



42K02SE0001 OP83-843 SQUAW LAKE

010

**Final Report  
Empress Lake Property  
NTS 52 - G - 15  
Sturgeon Lake Area**

**Dec 1993**

**Don Cross**

**1.0 PROJECT LOCATION:**

The property is located approximately 35 kilometres southeast of Savant Lake, Ontario. The center of the property is located at Latitude 50°00'30" and Longitude 90°35'00" between Vista and Empress Lakes on the southern part of the Squaw Lake G-3140 and the northern part of the Quest Lake G-2556 Claim Maps, and on NTS Sheet 52-G-15.

Access to the property from Savant Lake is via travelling 2 kilometres south on Highway 599 to the MTO Building and turning left onto the Vista Lake Road. Travel approximately 30 kilometres to the north of Vista Lake and at Vista Lake the right branch for another 3 kilometres to the northern property boundary. (figure 1-2)

The project area has extensive overlying glacial deposits with the greatest relief along the syenite ridges and the area contains extensive blowdown from wind storm which occurred in the mid 1980's.

**2.0 PROPERTY DESCRIPTION:**

The property consist of three unpatented mining claims totalling 704 ha. and is located in the Patricia Mining Division. (see Figures 7.1-7.2)

<b><u>CLAIM NO.</u></b>	<b><u>MINING DIVISION</u></b>	<b><u>CLAIM MAP SHEET</u></b>	<b><u>RECORDED</u></b>
1188646	Central Patricia	Squaw Lake G-3140 Quest Lake G-2556	Aug.6, 1991

1188658 Patricia Squaw Lake G-3140 Aug.6, 1991

1188659 Patricia Squaw Lake G-3140  
Quest Lake G-2556 Aug.6, 1991

### **3.0 PROPERTY HISTORY:**

The history of the property from research of assessment files at MNDM revealed that no previous work has been filed on the area surrounding and <sup>including</sup> inclining the claims.

Evidence of prospecting, for gold and sulphide has concentrated to the west and south of the property dating back to the early 1900's. Prior to the Mattabi Cu-Zn discovery in the 1970's. the most extensive exploration has been on the belt of banded iron formation to the south near Sassafras Lake for iron ore deposits. After the Mattabi discovery, exploration switched to base metals within the volcanic-sedimentary rocks to the west of the property.

In 1990, a government O.G.S. airborne EM-Mag survey was released and delineated linear magnetic highs with weak EM anomalies on the property covered by Maps 81490 and 81491. (see Figure 3)

In 1991, prospector Adam Benderite discovered gold mineralization associated with iron formation horizon near Div Lake located 14 kilometres due south of the property. Grab samples from the main showing yielded values up to 0.254 oz/to gold. Sporadic exposures of gold-bearing arsenopyrite mineralization are evident over

widths of 90 metres and a strike length of 175 metres from mechanical stripping conducted by Adam Benderite.

The Div Lake property was optioned to Hemlo Gold Mines Ltd. west of Empress Lake to Mountairy Lake totalling 30 kilometres of strike length. Noranda the operator for Hemlo Gold Mines Ltd. completed an exploration program in 1991-1992 of geological mapping, prospecting, soil geochemistry, geophysical surveys (mag VLF-IP), trenching and a limited diamond drill program. No results of Noranda's program have been released to the public to our knowledge and the option dropped.

#### **4.0 PROPERTY GEOLOGY:**

The property geology is essentially Archean syenite (porphyritic biotite-hornblende-quartz syenite) called the Vista Lake Intrusion is crescent-shaped and about 5.6 kilometres wide at the centre, thinning gradually to migmatite on the east and sedimentary rocks including iron formation, to the west and south. (Rogers, 1964)

The Empress Lake property lies near the contact with the sedimentary rocks and contains large included bands of geophysically interpreted iron formation and meta sediments are schist and gneiss and have been metamorphosed to amphibolite grade. The iron formation observed to the west and south of the property is of the lenticular, banded, of banding, magnetite content, width, and is interbedded, interfingered, and grades out along strike into the enclosing sedimentary schist and gneiss.

A body of medium-grained quartz monzonite is located at the south end of Empress Lake

The area was mapped by Roger D.P. from the O.G.S. in 1964 as Metionga Lake Area, Geological Report No. 24, Maps 2044 (East and West Half), Scale 1 in = 1 mile and Trowell, N.F. in 1983 as Geology of the Squaw Lake-Sturgeon Lake Area, District of Thunder Bay, O.G.S. Report No 227, Map 2420, scale 1:31,680. (see figures 4 and 5)

## **5.0 CONCLUSIONS AND RECOMMENDATIONS.**

Following the receipt of \$10,000 grant in lieu of the 20,000 applied for it was decided to scale down this year's program.

The program decided upon consisted of prospecting and sampling the anomalous magnetic area before contemplating the rest of the program. It was felt that if the prospecting program came up with an anomalous gold zone and or veins the remaining funds could be concentrated on these zones.

Ten man days were spent prospecting and sampling the anomalous magnetic trends.

Very little actual outcrop was noted except in the southern part of the claim block near the northern of Empress Lake. At lot of frost heaves were noted along the magnetic trends and consisted of angular blocks of meta sediments and lean iron

formation. In most cases these appeared to be from near surface exposures although there is a lot of glacial moraine material in the immediate area.

A total of 41 samples were panned for there gold content from rusty (gossan) lean iron formation with or without quartz veinlets. No visible gold was noted in any of the 41 samples. Three samples were submitted for assay where small gold specs were suspected. In all three cases sample Nos. 16851 to 16853 and failed to return any gold values when fire assayed.

