



42D14NW0026 2.5393 PAYS PLAT LAKE

010

REPORT ON SOIL GEOCHEMISTRY SURVEY

LITTLE DUCK LAKE
PAYS PLAT AREA, ONTARIO

NTS 42-D-14

RECEIVED

FEB 11 1983

MINING LANDS SECTION

FEBRUARY 1, 1983

A. J. DAVIDSON
CORPORATION FALCONBRIDGE COPPER
THUNDER BAY, ONTARIO

SUMMARY AND RECOMMENDATIONS:

A soil sampling program has been completed over nine (9) claims to the south of Little Duck Lake. 286 samples were analysed for ppm Zinc. Anomalies identified on the basis of their interpretation indicate an area to the southwest of the lake may contain anomalous zinc values possibly associated with a major VLF conductor previously identified.

A further program of surface geological mapping and additional geochemistry should be undertaken in this area in 1983.

INTRODUCTION:

This report summarizes the results of a soil geochemistry program carried out from October 15th to October 21st, 1982. The program covered claims TB 653958 to 653962 inclusive, TB 653978 - 653979 and TB 653998 - 653999.

LOCATION AND ACCESS:

The claims are located approximately 25 km north of the town of Schreiber, Ontario adjacent to Little Duck Lake. Access to the area is by float plane to Big Duck Lake or helicopter to Little Duck Lake.

PREVIOUS WORK:

The claims were formerly held by Noranda Mines Ltd. but allowed to lapse on August 10th, 1982. On August 26th, 1982 they were staked on behalf of Corporation Falconbridge Copper and a subsequent ground magnetometer VLF survey was completed. The soil geochemistry program was also undertaken to provide further information and potential exploration targets.

METHOD OF SOIL SAMPLING:

Soil samples were obtained from shallow pits set out on a 25 m spacing on cut line. Lines were approximately 100 m apart and 250 m to 1000 m long. A total of 286 samples were collected and submitted to Metriclab (1980) Inc., Ste. Marthe-sur-le-Lac, Quebec for analysis for ppm Zinc by atomic absorption.

