

31M04SW2042 2.20533

STRATHCONA

А

## **Geological Report**

on the

## The Diadem West Property

NTS: 31 M/4 Latitude: 47 deg. 03 min. North Longitude: 80 deg. 49 min. East

for

**David Laronde** 

Prospector

## Strathcona Township, Temagami, Ontario

Blackstone Development Inc. 50 Silver Street, P.O. Box 699 Cobalt, Ontario P0J 1C0 Phone: (705) 679-5500 FAX: (705) 679-5519 Gino Chitaroni, B.Sc. Consulting Geologist December 15, 1999

2.20533

010



31M04SW2042 2.20533

STRATHCONA

010C

# **Table of Contents**

Topic	Page Number
Introduction	2
Property	2
Location	2
Access	2,3
Infrastructure	3
Regional Geology	3
Local Geology	3,4
Property Mineralization	4
Exploration History	4, 5, 6, 7
Diadem West Property: O'Connor Prospect pg. 4 Candela Development pg. 5 Copperfields Corporation pg. 5 Milestone Exploration pg. 5 Diadem West Property – David Laronde pg. 5	
Diadem Deposit: Diadem Mines pg. 6 Copperfields Corporation pg. 6	
Temagami Copper Mine: pg. 7	
1999 Geological Program	7, 8, 9, 10

General Observations pg. 7 Diadem West Sulphide Zone pg. 7 Rock Types pg. 7, 8 Alteration pg. 8 Fault Structures pg. 8 Sulphide Mineralization pg. 8, 9 Sampling/Assaying Results pg. 9 Accessory Exploration Discussion pg. 9,10	
Conclusions	10, 11
Recommendations	11, 12
Initial Property Exploration pg. 11 Lake Temagami Geophysical Coverage pg. 11 Induced Polarization pg. 11, 12 Diamond Drilling pg. 12 Additional Property Acquisition pg. 12	
Diadem West Property	
Sampling Summary	
Assay Certificates	
Statement of Qualifications	
References	
Back Pocket	
Claim Map	

Geology Map

## Introduction:

A property visit by Blackstone Development Inc. consulting geologist, Gino Chitaroni was carried out on November 9 th, and 16 th, 1999. On the second property visit, Gino Chitaroni was accompanied by Gary Grabowski, Staff Geologist for the Cobalt Area, (Kirkland Lake Resident Geologist Office) Ministry of Northern Development and Mines.

The purpose of the visit was to sample and appraise the known sulphide mineral occurences; and to evaluate the property's potential for polymetallic economic mineralization, namely, Copper-Nickel-Cobalt and secondary Platinum Group Elements (PGE), Gold, and Silver.

## Property:

The Diadem West Property consists of 6 unpatented mining claims located in Strathcona Township. (See Claim Map ) The property is described as follows:

No. Claims Units

1231126	2
1225639	2
1225640	1
1225641	1
1225642	2
1225643	3
	1231126 1225639 1225640 1225641 1225642 1225643

Total:6 Claims @ 11 UnitsProperty Size:440 Acres or 176 Hectares

## Location:

The Diadem West Property is locally located along the shores of Lake Temagami approximately 2-3 kilometers southwest of the town centre of Temagami, and 3 kilometers west of Highway 11 (Northern Route of the Trans-Canada Highway). West Diadem Property claim group is regionally situated about 100 Kilometers north of the City of North Bay of northeastern Ontario.

#### Access:

The property has very good vehicular access as well as by float plane and helicopter.

The property can be accessed from the Strathcona Road (gravel) for 2 kilometers west of Highway 11 and then reached by bush/skidder trail directly into the claim group.

### Infrastructure:

The property has excellent access to nearby infrastructure requirements, including: rail, power, telephone, the natural gas pipeline, water and municipal services in Temagami, North Bay and the Cobalt mining area.

## **Regional Geology:**

The Temagami area is situated within the southern portion of the Southern Province of the Canadian Shield. The main feature of the Southern Province is the abundance of the flat-lying, Huronian-aged sedimentary rocks that, in effect, cover the older underlying volcanic sequence of rocks. The volcanic rocks located in the area are the southern most portion of the Abitibi Greenstone Belt bounded up against the Grenville Province to the south.

The Diadem West Property is located on the southern edge of the local sequence of volcanic rocks commonly referred to, or are known as, the Temagami Greenstone Belt. The property also lies approximately 22 kilometers north of the Grenville Province boundary.

## Local Geology:

The property is predominantly covered by a thick sequence of felsic volcanic rocks (approximately 1000-2000 metres thickness on the property) consisting chiefy that of: rhyolites, rhyodacites, and dacites with associated felsic tuff breccias.

Shearing, iron carbonate (ankerite) and sericite alteration, and disseminated pyrite mineralization zones are found to be widely occurring features within the felsic volcanic rock sequence.

The volcanic rocks on the property are assumed to continue westward under water, locally known as the Northeast Arm of Lake Temagami.

In the southern portion of the Diadem West Property the volcanic sequence is bounded up against the Iceland Lake Pluton of granitoid rocks near Crab Lake.

The most important economic rock feature on the property is the large northeastsouthwest trending ultramafic, altered quartz gabbro intrusive sill; known as Temagami Island Gabbro-type rocks. The Intrusive quartz gabbro sill on the Diadem West Property parallels the topographical water feature trend of the Northeast Arm of Lake Temagami.

The dimensions of the Gabbro, which can be distinctly recognized as the "Diadem Gabbro", is a minimum of 1.6 kilometers long; 150 to 200 metres wide and open at depth. The western extension of the gabbro is assumed to be open along strike as water bounds the sill on the east shore of Lake Temagami. The western extent of the Diadem Gabbro is characterized by prevalent NNE-SSW trended block faulting and becomes less recognizable as it appears to eventually pinch out to the east.

The Diadem Gabbro crosses the entire width of the Diadem West Property for a 700 metre distance northeast to southwest.

## **Property Mineralization:**

Sulphide minaralization previously discovered on the property was confined to the geographically southern portion of the Diadem Gabbro sill near the contact area with surrounding felsic rhyo-dacite volcanic rocks. It appears that the sulphide mineralization is found in a fine-grained choritized slightly sheared zone at the assumed base and/or lower portion of the Diadem Gabbro sill.

Previous work characterized the sulphide mineralization as disseminated to semimassive to massive pyrite with subordinate chalcopyrite and minor magnetite.

Sulphide alteration is mainly characterized by iron gossan staining, which is extensively prevalent on the sulphide zones; whereas, only minor malachite (copper) and annabergite (nickel) bloom gossans are observed.

## **Exploration History:**

#### **Diadem West Property**

#### O'Connor Prospect

Previous work, in and around, the Diadem West Property originally dates back to around the Second World War 1916-17 period near the turn of the century. This early exploration work consisted of trenching, test pits and some diamond drilling (1,000 feet); however this drilling could be done later around 1927 or 1928 either way there are no records to substantiate the work. Shklanka in a report stated that a bulk sample of 542 tons of pyrite was removed off the property by J.T. O'Connor and sent to Grasselli Chemical presumably for the purposes of sulphur production.

## Candela Development

In 1952, Candela Development held the property and explored the pyrite band as a source for sulphur in the early 1950's. Prospecting, trenching and subsequent diamond drillling followed with four short holes totaling 376.1m (1,234 feet). Assessment file records indicate that one diamond drill hole yielded a sulphide mineralization intersection of 11.3 metres (37 feet) averaging 0.50% Copper; while a second hole reported a section of 2.4 metres (8 feet) sulphide mineralization grading 0.47% Copper & and 0.22% Nickel.

In 1956, Candela Development sold the claims to M.C. Mosher.

## **Copperfields** Corporation

On The Diadem West Property Claim #1225640 in 1967, Copperfields Corporation, through an option on the O'Cohnor Claim Group, drilled two holes (C-6 & C-7) on former Claim #T53555 or #T47118 in Strathcona Township totaling 277.5 feet. Both holes were collared in dacitic acid volcanic rocks that were highly altered with sericite, tourmaline and some ankerite. Fine disseminated pyrite mineralization was found throughout the core accompanied by minor chalcopyrite. In Hole C-6 from 125.0-128.5 feet a section of core containing 10-20% pyrite ran 0.12% Copper and 0.22 oz/ton Gold.

#### Milestone Exploration

M.C. Mosher sold the claims that covered the Diadem West Property to Milestone Mines Limited later renamed Milestone Exploration Limited in 1968. Milestone held the claim group until the Temagami Land Caution froze all exploration and development in the region in the mid-1970's.

#### Diadem West Property - David Laronde

The ground covered by the Diadem West Property laid dormant until the Temagami Land Caution was removed and subsequently re-opened to exploration and development in the autumn of 1998. The ground was acquired by prospector David Laronde of Temagami, Ontario at that time. Laronde re-named the property acquisition "The Diadem West Property".

The Diadem West Property, today, can be described as being an underexplored property.

## **Diadem Deposit**

## **Diadem Mines**

On the adjoining property (eastern boundary of the Diadem West Property), the Diadem Gabbro was first explored by Diadem Mines Limited in 1956. (Note: Diadem Mines owned the eastern portion of the Diadem Gabbro only) The company conducted ground manual prospecting and trenching, geological mapping, some early-type ground geophysical work and some shallow diamond drilling. Drill core was assayed exclusively for Copper and Nickel.

Diadem Mines drilled 13 holes totalling 4,500 ft (1,560m) of drilling. The drilling revealed a continuous sulphide zone of 700 feet (200m) in length with widths of approximately 15 feet (4.6m) to vertical depths of 400 feet (120-125m) steeply dipping to the south. In 1956, W. J Hylands, P.Eng. estimated a possible potential tonnage of 500,000 tons grading 0.5% Copper and 0.1% Nickel for the Diadem Deposit. In 1960-61, the Diadem Deposit area was subjected to an additional 4 drill holes (totaling 1,317 feet) by Geoscientific Prospectors Limited later renamed Copperfields Mining Corporation.

## **Copperfields** Corporation

In 1965, Copperfields drilled a 306 foot deep hole north of the Diadem Deposit. It appears that the company was testing an area in rhyolitic rocks north of the Diadem Gabbro Intrusion contact.

In 1969, two character samples were taken from pyrite-rich sections of the Diadem Deposit near some of the old pits located on the property by the The Mineral Research Branch, Ontario Division of Mines. The samples returned 0.8% Copper and 0.84% Copper and 0.36% Zinc and 0.34% Zinc assay values respectively.

Other exploration techniques were also employed by Copperfields on the Diadem Property and its adjoining properties such as: a ground self-potential electromagnetic survey (1960), geological mapping (1966), an airborne helicopter electromagnetic survey (1/8<sup>th</sup> of mile spacing using 5 channels) (1970) flown by Dighem Limited and further ground surveys including VLF-Electromagnetics and magnetometer geophysics (1970).

In December 1970 Copperfields Corporation drilled one hole on former Claim # T 54899 (O'Connor Option) on the southern edge of the Diadem Deposit, Diamond Drill Hole # C-12 was drilled to a depth of 256 feet. The hole recovered from 40.0 – 57.1 feet, a 17.1 foot section grading 0.46% Copper & 0.1% Nickel, and another 2.6 foot section from 57.1-59.7 feet grading 1.38% Copper & 0.27% Nickel.

The Diadem Property has been dormant since 1970 and remains part of the property portfolio of Teck Corporation.

Diadem West Property Page 7

## Temagami Copper Mine

With theTemagami Copper Deposit find of the early to mid-1950's the Temagami area was the focus of serious Copper exploration. The Temagami Copper Mine was developed as a result of this exploration work by Temagami Mining Company Limited later changed to Copperfields Corporation (Teck Corporation); and is located some 20 kilometers to the southwest of the Diadem West Property at the base of the Northeast Arm of Lake Temagami in Phyllis Township. Mining began in 1956 and continued in operation until the 1970's.

