



January 13, 1993

re: OP92-069, OP92-129

Mr. Jim McAuley-Incentives Officer  
Sudbury, Ontario

Dear Mr. McAuley,

At the request of Mr. Grant and Mr. Collins I have been commissioned to complete a map and briefly outline the candidates prospecting activities on their Nickel Property in Deloro Township.

The enclosed map was interpreted from the prospector's field notes, sketches and rock samples taken by them during their 1992 OPAP study and is an accurate interpretation of the geology of the property based on their information.

The purpose of the prospecting program was to locate and identify the geological stratigraphy of the property and to determine the best areas where a stripping program would be most successful.

Initial prospecting of the property located an old grid system that was subsequently used for outcrop location. This grid was also used as a guide to locate the best possible access for the heavy machinery advancement.

The property is best described as being associated with the rocks of the Upper Deloro Group. These rocks were defined as rocks of intermediate to ultramafic composition. No major stratigraphic displacements were recorded on the property. One stratigraphic contact occurred in the central

portion of the property where a lens of ultramafic material was bounded on both sides by intermediate material. This lens striked east-west and dipped vertically. No mineralization was detected with this contact.

Prospecting of the property also located several old trenches within intermediate volcanic material. All trenches located on the property were heavily overgrown. One small trench, located south of the old baseline was associated with talc/actinolite alteration products. It was concluded that this area would be the focus of the stripping program. That program uncovered 2 stratigraphic contacts. The north contact of a large mass of a fine grained, dark green, talcose-rich serpentinite was associated with a fine grained, green, carbonated, moderately foliated, east-west trending, vertically dipping, intermediate volcanic. The north contact of the intermediate volcanic was associated with a fine grained, granular, carbonated, strongly foliated, east-west trending, pyroclastic volcanic. All contacts exposed were void of mineralization.

A strongly foliated, north-south trending shear zone cross-cutted the serpentinite body. It was composed of talc-actinolite and fibrous mineralization.

Another area of importance on the property was discovered in 1969 by Lynx Exploration in a geophysical study. They concluded that a wide, strongly magnetic zone

3.

exists across the southern part of the property. This zone was interpreted to be associated with a band of siliceous iron formation in volcanic flows and that the zone in question was stratigraphically displaced. Prospecting this area uncovered no outcrop exposure. Futhermore, the area is in a topographical low and is associated with cedar swamp conditions. This negated any attempt to explain the conductor by overburden removal methods.

Best regards,

A handwritten signature in cursive script, appearing to read 'Ken Lapierre'.

Ken Lapierre HBSoc. FGAC.  
Consultant Geologist



42A06NW0037 OP92-069 DELORO

020

**SUMMARY REPORT**  
**OF THE**  
**STRIPPING/WASHING/MAPPING PROGRAM**  
**JOHN GRANT/ROLLY COLLINS NICKEL PROPERTY**  
**DELORO TOWNSHIP**  
**TIMMINS ONTARIO**  
**OP92-069, OP92-129**

October 27, 1992

Ken Lapierre HBSc. FGAC



At the request of Mr. John Grant and Mr. Rolly Collins this report was prepared for the purpose of:

- 1) Satisfying all OPAP regulations and requirements
- 2) Highlighting the geological and historical setting of the claim group.
- 3) Determining if the stripped areas are anomalous and worthy of further study.
- 4) Determining if the property should be retained for further study.

Sources of information contained in this report were obtained from Ministry of Northern Development and Mines assessment files, consultants reports and supervision, mapping and sampling of the areas exposed in this study.

**PROPERTY: LOCATION AND DESCRIPTION**

The property is comprised of 2 unpatented mining units located in the central portion of Deloro Township, Porcupine Mining Division, District of Cochrane, Ontario, Canada.

The claim numbers of the claim group are outlined below (figure 1).

