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NTS 31 M/5

VLF-EM Survey Assessment Report

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**Proteus Property** 

Lorrain Twp.

May 2011



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VLF Profiles map - NAA Cutler, Maine

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#### **Proteus Property**

#### 1.0 INTRODUCTION:

From May 11 to 20, 2011 a program of linecutting and geophysical surveying was carried out on the Proteus Property situated in Lorrain Twp. The objective of the work was to map the electrical characteristics as they relate to structurally controlled epigenetic gold deposits. The property is held by Intervia Inc. Suite 612-401 3702 South Virginia Street, Reno, Nevada USA. The geophysical work was executed by David Laronde and D'Arcy Ryan of Meegwich Consultants Inc. P.O. Box 482, Temagami, Ontario POH 2HO. Laronde authored this report.

The lines were cut by Pactole Exploration of Val D'Or, P.Q. and are considered to be good quality considering the thick deadfall prevalent on this section of the property.

A total of 7.40 km of new line was cut and surveyed.

#### 2.0 PROPERTY:

The work was done on three mining claims found in lots 1 and 2 in Concessions 11 and 12 of Lorrain Twp. The claims are numbered as follows:

Claim No.	No. of units	Due date
4248871	7	May 18, 2012
4242314	1	June 19, 2011
4248375	1	July 8, 2012

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## 3.0 LOCATION AND ACCESS:

The property is located 5 km southeast of the town of Cobalt as the crow flies. Access is done by first taking Hwy 567 south from North Cobalt for about 6 km then turning west onto a new logging road that is gated. At a mileage point 1.3 km there is an ATV trail that heads northwest to the northeast corner of the grid.

## 4.0 VLF Electromagnetic Survey:

A total of **7.40 km** was surveyed for a total of 294 readings taken at 25 meter stations.

**4.1 Instrumentation:** A Geonics VLF-EM receiver was used for the survey. The VLF transmitter station was Cutler, Maine NAA transmitting at 24.0 kHz. The measured quantities are the in-phase and quadrature components of the vertical magnetic field measured as a percentage of horizontal primary field (read to a resolution of +/- 1%). All readings were taken facing north.

**4.2 Survey Results:** The results of the survey are presented in profile format on plans at 1:2500 scale.

In many cases weak VLF conductors are electrolytic (bedrock shears and fractures, overburden filled bedrock troughs and valleys) or poorly connected metallic grains such as stringer sulphides.

#### Proteus Property

The weak conductor found on the north central part of the grid would likely fall into this category. The conductor is 400 to 500 meters in length and trends more or less parallel to the baseline. Most of the grid gave a flat response.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS:

The VLF-EM survey yielded one interesting conductor that may represent a fault or structure. In this area epigenetic gold is known to occur in narrow discontinuous zones concordant with the lithology. Structure enhances the permeability of local volcanic geology and is thus critical in placement of mineralized fluids containing gold.

Further work should extend the grid to cover off the entire property and map structure with VLF and magnetic surveys. An induced polarization survey is then recommended to test for sulphides in and around detected structure.

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## **References**

Geological map 1 inch to four miles OGS Sudbury-Cobalt – Geological Compilation Series

1986 Robert Cintis Geologic Report on the Proteus Resources Inc. – Ruby Valley Property

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**Proteus Property** 

## CERTIFICATE OF AUTHOR

I, David Laronde of the town of Temagami, Ontario hereby certify:

- That I am a geology engineering technologist and have been engaged the mineral exploration industry for the past 31 years.
- That I am a graduate of Cambrian College in Sudbury with a diploma in Geology Engineering Technology 1979.
- 3. That my knowledge of the property described herein was acquired by field work and documentation.

Dated at Temagami this 20th day of May 2011.

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David Laronde

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