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SAN PAULO EXPLORATIONS INC.  
REPORT ON THE  
MACASSA CREEK PROPERTY  
MISHIBISHU LAKE AREA, ONTARIO

December 10, 1987

*Recd  
2-29-90*  
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Consulting Geologist

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MINING LANDS SECTION

## SUMMARY

San Paulo Explorations Inc. holds a 100% interest in 26 contiguous unpatented mineral claims located in the Mishibishu Lake Greenstone Belt, 72 kilometers south of the Hemlo gold camp.

The Mishibishu belt is undergoing an extensive period of gold exploration with one underground development/exploration program underway (Muscocho-Flanagan-Windarra), another scheduled for 1988 (Granges-MacMillan) and five separate drill programs in progress (Noranda/Central Crude, Alotta Res., Granges, Dominion Explorers, Caribbean Res.). In addition every claim holder in the belt has undertaken some method of surface exploration in 1987.

The San Paulo, Macassa Creek property is located on the northern limb of the belt and is underlain by a thick east-west trending sequence of metasedimentary rocks flanked to the north and south by metavolcanic rocks. A geological mapping, rock sampling survey carried out by the Company in 1987 identified four areas of mineralization on the property. The first area is located on the northern portion of the property associated to the Mishibishu Lake Deformation Zone. This shear zone is located near the northern sedimentary-volcanic contact and returned three anomalous gold values of 205 ppb, 205 ppb and 100 ppb from a sheared sulphide bearing metasediment.

East of the Macassa Creek property, Dominion Explorers have reported gold mineralization in the Mishibishu Lake Deformation Zone and on the Granges/MacMillan, Muscocho-Flanagan-Windarra properties this same deformation zone is being developed underground where it hosts significant gold reserves.

The second area of mineralization is located in the central portion of the property where a narrow quartz vein in conglomerate returned an anomalous gold value of 13,371 ppb (0.39 oz. gold per ton).

The third and fourth areas of mineralization are located in the southern volcanic sequence associated to two separate deformation/ shear zones. These zones are highly strained containing disseminated sulphides, quartz veining and carbonate alteration. Although no significant assays were recorded from these zones on the San Paulo claims, bordering properties have reported anomalous values in gold and zinc.

To further evaluate the mineralization on the Macassa Creek property a two phase exploration program is recommended. Phase I will identify diamond drill targets employing ground surveys consisting of linecutting, soil/humus/lithogeochemical sampling, trenching and geophysics. The estimated cost of Phase I is \$63,800.

Phase II represents a 1,500 meter diamond drill program to test the mineralized areas with a total of 10 holes. This drilling program is estimated at \$148,500.

CERTIFICATE OF QUALIFICATION

I, Charles E. Page, of 1454 Westbury Avenue, in the City of Burlington, in the Province of Ontario,

DO HEREBY CERTIFY:

1. THAT I am a graduate of Brock University (1975) with a degree of Bachelor of Science (B.Sc) with Honors in Geological Sciences, and The University of Waterloo (1983) with the degree of Master of Science (M.Sc) in Earth Sciences.

2. THAT I am a Fellow of the Geological Association of Canada.

3. THAT I have been practicing my profession as a Geologist and engaged in exploration since 1975.

4. THAT I have worked in the Mishibishu Lake Area for five seasons since 1983 carrying out exploration on ground adjoining the Macassa Creek property. I have worked intermittently in northern Ontario 1976.

5. THAT this report is based on the author's field experience in the area, on a comprehensive study of all assessment work records and on geological maps and reports published for the area by the Ontario Department of Natural Resources.

6. THAT I have disclosed in this report all relevant material which to the best of my knowledge might have a bearing on the viability of the project or recommendations.

7. THAT I do not have, nor do I expect to receive, directly or indirectly, any interest in the property reported on herein or beneficially own directly or indirectly any securities of San Paulo Explorations Inc. or any affiliate.

December 10, 1987

Charles E. Page, M.Sc., FGAC  
Consulting Geologist  
Burlington, Ontario, Canada



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## 1.0 INTRODUCTION

San Paulo Explorations Inc. holds a 100% working interest in 26 claims located in the Mishibishu Lake Belt, Ontario, 72 kilometers south of the Hemlo Gold Belt. This claim group is described the Macassa Creek property.

This report presents the results of a geological mapping program completed in the summer and fall of 1987. Based on the results of this work, a further exploration program is recommended.

The material used to prepare this report was compiled from recent field work and Government data combined with the writer's personal field experience in the Mishibishu Lake area over the past four years.

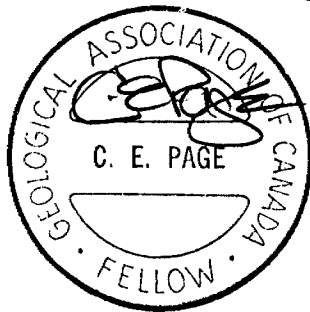
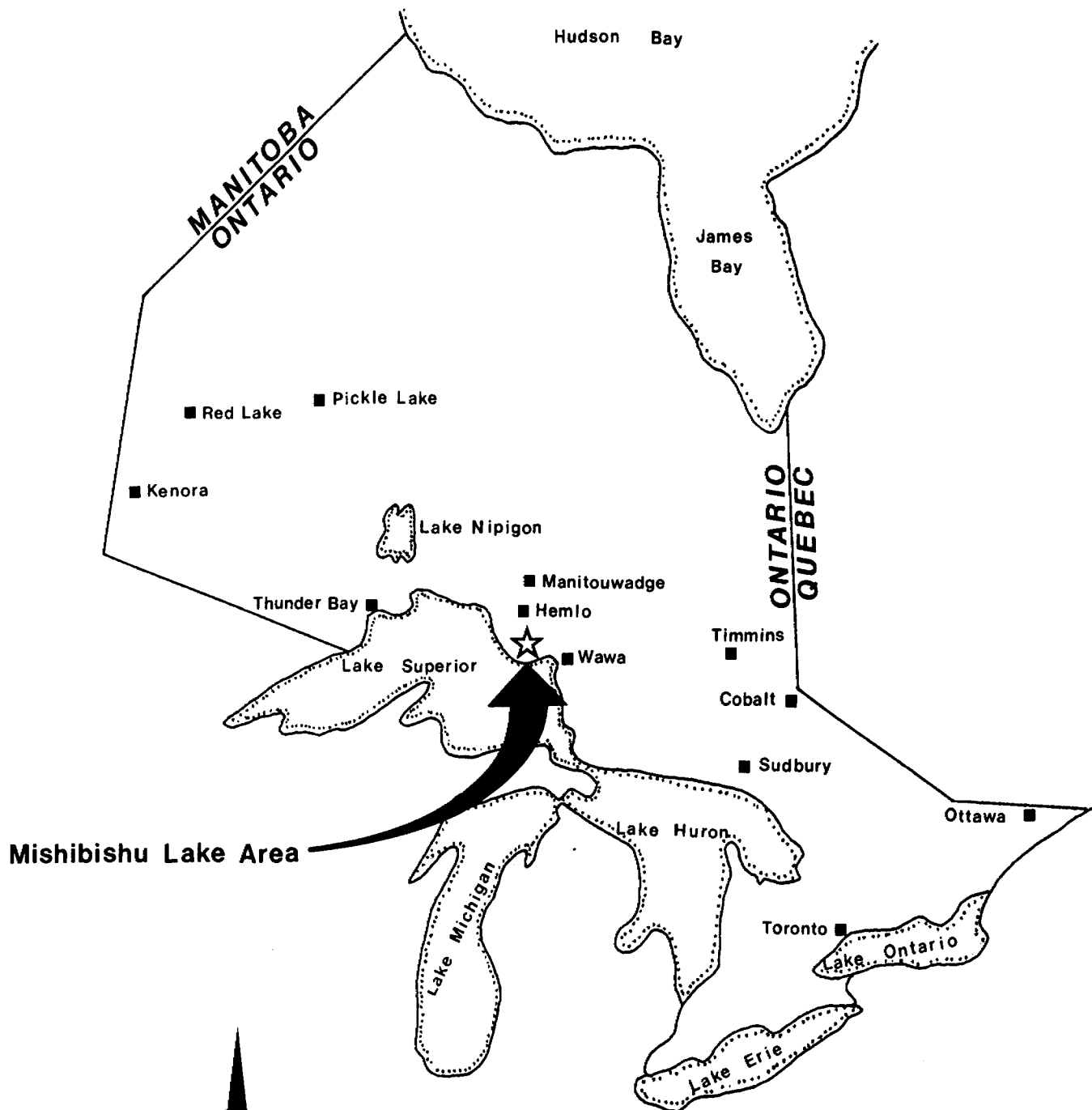


## 2.0 LOCATION AND ACCESSIBILITY

The claims lie in the western part of the Sault Ste. Marie Mining Division, 17 kilometers north of Lake Superior, 56 kilometers west of Wawa and 72 kilometers south of Hemlo (figure 1).

The Macassa Creek property is located in the north-central part of the Mishibishu Lake volcanic belt at approximately latitude 48 degrees 5 minutes north and longitude 85 degrees 33 minutes west. This property is bordered by Joutel Resources Limited to the west, and Dominion Explorers Inc. to the east and is approximately 10 kilometers due west and along strike of the recent Muscocho-Flanagan-Windarra joint venture gold discoveries (figure 2).

Access to the properties is available only by helicopter. There are no lakes of suitable size in the vicinity of the claims for fixed wing aircraft and the East Pukaskwa River is not navigable. In 1987 a gravel road was completed to the Muscocho property at Mishibishu Lake providing access to Highway 17.



