**MAGNETOMETER SURVEY REPORT** 

on the

# **MONTCALM TOWNSHIP PROPERTY**

DISTRICT OF COCHRANE ONTARIO



FOR

INTERNATIONAL NICKEL VENTURES CORPORATION

Dan Patrie Exploration Ltd. L.D.S. Winter, P.Geo. 8 April 2008

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#### 1. INTRODUCTION

The International Nickel Ventures Corporation ("International Nickel" or the "Company") property consists of 11 claims containing 145 units and covering 2320 ha in Montcalm township, Timmins Area, District of Cochrane, Ontario at 82°-09'-50"W longitude, 48°-37'54"N latitude. The claims were acquired for their potential to host nickel-copper mineralization of economic interest. At the request of the Company, Dan Patrie Exploration Ltd., Massey, Ontario carried out line-cutting and a ground magnetometer survey on part of the Property. The following report describes the work carried out on the subject claims and the results obtained.

## 2. PROPERTY

## 2.1 PROPERTY DESCRIPTION

The Montcalm township property is comprised of 11 unpatented contiguous mining claims containing 145 units and covering 2320 ha as listed in Table 1 and as illustrated in Figure 2. The property is located within the central part of the township.

TABLE 1 INTERNATIONAL NICKEL VENTURES CORPORATION MONTCALM TOWNSHIP PROPERTY							
<u>Claim</u>	Due Date	<u>Units</u>	Area (ha)				
1249164	2009-Feb. 20	6	96				
1249165	2008-Aug. 20	15	240				
1249166	2008-Aug. 20	15	240				
1249168	2008-Aug. 20	15	240				
1249169	2008-Aug. 20	16	256				
1249187	2009-Feb. 20	15	240				
1249188	2008-Aug. 20	15	240				
1249189	2009-Feb. 20	15	240				
1249190	2009-Feb. 20	15	240				
3010183	2008-May 12	16	256				
3010184	2008-May 12	2	32				
TOTAL 11		145	2320				

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FIGURE 1 INTERNATIONAL NICKEL VENTURES CORPORATION MONTCALM TOWNSHIP PROPERTY LOCATION MAP

Scale 1:1 725 000

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FIGURE 2 INTERNATIONAL NICKEL VENTURES CORPORATION MONTCALM TOWNSHIP PROPERTY CLAIM MAP Apr

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All claims are held in the name of International Nickel Ventures Corporation (100%).

#### 2.2 LOCATION, ACCESS AND INFRASTRUCTURE

The Property is located approximately 65 km northwest of Timmins, Ontario at 82°-09'-50"W longitude, 48°-37'-54"N latitude and centred at UTM Zone 17, coordinates 415000mE; 5391000mN. The claims form an approximately rectangular block in central Montcalm township adjacent to Xstrata Nickel's producing Montcalm mine to the east and the Groundhog River to the west. Access to the Property is via the Malette Lumber – Montcalm Mine Road from the west end of Timmins to the Property area.

#### 3. <u>REGIONAL GEOLOGY</u>

All of the major rock units in the area are of Precambrian age. A belt of mafic and felsic metavolcanics with intercalated metasediments underlies most of Montcalm township. These metavolcanics are intruded by an arcuate body of magnetite-rich gabbro with associated serpentinite and dioritic units within the southern half of the Property. A batholith of felsic intrusives is present in the eastern part of the township and intrudes the metavolcanics and gabbroic units.

Matachewan - type/age diabase dykes cut all major units in the township.

The Property and the area in general are covered by an extensive layer of Pleistocene age glacial clays, sand and gravel.

The producing Montcalm nickel-copper Property of Xstrata Nickel is adjacent to the subject claims to the east.

#### 4. INSTRUMENTATION AND WORK DONE

Between 10 December 2007 and 31 March 2008 a program of line-cutting followed by a total field magnetometer survey was carried out on part of the subject Property. The survey was carried out by 2 men along the east-west grid lines as well as the north-south base line and tie lines with readings being taken at 25 m intervals. A total of 108.6 line-kilometres was surveyed as shown in Figure 3 and the accompanying Maps.

Two grids were cut on the Montcalm township property, the northeast grid (Figure 3) and the southern grid. The northeast grid covers claim 1249164 and the adjacent 200 m to the west of claim 1249190. There are two tie-lines and 8 lines extending from 12+800N to 13+500N with each line being 1400 m long. The line-kilometres on the northeast grid total 12.6 kilometres.

The southern grid covers a triangular shaped area (Figure 3) with 1 base-line and 3 tie-lines and with lines from 8+500N to 11+800N. The total number of kilometres in this grid is 96. This grid covers in part claims 1249165, 1249168 (a small part only), 1249187 and 1249188. In addition, all or almost all of claims 1249166 and 1249189 were covered.

The magnetometer survey was carried out using Envi Magnetometers made by Scintrex Ltd. The Envi Mag has the capability to measure the total field combined with an Envi Magnetometer as a base station for correcting magnetic diurnal drift. These are total field magnetometers which measure the magnetic field through the use of proton processional effects caused by the interaction of a magnetic field with a spin aligned, proton rich fluid.

