

FINAL REPORT  
FOIA 1991  
ON THE HARDIE PROPERTY



31C14NE8623 63.6250 BARRIE

010

A number of unfortunate circumstances played a part in our ability to complete this project.

Diamond drilling was to have been the main theme. The loggie equipment was all brand new, the drilling operation was progressing favourably. We actually completed 45 ft of drilling prior to engine failure and was looking towards completing 70 ft that day when the inevitable happened, the engine stopped with a sharp pop under load at high speed. A long delay in warranty examination eventually resulted in the manufacturer's favor, however, under protest.

The diamond drilling completed was in line with expectations. The original program envisioned steel rebar completion. The substitute trenching and propped supports the respective geosounding and the well zones encountered are positive.

We look forward to 92

We remain

Yours truly,  
Donald A. Hardie  
for the Hardie Property.

0 ——— 30 km  
scale

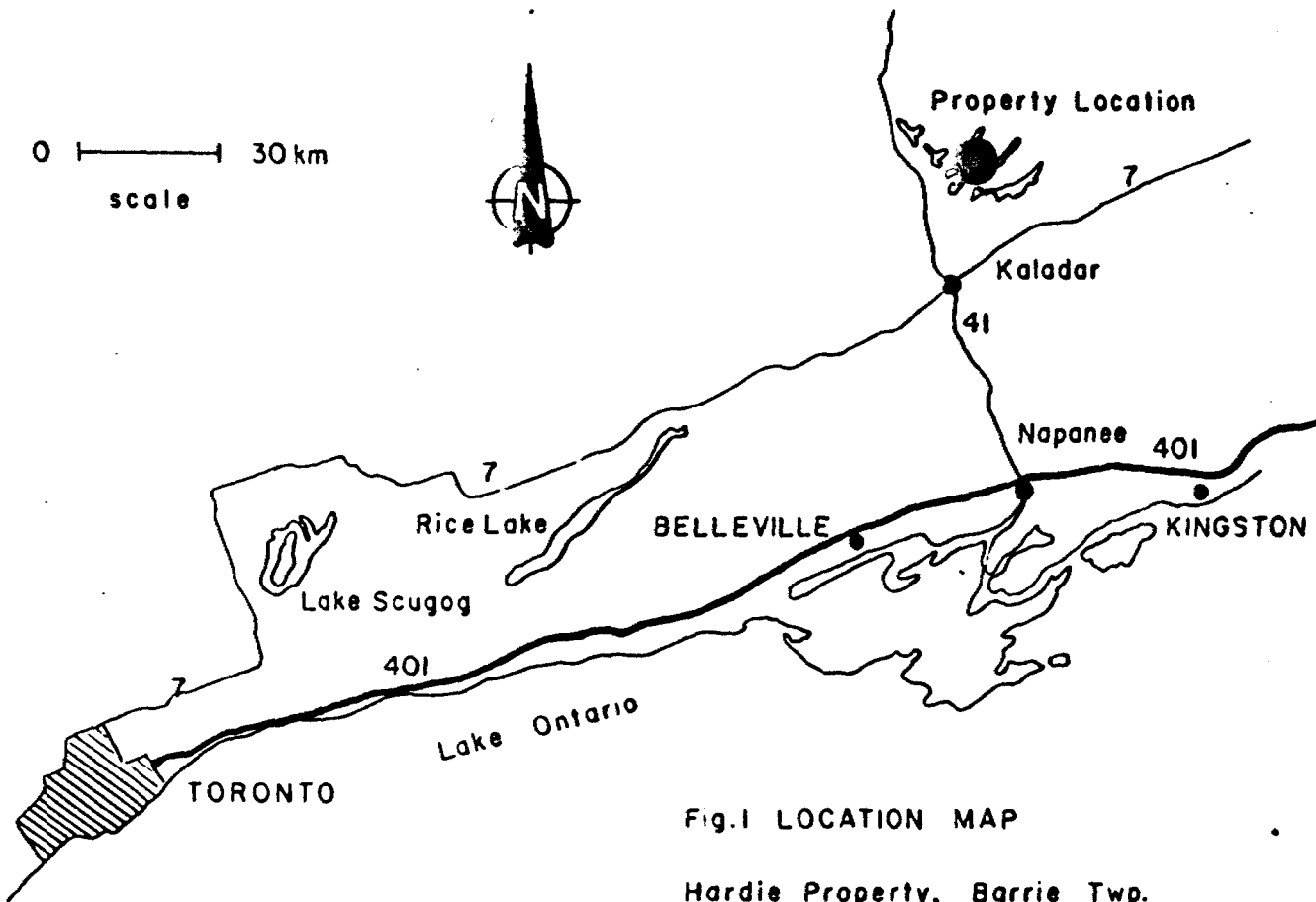
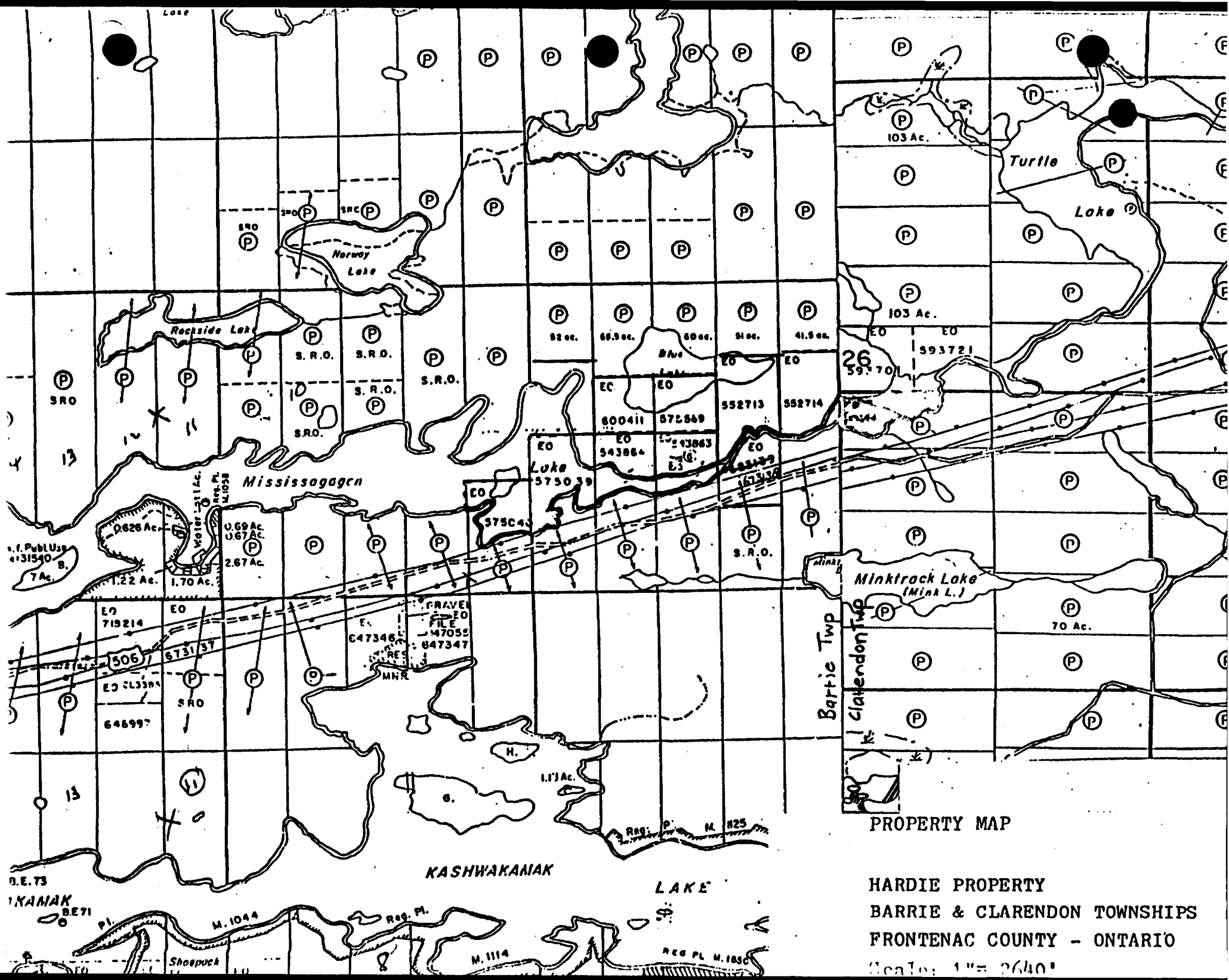