Production: 800,000 tons @ 6.48% Cu, 0.02 oz/ton Au, & 0.03 oz/ton Ag

Current Reserves: 1,250,000 tons @ 0.78% Cu, 0.58% Ni, & 0.07% Co

## 1999 Geological Program:

## **General Observations**

The purpose of the geological program was to review and assess the economic mineral potential of the property. A two-day field program was conducted on November 9<sup>th</sup> & November 16<sup>th</sup> 1999 by the author to observe the mineralization on the Diadem West Property Claim # 1225639 in Strathcona Township. A number of old blasted pits and inplace drill core casings were observed on the property. All pits were visually examined, sketched and were found to contain, in varying degrees, sulphide mineralization. (See Diadem West Property Geology Map)

## **Diadem West Sulphide Zone**

The intense sulphide mineralization found on the property appeared to delineate a semicontinuous zone traversing the eastern portion of Claim #1225639 trending in a Northeast-southwest direction, for an observed strike length of 300 metres with widths from several metres up to 30 metres but averaging anywhere from 5 to 10 metres.

The sulphide mineralization on the property was found to be made up of predominant semi-massive to massive pyrite and subordinate chalcopyrite accompanied by varying minor amounts of magnetite. The sulphide zone is found near the southern contact area of the "Diadem Gabbro" ultramafic intrusion (very similar to that found on the "Diadem Deposit" sulphide zone) with rhyodacite acid volcanic rocks.

## **Rock Types**

The ultramafic intrusion, "Diadem Gabbro", is really made up of a several different rocktypes: diorite-metadiorite, gabbro, amphibolite-chlorite schistose rocks dependent on the degree of alteration. Quartz content is very low. Medium to fine grained, varied texture and diabasic texture gabbro/diorite is observed in the middle-upper portions of the Diadem Gabbro. Chlorite alteration intensifies geographically southward toward the gabbro-rhyolite contact area.

Near the southern contact area, the Diadem Gabbro Intrusion is characterized by a zone of fined-grained chloritized amphibolite rock that exhibits some shearing/schistose texture. Associated to this "chlorite marker horizon", semi-massive to massive sulphide mineralization occurs.

The "acid" felsic rocks on the property fall into the rhyolite to dacite rock type range. These siliceous rocks are characterized by a pale yellow to grey colour. Moderate shearing along with "iron-carbonate" ankerite and sericite mineralization alteration is apparent accompanied by disseminated pyrite from 1-3% throughout the felsic rock suite. Disseminated pyrite can be found up to 10-15% pyrite in places. The rhyodacite suite of rocks totally enclose or encapsulate the "Diadem Gabbro Intrusion".

## Alteration

Many outcrops on the property exhibits iron gossan staining derived from disseminated "iron-carbonate" ankerite-pyrite mineralization in the rhyo-dacite rocks and disseminated to massive sulphide bearing rocks in the diadem Gabbro Intrusion.

Almost all broken sulphide-bearing rocks in muckpiles showed intensive iron gossan staining. Blasted pits are heavily stained with iron gossan to a point that almost totally obscures the original host rock-type. In some places, the intense, deep iron-gossan weathering (red brown to brown yellow) has occurred up to one metre depths over the heavy sulphide mineralization on the property.

Only on several occasions was copper staining/gossan or "malachite" observed; whereas, nickel stain or "Anabergite" was almost too difficult to observe on the property.

## **Fault Structures**

The program did not analyze the property's fault relationships. However, based precursory on field observations and former geological mapping over the Diadem Deposit area, narrow low-lying north-northeast trending swamp areas are evident possibly indicating fault structures which may be related to block faulting indicated on the Diadem Property (Bennett, 1969 -- Ontario Department of Mines Map 2324).

Moreover, shearing found in the rhyodacitic rocks and the Diadem Gabbro Intrusion rocks also indicate geotectonic movement.

### **Sulphide Mineralization**

There are five types of sulphide mineralization on the property:

Diadem West Property Page 9

- 1) Disseminated pyrite mineralization in felsic "acid" rhyo-dacitic rocks. Pyrite 1-3% up to 10% in places.
- Predominant disseminated pyrite and secondary chalcopyrite mineralization in metadiorite and metagabbro rocks within the middle-upper portions of the Diadem Gabbro Intrusion. Pyrite ranges from an average of 1-5% with 0.5-1% chalcopyrite.
- 3) Disseminated pyrite accompanied by minor chalcopyrite mineralization contained within chloritized amphibolites of the lower portion of the Diadem Gabbro Intrusion. Pyrite predominates 3-5% up to 25% with minor hard to recognize chalcopyrite.
- 4) Massive pyrite mineralization is characterized by friable, "sugary" bulky texture or semi-massive pyrite exhibiting friable, "sugary", tear-drop texture. Note: chalcopyrite is not readily identified. This type of sulphide mineralization appears to occur along side that of "Type 5" mineralization described below.
- 5) Massive pyrite-chalcopyrite mineralization with bright metallic lustre is located within the main sulphide zone accompanied by chloritic amphibolite rock at the bottom of the Diadem Gabbro Intrusion near the contact area with rhyolitic rocks. Magnetite appears to be most associated with this type of sulphide mineralization up to 10-20% in places.

## Sampling/Assaying Results

Several pits and their associated blasted broken rock piles were sampled and assayed for precious and base metals. The results of this examination can be found in the West Diadem Property "Sampling Summary".

On the Diadem West Property, significant metal assay values were returned for copper, nickel and cobalt. Precious metal values were elevated above the anomalous range. Assays routinely returned copper values between 0.30-0.80%; while nickel content would average in a range between 0.1-0.3% with cobalt ranging 0.03-0.07%. Also in the main sulphide zone on the property silver values averaged in the 1.0 gram/tonne range, while gold averaged about 0.15 grams/tonne and platinum/palladium together averaged from 0.10-0.20 grams per tonne.

The best results returned from selected muck samples were as follows:

Sample #P8358: 1.34% Ni, 0.69% Cu, 0.033% Co

Sample #P8369: 3.68% Cu, 0.52% Ni, 0.05% Co, 0.23g/t Pd, & 0.25 g/t Au

## **Accessory Exploration Discussion**

The time contraints of the program limited the exploration field work to Claim #1225639. The southern section of the Diadem West Property was not examined nor the shoreline area of the claim group along Lake Temagami's Northeast Arm.

During the course of the field program the author examined the neighbouring Diadem Copper-Nickel Deposit, in order, to confirm the presence of the "Diadem Gabbro" and

associated Copper-Nickel bearing pyrite/chalcopyrite mineralization. Field work and information research confirmed the presence of sulphide mineralization zone and associated copper-nickel values within the Diadem Deposit.

As the author was conducting the geological field work on the Diadem West Property Meegwich Inc. was completing a ground geophysical grid. Planned Magnetometer, electromagnetic VLF-EM and Horizontal Maxmin EM surveys were in very early stages but progressing.

## **Conclusions:**

The program confirmed features of past exploration perfomance on the property. The geological program was successful in re-discovering and reconfirming the coppernickel bearing sulphide mineralization, and clarified the different types of sulphide mineralization on the Diadem West Property.

Initial evidence of significant assessory Cobalt content along with subordinate metal credit amounts of Silver, Gold and Platinum Group metals are present and associated to the sulphide mineralization on the Diadem West Property. Copper, Nickel and Cobalt content similarities with the Temagami Copper Mine (Teck Corporation) is also observed.

Based on field examination, assessment files research and sampling/assaying records the Diadem West Property sulphide zone and the Diadem Deposit appear to be very similar in sulphide mineralization character and overall metal content. The Diadem Deposit and the sulphide zone on the Diadem West Property are essentially the same zone of continuous to semi-continuous pyrite-chalcopyrite sulphide mineralization.

Further, it appears that the overall strike length of the Diadem Deposit may be of the order of 1.2 kilometers which could add significant tonnage to the Diadem Deposit. Therefore, follow-up exploration is warranted and required to prove out this positive assumption.

The fact that mineral exploration has been dormant in the Temagami area for nearly 30 years bodes well for the property as it has not been adequately explored. As an "underexplored property", significant potential exists for discovering an economic polymetallic basemetal deposit.

Since drill exploration has not touched the sulphide zone to the west of the Diadem Deposit nor used to explore deeper than 400 feet in vertical depth strong potential to increase copper-nickel reserves exist on the property. In the early years of exploration in the Temagami area almost no attention was given to examine cobalt and platinum group metal content of the copper-nickel sulphide deposits. An examination/analysis of

these metals may yield favourable results which would effectively increase the value of any deposit outlined.

Finally, based on the recent Palladium/Platinum discovery located southwest of Lake Temagami near River Valley, which was found within ultramafic rock hosted low grade Copper/Nickel-bearing sulphide deposits, the Temagami area should be re-examined. Therefore, low-grade disseminated sulphide mineralization located in, and associated to the ultramafic Diadem Gabbro Intrusion should not be ignored for its Platinum Group Metal potential.

## **Recommendations:**

Further exploration is warranted and required on the Diadem West Property.

Initial Property Exploration

Specifically on the Diadem West Property, the existing geotechnical grid should be tightened up to include more gridlines spaced every 50 metres rather than the existing 100 metre line spacing.

Infill geophysical work, including: Magnetometer, VLF-EM and Horizontal Loop Maxmin-Electromagnetic surveying should be completed.

Detailed geological mapping, prospecting and bedrock geochemical sampling should be completed before any diamond drilling program is contemplated. Close attention should be focused on the structural geology and faulting as block faulting has been indicated to occur on the Diadem Deposit.

With the advent of a government airborne geophysical magnetic and electromagnetic survey coverage of the Temagami Area in the coming year, it would be advisable to acquire these results and maps when they become available to the public.

Lake Temagami Geophysical Coverage

Ground magnetometer and electromagnetic geophysical surveying should be extended onto Lake Temagami during the winter months. Such surveying coverage could expand and extend the strike length of the Diadem Deposit.

## Induced Polarization

Induced Polarization electromagnetic surveying could be conducted over the known sulphide zones to tighten up drill targets over the Diadem Deposit.

## Diadem West Property Page 12

An I.P. survey could also be used effectively to examine disseminated pyrite zones for Gold potential within the iron carbonate altered rhyolite-dacite suite of rocks.

Further, an I.P. survey could be used to identify potential disseminated sulphide bearing zones for Palladium/Platinum metal content within the ultramafic Diadem Gabbro Intrusion.

#### **Diamond Drilling**

Diamond drilling should commence when drill targets are acquired. Initial drilling could be used to examine potential near-surface Copper-Nickel-Cobalt ore tenor and its associated assessory metal content. The second phase of drilling should be used to extend the strike length of the Diadem Deposit and increase near-surface ore reserves. The third phase of drilling should be used to analyze the potential depth of the deposit to increase ore reserves but also to examine the possibility that the deposit may widen out to thicker widths or increase in ore grade.

#### Additional Property Acquisition

In closing, it would be advisable to any prospective buyer to acquire the Diadem Deposit from Teck Corporation; then acquire accessory adjoining lands which would add to the exploration potential of the property. Moreover, more "inland" acquisition would greatly enhance the property's potential to host a viable mining operation as much of the existing property is situated very close to Lake Temagami.

Should such an acquisition occur, a comprehensive program of line-cutting, magnetic and electromagnetic surveys is recommended which when completed should yield drill targets. Diamond Drilling would follow-up target selection.

Respectfully Submitted,

Gino Chitaroni, B.Sc. Geology December 15, 1999.