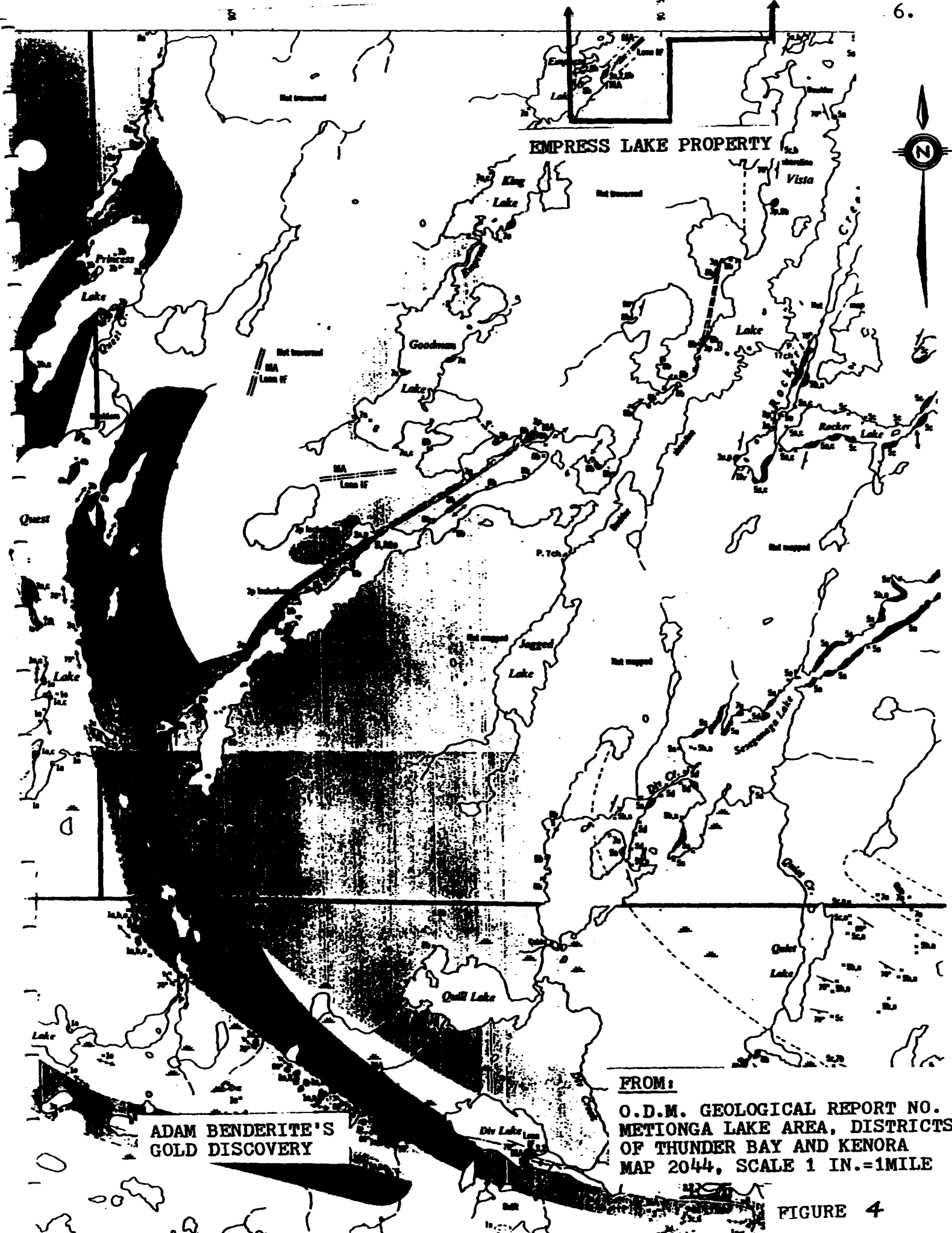
Following the negative prospecting results the program was abandoned.

It is recommended no further work for gold be contemplated along this short section of the belt.

Submitted by



Don Cross



EMPRESS LAKE PROPERTY

ADAM BENDERITE'S  
GOLD DISCOVERY

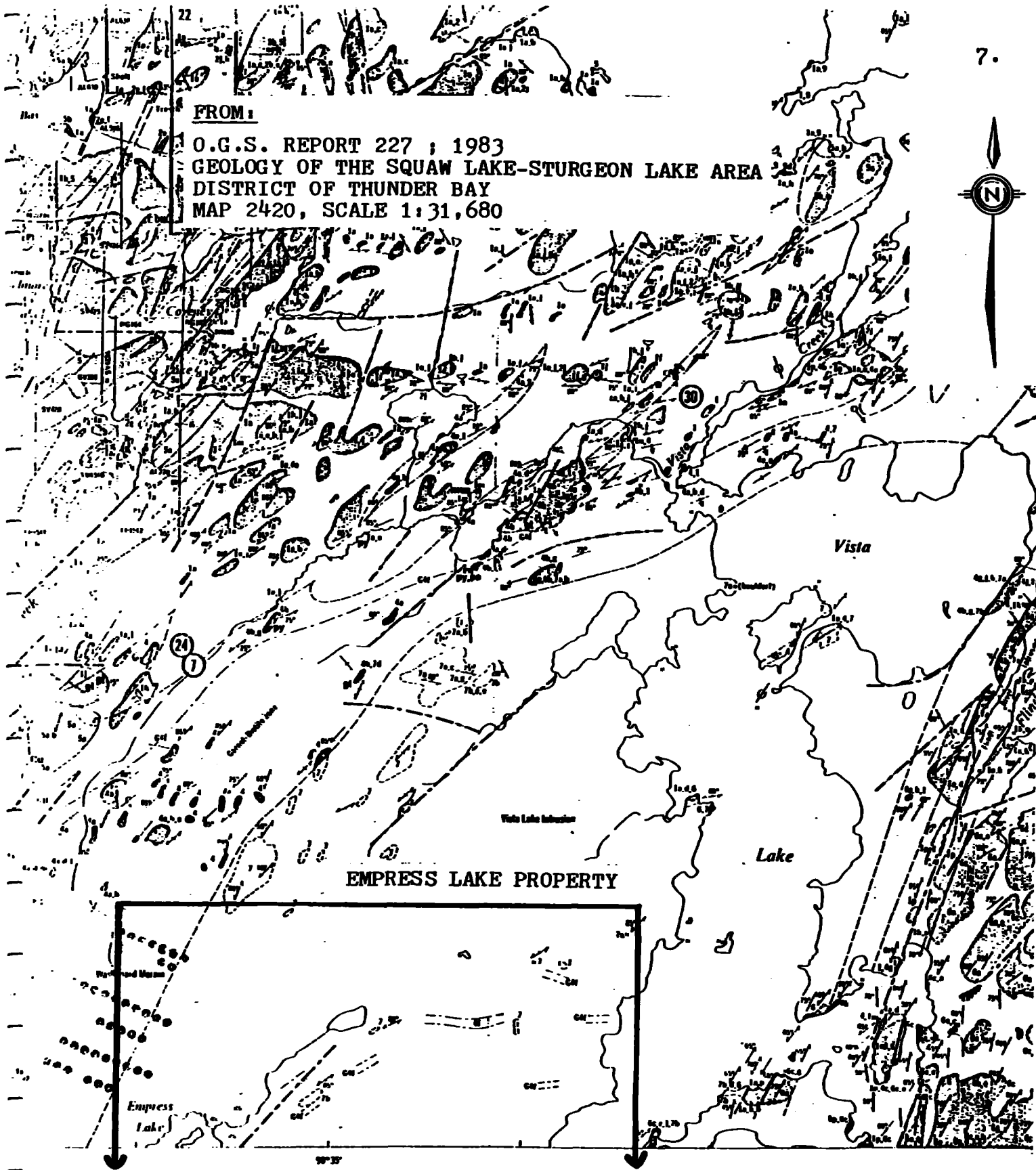
FROM:

O.D.M. GEOLOGICAL REPORT NO.  
METIONGA LAKE AREA, DISTRICTS  
OF THUNDER BAY AND KENORA  
MAP 2044, SCALE 1 IN.=1 MILE

FIGURE 4

FROM:

O.G.S. REPORT 227 ; 1983  
GEOLOGY OF THE SQUAW LAKE-STURGEON LAKE AREA  
DISTRICT OF THUNDER BAY  
MAP 2420, SCALE 1:31,680