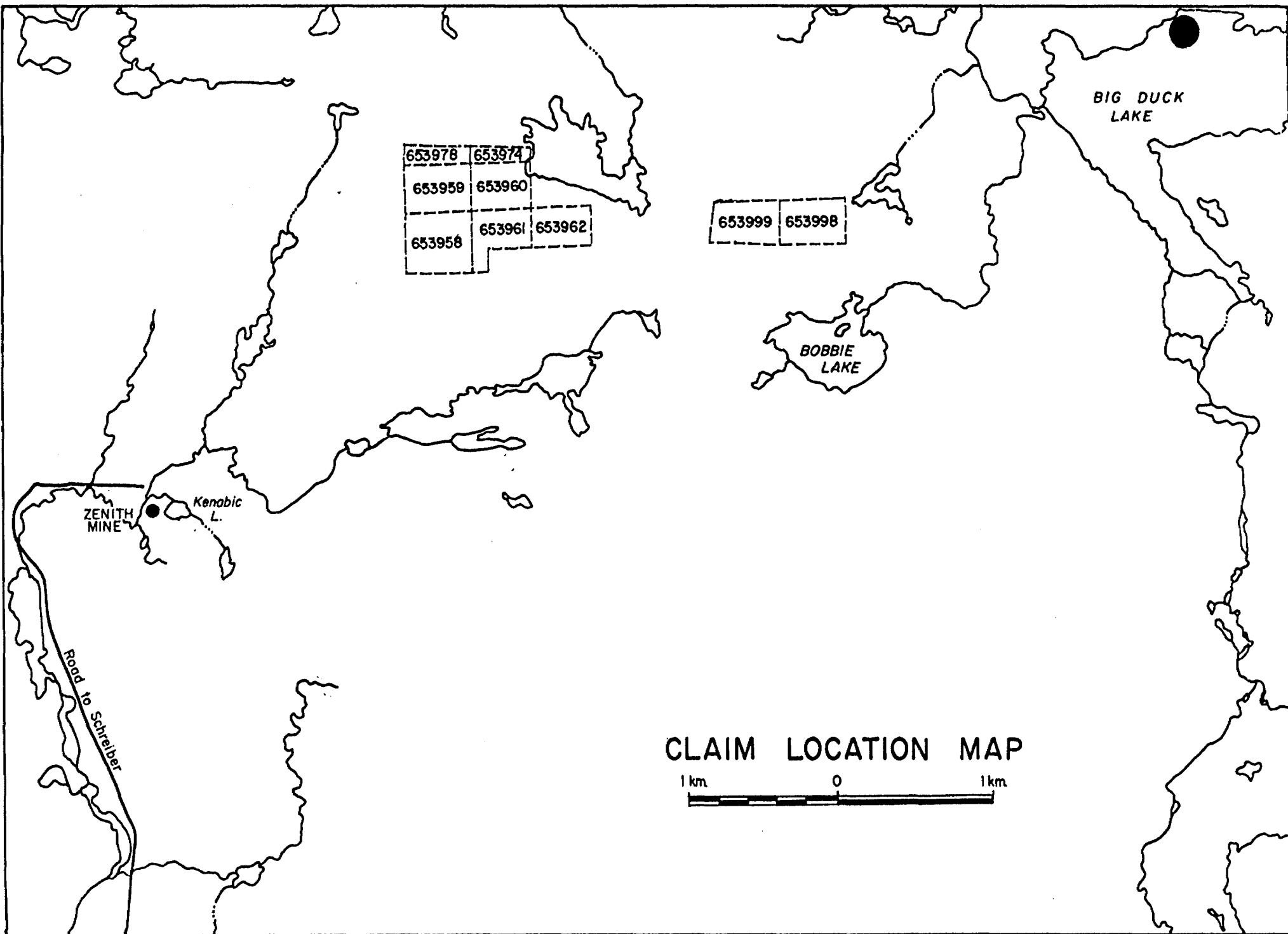
RESULTS:

The sample values range between 39 and 1130 ppm zinc. Samples have been plotted on the accompanying 1:2500 scale maps and contoured at 100, 200, 300, 400, 500 and 1000 ppm zinc.

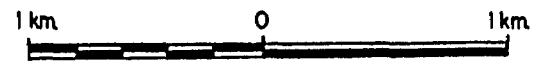
INTERPRETATION AND CONCLUSIONS:

From a study of the data it is concluded that anomalous areas contain greater than 500 ppm Zn.

...../



CLAIM LOCATION MAP



Anomalous values all occur to the west of Little Duck Lake. Anomalies have poor continuity and are often represented by only one or two sample points. A potentially major anomalous area occurs to the immediate south of the west end of Little Duck Lake, striking in a broad zone southwest off the claim group. A moderate to strong VLF anomaly reported by the author (Report on VLF-EM and Magnetometer Survey, C. F. C., 1982) lies to the north of the zinc anomaly and may be of significance. Potential down ice movement of material may account for the anomalous zinc values, the 'source' of zinc potentially lying coincident with the VLF anomaly.

Several small zinc anomalies are coincident with previously identified VLF anomalies. Further follow-up work is required to determine their significance.

RECOMMENDATIONS:

Summer fieldwork in 1983 should investigate the potential significance of the characteristically low and high average zinc values obtained to the east and west of Little Duck Lake respectively. Surface mapping should attempt to distinguish significant geological features in the vicinity of the zinc anomalies, adjacent to the identified VLF - EM-16 anomalies.

