

GM 52672

GLOBAL REPORT, GUIGUES NORTHEAST PROPERTY

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Québec 

GLOBAL REPORT ON

GUIGUES NORTHEAST PROPERTY

TEMISCAMINGUE COUNTY
WESTERN ABITIBI, QUEBEC

NTS Sheet 31M/11 (parts 101,102,201,202)

MRN - S.I.S.E.M.

1994/10/25

GM 52672

Glenn Griesbach, Geologist
March, 1994



94214027

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PREAMBLE

Recent work (1993: Glenn Griesbach & Mario Chouinard and Jean-Paul Roy & Claude Chouinard) has revealed highly anomalous values of gold in soils of the area. Gold mineralization has also been observed in polished sections cut from a granite specimen taken from lot 56 of Range 6.

The geologic context of the property indicates a good potential for the discovery of economic mineralization. The property merits a serious exploration program to search for gold and possibly copper.

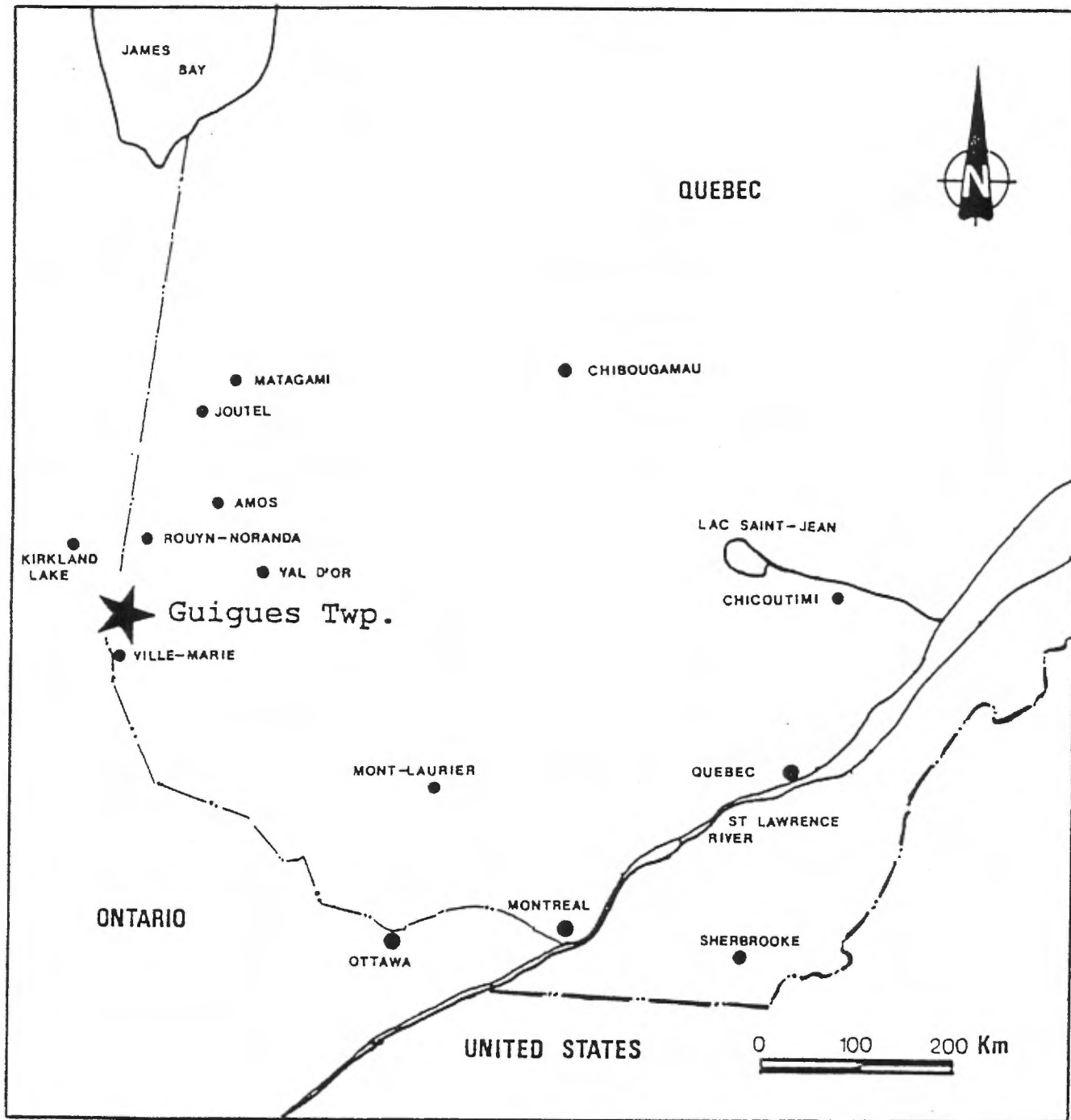
The property hosts several geologic features which make it extremely attractive for gold and copper exploration. This includes anomalous gold values in soils in the area, two sets of strong northerly faults or fractures and a small granitic stock (the Guigues Stock) around which volcano-sedimentary rocks of the Angliers-Belleterre belt have been deflected and deformed. The property also contains numerous INPUT anomalies, including many which are not associated with iron formations in the area.

In the section on Property Geology and Mineralization several of the geological features which make the property an excellent candidate for gold and/or copper mineralization have been outlined.

This report describes the Guigues Northeast property and recommends an exploration program to evaluate its potential for economic precious and base metal mineralization; in particular gold and copper. It is based on a lengthy study of all available data acquired at the offices of the M.E.R. in Rouyn-Noranda and Montreal. The author has also recently spent much time exploring in the region. The author also performed several exploration programmes in Guigues township and the adjoining Baby, Duhamel and Laverlochere townships for exploration companies from 1986 to 1990.

A variety of topographic, geological, and magnetic maps have been included in this report to provide the reader with a better understanding of the area and with an understanding of the potential economic value of the property.

GUIGUES NORTHEAST PROPERTY
PROPERTY LOCATION MAP



INTRODUCTION

The Guigues Northeast property consists of 38 claims totalling approximately 1520 hectares in four separate but proximal blocks.

The property is situated entirely in the northeast part of Guigues township, with the exception of three claims in Baby township, in Temiscamingue County in the Province of Quebec.

The property is bounded by latitudes $47^{\circ} 30' N$ and $47^{\circ} 35' N$ and longitudes $79^{\circ} 18' W$ and $79^{\circ} 25' W$ and includes a portion NTS sheet 31M/06 NW.

The property was staked in late 1992 and 1993 by the author.

