



52P09SE0006 2.11527 RICH LAKE

010

**GEOLOGY AND SOIL GEOCHEMISTRY  
JAMES REID PROPERTY  
ROND LAKE, FORT HOPE AREA  
THUNDER BAY MINING DIVISION, ONTARIO  
LATITUDE 51°37'N, LONGITUDE 88°02'W  
NTS 52 P 9**

**Prepared for  
OHIO RESOURCES CORP.**

**RECEIVED**

AUG 18 1988

**MINING LANDS SECTION**

**ARCTEX ENGINEERING SERVICES**

**Locke B. Goldsmith, P.Eng.  
Consulting Geologist** *seal  
2.2012*

**July 25, 1988**



52P09SE0006 2.11527 RICH LAKE

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APPENDIX: Plan of Noramco-Pure Gold-Golden Lake Diamond Drilling  
Noramco-Pure Gold-Golden Lake Diamond Drill Hole Proposals  
Noramco-Pure Gold-Golden Lake News Releases  
Analytical Procedures  
Geochemical Analyses

MAPS: (Pocket inside back cover)  
Geology  
Soil Geochemistry

**GEOLOGY AND SOIL GEOCHEMISTRY  
JAMES REID PROPERTY  
ROND LAKE, FORT HOPE AREA  
THUNDER BAY MINING DIVISION, ONTARIO**

**SUMMARY**

Gold occurs on the property in the workings of the Old Fort Hope Mine. Recent diamond drilling adjacent to the north boundary on claims held by Noramco Resources-Pure Gold Resources has intersected gold mineralization grading up to 0.836 oz/ton Au over 1.5 m in two zones whose magnetic signatures trend onto the Ohio Resources ground. These two zones and three other magnetic highs on the property require IP resistivity surveys to identify drill targets. A budget for geophysics in the next Phase of \$43,500 is estimated. A subsequent diamond drilling programme if warranted may cost \$232,800, for a total cost in two Phases of \$276,400.

## INTRODUCTION

The property is located approximately 1.5 km south of Rond Lake and 1.5 km west of the northwest end of Eabamet Lake, Thunder Bay Mining Division, Ontario. The Ojibway community of Fort Hope on the east side of Eabamet Lake is 12 km distant by water; shallow water between Rond and Eabamet lakes necessitates pulling or poling a canoe through rapids. Float aircraft may be chartered at Armstrong, 170 km south. A scheduled air service (Air Ontario) operates daily from Thunder Bay via Pickle Lake to Fort Hope. Basic supplies may be purchased at Fort Hope or Armstrong; major outfitting, including canoe and motor, should be completed in Thunder Bay. A winter road extends from Pickle Lake to Fort Hope (approx. 150 km) over which heavy equipment could be moved.

Twenty contiguous claims of anominal 40 acres each (800 acres, 325 ha) form the group. Claim numbers as recorded in Thunder Bay are listed below:

TB 651376 to 651379 incl.

TB 740028 and 740029

TB 840781 to 840794 incl.

## HISTORY

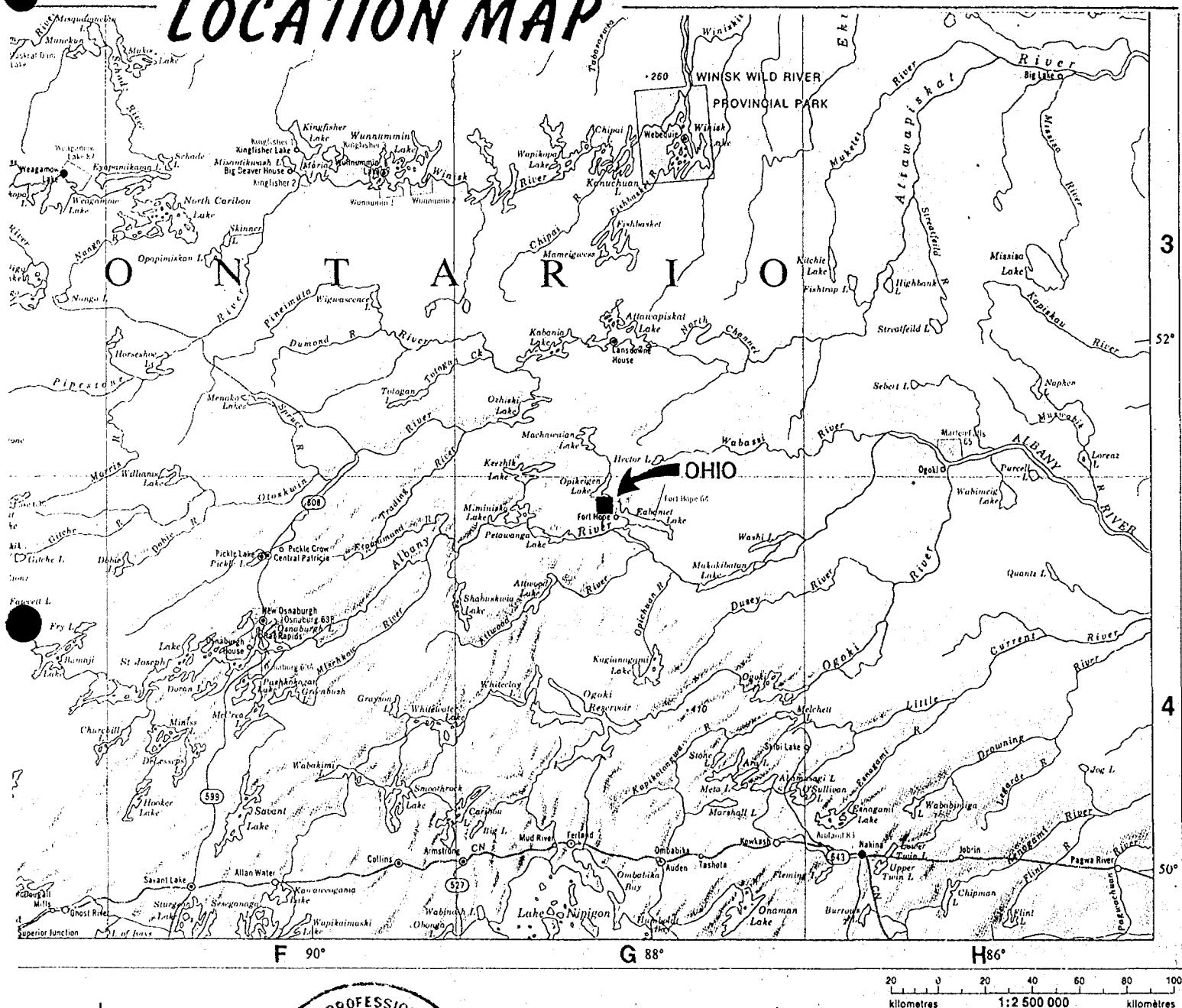
The original gold showings, staked by Lorne Howey in 1927, were subsequently known as the Fort Hope Mine. A two-compartment shaft was sunk to 38 m in 1928 with 101 m of lateral development on the 30 m level. Diamond drilling in 1946 (17 holes, 1650 m), 1980 (3 holes, 179 m), 1985 (1 hole, 46 m), and 1986 (5 holes, 172 m) has been completed. Some hole locations were found and others have been transposed from drawings onto the geology map with this report. No logs of the 1946 drilling have been located.