Fig.1 LOCATION MAP

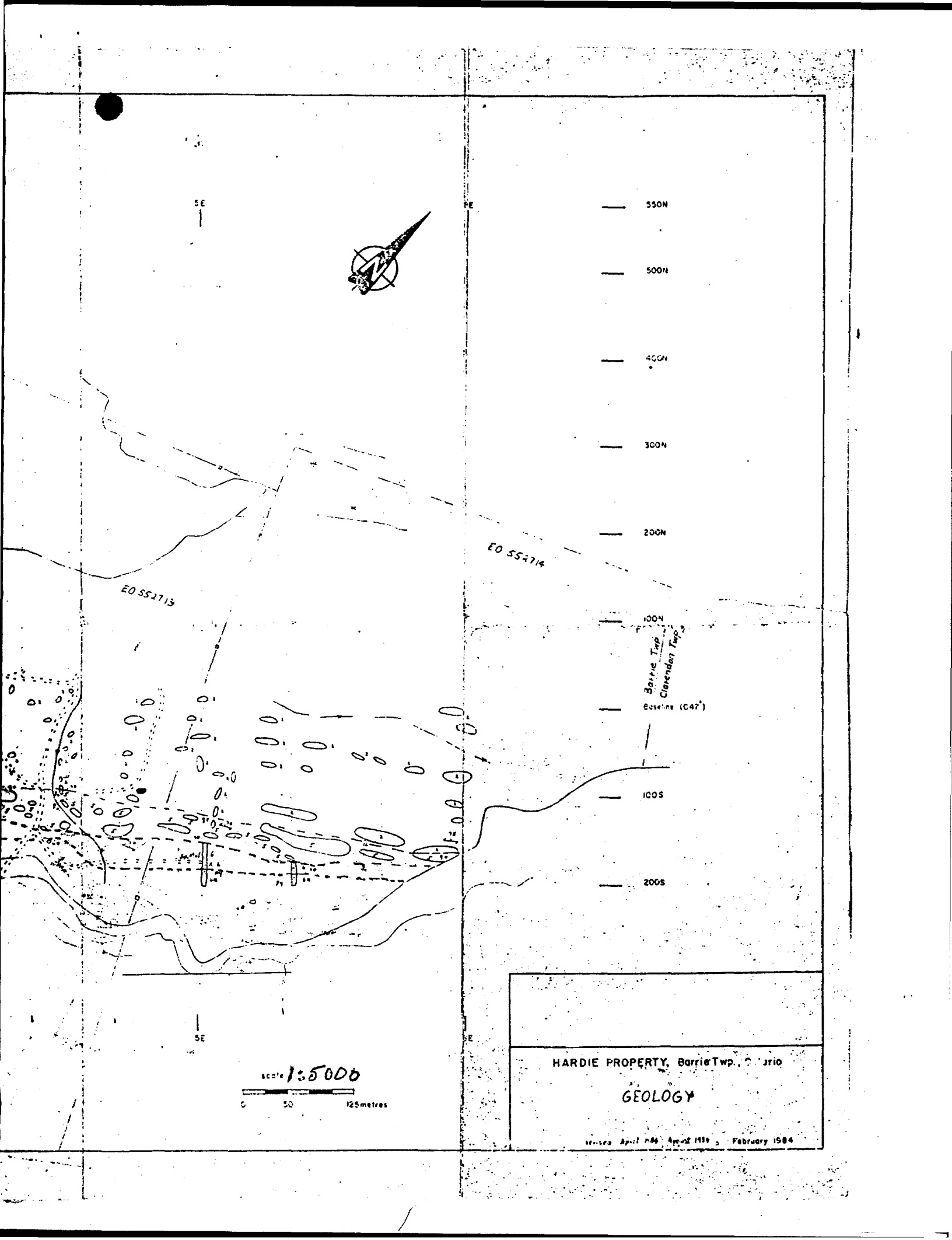
Hardie Property, Barrie Twp.