The region is centered 20 km north of the town of Ville-Marie and about 110 kilometers south of the city of Rouyn-Noranda. Good access is provided by provincial highway 117 and route which link Rouyn-Noranda with Ville-Marie and by a network of paved & gravel range roads and forestry roads. The Guigues Northeast property is situated near the municipalities of St-Bruno-de-Guigues, Angliers and Notre-Dame-du-Nord, in Temiscamingue County.

The Guigues Northeast property lies within a geological region distinguished by the presence of rocks belonging to three (sub) Provinces of the Canadian Shield. Most of the property overlies rocks of the the Belleterre-Angliers volcano-sedimentary belt. This belt is part of the Abitibi Super Group within the Superior Province. Numerous mineralized showings as well as two past producers are situated within this volcanic belt. Part of the property is also underlain by younger Proterozoic formations belonging to the Southern Province which lie unconformably over the Superior Province rocks.

The property is located in an area recognized for base metal and precious metal mineralization and is being explored for it's gold and copper potential. However, the possibility that nickel may exist within the more-mafic rocks of the property must not be ignored.

PROPERTY LOCATION AND ACCESS

The Guigues Northeast property is situated almost entirely in the northeast part of Guigues Township. Three claims contiguous with Guigues township claims are situated in the northwest part of adjacent Baby township.

The Guigues property is located 3-9 kilometers west of the northern end of Lake Temiscamingue in northwestern Quebec and approximately 5-11 kilometers east of the Quebec-Ontario border.

The property lies about 110 kilometers south of the city of Rouyn-Noranda and 20 km. north of the town of Ville-Marie. The property is accessible by east-west provincial highway 117 and north-south route 101 which link Rouyn-Noranda with Ville Marie. Highway 117 links with Route 101 about 15 km. west of Rouyn-Noranda. The property area is about 2 km. east of route 101. Route 391 linking Route 101 with Angliers traverses part of the property. The property is accessible year-round by a network of paved and gravel range roads and forestry roads in Guigues and Baby townships.

Infrastructure is excellent, with hydro-electricity, water, and manpower easily and locally available.

PROPERTY DESCRIPTION

The Guigues Northeast property consists of 38 surveyed claims in 4 blocks in Guigues and Baby Townships. Thirty-five claims are situated in the northwest part of Guigues township and three contiguous claims are situated in the extreme northwest corner of Baby township.

The total surface area of the property is approximately 1480 hectares (14.8 km²). The four claims blocks are located within an area of about 60 km².

The claim blocks have been designated BLOCK A, BLOCK B, BLOCK C (west and east) and BLOCK D.

List of Claims

<u>BLOCK A:</u>	Range	Lot	Licence
Guigues twp.	6	52	5098617 ~
3 claims	6	53	5098610 ~
	6	54	5098609 ~
<u>BLOCK B:</u>	Range	Lot	Licence
Guigues twp.	6	63	5098607 ~
7 claims	7	61	5098579
	7	62	5098580
	7	63	5098581
	7	64	5098597
	7	65	5098582
	7	66	5094762
<u>BLOCK C:</u>	Range	Lot	Licence
Guigues twp.	8	47	5108901
23 claims	8	48	5108903
	8	49	5098594 ~
[incl. three	8	50	5098593 ~
Baby claims;	8	51	5098592 ~
see next page]	8	52	5098591 ~

<u>BLOCK C:</u> continued...	Range	Lot	Licence
Guigues twp.	8	53	5098577 ✓
	8	54	5098576 ✓
	8	55	5098575 ✓
Guigues twp.	9	47	5108902
	9	53	5098578
	9	54	5098574
	9	55	5098573
	9	56	5098572
	9	57	5098098
	9	58	5098097
	9	59	5098096
	9	60	5098095
	9	61	5098094
	9	62	5098598
Baby twp.	1	58	5098606
	1	59	5098754
	1	60	5098755

<u>BLOCK D:</u>	Range	Lot	Licence
Guigues twp.	6	36	5098611
5 claims	6	37	5098612
	6	38	5098613
	6	39	5098614
	6	40	5098615

TOTAL: 39 Claims

Microfilm

PAGE DE DIMENSION HORS STANDARD

**MICROFILMÉE SUR 35 MM ET
POSITIONNÉE À LA SUITE DES
PRÉSENTES PAGES STANDARDS**

Numérique

PAGE DE DIMENSION HORS STANDARD

**NUMÉRISÉE ET POSITIONNÉE À LA
SUITE DES PRÉSENTES PAGES STANDARDS**

CLAIMS MAP
S N part of GUIGUES TOWNSHIP

Rivière

Ottawa

Blue Falcon Mines

Grande Ile 40.

