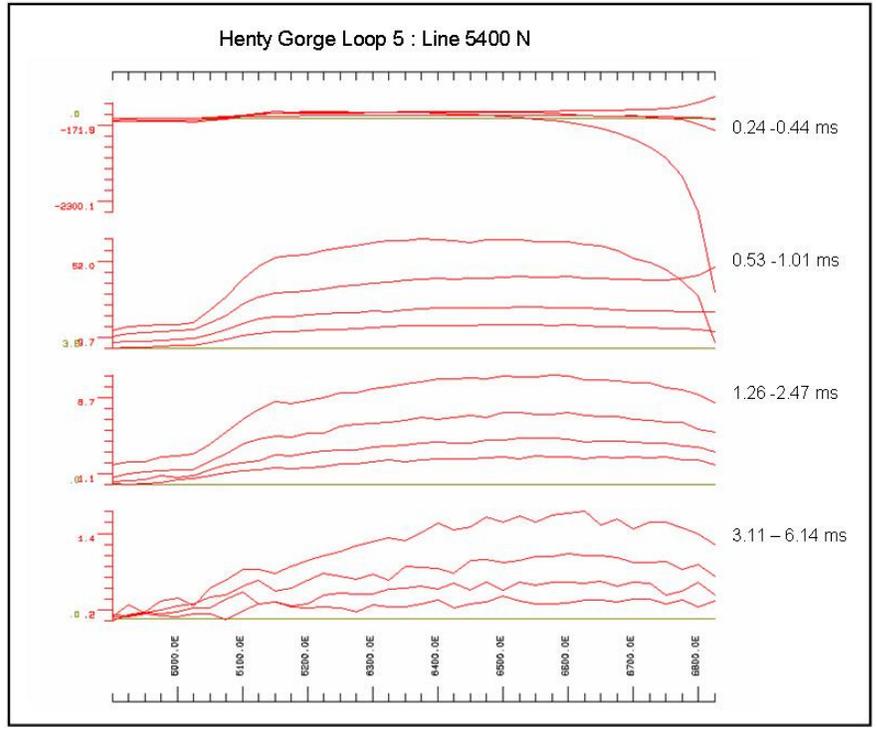


Figure 1b Henty Gorge Loop 5 Line 5400 N

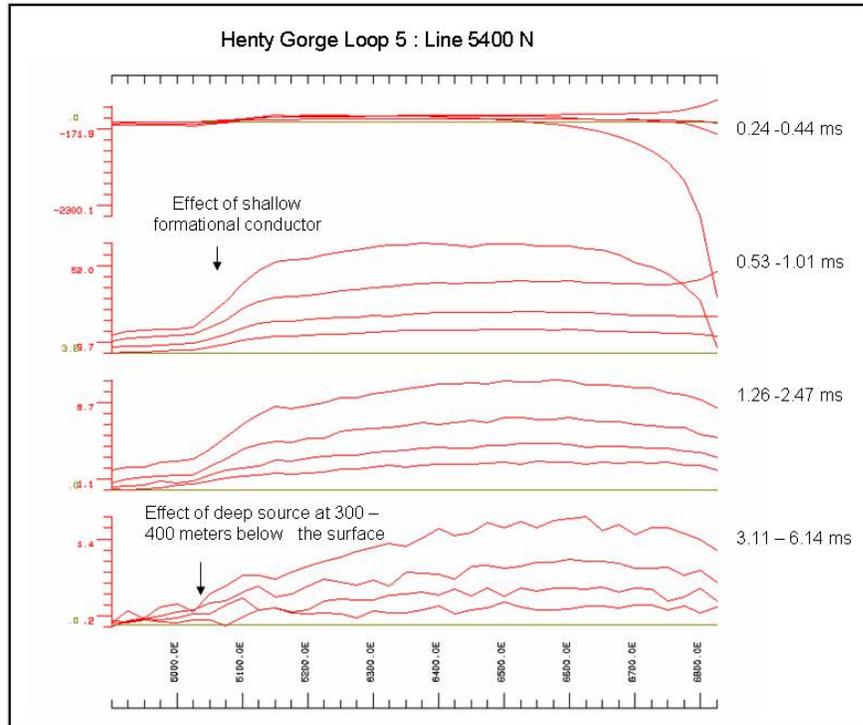


Figure 2. Henty Gorge Loop 5: Line 5400 N

DHEM SURVEY

Three component data was collected in HGW1 by Outer-Rim-Exploration operating the Crone EM system at a 20 millisecond time base. Loop 8, the loop used to collect the follow up surface EM data was utilized to energize the conductors within the vicinity of the drill hole (Figure 3).