Scale 1:31,680 or 1 Inch to 1/2 Mile

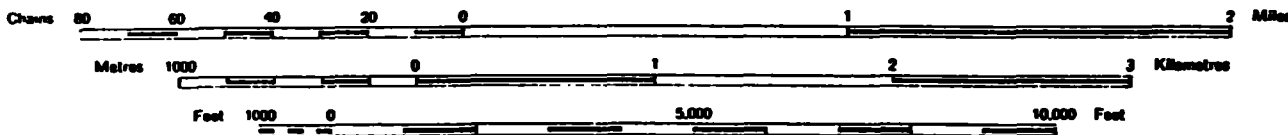


FIGURE 5





EMPRESS LAKE PROPERTY

EMPRESS LAKE

VISTA LAKE

FROM:  
O.G.S. GEOPHYSICAL SERIES  
MAPS 81490 AND 81491  
STURGEON LAKE-SAVANT LAKE AREA

Scale: 1:20 000

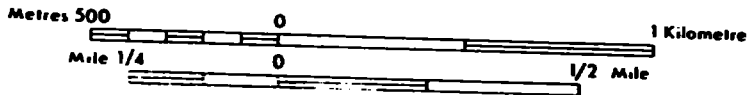


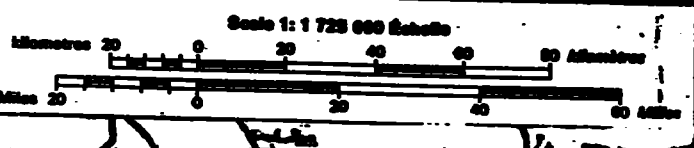
FIGURE 3



**EMPRESS LAKE  
PROPERTY**

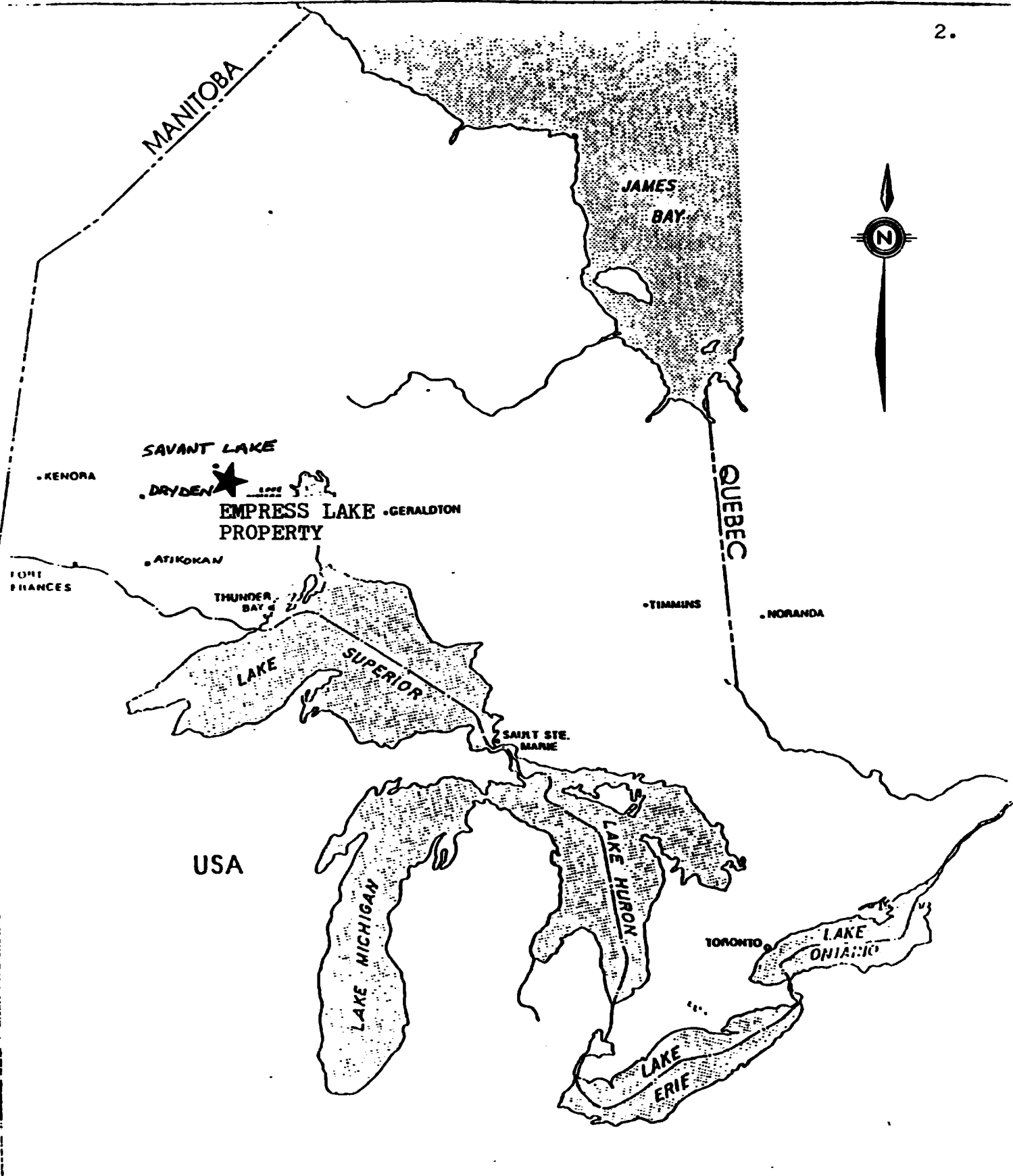
**QUETICO**

**ST. JOSEPH**



ONTARIO  
STATIONS

**LOCATION MAP  
EMPRESS LAKE PROPE  
SCALE 1:750,000  
FIGURE 2**



### REGIONAL LOCATION MAP

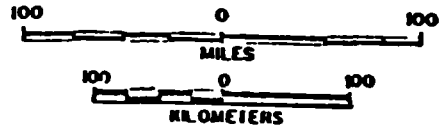
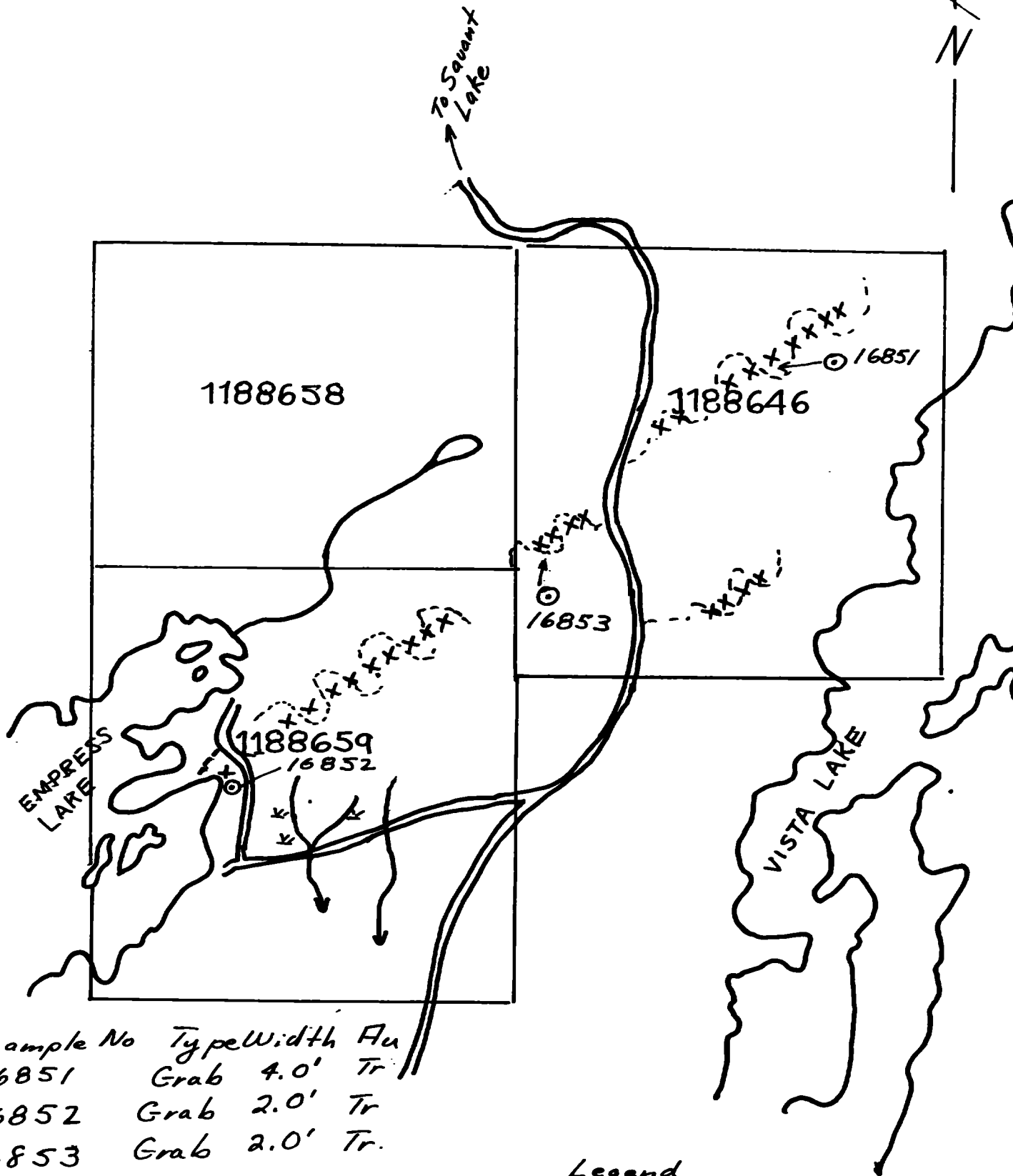


FIGURE 1

# Empress Lake Project.



Sample No	Type	Width	Flu
16851	Grab	4.0'	Tr
16852	Grab	2.0'	Tr
16853	Grab	2.0'	Tr



**SCALE 1:20,000**

### Legend

- == Logging Road
- xxxxx magnetic anomaly
- - - Prospecting Traverse
- - - Trail
- ⊙ Sample Locations

**La Fontaine Project  
Summers Twp  
NTS 42E 12/SW  
Thunder Bay Mining Division**

**Don Cross**

**PROJECT LOCATION:**

The claim group is located in Summers Township and is in the Thunder Bay Mining Division , NTS 42 E 12/ SW near the town of Beardmore. The town of Beardmore is located approximately 80 km west of Geraldton on Trans Canada Highway 11 and 120 kms northeast of the city of Thunder Bay. Access to the property is via a bushroad to the west from Beardmore. A four wheel drive truck takes you into the group and travel within the claim block was by a four track vehicle along a series of old and new roads.

This series of roads is in relatively good shape and made prospecting and the retrieval of samples very easy.

**PROPERTY DESCRIPTION:**

The Summers Township property consists of 49 contiguous claims:

1068871 to 1068879 inclusive	9
1077737 to 1077742 inclusive	6
1148395 to 1148396 inclusive	2
1174237 to 1174247 inclusive	11
1174252 to 1174272 inclusive	<u>21</u>
	49 claims