BABY GUERIN

Blue Falcon Mines

BABY



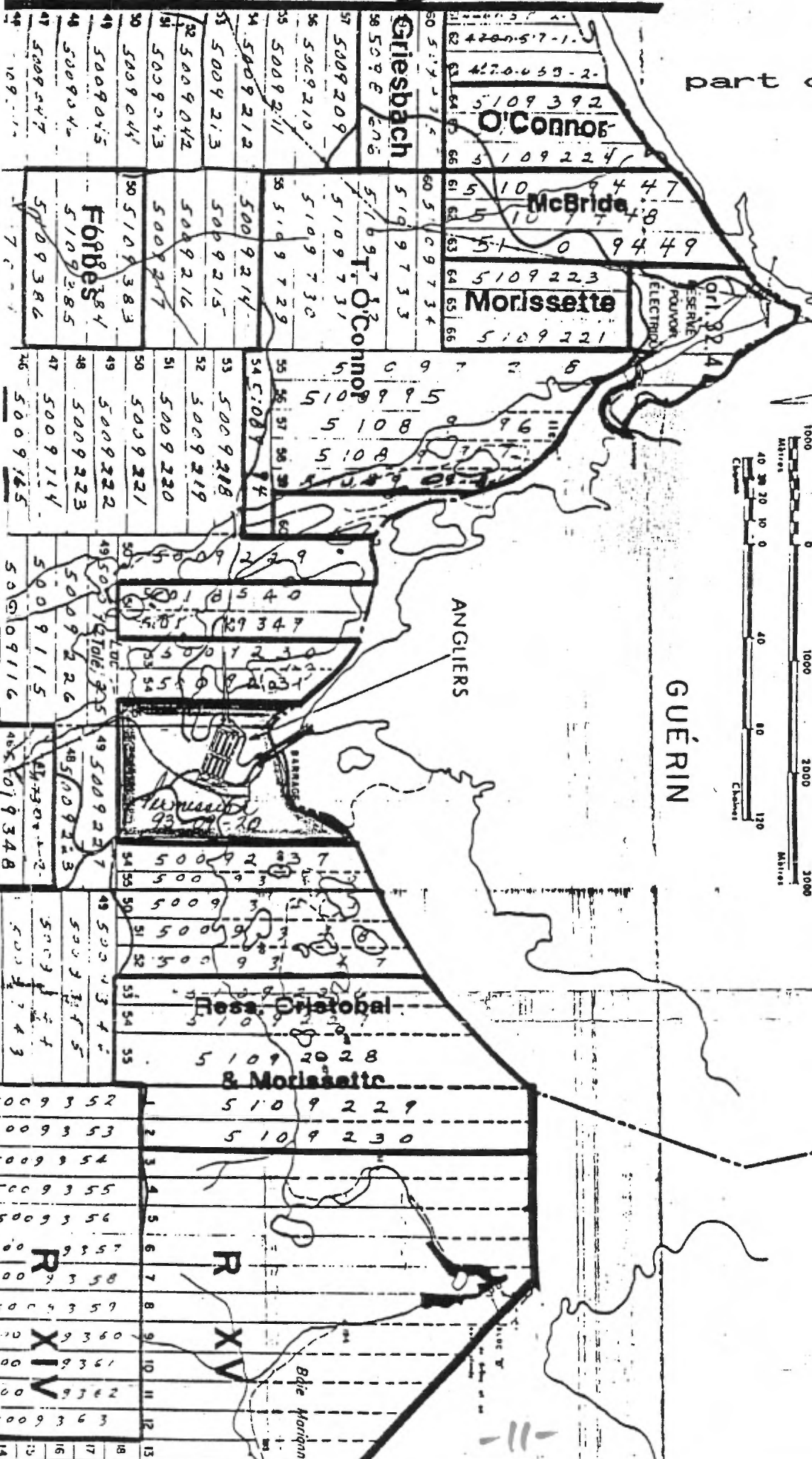
KWG-Charfim

Griesbach

PART OF BLOCK C

CLAIMS MAP

part of BABY TOWNSHIP



(b010)
 31M/11
B A B Y
 (PONTIAC - TÉMISCAMINGUE)

TOPOGRAPHY

The property lies in an area of gently rolling hills consisting largely of glacial sand and gravel deposits. The low-lying areas are covered by extensive glacio-lacustrine clays and silts deposited in the ancient Lake Ojibway (Barlow time).

The elevation of the area is roughly 210 to 240 meters, with Lake Temiscamingue lying 170 meters above sea level.

Several lakes in the area are elongated parallel with the two prominent directions of local faulting. These breaks trend NNW-SSE and NE-SW. Two good examples, respectively, are Big Long Lake and Four Mile Bay of Lac Des Quinze.

Three major south trending eskers are present in the area. One extends close to the east side of Lake Temiscaming and terminates very close to the geographic center of Guigues township. The second originates on the north side of Lac Des Quinzes and terminates approximately in the geographic center of Baby township. The third esker "crosses" the Riviere des Quinze between Rapdides des Iles and the dam at Rapide des Quinze and terminates in the extreme northeast corner of Baby township.

GENERAL GEOLOGY

The Guigues Northeast property lies in the Archean Superior Province of the Canadian Shield in the southern part of the Abitibi volcanic belt. The property lies within a geological region distinguished by the presence of rocks belonging to three (sub) Provinces of the Canadian Shield (Abitibi Province, Southern Province, Grenville Province).

The volcano-sedimentary belt of Angliers-Belleterre, which embraces the property, consists of rocks which are typical of the Abitibi Super Group within the Superior Province. The mostly volcanic rocks belong to the Baby Group and lie stratigraphically above the greywackes of the Pontiac Group of sediments which also form part of the belt.

Rocks in the area include mafic and felsic volcanic units, metasedimentary and volcanoclastic rocks and more or less ferruginous chemical sediments commonly known as iron formation.

These rocks have been intruded by large masses and quantities of (Archean) gabbroic and trondhjemitic rocks; including small plugs, sills and dykes of felsic and gabbroic composition.

The volcanic and sedimentary units of the Archean show isoclinal folds and generally steep dips caused by the so-called Kenoran orogeny. These units are also cut by northeast and northwest trending fault zones. Several of these have been reactivated over time and bound the Proterozoic units of the area. The Lac Long fault, for example, trends NNW other NNE trending faults intersect the first. Airphotos of the area show well established sets of fractures in these two directions, including major and subsidiary fractures crossing Blocks A, C and D of the Guigues Northeast Property. Several of these fractures are extremely apparent on photographs of the Range 8 part of claims Block C. Traces of these fractures manifest themselves in creeks and dry channels

Metamorphism in the Angliers-Belleterre volcano-sedimentary belt is usually constrained to the greenschist facies, except within the contact metamorphic zones surrounding some intrusions.

Younger formations of Proterozoic sedimentary rocks belonging to the Southern Province lie unconformably over these Superior rocks and are "exposed" to the west of the Archean Anglier-Belleterre volcano-sedimentary belt. Erosion has in places created "windows" into the Archean. These Proterozoic, Cobalt Group, sedimentary rocks (Gowganda formation: conglomerate

and siltstone; Lorraine formation: quartzite) have been themselves subjected to mostly mafic small-scale intrusions, e.g. Nipissing diabases & sills. Paleozoic limestone and dolomite (Liskeard + Kenogami River formations) lie unconformably over the Cobalt Group. Locally, outliers of Ordovician and Silurian limestones are seen. These remnants of the Ottawa graben are exploited for calcite and dolomite in the area of St. Bruno de Guigues.

Diabase dykes of Nipissing type cut the Archean and Proterozoic units to form dykes and sills. These are abundant and important just to the west of the area (across Lake Temiscamingue) in the silver deposits of the Cobalt-Haileybury area.

To the south of these domains, one encounters the metamorphic lithologies of the Grenville Province. These southern Grenville - type Precambrian rocks are highly metamorphosed and consist predominantly of schists, migmatites, and gneisses.

Table of Formations

QUATERNARY	Recent	Beach, stream, and swamp deposits
	Pleistocene	Stratified clay, sand, and silt. Boulder clay, morainic deposits
	UNCONFORMITY	
PALEOZOIC	Silurian and Ordovician	Conglomerate, sandstone, limestone
	UNCONFORMITY	
SOUTHERN PROVINCE	****	Nipissing and mafic intrusions,
HURONIAN	COBALT GROUP	potassic felsic intrusions Lorraine formation: quartzite Gowganda formation: conglomerate, greywacke, arkose Diabase dykes
UPPER PRECAMBRIAN (PROTEROZOIC)	UNCONFORMITY	
LOWER-PRECAMBRIAN	ARCHAEAN INTRUSIVES	Granitic intrusives and associated dykes. Albite porphyry, quartz- albite porphyry. Quartz diorite, diorite, gabbro, peridotite
	BABY GROUP	Basalt, andesite, dacite, rhyolite, tuffs, agglomerate, iron formation (Keewatin-type)
	PONTIAC GROUP	Greywacke and arkose, largely converted to mica schist and biotite- hornblende gneiss.