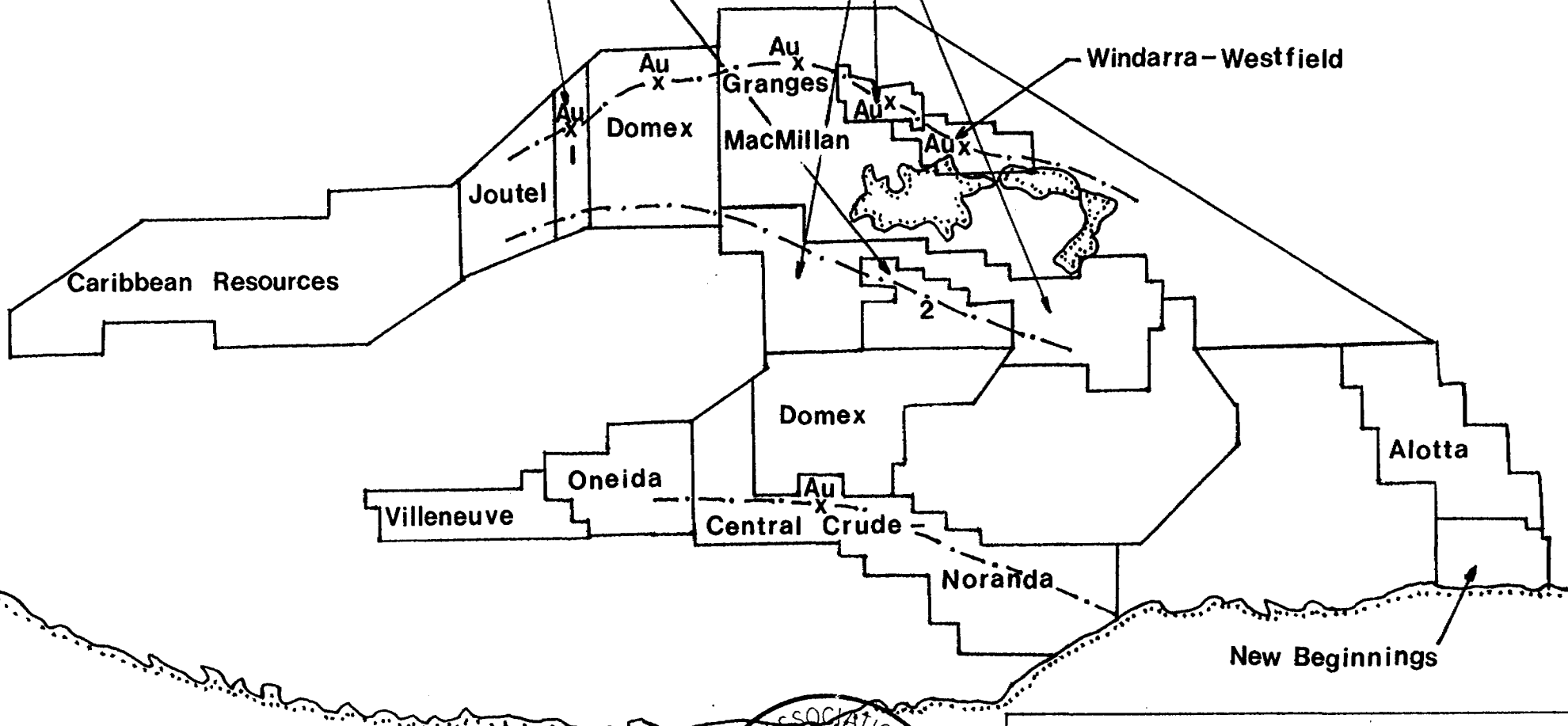
### LOCATION MAP

- Figure 1 -

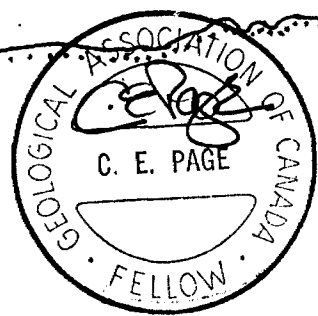
**San Paulo Explorations Inc.**

- 1. Macassa Creek Property
- 2. Augusta Lake Property

**Muscocho - Flanagan - Windarra**

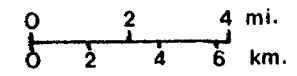


LAKE SUPERIOR



**San Paulo Explorations Inc.**

**Mishibishu Lake Belt  
PROPERTY MAP**



**Fig. 2**

X Gold Occurrence

--- Deformation Zones

Wawa is the nearest community and has a population in excess of 5,000 people. Wawa is located on the Trans-Canada Highway, is serviced by daily rail, bus and air schedules and has all necessary services.

The Mishibishu Lake area lies within a mature boreal forest composed primarily of spruce, balsam, birch and poplar with scattered stands of mature red and white pine. Maple and hazel is abundant as undergrowth on the sides and top of the ridges whereas alders, tamaracks and cedars dominate the low lying areas and flank the scattered ponds.

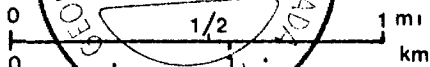
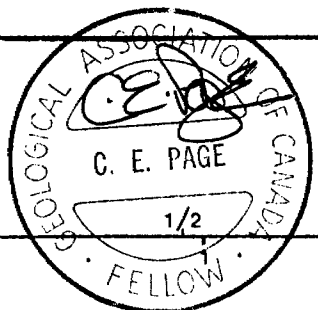
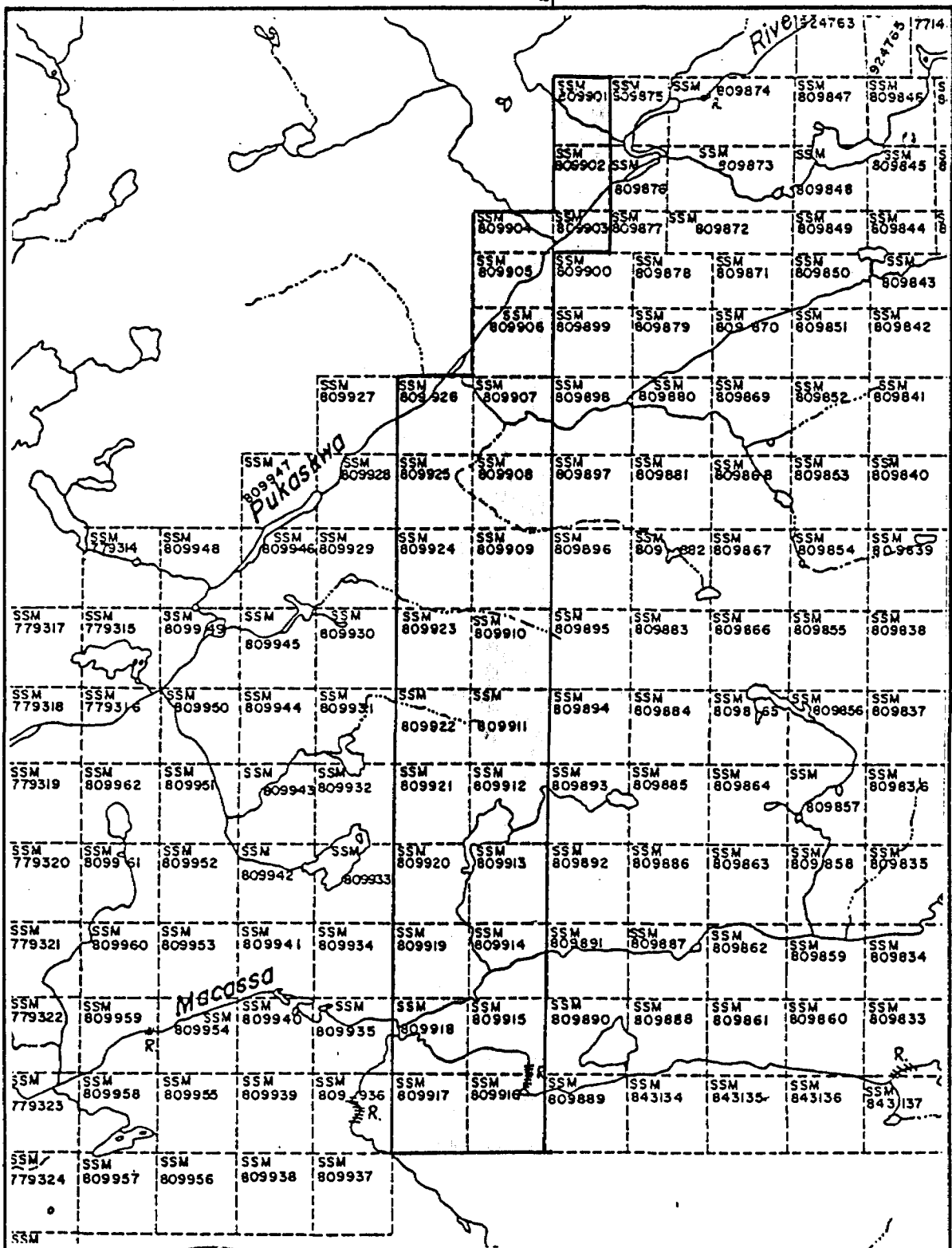
The area in the vicinity of the Macassa Creek property ranges from flat to moderately rugged terrain. The north border of the property is drained by the south-westerly flowing East Pukaskwa River through a fault controlled valley with usual steep, 45 meter high walls. The central portion is relatively flat and dry, and shows occasional moderate relief from transecting streams. In the southern portion of the property, Macassa Creek flows through moderate rolling terrain with 30-50 meter rises in topography.

## 3.0 PROPERTY DESCRIPTION

The Macassa Creek Property consists of 26 unpatented mineral claims comprising 1,040 acres located in the area of David Lakes, plan number M-12 (figure 3). The property represents a narrow group of claims measuring .8 kilometers (E-W) by 6 kilometers (N-S).