INTERPRETATION OF DHEM DATA

The EM response observed in HGW1 is complex for the three components (Figure 4-6). In particular the shape of the profiles change dramatically from early to late times (e.g. the axial component anomaly (Figure 4) with a negative peak at about 325 meters up to a time of about one millisecond) progressively becomes more negative towards the bottom of the drill hole at later times).

To explain this complexity then requires the fitting of the data with a response from more than one conductor. In fact a two conductor model explains most of the characteristics of the overall response (Figures 7 and 7a, 8 and 8a) and the actual response (Figure 4 and 5). This two conductor model as shown in Figure 9 implies that HGW1 drilled parallel to the dip of these targets, not an unlikely scenario as an accurate dip for these targets could not be determined accurately from the surface data. Nevertheless considering that the response of these conductors does not last till "late" times (both targets are characterized by short time constants) implies and confirmed by the inversion/ modeling process, both conductors have a relatively low conductivity-thickness product of about 10 Siemens.

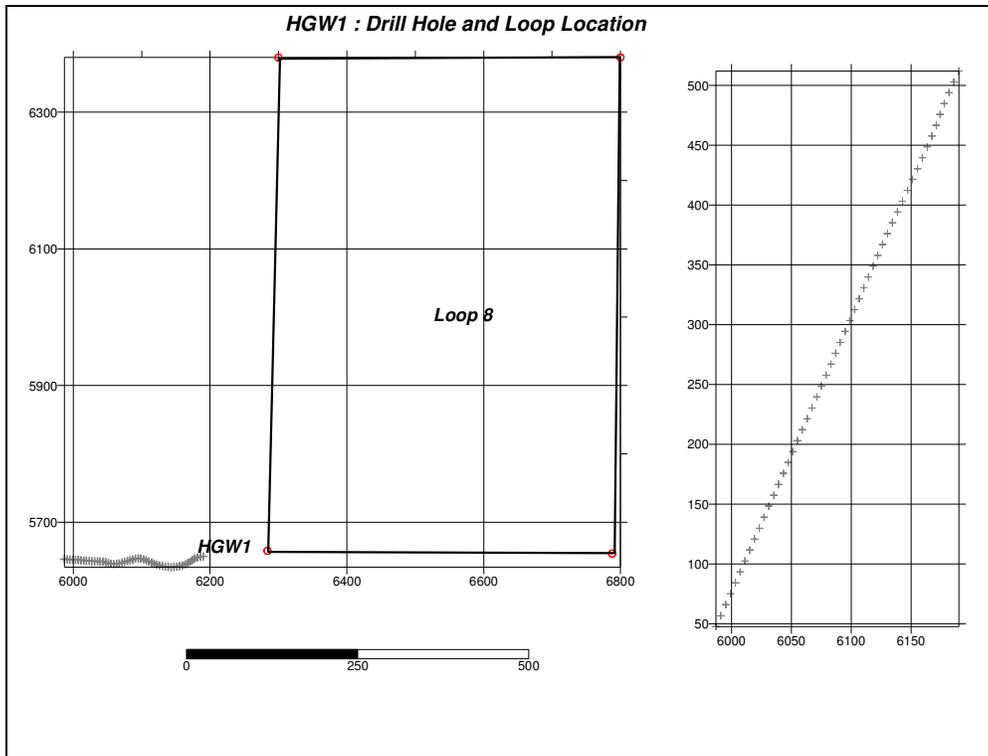


Figure 3. HGW1: Drill Hole and Loop Location

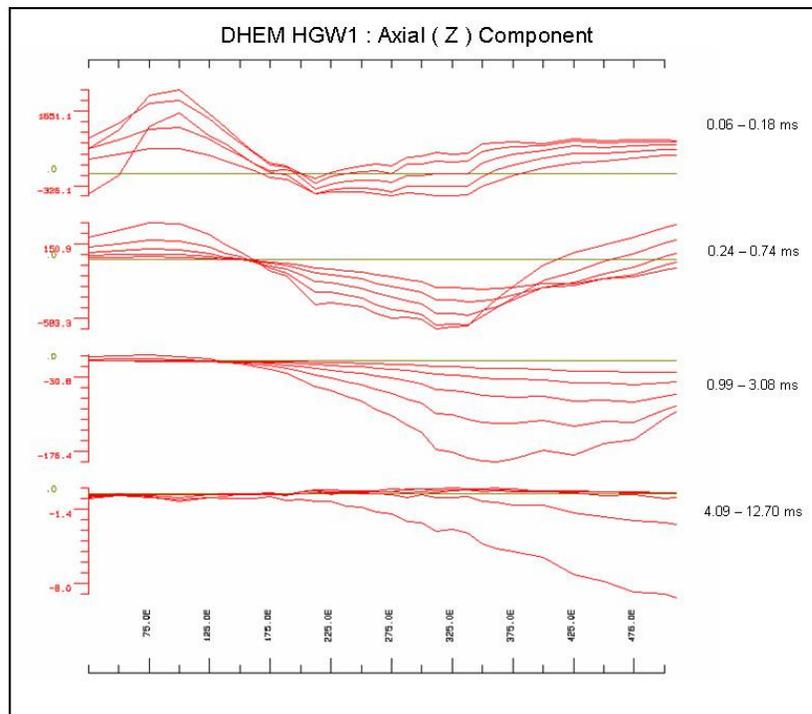


Figure 4. DHEM HGW1: Axial (Z) Component

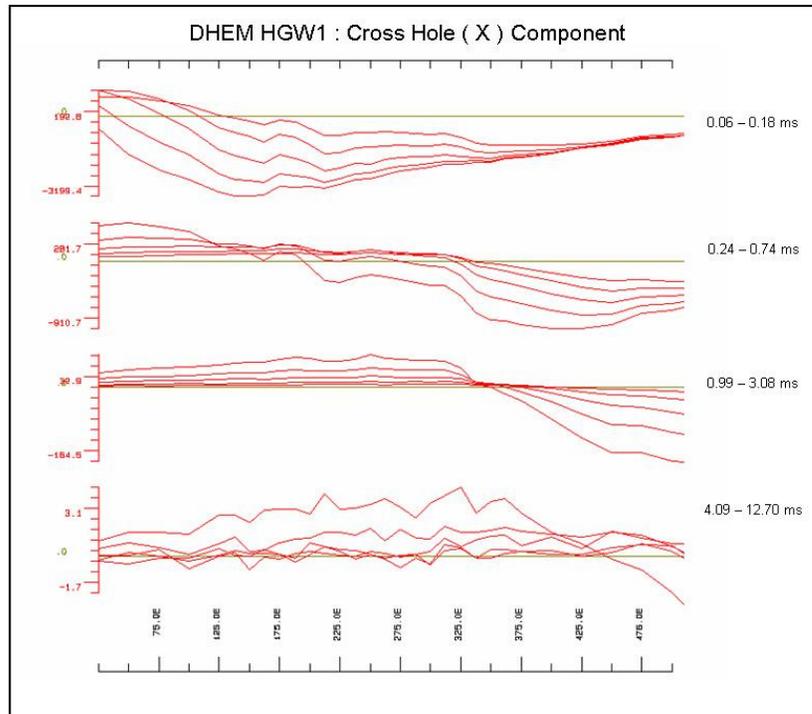