<u>Claim Number</u>	<u># of units</u>	<u>Acres(approx.)</u>
P.1189184	4	160
P.1189188	1	40

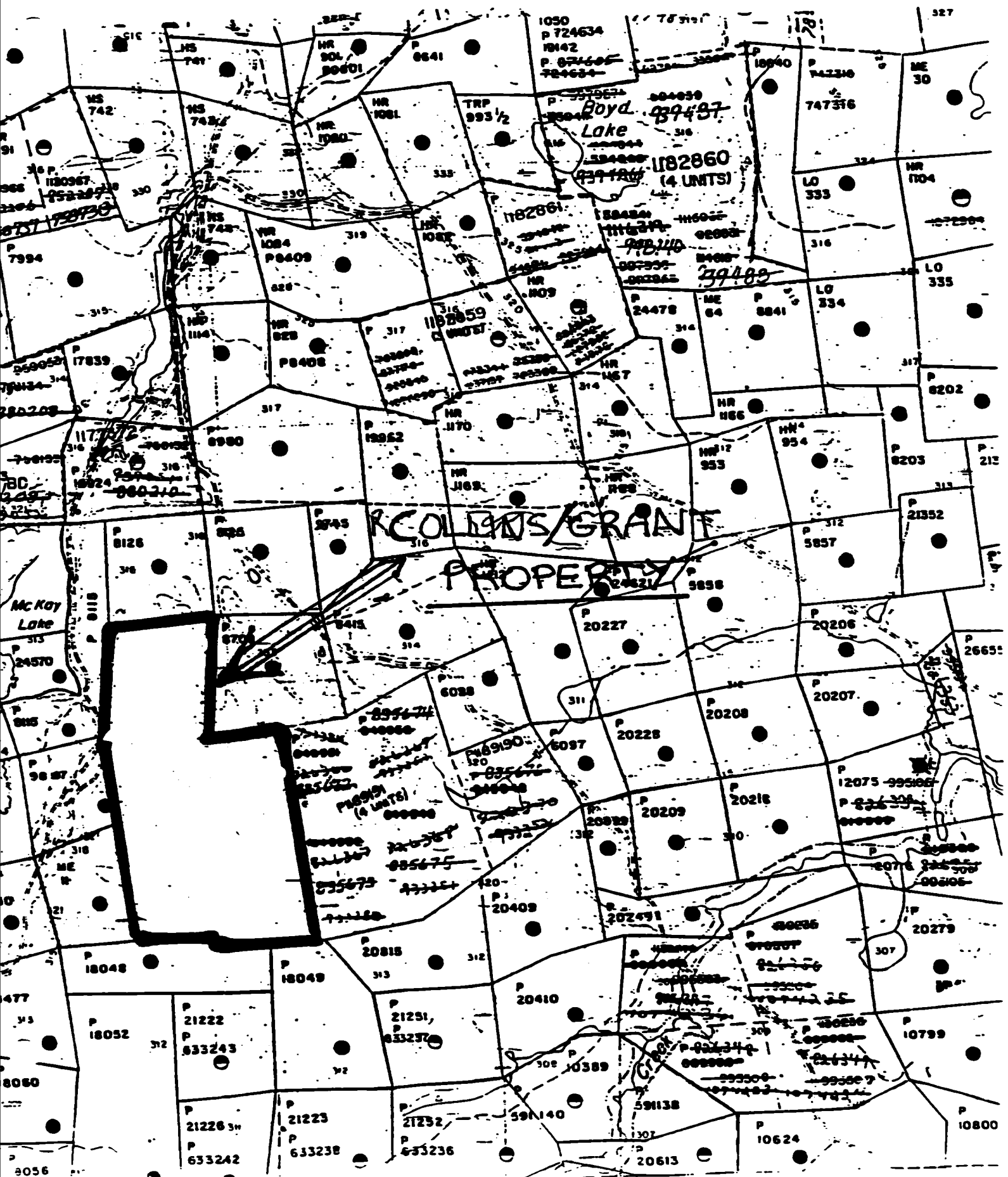
**ACCESSIBILITY, CLIMATE, LOCAL RESOURCES**

Access to the property is by means of the Timmins backroad from either Timmins or South Porcupine to the Buffalo Ankerite Mine turnoff then south on the old Faymar gravel road for approximately 3 miles to MacKay Lake. At this point the road is 200 feet west of the present claim unit #P-1189188.