CLAIM DATA

<u>Claim Number</u>	<u>Recording Date</u>	<u>Expiry Date</u>	<u>Work Credits Per Claim (Days)</u>
SSM809901-809926	June 11, 1984	March 31, 1988	80



**San Paulo Explorations Inc.**

**Macassa Creek Property**  
David Lakes Area, Plan M-12

**CLAIM MAP**

**Fig. 3**

#### 4.0 EXPLORATION HISTORY

##### 4.1 Mishibishu Lake Belt

A portion of the Mishibishu Lake belt was initially mapped in 1940 by E.L. Evans for the Ontario Department of Mines. In 1968, G. Bennett and P.C. Thurston mapped the entire belt. In 1977 the Ontario Ministry of Natural Resources published their work. During the Bennett and Thurston mapping program, W.J. Wolfe (1976) carried out a regional rock and stream geochemical survey of the same area. This survey proves inconclusive for aiding in mineral exploration due to the large spacing unit between samples. In 1985 and 1986, R.P. Bowen remapped the belt for the Ontario Geological Survey. Preliminary map P.2969 covers the area in the vicinity of the Macassa Creek property.

The Mishibishu Lake belt has undergone sporadic gold and base metal exploration over the past fifty years. Gold was first discovered in the area in 1935. Hollinger Gold Mines Ltd., Macassa Mines Ltd., Erie Canadian Mines Ltd. and Amichi Gold Mines Ltd. reported to have carried out an extensive stripping and trenching in 1937 on showings located on the north shore of Mishibishu Lake. A number of these showings are currently being evaluated by the

Muscocho-Flanagan-Windarra joint venture and Westfield Minerals Ltd.

In the 1950's, Aglen Mines Ltd. and the Sand River Gold Mining Co. Ltd. drilled a number of holes testing various gold exploration targets 6 kilometers S.W. of Mishibishu Lake. In 1965, Sutherland and Associates carried out exploration for copper mineralization in a sequence of granitic rocks approximately 2 kilometers north of Lake Superior. During the 1970's, five companies: Falconbridge Nickel Ltd., Asarco Exploration Company of Canada Ltd., Newmont Mining Corporation, Noranda Exploration Ltd. and Amoco Canada Petroleum Co. Ltd. performed base metal exploration in the belt consisting principally of airborne geophysics with limited ground follow-up.

The current interest in the Mishibishu Lake Belt began as a result of the Hemlo gold discoveries in 1982. During the fall of 1982, the entire Mishibishu Lake Belt was staked and gold exploration commenced in 1983. The most significant results to date have been recorded on the Muscocho-Flanagan-Windarra property north of Mishibishu Lake (figure 2). Here a gold bearing horizon has been identified over a



strike length of 3 kilometers which was extensively tested by drilling in 1984, 1985 and 1986. This drilling encountered significant gold mineralization associated to a deformation striking east-west zone across the property. Muscocho-Flanagan-Windarra have completed an underground evaluation of this mineralization and have recently announced reserves of 1.1 million tons averaging 0.24 oz. of gold per ton. Within this reserve, a high grade zone is represented by 443,913 tons grading 0.40 oz. of gold per ton. On the adjoining property to the east, Westfield and Windarra are exploring similar mineralization along the same deformation zone.

Granges Exploration is currently carrying out a diamond drill program west of the Muscocho-Flanagan-Windarra discovery on a property held by MacMillan Energy Corporation. Here Granges is extensively testing the extension of the deformation zone reporting reserves of 554,300 tons grading 0.18 oz. gold per ton (Northern Miner, December 14, 1987). Infill drilling is underway and Granges reports an underground evaluation to commence in 1988.

West of the MacMillan property, and east of the San Paulo claims, Dominion Explorers Inc. has carried out exploration since 1983. This work has identified the extension of the gold bearing deformation zone that occurs on the Muscocho-Flanagan-Windarra and Granges-MacMillan properties. In 1985, Dominion Explorers discovered visible gold associated to arsenopyrite bearing quartz veins within this deformation zone (Wasabi Annual Report, 1985).

This gold bearing zone runs east-west through the northern portion of their property onto the adjoining San Paulo-Macassa Creek claims. In 1986 Dominion Explorers Inc. carried out a drill program on the property reporting results of 0.14 oz. gold per ton over 6.0 feet, 0.22 oz. gold per ton over 6.0 feet, 0.23 oz. gold per ton over 2.5 feet and 0.5 oz. gold per ton over 2 feet. Further drilling was carried out in 1987 (Landmark Corporation 1986 Annual Report dated May 28, 1987).

West of the San Paulo, Macassa Creek property, Joutel Resources Limited and Central Crude Limited have commenced a program of linecutting and soil sampling to be followed by diamond drilling in 1988. West of the Joutel property,

Caribbean Resources Ltd. have commenced the beginning of a diamond drill program to test a variety of gold targets.

Another major development in the camp is the presence of Noranda Exploration. In addition to earning an equity interest in the San Paulo Augusta Lake property, they have also commenced a diamond drill program on the Central Crude property located on the southern limb of the belt. Drilling has also been reported on the Alotta Resources property located at the far eastern end of the belt. The Mishibishu Lake Belt has become one of the most active new exploration areas in the country.

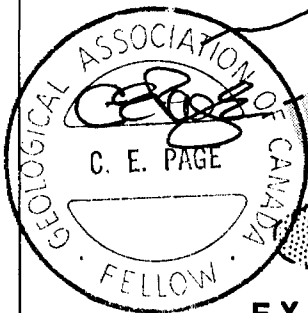
#### 4.2 The Macassa Creek Property

The assessment work files have been examined at the offices of the Ontario Department of Natural Resources in Toronto and prior to 1983, there has been no ground exploration work filed within the present limits of the Macassa Creek claim group. This property combined with the adjacent Joutel Resources and Dominion Explorers Inc. properties were flown

in February 1983 employing an Aerodat Ltd., helicopter-borne magnetic, electromagnetic and VLF-EM survey. The results of this survey identified three conductive zones on the southern portion of the Macasssa Creek property (figure 4).

- Conductive Zone "A" - Represents two weak to moderate variable conductive trends near an intermediate-mafic volcanic contact.
- Conductive Zone "B" - A variable moderate conductor representing a contact zone between mafic and felsic volcanics.
- Conductive Zone "C" - A moderate conductive trend on the north flank of a magnetic feature at the sheared contact of felsic and mafic volcanics.

.052 oz/ton



### EXPLANATION

1983-85 AIRBORNE SURVEY



Mag low

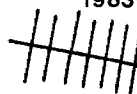


Mag high



AEM conductor

1983-85 EXPLORATION



Grid



VLF conductor



Gold anomaly

**San Paulo Explorations Inc.**

**Macassa Creek Property**

**Exploration Compilation**

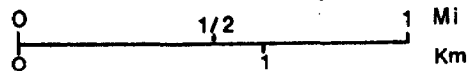


Fig. 4

In 1972, the Asarco Exploration Company of Canada Ltd. drill tested an airborne conductor located along this southern conductive zone some 4.8 kilometers east of the Macassa Creek property. A gold intersection .08 ounces per ton over .88 meters (2.9 feet) was encountered in this drilling (Ministry Assessment Files).

The original Macassa Creek claims were found to be poorly staked and were consequently restaked in 1984. In May 1985, A Terraquest Ltd. airborne magnetic VLF-EM survey was flown utilizing a sensitive proton precession magnetometer. This survey identified a series of low and high magnetic responses which are correlatable to geological features (figure 4). These responses will be discussed and related to the recent geological survey in section 6 of this report.

During the 1983, 1984 and 1985 field seasons, the Wasabi-O'Brien-Chavin joint venture now Dominion Explorers Inc. carried out exploration on the adjoining property to the east. This work consisted on linecutting, geological mapping, ground geophysics, trenching and sampling.

Due to uncertainty regarding property boundaries, a portion of this groundwork extended into the Macassa Creek property (figure 4). On the southern portion of the property, the airborne conductive trends were partially verified by the Wasabi joint venture ground VLF-EM survey which overlapped on to the San Paulo claims. Here moderate VLF-EM responses correlate with airborne Conductive Zones "B" and "C". On the north portion of the property, the Wasabi joint venture established a grid covering a metasedimentary-metavolcanic contact and identified a deformation zone.

A portion of this deformation zone was mapped on the Macassa Creek property and an isolated pyrite bearing rock sample taken near the north contact of this unit on claim 809907, returned a gold assay of .052 ounces per ton (figure 4). A weak ground VLF-EM conductive trend straddles the Wasabi joint venture-San Paulo claim boundary north of the deformation zone.

## 5.0 GENERAL GEOLOGY OF THE MISHIBISHU LAKE BELT

The Mishibishu Lake Belt was first mapped in 1940 by E.L. Evans for the Ontario Department of Mines. In 1968, G. Bennett and P.C. Thurston remapped the belt on a scale of 1:63,360 and this work was published by the Ontario Ministry of Natural Resources (Geoscience Report 153). In 1985, the belt was remapped by Bowen and published on Preliminary maps P2970, 2969, 2968, 2971 and 2972.

The Mishibishu Lake Belt represents an isolated arc shaped mass of metavolcanic and metasedimentary rocks situated in the central portion of the Wawa greenstone belt. It has an east-west orientation measuring 16 kilometers wide and 55 kilometers long and is composed of a complex series of mafic and felsic volcanic rocks with associated sequences of metasediments (figure 5).

Three major granitic batholiths intrude the volcanic belt to form north and south limbs. The two larger felsic intrusions grade from granite to granodiorite to quartz monzonite in composition and the intrusion in the vicinity of Mishibishu Lake is composed of quartz monzonite and porphyritic syenite.