Frontenac County, Ontario



PROPERTY MAP

HARDIE PROPERTY  
 BARRIE & CLARENDON TOWNSHIPS  
 FRONTENAC COUNTY - ONTARIO  
 Scale: 1" = 2640'



SE



FE

550N

500N

400N

300N

200N

EO 55474

EO 552713

100N

Barrie Twp.  
Clarendon Twp.  
Baseline (C47)

100S

200S

SE

scale 1:5000

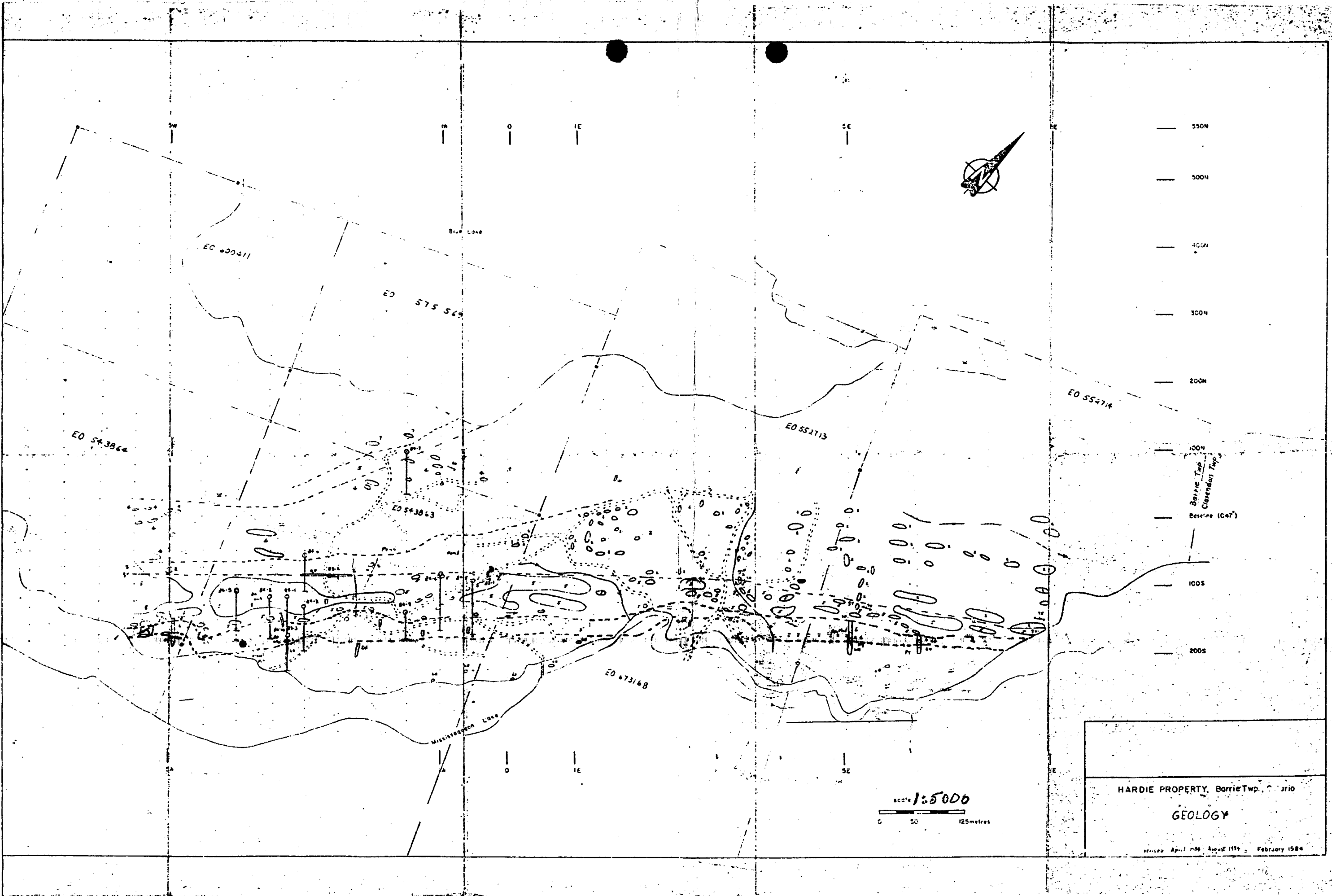
0 50 125 metres

SE

HARDIE PROPERTY, Barrie Twp., Ontario

GEOLOGY

Issued April 1984 Approved February 1984



- 550M
- 500M
- 400M
- 300M
- 200M
- 100M
- Baseline (C47)
- 200S

HARDIE PROPERTY, Barrie Twp., Ontario

**GEOLOGY**

April 1964 August 1964 February 1964

Scale 1:5000

0 50 125 metres

# REPORT ON PROSPECTING DURING 1991 ON THE HARDIE PROPERTY

## LOCATION

Barren Township. Latitude  $77^{\circ}02'10''$  to  $03'$  Longitude  $44^{\circ}53'$   
Claims #S E0543863, E0543864 and S75569,