Ground magnetometer surveys were undertaken in 1985 and 1988. Airborne magnetic, electromagnetic, and VLF-EM surveys by Noramco Resources, Pure Gold Resources et al. in 1986 over ground to the north extend onto the northern claims of the property.

## GEOLOGY

The central and northern portions of the property are underlain by Archean mafic to intermediate volcanics. To the south of the shaft area foliated amphibolite and schistose amphibolite occur in close proximity to basic volcanics. Wallace (1978, p. 8-13) considers most amphibolite in

# LOCATION MAP



OHIO RESOURCES CORP.

JAMES REID PROPERTY  
ROND LAKE, FORT HOPE AREA  
THUNDER BAY MINING DIVISION, ONTARIO

Latitude 51°37'N, Longitude 88°02'W  
NTS 52 P 9

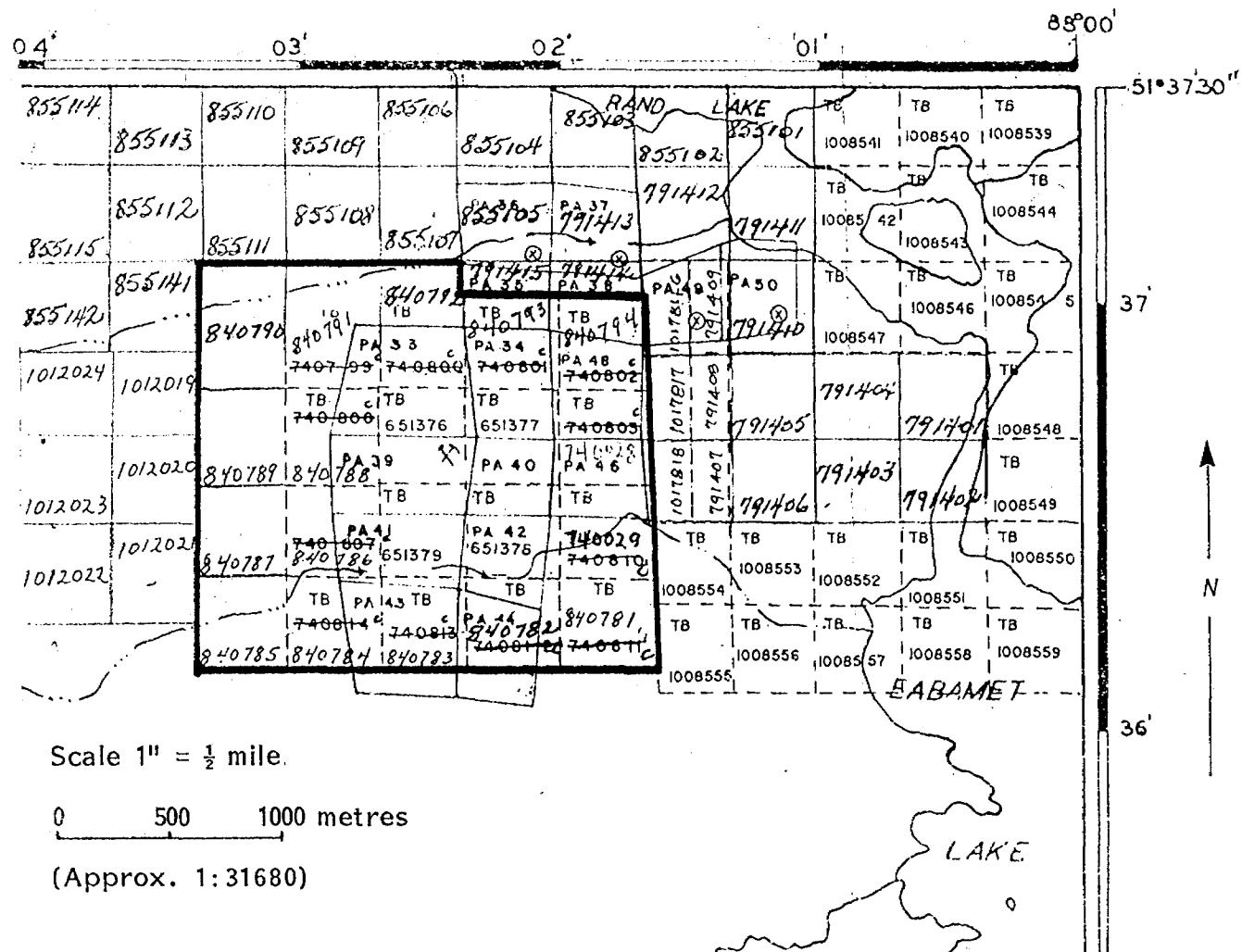
## Map G-388, Rich Lake

To accompany report by

*Locke B. Goldsmith, P.Eng.  
Consulting Geologist*

ARCTEX ENGINEERING SERVICES

July 1988



# CLAIM MAP

OHIO RESOURCES CORP.