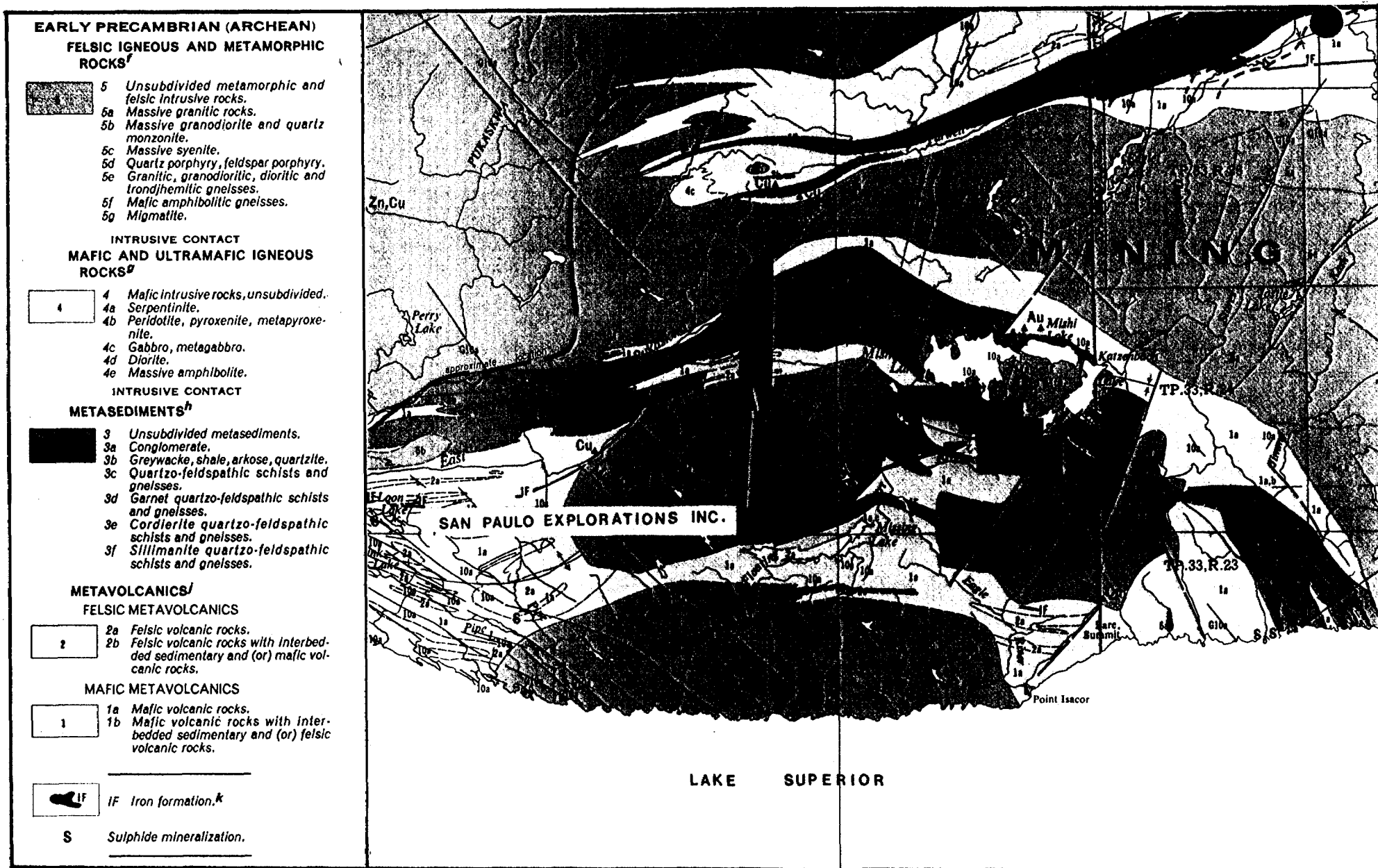


Fig.5 - General Geology of the Mishibishu Greenstone Belt (From V.G. Milne et al. 1972, Map 2220)

The western and southern portion of the belt are represented by mafic, intermediate and felsic metavolcanic rocks with only minor sequences of metasediments. Along the north and eastern portions of the belt, metasedimentary rocks occur more frequently with fringe margin sequences of metavolcanic rocks. Isolated discontinuous units of banded iron formation occur in mafic volcanic rocks in the western and southern portions of the belt. The most continuous zone of iron formation occurs in a metasedimentary horizon north of Missing Lake in the central portion of the belt.

The felsic intrusive rocks surrounding the Mishibishu Lake belt consists of trondhjemite, quartz monzonite and granodiorite. Migmatitic zones near the metavolcanic contacts and hybrid facies of the felsic intrusions are common. Olivine diabase and quartz-bearing diabase dikes of considerable size and number intrude all lithologies in various directions.

Numerous northeast and southwest trending lineaments visible on topographical maps and air photographs indicate the presence of faults and shear zones. Displacement along the structures appear minor.

The Ontario Geological Survey have identified 3 deformation zones in the belt associated to sheared and strained linear features near major volcanic-sedimentary contacts. The most extensive is the Mishibishu Deformation Zone located on the north limb of the belt and the Eagle River Deformation Zone located on the south limb of the belt through the Central Crude property.

## 6.0 GEOLOGICAL SURVEY

During September 1987, San Paulo Explorations Inc. carried out a geological mapping survey over the entire Macassa Creek property on a flagged, 120 meter spaced line grid. A geological map of the property prepared from the results of this survey is enclosed at the conclusion of the report and described as figure 6. This survey employed two geologists with a base camp located on the northern portion of the property near the East Pukaskwa River. Generally the property is underlain by a thick, east-west trending, northwest dipping sedimentary basin flanked on the north and south by mafic to felsic metavolcanic rocks. To the north the metavolcanics are in contact with granite. A series of three diabase dykes cut the sedimentary basin in the central portion of the property.

### 6.1 Northern Metavolcanic Sequence

The northern metavolcanic sequence measures approximately 500 meters thick and is principally composed of tholeiitic basalt and mafic tuff. Along the south bank of the East Pukaskwa River isolated outcrops of felsic lapilli tuff and crystal tuff occur intercalated with the mafic

metavolcanics. The sequence of rocks strikes northeast-southwest across the property displaying steep dips of 70 degrees to the northwest.

The volcanic assemblage is in contact with medium grained granite to the north along the East Pukaskwa River. The metavolcanic/granite contact zone is marked by a moderately high magnetic response on the Terraquest airborne survey (figure 4).

#### 6.2 Central Metasedimentary Sequence

North of Sandstone River, the northern metavolcanic sequence is in contact with the central metasedimentary sequence. This contact zone is marked by strongly foliated and strained units and represents the western extension of the Mishibishu Lake Deformation Zone. This deformation zone is marked by a magnetic low feature on the airborne survey (figure 4).

The central metasedimentary sequence represents a 2.9 km thick package of sedimentary rocks comprising units of wacke, conglomerate and argillite. These sedimentary units strike east/northeast to west/southwest across the property and dip steeply at 70 degrees to the north.

The majority of the metasedimentary sequence comprising the central portion of the property is represented by a package of conglomerate with interlayers of wacke. This package grades dominantly into units of wacke to the north with wacke and argillite to the south.

The contact with the central metasedimentary sequence and the southern metavolcanic sequence is located 400 meters north of Macassa Creek.

### 6.3 Southern Metavolcanic Sequence

The southern metavolcanic sequence measures 1500 meters thick and is composed of three major units: a northern unit of mafic to intermediate metavolcanic, a central unit of felsic flows and tuff and a southern unit of mafic and

intermediate metavolcanics. These units all strike east/northeast-west/southwest and dip 60 to 70 degrees to the north. The northern mafic to intermediate metavolcanic unit is approximately 500 meters thick and is composed of predominantly intermediate mafic tuff and mafic flows. On the northwest bank of Macassa Creek is a thin intercalated unit of wacke. Along Macassa Creek the rocks are foliated and sheared representing a deformation zone. This deformation zone is marked by the strong to moderate airborne electromagnetic conductors A and B (figure 4).

The central felsic flow and tuff unit measures 300 meters thick and is represented by silica poor flows and lapilli tuff. East and west of the property boundaries this felsic unit is represented by magnetic low features on the airborne geophysical surveys (figure 4).

The southern mafic and intermediate metavolcanic unit is 600 meters thick and is principally composed of alternating mafic and intermediate flows with intercalated tuff. Near the upper portion of this unit a 70 meter thick band of

foliated and sheared felsic flow and tuff occurs representing a third deformation zone. This zone is marked by airborne conductive trend C (Figure 4). South of this zone the mafic and intermediate flows are represented by a positive magnetic trend on the airborne magnetic survey (figure 4).

#### 6.4 Intrusive Rocks

Three northwest-southeast trending diabase dykes cut the central portion of the property through the metasedimentary sequence. The southern dyke has a positive airborne magnetic response where as the northern response is negative (figure 4). This phenonana indicates a mineralogical change and possibly an age difference.

#### 6.5 Structural Geology

The structure geology of the Macassa Creek property is not well known. On a regional scale, the entire section across the property from north to south could be interpreted as a trough-like basin trending east-west and widening east. Also, recent mapping by R.P. Bowen (1985) for the Ontario



Geological Survey suggests the presence of an overturned synclinal axis trending east-west through the central metasedimentary sequence. The symmetrical similarities of the north and south volcanic sequences justifies this interpretation. Throughout the property the orientation of all lithologies display east-west trends and northerly dips.

Three shear, or deformation zones occur on the property all compatible to the local stratigraphy. The north zone is near the northern metavolcanic-central metasedimentary contact and represents the westward extension of the Mishibishu Lake Deformation Zone. This deformation zone is geophysically traced across the property by a NE, SW trending magnetic low feature (figure 4). Two east-west trending deformation zones occur in the southern metavolcanic sequence. The first zone follows an intermediate-mafic volcanic contact along Macassa Creek.

The second zone occurs in a narrow felsic tuff unit hosted in mafic volcanics.

These two southern zones are geophysically traced by strong to moderate electromagnetic conductors. A, B & C (figure 4).

All three deformation zones display highly strained, sheared and locally folded features in the rocks accompanied by rusty staining, 1-5% pyrite and carbonate alteration.