Climatic conditions are typical for this part of Northern Ontario. Temperatures range from -45 degrees celsius to +35 degrees celsius.

Water resources are located approximately 500 feet west of the west claim line of the property.

5.



## REGIONAL GEOLOGY

The Geology of the Timmins area consists predominantly of Precambrian metavolcanics and metasediments. The precambrian rocks were later covered partially by unconsolidated Cenozoic deposits. The precambrian rocks represent a 40,000 foot thick sequence of lower to middle greenschist facies volcanics and sediments that are divided into three groups. From oldest to youngest the three groups are known as the Deloro, Tisdale and Porcupine Groups. The Deloro Group is a 16,000 foot thick sequence composed of basal ultramafics, andesites and basalt flows followed by dacite flows, calc-alkaline rhyolites and dacite pyroclastic rocks and oxide to sulphide facies iron formations. The Tisdale Group is a 14,000 foot thick sequence composed of basal ultramafic volcanics and komatiites followed by tholeiitic basalts and calc-alkaline pyroclastic rocks. The Porcupine Group is a 10,000 foot thick sequence composed of interlayered wacke, silstone and conglomerate.

The rocks of the Timmins area were then intruded by sill-like bodies and dykes composed of felsic to mafic components.

Stratigraphic displacement of rock types range from tens of feet to thousands of feet. The most prominent and prolific fault in the area is known as the Destor-Porcupine Fault. This major structural break trends generally



northeast, dips steeply north and has a width in excess of 400 feet. Other younger fault systems traversing the area are known as the Montreal River Fault and the Burrows Benedict Fault Systems.

Structurally, the area lies within the Superior Province of the Canadian Shield. North of the Destor-Porcupine Fault, 2 major series of deformational-metamorphic events altered the rocks in the region; initial north trending series of folds were subsequently refolded about an east-northeast trending series of folds. South of the Destor-Porcupine Fault, an east-west trending series of folds produced a major structural domain known as the Shaw Dome.

#### LOCAL GEOLOGY

OGS Map-2455 titled, 'Timmins, Precambrian Geology-1:50000' highlights the property geology. The property is underlain by mafic calc-alkalic metavolcanics and metamorphosed mafic to ultramafic volcanics of the upper Deloro Group. Olivine diabase and diabase dykes cross-cut all stratigraphy of the claim block.

**NEARBY DEPOSITS/PROSPECTS**

Deposits in the immediate vicinity of the claim block include the Faymar Gold Mine, the Redstone Nickel Mine and the Bowman Asbestos Mine. The Faymar Mine is located approximately 1 mile northeast of the claim block and is described as an Archean Lode Gold deposit. This former producer yielded more than 21,000 ounces of gold and 13,000 ounces of silver in approximately 120,000 tons.

The Redstone Mine is located approximately 7.5 miles southeast of the present claim block. It is described as a nickel sulphide deposit associated along a ultramafic/intermediate volcanic contact. At the commencement of production, reserves were approximately 450,000 tons grading approximately 3.0% nickel.

The Bowman Mine is located immediately east of the present claim group. From 1923-26 it produced a small quantity of chrysotile asbestos from gabbroic material.

Another property of interest in the area is known as the 'Dayton' Prospect. This property is located approximately 2 miles west of the present claim group. Mineralization has been encountered by surface diamond drilling in a banded iron formation for a length of over 1800 feet. The zone is 7 to 20 feet in thickness and grades between 0.08opt and 0.17 opt gold.