FEBRUARY 1, 1983



ALEX. J. DAVIDSON


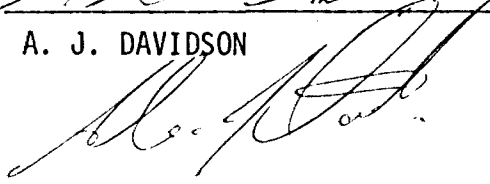
CERTIFICATE OF QUALIFICATIONS

I, Alex J. Davidson, certify that:

1. I am an Exploration Geologist residing at 1425 Hamilton Avenue, Thunder Bay, Ontario and have worked as such since 1972.
2. I hold a BSc in Geology from McGill University, 1972 and an MSc in Geology also from McGill University, 1977.
3. I personally supervised the work reported herein.

February 1, 1983

DATE


A. J. DAVIDSON




42D14NW0026 2.5393 PAYS PLAT LAKE

900

369

1983 12 02

2.5393

Mrs. Audrey Hayes
Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

RE: Geochemical survey on mining claims TB 653958
et al in the Area of Pays Plat Lake

The Geochemical survey assessment work credits as listed with my Notice of Intent dated November 4, 1983 have been approved as of the above date.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-1380

R. Pichette:mc

Encl.

cc: Corporation Falconbridge Copper
P.O. Box 40
Commerce Court West
Toronto, Ontario
M5L 1B4

Recorded Holder
CORPORATION FALCONBRIDGE COPPER

Township or Area
PAYS PLAT LAKE

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ 20 _____ 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.	TB 653958 to 62 inclusive 653998-99

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

<u>10 DAYS CREDIT</u>	<u>5 DAYS CREDIT</u>
TB 653978	TB 653979

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;

Nov 25, 83

Your file: 369

Our file: 2.5393

1983 11 04

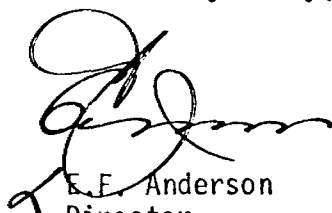
Mrs. Audrey Hayes
Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact
Mr. F.W. Matthews at 416/965-1380.

Yours very truly,



E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

R. Pichette:mc

Encls:

cc: Corporation Falconbridge Copper
P.O. Box 40
Commerce Court West
Toronto, Ontario
M5L 1B4

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
845 Toronto, Ontario

FILE



Ministry of
Natural
Resources

Ontario

Notice of Intent
for Technical Reports

1983 11 04

2.5393/369

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



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

Pays Plat Lake Area G606 **APR 14/29-83**

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.

File 653958

PROPERTY DEPT.
The Mining Act
NOV 17 1982
RECEIVED

Type of Survey(s) GEOCHEMICAL	Township or Area PAYS PLAT LAKE G 606
Claim Holder(s) CORPORATION FALCONBRIDGE COPPER	Prospector's Licence No. T-556
Address P. O. BOX 40, COMMERCE COURT WEST, TORONTO, ONTARIO M5L 1B4	
Survey Company NORTHWEST GEOPHYSICS LTD., THUNDER BAY, ONT.	Date of Survey (from & to) 25 10 82 02 11 82
Name and Address of Author (of Geo-Technical report) A. J. DAVIDSON, c/o CORPORATION FALCONBRIDGE COPPER, 2606 VICTORIA AVE. E., THUNDER BAY,	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 10 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	20
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	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
TB	653958	20			
	653959	20			
	653960	20			
	653961	20			
	653962	20			
	653978	20			
	653979	20			
	653998	20			
	653999	20			

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures ÷ 15 = Total Days Credits

RECEIVED
MINING DIVISION
NOV 8 1982
AM 7:8, 9:10, 11:12, 1:23, 4:54 PM
See reversed statement.

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.

Date **NOVEMBER 9, 1982**

Recorded by holder or agent (Signature) *[Signature]*

For Office Use Only

Total Days Cr. Recorded 180	Date Recorded Nov-8	Mining Recorder <i>[Signature]</i>
Date Approved at Recorder	Date Recorded	Branch Director

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

May 29/83

Mining Lands Comments

OK.

To: Geophysics

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Dr. Fortescue

Comments

W.D.