## 7.0 MINERALIZATION

As a part of the geological mapping program, survey crews collected 41 rock and chip samples of gossanous material containing sulphides, quartz veining and carbonate alteration. Sample locations are displayed on the geological survey map (figure 6) with descriptions and assay results attached as Appendix 1.

This sampling identified four areas of mineralization on the property. Three of the areas are related to shear-deformation zones at the margins of the central metasedimentary sequence. The other area is located within the metasedimentary sequence in the central portion of the property.

From north to south, the first area of mineralization occurs along the Mishibishu Lake Deformation Zone near the northern metavolcanic-metasedimentary contact. Nine samples were taken along this zone from available outcrop consisting of sheared and foliated greywacke and conglomerate. The samples contained from 1 to 5% pyrite, various amounts of quartz veining and rusty staining. In sample 16869,

arsenopyrite was noted. Three of the samples from this area (16855, 16862, 16864) reported anomalous gold values of 205ppb, 205ppb and 100ppb respectively. A previous sample from this area taken by Wasabi Resources Ltd. in 1984 reported 1782ppb (0.052 oz. gold per ton). The occurrence of anomalous gold values in this area is considered significant due to its association to the Mishibishu Lake Deformation Zone, an important gold bearing structure being explored and developed by Dominion Explorers Inc., Granges and MacMillan Energy and Muscocho-Flanagan-Windarra.

The second area of mineralization occurs in the central portion of the property in a quartz pebble conglomerate wacke and is represented by a single sample (16856) (BL/1+20E). This sample of a 1-2cm wide quartz vein displaying rusty staining returned an anomalous gold value of 13,371 ppb (0.39 oz. gold per ton). West of this location on lines 1+20W and 4+80W, samples 16861 and 16867 each returned no significant results but both represented areas of strong foliation and rusty staining. All three sample locations are approximately 100 meters south of a WNW-ESE trending diabase dyke and may represent a parallel related shear system.

The third area of mineralization occurs near the southern metasedimentary-metavolcanic contact along Macassa Creek. Here seven samples were taken from a deformation zone lying along an intermediate/mafic volcanic contact. The samples were taken from sheared and foliated material containing 1 to 5% pyrite, quartz veining and rusty staining. None of the samples returned anomalous gold values. This area of mineralization and associated deformation zone is represented by EM conductors A & B suggesting the presence of sulphides and graphite (figure 4).

The fourth area of mineralization occurs in a sheared and foliated deformation zone on the southern portion of the property. Here five samples taken along a sheared felsic-mafic interflow unit contained 1-5% pyrite. No anomalous gold values are reported in this area. This area is identified by airborne EM response C (figure 4). Along this conductive zone east of the property, anomalous gold values have been encountered on the Dominion Explorers property and a diamond drill intersection of 0.08 ounces gold per ton over .88 meters was recorded by Asarco. West of the property anomalous zinc values have been recorded along this same conductive trend on the Joutel Resources property.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

There are three areas on the Macassa Creek property which recent exploration has identified as targets for gold and base metal mineralization. These are:

- 1) Northern metavolcanic-central metasedimentary contact zone, along Mishibishu Lake Deformation Zone.
- 2) Central metasedimentary sequence near WNW-ESE diabase dykes.
- 3) Southern metavolcanic sequence along two developed deformation zones.

The Mishibishu Lake Deformation Zone crossing the northern portion of the property is a favourable target for gold mineralization. This zone has returned anomalous gold values on the property and is actively being explored both to the east and west. In addition, reserves are being developed on this zone by both the Granges-MacMillan and Muscocho-Windarra-Flanagan joint ventures.

The dyke/shear related mineralization (0.39 oz. gold/ton) encountered in conglomerate located in the central sedimentary basin, represents a new geological gold environment.

The two deformation zones identified in the southern metavolcanic sequence associated with felsic volcanics and conductive responses represent an ideal environment for both precious and base metal mineralization.

To properly evaluate these three areas for concentration of gold and/or base metal mineralization, further exploration on the property is warranted.

To effectively carry out this evaluation, a two phase exploration program is recommended. Phase I would involve detailed ground surveys consisting of linecutting, soil, humus and lithogeochemical sampling, trenching and geophysics. Phase II represents a follow up diamond drill program to further test targets identified in Phase I. A total of 10 holes are budgeted representing 1,500 meters of drilling.

## 9.0 PROPOSED BUDGET

Phase I: Ground Surveys

- Linecutting 20 miles @ \$400/mile.....\$8,000
- Geophysics: Mag 20 miles @ \$150/mile.. 3,000  
HEM 10 miles @ \$250/mile.. 2,500  
IP 5 miles @ \$2000/mile..10,000
- Soil, humus, lithogeochem:  
1,000 samples @ \$5/sample. 5,000  
analyses.....10,000
- trenching and sampling..... 5,000
- helicopter.....10,000
- compilation and report..... 1,500
- drafting..... 1,000
- supervision..... 2,000

Sub Total	<u>\$58,000</u>
Contingency 10%	5,800
Total Phase I	<u>\$63,800</u>




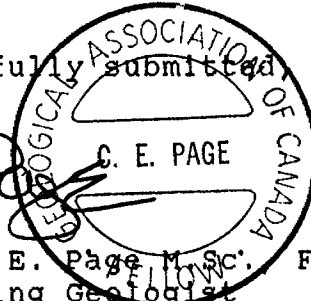
Phase II: Diamond Drilling

- diamond drilling 1,500 m @ \$75/m.....\$112,500
- assays..... 1,500
- geological supervision..... 6,000
- helicopter..... 10,000
- management and report..... 5,000

Sub Total	\$135,000
Contingency 10%	13,500
	\$148,500
Total Phase II	\$148,500
Total Phase I & II	\$212,300 =====

December 10, 1987

Respectfully submitted,

Charles E. Page M.Sc. FGAC  
 Consulting Geologist

## REFERENCES

- Bennett, G., Thurston, P.C., 1977: Geology of the Pukaskwa River -University River Area, Ontario Ministry of Natural Resources, Geoscience Report 153.
- Bowen, R.P., Logothetis, J., and Heather, K.B., 1986: Precambrian Geology of the Mishibishu Lake Area, Northeastern Section, Districts of Thunder Bay and Algoma; Ontario Geological Survey Map P2969, Geological Series Preliminary Map, scale 1:15 840 or 1 inch to 1/4 mile.
- Durham Resources Inc., 1986: Interim Report, 3rd Quarter, November 7, 1986.
- Evans, E. L., 1940: Geology of the Mishibishu Lake Area, Ontario Department Mines, Vol.49.
- Landmark Corporation, 1986: Annual Report for the Year ended December 31, 1986.
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- Wasabi Resources Limited, 1985: Annual Report for the year ended April 30, 1985.
- Wolfe, W.J., 1972: Regional Geochemical Exploration in Archean Metavolcanics-Metasedimentary Belts of the Pukaskwa Region Ontario, Ministry of Natural Resources.
- All Authors, All Years: Ontario Ministry of Natural Resources, Division of Mines, Work Assessment Files, 77 Grenville Street, Toronto, Ontario.

APPENDIX

SAMPLE #	GRID LOCATION	DESCRIPTION
16851	11+00N, 0+22W	Q.V. (264/VERT), IRREGULAR THICKNESS (MAX 60 CM), 1-2% PY. RUSTY STAINING. HOST ROCK - WACKE. (SUBARKOSK?).
16852	5+25N, 0+03W	Q.V. (250/80), WIDTH 1-5cm. 1-2% SULPH. RUSTY STAINING IN PLACES. HOST ROCK - WACKE
16853	16+25N, 0+10W	Q.V. 2-3 cm WIDTH ALONG FOLIATION (234/77) RUSTY STAINING. 1% SULPH IN VEIN & HOST ROCK. HOST - MATRIX SUPP. CONGL. (BIO-RICH MATRIX).
16854	20+75N, 0+00	Q.V. (264/80), 3-5cm WIDTH. 1% VISIBLE PY (KIMM). RUSTY STAINING. HOST ROCK - WACKE. (NUMEROUS OTHER Q.V. 1-2cm X-CUTTING BEDDING).
16855	21+25N, 0+05W	QTZ - BIO VEIN. (ERRATIC) 1-15cm IN WIDTH. 1-3% VISIBLE SULPH. IN VEIN & HOST. RUSTY STAINING. HOST - WACKE (ALT IN VICINITY $\approx$ 30-40cm OF VEIN).
16856	0+47N, 1+20E	Q.V. (040/40). 1-2cm WIDTH. RUSTY STAINING. HOST - QTZ PEBBLE WACKE.
16857	6+10N, 0+75E	Q.V. (037/54) 5-7cm WIDTH. 10-12m STRIKE LENGTH (VISIBLE). RUSTY STAINING. HOST - DIABASE.
16858	20+20N, 1+20E	SMALL, ERRATIC QTZ VEINLETS IN AN ALTERED (AMPHIBOLITIC?) AND HIGHLY FOLIATED WACKE. CHLORITIC.
16859	21+00N, 1+10E	HIGHLY FOLIATED (SHEARED?) WACKE WITH NUMEROUS 1-2cm ERRATIC Q.V. ALONG FOLIATION (240/70). WIDESPREAD RUSTY WEATHERING. CHLORITIC.
16860	11+15N, 1+00W	Q.V. (260/70), 20cm WIDE, 2m LONG. 1-2% Sulphides. RUSTY WEATHERING. HOST ROCK - WACKE
16861	1+00N, 1+20W	HIGHLY FOLIATED QUARTZ GRANULE WACKE. RUSTY WEATHERING.
16862.	14+15N, 1+25W	HIGHLY STRAINED POLYMICTIC CONGLOMERATE, 1-2% PY. MINOR IRREGULAR QZ VEINS PLL TO FOLIATION (240/50).
16863	17+10N, 2+40W	HIGHLY FOLIATED QUARTZ GRANULE WACKE. 1-2% PY. MNR QZ VEINS PLL TO FOLIATION (240/70)
16864	15+25N, 2+40W	HIGHLY STRAINED POLYMICTIC CONGLOMERATE, 1-2% PY. FOLIATION (255/70). PERVASIVE RUSTY WEATHERING.
16865	7+25N, 2+40W	DIABASE DYKE. STRONGLY MAGNETIC. 1-2% PY. INTRUDES WACKE.
16866	15+90N, 3+60W	HIGHLY FOLIATED QUARTZ GRANULE WACKE, 1% PY. RUSTY WEATHERING.
16867	2+35N, 4+90W	HIGHLY FOLIATED QZ GRANULE/PEBBLE WACKE. 1% SU. RUSTY STAINING.
16868	20+50N, 2+40E.	Q.V. (240/74) IN A HIGHLY FOLIATED WACKE. (INTUPP?). 10cm WIDE. 1% VISIBLE SULPH. ABUNDANT RUSTY WEATHERING.