**GENERAL HISTORY OF CLAIM GROUP**

Limited exploration has been conducted on all or parts of the claim block from prospectors to major mining companies. More recently, Lynx Exploration, Inco and Kingswood have conducted exploration programs over all or parts of the claim group. Lynx Exploration conducted a geophysical program on the property in 1969. They concluded that a wide, strongly magnetic zone exists across the southern part of the property. This zone was interpreted to be a band of siliceous iron formation in volcanic flows. Furthermore, the survey indicated that the zone was displaced.

Kingswood Exploration conducted a geological survey in 1989. They concluded that a lens of ultramafic material occurred within an intermediate volcanic environment.

**OPAP PROGRAM****Purpose of OPAP Study**

The purpose of the OPAP study was to prospect the property for areas where overburden removal, washing, sampling and mapping methods might uncover geologically favourable environments for the deposition of precious or base metal mineralization. Since nearby nickel deposits are associated with ultramafic/intermediate contacts it was concluded that special attention should focus on the main ultramafic/intermediate volcanic contact that Kingswood Exploration discovered in their geological survey.

Furthermore, the proximity of the mineralized iron formation on the Dayton ground and the possibility of similar geology on the southern part of the present claim block suggested, if possible, that an overburden removal program in this area might prove beneficial for property advancement.

**Property Prospecting**

Property prospecting by the owners verified the geological parameters outlined by the OGS Map-2455 titled, 'Timmins, Precambrian Geology-1:50000. The property is, in all propability, underlain by mafic calc-alkalic metavolcanics and metamorphosed mafic to ultramafic volcanics.

**Stripping/Washing/Mapping/Sampling Program**

Map #1 and #2 are two completed maps of the geology of the stripped areas, sample locations, assay results and the location of the work areas in relation to the nearest claim post.

In map #1, the stripping program uncovered 2 stratigraphic contacts. The north contact of a large mass of a fine grained, dark green, talcose-rich serpentinite is associated with a fine grained, green, carbonated, moderately foliated, east-west trending, vertically dipping, intermediate volcanic. The north contact of this volcanic is associated with a fine grained, granular, carbonated, strongly foliated, east-west trending, pyroclastic volcanic. All contacts exposed were void of mineralization.

A strongly foliated, north-south trending shear zone cross-cuts the serpentinite body. It is composed of talc-actinolite and fibrous mineralization.

In map #2, the stripping program uncovered a fine grained, green, mafic volcanic. No stratigraphic contact was detected.