Approved

Wish to see again with corrections

Date

Signature

05/27th 1983

J.A. Fortescue

To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)

369

1983 02 25

2.5393

Mrs. Audrey Hayes
Mining Recorder
Ministry of Natural Resources
P.O. Box 5000
Thunder Bay, Ontario
P7C 5G6

Dear Madam:

We have received reports and maps for a Geochemical survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims TB 653958 et al in the Area of Pays Plat Lake.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

F.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3

D. Wice:jh

cc: Corporation Falconbridge Copper
Toronto

A.J. Davidson
C/O Corp. Falconbridge Copper
Thunder Bay

In the matter of mining claims:

TB 653958 to 62 inclusive
653978-79
653998-99

In the Pays Plat Lake Area.

On consideration of an application from the recorded holder, Corporation Falconbridge Copper
under Section 77 Subsection 22 of The Mining Act, I hereby order that the time for filing reports and plans in support of
Geochemical assessment work recorded on November 8, 1982
be extended until and including February 15, 1983.

December 20, 1982

Date



Signature of Director, Land Management Branch

Copies:

Corporation Falconbridge Copper
Toronto, Ontario

Mining Recorder
Ministry of Natural Resources
Thunder Bay, Ontario
(Report #369)



CORPORATION FALCONBRIDGE COPPER

P.O. Box 40, Commerce Court West
Toronto, Canada M5L 1B4 Cables Falconbrij
Telex 065-24211 Telephone 416/863-7000

RECEIVED

DEC 20 1982

MINING LANDS SECTION

December 15, 1982

Mr. Fred Matthews
Ministry of Natural Resources
Land Management Branch
Room 6452, Whitney Block
Queen's Park
Toronto, Ontario
M7A 1W3

Dear Sir:

Re: Report of Geochemical Work Filed November 8, 1982, copy enclosed

The Technical Report of Work with respect to the above noted filing was to have been filed within the 60 day period following filing, however, the author of the Report, Mr. A. J. Davidson, of our Thunder Bay office advises us that he has encountered difficulties in obtaining assay results from the Assay office and will not be able to complete the Report before the due date of January 8, 1983.

We hereby request an Extension of Time until February 15th, 1983 to file the Report.

The claims concerned are listed on the copy of the Report of Work.

We trust that upon your receipt of this letter and enclosure, this request will meet with your favourable consideration and we will be advised accordingly in due course.

Would you kindly acknowledge receipt of this application by dating, signing and returning the enclosed copy of this letter.

Yours very truly,

CORPORATION FALCONBRIDGE COPPER

R. H. Tays
Property Manager

RHT:ed
Encls.



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) SOIL GEOCHEMISTRY
Township or Area PAYS PLAT LAKE AREA PLAN G-606
Claim Holder(s) CORPORATION FALCONBRIDGE COPPER
P.O. BOX 40, COMMERCE COURT WEST, TORONTO, ONT. M5L 1B4
Survey Company NORTHWEST GEOPHYSICS LTD., THUNDER BAY, ONT.
Author of Report A. J. DAVIDSON, c/o CORP. FALCONBRIDGE COPPER
Address of Author 2606 VICTORIA AVE. E., THUNDER BAY, ONT P2G
Covering Dates of Survey OCTOBER 15, 1982 - JANUARY 28, 1983
(linecutting to office)
Total Miles of Line ~~km~~ TRAVERSED 8.4 Km

MINING CLAIMS TRAVERSED	
List numerically	
TB	653958
(prefix)	(number)
	653959
	653960
	653961
	653962
and TB	653978
	653979
and TB	653998
	653999
RECEIVED	
FEB 11 1983	
MINING LANDS SECTION	
TOTAL CLAIMS <u>9</u>	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical --Electromagnetic _____ --Magnetometer _____ --Radiometric _____ --Other _____
ENTER 20 days for each additional survey using same grid.	Geological _____ Geochemical <u>20</u>

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

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: FEBRUARY 1, 1983 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications: J. Scott

Previous Surveys

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 TB 653958, 653959, 653960, 653961, 653962 and
TB 653978, 653979 and TB 653998, 653999