Figure 5. DHEM HGW1: Cross Hole (X) Component

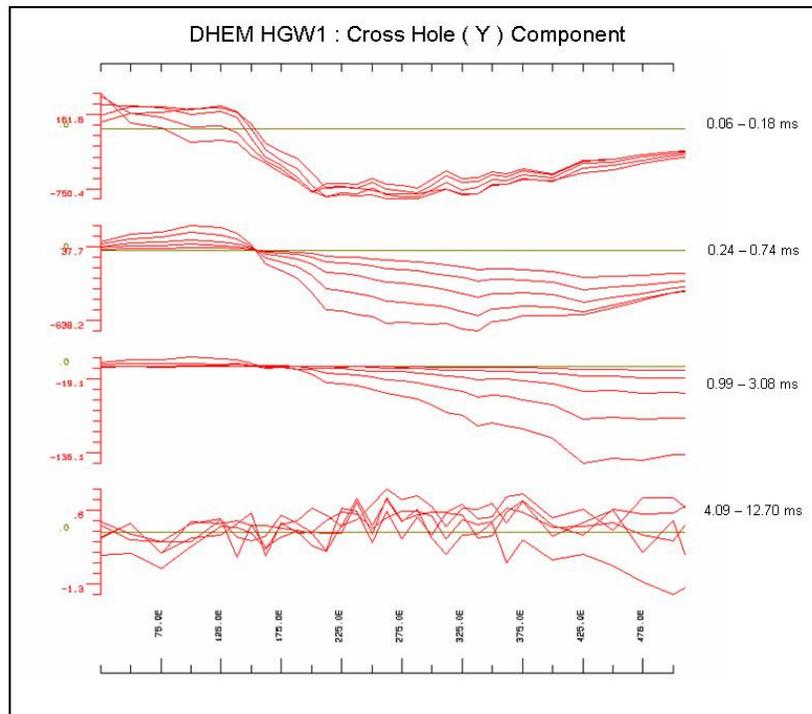


Figure 6. DHEM HGW1: Cross Hole (Y) Component

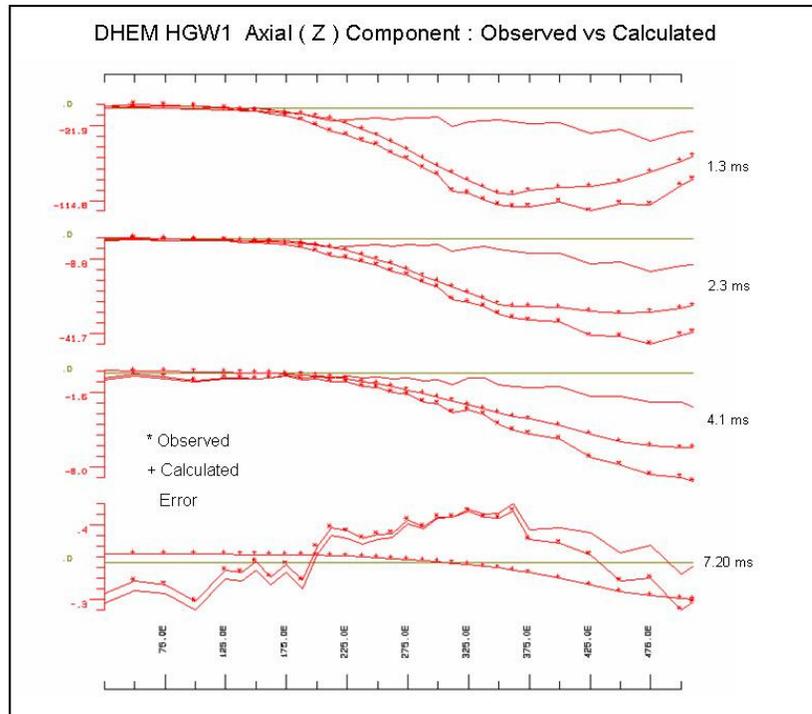


Figure 7. DHEM HGW1 Axial (Z) Component: Observed vs Calculated

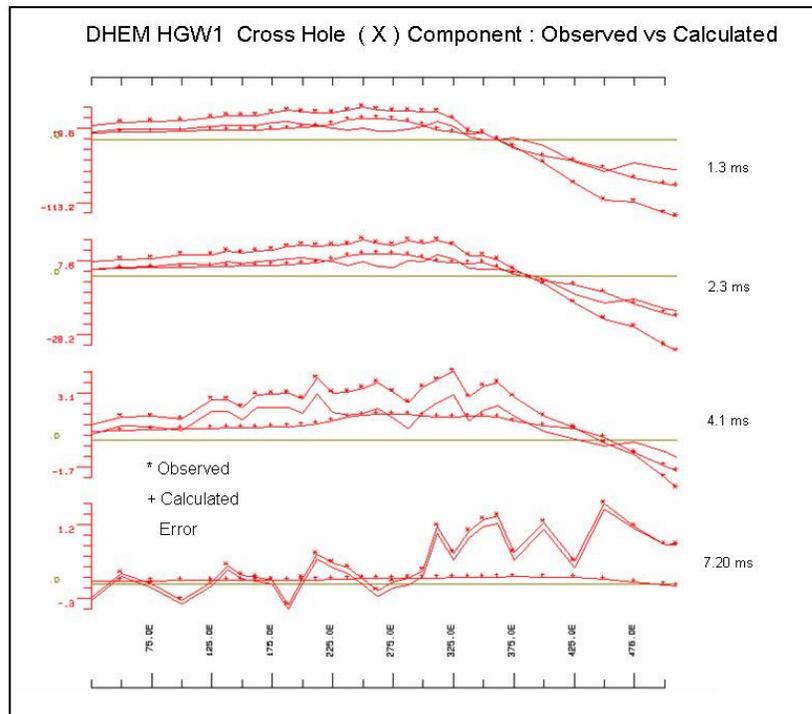


Figure 7a. DHEM HGW1 Axial (X) Component: Observed vs Calculated

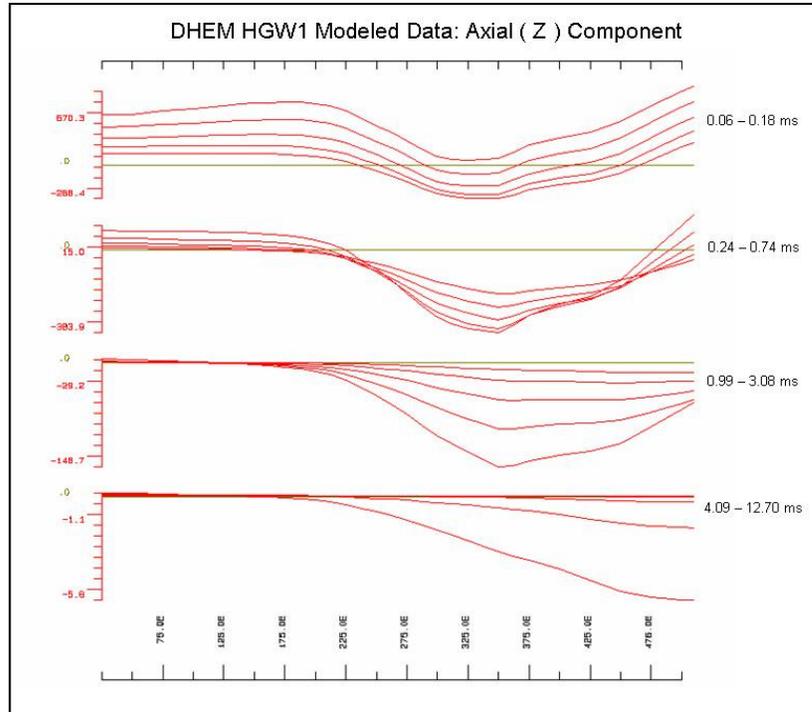


Figure 8. DHEM HGW1 Modeled Data: Axial (Z) Component