JAMES REID PROPERTY  
ROND LAKE, FORT HOPE AREA  
THUNDER BAY MINING DIVISION, ONTARIO

Latitude 51°37'N, Longitude 88°02'W  
NTS 52 P 9

Map G-388, Rich Lake

To accompany report by

*Locke B. Goldsmith, P.Eng.  
Consulting Geologist*

## **ARCTEX ENGINEERING SERVICES**

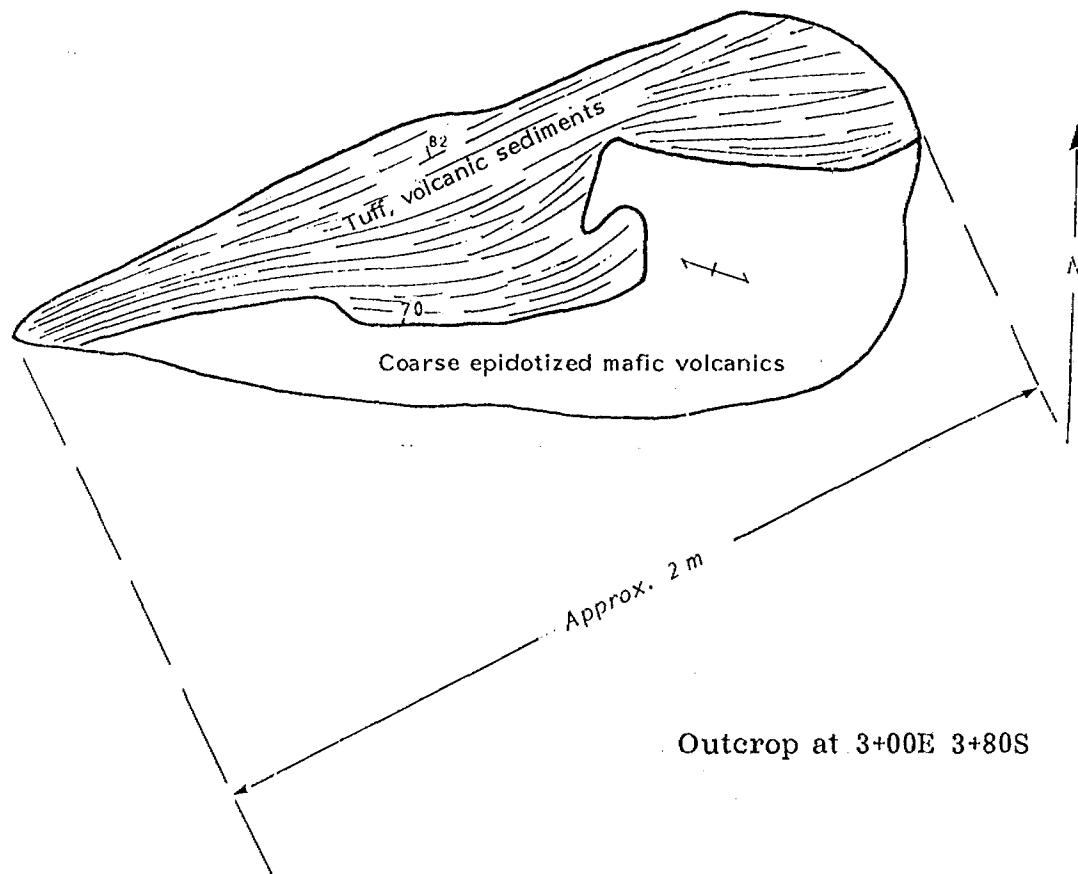
July 1988

the area to have been metamorphosed from mafic to intermediate volcanics. In the northeast corner of the claims, chlorite schist is predominant.

Banded metasediments occur in scattered outcrops across the southern part of the claims. Composition varies between quartzite, quartz-biotite schist, and silty argillite. Diorite was mapped in two outcrops. Composition and texture are very similar to that of amphibolite, hence the field distinction between an intrusive and metamorphic affinity is tenuous.

Feldspar porphyry and dacite porphyry dykes occur in the area of the shaft and California veins.

One bedding attitude ( $064^{\circ}82^{\circ}\text{N}$ ) within an infilling of volcanic sediments at 3+00E 3+80S and the attitude of the sedimentary contact with coarse epidotized volcanics ( $087^{\circ}70^{\circ}\text{N}$ ) suggests that the tops are facing northerly. Foliation in the epidotized volcanics at this location of  $105^{\circ}90^{\circ}$  is not readily obvious in the volcanic sediments. Otherwise flow bedding or tops were not observed.



Foliation trends in the volcanics vary from  $070^{\circ}$  to  $120^{\circ}$ , with most attitudes between  $100^{\circ}$  -  $110^{\circ}$ , steeply north or south. Strike of bending and foliation in the quartzose metasediments appears to parallel magnetic contours (Cruikshank, 1988).

## MINERALIZATION

Free gold with minor amounts of pyrite, pyrrhotite and chalcopyrite has been reported to occur in quartz veinlets in a fracture zone which trends  $027^{\circ}74^{\prime}\text{N}$  through the shaft collar. The most noticeable concentrations of free gold appear to occur at the intersections of the veinlet zone with northwesterly striking fractures. The California veins are located some 130 metres northeast of the shaft, most trenches are water or soil filled; assays and descriptions from previous investigators indicate narrow (0.3 m) quartz veins with low to trace amounts of gold.

Wallrock alteration is not evident adjacent to either the shaft zone or the California veins. Absence of appreciable sericite and quartz carbonate suggests that there is no throughgoing structure which could have channeled mineralizing solutions. Lenses of quartz in the shaft zone may fill tension gashes in a Riedel shear system. Foliation in amphibolite and metavolcanics 300-400 m south and southeast of the shaft may be an expression of regional shearing.

Noramco Resources, Pure Gold Resources, et al. have reported gold discoveries in drill holes adjacent to the north boundary of the property. Hole OH-87-12 cut 6.0 m of 0.22 oz/ton Au of which 1.5 m grades 0.836 oz/ton (28.33 g/t) Au (see geology map, and notes with sketch map in Appendix for location). A second parallel zone 200-300 m northwest in the vicinity of hole OL-87-21 is also gold-bearing. Geophysical trends suggest that the southwesterly extension of both zones pass into the James Reid property.

## SOIL GEOCHEMISTRY

Spades with long, narrow blades were used to collect samples at depths of 20-35 cm (C horizon) below humus or organic cover. In areas of swamp and muskeg, samples of soil plus organics were obtained as deep as 60 cm below surface by cutting through surface accumulation of peat and reaching to shoulder depth. Line spacing is 40 m with samples at 100 m stations. Four short lines of detailed sampling were completed west of the shaft to test down-ice dispersion of gold from known showings. Samples were collected in Kraft bags, air-dried, and shipped to Chemex Labs, North Vancouver, B.C. Of a total of 810 samples collected, 801 were analyzed for gold.

A soil sample taken in 1986 south of a magnetic anomaly at 2+40W 3+75N was reported to yield "an anomalous gold value" (Londry, 1987, p. 8). The Noramco discoveries and the presence of gold in a soil sample prompted the soil geochemical survey. Statistical treatment of the values would not be meaningful because only 26 of 801 results are above detection limits.

The highest value of 70 ppb Au at 2+00E 5+00S occurs immediately north of an outcrop of quartzose pelitic schist. Anomaly "A" of the Geotronics magnetometer survey (Cruikshank, 1988)

peaks in this locality at 2+00E 4+40S. A scattering of values ranging from 5 to 25 ppb Au across the southern portion of the claims appears to occur on the south side of magnetic anomaly "A". Three values of 5, 10, and 15 ppb Au in the northeast sector of the grid are situated south of the magnetic anomaly which is related to gold mineralization in the Noramco claims. No dispersion of gold from the shaft zone and California veins is evident.

## GEOPHYSICS

Discussion of geophysical results draws information from Londry (1985), Podolsky (1986), and Cruikshank (1988). Axes of magnetic highs are shown on the geology map.

Anomalies "C" and "D" of Cruikshank correspond with anomaly P1 of Podolsky. Drilling in hole OL-87-12 cut "a 6 metre wide quartz-sulphide shear zone near a mafic volcanic/gabbro contact. The best values in this zone were 6 metres of 0.22 oz gold per ton including 1.5 metres of 0.836 oz gold per ton (see Appendix). The magnetic high is assumed to be the expression of gabbro, while the mafic volcanics are presumed to be to the south of the gabbro. Chlorite schist in the northeast corner of the property may be part of this mafic volcanic horizon.

Anomaly P2 of Podolsky is not noticeable on the Cruikshank map. Drilling to the northeast on the trend of this feature intersected a "10 to 15 metre wide silicified shear zone within a mafic tuff sequence. Mineralization associated with sulphide-rich quartz veining has been traced over 500 metres of strike length. Significant results in this zone include 10.6 metres of 0.043 oz gold per ton including 1.5 metres of 0.147 oz gold per ton" (see Appendix).

There is no outcrop near anomaly L of Londry. An attempt at drilling in 1986 was abandoned at 15 metres in overburden.