Total Number of Samples 286

Type of Sample SOIL
(Nature of Material)

Average Sample Weight (WET) 200 gms

Method of Collection EVERY 25 m, BY HAND USING
SHOVELS, PLACED IN HIGH STRENGTH SAMPLE BAGS

Soil Horizon Sampled "A₁" HORIZON

Horizon Development _____

Sample Depth 2- 10 cm

Terrain SWAMP - LOW HUMMOCKY TERRAIN

Drainage Development POOR

Estimated Range of Overburden Thickness 0-5 m

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis WHOLE SAMPLE
DRIED BAT 120° F. IN FORCED AIR DRYER.
PULVERIZED WITH WOODEN HAMMER BY HAND.
SCREENED TO -80 MESH

General SIEVED USING STAINLESS STEEL SIEVE
(80 MESH).

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. (_____ test)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (286 tests)

Name of Laboratory METRICLAB (1980) INC.

Extraction Method INVERSE AQUA-REGIA

Analytical Method ATOMIC ABSORPTION

Reagents Used NITRIC AND HYDROCHLORIC ACID

General ACID ASHING: 1 gm SAMPLE w̄ 2 ml
CONC. NITRIC ACID FOR ½ HOUR. THEN WITH
1 ml HYDROCHLORIC ACID FOR 1½ HOURS IN
WATER BATH. MADE UP TO 20 ml AND RUN BY
ATOMIC ABSORPTION.