47°37'
74
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64
63
62

SYNTHESIS MAP OF THE BABY TOWNSHIP AND ADJOINING AREAS

ELECTORAL DISTRICT OF PONTIAC-TEMISCAMINGUE

Échelle 1:50 000 Scale

0 1000 2000 3000 Metres

0 1 2 Miles

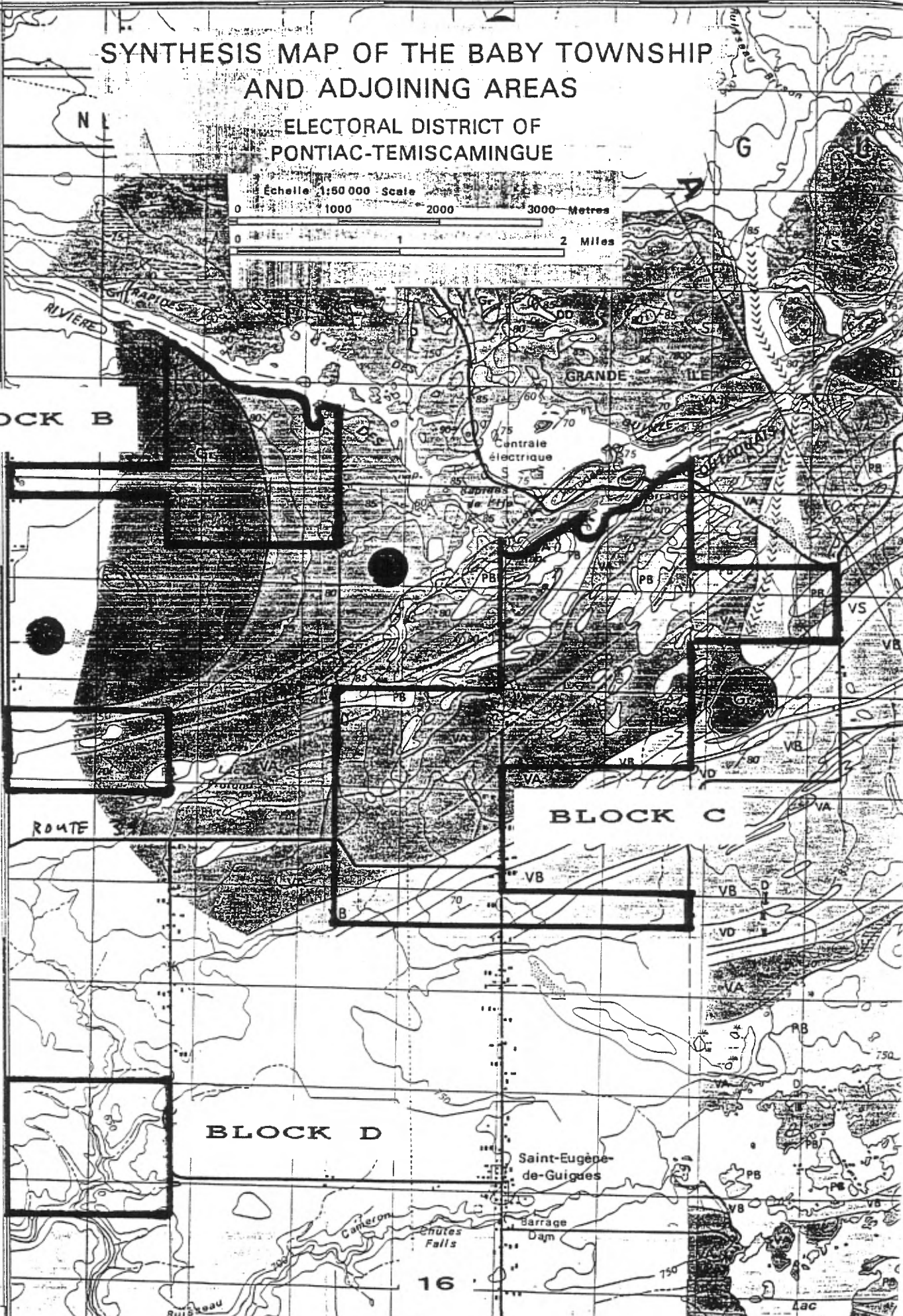
BLOCK B

BLOCK A

BLOCK C

BLOCK D

52,63,000 m. N.



L É G E N D E

PLÉISTOCÈNE

Esker
CAMBRIEN SUPÉRIEUR OU PROTÉROZOÏQUE

Dykes de diabase



PRÉCAMBRIEN INFÉRIEUR OU ARCHÉEN

INTRUSIONS ANDROGÈNIQUES, TARDI-ET POSTKINÉMATIQUES AVEC LEURS CORTÈGES

Syeno-diorite indifférenciée et lamprophyre affilié



Diorite et diorite quartzifère



Trondhémite



Porphyre trondhémitique indifférencié



Granodiorite rose équi-granulaire



Granodiorite rose porphyrique



FORMATIONS PRÉKINÉMATIQUES

FORMATIONS DU VOLCANISME INITIAL

FORMATIONS MÉTAGMATIQUES À MÉTAMORPHISME SUPERPOSÉ DÉRIVÉES DE:

Roche métamagmatique quelconque



Métagabbro indifférencié



Métabasalte



Méta-églomérat



Roches métadécitoides tufacées



FORMATION MÉTA-INTRUSIVES

Métagabbro indifférencié sauf métagabbros favorables et potentiels



Métagabbro favorable:

Type "MIDRIM"



Autres types et métagabbro potentiel



FORMATIONS MÉTAVOLCANIQUES ET FORMATIONS ASSOCIÉES

Métabasalte généralement caoussiné



Niveaux méta-églomératiques



Niveaux métadécitoides tufacés



Niveaux métavolcano-sédimentaires



Horizons ferrifères rubanés



Horizons ferrifères sulfurés



FORMATIONS MÉTASÉDIMENTAIRES (GROUPE DE PONTIAC)

Métagrauwacke indifférenciée



FORMATIONS CRISTALLOPHYLLIENNES (équivalents probablement plus métamorphosés du groupe de Pontiac)