**GEOLOGY:**

The property consists of interbedded mafic meta volcanics meta sediments and a few narrow bands of banded iron formation. The BIF noted were within the meta volcanics. For the most part the BIF are strongly oxidized and show some carbonate alteration. The general strike of the package is N 70° E and dips vary from vertical to 70 ° to the north.

Chlorite alteration is prevalent in the meta volcanics and numerous chloritic shears were noted. In some instances along the chloritic shears minor amounts of disseminated pyrite was noted and in a couple of instances the pyrite content was



In follow up to what had been done over the years and in light what had been found in recent trenching it was decided to carry out a sampling program and prospecting program.

The work program consisted prospecting and taking a numerous pans from the more interesting mineralized areas of the both old and new trenches. Where gold was detected a sampling program was undertaken and the area was prospected to see if we could find any extensions.

In the area of the Grey beard showing the strike of the vein system was first brushed out and then panned and sampled.

In total four areas were selected from the initial panning program namely Trench #01, Trench #02, The Grey beard showing and the Arseno Trench area in the Western part of the claim block. In all approximately 60 pans were taken from both quartz and rust zones in the trenches. Following this twenty -One (21) samples were submitted to the Bourlamaque assays lab for fire assaying with gravimetric finish. The result on the whole were disappointing with only one assay sample number 00304 from trench one giving anything close to economic grades. (.250 opt Au across 3.0 feet).




**RECOMMENDATIONS AND CONCLUSIONS.**

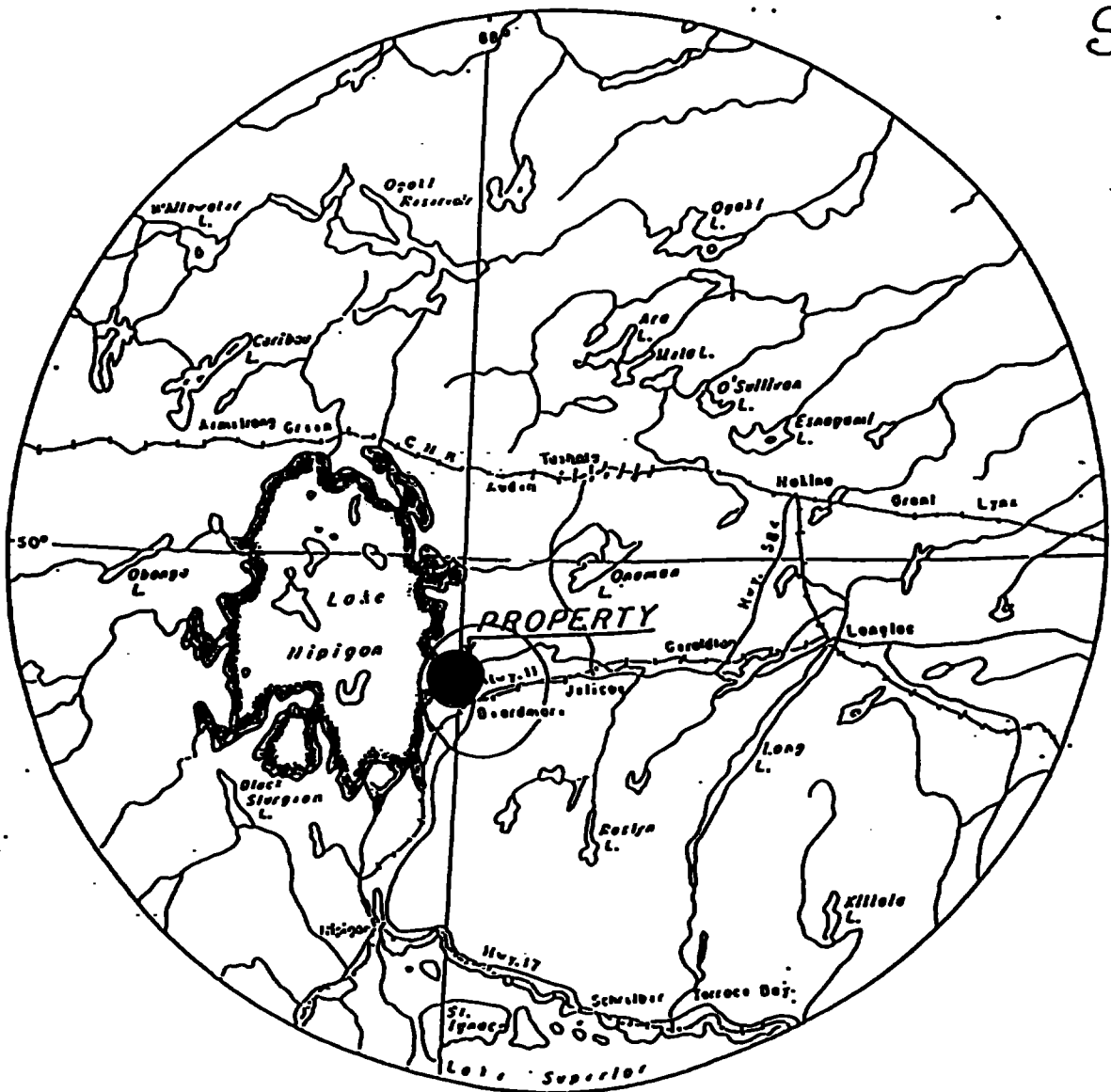
Following the negatives results the program was abandoned. Although there is gold mineralization on the property the mineralized zones and veins are very narrow and do not appear to have the possibilities of making any significant tonnage.