SAMPLE #	GRID LOCATION	DESCRIPTION
16869.	20+50N, 2+40E	HOST ROCK OF Q.V. (SAMPLE 16870) 1% VISIBLE SULPH (PY-ARSEN), WACKE (TUFF??). RUSTY STAINING.
16870.	23+65N, 2+40E.	Q.V. (224/60) 1cm wide. 1% VISIBLE SULPH. RUSTY STAINING. 1-5% BIO IN VEIN. HOST: MAFIC TUFF.
16871	10+50S, 4+70W	QZ. VEIN, IRREGULAR WIDTH, 10-30 cm, 1m long FOLDED, RUSTY STAINING, BLUE-WHITE. HOST - FOLDED WACKE
16872	10+60S, 4+75W	WACKE, FOLDED, HEAVILY INJECTED BY QZ VEINS AND STRINGERS. PERVASIVE RUSTY STAINING.
16873	6+75S, 3+50W	BASALT FLOW. HIGHLY FRACTURED, STRONG FOLIATION. PERVASIVE RUSTY STAINING
16874	6+60S, 2+25W	FGR DIABASE, 1% SU, PERVASIVE RUSTY WTHRQ, WELL DEV. JOINT SETS (325/80, 260/75)
16875	6+65S, 2+25W	Aphanitic INTERMEDIATE LAPILLI TUFF, LAMINATED, WELL DEV JOINT SETS, PERVASIVE RUSTY STAINING, CARBONATE VEINLETS
16876	8+75S, 2+15W	MED GRAINED TALC-CHLORITE SCHIST, RUSTY STAINING, CARBONATE ALTERATION.
16877	10+60S, 2+30W	QV. (240/85), IRREG WIDTH (25-30cm), RUSTY STAINING, BUCKLED. HOST-
16878	9+35S, 1+10W	FELSIC LAPILLI TUFF, PERVASIVE RUSTY STAINING, AND QZ VEINS. CARBONATE ALTERATION
16879	10+60S, 1+00W	WACKE, HIGHLY FOLDED, SHEARED, 1-2% SU. MANY QV SHOWING PTYGMATIC FOLDING, PERVASIVE RUSTY STAINING, MINOR FELSIC TUFF BANDS - 20cm WD.
16880	8+90S, 0+10W	MAFIC FLOW, HIGHLY FOLIATED. NUMEROUS CALCITE & QZ STRINGERS FOLLOWING FOL. 3-5% DISS SULPH.
16881	12+15S, 0+10E	MAFIC TUFF (FLOW). NUMEROUS CALCITE & QZ STRINGERS. 5-7% SULPH CONC NEAR OR IN STRINGERS. ABUNDANT RUSTY STAINING.
16882	15+50S, 0+15W	MAFIC & FELSIC INTERMIXING. 5-10% DISS SULPH IN BOTH. RUST STAINING. C.C.
16883	16+85S, 1+30E	Q.V. (240/80), 1cm WIDE IN A MAFIC TUFF 1-5% SULPH (DISS.).
16884	8+65S, 1+30E	Q.V. (ERRATIC). IN A HIGHLY SHEARED AND ALT MAFIC UNIT. RUSTY STAINING.
16885	15+50S, 2+60E	HIGHLY FOL (260/81) MAFIC FLOW. LENSES OF FELSIC MATERIAL. 1-5% SULPH. MINOR C.C.
16886	18+50S, 2+45E	INT TUFF (CHL ALT) 1-3% SULPH (DISS) NUMEROUS QZ STRINGERS. MINOR C.C. RUSTY STAINING.





REPORT: 417-6696

PROJECT: 87-180

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	PPb.	SAMPLE NUMBER	ELEMENT UNITS	Au OPT
16851		0.001	34	16891		<0.001
16852		<0.001				
16853		0.001	34			
16854		<0.001				
16855		0.006	205			
16856		0.390	13,371			
16857		<0.001				
16858		<0.001				
16859		<0.001				
16860		<0.001				
16861		0.001	34			
16862		0.006	205			
16863		<0.001				
16864		0.003	102			
16865		<0.001				
16866		<0.001				
16867		<0.001				
16868		<0.001				
16869		<0.001				
16870		<0.001				
16871		<0.001				
16872		<0.001				
16873		<0.001				
16874		<0.001				
16875		0.001	34			
16876		<0.001				
16877		<0.001				
16878		<0.001				
16879		<0.001				
16880		<0.001				
16881		<0.001				
16882		<0.001				
16883		0.001	34			
16884		<0.001				
16885		<0.001				
16886		<0.001				
16887		<0.001				
16888		<0.001				
16889		<0.001				
16890		<0.001				

Chief Chemist



Ontario

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines



42C04SE0039 2.10945 DAVID LAKES

900

April 5, 1988

Your File: W8805-036

Our File: 2.10945

Mining Recorder  
Ministry of Northern Development and Mines  
875 Queen Street East  
Box 669  
Sault Ste. Marie, Ontario  
P6A 2B3

Dear Madam:

RE: Data for Assaying and Geological Survey submitted under  
Section 77(19) of the Mining Act R.S.O. 1980 on  
Mining Claims SSM 809901 et al in the Area of Davids Lake

The enclosed statement of assessment work credits for Data for  
Assaying has been approved as of the above date.

Please inform the recorded holder of these mining claims and  
so indicate on your records.

Yours sincerely,

W.R. Cowan, Manager  
Mining Lands Section  
Mines & Minerals Division

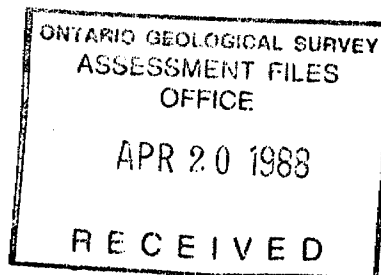
Whitney Block, Room 6610  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Telephone: (416) 965-4888

ASH:pl  
Enclosure (2)

cc: Resident Geologist  
Wawa, Ontario

San Paulo Explorations Inc.  
Suite 2314  
401 Bay Street  
Toronto, Ontario  
M5H 2Y1







Recorded Holder <b>San Paulo Exploraitons Inc.</b>
7500000 of Area <b>Dauids Lake</b>

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological <u>20</u> days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<b>SSM 809901 to 926 inclusive</b>

**Special credits under section 77 (16) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey       insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.



Recorded Holder  
**San Paulo Exploraitons Inc.**

~~XXXXXX~~ Area  
**Dauids Lake**

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b> Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days  Section 77 (19) See "Mining Claims Assessed" column  <b>Geological</b> _____ days  <b>Geochemical</b> _____ days  Man days <input type="checkbox"/> Airborne <input type="checkbox"/>  Special provision <input type="checkbox"/> Ground <input type="checkbox"/>  <input type="checkbox"/> Credits have been reduced because of partial coverage of claims.  <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	<p><b>\$502.25 SPENT ON ASSAYING SAMPLES TAKEN FROM MINING CLAIMS:</b></p> <p>SSM 809906 to 08 inclusive            809910 ✓            809914 to 18 inclusive ✓            809924 to 26 inclusive ✓</p> <p><b>33 DAYS CREDIT ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT R.S.O. 1980.</b></p>

**Special credits under section 77 (16) for the following mining claims**

**No credits have been allowed for the following mining claims**

not sufficiently covered by the survey                       insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Ministry of  
Natural  
Resources

Report of Work  
(Geophysical, Geological,  
Geochemical and Expenditures)

DOCUMENT NO.  
W8805-036

Instructions: - Please type or print.  
- If number of mining claims traversed exceeds space on this form, attach a list.  
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.  
- Do not use shaded areas below.

2.10945

Mining Act

Type of Survey(s) <b>Geological</b>	Township or Area <b>David's Lake (WAWA)</b>
Claim Holder(s) <b>San Paulo Explorations Inc.</b>	Prospector's Licence No. <b>T-1561</b>
Address <b>Suite 2314, 401 Bay Street, Toronto, Ont. M5H-2Y1</b>	
Survey Company <b>C. E. P. Consulting</b>	Date of Survey (from & to) <b>02 09 87   30 09 87</b>
Name and Address of Author (of Geo-Technical report) <b>C. E. Page, 800-111 Richmond St. West, Toronto, Ont. M5H-2G4</b>	Total Miles of line Cut <b>26</b>

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	<b>20</b>
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Prefix	Mining Claim Number	Expend. Days Cr.	Prefix	Mining Claim Number	Expend. Days Cr.
SSM	809901		SSM	809924	
	809902			809925	
	809903			809926	
	809904				
	809905				
	809906				
	809907				
	809908				
	809909				
	809910				
	809911	<b>33</b>			
	809912				
	809913				
	809914				
	809915				
	809916				
	809917				
	809918				
	809919				
	809920				
	809921				
	809922				
	809923				

**RECORDED**  
MAR 10 1988  
Receipt No. \_\_\_\_\_

**RECEIVED**  
MAR 10 1988  
A.M.  
7 8 9 10 11 12 1 2 3 4 5 6

Expenditures (excludes power stripping)

Type of Work Performed  
**Assays**

Performed on Claim(s)  
**809910-11, 809914-18,  
809906-08, 809924-26**

Calculation of Expenditure Days Credits

Total Expenditures	÷	Total Days Credits
\$ 502.25	÷ 15	= 33

Total number of mining claims covered by this report of work. **26**

Instructions  
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	ACTING Mining Recorder
553	March 10 1988	C. E. Page
	Date Approved as Recorded	Branch Director
		See Bureau Chapter

Date  
**Feb. 25/88**

Recorded Holder or Agent (Signature)  
*C. E. Page*

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying  
**C. E. Page, 800-111 Richmond St. West, Toronto. M5H 2G4**

Date Certified  
**Feb. 25/88**

Certified by (Signature)  
*C. E. Page*



Ministry of Natural Resources

File \_\_\_\_\_

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL  
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT  
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT  
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geological

Township or Area Dauids Lake

Claim Holder(s) San Paulo Explorations Inc.