Amphibolite



Gneiss quartzofeldspathique indifférencié



Migmatites à nombreuses poussées trondhémiques



L E G E N D

PLEISTOCENE

Esker
LATE PRECAMBRIAN OR PROTEROZOIC

Diabase dikes

EARLY PRECAMBRIAN OR ARCHEAN

ANDROGENIC, LATE AND POST-KINEMATIC INTRUSIONS AND AFFILIATED INTRUSIONS

Undifferentiated syeno-diorite and lamprophyre associated

Diorite and quartziferous diorite

Trondhemite

Undifferentiated, trondhemite porphyry

Pink, equigranular granodiorite

Porphyritic, pink granodiorite

PREKINEMATIC FORMATIONS

FORMATIONS OF INITIAL VOLCANISM

MÉTAMAGMATIC FORMATIONS WITH SUPERPOSED METAMORPHISM DERIVED FROM:

Undifferentiated metamagmatic rock

Undifferentiated metagabbro

Metabasalt

Meta-agglomerate

Metadecitoid tuffaceous rocks

META-INTRUSIVE FORMATIONS

Undifferentiated metagabbro except favorable and potential metagabbros

Favorable metagabbro:

"MIDRIM" type

Other types and potential metagabbro

METAVOLCANIC FORMATIONS AND ASSOCIATED FORMATIONS

Metabasalt, usually pillowed

Meta-agglomeratic formations

Metadecitoid, tuffaceous formations

Metavolcano-sedimentary formations

Banded iron formations

Sulphide-bearing-iron formations

METASEDIMENTARY FORMATIONS (PONTIAC GROUP)

Undifferentiated metagrauwacke

MEDIUM AND HIGH GRADE METAMORPHIC FORMATIONS (probably more metamorphosed equivalents of the Pontiac Group)

Amphibolite

Quartz-feldspar gneiss undifferentiated

Migmatites with abundant trondhemitic injections

Microfilm

PAGE DE DIMENSION HORS STANDARD

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POSITIONNÉE À LA SUITE DES

PRÉSENTES PAGES STANDARDS

Numérique

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ECONOMIC GEOLOGY AND MINERALIZATION

The Guigues Northeast property is located in an area recognized for base metal mineralization and which is noted for its platinum, nickel, and copper potential and, in the Belleterre area, for its gold potential.

The Angliers-Belleterre volcano-sedimentary unit tends to form two belts north and south of the major intrusive masses. The southern belt is well mineralized with numerous gold, copper and nickel showings including the former gold producer at Belleterre and copper/nickel producer at Latulipe. The Midrim Cu-Ni deposit lies near the geographic center of Baby township and has reserves of 380,000 tons grading 0.7% Cu, and 0.46% Ni, with significant background values of platinum and palladium, including several high-grade drill intersections.

One relatively small (15 km²) differentiated granodioritic/trondhjemitic/monzonitic pluton located in the north-central part of Guigues township (the Guigues Pluton), may have potentially important geological/economic significance for the occurrence of copper and gold along its contact zone. In 1993 a soil sample taken in lot 56 of Range 6 by Mr. Claude Chouinard over the Guigues stock about 200 meters north of the granite/volcanic contact gave an assayed value of 13,400 ppb Au. This sample was taken about 200 meters north of Block A of the Guigues Northeast property.

This author has taken one rock specimen of iron formation from an exposure on Block A and it returned an assay of 177 ppb Au and 87 ppm Cu. A soil and rock sampling program (Volet 3A.1) will follow up on this result. Many copper-zinc, copper and gold mines occur near iron formations.

Several other soil samples taken in the area returned assay values of several hundreds of ppb's including soil samples taken by Mario Chouinard on Range 8 of Block C which returned gold values in soils of up to 224 ppb Au.

This author believes that the existence of these anomalous gold values may be associated with the proximity of the contact Guigues stock contact with the surrounding volcano-sedimentary package. The existence of gold in such an environment is well documented. The existence of the well-developed fracture sets (all property blocks) in addition to the schistose volcano-sedimentary rocks around the southern and eastern edges of the granite stock (Block A and Block B makes the property extremely attractive for exploration. Gold in such a geological context is known in numerous places including the Mishibishu area of Ontario and the Val d'Or mining camp & Verneuil township in northwestern Quebec.

The Guigues Northeast property hosts numerous INPUT anomalies. Many of these are isolated and do not appear to be linear series of anomalies which may be associated with iron formations.

The following information is taken from GM 20941: SOQUEM, Geological Report, Guerin and Guigues townships, Descarreaux J., Paquet, J., 1967:

"Sulphide mineralization has been encountered in the [northwest part of Baby township] in four environments:

- i) semi-massive sulphides in tuff
 - ii) disseminated sulphides in shears between mafic flows
 - iii) disseminated sulphides in pegmatites
 - iv) primary and/or secondary sulphides in iron formation"
-
- i) "Three showings of massive sulphides in tuff lie 3/4 miles south of the old hydro Quebec dam [north end Range 2, Baby twp.]. Widths between 12 and 28 feet of tuff average 15% to 18% sulphides. Pyrrhotite and pyrite are dominant but assays indicated an average of 0.3% Cu, 2% Zn and 0.14% Ni. [no assays for gold!]
 - ii) Generally these shears are narrow (1-4 feet) and short but one occurrence near the Hydro Quebec dam of "Barrage Rapides des Iles has widths up to 15 feet. The rock carries 5% to 10% sulphides of which chalcopryrite makes up 5% of the total volume [no assays given]
 - iii) Trace to minor amounts of iron sulphides
 - iv) Pyrite beds are related with the iron formations. In places beds are fractured and filling material is often chalcopryrite. Assays of 0.15% to 0.45% copper have been obtained." [no mention of gold assays]

PROPERTY GEOLOGY AND MINERALIZATION

BLOCK A (Range 6):

The west half of Block A is underlain primarily by pillowed metabasalts and metagabbros of the northwest part of the Angliers-Belleterre volcano-sedimentary belt. A steep south-dipping iron formation passes in a (typical) east-west direction through the center of the claims block. A fairly oxidized specimen of the iron formation was taken by the author from an outcrop in lot 53. Assays returned values of 177 ppb Au and 87 ppm Cu. No other samples have been taken in Block A to date.

The northern strip of Block A is underlain by the southern edge of the Guigues Stock. An extremely attractive, untested, completely unexposed schistose shear zone at least 200 meters in width lies along the contact of the Guigues stock and the volcanics.

There are no outcrops in the west half of Block A. The west half has been interpreted (geoscientific compilation map 31M/6-101) as being underlain by Cobalt Group rocks. A north-south contact has been surmised and drawn on the map. This author believes the interpretation may be false. Support for this statement lies in the fact that the outline of the southern edge of the Guigues Stock continues toward the west on all regional magnetic maps. (Nevertheless, a thin veneer of Cobalt sedimentary rocks may lie over the west part of the Guigues stock.