## RESULTS

We have been able to extend the quartzite band at least 800 FT to the west from the previous established zone at 3.0W line 100S. The actual location can now be determined due to a wind fall uncovering a significant portion of this vein along strike. The lone assay result of 370 PPM will be rechecked by a few assays in the near future. The zone encountered seems extremely favorable for gold mineralization. The quartz found is highly fractured, within the quartzite bands its located in, being significantly cross fractured at several places along strike. Mineralization at surface is restricted to hematite staining and tourmaline impregnation. Quartz cobbles, chloritization and carbonization can be seen along strike in this new zone.

Significant, arsenopyrite mineralization was seen in quartz veins along the porphyry-hornblende gneiss contact. Zinc mineralization occurs here also and was found up to 100 feet north of this contact in a layered stringer form. This conforms to a resistivity anomaly which is located here giving evidence of a potential significant mineralized zone. Although gold assays were negligible at surface, we feel these veins will produce good assays somewhere downstream. Previous geophysics carried out by Phoenix qualified the anomaly as being a minimum of 25 metres below surface. The only diamond drill hole put down on this north side of the porphyry cut a mineralized zone 18 ft wide carrying in part up to 5% sulphides at less than 25 metres below surface.

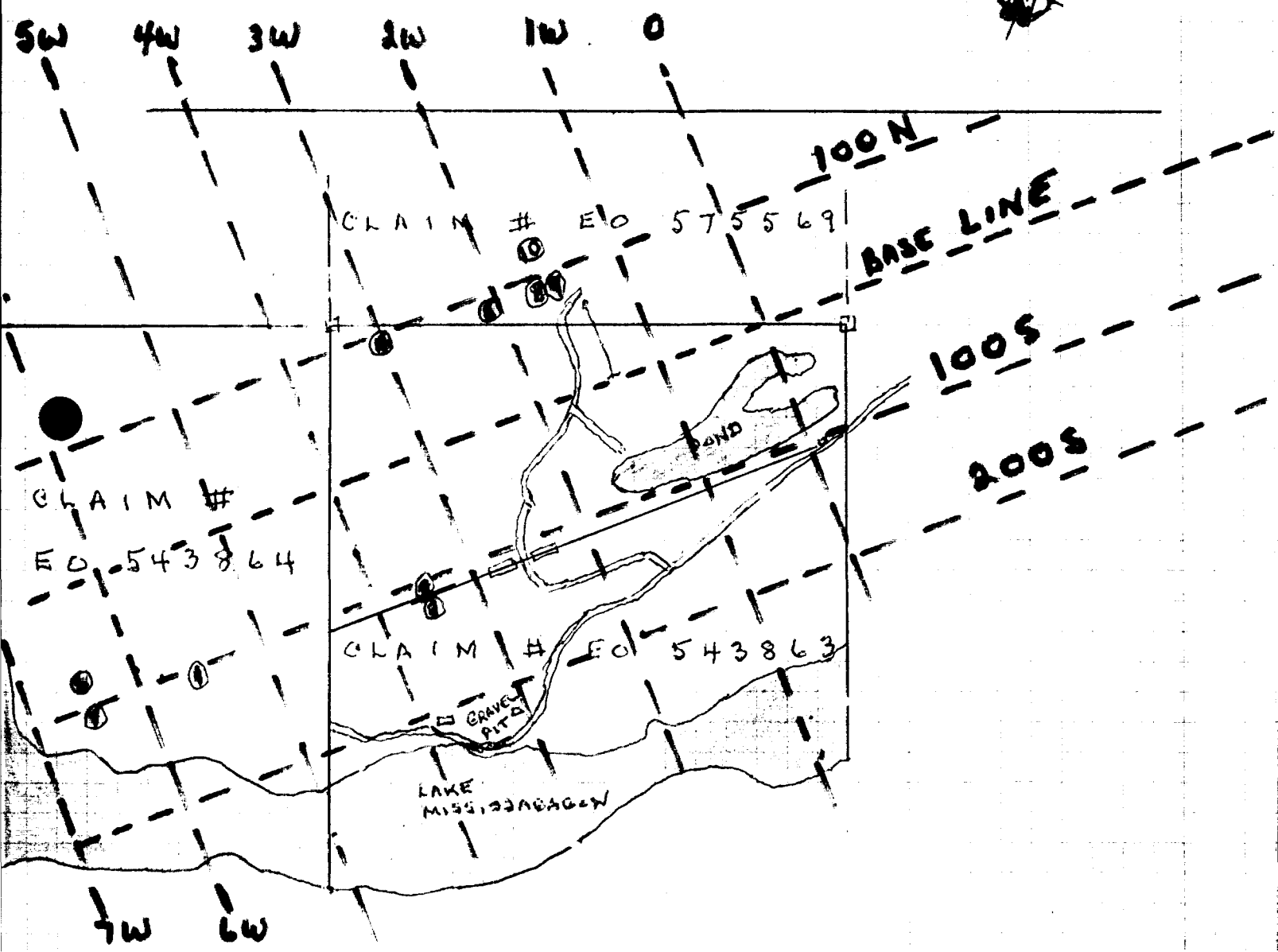
# REPORT ON PROSPECTING DURING 1991 ON THE HARDIE PROPERTY

## RECOMMENDATIONS

High grade gold values are associated in the quartzite band when carbonization, hematization and minor chalcocite sulphides are present. This development seems to be fault oriented with cross fracturing. Several large cross faults were recognized along strike. Diamond drilling will be carried out to determine the possibilities at these cross faults located along line 100 south between 2.0W and 5.5W+.