0+80S — SAMPLE # ASSAY Ni-ppm

2804 542  
2805 922  
2806 753  
2807 42  
2808 57  
2809 227

1+00S —

1+20S —

1+40S —

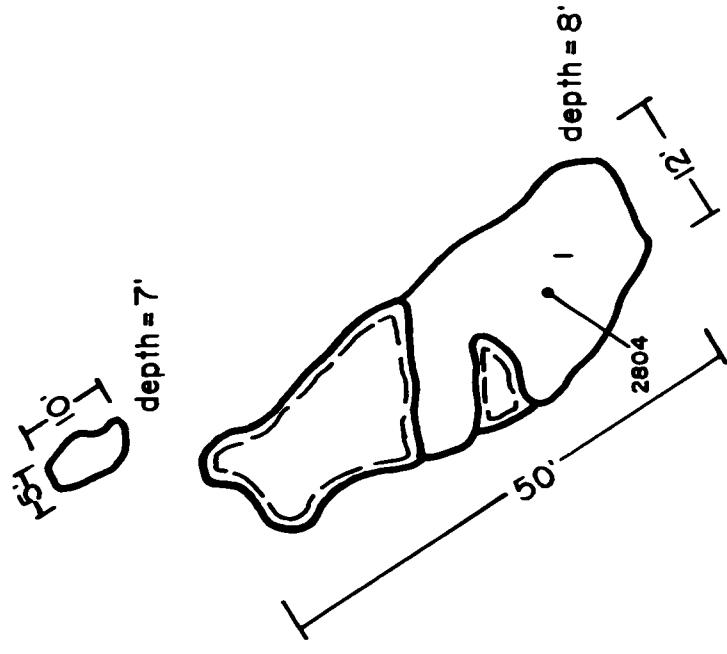
1+60S —

2+00S —

2+20S —

2+40S —

1095' due north  
to # 2-1189188



LEGEND

- 1 - Serpentinite
- 2 - Intermediate Volcanic
- 3 - Pyroclastic
- a - fine grained
- b - dark green
- c - carbonated
- d - talcose
- e - Foliated
- f - green
- water
- strike/dip
- contact
- tr-py - trace pyrite
- Δ - rubble



LAPIERRE EXPLORATION SERVICES INC.  
P.O. Box 1021, P4N 7H6  
Suite 17, Hollinger Bldg. Timmins, Ontario  
Telephone: 705 267-7389

CLIENT: GRANT / COLLINS NICKEL PROP.

PROPERTY: DELORO TOWNSHIP

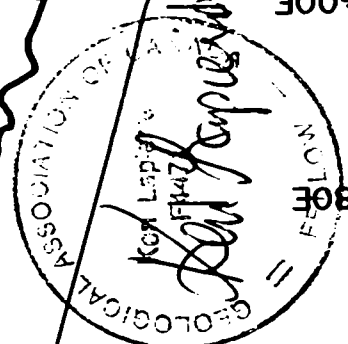
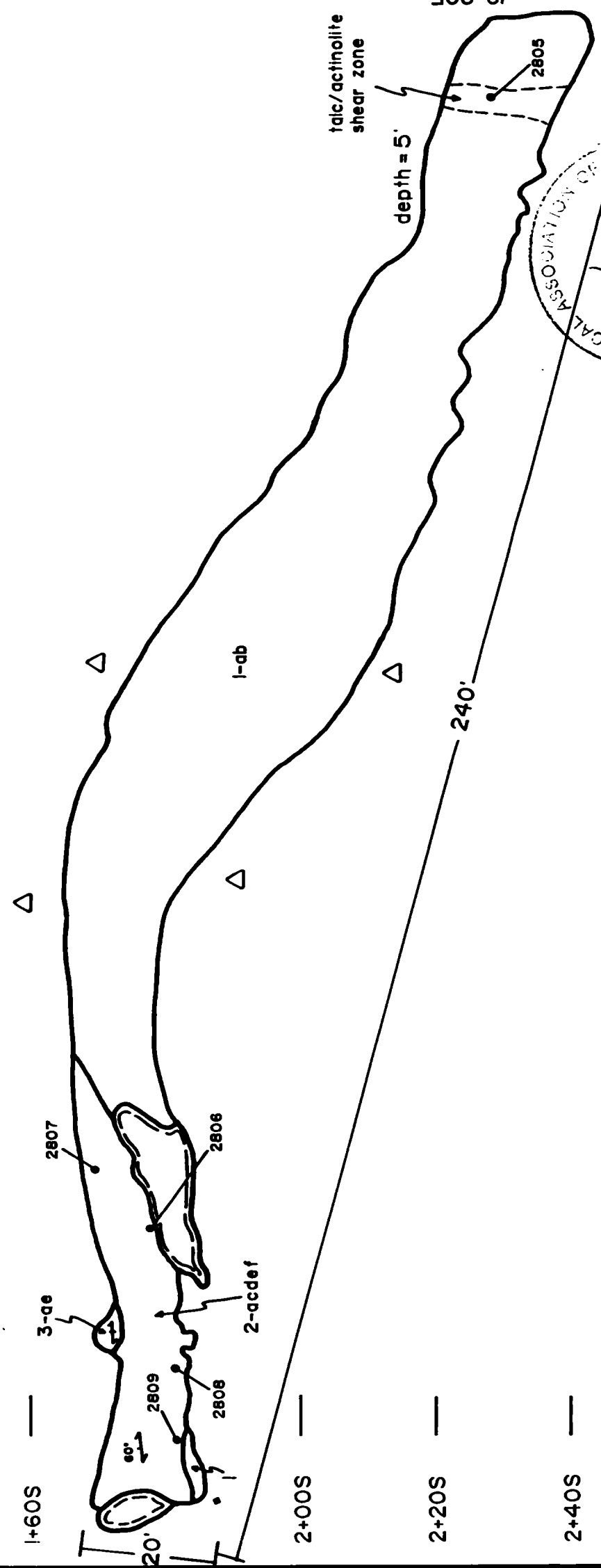
TITLE: MAP # 1