Glochem

TB 653958

✓

959

✓

960

✓

961

✓

962

✓

978

1/2

979

3/4

998

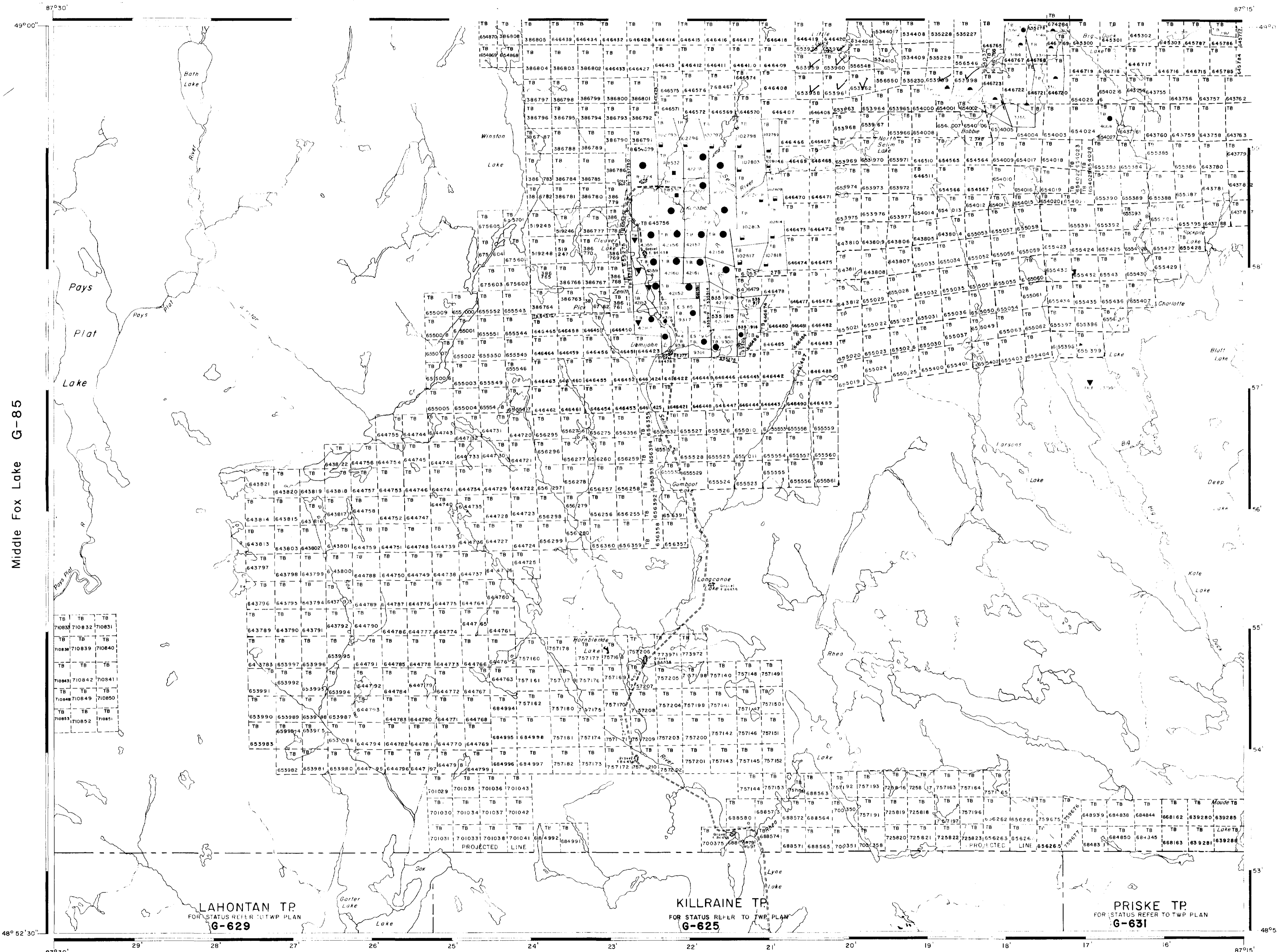
✓

999

✓

Rope Lake G-609

REFERENCES



LEGEND

- Highway and other roads
Other roads
Trails
Survival roads
Invasive vegetation
Railway and right-of-way
Mines
Traverse monument

DISPOSITION OF CROWN LANDS

- TYPE OF DOCUMENT SYMBOL
PATENT SURFACE & MINING RIGHTS
LEASE SURFACE & MINING RIGHTS
LICENCE OF OCCUPATION
ORDER-IN-COUNCIL
RESERVATION
CANCELLED
SAND & GRAVEL