Further diamond drilling must be carried out at 100N intersected at 1.5/1.75 + 2.0W. The evidence of zone layering at least 50 ft north of the porphyry fluorite greenschist contact suggests an extension of the contact zone, relating to a resistivity anomaly, possibly tied in to cross faulting with northward axis lining up with a VLF anomaly located in Blue Lake a few hundred feet to the north. Having interpretative geological setting favouring this postulation.

DETAILED LOCATION MAP  
OF PROSPECTING  
SHOWING SAMPLE LOCATIONS



SCALE 1:5000



DESCRIPTION OF SAMPLES TAKEN

C.O. O.R.D.	SAMPLE NO.	TYPE OF SAMPLE	ROCK TYPE	MINERAL IZATION	ASSAY RESULT		
					AU PPB	ZN PPM	CU PPM
5.5W 100 S	1	GRAB	HEMATITE STAINED QTZ HIGHLY FRACT.	TOURMALINE MINOR PYRITE	270		
3.5W 100 S	2	GRAB	PEGMATITE DIKE	NO VISIBLE SULPHIDES		61	11
3.6W 125 S	3	GRAB	STAUROLITE SCHIST	ARSENOPYRITE		4	5
3.0W 100 N	4	GRAB	BLK MICA SCHIST	NO VISIBLE SULPHIDES		92	1
2.0W 100 N	5	GRAB	HORNBLende GNEISS	MINOR SULPHIDES		40	9
6.5W 75 S	6	GRAB	CHLORITIZED QUARTZ VEIN	NO SULPHIDES		13	3
6.5W 100 S	7	GRAB	MICA QUARTZ VEIN	MASSIVE BLUE GREY SULPHIDES POSSIBLY IRON	3	9	3
1.75W 100 N	8	GRAB	QUARTZ VEIN	ARSENOPYRITE	3		
1.75W 100 N	9	GRAB	FELDSPATHIC QUARTZ	ARSENOPYRITE	4		
1.75W 125 N	10	GRAB	HORNBLende GNEISS	LAYERED ZINC STRINGERS		44	36

ASSAYS 4, 5 & 10 TO BE RUN FOR GOLD  
 ASSAYS 8, 9 TO BE RE CHECKED FOR GOLD  
 AND/OR FIRE ASSAYED



# X-RAY ASSAY LABORATORIES

A DIVISION OF SGS SUPERVISION SERVICES INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA  
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

## CERTIFICATE OF ANALYSIS REPORT 17612

TO: DONALD A. HARDIE  
1 BATHGATE DRIVE  
WESTHILL, ONTARIO  
M1C 1X4

CUSTOMER No. 1400

DATE SUBMITTED  
25-Nov-91

REF. FILE 11397-T3

Total Pages 1

10 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FADCP	1.
CO PPM	DCP	1.
NI PPM	DCP	1.
CU PPM	DCP	.5
ZN PPM	DCP	.5
MO PPM	DCP	1.
AG PPM	DCP	.5
CD PPM	DCP	1.
PB PPM	DCP	2.

\*\*\* UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS 90 DAYS \*\*\*  
AND REJECTS 30 DAYS FROM DATE OF THIS REPORT

DATE 04-DEC-91

CERTIFIED BY 

Jean H.L. Opdebeeck, General Manager



SAMPLE	AU PPB	CO PPM	NI PPM	CU PPM	ZN PPM	MO PPM	AG PPM	CD PPM	PB PPM
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5.5 Town #1	270	--	--	--	--	--	--	--	--
#2	--	13	25	10.7	61.0	4	.5	1	<2
#3	--	10	6	5.0	3.4	8	<.5	<1	<2
<i>micro dust gold</i> #4	--	83	215	.8	91.8	6	.7	1	<2
#5	--	8	4	8.6	40.3	6	<.5	<1	<2
#6	--	5	8	2.9	12.7	12	<.5	<1	<2
#7	3	4	9	2.4	9.0	11	<.5	<1	<2
#8	3	--	--	--	--	--	--	--	--
#9	4	--	--	--	--	--	--	--	--
<i>micro dust gold</i> #10	--	7	6	35.7	44.4	20	<.5	<1	5

$10,000,000 = 1\% = 20 \text{ lbs.} = 908 \text{ grams} = 24 \text{ kts gold}$   
 $1,000,000 = .1\% = 2 \text{ lbs.} = 91 \text{ grams} = 2.4 \text{ kts gold}$   
 $100,000 = .01 = \frac{1}{5} \text{ lb.} = 9 \text{ grams} = .24 \text{ kts gold}$   
 $10,000 = .001 = .02 \text{ or } \frac{1}{50} \text{ lbs.} = 1 \text{ gram} = .024 \text{ kts gold}$   
 $1,000 = .0001 = .002 \text{ or } \frac{1}{500} \text{ lbs.} = .09 \text{ gram} =$   
 $100 = .00001 = .0002 \text{ or } \frac{1}{5000} \text{ lbs.} =$

PPM  $10,000 = 1\% = 20 \text{ lbs}$   
 $1,000 = .1 = 2 \text{ lbs.}$   
 $100 = .01 = .2 \text{ or } \frac{1}{5} \text{ lb. or } 3 \text{ kts}$

REPORT ON STRIPPING & TRENCHING  
DURING 1991  
ON THE HARDIE PROPERTY

LOCATION

Basic Twp. latitude 77°02' To 03' longitude 44°53'  
Claim # 543863

WORK DONE

Area "A" located at grid co-ordinates at line 1005 and 0.75 West was stripped west of previous workings approximately 20 ft long by 6 ft wide average 1 ft in depth or 120 cu ft approx 5 tons. Trenching on the above zone averaged 20' long by 6' wide by 1 foot deep or 10 tons of material removed using bar, sledge and shovel.