# **Diadem West Property**

## Sampling Summary

## **Diadem West Property**

No. Sample # Sample Type Description

November 9, 1999

1)	P8351	Selected Muck	Chloritized Ultramafic Diorite/Gabbro Heavy Iron Gossan Stain Massive Pyrite 50-75% + Minor Magnetite 1-5% Note: Chalcopyrite (Copper) is Difficult to distinguish from the Pyrite. Blasted Pit #1 3 ft X 8 ft by 2-3ft Depth Coordinate: 1390N 635E
2)	P8352	Composite Selected Muck-Chip	As Above Rock Type. Semi-Massive to Massive Pyrite 30-75% With Heavy Yellow to Brown Iron Gossan Stain; Note: "Tear- Drop" Texture Pyrite Mineralization + 5-10% Magnetite. Blasted Pit #3 5ft X 5ft by 2ft Deep Coordinate: 1410N 610E
3)	P8353	Muck	As Above Rock Type. Disseminated Pyrite 5-20% (Sugary Grained, Pyrite Tear-Drop Texture & Pyrite Blotches/Splashes); Heavy Chlorite. Blasted Pit #3 Coordinate: 1410N 610E
4)	P8354	Muck	As Above Rock Type. Massive Pyrite 50-75% Blasted Pit/Trench # 2 10ft X 15ft by 3ft Deep Coordinate: 1382N 620E
5)	P8355	Muck Composite	As Above Rock Type. Large Amount of Broken Muck Approx. 400-500 Tons on Dump. Massive Pyrite with some Chalcopyrite; Total Sulphides 60-75%. Reddish Brown Alteration of the Pyrite to Hematite; Heavy Iron Gossan Staining.

Blasted Pit #5 10m X 6.5m by Depth Unknown? Coordinate: 1337N 525E

6)	P8356	Muck	As Above Rock Type Similar to P8356. Massive Sulphides Pyrite 80% +/- Cpy & Heavy Gossan Pit #5.
7)	P8357	Muck	Pit #7 Same as above rock type; 10-15% pyrite in blotches & splashes; sample is high chlorite content.
8)	P8358	Muck	Pit #7 As above rock sample; 60-75% sulphide content made up of mainly pyrite with some chalcopyrite.

## **Diadem Deposit**

For deposit and mineralization comparisons

November 11, 1999. (Collected September 1999 by Gino Chitaroni 1999.)

9)	P8363	Composite Muck	Pit "A" 25-50 tons muckpile on the Diadem Deposit (Teck Corporation); 70-80% Sulphides & 10% magnetite; Diadem Property is bounded due east of the Diadem West Property and the Diadem Deposit at Pit "A" is located East-Northeast approximately 400 metres east of Pit #1 exposure of sulphide mineralization on the Diadem West Property.
10)	P8364	Ditto	Ditto
11)	P8365	Ditto	Same location as above P8363 & P8364; however, this sample consists of nearly all pyrite "sugary" texture; 50-70% pyrite +/- cpy (not readily identifiable).

## **Diadem West Property**

November 16, 1999.

12) P8367 Chip/Outcrop Rhyolite/Dacite just south of the Chlorite-Sulphide Mineralization "Diadem West Property Copper-Nickel Zone"; Sample location: 5m south of Tieline 11N 550m E; The sample shows some evidence of shearing, iron carbonate alteration and contains up to 10% disseminated pyrite.

- 13) P8368 Composite Muck
  biadem Cu-Ni Mineralization Zone, a selected sample extracted from large muck pile at Pit #5 contained 70-90% sulphides: 50-60% massive pyrite & 20-30% cpy and heavy Iron gossan/staining, along with chlorite clots but had No obvious magnetism (magnetite or pyrrhotite).
  14) P8369 Ditto
  Same as above sample P8368; 60% py & 20-25% cpy.
- 15) P8370 Ditto Same as above sample P8368 & P8369; 50-60% py & 25-35% cpy.



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Assay Certificate

## 9W-3525-RA1

Date: NOV-17-99

Company: MEEGWICH CONSULTANTS INC Project: Diadem West Property

Aun: D. Laronde/G. Chitaroni

We hereby certify the following Assay of 8 Muck/Chip samples submitted NOV-10-99 by .

Sample	Au	Au Check	Ag	Co	Cu	Ni	Pb	Zn	Pt	Pđ	
Number	g/tonne	g/tonne	g/tonne	4	۲	۰.	4	4	g/tonne	g/tonne	
P8351	0.29	0.32	1.7	0.081	0.69	0.278			0.05	0.11	
P8352	0.14	-	1.0	0.069	0.78	0.190	-	-	0.01	0.13	
P8353	0.08	-	0.6	0.028	0.271	0.200	-	-	< 0.005	0.04	
P8354	0.25	0.25	1.3	0.065	0.75	0.198	-	-	0.11	0.15	
P8355	0.16	-	1.0	0.051	0.70	0.316	-	-	0.02	0.07	
P8356	0.20		0.9	0.072	0.76	0.338			0.06	0.19	
P8357	0.11	-	0.8	0.038	0.385	0.219	-	-	<0.005	0.06	
P8358	0.20	-	0.9	0.033	0.69	1.34	0.001	0.007	0.07	0.15	

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705)642-3244 Fax (705)642-3300



Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

## Assaying - Consulting - Representation

## Assay Certificate

## 9W-3639-RA1

Company: BLACKSTONE DEVELOPMENT INC

Date: NOV-22-99

Project: Temagami Area Attn: G.Chitaroni

We hereby certify the following Assay of 8 Muck/Chip/Grab samples submitted NOV-16-99 by .

Sample	Au	Au Cleck	Ag	Co	Cu	Ni	Pt	Pd
Number	g/tonne	g/tenne	g/tonne	%	%	%	g/tonne	g/tonne
P8359	0.01	•	-	0.080	0.126	0.186	<0.005	0.01
P8360	0.01	-	-	0.092	0.071	0.173	<0.005	0.01
P8361	-	-	-	-	20.58	~	8.45	9.09
P8362	-	-	-	-	21.44	-	1,41	7.75
P8363	0.67	0.68	14.8	0.049	4.47	1.42	0.15	0.32
P8364	0.21	-	4.4	0.050	1.27	0.368	0.09	0.18
P8365	0.05	-	16.6	0.092	0.151	0.118	<0.005	0.02
P8366	Nil	•	0.8	-	0.149			•

1. 20833

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 110 Telephon : (705)642-3244 Fax (705)642-3300



Established 1928

Swastika Laboratories

, Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Assay Certificate

9W-3662-RA1

## Company: MEEGWICH CONSULTANTS INC

Date: NOV-25-99

Project: Diadem West Property Attp: D. Laronde/G. Chitaroni

We hereby certify the following Assay of 4 Chip/Muck samples submitted NOV-18-99 by .

Sample	Au	Au Check	Ag	Ċo	Cu	NÍ	Ър	٤n	Pu	rd	
Number	g/tonne	g/tonne	g/tonne	•	•	•	4	1	g/tonne	g/toune	
PB367	0.03				0.002	0.002		•	-	.0.005	
P8368	0.31	0.28	0.6	0.065	1.72	0.085	0.001	0.006	0.02	0.11	
P8369	0.25	~	0.9	0.050	3.69	0.\$2	0 001	0,006	0.05	0 23	
58370	0.21	٠	¢.6	0,090	1,66	0 60	0.001	0.004	0 04	0.09	
**************************************											

2.20533

One assay ton portion used.

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705)642-3244 Fax (705)642-3300



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

## Assay Certificate

9W-3639-RA1

Company: BLACKSTONE DEVELOPMENT INC

Date NOV-22-99

– Project: Temagami Area Attn: G.Chitaroni

We hereby certify the following Assay of 8 Muck/Chip/Grab samples submitted NOV-16-99 by .

 Sample Number	Au	Au Cleck	Ag	Co	Cu	Ni	Pt v/tonne	Pd g/tonne
48359 5 ~ 2 V	Bury (5/00) 0.01	gritane	grionne	0.080	0.126	0,186	<0.005	0.01
 P8360 5-24	0.01 Stoff Tul)	•	-	0.092	0.071	0.173	<0.005	0.01
P8362	ditte .	-	-	-	21.44	-	1.41	7.75
 P8363 Term	gun, (Stinthionalup)0.67	(+, 68	14.8	0.049	4.47	1.42	0.15	0,32
P8364 a	$d_{1} + 2 = 0.21$	-	4.4 16.6	0.050	0.151	0.308	<0.09	0.18
18366 Tem	igan. (Law Twp) NII	-	0.8	•	0.149	-	-	-
	-							
0000	iz 1 /4	····· ···· 7 -	1thes.				to UPIN	which
 1900	Nanched //ini	e d		5 00	we what		+1	1
0	ly colenite	- Gabb	is that	ົນຈັບເັ້	1510 0	n 100	-/3017	13-3.
 P5362	Same as f	Hoove,						
PORIS	$\Delta $	$+ f_{tai}$	K (.m)	D41	IA (#	4 1	I.Kp.1	f
 6101	Diaden Jeps		A Carps		1 . har	te	N 10ch	an atto
	Sample	Mussivi	py.t		all's/j'	- IX - () -		A CALMENT R
	70-80%	total	s-lph	ides.				
P8364.	Same as	Aboue	a		<b>4</b> )	$\wedge$		
 D9365	Ainten Dolor	+ Son	e locati	ion us	\$836	3 4 1	83643	sugary
S 50.5	Duite /	50-70°1	( py) -	+1-mins	r chalc	opyrite	•	
	rg (		19,	,		· /	1 1	1.1
P3366	N.F. Diabas	e Golok	ro Hos	st Ko c	k off	st t	1.94-00	; 11;
 			te - au	stz.1	1.000	with	disselvin	ted
	I W.C.		0			1		heliopyrite.

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 110 Telephon : (705)642-3244 Fax (705)642-3300

Certified by



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

## Assaying - Consulting - Representation

Established 1928

Aun:

## Assay Certificate

9W-3662-RA1

Company: MEEGWICH CONSULTANTS INC — Project: Diadem West Property

D. Laronde/G. Chitaroni

Date: NOV-25-99

We hereby certify the following Assay of 4 Chip/Muck samples submitted NOV-18-99 by .

Sample	Au	Au Check	Ag	Co	Cu	Nİ	РЪ	Zn	Pt	Pd	
Number	g/tonne	g/tonne	g/tonne	٠	•	•	•	٠	g/tonne	g/tonne	
P8367 emi	- Jan - 0.03	-	-	-	0.002	0.002	-	-	-	<0.005	
- P8368 d.	t = 0.31	0.28	0.6	0.065	1.72	0.085	0.001	0.006	0.02	0.11	
P8369 &	₩_ 0.21	-	0.9	0.050	3.68	0.52	0.001	0.006	0.05	0.23	
				0.000	1.00						
- P 8 36-	7 Diobe	en Na	est Pr	roport,	y j	Rhy		<i>(.</i> , 4	4. Ø.	ssemin	inted pyrde
		up to	> /0°/	ວັ	orter	ا امد	-k-p	So wy	lej	just a	t South
		14 73	e Dio	06	Dor	te I	Anu	Sixe	, Ç 6	tout	6-2
	N N	the	Copp.	er – N	icke	1-6.	bolt	- 2.	ふく 、		
P 8368	Diaden	Wes	+ Prop	enty!	1-+-	#5	much	spile	sel	cited.	Serrafiles,
	Ċ	chlor A	e cla	rs;	M.35	inc p	grite	+ (	hales	py c.te	50-60% p
		and	20-303	10 10	y i A	to me	. y. reti	Sm D	reser	to	
P8369	Same	ts AL	المعافي		Jo .	sr 4	)	30%			
		, ,		73	9, 5, ,			2070			
P8370	D.aden	n Wes	t pro	fert	y's	Sur	e o	s Ab	012	Samp	les
	(	928	8 4	P83	<sup>6</sup> 9')	cp.	y 50	o-60		PZ	25-35%

- One assay ton portion used.

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario POK 1T0 Telephone (705)642-3244 Fax (705)642-3300

## **Statement of Qualifications**

I, Gino Chitaroni, reside and live in Coleman Towenship near the Town of Cobalt Ontario; and do hereby declare the following statements as factual and true.