Anomaly "A" of Cruikshank may be attributed to iron formation in metasediments. However, the uniformity of responses over numerous lines is more suggestive of a gabbro dyke.

Outcrops of metasediments occur on both sides of the trend of anomaly "B". Irregular contour patterns are characteristic of iron formation. A left-lateral offset is suggested in the vicinity of 4+00W 5+00S.

## CONCLUSIONS

Gold occurs in two zones immediately north of the property. Geophysical patterns parallel this mineralization and trend into the claims; drill targets should be sought in these locations. Three other magnetic highs are untested. Foliation near two of these anomalies may be associated with

regional shearing which could have permitted access of gold-bearing solutions. Gold values in soil are scattered in a down-ice direction to the south of gold occurrences and magnetic highs.

Gold showings at and near the shaft do not warrant exploration at this time.

## RECOMMENDATIONS

### Phase 1

Induced polarization/resistivity surveys are required over each of the magnetic highs. Coverage should extend beyond the flanks of each anomaly because the reported gold mineralization apparently does not occur at the magnetic peaks. Object of the survey is to detect concentrations of sulphides and/or zones of low resistivity which may reflect shear zones. Lines should be positioned 120 metres apart and should be extended 250 metres on either side of responses, with fill-in as required. A total of 14 km of survey may be adequate to cover the five magnetic anomalies. Test lines of MaxMin EM should be completed over selected IP/resistivity anomalies.

### Phase 2

Diamond drilling of selected targets should be considered after the geophysical results are analysed. Budget for 1500 metres of coring should be available.

## COST ESTIMATE

### Phase 1

Linecutting	2,500	
IP/resistivity surveys, 14 km, 14 days, allow	21,000	
Max Min EM, 3 days at \$700/day	2,100	
Travel, air charters	5,000	
Camp, grub, supplies	2,000	
Room, board	1,000	
Report	5,000	
Geological review of results	<u>1,000</u>	
	39,600	
Contingencies at 10%	<u>4,000</u>	
Total Phase 1	43,600	\$ 43,600

## Phase 2

Diamond drilling, 1500 m at \$100/m	150,000
Travel, air charters, mob-demob	10,000
Camp, grub, supplies	5,000
Analyses	5,000
Geological supervision	20,000
Engineering	2,000
Report	<u>2,000</u>
	194,000
Contingencies at 20%	<u>38,800</u>
Total Phase 2	232,800
Total, Phases 1 and 2	\$276,400

Results of Phase 1 should be compiled into an engineering report; continuance to Phase 2 should be contingent upon favourable conclusions and recommendations from an Engineer.

Respectfully submitted,



Locke B. Goldsmith, P.Eng.  
Consulting Geologist

Vancouver, B.C.

July 25, 1988

**ENGINEER'S CERTIFICATE**  
**LOCKE B. GOLDSMITH**

1. I, Locke B. Goldsmith, am a registered Professional Engineer in the Province of Ontario and the Northwest Territories, and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study in Geology at Michigan Tech and the University of Nevada. I am a graduate of the Haileybury School of Mines, and am a Certified Mining Technician. I am a Member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
3. I have been engaged in mining exploration for the past 29 years.
4. I have authored the report entitled, "Geology and Soil Geochemistry, James Reid Property, Rond Lake, Fort Hope Area, Thunder Bay Mining Division, Ontario", dated July 25, 1988. The report is based upon fieldwork and research supervised by the author.
5. I have no ownership in the property, nor in the stocks of Ohio Resources Corp.
6. I consent to the use of this report in a prospectus, or in a statement of material facts related to the raising of funds. Sheets of analyses in the Appendix could be omitted from a prospectus because all values are plotted on maps.

Respectfully submitted,

Locke B. Goldsmith, P.Eng.  
Consulting Geologist



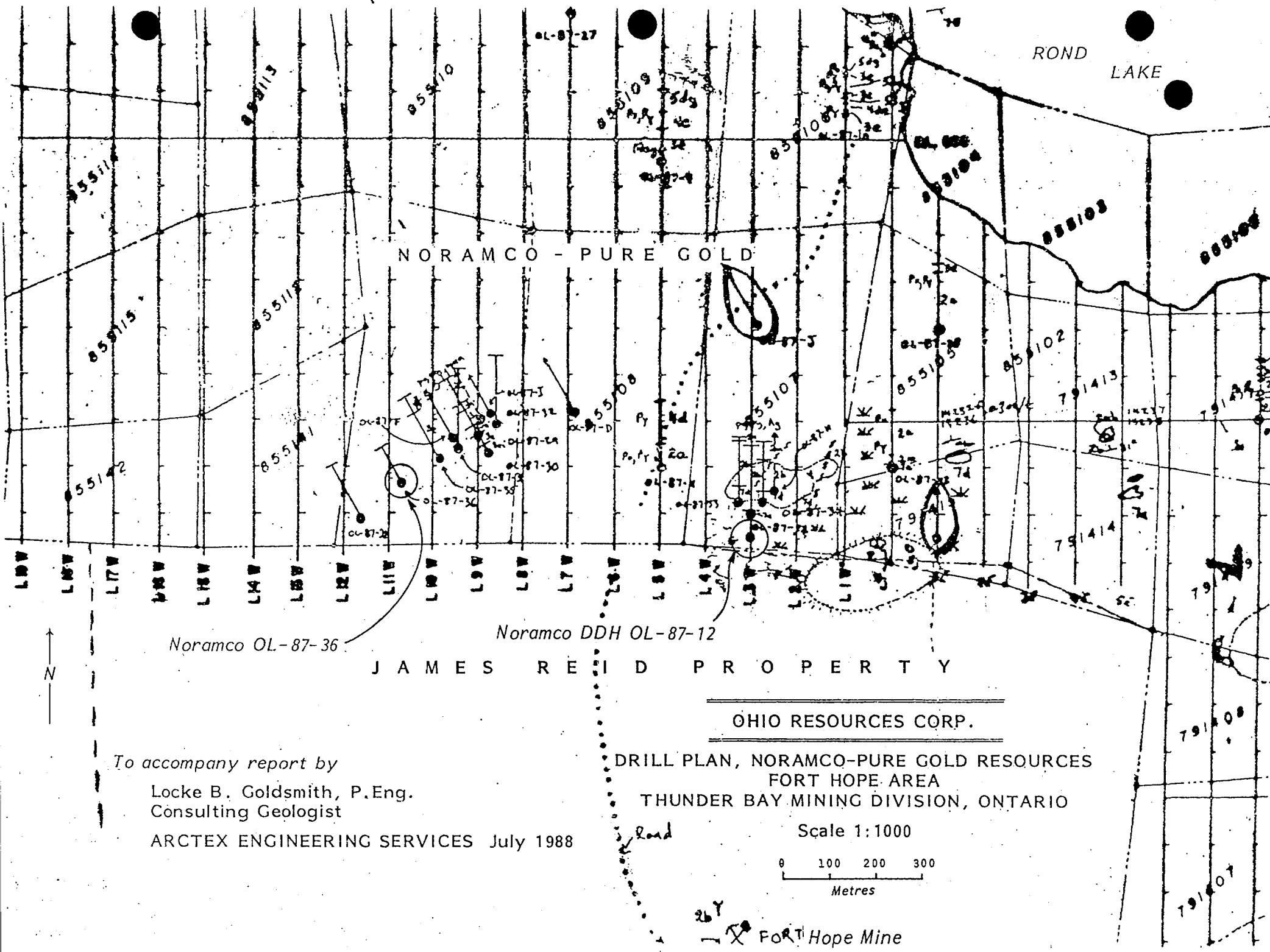
Vancouver, B.C.