Survey Company C. E. P. Consulting

Author of Report C. E. Page

Address of Author 800-111 Richmond St. West, Toronto

Covering Dates of Survey September 1987 - Dec. 1987  
(linecutting to office)

Total Miles of Line ~~km~~ 26

MINING CLAIMS TRAVERSED	
List numerically	
SSM (prefix)	809901 (number)
	809902
	809903
	809904
	809905
	809906
	809907
	809908
	809909
	809910
	809911
	809912
	809913
	809914
	809915
	809916
	809917
	809918
	809919
	809920
	809921
	809922
TOTAL CLAIMS <u>26</u>	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	<u>DAYS</u> <u>per claim</u>
Geophysical	
-Electromagnetic _____	
-Magnetometer _____	
-Radiometric _____	
-Other _____	
Geological <u>20</u>	
Geochemical _____	

ENTER 40 days (includes line cutting) for first survey.  
ENTER 20 days for each additional survey using same grid.

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: Feb. 25/88 SIGNATURE: [Signature]  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications \_\_\_\_\_

<u>Previous Surveys</u>			
File No.	Type	Date	Claim Holder

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations \_\_\_\_\_ Number of Readings \_\_\_\_\_

Station interval \_\_\_\_\_ Line spacing \_\_\_\_\_

Profile scale \_\_\_\_\_

Contour interval \_\_\_\_\_

MAGNETIC

Instrument \_\_\_\_\_

Accuracy – Scale constant \_\_\_\_\_

Diurnal correction method \_\_\_\_\_

Base Station check-in interval (hours) \_\_\_\_\_

Base Station location and value \_\_\_\_\_

ELECTROMAGNETIC

Instrument \_\_\_\_\_

Coil configuration \_\_\_\_\_

Coil separation \_\_\_\_\_

Accuracy \_\_\_\_\_

Method:  Fixed transmitter  Shoot back  In line  Parallel line

Frequency \_\_\_\_\_  
(specify V.L.F. station)

Parameters measured \_\_\_\_\_

GRAVITY

Instrument \_\_\_\_\_

Scale constant \_\_\_\_\_

Corrections made \_\_\_\_\_

Base station value and location \_\_\_\_\_

Elevation accuracy \_\_\_\_\_

INDUCED POLARIZATION  
RESISTIVITY

Instrument \_\_\_\_\_

Method  Time Domain  Frequency Domain

Parameters – On time \_\_\_\_\_ Frequency \_\_\_\_\_

– Off time \_\_\_\_\_ Range \_\_\_\_\_

– Delay time \_\_\_\_\_

– Integration time \_\_\_\_\_

Power \_\_\_\_\_

Electrode array \_\_\_\_\_

Electrode spacing \_\_\_\_\_

Type of electrode \_\_\_\_\_

**SELF POTENTIAL**

Instrument \_\_\_\_\_ Range \_\_\_\_\_

Survey Method \_\_\_\_\_

Corrections made \_\_\_\_\_

**RADIOMETRIC**

Instrument \_\_\_\_\_

Values measured \_\_\_\_\_

Energy windows (levels) \_\_\_\_\_

Height of instrument \_\_\_\_\_ Background Count \_\_\_\_\_

Size of detector \_\_\_\_\_

Overburden \_\_\_\_\_

(type, depth – include outcrop map)

**OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)**

Type of survey \_\_\_\_\_

Instrument \_\_\_\_\_

Accuracy \_\_\_\_\_

Parameters measured \_\_\_\_\_

Additional information (for understanding results) \_\_\_\_\_

**AIRBORNE SURVEYS**

Type of survey(s) \_\_\_\_\_

Instrument(s) \_\_\_\_\_

(specify for each type of survey)

Accuracy \_\_\_\_\_

(specify for each type of survey)

Aircraft used \_\_\_\_\_

Sensor altitude \_\_\_\_\_

Navigation and flight path recovery method \_\_\_\_\_

Aircraft altitude \_\_\_\_\_ Line Spacing \_\_\_\_\_

Miles flown over total area \_\_\_\_\_ Over claims only \_\_\_\_\_

GEOCHEMICAL SURVEY - PROCEDURE RECORD

Numbers of claims from which samples taken \_\_\_\_\_

Total Number of Samples \_\_\_\_\_

Type of Sample \_\_\_\_\_  
(Nature of Material)

Average Sample Weight \_\_\_\_\_

Method of Collection \_\_\_\_\_

Soil Horizon Sampled \_\_\_\_\_

Horizon Development \_\_\_\_\_

Sample Depth \_\_\_\_\_

Terrain \_\_\_\_\_

Drainage Development \_\_\_\_\_

Estimated Range of Overburden Thickness \_\_\_\_\_

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis \_\_\_\_\_

General \_\_\_\_\_

ANALYTICAL METHODS

Values expressed in: per cent   
p. p. m.   
p. p. b.

Cu, Pb, Zn, Ni, Co, Ag, Mo, As, -(circle)

Others \_\_\_\_\_

Field Analysis (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Field Laboratory Analysis

No. (\_\_\_\_\_ tests)

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

Commercial Laboratory (\_\_\_\_\_ tests)

Name of Laboratory \_\_\_\_\_

Extraction Method \_\_\_\_\_

Analytical Method \_\_\_\_\_

Reagents Used \_\_\_\_\_

General \_\_\_\_\_

Mining Claims Traversed cont'd

809923

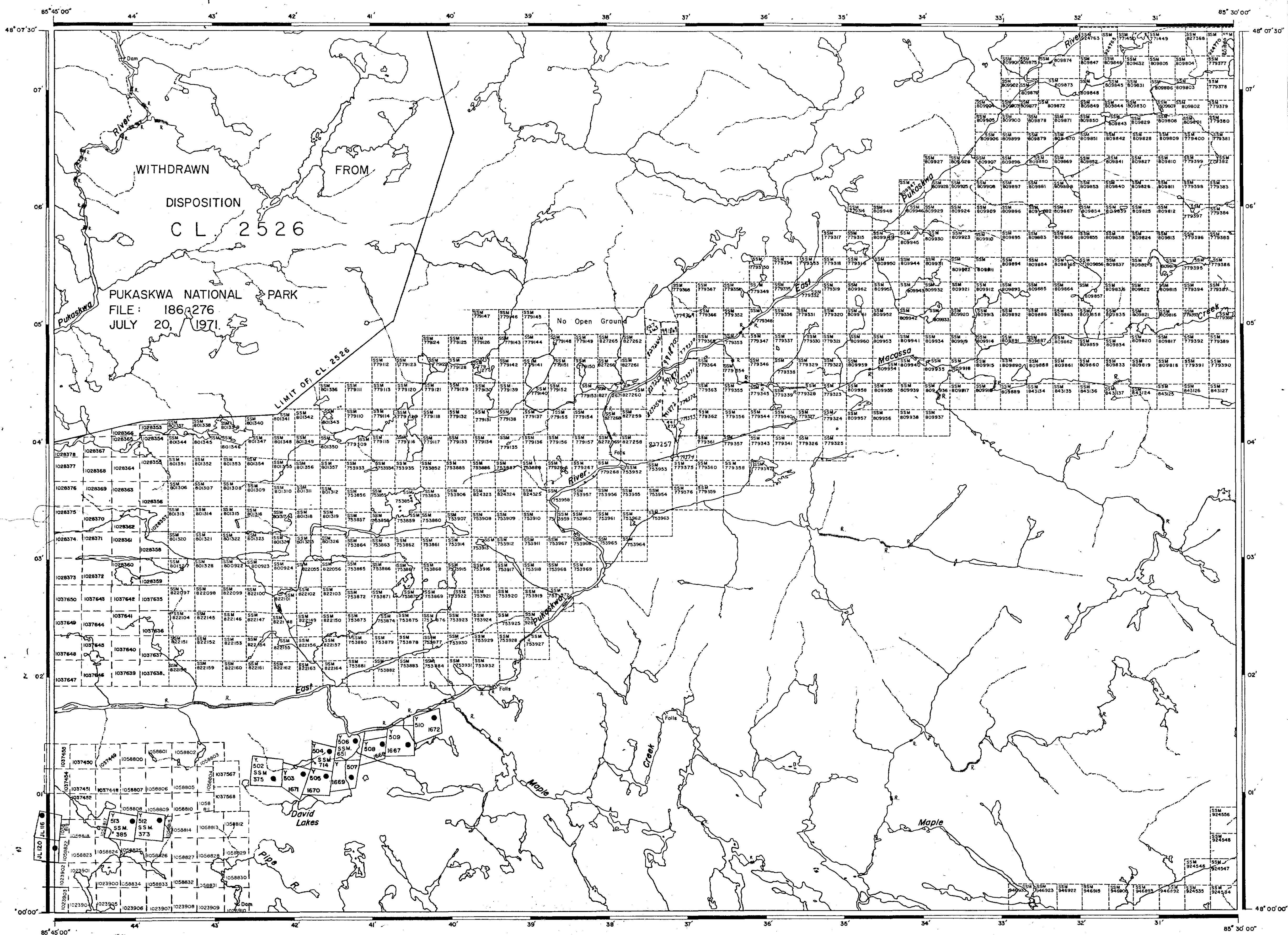
809924

809925

809926



REFERENCES  
 EAS WITHDRAWN FROM DISPOSITION  
 M.R.O. - MINING RIGHTS ONLY  
 S.R.O. - SURFACE RIGHTS ONLY  
 M+S. - MINING AND SURFACE RIGHTS  
 Description Order No. Date Disposition File