- Gino Chitaroni is a qualified Geologist and Mining Technologist with Bachelor of Science Degree in Geology from Lake Superior State University and Technologist's Diploma from the The Haileybury School of Mines, Northern College.
- 2) Gino Chitaroni is licenced Prospector since 1987.
- Gino Chitaroni is Fellow Member of The Geological Association of Canada Membership #F6874 and a Member of the Association of Geoscientists of Ontario #1092.
- 4) Gino Chitaroni is employed as President and Consulting Geologist with Blackstone Development Inc.; with offices located at: 50 Silver Street, P.O. Box 699, Cobalt Ontario P0J 1C0.
- David Laronde, Prospector, contracted the geological services of Blackstone Development Inc. and Gino Chitaroni to conduct a field assessment evaluation and geological report covering the Diadem West Property, Strathcona Township Temagami Ontario.
- 6) Gino Chitaroni was present and did conduct a field examination of the Diadem West Property; and is the author of the Geological Report and Property Summary on the said property.
- 7) Gino Chitaroni, and/or Blackstone Development Inc., does not have a financial or benefication interest in the Diadem West Property.

Date: December 15, 1999.

2.20533

Place: Cobalt, Ontario Signature: Gino Chitaroni, B.Sc. Geology

## References

Assessment Files from the Kirkland Lake Resident Geologist Office, Ministry of Northern Development and Mines; Kirkland Lake Ontario.

Bennett, G.

1978: Geology of the Northeast Temagami Area, District of Nipissing, Ontario Geological Survey Report 163, Accompanied by Maps 2323 and 2324.

Personal Communication with David Laronde, Prospector, and Meegwich Inc., Temagami Ontario.

Personal Communication with Gary Grabowski, Cobalt Area Geologist, Kirkland Lake Resident Geologist Office, Ministry of Northern Development Mines; Kirkland Lake Ontario.

Blackstone Development Inc., Internal Files, Cobalt Ontario.

2.20533



31M04SW2042 2.20533

STRATHCONA

A

# **Property Overview**

of the

## **Diadem West Property**

Strathcona Township

Temagami, Ontario

20533

Gino Chitaroni, B.Sc. Consulting Geologist Blackstone Dev. Inc. 50 Silver St., P.O. Box 699 Cobalt, Ontario P0J 1C0 December 9, 1999 Phone: (705) 679-5500 Fax: (705) 679-5519

# **Diadem West Property**

Strathcona Township Temagami, Ontario

## **Property Overview**

Property Ownership: 100% Mr. David Laronde, prospector P.O. Box 482 Temagami, Ontario P0H 2H0

Location: Latitude: 47 degrees 03 minutes North Longitude: 80 degrees 49 minutes East NTS: 31 M/4 Strathcona Township, Town of Temagami, District of Nipissing, Northeastern portion of the Province of Ontario, Canada.

## **Property Description:**

The Diadem West Property consists of 6 unpatented mineral claims located Strathcona Township (Plan G-3450) recorded in the Sudbury Division of the Provincial Mining Recorder located in the Offices of the Ministry of Northern Development and Mines building located at 933 Ramsey Lake Road "Willet Green Miller Centre", Sudbury, Ontario.

The claims are listed as follows below:

<u>No.</u>	<u>Claim No.</u>	<u>No. of Units</u>				
1)	1231126	2			-	23
2)	1225639	2	۱. ۱		900	JU
3)	1225640	1		Z.		
4)	1225641	1		• -		
5)	1225642	2				
6)	1225643	3				

Total: 6 Claims @ 11 Units

Property Size: Approximately 440 Acres or 176 Hectares

## Access/Infrastructure:

## Road

The property has excellent vehicular access via the two kilometer long gravel access road called the Temagami Marine Road, also known as the Strathcona Road, in from the asphalt paved Highway 11 (northern Route of the Trans-Canada Highway system).

The entrance to the Temagami Marine Road is located approximately one kilometer south of the business centre of the Town of Temagami.

#### Water

The property is bounded by the Northeast Arm of Lake Temagami; moreover, part of the Diadem West Property claim group covers the lake. Boat access can be acquired at the Town of Temagami but more closely at a public boat launch which is located at the west end of the Temagami Marine Road.

There are plenty of lakes on the property and Lake Temagami necessary for water requirement servicing purposes for exploration and mining.

## Trail

The Diadem West Property (owned by Mr. David Laronde) can be accessed by an old "skidder" trail that traverses the entire northwest portion of the property; southward in from the public boat launch at the west end of the Temagami Marine Road.

Another route into the property can be accessed south from the Temagami Marine Road via traversing the neighboutring Diadem Property (owned by Teck Corporation) with a final eventual destination within the northern portion of the Diadem West Property 3

Air

The northern edge of the property can be reached easily by float plane on the Northeast Arm of Lake Temagami.

The closest ground airport is in North Bay approximately 60 kilometers easy driving distance south of Town of Temagami. The Jack Garland Airport in North Bay can handle any sized aircraft.

Electric Power & Telecommunications

The closest powerline and telephone line is located 1.5 east of the property at the Temagami Marine. The main transmission line is two kilometers east of the property parallel to Highway 11.

Natural Gas Line

The main Trans-Canada natural gas pipeline is located 2.5 kilometers east of the property.

**Municipal Services** 

The property is located in an experienced mining community of the Temagami Ontario. The Town of Temagami has a full range of services and offers a great outdoor quality of life for its citizens.

The City of North Bay is located 60 kilometers to the south and the Tri-Town area (Cobalt, Haileybury, New Liskeard) is located 50 kilometers north along Highway 11.

**Exploration/Mining Services** 

A full range of mineral explorationa and mining services; such as: Parts manufacturers and suppliers, Assaying facilities, Diamond Drilling contractors, Geological/Geophysical contractors, Mining contractors and Metal Refineries are all located within a two hour driving distance from the property.

## **Overburden Terrain and Forest Cover**

The Diadem West Property geography is characterized by low-moderate relief -- typical of Canadian Shield-like terrain.

Overburden soil thickness over bedrock knoll areas range between barren to moss covered outcrops to humus covered subsoil 0.5 to 1.0 metres in thickness. Swampy areas are in excess of 1-2 metre depth thicknesses. There are little or no sand, gravel or clay surfacial deposits located on the property.

Forest cover on the property consists, for the most part, of spruce, poplar, birch, cedar and red & white pine species. In low-lying sampy/muskeg and black muck areas the vegetative cover is characterized by tag alders, birch, balsam, some ash and minor tamarack species.

## **Regional Geology:**

The Temagami area is situated within the southern portion of the Southern Province of the Canadian Shield. The main feature of the Southern Province is the abundance of the flat-lying, Huronian-aged sedimentary rocks that, in effect, cover the older underlying volcanic sequence of rocks. The volcanic rocks located in the area are the southern most portion of the Abitibi Greenstone Belt bounded up against the Grenville Province to the south.

The Diadem West Property is located on the southern edge of the local sequence of volcanic rocks commonly referred to, or are known as, the Temagami Greenstone Belt. The property also lies approximately 22 kilometers north of the Grenville Province boundary.

## Local Geology:

The property is predominantly covered by a thick sequence of felsic volcanic rocks (approximately 1000-2000 metres thickness on the property) consisting chiefy that of: rhyolites, rhyodacites, and dacites with associated felsic tuff breccias.

Shearing, iron carbonate (ankerite) and sericite alteration, and disseminated pyrite mineralization zones are found to be widely occurring features within the felsic volcanic rock sequence.

The volcanic rocks on the property are assumed to continue westward under water, locally known as the Northeast Arm of Lake Temagami.

In the southern portion of the Diadem West Property the volcanic sequence is bounded up against the Iceland Lake Pluton of granitoid rocks near Crab Lake.

The most important economic rock feature on the property is the large northeastsouthwest trending ultramafic, altered quartz gabbro intrusive sill; known as Temagami Island Gabbro-type rocks. The Intrusive quartz gabbro sill on the Diadem West Property parallels the topographical water feature trend of the Northeast Arm of Lake Temagami.

The dimensions of the Gabbro, which can be distinctly recognized as the "Diadem Gabbro", is a minimum of 1.6 kilometers long; 150 to 200 metres wide and open at depth. The western extension of the gabbro is assumed to be open along strike as water bounds the sill on the east shore of Lake Temagami. The western extent of the Diadem Gabbro is characterized by prevalent NNE-SSW trended block faulting and becomes less recognizable as it appears to eventually pinch out to the east.

The Diadem Gabbro crosses the entire width of the Diadem West Property for a 700 metre distance northeast to southwest.

## **Property Mineralization:**

Sulphide minaralization previously discovered on the property was confined to the geographically southern portion of the Diadem Gabbro sill near the contact area with surrounding felsic rhyo-dacite volcanic rocks. It appears that the sulphide mineralization is found in a fine-grained choritized slightly sheared zone at the assumed base and/or lower portion of the Diadem Gabbro sill.

Previous work characterized the sulphide mineralization as disseminated to semimassive to massive pyrite with subordinate chalcopyrite and minor magnetite.

Sulphide alteration is mainly characterized by iron gossan staining, which is extensively prevalent on the sulphide zones; whereas, only minor malachite (copper) and annabergite (nickel) bloom gossans are observed.

## **Exploration History:**

### **Diadem West Property**

#### O'Connor Prospect

Previous work, in and around, the Diadem West Property originally dates back to around the Second World War 1916-17 period near the turn of the century. This early exploration work consisted of trenching, test pits and some diamond drilling (1,000 feet); however this drilling could be done later around 1927 or 1928 either way there are no records to substantiate the work. Shklanka in a report stated that a bulk sample of 542 tons of pyrite was removed off the property by J.T. O'Connor and sent to Grasselli Chemical presumably for the purposes of sulphur production.

## Candela Development

In 1952, Candela Development held the property and explored the pyrite band as a source for sulphur in the early 1950's. Prospecting, trenching and subsequent diamond drillling followed with four short holes totaling 376.1m (1,234 feet). Assessment file records indicate that one diamond drill hole yielded a sulphide mineralization intersection of 11.3 metres (37 feet) averaging 0.50% Copper; while a second hole reported a section of 2.4 metres (8 feet) sulphide mineralization grading 0.47% Copper & and 0.22% Nickel.

In 1956, Candela Development sold the claims to M.C. Mosher.

## **Copperfields Corporation**

On The Diadem West Property Claim #1225640 in 1967, Copperfields Corporation, through an option on the O'Connor Claim Group, drilled two holes (C-6 & C-7) on former Claim #T53555 or #T47118 in Strathcona Township totaling 277.5 feet. Both holes were collared in dacitic acid volcanic rocks that were highly altered with sericite, tourmaline and some ankerite. Fine disseminated pyrite mineralization was found throughout the core accompanied by minor chalcopyrite. In Hole C-6 from 125.0-128.5 feet a section of core containing 10-20% pyrite ran 0.12% Copper and 0.22 oz/ton Gold.

## Milestone Exploration

M.C. Mosher sold the claims that covered the Diadem West Property to Milestone Mines Limited later renamed Milestone Exploration Limited in 1968. Milestone held the claim group until the Temagami Land Caution froze all exploration and development in the region in the mid-1970's.

## Diadem West Property - David Laronde

The ground covered by the Diadem West Property laid dormant until the Temagami Land Caution was removed and subsequently re-opened to exploration and development in the autumn of 1998. The ground was acquired by prospector David Laronde of Temagami, Ontario at that time. Laronde re-named the property acquisition "The Diadem West Property".

The Diadem West Property, today, can be described as being an underexplored property.

## **Diadem Deposit**

## **Diadem Mines**

On the adjoining property (eastern boundary of the Diadem West Property), the Diadem Gabbro was first explored by Diadem Mines Limited in 1956. (Note: Diadem Mines owned the eastern portion of the Diadem Gabbro only) The company conducted ground manual prospecting and trenching, geological mapping, some early-type ground geophysical work and some shallow diamond drilling. Drill core was assayed exclusively for Copper and Nickel.

Diadem Mines drilled 13 holes totalling 4,500 ft (1,560m) of drilling. The drilling revealed a continuous sulphide zone of 700 feet (200m) in length with widths of approximately 15 feet (4.6m) to vertical depths of 400 feet (120-125m) steeply dipping to the south. In 1956, W. J Hylands, P.Eng. estimated a possible potential tonnage of 500,000 tons grading 0.5% Copper and 0.1% Nickel for the Diadem Deposit. In 1960-61, the Diadem Deposit area was subjected to an additional 4 drill holes (totaling 1,317 feet) by Geoscientific Prospectors Limited later renamed Copperfields Mining Corporation.