SCALE 1 INCH = 40 CHAINS

AREA PAYS PLAT LAKE

M.N.R. ADMINISTRATIVE DISTRICT TERRACE BAY
MINING DIVISION THUNDER BAY
LAND TITLES / REGISTRY DIVISION THUNDER BAY

DATE OF ISSUE NOV 2 1983
Ministry of Natural Resources TORONTO

Ministry of Natural Resources Land Management Branch
Ontario

DATE FEB. 15 / 1982 Number G-606

COPPER ISLAND G-588

LAHONTAN TP FOR STATUS REFER TO TWP PLAN G-629

KILLRAINE TP FOR STATUS REFER TO TWP PLAN G-625

PRISKE TP FOR STATUS REFER TO TWP PLAN G-631

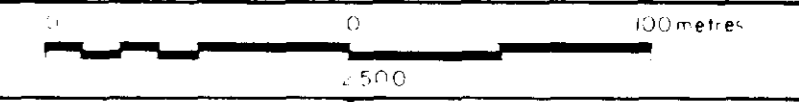


BIG DUCK LAKE PROJECT

LITTLE DUCK LAKE CLAIMS

SOIL GEOCHEMISTRY

Zn ppm

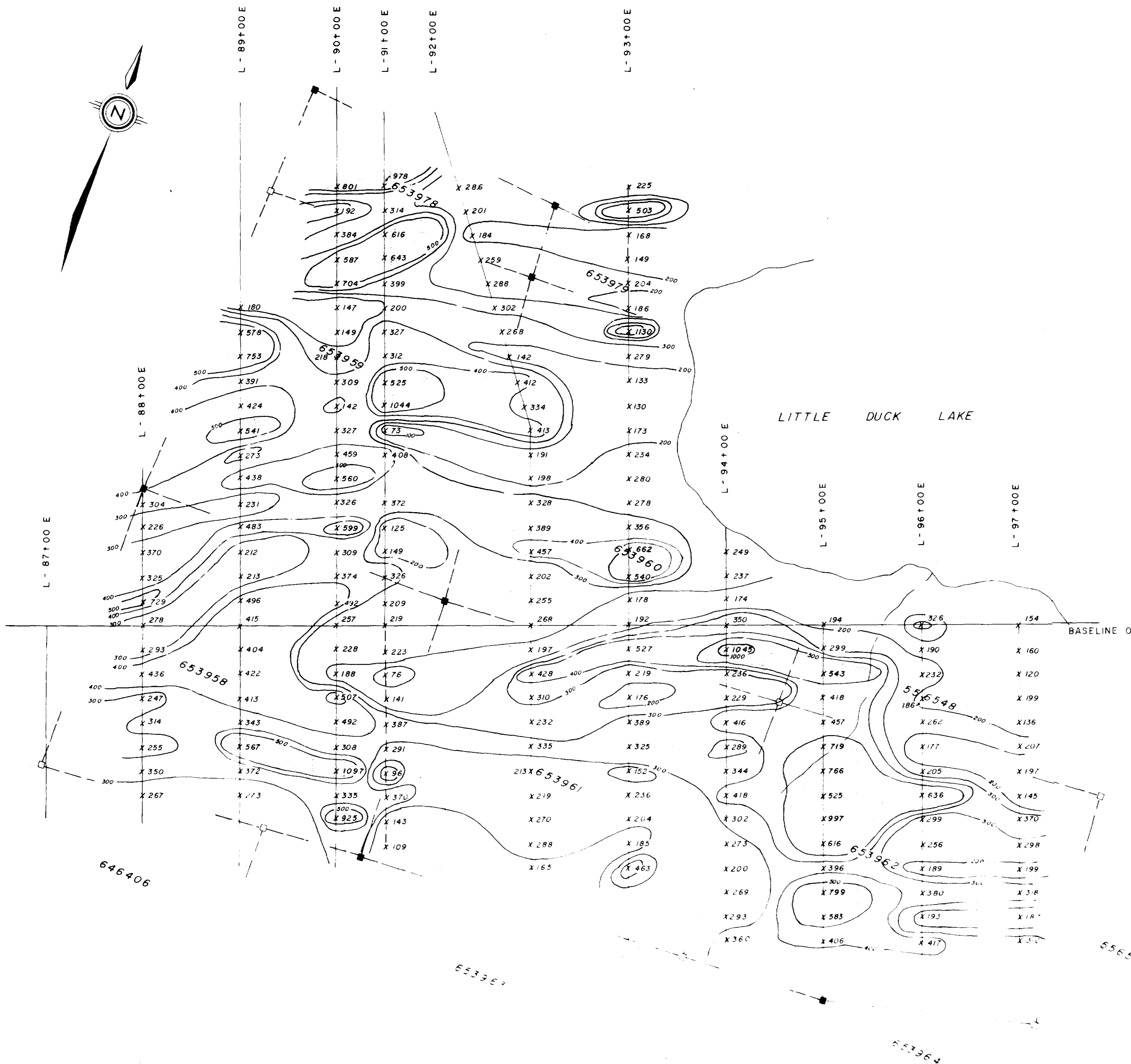


DATE JANUARY 1983 DRAWN SMS
NTS REF 4.7 DATA A.J.D.