An instrument accuracy precision and resolution of 0.1 nt may be obtained with these instruments under ideal conditions. While in gradient mode which was not done at this time, the unit has the means of measuring both the total field and the gradient of the total field with two sensors simultaneously. In gradient mode, the



FIGURE 3 INTERNATIONAL NICKEL VENTURES CORPORATION MONTCALM TOWNSHIP PROPERTY CLAIMS AND GRID Apr

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instrument sharply defines the magnetic responses determined by the total field. It individually delineates closely spaced anomalies rather than collectively identifying them under one broad magnetic response. Also, when doing a gradient survey the instrument enables one to conduct a gradient survey during a magnetic storm because the technique of simultaneously measuring with the two sensors cancels out the effects of diurnal magnetic variations.

Microprocessors contained in these instruments allow for the collection of the readings along with the time and its position in digital form suitable for downloading to a computer for date processing.

A total of 108.6 km of magnetic readings were taken along the lines spaced at 100 m with 25 m station intervals. The field measurements were corrected for diurnal variations of the earth's magnetic field by direct subtraction of the base station readings from the reading taken at the same moment in the field units. The corrected data was downloaded to a computer for plotting.

The line-cutting and the magnetometer survey were carried out by Dan Patrie Exploration Ltd., Massey, Ontario.

#### 5. <u>RESULTS</u>

The general magnetic patterns, as indicated by the magnetometer survey, trend northeast – southwest consistent with the trends of the supracrustal metavolcanics and intrusive mafic – gabbroic units. In the northeast grid, the general background readings are in the 56800 +/- nT range with one narrow northeast trending area of elevated magnetic values being present in the central part of the grid. This anomalous area extends for a strike length of approximately 600 m. The maximum readings are in the 58400 nT range. In the southern grid, the magnetic readings range from approximately 56400 nT to over 60000 nT with areas of elevated magnetic susceptibility generally being greater than 57000 nT. In the northeastern part of the southern grid, there is a narrow discontinuous northeast-southwest

trending zone of elevated magnetic readings for a strike length of approximately 2200 m and across a width of approximately 200 m and with values greater than 60000 nT. This may be the southwestern extension of the anomalous area in the northeastern grid.

Approximately 1200 m to the southeast, there is a parallel but broader zone of elevated magnetic readings with the maximum values being in the 57900 nT range. This zone has a width in the order of 400 m to 500 m. In the south-central part of the grid, there appears to be an offset in the magnetic patterns in a right-handed fashion suggesting a northwest-southeast trending fault may be present in this area (TL62+00E and L86+00N to L89+00N).

In addition to the dominant northeast-southwest trend, there is a second trend shown by narrow magnetic highs trending north-northwest (345°) which are interpreted as diabase dykes probably of Matachewan – late Archean to early Proterozoic age.

In the southwestern part of the grid, approximately along L89+00N, there is a narrow east-west trending zone of elevated magnetic values.

#### 6. SUMMARY AND CONCLUSIONS

Two grids were cut on the Montcalm township property of International Nickel Ventures Corporation, the northeast and the south grid. Twelve point six (12.6) linekm were cut in the northeastern grid and 96 line-km were cut in the southern grid and subsequently both grids were covered by magnetometer surveys with readings being taken at 25 m intervals. The magnetometer readings are plotted at a scale of 1:10 000 with the results being presented in two accompanying maps.

The magnetometer survey has identified two main areas of elevated magnetic values in the southern and eastern part of the Property. The first appears to extend as a discontinuous anomaly from the northeast grid into the northern part of the

southern grid. The anomaly is up to 200 m wide and shows magnetic readings greater than 60000 nT against background values that are generally less than 56000 nT. In the southern part of the southern grid, there is a second northeast trending magnetic anomaly which is more continuous, however, it shows lower peak readings and has a width in the order of 400 m to 500 m.

A second noticeable magnetic trend is north-northwest (345°) which is considered to represent Magnetewan type diabase dykes. An east-west trending narrow magnetic anomaly is present in the southwestern part of the southern grid approximately along line 89+00N.

#### 7. PERSONNEL

The magnetometer survey was carried out by Dan Patrie Exploration Ltd., Massey, Ontario using the following personnel.

Gab Roy, Elliot Lake, Ontario Ian Cardiff, Sault Ste. Marie, Ontario

> L.D.S. Winter, P.Geo. 8 April 2008

L.D.S. Winter

#### 1849 Oriole Drive, Sudbury, ON P3E 2W5 (705) 560-6967 (705) 560-6997 (fax) email: winbourne@bellnet.ca

#### **CERTIFICATE OF AUTHOR**

I, Lionel Donald Stewart Winter, P. Geo. do hereby certify that:

- 1. I am currently an independent consulting geologist.
- I graduated with a degree in Mining Engineering (B.A.Sc.) from the University of Toronto in 1957. In addition, I have obtained a Master of Science (Applied) (M.Sc. App.) from McGill University, Montreal, QC.
- 3. I am a Life Member of the Canadian Institute of Mining, a Life Member of the Prospectors and Developers Association of Canada, a Registered Geoscientist in Ontario and in British Columbia (P.Geo.) and I have Temporary Registration in Quebec.
- 4. I have worked as a geologist for a total of 50 years since my graduation from university.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I am the author responsible for the preparation of the Geophysical Survey Report titled "Magnetometer Survey Report on the Montcalm Township Property, District of Cochrane, Ontario" and dated April 8, 2008 (the "Technical Report").

Dated this 8<sup>th</sup> Day of April, 2008 Tu D.S. WINTER PRACTISING MEMBER 0639 ENTARIO L.D.S. Winter, P.Geo.