Gooddrilling results (ODM Report 5823) from the GreyBeard Fox zone completed in the 1930's are very hard to equate to our recent sampling program, regardless I feel no further work need to be completed on this zone.

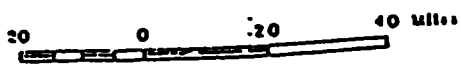
Any future work on the property should be confined to the yet untested large airborne conductors. These zones might give the tonnage needed.

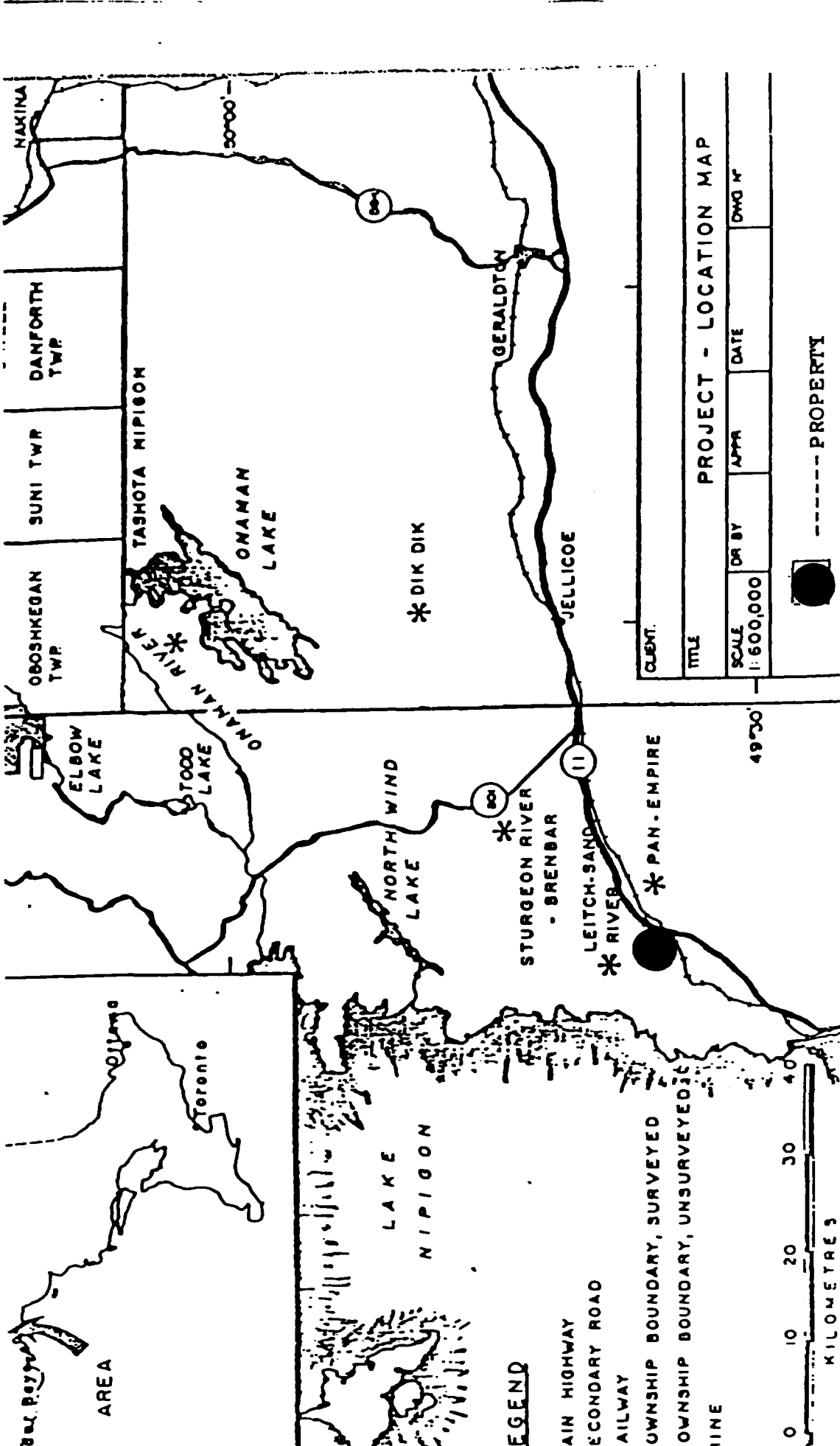
Submitted by  
Don Cross  