Area "B" located at grid co-ordinates lines 2005 and 3.85 W was stripped east of the Hough shaft and previous workings 13' x 6' x 2' = 156 cu ft or 6 tons. Trenching was carried out over 25' in length x 6' wide by an average of 1 1/2' deep using bar, sledge, and shovel. = approximately 20 tons.

RESULTS

Area "A" significant gold assays of up to 5.5 ggs per ton had been obtained in the pit immediately adjacent to these workings. Extensive cross fracturing was noted in the peripheral rocks south and west of the pit and subsequently we decided to examine the quartzite here for similar conditions. Mineralization was noted in the cross fractures appearing to be consistent with adjacent material.

Area "B" significant mineralization occurs here showing continuation of mineralized lens within the pit and east of some high contents of lead, zinc, copper, pyrites, arsenopyrite, and antimony, + or - 10% over 6' FT WIDTHS with probable high gold and silver values.

REPORT ON STRIPPING & TRENCHING  
DURING 1991  
ON THE HARDIE PROPERTY

RECOMMENDATIONS

AREA "A" Part of our program was to diamond drill near this location. A VLF anomaly sits in a deep cross fracture fault immediately south of the staurolite band and this location. Rock sitting is lean and obviously requires diamond drilling to determine its character.

AREA "B" The high grade mineralization encountered continues as far east as stopped. The vein is beginning to get heavily covered with sand up to 4 ft thick. The indication seems to favour a high grade connection with the strong mineralization encountered at 3.25W. Diamond drilling seems the only reasonable way of proving continuity, attitude and plunge.

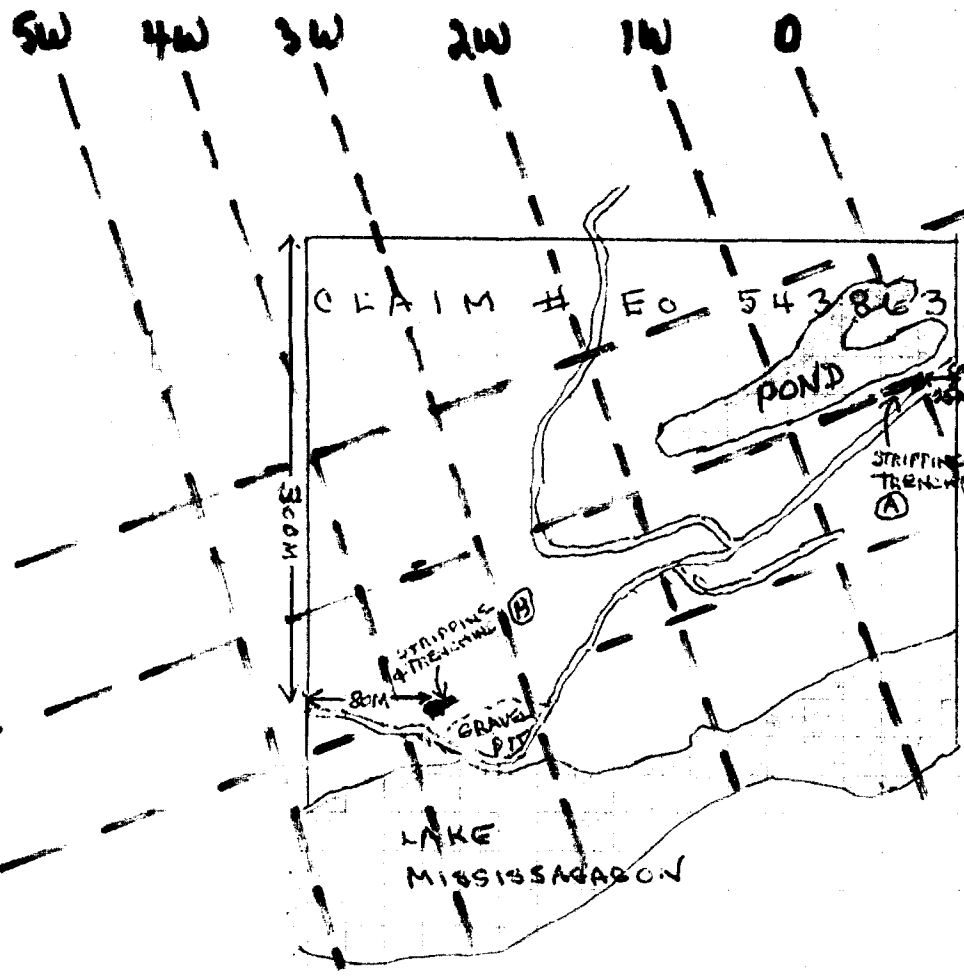
LOCATION MAP  
OF  
STRIPPING/TRENCHING



BASE LINE

1005

2005

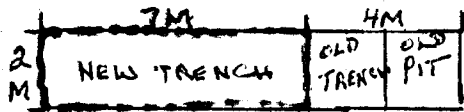


SCALE 1:5000

SKETCH OF TRENCHING  
AND SAMPLING

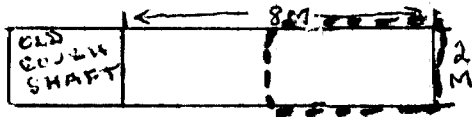


TRENCH A



STRIPPED AREAS  
OUTLINED  
IN RED

TRENCH B



DITTO ABOVE

SCALE 1:200

# REPORT ON DIAMOND DRILLING THE HARDIE PROPERTY FOR 1991

## OBJECTIVE

To diamond drill several anomalies showing base and precious metals potential.

## PURPOSE DDH 1 AND 2

To determine attitude and plunge of mineralized lens.