An airphoto analysis performed by this author has also revealed a strong north-south lineation where the Cobalt sediments - Guigues stock contact has been drawn on the geoscientific compilation map. This may be the trace of a fault or transverse fracture.

The magnetic survey program proposed for 1994 is designed to better define the spacial relationship of the various rock types in the west half of Block A. The survey will also check whether the iron formation terminates in the west half of the block as shown on the map or whether it is offset by faulting or continues toward the west.

The gold in soil (up to 13,400 ppb Au) discovered by Messrs. Claude Chouinard and Jean-Paul Roy in 1993 in lot 56, only 300 meters north of Block A, may originate from a north-south fracture passing through the west part of Block A.

BLOCK B (Ranges 6 & 7)

Claims Block B is underlain by the Guigues stock in the west and by schistose metasediments of the Pontiac Group in the east. Numerous outcrops of granite and possibly metasediments are present in the west half of Range 7. These claims were staked to cover the granite-metasediment contact zone which may be propitious for hosting gold or copper mineralization. The airborne mag map (DV 93-21, 1993) shows a fairly strong magnetic field near the granite/schist contact.

BLOCK C (Ranges 8 & 9)

Outcrops on Block C are concentrated in the north part of Range 9. They consist predominantly of pillowed metabasalts and, to a lesser extent, of intrusive metagabbros. Very few rock exposures occur in Range 8 of the property. Several northeast trending iron formations have been traced in the north half of Block C by surface mapping and by magnetic surveys previously conducted. (However, no ground magnetic surveys have been conducted in the south half of Block C by previous workers).

Anomalous gold values as high as 224 ppb were obtained from the southwest part of Block C in 1993 (Projet Guigues Est, 1993).

BLOCK D (Range 6)

The type of rocks underlying Block D is uncertain because there are no outcrops and drilling has never been performed. The interest in this property lies in the fact that a major north-south fracture runs through the center of claims Block D. This fracture can be traced for many kilometers to the south along the trace of the Riviere la Loutre and for many kilometers northward through to Block A and the 13,400 ppb gold anomaly of Range 6, lot 56. This claims block is also on the fold hinge of a major west plunging anticline (see magnetic map DV 93-21 included).

PREVIOUS WORK PERFORMED

The earliest good geological mapping of the area was carried out by J.-Y. Chagnon (1968). His map includes Guigues township as well as the northern half of Baby township, Guerin and Nedelec townships.

Imreh (1968-71) mapped an area including parts of Guigues, Baby, Nedelec and Guerin Townships at a scale of 1:15,000. A general map (# 1847) at a scale of 1:50,000 was published in 1978 with his Geological Report number 185.

In 1981 the M.E.R. Quebec published a 1:250,000 scale geological map covering N.T.S. map sheet 31M: Avramtchev L., Lebel-Drolet, Gites Mineraux Du Quebec, Region de l'Abitibi, Feuille Ville-Marie 31M (DPV-744), 1981.

A fairly small amount of systematic or drill-intensive exploration work has been performed in the area, although the region has been well-prospected and there are numerous showings of base metal mineralization in the southern part of the area.

In 1957 Mespi Mines Ltd. conducted and reported on an airborne (total field) magnetic survey conducted over all or part of Baby, Duhamel, Fabre, Gaboury, Guigues, Latulipe and Laverlochere townships.

In 1976 the Quebec Department of Energy and Resources published (DP-857) the results of an INPUT survey conducted by Questor Surveys Ltd. in the Belleterre-Ville-Marie Region. The survey was performed by Questor Surveys Ltd.

A study at the Rouyn-Noranda offices of the MERQ of the topographic overlay of work performed in the vicinity of the property indicates a fair amount of activity; however very little ground-based work has been performed on most of the Guigues Northeast property, with the exception of the northern part of Block C.

PROPERTY WORK

In 1962 Voyager Explorations Ltd. performed a magnetic survey on claims in Guigues, Baby and Guerin townships. Although their property encompassed part of modern Block C, no work covered the areas proposed for this year (1994) (GM 12530 and 12824).

In 1963 Voyager Explorations Ltd. drilled two holes in the west part of lot 51 of Range 8, Guigues township. The holes intercepted at least two different iron formations. These holes were drilled to the north and south. No assays are present in the logs (GM-15072).

In 1963 Voyager Explorations Ltd. drilled six holes in the west part of lot 51 of Range 8, Guigues township. The holes intercepted at least two different iron formations. These holes were drilled to the north and south. No assays are present in the logs (GM-18190).

In 1967 Voyager Explorations Ltd. conducted additional magnetic surveys in Guigues, Baby, and Guerin townships. Parts of the north part of Block C were resurveyed, having been originally covered in 1962. In this instance the surveys consisted of dozens of short lines of several tens of meters of length each covering and following the iron formations. (The resulting grids have the appearance of a worm and served the purpose of precisely outlining the form and locatrion of the iron formations (GM 19491).

In 1967 a joint venture of Silver Sceptre Mines Ltd./ SOQUEM/ Voyager Explorations Ltd. conducted detailed geological mapping of an area which includes all of Block C (1994). The geological map is drawn entirely by hand and is difficult to see on microfiche. VLF and magnetic surveys were also performed. However, the geophysical surveys were performed only over the northern half of Block C (1994). The survey lines were at 400 foot (122m) intervals which is three times as wide as the 50 meter intervals recommended for the south part of Block C for 1994 (GM 21426).

In 1967 joint venture partners Silver Sceptre Mines Ltd./ SOQUEM/ Voyager Explorations Ltd. performed a geochemical survey over parts of Guigues and Baby township. Several samples were taken from the area of modern Block C. The samples were assayed for copper, zinc and nickel. Once again, assays were not performed for gold (GM 21427, GM 21428).

In 1980-81 Monopros Ltd. conducted geological, magnetic and geochemical surveys over parts of 350 claims in Guigues and Baby townships: Guigues Ranges 7, 8 & 9, lots 1 to 66; Baby Ranges 1, 2

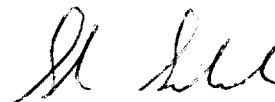
& 3. Monopros performed a very detailed and systematic geochemical survey. However, very few samples were taken from the area of Block C and none were assayed for gold (GM 37258 and GM 38515).