# LOCATION MAP



SCALE 1:2,000,000





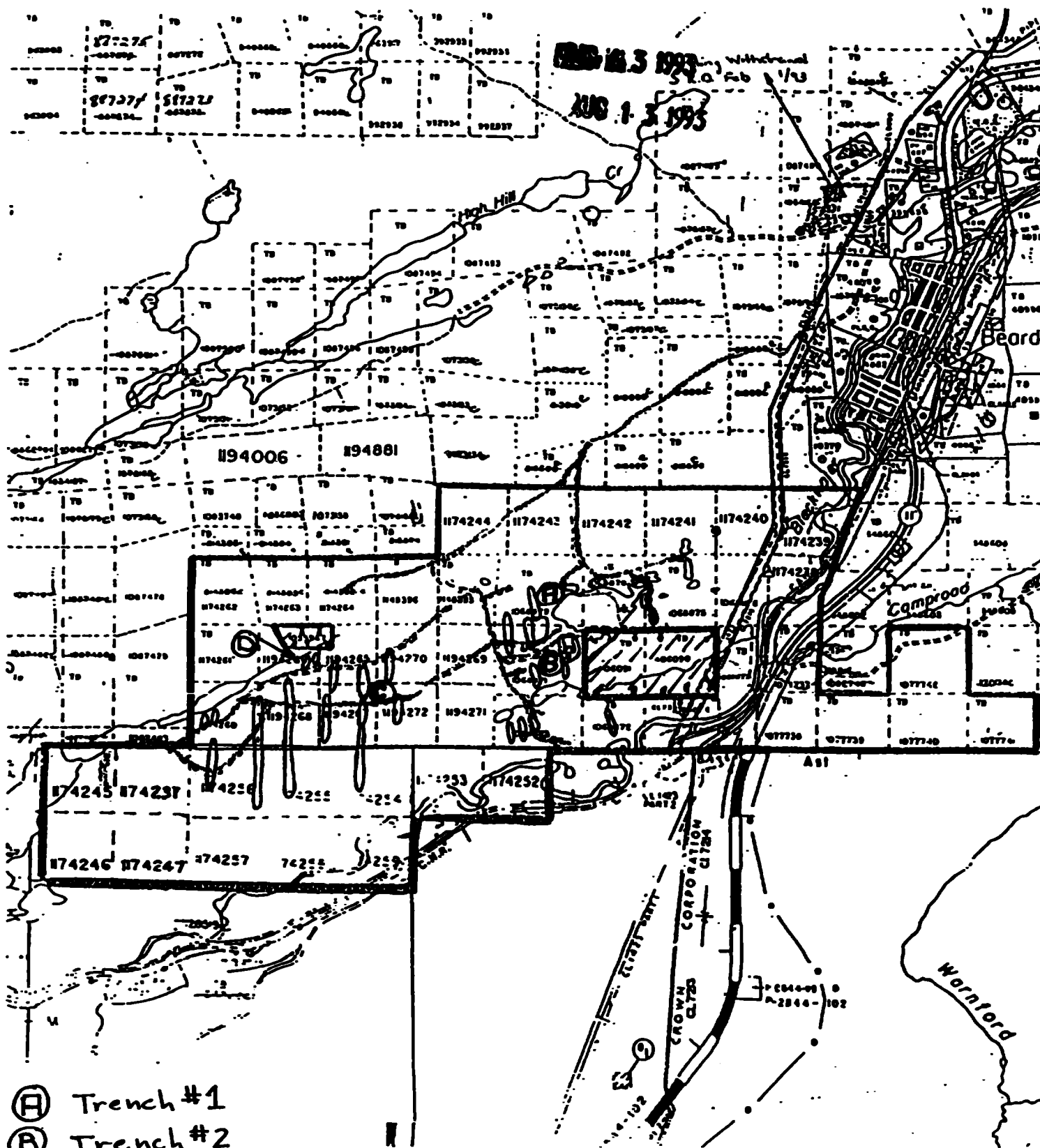
CLIENT:			
TITLE: PROJECT - LOCATION MAP			
SCALE: 1:600,000	DR BY:	APPR:	DATE:
			DWG N°:

**LEGEND**

- AIR HIGHWAY
- SECONDARY ROAD
- RAILWAY
- OWNERSHIP BOUNDARY, SURVEYED
- OWNERSHIP BOUNDARY, UNSURVEYED
- TOWNSHIP BOUNDARY



----- PROPERTY



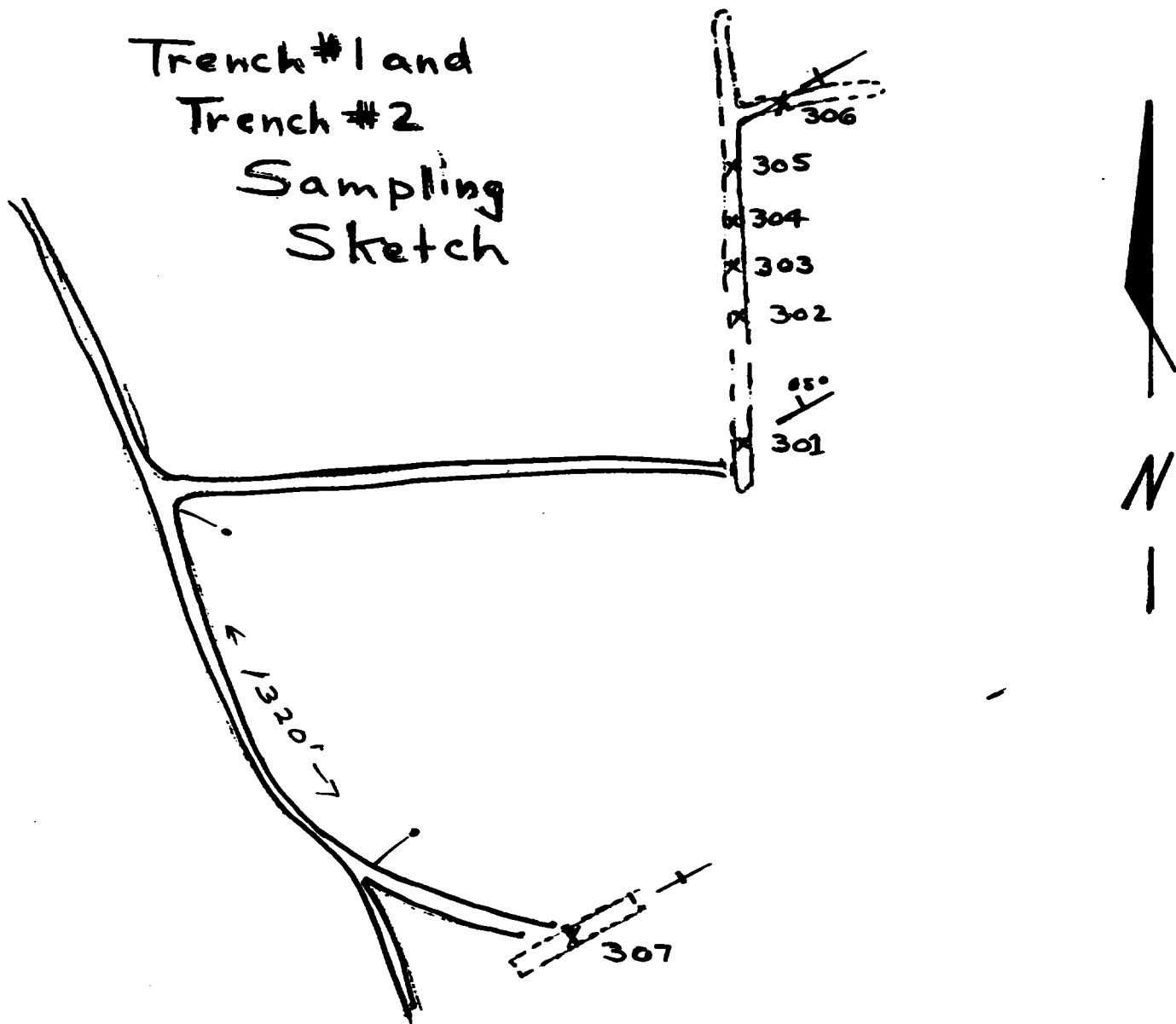
- Ⓐ Trench #1
- Ⓑ Trench #2
- Ⓒ Greybeard Fox
- Ⓓ Arseno Trench

Scale 1" = 2640 ft.