## **Copperfields** Corporation

In 1965, Copperfields drilled a 306 foot deep hole north of the Diadem Deposit. It appears that the company was testing an area in rhyolitic rocks north of the Diadem Gabbro Intrusion contact.

In 1969, two character samples were taken from pyrite-rich sections of the Diadem Deposit near some of the old pits located on the property by the The Mineral Research Branch, Ontario Division of Mines. The samples returned 0.8% Copper and 0.84% Copper and 0.36% Zinc and 0.34% Zinc assay values respectively.

Other exploration techniques were also employed by Copperfields on the Diadem Property and its adjoining properties such as: a ground self-potential electromagnetic survey (1960), geological mapping (1966), an airborne helicopter electromagnetic survey (1/8<sup>th</sup> of mile spacing using 5 channels) (1970) flown by Dighem Limited and further ground surveys including VLF-Electromagnetics and magnetometer geophysics (1970).

In December 1970 Copperfields Corporation drilled one hole on former Claim # T 54899 (O'Connor Option) on the southern edge of the Diadem Deposit, Diamond Drill Hole # C-12 was drilled to a depth of 256 feet. The hole recovered from 40.0 - 57.1 feet, a 17.1 foot section grading 0.46% Copper & 0.1% Nickel, and another 2.6 foot section from 57.1-59.7 feet grading 1.38% Copper & 0.27% Nickel.

The Diadem Property has been dormant since 1970 and remains part of the property portfolio of Teck Corporation.

## **Temagami Copper Mine**

With theTemagami Copper Deposit find of the early to mid-1950's the Temagami area was the focus of serious Copper exploration. The Temagami Copper Mine was developed as a result of this exploration work by Temagami Mining Company Limited later changed to Copperfields Corporation (Teck Corporation); and is located some 20 kilometers to the southwest of the Diadem West Property at the base of the Northeast Arm of Lake Temagami in Phyllis Township. Mining began in 1956 and continued in operation until the 1970's.

Production: 800,000 tons @ 6.48% Cu, 0.02 oz/ton Au, & 0.03 oz/ton Ag

Current Reserves: 1,250,000 tons @ 0.78% Cu, 0.58% Ni, & 0.07% Co

## 1999 Geological Program:

## **General Observations**

The purpose of the geological program was to review and assess the economic mineral potential of the property. A two-day field program was conducted on November 9<sup>th</sup> & November 16<sup>th</sup> 1999 by the author to observe the mineralization on the Diadem West Property Claim # 1225639 in Strathcona Township. A number of old blasted pits and inplace drill core casings were observed on the property. All pits were visually examined, sketched and were found to contain, in varying degrees, sulphide mineralization. (See Diadem West Property Geology Map)

## **Diadem West Sulphide Zone**

The intense sulphide mineralization found on the property appeared to delineate a semicontinuous zone traversing the eastern portion of Claim #1225639 trending in a Northeast-southwest direction, for an observed strike length of 300 metres with widths from several metres up to 30 metres but averaging anywhere from 5 to 10 metres.

The sulphide mineralization on the property was found to be made up of predominant semi-massive to massive pyrite and subordinate chalcopyrite accompanied by varying minor amounts of magnetite. The sulphide zone is found near the southern contact area of the "Diadem Gabbro" ultramafic intrusion (very similar to that found on the "Diadem Deposit" sulphide zone) with rhyodacite acid volcanic rocks.

## **Rock Types**

The ultramatic intrusion, "Diadem Gabbro", is really made up of a several different rocktypes: diorite-metadiorite, gabbro, amphibolite-chlorite schistose rocks dependent on the degree of alteration. Quartz content is very low. Medium to fine grained, varied texture and diabasic texture gabbro/diorite is observed in the middle-upper portions of the Diadem Gabbro. Chlorite alteration intensifies geographically southward toward the gabbro-rhyolite contact area.

Near the southern contact area, the Diadem Gabbro Intrusion is characterized by a zone of fined-grained chloritized amphibolite rock that exhibits some shearing/schistose texture. Associated to this "chlorite marker horizon", semi-massive to massive sulphide mineralization occurs.

The "acid" felsic rocks on the property fall into the rhyolite to dacite rock type range. These siliceous rocks are characterized by a pale yellow to grey colour. Moderate shearing along with "iron-carbonate" ankerite and sericite mineralization alteration is apparent accompanied by disseminated pyrite from 1-3% throughout the felsic rock suite. Disseminated pyrite can be found up to 10-15% pyrite in places. The rhyodacite suite of rocks totally enclose or encapsulate the "Diadem Gabbro Intrusion".

## Alteration

Many outcrops on the property exhibits iron gossan staining derived from disseminated "iron-carbonate" ankerite-pyrite mineralization in the rhyo-dacite rocks and disseminated to massive sulphide bearing rocks in the diadem Gabbro Intrusion.

Almost all broken sulphide-bearing rocks in muckpiles showed intensive iron gossan staining. Blasted pits are heavily stained with iron gossan to a point that almost totally obscures the original host rock-type. In some places, the intense, deep iron-gossan weathering (red brown to brown yellow) has occurred up to one metre depths over the heavy sulphide mineralization on the property.

Only on several occasions was copper staining/gossan or "malachite" observed; whereas, nickel stain or "Anabergite" was almost too difficult to observe on the property.

#### **Fault Structures**

The program did not analyze the property's fault relationships. However, based on precursory field observations and former geological mapping over the Diadem Deposit area, narrow low-lying north-northeast trending swamp areas are evident possibly indicating fault structures which may be related to block faulting indicated on the Diadem Property (Bennett, 1969 -- Ontario Department of Mines Map 2324).

Moreover, shearing found in the rhyodacitic rocks and the Diadem Gabbro Intrusion rocks also indicate geotectonic movement.

#### **Sulphide Mineralization**

There are five types of sulphide mineralization on the property:

- 1) Disseminated pyrite mineralization in felsic "acid" rhyo-dacitic rocks. Pyrite 1-3% up to 10% in places.
- 2) Predominant disseminated pyrite and secondary chalcopyrite mineralization in metadiorite and metagabbro rocks within the middle-upper portions of the Diadem Gabbro Intrusion. Pyrite ranges from an average of 1-5% with 0.5-1% chalcopyrite.
- 3) Disseminated pyrite accompanied by minor chalcopyrite mineralization contained within chloritized amphibolites of the lower portion of the Diadem Gabbro Intrusion. Pyrite predominates 3-5% up to 25% with minor hard to recognize chalcopyrite.
- 4) Massive pyrite mineralization is characterized by friable, "sugary" bulky texture or semi-massive pyrite exhibiting friable, "sugary", tear-drop texture. Note: chalcopyrite is not readily identified. This type of sulphide mineralization appears to occur along side that of "Type 5" mineralization described below.
- 5) Massive pyrite-chalcopyrite mineralization with bright metallic lustre is located within the main sulphide zone, accompanied by chloritic amphibolite rock at the bottom of the Diadem Gabbro Intrusion near the contact area with rhyolitic rocks. Magnetite appears to be most associated with this type of sulphide mineralization up to 10-20% in places.

## **Mine Hazard Recommendations:**

## Mine Openings

At least 4-5 blasted pits can be considered legitimate public safety on the Diadem West Property that should be rehabilitated.

Notice of these mine hazards should be forwarded to the Ministry of Northern Development and Mines: Rehabilitation Inspection Branch and the Kirkland Resident Geologist Office.

The claim grouped is a staked group of unpatented mineral claims owned by Mr. David Laronde.

It is recommended that a combination of fencing and filling be used to rectify the mine hazard problem.

The work should be paid by the provincial government as part of its on-going public abandoned mines reclammation program.

### Acid Leachate

Any sulphide leachate found associated to the known sulphide zone or exposed by the pits/trenches, though quite minor, really can be attributed to natural causes. The overburden covering the bedrock is very shallow for the most part on the property; therefore, sulphide bearing rocks are exposed to air and natural weathering processes.

It is recommended that the Kirkland Lake Resident Geologist Office, as an inexpensive and neutral party, sample water that may potentially be affected by acid leachate, in order to, establish a background baseline on which to measure the affects of any future exploration work that might disturb the property.

This is purely a precautionary measure to protect the claim holder from law suits and unwarranted environmental interference, fear mongering or unfair accusations.

Therefore, water baseline "Ph" acidity testing should occur along the shoreline of Lake Temagami (Northeast Arm) within property only, should be tested. Any creeks, ponds or obvious drainage areas near the sulphide zone should be tested. All lakes inside the Property should also be tested.
Several samples should be taken for each feature in multiple locations. Example: the Shoreline of Lake Temagami within the property could have a dozen or more samples taken every 400-800 metres along the shoreline. In comparison, a pond should have only a few of samples taken in a couple of different locations.

Additional multi-element water testing to analyze the water along Lake Temagami should be completed -- several sample areas should tested. This type of testing should strengthen the case of the Ph-acidity baseline test work .

An expert environmental professional/consultant should be sought out to estimate the costs associated to such a testing program if this work were to be privately funded.

#### Forest Vegetative Regeneration

Red and white pine trees of all ages were visually seen thriving on the Diadem West Property claim group. White pine seedlings were observed to be growing in and through the sulphide waste rock muck piles on the property. Sizeable white pine trees and other tree species were viewed growing on the edge of the old pits and trenches in very acid soil conditions. Red pine trees were seen growing where tree growth was removed in the past in shallow soil overburden conditions. The author is not an expert on forestry biology; however it appeared that there were no old growth red pines species on the property. There was some well-aged white pine trees (between 75-90 years) based on the earliest exploration activity known to occur on the claim group.

All visible outcrop areas were covered with lichens, mosses, humus soil, and seedling vegetative growth.

Swampy or muskeg areas appeared virtually undisturbed.

There was almost no evidence of old claim staking (except the odd old tree blaze) or grid line-cutting on the property.

Apparently, the only real threat to the forest covered by the claim group, was due to, wind damage -- which most recently occurred this past summer. Several mature and submature trees of all species were felled at that time.

Natural reforestation and conservation has been very successful on the property.

It is recommended that photographic evidence be gathered to exhibit the pit mine hazards and trenching, waste muck piles, diamond drill casing, sulphide mineralization zones, old trails, and the current condition of the vegetative cover (White & Red Pine growth conditions) located on the Diadem West Property.

#### Discussion on Exploration Work within the Temagami Skyline Reserve:

There is a lot of physical evidence of previous mineral exploration on the claims in the Diadem west Property.

Three historic pulses of exploration has occurred on the property:

- 1) 1916-late 1920's
- 2) Early 1950's to early 1960's
- 3) Mid-1960's to early 1970's

Exploration & development work was frozen or halted from 1978 to 1998 on the land covered by the property due to the Temagami Indian Land Claim issue and Land Caution.

The types of mineral exploration work performed on the property in the past was as follows:

Claim staking & tree blazing (physical evidence & old maps) Ground land surveying (survey pins and old maps & records indicating registered leases) Overburden trenching and outcrop stripping (physical evidence) Blast pit sinking or trenching (physical evidence, old maps & reports) Diamond Drilling (drill holes documentation & maps with physical evidence of remnant drill core barrel casings and remnant rock core & core boxes) Geotechnical grid cutting (written documentation, assessement work reports & former maps) Ground geophysical surveying is documented to have occurred on the property. Geological mapping (written documentation/reports & former maps) Airborne geophysical surveying (former maps & reports) Tree cutting & removal (physical evidence includes: axe cut & chainsaw cut tree stumps and the presence of cleared areas for exploration, such as: diamond drilling, power trenching and blasted pits & muck piles) Bush trails that date back to the 1910's physical evidence – trails are still intact. Based on favourable legal judgements in the provincial and federal courts in the late 1980's and early 1990's, the provincial government decided to re-open the Temagami area to exploration and development.