DATE: Oct. 1992

SCALE: 1"=20'

DRAWN: P.G.

INTERP.: K. Lapierre



10+00E 10+20E 10+40E 10+60E 10+80E 11+00E 11+20E 11+40E 11+60E 11+80E 12+00E

# LEGEND

- 1 - Serpentinite
- 2 - Intermediate Volcanic
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- a - fine grained
- b - dark green
- c - carbonated
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- e - Foliated
- f - green

○ - water

↗ - strike/dip

--- - contact

tr-py - trace pyrite

△ - rubble

N

350' due north  
to # 2-1189188

5+90N

5+70N

5+50N

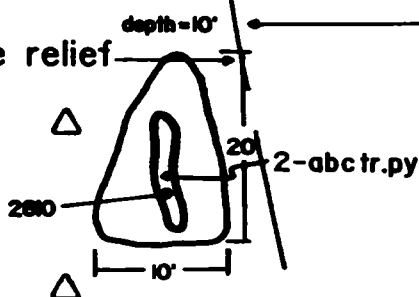
5+30N

5+10N

low relief

moderate relief

high relief



9+90E

10+10E

10+30E

10+50E

10+70E

10+90E

11+10E

SCALE (Feet)



SAMPLE #

2810

ASSAY Ni-ppm



LAPIERRE EXPLORATION SERVICES INC.

P.O. Box 1022, P-48 7118  
Suite 17, Hollinger Bldg. Toronto, Ontario  
Telephone: 708 287-7300

CLIENT: GRANT/COLLINS NICKEL PROP.

PROPERTY: DELORO TOWNSHIP

TITLE: MAP # 2

DATE: Oct. 1992

SCALE: 1"=20'

DRAWN: P.G.

INTERP.: K. Lapierre

**Assay Results**

All randomly selected grab samples were sent to Assayers Laboratories in Rouyn-Noranda, Quebec. Nickel samples were analyzed using conventional geochemical techniques using a 1/2 assay ton weight.

Assay results yielded values up to 922 ppm nickel. No significant nickel values were recorded in the areas where sampling took place. Refer to appendix I for all assay results.

**Work Schedule and Dates, etc.**

Refer to appendix II for the dates the work was carried out, the names of all persons who performed the work and the equipment used for the program.



**CONCLUSIONS AND OBSERVATIONS**

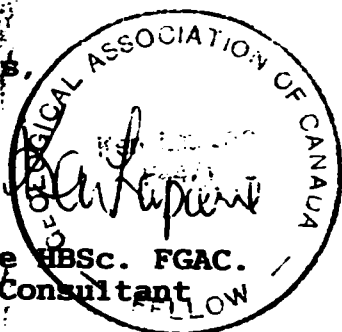
1. The geology of the claim group is associated with rocks of the upper Deloro Group. Nearby deposits and prospects such as the Faymar, Bowman and Redstone Mines and the Dayton prospect are also associated with rocks of the upper Deloro Group.
2. The present prospecting and stripping program was successful in locating and exposing stratigraphic contacts commonly associated with nickeliferous deposits. Background nickel values of up to 922 ppm were detected.
3. Although no significant nickel values were detected in this present program, historical information suggests that background values in this range occur in the vicinity of nickel-bearing stratigraphic horizons.
4. No outcrop was detected along the southern portion of the claim group where previous operators suggested that a strongly magnetic zone may be genetically related to the auriferous bearing iron formation that exists on the "Dayton Prospect" property.