*Trench Locations  
La Fontaine Project*

SUMMERS PROPERTY  
SUMMERS TOWNSHIP AND BEARDMORE AREA, ONTARIO

# Trench #1 and Trench #2 Sampling Sketch

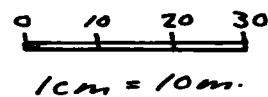


<u>Sample No.</u>	<u>Type</u>	<u>width</u>	<u>Flu (opt)</u>
00301	grab	2.0 ft	Trace
00302	chip	2.0 ft	Trace
00303	chip	2.0 ft	Trace
00304	chip	3.0 ft	0.250
00305	chip	4.0 ft	0.008
00306	chip	1.5 ft	0.003
00307	chip	18.0 ft	0.030

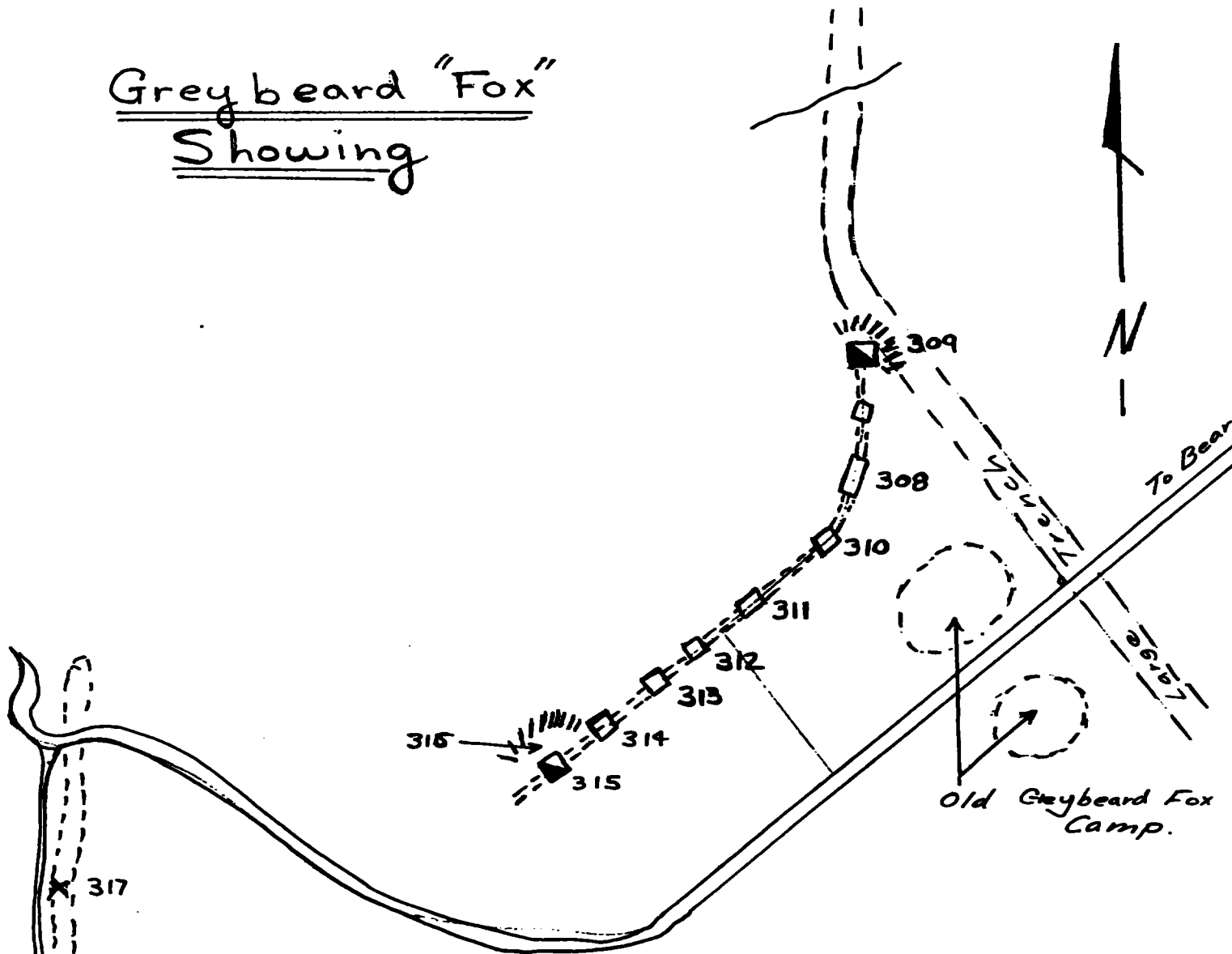
## Legend

- [---] Trench
- == Road
- x Sample
- ⊥ strike-dip

## Scale



# Greybeard "Fox" Showing



Sample No   Type   width   Au   opt

00308	grab	4.0ft.	Trace	
00309	grab	Muck Pile	0.003	
00310	chip	3.0ft.	Trace	
00311	grab	3.0ft.	Trace	
00312	chip	7.0ft.	0.003	
00313	chip	8.0ft.	Trace	
00314	chip	6.0ft	.014	
00315	chip	5.0ft.	Trace	
00316	grab	Muck Pile	0.003	
00317	grab	5.0ft	0.003	

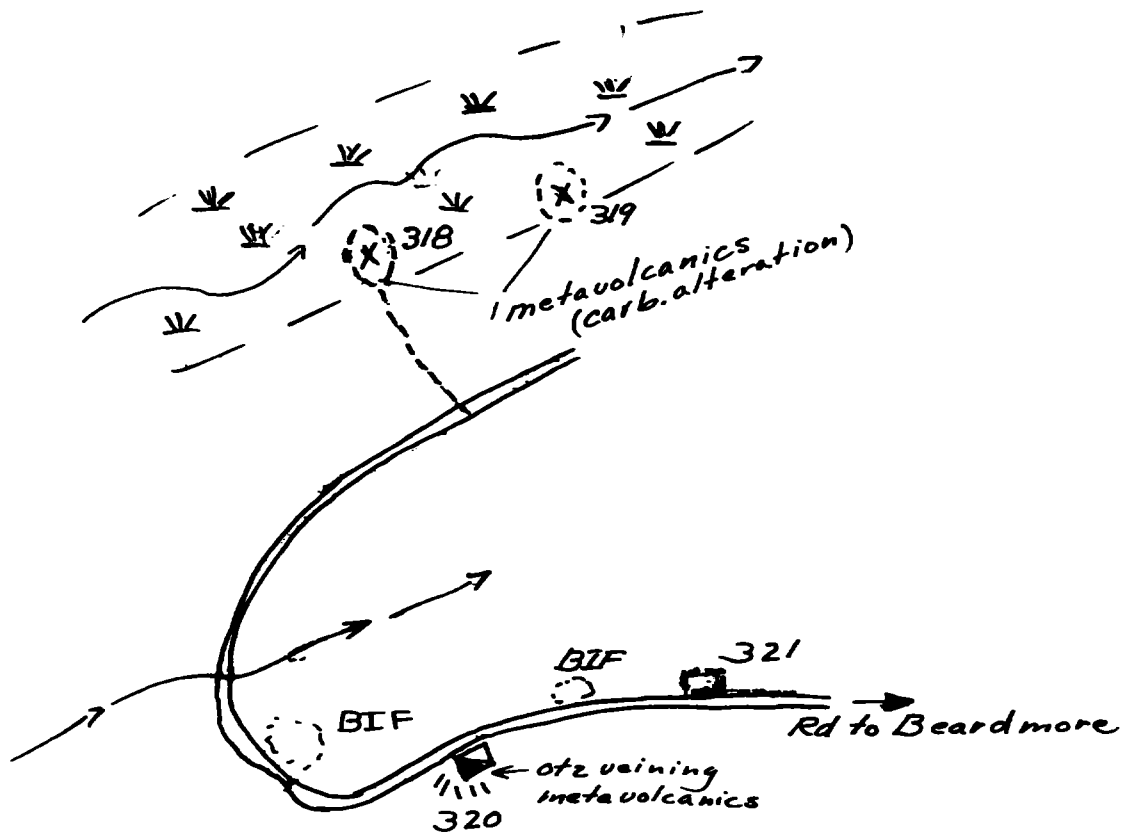
## Legend.