Mineral exploration was first re-opened to the Temagami area in January 1992 but confined only to three areas of the Town of Temagami which were: Strathy, Cassels and Best townships. A massive re-opening of lands to mineral exploration and development, covered in the former Temagami Indian Land Caution area, occurred in the Autumn of 1996 -- except for the Temagami Skyline Reserve area; and lands set aside for the Temagami native community for settlement negotiations purposes.

The Temagami Skyline Reserve area was re-opened to mineral exploration and development in the Autumn of 1998. There are exploration guidelines and permiting requirements for all disruptive exploration activities within the Skyline area.

To date the Temagami Indian Land Claim remains unsettled.

Forestry & Tourism Activity

Forestry work may have also occurred on the property as the Temagami -Latchford areas once had active lumbering companies & mills that date back to the late 1800's. However, no research was conducted by the author to firmly establish the presence of forestry activities.

Tourism human activity is well known to occur on the property, dating back to the late 1800's. There are a couple of hiking trails and canoe stopover areas on the property and on the adjacent claimholder's property. An active, well-used spring water source (derived from an old remnant diamond drill hole) exists near the south shore of Lake Temagami located on the northern edge of the property on the Diadem claim group.

It is a well-known fact that the Lake Temagami region is a popular world renown outdoor tourist and cottaging area.

Footnote: During the freeze on "new" mineral exploration, or on any "new" construction development caused by the Temagami Indian Land Caution existing touirsm and mining operations or any "new" forestry operations were not curtailed!

#### **Mineral Exploration Recommendations**

The property has significant potential to host an economic polymetallic Copper, Nickel & Cobalt deposit with associated credits of Gold, Silver and Platinum group metals. A geological report by the author summarizes the property in detail.

The existing trails into the Diadem West Property claim group have been known to exist since the mid-1910's and should be reused and be upgraded as soon as possible.

Power trenching, outcrop stripping and some targeted blast trenching is recommended to follow-up the ground geophysical surveys and the known copper-nickel bearing sulphide zone located on the property.

This work can be accomplished with as little deforestation as possible by using appropriate sized equipment and avoiding, where possible, sizeable timber. All felled timber and brush should be cut up into pieces and piled to keep the property relatively free of unnecessary messy debris and to promote natural decomposition and vegetative regeneration. All overburden piles from trenching work should be landscaped; and any exposures of rock as outcrops or blasted trenches should be, at the very least, remain clean, clear of debris and accountably safe to the public.

Diamond drilling is largely dependent on the financing and initial exploration results. If drilling does follow, all sites must be managed properly, kept clean and effluent contained. All forestry debris should be neatly cleared and cleaned up -- this would include the drill site and the skidder trail accessing each site. Old trails should be reused where possible, in order to, reduce unwarranted "bush crashing" as new trails.

Should mining ever to occur, it would be recommended that additional property be acquired to give the Diadem West Property greater access to real estate, in order, to house space for production mine/headframe and possibly milling facilities – further away from Lake Temagami the better. Moreover, a strong public relations campaign will be required to along with proactive work to ensure that the aesthetics of the area are protected; and camoflaged into the natural environmental thereby minimizing unwarranted adverse environmental problems.

It is way too early to speculate whether the property will have an economic metal deposit and how it could be mined. The mineraliization on the property does crop out on surface, however; so, open pit mining techniques could be considered. On the face of it, underground bulk-mining techniques would be best suited to the Temagami area based on the public's interest in environmental and tourism issues.

#### **Final Comments**

In the opinion of the author, non-disruptive exploration work such as: claim staking, linecutting, airborne geophysical surveying, ground geophysical surveying, geological mapping, bedrock and soil geochemical sampling -- prospecting techniques will have absolutely no effect, at any time of the year, on the forest ecosystem covered by the Diadem West claim group. The author believes that disruptive mineral exploration, if properly conducted with care and conservation in mind, can be completed successfully. Further, this type of exploration work will likely have little or no ill effect on Lake Temagami cottagers or tourists at any time of the year. The reason for this assumption is as such that the area, which would be disturbed by power trenching/stripping and/or diamond drilling exploration work, appears to be far enough away from any obvious visual observation from the water level of Lake Temagami. The only problem that could be attributed to these exploration techiques would be that of noise pollution; however, the natural forest barrier located between the lake and the work site should also act as a noise filter.

These type of exploration techniques historically do not take a long period of time to complete. Normally, the time frame for this type of work averages from several days to several weeks. The duration of the work is really dependent upon the results attained from the program and on the amount of financial resources available to the company or prospector.

It is recommended that the appropriate government agencies (Ministry of Natural Resources, Northern Development and Mines and the Environment) should be informed and appraised of the current exploration work and they should be given a copy of this report.

The author believes that after reading the report and visiting the property the interested individual or party will come away with a much better understanding of mineral exploration on the Diadem West Property.

Respectfully Submitted,

Gino Chitaroni, B.Sc. Geology Blackstone Development Inc.

### References

Assessment Files from the Kirkland Lake Resident Geologist Office, Ministry of Northern Development and Mines; Kirkland Lake Ontario.

Bennett, G.

1978: Geology of the Northeast Temagami Area, District of Nipissing, Ontario Geological Survey Report 163, Accompanied by Maps 2323 and 2324.

- Personal Communication with David Laronde, Prospector, and Meegwich Inc., Temagami Ontario.
- Personal Communication with Gary Grabowski, Cobalt Area Geologist, Kirkland Lake Resident Geologist Office, Ministry of Northern Development Mines; Kirkland Lake Ontario.

Blackstone Development Inc., Internal Files, Cobalt Ontario.

## Statement of Qualifications

I, Gino Chitaroni, reside and live in Coleman Towenship near the Town of Cobalt Ontario; and do hereby declare the following statements as factual and true.

- 1) Gino Chitaroni is a qualified Geologist and Mining Technologist with Bachelor of Science Degree in Geology from Lake Superior State University and Technologist's Diploma from the The Haileybury School of Mines, Northern College.
- 2) Gino Chitaroni is licenced Prospector since 1987.
- Gino Chitaroni is Fellow Member of The Geological Association of Canada Membership #F6874 and a Member of the Association of Geoscientists of Ontario #1092.
- 4) Gino Chitaroni is employed as President and Consulting Geologist with Blackstone Development Inc.; with offices located at: 50 Silver Street, P.O. Box 699, Cobalt Ontario P0J 1C0.
- 5) David Laronde, Prospector, contracted the geological services of Blackstone Development Inc. and Gino Chitaroni to conduct a field assessment evaluation and geological report covering the Diadem West Property, Strathcona Township Temagami Ontario.
- 6) Gino Chitaroni was present and did conduct a field examination of the Diadem West Property; and is the author of the Geological Report and Property Overview summary on the said property.
- 7) Gino Chitaroni, and/or Blackstone Development Inc., does not have a financial or benefication interest in the Diadem West Property.

Date: December 9, 1999.

Place: Cobalt, Ontario

Signature:

Gino Chitaroni, B.Sc. **Consulting Geologist** 



Diadem East Property Strathcona Twp.



31M04SW2042 2.20533

030

.

#### **MINERAL EXPLORATION PROGRAM 1999**

Geophysical Surveys Magnetometer/VLF/HLEM

**DIADEM EAST PROPERTY** Strathcona Twp.

Sudbury Mining District, Ontario





#### **TABLE OF CONTENTS**

#### INTRODUCTION:

Page

Property Location	1
Access	1
Property Description	1
Summary of Work Done	1

#### **GEOPHYSICAL SURVEYING:**

Magnetometer Survey		3
VLF-EM Survey	,	4
Horizontal Loop EM Survey		5

CONCLUSIONS AND RECOMMENDATIONS		
Instrument specifications Magnetometer	7	
Instrument specifications HLEM	8	
Instrument specifications VLF-EM	9	
Certificate of Author	10	
References	11	

#### LIST OF FIGURES

Figure 1	Location Map
Figure 2	Claim Map
Figure 3	Geology

#### LIST OF MAPS

- MAP 1 Total Field Magnetic Contour Map
- MAP 2 VLF-EM Profile Map
- MAP 3 HLEM Profiles 444 Hz.
- MAP 4 HLEM Profiles 1777 Hz.



#### Location:

NTS:	31 M/4
Township:	Strathcona
Mining Division:	Sudbury
Resident Geologist:	Kirkland Lake
Latitude:	47-02-00
Longitude:	79-50-00
Nearest town:	Temagami (5 km to the northeast)

#### Access:

The area is situated 5 km southwest of Temagami and is accessible by truck to within 600 meters on a good quality gravel road. From this point there is a old tote road which is grown in somewhat but was used to haul in equipment 35 years ago. The claims are also accessible by lake from the town of Temagami for a distance of 4 km.

#### **Property Description:**

The property consists of a group of 7 contiguous claims situated in the north central sector of Strathcona Twp. The total area of the property is 224 hectares or 14 units in size. The claim numbers are:

1225639	2 units	1225640	1 unit
1225641	1 unit	1225642	2 units
1225643	2 units	1225645	3 units
1231126	3 units		

#### **Summary of Work Done:**

The purpose of this project was to :

- 1. explore an ultramafic intrusion with substantial widths and grades in Cu and Ni.
- 2. cover a felsic volcanic (rhyolite)

The whole area of the claims were covered with a grid a 100 meter linespacing and was surveyed with magnetometer, VLF and Horizontal Loop EM. In addition geological mapping and sampling was concentrated in and around the massive sulphide occurences (best assay 3.68% Cu, 0.52 % Ni) related to the ultramafic

intrusion. Prospecting ranged further south into the rhyolite as well as the intrusion. The work is summarised in the following table:

	Totals	Dates
	km	
Linecutting	20.60	Sept 1-Oct 30,1999
Magnetometer survey	20.60	Nov. 1,2,3,4,5
VLF-EM Survey	15.00	Nov 6,7,8,9,10
HLEM Survey	10,00	Nov 15,17,18
Geological Survey by G. Chitaroni	5.00 _	Nov. 9,16

The results of the work are very encouraging. The sulphide mineralization related to the intrusive appears to be massive with appreciable widths. Magnetic results show a massive zone and EM results show a strong conductor through the massive sulphide zone where the pits and trenches are located. The samples taken show anomalous results widespread along strike and across appreciable widths of up to 100 feet.

Further to the south there are some intriguing structural features in the rhyolite that are evident from the magnetics. In addition there are interesting magnetic highs and a few conductors.

In summary, this worthwhile property has been subjected to an excellent phase one exploration project defining areas and targets for phase two work that should consist of further geological mapping, drilling and downhole geophysics.



日本「一人の人」

A-LE

にたい

- Server

 $\boldsymbol{\zeta}_{i}$ 

- sitter

L-AK-





### GEOPHYSICAL REPORT Magnetometer/VLF-EM/HLEM Diadem East Property Strathcona Twp.

.

Meegwich Consultants Inc. Box 482 Temagami, Ont. POH 2HO tel. (705)569-2904

### **Geophysical Surveying**

#### Magnetometer survey

#### Instrument specifications:

A total of 20.60 km (1680 readings) was surveyed at 12.5 meter stations using a microprocessor based GEM Systems GSM-19 field magnetometer. The instrument is capable of  $\pm$  1/100<sup>th</sup> of a gamma resolution. The diurnal variation was corrected for using a base station set up on the grid. The base instrument was an EDA Omni IV capable of 1/10<sup>th</sup> of a gamma resolution.

#### Dates of survey:

The survey was done by Daniel St. Pierre from November 17 to 20, 1999. D. Laronde supervised the work

#### **Results and Interpretation:**

The data set is presented in colour contour format on plans at 1:5000 scale and discussed as follows:

The overall intensity of the survey is subtle varying only a few hundred gammas. It was expected the felsic volcanic rock to the south would have a subtle response and the ultramafic intrusive to the north would be more pronounced.

The most obvious features are two southeast trending dikes that cut the middle of the grid. The dikes are narrow at 20-50 meters wide but span the grid and continue off in both directions from 100 to 150 meters apart.

Another dike although appears to be folded and/of faulted occurs just north of BL-0 from 100 W to 400 W. An isolated di-polar response is noted in the extreme southwest corner of the grid.