[Signature]

LEGEND

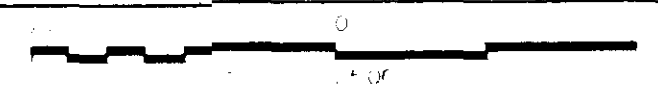
> 500 ppm



CORPORATION FALCONBRIDGE COPPER

BIG DUCK LAKE PROJECT
LITTLE DUCK LAKE CLAIMS
SOIL GEOCHEMISTRY

Zn ppm



DATE	JANUARY 1984	DRAWN	S.M.C.
NTS REF	4.2 : 4	DATA	ADD



535229

556546

654037

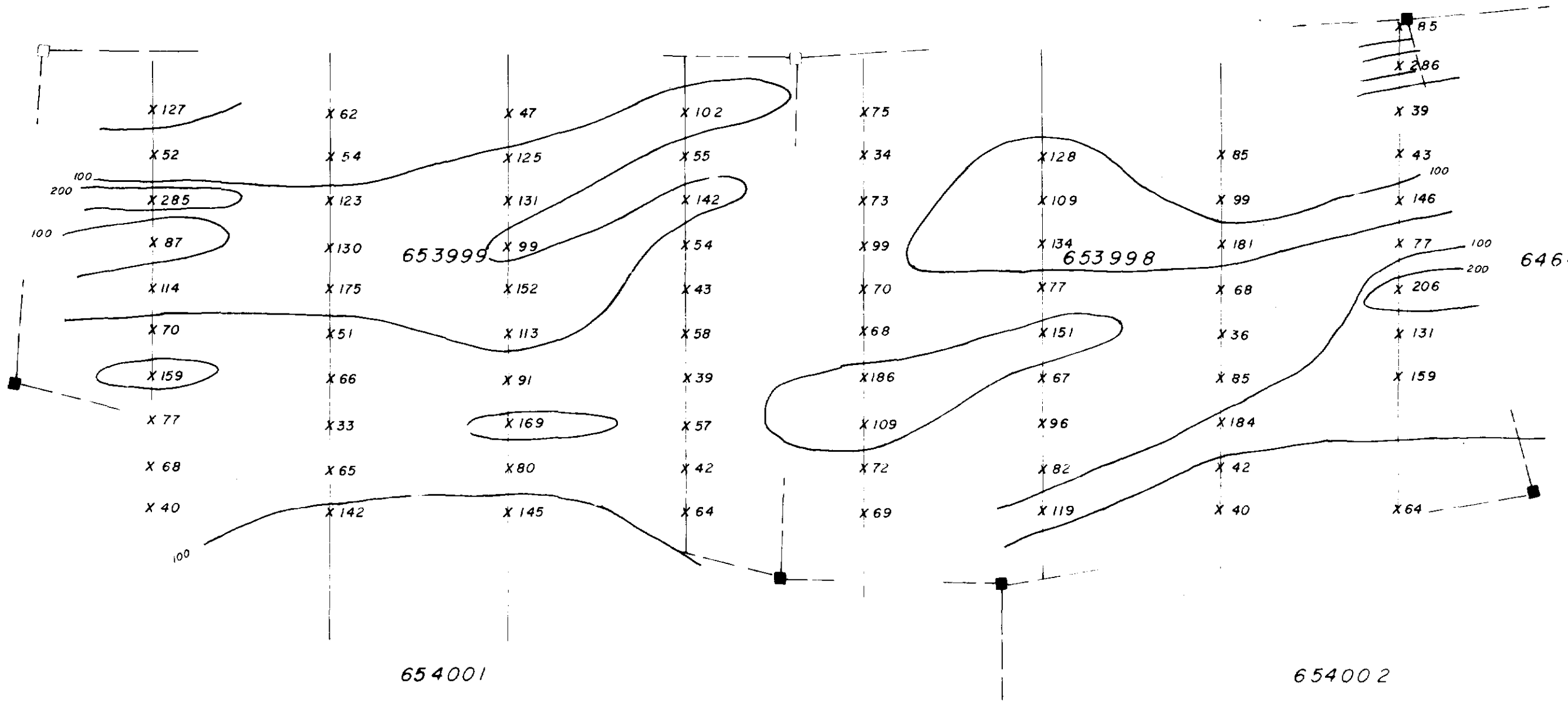
L - 700 W L - 600 W L - 500 W L - 400 W L - 300 W L - 200 W L - 100 W L - 000 W

535230

646423

654001

654002



42D14NW0026 2.5393 PAYS PLAT LAKE