**RECOMMENDATIONS**

Based on the results and observations from the claim block and past accomplishments from nearby properties, the property should be kept in good standing. Further work is recommended on the property. The follow-up program should concentrate on the on-strike continuation of the nickeliferous-bearing stratigraphic contact that was exposed in this OPAP study as well as the unexplained strongly magnetic zone along the southern portion of the claim group. A closely spaced magnetometer survey is recommended for the purpose of locating the strike continuation of the nickeliferous stratigraphic contact. The magnetometer survey would also delineate and enhance the strong magnetic zone along the southern part of the property.

Best regards,

Ken Lapierre BSc. FGAC.  
Geological Consultant



**DECLARATION**

I, Kenneth Lapierre, of the city of Brockville, Province of Ontario, Canada, do state:

- 1) That I am a practising Consultant Geologist with an office at Suite 17-Hollinger Building, 637 Algonquin Blvd. E., Timmins, Ontario, and that my mailing address is P.O.Box 1021, Timmins, Ontario, P4N 7H6.
- 2) That I am a graduate with the degree of Honours Bachelor of Science majoring in Geology from the University of Western Ontario, London, Ontario, Canada.
- 3) That I have practised my profession as Consultant Geologist since my graduation from The University of Western Ontario in 1983.
- 4) That I am a Fellow of The Geological Association of Canada, and member of the Prospectors and Developers Association of Canada.
- 5) That I am familiar with the material in this report, having examined the material myself.

Dated this 27th day of October 1992, Timmins, Ontario.

Ken Lapierre BSc. FGAC.  
Consultant Geologist



**ASSAYERS****LABORATOIRES/LABORATORIES****DIVISION DE/OF ASSAYERS CORPORATION LTD.**

780, AV. DU CUIVRE, C.P. 665, ROUYN-NORANDA (QUÉBEC) J9X 5C6 TÉL.: (819) 797-4653 FAX: (819) 797-4601

**Certificat/Certificate****2R-1780-RG1**Comp: **KEN LAPIERRE**Date: **OCT-19-92**

Proj:

Attn: **K. LAPIERRE**

Nombre D'Echantillons/No. of Samples:

Soumis le/Submitted: **OCT-18-92**

No. D'Echantillon Sample Number	NI PPM
2804	542
2805	922
2806	753
2807	42
2808	57
2809	227
2810	63

Certifié par/Certified by

**J.J. Landers****"AU SERVICE DE L'INDUSTRIE DEPUIS PLUS DE 50 ANS"****"SERVING INDUSTRY FOR OVER 50 YEARS"**

1992 OPAP PROSPECTING GEOLOGY MAP

\* TO ACCOMPANY: Summary Report of the  
Stripping/Washing/Mapping Program  
John Grant/Rolly Collins Nickel Property  
Deloro Township Immuno Ontario  
6992-06A, 6992-129 \*

Legend

- 1 - Intermediate Volcanic
- 2 - Ultramafic Volcanic

N

P-1189188

This map was compiled from field notes, sketches and  
rock specimens taken by Mr. J. Grant and Mr. R. Collins  
during their prospecting excursion for their 1992 OPAP study.  
This map is an accurate document based solely on  
their information.

Drafting and interpretation was completed by Ken Hapere

0 200 400  
(feet)

Approximate location of  
last OPAP trenching  
Refer to Map #2 in report

no mineralization present

P-1189188  
(4 units)

Approximate location of  
last OPAP trenching  
Refer to Map #3 in  
report

old trench

old picket line

CEDAR BUSH

SLASH

TIMBER

Swampy low conditions

10E (old picket line)

20E

Ken Hapere

Jan 13, 1993



42A08NW0037 6992-06A DELORO