WITHDRAWN FROM DISPOSITION  
 C L 2526

PUKASKWA NATIONAL PARK  
 FILE: 186/276  
 JULY 20, 1971

No Open Ground

LIMIT OF CL 2526

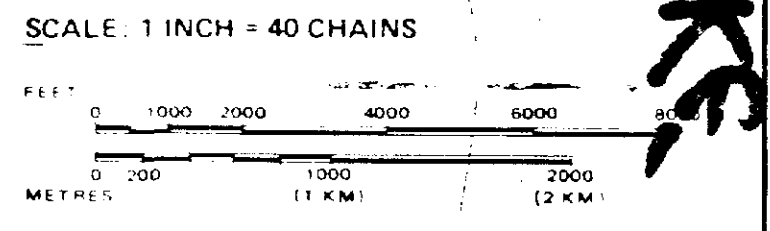
REFERENCES  
 DATE OF ISSUE  
 MAR 4 1986  
 SAULT STE. MARIE  
 MINING RECORDER'S OFFICE

**LEGEND**

HIGHWAY AND ROUTE No	
OTHER ROADS	
TRAILS	
SURVEYED LINES	
TOWNSHIP'S BASE LINES ETC	
LOTS, MINING CLAIMS, PARCELS ETC	
UNSURVEYED LINES	
LOT LINES	
PARCEL BOUNDARY	
MINING CLAIMS ETC	
RAILWAY AND RIGHT OF WAY	
UTILITY LINES	
NON PERENNIAL STREAM	
FLOODING OR FLOODING RIGHTS	
SUBDIVISION OR COMPOSITE PLAN	
RESERVATIONS	
ORIGINAL SHORELINE	
MARSH OR MUSKEG	
MINES	
TRAVERSE MONUMENT	

**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	
PATENT, SURFACE & MINING RIGHTS	SY
SURFACE RIGHTS ONLY	SY
MINING RIGHTS ONLY	SY
LEASE, SURFACE & MINING RIGHTS	SY
SURFACE RIGHTS ONLY	SY
MINING RIGHTS ONLY	SY
LICENCE OF OCCUPATION	OC
ORDER IN COUNCIL	OC
RESERVATION	OC
CANCELLED	OC
SAND & GRAVEL	OC
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 1 1913 VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1910, CHAP. 380, SEC. 43 SURVIVED.	



AREA  
**DAVID LAKE**  
 M.N.R. ADMINISTRATIVE DISTRICT  
**WAWA**  
 MINING DIVISION  
 SAULT STE. MARIE  
 LAND TITLES / REGISTRY DIVISION  
**THUNDER BAY**

Ministry of Natural Resources Ontario  
 Ministry of Northern Development and Mines

Date: DECEMBER, 1986. Number: **G-3756**

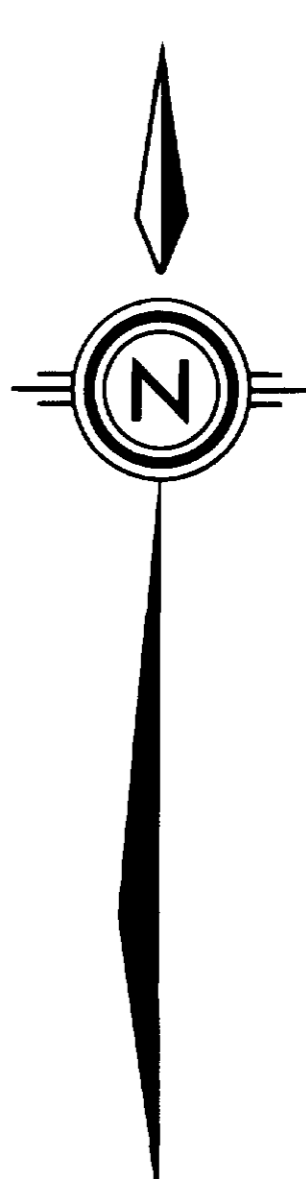
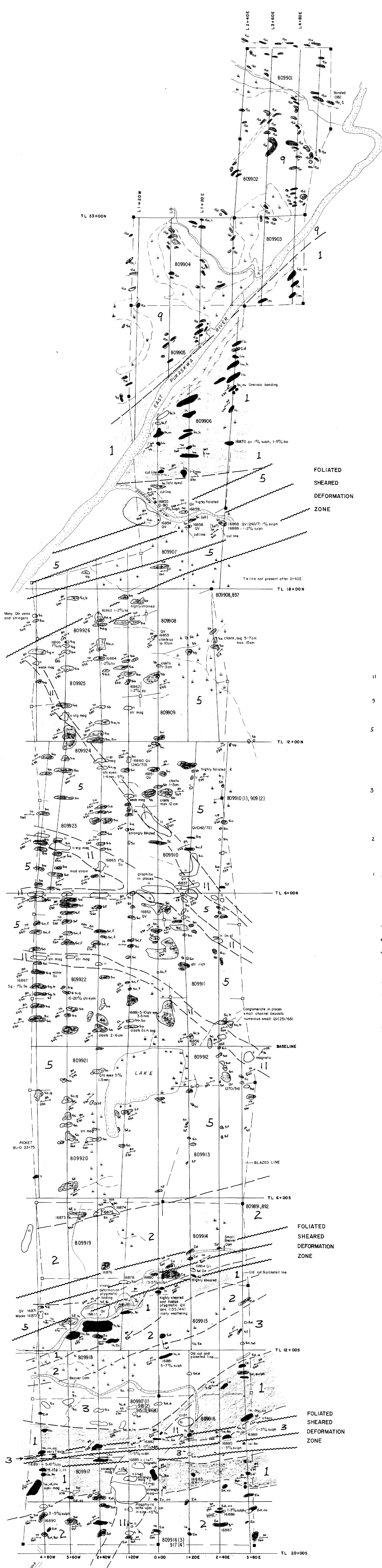
426456839 2 78945 DAVID LAKES  

 200

2192

DAVID LAKE  
 MKK

2192  
 G-3756



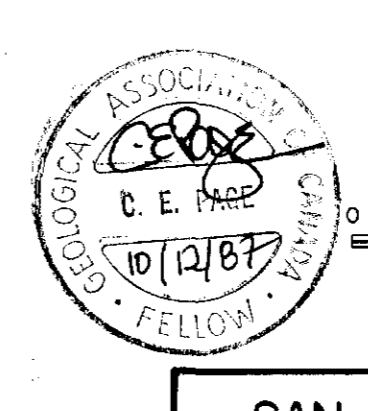
FOLIATED  
SHEARED  
DEFORMATION  
ZONE

LEGEND

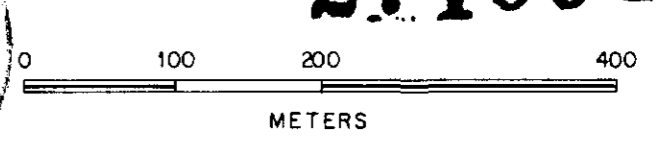
- PRECAMBRIAN**  
**LATE ARCHEAN**
- 11 Unsubdivided diabase
- Batholithic Felsic to Intermediate Rocks**
- 9a Granite
- Metasediments**
- Clastic Metasediments**
- 5a Polymictic clast-supported conglomerate
  - 5b Polymictic matrix-supported conglomerate
  - 5c Wacke
  - 5d Subarkosic wacke
  - 5f Mudstone, slate, argillite
  - 5g Oligomictic quartz granule conglomerate
- Metavolcanics**
- Felsic Metavolcanics (Calc-Alkalic)**
- 3b Pyroclastic breccia
  - 3c Lapilli tuff
  - 3d Tuff
  - 3e Porphyrific (plagioclase) flows
  - 3f Crystal tuff
- Intermediate Metavolcanics (Tholeiitic Calc-Alkalic)**
- 2a Massive to foliated andesitic to dacite flow
  - 2c Lapilli tuff
  - 2d Tuff
- Mafic Metavolcanics (Tholeiitic)**
- 1a Massive basalt to andesite flow
  - 1b Tuff
  - 1m Amphibolitized basalt to andesite
- SYMBOLS AND ABBREVIATIONS**
- Area of bedrock outcrop
  - ~ Gneissosity
  - Foliation
  - Jointing
  - Lineation with plunge
  - Geological boundary, position interpreted
  - , □ Claim post; located, assumed
- |       |             |     |              |
|-------|-------------|-----|--------------|
| mag   | Magnetite   | py  | Pyrite       |
| qv    | Quartz Vein | cc  | Carbonate    |
| sulph | Sulphides   | fg  | Fine grained |
| bio   | Biotite     | alt | Alteration   |

FOLIATED  
SHEARED  
DEFORMATION  
ZONE

FOLIATED  
SHEARED  
DEFORMATION  
ZONE



2.10945



SAN PAULO EXPLORATIONS INC.  
MACASSA CREEK PROPERTY

GEOLOGICAL SURVEY  
MISHIBISHU GREENSTONE BELT

CEP CONSULTING

DATE: December 1987 SCALE: 1:5000 MAP No.: 1