The northern area of the grid appears as a massive high area with narrow bands with values elevated 30 to 50 gammas and one reading as 200 gammas. These narrow bands, up to 50 meters wide are coincident with the massive sulphide bands and subsequent conductors A and B.

#### **VLF Survey**

#### Instrument specifications:

A total of **15.80 km** was surveyed (700 readings) with a Geonics VLF-EM receiver unit at 25 meter stations and 12.5 meter intervals over key areas. The transmitting station was Cutler, Maine at 24.0 kHz. This instrument measures the in-phase of the vertical magnetic field as a percentage of the horizontal primary field. The resolution is +/- 1%.

#### Dates of Survey:

The survey was done by Daniel St. Pierre from Nov 21-24, 1999 for a total of 4 days. Readings were taken at 25 meter stations and occasionally 12.5 meters over anomalies.

#### **Results and Interpretation:**

The survey picked up 5 main conductors given labels A-E on the map. These anomalies are considered to be significant and warrant follow-up work. There were also some weak, short strike length anomalies scattered around the southern fringes. These responses are considered low priority for follow-up and are seemingly insignificant at this time. This however could change as further exploration is completed. The 5 main conductors are discussed as follows:

**Conductor A:** A very strong response from L 400 to 740 E. Seems to be dipping south. The anomaly appears to be delineating a massive sulphide zone. Warrants follow-up by drilling and downhole geophysics.

**Conductor B:** A weak response that looks like a faulted extension of Conductor A. Has appearance of having a metallic source by virtue of location and trend.

**Conductor C:** A weak anomaly that seems to conform to stratigraphy. Either a disseminated sulphide response or electrolytic source. Priority two follow-up

**Conductor D:** Moderate in strength but has traits of non-metallic source. Should be followed up as second priority.

**Conductor E:** Same as D only continues off grid to the east.

Meegwich Consultants Inc. Box 482 Temagami, Ont. POH 2HO tel. (705)569-2904

#### **HLEM SURVEY**

#### **Instrument Specifications:**

A total of 10.40 km was surveyed at 25 meter intervals with a 150 meter cable separation. An APEX Parametrics Maxmin II unit was used for the survey. Frequencies recorded were 444 and 1777 Hz. at a resolution of  $\pm$ -1% on the in-phase and quad-phase. The unit consists of a transmitter and a receiver. The transmitter sets up an electromagnetic field and the receiver measures the deviation caused by conductive horizons.

#### Dates of the survey:

The survey was done by Daniel St. Pierre and a helper on Nov.25,26 and 27, 1999.

#### **Results and Interpretation:**

The survey yielded 5 conductors that were also picked up by the VLF-EM survey. The anomalies are typically weak and not well defined by the HLEM technique. This suggests that the massive sulphides to the north are not as continuous as thought but rather a series of blotchy sections and also some disseminated sections which show up as weak conductors.

The five anomalies are discussed as follows:

**Conductor A:** The strongest part of this anomaly is on L 400 and 500 E. Here the anomaly appears to dip to the south. The anomaly is not really a strong conductor which was expected by weak to moderated in strength. It is truncated at the west end and runs off the grid to the east onto the Diadem Deposit held by Teck Corp. The anomaly has width on L 400 E up to 30 meters or 100 feet.

**Conductor B:** This is a weak, faulted extension of A that indicates the sulphides are less abundant or take on a disseminated form.

**Conductors C,D,E:** These anomalies are very weak and only apparent on the out-ofphase profile. This means there is a strong possibility that the source is either electrolytic or disseminated or stringer sulphides. These conductors are priority two for future work. Due to the dispersal of sulphides throughout the gridded area, even these weak responses have merit, especially when conforming to stratigraphy.

#### **Conclusions and Recommendations:**

**Magnetics:** The area to the north that contains the massive sulphides (conductors A and B), shows up as a massive high. This suggests the host rock, presumably the metadiorite, is extensive by nature and runs off the grid in three directions. The gradual decrease in magnetism from north to south suggests this rock unit dips to the south.

To the south in the felsic volcanic rock the magnetic pattern varies only a few hundred nT. This is typical for this rock unit and provides a good background to show magnetic responses caused by other geological units and structure. Some off these are two linear highs trending southeast. These are likely younger mafic intrusives following a older fracture set. Incidently this trend complies with the diabase dikes of the Sudbury Swarm.

A deformed dike shaped response and some isolated highs are scattered in the southwest corner of the grid.

**Electromagnetics:** There are conductors A and B that presumably represent the massive sulphide zone known as the west extension of the Diadem Deposit which is described as 500,000 tons of 0.5% Cu and 0.22% Ni. This was drilled off in the 1950's and explored only down to 400 feet. Conductors A and B are high priority anomalies that should be drilled. Conductors C,D, and E are weak responses that might be disseminated sulphides and warrant follow-up work as a second priority.

Structure: There is evidence of structure in two directions from the geophysical data gathered.

- 1. Conductor B is a faulted extension of A
- 2. Mafic intrusions followed previous fracture set
- 3. Distorted dike shaped response in mag near L 200 W

#### **Further work:**

1. **Drilling and downhole EM:** The drilling in the 50's only went down as far as 400 feet. Deeper drilling in conjunction with downhole EM should be done as a next step over conductor A and B. There is a lot of smoke around and really nothing is known about what is beyond the 400 foot level.

2. Geological Mapping: The central area and to the south should be mapped and sampled comprehensively. Particular attention should be paid to alteration mineralogy in relation to VMS deposits. Some of the weak EM anomalies (stringer sulphides) might be indicators.

### **References**

Bennett, G. 1978 Ontario Geological Survey Report No. 163 Geology of Northeast Temagami Area

#### **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 in mineral exploration for the past 20 years.
- That I am a graduate of Cambrian College in Sudbury with a diploma in Geology Engineering Technology 1979
- That my knowledge of the property described herein was acquired by field work and documentation.

Dated at Temagami this 29th day of December 1999.

David Laronde

#### INSTRUMENT SPECIFICATIONS

#### MAGNETOMETER / GRADIOMETER

Resolution:	0.01 nT (gamma), magnetic field and gradient.
Accuracy:	0.2 nT over operating range.
Range:	20,000 to 120,000 nT.
Gradient Tolerance:	Over 10,000 nT/m
Operating interval:	3 seconds minimum, faster optional. Readings initiated from keyboard, external trigger, or carriage return via RS-232-C.
Input/Output:	6 pin weatherproof connector, RS-232C, and (optional) analog output.
Power Requirements:	12 V, 200 mA peak (during polarization), 30 mA standby. 300mA peak in gradiometer mode.
Power Source:	Internal 12 V, 2.6 Ah sealed lead-acid battery standard, others op- tional. An External 12V power source can also be used.
Battery Charger:	Input: 110 VAC, 60 Hz. Optional 110/220 VAC, 50/60 Hz.
-	Output: dual level charging.
Operating Ranges:	Temperature: -40 °C to +60 °C.
	Battery Voltage: 10.0 V minimum to 15V maximum.
	Humidity: up to 90% relative, non condensing.
Storage Temperature:	-50°C to +65°C
Display:	LCD: 240 x 64 pixels, or 8 x 30 characters. Built in heater for opera-
	tion below -20°C
Dimensions:	<b>Console:</b> 223 x 69 x 240mm.
	Sensor staff: 4 x 450mm sections.
	Sensor: 170 x 71mm dia.
	Weight: Console 2.1kg, Staff 0.9kg, Sensors 1.1kg each.

#### "Walking" Magnetometer / Gradiometer

GEM Systems pioneered the GSM-19's innovative "Walking" option that enables acquisition of nearly continuous data on survey lines. Similar to an airborne survey in principle, data is recorded at discrete time intervals (up to 2 readings per second) as the instrument travels along the line. At each major survey picket (fiducial), the operator touches a designated key. The Walking Mag automatically assigns a linearly interpolated coordinate to all intervening readings.

A main benefit of the Walking option is that the high sample density improves definition of geologic structures. And because the operator can record data on a near-continuous basis, the Walking Mag increases survey efficiency and minimizes field expenditures -- especially for highly detailed ground-based surveys.



As shown above, near-continuous measurements increase definition. Results from a GSM-19 "Walking Mag" (273 readings over 150 m with 2 sec. cycle time) were compared with results from a standard magnetometer (13 readings over 150m).

Near-Continuous Surveys Improve Definition of Magnetic Anomalies

### **VLF-EM GEONICS**

Page 1

#### EM16 SPECIFICATIONS

MEASURED QUANTITY Inphase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity).

±1%

SENSITIVITY Inphase: ±150%

Quad-phase: ± 40%

RESOLUTION

OUTPUT Nulling by audio tone. Inphase indication from mechanical inclinometer and quadphase from a graduated dial.

OPERATING FREQUENCY 15-25 kHz (15-30 kHz optional) VLF Radio Band. Station selection done by means of plug-in units.

OPERATOR CONTROLS ON/OFF switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer.

POWER SUPPLY6 disposable 'AA' cells.DIMENSIONS53 x 21.5 x 28 cmWEIGHTInstrument: 1.8 kg<br/>Shipping: 8.35 kg

CAUTION:

EM16 inclinometer may be damaged by exposure to temperatures below -30°c. Warranty does not cover inclinometers damaged by such exposure.





#### SPECIFICATIONS

Frequencies:	222, 444, 888, 1777 and 3555 Hz.		
Modes of Operation:	MAX: Transmitter coil plane and re- ceiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refercable.		
	MIN: Transmitter coil plane horizon- tal and receiver coil plane ver- tical (Min-coupled mode). Used with reference cable.		
	V.L. : Transmitter coil plane verti- cal and receiver coil plane hori- zontal (Vertical-loop mode). Used without reference cable, in parallel lines.		
Coil Separations:	25,50,100,150,200 & 250m (MMI) or 100, 200, 300, 400,600 and 800 ft. (MMIF). Coil separations in VL.mode not re- stricted to fixed values.		•
Paramaters Read:	<ul> <li>In-Phase and Quadrature compo- nents of the secondary field in MAX and MIN modes.</li> </ul>		
	- Tilt-angle of the total field in V.L. mode .		
Readouts:	- Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No null- ing or compensation necessary.		
	- Tilt angle and null in 90mm edge- wise meters in V.L.mode.		
Scale Ranges:	In-Phase: ±20%,±100% by push- button switch. Guadrature: ±20%,±100% by push- button switch. Tilt: ±75% slope. Null (VL): Sensitivity adjustable		
Readability:	In-Phase and Quadrature: 0.25% to 0.5%; Tilt: 1%.	Specifications	6

±0.25% to ±1% normally, depending on conditions, frequencies and coil separation used.

-	222Hz	;	220 Atm <sup>2</sup>
-	444Hz	:	200 Atm <sup>2</sup>
-	888 Hz	:	120 Atm <sup>2</sup>
-	1777 Hz	:	60 Atm <sup>e</sup>
-	3555Hz	:	- 30 Atm <sup>2</sup>

SV trans radio type batteries (4). Life: approx. 35 hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

12V 6Ah Gel-type rechargeable battery. (Charger supplied).

Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Built-in signal and reference waming lights to indicate erroneous readings.

 $-40^{\circ}C$  to  $+60^{\circ}C$  ( $-40^{\circ}F$  to  $+140^{\circ}F$ ).

6kg (13 lbs.)),

13kg (29 lbs.)

