NTS 41 O/15



### GROUND GEOPHYSICAL SURVEYS Magnetometer Surveys Assessment Report

# **CREE LAKE PROJECT**

Swayze and Cunningham Twp.



# MANTIS EXPLORATIONS INC.

April 11, 2008.

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Total Field Contours 1:10,000

## 1.0 SUMMARY:

From April 5 to 10, 2008 an additional program of grid establishment and detail magnetometer surveying was carried out on magnetic targets in Swayze and Cunningham Tp. The purpose of the work was to map magnetic features and lithology on the ground. This phase of exploration work is part of a more extensive program on the Cree Lake Project. The property is held by Mantis Explorations Inc. 8 King St. East, Suite 1500, Toronto, Ontario M5C 1B5.

The grid establishment and magnetometer surveying was done by David Laronde, Wesley Verreault, Stephane Coulombe and Sebastien Coulombe on behalf of the contractor Meegwich Consultants Inc. P.O. Box 482, Temagami, Ontario POH 2HO. David Laronde was the field supervisor and the author of this work report. On this phase there was a grand total of **25 km** of grid lines added and surveyed with magnetometer. This is in addition to 41 km that were surveyed previously. Data from the two surveys are plotted together. The lines of the grids were located with WAAS enabled GPS units (Garmin 60Cx) using the UTM NAD 83 co-ordinate system as grid reference. Stations were flagged at 25 meter intervals along each line.

#### 2.0 PROPERTY:

The work was done on a group of contiguous mining claims situated on the common boundary of unsurveyed Swayze and Cunningham Twps. The total area of the claims is 176 claim units or 2816 hectares.

CLAIM NO.	DUE DATE	UNITS
4203275	April 4, 2008	8

4203295	April 4, 2008	16
4203296	April 4, 2008	8
4209787	Oct. 4, 2008	16
4212201	Oct. 4, 2008	16
4212280	Oct. 4, 2008	16
4212281	Oct. 4, 2008	16
3005501	April 3, 2008	16
3005502	April 3, 2008	16
3005503	April 3, 2008	16
3005504	April 3, 2008	16
4201534	April 3, 2008	16

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# 3.0 LOCATION AND ACCESS:

The property is located 100 km southwest of Timmins as the crow flies. Road access to the property is by taking the Sultan Industrial Road west from the junction of Hwy 144 and 560 (the Watershed) to km 55. From here, head north on the Dore Forest Access Road to km 40. At this point follow a tertiary road west for another 8 km. An ATV or ski-doo is required to make the 2 km trip southward to Cree Lake. The river could be used in summer to provide water access from the Dore Road.

### 5.0 MAGNETOMETER SURVEY:

A grand total of 66 km of line was surveyed (**3350 readings**) at 20 meter intervals throughout the survey. **25 km** was surveyed this phase and 41 km surveyed in an earlier phase of work.

**<u>4.1 Instrumentation</u>**: Gem Systems GSM-19 overhauser magnetometers serial no. 58479, 7052358 and 712776 were used for field units measuring in nanoteslas (nT) with an accuracy of +/-1/100<sup>th</sup> nT. These instruments have an excellent gradient tolerance at 10,000 nT/m.

A Scintrex EDA Omni IV proton precession magnetometer ser. No. 255228 was used for a base station to monitor the diumal variation. The base station cycled at a 15 seconds interval. This instrument has an accuracy of 1/10<sup>th</sup> nT.

<u>4.2 Survey Results and Interpretation:</u> The results are presented in contour format on plans at 1:10,000 scale. Quality control was monitored by cross-referencing baseline and crossline data. This referencing technique confirms good data and checked out on these surveys.

Please note that ground grid coordinates are simply truncated UTM NAD 83 coordinates as indicated along the map borders.

**Phase One** In general the most obvious feature is an east west trending linear than spans the entire length of the 5 km long grid. It is narrower at the east end being 200 meters wide on L 7400 E and up to 500 m wide but less intense on the west side. The most intense section is found on L 6200 and 6600 E where readings range up to 4600 nT. The background range is typically 500-700 nT.

On the south half of the grid a series of bull's eye magnetic highs occur along an east west linear. These highs are relatively narrow with readings ranging up to a few thousand nT.

Much of the surveyed area is quiet which likely reflects a homogenous volcanic sequence.

A magnetic low area is noted in the southeast corner of the grid.

**Phase Two** A magnetic high is partially covered in the southwest corner of the grid. Readings range up to 2000 nT with the high trending off the grid in an east west direction adjacent to a topographic low trend defined by the river. This could be a mafic intrusive along a structural zone of weakness. Further north is a few isolated highs that are moderately intense ranging up to 1729 nT.

The remainder of the surveyed area is quiet and reflective of a volcanic background.

#### 5.0 <u>CONCLUSIONS AND RECOMMENDATIONS:</u>

The magnetic surveys were successful in identifying interesting magnetic features that should be explored further. The magnetic features trend east west along with stratigraphy and can be referred to as mafic intrusive sills with significant magnetic mineral content such as magnetite and pyrrhotite.

An electrical survey is warranted to detect both massive and disseminated sulphides in and around the mafic intrusives.

The river may be indicating a structural feature trending east west and may contain prospective sulphides worthy of follow-up work also.

## **References**

Geological Compilation 1:50,000 W. Hanych January 2008

Meegwich Consultants Inc. P.O. Box 482, Temagami, Outario P0H 2H0 Tel. (705) 569-2904 Fax. (705) 569-2817

### **CERTIFICATE OF AUTHOR**

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

- 1. That I am a geology engineering technologist and have been engaged in mineral exploration for the past 28 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 11th day of April 2008.

David Laronde