July 25, 1988

## REFERENCES

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- Brown, P.A.R. 1980. Report on diamond drilling, Fort Hope area, Ontario. Private report for La Chib Mines Ltd., O.G.S. assessment files, Thunder Bay.
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- Laederer, C.L. 1938. Summary report upon the property of Hopa-Tricia Gold Mines Limited, Fort Hope, Albany River area, Patricia Mining Division, Ontario. Private report for Hopa-Tricia Gold Mines Limited. O.G.S. assessment files, Thunder Bay.
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- Noramco Explorations, Golden Lake Resources, Pure Gold Resources. September 1987-March 1988, various news releases.
- Podolsky, G. 1986. Report on combined helicopter borne magnetic, electromagnetic, and VLF survey, Opikeigen Lake property, Kenora Mining District, Ontario. Private report by Aerodat Limited for Pure Gold Resources Inc. O.G.S. assessment files, Thunder Bay.
- Sylvanite Gold Mines Ltd. 1943. Map and assay plans. O.G.S. assessment files, Thunder Bay.
- Wallace, H. 1978. Geology of the Opikeigen Lake area, District of Kenora (Patricia portion). O.G.S. report 185, with map 2379, 1:31,680 (1"=1/2 mile).

## **APPENDIX**



DIAMOND DRILL HOLE PROPOSAL

Project / No. Opikeigen Lake (1439) HOLE (S) OL-87-K

Location - Claim # 791415 Collar Date Sept. 30 Dec 8/87

-Picket Line L1 100' 8750' Completion Date Oct. 2

-Grid Opikeigen Lake

Length Prepared by M.T.

Azimuth 360° Approvals

Dip -50°

Core Size BQ

PURPOSE

To test IP anomaly and photo-lineament  
to the southeast of gold occurrence in hole 12.

SUPPORT DATA

Geology Gabbro and mafic volcanic outcrop to  
the north. Strong photo-lineament trends west.

Geochemistry

Geophysics Moderate to strong chargeability.  
direct magnetic correlation.

Illustrations 1: 10,000 DOW Location Map.  
Cross-section.

REVISION COMMENTS

This proposal was previously OL-87-H in September.  
It is being resubmitted as OL-87-K

DIAMOND DRILL HOLE PROPOSAL

Project / No. Opikeigan Lake (1439) HOLE (S) OL-87-H

Location -Claim	855107	Collar Date
-Picket Line	L2+50 W	Completion Date
-Grid	7+50 S	
Length	180m	Prepared by P.Tulonen
Azimuth	360°	Approvals 212
Dip	-60° 70	
Core Size	BQ	

PURPOSE

To test eastward extension of gtz vein-shear zone  
from OL-87-12.

SUPPORT DATA

Geology Mafic pillows & mafic tuffs.

Geochemistry Assays in OL-87-12 of 28.83 g/t over 1.5m.

Geophysics ENE trending IP Anomaly coincident @  
Horizontal Loop Conductors and Mag. trends.

Illustrations 1:10000 Location Map & ~~1:10000 X-section~~.  
1:1000 X-section.

REVISION COMMENTS

- Collar OL-87-G has been cancelled.
- Dip changed to -70° and deepened to 180m

# Golden Lake Resources Ltd.

Suite 900 - 999 West Hastings Street, Vancouver, B.C. V6C 2W2  
Telephone: (604) 689-1428 / Telex: (604) 683-6958

March 15, 1988

Dear Shareholder,

We are pleased to present the audited financial statements for the period ending November 30, 1987.

During this period the Company continued to focus its efforts on the exploration of the Opikelgan Lake property located in the Fort Hope area of northwestern Ontario.

A total of approximately \$900,000 was allocated for the 1987/88 exploration program and was funded by the Golden Day Explorations and Company Limited Partnership. In return for expending the funds, Golden Lake has agreed to issue flow-through shares at a price of \$1.13 per share to the Limited Partnership.

Recent drilling has resulted in the discovery of two significant auriferous zones. The first zone has been identified as a 6 metre wide quartz-sulphide shear zone near a mafic volcanic/gabbro contact. The best values in this zone were 6 metres of 0.22 oz. gold per ton including 1.5 metres of 0.836 oz. gold per ton.

The second zone located 200 metres north and parallel to the first zone consists of a 10 to 15 metre wide silicified shear zone within a mafic tuff sequence. Mineralization associated with sulphide rich quartz veining has been traced over 500 metres of strike length. Significant results in this zone include 10.6 metres of 0.043 oz. gold per ton including 1.5 metres of 0.147 oz. gold per ton. Results are pending from a further 2,000 metres of step out diamond drilling.

The Company is also conducting an exploration program on the Lac Wagama property located in northern Quebec. The Company entered into an agreement with Golden Day Mining Explorations Inc., whereby Golden Day can earn a 70% interest by spending \$993,000 on the property by February 28, 1989.

The surface program including linecutting, surface geochemistry and geology was completed in November, 1987. Diamond drilling is presently nearing completion and results will be announced when they are available.

On behalf of the Board of Directors we thank you for your support and look forward to continued success with our current exploration program.

Sincerely yours,



Gordon A. Keevil, Director

January 18, 1988

## NEWS RELEASE

NEW DRILL HOLES EXTEND H-29 ZONE ON OPIKEIGAN LAKE PROPERTY  
(See Map Overleaf)

GOLDEN LAKE RESOURCE LTD. (GLK-VSE) and PURE GOLD RESOURCES INC. (PUG-TSE) announced today results from recent drilling of the H-29 Zone, Opikeigan Lake Property, in the Fort Hope area, Ontario. Significant gold values have been encountered:

Zone H-29

HOLE	GRID COORDINATES	FROM		TO (metres)	INTERVAL (metres/ft)	GOLD Oz/ton
		(metres)	(metres)			
OL-29	9+00W/6+35S	113.2	119.2	6.0/19.7	0.055	
		116.2	117.7			
OL-30	8+75W/6+78S	162.8	164.8	2.0/ 6.6	0.058	
OL-31	9+44W/6+60S	112.8	115.0	2.2/ 7.2	0.030	
		114.5	115.0			
OL-35	9+85W/6+85S	111.9	127.1	15.2/49.8	0.016	
OL-36	10+70W/7+35S	118.0	128.6	10.6/34.8	0.043	
		118.0	119.5			
OL-37	8+95W/6+00S	74.5	91.7	17.2/56.4	0.040	

All the above holes were drilled at -50° to the northwest. To date, the zone has been traced for a strike length of 225 metres and to a depth of 100 metres below surface. The true width varies from 2 to 15 metres.

