Geophysical Interpretation

of a

Helicopter Magnetic and Electromagnetic Survey Data

over the

Burchell Gold – Base Metal Property
Shebandowan Area of Ontario

on behalf of

Bold Ventures Inc

REPORT BY
SHA Geophysics Inc.

Feb 3, 2023
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1 INTRODUCTION

Bold Ventures Inc. is exploring for economic deposits of gold and base metals in an area designated the Burchell Property in the Shebandowan region of Western Ontario. A helicopter magnetic and electromagnetic survey was carried out on behalf of the Ontario Geologic Survey by Aerodat Ltd. and published as Geophysical Dataset 1021. A VTEM helicopter magnetic and electromagnetic survey was carried out by Geotech on behalf of Helm Exploration Ltd. in 2006. Scott Hogg & Associates Ltd. have undertaken a compilation and interpretation of the data over the Burchell Property to provide recommendations for further investigation. The methodology used and the results are the subject of this report.

2 GEOLOGY

The area has been explored for gold and base metals and past work has been documented in a report for Bold Ventures Inc., by Gerry White, and Dave Thomson, dated March 8, 2022.
Of particular note are several deposits along a SW-NE trend that cuts across the NW corner of the property. This structural zone hosts the Moss Lake Deposit, the past producing North Coldstream Mine and the Osmani Gold Deposit.

Geology Map from Tanager Energy 43-101 report, 2017
Detailed Geology of the Hermia Lake Copper Trend as compiled by Bold Ventures
3 AIRBORNE GEOPHYSICAL INTERPRETATION

3.1 Aerodat HEM Geophysical Dataset 1021

The Aerodat electromagnetic/magnetic survey was flown for the Ontario Geological Survey and presented as the Geophysical Dataset 1021. Flight lines were flown with a line separation of 200 m. The survey utilized the Aerodat 4 frequency electromagnetic system. Ancillary equipment consisted of a cesium magnetometer, radar altimeter and an electronic navigation system.

<table>
<thead>
<tr>
<th>Coil Orientation</th>
<th>Frequency (Nominal)</th>
<th>Tx/Rx separation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coaxial</td>
<td>935 Hz</td>
<td>7 m</td>
</tr>
<tr>
<td>Coaxial</td>
<td>4600 Hz</td>
<td>7 m</td>
</tr>
<tr>
<td>Coplanar</td>
<td>4175 Hz</td>
<td>7 m</td>
</tr>
<tr>
<td>Coplanar</td>
<td>32000 Hz</td>
<td>7 m</td>
</tr>
</tbody>
</table>

The response channels of most value for the interpretation are the Coaxial 4600 Hz and Coplanar 4175 Hz. A comparison of their response shape can help identify steeply dipping conductors that are most often associated with bedrock geology as opposed to flat lying conductors that are usually reflective of conductive overburden.

A profile map was created that presented the coaxial 4600 Hz response in red at a profile scale off 4ppm/mm at 1:50,000 map scale, inphase as a thicker line, quadrature thinner. The coplanar 4175 Hz profiles were presented in blue red at a profile scale off 16 ppm/mm at 1:50,000 map scale, inphase as a thicker line, quadrature thinner. The profile map was used to identify conductor axes that connected responses whose shape inferred a likely steeply dipping source.
3.2 VTEM Survey by Helm Exploration

The VTEM survey, flown at 150 m. line spacing, had no accompanying technical report. The digital database contained response channels designated: 170, 190, 260, 300, 350, 410, 480, 570, 680, 810, 960, 1130, 1600, 1900, 2240, 2660, 3180, 3780, 4460, 5300, 6340, 7540. These are presumed to be 22 time gates for a vertical axis receiver. One set of channels was designated C#f and another D#f. The profile data seemed the same but the D channels appeared to be lagged by a fraction of a second. The C channels were used for analysis in this report.

The profile response was reviewed flight line by flight line and an anomaly channel was created that identified the interpreted location of steeply dipping conductive sources. The response shape of such sources is the same as the coplanar response of the Aerodat system as illustrated above. Symbols were drawn on the map to locate these responses and axes were drawn to connect the symbols where appropriate.

4 MAP PRESENTATION AND DISCUSSION

A map that encompasses the Burchell Property of Bold Ventures was created. The map includes different layers that include the geology maps as well as airborne geophysical data and interpretation presentations derived from the airborne geophysical surveys. Highlights of the contents are discussed below.
Burchell Property Outline with geological map from Tanager 43-101 report

Burchell Property Outline with known mineral deposits together with Aerodat Total Field Magnetic Map, Geophysical Dataset 1021
Burchell Property Outline with known mineral deposits together with Aerodat HEM Coaxial 4600 Hz and Coplanar 4175 Hz Profiles with interpreted axes of steeply dipping bedrock conductors.
Burchell Property Outline with known mineral deposits together with VTEM Survey logarithmic amplitude profiles with interpreted axes of steeply dipping bedrock conductors. Magnetic background from Aerodat and VTEM surveys.
5 RECOMMENDATIONS

The area with the most geological information and detail is in the vicinity of the Hermia Lake prospect. A compilation of the geology and airborne geophysics highlights some inconsistencies or perhaps opportunities that deserve more consideration.

Both the Aerodat HEM and Geotech VTEM surveys have identified steeply dipping bedrock conductors within the Burchell Property and the surrounding area. Any of these conductors regardless of conductivity may directly or indirectly be associated with gold mineralization. Those with higher conductivity are more likely to reflect base metal mineralization. In the case of the Hermia Lake gold-copper mineralization it is interesting to note that the conductors do not directly coincide with the apparent exploration focus.
On the Burchell-Osmani Detail Map there are areas of interest indicated with an R.

At R1 there is a well defined VTEM conductor axis that extends to the southwest from where the groundwork appears to be the most focused. It appears that some drill holes with significant copper values lie beyond the northeast end of the conductor. This incongruity warrants closer review.

To the north, south and west of R2 are a number of well defined conductors on both the VTEM and Aerodat surveys. Mineral showings and drill collars are noted in the vicinity but it is not clear if the groundwork coincides with or explains the airborne responses.

Pronounced airborne anomalies occur at R3 and R4. Mineral showings and drill collars are noted in the vicinity but it is not clear if the groundwork coincides with or explains the airborne responses.

A more detailed compilation of the geology and drill hole data is recommended to enable more precise correlation with the airborne geophysics. This would help determine if and where the airborne anomalies are associated with mineralization of interest. It is also recommended that the technical report for the Geotech VTEM survey be obtained if quantitative analysis of the electromagnetic responses is considered.

The conductor axes R1 to R4 do extend to the northeast and if they are confirmed to have Cu or Au mineralization an extension of the VTEM survey might be warranted.
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