- Shaft
- Pit
- - - Trench
- //// Muck Pile

Scale 1:1000



1 cm = 10 m



## Sample Sketch Arsens Trench Area

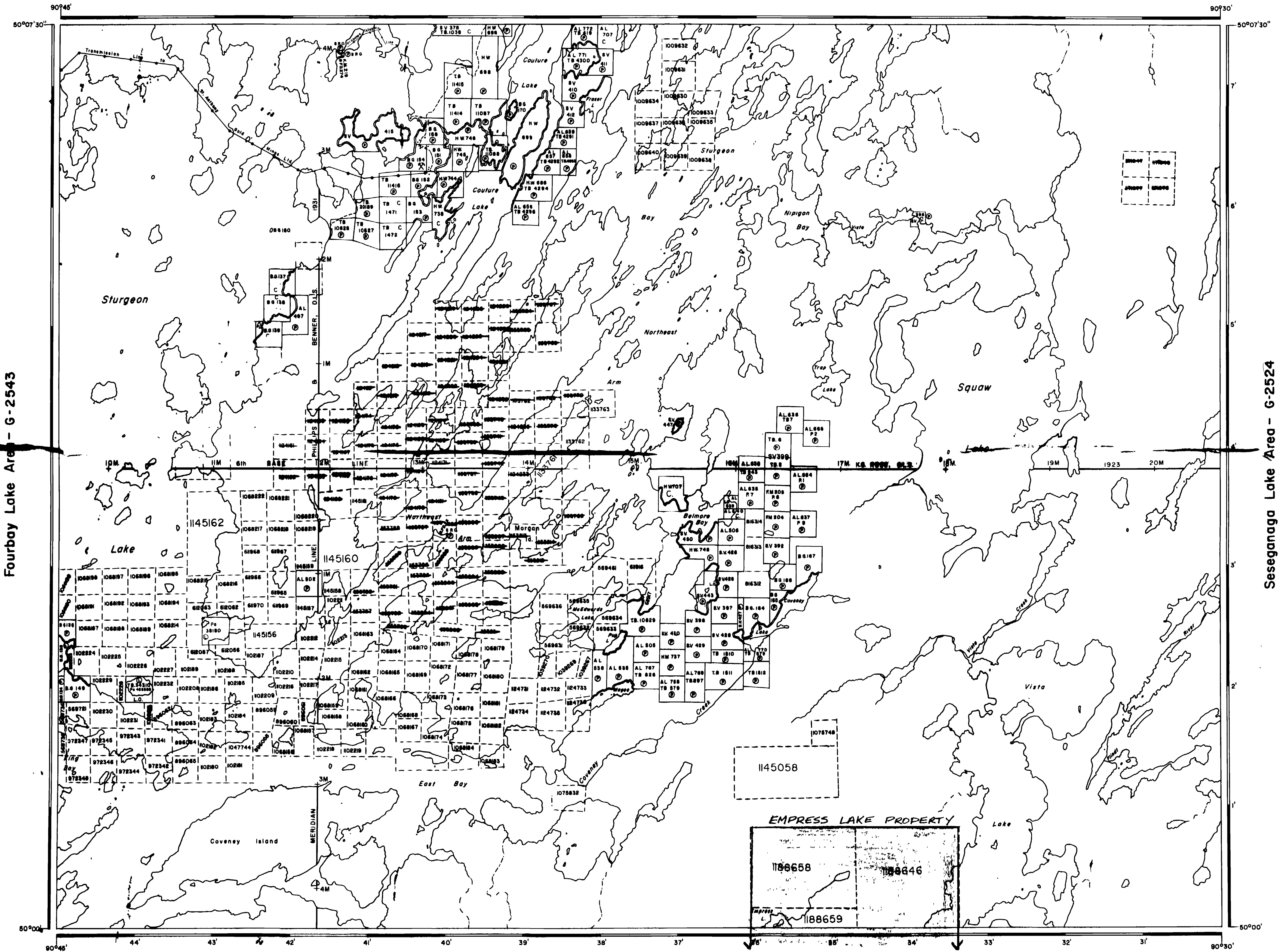
<u>Sample No.</u>	<u>Type</u>	<u>Width</u>	<u>Au(opt)</u>
00318	chip	8.0 Ft	10.098
00319	chip	4.0 Ft	Trace
00320	grab	Dump	Trace
00321	grab	Gossan.	Trace

### Legend.

- Trench
- Shaft
- |||| Dump
- Creek
- == Road
- BIF Banded Iron Formation

Scale  
1 cm = 20 m

Beckington Lake Area G-2532



Fourbay Lake Area - G-2543

Seseganaga Lake Area - G-2524

Quest Lake Area - G-2556

**LEGEND**

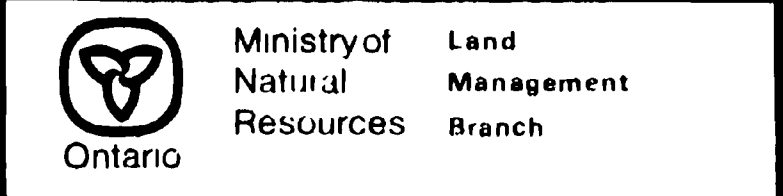
- PATENTED LAND C.S.
- CROWN LAND SALE C.C.
- LEASES L.O.
- LOCATED LAND M.R.O.
- LICENSE OF OCCUPATION S.R.O.
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEGO
- MINES
- CANCELLED

**REFERENCES**

AREAS WITHDRAWN FROM DISPOSITION

Description	Order No.	Date	Disposition	File
M.R.O.			MINING RIGHTS ONLY	
S.R.O.			SURFACE RIGHTS ONLY	
M.S.			MINING AND SURFACE RIGHTS	

AREA  
**SQUAW LAKE**  
 M.N.R. ADMINISTRATIVE DISTRICT  
**DRYDEN**  
 MINING DIVISION  
**PATRICIA**  
 LAND TITLES / REGISTRY DIVISION  
**THUNDER BAY**



Date: FEBRUARY, 1984  
 Number: **G-3140**