This zone is situated 700 metres west of Zone H-12 which has been encountered in one drill hole to date. Results previously announced (Sept. 3, 1987) for Zone H-12 were:

Zone H-12

HOLE	GRID COORDINATES	FROM		TO (metres)	INTERVAL (metres/ft)	GOLD Oz/ton
		(metres)	(metres)			
OL-12	3+00W/8+00S	155.4	161.4	6.0/19.7	0.220	
		155.4	156.9			

Gold values are associated with sulphide-quartz veins situated in wide and persistent shear zones which can be traced throughout the length of the property by induced polarization and electromagnetic surveys. Their strength and continuity are considered to be very favorable as a host to significant ore grade shoots.

Further diamond drilling totalling 2000 metres as step-out tests of the H-12, and H-29 zones is scheduled to be completed by the end of February, 1988.

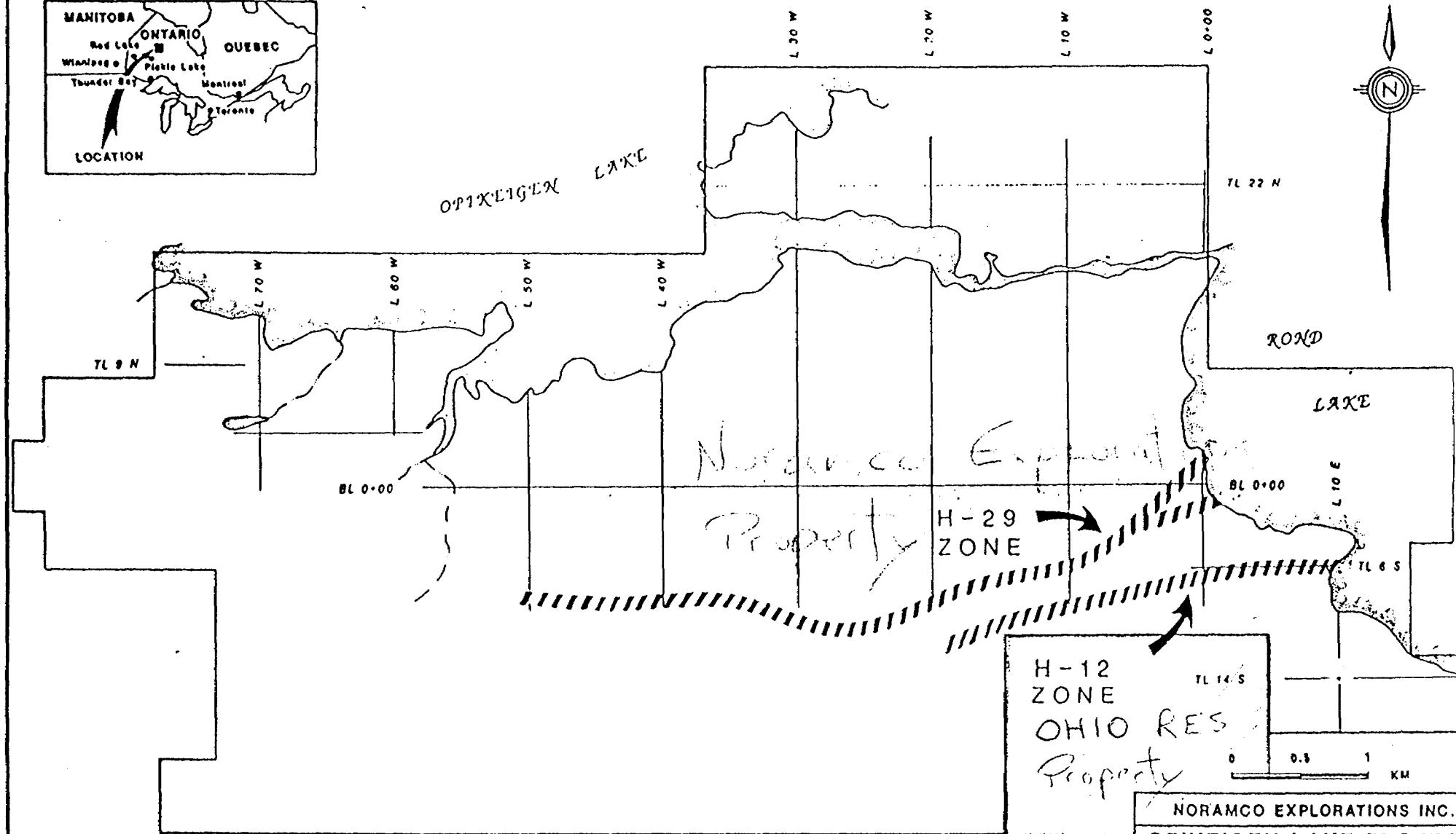
On behalf of the Board of Directors:



Gordon A. Keevil, B. Sc. P. Geol.,  
Director

The Vancouver Stock Exchange has neither approved or disapproved of the information contained herein.

Contact: 900 - 999 West Hastings Street, Vancouver, B.C. V6C 2W2  
(604) 689-1428



NORAMCO EXPLORATIONS INC.
OPIKEIGEN LAKE PROJECT
GOLDEN LAKE RESOURCES LTD./
PURE GOLD RESOURCES INC.
H-29, H-12 ZONES

GOLDEN LAKE RESOURCES LTD.

PURE GOLD RESOURCES INC.

September 14, 1987

NEWS RELEASE

GOLDEN LAKE RESOURCES LTD. (GLK-VSE) and PURE GOLD RESOURCES INC. (PUG-TSE) announced today that additional drill results from the Opikelgan Lake property in North Western Ontario have complimented its recent discovery. Diamond drilling designed to test a geological/geophysical target approximately 2,000 meters (6,600 feet) west of the discovery hole intersected a similar zone which assayed 0.04 ounces gold per ton over 33 feet including 0.10 ounces gold per ton across five feet.

On September 3, 1987 the Companies announced that a discovery had been made where assays up to 0.222 ounces gold per ton over 20 feet were encountered. Additional samples from this hole have extended the length of the mineralized zone to 34 feet averaging 0.134 ounces gold per ton.

The extent to which these intersections relate is currently the subject of review. Additional drilling is planned in the near future to confirm and extend these results. A total of \$900,000 is budgeted for the exploration of the Opikelgan Lake property during 1987.

On Behalf of the Board of Directors:

"R.A. Bruce McDonald"

R.A. Bruce McDonald, President

Contact:

900 - 999 West Hastings Street  
Vancouver, B.C. V6C 2W2



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
212 BROOKSBANK AVE., NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1  
PHONE (604) 984-0221

To : ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6E 2E9

A8818133

Comments :

## CERTIFICATE A8818133

ARCTEX ENGINEERING SERVICES  
PROJECT : OHIO  
P.O. # : NONE

Samples submitted to our lab in Vancouver, BC.  
This report was printed on 11-JUL-88.

## ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
100	222	Au ppb: Fuse 10 g sample	FA-AAS	5	10000

## SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	118	Dry, sieve -80 mesh; soil, sed.
203	10	Dry, sieve -35 mesh and ring
217	95	Geochem:Ring only,no crush/split

### \* NOTE 1:

The 32 element ICP package is suitable for trace metals in soil and rock samples. Elements for which the nitric-aqua regia digestion is possibly incomplete are: Al, Ba, Be, Ca, Cr, Ga, K, La, Mg, Na, Sr, Ti, Tl, W.