## LOCATION

Barrie Township Latitude 77°02' to 03' Longitude 44°53'  
Lot 3 Claim # E0543863 Geology Map Co-ordinates  
3.25 W Line 200 S

## ACCESS

From Toronto - East on highway 401 to Bellville north on highway 37 through Tweed to Highway #7 and east on highway 7 to Kaladar. North from Kaladar to Highway 506 and east on highway 506 through Myers Cave continuing east 6 miles to the starting farm on Lot 2 taking farm road north 1/4 mile over-embankway to north side of Mississauga River located in Lot 2, claim # E0552713 part of the Hardie Property.

## GEOLOGY

The rocks consist of carbonate and clastic metasediments and mafic to felsic metavolcanics of the Huronville Province. Locally a sequence of quartz, feldspar, albite - plattic shists marble and schistone are present. The drill area geology consists of fine grained tremolitic dolomitic marbles of the Myers Cave Formation immediately overlying the plattic shists of the Bishop Corners Formation. A series of concordant to subconcordant quartz calcite tremolitic veins carrying dominantly tetraohedrite, sphalerite, pyrite and arsenopyrite cut through the dolomitic marbles bounded by argillitic and argillitic envelopes. A drill hole put down several years ago cut 16 feet of core assaying 4.88% zinc 1.26% lead and 1.07% Ag.



# REPORT ON DIAMOND DRILLING ON THE HARDIE PROPERTY FOR 1991

## WORK DONE

Two diamond drill holes, DDH 91-1 and DDH 91-2 were put down. The first to a depth of 70 ft at a dip of 50° which was completed. The second hole was put down to 50 ft of depth at a dip of 70°. The hole was stopped just short of the mineralized zone due to diamond drill engine failure, a late and unfavorable warranty determination and inclement weather conditions.

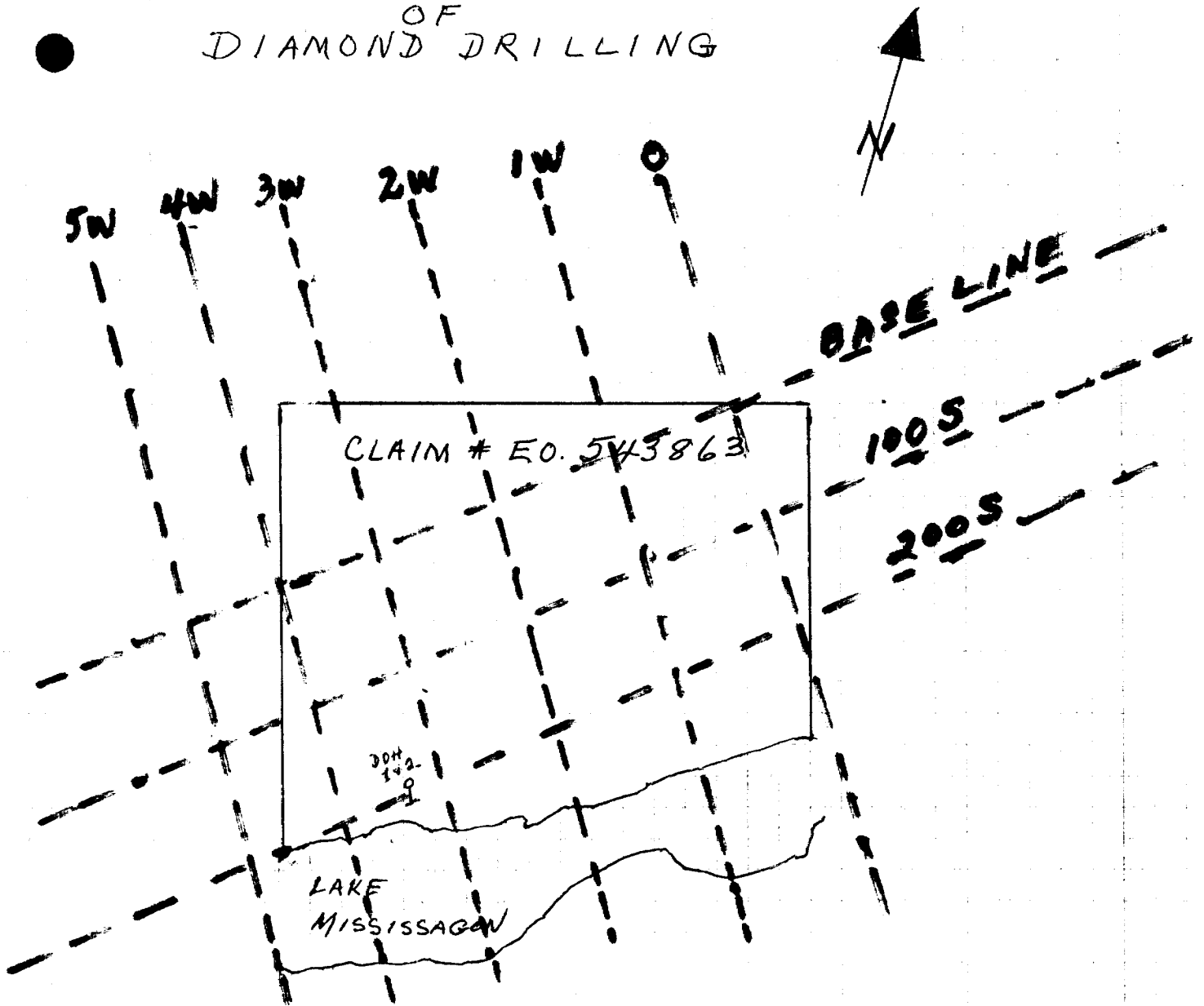
## RESULTS

Hole 91-1 intersected over 5 feet of high grade mineralization in the form of + or - 5% lead and + or - 15% zinc. Hole 91-2 stopped just short of the anticipated mineralized zone. The core is stored in a core rack located in Lot 3 at our camp on the property. Splitting and assaying to be completed at a later date.