RECOMMENDED PROGRAM OF WORK

It is recommended that a comprehensive, multi-faceted program of exploration be carried out on the Guigues Northeast property. The exploration program should be designed to follow up on the good gold values obtained on Blocks A and C. The exploration program should consist of:

- | | |
|------------|-----------------------|
| Volet 3A.1 | i) visual prospecting |
| | ii) rock sampling |
| Volet 3A.2 | iii) line cutting |
| | iv) soil sampling |
| | v) magnetic surveys. |

Respectfully submitted,



Glenn Griesbach, Geol., FGAC



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GEOPHYSICAL REPORT
Magnetic Survey
GUIGUES NORTHEAST PROPERTY
Temiscamingue County, Quebec

by Glenn Griesbach, FGAC

June 1994



94214027

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1. Four maps of the corrected total magnetic field measurements;
 Blocks A, B, C West, C East
2. Four maps of the total magnetic field isovalue curves
 (contours) Blocks A, B, C West, C East



1. INTRODUCTION

As part of a gold exploration program, a magnetic survey was performed by the author and several associates on the Guigues township property. This survey was performed intermittently during the months of March, April, May and June 1994.

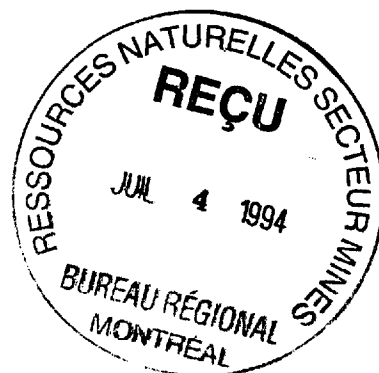
Recent work (Glenn Griesbach, Claude Chouinard, Jean-Paul Roy, Mario Chouinard) has revealed highly anomalous values of gold in soils of the area. Gold mineralization has also been observed in polished sections cut from a granite specimen taken from lot 56 in Range 6. This geophysical survey was performed in order to improve the understanding of the local geology and to locate anomalies which may lead to the discovery of the gold bearing zones.

2. PROPERTY LOCATION AND ACCESS

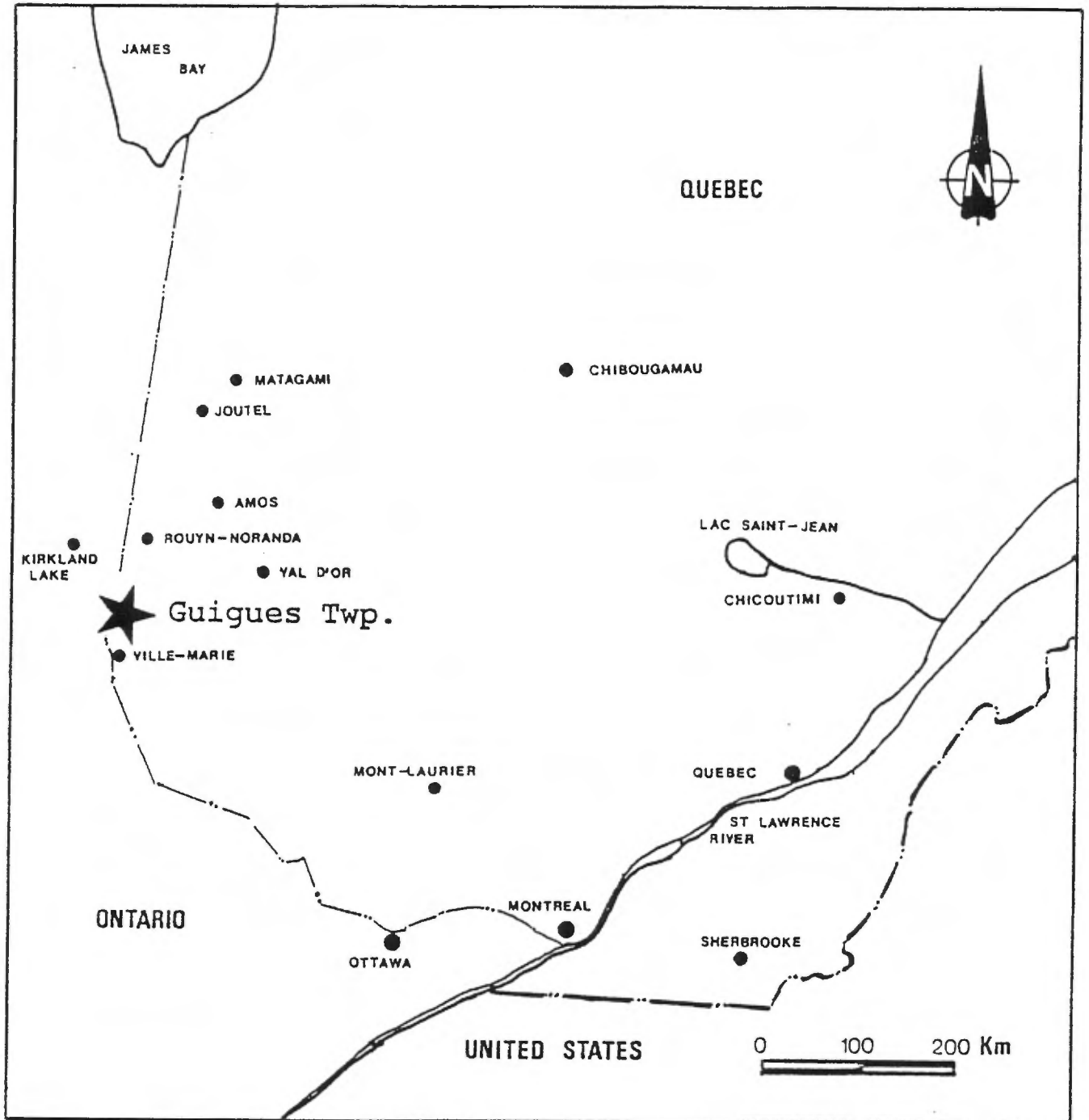
The claims of the Guigues Northeast property upon which the geophysical survey was performed are located in the northeast part of Guigues township. The work was carried out on 11 claims of 40 hectares grouped in three separate blocks.

The claims are located approximately 3 to 9 kilometers east of Lake Temiscamingue and 5 to 11 kilometers east of the Province of Ontario. The property lies about 110 kilometers south of the city of Rouyn-Noranda and 20 kilometers north of the town of Ville-Marie.

The property may be easily reached from Rouyn-Noranda by taking route 117 toward the west and then route 101 south to the village of Notre-Dame-du-Nord. A few kilometers south of Notre-Dame-du-Nord Route 391 links Route 101 with the village of Angliers. Route 391 traverses part of the property. The property is accessible year-round by a network of paved and gravel range roads and forestry roads.



GUIGUES NORTHEAST PROPERTY
PROPERTY LOCATION MAP



3. LIST OF CLAIMS

This is a list of the 11 claims in Guigues township which were covered by the magnetic survey.