## SAMPLE PREPARATION

We emphasize the importance of properly preparing a sample for analysis. For most types of analytical determinations only a small fraction of the sample is utilized. The analytical result must be valid for the entire sample and not just for this subsample. In effect, a poorly prepared sample is not worth analyzing.

Routine sample preparation procedures are listed below. Sample preparation procedures can be customized for any project. Please call for details.

### ROCK AND DRILL SAMPLES

Note : codes in parentheses refer to procedures for geochem (trace level) samples rather than ore-grade material. Separate facilities are used to avoid contamination.

Chemex code	Procedure	Price per sample
208 (205)	Multiple stage crushing of up to 10 pounds of sample; riffle split and pulverize to approximately -150 mesh.	\$ 3.50
207 (212)	For samples with suspected nugget or free gold effects. Procedure as per 208, then sieve pulp through a -150 mesh screen. Examine + 150 mesh fraction for metallics. If present, save + 150 mesh fraction; if not, + 150 mesh fraction is hand pulverized and homogenized with original sample.	\$ 5.00
219	Drying charge Applied to samples too wet to be crushed.	\$ 2.00
251	Overweight charge Charged on samples over 10 pounds.	\$ 0.35/lb

### SOIL, HUMUS OR SEDIMENT SAMPLES

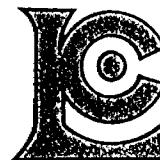
201	Dry, sieve through a -80 mesh screen.	\$ 1.00
202	Dry, sieve through a -80 mesh screen and save the + 80 mesh fraction.	\$ 1.50
203	Dry, sieve through a -35 mesh screen and pulverize to approximately -150 mesh.	\$ 3.00
217	Dry and pulverize entire sample (up to 200 grams) to approximately -150 mesh.	\$ 3.00
243	Same as code 203, but using a ceramic ( $ZrO_3$ ) pulverizer which eliminates Fe, Al, Si and Cr contamination.	\$ 3.50

### CONCENTRATES

235	Pan concentrates. Dry, ring pulverize entire sample to approximately -150 mesh.	\$ 4.00
209	High grade concentrates. Dry, ring pulverize sample and screen to -150 mesh.	\$ 5.00

NOTE: The fee schedule for sample preparation procedures applies only to samples that are subsequently analyzed in our laboratories. Samples submitted for sample preparation only will be billed out at twice the list price and will not receive priority treatment.

### SAMPLE AND REJECT STORAGE POLICY



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE . NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6E 2E9

Project : OHIO

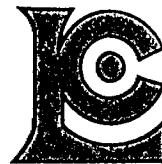
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Tot. Pages: 6  
Date : 8-JUL-88  
Invoice #: I-8818132  
P.O. #: NONE

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L0+40E 6+00N	201	--	<< 5									
L0+40E 7+00N	217	--	< 10									

CERTIFICATION : *Hart Biebler*



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To : ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6E 2E9

Project : OHIO

Comments:

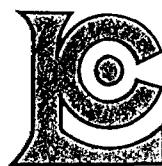
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P.O. # : NONE

## CERTIFICATE OF ANALYSIS A8818132

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LO+80E 8+40N	201	--	< 5									

CERTIFICATION :

Hans Bischler



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2390 - 1055 W. HASTINGS ST.  
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V6E 2E9

Project : OHIO

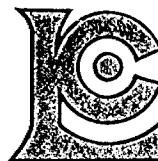
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Date : 8-JUL-88  
Invoice #: I-8818132  
P.O. #: NONE

## CERTIFICATE OF ANALYSIS A8818132

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L1+60E 3+00S	217	--	< 5									
L1+60E 4+00S	217	--	< 5									

CERTIFICATION : *Frank Bischler*



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Date : 8-JUL-88  
Invoice #: I-8818132  
P.O. #: NONE

Project : OHIO  
Comments:

## CERTIFICATE OF ANALYSIS A8818132

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L2+40W 1+00N	217	--	<	5								

CERTIFICATION :

*Janet Bickler*



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2390 - 1055 W. HASTINGS ST.  
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Project : QWIO

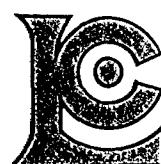
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#### **CERTIFICATION**

FurtBichler



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V6E 2E9

Project : OHIO

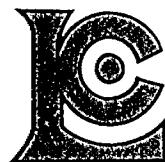
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P.O. #: NONE

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L2+80E 4+00N	201	--	< 5								

CERTIFICATION : \_\_\_\_\_



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L3+20E 2+00S	201	--	< 5									
L3+20E 3+00S	201	--	< 5									

CERTIFICATION :

*[Signature]*



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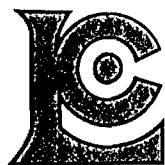
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L3+60W 7+00N	217	--	< 5								
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L4+00W 4+00N	201	--	< 5								

CERTIFICATION : *John Vash*



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V6E 2E9

Project : OHIO

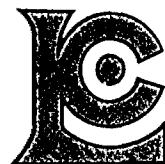
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CERTIFICATION : *Mark Vahr*



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2390 - 1055 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6E 2E9

Project : OHIO

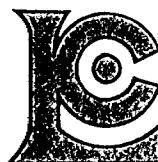
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CERTIFICATION : *[Signature]*



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To : ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST  
VANCOUVER, B.C.  
V6E 2E9

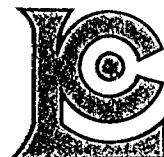
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V6E 2R9

Project : OHIO

Comments:

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V6E 2E9

Project : OHIO

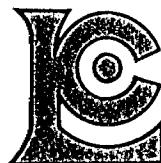
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CERTIFICATION : *B. R. Smith*



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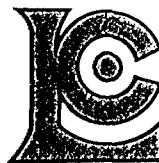
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Project : OHIO

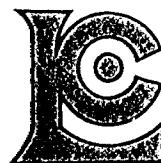
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CERTIFICATION : *[Signature]*



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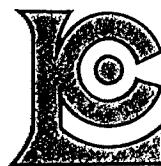
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CERTIFICATION :



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Project : OHIO

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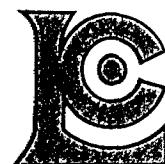
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L10+00W 5+00S	201	--	<<	S							
L10+00W 6+60S	217	--	<<	S							

**CERTIFICATION**

*✓ Dick Voth*



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE . NORTH VANCOUVER,  
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To : ARCTEX ENGINEERING SERVICES

2390 - 1055 W. HASTINGS ST.  
VANCOUVER, B.C.  
V6E 2E9

Page No. : 1  
Tot. Pages: 4  
Date : 8-JUL-88  
Invoice #: I-8818138  
P.O. #: NONE

Comments:

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L11+20W 6+00N	217	--	< 5									

Hart Bechler

CERTIFICATION :