## RECOMMENDATIONS

Hole 91-1 encountered strong mineralization in line with expectations where hole 91-2 stopped short of its objective due to diamond drill engine failure. We are determined to complete the original program envisioned with an early start-up for 92 including the purchase of two new engines, one as a back up to insure the program's success.

LOCATION MAP  
OF  
DIAMOND DRILLING



NORTH

501

3.25 W

MISSISSAGAUW  
LAKE

6

6a

6 DOLOMITIC MARBLE  
6a CALCAREOUS ARGILLITIC SLATE

HARDIE PROPERTY  
JDH 91-1 & 2  
CROSS SECTION  
LOOKING EAST

0 10 20 30 M



Ontario

Ministry  
Natural  
Resources

**Diamond  
Drilling  
Log**

CORE SIZE EX  $\frac{7}{8}$ "  
CORE STORED AT PROPERTY

Fill in on  
every page

Hole No. **91-1** Page No.

Drilling Company <b>STAR-O-LITE</b>		Collar Elevation	Bearing of hole from true North <b>145°</b>	Total Footage <b>70 FT</b>	Dip of Hole at Collar <b>50°</b>	Location of hole in relation to a fixed point on the claim. <b>460 FT EAST OF #3 CLAIM POST FOR 543863 AND 50 FT NORTH</b>	Map Reference No. <b>91-1</b>	Claim No. <b>E0 543863</b>
Date Hole Started <b>SEPT 21, 1991</b>	Date Completed <b>SEPT 24/91</b>	Date Logged <b>SEPT 27/91</b>	Logged by <b>D.A. HARDIE</b>		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) <b>SOUTH PART OF LOT 3 CONC X BARRIE TWP.</b>	Property Name <b>THE HARDIE PROPERTY</b>
Exploration Co., Owner or Optionee <b>STAR-O-LITE EXPLORATION LTD</b>		Date Submitted <b>JAN 21/92</b>	Submitted by (Signature) <i>Donald A Hardie</i>		Ft.			
					Ft.			

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
0.	14.0	DOLOMITE	MED GREY, FINE GRAINED BANDED AT 65° TO CA LESS THAN 1% SULPHIDES								
14.0	29.5	SLATE	BLK, FINE GRAINED, BANDING AT 65° TO CA IRREGULAR WHITE OTV VEINLETS								
29.5	30.0	CLAY	FAULT								
30.0	39.0	DOLOMITE MYER CAVE FORM	LIGHT TO MED/GREY, FINE GRAINED, BANDED AT 60° TO CORE AXIS 20% QUARTZ CARBONATE								
39.0	47.0	"	30% QUARTZ CARBONATE 3% DISSEMINATED. TETRAHEDRITE PYRITE + PYRROTITE								
47.0	52.5	"	80% QUARTZ CARBONATE AT 60° TO CORE AXIS 15% BROWN SPHALERITE 5% GALENA								
52.5	63.5	"	20% QUARTZ CARBONATE BRECCIA LESS THAN 2% DISSEMINATED SPHALERITE, TETRAHEDRITE + PYRITE								
63.5	65.5	"	70% QUARTZ CARBONATE BRECCIA, 5% BROWN SPHALERITE AT 60° TO CORE AXIS MINOR GALENA								
65.5	70.0	CALCAREOUS ARGILLITE	DARK GREY TO BLK COLOR, FINE GRAINED BANDED AT 60% 5% DISSEMINATED PYRITE, PYRROTITE								
CORE STORED ON PROPERTY IN CORE SHACK											



Ontario

Ministry of  
Natural  
Resources

# Diamond Drilling Log

Fill in on  
every page

Hole No. **91-2** Page No.

Drilling Company <b>STAR-O-LITE</b>		Collar Elevation	Bearing of hole from true North <b>145°</b>	Total Footage <b>50 FT</b>	Dip of Hole at Collar <b>70</b>	Location of hole in relation to a fixed point on the claim. <b>460 FT EAST OF # 3 CLAIM POST FOR 543863 AND 50 FT NORTH.</b>	Map Reference No. <b>91-2</b>	Claim No. <b>EO 543863</b>
Date Hole Started <b>SEPT 24 / 91</b>	Date Completed <b>SEPT 25 / 91</b>	Date Logged <b>SEPT 27 / 91</b>	Logged by <b>D.A. HARDIE</b>		Ft.		Location (Twp., Lot, Con. or Lat. and Long.) <b>SOUTH PART OF LOT 3 CONC X BARRIE TWP.</b>	Property Name <b>THE HARDIE PROPERTY</b>
Exploration Co., Owner or Optionee <b>STAR-O-LITE EXPLORATION LTD.</b>		Date Submitted <b>JAN 21 / 92</b>	Submitted by (Signature) <i>Donald A. Hardie</i>		Ft.			
					Ft.			

Footage		Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage		Sample Length	Assays †	
From	To						From	To			
0	22.0	DOLOMITE	MED GREY FINE GRAINED BANDED AT 40° TO CA LESS THAN 1% SULPHIDES								
22.0	49.0	CALCAREOUS ARGILLITE	DARK GREY TO BLACK COLOR, FINE GRAINED BANDED AT 35° TO CA 5% DISSEMINATED PYRITE								
49.0	50.0	"	DARK GREY BANDED AT 35° TO CA, ORANGE QUARTZ FELDSPAR VEIN LETS NUMEROUS UP TO 1/2" THICK								
			HOLE STOPPED DUE TO DRILL ENGINE FAILURE								
			CORE STORED ON PROPERTY IN CORE SHACK								