The claims are registered at the Ministry of Energy and Resources Quebec under the following licence numbers:

BLOCK A:

Range 6, lot 52	5098617
Range 6, lot 53	5098610
Range 6, lot 54	5098609

BLOCK B:

Range 6, lot 63	5098607
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BLOCK C: (west)

Range 8, lot 47	5108901
Range 8, lot 48	5108903
Range 8, lot 49	5098594
Range 8, lot 50	5098593
Range 8, lot 51	5098592
Range 8, lot 52	5098591

BLOCK C: (east)

Range 9, lot 47	5108902
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4. GEOLOGY

a) Regional Geology

The Guigues Northeast Property lies in the Archean Superior Province of the Canadian Shield in the southern part of the Abitibi volcanic belt. The property lies within a geological region distinguished by the presence of rocks belonging to three (sub) Provinces of the Canadian Shield (Abitibi Province, Southern Province, Grenville Province).

The volcano-sedimentary belt of Angliers-Belleterre, which embraces the property, consists of rocks which are typical of the Abitibi Super Group within the Superior Province. The mostly volcanic rocks belong to the Baby Group and lie stratigraphically above the greywackes of the Pontiac Group of sediments which also form part of the belt.

Rocks in the area include mafic and felsic volcanic units, metasedimentary and volcanoclastic rocks and more or less ferruginous chemical sediments commonly known as iron formation.

These rocks have been intruded by large masses and quantities of (Archean) gabbroic and trondhjemitic rocks; including small plugs, sills and dykes of felsic and gabbroic composition.

The volcanic and sedimentary units of the Archean show isoclinal folds and generally steep dips caused by the so-called Kenoran orogeny. These units are also cut by northeast and northwest trending fault zones.

Metamorphism in the Angliers-Belleterre volcano-sedimentary belt is usually constrained to the greenschist facies, except within the contact metamorphic zones surrounding some intrusions.

Younger formations of Proterozoic sedimentary rocks belonging to the Southern Province lie unconformably over these Superior rocks and are "exposed" to the west of the Archean Anglier-Belleterre volcano-sedimentary belt. Erosion has in places created "windows" into the Archean. These Proterozoic, Cobalt Group, sedimentary rocks (Gowganda formation: conglomerate and siltstone; Lorraine formation: quartzite) have been themselves subjected to mostly mafic small-scale intrusions, e.g. Nipissing diabases & sills. Paleozoic limestone and dolomite (Liskeard + Kenogami River formations) lie unconformably over the Cobalt Group. Locally, outliers of Ordovician and Silurian limestones are seen. These remnants of the Ottawa graben are

exploited for calcite and dolomite in the area of St. Bruno de Guigues.

Diabase dykes of Nipissing type cut the Archean and Proterozoic units to form dykes and sills. These are abundant and important just to the west of the area (across Lake Temiscamingue) in the silver deposits of the Cobalt-Haileybury area.

To the south of these domains, one encounters the metamorphic lithologies of the Grenville Province. These southern Grenville - type Precambrian rocks are highly metamorphosed and consist predominantly of schists, migmatites, and gneisses.

b) Property Geology

BLOCK A (Range 6, lots 52-54):

Block A is underlain primarily by pillowed metabasalts and metagabbros of the Angliers-Belleterre volcano-sedimentary belt.

An east-west weak shear zone perhaps 200 meters in width lies along the contact of the Guigues stock and the volcanics in and adjacent to lot 54. Several steep south-dipping iron formations pass in an east-west direction through the claims block. One specimen of iron formation taken by the author from an outcrop gave an assay of 177 ppb Au.

BLOCK B (Range 6, lot 63)

Block B is underlain by the Guigues granitic stock. Numerous outcrops of granite and possibly metasediments are present in the extreme east part of the claim.

BLOCK C (Range 8, lots 47-53, Range 9, lot 47)

Block C is underlain predominantly by pillowed metabasalts and, to a lesser extent, intrusive metagabbros. Very few rock exposures occur in the area of the geophysical survey. Very significant gold values as high as 224 ppb Au were obtained from soil samples collected from lots 47-49 in 1993. (This will be the subject of a report to be submitted at a later date.)

5. TECHNICAL SPECIFICATIONS OF THE SURVEY

a) SURVEY GRID

The magnetic survey was performed over a 4-grid network of north-south lines grid lines totalling 62.5 kilometers. An additional 6.4 kilometers of base lines were cut, marked and chained.

The north-south lines were spaced variously at 25, 50 and 100 meters depending on the requirement for detail. Readings were always taken at 12.5 meter intervals. Due to the extremely anomalous gold values obtained from the soils of several of these and adjacent claims it was extremely important that the magnetic maps be as detailed as possible in order to help our understanding of the underlying geology.

b) MAGNETIC SURVEY

The total magnetic field measurements were taken on all the lines using a GEOMETRICS 122 proton magnetometer. This type of magnetometer has a precision in the order of 0.1 nanoteslas. The measurements were taken at intervals of 12.5 meters for a maximum resolution of rock units and structures. Corrections were made for diurnal magnetic variations by regularly looping back to one base station on each grid.

6. PRESENTATION OF DATA AND ANALYSIS OF RESULTS

The measured values are presented at each station location on maps drawn at a scale of 1 : 5000. To better visualize the magnetic variations, contour maps have been drawn at the same scale of 1 : 5000.

Eight maps (two for each grid) are annexed to this report.

BLOCK A:

The magnetic contour map shows several magnetic highs of both a linear nature and a localized nature. There appears to be a strong northwest-southeast trending fault in the west half of the grid.

BLOCK B:

The magnetic contour map shows no distinct trends. This is typical of most of the young granitic bodies in the region.

BLOCK C WEST:

A highway (Route 391) and corresponding hydro line passes east-west through the center of the west part of Block C. A high-voltage power line also transects the property in a north-south direction at the location of Line 900 West. The east-west power line affected readings for perhaps 50-75 meters however the north-south line severely affected instrument readings as far as 150 meters away or more.

The major feature appears to be one or more iron formations oriented east-northeast across the center of the claims block. The southeast part of a large magnetic high is observed in the extreme northeast part of the grid.

BLOCK C EAST:

An east-northeast trending magnetic high appears to trend across the west part of the grid. The east half of the grid has very little magnetic relief.

7. CONCLUSIONS AND RECOMMENDATIONS:

The interpretation of the magnetic survey shows several magnetic high lineaments which could be caused by iron formations. There also appear to be sets of strong northwest and southeast faults or shear zones on several parts of the property.

It is recommended that a soil survey program be conducted to test the soils above and immediately to the south of several of these structures.

Respectfully submitted,



Glenn Griesbach, Geol. FGAC