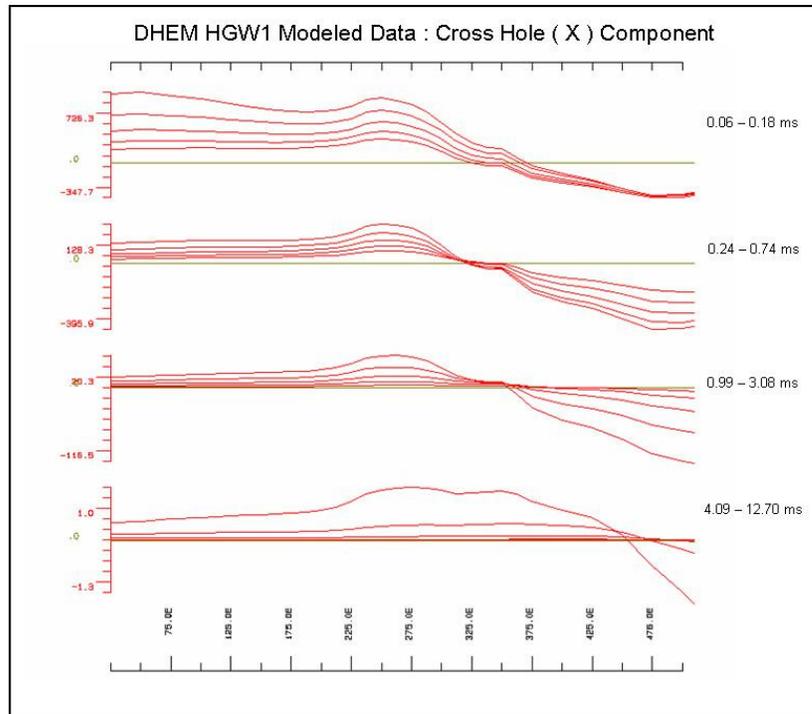


Figure 8a. DHEM HGW1 Modeled Data: Cross Hole (X) Component

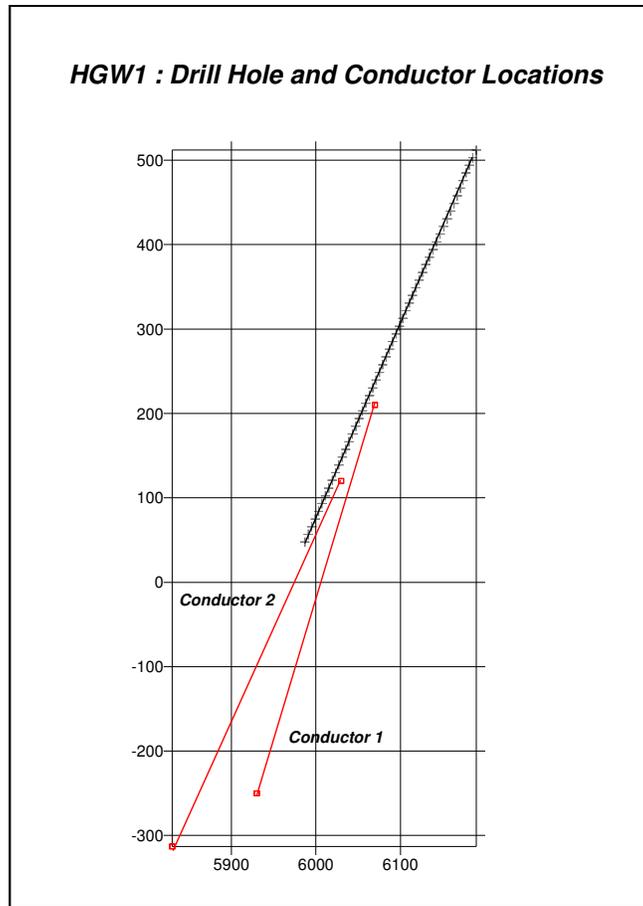


Figure 9. Drill Hole and Conductor Locations

CONCLUSIONS

DHEM data has demonstrated that drill hole HGW1 is close to and almost parallel to two poor to moderate conductive targets. Further follow up or drilling of these targets from the westerly direction most likely requires the upgrading of these conductors on the bases of geological data.