Typically 60kg (135 lbs.), depending on quantities of 'reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

Ontario Ministry of Northern Du and Mines	Declaration of Assessmen Performed on Mining Land	Transaction Number (office use) W0070.00169
-	Mining Act, Subsection 65(2) and 66(3),	R.S.O. 1990
Pers infoi shoi INS 31m04sw2042 2.20533 STRJ Recorded bolder(s) (Attach a	n 65(2) and 66 k and correspo d Mines, 3rd Fil ATHCONA 900 ng a claim,	(3) of the Mining Act. Under section 8 of the Mining Act, this ond with the mining land holder. Questions about this collection oor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 685. Use form 0240.
Name Dravio	PR (ACRE	Client Number 157346
Address Boy 487		Telephone Number
TER ACAR	ANT BOUZHA	Fax Number
Name	, 0.0, , , , , , , , , , , , , , , , , ,	Client Number
Address	<u></u>	Telephone Number
	<u></u>	Fax Number
2. Type of work performed: Che Geotechnical: prospecting, su assays and work under section	eck (✓) and report on only ONE of the follow nveys, n 18 (regs) Physical: drilling str trenching and assoc	ing groups for this declaration. ipping, Rehabilitation ciated assays
Work Type	for some set	Office Use
Geological	work	Total \$ Value of
Dates Work From a C C C	2 d To 2; /2 G9	Work Claimed (3, 375
Performed Day Month Ye	ar Day Month Year	
Global Positioning System Data (if available)	Mor G-Plan Number	Resident Geologist
	6 - 3450	District Kirkland Lake
Please remember to: - obtain a wor - provide prop - complete an - provide a m - include two	k permit from the Ministry of Natural Resour er notice to surface rights holders before sta d attach a Statement of Costs, form 0212; ap showing contiguous mining lands that are copies of your technical report.	rces as required; arting work; e linked for assigning work;
3. Person or companies who pr	epared the technical report (Attach a list i	if necessary)
Name MEEG	WICH INC.	Telephone Number 705 - 5(9 - 2.904)
Address P.O. TEMAC	BOX 482 GAMI, ONT.	Fax Number 569 - 2817
Name PO	H 2H0	Telephone Number
Address	· · · · · · · · · · · · · · · · · · ·	Fax Number
Name		Telephone Number
Address	·	Fax Number
4. Certification by Recorded Ho I. <u>PACED LARCOL</u> (Print Name) this Declaration of Assessment Wor completion and, to the best of my kr Signature of Recorded Holder or Agent Agent's Address	Ider or Agent . do hereby certify that I have k having caused the work to be performed o weldge, the annexed report is true. Telephone Numb	e personal knowledge of the facts set forth in or witnessed the same during or after its Date Cept 11, 2000 ber Fax Number
0241 (03/97)	l	<u></u>
		SEP 15 000

GEOSCIENCE ASSESSMENT

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

Minii work minii colun indic	ng Claim Number. Or if was done on other eligible ng land, show in this nn the location number ated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work appiled to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg	TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2.825
eg	1234567	12	0	\$24,000	0	0
eg	1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1	1231433	15	0	0		0
2	1225645.	3	1950	,o		1950
3	1225643	2	1500	· 0		1500
4	1225642.	2	1900	ð		1900
5	1225641.	1	1600	0	. N	1600
6	1225639.	2	287587	. 0		2875 57
7	1231126.	3	1950	0		1950
8	1225640.	1	1600	0		1600
9						
10						
11				· ·		
12		· ·		<u> </u>		
13	······································			, , , , , , , , , , , , , , , , , , ,		
14	1 + 6 - 18 - 18					
15		1				
	Column Totals	29	13,375.87	13,375 87	, <u>,</u>	13,375 87

1, DAULO CARONOE, do hereby certify that the above work credits are eligible under (Print Full Name) subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim

where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date	Sep+	11,	2000	
U. a sha					

#### 6. Instruction for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check ( $\checkmark$ ) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- □ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- $11^{\circ}$  3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

Received Stamp		Deemed Approved Date	Date Notification Sent
		Date Approved	Total Value of Credit Approved
0241 (03/97)	RECEIVED	Approved for Recording by Minin	g Recorder (Signature)
	SEP 1 = 2000		
	GEOSCIENCE ASSESSMENT OFFICE		

Ministry of Northern Development and Mines

🕑 Ontario

#### Statement of Costs for Assessment Credit

Transaction Number (office use) WCOTC. DOVGT

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

	·	o corre	0.0
Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilo- metres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Linecutting	20.60 Km	275 1 km	5665
Magnetometer Survey	20.60 km	95 1 km	1957
VLF-EM Survey	15.00 Km	951 km	1425
HLEM Survey	10.00 Km	190/km	1900
Geological Fieldwork	7 days		1741 59
and Keports	mehilization and domahilization)		
			28
HSSays			357 -
			140 21
	· · · · · · · · · · · · · · · · · · ·		.,,0
Transpo	ortation Costs		
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Food a	nd Lodging Costs		
	Total Value o	f Assessment Work	13, 375 81
ر Calculations of Filing Discounts:			

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work 2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

#### TOTAL VALUE OF ASSESSMENT WORK $\times 0.50 =$ Total \$ value of worked claimed.

Note:

- Work older than 5 years is not eligible for credit.

- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

١.	PAULO	LAKONDE	de	o hereby	certify.	that the	amounts	shown are	e as	accurate	as	mav
·	(piea	se print full name)										
			-									

reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on

the accompanying Declara	tion of Work form as	<u> </u>	I am authorized
to make this certification.	RECEIVE	blogf, agent, or state company position with signing auth-	ority)
	SEP 15 2200		
0212 (02/96)	GEOSCIENCE ASSESSMENT OFFICE	Signature Date	4/11, 2000

0212 (02/96)

Ontario Ministry of Ministère du Northern Development Développement du Nord and Mines et des Mines Geoscience Assessment Office 933 Ramsey Lake Road October 18, 2000 6th Floor Sudbury, Ontario DAVID DENNIS LARONDE P3E 6B5 P.O. BOX 482 **407 LAKESHORE** Telephone: (888) 415-9845 **TEMAGAMI**, Ontario Fax: (877) 670-1555 P0H-2H0 Visit our website at: www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm Dear Sir or Madam: Submission Number: 2.20533 Status W0070.00169 Approval Subject: Transaction Number(s):

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact LUCILLE JEROME by e-mail at lucille.jerome@ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

tonen B. Beneterin

ORIGINAL SIGNED BY Steve B. Beneteau Acting Supervisor, Geoscience Assessment Office Mining Lands Section

Correspondence ID: 15333 Copy for: Assessment Library

## Work Report Assessment Results

Submission Numbe	r: 2.20533	· · · · · · · · · · · · · · · · · · ·			
Date Corresponden	ce Sent: October	18, 2000	Assessor:LUCILL	E JEROME .	
Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date	
W0070.00169	1225645	STRATHCONA	Approval	October 17, 2000	
<b>Section:</b> 14 Geophysical MAG 14 Geophysical VLF 14 Geophysical EM 17 Assays ASSAY	)				
<b>Correspondence to</b> Resident Geologist Sudbury, ON	:		<b>Recorded Holde</b> DAVID DENNIS TEMAGAMI, Oni	e <b>r(s) and/or Agent(s):</b> LARONDE tario	
Assessment Files Lik Sudbury, ON	prary				



Ø	Ministry of Natural Resources	Ministry o Northern and Mine	of Develop s	ment				
Ontario					NUARY IO, 19			<u> </u>
IND	EX TO LAN	D DI\$PQ	SITIO	1				
JI AN					<b>H.</b>	i.i. admin	RST'AATIVI	E DISTRUIT
	450				T	EMA	<b>JAM</b>	L
G - 3	450				制制	ing divisi	ON	
TOWNSH	IP				SI	DBU	IRY	
OT			^		LAN	C TITLES/	REGIS "MY	DIVISION
51	RAIH	IUUN	A		NI	PiSS	ING	
	1080 14.31784		9	Scale 1	:2° BC9	1998		
	1998 8	17 <b>4 2</b> 400	3885	-100	5864		7668	
	Papi <u>a schier nime</u>		Ċo	r leur initer	val 10 No	a Ne		

< **1** 

· · -

··· · · · · · · ·

## **AREAS WITHDRAWN FROM DISPOSTION** M.R.O. - MINING RIGHTS ONLY

S.R.O. - SURFACE RIGHTS ONLY M.+S. - MINING AND SURFACE RIGH

oundary	
Township, Meridian, Baseline	
Road allowance; surveyed	
shoreline	$\sim$
Lot/Concession; surveyed	······································
unsurveyed	
Parcel; surveyed	<u> </u>
unsurveyed	
Right-of-way; road	
railway	
utility	
Reservation	*********
Cliff, Pit, Pile	
Contour	20
Interpolated	
Approximate	
Depression	1944 - Andrew Barry, 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 -
Control point (horizontal)	∆
Flooded land	
Mine head frame · · · · · · · · · · · · · · · · · · ·	
Pipeline (above ground)	<u> </u>
Railway; single track	
double track	<del></del>
abandoned	
Road; highway, county, township	
access	
trail, bush · · · · · · · · · · · · · · · · · · ·	
Shoreline (original)	,
Transmission line	_ <b></b>
Wooded area	and a second s

SYMBOLS

# DISPOSITION OF CROWN LANDS

	NOTIC
ቍ	LAND USE PERMIT
G	Sand & Gravel
····· 🕅	Reservation
⊗	Cancelled
OC	Order-in-Council
•••••• 🔺	Licence of Occupation
•••••• 🖬	Mining Rights Only
••••••	Surface Rights Only
	Surface & Mining Rights
-	8888
🚡	Mining Rights Only
🦲	Surface Rights Only
	Surface & Mining Rights
	Patent
	Patent

WORK PERMITS FOR MINIBAL COPLORATION ACTIVITY EFFECTIVE September 15<sup>TH</sup> 1991

The area shown as SKYLINE REBERVE and the land covered by the waters of LAKE TEMAGAMI on this map will be subject to Ontario Regulation 349/98 made under the Public Lands Act. Depending on the type and timing of your exploration work you may require a Work Permit. For further information please contact Gerhard Meyer, Regional Resident Geologist at (705) 567-5242 or Jim Ireland, Regional Manager at (705) 235-1612. 

W-8-67/86 3EC.35/90 M & & (R) NOT OPEN FOR STAKING - CONSERVATION RESERVE SECTION I OF THE MINING ACT

(R) SEC,35 W-S-45/98 NER 23/10/98 M+S 195140

SEC.35/80 W-8-60/86 05/13/88 M& 8 (85150 AREA DEEMED IN NEED OF PROTECTION BY THE CROWN 426,50/90 AND WILL REMAIN WITHDRAWN INDEFINITELY.

🕲 **SEC, 35/** W-3-47/98 26/10/98 3R0 195150

# NOTES

BOD<sup>6</sup> ON BOTH OF THE PHYMAY HE RESERVED IN THE SPORTION AND IN FILE - 16070

All second and the second s BEG.38/86 1 4 5 jødjelog INLANDE IN LANT OF LEAMS NOT OPEN FOR STALING MOER THE MININE ACT - ORDER IN COUNCE - IN DEC MIL, FILE BASIS V.

IPLAND Nº 49 REMAINING BNEWELINE IN WITH DRAWN FARM , SPORTE 



֎ SKYLINE RESERVE R6

# NOTICE

Pursuant to Section 35, of the Mining Act, R.S.O. 1990, the MINING AND SURFACE RIGHTS of the area shown as SKYLINE RESERVE and the land covered by the waters of LAKE TEMAGAMI as indicated on this map will be RE-OPENED TO PROSPECTING AND STAKING OUT This Order comes into effect on October 27, 1998 at 9:00 a.m. Eastern Standard Time, which is equivalent to \$:00 a.m. local time These lands will be subject to Ontario Regulation 356/98 made under the Mining Act. ALL CLAIM STAKING ACTIVITY IN THIS AREA is subject to this new regulation. MAJOR AMENDMENTS TO NORMAL STAKING PRACTICES HAVE BEEN IMPLEMENTED FOR THIS AREA. Consult and understand these amendments prior to carrying out any staking in this designated area. For further information please contact the Provincial Recorders Office at 1-888-415-9844

PLEASE NOTE: THE ISLAND ON LAKE TEMAGAM? ARE WITHDRAWN AND WILL NOT OPEN TO PROSPECTING AND STAKING OUT



the 4+ , verice in for edministrative purpose, only

-----







![](_page_68_Figure_0.jpeg)

![](_page_69_Figure_0.jpeg)

![](_page_70_Figure_0.jpeg)

![](_page_71_Figure_0.jpeg)

.