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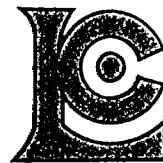
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L12+00W 3+00S	217	--	< 5							

CERTIFICATION :

*Dan Bickler*



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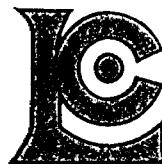
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*Janet Sichler*

CERTIFICATION :



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BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0111

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L13+60W 6+00S	217	--	< 5								
L13+60W 6+60S	217	--	< 5								

CERTIFICATION

*Dante Bichler*





## 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; SOIL GEOCHEMICALTownship or Area RICH LAKE; G 388Claim Holder(s) ROBERT JAMES REIDSurvey Company Arctech Engineering ServicesAuthor of Report ROCKE B. COLESMITHAddress of Author 301-1855 Balsam St, Vancouver, BCCovering Dates of Survey JUNE 20/88 to JUNE 29, 1988  
(linecutting to office)

Total Miles of Line Cut \_\_\_\_\_

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
—Electromagnetic	
—Magnetometer	
—Radiometric	
—Other	
Geological	20
Geochemical	20

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

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)DATE: AUGUST 10, 1988 SIGNATURE: Rocke B. Cole Smith  
Author of Report or Agent

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

## Previous Surveys

File No.	Type	Date	Claim Holder
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

MINING CLAIMS TRAVERSED  
List numerically

TB 651376

(prefix) 651377 (number)

651378

651379

740028

740029

840781

840782

840783

840784

840785

840786

840787

840788

840789

840790

840791

840792

840793

840794

TOTAL CLAIMS 20

If space insufficient, attach list

# GEOCHEMICAL SURVEY - PROCEDURE RECORD

*TB*  
Numbers of claims from which samples taken 651376, 651377, 651378, 651379, 740028  
740029, 840781, 840782, 840783, 840784, 840785, 840786, 840787,  
840788, 840789, 840790, 840791, 840792, 840793, 840794

Total Number of Samples 801

Type of Sample Soil, Clay, Humus  
(Nature of Material)

Average Sample Weight 200g

Method of Collection NARROW-BLADED SHOVEL, ARM  
TO SHOULDER DEPTH IN SWAMP

Soil Horizon Sampled C WHERE POSSIBLE, HUMUS IN SWAPPS

Horizon Development SANDY CLAY IN C.

Sample Depth 25-60cm

Terrain LOW HILLS, SWAMPS, MUSKEGS

Drainage Development SWAMPS, SEVERAL STREAMS

Estimated Range of Overburden Thickness 0-100'

**SAMPLE PREPARATION**  
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis -80 mesh, -35  
MESH. SEE DESCRIPTIONS IN APPENDIX

General \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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## 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 ( 801 tests)

Name of Laboratory Chemex Labs

Extraction Method FA + AA

Analytical Method AA

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

General \_\_\_\_\_

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## REFERENCES

S WITHDRAWN FROM DISPOSITION

L.R.O. - MINING RIGHTS ONLY

L.R.O. - SURFACE RIGHTS ONLY

L.S. - MINING AND SURFACE RIGHTS

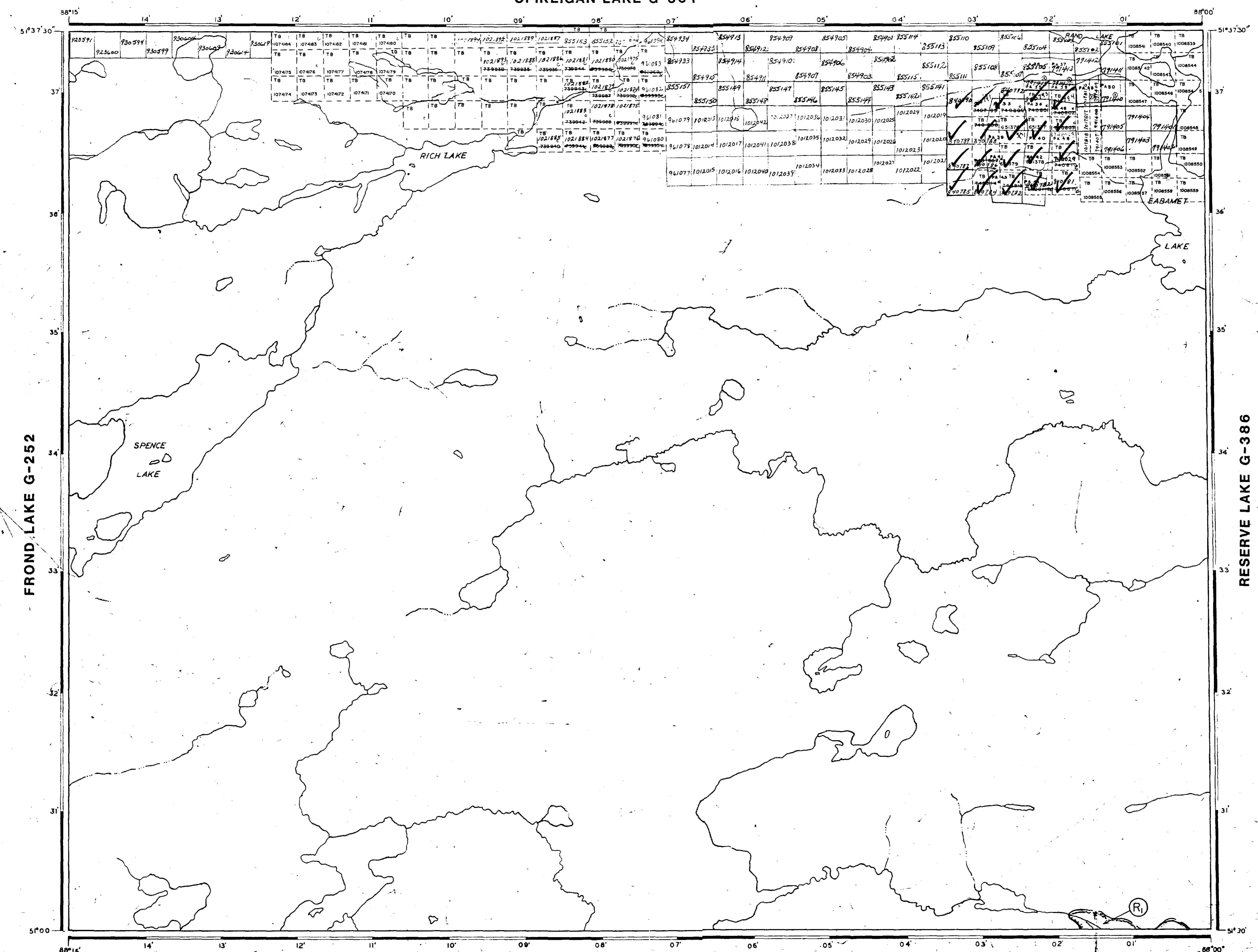
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SERIAL #4738 8/25/83 MSS 188516

BY EXPLORATORY LICENCE OF OCCUPATION ONLY

MINING RECORDER

## OPIKEIGAN LAKE G-361



## REFERENCES

HAROLD M. HARRIS  
THUNDER BAY,  
ONTARIO, CANADA

G-388



